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Reg. Nr. 002081 QM

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# Product groups



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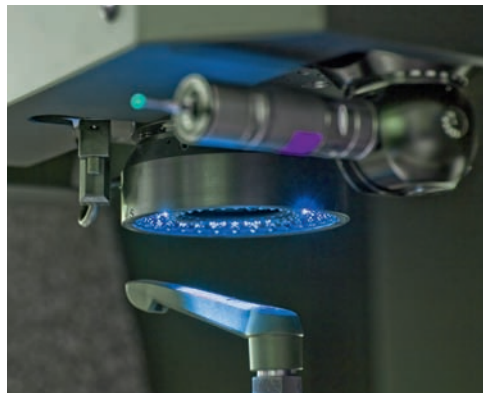


# Trust in KIPP



HEINRICH KIPP WERK is your engineering partner in the fields of clamping tools, standard elements and operating parts. We offer a comprehensive product range with over 15,000 parts. All of our products have something in common: they are reliable in operation and long-lasting and can be supplied over a long period. This is what the traditional owner-managed company of KIPP stands for.

As a manufacturer we have high vertical integration and many years of development experience. Our customers have access to our full manufacturer's know-how and to our production and logistics capacity. With KIPP you're always on the safe side.





# Manufacturer competence



HEINRICH KIPP WERK production takes place on its German site. We have a large range of machinery on the premises. That means short routes and quick decisions.

We develop our own standard elements and inspect them in our Quality Assurance several times, thus guaranteeing the highest quality. In our KIPP catalogues you will find only products of which we are one hundred percent confident.

Thanks to our in-house production we can also develop innovative special solutions and assemblies. These are then totally specially customised to their later area of use and implemented in close collaboration with our customers.



# CAD

The screenshot shows the PARTdataManager 9.02 software interface. At the top, there is a menu bar with options like 'Datei', 'Export', 'Ansicht', 'Extras', and 'Fenster'. Below the menu is a toolbar with icons for 'Teileauswahl', 'Tabellensicht', '3D-Abbildung', and 'Listensicht der Parameter'. The main area displays a table with columns for 'BEST', 'WS', 'AUSF', 'GR', 'D', 'D1', 'D2', 'B', 'B1', 'H', 'H1', 'A', 'A1', 'L', 'F', 'HANDKRAFT', 'S', and 'BS'. The table contains 10 rows of data for different handle models. Below the table, there are two windows: 'Einschleifen' and 'Technische Angaben'. The 'Technische Angaben' window shows a 2D technical drawing of a handle with dimensions and labels like 'Spannkraft' and 'Handkraft'. To the right of the drawing is a 3D CAD model of the handle in a coordinate system (X, Y, Z).



It is now possible to download the 2D and 3D CAD data immediately with the selected product. Simply register. Then this service will be available to you every time you log in. It will of course continue to be possible to order the KIPP CAD library on a data storage medium.

# Service



KIPP has a comprehensive customer service and skilled technical advisers. Our high-performance logistics system guarantees rapid response times. We deliver within 24 hours urgent orders for goods held in stock placed before 15.00.



# Material and surface finishes

## Materials:

Deviating from the standard design, other materials and quality classes are available on request.

## Surface finishes:

Other surface finishes are available at extra charge, e.g. matt-finished or high-polish chromium-plated steel parts. Other colours are also available on request for plastic coatings or moulded plastic parts.

## Threads:

Threads are manufactured to ISO DIN 13 medium tolerance class, i.e. 6H for nut threads and 6g for bolt threads. External threads up to 60 mm are generally supplied fully threaded. Screw lengths of 70 mm and more are supplied with 60 mm long threads.

## Threads of aluminium grips:

Especially threads of aluminium grips cannot be true to gauge size due to final surface finish refinement and the removal of material during related pretreatment. The majority of these threads are moulded in order to strengthen the material. As a result, the tearing resistance of aluminium for a thread with M5x10 is higher than 2000 N.

## Special versions:

KIPP Clamp and Tension Levers can also be supplied on request with predrilled inserts, locating holes, locating bolts for pinning and other thread ends to DIN 78 (except for flat point) and to DIN 6332.

## RoHs:

HEINRICH KIPP WERK supplies only products that comply with Directive 2011/65/EU i.e. RoHS

## REACH:

We are a downstream user within the meaning of Regulation EC 1907/2006. There are currently no SVHC substances in concentrations > 0.1% contained in our products. We review changes in our list of candidates as quickly as possible and constantly adapt our product range to new regulations.

# NG



Our NovoGrip product line is the classic in the plastics sector – well thought out in every detail. Sophisticated design, easy-grip shape and good value for money. All the plastic elements are available in several colour combinations and the most varied sizes.

# NovoGrip

# ST



It's in the name – at least with SympaTouch, our product line for maximum ergonomic efficiency. The soft and at the same time antislip material sits perfectly in the hand. This allows a firm grip and protects the hands in frequent use.

# SympaTouch

# 19"



Products marked with this symbol are suitable for incorporation into standardised 19 inch systems. Whether it's handles, tracks or standard elements – they all go together optimally in the IT department, in racks for event technology, laboratories or computer centres.



Products marked with this symbol are made of stainless steel. The austenitic alloy 1.4305 is mainly used here.

# Special solutions



KIPP is flexible and inventive in the development of special solutions.

Thanks to our high vertical integration and our wide range of machinery we can produce assemblies and individual parts as special solutions at any time.

We are already developing and producing a large number of near-standard and complex special elements precisely on the basis of customer specifications.

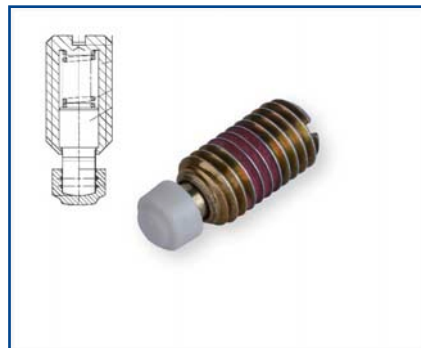
## Special socket keys

Ergonomically designed grip elements made of fibre-reinforced plastic with a zinc insertion ring covered with an injection moulding, for a supplier of accessories to the automobile industry.



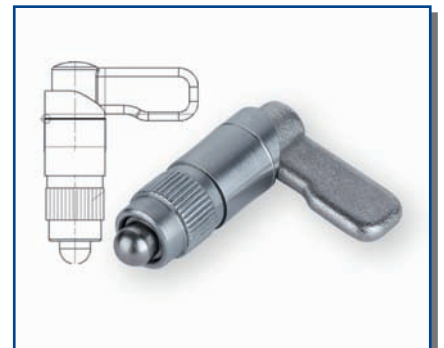
## Friction element

Brake element based on a spring plunger with a wear-resistant cap and integrated screw fastening, for use as a special solution in car interiors



## Special locking bolt

This special ratchet element has been specially developed and produced for the height adjustment of a tool holder transport system.



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## Clamping and tension levers





## Clamping and tension levers

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Clamp levers 2K „Cockatoo“ two-component with external thread  
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**K0126**

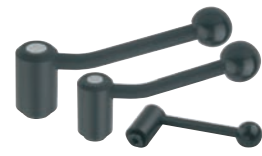


**ST**

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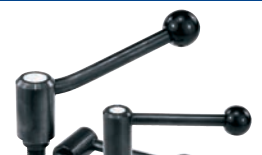


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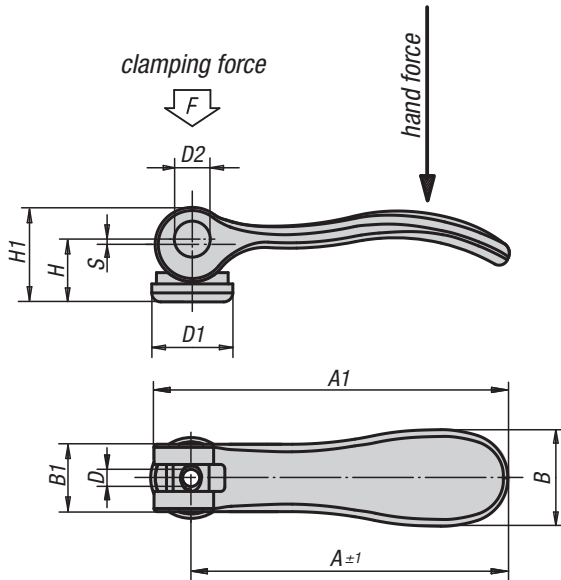
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## Cam levers

with internal thread and external thread, steel or stainless steel



Cam lever with internal thread



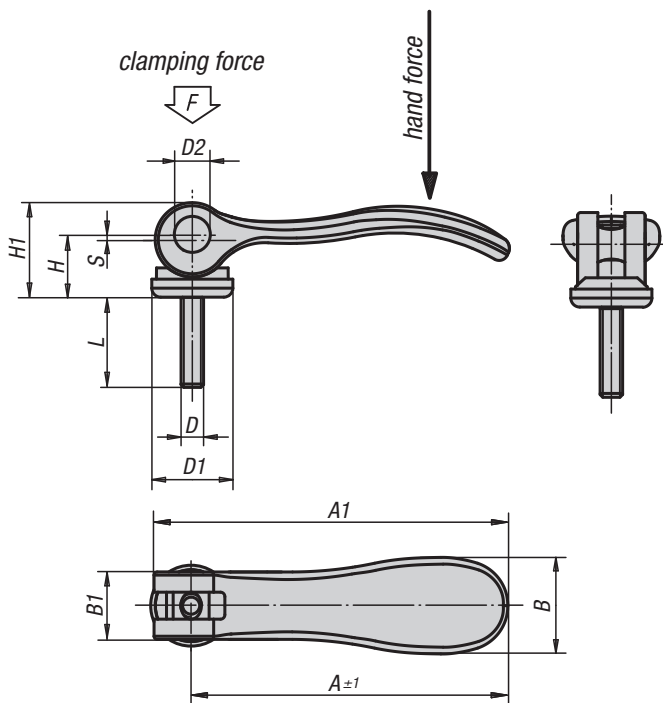
**Material, surface finish:**

Handle in cast aluminium EN AC-46200, black powder-coated;  
 thrust washer in glass-fibre reinforced plastic PA 66 GF 35-X, black;  
 hinge pin in stainless steel 1.4305, natural finish;  
 threaded stud and washer in steel, quality class 5.8, blue chromated or stainless steel 1.4305, natural finish

**Sample order:**

K0005.101105X20 (please also indicate dimension L)

Cam lever with external thread



### KIPP Cam levers with internal thread

| Order No. Steel | Order No. Stainless steel | Size | Internal thread D | D1 | D2 | B    | B1 | H    | H1   | A    | A1   | Stroke S | Clamping force F (kN) | Hand force N |
|-----------------|---------------------------|------|-------------------|----|----|------|----|------|------|------|------|----------|-----------------------|--------------|
| K0005.101105    | K0005.111105              | 1    | M5                | 18 | 9  | 21,5 | 15 | 14,5 | 22   | 70,4 | 79,2 | 1,2      | 4                     | 120          |
| K0005.101106    | K0005.111106              | 1    | M6                | 18 | 9  | 21,5 | 15 | 14,5 | 22   | 70,4 | 79,2 | 1,2      | 4                     | 120          |
| K0005.201108    | K0005.211108              | 2    | M8                | 27 | 11 | 33,2 | 24 | 18   | 28,5 | 96   | 108  | 1,5      | 8                     | 350          |

### KIPP Cam levers with external thread

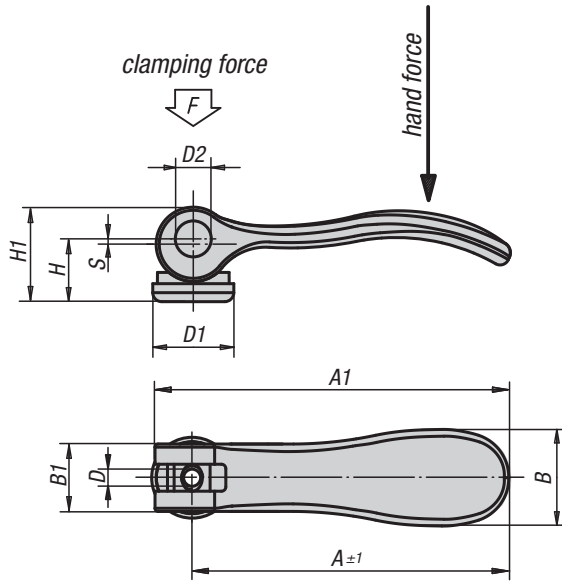
| Order No. steel | Order No. stainless steel | Size | External thread D | Stroke S | L = screw length | Clamping force F (kN) | Hand force N |
|-----------------|---------------------------|------|-------------------|----------|------------------|-----------------------|--------------|
| K0005.101105X   | K0005.111105X             | 1    | M5                | 1,2      | 20/30/40/50      | 4                     | 120          |
| K0005.101106X   | K0005.111106X             | 1    | M6                | 1,2      | 20/30/40/50      | 4                     | 120          |
| K0005.201108X   | K0005.211108X             | 2    | M8                | 1,5      | 25/30/40/50      | 8                     | 350          |
| K0005.201110X   | K0005.211110X             | 2    | M10               | 1,5      | 25/30/40/50      | 8                     | 350          |

## Cam levers in stainless steel

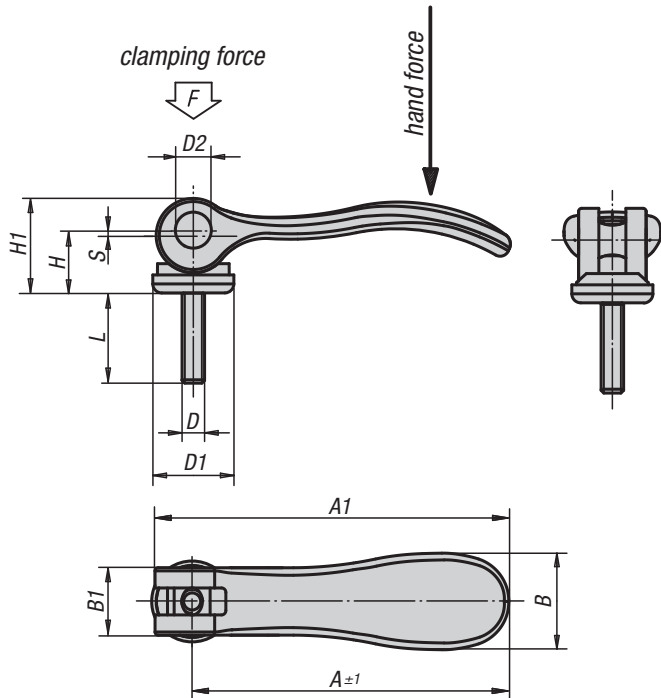
with internal thread and external thread



Cam lever with internal thread



Cam lever with external thread



**Material, surface finish:**

Handle 1.4308, electrolytic polished;  
thrust washer in glass-fibre reinforced plastic PA 66 GF 35-X, black;  
hinge pin, threaded stud and washer 1.4305, natural finish

**Sample order:**

K0645.112005X20 (please also indicate dimension L)

### KIPP Cam levers in stainless steel with internal thread

| Order No.    | Size | Internal thread D | D1 | D2 | B    | B1 | H    | H1   | A    | A1   | Stroke S | Clamping force F (kN) | Hand force N |
|--------------|------|-------------------|----|----|------|----|------|------|------|------|----------|-----------------------|--------------|
| K0645.112005 | 1    | M5                | 18 | 9  | 21,5 | 15 | 14,5 | 22   | 70,4 | 79,2 | 1,2      | 4                     | 120          |
| K0645.112006 | 1    | M6                | 18 | 9  | 21,5 | 15 | 14,5 | 22   | 70,4 | 79,2 | 1,2      | 4                     | 120          |
| K0645.212008 | 2    | M8                | 27 | 11 | 33,2 | 24 | 18   | 28,5 | 96   | 108  | 1,5      | 8                     | 350          |

### KIPP Cam levers in stainless steel with external thread

| Order No.     | Size | External thread D | Stroke S | L = screw length | Clamping force F (kN) | Hand force N |
|---------------|------|-------------------|----------|------------------|-----------------------|--------------|
| K0645.112005X | 1    | M5                | 1,2      | 20/30/40/50      | 4                     | 120          |
| K0645.112006X | 1    | M6                | 1,2      | 20/30/40/50      | 4                     | 120          |
| K0645.212008X | 2    | M8                | 1,5      | 25/30/40/50      | 8                     | 350          |
| K0645.212010X | 2    | M10               | 1,5      | 25/30/40/50      | 8                     | 350          |

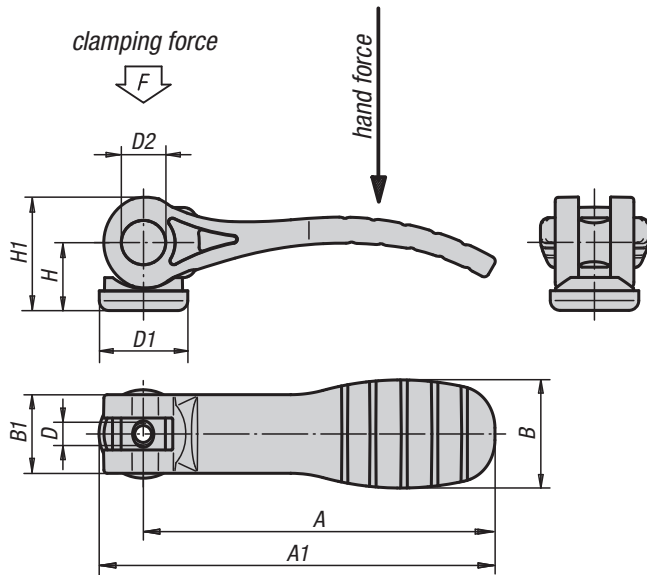


## Cam levers with plastic handle

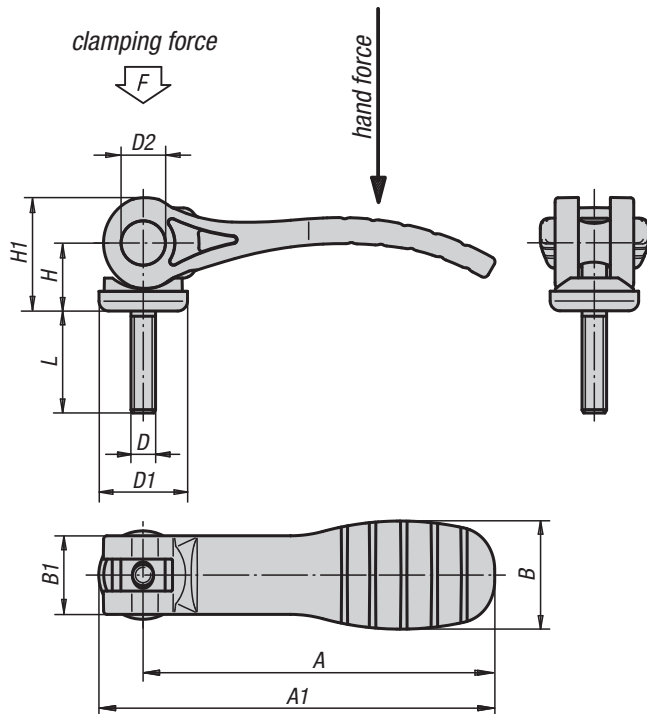
with internal and external thread, steel or stainless steel



Cam lever with internal thread



Cam lever with external thread



**Material, surface finish:**

Handle and thrust washer in glass-fibre reinforced plastic PA 66, black; hinge pin in stainless steel 1.4305, natural finish; threaded stud and washer in steel, quality class 5.8, blue chromated or stainless steel 1.4305, natural finish

**Sample order:**

K0646.121105X20 (please also indicate dimension L)

**Note:**

Plastics are characterized by creeping under load (retardation).

### KIPP Cam levers with plastic handle and internal thread

| Order No. steel | Order No. stainless steel | Size | Internal thread D | D1 | D2 | B  | B1 | H    | H1   | A    | A1   | Clamping force F (kN) | Hand force N | Stroke |
|-----------------|---------------------------|------|-------------------|----|----|----|----|------|------|------|------|-----------------------|--------------|--------|
| K0646.121105    | K0646.131105              | 1    | M5                | 18 | 9  | 22 | 16 | 14   | 23,4 | 71,5 | 79,6 | 2,5                   | 125          | 1,15   |
| K0646.121106    | K0646.131106              | 1    | M6                | 18 | 9  | 22 | 16 | 14   | 23,4 | 71,5 | 79,6 | 2,5                   | 125          | 1,15   |
| K0646.221108    | K0646.231108              | 2    | M8                | 27 | 11 | 33 | 24 | 16,2 | 27,7 | 99,9 | 110  | 5                     | 170          | 1,5    |

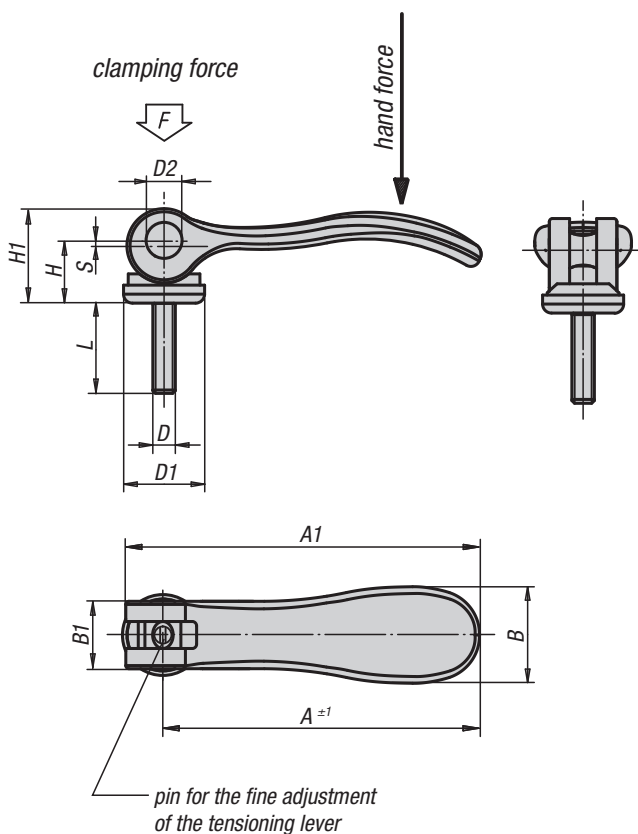
### KIPP Cam levers with plastic handle and external thread

| Order No. steel | Order No. stainless steel | Size | External thread D | D1 | D2 | B  | B1 | H    | H1   | A    | A1   | L = screw length | Clamping force F (kN) | Hand force N | Stroke |
|-----------------|---------------------------|------|-------------------|----|----|----|----|------|------|------|------|------------------|-----------------------|--------------|--------|
| K0646.121105X   | K0646.131105X             | 1    | M5                | 18 | 9  | 22 | 16 | 14   | 23,4 | 71,5 | 79,6 | 20/30/40/50      | 2,5                   | 125          | 1,15   |
| K0646.121106X   | K0646.131106X             | 1    | M6                | 18 | 9  | 22 | 16 | 14   | 23,4 | 71,5 | 79,6 | 20/30/40/50      | 2,5                   | 125          | 1,15   |
| K0646.221108X   | K0646.231108X             | 2    | M8                | 27 | 11 | 33 | 24 | 16,2 | 27,7 | 99,9 | 110  | 25/30/40/50      | 5                     | 170          | 1,5    |
| K0646.221110X   | K0646.231110X             | 2    | M10               | 27 | 11 | 33 | 24 | 16,2 | 27,7 | 99,9 | 110  | 25/30/40/50      | 5                     | 170          | 1,5    |



## Adjustable cam levers

with external thread, steel or stainless steel



### Material, surface finish:

Handle in cast aluminium EN AC-46200, black powder-coated;  
 thrust washer in glass-fibre reinforced plastic PA 66 GF 35-X, black;  
 hinge pin in stainless steel 1.4305, natural finish;  
 threaded stud and washer in steel, quality class 5.8, blue chromated or stainless steel 1.4305, natural finish

### Sample order:

K0006.101105X20 (please also indicate dimension L)

### Note:

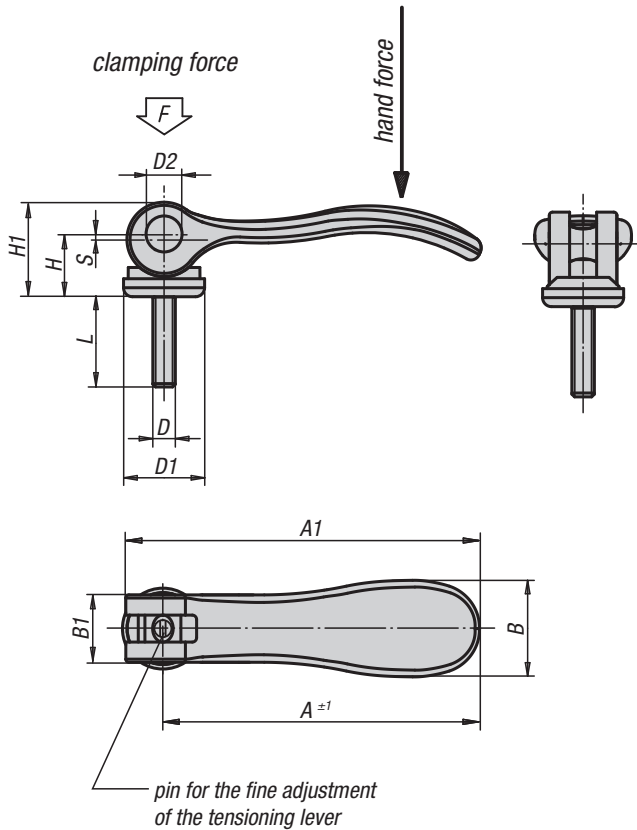
Adjustable cam levers are used, if the position of the tensioning lever relative to the axis of tension only permits one specific position (interference circle). The exact position of the tensioning lever is adjusted with the aid of a screwdriver via the fine thread located on the stud.

### KIPP Adjustable cam levers with external thread

| Order No.<br>Steel | Order No.<br>Stainless steel | Size | External<br>thread<br>D | D1 | D2 | B    | B1 | H    | H1   | A    | A1   | L = screw length | Stroke<br>S | Clamping force<br>F (kN) | Hand<br>force<br>N |
|--------------------|------------------------------|------|-------------------------|----|----|------|----|------|------|------|------|------------------|-------------|--------------------------|--------------------|
| K0006.101105X      | K0006.111105X                | 1    | M5                      | 18 | 9  | 21,5 | 15 | 14,5 | 22   | 70,4 | 79,2 | 20/30/40/50      | 1,2         | 4                        | 120                |
| K0006.101106X      | K0006.111106X                | 1    | M6                      | 18 | 9  | 21,5 | 15 | 14,5 | 22   | 70,4 | 79,2 | 20/30/40/50      | 1,2         | 4                        | 120                |
| K0006.201108X      | K0006.211108X                | 2    | M8                      | 27 | 11 | 33,2 | 24 | 18   | 28,5 | 96   | 108  | 25/30/40/50      | 1,5         | 8                        | 350                |
| K0006.201110X      | K0006.211110X                | 2    | M10                     | 27 | 11 | 33,2 | 24 | 18   | 28,5 | 96   | 108  | 25/30/40/50      | 1,5         | 8                        | 350                |

## Adjustable cam levers in stainless steel

with external thread



### Material, surface finish:

Handle 1.4308, electrolytic polished; thrust washer in glass-fibre reinforced plastic PA 66 GF 35-X, black; hinge pin, threaded stud and washer 1.4305, natural finish

### Sample order:

K0647.112005X20 (please also indicate dimension L)

### Note:

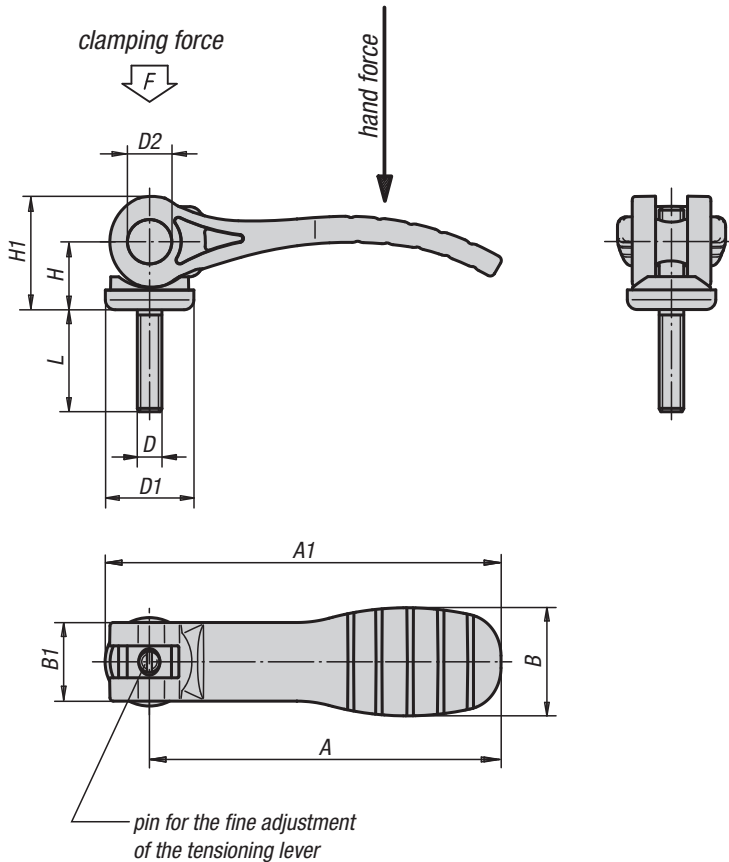
Adjustable cam levers are used if the position of the tension lever relative to the clamping axis allows only a certain position (interference circle). The exact position of the tension lever is adjusted with a screwdriver via the fine thread on the stud.

### KIPP Adjustable cam levers in stainless steel with external thread

| Order No.     | Size | External thread<br>D | D1 | D2 | B    | B1 | H    | H1   | A    | A1   | L = screw length | Stroke<br>S | Clamping force<br>F (kN) | Hand force<br>N |
|---------------|------|----------------------|----|----|------|----|------|------|------|------|------------------|-------------|--------------------------|-----------------|
| K0647.112005X | 1    | M5                   | 18 | 9  | 21,5 | 15 | 14,5 | 22   | 70,4 | 79,2 | 20/30/40/50      | 1,2         | 4                        | 120             |
| K0647.112006X | 1    | M6                   | 18 | 9  | 21,5 | 15 | 14,5 | 22   | 70,4 | 79,2 | 20/30/40/50      | 1,2         | 4                        | 120             |
| K0647.212008X | 2    | M8                   | 27 | 11 | 33,2 | 24 | 18   | 28,5 | 96   | 108  | 25/30/40/50      | 1,5         | 8                        | 350             |
| K0647.212010X | 2    | M10                  | 27 | 11 | 33,2 | 24 | 18   | 28,5 | 96   | 108  | 25/30/40/50      | 1,5         | 8                        | 350             |

## Adjustable cam levers with plastic handle

with external thread, steel or stainless steel



**Material, surface finish:**

Handle and thrust washer in glass-fibre plastic PA 66, black.

Hinge pins in stainless steel 1.4305, natural finish.

Stud and washer in steel, strength class 5.8, blue-chromated or stainless steel 1.4305, natural finish.

**Sample order:**

K0648.121105X20 (please also indicate dimension L)

**Note:**

Adjustable cam levers are used if the position of the tension lever relative to the clamping axis allows only a certain position (interference circle). The exact position of the tension lever is adjusted with a screwdriver via the fine thread on the stud.

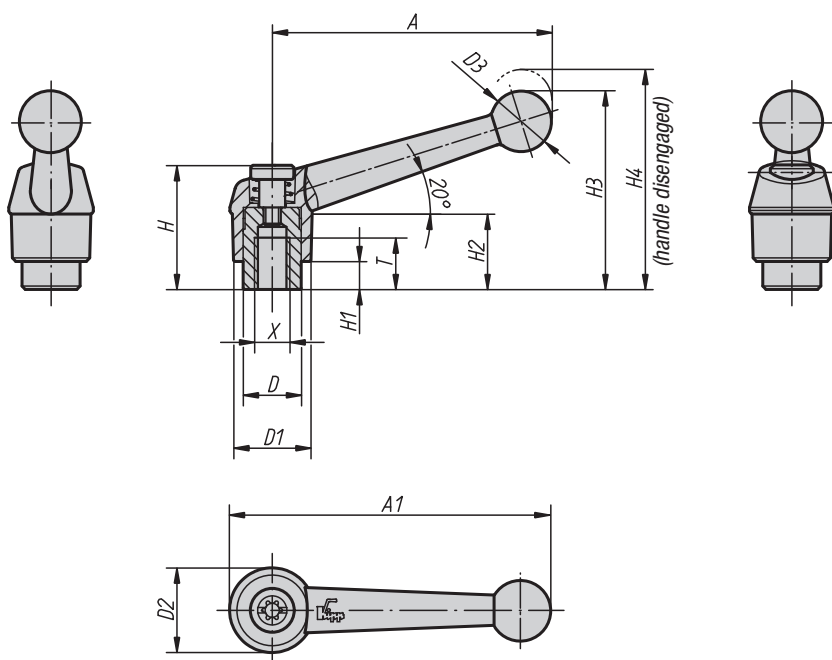
Plastics are characterized by creeping under load (retardation).

### KIPP Adjustable cam lever with plastic handle with external thread

| Order No. steel | Order No. stainless steel | Size | External thread D | D1 | D2 | B  | B1 | H    | H1   | A    | A1   | L = screw length | Clamping force F (kN) | Hand force N | Stroke |
|-----------------|---------------------------|------|-------------------|----|----|----|----|------|------|------|------|------------------|-----------------------|--------------|--------|
| K0648.121105X   | K0648.131105X             | 1    | M5                | 18 | 9  | 22 | 16 | 14   | 23,4 | 71,5 | 79,6 | 20/30/40/50      | 2,5                   | 125          | 1,15   |
| K0648.121106X   | K0648.131106X             | 1    | M6                | 18 | 9  | 22 | 16 | 14   | 23,4 | 71,5 | 79,6 | 20/30/40/50      | 2,5                   | 125          | 1,15   |
| K0648.221108X   | K0648.231108X             | 2    | M8                | 27 | 11 | 33 | 24 | 16,2 | 27,7 | 99,9 | 110  | 25/30/40/50      | 5                     | 170          | 1,5    |
| K0648.221110X   | K0648.231110X             | 2    | M10               | 27 | 11 | 33 | 24 | 16,2 | 27,7 | 99,9 | 110  | 25/30/40/50      | 5                     | 170          | 1,5    |

## Clamp levers

with internal thread



**Material:**

Handle in die cast zinc to DIN 1743, steel parts quality class 5.8

**Surface finish:**

Handle plastic-coated, steel parts black oxide finish

**Sample order:**

K0116.4103

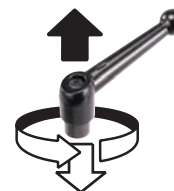
**Note:**

Standard colours are: black satin finish, silver metallic.

**On request:**

Other internal threads, colours and special versions. Dimension „H1“ available in other lengths at extra charge.

disengage by lifting

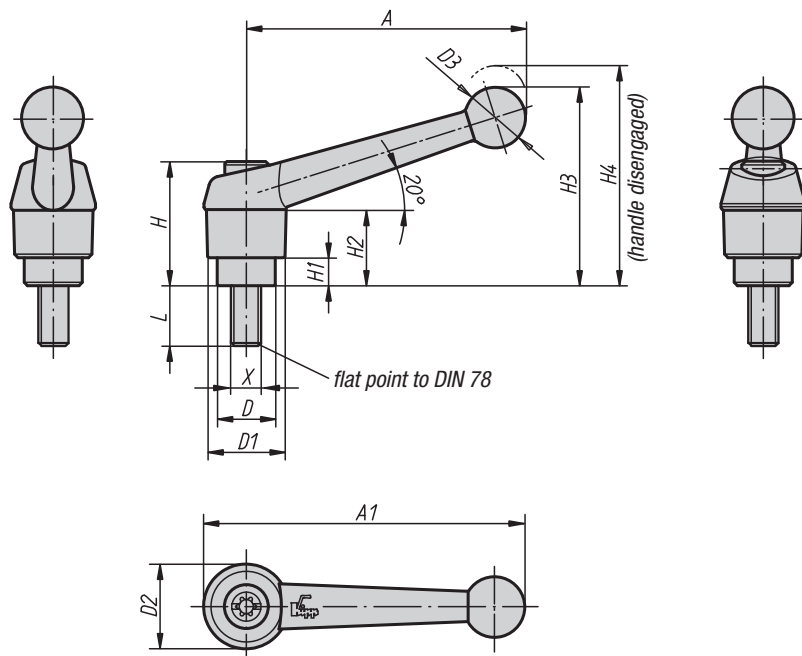


**KIPP Clamp levers with internal thread**

| Order No.<br>black satin finish | Order No.<br>silver metallic | Size | Internal thread<br>X | T  | D    | D1 | D2   | D3   | H    | H1  | H2   | H3   | H4   | A   | A1  | No. of teeth |
|---------------------------------|------------------------------|------|----------------------|----|------|----|------|------|------|-----|------|------|------|-----|-----|--------------|
| K0116.1041                      | K0116.1043                   | 1    | M4                   | 9  | 10   | 13 | 14   | 10,5 | 24,5 | 4   | 15   | 32,5 | 35,5 | 39  | 46  | 16           |
| K0116.1051                      | K0116.1053                   | 1    | M5                   | 9  | 10   | 13 | 14   | 10,5 | 24,5 | 4   | 15   | 32,5 | 35,5 | 39  | 46  | 16           |
| K0116.1061                      | K0116.1063                   | 1    | M6                   | 9  | 10   | 13 | 14   | 10,5 | 24,5 | 4   | 15   | 32,5 | 35,5 | 39  | 46  | 16           |
| K0116.2061                      | K0116.2063                   | 2    | M6                   | 12 | 13,5 | 18 | 18,5 | 15,5 | 28,5 | 6,5 | 16,5 | 45,5 | 49,5 | 64  | 73  | 20           |
| K0116.2081                      | K0116.2083                   | 2    | M8                   | 12 | 13,5 | 18 | 18,5 | 15,5 | 28,5 | 6,5 | 16,5 | 45,5 | 49,5 | 64  | 73  | 20           |
| K0116.3081                      | K0116.3083                   | 3    | M8                   | 14 | 16   | 21 | 22   | 17   | 37   | 10  | 23   | 57,5 | 61,5 | 79  | 90  | 22           |
| K0116.3101                      | K0116.3103                   | 3    | M10                  | 14 | 16   | 21 | 22   | 17   | 37   | 10  | 23   | 57,5 | 61,5 | 79  | 90  | 22           |
| K0116.4101                      | K0116.4103                   | 4    | M10                  | 17 | 19   | 25 | 26   | 19   | 42,5 | 10  | 26   | 67   | 72   | 95  | 108 | 24           |
| K0116.4121                      | K0116.4123                   | 4    | M12                  | 17 | 19   | 25 | 26   | 19   | 42,5 | 10  | 26   | 67   | 72   | 95  | 108 | 24           |
| K0116.5121                      | K0116.5123                   | 5    | M12                  | 23 | 23   | 30 | 31   | 22   | 49   | 12  | 32   | 79   | 84   | 110 | 126 | 26           |
| K0116.5161                      | K0116.5163                   | 5    | M16                  | 23 | 23   | 30 | 31   | 22   | 49   | 12  | 32   | 79   | 84   | 110 | 126 | 26           |

## Clamp levers

with external thread



**Material:**

Handle in die cast zinc to DIN 1743;  
steel parts quality class 5.8

**Surface finish:**

Handle plastic-coated;  
steel black oxide finish

**Sample order:**

K0116.1051X20 (please also indicate dimension L)

**Note:**

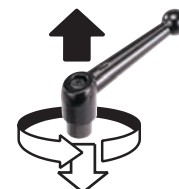
Standard colours are:  
black satin finish, silver metallic.

**On request:**

Other external threads, screw lengths, colours and special versions.

Dimension „H1“ available in other lengths at extra charge.

disengage  
by lifting



### KIPP Technical data

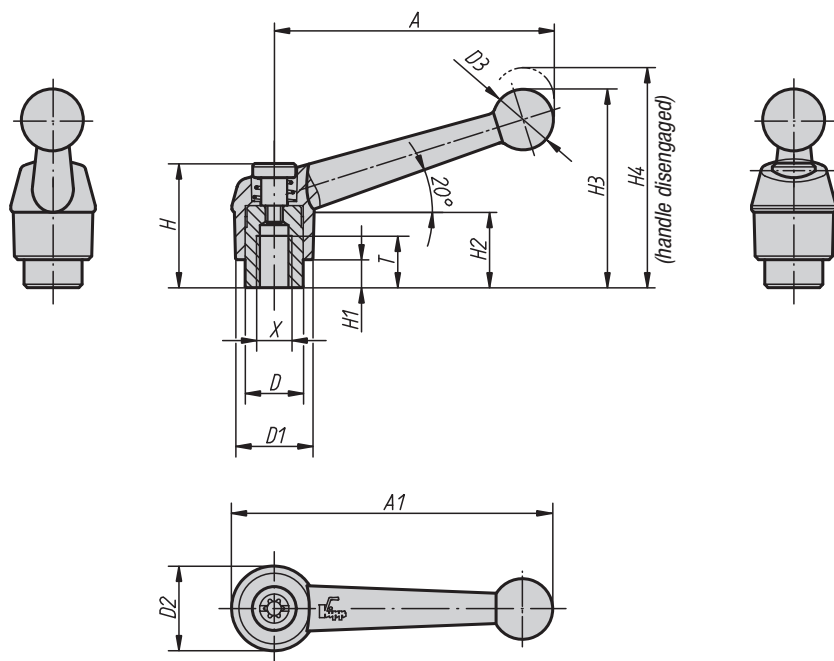
| Size | External thread X | D    | D1 | D2   | D3   | H    | H1  | H2   | H3   | H4   | A   | A1  | No. of teeth |
|------|-------------------|------|----|------|------|------|-----|------|------|------|-----|-----|--------------|
| 1    | M5/M6             | 10   | 13 | 14   | 10,5 | 24,5 | 4   | 15   | 32,5 | 35,5 | 39  | 46  | 16           |
| 2    | M6/M8/M10         | 13,5 | 18 | 18,5 | 15,5 | 28,5 | 6,5 | 16,5 | 45,5 | 49,5 | 64  | 73  | 20           |
| 3    | M8/M10            | 16   | 21 | 22   | 17   | 37   | 10  | 23   | 57,5 | 61,5 | 79  | 90  | 22           |
| 4    | M10/M12           | 19   | 25 | 26   | 19   | 42,5 | 10  | 26   | 67   | 72   | 95  | 108 | 24           |
| 5    | M12/M16           | 23   | 30 | 31   | 22   | 49   | 12  | 32   | 79   | 84   | 110 | 126 | 26           |

### KIPP Clamp levers with external thread

| Order No.<br>black satin finish | Order No.<br>silver metallic | Size | External thread X | L = screw length                    |
|---------------------------------|------------------------------|------|-------------------|-------------------------------------|
| K0116.1051X                     | K0116.1053X                  | 1    | M5                | 10/15/20/25/30/35/40/45/50          |
| K0116.1061X                     | K0116.1063X                  | 1    | M6                | 10/15/20/25/30/35/40/45/50          |
| K0116.2061X                     | K0116.2063X                  | 2    | M6                | 15/20/25/30/35/40/45/50/55/60       |
| K0116.2081X                     | K0116.2083X                  | 2    | M8                | 15/20/25/30/35/40/45/50/55/60       |
| K0116.2101X                     | K0116.2103X                  | 2    | M10               | 15/20/25/30/35/40/45/50/55/60       |
| K0116.3081X                     | K0116.3083X                  | 3    | M8                | 15/20/25/30/35/40/45/50/55/60       |
| K0116.3101X                     | K0116.3103X                  | 3    | M10               | 15/20/25/30/35/40/45/50/55/60       |
| K0116.4101X                     | K0116.4103X                  | 4    | M10               | 20/25/30/35/40/45/50/55/60/70/80/90 |
| K0116.4121X                     | K0116.4123X                  | 4    | M12               | 20/25/30/35/40/45/50/55/60/70/80/90 |
| K0116.5121X                     | K0116.5123X                  | 5    | M12               | 25/30/35/40/45/50/55/60/70/80/90    |
| K0116.5161X                     | K0116.5163X                  | 5    | M16               | 25/30/35/40/45/50/55/60/70/80/90    |

## Clamp levers

with internal thread, steel parts in stainless steel



**Material:**

Handle in die cast zinc to DIN 1743, steel parts in stainless steel 1.4305

**Surface finish:**

Handle plastic-coated, steel parts natural finish

**Sample order:**

K0117.2061

**Note:**

Standard colours are: black satin finish, silver metallic.

**On request:**

Other internal threads, colours and special versions. Dimension „H1“ available in other lengths at extra charge.



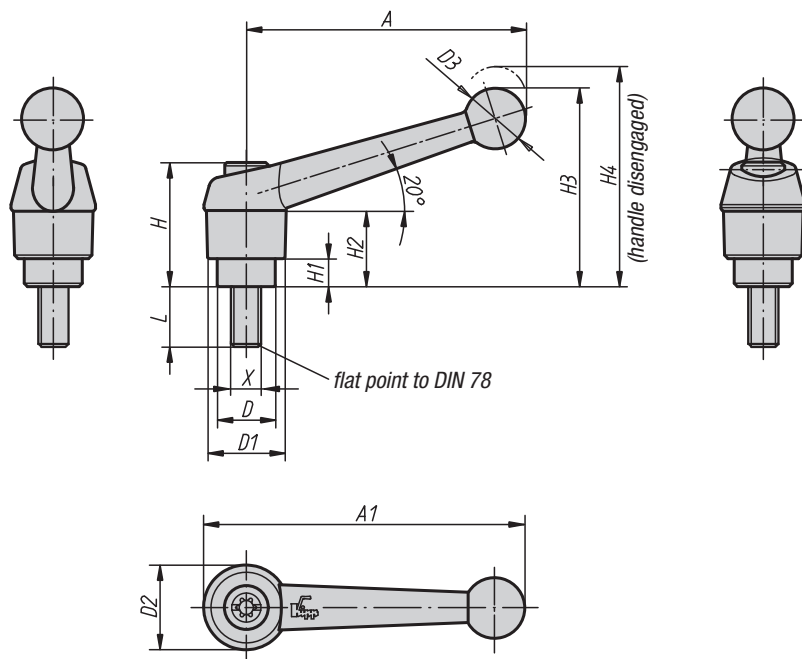
### KIPP Clamp levers with internal thread, steel parts in stainless steel

| Order No.<br>black satin finish | Order No.<br>silver metallic | Size | Internal<br>thread<br>X | T  | D    | D1 | D2   | D3   | H    | H1  | H2   | H3   | H4   | A   | A1  | No. of<br>teeth |
|---------------------------------|------------------------------|------|-------------------------|----|------|----|------|------|------|-----|------|------|------|-----|-----|-----------------|
| K0117.1041                      | K0117.1043                   | 1    | M4                      | 9  | 10   | 13 | 14   | 10,5 | 24,5 | 4   | 15   | 32,5 | 35,5 | 39  | 46  | 16              |
| K0117.1051                      | K0117.1053                   | 1    | M5                      | 9  | 10   | 13 | 14   | 10,5 | 24,5 | 4   | 15   | 32,5 | 35,5 | 39  | 46  | 16              |
| K0117.1061                      | K0117.1063                   | 1    | M6                      | 9  | 10   | 13 | 14   | 10,5 | 24,5 | 4   | 15   | 32,5 | 35,5 | 39  | 46  | 16              |
| K0117.2061                      | K0117.2063                   | 2    | M6                      | 12 | 13,5 | 18 | 18,5 | 15,5 | 28,5 | 6,5 | 16,5 | 45,5 | 49,5 | 64  | 73  | 20              |
| K0117.2081                      | K0117.2083                   | 2    | M8                      | 12 | 13,5 | 18 | 18,5 | 15,5 | 28,5 | 6,5 | 16,5 | 45,5 | 49,5 | 64  | 73  | 20              |
| K0117.3081                      | K0117.3083                   | 3    | M8                      | 14 | 16   | 21 | 22   | 17   | 37   | 10  | 23   | 57,5 | 61,5 | 79  | 90  | 22              |
| K0117.3101                      | K0117.3103                   | 3    | M10                     | 14 | 16   | 21 | 22   | 17   | 37   | 10  | 23   | 57,5 | 61,5 | 79  | 90  | 22              |
| K0117.4101                      | K0117.4103                   | 4    | M10                     | 17 | 19   | 25 | 26   | 19   | 42,5 | 10  | 26   | 67   | 72   | 95  | 108 | 24              |
| K0117.4121                      | K0117.4123                   | 4    | M12                     | 17 | 19   | 25 | 26   | 19   | 42,5 | 10  | 26   | 67   | 72   | 95  | 108 | 24              |
| K0117.5121                      | K0117.5123                   | 5    | M12                     | 23 | 23   | 30 | 31   | 22   | 49   | 12  | 32   | 79   | 84   | 110 | 126 | 26              |
| K0117.5161                      | K0117.5163                   | 5    | M16                     | 23 | 23   | 30 | 31   | 22   | 49   | 12  | 32   | 79   | 84   | 110 | 126 | 26              |



## Clamp levers

with external thread, steel parts in stainless steel



**Material:**

Handle in die cast zinc to DIN 1743;  
steel parts in stainless steel 1.4305

**Surface finish:**

Handle plastic-coated;  
stainless steel natural finish

**Sample order:**

K0117.1051X20 (please also indicate dimension L)

**Note:**

Standard colours are:  
black satin finish, silver metallic.

**On request:**

Other external threads, screw lengths, colours and special versions.  
Dimension „H1“ available in other lengths at extra charge.



### KIPP Technical data

| Size | External thread X | D    | D1 | D2   | D3   | H    | H1  | H2   | H3   | H4   | A   | A1  | No. of teeth |
|------|-------------------|------|----|------|------|------|-----|------|------|------|-----|-----|--------------|
| 1    | M5/M6             | 10   | 13 | 14   | 10,5 | 24,5 | 4   | 15   | 32,5 | 35,5 | 39  | 46  | 16           |
| 2    | M6/M8/M10         | 13,5 | 18 | 18,5 | 15,5 | 28,5 | 6,5 | 16,5 | 45,5 | 49,5 | 64  | 73  | 20           |
| 3    | M8/M10            | 16   | 21 | 22   | 17   | 37   | 10  | 23   | 57,5 | 61,5 | 79  | 90  | 22           |
| 4    | M12               | 19   | 25 | 26   | 19   | 42,5 | 10  | 26   | 67   | 72   | 95  | 108 | 24           |
| 5    | M16               | 23   | 30 | 31   | 22   | 49   | 12  | 32   | 79   | 84   | 110 | 126 | 26           |

### KIPP Clamp levers with external thread, steel parts in stainless steel

| Order No. black satin finish | Order No. silver metallic | Size | External thread X | L = screw length     |
|------------------------------|---------------------------|------|-------------------|----------------------|
| K0117.1051X                  | K0117.1053X               | 1    | M5                | 10/15/20/25          |
| K0117.1061X                  | K0117.1063X               | 1    | M6                | 10/15/20/25/30/40/50 |
| K0117.2061X                  | K0117.2063X               | 2    | M6                | 15/20/25/30/40/50/60 |
| K0117.2081X                  | K0117.2083X               | 2    | M8                | 15/20/25/30/40/50/60 |
| K0117.2101X                  | K0117.2103X               | 2    | M10               | 20/25/30/40/50/60    |
| K0117.3081X                  | K0117.3083X               | 3    | M8                | 20/25/30/40/50/60    |
| K0117.3101X                  | K0117.3103X               | 3    | M10               | 20/25/30/40/50/60    |
| K0117.4121X                  | K0117.4123X               | 4    | M12               | 25/30/40/50/60       |
| K0117.5161X                  | K0117.5163X               | 5    | M16               | 30/40/50/60          |

## Steel clamp levers

with internal thread



**Material:**

Handle in 1.0503; all other steel parts quality class 5.8

**Surface finish:**

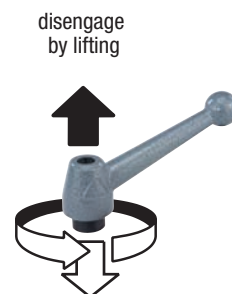
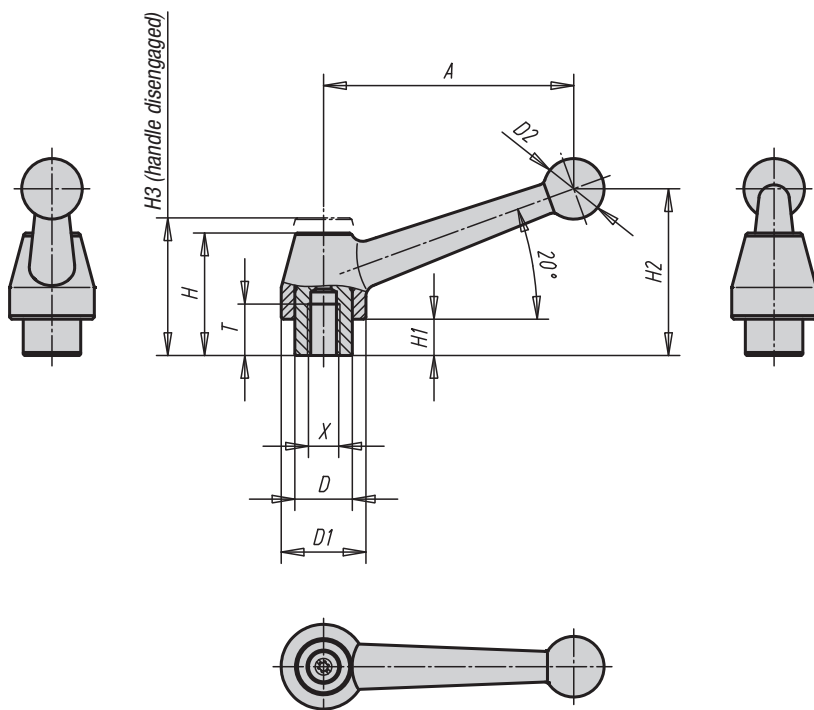
Handle painted silver-grey with hammertone finish, steel parts black oxide finish.

**Sample order:**

K0120.108

**On request:**

Other internal threads and special versions.  
Dimension „H1“ available in other lengths at extra charge.

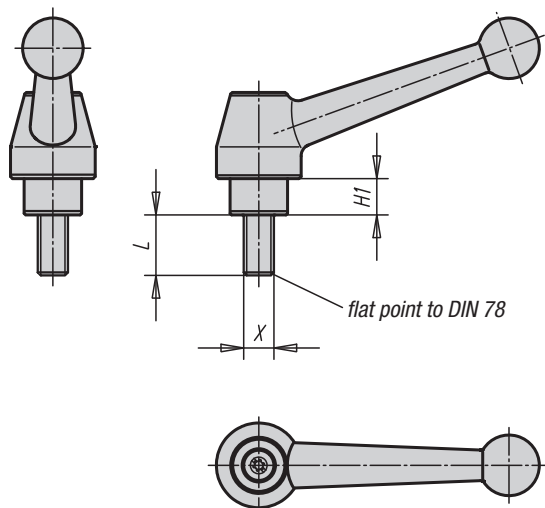


### KIPP Steel clamp levers with internal thread

| Order No. | Surface finish    | Size | Internal thread X | T  | D  | D1 | D2 | H    | H1 | H2 | H3 | A   | No. of teeth | Approx. weight kg |
|-----------|-------------------|------|-------------------|----|----|----|----|------|----|----|----|-----|--------------|-------------------|
| K0120.108 | Steel silver-grey | 1    | M8                | 17 | 19 | 28 | 20 | 41   | 12 | 54 | 49 | 83  | 24           | 0,230             |
| K0120.110 | Steel silver-grey | 1    | M10               | 17 | 19 | 28 | 20 | 41   | 12 | 54 | 49 | 83  | 24           | 0,230             |
| K0120.112 | Steel silver-grey | 1    | M12               | 17 | 19 | 28 | 20 | 41   | 12 | 54 | 49 | 83  | 24           | 0,230             |
| K0120.212 | Steel silver-grey | 2    | M12               | 23 | 23 | 35 | 25 | 50   | 12 | 69 | 56 | 108 | 26           | 0,440             |
| K0120.216 | Steel silver-grey | 2    | M16               | 23 | 23 | 35 | 25 | 50   | 12 | 69 | 56 | 108 | 26           | 0,440             |
| K0120.316 | Steel silver-grey | 3    | M16               | 27 | 30 | 43 | 30 | 58,5 | 12 | 78 | 65 | 132 | 36           | 0,730             |
| K0120.320 | Steel silver-grey | 3    | M20               | 27 | 30 | 43 | 30 | 58,5 | 12 | 78 | 65 | 132 | 36           | 0,730             |

## Steel clamp levers

with external thread



**Material:**

Handle in 1.0503; all other steel parts quality class 5.8

**Surface finish:**

Handle painted silver-grey with hammertone finish, steel parts black oxide finish.

**Sample order:**

K0120.1110X30 (please also indicate dimension L)

**Note:**

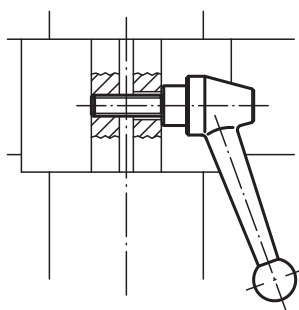
Missing dimensions see steel clamp levers with internal thread.

**On request:**

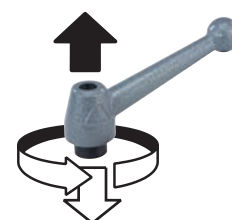
Other external threads, screw lengths and special versions.

Dimension „H1“ available in other lengths at extra charge.

example:



disengage  
by lifting

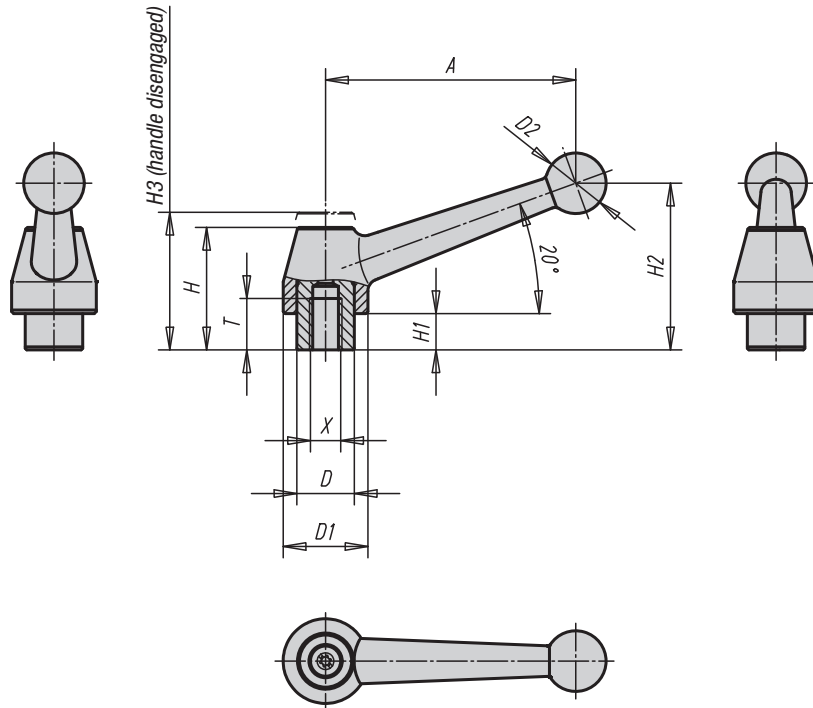


### KIPP Steel Clamp Levers with external thread

| Order No.  | Surface finish    | Size | External thread<br>X | H1 | L = screw length                    |
|------------|-------------------|------|----------------------|----|-------------------------------------|
| K0120.110X | Steel silver-grey | 1    | M10                  | 12 | 20/25/30/35/40/45/50/55/60/70/80/90 |
| K0120.112X | Steel silver-grey | 1    | M12                  | 12 | 20/25/30/35/40/45/50/55/60/70/80/90 |
| K0120.212X | Steel silver-grey | 2    | M12                  | 12 | 25/30/35/40/45/50/55/60/70/80/90    |
| K0120.216X | Steel silver-grey | 2    | M16                  | 12 | 25/30/35/40/45/50/55/60/70/80/90    |
| K0120.316X | Steel silver-grey | 3    | M16                  | 12 | 30/40/50/60/70/80/90                |
| K0120.320X | Steel silver-grey | 3    | M20                  | 12 | 30/40/50/60/70/80/90                |

## Clamp levers in stainless steel

with internal thread



**Material:**

Handle in stainless steel 1.4308;  
all other steel parts in stainless steel 1.4305

**Surface finish:**

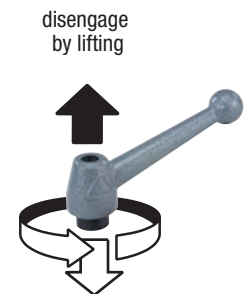
Handle in stainless steel electrolytic-polish, steel parts natural finish

**Sample order:**

K0121.1108

**On request:**

Other internal threads and special versions.  
Dimension „H1“ available in other lengths at extra charge.

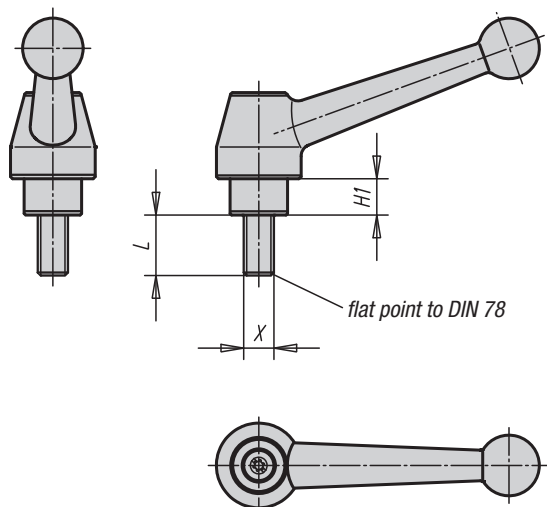


### KIPP Clamp levers in stainless steel with internal thread

| Order No.  | Surface finish                      | Size | Internal thread X | T  | D  | D1 | D2 | H  | H1 | H2 | H3 | A  | No. of teeth | Approx. weight kg |
|------------|-------------------------------------|------|-------------------|----|----|----|----|----|----|----|----|----|--------------|-------------------|
| K0121.1108 | Stainless steel electrolytic-polish | 1    | M8                | 17 | 19 | 28 | 20 | 41 | 12 | 54 | 49 | 83 | 24           | 0,230             |
| K0121.1110 | Stainless steel electrolytic-polish | 1    | M10               | 17 | 19 | 28 | 20 | 41 | 12 | 54 | 49 | 83 | 24           | 0,230             |
| K0121.1112 | Stainless steel electrolytic-polish | 1    | M12               | 17 | 19 | 28 | 20 | 41 | 12 | 54 | 49 | 83 | 24           | 0,230             |

## Clamp levers in stainless steel

with external thread



**Material:**

Handle in stainless steel 1.4308;  
all other steel parts in stainless steel 1.4305

**Surface finish:**

Handle in stainless steel electrolytic-polish, steel parts natural finish

**Sample order:**

K0121.1110X30 (please also indicate dimension L)

**Note:**

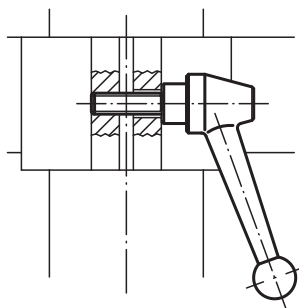
Missing dimensions see steel clamp levers with internal thread.

**On request:**

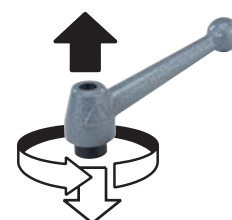
Other external threads, screw lengths and special versions.

Dimension „H1“ available in other lengths at extra charge.

example:



disengage  
by lifting

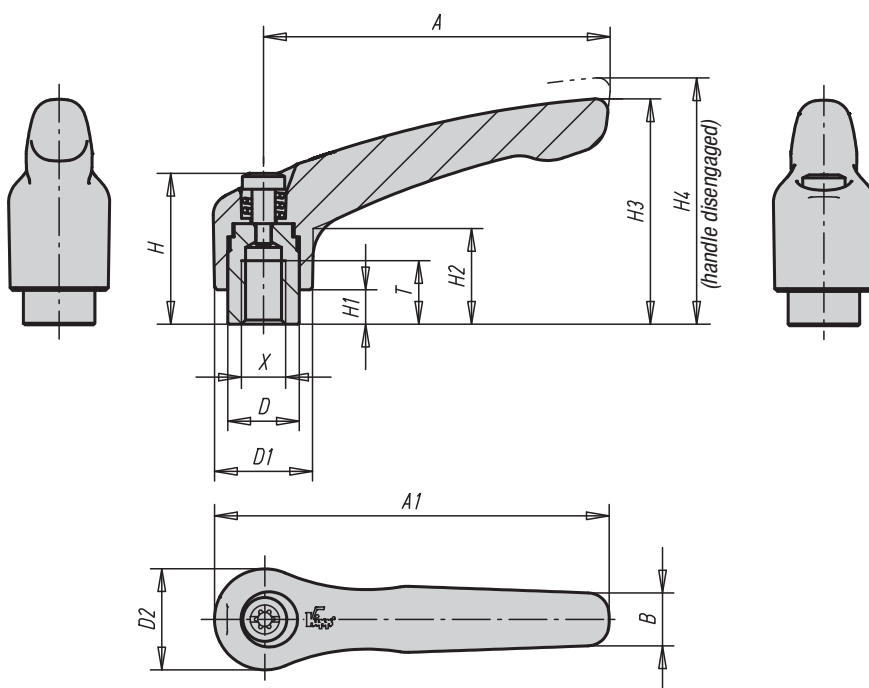


### KIPP Clamp levers in stainless steel with external thread

| Order No.   | Surface finish                      | Size | External thread<br>X | H1 | L = screw length |
|-------------|-------------------------------------|------|----------------------|----|------------------|
| K0121.1110X | Stainless steel electrolytic-polish | 1    | M10                  | 12 | 25/30/40/50/60   |
| K0121.1112X | Stainless steel electrolytic-polish | 1    | M12                  | 12 | 25/30/40/50/60   |

## Clamp levers

with internal thread



**Material:**

Handle in die cast zinc to DIN 1743, steel parts quality class 5.8

**Surface finish:**

Handle plastic-coated, steel parts black oxide finish

**Sample order:**

K0122.1041

**Note:**

Standard colours are: black satin finish, orange RAL 2004.

**On request:**

Other internal threads, colours and special versions. Dimension „H1“ available in other lengths at extra charge.



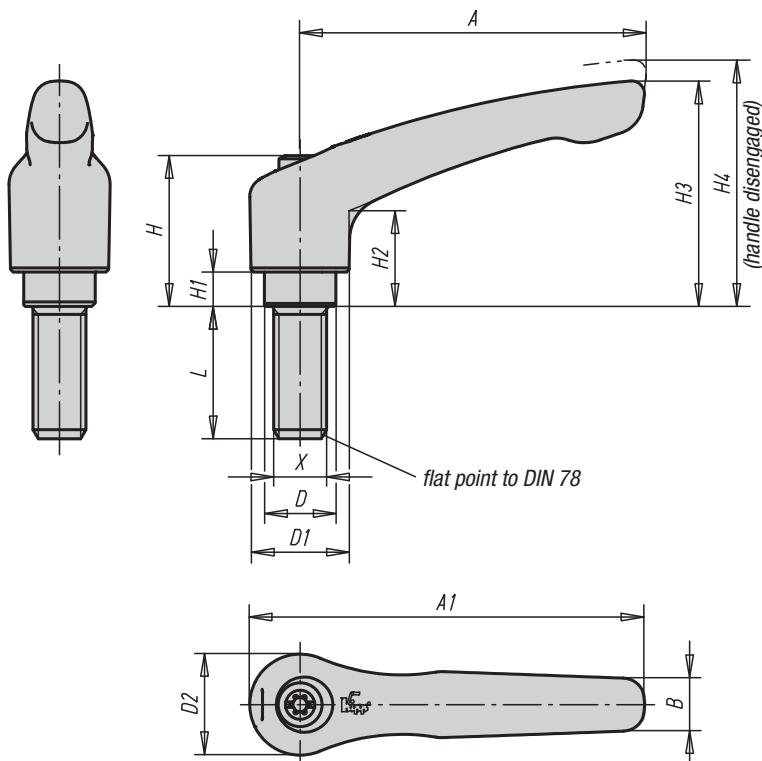
### KIPP Clamp levers with internal thread

| Order No.<br>black satin finish | Order No.<br>orange | Size | Internal<br>thread<br>X | T  | D    | D1   | D2   | H    | H1  | H2   | H3   | H4   | A   | A1   | B   | No. of<br>teeth | Approx.<br>weight<br>kg |
|---------------------------------|---------------------|------|-------------------------|----|------|------|------|------|-----|------|------|------|-----|------|-----|-----------------|-------------------------|
| K0122.0031                      | K0122.0032          | 0    | M3                      | 9  | 10   | 13   | 14   | 24,5 | 4   | 14,5 | 30   | 33   | 30  | 37   | 7   | 16              | 0,036                   |
| K0122.0041                      | K0122.0042          | 0    | M4                      | 9  | 10   | 13   | 14   | 24,5 | 4   | 14,5 | 30   | 33   | 30  | 37   | 7   | 16              | 0,036                   |
| K0122.0051                      | K0122.0052          | 0    | M5                      | 9  | 10   | 13   | 14   | 24,5 | 4   | 14,5 | 30   | 33   | 30  | 37   | 7   | 16              | 0,036                   |
| K0122.1041                      | K0122.1042          | 1    | M4                      | 9  | 10   | 13   | 14   | 24,5 | 4   | 14,5 | 31   | 34   | 40  | 47   | 7   | 16              | 0,040                   |
| K0122.1051                      | K0122.1052          | 1    | M5                      | 9  | 10   | 13   | 14   | 24,5 | 4   | 14,5 | 31   | 34   | 40  | 47   | 7   | 16              | 0,040                   |
| K0122.1061                      | K0122.1062          | 1    | M6                      | 9  | 10   | 13   | 14   | 24,5 | 4   | 14,5 | 31   | 34   | 40  | 47   | 7   | 16              | 0,040                   |
| K0122.2061                      | K0122.2062          | 2    | M6                      | 12 | 13,5 | 18,5 | 19   | 28,5 | 6,5 | 17,5 | 42,5 | 45,5 | 65  | 74,5 | 9,5 | 20              | 0,090                   |
| K0122.2081                      | K0122.2082          | 2    | M8                      | 12 | 13,5 | 18,5 | 19   | 28,5 | 6,5 | 17,5 | 42,5 | 45,5 | 65  | 74,5 | 9,5 | 20              | 0,090                   |
| K0122.3081                      | K0122.3082          | 3    | M8                      | 14 | 16   | 21   | 22   | 37   | 10  | 24   | 54,5 | 58,5 | 80  | 91   | 11  | 22              | 0,130                   |
| K0122.3101                      | K0122.3102          | 3    | M10                     | 14 | 16   | 21   | 22   | 37   | 10  | 24   | 54,5 | 58,5 | 80  | 91   | 11  | 22              | 0,130                   |
| K0122.4101                      | K0122.4102          | 4    | M10                     | 17 | 19   | 27   | 27,5 | 43   | 10  | 27   | 63   | 67,5 | 95  | 109  | 13  | 24              | 0,210                   |
| K0122.4121                      | K0122.4122          | 4    | M12                     | 17 | 19   | 27   | 27,5 | 43   | 10  | 27   | 63   | 67,5 | 95  | 109  | 13  | 24              | 0,210                   |
| K0122.5121                      | K0122.5122          | 5    | M12                     | 23 | 23   | 31   | 32   | 49   | 12  | 31,5 | 73   | 77,5 | 110 | 126  | 15  | 26              | 0,330                   |
| K0122.5161                      | K0122.5162          | 5    | M16                     | 23 | 23   | 31   | 32   | 49   | 12  | 31,5 | 73   | 77,5 | 110 | 126  | 15  | 26              | 0,330                   |



## Clamp levers

with external thread



**Material:**

Handle in die cast zinc to DIN 1743;  
steel parts quality class 5.8

**Surface finish:**

Handle, plastic-coated.  
Steel parts black oxide finish.

**Sample order:**

K0122.0041X10 (please also indicate dimension L)

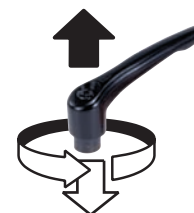
**Note:**

Standard colours are:  
black satin finish, orange RAL 2004.

**On request:**

Other external threads, screw lengths, colours and special versions.  
Dimension „H1“ available in other lengths at extra charge.

disengage  
by lifting



**KIPP Technical data**

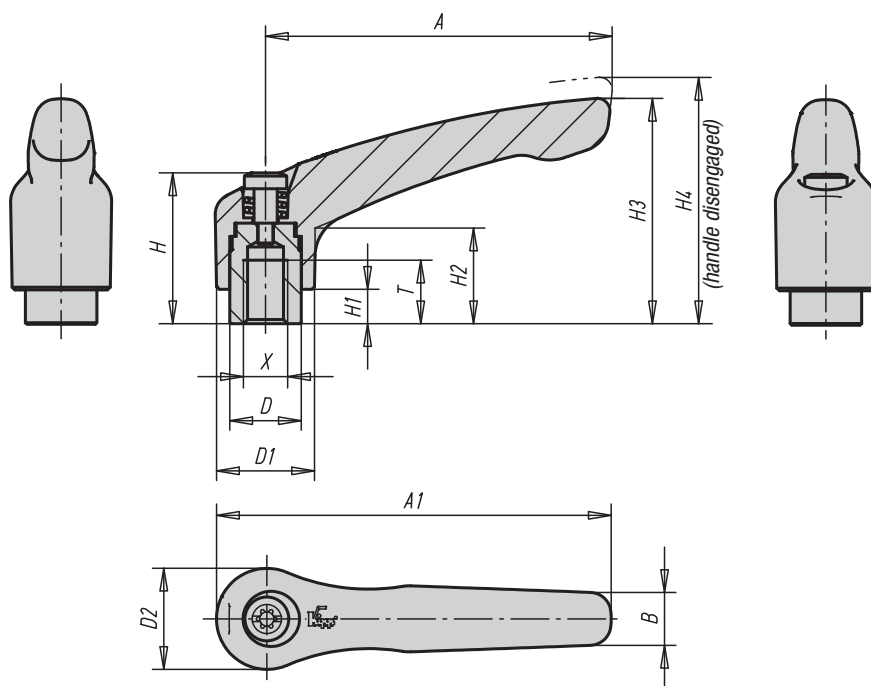
| Size | External thread X | D    | D1   | D2   | H    | H1  | H2   | H3   | H4   | A   | A1   | B   | No. of teeth |
|------|-------------------|------|------|------|------|-----|------|------|------|-----|------|-----|--------------|
| 0    | M4/M5             | 10   | 13   | 14   | 24,5 | 4   | 14,5 | 30   | 33   | 30  | 37   | 7   | 16           |
| 1    | M5/M6             | 10   | 13   | 14   | 24,5 | 4   | 14,5 | 31   | 34   | 40  | 47   | 7   | 16           |
| 2    | M6/M8/M10         | 13,5 | 18,5 | 19   | 28,5 | 6,5 | 17,5 | 42,5 | 45,5 | 65  | 74,5 | 9,5 | 20           |
| 3    | M8/M10            | 16   | 21   | 22   | 37   | 10  | 24   | 54,5 | 58,5 | 80  | 91   | 11  | 22           |
| 4    | M10/M12           | 19   | 27   | 27,5 | 43   | 10  | 27   | 63   | 67,5 | 95  | 109  | 13  | 24           |
| 5    | M12/M16           | 23   | 31   | 32   | 49   | 12  | 31,5 | 73   | 77,5 | 110 | 126  | 15  | 26           |

**KIPP Clamp levers with external thread**

| Order No. black satin finish | Order No. orange | Size | External thread X | L = screw length                    |
|------------------------------|------------------|------|-------------------|-------------------------------------|
| K0122.0041X                  | K0122.0042X      | 0    | M4                | 10/15/20/25/30/35/40/45/50          |
| K0122.0051X                  | K0122.0052X      | 0    | M5                | 10/15/20/25/30/35/40/45/50          |
| K0122.1051X                  | K0122.1052X      | 1    | M5                | 10/15/20/25/30/35/40/45/50          |
| K0122.1061X                  | K0122.1062X      | 1    | M6                | 10/15/20/25/30/35/40/45/50          |
| K0122.2061X                  | K0122.2062X      | 2    | M6                | 15/20/25/30/35/40/45/50/55/60       |
| K0122.2081X                  | K0122.2082X      | 2    | M8                | 15/20/25/30/35/40/45/50/55/60       |
| K0122.2101X                  | K0122.2102X      | 2    | M10               | 15/20/25/30/35/40/45/50/55/60       |
| K0122.3081X                  | K0122.3082X      | 3    | M8                | 15/20/25/30/35/40/45/50/55/60       |
| K0122.3101X                  | K0122.3102X      | 3    | M10               | 15/20/25/30/35/40/45/50/55/60       |
| K0122.4101X                  | K0122.4102X      | 4    | M10               | 20/25/30/35/40/45/50/55/60/70/80/90 |
| K0122.4121X                  | K0122.4122X      | 4    | M12               | 20/25/30/35/40/45/50/55/60/70/80/90 |
| K0122.5121X                  | K0122.5122X      | 5    | M12               | 25/30/35/40/45/50/55/60/70/80/90    |
| K0122.5161X                  | K0122.5162X      | 5    | M16               | 25/30/35/40/45/50/55/60/70/80/90    |

## Clamp levers

with internal thread, steel parts in stainless steel



**Material:**

Handle in die cast zinc to DIN 1743, steel parts in stainless steel, 1.4305

**Surface finish:**

Handle plastic-coated; steel parts natural finish

**Sample order:**

K0123.1051

**Note:**

Standard colours are: black satin finish, orange RAL 2004.

**On request:**

Other internal threads, colours and special versions.

Dimension „H1“ available in other lengths at extra charge.

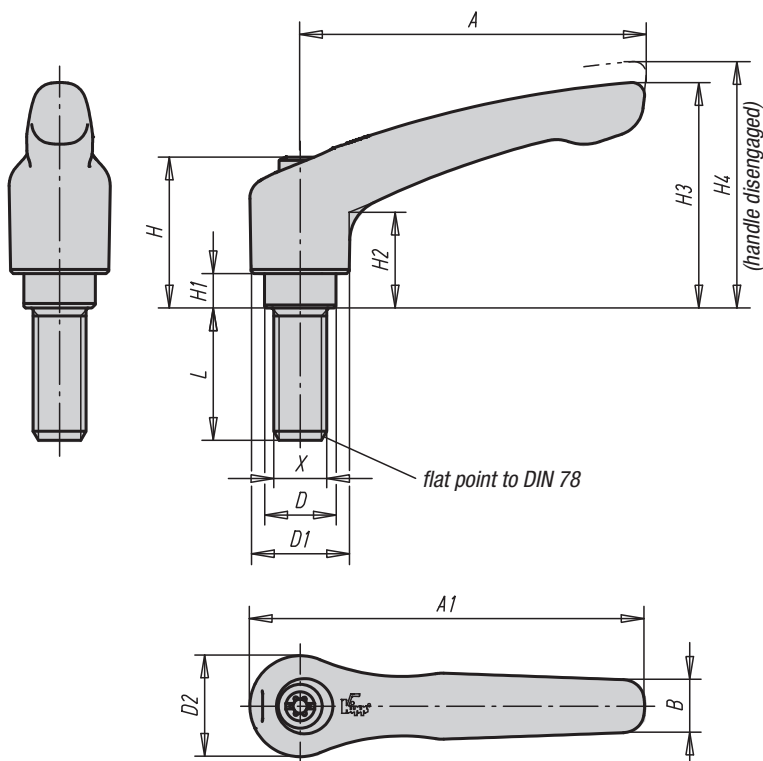


### KIPP Clamp levers with internal thread, steel parts in stainless steel

| Order No.<br>black satin finish | Order No.<br>orange | Size | Internal<br>thread<br>X | T  | D    | D1   | D2   | H    | H1  | H2   | H3   | H4   | A   | A1   | B   | No. of<br>teeth | Approx.<br>weight<br>kg |
|---------------------------------|---------------------|------|-------------------------|----|------|------|------|------|-----|------|------|------|-----|------|-----|-----------------|-------------------------|
| K0123.0031                      | K0123.0032          | 0    | M3                      | 9  | 10   | 13   | 14   | 24,5 | 4   | 14,5 | 30   | 33   | 30  | 37   | 7   | 16              | 0,036                   |
| K0123.0041                      | K0123.0042          | 0    | M4                      | 9  | 10   | 13   | 14   | 24,5 | 4   | 14,5 | 30   | 33   | 30  | 37   | 7   | 16              | 0,036                   |
| K0123.0051                      | K0123.0052          | 0    | M5                      | 9  | 10   | 13   | 14   | 24,5 | 4   | 14,5 | 30   | 33   | 30  | 37   | 7   | 16              | 0,036                   |
| K0123.1041                      | K0123.1042          | 1    | M4                      | 9  | 10   | 13   | 14   | 24,5 | 4   | 14,5 | 31   | 34   | 40  | 47   | 7   | 16              | 0,040                   |
| K0123.1051                      | K0123.1052          | 1    | M5                      | 9  | 10   | 13   | 14   | 24,5 | 4   | 14,5 | 31   | 34   | 40  | 47   | 7   | 16              | 0,040                   |
| K0123.1061                      | K0123.1062          | 1    | M6                      | 9  | 10   | 13   | 14   | 24,5 | 4   | 14,5 | 31   | 34   | 40  | 47   | 7   | 16              | 0,040                   |
| K0123.2061                      | K0123.2062          | 2    | M6                      | 12 | 13,5 | 18,5 | 19   | 28,5 | 6,5 | 17,5 | 42,5 | 45,5 | 65  | 74,5 | 9,5 | 20              | 0,090                   |
| K0123.2081                      | K0123.2082          | 2    | M8                      | 12 | 13,5 | 18,5 | 19   | 28,5 | 6,5 | 17,5 | 42,5 | 45,5 | 65  | 74,5 | 9,5 | 20              | 0,090                   |
| K0123.3081                      | K0123.3082          | 3    | M8                      | 14 | 16   | 21   | 22   | 37   | 10  | 24   | 54,5 | 58,5 | 80  | 91   | 11  | 22              | 0,130                   |
| K0123.3101                      | K0123.3102          | 3    | M10                     | 14 | 16   | 21   | 22   | 37   | 10  | 24   | 54,5 | 58,5 | 80  | 91   | 11  | 22              | 0,130                   |
| K0123.4101                      | K0123.4102          | 4    | M10                     | 17 | 19   | 27   | 27,5 | 43   | 10  | 27   | 63   | 67,5 | 95  | 109  | 13  | 24              | 0,210                   |
| K0123.4121                      | K0123.4122          | 4    | M12                     | 17 | 19   | 27   | 27,5 | 43   | 10  | 27   | 63   | 67,5 | 95  | 109  | 13  | 24              | 0,210                   |
| K0123.5121                      | K0123.5122          | 5    | M12                     | 23 | 23   | 31   | 32   | 49   | 12  | 31,5 | 73   | 77,5 | 110 | 126  | 15  | 26              | 0,330                   |
| K0123.5161                      | K0123.5162          | 5    | M16                     | 23 | 23   | 31   | 32   | 49   | 12  | 31,5 | 73   | 77,5 | 110 | 126  | 15  | 26              | 0,330                   |

## Clamp levers

with external thread, steel parts in stainless steel



**Material:**  
Handle in die cast zinc to DIN 1743;  
steel parts in stainless steel 1.4305

**Surface finish:**  
Handle, plastic-coated.  
Steel parts natural finish.

**Sample order:**  
K0123.1051X25 (please also indicate dimension L)

**Note:**  
Standard colours are:  
black satin finish, orange RAL 2004.

**On request:**  
Other external threads, screw lengths, colours and special versions.  
Dimension „H1“ available in other lengths at extra charge.

disengage  
by lifting



### KIPP Technical data

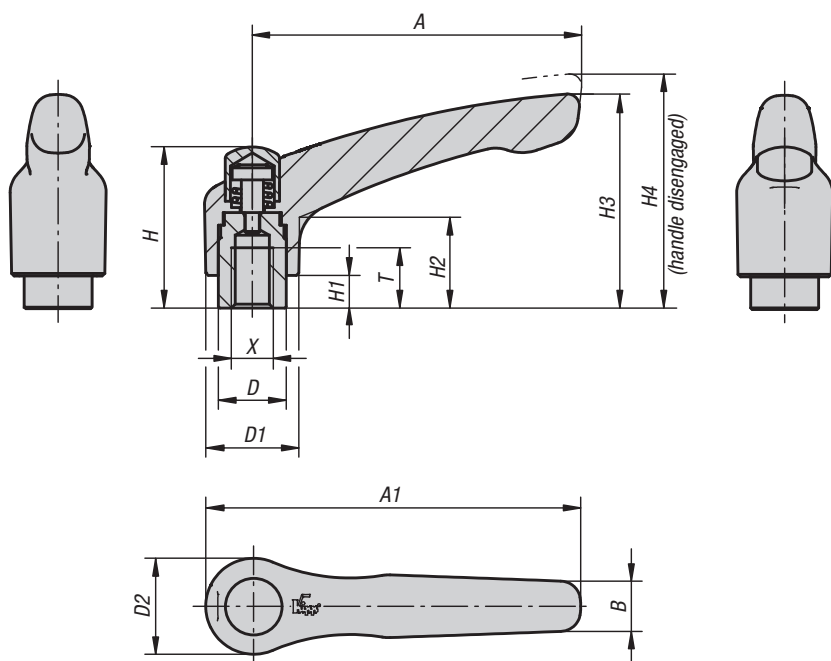
| Size | External thread X | D    | D1   | D2   | H    | H1  | H2   | H3   | H4   | A   | A1   | B   | No. of teeth |
|------|-------------------|------|------|------|------|-----|------|------|------|-----|------|-----|--------------|
| 0    | M4/M5             | 10   | 13   | 14   | 24,5 | 4   | 14,5 | 30   | 33   | 30  | 37   | 7   | 16           |
| 1    | M5/M6             | 10   | 13   | 14   | 24,5 | 4   | 14,5 | 31   | 34   | 40  | 47   | 7   | 16           |
| 2    | M6/M8/M10         | 13,5 | 18,5 | 19   | 28,5 | 6,5 | 17,5 | 42,5 | 45,5 | 65  | 74,5 | 9,5 | 20           |
| 3    | M8/M10            | 16   | 21   | 22   | 37   | 10  | 24   | 54,5 | 58,5 | 80  | 91   | 11  | 22           |
| 4    | M12               | 19   | 27   | 27,5 | 43   | 10  | 27   | 63   | 67,5 | 95  | 109  | 13  | 24           |
| 5    | M16               | 23   | 31   | 32   | 49   | 12  | 31,5 | 73   | 77,5 | 110 | 126  | 15  | 26           |

### KIPP Clamp levers with external thread, steel parts in stainless steel

| Order No.<br>black satin finish | Order No.<br>orange | Size | External thread X | L = screw length     |
|---------------------------------|---------------------|------|-------------------|----------------------|
| K0123.0041X                     | K0123.0042X         | 0    | M4                | 10/15/20/25          |
| K0123.0051X                     | K0123.0052X         | 0    | M5                | 10/15/20/25          |
| K0123.1051X                     | K0123.1052X         | 1    | M5                | 10/15/20/25          |
| K0123.1061X                     | K0123.1062X         | 1    | M6                | 10/15/20/25/30/40/50 |
| K0123.2061X                     | K0123.2062X         | 2    | M6                | 15/20/25/30/40/50/60 |
| K0123.2081X                     | K0123.2082X         | 2    | M8                | 15/20/25/30/40/50/60 |
| K0123.2101X                     | K0123.2102X         | 2    | M10               | 20/25/30/40/50/60    |
| K0123.3081X                     | K0123.3082X         | 3    | M8                | 20/25/30/40/50/60    |
| K0123.3101X                     | K0123.3102X         | 3    | M10               | 20/25/30/40/50/60    |
| K0123.4121X                     | K0123.4122X         | 4    | M12               | 25/30/40/50/60       |
| K0123.5161X                     | K0123.5162X         | 5    | M16               | 30/40/50/60          |

# Clamp levers with protective cap

with internal thread



**Material:**

Handle in die cast zinc to DIN 1743;  
steel parts quality class 5.8;  
protective cap in stainless steel, 1.4305

**Surface finish:**

Handle plastic-coated, steel parts black oxide finish.  
Protective cap in stainless steel, natural finish.

**Sample order:**

K0122.92081

**Note:**

Standard colours are:  
black satin finish, orange RAL 2004.

**On request:**

Other internal threads, colours and special versions.  
Dimension „H1“ available in other lengths at extra charge.

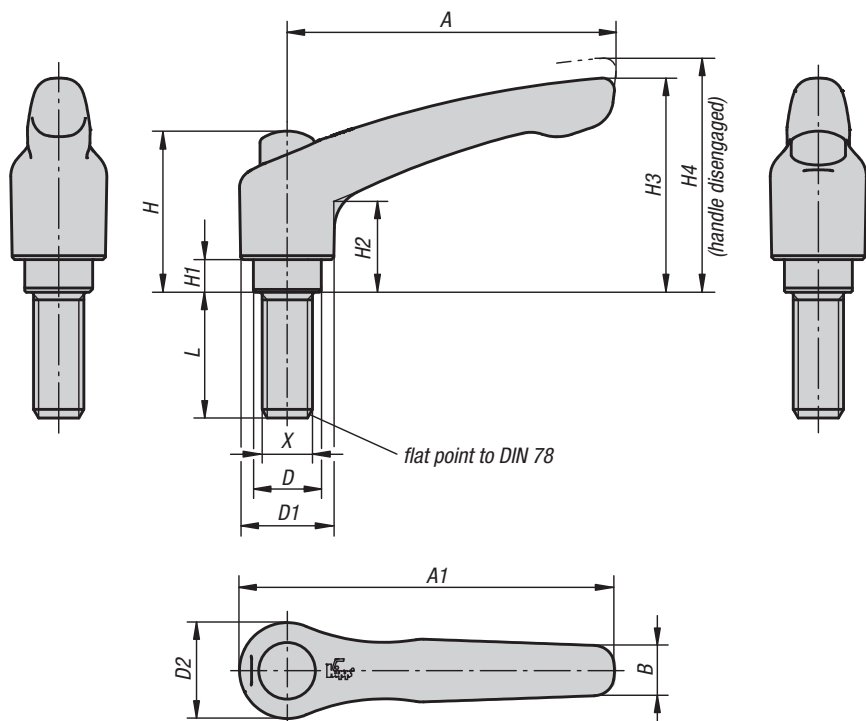


**KIPP Clamp levers with protective cap with internal thread**

| Order No.<br>black satin finish | Order No.<br>orange | Size | Internal<br>thread<br>X | T  | D    | D1   | D2 | H    | H1  | H2   | H3   | H4   | A  | A1   | B   | No. of<br>teeth | Approx.<br>weight<br>kg |
|---------------------------------|---------------------|------|-------------------------|----|------|------|----|------|-----|------|------|------|----|------|-----|-----------------|-------------------------|
| K0122.92061                     | K0122.92062         | 2    | M6                      | 12 | 13,5 | 18,5 | 19 | 32   | 6,5 | 17,5 | 42,5 | 45,5 | 65 | 74,5 | 9,5 | 20              | 0,082                   |
| K0122.92081                     | K0122.92082         | 2    | M8                      | 12 | 13,5 | 18,5 | 19 | 32   | 6,5 | 17,5 | 42,5 | 45,5 | 65 | 74,5 | 9,5 | 20              | 0,081                   |
| K0122.93081                     | K0122.93082         | 3    | M8                      | 14 | 16   | 21   | 22 | 41,5 | 10  | 24   | 54,5 | 58,5 | 80 | 91   | 11  | 22              | 0,132                   |
| K0122.93101                     | K0122.93102         | 3    | M10                     | 14 | 16   | 21   | 22 | 41,5 | 10  | 24   | 54,5 | 58,5 | 80 | 91   | 11  | 22              | 0,129                   |

## Clamp levers with protective cap

with external thread



### Material:

Handle in die cast zinc to DIN 1743;  
steel parts quality class 5.8;  
protective cap in stainless steel, 1.4305

### Surface finish:

Handle plastic-coated.  
Steel parts black oxide finish.  
Protective cap stainless steel, natural finish

### Sample order:

K0122.92081X30 (please also indicate dimension L)

### Note:

Standard colours are:  
black satin finish, orange RAL 2004.

### On request:

Other internal threads, colours and special versions.  
Dimension „H1“ available in other lengths at extra charge.



### KIPP Technical data

| Size | External thread X | D    | D1   | D2 | H    | H1  | H2   | H3   | H4   | A  | A1   | B   | No. of teeth |
|------|-------------------|------|------|----|------|-----|------|------|------|----|------|-----|--------------|
| 2    | M6/M8/M10         | 13,5 | 18,5 | 19 | 32   | 6,5 | 17,5 | 42,5 | 45,5 | 65 | 74,5 | 9,5 | 20           |
| 3    | M8/M10            | 16   | 21   | 22 | 41,5 | 10  | 24   | 54,5 | 58,5 | 80 | 91   | 11  | 22           |

### KIPP Clamp levers with protective cap with external thread

| Order No. black satin finish | Order No. orange | Size | External thread X | L = screw length              |
|------------------------------|------------------|------|-------------------|-------------------------------|
| K0122.92061X                 | K0122.92062X     | 2    | M6                | 15/20/25/30/35/40/45/50/55/60 |
| K0122.92081X                 | K0122.92082X     | 2    | M8                | 15/20/25/30/35/40/45/50/55/60 |
| K0122.92101X                 | K0122.92102X     | 2    | M10               | 15/20/25/30/35/40/45/50/55/60 |
| K0122.93081X                 | K0122.93082X     | 3    | M8                | 15/20/25/30/35/40/45/50/55/60 |
| K0122.93101X                 | K0122.93102X     | 3    | M10               | 15/20/25/30/35/40/45/50/55/60 |

## Clamp levers with protective cap

with internal thread, steel parts in stainless steel



**Material:**

Handle in die cast zinc to DIN 1743;  
steel parts in stainless steel, 1.4305;  
protective cap in stainless steel, 1.4305

**Surface finish:**

Handle plastic-coated  
Steel parts natural finish

**Sample order:**

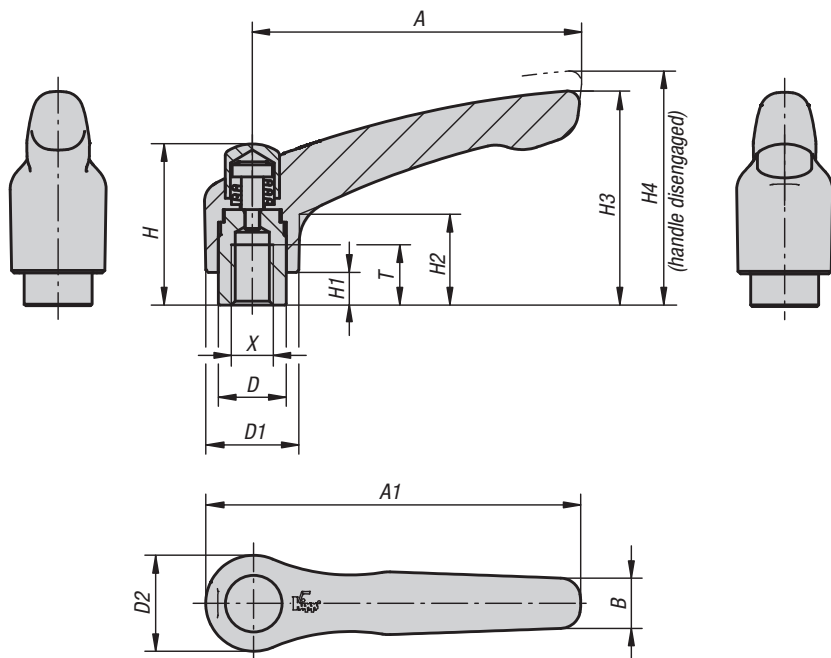
K0123.92081

**Note:**

Standard colours are:  
black satin finish, orange RAL 2004.

**On request:**

Other internal threads, colours and special versions.  
Dimension „H1“ available in other lengths at extra charge.



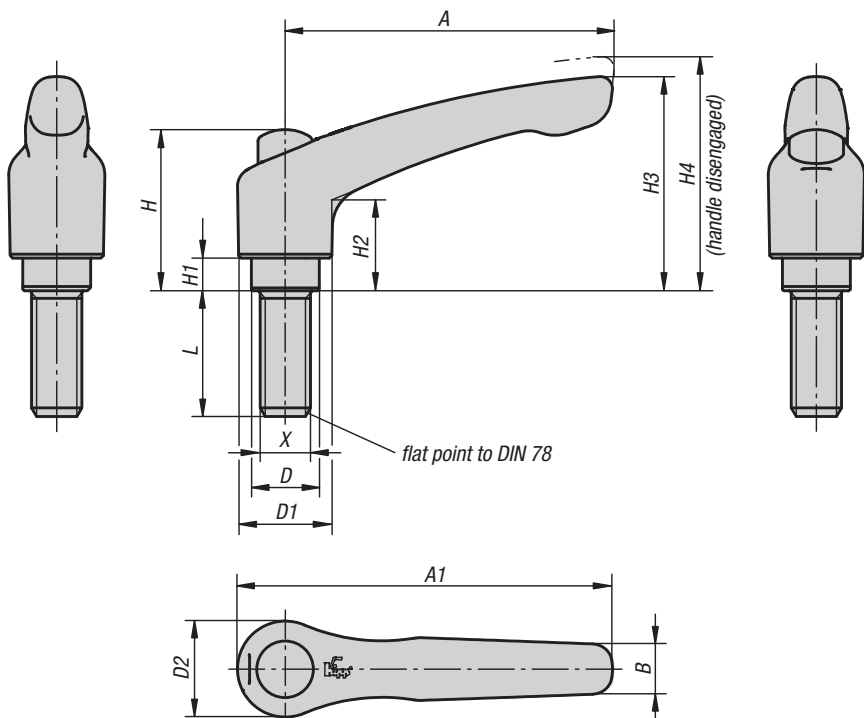
**KIPP Clamp levers with protective cap with internal thread, steel parts in stainless steel**

| Order No.<br>black satin finish | Order No.<br>orange | Size | Internal<br>thread<br>X | T  | D    | D1   | D2 | H    | H1  | H2   | H3   | H4   | A  | A1   | B   | No. of<br>teeth | Approx.<br>weight<br>kg |
|---------------------------------|---------------------|------|-------------------------|----|------|------|----|------|-----|------|------|------|----|------|-----|-----------------|-------------------------|
| K0123.92061                     | K0123.92062         | 2    | M6                      | 12 | 13,5 | 18,5 | 19 | 32   | 6,5 | 17,5 | 42,5 | 45,5 | 65 | 74,5 | 9,5 | 20              | 0,082                   |
| K0123.92081                     | K0123.92082         | 2    | M8                      | 12 | 13,5 | 18,5 | 19 | 32   | 6,5 | 17,5 | 42,5 | 45,5 | 65 | 74,5 | 9,5 | 20              | 0,081                   |
| K0123.93081                     | K0123.93082         | 3    | M8                      | 14 | 16   | 21   | 22 | 41,5 | 10  | 24   | 54,5 | 58,5 | 80 | 91   | 11  | 22              | 0,132                   |
| K0123.93101                     | K0123.93102         | 3    | M10                     | 14 | 16   | 21   | 22 | 41,5 | 10  | 24   | 54,5 | 58,5 | 80 | 91   | 11  | 22              | 0,129                   |



## Clamp levers with protective cap

with external thread, steel parts in stainless steel



### Material:

Handle in die cast zinc to DIN 1743;  
steel parts in stainless steel, 1.4305;  
protective cap in stainless steel, 1.4305

### Surface finish:

Handle plastic-coated  
Steel parts natural finish

### Sample order:

K0123.92081X30 (please also indicate dimension L)

### Note:

Standard colours are:  
black satin finish, orange RAL 2004.

### On request:

Other external threads, screw lengths, colours and special versions.  
Dimension „H1“ available in other lengths at extra charge.



### KIPP Technical data

| Size | External thread X | D    | D1   | D2 | H    | H1  | H2   | H3   | H4   | A  | A1   | B   | No. of teeth |
|------|-------------------|------|------|----|------|-----|------|------|------|----|------|-----|--------------|
| 2    | M6/M8/M10         | 13,5 | 18,5 | 19 | 32   | 6,5 | 17,5 | 42,5 | 45,5 | 65 | 74,5 | 9,5 | 20           |
| 3    | M8/M10            | 16   | 21   | 22 | 41,5 | 10  | 24   | 54,5 | 58,5 | 80 | 91   | 11  | 22           |

### KIPP Clamp levers with protective cap with external thread, steel parts in stainless steel

| Order No. black satin finish | Order No. orange | Size | External thread X | L = screw length     |
|------------------------------|------------------|------|-------------------|----------------------|
| K0123.92061X                 | K0123.92062X     | 2    | M6                | 15/20/25/30/40/50/60 |
| K0123.92081X                 | K0123.92082X     | 2    | M8                | 15/20/25/30/40/50/60 |
| K0123.92101X                 | K0123.92102X     | 2    | M10               | 20/25/30/40/50/60    |
| K0123.93081X                 | K0123.93082X     | 3    | M8                | 20/25/30/40/50/60    |
| K0123.93101X                 | K0123.93102X     | 3    | M10               | 20/25/30/40/50/60    |

## Clamp levers in stainless steel

with internal thread



**Material:**

Handle in precision cast 1.4308,  
other steel parts 1.4305

**Surface finish:**

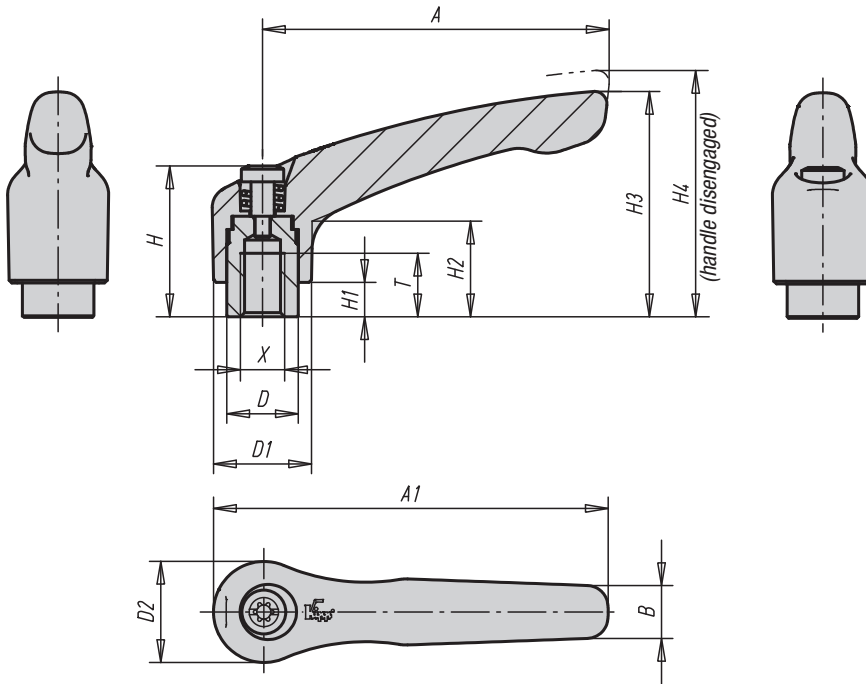
Handle in stainless steel electrolytic-polish;  
steel parts natural finish

**Sample order:**

K0124.105

**On request:**

Other internal threads and special versions.  
Dimension „H1“ available in other lengths at extra charge.



disengage  
by lifting

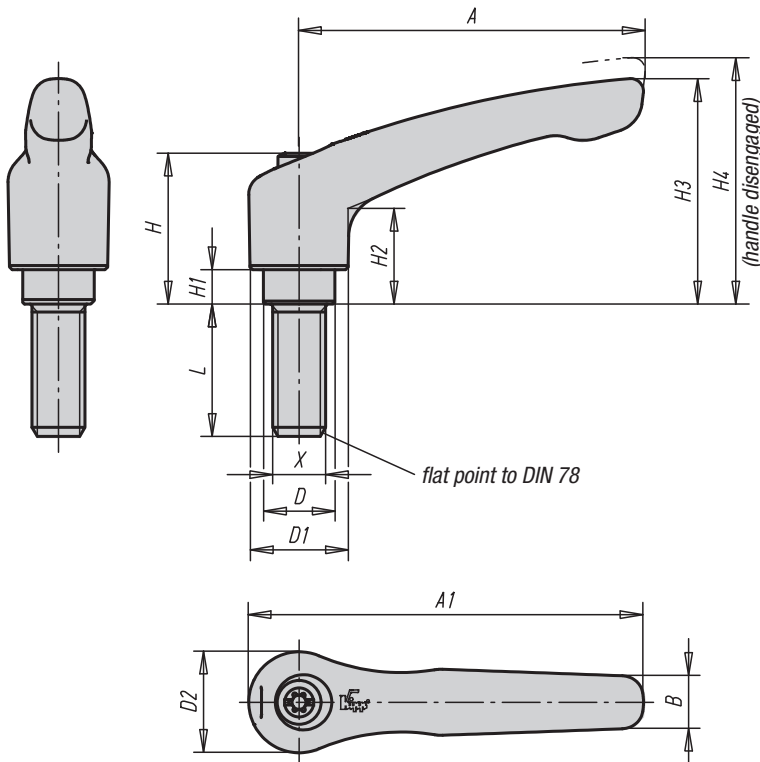


### KIPP Clamp levers in stainless steel with internal thread

| Order No. | Size | Internal thread X | T  | D    | D1   | D2   | H    | H1  | H2   | H3   | H4   | A  | A1   | B  | No. of teeth |
|-----------|------|-------------------|----|------|------|------|------|-----|------|------|------|----|------|----|--------------|
| K0124.104 | 1    | M4                | 9  | 10   | 13   | 14   | 24,5 | 4   | 14,5 | 31   | 34   | 40 | 47   | 7  | 16           |
| K0124.105 | 1    | M5                | 9  | 10   | 13   | 14   | 24,5 | 4   | 14,5 | 31   | 34   | 40 | 47   | 7  | 16           |
| K0124.106 | 1    | M6                | 9  | 10   | 13   | 14   | 24,5 | 4   | 14,5 | 31   | 34   | 40 | 47   | 7  | 16           |
| K0124.206 | 2    | M6                | 12 | 13,5 | 18,5 | 19   | 28,5 | 6,5 | 17,5 | 42,5 | 45,5 | 65 | 74,5 | 10 | 20           |
| K0124.208 | 2    | M8                | 12 | 13,5 | 18,5 | 19   | 28,5 | 6,5 | 17,5 | 42,5 | 45,5 | 65 | 74,5 | 10 | 20           |
| K0124.308 | 3    | M8                | 14 | 16   | 21   | 22   | 37   | 10  | 24   | 54,5 | 58,5 | 80 | 91   | 11 | 22           |
| K0124.310 | 3    | M10               | 14 | 16   | 21   | 22   | 37   | 10  | 24   | 54,5 | 58,5 | 80 | 91   | 11 | 22           |
| K0124.410 | 4    | M10               | 17 | 19   | 27   | 27,5 | 43   | 10  | 27   | 63   | 67,5 | 95 | 109  | 13 | 24           |
| K0124.412 | 4    | M12               | 17 | 19   | 27   | 27,5 | 43   | 10  | 27   | 63   | 67,5 | 95 | 109  | 13 | 24           |

## Clamp levers in stainless steel

with external thread



**Material:**

Handle in precision cast 1.4308, other steel parts 1.4305

**Surface finish:**

Handle in stainless steel electrolytic-polish; steel parts natural finish

**Sample order:**

K0124.105X10 (please also indicate dimension L)

**On request:**

Other external threads, screw lengths and special versions.

Dimension „H1“ available in other lengths at extra charge.

disengage by lifting

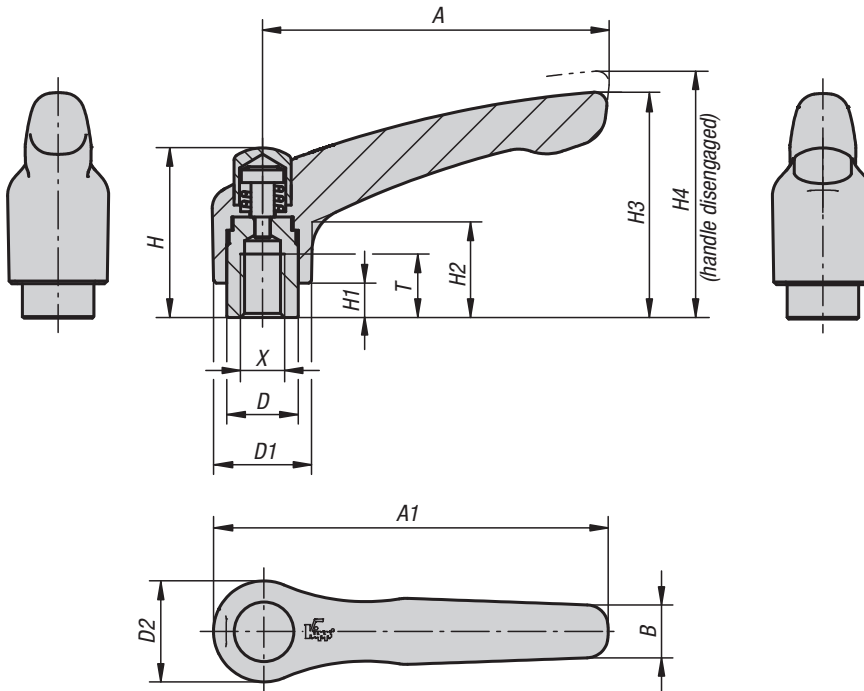


### KIPP Clamp levers in stainless steel with external thread

| Order No.  | Size | External thread X | D    | D1   | D2   | H    | H1  | H2   | H3   | H4   | A  | A1   | B  | No. of teeth | L = screw length     |
|------------|------|-------------------|------|------|------|------|-----|------|------|------|----|------|----|--------------|----------------------|
| K0124.105X | 1    | M5                | 10   | 13   | 14   | 24,5 | 4   | 14,5 | 31   | 34   | 40 | 47   | 7  | 16           | 10/15/20/25          |
| K0124.106X | 1    | M6                | 10   | 13   | 14   | 24,5 | 4   | 14,5 | 31   | 34   | 40 | 47   | 7  | 16           | 10/15/20/25/30/40/50 |
| K0124.206X | 2    | M6                | 13,5 | 18,5 | 19   | 28,5 | 6,5 | 17,5 | 42,5 | 45,5 | 65 | 74,5 | 10 | 20           | 15/20/25/30/40/50/60 |
| K0124.208X | 2    | M8                | 13,5 | 18,5 | 19   | 28,5 | 6,5 | 17,5 | 42,5 | 45,5 | 65 | 74,5 | 10 | 20           | 15/20/25/30/40/50/60 |
| K0124.210X | 2    | M10               | 13,5 | 18,5 | 19   | 28,5 | 6,5 | 17,5 | 42,5 | 45,5 | 65 | 74,5 | 10 | 20           | 20/25/30/40/50/60    |
| K0124.308X | 3    | M8                | 16   | 21   | 22   | 37   | 10  | 24   | 54,5 | 58,5 | 80 | 91   | 11 | 22           | 20/25/30/40/50/60    |
| K0124.310X | 3    | M10               | 16   | 21   | 22   | 37   | 10  | 24   | 54,5 | 58,5 | 80 | 91   | 11 | 22           | 20/25/30/40/50/60    |
| K0124.412X | 4    | M12               | 19   | 27   | 27,5 | 43   | 10  | 27   | 63   | 67,5 | 95 | 109  | 13 | 24           | 25/30/40/50/60       |

## Clamp levers in stainless steel with protective cap

with internal thread



**Material:**

Handle in precision cast 1.4308, other steel parts 1.4305

**Surface finish:**

Handle electrolytically polished. Steel parts natural finish.

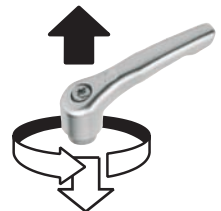
**Sample order:**

K0124.9208

**On request:**

Other internal threads and special versions. Dimension „H1“ available in other lengths at extra charge.

disengage by lifting

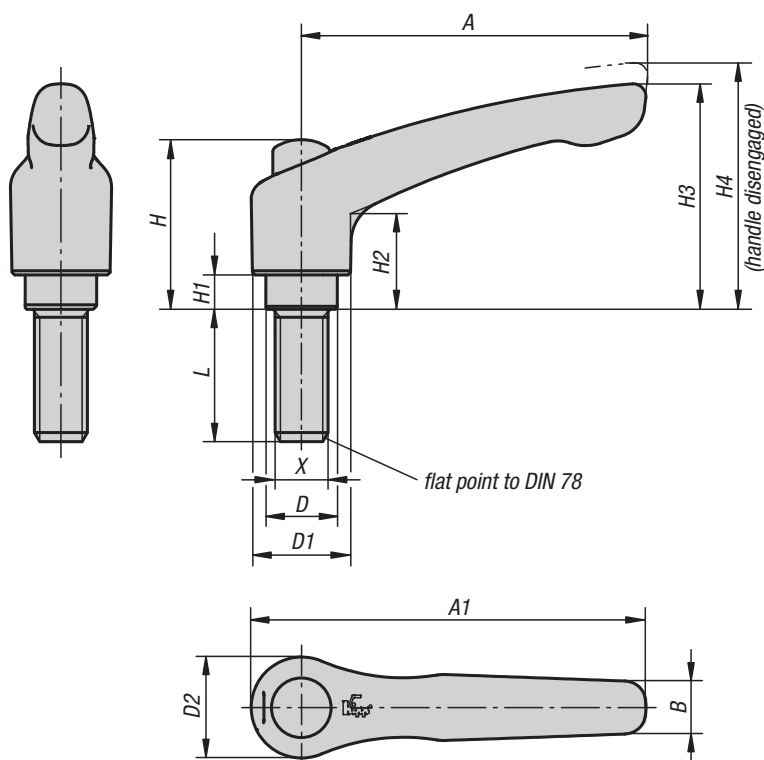


### KIPP Clamp levers in stainless steel with protective cap with internal thread

| Order No.  | Size | Internal thread X | T  | D    | D1   | D2 | B  | A  | A1   | H    | H1  | H2   | H3   | H4   | No. of teeth | Approx. weight kg |
|------------|------|-------------------|----|------|------|----|----|----|------|------|-----|------|------|------|--------------|-------------------|
| K0124.9206 | 2    | M6                | 12 | 13,5 | 18,5 | 19 | 10 | 65 | 74,5 | 32   | 6,5 | 17,5 | 42,5 | 45,5 | 20           | 0,091             |
| K0124.9208 | 2    | M8                | 12 | 13,5 | 18,5 | 19 | 10 | 65 | 74,5 | 32   | 6,5 | 17,5 | 42,5 | 45,5 | 20           | 0,089             |
| K0124.9308 | 3    | M8                | 14 | 16   | 21   | 22 | 11 | 80 | 91   | 41,5 | 10  | 24   | 54,5 | 58,5 | 22           | 0,015             |
| K0124.9310 | 3    | M10               | 14 | 16   | 21   | 22 | 11 | 80 | 91   | 41,5 | 10  | 24   | 54,5 | 58,5 | 22           | 0,016             |

## Clamp levers in stainless steel with protective cap

with external thread



**Material:**

Handle in precision cast 1.4308,  
other steel parts 1.4305

**Surface finish:**

Handle in stainless steel electrolytic-polish;  
steel parts natural finish

**Sample order:**

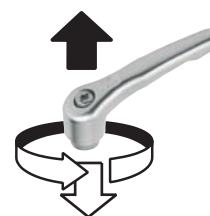
K0124.9208X30 (please also indicate dimension L)

**On request:**

Other external threads, screw lengths and special versions.

Dimension „H1“ available in other lengths at extra charge.

disengage  
by lifting



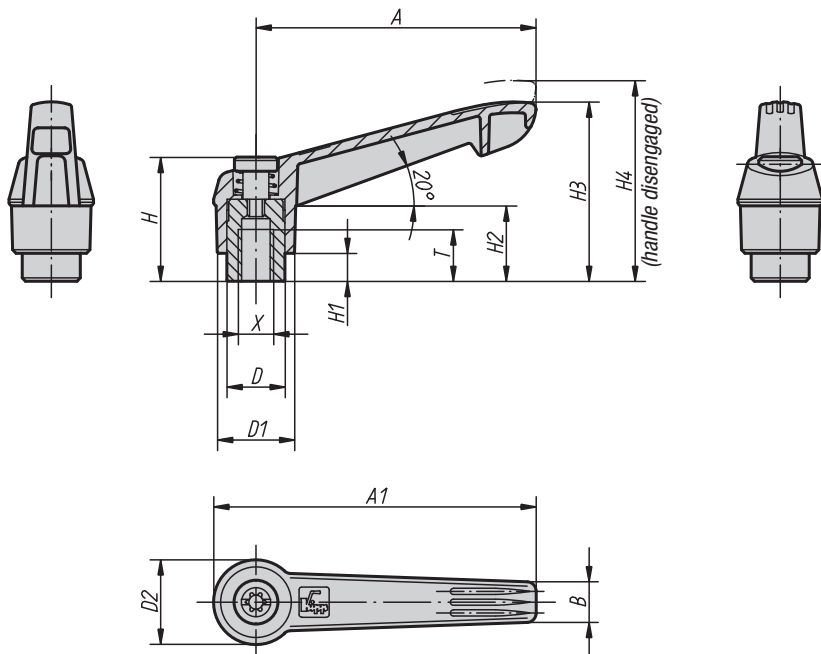
### KIPP Clamp levers in stainless steel with protective cap, with external thread

| Order No.   | Size | External thread X | D    | D1   | D2 | H    | H1  | H2   | H3   | H4   | A  | A1   | B  | No. of teeth | L = screw length     |
|-------------|------|-------------------|------|------|----|------|-----|------|------|------|----|------|----|--------------|----------------------|
| K0124.9206X | 2    | M6                | 13,5 | 18,5 | 19 | 32   | 6,5 | 17,5 | 42,5 | 45,5 | 65 | 74,5 | 10 | 20           | 15/20/25/30/40/50/60 |
| K0124.9208X | 2    | M8                | 13,5 | 18,5 | 19 | 32   | 6,5 | 17,5 | 42,5 | 45,5 | 65 | 74,5 | 10 | 20           | 15/20/25/30/40/50/60 |
| K0124.9210X | 2    | M10               | 13,5 | 18,5 | 19 | 32   | 6,5 | 17,5 | 42,5 | 45,5 | 65 | 74,5 | 10 | 20           | 20/25/30/40/50/60    |
| K0124.9308X | 3    | M8                | 16   | 21   | 22 | 41,5 | 10  | 24   | 54,5 | 58,5 | 80 | 91   | 11 | 22           | 20/25/30/40/50/60    |
| K0124.9310X | 3    | M10               | 16   | 21   | 22 | 41,5 | 10  | 24   | 54,5 | 58,5 | 80 | 91   | 11 | 22           | 20/25/30/40/50/60    |

## Clamp levers

with internal thread and plastic handle

**N<sup>G</sup>**



For many people the Novo-Grip clamp lever represents the key to secure and comfortable gripping. This lever provides a future-oriented and powerful solution for almost any operating and clamping problem.

**Material, surface finish:**

Handle in glass-fibre reinforced plastic with toothed wheel in die cast zinc; steel parts quality class 5.8, black oxide finish

**Sample order:**

K0269.10486 (clamp lever colour signal green)

**Note:**

Δ Add the desired clamp lever colour here

**On request:**

Other internal threads and special versions. Dimension „H1“ available in other lengths at extra charge.

disengage by lifting



|                                       |                              |                                     |                                    |                                      |                                     |
|---------------------------------------|------------------------------|-------------------------------------|------------------------------------|--------------------------------------|-------------------------------------|
| anthracite grey Δ = 1<br><br>RAL 7021 | orange Δ = 2<br><br>RAL 2004 | signal green Δ = 86<br><br>RAL 6032 | traffic red Δ = 84<br><br>RAL 3020 | bright yellow Δ = 16<br><br>RAL 1021 | traffic blue Δ = 87<br><br>RAL 5017 |
|---------------------------------------|------------------------------|-------------------------------------|------------------------------------|--------------------------------------|-------------------------------------|

### KIPP Clamp levers with internal thread and plastic handle

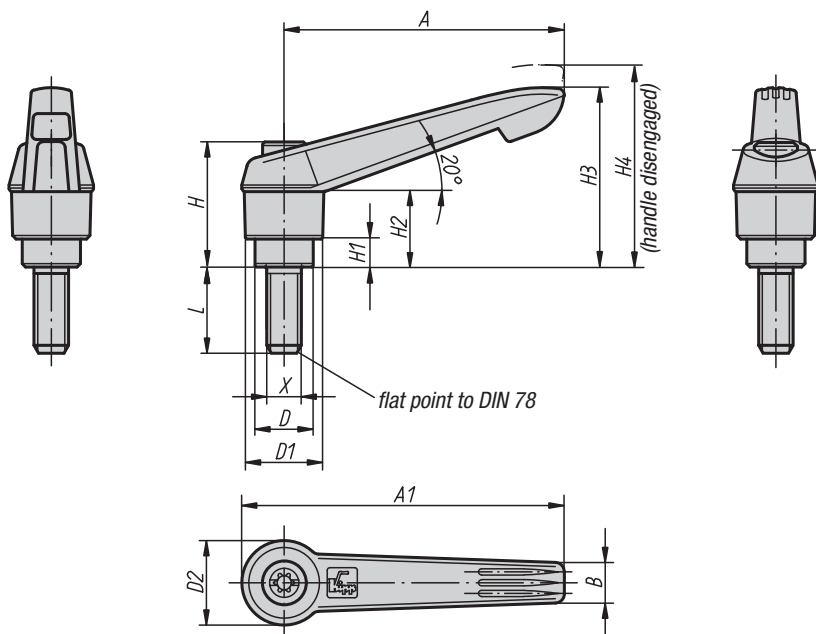
| Order No.  | Size | Internal thread X | T  | D    | D1   | D2   | H    | H1  | H2   | H3   | H4   | A   | A1   | B    | No. of teeth | Approx. weight kg |
|------------|------|-------------------|----|------|------|------|------|-----|------|------|------|-----|------|------|--------------|-------------------|
| K0269.104Δ | 1    | M4                | 9  | 10   | 13   | 14,5 | 24,5 | 4   | 15   | 30   | 33,5 | 40  | 47   | 7,5  | 16           | 0,013             |
| K0269.105Δ | 1    | M5                | 9  | 10   | 13   | 14,5 | 24,5 | 4   | 15   | 30   | 33,5 | 40  | 47   | 7,5  | 16           | 0,013             |
| K0269.106Δ | 1    | M6                | 9  | 10   | 13   | 14,5 | 24,5 | 4   | 15   | 30   | 33,5 | 40  | 47   | 7,5  | 16           | 0,013             |
| K0269.206Δ | 2    | M6                | 12 | 13,5 | 18   | 19,5 | 28,5 | 6,5 | 17,5 | 41,5 | 45,5 | 65  | 75   | 9,5  | 20           | 0,029             |
| K0269.208Δ | 2    | M8                | 12 | 13,5 | 18   | 19,5 | 28,5 | 6,5 | 17,5 | 41,5 | 45,5 | 65  | 75   | 9,5  | 20           | 0,029             |
| K0269.308Δ | 3    | M8                | 14 | 16   | 21,5 | 23   | 37   | 10  | 24   | 53,5 | 58   | 80  | 91,5 | 11   | 22           | 0,050             |
| K0269.310Δ | 3    | M10               | 14 | 16   | 21,5 | 23   | 37   | 10  | 24   | 53,5 | 58   | 80  | 91,5 | 11   | 22           | 0,050             |
| K0269.410Δ | 4    | M10               | 17 | 19   | 25,5 | 27,5 | 43   | 10  | 26   | 61   | 66   | 95  | 109  | 13   | 24           | 0,078             |
| K0269.412Δ | 4    | M12               | 17 | 19   | 25,5 | 27,5 | 43   | 10  | 26   | 61   | 66   | 95  | 109  | 13   | 24           | 0,078             |
| K0269.512Δ | 5    | M12               | 23 | 23   | 30   | 32,5 | 49   | 12  | 33   | 72   | 77   | 110 | 126  | 15,5 | 26           | 0,130             |
| K0269.516Δ | 5    | M16               | 23 | 23   | 30   | 32,5 | 49   | 12  | 33   | 72   | 77   | 110 | 126  | 15,5 | 26           | 0,130             |



## Clamp levers

with external thread and plastic handle

**N<sup>G</sup>**



For many people the Novo-Grip clamp lever represents the key to secure and comfortable gripping. This lever provides a future-oriented and powerful solution for almost any operating and clamping problem.

**Material, surface finish:**

Handle in glass-fibre reinforced plastic with toothed wheel in die cast zinc; steel parts quality class 5.8, black oxide finish

**Sample order:**

K0269.1051X40 (clamp lever anthracite grey; please also indicate dimension L)

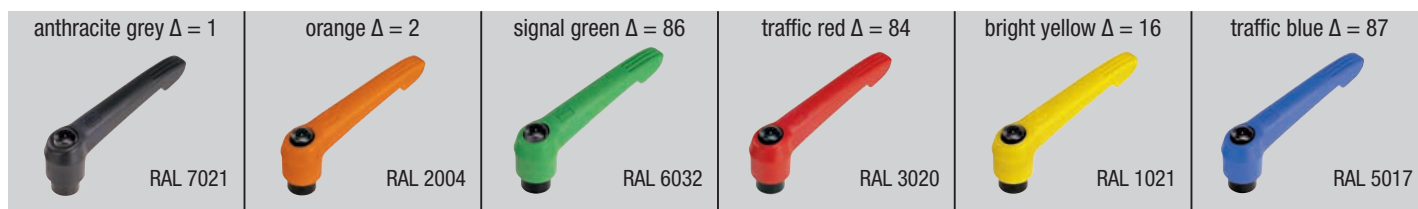
**Note:**

Δ Add the desired clamp lever colour here

**On request:**

Other external threads, screw lengths and special versions.  
Dimension „H1“ available in other lengths at extra charge.

disengage by lifting



### KIPP Clamp levers with external thread and plastic handle

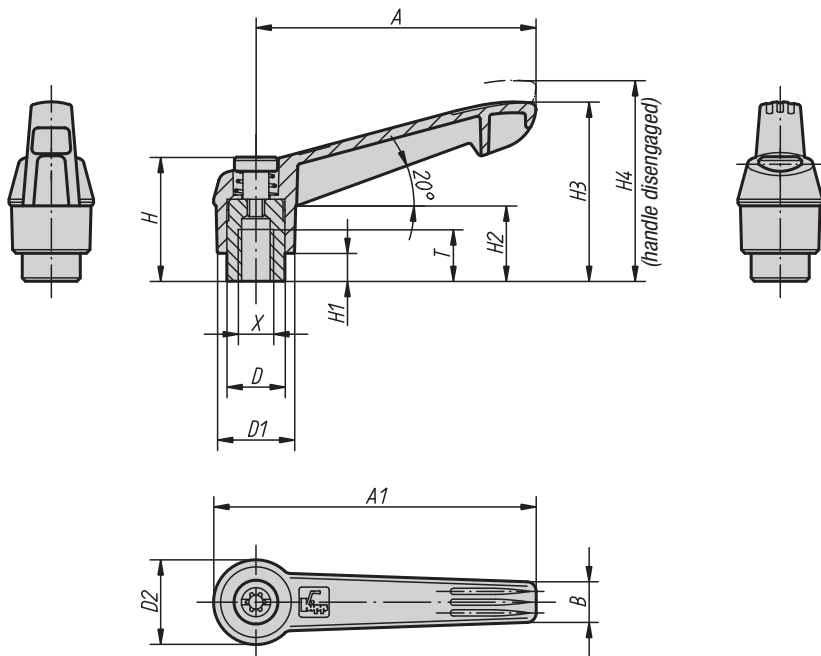
| Order No.   | Size | External thread X | D    | D1   | D2   | H    | H1  | H2   | H3   | H4   | A   | A1   | B    | No. of teeth | L = screw length                    |
|-------------|------|-------------------|------|------|------|------|-----|------|------|------|-----|------|------|--------------|-------------------------------------|
| K0269.105ΔX | 1    | M5                | 10   | 13   | 14,5 | 24,5 | 4   | 15   | 30   | 33,5 | 40  | 47   | 7,5  | 16           | 10/15/20/25/30/35/40/45/50          |
| K0269.106ΔX | 1    | M6                | 10   | 13   | 14,5 | 24,5 | 4   | 15   | 30   | 33,5 | 40  | 47   | 7,5  | 16           | 10/15/20/25/30/35/40/45/50          |
| K0269.206ΔX | 2    | M6                | 13,5 | 18   | 19,5 | 28,5 | 6,5 | 17,5 | 41,5 | 45,5 | 65  | 75   | 9,5  | 20           | 15/20/25/30/35/40/45/50/55/60       |
| K0269.208ΔX | 2    | M8                | 13,5 | 18   | 19,5 | 28,5 | 6,5 | 17,5 | 41,5 | 45,5 | 65  | 75   | 9,5  | 20           | 15/20/25/30/35/40/45/50/55/60       |
| K0269.210ΔX | 2    | M10               | 13,5 | 18   | 19,5 | 28,5 | 6,5 | 17,5 | 41,5 | 45,5 | 65  | 75   | 9,5  | 20           | 15/20/25/30/35/40/45/50/55/60       |
| K0269.308ΔX | 3    | M8                | 16   | 21,5 | 23   | 37   | 10  | 24   | 53,5 | 58   | 80  | 91,5 | 11   | 22           | 15/20/25/30/35/40/45/50/55/60       |
| K0269.310ΔX | 3    | M10               | 16   | 21,5 | 23   | 37   | 10  | 24   | 53,5 | 58   | 80  | 91,5 | 11   | 22           | 15/20/25/30/35/40/45/50/55/60       |
| K0269.410ΔX | 4    | M10               | 19   | 25,5 | 27,5 | 43   | 10  | 26   | 61   | 66   | 95  | 109  | 13   | 24           | 20/25/30/35/40/45/50/55/60/70/80/90 |
| K0269.412ΔX | 4    | M12               | 19   | 25,5 | 27,5 | 43   | 10  | 26   | 61   | 66   | 95  | 109  | 13   | 24           | 20/25/30/35/40/45/50/55/60/70/80/90 |
| K0269.512ΔX | 5    | M12               | 23   | 30   | 32,5 | 49   | 12  | 33   | 72   | 77   | 110 | 126  | 15,5 | 26           | 25/30/35/40/45/50/55/60/70/80/90    |
| K0269.516ΔX | 5    | M16               | 23   | 30   | 32,5 | 49   | 12  | 33   | 72   | 77   | 110 | 126  | 15,5 | 26           | 25/30/35/40/45/50/55/60/70/80/90    |



# Clamp levers

with internal thread and plastic handle, steel parts in stainless steel

**N<sup>G</sup>**



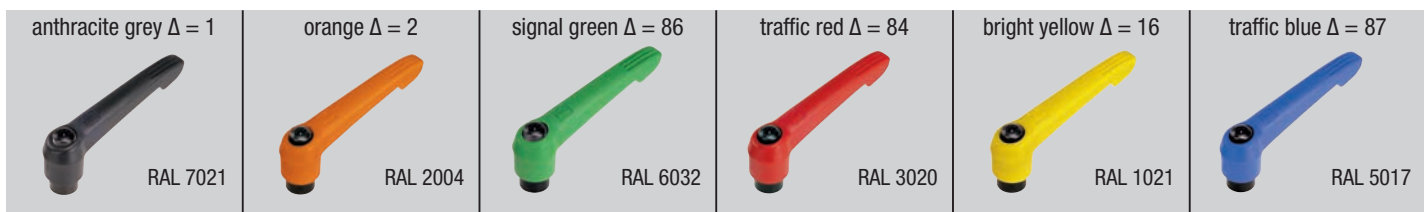
**For many people the Novo-Grip clamp lever represents the key to secure and comfortable gripping. This lever provides a future-oriented and powerful solution for almost any operating and clamping problem.**

**Material, surface finish:**  
 Handle in glass-fibre reinforced plastic with toothed wheel in die cast zinc;  
 steel parts in stainless steel 1.4305, natural finish

**Sample order:**  
 K0270.10486 (clamp lever colour signal green)

**Note:**  
 Δ Add the desired clamp lever colour here

**On request:**  
 Other internal threads and special versions.  
 Dimension „H1“ available in other lengths at extra charge.



## KIPP Clamp levers with internal thread and plastic handle, steel parts in stainless steel

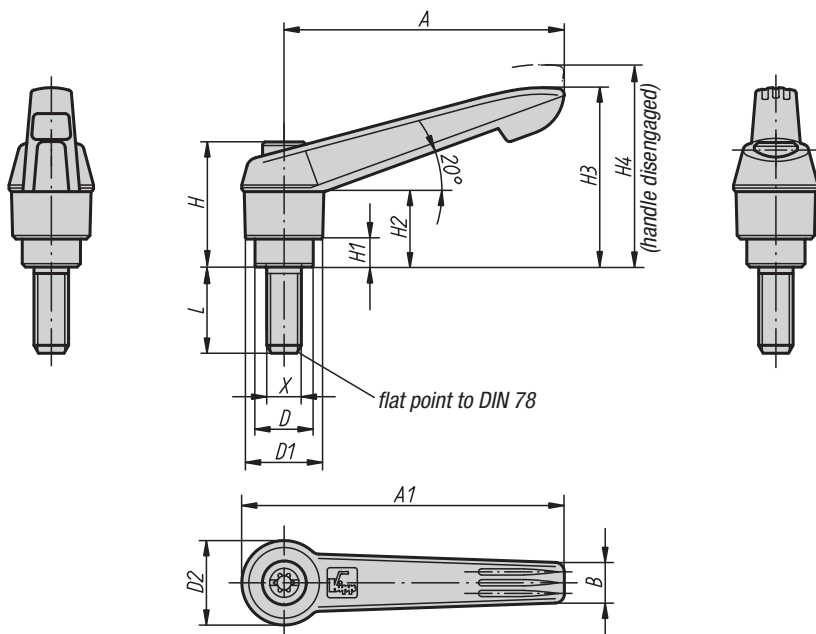
| Order No.  | Size | Internal thread X | T  | D    | D1   | D2   | H    | H1  | H2   | H3   | H4   | A   | A1   | B    | No. of teeth | Approx. weight kg |
|------------|------|-------------------|----|------|------|------|------|-----|------|------|------|-----|------|------|--------------|-------------------|
| K0270.104Δ | 1    | M4                | 9  | 10   | 13   | 14,5 | 24,5 | 4   | 15   | 30   | 33,5 | 40  | 47   | 7,5  | 16           | 0,013             |
| K0270.105Δ | 1    | M5                | 9  | 10   | 13   | 14,5 | 24,5 | 4   | 15   | 30   | 33,5 | 40  | 47   | 7,5  | 16           | 0,013             |
| K0270.106Δ | 1    | M6                | 9  | 10   | 13   | 14,5 | 24,5 | 4   | 15   | 30   | 33,5 | 40  | 47   | 7,5  | 16           | 0,013             |
| K0270.206Δ | 2    | M6                | 12 | 13,5 | 18   | 19,5 | 28,5 | 6,5 | 17,5 | 41,5 | 45,5 | 65  | 75   | 9,5  | 20           | 0,029             |
| K0270.208Δ | 2    | M8                | 12 | 13,5 | 18   | 19,5 | 28,5 | 6,5 | 17,5 | 41,5 | 45,5 | 65  | 75   | 9,5  | 20           | 0,029             |
| K0270.308Δ | 3    | M8                | 14 | 16   | 21,5 | 23   | 37   | 10  | 24   | 53,5 | 58   | 80  | 91,5 | 11   | 22           | 0,050             |
| K0270.310Δ | 3    | M10               | 14 | 16   | 21,5 | 23   | 37   | 10  | 24   | 53,5 | 58   | 80  | 91,5 | 11   | 22           | 0,050             |
| K0270.410Δ | 4    | M10               | 17 | 19   | 25,5 | 27,5 | 43   | 10  | 26   | 61   | 66   | 95  | 109  | 13   | 24           | 0,078             |
| K0270.412Δ | 4    | M12               | 17 | 19   | 25,5 | 27,5 | 43   | 10  | 26   | 61   | 66   | 95  | 109  | 13   | 24           | 0,078             |
| K0270.512Δ | 5    | M12               | 23 | 23   | 30   | 32,5 | 49   | 12  | 33   | 72   | 77   | 110 | 126  | 15,5 | 26           | 0,130             |
| K0270.516Δ | 5    | M16               | 23 | 23   | 30   | 32,5 | 49   | 12  | 33   | 72   | 77   | 110 | 126  | 15,5 | 26           | 0,130             |



## Clamp levers

with external thread and plastic handle, steel parts in stainless steel

**N<sup>G</sup>**



For many people the Novo-Grip clamp lever represents the key to secure and comfortable gripping. This lever provides a future-oriented and powerful solution for almost any operating and clamping problem.

**Material, surface finish:**

Handle in glass-fibre reinforced plastic with toothed wheel in die cast zinc; steel parts in stainless steel 1.4305, natural finish

**Sample order:**

K0270.1051X20 (clamp lever anthracite grey; please also indicate dimension L)

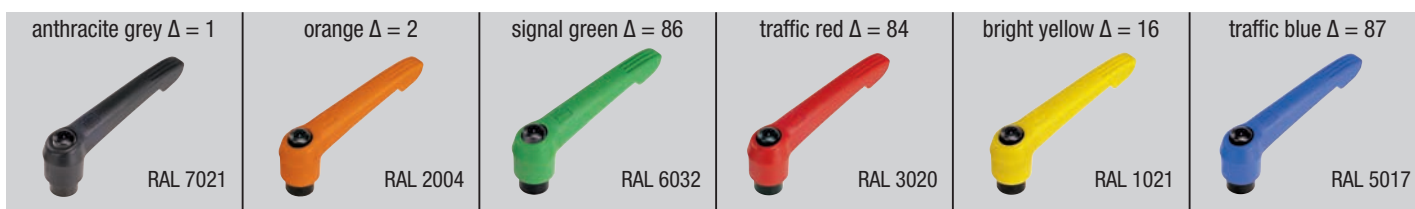
**Note:**

Δ Add the desired clamp lever colour here

**On request:**

Other external threads, screw lengths and special versions.

Dimension „H1“ available in other lengths at extra charge.



### KIPP Clamp levers with external thread and plastic handle, steel parts in stainless steel

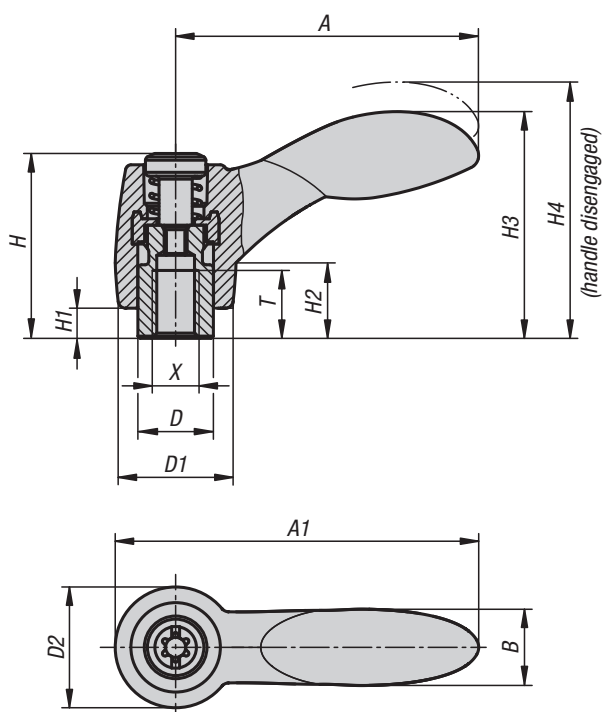
| Order No.   | Size | External thread X | D    | D1   | D2   | H    | H1  | H2   | H3   | H4   | A   | A1   | B    | No. of teeth | L = screw length     |
|-------------|------|-------------------|------|------|------|------|-----|------|------|------|-----|------|------|--------------|----------------------|
| K0270.105ΔX | 1    | M5                | 10   | 13   | 14,5 | 24,5 | 4   | 15   | 30   | 33,5 | 40  | 47   | 7,5  | 16           | 10/15/20/25          |
| K0270.106ΔX | 1    | M6                | 10   | 13   | 14,5 | 24,5 | 4   | 15   | 30   | 33,5 | 40  | 47   | 7,5  | 16           | 10/15/20/25/30/40/50 |
| K0270.206ΔX | 2    | M6                | 13,5 | 18   | 19,5 | 28,5 | 6,5 | 17,5 | 41,5 | 45,5 | 65  | 75   | 9,5  | 20           | 15/20/25/30/40/50/60 |
| K0270.208ΔX | 2    | M8                | 13,5 | 18   | 19,5 | 28,5 | 6,5 | 17,5 | 41,5 | 45,5 | 65  | 75   | 9,5  | 20           | 15/20/25/30/40/50/60 |
| K0270.210ΔX | 2    | M10               | 13,5 | 18   | 19,5 | 28,5 | 6,5 | 17,5 | 41,5 | 45,5 | 65  | 75   | 9,5  | 20           | 20/25/30/40/50/60    |
| K0270.308ΔX | 3    | M8                | 16   | 21,5 | 23   | 37   | 10  | 24   | 53,5 | 58   | 80  | 91,5 | 11   | 22           | 20/25/30/40/50/60    |
| K0270.310ΔX | 3    | M10               | 16   | 21,5 | 23   | 37   | 10  | 24   | 53,5 | 58   | 80  | 91,5 | 11   | 22           | 20/25/30/40/50/60    |
| K0270.412ΔX | 4    | M12               | 19   | 25,5 | 27,5 | 43   | 10  | 26   | 61   | 66   | 95  | 109  | 13   | 24           | 25/30/40/50/60       |
| K0270.516ΔX | 5    | M16               | 23   | 30   | 32,5 | 49   | 12  | 33   | 72   | 77   | 110 | 126  | 15,5 | 26           | 30/40/50/60          |

## Clamp levers 2K „Cockatoo“

two-component with internal thread



**S<sup>T</sup>**



**Material:**

Handle:

Hard component in glass-fibre-reinforced plastic with toothed wheel in die cast zinc.

Soft component: Thermoflex based on SEBS.

Steel parts:

Strength class 5.8.

**Surface finish:**

Steel parts black oxide finish

**Sample order:**

K0125.1041

**Note:**

The colour combination anthracite grey RAL 7021 (hard component) and traffic blue RAL 5017 (soft component) is delivered as standard.

**On request:**

Other internal threads, colour combinations and special versions.

Dimension „H1“ available in other lengths on request at extra charge.

### KIPP Clamp levers 2K with internal thread

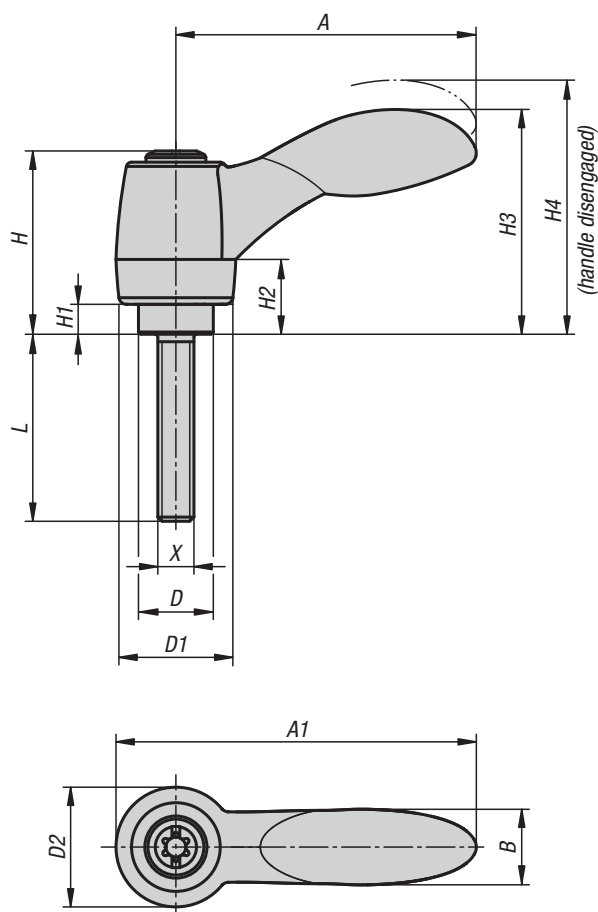
| Order No.  | Size | Internal thread X | T  | D    | D1   | D2 | H    | H1  | H2   | H3   | H4   | A    | A1   | B    | No. of teeth |
|------------|------|-------------------|----|------|------|----|------|-----|------|------|------|------|------|------|--------------|
| K0125.1041 | 1    | M4                | 9  | 10   | 15   | 16 | 24,5 | 4   | 10   | 30   | 33,5 | 40,1 | 48,1 | 10,1 | 16           |
| K0125.1051 | 1    | M5                | 9  | 10   | 15   | 16 | 24,5 | 4   | 10   | 30   | 33,5 | 40,1 | 48,1 | 10,1 | 16           |
| K0125.1061 | 1    | M6                | 9  | 10   | 15   | 16 | 24,5 | 4   | 10   | 30   | 33,5 | 40,1 | 48,1 | 10,1 | 16           |
| K0125.2061 | 2    | M6                | 12 | 13,5 | 17,5 | 19 | 28,5 | 6,5 | 12,5 | 41,2 | 45,2 | 64,9 | 74,4 | 17,6 | 20           |
| K0125.2081 | 2    | M8                | 12 | 13,5 | 17,5 | 19 | 28,5 | 6,5 | 12,5 | 41,2 | 45,2 | 64,9 | 74,4 | 17,6 | 20           |
| K0125.3081 | 3    | M8                | 14 | 16   | 21   | 22 | 37   | 10  | 17   | 51,6 | 56,1 | 80,2 | 91,2 | 20,7 | 22           |
| K0125.3101 | 3    | M10               | 14 | 16   | 21   | 22 | 37   | 10  | 17   | 51,6 | 56,1 | 80,2 | 91,2 | 20,7 | 22           |

# Clamp levers 2K „Cockatoo“

two-component with external thread



**S<sup>T</sup>**



**Material:**

Handle:  
 Hard component in glass-fibre-reinforced plastic with toothed wheel in die cast zinc.  
 Soft component: Thermoflex based on SEBS.  
 Steel parts:  
 Strength class 5.8.

**Surface finish:**

Steel parts black oxide finish

**Sample order:**

K0125.1051x30 (please also indicate length L)

**Note:**

The colour combination anthracite grey RAL 7021 (hard component) and traffic blue RAL 5017 (soft component) is delivered as standard.

**On request:**

Other external threads, screw lengths, colour combinations and special versions.  
 Dimension „H1“ available in other lengths on request at extra charge.

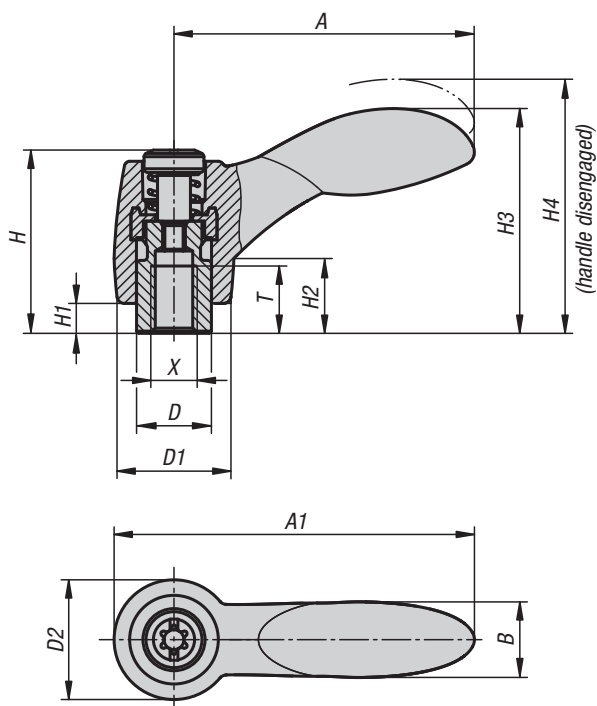
## KIPP Clamp levers 2K with external thread

| Order No.   | Size | External thread X | D    | D1   | D2 | H    | H1  | H2   | H3   | H4   | A    | A1   | B    | No. of teeth | L = screw length              |
|-------------|------|-------------------|------|------|----|------|-----|------|------|------|------|------|------|--------------|-------------------------------|
| K0125.1051X | 1    | M5                | 10   | 15   | 16 | 24,5 | 4   | 10   | 30   | 33,5 | 40,1 | 48,1 | 10,1 | 16           | 10/15/20/25/30/35/40/45/50    |
| K0125.1061X | 1    | M6                | 10   | 15   | 16 | 24,5 | 4   | 10   | 30   | 33,5 | 40,1 | 48,1 | 10,1 | 16           | 10/15/20/25/30/35/40/45/50    |
| K0125.2061X | 2    | M6                | 13,5 | 17,5 | 19 | 28,5 | 6,5 | 12,5 | 41,2 | 45,2 | 64,9 | 74,4 | 17,6 | 20           | 15/20/25/30/35/40/45/50/55/60 |
| K0125.2081X | 2    | M8                | 13,5 | 17,5 | 19 | 28,5 | 6,5 | 12,5 | 41,2 | 45,2 | 64,9 | 74,4 | 17,6 | 20           | 15/20/25/30/35/40/45/50/55/60 |
| K0125.2101X | 2    | M10               | 13,5 | 17,5 | 19 | 28,5 | 6,5 | 12,5 | 41,2 | 45,2 | 64,9 | 74,4 | 17,6 | 20           | 15/20/25/30/35/40/45/50/55/60 |
| K0125.3081X | 3    | M8                | 16   | 21   | 22 | 37   | 10  | 17   | 51,6 | 56,1 | 80,2 | 91,2 | 20,7 | 22           | 15/20/25/30/35/40/45/50/55/60 |
| K0125.3101X | 3    | M10               | 16   | 21   | 22 | 37   | 10  | 17   | 51,6 | 56,1 | 80,2 | 91,2 | 20,7 | 22           | 15/20/25/30/35/40/45/50/55/60 |

# Clamp levers 2K „Cockatoo“

two-component with internal thread, steel parts in stainless steel

S<sup>T</sup>



**Material:**

Handle:  
 Hard component in glass-fibre-reinforced plastic with toothed wheel in die cast zinc.  
 Soft component: Thermoflex based on SEBS.  
 Steel parts:  
 Stainless steel, 1.4305.

**Surface finish:**

Steel parts natural finish.

**Sample order:**

K0126.1041

**Note:**

The colour combination anthracite grey RAL 7021 (hard component) and traffic blue RAL 5017 (soft component) is delivered as standard.

**On request:**

Other internal threads, colour combinations and special versions.  
 Dimension „H1“ available in other lengths on request at extra charge.

**KIPP Clamp levers 2K with internal thread, steel parts in stainless steel**

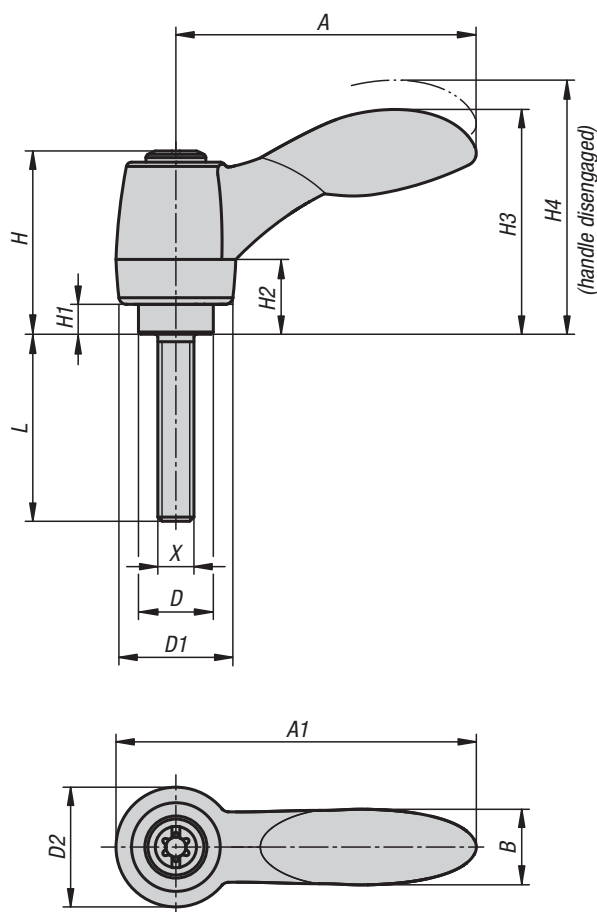
| Order No.  | Size | Internal thread X | T  | D    | D1   | D2 | H    | H1  | H2   | H3   | H4   | A    | A1   | B    | No. of teeth |
|------------|------|-------------------|----|------|------|----|------|-----|------|------|------|------|------|------|--------------|
| K0126.1041 | 1    | M4                | 9  | 10   | 15   | 16 | 24,5 | 4   | 10   | 30   | 33,5 | 40,1 | 48,1 | 10,1 | 16           |
| K0126.1051 | 1    | M5                | 9  | 10   | 15   | 16 | 24,5 | 4   | 10   | 30   | 33,5 | 40,1 | 48,1 | 10,1 | 16           |
| K0126.1061 | 1    | M6                | 9  | 10   | 15   | 16 | 24,5 | 4   | 10   | 30   | 33,5 | 40,1 | 48,1 | 10,1 | 16           |
| K0126.2061 | 2    | M6                | 12 | 13,5 | 17,5 | 19 | 28,5 | 6,5 | 12,5 | 41,2 | 45,2 | 64,9 | 74,4 | 17,6 | 20           |
| K0126.2081 | 2    | M8                | 12 | 13,5 | 17,5 | 19 | 28,5 | 6,5 | 12,5 | 41,2 | 45,2 | 64,9 | 74,4 | 17,6 | 20           |
| K0126.3081 | 3    | M8                | 14 | 16   | 21   | 22 | 37   | 10  | 17   | 51,6 | 56,1 | 80,2 | 91,2 | 20,7 | 22           |
| K0126.3101 | 3    | M10               | 14 | 16   | 21   | 22 | 37   | 10  | 17   | 51,6 | 56,1 | 80,2 | 91,2 | 20,7 | 22           |

## Clamp levers 2K „Cockatoo“

two-component with external thread, steel parts in stainless steel



**S<sup>T</sup>**



**Material:**

Handle:

Hard component in glass-fibre-reinforced plastic with toothed wheel in die cast zinc.

Soft component: Thermoflex based on SEBS.

Steel parts:

Stainless steel 1.4305

**Surface finish:**

Steel parts natural finish.

**Sample order:**

K0126.1051X10 (please also indicate dimension L)

**Note:**

The colour combination anthracite grey RAL 7021 (hard component) and traffic blue RAL 5017 (soft component) is delivered as standard.

**On request:**

Other external threads, screw lengths, colour combinations and special versions.

Dimension „H1“ available in other lengths at extra charge.

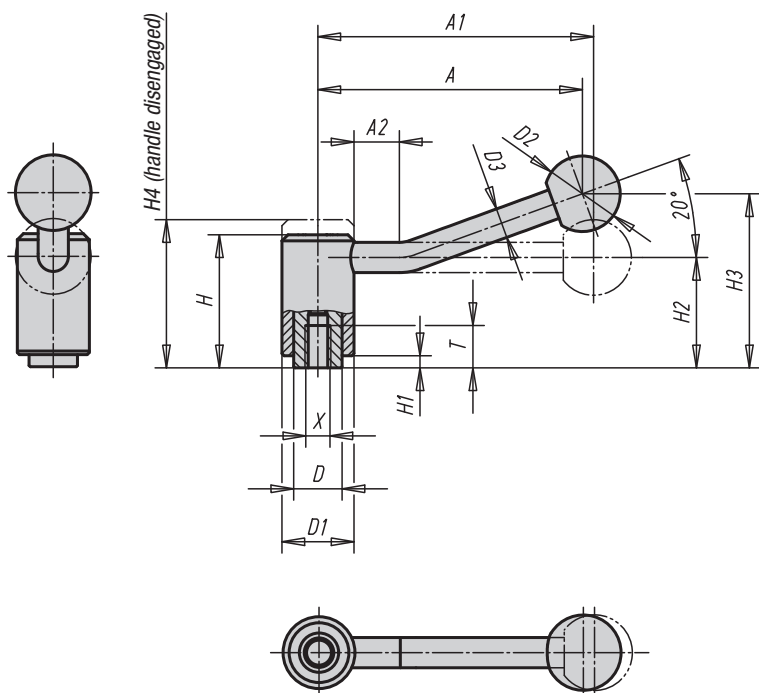
### KIPP Clamp levers 2K with external thread, steel parts in stainless steel

| Order No.   | Size | External thread X | D    | D1   | D2 | H    | H1  | H2   | H3   | H4   | A    | A1   | B    | No. of teeth | L = screw length     |
|-------------|------|-------------------|------|------|----|------|-----|------|------|------|------|------|------|--------------|----------------------|
| K0126.1051X | 1    | M5                | 10   | 15   | 16 | 24,5 | 4   | 10   | 30   | 33,5 | 40,1 | 48,1 | 10,1 | 16           | 10/15/20/25          |
| K0126.1061X | 1    | M6                | 10   | 15   | 16 | 24,5 | 4   | 10   | 30   | 33,5 | 40,1 | 48,1 | 10,1 | 16           | 10/15/20/25/30/40/50 |
| K0126.2061X | 2    | M6                | 13,5 | 17,5 | 19 | 28,5 | 6,5 | 12,5 | 41,2 | 45,2 | 64,9 | 74,4 | 17,6 | 20           | 15/20/25/30/40/50/60 |
| K0126.2081X | 2    | M8                | 13,5 | 17,5 | 19 | 28,5 | 6,5 | 12,5 | 41,2 | 45,2 | 64,9 | 74,4 | 17,6 | 20           | 15/20/25/30/40/50/60 |
| K0126.2101X | 2    | M10               | 13,5 | 17,5 | 19 | 28,5 | 6,5 | 12,5 | 41,2 | 45,2 | 64,9 | 74,4 | 17,6 | 20           | 20/25/30/40/50/60    |
| K0126.3081X | 3    | M8                | 16   | 21   | 22 | 37   | 10  | 17   | 51,6 | 56,1 | 80,2 | 91,2 | 20,7 | 22           | 20/25/30/40/50/60    |
| K0126.3101X | 3    | M10               | 16   | 21   | 22 | 37   | 10  | 17   | 51,6 | 56,1 | 80,2 | 91,2 | 20,7 | 22           | 20/25/30/40/50/60    |



## Tension levers

with internal thread



**Material:**

Steel parts quality class 5.8,  
black plastic ball knob

**Surface finish:**

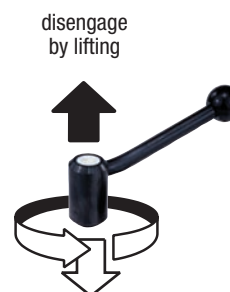
Plastic-coated with fine texture, black

**Sample order:**

K0108.1082

**On request:**

Other internal threads and special versions.  
Dimensions „H1“, „A“ and „A1“ available in other  
lengths at extra charge.

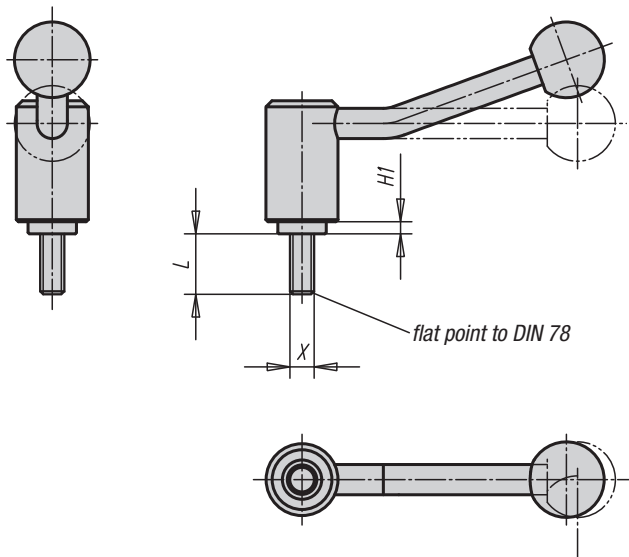


### KIPP Tension levers with internal thread

| Order No.<br>0 degree | Order No.<br>20 degrees | Size | Internal<br>thread<br>X | T  | D  | D1 | D2 | D3 | H    | H1  | H2   | H3     | H4   | A       | A1      | A2   | No. of<br>teeth | Approx.<br>weight<br>kg |
|-----------------------|-------------------------|------|-------------------------|----|----|----|----|----|------|-----|------|--------|------|---------|---------|------|-----------------|-------------------------|
| K0108.1082            | K0108.1081              | 1    | M8                      | 14 | 16 | 24 | 25 | 10 | 44,5 | 4,5 | 37   | -/58,5 | 49,5 | -/88    | 92/-    | -/15 | 22              | 0,170                   |
| K0108.1102            | K0108.1101              | 1    | M10                     | 14 | 16 | 24 | 25 | 10 | 44,5 | 4,5 | 37   | -/58,5 | 49,5 | -/88    | 92/-    | -/15 | 22              | 0,170                   |
| K0108.2102            | K0108.2101              | 2    | M10                     | 17 | 19 | 28 | 32 | 12 | 51,5 | 5,5 | 42   | -/68,5 | 57,5 | -/106   | 111/-   | -/15 | 24              | 0,260                   |
| K0108.2122            | K0108.2121              | 2    | M12                     | 17 | 19 | 28 | 32 | 12 | 51,5 | 5,5 | 42   | -/68,5 | 57,5 | -/106   | 111/-   | -/15 | 24              | 0,260                   |
| K0108.3122            | K0108.3121              | 3    | M12                     | 23 | 23 | 33 | 32 | 13 | 58   | 6   | 47   | -/81   | 65   | -/128,5 | 134,5/- | -/15 | 26              | 0,400                   |
| K0108.3162            | K0108.3161              | 3    | M16                     | 23 | 23 | 33 | 32 | 13 | 58   | 6   | 47   | -/81   | 65   | -/128,5 | 134,5/- | -/15 | 26              | 0,400                   |
| K0108.4162            | K0108.4161              | 4    | M16                     | 27 | 30 | 41 | 32 | 13 | 68,5 | 7,5 | 56,5 | -/89,5 | 76,5 | -/128,5 | 134/-   | -/15 | 36              | 0,670                   |
| K0108.4202            | K0108.4201              | 4    | M20                     | 27 | 30 | 41 | 32 | 13 | 68,5 | 7,5 | 56,5 | -/89,5 | 76,5 | -/128,5 | 134/-   | -/15 | 36              | 0,670                   |
| K0108.4242            | K0108.4241              | 4    | M24                     | 27 | 30 | 41 | 32 | 13 | 68,5 | 7,5 | 56,5 | -/89,5 | 76,5 | -/128,5 | 134/-   | -/15 | 36              | 1,000                   |

## Tension levers

with external thread



**Material:**

Steel parts quality class 5.8,  
black plastic ball knob

**Surface finish:**

Plastic-coated with fine texture, black

**Sample order:**

K0108.1082X30 (please also indicate dimension L)

**Note:**

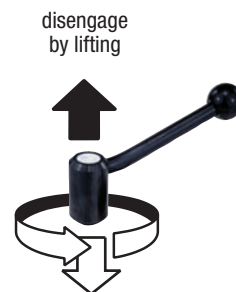
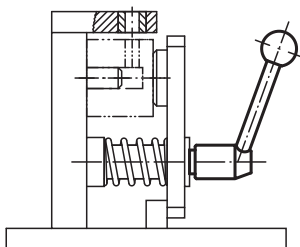
Missing dimensions see tension levers with internal thread.

**On request:**

Other external threads, screw lengths and special versions.

Dimensions „H1“, „A“ and „A1“ available in other lengths at extra charge.

example:



### KIPP Tension levers with external thread

| Order No.<br>0 degree | Order No.<br>20 degrees | Size | External<br>thread<br>X | H1  | L = screw length           |
|-----------------------|-------------------------|------|-------------------------|-----|----------------------------|
| K0108.1082X           | K0108.1081X             | 1    | M8                      | 4,5 | 15/20/25/30/40/50/60       |
| K0108.1102X           | K0108.1101X             | 1    | M10                     | 4,5 | 15/20/25/30/40/50/60       |
| K0108.1122X           | K0108.1121X             | 1    | M12                     | 4,5 | 15/20/25/30/40/50/60       |
| K0108.2122X           | K0108.2121X             | 2    | M12                     | 5,5 | 20/25/30/40/50/60          |
| K0108.3122X           | K0108.3121X             | 3    | M12                     | 6   | 20/25/30/40/50/60/70/80/90 |
| K0108.3162X           | K0108.3161X             | 3    | M16                     | 6   | 20/25/30/40/50/60/70/80/90 |
| K0108.4162X           | K0108.4161X             | 4    | M16                     | 7,5 | 30/40/50/60/70/80/90       |
| K0108.4202X           | K0108.4201X             | 4    | M20                     | 7,5 | 30/40/50/60/70/80/90       |
| K0108.4242X           | K0108.4241X             | 4    | M24                     | 7,5 | 30/40/50/60/70/80/90       |

## Tension levers in stainless steel

with internal thread



**Material:**

Steel parts in stainless steel, 1.4305, black plastic ball knob

**Surface finish:**

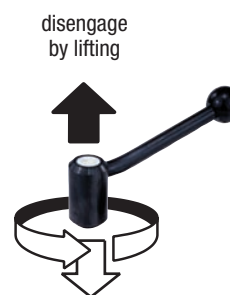
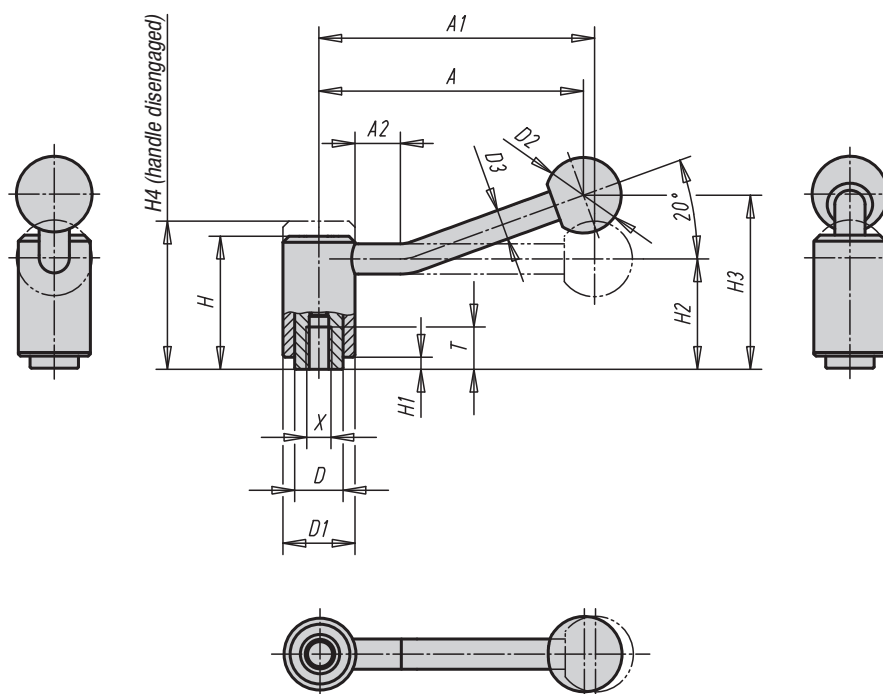
Steel parts natural finish. Ball knob polished.

**Sample order:**

K0109.1082

**On request:**

Other internal threads and special versions. Dimensions „H1“, „A“ and „A1“ available in other lengths at extra charge.

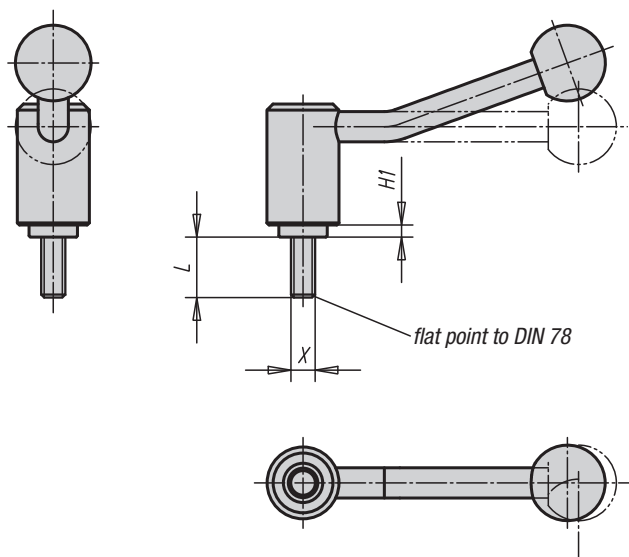


### KIPP Tension levers in stainless steel with internal thread

| Order No.<br>0 degree | Order No.<br>20 degrees | Size | Internal<br>thread<br>X | T  | D  | D1 | D2 | D3 | H    | H1  | H2   | H3     | H4   | A       | A1       | A2   | No. of<br>teeth | Approx.<br>weight<br>kg |
|-----------------------|-------------------------|------|-------------------------|----|----|----|----|----|------|-----|------|--------|------|---------|----------|------|-----------------|-------------------------|
| K0109.1082            | K0109.1081              | 1    | M8                      | 14 | 16 | 24 | 25 | 10 | 44,5 | 4,5 | 37   | -/58,5 | 49,5 | -/88    | 92/ -    | -/15 | 22              | 0,170                   |
| K0109.1102            | K0109.1101              | 1    | M10                     | 14 | 16 | 24 | 25 | 10 | 44,5 | 4,5 | 37   | -/58,5 | 49,5 | -/88    | 92/ -    | -/15 | 22              | 0,170                   |
| K0109.2102            | K0109.2101              | 2    | M10                     | 17 | 19 | 28 | 32 | 12 | 51,5 | 5,5 | 42   | -/68,5 | 57,5 | -/106   | 111/ -   | -/15 | 24              | 0,260                   |
| K0109.2122            | K0109.2121              | 2    | M12                     | 17 | 19 | 28 | 32 | 12 | 51,5 | 5,5 | 42   | -/68,5 | 57,5 | -/106   | 111/ -   | -/15 | 24              | 0,260                   |
| K0109.3122            | K0109.3121              | 3    | M12                     | 23 | 23 | 33 | 32 | 13 | 58   | 6   | 47   | -/81   | 65   | -/128,5 | 134,5/ - | -/15 | 26              | 0,400                   |
| K0109.3162            | K0109.3161              | 3    | M16                     | 23 | 23 | 33 | 32 | 13 | 58   | 6   | 47   | -/81   | 65   | -/128,5 | 134,5/ - | -/15 | 26              | 0,400                   |
| K0109.4162            | K0109.4161              | 4    | M16                     | 27 | 30 | 41 | 32 | 13 | 68,5 | 7,5 | 56,5 | -/89,5 | 76,5 | -/128,5 | 134/ -   | -/15 | 36              | 0,670                   |
| K0109.4202            | K0109.4201              | 4    | M20                     | 27 | 30 | 41 | 32 | 13 | 68,5 | 7,5 | 56,5 | -/89,5 | 76,5 | -/128,5 | 134/ -   | -/15 | 36              | 0,670                   |

## Tension levers in stainless steel

with external thread



**Material:**

Steel parts in stainless steel, 1.4305, black plastic ball knob

**Surface finish:**

Steel parts natural finish

**Sample order:**

K0109.1082X30 (please also indicate dimension L)

**Note:**

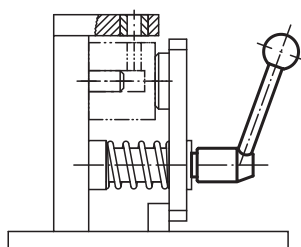
Missing dimensions see tension levers with internal thread.

**On request:**

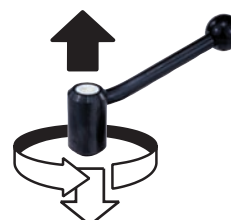
Other external threads, screw lengths and special versions.

Dimensions „H1“, „A“ and „A1“ available in other lengths at extra charge.

example:



disengage  
by lifting

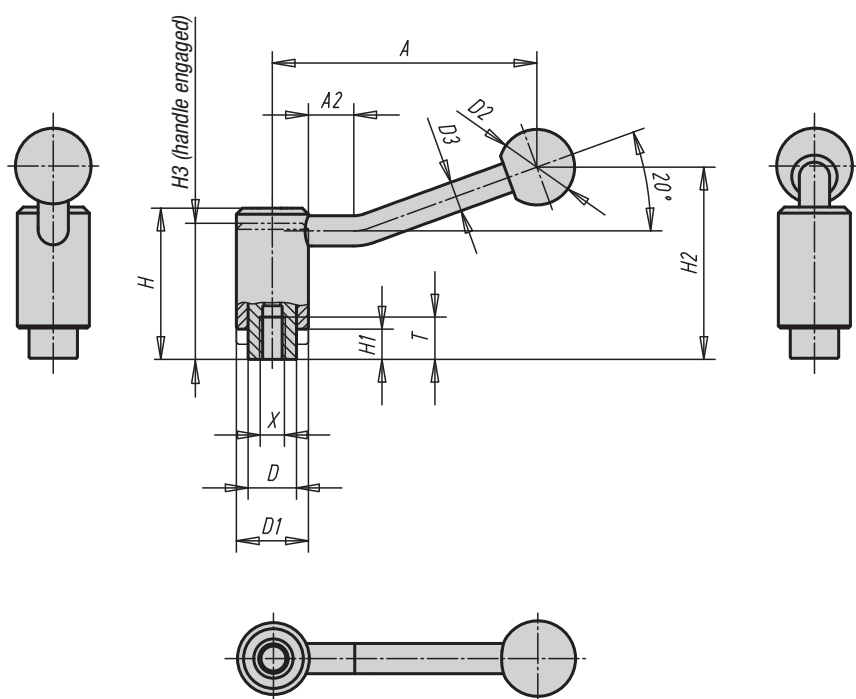


### KIPP Tension levers in stainless steel with external thread

| Order No.<br>0 degree | Order No.<br>20 degrees | Size | External<br>thread<br>X | H1  | L = screw length           |
|-----------------------|-------------------------|------|-------------------------|-----|----------------------------|
| K0109.1082X           | K0109.1081X             | 1    | M8                      | 4,5 | 15/20/25/30/40/50/60       |
| K0109.1102X           | K0109.1101X             | 1    | M10                     | 4,5 | 15/20/25/30/40/50/60       |
| K0109.1122X           | K0109.1121X             | 1    | M12                     | 4,5 | 15/20/25/30/40/50/60       |
| K0109.2122X           | K0109.2121X             | 2    | M12                     | 5,5 | 20/25/30/40/50/60          |
| K0109.3122X           | K0109.3121X             | 3    | M12                     | 6   | 20/25/30/40/50/60/70/80/90 |
| K0109.3162X           | K0109.3161X             | 3    | M16                     | 6   | 20/25/30/40/50/60/70/80/90 |
| K0109.4162X           | K0109.4161X             | 4    | M16                     | 7,5 | 30/40/50/60/70/80/90       |
| K0109.4202X           | K0109.4201X             | 4    | M20                     | 7,5 | 30/40/50/60/70/80/90       |

## Safety tension levers

with internal thread



**Material:**

Steel parts quality class 5.8;  
black plastic ball knob

**Surface finish:**

Plastic-coated with fine texture, black

**Sample order:**

K0112.1108

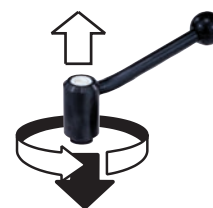
**Method of operation:**

To operate safety tension levers, press the handle down until the teeth are fully engaged. The object concerned can now be clamped or released. Spring pressure releases the locking mechanism immediately, thereby restoring the safety function (handle can be turned effortlessly).

**On request:**

Special versions.  
Dimensions „H1“ and „A“ available in other lengths at extra charge.

engage by pressing (safety function)

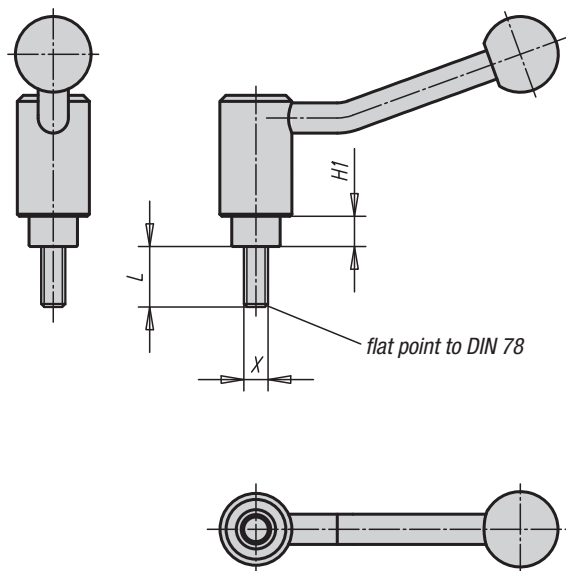


### KIPP Safety tension levers with internal thread

| Order No.  | Size | Internal thread X | T  | D  | D1 | D2 | D3 | H    | H1   | H2   | H3   | A     | A2 | No. of teeth | Approx. weight kg |
|------------|------|-------------------|----|----|----|----|----|------|------|------|------|-------|----|--------------|-------------------|
| K0112.1108 | 1    | M8                | 14 | 16 | 24 | 25 | 10 | 49,5 | 9,5  | 63,5 | 44,5 | 88    | 15 | 22           | 0,160             |
| K0112.1110 | 1    | M10               | 14 | 16 | 24 | 25 | 10 | 49,5 | 9,5  | 63,5 | 44,5 | 88    | 15 | 22           | 0,160             |
| K0112.1210 | 2    | M10               | 17 | 19 | 28 | 32 | 12 | 56,5 | 10,5 | 74   | 51   | 106   | 15 | 24           | 0,250             |
| K0112.1212 | 2    | M12               | 17 | 19 | 28 | 32 | 12 | 56,5 | 10,5 | 74   | 51   | 106   | 15 | 24           | 0,250             |
| K0112.1312 | 3    | M12               | 23 | 23 | 33 | 32 | 13 | 64,5 | 12,5 | 87,5 | 57,5 | 128,5 | 15 | 26           | 0,370             |
| K0112.1316 | 3    | M16               | 23 | 23 | 33 | 32 | 13 | 64,5 | 12,5 | 87,5 | 57,5 | 128,5 | 15 | 26           | 0,370             |

## Safety tension levers

with external thread



**Material:**

Steel parts quality class 5.8,  
black plastic ball knob

**Surface finish:**

Plastic-coated with fine texture, black

**Sample order:**

K0112.1108X30 (please also indicate dimension L)

**Note:**

Missing dimensions see safety tension levers with internal thread.

**Method of operation:**

To operate safety tension levers, press the handle down until the teeth are fully engaged. The object concerned can now be clamped or released. Spring pressure releases the locking mechanism immediately, thereby restoring the safety function (handle can be turned effortlessly).

**On request:**

Other external threads, screw lengths and special versions.

Dimensions „H1“ and „A“ available in other lengths at extra charge.

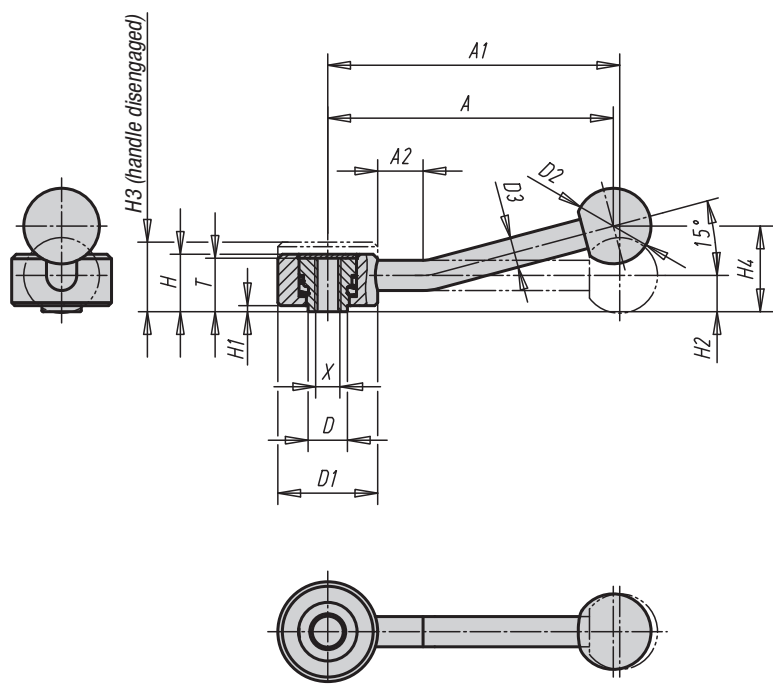


### KIPP Safety tension levers with external thread

| Order No.   | External thread<br>X | Size | H1   | L = screw length  |
|-------------|----------------------|------|------|-------------------|
| K0112.1108X | M8                   | 1    | 9,5  | 20/25/30/40/50/60 |
| K0112.1110X | M10                  | 1    | 9,5  | 20/25/30/40/50/60 |
| K0112.1112X | M12                  | 1    | 9,5  | 20/25/30/40/50/60 |
| K0112.1212X | M12                  | 2    | 10,5 | 20/25/30/40/50/60 |
| K0112.1312X | M12                  | 3    | 12,5 | 25/30/40/50/60    |
| K0112.1316X | M16                  | 3    | 12,5 | 25/30/40/50/60    |

## Flat tension levers

with internal thread



**Material:**

Steel parts quality class 5.8,  
black plastic ball knob

**Surface finish:**

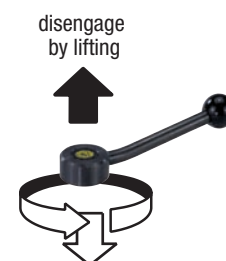
Black oxide finish

**Sample order:**

K0114.1061

**On request:**

Other internal threads and special versions.  
Dimensions „H1“, „A“ and „A1“ available in other  
lengths at extra charge.



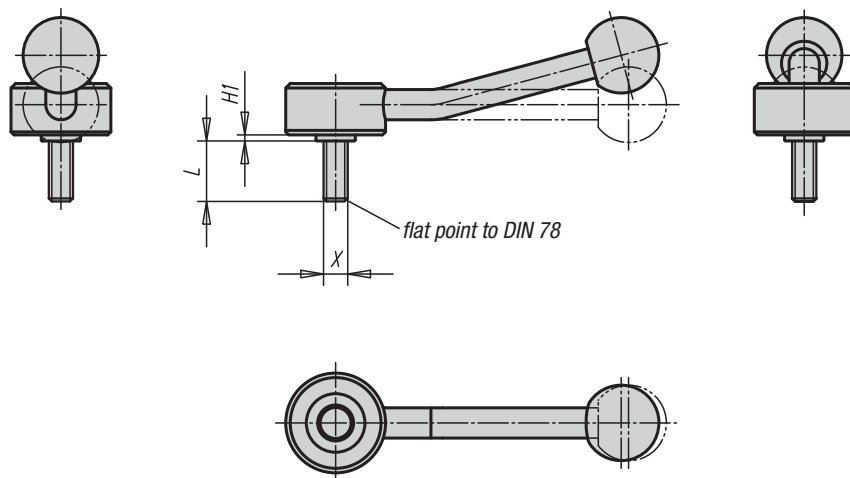
### KIPP Flat tension levers with internal thread

| Order No.<br>0 degree | Order No.<br>15 degrees | Size | Internal<br>thread<br>X | T  | D    | D1 | D2 | D3 | H  | H1 | H2   | H3 | H4   | A     | A1    | A2   | No. of<br>teeth | Approx.<br>weight<br>kg |
|-----------------------|-------------------------|------|-------------------------|----|------|----|----|----|----|----|------|----|------|-------|-------|------|-----------------|-------------------------|
| K0114.1061            | K0114.1062              | 1    | M6                      | 18 | 13,5 | 33 | 25 | 10 | 19 | 2  | 12   | 23 | -/29 | -/100 | 102/- | -/15 | 26              | 0,160                   |
| K0114.1081            | K0114.1082              | 1    | M8                      | 18 | 13,5 | 33 | 25 | 10 | 19 | 2  | 12   | 23 | -/29 | -/100 | 102/- | -/15 | 26              | 0,160                   |
| K0114.2101            | K0114.2102              | 2    | M10                     | 21 | 19   | 41 | 30 | 12 | 22 | 2  | 13,5 | 26 | -/38 | -/127 | 131/- | -/15 | 30              | 0,290                   |
| K0114.2121            | K0114.2122              | 2    | M12                     | 21 | 19   | 41 | 30 | 12 | 22 | 2  | 13,5 | 26 | -/38 | -/127 | 131/- | -/15 | 30              | 0,290                   |
| K0114.3121            | K0114.3122              | 3    | M12                     | 27 | 23   | 45 | 37 | 14 | 28 | 2  | 17   | 33 | -/48 | -/145 | 148/- | -/15 | 36              | 0,450                   |
| K0114.3161            | K0114.3162              | 3    | M16                     | 27 | 23   | 45 | 37 | 14 | 28 | 2  | 17   | 33 | -/48 | -/145 | 148/- | -/15 | 36              | 0,450                   |



## Flat tension levers

with external thread



**Material:**

Steel parts quality class 5.8,  
black plastic ball knob

**Surface finish:**

Black oxide finish

**Sample order:**

K0114.1081X30 (please also indicate dimension L)

**Note:**

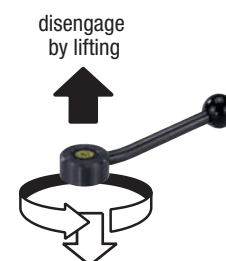
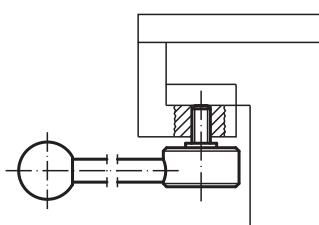
Missing dimensions see flat tension levers with internal thread.

**On request:**

Other external threads, screw lengths and special versions.

Dimensions „H1“, „A“ and „A1“ available in other lengths at extra charge.

example:



### KIPP Flat tension levers with external thread

| Order No.<br>0 degree | Order No.<br>15 degrees | Size | External<br>thread<br>X | H1 | L = screw length     |
|-----------------------|-------------------------|------|-------------------------|----|----------------------|
| K0114.1081X           | K0114.1082X             | 1    | M8                      | 2  | 15/20/25/30/40/50/60 |
| K0114.1101X           | K0114.1102X             | 1    | M10                     | 2  | 15/20/25/30/40/50/60 |
| K0114.2101X           | K0114.2102X             | 2    | M10                     | 2  | 20/25/30/40/50/60    |
| K0114.2121X           | K0114.2122X             | 2    | M12                     | 2  | 20/25/30/40/50/60    |
| K0114.3121X           | K0114.3122X             | 3    | M12                     | 2  | 20/25/30/40/50/60    |
| K0114.3161X           | K0114.3162X             | 3    | M16                     | 2  | 20/25/30/40/50/60    |

## Flat tension levers in stainless steel

with internal thread

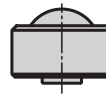
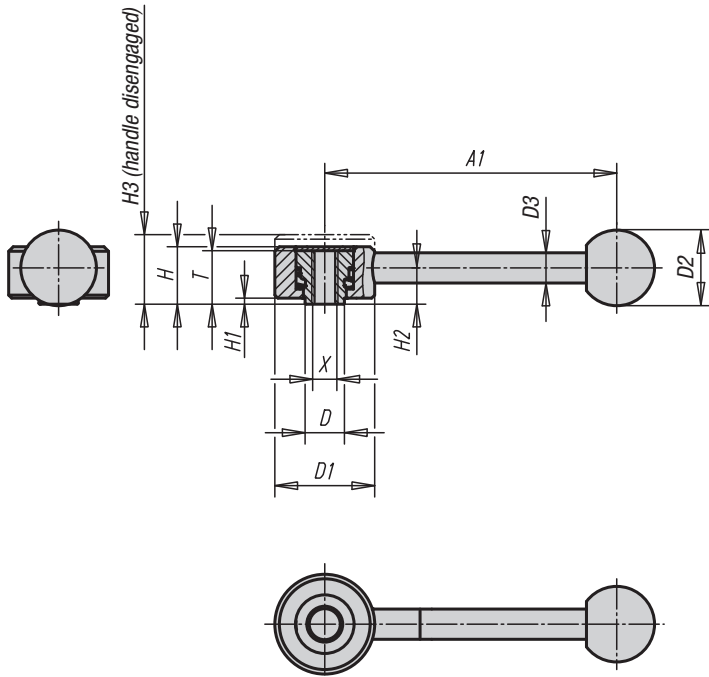


**Material:**  
Steel parts in stainless steel, 1.4305,  
black plastic ball knob.

**Surface finish:**  
Steel parts natural finish.

**Sample order:**  
K0129.1081

**On request:**  
Other internal threads and special versions. Dimensions „H1“, „A“ and „A1“ available in other lengths at extra charge.

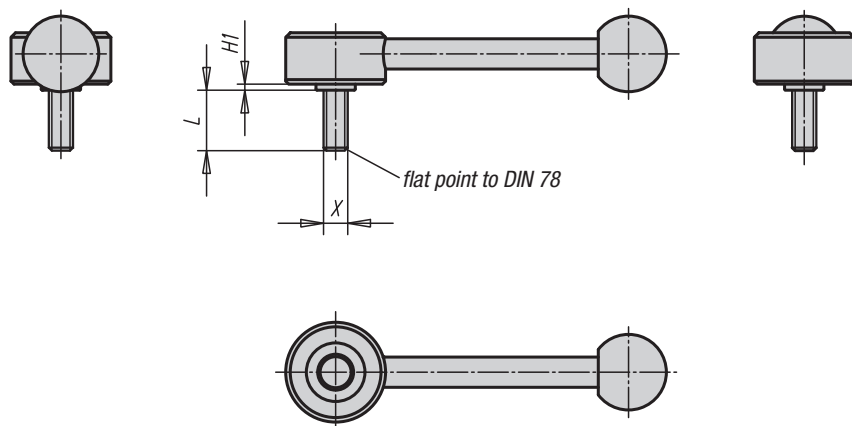


### KIPP Flat tension levers in stainless steel with internal thread

| Order No.  | Size | Internal thread X | T  | D    | D1 | D2 | D3 | H  | H1 | H2   | H3 | A1  | No. of teeth | Approx. weight kg |
|------------|------|-------------------|----|------|----|----|----|----|----|------|----|-----|--------------|-------------------|
| K0129.1081 | 1    | M8                | 18 | 13,5 | 33 | 25 | 10 | 19 | 2  | 12   | 23 | 102 | 26           | 0,16              |
| K0129.2101 | 2    | M10               | 21 | 19   | 41 | 30 | 12 | 22 | 2  | 13,5 | 26 | 131 | 30           | 0,29              |
| K0129.2121 | 2    | M12               | 21 | 19   | 41 | 30 | 12 | 22 | 2  | 13,5 | 26 | 131 | 30           | 0,29              |
| K0129.3161 | 3    | M16               | 27 | 23   | 45 | 37 | 14 | 28 | 2  | 17   | 33 | 148 | 36           | 0,45              |

## Flat tension levers in stainless steel

with external thread



**Material:**

Steel parts in stainless steel, 1.4305, black plastic ball knob.

**Surface finish:**

Steel parts natural finish.

**Sample order:**

K0129.1081X40 (please also indicate dimension L)

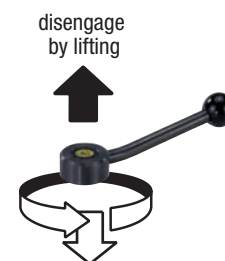
**Note:**

Missing dimensions see flat tension levers, stainless steel, internal thread.

**On request:**

Other external threads, screw lengths and special versions.

Dimensions „H1“, „A“ and „A1“ available in other lengths at extra charge.



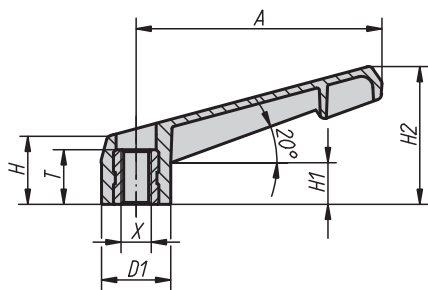
### KIPP Flat tension levers in stainless steel with external thread

| Order No.   | Size | External thread<br>X | H1 | L = screw length |
|-------------|------|----------------------|----|------------------|
| K0129.1081X | 1    | M8                   | 2  | 30/40/50         |
| K0129.2101X | 2    | M10                  | 2  | 30/40/50/60      |
| K0129.2121X | 2    | M12                  | 2  | 30/40/50/60      |
| K0129.3161X | 3    | M16                  | 2  | 40/50/60         |

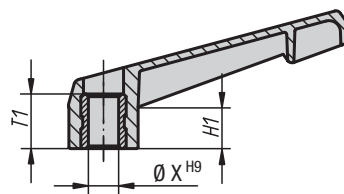
# Non-adjustable clamp levers



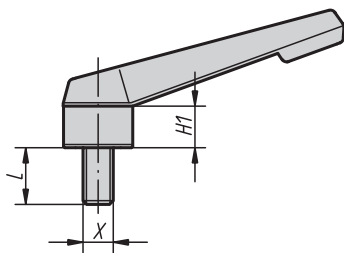
Non-adjustable clamp lever with internal thread



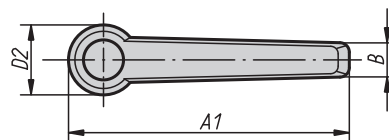
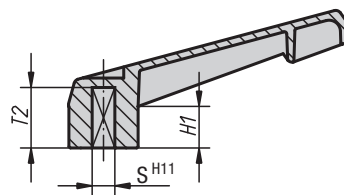
Non-adjustable clamp lever with locating hole



Non-adjustable clamp lever with external thread



Non-adjustable clamp lever with square socket



**Material:**

Handle in glass-fibre reinforced plastic; steel parts quality class 5.8

**Surface finish:**

Handle in anthracite grey, steel parts blue chromated

**Sample order:**

K0175.105X20 (please also indicate dimension L)

**Note:**

Non-adjustable clamp levers can be used for simple applications. Generally there must be enough space so that the lever can be turned 360°.

**On request:**

Special versions.



## KIPP Non-adjustable clamp levers with internal thread

| Order No.    | Size | X   | T  | D1   | D2   | H  | H1 | H2   | A   | A1  | B  |
|--------------|------|-----|----|------|------|----|----|------|-----|-----|----|
| K0175.104000 | 1    | M4  | 10 | 13,8 | 14   | 17 | 11 | 27   | 40  | 47  | 8  |
| K0175.105000 | 1    | M5  | 10 | 13,8 | 14   | 17 | 11 | 27   | 40  | 47  | 8  |
| K0175.106000 | 1    | M6  | 10 | 13,8 | 14   | 17 | 11 | 27   | 40  | 47  | 8  |
| K0175.208000 | 2    | M8  | 14 | 18,3 | 18,5 | 18 | 11 | 36,5 | 65  | 75  | 9  |
| K0175.310000 | 3    | M10 | 14 | 21,8 | 22   | 22 | 14 | 45   | 80  | 91  | 11 |
| K0175.412000 | 4    | M12 | 18 | 25,8 | 26   | 26 | 17 | 54   | 95  | 108 | 13 |
| K0175.516000 | 5    | M16 | 18 | 30,8 | 31   | 31 | 21 | 63   | 110 | 126 | 16 |

## KIPP Non-adjustable clamp levers with external thread

| Order No.  | Size | X   | D1   | D2   | H  | H1 | H2   | A   | A1  | B  | L = screw length |
|------------|------|-----|------|------|----|----|------|-----|-----|----|------------------|
| K0175.105X | 1    | M5  | 13,8 | 14   | 17 | 11 | 27   | 40  | 47  | 8  | 20               |
| K0175.106X | 1    | M6  | 13,8 | 14   | 17 | 11 | 27   | 40  | 47  | 8  | 20               |
| K0175.208X | 2    | M8  | 18,3 | 18,5 | 18 | 11 | 36,5 | 65  | 75  | 9  | 15/20/30         |
| K0175.310X | 3    | M10 | 21,8 | 22   | 22 | 14 | 45   | 80  | 91  | 11 | 30               |
| K0175.412X | 4    | M12 | 25,8 | 26   | 26 | 17 | 54   | 95  | 108 | 13 | 30               |
| K0175.516X | 5    | M16 | 30,8 | 31   | 31 | 21 | 63   | 110 | 126 | 16 | 40               |

## KIPP Non-adjustable clamp levers with locating hole

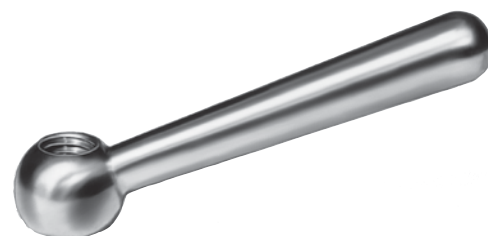
| Order No.    | Size | X  | T1 | D1   | D2   | H  | H1 | H2   | A   | A1  | B  |
|--------------|------|----|----|------|------|----|----|------|-----|-----|----|
| K0175.106001 | 1    | 6  | 10 | 13,8 | 14   | 17 | 11 | 27   | 40  | 47  | 8  |
| K0175.208001 | 2    | 8  | 14 | 18,3 | 18,5 | 18 | 11 | 36,5 | 65  | 75  | 9  |
| K0175.310001 | 3    | 10 | 14 | 21,8 | 22   | 22 | 14 | 45   | 80  | 91  | 11 |
| K0175.412001 | 4    | 12 | 18 | 25,8 | 26   | 26 | 17 | 54   | 95  | 108 | 13 |
| K0175.516001 | 5    | 16 | 18 | 30,8 | 31   | 31 | 21 | 63   | 110 | 126 | 16 |

## KIPP Non-adjustable clamp levers with square socket

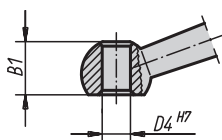
| Order No.    | Size | S  | T2 | D1   | D2   | H  | H1 | H2   | A   | A1  | B  |
|--------------|------|----|----|------|------|----|----|------|-----|-----|----|
| K0175.105002 | 1    | 5  | 13 | 13,8 | 14   | 17 | 11 | 27   | 40  | 47  | 8  |
| K0175.206002 | 2    | 6  | 16 | 18,3 | 18,5 | 18 | 11 | 36,5 | 65  | 75  | 9  |
| K0175.308002 | 3    | 8  | 18 | 21,8 | 22   | 22 | 14 | 45   | 80  | 91  | 11 |
| K0175.410002 | 4    | 10 | 20 | 25,8 | 26   | 26 | 17 | 54   | 95  | 108 | 13 |
| K0175.512002 | 5    | 12 | 26 | 30,8 | 31   | 31 | 21 | 63   | 110 | 126 | 16 |

## Tension levers

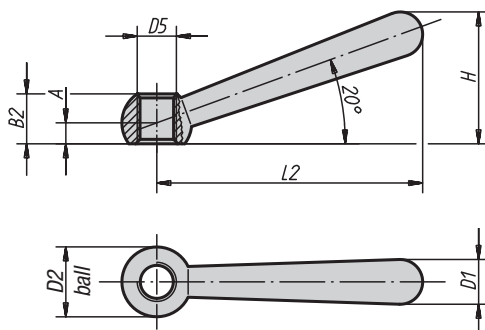
DIN 99



Form L  
with borehole



Form N  
with internal thread

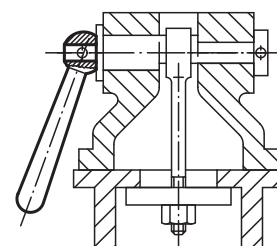


**Material:**  
Steel

**Surface finish:**  
Polished

**Sample order:**  
K0174.212

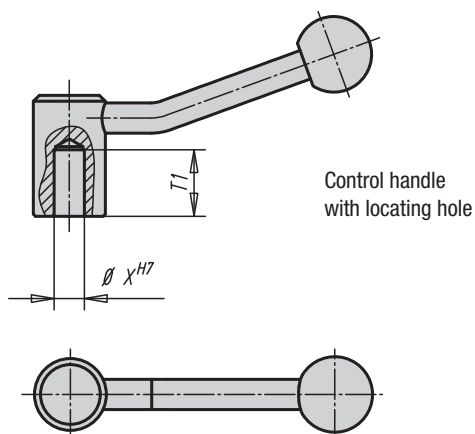
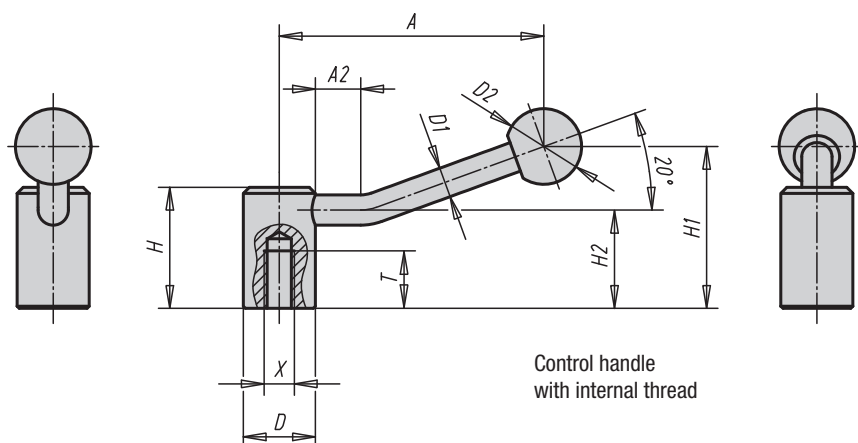
**Note:**  
To fix the lever to another element, gluing is more cost-effective than pinning.



### KIPP Tension levers DIN 99

| Order No.<br>Form L | Order No.<br>Form N | A    | D4   | D5    | B1     | B2     | D1 | D2<br>ball | L2  | H    |
|---------------------|---------------------|------|------|-------|--------|--------|----|------------|-----|------|
| K0174.106           | K0174.206           | 4    | 6/-  | -/M6  | 9,5/-  | -/9,5  | 8  | 12         | 48  | 24   |
| K0174.108           | K0174.208           | 5    | 8/-  | -/M8  | 12/-   | -/12   | 10 | 16         | 60  | 30,5 |
| K0174.110           | K0174.210           | 6    | 10/- | -/M10 | 14,5/- | -/14,5 | 13 | 20         | 76  | 38   |
| K0174.112           | K0174.212           | 7,5  | 12/- | -/M12 | 18,5/- | -/18,5 | 16 | 25         | 95  | 47   |
| K0174.116           | K0174.216           | 10   | 16/- | -/M16 | 24/-   | -/24   | 20 | 32         | 119 | 59,5 |
| K0174.120           | K0174.220           | 12,5 | 20/- | -/M20 | 30/-   | -/30   | 25 | 40         | 152 | 75,5 |

## Control handles



**Material:**

Steel parts quality class 5.8;  
black plastic ball knob

**Surface finish:**

Black oxide finish

**Sample order:**

K0176.208

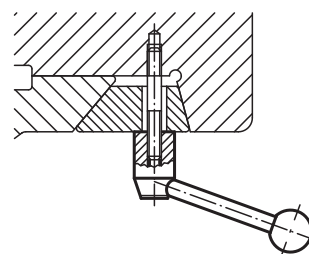
**Note:**

Control handles can be used for simple clamping applications and switching operations. Generally there must be enough space so that the handle can be turned 360°.

**On request:**

Other internal threads and locating holes and special versions.

Dimension „A“ available in other lengths at extra charge.

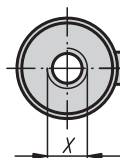
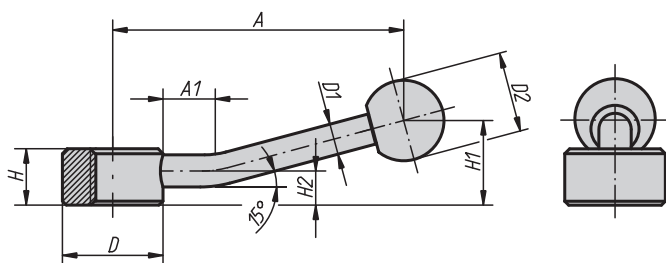


### KIPP Control handles

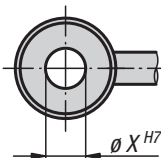
| Order No. | Surface finish  | Size | X   | T  | T1 | D  | D1 | D2 | H  | H1   | H2   | A    | A2 | Approx. weight kg |
|-----------|-----------------|------|-----|----|----|----|----|----|----|------|------|------|----|-------------------|
| K0176.208 | internal thread | 1    | M8  | 18 | -  | 24 | 10 | 25 | 40 | 52,5 | 32,5 | 84,5 | 15 | 0,170             |
| K0176.210 | internal thread | 1    | M10 | 19 | -  | 24 | 10 | 25 | 40 | 52,5 | 32,5 | 84,5 | 15 | 0,170             |
| K0176.212 | internal thread | 2    | M12 | 20 | -  | 28 | 12 | 32 | 46 | 61   | 36,5 | 100  | 15 | 0,260             |
| K0176.216 | internal thread | 3    | M16 | 23 | -  | 33 | 13 | 32 | 52 | 72   | 41   | 121  | 15 | 0,380             |
| K0176.220 | internal thread | 4    | M20 | 26 | -  | 41 | 13 | 32 | 61 | 80   | 49   | 123  | 15 | 0,660             |
| K0176.108 | locating hole   | 1    | 8   | -  | 22 | 24 | 10 | 25 | 40 | 52,5 | 32,5 | 84,5 | 15 | 0,170             |
| K0176.110 | locating hole   | 1    | 10  | -  | 22 | 24 | 10 | 25 | 40 | 52,5 | 32,5 | 84,5 | 15 | 0,170             |
| K0176.112 | locating hole   | 2    | 12  | -  | 25 | 28 | 12 | 32 | 46 | 61   | 36,5 | 100  | 15 | 0,260             |
| K0176.114 | locating hole   | 2    | 14  | -  | 25 | 28 | 12 | 32 | 46 | 61   | 36,5 | 100  | 15 | 0,260             |
| K0176.116 | locating hole   | 3    | 16  | -  | 28 | 33 | 13 | 32 | 52 | 72   | 41   | 121  | 15 | 0,380             |
| K0176.118 | locating hole   | 3    | 18  | -  | 28 | 33 | 13 | 32 | 52 | 72   | 41   | 121  | 15 | 0,380             |
| K0176.120 | locating hole   | 4    | 20  | -  | 32 | 41 | 13 | 32 | 61 | 80   | 49   | 123  | 15 | 0,660             |



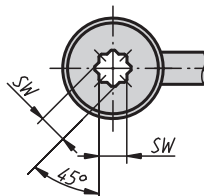
# Flat control handles



Flat control handle with internal thread



Flat control handle with locating hole



Flat control handle with star socket

**Material:**  
Steel parts quality class 5.8;  
black ball knob in duroplastic PF 31

**Surface finish:**  
Black oxide finish

**Sample order:**  
K0177.206

**Note:**  
Flat control handles can be used for simple clamping applications and switching operations. Generally there must be enough space so that the handle can be turned 360°. The version with star socket is designed to allow turning in steps of 45°.

**On request:**  
Other internal threads, locating holes and star sockets. Dimension „A“ available in other lengths at extra charge.

## KIPP Flat control handles with internal thread

| Order No. | Surface finish  | Size | X   | D  | D1 | D2 | H  | H1 | H2   | A   | A1 | Approx. weight g |
|-----------|-----------------|------|-----|----|----|----|----|----|------|-----|----|------------------|
| K0177.206 | internal thread | 1    | M6  | 25 | 8  | 20 | 14 | 22 | 8,5  | 75  | 15 | 81               |
| K0177.208 | internal thread | 1    | M8  | 25 | 8  | 20 | 14 | 22 | 8,5  | 75  | 15 | 78               |
| K0177.210 | internal thread | 1    | M10 | 25 | 8  | 20 | 14 | 22 | 8,5  | 75  | 15 | 76               |
| K0177.212 | internal thread | 2    | M12 | 33 | 10 | 25 | 17 | 27 | 10   | 100 | 15 | 156              |
| K0177.216 | internal thread | 2    | M16 | 33 | 10 | 25 | 17 | 27 | 10   | 100 | 15 | 144              |
| K0177.220 | internal thread | 3    | M20 | 41 | 12 | 30 | 20 | 36 | 11,5 | 128 | 15 | 258              |
| K0177.224 | internal thread | 3    | M24 | 41 | 12 | 30 | 20 | 36 | 11,5 | 128 | 15 | 246              |

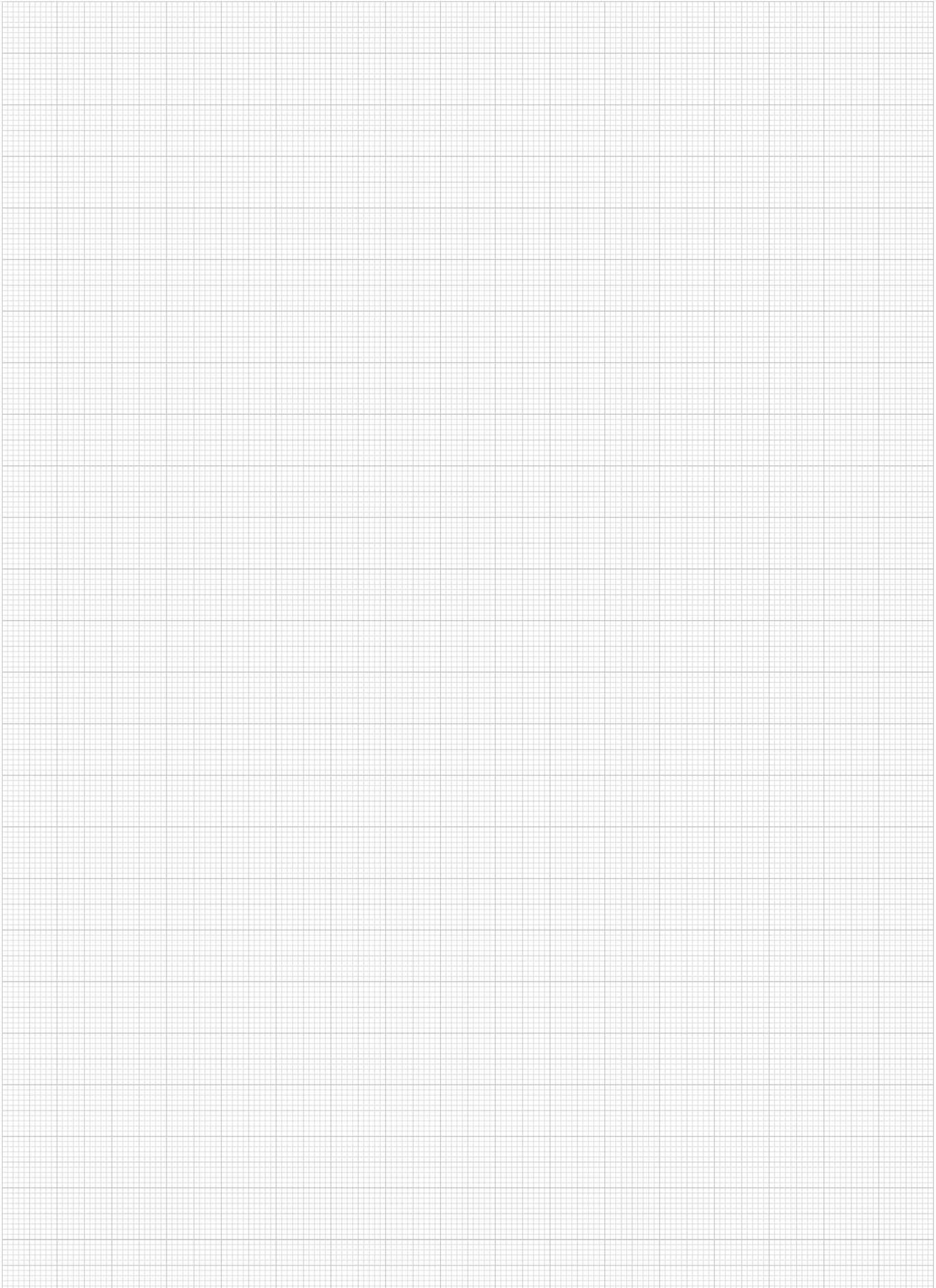
## KIPP Flat control handles with locating hole

| Order No. | Surface finish | Size | X  | D  | D1 | D2 | H  | H1 | H2   | A   | A1 | Approx. weight g |
|-----------|----------------|------|----|----|----|----|----|----|------|-----|----|------------------|
| K0177.106 | locating hole  | 1    | 6  | 25 | 8  | 20 | 14 | 22 | 8,5  | 75  | 15 | 80               |
| K0177.108 | locating hole  | 1    | 8  | 25 | 8  | 20 | 14 | 22 | 8,5  | 75  | 15 | 78               |
| K0177.110 | locating hole  | 1    | 10 | 25 | 8  | 20 | 14 | 22 | 8,5  | 75  | 15 | 75               |
| K0177.112 | locating hole  | 2    | 12 | 33 | 10 | 25 | 17 | 27 | 10   | 100 | 15 | 152              |
| K0177.116 | locating hole  | 2    | 16 | 33 | 10 | 25 | 17 | 27 | 10   | 100 | 15 | 140              |
| K0177.120 | locating hole  | 3    | 20 | 41 | 12 | 30 | 20 | 36 | 11,5 | 128 | 15 | 248              |
| K0177.124 | locating hole  | 3    | 24 | 41 | 12 | 30 | 20 | 36 | 11,5 | 128 | 15 | 238              |

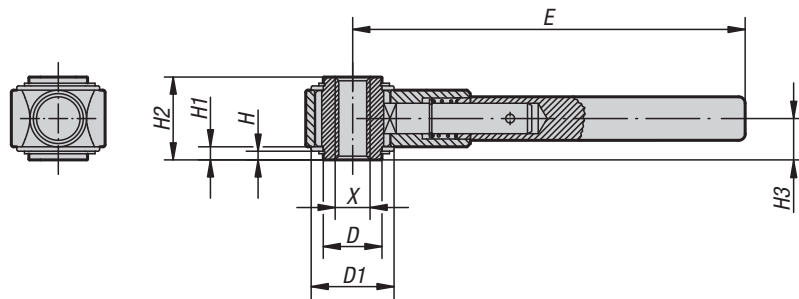
## KIPP Flat control handles with star socket

| Order No. | Surface finish | Size | SW  | D  | D1 | D2 | H  | H1 | H2   | A   | A1 | Approx. weight g |
|-----------|----------------|------|-----|----|----|----|----|----|------|-----|----|------------------|
| K0177.305 | star socket    | 1    | 5,5 | 25 | 8  | 20 | 14 | 22 | 8,5  | 75  | 15 | 79               |
| K0177.307 | star socket    | 1    | 7   | 25 | 8  | 20 | 14 | 22 | 8,5  | 75  | 15 | 77               |
| K0177.309 | star socket    | 2    | 9   | 33 | 10 | 25 | 17 | 27 | 10   | 100 | 15 | 154              |
| K0177.311 | star socket    | 2    | 11  | 33 | 10 | 25 | 17 | 27 | 10   | 100 | 15 | 149              |
| K0177.314 | star socket    | 3    | 14  | 41 | 12 | 30 | 20 | 36 | 11,5 | 128 | 15 | 273              |
| K0177.319 | star socket    | 3    | 19  | 41 | 12 | 30 | 20 | 36 | 11,5 | 128 | 15 | 245              |

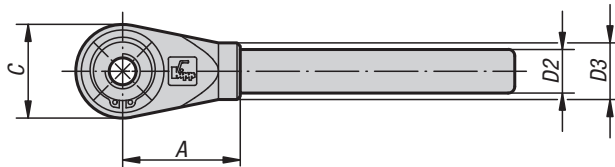
# Notes



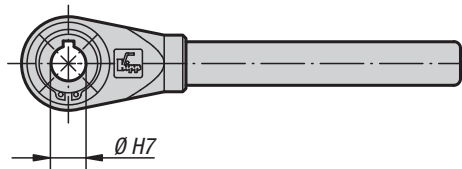
# Ratchet levers



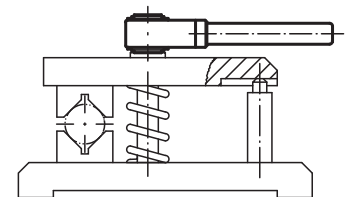
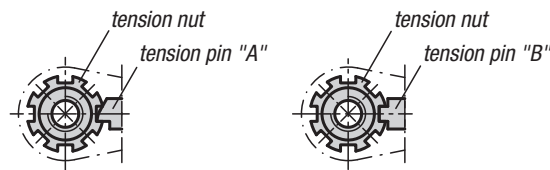
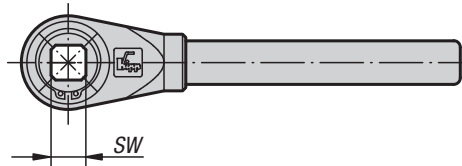
ratchet levers with internal thread



ratchet levers with locating hole  
feather slot to DIN 6885 sheet 1, tolerance quality JS 9



ratchet levers with square socket



**Material:**

Housing in tempered steel; tension nut and tension pin in case-hardened free-cutting steel

**Surface finish:**

Black oxide finish; matt-finished or high-polish chromium-plated versions available at extra charge

**Sample order:**

K0128.316

**Note:**

Tension Pin A standard version (for ratchet action): Use for clamping and releasing in limited space and when considerable travel is involved. In order to change the tightening direction, the handle must be reversed by 180°.

Tension Pin B special version:

Use for clamping and releasing in limited space and when short travel is involved. The handle is not reversed in order to change the tightening direction. It must be pulled out before it can be engaged in the next slot.

**On request:**

Other internal threads, locating holes and square sockets.

Dimension „E“ available in other lengths at extra charge.

Special version: Tension pin B.

## KIPP Ratchet levers with internal thread

| Order No. | Size | Internal thread X | D  | D1 | D2 | D3 | H | H1  | H2 | H3   | C  | A   | E   | No. of locking slots |
|-----------|------|-------------------|----|----|----|----|---|-----|----|------|----|-----|-----|----------------------|
| K0128.310 | 1    | M10               | 22 | 33 | 17 | 22 | 3 | 4,5 | 31 | 15,5 | 36 | 48  | 150 | 7                    |
| K0128.312 | 1    | M12               | 22 | 33 | 17 | 22 | 3 | 4,5 | 31 | 15,5 | 36 | 48  | 150 | 7                    |
| K0128.314 | 2    | M14               | 27 | 38 | 20 | 26 | 4 | 6   | 38 | 19   | 43 | 54  | 180 | 8                    |
| K0128.316 | 2    | M16               | 27 | 38 | 20 | 26 | 4 | 6   | 38 | 19   | 43 | 54  | 180 | 8                    |
| K0128.318 | 3    | M18               | 35 | 45 | 24 | 30 | 4 | 6   | 42 | 21   | 51 | 70  | 230 | 8                    |
| K0128.320 | 3    | M20               | 35 | 45 | 24 | 30 | 4 | 6   | 42 | 21   | 51 | 70  | 230 | 8                    |
| K0128.322 | 4    | M22               | 42 | 56 | 28 | 35 | 4 | 6   | 47 | 23,5 | 61 | 80  | 300 | 9                    |
| K0128.324 | 4    | M24               | 42 | 56 | 28 | 35 | 4 | 6   | 47 | 23,5 | 61 | 80  | 300 | 9                    |
| K0128.327 | 4    | M27               | 42 | 56 | 28 | 35 | 4 | 6   | 47 | 23,5 | 61 | 80  | 300 | 9                    |
| K0128.330 | 5    | M30               | 60 | 75 | 32 | 38 | 5 | 7,5 | 53 | 26,5 | 82 | 110 | 400 | 11                   |
| K0128.336 | 5    | M36               | 60 | 75 | 32 | 38 | 5 | 7,5 | 53 | 26,5 | 82 | 110 | 400 | 11                   |
| K0128.342 | 5    | M42               | 60 | 75 | 32 | 38 | 5 | 7,5 | 53 | 26,5 | 82 | 110 | 400 | 11                   |

## KIPP Ratchet levers with locating hole

| Order No. | Size | Locating hole dia. H7 with feather slot to DIN 6885 sheet 1 | D  | D1 | D2 | D3 | H | H1  | H2 | H3   | C  | A   | E   | No. of locking slots |
|-----------|------|---|----|----|----|----|---|-----|----|------|----|-----|-----|----------------------|
| K0128.412 | 1    | 12  | 22 | 33 | 17 | 22 | 3 | 4,5 | 31 | 15,5 | 36 | 48  | 150 | 7                    |
| K0128.414 | 2    | 14  | 27 | 38 | 20 | 26 | 4 | 6   | 38 | 19   | 43 | 54  | 180 | 8                    |
| K0128.415 | 2    | 15  | 27 | 38 | 20 | 26 | 4 | 6   | 38 | 19   | 43 | 54  | 180 | 8                    |
| K0128.416 | 2    | 16  | 27 | 38 | 20 | 26 | 4 | 6   | 38 | 19   | 43 | 54  | 180 | 8                    |
| K0128.418 | 3    | 18  | 35 | 45 | 24 | 30 | 4 | 6   | 42 | 21   | 51 | 70  | 230 | 8                    |
| K0128.420 | 3    | 20  | 35 | 45 | 24 | 30 | 4 | 6   | 42 | 21   | 51 | 70  | 230 | 8                    |
| K0128.422 | 4    | 22  | 42 | 56 | 28 | 35 | 4 | 6   | 47 | 23,5 | 61 | 80  | 300 | 9                    |
| K0128.425 | 4    | 25  | 42 | 56 | 28 | 35 | 4 | 6   | 47 | 23,5 | 61 | 80  | 300 | 9                    |
| K0128.427 | 4    | 27  | 42 | 56 | 28 | 35 | 4 | 6   | 47 | 23,5 | 61 | 80  | 300 | 9                    |
| K0128.430 | 5    | 30  | 60 | 75 | 32 | 38 | 5 | 7,5 | 53 | 26,5 | 82 | 110 | 400 | 11                   |
| K0128.436 | 5    | 36  | 60 | 75 | 32 | 38 | 5 | 7,5 | 53 | 26,5 | 82 | 110 | 400 | 11                   |

## KIPP Ratchet levers with square socket

| Order No. | Size | Square socket SW | D  | D1 | D2 | D3 | H | H1  | H2 | H3   | C  | A   | E   | No. of locking slots |
|-----------|------|------------------|----|----|----|----|---|-----|----|------|----|-----|-----|----------------------|
| K0128.510 | 1    | 10               | 22 | 33 | 17 | 22 | 3 | 4,5 | 31 | 15,5 | 36 | 48  | 150 | 7                    |
| K0128.512 | 1    | 12               | 22 | 33 | 17 | 22 | 3 | 4,5 | 31 | 15,5 | 36 | 48  | 150 | 7                    |
| K0128.513 | 2    | 13               | 27 | 38 | 20 | 26 | 4 | 6   | 38 | 19   | 43 | 54  | 180 | 8                    |
| K0128.514 | 2    | 14               | 27 | 38 | 20 | 26 | 4 | 6   | 38 | 19   | 43 | 54  | 180 | 8                    |
| K0128.517 | 3    | 17               | 35 | 45 | 24 | 30 | 4 | 6   | 42 | 21   | 51 | 70  | 230 | 8                    |
| K0128.519 | 4    | 19               | 42 | 56 | 28 | 35 | 4 | 6   | 47 | 23,5 | 61 | 80  | 300 | 9                    |
| K0128.520 | 4    | 20               | 42 | 56 | 28 | 35 | 4 | 6   | 47 | 23,5 | 61 | 80  | 300 | 9                    |
| K0128.522 | 4    | 22               | 42 | 56 | 28 | 35 | 4 | 6   | 47 | 23,5 | 61 | 80  | 300 | 9                    |
| K0128.524 | 4    | 24               | 42 | 56 | 28 | 35 | 4 | 6   | 47 | 23,5 | 61 | 80  | 300 | 9                    |
| K0128.530 | 5    | 30               | 60 | 75 | 32 | 38 | 5 | 7,5 | 53 | 26,5 | 82 | 110 | 400 | 11                   |
| K0128.532 | 5    | 32               | 60 | 75 | 32 | 38 | 5 | 7,5 | 53 | 26,5 | 82 | 110 | 400 | 11                   |





## Handles and knobs

Knurled nuts  
in steel and stainless  
steel, DIN 6303  
**K0137**



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Plastic knurled nuts  
**K0138**



Page 91

Plastic knurled thumb screws  
**K0141**



Page 91

Quick-acting knurled nuts  
**K0139**



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Thin knurled nuts  
in steel and stainless steel,  
DIN 467  
**K0144**



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High knurled nuts  
in steel and stainless steel,  
DIN 466  
**K0143**



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High knurled thumb screws  
in steel and stainless steel,  
DIN 464  
**K0140**



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Knurled knobs  
**K0142**



Page 94

Knurled knobs  
**K0247**



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**NG**

Knurled knobs  
**K0110**



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Knurled heads  
for hexagon socket screws  
**K0680**



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Butterfly heads  
for hexagon socket screws  
**K0681**



Page 98

Aluminium palm grips  
similar to DIN 6335  
**K0145**



Page 100-101

Palm grips  
in stainless steel, similar to  
DIN 6335  
**K0146**



Page 102



Grey cast iron palm grips  
DIN 6335  
**K0147**



Page 103

Four palm grips in grey cast iron  
plastic coated  
conforms to DIN 6335  
**K0682**



Page 104

Palm grips Soft  
**K0613**



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**ST**

Palm grips  
similar to DIN 6335  
**K0148**



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## Handles and knobs

Quick-fastening grips  
in grey cast iron  
**K0683**



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Aluminium star grips  
similar to DIN 6336  
**K0149**



Page 110-111

Star grips  
in stainless steel,  
similar to DIN 6336  
**K0150**



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Grey cast iron star grips  
DIN 6336  
**K0151**



Page 113

Star grips  
similar to DIN 6336  
**K0152**



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Star grips  
with projecting steel bush  
**K0153**



Page 115

Star grips  
similar to DIN 6336,  
steel parts in stainless steel  
**K0154**



Page 116

Star grips  
similar to DIN 6336  
**K0155**



Page 118-119

Quick-acting star grips  
**K0156**



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Ripped grips  
**K0276**



**NG**

Page 121

Five lobe grips  
**K0185**



Page 122

Five lobe grips  
**K0279**



**ST**

Page 123

Flat four lobe grips  
**K0278**



**ST**

Page 124-125

High clamping grips  
**K0280**



**ST**

Page 126

Turning grips  
**K0281**



**ST**

Page 127

Clamp grips  
**K0255**



**NG**

Page 128

Triangular star grips  
with high collar  
**K0183**



Page 129

Knurled wheels  
**K0260**



**NG**

Page 130-131

## Handles and knobs

Knurled wheels  
steel parts in stainless steel  
**K0261**



**NG**

Page 132-133

Mushroom knobs  
with internal thread in steel  
or stainless steel  
**K0250**



Page 134

Mushroom knobs  
with internal thread  
**K0251**



**NG**

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Mushroom knobs  
with external thread  
**K0251**



**NG**

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Wing grips in stainless steel  
**K0273**





Page 137

Wing grips  
**K0274**



**NG**

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Wing grips  
with continuous  
internal thread  
**K0274**



**NG**

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Wing grips, one-sided  
**K0608**



**NG**

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Miniwings  
**K0274**



**NG**

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Miniwing  
with continuous internal  
thread  
**K0658**



**NG**

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T-grips  
**K0180**



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T-grips  
**K0181**



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Flat knobs  
**K0157**



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Ball knobs  
stainless steel or aluminium  
DIN 319  
**K0650**



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Ball knobs  
in thermoplastic to DIN 319  
extended  
**K0158**



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Ball knobs  
with smooth surface  
to DIN 319 extended  
**K0159**



Page 148-149

Grip balls  
**K0253**



**NG**

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Grip balls  
revolving  
**K0254**



**NG**

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## Handles and knobs

Graduated knobs  
**K0248**



**N<sup>G</sup>**

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Adjusting knobs  
**K0249**



**N<sup>G</sup>**

Page 153

Torque knurled knobs  
**K0277**



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Locking bars  
**K0178**



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Axial bearing for increasing  
tension force  
**K0584**



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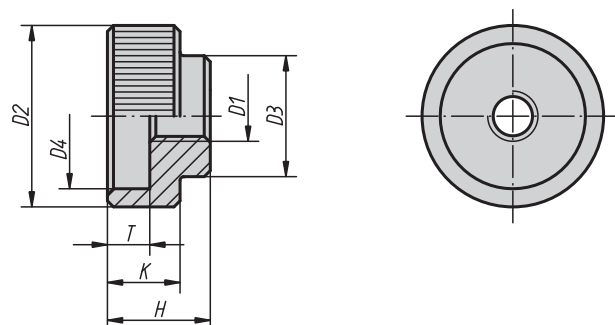


## Knurled nuts

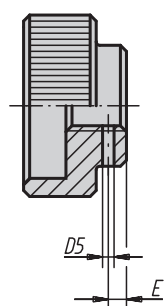
in steel and stainless steel, DIN 6303



Form A  
without pin hole



Form B  
with pin hole

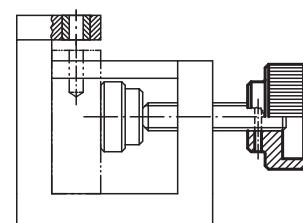


Drill through and ream pin hole on assembly



**Material, surface finish:**  
Free-cutting steel black oxide finish.  
Stainless steel, natural finish.

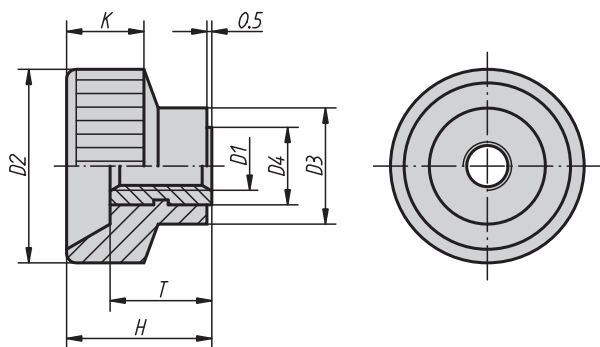
**Sample order:**  
K0137.108



### KIPP Knurled nuts in steel and stainless steel, DIN 6303

| Order No.  | Form | Material        | D1  | D2 | D3 | D4 | D5<br>predrilled | E   | H  | K  | T  | suitable cylindrical pin<br>DIN 7 | Approx.<br>weight g |
|------------|------|-----------------|-----|----|----|----|------------------|-----|----|----|----|-----------------------------------|---------------------|
| K0137.105  | A    | steel           | M5  | 20 | 14 | 15 | -                | -   | 12 | 8  | 5  | -                                 | 16                  |
| K0137.106  | A    | steel           | M6  | 24 | 16 | 18 | -                | -   | 14 | 10 | 6  | -                                 | 27                  |
| K0137.108  | A    | steel           | M8  | 30 | 20 | 24 | -                | -   | 17 | 12 | 7  | -                                 | 50                  |
| K0137.110  | A    | steel           | M10 | 36 | 28 | 30 | -                | -   | 20 | 14 | 8  | -                                 | 83                  |
| K0137.112  | A    | steel           | M12 | 40 | 32 | 34 | -                | -   | 24 | 16 | 10 | -                                 | 123                 |
| K0137.1052 | A    | stainless steel | M5  | 20 | 14 | 15 | -                | -   | 12 | 8  | 5  | -                                 | 16                  |
| K0137.1062 | A    | stainless steel | M6  | 24 | 16 | 18 | -                | -   | 14 | 10 | 6  | -                                 | 27                  |
| K0137.1082 | A    | stainless steel | M8  | 30 | 20 | 24 | -                | -   | 17 | 12 | 7  | -                                 | 50                  |
| K0137.1102 | A    | stainless steel | M10 | 36 | 28 | 30 | -                | -   | 20 | 14 | 8  | -                                 | 83                  |
| K0137.1122 | A    | stainless steel | M12 | 40 | 32 | 34 | -                | -   | 24 | 16 | 10 | -                                 | 123                 |
| K0137.205  | B    | steel           | M5  | 20 | 14 | 15 | 1,4              | 2,5 | 12 | 8  | 5  | 1,5 m6 x 14                       | 16                  |
| K0137.206  | B    | steel           | M6  | 24 | 16 | 18 | 1,4              | 2,5 | 14 | 10 | 6  | 1,5 m6 x 16                       | 27                  |
| K0137.208  | B    | steel           | M8  | 30 | 20 | 24 | 1,9              | 3   | 17 | 12 | 7  | 2,5 m6 x 20                       | 50                  |
| K0137.210  | B    | steel           | M10 | 36 | 28 | 30 | 2,9              | 4   | 20 | 14 | 8  | 3,5 m6 x 28                       | 83                  |
| K0137.212  | B    | steel           | M12 | 40 | 32 | 34 | 3,9              | 4   | 24 | 16 | 10 | 4,5 m6 x 32                       | 123                 |

## Plastic knurled nuts



**Material:**  
Black duroplastic PF 31.  
Threaded bush in brass.

**Surface finish:**  
Threaded bush nickel-plated.

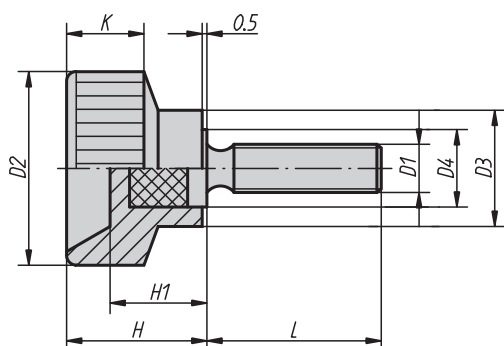
**Sample order:**  
K0138.08

### KIPP Plastic knurled nuts

| Order No. | D1  | D2 | D3 | D4 | H  | K  | T  | Approx. weight g |
|-----------|-----|----|----|----|----|----|----|------------------|
| K0138.04  | M4  | 18 | 10 | 7  | 13 | 8  | 9  | 4                |
| K0138.05  | M5  | 20 | 12 | 8  | 14 | 8  | 10 | 6                |
| K0138.06  | M6  | 24 | 13 | 9  | 16 | 9  | 10 | 7                |
| K0138.08  | M8  | 30 | 15 | 11 | 18 | 11 | 11 | 13               |
| K0138.10  | M10 | 35 | 18 | 14 | 19 | 12 | 11 | 18               |

# K0141

## Plastic knurled thumb screws



**Material:**  
Black duroplastic PF 31.  
Threaded bolt in steel.

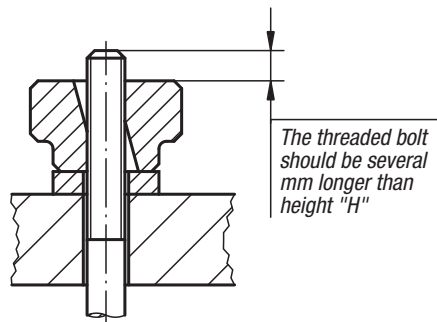
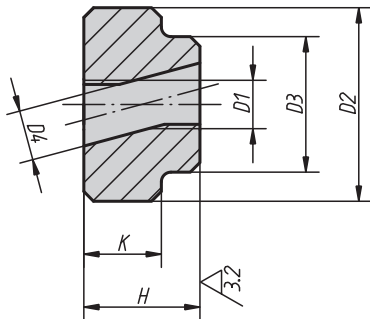
**Surface finish:**  
Threaded bolt galvanized.

**Sample order:**  
K0141.05X25 (Please also indicate dimension L.)

### KIPP Plastic knurled thumb screws

| Order No. | L        | D1  | D2 | D3 | D4 | H    | H1  | K  |
|-----------|----------|-----|----|----|----|------|-----|----|
| K0141.04X | 15/20    | M4  | 18 | 10 | 7  | 13,5 | 9   | 8  |
| K0141.05X | 10/18/25 | M5  | 20 | 12 | 8  | 14,5 | 10  | 8  |
| K0141.06X | 20/28    | M6  | 24 | 13 | 10 | 15   | 9,5 | 9  |
| K0141.08X | 25/32    | M8  | 30 | 15 | 12 | 18   | 11  | 11 |
| K0141.10X | 30       | M10 | 35 | 18 | 14 | 18,5 | 11  | 12 |

## Quick-acting knurled nuts



**Material:**

Tempered steel.

**Surface finish:**

Heat-treated and black oxide finish.

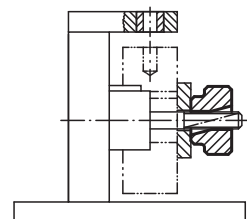
**Sample order:**

K0139.08

**Note:**

Quick-acting knurled nuts are mainly used in applications where no high clamping pressures are required.

This function is achieved by means of a semilateral thread.

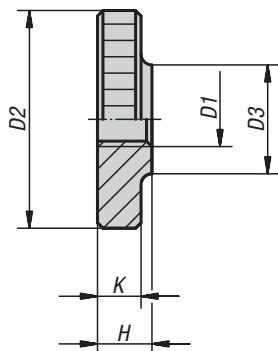


### KIPP Quick-acting knurled nuts

| Order No. | D1  | D2 | D3 | D4   | H  | K  | Approx. weight g |
|-----------|-----|----|----|------|----|----|------------------|
| K0139.05  | M5  | 20 | 14 | 5,2  | 12 | 8  | 25               |
| K0139.06  | M6  | 24 | 16 | 6,2  | 14 | 10 | 38               |
| K0139.08  | M8  | 30 | 20 | 8,2  | 17 | 12 | 75               |
| K0139.10  | M10 | 36 | 28 | 10,3 | 20 | 14 | 130              |
| K0139.12  | M12 | 40 | 32 | 12,3 | 24 | 16 | 185              |

## Thin knurled nuts

in steel and stainless steel, DIN 467



**Material, surface finish:**

Free-cutting steel 1.0711 black oxide finish.  
Stainless steel natural finish

**Sample order:**

K0144.042

**Note:**

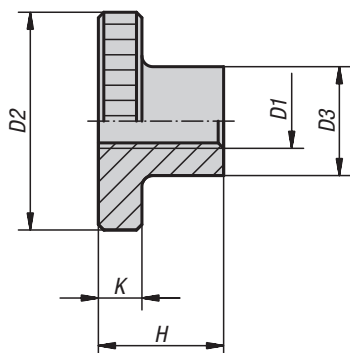
Thin knurled nuts M12 are not provided on the official standard specification sheet.

### KIPP Thin knurled nuts in steel and stainless steel, DIN 467

| Order No. steel | Order No. stainless steel | D1  | D2 | D3 | H  | K   | Approx. weight g |
|-----------------|---------------------------|-----|----|----|----|-----|------------------|
| K0144.04        | K0144.042                 | M4  | 16 | 8  | 4  | 3,5 | 6                |
| K0144.05        | K0144.052                 | M5  | 20 | 10 | 5  | 4   | 10               |
| K0144.06        | K0144.062                 | M6  | 24 | 12 | 6  | 5   | 18               |
| K0144.08        | K0144.082                 | M8  | 30 | 16 | 8  | 6   | 33               |
| K0144.10        | K0144.102                 | M10 | 36 | 20 | 10 | 8   | 58               |
| K0144.12        | K0144.122                 | M12 | 36 | 20 | 10 | 8   | 58               |

## High knurled nuts

in steel and stainless steel, DIN 466



**Material, surface finish:**

Free-cutting steel 1.0711 black oxide finish.  
Stainless steel natural finish.

**Sample order:**

K0143.04

**Note:**

High knurled nuts M12 are not provided on the official standard specification sheet.

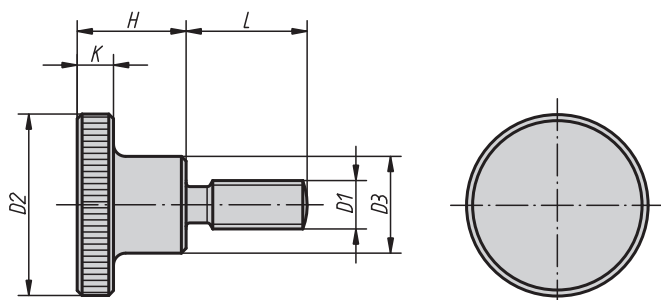
### KIPP High knurled nuts in steel and stainless steel, DIN 466

| Order No. steel | Order No. stainless steel | D1  | D2 | D3 | H    | K   | Approx. weight g |
|-----------------|---------------------------|-----|----|----|------|-----|------------------|
| K0143.04        | K0143.042                 | M4  | 16 | 8  | 9,5  | 3,5 | 7                |
| K0143.05        | K0143.052                 | M5  | 20 | 10 | 11,5 | 4   | 13               |
| K0143.06        | K0143.062                 | M6  | 24 | 12 | 15   | 5   | 24               |
| K0143.08        | K0143.082                 | M8  | 30 | 16 | 18   | 6   | 46               |
| K0143.10        | K0143.102                 | M10 | 36 | 20 | 23   | 8   | 88               |
| K0143.12        | K0143.122                 | M12 | 36 | 20 | 23   | 8   | 125              |



## High knurled thumb screws

in steel and stainless steel, DIN 464



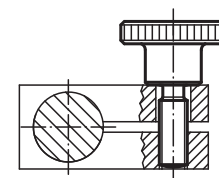
**Material, surface finish:**  
Free-cutting steel black oxide finish.  
Stainless steel, natural finish.

**Sample order:**  
K0140.06X20 (Please also indicate dimension L.)

**Note:**  
\* The knurled thumb screw is supplied with shaft in this length (no thread undercut).

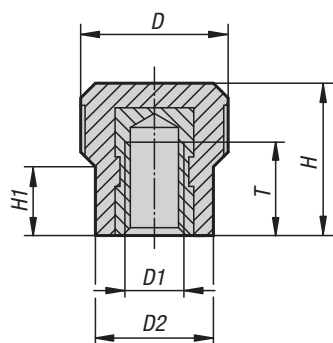
### KIPP High knurled thumb screws in steel and stainless steel, DIN 464

| Order No.<br>Steel | Order No.<br>Stainless steel | D1  | D2 | D3 | L            | H    | K   |
|--------------------|------------------------------|-----|----|----|--------------|------|-----|
| K0140.04X          | K0140.042X                   | M4  | 16 | 8  | 10/16/20*    | 9,5  | 3,5 |
| K0140.05X          | K0140.052X                   | M5  | 20 | 10 | 10/16/20*    | 11,5 | 4   |
| K0140.06X          | K0140.062X                   | M6  | 24 | 12 | 10/16/20/25* | 15   | 5   |
| K0140.08X          | K0140.082X                   | M8  | 30 | 16 | 16/20/25/30* | 18   | 6   |
| K0140.10X          | K0140.102X                   | M10 | 36 | 20 | 20/25/30/40* | 23   | 8   |



# K0142

## Knurled knobs



**Material:**  
Black duroplastic PF 31.  
Bush in brass.

**Surface finish:**  
Deburred and high-polish finish.

**Sample order:**  
K0142.11203

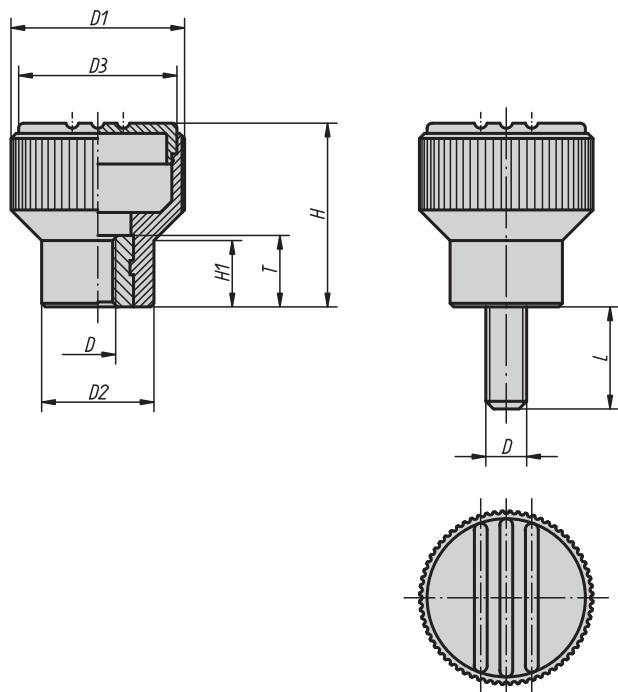
**On request:**  
Other colours.

### KIPP Knurled knobs

| Order No.   | D  | D1 | D2 | H    | H1 | T   |
|-------------|----|----|----|------|----|-----|
| K0142.11203 | 12 | M3 | 10 | 13,5 | 6  | 6,5 |
| K0142.11204 | 12 | M4 | 10 | 13,5 | 6  | 10  |
| K0142.11504 | 15 | M4 | 12 | 15,5 | 7  | 10  |
| K0142.11505 | 15 | M5 | 12 | 15,5 | 7  | 10  |
| K0142.11506 | 15 | M6 | 12 | 15,5 | 7  | 9   |

## Knurled knobs

N<sup>G</sup>



The handy knurled knobs have several key features: excellent ergonomics, raised belt fluting and optimized design keep opening new target markets and increase the esthetic and safety-related profile of any product it appears with.

**Material, surface finish:**

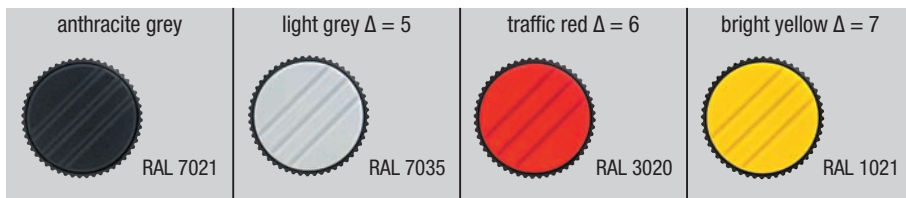
Anthracite grey thermoplastic.  
Bush and threaded bolt in steel 5.8, blue chromated or in stainless steel 1.4305, natural finish.

**Sample order:**

K0247.01056X20 (Cap colour traffic red. Please also indicate dimension L.)

**Note:**

Δ Add the desired cap colour here. No colour code is required with anthracite grey wheel caps.



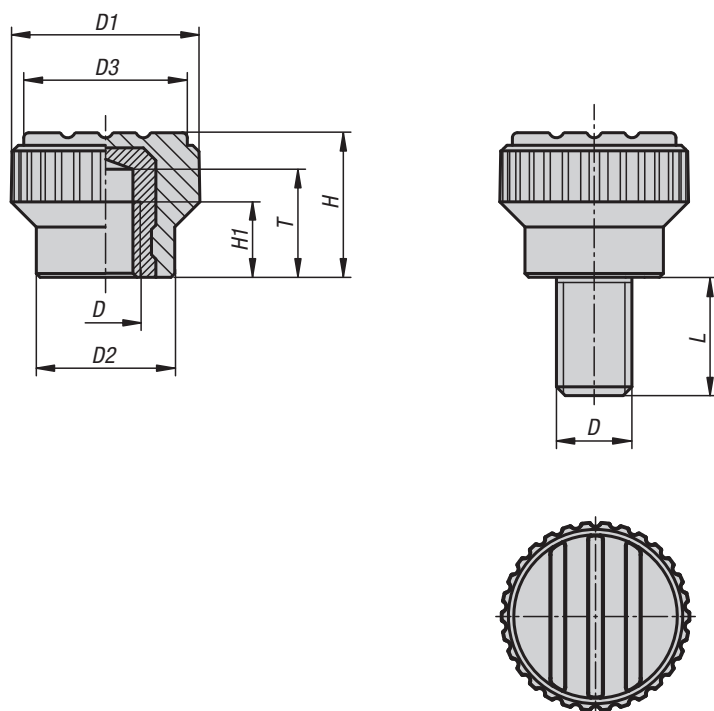
### KIPP Knurled knobs with internal thread

| Order No.<br>bush in steel | Order No.<br>bush in stainless steel | Size | D   | D1 | D2 | D3 | H  | H1  | T  |
|----------------------------|--------------------------------------|------|-----|----|----|----|----|-----|----|
| K0247.104Δ                 | K0247.0104Δ                          | 1    | M4  | 21 | 14 | 19 | 22 | 8   | 10 |
| K0247.105Δ                 | K0247.0105Δ                          | 1    | M5  | 21 | 14 | 19 | 22 | 8   | 10 |
| K0247.106Δ                 | K0247.0106Δ                          | 1    | M6  | 21 | 14 | 19 | 22 | 8   | 10 |
| K0247.208Δ                 | K0247.0208Δ                          | 2    | M8  | 26 | 18 | 23 | 26 | 9,5 | 14 |
| K0247.308Δ                 | K0247.0308Δ                          | 3    | M8  | 34 | 22 | 31 | 36 | 13  | 14 |
| K0247.310Δ                 | K0247.0310Δ                          | 3    | M10 | 34 | 22 | 31 | 36 | 13  | 14 |

### KIPP Knurled knobs with external thread

| Order No.<br>bolts steel | Order No.<br>bolts stainless steel | Size | D   | D1 | D2 | D3 | H  | H1  | L = screw length |
|--------------------------|------------------------------------|------|-----|----|----|----|----|-----|------------------|
| K0247.105ΔX              | K0247.0105ΔX                       | 1    | M5  | 21 | 14 | 19 | 22 | 8   | 10/12/15/20/25   |
| K0247.106ΔX              | K0247.0106ΔX                       | 1    | M6  | 21 | 14 | 19 | 22 | 8   | 15/20/25/30      |
| K0247.208ΔX              | K0247.0208ΔX                       | 2    | M8  | 26 | 18 | 23 | 26 | 9,5 | 20/25/30/40      |
| K0247.310ΔX              | K0247.0310ΔX                       | 3    | M10 | 34 | 22 | 31 | 36 | 13  | 20/30/40         |

## Knurled knobs



**Material:**  
Anthracite grey thermoplastic.

**Surface finish:**  
Bush in brass or stainless steel 1.4305, natural finish.  
Threaded bolt in steel 5.8, blue chromated or stainless steel 1.4305, natural finish.

**Sample order:**  
K0110.005x12

**Note:**  
Other colours available on request.

### KIPP Knurled knobs with internal thread

| Order No.  | Surface finish          | D  | D1 | D2 | D3 | H    | H1  | T   | Approx. weight g |
|------------|-------------------------|----|----|----|----|------|-----|-----|------------------|
| K0110.003  | bush brass              | M3 | 15 | 11 | 13 | 11,5 | 4,5 | 8,6 | 3,9              |
| K0110.004  | bush brass              | M4 | 15 | 11 | 13 | 11,5 | 6   | 8,6 | 4,1              |
| K0110.005  | bush brass              | M5 | 15 | 11 | 13 | 11,5 | 6   | 8,6 | 4,31             |
| K0110.0003 | bush in stainless steel | M3 | 15 | 11 | 13 | 11,5 | 4,5 | 8,6 | 3,9              |
| K0110.0004 | bush in stainless steel | M4 | 15 | 11 | 13 | 11,5 | 6   | 8,6 | 4                |
| K0110.0005 | bush in stainless steel | M5 | 15 | 11 | 13 | 11,5 | 6   | 8,6 | 4,1              |

### KIPP Knurled knobs with external thread

| Order No.   | Surface finish          | D  | D1 | D2 | D3 | H    | L           |
|-------------|-------------------------|----|----|----|----|------|-------------|
| K0110.003X  | bolt in steel           | M3 | 15 | 11 | 13 | 11,5 | 8/10/12/15  |
| K0110.004X  | bolt in steel           | M4 | 15 | 11 | 13 | 11,5 | 8/10/12/15  |
| K0110.005X  | bolt in steel           | M5 | 15 | 11 | 13 | 11,5 | 10/12/15/20 |
| K0110.006X  | bolt in steel           | M6 | 15 | 11 | 13 | 11,5 | 10/15/20/25 |
| K0110.0003X | bolt in stainless steel | M3 | 15 | 11 | 13 | 11,5 | 8/10/12/15  |
| K0110.0004X | bolt in stainless steel | M4 | 15 | 11 | 13 | 11,5 | 8/10/12/15  |
| K0110.0005X | bolt in stainless steel | M5 | 15 | 11 | 13 | 11,5 | 10/12/15/20 |
| K0110.0006X | bolt in stainless steel | M6 | 15 | 11 | 13 | 11,5 | 10/15/20/25 |

## Knurled heads

for hexagon socket screws



**Material:**

Thermoplastic.

**Surface finish:**

Black, grey or red.

**Sample order:**

K0680.0506 (knurled head colour red)

Colour code:

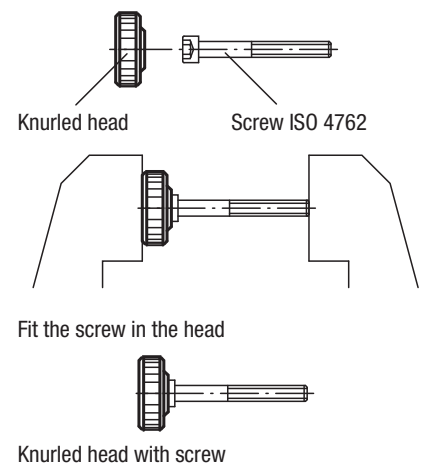
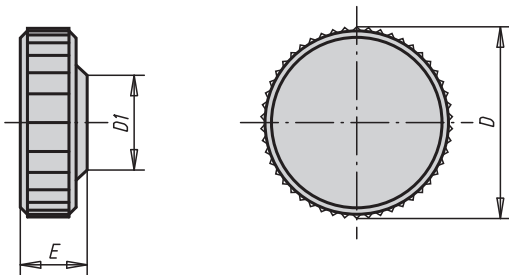
5 = grey

6 = red

**Note:**

Suitable screws ISO 4762.

Δ Add the desired knurled head colour here; no colour code is required with black knurled head.

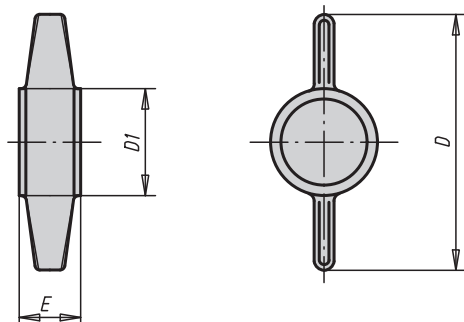


### KIPP Knurled heads for hexagon socket screws

| Order No.  | D   | D1   | E   | for hexagon socket screw | Approx. weight kg |
|------------|-----|------|-----|--------------------------|-------------------|
| K0680.030Δ | 9,5 | 8,3  | 4,5 | M3                       | 0,040             |
| K0680.040Δ | 13  | 9,6  | 5,5 | M4                       | 0,060             |
| K0680.050Δ | 16  | 11,5 | 6,5 | M5                       | 0,070             |
| K0680.060Δ | 19  | 13   | 7,5 | M6                       | 0,130             |
| K0680.061Δ | 26  | 13   | 7,8 | M6                       | 0,180             |
| K0680.080Δ | 26  | 16   | 9,8 | M8                       | 0,300             |

## Butterfly heads

for hexagon socket screws



**Material:**

Thermoplastic.

**Surface finish:**

Black, grey or red.

**Sample order:**

K0681.0506 (butterfly head colour red)

Colour code:

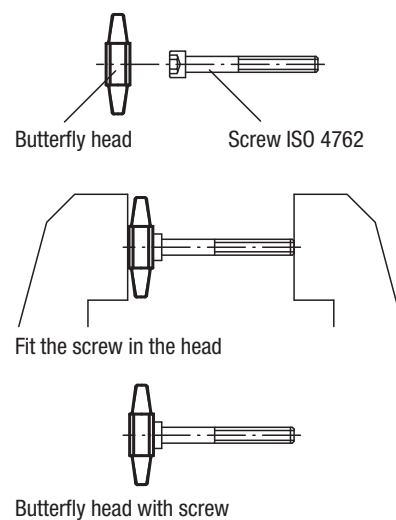
5 = grey

6 = red

**Note:**

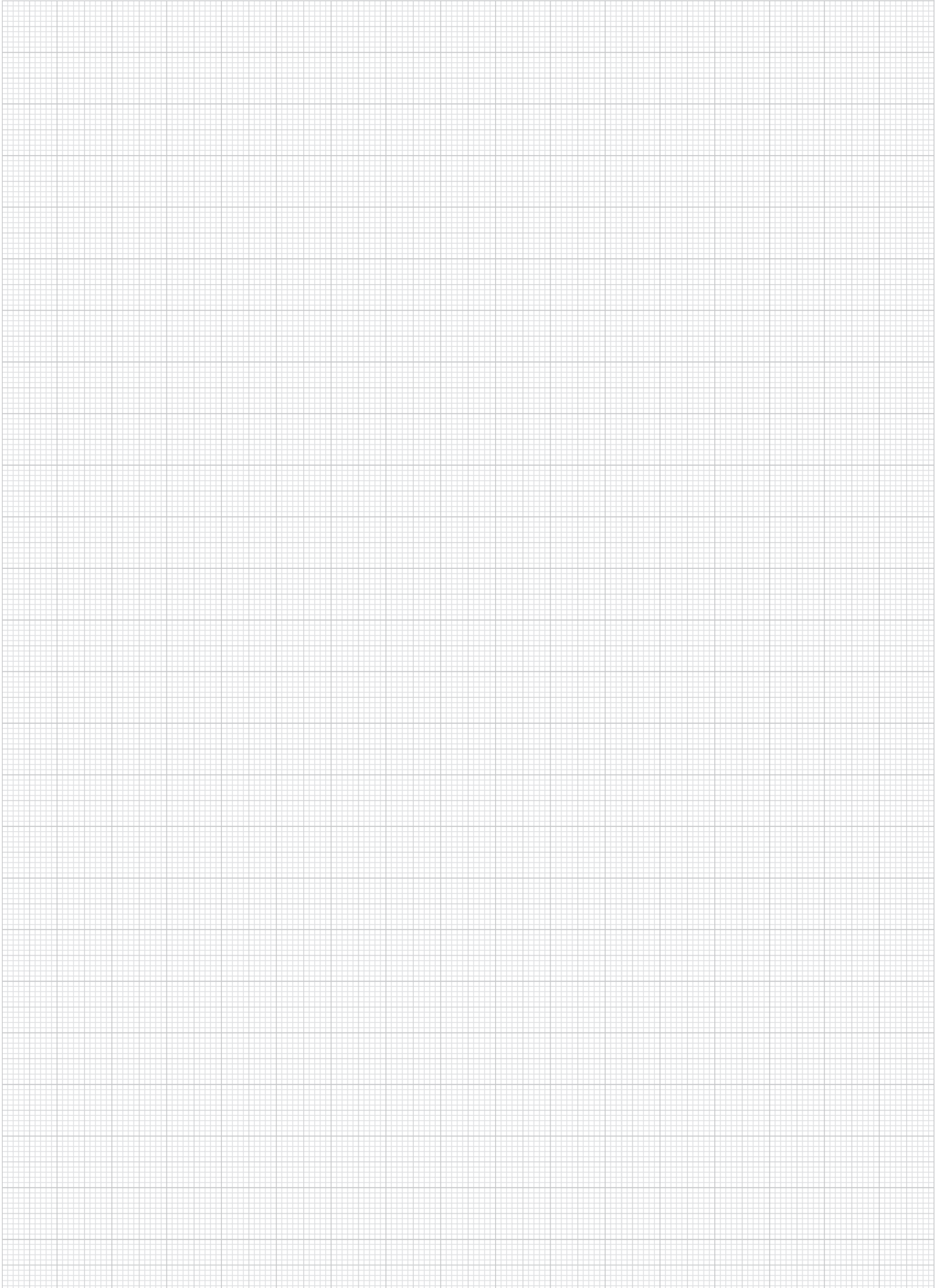
Suitable screws ISO 4762.

Δ Add the desired butterfly head colour here; no colour code is required with black butterfly head.



### KIPP Butterfly heads for hexagon socket screws

| Order No. | D  | D1   | E    | for hexagon socket screw | Approx. weight kg/100 |
|-----------|----|------|------|--------------------------|-----------------------|
| K0681.050 | 26 | 12   | 6,6  | M5                       | 0,104                 |
| K0681.060 | 30 | 13,5 | 7,8  | M6                       | 0,130                 |
| K0681.080 | 38 | 16,5 | 10   | M8                       | 0,290                 |
| K0681.100 | 45 | 20   | 12,5 | M10                      | 0,405                 |



## Aluminium palm grips

similar to DIN 6335

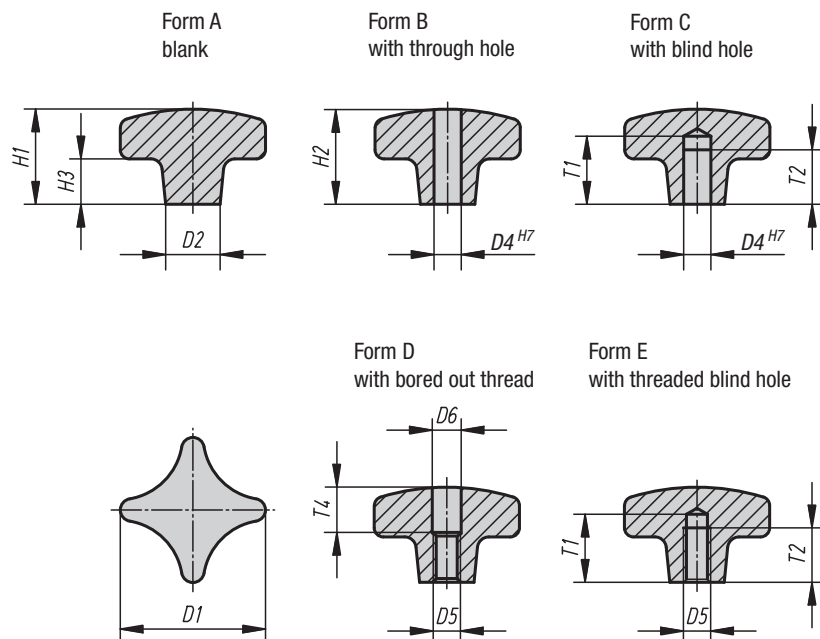


**Material:**  
Aluminium.

**Surface finish:**  
Natural finish tumbled or ground and polished.

**Sample order:**  
K0145.104008

**On request:**  
Palm grips as blanks (deburred).



### KIPP Aluminium palm grips similar to DIN 6335

| Order No.    | Surface finish | Form | D1 | D2 | H1 | H3 |
|--------------|----------------|------|----|----|----|----|
| K0145.104008 | tumbled        | A    | 40 | 14 | 26 | 14 |
| K0145.105010 | tumbled        | A    | 50 | 18 | 34 | 20 |
| K0145.106312 | tumbled        | A    | 63 | 20 | 42 | 25 |
| K0145.108016 | tumbled        | A    | 80 | 25 | 52 | 30 |



## Aluminium palm grips

similar to DIN 6335



## KIPP Aluminium palm grips similar to DIN 6335

| Order No.<br>tumbled | Order No.<br>polished | Form | D1 | D2 | D4 | H2 | H3 |
|----------------------|-----------------------|------|----|----|----|----|----|
| K0145.204008         | K0145.2040082         | B    | 40 | 14 | 8  | 25 | 14 |
| K0145.205010         | K0145.2050102         | B    | 50 | 18 | 10 | 32 | 20 |
| K0145.206312         | K0145.2063122         | B    | 63 | 20 | 12 | 40 | 25 |
| K0145.208016         | K0145.2080162         | B    | 80 | 25 | 16 | 50 | 30 |

| Order No.<br>tumbled | Order No.<br>polished | Form | D1 | D2 | D4 | H1 | H3 | T1 | T2 |
|----------------------|-----------------------|------|----|----|----|----|----|----|----|
| K0145.304008         | K0145.3040082         | C    | 40 | 14 | 8  | 26 | 14 | 18 | 15 |
| K0145.305010         | K0145.3050102         | C    | 50 | 18 | 10 | 34 | 20 | 21 | 18 |
| K0145.306312         | K0145.3063122         | C    | 63 | 20 | 12 | 42 | 25 | 25 | 22 |
| K0145.308016         | K0145.3080162         | C    | 80 | 25 | 16 | 52 | 30 | 32 | 28 |

| Order No.<br>tumbled | Order No.<br>polished | Form | D1 | D2 | D5  | D6   | H2 | H3 | T4 |
|----------------------|-----------------------|------|----|----|-----|------|----|----|----|
| K0145.404008         | K0145.4040082         | D    | 40 | 14 | M8  | 8,4  | 25 | 14 | 12 |
| K0145.405010         | K0145.4050102         | D    | 50 | 18 | M10 | 10,5 | 32 | 20 | 16 |
| K0145.406312         | K0145.4063122         | D    | 63 | 20 | M12 | 13   | 40 | 25 | 20 |
| K0145.408016         | K0145.4080162         | D    | 80 | 25 | M16 | 17   | 50 | 30 | 30 |

| Order No.<br>tumbled | Order No.<br>polished | Form | D1 | D2 | D5  | H1 | H3 | T1 | T2 |
|----------------------|-----------------------|------|----|----|-----|----|----|----|----|
| K0145.504008         | K0145.5040082         | E    | 40 | 14 | M8  | 26 | 14 | 18 | 15 |
| K0145.505010         | K0145.5050102         | E    | 50 | 18 | M10 | 34 | 20 | 21 | 18 |
| K0145.506312         | K0145.5063122         | E    | 63 | 20 | M12 | 42 | 25 | 25 | 22 |
| K0145.508016         | K0145.5080162         | E    | 80 | 25 | M16 | 52 | 30 | 32 | 28 |

## Palm grips

in stainless steel, similar to DIN 6335

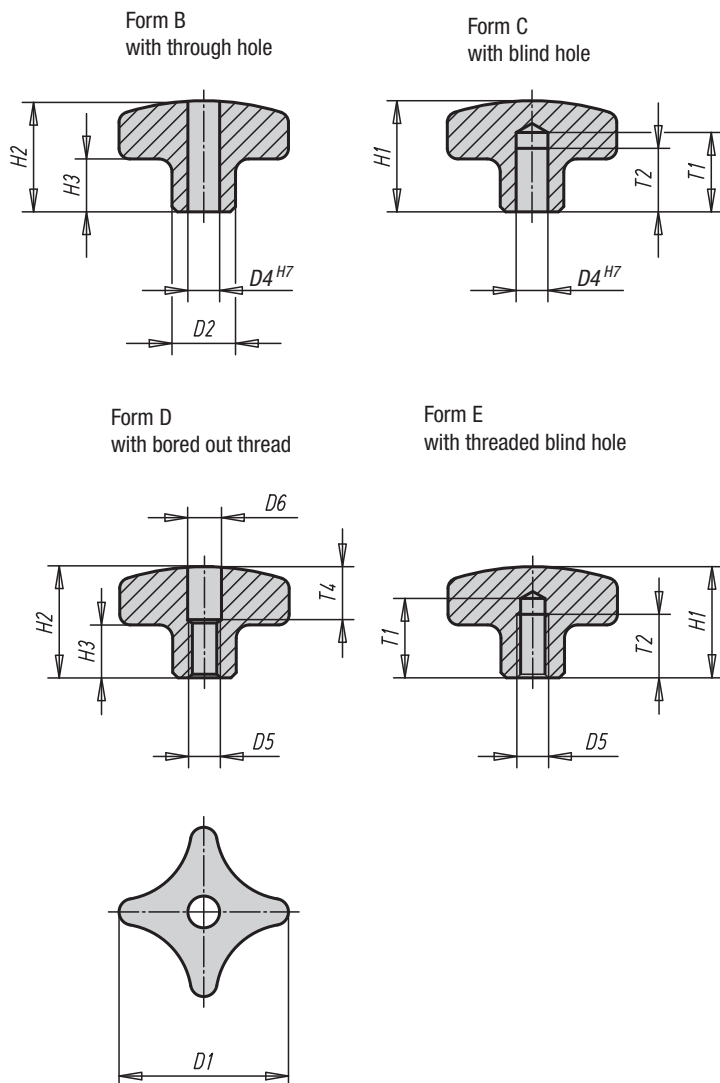


**Material:**  
Stainless steel 1.4308.

**Surface finish:**  
Ground and polished.

**Sample order:**  
K0146.2032062

**On request:**  
Palm grips in stainless steel with external thread.



### KIPP Palm grips in stainless steel, similar to DIN 6335

| Order No.<br>Form B | Order No.<br>Form C | Surface finish | D1 | D2 | D4 | H1   | H2   | H3 | T1   | T2   |
|---------------------|---------------------|----------------|----|----|----|------|------|----|------|------|
| K0146.2032062       | K0146.3032062       | polished       | 32 | 12 | 6  | -/21 | 20/- | 10 | -/15 | -/12 |
| K0146.2040082       | K0146.3040082       | polished       | 40 | 14 | 8  | -/26 | 25/- | 13 | -/18 | -/15 |
| K0146.2050102       | K0146.3050102       | polished       | 50 | 18 | 10 | -/34 | 32/- | 17 | -/21 | -/18 |
| K0146.2063122       | K0146.3063122       | polished       | 63 | 20 | 12 | -/42 | 40/- | 21 | -/25 | -/22 |

| Order No.<br>Form D | Order No.<br>Form E | Surface finish | D1 | D2 | D5  | D6     | H1   | H2   | H3 | T1   | T2   | T4   |
|---------------------|---------------------|----------------|----|----|-----|--------|------|------|----|------|------|------|
| K0146.4032062       | K0146.5032062       | polished       | 32 | 12 | M6  | 6,4/-  | -/21 | 20/- | 10 | -/15 | -/12 | 10/- |
| K0146.4040082       | K0146.5040082       | polished       | 40 | 14 | M8  | 8,4/-  | -/26 | 25/- | 13 | -/18 | -/15 | 12/- |
| K0146.4050102       | K0146.5050102       | polished       | 50 | 18 | M10 | 10,5/- | -/34 | 32/- | 17 | -/21 | -/18 | 16/- |
| K0146.4063122       | K0146.5063122       | polished       | 63 | 20 | M12 | 13/-   | -/42 | 40/- | 21 | -/25 | -/22 | 20/- |

## Grey cast iron palm grips

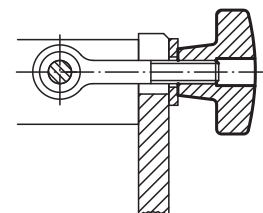
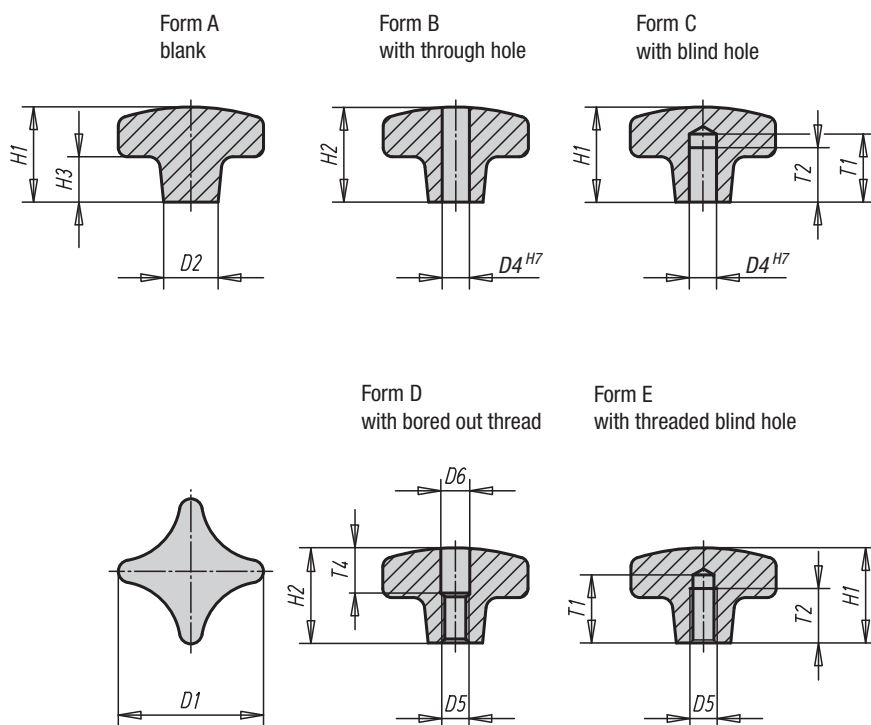
DIN 6335



**Material:**  
Grey cast iron GJL 200.

**Surface finish:**  
Natural finish tumbled.

**Sample order:**  
K0147.106



### KIPP Grey cast iron palm grips DIN 6335

| Order No.<br>Form A | Order No.<br>Form B | Surface finish | D1  | D2 | D4  | H1   | H2   | H3 |
|---------------------|---------------------|----------------|-----|----|-----|------|------|----|
| K0147.106           | K0147.206           | tumbled        | 32  | 12 | -6  | 21/- | -/20 | 10 |
| K0147.108           | K0147.208           | tumbled        | 40  | 14 | -8  | 26/- | -/25 | 14 |
| K0147.110           | K0147.210           | tumbled        | 50  | 18 | -10 | 34/- | -/32 | 20 |
| K0147.112           | K0147.212           | tumbled        | 63  | 20 | -12 | 42/- | -/40 | 25 |
| K0147.116           | K0147.216           | tumbled        | 80  | 25 | -16 | 52/- | -/50 | 30 |
| K0147.120           | K0147.220           | tumbled        | 100 | 32 | -20 | 65/- | -/63 | 38 |

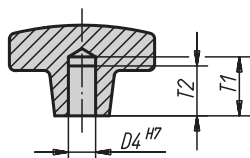
| Order No.<br>Form C | Order No.<br>Form D | Order No.<br>Form E | Surface finish | D1  | D2 | D4     | D5        | D6       | H1      | H2     | H3 | T1      | T2      | T4     |
|---------------------|---------------------|---------------------|----------------|-----|----|--------|-----------|----------|---------|--------|----|---------|---------|--------|
| K0147.306           | K0147.406           | K0147.506           | tumbled        | 32  | 12 | 6/-/-  | -/M6/M6   | -/6,4/-  | 21/-/21 | -/20/- | 10 | -/15/15 | -/12/12 | -/10/- |
| K0147.308           | K0147.408           | K0147.508           | tumbled        | 40  | 14 | 8/-/-  | -/M8/M8   | -/8,4/-  | 26/-/26 | -/25/- | 14 | -/18/18 | -/15/15 | -/12/- |
| K0147.310           | K0147.410           | K0147.510           | tumbled        | 50  | 18 | 10/-/- | -/M10/M10 | -/10,5/- | 34/-/34 | -/32/- | 20 | -/21/21 | -/18/18 | -/16/- |
| K0147.312           | K0147.412           | K0147.512           | tumbled        | 63  | 20 | 12/-/- | -/M12/M12 | -/13/-   | 42/-/42 | -/40/- | 25 | -/25/25 | -/22/22 | -/20/- |
| K0147.316           | K0147.416           | K0147.516           | tumbled        | 80  | 25 | 16/-/- | -/M16/M16 | -/17/-   | 52/-/52 | -/50/- | 30 | -/32/32 | -/28/28 | -/30/- |
| K0147.320           | K0147.420           | K0147.520           | tumbled        | 100 | 32 | 20/-/- | -/M20/M20 | -/21/-   | 65/-/65 | -/63/- | 38 | -/40/40 | -/36/36 | -/38/- |

## Four palm grips in grey cast iron

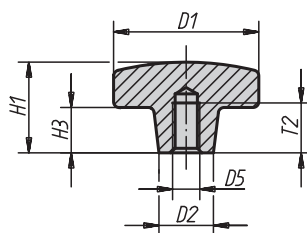
plastic coated conforms to DIN 6335



Form C  
bored blind hole



Form E  
tapped blind hole



**Material:**  
Grey cast iron GJL 200.

**Surface finish:**  
Plastic coated.

**Sample order:**  
K0682.212

**Note:**  
Orange: RAL 2004.  
Black: RAL 9005 matt.

### KIPP Grey cast iron palm grips plastic coated conforms to DIN 6335

| Order No.<br>Colour orange | Order No.<br>Colour black matt finish | Form | D1 | D2 | D4 | D5  | H1 | H3 | T1 | T2 | Approx.<br>weight<br>kg |
|----------------------------|---------------------------------------|------|----|----|----|-----|----|----|----|----|-------------------------|
| K0682.108                  | K0682.208                             | C    | 40 | 14 | 8  | -   | 26 | 14 | 18 | 15 | 0,055                   |
| K0682.110                  | K0682.210                             | C    | 50 | 18 | 10 | -   | 34 | 20 | 21 | 18 | 0,105                   |
| K0682.112                  | K0682.212                             | C    | 63 | 20 | 12 | -   | 42 | 25 | 25 | 22 | 0,195                   |
| K0682.116                  | K0682.216                             | C    | 80 | 25 | 16 | -   | 52 | 30 | 32 | 28 | 0,380                   |
| K0682.308                  | K0682.408                             | E    | 40 | 14 | -  | M8  | 26 | 14 | -  | 15 | 0,055                   |
| K0682.310                  | K0682.410                             | E    | 50 | 18 | -  | M10 | 34 | 20 | -  | 18 | 0,105                   |
| K0682.312                  | K0682.412                             | E    | 63 | 20 | -  | M12 | 42 | 25 | -  | 22 | 0,195                   |
| K0682.316                  | K0682.416                             | E    | 80 | 25 | -  | M16 | 52 | 30 | -  | 28 | 0,380                   |

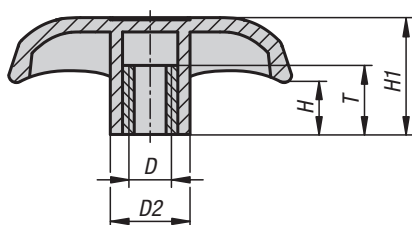
## Palm grips Soft



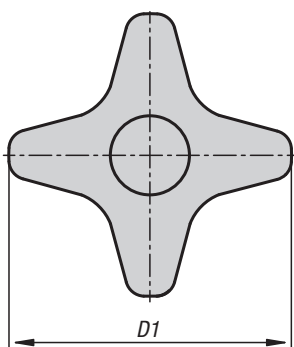
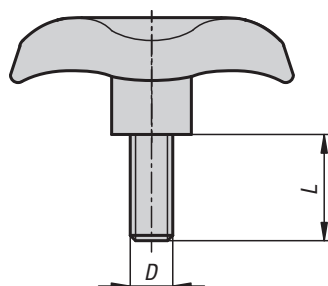
**S<sup>T</sup>**



Form K  
internal thread



Form L  
external thread



**Material, surface finish:**

Body in hard, black thermoplastic.  
Coating in soft, black thermoplastic.  
Bush and threaded bolt in steel 5.8, galvanized.

**Sample order:**

K0613.5108X20 (Please also indicate dimension L.)

**Note:**

Palm grips with a soft gripping surface combine the stability of standard thermoplastic grips with the pleasant feel of the soft surface. The soft coating on the palm grips ensures a pleasant-to-grip and non-slip surface. Higher clamping forces can be achieved while being kind to the skin.

### KIPP Soft palm grips with internal thread

| Order No.  | Form | D   | D1 | D2   | H    | H1 | T  | Approx. weight kg |
|------------|------|-----|----|------|------|----|----|-------------------|
| K0613.5108 | K    | M8  | 51 | 15   | 10   | 22 | 13 | 0,016             |
| K0613.5110 | K    | M10 | 51 | 15   | 10   | 22 | 13 | 0,033             |
| K0613.7608 | K    | M8  | 76 | 19,5 | 13,5 | 28 | 20 | 0,018             |
| K0613.7610 | K    | M10 | 76 | 19,5 | 13,5 | 28 | 20 | 0,035             |
| K0613.7612 | K    | M12 | 76 | 19,5 | 13,5 | 28 | 20 | 0,037             |

### KIPP Soft palm grips with external thread

| Order No.   | Form | D   | D1 | D2   | H    | H1 | L        |
|-------------|------|-----|----|------|------|----|----------|
| K0613.5108X | L    | M8  | 51 | 15   | 10   | 23 | 20/40    |
| K0613.5110X | L    | M10 | 51 | 15   | 10   | 23 | 20/40    |
| K0613.7608X | L    | M8  | 76 | 19,5 | 13,5 | 30 | 20/40    |
| K0613.7610X | L    | M10 | 76 | 19,5 | 13,5 | 30 | 20/40    |
| K0613.7612X | L    | M12 | 76 | 19,5 | 13,5 | 30 | 20/30/40 |

## Palm grips

similar to DIN 6335



**Material:**

Black duroplastic PF 31.

Projecting bush in steel.

Bush and threaded bolt in galvanized steel.

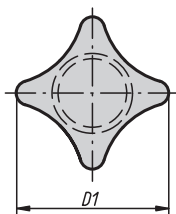
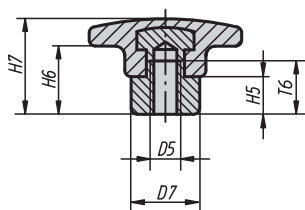
**Surface finish:**

Deburred and high-polish finish.

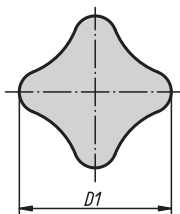
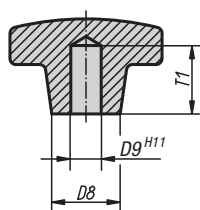
**Sample order:**

K0148.505X30 (Please also indicate dimension L.)

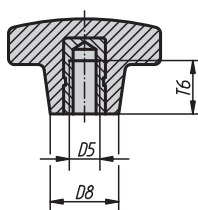
Form E  
with projecting  
steel bush



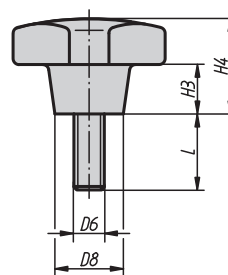
Form G  
with blind hole



Form K  
with threaded bush



Form L  
with external thread



# Palm grips

similar to DIN 6335



## KIPP Palm grips similar to DIN 6335, form E

| Order No. | Form | D1 | D5  | D7 | H5 | H6 | H7 | T6 |
|-----------|------|----|-----|----|----|----|----|----|
| K0148.306 | E    | 32 | M6  | 12 | 9  | 12 | 23 | 12 |
| K0148.308 | E    | 40 | M8  | 14 | 10 | 13 | 26 | 14 |
| K0148.310 | E    | 50 | M10 | 18 | 12 | 18 | 32 | 18 |
| K0148.312 | E    | 63 | M12 | 20 | 14 | 23 | 40 | 22 |
| K0148.316 | E    | 80 | M16 | 25 | 17 | 28 | 50 | 30 |

## KIPP Palm grips similar to DIN 6335, form G

| Order No. | Form | D1 | D8 | D9 | H3 | H4 | T1 |
|-----------|------|----|----|----|----|----|----|
| K0148.405 | G    | 25 | 12 | 5  | 8  | 16 | 12 |
| K0148.406 | G    | 32 | 14 | 6  | 10 | 20 | 15 |
| K0148.408 | G    | 40 | 18 | 8  | 13 | 25 | 18 |
| K0148.410 | G    | 50 | 22 | 10 | 20 | 32 | 21 |
| K0148.412 | G    | 63 | 26 | 12 | 25 | 40 | 25 |

## KIPP Palm grips similar to DIN 6335, form K

| Order No. | Form | D1 | D5  | D8 | H3 | H4 | T6  |
|-----------|------|----|-----|----|----|----|-----|
| K0148.205 | K    | 25 | M5  | 12 | 8  | 16 | 9,5 |
| K0148.206 | K    | 32 | M6  | 14 | 10 | 20 | 12  |
| K0148.208 | K    | 40 | M8  | 18 | 13 | 25 | 14  |
| K0148.210 | K    | 50 | M10 | 22 | 20 | 32 | 18  |
| K0148.212 | K    | 63 | M12 | 26 | 25 | 40 | 22  |
| K0148.216 | K    | 80 | M16 | 35 | 30 | 50 | 30  |

## KIPP Palm grips similar to DIN 6335, form L

| Order No.  | Form | D1 | D6  | D8 | H3 | H4 | L = screw length     |
|------------|------|----|-----|----|----|----|----------------------|
| K0148.505X | L    | 25 | M5  | 12 | 8  | 16 | 15/20/25/30/40/50    |
| K0148.506X | L    | 32 | M6  | 14 | 10 | 20 | 15/20/25/30/40/50    |
| K0148.508X | L    | 40 | M8  | 18 | 13 | 25 | 20/25/30/35/40/45/50 |
| K0148.510X | L    | 50 | M10 | 22 | 20 | 32 | 20/25/30/35/40/45/50 |
| K0148.512X | L    | 63 | M12 | 26 | 25 | 40 | 20/30/40/50/60       |



## Quick-fastening grips

in grey cast iron



**Material:**

Grey cast iron GJL 300.

**Surface finish:**

Sand-blasted or tumbled.

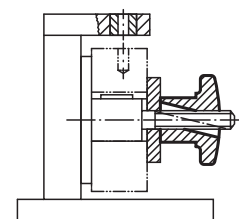
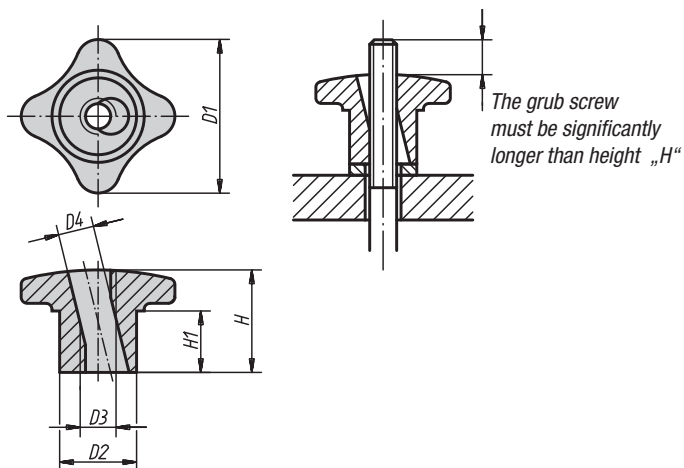
**Sample order:**

K0683.08

**Note:**

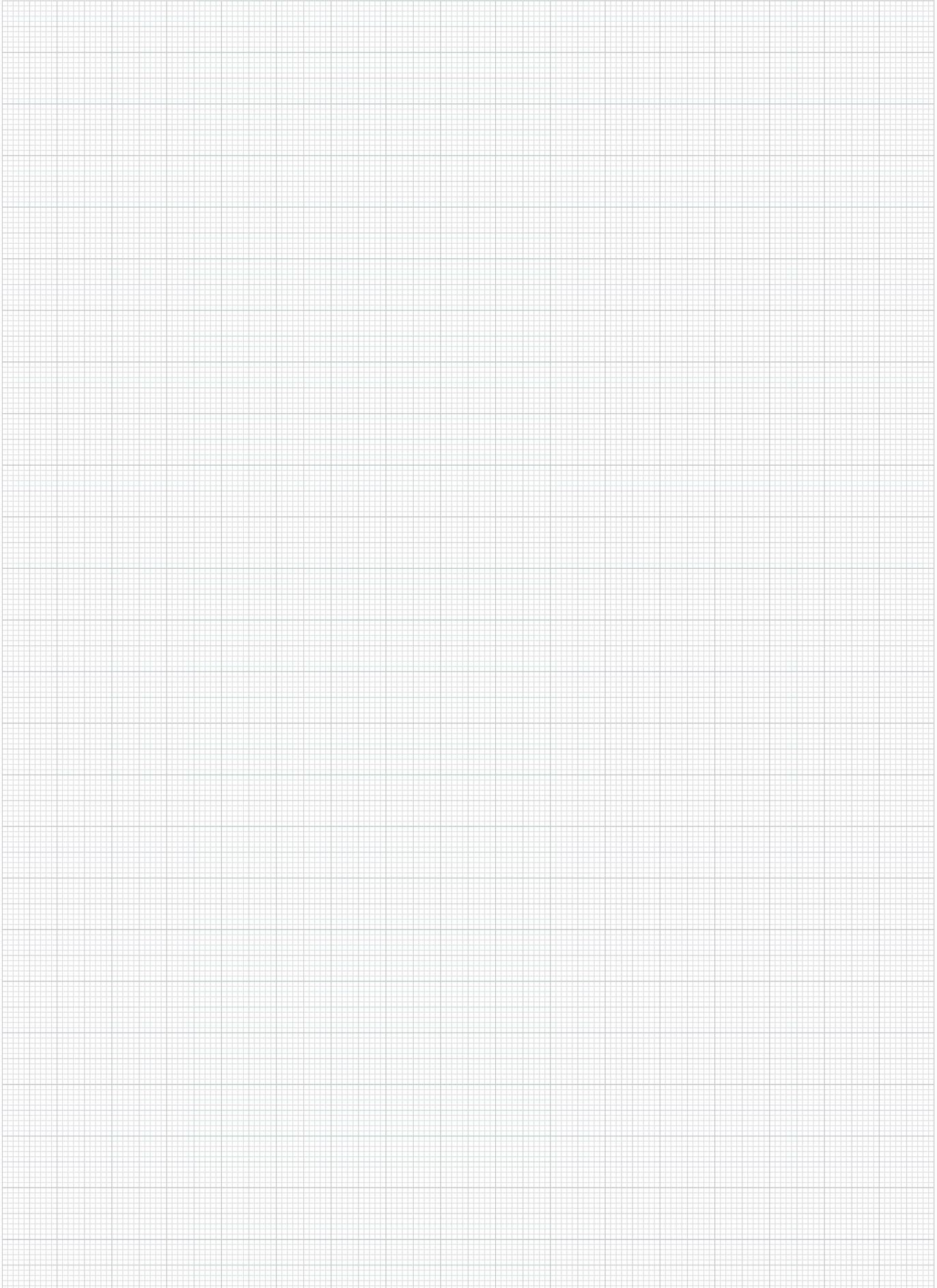
Quick-fastening grips can be used on all systems that do not require much clamping force.

This function is achieved by means of a semilateral thread.



### KIPP Quick-fastening palm grips in grey cast iron

| Order No. | D1 | D2 | D3  | D4   | H  | H1 | Approx. weight kg |
|-----------|----|----|-----|------|----|----|-------------------|
| K0683.06  | 30 | 15 | M6  | 7    | 20 | 10 | 0,025             |
| K0683.08  | 40 | 18 | M8  | 9,4  | 25 | 14 | 0,040             |
| K0683.10  | 50 | 21 | M10 | 11,3 | 30 | 16 | 0,085             |
| K0683.12  | 60 | 26 | M12 | 13,1 | 35 | 19 | 0,190             |
| K0683.14  | 70 | 30 | M14 | 15,6 | 40 | 22 | 0,270             |
| K0683.16  | 80 | 34 | M16 | 17,6 | 45 | 25 | 0,380             |



## Aluminium star grips

similar to DIN 6336

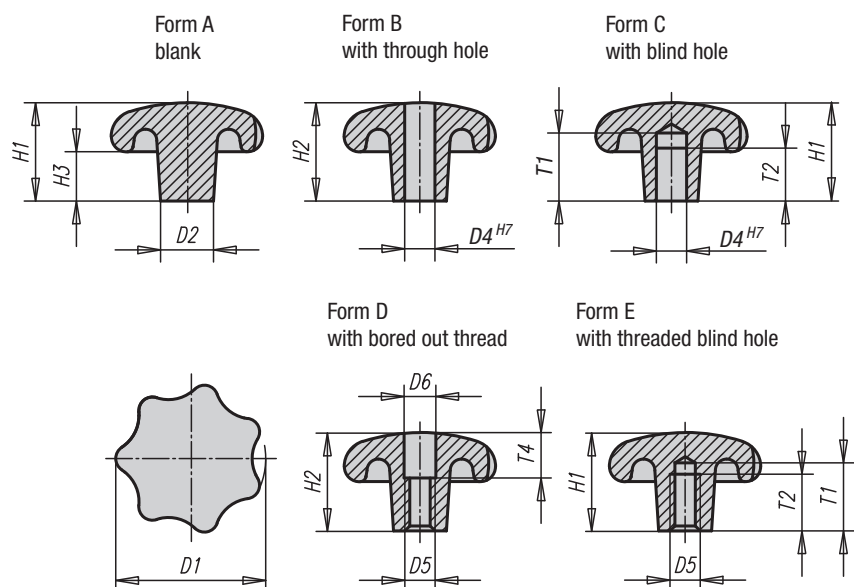


**Material:**  
Aluminium.

**Surface finish:**  
Natural finish. Tumbled or ground and polished.

**Sample order:**  
K0149.14008

**On request:**  
Star grips as blanks (deburred).



### KIPP Aluminium star grips similar to DIN 6336

| Order No.   | Surface finish | Form | D1 | D2 | H1 | H3 |
|-------------|----------------|------|----|----|----|----|
| K0149.14008 | tumbled        | A    | 40 | 14 | 26 | 13 |
| K0149.15010 | tumbled        | A    | 50 | 18 | 34 | 17 |
| K0149.16312 | tumbled        | A    | 63 | 20 | 42 | 21 |
| K0149.18016 | tumbled        | A    | 80 | 25 | 52 | 25 |

| Order No. tumbled | Order No. polished | Form | D1 | D2 | D4 | H2 | H3 |
|-------------------|--------------------|------|----|----|----|----|----|
| K0149.24008       | K0149.240082       | B    | 40 | 14 | 8  | 25 | 13 |
| K0149.25010       | K0149.250102       | B    | 50 | 18 | 10 | 32 | 17 |
| K0149.26312       | K0149.263122       | B    | 63 | 20 | 12 | 40 | 21 |
| K0149.28016       | K0149.280162       | B    | 80 | 25 | 16 | 50 | 25 |

## Aluminium star grips

similar to DIN 6336



## KIPP Aluminium star grips similar to DIN 6336

| Order No.<br>tumbled | Order No.<br>polished | Form | D1 | D2 | D4 | H1 | H3 | T1 | T2 |
|----------------------|-----------------------|------|----|----|----|----|----|----|----|
| K0149.34008          | K0149.340082          | C    | 40 | 14 | 8  | 26 | 13 | 18 | 15 |
| K0149.35010          | K0149.350102          | C    | 50 | 18 | 10 | 34 | 17 | 21 | 18 |
| K0149.36312          | K0149.363122          | C    | 63 | 20 | 12 | 42 | 21 | 25 | 22 |
| K0149.38016          | K0149.380162          | C    | 80 | 25 | 16 | 52 | 25 | 32 | 28 |

| Order No.<br>tumbled | Order No.<br>polished | Form | D1 | D2 | D5  | D6   | H2 | H3 | T4 |
|----------------------|-----------------------|------|----|----|-----|------|----|----|----|
| K0149.44008          | K0149.440082          | D    | 40 | 14 | M8  | 8,4  | 25 | 13 | 12 |
| K0149.45010          | K0149.450102          | D    | 50 | 18 | M10 | 10,5 | 32 | 17 | 16 |
| K0149.46312          | K0149.463122          | D    | 63 | 20 | M12 | 13   | 40 | 21 | 20 |
| K0149.48016          | K0149.480162          | D    | 80 | 25 | M16 | 17   | 50 | 25 | 30 |

| Order No.<br>tumbled | Order No.<br>polished | Form | D1 | D2 | D5  | H1 | H3 | T1 | T2 |
|----------------------|-----------------------|------|----|----|-----|----|----|----|----|
| K0149.54008          | K0149.540082          | E    | 40 | 14 | M8  | 26 | 13 | 18 | 15 |
| K0149.55010          | K0149.550102          | E    | 50 | 18 | M10 | 34 | 17 | 21 | 18 |
| K0149.56312          | K0149.563122          | E    | 63 | 20 | M12 | 42 | 21 | 25 | 22 |
| K0149.58016          | K0149.580162          | E    | 80 | 25 | M16 | 52 | 25 | 32 | 28 |

## Star grips

in stainless steel, similar to DIN 6336

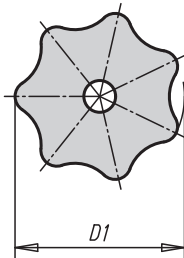
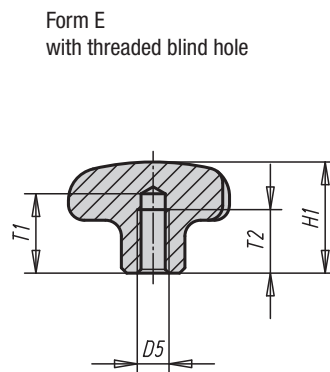
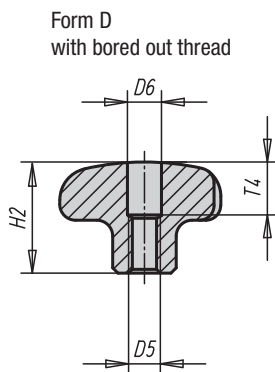
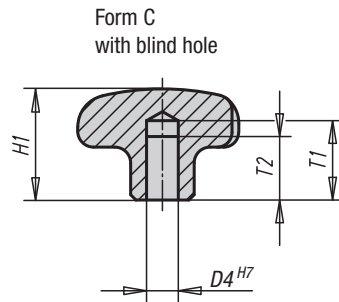
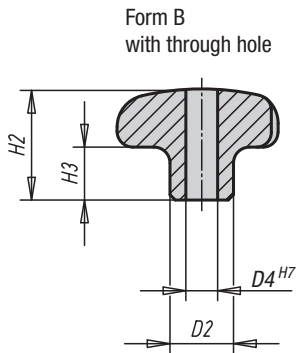


**Material:**  
Stainless steel 1.4308.

**Surface finish:**  
Ground and polished.

**Sample order:**  
K0150.232062

**On request:**  
Star grips in stainless steel with external thread.



### KIPP Star grips in stainless steel, similar to DIN 6336

| Order No.<br>Form B | Order No.<br>Form C | Surface finish | D1 | D2 | D4 | H1   | H2   | H3 | T1   | T2   |
|---------------------|---------------------|----------------|----|----|----|------|------|----|------|------|
| K0150.232062        | K0150.332062        | polished       | 32 | 12 | 6  | -/21 | 20/- | 10 | -/15 | -/12 |
| K0150.240082        | K0150.340082        | polished       | 40 | 14 | 8  | -/26 | 25/- | 13 | -/18 | -/15 |
| K0150.250102        | K0150.350102        | polished       | 50 | 18 | 10 | -/34 | 32/- | 17 | -/21 | -/18 |
| K0150.263122        | K0150.363122        | polished       | 63 | 20 | 12 | -/42 | 40/- | 21 | -/25 | -/22 |

| Order No.<br>Form D | Order No.<br>Form E | Surface finish | D1 | D2 | D5  | D6     | H1   | H2   | H3 | T1   | T2   | T4   |
|---------------------|---------------------|----------------|----|----|-----|--------|------|------|----|------|------|------|
| K0150.432062        | K0150.532062        | polished       | 32 | 12 | M6  | 6,4/-  | -/21 | 20/- | 10 | -/15 | -/12 | 10/- |
| K0150.440082        | K0150.540082        | polished       | 40 | 14 | M8  | 8,4/-  | -/26 | 25/- | 13 | -/18 | -/15 | 12/- |
| K0150.450102        | K0150.550102        | polished       | 50 | 18 | M10 | 10,5/- | -/34 | 32/- | 17 | -/21 | -/18 | 16/- |
| K0150.463122        | K0150.563122        | polished       | 63 | 20 | M12 | 13/-   | -/42 | 40/- | 21 | -/25 | -/22 | 20/- |

## Grey cast iron star grips

DIN 6336

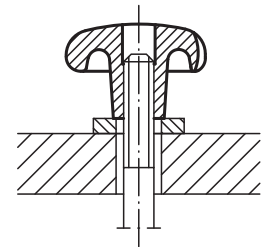
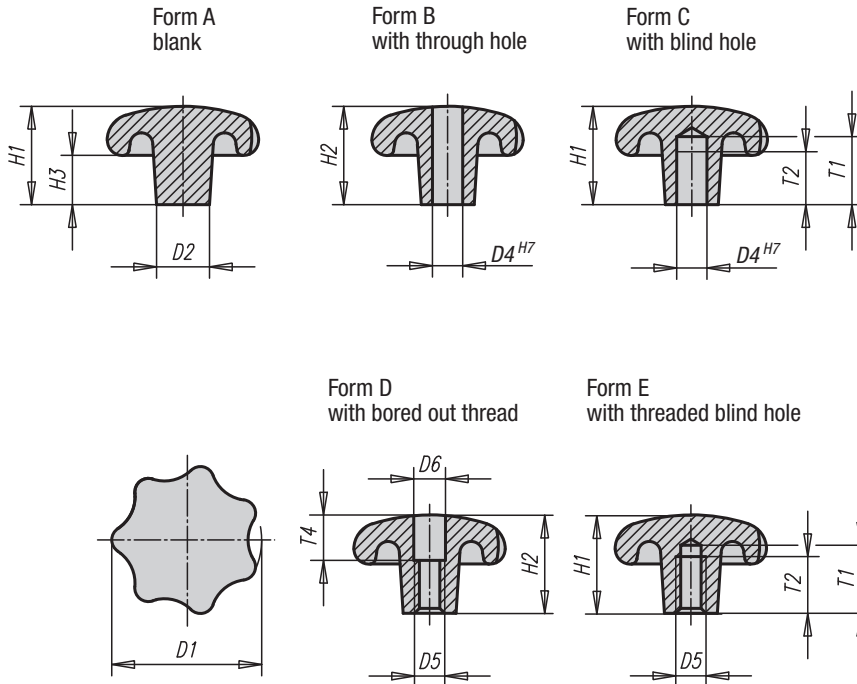


**Material:**  
Grey cast iron GJL 200.

**Surface finish:**  
Natural finish, tumbled.

**Sample order:**  
K0151.106

**On request:**  
Grey cast iron star grips plastic-coated.



### KIPP Grey cast iron star grips DIN 6336

| Order No.<br>Form A | Order No.<br>Form B | Surface finish | D1 | D2 | D4   | H1   | H2   | H3 |
|---------------------|---------------------|----------------|----|----|------|------|------|----|
| K0151.108           | K0151.208           | tumbled        | 40 | 14 | -/8  | 26/- | -/25 | 13 |
| K0151.110           | K0151.210           | tumbled        | 50 | 18 | -/10 | 34/- | -/32 | 17 |
| K0151.112           | K0151.212           | tumbled        | 63 | 20 | -/12 | 42/- | -/40 | 21 |
| K0151.106           | K0151.206           | tumbled        | 32 | 12 | -/6  | 21/- | -/20 | 10 |
| K0151.116           | K0151.216           | tumbled        | 80 | 25 | -/16 | 52/- | -/50 | 25 |

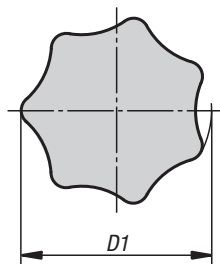
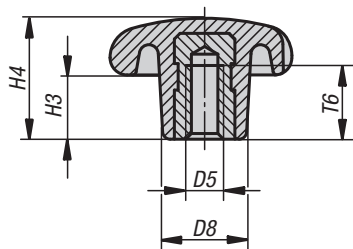
| Order No.<br>Form C | Order No.<br>Form D | Order No.<br>Form E | Surface finish | D1 | D2 | D4     | D5        | D6       | H1      | H2     | H3 | T1      | T2      | T4     |
|---------------------|---------------------|---------------------|----------------|----|----|--------|-----------|----------|---------|--------|----|---------|---------|--------|
| K0151.306           | K0151.406           | K0151.506           | tumbled        | 32 | 12 | 6/-/-  | -/M6/M6   | -/6,4/-  | 21/-/21 | -/20/- | 10 | -/15/15 | -/12/12 | -/10/- |
| K0151.308           | K0151.408           | K0151.508           | tumbled        | 40 | 14 | 8/-/-  | -/M8/M8   | -/8,4/-  | 26/-/26 | -/25/- | 13 | -/18/18 | -/15/15 | -/12/- |
| K0151.310           | K0151.410           | K0151.510           | tumbled        | 50 | 18 | 10/-/- | -/M10/M10 | -/10,5/- | 34/-/34 | -/32/- | 17 | -/21/21 | -/18/18 | -/16/- |
| K0151.312           | K0151.412           | K0151.512           | tumbled        | 63 | 20 | 12/-/- | -/M12/M12 | -/13/-   | 42/-/42 | -/40/- | 21 | -/25/25 | -/22/22 | -/20/- |
| K0151.316           | K0151.416           | K0151.516           | tumbled        | 80 | 25 | 16/-/- | -/M16/M16 | -/17/-   | 52/-/52 | -/50/- | 25 | -/32/32 | -/28/28 | -/30/- |

## Star grips

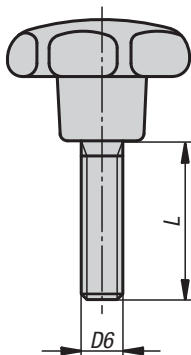
similar to DIN 6336



Form K  
with threaded bush



Form L  
with external thread



**Material:**

Duroplastic PF 31, black.  
Bush and threaded bolt in galvanized steel and blue chromated.

**Surface finish:**

Deburred and high-polish finish.

**Sample order:**

K0152.42505X15 (Please also indicate dimension L.)

**Note:**

The version K0152.22004 has a bush in copper-plated steel.

**On request:**

Other colours.

### KIPP Star grips similar to DIN 6336 with internal thread, form K

| Order No.   | Form | D1 | D5  | D8 | H3 | H4 | T6  |
|-------------|------|----|-----|----|----|----|-----|
| K0152.22004 | K    | 20 | M4  | 10 | 7  | 13 | 6,5 |
| K0152.22505 | K    | 25 | M5  | 12 | 8  | 16 | 9,5 |
| K0152.23206 | K    | 32 | M6  | 14 | 10 | 20 | 12  |
| K0152.24008 | K    | 40 | M8  | 18 | 13 | 25 | 14  |
| K0152.25010 | K    | 50 | M10 | 22 | 17 | 32 | 18  |
| K0152.26312 | K    | 63 | M12 | 26 | 21 | 40 | 22  |
| K0152.28016 | K    | 80 | M16 | 35 | 25 | 50 | 30  |

### KIPP Star grips similar to DIN 6336 with external thread, form L

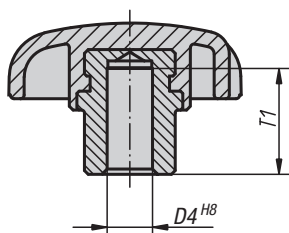
| Order No.    | Form | D1 | D6  | D8 | H3 | H4 | L              |
|--------------|------|----|-----|----|----|----|----------------|
| K0152.42505X | L    | 25 | M5  | 12 | 8  | 16 | 15/20/25       |
| K0152.43206X | L    | 32 | M6  | 14 | 10 | 20 | 15/20/25/30    |
| K0152.44008X | L    | 40 | M8  | 18 | 13 | 25 | 20/25/30/35/40 |
| K0152.45010X | L    | 50 | M10 | 22 | 17 | 32 | 25/30/35/40/50 |
| K0152.46312X | L    | 63 | M12 | 26 | 21 | 40 | 30/35/40/50/60 |
| K0152.48016X | L    | 80 | M16 | 35 | 25 | 50 | 30/40/50/60    |

## Star grips

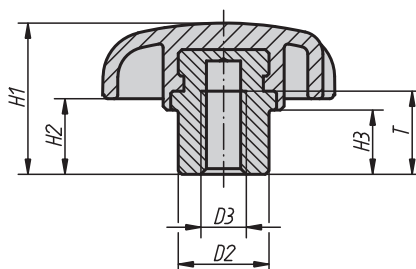
with projecting steel bush



Form H  
bush with blind hole



Form K  
with threaded bush



**Material:**

Black thermoplastic.

Steel parts quality class 5.8 or steel parts in stainless steel, 1.4305.

**Surface finish:**

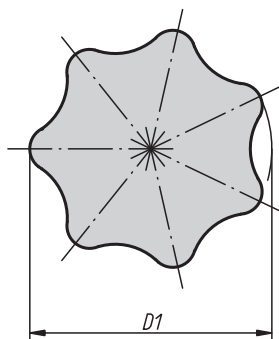
Steel parts blue chromated or in stainless steel, natural finish.

**Sample order:**

K0153.2081

**Note:**

Star grips with projecting steel bush are especially suitable for cross pin connections.



### KIPP Star grips with projecting steel bush, form H

| Order No.  | Surface finish | Form | D4 | T1  | D1 | D2   | H1 | H2 | H3  |
|------------|----------------|------|----|-----|----|------|----|----|-----|
| K0153.105  | bush in steel  | H    | 5  | 9,5 | 25 | 10   | 16 | 8  | 6   |
| K0153.106  | bush in steel  | H    | 6  | 12  | 32 | 12   | 20 | 10 | 8,5 |
| K0153.1061 | bush in steel  | H    | 6  | 14  | 40 | 13,5 | 25 | 13 | 10  |
| K0153.108  | bush in steel  | H    | 8  | 14  | 40 | 13,5 | 25 | 13 | 10  |
| K0153.1081 | bush in steel  | H    | 8  | 18  | 50 | 19   | 32 | 17 | 12  |
| K0153.110  | bush in steel  | H    | 10 | 18  | 50 | 19   | 32 | 17 | 12  |
| K0153.1101 | bush in steel  | H    | 10 | 22  | 63 | 19   | 40 | 21 | 15  |
| K0153.112  | bush in steel  | H    | 12 | 22  | 63 | 19   | 40 | 21 | 15  |
| K0153.116  | bush in steel  | H    | 16 | 22  | 63 | 23   | 40 | 21 | 15  |

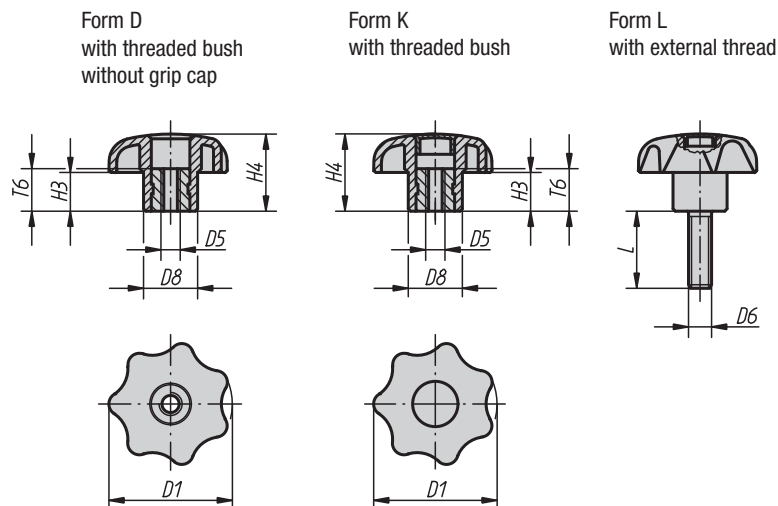
### KIPP Star grips with projecting steel bush, form K

| Order No.<br>bush in steel | Order No.<br>bush in stainless steel | Form | D3  | T   | D1 | D2   | H1 | H2 | H3  |
|----------------------------|--------------------------------------|------|-----|-----|----|------|----|----|-----|
| K0153.205                  | K0153.305                            | K    | M5  | 8,5 | 25 | 10   | 16 | 8  | 6   |
| K0153.206                  | K0153.306                            | K    | M6  | 12  | 32 | 12   | 20 | 10 | 8,5 |
| K0153.2061                 | K0153.3061                           | K    | M6  | 14  | 40 | 13,5 | 25 | 13 | 10  |
| K0153.208                  | K0153.308                            | K    | M8  | 14  | 40 | 13,5 | 25 | 13 | 10  |
| K0153.2081                 | K0153.3081                           | K    | M8  | 18  | 50 | 19   | 32 | 17 | 12  |
| K0153.210                  | K0153.310                            | K    | M10 | 18  | 50 | 19   | 32 | 17 | 12  |
| K0153.2101                 | K0153.3101                           | K    | M10 | 22  | 63 | 19   | 40 | 21 | 15  |
| K0153.212                  | K0153.312                            | K    | M12 | 22  | 63 | 19   | 40 | 21 | 15  |
| K0153.216                  | K0153.316                            | K    | M16 | 22  | 63 | 23   | 40 | 21 | 15  |



## Star grips

similar to DIN 6336, steel parts in stainless steel



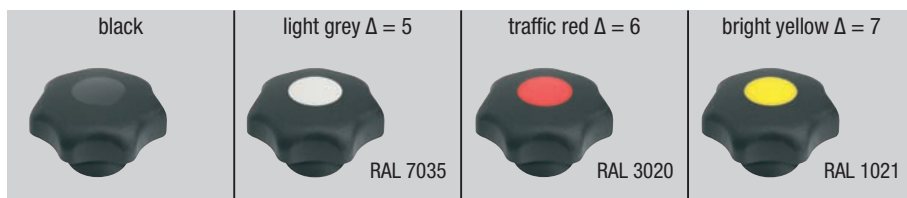
**Material:**  
Black thermoplastic. Bush and threaded bolt in stainless steel X 10 CrNiS 18 9 = 1.4305.

**Surface finish:**  
Bush and threaded bolt natural finish.

**Sample order:**  
K0154.4067X30 (Grip cap colour bright yellow; please also indicate dimension L.)

**Note:**  
Δ Add the desired cap colour here. No colour code is required with black wheel caps.

**On request:**  
Other colours or designs, such as company logos.



### KIPP Star grips similar to DIN 6336, steel parts in stainless steel with internal thread, form D

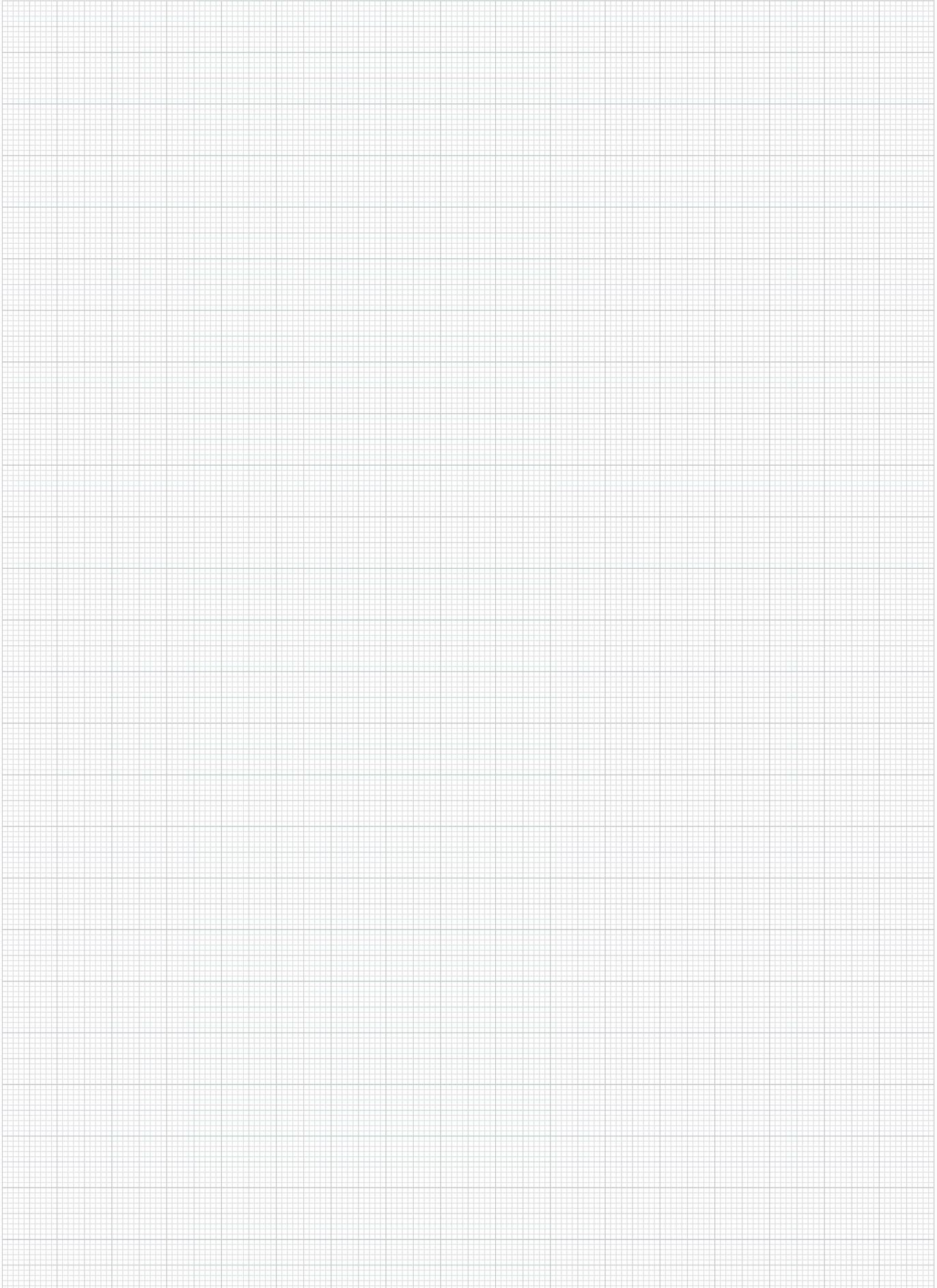
| Order No. | Form | D1 | D5  | D8 | H3 | H4 | T6 |
|-----------|------|----|-----|----|----|----|----|
| K0154.505 | D    | 25 | M5  | 12 | 8  | 16 | 10 |
| K0154.506 | D    | 32 | M6  | 14 | 10 | 20 | 10 |
| K0154.508 | D    | 40 | M8  | 18 | 13 | 25 | 14 |
| K0154.510 | D    | 50 | M10 | 22 | 17 | 32 | 14 |
| K0154.512 | D    | 63 | M12 | 26 | 21 | 40 | 18 |

### KIPP Star grips similar to DIN 6336, steel parts in stainless steel with internal thread, form K

| Order No.  | Form | D1 | D5  | D8 | H3 | H4 | T6 | Approx. weight g |
|------------|------|----|-----|----|----|----|----|------------------|
| K0154.205Δ | K    | 25 | M5  | 12 | 8  | 16 | 10 | 8                |
| K0154.206Δ | K    | 32 | M6  | 14 | 10 | 20 | 10 | 10               |
| K0154.208Δ | K    | 40 | M8  | 18 | 13 | 25 | 14 | 24               |
| K0154.210Δ | K    | 50 | M10 | 22 | 17 | 32 | 14 | 40               |
| K0154.212Δ | K    | 63 | M12 | 26 | 21 | 40 | 18 | 80               |

### KIPP Star grips similar to DIN 6336, steel parts in stainless steel with external thread, form L

| Order No.   | Form | D1 | D6  | D8 | H3 | H4 | L                 |
|-------------|------|----|-----|----|----|----|-------------------|
| K0154.405ΔX | L    | 25 | M5  | 12 | 8  | 16 | 15/20             |
| K0154.406ΔX | L    | 32 | M6  | 14 | 10 | 20 | 20/30             |
| K0154.408ΔX | L    | 40 | M8  | 18 | 13 | 25 | 15/20/25/30/40/60 |
| K0154.410ΔX | L    | 50 | M10 | 22 | 17 | 32 | 25/30/40/50/60    |

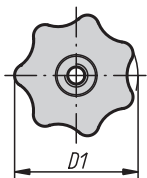
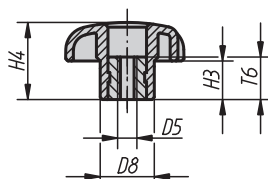


## Star grips

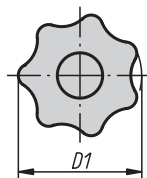
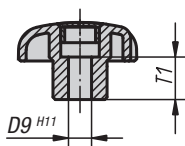
similar to DIN 6336



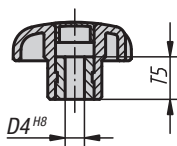
Form D  
with threaded bush  
without grip cap



Form G  
without bush



Form H  
bush with pocket hole



**Material:**  
Black thermoplastic.  
Bush and threaded bolt in steel.

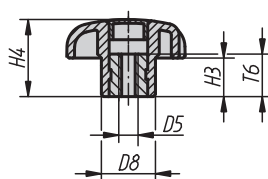
**Surface finish:**  
Bush and threaded bolt galvanized and blue chromated.

**Sample order:**  
K0155.4127X30 (Grip cap colour bright yellow;  
please also indicate dimension L.)

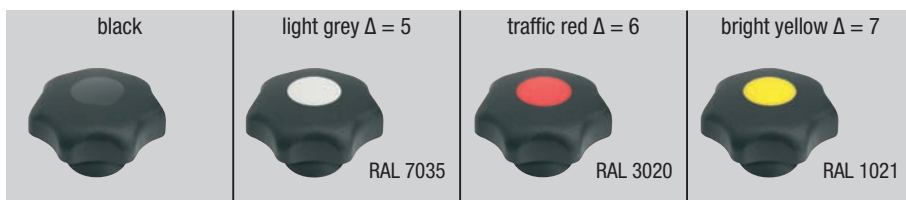
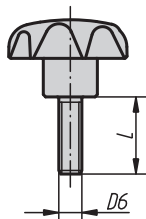
**Note:**  
Δ Add the desired cap colour here. No colour code  
is required with black wheel caps.

**On request:**  
Other colours or designs, such as company logos.

Form K  
with threaded bush  
with grip cap



Form L  
with external thread



### KIPP Star grips similar to DIN 6336 with internal thread, form D

| Order No.  | Form | D1 | D5  | D8 | H3 | H4 | T6 |
|------------|------|----|-----|----|----|----|----|
| K0155.504  | D    | 25 | M4  | 12 | 8  | 16 | 10 |
| K0155.505  | D    | 25 | M5  | 12 | 8  | 16 | 10 |
| K0155.5061 | D    | 25 | M6  | 12 | 8  | 16 | 10 |
| K0155.5051 | D    | 32 | M5  | 14 | 10 | 20 | 10 |
| K0155.506  | D    | 32 | M6  | 14 | 10 | 20 | 10 |
| K0155.508  | D    | 40 | M8  | 18 | 13 | 25 | 14 |
| K0155.5101 | D    | 40 | M10 | 18 | 13 | 25 | 14 |
| K0155.5081 | D    | 50 | M8  | 22 | 17 | 32 | 14 |
| K0155.510  | D    | 50 | M10 | 22 | 17 | 32 | 14 |
| K0155.5121 | D    | 50 | M12 | 22 | 17 | 32 | 18 |
| K0155.5102 | D    | 63 | M10 | 26 | 21 | 40 | 14 |
| K0155.512  | D    | 63 | M12 | 26 | 21 | 40 | 18 |
| K0155.516  | D    | 63 | M16 | 26 | 21 | 40 | 18 |

## Star grips

similar to DIN 6336



examples of grip cap designs



### KIPP Star grips similar to DIN 6336 with internal thread, form K

| Order No.   | Form | D1 | D5  | D8 | H3 | H4 | T6 | Approx. weight g |
|-------------|------|----|-----|----|----|----|----|------------------|
| K0155.204Δ  | K    | 25 | M4  | 12 | 8  | 16 | 10 | 11               |
| K0155.205Δ  | K    | 25 | M5  | 12 | 8  | 16 | 10 | 10               |
| K0155.2061Δ | K    | 25 | M6  | 12 | 8  | 16 | 10 | 10               |
| K0155.2051Δ | K    | 32 | M5  | 14 | 10 | 20 | 10 | 13               |
| K0155.206Δ  | K    | 32 | M6  | 14 | 10 | 20 | 10 | 13               |
| K0155.208Δ  | K    | 40 | M8  | 18 | 13 | 25 | 14 | 25               |
| K0155.2101Δ | K    | 40 | M10 | 18 | 13 | 25 | 14 | 24               |
| K0155.2081Δ | K    | 50 | M8  | 22 | 17 | 32 | 14 | 50               |
| K0155.210Δ  | K    | 50 | M10 | 22 | 17 | 32 | 14 | 48               |
| K0155.2121Δ | K    | 50 | M12 | 22 | 17 | 32 | 18 | 46               |
| K0155.2102Δ | K    | 63 | M10 | 26 | 21 | 40 | 14 | 90               |
| K0155.212Δ  | K    | 63 | M12 | 26 | 21 | 40 | 18 | 88               |
| K0155.216Δ  | K    | 63 | M16 | 26 | 21 | 40 | 18 | 87               |

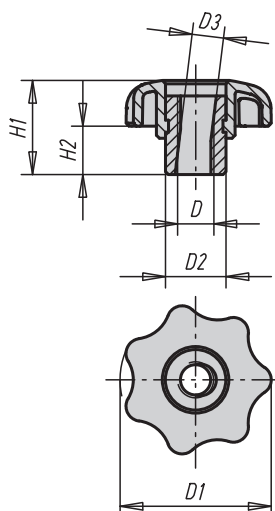
### KIPP Star grips similar to DIN 6336 with locating hole, form G and H

| Order No. Form G | Order No. Form H | D1 | D4   | D8 | D9   | H3 | H4 | T1   | T5   |
|------------------|------------------|----|------|----|------|----|----|------|------|
| K0155.305Δ       | K0155.105Δ       | 25 | -/5  | 12 | 5/-  | 8  | 16 | 10/- | -/10 |
| K0155.306Δ       | K0155.106Δ       | 32 | -/6  | 14 | 6/-  | 10 | 20 | 10/- | -/10 |
| K0155.308Δ       | K0155.108Δ       | 40 | -/8  | 18 | 8/-  | 13 | 25 | 14/- | -/14 |
| K0155.310Δ       | K0155.110Δ       | 50 | -/10 | 22 | 10/- | 17 | 32 | 14/- | -/14 |
| -                | K0155.1101Δ      | 63 | 10   | 26 | -    | 21 | 40 | -    | 14   |
| K0155.312Δ       | K0155.112Δ       | 63 | -/12 | 26 | 12/- | 21 | 40 | 18/- | -/18 |

### KIPP Star grips similar to DIN 6336 with external thread, form L

| Order No.    | Form | D1 | D6  | D8 | H3 | H4 | L                             |
|--------------|------|----|-----|----|----|----|-------------------------------|
| K0155.405ΔX  | L    | 25 | M5  | 12 | 8  | 16 | 10/15/20/25/30/35/40/45/50/60 |
| K0155.406ΔX  | L    | 25 | M6  | 12 | 8  | 16 | 10/15/20/25/30/35/40/45/50/60 |
| K0155.4061ΔX | L    | 32 | M6  | 14 | 10 | 20 | 10/15/20/25/30/35/40/45/50/60 |
| K0155.408ΔX  | L    | 32 | M8  | 14 | 10 | 20 | 15/20/25/30/35/40/45/50/60    |
| K0155.4081ΔX | L    | 40 | M8  | 18 | 13 | 25 | 15/20/25/30/35/40/45/50/60    |
| K0155.410ΔX  | L    | 40 | M10 | 18 | 13 | 25 | 15/20/25/30/35/40/45/50/60    |
| K0155.4101ΔX | L    | 50 | M10 | 22 | 17 | 32 | 15/20/25/30/35/40/45/50/60    |
| K0155.412ΔX  | L    | 50 | M12 | 22 | 17 | 32 | 15/20/25/30/35/40/45/50/60    |
| K0155.4102ΔX | L    | 63 | M10 | 26 | 21 | 40 | 20/25/30/35/40/45/50/60       |
| K0155.4121ΔX | L    | 63 | M12 | 26 | 21 | 40 | 20/25/30/35/40/45/50/60       |
| K0155.416ΔX  | L    | 63 | M16 | 26 | 21 | 40 | 30/35/40/45/50/60             |

## Quick-acting star grips



**Material:**

Black thermoplastic.  
Bush in steel.

**Surface finish:**

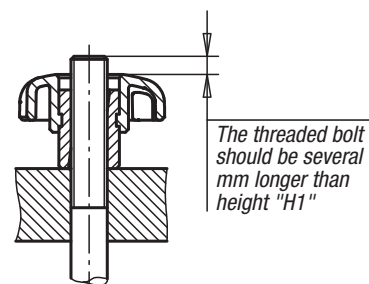
Bush galvanized and blue chromated.

**Sample order:**

K0156.06

**Note:**

Quick-acting star grips are mainly used in applications where no high clamping pressures are required. This function is achieved by means of a semilateral thread.



### KIPP Quick-acting star grips

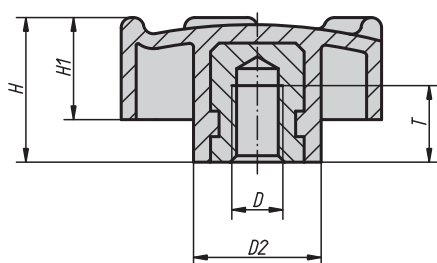
| Order No. | D   | D1 | D2   | D3   | H1   | H2 | Approx. weight kg |
|-----------|-----|----|------|------|------|----|-------------------|
| K0156.05  | M5  | 25 | 10   | 5,2  | 15,5 | 8  | 0,008             |
| K0156.06  | M6  | 32 | 12   | 6,2  | 19,5 | 10 | 0,013             |
| K0156.08  | M8  | 40 | 13,5 | 8,3  | 24,5 | 13 | 0,020             |
| K0156.10  | M10 | 50 | 19   | 10,3 | 31   | 17 | 0,055             |
| K0156.12  | M12 | 63 | 19   | 12,3 | 39,5 | 21 | 0,068             |

## Ripped grips

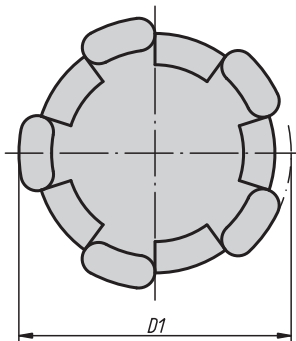
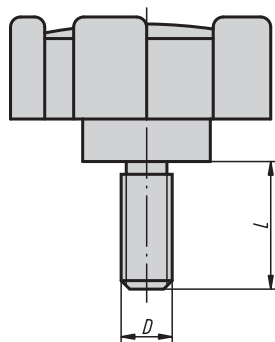
N<sup>G</sup>



ripped grip  
with internal thread



ripped grip  
with external thread



**Novo-Grip ribbed grips make life easier. The ergonomic „edge rib configuration“ and the perfect proportioning open up new operating-specific potential.**

**Material, surface finish:**

Anthracite grey thermoplastic.  
Bush in brass.  
Threaded bolt in steel, 5.8, blue chromated.

**Sample order:**

K0276.3206

### KIPP Ripped grips with internal thread

| Order No.  | Size | D   | D1 | D2 | H    | H1   | T  |
|------------|------|-----|----|----|------|------|----|
| K0276.3206 | 1    | M6  | 32 | 15 | 17   | 12   | 9  |
| K0276.4008 | 2    | M8  | 40 | 18 | 20,5 | 14,5 | 11 |
| K0276.5010 | 3    | M10 | 50 | 20 | 25   | 18   | 14 |

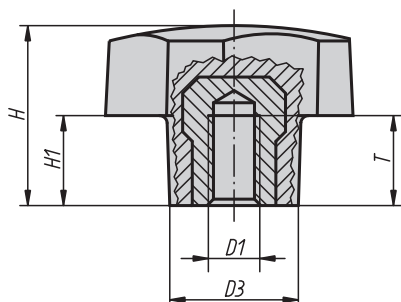
### KIPP Ripped grips with external thread

| Order No.    | Size | D   | D1 | D2 | H    | H1   | L  |
|--------------|------|-----|----|----|------|------|----|
| K0276.320615 | 1    | M6  | 32 | 15 | 17   | 12   | 15 |
| K0276.400816 | 2    | M8  | 40 | 18 | 20,5 | 14,5 | 16 |
| K0276.501020 | 3    | M10 | 50 | 20 | 25   | 18   | 20 |

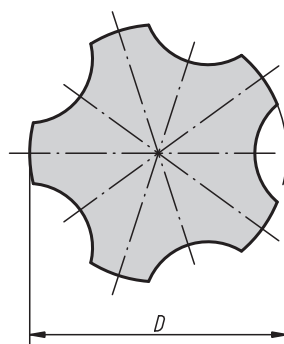
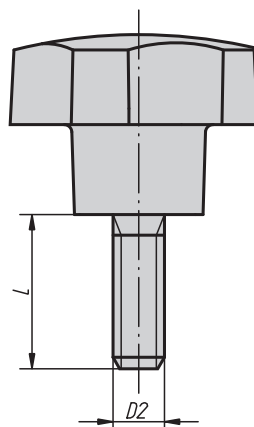
## Five lobe grips



Five lobe grip with internal thread



Five lobe grip with external thread



**Material:**

Black duroplastic PF 31.  
Bush and threaded bolt in galvanized steel.

**Surface finish:**

Deburred and high-polish finish.

**Sample order:**

K0185.3206X12 (Please also indicate dimension L.)

**Note:**

The versions K0185.3205 and K0185.3206 have a bush in brass.

**On request:**

Other external threads, screw lengths and colours.

### KIPP Five lobe grips with internal thread

| Order No.  | D  | D1  | D3 | H    | H1   | T  |
|------------|----|-----|----|------|------|----|
| K0185.3205 | 32 | M5  | 16 | 22,4 | 11,2 | 10 |
| K0185.3206 | 32 | M6  | 16 | 22,4 | 11,2 | 9  |
| K0185.4006 | 40 | M6  | 20 | 28   | 14   | 12 |
| K0185.4008 | 40 | M8  | 20 | 28   | 14   | 14 |
| K0185.4010 | 40 | M10 | 20 | 28   | 14   | 14 |
| K0185.5008 | 50 | M8  | 25 | 35   | 17,5 | 14 |
| K0185.5010 | 50 | M10 | 25 | 35   | 17,5 | 14 |

### KIPP Five lobe grips with external thread

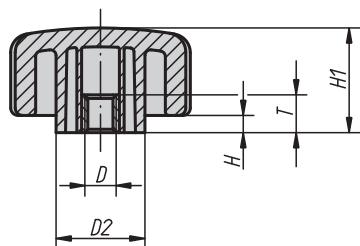
| Order No.   | D  | D2  | D3 | H    | H1   | L = screw length |
|-------------|----|-----|----|------|------|------------------|
| K0185.3206X | 32 | M6  | 16 | 22,4 | 11,2 | 12/18            |
| K0185.3208X | 32 | M8  | 16 | 22,4 | 11,2 | 16/24            |
| K0185.4006X | 40 | M6  | 20 | 28   | 14   | 18               |
| K0185.4008X | 40 | M8  | 20 | 28   | 14   | 16/20/24         |
| K0185.4010X | 40 | M10 | 20 | 28   | 14   | 30               |
| K0185.5008X | 50 | M8  | 25 | 35   | 17,5 | 16/24            |
| K0185.5010X | 50 | M10 | 25 | 35   | 17,5 | 20/30            |

## Five lobe grips

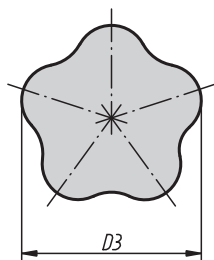
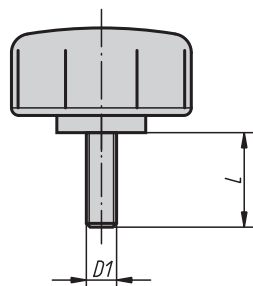
S<sup>T</sup>



Form K  
internal thread



Form L  
external thread



**Natural and secure gripping make the five lobe grip unique thanks to its material and shape.**

**Material, surface finish:**

Base body in black hard thermoplastic.  
Coating in black soft thermoplastic.  
Internal thread in brass.  
External thread in galvanized steel quality class 5.8.

**Sample order:**

K0279.4006X20 (Please also indicate dimension L.)

**Note:**

SYMPA TOUCH five lobe grips are available in 3 sizes with internal and external threads.

**On request:**

Other external threads, screw lengths, versions and colours.

### KIPP Five lobe grips with internal thread

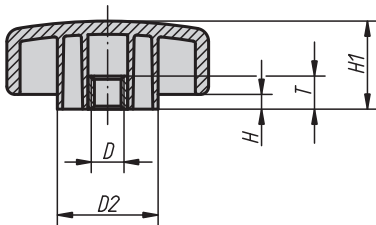
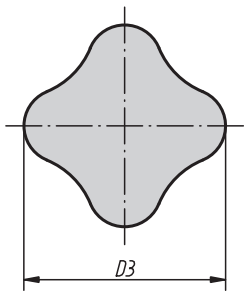
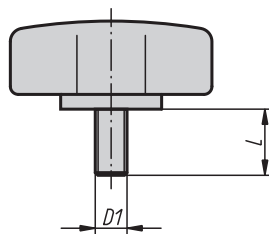
| Order No.  | Form | D   | D2   | D3 | H   | H1   | T    |
|------------|------|-----|------|----|-----|------|------|
| K0279.4005 | K    | M5  | 19   | 40 | 4,6 | 27,7 | 12,5 |
| K0279.4006 | K    | M6  | 19   | 40 | 4,6 | 27,7 | 12,5 |
| K0279.4008 | K    | M8  | 19   | 40 | 4,6 | 27,7 | 12,5 |
| K0279.4010 | K    | M10 | 19   | 40 | 4,6 | 27,7 | 12,5 |
| K0279.5006 | K    | M6  | 23,5 | 50 | 4,6 | 27,7 | 12,5 |
| K0279.5008 | K    | M8  | 23,5 | 50 | 4,6 | 27,7 | 12,5 |
| K0279.5010 | K    | M10 | 23,5 | 50 | 4,6 | 27,7 | 12,5 |
| K0279.6006 | K    | M6  | 31,8 | 60 | 4,6 | 27,7 | 12,5 |
| K0279.6008 | K    | M8  | 31,8 | 60 | 4,6 | 27,7 | 12,5 |
| K0279.6010 | K    | M10 | 31,8 | 60 | 4,6 | 27,7 | 12,5 |

### KIPP Five lobe grips with external thread

| Order No.   | Form | D1  | D2   | D3 | H   | H1   | L = screw length |
|-------------|------|-----|------|----|-----|------|------------------|
| K0279.4006X | L    | M6  | 19   | 40 | 4,6 | 27,7 | 15/20/25/35      |
| K0279.4008X | L    | M8  | 19   | 40 | 4,6 | 27,7 | 16/25/35         |
| K0279.4010X | L    | M10 | 19   | 40 | 4,6 | 27,7 | 20/30/40/50      |
| K0279.5006X | L    | M6  | 23,5 | 50 | 4,6 | 27,7 | 15/20/25/35      |
| K0279.5008X | L    | M8  | 23,5 | 50 | 4,6 | 27,7 | 16/25/35         |
| K0279.5010X | L    | M10 | 23,5 | 50 | 4,6 | 27,7 | 30/40/50         |
| K0279.6006X | L    | M6  | 31,8 | 60 | 4,6 | 27,7 | 15/20/25/35      |
| K0279.6008X | L    | M8  | 31,8 | 60 | 4,6 | 27,7 | 16/25/35         |
| K0279.6010X | L    | M10 | 31,8 | 60 | 4,6 | 27,7 | 20/30/40/50      |



## Flat four lobe grips

S<sup>T</sup>Form K  
internal threadForm L  
external thread

**Extraordinary gripping safety combined with attractive design are key elements to outstanding functionality. Due to their flat construction, the flat four lobe grips are suitable for low working spaces.**

**Material, surface finish:**

Base body in black hard thermoplastic.

Coating in black soft thermoplastic.

Internal thread in brass.

External thread in galvanized steel quality class 5.8.

**Sample order:**

K0278.3506X20 (Please also indicate dimension L.)

**Note:**

SYMPA TOUCH flat four lobe grips are available in 5 sizes with internal and external threads.

**On request:**

Other external threads, screw lengths, versions and colours.



## KIPP Flat four lobe grips with internal thread

| Order No.  | Form | D   | D2   | D3   | H   | H1   | T    |
|------------|------|-----|------|------|-----|------|------|
| K0278.3505 | K    | M5  | 14,2 | 35,5 | 2,8 | 15,5 | 12,5 |
| K0278.3506 | K    | M6  | 14,2 | 35,5 | 2,8 | 15,5 | 12,5 |
| K0278.4405 | K    | M5  | 17,5 | 44,5 | 3,3 | 19,3 | 12,5 |
| K0278.4406 | K    | M6  | 17,5 | 44,5 | 3,3 | 19,3 | 12,5 |
| K0278.4408 | K    | M8  | 17,5 | 44,5 | 3,3 | 19,3 | 12,5 |
| K0278.4410 | K    | M10 | 17,5 | 44,5 | 3,3 | 19,3 | 12,5 |
| K0278.5005 | K    | M5  | 23,6 | 50,8 | 3,8 | 22,1 | 12,5 |
| K0278.5006 | K    | M6  | 23,6 | 50,8 | 3,8 | 22,1 | 12,5 |
| K0278.5008 | K    | M8  | 23,6 | 50,8 | 3,8 | 22,1 | 12,5 |
| K0278.5010 | K    | M10 | 23,6 | 50,8 | 3,8 | 22,1 | 12,5 |
| K0278.6306 | K    | M6  | 31,7 | 63,5 | 4,6 | 27,7 | 12,5 |
| K0278.6308 | K    | M8  | 31,7 | 63,5 | 4,6 | 27,7 | 12,5 |
| K0278.6310 | K    | M10 | 31,7 | 63,5 | 4,6 | 27,7 | 12,5 |
| K0278.6312 | K    | M12 | 31,7 | 63,5 | 4,6 | 27,7 | 12,5 |
| K0278.7608 | K    | M8  | 38,1 | 76,2 | 5,6 | 33,3 | 12,5 |
| K0278.7610 | K    | M10 | 38,1 | 76,2 | 5,6 | 33,3 | 12,5 |
| K0278.7612 | K    | M12 | 38,1 | 76,2 | 5,6 | 33,3 | 12,5 |

## KIPP Flat four lobe grips with external thread

| Order No.   | Form | D1  | D2   | D3   | H   | H1   | L = screw length |
|-------------|------|-----|------|------|-----|------|------------------|
| K0278.3506X | L    | M6  | 14,2 | 35,5 | 2,8 | 15,5 | 15/20/25/35      |
| K0278.4406X | L    | M6  | 17,5 | 44,5 | 3,3 | 19,3 | 15/20/25/35      |
| K0278.4408X | L    | M8  | 17,5 | 44,5 | 3,3 | 19,3 | 16/25/35         |
| K0278.4410X | L    | M10 | 17,5 | 44,5 | 3,3 | 19,3 | 20/30/40/50      |
| K0278.5006X | L    | M6  | 23,6 | 50,8 | 3,8 | 22,1 | 15/20/25/35      |
| K0278.5008X | L    | M8  | 23,6 | 50,8 | 3,8 | 22,1 | 16/25/35         |
| K0278.5010X | L    | M10 | 23,6 | 50,8 | 3,8 | 22,1 | 30/40/50         |
| K0278.6306X | L    | M6  | 31,7 | 63,5 | 4,6 | 27,7 | 15/20/25/35      |
| K0278.6308X | L    | M8  | 31,7 | 63,5 | 4,6 | 27,7 | 16/25/35         |
| K0278.6310X | L    | M10 | 31,7 | 63,5 | 4,6 | 27,7 | 30/40/50         |
| K0278.7608X | L    | M8  | 38,1 | 76,2 | 5,6 | 33,3 | 16/25/35         |
| K0278.7610X | L    | M10 | 38,1 | 76,2 | 5,6 | 33,3 | 30/40/50         |

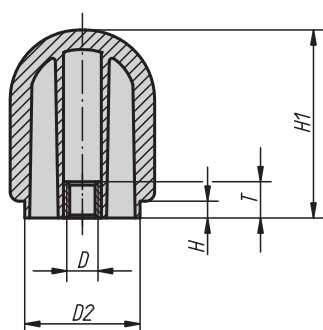
## High clamping grips



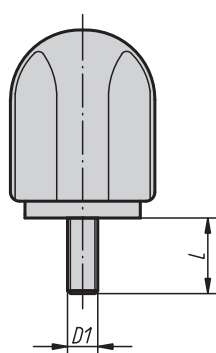
S<sup>T</sup>



Form K  
internal thread



Form L  
external thread



The high clamping grips are distinguished by their unusual design. The high form permits high clamping forces while being gentle to the hands.

**Material, surface finish:**

Base body in black hard thermoplastic.  
Coating in black soft thermoplastic.  
Internal thread in brass.  
External thread in galvanized steel quality class 5.8.

**Sample order:**

K0280.4206X20 (Please also indicate dimension L.)

**Note:**

SYMPA TOUCH high clamping grips are available in 2 sizes with internal and external threads.

**On request:**

Other external threads, screw lengths, versions and colours.

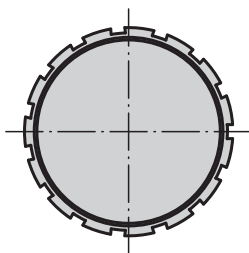
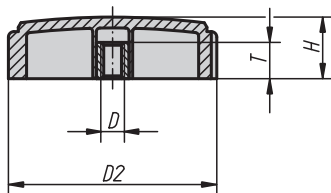
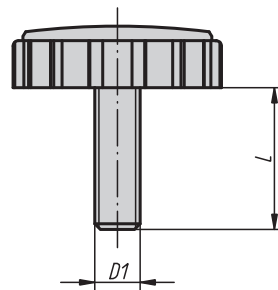
### KIPP High clamping grips with internal thread

| Order No.  | Form | D   | D2   | D3   | H   | H1   | T    |
|------------|------|-----|------|------|-----|------|------|
| K0280.4206 | K    | M6  | 34   | 42,7 | 4,8 | 55,6 | 12,5 |
| K0280.4208 | K    | M8  | 34   | 42,7 | 4,8 | 55,6 | 12,5 |
| K0280.4210 | K    | M10 | 34   | 42,7 | 4,8 | 55,6 | 12,5 |
| K0280.4212 | K    | M12 | 34   | 42,7 | 4,8 | 55,6 | 12,5 |
| K0280.4706 | K    | M6  | 38,1 | 47,8 | 5,6 | 62,2 | 12,5 |
| K0280.4708 | K    | M8  | 38,1 | 47,8 | 5,6 | 62,2 | 12,5 |
| K0280.4710 | K    | M10 | 38,1 | 47,8 | 5,6 | 62,2 | 12,5 |
| K0280.4712 | K    | M12 | 38,1 | 47,8 | 5,6 | 62,2 | 12,5 |

### KIPP High clamping grips with external thread

| Order No.   | Form | D1  | D2   | D3   | H   | H1   | L = screw length |
|-------------|------|-----|------|------|-----|------|------------------|
| K0280.4206X | L    | M6  | 34   | 42,7 | 4,8 | 55,6 | 15/20/25/35      |
| K0280.4208X | L    | M8  | 34   | 42,7 | 4,8 | 55,6 | 16/25/35         |
| K0280.4210X | L    | M10 | 34   | 42,7 | 4,8 | 55,6 | 20/30/40/50      |
| K0280.4706X | L    | M6  | 38,1 | 47,8 | 5,6 | 62,2 | 20/35            |
| K0280.4708X | L    | M8  | 38,1 | 47,8 | 5,6 | 62,2 | 35               |
| K0280.4710X | L    | M10 | 38,1 | 47,8 | 5,6 | 62,2 | 40/50            |

## Turning grips

S<sup>T</sup>Form K  
internal threadForm L  
external thread

Due to their extremely small height, these grips can also be used in very narrow clamping spaces. The slots on the edge improve gripping ability.

**Material, surface finish:**

Base body in black hard thermoplastic.

Coating in black soft thermoplastic.

Internal thread in brass.

External thread in galvanized steel quality class 5.8.

**Sample order:**

K0281.5706X20 (Please also indicate dimension L.)

**Note:**

SYMPA TOUCH turning grips are available in one size with internal and external threads.

**On request:**

Other external threads, screw lengths, versions and colours.

**KIPP Turning grips with internal thread**

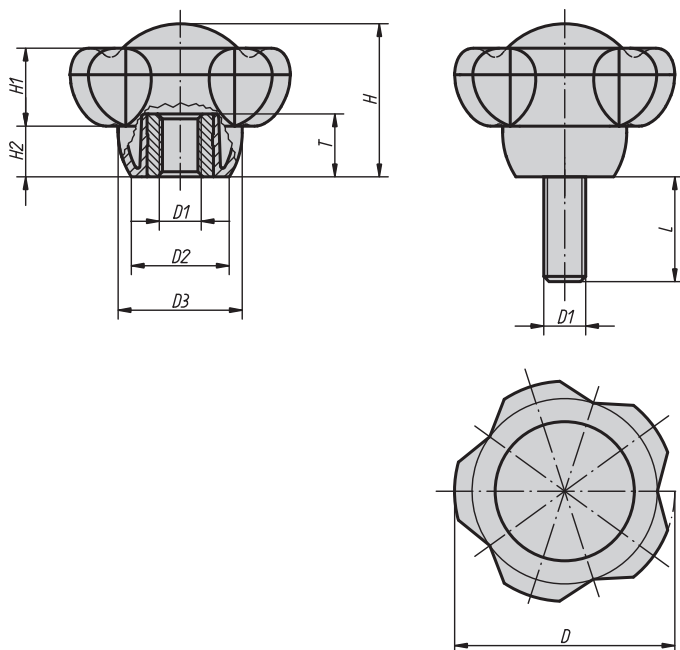
| Order No.  | Form | D   | D2   | H  | T    |
|------------|------|-----|------|----|------|
| K0281.5705 | K    | M5  | 57,4 | 17 | 12,5 |
| K0281.5706 | K    | M6  | 57,4 | 17 | 12,5 |
| K0281.5708 | K    | M8  | 57,4 | 17 | 12,5 |
| K0281.5710 | K    | M10 | 57,4 | 17 | 12,5 |

**KIPP Turning grips with external thread**

| Order No.   | Form | D1  | D2   | H  | L = screw length |
|-------------|------|-----|------|----|------------------|
| K0281.5706X | L    | M6  | 57,4 | 17 | 15/20/25/35      |
| K0281.5708X | L    | M8  | 57,4 | 17 | 16/25/30/35      |
| K0281.5710X | L    | M10 | 57,4 | 17 | 30/40/50         |

## Clamp grips

N<sup>G</sup>



This technology and the completely new developed design make operating and clamping processes easier. New fields of application and the associated creativity contribute towards bringing together peoples' needs and required safety of gripping.

**Material, surface finish:**

Anthracite grey thermoplastic.  
 Bush and threaded bolt in steel 5.8, blue chromated or in stainless steel 1.4305, natural finish.

**Sample order:**

K0255.50106X30 (Cap colour traffic red; please also indicate dimension L.)

**Note:**

The screw lengths 15, 35 and 45 are not available in stainless steel.  
 Δ Add the desired grip cap colour here; no colour code is required with anthracite grey grip caps.



### KIPP Clamp grips with internal thread

| Order No. bush in steel | Order No. bush in stainless steel | D  | D1  | D2   | D3   | H    | H1   | H2   | T  | Approx. weight kg |
|-------------------------|-----------------------------------|----|-----|------|------|------|------|------|----|-------------------|
| K0255.5008Δ             | K0255.50081Δ                      | 50 | M8  | 22,2 | 28,2 | 34,8 | 17,8 | 11,5 | 14 | 0,030             |
| K0255.5010Δ             | K0255.50101Δ                      | 50 | M10 | 22,2 | 28,2 | 34,8 | 17,8 | 11,5 | 14 | 0,020             |
| K0255.5012Δ             | K0255.50121Δ                      | 50 | M12 | 22,2 | 28,2 | 34,8 | 17,8 | 11,5 | 18 | 0,010             |
| K0255.6310Δ             | K0255.63101Δ                      | 63 | M10 | 28   | 35,5 | 44   | 22,5 | 14,5 | 14 | 0,070             |
| K0255.6312Δ             | K0255.63121Δ                      | 63 | M12 | 28   | 35,5 | 44   | 22,5 | 14,5 | 18 | 0,050             |
| K0255.6316Δ             | -                                 | 63 | M16 | 28   | 35,5 | 44   | 22,5 | 14,5 | 18 | 0,040             |

### KIPP Clamp grips with external thread

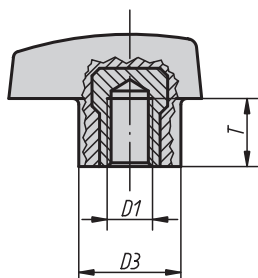
| Order No. bolts steel | Order No. bolts stainless steel | D  | D1  | D2   | D3   | H    | H1   | H2   | L = screw length           |
|-----------------------|---------------------------------|----|-----|------|------|------|------|------|----------------------------|
| K0255.5010ΔX          | K0255.50101ΔX                   | 50 | M10 | 22,2 | 28,2 | 34,8 | 17,8 | 11,5 | 15/20/25/30/35/40/45/50/60 |
| K0255.5012ΔX          | -                               | 50 | M12 | 22,2 | 28,2 | 34,8 | 17,8 | 11,5 | 15/20/25/30/35/40/45/50/60 |
| K0255.6310ΔX          | K0255.63101ΔX                   | 63 | M10 | 28   | 35,5 | 44   | 22,5 | 14,5 | 20/25/30/35/40/45/50/60    |
| K0255.6312ΔX          | -                               | 63 | M12 | 28   | 35,5 | 44   | 22,5 | 14,5 | 20/25/30/35/40/45/50/60    |

## Triangular star grips

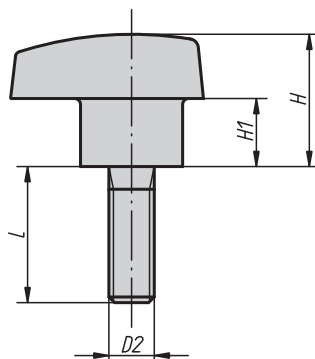
with high collar



Triangular star grip with internal thread



Triangular star grip with external thread



**Material:**

Black duroplastic PF 31.  
Bush and threaded bolt in galvanized steel or stainless steel with natural finish.

**Surface finish:**

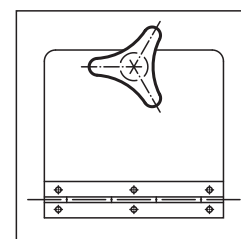
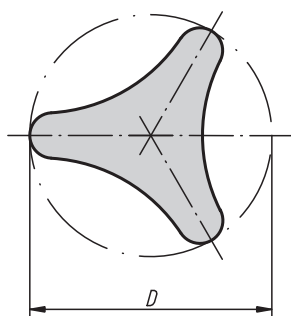
Deburred and high-polish finish

**Sample order:**

K0183.14008X20 (Please also indicate dimension L.)

**On request:**

Other external threads, screw lengths and colours.



### KIPP Triangular star grips with high collar and internal thread

| Order No.   | Surface finish          | D  | D1  | D3   | H  | H1   | T  |
|-------------|-------------------------|----|-----|------|----|------|----|
| K0183.14006 | bush in steel           | 40 | M6  | 13,5 | 24 | 13,5 | 9  |
| K0183.15008 | bush in steel           | 50 | M8  | 17,4 | 28 | 14   | 13 |
| K0183.16210 | bush in steel           | 62 | M10 | 21,8 | 34 | 17   | 13 |
| K0183.24006 | bush in stainless steel | 40 | M6  | 13,5 | 24 | 13,5 | 9  |
| K0183.25008 | bush in stainless steel | 50 | M8  | 17,4 | 28 | 14   | 13 |
| K0183.26210 | bush in stainless steel | 62 | M10 | 21,8 | 34 | 17   | 13 |

### KIPP Triangular star grips with high collar and external thread

| Order No.      | Surface finish          | D  | D2  | D3   | H  | H1   | L  |
|----------------|-------------------------|----|-----|------|----|------|----|
| K0183.14006X15 | bolt in steel           | 40 | M6  | 13,5 | 24 | 13,5 | 15 |
| K0183.14008X20 | bolt in steel           | 40 | M8  | 13,5 | 24 | 13,5 | 20 |
| K0183.15008X20 | bolt in steel           | 50 | M8  | 17,4 | 28 | 14   | 20 |
| K0183.15010X25 | bolt in steel           | 50 | M10 | 17,4 | 28 | 14   | 25 |
| K0183.16210X25 | bolt in steel           | 62 | M10 | 21,8 | 34 | 17   | 25 |
| K0183.24006X20 | bolt in stainless steel | 40 | M6  | 13,5 | 24 | 13,5 | 20 |
| K0183.24008X20 | bolt in stainless steel | 40 | M8  | 13,5 | 24 | 13,5 | 20 |
| K0183.25008X20 | bolt in stainless steel | 50 | M8  | 17,4 | 28 | 14   | 20 |
| K0183.25010X30 | bolt in stainless steel | 50 | M10 | 17,4 | 28 | 14   | 30 |
| K0183.26210X30 | bolt in stainless steel | 62 | M10 | 21,8 | 34 | 17   | 30 |

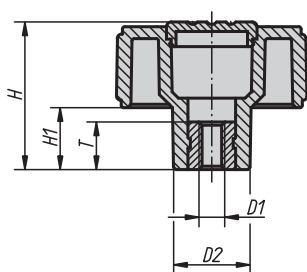
## Knurled wheels

N<sup>G</sup>



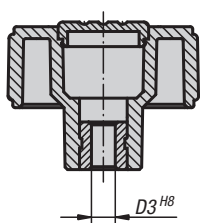
Form D  
threaded bush  
without wheel cap

Form K  
threaded bush  
with wheel cap

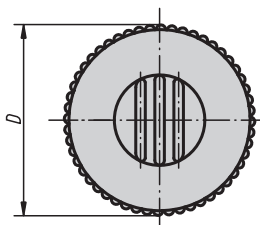
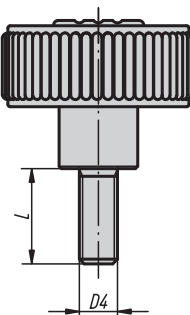


Form E  
bush with pocket hole  
without wheel cap

Form H  
bush with pocket hole  
with wheel cap



Form L  
with external thread



**Novo-Grip knurled wheels are characterized mainly by their wide range of applications and their outstanding design. The ergonomically designed knurled wheel guarantees absolutely secure and perfect handling.**

**Material, surface finish:**

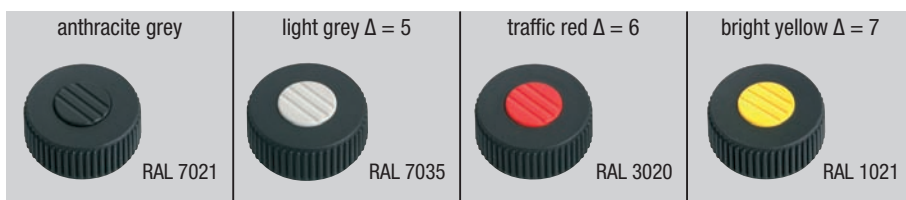
Anthracite grey thermoplastic.  
Bush and threaded bolt in steel 5.8, blue chromated.

**Sample order:**

K0260.41067 (Wheel cap colour bright yellow.)

**Note:**

Δ Add the desired wheel cap colour here. No colour code is required with anthracite grey wheel caps.



### KIPP Knurled wheels with internal thread, form D

| Order No.  | Form | Surface finish | Size | D  | D1  | D2   | H  | H1 | T  |
|------------|------|----------------|------|----|-----|------|----|----|----|
| K0260.1105 | D    | bush in steel  | 1    | 40 | M5  | 16,5 | 31 | 13 | 10 |
| K0260.1106 | D    | bush in steel  | 1    | 40 | M6  | 16,5 | 31 | 13 | 10 |
| K0260.1108 | D    | bush in steel  | 1    | 40 | M8  | 16,5 | 31 | 13 | 14 |
| K0260.1208 | D    | bush in steel  | 2    | 50 | M8  | 18   | 36 | 15 | 14 |
| K0260.1210 | D    | bush in steel  | 2    | 50 | M10 | 18   | 36 | 15 | 14 |
| K0260.1310 | D    | bush in steel  | 3    | 63 | M10 | 22   | 41 | 17 | 14 |
| K0260.1312 | D    | bush in steel  | 3    | 63 | M12 | 22   | 41 | 17 | 18 |



### KIPP Knurled wheels with internal thread, form K

| Order No.   | Form | Surface finish | Size | D  | D1  | D2   | H  | H1 | T  |
|-------------|------|----------------|------|----|-----|------|----|----|----|
| K0260.2105Δ | K    | bush in steel  | 1    | 40 | M5  | 16,5 | 31 | 13 | 10 |
| K0260.2106Δ | K    | bush in steel  | 1    | 40 | M6  | 16,5 | 31 | 13 | 10 |
| K0260.2108Δ | K    | bush in steel  | 1    | 40 | M8  | 16,5 | 31 | 13 | 14 |
| K0260.2208Δ | K    | bush in steel  | 2    | 50 | M8  | 18   | 36 | 15 | 14 |
| K0260.2210Δ | K    | bush in steel  | 2    | 50 | M10 | 18   | 36 | 15 | 14 |
| K0260.2310Δ | K    | bush in steel  | 3    | 63 | M10 | 22   | 41 | 17 | 14 |
| K0260.2312Δ | K    | bush in steel  | 3    | 63 | M12 | 22   | 41 | 17 | 18 |

### KIPP Knurled wheels with pocket hole, form E

| Order No.  | Form | Surface finish | Size | D  | D2   | D3 | H  | H1 | T  |
|------------|------|----------------|------|----|------|----|----|----|----|
| K0260.3106 | E    | bush in steel  | 1    | 40 | 16,5 | 6  | 31 | 13 | 10 |
| K0260.3208 | E    | bush in steel  | 2    | 50 | 18   | 8  | 36 | 15 | 14 |
| K0260.3310 | E    | bush in steel  | 3    | 63 | 22   | 10 | 41 | 17 | 14 |

### KIPP Knurled wheels with pocket hole, form H

| Order No.   | Form | Surface finish | Size | D  | D2   | D3 | H  | H1 | T  |
|-------------|------|----------------|------|----|------|----|----|----|----|
| K0260.4106Δ | H    | bush in steel  | 1    | 40 | 16,5 | 6  | 31 | 13 | 10 |
| K0260.4208Δ | H    | bush in steel  | 2    | 50 | 18   | 8  | 36 | 15 | 14 |
| K0260.4310Δ | H    | bush in steel  | 3    | 63 | 22   | 10 | 41 | 17 | 14 |

### KIPP Knurled wheels with external thread, form L

| Order No.    | Form | Surface finish | Size | D  | D2   | D4  | H  | H1 | L = screw length |
|--------------|------|----------------|------|----|------|-----|----|----|------------------|
| K0260.5105ΔX | L    | bolts steel    | 1    | 40 | 16,5 | M5  | 31 | 13 | 10/20/40         |
| K0260.5106ΔX | L    | bolts steel    | 1    | 40 | 16,5 | M6  | 31 | 13 | 10/20/40         |
| K0260.5108ΔX | L    | bolts steel    | 1    | 40 | 16,5 | M8  | 31 | 13 | 15/30/60         |
| K0260.5208ΔX | L    | bolts steel    | 2    | 50 | 18   | M8  | 36 | 15 | 15/30/60         |
| K0260.5210ΔX | L    | bolts steel    | 2    | 50 | 18   | M10 | 36 | 15 | 20/30/60         |
| K0260.5310ΔX | L    | bolts steel    | 3    | 63 | 22   | M10 | 41 | 17 | 20/30/60         |
| K0260.5312ΔX | L    | bolts steel    | 3    | 63 | 22   | M12 | 41 | 17 | 30/60            |



## Knurled wheels

steel parts in stainless steel



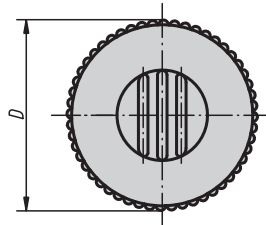
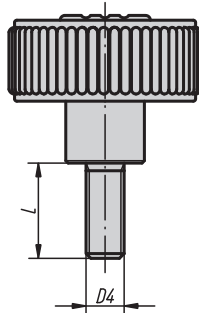
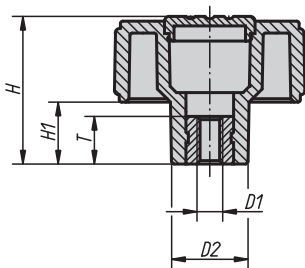
N<sup>G</sup>



Form D  
threaded bush  
without wheel cap

Form K  
threaded bush  
with wheel cap

Form L  
with external thread



**Novo-Grip knurled wheels are characterized mainly by their wide range of applications and their outstanding design. The ergonomically designed knurled wheel guarantees absolutely secure and perfect handling.**

**Material, surface finish:**

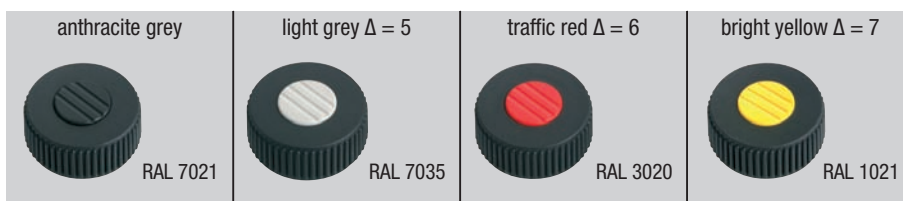
Anthracite grey thermoplastic.  
Bush and threaded bolt in stainless steel 1.4305, natural finish.

**Sample order:**

K0261.51056X10 (Wheel cap colour traffic red; please also indicate dimension L.)

**Note:**

Δ Add the desired wheel cap colour here. No colour code is required with anthracite grey wheel caps.



**KIPP Knurled wheels with internal thread, steel parts in stainless steel, form D**

| Order No.  | Form | Surface finish          | Size | D  | D1  | D2   | H  | H1 | T  |
|------------|------|-------------------------|------|----|-----|------|----|----|----|
| K0261.1105 | D    | bush in stainless steel | 1    | 40 | M5  | 16,5 | 31 | 13 | 10 |
| K0261.1106 | D    | bush in stainless steel | 1    | 40 | M6  | 16,5 | 31 | 13 | 10 |
| K0261.1108 | D    | bush in stainless steel | 1    | 40 | M8  | 16,5 | 31 | 13 | 14 |
| K0261.1208 | D    | bush in stainless steel | 2    | 50 | M8  | 18   | 36 | 15 | 14 |
| K0261.1210 | D    | bush in stainless steel | 2    | 50 | M10 | 18   | 36 | 15 | 14 |
| K0261.1310 | D    | bush in stainless steel | 3    | 63 | M10 | 22   | 41 | 17 | 14 |
| K0261.1312 | D    | bush in stainless steel | 3    | 63 | M12 | 22   | 41 | 17 | 18 |

# Knurled wheels

steel parts in stainless steel



## KIPP Knurled wheels with internal thread, steel parts in stainless steel, form K

| Order No.   | Form | Surface finish          | Size | D  | D1  | D2   | H  | H1 | T  |
|-------------|------|-------------------------|------|----|-----|------|----|----|----|
| K0261.2105Δ | K    | bush in stainless steel | 1    | 40 | M5  | 16,5 | 31 | 13 | 10 |
| K0261.2106Δ | K    | bush in stainless steel | 1    | 40 | M6  | 16,5 | 31 | 13 | 10 |
| K0261.2108Δ | K    | bush in stainless steel | 1    | 40 | M8  | 16,5 | 31 | 13 | 14 |
| K0261.2208Δ | K    | bush in stainless steel | 2    | 50 | M8  | 18   | 36 | 15 | 14 |
| K0261.2210Δ | K    | bush in stainless steel | 2    | 50 | M10 | 18   | 36 | 15 | 14 |
| K0261.2310Δ | K    | bush in stainless steel | 3    | 63 | M10 | 22   | 41 | 17 | 14 |
| K0261.2312Δ | K    | bush in stainless steel | 3    | 63 | M12 | 22   | 41 | 17 | 18 |

## KIPP Knurled wheels with external thread, steel parts in stainless steel, form L

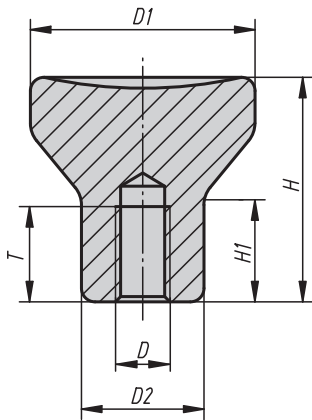
| Order No.    | Form | Surface finish        | Size | D  | D2   | D4  | H  | H1 | L = screw length |
|--------------|------|-----------------------|------|----|------|-----|----|----|------------------|
| K0261.5105ΔX | L    | bolts stainless steel | 1    | 40 | 16,5 | M5  | 31 | 13 | 10/20            |
| K0261.5106ΔX | L    | bolts stainless steel | 1    | 40 | 16,5 | M6  | 31 | 13 | 10/20/40         |
| K0261.5108ΔX | L    | bolts stainless steel | 1    | 40 | 16,5 | M8  | 31 | 13 | 15/30/60         |
| K0261.5208ΔX | L    | bolts stainless steel | 2    | 50 | 18   | M8  | 36 | 15 | 15/30/60         |
| K0261.5210ΔX | L    | bolts stainless steel | 2    | 50 | 18   | M10 | 36 | 15 | 20/30/60         |
| K0261.5310ΔX | L    | bolts stainless steel | 3    | 63 | 22   | M10 | 41 | 17 | 20/30/60         |

## Mushroom knobs

with internal thread in steel or stainless steel



**N<sup>G</sup>**



**Material:**

Stainless steel electrolytic-polish.  
Steel, galvanized and blue chromated.

**Sample order:**

K0250.104

**On request:**

Mushroom knobs with external threads.

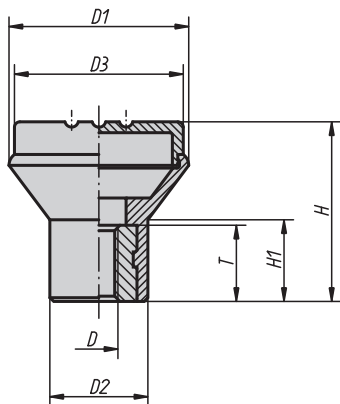
### KIPP Mushroom knobs with internal thread in steel or stainless steel

| Order No.<br>Steel | Order No.<br>Stainless steel | D   | D1 | D2 | H  | H1   | T    | Approx.<br>weight<br>kg |
|--------------------|------------------------------|-----|----|----|----|------|------|-------------------------|
| K0250.0902         | K0250.902                    | M2  | 14 | 8  | 14 | 6,7  | 4    | 0,009                   |
| K0250.0003         | K0250.003                    | M3  | 18 | 10 | 18 | 8,6  | 7,5  | 0,019                   |
| K0250.0104         | K0250.104                    | M4  | 21 | 12 | 21 | 10   | 10   | 0,030                   |
| K0250.0105         | K0250.105                    | M5  | 21 | 12 | 21 | 10   | 12,5 | 0,030                   |
| K0250.0206         | K0250.206                    | M6  | 25 | 14 | 25 | 12   | 12   | 0,049                   |
| K0250.0308         | K0250.308                    | M8  | 33 | 18 | 33 | 16   | 16   | 0,113                   |
| K0250.0410         | K0250.410                    | M10 | 40 | 24 | 40 | 18,7 | 20   | 0,217                   |

## Mushroom knobs

with internal thread

**N<sup>G</sup>**



**Novo-Grip mushroom knobs represent a special form of gripping: absolutely secure, fast and easy. It is the new and unique dimension of gripping which distinguishes the Novo-Grip mushroom knobs. Try it!**

**Material, surface finish:**

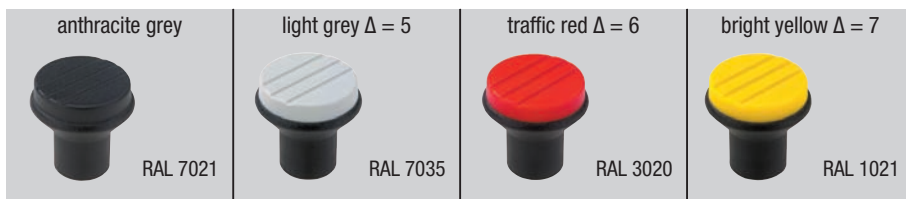
Anthracite grey thermoplastic.  
Bush in steel 5.8, blue chromated or in stainless steel 1.4305, natural finish.

**Sample order:**

K0251.046 (Knob cap colour traffic red.)

**Note:**

Δ Add the desired knob cap colour here; no colour code is required with anthracite grey knob caps.



### KIPP Mushroom knobs with internal thread

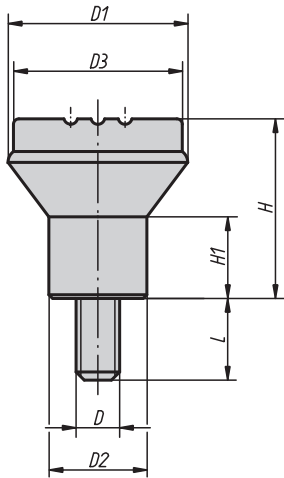
| Order No.<br>bush in steel | Order No.<br>bush in stainless steel | Size | D  | D1 | D2 | D3 | H  | H1 | T  | Approx.<br>weight<br>kg |
|----------------------------|--------------------------------------|------|----|----|----|----|----|----|----|-------------------------|
| K0251.04Δ                  | K0251.004Δ                           | 1    | M4 | 21 | 12 | 19 | 21 | 10 | 10 | 0,009                   |
| K0251.05Δ                  | K0251.005Δ                           | 1    | M5 | 21 | 12 | 19 | 21 | 10 | 10 | 0,008                   |
| K0251.06Δ                  | K0251.006Δ                           | 2    | M6 | 25 | 14 | 23 | 25 | 12 | 10 | 0,009                   |
| K0251.08Δ                  | K0251.008Δ                           | 3    | M8 | 33 | 19 | 31 | 33 | 15 | 14 | 0,022                   |

## Mushroom knobs

with external thread



**N<sup>G</sup>**



**Novo-Grip mushroom knobs represent a special form of gripping: absolutely secure, fast and easy. It is the new and unique dimension of gripping which distinguishes the Novo-Grip mushroom knobs. Try it!**

**Material, surface finish:**

Anthracite grey thermoplastic.  
Threaded bolt in steel 5.8, blue chromated or in stainless steel 1.4305, natural finish.

**Sample order:**

K0251.046X10 (Knob cap colour traffic red; please also indicate dimension L.)

**Note:**

Δ Add the desired knob cap colour here. No colour code is required with anthracite grey knob caps.



### KIPP Mushroom knobs with external thread

| Order No.<br>bolts steel | Order No.<br>bolts stainless steel | Size | D  | D1 | D2 | D3 | H  | H1 | L  | Approx.<br>weight<br>kg |
|--------------------------|------------------------------------|------|----|----|----|----|----|----|----|-------------------------|
| K0251.04ΔX10             | K0251.004ΔX10                      | 1    | M4 | 21 | 12 | 19 | 21 | 10 | 10 | 0,010                   |
| K0251.05ΔX10             | K0251.005ΔX10                      | 1    | M5 | 21 | 12 | 19 | 21 | 10 | 10 | 0,010                   |
| K0251.06ΔX15             | K0251.006ΔX15                      | 2    | M6 | 25 | 14 | 23 | 25 | 12 | 15 | 0,014                   |
| K0251.08ΔX15             | K0251.008ΔX15                      | 3    | M8 | 33 | 19 | 31 | 33 | 15 | 15 | 0,031                   |

## Wing grips in stainless steel

**Material, surface finish:**

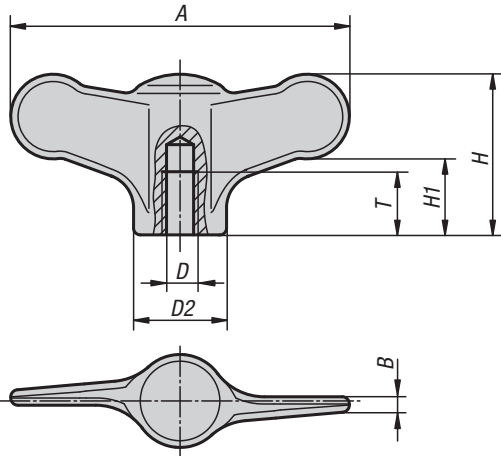
Stainless steel 1.4308, ground and polished.

**Sample order:**

K0273.105

**On request:**

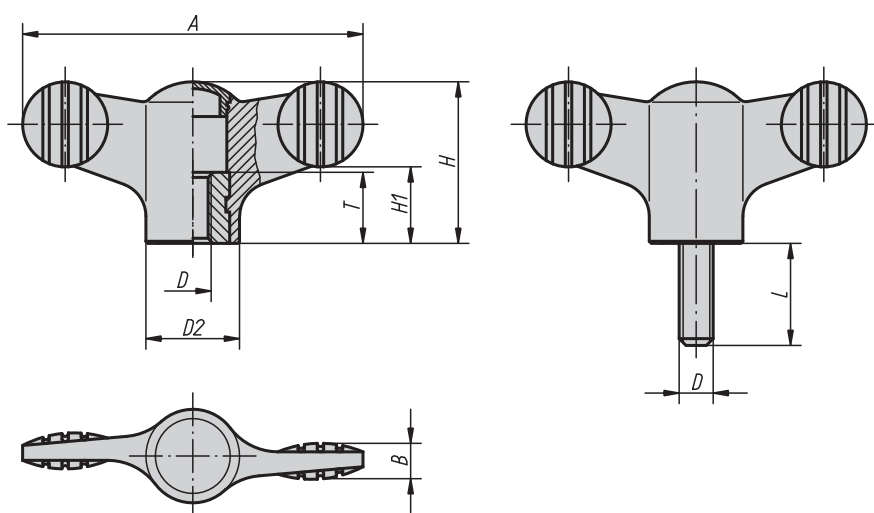
Wing grips with external threads.

**KIPP Wing grips in stainless steel with internal thread**

| Order No. | D   | D2   | A  | B   | H  | H1   | T  | Approx. weight kg |
|-----------|-----|------|----|-----|----|------|----|-------------------|
| K0273.904 | M4  | 10,5 | 38 | 1,7 | 18 | 8,5  | 9  | 0,015             |
| K0273.905 | M5  | 10,5 | 38 | 1,7 | 18 | 8,5  | 9  | 0,015             |
| K0273.906 | M6  | 10,5 | 38 | 1,7 | 18 | 8,5  | 9  | 0,015             |
| K0273.105 | M5  | 14   | 50 | 2,3 | 24 | 11,5 | 12 | 0,035             |
| K0273.106 | M6  | 14   | 50 | 2,3 | 24 | 11,5 | 12 | 0,035             |
| K0273.208 | M8  | 21   | 75 | 3,4 | 35 | 16,5 | 15 | 0,121             |
| K0273.210 | M10 | 21   | 75 | 3,4 | 35 | 16,5 | 15 | 0,121             |

## Wing grips

N<sup>G</sup>



For many people the modern Novo-Grip wing grips represent the perfect constructive and technical solution for absolutely „natural“ gripping. It enables more comfortable handling than ever before.

**Material, surface finish:**

Anthracite grey thermoplastic bush and threaded bolt in steel 5.8, blue chromated or in stainless steel 1.4305, natural finish

**Sample order:**

K0274.1057X20 (Grip cap colour bright yellow; please also indicate dimension L.)

**Note:**

Δ Add the desired cap colour here. No colour code is required with anthracite grey grip caps.



### KIPP Wing grips with internal thread

| Order No. bush in steel | Order No. bush in stainless steel | D   | D2 | A  | B   | H    | H1   | T  |
|-------------------------|-----------------------------------|-----|----|----|-----|------|------|----|
| K0274.904Δ              | K0274.0904Δ                       | M4  | 12 | 38 | 4,5 | 18   | 8,5  | 10 |
| K0274.905Δ              | K0274.0905Δ                       | M5  | 12 | 38 | 4,5 | 18   | 8,5  | 10 |
| K0274.906Δ              | K0274.0906Δ                       | M6  | 12 | 38 | 4,5 | 18   | 8,5  | 10 |
| K0274.105Δ              | K0274.0105Δ                       | M5  | 14 | 50 | 5   | 24   | 11,5 | 10 |
| K0274.106Δ              | K0274.0106Δ                       | M6  | 14 | 50 | 5   | 24   | 11,5 | 10 |
| K0274.208Δ              | K0274.0208Δ                       | M8  | 21 | 75 | 7   | 35,6 | 16,5 | 14 |
| K0274.210Δ              | K0274.0210Δ                       | M10 | 21 | 75 | 7   | 35,6 | 16,5 | 14 |

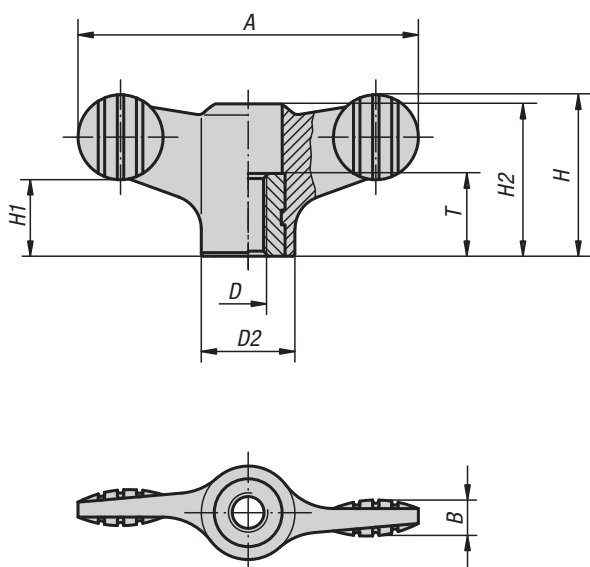
### KIPP Wing grips with external thread

| Order No. bolts steel | Order No. bolts stainless steel | D   | A  | B   | D2 | H    | H1   | L = screw length |
|-----------------------|---------------------------------|-----|----|-----|----|------|------|------------------|
| K0274.904ΔX           | K0274.0904ΔX                    | M4  | 38 | 4,5 | 12 | 18   | 8,5  | 10/15            |
| K0274.905ΔX           | K0274.0905ΔX                    | M5  | 38 | 4,5 | 12 | 18   | 8,5  | 15/20/30         |
| K0274.906ΔX           | K0274.0906ΔX                    | M6  | 38 | 4,5 | 12 | 18   | 8,5  | 20/30/40         |
| K0274.105ΔX           | K0274.0105ΔX                    | M5  | 50 | 5   | 14 | 24   | 11,5 | 15/20            |
| K0274.106ΔX           | K0274.0106ΔX                    | M6  | 50 | 5   | 14 | 24   | 11,5 | 20/30/40         |
| K0274.108ΔX           | K0274.0108ΔX                    | M8  | 50 | 5   | 14 | 24   | 11,5 | 20/30/40         |
| K0274.208ΔX           | K0274.0208ΔX                    | M8  | 75 | 7   | 21 | 35,6 | 16,5 | 20/30/40         |
| K0274.210ΔX           | K0274.0210ΔX                    | M10 | 75 | 7   | 21 | 35,6 | 16,5 | 20/30/40/50      |

## Wing grips

with continuous internal thread

**N<sup>G</sup>**



For many people the modern Novo-Grip wing grips represent the perfect constructive and technical solution for absolutely „natural“ gripping. It enables more comfortable handling than ever before.

**Material, surface finish:**

Anthracite grey thermoplastic.  
 Bush in steel 5.8, blue chromated or stainless steel 1.4305, natural finish.

**Sample order:**

K0274.1904

### KIPP Wing grips with continuous internal thread

| Order No.   | Surface finish          | D   | D2 | A  | B   | H    | H1   | H2   | T  |
|-------------|-------------------------|-----|----|----|-----|------|------|------|----|
| K0274.1904  | bush in steel           | M4  | 12 | 38 | 4,5 | 18   | 8,5  | 16,1 | 10 |
| K0274.1905  | bush in steel           | M5  | 12 | 38 | 4,5 | 18   | 8,5  | 16,1 | 10 |
| K0274.1906  | bush in steel           | M6  | 12 | 38 | 4,5 | 18   | 8,5  | 16,1 | 10 |
| K0274.1105  | bush in steel           | M5  | 14 | 50 | 5   | 24   | 11,5 | 22   | 10 |
| K0274.1106  | bush in steel           | M6  | 14 | 50 | 5   | 24   | 11,5 | 22   | 10 |
| K0274.1208  | bush in steel           | M8  | 21 | 75 | 7   | 35,6 | 17   | 33,3 | 14 |
| K0274.1210  | bush in steel           | M10 | 21 | 75 | 7   | 35,6 | 17   | 33,3 | 14 |
| K0274.10904 | bush in stainless steel | M4  | 12 | 38 | 4,5 | 18   | 8,5  | 16,1 | 10 |
| K0274.10905 | bush in stainless steel | M5  | 12 | 38 | 4,5 | 18   | 8,5  | 16,1 | 10 |
| K0274.10906 | bush in stainless steel | M6  | 12 | 38 | 4,5 | 18   | 8,5  | 16,1 | 10 |
| K0274.10105 | bush in stainless steel | M5  | 14 | 50 | 5   | 24   | 11,5 | 22   | 10 |
| K0274.10106 | bush in stainless steel | M6  | 14 | 50 | 5   | 24   | 11,5 | 22   | 10 |
| K0274.10208 | bush in stainless steel | M8  | 21 | 75 | 7   | 35,6 | 17   | 33,3 | 14 |
| K0274.10210 | bush in stainless steel | M10 | 21 | 75 | 7   | 35,6 | 17   | 33,3 | 14 |



## Wing grips, one-sided

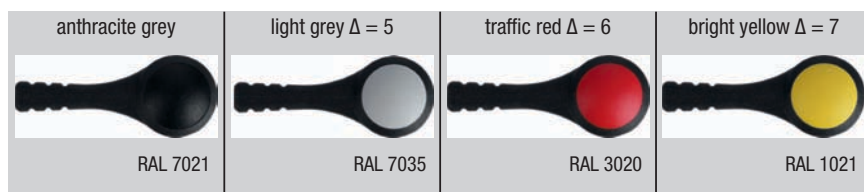
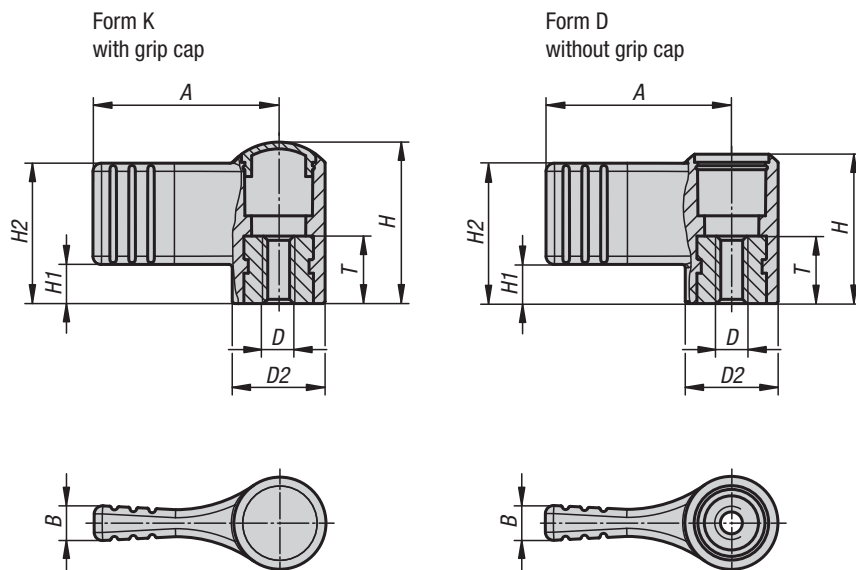
N<sup>G</sup>



**Material:**  
Anthracite grey thermoplastic.  
Bush in steel 5.8, blue chromated or in stainless steel 1.4305, natural finish.

**Sample order:**  
K0608.09046 (Bush M4 in stainless steel, cover in traffic red.)

**Note:**  
Δ Add the desired cap colour here. No colour code is required with anthracite grey wheel caps.



### KIPP Wing grips, one-sided with cover

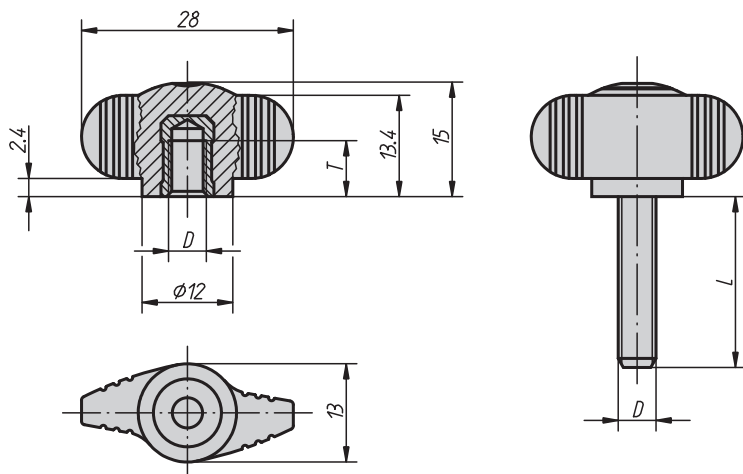
| Order No.<br>bush in steel | Order No.<br>bush in stainless steel | Form | Size | D   | D2 | A    | B   | H  | H1  | H2   | T  |
|----------------------------|--------------------------------------|------|------|-----|----|------|-----|----|-----|------|----|
| K0608.904Δ                 | K0608.0904Δ                          | K    | 9    | M4  | 12 | 22   | 4,4 | 18 | 4,5 | 15,5 | 10 |
| K0608.905Δ                 | K0608.0905Δ                          | K    | 9    | M5  | 12 | 22   | 4,4 | 18 | 4,5 | 15,5 | 10 |
| K0608.906Δ                 | K0608.0906Δ                          | K    | 9    | M6  | 12 | 22   | 4,4 | 18 | 4,5 | 15,5 | 10 |
| K0608.105Δ                 | K0608.0105Δ                          | K    | 1    | M5  | 14 | 27,5 | 5,1 | 24 | 5,8 | 20,8 | 10 |
| K0608.106Δ                 | K0608.0106Δ                          | K    | 1    | M6  | 14 | 27,5 | 5,1 | 24 | 5,8 | 20,8 | 10 |
| K0608.208Δ                 | K0608.0208Δ                          | K    | 2    | M8  | 21 | 37,5 | 6,3 | 36 | 8,5 | 30,5 | 14 |
| K0608.210Δ                 | K0608.0210Δ                          | K    | 2    | M10 | 21 | 37,5 | 6,3 | 36 | 8,5 | 30,5 | 14 |

### KIPP Wing grips, one-sided without cover

| Order No.<br>bush in steel | Order No.<br>bush in stainless steel | Form | Size | D   | D2 | A    | B   | H    | H1  | H2   | T  |
|----------------------------|--------------------------------------|------|------|-----|----|------|-----|------|-----|------|----|
| K0608.1904                 | K0608.10904                          | D    | 9    | M4  | 12 | 22   | 4,4 | 16,1 | 4,5 | 15,5 | 10 |
| K0608.1905                 | K0608.10905                          | D    | 9    | M5  | 12 | 22   | 4,4 | 16,1 | 4,5 | 15,5 | 10 |
| K0608.1906                 | K0608.10906                          | D    | 9    | M6  | 12 | 22   | 4,4 | 16,1 | 4,5 | 15,5 | 10 |
| K0608.1105                 | K0608.10105                          | D    | 1    | M5  | 14 | 27,5 | 5,1 | 22,1 | 5,8 | 20,8 | 10 |
| K0608.1106                 | K0608.10106                          | D    | 1    | M6  | 14 | 27,5 | 5,1 | 22,1 | 5,8 | 20,8 | 10 |
| K0608.1208                 | K0608.10208                          | D    | 2    | M8  | 21 | 37,5 | 6,3 | 33,3 | 8,5 | 30,5 | 14 |
| K0608.1210                 | K0608.10210                          | D    | 2    | M10 | 21 | 37,5 | 6,3 | 33,3 | 8,5 | 30,5 | 14 |

## Miniwings

N<sup>G</sup>



Technical emotions played an important role while developing these small-sized wing grips. The result is a miniwing that is far more than a means to an end. It is a well-planned operating and working part with finger-specific ergonomics.

**Material, surface finish:**

Anthracite grey thermoplastic.  
Bush in brass or stainless steel 1.4305, natural finish.

Threaded bolt in steel 5.8, blue chromated or stainless steel 1.4305, natural finish.

**Sample order:**

K0274.005X10 (Please also indicate dimension L.)

### KIPP Miniwings with internal thread

| Order No.  | Surface finish          | D  | T   | Approx. weight kg |
|------------|-------------------------|----|-----|-------------------|
| K0274.004  | Bush brass              | M4 | 6   | 0,003             |
| K0274.005  | Bush brass              | M5 | 7,5 | 0,004             |
| K0274.006  | Bush brass              | M6 | 9   | 0,005             |
| K0274.0004 | bush in stainless steel | M4 | 6   | 0,003             |
| K0274.0005 | bush in stainless steel | M5 | 7,5 | 0,004             |
| K0274.0006 | bush in stainless steel | M6 | 9   | 0,005             |

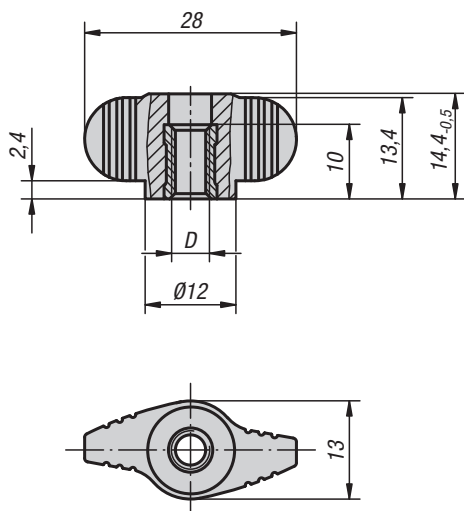
### KIPP Miniwings with external thread

| Order No.   | Surface finish        | D  | L = screw length |
|-------------|-----------------------|----|------------------|
| K0274.004X  | bolts steel           | M4 | 8                |
| K0274.005X  | bolts steel           | M5 | 10/15/20         |
| K0274.006X  | bolts steel           | M6 | 10/15/20/25/30   |
| K0274.008X  | bolts steel           | M8 | 20/25/30/40      |
| K0274.0004X | bolts stainless steel | M4 | 8                |
| K0274.0005X | bolts stainless steel | M5 | 10/15/20         |
| K0274.0006X | bolts stainless steel | M6 | 10/15/20/25/30   |
| K0274.0008X | bolts stainless steel | M8 | 20/25/30/40      |

# Miniwing

with continuous internal thread

**N<sup>G</sup>**



Technical emotions played an important role while developing these small-sized wing grips. The result is a miniwing that is far more than a means to an end. It is a well-planned operating and working part with finger-specific ergonomics.

**Material, surface finish:**

Anthracite grey thermoplastic.

Bush in steel 5.8, blue chromated or stainless steel 1.4305, natural finish.

**Sample order:**

K0658.1004

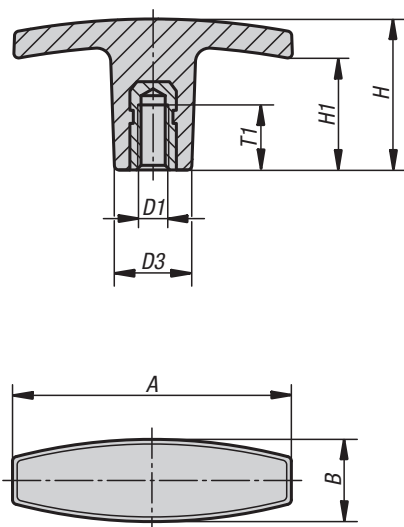
## KIPP Miniwing with continuous internal thread

| Order No.   | Surface finish          | D  |
|-------------|-------------------------|----|
| K0658.1004  | bush in steel           | M4 |
| K0658.1005  | bush in steel           | M5 |
| K0658.1006  | bush in steel           | M6 |
| K0658.10004 | bush in stainless steel | M4 |
| K0658.10005 | bush in stainless steel | M5 |
| K0658.10006 | bush in stainless steel | M6 |

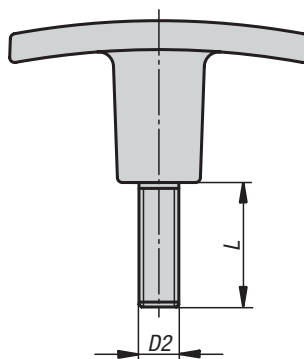
## T-grips



T-grip with internal thread



T-grip with external thread



**Material, surface finish:**

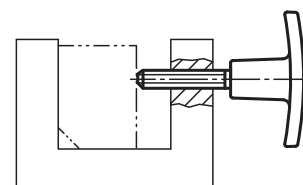
Glass-fibre reinforced thermoplastic, black.  
Threaded bush in brass.  
Threaded bolt in steel, galvanized

**Sample order:**

K0180.25005X15 (Please also indicate dimension L.)

**On request:**

Grip coloured in red, yellow, green, blue, white or grey (provided that the number of pieces is more than 250).



**KIPP T-grips, with internal thread**

| Order No.   | A  | B    | D1  | D3 | H    | H1 | T1 | Approx. weight kg |
|-------------|----|------|-----|----|------|----|----|-------------------|
| K0180.14005 | 40 | 13   | M5  | 13 | 30,5 | 20 | 10 | 0,011             |
| K0180.15005 | 50 | 15   | M5  | 14 | 24   | 16 | 10 | 0,013             |
| K0180.16006 | 60 | 17   | M6  | 16 | 31,5 | 23 | 12 | 0,017             |
| K0180.17108 | 71 | 19,5 | M8  | 20 | 36   | 19 | 20 | 0,028             |
| K0180.17110 | 71 | 19,5 | M10 | 20 | 36   | 19 | 20 | 0,030             |
| K0180.18010 | 80 | 26   | M10 | 26 | 39,5 | 26 | 25 | 0,048             |
| K0180.18012 | 80 | 26   | M12 | 26 | 39,5 | 26 | 25 | 0,056             |

**KIPP T-grips, with external thread**

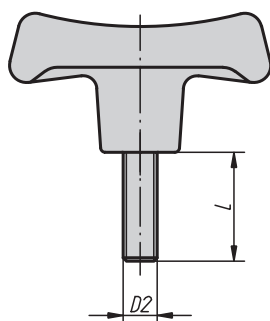
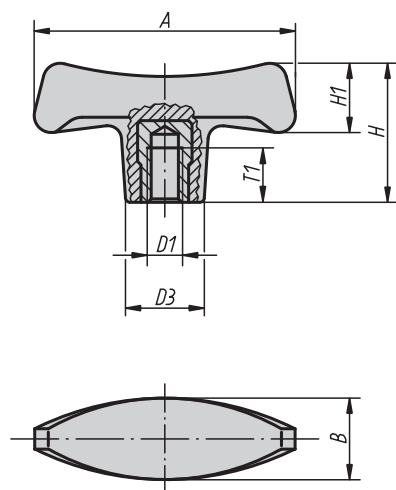
| Order No.    | A  | B    | D2  | D3 | H    | H1 | L = screw length |
|--------------|----|------|-----|----|------|----|------------------|
| K0180.24005X | 40 | 13   | M5  | 13 | 30,5 | 20 | 15               |
| K0180.25005X | 50 | 15   | M5  | 14 | 24   | 16 | 15/20            |
| K0180.26006X | 60 | 17   | M6  | 16 | 31,5 | 23 | 20/25            |
| K0180.27108X | 71 | 19,5 | M8  | 20 | 36   | 19 | 20/30            |
| K0180.27110X | 71 | 19,5 | M10 | 20 | 36   | 19 | 20/30            |
| K0180.28010X | 80 | 26   | M10 | 26 | 39,5 | 26 | 30               |
| K0180.28012X | 80 | 26   | M12 | 26 | 39,5 | 26 | 40               |

## T-grips



T-grip with internal thread

T-grip with external thread



**Material:**

Black duroplastic PF 31.  
Bush and threaded bolt in galvanized steel.

**Surface finish:**

Deburred and high-polish finish.

**Sample order:**

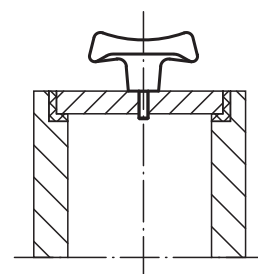
K0181.27006X18 (Please also indicate dimension L.)

**Note:**

The versions K0181.17008 and K0181.18008 have a bush in copper-plated steel.

**On request:**

Other external threads, screw lengths and colours.



### KIPP T-Grips, with internal thread

| Order No.   | A  | B  | D1  | D3   | H    | H1   | T1 | Approx. weight kg |
|-------------|----|----|-----|------|------|------|----|-------------------|
| K0181.17006 | 70 | 22 | M6  | 19,6 | 38,8 | 20,2 | 12 | 0,035             |
| K0181.17008 | 70 | 22 | M8  | 19,6 | 38,8 | 20,2 | 14 | 0,041             |
| K0181.17010 | 70 | 22 | M10 | 19,6 | 38,8 | 20,2 | 14 | 0,040             |
| K0181.18008 | 80 | 25 | M8  | 22,3 | 44   | 23   | 14 | 0,053             |
| K0181.18010 | 80 | 25 | M10 | 22,3 | 44   | 23   | 22 | 0,056             |
| K0181.19010 | 90 | 28 | M10 | 25   | 49,6 | 26   | 22 | 0,072             |
| K0181.19012 | 90 | 28 | M12 | 25   | 49,6 | 26   | 21 | 0,082             |

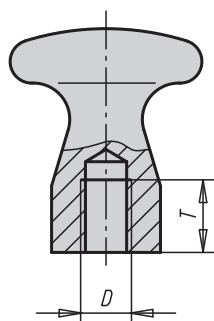
### KIPP T-Grips, with external thread

| Order No.    | A  | B  | D2  | D3   | H    | H1   | L = screw length |
|--------------|----|----|-----|------|------|------|------------------|
| K0181.27006X | 70 | 22 | M6  | 19,6 | 38,8 | 20,2 | 18               |
| K0181.27008X | 70 | 22 | M8  | 19,6 | 38,8 | 20,2 | 24               |
| K0181.28010X | 80 | 25 | M10 | 22,3 | 44   | 23   | 20/30            |
| K0181.29010X | 90 | 28 | M10 | 25   | 49,6 | 26   | 30               |
| K0181.29012X | 90 | 28 | M12 | 25   | 49,6 | 26   | 24               |

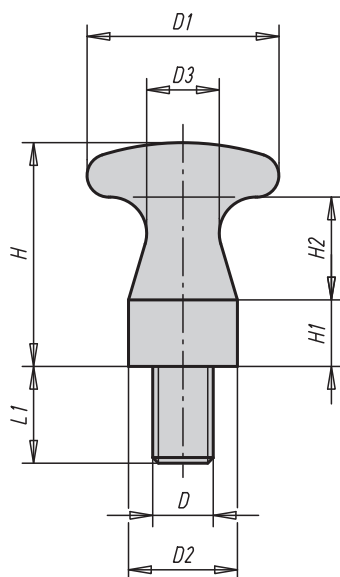
## Flat knobs



Flat knob  
with internal thread



Flat knob  
with external thread



**Material:**  
Steel.

**Surface finish:**  
Black oxide finish.

**Sample order:**  
K0157.08

### KIPP Flat knobs with internal thread

| Order No. | D   | D1 | D2 | D3 | H  | H1 | H2 | T  |
|-----------|-----|----|----|----|----|----|----|----|
| K0157.05  | M5  | 16 | 10 | 6  | 18 | 5  | 9  | 7  |
| K0157.06  | M6  | 25 | 14 | 10 | 29 | 9  | 13 | 9  |
| K0157.08  | M8  | 32 | 18 | 12 | 37 | 11 | 17 | 12 |
| K0157.10  | M10 | 36 | 20 | 13 | 42 | 12 | 20 | 15 |

### KIPP Flat knobs with external thread

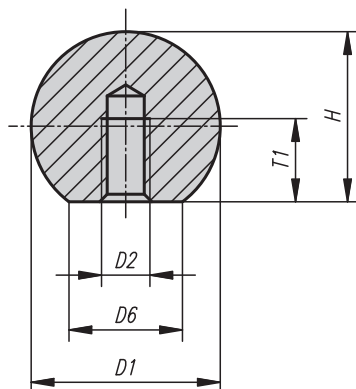
| Order No.   | D   | D1 | D2 | D3 | H  | H1 | H2 | L1 |
|-------------|-----|----|----|----|----|----|----|----|
| K0157.06010 | M6  | 16 | 10 | 6  | 18 | 5  | 9  | 10 |
| K0157.08014 | M8  | 25 | 14 | 10 | 29 | 9  | 13 | 14 |
| K0157.10016 | M10 | 32 | 18 | 12 | 37 | 11 | 17 | 16 |
| K0157.12018 | M12 | 36 | 20 | 13 | 42 | 12 | 20 | 18 |

## Ball knobs

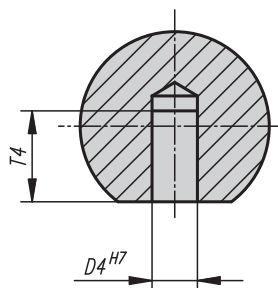
stainless steel or aluminium DIN 319



Form C  
with thread



Form K  
with hole



**Material:**

Stainless steel 1.4305 or aluminium.

**Surface finish:**

Polished.

**Sample order:**

K0650.116043

### KIPP Ball knobs in stainless steel DIN 319

| Order No.<br>Form C | Order No.<br>Form K | D1 | D2    | D4   | ~D6 | ~H   | T1 min. | T4 min. |
|---------------------|---------------------|----|-------|------|-----|------|---------|---------|
| K0650.116043        | K0650.316043        | 16 | M4/-  | -/6  | 8   | 15   | 7,2/-   | -/10    |
| K0650.120053        | K0650.320053        | 20 | M5/-  | -/8  | 12  | 18   | 9,1/-   | -/12    |
| K0650.125063        | K0650.325063        | 25 | M6/-  | -/10 | 15  | 22,5 | 11/-    | -/16    |
| K0650.132083        | K0650.332083        | 32 | M8/-  | -/12 | 18  | 29   | 14,5/-  | -/20    |
| K0650.140103        | K0650.340103        | 40 | M10/- | -/16 | 22  | 37   | 18/-    | -/25    |
| K0650.150123        | K0650.350123        | 50 | M12/- | -/20 | 28  | 46   | 21/-    | -/32    |

### KIPP Ball knobs in aluminium DIN 319

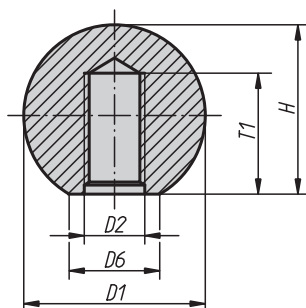
| Order No.<br>Form C | Order No.<br>Form K | D1 | D2    | D4   | ~D6 | ~H   | T1 min. | T4 min. |
|---------------------|---------------------|----|-------|------|-----|------|---------|---------|
| K0650.116042        | K0650.316042        | 16 | M4/-  | -/6  | 8   | 15   | 7,2/-   | -/10    |
| K0650.120052        | K0650.320052        | 20 | M5/-  | -/8  | 12  | 18   | 9,1/-   | -/12    |
| K0650.125062        | K0650.325062        | 25 | M6/-  | -/10 | 15  | 22,5 | 11/-    | -/16    |
| K0650.132082        | K0650.332082        | 32 | M8/-  | -/12 | 18  | 29   | 14,5/-  | -/20    |
| K0650.140102        | K0650.340102        | 40 | M10/- | -/16 | 22  | 37   | 18/-    | -/25    |
| K0650.150122        | K0650.350122        | 50 | M12/- | -/20 | 28  | 46   | 21/-    | -/32    |

## Ball knobs

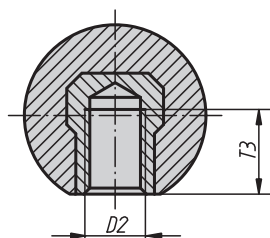
in thermoplastic to DIN 319 extended



Form C  
with plastic thread



Form E  
with threaded bush



**Material, surface finish:**  
Black thermoplastic.  
Bush in galvanized steel.

**Sample order:**  
K0158.11604

**On request:**  
Other colours.

### KIPP Ball knobs in thermoplastic to DIN 319 extended

| Order No.   | Form | D1 | D2  | ~D6 | ~H   | T1 min. | T3 min. |
|-------------|------|----|-----|-----|------|---------|---------|
| K0158.11604 | C    | 16 | M4  | 8   | 15   | 7       | -       |
| K0158.11605 | C    | 16 | M5  | 8   | 15   | 7       | -       |
| K0158.12005 | C    | 20 | M5  | 12  | 18   | 9       | -       |
| K0158.12006 | C    | 20 | M6  | 12  | 18   | 9       | -       |
| K0158.12506 | C    | 25 | M6  | 15  | 22,5 | 11      | -       |
| K0158.12508 | C    | 25 | M8  | 15  | 22,5 | 11      | -       |
| K0158.13208 | C    | 32 | M8  | 18  | 29   | 14,5    | -       |
| K0158.13210 | C    | 32 | M10 | 18  | 29   | 14,5    | -       |
| K0158.22005 | E    | 20 | M5  | 12  | 18   | -       | 7,5     |
| K0158.22006 | E    | 20 | M6  | 12  | 18   | -       | 7,5     |
| K0158.22506 | E    | 25 | M6  | 15  | 22,5 | -       | 9       |
| K0158.22508 | E    | 25 | M8  | 15  | 22,5 | -       | 9       |
| K0158.23208 | E    | 32 | M8  | 18  | 29   | -       | 12      |
| K0158.23210 | E    | 32 | M10 | 18  | 29   | -       | 12      |

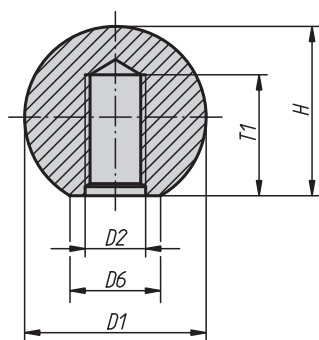


## Ball knobs

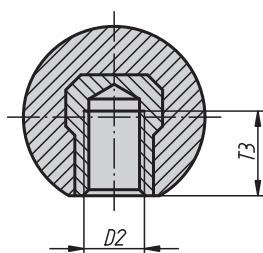
with smooth surface to DIN 319 extended



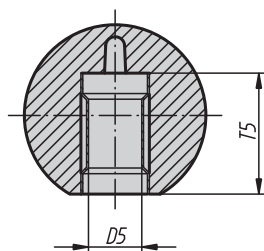
Form C  
with pressed thread



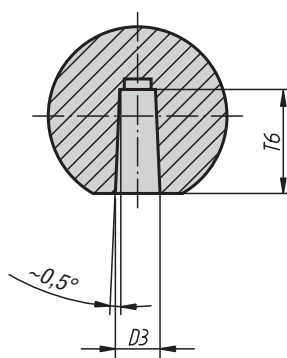
Form E  
with threaded bush



Form L  
with clamping sleeve



Form M  
with conical borehole



**Material:**

Black duroplastic PF 31.  
Bush in galvanized steel.

**Surface finish:**

Deburred and high-polish finish.

**Sample order:**

K0159.11604

**Note:**

Assembly Form L: The ball knobs are mounted firmly by tapping a hammer lightly. Please only use a rubber or plastic hammer, with a weight up to 200 g!

The version K0159.21604 has a bush in copper-plated steel.

The versions K0159.23008, K0159.23508 and K0159.24008 have a bush in brass.

**On request:**

\* These versions are available from stock in dark red at extra charge.

**Shank tolerance:**

Ball knobs with clamping sleeves can be mounted on standard rods with tolerance h9. The clamping sleeve supplied assures a firm and reliable fit.

### KIPP Ball knobs with smooth surface to DIN 319 extended, form C

| Order No.   | Form | D1 | D2  | ~D6 | ~H   | T1 min. |
|-------------|------|----|-----|-----|------|---------|
| K0159.11604 | C    | 16 | M4  | 8   | 15   | 7       |
| K0159.11605 | C    | 16 | M5  | 8   | 15   | 7,5     |
| K0159.11606 | C    | 16 | M6  | 8   | 15   | 7,5     |
| K0159.12005 | C    | 20 | M5  | 12  | 18   | 9       |
| K0159.12006 | C    | 20 | M6  | 12  | 18   | 10,5    |
| K0159.12506 | C    | 25 | M6  | 15  | 23   | 11      |
| K0159.12508 | C    | 25 | M8  | 15  | 23   | 13,5    |
| K0159.13008 | C    | 30 | M8  | 16  | 28   | 14      |
| K0159.13208 | C    | 32 | M8  | 18  | 29   | 14,5    |
| K0159.13210 | C    | 32 | M10 | 18  | 29   | 16      |
| K0159.13508 | C    | 36 | M8  | 17  | 33   | 20      |
| K0159.13510 | C    | 36 | M10 | 17  | 33   | 21      |
| K0159.14008 | C    | 40 | M8  | 20  | 37,5 | 22      |
| K0159.14010 | C    | 40 | M10 | 20  | 37,5 | 18      |
| K0159.14012 | C    | 40 | M12 | 20  | 37,5 | 23      |
| K0159.14510 | C    | 45 | M10 | 20  | 43   | 26      |
| K0159.14512 | C    | 45 | M12 | 20  | 43   | 30      |
| K0159.15010 | C    | 50 | M10 | 22  | 48   | 30      |
| K0159.15012 | C    | 50 | M12 | 22  | 48   | 21      |

# Ball knobs

with smooth surface to DIN 319 extended

## KIPP Ball knobs with smooth surface to DIN 319 extended, form E

| Order No.   | Form | D1 | D2  | ~D6 | ~H   | T3 min. |
|-------------|------|----|-----|-----|------|---------|
| K0159.21604 | E    | 16 | M4  | 8   | 15   | 6       |
| K0159.22005 | E    | 20 | M5  | 12  | 18   | 7,5     |
| K0159.22006 | E    | 20 | M6  | 12  | 18   | 8       |
| K0159.22506 | E    | 25 | M6  | 15  | 23   | 9       |
| K0159.22508 | E    | 25 | M8  | 15  | 23   | 13,5    |
| K0159.23008 | E    | 30 | M8  | 16  | 28   | 14      |
| K0159.23208 | E    | 32 | M8  | 18  | 29   | 12      |
| K0159.23210 | E    | 32 | M10 | 18  | 29   | 16      |
| K0159.23508 | E    | 36 | M8  | 17  | 33   | 14      |
| K0159.23510 | E    | 36 | M10 | 17  | 33   | 14      |
| K0159.24008 | E    | 40 | M8  | 20  | 37,5 | 14      |
| K0159.24010 | E    | 40 | M10 | 20  | 37,5 | 15      |
| K0159.24012 | E    | 40 | M12 | 20  | 37,5 | 21      |
| K0159.24510 | E    | 45 | M10 | 20  | 43   | 22      |
| K0159.24512 | E    | 45 | M12 | 20  | 43   | 21      |
| K0159.25010 | E    | 50 | M10 | 22  | 48   | 22      |
| K0159.25012 | E    | 50 | M12 | 22  | 48   | 18      |

## KIPP Ball knobs with smooth surface to DIN 319 extended, form L

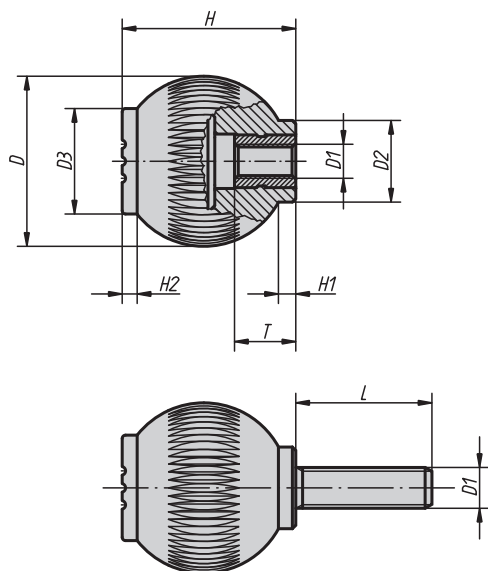
| Order No.   | Form | D1 | D5 | ~D6 | ~H   | T5 |
|-------------|------|----|----|-----|------|----|
| K0159.42005 | L    | 20 | 5  | 12  | 18   | 13 |
| K0159.42506 | L    | 25 | 6  | 15  | 23   | 16 |
| K0159.42508 | L    | 25 | 8  | 15  | 23   | 15 |
| K0159.43208 | L    | 32 | 8  | 18  | 29   | 15 |
| K0159.43210 | L    | 32 | 10 | 18  | 29   | 20 |
| K0159.44010 | L    | 40 | 10 | 20  | 37,5 | 20 |
| K0159.44012 | L    | 40 | 12 | 20  | 37,5 | 23 |
| K0159.45012 | L    | 50 | 12 | 22  | 48   | 20 |

## KIPP Ball knobs with smooth surface to DIN 319 extended, form M

| Order No.   | Form | D1 | D3 | ~D6 | ~H   | T6 |
|-------------|------|----|----|-----|------|----|
| K0159.31604 | M    | 16 | 4  | 8   | 15   | 9  |
| K0159.32005 | M    | 20 | 5  | 12  | 18   | 12 |
| K0159.32506 | M    | 25 | 6  | 15  | 23   | 15 |
| K0159.32508 | M    | 25 | 8  | 15  | 23   | 15 |
| K0159.33208 | M    | 32 | 8  | 18  | 29   | 15 |
| K0159.33210 | M    | 32 | 10 | 18  | 29   | 15 |
| K0159.34010 | M    | 40 | 10 | 20  | 37,5 | 20 |
| K0159.34012 | M    | 40 | 12 | 20  | 37,5 | 20 |
| K0159.35012 | M    | 50 | 12 | 22  | 48   | 22 |

## Grip balls

N<sup>G</sup>



**A perfect product with respect to ergonomics for „three-dimensional“ gripping:**  
**The „third dimension“ benefits from „belt fluting“.**  
**Thanks to computer-assisted engineering-design the requirements of different industries can be met.**

**Material, surface finish:**  
 Anthracite grey thermoplastic.  
 Bush and threaded bolt in steel 5.8, blue chromated or stainless steel, 1.4305 natural finish.

**Sample order:**  
 K0253.1066X15 (Grip cap colour traffic red; please also indicate dimension L.)

**Note:**  
 Δ Add the desired grip cap colour here; no colour code is required with anthracite grey grip caps.



### KIPP Grip balls with internal thread

| Order No. bush in steel | Order No. bush in stainless steel | Size | D  | D1  | D2   | D3 | H    | H1  | H2  | T  | Approx. weight kg |
|-------------------------|-----------------------------------|------|----|-----|------|----|------|-----|-----|----|-------------------|
| K0253.106Δ              | K0253.0106Δ                       | 1    | 25 | M6  | 12   | 17 | 25   | 2,5 | 2,2 | 10 | 0,014             |
| K0253.208Δ              | K0253.0208Δ                       | 2    | 32 | M8  | 15,5 | 19 | 33   | 3,2 | 2,8 | 14 | 0,023             |
| K0253.310Δ              | K0253.0310Δ                       | 3    | 40 | M10 | 19   | 23 | 41,5 | 4   | 3,5 | 14 | 0,042             |
| K0253.410Δ              | K0253.0410Δ                       | 4    | 50 | M10 | 24   | 31 | 51   | 5   | 4,4 | 14 | 0,070             |
| K0253.412Δ              | K0253.0412Δ                       | 4    | 50 | M12 | 24   | 31 | 51   | 5   | 4,4 | 18 | 0,072             |

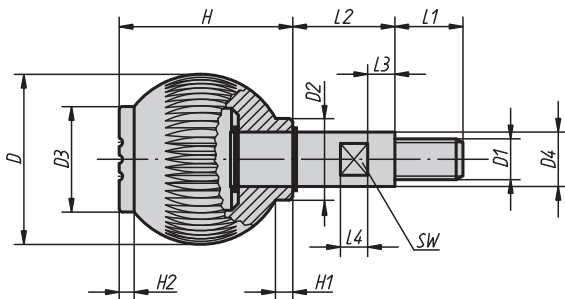
### KIPP Grip balls with external thread

| Order No. bolts steel | Order No. bolts stainless steel | Size | D  | D1  | D2   | D3 | H    | H1  | H2  | L = screw length |
|-----------------------|---------------------------------|------|----|-----|------|----|------|-----|-----|------------------|
| K0253.106ΔX           | K0253.0106ΔX                    | 1    | 25 | M6  | 12   | 17 | 25   | 2,5 | 2,2 | 15/20/25/30      |
| K0253.208ΔX           | K0253.0208ΔX                    | 2    | 32 | M8  | 15,5 | 19 | 33   | 3,2 | 2,8 | 20/25/30/40      |
| K0253.310ΔX           | K0253.0310ΔX                    | 3    | 40 | M10 | 19   | 23 | 41,5 | 4   | 3,5 | 20/30/40         |
| K0253.410ΔX           | K0253.0410ΔX                    | 4    | 50 | M10 | 24   | 31 | 51   | 5   | 4,4 | 20/30/40         |
| K0253.412ΔX           | K0253.0412ΔX                    | 4    | 50 | M12 | 24   | 31 | 51   | 5   | 4,4 | 20/30/40         |

## Grip balls

revolving

**N<sup>G</sup>**



A perfect product with respect to ergonomics for „three-dimensional“ gripping. The „third dimension“ benefits from „belt fluting“. Thanks to computer-assisted engineering-design the requirements of different industries can be met.

**Material, surface finish:**

Anthracite grey thermoplastic.  
 Shaft in steel 5.8, blue chromated or stainless steel 1.4305, natural finish.  
 Circlips are galvanized (including stainless steel versions).

**Sample order:**

K0254.1066 (Grip cap colour traffic red.)

**Note:**

Δ Add the desired grip cap colour here; no colour code is required with anthracite grey grip caps.

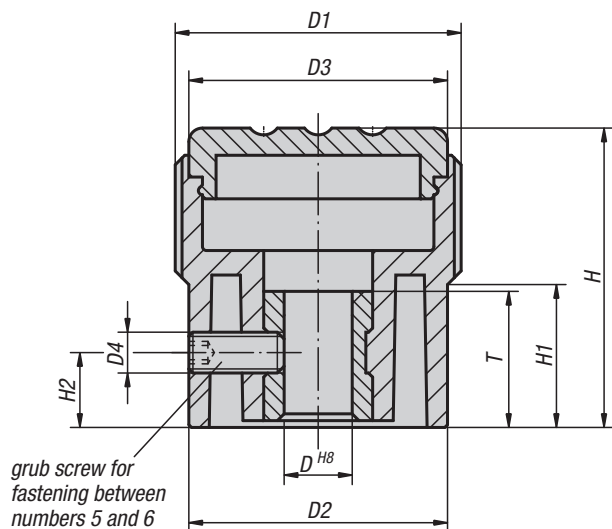


### KIPP Grip balls revolving

| Order No. shaft steel | Order No. shaft stainless steel | Size | D  | D1  | D2   | D3 | D4 | H    | H1  | H2  | L1 | L2 | L3 | L4 | SW | Approx. weight kg |
|-----------------------|---------------------------------|------|----|-----|------|----|----|------|-----|-----|----|----|----|----|----|-------------------|
| K0254.106Δ            | K0254.0106Δ                     | 1    | 25 | M6  | 12   | 17 | 8  | 25   | 2,5 | 2,2 | 10 | 15 | 5  | 5  | 7  | 0,020             |
| K0254.208Δ            | K0254.0208Δ                     | 2    | 32 | M8  | 15,5 | 19 | 10 | 33   | 3,2 | 2,8 | 12 | 20 | 6  | 6  | 8  | 0,042             |
| K0254.310Δ            | K0254.0310Δ                     | 3    | 40 | M10 | 19   | 23 | 13 | 41,5 | 4   | 3,5 | 15 | 25 | 7  | 9  | 10 | 0,085             |
| K0254.412Δ            | K0254.0412Δ                     | 4    | 50 | M12 | 24   | 31 | 16 | 51   | 5   | 4,4 | 20 | 30 | 8  | 8  | 13 | 0,157             |

## Graduated knobs

N<sup>G</sup>



**Novo-Grip graduated knobs provide a precise and repeatable approach to the corresponding position. The perfectly incorporated scale marks ensure optimum readability while the integrated grub screw makes possible permanent and unproblematic fastening to the shaft.**

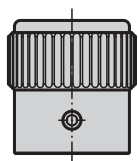
**Material, surface finish:**  
 Anthracite grey thermoplastic.  
 Steel parts blue chromated.

**Sample order:**  
 K0248.11055 (knob cap colour light grey)

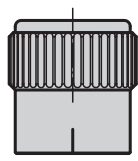
**Note:**  
 Available without scale marks, with one graduation mark or with 20 scale marks and 10 digits.

Δ Add the desired knob cap colour here; no colour code is required with anthracite grey knob caps.

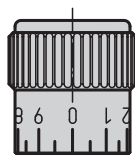
**On request:**  
 Special scale marks.



Form A  
without  
scale marks



Form B  
with graduation  
mark



Form C  
with standard  
scale marks

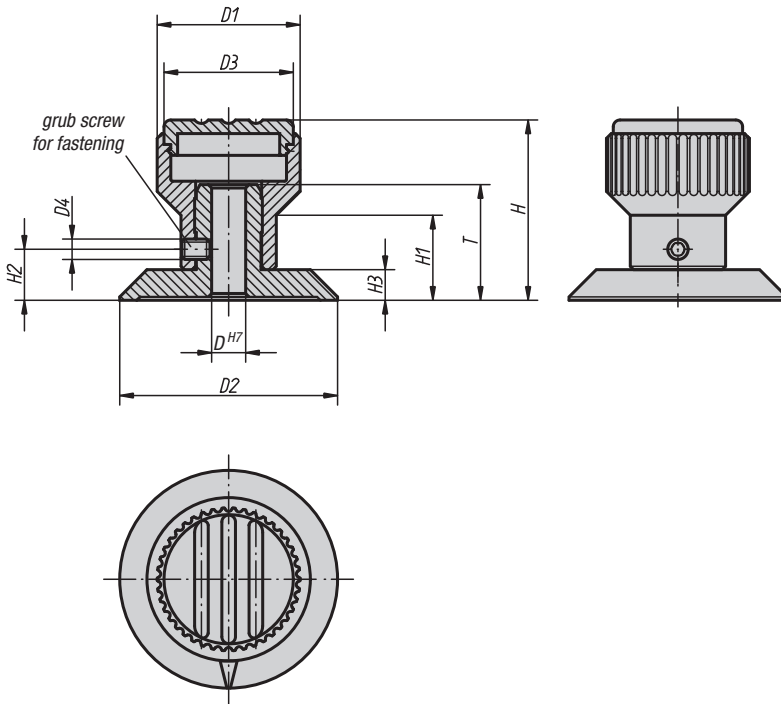


### KIPP Graduated knobs

| Order No.   | Form | Size | D | D1 | D2 | D3 | D4 | H  | H1   | H2 | T  | Approx. weight kg |
|-------------|------|------|---|----|----|----|----|----|------|----|----|-------------------|
| K0248.1105Δ | A    | 1    | 5 | 21 | 19 | 19 | M3 | 22 | 10,5 | 5  | 10 | 0,011             |
| K0248.1206Δ | A    | 2    | 6 | 26 | 23 | 23 | M3 | 26 | 12   | 6  | 10 | 0,023             |
| K0248.1308Δ | A    | 3    | 8 | 34 | 31 | 31 | M4 | 36 | 17,5 | 7  | 14 | 0,032             |
| K0248.2105Δ | B    | 1    | 5 | 21 | 19 | 19 | M3 | 22 | 10,5 | 5  | 10 | 0,011             |
| K0248.2206Δ | B    | 2    | 6 | 26 | 23 | 23 | M3 | 26 | 12   | 6  | 10 | 0,023             |
| K0248.2308Δ | B    | 3    | 8 | 34 | 31 | 31 | M4 | 36 | 17,5 | 7  | 14 | 0,032             |
| K0248.3105Δ | C    | 1    | 5 | 21 | 19 | 19 | M3 | 22 | 10,5 | 5  | 10 | 0,011             |
| K0248.3206Δ | C    | 2    | 6 | 26 | 23 | 23 | M3 | 26 | 12   | 6  | 10 | 0,023             |
| K0248.3308Δ | C    | 3    | 8 | 34 | 31 | 31 | M4 | 36 | 17,5 | 7  | 14 | 0,032             |

## Adjusting knobs

N<sup>G</sup>



Switching positions in various fields and applications can be set easily and clearly with the Novo-Grip adjusting knob. The engraved, silver-coloured arrow mark focuses your concentration on the essential point: the correct switch position.

**Material, surface finish:**

Knurled knob in anthracite grey thermoplastic.  
Disc in black anodized aluminium.

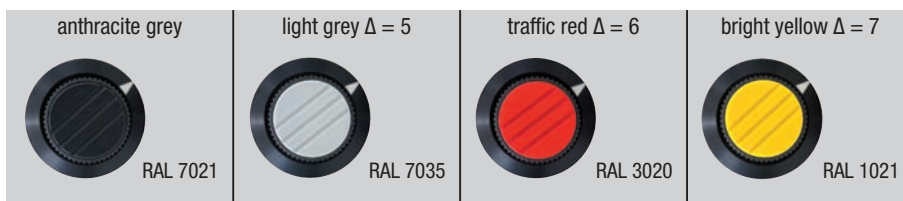
**Sample order:**

K0249.1055 (knob cap colour light grey)

**Note:**

Arrow mark engraved after anodizing, the grub screw secures both the hub and the disc. Hub hole H7 guarantees a good, tight fit on the shaft.

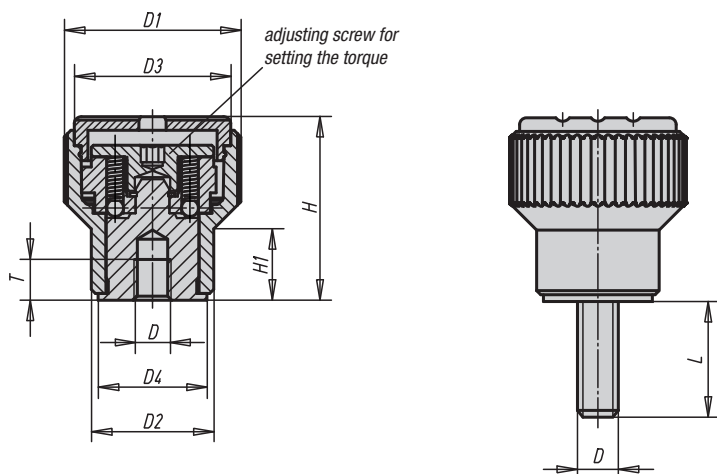
Δ Add the desired knob cap colour here; no colour code is required with anthracite grey knob caps.



### KIPP Adjusting knobs

| Order No.  | Size | D | D1 | D2 | D3 | D4 | H    | H1   | H2  | H3  | T    | Approx. weight kg |
|------------|------|---|----|----|----|----|------|------|-----|-----|------|-------------------|
| K0249.105Δ | 1    | 5 | 21 | 32 | 19 | M3 | 26,5 | 12,5 | 7,5 | 4,5 | 17   | 0,010             |
| K0249.206Δ | 2    | 6 | 26 | 40 | 23 | M4 | 31,5 | 15   | 9,5 | 5,5 | 20,5 | 0,021             |
| K0249.308Δ | 3    | 8 | 34 | 52 | 31 | M4 | 43   | 20   | 12  | 7   | 22   | 0,026             |

## Torque knurled knobs



### Material, surface finish:

Anthracite grey thermoplastic.  
Threaded bolt and bush in steel 5.8, bush black oxide finish.  
Threaded bolt blue chromated.

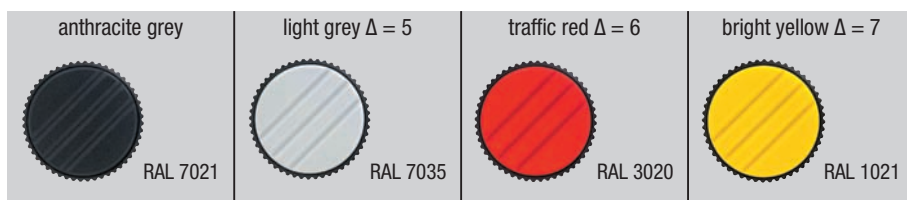
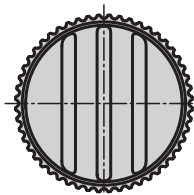
### Sample order:

K0277.2056X30 (Knob cap colour traffic red; please also indicate dimension L.)

### Note:

The adjusting screw sets the torque required. When the set torque is reached the knurled knob spins freely.

Δ Add the desired knob cap colour here; no colour code is required with anthracite grey knob caps.



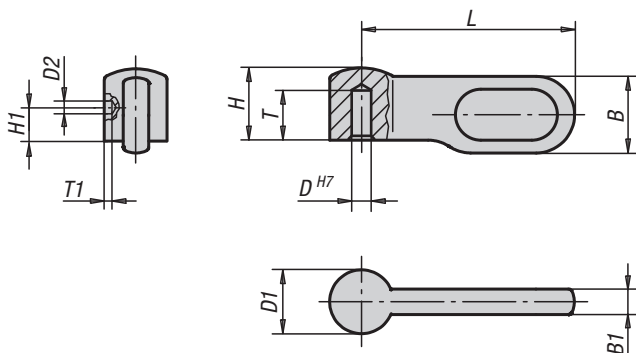
### KIPP Torque knurled knobs with internal thread

| Order No.  | Surface finish | Size | D  | D1 | D2 | D3 | D4 | H    | H1   | T  | Adjustable torque approx. Nm min. - max. | Approx. weight kg |
|------------|----------------|------|----|----|----|----|----|------|------|----|--|-------------------|
| K0277.205Δ | bush in steel  | 2    | M5 | 26 | 18 | 23 | 16 | 27   | 10,5 | 5  | 0,1 - 0,3                                | 0,047             |
| K0277.206Δ | bush in steel  | 2    | M6 | 26 | 18 | 23 | 16 | 27   | 10,5 | 6  | 0,1 - 0,3                                | 0,042             |
| K0277.306Δ | bush in steel  | 3    | M6 | 34 | 22 | 31 | 20 | 37,5 | 14,5 | 10 | 0,1 - 0,3                                | 0,082             |
| K0277.308Δ | bush in steel  | 3    | M8 | 34 | 22 | 31 | 20 | 37,5 | 14,5 | 14 | 0,1 - 0,3                                | 0,077             |

### KIPP Torque knurled knobs with external thread

| Order No.   | Surface finish | Size | D  | D1 | D2 | D3 | D4 | H    | H1   | Adjustable torque approx. Nm min. - max. | L = screw length |
|-------------|----------------|------|----|----|----|----|----|------|------|--|------------------|
| K0277.205ΔX | bolt in steel  | 2    | M5 | 26 | 18 | 23 | 16 | 27   | 10,5 | 0,1 - 0,3                                | 30/50            |
| K0277.206ΔX | bolt in steel  | 2    | M6 | 26 | 18 | 23 | 16 | 27   | 10,5 | 0,1 - 0,3                                | 30/50            |
| K0277.306ΔX | bolt in steel  | 3    | M6 | 34 | 22 | 31 | 20 | 37,5 | 14,5 | 0,1 - 0,3                                | 40/60            |
| K0277.308ΔX | bolt in steel  | 3    | M8 | 34 | 22 | 31 | 20 | 37,5 | 14,5 | 0,1 - 0,3                                | 40/60            |

## Locking bars



**Material, surface finish:**

Stainless steel 1.4308, natural finish or steel, black oxide finish.

**Sample order:**

K0178.1040

**Note:**

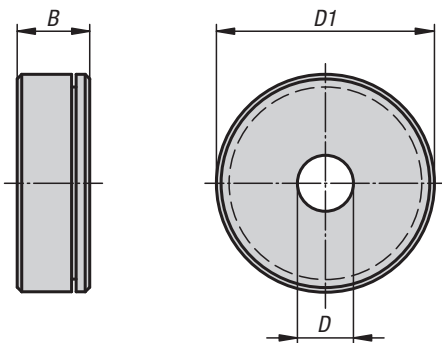
The locking bar can be used individually. Its styled design with the easy recessed grip gives the fingers purchase and meets the demands of modern requirements. Large clamping forces can be easily transferred. Different types of attachment can be selected due to the lateral centring.

### KIPP Locking bars

| Order No.  | Surface finish  | Size | B    | B1  | D | D1  | D2  | H    | H1 | L  | T    | T1  |
|------------|-----------------|------|------|-----|---|-----|-----|------|----|----|------|-----|
| K0178.1040 | stainless steel | 1    | 9    | 3   | 4 | 7,5 | 1,5 | 8,5  | 3  | 25 | 5,5  | 0,5 |
| K0178.2050 | stainless steel | 2    | 10,8 | 3,6 | 5 | 9   | 2   | 10,2 | 4  | 30 | 6,5  | 1   |
| K0178.3060 | stainless steel | 3    | 14,4 | 4,8 | 6 | 12  | 2   | 13,6 | 5  | 40 | 8,7  | 1   |
| K0178.4080 | stainless steel | 4    | 18   | 6   | 8 | 15  | 3   | 17   | 6  | 50 | 10,2 | 1   |
| K0178.1041 | steel           | 1    | 9    | 3   | 4 | 7,5 | 1,5 | 8,5  | 3  | 25 | 5,5  | 0,5 |
| K0178.2051 | steel           | 2    | 10,8 | 3,6 | 5 | 9   | 2   | 10,2 | 4  | 30 | 6,5  | 1   |
| K0178.3061 | steel           | 3    | 14,4 | 4,8 | 6 | 12  | 2   | 13,6 | 5  | 40 | 8,7  | 1   |
| K0178.4081 | steel           | 4    | 18   | 6   | 8 | 15  | 3   | 17   | 6  | 50 | 10,2 | 1   |



## Axial bearing for increasing tension force



**Material:**

Bearing housing in steel.

**Surface finish:**

Black oxide finish.

**Sample order:**

K0584.06

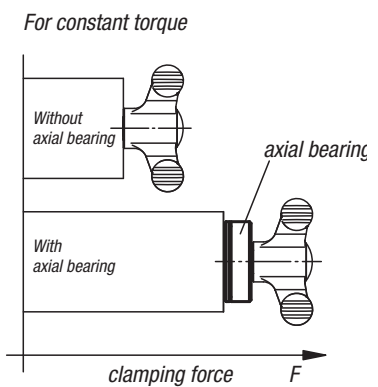
**Note:**

The axial bearing is generally used for connection to tensioning or clamping elements. Due to the integrated bearing unit consisting of an axial needle roller and two axial bearing discs, approximately twice the clamping force can be achieved with the same lever length.

**Advantages:**

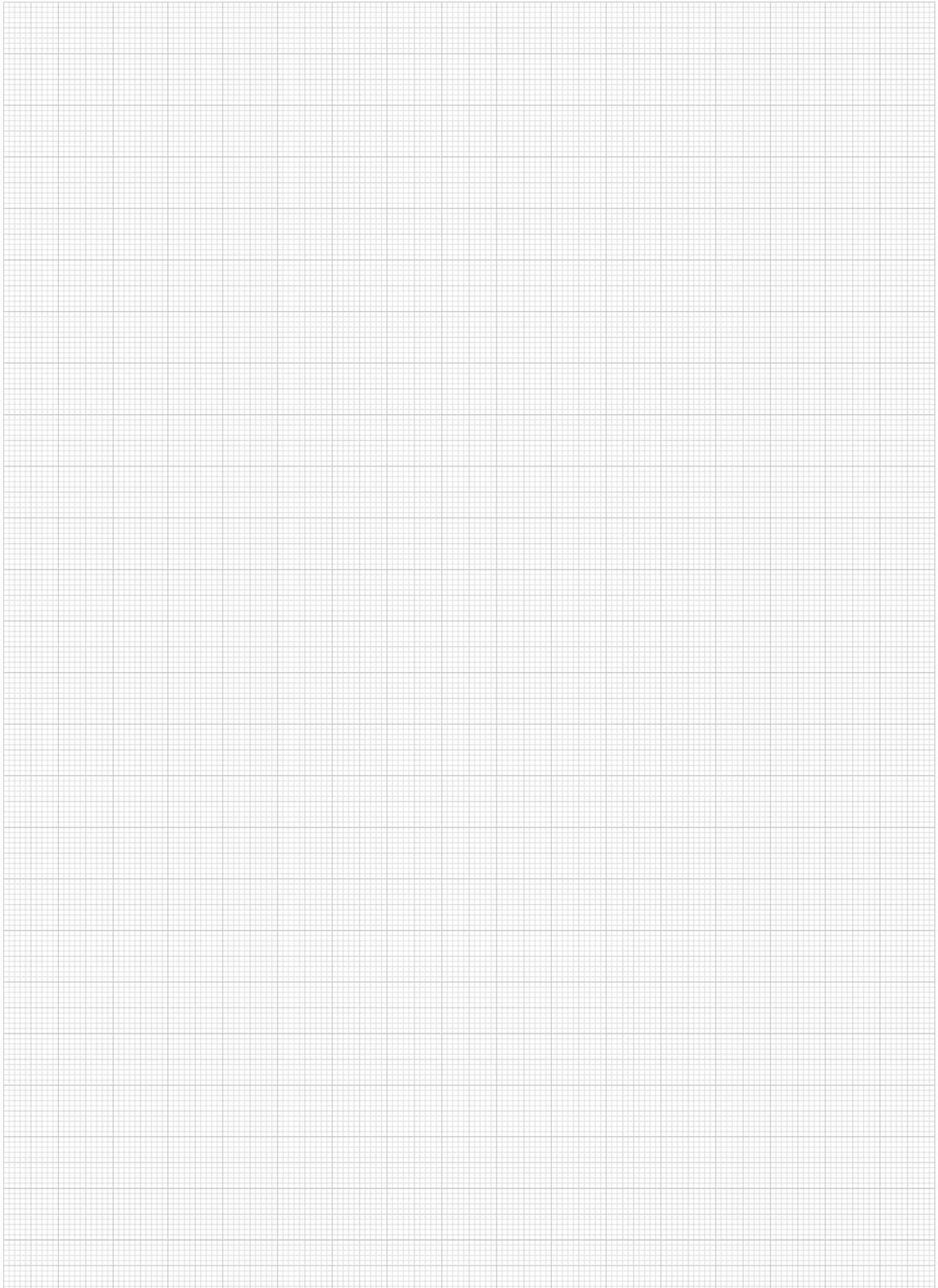
The component is protected by the stationary support surface. The higher initial tension causes lower tendency to set in the thread.

Clamp levers, wing and star grips, knurled knobs or hexagonal and socket head screws, for example, can be used as tensioning or clamping elements.



### KIPP Axial bearing for increasing tension force

| Order No. | B | D  | D1 | Approx. weight g |
|-----------|---|----|----|------------------|
| K0584.06  | 8 | 6  | 24 | 21,6             |
| K0584.08  | 8 | 8  | 25 | 22,1             |
| K0584.10  | 8 | 10 | 30 | 33,5             |
| K0584.12  | 8 | 12 | 35 | 46,1             |





## Stirrup-shaped handles, machine and apparatus handles



## Stirrup-shaped handles, machine and apparatus handles

|  |  |          |   |  |          |
|--|--|----------|---|--|----------|
| Stirrup-shaped handles<br><b>K0186</b> |  | Page 164 | Stirrup-shaped handles<br><b>K0195</b>                            |  | Page 171 |
| Stirrup-shaped handles<br><b>K0187</b> |  | Page 164 | Stirrup-shaped handle<br><b>K0196</b>                             |  | Page 172 |
| Stirrup-shaped handles<br><b>K0188</b> |  | Page 165 | Slanting stirrup-shaped handles<br><b>K0197</b>                   |  | Page 172 |
| Stirrup-shaped handles<br><b>K0189</b> |  | Page 166 | Stirrup-shaped handles<br>with soft inner surface<br><b>K0171</b> |  | Page 173 |
| Stirrup-shaped handles<br><b>K0190</b> |  | Page 167 | Stirrup-shaped handles<br>stainless steel<br><b>K0198</b>         |  | Page 174 |
| Stirrup-shaped handles<br><b>K0191</b> |  | Page 168 | Stirrup-shaped handles<br><b>K0199</b>                            |  | Page 175 |
| Bow handles<br><b>K0192</b>            |  | Page 169 | Stirrup-shaped handles<br><b>K0200</b>                            |  | Page 175 |
| Bow handles<br><b>K0193</b>            |  | Page 170 | Stirrup-shaped handles round<br><b>K0201</b>                      |  | Page 176 |
| Bridge handle<br><b>K0194</b>          |  | Page 171 | Oval bow handles<br><b>K0202</b>                                  |  | Page 177 |

## Stirrup-shaped handles, machine and apparatus handles

Stirrup-shaped handles round  
K0203



19"

Page 178

Oval bow handles  
K0204



Page 178

Flat profile bow handles  
K0205



Page 179

Stirrup-shaped handles  
in stainless steel  
K0206



Page 179

Angled machine handles  
K0207



Page 180

Stirrup-shaped handles  
in stainless steel  
K0208



Page 180

All-purpose machine handles  
K0209



Page 181

Lightweight handles  
K0210



Page 181

Tube handles  
K0211



Page 182

Slanting tube handles  
K0212



Page 183

Apparatus handles  
K0213



Page 184

Stirrup-shaped handles,  
high-polish chromium-plated  
K0214



Page 185

Stirrup-shaped handles,  
in stainless steel  
K0215



Page 186

All-purpose apparatus handles  
K0216



Page 187

All-purpose apparatus handles  
K0217



Page 188

Measurement device handles  
K0218



Page 188

Angled draw-pull handles  
K0219



Page 189

Bowed tube handles  
K0220



Page 189

## Stirrup-shaped handles, machine and apparatus handles

Tube handles  
K0221



Page 190

Tube handles  
K0222



Page 190

Tube handles  
K0223



Page 191

Tube handles in stainless steel  
K0652



Page 192



Tube handles  
K0224



Page 193

Tube handles  
K0225



Page 194

Tube handles  
K0226



Page 195

Tube handles in stainless steel  
K0227



Page 196



Machine handles  
K0228



Page 197

Control panel handles  
K0229



Page 197

Machine handles  
K0230



Page 198

Bighand  
K0231



Page 199



Ledge handles  
K0232



Page 200

Angled handles  
K0130



Page 201

Ledge handles in stainless steel  
K0233



Page 202



Angled profile handles  
K0234



Page 203

Machine handles  
K0131



Page 204

Angled leg handles  
K0132



Page 205

## Stirrup-shaped handles, machine and apparatus handles

Angled leg handles  
K0235



19"

Page 206

Machine handles  
K0244



Page 215

Apparatus handles  
K0236



19"

Page 207

Plastic handles  
K0237



Page 208

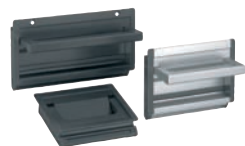
Tray handles  
K0238



19"

Page 209

Profile folding handles  
K0239



19"

Page 210

Folding tray handles  
K0240



19"

Page 211

Measurement device handle  
K0241



Page 212

Trough grips  
K0242



Page 213

Fitting grip  
in stainless steel  
K0243

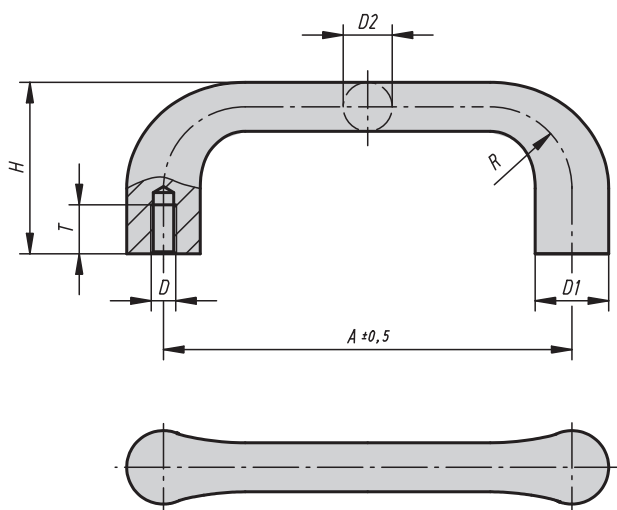


stainless steel

Page 214



## Stirrup-shaped handles



**Material:**  
GJS 400

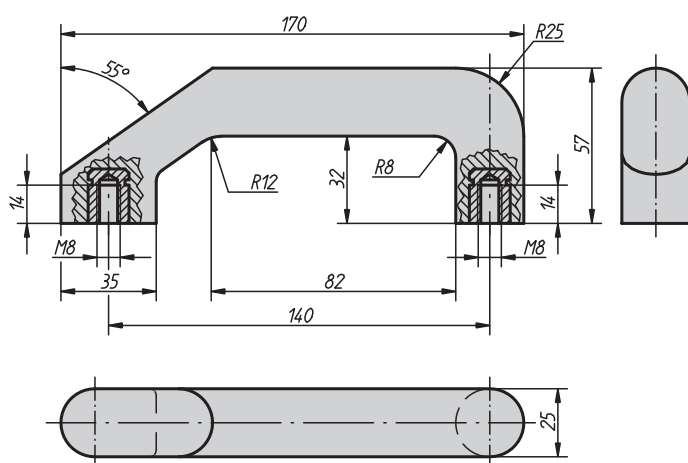
**Surface finish:**  
Deburred and tumbled;  
black plastic-coated;  
support surfaces machined

**Sample order:**  
K0186.12510

### KIPP Stirrup-shaped handles

| Order No. tumbled | Order No. tumbled plastic-coated, black | A   | D   | D1 | D2 | H  | R  | T  | Load bearing capacity N |
|-------------------|---|-----|-----|----|----|----|----|----|-------------------------|
| K0186.10006       | K0186.100061                            | 100 | M6  | 18 | 12 | 42 | 20 | 12 | 1000                    |
| K0186.11208       | K0186.112081                            | 112 | M8  | 20 | 14 | 47 | 22 | 15 | 1000                    |
| K0186.12510       | K0186.125101                            | 125 | M10 | 22 | 16 | 53 | 24 | 18 | 1000                    |
| K0186.14012       | K0186.140121                            | 140 | M12 | 25 | 18 | 59 | 26 | 20 | 1000                    |

## Stirrup-shaped handles



**Material:**  
Black duroplastic PF 31;  
bush in brass or in galvanized steel

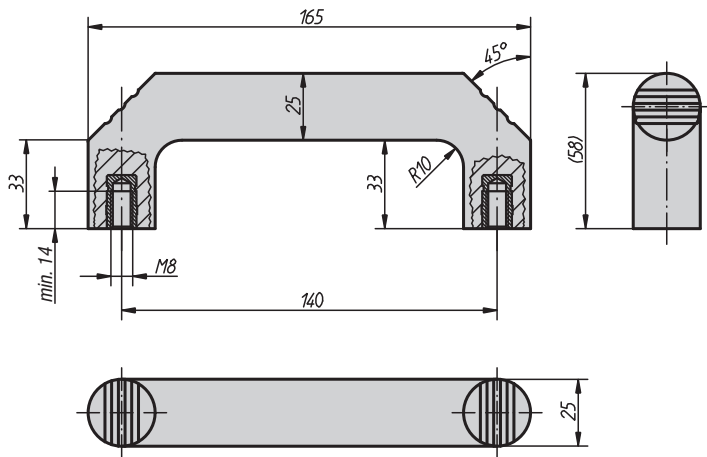
**Surface finish:**  
Deburred and high-polish finish

**Sample order:**  
K0187.101

### KIPP Stirrup-shaped handles

| Order No. | Bush material    | Load bearing capacity N | Approx. weight kg |
|-----------|------------------|-------------------------|-------------------|
| K0187.101 | brass            | 300                     | 0,180             |
| K0187.201 | galvanized steel | 300                     | 0,180             |

# Stirrup-shaped handles



**Material:**  
Duroplastic PF 31, black.  
Bush brass or steel galvanized

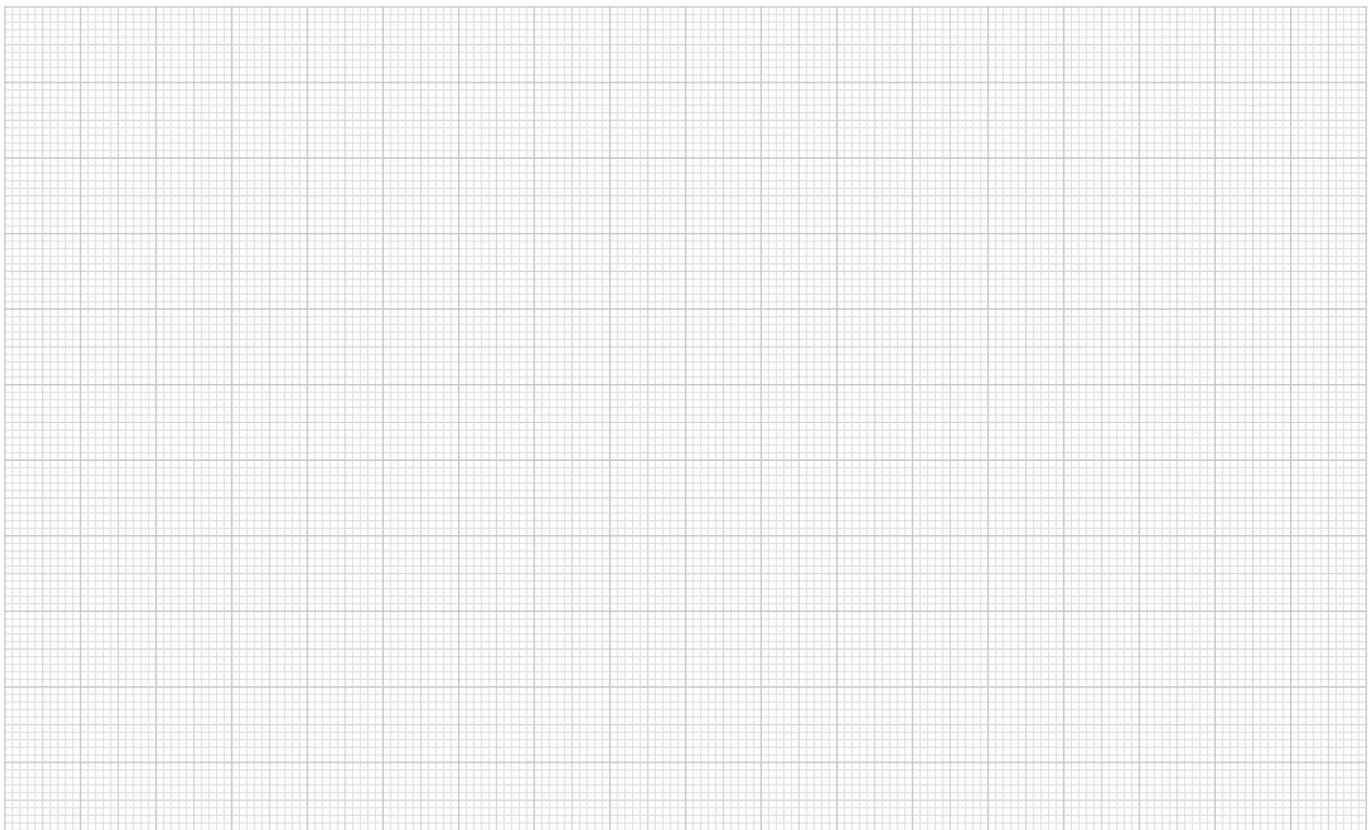
**Surface finish:**  
Deburred and high-polish finish

**Sample order:**  
K0188.114008

## KIPP Stirrup-shaped handles

| Order No.    | Bush material     | Load bearing capacity<br>N | Approx.<br>weight<br>kg |
|--------------|-------------------|----------------------------|-------------------------|
| K0188.114008 | brass             | 500                        | 0,180                   |
| K0188.214008 | galvanized steel. | 500                        | 0,180                   |

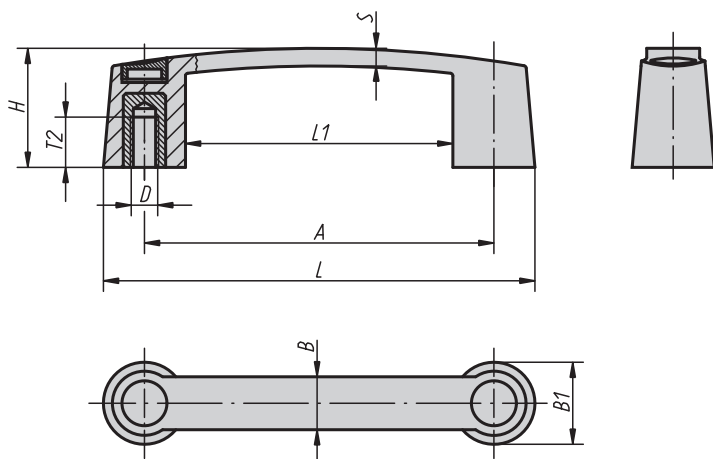
## Notes



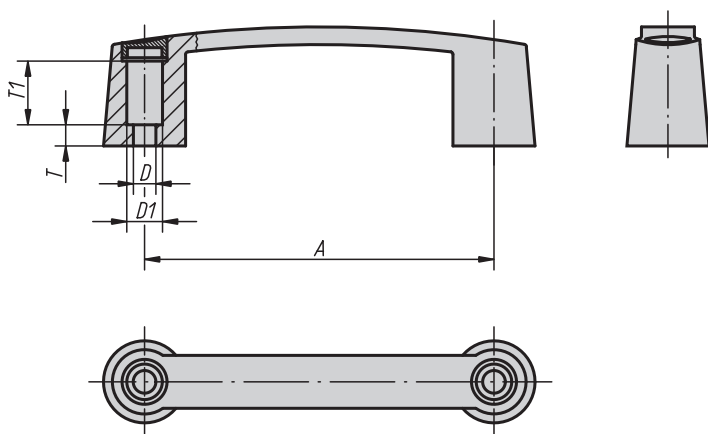
# Stirrup-shaped handles



Form A



Form B



**Material:**

Thermoplastic; bush in brass

**Surface finish:**

Handle and handle cap in black

**Sample order:**

K0189.109406

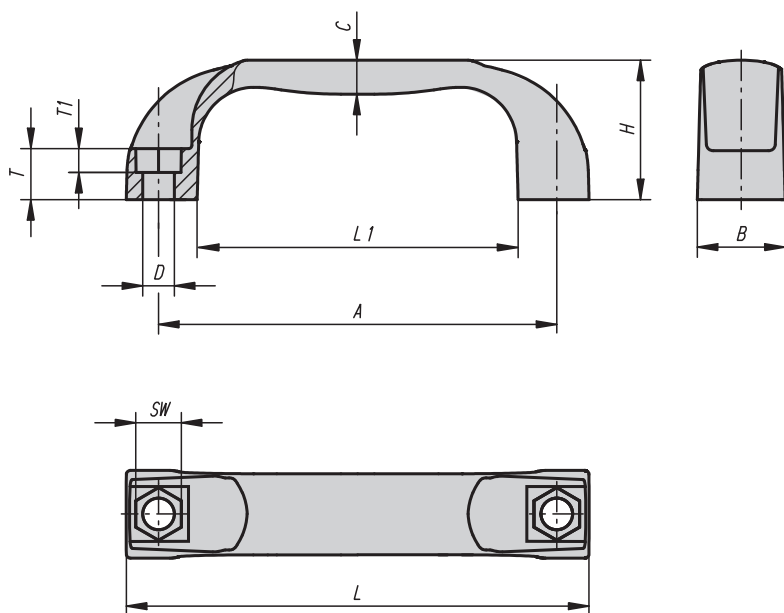
**On request:**

Other handle or handle cap colours.

## KIPP Stirrup-shaped handles

| Order No.    | Form | A    | B  | B1 | D   | D1   | H  | L     | L1   | S   | T   | T1 | T2   | Approx. weight kg |
|--------------|------|------|----|----|-----|------|----|-------|------|-----|-----|----|------|-------------------|
| K0189.109406 | A    | 93,5 | 17 | 26 | M6  | -    | 35 | 119,5 | 67,5 | 5,8 | -   | -  | 15,5 | 0,049             |
| K0189.111706 | A    | 117  | 19 | 29 | M6  | -    | 40 | 145   | 89   | 6,4 | -   | -  | 15,5 | 0,086             |
| K0189.111708 | A    | 117  | 19 | 29 | M8  | -    | 40 | 145   | 89   | 6,4 | -   | -  | 16   | 0,080             |
| K0189.113206 | A    | 132  | 20 | 31 | M6  | -    | 45 | 163   | 101  | 6,7 | -   | -  | 15,5 | 0,098             |
| K0189.113208 | A    | 132  | 20 | 31 | M8  | -    | 45 | 163   | 101  | 6,7 | -   | -  | 16   | 0,091             |
| K0189.117910 | A    | 179  | 22 | 35 | M10 | -    | 50 | 213   | 145  | 7,1 | -   | -  | 22   | 0,147             |
| K0189.209406 | B    | 93,5 | 17 | 26 | 6,8 | 12   | 35 | 119,5 | 67,5 | 5,8 | 4,5 | 19 | -    | 0,032             |
| K0189.211708 | B    | 117  | 19 | 29 | 8,5 | 13,5 | 40 | 145   | 89   | 6,4 | 8   | 23 | -    | 0,041             |
| K0189.213208 | B    | 132  | 20 | 31 | 8,5 | 13,5 | 45 | 163   | 101  | 6,7 | 8   | 22 | -    | 0,059             |
| K0189.217908 | B    | 179  | 22 | 35 | 8,5 | 13,5 | 50 | 213   | 145  | 7,1 | 12  | 22 | -    | 0,087             |

## Stirrup-shaped handles



**Material:**

Thermoplastic PA (polyamide) or PP (polypropylene), glass-ball reinforced.

**Surface finish:**

anthracite grey

**Sample order:**

K0190.113208

**Note:**

The fastening hole is designed in such a way that the stirrup-shaped handles can be secured from the operating side with a socket head screw or a hexagon nut.

**On request:**

Other handle colours.

### KIPP Stirrup-shaped handles

| Order No.    | Surface finish   | A        | B  | C  | D   | H  | L   | L1  | SW | T  | T1 | Load bearing capacity N |
|--------------|------------------|----------|----|----|-----|----|-----|-----|----|----|----|-------------------------|
| K0190.109406 | thermoplastic PA | 94 ±0,5  | 21 | 8  | 6,6 | 36 | 109 | 76  | 10 | 13 | 6  | 1000                    |
| K0190.111708 | thermoplastic PA | 117 ±0,5 | 26 | 10 | 9   | 41 | 136 | 94  | 13 | 15 | 8  | 1500                    |
| K0190.113208 | thermoplastic PA | 132 ±0,5 | 27 | 11 | 9   | 44 | 154 | 112 | 13 | 16 | 8  | 1500                    |
| K0190.117908 | thermoplastic PA | 179 ±1,0 | 28 | 11 | 9   | 50 | 197 | 156 | 13 | 17 | 8  | 1500                    |
| K0190.209406 | thermoplastic PP | 94 ±0,5  | 21 | 8  | 6,6 | 36 | 109 | 76  | 10 | 13 | 6  | 500                     |
| K0190.211708 | thermoplastic PP | 117 ±0,5 | 26 | 10 | 9   | 41 | 136 | 94  | 13 | 15 | 8  | 800                     |
| K0190.213208 | thermoplastic PP | 132 ±0,5 | 27 | 11 | 9   | 44 | 154 | 112 | 13 | 16 | 8  | 800                     |
| K0190.217908 | thermoplastic PP | 179 ±1,0 | 28 | 11 | 9   | 50 | 197 | 156 | 13 | 17 | 8  | 800                     |

## Stirrup-shaped handles

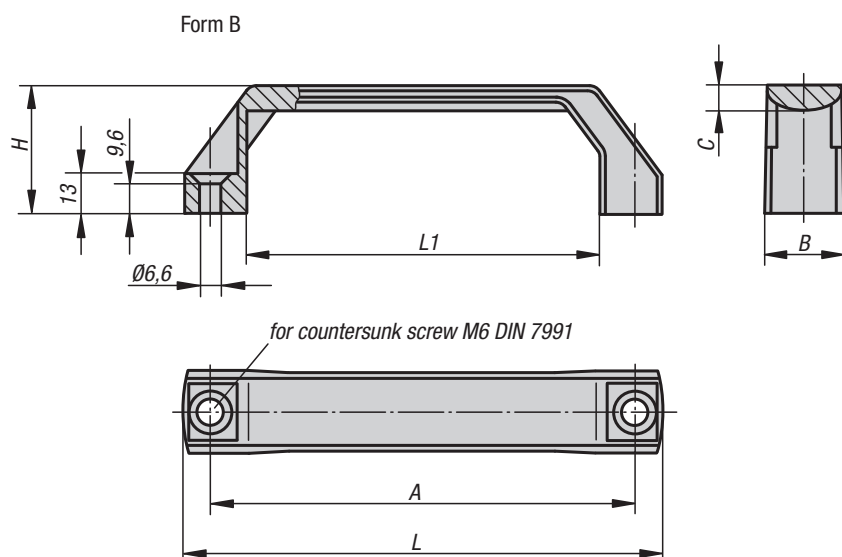
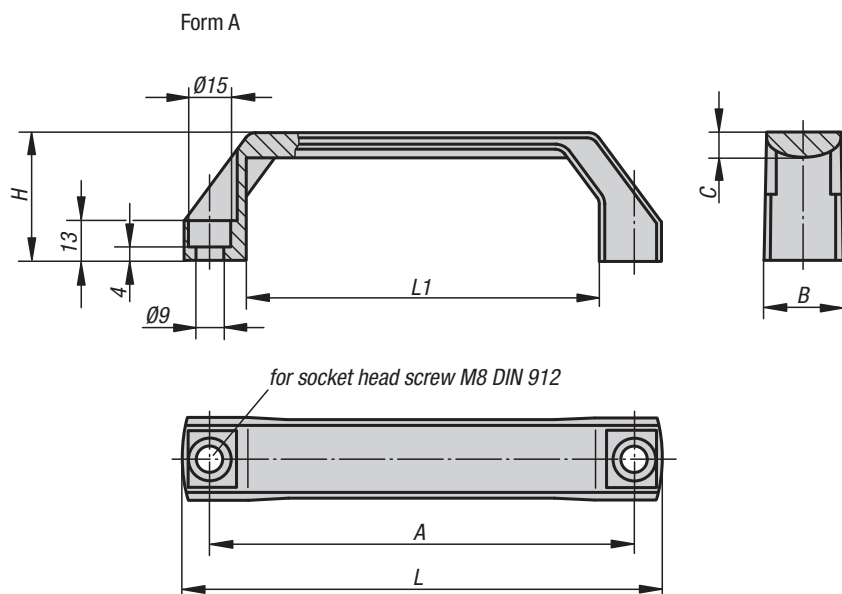


**Material:**  
Glass-ball reinforced thermoplastic

**Surface finish:**  
Matt black or orange

**Sample order:**  
K0191.1120081

**Note:**  
Screw-on dimension „A“ is valid after handle assembly. In the unassembled state, it is up to 2 mm smaller, due to flexural stress upon demoulding.



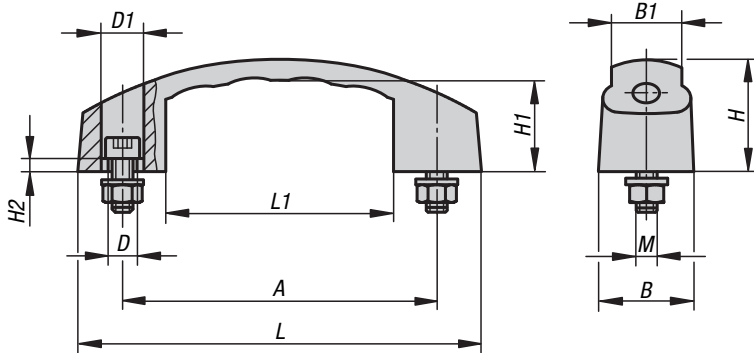
### KIPP Stirrup-shaped handles

| Order No.<br>matt black | Order No.<br>orange | Form | A   | B  | C | H  | L   | L1  | Load bearing<br>capacity N | Approx.<br>weight<br>kg |
|-------------------------|---------------------|------|-----|----|---|----|-----|-----|----------------------------|-------------------------|
| K0191.1120081           | K0191.1120082       | A    | 120 | 26 | 8 | 42 | 138 | 96  | 1000                       | 0,053                   |
| K0191.1140081           | K0191.1140082       | A    | 140 | 26 | 8 | 42 | 158 | 116 | 1000                       | 0,058                   |
| K0191.1160081           | K0191.1160082       | A    | 160 | 28 | 9 | 45 | 178 | 136 | 1000                       | 0,074                   |
| K0191.2120061           | K0191.2120062       | B    | 120 | 26 | 8 | 42 | 138 | 96  | 1000                       | 0,056                   |
| K0191.2140061           | K0191.2140062       | B    | 140 | 26 | 8 | 42 | 158 | 116 | 1000                       | 0,061                   |
| K0191.2160061           | K0191.2160062       | B    | 160 | 28 | 9 | 45 | 178 | 136 | 1000                       | 0,076                   |

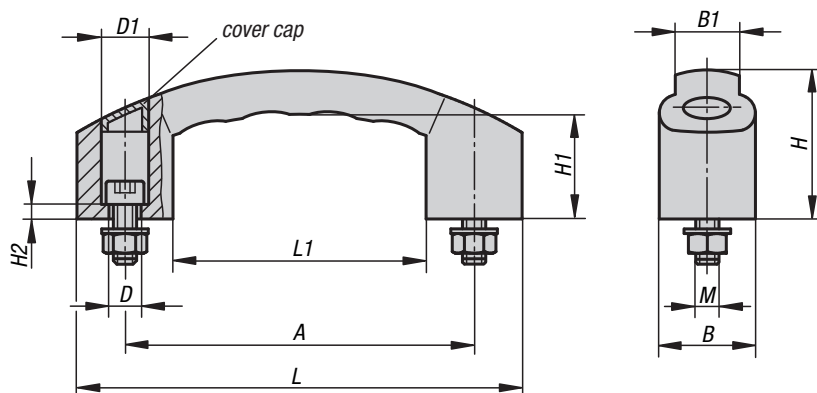
## Bow handles



Form A  
without cover cap



Form B  
with cover cap



**Material:**

Glass-ball reinforced thermoplastic.

**Surface finish:**

mat black.

**Sample order:**

K0192.110006

**Note:**

Ergonomic and functional bow handles with temperature resistance of -50 °C to +130 °C.

Delivery includes black socket head cap screws DIN 912, nuts DIN 934 and galvanized washers DIN 125 as well as caps.

The versions K0192.110006 and K0192.112006 are supplied without cover caps.

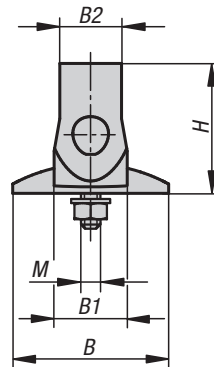
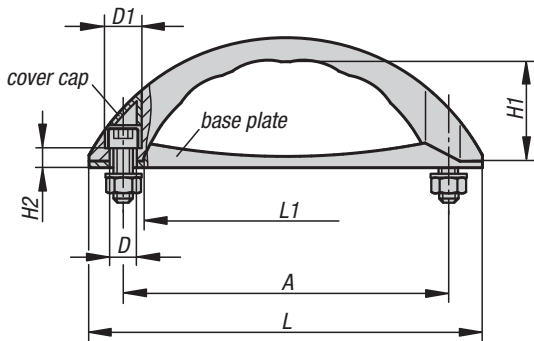
### KIPP Bow handles

| Order No.    | Form | A   | B  | B1 | D   | D1 | H  | H1 | H2 | L   | L1  | M     | Load bearing capacity N |
|--------------|------|-----|----|----|-----|----|----|----|----|-----|-----|-------|-------------------------|
| K0192.110006 | A    | 100 | 27 | 22 | 7   | 11 | 38 | 29 | 5  | 130 | 79  | M6x25 | 600                     |
| K0192.112006 | A    | 120 | 29 | 23 | 7   | 11 | 38 | 29 | 8  | 150 | 91  | M6x25 | 600                     |
| K0192.212008 | B    | 120 | 33 | 22 | 9   | 14 | 51 | 36 | 5  | 153 | 87  | M8x30 | 1000                    |
| K0192.214008 | B    | 140 | 38 | 26 | 9,5 | 15 | 59 | 42 | 6  | 178 | 101 | M8x30 | 1000                    |

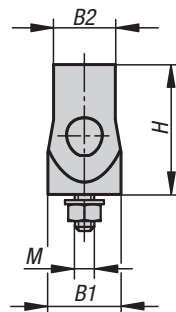
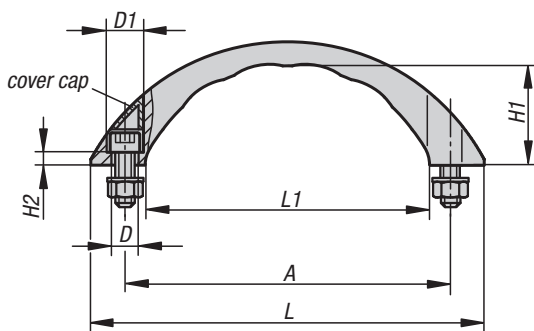
## Bow handles



Form A  
with base plate



Form B  
without base plate



**Material:**

Glass-ball reinforced thermoplastic.

**Surface finish:**

matt black.

**Sample order:**

K0193.110006

**Note:**

Ergonomic and functional bow handles with temperature resistance of -50 °C to +130 °C.

Delivery includes black oxide finish socket head cap screws DIN 912, nuts DIN 934 and galvanized washers DIN 125 as well as caps.

The versions K0193.110006 and K0193.210006 are supplied without cover caps.

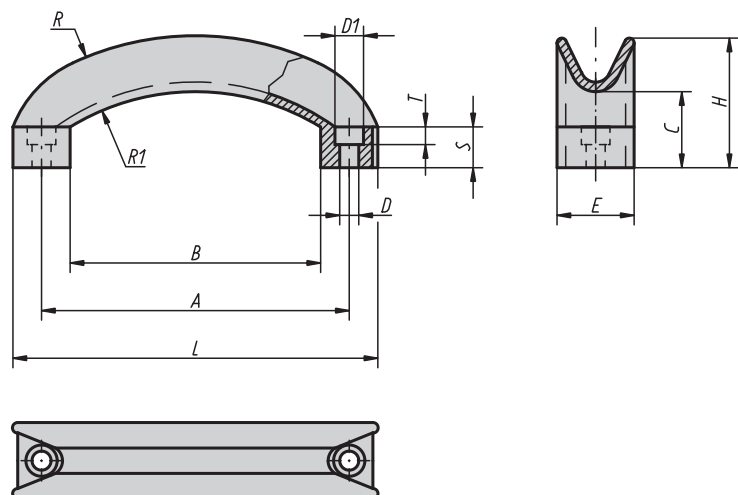
### KIPP Bow handles

| Order No.    | Surface finish    | Form | A   | B  | B1 | B2 | D   | D1 | H  | H1 | H2  | L   | L1  | M     | Load bearing capacity N |
|--------------|-------------------|------|-----|----|----|----|-----|----|----|----|-----|-----|-----|-------|-------------------------|
| K0193.110006 | without cover cap | A    | 100 | 48 | 23 | 19 | 7   | 11 | 40 | 29 | 6   | 121 | 84  | M6x25 | 600                     |
| K0193.112006 | with cover cap    | A    | 120 | 57 | 28 | 23 | 7   | 12 | 52 | 36 | 7   | 152 | 104 | M6x25 | 600                     |
| K0193.114008 | with cover cap    | A    | 140 | 62 | 31 | 25 | 9,5 | 16 | 56 | 37 | 7,5 | 177 | 122 | M8x30 | 600                     |
| K0193.210006 | without cover cap | B    | 100 | -  | 23 | 19 | 7   | 11 | 38 | 31 | 4   | 121 | 84  | M6x25 | 600                     |
| K0193.212006 | with cover cap    | B    | 120 | -  | 28 | 23 | 7   | 12 | 50 | 38 | 5   | 152 | 104 | M6x25 | 600                     |
| K0193.214008 | with cover cap    | B    | 140 | -  | 31 | 25 | 9,5 | 16 | 54 | 39 | 5,5 | 177 | 122 | M8x30 | 600                     |

# K0194

## Bridge handle

N<sup>G</sup>



**Material, surface finish:**  
Anthracite grey thermoplastic

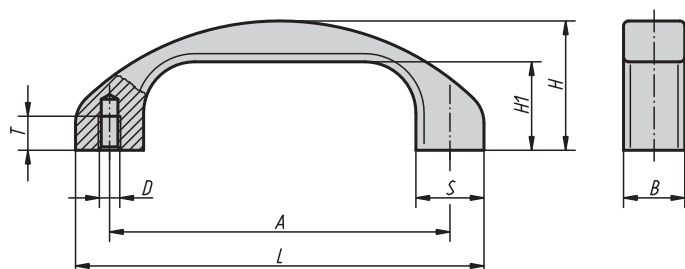
**Sample order:**  
K0194.11406

### KIPP Bridge handle

| Order No.   | D   | D1   | A   | B  | C  | E  | H  | L   | R   | R1 | S  | T   | Approx. weight kg |
|-------------|-----|------|-----|----|----|----|----|-----|-----|----|----|-----|-------------------|
| K0194.11406 | 6,5 | 10,5 | 114 | 92 | 29 | 28 | 48 | 134 | 117 | 79 | 15 | 6,5 | 0,037             |

# K0195

## Stirrup-shaped handles



**Material:**  
Profile aluminium EN AW-6060

**Surface finish:**  
High quality anodized version, glass-ball blasted, semi-matt finish

**Sample order:**  
K0195.120061

### KIPP Stirrup-shaped handles

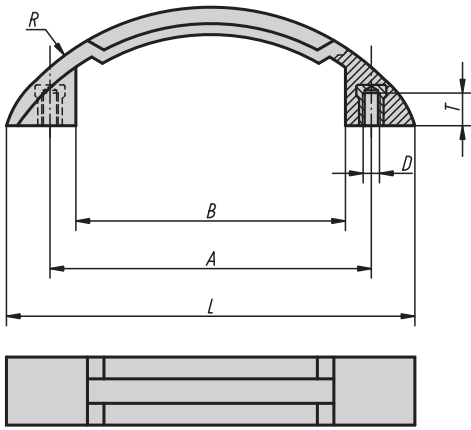
| Order No.    | Surface finish          | A   | B  | D  | H  | H1 | L   | S  | T  | Load bearing capacity N | Approx. weight kg |
|--------------|-------------------------|-----|----|----|----|----|-----|----|----|-------------------------|-------------------|
| K0195.120061 | black anodized          | 120 | 22 | M6 | 46 | 31 | 144 | 24 | 12 | 1000                    | 0,145             |
| K0195.140081 | black anodized          | 140 | 25 | M8 | 53 | 36 | 168 | 28 | 15 | 1000                    | 0,220             |
| K0195.120063 | natural colour anodized | 120 | 22 | M6 | 46 | 31 | 144 | 24 | 12 | 1000                    | 0,145             |
| K0195.140083 | natural colour anodized | 140 | 25 | M8 | 53 | 36 | 168 | 28 | 15 | 1000                    | 0,220             |



## Stirrup-shaped handle



N<sup>G</sup>



**Material, surface finish:**  
Anthracite grey thermoplastic; bush in brass.

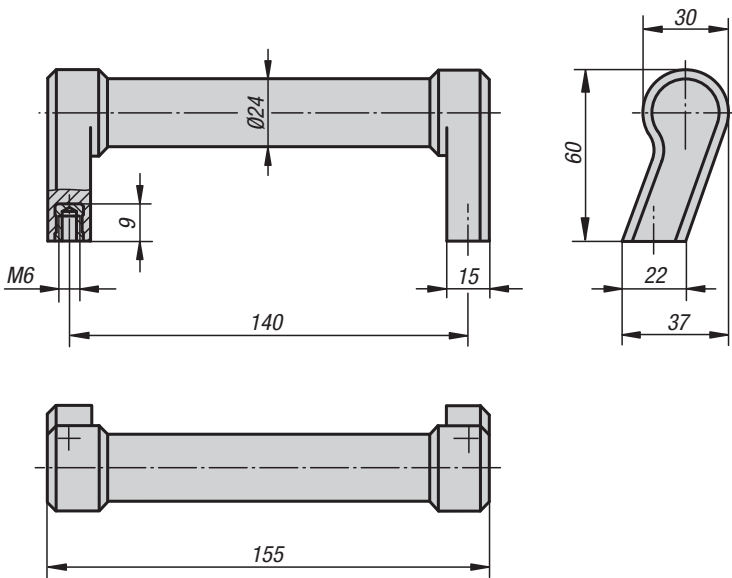
**Sample order:**  
K0196.11906

### KIPP Stirrup-shaped handle

| Order No.   | D  | A   | B  | C  | E  | H    | L   | R  | T  | Approx. weight kg |
|-------------|----|-----|----|----|----|------|-----|----|----|-------------------|
| K0196.11906 | M6 | 119 | 98 | 33 | 25 | 43,5 | 150 | 94 | 10 | 0,045             |

# K0197

## Slanting stirrup-shaped handles



**Material:**  
Grip in glass-ball reinforced thermoplastic; threaded bush in brass

**Surface finish:**  
Matt black or light grey

**Sample order:**  
K0197.140061

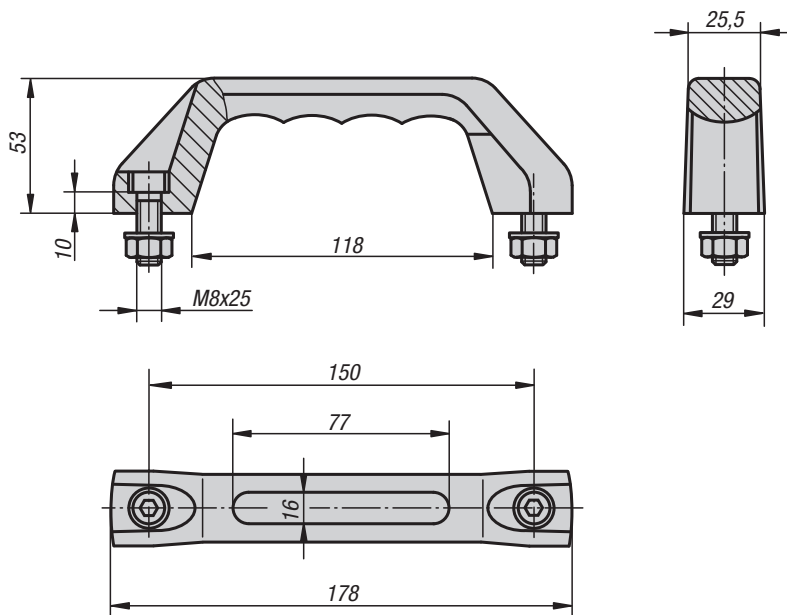
**Note:**  
Slant compact polyamide handle. Handle tube and handle foot are one unit. With its slanted contact surfaces, assembly is also possible under cramped spacial conditions.

### KIPP Slating stirrup-shaped handles

| Order No.    | Colour     | Load bearing capacity N | Approx. weight kg |
|--------------|------------|-------------------------|-------------------|
| K0197.140061 | matt black | 1000                    | 0,148             |
| K0197.140062 | light grey | 1000                    | 0,148             |

# Stirrup-shaped handles

with soft inner surface



**Material:**

Hard component in glass-ball reinforced thermoplastic;  
soft component in SEBS

**Surface finish:**

Hard component matt black;  
soft component basalt grey

**Sample order:**

K0171.515008

**Note:**

Heavy-duty polyamide handle. Excellent carrying and gripping comfort thanks to its soft inner surface. Black galvanized cylindrical screws, nuts and washers are supplied.

For wet areas, the fastening material is supplied in refined steel (1.4301).

**On request:**

With and without individual inscription, embossed or raised. Hard component and soft component are available in all RAL colours.

## KIPP Stirrup-shaped handles with soft inner surface

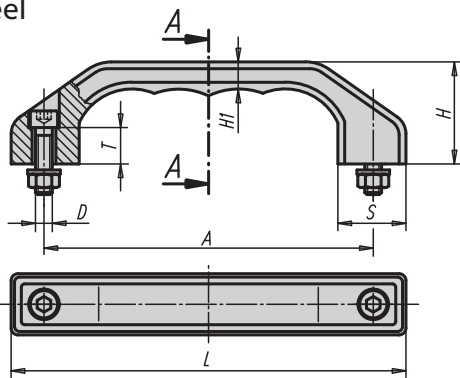
| Order No.    | Surface finish | Load bearing capacity<br>N | Approx.<br>weight<br>kg |
|--------------|----------------|----------------------------|-------------------------|
| K0171.515008 | -              | 500                        | 0,186                   |
| K0171.615008 | for wet areas  | 500                        | 0,186                   |

# Stirrup-shaped handles

stainless steel



Form A



cutting view A-A

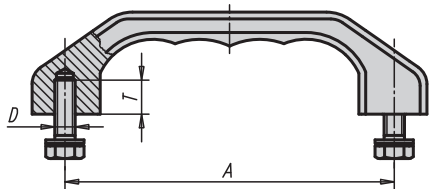


**Material:**  
Refined steel precision cast 1.4308,  
fastening material 1.4301

**Surface finish:**  
Blasted and electro-polished with matt-gloss finish.

**Sample order:**  
K0198.140081

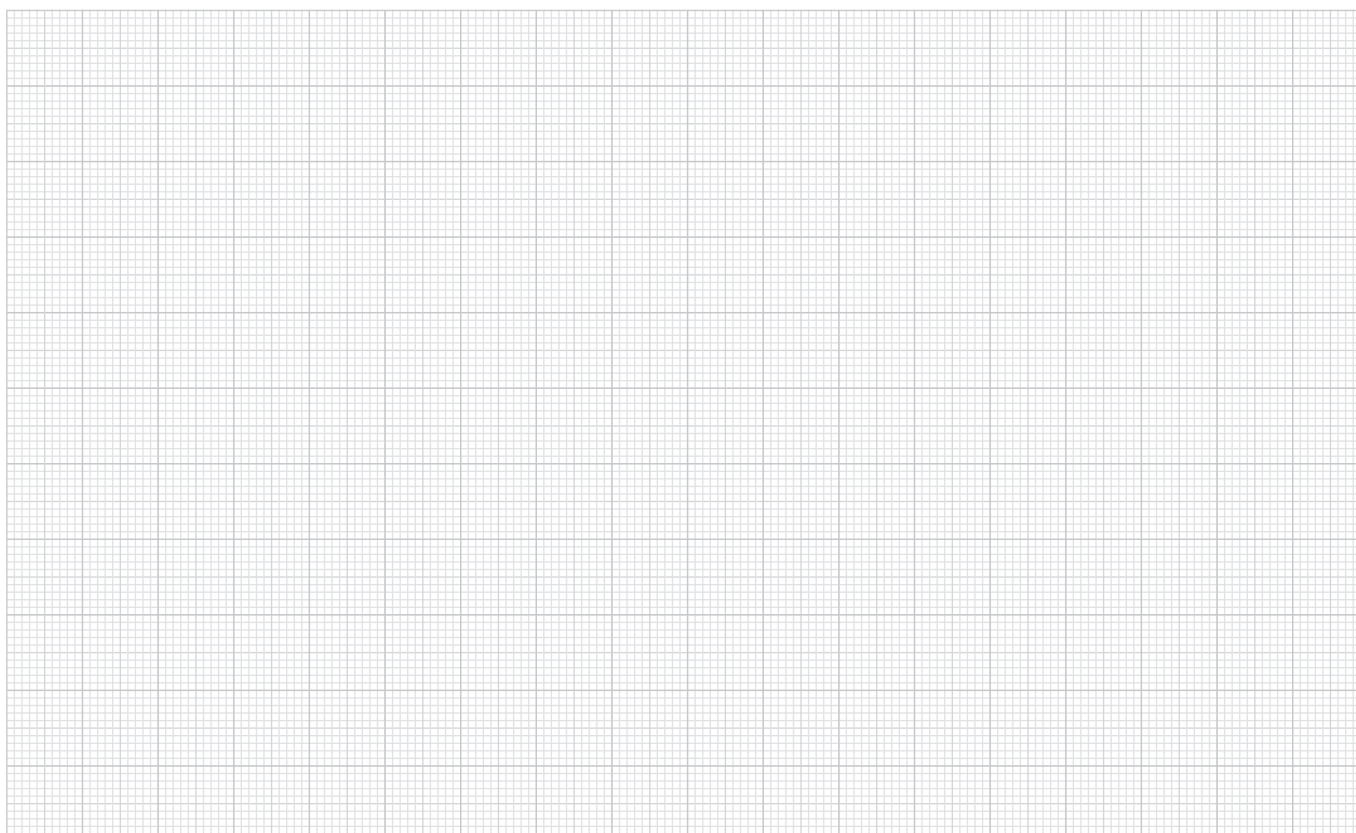
Form B



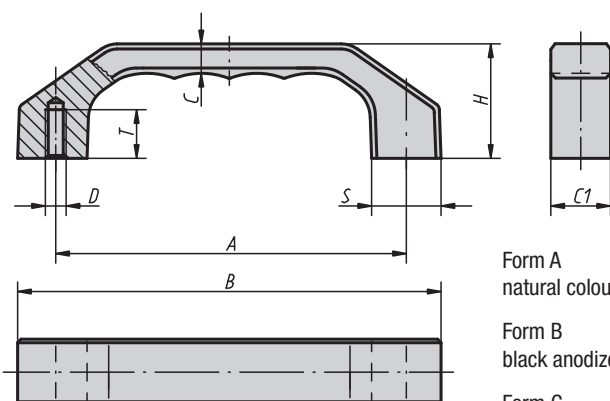
## KIPP Stirrup-shaped handles, stainless steel

| Order No.    | Form | A   | B  | D      | H  | H1 | L   | S  | T  | Load bearing capacity N | Approx. weight kg |
|--------------|------|-----|----|--------|----|----|-----|----|----|-------------------------|-------------------|
| K0198.140081 | A    | 140 | 25 | M8x30  | 45 | 12 | 170 | 28 | 15 | 1000                    | 0,550             |
| K0198.180101 | A    | 180 | 32 | M10x40 | 58 | 15 | 218 | 36 | 18 | 1000                    | 1,460             |
| K0198.140082 | B    | 140 | 25 | M8x18  | 45 | 12 | 170 | 28 | 15 | 1000                    | 0,550             |
| K0198.180102 | B    | 180 | 32 | M10x20 | 58 | 15 | 218 | 36 | 18 | 1000                    | 1,460             |

## Notes



## Stirrup-shaped handles



- Form A  
natural colour anodized
- Form B  
black anodized
- Form C  
titanium colour powder-coated

**Material:**  
EN AW-6060

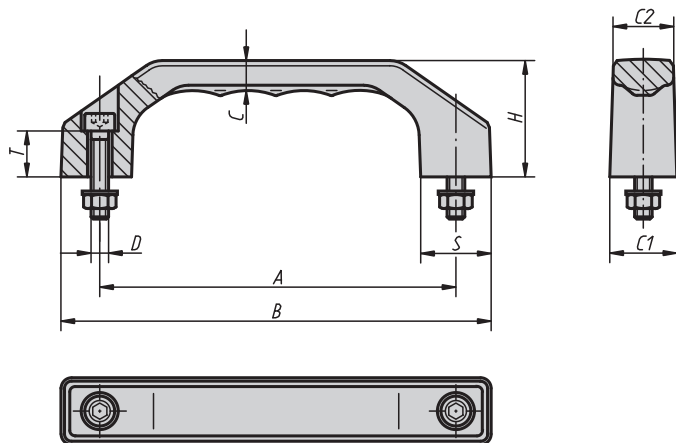
**Surface finish:**  
Matt-finished and anodized or powder-coated

**Sample order:**  
K0199.140082

### KIPP Stirrup-shaped handles

| Order No.<br>Form A | Order No.<br>Form B | Order No.<br>Form C | A   | B   | C    | C1 | D  | H  | S  | T  | Load bearing capacity N | Approx. weight kg |
|---------------------|---------------------|---------------------|-----|-----|------|----|----|----|----|----|-------------------------|-------------------|
| K0199.120061        | K0199.120062        | K0199.120063        | 120 | 146 | 10,5 | 22 | M6 | 39 | 24 | 15 | 1000                    | 0,127             |
| K0199.140081        | K0199.140082        | K0199.140083        | 140 | 170 | 12   | 25 | M8 | 45 | 28 | 16 | 1000                    | 0,193             |
| K0199.160081        | K0199.160082        | K0199.160083        | 160 | 194 | 13,5 | 28 | M8 | 52 | 32 | 16 | 1000                    | 0,293             |

## Stirrup-shaped handles



**Material, surface finish:**  
Glass-ball reinforced thermoplastic;  
matt black with fine texture

**Sample order:**  
K0200.140082

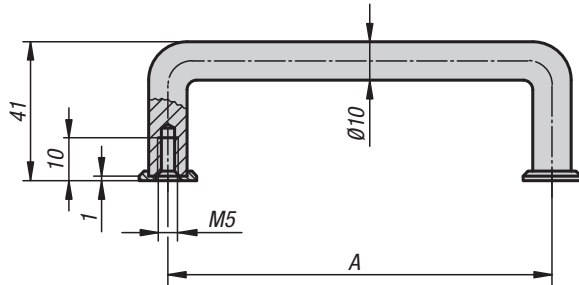
**Note:**  
These handles possess extreme torsional strength and are highly operator friendly. Fastening screws, nuts and flat washers are supplied. For wet areas, the fastening screws, nuts and flat washers are supplied in refined steel.

### KIPP Stirrup-shaped handles

| Order No.<br>- | Order No.<br>for wet areas | A   | B   | C    | C1 | C2   | D      | H  | S  | T  | Load bearing capacity N | Approx. weight kg |
|----------------|----------------------------|-----|-----|------|----|------|--------|----|----|----|-------------------------|-------------------|
| K0200.100051   | K0200.100052               | 100 | 122 | 8,5  | 19 | 17   | M5x22  | 33 | 20 | 13 | 1000                    | 0,049             |
| K0200.120061   | K0200.120062               | 120 | 146 | 10,5 | 23 | 20,5 | M6x25  | 39 | 24 | 15 | 1000                    | 0,088             |
| K0200.140081   | K0200.140082               | 140 | 170 | 12   | 27 | 24   | M8x30  | 45 | 28 | 16 | 1000                    | 0,158             |
| K0200.160081   | K0200.160082               | 160 | 194 | 13,5 | 31 | 27,5 | M8x35  | 52 | 32 | 20 | 1000                    | 0,212             |
| K0200.180081   | K0200.180082               | 180 | 218 | 15,5 | 35 | 31   | M10x40 | 58 | 36 | 20 | 1000                    | 0,350             |

## Stirrup-shaped handles round

19"



**Material:**  
Round aluminium

**Surface finish:**  
Surface matt-finished and natural colour or black anodized

**Sample order:**  
K0201.055051

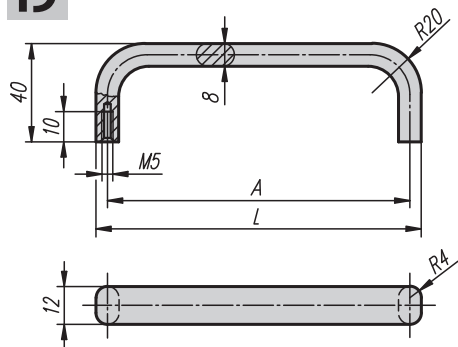
**Note:**  
End washers not included.

### KIPP Stirrup-shaped handles round

| Order No.    | Surface finish          | A   | Load bearing capacity N | Approx. weight kg | Order No. end washer |
|--------------|-------------------------|-----|-------------------------|-------------------|----------------------|
| K0201.055051 | black anodized          | 55  | 500                     | 0,023             | K0201.1              |
| K0201.088051 | black anodized          | 88  | 500                     | 0,029             | K0201.1              |
| K0201.100051 | black anodized          | 100 | 500                     | 0,032             | K0201.1              |
| K0201.120051 | black anodized          | 120 | 500                     | 0,037             | K0201.1              |
| K0201.180051 | black anodized          | 180 | 500                     | 0,049             | K0201.1              |
| K0201.200051 | black anodized          | 200 | 500                     | 0,053             | K0201.1              |
| K0201.235051 | black anodized          | 235 | 500                     | 0,063             | K0201.1              |
| K0201.250051 | black anodized          | 250 | 500                     | 0,067             | K0201.1              |
| K0201.055053 | natural colour anodized | 55  | 500                     | 0,023             | K0201.3              |
| K0201.088053 | natural colour anodized | 88  | 500                     | 0,029             | K0201.3              |
| K0201.100053 | natural colour anodized | 100 | 500                     | 0,032             | K0201.3              |
| K0201.120053 | natural colour anodized | 120 | 500                     | 0,037             | K0201.3              |
| K0201.180053 | natural colour anodized | 180 | 500                     | 0,049             | K0201.3              |
| K0201.200053 | natural colour anodized | 200 | 500                     | 0,053             | K0201.3              |
| K0201.235053 | natural colour anodized | 235 | 500                     | 0,063             | K0201.3              |
| K0201.250053 | natural colour anodized | 250 | 500                     | 0,067             | K0201.3              |

## Oval bow handles

19"



**Material:**  
Oval aluminium

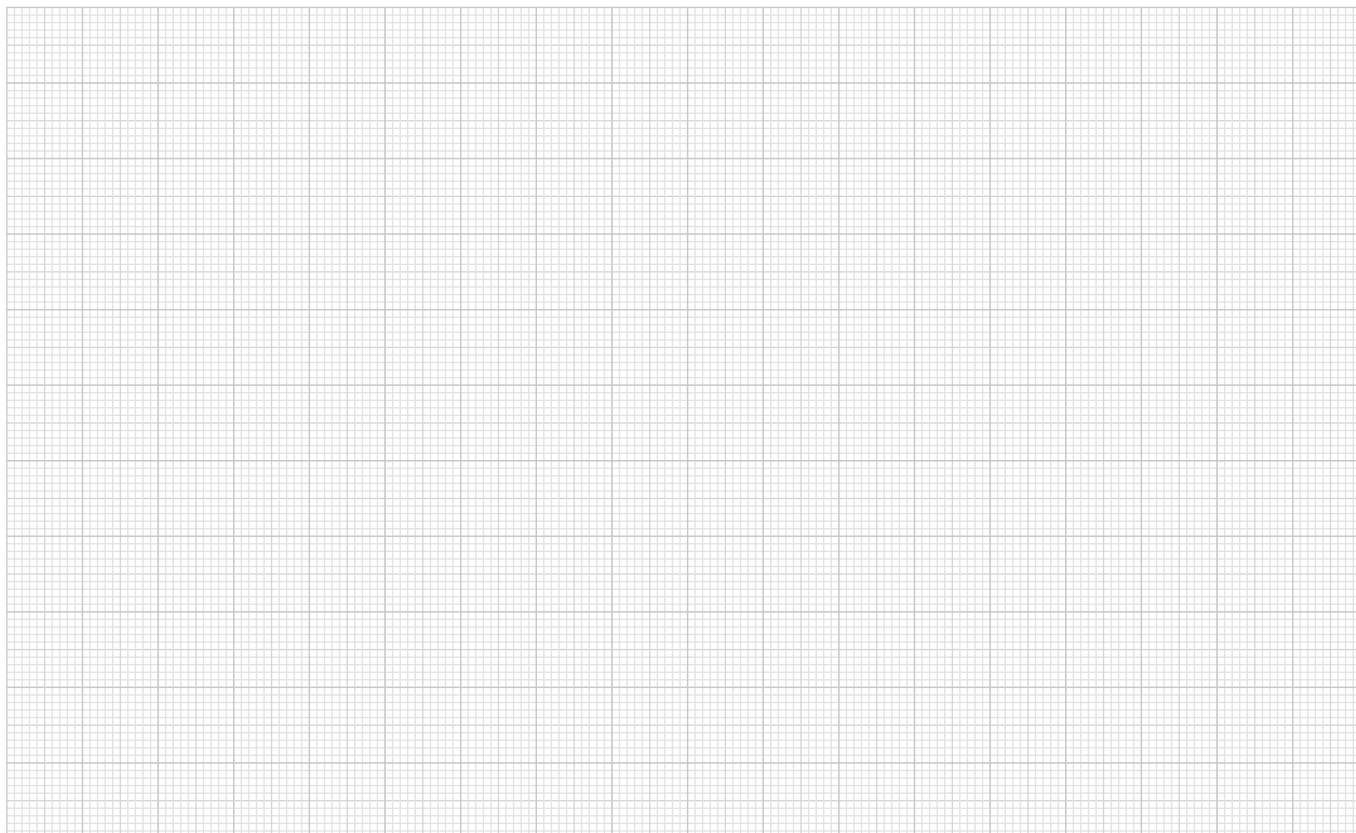
**Surface finish:**  
Surface matt-finished and natural colour anodized or black anodized

**Sample order:**  
K0202.055051

### KIPP Oval bow handles

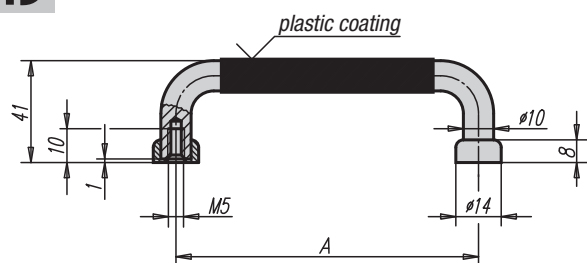
| Order No.<br>Black anodized | Order No.<br>natural colour anodized | A   | L   | Load bearing capacity N | Approx. weight kg |
|-----------------------------|--------------------------------------|-----|-----|-------------------------|-------------------|
| K0202.055051                | K0202.055053                         | 55  | 63  | 500                     | 0,024             |
| K0202.088051                | K0202.088053                         | 88  | 96  | 500                     | 0,030             |
| K0202.100051                | K0202.100053                         | 100 | 108 | 500                     | 0,032             |
| K0202.120051                | K0202.120053                         | 120 | 128 | 500                     | 0,037             |
| K0202.180051                | K0202.180053                         | 180 | 188 | 500                     | 0,050             |
| K0202.200051                | K0202.200053                         | 200 | 208 | 500                     | 0,055             |
| K0202.235051                | K0202.235053                         | 235 | 243 | 500                     | 0,064             |
| K0202.250051                | K0202.250053                         | 250 | 258 | 500                     | 0,068             |

## Notes



## Stirrup-shaped handles round

19"



### KIPP Stirrup-shaped handles round

| Order No.   | A   | Load bearing capacity N | Approx. weight kg |
|-------------|-----|-------------------------|-------------------|
| K0203.05505 | 55  | 1000                    | 0,075             |
| K0203.08805 | 88  | 1000                    | 0,097             |
| K0203.10005 | 100 | 1000                    | 0,105             |
| K0203.10205 | 102 | 1000                    | 0,106             |
| K0203.11505 | 115 | 1000                    | 0,114             |
| K0203.12005 | 120 | 1000                    | 0,118             |
| K0203.13605 | 136 | 1000                    | 0,128             |
| K0203.18005 | 180 | 1000                    | 0,157             |
| K0203.20005 | 200 | 1000                    | 0,170             |
| K0203.23505 | 235 | 1000                    | 0,193             |
| K0203.25005 | 250 | 1000                    | 0,203             |



**Material:**  
Round steel

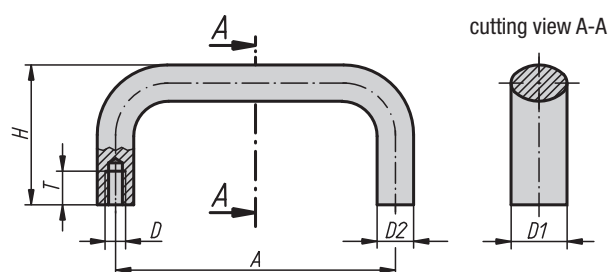
**Surface finish:**  
Surface very finely ground and matt-polish chromium-plated; connecting bridge with plastic coating

**Sample order:**  
K0203.05505

**Note:**  
High quality handles for front panels and similar applications.

# K0204

## Oval bow handles



### KIPP Oval bow handles

| Order No.<br>black powder-coated | Order No.<br>natural colour anodized | A   | D  | D1 | D2 | H  | T  | Load bearing capacity N |
|----------------------------------|--------------------------------------|-----|----|----|----|----|----|-------------------------|
| K0204.10001                      | K0204.10003                          | 100 | M6 | 20 | 13 | 50 | 12 | 1000                    |
| K0204.11201                      | K0204.11203                          | 112 | M6 | 20 | 13 | 50 | 12 | 1000                    |
| K0204.12001                      | K0204.12003                          | 120 | M6 | 20 | 13 | 50 | 12 | 1000                    |
| K0204.12801                      | K0204.12803                          | 128 | M6 | 20 | 13 | 50 | 12 | 1000                    |
| K0204.1600106                    | K0204.1600306                        | 160 | M6 | 20 | 13 | 50 | 12 | 1000                    |
| K0204.1120108                    | K0204.1120308                        | 112 | M8 | 26 | 17 | 55 | 14 | 1000                    |
| K0204.1200108                    | K0204.1200308                        | 120 | M8 | 26 | 17 | 55 | 14 | 1000                    |
| K0204.1280108                    | K0204.1280308                        | 128 | M8 | 26 | 17 | 55 | 14 | 1000                    |
| K0204.16001                      | K0204.16003                          | 160 | M8 | 26 | 17 | 55 | 14 | 1000                    |
| K0204.18001                      | K0204.18003                          | 180 | M8 | 26 | 17 | 55 | 14 | 1000                    |
| K0204.19201                      | K0204.19203                          | 192 | M8 | 26 | 17 | 55 | 14 | 1000                    |
| K0204.35001                      | K0204.35003                          | 350 | M8 | 26 | 17 | 55 | 14 | 1000                    |



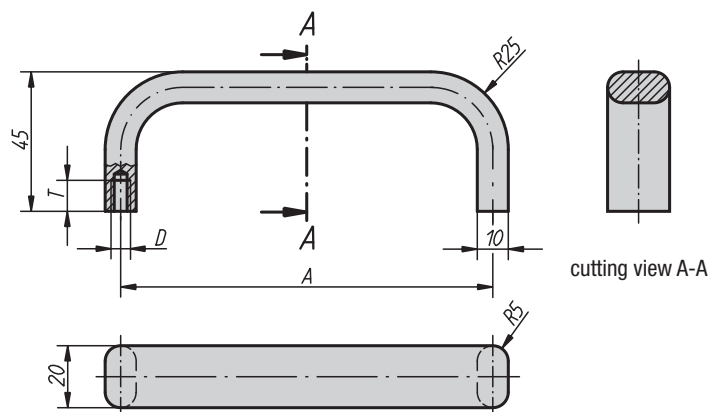
**Material:**  
Oval aluminium EN AW-6060

**Surface finish:**  
Black powder-coated, natural colour anodized

**Sample order:**  
K0204.10001

**Note:**  
These oval bow handles are extremely robust and can also be used in any situation where powerful operation is required.

## Flat profile bow handles



**Material:**  
Profile aluminium EN AW-6060

**Surface finish:**  
Matt-finished, black or natural colour anodized

**Sample order:**  
K0205.18001

**Note:**  
These elegant flat profile bow handles made of aluminium are especially suitable for machines, appliances, apparatuses, jigs and fixtures, etc.

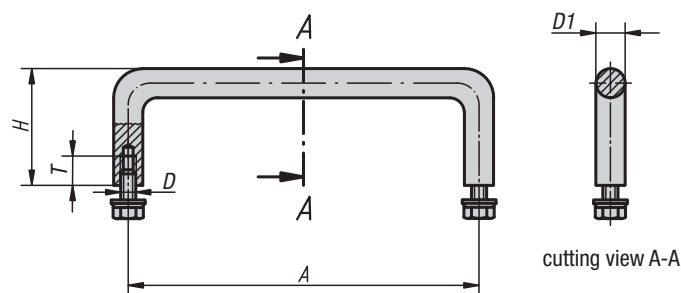
### KIPP Flat profile bow handles

| Order No.<br>black anodized | Order No.<br>natural colour anodized | A   | D  | T  | Load bearing capacity N | Approx. weight kg |
|-----------------------------|--------------------------------------|-----|----|----|-------------------------|-------------------|
| K0205.12001                 | K0205.12003                          | 120 | M5 | 10 | 500                     | 0,085             |
| K0205.18001                 | K0205.18003                          | 180 | M5 | 10 | 500                     | 0,100             |
| K0205.20001                 | K0205.20003                          | 200 | M5 | 10 | 500                     | 0,120             |
| K0205.35001                 | K0205.35003                          | 350 | M6 | 12 | 500                     | 0,190             |

# K0206

## Stirrup-shaped handles

in stainless steel



**Material:**  
Stirrup-shaped handle in stainless steel 1.4305, fastening material 1.4301

**Surface finish:**  
Electrolytically polished.

**Sample order:**  
K0206.120

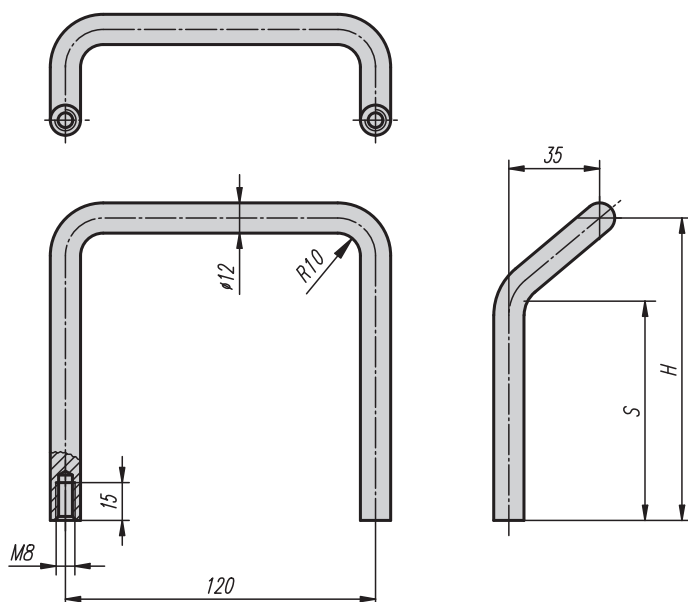
**Note:**  
Stirrup-shaped handles in stainless steel are used mainly for installations in the food industry and in the fields of medical, laboratory and reactor technology.

### KIPP Stirrup-shaped handles in stainless steel

| Order No. | A   | D     | D1 | H  | T  | Load bearing capacity N | Approx. weight kg |
|-----------|-----|-------|----|----|----|-------------------------|-------------------|
| K0206.100 | 100 | M5x10 | 8  | 35 | 10 | 1000                    | 0,060             |
| K0206.120 | 120 | M5x10 | 10 | 40 | 10 | 1000                    | 0,100             |
| K0206.250 | 250 | M5x10 | 10 | 40 | 10 | 1000                    | 0,185             |
| K0206.350 | 350 | M5x10 | 10 | 40 | 10 | 1000                    | 0,250             |



## Angled machine handles



**Material:**  
Round steel

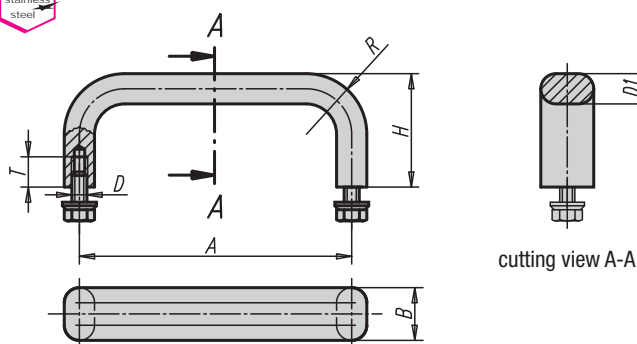
**Surface finish:**  
Very finely ground and high-polish chromium-plated

**Sample order:**  
K0207.06008

### KIPP Angled machine handles

| Order No.   | H   | S  | Load bearing capacity N | Approx. weight kg |
|-------------|-----|----|-------------------------|-------------------|
| K0207.06008 | 60  | 27 | 1000                    | 0,190             |
| K0207.12008 | 120 | 87 | 1000                    | 0,287             |

## Stirrup-shaped handles in stainless steel



**Material:**  
Stirrup-shaped handle in stainless steel 1.4305, fastening material 1.4301

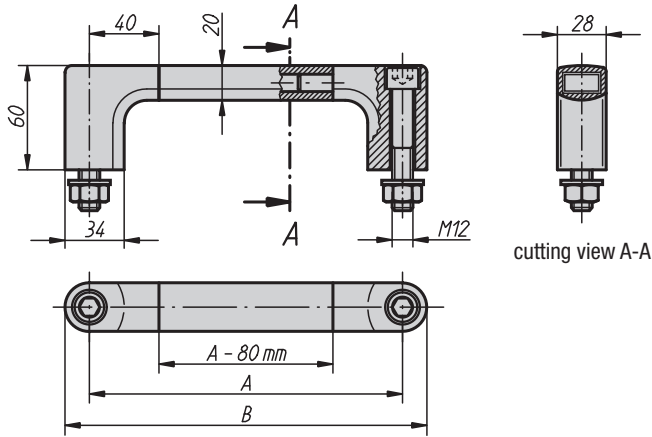
**Surface finish:**  
Surface semi-matt finish, vibration ground

**Sample order:**  
K0208.10005

### KIPP Stirrup-shaped handles in stainless steel

| Order No.   | A   | B    | D     | D1 | H  | R  | T  | Load bearing capacity N | Approx. weight kg |
|-------------|-----|------|-------|----|----|----|----|-------------------------|-------------------|
| K0208.10005 | 100 | 12   | M5x10 | 8  | 40 | 22 | 10 | 1000                    | 0,105             |
| K0208.12005 | 120 | 12   | M5x10 | 8  | 40 | 22 | 10 | 1000                    | 0,118             |
| K0208.15005 | 150 | 12   | M5x10 | 8  | 40 | 22 | 10 | 1000                    | 0,138             |
| K0208.18005 | 180 | 12   | M5x10 | 8  | 40 | 22 | 10 | 1000                    | 0,158             |
| K0208.25005 | 250 | 12   | M5x10 | 8  | 40 | 22 | 10 | 1000                    | 0,205             |
| K0208.10006 | 100 | 19,5 | M6x12 | 10 | 45 | 24 | 12 | 1000                    | 0,216             |
| K0208.12006 | 120 | 19,5 | M6x12 | 10 | 45 | 24 | 12 | 1000                    | 0,241             |
| K0208.15006 | 150 | 19,5 | M6x12 | 10 | 45 | 24 | 12 | 1000                    | 0,279             |
| K0208.18006 | 180 | 19,5 | M6x12 | 10 | 45 | 24 | 12 | 1000                    | 0,318             |
| K0208.25006 | 250 | 19,5 | M6x12 | 10 | 45 | 24 | 12 | 1000                    | 0,407             |

## All-purpose machine handles



**Material:**  
Aluminium

**Surface finish:**  
Grip leg black powder-coated; connecting bridge natural colour anodized

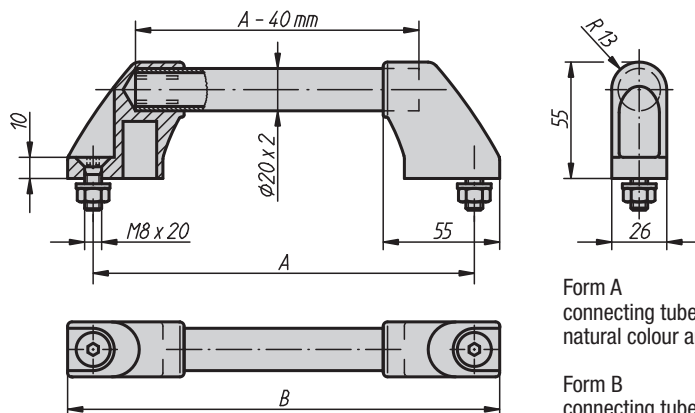
**Sample order:**  
K0209.300

**Note:**  
Black galvanized fastening screws with hexagon socket M12x70 as well as suitable washers and nuts are supplied.

### KIPP All-purpose machine handles

| Order No. | A   | B   | Load bearing capacity N | Approx. weight kg |
|-----------|-----|-----|-------------------------|-------------------|
| K0209.180 | 180 | 208 | 1000                    | 0,552             |
| K0209.200 | 200 | 228 | 1000                    | 0,575             |
| K0209.250 | 250 | 278 | 1000                    | 0,620             |
| K0209.300 | 300 | 328 | 1000                    | 0,695             |
| K0209.350 | 350 | 378 | 1000                    | 0,732             |
| K0209.400 | 400 | 428 | 1000                    | 0,758             |
| K0209.500 | 500 | 528 | 1000                    | 0,815             |
| K0209.600 | 600 | 628 | 1000                    | 0,895             |

## Lightweight handles



Form A  
connecting tube ground and natural colour anodized

Form B  
connecting tube with serrated plastic coating



**Material:**  
Grip legs in black glass-ball reinforced thermoplastic; connecting tube aluminium

**Sample order:**  
K0210.200

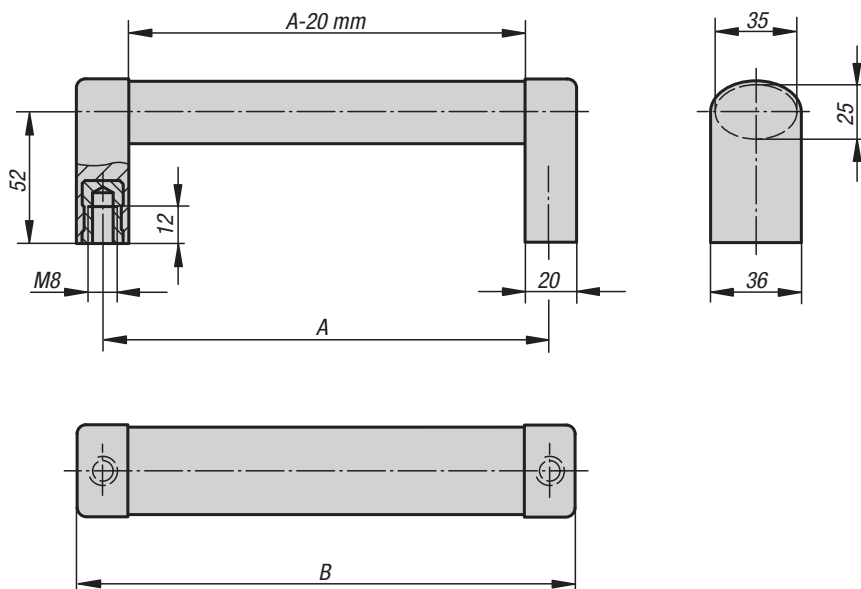
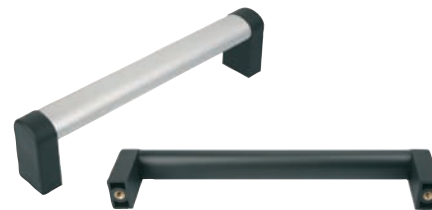
**Note:**  
The grip legs have 4 clamping webs within the area of the tube receiver. When pushing the connecting tube in, they are abraded and produce a seat with a precise fit.

Black galvanized fastening screws, as well as suitable washers and nuts are supplied.

### KIPP Lightweight handles

| Order No. Form A | Order No. Form B | A   | B   | Load bearing capacity N | Approx. weight kg |
|------------------|------------------|-----|-----|-------------------------|-------------------|
| K0210.180        | K0210.1803       | 180 | 204 | 500                     | 0,165             |
| K0210.200        | K0210.2003       | 200 | 224 | 500                     | 0,175             |
| K0210.250        | K0210.2503       | 250 | 274 | 500                     | 0,185             |
| K0210.300        | K0210.3003       | 300 | 324 | 500                     | 0,200             |
| K0210.350        | K0210.3503       | 350 | 374 | 500                     | 0,210             |
| K0210.400        | K0210.4003       | 400 | 424 | 500                     | 0,220             |
| K0210.500        | K0210.5003       | 500 | 524 | 500                     | 0,245             |
| K0210.600        | K0210.6003       | 600 | 624 | 500                     | 0,270             |

## Tube handles



**Material:**

Connecting bridge in aluminium EN AW-6060;  
grip leg in polyamide glass-ball reinforced;  
threaded bush in brass;  
clamping sleeves in stainless steel

**Surface finish:**

Connecting bridge natural colour or black anodized;  
grip leg aluminium colour or black

**Sample order:**

K0211.1200081

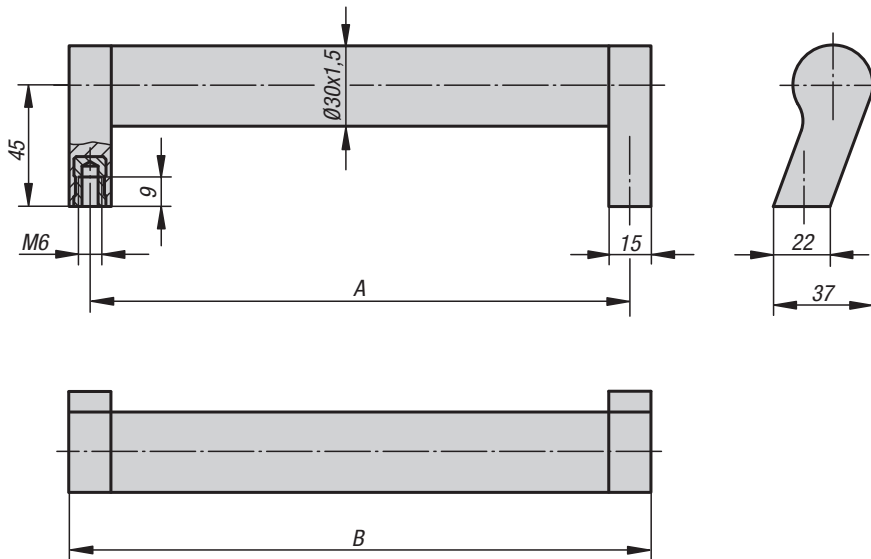
**Note:**

Pluggable oval-profile handles. Versions with plastic legs and aluminium oval bridge.

### KIPP Tube handles

| Order No.<br>Connecting bridge, natural colour<br>anodized, grip leg aluminium colour | Order No.<br>Connecting bridge, natural colour<br>anodized, grip leg black | Order No.<br>Connecting bridge, black<br>anodized, grip leg black | A   | B   | Load<br>bearing<br>capacity N | Approx.<br>weight<br>kg |
|---|--|---|-----|-----|-------------------------------|-------------------------|
| K0211.1200081   | K0211.1200082  | K0211.1200083   | 200 | 220 | 1000                          | 0,255                   |
| K0211.1250081   | K0211.1250082  | K0211.1250083   | 250 | 270 | 1000                          | 0,295                   |
| K0211.1300081   | K0211.1300082  | K0211.1300083   | 300 | 320 | 1000                          | 0,334                   |
| K0211.1400081   | K0211.1400082  | K0211.1400083   | 400 | 420 | 1000                          | 0,414                   |
| K0211.1500081   | K0211.1500082  | K0211.1500083   | 500 | 520 | 1000                          | 0,493                   |

## Slanting tube handles



**Material:**

Connecting tube in aluminium EN AW-6060;  
grip leg in polyamide, glass-ball reinforced;  
threaded bush in brass

**Surface finish:**

Connecting tube matt-polished anodized;  
grip leg black

**Sample order:**

K0212.2150061

**Note:**

Slanting tube handles in modern industrial design.  
Precision fit of tube on plastic tenon due to clamping webs.

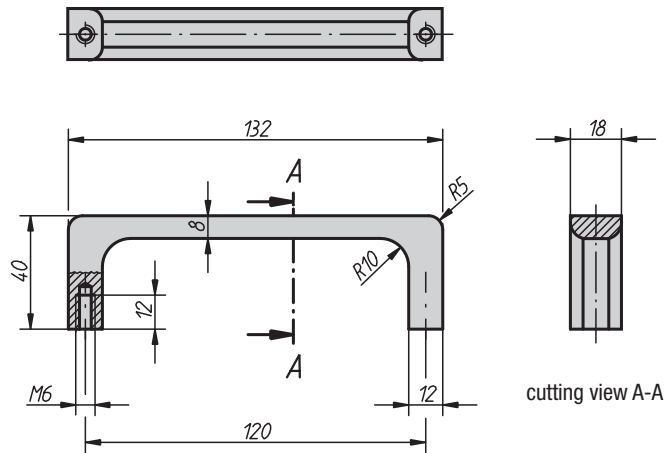
### KIPP Slanting tube handles

| Order No.     | A   | B   | Load bearing capacity N | Approx. weight kg |
|---------------|-----|-----|-------------------------|-------------------|
| K0212.2150061 | 150 | 165 | 800                     | 0,112             |
| K0212.2200061 | 200 | 215 | 800                     | 0,130             |
| K0212.2250061 | 250 | 265 | 800                     | 0,148             |
| K0212.2300061 | 300 | 315 | 800                     | 0,165             |
| K0212.2350061 | 350 | 365 | 800                     | 0,184             |
| K0212.2400061 | 400 | 415 | 800                     | 0,201             |

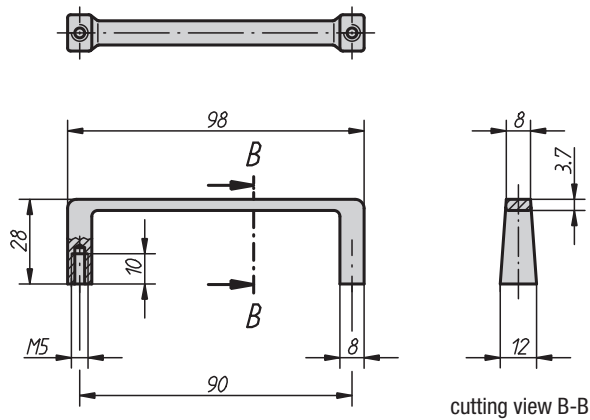
## Apparatus handles



Form A



Form B



**Material:**

Profile aluminium EN AW-6060

**Surface finish:**

Matt-finished, black anodized or natural colour anodized

**Sample order:**

K0213.12001

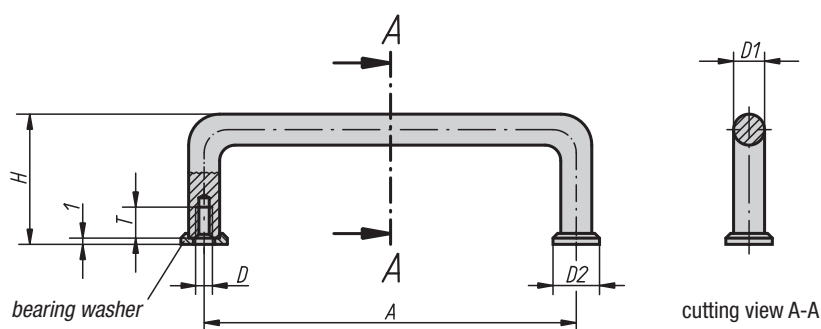
### KIPP Apparatus handles

| Order No.   | Form | Surface finish          | Load bearing capacity<br>N | Approx.<br>weight<br>kg |
|-------------|------|-------------------------|----------------------------|-------------------------|
| K0213.12001 | A    | black anodized          | 500                        | 0,070                   |
| K0213.12003 | A    | natural colour anodized | 500                        | 0,070                   |
| K0213.09001 | B    | black anodized          | 300                        | 0,010                   |
| K0213.09003 | B    | natural colour anodized | 300                        | 0,010                   |

## Stirrup-shaped handles,

high-polish chromium-plated

19"



**Material:**

Steel

**Surface finish:**

Very finely ground and high-polish chromium-plated

**Sample order:**

K0214.10204

**Note:**

These stirrup-shaped handles are used primarily on optical devices, laboratory installations, audio, video and hi-fi equipment, etc. The bearing washers are supplied unattached.

**On request:**

Other surface finishes.

### KIPP Stirrup-shaped handles, high-polish chromium-plated

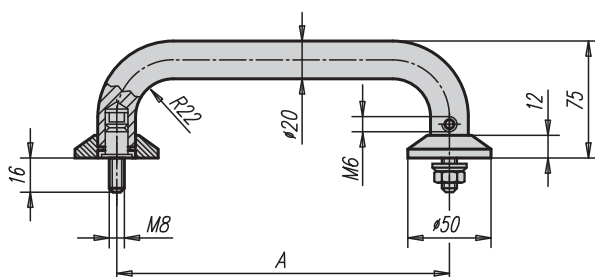
| Order No.   | A   | D  | D1 | D2   | H  | T  | Load bearing capacity N | Approx. weight kg |
|-------------|-----|----|----|------|----|----|-------------------------|-------------------|
| K0214.03203 | 32  | M3 | 5  | 8    | 21 | 6  | 1000                    | 0,008             |
| K0214.04203 | 42  | M3 | 5  | 8    | 25 | 6  | 1000                    | 0,010             |
| K0214.05503 | 55  | M3 | 5  | 8    | 25 | 6  | 1000                    | 0,013             |
| K0214.07603 | 76  | M3 | 5  | 8    | 25 | 6  | 1000                    | 0,015             |
| K0214.08803 | 88  | M3 | 5  | 8    | 25 | 6  | 1000                    | 0,018             |
| K0214.03204 | 32  | M4 | 8  | 12,5 | 33 | 8  | 1000                    | 0,028             |
| K0214.05504 | 55  | M4 | 8  | 12,5 | 33 | 8  | 1000                    | 0,038             |
| K0214.06404 | 64  | M4 | 8  | 12,5 | 33 | 8  | 1000                    | 0,041             |
| K0214.08804 | 88  | M4 | 8  | 12,5 | 33 | 8  | 1000                    | 0,050             |
| K0214.09604 | 96  | M4 | 8  | 12,5 | 33 | 8  | 1000                    | 0,056             |
| K0214.09804 | 98  | M4 | 8  | 12,5 | 33 | 8  | 1000                    | 0,057             |
| K0214.10204 | 102 | M4 | 8  | 12,5 | 33 | 8  | 1000                    | 0,058             |
| K0214.12004 | 120 | M4 | 8  | 12,5 | 33 | 8  | 1000                    | 0,065             |
| K0214.12804 | 128 | M4 | 8  | 12,5 | 33 | 8  | 1000                    | 0,068             |
| K0214.13604 | 136 | M4 | 8  | 12,5 | 33 | 8  | 1000                    | 0,071             |
| K0214.05505 | 55  | M5 | 10 | 15   | 41 | 10 | 1000                    | 0,067             |
| K0214.08805 | 88  | M5 | 10 | 15   | 41 | 10 | 1000                    | 0,087             |
| K0214.10005 | 100 | M5 | 10 | 15   | 41 | 10 | 1000                    | 0,094             |
| K0214.10205 | 102 | M5 | 10 | 15   | 41 | 10 | 1000                    | 0,095             |
| K0214.11505 | 115 | M5 | 10 | 15   | 41 | 10 | 1000                    | 0,103             |
| K0214.12005 | 120 | M5 | 10 | 15   | 41 | 10 | 1000                    | 0,105             |
| K0214.13605 | 136 | M5 | 10 | 15   | 41 | 10 | 1000                    | 0,112             |
| K0214.18005 | 180 | M5 | 10 | 15   | 41 | 10 | 1000                    | 0,142             |
| K0214.20005 | 200 | M5 | 10 | 15   | 41 | 10 | 1000                    | 0,154             |
| K0214.23505 | 235 | M5 | 10 | 15   | 41 | 10 | 1000                    | 0,175             |
| K0214.25005 | 250 | M5 | 10 | 15   | 41 | 10 | 1000                    | 0,184             |

## Stirrup-shaped handles,

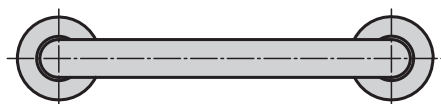
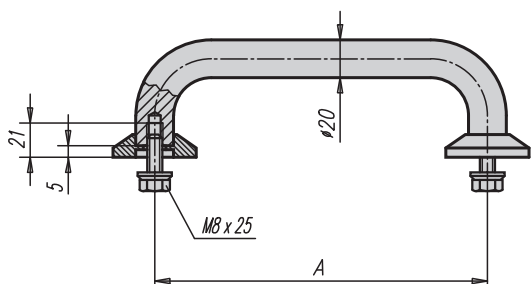
in stainless steel



Form A  
screwed on from front side



Form B  
screwed on from rear side



**Material:**

Stirrup-shaped handle in stainless steel 1.4305, fastening material 1.4301

**Surface finish:**

Ground and matt-polish brushed.

**Sample order:**

K0215.2001

**Note:**

Refined steel stirrup-shaped handles are ideal for all technical applications where top load rating and high chemical or corrosive stress resistance are required.

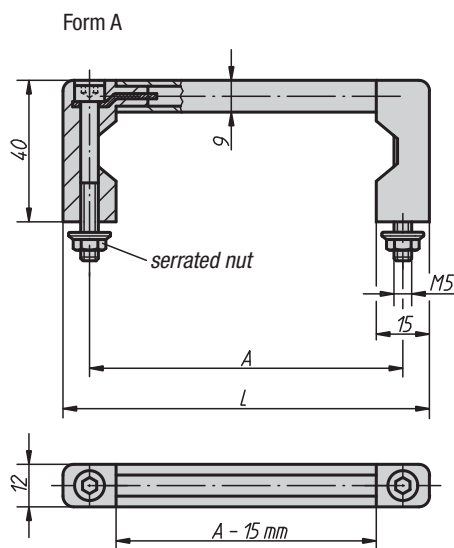
### KIPP Stirrup-shaped handles, in stainless steel

| Order No.  | Form | A   | Load bearing capacity<br>N | Approx.<br>weight<br>kg |
|------------|------|-----|----------------------------|-------------------------|
| K0215.2001 | A    | 200 | 1000                       | 1,035                   |
| K0215.2501 | A    | 250 | 1000                       | 1,157                   |
| K0215.2002 | B    | 200 | 1000                       | 1,035                   |
| K0215.2502 | B    | 250 | 1000                       | 1,157                   |

## All-purpose apparatus handles



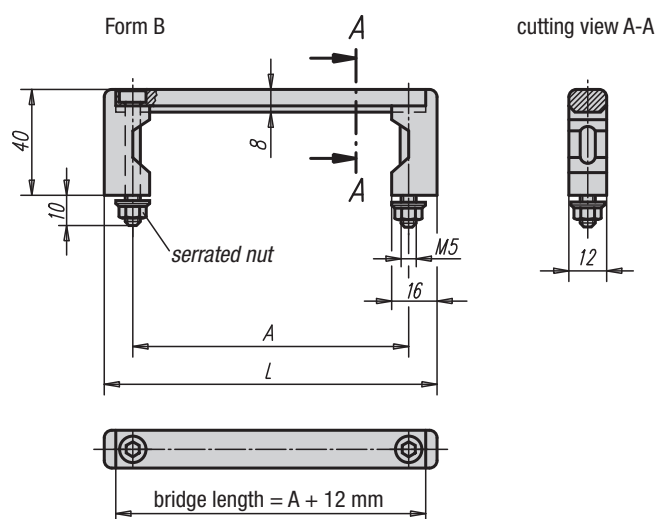
19"



**Material:**  
Aluminium connecting bridge;  
grip legs in glass-ball reinforced polyamide

**Surface finish:**  
Grip legs, half-matt with fine structure, black;  
connecting bridge matt-finished and natural colour or  
black anodized

**Sample order:**  
K0216.10001



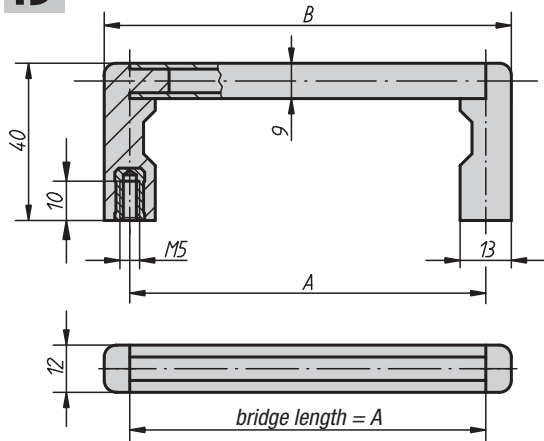
### KIPP All-purpose apparatus handles

| Order No.<br>black anodized | Order No.<br>natural colour anodized | Form | A   | L   | Load bearing<br>capacity N |
|-----------------------------|--------------------------------------|------|-----|-----|----------------------------|
| K0216.05501                 | K0216.05503                          | A    | 55  | 70  | 1000                       |
| K0216.08801                 | K0216.08803                          | A    | 88  | 103 | 1000                       |
| K0216.10001                 | K0216.10003                          | A    | 100 | 115 | 1000                       |
| K0216.12001                 | K0216.12003                          | A    | 120 | 135 | 1000                       |
| K0216.18001                 | K0216.18003                          | A    | 180 | 195 | 1000                       |
| K0216.23501                 | K0216.23503                          | A    | 235 | 250 | 1000                       |
| K0216.055101                | K0216.055103                         | B    | 55  | 75  | 1000                       |
| K0216.088101                | K0216.088103                         | B    | 88  | 108 | 1000                       |
| K0216.100101                | K0216.100103                         | B    | 100 | 120 | 1000                       |
| K0216.120101                | K0216.120103                         | B    | 120 | 140 | 1000                       |
| K0216.180101                | K0216.180103                         | B    | 180 | 200 | 1000                       |
| K0216.235101                | K0216.235103                         | B    | 235 | 255 | 1000                       |



## All-purpose apparatus handles

19"



**Material:**

Connecting bridge in aluminium; grip leg in high-strength plastic

**Sample order:**

K0217.05501

**Note:**

The centre distance can be adjusted by shortening the connecting bridge.

### KIPP All-purpose apparatus handles

| Order No. connecting bridge black anodized | Order No. connecting bridge natural colour anodized | A   | B   | Load bearing capacity N |
|--|---|-----|-----|-------------------------|
| K0217.05501                                | K0217.05503   | 55  | 69  | 1000                    |
| K0217.08801                                | K0217.08803   | 88  | 102 | 1000                    |
| K0217.10001                                | K0217.10003   | 100 | 114 | 1000                    |
| K0217.12001                                | K0217.12003   | 120 | 134 | 1000                    |
| K0217.18001                                | K0217.18003   | 180 | 194 | 1000                    |
| K0217.23501                                | K0217.23503   | 235 | 249 | 1000                    |

# K0218

## Measurement device handles

Form A surface very finely ground and high-polish chromium-plated

Form B like form A, connecting bridge with additional smooth plastic coating

Form C stainless steel, surface vibration ground



**Material:**

Steel or stainless steel 1.4305

**Surface finish:**

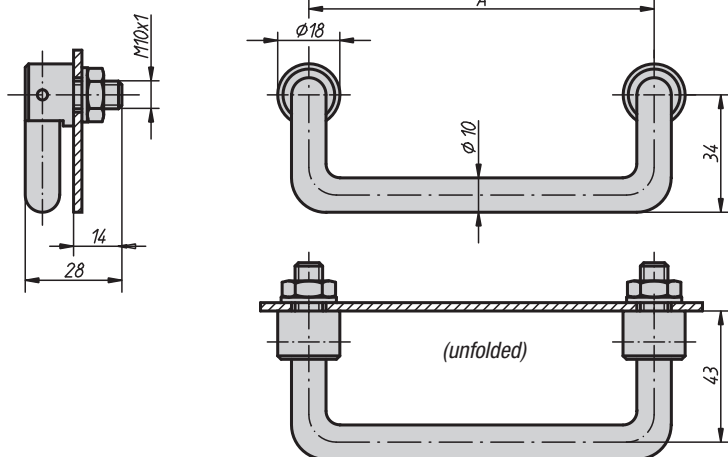
Surface very finely ground and high-polish chromium-plated; form B connecting bridge with additional smooth plastic coating; form C semi-matt finish, no score marks, vibration ground

**Sample order:**

K0218.1201

**Note:**

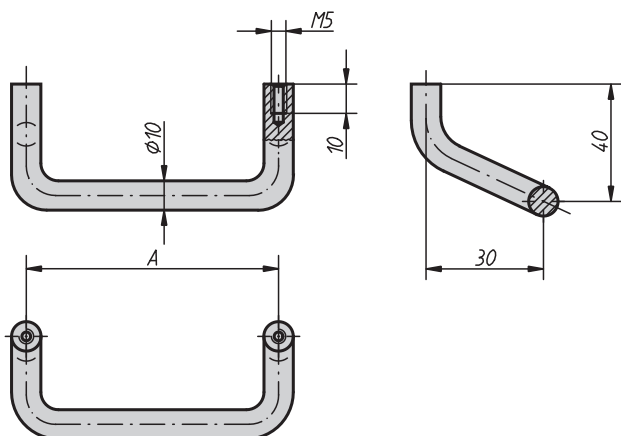
Galvanized flat washers and nuts are supplied. Form C fastening material in stainless steel. Spring lock in both end positions.



### KIPP Measurement device handles

| Order No. Form A | Order No. Form B | Order No. Form C | A   | Load bearing capacity N | Approx. weight kg |
|------------------|------------------|------------------|-----|-------------------------|-------------------|
| K0218.1001       | K0218.1002       | K0218.1003       | 100 | 500                     | 0,135             |
| K0218.1201       | K0218.1202       | K0218.1203       | 120 | 500                     | 0,160             |
| K0218.1801       | K0218.1802       | K0218.1803       | 180 | 500                     | 0,215             |

## Angled draw-pull handles



**Material:**  
Aluminium

**Surface finish:**  
Matt-finished, black anodized or natural colour anodized

**Sample order:**  
K0219.12001

### KIPP Angled draw-pull handles

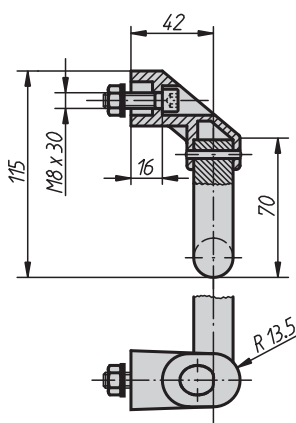
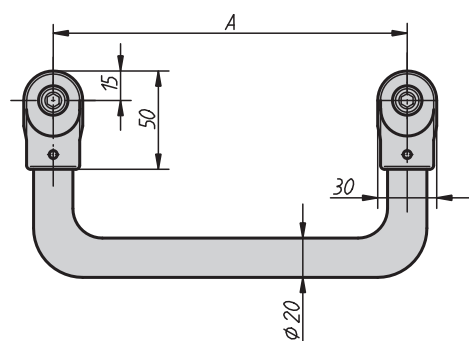
| Order No.<br>black anodized | Order No.<br>natural colour anodized | A   | Load bearing capacity N | Approx. weight kg |
|-----------------------------|--------------------------------------|-----|-------------------------|-------------------|
| K0219.08601                 | K0219.08603                          | 86  | 500                     | 0,037             |
| K0219.12001                 | K0219.12003                          | 120 | 500                     | 0,045             |
| K0219.18001                 | K0219.18003                          | 180 | 500                     | 0,058             |

# K0220

## Bowed tube handles

Form A  
connecting tube  
natural colour anodized

Form B  
connecting tube  
black anodized



**Material, surface finish:**  
Grip legs in black glass-ball reinforced thermoplastic; connecting tube aluminium, anodized

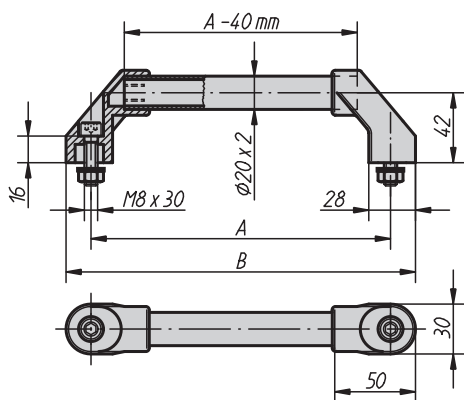
**Sample order:**  
K0220.3002

**Note:**  
The grip legs are pinned to the aluminium connecting tube. Black galvanized cylindrical screws with hexagon socket, nuts and washers are supplied.

### KIPP Bowed tube handles

| Order No.<br>Form A | Order No.<br>Form B | A   | Load bearing capacity N | Approx. weight kg |
|---------------------|---------------------|-----|-------------------------|-------------------|
| K0220.2001          | K0220.2002          | 200 | 800                     | 0,361             |
| K0220.2501          | K0220.2502          | 250 | 800                     | 0,410             |
| K0220.3001          | K0220.3002          | 300 | 800                     | 0,451             |
| K0220.3501          | K0220.3502          | 350 | 800                     | 0,493             |
| K0220.4001          | K0220.4002          | 400 | 800                     | 0,525             |

## Tube handles



Form A  
connecting tube ground  
and natural colour anodized

Form B  
connecting tube with  
serrated plastic cover



**Material:**

Grip legs in black glass-ball reinforced thermoplastic;  
connecting tube aluminium EN AW-6060

**Sample order:**

K0221.3001

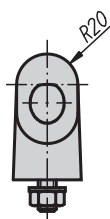
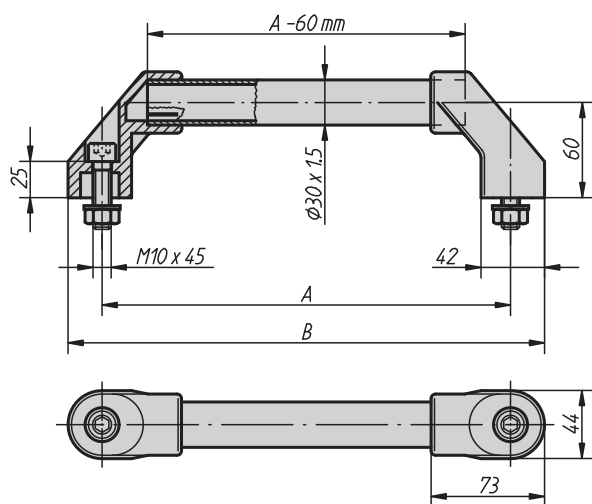
**Note:**

The grip legs have four clamping webs within the area of the tube receiver. When pushing the connecting tube in, they are abraded and produce a seat with a precise fit. Black galvanized fastening screws as well as suitable washers and nuts are supplied.

### KIPP Tube handles

| Order No.<br>Form A | Order No.<br>Form B | A   | B   | Load bearing capacity N | Approx. weight kg |
|---------------------|---------------------|-----|-----|-------------------------|-------------------|
| K0221.1801          | K0221.1802          | 180 | 210 | 1000                    | 0,170             |
| K0221.2001          | K0221.2002          | 200 | 230 | 1000                    | 0,175             |
| K0221.2501          | K0221.2502          | 250 | 280 | 1000                    | 0,190             |
| K0221.3001          | K0221.3002          | 300 | 330 | 1000                    | 0,205             |
| K0221.3501          | K0221.3502          | 350 | 380 | 1000                    | 0,220             |
| K0221.4001          | K0221.4002          | 400 | 430 | 1000                    | 0,235             |
| K0221.5001          | K0221.5002          | 500 | 530 | 1000                    | 0,270             |
| K0221.6001          | K0221.6002          | 600 | 630 | 1000                    | 0,300             |

## Tube handles



Form A  
connecting tube ground  
and natural colour anodized

Form B  
connecting tube with  
serrated plastic cover

Form C  
connecting tube in stainless  
steel, finely ground



**Material:**

Grip legs in black glass-ball reinforced thermoplastic;  
connecting tube aluminium EN AW-6060 or stainless steel 1.4301

**Sample order:**

K0222.3501

**Note:**

The grip legs have four clamping webs within the area of the tube receiver. When pushing the connecting tube in, they are abraded and produce a seat with a precise fit.

Black galvanized fastening screws as well as suitable washers and nuts are supplied.

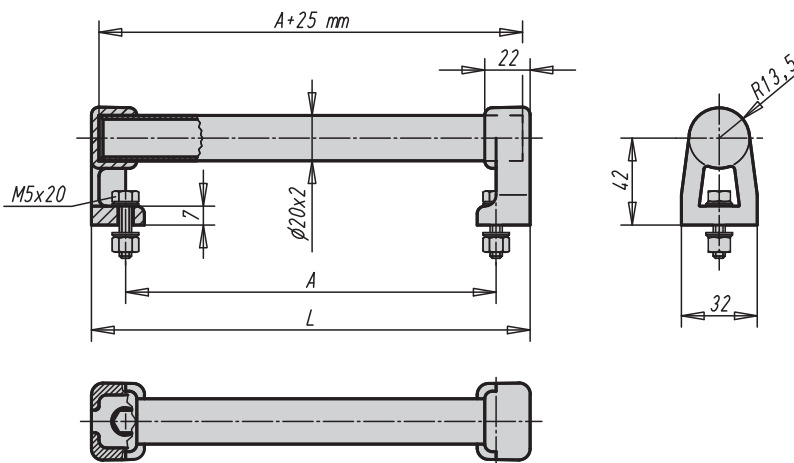
### KIPP Tube handles

| Order No.<br>Form A | Order No.<br>Form B | Order No.<br>Form C | A   | B   | Load bearing capacity N |
|---------------------|---------------------|---------------------|-----|-----|-------------------------|
| K0222.2501          | K0222.2502          | K0222.2503          | 250 | 294 | 1000                    |
| K0222.3001          | K0222.3002          | K0222.3003          | 300 | 344 | 1000                    |
| K0222.3501          | K0222.3502          | K0222.3503          | 350 | 394 | 1000                    |
| K0222.4001          | K0222.4002          | K0222.4003          | 400 | 444 | 1000                    |
| K0222.5001          | K0222.5002          | K0222.5003          | 500 | 544 | 1000                    |
| K0222.6001          | K0222.6002          | K0222.6003          | 600 | 644 | 1000                    |

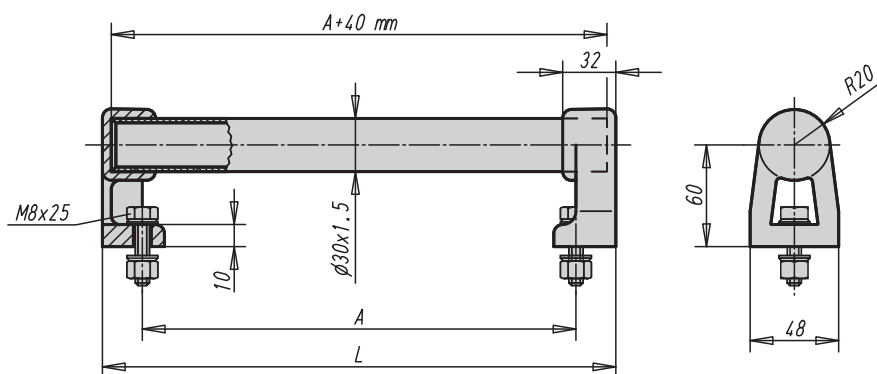
## Tube handles



Form A



Form B



**Material:**

Connecting tube, aluminium EN AW-6060;  
grip legs in glass-ball reinforced polyamide

**Surface finish:**

Connecting tube natural colour anodized or with  
serrated plastic cover

**Sample order:**

K0223.150203

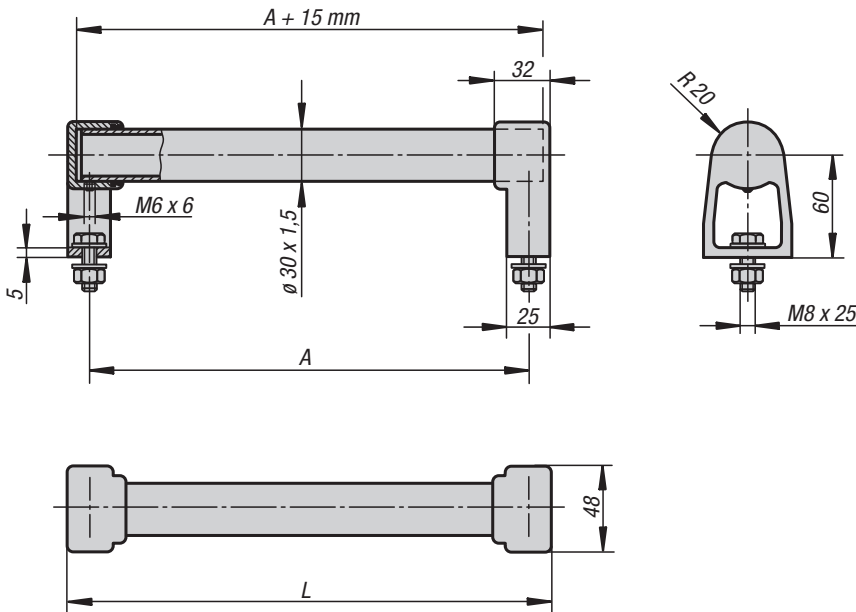
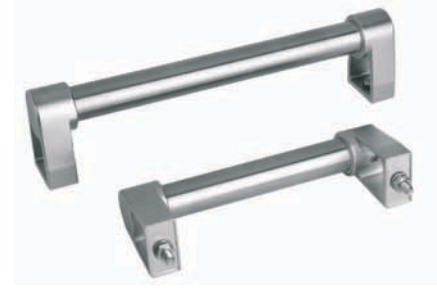
**Note:**

The grip legs have two/ four three-square PVC profiles within the area of the tube receiver. These three-square PVC profiles are abraded when the connecting tube is inserted (push fit). In this way an exact fit is generated. Black galvanized fastening screws as well as suitable washers and nuts are supplied.

### KIPP Tube handles

| Order No.<br>natural colour anodized | Order No.<br>serrated plastic cover | Form | A   | L   | Load bearing capacity N | Approx. weight kg |
|--------------------------------------|-------------------------------------|------|-----|-----|-------------------------|-------------------|
| K0223.150203                         | K0223.150202                        | A    | 150 | 184 | 1000                    | 0,118             |
| K0223.200203                         | K0223.200202                        | A    | 200 | 234 | 1000                    | 0,135             |
| K0223.300203                         | K0223.300202                        | A    | 300 | 334 | 1000                    | 0,167             |
| K0223.400203                         | K0223.400202                        | A    | 400 | 434 | 1000                    | 0,200             |
| K0223.500203                         | K0223.500202                        | A    | 500 | 534 | 1000                    | 0,232             |
| K0223.150303                         | K0223.150302                        | B    | 150 | 200 | 1000                    | 0,118             |
| K0223.200303                         | K0223.200302                        | B    | 200 | 250 | 1000                    | 0,135             |
| K0223.300303                         | K0223.300302                        | B    | 300 | 350 | 1000                    | 0,167             |
| K0223.400303                         | K0223.400302                        | B    | 400 | 450 | 1000                    | 0,200             |
| K0223.500303                         | K0223.500302                        | B    | 500 | 550 | 1000                    | 0,232             |

## Tube handles in stainless steel



**Material:**

Connecting tube stainless steel 1.4301.  
 Grip legs in precision cast G 4581.  
 Fastening material in stainless steel 1.4301.  
 Clamping and sealing rings in food-grade silicone rubber. Temperature resistant in the long-term from  $-60\text{ }^{\circ}\text{C}$  to  $+200\text{ }^{\circ}\text{C}$ .

**Surface finish:**

Connecting tube finely ground.  
 Grip legs blasted and electro-polished with matt-gloss finish.

**Sample order:**

K0652.200301

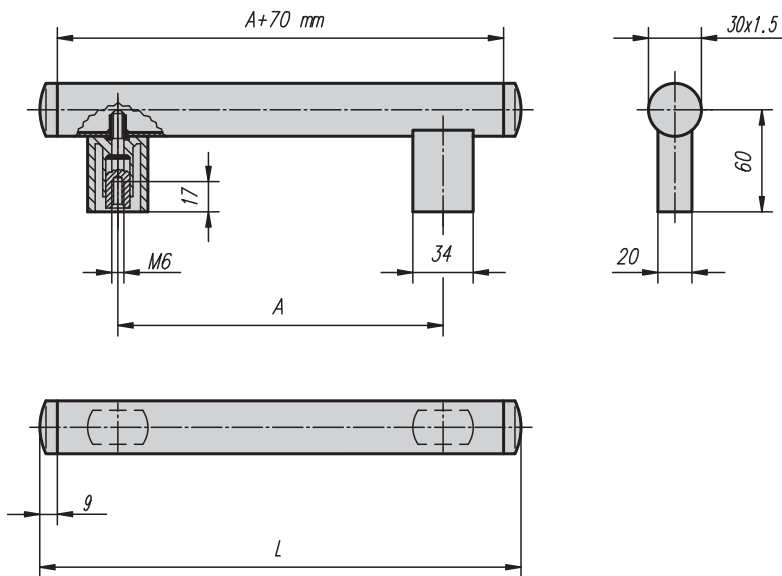
**Note:**

All-purpose pluggable tube handles in stainless steel. Splash-proof tube-leg connection. Additional tube clamping by means of a grub screw with a hexagon socket. For screw assembly in the front or from behind. Easy to clean, especially suitable for food industry.

### KIPP Tube handles in stainless steel

| Order No.    | A   | L   | Load bearing capacity N |
|--------------|-----|-----|-------------------------|
| K0652.200301 | 200 | 225 | 1000                    |
| K0652.250301 | 250 | 275 | 1000                    |
| K0652.300301 | 300 | 325 | 1000                    |
| K0652.350301 | 350 | 375 | 1000                    |
| K0652.400301 | 400 | 425 | 1000                    |
| K0652.500301 | 500 | 525 | 1000                    |

## Tube handles



**Material:**

Tube holder and tube cap in glass-ball-reinforced polyamide;  
connecting tube aluminium EN AW-6060

**Surface finish:**

Connecting tube finely ground and black anodized or natural colour anodized; tube holder and tube cap semi-matt with fine texture, black

**Sample order:**

K0224.200061

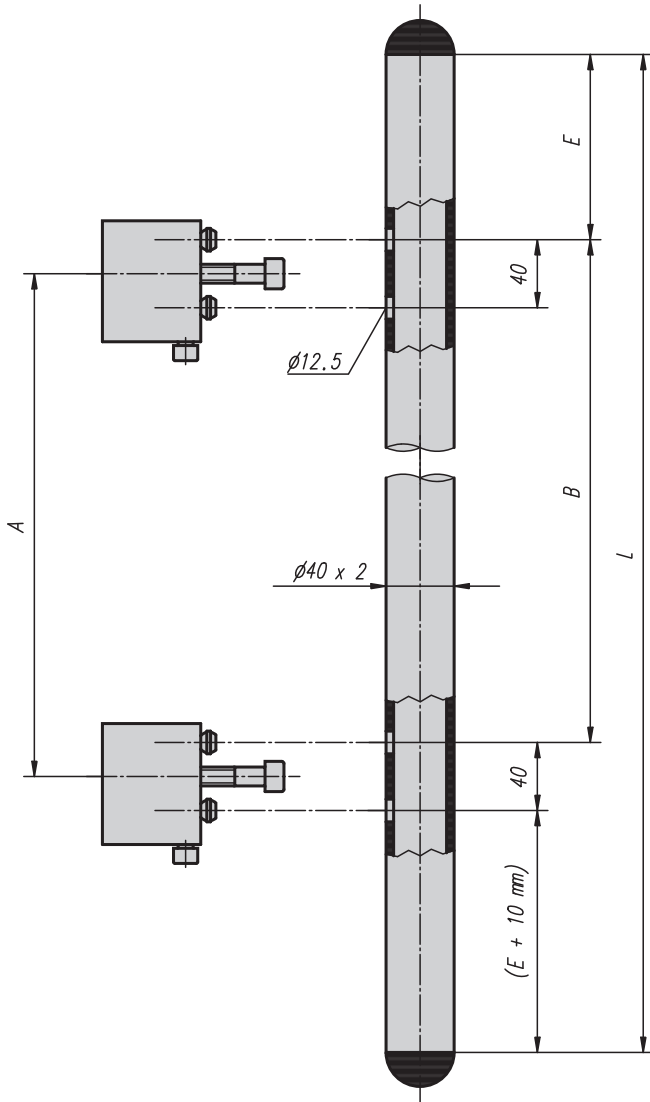
**Note:**

Tear-out-resistant screw connection between handle holder and tube by non-releasing blind rivet nut.

### KIPP Tube handles

| Order No.    | Surface finish          | A   | L   | Load bearing capacity<br>N | Approx.<br>weight<br>kg |
|--------------|-------------------------|-----|-----|----------------------------|-------------------------|
| K0224.200061 | black anodized          | 200 | 288 | 800                        | 0,211                   |
| K0224.250061 | black anodized          | 250 | 338 | 800                        | 0,228                   |
| K0224.300061 | black anodized          | 300 | 388 | 800                        | 0,245                   |
| K0224.400061 | black anodized          | 400 | 488 | 800                        | 0,280                   |
| K0224.500061 | black anodized          | 500 | 588 | 800                        | 0,315                   |
| K0224.200063 | natural colour anodized | 200 | 288 | 800                        | 0,211                   |
| K0224.250063 | natural colour anodized | 250 | 338 | 800                        | 0,228                   |
| K0224.300063 | natural colour anodized | 300 | 388 | 800                        | 0,245                   |
| K0224.400063 | natural colour anodized | 400 | 488 | 800                        | 0,280                   |
| K0224.500063 | natural colour anodized | 500 | 588 | 800                        | 0,315                   |

# Tube handles



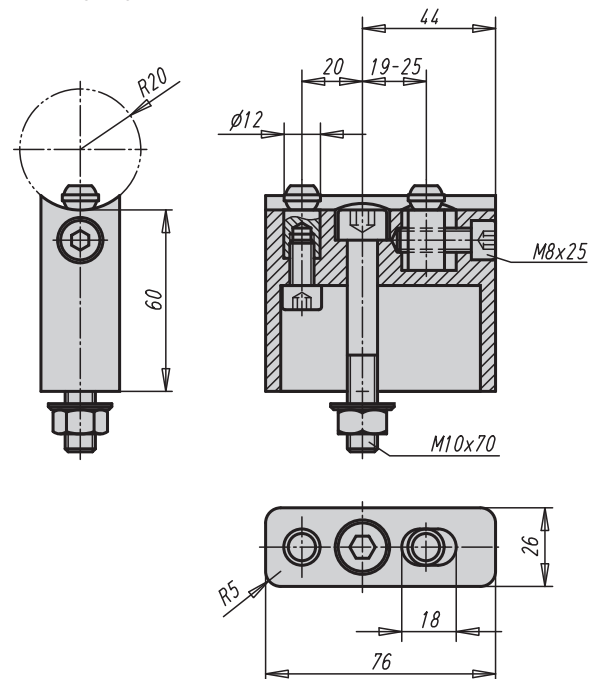
**Material:**  
 Connecting tube stainless steel 1.4301;  
 fastener die-cast aluminium;  
 glass-ball reinforced end cap;  
 screws and steel clamping device

**Surface finish:**  
 Connecting tube finely ground;  
 fastener black powder-coated;  
 end cap black;  
 screws and clamping device galvanized and chromated

**Sample order:**  
 K0225.0600101

**Note:**  
 High load rating tube handles for mechanical and process equipment engineering. Easy mounting of components from front side. Any screw distance possible for same handle length.

clamping diagram, holder:



## KIPP Tube handles

| Order No.     | A   | B   | E   | L    | Load bearing capacity N | Approx. weight kg |
|---------------|-----|-----|-----|------|-------------------------|-------------------|
| K0225.0600101 | 380 | 380 | 85  | 600  | 1000                    | 1,847             |
| K0225.0700101 | 480 | 480 | 85  | 700  | 1000                    | 2,029             |
| K0225.0800101 | 500 | 500 | 125 | 800  | 1000                    | 2,212             |
| K0225.0900101 | 600 | 600 | 125 | 900  | 1000                    | 2,395             |
| K0225.1000101 | 700 | 700 | 125 | 1000 | 1000                    | 2,577             |

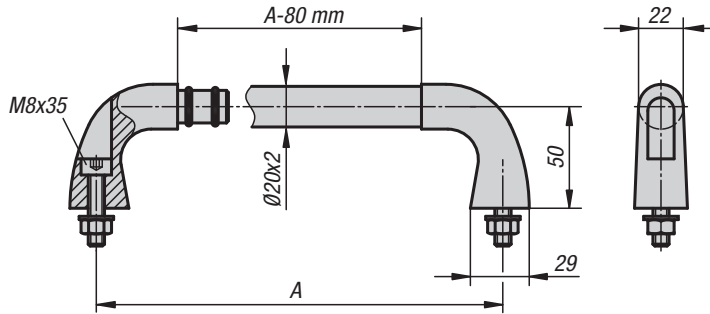




## Tube handles in stainless steel



Form A  
screwed on  
from front side



**Material:**

Connecting tube and fastening material in stainless steel 1.4301, grip leg in precision cast 1.4581

**Surface finish:**

Connecting tube, finely ground or with serrated plastic cover, black. Grip legs blasted and electro-polished with matt-gloss finish.

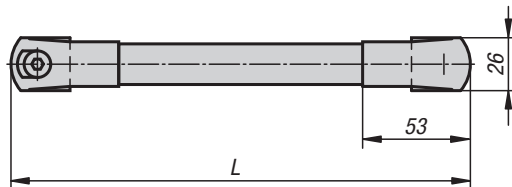
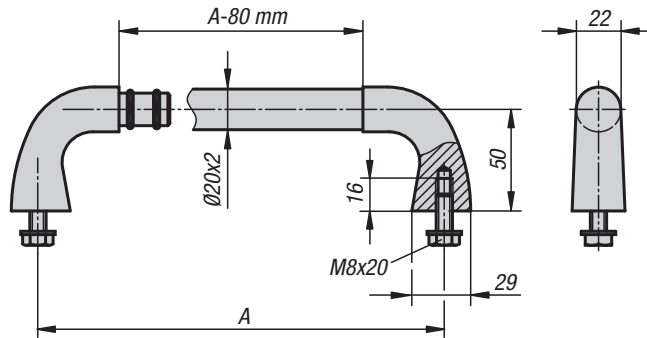
**Sample order:**

K0227.200081

**Note:**

Cylindrical screws with hexagon socket, nuts and suitable washers are supplied for tube handles form A. Hexagon head screws and suitable washers are supplied for tube handles form B.

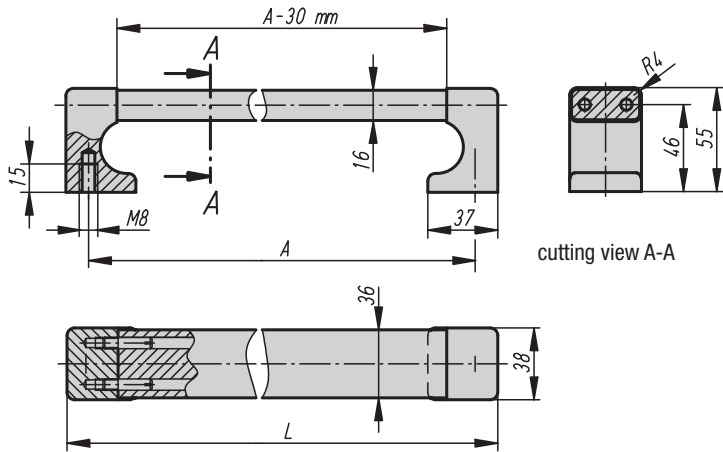
Form B  
screwed on  
from rear side



### KIPP Tube handles in stainless steel

| Order No.    | Form | Surface finish          | A   | L   | Load bearing capacity N | Approx. weight kg |
|--------------|------|-------------------------|-----|-----|-------------------------|-------------------|
| K0227.200081 | A    | tube ground             | 200 | 226 | 1000                    | 0,680             |
| K0227.300081 | A    | tube ground             | 300 | 326 | 1000                    | 0,775             |
| K0227.400081 | A    | tube ground             | 400 | 426 | 1000                    | 0,865             |
| K0227.200082 | A    | tube with plastic cover | 200 | 226 | 1000                    | 0,680             |
| K0227.300082 | A    | tube with plastic cover | 300 | 326 | 1000                    | 0,775             |
| K0227.400082 | A    | tube with plastic cover | 400 | 426 | 1000                    | 0,865             |
| K0227.200083 | B    | tube ground             | 200 | 226 | 1000                    | 0,710             |
| K0227.300083 | B    | tube ground             | 300 | 326 | 1000                    | 0,800             |
| K0227.400083 | B    | tube ground             | 400 | 426 | 1000                    | 0,900             |
| K0227.200084 | B    | tube with plastic cover | 200 | 226 | 1000                    | 0,710             |
| K0227.300084 | B    | tube with plastic cover | 300 | 326 | 1000                    | 0,800             |
| K0227.400084 | B    | tube with plastic cover | 400 | 426 | 1000                    | 0,900             |

## Machine handles



**Material:**

Grip leg and connecting bridge in aluminium EN AW-6060;  
connecting pins in stainless steel

**Surface finish:**

Grip leg and connecting bridge finely ground,  
black anodized or natural colour anodized

**Sample order:**

K0228.250081

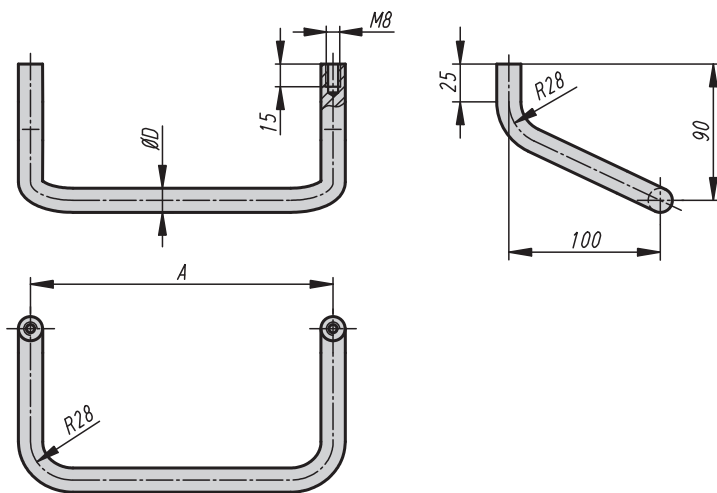
**Note:**

The solid construction also permits this handle series to be used as edge protection.

### KIPP Machine handles

| Order No.<br>black anodized | Order No.<br>natural colour anodized | A   | L   | Load bearing capacity N | Approx. weight kg |
|-----------------------------|--------------------------------------|-----|-----|-------------------------|-------------------|
| K0228.250081                | K0228.250083                         | 250 | 274 | 1000                    | 0,555             |
| K0228.300081                | K0228.300083                         | 300 | 324 | 1000                    | 0,618             |
| K0228.400081                | K0228.400083                         | 400 | 424 | 1000                    | 0,742             |
| K0228.500081                | K0228.500083                         | 500 | 524 | 1000                    | 0,867             |
| K0228.600081                | K0228.600083                         | 600 | 624 | 1000                    | 0,992             |

## Control panel handles



**Material:**

Round aluminium EN AW-6060

**Surface finish:**

Ground, glass-ball blasted and matt-polish black anodized

**Sample order:**

K0229.20016

**Note:**

End washers not included.

**On request:**

Any handle length.

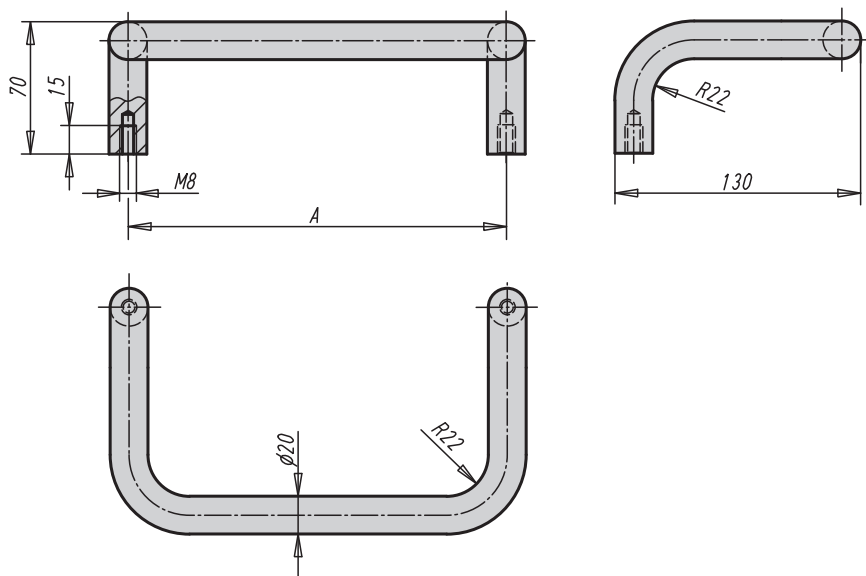
### KIPP Control panel handles

| Order No.   | A   | D  | Load bearing capacity N | Approx. weight kg | Order No. end washer |
|-------------|-----|----|-------------------------|-------------------|----------------------|
| K0229.20016 | 200 | 16 | 1000                    | 0,240             | K0229.16             |
| K0229.25016 | 250 | 16 | 1000                    | 0,270             | K0229.16             |
| K0229.30016 | 300 | 16 | 1000                    | 0,300             | K0229.16             |
| K0229.40016 | 400 | 16 | 1000                    | 0,350             | K0229.16             |
| K0229.50018 | 500 | 18 | 1000                    | 0,520             | K0229.18             |

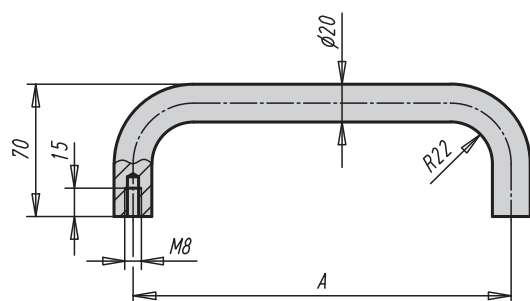
## Machine handles



Form A



Form B



**Material:**

Round steel

**Surface finish:**

Ground, brushed and matt-finish chromium-plated or black powder-coated with fine texture

**Sample order:**

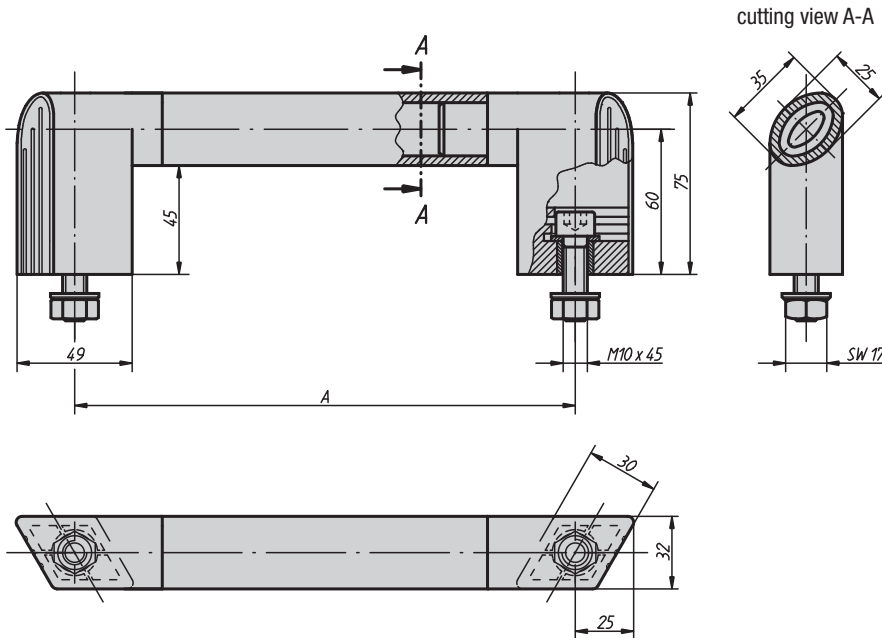
K0230.20081

**Note:**

Available as simple stirrup-shaped handle or angled.

### KIPP Machine handles

| Order No.    | Form | Surface finish                | A   | Load bearing capacity N | Approx. weight kg |
|--------------|------|-------------------------------|-----|-------------------------|-------------------|
| K0230.200081 | A    | matt-finished chromium-plated | 200 | 1000                    | 1,150             |
| K0230.350081 | A    | matt-finished chromium-plated | 350 | 1000                    | 1,525             |
| K0230.200082 | A    | black powder-coated           | 200 | 1000                    | 1,150             |
| K0230.350082 | A    | black powder-coated           | 350 | 1000                    | 1,525             |
| K0230.200083 | B    | matt-finished chromium-plated | 200 | 1000                    | 0,680             |
| K0230.250083 | B    | matt-finished chromium-plated | 250 | 1000                    | 0,810             |
| K0230.300083 | B    | matt-finished chromium-plated | 300 | 1000                    | 0,930             |
| K0230.350083 | B    | matt-finished chromium-plated | 350 | 1000                    | 1,060             |
| K0230.200084 | B    | black powder-coated           | 200 | 1000                    | 0,680             |
| K0230.250084 | B    | black powder-coated           | 250 | 1000                    | 0,810             |
| K0230.300084 | B    | black powder-coated           | 300 | 1000                    | 0,930             |
| K0230.350084 | B    | black powder-coated           | 350 | 1000                    | 1,060             |



**Secure gripping with the Novo-Grip Bighand.** This design supports the „tailor-made“ gripping position and its universal alteration of handle orientation takes the requirements of application masterly into account.

**Material, surface finish:**

Diamond corner covers in anthracite grey thermoplastic, oval tube in aluminum, coated or anodized

**Sample order:**

K0231.118070 (oval tube colour raspberry red)

**Note:**

The diamond corner covers are supplied unassembled.

**Optional supply:**

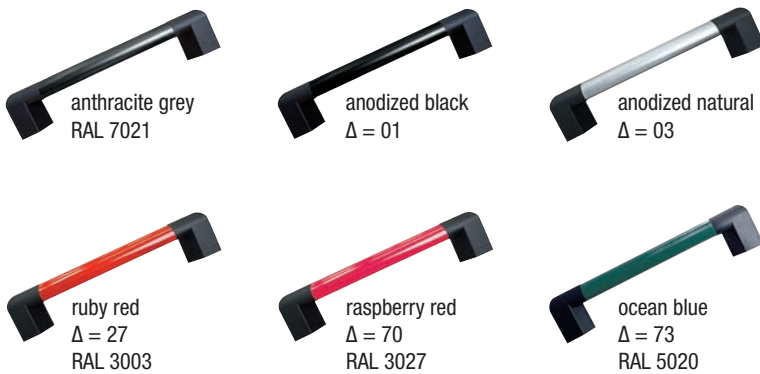
set of M10 bolts for mounting options 1+2, a set of wood screws diameter, M5 with dowel, a drill template and assembly tool for option 3.

Δ Add the desired colour code here. No colour code is required with anthracite grey oval tubes.

**On request:**

Leg length „A“ in stepped special lengths.

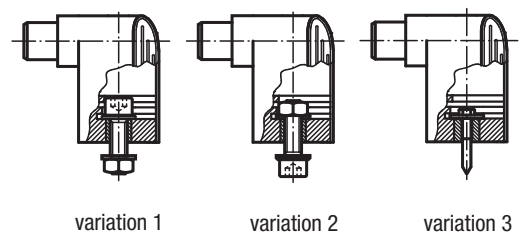
colour codes:



### KIPP Bighand

| Order No.<br>Variation 1+2<br>Socket head screw DIN 912 | Order No.<br>Variation 3<br>Hexagonal-woodscrew DIN 571 | A   |
|---|---|-----|
| K0231.1180Δ   | K0231.118011Δ   | 180 |
| K0231.1200Δ   | K0231.120011Δ   | 200 |
| K0231.1250Δ   | K0231.125011Δ   | 250 |
| K0231.1300Δ   | K0231.130011Δ   | 300 |
| K0231.1350Δ   | K0231.135011Δ   | 350 |
| K0231.1400Δ   | K0231.140011Δ   | 400 |
| K0231.1500Δ   | K0231.150011Δ   | 500 |
| K0231.1600Δ   | K0231.160011Δ   | 600 |

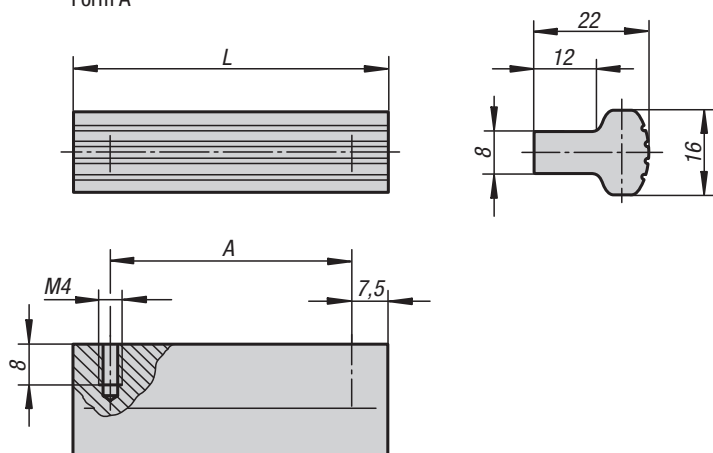
Mounting variations



## Ledge handles



Form A



**Material:**

Profile aluminium EN AW-6060.

**Surface finish:**

Profile aluminium vibration ground, matt-finished and natural colour or black anodized.

**Sample order:**

K0232.10301

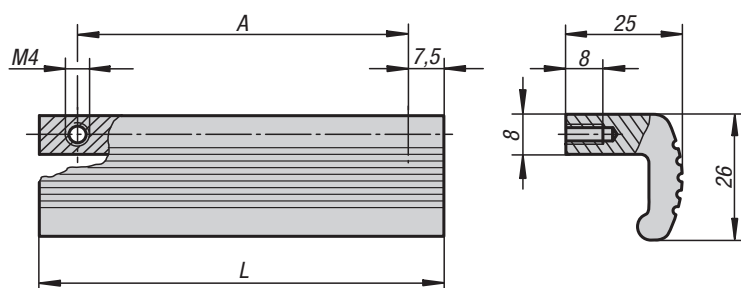
**Note:**

All-purpose ledge handles. Form A can also serve as an excellent edge protection.

**On request:**

Any other lengths.

Form B



### KIPP Ledge handles

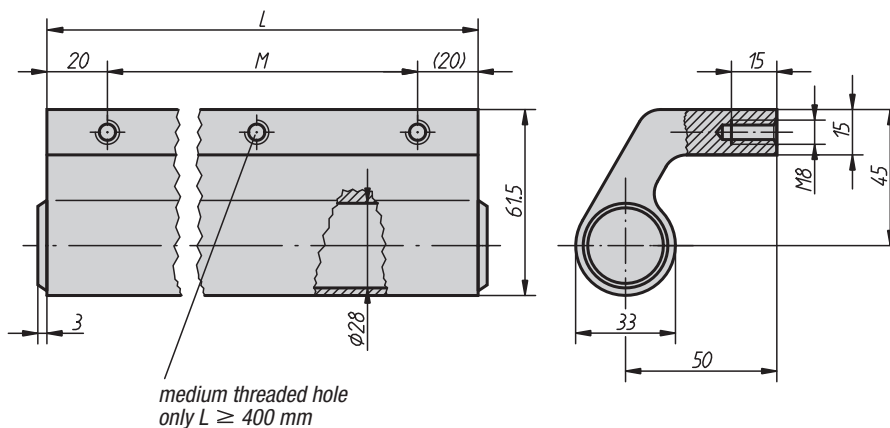
| Order No.<br>natural colour anodized | Order No.<br>black anodized | Form | A   | L   | Load bearing<br>capacity N | Approx.<br>weight<br>kg |
|--------------------------------------|-----------------------------|------|-----|-----|----------------------------|-------------------------|
| K0232.10301                          | K0232.10302                 | A    | 30  | 45  | 200                        | 0,027                   |
| K0232.10451                          | K0232.10452                 | A    | 45  | 60  | 200                        | 0,034                   |
| K0232.10701                          | K0232.10702                 | A    | 70  | 85  | 200                        | 0,054                   |
| K0232.10901                          | K0232.10902                 | A    | 90  | 105 | 200                        | 0,063                   |
| K0232.11051                          | K0232.11052                 | A    | 105 | 120 | 200                        | 0,072                   |
| K0232.11201                          | K0232.11202                 | A    | 120 | 135 | 200                        | 0,081                   |
| K0232.20301                          | K0232.20302                 | B    | 30  | 45  | 200                        | 0,032                   |
| K0232.20451                          | K0232.20452                 | B    | 45  | 60  | 200                        | 0,035                   |
| K0232.20701                          | K0232.20702                 | B    | 70  | 85  | 200                        | 0,055                   |
| K0232.20901                          | K0232.20902                 | B    | 90  | 105 | 200                        | 0,080                   |
| K0232.21051                          | K0232.21052                 | B    | 105 | 120 | 200                        | 0,093                   |
| K0232.21201                          | K0232.21202                 | B    | 120 | 135 | 200                        | 0,106                   |

## Angled handles



Form A  
natural colour anodized

Form B  
black anodized



**Material:**

Profile aluminium EN AW-6060;  
end caps in black thermoplastic

**Surface finish:**

Profile aluminium matt-polished anodized

**Sample order:**

K0130.3001

**Note:**

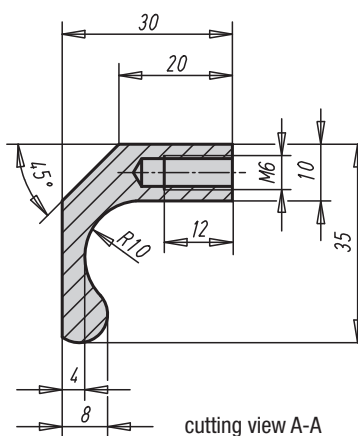
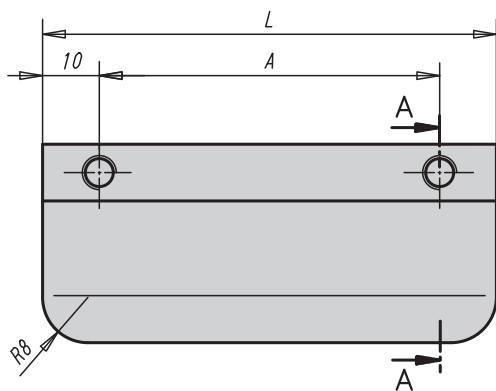
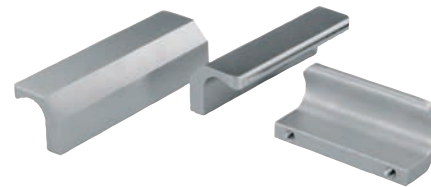
Among other things, angled handles are used for sliding doors and technical installations. As an alternative, this handle is also suitable as edge protection.

### KIPP Angled handles

| Order No.  | Form | L   | M   | Load bearing capacity N |
|------------|------|-----|-----|-------------------------|
| K0130.1501 | A    | 150 | 110 | 1000                    |
| K0130.2001 | A    | 200 | 160 | 1000                    |
| K0130.2501 | A    | 250 | 210 | 1000                    |
| K0130.3001 | A    | 300 | 260 | 1000                    |
| K0130.3501 | A    | 350 | 310 | 1000                    |
| K0130.4001 | A    | 400 | 360 | 1000                    |
| K0130.5001 | A    | 500 | 460 | 1000                    |
| K0130.6001 | A    | 600 | 560 | 1000                    |
| K0130.1502 | B    | 150 | 110 | 1000                    |
| K0130.2002 | B    | 200 | 160 | 1000                    |
| K0130.2502 | B    | 250 | 210 | 1000                    |
| K0130.3002 | B    | 300 | 260 | 1000                    |
| K0130.3502 | B    | 350 | 310 | 1000                    |
| K0130.4002 | B    | 400 | 360 | 1000                    |
| K0130.5002 | B    | 500 | 460 | 1000                    |
| K0130.6002 | B    | 600 | 560 | 1000                    |

## Ledge handles

in stainless steel



**Material:**

Profile in refined steel, stainless steel 1.4404

**Surface finish:**

Blasted and electro-polished with matt-gloss finish

**Sample order:**

K0233.06006

**On request:**

Any other lengths.

### KIPP Ledge handles in stainless steel

| Order No.   | A   | L   | Load bearing capacity<br>N | Approx.<br>weight<br>kg |
|-------------|-----|-----|----------------------------|-------------------------|
| K0233.06006 | 60  | 80  | 1000                       | 0,248                   |
| K0233.08006 | 80  | 100 | 1000                       | 0,310                   |
| K0233.10006 | 100 | 120 | 1000                       | 0,373                   |
| K0233.13006 | 130 | 150 | 1000                       | 0,467                   |

## Angled profile handles

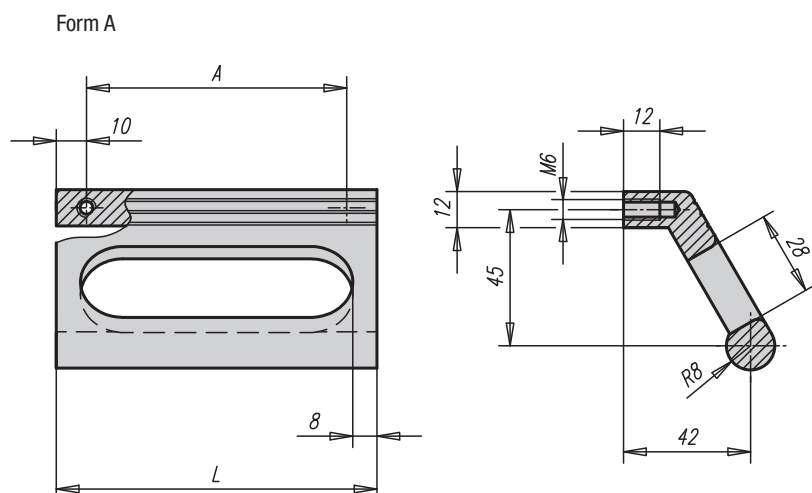


**Material:**  
Profile aluminium EN AW-6060

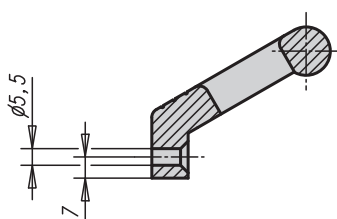
**Surface finish:**  
Profile aluminium matt-polish anodized

**Sample order:**  
K0234.086061

**Note:**  
Angled profile handles are available with internal thread M6 or with through hole for M5 countersunk screws for side mounting.



Form B



### KIPP Angled profile handles

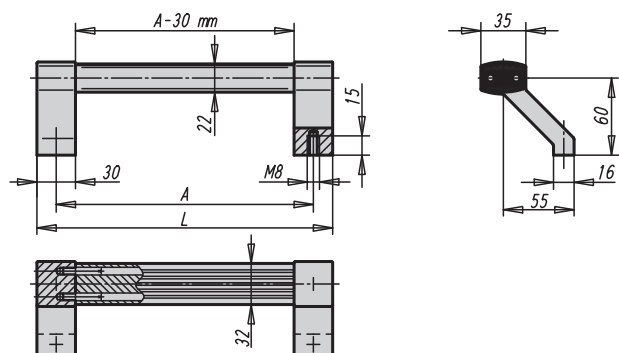
| Order No.    | Form | Surface finish          | A   | L   | Load bearing capacity N | Approx. weight kg |
|--------------|------|-------------------------|-----|-----|-------------------------|-------------------|
| K0234.086061 | A    | black anodized          | 86  | 106 | 500                     | 0,189             |
| K0234.100061 | A    | black anodized          | 100 | 120 | 500                     | 0,203             |
| K0234.120061 | A    | black anodized          | 120 | 140 | 500                     | 0,233             |
| K0234.086063 | A    | natural colour anodized | 86  | 106 | 500                     | 0,189             |
| K0234.100063 | A    | natural colour anodized | 100 | 120 | 500                     | 0,203             |
| K0234.120063 | A    | natural colour anodized | 120 | 140 | 500                     | 0,233             |
| K0234.086051 | B    | black anodized          | 86  | 106 | 500                     | 0,189             |
| K0234.100051 | B    | black anodized          | 100 | 120 | 500                     | 0,203             |
| K0234.120051 | B    | black anodized          | 120 | 140 | 500                     | 0,233             |
| K0234.086053 | B    | natural colour anodized | 86  | 106 | 500                     | 0,189             |
| K0234.100053 | B    | natural colour anodized | 100 | 120 | 500                     | 0,203             |
| K0234.120053 | B    | natural colour anodized | 120 | 140 | 500                     | 0,233             |



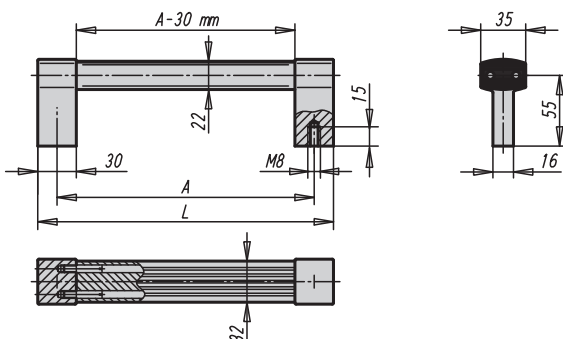
## Machine handles



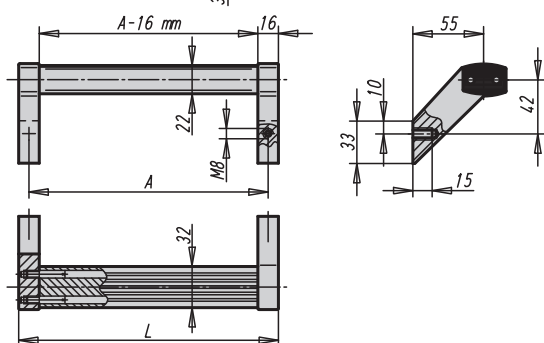
Form A



Form B



Form C



**Material:**

Grip legs and connecting bridge in aluminium profile EN AW-6060; connecting pins in refined steel

**Surface finish:**

Grip legs glass-ball blasted and semi-matt finish black anodized;

connecting bridge matt-finished and natural colour anodized, black anodized or titan colour powder-coated

**Sample order:**

K0131.2000811

**Note:**

The machine handles are characterized by solid construction and high load rating. Hexagon head screws M8x16, DIN 933 galvanized and flat washers DIN EN ISO 7089 galvanized are supplied.

### KIPP Machine handles, form A

| Order No.<br>connecting bridge<br>black anodized | Order No.<br>connecting bridge<br>titan colour powder-coated | Order No.<br>connecting bridge<br>natural colour anodized | A   | L   | Load bearing<br>capacity N | Approx.<br>weight<br>kg |
|--|--|---|-----|-----|----------------------------|-------------------------|
| K0131.2000811                                    | K0131.2000812  | K0131.2000813   | 200 | 230 | 1000                       | 0,555                   |
| K0131.3000811                                    | K0131.3000812  | K0131.3000813   | 300 | 330 | 1000                       | 0,690                   |
| K0131.4000811                                    | K0131.4000812  | K0131.4000813   | 400 | 430 | 1000                       | 0,824                   |
| K0131.5000811                                    | K0131.5000812  | K0131.5000813   | 500 | 530 | 1000                       | 0,959                   |

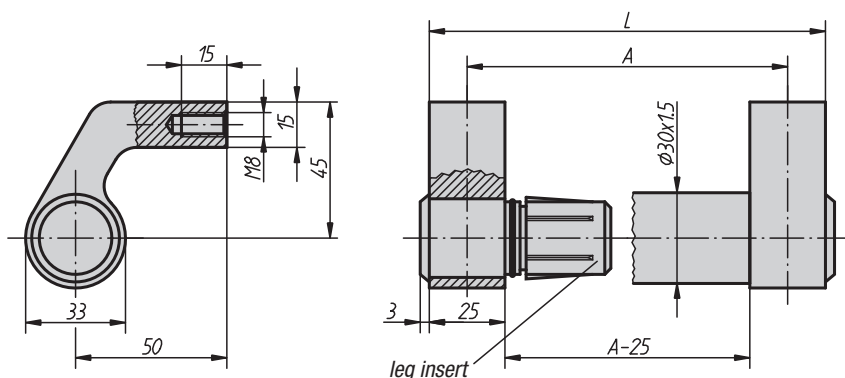
### KIPP Machine handles, form B

| Order No.<br>connecting bridge<br>black anodized | Order No.<br>connecting bridge<br>titan colour powder-coated | Order No.<br>connecting bridge<br>natural colour anodized | A   | L   | Load bearing<br>capacity N | Approx.<br>weight<br>kg |
|--|--|---|-----|-----|----------------------------|-------------------------|
| K0131.2000821                                    | K0131.2000822  | K0131.2000823   | 200 | 230 | 1000                       | 0,509                   |
| K0131.3000821                                    | K0131.3000822  | K0131.3000823   | 300 | 330 | 1000                       | 0,657                   |
| K0131.4000821                                    | K0131.4000822  | K0131.4000823   | 400 | 430 | 1000                       | 0,778                   |
| K0131.5000821                                    | K0131.5000822  | K0131.5000823   | 500 | 530 | 1000                       | 0,913                   |

### KIPP Machine handles, form C

| Order No.<br>connecting bridge<br>black anodized | Order No.<br>connecting bridge<br>titan colour powder-coated | Order No.<br>connecting bridge<br>natural colour anodized | A   | L   | Load bearing<br>capacity N | Approx.<br>weight<br>kg |
|--|--|---|-----|-----|----------------------------|-------------------------|
| K0131.2000831                                    | K0131.2000832  | K0131.2000833   | 200 | 216 | 1000                       | 0,479                   |
| K0131.3000831                                    | K0131.3000832  | K0131.3000833   | 300 | 316 | 1000                       | 0,614                   |
| K0131.4000831                                    | K0131.4000832  | K0131.4000833   | 400 | 416 | 1000                       | 0,748                   |
| K0131.5000831                                    | K0131.5000832  | K0131.5000833   | 500 | 516 | 1000                       | 0,882                   |

## Angled leg handles



### Material:

Grip legs EN AW-6060, extruded;  
leg insert, glass-ball reinforced thermoplastic;  
connecting tube EN AW-6060

### Surface finish:

Grip legs, matt-polish black anodized;  
leg insert, black;  
connecting tube, finely ground and anodized or  
powder-coated or with serrated plastic cover, black

### Sample order:

K0132.3001

### Note:

The components of the insert system shown can be supplied as complete handles or as preassembled grip and connecting legs for tube orders by customers. The connection between leg and connecting tube is splash-proof and absolutely tight.

### On request:

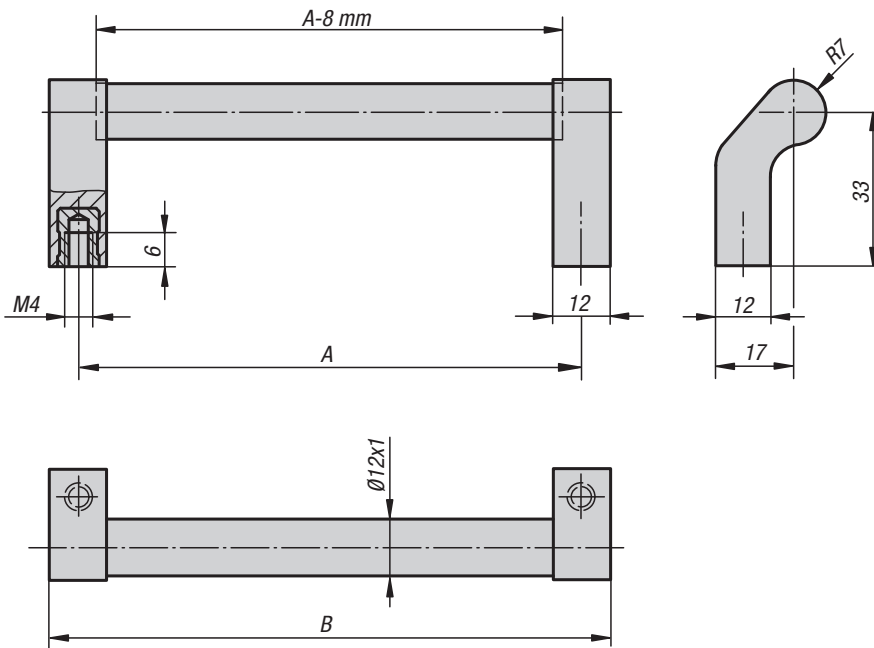
Angled leg handles with connecting part  
(when larger distance between grip legs).

## KIPP Angled leg handles

| Order No.<br>connecting tube<br>natural colour anodized | Order No.<br>connecting tube<br>black anodized | Order No.<br>connecting tube<br>black powder-coated | Order No.<br>Connecting tube<br>black serrated plastic cover | A   | L   | Load<br>bearing<br>capacity N |
|---|--|---|--|-----|-----|-------------------------------|
| K0132.2001  | K0132.2002                                     | K0132.2003  | K0132.2004   | 200 | 225 | 1000                          |
| K0132.2501  | K0132.2502                                     | K0132.2503  | K0132.2504   | 250 | 275 | 1000                          |
| K0132.3001  | K0132.3002                                     | K0132.3003  | K0132.3004   | 300 | 325 | 1000                          |
| K0132.3501  | K0132.3502                                     | K0132.3503  | K0132.3504   | 350 | 375 | 1000                          |
| K0132.4001  | K0132.4002                                     | K0132.4003  | K0132.4004   | 400 | 425 | 1000                          |
| K0132.5001  | K0132.5002                                     | K0132.5003  | K0132.5004   | 500 | 525 | 1000                          |
| K0132.6001  | K0132.6002                                     | K0132.6003  | K0132.6004   | 600 | 625 | 1000                          |

## Angled leg handles

19"



**Material:**

Connecting tube in aluminium EN AW-6060 or stainless steel 1.4301;  
grip leg in polyamide, glass-ball reinforced;  
threaded bush in brass

**Surface finish:**

Connecting tube natural colour or black anodized resp. stainless steel finely ground;  
grip leg matt black

**Sample order:**

K0235.088041

**Note:**

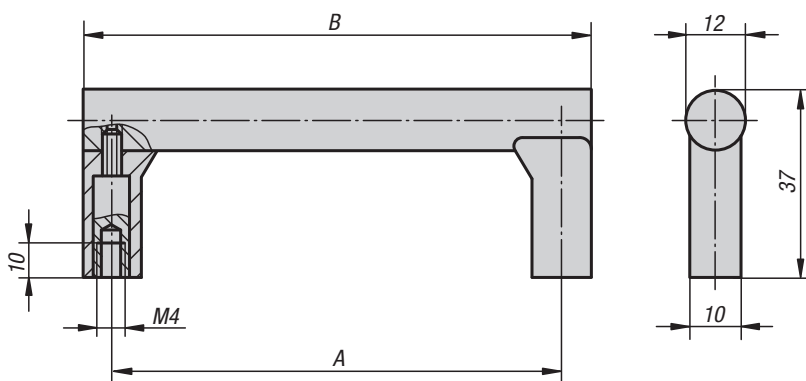
Precision fit of tube on plastic grip leg due to clamping webs.

### KIPP Angled leg handles

| Order No.    | Surface finish          | A   | B   | Load bearing capacity N | Approx. weight kg |
|--------------|-------------------------|-----|-----|-------------------------|-------------------|
| K0235.088041 | natural colour anodized | 88  | 100 | 200                     | 0,028             |
| K0235.096041 | natural colour anodized | 96  | 108 | 200                     | 0,029             |
| K0235.120041 | natural colour anodized | 120 | 132 | 200                     | 0,031             |
| K0235.128041 | natural colour anodized | 128 | 140 | 200                     | 0,033             |
| K0235.160041 | natural colour anodized | 160 | 172 | 200                     | 0,035             |
| K0235.180041 | natural colour anodized | 180 | 192 | 200                     | 0,037             |
| K0235.088042 | black anodized          | 88  | 100 | 200                     | 0,028             |
| K0235.096042 | black anodized          | 96  | 108 | 200                     | 0,029             |
| K0235.120042 | black anodized          | 120 | 132 | 200                     | 0,031             |
| K0235.128042 | black anodized          | 128 | 140 | 200                     | 0,033             |
| K0235.160042 | black anodized          | 160 | 172 | 200                     | 0,035             |
| K0235.180042 | black anodized          | 180 | 192 | 200                     | 0,037             |
| K0235.088043 | stainless steel         | 88  | 100 | 200                     | 0,042             |
| K0235.096043 | stainless steel         | 96  | 108 | 200                     | 0,044             |
| K0235.120043 | stainless steel         | 120 | 132 | 200                     | 0,051             |
| K0235.128043 | stainless steel         | 128 | 140 | 200                     | 0,053             |
| K0235.160043 | stainless steel         | 160 | 172 | 200                     | 0,062             |
| K0235.180043 | stainless steel         | 180 | 192 | 200                     | 0,067             |

## Apparatus handles

19"



**Material:**

Connecting bridge in aluminium EN AW-6060;  
grip leg in polyamide glass-ball reinforced;  
threaded bush in brass

**Surface finish:**

Connecting bridge finely ground and natural colour or black anodized;  
grip leg aluminium colour or black

**Sample order:**

K0236.1055041

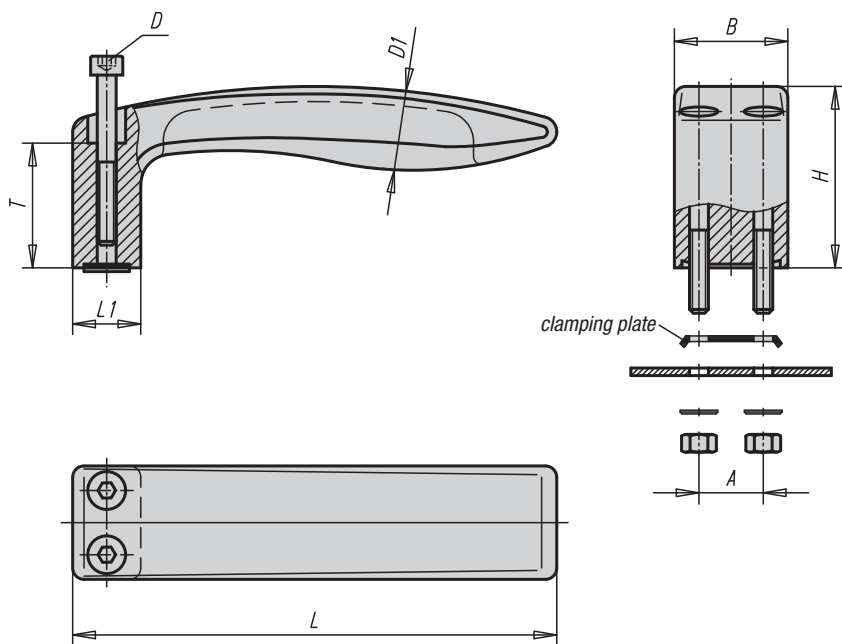
**Note:**

Connecting bridge and grip leg are firmly screwed with each other.

### KIPP Apparatus handles

| Order No.<br>Connecting bridge natural colour<br>anodized, grip leg aluminium colour | Order No.<br>Connecting bridge natural colour<br>anodized, grip leg black | Order No.<br>Connecting bridge black<br>anodized, grip leg aluminium colour | Order No.<br>Connecting bridge black<br>anodized, grip leg black | A   | B   | Load<br>bearing<br>capacity N |
|--|---|---|--|-----|-----|-------------------------------|
| K0236.1055041  | K0236.1055042   | K0236.1055043   | K0236.1055044  | 55  | 67  | 300                           |
| K0236.1088041  | K0236.1088042   | K0236.1088043   | K0236.1088044  | 88  | 100 | 300                           |
| K0236.1100041  | K0236.1100042   | K0236.1100043   | K0236.1100044  | 100 | 112 | 300                           |
| K0236.1120041  | K0236.1120042   | K0236.1120043   | K0236.1120044  | 120 | 132 | 300                           |
| K0236.1180041  | K0236.1180042   | K0236.1180043   | K0236.1180044  | 180 | 192 | 300                           |

## Plastic handles



**Material:**

Glass-ball reinforced thermoplastic;  
fastening material 1.4301

**Surface finish:**

Matt black with fine texture

**Sample order:**

K0237.12805

**Note:**

The plastic handles can be used for one-sided mounting. They are also dimensionally stable and have a high load rating.

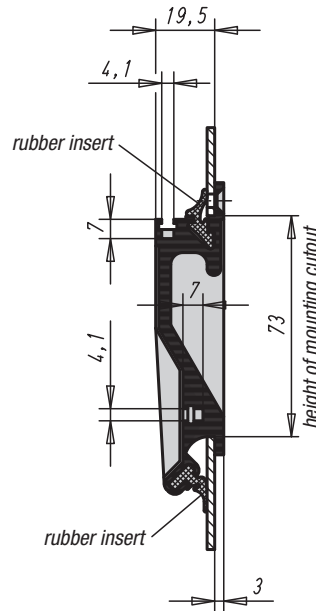
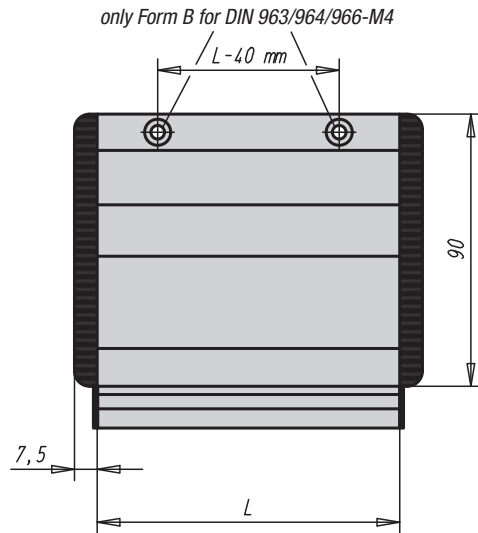
Fastening bolts, nuts and flat washers are supplied as well as a clamping plate for extra torsion protection.

### KIPP Plastic handles

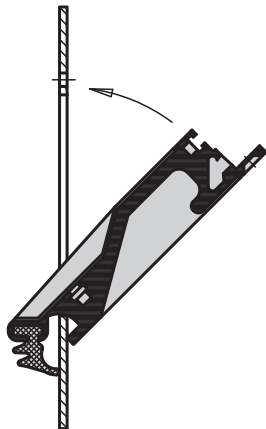
| Order No.   | A  | B  | D     | D1 | H  | L   | L1 | T  | Load bearing capacity N | Approx. weight kg |
|-------------|----|----|-------|----|----|-----|----|----|-------------------------|-------------------|
| K0237.12805 | 17 | 30 | M5x45 | 20 | 48 | 128 | 18 | 33 | 800                     | 0,106             |
| K0237.15606 | 20 | 36 | M6x55 | 24 | 58 | 156 | 22 | 40 | 1000                    | 0,186             |

## Tray handles

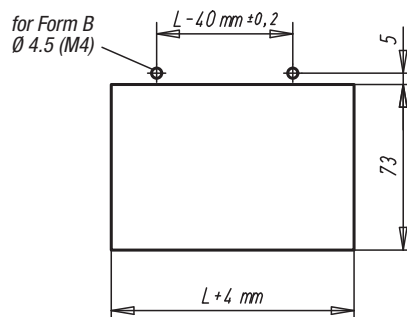
19"



installation



mounting cutout



### Material:

Tray handle in aluminium profile, end caps polyamide;  
form A: mounting by rubber insert  
form B: mounting by 2 countersunk screws, steel

### Surface finish:

Tray handle glass-ball blasted, satin finish and black anodized or natural colour anodized; rubber insert black; fastening screws galvanized

### Sample order:

K0238.10011

### Note:

The tray handles form A can be used without screw mounting with sheet strengths of 1-2.5 mm. Two rubber inserts ensure absolutely firm mounting. The tray handles form B can be mounted from outside with 2 countersunk screws.

Two cross-slots offset by 90° for M4 screws allow earth/ground connection and can serve as a mounting aid for additional add-on parts.

### Assembly:

After fitting the lower rubber insert, press the two side caps onto the tray handle. Next press the handle over the lower edge of the mounting cutout at a 45° angle and then hold it against the housing panel. Now push the 2nd rubber insert into the upper groove or mount it with 2 countersunk screws.

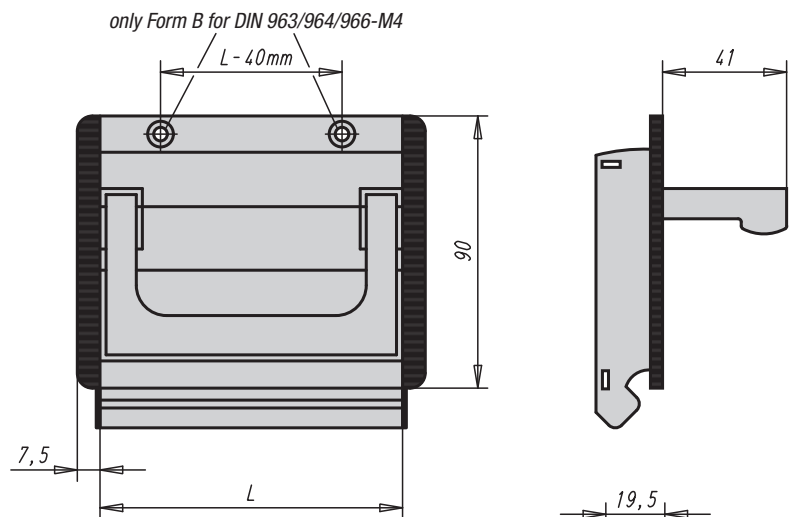
## KIPP Tray handles

| Order No.<br>tray handle black anodized | Order No.<br>tray handle natural colour anodized | Form | L   | Mounting cutout | Load bearing capacity N | Approx. weight kg |
|---|--|------|-----|-----------------|-------------------------|-------------------|
| K0238.10011                             | K0238.10013                                      | A    | 100 | 104 x 73        | 500                     | 0,107             |
| K0238.11811                             | K0238.11813                                      | A    | 118 | 122 x 73        | 500                     | 0,126             |
| K0238.16711                             | K0238.16713                                      | A    | 167 | 171 x 73        | 500                     | 0,178             |
| K0238.10021                             | K0238.10023                                      | B    | 100 | 104 x 73        | 500                     | 0,107             |
| K0238.11821                             | K0238.11823                                      | B    | 118 | 122 x 73        | 500                     | 0,126             |
| K0238.16721                             | K0238.16723                                      | B    | 167 | 171 x 73        | 500                     | 0,178             |

## Profile folding handles



19"



**Material:**  
Tray and folding handle in aluminium profile, end caps polyamide; form A: mounting by rubber insert form B: mounting by 2 countersunk screws, steel

**Surface finish:**  
Tray and folding handle glass-ball blasted, satin finish and black anodized or natural colour anodized; rubber insert black, fastening screws galvanized

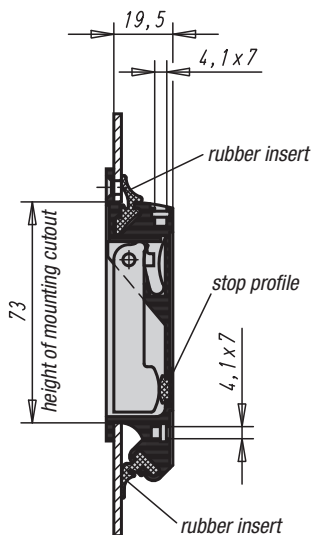
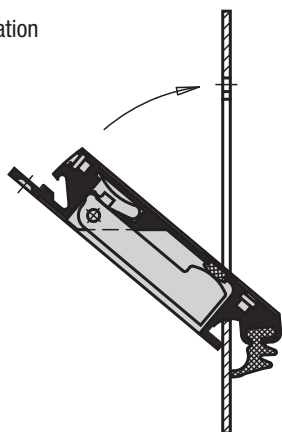
**Sample order:**  
K0239.10011

**Note:**  
Profile folding handles form A can be fitted without screw mounting with 2 soft plastic profiles with sheet strengths of 1-2.5 mm.  
Profile folding handles form B can be mounted from outside with 2 countersunk screws.

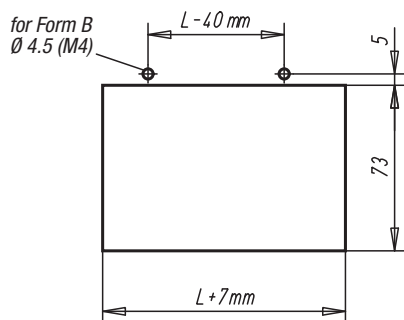
Two cross-slots for M4 screws allow earth/ground connection and can serve as a mounting aid for additional add-on parts.

**Assembly:**  
After fitting the lower rubber insert, press the two side caps onto the tray handle. Next press the handle over the lower edge of the mounting cutout at a 45° angle and then hold it against the housing panel.  
Now push the 2nd rubber insert into the upper groove or mount it with 2 countersunk screws.

installation



mounting cutout



### KIPP Profile folding handles

| Order No.<br>tray and folding handle<br>black anodized | Order No.<br>tray and folding handle<br>natural colour anodized | Form | L   | Mounting cutout | Load bearing<br>capacity N | Approx.<br>weight<br>kg |
|--|---|------|-----|-----------------|----------------------------|-------------------------|
| K0239.10011  | K0239.10013   | A    | 100 | 107 x 73        | 500                        | 0,273                   |
| K0239.11811  | K0239.11813   | A    | 118 | 125 x 73        | 500                        | 0,320                   |
| K0239.16711  | K0239.16713   | A    | 167 | 174 x 73        | 500                        | 0,433                   |
| K0239.10021  | K0239.10023   | B    | 100 | 107 x 73        | 500                        | 0,273                   |
| K0239.11821  | K0239.11823   | B    | 118 | 125 x 73        | 500                        | 0,320                   |
| K0239.16721  | K0239.16723   | B    | 167 | 174 x 73        | 500                        | 0,433                   |

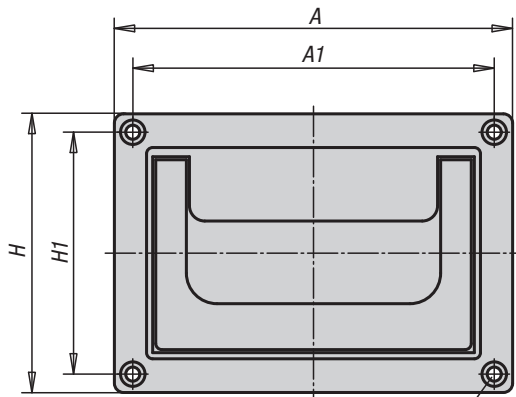
## Folding tray handles



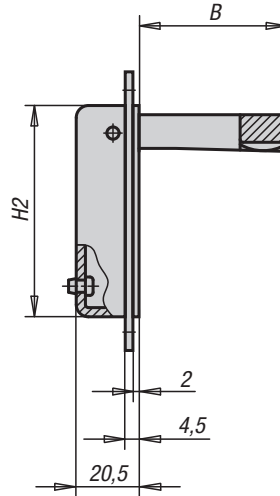
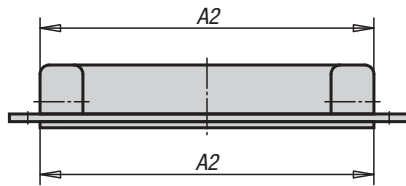
19"

Form A  
handle snaps both into working  
and resting positions

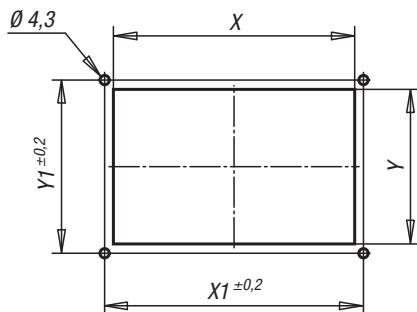
Form B  
handle swivels back automatically  
into resting position



for countersunk screws M4



mounting cutout



**Material:**

Die cast aluminium

**Surface finish:**

Tray and handle black or light grey powder-coated, semi-matt

**Sample order:**

K0240.05018411

**Note:**

With their modern design, folding tray handles can be used wherever solid and attractive handles are required.

Folding tray handles form A snap into both resting and working positions.

Folding tray handles form B swivels back into its resting position automatically after use.

**Assembly:**

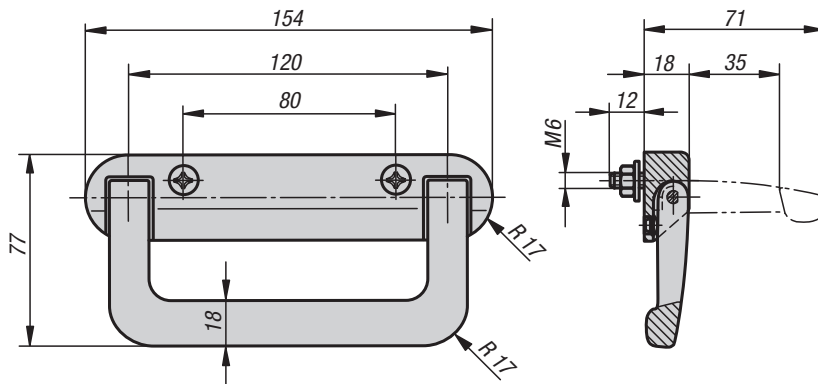
The folding tray handles can be installed behind or in front of the housing panel with the same housing cutout.

### KIPP Folding tray handles

| Order No.      | Form | Surface finish           | A   | A1  | A2  | B  | H  | H1 | H2 | X   | X1  | Y    | Y1 | Load bearing capacity N | Approx. weight kg |
|----------------|------|--------------------------|-----|-----|-----|----|----|----|----|-----|-----|------|----|-------------------------|-------------------|
| K0240.07911811 | A    | black powder-coated      | 130 | 118 | 109 | 48 | 91 | 79 | 69 | 110 | 118 | 70,5 | 79 | 500                     | 0,197             |
| K0240.05018411 | A    | black powder-coated      | 200 | 184 | 170 | 51 | 80 | 50 | 72 | 171 | 184 | 73   | 50 | 500                     | 0,286             |
| K0240.07911812 | A    | light grey powder-coated | 130 | 118 | 109 | 48 | 91 | 79 | 69 | 110 | 118 | 70,5 | 79 | 500                     | 0,197             |
| K0240.05018412 | A    | light grey powder-coated | 200 | 184 | 170 | 51 | 80 | 50 | 72 | 171 | 184 | 73   | 50 | 500                     | 0,286             |
| K0240.07911821 | B    | black powder-coated      | 130 | 118 | 109 | 48 | 91 | 79 | 69 | 110 | 118 | 70,5 | 79 | 500                     | 0,197             |
| K0240.05018421 | B    | black powder-coated      | 200 | 184 | 170 | 51 | 80 | 50 | 72 | 171 | 184 | 73   | 50 | 500                     | 0,286             |
| K0240.07911822 | B    | light grey powder-coated | 130 | 118 | 109 | 48 | 91 | 79 | 69 | 110 | 118 | 70,5 | 79 | 500                     | 0,197             |
| K0240.05018422 | B    | light grey powder-coated | 200 | 184 | 170 | 51 | 80 | 50 | 72 | 171 | 184 | 73   | 50 | 500                     | 0,286             |



## Measurement device handle

**Material:**

Holder and grip glass-ball reinforced thermoplastic.  
Shaft and return springs in stainless steel.

**Surface finish:**

matt black.

**Sample order:**

K0241.080181

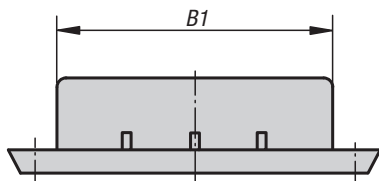
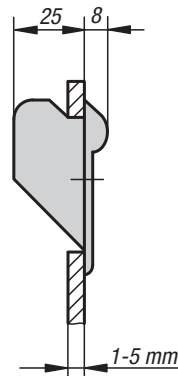
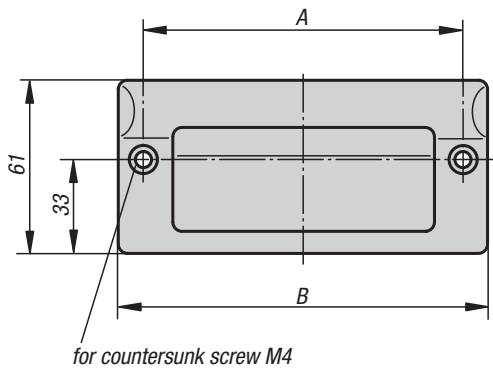
**Note:**

Measurement device handle is automatically resilient.  
It can be screwed onto the housing panel.  
Black galvanized countersunk screws with a cross  
recess M6x30 DIN 965, as well as suitable washers  
and nuts are supplied.

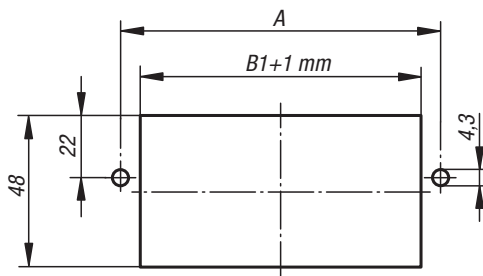
## KIPP Measurement device handle

| Order No.    | Load bearing capacity<br>N |
|--------------|----------------------------|
| K0241.080181 | 300                        |

## Trough grips



mounting cutout



**Material:**

Glass-ball reinforced thermoplastic

**Surface finish:**

Semi-matt, black or light grey

**Sample order:**

K0242.1082041

**Note:**

These ergonomically shaped trough grips are ideally suited for wall thickness of 1-5 mm.

**Assembly:**

The handle has to be inserted in the cutout of the housing panel and then mounted from front side with 2 countersunk screws (not included).

### KIPP Trough grips

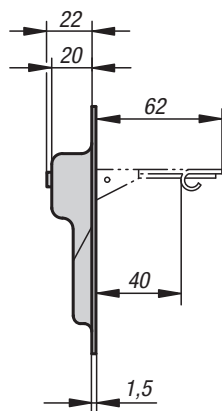
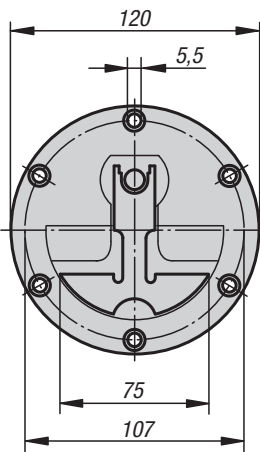
| Order No.     | Colour     | A   | B   | B1 | Load bearing capacity<br>N | Approx.<br>weight<br>kg |
|---------------|------------|-----|-----|----|----------------------------|-------------------------|
| K0242.1082041 | black      | 82  | 100 | 67 | 1000                       | 0,044                   |
| K0242.1112041 | black      | 112 | 130 | 97 | 1000                       | 0,056                   |
| K0242.1082042 | light grey | 82  | 100 | 67 | 1000                       | 0,044                   |
| K0242.1112042 | light grey | 112 | 130 | 97 | 1000                       | 0,056                   |

## Fitting grip

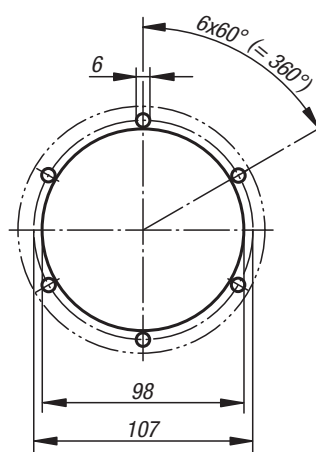
in stainless steel



Form A



mounting cutout



**Material:**

Stainless steel 1.4301

**Surface finish:**

High-electro-polished finish

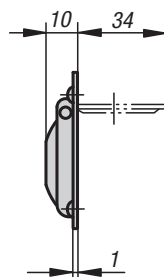
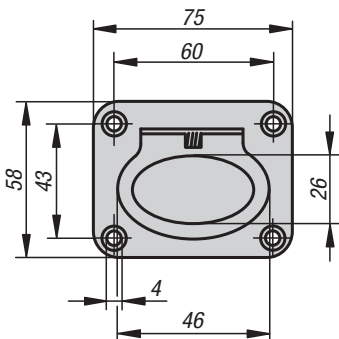
**Sample order:**

K0243.1120000

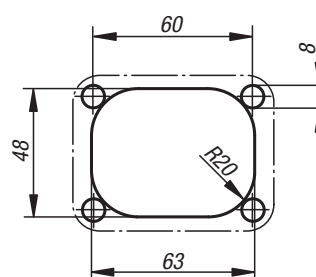
**Note:**

Stainless steel retractable grips with marginal installation depth. For base and mounting plates or drawers. With return spring. According to operation, the grip automatically swivels back into its resting position after use.

Form B



mounting cutout



### KIPP Fitting grip in stainless steel

| Order No.     | Form | Load bearing capacity<br>N | Approx.<br>weight<br>kg |
|---------------|------|----------------------------|-------------------------|
| K0243.1120000 | A    | 200                        | 0,213                   |
| K0243.2075058 | B    | 200                        | 0,051                   |

## Machine handles



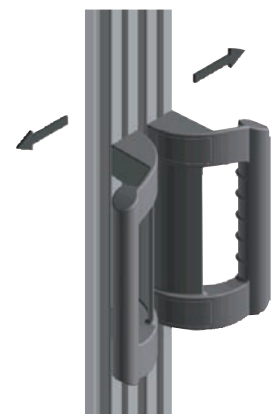
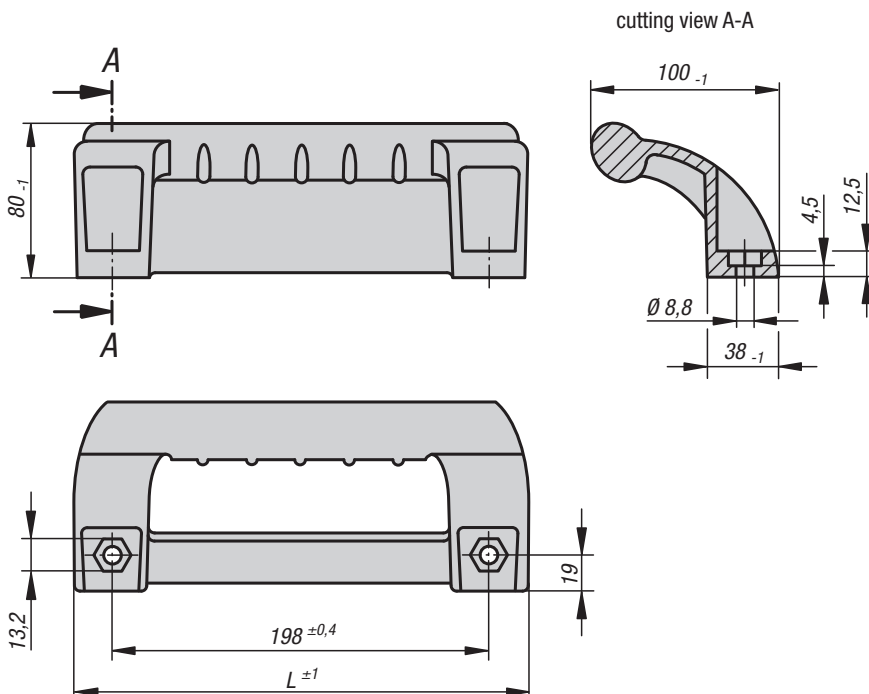
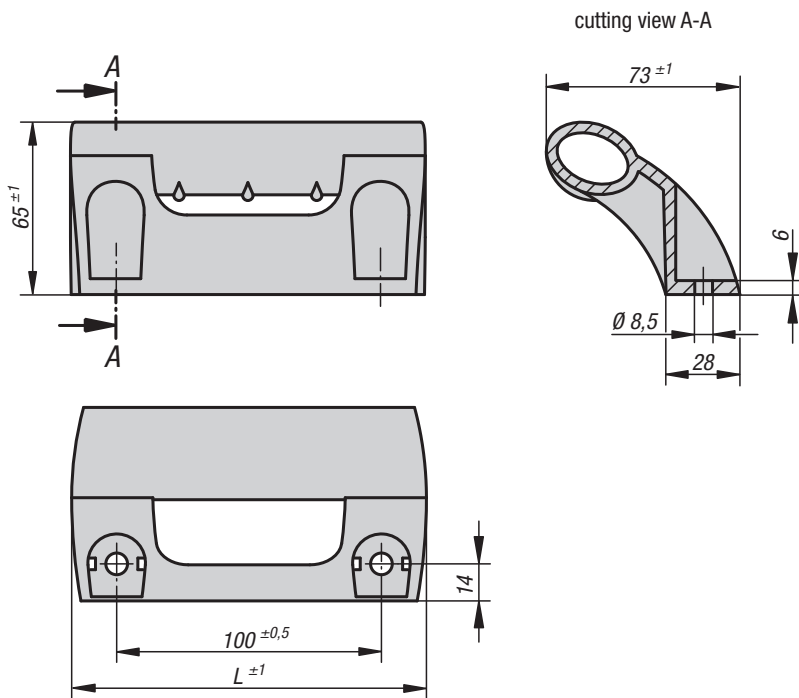
**Material:**  
Glass-ball reinforced thermoplastic PA

**Surface finish:**  
Black

**Sample order:**  
K0244.100081  
K0244.1 (1 packaging unit = 2 pieces)

**Note:**  
Machine handles with ergonomic shape and reach-through protection for the hands. For installation on doors, flaps and aluminium profiles. Ideal for double-winged retractable doors. Fasten with hexagonal or socket head screw M8.

Covering caps are not included in delivery.



### KIPP Machine handles

| Order No.    | L   | Load bearing capacity<br>N | Approx. weight<br>kg | Order No.<br>cover caps |
|--------------|-----|----------------------------|----------------------|-------------------------|
| K0244.100081 | 134 | 1000                       | 0,114                | K0244.1                 |
| K0244.198081 | 236 | 1000                       | 0,356                | K0244.3                 |







## Handwheels, handles, position indicators

Grey cast iron handwheels  
DIN 950  
**K0671**



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Aluminium handwheels  
DIN 950  
**K0160**



Page 224-225

Aluminium disc handwheels  
**K0161**



Page 226-227

2-spoke aluminium handwheels  
with straight wheel rim  
**K0162**



Page 228-229

Aluminium disc handwheels  
similar to DIN 950  
**K0163**



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Disc handwheels  
with revolving taper grip  
**K0164**



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Disc handwheels  
without taper grip  
**K0165**



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Handwheels  
**K0256**



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Handwheels  
with cylindrical revolving grip  
**K0257**



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Handwheels  
with cylindrical fold-away grip  
**K0258**



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Handwheels  
with cylindrical safety grip  
**K0259**



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Duroplastic handwheels  
**K0184**



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Positioning wheels  
**K0262**



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Delta wheels  
**K0275**



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Revolving handles  
short version  
**K0726**



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Offset crank handles  
similar DIN 468  
**K0684**



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Straight crank handles  
similar DIN 469  
**K0685**



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Aluminium crank handles  
**K0727**



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## Handwheels, handles, position indicators

Crank handles  
with cylindrical fold-away grip  
**K0266**



**NG**

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Crank handles  
with cylindrical revolving grip  
**K0659**



**NG**

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Crank handles  
with cylindrical safety grip  
**K0268**



**NG**

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Balanced handles  
**K0728**



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Cylindrical revolving grips  
**K0263**



**NG**

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Cylindrical fold-away grips  
**K0264**



**NG**

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Cylindrical safety grips  
automatically returning  
**K0265**



**NG**

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Fixed machine handles  
DIN 39 Form E, in steel  
**K0166**



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Fixed machine handles  
DIN 39 Form E, in aluminium  
**K0167**



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Revolving machine handles  
DIN 98 Form E, in steel  
**K0168**



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Revolving machine handles  
DIN 98 Form E, in aluminium  
**K0169**



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Revolving taper grips  
**K0170**



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Revolving taper grips  
**K0651**



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Taper grips  
**K0172**



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Washers  
**K0173**



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Digital position indicators  
**K0408**



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Digital position indicators  
**K0409**



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Digital position indicators  
**K0410**



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## Handwheels, handles, position indicators

Position indicators  
freely programmable  
**K0411**



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Reducing bushes  
**K0412**



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Insert plates  
**K0413**



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Mounting plates  
**K0414**

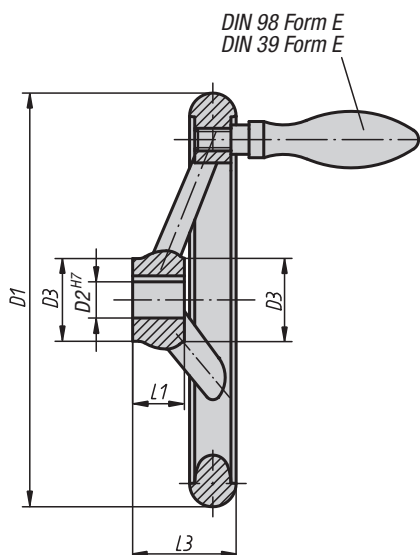
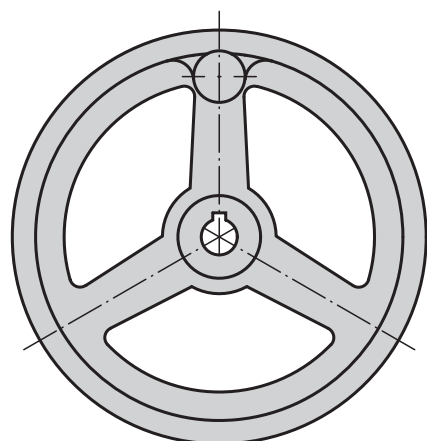


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## Grey cast iron handwheels

DIN 950



**Material:**

Handwheel in grey cast iron.  
Machine handle in steel.

**Surface finish:**

Wheel rim turned and polished.  
Centre bore is concentric and parallel with outside of handle to IT 12.

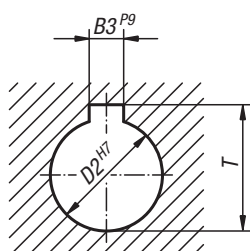
**Sample order:**

K0671.4080X10

**On request:**

Hubs with square socket or plastic-coated handwheels.

hub slot according to DIN 6885-1



### KIPP Grey cast iron handwheels DIN 950 without machine handle

| Order No.<br>hub without slot | Order No.<br>hub with slot | D1  | D2<br>line 1 | D2<br>line 2 | D3 | L1 | L3 | B3<br>line 1 | B3<br>line 2 | T<br>line 1 | T<br>line 2 | Number<br>of spokes | Approx.<br>weight<br>kg |
|-------------------------------|----------------------------|-----|--------------|--------------|----|----|----|--------------|--------------|-------------|-------------|---------------------|-------------------------|
| K0671.0080X10                 | K0671.1080X10              | 80  | 10           | -            | 24 | 16 | 29 | 3            | -            | 11,4        | -           | 3                   | 0,350                   |
| K0671.0080X12                 | K0671.1080X12              | 80  | -            | 12           | 24 | 16 | 29 | -            | 4            | -           | 13,8        | 3                   | 0,350                   |
| K0671.0100X10                 | K0671.1100X10              | 100 | 10           | -            | 26 | 17 | 33 | 3            | -            | 11,4        | -           | 3                   | 0,600                   |
| K0671.0100X12                 | K0671.1100X12              | 100 | -            | 12           | 26 | 17 | 33 | -            | 4            | -           | 13,8        | 3                   | 0,600                   |
| K0671.0125X12                 | K0671.1125X12              | 125 | 12           | -            | 28 | 18 | 36 | 4            | -            | 13,8        | -           | 3                   | 0,800                   |
| K0671.0125X14                 | K0671.1125X14              | 125 | -            | 14           | 28 | 18 | 36 | -            | 5            | -           | 16,3        | 3                   | 0,800                   |
| K0671.0140X14                 | K0671.1140X14              | 140 | 14           | -            | 30 | 19 | 39 | 5            | -            | 16,3        | -           | 3                   | 1,000                   |
| K0671.0140X16                 | K0671.1140X16              | 140 | -            | 16           | 30 | 19 | 39 | -            | 5            | -           | 18,3        | 3                   | 1,000                   |
| K0671.0160X14                 | K0671.1160X14              | 160 | 14           | -            | 32 | 20 | 40 | 5            | -            | 16,3        | -           | 3                   | 1,350                   |
| K0671.0160X16                 | K0671.1160X16              | 160 | -            | 16           | 32 | 20 | 40 | -            | 5            | -           | 18,3        | 3                   | 1,350                   |
| K0671.0180X16                 | K0671.1180X16              | 180 | 16           | -            | 35 | 22 | 43 | 5            | -            | 18,3        | -           | 3                   | 1,600                   |
| K0671.0180X18                 | K0671.1180X18              | 180 | -            | 18           | 35 | 22 | 43 | -            | 6            | -           | 20,8        | 3                   | 1,600                   |
| K0671.0200X18                 | K0671.1200X18              | 200 | 18           | -            | 38 | 24 | 45 | 6            | -            | 20,8        | -           | 3                   | 2,300                   |
| K0671.0200X22                 | K0671.1200X22              | 200 | -            | 22           | 38 | 24 | 45 | -            | 6            | -           | 24,8        | 3                   | 2,300                   |
| K0671.0250X22                 | K0671.1250X22              | 250 | 22           | -            | 45 | 28 | 50 | 6            | -            | 24,8        | -           | 5                   | 4,250                   |
| K0671.0250X26                 | K0671.1250X26              | 250 | -            | 26           | 45 | 28 | 50 | -            | 8            | -           | 29,3        | 5                   | 4,250                   |
| K0671.0315X26                 | K0671.1315X26              | 315 | 26           | -            | 53 | 33 | 56 | 8            | -            | 29,3        | -           | 5                   | 6,400                   |
| K0671.0315X30                 | K0671.1315X30              | 315 | -            | 30           | 53 | 33 | 56 | -            | 8            | -           | 33,3        | 5                   | 6,400                   |
| K0671.0400X30                 | K0671.1400X30              | 400 | 30           | -            | 65 | 38 | 63 | 8            | -            | 33,3        | -           | 5                   | 10,500                  |
| K0671.0400X34                 | K0671.1400X34              | 400 | -            | 34           | 65 | 38 | 63 | -            | 10           | -           | 37,3        | 5                   | 10,500                  |
| K0671.0500X34                 | K0671.1500X34              | 500 | 34           | -            | 78 | 45 | 72 | 10           | -            | 37,3        | -           | 5                   | 17,000                  |
| K0671.0500X40                 | K0671.1500X40              | 500 | -            | 40           | 78 | 45 | 72 | -            | 12           | -           | 43,3        | 5                   | 17,000                  |

# Grey cast iron handwheels

DIN 950



## KIPP Grey cast iron handwheels DIN 950 with fixed machine handle

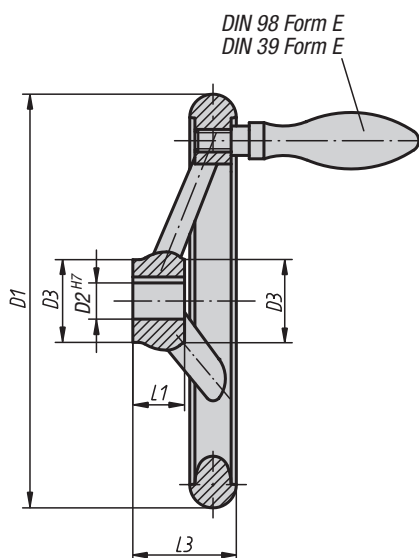
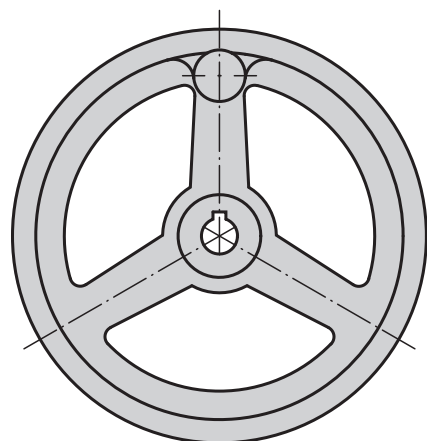
| Order No.<br>hub without slot | Order No.<br>hub with slot | D1  | D2<br>line 1 | D2<br>line 2 | D3 | L1 | L3 | B3<br>line 1 | B3<br>line 2 | T<br>line 1 | T<br>line 2 | Number<br>of spokes | fixed machine<br>handle<br>DIN 39 Form E | Approx.<br>weight<br>kg |
|-------------------------------|----------------------------|-----|--------------|--------------|----|----|----|--------------|--------------|-------------|-------------|---------------------|--|-------------------------|
| K0671.2080X10                 | K0671.3080X10              | 80  | 10           | -            | 24 | 16 | 29 | 3            | -            | 11,4        | -           | 3                   | ø16 x M6 x 50                            | 0,400                   |
| K0671.2080X12                 | K0671.3080X12              | 80  | -            | 12           | 24 | 16 | 29 | -            | 4            | -           | 13,8        | 3                   | ø16 x M6 x 50                            | 0,400                   |
| K0671.2100X10                 | K0671.3100X10              | 100 | 10           | -            | 26 | 17 | 33 | 3            | -            | 11,4        | -           | 3                   | ø16 x M6 x 50                            | 0,650                   |
| K0671.2100X12                 | K0671.3100X12              | 100 | -            | 12           | 26 | 17 | 33 | -            | 4            | -           | 13,8        | 3                   | ø16 x M6 x 50                            | 0,650                   |
| K0671.2125X12                 | K0671.3125X12              | 125 | 12           | -            | 28 | 18 | 36 | 4            | -            | 13,8        | -           | 3                   | ø20 x M8 x 64                            | 0,890                   |
| K0671.2125X14                 | K0671.3125X14              | 125 | -            | 14           | 28 | 18 | 36 | -            | 5            | -           | 16,3        | 3                   | ø20 x M8 x 64                            | 0,890                   |
| K0671.2140X14                 | K0671.3140X14              | 140 | 14           | -            | 30 | 19 | 39 | 5            | -            | 16,3        | -           | 3                   | ø20 x M8 x 64                            | 1,090                   |
| K0671.2140X16                 | K0671.3140X16              | 140 | -            | 16           | 30 | 19 | 39 | -            | 5            | -           | 18,3        | 3                   | ø20 x M8 x 64                            | 1,090                   |
| K0671.2160X14                 | K0671.3160X14              | 160 | 14           | -            | 32 | 20 | 40 | 5            | -            | 16,3        | -           | 3                   | ø25 x M10 x 80                           | 1,530                   |
| K0671.2160X16                 | K0671.3160X16              | 160 | -            | 16           | 32 | 20 | 40 | -            | 5            | -           | 18,3        | 3                   | ø25 x M10 x 80                           | 1,530                   |
| K0671.2180X16                 | K0671.3180X16              | 180 | 16           | -            | 35 | 22 | 43 | 5            | -            | 18,3        | -           | 3                   | ø25 x M10 x 80                           | 1,780                   |
| K0671.2180X18                 | K0671.3180X18              | 180 | -            | 18           | 35 | 22 | 43 | -            | 6            | -           | 20,8        | 3                   | ø25 x M10 x 80                           | 1,780                   |
| K0671.2200X18                 | K0671.3200X18              | 200 | 18           | -            | 38 | 24 | 45 | 6            | -            | 20,8        | -           | 3                   | ø25 x M10 x 80                           | 2,480                   |
| K0671.2200X22                 | K0671.3200X22              | 200 | -            | 22           | 38 | 24 | 45 | -            | 6            | -           | 24,8        | 3                   | ø25 x M10 x 80                           | 2,480                   |
| K0671.2250X22                 | K0671.3250X22              | 250 | 22           | -            | 45 | 28 | 50 | 6            | -            | 24,8        | -           | 5                   | ø32 x M12 x 100                          | 4,610                   |
| K0671.2250X26                 | K0671.3250X26              | 250 | -            | 26           | 45 | 28 | 50 | -            | 8            | -           | 29,3        | 5                   | ø32 x M12 x 100                          | 4,610                   |
| K0671.2315X26                 | K0671.3315X26              | 315 | 26           | -            | 53 | 33 | 56 | 8            | -            | 29,3        | -           | 5                   | ø32 x M12 x 100                          | 6,760                   |
| K0671.2315X30                 | K0671.3315X30              | 315 | -            | 30           | 53 | 33 | 56 | -            | 8            | -           | 33,3        | 5                   | ø32 x M12 x 100                          | 6,760                   |
| K0671.2400X30                 | K0671.3400X30              | 400 | 30           | -            | 65 | 38 | 63 | 8            | -            | 33,3        | -           | 5                   | ø36 x M16 x 112                          | 11,030                  |
| K0671.2400X34                 | K0671.3400X34              | 400 | -            | 34           | 65 | 38 | 63 | -            | 10           | -           | 37,3        | 5                   | ø36 x M16 x 112                          | 11,030                  |
| K0671.2500X34                 | K0671.3500X34              | 500 | 34           | -            | 78 | 45 | 72 | 10           | -            | 37,3        | -           | 5                   | ø36 x M16 x 112                          | 17,530                  |
| K0671.2500X40                 | K0671.3500X40              | 500 | -            | 40           | 78 | 45 | 72 | -            | 12           | -           | 43,3        | 5                   | ø36 x M16 x 112                          | 17,530                  |

## KIPP Grey cast iron handwheels DIN 950 with revolving machine handle

| Order No.<br>hub without slot | Order No.<br>hub with slot | D1  | D2<br>line 1 | D2<br>line 2 | D3 | L1 | L3 | B3<br>line 1 | B3<br>line 2 | T<br>line 1 | T<br>line 2 | Number<br>of spokes | revolving<br>machine handle<br>DIN 98 Form E | Approx.<br>weight<br>kg |
|-------------------------------|----------------------------|-----|--------------|--------------|----|----|----|--------------|--------------|-------------|-------------|---------------------|--|-------------------------|
| K0671.4080X10                 | K0671.5080X10              | 80  | 10           | -            | 24 | 16 | 29 | 3            | -            | 11,4        | -           | 3                   | ø16 x M6 x 54,5                              | 0,400                   |
| K0671.4080X12                 | K0671.5080X12              | 80  | -            | 12           | 24 | 16 | 29 | -            | 4            | -           | 13,8        | 3                   | ø16 x M6 x 54,5                              | 0,400                   |
| K0671.4100X10                 | K0671.5100X10              | 100 | 10           | -            | 26 | 17 | 33 | 3            | -            | 11,4        | -           | 3                   | ø16 x M6 x 54,5                              | 0,650                   |
| K0671.4100X12                 | K0671.5100X12              | 100 | -            | 12           | 26 | 17 | 33 | -            | 4            | -           | 13,8        | 3                   | ø16 x M6 x 54,5                              | 0,650                   |
| K0671.4125X12                 | K0671.5125X12              | 125 | 12           | -            | 28 | 18 | 36 | 4            | -            | 13,8        | -           | 3                   | ø20 x M8 x 67                                | 0,890                   |
| K0671.4125X14                 | K0671.5125X14              | 125 | -            | 14           | 28 | 18 | 36 | -            | 5            | -           | 16,3        | 3                   | ø20 x M8 x 67                                | 0,890                   |
| K0671.4140X14                 | K0671.5140X14              | 140 | 14           | -            | 30 | 19 | 39 | 5            | -            | 16,3        | -           | 3                   | ø20 x M8 x 67                                | 1,090                   |
| K0671.4140X16                 | K0671.5140X16              | 140 | -            | 16           | 30 | 19 | 39 | -            | 5            | -           | 18,3        | 3                   | ø20 x M8 x 67                                | 1,090                   |
| K0671.4160X14                 | K0671.5160X14              | 160 | 14           | -            | 32 | 20 | 40 | 5            | -            | 16,3        | -           | 3                   | ø25 x M10 x 83                               | 1,530                   |
| K0671.4160X16                 | K0671.5160X16              | 160 | -            | 16           | 32 | 20 | 40 | -            | 5            | -           | 18,3        | 3                   | ø25 x M10 x 83                               | 1,530                   |
| K0671.4180X16                 | K0671.5180X16              | 180 | 16           | -            | 35 | 22 | 43 | 5            | -            | 18,3        | -           | 3                   | ø25 x M10 x 83                               | 1,780                   |
| K0671.4180X18                 | K0671.5180X18              | 180 | -            | 18           | 35 | 22 | 43 | -            | 6            | -           | 20,8        | 3                   | ø25 x M10 x 83                               | 1,780                   |
| K0671.4200X18                 | K0671.5200X18              | 200 | 18           | -            | 38 | 24 | 45 | 6            | -            | 20,8        | -           | 3                   | ø25 x M10 x 83                               | 2,480                   |
| K0671.4200X22                 | K0671.5200X22              | 200 | -            | 22           | 38 | 24 | 45 | -            | 6            | -           | 24,8        | 3                   | ø25 x M10 x 83                               | 2,480                   |
| K0671.4250X22                 | K0671.5250X22              | 250 | 22           | -            | 45 | 28 | 50 | 6            | -            | 24,8        | -           | 5                   | ø32 x M12 x 105,5                            | 4,610                   |
| K0671.4250X26                 | K0671.5250X26              | 250 | -            | 26           | 45 | 28 | 50 | -            | 8            | -           | 29,3        | 5                   | ø32 x M12 x 105,5                            | 4,610                   |
| K0671.4315X26                 | K0671.5315X26              | 315 | 26           | -            | 53 | 33 | 56 | 8            | -            | 29,3        | -           | 5                   | ø32 x M12 x 105,5                            | 6,760                   |
| K0671.4315X30                 | K0671.5315X30              | 315 | -            | 30           | 53 | 33 | 56 | -            | 8            | -           | 33,3        | 5                   | ø32 x M12 x 105,5                            | 6,760                   |
| K0671.4400X30                 | K0671.5400X30              | 400 | 30           | -            | 65 | 38 | 63 | 8            | -            | 33,3        | -           | 5                   | ø36 x M16 x 117                              | 11,030                  |
| K0671.4400X34                 | K0671.5400X34              | 400 | -            | 34           | 65 | 38 | 63 | -            | 10           | -           | 37,3        | 5                   | ø36 x M16 x 117                              | 11,030                  |
| K0671.4500X34                 | K0671.5500X34              | 500 | 34           | -            | 78 | 45 | 72 | 10           | -            | 37,3        | -           | 5                   | ø36 x M16 x 117                              | 17,530                  |
| K0671.4500X40                 | K0671.5500X40              | 500 | -            | 40           | 78 | 45 | 72 | -            | 12           | -           | 43,3        | 5                   | ø36 x M16 x 117                              | 17,530                  |

## Aluminium handwheels

DIN 950



**Material:**

Handwheel in aluminium.  
Machine handle in aluminium.  
Axle part in steel, black oxide finish.

**Surface finish:**

Wheel rim turned and polished.  
Centre bore is concentric and parallel with outside of handle to IT 12.

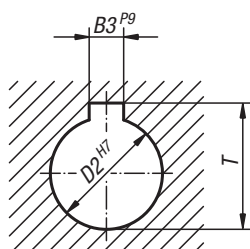
**Sample order:**

K0160.4080X10

**On request:**

Hubs with square socket or plastic-coated handwheels.

hub slot according to DIN 6885-1



### KIPP Aluminium handwheels DIN 950 without machine handle

| Order No.<br>hub without slot | Order No.<br>hub with slot | D1  | D2<br>line 1 | D2<br>line 2 | D3 | L1 | L3 | B3<br>line 1 | B3<br>line 2 | T<br>line 1 | T<br>line 2 | Number<br>of spokes |
|-------------------------------|----------------------------|-----|--------------|--------------|----|----|----|--------------|--------------|-------------|-------------|---------------------|
| K0160.0080X10                 | K0160.1080X10              | 80  | 10           | -            | 24 | 16 | 29 | 3            | -            | 11,4        | -           | 3                   |
| K0160.0080X12                 | K0160.1080X12              | 80  | -            | 12           | 24 | 16 | 29 | -            | 4            | -           | 13,8        | 3                   |
| K0160.0100X10                 | K0160.1100X10              | 100 | 10           | -            | 26 | 17 | 33 | 3            | -            | 11,4        | -           | 3                   |
| K0160.0100X12                 | K0160.1100X12              | 100 | -            | 12           | 26 | 17 | 33 | -            | 4            | -           | 13,8        | 3                   |
| K0160.0125X12                 | K0160.1125X12              | 125 | 12           | -            | 28 | 18 | 36 | 4            | -            | 13,8        | -           | 3                   |
| K0160.0125X14                 | K0160.1125X14              | 125 | -            | 14           | 28 | 18 | 36 | -            | 5            | -           | 16,3        | 3                   |
| K0160.0140X14                 | K0160.1140X14              | 140 | 14           | -            | 30 | 19 | 39 | 5            | -            | 16,3        | -           | 3                   |
| K0160.0140X16                 | K0160.1140X16              | 140 | -            | 16           | 30 | 19 | 39 | -            | 5            | -           | 18,3        | 3                   |
| K0160.0160X14                 | K0160.1160X14              | 160 | 14           | -            | 32 | 20 | 40 | 5            | -            | 16,3        | -           | 3                   |
| K0160.0160X16                 | K0160.1160X16              | 160 | -            | 16           | 32 | 20 | 40 | -            | 5            | -           | 18,3        | 3                   |
| K0160.0180X16                 | K0160.1180X16              | 180 | 16           | -            | 35 | 22 | 43 | 5            | -            | 18,3        | -           | 3                   |
| K0160.0180X18                 | K0160.1180X18              | 180 | -            | 18           | 35 | 22 | 43 | -            | 6            | -           | 20,8        | 3                   |
| K0160.0200X18                 | K0160.1200X18              | 200 | 18           | -            | 38 | 24 | 45 | 6            | -            | 20,8        | -           | 3                   |
| K0160.0200X22                 | K0160.1200X22              | 200 | -            | 22           | 38 | 24 | 45 | -            | 6            | -           | 24,8        | 3                   |
| K0160.0250X22                 | K0160.1250X22              | 250 | 22           | -            | 45 | 28 | 50 | 6            | -            | 24,8        | -           | 5                   |
| K0160.0250X26                 | K0160.1250X26              | 250 | -            | 26           | 45 | 28 | 50 | -            | 8            | -           | 29,3        | 5                   |
| K0160.0315X26                 | K0160.1315X26              | 315 | 26           | -            | 53 | 33 | 56 | 8            | -            | 29,3        | -           | 5                   |
| K0160.0315X30                 | K0160.1315X30              | 315 | -            | 30           | 53 | 33 | 56 | -            | 8            | -           | 33,3        | 5                   |
| K0160.0400X30                 | K0160.1400X30              | 400 | 30           | -            | 65 | 38 | 63 | 8            | -            | 33,3        | -           | 5                   |
| K0160.0400X34                 | K0160.1400X34              | 400 | -            | 34           | 65 | 38 | 63 | -            | 10           | -           | 37,3        | 5                   |
| K0160.0500X34                 | K0160.1500X34              | 500 | 34           | -            | 78 | 45 | 72 | 10           | -            | 37,3        | -           | 5                   |
| K0160.0500X40                 | K0160.1500X40              | 500 | -            | 40           | 78 | 45 | 72 | -            | 12           | -           | 43,3        | 5                   |

## Aluminium handwheels



DIN 950

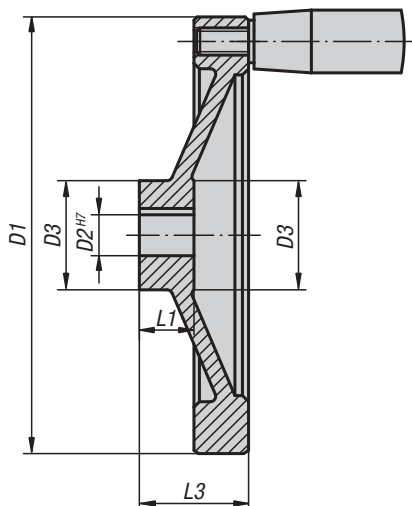
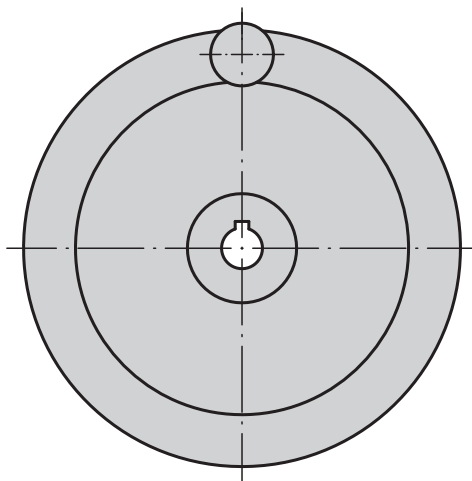
## KIPP Aluminium handwheels DIN 950 with fixed machine handle

| Order No.<br>hub without slot | Order No.<br>hub with slot | D1  | D2<br>line 1 | D2<br>line 2 | D3 | L1 | L3 | B3<br>line 1 | B3<br>line 2 | T<br>line 1 | T<br>line 2 | Number<br>of spokes | fixed machine<br>handle<br>DIN 39 Form E |
|-------------------------------|----------------------------|-----|--------------|--------------|----|----|----|--------------|--------------|-------------|-------------|---------------------|--|
| K0160.2080X10                 | K0160.3080X10              | 80  | 10           | -            | 24 | 16 | 29 | 3            | -            | 11,4        | -           | 3                   | ø16 x M6 x 50                            |
| K0160.2080X12                 | K0160.3080X12              | 80  | -            | 12           | 24 | 16 | 29 | -            | 4            | -           | 13,8        | 3                   | ø16 x M6 x 50                            |
| K0160.2100X10                 | K0160.3100X10              | 100 | 10           | -            | 26 | 17 | 33 | 3            | -            | 11,4        | -           | 3                   | ø16 x M6 x 50                            |
| K0160.2100X12                 | K0160.3100X12              | 100 | -            | 12           | 26 | 17 | 33 | -            | 4            | -           | 13,8        | 3                   | ø16 x M6 x 50                            |
| K0160.2125X12                 | K0160.3125X12              | 125 | 12           | -            | 28 | 18 | 36 | 4            | -            | 13,8        | -           | 3                   | ø20 x M8 x 64                            |
| K0160.2125X14                 | K0160.3125X14              | 125 | -            | 14           | 28 | 18 | 36 | -            | 5            | -           | 16,3        | 3                   | ø20 x M8 x 64                            |
| K0160.2140X14                 | K0160.3140X14              | 140 | 14           | -            | 30 | 19 | 39 | 5            | -            | 16,3        | -           | 3                   | ø20 x M8 x 64                            |
| K0160.2140X16                 | K0160.3140X16              | 140 | -            | 16           | 30 | 19 | 39 | -            | 5            | -           | 18,3        | 3                   | ø20 x M8 x 64                            |
| K0160.2160X14                 | K0160.3160X14              | 160 | 14           | -            | 32 | 20 | 40 | 5            | -            | 16,3        | -           | 3                   | ø25 x M10 x 80                           |
| K0160.2160X16                 | K0160.3160X16              | 160 | -            | 16           | 32 | 20 | 40 | -            | 5            | -           | 18,3        | 3                   | ø25 x M10 x 80                           |
| K0160.2180X16                 | K0160.3180X16              | 180 | 16           | -            | 35 | 22 | 43 | 5            | -            | 18,3        | -           | 3                   | ø25 x M10 x 80                           |
| K0160.2180X18                 | K0160.3180X18              | 180 | -            | 18           | 35 | 22 | 43 | -            | 6            | -           | 20,8        | 3                   | ø25 x M10 x 80                           |
| K0160.2200X18                 | K0160.3200X18              | 200 | 18           | -            | 38 | 24 | 45 | 6            | -            | 20,8        | -           | 3                   | ø25 x M10 x 80                           |
| K0160.2200X22                 | K0160.3200X22              | 200 | -            | 22           | 38 | 24 | 45 | -            | 6            | -           | 24,8        | 3                   | ø25 x M10 x 80                           |
| K0160.2250X22                 | K0160.3250X22              | 250 | 22           | -            | 45 | 28 | 50 | 6            | -            | 24,8        | -           | 5                   | ø32 x M12 x 100                          |
| K0160.2250X26                 | K0160.3250X26              | 250 | -            | 26           | 45 | 28 | 50 | -            | 8            | -           | 29,3        | 5                   | ø32 x M12 x 100                          |
| K0160.2315X26                 | K0160.3315X26              | 315 | 26           | -            | 53 | 33 | 56 | 8            | -            | 29,3        | -           | 5                   | ø32 x M12 x 100                          |
| K0160.2315X30                 | K0160.3315X30              | 315 | -            | 30           | 53 | 33 | 56 | -            | 8            | -           | 33,3        | 5                   | ø32 x M12 x 100                          |
| K0160.2400X30                 | K0160.3400X30              | 400 | 30           | -            | 65 | 38 | 63 | 8            | -            | 33,3        | -           | 5                   | ø36 x M16 x 112                          |
| K0160.2400X34                 | K0160.3400X34              | 400 | -            | 34           | 65 | 38 | 63 | -            | 10           | -           | 37,3        | 5                   | ø36 x M16 x 112                          |
| K0160.2500X34                 | K0160.3500X34              | 500 | 34           | -            | 78 | 45 | 72 | 10           | -            | 37,3        | -           | 5                   | ø36 x M16 x 112                          |
| K0160.2500X40                 | K0160.3500X40              | 500 | -            | 40           | 78 | 45 | 72 | -            | 12           | -           | 43,3        | 5                   | ø36 x M16 x 112                          |

## KIPP Aluminium handwheels DIN 950 with revolving machine handle

| Order No.<br>hub without slot | Order No.<br>hub with slot | D1  | D2<br>line 1 | D2<br>line 2 | D3 | L1 | L3 | B3<br>line 1 | B3<br>line 2 | T<br>line 1 | T<br>line 2 | Number<br>of spokes | revolving<br>machine handle<br>DIN 98 Form E |
|-------------------------------|----------------------------|-----|--------------|--------------|----|----|----|--------------|--------------|-------------|-------------|---------------------|--|
| K0160.4080X10                 | K0160.5080X10              | 80  | 10           | -            | 24 | 16 | 29 | 3            | -            | 11,4        | -           | 3                   | ø16 x M6 x 54,5                              |
| K0160.4080X12                 | K0160.5080X12              | 80  | -            | 12           | 24 | 16 | 29 | -            | 4            | -           | 13,8        | 3                   | ø16 x M6 x 54,5                              |
| K0160.4100X10                 | K0160.5100X10              | 100 | 10           | -            | 26 | 17 | 33 | 3            | -            | 11,4        | -           | 3                   | ø16 x M6 x 54,5                              |
| K0160.4100X12                 | K0160.5100X12              | 100 | -            | 12           | 26 | 17 | 33 | -            | 4            | -           | 13,8        | 3                   | ø16 x M6 x 54,5                              |
| K0160.4125X12                 | K0160.5125X12              | 125 | 12           | -            | 28 | 18 | 36 | 4            | -            | 13,8        | -           | 3                   | ø20 x M8 x 67                                |
| K0160.4125X14                 | K0160.5125X14              | 125 | -            | 14           | 28 | 18 | 36 | -            | 5            | -           | 16,3        | 3                   | ø20 x M8 x 67                                |
| K0160.4140X14                 | K0160.5140X14              | 140 | 14           | -            | 30 | 19 | 39 | 5            | -            | 16,3        | -           | 3                   | ø20 x M8 x 67                                |
| K0160.4140X16                 | K0160.5140X16              | 140 | -            | 16           | 30 | 19 | 39 | -            | 5            | -           | 18,3        | 3                   | ø20 x M8 x 67                                |
| K0160.4160X14                 | K0160.5160X14              | 160 | 14           | -            | 32 | 20 | 40 | 5            | -            | 16,3        | -           | 3                   | ø25 x M10 x 83                               |
| K0160.4160X16                 | K0160.5160X16              | 160 | -            | 16           | 32 | 20 | 40 | -            | 5            | -           | 18,3        | 3                   | ø25 x M10 x 83                               |
| K0160.4180X16                 | K0160.5180X16              | 180 | 16           | -            | 35 | 22 | 43 | 5            | -            | 18,3        | -           | 3                   | ø25 x M10 x 83                               |
| K0160.4180X18                 | K0160.5180X18              | 180 | -            | 18           | 35 | 22 | 43 | -            | 6            | -           | 20,8        | 3                   | ø25 x M10 x 83                               |
| K0160.4200X18                 | K0160.5200X18              | 200 | 18           | -            | 38 | 24 | 45 | 6            | -            | 20,8        | -           | 3                   | ø25 x M10 x 83                               |
| K0160.4200X22                 | K0160.5200X22              | 200 | -            | 22           | 38 | 24 | 45 | -            | 6            | -           | 24,8        | 3                   | ø25 x M10 x 83                               |
| K0160.4250X22                 | K0160.5250X22              | 250 | 22           | -            | 45 | 28 | 50 | 6            | -            | 24,8        | -           | 5                   | ø32 x M12 x 105,5                            |
| K0160.4250X26                 | K0160.5250X26              | 250 | -            | 26           | 45 | 28 | 50 | -            | 8            | -           | 29,3        | 5                   | ø32 x M12 x 105,5                            |
| K0160.4315X26                 | K0160.5315X26              | 315 | 26           | -            | 53 | 33 | 56 | 8            | -            | 29,3        | -           | 5                   | ø32 x M12 x 105,5                            |
| K0160.4315X30                 | K0160.5315X30              | 315 | -            | 30           | 53 | 33 | 56 | -            | 8            | -           | 33,3        | 5                   | ø32 x M12 x 105,5                            |
| K0160.4400X30                 | K0160.5400X30              | 400 | 30           | -            | 65 | 38 | 63 | 8            | -            | 33,3        | -           | 5                   | ø36 x M16 x 117                              |
| K0160.4400X34                 | K0160.5400X34              | 400 | -            | 34           | 65 | 38 | 63 | -            | 10           | -           | 37,3        | 5                   | ø36 x M16 x 117                              |
| K0160.4500X34                 | K0160.5500X34              | 500 | 34           | -            | 78 | 45 | 72 | 10           | -            | 37,3        | -           | 5                   | ø36 x M16 x 117                              |
| K0160.4500X40                 | K0160.5500X40              | 500 | -            | 40           | 78 | 45 | 72 | -            | 12           | -           | 43,3        | 5                   | ø36 x M16 x 117                              |

# Aluminium disc handwheels



**Material:**

Disc handwheel in aluminium.  
Cylindrical grip in black duroplastic PF 31-DIN 7708.  
Axle part in galvanized steel.

**Surface finish:**

Wheel rim turned and polished.  
Centre bore is concentric and parallel with outside of handle to IT 12.

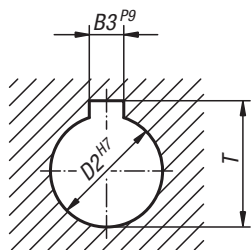
**Sample order:**

K0161.4080X10

**On request:**

Hubs with square socket or plastic-coated handwheels.

hub slot according to DIN 6885-1



## KIPP Aluminium disc handwheels without cylindrical grip

| Order No.<br>hub without slot | Order No.<br>hub with slot | D1  | D2<br>line 1 | D2<br>line 2 | D3 | L1 | L3 | B3<br>line 1 | B3<br>line 2 | T<br>line 1 | T<br>line 2 |
|-------------------------------|----------------------------|-----|--------------|--------------|----|----|----|--------------|--------------|-------------|-------------|
| K0161.0080X10                 | K0161.1080X10              | 80  | 10           | -            | 25 | 16 | 31 | 3            | -            | 11,4        | -           |
| K0161.0080X12                 | K0161.1080X12              | 80  | -            | 12           | 25 | 16 | 31 | -            | 4            | -           | 13,8        |
| K0161.0100X10                 | K0161.1100X10              | 100 | 10           | -            | 31 | 17 | 34 | 3            | -            | 11,4        | -           |
| K0161.0100X12                 | K0161.1100X12              | 100 | -            | 12           | 31 | 17 | 34 | -            | 4            | -           | 13,8        |
| K0161.0125X12                 | K0161.1125X12              | 125 | 12           | -            | 30 | 18 | 37 | 4            | -            | 13,8        | -           |
| K0161.0125X14                 | K0161.1125X14              | 125 | -            | 14           | 30 | 18 | 37 | -            | 5            | -           | 16,3        |
| K0161.0140X14                 | K0161.1140X14              | 140 | 14           | -            | 34 | 19 | 34 | 5            | -            | 16,3        | -           |
| K0161.0140X15                 | K0161.1140X15              | 140 | -            | 15           | 34 | 19 | 34 | -            | 5            | -           | 17,3        |
| K0161.0160X15                 | K0161.1160X15              | 160 | 15           | -            | 40 | 20 | 40 | 5            | -            | 17,3        | -           |
| K0161.0160X16                 | K0161.1160X16              | 160 | -            | 16           | 40 | 20 | 40 | -            | 5            | -           | 18,3        |
| K0161.0200X18                 | K0161.1200X18              | 200 | 18           | -            | 50 | 24 | 46 | 6            | -            | 20,8        | -           |
| K0161.0200X20                 | K0161.1200X20              | 200 | -            | 20           | 50 | 24 | 46 | -            | 6            | -           | 22,8        |
| K0161.0250X22                 | K0161.1250X22              | 250 | 22           | -            | 50 | 28 | 49 | 6            | -            | 24,8        | -           |
| K0161.0250X24                 | K0161.1250X24              | 250 | -            | 24           | 50 | 28 | 49 | -            | 8            | -           | 27,3        |





## KIPP Aluminium disc handwheels with fixed cylindrical grip

| Order No.<br>hub without slot | Order No.<br>hub with slot | D1  | D2<br>line 1 | D2<br>line 2 | D3 | L1 | L3 | B3<br>line 1 | B3<br>line 2 | T<br>line 1 | T<br>line 2 | Fixed cylindrical grip |
|-------------------------------|----------------------------|-----|--------------|--------------|----|----|----|--------------|--------------|-------------|-------------|------------------------|
| K0161.2080X10                 | K0161.3080X10              | 80  | 10           | -            | 25 | 16 | 31 | 3            | -            | 11,4        | -           | ø18 x M6 x 40          |
| K0161.2080X12                 | K0161.3080X12              | 80  | -            | 12           | 25 | 16 | 31 | -            | 4            | -           | 13,8        | ø18 x M6 x 40          |
| K0161.2100X10                 | K0161.3100X10              | 100 | 10           | -            | 31 | 17 | 34 | 3            | -            | 11,4        | -           | ø18 x M6 x 40          |
| K0161.2100X12                 | K0161.3100X12              | 100 | -            | 12           | 31 | 17 | 34 | -            | 4            | -           | 13,8        | ø18 x M6 x 40          |
| K0161.2125X12                 | K0161.3125X12              | 125 | 12           | -            | 30 | 18 | 37 | 4            | -            | 13,8        | -           | ø21 x M8 x 50          |
| K0161.2125X14                 | K0161.3125X14              | 125 | -            | 14           | 30 | 18 | 37 | -            | 5            | -           | 16,3        | ø21 x M8 x 50          |
| K0161.2140X14                 | K0161.3140X14              | 140 | 14           | -            | 34 | 19 | 34 | 5            | -            | 16,3        | -           | ø21 x M8 x 50          |
| K0161.2140X15                 | K0161.3140X15              | 140 | -            | 15           | 34 | 19 | 34 | -            | 5            | -           | 17,3        | ø21 x M8 x 50          |
| K0161.2160X15                 | K0161.3160X15              | 160 | 15           | -            | 40 | 20 | 40 | 5            | -            | 17,3        | -           | ø26 x M10 x 80         |
| K0161.2160X16                 | K0161.3160X16              | 160 | -            | 16           | 40 | 20 | 40 | -            | 5            | -           | 18,3        | ø26 x M10 x 80         |
| K0161.2200X18                 | K0161.3200X18              | 200 | 18           | -            | 50 | 24 | 46 | 6            | -            | 20,8        | -           | ø26 x M10 x 80         |
| K0161.2200X20                 | K0161.3200X20              | 200 | -            | 20           | 50 | 24 | 46 | -            | 6            | -           | 22,8        | ø26 x M10 x 80         |
| K0161.2250X22                 | K0161.3250X22              | 250 | 22           | -            | 50 | 28 | 49 | 6            | -            | 24,8        | -           | ø28 x M12 x 90         |
| K0161.2250X24                 | K0161.3250X24              | 250 | -            | 24           | 50 | 28 | 49 | -            | 8            | -           | 27,3        | ø28 x M12 x 90         |

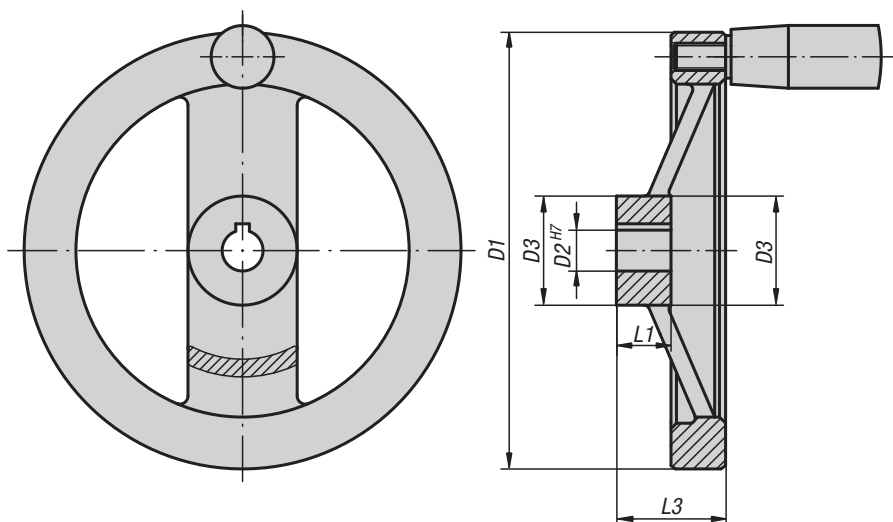
## KIPP Aluminium disc handwheels with revolving cylindrical grip

| Order No.<br>hub without slot | Order No.<br>hub with slot | D1  | D2<br>line 1 | D2<br>line 2 | D3 | L1 | L3 | B3<br>line 1 | B3<br>line 2 | T<br>line 1 | T<br>line 2 | Revolving cylindrical grip |
|-------------------------------|----------------------------|-----|--------------|--------------|----|----|----|--------------|--------------|-------------|-------------|----------------------------|
| K0161.4080X10                 | K0161.5080X10              | 80  | 10           | -            | 25 | 16 | 31 | 3            | -            | 11,4        | -           | ø18 x M6 x 40              |
| K0161.4080X12                 | K0161.5080X12              | 80  | -            | 12           | 25 | 16 | 31 | -            | 4            | -           | 13,8        | ø18 x M6 x 40              |
| K0161.4100X10                 | K0161.5100X10              | 100 | 10           | -            | 31 | 17 | 34 | 3            | -            | 11,4        | -           | ø18 x M6 x 40              |
| K0161.4100X12                 | K0161.5100X12              | 100 | -            | 12           | 31 | 17 | 34 | -            | 4            | -           | 13,8        | ø18 x M6 x 40              |
| K0161.4125X12                 | K0161.5125X12              | 125 | 12           | -            | 30 | 18 | 37 | 4            | -            | 13,8        | -           | ø22 x M8 x 56              |
| K0161.4125X14                 | K0161.5125X14              | 125 | -            | 14           | 30 | 18 | 37 | -            | 5            | -           | 16,3        | ø22 x M8 x 56              |
| K0161.4140X14                 | K0161.5140X14              | 140 | 14           | -            | 34 | 19 | 34 | 5            | -            | 16,3        | -           | ø22 x M8 x 56              |
| K0161.4140X15                 | K0161.5140X15              | 140 | -            | 15           | 34 | 19 | 34 | -            | 5            | -           | 17,3        | ø22 x M8 x 56              |
| K0161.4160X15                 | K0161.5160X15              | 160 | 15           | -            | 40 | 20 | 40 | 5            | -            | 17,3        | -           | ø26 x M10 x 80             |
| K0161.4160X16                 | K0161.5160X16              | 160 | -            | 16           | 40 | 20 | 40 | -            | 5            | -           | 18,3        | ø26 x M10 x 80             |
| K0161.4200X18                 | K0161.5200X18              | 200 | 18           | -            | 50 | 24 | 46 | 6            | -            | 20,8        | -           | ø26 x M10 x 80             |
| K0161.4200X20                 | K0161.5200X20              | 200 | -            | 20           | 50 | 24 | 46 | -            | 6            | -           | 22,8        | ø26 x M10 x 80             |
| K0161.4250X22                 | K0161.5250X22              | 250 | 22           | -            | 50 | 28 | 49 | 6            | -            | 24,8        | -           | ø31 x M12 x 102            |
| K0161.4250X24                 | K0161.5250X24              | 250 | -            | 24           | 50 | 28 | 49 | -            | 8            | -           | 27,3        | ø31 x M12 x 102            |



## 2-spoke aluminium handwheels

with straight wheel rim



**Material:**

Spoked handwheels aluminium.  
Cylindrical grip in black duroplastic PF 31-DIN 7708.  
Axle part in galvanized steel.

**Surface finish:**

Wheel rim turned and polished.  
Centre bore is concentric and parallel with outside of handle to IT 12.

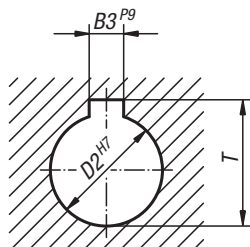
**Sample order:**

K0162.4080X10

**On request:**

Hubs with square socket or plastic-coated handwheels available.

hub slot according to DIN 6885-1



### KIPP 2-spoke aluminium handwheels with straight wheel rim, without cylindrical grip

| Order No.<br>hub without slot | Order No.<br>hub with slot | D1  | D2<br>line 1 | D2<br>line 2 | D3 | L1 | L3   | B3<br>line 1 | B3<br>line 2 | T<br>line 1 | T<br>line 2 |
|-------------------------------|----------------------------|-----|--------------|--------------|----|----|------|--------------|--------------|-------------|-------------|
| K0162.0080X10                 | K0162.1080X10              | 80  | 10           | -            | 24 | 16 | 28   | 3            | -            | 11,4        | -           |
| K0162.0080X12                 | K0162.1080X12              | 80  | -            | 12           | 24 | 16 | 28   | -            | 4            | -           | 13,8        |
| K0162.0100X10                 | K0162.1100X10              | 100 | 10           | -            | 26 | 17 | 33   | 3            | -            | 11,4        | -           |
| K0162.0100X12                 | K0162.1100X12              | 100 | -            | 12           | 26 | 17 | 33   | -            | 4            | -           | 13,8        |
| K0162.0125X12                 | K0162.1125X12              | 125 | 12           | -            | 31 | 18 | 33,5 | 4            | -            | 13,8        | -           |
| K0162.0125X14                 | K0162.1125X14              | 125 | -            | 14           | 31 | 18 | 33,5 | -            | 5            | -           | 16,3        |
| K0162.0160X14                 | K0162.1160X14              | 160 | 14           | -            | 36 | 20 | 39   | 5            | -            | 16,3        | -           |
| K0162.0160X16                 | K0162.1160X16              | 160 | -            | 16           | 36 | 20 | 39   | -            | 5            | -           | 18,3        |
| K0162.0200X18                 | K0162.1200X18              | 200 | 18           | -            | 42 | 24 | 45   | 6            | -            | 20,8        | -           |
| K0162.0200X20                 | K0162.1200X20              | 200 | -            | 20           | 42 | 24 | 45   | -            | 6            | -           | 22,8        |
| K0162.0250X22                 | K0162.1250X22              | 250 | 22           | -            | 48 | 28 | 51   | 6            | -            | 24,8        | -           |
| K0162.0250X26                 | K0162.1250X26              | 250 | -            | 26           | 48 | 28 | 51   | -            | 8            | -           | 29,3        |

## 2-spoke aluminium handwheels

with straight wheel rim



### KIPP 2-spoke aluminium handwheels with straight wheel rim, with fixed cylindrical grip

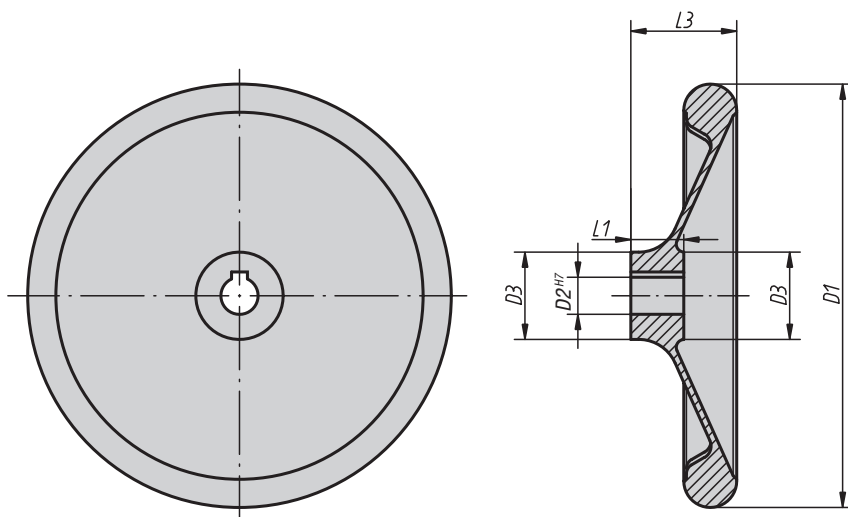
| Order No.<br>hub without slot | Order No.<br>hub with slot | D1  | D2<br>line 1 | D2<br>line 2 | D3 | L1 | L3   | B3<br>line 1 | B3<br>line 2 | T<br>line 1 | T<br>line 2 | Fixed cylindrical grip |
|-------------------------------|----------------------------|-----|--------------|--------------|----|----|------|--------------|--------------|-------------|-------------|------------------------|
| K0162.2080X10                 | K0162.3080X10              | 80  | 10           | -            | 24 | 16 | 28   | 3            | -            | 11,4        | -           | ø18 x M6 x 40          |
| K0162.2080X12                 | K0162.3080X12              | 80  | -            | 12           | 24 | 16 | 28   | -            | 4            | -           | 13,8        | ø18 x M6 x 40          |
| K0162.2100X10                 | K0162.3100X10              | 100 | 10           | -            | 26 | 17 | 33   | 3            | -            | 11,4        | -           | ø18 x M6 x 40          |
| K0162.2100X12                 | K0162.3100X12              | 100 | -            | 12           | 26 | 17 | 33   | -            | 4            | -           | 13,8        | ø18 x M6 x 40          |
| K0162.2125X12                 | K0162.3125X12              | 125 | 12           | -            | 31 | 18 | 33,5 | 4            | -            | 13,8        | -           | ø21 x M8 x 50          |
| K0162.2125X14                 | K0162.3125X14              | 125 | -            | 14           | 31 | 18 | 33,5 | -            | 5            | -           | 16,3        | ø21 x M8 x 50          |
| K0162.2160X14                 | K0162.3160X14              | 160 | 14           | -            | 36 | 20 | 39   | 5            | -            | 16,3        | -           | ø26 x M10 x 80         |
| K0162.2160X16                 | K0162.3160X16              | 160 | -            | 16           | 36 | 20 | 39   | -            | 5            | -           | 18,3        | ø26 x M10 x 80         |
| K0162.2200X18                 | K0162.3200X18              | 200 | 18           | -            | 42 | 24 | 45   | 6            | -            | 20,8        | -           | ø26 x M10 x 80         |
| K0162.2200X20                 | K0162.3200X20              | 200 | -            | 20           | 42 | 24 | 45   | -            | 6            | -           | 22,8        | ø26 x M10 x 80         |
| K0162.2250X22                 | K0162.3250X22              | 250 | 22           | -            | 48 | 28 | 51   | 6            | -            | 24,8        | -           | ø28 x M12 x 90         |
| K0162.2250X26                 | K0162.3250X26              | 250 | -            | 26           | 48 | 28 | 51   | -            | 8            | -           | 29,3        | ø28 x M12 x 90         |

### KIPP 2-spoke aluminium handwheels with straight wheel rim, with revolving cylindrical grip

| Order No.<br>hub without slot | Order No.<br>hub with slot | D1  | D2<br>line 1 | D2<br>line 2 | D3 | L1 | L3   | B3<br>line 1 | B3<br>line 2 | T<br>line 1 | T<br>line 2 | Revolving cylindrical grip |
|-------------------------------|----------------------------|-----|--------------|--------------|----|----|------|--------------|--------------|-------------|-------------|----------------------------|
| K0162.4080X10                 | K0162.5080X10              | 80  | 10           | -            | 24 | 16 | 28   | 3            | -            | 11,4        | -           | ø18 x M6 x 40              |
| K0162.4080X12                 | K0162.5080X12              | 80  | -            | 12           | 24 | 16 | 28   | -            | 4            | -           | 13,8        | ø18 x M6 x 40              |
| K0162.4100X10                 | K0162.5100X10              | 100 | 10           | -            | 26 | 17 | 33   | 3            | -            | 11,4        | -           | ø18 x M6 x 40              |
| K0162.4100X12                 | K0162.5100X12              | 100 | -            | 12           | 26 | 17 | 33   | -            | 4            | -           | 13,8        | ø18 x M6 x 40              |
| K0162.4125X12                 | K0162.5125X12              | 125 | 12           | -            | 31 | 18 | 33,5 | 4            | -            | 13,8        | -           | ø22 x M8 x 56              |
| K0162.4125X14                 | K0162.5125X14              | 125 | -            | 14           | 31 | 18 | 33,5 | -            | 5            | -           | 16,3        | ø22 x M8 x 56              |
| K0162.4160X14                 | K0162.5160X14              | 160 | 14           | -            | 36 | 20 | 39   | 5            | -            | 16,3        | -           | ø26 x M10 x 80             |
| K0162.4160X16                 | K0162.5160X16              | 160 | -            | 16           | 36 | 20 | 39   | -            | 5            | -           | 18,3        | ø26 x M10 x 80             |
| K0162.4200X18                 | K0162.5200X18              | 200 | 18           | -            | 42 | 24 | 45   | 6            | -            | 20,8        | -           | ø26 x M10 x 80             |
| K0162.4200X20                 | K0162.5200X20              | 200 | -            | 20           | 42 | 24 | 45   | -            | 6            | -           | 22,8        | ø26 x M10 x 80             |
| K0162.4250X22                 | K0162.5250X22              | 250 | 22           | -            | 48 | 28 | 51   | 6            | -            | 24,8        | -           | ø31 x M12 x 102            |
| K0162.4250X26                 | K0162.5250X26              | 250 | -            | 26           | 48 | 28 | 51   | -            | 8            | -           | 29,3        | ø31 x M12 x 102            |

## Aluminium disc handwheels

similar to DIN 950



**Material:**

Handwheel in aluminium.

**Surface finish:**

Wheel rim turned and polished.  
Centre bore is concentric and parallel with outside of handle to IT 12.

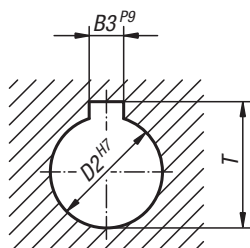
**Sample order:**

K0163.0080X10

**On request:**

Hubs with square socket or plastic-coated handwheels.

hub slot according to DIN 6885-1



### KIPP Aluminium disc handwheels similar to DIN 950

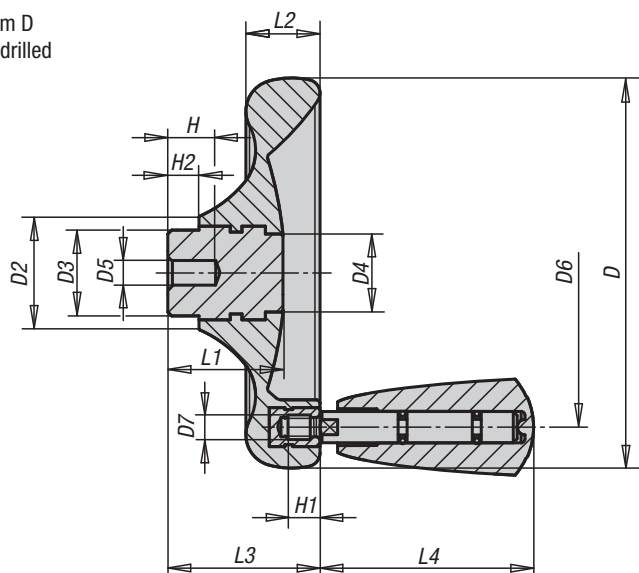
| Order No.<br>hub without slot | Order No.<br>hub with slot | D1  | D2<br>line 1 | D2<br>line 2 | D3 | L1 | L3 | B3<br>line 1 | B3<br>line 2 | T<br>line 1 | T<br>line 2 | Approx.<br>weight<br>kg |
|-------------------------------|----------------------------|-----|--------------|--------------|----|----|----|--------------|--------------|-------------|-------------|-------------------------|
| K0163.0080X10                 | K0163.1080X10              | 80  | 10           | -            | 25 | 16 | 30 | 3            | -            | 11,4        | -           | 0,150                   |
| K0163.0080X12                 | K0163.1080X12              | 80  | -            | 12           | 25 | 16 | 30 | -            | 4            | -           | 13,8        | 0,150                   |
| K0163.0100X10                 | K0163.1100X10              | 100 | 10           | -            | 28 | 17 | 31 | 3            | -            | 11,4        | -           | 0,220                   |
| K0163.0100X12                 | K0163.1100X12              | 100 | -            | 12           | 28 | 17 | 31 | -            | 4            | -           | 13,8        | 0,220                   |
| K0163.0120X12                 | K0163.1120X12              | 120 | 12           | -            | 27 | 18 | 30 | 4            | -            | 13,8        | -           | 0,250                   |
| K0163.0120X14                 | K0163.1120X14              | 120 | -            | 14           | 27 | 18 | 30 | -            | 5            | -           | 16,3        | 0,250                   |
| K0163.0160X14                 | K0163.1160X14              | 160 | 14           | -            | 34 | 20 | 40 | 5            | -            | 16,3        | -           | 0,660                   |
| K0163.0160X16                 | K0163.1160X16              | 160 | -            | 16           | 34 | 20 | 40 | -            | 5            | -           | 18,3        | 0,660                   |
| K0163.0200X18                 | K0163.1200X18              | 200 | 18           | -            | 40 | 24 | 44 | 6            | -            | 20,8        | -           | 1,100                   |
| K0163.0200X22                 | K0163.1200X22              | 200 | -            | 22           | 40 | 24 | 44 | -            | 6            | -           | 24,8        | 1,100                   |
| K0163.0250X22                 | K0163.1250X22              | 250 | 22           | -            | 49 | 28 | 61 | 6            | -            | 24,8        | -           | 2,000                   |
| K0163.0250X26                 | K0163.1250X26              | 250 | -            | 26           | 49 | 28 | 61 | -            | 8            | -           | 29,3        | 2,000                   |
| K0163.0280X24                 | K0163.1280X24              | 280 | 24           | -            | 51 | 30 | 38 | 8            | -            | 27,3        | -           | 2,300                   |
| K0163.0280X28                 | K0163.1280X28              | 280 | -            | 28           | 51 | 30 | 38 | -            | 8            | -           | 31,3        | 2,300                   |
| K0163.0360X28                 | K0163.1360X28              | 360 | 28           | -            | 63 | 35 | 73 | 8            | -            | 31,3        | -           | 4,500                   |
| K0163.0360X32                 | K0163.1360X32              | 360 | -            | 32           | 63 | 35 | 73 | -            | 10           | -           | 35,3        | 4,500                   |

## Disc handwheels

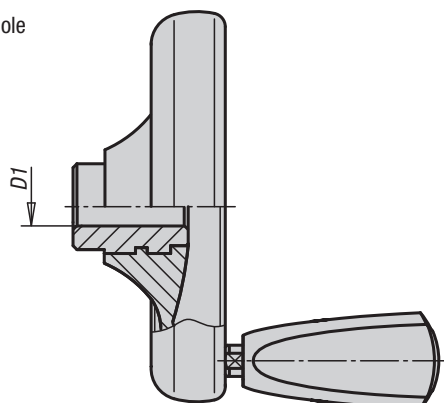
with revolving taper grip



Form D  
predrilled



Form E  
with locating hole



**Material:**

Duroplastic PF 31, black.  
Hubs in steel, nickel-plated or stainless steel 1.4305, natural finish.  
Grip revolving, steel parts nickel-plated or in stainless steel 1.4305, natural finish.

**Surface finish:**

Deburred and high-polish finish.

**Sample order:**

K0164.0125X08

**Note:**

The handwheel and grip will be delivered unassembled.

**On request:**

Other locating holes.

### KIPP Disc handwheels with revolving taper grip

| Order No.<br>Form D | Order No.<br>Form E | Size | D   | D1      | D2 | D3 | D4 | D5   | D6  | D7 | H    | H1 | H2 | L1   | L2   | L3 | L4   |
|---------------------|---------------------|------|-----|---------|----|----|----|------|-----|----|------|----|----|------|------|----|------|
| K0164.0100X06       | K0164.1100X10       | 1    | 100 | -/10 H8 | 29 | 22 | 20 | 6/-  | 79  | M6 | 12/- | 9  | 8  | 29,5 | 19   | 39 | 54,7 |
| K0164.0125X08       | K0164.1125X12       | 2    | 125 | -/12 H8 | 34 | 26 | 21 | 8/-  | 101 | M6 | 15/- | 9  | 8  | 34   | 24   | 46 | 54,7 |
| K0164.0140X08       | K0164.1140X14       | 3    | 140 | -/14 H8 | 39 | 30 | 25 | 8/-  | 110 | M8 | 16/- | 12 | 8  | 38,5 | 27   | 52 | 82,2 |
| K0164.0160X10       | K0164.1160X16       | 4    | 160 | -/16 H8 | 43 | 33 | 30 | 10/- | 128 | M8 | 20/- | 12 | 8  | 41,3 | 30,1 | 57 | 82,2 |
| -                   | K0164.1160X18       | 4    | 160 | 18 H8   | 43 | 33 | 30 | -    | 128 | M8 | -    | 12 | 8  | 41,3 | 30,1 | 57 | 82,2 |

### KIPP Disc handwheels with revolving taper grip, steel parts in stainless steel

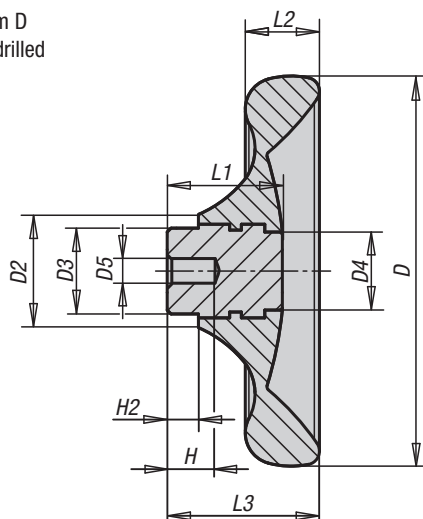
| Order No.<br>Form D | Order No.<br>Form E | Size | D   | D1      | D2 | D3 | D4 | D5   | D6  | D7 | H    | H1 | H2 | L1   | L2   | L3 | L4   |
|---------------------|---------------------|------|-----|---------|----|----|----|------|-----|----|------|----|----|------|------|----|------|
| K0164.2100X06       | K0164.3100X10       | 1    | 100 | -/10 H7 | 29 | 22 | 20 | 6/-  | 79  | M6 | 12/- | 9  | 8  | 29,5 | 19   | 39 | 54,7 |
| K0164.2125X08       | K0164.3125X12       | 2    | 125 | -/12 H7 | 34 | 26 | 21 | 8/-  | 101 | M6 | 15/- | 9  | 8  | 34   | 24   | 46 | 54,7 |
| K0164.2140X08       | K0164.3140X14       | 3    | 140 | -/14 H7 | 39 | 30 | 25 | 8/-  | 110 | M8 | 16/- | 12 | 8  | 38,5 | 27   | 52 | 82,2 |
| K0164.2160X10       | K0164.3160X16       | 4    | 160 | -/16 H7 | 43 | 33 | 30 | 10/- | 128 | M8 | 20/- | 12 | 8  | 41,3 | 30,1 | 57 | 82,2 |
| -                   | K0164.3160X18       | 4    | 160 | 18 H7   | 43 | 33 | 30 | -    | 128 | M8 | -    | 12 | 8  | 41,3 | 30,1 | 57 | 82,2 |

## Disc handwheels

without taper grip



Form D  
pre drilled



**Material:**

Black duroplastic PF 31.  
Hub in steel, nickel-plated or stainless steel 1.4305, natural finish.

**Surface finish:**

Deburred and high-polish finish.

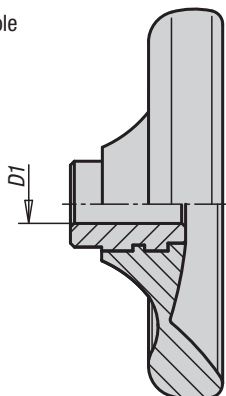
**Sample order:**

K0165.0100X06

**On request:**

Other locating holes.

Form E  
with locating hole



### KIPP Disc handwheels without taper grip, bush in steel

| Order No.<br>Form D | Order No.<br>Form E | Size | D   | D1      | D2 | D3 | D4 | D5    | H     | H2 | L1   | L2   | L3 |
|---------------------|---------------------|------|-----|---------|----|----|----|-------|-------|----|------|------|----|
| K0165.0100X06       | K0165.1100X10       | 1    | 100 | -/10 H8 | 29 | 22 | 20 | 6/ -  | 12/ - | 8  | 29,5 | 19   | 39 |
| K0165.0125X08       | K0165.1125X12       | 2    | 125 | -/12 H8 | 34 | 26 | 21 | 8/ -  | 15/ - | 8  | 34   | 24   | 46 |
| K0165.0140X08       | K0165.1140X14       | 3    | 140 | -/14 H8 | 39 | 30 | 25 | 8/ -  | 16/ - | 8  | 38,5 | 27   | 52 |
| K0165.0160X10       | K0165.1160X16       | 4    | 160 | -/16 H8 | 43 | 33 | 30 | 10/ - | 20/ - | 8  | 41,3 | 30,1 | 57 |
| -                   | K0165.1160X18       | 4    | 160 | 18 H8   | 43 | 33 | 30 | -     | -     | 8  | 41,3 | 30,1 | 57 |

### KIPP Disc handwheels without taper grip, bush in stainless steel

| Order No.<br>Form D | Order No.<br>Form E | Size | D   | D1      | D2 | D3 | D4 | D5    | H     | H2 | L1   | L2   | L3 |
|---------------------|---------------------|------|-----|---------|----|----|----|-------|-------|----|------|------|----|
| K0165.2100X06       | K0165.3100X10       | 1    | 100 | -/10 H7 | 29 | 22 | 20 | 6/ -  | 12/ - | 8  | 29,5 | 19   | 39 |
| K0165.2125X08       | K0165.3125X12       | 2    | 125 | -/12 H7 | 34 | 26 | 21 | 8/ -  | 15/ - | 8  | 34   | 24   | 46 |
| K0165.2140X08       | K0165.3140X14       | 3    | 140 | -/14 H7 | 39 | 30 | 25 | 8/ -  | 16/ - | 8  | 38,5 | 27   | 52 |
| K0165.2160X10       | K0165.3160X16       | 4    | 160 | -/16 H7 | 43 | 33 | 30 | 10/ - | 20/ - | 8  | 41,3 | 30,1 | 57 |
| -                   | K0165.3160X18       | 4    | 160 | 18 H7   | 43 | 33 | 30 | -     | -     | 8  | 41,3 | 30,1 | 57 |

## Handwheels

N<sup>G</sup>



The quality of Novo-Grip handwheels is defined by their absolutely secure and precise turning and gripping. Novo-Grip handwheels often equip especially powerful products and as a result they can be used safely.

**Material, surface finish:**

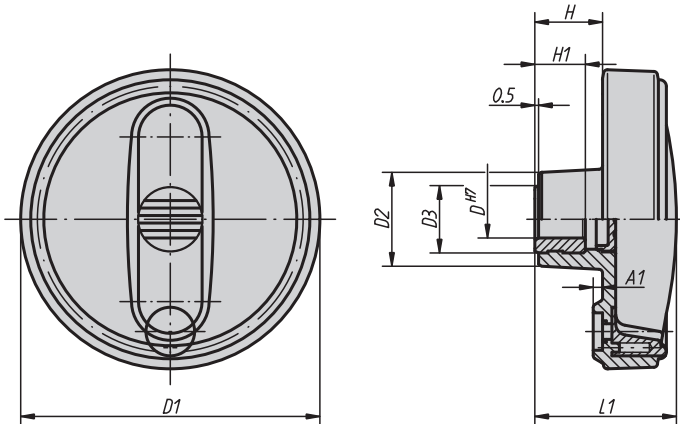
Anthracite grey thermoplastic.  
Steel parts black oxide finish.

**Sample order:**

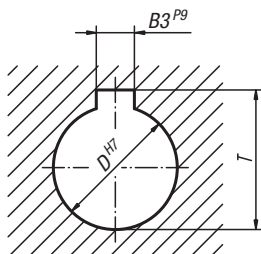
K0256.108008

**Note:**

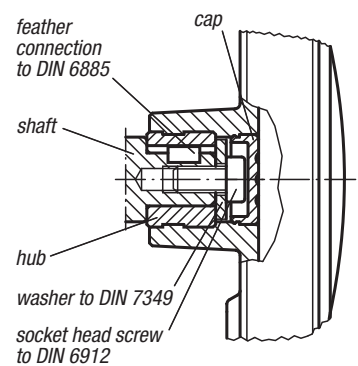
The hub cover is supplied unassembled.  
The handwheels can be secured axially to the shaft via feather connection by cross-pinning or with a socket head screw to DIN 6912 and a washer to DIN 7349.



hub slot according to  
DIN 6885-1



assembly example



### KIPP Handwheels

| Order No.<br>hub without slot | Order No.<br>hub with slot | Size | D  | D1  | D2 | D3 | A1  | H    | H1   | L1   | B3  | T      | Approx.<br>weight<br>kg |
|-------------------------------|----------------------------|------|----|-----|----|----|-----|------|------|------|-----|--------|-------------------------|
| K0256.108008                  | K0256.10800802             | 1    | 8  | 80  | 25 | 19 | 2,5 | 17,5 | 13   | 37,5 | -/2 | -/9    | 0,074                   |
| K0256.108010                  | K0256.10801003             | 1    | 10 | 80  | 25 | 19 | 2,5 | 17,5 | 13   | 37,5 | -/3 | -/11,4 | 0,074                   |
| K0256.108012                  | K0256.10801204             | 1    | 12 | 80  | 25 | 19 | 2,5 | 17,5 | 13   | 37,5 | -/4 | -/13,8 | 0,074                   |
| K0256.210010                  | K0256.21001003             | 2    | 10 | 100 | 28 | 19 | 3   | 20   | 13   | 44   | -/3 | -/11,4 | 0,125                   |
| K0256.210012                  | K0256.21001204             | 2    | 12 | 100 | 28 | 19 | 3   | 20   | 13   | 44   | -/4 | -/13,8 | 0,125                   |
| K0256.312512                  | K0256.31251204             | 3    | 12 | 125 | 35 | 25 | 4   | 23,5 | 18,5 | 53   | -/4 | -/13,8 | 0,229                   |
| K0256.312514                  | K0256.31251405             | 3    | 14 | 125 | 35 | 25 | 4   | 23,5 | 18,5 | 53   | -/5 | -/16,3 | 0,229                   |
| K0256.312516                  | K0256.31251605             | 3    | 16 | 125 | 35 | 25 | 4   | 23,5 | 18,5 | 53   | -/5 | -/18,3 | 0,229                   |
| K0256.416014                  | K0256.41601405             | 4    | 14 | 160 | 45 | 25 | 5,6 | 28   | 18,5 | 64,5 | -/5 | -/16,3 | 0,425                   |
| K0256.416016                  | K0256.41601605             | 4    | 16 | 160 | 45 | 25 | 5,6 | 28   | 18,5 | 64,5 | -/5 | -/18,3 | 0,425                   |

## Handwheels

with cylindrical revolving grip



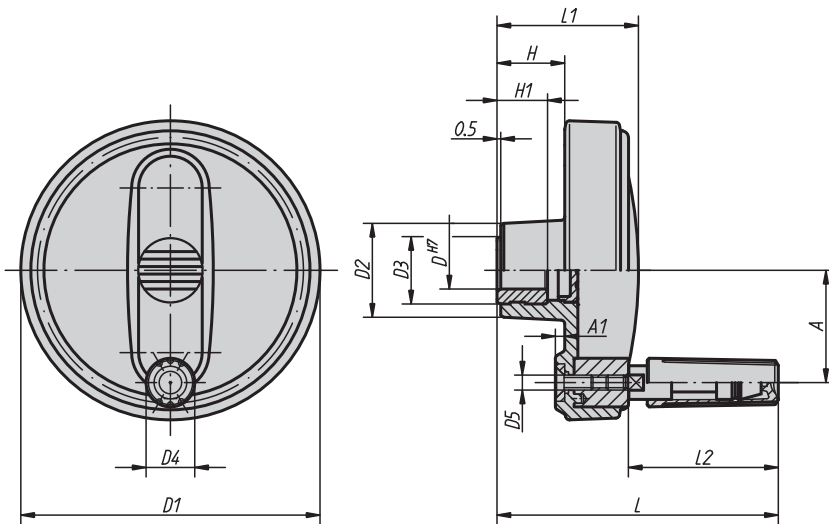
**N<sup>G</sup>**



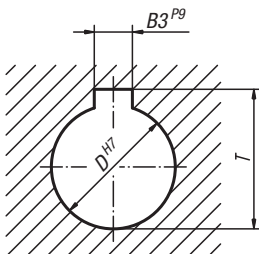
**Material, surface finish:**  
 Anthracite grey thermoplastic.  
 Steel parts black oxide finish.

**Sample order:**  
 K0257.108008

**Note:**  
 The hub cover and the cylindrical revolving grip are supplied unassembled. In order to assemble the grip, the axis must be screwed into the receiving hole. The handwheels can be secured axially to the shaft via feather connection by cross-pinning or with a socket head screw to DIN 6912 and a washer to DIN 7349. Assembly example see K0256.



hub slot according to  
 DIN 6885-1



### KIPP Handwheels with cylindrical revolving grip

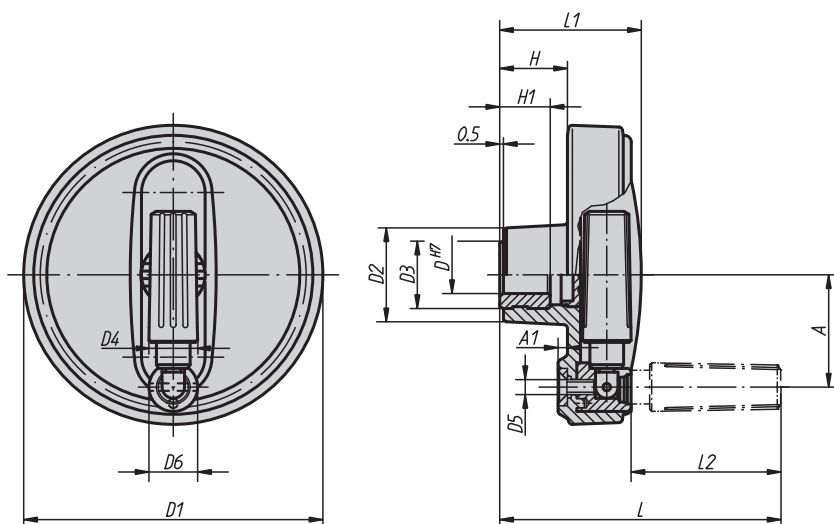
| Order No.<br>hub without slot | Order No.<br>hub with slot | Size | D  | D1  | D2 | D3 | D4 | D5 | A    | A1  | H    | H1   | L   | L1   | L2   | B3  | T      | Approx.<br>weight<br>kg |
|-------------------------------|----------------------------|------|----|-----|----|----|----|----|------|-----|------|------|-----|------|------|-----|--------|-------------------------|
| K0257.108008                  | K0257.10800802             | 1    | 8  | 80  | 25 | 19 | 13 | M4 | 30   | 2,5 | 17,5 | 13   | 75  | 37,5 | 40   | -/2 | -/9    | 0,101                   |
| K0257.108010                  | K0257.10801003             | 1    | 10 | 80  | 25 | 19 | 13 | M4 | 30   | 2,5 | 17,5 | 13   | 75  | 37,5 | 40   | -/3 | -/11,4 | 0,101                   |
| K0257.108012                  | K0257.10801204             | 1    | 12 | 80  | 25 | 19 | 13 | M4 | 30   | 2,5 | 17,5 | 13   | 75  | 37,5 | 40   | -/4 | -/13,8 | 0,101                   |
| K0257.210010                  | K0257.21001003             | 2    | 10 | 100 | 28 | 19 | 16 | M5 | 38   | 3   | 20   | 13   | 90  | 44   | 49,5 | -/3 | -/11,4 | 0,178                   |
| K0257.210012                  | K0257.21001204             | 2    | 12 | 100 | 28 | 19 | 16 | M5 | 38   | 3   | 20   | 13   | 90  | 44   | 49,5 | -/4 | -/13,8 | 0,178                   |
| K0257.312512                  | K0257.31251204             | 3    | 12 | 125 | 35 | 25 | 20 | M6 | 47,5 | 4   | 23,5 | 18,5 | 109 | 53   | 60   | -/4 | -/13,8 | 0,318                   |
| K0257.312514                  | K0257.31251405             | 3    | 14 | 125 | 35 | 25 | 20 | M6 | 47,5 | 4   | 23,5 | 18,5 | 109 | 53   | 60   | -/5 | -/16,3 | 0,318                   |
| K0257.312516                  | K0257.31251605             | 3    | 16 | 125 | 35 | 25 | 20 | M6 | 47,5 | 4   | 23,5 | 18,5 | 109 | 53   | 60   | -/5 | -/18,3 | 0,318                   |
| K0257.416014                  | K0257.41601405             | 4    | 14 | 160 | 45 | 25 | 25 | M8 | 62   | 5,6 | 28   | 18,5 | 144 | 64,5 | 83,5 | -/5 | -/16,3 | 0,636                   |
| K0257.416016                  | K0257.41601605             | 4    | 16 | 160 | 45 | 25 | 25 | M8 | 62   | 5,6 | 28   | 18,5 | 144 | 64,5 | 83,5 | -/5 | -/18,3 | 0,636                   |

## Handwheels

with cylindrical fold-away grip



**N<sup>G</sup>**



**Material, surface finish:**

Anthracite grey thermoplastic.  
Steel parts black oxide finish.

**Sample order:**

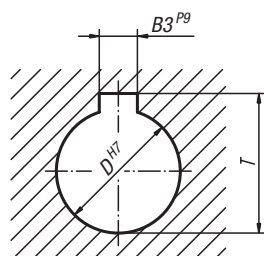
K0258.108008

**Note:**

The hub cover is supplied unassembled.  
The handwheels can be secured axially to the shaft via feather connection by cross-pinning or with a socket head screw to DIN 6912 and a washer to DIN 7349. Assembly example see K0256.



hub slot according to  
DIN 6885-1



### KIPP Handwheels with cylindrical fold-away grip

| Order No.<br>hub without slot | Order No.<br>hub with slot | Size | D  | D1  | D2 | D3 | D4 | D5 | D6 | A    | A1  | H    | H1   | L   | L1   | L2   | B3  | T      | Approx.<br>weight<br>kg |
|-------------------------------|----------------------------|------|----|-----|----|----|----|----|----|------|-----|------|------|-----|------|------|-----|--------|-------------------------|
| K0258.108008                  | K0258.10800802             | 1    | 8  | 80  | 25 | 19 | 13 | M4 | 13 | 30   | 2,5 | 17,5 | 13   | 75  | 37,5 | 40   | -/2 | -/9    | 0,100                   |
| K0258.108010                  | K0258.10801003             | 1    | 10 | 80  | 25 | 19 | 13 | M4 | 13 | 30   | 2,5 | 17,5 | 13   | 75  | 37,5 | 40   | -/3 | -/11,4 | 0,100                   |
| K0258.108012                  | K0258.10801204             | 1    | 12 | 80  | 25 | 19 | 13 | M4 | 13 | 30   | 2,5 | 17,5 | 13   | 75  | 37,5 | 40   | -/4 | -/13,8 | 0,100                   |
| K0258.210010                  | K0258.21001003             | 2    | 10 | 100 | 28 | 19 | 16 | M5 | 16 | 38   | 3   | 20   | 13   | 90  | 44   | 49   | -/3 | -/11,4 | 0,179                   |
| K0258.210012                  | K0258.21001204             | 2    | 12 | 100 | 28 | 19 | 16 | M5 | 16 | 38   | 3   | 20   | 13   | 90  | 44   | 49   | -/4 | -/13,8 | 0,179                   |
| K0258.312512                  | K0258.31251204             | 3    | 12 | 125 | 35 | 25 | 20 | M6 | 20 | 47,5 | 4   | 23,5 | 18,5 | 109 | 53   | 59,5 | -/4 | -/13,8 | 0,328                   |
| K0258.312514                  | K0258.31251405             | 3    | 14 | 125 | 35 | 25 | 20 | M6 | 20 | 47,5 | 4   | 23,5 | 18,5 | 109 | 53   | 59,5 | -/5 | -/16,3 | 0,328                   |
| K0258.312516                  | K0258.31251605             | 3    | 16 | 125 | 35 | 25 | 20 | M6 | 20 | 47,5 | 4   | 23,5 | 18,5 | 109 | 53   | 59,5 | -/5 | -/18,3 | 0,328                   |
| K0258.416014                  | K0258.41601405             | 4    | 14 | 160 | 45 | 25 | 25 | M8 | 26 | 62   | 5,6 | 28   | 18,5 | 144 | 64,5 | 83,5 | -/5 | -/16,3 | 0,651                   |
| K0258.416016                  | K0258.41601605             | 4    | 16 | 160 | 45 | 25 | 25 | M8 | 26 | 62   | 5,6 | 28   | 18,5 | 144 | 64,5 | 83,5 | -/5 | -/18,3 | 0,651                   |

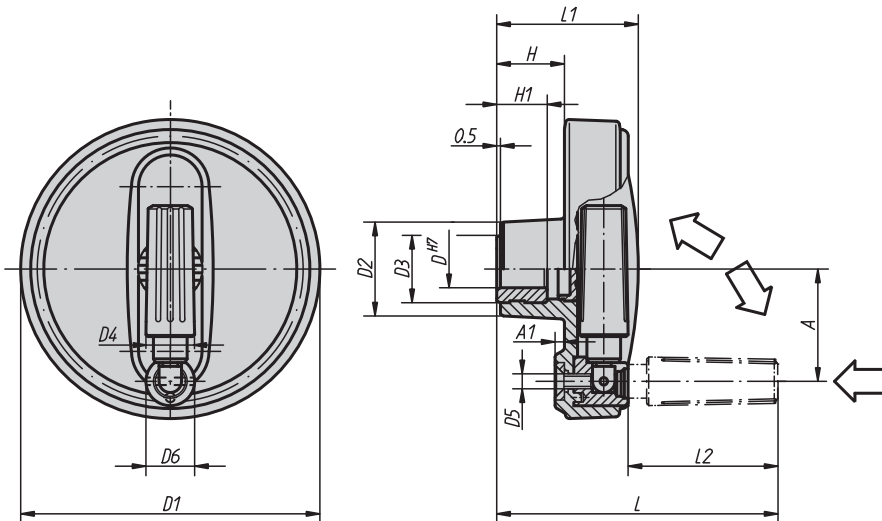


## Handwheels

with cylindrical safety grip



**N<sup>G</sup>**



**Material, surface finish:**

Wheel body and grip in anthracite grey thermoplastic. Steel parts black oxide finish.

**Sample order:**

K0259.108008

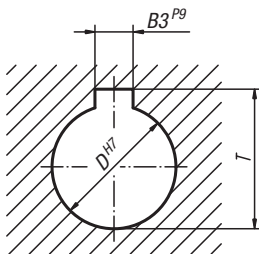
**Note:**

The hub cover is supplied unassembled. The handwheels can be secured axially to the shaft via feather connection by cross-pinning or with a socket head screw to DIN 6912 and a washer to DIN 7349. Two steps have to be executed to bring the cylindrical safety grip into operating position:

- Swivel the grip around the axis of rotation until it stops (90°).
- Press the grip in axial direction into locking position. The pressed-in position is the most comfortable position to crank. The grip returns automatically after letting go.

Assembly example see K0256.

hub slot according to DIN 6885-1



### KIPP Handwheels with cylindrical safety grip

| Order No. hub without slot | Order No. hub with slot | Size | D  | D1  | D2 | D3 | D4 | D5 | D6 | A    | A1  | H    | H1   | L     | L1   | L2   | B3  | T      | Approx. weight kg |
|----------------------------|-------------------------|------|----|-----|----|----|----|----|----|------|-----|------|------|-------|------|------|-----|--------|-------------------|
| K0259.108008               | K0259.10800802          | 1    | 8  | 80  | 25 | 19 | 13 | M4 | 13 | 30   | 2,5 | 17,5 | 13   | 73    | 37,5 | 38   | -/2 | -/9    | 0,100             |
| K0259.108010               | K0259.10801003          | 1    | 10 | 80  | 25 | 19 | 13 | M4 | 13 | 30   | 2,5 | 17,5 | 13   | 73    | 37,5 | 38   | -/3 | -/11,4 | 0,100             |
| K0259.108012               | K0259.10801204          | 1    | 12 | 80  | 25 | 19 | 13 | M4 | 13 | 30   | 2,5 | 17,5 | 13   | 73    | 37,5 | 38   | -/4 | -/13,8 | 0,100             |
| K0259.210010               | K0259.21001003          | 2    | 10 | 100 | 28 | 19 | 16 | M5 | 16 | 38   | 3   | 20   | 13   | 88,5  | 44   | 47,5 | -/3 | -/11,4 | 0,179             |
| K0259.210012               | K0259.21001204          | 2    | 12 | 100 | 28 | 19 | 16 | M5 | 16 | 38   | 3   | 20   | 13   | 88,5  | 44   | 47,5 | -/4 | -/13,8 | 0,179             |
| K0259.312512               | K0259.31251204          | 3    | 12 | 125 | 35 | 25 | 20 | M6 | 20 | 47,5 | 4   | 23,5 | 18,5 | 108   | 53   | 58,5 | -/4 | -/13,8 | 0,328             |
| K0259.312514               | K0259.31251405          | 3    | 14 | 125 | 35 | 25 | 20 | M6 | 20 | 47,5 | 4   | 23,5 | 18,5 | 108   | 53   | 58,5 | -/5 | -/16,3 | 0,328             |
| K0259.312516               | K0259.31251605          | 3    | 16 | 125 | 35 | 25 | 20 | M6 | 20 | 47,5 | 4   | 23,5 | 18,5 | 108   | 53   | 58,5 | -/5 | -/18,3 | 0,328             |
| K0259.416014               | K0259.41601405          | 4    | 14 | 160 | 45 | 25 | 25 | M8 | 26 | 62   | 5,6 | 28   | 18,5 | 142,5 | 64,5 | 82   | -/5 | -/16,3 | 0,651             |
| K0259.416016               | K0259.41601605          | 4    | 16 | 160 | 45 | 25 | 25 | M8 | 26 | 62   | 5,6 | 28   | 18,5 | 142,5 | 64,5 | 82   | -/5 | -/18,3 | 0,651             |

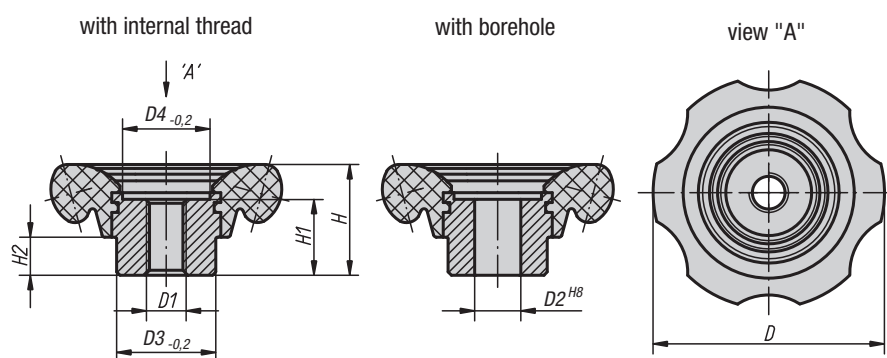
## Duroplastic handwheels



**Material:**  
Handwheel in duroplastic PF 31.  
Bush in steel, black oxide finish.

**Surface finish:**  
High-polish finish, black.

**Sample order:**  
K0184.70112



### KIPP Duroplastic handwheels

| Order No.   | Surface finish                 | D  | D1  | D2 | D3 | D4   | H    | H1 | H2   |
|-------------|--------------------------------|----|-----|----|----|------|------|----|------|
| K0184.70110 | handwheel with internal thread | 70 | M10 | -  | 30 | 26,5 | 33,5 | 23 | 11,5 |
| K0184.70112 | handwheel with internal thread | 70 | M12 | -  | 30 | 26,5 | 33,5 | 23 | 11,5 |
| K0184.83112 | handwheel with internal thread | 83 | M12 | -  | 35 | 31,5 | 40   | 28 | 14   |
| K0184.83116 | handwheel with internal thread | 83 | M16 | -  | 35 | 31,5 | 40   | 28 | 14   |
| K0184.70212 | handwheel with borehole        | 70 | -   | 12 | 30 | 26,5 | 33,5 | 23 | 11,5 |
| K0184.70214 | handwheel with borehole        | 70 | -   | 14 | 30 | 26,5 | 33,5 | 23 | 11,5 |
| K0184.83214 | handwheel with borehole        | 83 | -   | 14 | 35 | 31,5 | 40   | 28 | 14   |
| K0184.83216 | handwheel with borehole        | 83 | -   | 16 | 35 | 31,5 | 40   | 28 | 14   |

## Positioning wheels

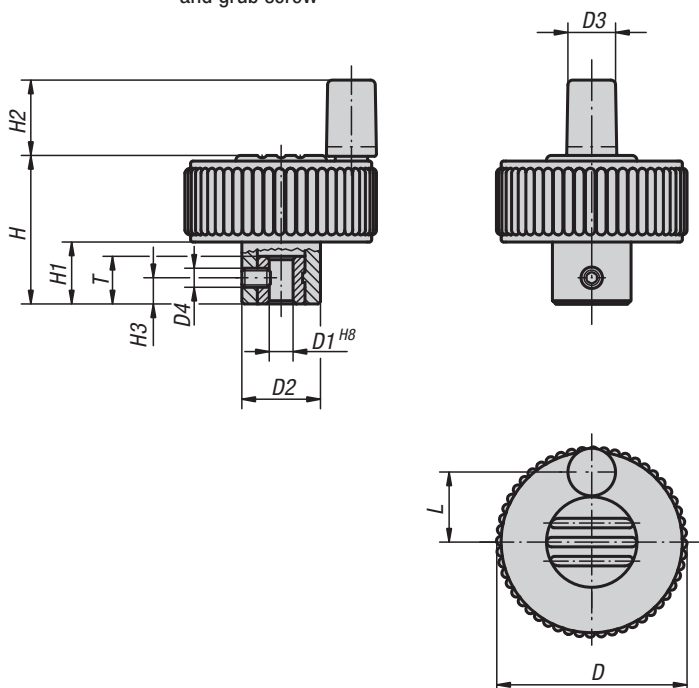


N<sup>G</sup>



Form H  
without transverse hole

Form M  
with transverse hole  
and grub screw



The extremely attractive design and the excellent ergonomic form make this positioning wheel a trend-setting product, which allows precise and secure positioning. Due to the sophisticated technology, the positioning wheels make any type of work easier than before.

**Material, surface finish:**

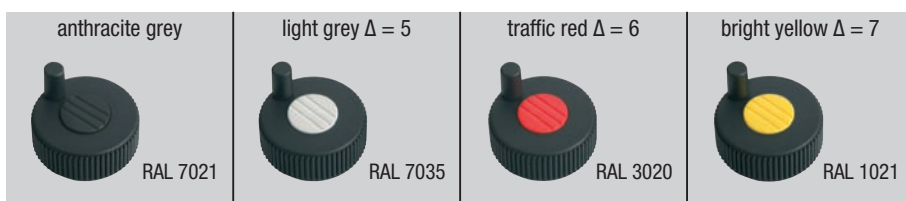
Anthracite grey thermoplastic.  
Bush in steel 5.8, blue chromated.

**Sample order:**

K0262.21066 (cap colour traffic red)

**Note:**

Δ Add the desired cap colour here. No colour code is required with anthracite grey wheel caps.



### KIPP Positioning wheels

| Order No.   | Form | Size | D  | D1 | D2   | D3 | D4 | H  | H1 | H2 | H3  | L    | T  |
|-------------|------|------|----|----|------|----|----|----|----|----|-----|------|----|
| K0262.2106Δ | H    | 1    | 40 | 6  | 16,5 | 10 | -  | 31 | 13 | 16 | -   | 15   | 10 |
| K0262.2206Δ | H    | 2    | 50 | 6  | 18   | 10 | -  | 36 | 15 | 16 | -   | 18,5 | 10 |
| K0262.2308Δ | H    | 3    | 63 | 8  | 22   | 10 | -  | 41 | 17 | 16 | -   | 25   | 14 |
| K0262.1106Δ | M    | 1    | 40 | 6  | 16,5 | 10 | M4 | 31 | 13 | 16 | 5,5 | 15   | 10 |
| K0262.1206Δ | M    | 2    | 50 | 6  | 18   | 10 | M4 | 36 | 15 | 16 | 5,5 | 18,5 | 10 |
| K0262.1308Δ | M    | 3    | 63 | 8  | 22   | 10 | M4 | 41 | 17 | 16 | 8   | 25   | 14 |

## Delta wheels

N<sup>G</sup>



Novo-Grip delta wheels serve to create better conditions so that you can give your ideas concrete form and perfect shape. The delta shape also offers you the additional benefit to grasp the handwheel securely and comfortably.

**Material:**

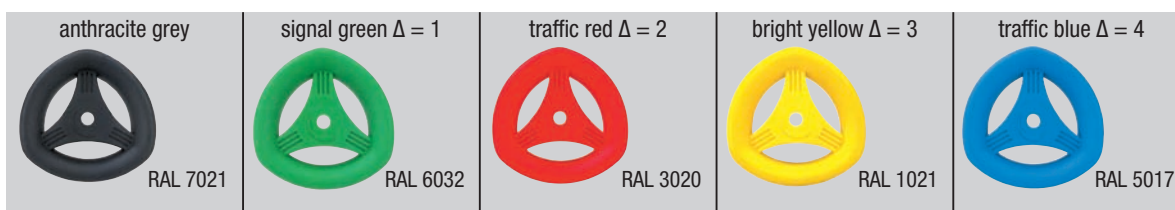
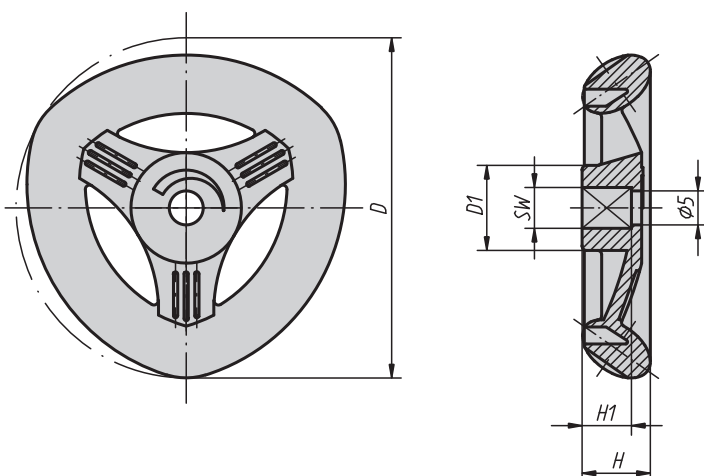
Glass-fibre reinforced thermoplastic.

**Sample order:**

K0275.050051 (delta wheel signal green)

**Note:**

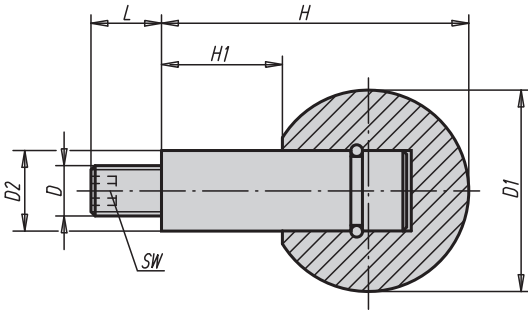
Δ Add the desired colour here. No colour code is required with anthracite grey.



### KIPP Delta wheels

| Order No.    | Size | D  | D1   | H    | H1  | SW (square) |
|--------------|------|----|------|------|-----|-------------|
| K0275.05005Δ | 1    | 50 | 12,5 | 10   | 7,3 | 5           |
| K0275.05006Δ | 1    | 50 | 12,5 | 10   | 7,3 | 6           |
| K0275.06306Δ | 2    | 63 | 15,8 | 12,6 | 9   | 6           |
| K0275.06307Δ | 2    | 63 | 15,8 | 12,6 | 9   | 7           |
| K0275.08008Δ | 3    | 80 | 20   | 16   | 12  | 8           |
| K0275.08009Δ | 3    | 80 | 20   | 16   | 12  | 9           |

# Revolving handles short version



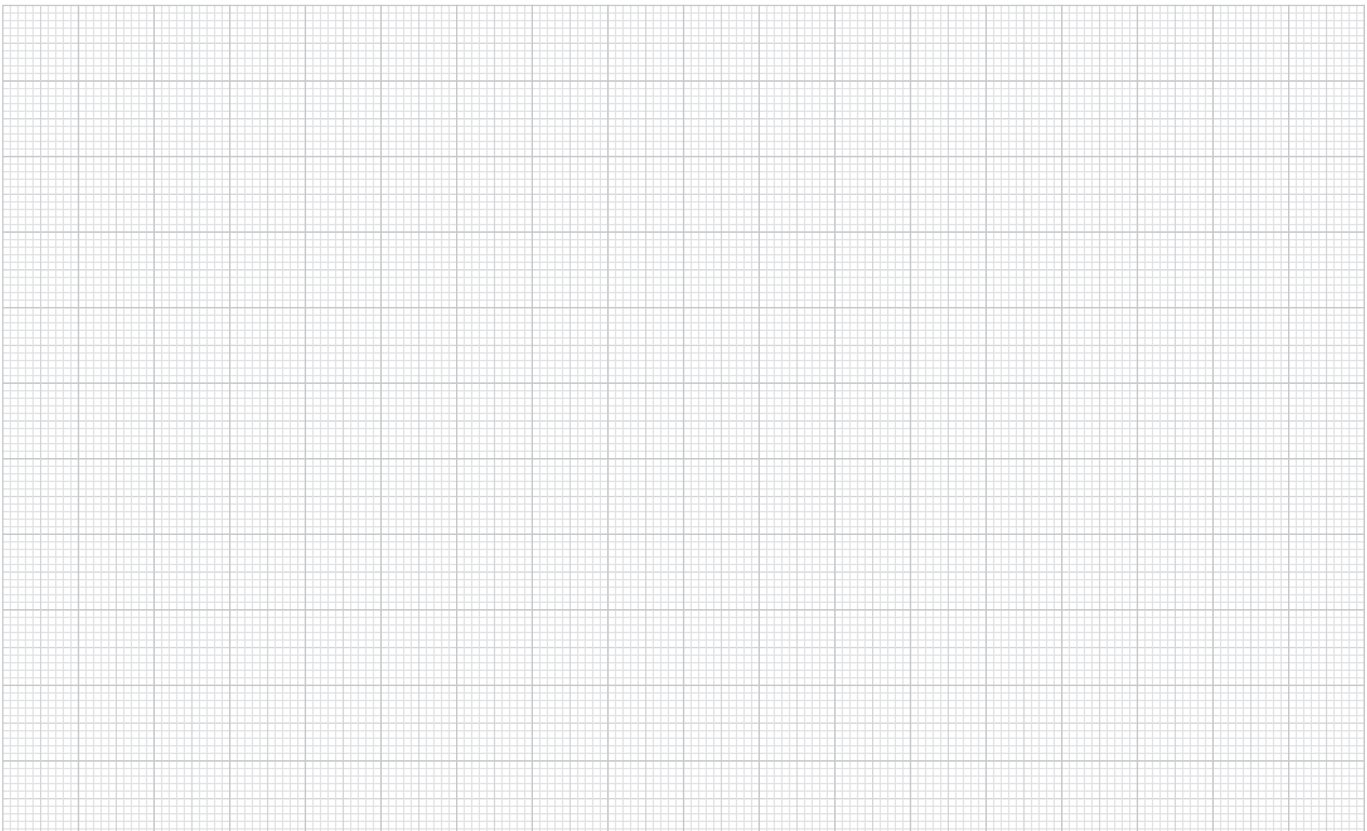
**Material, surface finish:**  
 Ball in Duroplast PF 31, black shiny finish.  
 Steel bolts, blue chromated.

**Sample order:**  
 K0726.061

## KIPP Revolving handles short version

| Order No. | D   | D1 | D2 | H    | H1 | L  | SW | Approx. weight kg |
|-----------|-----|----|----|------|----|----|----|-------------------|
| K0726.061 | M6  | 25 | 10 | 37,5 | 15 | 11 | 3  | 0,035             |
| K0726.081 | M8  | 32 | 13 | 48   | 19 | 13 | 4  | 0,070             |
| K0726.101 | M10 | 40 | 16 | 61   | 24 | 14 | 5  | 0,125             |
| K0726.121 | M12 | 50 | 20 | 78   | 31 | 21 | 6  | 0,215             |

## Notes



## Offset crank handles

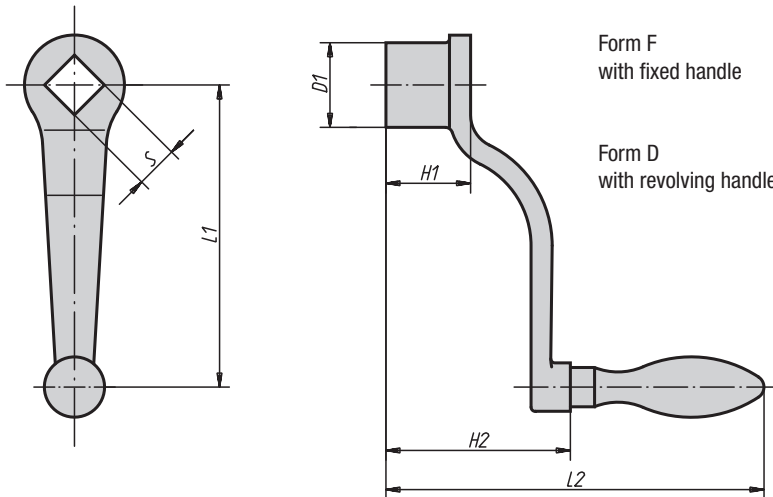
similar DIN 468



**Material:**  
Malleable or ductile cast iron crank arm.

**Surface finish:**  
Blasted.

**Sample order:**  
K0684.212X14



### KIPP Offset crank handles similar DIN 468

| Order No.    | Form | L1  | L2  | S       | D1 | H1 | H2 | Diameter handle | Approx. weight kg |
|--------------|------|-----|-----|---------|----|----|----|-----------------|-------------------|
| K0684.206X10 | D    | 63  | 92  | 10 +0,2 | 20 | 20 | 40 | 16              | 0,130             |
| K0684.208X10 | D    | 80  | 109 | 10 +0,2 | 24 | 24 | 44 | 20              | 0,245             |
| K0684.208X12 | D    | 80  | 109 | 12 +0,2 | 24 | 24 | 44 | 20              | 0,245             |
| K0684.210X12 | D    | 100 | 120 | 12 +0,2 | 28 | 28 | 55 | 20              | 0,330             |
| K0684.210X14 | D    | 100 | 120 | 14 +0,3 | 28 | 28 | 55 | 20              | 0,330             |
| K0684.212X14 | D    | 125 | 141 | 14 +0,3 | 34 | 34 | 58 | 25              | 0,550             |
| K0684.212X17 | D    | 125 | 141 | 17 +0,3 | 34 | 34 | 58 | 25              | 0,550             |
| K0684.216X17 | D    | 160 | 153 | 17 +0,3 | 37 | 38 | 70 | 25              | 0,710             |
| K0684.216X19 | D    | 160 | 153 | 19 +0,3 | 37 | 38 | 70 | 25              | 0,710             |
| K0684.220X19 | D    | 200 | 189 | 19 +0,3 | 40 | 44 | 84 | 32              | 1,120             |
| K0684.220X22 | D    | 200 | 189 | 22 +0,3 | 40 | 44 | 84 | 32              | 1,120             |
| K0684.106X10 | F    | 63  | 92  | 10 +0,2 | 20 | 20 | 40 | 16              | 0,130             |
| K0684.108X10 | F    | 80  | 109 | 10 +0,2 | 24 | 24 | 44 | 20              | 0,245             |
| K0684.108X12 | F    | 80  | 109 | 12 +0,2 | 24 | 24 | 44 | 20              | 0,245             |
| K0684.110X12 | F    | 100 | 120 | 12 +0,2 | 28 | 28 | 55 | 20              | 0,330             |
| K0684.110X14 | F    | 100 | 120 | 14 +0,3 | 28 | 28 | 55 | 20              | 0,330             |
| K0684.112X14 | F    | 125 | 141 | 14 +0,3 | 34 | 34 | 58 | 25              | 0,550             |
| K0684.112X17 | F    | 125 | 141 | 17 +0,3 | 34 | 34 | 58 | 25              | 0,550             |
| K0684.116X17 | F    | 160 | 153 | 17 +0,3 | 37 | 38 | 70 | 25              | 0,710             |
| K0684.116X19 | F    | 160 | 153 | 19 +0,3 | 37 | 38 | 70 | 25              | 0,710             |
| K0684.120X19 | F    | 200 | 189 | 19 +0,3 | 40 | 44 | 84 | 32              | 1,120             |
| K0684.120X22 | F    | 200 | 189 | 22 +0,3 | 40 | 44 | 84 | 32              | 1,120             |

## Straight crank handles

similar DIN 469



**Material:**

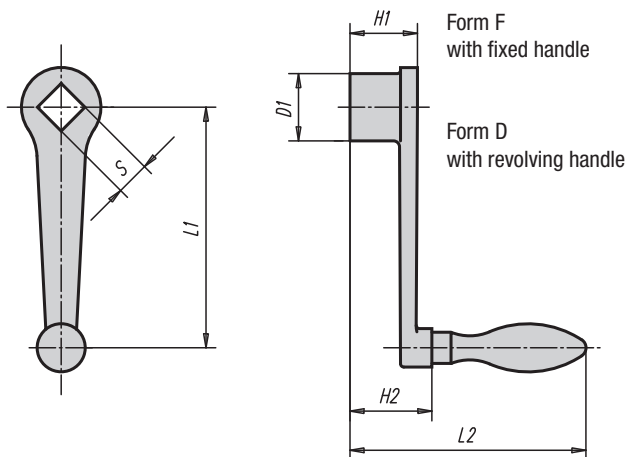
Malleable or ductile cast iron crank arm.

**Surface finish:**

Blasted.

**Sample order:**

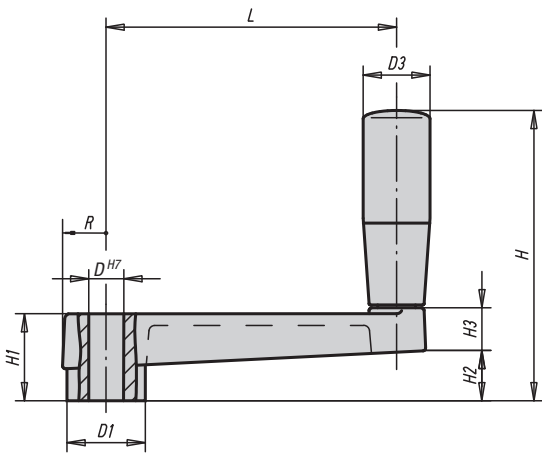
K0685.120X22



### KIPP Straight crank handles similar DIN 469

| Order No.    | Form | L1  | L2  | S       | D1 | H1 | H2 | Diameter handle | Approx. weight kg |
|--------------|------|-----|-----|---------|----|----|----|-----------------|-------------------|
| K0685.106X10 | F    | 63  | 80  | 10 +0,2 | 20 | 20 | 28 | 16              | 0,135             |
| K0685.108X10 | F    | 80  | 98  | 10 +0,2 | 24 | 24 | 33 | 20              | 0,250             |
| K0685.108X12 | F    | 80  | 98  | 12 +0,2 | 24 | 24 | 33 | 20              | 0,250             |
| K0685.110X12 | F    | 100 | 102 | 12 +0,2 | 28 | 28 | 37 | 20              | 0,330             |
| K0685.110X14 | F    | 100 | 102 | 14 +0,3 | 28 | 28 | 37 | 20              | 0,330             |
| K0685.112X14 | F    | 125 | 120 | 14 +0,3 | 34 | 34 | 40 | 25              | 0,550             |
| K0685.112X17 | F    | 125 | 120 | 17 +0,3 | 34 | 34 | 40 | 25              | 0,550             |
| K0685.116X17 | F    | 160 | 131 | 17 +0,3 | 37 | 38 | 48 | 25              | 0,720             |
| K0685.116X19 | F    | 160 | 131 | 19 +0,3 | 37 | 38 | 48 | 25              | 0,720             |
| K0685.120X19 | F    | 200 | 158 | 19 +0,3 | 40 | 44 | 53 | 32              | 1,140             |
| K0685.120X22 | F    | 200 | 158 | 22 +0,3 | 40 | 44 | 53 | 32              | 1,140             |
| K0685.206X10 | D    | 63  | 80  | 10 +0,2 | 20 | 20 | 28 | 16              | 0,135             |
| K0685.208X10 | D    | 80  | 98  | 10 +0,2 | 24 | 24 | 33 | 20              | 0,250             |
| K0685.208X12 | D    | 80  | 98  | 12 +0,2 | 24 | 24 | 33 | 20              | 0,250             |
| K0685.210X12 | D    | 100 | 102 | 12 +0,2 | 28 | 28 | 37 | 20              | 0,330             |
| K0685.210X14 | D    | 100 | 102 | 14 +0,3 | 28 | 28 | 37 | 20              | 0,330             |
| K0685.212X14 | D    | 125 | 120 | 14 +0,3 | 34 | 34 | 40 | 25              | 0,550             |
| K0685.212X17 | D    | 125 | 120 | 17 +0,3 | 34 | 34 | 40 | 25              | 0,550             |
| K0685.216X17 | D    | 160 | 131 | 17 +0,3 | 37 | 38 | 48 | 25              | 0,720             |
| K0685.216X19 | D    | 160 | 131 | 19 +0,3 | 37 | 38 | 48 | 25              | 0,720             |
| K0685.220X19 | D    | 200 | 158 | 19 +0,3 | 40 | 44 | 53 | 32              | 1,140             |
| K0685.220X22 | D    | 200 | 158 | 22 +0,3 | 40 | 44 | 53 | 32              | 1,140             |

# Aluminium crank handles



**Material:**  
Aluminium.  
Duroplastic cylindrical revolving handle.

**Surface finish:**  
Black plastic-coated.  
Black revolving handle.

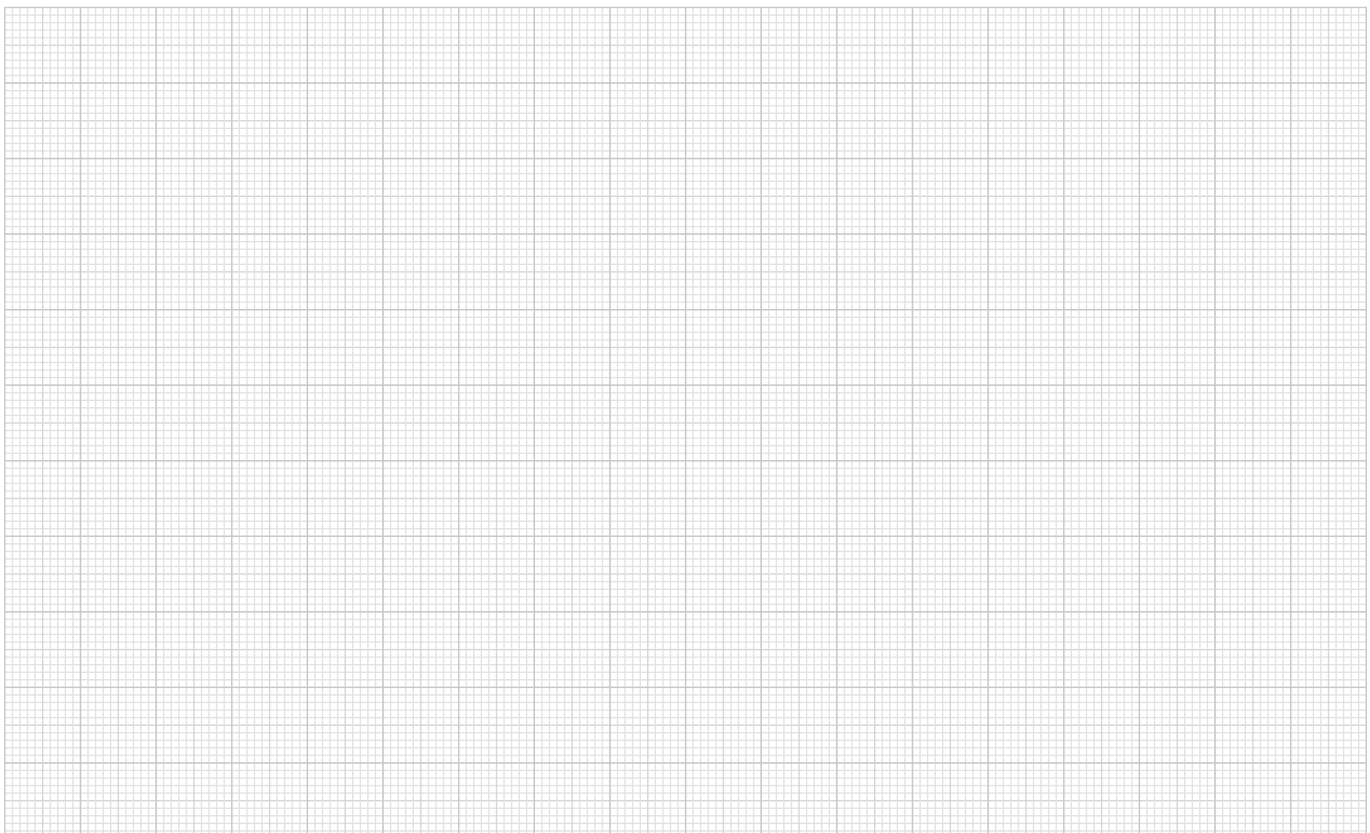
**Sample order:**  
K0727.100



## KIPP Aluminium crank handles

| Order No. | D  | D1 | D3 | H   | H1 | ~H2 | H3 | L   | R    | Approx. weight kg |
|-----------|----|----|----|-----|----|-----|----|-----|------|-------------------|
| K0727.100 | 10 | 23 | 21 | 81  | 24 | 14  | 14 | 80  | 13   | 0,101             |
| K0727.120 | 12 | 27 | 23 | 100 | 28 | 17  | 15 | 100 | 15   | 0,170             |
| K0727.140 | 14 | 32 | 26 | 123 | 34 | 22  | 18 | 125 | 17,5 | 0,262             |

## Notes



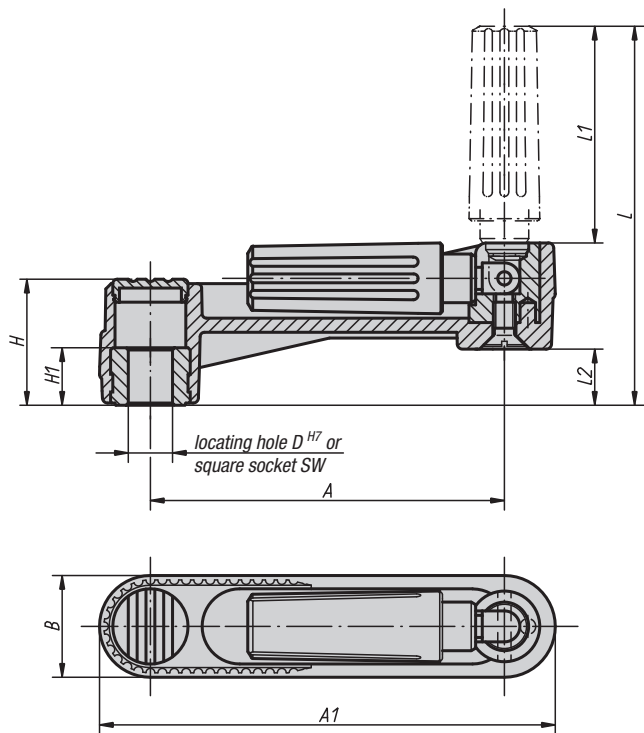


## Crank handles

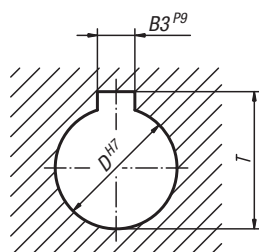
with cylindrical fold-away grip



**N<sup>G</sup>**



hub slot according to DIN 6885-1



Of course, Novo-Grip crank handles comply with standards regarding their centre distances. They also come with cylindrical fold-away grips, highly reinforced, stable plastics and can be used for shaft or square sections. Moreover, they offer axial and radial fastening possibilities.

**Material, surface finish:**

Anthracite grey thermoplastic.  
Steel parts black oxide finish.

**Sample order:**

K0266.1108

**Note:**

The hub cover is supplied unassembled. The crank handles can be secured axially to the shaft via feather connection by cross-pinning or with a socket head screw to DIN 6912 and a washer to DIN 7349.

### KIPP Crank handles with cylindrical fold-away grip

| Order No.  | Surface finish              | Size | A   | A1  | B  | D  | H  | H1   | L    | L1   | L2   | Approx. weight kg |
|------------|-----------------------------|------|-----|-----|----|----|----|------|------|------|------|-------------------|
| K0266.1108 | locating hole without slots | 1    | 80  | 104 | 24 | 8  | 29 | 13   | 85,5 | 49   | 13   | 0,100             |
| K0266.1110 | locating hole without slot  | 1    | 80  | 104 | 24 | 10 | 29 | 13   | 85,5 | 49   | 13   | 0,100             |
| K0266.1210 | locating hole without slots | 2    | 100 | 129 | 29 | 10 | 36 | 13   | 105  | 59,5 | 16   | 0,190             |
| K0266.1212 | locating hole without slots | 2    | 100 | 129 | 29 | 12 | 36 | 13   | 105  | 59,5 | 16   | 0,190             |
| K0266.1312 | locating hole without slots | 3    | 125 | 161 | 36 | 12 | 44 | 18,5 | 140  | 83,5 | 19,5 | 0,370             |
| K0266.1314 | locating hole without slot  | 3    | 125 | 161 | 36 | 14 | 44 | 18,5 | 140  | 83,5 | 19,5 | 0,370             |

| Order No.    | Surface finish          | Size | A   | A1  | B  | D  | H  | H1   | L    | L1   | L2   | B3 | T    | Approx. weight kg |
|--------------|-------------------------|------|-----|-----|----|----|----|------|------|------|------|----|------|-------------------|
| K0266.110802 | locating hole with slot | 1    | 80  | 104 | 24 | 8  | 29 | 13   | 85,5 | 49   | 13   | 2  | 9    | 0,100             |
| K0266.111003 | locating hole with slot | 1    | 80  | 104 | 24 | 10 | 29 | 13   | 85,5 | 49   | 13   | 3  | 11,4 | 0,100             |
| K0266.121003 | locating hole with slot | 2    | 100 | 129 | 29 | 10 | 36 | 13   | 105  | 59,5 | 16   | 3  | 11,4 | 0,190             |
| K0266.121204 | locating hole with slot | 2    | 100 | 129 | 29 | 12 | 36 | 13   | 105  | 59,5 | 16   | 4  | 13,8 | 0,190             |
| K0266.131204 | locating hole with slot | 3    | 125 | 161 | 36 | 12 | 44 | 18,5 | 140  | 83,5 | 19,5 | 4  | 13,8 | 0,370             |
| K0266.131405 | locating hole with slot | 3    | 125 | 161 | 36 | 14 | 44 | 18,5 | 140  | 83,5 | 19,5 | 5  | 16,3 | 0,370             |

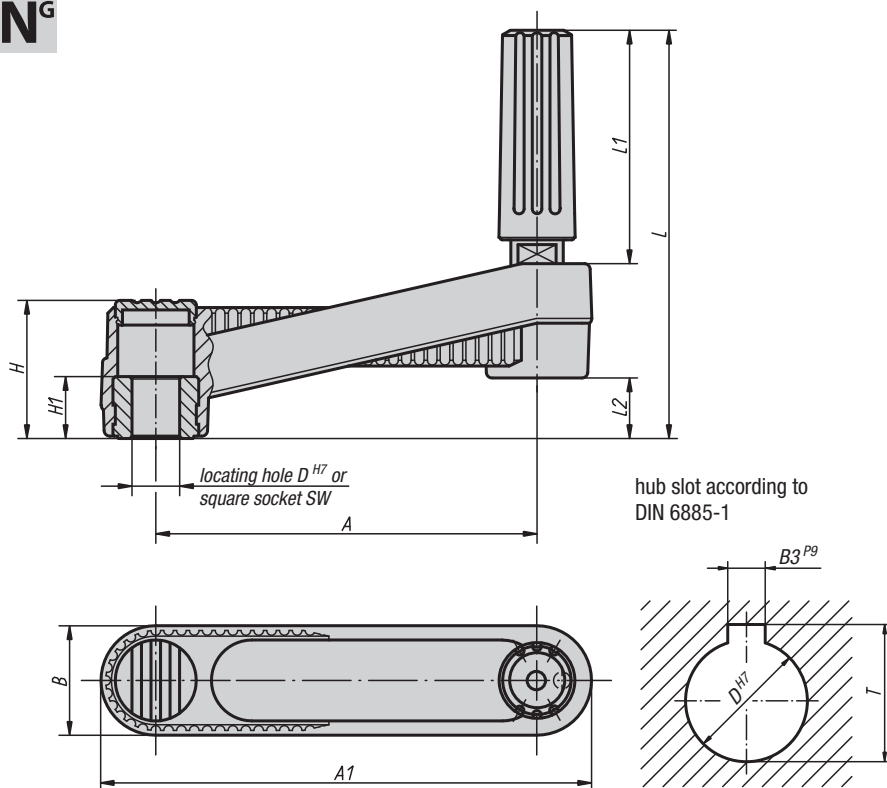
| Order No.  | Surface finish | Size | A   | A1  | B  | SW | H  | H1   | L    | L1   | L2   | Approx. weight kg |
|------------|----------------|------|-----|-----|----|----|----|------|------|------|------|-------------------|
| K0266.2108 | square socket  | 1    | 80  | 104 | 24 | 8  | 29 | 13   | 85,5 | 49   | 13   | 0,100             |
| K0266.2110 | square socket  | 1    | 80  | 104 | 24 | 10 | 29 | 13   | 85,5 | 49   | 13   | 0,100             |
| K0266.2210 | square socket  | 2    | 100 | 129 | 29 | 10 | 36 | 13   | 105  | 59,5 | 16   | 0,190             |
| K0266.2212 | square socket  | 2    | 100 | 129 | 29 | 12 | 36 | 13   | 105  | 59,5 | 16   | 0,190             |
| K0266.2312 | square socket  | 3    | 125 | 161 | 36 | 12 | 44 | 18,5 | 140  | 83,5 | 19,5 | 0,370             |
| K0266.2314 | square socket  | 3    | 125 | 161 | 36 | 14 | 44 | 18,5 | 140  | 83,5 | 19,5 | 0,370             |

## Crank handles

with cylindrical revolving grip



**N<sup>G</sup>**



hub slot according to DIN 6885-1



**Novo-Grip crank handles set trend-setting standards in all essential fields of operation and application. The actual challenge is to assure simple handling and an universal range of application in spite of the sophisticated technology.**

**Material, surface finish:**  
Anthracite grey thermoplastic.  
Steel parts black oxide finish.

**Sample order:**  
K0659.3108

**Note:**  
The hub cover and the cylindrical revolving grip are supplied unassembled. In order to assemble the grip, the axis must be screwed into the receiving hole. The crank handles can be secured axially to the shaft via feather connection by cross-pinning or with a socket head screw to DIN 6912 and a washer to DIN 7349.

### KIPP Crank handles with cylindrical revolving grip

| Order No.  | Surface finish              | Size | A   | A1  | B  | D  | H  | H1   | L    | L1   | L2   | Approx. weight kg |
|------------|-----------------------------|------|-----|-----|----|----|----|------|------|------|------|-------------------|
| K0659.3108 | locating hole without slots | 1    | 80  | 104 | 24 | 8  | 29 | 13   | 85,5 | 49   | 13   | 0,110             |
| K0659.3110 | locating hole without slot  | 1    | 80  | 104 | 24 | 10 | 29 | 13   | 85,5 | 49   | 13   | 0,110             |
| K0659.3210 | locating hole without slots | 2    | 100 | 129 | 29 | 10 | 36 | 13   | 105  | 59,5 | 16   | 0,210             |
| K0659.3212 | locating hole without slots | 2    | 100 | 129 | 29 | 12 | 36 | 13   | 105  | 59,5 | 16   | 0,210             |
| K0659.3312 | locating hole without slots | 3    | 125 | 161 | 36 | 12 | 44 | 18,5 | 140  | 83,5 | 19,5 | 0,405             |
| K0659.3314 | locating hole without slot  | 3    | 125 | 161 | 36 | 14 | 44 | 18,5 | 140  | 83,5 | 19,5 | 0,405             |

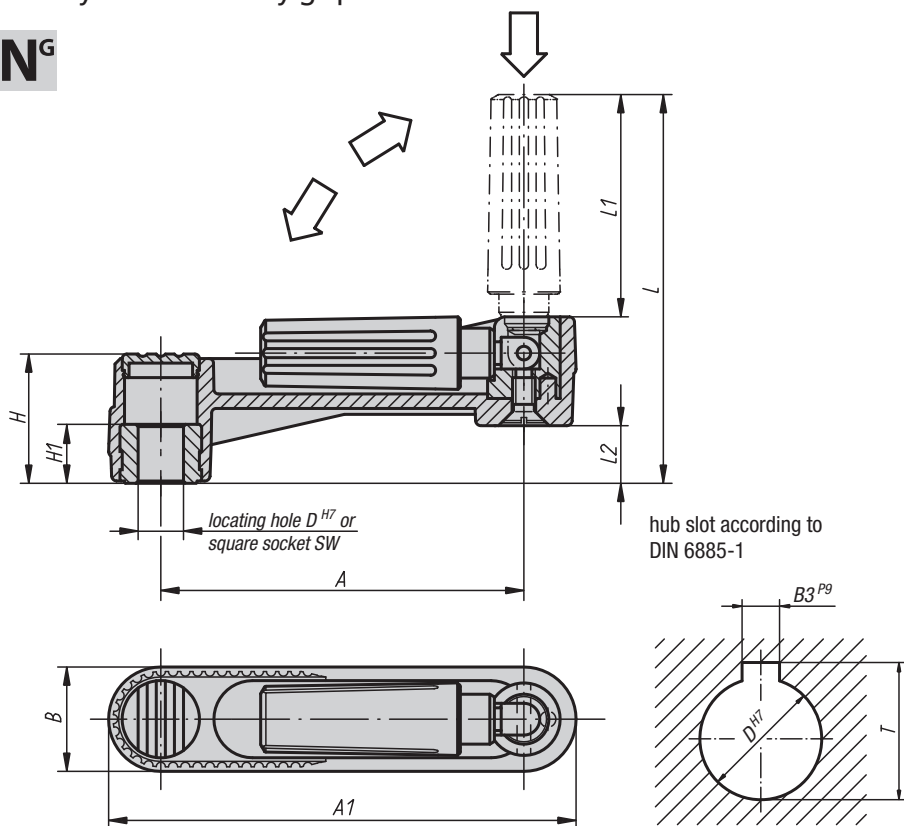
| Order No.    | Surface finish          | Size | A   | A1  | B  | D  | H  | H1   | L    | L1   | L2   | B3 | T    | Approx. weight kg |
|--------------|-------------------------|------|-----|-----|----|----|----|------|------|------|------|----|------|-------------------|
| K0659.310802 | locating hole with slot | 1    | 80  | 104 | 24 | 8  | 29 | 13   | 85,5 | 49   | 13   | 2  | 9    | 0,110             |
| K0659.311003 | locating hole with slot | 1    | 80  | 104 | 24 | 10 | 29 | 13   | 85,5 | 49   | 13   | 3  | 11,4 | 0,110             |
| K0659.321003 | locating hole with slot | 2    | 100 | 129 | 29 | 10 | 36 | 13   | 105  | 59,5 | 16   | 3  | 11,4 | 0,210             |
| K0659.321204 | locating hole with slot | 2    | 100 | 129 | 29 | 12 | 36 | 13   | 105  | 59,5 | 16   | 4  | 13,8 | 0,210             |
| K0659.331204 | locating hole with slot | 3    | 125 | 161 | 36 | 12 | 44 | 18,5 | 140  | 83,5 | 19,5 | 4  | 13,8 | 0,405             |
| K0659.331405 | locating hole with slot | 3    | 125 | 161 | 36 | 14 | 44 | 18,5 | 140  | 83,5 | 19,5 | 5  | 16,3 | 0,405             |

| Order No.  | Surface finish | Size | A   | A1  | B  | SW | H  | H1   | L    | L1   | L2   | Approx. weight kg |
|------------|----------------|------|-----|-----|----|----|----|------|------|------|------|-------------------|
| K0659.4108 | square socket  | 1    | 80  | 104 | 24 | 8  | 29 | 13   | 85,5 | 49   | 13   | 0,110             |
| K0659.4110 | square socket  | 1    | 80  | 104 | 24 | 10 | 29 | 13   | 85,5 | 49   | 13   | 0,110             |
| K0659.4210 | square socket  | 2    | 100 | 129 | 29 | 10 | 36 | 13   | 105  | 59,5 | 16   | 0,210             |
| K0659.4212 | square socket  | 2    | 100 | 129 | 29 | 12 | 36 | 13   | 105  | 59,5 | 16   | 0,210             |
| K0659.4312 | square socket  | 3    | 125 | 161 | 36 | 12 | 44 | 18,5 | 140  | 83,5 | 19,5 | 0,405             |
| K0659.4314 | square socket  | 3    | 125 | 161 | 36 | 14 | 44 | 18,5 | 140  | 83,5 | 19,5 | 0,405             |

## Crank handles

with cylindrical safety grip

**N<sup>G</sup>**



**Material, surface finish:**

Body and grip in anthracite grey thermoplastic.  
Steel parts black oxide finish.

**Sample order:**

K0268.1108

**Note:**

The hub cover is supplied unassembled.  
The crank handles can be secured axially to the shaft via feather connection by cross-pinning or with a socket head screw to DIN 6912 and a washer to DIN 7349.  
Two steps have to be executed to bring the cylindrical safety grip into operating position:  
- Swivel the grip around the axis of rotation until it stops (90°).  
- Press the grip in axial direction into locking position.  
The pressed-in position is the most comfortable position to crank. The grip returns automatically after letting go.

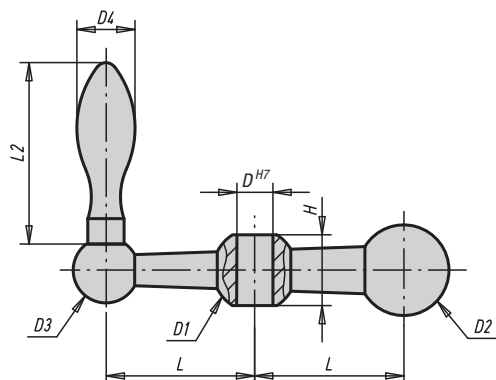
### KIPP Crank handles with cylindrical safety grip

| Order No.  | Surface finish             | Size | A   | A1  | B  | D  | H  | H1   | L     | L1   | L2   | Approx. weight kg |
|------------|----------------------------|------|-----|-----|----|----|----|------|-------|------|------|-------------------|
| K0268.1108 | locating hole without slot | 1    | 80  | 104 | 24 | 8  | 29 | 13   | 84    | 47,5 | 13   | 0,100             |
| K0268.1110 | locating hole without slot | 1    | 80  | 104 | 24 | 10 | 29 | 13   | 84    | 47,5 | 13   | 0,100             |
| K0268.1210 | locating hole without slot | 2    | 100 | 129 | 29 | 10 | 36 | 13   | 104   | 58,5 | 16   | 0,190             |
| K0268.1212 | locating hole without slot | 2    | 100 | 129 | 29 | 12 | 36 | 13   | 104   | 58,5 | 16   | 0,190             |
| K0268.1312 | locating hole without slot | 3    | 125 | 161 | 36 | 12 | 44 | 18,5 | 138,5 | 82   | 19,5 | 0,370             |
| K0268.1314 | locating hole without slot | 3    | 125 | 161 | 36 | 14 | 44 | 18,5 | 138,5 | 82   | 19,5 | 0,370             |

| Order No.    | Surface finish          | Size | A   | A1  | B  | D  | H  | H1   | L     | L1   | L2   | B3 | T    | Approx. weight kg |
|--------------|-------------------------|------|-----|-----|----|----|----|------|-------|------|------|----|------|-------------------|
| K0268.110802 | locating hole with slot | 1    | 80  | 104 | 24 | 8  | 29 | 13   | 84    | 47,5 | 13   | 2  | 9    | 0,100             |
| K0268.111003 | locating hole with slot | 1    | 80  | 104 | 24 | 10 | 29 | 13   | 84    | 47,5 | 13   | 3  | 11,4 | 0,100             |
| K0268.121003 | locating hole with slot | 2    | 100 | 129 | 29 | 10 | 36 | 13   | 104   | 58,5 | 16   | 3  | 11,4 | 0,190             |
| K0268.121204 | locating hole with slot | 2    | 100 | 129 | 29 | 12 | 36 | 13   | 104   | 58,5 | 16   | 4  | 13,8 | 0,190             |
| K0268.131204 | locating hole with slot | 3    | 125 | 161 | 36 | 12 | 44 | 18,5 | 138,5 | 82   | 19,5 | 4  | 13,8 | 0,370             |
| K0268.131405 | locating hole with slot | 3    | 125 | 161 | 36 | 14 | 44 | 18,5 | 138,5 | 82   | 19,5 | 5  | 16,3 | 0,370             |

| Order No.  | Surface finish | Size | A   | A1  | B  | SW | H  | H1   | L     | L1   | L2   | Approx. weight kg |
|------------|----------------|------|-----|-----|----|----|----|------|-------|------|------|-------------------|
| K0268.2108 | square socket  | 1    | 80  | 104 | 24 | 8  | 29 | 13   | 84    | 47,5 | 13   | 0,100             |
| K0268.2110 | square socket  | 1    | 80  | 104 | 24 | 10 | 29 | 13   | 84    | 47,5 | 13   | 0,100             |
| K0268.2210 | square socket  | 2    | 100 | 129 | 29 | 10 | 36 | 13   | 104   | 58,5 | 16   | 0,190             |
| K0268.2212 | square socket  | 2    | 100 | 129 | 29 | 12 | 36 | 13   | 104   | 58,5 | 16   | 0,190             |
| K0268.2312 | square socket  | 3    | 125 | 161 | 36 | 12 | 44 | 18,5 | 138,5 | 82   | 19,5 | 0,370             |
| K0268.2314 | square socket  | 3    | 125 | 161 | 36 | 14 | 44 | 18,5 | 138,5 | 82   | 19,5 | 0,370             |

## Balanced handles



**Material:**  
Steel.

**Surface finish:**  
Galvanized.

**Sample order:**  
K0728.108

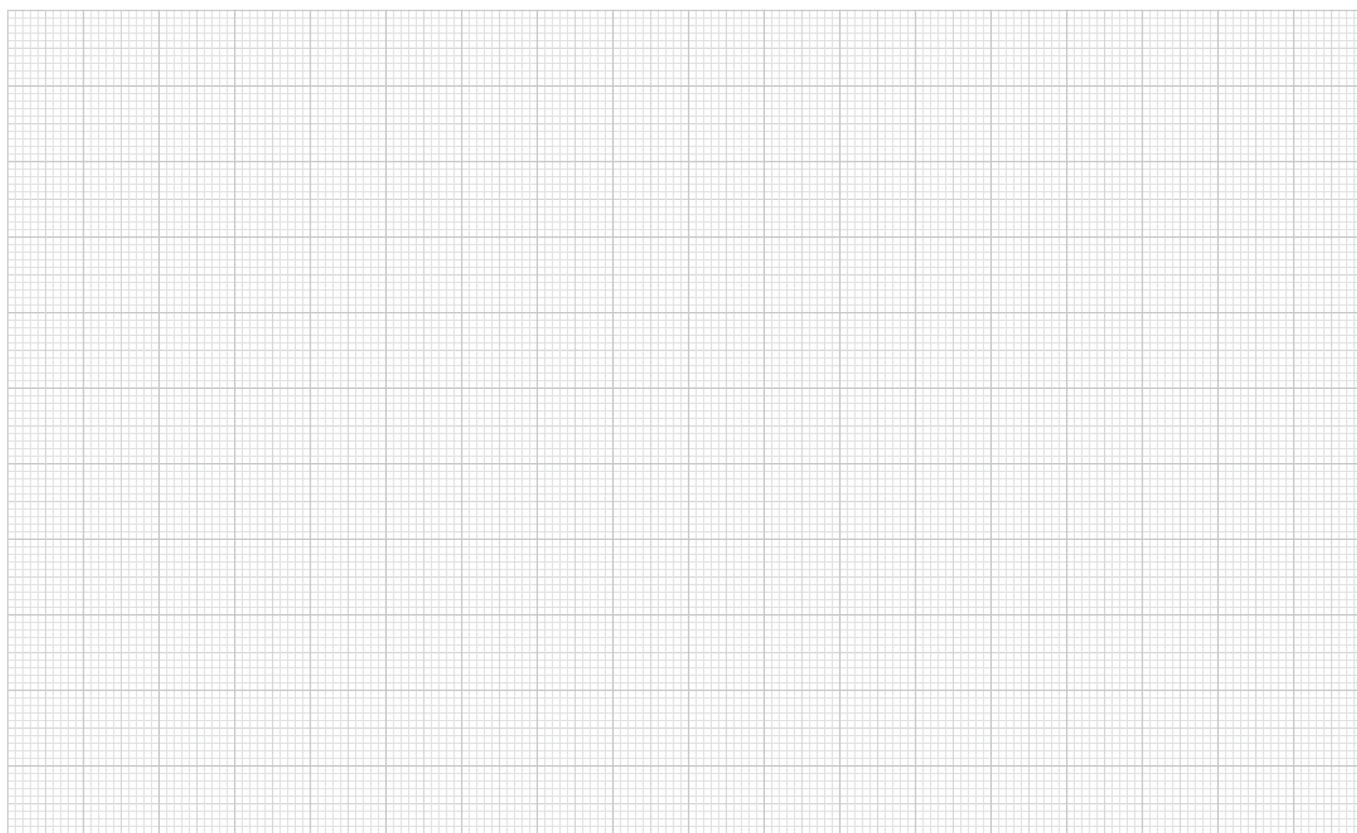
**Note:**  
Fixed Handle DIN 39.



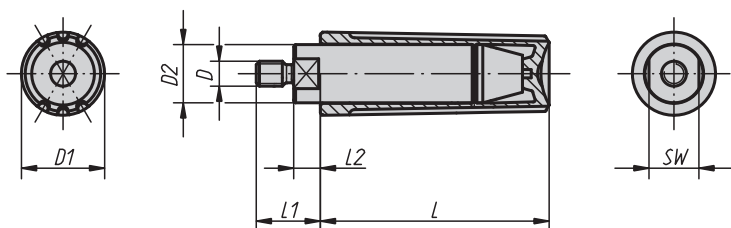
### KIPP Balanced handles

| Order No. | D  | D1 | D2 | D3 | D4 | H    | L  | L2 | Approx. weight kg |
|-----------|----|----|----|----|----|------|----|----|-------------------|
| K0728.107 | 7  | 16 | 18 | 13 | 10 | 13   | 25 | 32 | 0,065             |
| K0728.108 | 8  | 20 | 22 | 16 | 14 | 17   | 34 | 46 | 0,140             |
| K0728.110 | 10 | 23 | 25 | 18 | 16 | 19,5 | 41 | 50 | 0,200             |
| K0728.112 | 12 | 26 | 28 | 20 | 18 | 21,5 | 50 | 56 | 0,415             |

## Notes



## Cylindrical revolving grips

N<sup>G</sup>

**Novo-Grip cylindrical grips are a product with a universal range of applications thanks to the harmonic combination of form and function. Esthetics, reliability and perfect handling characterize their quality.**

**Material, surface finish:**

Anthracite grey thermoplastic.  
Steel parts black oxide finish.

**Sample order:**

K0263.104

**Note:**

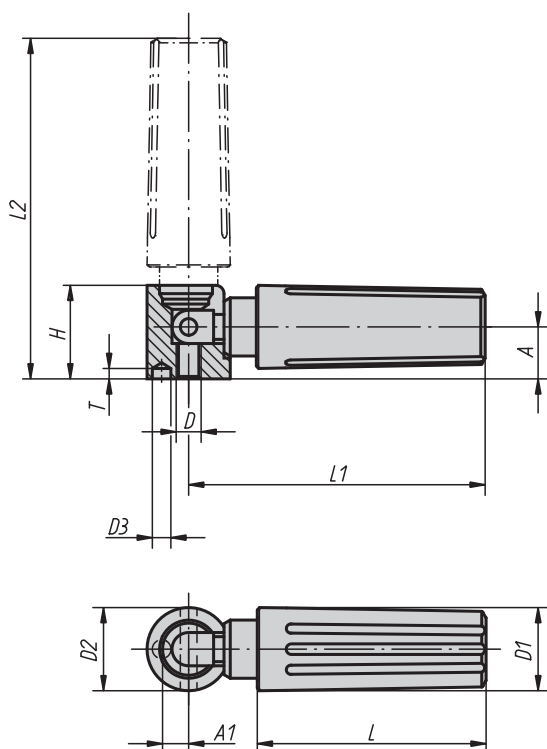
Cylindrical grips are supplied assembled and can be screwed to handwheels, spools and cranks.

**KIPP Cylindrical revolving grips**

| Order No. | Size | D  | D1 | D2 | L    | L1 | L2  | SW | Approx. weight kg |
|-----------|------|----|----|----|------|----|-----|----|-------------------|
| K0263.104 | 1    | M4 | 13 | 9  | 35   | 11 | 5   | 8  | 0,013             |
| K0263.205 | 2    | M5 | 16 | 11 | 44   | 13 | 5,5 | 10 | 0,025             |
| K0263.306 | 3    | M6 | 20 | 14 | 55   | 14 | 5   | 12 | 0,050             |
| K0263.408 | 4    | M8 | 25 | 18 | 70,5 | 25 | 13  | 15 | 0,103             |

## Cylindrical fold-away grips

N<sup>G</sup>



**Novo-Grip cylindrical grips are a product with a universal range of applications thanks to the harmonic combination of form and function. Esthetics, reliability and perfect handling characterize their quality.**

**Material, surface finish:**  
 Anthracite grey thermoplastic.  
 Steel parts black oxide finish.

**Sample order:**  
 K0264.104

**Note:**  
 Cylindrical grips are supplied assembled and can be screwed to handwheels, spools and cranks. Borehole D3 is used as a positioning hole.



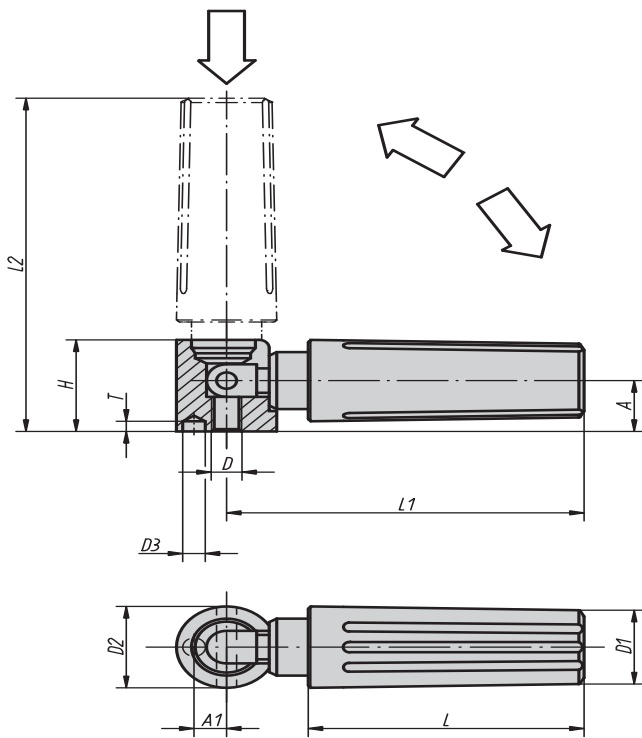
### KIPP Cylindrical fold-away grips

| Order No. | Size | D  | D1 | D2 | D3  | A    | A1  | H    | L    | L1   | L2    | T   | Approx. weight kg |
|-----------|------|----|----|----|-----|------|-----|------|------|------|-------|-----|-------------------|
| K0264.104 | 1    | M4 | 13 | 13 | 2,5 | 8    | 4,3 | 14,5 | 35   | 47   | 54,5  | 4,5 | 0,028             |
| K0264.205 | 2    | M5 | 16 | 16 | 3,5 | 10   | 5,3 | 18   | 44   | 58   | 67    | 4,5 | 0,051             |
| K0264.306 | 3    | M6 | 20 | 20 | 4,5 | 12,5 | 6,5 | 22,5 | 55   | 71,5 | 82    | 6   | 0,101             |
| K0264.408 | 4    | M8 | 25 | 26 | 5,5 | 16   | 9   | 29   | 70,5 | 98,5 | 112,5 | 6,5 | 0,225             |

## Cylindrical safety grips

automatically returning

**N<sup>G</sup>**



The characteristics of the simple cylindrical grip naturally also apply to the automatically returning cylindrical safety grip. This product combines excellent functionality and sophisticated safety technology in an ideal way.

**Material, surface finish:**

Grip anthracite grey thermoplastic.  
Steel parts black oxide finish.

**Sample order:**

K0265.104

**Note:**

Two steps have to be executed to bring the cylindrical safety grip into operating position:

- Swivel the grip around the axis of rotation until it stops (90°).
- Press the grip in axial direction into locking position. The pressed-in position is the most comfortable position to crank. The grip returns automatically after letting go.

Cylindrical safety grips are supplied assembled and can be screwed to handwheels, spools and cranks. Borehole D3 is used as a positioning hole.

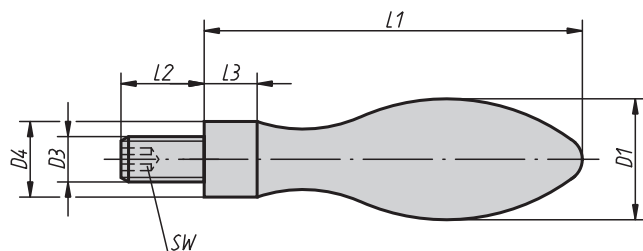
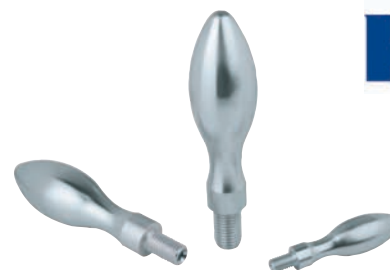
### KIPP Cylindrical safety grips automatically returning

| Order No. | Size | D  | D1 | D2 | D3  | A    | A1  | H    | L    | L1   | L2   | T   | Approx. weight kg |
|-----------|------|----|----|----|-----|------|-----|------|------|------|------|-----|-------------------|
| K0265.104 | 1    | M4 | 13 | 13 | 2,5 | 8    | 4,3 | 14,5 | 35   | 47   | 52,5 | 4,5 | 0,028             |
| K0265.205 | 2    | M5 | 16 | 16 | 3,5 | 10   | 5,3 | 18   | 44   | 58   | 65,5 | 4,5 | 0,051             |
| K0265.306 | 3    | M6 | 20 | 20 | 4,5 | 12,5 | 6,5 | 22,5 | 55   | 71,5 | 81   | 6   | 0,101             |
| K0265.408 | 4    | M8 | 25 | 26 | 5,5 | 16   | 9   | 29   | 70,5 | 98,5 | 111  | 6,5 | 0,225             |

# K0166

## Fixed machine handles

DIN 39 Form E, in steel



**Material:**

Machine handle and axle part in steel.

**Surface finish:**

Machine handle and axle part galvanized and blue chromated.

**Sample order:**

K0166.0616050

**Note:**

Machine handle suitable for handwheels to DIN 950.



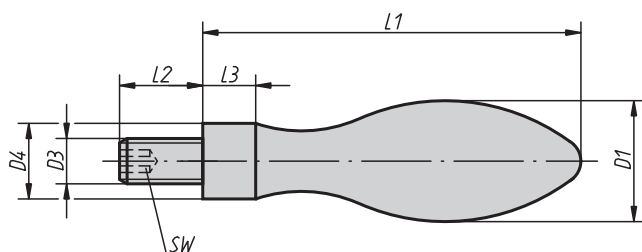
### KIPP Fixed machine handles DIN 39 Form E, in steel

| Order No.     | D1 | D3  | D4 | L1  | L2 | L3 | SW |
|---------------|----|-----|----|-----|----|----|----|
| K0166.0616050 | 16 | M6  | 10 | 50  | 11 | 7  | 3  |
| K0166.0820064 | 20 | M8  | 13 | 64  | 13 | 8  | 4  |
| K0166.1025080 | 25 | M10 | 16 | 80  | 14 | 10 | 5  |
| K0166.1232100 | 32 | M12 | 20 | 100 | 21 | 13 | 6  |
| K0166.1636112 | 36 | M16 | 22 | 112 | 26 | 14 | 8  |

# K0167

## Fixed machine handles

DIN 39 Form E, in aluminium



**Material:**

Machine handle in aluminium.  
Axle part steel.

**Surface finish:**

Machine handle polished.  
Axle part black.

**Sample order:**

K0167.0616050

**Note:**

Machine handle suitable for handwheels to DIN 950.

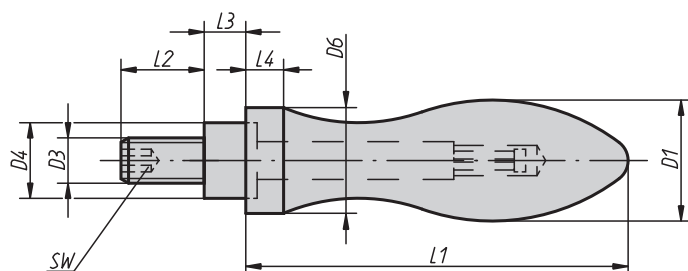
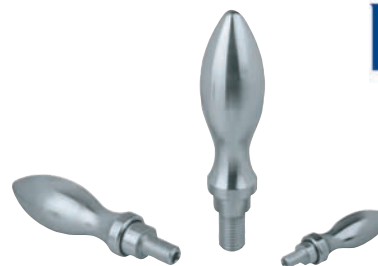
### KIPP Fixed machine handles DIN 39 Form E, in aluminium

| Order No.     | D1 | D3  | D4 | L1  | L2 | L3 | SW |
|---------------|----|-----|----|-----|----|----|----|
| K0167.0616050 | 16 | M6  | 10 | 50  | 11 | 7  | 3  |
| K0167.0820064 | 20 | M8  | 13 | 64  | 13 | 8  | 4  |
| K0167.1025080 | 25 | M10 | 16 | 80  | 14 | 10 | 5  |
| K0167.1232100 | 32 | M12 | 20 | 100 | 21 | 13 | 6  |
| K0167.1636112 | 36 | M16 | 22 | 112 | 26 | 14 | 8  |



## Revolving machine handles

DIN 98 Form E, in steel



**Material:**  
Machine handle and axle part in steel.

**Surface finish:**  
Machine handle and axle part galvanized and blue chromated.

**Sample order:**  
K0168.0616055

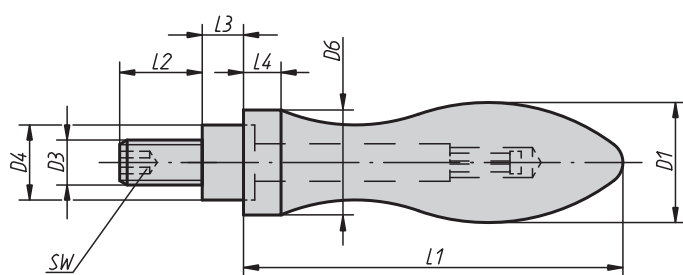
**Note:**  
Machine handle suitable for handwheels to DIN 950.

### KIPP Revolving machine handles DIN 98 Form E, in steel

| Order No.     | D1 | D3  | D4 | D6 | L1  | L2 | L3   | L4  | SW |
|---------------|----|-----|----|----|-----|----|------|-----|----|
| K0168.0616055 | 16 | M6  | 10 | 14 | 49  | 11 | 5,5  | 5   | 3  |
| K0168.0820067 | 20 | M8  | 13 | 18 | 61  | 13 | 6    | 6   | 4  |
| K0168.1025083 | 25 | M10 | 16 | 21 | 75  | 14 | 8    | 6,5 | 5  |
| K0168.1232105 | 32 | M12 | 20 | 26 | 95  | 21 | 10,5 | 8   | 6  |
| K0168.1636117 | 36 | M16 | 22 | 29 | 106 | 26 | 11   | 9   | 8  |

## Revolving machine handles

DIN 98 Form E, in aluminium



**Material:**  
Machine handle in aluminium.  
Axle part in steel.

**Surface finish:**  
Machine handle polished.  
Axle part galvanized and blue chromated.

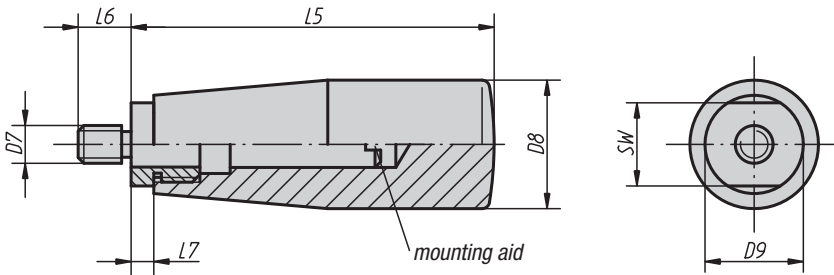
**Sample order:**  
K0169.0616055

**Note:**  
Machine handle suitable for handwheels to DIN 950.

### KIPP Revolving machine handles DIN 98 Form E, in aluminium

| Order No.     | D1 | D3  | D4 | D6 | L1  | L2 | L3   | L4  | SW |
|---------------|----|-----|----|----|-----|----|------|-----|----|
| K0169.0616055 | 16 | M6  | 10 | 14 | 49  | 11 | 5,5  | 5   | 3  |
| K0169.0820067 | 20 | M8  | 13 | 18 | 61  | 13 | 6    | 6   | 4  |
| K0169.1025083 | 25 | M10 | 16 | 21 | 75  | 14 | 8    | 6,5 | 5  |
| K0169.1232105 | 32 | M12 | 20 | 26 | 95  | 21 | 10,5 | 8   | 6  |
| K0169.1636117 | 36 | M16 | 22 | 29 | 106 | 26 | 11   | 9   | 8  |

## Revolving taper grips



**Material:**

Black duroplastic PF 31.

Axle and threaded bush in galvanized steel or in stainless steel, natural finish.

**Surface finish:**

Deburred and high-polish finish.

**Sample order:**

K0170.105007

**Note:**

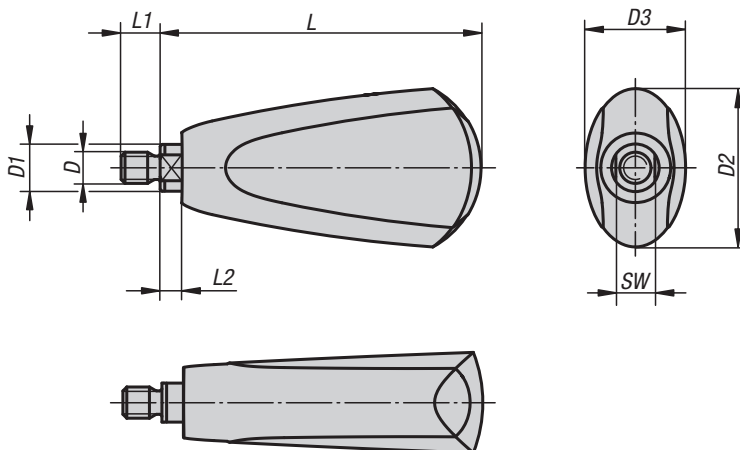
In order to assemble, unscrew the axle.



### KIPP Revolving taper grips

| Order No.<br>axle in steel | Order No.<br>axle in stainless steel | Size | D7  | D8 | D9 | L5 | L6 | L7 | SW |
|----------------------------|--------------------------------------|------|-----|----|----|----|----|----|----|
| K0170.105007               | K0170.1105007                        | 1    | M5  | 17 | 15 | 51 | 7  | 5  | 13 |
| K0170.206008               | K0170.1206008                        | 2    | M6  | 23 | 18 | 68 | 8  | 6  | 16 |
| K0170.208009               | K0170.1208009                        | 2    | M8  | 23 | 18 | 68 | 9  | 6  | 16 |
| K0170.310011               | K0170.1310011                        | 3    | M10 | 28 | 21 | 77 | 11 | 7  | 19 |

## Revolving taper grips



**Material:**

Duroplastic PF 31, black.

Axle steel, nickel-plated or stainless steel 1.4305, natural finish.

Snap ring in stainless steel 1.4310.

**Surface finish:**

Deburred and high-polish finish.

**Sample order:**

K0651.106009

**Note:**

The grips are suitable for disc handwheels with revolving taper grip K0164.

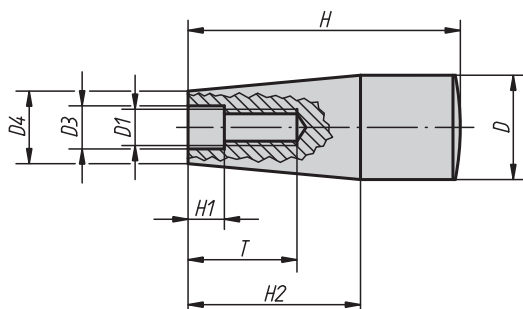
### KIPP Revolving taper grips

| Order No.<br>axle in steel | Order No.<br>axle in stainless steel | Size | D  | D1 | D2 | D3 | L    | L1 | L2  | SW |
|----------------------------|--------------------------------------|------|----|----|----|----|------|----|-----|----|
| K0651.106009               | K0651.1106009                        | 1    | M6 | 8  | 25 | 18 | 54,7 | 9  | 4,5 | 7  |
| K0651.208010               | K0651.1208010                        | 2    | M8 | 12 | 41 | 26 | 82,2 | 10 | 5,5 | 10 |

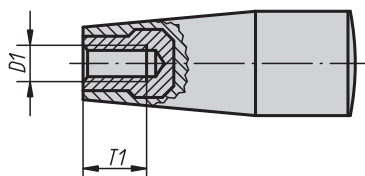
## Taper grips



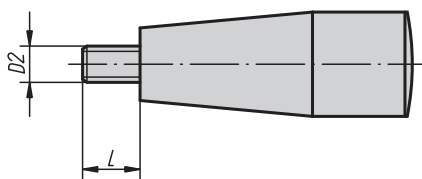
Form C  
with pressed thread



Form E  
with threaded bush



Form F  
with external thread



**Material:**

Duroplastic PF 31, black.  
Bush and threaded bolt in steel galvanized.

**Surface finish:**

Deburred and high-polish finish.

**Sample order:**

K0172.106

**Note:**

The versions K0172.205 and K0172.206 have a bush in copper-plated steel.  
The versions K0172.208 and K0172.2081 have a bush in brass.

**On request:**

Other colours.

### KIPP Taper grips with internal thread

| Order No.  | Form | D  | D1  | D3   | D4 | H  | H1 | H2 | T  | T1 |
|------------|------|----|-----|------|----|----|----|----|----|----|
| K0172.106  | C    | 17 | M6  | 6,2  | 15 | 45 | 2  | 26 | 14 | -  |
| K0172.108  | C    | 17 | M8  | 8,2  | 13 | 45 | 2  | 26 | 16 | -  |
| K0172.1081 | C    | 23 | M8  | 8,5  | 18 | 60 | 8  | 38 | 24 | -  |
| K0172.110  | C    | 29 | M10 | 10,5 | 21 | 70 | 10 | 42 | 28 | -  |
| K0172.205  | E    | 17 | M5  | -    | 15 | 45 | -  | 26 | -  | 10 |
| K0172.206  | E    | 17 | M6  | -    | 15 | 45 | -  | 26 | -  | 9  |
| K0172.208  | E    | 23 | M8  | -    | 18 | 60 | -  | 38 | -  | 14 |
| K0172.2081 | E    | 28 | M8  | -    | 21 | 70 | -  | 42 | -  | 14 |

### KIPP Taper grips with external thread

| Order No. | Form | D  | D2  | D4 | H  | H2 | L  |
|-----------|------|----|-----|----|----|----|----|
| K0172.306 | F    | 17 | M6  | 15 | 45 | 26 | 18 |
| K0172.308 | F    | 23 | M8  | 18 | 60 | 38 | 12 |
| K0172.310 | F    | 29 | M10 | 21 | 70 | 42 | 20 |

## Washers



**Material, surface finish:**

Steel 1.0718, black oxide finish.  
Stainless steel 1.4305, natural finish.

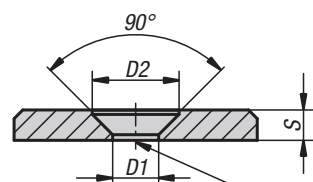
**Sample order:**

K0173.00416

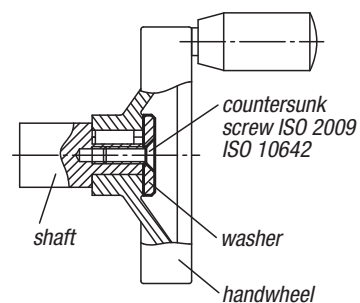
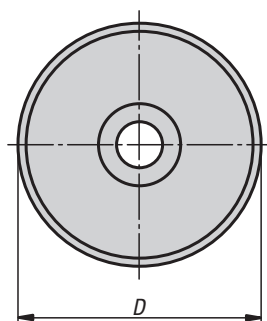
**Note:**

Together with a countersunk screw DIN EN ISO 2009 or DIN EN ISO 10642 the washers are used at the front surface of shaft extensions for axial fastening and securing of handwheels and handles using a hub slot.

The washers can be used with the handwheels K0256, K0257, K0258, K0259, K0671, K0160, K0161, K0162, K0163, K0164, K0165 and crank handles K0266, K0659, K0268.



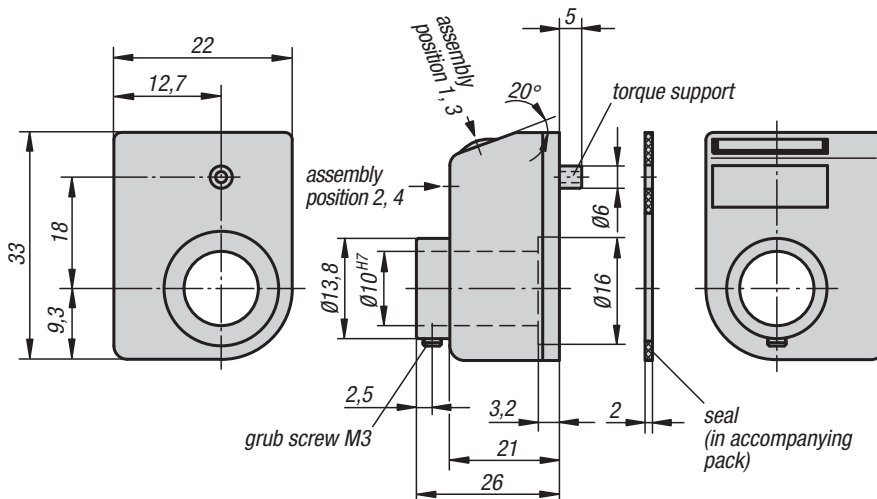
D3  
for countersunk screw  
ISO 2009 and ISO 10642



### KIPP Washers

| Order No. steel | Order No. stainless steel | D  | D1  | D2  | D3 | S   |
|-----------------|---------------------------|----|-----|-----|----|-----|
| K0173.00416     | K0173.10416               | 16 | 4,3 | 8,4 | M4 | 3   |
| K0173.00420     | K0173.10420               | 20 | 4,3 | 8,4 | M4 | 3   |
| K0173.00522     | K0173.10522               | 22 | 5,3 | 10  | M5 | 3,5 |
| K0173.00525     | K0173.10525               | 25 | 5,3 | 10  | M5 | 3,5 |
| K0173.00528     | K0173.10528               | 28 | 5,3 | 10  | M5 | 3,5 |
| K0173.00632     | K0173.10632               | 32 | 6,4 | 12  | M6 | 4   |
| K0173.00636     | K0173.10636               | 36 | 6,4 | 12  | M6 | 4   |
| K0173.00640     | K0173.10640               | 40 | 6,4 | 12  | M6 | 5   |
| K0173.00645     | K0173.10645               | 45 | 6,4 | 12  | M6 | 6   |
| K0173.00652     | K0173.10652               | 52 | 6,4 | 12  | M6 | 6   |

## Digital position indicators



### Material, surface finish:

Housing polyamide 6, impact-resistant.  
Hollow shaft in steel, black oxide finish.  
Viewing window plastic.  
Grub screw steel, black.  
Counter dials black, figures white.

### Sample order:

K0408.01001111  
(Position indicator with 1 mm pitch, decimal point in first position from the right, assembly position 1, direction of count ascending clockwise, colour orange)

### Note:

Digital position indicators allow direct reading off of input measurement values at a glance. In addition, the value indicated per spindle rotation (corresponding spindle pitch) can be selected and the various indicator values can be operated by a transmission gear. The position indicators are distinguished by their small construction with very clear display. They are especially suitable for small spindle distances and small shaft diameters and they have a torque support that is located in a drillhole on the other side.

\*\* At the 1st asterisk give assembly position and at the 2nd asterisk give the count direction (see sample order „assembly position, count direction“).

| Indicator after one rotation<br>decimal point position:  | Assembly position (1 - 4):                    |
|--|---|
|  |   |
| e. g. K0408.01001111<br>0100 = 1mm pitch<br>1 = decimal point at the 1 <sup>st</sup> position from the right | e. g. K0408.01001111<br>1 = assembly position |

| Count direction (1 - 2):   | Colour (1 - 2):                                 |
|--|---|
|  |   |
| e. g. K0408.01001111<br>1 = clockwise (ascending values)<br>2 = anticlockwise (ascending values) | e. g. K0408.01001111<br>1 = orange<br>2 = black |

### On request:

- Stainless steel driveshaft
- Indicator for inch

### Accessory:

- Reducing bushes K0412

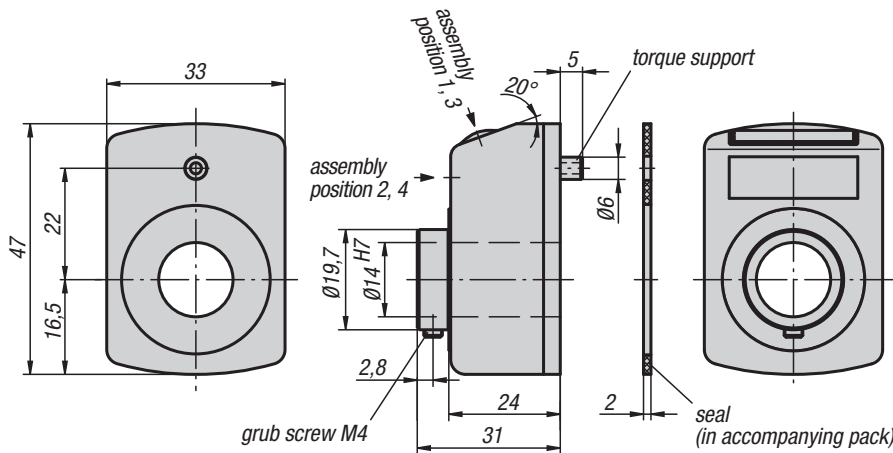
### Technical data:

- Counter consisting of 3 10-position dials
- Height of figures about 4 mm
- Hollow shaft  $\varnothing$  10 H7 mm
- Temperature resistant to 80 °C
- Oil and solvent resistant

## KIPP Digital position indicators

| Order No.<br>orange | Order No.<br>black | Pitch | Indicator<br>after one<br>rotation | Decimal<br>point in position | Revolutions<br>per minute max. | Approx.<br>weight<br>kg |
|---------------------|--------------------|-------|------------------------------------|------------------------------|--------------------------------|-------------------------|
| K0408.01001**1      | K0408.01001**2     | 1     | 01,0                               | 1                            | 1500                           | 0,020                   |
| K0408.02001**1      | K0408.02001**2     | 2     | 02,0                               | 1                            | 750                            | 0,020                   |
| K0408.02501**1      | K0408.02501**2     | 2,5   | 02,5                               | 1                            | 600                            | 0,020                   |
| K0408.03001**1      | K0408.03001**2     | 3     | 03,0                               | 1                            | 500                            | 0,020                   |
| K0408.04001**1      | K0408.04001**2     | 4     | 04,0                               | 1                            | 375                            | 0,020                   |
| K0408.05001**1      | K0408.05001**2     | 5     | 05,0                               | 1                            | 300                            | 0,020                   |
| K0408.06001**1      | K0408.06001**2     | 6     | 06,0                               | 1                            | 250                            | 0,020                   |
| K0408.08001**1      | K0408.08001**2     | 8     | 08,0                               | 1                            | 180                            | 0,020                   |
| K0408.10001**1      | K0408.10001**2     | 10    | 10,0                               | 1                            | 150                            | 0,020                   |

## Digital position indicators



### Material, surface finish:

Housing polyamide 6, impact-resistant.  
Hollow shaft steel, black oxide finish.  
Viewing window plastic.  
Grub screw steel, black.  
Counter dials black, figures white.

### Sample order:

K0409.01002111

(Position indicator with 1 mm pitch, decimal point in second position from the right, assembly position 1, direction of count ascending clockwise, colour orange)

### Note:

Digital position indicators allow direct reading off of input measurement values at a glance. In addition, the value indicated per spindle rotation (corresponding spindle pitch) can be selected and the various indicator values can be operated by a transmission gear. The position indicators are distinguished by their small construction with very clear display and fine scale. They are especially suitable for small spindle distances and small shaft diameters and they have a torque support that is located in a drillhole on the other side.

\*\* At the 1st asterisk give assembly position and at the 2nd asterisk give the count direction (see sample order „assembly position, count direction“).

### On request:

- Counter cover made of mineral glass
- Stainless steel driveshaft
- Axial sealing (dust-proof)
- Vibration protection

### Accessory:

- Reducing bushes K0412
- Insert plate K0413
- Mounting plates K0414

### Technical data:

- Counter consisting of 4 10-position dials + fine scale
- Height of figures about 6 mm
- Hollow shaft  $\varnothing$  14 H7 mm
- Temperature resistant to 80 °C
- Oil and solvent resistant

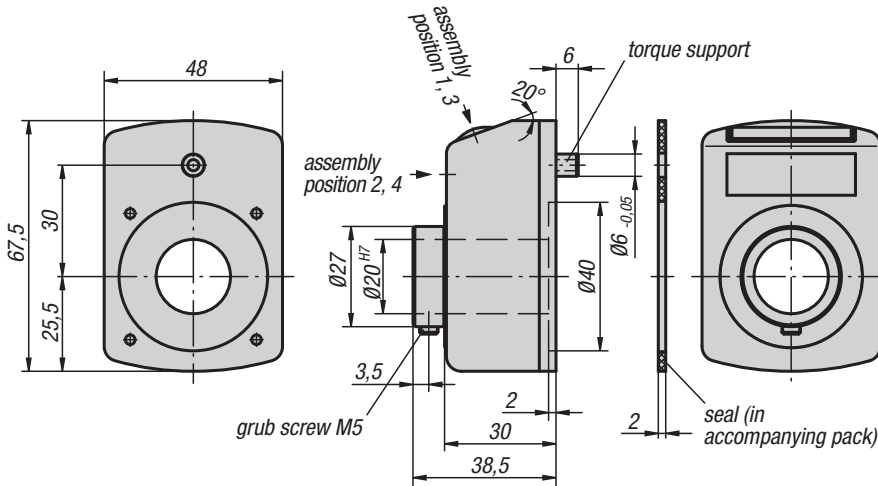
| Indicator after one rotation decimal point position:  | Assembly position (1 - 4):                    |
|---|---|
|   |   |
| e. g. K0409.01002111<br>0100 = 1 mm pitch<br>2 = decimal point at the 2 <sup>nd</sup> position from the right | e. g. K0409.01002111<br>1 = assembly position |

| Count direction (1 - 2):   | Colour (1 - 2):                                 |
|--|---|
|  |   |
| e. g. K0409.01002111<br>1 = clockwise (ascending values)<br>2 = anticlockwise (ascending values) | e. g. K0409.01002111<br>1 = orange<br>2 = black |

### KIPP Digital position indicators

| Order No. orange | Order No. black | Pitch | Indicator after one rotation | Decimal point in position | Revolutions per minute max. | Approx. weight kg |
|------------------|-----------------|-------|------------------------------|---------------------------|-----------------------------|-------------------|
| K0409.01002**1   | K0409.01002**2  | 1     | 00,10                        | 2                         | 1500                        | 0,050             |
| K0409.01001**1   | K0409.01001**2  | 1     | 001,0                        | 1                         | 1500                        | 0,050             |
| K0409.01251**1   | K0409.01251**2  | 1,25  | 001,2/5                      | 1                         | 1200                        | 0,050             |
| K0409.01501**1   | K0409.01501**2  | 1,5   | 001,5                        | 1                         | 1000                        | 0,050             |
| K0409.02001**1   | K0409.02001**2  | 2     | 002,0                        | 1                         | 750                         | 0,050             |
| K0409.02501**1   | K0409.02501**2  | 2,5   | 002,5                        | 1                         | 600                         | 0,050             |
| K0409.03001**1   | K0409.03001**2  | 3     | 003,0                        | 1                         | 500                         | 0,050             |
| K0409.04001**1   | K0409.04001**2  | 4     | 004,0                        | 1                         | 375                         | 0,050             |
| K0409.05001**1   | K0409.05001**2  | 5     | 005,0                        | 1                         | 300                         | 0,050             |
| K0409.06001**1   | K0409.06001**2  | 6     | 006,0                        | 1                         | 250                         | 0,050             |
| K0409.08001**1   | K0409.08001**2  | 8     | 008,0                        | 1                         | 180                         | 0,050             |
| K0409.10001**1   | K0409.10001**2  | 10    | 010,0                        | 1                         | 150                         | 0,050             |

## Digital position indicators



### Material, surface finish:

Housing polyamide 6, impact-resistant.  
Hollow shaft steel, black oxide finish.  
Viewing window plastic.  
Grub screw steel, black.  
Counter dials black, figures white.

### Sample order:

K0410.01002111

(Position indicator with 1 mm pitch, decimal point in second position from the right, assembly position 1, direction of count ascending clockwise, colour orange)

### Note:

Digital position indicators allow direct reading off of input measurement values at a glance. In addition the value indicated per spindle rotation (corresponding spindle pitch) can be selected and the various indicator values can be operated by a transmission gear. The position indicators are distinguished by their very clear display and fine scale. They have a torque support that is located in a drillhole on the other side.

\*\* At the 1st asterisk give assembly position and at the 2nd asterisk give the count direction (see sample order „assembly position, count direction“)

### On request:

- Counter cover made of mineral glass
- Stainless steel driveshaft
- Axial sealing (dust-proof)
- Waterproof
- Vibration protection

### Accessory:

- Reducing bushes K0412
- Insert plate K0413
- Mounting plates K0414

### Technical data:

- Counter consisting of 5 10-position dials + fine scale
- Height of figures about 7 mm
- Hollow shaft Ø 20 H7 mm
- Temperature resistant to 80 °C
- Oil and solvent resistant
- Dust-proof

| Indicator after one rotation decimal point position:  | Assembly position (1 - 4):                    |
|---|---|
|   |   |
| e. g. K0410.01002111<br>0100 = 1 mm pitch<br>2 = decimal point at the 2 <sup>nd</sup> position from the right | e. g. K0410.01002111<br>1 = assembly position |

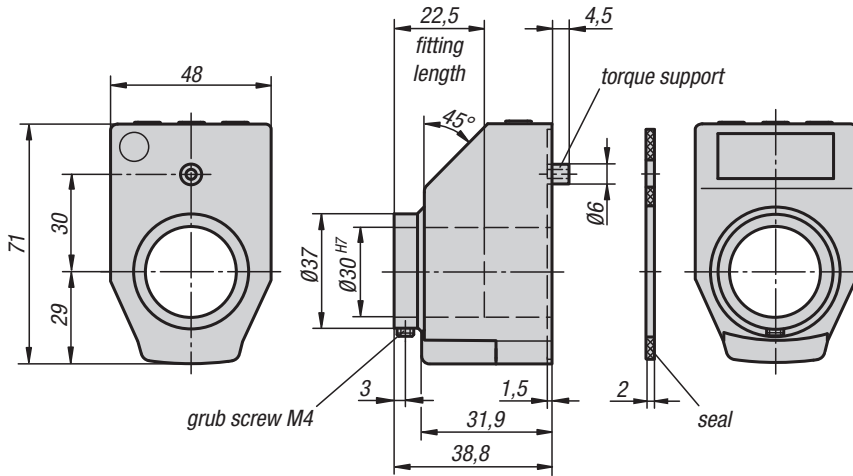
| Count direction (1 - 2):   | Colour (1 - 2):                                 |
|--|---|
|  | 1<br>2  |
| e. g. K0410.01002111<br>1 = clockwise (ascending values)<br>2 = anticlockwise (ascending values) | e. g. K0410.01002111<br>1 = orange<br>2 = black |

## KIPP Digital position indicators

| Order No.<br>orange | Order No.<br>black | Pitch | Indicator<br>after one<br>rotation | Decimal<br>point in<br>position | Revolutions<br>per minute max. | Approx.<br>weight<br>kg |
|---------------------|--------------------|-------|------------------------------------|---------------------------------|--------------------------------|-------------------------|
| K0410.01002**1      | K0410.01002**2     | 1     | 000,10                             | 2                               | 1500                           | 0,100                   |
| K0410.01001**1      | K0410.01001**2     | 1     | 0001,0                             | 1                               | 1500                           | 0,100                   |
| K0410.01501**1      | K0410.01501**2     | 1,5   | 0001,5                             | 1                               | 1000                           | 0,100                   |
| K0410.02001**1      | K0410.02001**2     | 2     | 0002,0                             | 1                               | 750                            | 0,100                   |
| K0410.02501**1      | K0410.02501**2     | 2,5   | 0002,5                             | 1                               | 600                            | 0,100                   |
| K0410.03001**1      | K0410.03001**2     | 3     | 0003,0                             | 1                               | 500                            | 0,100                   |
| K0410.04001**1      | K0410.04001**2     | 4     | 0004,0                             | 1                               | 450                            | 0,100                   |
| K0410.05001**1      | K0410.05001**2     | 5     | 0005,0                             | 1                               | 300                            | 0,100                   |
| K0410.06001**1      | K0410.06001**2     | 6     | 0006,0                             | 1                               | 250                            | 0,100                   |
| K0410.10001**1      | K0410.10001**2     | 10    | 0010,0                             | 1                               | 150                            | 0,100                   |



## Position indicators freely programmable



### Material, surface finish:

Housing plastic.  
Tubular shaft steel, black oxide finish.  
View window, LCD display.  
Grub screw steel, black.

### Sample order not programmed:

K0411.12  
(Position indicator with assembly position 1, colour black)

### Sample order programmed:

K0411.0200021120  
(See ordering example on the next page)

### Note:

The electronic position indicators offer diverse opportunities compared to mechanical position indicators because they display angles as well as uncommon spindle pitches and record each fraction of spindle movement.

\* Freely programmable parameters using the programming software K0411.09.

### Characteristics:

- indicated value and decimal point freely programmable
- linear or angle mode
- function key for zero-point position
- function key for switching between the absolute dimension and chain dimension
- programming of an offset value directly at the device
- easy battery change

### Accessory:

- reducing bushes K0412
- programming software K0411.09

### Technical data:

- LCD Display with 5 digits
- Digit size approx. 11.5 mm
- Display range from -19999 ... 99999
- Tubular shaft Ø 30 H7 mm
- Operating temperature -10 °C to +60 °C
- Storage temperature -30 °C to +80 °C
- Revolution max. 600 rpm
- Lithium battery Button cell 3V, type CR 2032. service life approx. 6 years
- Vibration-resistance according to DIN IEC 68-2-6 10 g / (5 ... 150 Hz), 20 g / (100 ... 2000 Hz)
- Shock-resistance according to DIN IEC 68-2-27 30 g / 15 ms
- EMC DIN EN 61000-4-2; DIN EN 61000-4-4
- Type of protection IP 51

### KIPP Position indicators programmed

| Order No. | Surface finish                        |
|-----------|---------------------------------------|
| K0411.    | see ordering example on the next page |

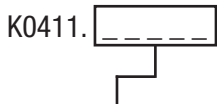
### KIPP Position indicators not programmed\*

| Order No. | Colour | assembly position | Pitch               | Indicator after one rotation | Decimal point in position | Count direction     | zero-point position | Order No. software |
|-----------|--------|-------------------|---------------------|------------------------------|---------------------------|---------------------|---------------------|--------------------|
| K0411.12  | black  | 1                 | freely programmable | freely programmable          | freely programmable       | freely programmable | freely programmable | K0411.09           |
| K0411.13  | red    | 1                 | freely programmable | freely programmable          | freely programmable       | freely programmable | freely programmable | K0411.09           |
| K0411.32  | black  | 3                 | freely programmable | freely programmable          | freely programmable       | freely programmable | freely programmable | K0411.09           |
| K0411.33  | red    | 3                 | freely programmable | freely programmable          | freely programmable       | freely programmable | freely programmable | K0411.09           |



## Sample order for position indicators programmed

Order code:



**Indicator after one rotation:**

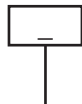
e.g.  
K0411.0200021120  
Please indicate here which value is to be displayed after one rotation (this is usually the spindle pitch).

**Important:**  
Please note the decimal point position!



**Angle mode:**  
(resolution 0.1°)  
If you want the display to be in angle mode, enter 03600.

The display in angle mode is 03600 after one rotation and will again at 00000 for the next rotation.



**Decimal point position:**

e.g.  
K0411.0200021120  
Please indicate here in which place you want to have the decimal point.

0 = 00000  
1 = 0000.0  
2 = 000.00  
3 = 00.000



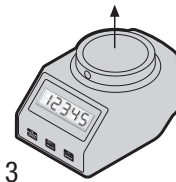
**Angle mode:**  
If you want the display to be in angle mode, the decimal point is best put in position 1.

Thus the indicator shows the value 0360.0 after one rotation.



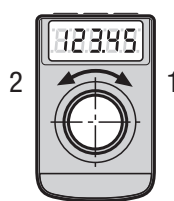
**Assembly position:**

e.g.  
K0411.0200021120  
1 = Mounting position for horizontal spindle  
3 = Mounting position for vertical spindle



**Count direction:**

e.g.  
K0411.0200021120  
1 = clockwise (ascending values)  
2 = anticlockwise (ascending values)



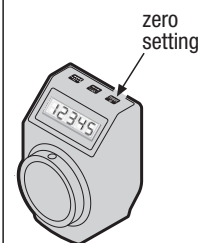
**Colour:**

e.g.  
K0411.0200021120  
2 = black  
3 = red



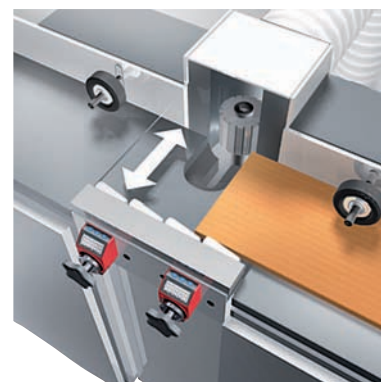
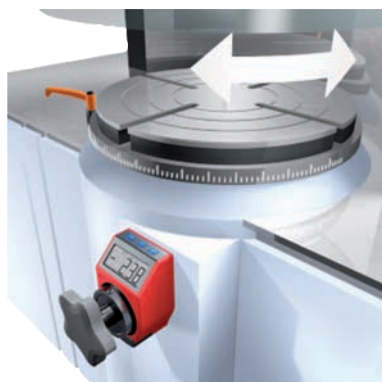
**Zero-point position:**

e.g.  
K0411.0200021120  
0 = directly  
5 = delayed by 5 sec.

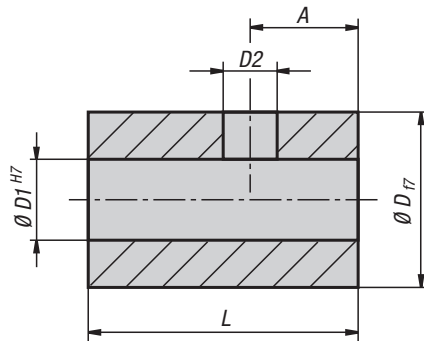


The Zero-point position can be delayed by 5 sec. by means of a parameter, in order to avoid accidental zero setting.

## Application using position indicators



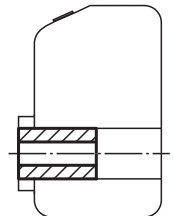
## Reducing bushes



**Material, surface finish:**  
Steel, black oxide finish.

**Sample order:**  
K0412.1410

**Note:**  
Reducing bushes are used for the adjustment of diameter between position indicator and displacement spindle.



### KIPP Reducing bushes

| Order No.  | A   | D  | D1 | D2  | L  | Suitable for Position indicator |
|------------|-----|----|----|-----|----|---------------------------------|
| K0412.1006 | 2,5 | 10 | 6  | 3,2 | 14 | K0408                           |
| K0412.1008 | 2,5 | 10 | 8  | 3,2 | 14 | K0408                           |
| K0412.1406 | 3,5 | 14 | 6  | 4,2 | 17 | K0409                           |
| K0412.1408 | 3,5 | 14 | 8  | 4,2 | 17 | K0409                           |
| K0412.1410 | 3,5 | 14 | 10 | 4,2 | 17 | K0409                           |
| K0412.1412 | 3,5 | 14 | 12 | 4,2 | 17 | K0409                           |
| K0412.2012 | 4,5 | 20 | 12 | 5,5 | 20 | K0410                           |
| K0412.2014 | 4,5 | 20 | 14 | 5,5 | 20 | K0410                           |
| K0412.2016 | 4,5 | 20 | 16 | 5,5 | 20 | K0410                           |
| K0412.2018 | 4,5 | 20 | 18 | 5,5 | 20 | K0410                           |
| K0412.3012 | 4   | 30 | 12 | 5,5 | 30 | K0411                           |
| K0412.3014 | 4   | 30 | 14 | 5,5 | 30 | K0411                           |
| K0412.3016 | 4   | 30 | 16 | 5,5 | 30 | K0411                           |
| K0412.3018 | 4   | 30 | 18 | 5,5 | 30 | K0411                           |
| K0412.3020 | 4   | 30 | 20 | 5,5 | 30 | K0411                           |
| K0412.3025 | 4   | 30 | 25 | 5,5 | 30 | K0411                           |

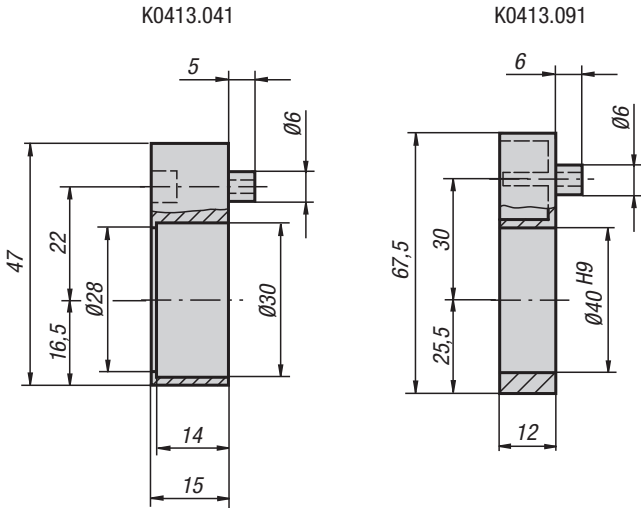
## Insert plates



**Material, surface finish:**  
Plastic.

**Sample order:**  
K0413.041

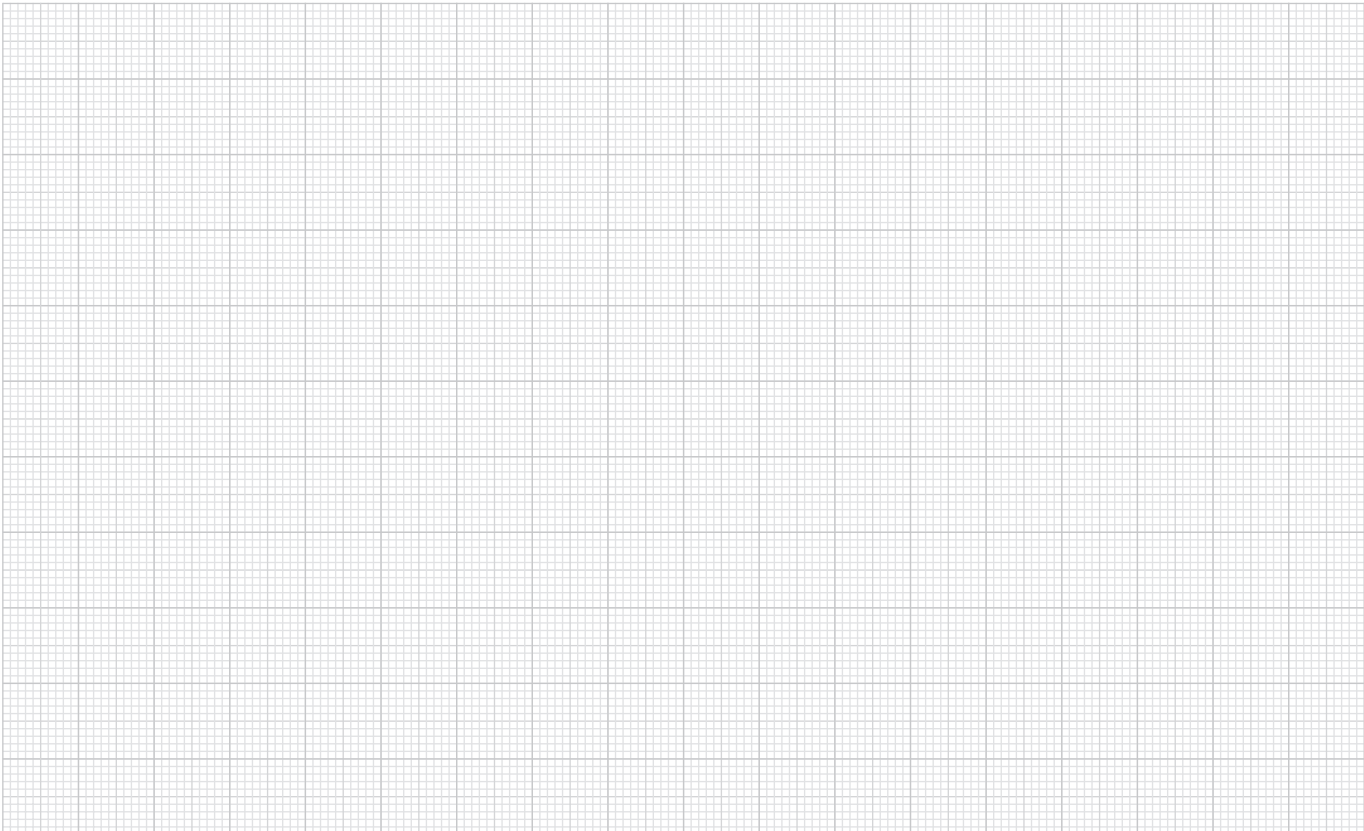
**Note:**  
Insert plates are used for the attachment of adjusting rings and radial shaft seals.



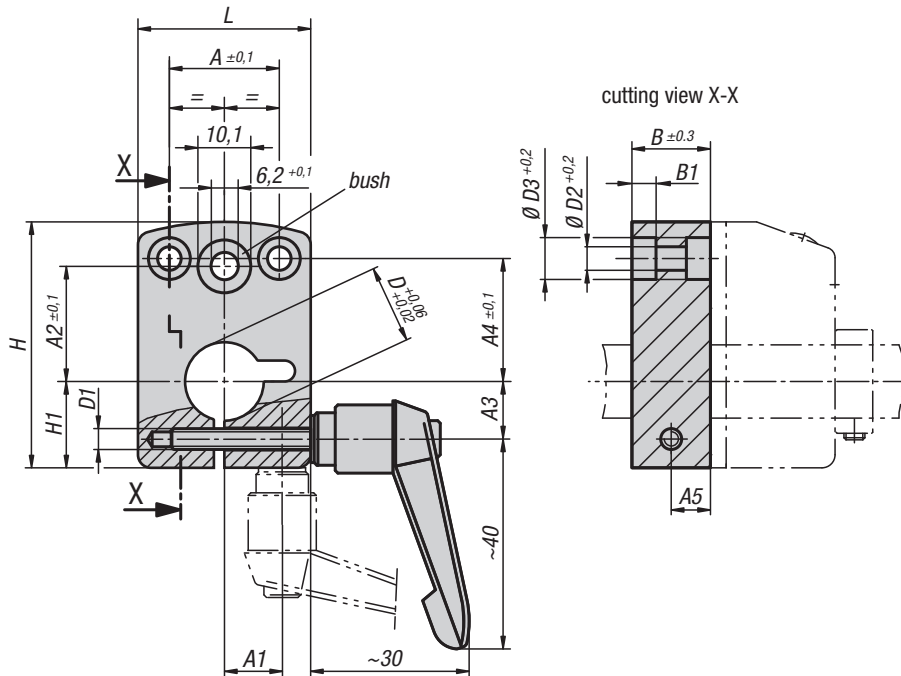
### KIPP Insert plates

| Order No. | Suitable for Position indicator | Approx. weight kg |
|-----------|---------------------------------|-------------------|
| K0413.041 | K0409                           | 0,009             |
| K0413.091 | K0410                           | 0,013             |

## Notes



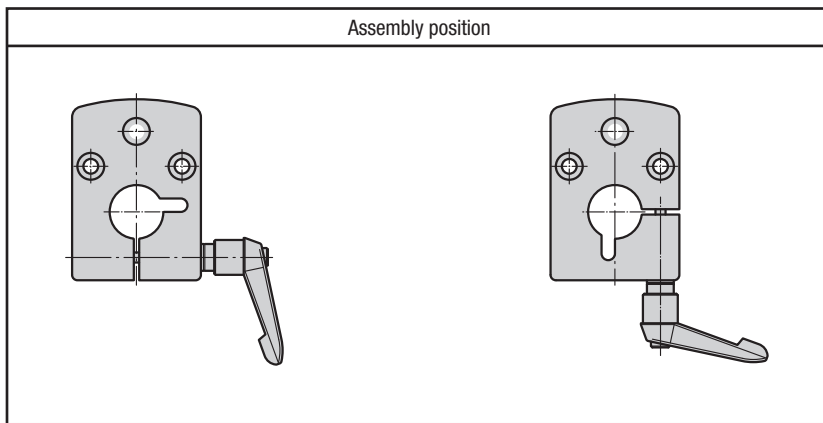
## Mounting plates



**Material, surface finish:**  
 Housing aluminium anodized.  
 Clamp lever in anthracite grey thermoplastic.

**Sample order:**  
 K0414.09121

**Note:**  
 Mounting plates form a compact unit in combination with position indicators. They guarantee reliable spindle clamping without additional construction work.  
 Because of simple mounting as an insertion plate, the mounting plate is also very suitable for subsequent fitting out of existing equipment.  
 By squeezing the bush, the diameter for the torque support can be expanded from Ø6.2 to Ø10.1.



K0414. ....1

K0414. ....3



### KIPP Mounting plates

| Order No.<br>assembly position 1 | Order No.<br>assembly position 3 | A  | A1   | A2 | A3   | A4   | A5  | B  | B1  | D  | D1 | D2  | D3 | H    | H1   | L  | Suitable<br>for Position indicator |
|----------------------------------|----------------------------------|----|------|----|------|------|-----|----|-----|----|----|-----|----|------|------|----|------------------------------------|
| K0414.04081                      | K0414.04083                      | 21 | -/11 | 22 | 11/- | 23,5 | 7,5 | 15 | 4,6 | 8  | M4 | 4,5 | 8  | 47   | 16,5 | 33 | K0409                              |
| K0414.04101                      | K0414.04103                      | 21 | -/11 | 22 | 11/- | 23,5 | 7,5 | 15 | 4,6 | 10 | M4 | 4,5 | 8  | 47   | 16,5 | 33 | K0409                              |
| K0414.04121                      | K0414.04123                      | 21 | -/11 | 22 | 11/- | 23,5 | 7,5 | 15 | 4,6 | 12 | M4 | 4,5 | 8  | 47   | 16,5 | 33 | K0409                              |
| K0414.04141                      | K0414.04143                      | 21 | -/11 | 22 | 11/- | 23,5 | 7,5 | 15 | 4,6 | 14 | M4 | 4,5 | 8  | 47   | 16,5 | 33 | K0409                              |
| K0414.09121                      | K0414.09123                      | 34 | -/17 | 30 | 17/- | 17   | 10  | 20 | 5,5 | 12 | M5 | 5,5 | 10 | 67,5 | 25,5 | 48 | K0410                              |
| K0414.09141                      | K0414.09143                      | 34 | -/17 | 30 | 17/- | 17   | 10  | 20 | 5,5 | 14 | M5 | 5,5 | 10 | 67,5 | 25,5 | 48 | K0410                              |
| K0414.09161                      | K0414.09163                      | 34 | -/17 | 30 | 17/- | 17   | 10  | 20 | 5,5 | 16 | M5 | 5,5 | 10 | 67,5 | 25,5 | 48 | K0410                              |
| K0414.09181                      | K0414.09183                      | 34 | -/17 | 30 | 17/- | 17   | 10  | 20 | 5,5 | 18 | M5 | 5,5 | 10 | 67,5 | 25,5 | 48 | K0410                              |
| K0414.09201                      | K0414.09203                      | 34 | -/17 | 30 | 17/- | 17   | 10  | 20 | 5,5 | 20 | M5 | 5,5 | 10 | 67,5 | 25,5 | 48 | K0410                              |







## Compression latches

Compression latch,  
small version  
**K0518**



Page 268

Compression latch  
with cylinder, small version  
**K0520**



Page 269

Compression latch  
**K0522**



Page 270

Secure-compression latch  
**K0524**



Page 271

Compression latch  
with wing knob  
**K0525**



Page 272

Compression latch  
with T-grip  
**K0526**



Page 273

Compression latch  
with stepped cam  
**K0527**



Page 274

Compression latch  
with variable tightening length  
**K0528**



Page 275

Compression latch  
**K0529**



Page 276

Compression latch  
with adjustable cam height  
**K0531**



Page 277

Dust cap  
**K0533**



Page 278

Opening handle  
**K0534**



Page 278

Keys  
for compression latch  
**K0535**

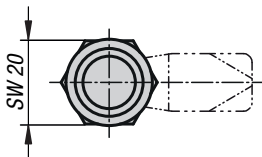
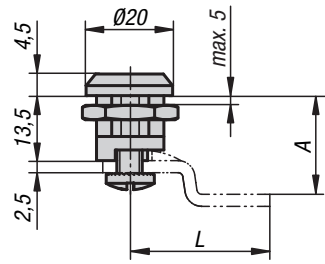


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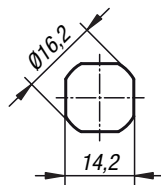


## Compression latch,

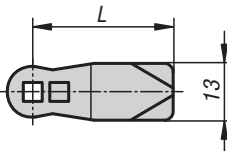
small version



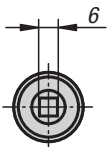
Mounting cutout



Tongue



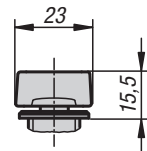
Actuation



square  
6 mm



slot



wing-handle



**Material, surface finish:**

Housing and actuator die cast zinc, chromium-plated, powder-coated black for wing-knob version. Tongue steel, galvanized.

**Sample order:**

Compression Latch K0518.16131  
Tongue K0519.125X075

**Note:**

Small compression latch with spring-supported tongue. Usable on the right or the left with a 90° closing path. The compression latch can be installed pre-assembled. The fastening nut is constructed as an earthing nut with claws on one side.

Please order the desired version of the tongue separately. Every tongue can be combined with every housing.

**Accessory:**

Key K0535



### KIPP Compression latch, small version

| Order No.   | Actuation   |
|-------------|-------------|
| K0518.16131 | square 6 mm |
| K0518.20131 | recess      |
| K0518.30132 | wing-handle |

### KIPP Tongue for compression latch

| Order No.     | A    | L  |
|---------------|------|----|
| K0519.125X075 | 7,5  | 25 |
| K0519.125X135 | 13,5 | 25 |
| K0519.125X195 | 19,5 | 25 |

## Compression latch

with cylinder, small version



**Material, surface finish:**

Housing and actuator die cast zinc, chromium-plated.  
Tongue in steel, galvanized.  
Key nickel silver.

**Sample order:**

Compression latch with cylinder K0520.131  
Tongue K0521.128X105

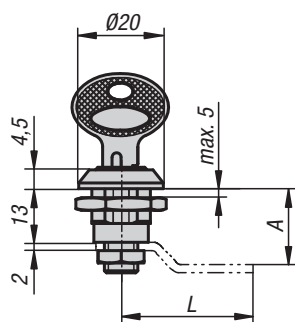
**Note:**

Small lockable compression latch, usable on the right or the left, with a 90° closing path. The compression latch can be installed pre-assembled. The fastening nut is constructed as an earthing nut with claws on one side. These lockable compression latches are each delivered with 2 keys. The key can be pulled out in both positions (open and closed). The locking is identical, i.e., each lock can be opened with the same key.

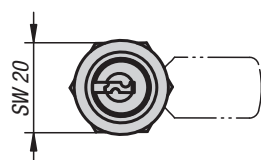
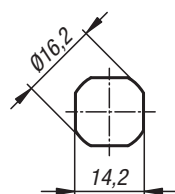
Please order the desired version of the tongue separately.

**On request:**

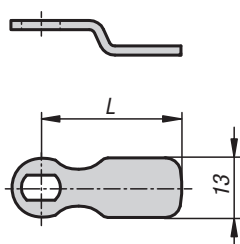
Locking non-identical.



Mounting cutout



Tongue



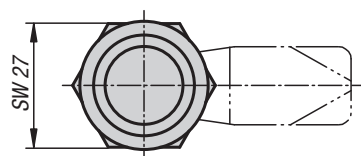
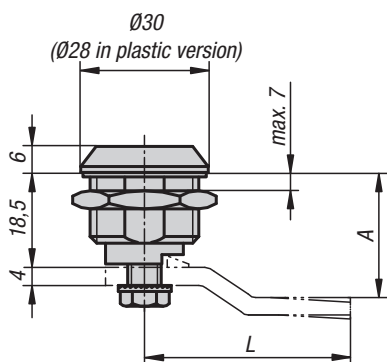
### KIPP Compression latch with cylinder, small version

| Order No. | Actuation |
|-----------|-----------|
| K0520.131 | Key       |

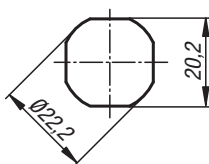
### KIPP Tongue for compression latch

| Order No.     | A  | L  |
|---------------|----|----|
| K0521.128X105 | 10 | 28 |
| K0521.124X135 | 13 | 24 |
| K0521.131X135 | 13 | 31 |
| K0521.136X135 | 13 | 36 |
| K0521.130X165 | 16 | 30 |
| K0521.126X205 | 20 | 26 |

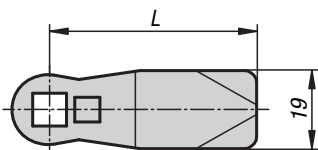
## Compression latch



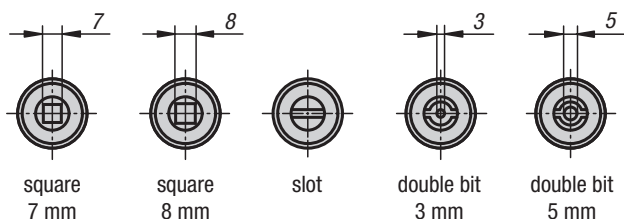
Mounting cutout



Tongue



Actuation



**Material, surface finish:**

Housing, actuator and nut die cast zinc, chromium-plated, or PA6 plastic GFR 30, black. Rubber flat packing. Tongue steel, galvanized.

**Sample order:**

Compression latch K0522.17181  
Tongue K0523.145X045 (Please specify tongue spacing with „A“)

**Note:**

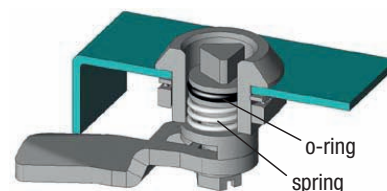
Compression latch with spring-supported tongue. Usable on the right or the left, with a 90° closing path. The Compression latch can be installed pre-assembled. The fastening nut is constructed as an earthing nut with claws on one side.

Vibration-proof (except plastic version); a catch prevents independent opening. Protected from water and dust in accordance with IP65.

Please order the desired version of the tongue separately. Every tongue can be combined with every housing.

**Accessory:**

Key K0535



### KIPP Compression latch

| Order No.<br>die cast zinc | Order No.<br>plastic | Actuation       |
|----------------------------|----------------------|-----------------|
| K0522.17181                | -                    | square 7 mm     |
| K0522.18181                | -                    | square 8 mm     |
| K0522.20181                | K0522.20185          | recess          |
| K0522.43181                | K0522.43185          | double bit 3 mm |
| K0522.45181                | K0522.45185          | double bit 5 mm |

### KIPP Tongue for compression latch

| Order No.  | A   | L  |
|------------|---|----|
| K0523.145X | 4,5/6,5/8,5/10,5/12,5/14,5/16,5/18,5/20,5/21,5/22,5/24,5/26,5/28,5/30,5/32,5/34,5/36,5/38,5/40,5/42,5 | 45 |
| K0523.135X | 16,5/18,5/20,5/22,5/24,5  | 35 |

## Secure-compression latch



**Material, surface finish:**

Housing and actuator die cast zinc, chromium-plated or powder-coated. Nut in die cast zinc. Rubber flat packing. Tongue steel, galvanized. Key in die cast zinc, chromium-plated.

**Sample order:**

Secure-compression latch K0524.181  
Tongue K0523.145X045 (Please specify tongue spacing with „A“)  
Key K0524.9

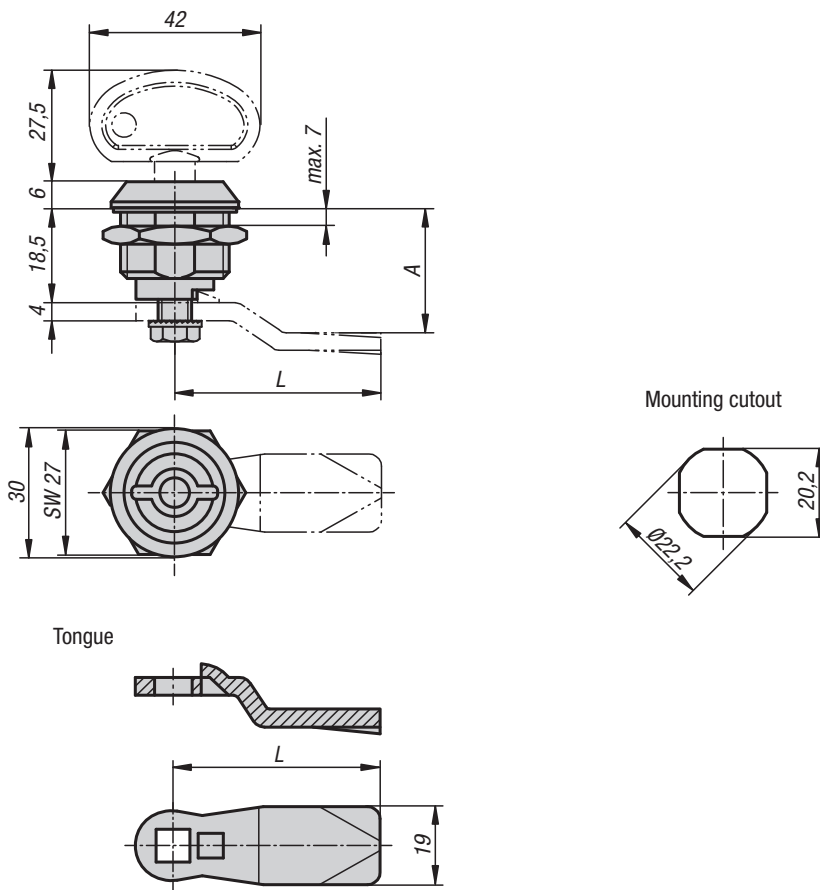
**Note:**

Secure-compression latch with spring-loaded tongue. Usable on the right or the left, with a 90° closing path. The compression latch can be installed pre-assembled. The fastening nut is constructed as an earthing nut with claws on one side.

Protected from water and dust in accordance with IP65.

Please order key separately. Lock can only be opened and closed with specific key. The key can only be pulled out in the closed position. With an open lock, the key acts as a spindle.

Please order the desired version of the tongue separately. Every tongue can be combined with every housing.



Tongue

Mounting cutout

Key can be pulled out in the closed state

Key cannot be pulled out in the opened state

### KIPP Secure-compression latch

| Order No.<br>chromium-plated | Order No.<br>black powder-coated | Actuation | Order No<br>Key |
|------------------------------|----------------------------------|-----------|-----------------|
| K0524.181                    | K0524.182                        | key       | K0524.9         |

### KIPP Tongue for compression latch

| Order No.  | A   | L  |
|------------|---|----|
| K0523.145X | 4,5/6,5/8,5/10,5/12,5/14,5/16,5/18,5/20,5/21,5/22,5/24,5/26,5/28,5/30,5/32,5/34,5/36,5/38,5/40,5/42,5 | 45 |
| K0523.135X | 16,5/18,5/20,5/22,5/24,5  | 35 |

## Compression latch

with wing knob



**Material, surface finish:**

Housing and nut die cast zinc, chromium-plated.  
Spindle thermoplastic PA 6. GF 30, black.  
Rubber flat packing.  
Tongue steel, galvanized.

**Sample order:**

Compression latch K0525.1183  
Tongue K0523.145X045 (Please specify tongue spacing with „A“)

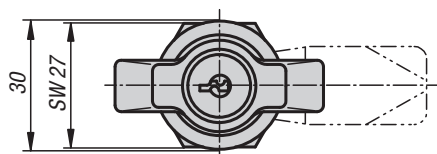
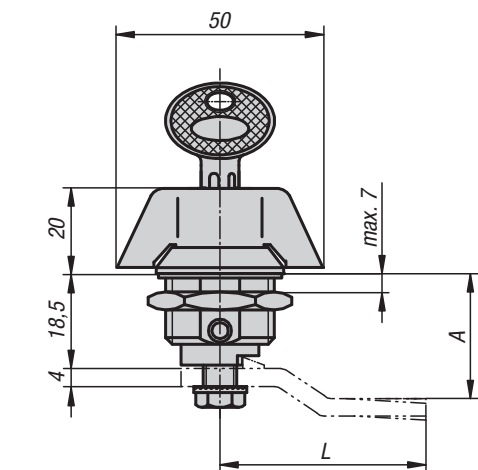
**Note:**

Compression latch with wing knob. Usable on the right or the left with a 90° closing path. The compression latch can be installed pre-assembled. The fastening nut is constructed as an earthing nut with claws on one side.

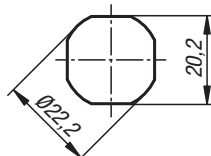
Protected from water and dust in accordance with IP65.

The lockable compression latches are delivered each with 2 keys. The key can be pulled out in both positions (open and closed). The locking is identical, i.e., each lock can be opened with the same key (Euro key 5333).

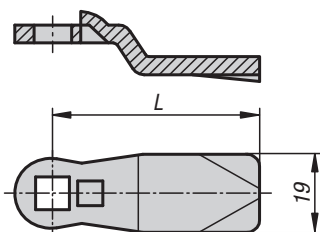
Please order the desired version of the tongue separately. Every tongue can be combined with every housing.



Mounting cutout



Tongue



### KIPP Compression latch with wing knob

| Order No.  | Actuation         |
|------------|-------------------|
| K0525.1183 | wing-handle       |
| K0525.2183 | spindle, lockable |

### KIPP Tongue for compression latch

| Order No.  | A   | L  |
|------------|---|----|
| K0523.145X | 4,5/6,5/8,5/10,5/12,5/14,5/16,5/18,5/20,5/21,5/22,5/24,5/26,5/28,5/30,5/32,5/34,5/36,5/38,5/40,5/42,5 | 45 |
| K0523.135X | 16,5/18,5/20,5/22,5/24,5  | 35 |

## Compression latch

with T-grip



**Material, surface finish:**

Housing and nut die cast zinc, chromium-plated.  
 T-grip thermoplastic PA 6 GF 30, black.  
 Rubber flat packing.  
 Tongue steel, galvanized.

**Sample order:**

Compression latch K0526.1183  
 Tongue K0523.145X045  
 (Please specify tongue spacing with „A“)

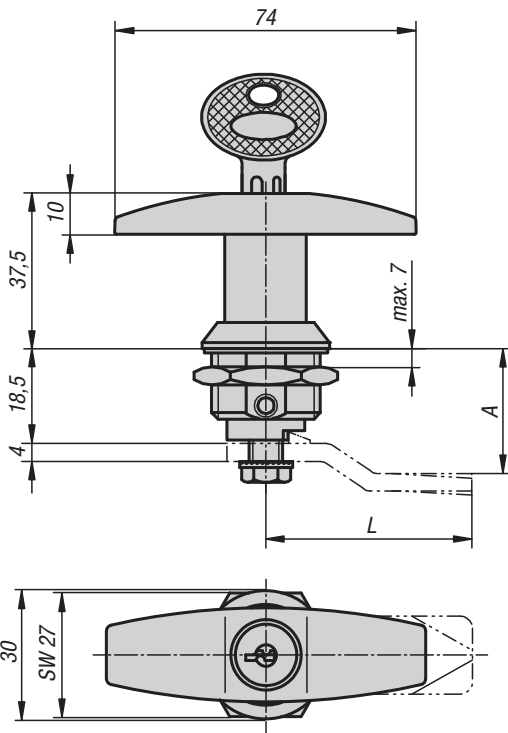
**Note:**

Compression latch with T-grip. Usable on the right or the left, with a 90° closing path. The compression latch can be installed pre-assembled. The fastening nut is constructed as an earthing nut with claws on one side.

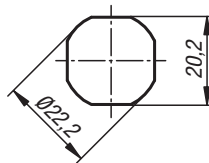
Protected from water and dust in accordance with IP65.

The lockable compression latches are each delivered with 2 keys. The key can be pulled out in both positions (open and closed). The locking is identical, i.e., each lock can be opened with the same key (Euro key 5333).

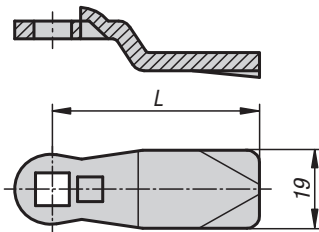
Please order the desired version of the tongue separately. Every tongue can be combined with every housing.



Mounting cutout



Tongue



### KIPP Compression latch with T-grip

| Order No.  | Actuation        |
|------------|------------------|
| K0526.1183 | t-grip           |
| K0526.2183 | t-grip, lockable |

### KIPP Tongue for compression latch

| Order No.  | A   | L  |
|------------|---|----|
| K0523.145X | 4,5/6,5/8,5/10,5/12,5/14,5/16,5/18,5/20,5/21,5/22,5/24,5/26,5/28,5/30,5/32,5/34,5/36,5/38,5/40,5/42,5 | 45 |
| K0523.135X | 16,5/18,5/20,5/22,5/24,5  | 35 |

# Compression latch

with stepped cam



**Material, surface finish:**

Housing, actuator, nut and tongue in die cast zinc, chromium-plated.  
Rubber flat packing.

**Sample order:**

Compression latch K0527.17301

**Note:**

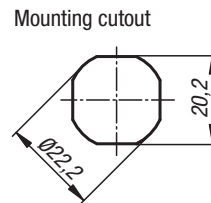
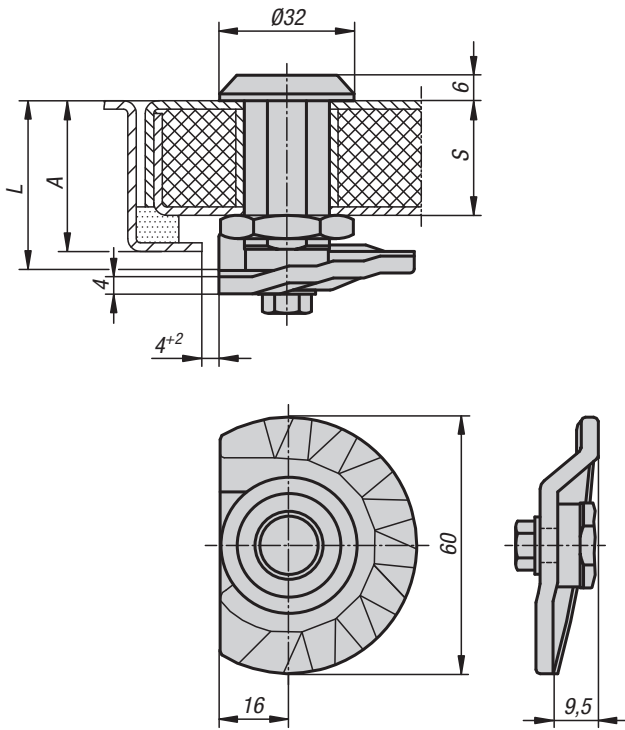
Compression latch with stepped cam are primarily used for doors and housings that require a higher pressure force on the seal. Usable on the right or the left. The closing process always runs clockwise. By turning the actuator clockwise, the tightening path can be incrementally increased to 9.5 mm at a maximum rotation angle of 270°.

The fastening nut is constructed as an earthing nut with claws on one side.

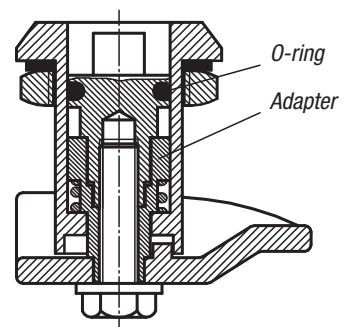
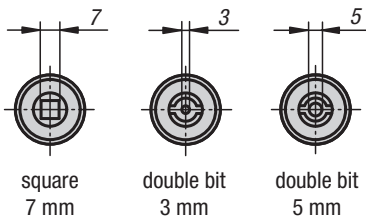
Protected from water and dust in accordance with IP65.

**Accessory:**

Key K0535



**Actuation**



**KIPP Compression latch with stepped cam**

| Order No.<br>square 7 mm | Order No.<br>double bit 3 mm | Order No.<br>double bit 5 mm | A       | L  | S max. |
|--------------------------|------------------------------|------------------------------|---------|----|--------|
| K0527.17301              | K0527.43301                  | K0527.45301                  | 30 -9,5 | 30 | 20     |
| K0527.17401              | K0527.43401                  | K0527.45401                  | 40 -9,5 | 40 | 30     |
| K0527.17501              | K0527.43501                  | K0527.45501                  | 50 -9,5 | 50 | 40     |
| K0527.17601              | K0527.43601                  | K0527.45601                  | 60 -9,5 | 60 | 50     |

## Compression latch

with variable tightening length



**Material, surface finish:**

Compression latch in steel galvanized and blue chromated.  
Star Grip DIN 6336 black duroplastic.

**Sample order:**

Compression latch K0528.1709161

**Note:**

Compression latches are primarily used for doors and housings that require a higher pressure force on the seal. Usable on the right or the left. The closing process always runs clockwise.

**Assembly:**

A notch for the locking pin is made in a  $\varnothing 25$  mm hole. The closure is inserted through the borehole. In order to push and fasten the nut, the tongue must be in the end position and in the centre of the cutout.

**On request:**

Water-tight design in accordance with IP 65.

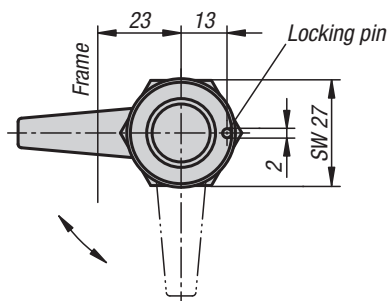
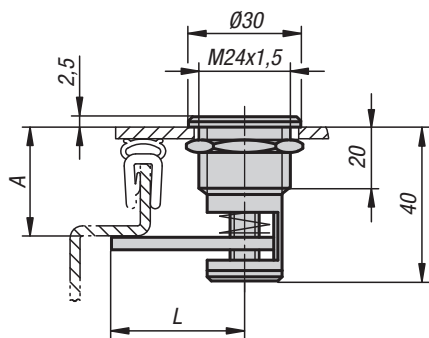
**Function:**

The tongue is turned  $90^\circ$  by clockwise rotation of the actuator and brought into the closed position. Further rotation pulls the tongue axially via the thread and thus increases the pressure force. The closure is unlocked by counterclockwise rotation. The tongue is positively opened in the end position, which guarantees secure opening even with sticky seals. The variable tightening length is 7 mm; the clamping range of 9-44 mm is covered by 7 bent tongues (dimension A).

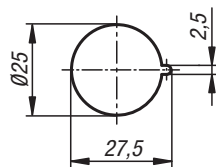
Completely assembled on delivery.

**Accessory:**

Key K0535



Mounting cutout



Actuation



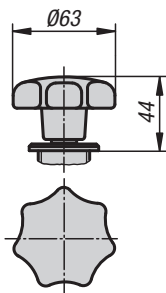
square  
7 mm



double bit  
3 mm



double bit  
5 mm



star grip

### KIPP Compression latch with variable tightening length

| Order No.<br>square 7 | Order No.<br>double bit 3 | Order No.<br>double bit 5 | Order No.<br>star Grip | A       | L    |
|-----------------------|---------------------------|---------------------------|------------------------|---------|------|
| K0528.1709161         | K0528.4309161             | K0528.4509161             | K0528.5009161          | 9 - 16  | 40,5 |
| K0528.1713201         | K0528.4313201             | K0528.4513201             | K0528.5013201          | 13 - 20 | 42,5 |
| K0528.1717241         | K0528.4317241             | K0528.4517241             | K0528.5017241          | 17 - 24 | 44   |
| K0528.1723301         | K0528.4323301             | K0528.4523301             | K0528.5023301          | 23 - 30 | 45   |
| K0528.1729361         | K0528.4329361             | K0528.4529361             | K0528.5029361          | 29 - 36 | 43   |
| K0528.1733401         | K0528.4333401             | K0528.4533401             | K0528.5033401          | 33 - 40 | 40,5 |
| K0528.1737441         | K0528.4337441             | K0528.4537441             | K0528.5037441          | 37 - 44 | 37   |



# Compression latch



**Material, surface finish:**

Housing, actuator, nut and tongue in die cast zinc, chromium-plated.  
 Rubber flat packing.  
 Tongue steel, galvanized.

**Sample order:**

Compression latch K0529.18321  
 Tongue K0530.145X320  
 (Please specify tongue spacing with „A“)

**Note:**

Compression latches are primarily used for doors and housings that require a higher pressure force on the seal. Usable on the right or the left. The closing process always runs clockwise.

Vibration-proof, protected from water and dust in accordance with IP65.

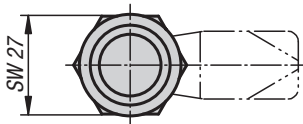
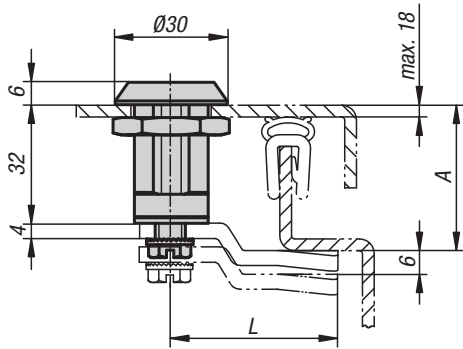
Please order the desired version of the tongue separately. Every tongue can be combined with every housing.

**Function:**

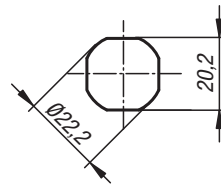
The tongue is turned 90° by clockwise rotation of the actuator and brought into the closed position. Further rotation by 90° pulls the tongue axially via the thread and thus increases the pressure force. The tightening length is 6 mm. The fastening nut is constructed as an earthing nut with claws on one side.

**Accessory:**

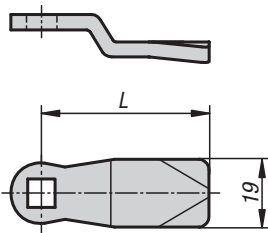
Key K0535



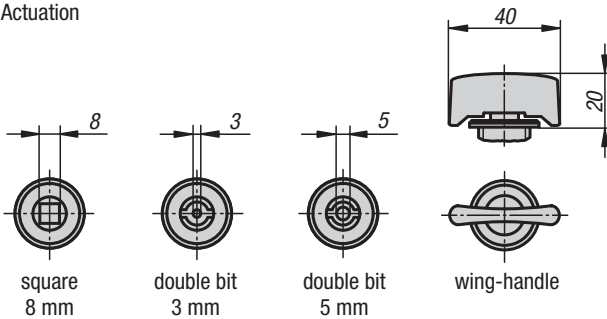
Mounting cutout



Tongue



Actuation



## KIPP Compression latch

| Order No.   | Actuation       |
|-------------|-----------------|
| K0529.18321 | square 8 mm     |
| K0529.43321 | double bit 3 mm |
| K0529.45321 | double bit 5 mm |
| K0529.30321 | wing-handle     |

## KIPP Tongue for compression latch

| Order No.  | A           | L  |
|------------|-------------|----|
| K0530.145X | 32/35/38/44 | 45 |
| K0530.151X | 32          | 51 |

## Compression latch

with adjustable cam height



**Material, surface finish:**

Housing, actuator, nut and tongue in die cast zinc, chromium-plated.  
 Powder-coated black for wing-knob version.  
 Rubber flat packing.  
 Tongue steel, galvanized.

**Sample order:**

Compression Latch K0531.18321  
 Tongue K0532.1000X590

**Note:**

Compression latches are primarily used for doors and housings that require a higher pressure force on the seal. Usable on the right or the left. The closing process always runs clockwise.

Vibration-proof, protected from water and dust in accordance with IP65.

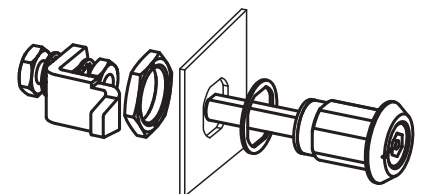
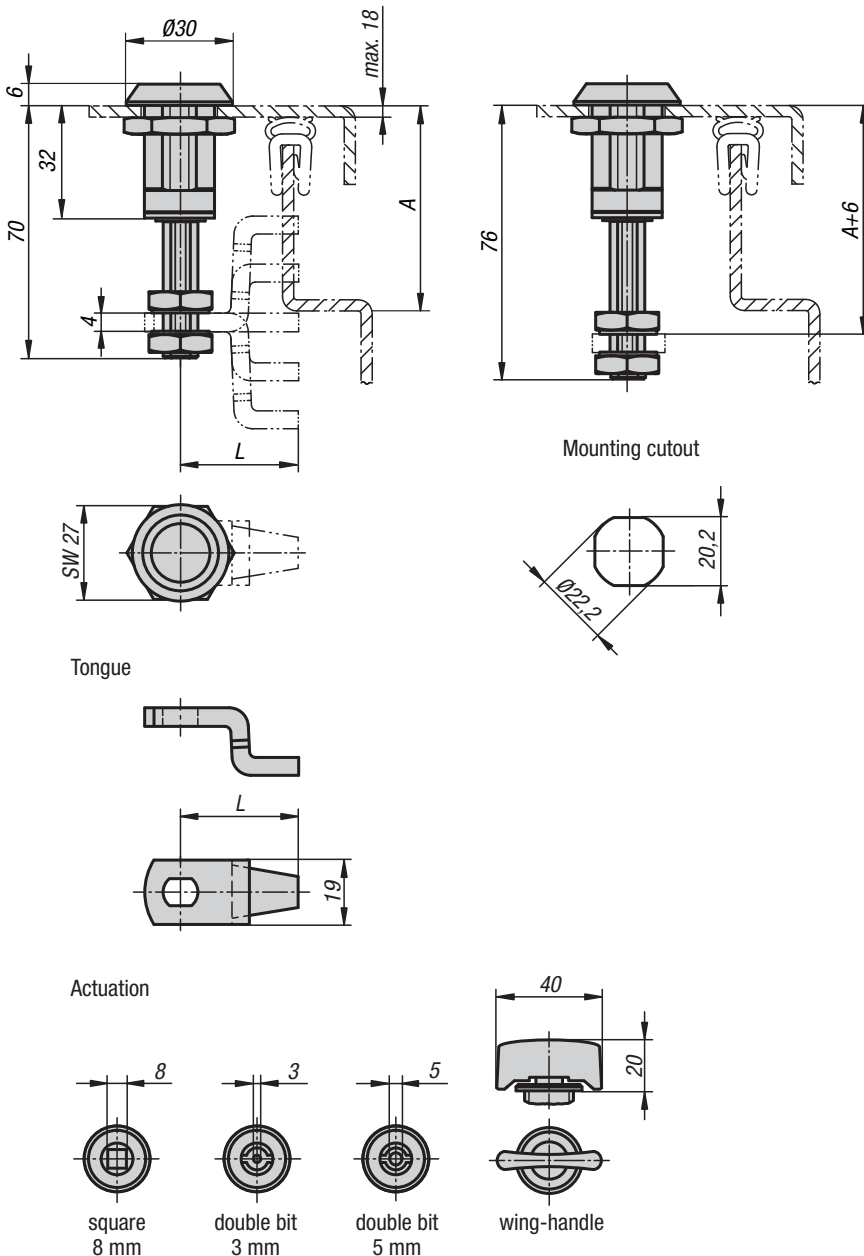
Please order the desired version of the tongue separately. Every tongue can be combined with every housing.

**Function:**

The tongue is turned 90° by clockwise rotation of the actuator and brought into the closed position. Further rotation by 90° pulls the tongue axially via the thread and thus increases the pressure force. The tightening length is 6 mm. The fastening nut is constructed as an earthing nut with claws on one side. The bent tongue can be used positively and negatively.

**Accessory:**

Key K0535



### KIPP Compression latch with adjustable cam height

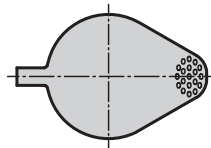
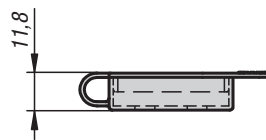
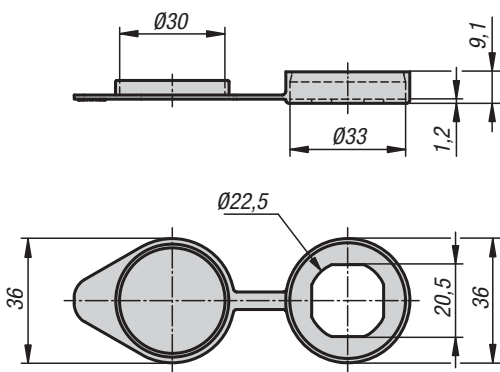
| Order No.   | Actuation       |
|-------------|-----------------|
| K0531.18321 | square 8 mm     |
| K0531.43321 | double bit 3 mm |
| K0531.45321 | double bit 5 mm |
| K0531.30322 | wing-handle     |

### KIPP Cams for compression latch with adjustable cam height

| Order No.      | A                 | L  |
|----------------|-------------------|----|
| K0532.1000X590 | 40 - 59           | 33 |
| K0532.1140X730 | 26 - 45 / 52 - 73 | 33 |
| K0532.1275X860 | 12 - 32 / 68 - 86 | 33 |

# K0533

## Dust cap



**Material, surface finish:**  
Plastic, thermoplastic (PU), black.

**Sample order:**  
K0533.202230

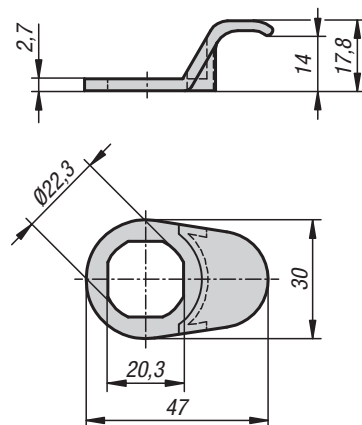
**Note:**  
Dust cap for compression latch with a head diameter up to max. 32 mm. It offers increased protection from dust and moisture. If the dust cap is used, dimension „A“ of the compression latch is reduced by 1 mm.

### KIPP Dust cap

| Order No.    | Approx. weight kg |
|--------------|-------------------|
| K0533.202230 | 0,005             |

# K0534

## Opening handle



**Material, surface finish:**  
Plastic, thermoplastic (PA), black.

**Sample order:**  
K0534.202230

**Note:**  
Practical opening handle for compression latches with a head diameter up to max. 30 mm. If the opening handle is used, dimension „A“ of the compression latch is reduced by 2.5 mm.



### KIPP Opening handle

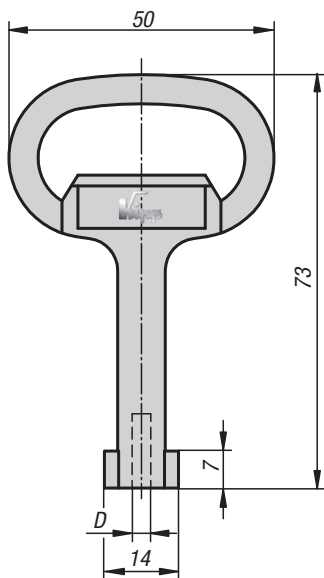
| Order No.    | Approx. weight kg |
|--------------|-------------------|
| K0534.202230 | 0,003             |

## Keys

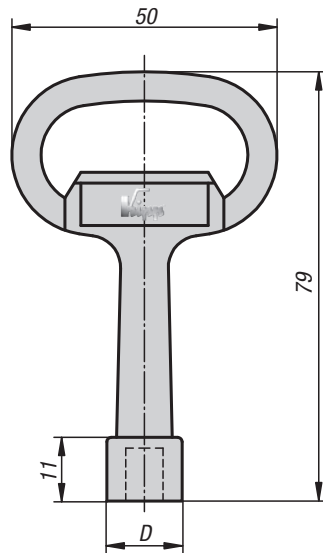
for compression latch



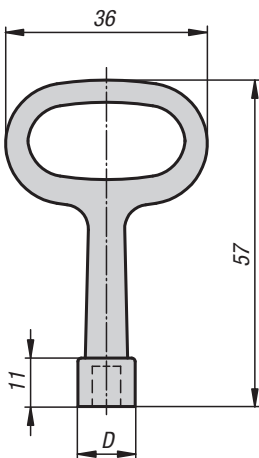
Form A  
double bit



Form B  
square



Form C  
square



**Material, surface finish:**  
Die cast zinc, chromium-plated.

**Sample order:**  
K0535.43

**Note:**  
Key for actuating the compression latch.

### KIPP Keys for compression latch

| Order No. | Form | Surface finish  | D    |
|-----------|------|-----------------|------|
| K0535.43  | A    | double bit 3 mm | 3    |
| K0535.45  | A    | double bit 5 mm | 5    |
| K0535.17  | B    | square 7 mm     | 15   |
| K0535.18  | B    | square 8 mm     | 15   |
| K0535.16  | C    | square 6 mm     | 11,5 |







## Hinges

Hinges  
in plastic, detachable, left  
**K0434**



Page 286-287

Hinges  
in plastic, detachable, right  
**K0434**



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Hinges  
in plastic  
**K0435**



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Hinges  
in plastic with clamping  
function  
**K0436**



Page 291

Hinges  
with oblong holes in plastic  
**K0437**



Page 292

Hinges  
with guide tabs in plastic,  
detachable  
**K0438**



Page 293

Hinges  
in plastic with a catching  
function  
**K0439**



Page 294

Hinges  
in plastic with adjustable  
friction  
**K0440**



Page 295

Hinges  
with oblong holes in die cast  
zinc  
**K0441**



Page 296

Hinges  
in die cast zinc with clamping  
function  
**K0442**



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Hinges  
in aluminium, detachable, left  
**K0579**



Page 298

Hinges  
in aluminium, detachable,  
right  
**K0579**



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Hinges  
in aluminium  
**K0580**



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# Technical information for hinges



## Hinges

We have set out as many as 161 hinge variants in a clear table for you. Many more variations are possible if you need hinges with guide tabs, for instance for combining aluminium profiles with different slot widths.

### By the way,

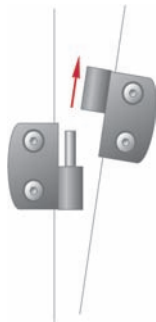
all hinges are supplied with a stainless steel axle as standard. Hinges K0436 and K0442 are supplied with a steel axle.

## Left and right hinge

Each uncoupling hinge has a left and right version. You should therefore know when ordering on which side the door or flap is mounted.

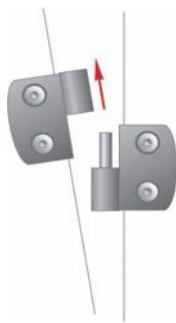
### Left hinge

The fixed side is on the left, the flap or door opens from right to left.



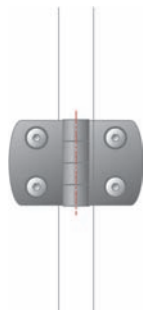
### Right hinge

The fixed side is on the right, the flap or door opens from left to right.



### Fixed hinge

The hinge cannot be uncoupled. It can be used for left and right.



## Guide tabs

Many hinges can be supplied on request with guide tabs for the slots of aluminium profiles. They secure the hinge against twisting and make it stronger.

The hinges are designed in such a way that the guide tabs can simply be broken out with a screwdriver.



without guide tabs



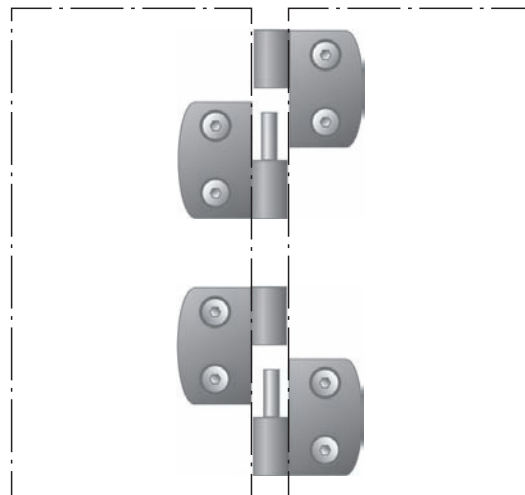
with guide tabs for aluminium profiles with slot



## A trick for you

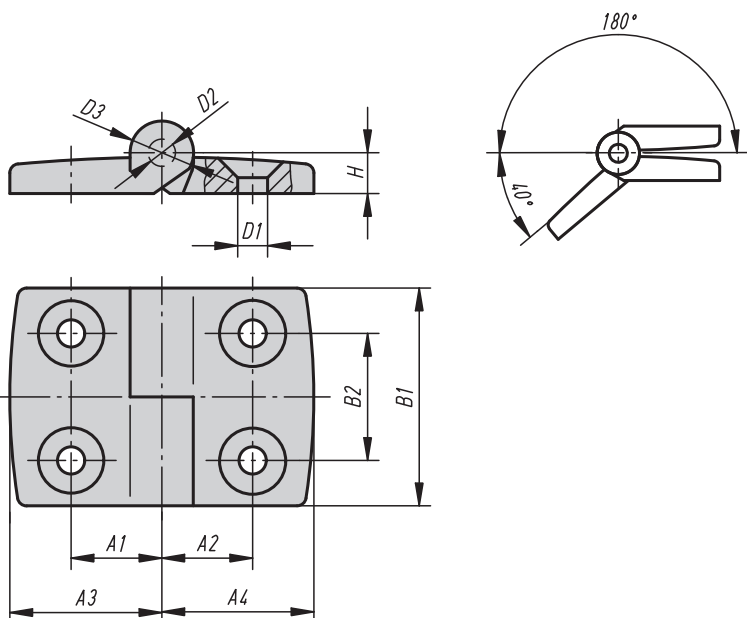
If you want to fit a door or flap so that it **cannot** be uncoupled, you can use a left and right **uncoupling** hinge for this.

The two hinges are mounted in coupled condition and mutually secure each other.



## Hinges

in plastic, detachable, left



**Material:**  
Glass-fibre reinforced thermoplastic;  
axle in stainless steel

**Surface finish:**  
Hinge black, axle natural finish

**Sample order:**  
K0434.1301825

**Note:**  
All hinges can be supplied on request with guide tabs for the slots of aluminium profiles (slots 6, 8 and 10). They facilitate mounting, secure the hinge against twisting and make it stronger.

### KIPP Hinges in plastic, detachable, left

| Order No.     | A1   | A2   | A3   | A4   | B1 | B2 | D1  | D2 | D3 | H | Load bearing capacity N | Approx. weight kg |
|---------------|------|------|------|------|----|----|-----|----|----|---|-------------------------|-------------------|
| K0434.1251515 | 15   | 15   | 26   | 26   | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                    | 0,031             |
| K0434.1251518 | 15   | 17,5 | 26   | 29,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                    | 0,033             |
| K0434.1251520 | 15   | 20   | 26   | 35,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                    | 0,035             |
| K0434.1251523 | 15   | 22,5 | 26   | 38,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                    | 0,037             |
| K0434.1251525 | 15   | 25   | 26   | 43,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                    | 0,038             |
| K0434.1251528 | 15   | 27,5 | 26   | 48,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                    | 0,040             |
| K0434.1251533 | 15   | 32,5 | 26   | 57,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                    | 0,043             |
| K0434.1301815 | 17,5 | 15   | 29,5 | 26   | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                    | 0,033             |
| K0434.1301818 | 17,5 | 17,5 | 29,5 | 29,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                    | 0,034             |
| K0434.1301820 | 17,5 | 20   | 29,5 | 35,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                    | 0,036             |
| K0434.1301823 | 17,5 | 22,5 | 29,5 | 38,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                    | 0,038             |
| K0434.1301825 | 17,5 | 25   | 29,5 | 43,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                    | 0,040             |
| K0434.1301828 | 17,5 | 27,5 | 29,5 | 48,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                    | 0,041             |
| K0434.1301833 | 17,5 | 32,5 | 29,5 | 57,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                    | 0,045             |
| K0434.1352015 | 20   | 15   | 35,5 | 26   | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                    | 0,034             |
| K0434.1352018 | 20   | 17,5 | 35,5 | 29,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                    | 0,036             |
| K0434.1352020 | 20   | 20   | 35,5 | 35,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                    | 0,038             |
| K0434.1352023 | 20   | 22,5 | 35,5 | 38,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                    | 0,040             |
| K0434.1352025 | 20   | 25   | 35,5 | 43,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                    | 0,042             |
| K0434.1352028 | 20   | 27,5 | 35,5 | 48,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                    | 0,043             |
| K0434.1352033 | 20   | 32,5 | 35,5 | 57,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                    | 0,047             |

# Hinges

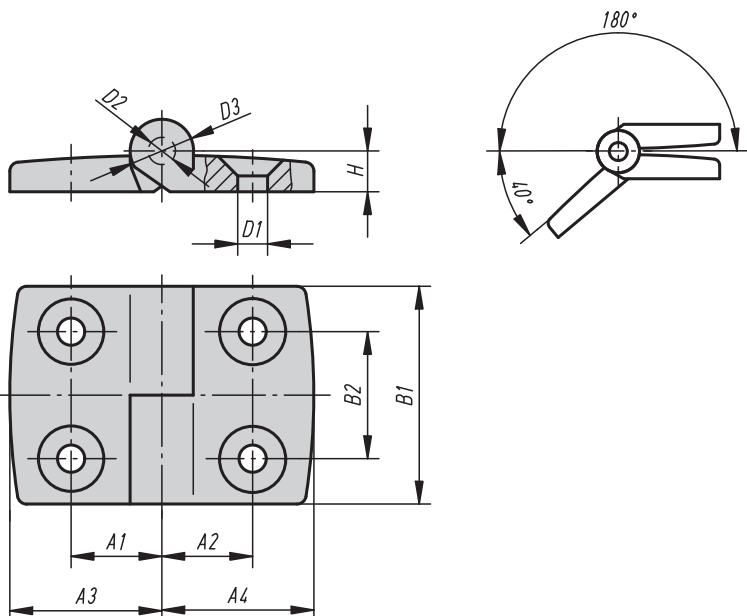
in plastic, detachable, left

## KIPP Hinges in plastic, detachable, left

| Order No.     | A1   | A2   | A3   | A4   | B1 | B2 | D1  | D2 | D3 | H | Load bearing capacity<br>N | Approx.<br>weight<br>kg |
|---------------|------|------|------|------|----|----|-----|----|----|---|----------------------------|-------------------------|
| K0434.1402315 | 22,5 | 15   | 38,5 | 26   | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                       | 0,037                   |
| K0434.1402318 | 22,5 | 17,5 | 38,5 | 29,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                       | 0,038                   |
| K0434.1402320 | 22,5 | 20   | 38,5 | 35,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                       | 0,040                   |
| K0434.1402323 | 22,5 | 22,5 | 38,5 | 38,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                       | 0,042                   |
| K0434.1402325 | 22,5 | 25   | 38,5 | 43,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                       | 0,043                   |
| K0434.1402328 | 22,5 | 27,5 | 38,5 | 48,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                       | 0,045                   |
| K0434.1402333 | 22,5 | 32,5 | 38,5 | 57,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                       | 0,049                   |
| K0434.1452515 | 25   | 15   | 43,5 | 26   | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                       | 0,038                   |
| K0434.1452518 | 25   | 17,5 | 43,5 | 29,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                       | 0,040                   |
| K0434.1452520 | 25   | 20   | 43,5 | 35,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                       | 0,042                   |
| K0434.1452523 | 25   | 22,5 | 43,5 | 38,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                       | 0,043                   |
| K0434.1452525 | 25   | 25   | 43,5 | 43,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                       | 0,045                   |
| K0434.1452528 | 25   | 27,5 | 43,5 | 48,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                       | 0,046                   |
| K0434.1452533 | 25   | 32,5 | 43,5 | 57,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                       | 0,050                   |
| K0434.1502815 | 27,5 | 15   | 48,5 | 26   | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                       | 0,040                   |
| K0434.1502818 | 27,5 | 17,5 | 48,5 | 29,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                       | 0,041                   |
| K0434.1502820 | 27,5 | 20   | 48,5 | 35,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                       | 0,043                   |
| K0434.1502823 | 27,5 | 22,5 | 48,5 | 38,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                       | 0,045                   |
| K0434.1502825 | 27,5 | 25   | 48,5 | 43,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                       | 0,046                   |
| K0434.1502828 | 27,5 | 27,5 | 48,5 | 48,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                       | 0,048                   |
| K0434.1502833 | 27,5 | 32,5 | 48,5 | 57,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                       | 0,052                   |
| K0434.1603315 | 32,5 | 15   | 57,5 | 26   | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                       | 0,043                   |
| K0434.1603318 | 32,5 | 17,5 | 57,5 | 29,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                       | 0,045                   |
| K0434.1603320 | 32,5 | 20   | 57,5 | 35,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                       | 0,047                   |
| K0434.1603323 | 32,5 | 22,5 | 57,5 | 38,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                       | 0,049                   |
| K0434.1603325 | 32,5 | 25   | 57,5 | 43,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                       | 0,050                   |
| K0434.1603328 | 32,5 | 27,5 | 57,5 | 48,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                       | 0,052                   |
| K0434.1603333 | 32,5 | 32,5 | 57,5 | 57,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                       | 0,055                   |

## Hinges

in plastic, detachable, right



**Material:**

Glass-fibre reinforced thermoplastic;  
axle in stainless steel

**Surface finish:**

Hinge black, axle natural finish

**Sample order:**

K0434.2251523

**Note:**

All hinges can be supplied on request with guide tabs for the slots of aluminium profiles (slots 6, 8 and 10). They facilitate mounting, secure the hinge against twisting and make it stronger.

### KIPP Hinges in plastic, detachable, right

| Order No.     | A1   | A2   | A3   | A4   | B1 | B2 | D1  | D2 | D3 | H | Load bearing capacity N | Approx. weight kg |
|---------------|------|------|------|------|----|----|-----|----|----|---|-------------------------|-------------------|
| K0434.2251515 | 15   | 15   | 26   | 26   | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                    | 0,031             |
| K0434.2251518 | 15   | 17,5 | 26   | 29,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                    | 0,033             |
| K0434.2251520 | 15   | 20   | 26   | 35,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                    | 0,035             |
| K0434.2251523 | 15   | 22,5 | 26   | 38,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                    | 0,037             |
| K0434.2251525 | 15   | 25   | 26   | 43,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                    | 0,038             |
| K0434.2251528 | 15   | 27,5 | 26   | 48,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                    | 0,040             |
| K0434.2251533 | 15   | 32,5 | 26   | 57,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                    | 0,043             |
| K0434.2301815 | 17,5 | 15   | 29,5 | 26   | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                    | 0,033             |
| K0434.2301818 | 17,5 | 17,5 | 29,5 | 29,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                    | 0,034             |
| K0434.2301820 | 17,5 | 20   | 29,5 | 35,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                    | 0,036             |
| K0434.2301823 | 17,5 | 22,5 | 29,5 | 38,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                    | 0,038             |
| K0434.2301825 | 17,5 | 25   | 29,5 | 43,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                    | 0,040             |
| K0434.2301828 | 17,5 | 27,5 | 29,5 | 48,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                    | 0,041             |
| K0434.2301833 | 17,5 | 32,5 | 29,5 | 57,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                    | 0,045             |
| K0434.2352015 | 20   | 15   | 35,5 | 26   | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                    | 0,034             |
| K0434.2352018 | 20   | 17,5 | 35,5 | 29,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                    | 0,036             |
| K0434.2352020 | 20   | 20   | 35,5 | 35,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                    | 0,038             |
| K0434.2352023 | 20   | 22,5 | 35,5 | 38,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                    | 0,040             |
| K0434.2352025 | 20   | 25   | 35,5 | 43,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                    | 0,042             |
| K0434.2352028 | 20   | 27,5 | 35,5 | 48,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                    | 0,043             |
| K0434.2352033 | 20   | 32,5 | 35,5 | 57,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                    | 0,047             |
| K0434.2402315 | 22,5 | 15   | 38,5 | 26   | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                    | 0,037             |
| K0434.2402318 | 22,5 | 17,5 | 38,5 | 29,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                    | 0,038             |
| K0434.2402320 | 22,5 | 20   | 38,5 | 35,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                    | 0,040             |

# Hinges

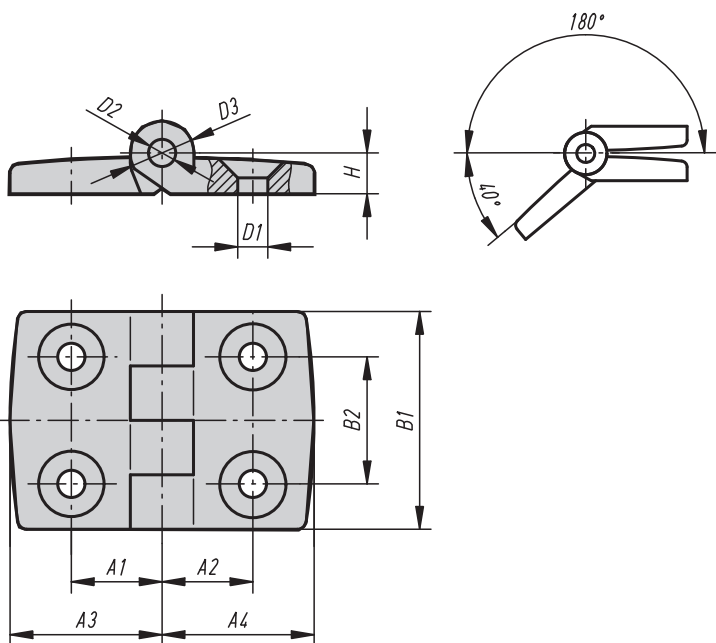
in plastic, detachable, right

## KIPP Hinges in plastic, detachable, right

| Order No.     | A1   | A2   | A3   | A4   | B1 | B2 | D1  | D2 | D3 | H | Load bearing capacity<br>N | Approx.<br>weight<br>kg |
|---------------|------|------|------|------|----|----|-----|----|----|---|----------------------------|-------------------------|
| K0434.2402323 | 22,5 | 22,5 | 38,5 | 38,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                       | 0,042                   |
| K0434.2402325 | 22,5 | 25   | 38,5 | 43,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                       | 0,043                   |
| K0434.2402328 | 22,5 | 27,5 | 38,5 | 48,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                       | 0,045                   |
| K0434.2402333 | 22,5 | 32,5 | 38,5 | 57,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                       | 0,049                   |
| K0434.2452515 | 25   | 15   | 43,5 | 26   | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                       | 0,038                   |
| K0434.2452518 | 25   | 17,5 | 43,5 | 29,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                       | 0,040                   |
| K0434.2452520 | 25   | 20   | 43,5 | 35,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                       | 0,042                   |
| K0434.2452523 | 25   | 22,5 | 43,5 | 38,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                       | 0,043                   |
| K0434.2452525 | 25   | 25   | 43,5 | 43,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                       | 0,045                   |
| K0434.2452528 | 25   | 27,5 | 43,5 | 48,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                       | 0,046                   |
| K0434.2452533 | 25   | 32,5 | 43,5 | 57,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                       | 0,050                   |
| K0434.2502815 | 27,5 | 15   | 48,5 | 26   | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                       | 0,040                   |
| K0434.2502818 | 27,5 | 17,5 | 48,5 | 29,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                       | 0,041                   |
| K0434.2502820 | 27,5 | 20   | 48,5 | 35,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                       | 0,043                   |
| K0434.2502823 | 27,5 | 22,5 | 48,5 | 38,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                       | 0,045                   |
| K0434.2502825 | 27,5 | 25   | 48,5 | 43,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                       | 0,046                   |
| K0434.2502828 | 27,5 | 27,5 | 48,5 | 48,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                       | 0,048                   |
| K0434.2502833 | 27,5 | 32,5 | 48,5 | 57,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                       | 0,052                   |
| K0434.2603315 | 32,5 | 15   | 57,5 | 26   | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                       | 0,043                   |
| K0434.2603318 | 32,5 | 17,5 | 57,5 | 29,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                       | 0,045                   |
| K0434.2603320 | 32,5 | 20   | 57,5 | 35,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                       | 0,047                   |
| K0434.2603323 | 32,5 | 22,5 | 57,5 | 38,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                       | 0,049                   |
| K0434.2603325 | 32,5 | 25   | 57,5 | 43,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                       | 0,050                   |
| K0434.2603328 | 32,5 | 27,5 | 57,5 | 48,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                       | 0,052                   |
| K0434.2603333 | 32,5 | 32,5 | 57,5 | 57,5 | 48 | 28 | 6,6 | 6  | 14 | 9 | 1200                       | 0,055                   |

## Hinges

in plastic



**Material:**

Glass-fibre reinforced thermoplastic;  
axle in stainless steel

**Surface finish:**

Hinge black, axle natural finish

**Sample order:**

K0435.251528

**Note:**

Hinges with different wing lengths can be used on the left and right. All hinges can be supplied on request with guide tabs for the slots of aluminium profiles (slots 6, 8 and 10). They facilitate mounting, secure the hinge against twisting and make it stronger.

### KIPP Hinges in plastic

| Order No.    | A1   | A2   | A3   | A4   | B1 | B2 | D1  | D2 | D3 | H   | Load bearing capacity N | Approx. weight kg |
|--------------|------|------|------|------|----|----|-----|----|----|-----|-------------------------|-------------------|
| K0435.201212 | 11,5 | 11,5 | 19,5 | 19,5 | 30 | 14 | 4,2 | 3  | 8  | 5,5 | 400                     | 0,008             |
| K0435.251515 | 15   | 15   | 26   | 26   | 48 | 28 | 6,6 | 6  | 14 | 9   | 1200                    | 0,032             |
| K0435.251518 | 15   | 17,5 | 26   | 29,5 | 48 | 28 | 6,6 | 6  | 14 | 9   | 1200                    | 0,034             |
| K0435.251520 | 15   | 20   | 26   | 35,5 | 48 | 28 | 6,6 | 6  | 14 | 9   | 1200                    | 0,036             |
| K0435.251523 | 15   | 22,5 | 26   | 38,5 | 48 | 28 | 6,6 | 6  | 14 | 9   | 1200                    | 0,038             |
| K0435.251525 | 15   | 25   | 26   | 43,5 | 48 | 28 | 6,6 | 6  | 14 | 9   | 1200                    | 0,039             |
| K0435.251528 | 15   | 27,5 | 26   | 48,5 | 48 | 28 | 6,6 | 6  | 14 | 9   | 1200                    | 0,041             |
| K0435.251533 | 15   | 32,5 | 26   | 57,5 | 48 | 28 | 6,6 | 6  | 14 | 9   | 1200                    | 0,041             |
| K0435.301818 | 17,5 | 17,5 | 29,5 | 29,5 | 48 | 28 | 6,6 | 6  | 14 | 9   | 1200                    | 0,036             |
| K0435.301820 | 17,5 | 20   | 29,5 | 35,5 | 48 | 28 | 6,6 | 6  | 14 | 9   | 1200                    | 0,037             |
| K0435.301823 | 17,5 | 22,5 | 29,5 | 38,5 | 48 | 28 | 6,6 | 6  | 14 | 9   | 1200                    | 0,039             |
| K0435.301825 | 17,5 | 25   | 29,5 | 43,5 | 48 | 28 | 6,6 | 6  | 14 | 9   | 1200                    | 0,041             |
| K0435.301828 | 17,5 | 27,5 | 29,5 | 48,5 | 48 | 28 | 6,6 | 6  | 14 | 9   | 1200                    | 0,043             |
| K0435.301833 | 17,5 | 32,5 | 29,5 | 57,5 | 48 | 28 | 6,6 | 6  | 14 | 9   | 1200                    | 0,046             |
| K0435.352020 | 20   | 20   | 35,5 | 35,5 | 48 | 28 | 6,6 | 6  | 14 | 9   | 1200                    | 0,040             |
| K0435.352023 | 20   | 22,5 | 35,5 | 38,5 | 48 | 28 | 6,6 | 6  | 14 | 9   | 1200                    | 0,041             |
| K0435.352025 | 20   | 25   | 35,5 | 43,5 | 48 | 28 | 6,6 | 6  | 14 | 9   | 1200                    | 0,042             |
| K0435.352028 | 20   | 27,5 | 35,5 | 48,5 | 48 | 28 | 6,6 | 6  | 14 | 9   | 1200                    | 0,044             |
| K0435.352033 | 20   | 32,5 | 35,5 | 57,5 | 48 | 28 | 6,6 | 6  | 14 | 9   | 1200                    | 0,047             |
| K0435.402323 | 22,5 | 22,5 | 38,5 | 38,5 | 48 | 28 | 6,6 | 6  | 14 | 9   | 1200                    | 0,043             |
| K0435.402325 | 22,5 | 25   | 38,5 | 43,5 | 48 | 28 | 6,6 | 6  | 14 | 9   | 1200                    | 0,044             |
| K0435.402328 | 22,5 | 27,5 | 38,5 | 48,5 | 48 | 28 | 6,6 | 6  | 14 | 9   | 1200                    | 0,046             |
| K0435.402333 | 22,5 | 32,5 | 38,5 | 57,5 | 48 | 28 | 6,6 | 6  | 14 | 9   | 1200                    | 0,049             |
| K0435.452525 | 25   | 25   | 43,5 | 43,5 | 48 | 28 | 6,6 | 6  | 14 | 9   | 1200                    | 0,046             |
| K0435.452528 | 25   | 27,5 | 43,5 | 48,5 | 48 | 28 | 6,6 | 6  | 14 | 9   | 1200                    | 0,048             |
| K0435.452533 | 25   | 32,5 | 43,5 | 57,5 | 48 | 28 | 6,6 | 6  | 14 | 9   | 1200                    | 0,051             |
| K0435.502828 | 27,5 | 27,5 | 48,5 | 48,5 | 48 | 28 | 6,6 | 6  | 14 | 9   | 1200                    | 0,049             |
| K0435.502833 | 27,5 | 32,5 | 48,5 | 57,5 | 48 | 28 | 6,6 | 6  | 14 | 9   | 1200                    | 0,052             |
| K0435.603333 | 32,5 | 32,5 | 57,5 | 57,5 | 48 | 28 | 6,6 | 6  | 14 | 9   | 1200                    | 0,055             |

## Hinges

in plastic with clamping function



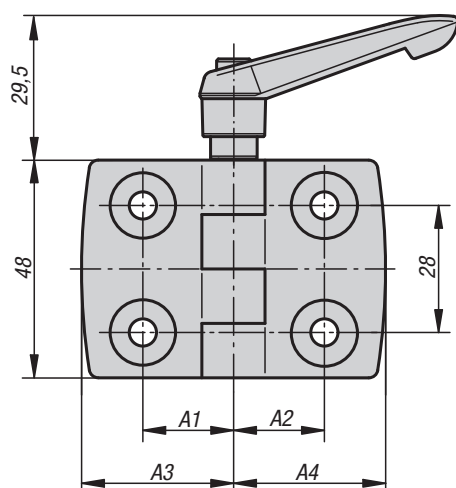
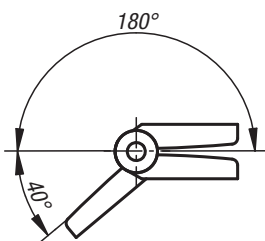
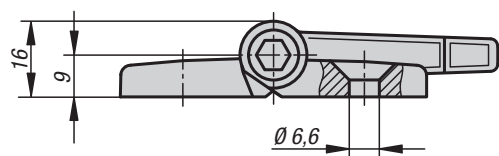
**Material:**  
Thermoplastic hinge glass-fibre reinforced; axle in steel; clamping lever glass-fibre reinforced thermoplastic; mechanics in steel

**Surface finish:**  
Hinge black; axle galvanized; clamping lever black; mechanics black galvanized

**Sample order:**  
K0436.251515

**Note:**  
The hinges can be clamped in every position due to adjustable clamping lever.

**On request:**  
Hinges with guide tabs (slot 6, 8 and 10) for aluminium profiles.  
Combinations of different hinge wings.



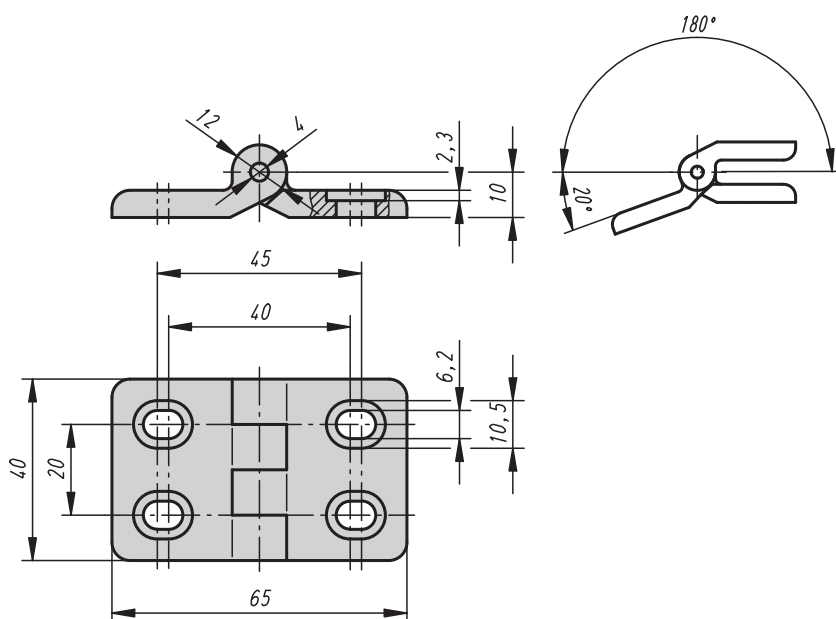
### KIPP Hinges in plastic with clamping function

| Order No.    | A1   | A2   | A3   | A4   | Load bearing capacity N |
|--------------|------|------|------|------|-------------------------|
| K0436.251515 | 15   | 15   | 26   | 26   | 1200                    |
| K0436.301818 | 17,5 | 17,5 | 29,5 | 29,5 | 1200                    |
| K0436.352020 | 20   | 20   | 36   | 36   | 1200                    |
| K0436.402323 | 22,5 | 22,5 | 38,5 | 38,5 | 1200                    |
| K0436.452525 | 25   | 25   | 43,5 | 43,5 | 1200                    |
| K0436.502828 | 27,5 | 27,5 | 48,5 | 48,5 | 1200                    |
| K0436.603333 | 32,5 | 32,5 | 57,5 | 57,5 | 1200                    |



# Hinges

with oblong holes in plastic



**Material:**

Glass-fibre reinforced thermoplastic;  
axle in stainless steel

**Surface finish:**

Hinge black, axle natural finish

**Sample order:**

K0437.402020

**Note:**

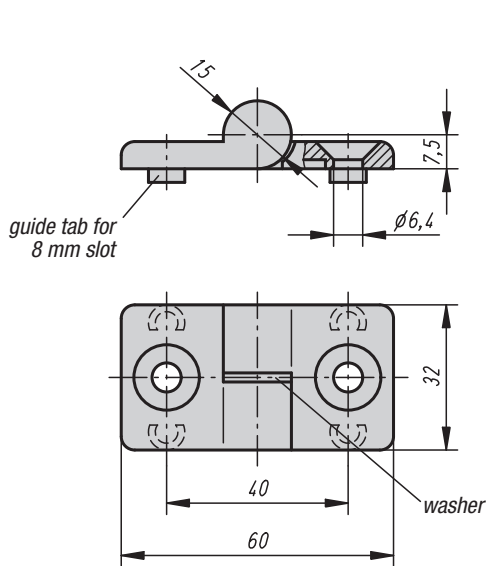
Horizontal adjustment of the hinges permits an optimal location.

**KIPP Hinges with oblong holes in plastic**

| Order No.    | Load bearing capacity<br>N | Approx.<br>weight<br>kg |
|--------------|----------------------------|-------------------------|
| K0437.402020 | 700                        | 0,008                   |

## Hinges

with guide tabs in plastic, detachable



**Material:**

Glass-fibre reinforced thermoplastic;  
axle in stainless steel;  
washer in thermoplastic

**Surface finish:**

Hinge and washer black, axle natural finish

**Sample order:**

K0438.1322020

**Note:**

The hinges can be fixed in a slot (8 mm) via the guide tabs.



### KIPP Hinges with guide tabs in plastic, detachable

| Order No.     | Surface finish | Load bearing capacity<br>N | Approx.<br>weight<br>kg |
|---------------|----------------|----------------------------|-------------------------|
| K0438.1322020 | left hand      | 700                        | 0,021                   |
| K0438.2322020 | right hand     | 700                        | 0,021                   |

# Hinges

in plastic with a catching function

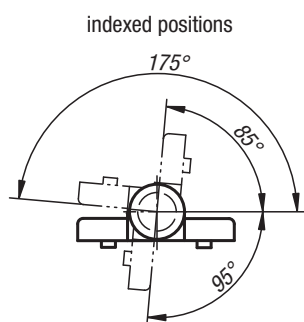
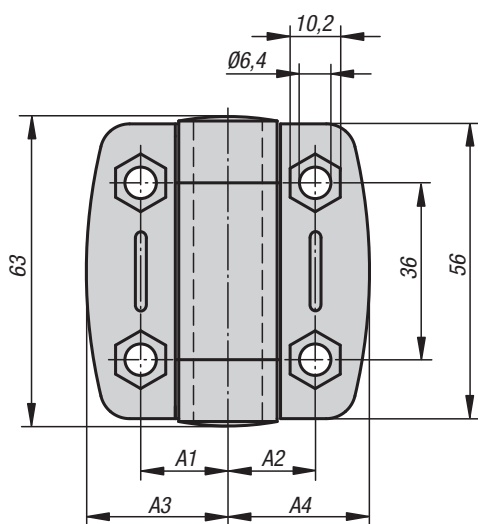
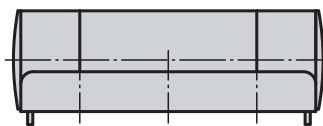
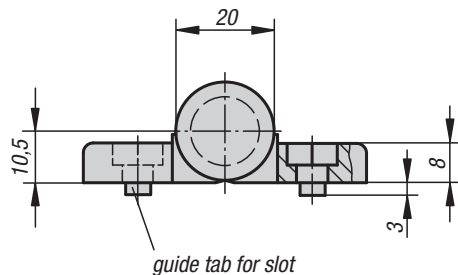


**Material:**  
Hinge and coverings, glass-fibre reinforced thermoplastic PA;  
axle in stainless steel

**Surface finish:**  
Hinge and coverings black;  
axle natural finish

**Sample order:**  
K0439.56181800

**Note:**  
The hinges are equipped with a catching function. It catches in four positions and keeps doors and covers open and tightly closed. The hinges are available with or without guide tabs for aluminium profiles.

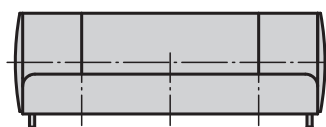
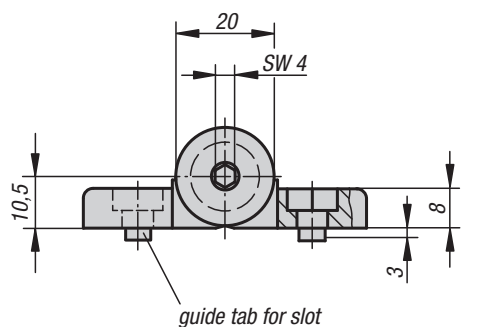


## KIPP Hinges in plastic with a catching function

| Order No.      | A1    | A2    | A3    | A4    | Guide tabs for slot | Load bearing capacity N | Approx. weight kg |
|----------------|-------|-------|-------|-------|---------------------|-------------------------|-------------------|
| K0439.56181800 | 17,75 | 17,75 | 27    | 27    | -                   | 1200                    | 0,073             |
| K0439.56181806 | 17,75 | 17,75 | 27    | 27    | 6                   | 1200                    | 0,073             |
| K0439.56181808 | 17,75 | 17,75 | 27    | 27    | 8                   | 1200                    | 0,073             |
| K0439.56232300 | 22,75 | 22,75 | 36,75 | 36,75 | -                   | 1200                    | 0,093             |
| K0439.56232308 | 22,75 | 22,75 | 36,75 | 36,75 | 8                   | 1200                    | 0,093             |
| K0439.56232310 | 22,75 | 22,75 | 36,75 | 36,75 | 10                  | 1200                    | 0,093             |

## Hinges

in plastic with adjustable friction



**Material:**

Hinge and coverings, glass-fibre reinforced thermoplastic PA;  
steel parts in stainless steel

**Surface finish:**

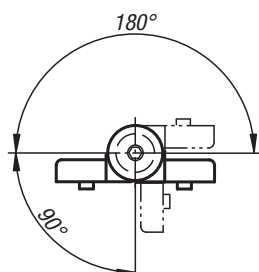
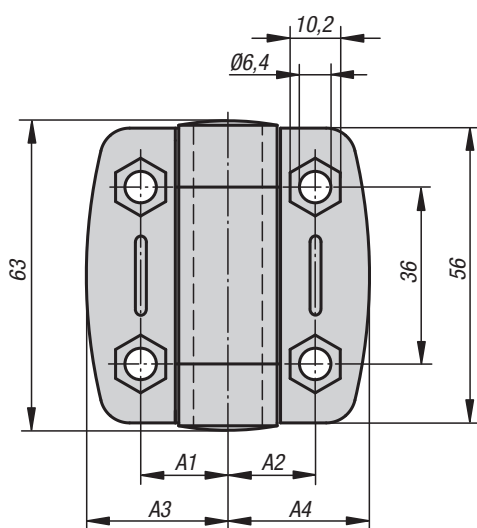
Hinge and coverings black;  
steel parts natural finish

**Sample order:**

K0440.56181800

**Note:**

The friction hinges allow door positioning in any angular position desired. Friction resistance can be continuously adjusted by means of an adjusting screw of 0-5 Nm. The hinges are available with or without guide tabs for aluminium profiles.

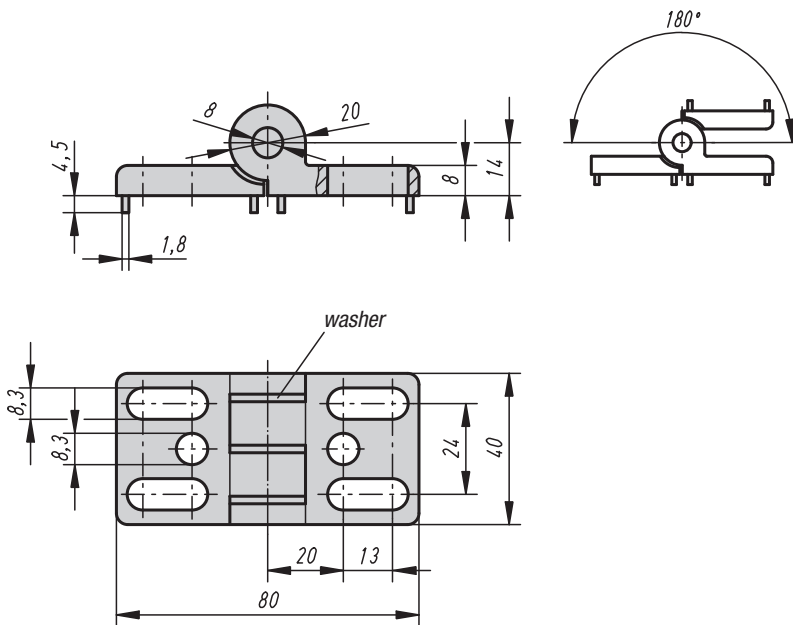


**KIPP Hinges in plastic with adjustable friction**

| Order No.      | A1    | A2    | A3    | A4    | Guide tabs for slot | Load bearing capacity N | Approx. weight kg |
|----------------|-------|-------|-------|-------|---------------------|-------------------------|-------------------|
| K0440.56181800 | 17,75 | 17,75 | 27    | 27    | -                   | 1200                    | 0,052             |
| K0440.56181806 | 17,75 | 17,75 | 27    | 27    | 6                   | 1200                    | 0,052             |
| K0440.56181808 | 17,75 | 17,75 | 27    | 27    | 8                   | 1200                    | 0,052             |
| K0440.56232300 | 22,75 | 22,75 | 36,75 | 36,75 | -                   | 1200                    | 0,064             |
| K0440.56232308 | 22,75 | 22,75 | 36,75 | 36,75 | 8                   | 1200                    | 0,064             |
| K0440.56232310 | 22,75 | 22,75 | 36,75 | 36,75 | 10                  | 1200                    | 0,064             |

## Hinges

with oblong holes in die cast zinc



**Material:**

Die cast zinc; axle stainless steel; washers thermoplastic

**Surface finish:**

Hinge black powder-coated; axle natural finish; washers black

**Sample order:**

K0441.402020

**Note:**

Horizontal adjustment of the hinges permits an optimal location.

### KIPP Hinges with oblong holes in die cast zinc

| Order No.      | Guide tabs for slot | Load bearing capacity N | Approx. weight kg |
|----------------|---------------------|-------------------------|-------------------|
| K0441.402020   | -                   | 2500                    | 0,175             |
| K0441.40202008 | 8                   | 2500                    | 0,175             |
| K0441.40202010 | 10                  | 2500                    | 0,175             |

## Hinges

in die cast zinc with clamping function



**Material:**

Hinge in die cast zinc; axle in steel; clamping lever glass-fibre reinforced thermoplastic; mechanics in steel

**Surface finish:**

Hinge black powder-coated; axle galvanized; clamping lever black; mechanics black galvanized

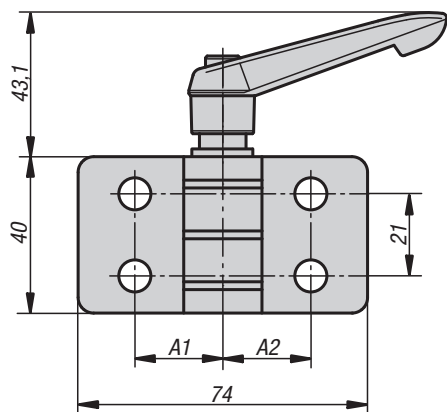
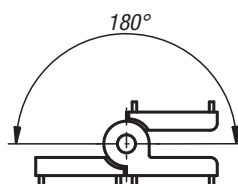
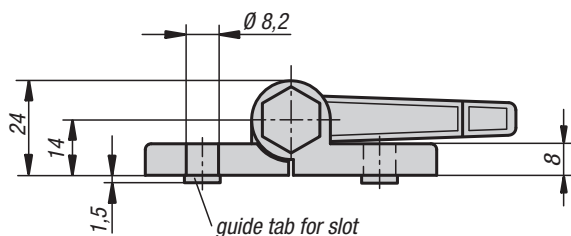
**Sample order:**

K0442.40232300

**Note:**

The hinges can be clamped in every position due to adjustable clamping lever.

The hinges are available with or without guide tabs for aluminium profiles.

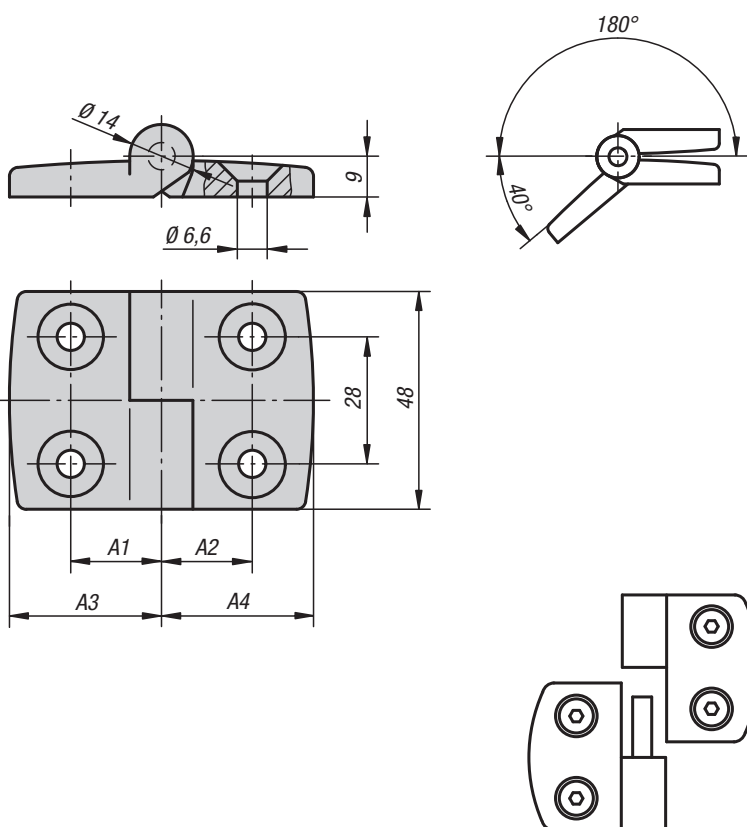


### KIPP Hinges in die cast zinc with clamping function

| Order No.      | A1   | A2   | Guide tabs for slot | Load bearing capacity N |
|----------------|------|------|---------------------|-------------------------|
| K0442.40232300 | 22,5 | 22,5 | -                   | 2500                    |
| K0442.40232308 | 22,5 | 22,5 | 8                   | 2500                    |
| K0442.40232310 | 22,5 | 22,5 | 10                  | 2500                    |
| K0442.40232500 | 22,5 | 25   | -                   | 2500                    |
| K0442.40232508 | 22,5 | 25   | 8                   | 2500                    |
| K0442.40232510 | 22,5 | 25   | 10                  | 2500                    |
| K0442.45252500 | 25   | 25   | -                   | 2500                    |
| K0442.45252508 | 25   | 25   | 8                   | 2500                    |
| K0442.45252510 | 25   | 25   | 10                  | 2500                    |

## Hinges

in aluminium, detachable, left



**Material:**

Pressure-cast aluminium;  
axle in stainless steel

**Surface finish:**

Hinge matt galvanized;  
axle natural finish

**Sample order:**

K0579.1251515

**Note:**

Hinges for surface elements and aluminium profiles.

**On request:**

Hinges with guide tabs (slot 5, 6, 8, 10, 12 and 14) for aluminium profiles.

Combinations of different wing lengths.

### KIPP Hinges in aluminium, detachable, left

| Order No.     | A1   | A2   | A3   | A4   | Load bearing capacity N | Approx. weight kg |
|---------------|------|------|------|------|-------------------------|-------------------|
| K0579.1251515 | 15   | 15   | 26   | 26   | 1500                    | 0,056             |
| K0579.1301818 | 17,5 | 17,5 | 29,5 | 29,5 | 1500                    | 0,064             |
| K0579.1352020 | 20   | 20   | 36   | 36   | 1500                    | 0,072             |
| K0579.1402323 | 22,5 | 22,5 | 38,5 | 38,5 | 1500                    | 0,068             |
| K0579.1452525 | 25   | 25   | 43,5 | 43,5 | 1500                    | 0,07              |
| K0579.1502828 | 27,5 | 27,5 | 48,5 | 48,5 | 1500                    | 0,078             |
| K0579.1603333 | 32,5 | 32,5 | 57,5 | 57,5 | 1500                    | 0,088             |

## Hinges

in aluminium, detachable, right



**Material:**

Pressure-cast aluminium;  
axle in stainless steel

**Surface finish:**

Hinge matt galvanized;  
axle natural finish

**Sample order:**

K0579.2251515

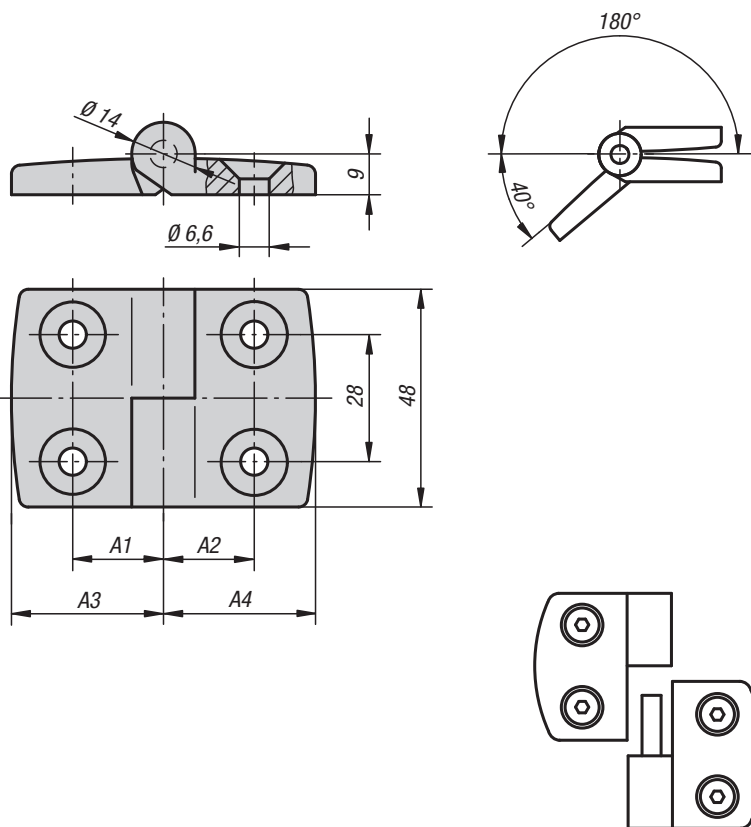
**Note:**

Hinges for surface elements and aluminium profiles.

**On request:**

Hinges with guide tabs (slot 5, 6, 8, 10, 12 and 14) for aluminium profiles.

Combinations of different wing lengths.



### KIPP Hinges in aluminium, detachable, right

| Order No.     | A1   | A2   | A3   | A4   | Load bearing capacity N | Approx. weight kg |
|---------------|------|------|------|------|-------------------------|-------------------|
| K0579.2251515 | 15   | 15   | 26   | 26   | 1500                    | 0,056             |
| K0579.2301818 | 17,5 | 17,5 | 29,5 | 29,5 | 1500                    | 0,064             |
| K0579.2352020 | 20   | 20   | 36   | 36   | 1500                    | 0,072             |
| K0579.2402323 | 22,5 | 22,5 | 38,5 | 38,5 | 1500                    | 0,068             |
| K0579.2452525 | 25   | 25   | 43,5 | 43,5 | 1500                    | 0,07              |
| K0579.2502828 | 27,5 | 27,5 | 48,5 | 48,5 | 1500                    | 0,078             |
| K0579.2603333 | 32,5 | 32,5 | 57,5 | 57,5 | 1500                    | 0,088             |



## Hinges

in aluminium



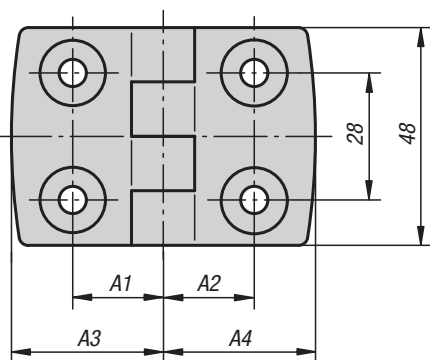
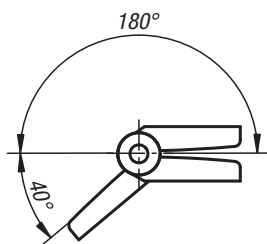
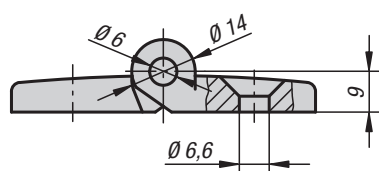
**Material:**  
Pressure-cast aluminium;  
axle in stainless steel

**Surface finish:**  
Hinge matt galvanized;  
axle natural finish

**Sample order:**  
K0580.251515

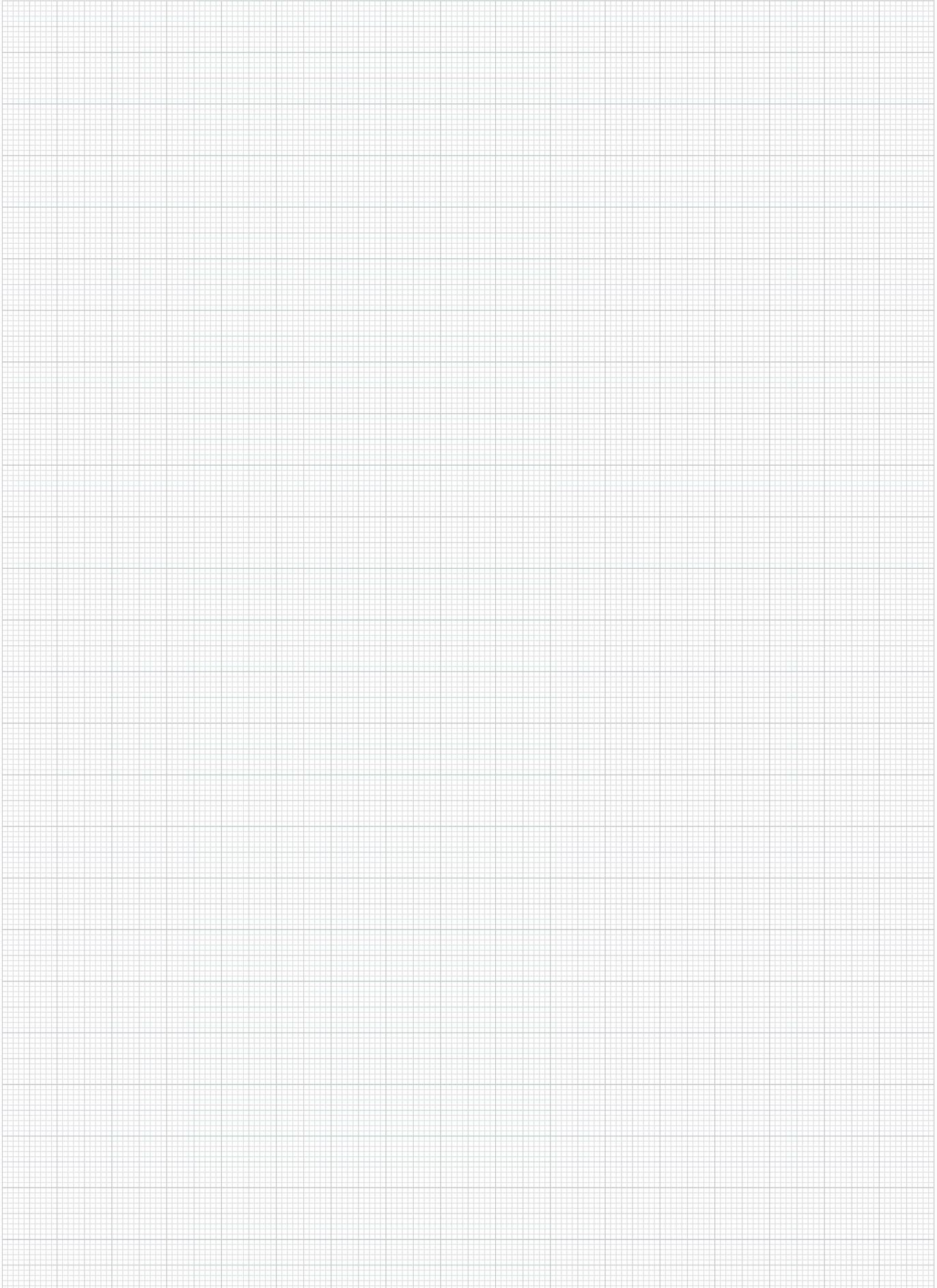
**Note:**  
Hinges for surface elements and aluminium profiles,  
not detachable.

**On request:**  
Hinges with guide tabs (slot 5, 6, 8, 10, 12 and 14) for  
aluminium profiles.  
Combinations of different wing lengths.



### KIPP Hinges in aluminium

| Order No.    | A1   | A2   | A3   | A4   | Load bearing capacity N | Approx. weight kg |
|--------------|------|------|------|------|-------------------------|-------------------|
| K0580.251515 | 15   | 15   | 26   | 26   | 2500                    | 0,057             |
| K0580.301818 | 17,5 | 17,5 | 29,5 | 29,5 | 2500                    | 0,065             |
| K0580.352020 | 20   | 20   | 36   | 36   | 2500                    | 0,073             |
| K0580.402323 | 22,5 | 22,5 | 38,5 | 38,5 | 2500                    | 0,069             |
| K0580.452525 | 25   | 25   | 43,5 | 43,5 | 2500                    | 0,073             |
| K0580.502828 | 27,5 | 27,5 | 48,5 | 48,5 | 2500                    | 0,079             |
| K0580.603333 | 32,5 | 32,5 | 57,5 | 57,5 | 2500                    | 0,089             |







## Swivel feet

Threaded spindles for swivel pads  
in steel or stainless steel  
**K0421**



Page 307

Ball joints  
with internal thread  
**K0422**



Page 308

Plates for swivel pads  
in plastic  
**K0415**



Page 309

Plates for swivel pads  
in die cast zinc or stainless  
steel  
**K0416**



Page 310-311

Extended plates for swivel  
pads  
in plastic  
**K0654**



Page 312

Extended plates for swivel  
pads  
in die cast zinc  
**K0417**



Page 313

Plates for swivel pads  
in stainless steel  
**K0418**



Page 314

Plates for swivel pads  
with vibration absorption  
**K0419**



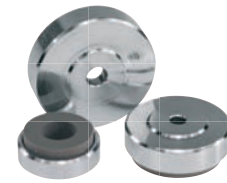
Page 317

Swivel feet  
with vibration absorption  
**K0420**



Page 318

Locating feet  
with vibration absorption  
**K0670**



Page 319

Threaded spindles for swivel feet  
in steel or stainless steel  
**K0427**



Page 321

Plates for swivel feet  
in plastic  
**K0423**



Page 322

Plates for swivel feet  
in plastic, heavy-duty version  
**K0424**



Page 323

Plates for swivel feet  
in die cast zinc or stainless  
steel  
**K0425**



Page 324-325

Extended plates for swivel feet  
in die cast zinc  
**K0426**



Page 326

Threaded spindles for swivel  
feet ECO-Line  
in steel or stainless steel  
**K0429**



Page 327

Plates for swivel feet, ECO-Line  
in die cast zinc, stainless steel  
or plastic  
**K0428**



Page 330-331

Swivel feet  
**K0395**



Page 332



## Swivel feet

Threaded spindles for swivel feet  
in steel or stainless steel  
**K0669**



Page 333

Plates for swivel feet  
in steel or stainless steel  
**K0672**



Page 334

Plates for swivel feet with rubber plate  
in steel or stainless steel  
**K0673**



Page 335

Swivel feet round  
**K0674**



Page 336

Round swivel feet  
with hexagonal  
**K0675**



Page 337

Swivel feet with hexagonal  
**K0676**



Page 338

Swivel feet with knurled plate  
**K0677**



Page 339

Swivel feet  
**K0678**



Page 340

Caps for swivel feet  
**K0679**



Page 341

Machine feet  
**K0687**



Page 342

Cap elements  
type H2  
**K0686**



Page 343

Swivel pads  
**K0304**



Page 344

Screw-in plugs  
for square tubes  
**K0430**



Page 346-347

Screw-in plugs  
for tubes  
**K0431**



Page 348

Height-adjustable equipment feet  
for aluminium profiles  
**K0432**



Page 349

Height-adjustable equipment  
feet  
**K0433**



Page 350

## Modular structure of a swivel pad

### Application:

Swivel pads are built up in modular fashion. The components can be combined individually to match the application. The swivel pads are therefore used for a wide range of machines and installations, including office furniture.

### Modular structure:

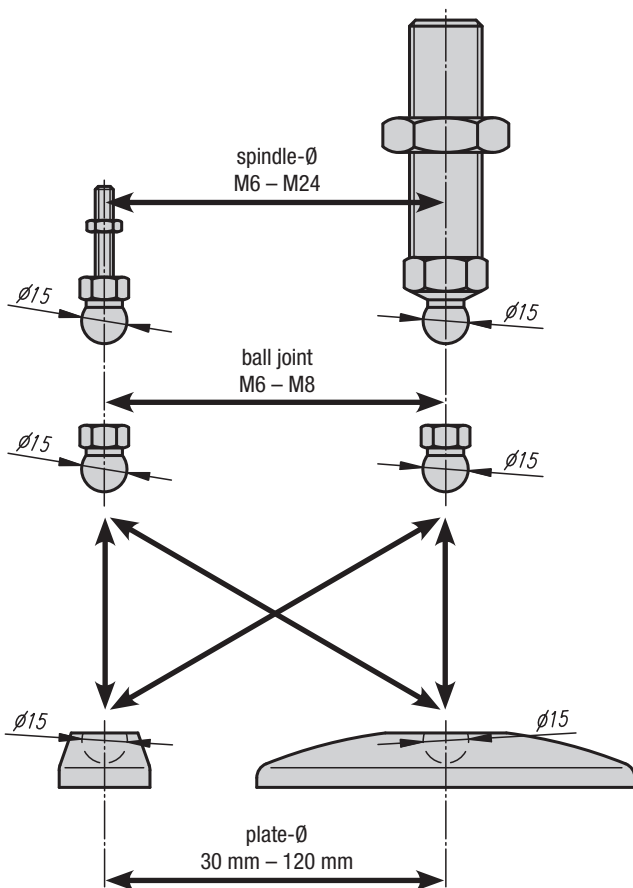
The swivel pads consist of two components - a plate and a threaded spindle resp. a ball joint. **Any** plate can be combined with **any** threaded spindle resp. **any** ball joint (see figure 1).

### Height of swivel pad:

Swivel pads always have a minimum height of  $H = 22,5$  mm independently of the plate or threaded spindle or ball joint size (see figure 2). When assembling with threaded spindle, the height of the complete swivel pad is calculated by adding 22,5 mm to the length of the threaded spindle, and the height of the hexagon. (Total height swivel pad =  $L + L1 + 22,5$  mm)

When assembling with ball joint, the length L is void.

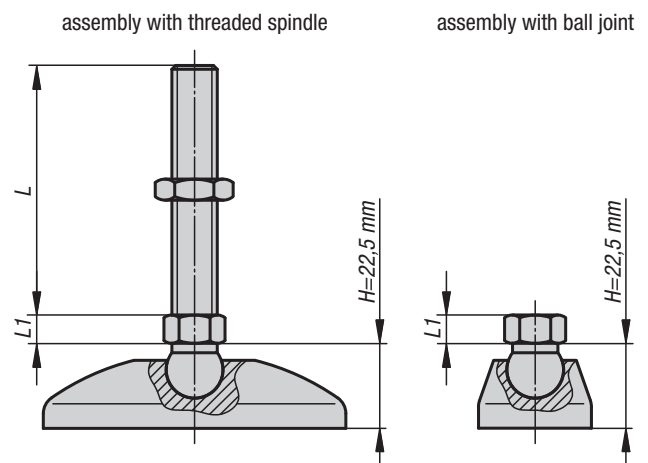
Figure 1



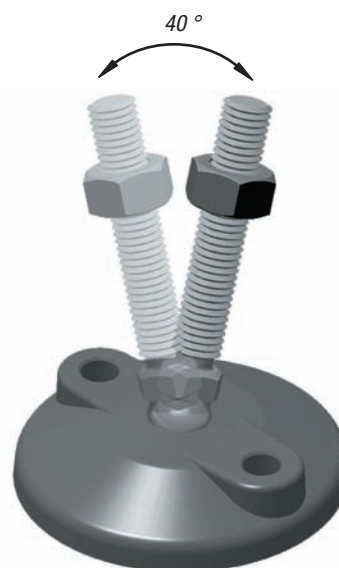
### Assembly:

Using a plastic hammer, knock the ball of the threaded spindle resp. the ball joint vertically into the swivel pad plate. If necessary, the two fastening holes (closed) in the swivel pad plate can be opened by simply punching them out to allow the swivel pad to be mounted to the ground.

Figure 2



### Inclination angle of threaded spindle resp. ball joint:



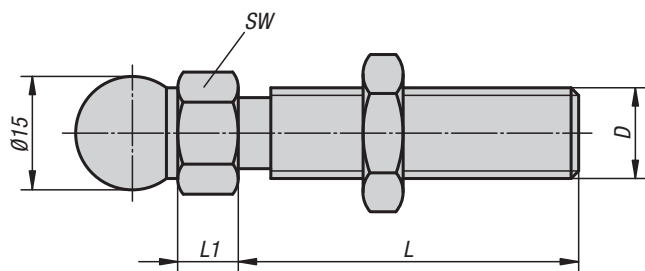
### Note for ordering:

If the swivel pad plate and the threaded spindle resp. the ball joint are to be supplied assembled, please add the suffix „**assembled**“ to the order number for the plate and the spindle resp. the ball joint (see sample order on the relevant product page).



## Threaded spindles for swivel pads

in steel or stainless steel



**Material:**

Steel or stainless steel 1.4301.

**Surface finish:**

Steel blue chromated.

Stainless steel, natural finish.

**Sample order:**

K0421.060151

K0421.060151 and K0415.1030 **assembled**

**Note for ordering:**

If the threaded spindle and the swivel pad plate are to be supplied **assembled**, please add the suffix „**assembled**“ to the order number for the spindle and plate.

(e.g. K0421.060151 and K0415.1030 **assembled**.)

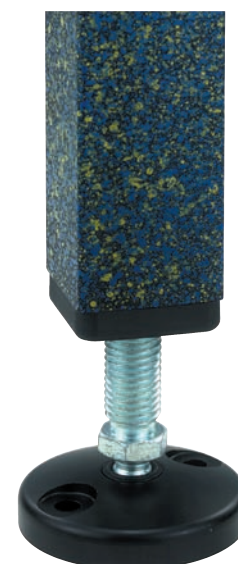
**Note:**

Swivel pads consist of a plate and a threaded spindle. Any plate can be combined with any threaded spindle. The height of the complete swivel pad is calculated by the length of the threaded spindle + height of hexagon + 22,5 mm.

(Overall height of swivel pad = L + L1 + 22,5 mm)

### KIPP Threaded spindles for swivel pads

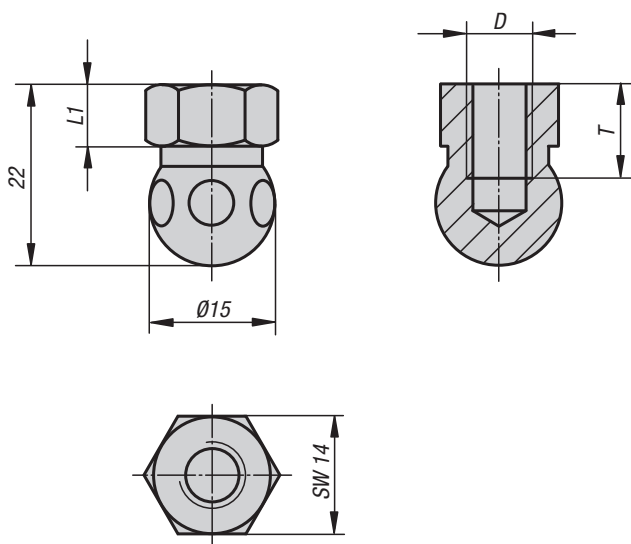
| Order No. steel | Order No. stainless steel | D   | L   | L1   | SW | Load capacity max. kN | Approx. weight kg |
|-----------------|---------------------------|-----|-----|------|----|-----------------------|-------------------|
| K0421.060151    | K0421.060152              | M6  | 15  | 7,5  | 14 | 2                     | 0,009             |
| K0421.060301    | K0421.060302              | M6  | 30  | 7,5  | 14 | 2                     | 0,011             |
| K0421.080401    | K0421.080402              | M8  | 40  | 7,5  | 14 | 3,5                   | 0,036             |
| K0421.080801    | K0421.080802              | M8  | 80  | 7,5  | 14 | 3,5                   | 0,049             |
| K0421.100451    | K0421.100452              | M10 | 45  | 7,5  | 14 | 4,7                   | 0,045             |
| K0421.100701    | K0421.100702              | M10 | 70  | 7,5  | 14 | 4,7                   | 0,055             |
| K0421.100901    | K0421.100902              | M10 | 90  | 7,5  | 14 | 4,7                   | 0,068             |
| K0421.101251    | K0421.101252              | M10 | 125 | 7,5  | 14 | 4,7                   | 0,084             |
| K0421.101501    | K0421.101502              | M10 | 150 | 7,5  | 14 | 4,7                   | 0,092             |
| K0421.120451    | K0421.120452              | M12 | 45  | 7,5  | 14 | 7,7                   | 0,055             |
| K0421.120661    | K0421.120662              | M12 | 66  | 7,5  | 14 | 7,7                   | 0,070             |
| K0421.121001    | K0421.121002              | M12 | 100 | 7,5  | 14 | 7,7                   | 0,094             |
| K0421.121251    | K0421.121252              | M12 | 125 | 7,5  | 14 | 7,7                   | 0,112             |
| K0421.121501    | K0421.121502              | M12 | 150 | 7,5  | 14 | 7,7                   | 0,130             |
| K0421.140661    | K0421.140662              | M14 | 66  | 7,5  | 14 | 11,1                  | 0,085             |
| K0421.141001    | K0421.141002              | M14 | 100 | 7,5  | 14 | 11,1                  | 0,119             |
| K0421.141251    | K0421.141252              | M14 | 125 | 7,5  | 14 | 11,1                  | 0,138             |
| K0421.141501    | K0421.141502              | M14 | 150 | 7,5  | 14 | 11,1                  | 0,166             |
| K0421.160661    | K0421.160662              | M16 | 66  | 7,5  | 17 | 14,5                  | 0,112             |
| K0421.161001    | K0421.161002              | M16 | 100 | 7,5  | 17 | 14,5                  | 0,156             |
| K0421.161251    | K0421.161252              | M16 | 125 | 7,5  | 17 | 14,5                  | 0,190             |
| K0421.161501    | K0421.161502              | M16 | 150 | 7,5  | 17 | 14,5                  | 0,222             |
| K0421.162001    | K0421.162002              | M16 | 200 | 7,5  | 17 | 14,5                  | 0,285             |
| K0421.200851    | K0421.200852              | M20 | 85  | 10,5 | 22 | 24,3                  | 0,208             |
| K0421.201001    | K0421.201002              | M20 | 100 | 10,5 | 22 | 24,3                  | 0,237             |
| K0421.201251    | K0421.201252              | M20 | 125 | 10,5 | 22 | 24,3                  | 0,297             |
| K0421.201501    | K0421.201502              | M20 | 150 | 10,5 | 22 | 24,3                  | 0,341             |
| K0421.202001    | K0421.202002              | M20 | 200 | 10,5 | 22 | 24,3                  | 0,447             |
| K0421.240851    | K0421.240852              | M24 | 85  | 10,5 | 24 | 36,1                  | 0,293             |
| K0421.241001    | K0421.241002              | M24 | 100 | 10,5 | 24 | 36,1                  | 0,336             |
| K0421.241251    | K0421.241252              | M24 | 125 | 10,5 | 24 | 36,1                  | 0,408             |
| K0421.241501    | K0421.241502              | M24 | 150 | 10,5 | 24 | 36,1                  | 0,483             |
| K0421.242001    | K0421.242002              | M24 | 200 | 10,5 | 24 | 36,1                  | 0,633             |





## Ball joints

with internal thread



**Material:**

Steel or stainless steel 1.4301.

**Surface finish:**

Steel blue chromated.  
Stainless steel, natural finish.

**Sample order:**

K0422.061  
K0422.061 and K0415.1030 **assembled**

**Note for ordering:**

If the ball joint and the swivel pad plate are to be supplied assembled, please add the suffix „**assembled**“ to the order number for the ball joint and plate.  
(e.g. K0422.061 and K0415.1030 **assembled**.)

**Note:**

For direct fastening of swivel pads by standard screws.

Swivel pads consist of a ball joint and a plate. Any ball joint can be combined with any plate.

The height of the complete swivel pad is calculated by the height of hexagon + 22,5 mm.

(Overall height of swivel pad = L1 + 22,5 mm)



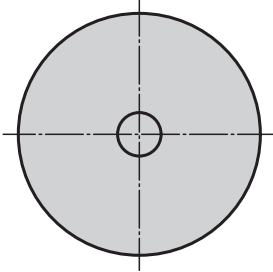
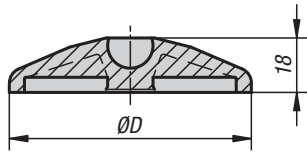
### KIPP Ball joints with internal thread

| Order No. steel | Order No. stainless steel | D  | L1  | T  | Approx. weight kg |
|-----------------|---------------------------|----|-----|----|-------------------|
| K0422.061       | K0422.062                 | M6 | 7,5 | 10 | 0,020             |
| K0422.081       | K0422.082                 | M8 | 7,5 | 10 | 0,020             |

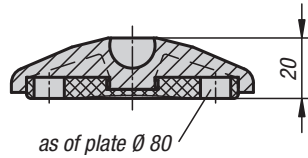
## Plates for swivel pads

in plastic

Form A  
without screw-on hole  
without anti-slip-plate



Form B  
without screw-on hole  
with anti-slip-plate



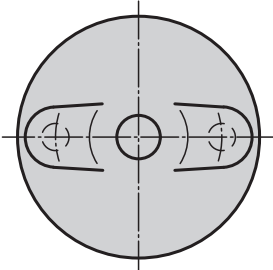
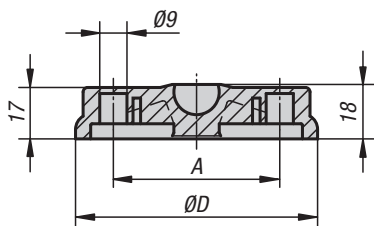
**Material:**  
Plates, thermoplastic, glass-fibre reinforced.  
Anti-slip-plate in thermoplastic elastomer.

**Surface finish:**  
Black.

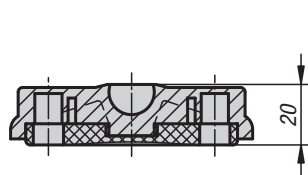
**Sample order:**  
K0415.1030  
K0415.1030 and K0421.060151 **assembled**

**Note for ordering:**  
If the swivel pad plate and the threaded spindle resp. the ball joint are to be supplied assembled, please add the suffix „**assembled**“ to the order number for the plate and the spindle resp. the ball joint. (e.g. K0415.1030 and K0421.060151 „**assembled**“.)

Form C  
with screw-on hole (closed)  
without anti-slip-plate



Form D  
with screw-on hole (closed)  
with anti-slip-plate



**Note:**  
Swivel pads consist of a plate and a threaded spindle resp. a ball joint. Any plate can be combined with any threaded spindle resp. any ball joint. The anti-slip-plate absorbs vibrations and prevents slipping of the swivel pad.  
For matching threaded spindles see K0421.  
For matching ball joints see K0422.

### KIPP Plates for swivel pads in plastic

| Order No.<br>Form A | Order No.<br>Form B | D   | Load capacity<br>max. kN |
|---------------------|---------------------|-----|--------------------------|
| K0415.1030          | K0415.2030          | 30  | 5                        |
| K0415.1040          | K0415.2040          | 40  | 9                        |
| K0415.1045          | K0415.2045          | 45  | 9                        |
| K0415.1050          | K0415.2050          | 50  | 9                        |
| K0415.1060          | K0415.2060          | 60  | 9                        |
| K0415.1080          | K0415.2080          | 80  | 9                        |
| K0415.1100          | K0415.2100          | 100 | 9                        |

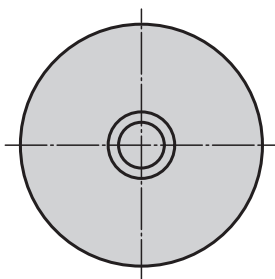
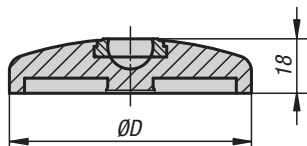
| Order No.<br>Form C | Order No.<br>Form D | D   | A  | Load capacity<br>max. kN |
|---------------------|---------------------|-----|----|--------------------------|
| K0415.3080          | K0415.4080          | 80  | 55 | 9                        |
| K0415.3100          | K0415.4100          | 100 | 74 | 9                        |
| K0415.3120          | K0415.4120          | 120 | 94 | 9                        |

## Plates for swivel pads

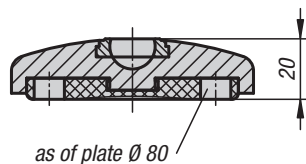
in die cast zinc or stainless steel



**Form A**  
without screw-on hole  
without anti-slip-plate



**Form B**  
without screw-on hole  
with anti-slip-plate



**Material:**

Plate in die cast zinc or stainless steel 1.4305.  
Anti-slip-plate in thermoplastic elastomer.

**Surface finish:**

Plate in die cast zinc, black powder-coated.  
Plate in stainless steel, natural finish.

**Sample order:**

K0416.10301  
K0416.10301 and K0421.060151 **assembled**

**Note for ordering:**

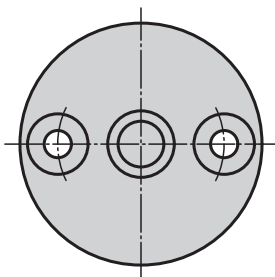
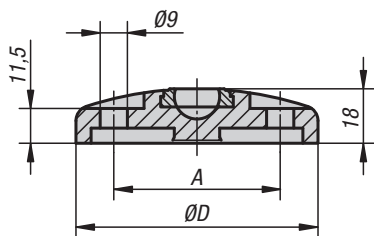
If the swivel pad plate and the threaded spindle resp. the ball joint are to be supplied assembled, please add the suffix „**assembled**“ to the order number for the plate and the spindle resp. the ball joint. (e.g. K0416.10301 and K0421.060151 **assembled**).

**Note:**

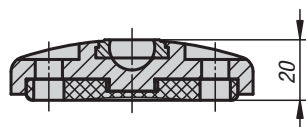
Swivel pads consist of a plate and a threaded spindle resp. a ball joint. Any plate can be combined with any threaded spindle resp. any ball joint. The anti-slip-plate absorbs vibrations and prevents slipping of the swivel pad.

For matching threaded spindles see K0416.  
For matching ball joints see K0421.

**Form C**  
with screw-on hole (open)  
without anti-slip-plate



**Form D**  
with screw-on hole (open)  
with anti-slip-plate



# Plates for swivel pads

in die cast zinc or stainless steel

## KIPP Plates for swivel pads in die cast zinc

| Order No.<br>Form A | Order No.<br>Form B | D   | Load capacity<br>max. kN |
|---------------------|---------------------|-----|--------------------------|
| K0416.10301         | K0416.20301         | 30  | 20                       |
| K0416.10401         | K0416.20401         | 40  | 30                       |
| K0416.10451         | K0416.20451         | 45  | 30                       |
| K0416.10501         | K0416.20501         | 50  | 30                       |
| K0416.10601         | K0416.20601         | 60  | 30                       |
| K0416.10801         | K0416.20801         | 80  | 30                       |
| K0416.11001         | K0416.21001         | 100 | 35                       |
| K0416.11201         | K0416.21201         | 120 | 35                       |

| Order No.<br>Form C | Order No.<br>Form D | D   | A  | Load capacity<br>max. kN |
|---------------------|---------------------|-----|----|--------------------------|
| K0416.30801         | K0416.40801         | 80  | 55 | 30                       |
| K0416.31001         | K0416.41001         | 100 | 74 | 35                       |
| K0416.31201         | K0416.41201         | 120 | 94 | 35                       |

## KIPP Plates for swivel pads in stainless steel

| Order No.<br>Form A | Order No.<br>Form B | D   | Load capacity<br>max. kN |
|---------------------|---------------------|-----|--------------------------|
| K0416.10302         | K0416.20302         | 30  | 20                       |
| K0416.10402         | K0416.20402         | 40  | 30                       |
| K0416.10452         | K0416.20452         | 45  | 30                       |
| K0416.10502         | K0416.20502         | 50  | 35                       |
| K0416.10602         | K0416.20602         | 60  | 35                       |
| K0416.10802         | K0416.20802         | 80  | 35                       |
| K0416.11002         | K0416.21002         | 100 | 40                       |
| K0416.11202         | K0416.21202         | 120 | 40                       |

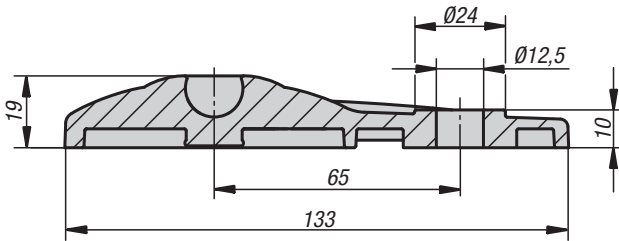
| Order No.<br>Form C | Order No.<br>Form D | D   | A  | Load capacity<br>max. kN |
|---------------------|---------------------|-----|----|--------------------------|
| K0416.30802         | K0416.40802         | 80  | 55 | 35                       |
| K0416.31002         | K0416.41002         | 100 | 74 | 40                       |
| K0416.31202         | K0416.41202         | 120 | 94 | 40                       |

## Extended plates for swivel pads

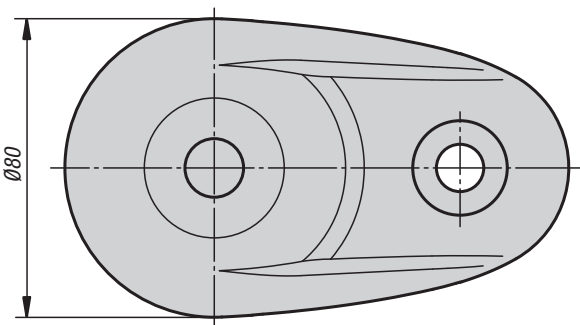
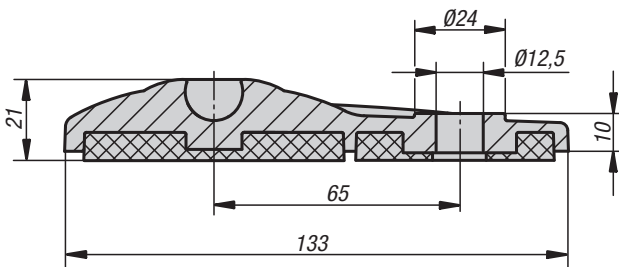
in plastic



Form C  
with screw-on hole  
without anti-slip plate



Form D  
with screw-on hole  
with anti-slip-plate



**Material:**

Plates, thermoplastic, glass-fibre reinforced.  
Anti-slip-plate in thermoplastic elastomer.

**Surface finish:**

Black.

**Sample order:**

K0654.1030

K0654.1030 and K0421.060151 **assembled**

**Note for ordering:**

If the swivel pad plate and the threaded spindle resp. the ball joint are to be supplied assembled, please add the suffix „**assembled**“ to the order number for the plate and the spindle resp. the ball joint. (e.g. K0654.30803 and K0421.060151 **assembled**.)

**Note:**

Swivel pads consist of a plate and a threaded spindle resp. a ball joint. Any plate can be combined with any threaded spindle resp. any ball joint. The anti-slip-plate absorbs vibrations and prevents slipping of the swivel pad.

For matching threaded spindles see K0416.

For matching ball joints see K0421.



**KIPP Extended plates for swivel pads in plastic**

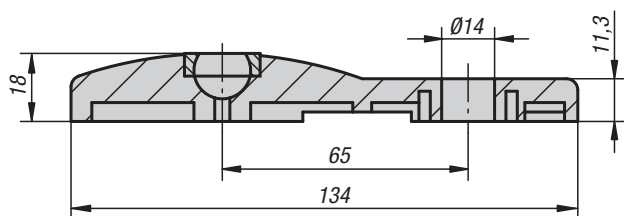
| Order No.   | Form | Load capacity max. kN | Approx. weight kg |
|-------------|------|-----------------------|-------------------|
| K0654.30803 | C    | 10                    | 0,060             |
| K0654.40803 | D    | 10                    | 0,101             |

## Extended plates for swivel pads

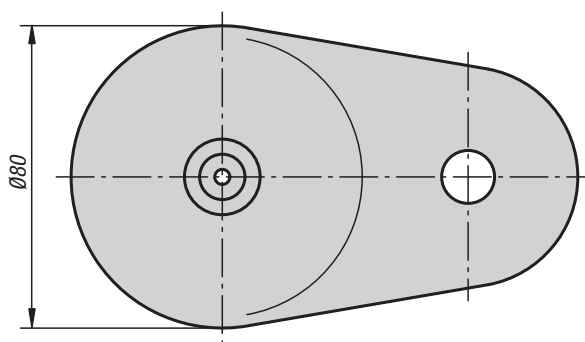
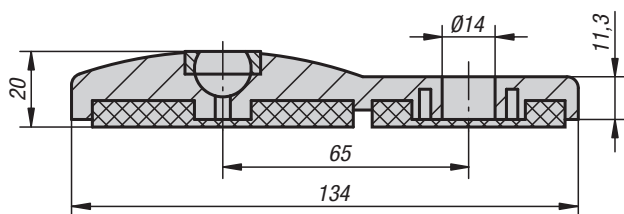
in die cast zinc



Form C  
with screw-on hole  
without anti-slip-plate



Form D  
with screw-on hole  
with anti-slip-plate



**Material:**

Plate in die cast zinc.  
Anti-slip-plate in thermoplastic elastomer.

**Surface finish:**

Plate black powder-coated.

**Sample order:**

K0417.30801  
K0417.30801 and K0421.060151 **assembled**

**Note for ordering:**

If the swivel pad plate and the threaded spindle resp. the ball joint are to be supplied assembled, please add the suffix „**assembled**“ to the order number for the plate and the spindle resp. the ball joint. (e.g. K0417.30801 and K0421.060151 **assembled**.)

**Note:**

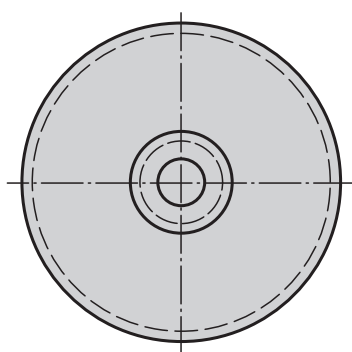
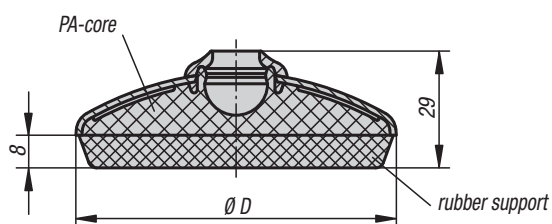
Swivel pads consist of a plate and a threaded spindle resp. a ball joint. Any plate can be combined with any threaded spindle resp. any ball joint. The anti-slip-plate absorbs vibrations and prevents slipping of the swivel pad. For matching threaded spindles see K0416. For matching ball joints see K0421.

**KIPP Extended plates for swivel pads in die cast zinc**

| Order No.   | Form | Load capacity<br>max. kN | Approx.<br>weight<br>kg |
|-------------|------|--------------------------|-------------------------|
| K0417.30801 | C    | 30                       | 0,399                   |
| K0417.40801 | D    | 30                       | 0,434                   |

## Plates for swivel pads

in stainless steel



### Material:

Plates, stainless steel 1.4301.  
Core, thermoplastic PA.  
Rubber support TPE.

### Surface finish:

Plate natural finish.  
Light grey rubber support with sealing lip, hardness 70 Shore A.  
Range of use from -20 °C to +100 °C.

### Sample order:

K0418.1060  
K0418.1060 and K0421.060152 **assembled**

### Note for ordering:

If the swivel pad plate and the threaded spindle resp. the ball joint are to be supplied assembled, please add the suffix „**assembled**“ to the order number for the plate and the spindle resp. the ball joint. (e.g. K0418.1060 and K0421.060152 **assembled**.)

### Note:

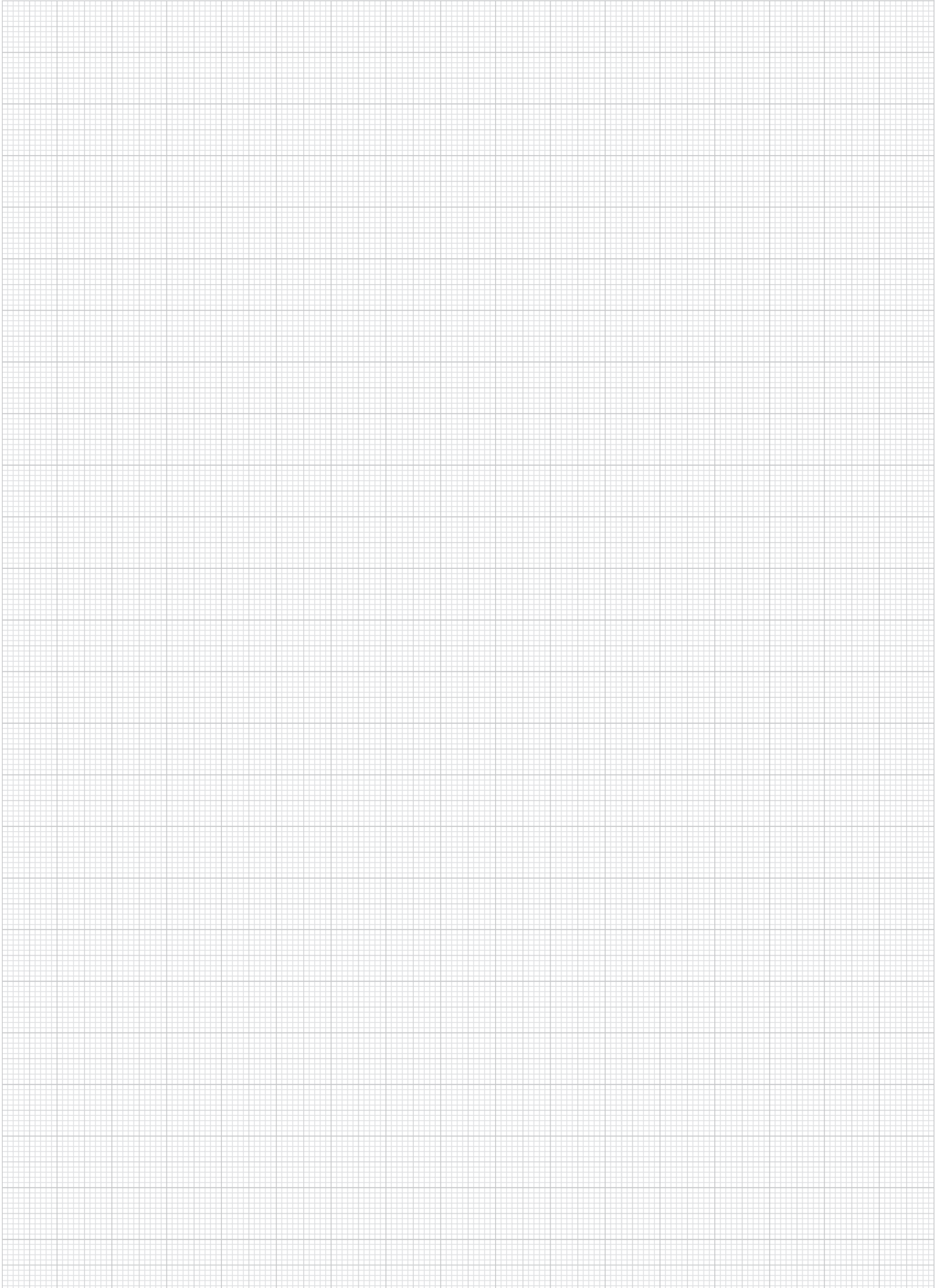
The rubber support is joint together with the stainless steel plate and the PA core by sandwich injection moulding. The rubber support is resistant to oil and water (up to 60 °C). In addition, it is furnished with antibacterial and antimicrobial protection and is thus outstandingly suited for sectors in the foods industry.

Swivel pads consist of a plate and a threaded spindle resp. a ball joint. Any plate can be combined with any threaded spindle resp. any ball joint.  
For matching threaded spindles see K0421.  
For matching ball joints see K0422.



### KIPP Plates for swivel pads in stainless steel

| Order No.  | D    | Load capacity<br>max. kN | Approx.<br>weight<br>kg |
|------------|------|--------------------------|-------------------------|
| K0418.1060 | 58,5 | 7                        | 0,075                   |
| K0418.1080 | 78,5 | 7                        | 0,150                   |
| K0418.1100 | 98,5 | 7                        | 0,220                   |





# Technical information for swivel pads and swivel feet with vibration absorption



## Natural frequency:

Every sprung weight, such as a machine or piece of equipment, that is standing on swivel pads with vibration absorbers vibrates after an initial impetus at its own natural frequency (resonance frequency). In the diagram to the side (figure 1) the natural frequency of Sylomer V12 under pressure by various forces can be read. The optimum range of use is with a pressure of  $\leq 0.4 \text{ N/mm}^2$ . A maximum pressure of  $0.6 \text{ N/mm}^2$  should not be exceeded.

## Interference frequency:

The frequency emitted by a machine or a piece of equipment is known as its interference frequency. Effective vibration absorption is dependent on the interference frequency (the frequency to be absorbed) and the natural frequency of the absorption unit. The greater the difference in frequency between the natural frequency and the interference frequency, the better the absorption. An absorbing effect will only be achieved if the interference frequency is over  $\sqrt{2}$  times the natural frequency of the absorption unit.

## Calculation example:

Swivel foot: M16,  $D1 = 30.5$   
Load capacity: 300 N

Pressure:

$$\frac{F}{A} = \frac{300 \text{ N}}{529,5 \text{ mm}^2} = 0,57 \text{ N/mm}^2$$

$$> 0,4 \text{ N/mm}^2$$

Swivel foot: M16,  $D1 = 40,5$   
Load capacity: 300 N

Pressure:

$$\frac{F}{A} = \frac{300 \text{ N}}{1087,2 \text{ mm}^2} = 0,28 \text{ N/mm}^2$$

$$< 0,4 \text{ N/mm}^2$$

The M16 swivel foot is chosen since the pressure is  $\leq 0.4 \text{ N/mm}^2$ . From Figure 1, pressure of  $0.28 \text{ N/mm}^2$  gives a natural frequency of **21 Hz** for this. With an interference frequency of **44 Hz** an absorption effect of 69% is achieved (figure 2).

Figure 1

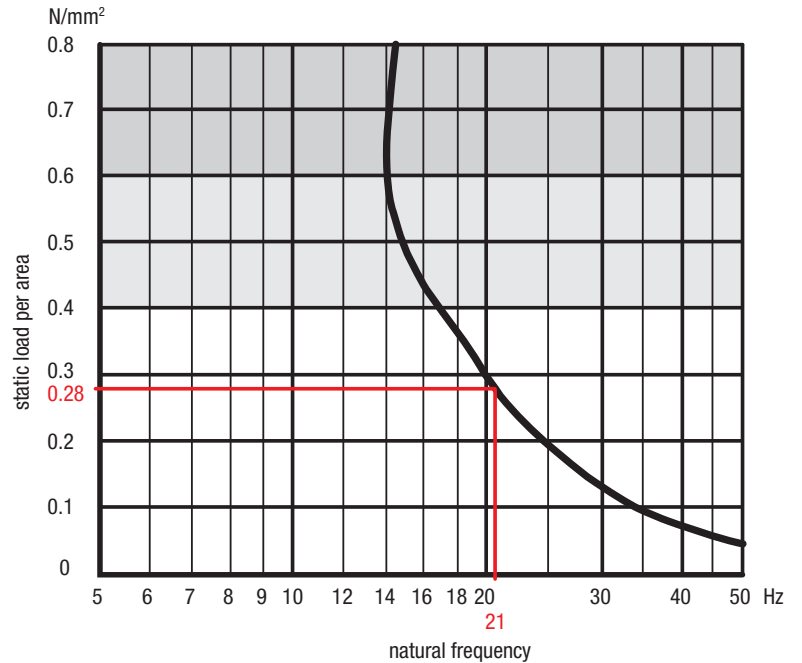
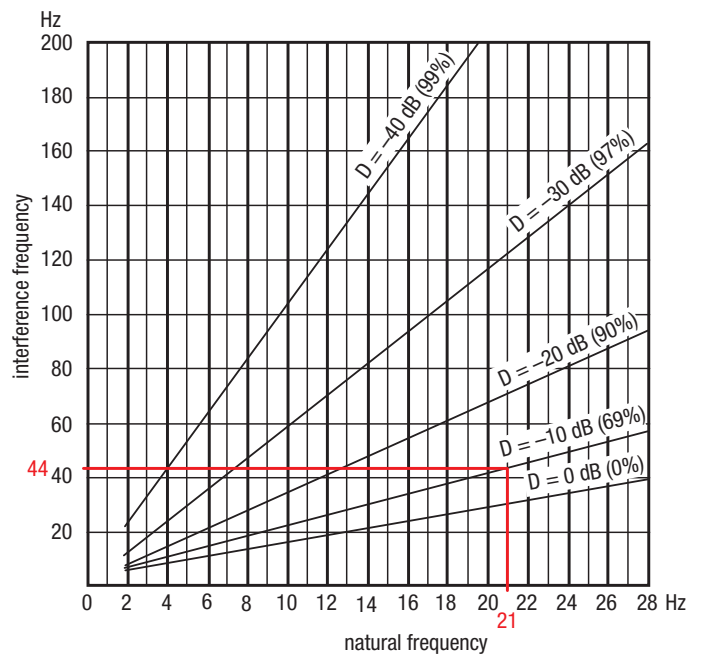


Figure 2



## Plates for swivel pads

with vibration absorption



**Material:**

Plate in die cast zinc or stainless steel 1.4305.  
Damper plate PUR elastomere (Sylomer V12).

**Surface finish:**

Plate in die cast zinc, black powder-coated.  
Plate in stainless steel, natural finish.  
Damper plate grey, fixed, cannot slip.  
Range of use from -30 °C to +70 °C.

**Sample order:**

K0419.20601  
K0419.20601 and K0421.060151 **assembled**

**Note for ordering:**

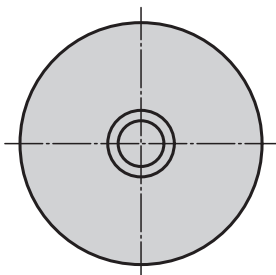
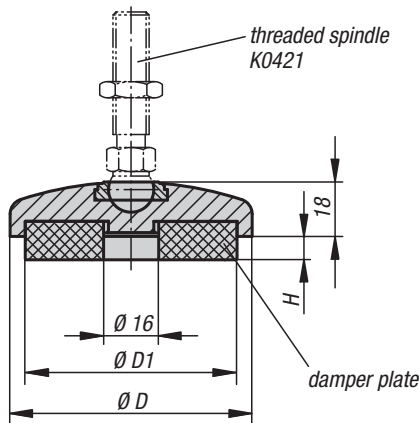
If the swivel pad plate and the threaded spindle resp. the ball joint are to be supplied assembled, please add the suffix „**assembled**“ to the order number for the plate and the spindle resp. the ball joint. (e.g. K0419.20601 and K0421.060151 **assembled**.)

**Note:**

The manageable load given in the table is a recommendation of the permanent static load up to which the absorption unit should be used. This static load corresponds to a pressure per area of 0.4 N/mm<sup>2</sup>, at which the material reaches its optimum absorption properties. Here it is taken into account that under dynamic demands an additional load, up to 0.6 N/mm<sup>2</sup> may occur. The damper plate absorbs vibrations and prevents slipping of the swivel pad. Swivel pads consist of a plate and a threaded spindle resp. a ball joint. Any plate can be combined with any threaded spindle resp. any ball joint.

For matching threaded spindles see K0421.

For matching ball joints see K0422.



### KIPP Plates for swivel pads in die cast zinc

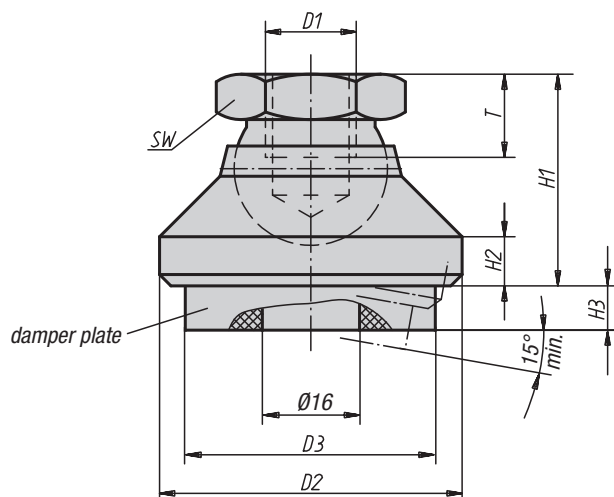
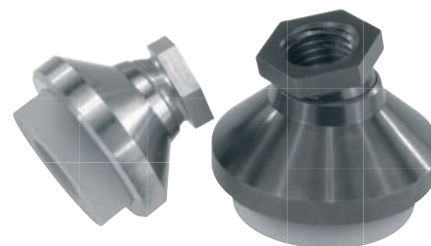
| Order No.   | D  | D1   | H<br>(under pressure of 0 / 0,4 / 0,6 N/mm <sup>2</sup> ) | Load capacity<br>(under pressure of 0,4 N/mm <sup>2</sup> )<br>N |
|-------------|----|------|---|--|
| K0419.20401 | 40 | 30,5 | 7 / 5,9 / 4,8   | 62   |
| K0419.20501 | 50 | 40,5 | 7 / 5,9 / 4,8   | 212  |
| K0419.20601 | 60 | 50   | 7 / 5,9 / 4,8   | 433  |
| K0419.20801 | 80 | 68   | 7 / 5,9 / 4,8   | 614  |

### KIPP Plates for swivel pads in stainless steel

| Order No.   | D  | D1   | H<br>(under pressure of 0 / 0,4 / 0,6 N/mm <sup>2</sup> ) | Load capacity<br>(under pressure of 0,4 N/mm <sup>2</sup> )<br>N |
|-------------|----|------|---|--|
| K0419.20402 | 40 | 30,5 | 7 / 5,8 / 4,9   | 212  |
| K0419.20502 | 50 | 40,5 | 7 / 5,8 / 4,9   | 435  |
| K0419.20602 | 60 | 50   | 7 / 5,8 / 4,9   | 705  |
| K0419.20802 | 80 | 68   | 7 / 5,8 / 4,9   | 1372   |

## Swivel feet

with vibration absorption



### Material:

- Steel version:  
pressure foot in tempered steel.  
Ball element in case-hardened free-cutting steel.
- Stainless steel version:  
pressure foot and ball element in stainless steel.

Damper plate PUR elastomere (Sylomer V12).

### Surface finish:

- Steel version:  
pressure foot black oxide finish.  
Ball element in case-hardened, black oxide finish.
- Stainless steel version:  
natural finish.

Damper plate PUR elastomere, grey, fixed, cannot slip.  
Range of use from -30 °C to +70 °C.

### Sample order:

K0420.110

### Note:

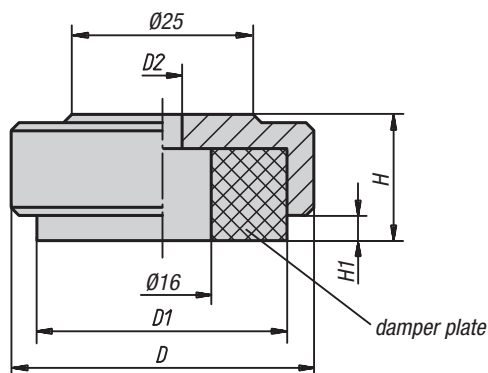
The manageable load given in the table is a recommendation of the **permanent static** load up to which the absorption unit should be used. This static load corresponds to a pressure per area of 0.4 N/mm<sup>2</sup>, at which the material reaches its optimum absorption properties. Here it is taken into account that under dynamic demands an additional load, up to 0.6 N/mm<sup>2</sup> may occur. The damper plate absorbs vibrations and prevents slipping of the swivel foot.  
Swivel foot (without vibration absorption) see K0395.

### KIPP Swivel feet with vibration absorption

| Order No. | Material        | D1  | D2 | D3   | H1 | H2 | H3<br>(under pressure of<br>0 / 0,4 / 0,6 N/mm <sup>2</sup> ) | T  | SW | Load capacity<br>(under pressure of 0,4 N/mm <sup>2</sup> )<br>N |
|-----------|-----------------|-----|----|------|----|----|---|----|----|--|
| K0420.110 | steel           | M10 | 32 | 30,5 | 22 | 5  | 8 / 6,8 / 5,9   | 10 | 17 | 212  |
| K0420.112 | steel           | M12 | 40 | 30,5 | 26 | 6  | 8 / 6,8 / 5,9   | 12 | 19 | 212  |
| K0420.116 | steel           | M16 | 50 | 40,5 | 32 | 7  | 8 / 6,8 / 5,9   | 14 | 24 | 435  |
| K0420.120 | steel           | M20 | 60 | 50   | 42 | 8  | 8 / 6,8 / 5,9   | 18 | 30 | 705  |
| K0420.310 | stainless steel | M10 | 32 | 30,5 | 22 | 5  | 8 / 6,8 / 5,9   | 10 | 17 | 212  |
| K0420.312 | stainless steel | M12 | 40 | 30,5 | 26 | 6  | 8 / 6,8 / 5,9   | 12 | 19 | 212  |
| K0420.316 | stainless steel | M16 | 50 | 40,5 | 32 | 7  | 8 / 6,8 / 5,9   | 14 | 24 | 435  |
| K0420.320 | stainless steel | M20 | 60 | 50   | 42 | 8  | 8 / 6,8 / 5,9   | 18 | 30 | 705  |

## Locating feet

with vibration absorption



**Material:**

Plate steel.  
Damper plate PUR elastomer (Sylomer V12).

**Surface finish:**

Plate blue chromated.  
Damper plate gray, fixed, cannot slip.  
Range of use from -30 °C to +70 °C.

**Sample order:**

K0670.046

**Note:**

The manageable load given in the table is a recommendation of the **permanent static** load up to which the absorption unit should be used. This static load corresponds to a pressure per area of 0.4 N/mm<sup>2</sup>, at which the material reaches its optimum absorption properties. Here it is taken into account that under dynamic demands an additional load, up to 0.6 N/mm<sup>2</sup> may occur. The damper plate absorbs vibrations and prevents slipping of the locating foot.



### KIPP Locating feet with vibration absorption

| Order No. | D  | D1   | D2  | H  | H1<br>(under pressure of<br>0 / 0,4 / 0,6 N/mm <sup>2</sup> ) | Load capacity N<br>(under pressure of<br>0,4 N/mm <sup>2</sup> ) |
|-----------|----|------|-----|----|---|--|
| K0670.036 | 36 | 30,5 | 5,5 | 15 | 4 / 2,8 / 1,9   | 212  |
| K0670.046 | 46 | 40,5 | 6,6 | 17 | 4 / 2,8 / 1,9   | 435  |
| K0670.056 | 56 | 50   | 9   | 19 | 4 / 2,8 / 1,9   | 705  |
| K0670.074 | 74 | 68   | 9   | 21 | 4 / 2,8 / 1,9   | 1372   |

## Modular structure of a swivel foot

### Application:

Swivel feet are built up in modular fashion. The components can be combined individually to match the application. The swivel feet are therefore used for a wide range of machines and installations, including office furniture.

### Modular structure:

The swivel feet consist of two components - a plate and a threaded spindle. Any plate can be combined with any threaded spindle (see figure 1).

### Swivel feet height:

Regardless of the plate or threaded spindle size, swivel feet always have a minimum height of  $H = 30 \text{ mm}$  (see Fig. 2). The height of the complete swivel foot is calculated from the length of the threaded spindle + 30 mm. (Total height of swivel foot =  $L + 30 \text{ mm}$ ).

Figure 1

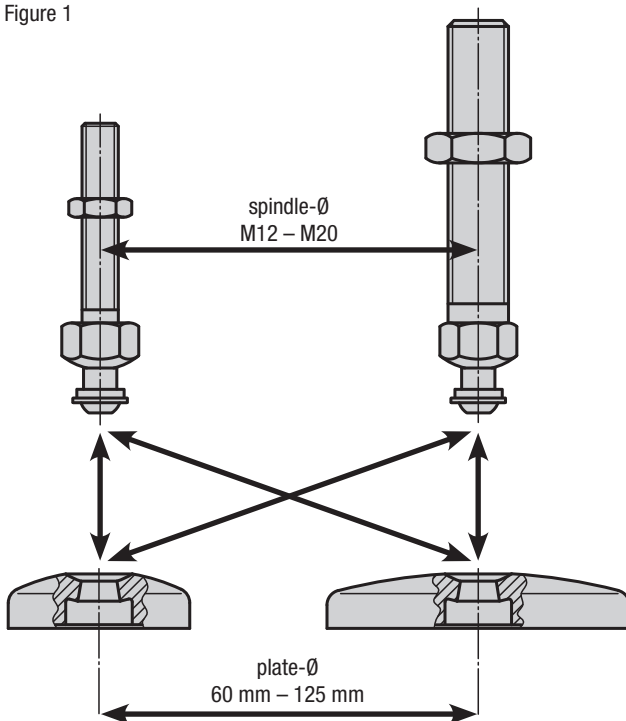
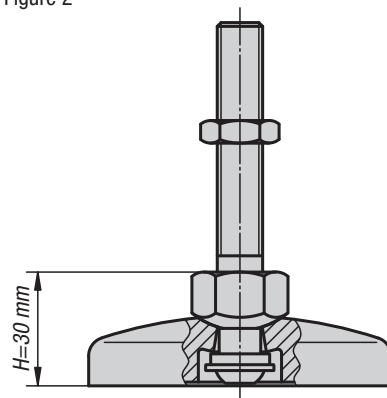


Figure 2



### Inclination angle of threaded spindle:

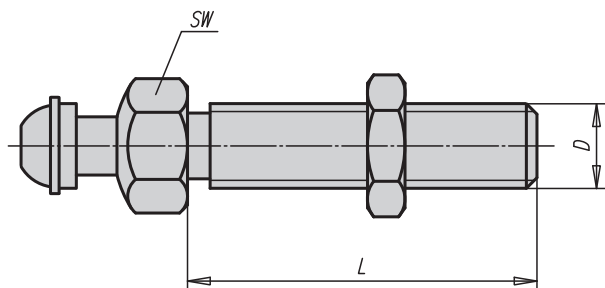


### Note for ordering:

If the swivel foot plate and the threaded spindle are to be supplied assembled, please add the suffix „**assembled**“ to the order number for the plate and spindle (see sample order on the relevant product page).

# Threaded spindles for swivel feet

in steel or stainless steel



#### Material:

Steel or stainless steel 1.4305.

#### Surface finish:

Steel blue chromated.

Stainless steel, natural finish.

#### Sample order:

K0427.120661

K0427.120661 and K0423.1060 **assembled**

#### Note for ordering:

If the threaded spindle and the swivel foot plate are to be supplied assembled, please add the suffix „**assembled**“ to the order number for the spindle and plate. (e.g. K0427.120661 and K0423.1060 **assembled**.)

#### Note:

Swivel feet consist of a plate and a threaded spindle. Any plate can be combined with any threaded spindle. The height of the complete swivel foot is calculated from the length of the threaded spindle + 30 mm. (Total height of swivel foot = L + 30 mm)

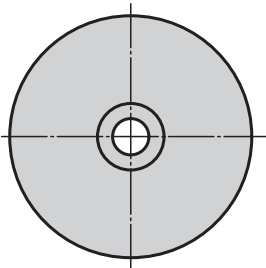
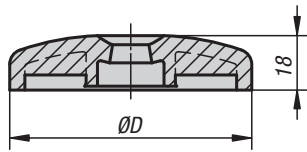
## KIPP Threaded spindles for swivel feet

| Order No. steel | Order No. stainless steel | D   | L   | SW | Load capacity max. kN | Approx. weight kg |
|-----------------|---------------------------|-----|-----|----|-----------------------|-------------------|
| K0427.120661    | K0427.120662              | M12 | 66  | 22 | 7,7                   | 0,070             |
| K0427.121001    | K0427.121002              | M12 | 100 | 22 | 7,7                   | 0,094             |
| K0427.121251    | K0427.121252              | M12 | 125 | 22 | 7,7                   | 0,127             |
| K0427.121501    | K0427.121502              | M12 | 150 | 22 | 7,7                   | 0,130             |
| K0427.160661    | K0427.160662              | M16 | 66  | 22 | 14,5                  | 0,112             |
| K0427.161001    | K0427.161002              | M16 | 100 | 22 | 14,5                  | 0,152             |
| K0427.161251    | K0427.161252              | M16 | 125 | 22 | 14,5                  | 0,173             |
| K0427.161501    | K0427.161502              | M16 | 150 | 22 | 14,5                  | 0,235             |
| K0427.162001    | K0427.162002              | M16 | 200 | 22 | 14,5                  | 0,315             |
| K0427.201001    | K0427.201002              | M20 | 100 | 22 | 24,3                  | 0,237             |
| K0427.201251    | K0427.201252              | M20 | 125 | 22 | 24,3                  | 0,255             |
| K0427.201501    | K0427.201502              | M20 | 150 | 22 | 24,3                  | 0,341             |
| K0427.202001    | K0427.202002              | M20 | 200 | 22 | 24,3                  | 0,447             |

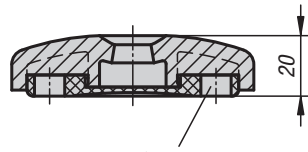
## Plates for swivel feet

in plastic

Form A  
without screw-on hole  
without anti-slip-plate



Form B  
without screw-on hole  
with anti-slip-plate



as of plate Ø 80



**Material:**

Plates, thermoplastic, glass-fibre reinforced.  
Anti-slip-plate in thermoplastic elastomer.

**Surface finish:**

Black.

**Sample order:**

K0423.1060

K0423.1060 and K0427.120661 **assembled**

**Note for ordering:**

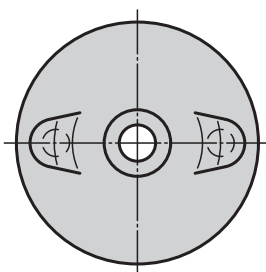
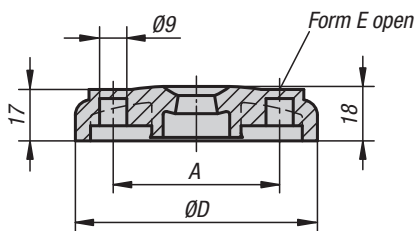
If the swivel foot plate and the threaded spindle are to be supplied assembled, please add the suffix „**assembled**“ to the order number for the plate and spindle. (e.g. K0423.1060 and K0427.120661 **assembled**.)

**Note:**

Swivel feet consist of a plate and a threaded spindle. Any plate can be combined with any threaded spindle. The anti-slip-plate absorbs vibrations and prevents slipping of the swivel foot. For matching threaded spindles see K0427.

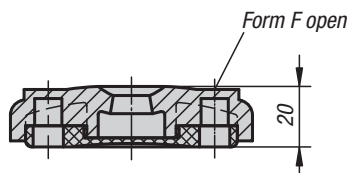
Form C  
with screw-on hole (closed)  
without anti-slip-plate

Form E  
with screw-on hole (open)  
without anti-slip-plate



Form D  
with screw-on hole (closed)  
with anti-slip-plate

Form F  
with screw-on hole (open)  
with anti-slip-plate



### KIPP Plates for swivel feet in plastic

| Order No.<br>Form A | Order No.<br>Form B | D   | Load capacity<br>max. kN |
|---------------------|---------------------|-----|--------------------------|
| K0423.1060          | K0423.2060          | 60  | 12                       |
| K0423.1080          | K0423.2080          | 80  | 12                       |
| K0423.1100          | K0423.2100          | 100 | 12                       |

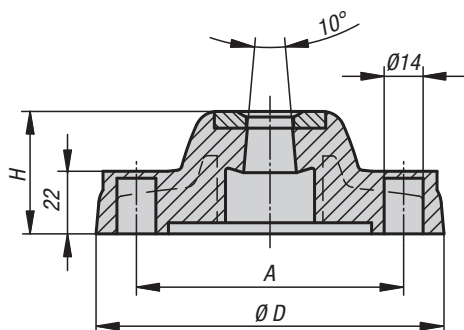
| Order No.<br>Form C | Order No.<br>Form D | Order No.<br>Form E | Order No.<br>Form F | D   | A  | Load capacity<br>max. kN |
|---------------------|---------------------|---------------------|---------------------|-----|----|--------------------------|
| K0423.3080          | K0423.4080          | K0423.5080          | K0423.6080          | 80  | 55 | 12                       |
| K0423.3100          | K0423.4100          | K0423.5100          | K0423.6100          | 100 | 74 | 12                       |

## Plates for swivel feet

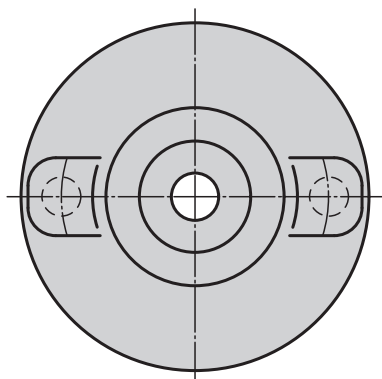
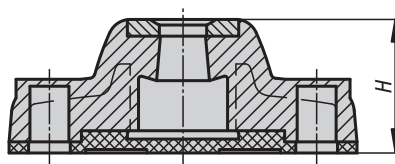
in plastic, heavy-duty version



Form C  
with screw-on hole (closed)  
without anti-slip-plate



Form D  
with screw-on hole (closed)  
with anti-slip-plate



**Material:**

Plates, thermoplastic, glass-fibre reinforced.  
Anti-slip-plate in thermoplastic elastomer.

**Surface finish:**

Black.

**Sample order:**

K0424.31251  
K0424.31251 and K0427.120661 **assembled**

**Note for ordering:**

If the swivel foot plate and the threaded spindle are to be supplied assembled, please add the suffix „**assembled**“ to the order number for the plate and spindle.  
(e.g. K0424.31251 and K0427.120661 **assembled**.)

**Note:**

Swivel feet consist of a plate and a threaded spindle. Any plate can be combined with any threaded spindle. The anti-slip-plate absorbs vibrations and prevents slipping of the swivel foot. For matching threaded spindles see K0427.

### KIPP Plates for swivel feet in plastic, heavy-duty version

| Order No.   | Form | D   | A   | H  | Load capacity max. kN | Approx. weight kg |
|-------------|------|-----|-----|----|-----------------------|-------------------|
| K0424.31251 | C    | 125 | 96  | 44 | 18                    | 0,234             |
| K0424.31751 | C    | 175 | 135 | 45 | 25                    | 0,344             |
| K0424.41251 | D    | 125 | 96  | 48 | 18                    | 0,322             |
| K0424.41751 | D    | 175 | 135 | 49 | 25                    | 0,566             |

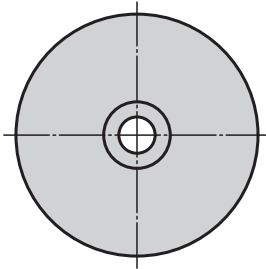
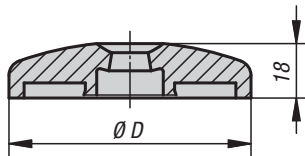


## Plates for swivel feet

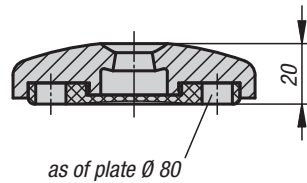
in die cast zinc or stainless steel



Form A  
without screw-on hole  
without anti-slip-plate



Form B  
without screw-on hole  
with anti-slip-plate



**Material:**

Plate in die cast zinc or stainless steel 1.4305.  
Anti-slip-plate in thermoplastic elastomer.

**Surface finish:**

Plate in die cast zinc, black powder-coated.  
Plate in stainless steel, natural finish.

**Sample order:**

K0425.10601  
K0425.10601 and K0427.120661 **assembled**

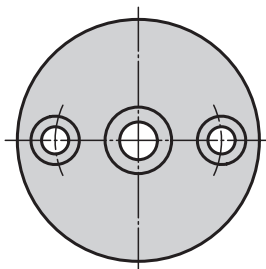
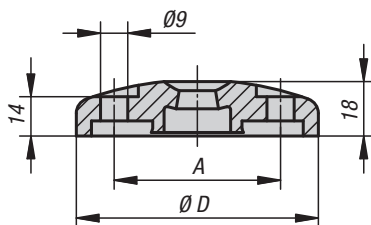
**Note for ordering:**

If the swivel foot plate and the threaded spindle are to be supplied assembled, please add the suffix „**assembled**“ to the order number for the plate and spindle.  
(e.g. K0425.10601 and K0427.120661 **assembled**.)

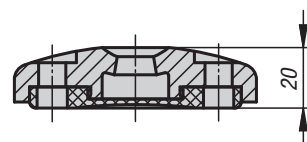
**Note:**

Swivel feet consist of a plate and a threaded spindle. Any plate can be combined with any threaded spindle. The anti-slip-plate absorbs vibrations and prevents slipping of the swivel foot. For matching threaded spindles see K0427.

Form C  
with screw-on hole (open)  
without anti-slip-plate



Form D  
with screw-on hole (open)  
with anti-slip-plate



# Plates for swivel feet

in die cast zinc or stainless steel



## KIPP Plates for swivel feet in die cast zinc

| Order No.<br>Form A | Order No.<br>Form B | D   |  | Load capacity<br>max. kN |
|---------------------|---------------------|-----|--|--------------------------|
| K0425.10401         | -                   | 40  |  | 20                       |
| K0425.10451         | -                   | 45  |  | 25                       |
| K0425.10501         | -                   | 50  |  | 25                       |
| K0425.10601         | K0425.20601         | 60  |  | 35                       |
| K0425.10801         | K0425.20801         | 80  |  | 35                       |
| K0425.11001         | K0425.21001         | 100 |  | 35                       |
| K0425.11201         | K0425.21201         | 120 |  | 35                       |

| Order No.<br>Form C | Order No.<br>Form D | D   | A  | Load capacity<br>max. kN |
|---------------------|---------------------|-----|----|--------------------------|
| K0425.30801         | K0425.40801         | 80  | 55 | 35                       |
| K0425.31001         | K0425.41001         | 100 | 74 | 35                       |

## KIPP Plates for swivel feet in stainless steel

| Order No.<br>Form A | Order No.<br>Form B | D   |  | Load capacity<br>max. kN |
|---------------------|---------------------|-----|--|--------------------------|
| K0425.10602         | K0425.20602         | 60  |  | 45                       |
| K0425.10802         | K0425.20802         | 80  |  | 45                       |
| K0425.11002         | K0425.21002         | 100 |  | 45                       |

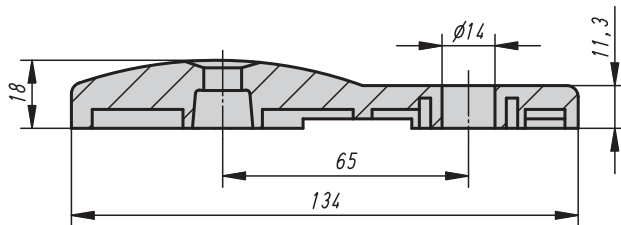
| Order No.<br>Form C | Order No.<br>Form D | D   | A  | Load capacity<br>max. kN |
|---------------------|---------------------|-----|----|--------------------------|
| K0425.30802         | K0425.40802         | 80  | 55 | 45                       |
| K0425.31002         | K0425.41002         | 100 | 74 | 45                       |

## Extended plates for swivel feet

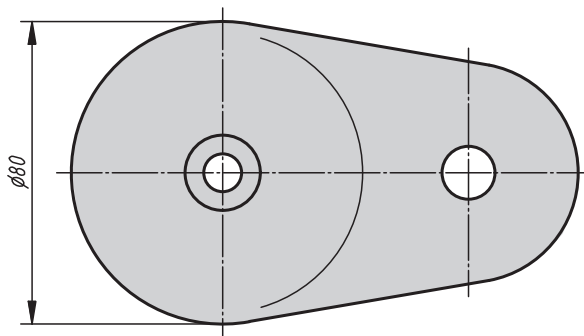
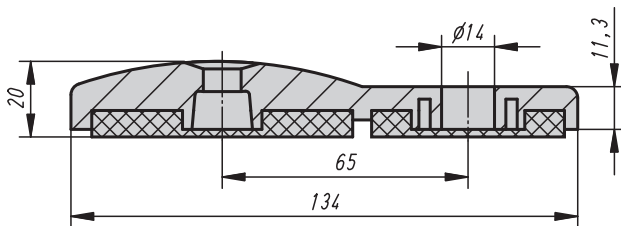
in die cast zinc



Form C  
with screw-on hole  
without anti-slip-plate



Form D  
with screw-on hole  
with anti-slip-plate



**Material:**

Plate in die cast zinc.

Anti-slip-plate in thermoplastic elastomer.

**Surface finish:**

Plate black powder-coated.

**Sample order:**

K0426.30801

K0426.30801 and K0427.120661 **assembled**

**Note for ordering:**

If the swivel foot plate and the threaded spindle are to be supplied assembled, please add the suffix „**assembled**“ to the order number for the plate and spindle.

(e.g. K0426.30801 and K0427.120661 **assembled**.)

**Note:**

Swivel feet consist of a plate and a threaded spindle. Any plate can be combined with any threaded spindle. The anti-slip-plate absorbs vibrations and prevents slipping of the swivel foot.

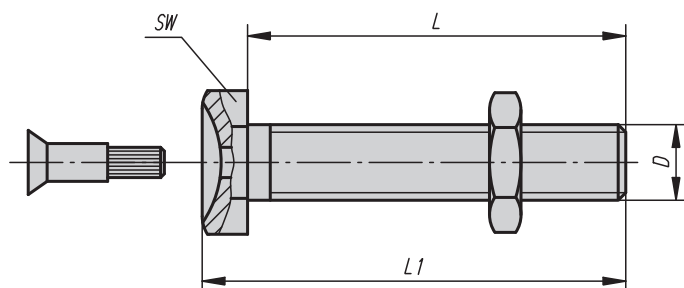
For matching threaded spindles see K0427.

### KIPP Extended plates for swivel feet in die cast zinc

| Order No.   | Form | Load capacity<br>max. kN | Approx.<br>weight<br>kg |
|-------------|------|--------------------------|-------------------------|
| K0426.30801 | C    | 35                       | 0,400                   |
| K0426.40801 | D    | 35                       | 0,435                   |

## Threaded spindles for swivel feet ECO-Line

in steel or stainless steel



**Material:**

Steel or stainless steel 1.4305.

**Surface finish:**

Steel blue chromated.  
Stainless steel, natural finish.

**Sample order:**

K0429.101201  
K0429.101201 and K0428.10301 **assembled**

**Note for ordering:**

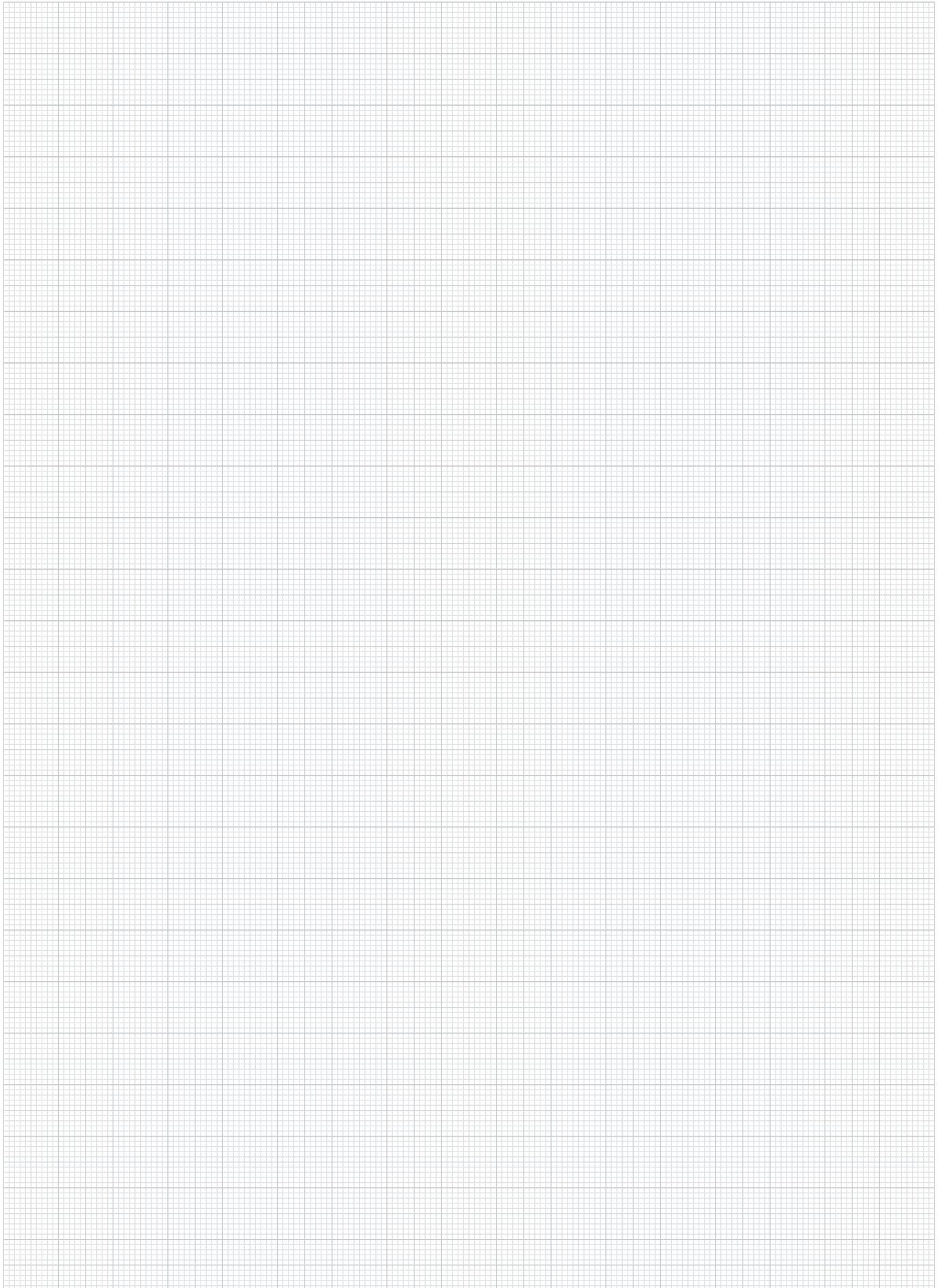
If the threaded spindle and the swivel foot plate are to be supplied assembled, please add the suffix „**assembled**“ to the order number for the spindle and plate.  
(e.g. K0429.080251 and K0428.10301 **assembled**.)

**Note:**

Swivel feet ECO-Line consist of a threaded spindle and a plate. Any threaded spindle can be combined with any plate.

### KIPP Threaded spindles for swivel feet ECO-Line

| Order No. steel | Order No. stainless steel | D   | L   | L1    | SW | Load capacity max. kN | Approx. weight kg |
|-----------------|---------------------------|-----|-----|-------|----|-----------------------|-------------------|
| K0429.080251    | K0429.080252              | M8  | 25  | 29,5  | 13 | 3,5                   | 0,012             |
| K0429.080401    | K0429.080402              | M8  | 40  | 44,5  | 13 | 3,5                   | 0,017             |
| K0429.080501    | K0429.080502              | M8  | 50  | 54,5  | 13 | 3,5                   | 0,020             |
| K0429.080701    | K0429.080702              | M8  | 70  | 74,5  | 13 | 3,5                   | 0,026             |
| K0429.080801    | K0429.080802              | M8  | 80  | 84,5  | 13 | 3,5                   | 0,029             |
| K0429.081001    | K0429.081002              | M8  | 100 | 104,5 | 13 | 3,5                   | 0,035             |
| K0429.081201    | K0429.081202              | M8  | 120 | 124,5 | 13 | 3,5                   | 0,041             |
| K0429.100251    | K0429.100252              | M10 | 25  | 30    | 17 | 4,7                   | 0,022             |
| K0429.100401    | K0429.100402              | M10 | 40  | 45    | 17 | 4,7                   | 0,030             |
| K0429.100501    | K0429.100502              | M10 | 50  | 55    | 17 | 4,7                   | 0,035             |
| K0429.100701    | K0429.100702              | M10 | 70  | 75    | 17 | 4,7                   | 0,044             |
| K0429.100801    | K0429.100802              | M10 | 80  | 85    | 17 | 4,7                   | 0,049             |
| K0429.101001    | K0429.101002              | M10 | 100 | 105   | 17 | 4,7                   | 0,058             |
| K0429.101201    | K0429.101202              | M10 | 120 | 125   | 17 | 4,7                   | 0,069             |
| K0429.120251    | K0429.120252              | M12 | 25  | 31    | 19 | 7,7                   | 0,034             |
| K0429.120401    | K0429.120402              | M12 | 40  | 46    | 19 | 7,7                   | 0,044             |
| K0429.120501    | K0429.120502              | M12 | 50  | 56    | 19 | 7,7                   | 0,051             |
| K0429.120701    | K0429.120702              | M12 | 70  | 76    | 19 | 7,7                   | 0,065             |
| K0429.120801    | K0429.120802              | M12 | 80  | 86    | 19 | 7,7                   | 0,072             |
| K0429.121001    | K0429.121002              | M12 | 100 | 106   | 19 | 7,7                   | 0,086             |
| K0429.121201    | K0429.121202              | M12 | 120 | 126   | 19 | 7,7                   | 0,100             |
| K0429.160501    | K0429.160502              | M16 | 50  | 58,5  | 24 | 14,5                  | 0,115             |
| K0429.161001    | K0429.161002              | M16 | 100 | 108,5 | 24 | 14,5                  | 0,165             |
| K0429.161501    | K0429.161502              | M16 | 150 | 158,5 | 24 | 14,5                  | 0,190             |



## Modular structure of a swivel foot ECO-Line

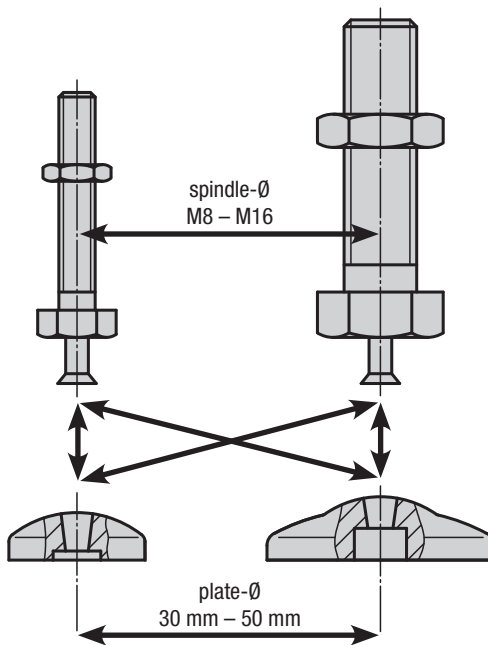
### Application:

Swivel feet ECO-Line are built up in modular fashion. The components can be combined individually to match the application. However, the threaded spindle is not screwed but instead pressed in permanently. The swivel feet are therefore used for a wide range of machines and installations, including office furniture.

### Modular structure:

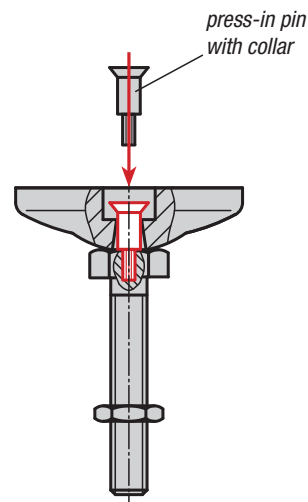
The swivel feet consist of two components - a plate and a threaded spindle (see figure 1).

Figure 1

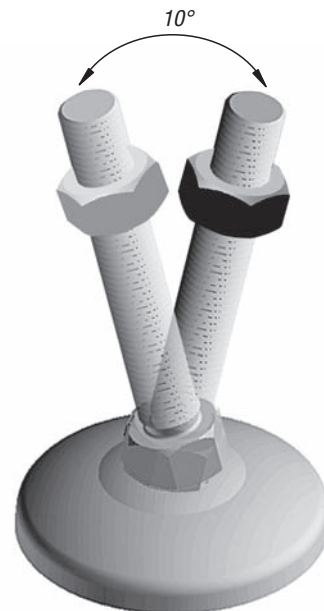


### Assembly:

Place swivel foot plate on threaded spindle and press pin up to collar (threaded spindle cannot be inadvertently released from plate).



Inclination angle of threaded spindle:



### Note for ordering:

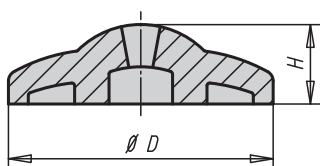
If the Swivel Foot plate and the threaded spindle are to be supplied assembled, please add the suffix „**assembled**“ to the order number for the plate and spindle (see sample order on the relevant product page).

## Plates for swivel feet, ECO-Line

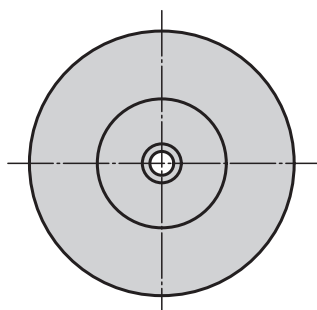
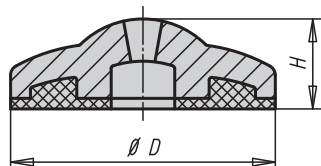
in die cast zinc, stainless steel or plastic



Form A  
without anti-slip-plate



Form B  
with anti-slip-plate



**Material:**

Plate in thermoplastic, die cast zinc or stainless steel 1.4305.

Anti-slip-plate in thermoplastic elastomer.

**Surface finish:**

Plate in black thermoplastic.

Plate in blue galvanized die cast zinc.

Plate in stainless steel natural finish.

**Sample order:**

K0428.10303

K0428.10303 and K0429.080801 **assembled**

**Note for ordering:**

If the swivel foot plate and the threaded spindle are to be supplied assembled, please add the suffix „**assembled**“ to the order number for the plate and spindle.

(e.g. K0428.10303 and K0429.080801

„**assembled**“.)

**Note:**

Swivel feet ECO-Line consist of a plate and a threaded spindle. Any plate can be combined with any threaded spindle.

The anti-slip-plate absorbs vibrations and prevents slipping of the swivel foot.

For matching threaded spindles see K0429.

### KIPP Plates for swivel feet ECO-Line in die cast zinc

| Order No.   | Form | D  | H    | Load capacity<br>max. kN |
|-------------|------|----|------|--------------------------|
| K0428.10301 | A    | 30 | 11,5 | 16                       |
| K0428.10401 | A    | 40 | 12   | 18                       |
| K0428.10501 | A    | 50 | 14,5 | 20                       |
| K0428.20301 | B    | 30 | 13,5 | 16                       |
| K0428.20401 | B    | 40 | 14,5 | 18                       |
| K0428.20501 | B    | 50 | 17,5 | 20                       |

# Plates for swivel feet, ECO-Line

in die cast zinc, stainless steel or plastic



## KIPP Plates for swivel feet ECO-Line in stainless steel

| Order No.   | Form | D  | H    | Load capacity<br>max. kN |
|-------------|------|----|------|--------------------------|
| K0428.10302 | A    | 30 | 11,5 | 22                       |
| K0428.10402 | A    | 40 | 12   | 24                       |
| K0428.10502 | A    | 50 | 14,5 | 26                       |
| K0428.20302 | B    | 30 | 13,5 | 22                       |
| K0428.20402 | B    | 40 | 14,5 | 24                       |
| K0428.20502 | B    | 50 | 17,5 | 26                       |

## KIPP Plates for swivel feet ECO-Line in plastic

| Order No.   | Form | D  | H    | Load capacity<br>max. kN |
|-------------|------|----|------|--------------------------|
| K0428.10303 | A    | 30 | 11,5 | 15                       |
| K0428.10403 | A    | 40 | 12   | 15                       |
| K0428.10503 | A    | 50 | 14,5 | 15                       |
| K0428.20303 | B    | 30 | 13,5 | 15                       |
| K0428.20403 | B    | 40 | 14,5 | 15                       |
| K0428.20503 | B    | 50 | 17,5 | 15                       |



## Swivel feet



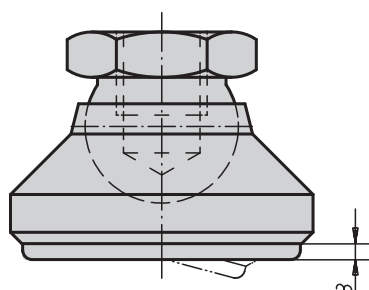
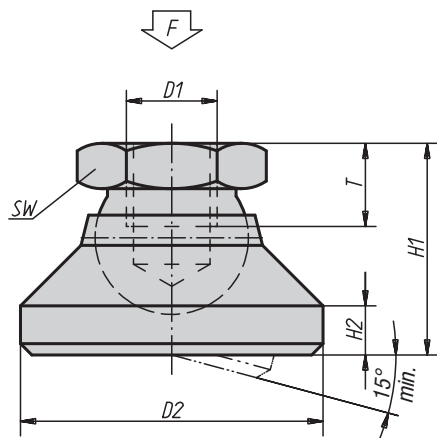
Form A  
pressure foot and  
ball element in steel

Form B  
pressure foot and  
ball element in stainless steel

Form C  
pressure foot in Delrin,  
ball element in steel

Form D  
pressure foot in Delrin,  
ball element in stainless steel

Form G  
pressure foot and  
ball element in steel  
with anti-slip-plate



### Material, surface finish:

- Form A, G: Pressure foot in tempered steel.  
Ball element in case-hardened free-cutting steel; black oxide finish.
- Form B: Stainless steel, natural finish.
- Form C: Pressure foot in white Delrin.  
Ball element in case-hardened free-cutting steel, black oxide finish.
- Form D: Pressure foot in white Delrin.  
Ball element in stainless steel, natural finish.

Anti-slip-plate in thermoplastic elastomer.

### Sample order:

K0395.112

### Note:

The anti-slip-plate absorbs vibrations and prevents slipping of the swivel foot.

### KIPP Swivel feet

| Order No.<br>Form A | Order No.<br>Form B | D1  | D2 | H1 | H2  | T   | SW | Load capacity<br>max. kN<br>(static load only) |
|---------------------|---------------------|-----|----|----|-----|-----|----|--|
| K0395.106           | K0395.306           | M6  | 20 | 15 | 2,5 | 8,5 | 10 | 10   |
| K0395.108           | K0395.308           | M8  | 25 | 18 | 4   | 9   | 13 | 18   |
| K0395.110           | K0395.310           | M10 | 32 | 22 | 5   | 10  | 17 | 20   |
| K0395.112           | K0395.312           | M12 | 40 | 26 | 6   | 12  | 19 | 35   |
| K0395.116           | K0395.316           | M16 | 50 | 32 | 7   | 14  | 24 | 45   |
| K0395.120           | K0395.320           | M20 | 60 | 42 | 8   | 18  | 30 | 55   |

| Order No.<br>Form C | Order No.<br>Form D | D1  | D2 | H1 | H2  | T   | SW | Load capacity<br>max. kN<br>(static load only) |
|---------------------|---------------------|-----|----|----|-----|-----|----|--|
| K0395.506           | K0395.206           | M6  | 20 | 15 | 2,5 | 8,5 | 10 | 4  |
| K0395.508           | K0395.208           | M8  | 25 | 18 | 4   | 9   | 13 | 7  |
| K0395.510           | K0395.210           | M10 | 32 | 22 | 5   | 10  | 17 | 10   |
| K0395.512           | K0395.212           | M12 | 40 | 26 | 6   | 12  | 19 | 18   |
| K0395.516           | K0395.216           | M16 | 50 | 32 | 7   | 14  | 24 | 20   |
| K0395.520           | K0395.220           | M20 | 60 | 42 | 8   | 18  | 30 | 22   |

| Order No.<br>Form G | D1  | D2 | H1 | H2 | T  | SW | Load capacity<br>max. kN<br>(static load only) |
|---------------------|-----|----|----|----|----|----|--|
| K0395.410           | M10 | 32 | 22 | 5  | 10 | 17 | 12   |
| K0395.412           | M12 | 40 | 26 | 6  | 12 | 19 | 17   |
| K0395.416           | M16 | 50 | 32 | 7  | 14 | 24 | 20   |
| K0395.420           | M20 | 60 | 42 | 8  | 18 | 30 | 24   |

## Threaded spindles for swivel feet

in steel or stainless steel



**Material:**

Steel or stainless steel 1.4305.

**Surface finish:**

Steel galvanized.

Stainless steel natural finish.

**Sample order:**

K0669.080501

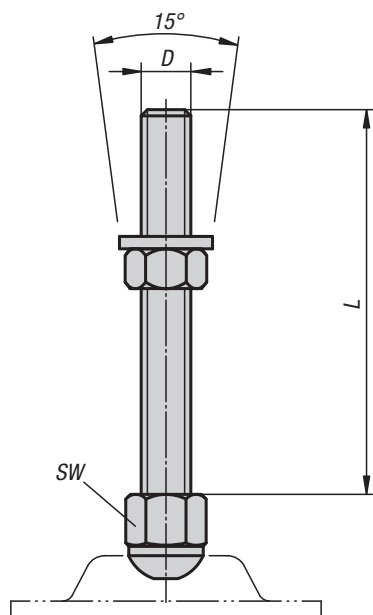
K0669.080501 and K0672.10801 **assembled**

**Note for ordering:**

If the swivel foot plate and the threaded spindle are to be supplied assembled, please add the suffix „**assembled**“ to the order number for the plate and spindle.  
(e.g. K0669.080501 and K0672.10801 **assembled**).

**Note:**

Swivel feet consist of a plate and a threaded spindle. Any threaded spindle can be combined with any plate.

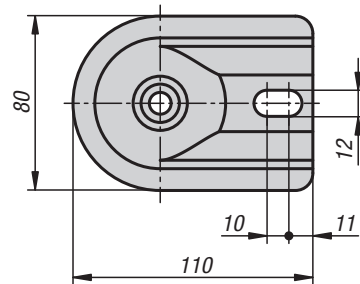
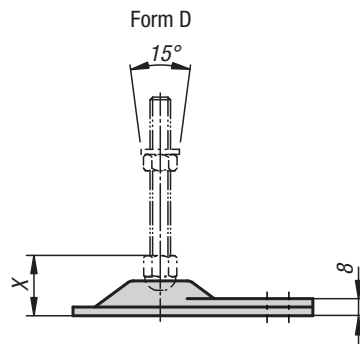
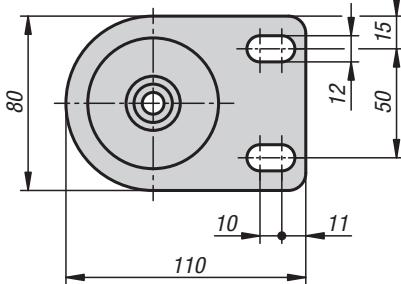
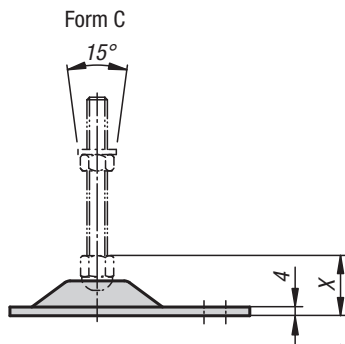
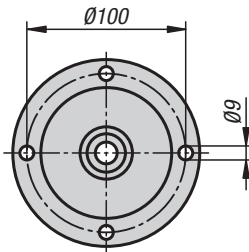
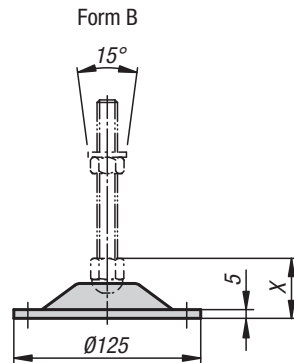
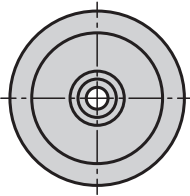
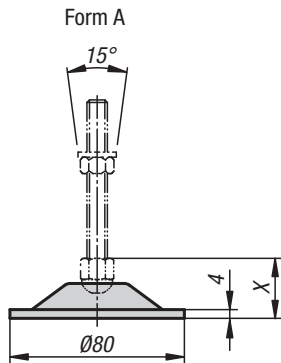


### KIPP Threaded spindles for swivel feet in steel or stainless steel

| Order No. Steel | Order No. Stainless steel | D   | L   | SW | Load capacity max. kN |
|-----------------|---------------------------|-----|-----|----|-----------------------|
| K0669.080501    | K0669.080502              | M8  | 50  | 17 | 40                    |
| K0669.080801    | K0669.080802              | M8  | 80  | 17 | 40                    |
| K0669.081001    | K0669.081002              | M8  | 100 | 17 | 40                    |
| K0669.081201    | K0669.081202              | M8  | 120 | 17 | 40                    |
| K0669.081501    | K0669.081502              | M8  | 150 | 17 | 40                    |
| K0669.100501    | K0669.100502              | M10 | 50  | 17 | 40                    |
| K0669.100801    | K0669.100802              | M10 | 80  | 17 | 40                    |
| K0669.101001    | K0669.101002              | M10 | 100 | 17 | 40                    |
| K0669.101201    | K0669.101202              | M10 | 120 | 17 | 40                    |
| K0669.101501    | K0669.101502              | M10 | 150 | 17 | 40                    |
| K0669.120501    | K0669.120502              | M12 | 50  | 19 | 40                    |
| K0669.120801    | K0669.120802              | M12 | 80  | 19 | 40                    |
| K0669.121001    | K0669.121002              | M12 | 100 | 19 | 40                    |
| K0669.121201    | K0669.121202              | M12 | 120 | 19 | 40                    |
| K0669.121501    | K0669.121502              | M12 | 150 | 19 | 40                    |
| K0669.160501    | K0669.160502              | M16 | 50  | 24 | 40                    |
| K0669.160801    | K0669.160802              | M16 | 80  | 24 | 40                    |
| K0669.161001    | K0669.161002              | M16 | 100 | 24 | 40                    |
| K0669.161201    | K0669.161202              | M16 | 120 | 24 | 40                    |
| K0669.161501    | K0669.161502              | M16 | 150 | 24 | 40                    |
| K0669.200501    | K0669.200502              | M20 | 50  | 30 | 40                    |
| K0669.200801    | K0669.200802              | M20 | 80  | 30 | 40                    |
| K0669.201001    | K0669.201002              | M20 | 100 | 30 | 40                    |
| K0669.201201    | K0669.201202              | M20 | 120 | 30 | 40                    |
| K0669.201501    | K0669.201502              | M20 | 150 | 30 | 40                    |

## Plates for swivel feet

in steel or stainless steel



X with spindle size:  
 Form A, C, D : M8/M10 = 31 mm  
 M12 = 32 mm  
 M16 = 36 mm  
 M20 = 39 mm

Form B : M8/M10 = 46 mm  
 M12 = 48 mm  
 M16 = 51 mm  
 M20 = 54 mm

**Material:**

Plate in steel or stainless steel 1.4301.

**Surface finish:**

Chromium-plated steel.  
 Stainless steel Form A and B polished.  
 Stainless steel Form C and D glass beads blasted.

**Sample order:**

K0672.10801  
 K0672.10801 and K0669.080501 assembled

**Note for ordering:**

If the swivel foot plate and the threaded spindle are to be supplied assembled, please add the suffix „assembled“ to the order number for the plate and spindle (e.g. K0672.10801 and K0669.080501 **assembled**).

**Note:**

Swivel feet consist of a plate and a threaded spindle. Any plate can be combined with any threaded spindle. For matching threaded spindles, see K0669.

**KIPP Plates for swivel feet in steel or stainless steel**

| Order No.<br>Steel | Order No.<br>Stainless steel | Form | Load capacity<br>max. kN |
|--------------------|------------------------------|------|--------------------------|
| K0672.10801        | K0672.10802                  | A    | 20                       |
| K0672.21251        | K0672.21252                  | B    | 40                       |
| K0672.30801        | K0672.30802                  | C    | 20                       |
| K0672.40801        | K0672.40802                  | D    | 20                       |

## Plates for swivel feet with rubber plate

in steel or stainless steel



**Material:**

Plate in steel or stainless steel 1.4301.  
NBR rubber plate, 70° Shore A.

**Surface finish:**

Chromium-plated steel. Polished stainless steel.

**Sample order:**

K0673.10801

K0673.10801 and K0669.080501 **assembled**

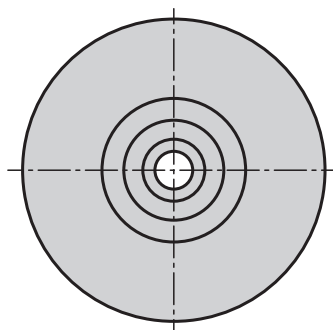
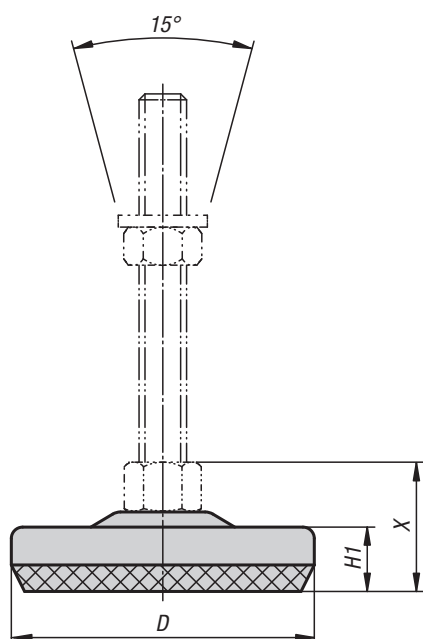
**Note for ordering:**

If the swivel foot plate and the threaded spindle are to be supplied assembled, please add the suffix „**assembled**“ to the order number for the plate and spindle (e.g. K0673.10801 and K0669.080501 **assembled**).

**Note:**

Swivel feet consist of a plate and a threaded spindle placed together. Any plate can be combined with any threaded spindle.

For matching threaded spindles, see K0669.



D = 80 :

X with spindle size:

M8/M10 = 37 mm

M12 = 38 mm

M16 = 42 mm

M20 = 45 mm

D = 100 :

X with spindle size:

M8/M10 = 37 mm

M12 = 38 mm

M16 = 42 mm

M20 = 45 mm

### KIPP Plates for swivel feet with rubber plate in steel or stainless steel

| Order No.<br>Steel | Order No.<br>Stainless steel | D   | H1 | Load capacity<br>max. kN |
|--------------------|------------------------------|-----|----|--------------------------|
| K0673.10801        | K0673.10802                  | 80  | 17 | 8,5                      |
| K0673.11001        | K0673.11002                  | 100 | 19 | 20                       |

## Swivel feet round



**Material, surface finish:**

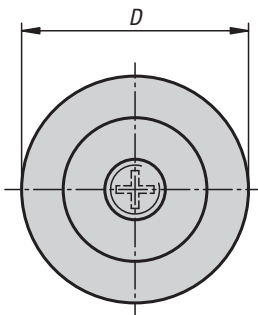
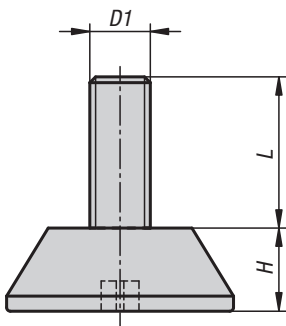
Polyamide, black.  
Galvanized steel screw.

**Sample order:**

K0674.3006X020  
(Please also indicate dimension L.)

**Note:**

Swivel foot with cross recess in plate base as an assembly aid. Rigid version.



### KIPP Round swivel feet

| Order No.   | D  | D1  | H  | L              |
|-------------|----|-----|----|----------------|
| K0674.3006X | 30 | M6  | 11 | 20/30          |
| K0674.3008X | 30 | M8  | 11 | 16/20/25/30/40 |
| K0674.3010X | 30 | M10 | 11 | 25/30/35       |
| K0674.4708X | 47 | M8  | 11 | 16/20/30/40    |
| K0674.4710X | 47 | M10 | 11 | 20/30/55       |

## Round swivel feet

with hexagonal



**Material, surface finish:**

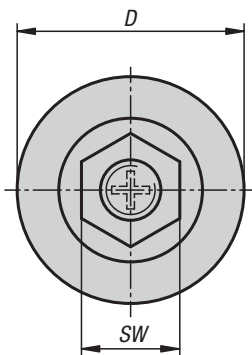
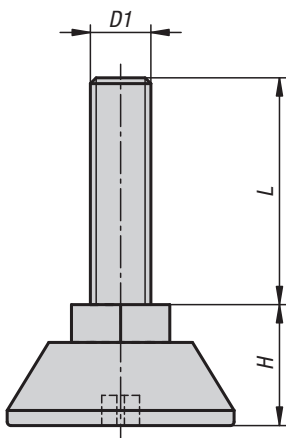
Polyamide, black.  
Galvanized steel screw.

**Sample order:**

K0675.3006X020  
(Please also indicate dimension L.)

**Note:**

Swivel foot with hexagonal and cross recess in plate base as an assembly aid. Rigid version.



### KIPP Round swivel feet with hexagonal

| Order No.   | D  | D1  | H  | SW | L              |
|-------------|----|-----|----|----|----------------|
| K0675.3006X | 30 | M6  | 16 | 13 | 20/30          |
| K0675.3008X | 30 | M8  | 16 | 13 | 15/20/25/30/40 |
| K0675.4708X | 47 | M8  | 16 | 13 | 15/20/30/40    |
| K0675.4710X | 47 | M10 | 16 | 17 | 20/30          |

## Swivel feet with hexagonal



**Material, surface finish:**

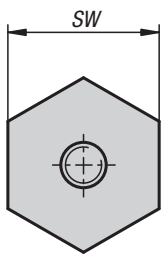
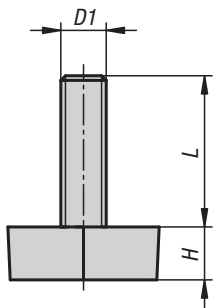
Polyethylene, black.  
Galvanized steel screw.

**Sample order:**

K0676.2006X020  
(Please also indicate dimension L.)

**Note:**

Swivel foot with hexagonal surface. Rigid version.



### KIPP Swivel feet with hexagonal

| Order No.   | D1  | H   | SW | L           |
|-------------|-----|-----|----|-------------|
| K0676.2006X | M6  | 7   | 20 | 20/30/40/50 |
| K0676.2008X | M8  | 7   | 20 | 20/30/40/50 |
| K0676.2506X | M6  | 7,5 | 25 | 20/30/40/50 |
| K0676.2508X | M8  | 7,5 | 25 | 20/30/40/50 |
| K0676.2510X | M10 | 7,5 | 25 | 20/30       |
| K0676.3008X | M8  | 8   | 30 | 20/30/40/50 |
| K0676.3010X | M10 | 8   | 30 | 20/30       |

# Swivel feet with knurled plate



**Material, surface finish:**

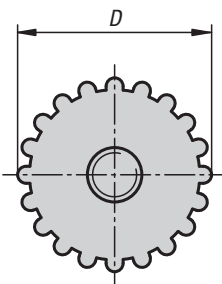
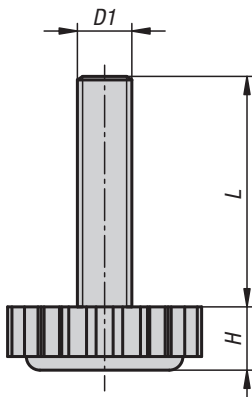
Polyamide, black.  
Galvanized steel screw.

**Sample order:**

K0677.2805X016  
(Please also indicate dimension L.)

**Note:**

Swivel foot with knurled surface. Rigid version.



## KIPP Swivel feet with knurled plate

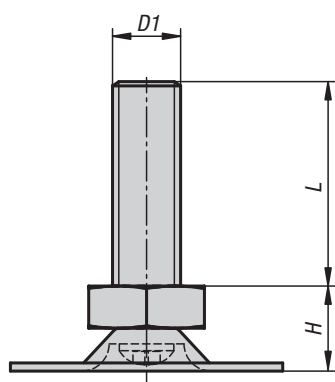
| Order No.   | D    | D1 | H   | L                    |
|-------------|------|----|-----|----------------------|
| K0677.2805X | 28,5 | M5 | 9,3 | 16/20/25/40          |
| K0677.2806X | 28,5 | M6 | 9,3 | 16/20/30/40/50       |
| K0677.2808X | 28,5 | M8 | 9,3 | 16/20/30/40/50/60/80 |



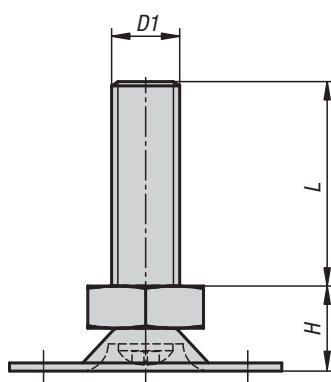
## Swivel feet



without hole



with hole



**Material, surface finish:**

Foot plate and threaded spindle in steel, galvanized.

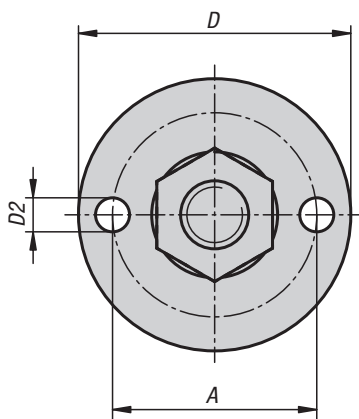
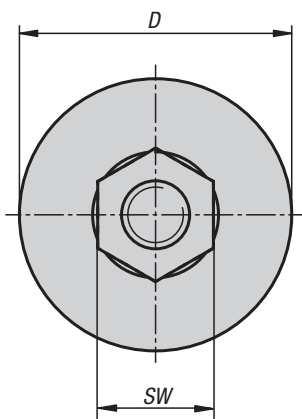
**Sample order:**

K0678.03008X016

(Please also indicate dimension L.)

**Note:**

The threaded spindle is pressed together with the revolving foot plate.



### KIPP Swivel feet

| Order No.<br>without borehole | Order No.<br>with borehole | A      | D  | D1  | D2    | H    | SW | L                 |
|-------------------------------|----------------------------|--------|----|-----|-------|------|----|-------------------|
| K0678.03008X                  | K0678.13008X               | -/24,3 | 30 | M8  | -/4   | 11   | 13 | 16/20/30/40/50    |
| K0678.03010X                  | K0678.13010X               | -/24,3 | 30 | M10 | -/4   | 12,5 | 17 | 16/20/30/40/50/60 |
| K0678.04008X                  | K0678.14008X               | -/30   | 40 | M8  | -/5   | 11   | 13 | 16/20/30/40/50    |
| K0678.04010X                  | K0678.14010X               | -/30   | 40 | M10 | -/5   | 11   | 17 | 16/20/30/40/50/60 |
| K0678.05008X                  | K0678.15008X               | -/35   | 50 | M8  | -/5,5 | 12,5 | 13 | 16/20/30/40/50    |
| K0678.05010X                  | K0678.15010X               | -/35   | 50 | M10 | -/5,5 | 14   | 17 | 16/20/30/40/50/60 |
| K0678.06008X                  | K0678.16008X               | -/46   | 60 | M8  | -/5,5 | 13,5 | 13 | 16/20/30/40/50    |
| K0678.06010X                  | K0678.16010X               | -/46   | 60 | M10 | -/5,5 | 15   | 17 | 16/20/30/40/50/60 |

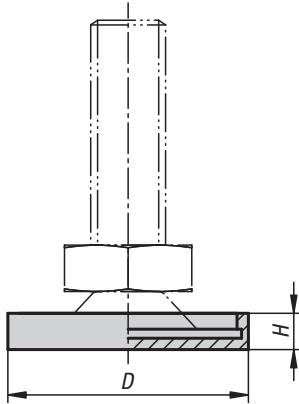
## Caps for swivel feet



**Material, surface finish:**  
PE, black.

**Sample order:**  
K0679.1030

**Note:**  
The caps protect the work surface against scratch marks.



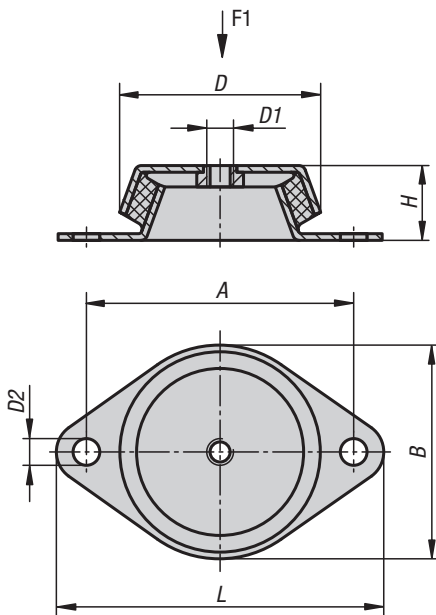
## KIPP Caps for swivel feet

| Order No.  | for foot plate Ø | D    | H   | Approx. weight g |
|------------|------------------|------|-----|------------------|
| K0679.1030 | 30               | 31,8 | 4,8 | 1,16             |
| K0679.1060 | 60               | 62   | 6,8 | 6,3              |

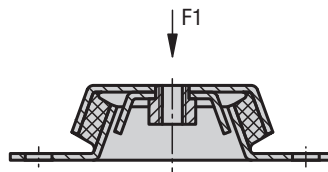
# Machine feet



Form A  
without tear protection



with tear protection



**Material, surface finish:**

Metal parts, galvanized steel, strength 5.6.  
Elastomer, natural rubber, average hardness, 60° Shore.

**Sample order:**

K0687.062060

**Note:**

Machine feet are proven, universally usable elements for elastically supporting machines of every type. Wherever large horizontal movements are to be avoided, machine feet are commonly used. Their horizontal rigidity is higher in all directions than their vertical rigidity. If properly used, they provide excellent prevention against the conduction of shocks and noise.

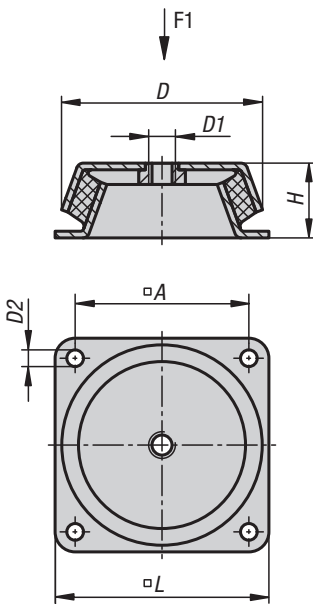
Especially for situations in which tensile forces are to be expected (e.g., in shipbuilding), machine feet with tear protection are recommended.

The indicated load data are standard values for a static long-term load with a rubber hardness of 60° Shore A.

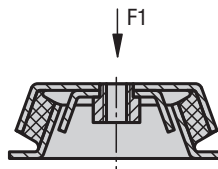
**On request:**

Machine feet with a rubber hardness of 40° or 70° Shore A.

Form B  
without tear protection



with tear protection

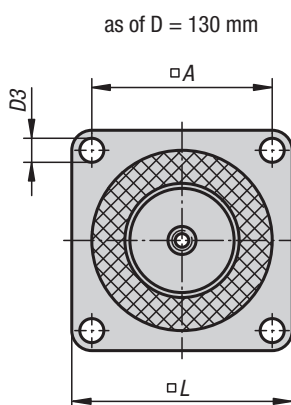
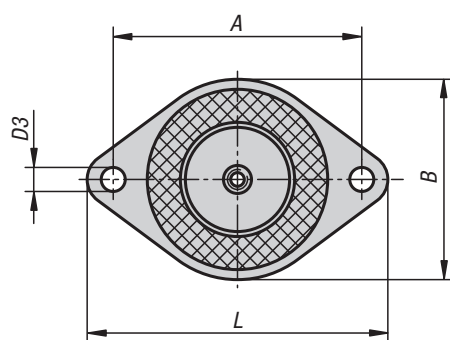
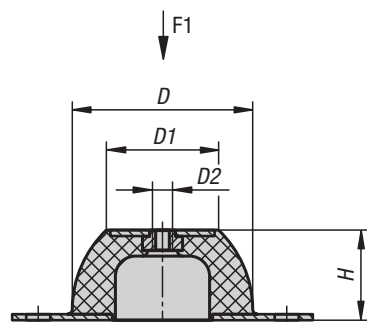


## KIPP Machine feet

| Order No.<br>without tear protection | Order No.<br>with tear protection | Form | A   | B   | D   | D1  | D2   | H  | L   | F1<br>(N) |
|--------------------------------------|-----------------------------------|------|-----|-----|-----|-----|------|----|-----|-----------|
| K0687.062060                         | K0687.062160                      | A    | 85  | 66  | 62  | M10 | 8,2  | 30 | 110 | 1500      |
| K0687.078060                         | K0687.078160                      | A    | 110 | 78  | 78  | M10 | 9    | 30 | 128 | 1800      |
| K0687.092060                         | K0687.092160                      | A    | 110 | 96  | 86  | M12 | 10,2 | 45 | 140 | 3000      |
| K0687.106060                         | K0687.106160                      | A    | 140 | 110 | 106 | M12 | 12,4 | 39 | 170 | 3600      |
| K0687.150060                         | K0687.150160                      | B    | 132 | -   | 150 | M16 | 12,5 | 51 | 168 | 8000      |

## Cap elements

type H2



### Material, surface finish:

Metal parts galvanized steel, strength 5.6.  
Elastomer, natural rubber, hardness 40° or 60° Shore A.

### Sample order:

K0686.03502040

### Note:

The cap elements are highly elastic both in radial and in axial direction and therefore offer an outstanding impact isolation.

The special shaping of the cap elements allows isolation of sound and vibrations of machines and assemblies with a low natural frequency. They are especially suitable for supporting sensitive instruments and small devices.

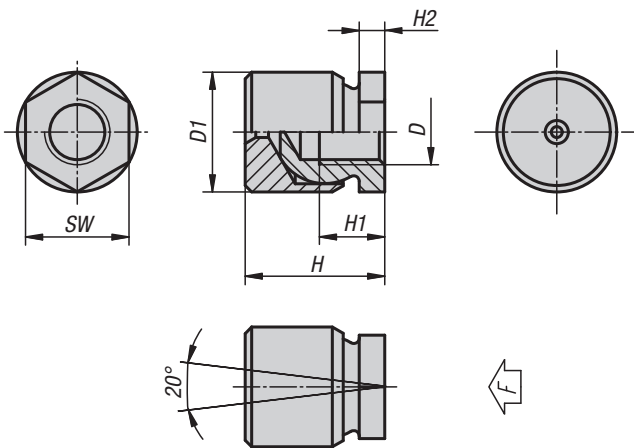
The elements must not be subjected to tensile stress.

Temperature resistant  
-30°C up to +80°C.

## KIPP Cap elements type H2

| Order No.      | Surface finish       | A   | B   | D   | D1  | D2  | D3   | H  | L   | F1 (N) | Approx. weight kg |
|----------------|----------------------|-----|-----|-----|-----|-----|------|----|-----|--------|-------------------|
| K0686.03502040 | Hardness 40° Shore A | 50  | 43  | 35  | 18  | M6  | 7    | 20 | 64  | 34     | 0,030             |
| K0686.05002540 | Hardness 40° Shore A | 66  | 56  | 50  | 33  | M8  | 8    | 25 | 85  | 200    | 0,067             |
| K0686.07003540 | Hardness 40° Shore A | 92  | 76  | 70  | 45  | M10 | 10   | 35 | 114 | 390    | 0,148             |
| K0686.08504040 | Hardness 40° Shore A | 110 | 96  | 85  | 53  | M10 | 11,5 | 40 | 136 | 680    | 0,250             |
| K0686.09004540 | Hardness 40° Shore A | 124 | 101 | 90  | 58  | M10 | 11,5 | 45 | 151 | 1280   | 0,390             |
| K0686.13006340 | Hardness 40° Shore A | 120 | -   | 130 | 78  | M12 | 14,5 | 63 | 150 | 2700   | 1,020             |
| K0686.18008540 | Hardness 40° Shore A | 160 | -   | 180 | 100 | M16 | 14,5 | 85 | 200 | 3700   | 2,200             |
| K0686.03502060 | Hardness 60° Shore A | 50  | 43  | 35  | 18  | M6  | 7    | 20 | 64  | 90     | 0,030             |
| K0686.05002560 | Hardness 60° Shore A | 66  | 56  | 50  | 33  | M8  | 8    | 25 | 85  | 490    | 0,067             |
| K0686.07003560 | Hardness 60° Shore A | 92  | 76  | 70  | 45  | M10 | 10   | 35 | 114 | 780    | 0,148             |
| K0686.08504060 | Hardness 60° Shore A | 110 | 96  | 85  | 53  | M10 | 11,5 | 40 | 136 | 1450   | 0,264             |
| K0686.09004560 | Hardness 60° Shore A | 124 | 101 | 90  | 58  | M10 | 11,5 | 45 | 151 | 2150   | 0,416             |
| K0686.13006360 | Hardness 60° Shore A | 120 | -   | 130 | 78  | M12 | 14,5 | 63 | 150 | 4900   | 1,085             |
| K0686.18008560 | Hardness 60° Shore A | 160 | -   | 180 | 100 | M16 | 14,5 | 85 | 200 | 7350   | 2,300             |

## Swivel pads



**Material:**

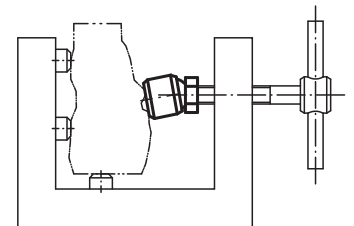
Ball element in case-hardened free-cutting steel.  
Pressure pad in free-cutting steel ETG 100.

**Surface finish:**

Black oxide finish.

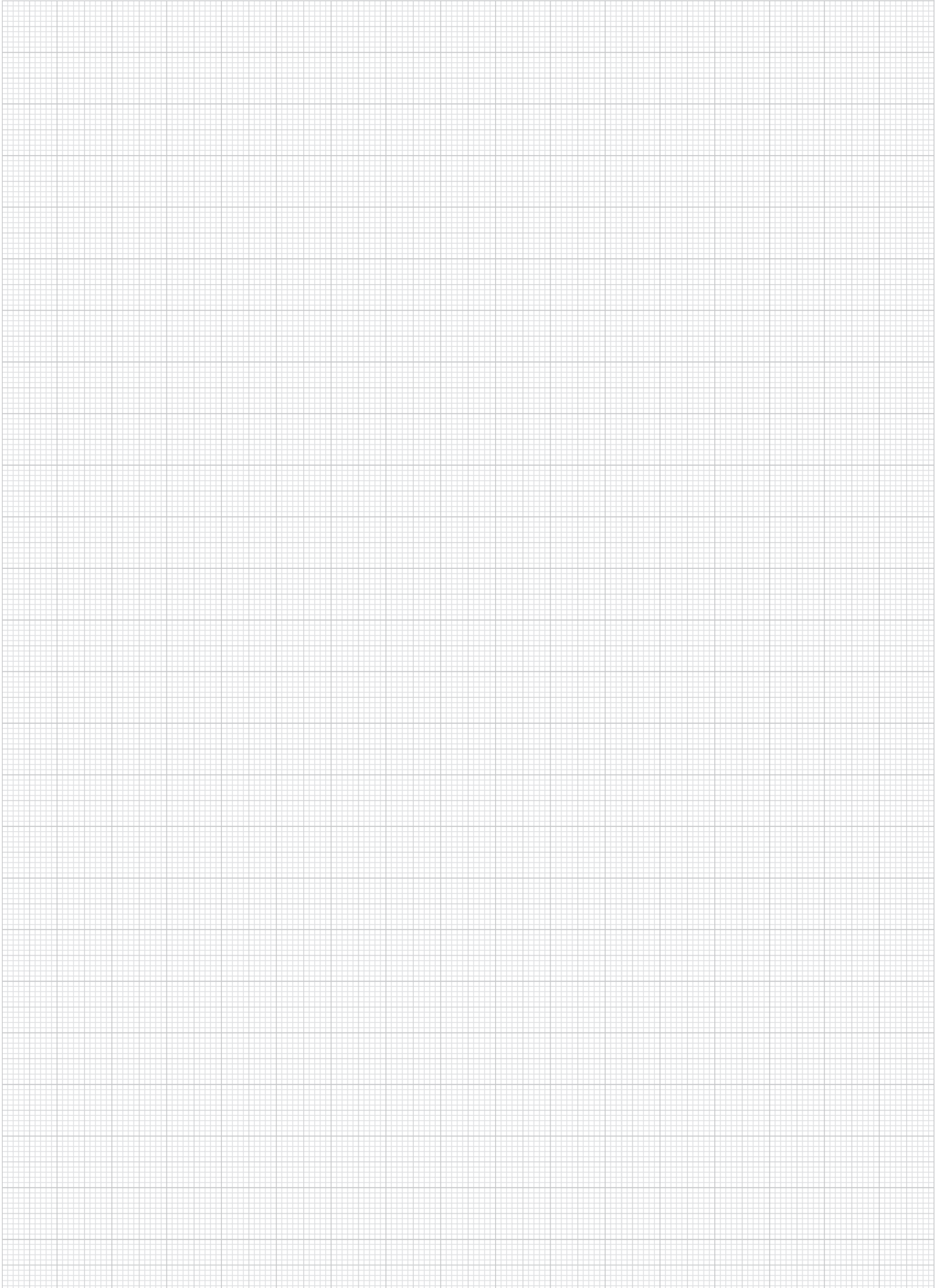
**Sample order:**

K0304.10



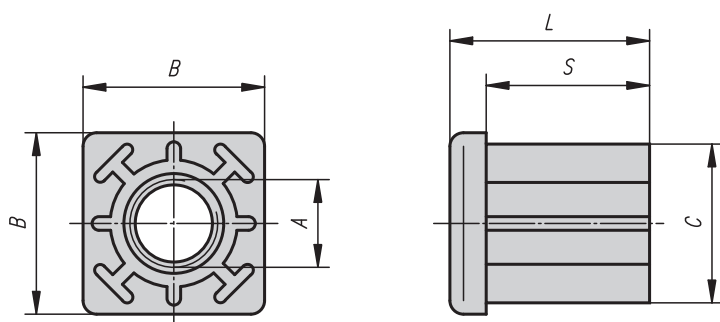
### KIPP Swivel pads

| Order No. | D   | D1 | H    | H1  | H2  | SW | F<br>max. N | Approx.<br>weight<br>kg |
|-----------|-----|----|------|-----|-----|----|-------------|-------------------------|
| K0304.05  | M5  | 13 | 16,5 | 6,5 | 4   | 10 | 1620        | 0,012                   |
| K0304.06  | M6  | 13 | 16,5 | 8,5 | 4   | 10 | 2330        | 0,011                   |
| K0304.08  | M8  | 16 | 21   | 9   | 4   | 13 | 4150        | 0,023                   |
| K0304.10  | M10 | 19 | 23   | 10  | 4   | 17 | 6480        | 0,035                   |
| K0304.12  | M12 | 22 | 25,5 | 12  | 4,7 | 19 | 8320        | 0,052                   |
| K0304.16  | M16 | 25 | 29,5 | 14  | 5   | 24 | 13940       | 0,074                   |
| K0304.20  | M20 | 32 | 36   | 18  | 8,5 | 30 | 21000       | 0,138                   |



## Screw-in plugs

for square tubes



**Material:**

Screw-in plugs, glass-fibre reinforced thermoplastic.  
Threaded insert, brass.

**Surface finish:**

Plug black.  
Threaded insert nickel-plated.

**Sample order:**

K0430.103015

**Note:**

Screw-in plugs are used for easy mounting of swivel feet and swivel pads to square tubes.

### KIPP Screw-in plugs for square tubes

| Order No.    | A   | B  | C    | L  | S  | Suitable for square tubes | Load capacity max. kN | Approx. weight kg |
|--------------|-----|----|------|----|----|---------------------------|-----------------------|-------------------|
| K0430.103015 | M10 | 30 | 27,5 | 33 | 27 | 30 x 1,5                  | 5                     | 0,031             |
| K0430.123015 | M12 | 30 | 27,5 | 33 | 27 | 30 x 1,5                  | 5                     | 0,031             |
| K0430.143015 | M14 | 30 | 27,5 | 33 | 27 | 30 x 1,5                  | 5                     | 0,033             |
| K0430.163015 | M16 | 30 | 27,5 | 33 | 27 | 30 x 1,5                  | 5                     | 0,037             |
| K0430.103020 | M10 | 30 | 26,5 | 33 | 27 | 30 x 2                    | 5                     | 0,031             |
| K0430.123020 | M12 | 30 | 26,5 | 33 | 27 | 30 x 2                    | 5                     | 0,031             |
| K0430.143020 | M14 | 30 | 26,5 | 33 | 27 | 30 x 2                    | 5                     | 0,033             |
| K0430.163020 | M16 | 30 | 26,5 | 33 | 27 | 30 x 2                    | 5                     | 0,037             |
| K0430.104015 | M10 | 40 | 37,5 | 43 | 35 | 40 x 1,5                  | 8                     | 0,060             |
| K0430.124015 | M12 | 40 | 37,5 | 43 | 35 | 40 x 1,5                  | 8                     | 0,060             |
| K0430.144015 | M14 | 40 | 37,5 | 43 | 35 | 40 x 1,5                  | 8                     | 0,060             |
| K0430.164015 | M16 | 40 | 37,5 | 43 | 35 | 40 x 1,5                  | 8                     | 0,063             |
| K0430.204015 | M20 | 40 | 37,5 | 43 | 35 | 40 x 1,5                  | 8                     | 0,072             |
| K0430.104020 | M10 | 40 | 36,5 | 43 | 35 | 40 x 2                    | 10                    | 0,055             |
| K0430.124020 | M12 | 40 | 36,5 | 43 | 35 | 40 x 2                    | 10                    | 0,055             |
| K0430.144020 | M14 | 40 | 36,5 | 43 | 35 | 40 x 2                    | 10                    | 0,060             |
| K0430.164020 | M16 | 40 | 36,5 | 43 | 35 | 40 x 2                    | 10                    | 0,060             |
| K0430.204020 | M20 | 40 | 36,5 | 43 | 35 | 40 x 2                    | 10                    | 0,069             |
| K0430.104025 | M10 | 40 | 35,5 | 43 | 35 | 40 x 2,5                  | 10                    | 0,055             |
| K0430.124025 | M12 | 40 | 35,5 | 43 | 35 | 40 x 2,5                  | 10                    | 0,055             |
| K0430.144025 | M14 | 40 | 35,5 | 43 | 35 | 40 x 2,5                  | 10                    | 0,060             |
| K0430.164025 | M16 | 40 | 35,5 | 43 | 35 | 40 x 2,5                  | 10                    | 0,060             |
| K0430.204025 | M20 | 40 | 35,5 | 43 | 35 | 40 x 2,5                  | 10                    | 0,069             |
| K0430.104030 | M10 | 40 | 34,5 | 43 | 35 | 40 x 3                    | 10                    | 0,055             |
| K0430.124030 | M12 | 40 | 34,5 | 43 | 35 | 40 x 3                    | 10                    | 0,055             |
| K0430.144030 | M14 | 40 | 34,5 | 43 | 35 | 40 x 3                    | 10                    | 0,060             |
| K0430.164030 | M16 | 40 | 34,5 | 43 | 35 | 40 x 3                    | 10                    | 0,060             |
| K0430.204030 | M20 | 40 | 34,5 | 43 | 35 | 40 x 3                    | 10                    | 0,069             |

## Screw-in plugs

for square tubes



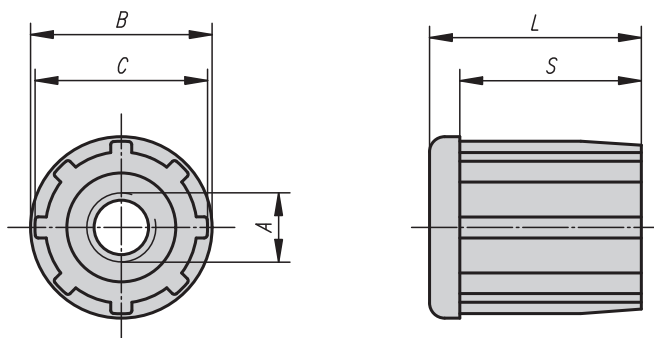
## KIPP Screw-in plugs for square tubes

| Order No.    | A   | B  | C    | L  | S  | Suitable for square tubes | Load capacity max. kN | Approx. weight kg |
|--------------|-----|----|------|----|----|---------------------------|-----------------------|-------------------|
| K0430.104040 | M10 | 40 | 32,5 | 43 | 35 | 40 x 4                    | 10                    | 0,055             |
| K0430.124040 | M12 | 40 | 32,5 | 43 | 35 | 40 x 4                    | 10                    | 0,055             |
| K0430.144040 | M14 | 40 | 32,5 | 43 | 35 | 40 x 4                    | 10                    | 0,060             |
| K0430.164040 | M16 | 40 | 32,5 | 43 | 35 | 40 x 4                    | 10                    | 0,060             |
| K0430.204040 | M20 | 40 | 32,5 | 43 | 35 | 40 x 4                    | 10                    | 0,069             |
| K0430.125015 | M12 | 50 | 47,5 | 55 | 44 | 50 x 1,5                  | 8                     | 0,084             |
| K0430.145015 | M14 | 50 | 47,5 | 55 | 44 | 50 x 1,5                  | 8                     | 0,092             |
| K0430.165015 | M16 | 50 | 47,5 | 55 | 44 | 50 x 1,5                  | 8                     | 0,093             |
| K0430.205015 | M20 | 50 | 47,5 | 55 | 44 | 50 x 1,5                  | 8                     | 0,101             |
| K0430.125020 | M12 | 50 | 46,5 | 55 | 44 | 50 x 2                    | 12                    | 0,084             |
| K0430.145020 | M14 | 50 | 46,5 | 55 | 44 | 50 x 2                    | 12                    | 0,092             |
| K0430.165020 | M16 | 50 | 46,5 | 55 | 44 | 50 x 2                    | 12                    | 0,093             |
| K0430.205020 | M20 | 50 | 46,5 | 55 | 44 | 50 x 2                    | 12                    | 0,101             |
| K0430.125025 | M12 | 50 | 45,5 | 55 | 44 | 50 x 2,5                  | 12                    | 0,084             |
| K0430.145025 | M14 | 50 | 45,5 | 55 | 44 | 50 x 2,5                  | 12                    | 0,092             |
| K0430.165025 | M16 | 50 | 45,5 | 55 | 44 | 50 x 2,5                  | 12                    | 0,093             |
| K0430.205025 | M20 | 50 | 45,5 | 55 | 44 | 50 x 2,5                  | 12                    | 0,101             |
| K0430.125030 | M12 | 50 | 44,5 | 55 | 44 | 50 x 3                    | 12                    | 0,085             |
| K0430.145030 | M14 | 50 | 44,5 | 55 | 44 | 50 x 3                    | 12                    | 0,087             |
| K0430.165030 | M16 | 50 | 44,5 | 55 | 44 | 50 x 3                    | 12                    | 0,090             |
| K0430.205030 | M20 | 50 | 44,5 | 55 | 44 | 50 x 3                    | 12                    | 0,093             |
| K0430.125040 | M12 | 50 | 42,5 | 55 | 44 | 50 x 4                    | 12                    | 0,091             |
| K0430.145040 | M14 | 50 | 42,5 | 55 | 44 | 50 x 4                    | 12                    | 0,092             |
| K0430.165040 | M16 | 50 | 42,5 | 55 | 44 | 50 x 4                    | 12                    | 0,094             |
| K0430.205040 | M20 | 50 | 42,5 | 55 | 44 | 50 x 4                    | 12                    | 0,102             |
| K0430.146020 | M14 | 60 | 56,5 | 55 | 45 | 60 x 2                    | 12                    | 0,118             |
| K0430.166020 | M16 | 60 | 56,5 | 55 | 45 | 60 x 2                    | 12                    | 0,132             |
| K0430.206020 | M20 | 60 | 56,5 | 55 | 45 | 60 x 2                    | 12                    | 0,134             |
| K0430.146030 | M14 | 60 | 54,5 | 55 | 45 | 60 x 3                    | 12                    | 0,122             |
| K0430.166030 | M16 | 60 | 54,5 | 55 | 45 | 60 x 3                    | 12                    | 0,123             |
| K0430.206030 | M20 | 60 | 54,5 | 55 | 45 | 60 x 3                    | 12                    | 0,124             |
| K0430.146040 | M14 | 60 | 52,5 | 55 | 45 | 60 x 4                    | 12                    | 0,119             |
| K0430.166040 | M16 | 60 | 52,5 | 55 | 45 | 60 x 4                    | 12                    | 0,121             |
| K0430.206040 | M20 | 60 | 52,5 | 55 | 45 | 60 x 4                    | 12                    | 0,125             |



## Screw-in plugs

for tubes



**Material:**

Screw-in plugs, glass-fibre reinforced thermoplastic.  
Threaded insert, brass.

**Surface finish:**

Plug black.  
Threaded insert nickel-plated.

**Sample order:**

K0431.103010

**Note:**

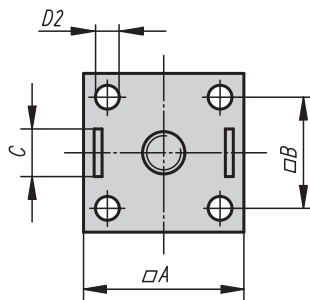
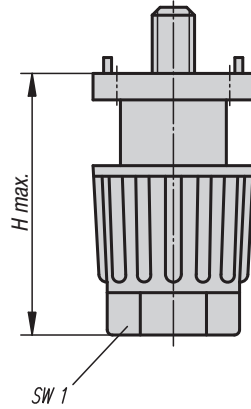
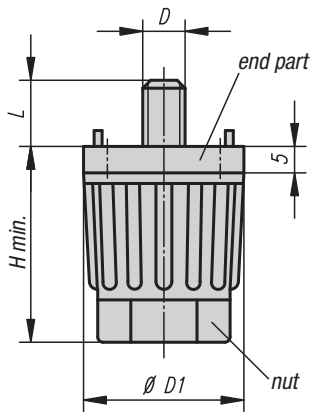
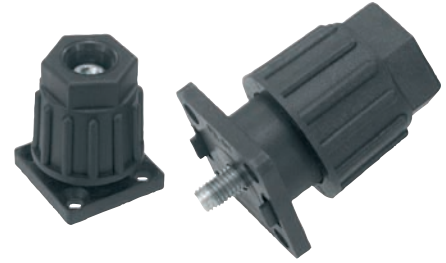
Screw-in plugs are used for easy mounting of swivel feet and swivel pads to tubes.

### KIPP Screw-in plugs for tubes

| Order No.    | A   | B  | C    | L  | S  | Suitable for tubes | Load capacity max. kN |
|--------------|-----|----|------|----|----|--------------------|-----------------------|
| K0431.103010 | M10 | 30 | 28,4 | 33 | 27 | Ø 30 x 1           | 5                     |
| K0431.123010 | M12 | 30 | 28,4 | 33 | 27 | Ø 30 x 1           | 5                     |
| K0431.143010 | M14 | 30 | 28,4 | 33 | 27 | Ø 30 x 1           | 5                     |
| K0431.163010 | M16 | 30 | 28,4 | 33 | 27 | Ø 30 x 1           | 5                     |
| K0431.103815 | M10 | 38 | 35,5 | 43 | 35 | Ø 38 x 1,5         | 5                     |
| K0431.123815 | M12 | 38 | 35,5 | 43 | 35 | Ø 38 x 1,5         | 5                     |
| K0431.143815 | M14 | 38 | 35,5 | 43 | 35 | Ø 38 x 1,5         | 5                     |
| K0431.163815 | M16 | 38 | 35,5 | 43 | 35 | Ø 38 x 1,5         | 5                     |
| K0431.104215 | M10 | 42 | 39,9 | 43 | 35 | Ø 42,4 x 1,5       | 6                     |
| K0431.124215 | M12 | 42 | 39,9 | 43 | 35 | Ø 42,4 x 1,5       | 6                     |
| K0431.144215 | M14 | 42 | 39,9 | 43 | 35 | Ø 42,4 x 1,5       | 6                     |
| K0431.164215 | M16 | 42 | 39,9 | 43 | 35 | Ø 42,4 x 1,5       | 6                     |
| K0431.204215 | M20 | 42 | 39,9 | 43 | 35 | Ø 42,4 x 1,5       | 6                     |
| K0431.124815 | M12 | 48 | 45,8 | 55 | 44 | Ø 48,3 x 1,5       | 6                     |
| K0431.144815 | M14 | 48 | 45,8 | 55 | 44 | Ø 48,3 x 1,5       | 6                     |
| K0431.164815 | M16 | 48 | 45,8 | 55 | 44 | Ø 48,3 x 1,5       | 6                     |
| K0431.204815 | M20 | 48 | 45,8 | 55 | 44 | Ø 48,3 x 1,5       | 6                     |
| K0431.125015 | M12 | 50 | 48,4 | 55 | 44 | Ø 50,9 x 1,5       | 6                     |
| K0431.145015 | M14 | 50 | 48,4 | 55 | 44 | Ø 50,9 x 1,5       | 6                     |
| K0431.165015 | M16 | 50 | 48,4 | 55 | 44 | Ø 50,9 x 1,5       | 6                     |
| K0431.205015 | M20 | 50 | 48,4 | 55 | 44 | Ø 50,9 x 1,5       | 6                     |

## Height-adjustable equipment feet

for aluminium profiles



**Material, surface finish:**

Housing, glass-fibre reinforced thermoplastic, black. Spindle and washer, galvanized steel.

**Sample order:**

K0432.300806

**Note:**

Equipment feet are particularly suitable for tables and lighter installations. The equipment foot height can be infinitely adjusted by turning the nut by hand or tool. The pins at the bottom centre of the equipment foot secure it against torsion. Equipment feet can be secured on aluminium profiles without costly drilling by using a nut for T-slots.

Side assembly in profile  
no drilling necessary by using a T-slot nut



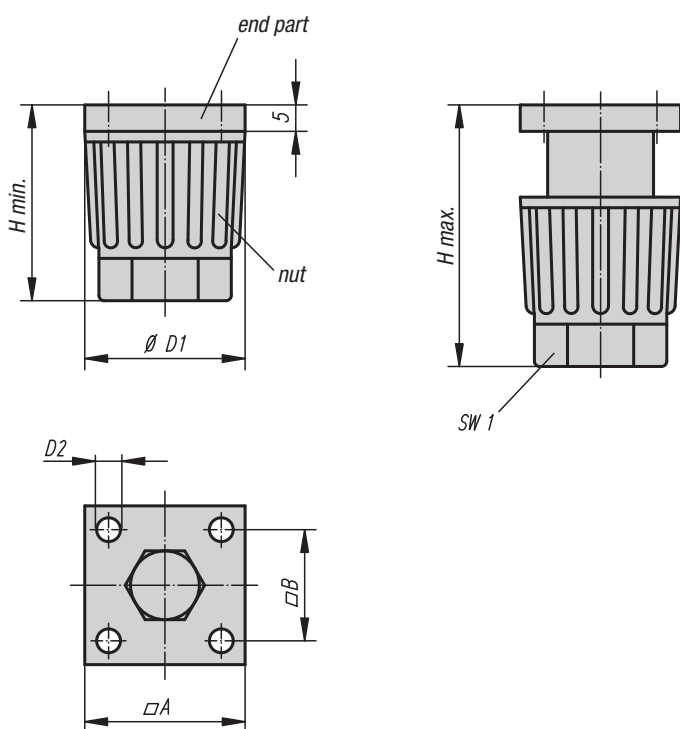
Head end assembly



### KIPP Height-adjustable equipment feet for aluminium profiles

| Order No.    | A<br>for<br>aluminium profile | B    | C<br>for slot | D  | D1 | D2<br>for<br>countersunk screw | H<br>min. - max. | L  | SW1 | Load capacity<br>max. kN | Approx.<br>weight<br>kg |
|--------------|-------------------------------|------|---------------|----|----|--------------------------------|------------------|----|-----|--------------------------|-------------------------|
| K0432.300806 | 30                            | 20,5 | 8             | M6 | 30 | M4                             | 35-50            | 14 | 22  | 1,5                      | 0,040                   |
| K0432.300808 | 30                            | 20,5 | 8             | M8 | 30 | M4                             | 35-50            | 14 | 22  | 1,5                      | 0,040                   |
| K0432.301006 | 30                            | 20,5 | 10            | M6 | 30 | M4                             | 35-50            | 14 | 22  | 1,5                      | 0,040                   |
| K0432.301008 | 30                            | 20,5 | 10            | M8 | 30 | M4                             | 35-50            | 14 | 22  | 1,5                      | 0,040                   |
| K0432.400806 | 40                            | 28   | 8             | M6 | 40 | M6                             | 45-65            | 14 | 30  | 1,5                      | 0,078                   |
| K0432.400808 | 40                            | 28   | 8             | M8 | 40 | M6                             | 45-65            | 14 | 30  | 1,5                      | 0,078                   |
| K0432.401006 | 40                            | 28   | 10            | M6 | 40 | M6                             | 45-65            | 14 | 30  | 1,5                      | 0,078                   |
| K0432.401008 | 40                            | 28   | 10            | M8 | 40 | M6                             | 45-65            | 14 | 30  | 1,5                      | 0,078                   |

## Height-adjustable equipment feet



### Material, surface finish:

Housing, glass-fibre reinforced thermoplastic, black.  
Hexagon screw, galvanized steel.

### Sample order:

K0433.3004

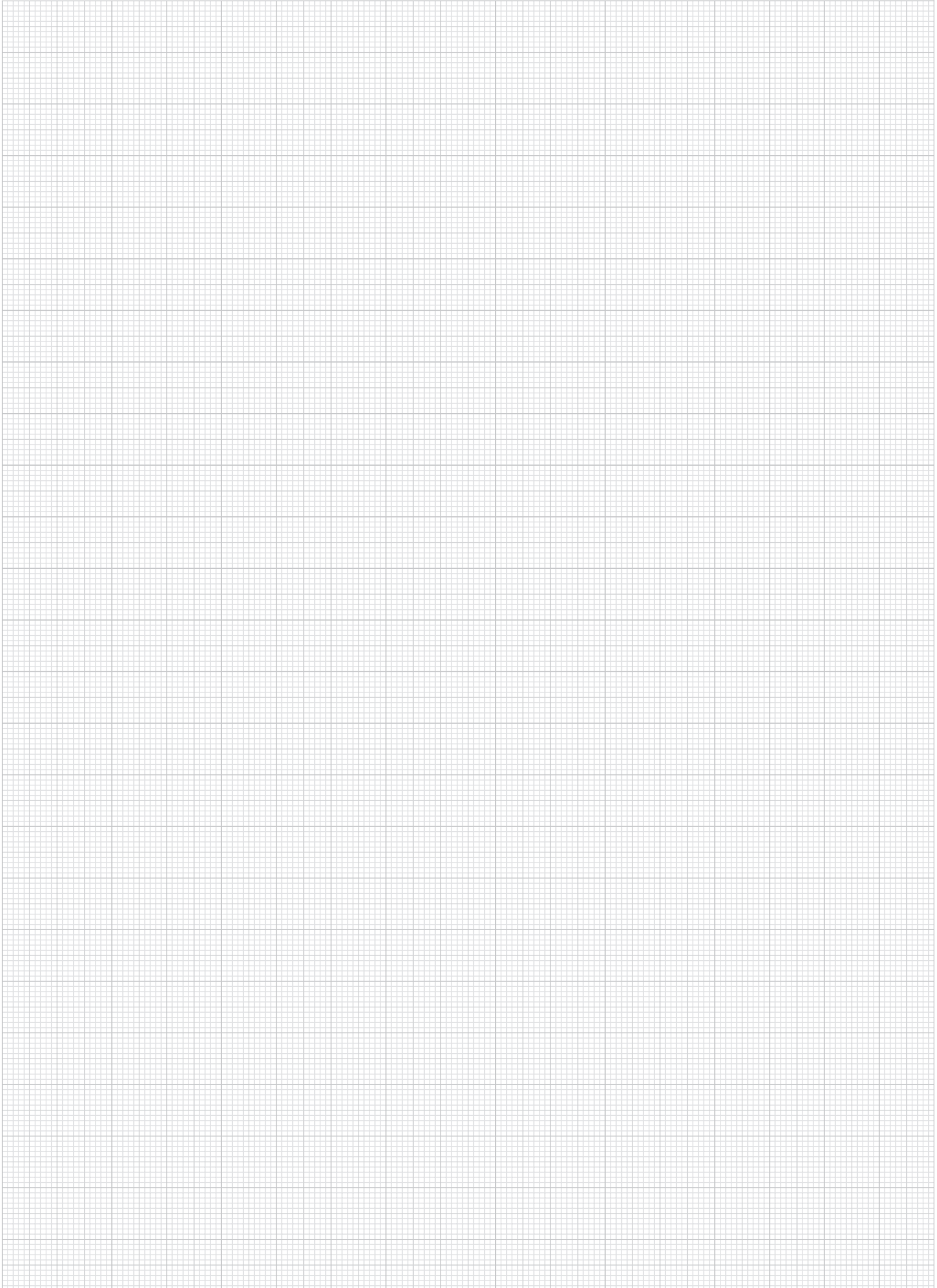
### Note:

With its flat end part and the countersunk hexagon head screw, the equipment foot is ideal for mounting on smooth surfaces.

The equipment foot height can be infinitely adjusted by turning the nut by hand or tool.

### KIPP Height-adjustable equipment feet

| Order No.  | A  | B    | D1 | D2<br>for<br>countersunk screw | H<br>min. - max. | SW1 | Load capacity<br>max. kN | Approx.<br>weight<br>kg |
|------------|----|------|----|--------------------------------|------------------|-----|--------------------------|-------------------------|
| K0433.3004 | 30 | 20,5 | 30 | M4                             | 35-50            | 22  | 1,5                      | 0,045                   |
| K0433.4006 | 40 | 28   | 40 | M6                             | 45-65            | 30  | 1,5                      | 0,081                   |







## Tubular connection elements

Cross clamps, plastic  
**K0472**



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Cross clamps, aluminium  
**K0472**



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Cross clamps, aluminium  
**K0472**



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Cross clamp, plastic  
**K0473**



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Cross clamps, aluminium  
**K0473**



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Cross clamp, plastic  
**K0474**



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Cross clamps, aluminium  
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Angle clamps, plastic  
**K0475**



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Angle clamps, aluminium  
**K0475**



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Angle clamp, plastic  
**K0476**



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Angle clamps, aluminium  
**K0476**



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Angle clamps, aluminium  
**K0476**



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Base clamps, plastic  
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Base clamps, aluminium  
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Base clamp, plastic  
**K0478**



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Base clamps, aluminium  
**K0478**



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Flange clamps, plastic  
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Flange clamps, aluminium  
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## Tubular connection elements

Flange clamps, aluminium  
**K0479**



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Flange clamp, plastic  
**K0480**



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Flange clamps, aluminium  
**K0480**



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Flange clamp, plastic  
**K0481**



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Sleeve clamps, plastic  
**K0483**



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Strap clamps  
with internal tothing, plastic  
**K0484**



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Strap clamps  
with external tothing, plastic  
**K0485**



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Strap clamps  
with internal tothing, plastic  
**K0486**



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Strap clamps  
with internal tothing, plastic  
**K0487**



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Joint clamps without tothing, plastic  
**K0488**



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Joint clamps  
without tothing, aluminium  
**K0488**



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Joint clamps  
without tothing, plastic  
**K0489**



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Joint clamps without tothing,  
aluminium  
**K0489**



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Joint clamps  
without tothing, plastic  
**K0490**



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Joint clamps  
without tothing, aluminium  
**K0490**



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Reducing bushes  
square  
**K0491**



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Reducing bushes  
round  
**K0492**



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Round and square tubes  
**K0493**



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## Tubular connection elements

Tube stoppers  
**K0494**



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Linear units  
**K0495**



Page 390-391

Cross clamp guides  
**K0496**



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Cross clamp guides  
**K0497**



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Flange clamp guides  
**K0498**



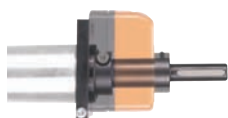
Page 394

Base clamp guides  
**K0499**



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Adapter  
for position indicators  
**K0614**



Page 396

Plug connector  
connecting piece  
**K0615**



Page 398

Plug connector  
right angle  
**K0616**



Page 399

Plug connector  
T-piece  
**K0617**



Page 400

Plug connector  
cross piece  
**K0618**



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Plug connector  
angle with outlet  
**K0619**



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Plug connector  
T-piece with outlet  
**K0620**



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Plug connector  
cross with outlet  
**K0621**



Page 404

Plug connector  
star  
**K0622**



Page 405

Plug connector  
angle with outlet and thread  
**K0623**



Page 406

Plug connector  
T-piece with outlet and thread  
**K0624**



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Plug connector  
leg  
**K0625**



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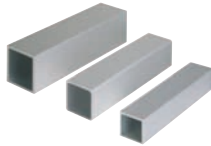
## Tubular connection elements

Plug connector  
leg with one outlet  
**K0626**



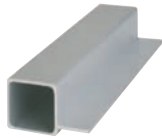
Page 409

Square tubes  
**K0627**



Page 410

Square tubes  
with a bridge  
**K0628**



Page 411

Screw connection for dial gauges  
with clamping shaft  $\varnothing 8$   
**K0629**



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# Technical information on the tubular connection system in thermoplastic



The tubular connection system stands out particularly thanks to its attractive design and a special reducing bush concept.

This unique concept and the associated clamping of the most varied diameters and tube cross-sections permit a flexibility never before achieved.

Just by replacing the bush, an existing tubular construction can be transformed into one with a different diameter or cross-section.

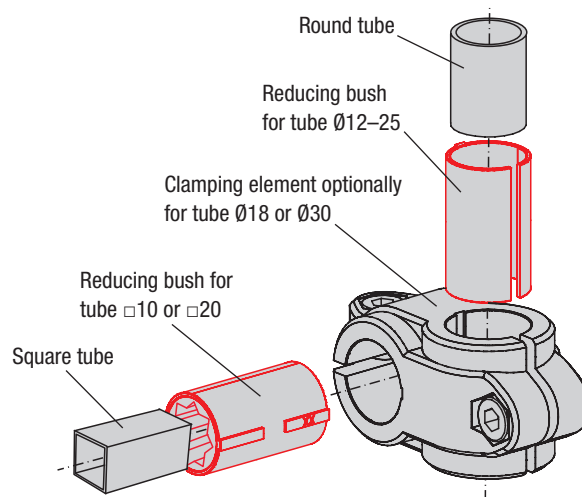
### Benefits:

- Only one clamping element per construction type
- Tube reduction (from  $\varnothing 12-30$  or  $\square 10-25$ ) by means of different reducing bushes for round tubes or square tubes
- Tube diameter indication on each reducing bush
- Bushes torsion prevention inside the clamping element

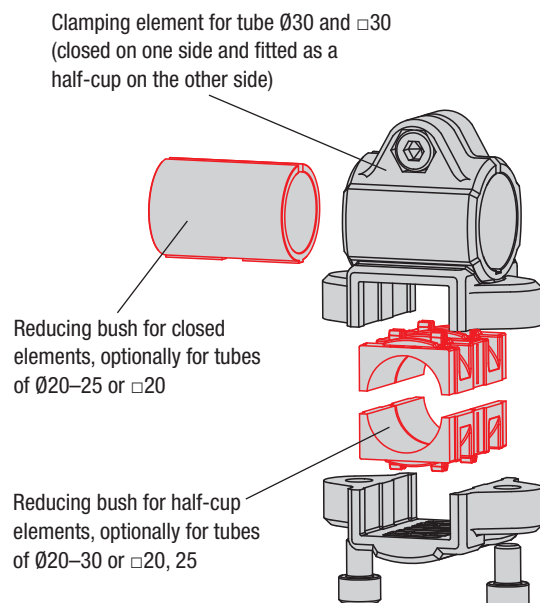
### Note:

The clamping elements are supplied as standard with a DIN 7984 screw and a DIN 985 self-locking nut. Clamp levers in plastic for fixing available on request.

## "Closed" system (one-piece basic form)



## "Half-cup" elements (two-pieces basic form)



## Cross clamps, plastic



**Material, surface finish:**

Black thermoplastic; socket head screw to DIN 7984 and hexagon nut to DIN 985 in galvanized steel

**Sample order:**

K0472.1818

**Note:**

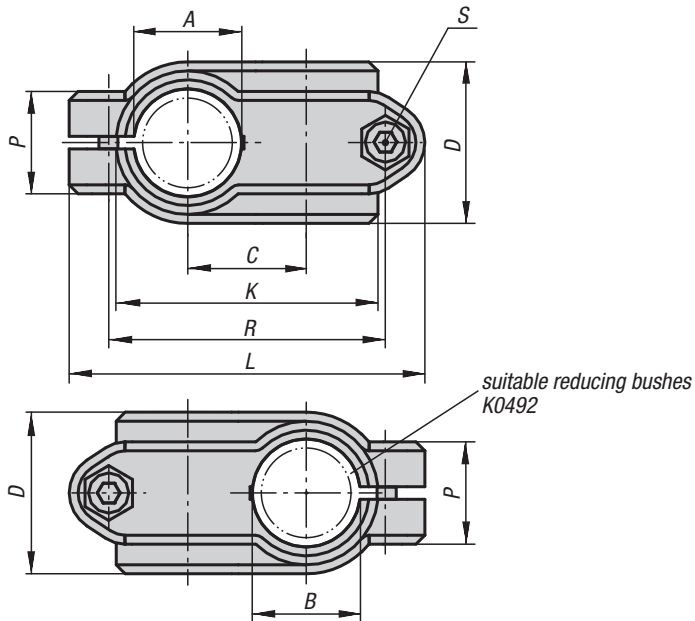
The basic size for round tubes is Ø18 mm or Ø30 mm. If smaller tubes are to be clamped or converted from round to square tubes, these can be adjusted to the required fitting by means of reducing bushes K0492.

**On request:**

Clamp levers in plastic for fixing.

**Accessory:**

- Reducing bushes K0492
- Round and square tubes K0493



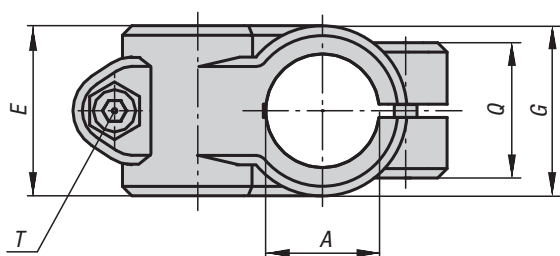
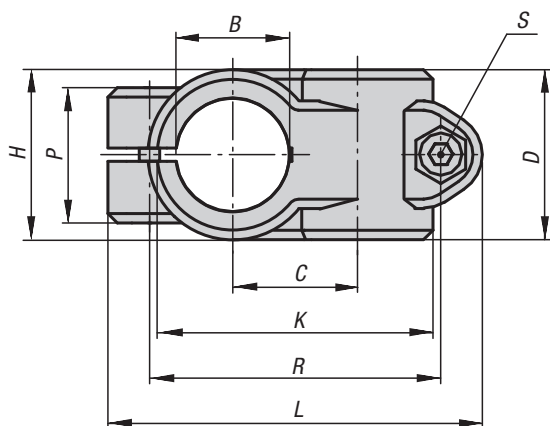
**KIPP Cross clamps, plastic**

| Order No.  | A  | B  | C  | D  | K  | L  | P    | R  | S     | Approx. weight kg |
|------------|----|----|----|----|----|----|------|----|-------|-------------------|
| K0472.1818 | 18 | 18 | 20 | 30 | 48 | 63 | 21   | 48 | M6x18 | 0,050             |
| K0472.3030 | 30 | 30 | 33 | 45 | 72 | 99 | 28,5 | 77 | M8x25 | 0,132             |

## Application using tube connection



## Cross clamps, aluminium



**Material, surface finish:**

Cast aluminium, vibration ground; socket head screw to DIN 7984 and hexagon nut to DIN 985 in galvanized steel

**Sample order:**

K0472.51818

**On request:**

Clamp levers for fixing.

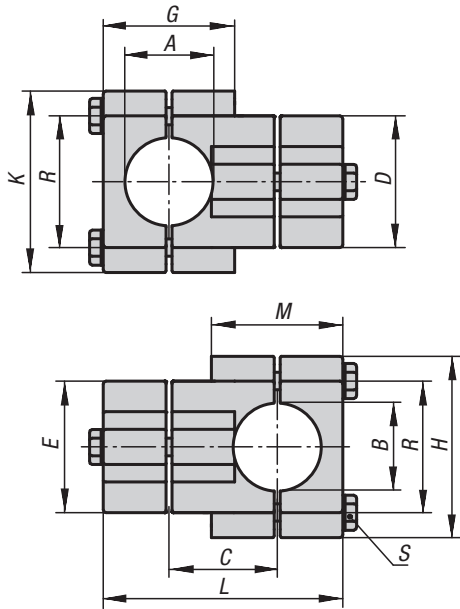
**Accessory:**

- Round and square tubes K0493

### KIPP Cross clamps, aluminium

| Order No.   | A     | B     | C  | D    | E    | G  | H    | K    | L   | P  | Q  | R   | S      | T      | Approx. weight kg |
|-------------|-------|-------|----|------|------|----|------|------|-----|----|----|-----|--------|--------|-------------------|
| K0472.51212 | 12,1  | 12,1  | 20 | 25,5 | 25,5 | -  | -    | 43,5 | 66  | 23 | 23 | 51  | M6x20  | M6x20  | 0,080             |
| K0472.51414 | 14,1  | 14,1  | 20 | 25,5 | 25,5 | -  | -    | 43,5 | 66  | 22 | 22 | 51  | M6x20  | M6x18  | 0,070             |
| K0472.51515 | 15,1  | 15,1  | 20 | 25,5 | 25,5 | -  | -    | 43,5 | 66  | 22 | 22 | 51  | M6x20  | M6x18  | 0,069             |
| K0472.51616 | 16,1  | 16,1  | 20 | 25,5 | 25,5 | -  | -    | 43,5 | 66  | 22 | 22 | 51  | M6x20  | M6x18  | 0,066             |
| K0472.51818 | 18,1  | 18,1  | 20 | 25,5 | 25,5 | -  | -    | 43,5 | 66  | 23 | 23 | 51  | M6x20  | M6x18  | 0,061             |
| K0472.52014 | 20,1  | 14,1  | 27 | 40   | 33   | 40 | 26   | 60   | 84  | 21 | 33 | 65  | M8x25  | M6x18  | 0,172             |
| K0472.52020 | 20,1  | 20,1  | 33 | 40   | 40   | -  | -    | 73   | 99  | 33 | 33 | 78  | M8x25  | M8x25  | 0,252             |
| K0472.52514 | 25,1  | 14,1  | 27 | 40   | 33   | 40 | 26   | 60   | 84  | 21 | 33 | 65  | M8x25  | M6x18  | 0,154             |
| K0472.52525 | 25,1  | 25,1  | 33 | 40   | 40   | -  | -    | 73   | 99  | 33 | 33 | 78  | M8x25  | M8x25  | 0,217             |
| K0472.53014 | 30,1  | 14,1  | 27 | 40   | 33   | 40 | 26   | 60   | 84  | 21 | 33 | 65  | M8x25  | M6x16  | 0,132             |
| K0472.53030 | 30,1  | 30,1  | 33 | 40   | 40   | -  | -    | 73   | 99  | 33 | 33 | 78  | M8x25  | M8x25  | 0,173             |
| K0472.54020 | 40,2  | 20,2  | 36 | 50   | 40   | 55 | 34,5 | 87   | 109 | 33 | 40 | 87  | M10x30 | M8x25  | 0,265             |
| K0472.54030 | 40,2  | 30,1  | 45 | 65   | 65   | 65 | 49   | 98   | 137 | 44 | 44 | 109 | M10x30 | M10x30 | 0,660             |
| K0472.54040 | 40,17 | 40,17 | 45 | 60   | 60   | -  | -    | 100  | 137 | 40 | 40 | 110 | M10x30 | M10x30 | 0,519             |
| K0472.55030 | 50,2  | 30,1  | 45 | 65   | 65   | 65 | 49   | 98   | 137 | 44 | 44 | 109 | M10x35 | M10x35 | 0,538             |
| K0472.55050 | 50,2  | 50,2  | 54 | 70   | 70   | -  | -    | 118  | 154 | 45 | 45 | 128 | M10x35 | M10x35 | 0,617             |

## Cross clamps, aluminium



**Material, surface finish:**

Cast aluminium, vibration ground, clamping screw with nut in galvanized steel

**Sample order:**

K0472.523030

**On request:**

Clamp levers for fixing and further diameters.

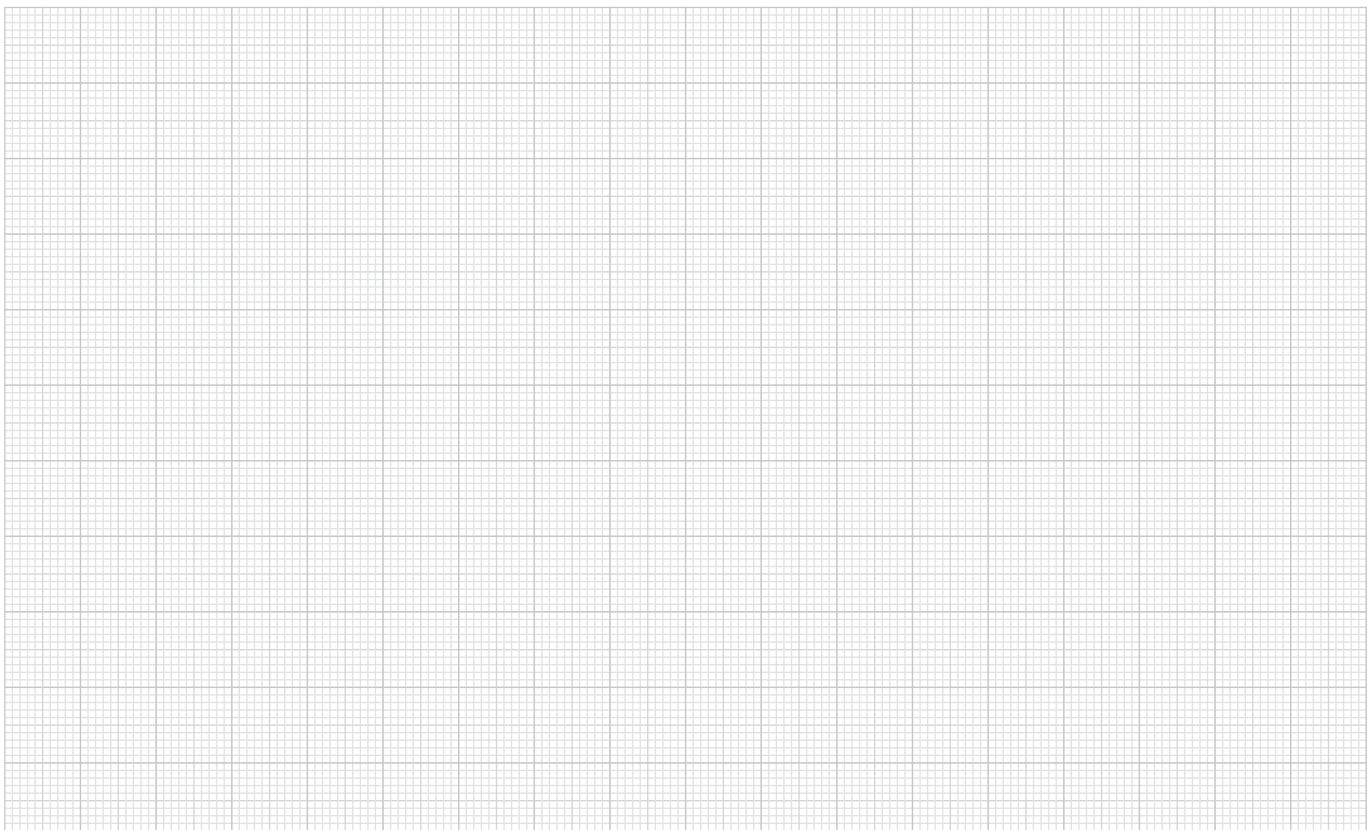
**Accessory:**

- Round and square tubes K0493

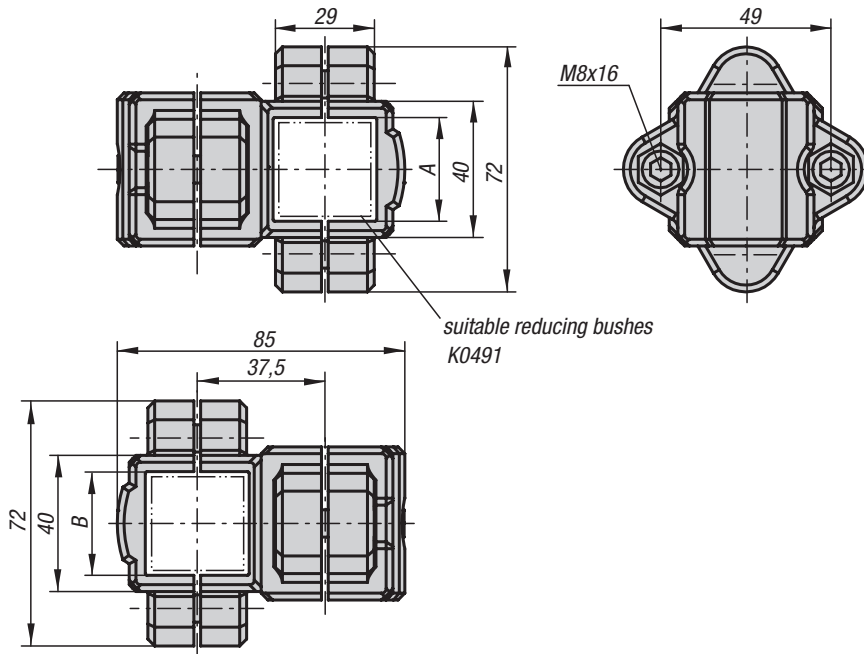
**KIPP Cross clamps, aluminium**

| Order No.    | A    | B    | C  | D  | E  | G  | H  | K  | L   | M  | R  | S     | Approx. weight kg |
|--------------|------|------|----|----|----|----|----|----|-----|----|----|-------|-------------------|
| K0472.523030 | 30,2 | 30,2 | 38 | 45 | 45 | 44 | 62 | 62 | 83  | 44 | 46 | M8x45 | 0,352             |
| K0472.524040 | 40,2 | 40,2 | 50 | 60 | 60 | 60 | 75 | 75 | 110 | 60 | 57 | M8x60 | 0,645             |

## Notes



## Cross clamp, plastic



**Material, surface finish:**

Black thermoplastic; socket head screw to DIN 7984 and hexagon nut to DIN 985 in galvanized steel

**Sample order:**

K0473.3030

**Note:**

With the cross clamp square tubes 30 mm can be clamped. If smaller tubes are to be clamped or converted from square to round tubes, these can be adjusted to the required fitting by means of reducing bushes K0491.

**On request:**

Clamp levers in plastic for fixing.

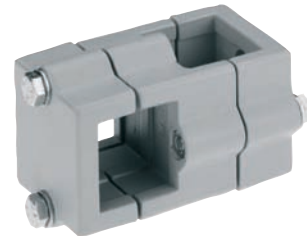
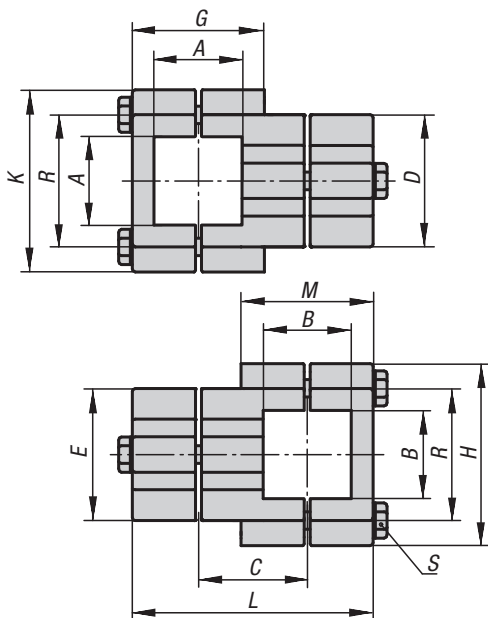
**Accessory:**

- Reducing bushes K0491
- Round and square tubes K0493

**KIPP Cross clamp, plastic**

| Order No.  | A  | B  | Approx. weight kg |
|------------|----|----|-------------------|
| K0473.3030 | 30 | 30 | 0,171             |

## Cross clamps, aluminium



**Material, surface finish:**

Cast aluminium, vibration ground; clamping screw with nut in galvanized steel

**Sample order:**

K0473.523030

**On request:**

Clamp levers for fixing and further diameters.

**Accessory:**

- Round and square tubes K0493

**KIPP Cross clamps, aluminium**

| Order No.    | A    | B    | C  | D  | E  | G  | H  | K  | L   | M  | R  | S     | Approx. weight kg |
|--------------|------|------|----|----|----|----|----|----|-----|----|----|-------|-------------------|
| K0473.523030 | 30,2 | 30,2 | 38 | 45 | 45 | 44 | 62 | 62 | 83  | 44 | 46 | M8x45 | 0,321             |
| K0473.524040 | 40,3 | 40,3 | 50 | 60 | 60 | 60 | 75 | 75 | 110 | 60 | 57 | M8x60 | 0,584             |

## Cross clamp, plastic



**Material, surface finish:**

Black thermoplastic; socket head screw to DIN 7984 and hexagon nut to DIN 985 in galvanized steel

**Sample order:**

K0474.3030

**Note:**

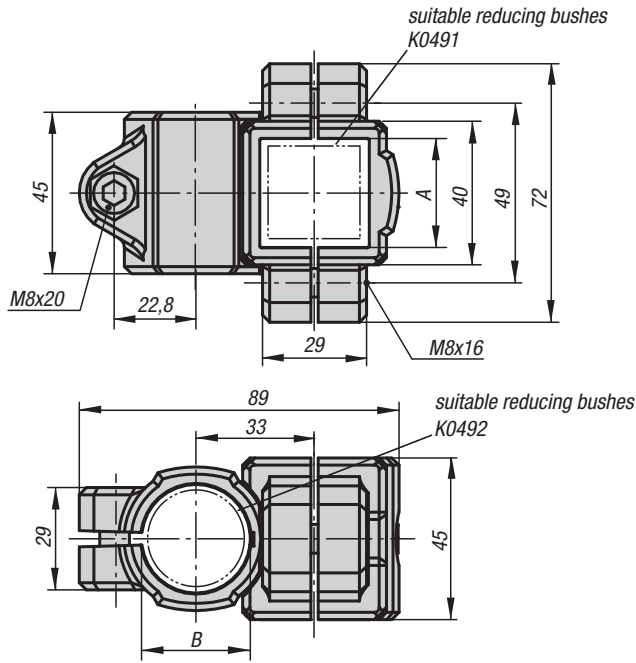
With the cross clamp square and round tubes 30 mm can be clamped. If smaller tubes are to be clamped or optionally converted from round to square tubes, these can be adjusted to the required fitting by means of reducing bushes K0491 or K0492.

**On request:**

Clamp levers in plastic for fixing.

**Accessory:**

- Reducing bushes K0491 and K0492
- Round and square tubes K0493



**KIPP Cross clamp, plastic**

| Order No.  | A  | B  | Approx. weight kg |
|------------|----|----|-------------------|
| K0474.3030 | 30 | 30 | 0,117             |

## Cross clamps, aluminium



**Material, surface finish:**

Cast aluminium, vibration ground; clamping screw with nut in galvanized steel

**Sample order:**

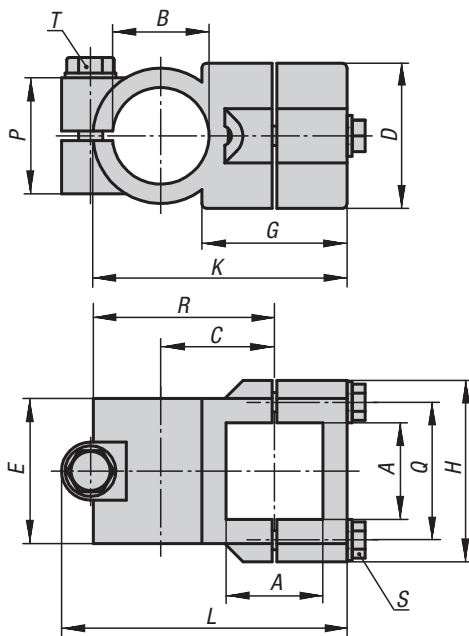
K0474.53030

**On request:**

Clamp levers for fixing and further diameters.

**Accessory:**

- Round and square tubes K0493

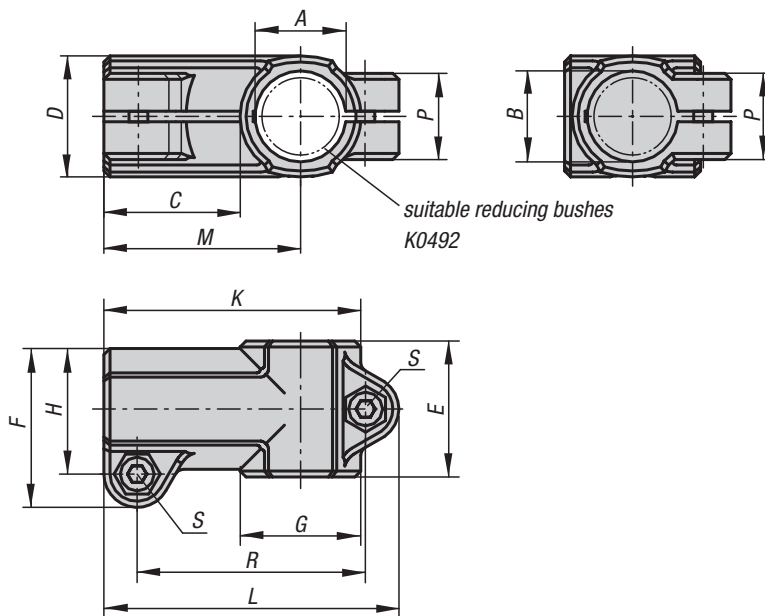


**KIPP Cross clamps, aluminium**

| Order No.   | A    | B    | C  | D  | E  | G  | H  | K    | L   | P  | Q  | R  | S     | T        | Approx. weight kg |
|-------------|------|------|----|----|----|----|----|------|-----|----|----|----|-------|----------|-------------------|
| K0474.53030 | 30,2 | 30,1 | 33 | 45 | 45 | 40 | 62 | 74,5 | 85  | 33 | 46 | 55 | M8x35 | M8 x 35  | 0,245             |
| K0474.54040 | 40,3 | 40,2 | 47 | 60 | 60 | 60 | 75 | 105  | 117 | 48 | 57 | 75 | M8x45 | M10 x 50 | 0,525             |



## Angle clamps, plastic



**Material, surface finish:**

Black thermoplastic; socket head screw to DIN 7984 and hexagon nut to DIN 985 in galvanized steel

**Sample order:**

K0475.1818

**Note:**

The basic size for round tubes is Ø18 mm or Ø30 mm. If smaller tubes are to be clamped or converted from round to square tubes, these can be adjusted to the required fitting by means of reducing bushes K0492.

**On request:**

Clamp levers in plastic for fixing.

**Accessory:**

- Reducing bushes K0492
- Round and square tubes K0493

**KIPP Angle clamps, plastic**

| Order No.  | A  | B  | C    | D  | E  | F    | G  | H    | K    | L    | M  | P    | R    | S     | Approx. weight kg |
|------------|----|----|------|----|----|------|----|------|------|------|----|------|------|-------|-------------------|
| K0475.1818 | 18 | 18 | 30,5 | 25 | 30 | 34   | 25 | 26,5 | 55,5 | 64,5 | 43 | 21   | 49,5 | M6x18 | 0,044             |
| K0475.3030 | 30 | 30 | 45   | 40 | 45 | 52,5 | 40 | 41,5 | 85   | 97,5 | 65 | 28,5 | 75,5 | M8x25 | 0,115             |

## Angle clamps, aluminium



**Material, surface finish:**

Cast aluminium, vibration ground; socket head screw to DIN 7984 and hexagon nut to DIN 985 in galvanized steel

**Sample order:**

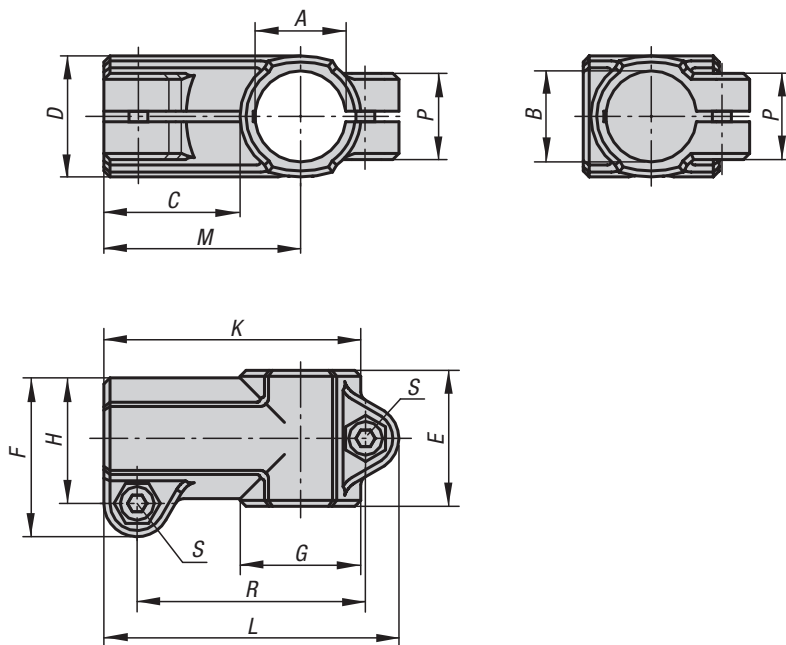
K0475.51818

**On request:**

Clamp levers for fixing and further diameters.

**Accessory:**

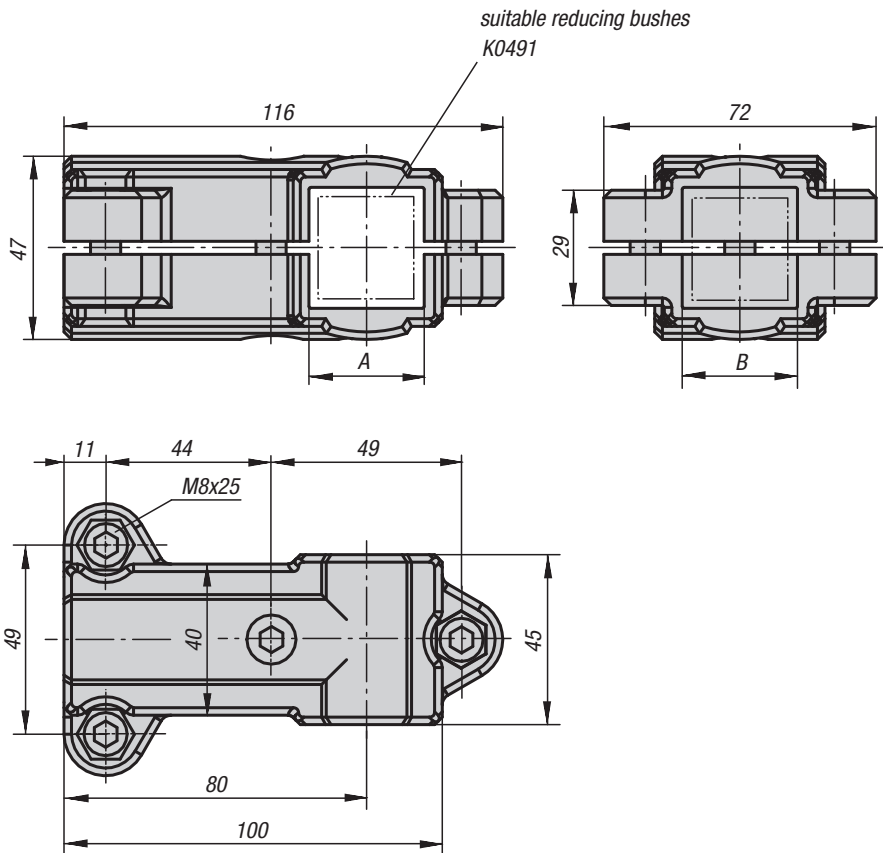
- Round and square tubes K0493



### KIPP Angle clamps, aluminium

| Order No.   | A     | B     | C  | D  | E  | F    | G  | H    | K   | L    | M  | P  | R    | S      | Approx. weight kg |
|-------------|-------|-------|----|----|----|------|----|------|-----|------|----|----|------|--------|-------------------|
| K0475.51212 | 12,1  | 12,1  | 30 | 26 | 32 | 37,5 | 26 | 30   | 56  | 67,5 | 43 | 21 | 52   | M6x20  | 0,097             |
| K0475.51414 | 14,1  | 14,1  | 30 | 26 | 32 | 37,5 | 26 | 30   | 56  | 67,5 | 43 | 21 | 52   | M6x20  | 0,090             |
| K0475.51515 | 15,1  | 15,1  | 30 | 26 | 32 | 37,5 | 26 | 30   | 56  | 67,5 | 43 | 21 | 52   | M6x20  | 0,087             |
| K0475.51616 | 16,1  | 16,1  | 30 | 26 | 32 | 37,5 | 26 | 30   | 56  | 67,5 | 43 | 21 | 52   | M6x20  | 0,083             |
| K0475.51818 | 18,1  | 18,1  | 30 | 26 | 32 | 37,5 | 26 | 30   | 56  | 67,5 | 43 | 21 | 52   | M6x20  | 0,075             |
| K0475.52020 | 20,1  | 20,1  | 40 | 40 | 45 | 53   | 40 | 42,5 | 80  | 93   | 60 | 33 | 72,5 | M8x25  | 0,279             |
| K0475.52525 | 25,1  | 25,1  | 40 | 40 | 45 | 53   | 40 | 42,5 | 80  | 93   | 60 | 33 | 72,5 | M8x25  | 0,240             |
| K0475.53030 | 30,1  | 30,1  | 40 | 40 | 45 | 53   | 40 | 42,5 | 80  | 93   | 60 | 33 | 72,5 | M8x25  | 0,193             |
| K0475.54040 | 40,2  | 40,2  | 60 | 56 | 60 | 74   | 56 | 60   | 115 | 133  | 88 | 40 | 107  | M10x30 | 0,526             |
| K0475.55050 | 50,22 | 50,22 | 63 | 66 | 70 | 85   | 66 | 71   | 131 | 150  | 99 | 45 | 122  | M10x35 | 0,725             |

Angle clamp, plastic



**Material, surface finish:**

Black thermoplastic; socket head screw to DIN 7984 and hexagon nut to DIN 985 in galvanized steel

**Sample order:**

K0476.3030

**Note:**

With the angle clamp square tubes 30 mm can be clamped. If smaller tubes are to be clamped or converted from square to round tubes, these can be adjusted to the required fitting by means of reducing bushes K0491.

**On request:**

Clamp levers in plastic for fixing.

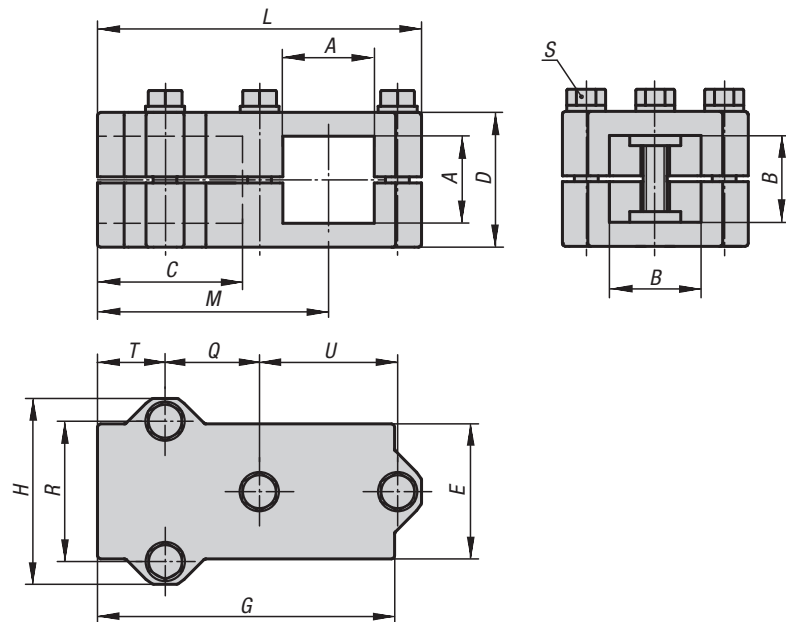
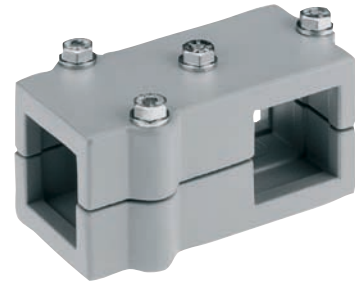
**Accessory:**

- Reducing bushes K0491
- Round and square tubes K0493

**KIPP Angle clamp, plastic**

| Order No.  | A  | B  | Approx. weight kg |
|------------|----|----|-------------------|
| K0476.3030 | 30 | 30 | 0,194             |

## Angle clamps, aluminium



**Material, surface finish:**

Cast aluminium, vibration ground;  
clamping screw with nut in galvanized steel

**Sample order:**

K0476.523030

**On request:**

Clamp levers for fixing and further dimensions for square tubes.

**Accessory:**

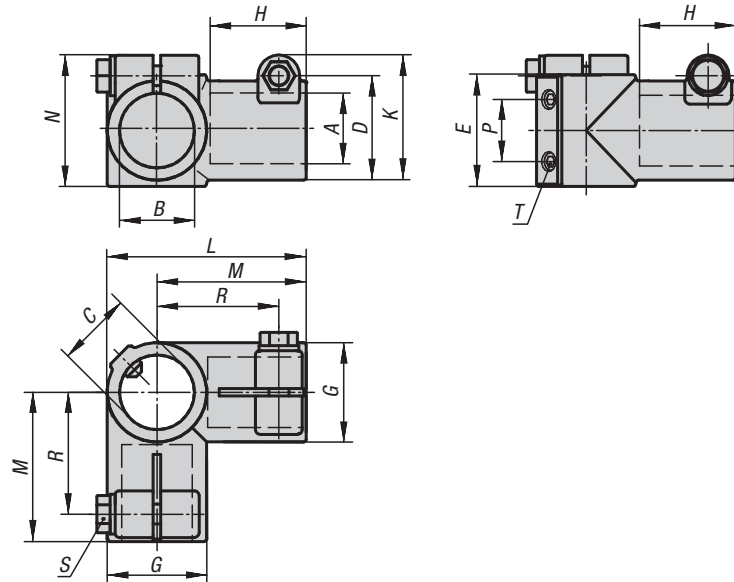
- Round and square tubes K0493



### KIPP Angle clamps, aluminium

| Order No.    | A    | B    | C  | D  | E  | G   | H  | L   | M  | Q    | R  | S     | T  | U  | Approx. weight kg |
|--------------|------|------|----|----|----|-----|----|-----|----|------|----|-------|----|----|-------------------|
| K0476.523030 | 30,3 | 30,3 | 46 | 45 | 45 | 100 | 62 | 108 | 77 | 31,5 | 46 | M8x45 | 23 | 46 | 0,361             |
| K0476.524040 | 40,4 | 40,4 | 60 | 60 | 60 | 129 | 75 | 136 | 99 | 40   | 57 | M8x60 | 30 | 57 | 0,722             |

## Angle clamps, aluminium



**Material, surface finish:**

Cast aluminium, vibration ground, clamping screw with nut in galvanized steel

**Sample order:**

K0476.530

**On request:**

Clamp levers for fixing and further diameters.

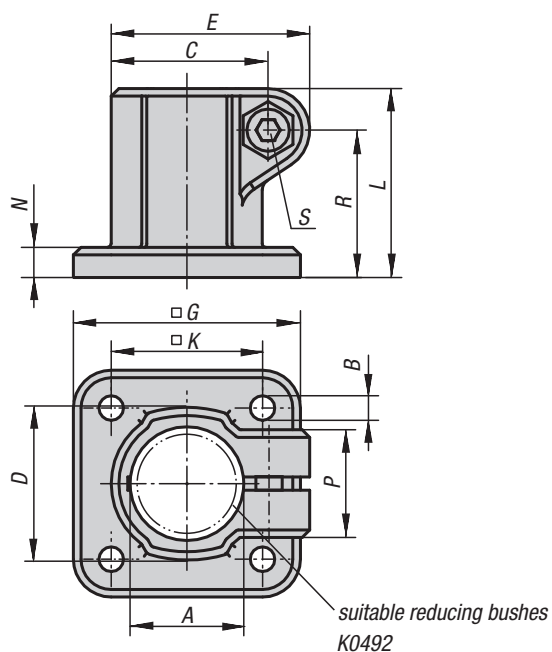
**Accessory:**

- Round and square tubes K0493

### KIPP Angle clamps, aluminium

| Order No. | A    | B    | C    | D  | E  | G  | H  | K  | L   | M   | N  | P  | R  | S      | T      | Approx. weight kg |
|-----------|------|------|------|----|----|----|----|----|-----|-----|----|----|----|--------|--------|-------------------|
| K0476.530 | 30,1 | 30,1 | 30   | 40 | 45 | 40 | 35 | 51 | 80  | 60  | 53 | 25 | 49 | M8x35  | M8x15  | 0,250             |
| K0476.540 | 40,2 | 40,2 | 40   | 56 | 60 | 56 | 58 | 71 | 116 | 88  | 73 | 35 | 75 | M10x30 | M8x10  | 0,769             |
| K0476.550 | 50,2 | 50,2 | 50,2 | 66 | 70 | 66 | 70 | 78 | 136 | 108 | 80 | 40 | 90 | M10x35 | M10x12 | 0,996             |

## Base clamps, plastic



**Material, surface finish:**

Black thermoplastic; socket head screw to DIN 7984 and hexagon nut to DIN 985 in galvanized steel

**Sample order:**

K0477.18

**Note:**

The basic size for round tubes is  $\varnothing 18$  mm or  $\varnothing 30$  mm. If smaller tubes are to be clamped or converted from round to square tubes, these can be adjusted to the required fitting by means of reducing bushes K0492.

**On request:**

Clamp levers in plastic for fixing.

**Accessory:**

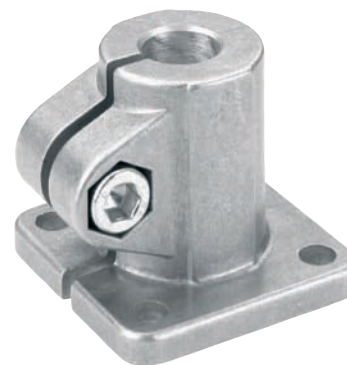
- Reducing bushes K0492
- Round and square tubes K0493



### KIPP Base clamps, plastic

| Order No. | A  | B   | C    | D  | E    | G  | K  | L  | N | P    | R    | S     | Approx. weight kg |
|-----------|----|-----|------|----|------|----|----|----|---|------|------|-------|-------------------|
| K0477.18  | 18 | 5,3 | 26,5 | 26 | 34   | 45 | 30 | 32 | 5 | 21   | 24,5 | M6x18 | 0,030             |
| K0477.30  | 30 | 6,5 | 41,5 | 42 | 52,5 | 60 | 40 | 50 | 8 | 28,5 | 39   | M8x25 | 0,075             |

## Base clamps, aluminium



**Material, surface finish:**

Cast aluminium, vibration ground; socket head screw to DIN 7984 and hexagon nut to DIN 985 in galvanized steel

**Sample order:**

K0477.518

**Note:**

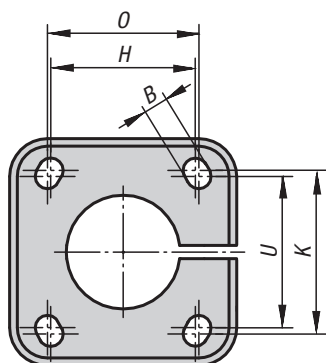
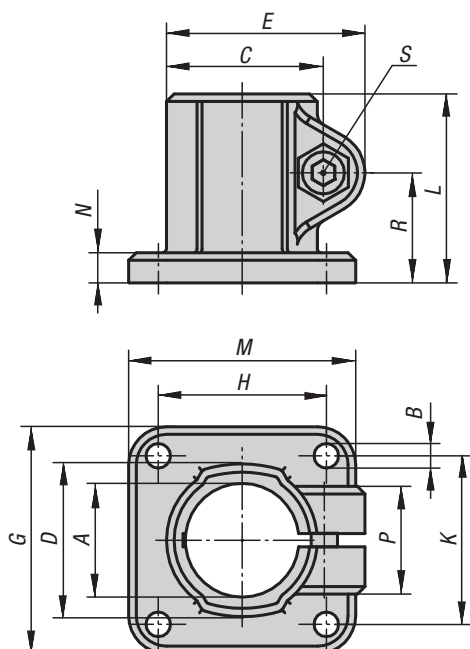
\* Oblong hole

**On request:**

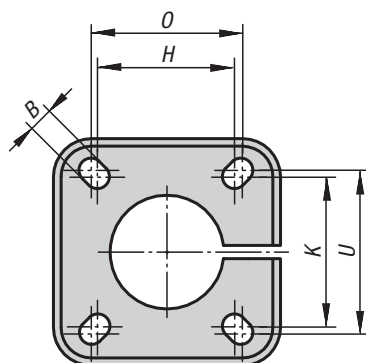
Clamp levers for fixing and further diameters.

**Accessory:**

- Round and square tubes K0493



hole arrangement for Order No. K0477.520 - K0477.530



hole arrangement for Order No. K0477.540, K0477.550

### KIPP Base clamps, aluminium

| Order No. | A     | B     | C    | D  | E    | G   | H  | K  | L  | M   | N  | O  | P  | R    | S      | U  | Approx. weight kg |
|-----------|-------|-------|------|----|------|-----|----|----|----|-----|----|----|----|------|--------|----|-------------------|
| K0477.512 | 12,1  | 5,5   | 29,5 | 26 | 37,5 | 42  | 30 | 30 | 37 | 42  | 5  | -  | 23 | 21   | M6x20  | -  | 0,064             |
| K0477.514 | 14,1  | 5,5   | 29,5 | 26 | 37,5 | 42  | 30 | 30 | 37 | 42  | 5  | -  | 22 | 21   | M6x20  | -  | 0,059             |
| K0477.515 | 15,1  | 5,5   | 29,5 | 26 | 37,5 | 42  | 30 | 30 | 37 | 42  | 5  | -  | 22 | 21   | M6x20  | -  | 0,057             |
| K0477.516 | 16,1  | 5,5   | 29,5 | 26 | 37,5 | 42  | 30 | 30 | 37 | 42  | 5  | -  | 22 | 21   | M6x20  | -  | 0,057             |
| K0477.518 | 18,1  | 5,5   | 29,5 | 26 | 37,5 | 42  | 30 | 30 | 37 | 42  | 5  | -  | 22 | 21   | M6x20  | -  | 0,052             |
| K0477.520 | 20,1  | 6,5*  | 42,5 | 40 | 53   | 60  | 40 | 45 | 50 | 60  | 8  | 42 | 33 | 29   | M8x25  | 42 | 0,193             |
| K0477.525 | 25,1  | 6,5*  | 42,5 | 40 | 53   | 60  | 40 | 45 | 50 | 60  | 8  | 42 | 33 | 29   | M8x25  | 42 | 0,164             |
| K0477.530 | 30,1  | 6,5*  | 42,5 | 40 | 53   | 60  | 40 | 45 | 50 | 60  | 8  | 42 | 33 | 29   | M8x25  | 42 | 0,137             |
| K0477.540 | 40,17 | 8,5*  | 60   | 56 | 74   | 90  | 60 | 60 | 70 | 90  | 10 | 64 | 40 | 40   | M10x30 | 64 | 0,387             |
| K0477.550 | 50,2  | 10,5* | 70   | 66 | 85   | 105 | 74 | 74 | 85 | 105 | 14 | 80 | 45 | 49,5 | M10x35 | 80 | 0,600             |

## Base clamp, plastic



**Material, surface finish:**

Black thermoplastic; socket head screw to DIN 7984 and hexagon nut to DIN 985 in galvanized steel

**Sample order:**

K0478.30

**Note:**

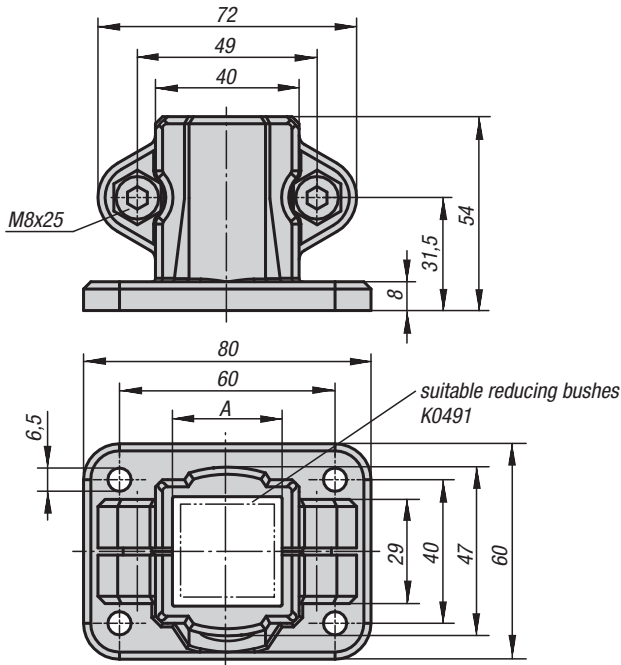
With the base clamp square tubes 30 mm can be clamped. If smaller tubes are to be clamped or converted from square to round tubes, these can be adjusted to the required fitting by means of reducing bushes K0491.

**On request:**

Clamp levers in plastic for fixing.

**Accessory:**

- Reducing bushes K0491
- Round and square tubes K0493



**KIPP Base clamp, plastic**

| Order No. | A  | Approx. weight kg |
|-----------|----|-------------------|
| K0478.30  | 30 | 0,121             |

## Base clamps, aluminium



**Material, surface finish:**

Cast aluminium, vibration ground, clamping screw with nut in galvanized steel

**Sample order:**

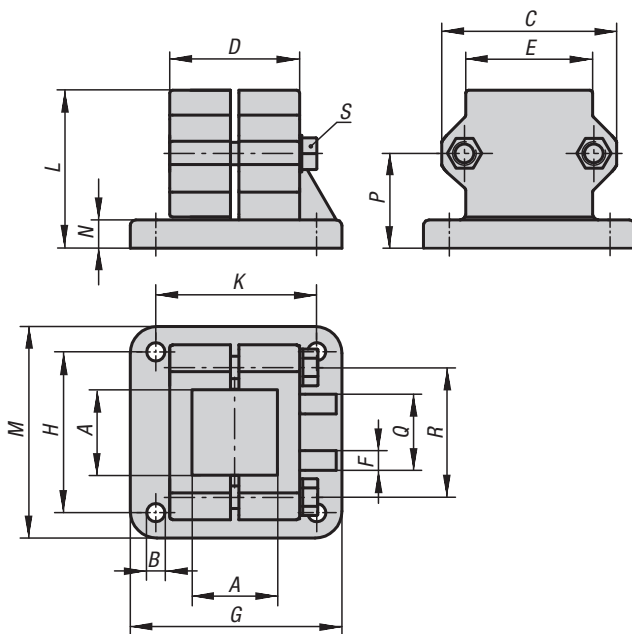
K0478.5230

**On request:**

Clamp levers for fixing and further dimensions for square tubes.

**Accessory:**

- Round and square tubes K0493



**KIPP Base clamps, aluminium**

| Order No.  | A    | B   | C  | D  | E  | F | G   | H  | K  | L  | M   | N  | P    | Q  | R  | S     | Approx. weight kg |
|------------|------|-----|----|----|----|---|-----|----|----|----|-----|----|------|----|----|-------|-------------------|
| K0478.5230 | 30,3 | 6,5 | 62 | 45 | 45 | 5 | 75  | 57 | 57 | 56 | 75  | 10 | 33,5 | 25 | 46 | M8x45 | 0,278             |
| K0478.5240 | 40,4 | 8,5 | 75 | 60 | 60 | 5 | 100 | 76 | 76 | 71 | 100 | 10 | 43   | 25 | 57 | M8x60 | 0,570             |



## Flange clamps, plastic



**Material, surface finish:**

Black thermoplastic; socket head screw to DIN 7984 and hexagon nut to DIN 985 in galvanized steel

**Sample order:**

K0479.18

**Note:**

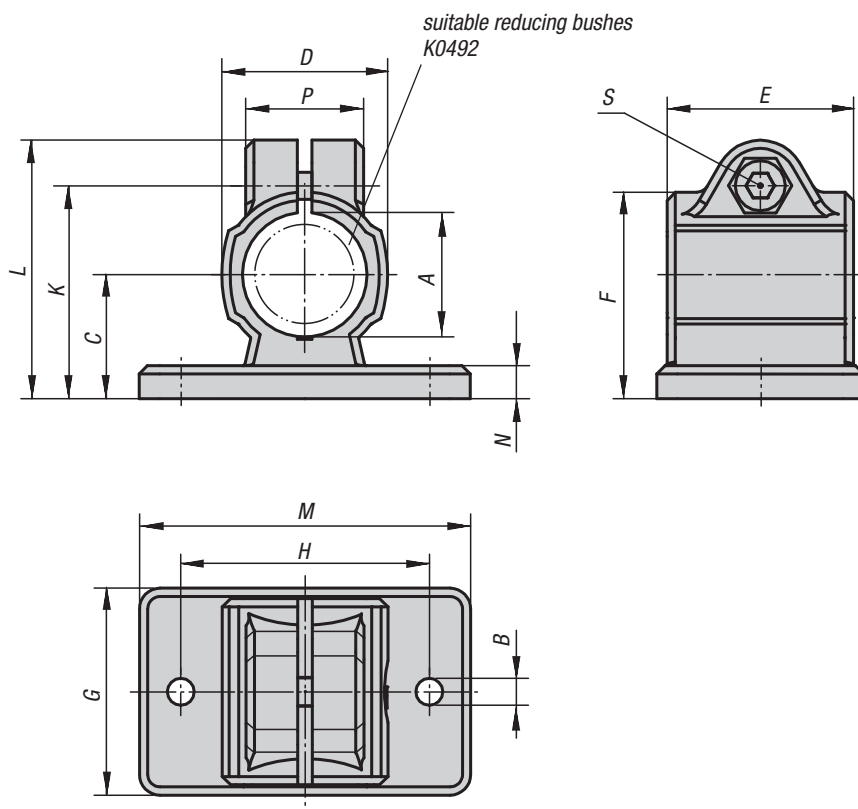
The basic size for round tubes is Ø18 mm or Ø30 mm. If smaller tubes are to be clamped or converted from round to square tubes, these can be adjusted to the required fitting by means of reducing bushes K0492.

**On request:**

Clamp levers in plastic for fixing.

**Accessory:**

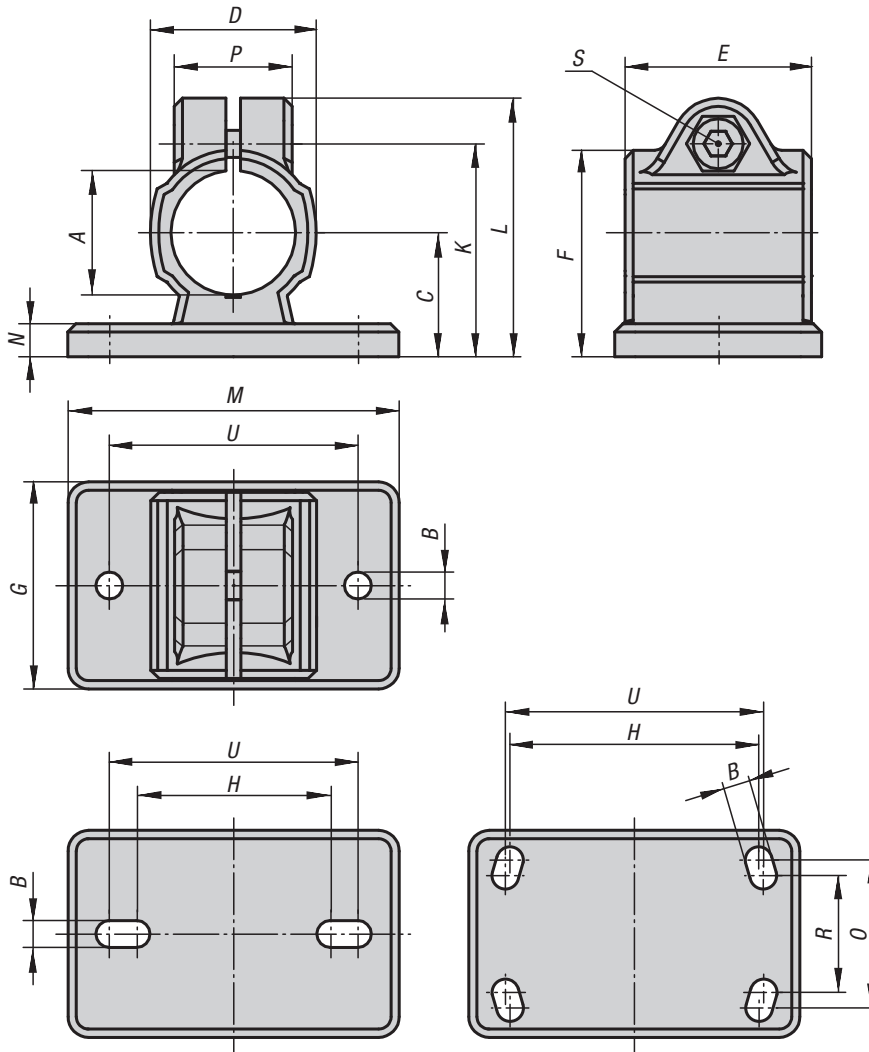
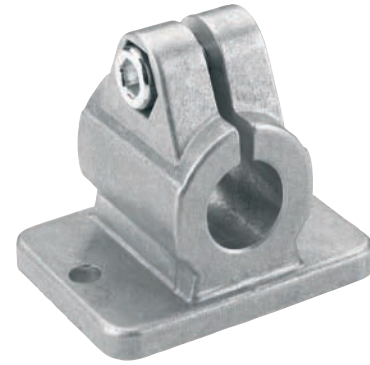
- Reducing bushes K0492
- Round and square tubes K0493



### KIPP Flange clamps, plastic

| Order No. | A  | B   | C  | D  | E  | F    | G  | H  | K    | L    | M  | N | P    | S     | Approx. weight kg |
|-----------|----|-----|----|----|----|------|----|----|------|------|----|---|------|-------|-------------------|
| K0479.18  | 18 | 5,3 | 18 | 25 | 30 | 30,5 | 35 | 40 | 32   | 39,5 | 50 | 5 | 21   | M6x18 | 0,030             |
| K0479.30  | 30 | 6,5 | 30 | 40 | 45 | 50   | 50 | 60 | 51,5 | 62,5 | 80 | 8 | 28,5 | M8x25 | 0,084             |

# Flange clamps, aluminium



hole arrangement for Order No.  
K0479.512  
K0479.516  
K0479.520 - K0479.530

hole arrangement for Order No.  
K0479.540  
K0479.550

**Material, surface finish:**

Cast aluminium, vibration ground; socket head screw to DIN 7984 and hexagon nut to DIN 985 in galvanized steel

**Sample order:**

K0479.518

**Note:**

\* Oblong hole

**On request:**

Clamp levers for fixing and further diameters.

**Accessory:**

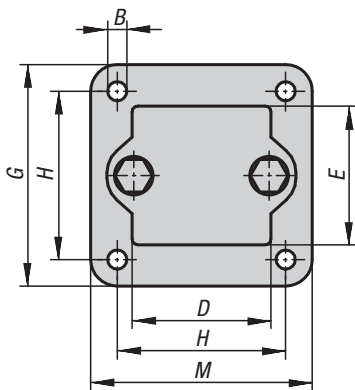
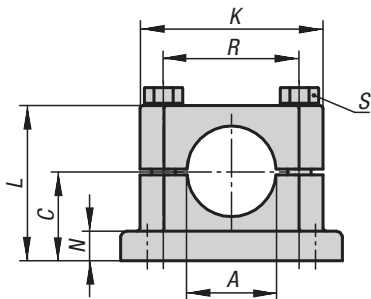
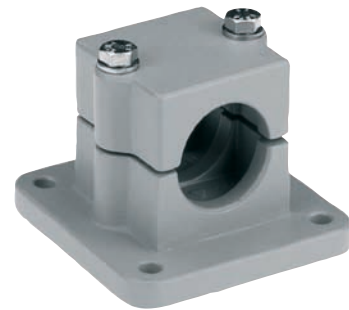
- Round and square tubes K0493



## KIPP Flange clamps, aluminium

| Order No. | A     | B          | C  | D  | E  | F  | G  | H  | K    | L  | M   | N  | O  | P  | R  | S      | U   | Approx. weight kg |
|-----------|-------|------------|----|----|----|----|----|----|------|----|-----|----|----|----|----|--------|-----|-------------------|
| K0479.512 | 12,1  | 5,5* (2x)  | 18 | 26 | 32 | 31 | 35 | 38 | 32,5 | 41 | 50  | 5  | -  | 23 | -  | M6x20  | 40  | 0,059             |
| K0479.514 | 14,1  | 5,5 (2x)   | 18 | 26 | 32 | 31 | 35 | -  | 32,5 | 41 | 50  | 5  | -  | 23 | -  | M6x20  | 40  | 0,063             |
| K0479.515 | 15,1  | 5,5 (2x)   | 18 | 26 | 32 | 31 | 35 | -  | 32,5 | 41 | 50  | 5  | -  | 23 | -  | M6x20  | 40  | 0,062             |
| K0479.516 | 16,1  | 5,5* (2x)  | 18 | 26 | 32 | 31 | 35 | 38 | 32,5 | 41 | 50  | 5  | -  | 23 | -  | M6x20  | 40  | 0,060             |
| K0479.518 | 18,1  | 5,5 (2x)   | 18 | 26 | 32 | 31 | 35 | -  | 32,5 | 41 | 50  | 5  | -  | 23 | -  | M6x20  | 40  | 0,056             |
| K0479.520 | 20,1  | 6,5* (2x)  | 30 | 40 | 40 | 50 | 55 | 53 | 53   | 63 | 78  | 7  | -  | 33 | -  | M8x25  | 60  | 0,197             |
| K0479.525 | 25,1  | 6,5* (2x)  | 30 | 40 | 40 | 50 | 55 | 53 | 53   | 63 | 78  | 7  | -  | 33 | -  | M8x25  | 60  | 0,180             |
| K0479.530 | 30,1  | 6,5* (2x)  | 30 | 40 | 40 | 50 | 55 | 53 | 53   | 63 | 78  | 7  | -  | 33 | -  | M8x25  | 60  | 0,159             |
| K0479.540 | 40,17 | 8,5* (4x)  | 42 | 56 | 60 | 70 | 80 | 80 | 74   | 87 | 105 | 10 | 60 | 40 | 52 | M10x30 | 82  | 0,397             |
| K0479.550 | 50,17 | 10,5* (4x) | 50 | 66 | 65 | 83 | 90 | 98 | 85   | 98 | 128 | 14 | 62 | 45 | 60 | M10x35 | 100 | 0,628             |

## Flange clamps, aluminium



**Material, surface finish:**

Cast aluminium, vibration ground, clamping screw with nut in galvanized steel

**Sample order:**

K0479.5230

**On request:**

Clamp levers for fixing and further diameters.

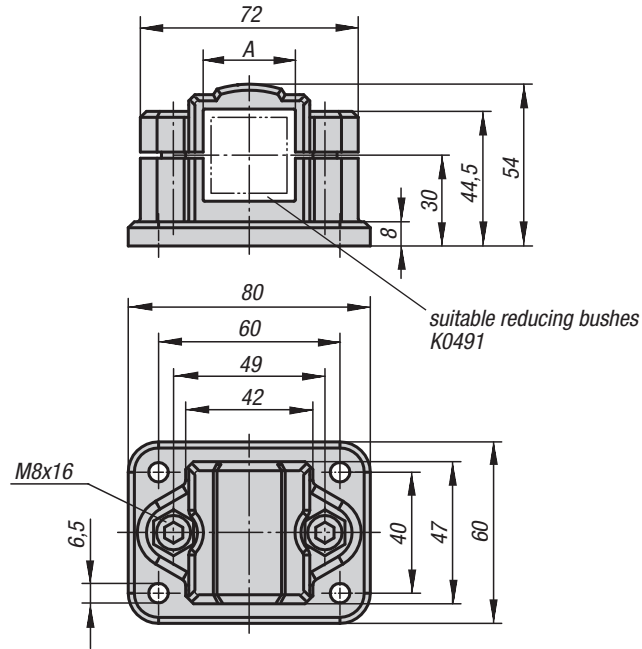
**Accessory:**

- Round and square tubes K0493

### KIPP Flange clamps, aluminium

| Order No.  | A    | B   | C  | D  | E  | G   | H  | K  | L    | M   | N  | R  | S     | Approx. weight kg |
|------------|------|-----|----|----|----|-----|----|----|------|-----|----|----|-------|-------------------|
| K0479.5220 | 20,2 | 6,5 | 30 | 45 | 45 | 75  | 57 | 62 | 52,5 | 75  | 10 | 46 | M8x50 | 0,314             |
| K0479.5225 | 25,2 | 6,5 | 30 | 45 | 45 | 75  | 57 | 62 | 52,5 | 75  | 10 | 46 | M8x50 | 0,301             |
| K0479.5230 | 30,2 | 6,5 | 30 | 45 | 45 | 75  | 57 | 62 | 52,5 | 75  | 10 | 46 | M8x50 | 0,285             |
| K0479.5240 | 40,2 | 8,5 | 40 | 60 | 60 | 100 | 76 | 75 | 70   | 100 | 10 | 57 | M8x70 | 0,545             |

## Flange clamp, plastic



**Material, surface finish:**

Black thermoplastic; socket head screw to DIN 7984 and hexagon nut to DIN 985 in galvanized steel

**Sample order:**

K0480.30

**Note:**

With the flange clamp square tubes 30 mm can be clamped. If smaller tubes are to be clamped or converted from square to round tubes, these can be adjusted to the required fitting by means of reducing bushes K0491.

**On request:**

Clamp levers in plastic for fixing.

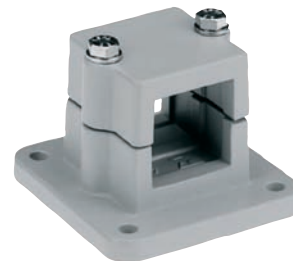
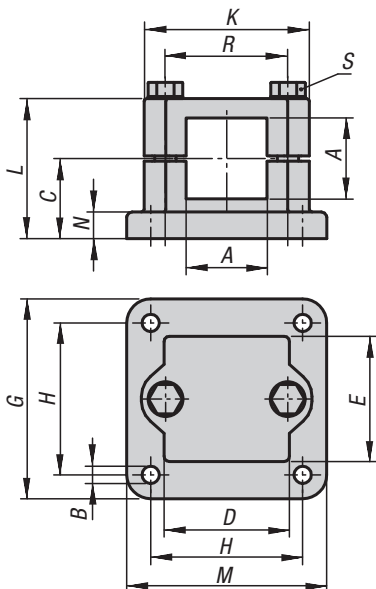
**Accessory:**

- Reducing bushes K0491
- Round and square tubes K0493

**KIPP Flange clamp, plastic**

| Order No. | A  | Approx. weight kg |
|-----------|----|-------------------|
| K0480.30  | 30 | 0,125             |

## Flange clamps, aluminium



**Material, surface finish:**

Cast aluminium, vibration ground, clamping screw with nut in galvanized steel

**Sample order:**

K0480.5230

**On request:**

Clamp levers for fixing and further dimensions for square tubes available.

**Accessory:**

- Round and square tubes K0493

**KIPP Flange clamps, aluminium**

| Order No.  | A    | B   | C  | D  | E  | G   | H  | K  | L    | M   | N  | R  | S     | Approx. weight kg |
|------------|------|-----|----|----|----|-----|----|----|------|-----|----|----|-------|-------------------|
| K0480.5225 | 25,3 | 6,5 | 30 | 45 | 45 | 75  | 57 | 62 | 52,5 | 75  | 10 | 46 | M8x50 | 0,292             |
| K0480.5230 | 30,3 | 6,5 | 30 | 45 | 45 | 75  | 57 | 62 | 52,5 | 75  | 10 | 46 | M8x50 | 0,273             |
| K0480.5240 | 40,4 | 8,5 | 40 | 60 | 60 | 100 | 76 | 75 | 70   | 100 | 10 | 57 | M8x70 | 0,530             |

## Flange clamp, plastic



**Material, surface finish:**

Black thermoplastic; socket head screw to DIN 7984 and hexagon nut to DIN 985 in galvanized steel

**Sample order:**

K0481.30

**Note:**

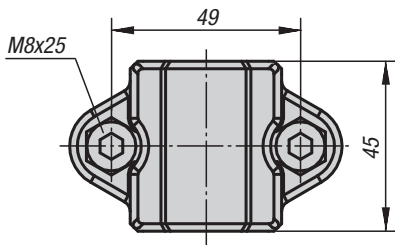
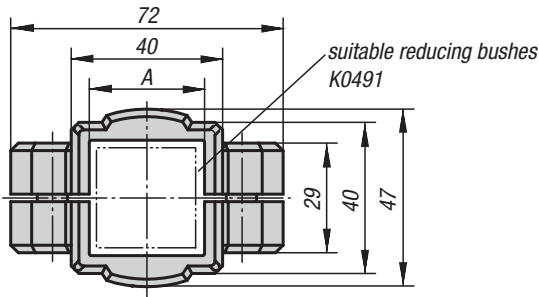
With the flange clamp square tubes 30 mm can be clamped. If smaller tubes are to be clamped or converted from square to round tubes, these can be adjusted to the required fitting by means of reducing bushes K0491.

**On request:**

Clamp levers in plastic for fixing.

**Accessory:**

- Reducing bushes K0491
- Round and square tubes K0493



### KIPP Flange clamp, plastic

| Order No. | A  | Approx. weight kg |
|-----------|----|-------------------|
| K0481.30  | 30 | 0,090             |

## Sleeve clamps, plastic



**Material, surface finish:**

Black thermoplastic; socket head screw to DIN 7984 and hexagon nut to DIN 985 in galvanized steel

**Sample order:**

K0483.18

**Note:**

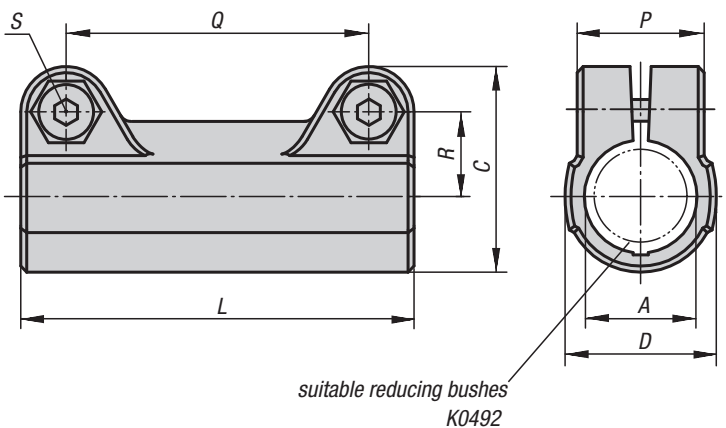
The basic size for round tubes is Ø18 mm or Ø30 mm. If smaller tubes are to be clamped or converted from round to square tubes, these can be adjusted to the required fitting by means of reducing bushes K0492.

**On request:**

Clamp levers in plastic for fixing.

**Accessory:**

- Reducing bushes K0492
- Round and square tubes K0493

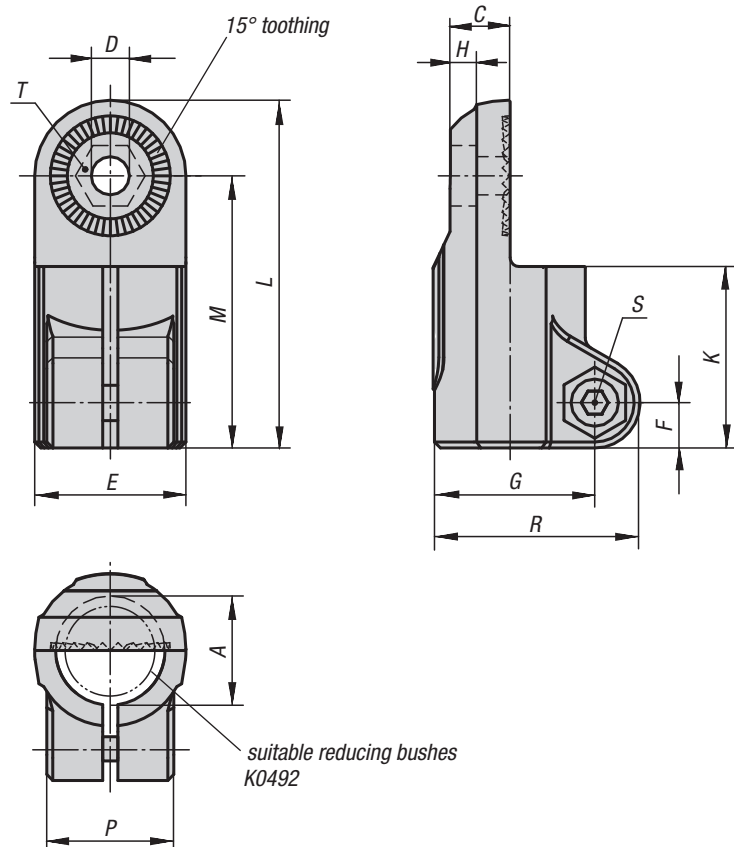


### KIPP Sleeve clamps, plastic

| Order No. | A  | C    | D  | L  | P    | Q  | R    | S     | Approx. weight kg |
|-----------|----|------|----|----|------|----|------|-------|-------------------|
| K0483.18  | 18 | 34   | 25 | 65 | 21   | 50 | 14   | M6x18 | 0,028             |
| K0483.30  | 30 | 52,5 | 40 | 95 | 28,5 | 73 | 22,8 | M8x25 | 0,087             |

## Strap clamps

with internal tothing, plastic



### Material, surface finish:

Black thermoplastic. Socket head screw according to DIN 7984 and hexagon nut to DIN 985 in galvanized steel

### Sample order:

K0484.18

### Note:

Strap clamps with internal tothing can be combined with strap clamps with external tothing (K0485) to make a joint clamp.

The basic size for round tubes is  $\varnothing 18$  mm or  $\varnothing 30$  mm. If smaller tubes are to be clamped or converted from round to square tubes, these can be adjusted to the required fitting by means of reducing bushes K0492.

### On request:

Clamp levers in plastic for fixing.

### Accessory:

- Reducing bushes K0492
- Round and square tubes K0493



### KIPP Strap clamps with internal tothing, plastic

| Order No. | A  | C    | D   | E  | F   | G    | H   | K  | L    | M  | P    | R    | S     | T          | Approx. weight kg |
|-----------|----|------|-----|----|-----|------|-----|----|------|----|------|------|-------|------------|-------------------|
| K0484.18  | 18 | 9,9  | 6,1 | 25 | 7,5 | 26,5 | 5,9 | 30 | 57,5 | 45 | 21   | 34   | M6x18 | M6-DIN 985 | 0,028             |
| K0484.30  | 30 | 16,5 | 8,1 | 40 | 11  | 41,5 | 6,5 | 45 | 88   | 68 | 28,5 | 52,5 | M8x25 | M8-DIN 985 | 0,086             |

## Strap clamps

with external tothing, plastic



**Material, surface finish:**

Black thermoplastic; socket head screw to DIN 7984 and hexagon nut to DIN 985 in galvanized steel

**Sample order:**

K0485.18

**Note:**

Strap clamps with external tothing can be combined with strap clamps with internal tothing (K0484, K0486 or K0487) to make a joint clamp.

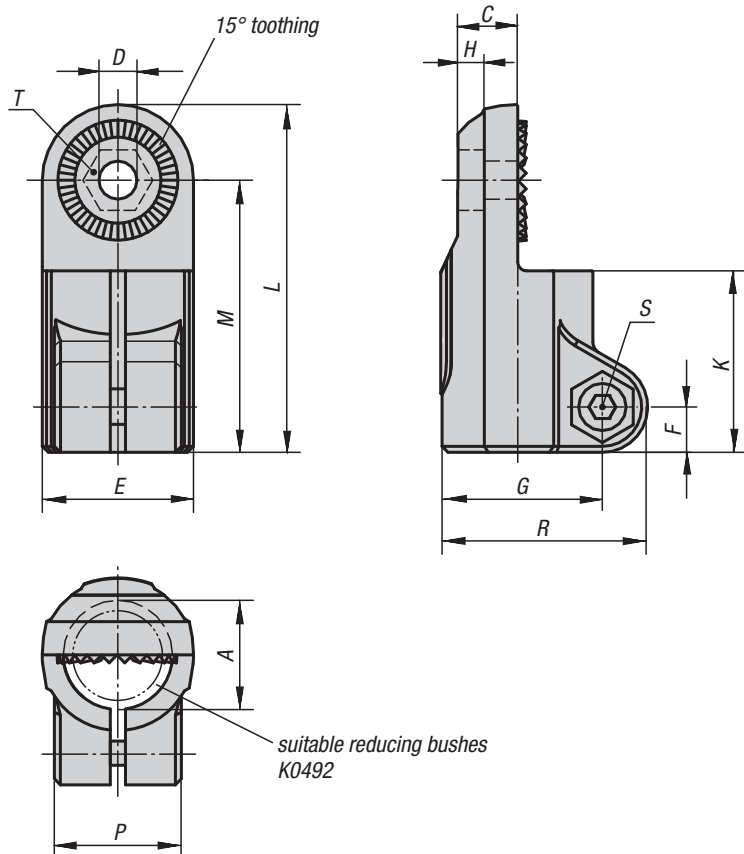
The basic size for round tubes is Ø18 mm or Ø30 mm. If smaller tubes are to be clamped or converted from round to square tubes, these can be adjusted to the required fitting by means of reducing bushes K0492.

**On request:**

Clamp levers in plastic for fixing.

**Accessory:**

- Reducing bushes K0492
- Round and square tubes K0493

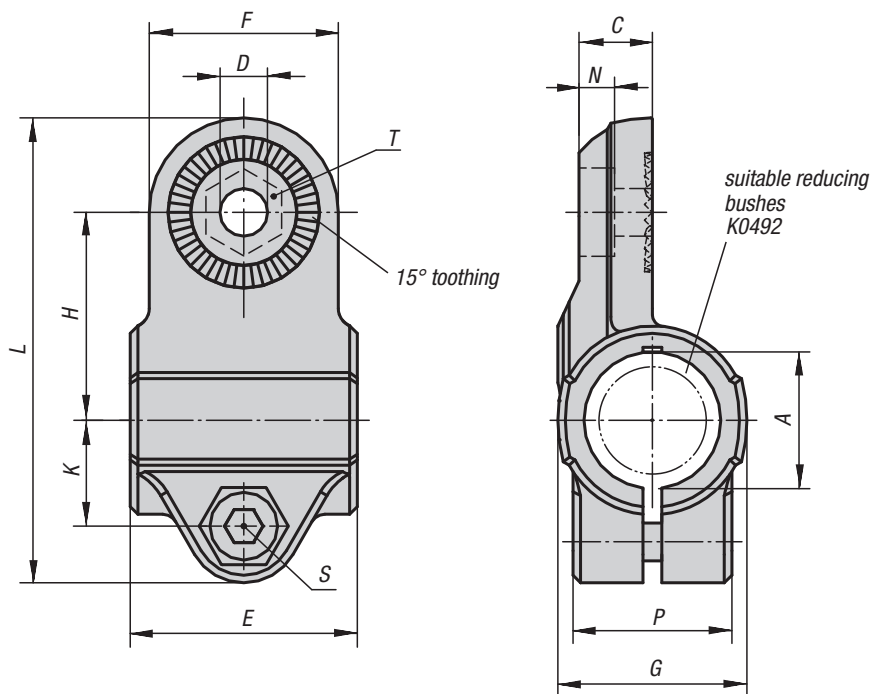


### KIPP Strap clamps with external tothing, plastic

| Order No. | A  | C    | D   | E  | F   | G    | H   | K  | L    | M  | P    | R    | S     | T          | Approx. weight kg |
|-----------|----|------|-----|----|-----|------|-----|----|------|----|------|------|-------|------------|-------------------|
| K0485.18  | 18 | 9,9  | 6,1 | 25 | 7,5 | 26,5 | 5,9 | 30 | 57,5 | 45 | 21   | 34   | M6x18 | M6-DIN 985 | 0,028             |
| K0485.30  | 30 | 16,5 | 8,1 | 40 | 11  | 41,5 | 6,5 | 45 | 88   | 68 | 28,5 | 52,5 | M8x25 | M8-DIN 985 | 0,087             |

## Strap clamps

with internal tothing, plastic



**Material, surface finish:**

Black thermoplastic; socket head screw to DIN 7984 and hexagon nut to DIN 985 in galvanized steel

**Sample order:**

K0486.18

**Note:**

Strap clamps with internal tothing can be combined with strap clamps with external tothing (K0485) to make a joint clamp. The basic size for round tubes is Ø18 mm or Ø30 mm. If smaller tubes are to be clamped or converted from round to square tubes, these can be adjusted to the required fitting by means of reducing bushes K0492.

**On request:**

Clamp levers in plastic for fixing.

**Accessory:**

- Reducing bushes K0492
- Round and square tubes K0493



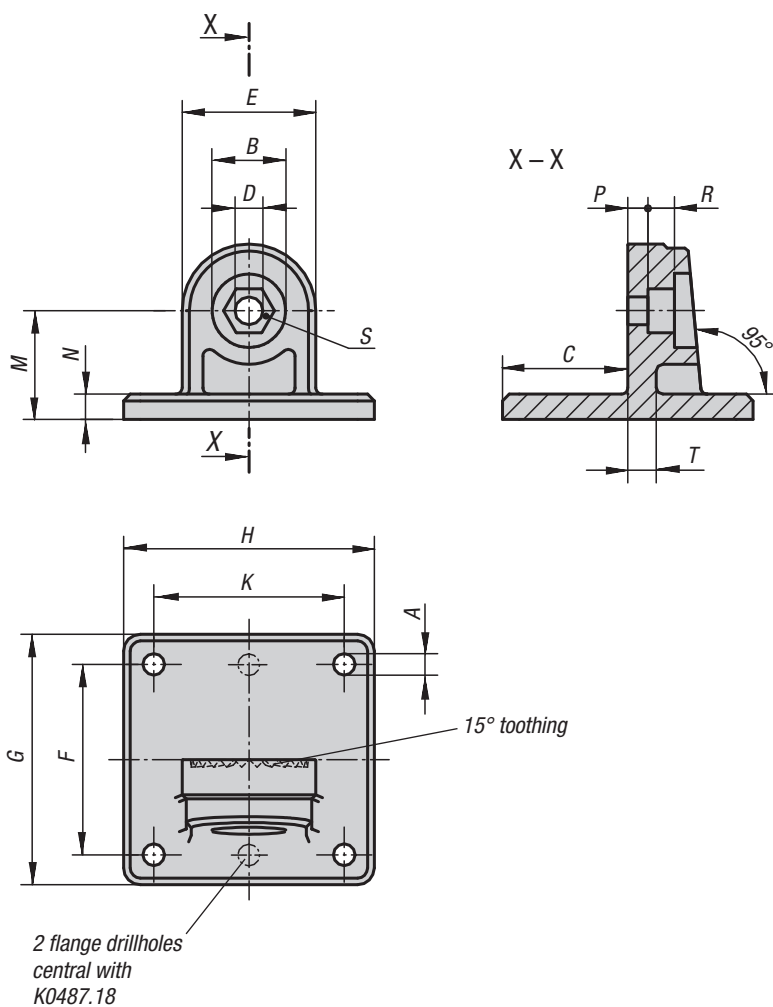
### KIPP Strap clamps with internal tothing, plastic

| Order No. | A  | C    | D   | E  | F  | G  | H    | K    | L    | N   | P    | S     | T          | Approx. weight kg |
|-----------|----|------|-----|----|----|----|------|------|------|-----|------|-------|------------|-------------------|
| K0486.18  | 18 | 9,7  | 6,1 | 30 | 25 | 25 | 27,5 | 14   | 61,5 | 5,7 | 21   | M6x18 | M6-DIN 985 | 0,029             |
| K0486.30  | 30 | 16,5 | 8,1 | 45 | 40 | 40 | 43   | 22,5 | 95,5 | 6,5 | 28,5 | M8x25 | M8-DIN 985 | 0,091             |



## Strap clamps

with internal tothing, plastic



**Material, surface finish:**

Black thermoplastic; socket head screw to DIN 7984 and hexagon nut to DIN 985 in galvanized steel

**Sample order:**

K0487.18

**Note:**

Strap clamps with internal tothing can be combined with strap clamps with external tothing (K0485) to make a joint clamp.

**On request:**

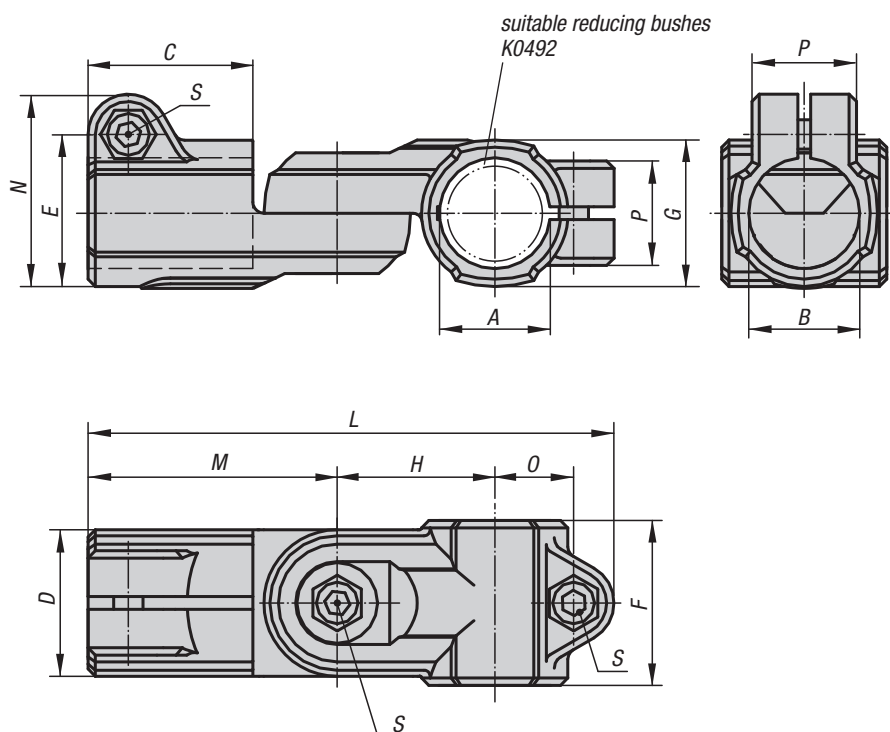
Clamp levers in plastic for fixing.

### KIPP Strap clamps with internal tothing, plastic

| Order No. | A        | B  | C    | D   | E  | F  | G  | H  | K  | M    | N   | P   | R   | S          | T | Approx. weight kg |
|-----------|----------|----|------|-----|----|----|----|----|----|------|-----|-----|-----|------------|---|-------------------|
| K0487.18  | 5,3 (2x) | 15 | 25   | 6,1 | 25 | 40 | 50 | 35 | -  | 20   | 5   | 4,5 | 5,5 | M6-DIN 985 | 5 | 0,017             |
| K0487.30  | 6,5 (4x) | 22 | 37,5 | 8,1 | 40 | 60 | 75 | 75 | 60 | 32,5 | 7,5 | 6,6 | 8,2 | M8-DIN 985 | 7 | 0,077             |

## Joint clamps

without tothing, plastic



**Material, surface finish:**

Black thermoplastic; socket head screw to DIN 7984 and hexagon nut to DIN 985 in galvanized steel

**Sample order:**

K0488.18

**Note:**

Joint clamps can be continuously shifted by 180°. The basic size for round tubes is Ø18 mm or Ø30 mm. If smaller tubes are to be clamped or converted from round to square tubes, these can be adjusted to the required fitting by means of reducing bushes K0492.

**On request:**

Clamp levers in plastic for fixing.

**Accessory:**

- Reducing bushes K0492
- Round and square tubes K0493

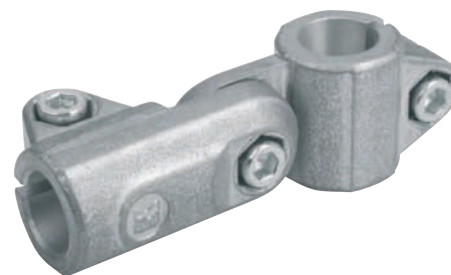


**KIPP Joint clamps without tothing, plastic**

| Order No. | A  | B  | C  | D  | E    | F  | G  | H    | L     | M  | N    | O    | P    | S     | Approx. weight kg |
|-----------|----|----|----|----|------|----|----|------|-------|----|------|------|------|-------|-------------------|
| K0488.18  | 18 | 18 | 30 | 25 | 26,5 | 30 | 25 | 27,5 | 94    | 45 | 34   | 14   | 21   | M6x18 | 0,067             |
| K0488.30  | 30 | 30 | 45 | 40 | 41,5 | 45 | 40 | 43   | 143,5 | 68 | 52,5 | 22,5 | 28,5 | M8x25 | 0,160             |

## Joint clamps

without tothing, aluminium



**Material, surface finish:**

Cast aluminium, vibration ground; socket head screw to DIN 7984 and hexagon nut to DIN 985 in galvanized steel

**Sample order:**

K0488.518

**Note:**

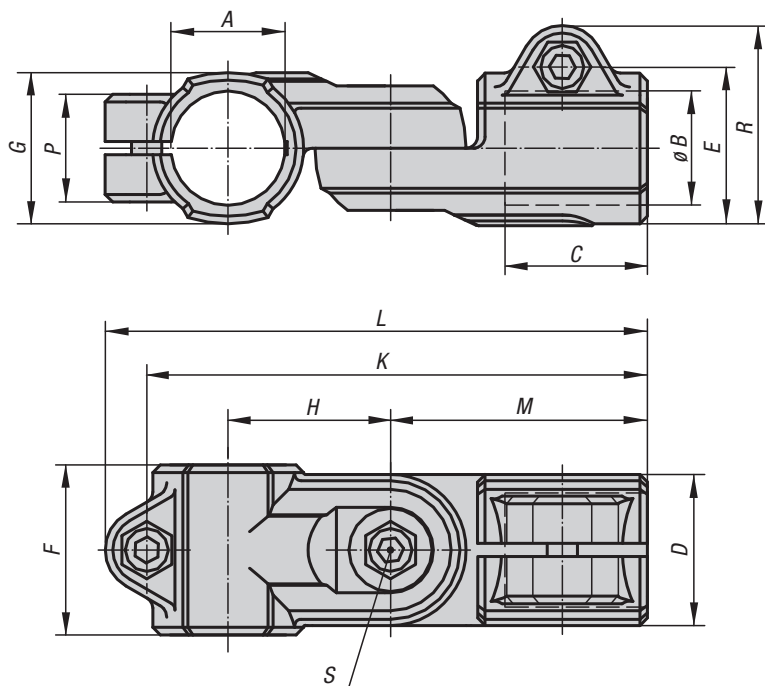
Joint clamps can be continuously shifted by 180°.

**On request:**

Clamp levers for fixing and further diameters.

**Accessory:**

- Round and square tubes K0493



### KIPP Joint clamps without tothing, aluminium

| Order No. | A    | B    | C  | D  | E    | F  | G  | H  | K   | L    | M   | P  | R    | S      | Approx. weight kg |
|-----------|------|------|----|----|------|----|----|----|-----|------|-----|----|------|--------|-------------------|
| K0488.512 | 12,1 | 12,1 | 25 | 26 | 29,4 | 30 | 26 | 27 | 84  | 95,5 | 44  | 21 | 37,5 | M6x16  | 0,126             |
| K0488.514 | 14,1 | 14,1 | 25 | 26 | 29,4 | 30 | 26 | 27 | 84  | 95,5 | 44  | 21 | 37,5 | M6x16  | 0,120             |
| K0488.516 | 16,1 | 16,1 | 25 | 26 | 29,4 | 30 | 26 | 27 | 84  | 95,5 | 44  | 21 | 37,5 | M6x16  | 0,114             |
| K0488.518 | 18,1 | 18,1 | 25 | 26 | 29,4 | 30 | 26 | 27 | 84  | 95,5 | 44  | 21 | 37,5 | M6x16  | 0,106             |
| K0488.520 | 20,1 | 20,1 | 45 | 40 | 40   | -  | 40 | 43 | 136 | 146  | 73  | 33 | 51   | M8x35  | 0,385             |
| K0488.525 | 25,1 | 25,1 | 45 | 40 | 40   | -  | 40 | 43 | 136 | 146  | 73  | 33 | 51   | M8x35  | 0,346             |
| K0488.530 | 30,1 | 30,1 | 45 | 40 | 40   | -  | 40 | 43 | 136 | 146  | 73  | 33 | 51   | M8x35  | 0,300             |
| K0488.540 | 40,2 | 40,2 | 60 | 56 | 56   | -  | 56 | 60 | 188 | 200  | 100 | 48 | 70   | M10x50 | 0,820             |

## Joint clamps

without tothing, plastic



**Material, surface finish:**

Black thermoplastic; socket head screw to DIN 7984 and hexagon nut to DIN 985 in galvanized steel

**Sample order:**

K0489.18

**Note:**

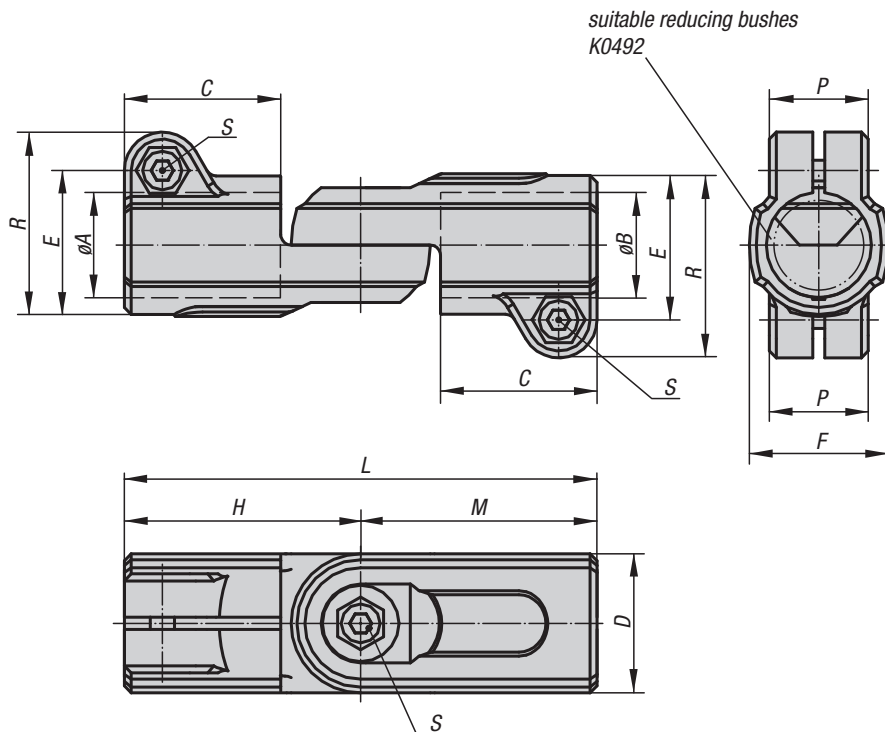
Joint clamps can be continuously shifted by 180°. The basic size for round tubes is Ø18 mm or Ø30 mm. If smaller tubes are to be clamped or converted from round to square tubes, these can be adjusted to the required fitting by means of reducing bushes K0492.

**On request:**

Clamp levers in plastic for fixing.

**Accessory:**

- Reducing bushes K0492
- Round and square tubes K0493

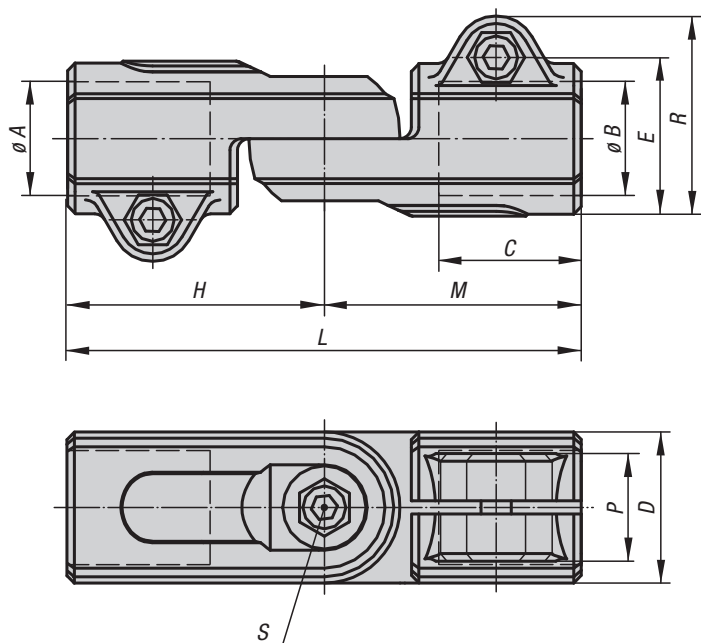
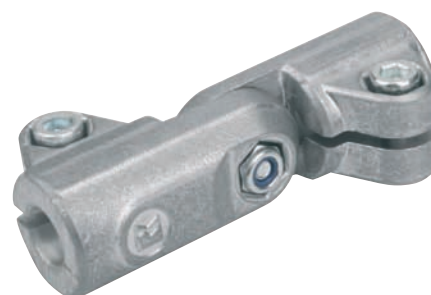


**KIPP Joint clamps without tothing, plastic**

| Order No. | A  | B  | C  | D  | E    | F  | H  | L   | M  | P    | R    | S     | Approx. weight kg |
|-----------|----|----|----|----|------|----|----|-----|----|------|------|-------|-------------------|
| K0489.18  | 18 | 18 | 30 | 25 | 26,5 | 25 | 45 | 90  | 45 | 21   | 34   | M6x18 | 0,052             |
| K0489.30  | 30 | 30 | 45 | 40 | 41,5 | 40 | 68 | 136 | 68 | 28,5 | 52,5 | M8x25 | 0,155             |

## Joint clamps

without tothing, aluminium



**Material, surface finish:**

Cast aluminium, vibration ground; socket head screw to DIN 7984 and hexagon nut to DIN 985 in galvanized steel

**Sample order:**

K0489.540

**Note:**

Joint clamps can be continuously shifted by 180°.

**On request:**

Clamp levers for fixing and further diameters.

**Accessory:**

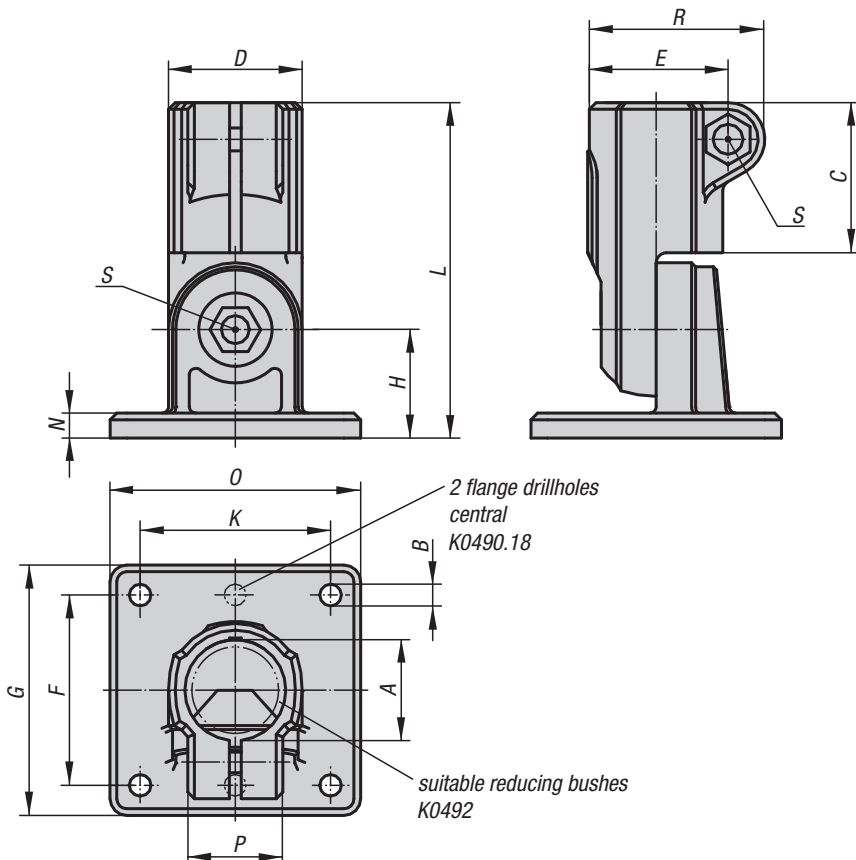
- Round and square tubes K0493

### KIPP Joint Clamps without tothing, aluminium

| Order No. | A     | B     | C  | D  | E    | H   | L   | M   | P  | R    | S      | Approx. weight kg |
|-----------|-------|-------|----|----|------|-----|-----|-----|----|------|--------|-------------------|
| K0489.512 | 12,1  | 12,1  | 25 | 26 | 29,4 | 44  | 88  | 44  | 21 | 37,5 | M6x16  | 0,126             |
| K0489.514 | 14,1  | 14,1  | 25 | 26 | 29,4 | 44  | 88  | 44  | 21 | 37,5 | M6x16  | 0,119             |
| K0489.516 | 16,1  | 16,1  | 25 | 26 | 29,4 | 44  | 88  | 44  | 21 | 37,5 | M6x16  | 0,123             |
| K0489.518 | 18,1  | 18,1  | 25 | 26 | 29,4 | 44  | 88  | 44  | 21 | 37,5 | M6x16  | 0,104             |
| K0489.520 | 20    | 20    | 45 | 40 | 40   | 73  | 146 | 73  | 33 | 51   | M8x35  | 0,408             |
| K0489.525 | 25,1  | 25,1  | 45 | 40 | 40   | 73  | 146 | 73  | 33 | 51   | M8x35  | 0,374             |
| K0489.530 | 30,1  | 30,1  | 43 | 40 | 40   | 73  | 146 | 73  | 33 | 51   | M8x35  | 0,317             |
| K0489.540 | 40,15 | 40,15 | 59 | 56 | 58   | 100 | 200 | 100 | 48 | 70   | M10x50 | 0,863             |

## Joint clamps

without tothing, plastic



**Material, surface finish:**

Black thermoplastic; socket head screw to DIN 7984 and hexagon nut to DIN 985 in galvanized steel

**Sample order:**

K0490.18

**Note:**

Joint clamps can be continuously shifted by 180°. The basic size for round tubes is Ø18 mm or Ø30 mm. If smaller tubes are to be clamped or converted from round to square tubes, these can be adjusted to the required fitting by means of reducing bushes K0492.

**On request:**

Clamp levers in plastic for fixing.

**Accessory:**

- Reducing bushes K0492
- Round and square tubes K0493

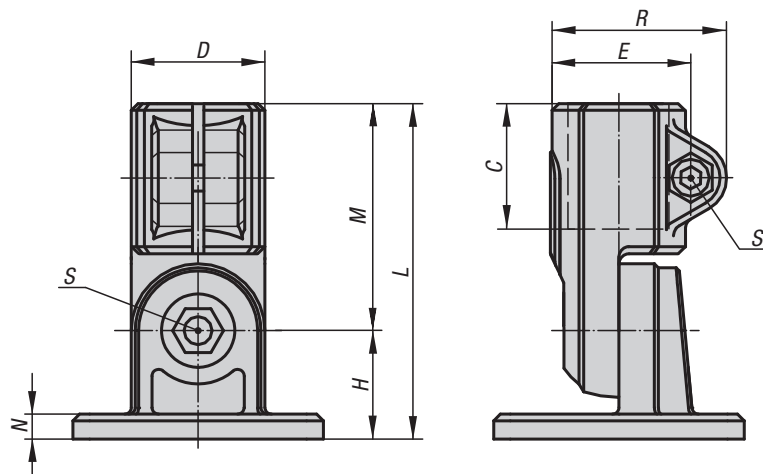


**KIPP Joint clamps without tothing, plastic**

| Order No. | A  | B        | C  | D  | E    | F  | G  | H    | K  | L     | N   | O  | P    | R    | S     | Approx. weight kg |
|-----------|----|----------|----|----|------|----|----|------|----|-------|-----|----|------|------|-------|-------------------|
| K0490.18  | 18 | 5,3 (2x) | 30 | 25 | 26,5 | 40 | 50 | 20   | -  | 65    | 5   | 35 | 21   | 34   | M6x18 | 0,055             |
| K0490.30  | 30 | 6,5 (4x) | 45 | 40 | 41,5 | 60 | 75 | 32,5 | 60 | 100,5 | 7,5 | 75 | 28,5 | 52,5 | M8x25 | 0,154             |

## Joint clamps

without tothing, aluminium



**Material, surface finish:**

Cast aluminium, vibration ground; socket head screw to DIN 7984 and hexagon nut to DIN 985 in galvanized steel

**Sample order:**

K0490.518

**Note:**

Joint clamps can be continuously shifted by 180°.

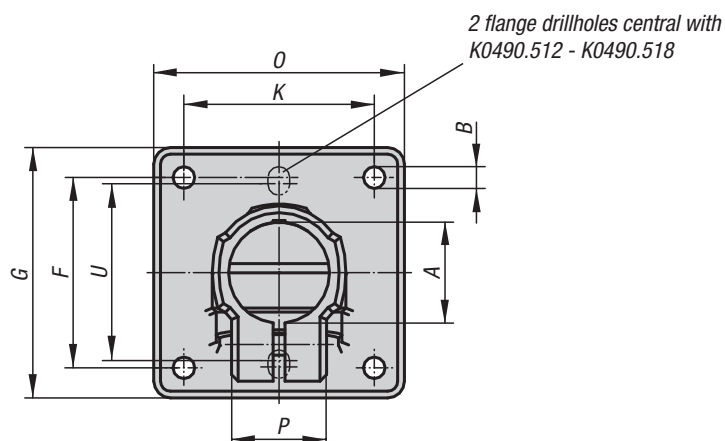
\* Oblong hole

**On request:**

Clamp levers for fixing and further diameters.

**Accessory:**

- Round and square tubes K0493

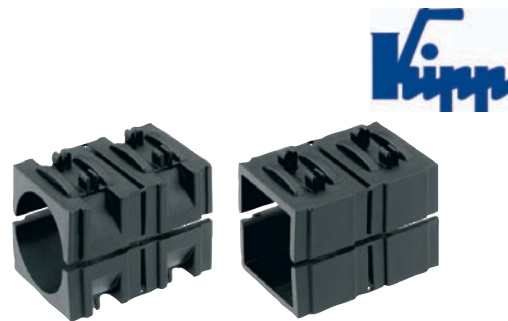
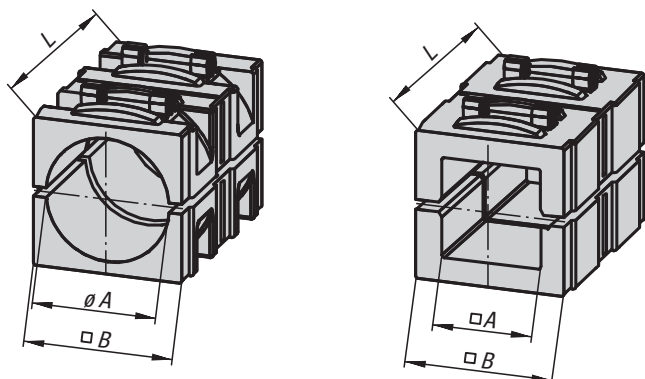


### KIPP Joint clamps without tothing, aluminium

| Order No. | A    | B         | C  | D  | E    | F  | G   | H  | K  | L   | M   | N  | O   | P  | R    | S      | U  | Approx. weight kg |
|-----------|------|-----------|----|----|------|----|-----|----|----|-----|-----|----|-----|----|------|--------|----|-------------------|
| K0490.512 | 12,1 | 5,3* (2x) | 25 | 26 | 29,4 | 40 | 50  | 20 | -  | 64  | 44  | 5  | 35  | 21 | 37,5 | M6x16  | 38 | 0,101             |
| K0490.514 | 14,1 | 5,3* (2x) | 25 | 26 | 29,4 | 40 | 50  | 20 | -  | 64  | 44  | 5  | 35  | 21 | 37,5 | M6x16  | 38 | 0,098             |
| K0490.516 | 16,1 | 5,3* (2x) | 25 | 26 | 29,4 | 40 | 50  | 20 | -  | 64  | 44  | 5  | 35  | 21 | 37,5 | M6x16  | 38 | 0,095             |
| K0490.518 | 18,1 | 5,3* (2x) | 25 | 26 | 29,4 | 40 | 50  | 20 | -  | 64  | 44  | 5  | 35  | 21 | 37,5 | M6x16  | 38 | 0,091             |
| K0490.520 | 20   | 6,5 (4x)  | 45 | 40 | 40   | 57 | 75  | 33 | 57 | 106 | 73  | 7  | 75  | 33 | 51   | M8x35  | -  | 0,383             |
| K0490.525 | 25,1 | 6,5 (4x)  | 45 | 40 | 40   | 57 | 75  | 33 | 57 | 106 | 73  | 7  | 75  | 33 | 51   | M8x35  | -  | 0,374             |
| K0490.530 | 30,1 | 6,5 (4x)  | 45 | 40 | 40   | 57 | 75  | 33 | 57 | 106 | 73  | 7  | 75  | 33 | 51   | M8x35  | -  | 0,325             |
| K0490.540 | 40,2 | 8,5 (4x)  | 60 | 56 | 56   | 76 | 100 | 44 | 76 | 144 | 100 | 10 | 100 | 48 | 68   | M10x50 | -  | 0,838             |

## Reducing bushes

square



**Material, surface finish:**  
Black thermoplastic

**Sample order:**  
K0491.03020

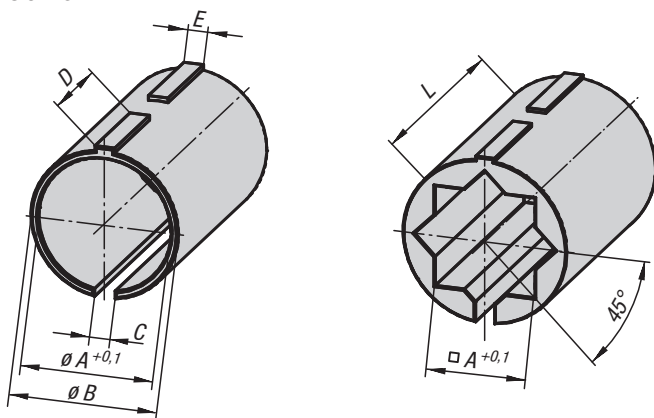
**Note:**  
With the use of reducing bushes, smaller tubes can be clamped or converted from square tubes to round ones.

### KIPP Reducing bushes, square

| Order No.   | Surface finish   | A     | B    | L  |
|-------------|------------------|-------|------|----|
| K0491.03020 | for round tubes  | 20,25 | 30,3 | 45 |
| K0491.03025 | for round tubes  | 25,25 | 30,3 | 45 |
| K0491.03030 | for round tubes  | 30,25 | 30,3 | 45 |
| K0491.13020 | for square tubes | 20,5  | 30,3 | 45 |
| K0491.13025 | for square tubes | 25,5  | 30,3 | 45 |

## Reducing bushes

round



**Material, surface finish:**  
Black thermoplastic

**Sample order:**  
K0492.03020

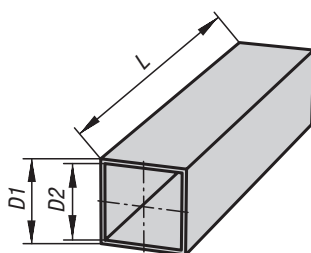
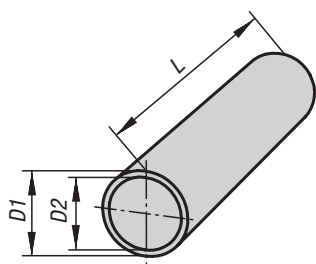
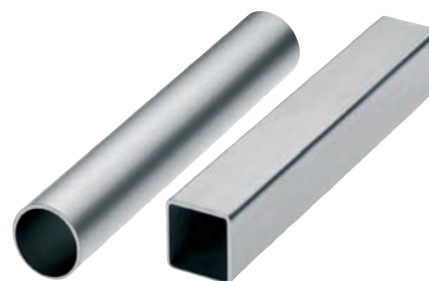
**Note:**  
With the use of reducing bushes, smaller tubes can be clamped or converted from round tubes to square ones.

### KIPP Reducing bushes, round

| Order No.   | Surface finish   | A     | B  | C   | D    | E   | L  |
|-------------|------------------|-------|----|-----|------|-----|----|
| K0492.01812 | for round tubes  | 12,25 | 18 | 2,5 | 11,9 | 2,4 | 30 |
| K0492.01814 | for round tubes  | 14,25 | 18 | 2,5 | 11,9 | 2,4 | 30 |
| K0492.01815 | for round tubes  | 15,25 | 18 | 2,5 | 11,9 | 2,4 | 30 |
| K0492.01816 | for round tubes  | 16,25 | 18 | 2,5 | 11,9 | 2,4 | 30 |
| K0492.03020 | for round tubes  | 20,25 | 30 | 3,5 | 18,9 | 3,4 | 45 |
| K0492.03025 | for round tubes  | 25,25 | 30 | 3,5 | 18,9 | 3,4 | 45 |
| K0492.11810 | for square tubes | 10,25 | 18 | 2,5 | 11,9 | 2,4 | 30 |
| K0492.13020 | for square tubes | 20,25 | 30 | 3,5 | 18,9 | 3,4 | 45 |



## Round and square tubes



### Material, surface finish:

Galvanized steel 1.0037;  
aluminium EN AW-6060, light anodized

### Sample order:

K0493.0112X500 (please also indicate dimension L)

### Note:

The manufacturing tolerances of the round and square tubes are dependent on the specific tube fixing system.

\* Aluminium bar

### On request:

- stainless steel tubes
- aluminium tubes, black anodized
- customer specific shapes

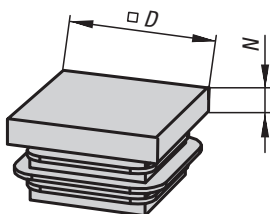
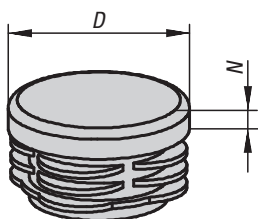
### KIPP Round tubes

| Order No.      | Material  | Description | D1       | D2 | L             |
|----------------|-----------|-------------|----------|----|---------------|
| K0493.0112X500 | steel     | Ø12 x 1,5   | 12 ±0,08 | 9  | 500/1000/2000 |
| K0493.0114X500 | steel     | Ø14 x 1,5   | 14 ±0,08 | 11 | 500/1000/2000 |
| K0493.0115X500 | steel     | Ø15 x 1,5   | 15 ±0,08 | 12 | 500/1000/2000 |
| K0493.0116X500 | steel     | Ø16 x 1,5   | 16 ±0,08 | 13 | 500/1000/2000 |
| K0493.0118X500 | steel     | Ø18 x 1,5   | 18 ±0,08 | 15 | 500/1000/2000 |
| K0493.0120X500 | steel     | Ø20 x 2     | 20 ±0,08 | 16 | 500/1000/2000 |
| K0493.0125X500 | steel     | Ø25 x 2     | 25 ±0,08 | 21 | 500/1000/2000 |
| K0493.0130X500 | steel     | Ø30 x 2     | 30 ±0,08 | 26 | 500/1000/2000 |
| K0493.0140X500 | steel     | Ø40 x 4     | 40 ±0,15 | 32 | 500/1000/2000 |
| K0493.0150X500 | steel     | Ø50 x 4     | 50 ±0,2  | 42 | 500/1000/2000 |
| K0493.0220X500 | aluminium | Ø20 x 3     | 20       | 14 | 500/1000/2000 |
| K0493.0225X500 | aluminium | Ø25 x 2     | 25       | 21 | 500/1000/2000 |
| K0493.0230X500 | aluminium | Ø30 x 2     | 30 ±0,1  | 26 | 500/1000/2000 |
| K0493.0240X500 | aluminium | Ø40 x 3     | 40 ±0,15 | 34 | 500/1000/2000 |
| K0493.0250X500 | aluminium | Ø50 x 3     | 50 ±0,2  | 44 | 500/1000/2000 |

### KIPP Square tubes

| Order No.      | Material  | Description   | D1      | D2 | L             |
|----------------|-----------|---------------|---------|----|---------------|
| K0493.4120X500 | steel     | 20 x 20 x 1   | 20 ±0,3 | 18 | 500/1000/2000 |
| K0493.4125X500 | steel     | 25 x 25 x 1,5 | 25 ±0,3 | 22 | 500/1000/2000 |
| K0493.4130X500 | steel     | 30 x 30 x 2   | 30 ±0,3 | 26 | 500/1000/2000 |
| K0493.4140X500 | steel     | 40 x 40 x 3   | 40 ±0,4 | 34 | 500/1000/2000 |
| K0493.4210X500 | aluminium | 10 x 10       | 10*     | -  | 500/1000/2000 |
| K0493.4220X500 | aluminium | 20 x 20 x 1,5 | 20 ±0,2 | 17 | 500/1000/2000 |
| K0493.4230X500 | aluminium | 30 x 30 x 2   | 30 ±0,2 | 26 | 500/1000/2000 |
| K0493.4240X500 | aluminium | 40 x 40 x 4   | 40 ±0,3 | 32 | 500/1000/2000 |

## Tube stoppers



**Material, surface finish:**  
Black thermoplastic

**Sample order:**  
K0494.025200

**Note:**  
Tube stoppers are used as edge protectors or for the closure of tube ends. Mounting can be by pushing them in by hand or by knocking them in with a soft-face hammer.



### KIPP Tube stoppers

| Order No.    | Surface finish   | D  | N | Suitable for      |
|--------------|------------------|----|---|-------------------|
| K0494.018150 | for round tubes  | 18 | 5 | Ø18 x 1,5         |
| K0494.020200 | for round tubes  | 20 | 5 | Ø20 x 2           |
| K0494.025200 | for round tubes  | 25 | 5 | Ø25 x 2           |
| K0494.030200 | for round tubes  | 30 | 5 | Ø30 x 2           |
| K0494.040300 | for round tubes  | 40 | 5 | Ø40 x 3           |
| K0494.040400 | for round tubes  | 40 | 5 | Ø40 x 4           |
| K0494.050400 | for round tubes  | 50 | 5 | Ø50 x 3 / Ø50 x 4 |
| K0494.420100 | for square tubes | 20 | 5 | 20 x 20 x 1       |
| K0494.425150 | for square tubes | 25 | 5 | 25 x 25 x 1,5     |
| K0494.430200 | for square tubes | 30 | 5 | 30 x 30 x 2       |
| K0494.440300 | for square tubes | 40 | 5 | 40 x 40 x 3       |
| K0494.440400 | for square tubes | 40 | 5 | 40 x 40 x 4       |

# Technical information on the tubular linear unit



The tubular linear unit is economical, cost-effective and universally usable. High rigidity, low deflection, high loads and easy handling are ideally combined in the linear unit. Four sizes of linear units are available for different applications and loads (guide tubes ranging from Ø18 mm to Ø50 mm).

### Features:

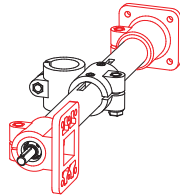
- Travel of more than 2000 mm possible
- Position accuracy up to  $\pm 0.2$  mm / 300 mm
- Travelling speed up to 1.5 m/min
- Driven by ACME threaded spindle
- Installation as desired

### Technical description:

A threaded spindle with corresponding guide nut which is supported in the guide tube converts a rotating movement into a linear movement of the guide carriage. This is protected against torsion by a drive key.

### Fixation of the linear unit:

According to the installation and application, the linear unit can be fixed by means of fixing elements. The clamping elements of the tubular connection system are available for this.



### Speed:

$n$  = required spindle r.p.m.

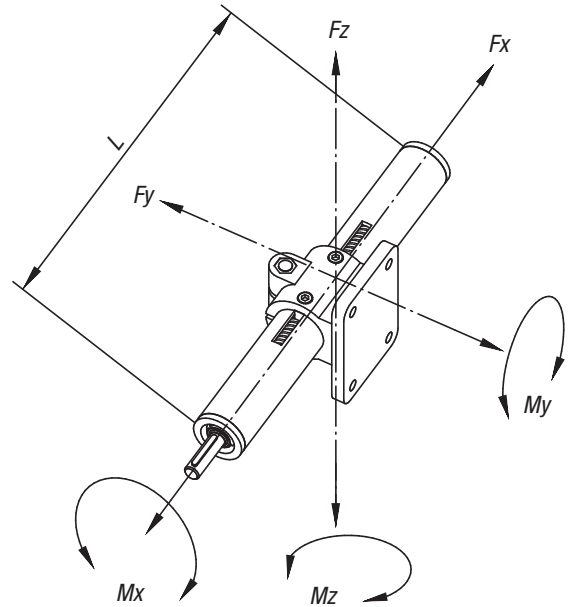
spindle revolution per minute  
max. with:  
slide bearing 80 r.p.m.  
ball bearing 250 r.p.m.

| Type E | Pitch<br>mm |
|--------|-------------|
| 18     | 2           |
| 30     | 3           |
| 40     | 4           |
| 50     | 4           |

$$n \text{ [r.p.m.]} = \frac{\text{Speed [m/min]} \times 1000[\text{mm}]}{\text{Spindle pitch [mm]}}$$

### Load data\*:

- F force [N]
- M moment [Nm]
- I geom. moment of inertia [cm<sup>4</sup>]



| Length    | Fx<br>500 | Fy<br>500 / 1000 / 1500 | Fz<br>500 / 1000 / 1500 |
|-----------|-----------|-------------------------|-------------------------|
| Type E 18 | 400       | 90 / 10 / -             | 60 / 8 / -              |
| Type E 30 | 800       | 500 / 60 / 10           | 500 / 50 / 9            |
| Type E 40 | 1000      | 2100 / 250 / 60         | 1900 / 140 / 50         |
| Type E 50 | 1700      | 3000 / 600 / 140        | 3000 / 600 / 140        |

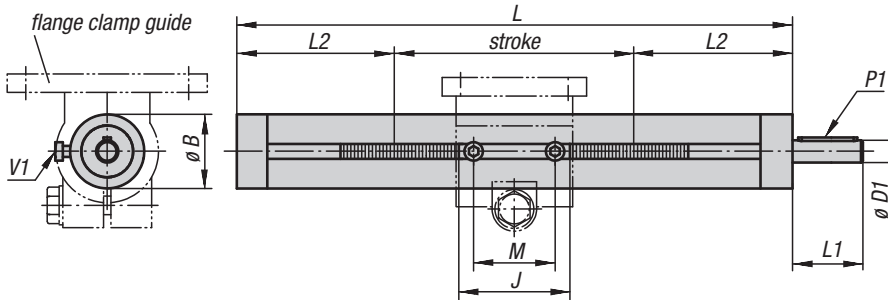
### No-load torques:

| Type E | Spindle with slide bearing<br>[Nm] | Spindle with<br>ball bearing [Nm] |
|--------|------------------------------------|-----------------------------------|
| 18     | -                                  | 0,20                              |
| 30     | 0,45                               | 0,35                              |
| 40     | 0,65                               | 0,50                              |
| 50     | 1,20                               | 0,90                              |

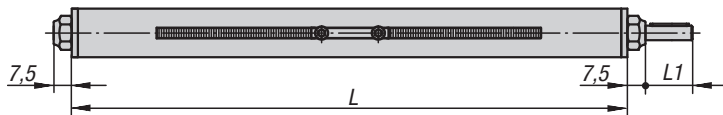
| Type E | Mx  | My | Mz | Iy    | Iz    |
|--------|-----|----|----|-------|-------|
| 18     | 1,5 | 4  | 4  | 0,22  | 0,27  |
| 30     | 6   | 15 | 15 | 1,34  | 1,56  |
| 40     | 14  | 40 | 40 | 4,58  | 5,24  |
| 50     | 30  | 65 | 65 | 11,31 | 12,32 |

\* referring to the guide carriage (guide element deflection  
 $f = 0.5$  mm, static, end elements supported)

## Linear units



Linear unit  
K0495.18...



### Material, surface finish:

Precision tube according to DIN EN 10305, stainless steel 1.4301. For type E 18, galvanized steel. Trapezoidal thread spindle steel, clockwise thread, rolled.

### Sample order:

K0495.300001X500

### Note:

Medium rotation speed range, self-locking. If using a position indicator, only use linear units with ball bearings.

### On request:

Left-hand thread, stainless steel finish, 2 drive cones, further strokes or handwheels.

### Accessory:

- Clamp guides K0496, K0497, K0498, K0499
- Clamping elements of the tubular connection system
- Digital position indicators K0410 with adapter for position indicator K0614 and insert plate K0413

### Functional principle:

A rotating movement of the threaded spindle is converted into a linear movement of the guide carriage.

## KIPP Linear units

| Order No.         | Surface finish | Type E | Spindle | L<br>Standard length | Stroke | B  | D1    | J  | L1 | L2    | M  | P1<br>feather to<br>DIN 6885 | V1    | Approx.<br>weight<br>kg |
|-------------------|----------------|--------|---------|----------------------|--------|----|-------|----|----|-------|----|------------------------------|-------|-------------------------|
| K0495.300001X300  | slide bearing  | 30     | Tr 14x3 | 300                  | 100    | 30 | 8 h8  | 38 | 26 | 100   | 28 | 2 x 2 x 20                   | M4x8  | 0,800                   |
| K0495.300001X500  | slide bearing  | 30     | Tr 14x3 | 500                  | 300    | 30 | 8 h8  | 38 | 26 | 100   | 28 | 2 x 2 x 20                   | M4x8  | 1,276                   |
| K0495.300001X800  | slide bearing  | 30     | Tr 14x3 | 800                  | 600    | 30 | 8 h8  | 38 | 26 | 100   | 28 | 2 x 2 x 20                   | M4x8  | 1,947                   |
| K0495.400001X300  | slide bearing  | 40     | Tr 20x4 | 300                  | 91     | 40 | 12 h8 | 55 | 38 | 104,5 | 44 | 4 x 4 x 32                   | M6x10 | 1,984                   |
| K0495.400001X500  | slide bearing  | 40     | Tr 20x4 | 500                  | 291    | 40 | 12 h8 | 55 | 38 | 104,5 | 44 | 4 x 4 x 32                   | M6x10 | 2,920                   |
| K0495.400001X800  | slide bearing  | 40     | Tr 20x4 | 800                  | 591    | 40 | 12 h8 | 55 | 38 | 104,5 | 44 | 4 x 4 x 32                   | M6x10 | 4,785                   |
| K0495.400001X1000 | slide bearing  | 40     | Tr 20x4 | 1000                 | 791    | 40 | 12 h8 | 55 | 38 | 104,5 | 44 | 4 x 4 x 32                   | M6x10 | 5,865                   |
| K0495.500001X500  | slide bearing  | 50     | Tr 20x4 | 500                  | 265    | 50 | 12 h8 | 63 | 38 | 117,5 | 44 | 4 x 4 x 32                   | M6x10 | 4,368                   |
| K0495.500001X800  | slide bearing  | 50     | Tr 20x4 | 800                  | 565    | 50 | 12 h8 | 63 | 38 | 117,5 | 44 | 4 x 4 x 32                   | M6x10 | 6,288                   |
| K0495.500001X1000 | slide bearing  | 50     | Tr 20x4 | 1000                 | 765    | 50 | 12 h8 | 63 | 38 | 117,5 | 44 | 4 x 4 x 32                   | M6x10 | 7,568                   |
| K0495.180101X300  | ball bearing   | 18     | Tr 10x2 | 300                  | 145    | 18 | 6 h9  | 24 | 17 | 77,5  | 18 | 2 x 2 x 12                   | M3x5  | 0,355                   |
| K0495.180101X500  | ball bearing   | 18     | Tr 10x2 | 500                  | 345    | 18 | 6 h9  | 24 | 17 | 77,5  | 18 | 2 x 2 x 12                   | M3x5  | 0,550                   |
| K0495.300101X300  | ball bearing   | 30     | Tr 14x3 | 300                  | 100    | 30 | 8 h8  | 38 | 26 | 100   | 28 | 2 x 2 x 20                   | M4x8  | 0,800                   |
| K0495.300101X500  | ball bearing   | 30     | Tr 14x3 | 500                  | 300    | 30 | 8 h8  | 38 | 26 | 100   | 28 | 2 x 2 x 20                   | M4x8  | 1,276                   |
| K0495.300101X800  | ball bearing   | 30     | Tr 14x3 | 800                  | 600    | 30 | 8 h8  | 38 | 26 | 100   | 28 | 2 x 2 x 20                   | M4x8  | 1,947                   |
| K0495.400101X300  | ball bearing   | 40     | Tr 20x4 | 300                  | 91     | 40 | 12 h8 | 55 | 38 | 104,5 | 44 | 4 x 4 x 32                   | M6x10 | 1,984                   |
| K0495.400101X500  | ball bearing   | 40     | Tr 20x4 | 500                  | 291    | 40 | 12 h8 | 55 | 38 | 104,5 | 44 | 4 x 4 x 32                   | M6x10 | 2,920                   |
| K0495.400101X800  | ball bearing   | 40     | Tr 20x4 | 800                  | 591    | 40 | 12 h8 | 55 | 38 | 104,5 | 44 | 4 x 4 x 32                   | M6x10 | 4,785                   |
| K0495.400101X1000 | ball bearing   | 40     | Tr 20x4 | 1000                 | 791    | 40 | 12 h8 | 55 | 38 | 104,5 | 44 | 4 x 4 x 32                   | M6x10 | 5,865                   |
| K0495.500101X500  | ball bearing   | 50     | Tr 20x4 | 500                  | 265    | 50 | 12 h8 | 63 | 38 | 117,5 | 44 | 4 x 4 x 32                   | M6x10 | 4,368                   |
| K0495.500101X800  | ball bearing   | 50     | Tr 20x4 | 800                  | 565    | 50 | 12 h8 | 63 | 38 | 117,5 | 44 | 4 x 4 x 32                   | M6x10 | 6,288                   |
| K0495.500101X1000 | ball bearing   | 50     | Tr 20x4 | 1000                 | 765    | 50 | 12 h8 | 63 | 38 | 117,5 | 44 | 4 x 4 x 32                   | M6x10 | 7,568                   |

## Cross clamp guides



**Material, surface finish:**

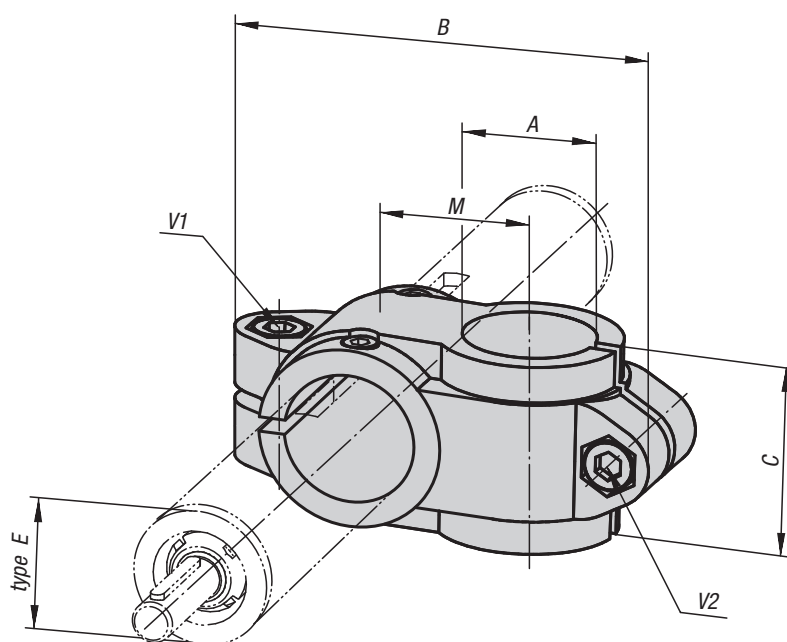
Cast aluminium, black powder-coated; socket head screw to DIN 7984 and hexagon nut to DIN 985 in galvanized steel

**Sample order:**

K0496.1818

**On request:**

Clamp levers for fixing.



### KIPP Cross clamp guides

| Order No.  | Type E | A  | B   | C    | M  | V1     | V2     |
|------------|--------|----|-----|------|----|--------|--------|
| K0496.1818 | 18     | 18 | 66  | 25,5 | 20 | M6x16  | M6x16  |
| K0496.3020 | 30     | 20 | 99  | 40   | 33 | M8x25  | M8x25  |
| K0496.3030 | 30     | 30 | 99  | 40   | 33 | M8x25  | M8x25  |
| K0496.4020 | 40     | 20 | 109 | 40   | 36 | M10x30 | M8x25  |
| K0496.4040 | 40     | 40 | 137 | 60   | 45 | M10x30 | M10x30 |
| K0496.5040 | 50     | 40 | 154 | 70   | 54 | M10x35 | M10x35 |
| K0496.5050 | 50     | 50 | 154 | 70   | 54 | M10x35 | M10x35 |

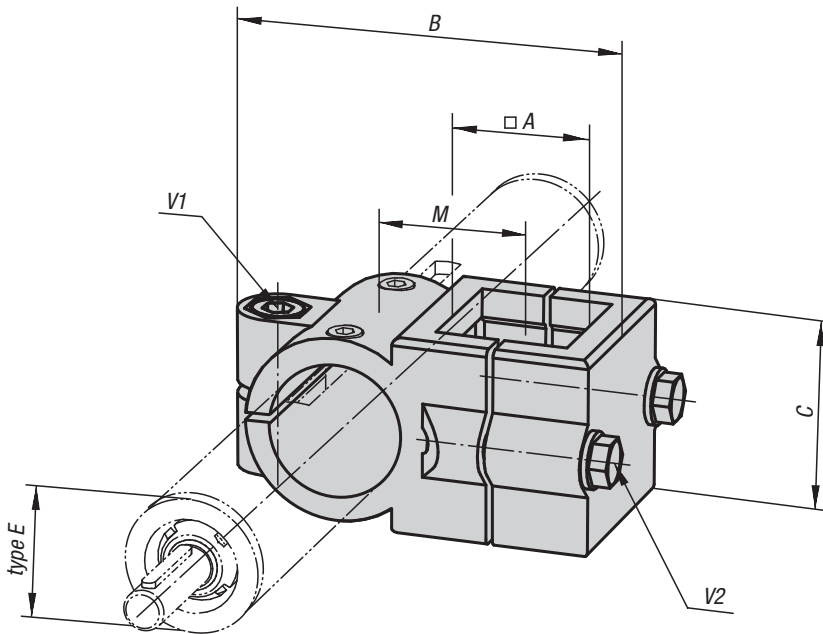
## Cross clamp guides



**Material, surface finish:**  
Cast aluminium, black powder-coated;  
clamping screw with nut in galvanized steel

**Sample order:**  
K0497.4040

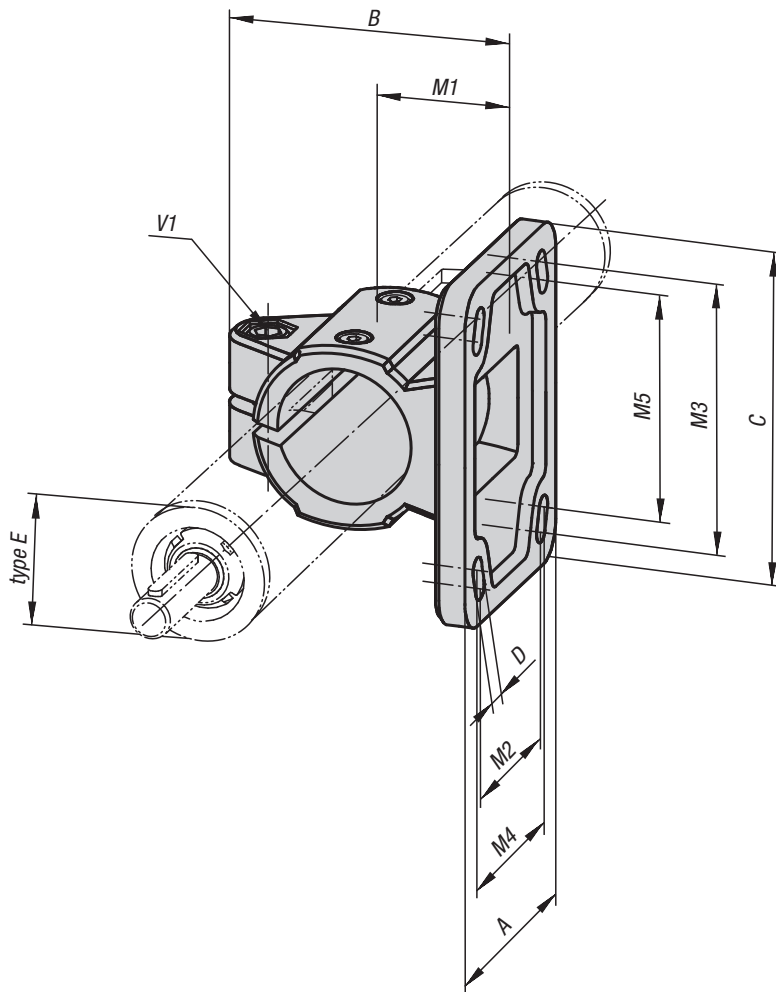
**On request:**  
Clamp levers for fixing.



### KIPP Cross clamp guides

| Order No.  | Type E | A  | B   | C  | M  | V1     | V2    |
|------------|--------|----|-----|----|----|--------|-------|
| K0497.3030 | 30     | 30 | 86  | 45 | 33 | M8x35  | M8x35 |
| K0497.4040 | 40     | 40 | 117 | 60 | 47 | M10x50 | M8x45 |
| K0497.5050 | 50     | 50 | 126 | 86 | 53 | M8x50  | M8x50 |

## Flange clamp guides



**Material, surface finish:**

Cast aluminium, black powder-coated; socket head screw to DIN 7984 and hexagon nut to DIN 985 in galvanized steel

**Sample order:**

K0498.50

**Note:**

\* Oblong hole.

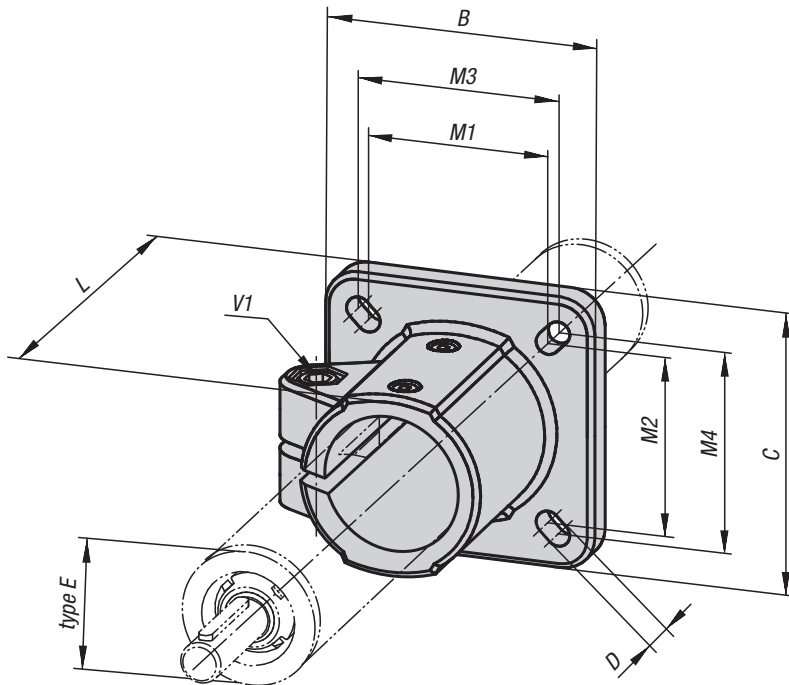
**On request:**

Clamp levers for fixing.

### KIPP Flange clamp guides

| Order No. | Type E | A  | B    | C   | D          | M1 | M2 | M3  | M4 | M5 | V1     |
|-----------|--------|----|------|-----|------------|----|----|-----|----|----|--------|
| K0498.18  | 18     | 37 | 42,5 | 50  | 5,5 (2x)   | 18 | -  | 40  | -  | -  | M6x16  |
| K0498.30  | 30     | 55 | 63   | 78  | 6,5* (2x)  | 30 | -  | 60  | -  | 53 | M8x25  |
| K0498.40  | 40     | 80 | 87   | 105 | 8,5* (4x)  | 42 | 52 | 82  | 60 | 80 | M10x30 |
| K0498.50  | 50     | 92 | 100  | 130 | 10,5* (4x) | 50 | 60 | 100 | 62 | 98 | M10x35 |

## Base clamp guides



**Material, surface finish:**

Cast aluminium, black powder-coated; socket head screw to DIN 7984 and hexagon nut to DIN 985 in galvanized steel

**Sample order:**

K0499.30

**Note:**

\* Oblong hole.

**On request:**

Clamp levers for fixing.



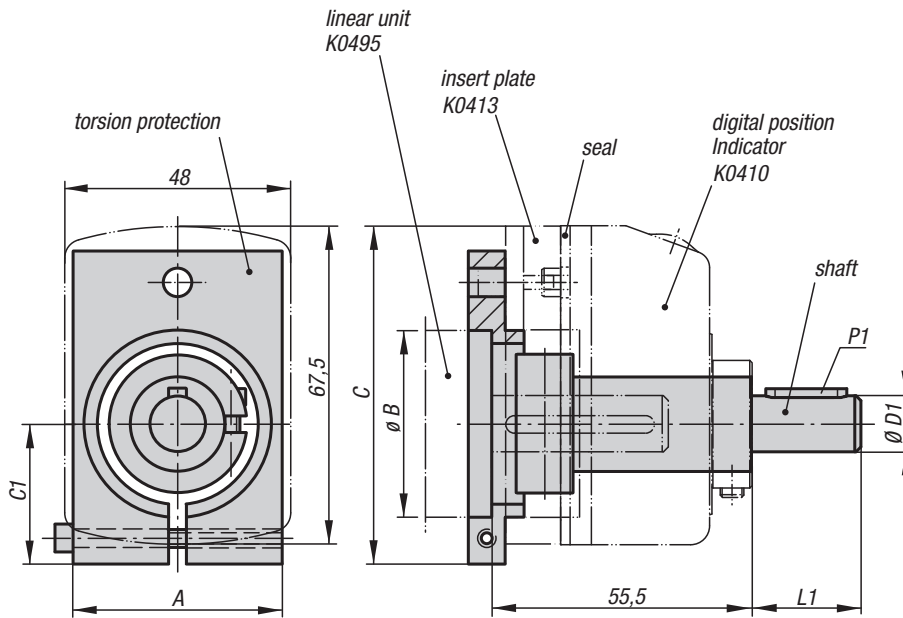
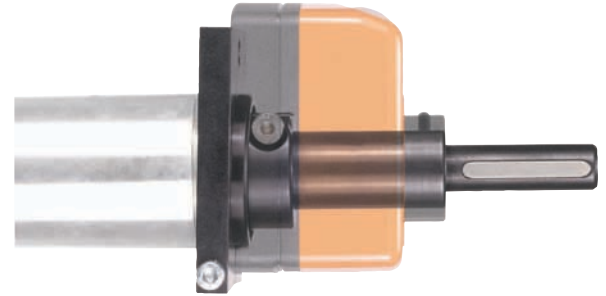
### KIPP Base clamp guides

| Order No. | Type E | B   | C   | D     | L  | M1 | M2 | M3 | M4 | V1     |
|-----------|--------|-----|-----|-------|----|----|----|----|----|--------|
| K0499.18  | 18     | 42  | 42  | 5,8   | 37 | 30 | 30 | -  | -  | M6x16  |
| K0499.30  | 30     | 60  | 60  | 6,5*  | 50 | 40 | 45 | 42 | 42 | M8x25  |
| K0499.40  | 40     | 90  | 90  | 8,5*  | 70 | 60 | 60 | 64 | 64 | M10x30 |
| K0499.50  | 50     | 105 | 105 | 10,5* | 85 | 74 | 74 | 80 | 80 | M10x35 |



## Adapter

for position indicators



### Material, surface finish:

Torsion protection and shaft in aluminium, black anodized; feather to DIN 6885; grub screw in stainless steel; clamping screw in galvanized steel or stainless steel

### Sample order:

K0614.18

### Note:

Digital position indicators can be attached to linear units with ball bearings with the help of the adapter. As a rule a counter is used, this being regulated by the pitch of the ACME threaded spindle. This means that the indication after one rotation of the spindle corresponds to the spindle pitch.

### Accessory:

- Digital position indicators K0410
- Insert plate K0413

### KIPP Adapter for position indicators

| Order No. | Suitable for type E | A  | B  | C  | C1 | D1 | L1 | P1 feather to DIN 6885 |
|-----------|---------------------|----|----|----|----|----|----|------------------------|
| K0614.18  | 18                  | 45 | 18 | 71 | 29 | 6  | 17 | 2 x 2 x 12             |
| K0614.30  | 30                  | 45 | 30 | 66 | 24 | 8  | 18 | 2 x 2 x 12             |
| K0614.40  | 40                  | 45 | 40 | 71 | 29 | 12 | 38 | 4 x 4 x 32             |
| K0614.50  | 50                  | 56 | 50 | 75 | 33 | 12 | 38 | 4 x 4 x 32             |

## High-grade plastic plug-in connectors with steel core inlay for insertion into square tubes

In combination with the aluminium profiles developed especially for the plug-in connectors, virtually unlimited construction possibilities are the result. The system is combinable with many different materials such as coated chipboard, right up to glass and plastic sheets. Assembly does not require screws. The plug-in connectors are easily inserted into the corresponding square tube. It can thus be disassembled and reused repeatedly. If disassembly is to be prevented, the plug-in connectors can be secured using glue, screws or rivets.

## Load rating of plug-in connectors

Plug-in connectors with steel cored insert for square tubes measuring 25x25x1.5 and 30x30x2 have a compressive strength of 400 kg max. per horizontal connector plug under the following conditions:

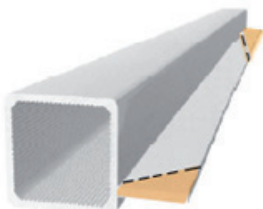
- the spacing between the exterior wall of the vertically coursed tube and the outer edge of the load must not exceed 10 mm.
- the lower surface of the load is so rigid that load transmission occurs entirely at the vertices of the load (see diagram).
- the load is absolutely static, i.e., without dynamic stress per travelling weights.

### Note:

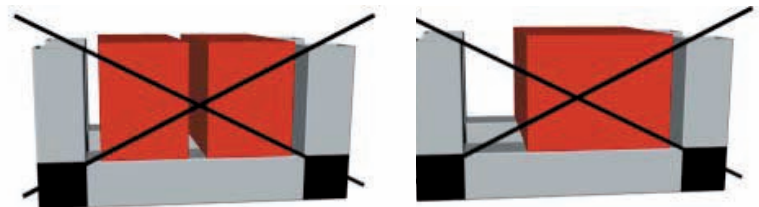
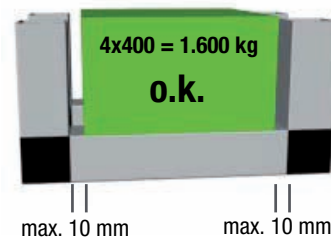
Please note that the use of items such as adjustable sliders, thread plugs and swivel pads in conjunction with the plug-in connectors can decrease these values for the entire unit.

### Mitre Cuts

Mitre cuts are required when square tubes with land come in contact with a plug-in connector. On request, we will provide you with our square tubes with land, mitre cut inclusive.

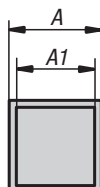
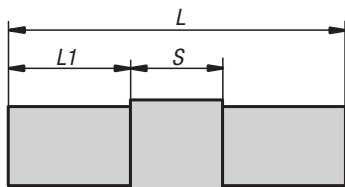
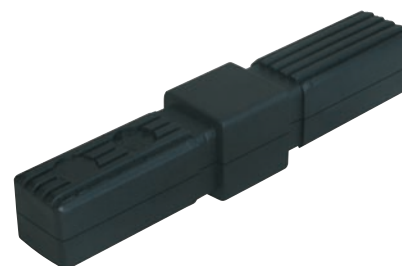


In the case of a mitre cut, a 90° cut is made on the square and a 45° cut on the land. Surface preparation occurs prior to the cut. i.e., the edges of cut have a natural finish.



## Plug connector

connecting piece



**Material, surface finish:**

Polyamide PA, black.  
Steel core inlay in steel, galvanized.

**Sample order:**

K0615.1201512

**Note:**

Plug system without screws. The plug connectors are simply inserted into the corresponding square tube. They can be disassembled and used again.

**Accessory:**

- Square tubes K0627
- Square tubes with a bridge K0628

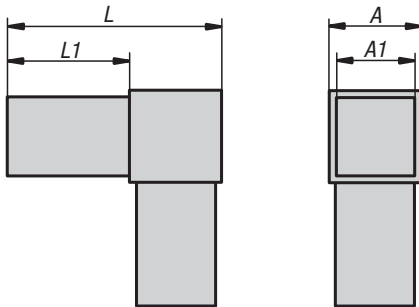


### KIPP Plug connector connecting piece

| Order No.     | A  | A1 | L   | L1 | S  | Suitable for square tubes |
|---------------|----|----|-----|----|----|---------------------------|
| K0615.1201512 | 20 | 17 | 95  | 45 | 5  | 20 x 20 x 1,5             |
| K0615.1251512 | 25 | 22 | 133 | 54 | 25 | 25 x 25 x 1,5             |
| K0615.1302012 | 30 | 26 | 122 | 46 | 30 | 30 x 30 x 2               |

## Plug connector

right angle



**Material, surface finish:**

Polyamide PA, black.

Steel core inlay in steel, galvanized.

**Sample order:**

K0616.1201512

**Note:**

Plug system without screws. The plug connectors are simply inserted into the corresponding square tube. They can be disassembled and used again.

**Accessory:**

- Square tubes K0627
- Square tubes with a bridge K0628

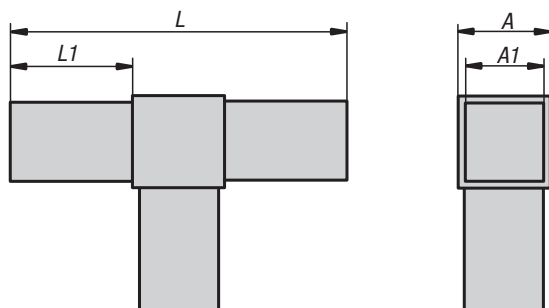


### KIPP Plug connector right angle

| Order No.     | A  | A1 | L  | L1 | Suitable for square tubes |
|---------------|----|----|----|----|---------------------------|
| K0616.1201512 | 20 | 17 | 56 | 36 | 20 x 20 x 1,5             |
| K0616.1251512 | 25 | 22 | 77 | 52 | 25 x 25 x 1,5             |
| K0616.1302012 | 30 | 26 | 77 | 47 | 30 x 30 x 2               |

## Plug connector

T-piece



**Material, surface finish:**

Polyamide PA, black.  
Steel core inlay in steel, galvanized.

**Sample order:**

K0617.1201512

**Note:**

Plug system without screws. The plug connectors are simply inserted into the corresponding square tube. They can be disassembled and used again.

**Accessory:**

- Square tubes K0627
- Square tubes with a bridge K0628

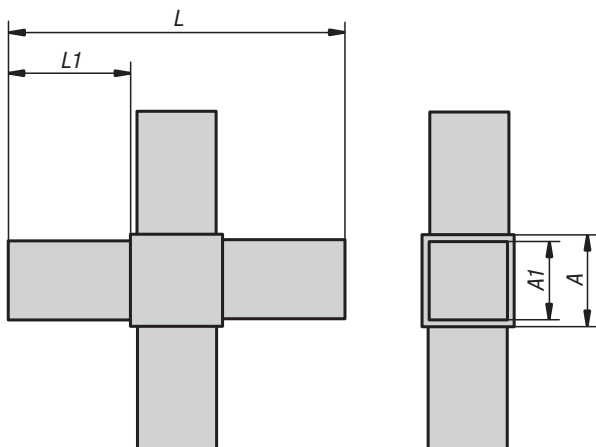


### KIPP Plug connector T-piece

| Order No.     | A  | A1 | L   | L1 | Suitable for square tubes |
|---------------|----|----|-----|----|---------------------------|
| K0617.1201512 | 20 | 17 | 92  | 36 | 20 x 20 x 1,5             |
| K0617.1251512 | 25 | 22 | 127 | 51 | 25 x 25 x 1,5             |
| K0617.1302012 | 30 | 26 | 124 | 47 | 30 x 30 x 2               |

## Plug connector

cross piece



**Material, surface finish:**

Polyamide PA, black.  
Steel core inlay in steel, galvanized.

**Sample order:**

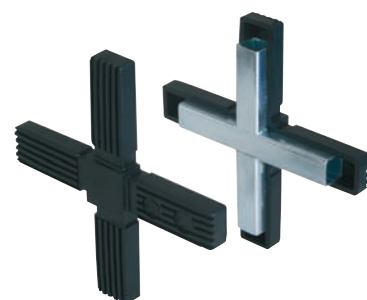
K0618.1201512

**Note:**

Plug system without screws. The plug connectors are simply inserted into the corresponding square tube. They can be disassembled and used again.

**Accessory:**

- Square tubes K0627
- Square tubes with a bridge K0628

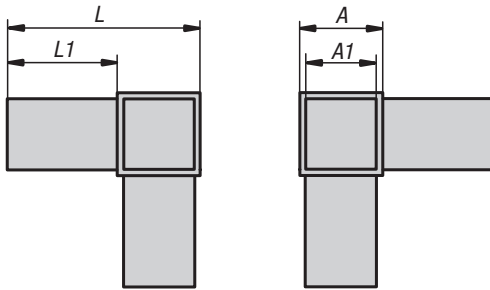


**KIPP Plug connector cross piece**

| Order No.     | A  | A1 | L   | L1 | Suitable for square tubes |
|---------------|----|----|-----|----|---------------------------|
| K0618.1201512 | 20 | 17 | 92  | 36 | 20 x 20 x 1,5             |
| K0618.1251512 | 25 | 22 | 127 | 51 | 25 x 25 x 1,5             |
| K0618.1302012 | 30 | 26 | 124 | 47 | 30 x 30 x 2               |

## Plug connector

angle with outlet



**Material, surface finish:**

Polyamide PA, black.  
Steel core inlay in steel, galvanized.

**Sample order:**

K0619.1201512

**Note:**

Plug system without screws. The plug connectors are simply inserted into the corresponding square tube. They can be disassembled and used again.

**Accessory:**

- Square tubes K0627
- Square tubes with a bridge K0628

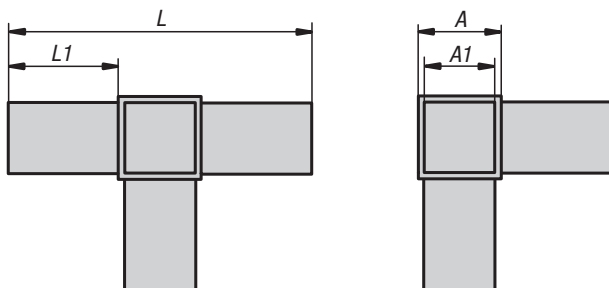


### KIPP Plug connector angle with outlet

| Order No.     | A  | A1 | L  | L1 | Suitable for square tubes |
|---------------|----|----|----|----|---------------------------|
| K0619.1201512 | 20 | 17 | 56 | 36 | 20 x 20 x 1,5             |
| K0619.1251512 | 25 | 22 | 77 | 52 | 25 x 25 x 1,5             |
| K0619.1302012 | 30 | 26 | 77 | 47 | 30 x 30 x 2               |

## Plug connector

T-piece with outlet



**Material, surface finish:**

Polyamide PA, black.  
Steel core inlay in steel, galvanized.

**Sample order:**

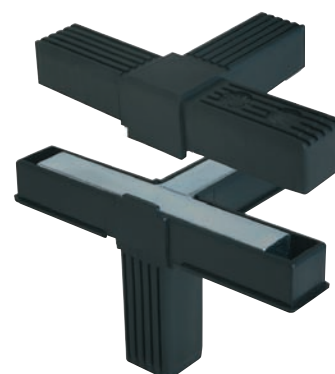
K0620.1201512

**Note:**

Plug system without screws. The plug connectors are simply inserted into the corresponding square tube. They can be disassembled and used again.

**Accessory:**

- Square tubes K0627
- Square tubes with a bridge K0628



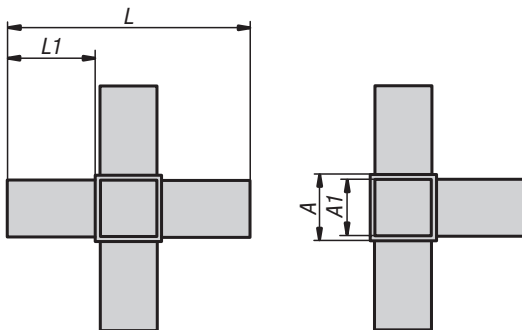
### KIPP Plug connector T-piece with outlet

| Order No.     | A  | A1 | L   | L1 | Suitable for square tubes |
|---------------|----|----|-----|----|---------------------------|
| K0620.1201512 | 20 | 17 | 92  | 36 | 20 x 20 x 1,5             |
| K0620.1251512 | 25 | 22 | 129 | 52 | 25 x 25 x 1,5             |
| K0620.1302012 | 30 | 26 | 124 | 47 | 30 x 30 x 2               |



## Plug connector

cross with outlet



**Material, surface finish:**

Polyamide PA, black.

Steel core inlay in steel, galvanized.

**Sample order:**

K0621.1201512

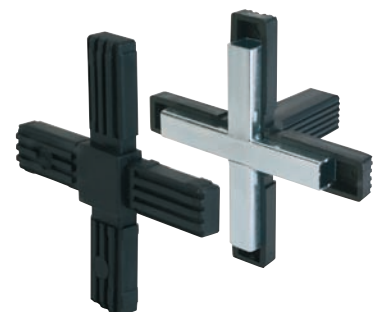
**Note:**

Plug system without screws. The plug connectors are simply inserted into the corresponding square tube. They can be disassembled and used again.

**Accessory:**

- Square tubes K0627

- Square tubes with a bridge K0628

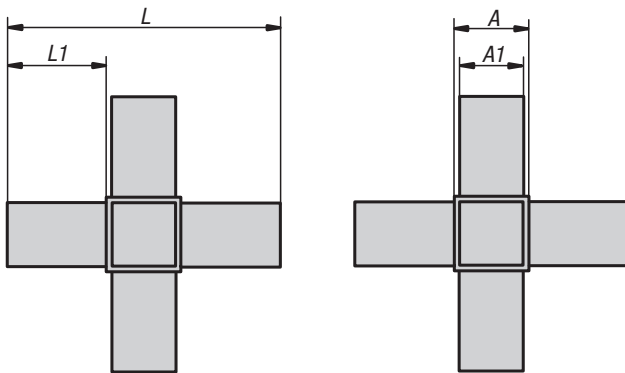


### KIPP Plug connector cross with outlet

| Order No.     | A  | A1 | L   | L1 | Suitable for square tubes |
|---------------|----|----|-----|----|---------------------------|
| K0621.1201512 | 20 | 17 | 92  | 36 | 20 x 20 x 1,5             |
| K0621.1251512 | 25 | 22 | 133 | 54 | 25 x 25 x 1,5             |
| K0621.1302012 | 30 | 26 | 124 | 47 | 30 x 30 x 2               |

## Plug connector

star



**Material, surface finish:**

Polyamide PA, black.

Steel core inlay in steel, galvanized.

**Sample order:**

K0622.1201512

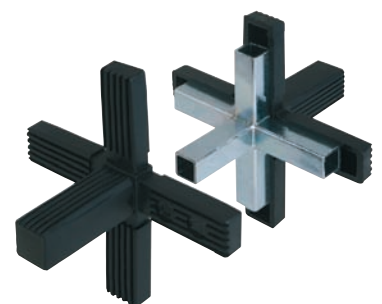
**Note:**

Plug system without screws. The plug connectors are simply inserted into the corresponding square tube. They can be disassembled and used again.

**Accessory:**

- Square tubes K0627

- Square tubes with a bridge K0628

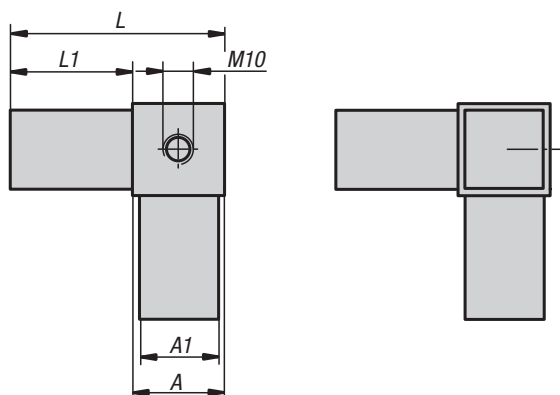


### KIPP Plug connector star

| Order No.     | A  | A1 | L   | L1 | Suitable for square tubes |
|---------------|----|----|-----|----|---------------------------|
| K0622.1201512 | 20 | 17 | 92  | 36 | 20 x 20 x 1,5             |
| K0622.1251512 | 25 | 22 | 129 | 52 | 25 x 25 x 1,5             |
| K0622.1302012 | 30 | 26 | 124 | 47 | 30 x 30 x 2               |

## Plug connector

angle with outlet and thread



**Material, surface finish:**

Polyamide PA, black.  
Steel core inlay in steel, galvanized.

**Sample order:**

K0623.125151210

**Note:**

Plug system without screws. The plug connectors are simply inserted into the corresponding square tube. They can be disassembled and used again. For assembly of swivel pads, rollers etc.

**Accessory:**

- Square tubes K0627
- Square tubes with a bridge K0628

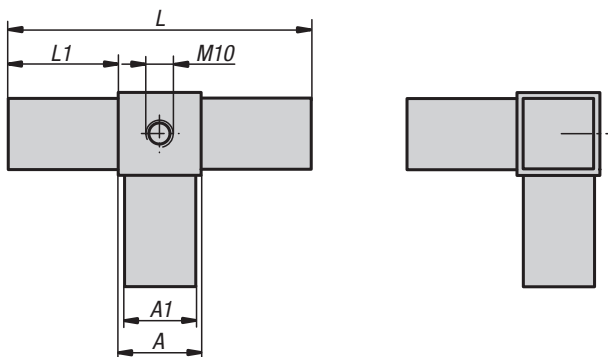


**KIPP Plug connector angle with outlet and thread**

| Order No.       | A  | A1 | L  | L1 | Suitable for square tubes |
|-----------------|----|----|----|----|---------------------------|
| K0623.125151210 | 25 | 22 | 77 | 52 | 25 x 25 x 1,5             |
| K0623.130201210 | 30 | 26 | 77 | 47 | 30 x 30 x 2               |

## Plug connector

T-piece with outlet and thread



**Material, surface finish:**

Polyamide PA, black.  
Steel core inlay in steel, galvanized.

**Sample order:**

K0624.125151210

**Note:**

Plug system without screws. The plug connectors are simply inserted into the corresponding square tube. They can be disassembled and used again. For assembly of swivel pads, rollers etc.

**Accessory:**

- Square tubes K0627
- Square tubes with a bridge K0628



**KIPP Plug connector T-piece with outlet and thread**

| Order No.       | A  | A1 | L   | L1 | Suitable for square tubes |
|-----------------|----|----|-----|----|---------------------------|
| K0624.125151210 | 25 | 22 | 129 | 52 | 25 x 25 x 1,5             |
| K0624.130201210 | 30 | 26 | 124 | 47 | 30 x 30 x 2               |

## Plug connector

leg



**Material, surface finish:**

Polyamide PA, black.  
 Socket head screw to DIN 6912 and hexagon nut DIN 934, galvanized steel.

**Sample order:**

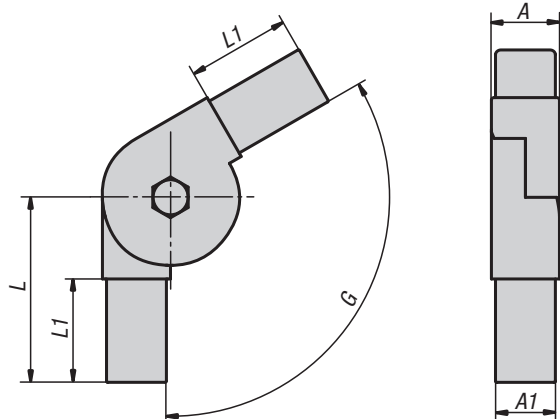
K0625.1251511

**Note:**

The plug connectors are simply inserted into the corresponding square tube. They can be disassembled and used again. The specified adjustment range can be aligned continuously.

**Accessory:**

- Square tubes K0627
- Square tubes with a bridge K0628

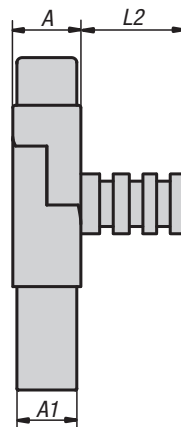
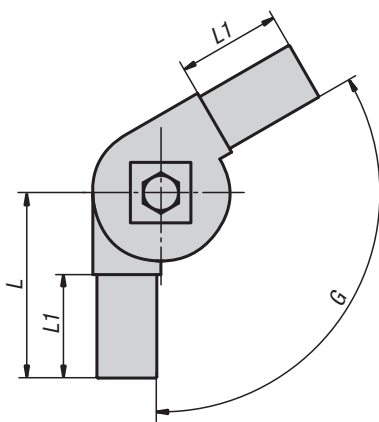


### KIPP Plug connector leg

| Order No.     | A  | A1 | L  | L1 | G          | Suitable for square tubes |
|---------------|----|----|----|----|------------|---------------------------|
| K0625.1251511 | 25 | 22 | 68 | 38 | 0° - 190°  | 25 x 25 x 1,5             |
| K0625.1251512 | 25 | 22 | 59 | 38 | 45° - 195° | 25 x 25 x 1,5             |

## Plug connector

leg with one outlet



**Material, surface finish:**

Polyamide PA, black.

Socket head screw to DIN 6912 and hexagon nut DIN 934, galvanized steel.

**Sample order:**

K0626.1251511

**Note:**

The plug connectors are simply inserted into the corresponding square tube. They can be disassembled and used again. The specified adjustment range can be aligned continuously. The outlet can be revolved around its own axis.

**Accessory:**

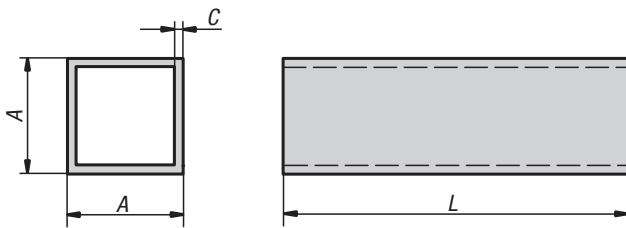
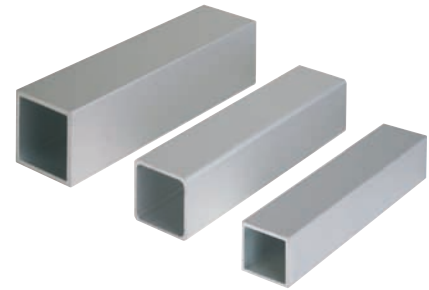
- Square tubes K0627
- Square tubes with a bridge K0628



### KIPP Plug connector leg with one outlet

| Order No.     | A  | A1 | L  | L1 | L2 | G          | Suitable for square tubes |
|---------------|----|----|----|----|----|------------|---------------------------|
| K0626.1251511 | 25 | 22 | 68 | 38 | 42 | 0° - 190°  | 25 x 25 x 1,5             |
| K0626.1251512 | 25 | 22 | 59 | 38 | 42 | 45° - 195° | 25 x 25 x 1,5             |

## Square tubes



**Material:**

Aluminium profile.

**Surface finish:**

silver-coloured anodized.

**Sample order:**

K0627.120152X2000

**Note:**

The square tubes are individually adjusted to our plug connectors.

**On request:**

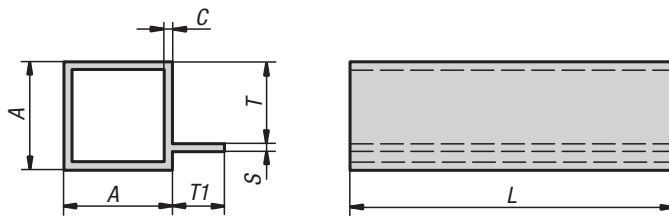
- Other lengths (L max. 4000 mm)

### KIPP Square tubes

| Order No.         | A  | C   | L    |
|-------------------|----|-----|------|
| K0627.120152X2000 | 20 | 1,5 | 2000 |
| K0627.125152X2000 | 25 | 1,5 | 2000 |
| K0627.130202X2000 | 30 | 2   | 2000 |

## Square tubes

with a bridge



**Material:**

Aluminium profile.

**Surface finish:**

silver-coloured anodized.

**Sample order:**

K0628.125152X2000

**Note:**

The square tubes are individually adjusted to our plug connectors.

**On request:**

- Other lengths (L max. 4000 mm)
- Mitre cuts



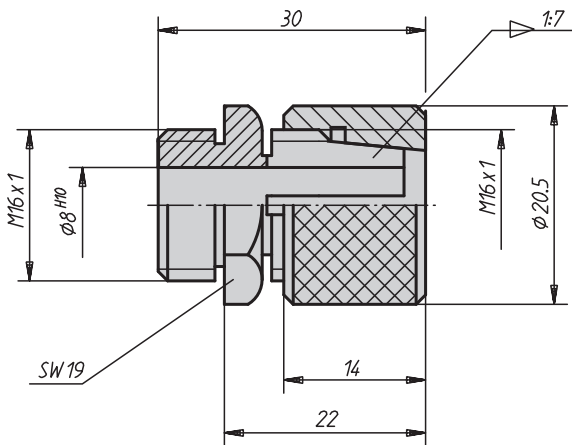
### KIPP Square tubes with a bridge

| Order No.         | A  | C   | L    | S | T  | T1 |
|-------------------|----|-----|------|---|----|----|
| K0628.125152X2000 | 25 | 1,5 | 2000 | 2 | 19 | 15 |



## Screw connection for dial gauges

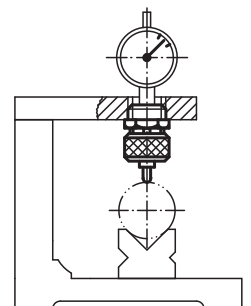
with clamping shaft  $\varnothing 8$



**Material:**  
Tempered steel

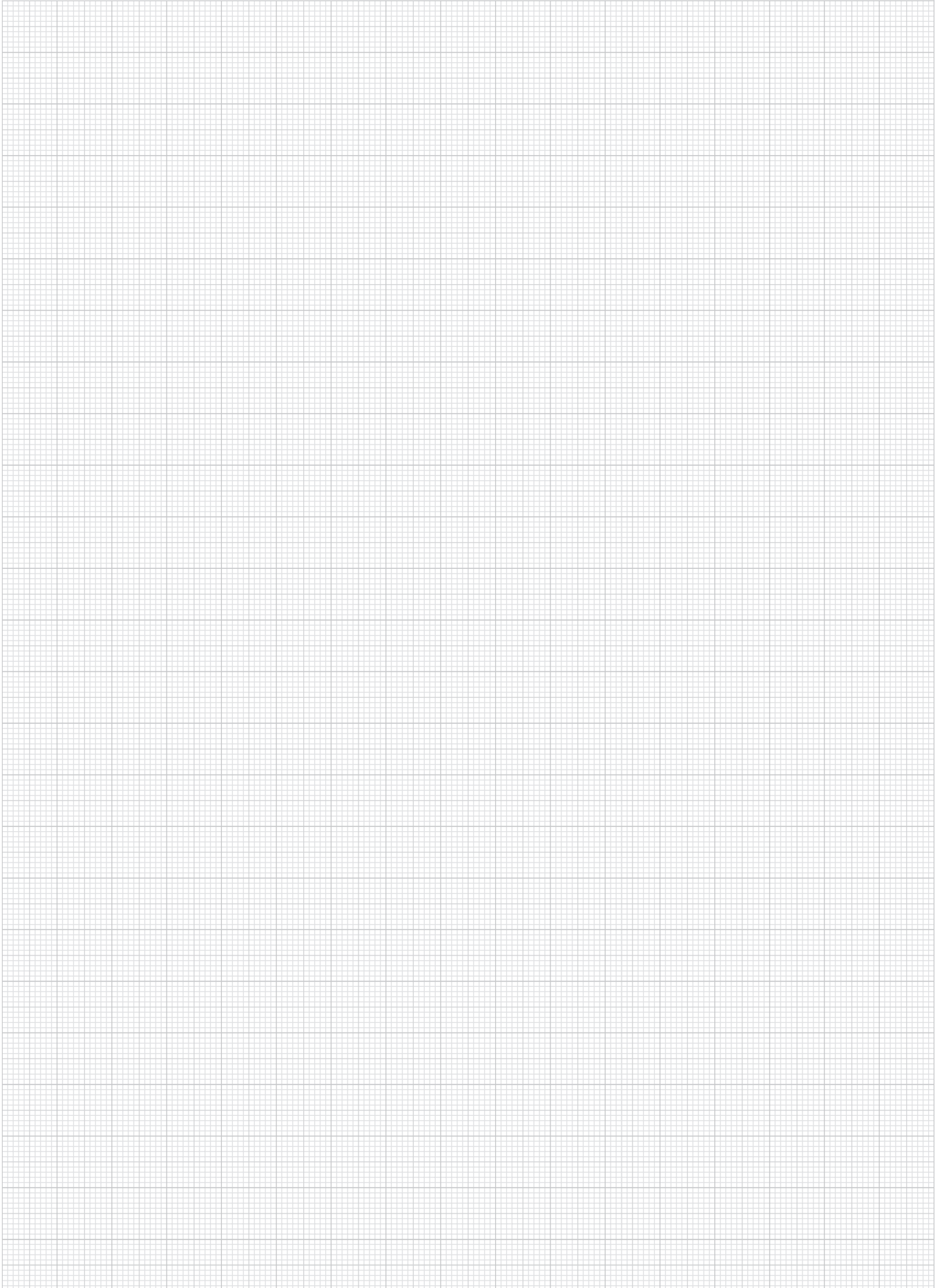
**Surface finish:**  
Black oxide finish,  
collet chuck heat-treated

**Sample order:**  
K0629.08



### KIPP Screw Connection for dial gauges with clamping shaft $\varnothing 8$

| Order No. | Approx. weight<br>kg |
|-----------|----------------------|
| K0629.08  | 0,042                |





# Telescopic slides





## Telescopic slides

Telescopic slides,  
partial extension,  
load capacity up to 15 kg  
**K0536**



Page 419

Telescopic slides,  
partial extension,  
load capacity up to 35 kg  
**K0537**



Page 420

Telescopic slides,  
full extension, separable,  
load capacity up to 52 kg  
**K0538**



19"

Page 421

Telescopic slides,  
full extension, separable,  
load capacity up to 40 kg  
**K0539**



Page 422

Telescopic slides,  
over-extension,  
load capacity up to 60 kg  
**K0540**



Page 423

Telescopic slides,  
over-extension,  
load capacity up to 60 kg  
**K0541**



Page 424

Telescopic slides,  
over-extension,  
load capacity up to 80 kg  
**K0542**



Page 425

Telescopic slides with support bracket,  
over-extension,  
load capacity up to 75 kg  
**K0543**



Page 426

Telescopic slides,  
heavy-duty, full extension,  
load capacity up to 200 kg  
**K0544**



Page 427

# Technical information for telescopic slides



## Structure:

Telescopic slides consist of two or more ball-bearing supported guide rails mounted into each other that can be pulled out like a telescope.

The load rating of a telescopic slide is determined by the following factors:

- Rail length
- Stroke length
- Number of cycles
- Material
- Installation
- System assembly

The load bearing capacity per pair given in the catalogue indicates the maximum load rating of a vertically mounted slide pair when the entire extension length is used.

It assumes that all designated fastening positions are used with the suitable fastening element and must be proven within the project under the intended effective conditions of use.

## Extension types:

Partial extension:

Stroke (extension distance) approx.

70-80% of slide length

Full extension:

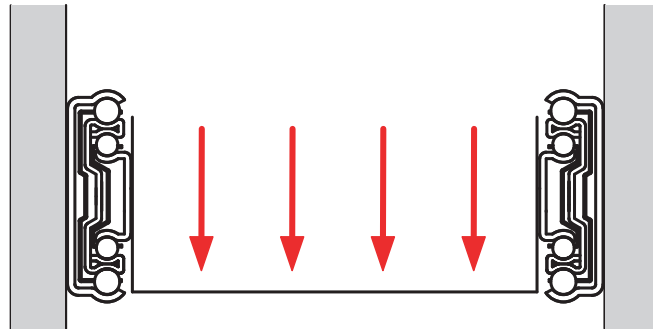
Stroke (extension distance)  
100% of slide length

Over-extension:

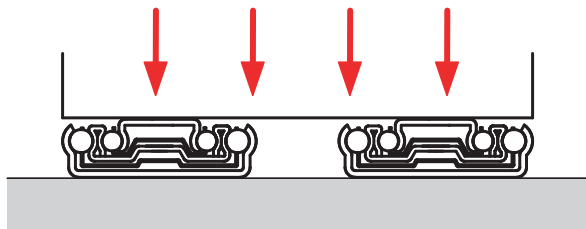
Stroke (extension distance)  
>100% of slide length

## Temperature range:

- Application temperature  
+10°C to +40°C
- Storage and transport temperature  
-20°C to +80°C  
(with K0541 to +60°C)



Vertically mounted telescopic slides are distinguished by super-imposed ball tracks. This special design makes them extraordinarily torsion resistant and increases the service life and the carrying capacity of the guides significantly.



Horizontal installation of the telescopic slides is partly possible as well. The load values are approx. 50-60% less than for vertically mounted guides.

## Possible features of telescopic slides:

Interlocking device:

The interlocking device fixes the guide in a closed position.



Retraction damping:

The movement is caught with damping during closure and the telescopic slide moves automatically into the end position.



In addition, a defined force must be overcome for opening, which prevents unintentional opening.

Self-retraction:

During retraction, the guide is pulled in completely by a spring mechanism 25 mm before reaching the endpoint.



Is also defined as automatic retraction. The retraction force of the self-retraction can be modified by attaching a spring.

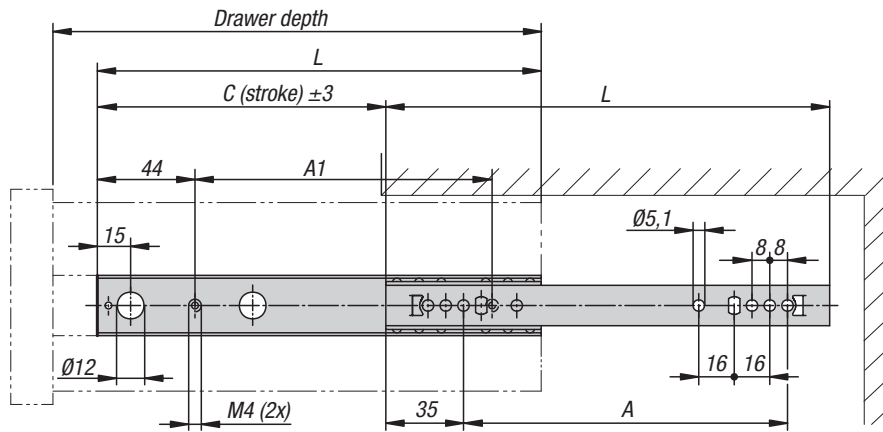
Separable inside rail:

A separable inside rail allows detachment of the inner rail profile. This allows the moving element to be fully removed from the guide.



## Telescopic slides,

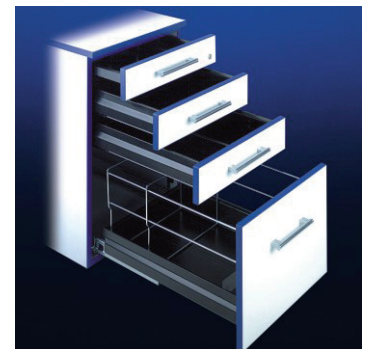
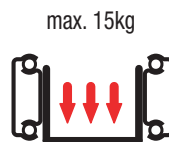
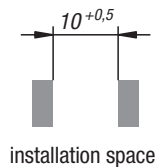
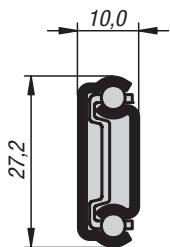
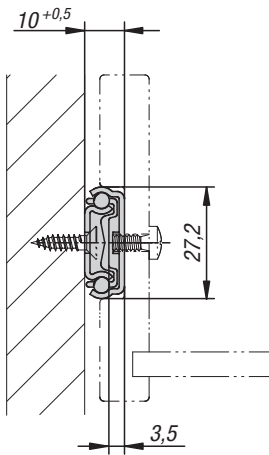
partial extension, load capacity up to 15 kg



**Material, surface finish:**  
 Slides in steel, hot galvanized.  
 Ball cages in plastic.  
 Balls in C steel, hardened.

**Sample order:**  
 K0536.10214 (sold per piece)

**Note:**  
 For telescopic slides with partial extension, the stroke is less than the overall length. They are an inexpensive solution for guiding drawers or the like with low friction. The dynamic load capacity of the telescopic slides indicates the maximum load rating of a vertically mounted slide pair when the entire extension length is used. The specified load-bearing capacities refer to the maximum value at 100,000 cycles. The telescopic slides can be extended on both sides.



### KIPP Telescopic slides, partial extension, load capacity up to 15 kg

| Order No.   | A   | A1  | C (stroke) | L   | Drawer depth from - to | Load-bearing capacity per pair kg | Weight per pair in kg |
|-------------|-----|-----|------------|-----|------------------------|-----------------------------------|-----------------------|
| K0536.10214 | 160 | 124 | 144        | 214 | 214 - 348              | 15                                | 0,29                  |
| K0536.10310 | 256 | 234 | 220        | 310 | 310 - 520              | 15                                | 0,41                  |
| K0536.10406 | 352 | 330 | 276        | 406 | 406 - 672              | 15                                | 0,56                  |
| K0536.10470 | 416 | 394 | 320        | 470 | 470 - 780              | 15                                | 0,64                  |



# Telescopic slides,

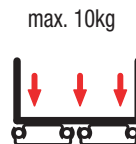
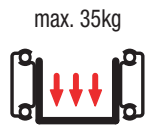
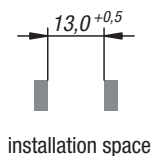
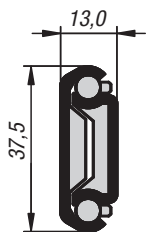
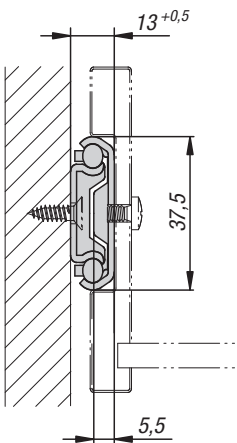
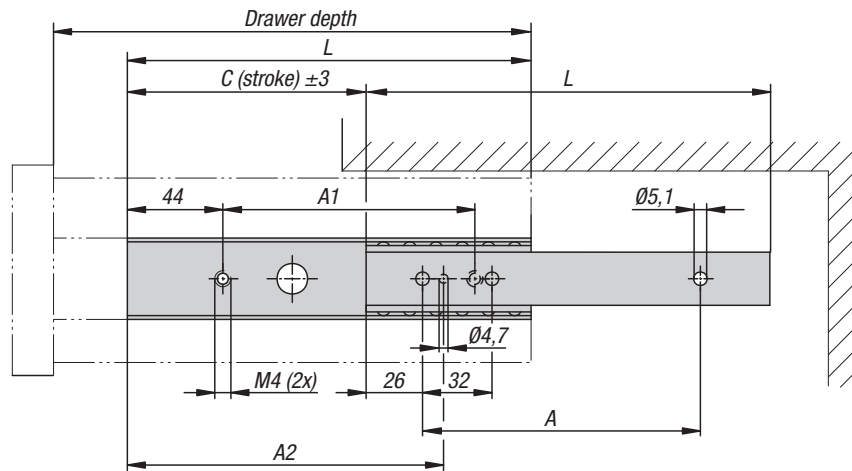
partial extension, load capacity up to 35 kg



**Material, surface finish:**  
 Slides in steel, hot galvanized.  
 Ball cages in plastic.  
 Balls in C steel, hardened.

**Sample order:**  
 K0537.10242 (sold per piece)

**Note:**  
 For telescopic slides with partial extension, the stroke is less than the overall length. They are an inexpensive solution for guiding drawers or the like with low friction. The dynamic load capacity of the telescopic slides indicates the maximum load rating of a vertically mounted slide pair when the entire extension length is used. The value is 50-60% lower for horizontal mounting. The specified load-bearing capacities refer to the maximum value at 100,000 cycles. The telescopic slides can be extended on both sides.

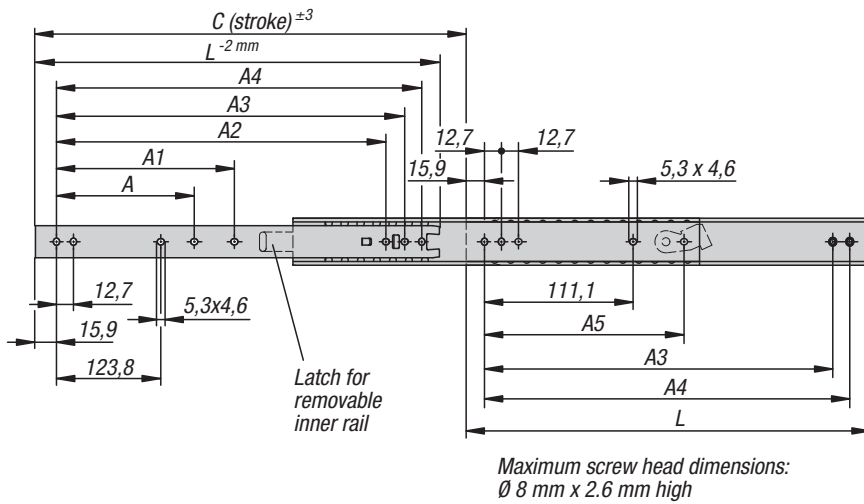


## KIPP Telescopic slides, partial extension, load capacity up to 35 kg

| Order No.   | A   | A1  | A2  | L   | C (stroke) | Drawer depth from - to | Load-bearing capacity per pair kg | Load capacity per pair kg horizontal | Weight per pair in kg |
|-------------|-----|-----|-----|-----|------------|------------------------|-----------------------------------|--------------------------------------|-----------------------|
| K0537.10242 | 192 | 166 | 202 | 242 | 154        | 242 - 380              | 35                                | 10                                   | 0,59                  |
| K0537.10317 | 256 | 241 | 277 | 317 | 229        | 317 - 530              | 35                                | 10                                   | 0,78                  |
| K0537.10398 | 352 | 322 | 358 | 398 | 298        | 398 - 680              | 35                                | 10                                   | 0,96                  |
| K0537.10473 | 416 | 397 | 433 | 473 | 373        | 473 - 780              | 35                                | 10                                   | 1,14                  |

## Telescopic slides, 19"

full extension, separable, load capacity up to 52 kg



### Material, surface finish:

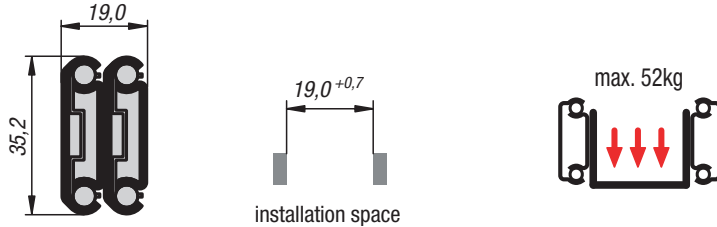
Slides steel, galvanized and passivated blue.  
Ball cages galvanized steel.  
Balls in C steel, hardened.

### Sample order:

K0538.10305 (sold per piece)

### Note:

For telescopic slides with full extension, the stroke is equal to the overall length, which guarantees more comfort and accessibility. These slides were specially developed for 19" technology. Separable internal slides allow the detachment of inner and outer profiles. Frictional engagement in the opened position. The dynamic load capacity of the telescopic slides indicates the maximum load rating of a vertically mounted slide pair when the entire extension length is used. The specified load capacities refer to a maximum value after 100,000 cycles.



## KIPP Telescopic slides, full extension, separable, load capacity up to 52 kg

| Order No.   | A     | A1    | A2    | A3    | A4    | A5    | C (stroke) | L   | L in inches | Load-bearing capacity per pair in kg | Weight per pair in kg |
|-------------|-------|-------|-------|-------|-------|-------|------------|-----|-------------|--------------------------------------|-----------------------|
| K0538.10305 | -     | -     | -     | 260,3 | 273   | -     | 316        | 305 | 12          | 45                                   | 1,12                  |
| K0538.10330 | -     | -     | 273   | 285,7 | 298,4 | -     | 353        | 330 | 13          | 45                                   | 1,20                  |
| K0538.10356 | -     | -     | 298,4 | 311,1 | 323,8 | -     | 381        | 356 | 14          | 46                                   | 1,32                  |
| K0538.10406 | -     | -     | 349,2 | 361,9 | 374,6 | 250,8 | 433        | 406 | 16          | 49                                   | 1,52                  |
| K0538.10457 | 212,7 | -     | 400   | 412,7 | 425,4 | 301,6 | 484        | 457 | 18          | 50                                   | 1,72                  |
| K0538.10508 | 238,1 | 365,1 | 450,9 | 463,6 | 476,3 | 352,4 | 531        | 508 | 20          | 51                                   | 1,92                  |
| K0538.10533 | 250,8 | 390,5 | 476,2 | 488,9 | 501,6 | 377,8 | 554        | 533 | 21          | 51                                   | 1,99                  |
| K0538.10559 | 263,5 | 415,9 | 501,6 | 514,3 | 527   | 403,2 | 585        | 559 | 22          | 51                                   | 2,09                  |
| K0538.10610 | 288,9 | 466,7 | 552,4 | 565,1 | 577,8 | 454   | 636        | 610 | 24          | 52                                   | 2,28                  |
| K0538.10660 | 314,3 | 517,5 | 603,2 | 615,9 | 628,6 | 504,8 | 687        | 660 | 26          | 52                                   | 2,46                  |

## Telescopic slides,

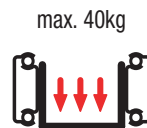
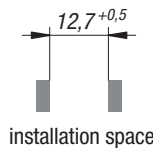
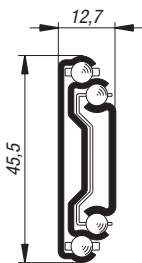
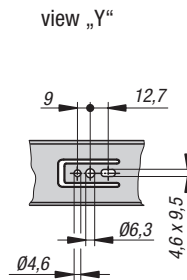
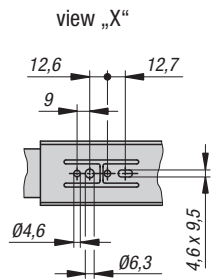
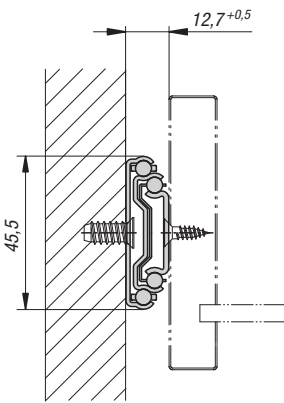
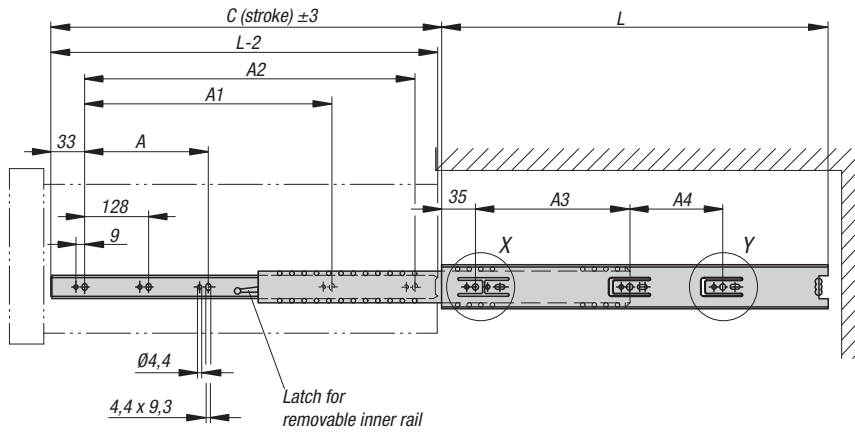
full extension, separable, load capacity up to 40 kg



**Material, surface finish:**  
 Slides in steel, bright chromed.  
 Ball cages in steel and plastic.  
 Balls in C steel, hardened.

**Sample order:**  
 K0539.10300 (sold per piece)

**Note:**  
 For telescopic slides with full extension, the stroke is equal to the overall length, which guarantees more comfort and accessibility. Separable internal slides allow the detachment of inner and outer profiles. Closure in closed position. The dynamic load capacity of the telescopic slides indicates the maximum load rating of a vertically mounted slide pair when the entire extension length is used. The specified load-bearing capacities refer to the maximum value at 50,000 cycles.

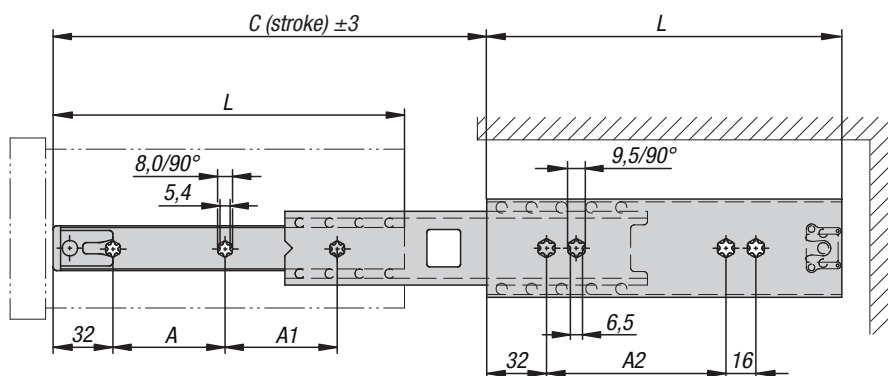


### KIPP Telescopic slides, full extension, separable, load capacity up to 40 kg

| Order No.   | A   | A1  | A2  | A3  | A4  | C (stroke) | L   | Drawer depth | Load-bearing capacity per pair kg | Weight per pair in kg |
|-------------|-----|-----|-----|-----|-----|------------|-----|--------------|-----------------------------------|-----------------------|
| K0539.10300 | -   | -   | 242 | 192 | -   | 305        | 300 | 300          | 30                                | 0,85                  |
| K0539.10350 | -   | -   | 292 | 256 | -   | 356        | 350 | 350          | 30                                | 1,01                  |
| K0539.10400 | -   | 256 | 342 | 160 | 96  | 406        | 400 | 400          | 35                                | 1,14                  |
| K0539.10450 | -   | 256 | 392 | 160 | 160 | 457        | 450 | 450          | 35                                | 1,29                  |
| K0539.10500 | -   | 352 | 442 | 224 | 128 | 508        | 500 | 500          | 35                                | 1,44                  |
| K0539.10550 | 224 | 416 | 492 | 224 | 192 | 559        | 550 | 550          | 40                                | 1,60                  |
| K0539.10600 | 224 | 416 | 542 | 224 | 224 | 610        | 600 | 600          | 40                                | 1,76                  |

## Telescopic slides,

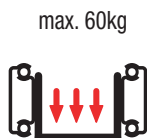
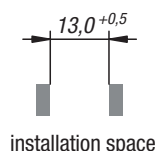
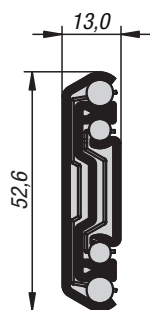
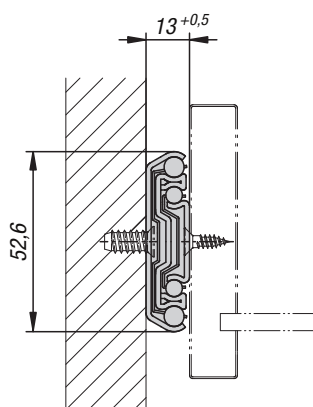
over-extension, load capacity up to 60 kg



**Material, surface finish:**  
 Slides in steel, hot galvanized.  
 Ball cages galvanized steel.  
 Balls in C steel, hardened.

**Sample order:**  
 K0540.10300 (sold per piece)

**Note:**  
 For telescopic slides with over-extension, the stroke is greater than the overall length. Closure in closed position. The dynamic load capacity of the telescopic slides indicates the maximum load rating of a vertically mounted slide pair when the entire extension length is used. The specified load-bearing capacities refer to the maximum value at 100,000 cycles.

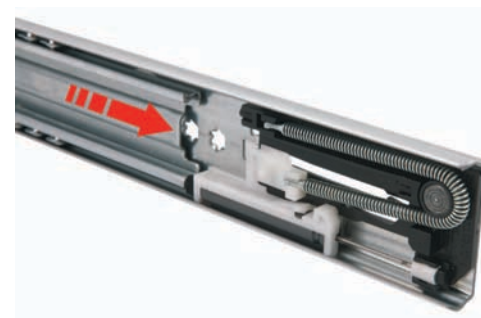
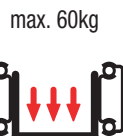
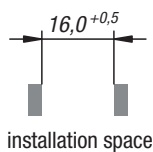
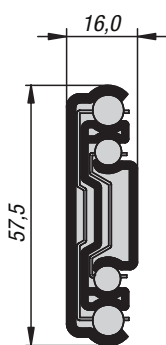
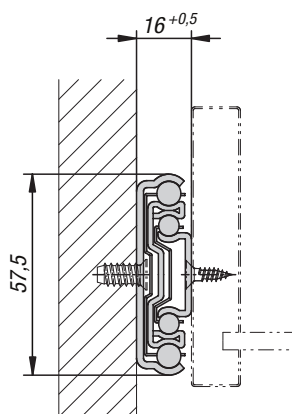
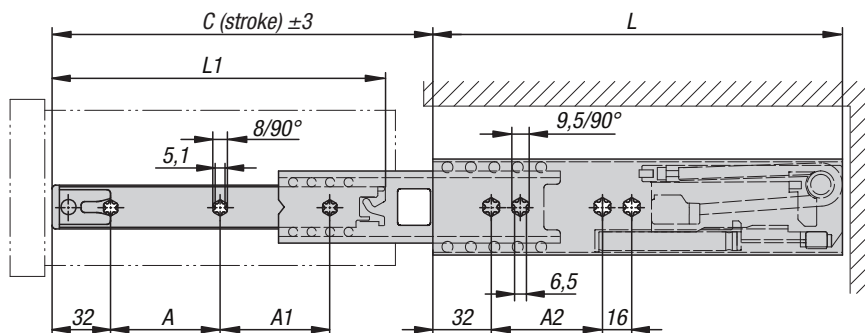


### KIPP Telescopic slides, over-extension, load capacity up to 60 kg

| Order No.   | A   | A1  | A2  | C (stroke) | L   | Drawer depth | Load-bearing capacity per pair kg | Weight per pair in kg |
|-------------|-----|-----|-----|------------|-----|--------------|-----------------------------------|-----------------------|
| K0540.10300 | 128 | 104 | 160 | 350        | 300 | 300          | 35                                | 1,27                  |
| K0540.10350 | 128 | 152 | 256 | 400        | 350 | 350          | 40                                | 1,51                  |
| K0540.10400 | 160 | 168 | 256 | 450        | 400 | 400          | 45                                | 1,73                  |
| K0540.10450 | 160 | 224 | 256 | 500        | 450 | 450          | 50                                | 1,93                  |
| K0540.10500 | 224 | 208 | 384 | 550        | 500 | 500          | 55                                | 2,19                  |
| K0540.10550 | 224 | 256 | 384 | 600        | 550 | 550          | 55                                | 2,43                  |
| K0540.10600 | 288 | 240 | 384 | 650        | 600 | 600          | 60                                | 2,65                  |
| K0540.10650 | 288 | 288 | 384 | 700        | 650 | 650          | 60                                | 2,83                  |
| K0540.10700 | 320 | 312 | 384 | 750        | 700 | 700          | 60                                | 3,10                  |
| K0540.10750 | 320 | 360 | 384 | 800        | 750 | 750          | 60                                | 3,28                  |

## Telescopic slides,

over-extension, load capacity up to 60 kg



**Material, surface finish:**  
 Slides in steel, hot galvanized.  
 Ball cages galvanized steel.  
 Balls in C steel, hardened.

**Sample order:**  
 K0541.10400 (sold per piece)

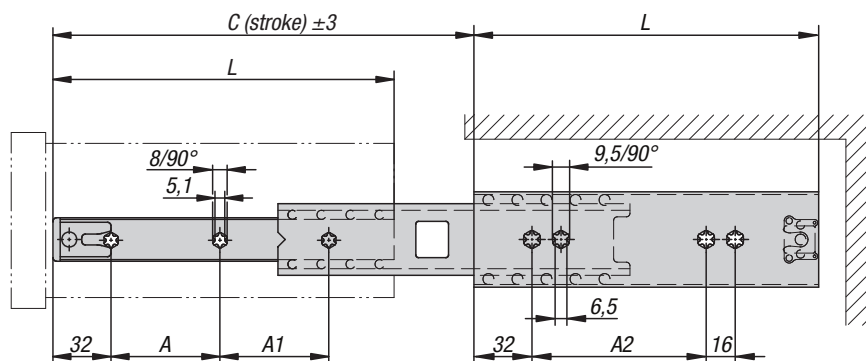
**Note:**  
 For telescopic slides with over-extension, the stroke is greater than the overall length, which guarantees more comfort and accessibility. The telescopic slide is caught with damping during closure and closes automatically. The dynamic load capacity of the telescopic slides indicates the maximum load rating of a vertically mounted slide pair when the entire extension length is used. The specified load-bearing capacities refer to the maximum value at 100,000 cycles.

### KIPP Telescopic slides, over-extension, load capacity up to 60 kg

| Order No.   | A   | A1  | A2  | C (stroke) | L   | L1  | Drawer depth | Load-bearing capacity per pair kg | Weight per pair in kg |
|-------------|-----|-----|-----|------------|-----|-----|--------------|-----------------------------------|-----------------------|
| K0541.10400 | 128 | 128 | 224 | 434        | 400 | 371 | 400          | 40                                | 1,95                  |
| K0541.10450 | 160 | 160 | 256 | 484        | 450 | 421 | 450          | 50                                | 2,25                  |
| K0541.10500 | 160 | 192 | 320 | 534        | 500 | 471 | 500          | 55                                | 2,50                  |
| K0541.10550 | 192 | 192 | 320 | 584        | 550 | 521 | 550          | 60                                | 2,83                  |

## Telescopic slides,

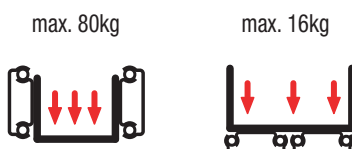
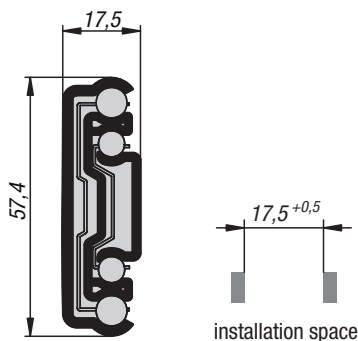
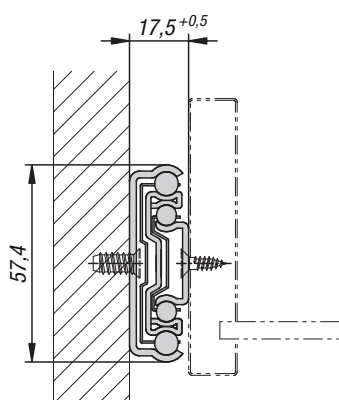
over-extension, load capacity up to 80 kg



**Material, surface finish:**  
 Slides in steel, hot galvanized.  
 Ball cages galvanized steel.  
 Balls in C steel, hardened.

**Sample order:**  
 K0542.10300 (sold per piece)

**Note:**  
 For telescopic slides with over-extension, the stroke is greater than the overall length. Closure in closed position. The dynamic load capacity of the telescopic slides indicates the maximum load rating of a vertically mounted slide pair when the entire extension length is used. The value is 50-60% lower for horizontal mounting. The specified load-bearing capacities refer to the maximum value at 100,000 cycles.



### KIPP Telescopic slides, over-extension, load capacity up to 80 kg

| Order No.   | A   | A1  | A2  | C (stroke) | L   | Drawer depth | Load-bearing capacity per pair kg | Load capacity per pair kg horizontal | Weight per pair in kg |
|-------------|-----|-----|-----|------------|-----|--------------|-----------------------------------|--------------------------------------|-----------------------|
| K0542.10300 | 128 | 104 | 160 | 350        | 300 | 300          | 50                                | 16                                   | 1,67                  |
| K0542.10350 | 128 | 152 | 256 | 400        | 350 | 350          | 60                                | 16                                   | 1,96                  |
| K0542.10400 | 160 | 168 | 256 | 450        | 400 | 400          | 65                                | 16                                   | 2,28                  |
| K0542.10450 | 160 | 224 | 256 | 500        | 450 | 450          | 70                                | 16                                   | 2,57                  |
| K0542.10500 | 224 | 208 | 384 | 550        | 500 | 500          | 75                                | 16                                   | 2,91                  |
| K0542.10550 | 224 | 256 | 384 | 600        | 550 | 550          | 75                                | 16                                   | 3,20                  |
| K0542.10600 | 288 | 240 | 384 | 650        | 600 | 600          | 80                                | 16                                   | 3,19                  |
| K0542.10650 | 288 | 288 | 384 | 700        | 650 | 650          | 80                                | 16                                   | 3,64                  |
| K0542.10700 | 320 | 312 | 384 | 750        | 700 | 700          | 80                                | 16                                   | 4,07                  |
| K0542.10750 | 320 | 360 | 384 | 800        | 750 | 750          | 80                                | 16                                   | 4,36                  |

# Telescopic slides with support bracket, over-extension, load capacity up to 75 kg

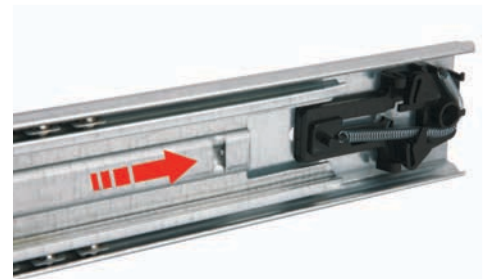
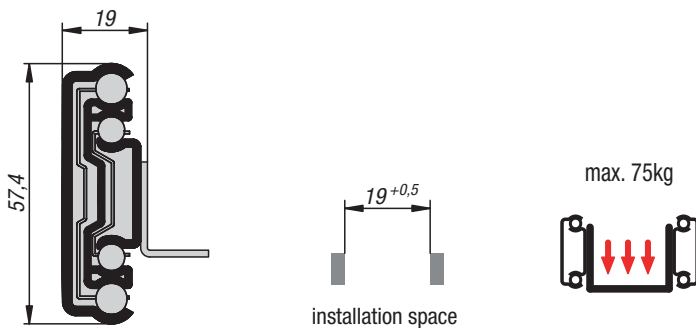
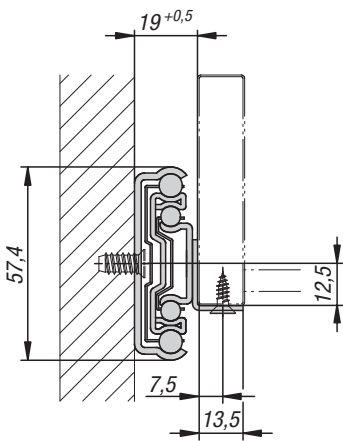
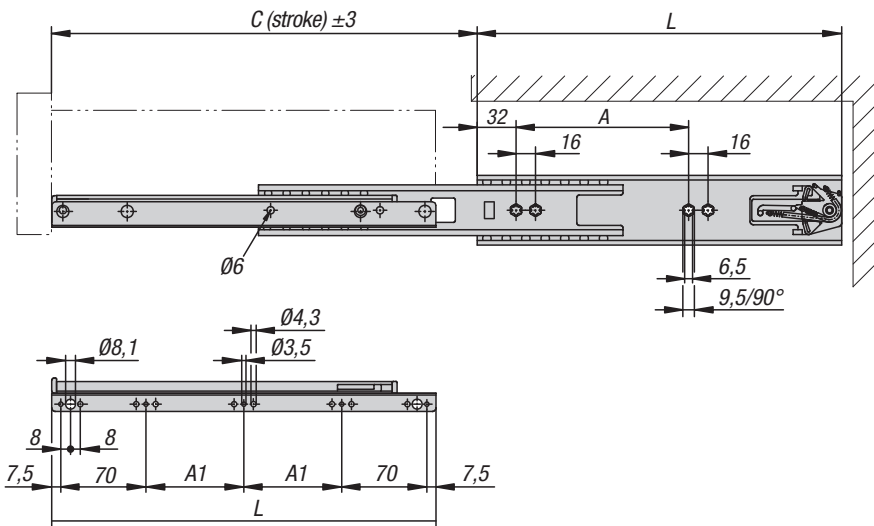


**Material, surface finish:**  
 Slides in steel, hot galvanized.  
 Ball cages galvanized steel.  
 Balls in C steel, hardened.

**Sample order:**  
 K0543-10350 (sold in pairs)

**Note:**  
 For telescopic slides with over-extension, the stroke is greater than the overall length. The guide rail is automatically drawn to the end position by the integrated self-retraction during closing. The side fittings on the inner slide are replaced by angle brackets. The dynamic load capacity of the telescopic slides indicates the maximum load rating of a vertically mounted slide pair when the entire extension length is used. The specified load capacities refer to a maximum value after 100,000 cycles.

The order number includes one pair of slides.



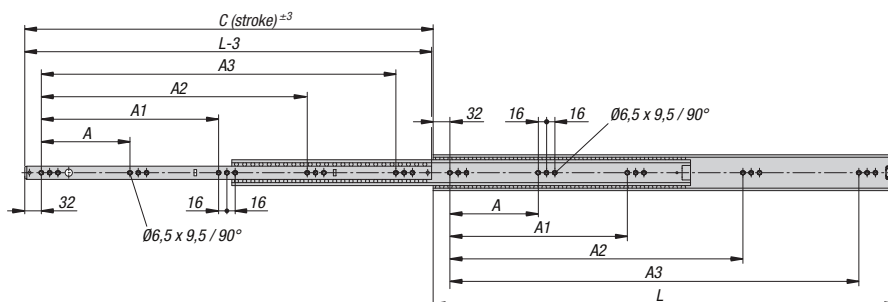
Integrated self-retraction with adjustable spring force  
 Retraction length: 25 mm

## KIPP Telescopic slides with support bracket, over-extension, load capacity up to 75 kg

| Order No.   | A   | A1    | C (stroke) | L   | Drawer depth | Load-bearing capacity per pair kg | Weight per pair in kg |
|-------------|-----|-------|------------|-----|--------------|-----------------------------------|-----------------------|
| K0543.10350 | 192 | 97,5  | 384        | 350 | 350 - 400    | 60                                | 2,10                  |
| K0543.10450 | 256 | 147,5 | 484        | 450 | 450 - 500    | 70                                | 2,79                  |
| K0543.10550 | 352 | 197,5 | 584        | 550 | 550 - 600    | 75                                | 3,46                  |
| K0543.10700 | 384 | 272,5 | 734        | 700 | 700 - 750    | 75                                | 4,48                  |

## Telescopic slides,

heavy-duty, full extension, load capacity up to 200 kg



Fastening with M5 counter sunk head screws (head height 2.5 mm)  
or Euro screws (counter sunk head height 1.5 mm)

### Material, surface finish:

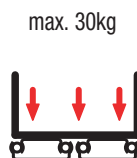
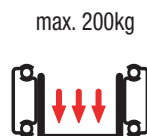
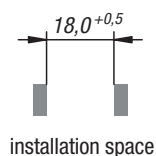
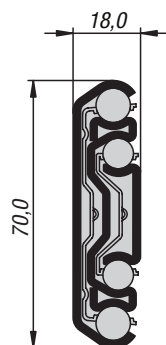
Slides steel, galvanized and passivated blue.  
Ball cages galvanized steel.  
Balls in C steel, hardened.

### Sample order:

K0544.10400 (sold per piece)

### Note:

For telescopic slides with full extension, the stroke is equal to the overall length, which guarantees more comfort and accessibility. Closure in closed position. The dynamic load capacity of the telescopic slides indicates the maximum load rating of a vertically mounted slide pair when the entire extension length is used. The value is 50-60% lower for horizontal mounting. The specified load-bearing capacities refer to the maximum value at 10,000 or 100,000 cycles.



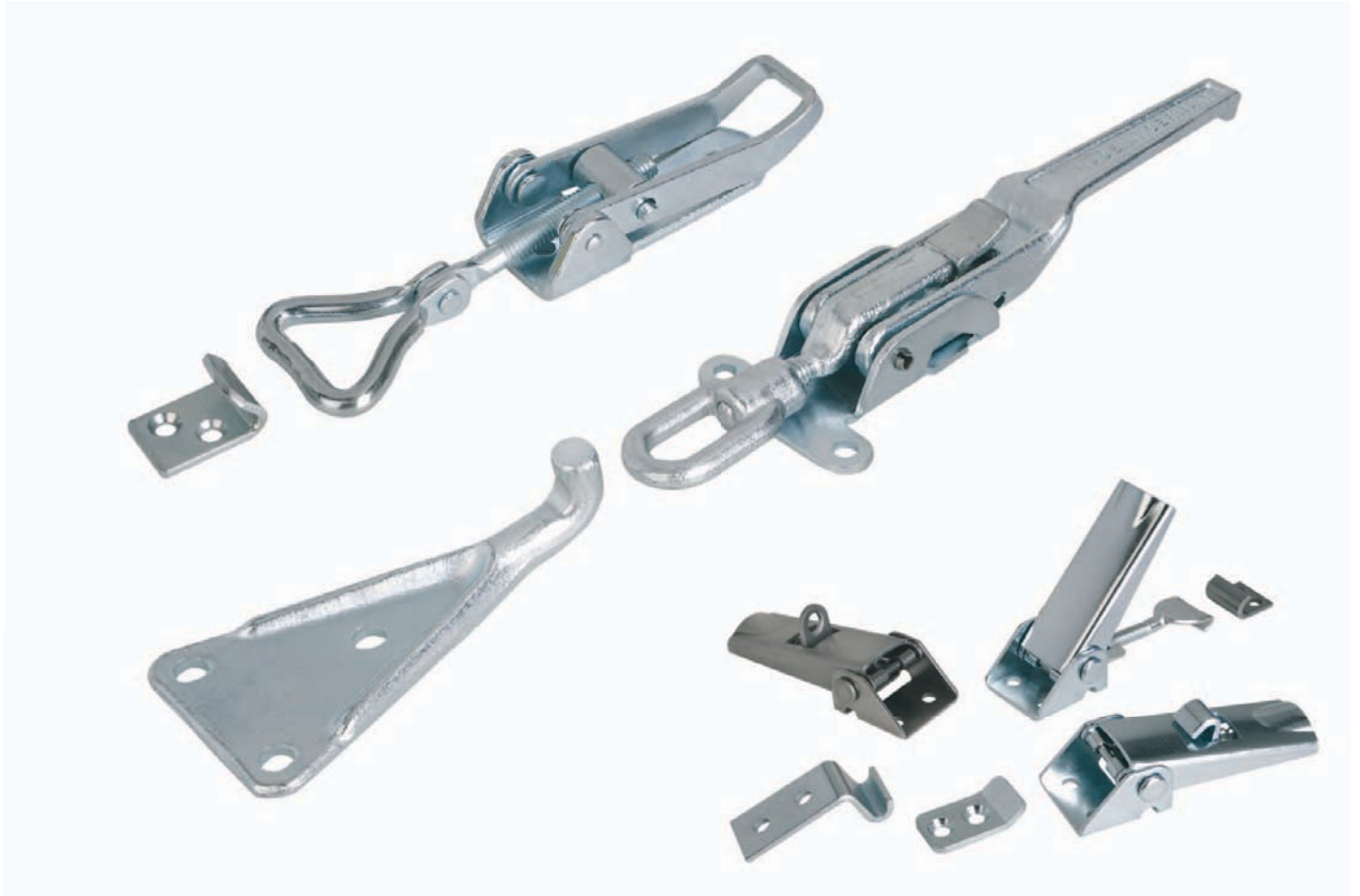
## KIPP Telescopic slides, heavy-duty, full extension, load capacity up to 200 kg

| Order No.   | A   | A1  | A2  | A3  | C (stroke) | L     | Load-bearing capacity per pair<br>(10,000 cycles) kg | Load-bearing capacity per pair<br>(100,000 cycles) kg | Load capacity<br>per pair kg<br>horizontal | Weight<br>per pair in kg |
|-------------|-----|-----|-----|-----|------------|-------|--|---|--|--------------------------|
| K0544.10400 | -   | -   | -   | 288 | 400        | 400   | 180  | 105   | 30   | 3,83                     |
| K0544.10450 | -   | -   | 160 | 320 | 450        | 450   | 190  | 115   | 30   | 3,10                     |
| K0544.10500 | -   | -   | 192 | 384 | 500        | 500   | 195  | 130   | 30   | 3,45                     |
| K0544.10550 | -   | -   | 224 | 448 | 550        | 550   | 200  | 130   | 30   | 4,22                     |
| K0544.10600 | -   | -   | 224 | 448 | 600        | 600   | 195  | 130   | 30   | 6,20                     |
| K0544.10700 | -   | 192 | 384 | 576 | 700        | 700   | 175  | 130   | 30   | 4,63                     |
| K0544.10800 | -   | 224 | 448 | 672 | 800        | 800   | 145  | 120   | 30   | 5,40                     |
| K0544.11100 | 224 | 448 | 672 | 896 | 1.100      | 1.100 | 105  | 90  | 20   | 8,55                     |





# Fasteners





## Fasteners

Fasteners  
with spring clip  
**K0043**



Page 432

Fasteners  
with a pulling latch  
**K0044**



Page 433

Fasteners  
with a pulling latch  
**K0045**



Page 434

Fasteners adjustable  
screw-on holes visible  
**K0046**



Page 435

Fasteners adjustable  
screw-on holes covered  
**K0047**



Page 436

Fasteners adjustable  
screw-on holes visible  
**K0048**



Page 437

Fasteners adjustable  
screw-on holes covered  
**K0049**



Page 438

Fasteners adjustable  
with a movable hook clamp  
**K0050**



Page 439

Fasteners adjustable  
**K0051**



Page 440

Fasteners adjustable  
heavy-duty version  
**K0052**



Page 441

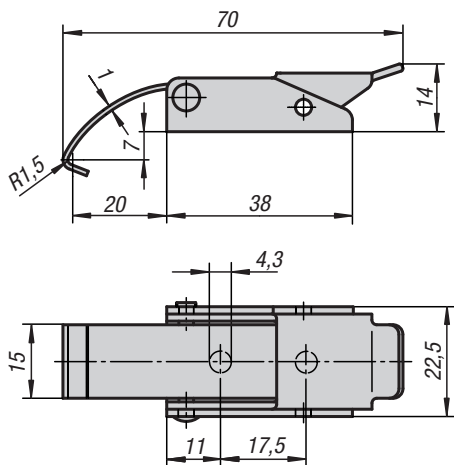


## Fasteners

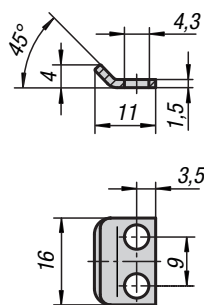
with spring clip



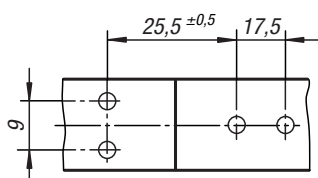
fastener  
Form A



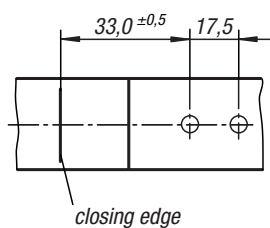
clamp  
Form A



hole arrangements for mounting  
with clamp



without clamp



**Material:**

Steel or stainless steel 1.4301

**Surface finish:**

Galvanized and blue chromated;  
stainless steel natural finish

**Sample order:**

Fastener K0043.1430701

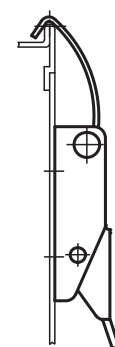
Clamp K0043.9143111

**Note:**

Fasteners with spring clips for safe holding and locking of flaps, container lids, machine covers and the like. The clamping stroke exceeds the dead centre point which makes them vibration proof. The fastening force is applied by twisting a spring clip.

The fasteners can be screwed on or rivetted.

Please order clamps separately.



### KIPP Fasteners with spring clip

| Order No.<br>steel | Order No.<br>stainless steel | Form | Holding force<br>F1<br>N |
|--------------------|------------------------------|------|--------------------------|
| K0043.1430701      | K0043.1430702                | A    | 500                      |

### KIPP Clamp

| Order No.<br>steel | Order No.<br>stainless steel | Form |
|--------------------|------------------------------|------|
| K0043.9143111      | K0043.9143112                | A    |

## Fasteners

with a pulling latch



**Material:**

Steel or stainless steel 1.4301

**Surface finish:**

Galvanized and blue chromated;  
stainless steel natural finish

**Sample order:**

Fastener K0044.1330571

Clamp K0044.9136281

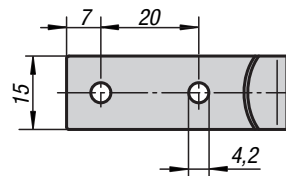
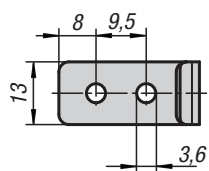
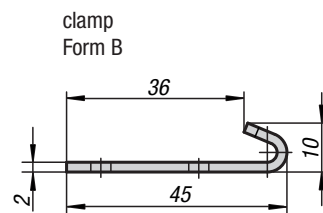
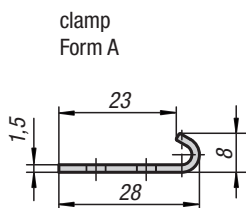
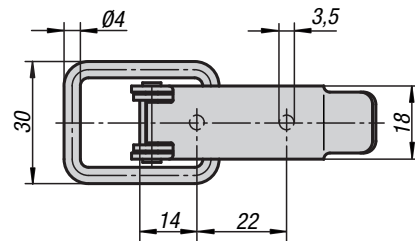
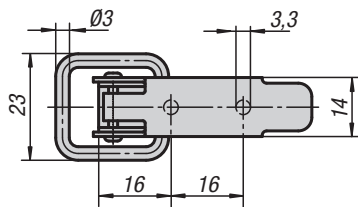
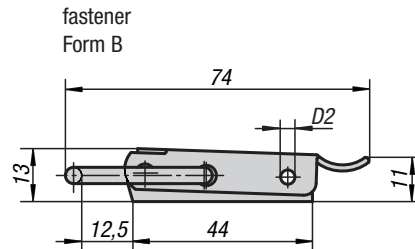
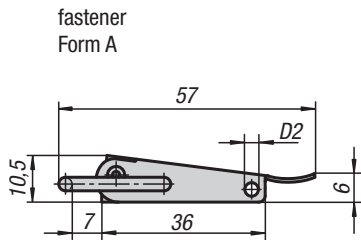
**Note:**

Fasteners with a pulling latch for safe holding and locking of flaps, container lids, machine covers and the like. The clamping stroke exceeds the dead centre point which makes them vibration proof. Fastening force is applied by twisting of a pulling latch.

Fasteners can be secured against unintentional loosening or sealed with leads using the borehole D2.

The fasteners can be screwed on or rivetted.

Please order clamps separately.



### KIPP Fasteners with a pulling latch

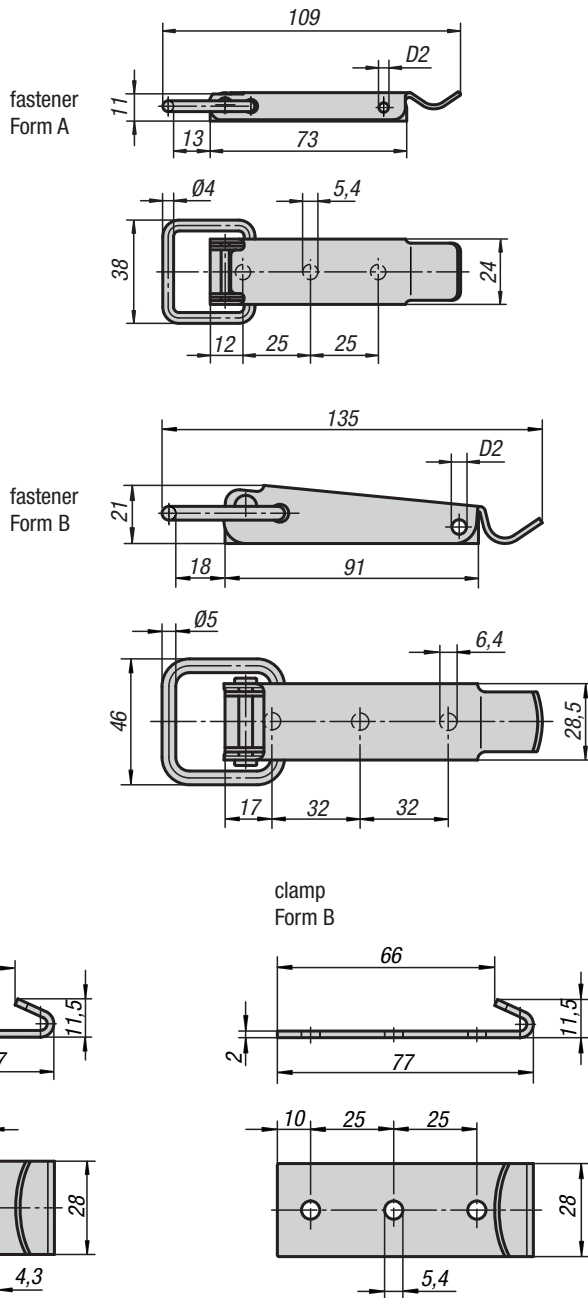
| Order No.<br>steel | Order No.<br>stainless steel | Form | D2  | Holding force<br>F1<br>N |
|--------------------|------------------------------|------|-----|--------------------------|
| K0044.1330571      | K0044.1330572                | A    | 2,8 | 1000                     |
| K0044.2350741      | K0044.2350742                | B    | 3,2 | 2000                     |

### KIPP Clamp

| Order No.<br>steel | Order No.<br>stainless steel | Form |
|--------------------|------------------------------|------|
| K0044.9136281      | K0044.9136282                | A    |
| K0044.9242451      | K0044.9242452                | B    |

## Fasteners

with a pulling latch



**Material:**

Steel or stainless steel 1.4301

**Surface finish:**

Galvanized and blue chromated;  
stainless steel natural finish

**Sample order:**

Fastener K0045.1541091  
Clamp K0045.9143371

**Note:**

Fasteners with a pulling latch for safe holding and locking of flaps, container lids, machine covers and the like. The clamping stroke exceeds the dead centre point which makes them vibration proof. Fastening force is applied by twisting of a pulling latch.

Fasteners can be secured against unintentional loosening or sealed with leads using the borehole D2.

The fasteners can be screwed on or rivetted.

Please order the desired version of the clamp separately.

**On request:**

Lockable versions with a lock bracket.

### KIPP Fasteners with a pulling latch

| Order No.<br>steel | Order No.<br>stainless steel | Form | D2  | Holding force<br>F1<br>N |
|--------------------|------------------------------|------|-----|--------------------------|
| K0045.1541091      | K0045.1541092                | A    | 3,2 | 2000                     |
| K0045.2641351      | K0045.2641352                | B    | 3,8 | 3000                     |

### KIPP Clamp

| Order No.<br>steel | Order No.<br>stainless steel | Form |
|--------------------|------------------------------|------|
| K0045.9143371      | K0045.9143372                | A    |
| K0045.9254771      | K0045.9254772                | B    |

## Fasteners adjustable

screw-on holes visible



**Material:**

Steel or stainless steel 1.4301

**Surface finish:**

Galvanized and blue chromated;  
stainless steel natural finish

**Sample order:**

Fastener K0046.1420721

Clamp K0046.9142141

**Note:**

Adjustable fasteners serve as a safe sealing system for industrial applications. The clamping stroke exceeds the dead centre point which makes them vibration proof.

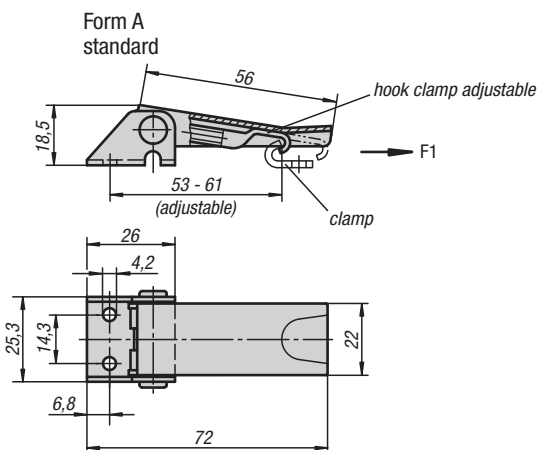
After the hook clamp is hooked into the clamp, straining the handle can pull the parts to be clamped together by up to 5 mm.

In order to compensate the tolerances or to create enough tension the hook clamp can be adjusted by means of a spindle (M5).

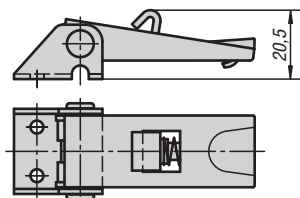
The fasteners can be screwed on or rivetted.

Every clamp can be combined with every fastener.

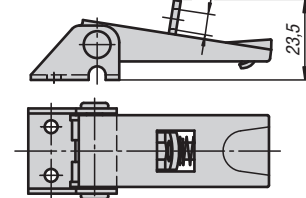
Please order the desired version of the clamp separately.



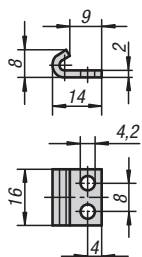
Form B with safety



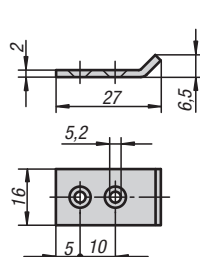
Form C with hasp



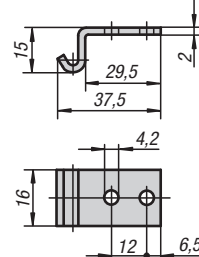
clamp Form A



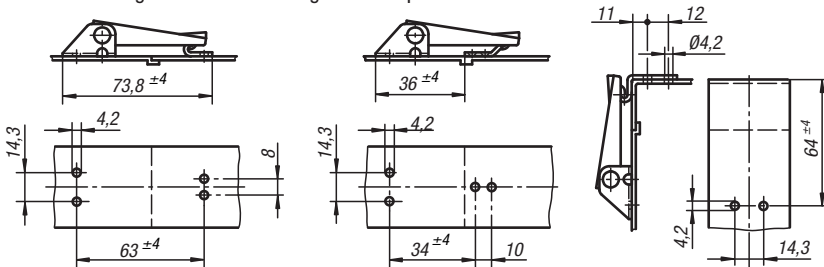
clamp Form B



clamp Form C



hole arrangements for mounting with clamp



### KIPP Fasteners adjustable, screw-on holes visible

| Order No. steel | Order No. stainless steel | Form | Holding force F1 N |
|-----------------|---------------------------|------|--------------------|
| K0046.1420721   | K0046.1420722             | A    | 1000               |
| K0046.2420721   | K0046.2420722             | B    | 1000               |
| K0046.3420721   | K0046.3420722             | C    | 1000               |

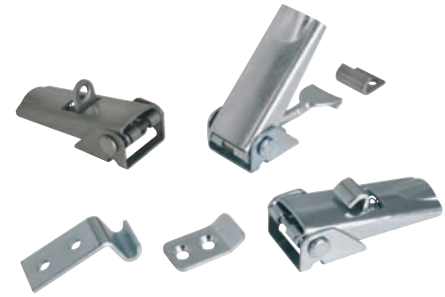
### KIPP Clamp

| Order No. steel | Order No. stainless steel | Form |
|-----------------|---------------------------|------|
| K0046.9142141   | K0046.9142142             | A    |
| K0046.9242271   | K0046.9242272             | B    |
| K0046.9342381   | K0046.9342382             | C    |



## Fasteners adjustable

screw-on holes covered



**Material:**  
Steel or stainless steel 1.4301

**Surface finish:**  
Galvanized and blue chromated;  
stainless steel natural finish

**Sample order:**  
Fastener K0047.1420601  
Clamp K0046.9142141

**Note:**  
Adjustable fasteners serve as a safe sealing system for industrial applications. The clamping stroke exceeds the dead centre point which makes them vibration proof.

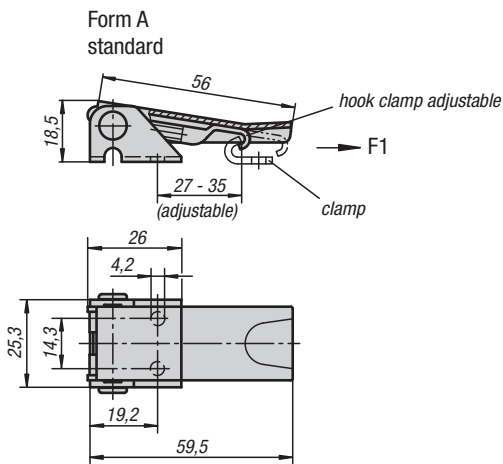
After the hook clamp is hooked into the clamp, straining the handle can pull the parts to be clamped together by up to 5 mm.

In order to compensate the tolerances or to create enough tension the hook clamp can be adjusted by means of a spindle (M5).

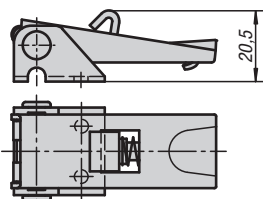
The fasteners can be screwed on or rivetted.

Every clamp can be combined with every fastener.

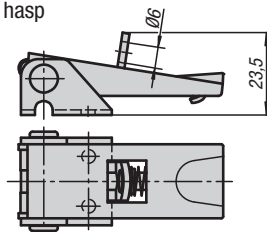
Please order the desired version of the clamp separately.



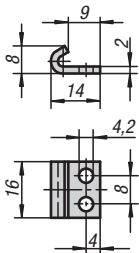
Form A  
with safety



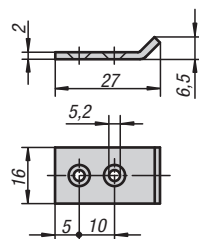
Form C  
with hasp



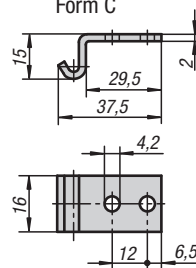
clamp  
Form A



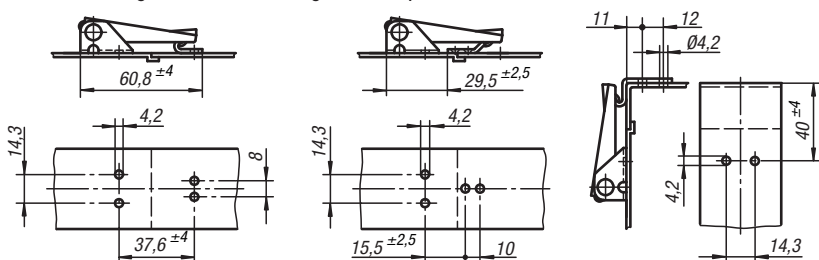
clamp  
Form B



clamp  
Form C



hole arrangements for mounting with clamp



### KIPP Fasteners Adjustable screw-on holes covered

| Order No.<br>steel | Order No.<br>stainless steel | Form | Holding force<br>F1<br>N |
|--------------------|------------------------------|------|--------------------------|
| K0047.1420601      | K0047.1420602                | A    | 1000                     |
| K0047.2420601      | K0047.2420602                | B    | 1000                     |
| K0047.3420601      | K0047.3420602                | C    | 1000                     |

### KIPP Clamp

| Order No.<br>steel | Order No.<br>stainless steel | Form |
|--------------------|------------------------------|------|
| K0046.9142141      | K0046.9142142                | A    |
| K0046.9242271      | K0046.9242272                | B    |
| K0046.9342381      | K0046.9342382                | C    |

## Fasteners adjustable

screw-on holes visible



**Material:**

Steel or stainless steel 1.4301

**Surface finish:**

Galvanized and blue chromated;  
stainless steel natural finish

**Sample order:**

Fastener K0048.1631391

Clamp K0048.9163281

**Note:**

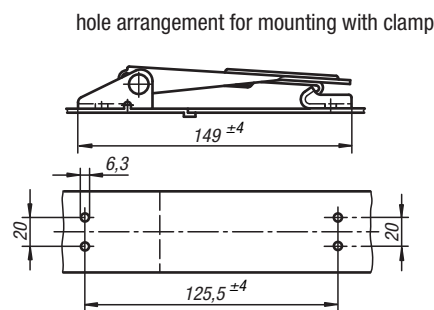
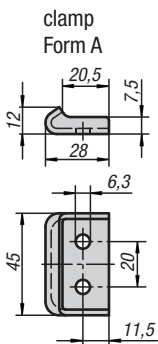
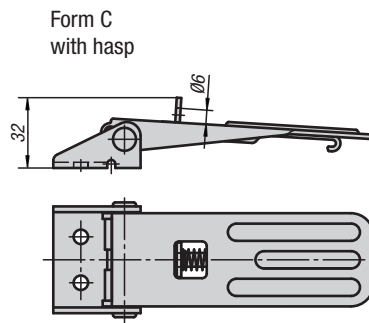
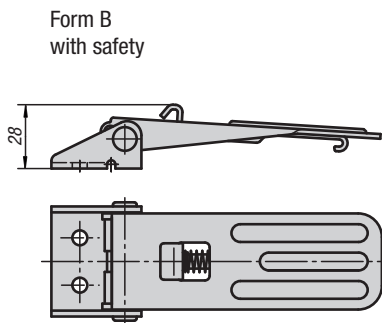
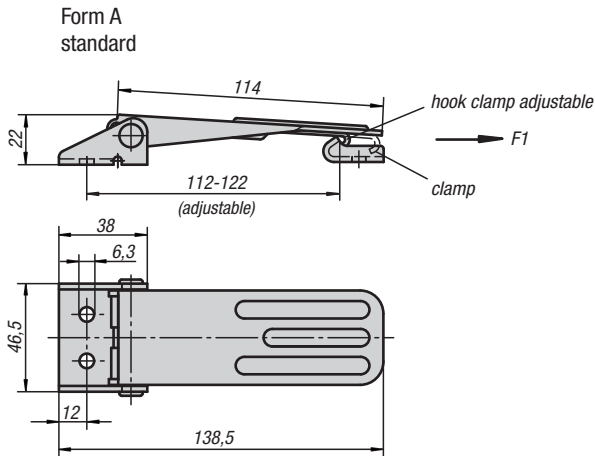
Adjustable fasteners serve as a safe sealing system for industrial applications. The clamping stroke exceeds the dead centre point which makes them vibration proof. Besides they are characterised by a very stable construction and a low profile.

After the hook clamp is hooked into the clamp, straining the handle can pull the parts to be clamped together by up to 6 mm.

In order to compensate the tolerances or to create enough tension the hook clamp can be adjusted by means of a spindle (M6).

The fasteners can be screwed on or rivetted.

Please order clamps separately.



### KIPP Fasteners adjustable screw-on holes visible

| Order No. steel | Order No. stainless steel | Form | Holding force F1 N |
|-----------------|---------------------------|------|--------------------|
| K0048.1631391   | K0048.1631392             | A    | 4000               |
| K0048.2631391   | K0048.2631392             | B    | 4000               |
| K0048.3631391   | K0048.3631392             | C    | 4000               |

### KIPP Clamp

| Order No. steel | Order No. stainless steel | Form |
|-----------------|---------------------------|------|
| K0048.9163281   | K0048.9163282             | A    |

## Fasteners adjustable

screw-on holes covered



**Material:**  
Steel or stainless steel 1.4301

**Surface finish:**  
Galvanized and blue chromated;  
stainless steel natural finish

**Sample order:**  
Fastener K0049.1631161  
Clamp K0048.9163281

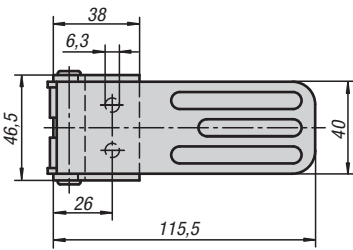
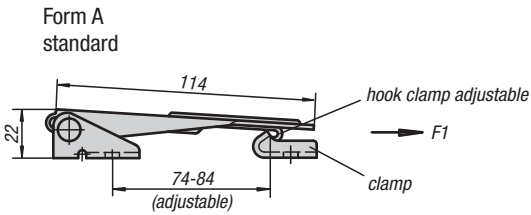
**Note:**  
Adjustable fasteners serve as a safe sealing system for industrial applications. The clamping stroke exceeds the dead centre point which makes them vibration proof. Besides they are characterised by a very stable construction and a low profile.

After the hook clamp is hooked into the clamp, straining the handle can pull the parts to be clamped together by up to 6 mm.

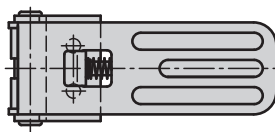
In order to compensate the tolerances or to create enough tension the hook clamp can be adjusted by means of a spindle (M6).

The fasteners can be screwed on or rivetted.

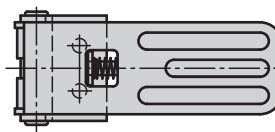
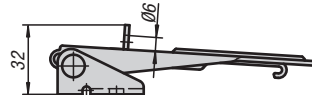
Please order clamps separately.



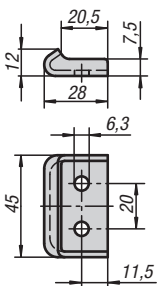
Form B with safety



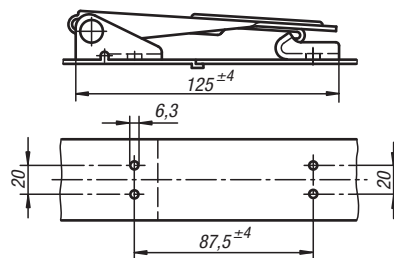
Form C with hasp



clamp Form A



hole arrangement for mounting with clamp



### KIPP Fasteners adjustable, screw-on holes covered

| Order No. steel | Order No. stainless steel | Form | Holding force F1 N |
|-----------------|---------------------------|------|--------------------|
| K0049.1631161   | K0049.1631162             | A    | 4000               |
| K0049.2631161   | K0049.2631162             | B    | 4000               |
| K0049.3631161   | K0049.3631162             | C    | 4000               |

### KIPP Clamp

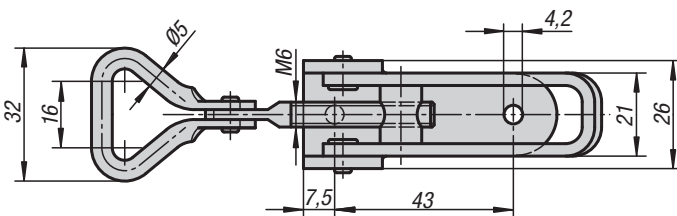
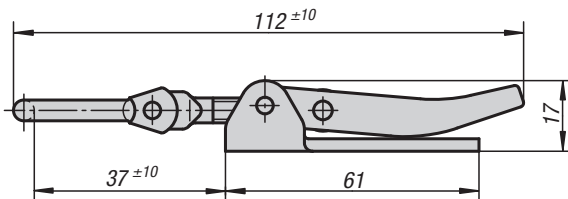
| Order No. steel | Order No. stainless steel | Form |
|-----------------|---------------------------|------|
| K0048.9163281   | K0048.9163282             | A    |

## Fasteners adjustable

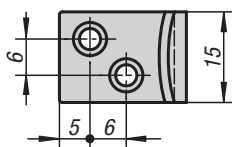
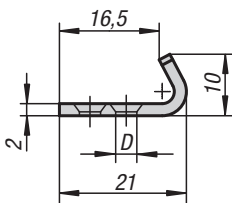
with a movable hook clamp



fastener  
Form A



clamp  
Form A



**Material:**

Steel or stainless steel 1.4301

**Surface finish:**

Galvanized and blue chromated;  
stainless steel natural finish

**Sample order:**

Fastener K0050.1421121

Clamp K0050.9135211

**Note:**

Adjustable fasteners serve as a safe sealing system for industrial applications. The clamping stroke exceeds the dead centre point which makes them vibration proof. In order to compensate the tolerances the fastener has a movably mounted hook clamp.

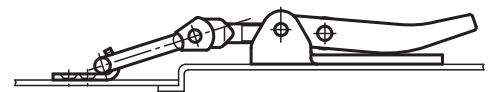
After the hook clamp is hooked into the clamp, straining the handle can pull the parts to be clamped together by up to 15 mm. In order to compensate the tolerances or to create enough tension the hook clamp can be adjusted by means of a spindle (M6).

The fasteners can be screwed on or rivetted.

Please order clamps separately.

**On request:**

Available with protection against dehiscing.



### KIPP Fasteners adjustable with a movable hook clamp

| Order No.<br>steel | Order No.<br>stainless steel | Form | Holding force<br>F1<br>N |
|--------------------|------------------------------|------|--------------------------|
| K0050.1421121      | K0050.1421122                | A    | 1000                     |

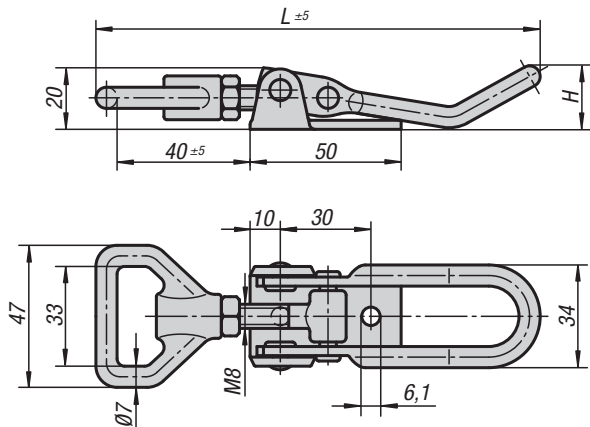
### KIPP Clamp

| Order No.     | Material        | Form | D   |
|---------------|-----------------|------|-----|
| K0050.9135211 | steel           | A    | 3,5 |
| K0050.9135212 | stainless steel | A    | 4,2 |

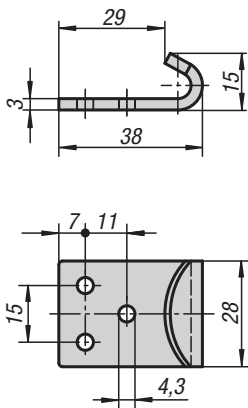
## Fasteners adjustable



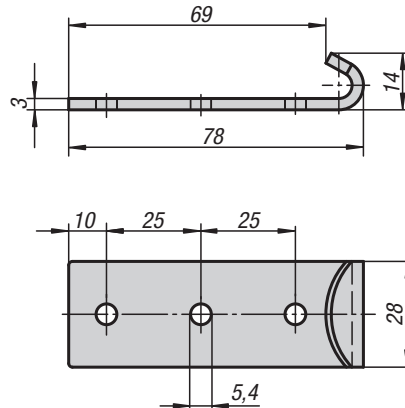
fastener  
Form A



clamp  
Form A



clamp  
Form A



**Material:**

Steel or stainless steel 1.4301

**Surface finish:**

Galvanized and blue chromated;  
stainless steel natural finish

**Sample order:**

Fastener K0051.1611451

Clamp K0051.9143381

**Note:**

Adjustable fasteners serve as a safe sealing system for industrial applications. The clamping stroke exceeds the dead centre point which makes them vibration proof.

After the hook clamp is hooked into the clamp, straining the handle can pull the parts to be clamped together by up to 15 mm. In order to compensate the tolerances or to create enough tension the hook clamp can be adjusted by means of a spindle (M8).

The fasteners can be screwed on or rivetted.

Please order the desired version of the clamp separately.

**On request:**

Lockable version with a lock bracket.

### KIPP Fasteners adjustable

| Order No.<br>steel | Order No.<br>stainless steel | Form | H  | L   | Holding force<br>F1<br>N |
|--------------------|------------------------------|------|----|-----|--------------------------|
| K0051.1611451      | K0051.1611452                | A    | 21 | 145 | 6500                     |
| K0051.1611681      | K0051.1611682                | A    | 36 | 168 | 6500                     |

### KIPP Clamp

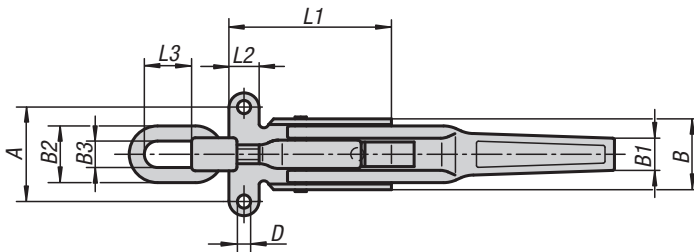
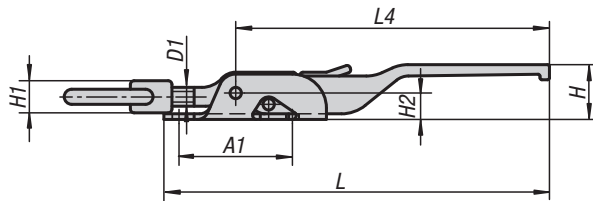
| Order No.<br>steel | Order No.<br>stainless steel | Form |
|--------------------|------------------------------|------|
| K0051.9143381      | K0051.9143382                | A    |
| K0051.9254781      | K0051.9254782                | B    |

## Fasteners adjustable

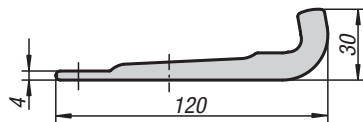
heavy-duty version



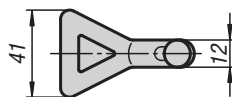
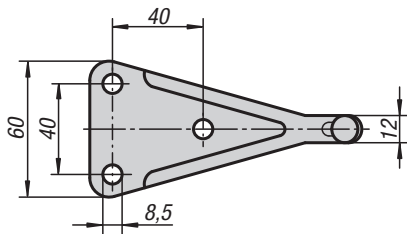
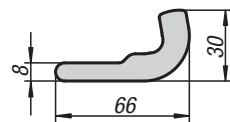
fastener  
Form A



clamp  
Form A



clamp  
Form B  
(welded)



**Material:**

Steel

**Surface finish:**

Galvanized and blue chromated;  
clamp Form B (welded), natural finish

**Sample order:**

Fastener K0052.1702041  
Clamp K0052.91851201

**Note:**

Massive forged fasteners for heavy tensile load which are primarily used in utility vehicles and agricultural engine construction as well as in construction vehicles. In the locked state the fastener is secured against unintended release by means of a notch.

In order to compensate the tolerances or to create enough tension the hook clamp can be adjusted by means of a spindle (D1).

Please order the desired version of the clamp separately.



### KIPP Fasteners adjustable, heavy-duty version

| Order No.     | Form | A  | A1 | B  | B1 | B2 | B3 | D   | D1      | H  | H1 | H2 | L   | L1  | L2 | L3 | L4  | Holding force<br>F1<br>N | Approx.<br>weight<br>kg |
|---------------|------|----|----|----|----|----|----|-----|---------|----|----|----|-----|-----|----|----|-----|--------------------------|-------------------------|
| K0052.1702041 | A    | 50 | 62 | 37 | 18 | 30 | 14 | 7   | M10     | 30 | 17 | 14 | 204 | 86  | 16 | 25 | 165 | 40000                    | 0,490                   |
| K0052.1852371 | A    | 65 | 82 | 50 | 20 | 36 | 15 | 8,5 | M14x1,5 | 32 | 20 | 18 | 237 | 104 | 21 | 40 | 190 | 40000                    | 1,020                   |

### KIPP Clamp

| Order No.      | Form | Approx.<br>weight<br>kg |
|----------------|------|-------------------------|
| K0052.91851201 | A    | 0,190                   |
| K0052.92000601 | B    | 0,085                   |



## Quick-acting clamps, power clamps







## Quick-acting clamps, power clamps

Horizontal toggle clamps with flat foot and adjustable clamping spindle  
**K0660**



**KIPP lock**

Page 450

Horizontal toggle clamps with Safety Interlock with flat foot and adjustable clamping spindle  
**K0660**



**KIPP lock**

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Horizontal toggle clamps with straight foot and adjustable clamping spindle  
**K0661**



**KIPP lock**

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Horizontal Clamps with safety interlock with straight foot and adjustable clamping spindle  
**K0661**



**KIPP lock**

Page 453

Vertical toggle clamps with flat foot and adjustable clamping spindle  
**K0662**



**KIPP lock**

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Vertical toggle clamps with safety interlock with flat foot and adjustable clamping spindle  
**K0662**



**KIPP lock**

Page 455

Vertical clamps with straight foot and adjustable clamping spindle  
**K0663**



**KIPP lock**

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Vertical clamps with safety interlock with straight foot and adjustable clamping spindle  
**K0663**



**KIPP lock**

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Nuts with ball point  
**K0664**



Page 458

Vertical clamps with straight foot and adjustable clamping spindle  
**K0055**



Page 461-462

Vertical clamps with straight foot and fixed clamping spindle  
**K0056**



Page 463

Vertical clamps with flat foot and adjustable clamping spindle  
**K0058**



Page 464-465

Vertical clamps with safety interlock with flat foot and adjustable clamping spindle  
**K0059**



Page 466

Vertical clamps with flat foot and fixed clamping spindle  
**K0060**



Page 468-469

Vertical clamps with flat foot and full holding arm  
**K0061**



Page 470

Vertical clamps with angled foot and adjustable clamping spindle  
**K0062**



Page 471

Vertical clamps with angled foot and fixed clamping spindle  
**K0063**



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Vertical clamps with angled foot and full holding arm  
**K0064**



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## Quick-acting clamps, power clamps

Vertical curved clamps  
with flat foot  
**K0065**



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Vertical clamps  
heavy-duty version with fixed  
clamping spindle  
**K0066**



Page 475

Vertical clamps  
heavy-duty version with full  
holding arm  
**K0067**



Page 476

Horizontal mini-clamp  
with straight foot and adjustable  
clamping spindle  
**K0068**



Page 477

Horizontal mini-clamp  
with flat foot and adjustable  
clamping spindle  
**K0069**



Page 478

Horizontal mini-clamp  
with flat foot and fixed clamping  
spindle  
**K0070**



Page 479

Horizontal mini-clamp  
with flat left foot and adjustable  
clamping spindle  
**K0071**



Page 480

Horizontal mini-clamp with flat  
right foot and adjustable clam-  
ping spindle  
**K0267**



Page 481

Horizontal clamps  
with straight foot and adjusta-  
ble clamping spindle  
**K0072**



Page 482

Horizontal clamps  
with straight foot and full holding  
arm  
**K0073**



Page 483

Horizontal clamps  
with flat foot and adjustable  
clamping spindle  
**K0074**



Page 484

Horizontal clamps  
with flat foot and fixed clamping  
spindle  
**K0075**



Page 485

Horizontal clamps  
with flat foot and full holding  
arm  
**K0076**



Page 486

Horizontal clamp  
heavy-duty version with adjustable  
clamping spindle  
**K0077**



Page 487

Tension clamp  
**K0078**



Page 488

Horizontal hook clamps  
with latch bracket  
**K0079**



Page 489

Horizontal latch clamps  
with latch bracket  
**K0080**



Page 490

Horizontal latch clamps  
heavy-duty version with latch  
bracket  
**K0081**



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## Quick-acting clamps, power clamps

Vertical latch clamps  
with latch bracket  
**K0082**



Page 492

Push-pull mini clamp  
with mounting bracket  
**K0083**



Page 493

Push-pull clamps  
with mounting bracket  
**K0084**



Page 494

Push-pull clamps  
with mounting bracket  
**K0085**



Page 495

Push-pull clamps  
without mounting bracket  
**K0086**



Page 496

Push-pull clamps  
heavy-duty version with handle  
**K0087**



Page 497

Push-pull clamps  
heavy-duty version with  
reversible hand lever  
**K0088**



Page 498

Horizontal pneumatic clamps  
form A  
**K0089**



Page 499

Horizontal pneumatic clamps  
form B  
**K0090**



Page 500

Vertical pneumatic clamps  
heavy-duty version  
**K0091**



Page 501

Horizontal pneumatic clamp  
heavy-duty version  
**K0092**



Page 502

Pneumatic push-pull clamps  
form A  
**K0093**



Page 503

Pneumatic push-pull clamps  
form B  
**K0094**



Page 504

Toggle presses  
for manual operation  
**K0095**



Page 505

Toggle presses for  
pneumatic operation  
**K0096**



Page 506

Angle brackets  
**K0098**



Page 507

Round plastic grips  
**K0099**



Page 508

Rectangular plastic grips  
**K0100**



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## Quick-acting clamps, power clamps

Pressure bolts  
with thrust member  
**K0688**



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Pressure bolts  
with thrust member  
**K0689**



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Neoprene pressure screws  
**K0690**



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Rigid clamping spindles  
**K0101**



Page 513

Clamping spindles  
with swivel foot  
**K0102**



Page 514

Clamping spindles  
with vulcanized neo-  
prene pressure pad  
**K0103**



Page 515

Neoprene pressure pads  
**K0104**



Page 516

Plastic covers  
**K0105**



Page 517

Protective caps  
**K0106**



Page 517

Locking washers for  
clamping spindles  
**K0107**



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# Technical information



## Quick clamping - reliable fixing

### Durable and reliable: KIPP lock

Now even more durable, more user-friendly and safer. The new generation has proved highly effective in meeting this development. You, the user, will notice the difference immediately: On first contact, the new KIPP lock has a good grip and is robust. It delivers fast, reliable and safe operation. High-quality material ensures the necessary holding power.

### KIPP lock

with all the advantages



### Advantages:

#### Impressively stable:

All models can easily withstand 300,000 clamping cycles

#### Durable:

High-quality bushings - without scoring

#### Extremely robust:

Corrosion-resistant NITROX COATING

#### Playfully easy:

The fixed headed nut facilitates spindle adjustment

#### Reliable:

Constant use of force when opening and closing

#### Ideal where space is restricted:

Slim design supports safe operation

#### Optimum stability:

Conical clamping arm with U-profile

#### Safe application:

Nothing can get caught on the smooth edges

#### Fast and flexible:

Can be easily retrofitted thanks to a wide range of accessories

#### Ergonomic and slip-resistant:

Easy to operate wearing work gloves

#### Free of reflection:

Ideal for use with laser devices

#### Safe when opening:

More freedom between clamping arm and grip prevents squashing

#### Extremely compatible:

Oblong holes allows assembly on existing boreholes

### Secure attachment and locking: KIPP lock+

The inner locking system is a completely revolutionary development from KIPP. Nothing gets caught or stuck. Operation is easy even when wearing work gloves.

### KIPP lock+

with all the advantages  
with safety interlock

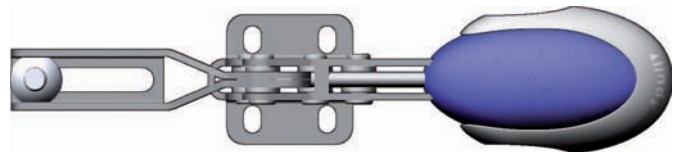


### Functional principle:

### KIPP lock+

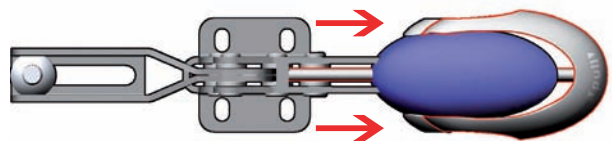
#### Fig. 1:

Locking mechanism closed. Harmless to use thanks to revolutionary grip - no clamping points and interfering contours



#### Fig. 2:

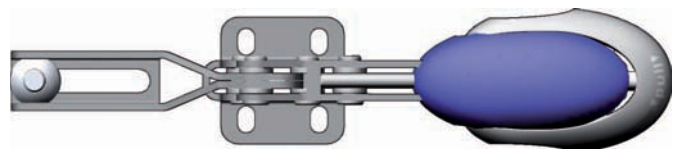
Inner rod locking mechanism with automatic safety catch. The lock is released by pulling the grip



#### Fig. 3:

Locking mechanism open

Release the grip to close the safety mechanism



## Horizontal toggle clamps

with flat foot and adjustable clamping spindle



### KIPP lock



**Material:**  
Steel;  
polyamide handle element

**Surface finish:**  
Nitro-carburized and black oxidized

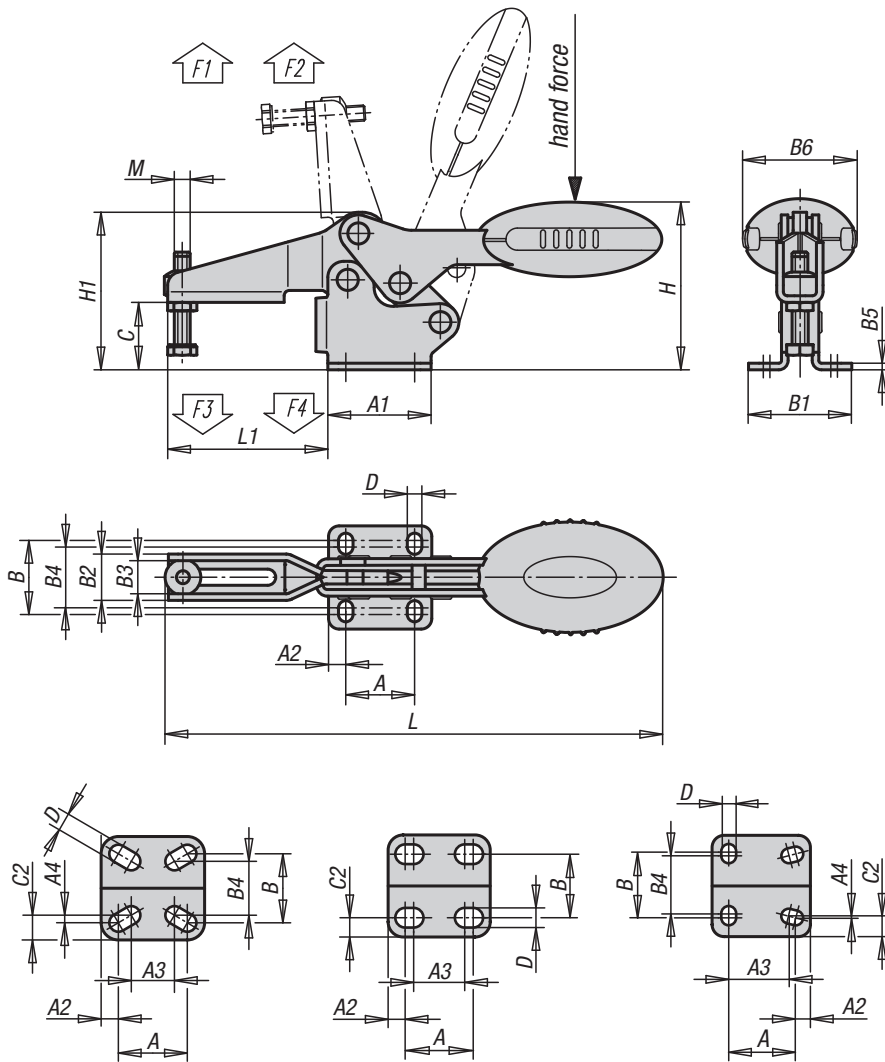
**Sample order:**  
K0660.005001

**Note:**  
Maintenance-free, high-quality swivel bushings.  
Consistently constant use of force when opening and closing. Optimum stability is achieved through the conical clamping arm with U-profile.

See K0106, K0098, K0383, K0388, K0390, K0391, K0392, K0393 for accessories.



Angle bracket for head end mounting (see accessories)



hole arrangement for Order No. K0660.004001

hole arrangement for Order No. K0660.005001

hole arrangement for Order No. K0660.012001

### KIPP Horizontal toggle clamps with flat foot and adjustable clamping spindle

| Order No.    | Opening angle of holding arm | Opening angle of handle | Hand force N | Holding force F1 N | Holding force F2 N | Clamping force F3 N | Clamping force F4 N |
|--------------|------------------------------|-------------------------|--------------|--------------------|--------------------|---------------------|---------------------|
| K0660.004001 | 86°                          | 69°                     | 80           | 400                | 500                | 250                 | 300                 |
| K0660.005001 | 86°                          | 66°                     | 100          | 650                | 900                | 550                 | 620                 |
| K0660.006001 | 87°                          | 68°                     | 160          | 1350               | 1900               | 720                 | 1200                |
| K0660.008001 | 86°                          | 66°                     | 200          | 2000               | 2800               | 830                 | 1400                |
| K0660.010001 | 90°                          | 71°                     | 250          | 2200               | 4500               | 1200                | 2800                |
| K0660.012001 | 88°                          | 68°                     | 280          | 2400               | 5500               | 1000                | 2800                |

| Order No.    | M      | A    | A1 | A2  | A3    | A4   | B    | B1 | B2   | B3   | B4   | B5  | B6   | C    | C2   | D   | H     | H1    | L     | L1    |
|--------------|--------|------|----|-----|-------|------|------|----|------|------|------|-----|------|------|------|-----|-------|-------|-------|-------|
| K0660.004001 | M4x16  | 16   | 24 | 4   | 12,74 | 1,75 | 16   | 24 | 10,2 | 7,1  | 14,1 | 1,5 | 20   | 11,7 | 5,75 | 4,2 | 29,3  | 26,3  | 91,8  | 23,7  |
| K0660.005001 | M5x25  | 18   | 27 | 4,5 | 13,5  | -    | 16,8 | 27 | 13,2 | 9,1  | -    | 2   | 22,5 | 18   | 5,1  | 5,5 | 43,4  | 38,9  | 126,3 | 42,6  |
| K0660.006001 | M6x35  | 26   | 39 | 6,5 | -     | -    | 28   | 39 | 17,5 | 12,4 | 24,6 | 2,5 | 43,5 | 25,5 | -    | 5,5 | 63,2  | 59,5  | 186,7 | 60,5  |
| K0660.008001 | M8x45  | 26   | 44 | 9   | -     | -    | 31   | 45 | 21   | 15,7 | 26,1 | 2,5 | 41,5 | 32,2 | -    | 6,2 | 73,9  | 70    | 223,2 | 74,9  |
| K0660.010001 | M10x55 | 41,5 | 59 | 9   | -     | -    | 43   | 59 | 26   | 18,7 | 39   | 3,5 | 47   | 40   | -    | 8,8 | 94,8  | 87,9  | 279,4 | 103,9 |
| K0660.012001 | M12x70 | 44   | 65 | 10  | 40    | 1    | 42   | 67 | 28   | 20,9 | 40   | 3,5 | 47   | 52,3 | 13,5 | 8,5 | 104,8 | 101,6 | 314,7 | 122   |



## Horizontal toggle clamps

with safety interlock with flat foot and adjustable clamping spindle



### KIPP lock<sup>+</sup>



**Material:**

Steel;  
polyamide handle element;  
TPE unlocking bracket

**Surface finish:**

Nitro-carburized and black oxidized

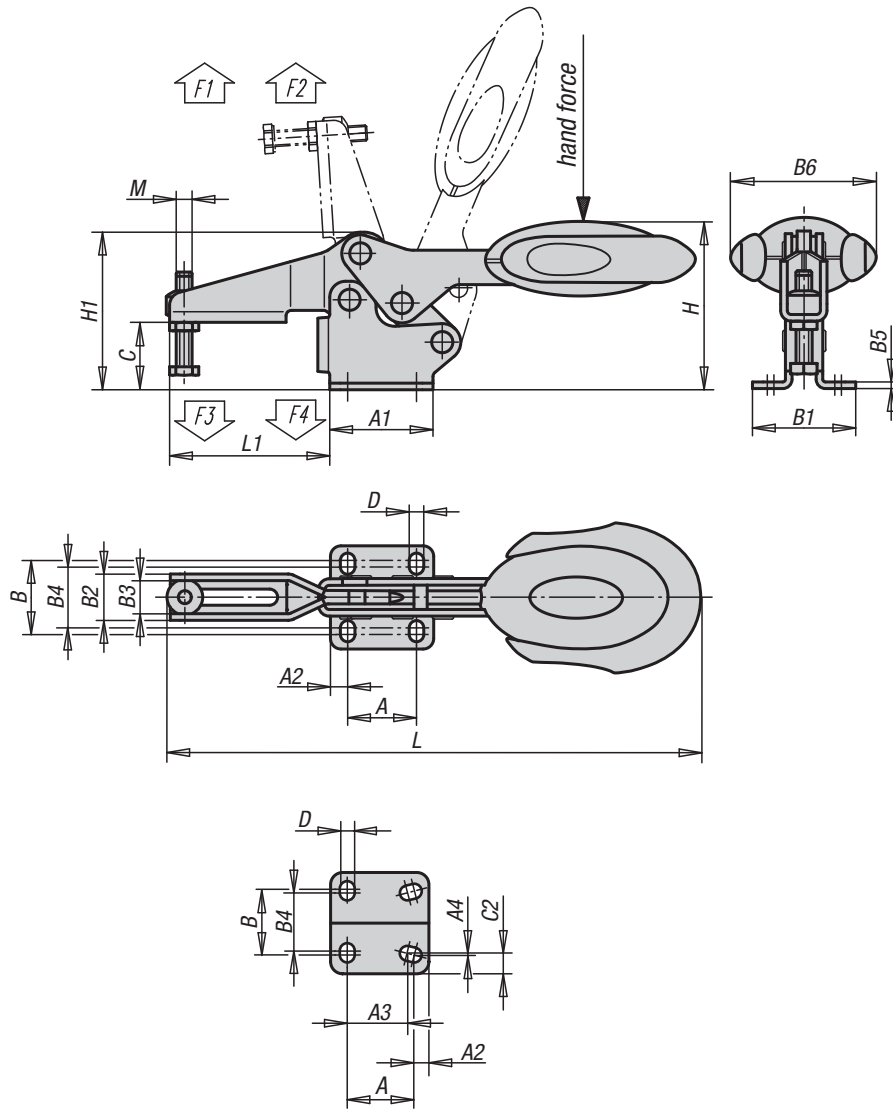
**Sample order:**

K0660.006101

**Note:**

Maintenance-free, high-quality swivel bushings. Consistently constant use of force when opening and closing. Optimum stability is achieved through the conical clamping arm with U-profile. Includes an internal bar lock with automatic safety.

See K0106, K0098, K0383, K0388, K0390, K0391, K0392, K0393 for accessories.



hole arrangement for  
Order No. K0660.012101

### KIPP Horizontal Clamps with safety interlock, with flat foot and adjustable clamping spindle

| Order No.    | Opening angle of holding arm | Opening angle of handle | Hand force N | Holding force F1 N | Holding force F2 N | Clamping force F3 N | Clamping force F4 N |
|--------------|------------------------------|-------------------------|--------------|--------------------|--------------------|---------------------|---------------------|
| K0660.006101 | 87°                          | 68°                     | 160          | 1350               | 1900               | 720                 | 1200                |
| K0660.008101 | 86°                          | 66°                     | 200          | 2000               | 2800               | 830                 | 1400                |
| K0660.010101 | 90°                          | 71°                     | 250          | 2200               | 4500               | 1200                | 2800                |
| K0660.012101 | 88°                          | 68°                     | 280          | 2400               | 5500               | 1000                | 2800                |

| Order No.    | M      | A    | A1 | A2  | A3 | A4 | B  | B1 | B2   | B3   | B4   | B5  | B6   | C    | C2   | D   | H     | H1    | L     | L1    |
|--------------|--------|------|----|-----|----|----|----|----|------|------|------|-----|------|------|------|-----|-------|-------|-------|-------|
| K0660.006101 | M6x35  | 26   | 39 | 6,5 | -  | -  | 28 | 39 | 17,5 | 12,4 | 24,6 | 2,5 | 53,4 | 25,5 | -    | 5,5 | 63,3  | 59,5  | 193,3 | 60,5  |
| K0660.008101 | M8x45  | 26   | 44 | 9   | -  | -  | 31 | 45 | 21   | 15,7 | 26,1 | 2,5 | 51,1 | 32,2 | -    | 6,2 | 73,9  | 70    | 230,3 | 74,9  |
| K0660.010101 | M10x55 | 41,5 | 59 | 9   | -  | -  | 43 | 59 | 26   | 18,7 | 39   | 3,5 | 56,5 | 40   | -    | 8,8 | 94,8  | 87,9  | 286   | 103,9 |
| K0660.012101 | M12x70 | 44   | 65 | 10  | 40 | 1  | 42 | 67 | 28   | 20,9 | 40   | 3,5 | 56,5 | 52,3 | 13,5 | 8,5 | 104,9 | 101,6 | 321,3 | 122   |



## Horizontal toggle clamps

with straight foot and adjustable clamping spindle



### KIPP lock



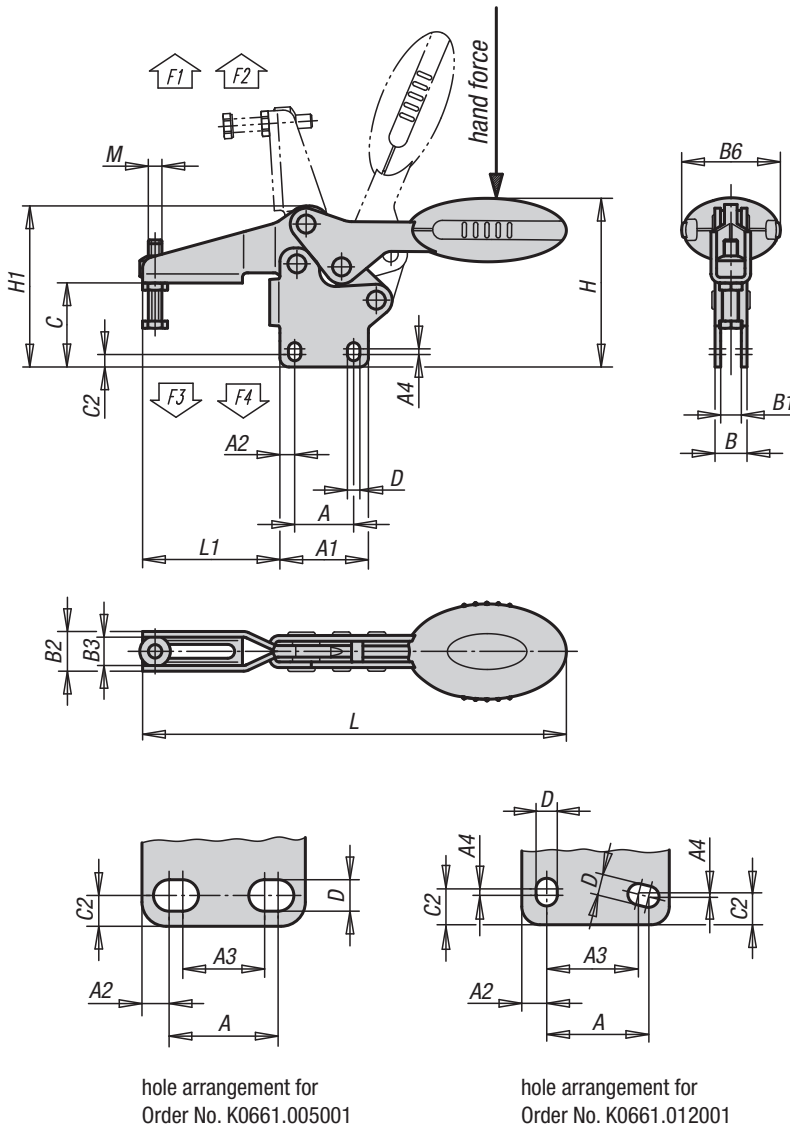
**Material:**  
Steel;  
polyamide handle element

**Surface finish:**  
Nitro-carburized and black oxidized

**Sample order:**  
K0661.005001

**Note:**  
Maintenance-free, high-quality swivel bushings. Consistently constant use of force when opening and closing. Optimum stability is achieved through the conical clamping arm with U-profile.

See K0106, K0098, K0383, K0388, K0390, K0391, K0392, K0393 for accessories.



hole arrangement for  
Order No. K0661.005001

hole arrangement for  
Order No. K0661.012001

### KIPP Horizontal toggle clamps with straight foot and adjustable clamping spindle

| Order No.    | Opening angle of holding arm | Opening angle of handle | Hand force N | Holding force F1 N | Holding force F2 N | Clamping force F3 N | Clamping force F4 N |
|--------------|------------------------------|-------------------------|--------------|--------------------|--------------------|---------------------|---------------------|
| K0661.005001 | 86°                          | 66°                     | 100          | 650                | 900                | 550                 | 620                 |
| K0661.006001 | 87°                          | 68°                     | 160          | 1350               | 1900               | 720                 | 1200                |
| K0661.008001 | 86°                          | 66°                     | 200          | 2000               | 2800               | 830                 | 1400                |
| K0661.010001 | 90°                          | 71°                     | 250          | 2200               | 4500               | 1200                | 2800                |
| K0661.012001 | 88°                          | 68°                     | 280          | 2400               | 5500               | 1000                | 2800                |

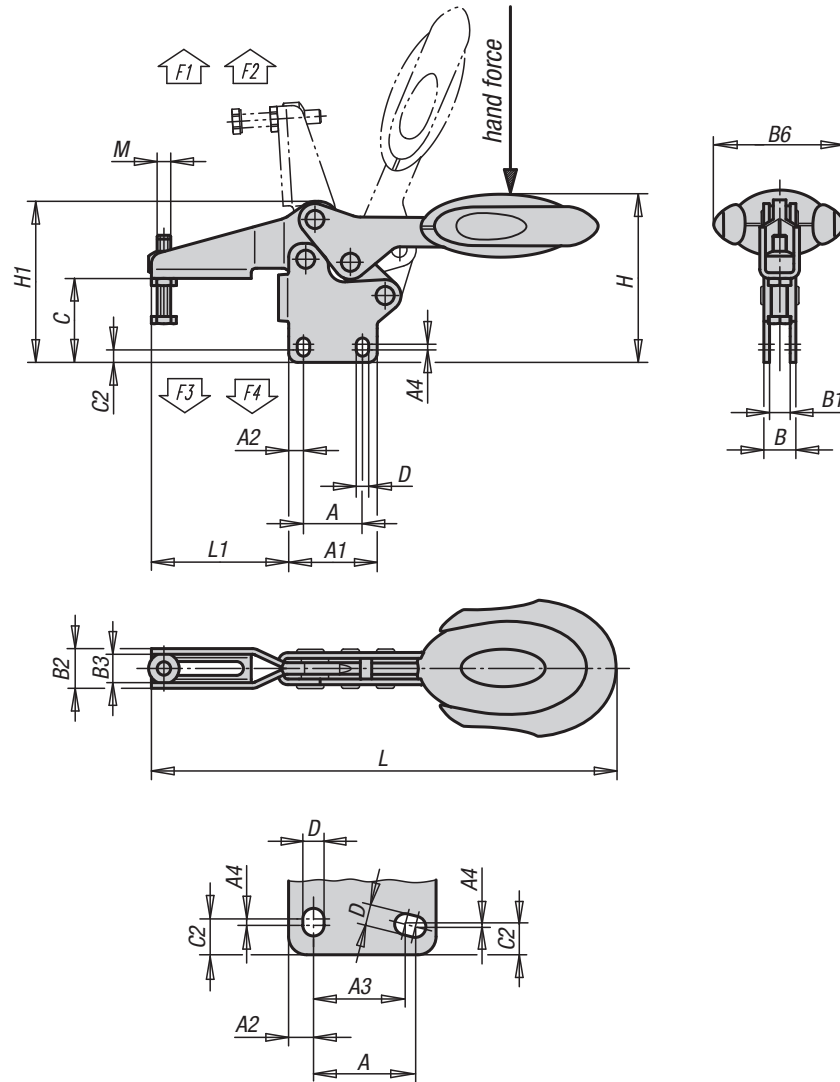
| Order No.    | M      | A    | A1 | A2  | A3   | A4  | B    | B1  | B2   | B3   | B6   | C    | C2   | D   | H     | H1    | L     | L1    |
|--------------|--------|------|----|-----|------|-----|------|-----|------|------|------|------|------|-----|-------|-------|-------|-------|
| K0661.005001 | M5x25  | 18   | 27 | 4,5 | 13,5 | -   | 8,1  | 4,1 | 13,2 | 9,1  | 22,5 | 26   | 5,1  | 5,5 | 51,8  | 47,7  | 125,7 | 41,8  |
| K0661.006001 | M6x35  | 26   | 39 | 6,5 | -    | 2,5 | 14,1 | 9,1 | 17,5 | 12,4 | 43,5 | 37   | 5,5  | 5,5 | 74,2  | 71    | 186,8 | 60,5  |
| K0661.008001 | M8x45  | 26   | 44 | 9   | -    | 3,5 | 14,1 | 9,1 | 21   | 15,7 | 41,5 | 46,5 | 7    | 6,2 | 88,2  | 84,4  | 223,5 | 74,9  |
| K0661.010001 | M10x55 | 41,5 | 59 | 9   | -    | 2   | 16,2 | 9,2 | 26   | 18,7 | 47   | 59,6 | 8    | 8,8 | 114,4 | 107,5 | 279,3 | 103,9 |
| K0661.012001 | M12x70 | 44   | 65 | 11  | 40   | 1   | 16,2 | 9,2 | 28   | 20,9 | 47   | 75,9 | 13,5 | 8,5 | 128,4 | 125,2 | 314,7 | 122   |

## Horizontal Clamps with safety interlock

with straight foot and adjustable clamping spindle



**KIPP lock<sup>+</sup>**



hole arrangement for  
Order No. K0661.012101

**Material:**

Steel;  
polyamide handle element;  
TPE unlocking bracket

**Surface finish:**

Nitro-carburized and black oxidized

**Sample order:**

K0661.006101

**Note:**

Maintenance-free, high-quality swivel bushings. Consistently constant use of force when opening and closing. Optimum stability is achieved through the conical clamping arm with U-profile. Includes an internal bar lock with automatic safety.

See K0106, K0098, K0383, K0388, K0390, K0391, K0392, K0393 for accessories.

### KIPP Horizontal toggle clamps with safety interlock with straight foot and adjustable clamping spindle

| Order No.    | Opening angle of holding arm | Opening angle of handle | Hand force N | Holding force F1 N | Holding force F2 N | Clamping force F3 N | Clamping force F4 N |
|--------------|------------------------------|-------------------------|--------------|--------------------|--------------------|---------------------|---------------------|
| K0661.006101 | 87°                          | 68°                     | 160          | 1350               | 1900               | 720                 | 1200                |
| K0661.008101 | 86°                          | 66°                     | 200          | 2000               | 2800               | 830                 | 1400                |
| K0661.010101 | 90°                          | 71°                     | 250          | 2200               | 4500               | 1200                | 2800                |
| K0661.012101 | 88°                          | 68°                     | 280          | 2400               | 5500               | 1000                | 2800                |

| Order No.    | M      | A    | A1 | A2  | A3 | A4  | B    | B1  | B2   | B3   | B6   | C    | C2   | D   | H     | H1    | L     | L1    |
|--------------|--------|------|----|-----|----|-----|------|-----|------|------|------|------|------|-----|-------|-------|-------|-------|
| K0661.006101 | M6x35  | 26   | 39 | 6,5 | -  | 2,5 | 14,1 | 9,1 | 17,5 | 12,4 | 53,4 | 37   | 5,5  | 5,5 | 74,3  | 71    | 193,7 | 60,5  |
| K0661.008101 | M8x45  | 26   | 44 | 9   | -  | 3,5 | 14,1 | 9,1 | 21   | 15,7 | 51,1 | 46,5 | 7    | 6,2 | 88,3  | 84,4  | 230,3 | 74,9  |
| K0661.010101 | M10x55 | 41,5 | 59 | 9   | -  | 2   | 16,2 | 9,2 | 26   | 18,7 | 56,5 | 59,6 | 8    | 8,8 | 114,4 | 107,5 | 286,4 | 103,9 |
| K0661.012101 | M12x70 | 44   | 65 | 10  | 40 | 1   | 16,2 | 9,2 | 28   | 20,9 | 56,5 | 75,9 | 13,5 | 8,5 | 128,5 | 125,2 | 321,3 | 122   |

# Vertical toggle clamps

with flat foot and adjustable clamping spindle



**KIPP** lock



**Material:**

Steel;  
polyamide handle element

**Surface finish:**

Nitro-carburized and black oxidized

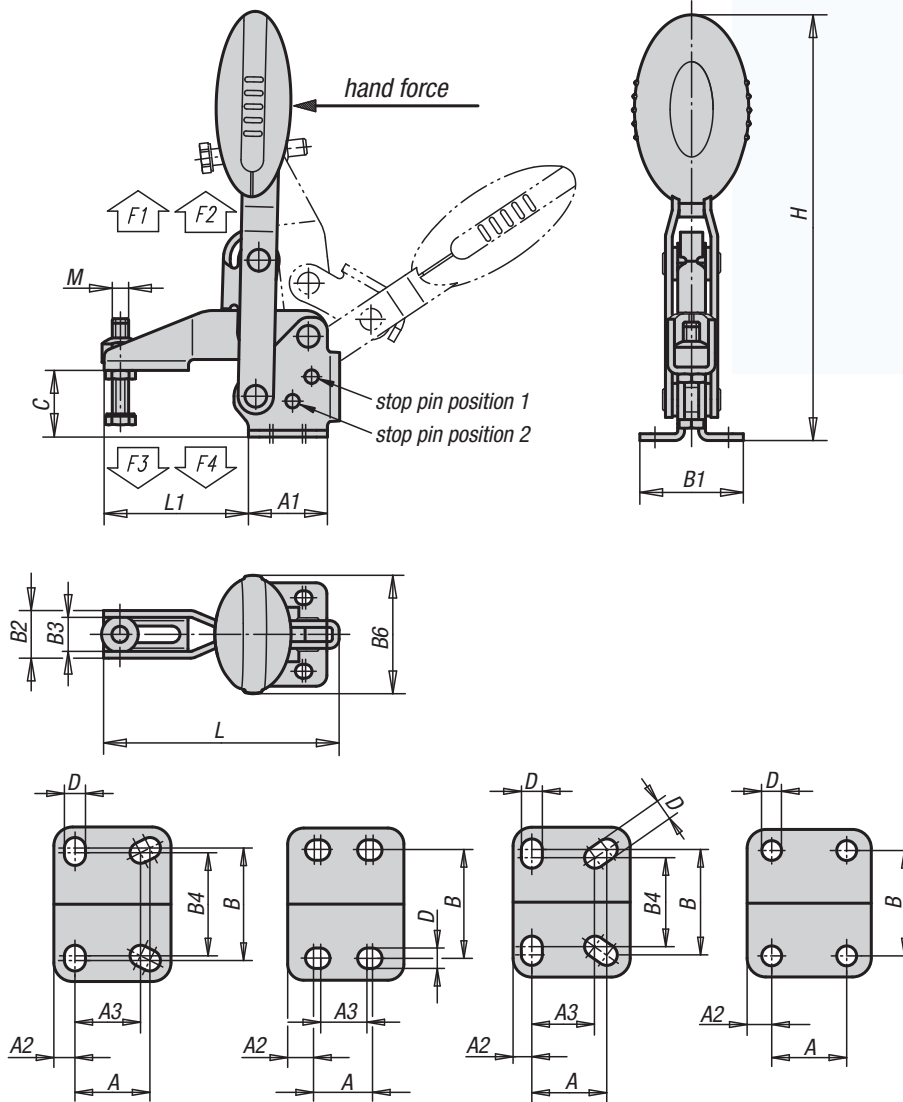
**Sample order:**

K0662.005001

**Note:**

Maintenance-free, high-quality swivel bushings. Consistently constant use of force when opening and closing. Optimum stability is achieved through the conical clamping arm with U-profile.

See K0106, K0098, K0383, K0388, K0390, K0391, K0392, K0393 for accessories.



hole arrangement for Order No. K0662.005001

hole arrangement for Order No. K0662.006001  
Order No. K0662.008001

hole arrangement for Order No. K0662.010001

hole arrangement for Order No. K0662.012001

## KIPP Vertical toggle clamps with flat foot and adjustable clamping spindle

| Order No.    | Opening angle holding arm position 1 | Opening angle holding arm position 2 | Opening angle stop pin removed | Opening angle handle position 1 | Opening angle handle position 2 | Opening angle stop pin removed | Hand force N | Holding force F1 N | Holding force F2 N | Clamping force F3 N | Clamping force F4 N |
|--------------|--------------------------------------|--------------------------------------|--------------------------------|---------------------------------|---------------------------------|--------------------------------|--------------|--------------------|--------------------|---------------------|---------------------|
| K0662.005001 | 100°                                 | -                                    | 131°                           | 64°                             | -                               | 76°                            | 100          | 750                | 1050               | 620                 | 750                 |
| K0662.006001 | 56°                                  | 83°                                  | 156°                           | 46°                             | 56°                             | 84°                            | 160          | 1350               | 1650               | 920                 | 1050                |
| K0662.008001 | 13°                                  | 93°                                  | 157°                           | 26°                             | 61°                             | 86°                            | 190          | 2000               | 2800               | 940                 | 1350                |
| K0662.010001 | 6°                                   | 97°                                  | 175°                           | 19°                             | 59°                             | 91°                            | 250          | 2500               | 4500               | 1500                | 2800                |
| K0662.012001 | 11°                                  | 88°                                  | 163°                           | 24°                             | 60°                             | 91°                            | 280          | 3000               | 5500               | 1400                | 2800                |

| Order No.    | M      | A  | A1 | A2   | A3 | B  | B1 | B2   | B3   | B4 | B6   | C    | D   | H     | L     | L1    |
|--------------|--------|----|----|------|----|----|----|------|------|----|------|------|-----|-------|-------|-------|
| K0662.005001 | M5x25  | 16 | 25 | 4,5  | 14 | 24 | 33 | 13,2 | 9,1  | 22 | 22,5 | 19,1 | 4,5 | 108,5 | 66,5  | 35    |
| K0662.006001 | M6x35  | 14 | 29 | 7    | 12 | 27 | 38 | 17,5 | 12,4 | -  | 43,5 | 24,7 | 5,5 | 156,2 | 87,5  | 53    |
| K0662.008001 | M8x45  | 21 | 39 | 9    | 19 | 32 | 45 | 20,6 | 15,5 | -  | 41,5 | 32,7 | 6,8 | 183,9 | 107,5 | 62    |
| K0662.010001 | M10x55 | 32 | 50 | 8    | 27 | 45 | 64 | 25,5 | 18,4 | 38 | 47   | 38,7 | 9   | 222,9 | 153   | 95    |
| K0662.012001 | M12x70 | 32 | 53 | 10,5 | -  | 45 | 63 | 28   | 20,9 | -  | 47   | 46,7 | 8,8 | 242,4 | 173,5 | 113,5 |

## Vertical toggle clamps with safety interlock

with flat foot and adjustable clamping spindle



### KIPP lock+



**Material:**

Steel;  
polyamide handle element;  
TPE unlocking bracket

**Surface finish:**

Nitro-carburized and black oxidized

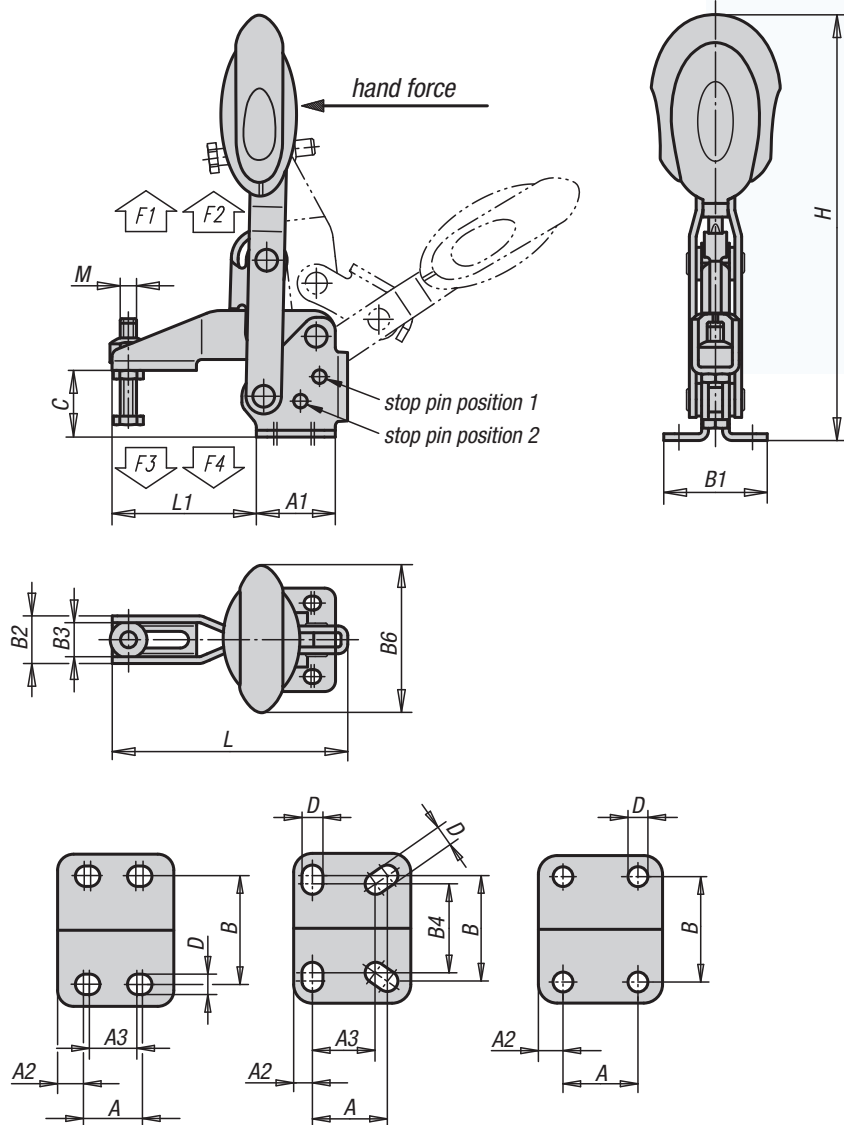
**Sample order:**

K0662.006101

**Note:**

Maintenance-free, high-quality swivel bushings. Consistently constant use of force when opening and closing. Optimum stability is achieved through the conical clamping arm with U-profile. Includes an internal bar lock with automatic safety.

See K0106, K0098, K0383, K0388, K0390, K0391, K0392, K0393 for accessories.



hole arrangement for  
Order No. K0662.006101  
Order No. K0662.008101

hole arrangement for  
Order No. K0662.010101

hole arrangement for  
Order No. K0662.012101

### KIPP Vertical toggle clamps with safety interlock with flat foot and adjustable clamping spindle

| Order No.    | Opening angle holding arm position 1 | Opening angle holding arm position 2 | Opening angle holding arm stop pin removed | Opening angle handle position 1 | Opening angle handle position 2 | Opening angle handle stop pin removed | Hand force N | Holding force F1 N | Holding force F2 N | Clamping force F3 N | Clamping force F4 N |
|--------------|--------------------------------------|--------------------------------------|--|---------------------------------|---------------------------------|---------------------------------------|--------------|--------------------|--------------------|---------------------|---------------------|
| K0662.006101 | 56°                                  | 83°                                  | 156°                                       | 46°                             | 56°                             | 84°                                   | 160          | 1350               | 1650               | 920                 | 1050                |
| K0662.008101 | 13°                                  | 93°                                  | 157°                                       | 26°                             | 61°                             | 86°                                   | 190          | 2000               | 2800               | 940                 | 1350                |
| K0662.010101 | 6°                                   | 97°                                  | 175°                                       | 19°                             | 59°                             | 91°                                   | 250          | 2500               | 4500               | 1500                | 2800                |
| K0662.012101 | 11°                                  | 88°                                  | 163°                                       | 24°                             | 60°                             | 91°                                   | 280          | 3000               | 5500               | 1400                | 2800                |

| Order No.    | M      | A  | A1 | A2   | A3 | B  | B1 | B2   | B3   | B4 | B6   | C    | D   | H     | L     | L1    |
|--------------|--------|----|----|------|----|----|----|------|------|----|------|------|-----|-------|-------|-------|
| K0662.006101 | M6x35  | 14 | 29 | 7    | 12 | 27 | 38 | 17,5 | 12,4 | -  | 53,4 | 24,7 | 5,5 | 162,9 | 87,5  | 53    |
| K0662.008101 | M8x45  | 21 | 39 | 9    | 19 | 32 | 45 | 20,6 | 15,5 | -  | 51,1 | 32,7 | 6,8 | 191,4 | 107,5 | 62    |
| K0662.010101 | M10x55 | 32 | 50 | 8    | 27 | 45 | 64 | 25,5 | 18,4 | 38 | 56,5 | 38,7 | 9   | 230,5 | 153   | 95    |
| K0662.012101 | M12x70 | 32 | 53 | 10,5 | -  | 45 | 63 | 28   | 20,9 | -  | 56,5 | 46,7 | 8,8 | 249,1 | 173,5 | 113,5 |

## Vertical clamps

with straight foot and adjustable clamping spindle



### KIPP lock



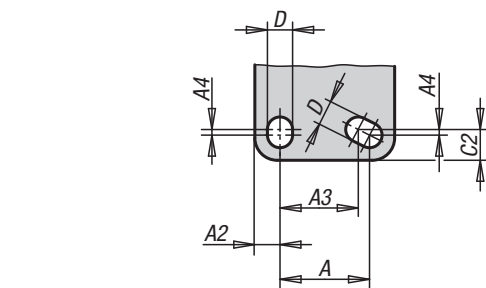
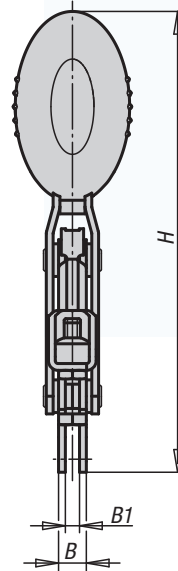
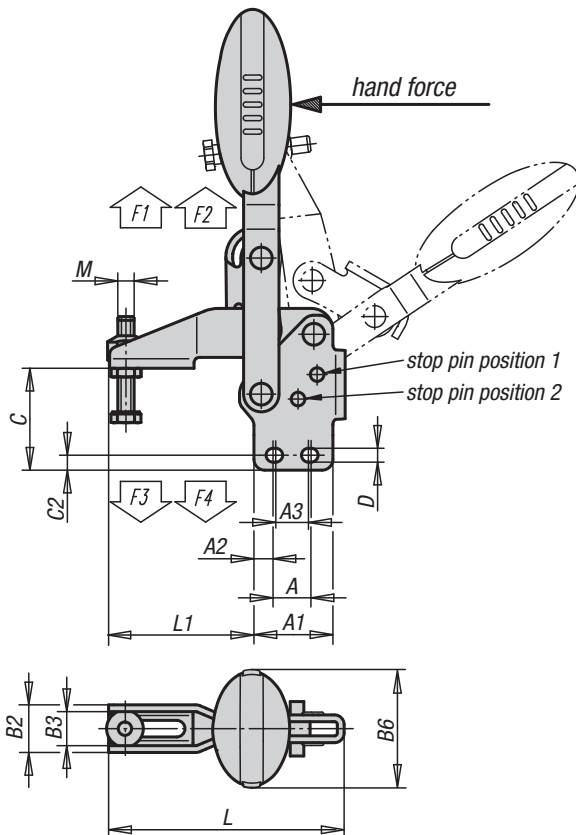
**Material:**  
Steel;  
polyamide handle element

**Surface finish:**  
Nitro-carburized and black oxidized

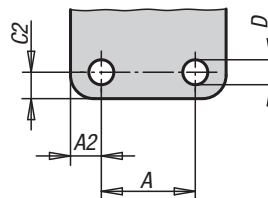
**Sample order:**  
K0663.005001

**Note:**  
Maintenance-free, high-quality swivel bushings.  
Consistently constant use of force when opening and closing. Optimum stability is achieved through the conical clamping arm with U-profile.

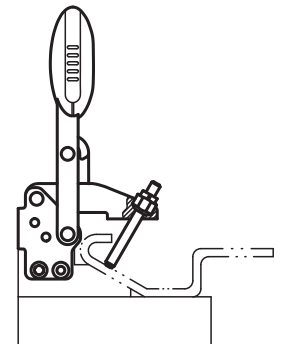
See K0106, K0098, K0383, K0388, K0390, K0391, K0392, K0393 for accessories.



hole arrangement for  
Order No. K0663.005001  
Order No. K0663.010001



hole arrangement for  
Order No. K0663.012001



### KIPP Vertical clamps with straight foot and adjustable clamping spindle

| Order No.    | Opening angle holding arm position 1 | Opening angle holding arm position 2 | Opening angle holding arm stop pin removed | Opening angle handle position 1 | Opening angle handle position 2 | Hand force N | Holding force F1 N | Holding force F2 N | Clamping force F3 N | Clamping force F4 N |
|--------------|--------------------------------------|--------------------------------------|--|---------------------------------|---------------------------------|--------------|--------------------|--------------------|---------------------|---------------------|
| K0663.005001 | 100°                                 | -                                    | 131°                                       | 64°                             | -                               | 100          | 750                | 1050               | 620                 | 750                 |
| K0663.006001 | 56°                                  | 83°                                  | 156°                                       | 46°                             | 56°                             | 160          | 1350               | 1650               | 920                 | 1050                |
| K0663.008001 | 13°                                  | 93°                                  | 157°                                       | 26°                             | 61°                             | 190          | 2000               | 2800               | 940                 | 1350                |
| K0663.010001 | 6°                                   | 97°                                  | 175°                                       | 19°                             | 59°                             | 250          | 2500               | 4500               | 1500                | 2800                |
| K0663.012001 | 11°                                  | 88°                                  | 163°                                       | 24°                             | 60°                             | 280          | 3000               | 5500               | 1400                | 2800                |

| Order No.    | M      | A  | A1 | A2   | A3 | A4  | B    | B1  | B2   | B3   | B6   | C    | C2  | D   | H     | L     | L1    |
|--------------|--------|----|----|------|----|-----|------|-----|------|------|------|------|-----|-----|-------|-------|-------|
| K0663.005001 | M5x25  | 16 | 25 | 4,5  | 14 | 1   | 8,1  | 4,1 | 13,2 | 9,1  | 22,5 | 30,8 | 5,5 | 4,5 | 120,3 | 66,5  | 35    |
| K0663.006001 | M6x35  | 14 | 29 | 7    | 12 | -   | 10,2 | 5,2 | 17,5 | 12,4 | 43,5 | 37,6 | 5,5 | 5,5 | 169,1 | 87,5  | 53    |
| K0663.008001 | M8x45  | 21 | 39 | 9    | 19 | -   | 10,2 | 5,2 | 20,6 | 15,5 | 41,5 | 49   | 6,5 | 6,8 | 200,1 | 107,5 | 62    |
| K0663.010001 | M10x55 | 32 | 50 | 8    | 27 | 3,5 | 14,1 | 7,1 | 25,5 | 18,4 | 47   | 62,3 | 13  | 9   | 247,4 | 153   | 95    |
| K0663.012001 | M12x70 | 32 | 53 | 10,5 | -  | -   | 14,1 | 7,1 | 28   | 20,9 | 47   | 69,8 | 9   | 8,8 | 265,5 | 173,5 | 113,5 |

## Vertical clamps with safety interlock

with straight foot and adjustable clamping spindle



### KIPP lock+



**Material:**

Steel;  
polyamide handle element;  
TPE unlocking bracket

**Surface finish:**

Nitro-carburized and black oxidized

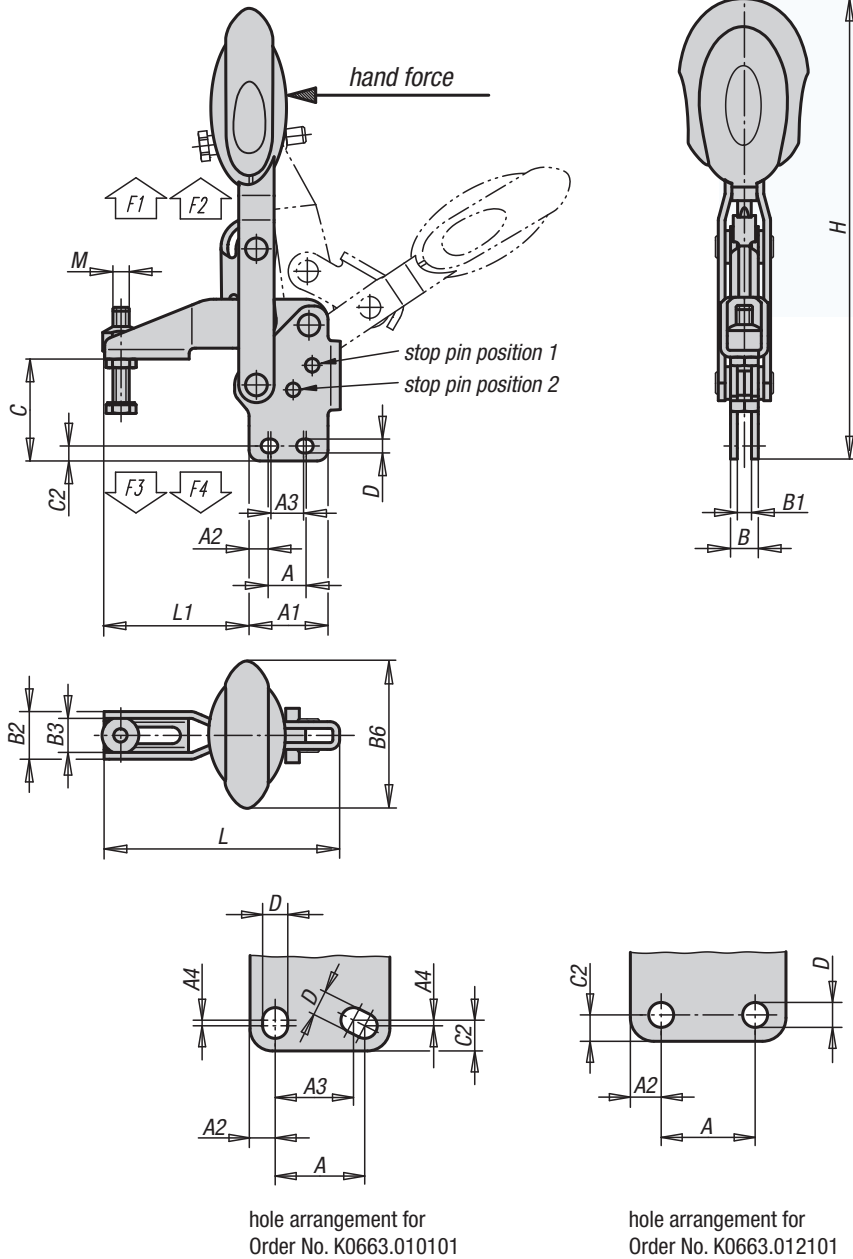
**Sample order:**

K0663.006101

**Note:**

Maintenance-free, high-quality swivel bushings. Consistently constant use of force when opening and closing. Optimum stability is achieved through the conical clamping arm with U-profile. Includes an internal bar lock with automatic safety.

See K0106, K0098, K0383, K0388, K0390, K0391, K0392, K0393 for accessories.



### KIPP Vertical clamps with safety interlock, with straight foot and adjustable clamping spindle

| Order No.    | Opening angle<br>holding arm<br>position 1 | Opening angle<br>holding arm<br>position 2 | Opening angle<br>holding arm<br>stop pin removed | Opening angle<br>handle<br>position 1 | Opening angle<br>handle<br>position 2 | Hand force<br>N | Holding force |         | Clamping force |         |
|--------------|--|--|--|---------------------------------------|---------------------------------------|-----------------|---------------|---------|----------------|---------|
|              |  |  |  |                                       |                                       |                 | F1<br>N       | F2<br>N | F3<br>N        | F4<br>N |
| K0663.006101 | 56°  | 83°  | 156°   | 46°                                   | 56°                                   | 160             | 1350          | 1650    | 920            | 1050    |
| K0663.008101 | 13°  | 93°  | 157°   | 26°                                   | 61°                                   | 190             | 2000          | 2800    | 940            | 1350    |
| K0663.010101 | 6°   | 97°  | 175°   | 19°                                   | 59°                                   | 250             | 2500          | 4500    | 1500           | 2800    |
| K0663.012101 | 11°  | 88°  | 163°   | 24°                                   | 60°                                   | 280             | 3000          | 5500    | 1400           | 2800    |

| Order No.    | M      | A  | A1 | A2   | A3 | A4  | B    | B1  | B2   | B3   | B6   | C    | C2  | D   | H     | L     | L1    |
|--------------|--------|----|----|------|----|-----|------|-----|------|------|------|------|-----|-----|-------|-------|-------|
| K0663.006101 | M6x35  | 14 | 29 | 7    | 12 | -   | 10,2 | 5,2 | 17,5 | 12,4 | 53,4 | 37,6 | 5,5 | 5,5 | 175,7 | 87,5  | 53    |
| K0663.008101 | M8x45  | 21 | 39 | 9    | 19 | -   | 10,2 | 5,2 | 20,6 | 15,5 | 51,1 | 49   | 6,5 | 6,8 | 207,6 | 107,5 | 62    |
| K0663.010101 | M10x55 | 32 | 50 | 8    | 27 | 3,5 | 14,1 | 7,1 | 25,5 | 18,4 | 56,5 | 62,3 | 13  | 9   | 254   | 153   | 95    |
| K0663.012101 | M12x70 | 32 | 53 | 10,5 | -  | -   | 14,1 | 7,1 | 28   | 20,9 | 56,5 | 69,8 | 9   | 8,8 | 271,9 | 173,5 | 113,5 |

## Nuts

with ball point



**Material:**

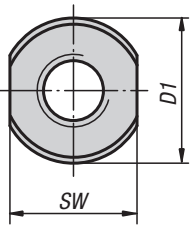
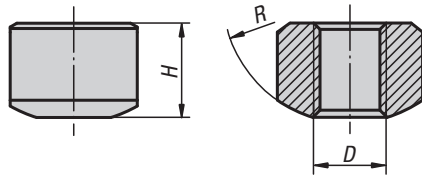
Steel

**Surface finish:**

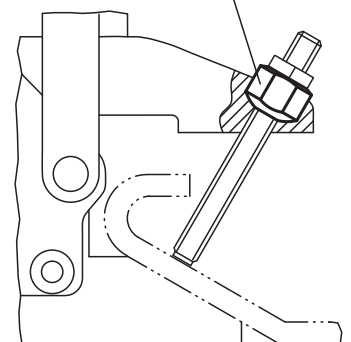
Black oxide finish

**Sample order:**

K0664.04



*suitable for welding*

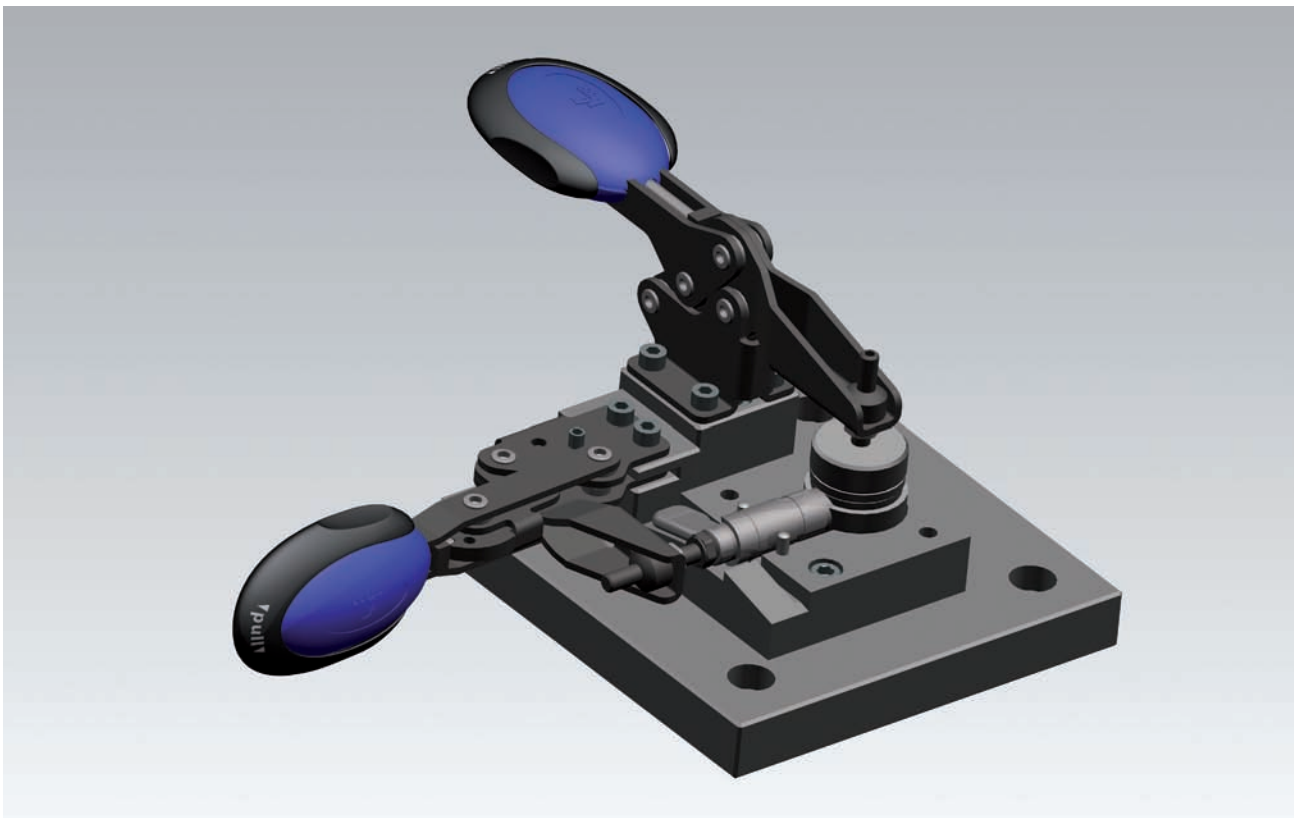
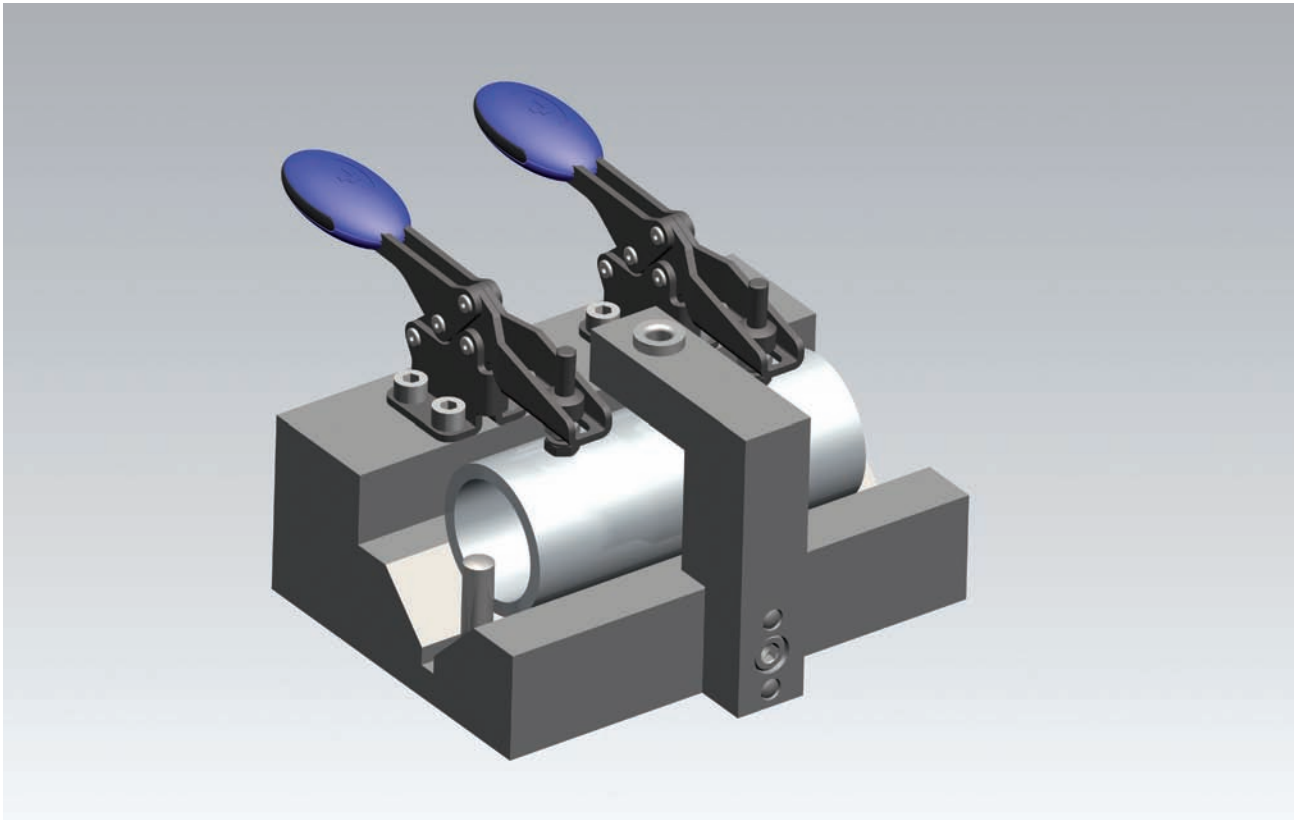


### KIPP Nuts with flat point

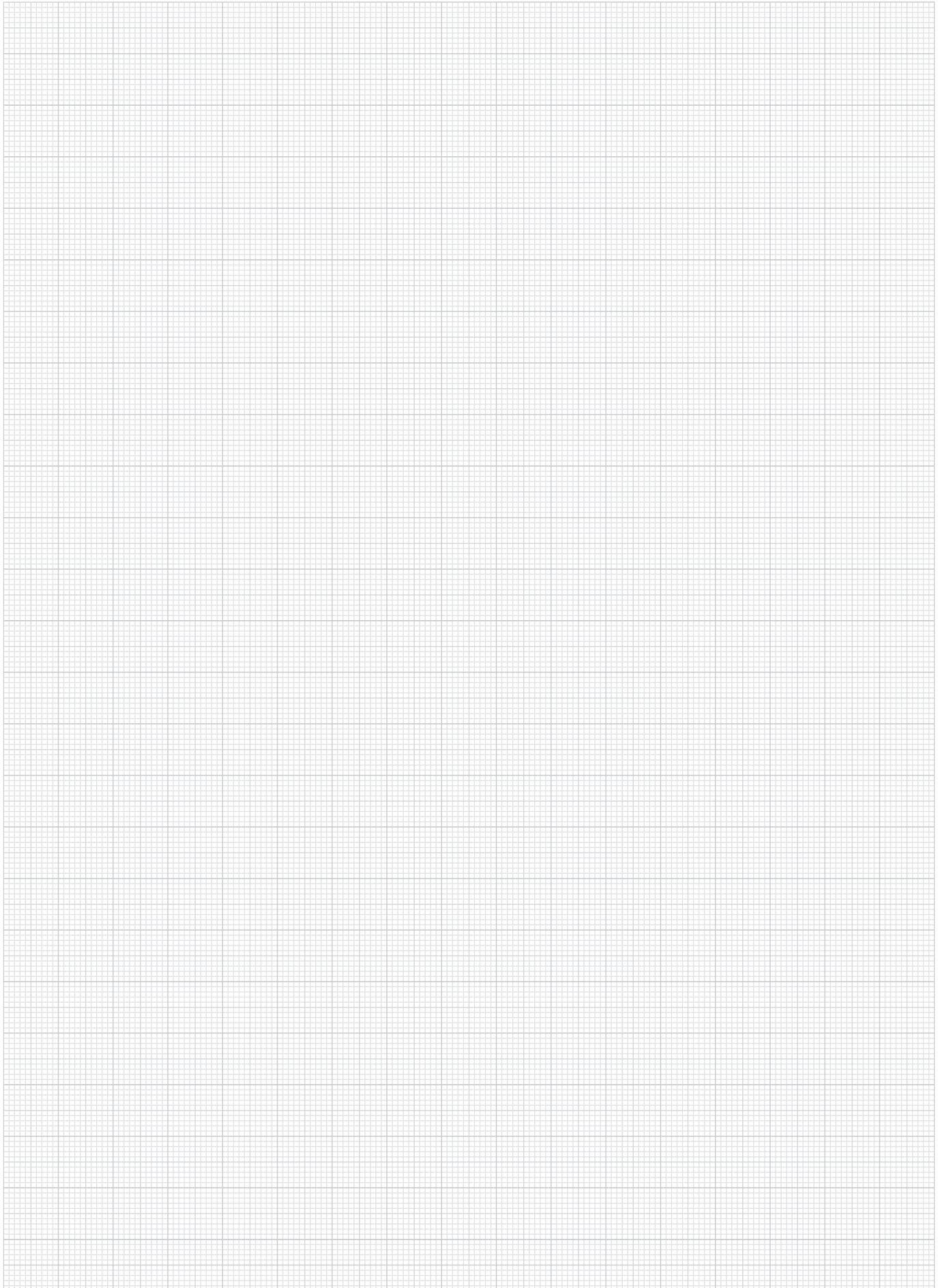
| Order No. | D   | H    | D1   | SW   | R  |
|-----------|-----|------|------|------|----|
| K0664.04  | M4  | 5,2  | 8    | 7    | 7  |
| K0664.05  | M5  | 6,7  | 10   | 9    | 9  |
| K0664.06  | M6  | 9,5  | 13,5 | 12,2 | 10 |
| K0664.08  | M8  | 12,8 | 18   | 15,3 | 12 |
| K0664.10  | M10 | 12,1 | 20   | 18,2 | 14 |
| K0664.12  | M12 | 14,8 | 23   | 20   | 16 |



# Application example







# Technical information



Figure 1:

**Clamp in end position over dead centre**

Self-locking in the clamping joints avoids automatic opening during the machining process.

Figure 2:

**Clamp in intermediate position**

The holding arm approaches dead centre of the toggle joint very rapidly when closing the clamp (swivel angle of handle  $\ll$  swivel angle of holding arm).

Figure 3:

**Clamp is open**

The large opening angle of the clamping arm allows easy loading and unloading.



Fig. 1

Fig. 2

Fig. 3

Toggle clamps generate the maximum clamping or exerting force when the three pivots are in a straight line (dead centre position).

A clamp is locked by moving one pivot beyond the dead centre position. The end position over dead centre is carefully chosen to retain the maximum clamping force while preventing inadvertent opening of the clamp due to vibration or varying loading.

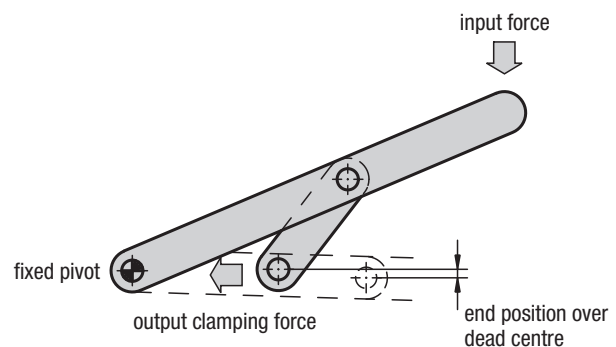
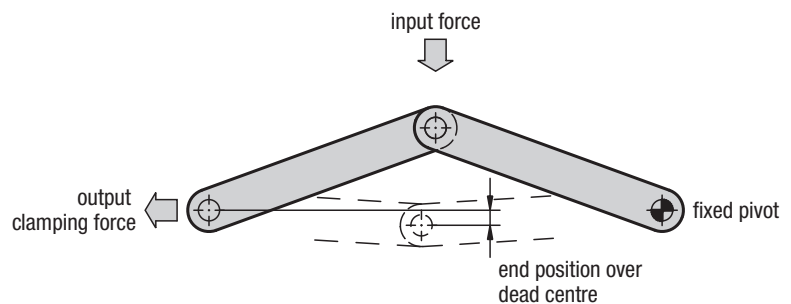
The force-multiplying characteristics of the toggle joint mechanism put in practice in straight line action clamps can be used to carry out work such as light piercing, drilling, forming, bonding, jointing, riveting, welding and locking.

**Holding force**

The holding force is the machining force on the workpiece which the closed clamp can readily withstand without permanent distortion or loss of function.

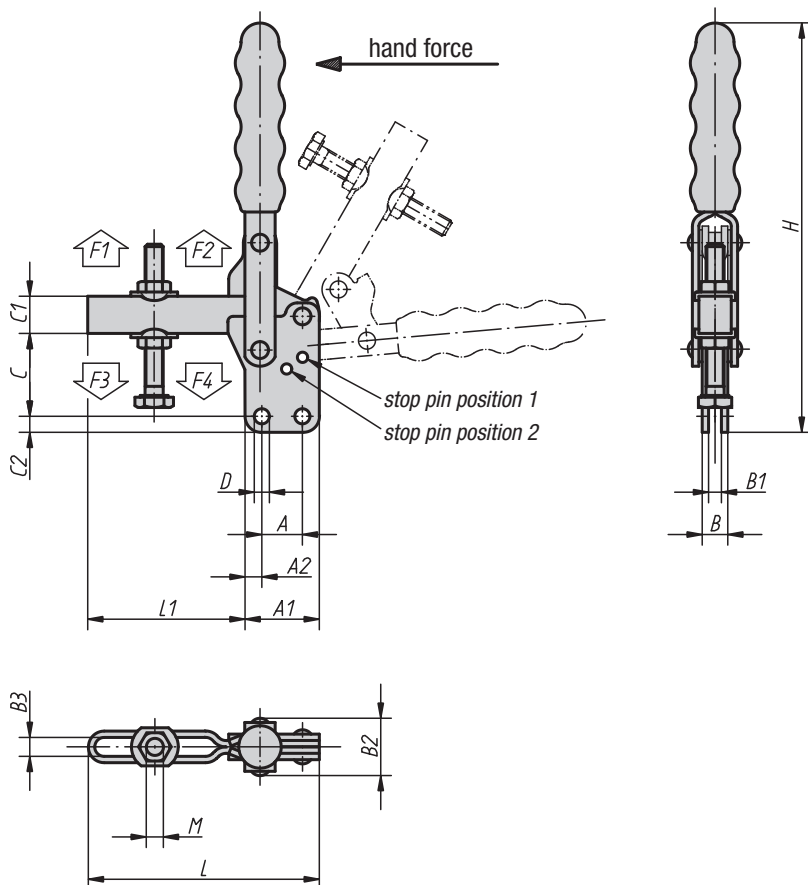
**Clamping force**

The clamping force is the force applied to the workpiece by the clamping arm when it is closed. The hand forces indicated in the catalogue can achieve the corresponding clamping forces.



## Vertical clamps

with straight foot and adjustable clamping spindle



**Material:**  
Steel

**Surface finish:**  
Galvanized and chromated,  
clamping spindle and nuts phosphated,  
plastic handle oil-resistant

**Sample order:**  
K0055.0250

**Note:**  
The opening angle between the holding arm and the handle can be reduced or enlarged by repositioning or removing the stop pin.

A neoprene pressure pad is supplied with versions K0055.0075 and K0055.0150.

See K0100, K0101, K0102, K0103, K0106, K0107 for accessories.

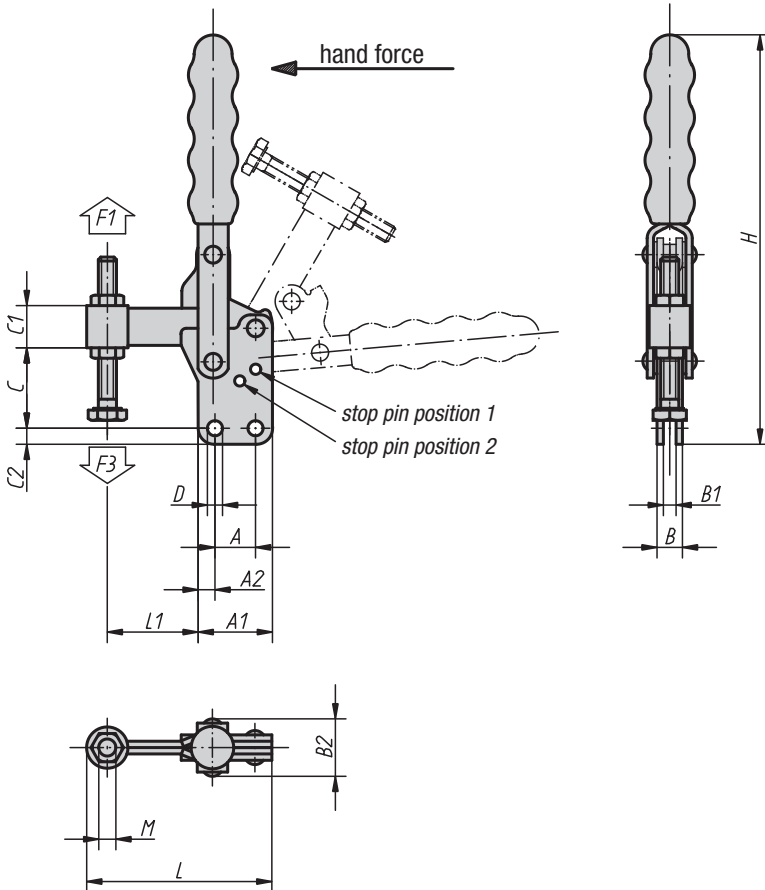
### KIPP Vertical clamps with straight foot and adjustable clamping spindle

| Order No.  | Opening angle holding arm position 1 | Opening angle holding arm position 2 | Opening angle holding arm stop pin removed | Opening angle handle position 1 | Opening angle handle position 2 | Opening angle handle stop pin removed |
|------------|--------------------------------------|--------------------------------------|--|---------------------------------|---------------------------------|---------------------------------------|
| K0055.0075 | 130°                                 | -                                    | 195°                                       | 90°                             | -                               | 125°                                  |
| K0055.0150 | 95°                                  | -                                    | 185°                                       | 75°                             | -                               | 110°                                  |
| K0055.0250 | 95°                                  | 125°                                 | 160°                                       | 70°                             | 85°                             | 100°                                  |
| K0055.0350 | 90°                                  | 120°                                 | 180°                                       | 70°                             | 80°                             | 110°                                  |
| K0055.0450 | 90°                                  | 125°                                 | 180°                                       | 70°                             | 85°                             | 110°                                  |
| K0055.0550 | 90°                                  | 120°                                 | 180°                                       | 65°                             | 80°                             | 110°                                  |

| Order No.  | A    | A1 | A2   | B  | B1 | B2 | B3   | C   | C1   | C2   | D    | H   | L   | L1  | M       | Hand force N | Holding force F1 N | Holding force F2 N | Clamping force F3 N | Clamping force F4 N |
|------------|------|----|------|----|----|----|------|-----|------|------|------|-----|-----|-----|---------|--------------|--------------------|--------------------|---------------------|---------------------|
| K0055.0075 | 16   | 26 | 5    | 8  | 4  | 17 | 5,5  | 22  | 9    | 5    | 4,4  | 106 | 57  | 31  | M5x35   | 80           | 700                | 1100               | 500                 | 750                 |
| K0055.0150 | 12,7 | 27 | 7    | 12 | 6  | 24 | 6,4  | 28  | 11   | 5,4  | 5,1  | 135 | 70  | 43  | M6x50   | 120          | 1350               | 1650               | 800                 | 1050                |
| K0055.0250 | 19   | 35 | 8    | 12 | 6  | 26 | 8,8  | 39  | 17,5 | 7    | 7,1  | 190 | 110 | 75  | M8x60   | 190          | 1000               | 2800               | 900                 | 1700                |
| K0055.0350 | 32   | 50 | 9    | 16 | 8  | 33 | 10,6 | 54  | 22   | 9,6  | 8,3  | 245 | 145 | 95  | M10x80  | 230          | 2200               | 4500               | 1400                | 3000                |
| K0055.0450 | 32   | 53 | 10   | 20 | 10 | 42 | 13,5 | 59  | 25   | 8,7  | 8,7  | 246 | 177 | 124 | M12x100 | 260          | 3200               | 7000               | 1400                | 3000                |
| K0055.0550 | 51   | 76 | 12,5 | 20 | 10 | 41 | 16,5 | 102 | 32   | 12,7 | 12,3 | 345 | 230 | 154 | M16x150 | 290          | 3000               | 8000               | 1800                | 3900                |

## Vertical clamps

with straight foot and fixed clamping spindle



**Material:**  
Steel

**Surface finish:**  
Galvanized and chromated,  
clamping spindle and nuts phosphated,  
plastic handle oil-resistant

**Sample order:**  
K0056.0150

**Note:**  
The opening angle between the holding arm and the handle can be reduced or enlarged by repositioning or removing the stop pin.

A neoprene pressure pad is supplied with version K0056.0150.

See K0100, K0101, K0102, K0103, K0106 for accessories.

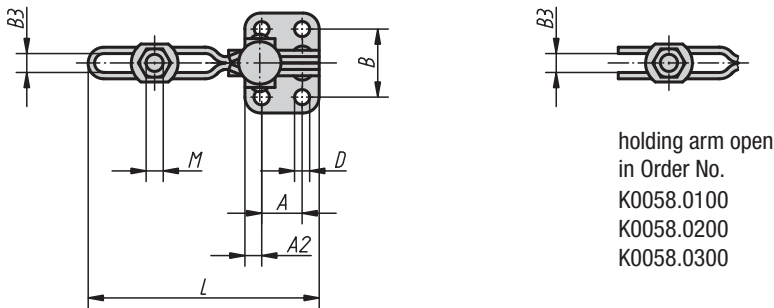
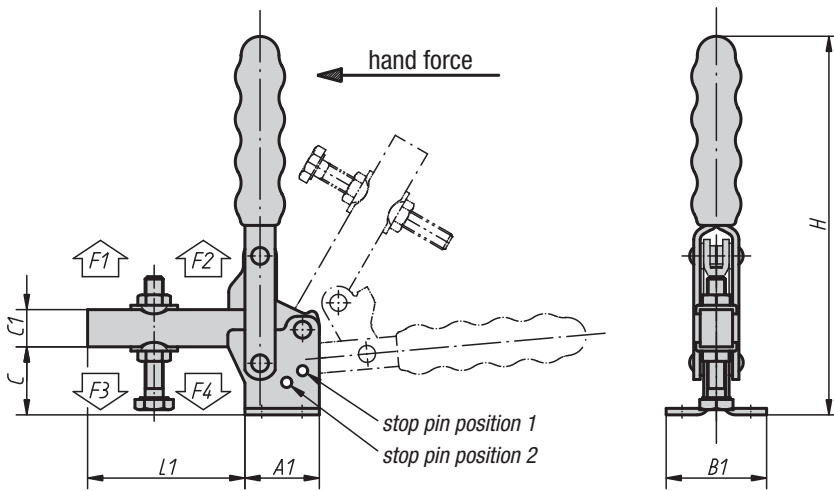
### KIPP Vertical clamps with straight foot and fixed clamping spindle

| Order No.  | Opening angle holding arm position 1 | Opening angle holding arm position 2 | Opening angle holding arm stop pin removed | Opening angle handle position 1 | Opening angle handle position 2 | Opening angle handle stop pin removed |
|------------|--------------------------------------|--------------------------------------|--|---------------------------------|---------------------------------|---------------------------------------|
| K0056.0150 | 95°                                  | -                                    | 185°                                       | 75°                             | -                               | 110°                                  |
| K0056.0250 | 95°                                  | 125°                                 | 160°                                       | 70°                             | 85°                             | 100°                                  |
| K0056.0350 | 90°                                  | 120°                                 | 180°                                       | 70°                             | 80°                             | 110°                                  |
| K0056.0450 | 90°                                  | 125°                                 | 180°                                       | 70°                             | 85°                             | 110°                                  |
| K0056.0550 | 90°                                  | 120°                                 | 180°                                       | 65°                             | 80°                             | 110°                                  |

| Order No.  | A    | A1 | A2   | B  | B1 | B2 | C   | C1   | C2   | D    | H   | L   | L1  | M       | Hand force N | Holding force F1 N | Clamping force F3 N |
|------------|------|----|------|----|----|----|-----|------|------|------|-----|-----|-----|---------|--------------|--------------------|---------------------|
| K0056.0150 | 12,7 | 27 | 7    | 12 | 6  | 24 | 28  | 11   | 5,4  | 5,1  | 135 | 60  | 26  | M6x50   | 120          | 1500               | 900                 |
| K0056.0250 | 19   | 35 | 8    | 12 | 6  | 26 | 37  | 21,5 | 7    | 7,1  | 190 | 87  | 45  | M8x60   | 190          | 2500               | 1150                |
| K0056.0350 | 32   | 50 | 9    | 16 | 8  | 33 | 52  | 25,5 | 9,6  | 8,3  | 240 | 124 | 65  | M10x80  | 230          | 3500               | 1650                |
| K0056.0450 | 32   | 53 | 10   | 20 | 10 | 42 | 57  | 30   | 8,7  | 8,7  | 246 | 136 | 74  | M12x100 | 260          | 4500               | 1650                |
| K0056.0550 | 51   | 76 | 12,5 | 20 | 10 | 41 | 101 | 38   | 12,7 | 12,3 | 345 | 197 | 108 | M16x150 | 290          | 5500               | 1900                |

# Vertical clamps

with flat foot and adjustable clamping spindle



**Material:**

Steel or stainless steel

**Surface finish:**

Galvanized and chromated, clamping spindle and nuts phosphated, stainless steel natural finish, plastic handle oil-resistant

**Sample order:**

K0058.0250N

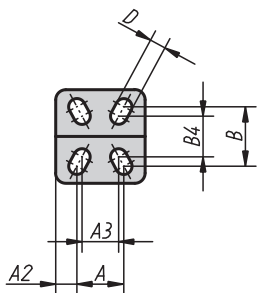
**Note:**

The opening angle between the holding arm and the handle can be reduced or enlarged by repositioning or removing the stop pin.

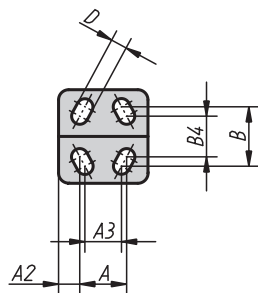
A neoprene pressure pad is supplied with versions K0058.0075, K0058.0100 and K0058.0150.

An angle bracket cannot be supplied in stainless steel with versions K0058.0075N, K0058.0150N and K0058.0250N.

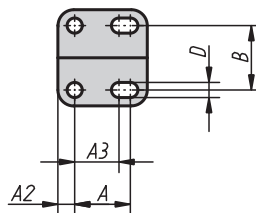
See K0098, K0100, K0101, K0102, K0103, K0106, K0107 for accessories.



hole arrangement for Order No. K0058.0100



hole arrangement for Order No. K0058.0200



hole arrangement for Order No. K0058.0300

# Vertical clamps

with flat foot and adjustable clamping spindle



Angle bracket for head end mounting (see accessories)

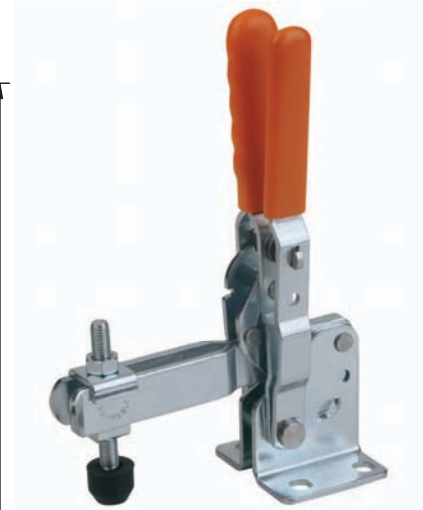
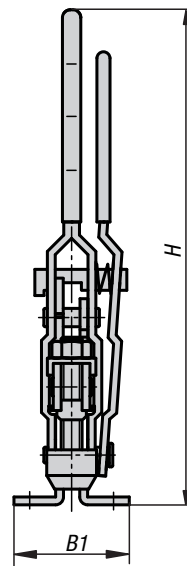
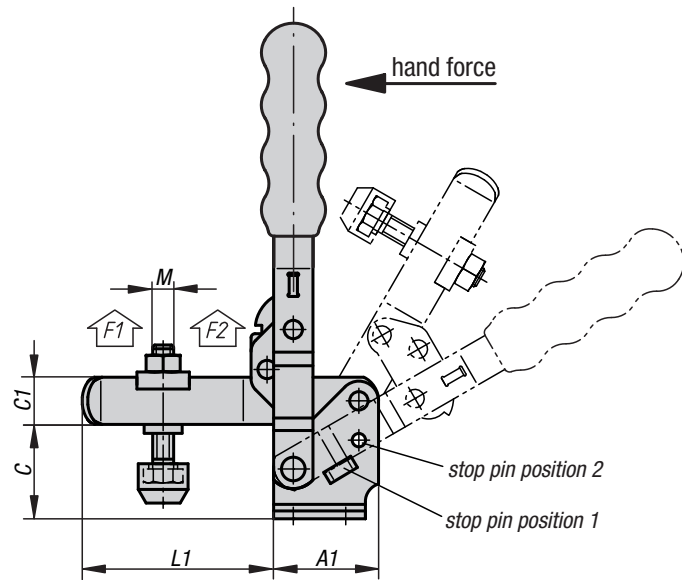
## KIPP Vertical clamps with flat foot and adjustable clamping spindle

| Order No.   | Surface finish  | Opening angle holding arm position 1 | Opening angle holding arm position 2 | Opening angle holding arm stop pin removed | Opening angle handle position 1 | Opening angle handle position 2 | Opening angle handle stop pin removed | Item No. Angle Bracket |
|-------------|-----------------|--------------------------------------|--------------------------------------|--|---------------------------------|---------------------------------|---------------------------------------|------------------------|
| K0058.0075  | steel           | 130°                                 | -                                    | 160°                                       | 90°                             | -                               | 100°                                  | K0098.02               |
| K0058.0100  | steel           | 95°                                  | -                                    | 185°                                       | 65°                             | -                               | 105°                                  | -                      |
| K0058.0150  | steel           | 95°                                  | -                                    | 185°                                       | 75°                             | -                               | 110°                                  | K0098.02               |
| K0058.0200  | steel           | 105°                                 | -                                    | 175°                                       | 70°                             | -                               | 95°                                   | -                      |
| K0058.0250  | steel           | 95°                                  | 125°                                 | 160°                                       | 70°                             | 85°                             | 100°                                  | K0098.04               |
| K0058.0300  | steel           | 105°                                 | -                                    | 160°                                       | 65°                             | -                               | 90°                                   | -                      |
| K0058.0350  | steel           | 90°                                  | 120°                                 | 180°                                       | 70°                             | 80°                             | 110°                                  | K0098.06               |
| K0058.0450  | steel           | 90°                                  | 125°                                 | 180°                                       | 70°                             | 85°                             | 110°                                  | K0098.06               |
| K0058.0550  | steel           | 90°                                  | 120°                                 | 180°                                       | 65°                             | 80°                             | 110°                                  | -                      |
| K0058.0075N | stainless steel | 130°                                 | -                                    | 160°                                       | 90°                             | -                               | 100°                                  | -                      |
| K0058.0150N | stainless steel | 95°                                  | -                                    | 185°                                       | 75°                             | -                               | 110°                                  | -                      |
| K0058.0250N | stainless steel | 95°                                  | 125°                                 | 160°                                       | 70°                             | 85°                             | 100°                                  | -                      |

| Order No.   | Surface finish  | A    | A1 | A2   | A3   | B    | B1 | B3   | B4   | C  | C1   | D    | H   | L   | L1  | M       | Hand force N | Holding force F1 N | Holding force F2 N | Clamping force F3 N | Clamping force F4 N |
|-------------|-----------------|------|----|------|------|------|----|------|------|----|------|------|-----|-----|-----|---------|--------------|--------------------|--------------------|---------------------|---------------------|
| K0058.0075  | steel           | 16   | 25 | 5    | -    | 24   | 34 | 5,5  | -    | 16 | 9    | 4,4  | 94  | 57  | 32  | M5x35   | 80           | 700                | 1100               | 500                 | 750                 |
| K0058.0100  | steel           | 16   | 29 | 6    | 14   | 24   | 34 | 5,5  | 17,5 | 22 | 9,5  | 4,8  | 98  | 67  | 38  | M5x35   | 80           | 700                | 1000               | 500                 | 800                 |
| K0058.0150  | steel           | 12,7 | 27 | 7    | -    | 27   | 38 | 6,4  | -    | 23 | 11   | 5,1  | 121 | 70  | 43  | M6x50   | 120          | 1350               | 1650               | 800                 | 1050                |
| K0058.0200  | steel           | 19   | 35 | 8    | 12,7 | 27   | 42 | 6,3  | 25   | 30 | 12,7 | 5,5  | 135 | 79  | 44  | M6x50   | 100          | 1000               | 2200               | 950                 | 1350                |
| K0058.0250  | steel           | 19   | 35 | 8    | -    | 32   | 45 | 8,8  | -    | 32 | 17,5 | 7,1  | 175 | 110 | 75  | M8x60   | 190          | 1000               | 2800               | 900                 | 1700                |
| K0058.0300  | steel           | 25   | 43 | 9    | 19   | 34,5 | 53 | 8,8  | -    | 34 | 19   | 8    | 186 | 143 | 100 | M8x60   | 130          | 2000               | 3700               | 900                 | 1850                |
| K0058.0350  | steel           | 32   | 50 | 9    | -    | 45   | 64 | 10,6 | -    | 43 | 22   | 8,3  | 220 | 145 | 95  | M10x80  | 230          | 2200               | 4500               | 1400                | 3000                |
| K0058.0450  | steel           | 32   | 53 | 10   | -    | 45   | 64 | 12,7 | -    | 51 | 25   | 8,7  | 228 | 177 | 124 | M12x100 | 260          | 3200               | 7000               | 1400                | 3000                |
| K0058.0550  | steel           | 51   | 76 | 12,5 | -    | 70   | 95 | 16,5 | -    | 84 | 32   | 12,3 | 312 | 232 | 156 | M16x150 | 290          | 3000               | 8000               | 1800                | 3900                |
| K0058.0075N | stainless steel | 16   | 25 | 5    | -    | 24   | 34 | 5,5  | -    | 16 | 9    | 4,4  | 94  | 57  | 32  | M5x35   | 80           | 700                | 1100               | 500                 | 750                 |
| K0058.0150N | stainless steel | 12,7 | 27 | 7    | -    | 27   | 38 | 6,4  | -    | 23 | 11   | 5,1  | 121 | 70  | 43  | M6x50   | 120          | 1350               | 1650               | 800                 | 1050                |
| K0058.0250N | stainless steel | 19   | 35 | 8    | -    | 32   | 45 | 8,8  | -    | 32 | 17,5 | 7,1  | 175 | 110 | 75  | M8x60   | 190          | 1000               | 2800               | 900                 | 1700                |

# Vertical clamps with safety interlock

with flat foot and adjustable clamping spindle



**Material:**  
Steel.

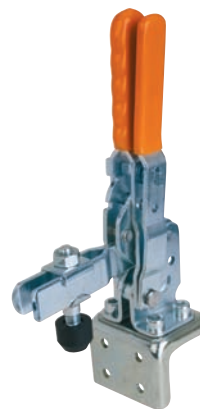
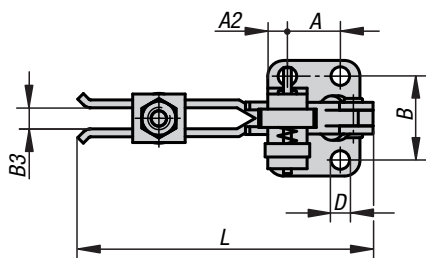
**Surface finish:**  
galvanized and chromated  
plastic handle oil-resistant.

**Sample order:**  
K0059.0250

**Note:**  
With safety interlock for the clamping point and opened position. Safety clamping element with finger protection. Anti-loosening lock for the press-on bolt on the end of the clamping arm.  
The opening angle between the holding arm and the handle can be reduced by pressing in of the stop pin (stop position 2).

Clamping spindle with a neoprene pressure pad.

See K0098, K0100, K0101, K0102, K0103, K0106, K0107 for accessories.



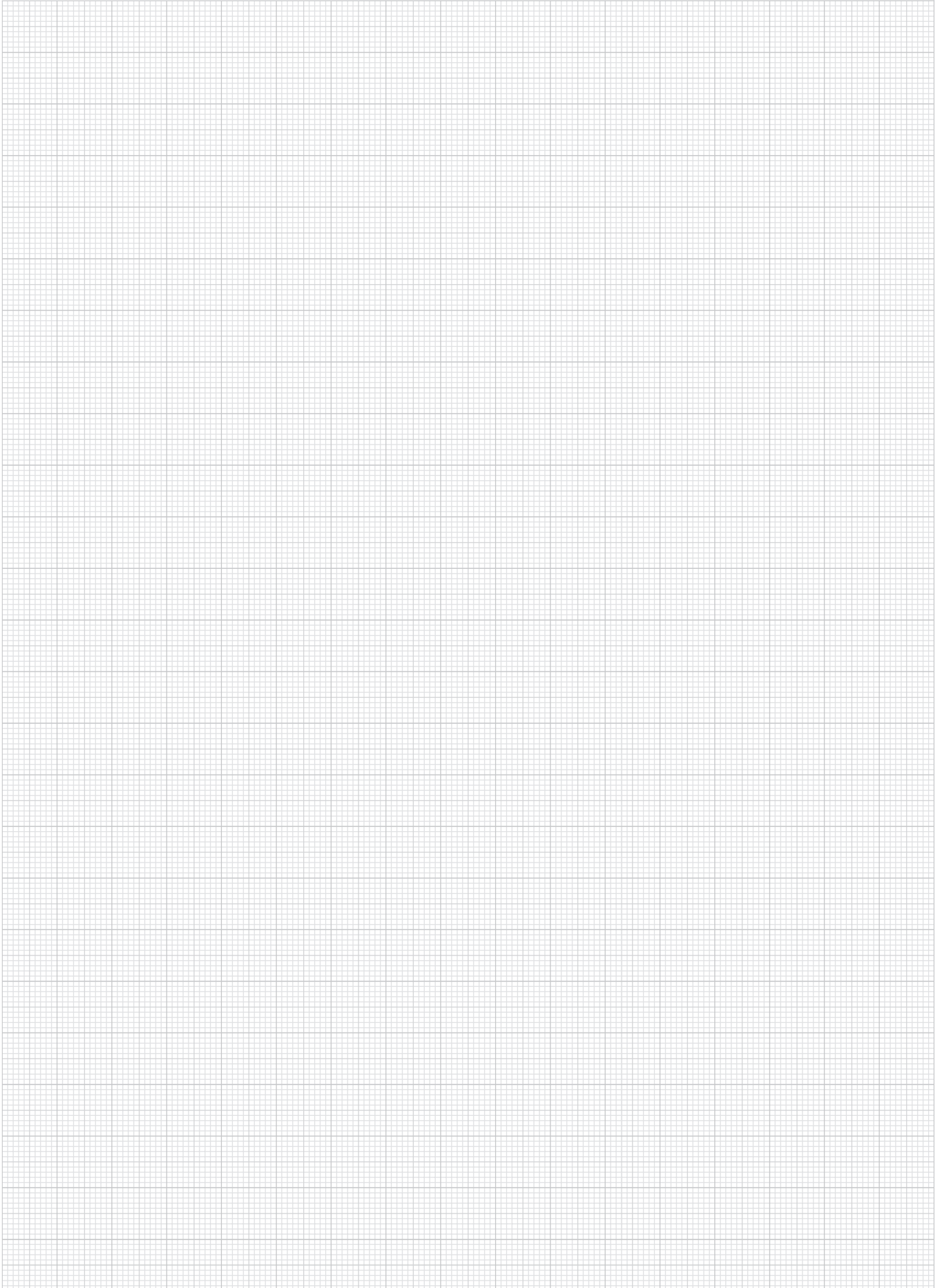
Angle bracket for head end mounting (see accessories)

## KIPP Vertical clamps with safety interlock with flat foot and adjustable clamping spindle

| Order No.  | Opening angle holding arm position 1 | Opening angle holding arm position 2 | Opening angle handle position 1 | Opening angle handle position 2 | Item No. Angle Bracket |
|------------|--------------------------------------|--------------------------------------|---------------------------------|---------------------------------|------------------------|
| K0059.0250 | 105°                                 | 60°                                  | 150°                            | 135°                            | K0098.04               |
| K0059.0350 | 105°                                 | 60°                                  | 150°                            | 135°                            | K0098.06               |

| Order No.  | A  | A1   | A2  | B  | B1 | B3 | C  | C1 | D   | H   | L     | L1   | M     | Holding force F1 N | Holding force F2 N |
|------------|----|------|-----|----|----|----|----|----|-----|-----|-------|------|-------|--------------------|--------------------|
| K0059.0250 | 20 | 40,5 | 7,5 | 32 | 44 | 8  | 35 | 18 | 7,5 | 185 | 110,5 | 70   | M8x45 | 1800               | 2500               |
| K0059.0350 | 32 | 59,5 | 13  | 45 | 64 | 10 | 45 | 20 | 8,5 | 206 | 140   | 80,5 | M8x65 | 2000               | 3000               |

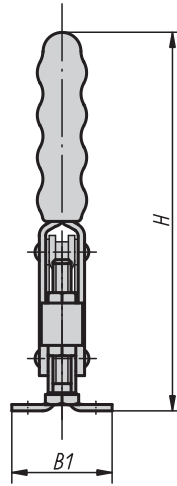
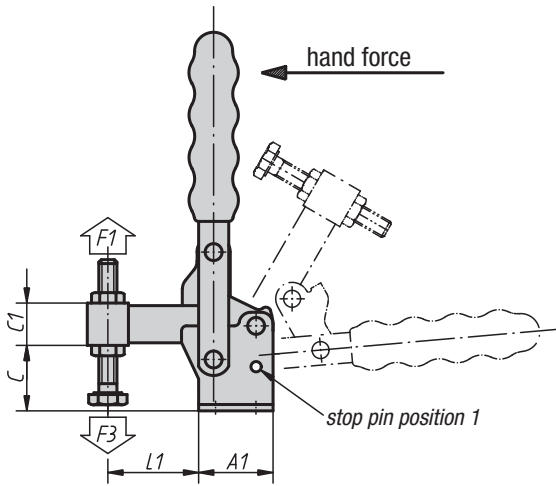






# Vertical clamps

with flat foot and fixed clamping spindle



**Material:**  
Steel

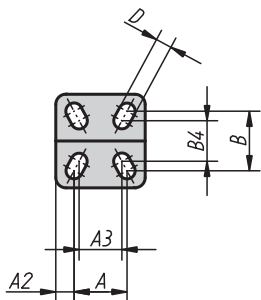
**Surface finish:**  
Galvanized and chromated, clamping spindle and nuts phosphated, plastic handle oil-resistant

**Sample order:**  
K0060.0250

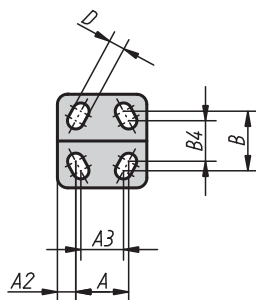
**Note:**  
The opening angle between the holding arm and the handle can be reduced or enlarged by repositioning or removing the stop pin.

A neoprene pressure pad is supplied with version K0060.0100 and K0060.0150.

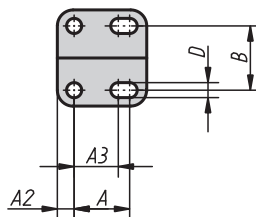
See K0098, K0100, K0101, K0102, K0103, K0106 for accessories.



hole arrangement for Order No. K0060.0100



hole arrangement for Order No. K0060.0200



hole arrangement for Order No. K0060.0300

## Vertical clamps

with flat foot and fixed clamping spindle



Angle bracket for head end mounting (see accessories)

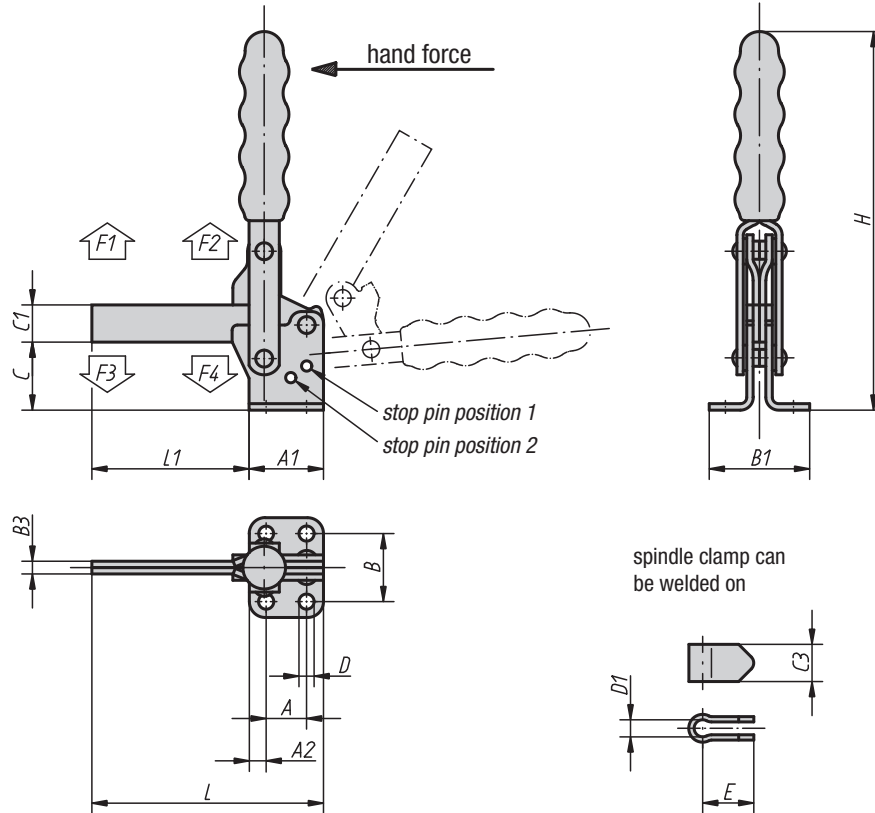
### KIPP Vertical clamps with flat foot and fixed clamping spindle

| Order No.  | Opening angle holding arm position 1 | Opening angle holding arm stop pin removed | Opening angle handle position 1 | Opening angle handle stop pin removed | Hand force N | Holding force F1 N | Clamping force F3 N |
|------------|--------------------------------------|--|---------------------------------|---------------------------------------|--------------|--------------------|---------------------|
| K0060.0100 | 95°                                  | 185°                                       | 65°                             | 105°                                  | 80           | 850                | 650                 |
| K0060.0150 | 95°                                  | 185°                                       | 75°                             | 110°                                  | 120          | 1500               | 900                 |
| K0060.0200 | 105°                                 | 175°                                       | 70°                             | 95°                                   | 100          | 1600               | 1150                |
| K0060.0250 | 95°                                  | 160°                                       | 70°                             | 100°                                  | 190          | 2500               | 1150                |
| K0060.0300 | 105°                                 | 160°                                       | 65°                             | 90°                                   | 130          | 3000               | 1150                |
| K0060.0350 | 90°                                  | 180°                                       | 70°                             | 110°                                  | 230          | 3500               | 1650                |
| K0060.0450 | 90°                                  | 180°                                       | 70°                             | 110°                                  | 260          | 4500               | 1650                |
| K0060.0550 | 90°                                  | 180°                                       | 65°                             | 110°                                  | 290          | 5500               | 1900                |

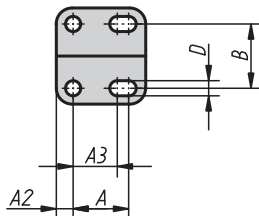
| Order No.  | A    | A1 | A2   | A3   | B    | B1 | B4   | C  | C1   | D    | H   | L     | L1  | M       | Item No. Angle Bracket |
|------------|------|----|------|------|------|----|------|----|------|------|-----|-------|-----|---------|------------------------|
| K0060.0100 | 16   | 28 | 6    | 14   | 24   | 34 | 17,5 | 22 | 9,5  | 4,8  | 103 | 65    | 32  | M5x35   | -                      |
| K0060.0150 | 12,7 | 27 | 7    | -    | 27   | 38 | -    | 23 | 11   | 5,1  | 125 | 60    | 26  | M6x50   | K0098.02               |
| K0060.0200 | 19   | 35 | 8    | 12,7 | 27   | 42 | 25   | 29 | 12,7 | 5,5  | 135 | 77    | 37  | M6x50   | -                      |
| K0060.0250 | 19   | 35 | 8    | -    | 32   | 47 | -    | 29 | 21,5 | 7,1  | 175 | 87    | 45  | M8x60   | K0098.04               |
| K0060.0300 | 25   | 43 | 9    | 19   | 34,5 | 52 | -    | 32 | 21,5 | 8    | 186 | 115   | 65  | M8x60   | -                      |
| K0060.0350 | 32   | 50 | 9    | -    | 45   | 64 | -    | 40 | 25,5 | 8,3  | 220 | 123   | 65  | M10x80  | K0098.06               |
| K0060.0450 | 32   | 53 | 10   | -    | 45   | 64 | -    | 47 | 30   | 8,7  | 228 | 136,5 | 74  | M12x100 | K0098.06               |
| K0060.0550 | 51   | 76 | 12,5 | -    | 70   | 95 | -    | 81 | 38   | 12,3 | 312 | 196,5 | 108 | M16x150 | -                      |

## Vertical clamps

with flat foot and full holding arm



hole arrangement for  
Order No.  
K00061.0300



**Material:**  
Steel

**Surface finish:**  
Galvanized and chromated, plastic handle oil-resistant

**Sample order:**  
K0061.0550

**Note:**  
The opening angle between the holding arm and the handle can be reduced or enlarged by repositioning or removing the stop pin.

See K0098, K0100, K0101, K0102, K0103, K0106 for accessories.



Angle bracket for  
head end mounting  
(see accessories)

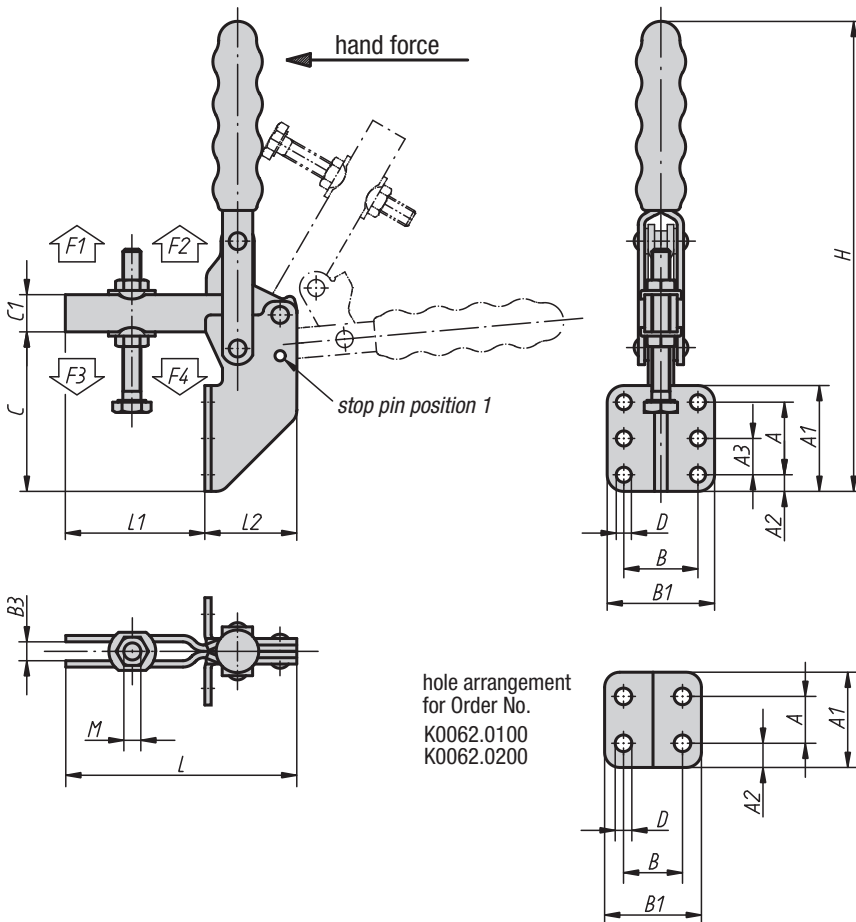
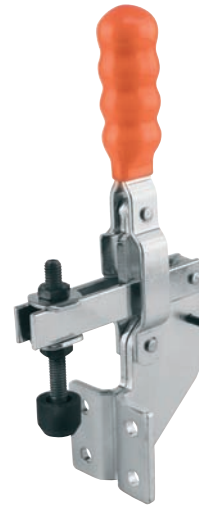
### KIPP Vertical clamps with flat foot and full holding arm

| Order No.  | Opening angle holding arm position 1 | Opening angle holding arm position 2 | Opening angle holding arm stop pin removed | Opening angle handle position 1 | Opening angle handle position 2 | Opening angle handle stop pin removed | Item No. Angle Bracket |
|------------|--------------------------------------|--------------------------------------|--|---------------------------------|---------------------------------|---------------------------------------|------------------------|
| K0061.0250 | 95°                                  | 125°                                 | 160°                                       | 70°                             | 85°                             | 100°                                  | K0098.04               |
| K0061.0300 | 105°                                 | -                                    | 160°                                       | 65°                             | -                               | 90°                                   | -                      |
| K0061.0350 | 90°                                  | 120°                                 | 180°                                       | 70°                             | 80°                             | 110°                                  | K0098.06               |
| K0061.0450 | 90°                                  | 125°                                 | 180°                                       | 70°                             | 85°                             | 110°                                  | K0098.06               |
| K0061.0550 | 90°                                  | 120°                                 | 180°                                       | 65°                             | 80°                             | 110°                                  | -                      |

| Order No.  | A  | A1 | A2   | A3 | B    | B1 | B3 | C  | C1   | C3   | D    | D1   | E  | H   | L   | L1  | Clamping spindle | Hand force N | Holding force F1 N | Holding force F2 N | Clamping force F3 N | Clamping force F4 N |
|------------|----|----|------|----|------|----|----|----|------|------|------|------|----|-----|-----|-----|------------------|--------------|--------------------|--------------------|---------------------|---------------------|
| K0061.0250 | 19 | 35 | 8    | -  | 32   | 47 | 6  | 31 | 17,5 | 17,5 | 7,1  | 8,3  | 24 | 175 | 112 | 77  | M8x60            | 190          | 1000               | 2800               | 900                 | 1700                |
| K0061.0300 | 25 | 43 | 9    | 19 | 34,5 | 52 | 6  | 34 | 19   | 17,5 | 8    | 8,3  | 24 | 186 | 143 | 100 | M8x60            | 130          | 2000               | 3700               | 900                 | 1850                |
| K0061.0350 | 32 | 50 | 9    | -  | 45   | 64 | 8  | 42 | 22   | 22   | 8,3  | 10,3 | 30 | 220 | 149 | 99  | M10x80           | 230          | 2200               | 4500               | 1400                | 3000                |
| K0061.0450 | 32 | 53 | 10   | -  | 45   | 64 | 10 | 51 | 25   | 26   | 8,7  | 12,3 | 32 | 228 | 180 | 127 | M12x100          | 260          | 3200               | 7000               | 1400                | 3000                |
| K0061.0550 | 51 | 76 | 12,5 | -  | 70   | 95 | 10 | 84 | 32   | 32   | 12,3 | 16,3 | 35 | 312 | 236 | 160 | M16x150          | 290          | 3000               | 8000               | 1800                | 3900                |

# Vertical clamps

with angled foot and adjustable clamping spindle



hole arrangement for Order No. K0062.0100 K0062.0200

**Material:**  
Steel

**Surface finish:**  
Galvanized and chromated, clamping spindle and nuts phosphated, plastic handle oil-resistant

**Sample order:**  
K0062.0200

**Note:**  
The opening angle between the holding arm and the handle can be reduced or enlarged by repositioning or removing the stop pin.

A neoprene pressure pad is supplied with version K0062.0100.

See K0100, K0101, K0102, K0103, K0106, K0107 for accessories.

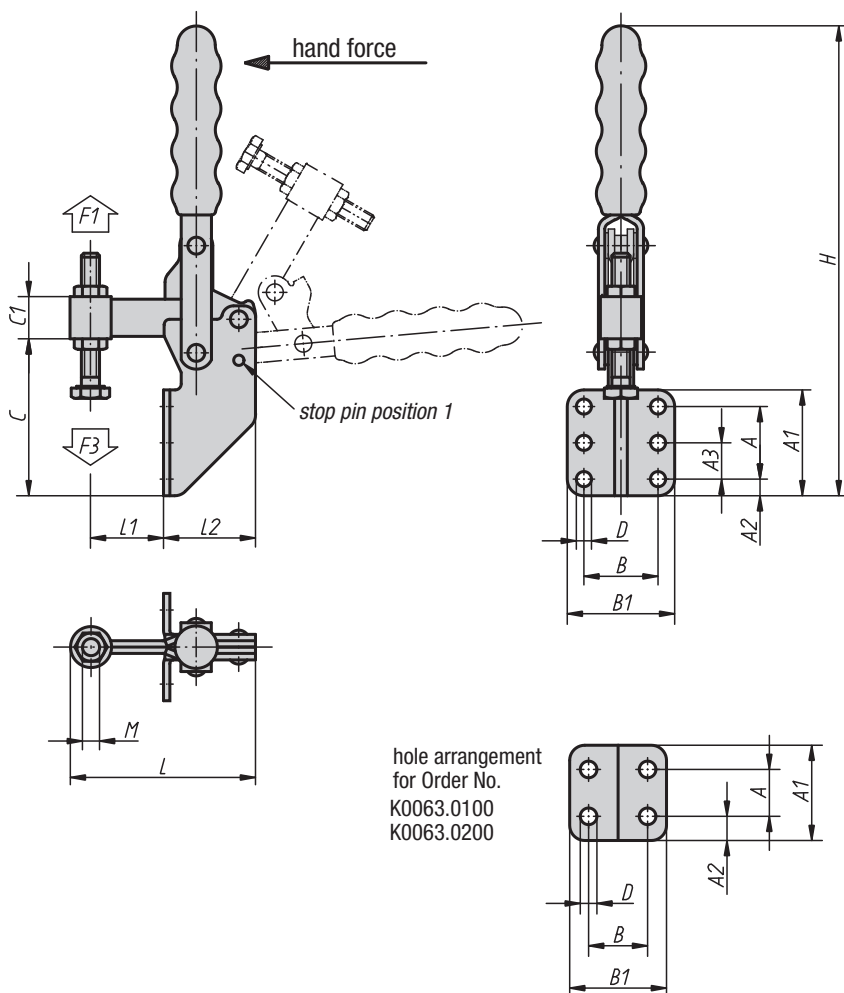
## KIPP Vertical clamps with angled foot and adjustable clamping spindle

| Order No.  | Opening angle holding arm position 1 | Opening angle holding arm stop pin removed | Opening angle handle position 1 | Opening angle handle stop pin removed |
|------------|--------------------------------------|--|---------------------------------|---------------------------------------|
| K0062.0100 | 80°                                  | 190°                                       | 60°                             | 100°                                  |
| K0062.0200 | 105°                                 | 175°                                       | 70°                             | 95°                                   |
| K0062.0300 | 105°                                 | 160°                                       | 65°                             | 90°                                   |

| Order No.  | A  | A1 | A2  | A3 | B    | B1 | B3  | C  | C1   | D   | H   | L   | L1 | L2 | M     | Hand force N | Holding force F1 N | Holding force F2 N | Clamping force F3 N | Clamping force F4 N |
|------------|----|----|-----|----|------|----|-----|----|------|-----|-----|-----|----|----|-------|--------------|--------------------|--------------------|---------------------|---------------------|
| K0062.0100 | 14 | 29 | 7,5 | -  | 17,5 | 28 | 5,5 | 44 | 9,5  | 4,8 | 122 | 67  | 31 | 36 | M5x35 | 80           | 700                | 1000               | 500                 | 800                 |
| K0062.0200 | 19 | 35 | 8   | -  | 26   | 42 | 6,3 | 64 | 12,7 | 5,5 | 170 | 79  | 35 | 44 | M6x50 | 100          | 1000               | 2200               | 950                 | 1350                |
| K0062.0300 | 35 | 51 | 8   | 16 | 35   | 51 | 8,8 | 82 | 19   | 6,8 | 235 | 143 | 92 | 51 | M8x60 | 130          | 2000               | 3700               | 900                 | 1850                |

# Vertical clamps

with angled foot and fixed clamping spindle



**Material:**  
Steel

**Surface finish:**  
Galvanized and chromated,  
clamping spindle and nuts phosphated,  
plastic handle oil-resistant

**Sample order:**  
K0063.0100

**Note:**  
The opening angle between the holding arm and the handle can be reduced or enlarged by repositioning or removing the stop pin.

A neoprene pressure pad is supplied with version K0063.0100.

See K0100, K0101, K0102, K0103, K0106 for accessories.

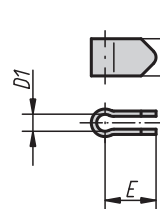
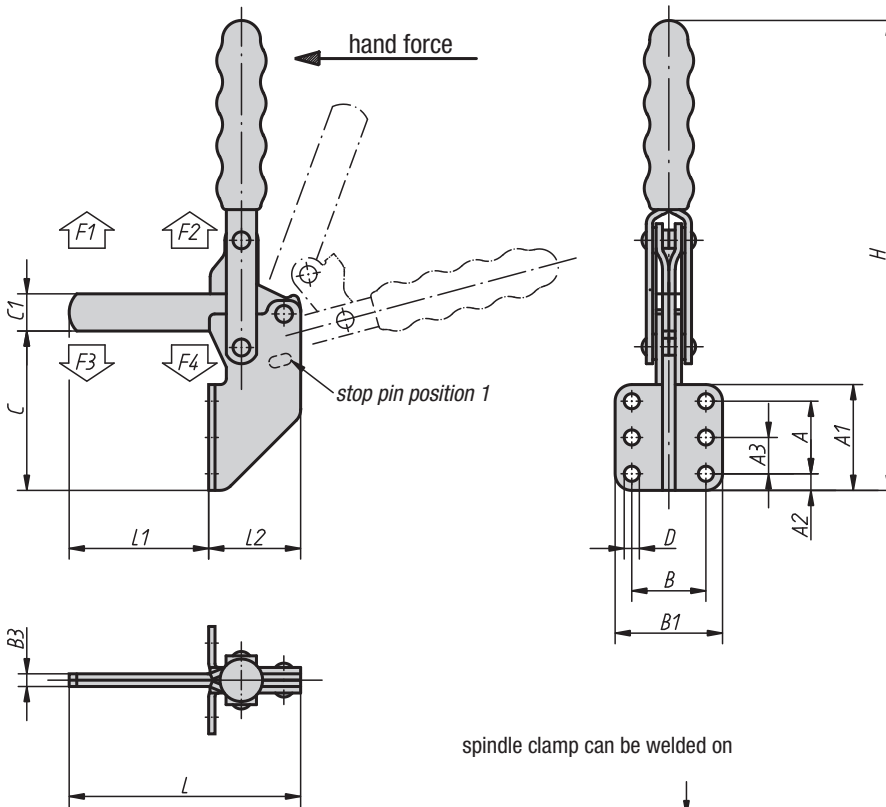
## KIPP Vertical clamps with angled foot and fixed clamping spindle

| Order No.  | Opening angle holding arm position 1 | Opening angle holding arm stop pin removed | Opening angle handle position 1 | Opening angle handle stop pin removed |
|------------|--------------------------------------|--|---------------------------------|---------------------------------------|
| K0063.0100 | 80°                                  | 190°                                       | 60°                             | 100°                                  |
| K0063.0200 | 105°                                 | 175°                                       | 70°                             | 95°                                   |
| K0063.0300 | 105°                                 | 160°                                       | 65°                             | 90°                                   |

| Order No.  | A  | A1 | A2 | A3 | B    | B1 | C  | C1   | D   | H   | L   | L1   | L2 | M     | Hand force N | Holding force F1 N | Clamping force F3 N |
|------------|----|----|----|----|------|----|----|------|-----|-----|-----|------|----|-------|--------------|--------------------|---------------------|
| K0063.0100 | 14 | 29 | 7  | -  | 17,5 | 28 | 44 | 9,5  | 4,8 | 122 | 66  | 24,5 | 36 | M5x35 | 80           | 850                | 650                 |
| K0063.0200 | 19 | 35 | 8  | -  | 25   | 41 | 64 | 12,7 | 5,5 | 170 | 77  | 27   | 44 | M6x50 | 100          | 1600               | 1150                |
| K0063.0300 | 35 | 51 | 8  | 16 | 35   | 51 | 81 | 21,5 | 6,8 | 235 | 116 | 58   | 51 | M8x60 | 130          | 3000               | 1150                |

## Vertical clamps

with angled foot and full holding arm



**Material:**  
Steel

**Surface finish:**  
Galvanized and chromated, plastic handle oil-resistant

**Sample order:**  
K0064.0300

**Note:**  
The opening angle between the holding arm and the handle can be reduced or enlarged by repositioning or removing the stop pin.

See K0100, K0101, K0102, K0103, K0106 for accessories.

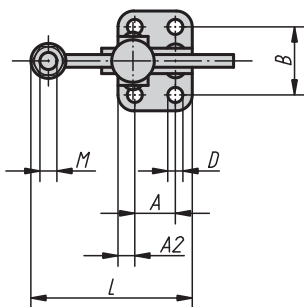
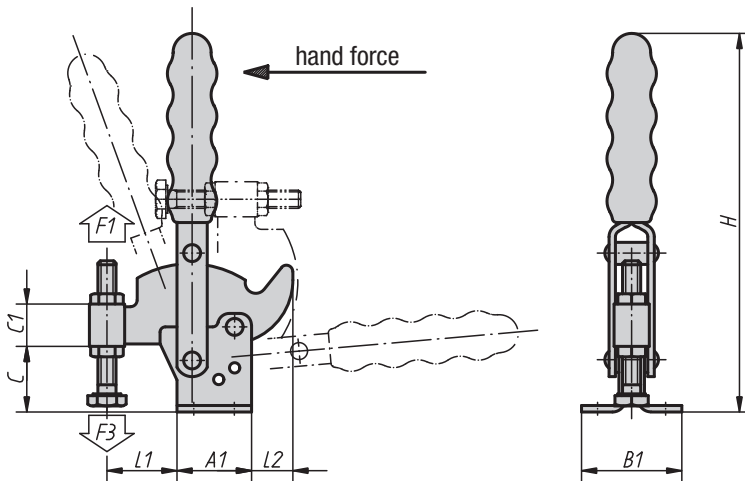
### KIPP Vertical clamps with angled foot and full holding arm

| Order No.  | Opening angle holding arm position 1 | Opening angle holding arm stop pin removed | Opening angle handle position 1 | Opening angle handle stop pin removed |
|------------|--------------------------------------|--|---------------------------------|---------------------------------------|
| K0064.0300 | 105°                                 | 160°                                       | 65°                             | 90°                                   |

| Order No.  | A  | A1 | A2 | A3 | B  | B1 | B3 | C  | C1 | C3   | D   | D1  | E  | H   | L   | L1 | L2 | Clamping spindle | Hand force N | Holding force F1 N | Holding force F2 N | Clamping force F3 N | Clamping force F4 N |
|------------|----|----|----|----|----|----|----|----|----|------|-----|-----|----|-----|-----|----|----|------------------|--------------|--------------------|--------------------|---------------------|---------------------|
| K0064.0300 | 35 | 51 | 8  | 16 | 35 | 51 | 6  | 82 | 19 | 17,5 | 6,8 | 8,3 | 24 | 235 | 143 | 92 | 51 | M8x60            | 130          | 2000               | 3700               | 900                 | 1850                |

## Vertical curved clamps

with flat foot



**Material:**  
Steel

**Surface finish:**  
Galvanized and chromated,  
clamping spindle and nuts phosphated,  
plastic handle oil-resistant

**Sample order:**  
K0065.0075

**Note:**  
The curved clamps are ideal for clamping workpieces with a relatively large tolerance such as casting blanks or nonferrous metals.

See K0098, K0100, K0101, K0102, K0103, K0106 for accessories.



Angle bracket for head end mounting (see accessories)

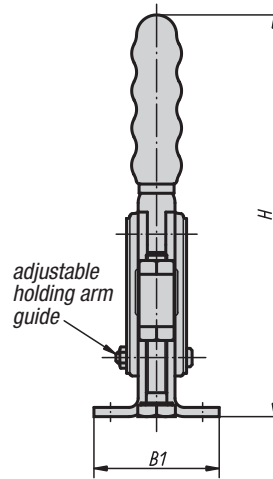
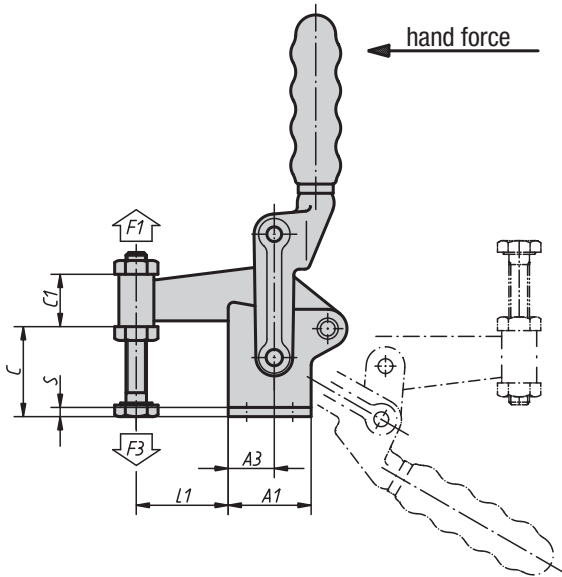
### KIPP Vertical curved clamps with flat foot

| Order No.  | Opening angle of holding arm | Opening angle of handle | Hand force N | Holding force F1 N | Clamping force F3 N |
|------------|------------------------------|-------------------------|--------------|--------------------|---------------------|
| K0065.0075 | 90°                          | 80°                     | 190          | 750                | 350 - 600           |
| K0065.0250 | 85°                          | 80°                     | 190          | 2500               | 850 - 1200          |
| K0065.0350 | 90°                          | 80°                     | 230          | 3500               | 950 - 1400          |

| Order No.  | A  | A1 | A2 | B  | B1 | C  | C1   | D   | H   | L   | L1 | L2 | M      | Item No. Angle Bracket |
|------------|----|----|----|----|----|----|------|-----|-----|-----|----|----|--------|------------------------|
| K0065.0075 | 16 | 26 | 5  | 24 | 34 | 16 | 9,5  | 4,4 | 93  | 52  | 22 | 7  | M5x35  | K0098.02               |
| K0065.0250 | 19 | 35 | 8  | 32 | 47 | 30 | 21,5 | 7,1 | 176 | 74  | 32 | 20 | M8x60  | K0098.04               |
| K0065.0350 | 32 | 50 | 9  | 45 | 64 | 42 | 25,5 | 8,3 | 220 | 116 | 59 | 13 | M10x80 | K0098.06               |

## Vertical clamps

heavy-duty version with fixed clamping spindle



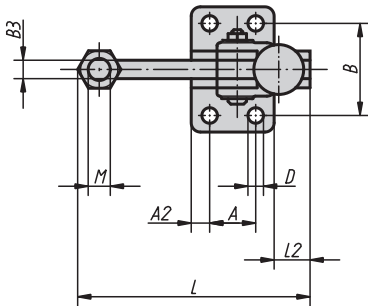
**Material:**  
Steel

**Surface finish:**  
Black oxide finish, clamping spindle and nuts phosphated, bearing pins and bearing sleeves case-hardened, plastic handle oil-resistant

**Sample order:**  
K0066.2400

**Note:**  
Oil all joints regularly.

See K0099, K0101, K0102, K0103, K0106 for accessories.



### KIPP Vertical clamps heavy-duty version with fixed clamping spindle

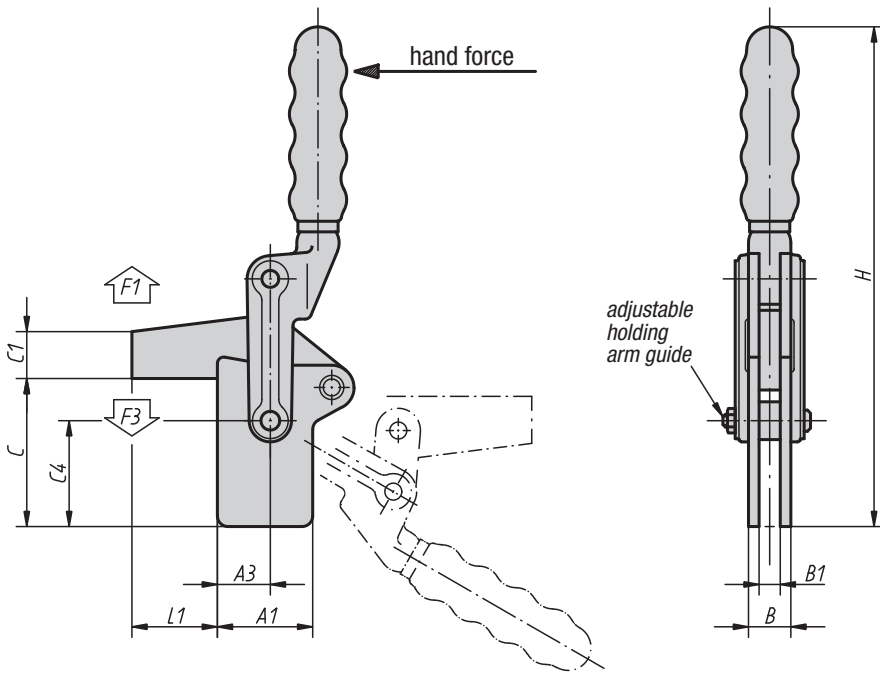
| Order No.  | Opening angle of holding arm | Opening angle of handle | Hand force N | Holding force F1 N | Clamping force F3 N |
|------------|------------------------------|-------------------------|--------------|--------------------|---------------------|
| K0066.0700 | 180°                         | 120°                    | 340          | 6000               | 1400                |
| K0066.1200 | 180°                         | 125°                    | 500          | 8000               | 1400                |
| K0066.2400 | 195°                         | 130°                    | 500          | 15000              | 1850                |

| Order No.  | A  | A1 | A2 | A3 | B  | B1   | B3 | C  | C1 | D    | H   | L   | L1 | L2 | M       | S |
|------------|----|----|----|----|----|------|----|----|----|------|-----|-----|----|----|---------|---|
| K0066.0700 | 25 | 45 | 10 | 25 | 50 | 68   | 10 | 45 | 30 | 8,3  | 215 | 124 | 50 | 20 | M12x100 | 5 |
| K0066.1200 | 30 | 51 | 10 | 25 | 60 | 86,5 | 12 | 58 | 30 | 8,3  | 250 | 144 | 60 | 23 | M12x100 | 6 |
| K0066.2400 | 40 | 64 | 12 | 40 | 75 | 103  | 16 | 70 | 38 | 10,3 | 295 | 188 | 75 | 37 | M16x150 | 8 |



# Vertical clamps

heavy-duty version with full holding arm



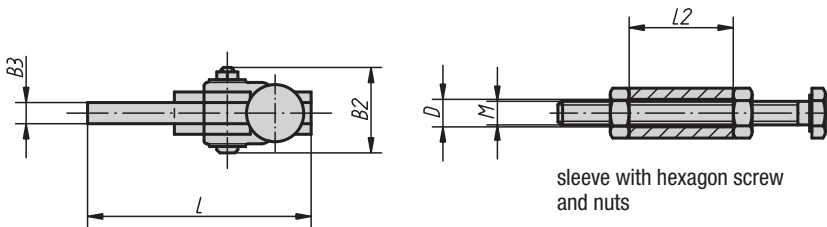
**Material:**  
Steel

**Surface finish:**  
Black oxide finish, bearing pins and bearing sleeves case-hardened, plastic handle oil-resistant

**Sample order:**  
K0067.1200

**Note:**  
Oil all joints regularly.

See K0099, K0101, K0102, K0103, K0106 for accessories.



sleeve with hexagon screw and nuts

## KIPP Vertical clamps, heavy-duty version with full holding arm

| Order No.  | Opening angle of holding arm | Opening angle of handle | Hand force N | Holding force F1 N | Clamping force F3 N |
|------------|------------------------------|-------------------------|--------------|--------------------|---------------------|
| K0067.0700 | 205°                         | 130°                    | 340          | 7000               | 1400                |
| K0067.1200 | 195°                         | 130°                    | 500          | 12000              | 1400                |
| K0067.2400 | 195°                         | 130°                    | 500          | 15000              | 1850                |

| Order No.  | A1 | A3 | B  | B1 | B2 | B3 | C   | C1 | C4 | D    | H   | L   | L1 | L2 | M       |
|------------|----|----|----|----|----|----|-----|----|----|------|-----|-----|----|----|---------|
| K0067.0700 | 45 | 25 | 20 | 10 | 43 | 10 | 70  | 22 | 50 | 12,2 | 235 | 104 | 40 | 30 | M12x100 |
| K0067.1200 | 51 | 26 | 24 | 12 | 51 | 12 | 88  | 26 | 63 | 12,2 | 276 | 124 | 50 | 30 | M12x100 |
| K0067.2400 | 64 | 40 | 32 | 16 | 64 | 16 | 105 | 32 | 76 | 16,3 | 318 | 162 | 60 | 38 | M16x150 |

## Horizontal mini-clamp

with straight foot and adjustable clamping spindle

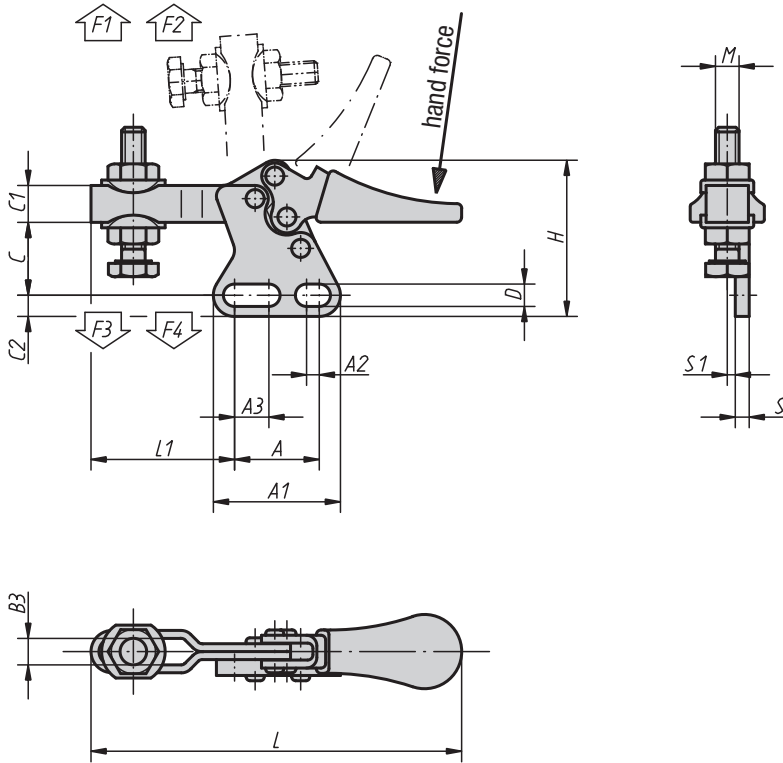


**Material:**  
Steel

**Surface finish:**  
Galvanized and chromated,  
clamping spindle and nuts phosphated,  
plastic handle oil-resistant

**Sample order:**  
K0068.0050

**Note:**  
See K0101, K0102, K0103, K0106, K0107 for  
accessories.



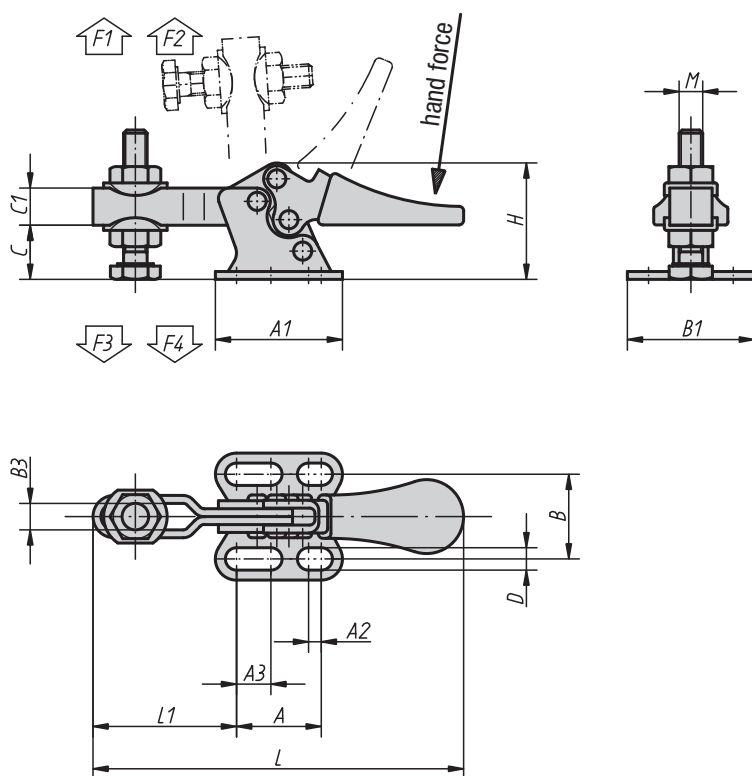
### KIPP Horizontal mini-clamp with straight foot and adjustable clamping spindle

| Order No.  | Opening angle<br>of holding arm | Opening angle<br>of handle | Hand force<br>N | Holding force<br>F1<br>N | Holding force<br>F2<br>N | Clamping force<br>F3<br>N | Clamping force<br>F4<br>N |
|------------|---------------------------------|----------------------------|-----------------|--------------------------|--------------------------|---------------------------|---------------------------|
| K0068.0050 | 85°                             | 65°                        | 80              | 250                      | 550                      | 170                       | 370                       |

| Order No.  | A  | A1   | A2  | A3  | B3  | C  | C1 | C2 | D   | H  | L  | L1 | M     | S   | S1  |
|------------|----|------|-----|-----|-----|----|----|----|-----|----|----|----|-------|-----|-----|
| K0068.0050 | 16 | 24,5 | 2,4 | 6,5 | 5,2 | 14 | 7  | 4  | 4,2 | 29 | 70 | 27 | M5x20 | 3,2 | 1,5 |

## Horizontal mini-clamp

with flat foot and adjustable clamping spindle



**Material:**

Steel or stainless steel

**Surface finish:**

Galvanized and chromated, clamping spindle and nuts phosphated, stainless steel natural finish, plastic handle oil-resistant

**Sample order:**

K0069.0050

**Note:**

See K0101, K0102, K0103, K0106, K0107 for accessories.

### KIPP Horizontal mini-clamp with flat foot and adjustable clamping spindle

| Order No.   | Surface finish  | Opening angle of holding arm | Opening angle of handle | Hand force N | Holding force F1 N | Holding force F2 N | Clamping force F3 N | Clamping force F4 N |
|-------------|-----------------|------------------------------|-------------------------|--------------|--------------------|--------------------|---------------------|---------------------|
| K0069.0050  | steel           | 85°                          | 65°                     | 80           | 250                | 550                | 170                 | 370                 |
| K0069.0050N | stainless steel | 85°                          | 65°                     | 80           | 250                | 550                | 170                 | 370                 |

| Order No.   | Surface finish  | A  | A1 | A2  | A3  | B  | B1 | B3  | C | C1 | D   | H  | L  | L1 | M     |
|-------------|-----------------|----|----|-----|-----|----|----|-----|---|----|-----|----|----|----|-------|
| K0069.0050  | steel           | 16 | 24 | 2,4 | 6,5 | 16 | 24 | 5,2 | 9 | 7  | 4,2 | 22 | 70 | 27 | M5x20 |
| K0069.0050N | stainless steel | 16 | 24 | 2,4 | 6,5 | 16 | 24 | 5,2 | 9 | 7  | 4,2 | 22 | 70 | 27 | M5x20 |

## Horizontal mini-clamp

with flat foot and fixed clamping spindle

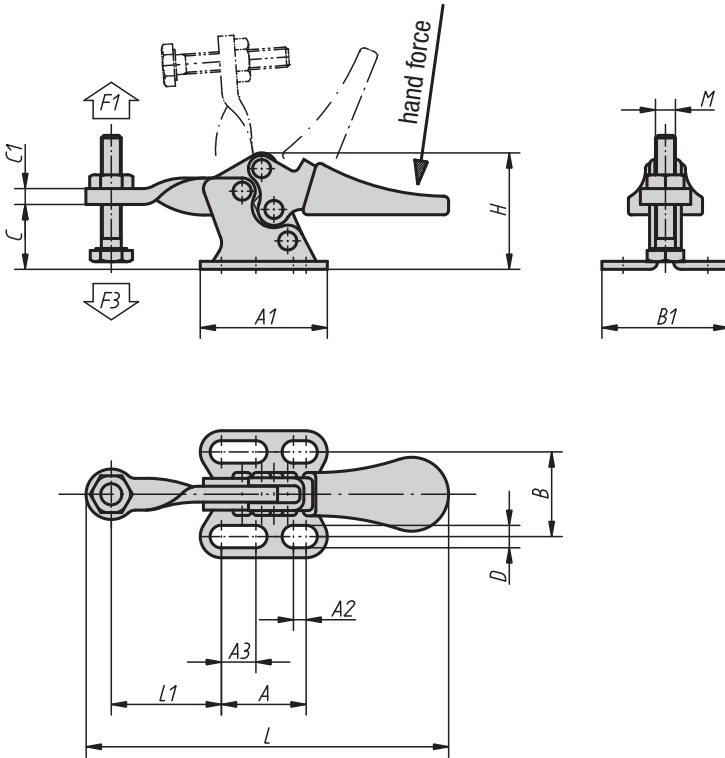


**Material:**  
Steel

**Surface finish:**  
Galvanized and chromated,  
clamping spindle and nuts phosphated,  
plastic handle oil-resistant

**Sample order:**  
K0070.0050

**Note:**  
See K0101, K0102, K0103, K0106 for accessories.



### KIPP Horizontal mini-clamp with flat foot and fixed clamping spindle

| Order No.  | Opening angle of holding arm | Opening angle of handle | Hand force N | Holding force F1 N | Clamping force F3 N |
|------------|------------------------------|-------------------------|--------------|--------------------|---------------------|
| K0070.0050 | 85°                          | 65°                     | 80           | 500                | 250                 |

| Order No.  | A  | A1 | A2  | A3  | B  | B1 | C  | C1 | D   | H  | L  | L1 | M     |
|------------|----|----|-----|-----|----|----|----|----|-----|----|----|----|-------|
| K0070.0050 | 16 | 24 | 2,4 | 6,5 | 16 | 24 | 11 | 3  | 4,2 | 22 | 70 | 21 | M5x20 |



## Horizontal mini-clamp

with flat left foot and adjustable clamping spindle



**Material:**

Steel

**Surface finish:**

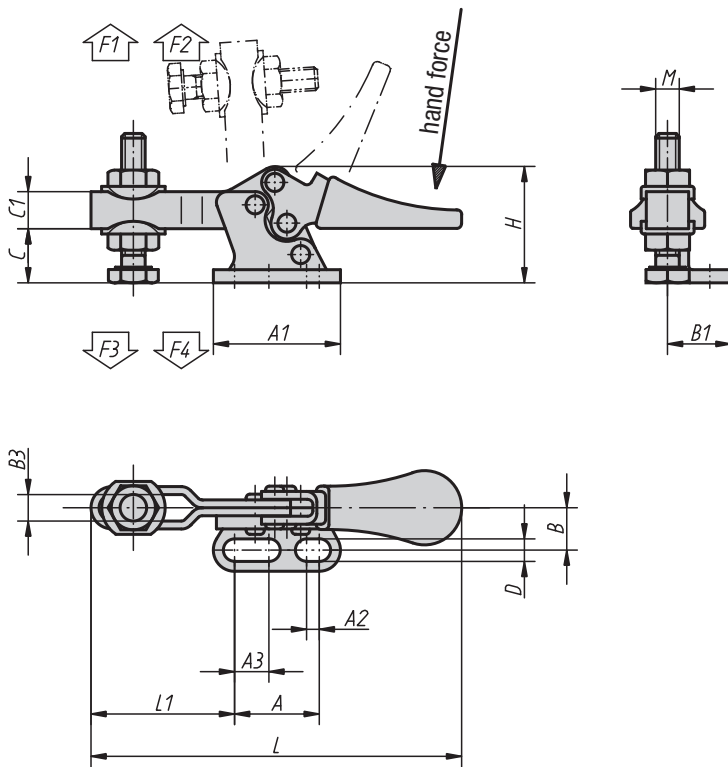
Galvanized and chromated,  
clamping spindle and nuts phosphated,  
plastic handle oil-resistant

**Sample order:**

K0071.0050

**Note:**

See K0101, K0102, K0103, K0106, K0107 for accessories.



### KIPP Horizontal mini-clamp with flat left foot and adjustable clamping spindle

| Order No.  | Opening angle of holding arm | Opening angle of handle | Hand force N | Holding force F1 N | Holding force F2 N | Clamping force F3 N | Clamping force F4 N |
|------------|------------------------------|-------------------------|--------------|--------------------|--------------------|---------------------|---------------------|
| K0071.0050 | 85°                          | 65°                     | 80           | 250                | 550                | 170                 | 370                 |

| Order No.  | A  | A1 | A2  | A3  | B | B1 | B3  | C   | C1 | D   | H  | L  | L1 | M     |
|------------|----|----|-----|-----|---|----|-----|-----|----|-----|----|----|----|-------|
| K0071.0050 | 16 | 24 | 2,4 | 6,5 | 8 | 12 | 5,2 | 9,5 | 7  | 4,2 | 22 | 70 | 27 | M5x20 |

## Horizontal mini-clamp

with flat right foot and adjustable clamping spindle

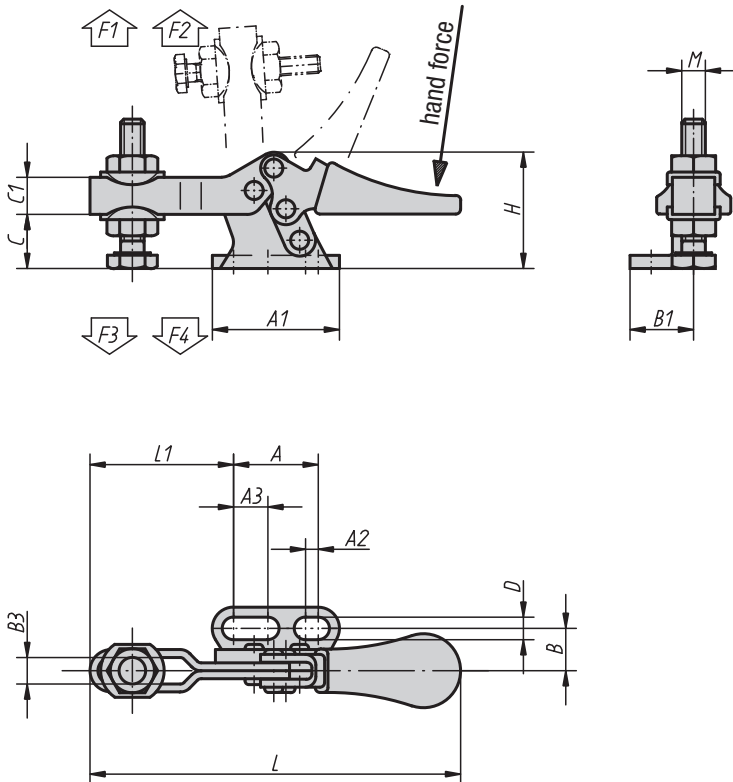


**Material:**  
Steel

**Surface finish:**  
Galvanized and chromated,  
clamping spindle and nuts phosphated,  
plastic handle oil-resistant

**Sample order:**  
K0267.0050

**Note:**  
See K0101, K0102, K0103, K0106, K0107 for  
accessories.



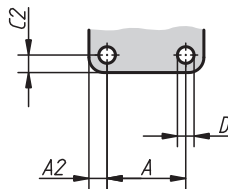
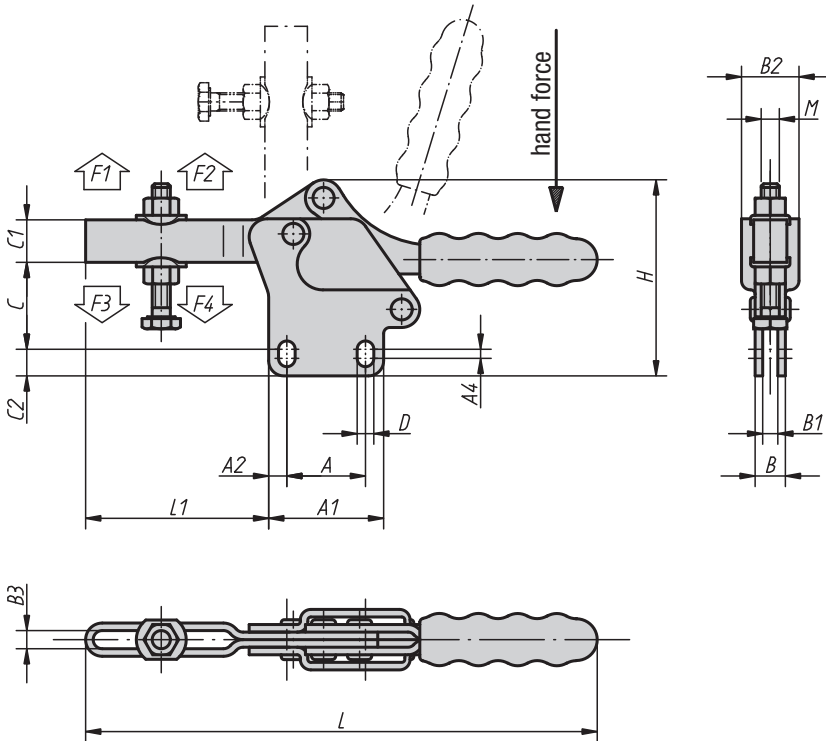
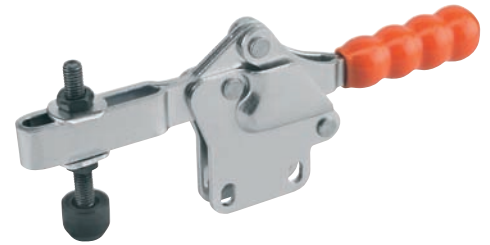
### KIPP Horizontal mini-clamp with flat right foot and adjustable clamping spindle

| Order No.  | Opening angle<br>of holding arm | Opening angle<br>of handle | Hand force<br>N | Holding force<br>F1<br>N | Holding force<br>F2<br>N | Clamping force<br>F3<br>N | Clamping force<br>F4<br>N |
|------------|---------------------------------|----------------------------|-----------------|--------------------------|--------------------------|---------------------------|---------------------------|
| K0267.0050 | 85°                             | 65°                        | 80              | 250                      | 550                      | 170                       | 370                       |

| Order No.  | A1 | A  | A2  | A3  | B | B1 | B3  | C   | C1 | D   | H  | L  | L1 | M     |
|------------|----|----|-----|-----|---|----|-----|-----|----|-----|----|----|----|-------|
| K0267.0050 | 24 | 16 | 2,4 | 6,5 | 8 | 12 | 5,2 | 9,5 | 7  | 4,2 | 22 | 70 | 27 | M5x20 |

# Horizontal clamps

with straight foot and adjustable clamping spindle



hole arrangement  
for Order No.  
K0072.0075  
K0072.0450

**Material:**  
Steel

**Surface finish:**  
Galvanized and chromated,  
clamping spindle and nuts phosphated,  
plastic handle oil-resistant

**Sample order:**  
K0072.0450

**Note:**  
A neoprene pressure pad is supplied with versions  
K0072.0075 and K0072.0150.

See K0100, K0101, K0102, K0103, K0106, K0107 for  
accessories.

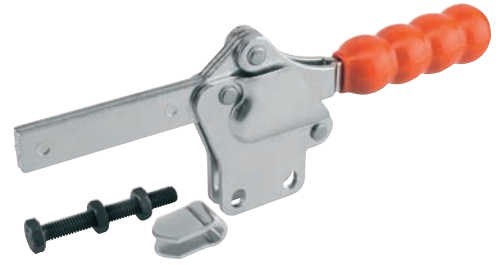
## KIPP Horizontal clamps with straight foot and adjustable clamping spindle

| Order No.  | Opening angle<br>of holding arm | Opening angle<br>of handle | Hand force<br>N | Holding force<br>F1<br>N | Holding force<br>F2<br>N | Clamping force<br>F3<br>N | Clamping force<br>F4<br>N |
|------------|---------------------------------|----------------------------|-----------------|--------------------------|--------------------------|---------------------------|---------------------------|
| K0072.0075 | 90°                             | 75°                        | 80              | 500                      | 1100                     | 250                       | 700                       |
| K0072.0150 | 90°                             | 80°                        | 140             | 1200                     | 2600                     | 400                       | 1000                      |
| K0072.0250 | 95°                             | 80°                        | 200             | 1500                     | 3500                     | 800                       | 1950                      |
| K0072.0350 | 90°                             | 75°                        | 250             | 2500                     | 5500                     | 1150                      | 3100                      |
| K0072.0450 | 90°                             | 75°                        | 250             | 3000                     | 6500                     | 1150                      | 3100                      |

| Order No.  | A    | A1 | A2  | A4  | B  | B1 | B2 | B3   | C  | C1   | C2 | D   | H     | L   | L1  | M       |
|------------|------|----|-----|-----|----|----|----|------|----|------|----|-----|-------|-----|-----|---------|
| K0072.0075 | 13,5 | 25 | 5,7 | -   | 8  | 4  | 16 | 5,8  | 22 | 9,5  | 5  | 5,2 | 46    | 116 | 37  | M5x35   |
| K0072.0150 | 26   | 38 | 6   | 3   | 10 | 5  | 20 | 6,2  | 28 | 14   | 9  | 5,5 | 66    | 170 | 60  | M6x50   |
| K0072.0250 | 26   | 42 | 8   | 2,6 | 12 | 6  | 23 | 9    | 39 | 17,5 | 10 | 6,6 | 82    | 224 | 79  | M8x60   |
| K0072.0350 | 41,2 | 59 | 9   | 2   | 16 | 8  | 30 | 12   | 54 | 24   | 10 | 8,7 | 109,5 | 274 | 108 | M10x80  |
| K0072.0450 | 41,2 | 67 | 13  | -   | 20 | 10 | 38 | 13,2 | 66 | 27   | 13 | 8,7 | 130   | 305 | 129 | M12x100 |

## Horizontal clamps

with straight foot and full holding arm

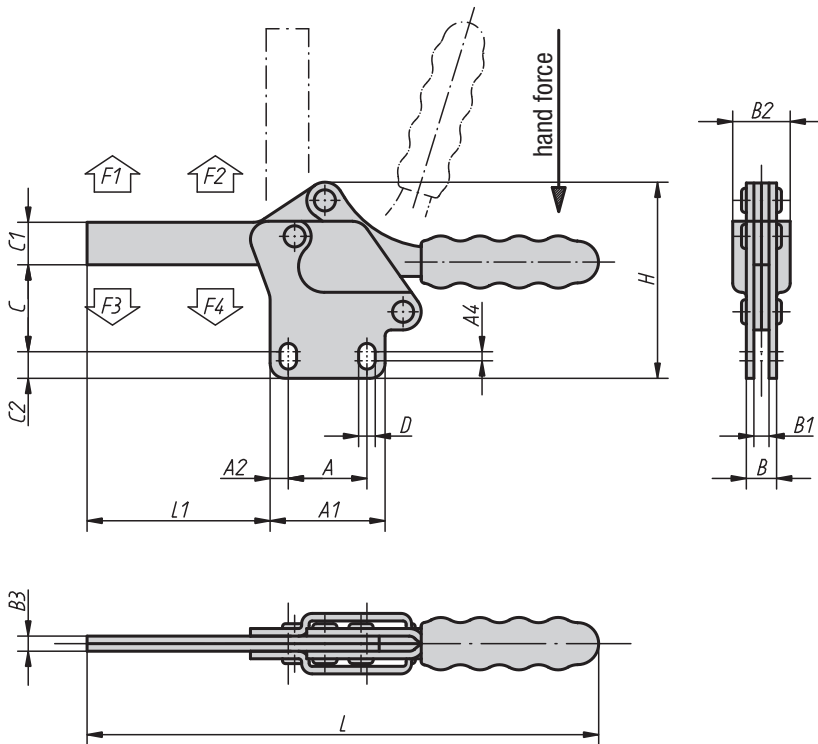


**Material:**  
Steel

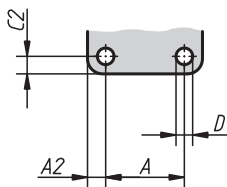
**Surface finish:**  
Galvanized and chromated, plastic handle oil-resistant

**Sample order:**  
K0073.0350

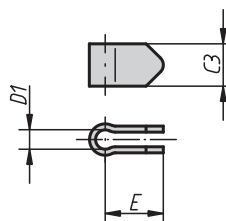
**Note:**  
See K0100, K0101, K0102, K0103, K0106 for accessories.



hole arrangement for Order No. K0073.0450



spindle clamp can be welded on



### KIPP Horizontal clamps with straight foot and full holding arm

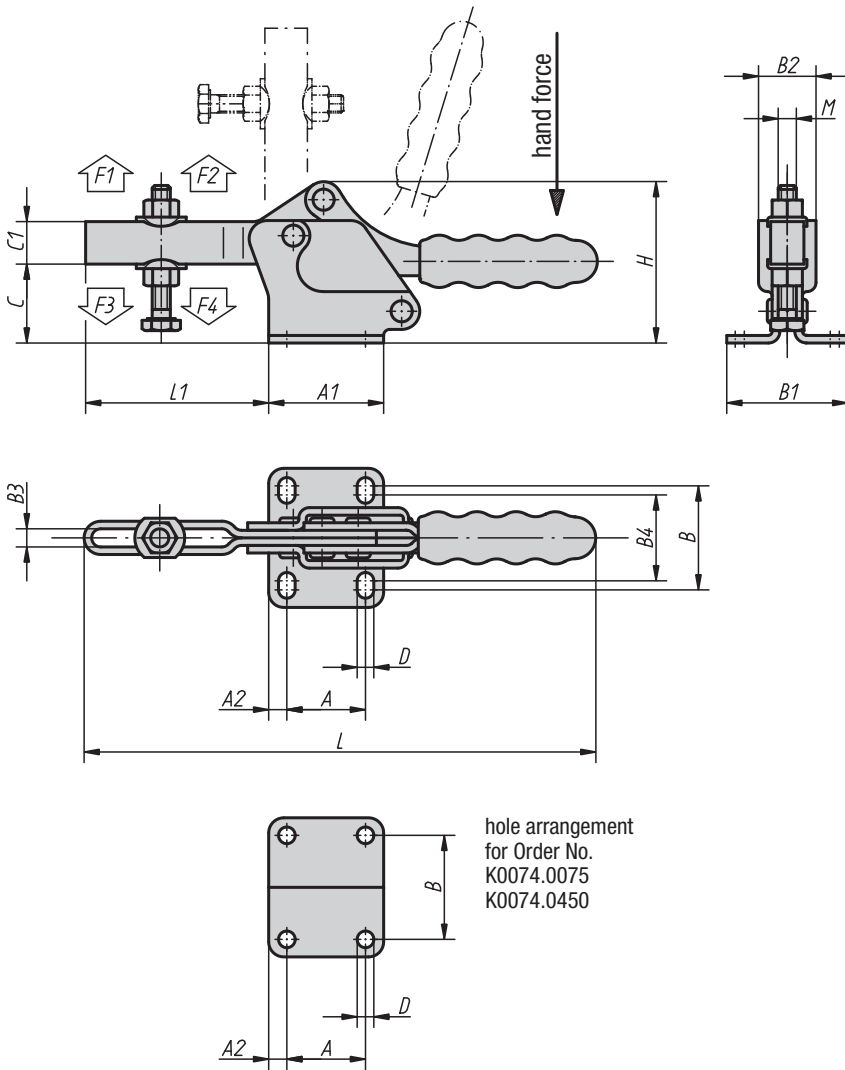
| Order No.  | Opening angle of holding arm | Opening angle of handle | Hand force N | Holding force F1 N | Holding force F2 N | Clamping force F3 N | Clamping force F4 N |
|------------|------------------------------|-------------------------|--------------|--------------------|--------------------|---------------------|---------------------|
| K0073.0250 | 95°                          | 80°                     | 200          | 1500               | 3500               | 800                 | 1950                |
| K0073.0350 | 90°                          | 75°                     | 250          | 2500               | 5500               | 1150                | 3100                |

| Order No.  | A    | A1 | A2 | A4  | B  | B1 | B2 | B3 | C  | C1   | C2 | C3   | D   | D1   | E  | H     | L   | L1  | Clamping spindle |
|------------|------|----|----|-----|----|----|----|----|----|------|----|------|-----|------|----|-------|-----|-----|------------------|
| K0073.0250 | 26   | 42 | 8  | 2,6 | 12 | 6  | 23 | 6  | 39 | 17,5 | 10 | 17,5 | 6,6 | 8,3  | 24 | 82    | 226 | 82  | M8x60            |
| K0073.0350 | 41,2 | 59 | 9  | 2   | 16 | 8  | 30 | 8  | 54 | 24   | 10 | 22   | 8,7 | 10,3 | 30 | 109,5 | 274 | 110 | M10x80           |



## Horizontal clamps

with flat foot and adjustable clamping spindle



**Material:**  
Steel or stainless steel

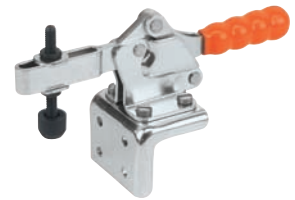
**Surface finish:**  
Galvanized and chromated,  
clamping spindle and nuts phosphated,  
stainless steel natural finish,  
plastic handle oil-resistant

**Sample order:**  
K0074.0350

**Note:**  
A neoprene pressure pad is supplied with versions  
K0074.0075 and K0074.0150.

An Angle Bracket cannot be supplied in stainless steel  
with versions K0074.0075N and K0074.0150N.

See K0098, K0100, K0101, K0102, K0103, K0106,  
K0107 for accessories.



Angle bracket for head end  
mounting (see accessories)

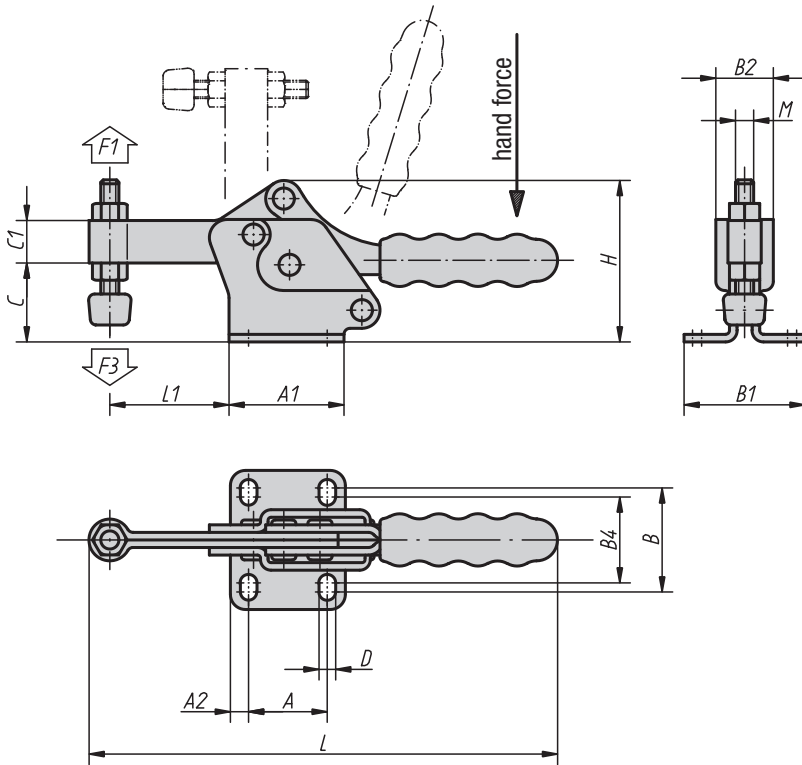
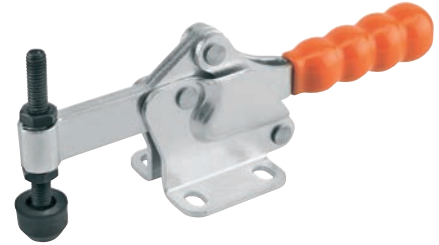
### KIPP Horizontal clamps with flat foot and adjustable clamping spindle

| Order No.   | Surface finish  | Opening angle<br>of holding arm | Opening angle<br>of handle | Hand force<br>N | Holding force<br>F1<br>N | Holding force<br>F2<br>N | Clamping force<br>F3<br>N | Clamping force<br>F4<br>N |
|-------------|-----------------|---------------------------------|----------------------------|-----------------|--------------------------|--------------------------|---------------------------|---------------------------|
| K0074.0075  | steel           | 90°                             | 75°                        | 80              | 500                      | 1100                     | 250                       | 700                       |
| K0074.0150  | steel           | 90°                             | 80°                        | 140             | 1200                     | 2600                     | 400                       | 1000                      |
| K0074.0250  | steel           | 95°                             | 80°                        | 200             | 1500                     | 3500                     | 800                       | 1950                      |
| K0074.0350  | steel           | 90°                             | 75°                        | 250             | 2500                     | 5500                     | 1150                      | 3100                      |
| K0074.0450  | steel           | 90°                             | 75°                        | 250             | 3000                     | 6500                     | 1150                      | 3100                      |
| K0074.0075N | stainless steel | 90°                             | 75°                        | 80              | 500                      | 1100                     | 250                       | 700                       |
| K0074.0150N | stainless steel | 90°                             | 80°                        | 140             | 1200                     | 2600                     | 400                       | 1000                      |

| Order No.   | Surface finish  | A    | A1 | A2  | B    | B1 | B2 | B3   | B4 | C  | C1   | D   | H   | L   | L1  | M       | Item No.<br>Angle Bracket |
|-------------|-----------------|------|----|-----|------|----|----|------|----|----|------|-----|-----|-----|-----|---------|---------------------------|
| K0074.0075  | steel           | 13,5 | 25 | 5,7 | 17,4 | 27 | 16 | 5,8  | -  | 19 | 9,5  | 5,2 | 38  | 116 | 37  | M5x35   | K0098.02                  |
| K0074.0150  | steel           | 26   | 38 | 6   | 28   | 40 | 20 | 6,2  | 22 | 24 | 14   | 5,5 | 53  | 170 | 60  | M6x50   | K0098.04                  |
| K0074.0250  | steel           | 26   | 42 | 8   | 31   | 47 | 23 | 8,5  | 26 | 35 | 17,5 | 6,6 | 68  | 224 | 79  | M8x60   | K0098.04                  |
| K0074.0350  | steel           | 41,2 | 59 | 9   | 43   | 59 | 30 | 12   | 39 | 45 | 24   | 8,7 | 91  | 274 | 108 | M10x80  | K0098.06                  |
| K0074.0450  | steel           | 41,2 | 67 | 13  | 41,3 | 67 | 38 | 14,2 | -  | 59 | 27   | 8,7 | 110 | 305 | 128 | M12x100 | K0098.06                  |
| K0074.0075N | stainless steel | 13,5 | 25 | 5,7 | 17,4 | 27 | 16 | 5,8  | -  | 19 | 9,5  | 5,2 | 38  | 116 | 37  | M5x35   | -                         |
| K0074.0150N | stainless steel | 26   | 38 | 6   | 28   | 40 | 20 | 6,2  | 22 | 24 | 14   | 5,5 | 53  | 170 | 60  | M6x50   | -                         |

## Horizontal clamps

with flat foot and fixed clamping spindle



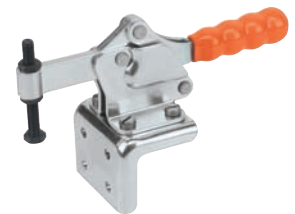
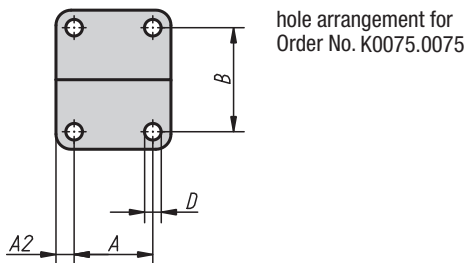
**Material:**  
Steel

**Surface finish:**  
Galvanized and chromated,  
clamping spindle and nuts phosphated,  
plastic handle oil-resistant

**Sample order:**  
K0075.0075

**Note:**  
The clamping spindle is supplied with a neoprene  
pressure pad.

See K0098, K0100, K0101, K0102, K0103, K0106 for  
accessories.



Angle bracket for head end  
mounting (see accessories)

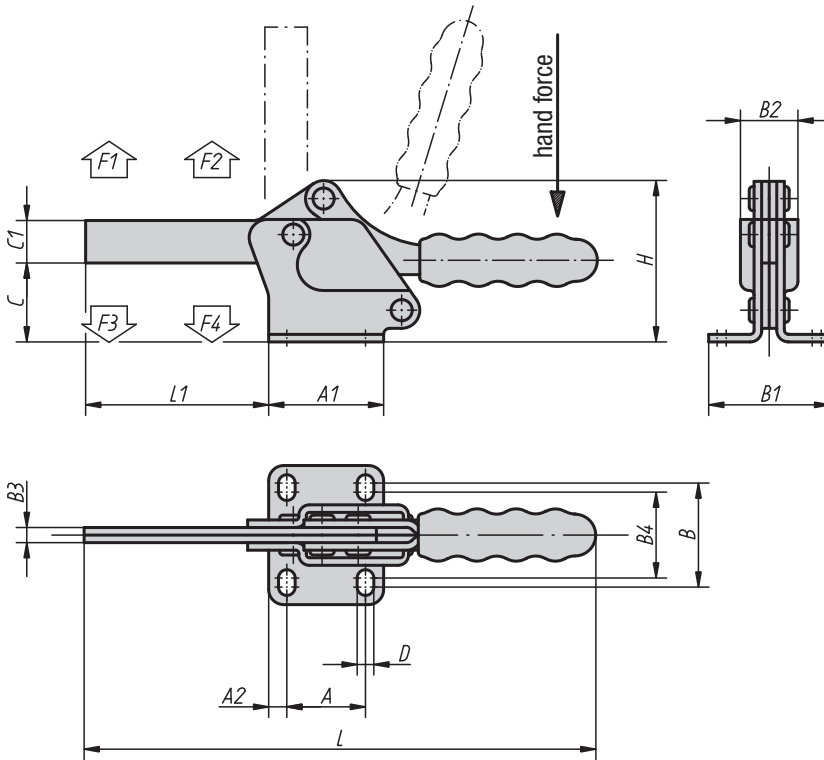
### KIPP Horizontal clamps with flat foot and fixed clamping spindle

| Order No.  | Opening angle<br>of holding arm | Opening angle<br>of handle | Hand force<br>N | Holding force<br>F1<br>N | Clamping force<br>F3<br>N |
|------------|---------------------------------|----------------------------|-----------------|--------------------------|---------------------------|
| K0075.0075 | 90°                             | 75°                        | 80              | 750                      | 320                       |
| K0075.0150 | 90°                             | 80°                        | 140             | 1500                     | 650                       |

| Order No.  | A    | A1 | A2  | B    | B1 | B2 | B4 | C  | C1  | D   | H  | L   | L1   | M     | Item No.<br>Angle Bracket |
|------------|------|----|-----|------|----|----|----|----|-----|-----|----|-----|------|-------|---------------------------|
| K0075.0075 | 13,5 | 25 | 5,7 | 16,8 | 27 | 16 | -  | 19 | 9,5 | 5,2 | 38 | 108 | 24,5 | M5x35 | K0098.02                  |
| K0075.0150 | 26   | 38 | 6   | 28   | 40 | 20 | 22 | 25 | 14  | 5,5 | 53 | 155 | 38   | M6x50 | K0098.04                  |

## Horizontal clamps

with flat foot and full holding arm



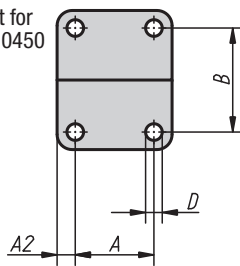
**Material:**  
Steel

**Surface finish:**  
Galvanized and chromated, plastic handle oil-resistant

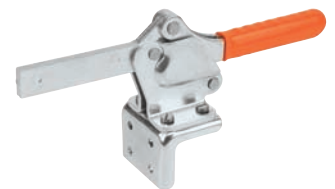
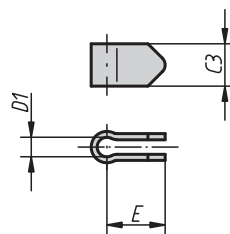
**Sample order:**  
K0076.0250

**Note:**  
See K0098, K0100, K0101, K0102, K0103, K0106 for accessories.

hole arrangement for  
Order No. K0076.0450



spindle clamp can be welded on



Angle bracket for head end  
mounting (see accessories)

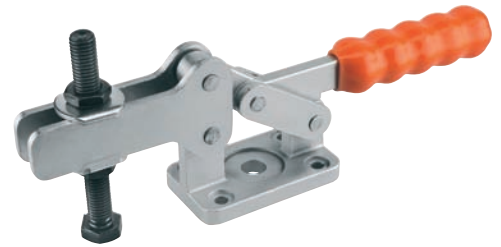
### KIPP Horizontal Clamps with flat foot and full holding arm

| Order No.  | Opening angle<br>of holding arm | Opening angle<br>of handle | Hand force<br>N | Holding force<br>F1<br>N | Holding force<br>F2<br>N | Clamping force<br>F3<br>N | Clamping force<br>F4<br>N |
|------------|---------------------------------|----------------------------|-----------------|--------------------------|--------------------------|---------------------------|---------------------------|
| K0076.0250 | 95°                             | 80°                        | 200             | 1500                     | 3500                     | 800                       | 1950                      |
| K0076.0350 | 90°                             | 75°                        | 250             | 2500                     | 5500                     | 1150                      | 3100                      |
| K0076.0450 | 90°                             | 75°                        | 250             | 3000                     | 6500                     | 1150                      | 3100                      |

| Order No.  | A    | A1 | A2 | B    | B1 | B2 | B3 | B4   | C  | C1   | C3   | D   | D1   | E  | H   | L   | L1  | Clamping<br>spindle | Item No.<br>Angle Bracket |
|------------|------|----|----|------|----|----|----|------|----|------|------|-----|------|----|-----|-----|-----|---------------------|---------------------------|
| K0076.0250 | 26   | 42 | 8  | 32   | 47 | 23 | 6  | 27   | 34 | 17,5 | 17,5 | 6,6 | 8,3  | 24 | 67  | 226 | 82  | M8x60               | K0098.04                  |
| K0076.0350 | 41,2 | 59 | 9  | 43,7 | 60 | 30 | 8  | 39,7 | 45 | 24   | 22   | 8,7 | 10,3 | 30 | 91  | 272 | 110 | M10x80              | K0098.06                  |
| K0076.0450 | 41,2 | 67 | 13 | 42,8 | 68 | 38 | 10 | -    | 59 | 27   | 26   | 8,7 | 12,3 | 32 | 110 | 310 | 130 | M12x100             | K0098.06                  |

# Horizontal clamp

heavy-duty version with adjustable clamping spindle



**Material:**

Steel, base and handle in cast steel

**Surface finish:**

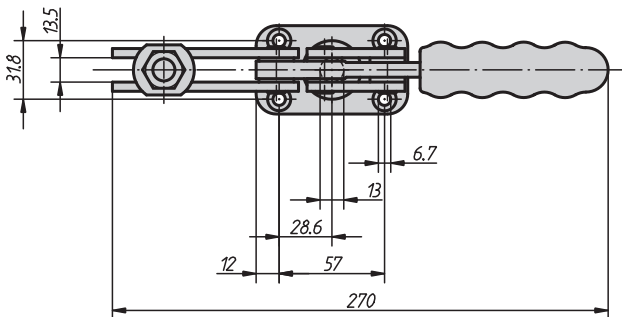
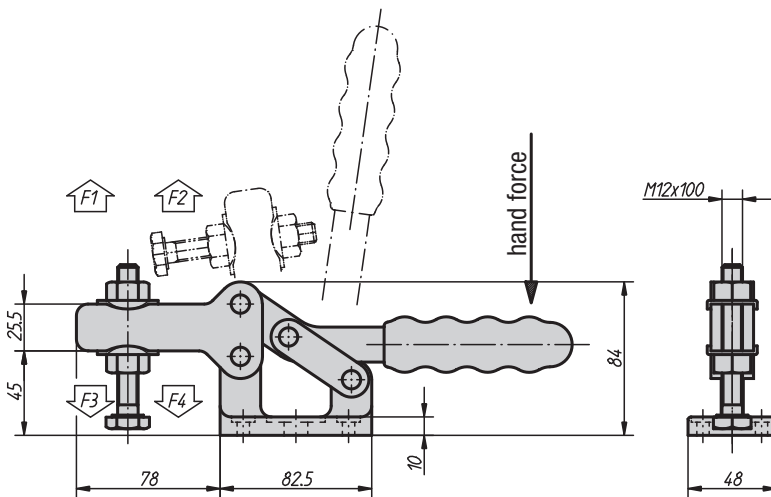
Galvanized and chromated, clamping spindle and nuts phosphated, plastic handle oil-resistant

**Sample order:**

K0077.0700

**Note:**

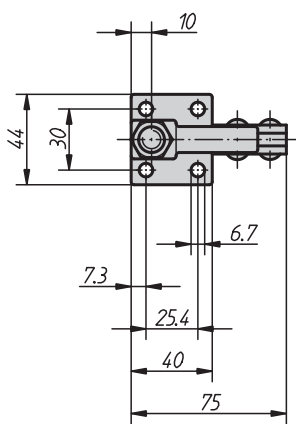
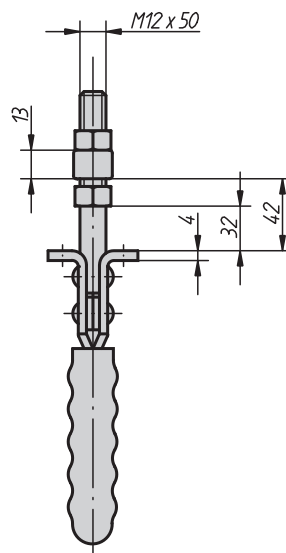
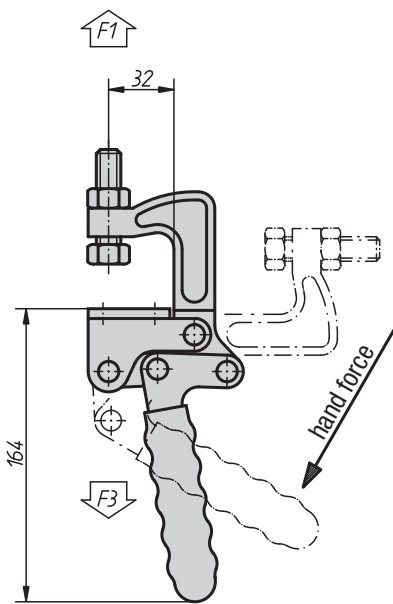
See K0100, K0101, K0102, K0103, K0106, K0107 for accessories.



**KIPP Horizontal clamp heavy-duty version with adjustable clamping spindle**

| Order No.  | Opening angle of holding arm | Opening angle of handle | Hand force N | Holding force F1 N | Holding force F2 N | Clamping force F3 N | Clamping force F4 N |
|------------|------------------------------|-------------------------|--------------|--------------------|--------------------|---------------------|---------------------|
| K0077.0700 | 90°                          | 95°                     | 250          | 4500               | 9000               | 1800                | 3550                |

# Tension clamp



**Material:**

Steel, clamping bow in cast steel

**Surface finish:**

Galvanized and chromated, plastic handle oil-resistant

**Sample order:**

K0078.0360

**Note:**

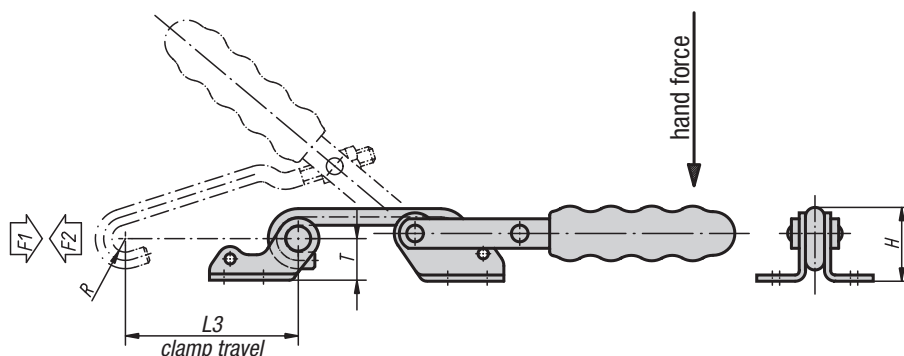
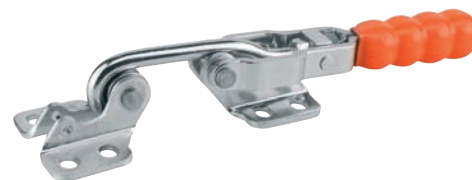
The tension clamp is ideal for applications in which there is little mounting space at the sides. In this case the support surface angles of the Tension Clamp are secured to the appropriate holding plate from below.

**KIPP Tension clamp**

| Order No.  | Opening angle of holding arm | Opening angle of handle | Hand force N | Holding force F1 N | Clamping force F3 N |
|------------|------------------------------|-------------------------|--------------|--------------------|---------------------|
| K0078.0360 | 90°                          | 50°                     | 250          | 3600               | 1150                |

## Horizontal hook clamps

with latch bracket



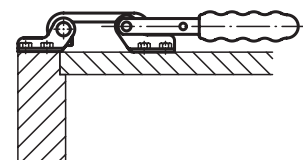
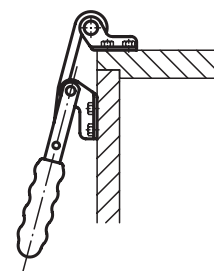
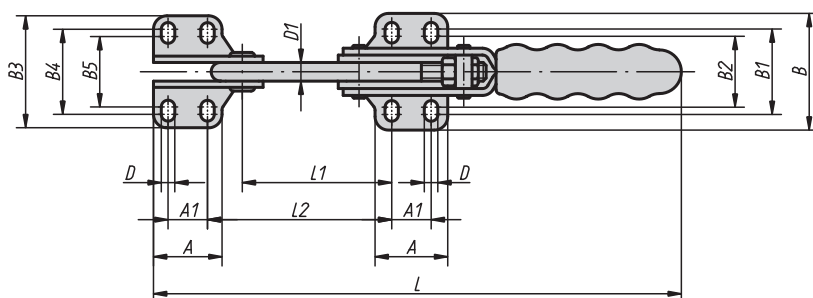
**Material:**  
Steel or stainless steel

**Surface finish:**  
Galvanized and chromated,  
stainless steel natural finish,  
plastic handle oil-resistant

**Sample order:**  
K0079.0270

**Note:**  
Horizontal hook clamps are especially suitable for quick closing and fastening of lids and flaps. The travel path can be set individually at the closing hook.

Travel path: 0 - 5 mm.



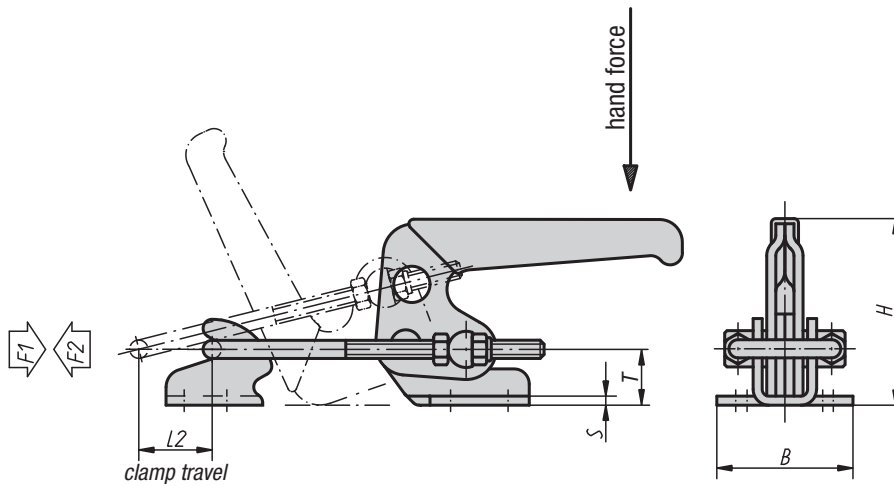
### KIPP Horizontal hook clamps with latch bracket

| Order No.   | Surface finish  | Opening angle of handle | Hand force N | Pull force F1 N | Holding force F2 N |
|-------------|-----------------|-------------------------|--------------|-----------------|--------------------|
| K0079.0130  | steel           | 155°                    | 100          | 1500            | 2000               |
| K0079.0270  | steel           | 155°                    | 160          | 3000            | 4000               |
| K0079.0430  | steel           | 155°                    | 200          | 4000            | 7000               |
| K0079.0130N | stainless steel | 155°                    | 100          | 1500            | 2000               |
| K0079.0270N | stainless steel | 155°                    | 160          | 3000            | 4000               |
| K0079.0430N | stainless steel | 155°                    | 200          | 4000            | 7000               |

| Order No.   | Surface finish  | A  | A1 | B  | B1   | B2   | B3 | B4 | B5 | D   | D1 | H  | L   | L1 | L2  | Clamping travel L3 | R  | T    |
|-------------|-----------------|----|----|----|------|------|----|----|----|-----|----|----|-----|----|-----|--------------------|----|------|
| K0079.0130  | steel           | 26 | 13 | 39 | 27   | 22,2 | 43 | 31 | 26 | 5,2 | 6  | 26 | 161 | 45 | 58  | 70                 | 6  | 13,5 |
| K0079.0270  | steel           | 35 | 19 | 52 | 36   | 29   | 57 | 41 | 34 | 6,5 | 8  | 35 | 248 | 68 | 84  | 90                 | 7  | 20   |
| K0079.0430  | steel           | 51 | 32 | 72 | 52,5 | 43,5 | 78 | 59 | 50 | 8,5 | 12 | 49 | 310 | 84 | 104 | 115                | 10 | 27   |
| K0079.0130N | stainless steel | 26 | 13 | 39 | 27   | 22,2 | 43 | 31 | 26 | 5,2 | 6  | 26 | 161 | 45 | 58  | 70                 | 6  | 13,5 |
| K0079.0270N | stainless steel | 35 | 19 | 52 | 36   | 29   | 57 | 41 | 34 | 6,5 | 8  | 35 | 248 | 68 | 84  | 90                 | 7  | 20   |
| K0079.0430N | stainless steel | 51 | 32 | 72 | 52,5 | 43,5 | 78 | 59 | 50 | 8,5 | 12 | 49 | 310 | 84 | 104 | 115                | 10 | 27   |

## Horizontal latch clamps

with latch bracket

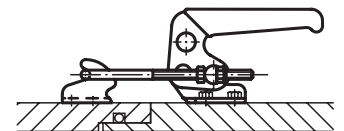
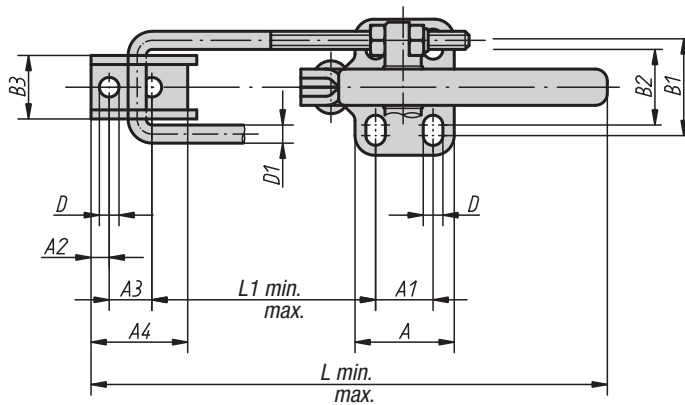


**Material:**  
Steel or stainless steel

**Surface finish:**  
Galvanized and chromated,  
stainless steel natural finish,  
plastic handle oil-resistant

**Sample order:**  
K0080.0140

**Note:**  
Horizontal latch clamps are especially suitable for quick closing and fastening of lids and flaps. The travel path can be set individually at the closing latch.



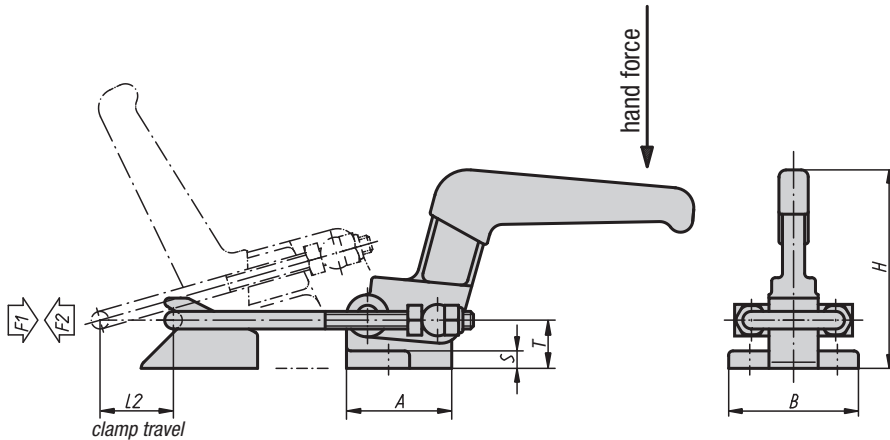
### KIPP Horizontal latch clamps with latch bracket

| Order No.   | Surface finish  | Opening angle of handle | Hand force N | Holding force F2 N | Pull force F1 N | Travel path L max. | Travel path L min. | Travel path L1 max. | Travel path L1 min. | Clamping travel L2 |
|-------------|-----------------|-------------------------|--------------|--------------------|-----------------|--------------------|--------------------|---------------------|---------------------|--------------------|
| K0080.0140  | steel           | 120°                    | 100          | 2000               | 1800            | 135                | 105                | 68                  | 38                  | 16                 |
| K0080.0250  | steel           | 120°                    | 150          | 4000               | 2700            | 185                | 145                | 85                  | 45                  | 24                 |
| K0080.0450  | steel           | 120°                    | 200          | 7000               | 4500            | 250                | 190                | 120                 | 65                  | 32                 |
| K0080.0140N | stainless steel | 120°                    | 100          | 2000               | 1800            | 135                | 105                | 68                  | 38                  | 16                 |
| K0080.0250N | stainless steel | 120°                    | 150          | 4000               | 2700            | 185                | 145                | 85                  | 45                  | 24                 |
| K0080.0450N | stainless steel | 120°                    | 200          | 7000               | 4500            | 250                | 190                | 120                 | 65                  | 32                 |

| Order No.   | Surface finish  | A  | A1 | A2  | A3 | A4 | B  | B1 | B2 | B3 | D   | D1 | H  | S   | T    |
|-------------|-----------------|----|----|-----|----|----|----|----|----|----|-----|----|----|-----|------|
| K0080.0140  | steel           | 26 | 13 | 4,5 | 11 | 24 | 36 | 24 | 19 | 16 | 5,2 | 4  | 42 | 2,5 | 11,5 |
| K0080.0250  | steel           | 35 | 19 | 6   | 14 | 32 | 48 | 33 | 26 | 21 | 6,5 | 6  | 64 | 3   | 18,5 |
| K0080.0450  | steel           | 51 | 32 | 8   | 19 | 40 | 64 | 45 | 36 | 28 | 8,5 | 8  | 85 | 4   | 25,5 |
| K0080.0140N | stainless steel | 26 | 13 | 4,5 | 11 | 24 | 36 | 24 | 19 | 16 | 5,2 | 4  | 42 | 2,5 | 11,5 |
| K0080.0250N | stainless steel | 35 | 19 | 6   | 14 | 32 | 48 | 33 | 26 | 21 | 6,5 | 6  | 64 | 3   | 18,5 |
| K0080.0450N | stainless steel | 51 | 32 | 8   | 19 | 40 | 64 | 45 | 36 | 28 | 8,5 | 8  | 85 | 4   | 25,5 |

## Horizontal latch clamps

heavy-duty version with latch bracket



**Material:**

Steel, base and latch bracket in cast steel, handle in spheroidal graphite cast iron (GJS)

**Surface finish:**

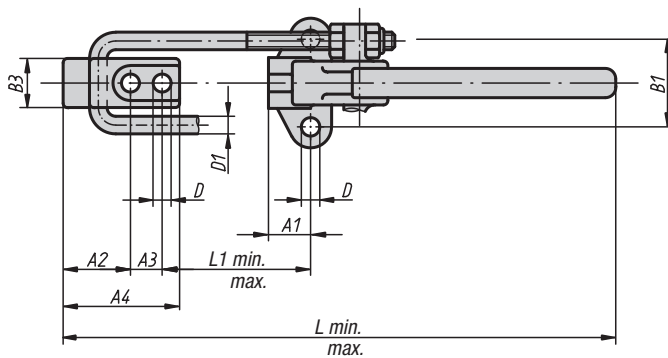
Galvanized and chromated, base, latch bracket and handle phosphated, plastic handle oil-resistant

**Sample order:**

K0081.1900

**Note:**

Horizontal latch clamps are especially suitable for quick closing and fastening of lids and flaps. The travel path can be set individually at the closing latch.



### KIPP Horizontal latch clamps heavy-duty version with latch bracket

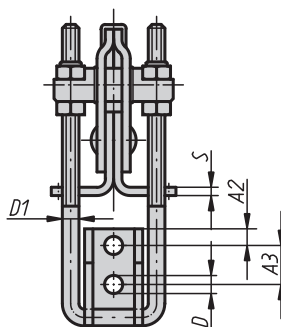
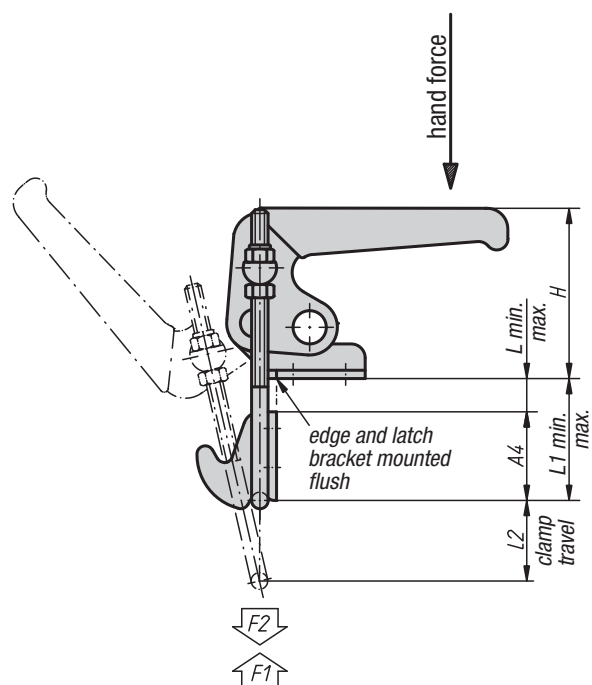
| Order No.  | Opening angle of handle | Hand force N | Holding force F2 N | Pull force F1 N | Travel path L min. | Travel path L max. | Travel path L1 min. | Travel path L1 max. | Clamping travel L2 |
|------------|-------------------------|--------------|--------------------|-----------------|--------------------|--------------------|---------------------|---------------------|--------------------|
| K0081.1650 | 120°                    | 600          | 20000              | 16500           | 270                | 320                | 38                  | 88                  | 60                 |
| K0081.1900 | 120°                    | 600          | 40000              | 19000           | 335                | 395                | 52                  | 112                 | 70                 |

| Order No.  | A  | A1 | A2 | A3 | A4 | B  | B1 | B3 | D    | D1 | H   | S  | T    |
|------------|----|----|----|----|----|----|----|----|------|----|-----|----|------|
| K0081.1650 | 60 | 24 | 37 | 18 | 65 | 74 | 50 | 28 | 10,3 | 10 | 115 | 10 | 27   |
| K0081.1900 | 82 | 36 | 44 | 22 | 78 | 84 | 56 | 34 | 12,4 | 12 | 132 | 12 | 33,5 |



## Vertical latch clamps

with latch bracket

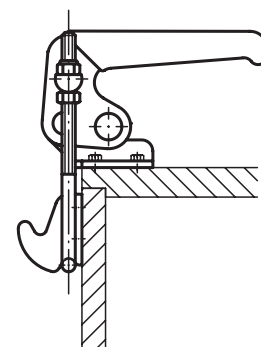
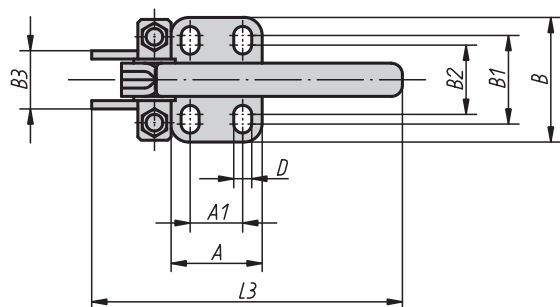


**Material:**  
Steel or stainless steel

**Surface finish:**  
Galvanized and chromated,  
stainless steel natural finish,  
plastic handle oil-resistant

**Sample order:**  
K0082.0450

**Note:**  
Vertical latch clamps are especially suitable for quick closing and fastening of lids and flaps.  
The travel path can be set individually at the closing latch.



### KIPP Vertical latch clamps with latch bracket

| Order No.   | Surface finish  | Opening angle of handle | Hand force N | Holding force F2 N | Pull force F1 N | Travel path L min. | Travel path L max. | Travel path L1 min. | Travel path L1 max. | Clamping travel L2 |
|-------------|-----------------|-------------------------|--------------|--------------------|-----------------|--------------------|--------------------|---------------------|---------------------|--------------------|
| K0082.0140  | steel           | 145°                    | 100          | 2000               | 1800            | 25                 | 49                 | 1                   | 25                  | 22                 |
| K0082.0250  | steel           | 145°                    | 150          | 4000               | 2700            | 33                 | 60                 | 1                   | 28                  | 34                 |
| K0082.0450  | steel           | 145°                    | 200          | 7000               | 4500            | 41                 | 80                 | 1                   | 40                  | 45                 |
| K0082.0140N | stainless steel | 145°                    | 100          | 2000               | 1800            | 25                 | 49                 | 1                   | 25                  | 22                 |
| K0082.0250N | stainless steel | 145°                    | 150          | 4000               | 2700            | 33                 | 60                 | 1                   | 28                  | 34                 |
| K0082.0450N | stainless steel | 145°                    | 200          | 7000               | 4500            | 41                 | 80                 | 1                   | 40                  | 45                 |

| Order No.   | Surface finish  | A  | A1 | A2  | A3 | A4 | B  | B1 | B2 | B3 | D   | D1 | L3  | H  | S   |
|-------------|-----------------|----|----|-----|----|----|----|----|----|----|-----|----|-----|----|-----|
| K0082.0140  | steel           | 26 | 13 | 4,5 | 11 | 24 | 36 | 24 | 19 | 16 | 5,2 | 4  | 76  | 42 | 2,5 |
| K0082.0250  | steel           | 35 | 19 | 6   | 14 | 32 | 48 | 33 | 26 | 21 | 6,5 | 6  | 115 | 64 | 3   |
| K0082.0450  | steel           | 51 | 32 | 8   | 19 | 40 | 64 | 45 | 36 | 28 | 8,5 | 8  | 152 | 85 | 4   |
| K0082.0140N | stainless steel | 26 | 13 | 4,5 | 11 | 24 | 36 | 24 | 19 | 16 | 5,2 | 4  | 76  | 42 | 2,5 |
| K0082.0250N | stainless steel | 35 | 19 | 6   | 14 | 32 | 48 | 33 | 26 | 21 | 6,5 | 6  | 115 | 64 | 3   |
| K0082.0450N | stainless steel | 51 | 32 | 8   | 19 | 40 | 64 | 45 | 36 | 28 | 8,5 | 8  | 152 | 85 | 4   |

## Push-pull mini-clamp

with mounting bracket



**Material:**

Steel or stainless steel

**Surface finish:**

Galvanized and chromated, connecting rod and contact pressure screw phosphated, stainless steel natural finish, plastic handle oil-resistant

**Sample order:**

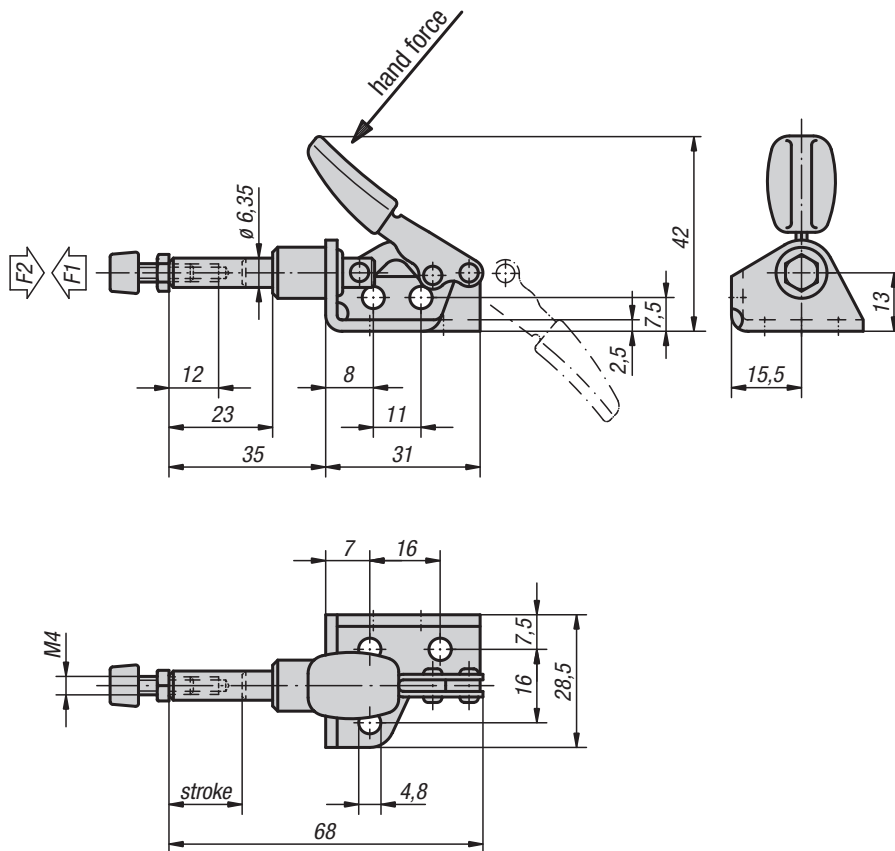
K0083.0050

**Note:**

The push-pull mini-clamps can be locked in open and closed handle positions. Therefore they can be used for push and pull.

A neoprene pressure pad is supplied.

See K0101, K0102, K0103, K0106 for accessories.



### KIPP Push-pull mini-clamp with mounting bracket

| Order No.   | Surface finish  | Opening angle of handle | Hand force N | Holding force F2 N | Clamping force F1 N | Stroke |
|-------------|-----------------|-------------------------|--------------|--------------------|---------------------|--------|
| K0083.0050  | steel           | 190°                    | 80           | 500                | 500                 | 16     |
| K0083.0050N | stainless steel | 190°                    | 80           | 500                | 500                 | 16     |

## Push-pull clamps

with mounting bracket



**Material:**

Steel

**Surface finish:**

Galvanized and chromated, connecting rod, guide body and contact pressure screw phosphated, plastic handle oil-resistant

**Sample order:**

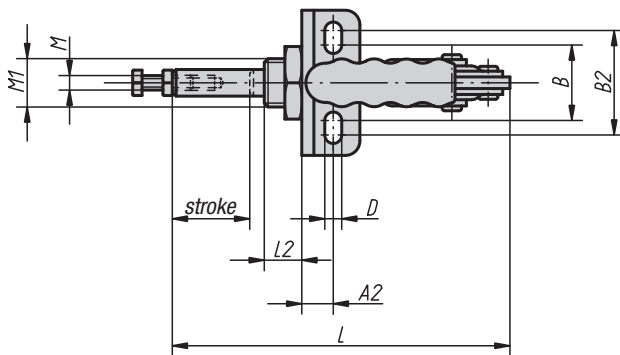
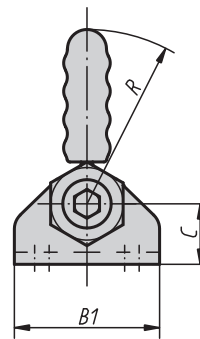
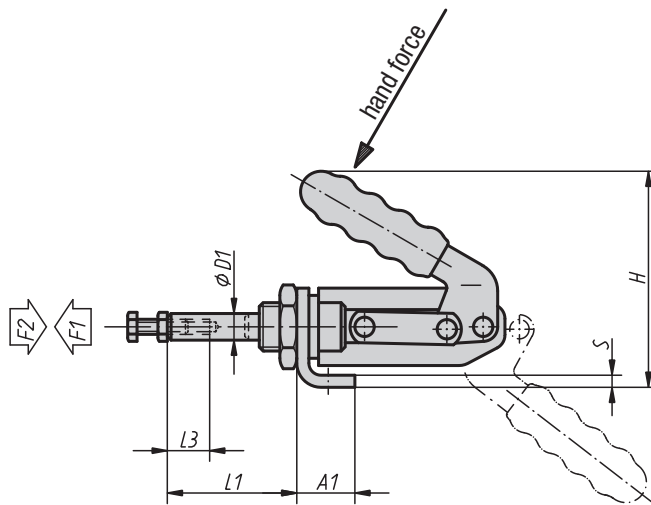
K0084.0250

**Note:**

The push-pull clamps can be locked in open and closed handle positions. Therefore they can be used for push and pull.

The fastening nut supplied allows the clamps to be mounted in any desired position.

See K0100, K0101, K0102, K0103, K0106 for accessories.



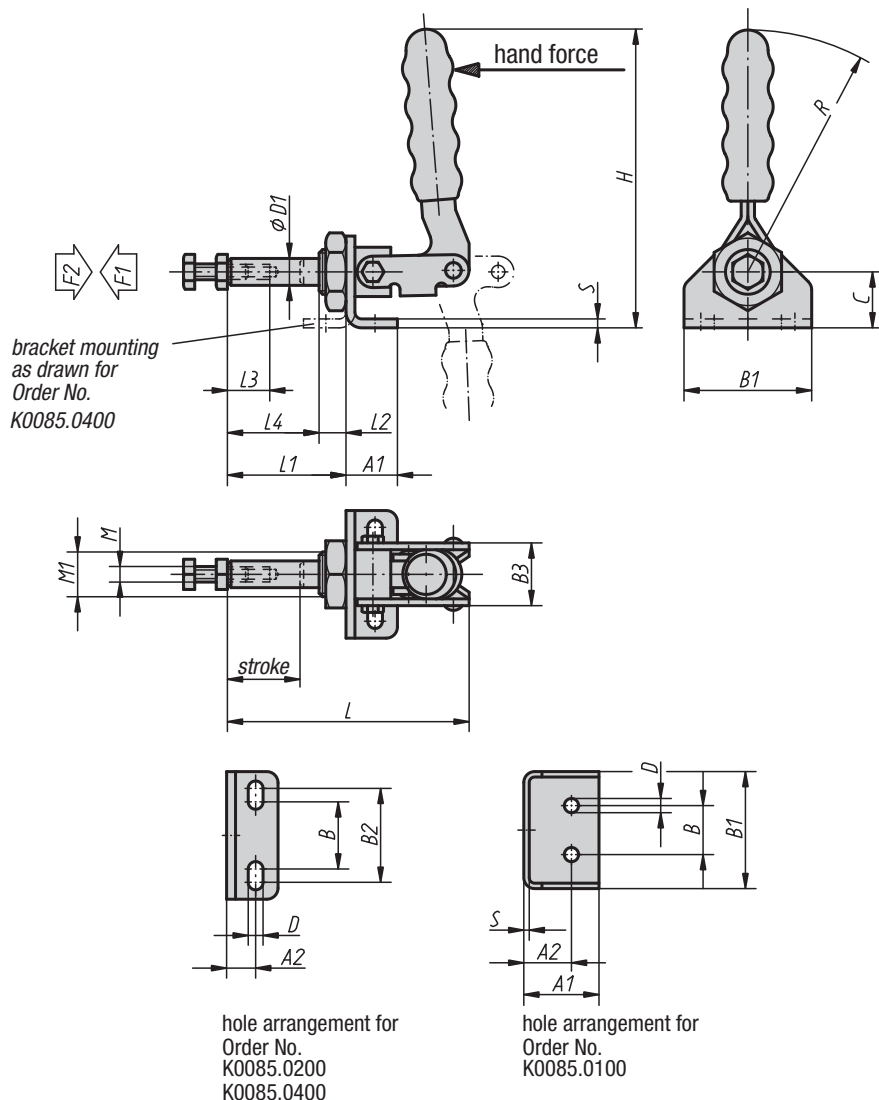
### KIPP Push-pull clamps with mounting bracket

| Order No.  | Opening angle of handle | Hand force N | Holding force F2 N | Clamping force F1 N |
|------------|-------------------------|--------------|--------------------|---------------------|
| K0084.0250 | 190°                    | 170          | 2500               | 1500                |
| K0084.0450 | 185°                    | 180          | 4000               | 2000                |

| Order No.  | A1 | A2 | B  | B1   | B2 | C  | D   | D1   | H   | L   | L1   | L2 | L3 | M      | M1      | S | R  | Stroke |
|------------|----|----|----|------|----|----|-----|------|-----|-----|------|----|----|--------|---------|---|----|--------|
| K0084.0250 | 23 | 13 | 30 | 57,5 | 42 | 25 | 6,5 | 11,1 | 85  | 136 | 52,5 | 14 | 12 | M6x25  | M20x1,5 | 4 | 60 | 32     |
| K0084.0450 | 30 | 18 | 30 | 64   | 45 | 30 | 8,5 | 16   | 120 | 173 | 60   | 17 | 20 | M10x50 | M24x1,5 | 5 | 90 | 38     |

## Push-pull clamps

with mounting bracket



**Material:**  
Steel or stainless steel

**Surface finish:**  
Galvanized and chromated,  
connecting rod and contact pressure screw  
phosphated,  
stainless steel natural finish,  
plastic handle oil-resistant

**Sample order:**  
K0085.0200

**Note:**  
The push-pull clamps can be locked in open and closed handle positions. Therefore they can be used for push and pull.  
The fastening nut supplied allows the clamps to be mounted in any desired position.

A neoprene pressure pad is supplied with version K0085.0100.

Versions K0085.0100N, K0085.0200N and K0085.0400N are supplied without mounting bracket.

See K0100, K0101, K0102, K0103, K0106 for accessories.

### KIPP Push-pull clamps with mounting bracket

| Order No.   | Surface finish  | Opening angle of handle | Hand force N | Holding force F2 N | Clamping force F1 N |
|-------------|-----------------|-------------------------|--------------|--------------------|---------------------|
| K0085.0100  | steel           | 190°                    | 40           | 1000               | 500                 |
| K0085.0200  | steel           | 190°                    | 50           | 2000               | 2000                |
| K0085.0400  | steel           | 190°                    | 150          | 4000               | 2500                |
| K0085.0100N | stainless steel | 190°                    | 40           | 1000               | 500                 |
| K0085.0200N | stainless steel | 190°                    | 50           | 2000               | 2000                |
| K0085.0400N | stainless steel | 190°                    | 150          | 4000               | 2500                |

| Order No.   | Surface finish  | A1 | A2   | B  | B1 | B2 | B3 | C  | D   | D1 | H   | L   | L1 | L2 | L3 | L4 | M      | M1      | S | R   | Stroke |
|-------------|-----------------|----|------|----|----|----|----|----|-----|----|-----|-----|----|----|----|----|--------|---------|---|-----|--------|
| K0085.0100  | steel           | 30 | 13,5 | 18 | 44 | -  | 25 | 26 | 5,2 | 10 | 91  | 69  | 34 | 10 | 15 | 24 | M6x25  | M16x1,5 | 2 | 66  | 21     |
| K0085.0200  | steel           | 23 | 13   | 30 | 57 | 42 | 28 | 25 | 6,5 | 12 | 137 | 108 | 53 | 12 | 25 | 41 | M8x40  | M20x1,5 | 4 | 112 | 41     |
| K0085.0400  | steel           | 30 | 18   | 30 | 64 | 45 | 38 | 30 | 8,5 | 16 | 160 | 175 | 88 | 17 | 35 | 71 | M10x50 | M24x1,5 | 5 | 130 | 68     |
| K0085.0100N | stainless steel | 30 | 13,5 | 18 | 44 | -  | 25 | 26 | 5,2 | 10 | 91  | 69  | 34 | 10 | 15 | 24 | M6x25  | M16x1,5 | 2 | 66  | 21     |
| K0085.0200N | stainless steel | 23 | 13   | 30 | 57 | 42 | 28 | 25 | 6,5 | 12 | 137 | 108 | 53 | 12 | 25 | 41 | M8x40  | M20x1,5 | 4 | 112 | 41     |
| K0085.0400N | stainless steel | 30 | 18   | 30 | 64 | 45 | 38 | 30 | 8,5 | 16 | 160 | 175 | 88 | 17 | 35 | 71 | M10x50 | M24x1,5 | 5 | 130 | 68     |

## Push-pull clamps

without mounting bracket



**Material:**

Steel

**Surface finish:**

Galvanized and chromated, connecting rod, guide body and contact pressure screw phosphated, plastic handle oil-resistant

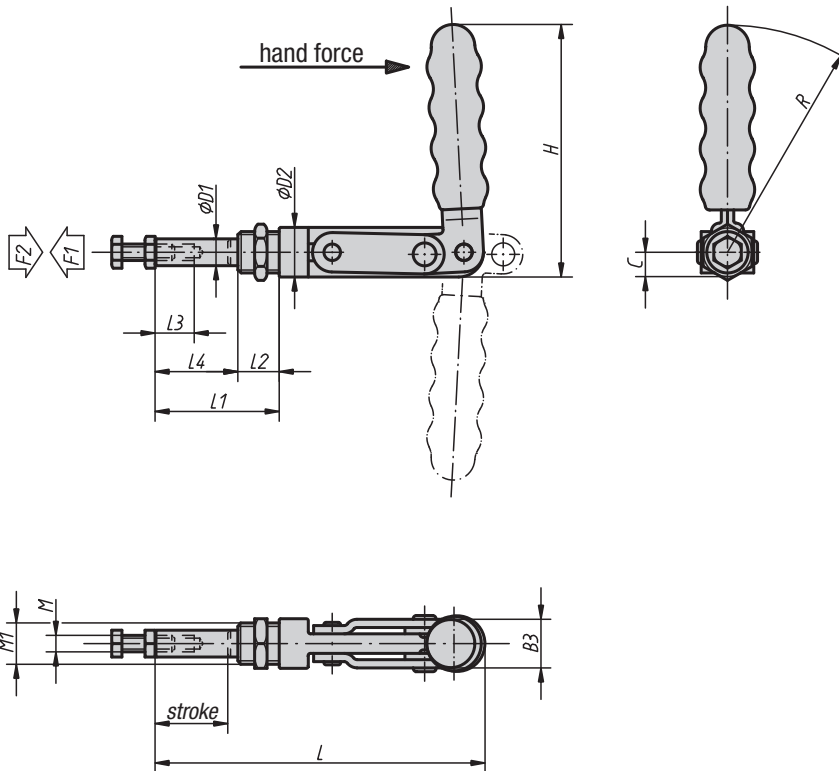
**Sample order:**

K0086.0750

**Note:**

The push-pull clamps can be locked in open and closed handle positions. Therefore they can be used for push and pull. The fastening nut supplied allows the clamps to be mounted in any desired position.

See K0100, K0101, K0102, K0103, K0106 for accessories.



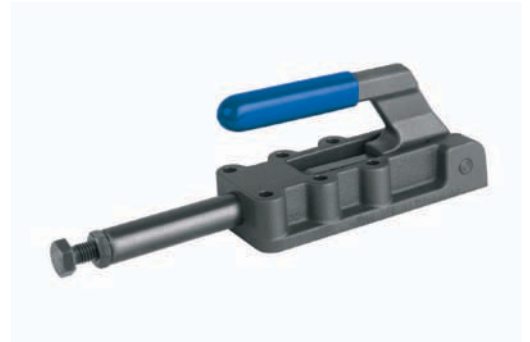
### KIPP Push-pull clamps without mounting bracket

| Order No.  | Opening angle of handle | Hand force N | Holding force F2 N | Clamping force F1 N |
|------------|-------------------------|--------------|--------------------|---------------------|
| K0086.0350 | 185°                    | 110          | 3500               | 1500                |
| K0086.0550 | 185°                    | 140          | 5500               | 1600                |
| K0086.0750 | 185°                    | 160          | 7500               | 1600                |

| Order No.  | B3   | C    | D1 | D2   | H     | L   | L1 | L2 | L3 | L4 | M      | M1      | R   | Stroke |
|------------|------|------|----|------|-------|-----|----|----|----|----|--------|---------|-----|--------|
| K0086.0350 | 20,5 | 9,5  | 10 | 19   | 106,5 | 123 | 49 | 16 | 18 | 33 | M6x25  | M16x1,5 | 97  | 25     |
| K0086.0550 | 24,5 | 12   | 13 | 24   | 130   | 159 | 60 | 20 | 30 | 40 | M8x40  | M20x1,5 | 118 | 38     |
| K0086.0750 | 31   | 14,2 | 16 | 28,5 | 149   | 235 | 93 | 23 | 40 | 70 | M10x50 | M24x1,5 | 135 | 66     |

## Push-pull clamps

heavy-duty version with handle



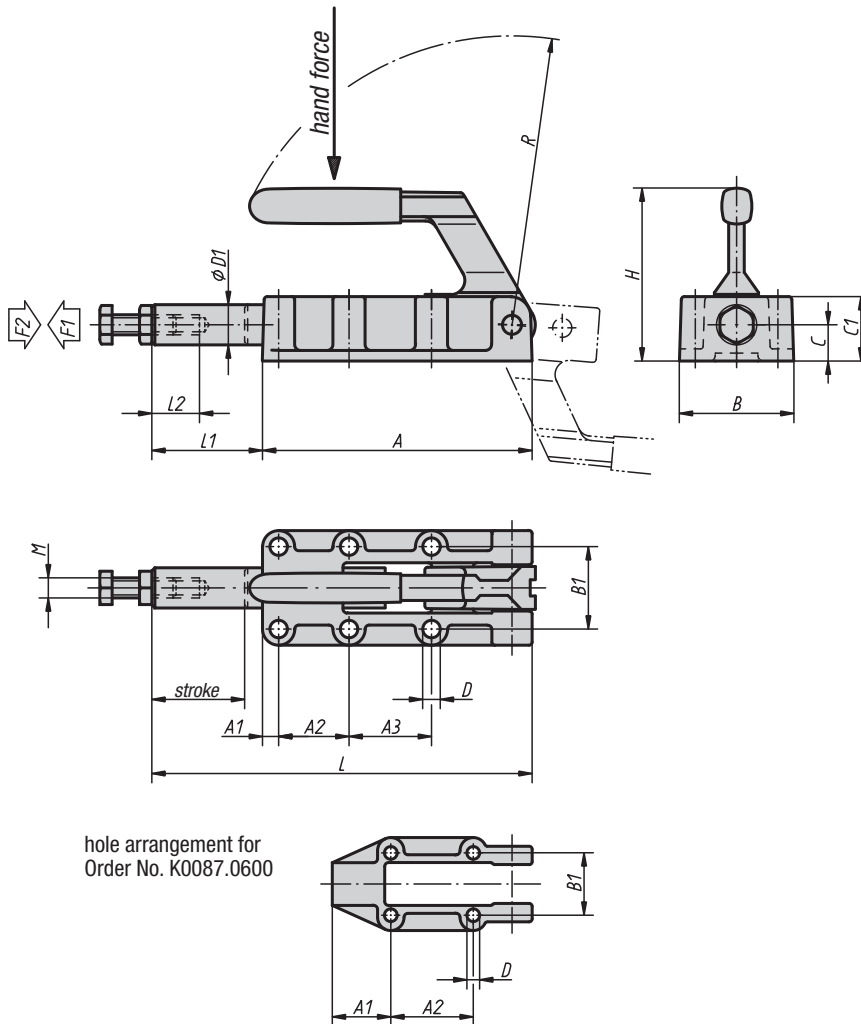
**Material:**  
Steel;  
body and handle in spheroidal graphite cast iron (GJS)

**Surface finish:**  
Phosphated, plastic handle oil-resistant

**Sample order:**  
K0087.2500

**Note:**  
The push-pull clamps can be locked in open and closed handle positions. Therefore they can be used for push and pull.  
The clamps are also equipped with a stroke limiter for advance and retraction strokes.

See K0101, K0102, K0103, K0106 for accessories.



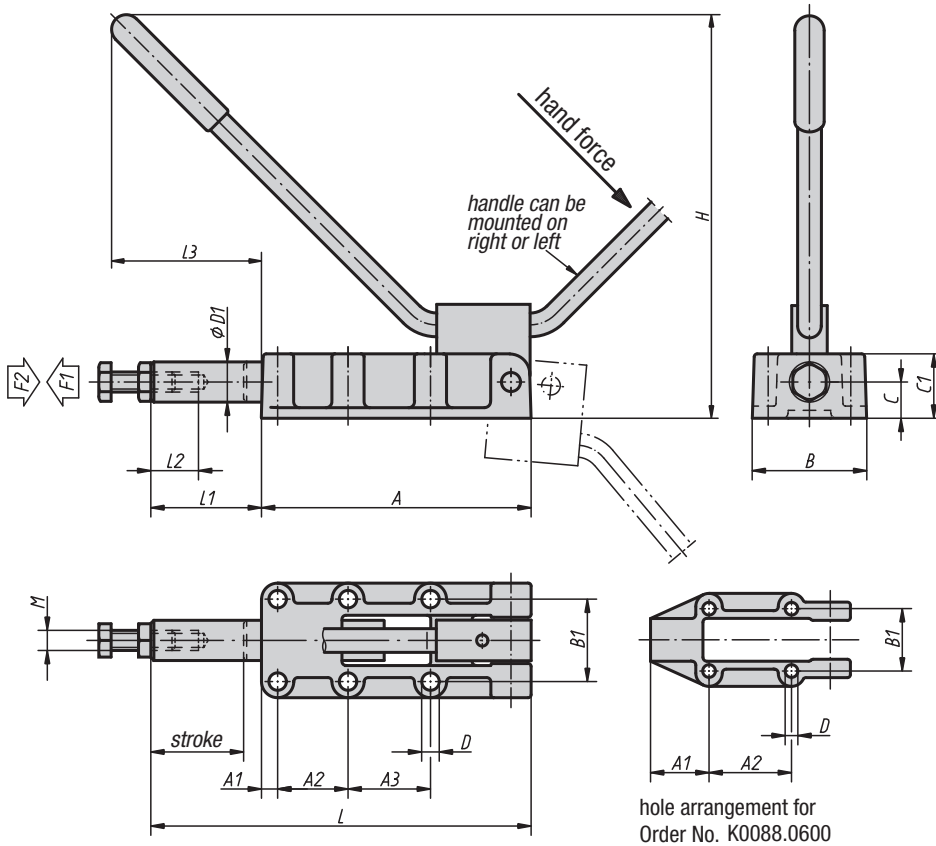
### KIPP Push-pull clamps heavy-duty version with handle

| Order No.  | Opening angle of handle | Hand force N | Holding force F2 N | Clamping force F1 N |
|------------|-------------------------|--------------|--------------------|---------------------|
| K0087.0600 | 185°                    | 140          | 6000               | 3000                |
| K0087.1200 | 185°                    | 150          | 12000              | 5000                |
| K0087.2500 | 185°                    | 170          | 25000              | 5000                |
| K0087.5000 | 185°                    | 200          | 50000              | 7000                |

| Order No.  | A   | A1 | A2   | A3 | B  | B1   | C  | C1 | D    | D1 | H   | L   | L1  | L2 | M   | R   | Stroke |
|------------|-----|----|------|----|----|------|----|----|------|----|-----|-----|-----|----|-----|-----|--------|
| K0087.0600 | 89  | 25 | 36,5 | -  | 46 | 33,4 | 12 | 23 | 5,5  | 14 | 63  | 127 | 38  | 30 | M8  | 95  | 32     |
| K0087.1200 | 133 | 8  | 35   | 41 | 61 | 41   | 18 | 32 | 8,5  | 20 | 88  | 188 | 55  | 40 | M10 | 143 | 50     |
| K0087.2500 | 197 | 11 | 45   | 45 | 82 | 54   | 22 | 41 | 10,3 | 25 | 108 | 300 | 103 | 60 | M12 | 200 | 75     |
| K0087.5000 | 254 | 10 | 70   | 70 | 85 | 57   | 28 | 50 | 10,3 | 30 | 127 | 390 | 136 | 60 | M16 | 245 | 100    |

# Push-pull clamps

heavy-duty version with reversible hand lever



**Material:**

Steel, body in spheroidal graphite cast iron (GJS)

**Surface finish:**

Phosphated, hand lever galvanized and chromated, plastic handle oil-resistant

**Sample order:**

K0088.0600

**Note:**

The push-pull clamps can be locked in open and closed handle positions. Therefore they can be used for push and pull. The clamps are also equipped with a stroke limiter for advance and retraction strokes.

See K0099, K0101, K0102, K0103, K0106 for accessories.

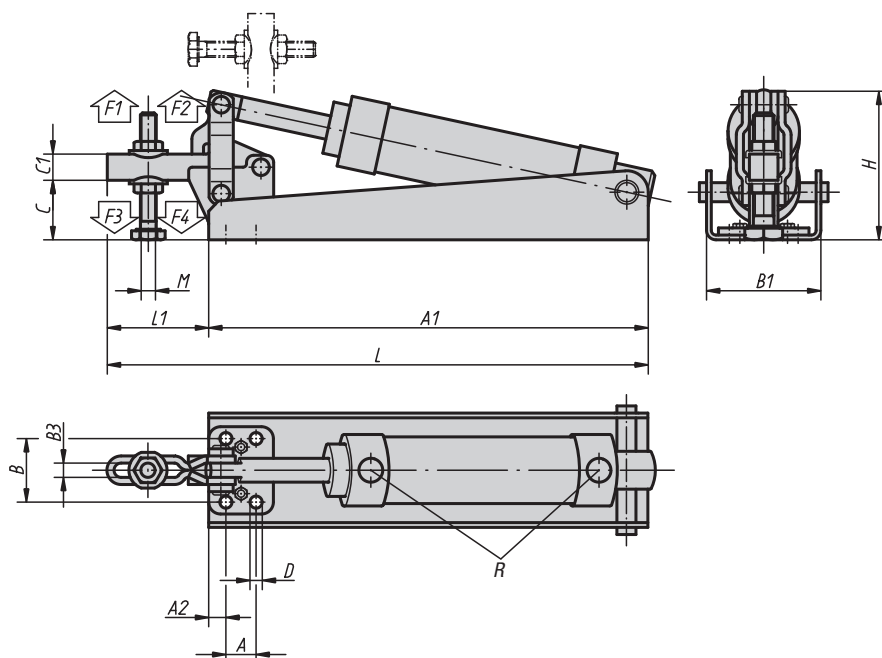
## KIPP Push-pull clamps heavy-duty version with reversible hand lever

| Order No.  | A   | A1 | A2   | A3 | B  | B1   | C  | C1 | D    | D1 | H   | L   | L1  | L2 | L3  | M   | Stroke | Hand force N | Holding force F2 N | Opening angle of handle |
|------------|-----|----|------|----|----|------|----|----|------|----|-----|-----|-----|----|-----|-----|--------|--------------|--------------------|-------------------------|
| K0088.0600 | 89  | 25 | 36,5 | -  | 46 | 33,4 | 12 | 23 | 5,5  | 14 | 127 | 127 | 38  | 30 | 65  | M8  | 32     | 140          | 6000               | 185°                    |
| K0088.1200 | 133 | 8  | 35   | 41 | 61 | 41   | 18 | 32 | 8,5  | 20 | 196 | 188 | 55  | 40 | 106 | M10 | 50     | 150          | 12000              | 185°                    |
| K0088.2500 | 197 | 11 | 45   | 45 | 82 | 54   | 22 | 41 | 10,3 | 25 | 270 | 300 | 103 | 60 | 125 | M12 | 75     | 170          | 25000              | 185°                    |
| K0088.5000 | 254 | 10 | 70   | 70 | 85 | 57   | 28 | 50 | 10,3 | 30 | 360 | 390 | 136 | 60 | 155 | M16 | 100    | 200          | 50000              | 185°                    |

| Order No.  | Conecting rod extended / Clamping force F1 N  |
|------------|---|
| K0088.0600 | 5 mm / 1100 N, 10 mm / 700N, 15mm / 750N, 20mm / 800N, 25mm / 850N, 30mm / 1460N, 31mm / 1900N, 32mm / 5800N  |
| K0088.1200 | 5 mm / 1670 N, 10 mm / 900N, 15mm / 730N, 20mm / 700N, 25mm / 720N, 30mm / 850N, 35mm / 1000N, 40mm / 1100N, 45mm / 1500N, 48mm / 2200N, 49mm / 2900N, 50mm / 9300N                 |
| K0088.2500 | 10 mm / 1000N, 20mm / 720N, 30mm / 600N, 40mm / 700N, 50mm / 880N, 60mm / 1180N, 70mm / 1900N, 72mm / 2300N, 74mm / 3530N, 75mm / 11000N  |
| K0088.5000 | 10 mm / 1800N, 20mm / 1100N, 30mm / 7500N, 40mm / 800N, 50mm / 820N, 60mm / 1000N, 70mm / 1000N, 80mm / 1300N, 90mm / 1900N, 95mm / 2500N, 97mm / 3100N, 99mm/4500N, 100mm / 12100N |

## Horizontal pneumatic clamps

form A



**Material:**

Lever parts and clamping spindle in steel

**Surface finish:**

Lever parts galvanized and chromated, clamping spindle and nuts phosphated, cylinder natural finish

**Sample order:**

K0089.0150

**Note:**

A neoprene pressure pad is supplied with versions K0089.0075 and K0089.0150.

See K0101, K0102, K0103, K0106, K0107 for accessories.

**Pneumatic cylinder:**

Form A: double-acting without end-of-travel dampers.

### KIPP Horizontal pneumatic clamps, form A

| Order No.  | Form | Air consumption per cycle | Opening angle of holding arm | Holding force at 6 bar F1 N | Holding force at 6 bar F2 N | Clamping force at 6 bar F3 N | Clamping force at 6 bar F4 N |
|------------|------|---------------------------|------------------------------|-----------------------------|-----------------------------|------------------------------|------------------------------|
| K0089.0075 | A    | 0,02 dm <sup>3</sup>      | 70°                          | 1000                        | 1600                        | 800                          | 1400                         |
| K0089.0150 | A    | 0,04 dm <sup>3</sup>      | 85°                          | 1300                        | 1900                        | 1000                         | 1600                         |
| K0089.0250 | A    | 0,09 dm <sup>3</sup>      | 85°                          | 1600                        | 2400                        | 1200                         | 1800                         |
| K0089.0450 | A    | 0,27 dm <sup>3</sup>      | 85°                          | 3000                        | 5800                        | 2600                         | 5400                         |

| Order No.  | Form | A    | A1  | A2 | B  | B1 | B3   | C  | C1   | D   | H   | L   | L1  | M       | R     | Operating pressure bar | No. of strokes per min. at 6 bar |
|------------|------|------|-----|----|----|----|------|----|------|-----|-----|-----|-----|---------|-------|------------------------|----------------------------------|
| K0089.0075 | A    | 16   | 145 | 5  | 24 | 40 | 5,3  | 18 | 9    | 4,4 | 50  | 177 | 32  | M5x35   | G 1/8 | 2 - 6                  | 40                               |
| K0089.0150 | A    | 12,7 | 185 | 7  | 27 | 48 | 6,4  | 24 | 11   | 5,1 | 62  | 227 | 42  | M6x50   | G 1/8 | 2 - 6                  | 60                               |
| K0089.0250 | A    | 19   | 234 | 8  | 32 | 59 | 8,9  | 35 | 17,5 | 7,1 | 84  | 309 | 75  | M8x60   | G 1/8 | 2 - 6                  | 55                               |
| K0089.0450 | A    | 32   | 289 | 10 | 45 | 76 | 12,7 | 54 | 25   | 8,7 | 122 | 413 | 124 | M12x100 | G 1/8 | 2 - 6                  | 55                               |



## Horizontal pneumatic clamps

form B



**Material:**

Lever parts and clamping spindle in steel

**Surface finish:**

Lever parts galvanized and chromated, clamping spindle and nuts phosphated, cylinder natural finish

**Sample order:**

K0090.0150

**Note:**

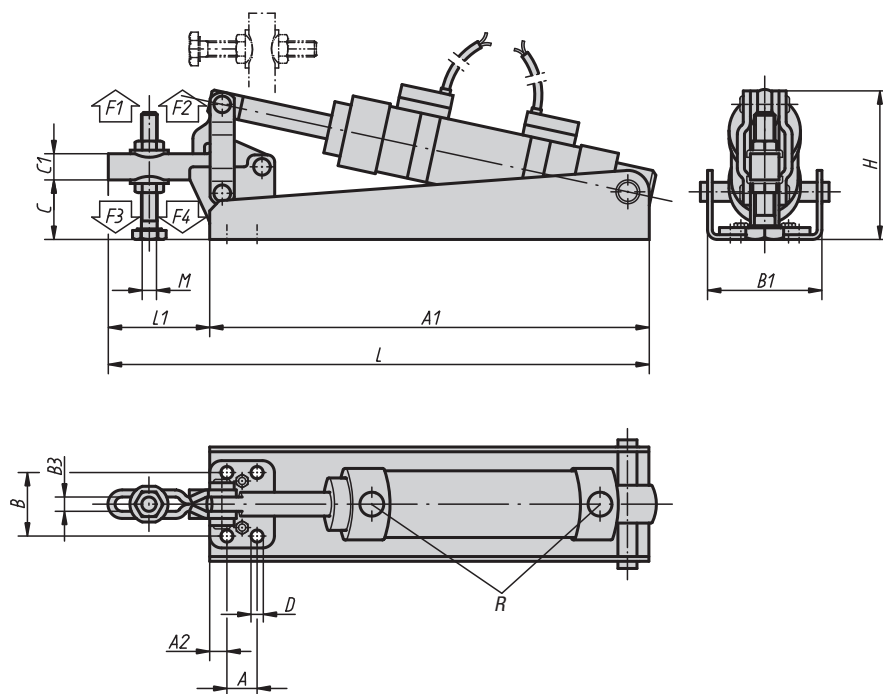
See K0101, K0102, K0103, K0106, K0107 for accessories.

**Technical data for proximity reed switch:**

Max. performance DC = 10 W / AC = 12 VA.  
Max. rated voltage 10 - 60 V, DC and AC.  
Max. rated power 500 mA.

**Pneumatic cylinder:**

Form B: double-acting without end-of-travel dampers and equipped with two proximity reed switches with LED indicators.



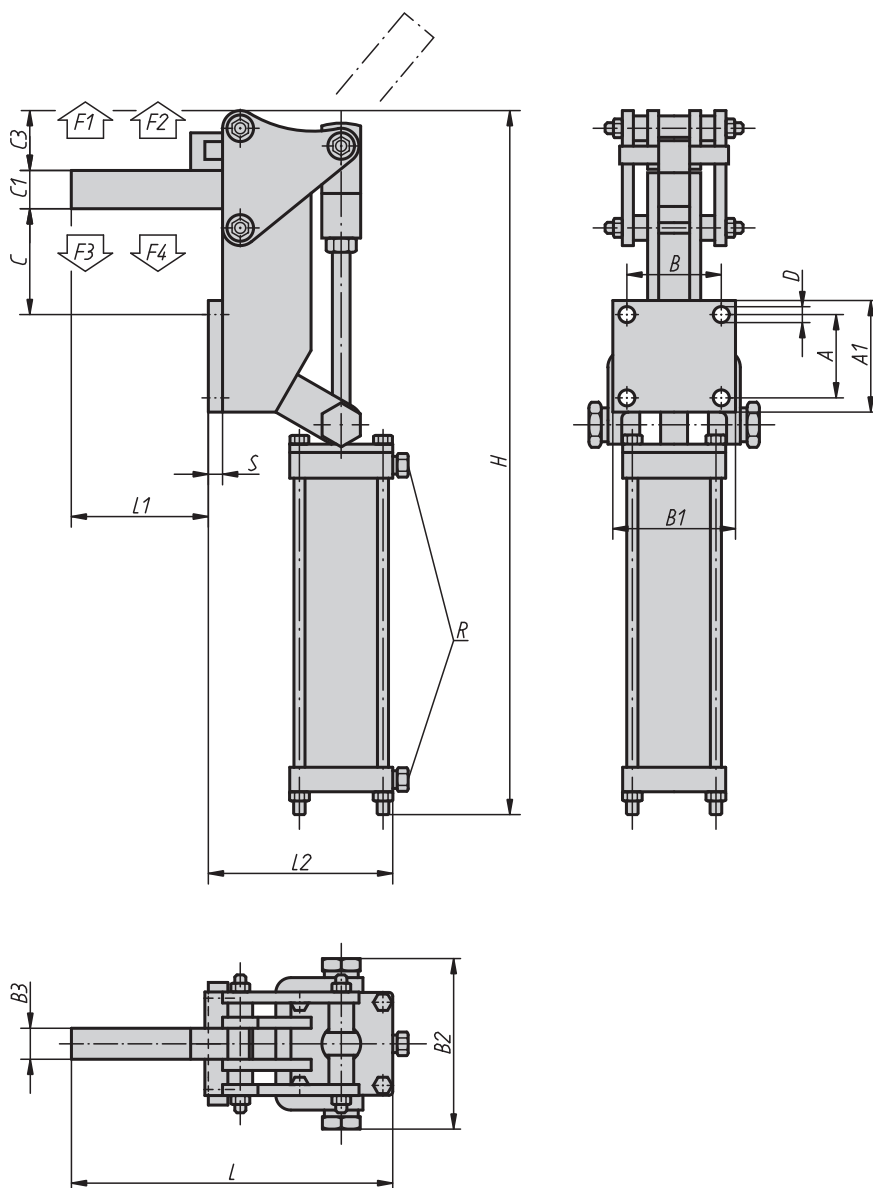
### KIPP Horizontal pneumatic clamps, form B

| Order No.  | Form | Air consumption per cycle | Opening angle of holding arm | Holding force at 6 bar F1 N | Holding force at 6 bar F2 N | Clamping force at 6 bar F3 N | Clamping force at 6 bar F4 N |
|------------|------|---------------------------|------------------------------|-----------------------------|-----------------------------|------------------------------|------------------------------|
| K0090.0075 | B    | 0,02 dm <sup>3</sup>      | 70°                          | 1000                        | 1600                        | 800                          | 1400                         |
| K0090.0150 | B    | 0,04 dm <sup>3</sup>      | 85°                          | 1300                        | 1900                        | 1000                         | 1600                         |
| K0090.0250 | B    | 0,09 dm <sup>3</sup>      | 85°                          | 1600                        | 2400                        | 1200                         | 1800                         |
| K0090.0450 | B    | 0,27 dm <sup>3</sup>      | 85°                          | 3000                        | 5800                        | 2600                         | 5400                         |

| Order No.  | Form | A    | A1  | A2 | B  | B1 | B3   | C  | C1   | D   | H   | L   | L1  | M       | R     | Operating pressure bar | No. of strokes per min. at 6 bar |
|------------|------|------|-----|----|----|----|------|----|------|-----|-----|-----|-----|---------|-------|------------------------|----------------------------------|
| K0090.0075 | B    | 16   | 145 | 5  | 24 | 40 | 5,3  | 18 | 9    | 4,4 | 50  | 177 | 32  | M5x35   | G 1/8 | 2 - 6                  | 40                               |
| K0090.0150 | B    | 12,7 | 185 | 7  | 27 | 48 | 6,4  | 24 | 11   | 5,1 | 62  | 227 | 42  | M6x50   | G 1/8 | 2 - 6                  | 60                               |
| K0090.0250 | B    | 19   | 234 | 8  | 32 | 59 | 8,9  | 35 | 17,5 | 7,1 | 84  | 309 | 75  | M8x60   | G 1/8 | 2 - 6                  | 55                               |
| K0090.0450 | B    | 32   | 289 | 10 | 45 | 76 | 12,7 | 54 | 25   | 8,7 | 122 | 413 | 124 | M12x100 | G 1/8 | 2 - 6                  | 55                               |

## Vertical pneumatic clamps

heavy-duty version



**Material:**

Steel

**Surface finish:**

Black oxide finish, cylinder painted

**Sample order:**

K0091.1750

**On request:**

Proximity reed switch.

**Pneumatic cylinder:**

Double-acting with end-of-travel dampers adjustable at both ends.

### KIPP Vertical pneumatic clamps, heavy-duty version

| Order No.  | Air consumption per cycle | Opening angle of holding arm | Holding force at 6 bar F1<br>N | Holding force at 6 bar F2<br>N | Clamping force at 6 bar F3<br>N | Clamping force at 6 bar F4<br>N |
|------------|---------------------------|------------------------------|--------------------------------|--------------------------------|---------------------------------|---------------------------------|
| K0091.0750 | 0,27 dm <sup>3</sup>      | 120°                         | 3000                           | 7500                           | 2250                            | 3150                            |
| K0091.1750 | 0,75 dm <sup>3</sup>      | 120°                         | 6500                           | 17500                          | 6500                            | 8000                            |

| Order No.  | A  | A1 | B  | B1 | B2  | B3   | C    | C1 | C3 | D    | H   | L   | L1 | L2  | S  | R     | Operating pressure bar | No. of strokes per min. at 6 bar |
|------------|----|----|----|----|-----|------|------|----|----|------|-----|-----|----|-----|----|-------|------------------------|----------------------------------|
| K0091.0750 | 48 | 63 | 48 | 63 | 92  | 12,7 | 72   | 19 | 43 | 8,7  | 425 | 169 | 67 | 102 | 8  | G 1/4 | 2 - 6                  | 30                               |
| K0091.1750 | 55 | 76 | 62 | 82 | 112 | 16   | 70,5 | 25 | 55 | 10,7 | 482 | 215 | 90 | 125 | 10 | G 1/4 | 2 - 6                  | 15                               |

## Horizontal pneumatic clamp

heavy-duty version



**Material:**

Steel

**Surface finish:**

Black oxide finish, cylinder painted

**Sample order:**

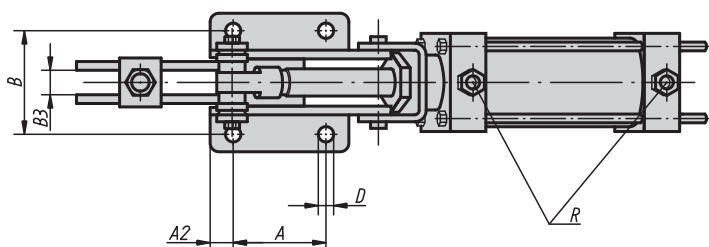
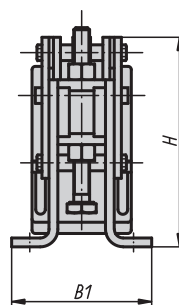
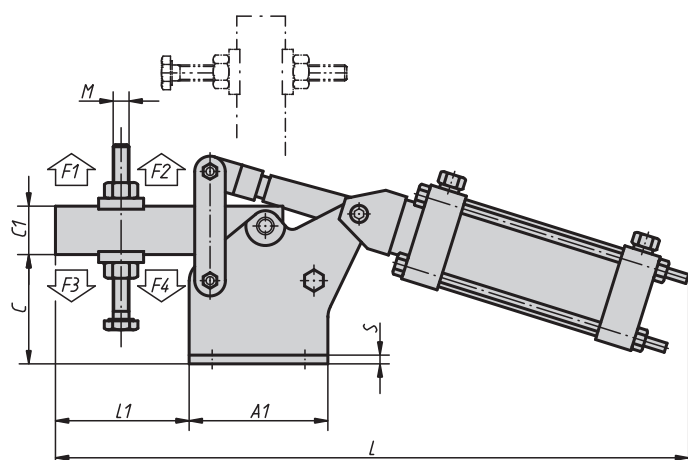
K0092.2000

**On request:**

Proximity reed switch.

**Pneumatic cylinder:**

Double-acting with end-of-travel dampers adjustable at both ends.



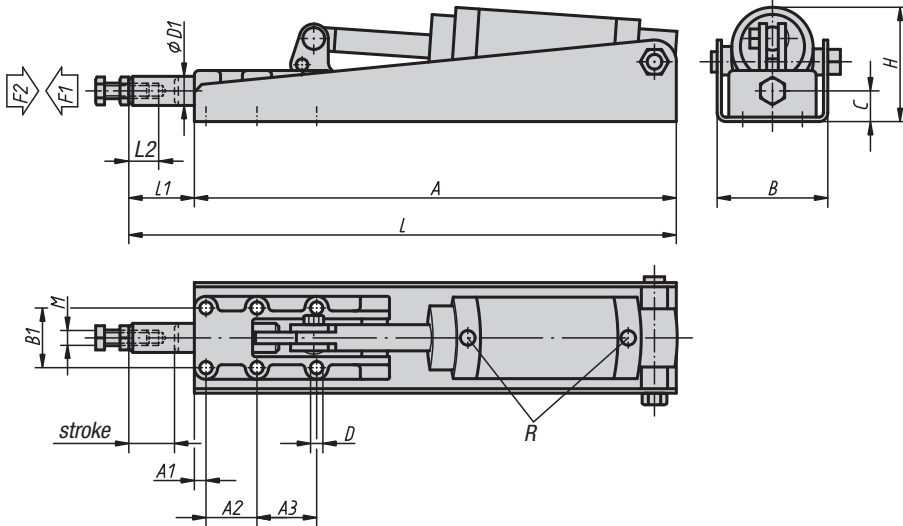
### KIPP Horizontal pneumatic clamp heavy-duty version

| Order No.  | Air consumption per cycle | Opening angle of holding arm | Holding force at 6 bar F1<br>N | Holding force at 6 bar F2<br>N | Clamping force at 6 bar F3<br>N | Clamping force at 6 bar F4<br>N |
|------------|---------------------------|------------------------------|--------------------------------|--------------------------------|---------------------------------|---------------------------------|
| K0092.2000 | 0,76 dm <sup>3</sup>      | 85°                          | 9000                           | 20000                          | 6500                            | 8000                            |

| Order No.  | A  | A1  | A2 | B  | B1  | B3 | C   | C1 | D    | H   | L   | L1  | M       | S | R     | Operating pressure bar | No. of strokes per min. at 6 bar |
|------------|----|-----|----|----|-----|----|-----|----|------|-----|-----|-----|---------|---|-------|------------------------|----------------------------------|
| K0092.2000 | 85 | 128 | 21 | 95 | 126 | 19 | 102 | 45 | 14,2 | 195 | 592 | 127 | M18x150 | 8 | G 3/8 | 2 - 6                  | 10                               |

## Pneumatic push-pull clamps

form A



**Material:**

Lever parts, base and connecting rod in steel, connecting rod housing in spheroidal graphite cast iron (GJS)

**Surface finish:**

Phosphated, cylinder natural finish

**Sample order:**

K0093.2500

**Note:**

See K0101, K0102, K0103, K0106 for accessories.

**Pneumatic cylinder:**

Form A: double-acting without end-of-travel dampers.

### KIPP Pneumatic push-pull clamps

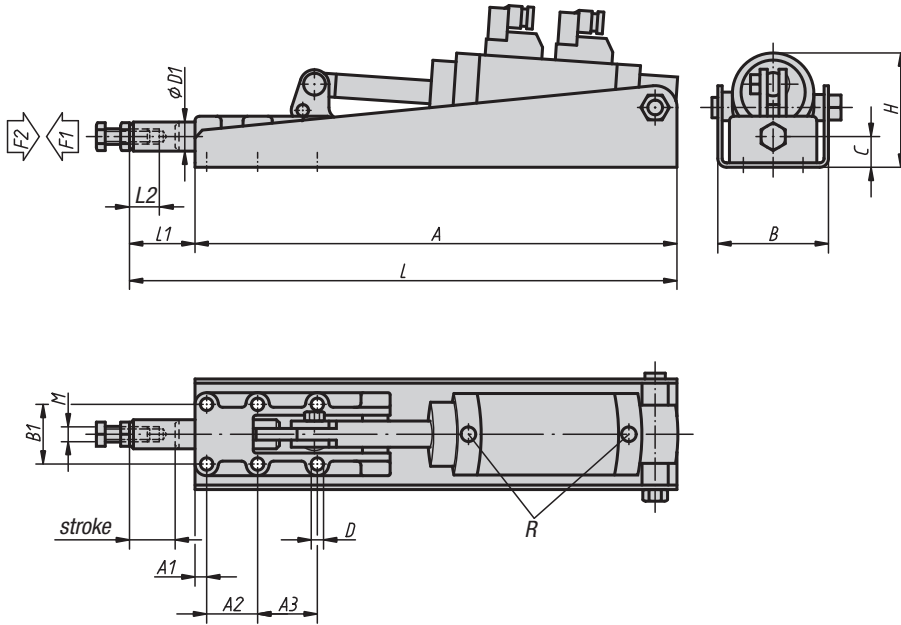
| Order No.  | Form | A   | A1 | A2   | A3 | B  | B1   | C    | D    | D1 | H  | L   | L1  | L2 | M   | R     | Stroke | Holding force<br>F2<br>N | Operating pressure<br>bar | Air consumption<br>per cycle | No. of strokes<br>per min.<br>at 6 bar |
|------------|------|-----|----|------|----|----|------|------|------|----|----|-----|-----|----|-----|-------|--------|--------------------------|---------------------------|------------------------------|--|
| K0093.0600 | A    | 290 | 25 | 36,5 | -  | 59 | 33,4 | 14,5 | 5,5  | 14 | 53 | 325 | 41  | 30 | M8  | G 1/8 | 25     | 6000                     | 2 - 6                     | 0,09 dm <sup>3</sup>         | 60                                     |
| K0093.1200 | A    | 380 | 8  | 35   | 41 | 76 | 41   | 21   | 8,5  | 20 | 75 | 435 | 55  | 40 | M10 | G 1/8 | 32     | 12000                    | 2 - 6                     | 0,28 dm <sup>3</sup>         | 50                                     |
| K0093.2500 | A    | 475 | 12 | 45   | 45 | 96 | 54   | 26   | 10,3 | 25 | 96 | 577 | 102 | 60 | M12 | G 1/4 | 50     | 25000                    | 2 - 6                     | 0,60 dm <sup>3</sup>         | 45                                     |

| Order No.  | Conecting rod extended / Clamping force F1 N   |
|------------|--|
| K0093.0600 | 5mm / 320N, 10mm / 430N, 15mm / 650N, 20mm / 870N, 22mm / 1000N, 24mm / 1500N, 25mm / 2350N  |
| K0093.1200 | 5mm / 1200N, 10mm / 1400N, 15mm / 1650N, 20mm / 1950N, 25mm / 2300N, 27mm / 2550N, 29mm / 3000N, 31mm / 4300N, 32mm / 11500N   |
| K0093.2500 | 5mm / 1400N, 10mm / 1600N, 15mm / 1750N, 20mm / 2000N, 25mm / 2100N, 30mm / 2450N, 35mm / 2650N, 40mm / 3250N, 45mm / 4200N, 47mm / 4900N, 49mm / 7000N, 50mm / 14500N |



## Pneumatic push-pull clamps

form B



**Material:**

Lever parts, base and connecting rod in steel, connecting rod housing in spheroidal graphite cast iron (GJS)

**Surface finish:**

Phosphated, cylinder natural finish

**Sample order:**

K0094.2500

**Note:**

See K0101, K0102, K0103, K0106 for accessories.

**Technical data for proximity reed switch:**

Max. performance DC = 10 W / AC = 12 VA.

Max. rated voltage 10 - 60 V, DC and AC.

Max. rated power 500 mA.

**Pneumatic cylinder:**

Form B: double-acting without end-of-travel dampers and equipped with two proximity reed switches with LED indicators.

### KIPP Pneumatic push-pull clamps

| Order No.  | Form | A   | A1 | A2   | A3 | B  | B1   | C    | D    | D1 | H  | L   | L1  | L2 | M   | R     | Stroke | Holding force<br>F2<br>N | Operating pressure<br>bar | Air consumption<br>per cycle | No. of strokes<br>per min.<br>at 6 bar |
|------------|------|-----|----|------|----|----|------|------|------|----|----|-----|-----|----|-----|-------|--------|--------------------------|---------------------------|------------------------------|--|
| K0094.0600 | B    | 290 | 25 | 36,5 | -  | 59 | 33,4 | 14,5 | 5,5  | 14 | 53 | 325 | 41  | 30 | M8  | G 1/8 | 25     | 6000                     | 2 - 6                     | 0,09 dm <sup>3</sup>         | 60                                     |
| K0094.1200 | B    | 380 | 8  | 35   | 41 | 76 | 41   | 21   | 8,5  | 20 | 75 | 435 | 55  | 40 | M10 | G 1/8 | 32     | 12000                    | 2 - 6                     | 0,28 dm <sup>3</sup>         | 50                                     |
| K0094.2500 | B    | 475 | 12 | 45   | 45 | 96 | 54   | 26   | 10,3 | 25 | 96 | 577 | 102 | 60 | M12 | G 1/4 | 50     | 25000                    | 2 - 6                     | 0,60 dm <sup>3</sup>         | 45                                     |

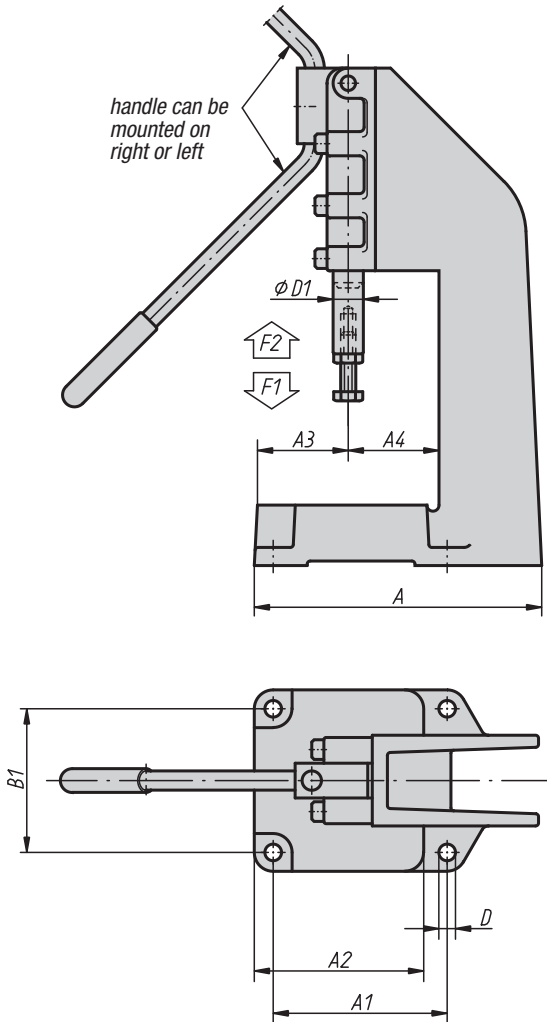
| Order No.  | Conecting rod extended / Clamping force F1 N   |
|------------|--|
| K0094.0600 | 5mm / 320N, 10mm / 430N, 15mm / 650N, 20mm / 870N, 22mm / 1000N 24mm / 1500N, 25mm / 2350N   |
| K0094.1200 | 5mm / 1200N, 10mm / 1400N, 15mm / 1650N, 20mm / 1950N, 25mm / 2300N, 27mm / 2550N, 29mm / 3000N, 31mm / 4300, 32mm / 11500N  |
| K0094.2500 | 5mm / 1400N, 10mm / 1600N, 15mm / 1750N 20mm / 2000N, 25mm / 2100N, 30mm / 2450N, 35mm / 2650N,<br>40mm / 3250N, 45mm / 4200N, 47mm / 4900N, 49mm / 7000N, 50mm / 14500N |

## Toggle presses

for manual operation



handle can be mounted on right or left



**Material:**

Press stand in cast steel, push-pull clamp see K0088

**Surface finish:**

Press stand painted black, push-pull clamp see K0088

**Sample order:**

K0095.0600

**Note:**

Push-pull clamps with reversible hand lever can be reordered as a complete assembly kit. See K0088 for specifications.

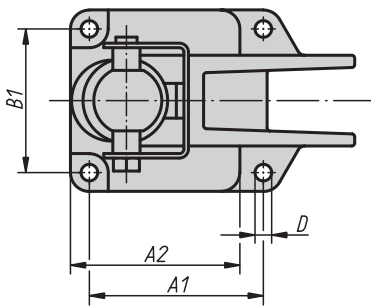
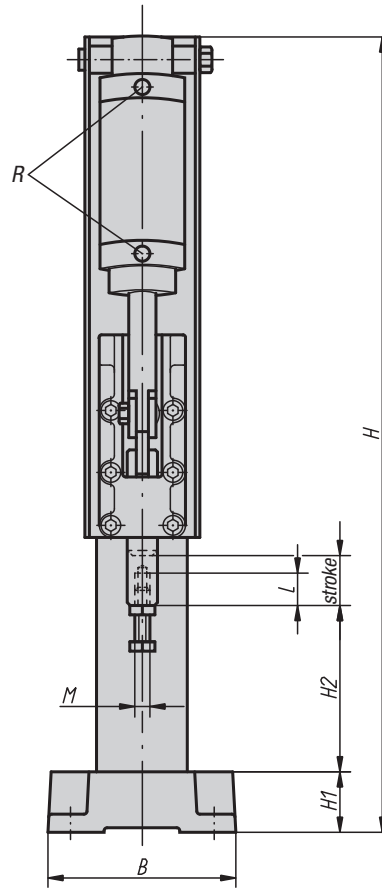
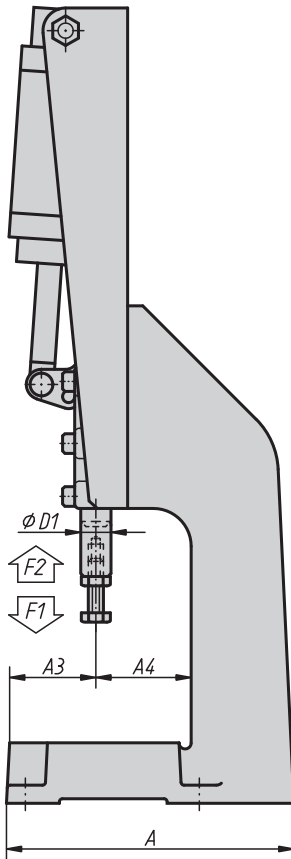
See K0088, K0099, K0101, K0102, K0103, K0106 for accessories.

### KIPP Toggle presses for manual operation

| Order No.  | A   | A1  | A2  | A3 | A4 | B   | B1  | D  | D1 | H   | H1 | H2  | L  | M   | Stroke | Hand force N | Holding force F2 N | Opening angle of handle |
|------------|-----|-----|-----|----|----|-----|-----|----|----|-----|----|-----|----|-----|--------|--------------|--------------------|-------------------------|
| K0095.0600 | 150 | 95  | 94  | 50 | 50 | 100 | 80  | 9  | 14 | 202 | 30 | 75  | 30 | M8  | 32     | 140          | 6000               | 185°                    |
| K0095.1200 | 192 | 115 | 112 | 60 | 60 | 120 | 95  | 11 | 20 | 290 | 40 | 100 | 40 | M10 | 50     | 150          | 12000              | 185°                    |
| K0095.2500 | 238 | 145 | 142 | 75 | 75 | 150 | 125 | 11 | 25 | 418 | 50 | 120 | 60 | M12 | 75     | 170          | 25000              | 185°                    |

| Order No.  | Conecting rod extended / Clamping force F1 N  |
|------------|---|
| K0095.0600 | 5 mm / 1100 N, 10 mm / 700N, 15mm / 750N, 20mm / 800N, 25mm / 850N, 30mm / 1460N, 31mm / 1900N, 32mm / 5800N  |
| K0095.1200 | 5 mm / 1670 N, 10 mm / 900N, 15mm / 730N, 20mm / 700N, 25mm / 720N, 30mm / 850N, 35mm / 1000N, 40mm / 1100N, 45mm / 1500N, 48mm / 2200N, 49mm / 2900N, 50mm / 9300N |
| K0095.2500 | 10 mm / 1000N, 20mm / 720N, 30mm / 600N, 40mm / 700N, 50mm / 880N, 60mm / 1180N, 70mm / 1900N, 72mm / 2300N, 74mm / 3530N, 75mm / 11000N                            |

# Toggle presses for pneumatic operation



**Material:**  
Press stand in cast steel,  
pneumatic push-pull clamp see K0093, K0094

**Surface finish:**  
Press stand painted black,  
pneumatic push-pull clamp see K0093, K0094

**Sample order:**  
K0096.0600

**Note:**  
Pneumatic push-pull clamps can be reordered as a complete assembly kit. See K0093, K0094 for specifications.

See K0093, K0094, K0101, K0102, K0103, K0106 for accessories.

**Pneumatic cylinder:**  
Form A: double-acting without end-of-travel dampers.

## KIPP Toggle presses for pneumatic operation

| Order No.  | A   | A1  | A2  | A3 | A4 | B   | B1  | D  | D1 | H   | H1 | H2  | L  | M   | R     | Stroke | Holding force<br>F2<br>N | Operating pressure<br>bar | Air consumption<br>per cycle | No. of strokes<br>per min.<br>at 6 bar |
|------------|-----|-----|-----|----|----|-----|-----|----|----|-----|----|-----|----|-----|-------|--------|--------------------------|---------------------------|------------------------------|--|
| K0096.0600 | 150 | 95  | 94  | 48 | 52 | 100 | 80  | 9  | 14 | 432 | 30 | 75  | 30 | M8  | G 1/8 | 25     | 6000                     | 2 - 6                     | 0,09 dm <sup>3</sup>         | 60                                     |
| K0096.1200 | 192 | 115 | 112 | 57 | 63 | 120 | 95  | 11 | 20 | 575 | 40 | 100 | 40 | M10 | G 1/8 | 32     | 12000                    | 2 - 6                     | 0,28 dm <sup>3</sup>         | 50                                     |
| K0096.2500 | 238 | 145 | 142 | 71 | 79 | 150 | 125 | 11 | 25 | 748 | 50 | 120 | 60 | M12 | G 1/4 | 50     | 25000                    | 2 - 6                     | 0,60 dm <sup>3</sup>         | 45                                     |

## Angle brackets

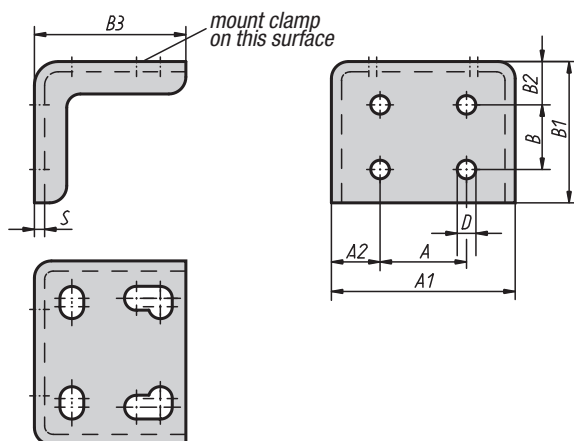


**Material:**  
Steel

**Surface finish:**  
Galvanized and chromated

**Sample order:**  
K0098.02

**Note:**  
The angle brackets permit head end mounting for quick-acting clamps listed in the table.

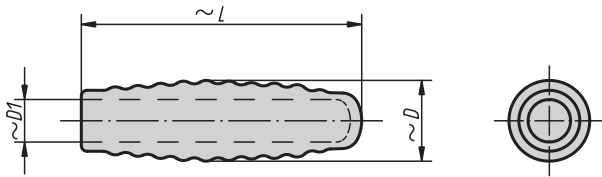


### KIPP Angle brackets

| Order No. | A    | A1 | A2   | B  | B1   | B2   | B3   | D   | S |
|-----------|------|----|------|----|------|------|------|-----|---|
| K0098.02  | 18   | 43 | 12,5 | 15 | 36,5 | 13,5 | 29,5 | 5   | 2 |
| K0098.04  | 25,4 | 54 | 14,2 | 19 | 41,5 | 12,7 | 44,5 | 5,5 | 3 |
| K0098.06  | 44   | 76 | 16   | 32 | 62   | 21   | 66   | 8,6 | 4 |



## Round plastic grips



**Material:**

Plastic

**Surface finish:**

Orange, oil-resistant

**Sample order:**

K0099.28

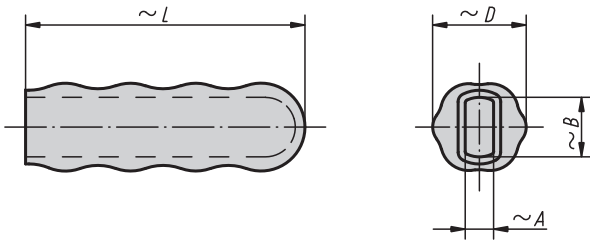
**Note:**

Round plastic grips can be used for quick-acting clamps listed in the table, as well as for other situations.

### KIPP Round plastic grips

| Order No. | ~D | ~D1  | ~L  |
|-----------|----|------|-----|
| K0099.12  | 15 | 9,5  | 70  |
| K0099.19  | 20 | 12,7 | 75  |
| K0099.22  | 25 | 16   | 100 |
| K0099.28  | 28 | 19   | 90  |
| K0099.30  | 32 | 22   | 95  |
| K0099.33  | 35 | 25   | 100 |

## Rectangular plastic grips



**Material:**  
Plastic

**Surface finish:**  
Orange, oil-resistant

**Sample order:**  
K0100.30

**Note:**  
Rectangular plastic grips can be used for quick-acting clamps listed in the table, as well as for other situations.

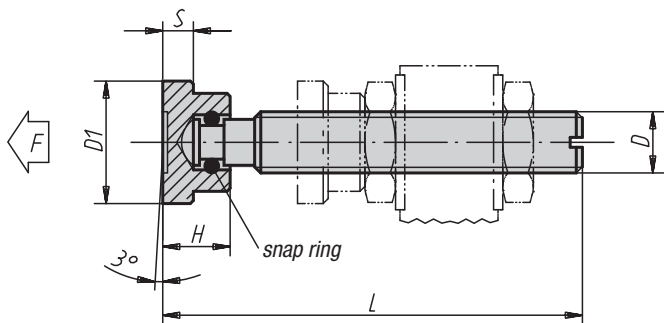


### KIPP Rectangular plastic grips

| Order No. | ~A | ~B | ~D | ~L  |
|-----------|----|----|----|-----|
| K0100.16  | 4  | 8  | 15 | 45  |
| K0100.19  | 6  | 10 | 19 | 53  |
| K0100.20  | 5  | 10 | 20 | 60  |
| K0100.22  | 4  | 13 | 22 | 58  |
| K0100.23  | 5  | 13 | 22 | 60  |
| K0100.28  | 6  | 15 | 26 | 85  |
| K0100.30  | 8  | 17 | 31 | 105 |
| K0100.32  | 8  | 19 | 31 | 105 |
| K0100.33  | 8  | 22 | 32 | 115 |
| K0100.34  | 10 | 22 | 32 | 95  |
| K0100.35  | 10 | 25 | 35 | 120 |

## Pressure bolts

with thrust member



**Material:**

Bolt and thrust member: free-cutting steel

**Surface finish:**

Bolt: black;  
thrust member: black oxide finish;  
bolt pin and thrust member: case-hardened

**Sample order:**

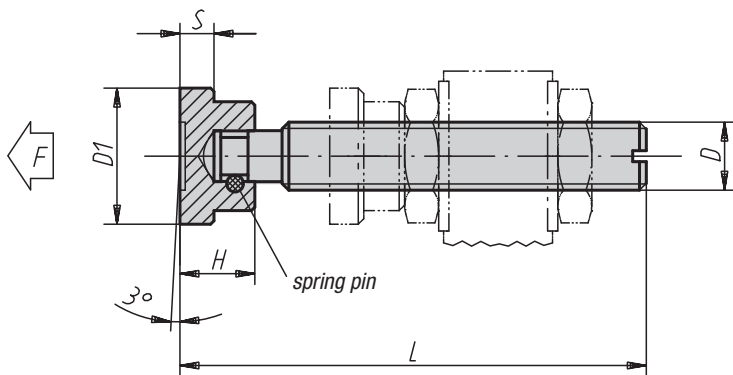
K0688.10X63

### KIPP Pressure bolts with thrust member

| Order No. | L                          | H  | D   | D1 | S   | F<br>max. kN |
|-----------|----------------------------|----|-----|----|-----|--------------|
| K0688.06X | 32/37/42/52                | 7  | M6  | 12 | 2,5 | 1            |
| K0688.08X | 38/43/48/53/63             | 9  | M8  | 16 | 4   | 2,3          |
| K0688.10X | 53,5/58,5/63,5/68,5/83,5   | 11 | M10 | 20 | 5   | 3,5          |
| K0688.12X | 64,5/69,5/74,5/84,5/104,5  | 13 | M12 | 25 | 6   | 4,6          |
| K0688.16X | 70,3/75,3/85,3/105,3/130,3 | 15 | M16 | 32 | 7   | 6            |

## Pressure bolts

with thrust member



**Material:**

Bolt and thrust member: free-cutting steel

**Surface finish:**

Bolt: black;  
 thrust member: black oxide finish;  
 bolt pin and thrust member: case-hardened

**Sample order:**

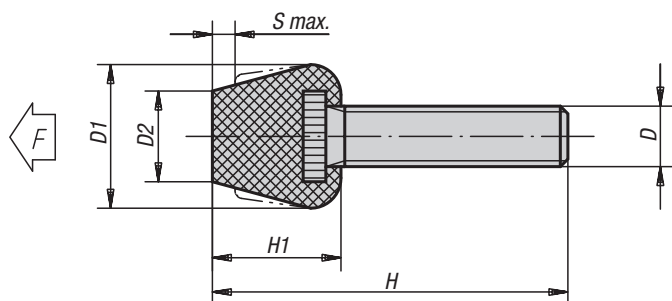
K0689.10X84



### KIPP Pressure bolts with thrust member

| Order No.    | L   | H  | D   | D1 | S   | F<br>max. kN | Approx.<br>weight<br>kg |
|--------------|-----|----|-----|----|-----|--------------|-------------------------|
| K0689.06X52  | 52  | 7  | M6  | 12 | 2,5 | 1            | 0,015                   |
| K0689.08X63  | 63  | 9  | M8  | 16 | 4   | 2,3          | 0,032                   |
| K0689.10X84  | 84  | 11 | M10 | 20 | 5   | 3,5          | 0,060                   |
| K0689.12X104 | 104 | 13 | M12 | 25 | 6   | 4,6          | 0,110                   |
| K0689.14X105 | 105 | 14 | M14 | 28 | 6   | 5            | 0,140                   |
| K0689.16X130 | 130 | 15 | M16 | 32 | 7   | 6            | 0,230                   |

## Neoprene pressure screws



**Material:**

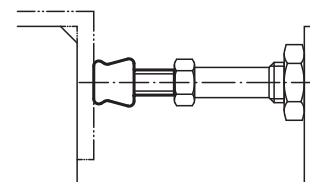
Bolt in tempered steel;  
thrust member in neoprene

**Surface finish:**

Neoprene sprayed on to the threaded part

**Sample order:**

K0690.08



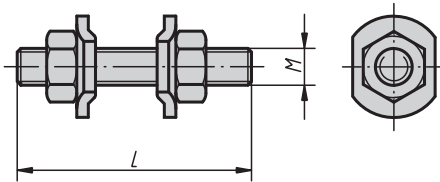
### KIPP Neoprene pressure screws

| Order No. | H  | H1 | D      | D1 | D2 | S max. | F max. N | Approx. weight kg |
|-----------|----|----|--------|----|----|--------|----------|-------------------|
| K0690.08  | 63 | 17 | M8x46  | 19 | 12 | 3      | 750      | 0,030             |
| K0690.081 | 43 | 17 | M8x26  | 19 | 12 | 3      | 750      | 0,019             |
| K0690.10  | 80 | 18 | M10x61 | 19 | 14 | 3,5    | 1000     | 0,042             |
| K0690.101 | 54 | 18 | M10x36 | 19 | 14 | 3,5    | 1000     | 0,025             |

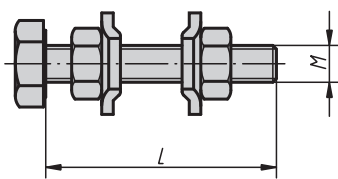
## Rigid clamping spindles



Form A



Form B



**Material:**

Steel, spindle quality class 5.8

**Surface finish:**

Spindle and nuts phosphated,  
flank washers galvanized and chromated

**Sample order:**

K0101.06050

**Note:**

Version K0101.104020 without locking washer.

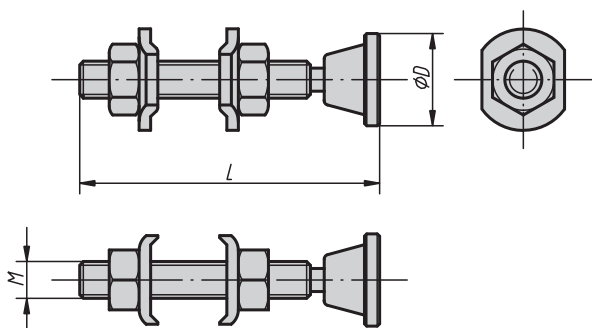


### KIPP Rigid clamping spindles

| Order No.    | Form | M   | L  |
|--------------|------|-----|----|
| K0101.05025  | A    | M5  | 25 |
| K0101.05035  | A    | M5  | 35 |
| K0101.06050  | A    | M6  | 50 |
| K0101.08065  | A    | M8  | 65 |
| K0101.10085  | A    | M10 | 85 |
| K0101.104020 | B    | M4  | 20 |
| K0101.105020 | B    | M5  | 20 |
| K0101.105035 | B    | M5  | 35 |
| K0101.106025 | B    | M6  | 25 |
| K0101.106050 | B    | M6  | 50 |
| K0101.108040 | B    | M8  | 40 |
| K0101.108060 | B    | M8  | 60 |
| K0101.110050 | B    | M10 | 50 |
| K0101.110080 | B    | M10 | 80 |

## Clamping spindles

with swivel foot



**Material:**

Steel, spindle quality class 5.8

**Surface finish:**

Spindle, nuts and swivel foot phosphated, flank washers galvanized and chromated

**Sample order:**

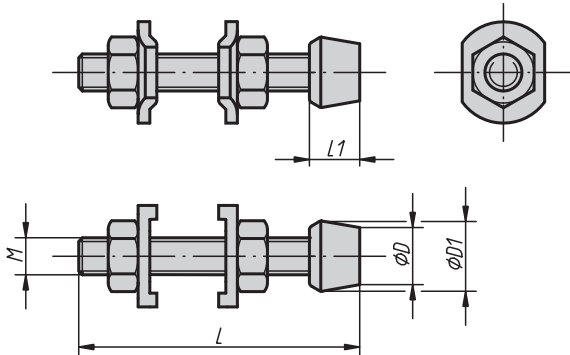
K0102.10085

### KIPP Clamping spindles with swivel foot

| Order No.   | M   | L   | D  |
|-------------|-----|-----|----|
| K0102.05035 | M5  | 35  | 12 |
| K0102.06050 | M6  | 50  | 12 |
| K0102.08065 | M8  | 65  | 20 |
| K0102.10085 | M10 | 85  | 20 |
| K0102.12100 | M12 | 100 | 25 |
| K0102.16150 | M16 | 150 | 45 |

## Clamping spindles

with vulcanized neoprene pressure pad



**Material:**

Threaded spindle, washers and nuts in steel, pressure pad in neoprene

**Surface finish:**

Threaded spindle and washers galvanized, nuts black oxide finish

**Sample order:**

K0103.05038

**Note:**

The clamping spindle K0103.04032 is supplied with one nut.



### KIPP Clamping spindles with vulcanized neoprene pressure pad

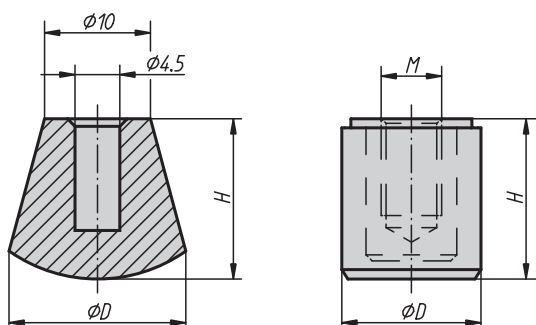
| Order No.   | M   | L   | L1 | D    | D1 |
|-------------|-----|-----|----|------|----|
| K0103.04032 | M4  | 32  | 10 | 8    | 12 |
| K0103.05038 | M5  | 38  | 11 | 11,5 | 14 |
| K0103.06045 | M6  | 44  | 14 | 10   | 16 |
| K0103.08065 | M8  | 63  | 19 | 13   | 19 |
| K0103.10085 | M10 | 90  | 25 | 14   | 22 |
| K0103.12100 | M12 | 100 | 33 | 21,5 | 32 |



## Neoprene pressure pads



K0104.45



**Material:**

Neoprene, insert part in steel

**Surface finish:**

Black, oil-resistant,  
insert part galvanized and chromated

**Sample order:**

K0104.12

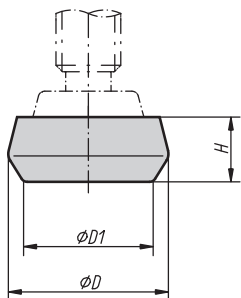
**Note:**

The neoprene pressure pad with order no. K0104.45 is supplied without steel insert part and without thread.

### KIPP Neoprene pressure pads

| Order No. | M   | D  | H    | Suitable for Rigid Clamping Spindle<br>Order no. |
|-----------|-----|----|------|--|
| K0104.45  | -   | 12 | 10   | K0101.05025<br>K0101.05035                       |
| K0104.06  | M6  | 15 | 13   | K0101.06050                                      |
| K0104.08  | M8  | 19 | 18,5 | K0101.08065                                      |
| K0104.10  | M10 | 23 | 21   | K0101.10085                                      |
| K0104.12  | M12 | 26 | 23   | K0101.12100                                      |

## Plastic covers



**Material:**  
Plastic

**Surface finish:**  
Black, oil-resistant

**Sample order:**  
K0105.16

### KIPP Plastic covers

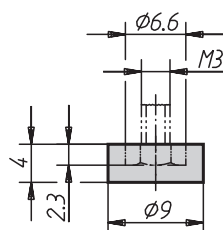
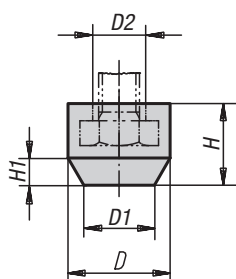
| Order No. | D  | D1 | H  | Suitable for Clamping Spindle with swivel foot<br>Order no. |
|-----------|----|----|----|---|
| K0105.16  | 16 | 14 | 8  | K0102.05035<br>K0102.06050                                  |
| K0105.25  | 25 | 21 | 10 | K0102.10085<br>K0102.08065                                  |
| K0105.29  | 29 | 25 | 11 | K0102.12100   |

# K0106

## Protective caps

K0106.01 - K0106.05  
K0106.07

K0106.06



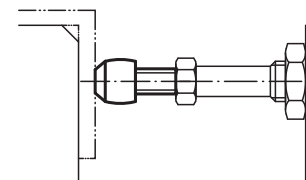
**Material:**  
K0106.01 to K0106.05 and K0106.07: oil-resistant rubber; K0106.06: polyamide

**Surface finish:**  
Rubber: black; polyamide: white

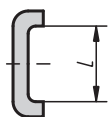
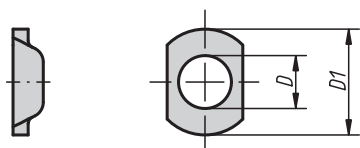
**Sample order:**  
K0106.03

### KIPP Protective caps

| Order No. | D    | D1 | D2   | H   | H1 | for screws | Approx. weight g |
|-----------|------|----|------|-----|----|------------|------------------|
| K0106.06  | -    | -  | -    | -   | -  | M3         | 1                |
| K0106.01  | 11   | 7  | 5,5  | 8,5 | 4  | M4         | 1                |
| K0106.02  | 12,5 | 8  | 6,8  | 10  | 4  | M5         | 1                |
| K0106.03  | 15   | 10 | 8,5  | 12  | 4  | M6         | 2                |
| K0106.04  | 19   | 13 | 11,3 | 15  | 6  | M8         | 4                |
| K0106.07  | 23   | 15 | 14,5 | 18  | 7  | M10        | 7                |
| K0106.05  | 26   | 19 | 16,5 | 20  | 7  | M12        | 10               |



# Locking washers for clamping spindles



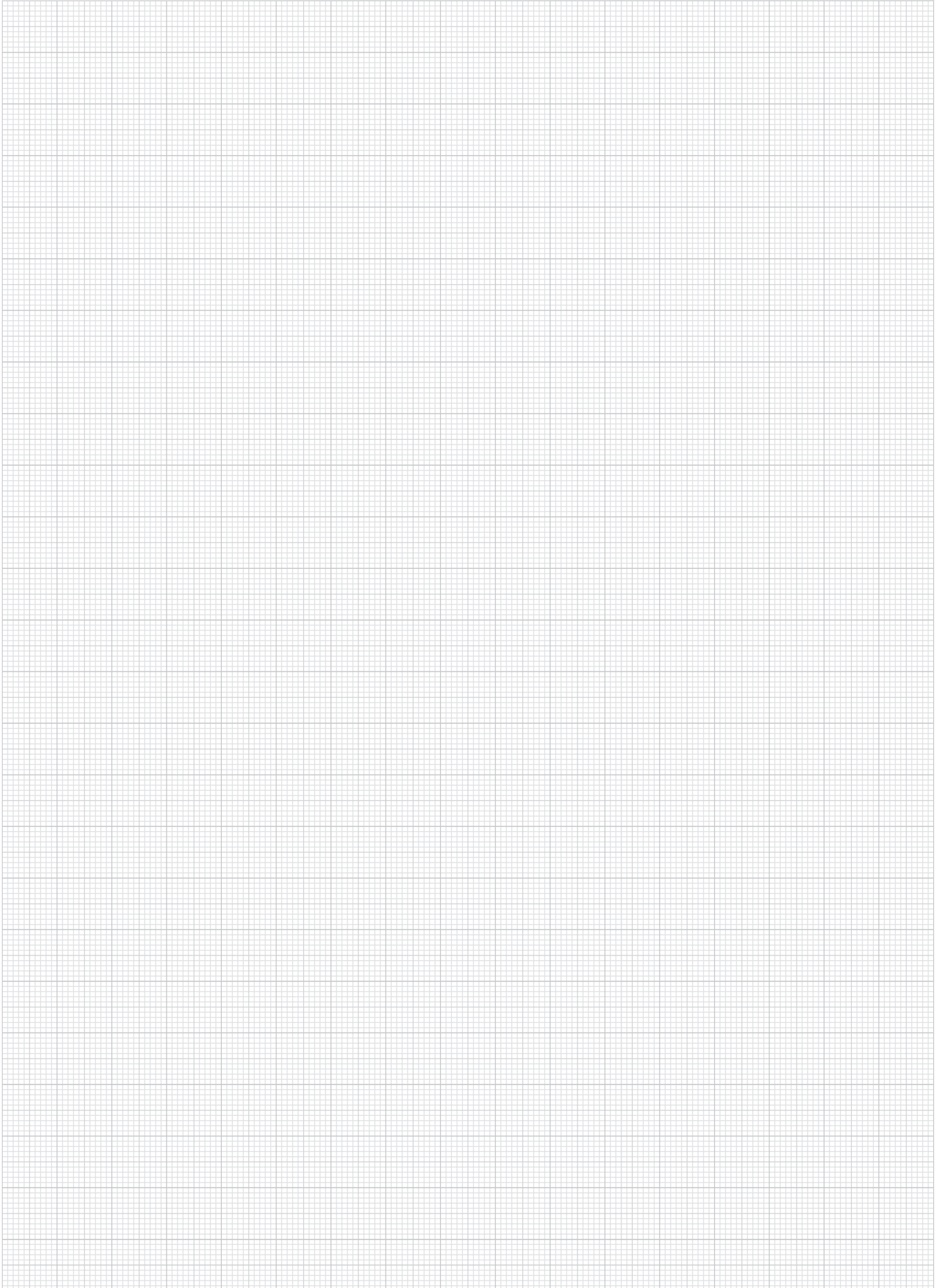
**Material:**  
Steel

**Surface finish:**  
galvanized.

**Sample order:**  
K0107.05

## KIPP Locking washers for clamping spindles

| Order No. | D<br>through hole<br>for | D1 | L  |
|-----------|--------------------------|----|----|
| K0107.05  | M5                       | 13 | 9  |
| K0107.051 | M5                       | 15 | 10 |
| K0107.06  | M6                       | 18 | 12 |
| K0107.08  | M8                       | 22 | 15 |
| K0107.10  | M10                      | 26 | 20 |
| K0107.12  | M12                      | 32 | 23 |
| K0107.16  | M16                      | 35 | 27 |









## Clamping devices

Adjustable straps  
**K0001**



Page 526

Goose-neck straps  
with long slot  
**K0002**



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Equipped clamps  
straight  
**K0003**



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Quick-acting clamps  
**K0004**



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Hinge pins  
**K0007**



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Single cam levers  
**K0008**



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Double cam levers  
**K0009**



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Single cam clamps  
**K0010**



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Double cam clamps  
**K0011**



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Hook clamps  
**K0012**



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Hook Clamps  
with collar  
**K0013**



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Ground hook clamps  
form A/B/C  
**K0014**



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Hook clamps  
with collar  
**K0015**



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Hook clamps  
with mounting bracket  
**K0016**



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Hook holders  
**K0017**



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Joint bars  
**K0018**



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Swing latch clamps  
**K0019**



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„actima“ clamping device  
**K0020**



Page 544-545



## Clamping devices

„arness“ clamping device  
**K0021**



Page 546-547

Positive clamping eccentric  
**K0022**



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Unequal hexagonal cam clamps  
**K0023**



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Spiral edge  
clamping  
screws  
**K0024**



Page 550

Knife edge cam clamps  
**K0025**



Page 551

Low-profile equal hex cam clamps  
**K0026**



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Low-profile T-slot cam clamps  
**K0027**



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Edge clamps with support  
**K0028**



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Edge clamps  
**K0029**



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Clamps  
**K0030**



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Adjustable eccentric type edge  
clamps  
**K0031**



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Adjustable stops  
**K0032**



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Narrow edge clamps  
**K0033**



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Cam-operated edge clamps  
adjustable  
**K0034**



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Cam-operated edge clamps  
**K0035**



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Sliding edge clamps  
**K0036**



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Double edge clamps  
**K0037**



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Double edge clamps  
with machining allowance  
**K0038**



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## Clamping devices

Taper clamps  
clamping surface smooth or  
serrated  
**K0039**



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Taper clamps  
with machining allowance  
**K0649**



Page 567

Taper clamping units  
form A  
**K0040**



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Taper clamping units form  
A and L with extra length  
for made-to-order forms  
**K0041**



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Taper clamping units  
form B  
**K0042**



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Clamping plugs  
**K0357**



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Clamping plugs  
with lateral clamping  
**K0643**



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Centring tension jack  
with and without protection  
**K0358**



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Centring tension jack  
with and without protection  
**K0644**



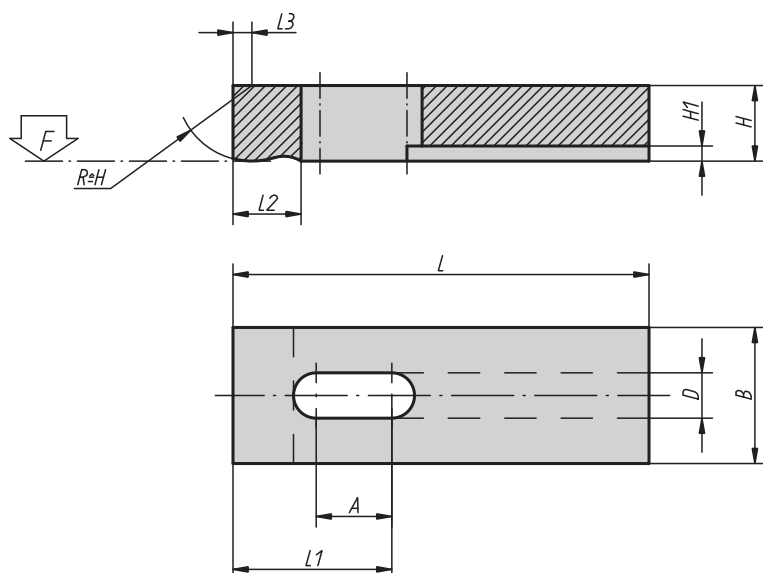
Page 574

Cylindrical washer elements  
**K0375**



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## Adjustable straps

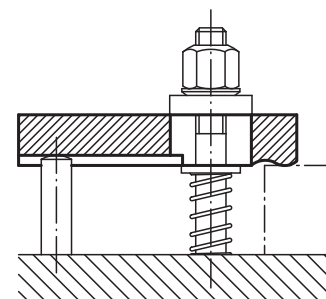


**Material:**  
Tempered steel 1.1191

**Surface finish:**  
Black oxide finish

**Sample order:**  
K0001.101

**Note:**  
Suitable thrust pins and adjustable thrust bolts, see K0305 and K0306.



### KIPP Adjustable straps

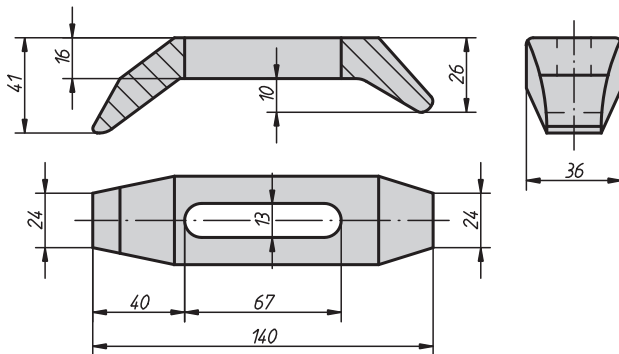
| Order No. | A  | B  | D   | H  | H1  | L   | L1 | L2 | L3  | F<br>kN | Approx.<br>weight<br>kg |
|-----------|----|----|-----|----|-----|-----|----|----|-----|---------|-------------------------|
| K0001.05  | 8  | 12 | 5,5 | 8  | 3   | 32  | 14 | 8  | 1,2 | 3,42    | 0,020                   |
| K0001.051 | 13 | 12 | 5,5 | 8  | 3   | 50  | 23 | 8  | 1,2 | 3,42    | 0,030                   |
| K0001.06  | 10 | 16 | 7   | 10 | 3   | 40  | 17 | 10 | 1,6 | 4,82    | 0,040                   |
| K0001.061 | 17 | 16 | 7   | 10 | 3   | 63  | 29 | 10 | 1,6 | 4,82    | 0,060                   |
| K0001.08  | 12 | 20 | 9   | 12 | 4   | 50  | 22 | 12 | 2   | 8,77    | 0,090                   |
| K0001.081 | 21 | 20 | 9   | 12 | 4   | 80  | 37 | 12 | 2   | 8,77    | 0,120                   |
| K0001.10  | 16 | 25 | 11  | 16 | 4,5 | 63  | 28 | 16 | 2,5 | 13,9    | 0,150                   |
| K0001.101 | 26 | 25 | 11  | 16 | 4,5 | 100 | 46 | 16 | 2,5 | 13,9    | 0,220                   |
| K0001.12  | 20 | 32 | 14  | 20 | 5   | 80  | 35 | 20 | 3   | 20,2    | 0,290                   |
| K0001.121 | 33 | 32 | 14  | 20 | 5   | 125 | 58 | 20 | 3   | 20,2    | 0,460                   |
| K0001.14  | 25 | 40 | 16  | 25 | 6   | 100 | 44 | 25 | 4   | 27,6    | 0,620                   |
| K0001.141 | 42 | 40 | 16  | 30 | 6   | 160 | 74 | 25 | 4   | 27,6    | 0,980                   |
| K0001.16  | 42 | 50 | 18  | 30 | 6   | 160 | 73 | 32 | 5   | 37,8    | 1,600                   |
| K0001.20  | 52 | 60 | 22  | 30 | 8   | 200 | 92 | 40 | 6   | 58,8    | 2,700                   |

## Goose-neck straps

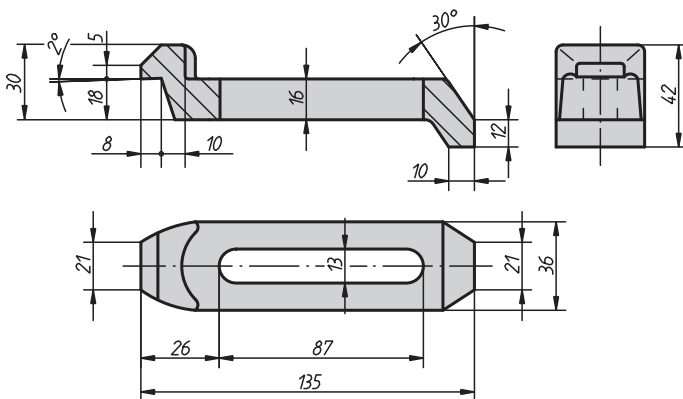
with long slot



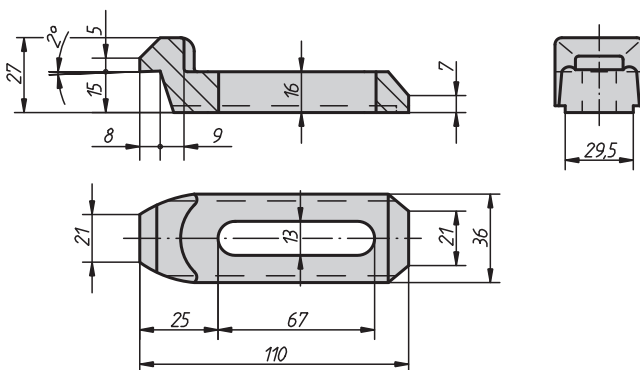
K0002.01 (0,5 kg)



K0002.05 (0,48 kg)



K0002.10 (0,35 kg)

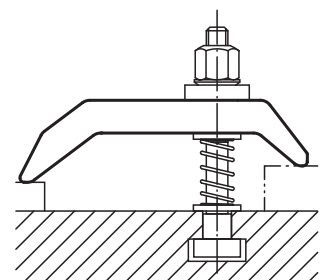


**Material:**  
Tempered steel 1.7225

**Surface finish:**  
Heat-treated at 1000 N/mm<sup>2</sup>, black oxide finish

**Sample order:**  
K0002.10

**Note:**  
Goose-neck straps with long slot are also used for quick-acting clamps K0004.

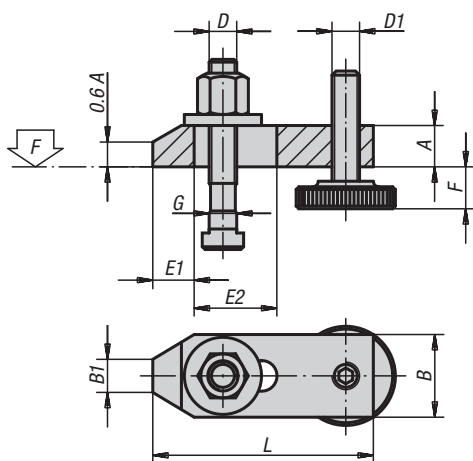


### KIPP Goose-neck straps

| Order No. | Approx. weight kg |
|-----------|-------------------|
| K0002.01  | 0,5               |
| K0002.05  | 0,48              |
| K0002.10  | 0,355             |

## Equipped clamps

straight



**Material:**

Tempered steel, screws heat-treated class 8.8

**Surface finish:**

Clamp painted; screws black oxide finish

**Sample order:**

K0003.1616

**Note:**

„F“ is dependent on the depth of slot according to DIN 650.

### KIPP Equipped clamps straight

| Order No.  | L   | A  | B  | B1 | E1 | E2 | F     | G<br>for<br>T-slot | D       | D1  | F<br>kN | Approx.<br>weight<br>kg |
|------------|-----|----|----|----|----|----|-------|--------------------|---------|-----|---------|-------------------------|
| K0003.1010 | 80  | 15 | 30 | 12 | 15 | 30 | 8-32  | 10                 | M10x80  | M10 | 13,9    | 0,340                   |
| K0003.1212 | 100 | 20 | 40 | 14 | 21 | 40 | 10-40 | 12                 | M12x100 | M12 | 20,2    | 0,700                   |
| K0003.1214 | 100 | 20 | 40 | 14 | 21 | 40 | 10-38 | 14                 | M12x100 | M12 | 20,2    | 0,720                   |
| K0003.1616 | 125 | 25 | 50 | 18 | 26 | 45 | 13-49 | 16                 | M16x125 | M16 | 37,8    | 1,400                   |
| K0003.1618 | 125 | 25 | 50 | 18 | 26 | 45 | 13-46 | 18                 | M16x125 | M16 | 37,8    | 1,420                   |
| K0003.2020 | 160 | 30 | 60 | 22 | 30 | 60 | 16-65 | 20                 | M20x160 | M20 | 58,8    | 2,750                   |
| K0003.2022 | 160 | 30 | 60 | 22 | 30 | 60 | 16-65 | 22                 | M20x160 | M20 | 58,8    | 2,770                   |

## Quick-acting clamps



**Material:**

Base in spheroidal cast iron, strap and clamping screw in tempered steel

**Surface finish:**

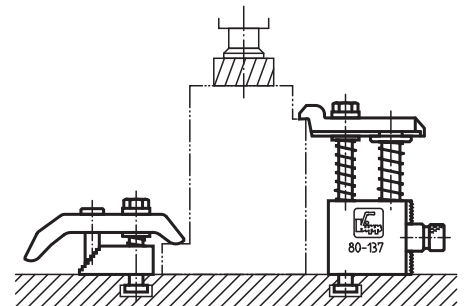
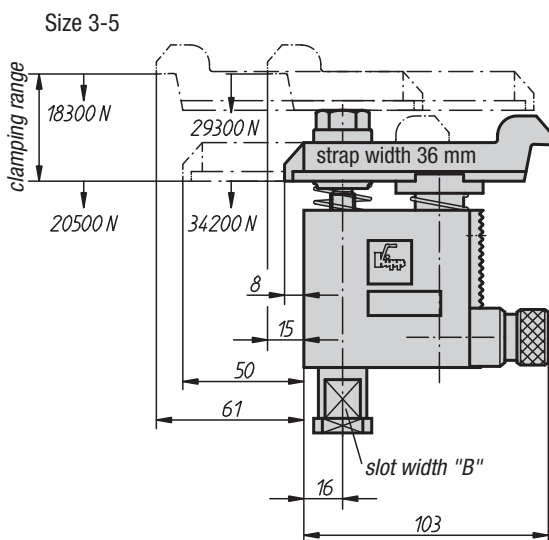
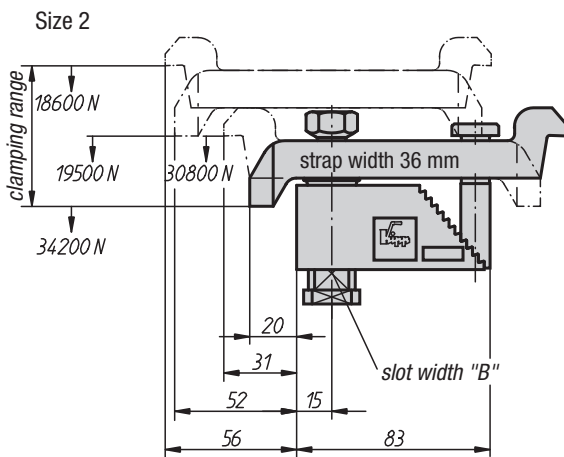
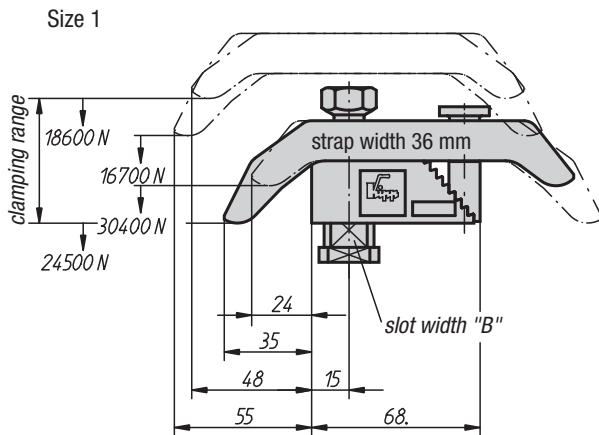
Black oxide finish

**Sample order:**

K0004.40X16 (please also indicate dimension B)

**Note:**

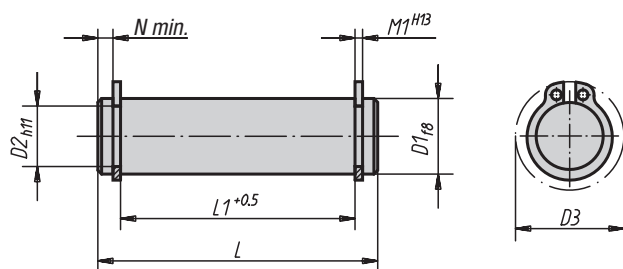
Quick-acting clamps are universal, flexible clamping devices which are reassembled from individual components and yet always make up a complete unit. There are no loose parts which first have to be put together for a clamping operation. Thanks to their compact design, these clamps can be placed very close to the workpiece, so that the full surface area of the machine table can be used.



### KIPP Quick-acting clamps

| Order No. | Size | Clamping range | Slot width B to DIN 650 | Weight |
|-----------|------|----------------|-------------------------|--------|
| K0004.10X | 1    | 0-35           | 12/14/16/18             | 0,970  |
| K0004.20X | 2    | 25-85          | 12/14/16/18             | 1,210  |
| K0004.30X | 3    | 80-137         | 12/14/16/18             | 1,710  |
| K0004.40X | 4    | 125-224        | 12/14/16/18             | 2,470  |
| K0004.50X | 5    | 160-300        | 12/14/16/18             | 3,060  |

## Hinge pins



**Material:**

Tempered steel 1.0503.07

**Surface finish:**

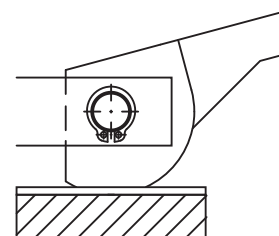
Heat-treated. Ground, natural finish

**Sample order:**

K0007.08

**Note:**

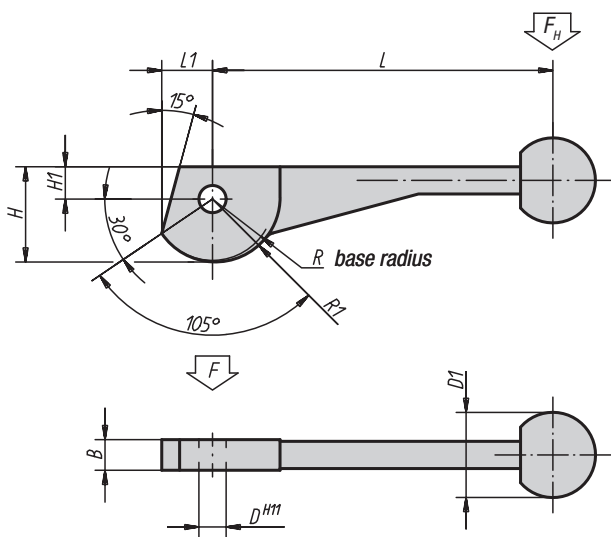
For use with:  
 Single cam levers, see K0008 and K0009.  
 Eye bolts K0396.  
 Fork pieces K0397.  
 Suitable circlips supplied.



### KIPP Hinge pins

| Order No. | D1 | L  | L1 | M1  | N min. | D2   | D3   | Approx. weight kg |
|-----------|----|----|----|-----|--------|------|------|-------------------|
| K0007.05  | 5  | 18 | 13 | 0,7 | 1,8    | 4,8  | 10,7 | 0,003             |
| K0007.06  | 6  | 22 | 17 | 0,8 | 1,7    | 5,7  | 12,2 | 0,005             |
| K0007.08  | 8  | 30 | 25 | 0,9 | 1,5    | 7,6  | 15,2 | 0,012             |
| K0007.081 | 8  | 20 | 16 | 0,9 | 1,1    | 7,6  | 15,2 | 0,008             |
| K0007.082 | 8  | 27 | 21 | 0,9 | 2,1    | 7,6  | 15,2 | 0,011             |
| K0007.10  | 10 | 37 | 32 | 1,1 | 1,3    | 9,6  | 17,6 | 0,023             |
| K0007.101 | 10 | 25 | 20 | 1,1 | 1,3    | 9,6  | 17,6 | 0,015             |
| K0007.102 | 10 | 35 | 29 | 1,1 | 1,9    | 9,6  | 17,6 | 0,018             |
| K0007.12  | 12 | 46 | 40 | 1,1 | 1,5    | 11,5 | 19,6 | 0,040             |
| K0007.121 | 12 | 31 | 25 | 1,1 | 1,7    | 11,5 | 19,6 | 0,027             |
| K0007.122 | 12 | 37 | 31 | 1,1 | 1,9    | 11,5 | 19,6 | 0,033             |
| K0007.14  | 14 | 44 | 37 | 1,1 | 2,4    | 13,4 | 22   | 0,053             |
| K0007.16  | 16 | 48 | 41 | 1,1 | 2,4    | 15,2 | 24,4 | 0,075             |
| K0007.18  | 18 | 58 | 51 | 1,3 | 2,2    | 17   | 26,8 | 0,115             |

## Single cam levers



**Material:**

Tempered steel 1.7220, plastic ball

**Surface finish:**

Heat-treated and black oxide finish

**Sample order:**

K0008.10

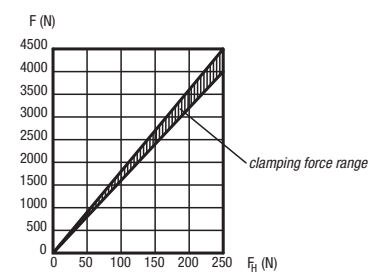
**Note:**

Suitable hinge pin, see K0007.

The cam lever is an eccentric lever that moves along a logarithmic spiral. Its clamping properties are even over the entire contact surface of the cam.



Force diagram

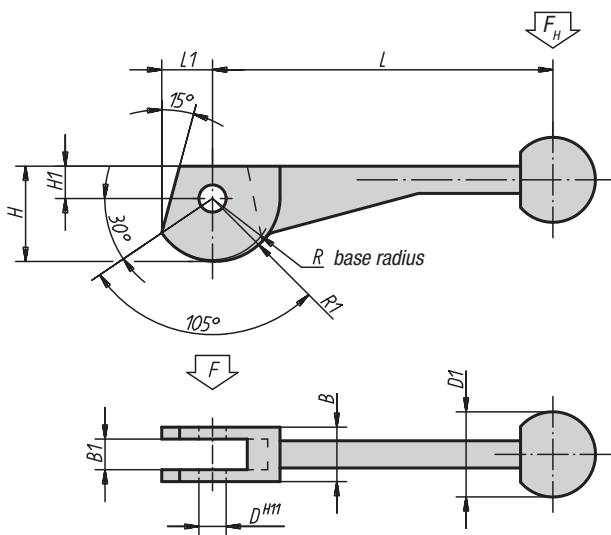


**KIPP Single cam levers**

| Order No. | L     | L1   | B  | H  | H1   | D  | D1 | R  | R1   | Approx. weight kg |
|-----------|-------|------|----|----|------|----|----|----|------|-------------------|
| K0008.08  | 100   | 14,9 | 9  | 28 | 9,5  | 8  | 25 | 18 | 19   | 0,100             |
| K0008.10  | 120   | 18,7 | 12 | 35 | 11,5 | 10 | 30 | 22 | 23,5 | 0,210             |
| K0008.12  | 138,5 | 24,2 | 14 | 44 | 13,5 | 12 | 30 | 28 | 30   | 0,335             |



## Double cam levers



**Material:**

Tempered steel 1.7220, plastic ball

**Surface finish:**

Heat-treated and black oxide finish

**Sample order:**

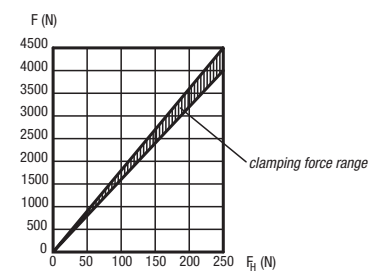
K0009.12

**Note:**

Suitable hinge pin, see K0007.

The cam lever is an eccentric lever that moves along a logarithmic spiral. Its clamping properties are even over the entire contact surface of the cam.

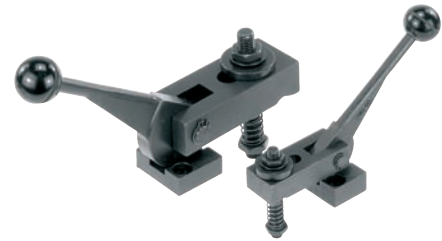
Force diagram



**KIPP Double cam levers**

| Order No. | L     | L1   | B  | B1 | H  | H1   | D  | D1 | R  | R1   | Approx. weight kg |
|-----------|-------|------|----|----|----|------|----|----|----|------|-------------------|
| K0009.08  | 100   | 14,9 | 16 | 9  | 28 | 9,5  | 8  | 25 | 18 | 19   | 0,100             |
| K0009.10  | 120   | 18,7 | 20 | 12 | 35 | 11,5 | 10 | 30 | 22 | 23,5 | 0,205             |
| K0009.12  | 138,5 | 24,2 | 25 | 14 | 44 | 13,5 | 12 | 30 | 28 | 30   | 0,330             |

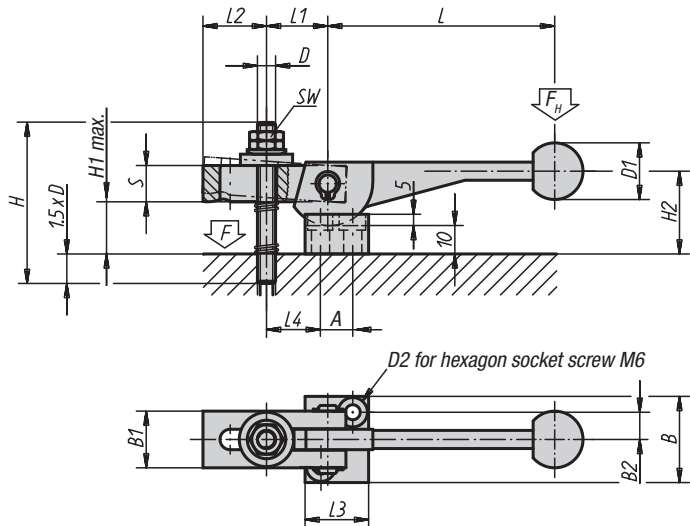
## Single cam clamps



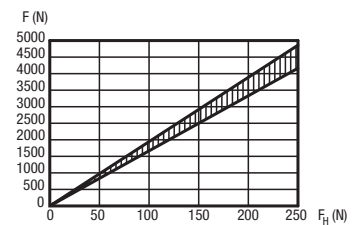
**Material:**  
Eccentric lever tempered steel 1.7220,  
strap tempered steel 1.1191

**Surface finish:**  
Black oxide finish

**Sample order:**  
K0010.10



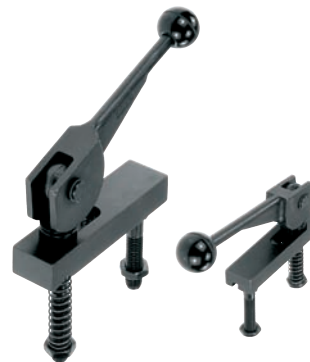
Force diagram



### KIPP Single cam clamps

| Order No. | L     | L1 | L2 | L3 | L4 | B  | B1 | B2   | S  | H   | H1 max. | H2 | D   | D1 | D2 | A  | SW | Approx. weight kg |
|-----------|-------|----|----|----|----|----|----|------|----|-----|---------|----|-----|----|----|----|----|-------------------|
| K0010.08  | 100   | 27 | 28 | 28 | 27 | 38 | 25 | 12   | 16 | 70  | 25      | 34 | M8  | 25 | 7  | 14 | 13 | 0,195             |
| K0010.10  | 120   | 34 | 36 | 32 | 35 | 41 | 32 | 13,5 | 20 | 80  | 24      | 40 | M10 | 30 | 7  | 16 | 17 | 0,720             |
| K0010.12  | 138,5 | 43 | 45 | 37 | 45 | 43 | 40 | 14,5 | 25 | 100 | 31      | 48 | M12 | 30 | 7  | 19 | 19 | 1,215             |

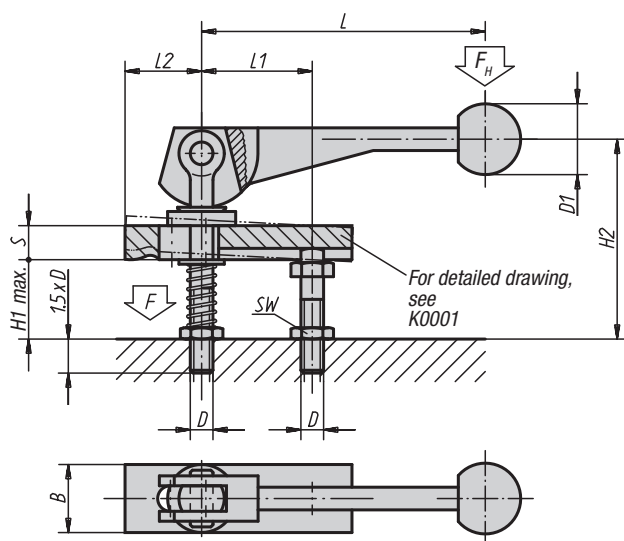
## Double cam clamps



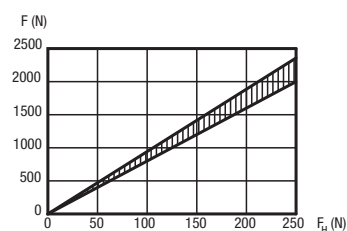
**Material:**  
Eccentric lever tempered steel 1.7220,  
strap tempered steel 1.1191

**Surface finish:**  
Black oxide finish

**Sample order:**  
K0011.12



Force diagram



### KIPP Double cam clamps

| Order No. | L     | L1 | L2 | B  | S  | H1 max. | H2  | D   | D1 | SW | Approx. weight kg |
|-----------|-------|----|----|----|----|---------|-----|-----|----|----|-------------------|
| K0011.08  | 100   | 39 | 37 | 20 | 12 | 28      | 74  | M8  | 25 | 13 | 0,300             |
| K0011.10  | 120   | 49 | 46 | 25 | 16 | 39      | 92  | M10 | 30 | 17 | 0,600             |
| K0011.12  | 138,5 | 61 | 58 | 32 | 20 | 49      | 120 | M12 | 30 | 19 | 1,100             |

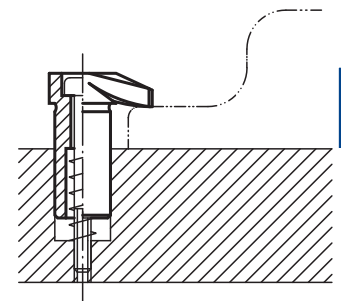
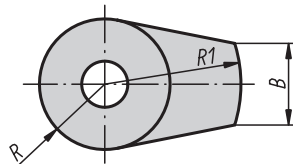
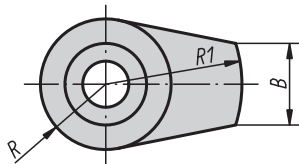
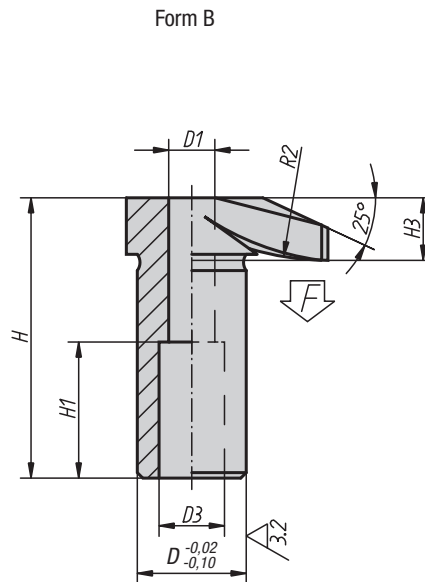
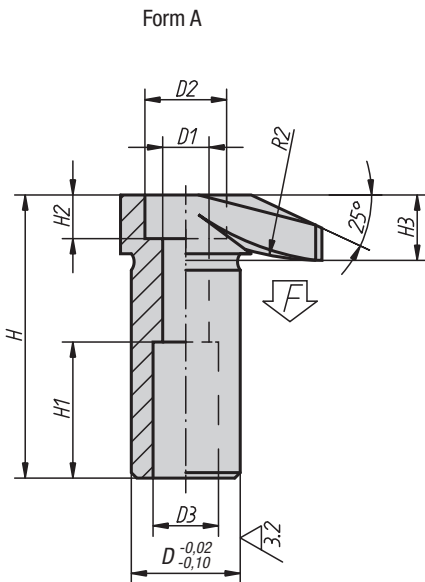
## Hook clamps



**Material:**  
Tempered steel, heat-treated

**Surface finish:**  
Black oxide finish

**Sample order:**  
K0012.10



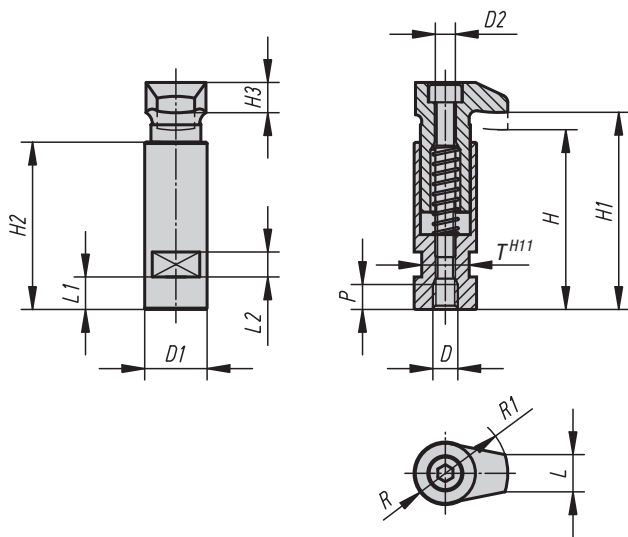
### KIPP Hook clamps

| Order No. | Form | D  | D1   | D2 | D3 | H  | H1 | H2 | H3 | B  | R  | R1 | R2 | F max. kN | Approx. weight kg |
|-----------|------|----|------|----|----|----|----|----|----|----|----|----|----|-----------|-------------------|
| K0012.06  | A    | 16 | 6,5  | 11 | 10 | 42 | 20 | 6  | 10 | 11 | 9  | 20 | 30 | 4,8       | 0,052             |
| K0012.08  | A    | 20 | 8,5  | 15 | 12 | 52 | 25 | 8  | 12 | 15 | 12 | 25 | 50 | 8,8       | 0,111             |
| K0012.10  | A    | 25 | 10,5 | 18 | 14 | 66 | 32 | 10 | 16 | 17 | 14 | 32 | 60 | 13,9      | 0,230             |
| K0012.12  | A    | 32 | 12,5 | 20 | 17 | 83 | 40 | 12 | 20 | 20 | 18 | 40 | 80 | 20,2      | 0,472             |

| Order No. | Form | D  | D1   | D3 | H    | H1 | H3   | B  | R  | R1 | R2 | F max. kN | Approx. weight kg |
|-----------|------|----|------|----|------|----|------|----|----|----|----|-----------|-------------------|
| K0012.106 | B    | 16 | 6,5  | 10 | 41,5 | 20 | 9,5  | 11 | 9  | 20 | 30 | 4,8       | 0,060             |
| K0012.108 | B    | 20 | 8,5  | 12 | 51,5 | 25 | 11,5 | 15 | 12 | 25 | 50 | 8,8       | 0,119             |
| K0012.110 | B    | 25 | 10,5 | 14 | 65,5 | 32 | 15,5 | 17 | 14 | 32 | 60 | 13,9      | 0,238             |
| K0012.112 | B    | 32 | 12,5 | 17 | 82,5 | 40 | 19,5 | 20 | 18 | 40 | 80 | 20,2      | 0,492             |

## Hook clamps

with collar



**Material:**

Tempered steel

**Surface finish:**

Heat-treated and black oxide finish

**Sample order:**

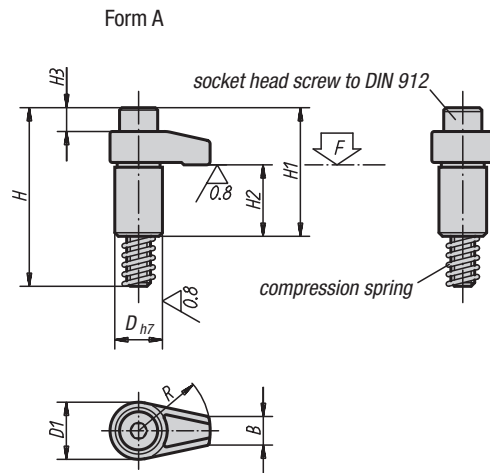
K0013.06

### KIPP Hook clamps with collar

| Order No. | D   | D1 | D2 | H   | H1  | H2  | H3 | L  | L1 | L2 | P  | R  | R1 | T  | Clamping force<br>kN |
|-----------|-----|----|----|-----|-----|-----|----|----|----|----|----|----|----|----|----------------------|
| K0013.06  | M6  | 20 | 6  | 56  | 60  | 53  | 10 | 11 | 9  | 8  | 8  | 9  | 20 | 17 | 4,82                 |
| K0013.08  | M8  | 20 | 6  | 56  | 60  | 53  | 10 | 11 | 9  | 8  | 8  | 9  | 20 | 17 | 8,77                 |
| K0013.10  | M10 | 25 | 8  | 72  | 79  | 67  | 12 | 15 | 13 | 10 | 10 | 12 | 25 | 19 | 13,9                 |
| K0013.12  | M12 | 32 | 10 | 88  | 96  | 82  | 16 | 17 | 18 | 12 | 12 | 14 | 32 | 27 | 20,2                 |
| K0013.16  | M16 | 40 | 12 | 109 | 118 | 102 | 20 | 20 | 22 | 12 | 16 | 18 | 40 | 32 | 37,8                 |

## Ground hook clamps

form A/B/C



**Material:**

Tempered steel, heat-treated

**Surface finish:**

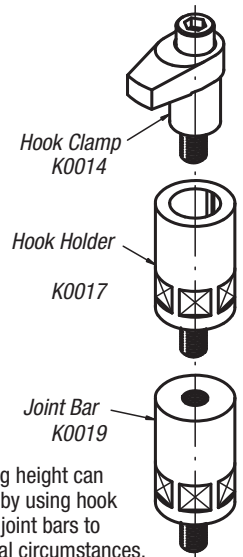
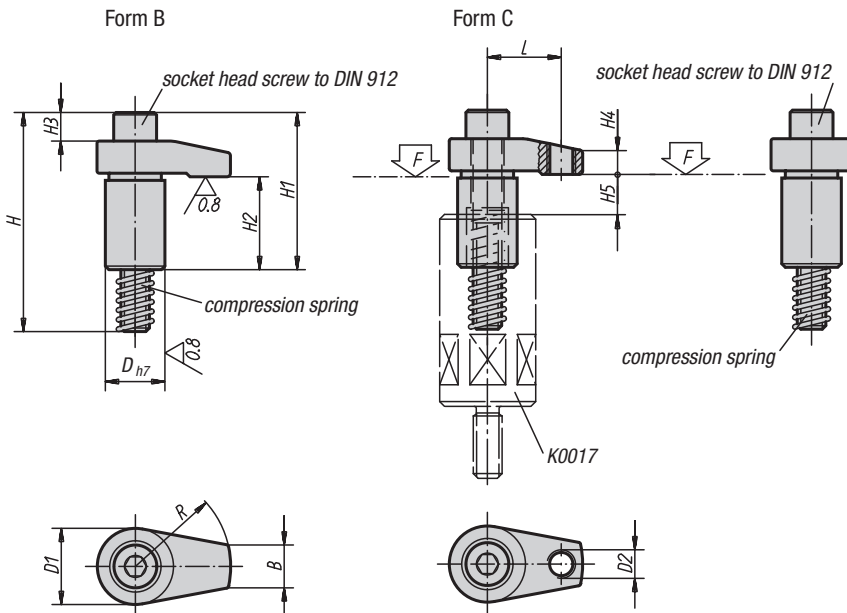
Black oxide finish, shaft diameter ground

**Sample order:**

K0014.216040

**Note:**

The stated clamping forces and tightening torques are valid within the stated clamping range (H5).



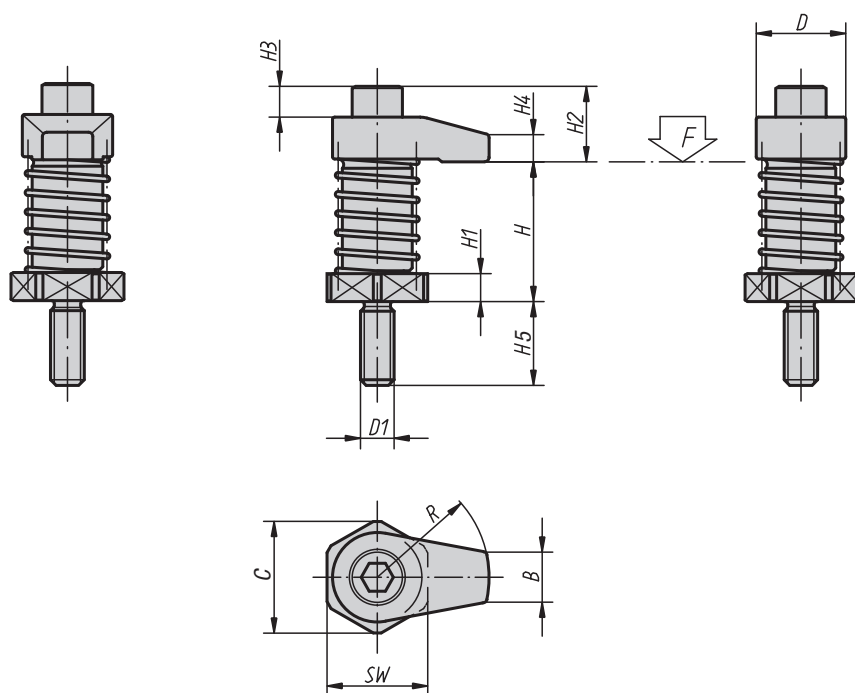
The clamping height can be adjusted by using hook holders and joint bars to suit individual circumstances.

### KIPP Ground hook clamps form A/B/C

| Order No.    | Form | D  | D1 | D2  | H   | H1 | H2 | H3 | H4 | H5<br>max.<br>clamping range | B  | L  | R  | Socket head screw<br>DIN 912 | Tightening<br>torque<br>max. Nm | F<br>max. kN | Approx.<br>weight<br>kg |
|--------------|------|----|----|-----|-----|----|----|----|----|------------------------------|----|----|----|------------------------------|---------------------------------|--------------|-------------------------|
| K0014.110030 | A    | 20 | 24 | -   | 75  | 54 | 30 | 9  | 10 | 12                           | 12 | -  | 30 | M10x65                       | 37,2                            | 13           | 0,162                   |
| K0014.110040 | A    | 20 | 24 | -   | 75  | 54 | 30 | 9  | 10 | 12                           | 12 | -  | 40 | M10x65                       | 31,4                            | 9,8          | 0,173                   |
| K0014.208020 | B    | 18 | 22 | -   | 58  | 37 | 23 | 2  | 7  | 10                           | 10 | -  | 20 | M8x50                        | 37,2                            | 13,6         | 0,090                   |
| K0014.208025 | B    | 18 | 22 | -   | 58  | 37 | 23 | 2  | 7  | 10                           | 10 | -  | 25 | M8x50                        | 32,3                            | 10,9         | 0,095                   |
| K0014.208030 | B    | 18 | 22 | -   | 58  | 37 | 23 | 2  | 7  | 10                           | 10 | -  | 30 | M8x50                        | 29,4                            | 9            | 0,105                   |
| K0014.212040 | B    | 25 | 32 | -   | 92  | 66 | 39 | 11 | 12 | 15                           | 18 | -  | 40 | M12x80                       | 58,8                            | 17,5         | 0,300                   |
| K0014.212050 | B    | 25 | 32 | -   | 92  | 68 | 39 | 11 | 12 | 15                           | 18 | -  | 50 | M12x80                       | 49                              | 14           | 0,365                   |
| K0014.212060 | B    | 25 | 32 | -   | 92  | 68 | 39 | 11 | 12 | 15                           | 18 | -  | 60 | M12x80                       | 45,1                            | 11,6         | 0,395                   |
| K0014.216040 | B    | 32 | 36 | -   | 101 | 75 | 39 | 15 | 15 | 15                           | 22 | -  | 40 | M16x85                       | 166,6                           | 37,9         | 0,505                   |
| K0014.216050 | B    | 32 | 36 | -   | 101 | 75 | 39 | 15 | 15 | 15                           | 22 | -  | 50 | M16x85                       | 147                             | 30,4         | 0,575                   |
| K0014.216060 | B    | 32 | 36 | -   | 101 | 75 | 39 | 15 | 15 | 15                           | 22 | -  | 60 | M16x85                       | 127,4                           | 25,2         | 0,619                   |
| K0014.312140 | C    | 25 | 32 | M12 | 92  | 66 | 39 | 11 | 10 | 15                           | 18 | 31 | 40 | M12x80                       | 58,8                            | 22,6         | 0,295                   |
| K0014.312150 | C    | 25 | 32 | M12 | 92  | 68 | 39 | 11 | 13 | 15                           | 18 | 38 | 50 | M12x80                       | 49                              | 18,5         | 0,353                   |
| K0014.312160 | C    | 25 | 32 | M12 | 92  | 68 | 39 | 11 | 13 | 15                           | 18 | 46 | 60 | M12x80                       | 45,1                            | 15,2         | 0,390                   |
| K0014.316150 | C    | 32 | 36 | M12 | 101 | 75 | 39 | 15 | 16 | 15                           | 22 | 38 | 50 | M16x85                       | 147                             | 38           | 0,558                   |
| K0014.316160 | C    | 32 | 36 | M12 | 101 | 75 | 39 | 15 | 16 | 15                           | 22 | 46 | 60 | M16x85                       | 127,4                           | 33           | 0,600                   |

## Hook clamps

with collar



**Material:**  
Hook clamps and hook joints in tempered, heat-treated steel

**Surface finish:**  
Black oxide finish

**Sample order:**  
K0015.12060

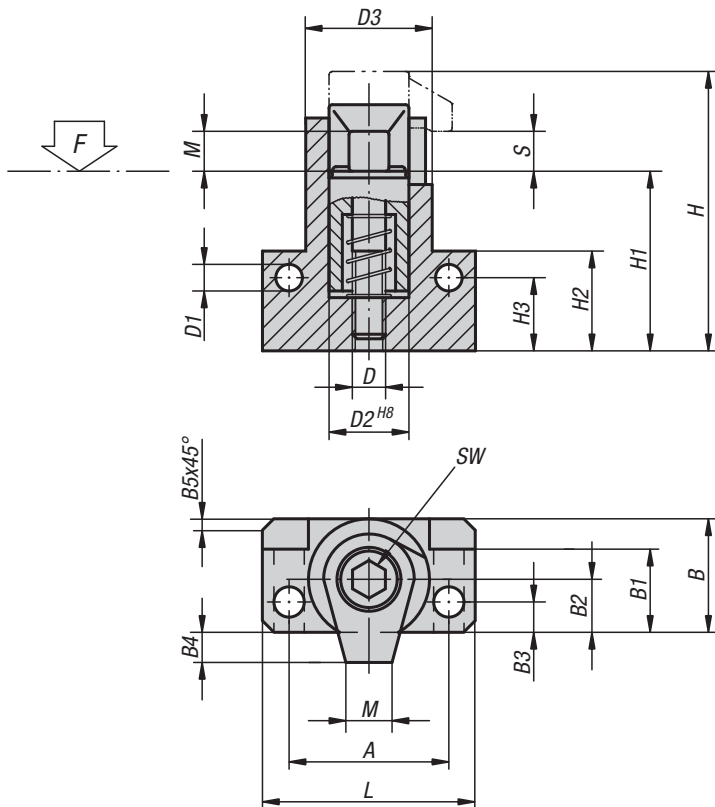
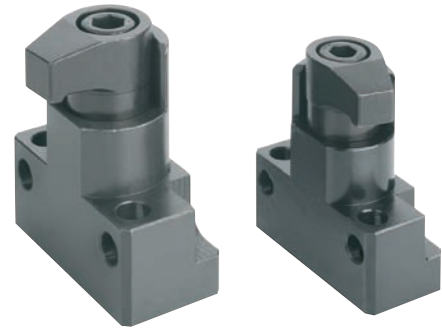
**Note:**  
Hook clamps with collar can be screwed directly into an M.T.P. hole or similar, even without counterbore. For suitable height adjustment elements, see Joint bars K0018.

### KIPP Hook clamps with collar

| Order No.   | D  | D1  | H<br>clamping range | H1 | H2 | H3 | H4 | H5 | B  | C  | R  | SW | Tightening<br>torque<br>max. Nm | F<br>max. kN | Approx.<br>weight<br>kg |
|-------------|----|-----|---------------------|----|----|----|----|----|----|----|----|----|---------------------------------|--------------|-------------------------|
| K0015.08020 | 22 | M8  | 35 - 45             | 6  | 14 | 2  | 7  | 19 | 10 | 25 | 20 | 22 | 20                              | 7,9          | 0,130                   |
| K0015.08025 | 22 | M8  | 35 - 45             | 6  | 14 | 2  | 7  | 19 | 10 | 25 | 25 | 22 | 20                              | 7,3          | 0,135                   |
| K0015.08030 | 22 | M8  | 35 - 45             | 6  | 14 | 2  | 7  | 19 | 10 | 25 | 30 | 22 | 20                              | 6,7          | 0,145                   |
| K0015.08120 | 22 | M8  | 45 - 55             | 16 | 14 | 2  | 7  | 19 | 10 | 25 | 20 | 22 | 20                              | 7,9          | 0,160                   |
| K0015.08125 | 22 | M8  | 45 - 55             | 16 | 14 | 2  | 7  | 19 | 10 | 25 | 25 | 22 | 20                              | 7,3          | 0,165                   |
| K0015.08130 | 22 | M8  | 45 - 55             | 16 | 14 | 2  | 7  | 19 | 10 | 25 | 30 | 22 | 20                              | 6,7          | 0,175                   |
| K0015.12040 | 32 | M12 | 50 - 65             | 10 | 27 | 11 | 10 | 30 | 18 | 40 | 40 | 36 | 45                              | 13,5         | 0,430                   |
| K0015.12050 | 32 | M12 | 50 - 65             | 10 | 29 | 11 | 12 | 30 | 18 | 40 | 50 | 36 | 45                              | 12,6         | 0,495                   |
| K0015.12060 | 32 | M12 | 50 - 65             | 10 | 29 | 11 | 12 | 30 | 18 | 40 | 60 | 36 | 45                              | 11,7         | 0,535                   |
| K0015.12140 | 32 | M12 | 65 - 80             | 25 | 27 | 11 | 10 | 30 | 18 | 40 | 40 | 36 | 45                              | 13,5         | 0,560                   |
| K0015.12150 | 32 | M12 | 65 - 80             | 25 | 29 | 11 | 12 | 30 | 18 | 40 | 50 | 36 | 45                              | 12,6         | 0,620                   |
| K0015.12160 | 32 | M12 | 65 - 80             | 25 | 29 | 11 | 12 | 30 | 18 | 40 | 60 | 36 | 45                              | 11,7         | 0,660                   |
| K0015.16040 | 36 | M16 | 50 - 65             | 10 | 36 | 15 | 15 | 30 | 22 | 40 | 40 | 36 | 60                              | 13,4         | 0,635                   |
| K0015.16050 | 36 | M16 | 50 - 65             | 10 | 36 | 15 | 15 | 30 | 22 | 40 | 50 | 36 | 60                              | 12,4         | 0,695                   |
| K0015.16060 | 36 | M16 | 50 - 65             | 10 | 36 | 15 | 15 | 30 | 22 | 40 | 60 | 36 | 60                              | 12           | 0,735                   |
| K0015.16140 | 36 | M16 | 65 - 80             | 25 | 36 | 15 | 15 | 30 | 22 | 40 | 40 | 36 | 60                              | 13,4         | 0,765                   |
| K0015.16150 | 36 | M16 | 65 - 80             | 25 | 36 | 15 | 15 | 30 | 22 | 40 | 50 | 36 | 60                              | 12,4         | 0,825                   |
| K0015.16160 | 36 | M16 | 65 - 80             | 25 | 36 | 15 | 15 | 30 | 22 | 40 | 60 | 36 | 60                              | 12           | 0,865                   |

## Hook clamps

with mounting bracket



**Material:**

Hook clamps and clamping screw in tempered, heat-treated steel

**Surface finish:**

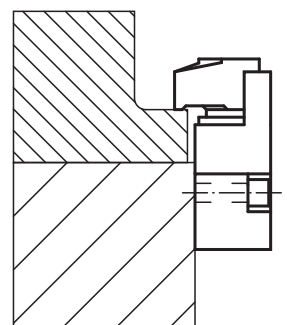
Black oxide finish

**Sample order:**

K0016.12



example:

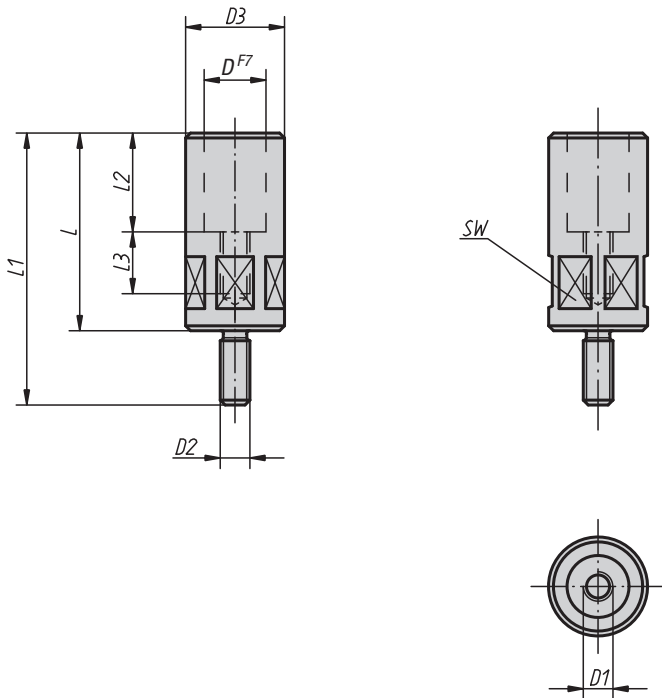


**KIPP Hook clamps with mounting bracket**

| Order No. | D   | D1   | D2 | D3 | A  | B    | B1   | B2   | B3  | B4   | B5  | H   | H1   | H2 | H3 | L  | M  | S | SW | Tightening torque max. Nm | F max. kN | Approx. weight kg |
|-----------|-----|------|----|----|----|------|------|------|-----|------|-----|-----|------|----|----|----|----|---|----|---------------------------|-----------|-------------------|
| K0016.08  | M8  | 6,4  | 20 | 28 | 38 | 26   | 19,5 | 12   | 6   | 6    | 2,5 | 62  | 47,5 | 25 | 18 | 50 | 10 | 4 | 6  | 30                        | 17        | 0,330             |
| K0016.10  | M10 | 8,4  | 24 | 34 | 48 | 31   | 22,5 | 14   | 7,5 | 9    | 3   | 74  | 57,5 | 30 | 21 | 64 | 12 | 5 | 8  | 50                        | 18        | 0,555             |
| K0016.12  | M12 | 10,5 | 28 | 40 | 55 | 36,5 | 26   | 16,5 | 9   | 10,5 | 3,5 | 87  | 67   | 35 | 24 | 75 | 15 | 5 | 10 | 60                        | 20        | 0,810             |
| K0016.16  | M16 | 12,8 | 34 | 48 | 65 | 43,5 | 31   | 19,5 | 10  | 16,5 | 4   | 112 | 87   | 45 | 32 | 88 | 20 | 5 | 14 | 120                       | 24        | 1,590             |



## Hook holders



**Material:**  
Tempered steel

**Surface finish:**  
Black oxide finish

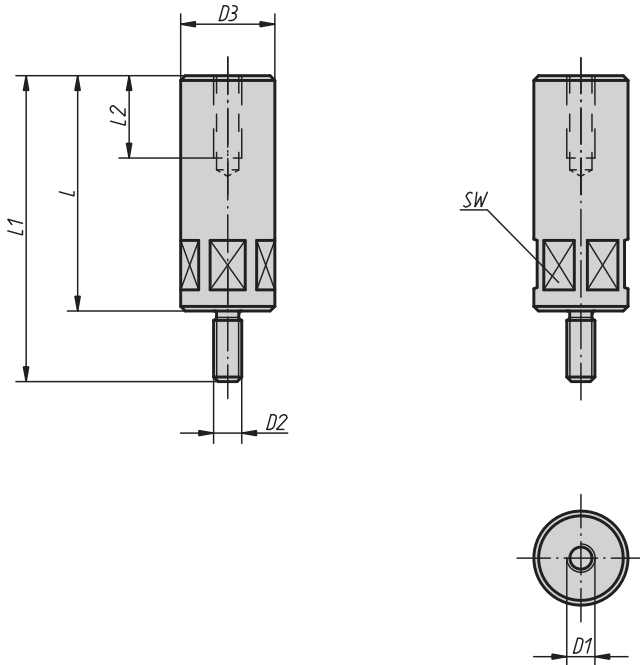
**Sample order:**  
K0017.12080

**Note:**  
Hook holders serve to guide and raise hook clamps.

### KIPP Hook holders

| Order No.   | D  | D1  | D2  | D3 | L   | L1  | L2 | L3 | SW | Tightening torque max. Nm | Approx. weight kg |
|-------------|----|-----|-----|----|-----|-----|----|----|----|---------------------------|-------------------|
| K0017.08055 | 18 | M8  | M8  | 24 | 55  | 74  | 25 | 20 | 22 | 29,4                      | 0,135             |
| K0017.10063 | 20 | M10 | M12 | 32 | 63  | 93  | 30 | 21 | 30 | 39,2                      | 0,400             |
| K0017.10080 | 20 | M10 | M12 | 32 | 80  | 110 | 30 | 23 | 30 | 39,2                      | 0,500             |
| K0017.12080 | 25 | M12 | M12 | 40 | 80  | 110 | 40 | 25 | 36 | 49                        | 1,080             |
| K0017.12100 | 25 | M12 | M12 | 40 | 100 | 130 | 40 | 28 | 36 | 49                        | 1,280             |
| K0017.16080 | 32 | M16 | M16 | 50 | 80  | 110 | 40 | 25 | 46 | 78,4                      | 1,690             |
| K0017.16100 | 32 | M16 | M16 | 50 | 100 | 130 | 40 | 28 | 46 | 78,4                      | 2,000             |

## Joint bars



**Material:**  
Tempered steel

**Surface finish:**  
Black oxide finish

**Sample order:**  
K0018.16050

**Note:**  
The height of the hook holders and hook clamps can be raised with joint bars.

### KIPP Joint bars

| Order No.   | D1  | D2  | D3 | L   | L1  | L2 | SW | Tightening torque max. Nm | Approx. weight kg |
|-------------|-----|-----|----|-----|-----|----|----|---------------------------|-------------------|
| K0018.08032 | M8  | M8  | 24 | 32  | 51  | 20 | 22 | 29,4                      | 0,105             |
| K0018.08040 | M8  | M8  | 24 | 40  | 59  | 20 | 22 | 29,4                      | 0,135             |
| K0018.08050 | M8  | M8  | 24 | 50  | 69  | 20 | 22 | 29,4                      | 0,170             |
| K0018.08065 | M8  | M8  | 24 | 65  | 84  | 20 | 22 | 29,4                      | 0,225             |
| K0018.12050 | M12 | M12 | 40 | 50  | 80  | 35 | 36 | 49                        | 0,455             |
| K0018.12065 | M12 | M12 | 40 | 65  | 95  | 35 | 36 | 49                        | 0,585             |
| K0018.12080 | M12 | M12 | 40 | 80  | 110 | 35 | 36 | 49                        | 0,725             |
| K0018.12100 | M12 | M12 | 40 | 100 | 130 | 35 | 36 | 49                        | 0,950             |
| K0018.12125 | M12 | M12 | 40 | 125 | 155 | 35 | 36 | 49                        | 1,190             |
| K0018.12160 | M12 | M12 | 40 | 160 | 190 | 35 | 36 | 49                        | 1,530             |
| K0018.12200 | M12 | M12 | 40 | 200 | 230 | 35 | 36 | 49                        | 1,924             |
| K0018.16050 | M16 | M16 | 50 | 50  | 80  | 35 | 46 | 78,4                      | 0,710             |
| K0018.16065 | M16 | M16 | 50 | 65  | 95  | 35 | 46 | 78,4                      | 0,918             |
| K0018.16080 | M16 | M16 | 50 | 80  | 110 | 35 | 46 | 78,4                      | 1,140             |
| K0018.16100 | M16 | M16 | 50 | 100 | 130 | 35 | 46 | 78,4                      | 1,470             |
| K0018.16125 | M16 | M16 | 50 | 125 | 155 | 35 | 46 | 78,4                      | 1,845             |
| K0018.16160 | M16 | M16 | 60 | 160 | 190 | 35 | 55 | 78,4                      | 3,470             |
| K0018.16200 | M16 | M16 | 60 | 200 | 230 | 35 | 55 | 78,4                      | 4,345             |

## Swing latch clamps



**Material:**

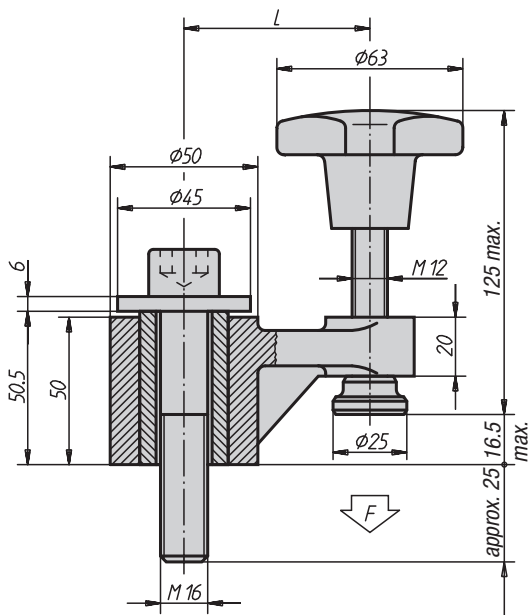
Malleable cast iron body,  
tempered steel ring 1.1191,  
tempered steel screw 1.1181,  
hardened steel clamping pad 1.0301

**Surface finish:**

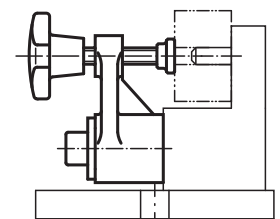
Paint, clamping pad case-hardened

**Sample order:**

K0019.01



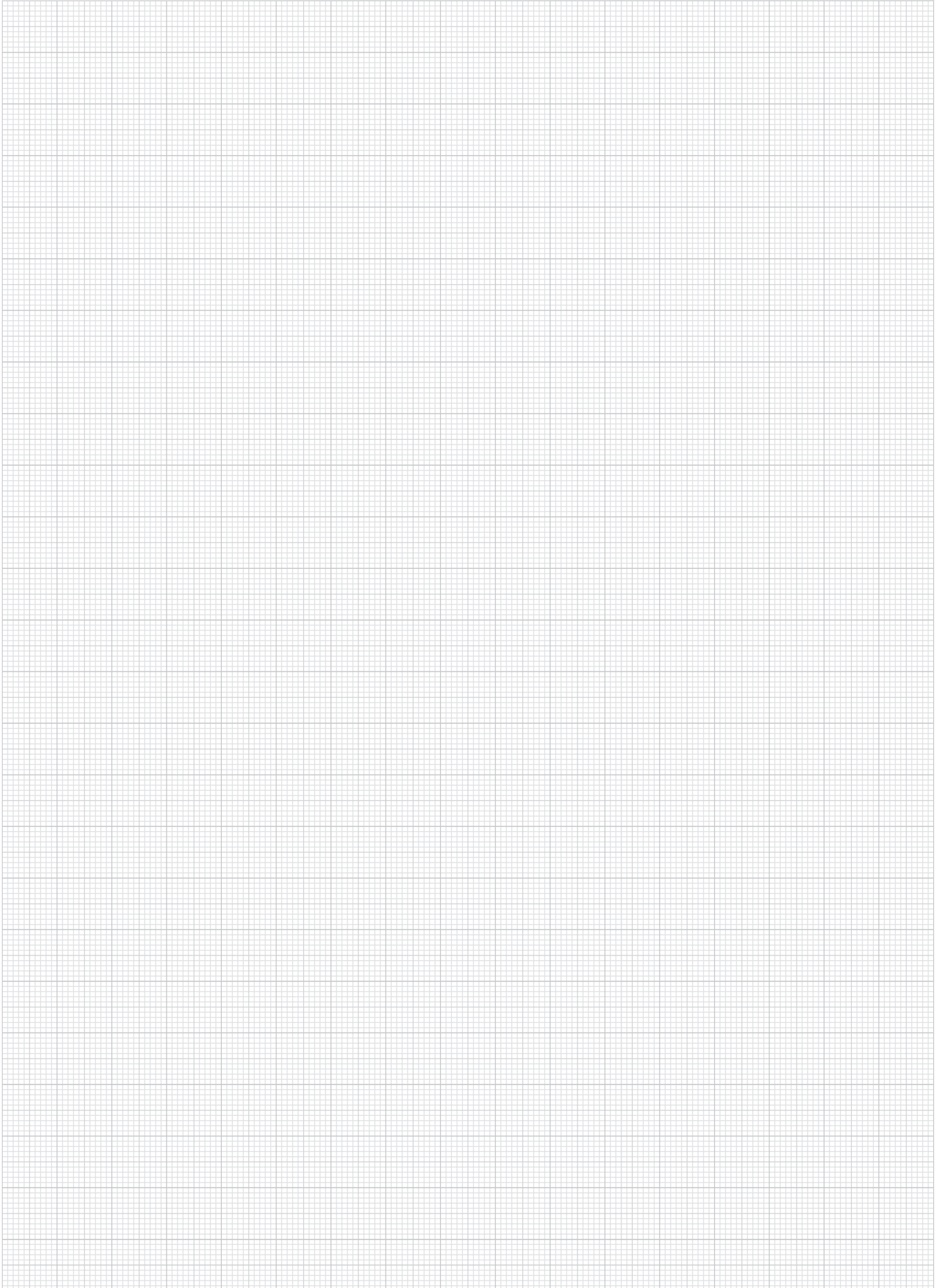
example:



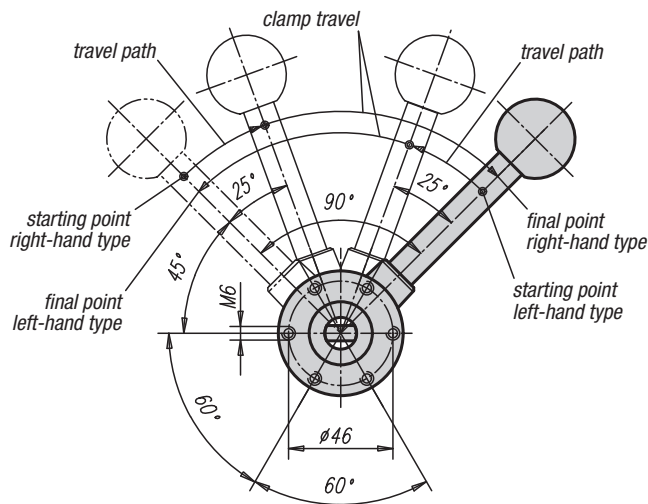
**KIPP Swing latch clamps**

| Order No. | L   | F<br>kN | Approx.<br>weight<br>kg |
|-----------|-----|---------|-------------------------|
| K0019.01  | 63  | 5       | 1,400                   |
| K0019.02  | 100 | 3       | 1,600                   |

# Notes



# „actima“ clamping device

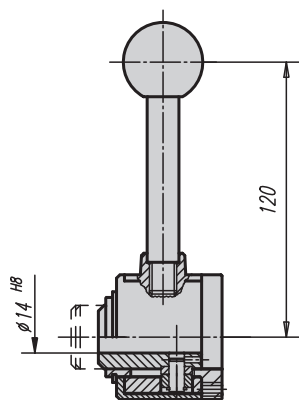


**Material, surface finish:**  
 Steel black oxide finish;  
 housing in black thermoplastic;  
 ball knob in red duroplastic PF 31;  
 accessories in steel black oxide finish

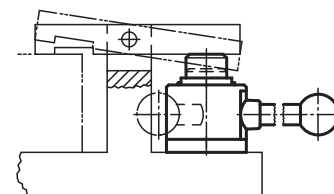
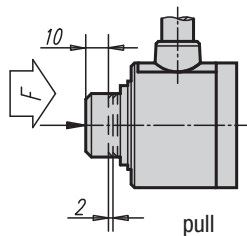
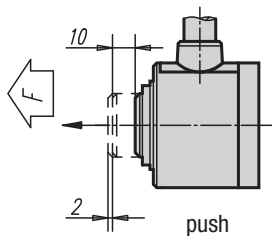
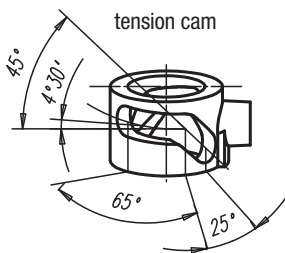
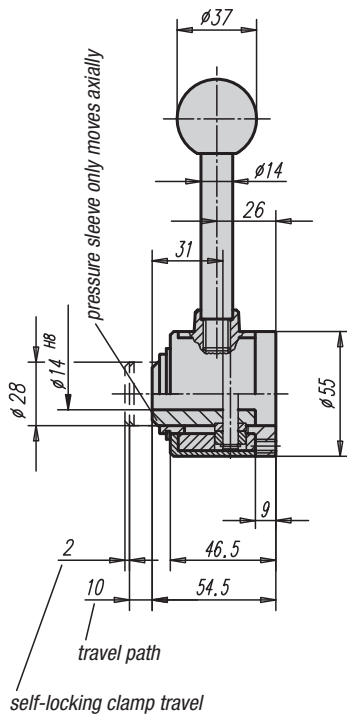
**Sample order:**  
 K0020.10

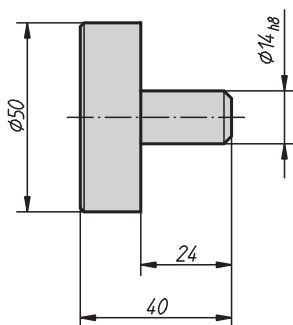
**Note:**  
 The travel path is 10 mm. Self-locking occurs in any position within only 2 mm of clamp travel. Thus workpieces with tolerances of up to 1.5 mm can be safely clamped. The „actima“ clamping device can be fitted in any horizontal or vertical position. Standard parts allow further applications. They are available as optional accessories. All parts of the cam system subject to heavy loads are case-hardened (pressure sleeve and accessories only if specified). The maximum permissible clamping force is approximately 4905 N.

with through hole

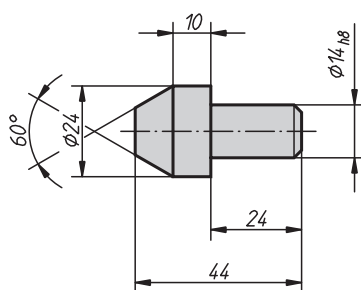


with transverse axis in the hole

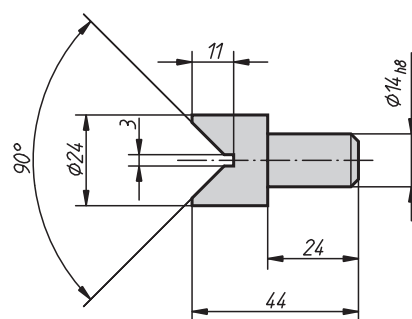




disc



taper



vee-block

## KIPP „actima“ clamping device with transverse axis in the hole

| Order No. | Surface finish    | Approx. weight kg |
|-----------|-------------------|-------------------|
| K0020.10  | right-hand / push | 0,865             |
| K0020.15  | right-hand / pull | 0,865             |
| K0020.20  | left-hand / push  | 0,865             |
| K0020.25  | left-hand / pull  | 0,865             |

## KIPP „actima“ clamping device with through hole

| Order No. | Surface finish    | Approx. weight kg |
|-----------|-------------------|-------------------|
| K0020.30  | right-hand / push | 0,855             |
| K0020.35  | right-hand / pull | 0,855             |
| K0020.40  | left-hand / push  | 0,855             |
| K0020.45  | left-hand / pull  | 0,855             |

## KIPP „actima“ accessories

| Order No. | Product   | Approx. weight kg |
|-----------|-----------|-------------------|
| K0020.02  | disc      | 0,275             |
| K0020.03  | taper     | 0,085             |
| K0020.04  | vee-block | 0,080             |

„arness“ clamping device



**Material:**

Steel, ball knob in duroplastic PF 31

**Surface finish:**

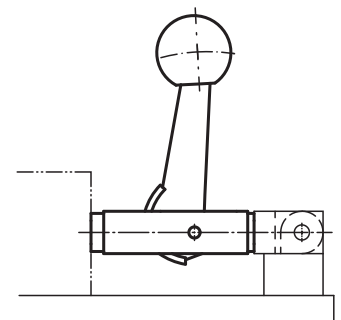
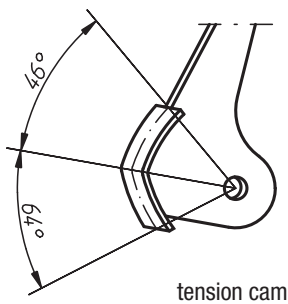
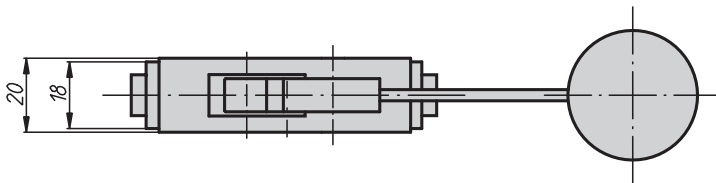
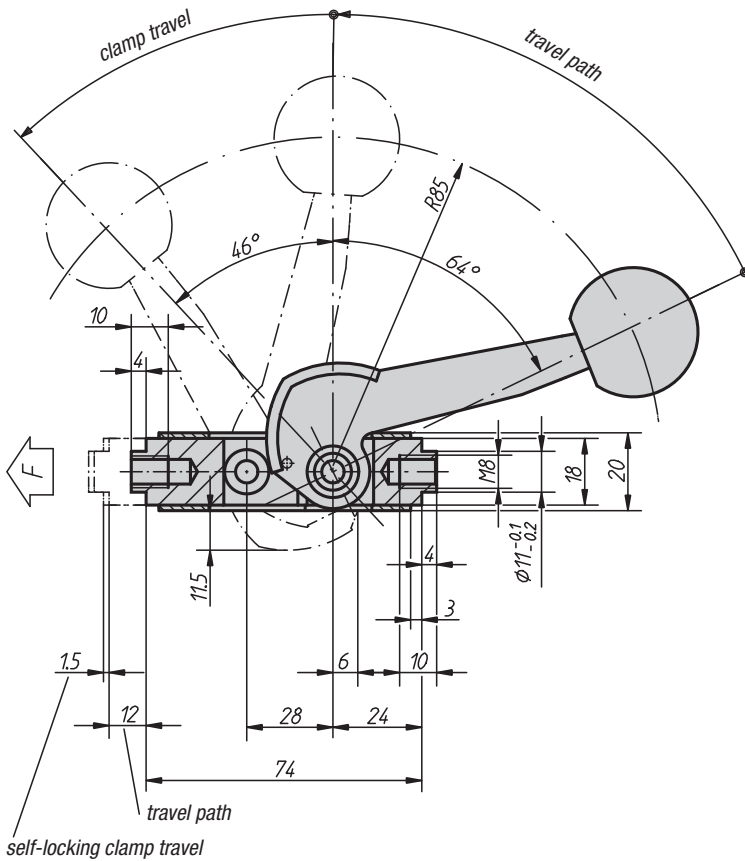
Housing in silver-grey hammertone finish, all other parts including accessories in black oxide finish, red ball knob

**Sample order:**

K0021.01

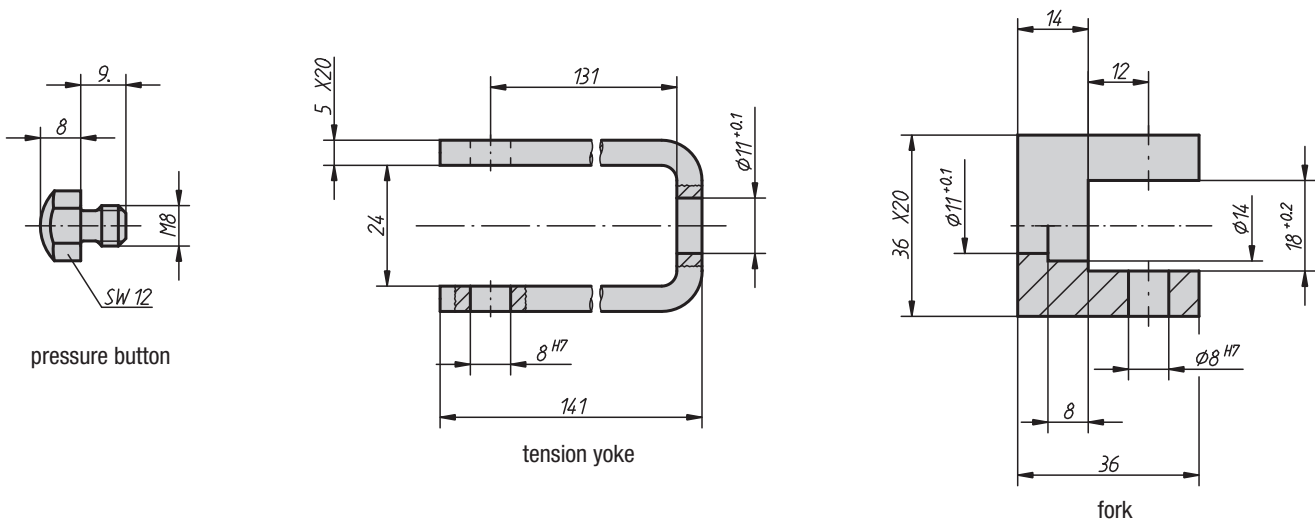
**Note:**

The travel path is 12 mm. Self-locking occurs in any position within only 1.5 mm of clamp travel. Thus workpieces with tolerances of up to 1 mm can be safely clamped. The „arness“ clamping device can be fitted in any horizontal or vertical position. In order to achieve an individual adaptation for various circumstances, several standard parts have been developed and are available as optional accessories. The pressure button and all parts of the cam system subject to heavy loads are case-hardened. The maximum permissible clamping force is approximately 4905 N.



KIPP „arness“ clamping device

| Order No. | Dimensions  | Approx. weight kg |
|-----------|-------------|-------------------|
| K0021.01  | see drawing | 0,250             |

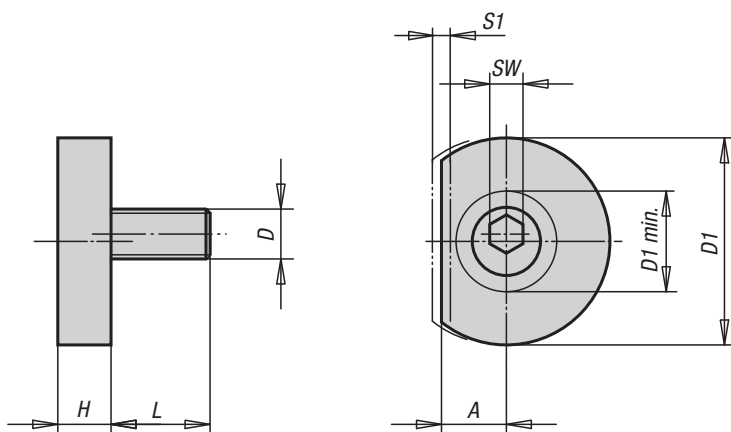


KIPP „arness“ accessories

| Order No. | Product         | Approx. weight kg |
|-----------|-----------------|-------------------|
| K0021.02  | fork            | 0,120             |
| K0021.03  | tension yoke    | 0,250             |
| K0021.04  | pressure-button | 0,010             |



## Positive clamping eccentric

**Material, surface finish:**

Hex cam hardened steel, black oxide finish;  
clamping disc steel, black oxide finish

**Sample order:**

K0022.06

**Note:**

The clamping eccentric has a washer that can be milled to match the contour of the workpiece to be clamped. This results in positive clamping for round, contoured or unstable workpieces. The flattened edge has the same distance from the screw centre as the low-profile equal hexagonal cam clamp K0026, so that the disc can be exchanged if needed.

„A“ = distance from workpiece to the centre of the thread (clamping screw).

„D1 min.“ = dimension available for contour milling.

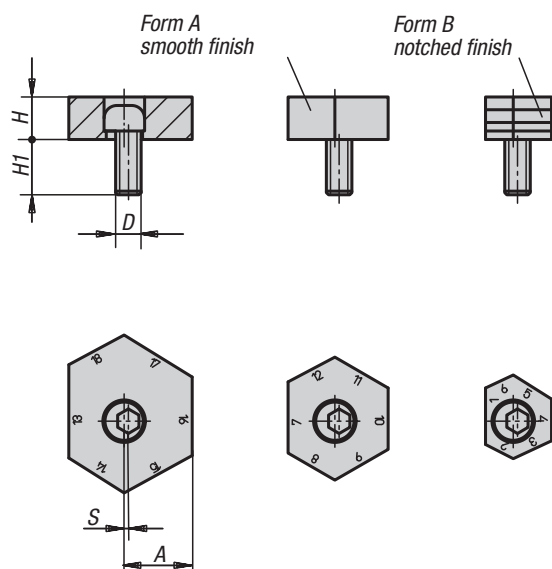
**On request:**

Spare eccentric screws.

**KIPP Positive clamping eccentric**

| Order No. | A    | D   | D1   | D1 min. | H    | L    | SW | S1<br>(Clamping travel) | Clamping force<br>kN | Approx.<br>weight<br>kg |
|-----------|------|-----|------|---------|------|------|----|-------------------------|----------------------|-------------------------|
| K0022.06  | 7,8  | M6  | 24,9 | 12,1    | 6,4  | 11,9 | 4  | 1,01                    | 3,6                  | 0,025                   |
| K0022.10  | 10,2 | M10 | 31,2 | 17,2    | 8,9  | 18   | 7  | 1,52                    | 9                    | 0,055                   |
| K0022.12  | 12,7 | M12 | 37,6 | 22,4    | 11,4 | 22,9 | 8  | 2,03                    | 18                   | 0,080                   |
| K0022.16  | 15   | M16 | 43,9 | 26,1    | 14   | 28,6 | 12 | 2,54                    | 27                   | 0,180                   |

## Unequal hexagonal cam clamps



### Material, surface finish:

Eccentric screw heat-treated class 10.9, black oxide finish; hexagonal cam hardened steel, hardened and black oxide finish

### Sample order:

K0023.13

### Note:

The unequal hexagonal cam clamps are used to minimise the cost of clamping systems. The fastening range can be adjusted within a 17 mm diameter without moving the bore, simply by rotating the variable hexagonal element.

The clamps are available with flat edges for machined pieces and with notched edges for rough pieces.

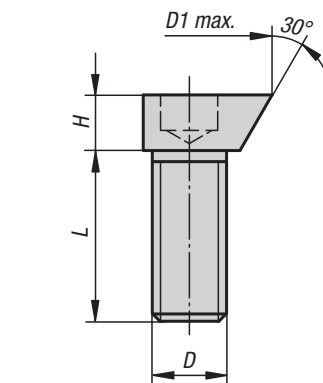
### On request:

Spare eccentric screws.

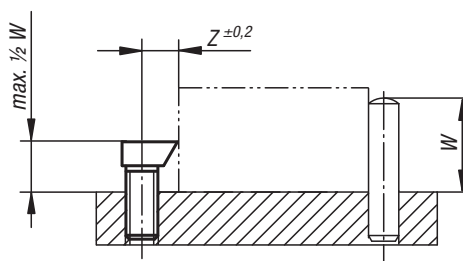
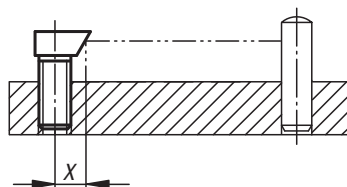
### KIPP Unequal hexagonal cam clamps

| Order No.<br>Form A | Order No.<br>Form B | Centre-to-centre distance A<br>for edge variant No. | D   | H  | H1 | S<br>(Eccentric path) | Clamping force<br>kN |
|---------------------|---------------------|---|-----|----|----|-----------------------|----------------------|
| K0023.09            | K0023.13            | 1/12, 2/13, 3/14, 4/15, 5/16, 6/17                  | M12 | 10 | 22 | 1                     | 18                   |
| K0023.10            | K0023.14            | 7/18, 8/19, 9/20, 10/21, 11/22, 12/23               | M12 | 10 | 22 | 1                     | 18                   |
| K0023.11            | K0023.15            | 13/24, 14/25, 15/26, 16/27, 17/28, 18/29            | M12 | 10 | 22 | 1                     | 18                   |

# Spiral edge clamping screws



installation dimensions



**Material:**  
Hardened steel

**Surface finish:**  
Case-hardened (56 ±1 HRC) and blue galvanized

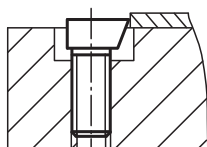
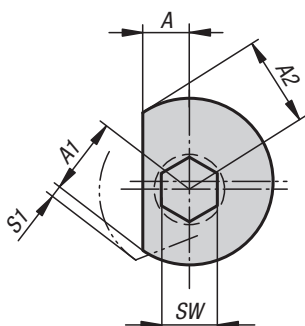
**Sample order:**  
K0024.04012

**Note:**  
Strong and tight spiral edge clamping screws that afford downward-pressure clamping on the most diverse types of workpieces.

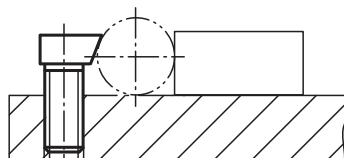
**Assembly:**  
Make one or more thread holes in space X or Z as suggested. Screw clamping screw to the required height and place with the flat side to the workpiece. Place the workpiece and tighten clamping screw at the hexagon socket. With an approximately 1/3 turn the clamping is done. The threaded hole is to be greased regularly.

During clamping, circular motion must always be actioned in the direction of the stops in order to prevent the workpiece from turning away from the stops.

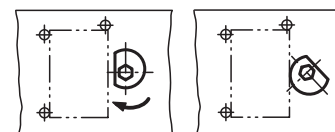
**On request:**  
Spiral edge clamping screws with left-hand thread



fixing of thin sheets



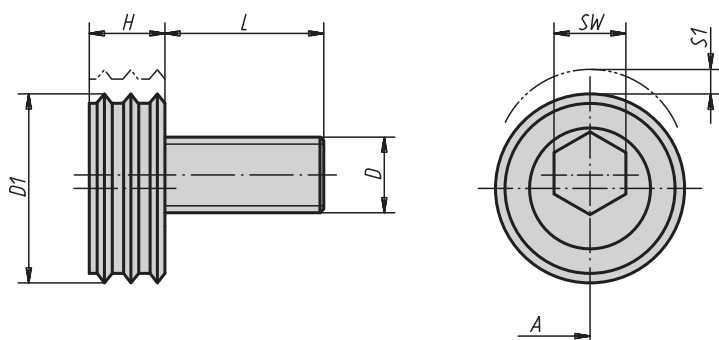
fixing of cylindrical parts



## KIPP Spiral edge clamping screws

| Order No.   | A    | A1   | A2   | D   | D1 max. | H   | L  | SW | S1<br>(Clamping travel) | X    | Z    | Clamping force<br>kN | Tightening torque<br>max. Nm | Approx.<br>weight<br>kg |
|-------------|------|------|------|-----|---------|-----|----|----|-------------------------|------|------|----------------------|------------------------------|-------------------------|
| K0024.04012 | 2,6  | 4,8  | 5,5  | M4  | 11      | 4   | 12 | 3  | 0,7                     | 4    | 5    | 0,1                  | 2                            | 0,002                   |
| K0024.06016 | 5    | 6,7  | 7,8  | M6  | 15,6    | 5,5 | 16 | 5  | 1,1                     | 5,9  | 7    | 0,4                  | 6                            | 0,006                   |
| K0024.08020 | 5,8  | 8,3  | 9,6  | M8  | 19,1    | 6,5 | 20 | 6  | 1,3                     | 7,1  | 8,6  | 3                    | 25                           | 0,012                   |
| K0024.10024 | 6,3  | 9,8  | 11,8 | M10 | 23,7    | 8   | 24 | 8  | 2                       | 8,5  | 10,3 | 4,5                  | 40                           | 0,021                   |
| K0024.12018 | 8,5  | 11,7 | 13,6 | M12 | 27,3    | 9   | 18 | 10 | 1,9                     | 10,1 | 12,2 | 6                    | 55                           | 0,030                   |
| K0024.12030 | 8,5  | 11,7 | 13,6 | M12 | 27,3    | 9   | 30 | 10 | 1,9                     | 10,1 | 12,2 | 5                    | 45                           | 0,043                   |
| K0024.16024 | 10,7 | 15,6 | 17,7 | M16 | 35,4    | 12  | 24 | 14 | 2,1                     | 13,2 | 16,2 | 10                   | 90                           | 0,078                   |
| K0024.16040 | 10,7 | 15,6 | 17,7 | M16 | 35,4    | 12  | 40 | 14 | 2,1                     | 13,2 | 16,2 | 7,5                  | 70                           | 0,085                   |

## Knife edge cam clamps



**Material:**

Case hardened steel notched ring,  
eccentric screw treated steel

**Surface finish:**

Eccentric screw heat-treated quality class 10.9,  
black oxide finish; hardened anodized notched ring

**Sample order:**

K0025.16

**Note:**

The notched ring is fully suitable for fastening rough  
pieces (mouldings or rough forging).

„A“ = distance from workpiece to the centre of the  
thread (clamping screw).

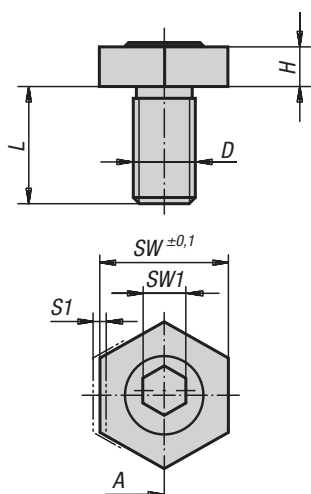
**On request:**

Spare eccentric screws.

### KIPP Knife edge cam clamps

| Order No. | A    | D   | D1   | L    | H    | SW | S1<br>(Clamping travel) | Clamping force<br>kN | Tightening torque<br>max. Nm | Approx.<br>weight<br>kg |
|-----------|------|-----|------|------|------|----|-------------------------|----------------------|------------------------------|-------------------------|
| K0025.12  | 12,7 | M12 | 25,4 | 22,5 | 9,6  | 8  | 2                       | 17,8                 | 88                           | 0,045                   |
| K0025.16  | 15   | M16 | 30,1 | 26,8 | 12,7 | 12 | 2,5                     | 26,7                 | 135                          | 0,090                   |

# Low-profile equal hex cam clamps

**Material:**

Eccentric screw tempered steel,  
brass hexagonal nut

**Surface finish:**

Eccentric screw heat-treated class 10.9,  
black oxide finish

**Sample order:**

K0026.12

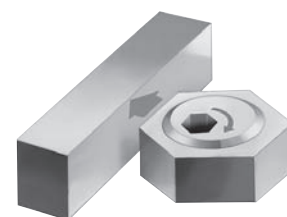
**Note:**

The very small height of the cam clamp makes it possible to solve a large number of problems with small pieces and nesting. The brass fastening nut offers extremely safe and stable fastening, at the same time keeping the surface protected. The simultaneous use of several cam clamps makes it possible to fit out whole pallets.

„A“ = distance from workpiece to the centre of the thread (clamping screw).

**On request:**

Spare eccentric screws.



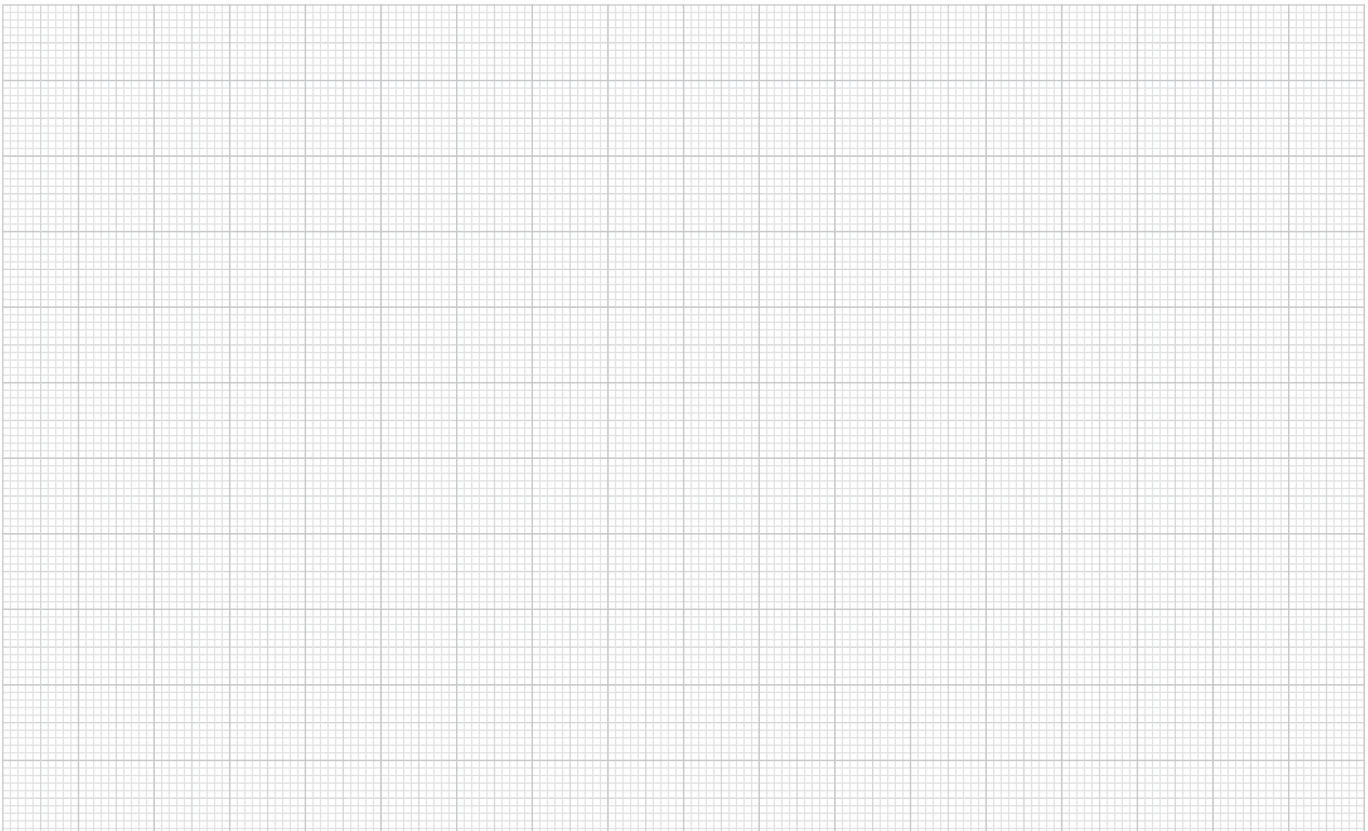
## KIPP Low-profile equal hex cam clamps

| Order No. | A    | D   | H    | L   | SW    | SW1 | S1<br>(Clamping travel) | Clamping force<br>kN | Tightening torque<br>max. Nm | Approx.<br>weight<br>kg |
|-----------|------|-----|------|-----|-------|-----|-------------------------|----------------------|------------------------------|-------------------------|
| K0026.04  | 3,8  | M4  | 2,8  | 9,5 | 7,93  | 3   | 0,8                     | 0,9                  | 2,2                          | 0,003                   |
| K0026.06  | 7,8  | M6  | 4,8  | 11  | 15,86 | 4   | 1,3                     | 3,4                  | 8,5                          | 0,011                   |
| K0026.08  | 10,2 | M8  | 4,8  | 15  | 20,61 | 5   | 1                       | 3,4                  | 11,3                         | 0,018                   |
| K0026.10  | 10,2 | M10 | 6,4  | 19  | 20,61 | 7   | 1,4                     | 8,9                  | 28,06                        | 0,027                   |
| K0026.12  | 12,7 | M12 | 9,5  | 23  | 25,38 | 8   | 2                       | 17,8                 | 88                           | 0,053                   |
| K0026.16  | 15   | M16 | 12,7 | 27  | 30,13 | 12  | 2,5                     | 27,7                 | 135                          | 0,103                   |

# Application using cam clamps



## Notes



# Low-profile T-slot cam clamps


**Material:**

Tempered steel, brass hexagonal nut

**Surface finish:**

Heat-treated class 10.9, black oxide finish

**Sample order:**

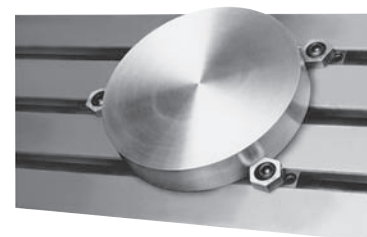
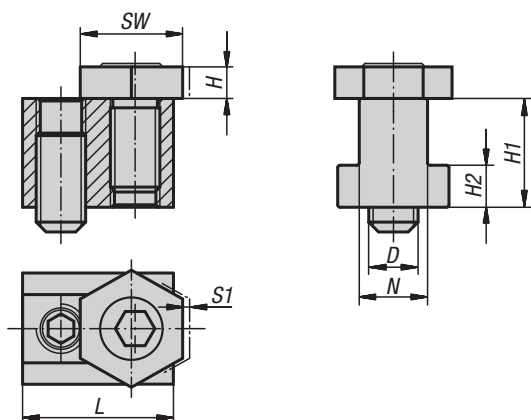
K0027.12

**Note:**

The low-profile T-slot cam clamps can be used directly on machine tables or tables with T-slots. The through threaded rod is used to fix the element in the T-slot. In order to avoid the formation of marks at the bottom of the T-slot, we recommend using fine support elements.

**On request:**

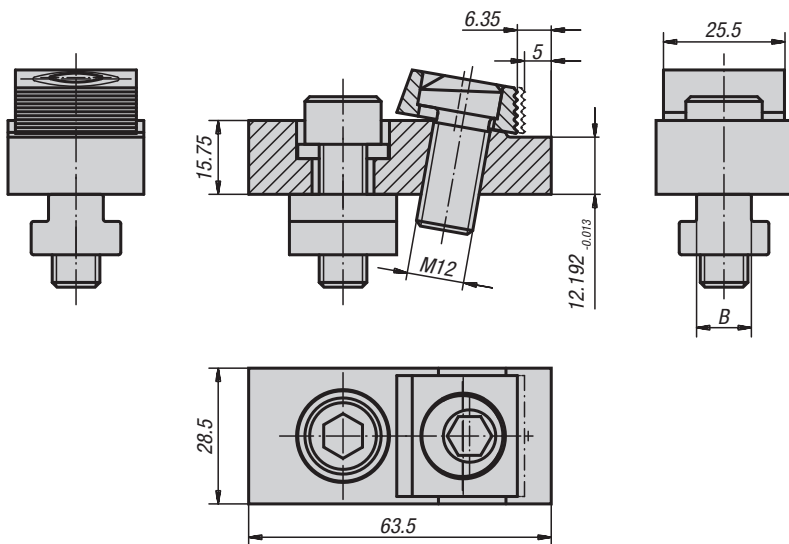
Spare eccentric screws.



## KIPP Low-profile T-slot cam clamps

| Order No. | D   | N  | H    | H1   | H2  | L    | SW | S1<br>(Clamping travel) | Clamping force<br>kN | Approx.<br>weight<br>kg |
|-----------|-----|----|------|------|-----|------|----|-------------------------|----------------------|-------------------------|
| K0027.08  | M6  | 8  | 4,8  | 9,6  | 3,3 | 23   | 16 | 1,3                     | 3,4                  | 0,025                   |
| K0027.10  | M6  | 10 | 4,8  | 14   | 4,5 | 23   | 16 | 1,3                     | 3,4                  | 0,035                   |
| K0027.12  | M8  | 12 | 4,8  | 15,5 | 6,5 | 28   | 21 | 1                       | 3,6                  | 0,058                   |
| K0027.14  | M10 | 14 | 6,4  | 22   | 8,5 | 30,5 | 21 | 1,6                     | 9                    | 0,090                   |
| K0027.16  | M12 | 16 | 9,5  | 22,5 | 9   | 30,5 | 25 | 2                       | 18                   | 0,125                   |
| K0027.18  | M12 | 18 | 9,5  | 28,5 | 10  | 34,5 | 25 | 2                       | 18                   | 0,192                   |
| K0027.20  | M16 | 20 | 12,7 | 32   | 12  | 39   | 30 | 2,5                     | 27                   | 0,290                   |
| K0027.22  | M16 | 22 | 12,7 | 38,2 | 14  | 44   | 30 | 2,5                     | 27                   | 0,395                   |

## Edge clamps with support



**Material:**

Steel

**Surface finish:**

Body heat-treated and black oxide finish, clamping disc case hardened and brass-coated

**Sample order:**

K0028.16

**Note:**

The edge clamps with support can be used directly on machine tables or on adapter plates. In addition to clamping, they offer a powerful downward pressure.

**On request:**

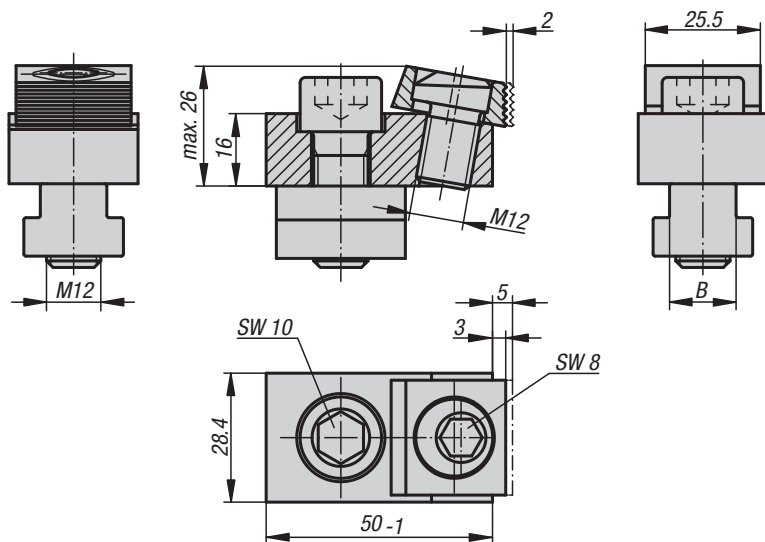
Spare eccentric screws.

### KIPP Edge clamps with support

| Order No. | B<br>Slot width | Clamping force<br>kN | Approx.<br>weight<br>kg |
|-----------|-----------------|----------------------|-------------------------|
| K0028.12  | 12              | 12                   | 0,284                   |
| K0028.14  | 14              | 12                   | 0,320                   |
| K0028.16  | 16              | 12                   | 0,334                   |
| K0028.18  | 18              | 12                   | 0,370                   |



## Edge clamps



**Material:**  
Steel

**Surface finish:**  
Body heat-treated and black oxide finish,  
clamping disc case hardened and brass-coated

**Sample order:**  
K0029.14

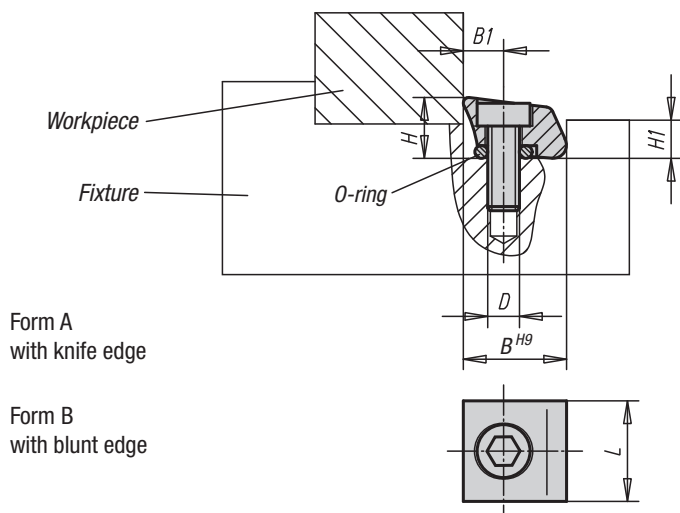
**Note:**  
The edge clamps can be used directly on machine tables or on adapter plates. The downward pressure keeps the workpiece immobile on the support. The clamping disc adapts to the angular position of the piece, i.e. the workpiece does not have to be orthogonal. The clamping disc has a smooth surface for machined pieces and a notched surface for rough pieces.

**On request:**  
Spare eccentric screws.

### KIPP Edge clamps

| Order No. | B<br>Slot width                   | Clamping force<br>kN | Approx.<br>weight<br>kg |
|-----------|-----------------------------------|----------------------|-------------------------|
| K0029.00  | without T-nut and fastening screw | 18                   | 0,180                   |
| K0029.14  | 14                                | 18                   | 0,270                   |
| K0029.16  | 16                                | 18                   | 0,279                   |
| K0029.18  | 18                                | 18                   | 0,316                   |

## Clamps



**Material:**

Clamp disc in steel or brass

**Surface finish:**

Hardened steel

**Sample order:**

K0030.113

**Note:**

Extremely space-saving design. No interfering edges thanks to lateral tension.  
Side clamping effect (downward pressure).

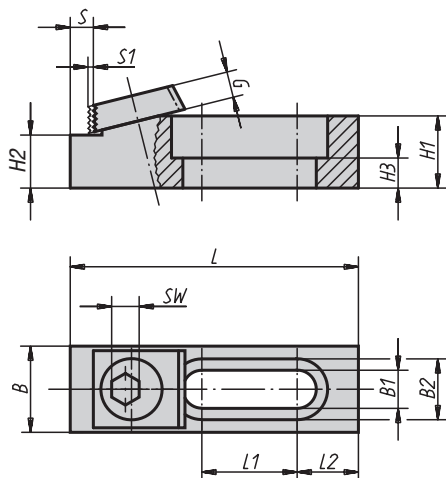
### KIPP Clamps

| Order No. | Form | Material | D      | B     | B1  | H    | H1  | L   | Clamping width | Clamping travel | Clamping force<br>kN | Tightening torque<br>max. Nm | Approx.<br>weight g |
|-----------|------|----------|--------|-------|-----|------|-----|-----|----------------|-----------------|----------------------|------------------------------|---------------------|
| K0030.110 | A    | steel    | M2,5x8 | 9,5   | 3,8 | 6    | 3,6 | 9,5 | 9,5            | 0,15            | 2,8                  | 1,8                          | 4                   |
| K0030.113 | A    | steel    | M4x12  | 12,7  | 5,1 | 8    | 4,8 | 13  | 12,7           | 0,4             | 6,6                  | 5,6                          | 7                   |
| K0030.119 | A    | steel    | M6x16  | 19,05 | 7,6 | 11,5 | 7,2 | 19  | 19,1           | 0,6             | 16                   | 22,5                         | 15                  |
| K0030.210 | B    | steel    | M2,5x8 | 9,5   | 3,8 | 6    | 3,6 | 9,5 | 9,5            | 0,15            | 2,8                  | 1,8                          | 4                   |
| K0030.213 | B    | steel    | M4x12  | 12,7  | 5,1 | 8    | 4,8 | 13  | 12,7           | 0,4             | 6,6                  | 5,6                          | 7                   |
| K0030.219 | B    | steel    | M6x16  | 19,05 | 7,6 | 11,5 | 7,2 | 19  | 19,1           | 0,6             | 16                   | 22,5                         | 22                  |
| K0030.310 | B    | brass    | M2,5x8 | 9,5   | 3,8 | 6    | 3,6 | 9,5 | 9,5            | 0,15            | 0,9                  | 0,56                         | 6                   |
| K0030.313 | B    | brass    | M4x12  | 12,7  | 5,1 | 8    | 4,8 | 13  | 12,7           | 0,4             | 1,8                  | 2,8                          | 8                   |
| K0030.319 | B    | brass    | M6x16  | 19,05 | 7,6 | 11,5 | 7,2 | 19  | 19,1           | 0,6             | 4,2                  | 5,6                          | 25                  |

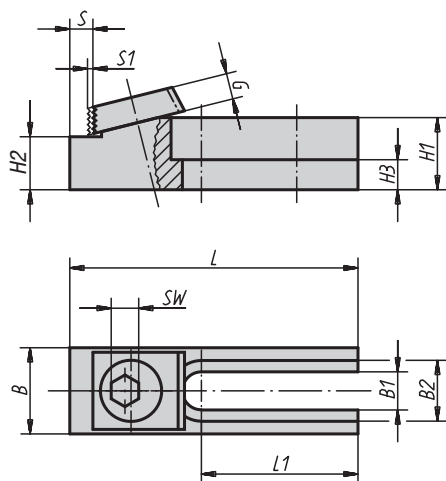
## Adjustable eccentric type edge clamps



K0031.08, K0031.12



K0031.16



**Material:**

Steel

**Surface finish:**

Body heat-treated, black oxide finish, ground support surface; clamping disc case hardened and brass-coated

**Sample order:**

K0031.12

**Note:**

Two stops used with one or two adjustable eccentric type edge clamps can be used to make up a tailored cost-effective clamping system.

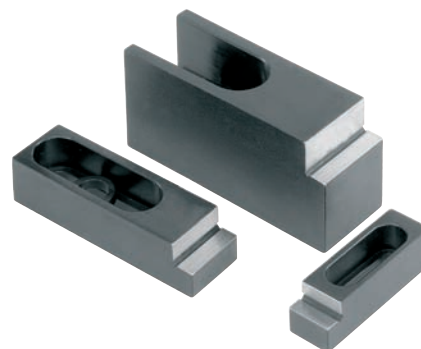
**On request:**

Spare eccentric screws.

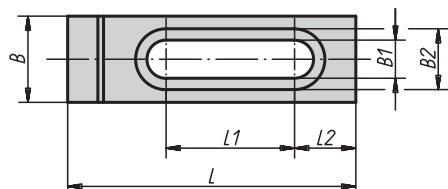
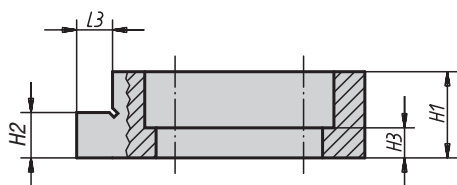
### KIPP Adjustable eccentric type edge clamps

| Order No. | suitable fastening screw | L    | L1   | L2   | B    | B1  | B2   | H1   | H2            | H3  | S   | S1  | G    | SW | Oblong hole | Clamping force kN | Tightening torque max. Nm | Approx. weight kg |
|-----------|--------------------------|------|------|------|------|-----|------|------|---------------|-----|-----|-----|------|----|-------------|-------------------|---------------------------|-------------------|
| K0031.08  | M8                       | 63,5 | 21   | 13,5 | 19   | 8,4 | 13,4 | 15,9 | 11,684 -0,013 | 6,6 | 6,3 | 1,2 | 5,3  | 7  | closed      | 8,9               | 28                        | 0,120             |
| K0031.12  | M12                      | 95,1 | 42,7 | 12,7 | 28,5 | 13  | 19,8 | 15,9 | 12,192 -0,013 | 6,9 | 7,1 | 2   | 9,5  | 8  | closed      | 17,8              | 88                        | 0,260             |
| K0031.16  | M16                      | 107  | 46,3 | -    | 38   | 17  | 24,8 | 41   | 35,001 ±0,006 | 21  | 8,3 | 2,5 | 12,7 | 12 | open        | 26,7              | 135                       | 1,000             |

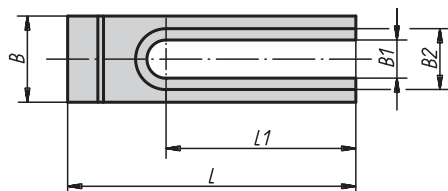
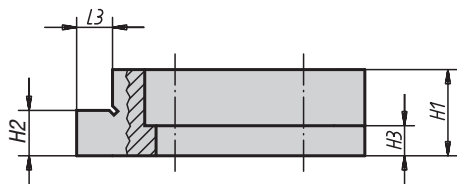
## Adjustable stops



K0032.08, K0032.12



K0032.16



**Material:**

Steel

**Surface finish:**

Heat-treated, black oxide finish;  
ground support surfaces and stops

**Sample order:**

K0032.12

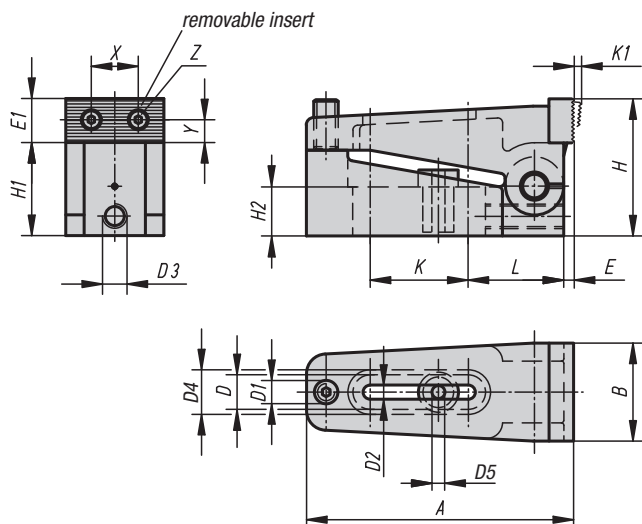
**Note:**

Two stops used with one or two adjustable eccentric type edge clamps can be used to make up a tailored cost-effective clamping system.

### KIPP Adjustable stops

| Order No. | suitable fastening screw | L    | L1   | L2   | L3  | B    | B1   | B2   | H1   | H2            | H3   | Oblong hole | Approx. weight kg |
|-----------|--------------------------|------|------|------|-----|------|------|------|------|---------------|------|-------------|-------------------|
| K0032.08  | M8                       | 63,5 | 28,3 | 13,5 | 7,9 | 19   | 8,4  | 13,4 | 19   | 11,684 -0,013 | 6,6  | closed      | 0,090             |
| K0032.12  | M12                      | 95,2 | 42,7 | 12,7 | 7,9 | 28,5 | 13,4 | 19,8 | 22   | 12,192 -0,013 | 6,9  | closed      | 0,280             |
| K0032.16  | M16                      | 107  | 46,2 | -    | 9,5 | 38   | 17   | 24,8 | 50,7 | 35,001 ±0,006 | 21,3 | open        | 1,000             |

## Narrow edge clamps



**Material:**

Base body in steel; clamping jaw in hardened steel; centring bush with collar in tempered steel

**Surface finish:**

Black oxide finish; clamping jaw case-hardened

**Sample order:**

K0033.006

**Note:**

Because of their low design, narrow edge clamps are perfect for machining pieces with small heights. The hardened steel jaws exert forward and downward pressure on the workpiece at the same time.

### KIPP Narrow edge clamps

| Order No. | A   | B  | D    | D1  | D2 | D3  | D4 | D5   | E   | E1 | H  | H1 | H2   | K    | K1  | L  | X    | Y   | Z  | Clamping force<br>kN | Approx.<br>weight<br>kg |
|-----------|-----|----|------|-----|----|-----|----|------|-----|----|----|----|------|------|-----|----|------|-----|----|----------------------|-------------------------|
| K0033.006 | 73  | 25 | 12,2 | M6  | 7  | M6  | 16 | 6,5  | 2,5 | 11 | 35 | 24 | 12,4 | 25,5 | 2,5 | 27 | 12   | 4,5 | M3 | 10                   | 0,240                   |
| K0033.010 | 110 | 39 | 18,2 | M10 | 11 | M10 | 24 | 10,5 | 4   | 18 | 56 | 38 | 20   | 40,5 | 4   | 39 | 20,5 | 8   | M5 | 40                   | 0,970                   |
| K0033.016 | 170 | 58 | 26,2 | M16 | 17 | M10 | 35 | 17   | 7   | 27 | 85 | 60 | 30   | 60,5 | 7   | 61 | 32   | 13  | M8 | 100                  | 3,800                   |

## Cam-operated edge clamps adjustable



**Material:**  
Steel

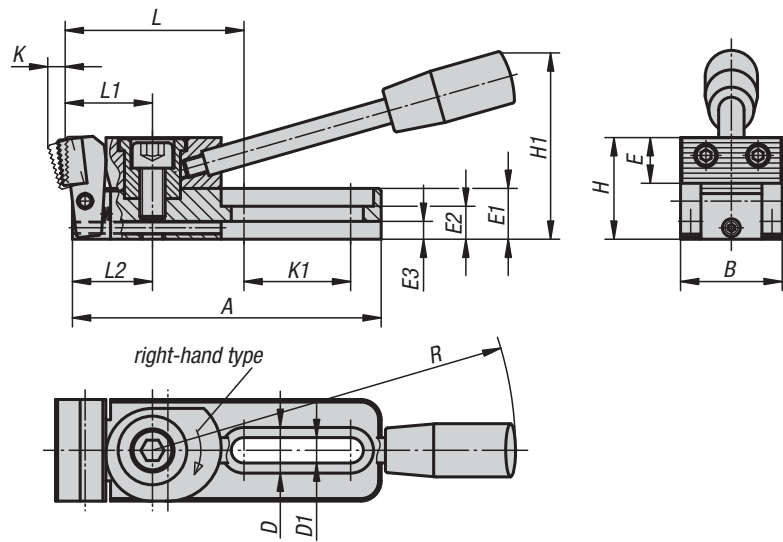
**Surface finish:**  
Case-hardened with black oxide finish

**Sample order:**  
K0034.006010

**Note:**  
Cam type edge clamps are used for rapid clamping, to fasten the workpiece by means of a cam lever effect. The cam type edge clamp is positioned and fixed with the centring bush and stop screw (see drawing). The stop screw is used to stop the clamp from moving back after the adjustment, by transferring the clamping force directly to the centring bush.

The types K0034.006010, K0034.006015, K0034.006030 and K0034.006035 have 2 round carbide serrations.

**Clamping force:**  
K0034.006... = 3800 N  
K0034.010... = 7200 N

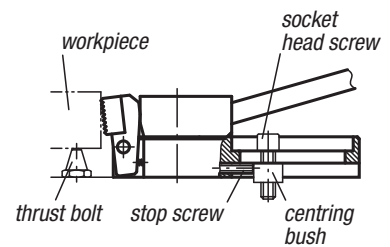
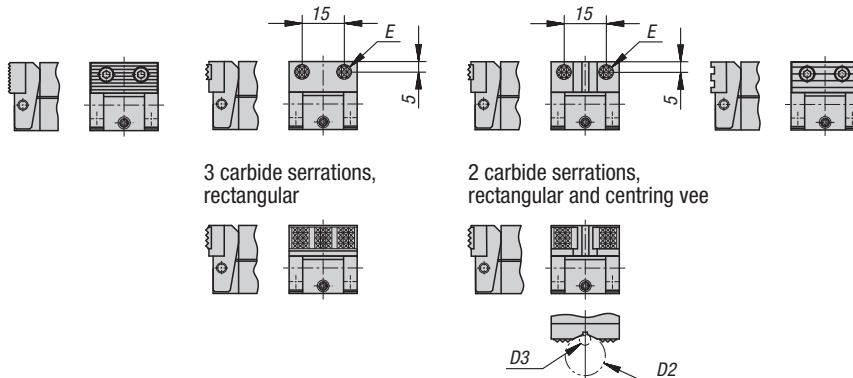


Form A  
case-hardened  
steel ribbed jaw

Form B  
jaw with:  
2 carbide serrations,  
round

Form C  
jaw with:  
2 carbide serrations,  
round and centring vee

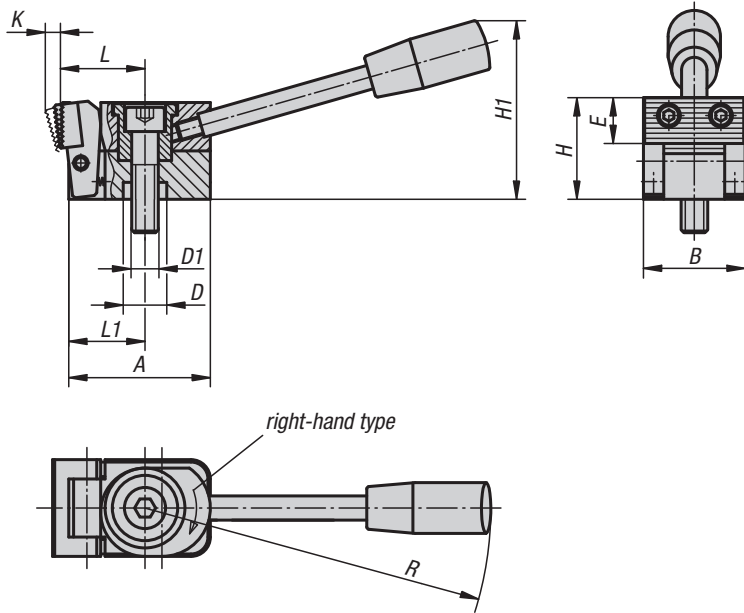
Form D  
Delrin ribbed jaw



### KIPP Cam-operated edge clamps adjustable

| Order No.    | Form | Surface finish  | A     | B  | D  | D1   | D2<br>max. | D3<br>min. | E    | E1 | E2 | E3 | H  | H1 | K   | K1 | L    | L1 | L2   | R   | Clamping force<br>kN | Approx.<br>weight<br>kg |
|--------------|------|-----------------|-------|----|----|------|------------|------------|------|----|----|----|----|----|-----|----|------|----|------|-----|----------------------|-------------------------|
| K0034.006005 | A    | right-hand type | 78    | 25 | 12 | 6,2  | -          | -          | 11   | 12 | 8  | 4  | 25 | 45 | 4   | 26 | 46,5 | 22 | 20   | 110 | 3,8                  | 0,230                   |
| K0034.010005 | A    | right-hand type | 121,5 | 40 | 18 | 10,2 | -          | -          | 18   | 20 | 13 | 7  | 40 | 74 | 6   | 42 | 71   | 35 | 31,5 | 143 | 7,2                  | 0,900                   |
| K0034.006025 | A    | left-hand type  | 78    | 25 | 12 | 6,2  | -          | -          | 11   | 12 | 8  | 4  | 25 | 45 | 4   | 26 | 46,5 | 22 | 20   | 110 | 3,8                  | 0,230                   |
| K0034.010025 | A    | left-hand type  | 121,5 | 40 | 18 | 10,2 | -          | -          | 18   | 20 | 13 | 7  | 40 | 74 | 6   | 42 | 71   | 35 | 31,5 | 143 | 7,2                  | 0,900                   |
| K0034.006010 | B    | right-hand type | 78    | 25 | 12 | 6,2  | -          | -          | ∅ 8  | 12 | 8  | 4  | 24 | 45 | 3,5 | 26 | 46,5 | 22 | 20   | 110 | 3,8                  | 0,230                   |
| K0034.010010 | B    | right-hand type | 121,5 | 40 | 18 | 10,2 | -          | -          | 12,7 | 20 | 13 | 7  | 39 | 74 | 5,5 | 42 | 73   | 35 | 31,5 | 143 | 7,2                  | 0,900                   |
| K0034.006030 | B    | left-hand type  | 78    | 25 | 12 | 6,2  | -          | -          | ∅ 8  | 12 | 8  | 4  | 24 | 45 | 3,5 | 26 | 46,5 | 22 | 20   | 110 | 3,8                  | 0,230                   |
| K0034.010030 | B    | left-hand type  | 121,5 | 40 | 18 | 10,2 | -          | -          | 12,7 | 20 | 13 | 7  | 39 | 74 | 5,5 | 42 | 73   | 35 | 31,5 | 143 | 7,2                  | 0,900                   |
| K0034.006015 | C    | right-hand type | 78    | 25 | 12 | 6,2  | 9,5        | 2,5        | ∅ 8  | 12 | 8  | 4  | 24 | 45 | 3,5 | 26 | 46,5 | 22 | 20   | 110 | 3,8                  | 0,230                   |
| K0034.010015 | C    | right-hand type | 121,5 | 40 | 18 | 10,2 | 27         | 4,5        | 12,7 | 20 | 13 | 7  | 39 | 74 | 5,5 | 42 | 73   | 35 | 31,5 | 143 | 7,2                  | 0,900                   |
| K0034.006035 | C    | left-hand type  | 78    | 25 | 12 | 6,2  | 9,5        | 2,5        | ∅ 8  | 12 | 8  | 4  | 24 | 45 | 3,5 | 26 | 46,5 | 22 | 20   | 110 | 3,8                  | 0,230                   |
| K0034.010035 | C    | left-hand type  | 121,5 | 40 | 18 | 10,2 | 27         | 4,5        | 12,7 | 20 | 13 | 7  | 39 | 74 | 5,5 | 42 | 73   | 35 | 31,5 | 143 | 7,2                  | 0,900                   |
| K0034.006020 | D    | right-hand type | 78    | 25 | 12 | 6,2  | -          | -          | 11   | 12 | 8  | 4  | 25 | 45 | 4,5 | 26 | 46,5 | 22 | 20   | 110 | 3,8                  | 0,230                   |
| K0034.010020 | D    | right-hand type | 121,5 | 40 | 18 | 10,2 | -          | -          | 18   | 20 | 13 | 7  | 40 | 74 | 7   | 42 | 70,5 | 35 | 31,5 | 143 | 7,2                  | 0,900                   |
| K0034.006040 | D    | left-hand type  | 78    | 25 | 12 | 6,2  | -          | -          | 11   | 12 | 8  | 4  | 25 | 45 | 4,5 | 26 | 46,5 | 22 | 20   | 110 | 3,8                  | 0,230                   |
| K0034.010040 | D    | left-hand type  | 121,5 | 40 | 18 | 10,2 | -          | -          | 18   | 20 | 13 | 7  | 40 | 74 | 7   | 42 | 70,5 | 35 | 31,5 | 143 | 7,2                  | 0,900                   |

## Cam-operated edge clamps



**Material:**  
Steel

**Surface finish:**  
Case-hardened with black oxide finish

**Sample order:**  
K0035.006005

**Note:**  
Cam type edge clamps are used for rapid clamping, to fasten the workpiece by means of a cam lever effect. The cam type edge clamp is positioned and fixed with the centring bush (see drawing).

The types K0035.006010, K0035.006015, K0035.006030 and K0035.006035 have 2 round carbide serrations.

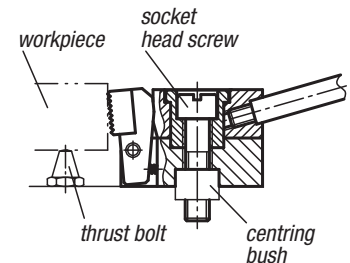
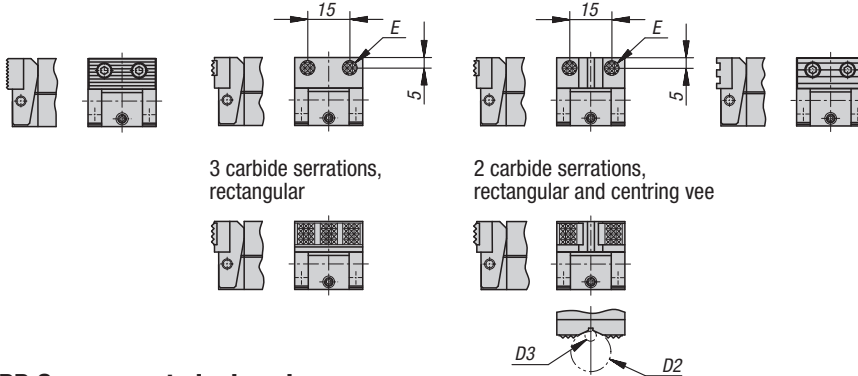
**Clamping force:**  
K0035.006... = 3800 N  
K0035.010... = 7200 N

Form A  
case-hardened  
steel ribbed jaw

Form B  
jaw with:  
2 carbide serrations,  
round

Form C  
jaw with:  
2 carbide serrations,  
round and centring vee

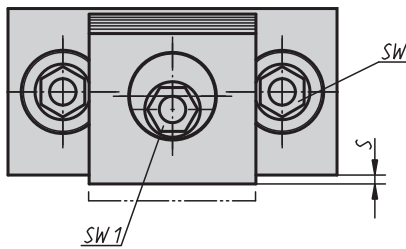
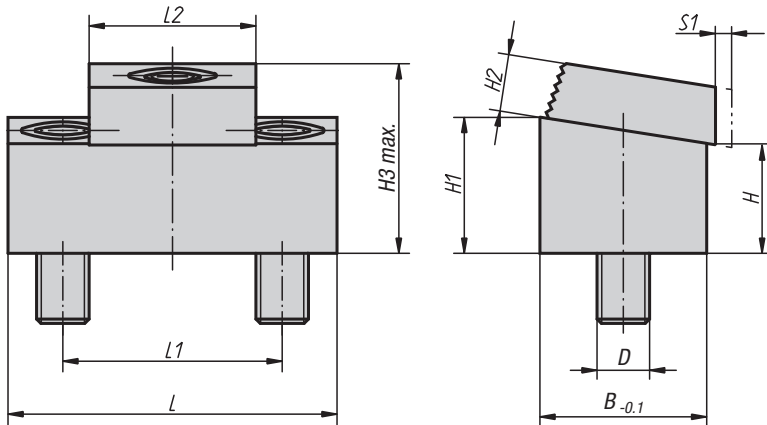
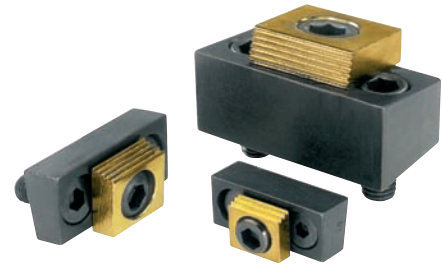
Form D  
Delrin ribbed jaw



### KIPP Cam-operated edge clamps

| Order No.    | Form | Surface finish  | A    | B  | D  | D1  | D2<br>max. | D3<br>min. | E    | H  | H1 | K   | L    | L1   | R   | Clamping force<br>kN | Approx.<br>weight<br>kg |
|--------------|------|-----------------|------|----|----|-----|------------|------------|------|----|----|-----|------|------|-----|----------------------|-------------------------|
| K0035.006005 | A    | right-hand type | 38,5 | 25 | 12 | M6  | -          | -          | 11   | 25 | 45 | 4   | 22   | 20   | 110 | 3,8                  | 0,175                   |
| K0035.010005 | A    | right-hand type | 58,5 | 40 | 18 | M10 | -          | -          | 18   | 40 | 74 | 6   | 35   | 31,5 | 143 | 7,2                  | 0,650                   |
| K0035.006025 | A    | left-hand type  | 38,5 | 25 | 12 | M6  | -          | -          | 11   | 25 | 45 | 4   | 22   | 20   | 110 | 3,8                  | 0,175                   |
| K0035.010025 | A    | left-hand type  | 58,5 | 40 | 18 | M10 | -          | -          | 18   | 40 | 74 | 6   | 35   | 31,5 | 143 | 7,2                  | 0,650                   |
| K0035.006010 | B    | right-hand type | 38,5 | 25 | 12 | M6  | -          | -          | ∅ 8  | 24 | 45 | 3,5 | 22   | 20   | 110 | 3,8                  | 0,175                   |
| K0035.010010 | B    | right-hand type | 58,5 | 40 | 18 | M10 | -          | -          | 12,7 | 39 | 74 | 5,5 | 37   | 31,5 | 143 | 7,2                  | 0,650                   |
| K0035.006030 | B    | left-hand type  | 38,5 | 25 | 12 | M6  | -          | -          | ∅ 8  | 24 | 45 | 3,5 | 22   | 20   | 110 | 3,8                  | 0,175                   |
| K0035.010030 | B    | left-hand type  | 58,5 | 40 | 18 | M10 | -          | -          | 12,7 | 39 | 74 | 5,5 | 37   | 31,5 | 143 | 7,2                  | 0,650                   |
| K0035.006015 | C    | right-hand type | 38,5 | 25 | 12 | M6  | 9,5        | 2,5        | ∅ 8  | 24 | 45 | 3,5 | 22   | 20   | 110 | 3,8                  | 0,175                   |
| K0035.010015 | C    | right-hand type | 58,5 | 40 | 18 | M10 | 27         | 4,5        | 12,7 | 39 | 74 | 5,5 | 37   | 31,5 | 143 | 7,2                  | 0,650                   |
| K0035.006035 | C    | left-hand type  | 38,5 | 25 | 12 | M6  | 9,5        | 2,5        | ∅ 8  | 24 | 45 | 3,5 | 22   | 20   | 110 | 3,8                  | 0,175                   |
| K0035.010035 | C    | left-hand type  | 58,5 | 40 | 18 | M10 | 27         | 4,5        | 12,7 | 39 | 74 | 5,5 | 37   | 31,5 | 143 | 7,2                  | 0,650                   |
| K0035.006020 | D    | right-hand type | 38,5 | 25 | 12 | M6  | -          | -          | 11   | 25 | 45 | 4,5 | 22   | 20   | 110 | 3,8                  | 0,175                   |
| K0035.010020 | D    | right-hand type | 58,5 | 40 | 18 | M10 | -          | -          | 18   | 40 | 74 | 7   | 34,5 | 31,5 | 143 | 7,2                  | 0,650                   |
| K0035.006040 | D    | left-hand type  | 38,5 | 25 | 12 | M6  | -          | -          | 11   | 25 | 45 | 4,5 | 22   | 20   | 110 | 3,8                  | 0,175                   |
| K0035.010040 | D    | left-hand type  | 58,5 | 40 | 18 | M10 | -          | -          | 18   | 40 | 74 | 7   | 34,5 | 31,5 | 143 | 7,2                  | 0,650                   |

## Sliding edge clamps



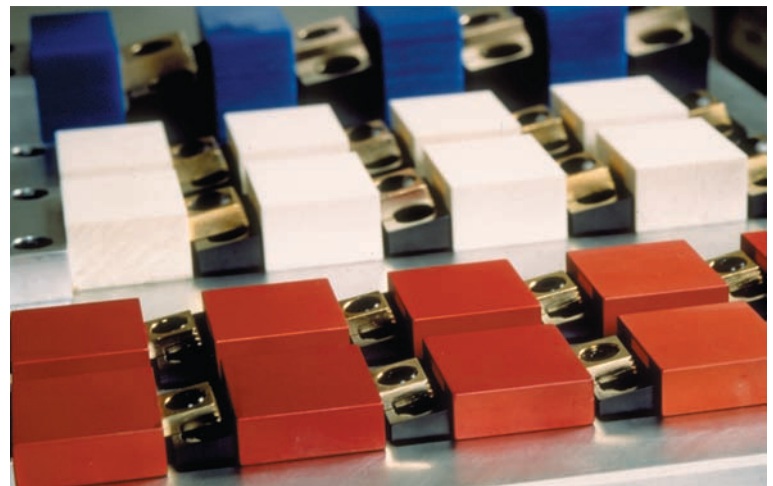
**Material:**  
Steel

**Surface finish:**  
Body heat-treated and black oxide finish, clamping disc case-hardened and brass-coated

**Sample order:**  
K0036.10

**Note:**  
Sliding edge clamps allow space-saving and economical clamping of multiple workpieces. When clamping multiple workpieces the rear side of the body can be used as a stop. Mounting preferably in slots with  $B +0.05$  mm. The contact height of the clamping disc can be varied with the depth of the slot.

Example for multiple clampings with sliding edge clamps

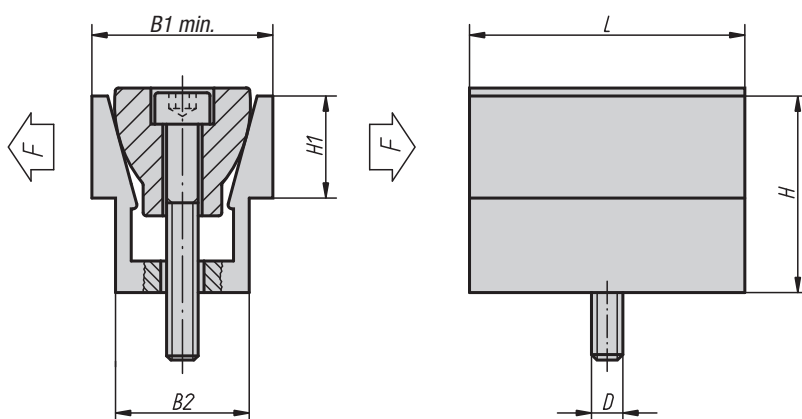


### KIPP Sliding edge clamps

| Order No. | L    | L1   | L2   | B    | H    | H1   | H2  | H3 max. | S    | D   | S1<br>(Clamping travel) | SW | SW1 | Clamping force<br>kN | Tightening torque<br>max. Nm | Approx.<br>weight<br>kg |
|-----------|------|------|------|------|------|------|-----|---------|------|-----|-------------------------|----|-----|----------------------|------------------------------|-------------------------|
| K0036.08  | 43,2 | 25,4 | 19   | 19   | 12,7 | 15,7 | 6,4 | 21,4    | 1,5  | M8  | 1,6                     | 5  | 7   | 8,9                  | 28                           | 0,100                   |
| K0036.10  | 54   | 33,5 | 25,4 | 25,4 | 11,4 | 15,4 | 9,7 | 24,5    | 1,8  | M10 | 2                       | 7  | 8   | 17,8                 | 88                           | 0,178                   |
| K0036.12  | 75   | 50,8 | 38   | 38,1 | 25,5 | 31,5 | 13  | 43      | 2,05 | M12 | 2,5                     | 10 | 12  | 26,7                 | 135                          | 0,720                   |



## Double edge clamps



**Material:**

Exterior part in aluminium profile,  
taper in hardened steel

**Surface finish:**

Exterior part anodized, taper black oxide finish

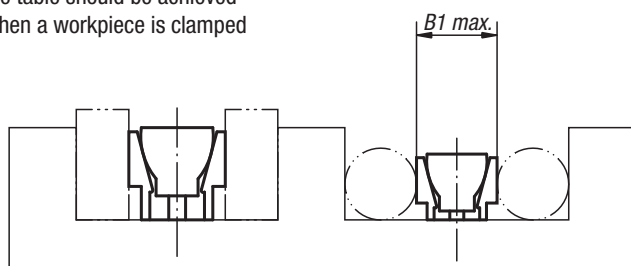
**Sample order:**

K0037.08

**Note:**

A double edge clamp clamps two workpieces simultaneously. It is perfectly suited to clamp both round and rectangular pieces. Due to its compact construction, space-saving multiple clamping is possible.

Dimension B1 max. given in the table should be achieved when a workpiece is clamped

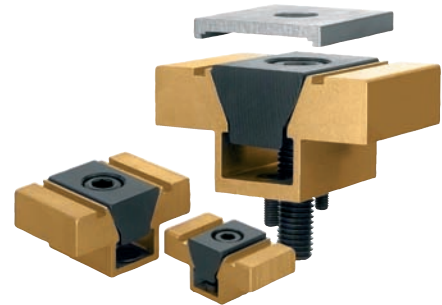


### KIPP Double edge clamps

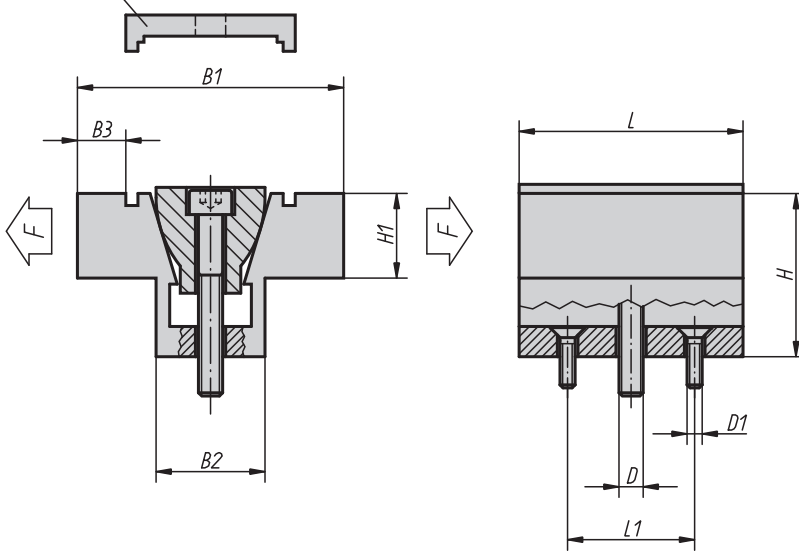
| Order No. | D   | L    | B1<br>min. - max. | B2   | H    | H1   | F<br>kN | Tightening<br>torque<br>max. Nm | Approx.<br>weight<br>kg |
|-----------|-----|------|-------------------|------|------|------|---------|---------------------------------|-------------------------|
| K0037.04  | M4  | 15,9 | 12,3 - 13,1       | 10,4 | 14,5 | 5,6  | 2,2     | 3,4                             | 0,012                   |
| K0037.06  | M6  | 23,8 | 18,6 - 19,9       | 16,1 | 19   | 9,5  | 6,7     | 14,3                            | 0,040                   |
| K0037.08  | M8  | 31,7 | 24,8 - 26,6       | 20,8 | 25,9 | 12,7 | 8,9     | 14,5                            | 0,090                   |
| K0037.12  | M12 | 47,6 | 37,3 - 39,7       | 30,8 | 38,6 | 19   | 15,6    | 38,4                            | 0,300                   |
| K0037.16  | M16 | 63,5 | 49,7 - 52,8       | 41,2 | 51,5 | 25,4 | 26,7    | 74,6                            | 0,710                   |

## Double edge clamps

with machining allowance



The locking plate is only used for form cutting, not for workpiece clamping



**Material:**

Exterior part in aluminium profile, taper in hardened steel

**Surface finish:**

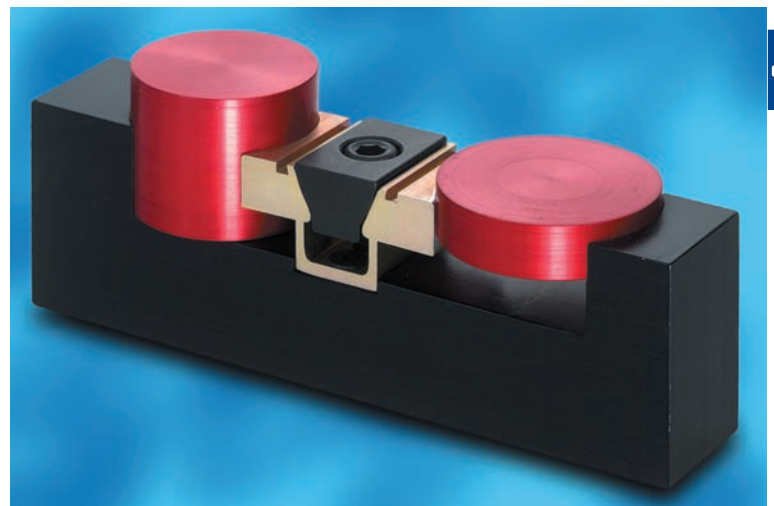
Exterior part anodized, taper black oxide finish

**Sample order:**

K0038.08

**Note:**

A double edge clamp clamps two workpieces simultaneously. By means of appropriate countersinking workpieces can be clamped with form-fit and thus absolutely safely and free of torsion. Due to its compact construction, space-saving multiple clamping is possible.



**KIPP Double edge clamps with machining allowance**

| Order No. | D   | D1 | L    | L1   | B1<br>min. - max. | B2   | B3   | H    | H1   | F<br>kN | Tightening<br>torque<br>max. Nm | Approx.<br>weight<br>kg |
|-----------|-----|----|------|------|-------------------|------|------|------|------|---------|---------------------------------|-------------------------|
| K0038.04  | M4  | M2 | 15,9 | 10,2 | 28,6 - 29,1       | 10,6 | 4,6  | 12,7 | 6,3  | 2,2     | 3,4                             | 0,018                   |
| K0038.06  | M6  | M4 | 23,9 | 15,9 | 38,1 - 39         | 16,1 | 6,6  | 19   | 9,5  | 6,7     | 14,3                            | 0,056                   |
| K0038.08  | M8  | M4 | 31,8 | 20,6 | 50,8 - 52         | 20,8 | 9,4  | 25,4 | 12,7 | 8,9     | 14,5                            | 0,123                   |
| K0038.12  | M12 | M5 | 47,6 | 30,5 | 76,2 - 78         | 30,9 | 14,8 | 38,1 | 19   | 15,6    | 38,4                            | 0,420                   |
| K0038.16  | M16 | M6 | 63,5 | 40   | 101,6 - 103,9     | 41,3 | 20,3 | 50,8 | 25,4 | 26,7    | 74,6                            | 1,008                   |

## Taper clamps

clamping surface smooth or serrated



**Material, surface finish:**

Double edge and clamping segments tempered steel, hardened and black

**Sample order:**

K0039.2208

**Note:**

Their compact design makes the taper clamps especially suitable for multiple clamping. The hardened and ground taper surfaces make high clamping forces possible.

The appropriate taper clamps can be mounted either in a M.T.P. hole or a T-slot. Inserting a socket head screw moves the two clamping segments outwards and presses the workpieces against the fixed stop of the machining device.

Via the incorporated longhole the taper clamps can be displaced or balance tolerances.

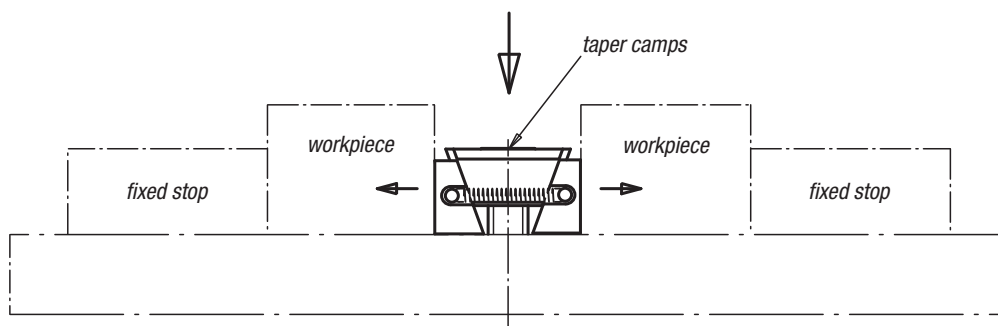
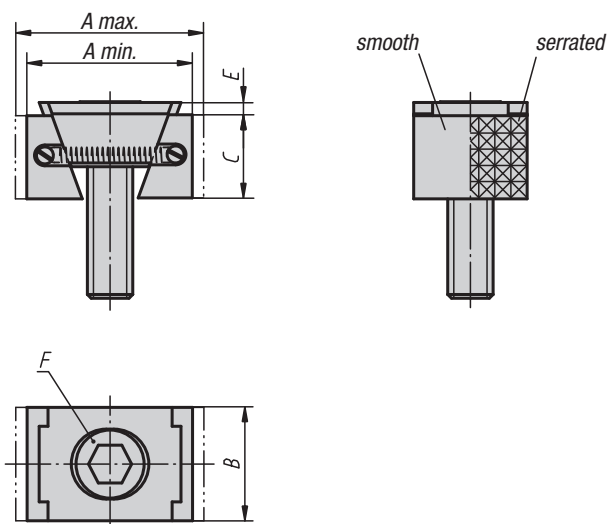
Travel path according:

M8 = ±0.5 mm

M10 = ±1.0 mm

M12 = ±1.0 mm

M16 = ±1.5 mm



### KIPP Taper clamps, strait version

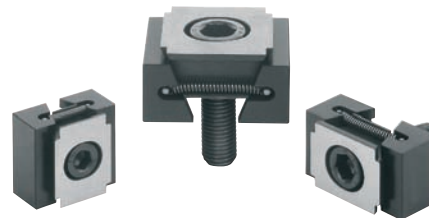
| Order No.<br>clamping surface<br>smooth | Order No.<br>clamping surface<br>serrated | A<br>min. | A<br>max. | B  | C  | E   | F<br>Socket head screw<br>DIN 912 | Clamping force<br>kN | Tightening torque<br>Nm |
|---|---|-----------|-----------|----|----|-----|-----------------------------------|----------------------|-------------------------|
| K0039.1108                              | K0039.2108                                | 30,5      | 33,5      | 24 | 15 | 2   | M8x25                             | 15                   | 25                      |
| K0039.1110                              | K0039.2110                                | 32        | 37        | 28 | 19 | 3,5 | M10x25                            | 20                   | 49                      |
| K0039.1112                              | K0039.2112                                | 44        | 49,5      | 30 | 22 | 3,5 | M12x40                            | 30                   | 85                      |
| K0039.1116                              | K0039.2116                                | 55        | 62        | 40 | 29 | 4   | M16x60                            | 50                   | 210                     |

### KIPP Taper clamps, broad version

| Order No.<br>clamping surface<br>smooth | Order No.<br>clamping surface<br>serrated | A<br>min. | A<br>max. | B  | C  | E   | F<br>Socket head screw<br>DIN 912 | Clamping force<br>kN | Tightening torque<br>Nm |
|---|---|-----------|-----------|----|----|-----|-----------------------------------|----------------------|-------------------------|
| K0039.1208                              | K0039.2208                                | 30,5      | 33,5      | 30 | 15 | 2   | M8x25                             | 15                   | 25                      |
| K0039.1210                              | K0039.2210                                | 32        | 37        | 38 | 19 | 3,5 | M10x25                            | 20                   | 49                      |
| K0039.1212                              | K0039.2212                                | 44        | 49,5      | 48 | 22 | 3,5 | M12x40                            | 30                   | 85                      |
| K0039.1216                              | K0039.2216                                | 55        | 62        | 48 | 29 | 4   | M16x60                            | 50                   | 210                     |

## Taper clamps

with machining allowance



**Material, surface finish:**

Double edge and clamping segments tempered steel, heat-treated and black

**Sample order:**

K0649.3110

**Note:**

The special feature of the taper clamps is the added length. This extra length allows forms adjusted to the workpiece geometry to be incorporated.

Their compact design makes the taper clamps especially suitable for multiple clamping. The hardened and ground taper surfaces make high clamping forces possible.

The appropriate taper clamps can be mounted either in a M.T.P. hole or a T-slot. Inserting a socket head screw moves the two clamping segments outwards and presses the workpieces against the fixed stop of the machining device.

Via the incorporated longhole the taper clamps can be displaced or balance tolerances.

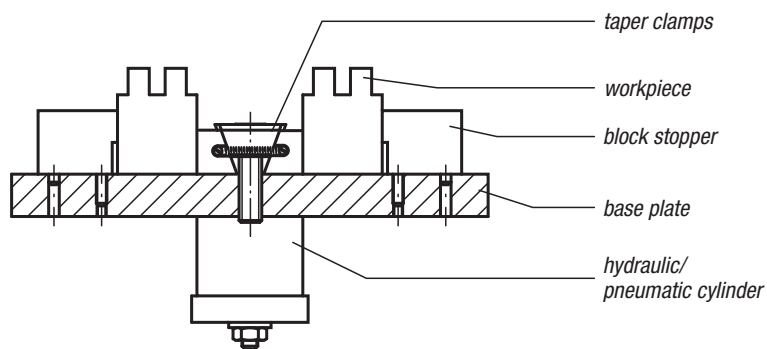
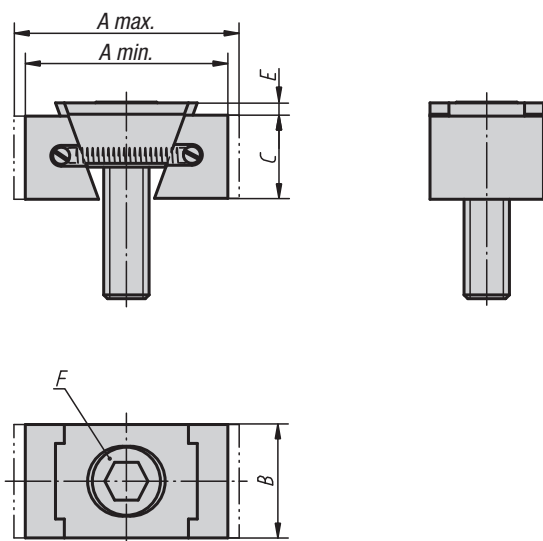
Travel path according:

M8 = ±0.5 mm

M10 = ±1.0 mm

M12 = ±1.0 mm

M16 = ±1.5 mm



### KIPP Taper clamps with machining allowance

| Order No.  | Surface finish | A min. | A max. | B  | C  | E   | F<br>Socket head screw<br>DIN 912 | Clamping force<br>kN | Tightening torque<br>Nm |
|------------|----------------|--------|--------|----|----|-----|-----------------------------------|----------------------|-------------------------|
| K0649.3108 | strait         | 36,5   | 39,5   | 24 | 15 | 2   | M8x25                             | 11                   | 19                      |
| K0649.3110 | strait         | 42     | 47     | 28 | 19 | 3,5 | M10x25                            | 15                   | 37                      |
| K0649.3112 | strait         | 54     | 59,5   | 30 | 22 | 3,5 | M12x40                            | 23                   | 65                      |
| K0649.3116 | strait         | 65     | 72     | 40 | 29 | 4   | M16x60                            | 38                   | 160                     |
| K0649.3208 | broad          | 36,5   | 39,5   | 30 | 15 | 2   | M8x25                             | 11                   | 19                      |
| K0649.3210 | broad          | 42     | 47     | 38 | 19 | 3,5 | M10x25                            | 15                   | 37                      |
| K0649.3212 | broad          | 54     | 59,5   | 48 | 22 | 3,5 | M12x40                            | 23                   | 65                      |
| K0649.3216 | broad          | 65     | 72     | 48 | 29 | 4   | M16x60                            | 38                   | 160                     |

## Taper clamping units

form A



**Material, surface finish:**

Body in hardened tool steel, clamping segments in hardened tool steel (49-51 HRC) with black oxide finish, taper surfaces ground

**Sample order:**

K0040.1618

**Note:**

Because of their compact design, the taper clamping units are especially suitable for horizontal and vertical multiple clamping. The hardened and ground taper surfaces make high clamping forces possible. The appropriate taper clamping units can be mounted either in a M.T.P. hole or a T-slot. Inserting a socket head screw to DIN 912 moves the two clamping segments outwards and presses the workpieces against a fixed stop.

**The clamping jaws with Order No. K0040.08 are not serrated.**

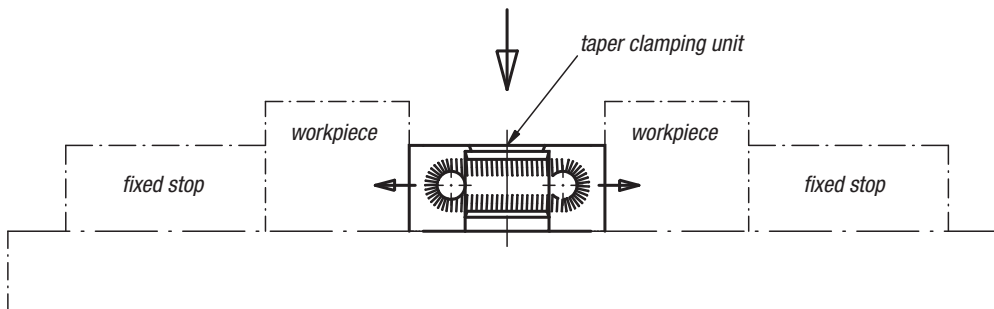
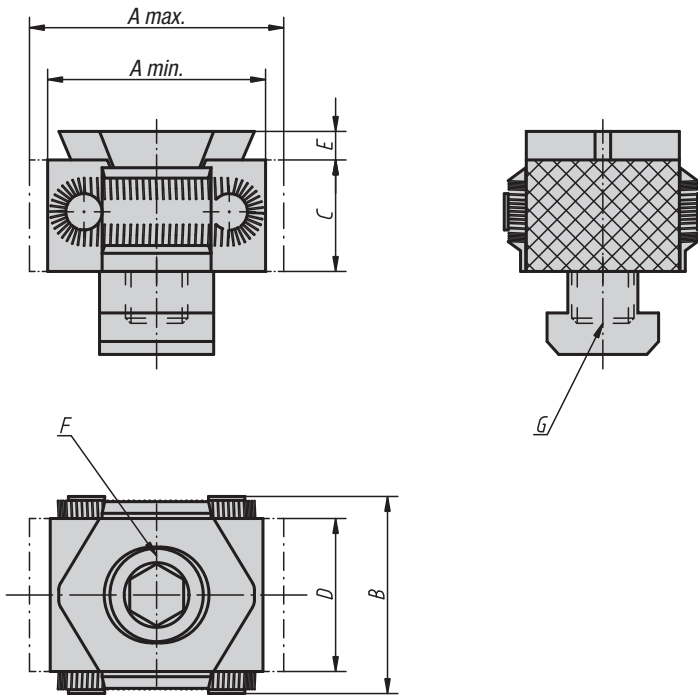
Via the incorporated longhole the taper clamping unit can be displaced.

Travel path according to Order No.:

K0040.08 = ±0.5 mm

K0040.12 = ±1.0 mm

K0040.16 = ±1.5 mm



**KIPP Taper clamping units form A**

| Order No.  | A min. | A max. | B  | C  | D  | E   | F<br>Socket head screw<br>DIN 912 | G                 | Clamping force<br>kN | Tightening torque<br>Nm | Approx.<br>weight<br>kg |
|------------|--------|--------|----|----|----|-----|-----------------------------------|-------------------|----------------------|-------------------------|-------------------------|
| K0040.08   | 27     | 31     | 29 | 15 | 21 | 2,5 | M8x25                             | for threaded hole | 15                   | 25                      | 0,068                   |
| K0040.0810 | 27     | 31     | 29 | 15 | 21 | 2,5 | M8x25                             | for T-slot 10     | 15                   | 25                      | 0,080                   |
| K0040.12   | 42     | 49     | 41 | 22 | 30 | 4   | M12x40                            | for threaded hole | 30                   | 85                      | 0,224                   |
| K0040.1214 | 42     | 49     | 41 | 22 | 30 | 4   | M12x30                            | for T-slot 14     | 30                   | 85                      | 0,251                   |
| K0040.16   | 57     | 66     | 56 | 29 | 42 | 5   | M16x60                            | for threaded hole | 50                   | 210                     | 0,583                   |
| K0040.1618 | 57     | 66     | 56 | 29 | 42 | 5   | M16x50                            | for T-slot 18     | 50                   | 210                     | 0,638                   |

## Taper clamping units

form A and L with extra length for made-to-order forms



### Material, surface finish:

Body in hardened tool steel, clamping segments in tool steel (30 HRC) with black oxide finish, taper surfaces ground; specially designed clamping ends to suit your application or other hardness values available on request

### Sample order:

K0041.12

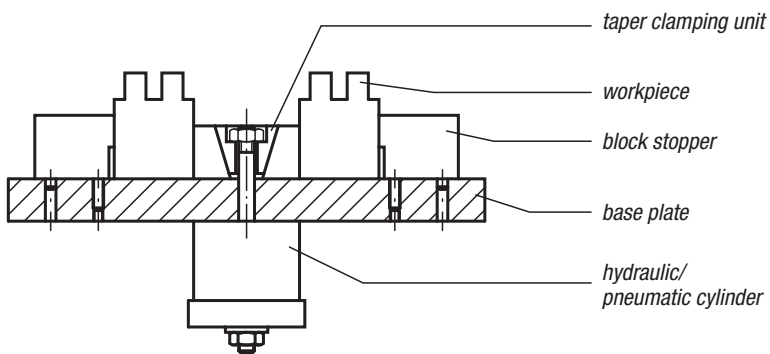
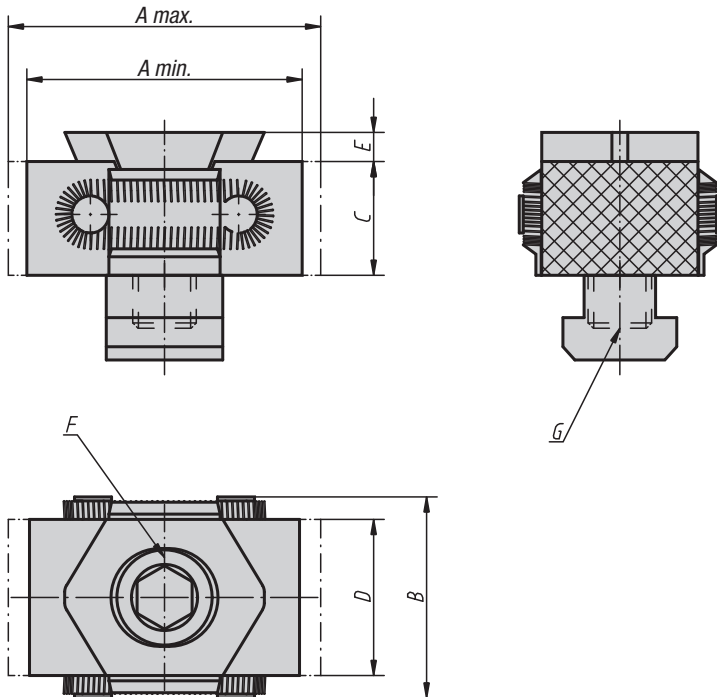
### Note:

The special feature of the taper clamping units „Form A+L“ is in the added length of 3 mm per clamping jaw for version K0041.08 and 5 mm for versions K0041.12 and K0041.16. This extra length allows forms adjusted to the workpiece geometry to be incorporated (see illustration). **The clamping jaws with Order No. K0041.08 are not serrated.** Travel path according to Order No.:

K0041.08 = ±0.5 mm

K0041.12 = ±1.0 mm

K0041.16 = ±1.5 mm



### KIPP Taper clamping units form A+L

| Order No.  | A min. | A max. | B  | C  | D  | E   | F<br>Socket head screw<br>DIN 912 | G                 | Clamping force<br>kN | Tightening torque<br>Nm | Approx.<br>weight<br>kg |
|------------|--------|--------|----|----|----|-----|-----------------------------------|-------------------|----------------------|-------------------------|-------------------------|
| K0041.08   | 33     | 37     | 29 | 15 | 21 | 2,5 | M8x25                             | for threaded hole | 15                   | 25                      | 0,084                   |
| K0041.0810 | 33     | 37     | 29 | 15 | 21 | 2,5 | M8x25                             | for T-slot 10     | 15                   | 25                      | 0,096                   |
| K0041.12   | 52     | 59     | 41 | 22 | 30 | 4   | M12x40                            | for threaded hole | 30                   | 85                      | 0,276                   |
| K0041.1214 | 52     | 59     | 41 | 22 | 30 | 4   | M12x30                            | for T-slot 14     | 30                   | 85                      | 0,303                   |
| K0041.16   | 67     | 76     | 56 | 29 | 42 | 5   | M16x60                            | for threaded hole | 50                   | 210                     | 0,668                   |
| K0041.1618 | 67     | 76     | 56 | 29 | 42 | 5   | M16x50                            | for T-slot 18     | 50                   | 210                     | 0,722                   |

## Taper clamping units

form B



**Material, surface finish:**

Body in hardened tool steel, clamping segments in hardened tool steel (49-51 HRC) with black oxide finish, taper surfaces ground

**Sample order:**

K0042.1214

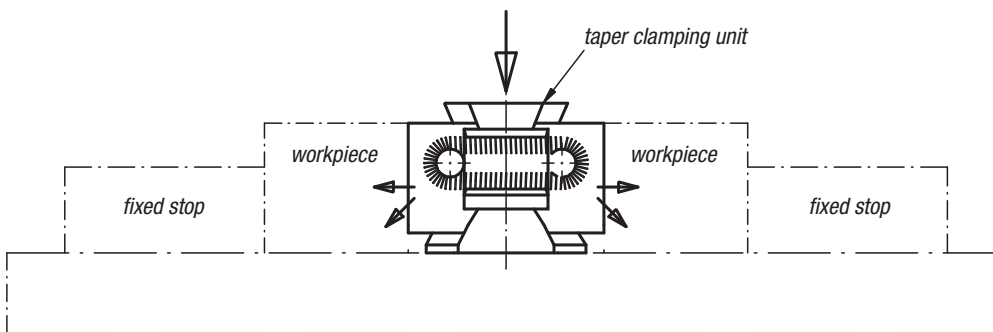
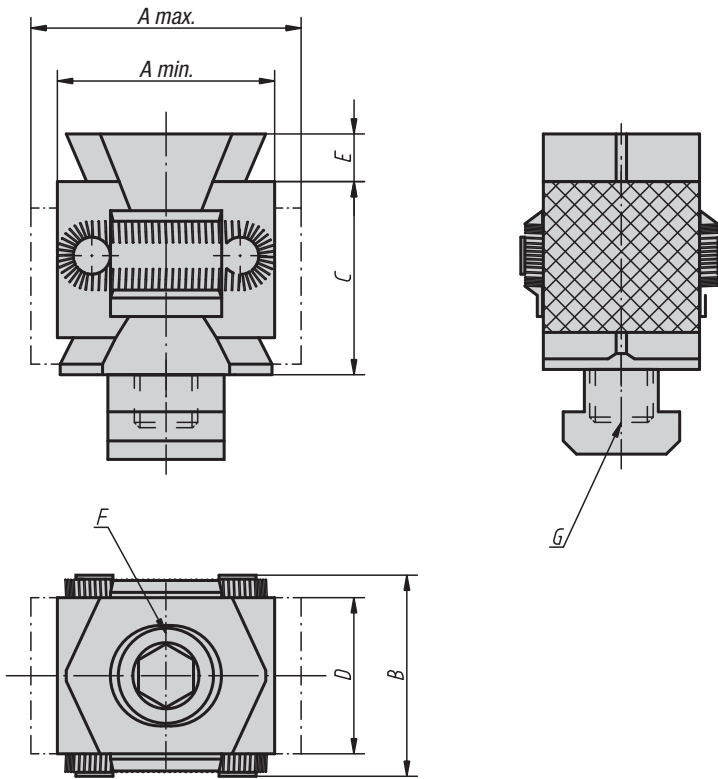
**Note:**

Because of their compact design, the taper clamping units are especially suitable for horizontal and vertical multiple clamping. The hardened and ground taper surfaces make high clamping forces possible. The appropriate taper clamping units can be mounted either in a M.T.P. hole or a T-slot. Inserting a socket head screw to DIN 912 moves the two clamping segments outwards and presses the workpieces against a fixed stop. The so-called „hold-down effect“ is caused by the double tapers of this version.

Travel path according to Order No.:

K0042.12 = ±1.0 mm

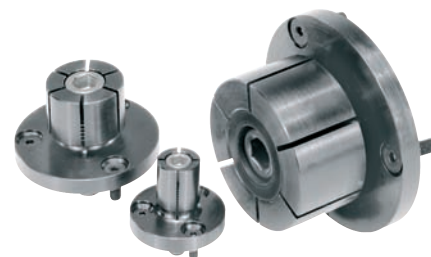
K0042.16 = ±1.5 mm



**KIPP Taper Clamping Units form B**

| Order No.  | A min. | A max. | B  | C  | D  | E | F<br>Socket head screw<br>DIN 912 | G                 | Clamping force<br>kN | Tightening torque<br>Nm | Approx.<br>weight<br>kg |
|------------|--------|--------|----|----|----|---|-----------------------------------|-------------------|----------------------|-------------------------|-------------------------|
| K0042.12   | 42     | 49     | 41 | 36 | 30 | 5 | M12x60                            | for threaded hole | 40                   | 85                      | 0,318                   |
| K0042.1214 | 42     | 49     | 41 | 36 | 30 | 5 | M12x50                            | for T-slot 14     | 40                   | 85                      | 0,353                   |
| K0042.16   | 57     | 67     | 56 | 50 | 42 | 5 | M16x80                            | for threaded hole | 60                   | 210                     | 0,843                   |
| K0042.1618 | 57     | 67     | 56 | 50 | 42 | 5 | M16x70                            | for T-slot 18     | 60                   | 210                     | 0,912                   |

## Clamping plugs



**Material:**

Housing mild steel, tapered-head bolt hardened steel

**Surface finish:**

Tapered-head bolt hardened, black oxide finish;  
taper element case-hardened

**Sample order:**

K0357.081420

**Note:**

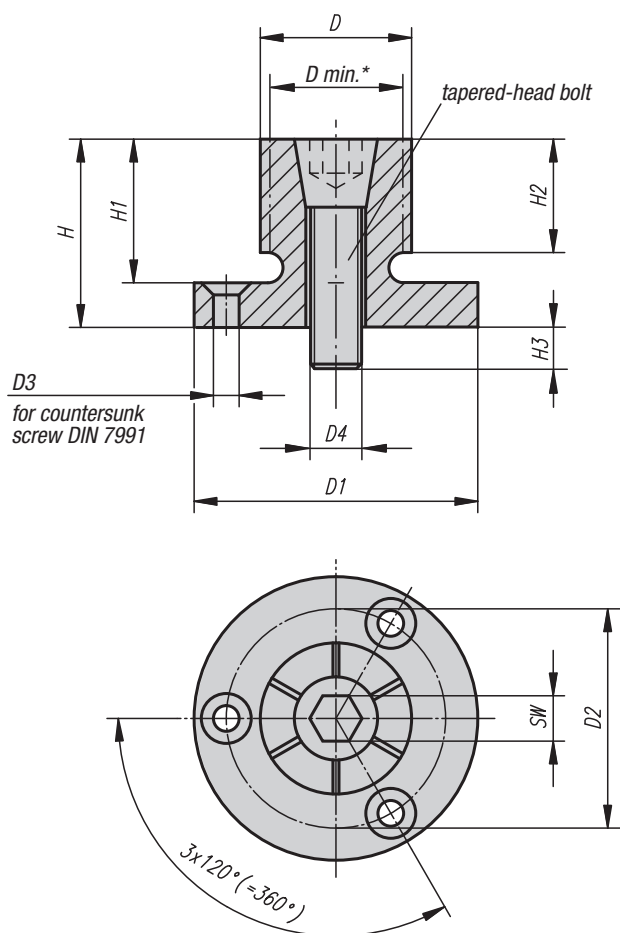
The clamping plug is ideal for second machining of turned parts. The diameter D can be adapted to the diameter of the workpiece to be clamped by turning or milling.

Low construction - no clamps in the way.  
Clamping movement with hexagon socket wrench or hydraulically.

\* D min. = smallest admissible diameter to which „D“ may be turned or milled

**Assembly:**

Widen the clamping plug to about 0.1 mm (clamp travel) more than the diameter at rest. Machine to the internal diameter of the workpiece by turning or milling. The base can be centred in a hole or with locating pins as required.



### KIPP Clamping plugs

| Order No.     | D    | D min. | D1       | D2   | D3 for countersunk screw | D4 Tapered-head bolt | H    | H1   | H2   | H3  | SW Tapered-head bolt | Tightening torque max. Nm | Clamping force max. kN | Approx. weight kg |
|---------------|------|--------|----------|------|--------------------------|----------------------|------|------|------|-----|----------------------|---------------------------|------------------------|-------------------|
| K0357.020407  | 7,4  | 4,1    | 20 h9    | 13,7 | M2                       | M2                   | 10,7 | 7,6  | 6,1  | 4,1 | 1,5                  | 0,7                       | 1,1                    | 0,010             |
| K0357.040812  | 12,4 | 7,2    | 29,72 h9 | 21   | M3                       | M4                   | 21,8 | 16   | 15   | 8   | 3                    | 5                         | 4,2                    | 0,040             |
| K0357.061214  | 14,2 | 12,2   | 31,5 h9  | 23,1 | M3                       | M6                   | 24,9 | 19   | 15   | 12  | 5                    | 17                        | 8,5                    | 0,070             |
| K0357.081420  | 20   | 13,5   | 37,5 h9  | 29   | M3                       | M8                   | 24,9 | 19   | 15   | 14  | 6                    | 34                        | 11,1                   | 0,100             |
| K0357.062027  | 27   | 20     | 50 h8    | 39,4 | M4                       | M10                  | 28,6 | 22,2 | 17,5 | 17  | 8                    | 60                        | 20                     | 0,180             |
| K0357.102535  | 35,3 | 25,4   | 56 h8    | 45,5 | M4                       | M12                  | 31,8 | 25,4 | 20,6 | 21  | 10                   | 150                       | 26,3                   | 0,320             |
| K0357.123442  | 42   | 30     | 69,5 h8  | 55,9 | M5                       | M16                  | 39,6 | 31,8 | 27   | 22  | 14                   | 280                       | 44,5                   | 0,600             |
| K0357.123452  | 51   | 30     | 75,5 h8  | 63,9 | M5                       | M16                  | 39,6 | 31,8 | 27   | 22  | 14                   | 280                       | 44,5                   | 0,700             |
| K0357.163077  | 77   | 30     | 107,5 h8 | 92,5 | M6                       | M16                  | 45,5 | 37,6 | 32,3 | 20  | 14                   | 280                       | 44,5                   | 1,730             |
| K0357.1630103 | 103  | 30     | 132,9 h8 | 118  | M6                       | M16                  | 46   | 38   | 32   | 20  | 14                   | 280                       | 44,5                   | 2,860             |
| K0357.1630175 | 175  | 30     | 132,9 h8 | 118  | M6                       | M16                  | 45,5 | 37,6 | 32,3 | 20  | 14                   | 280                       | 44,5                   | 6,500             |



## Clamping plugs

with lateral clamping



**Form A**  
for machining centres,  
drilling and milling machines

**Form B**  
with clamping pivot  
for turning machines

**Material:**  
Housing mild steel;  
clamping screw in tempered steel

**Surface finish:**  
Housing, black oxide finish;  
clamping screw, heat-treated class 10.9,  
hardened and PTFE coated

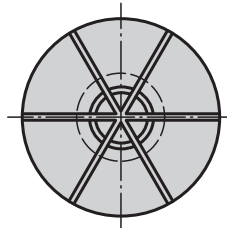
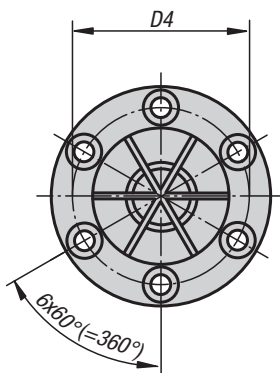
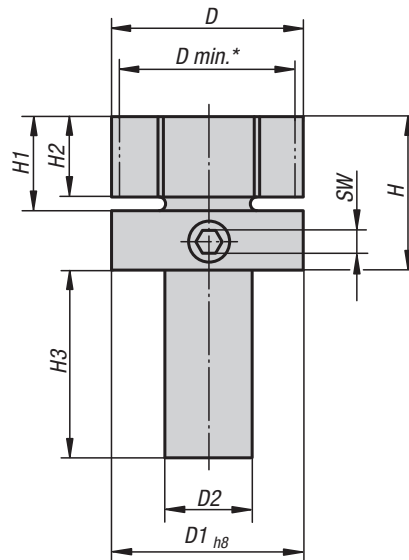
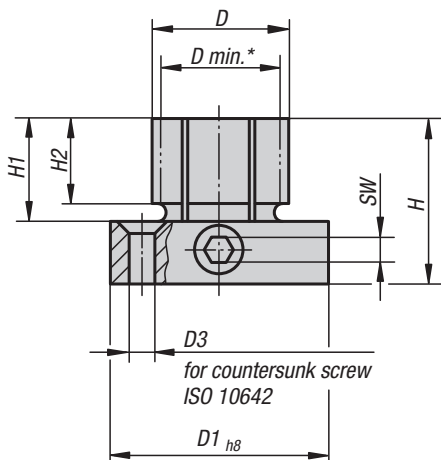
**Sample order:**  
K0643.118029

**Note:**  
Due to the lateral clamping the clamping plug is ideal  
for second machining of turned and milled parts with  
blind hole. The diameter D can be adapted to the  
diameter of the workpiece to be clamped by turning or  
milling.

The clamping movement is carried out manually with  
hexagon socket wrench.

\* D min. = smallest admissible diameter to which „D“  
may be turned or milled

**Assembly:**  
Widen the clamping plug to about 0.1 mm (clamp  
travel) more than the diameter at rest. The clamping  
plug can now be lathed and milled to the requisite  
diameter. An interlocking ring is included for  
machining.  
The base can be centred in a locating hole or with  
locating pins as required.  
Version A is delivered with 6 fastening screws.

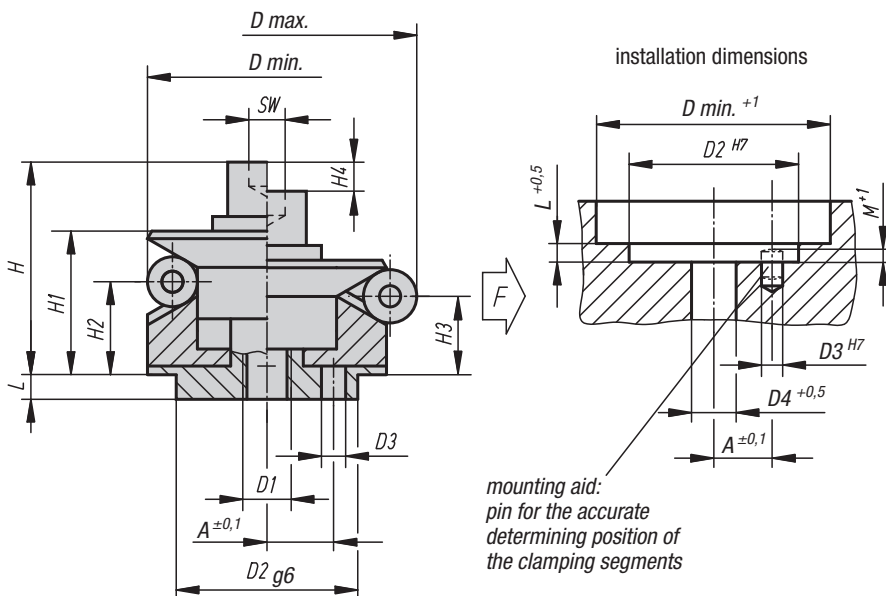


### KIPP Clamping plugs with lateral clamping

| Order No.    | Form | D    | D min. | D1   | D2 | D3<br>for<br>countersunk screw | D4   | H    | H1 | H2   | H3 | SW | Tightening torque<br>max. Nm | Clamping force<br>max. kN | Approx.<br>weight<br>kg |
|--------------|------|------|--------|------|----|--------------------------------|------|------|----|------|----|----|------------------------------|---------------------------|-------------------------|
| K0643.118029 | A    | 28,7 | 17,8   | 50   | -  | M4                             | 39,4 | 41   | 22 | 17,5 | -  | 6  | 66                           | 20                        | 0,425                   |
| K0643.218053 | B    | 53,3 | 18     | 53,3 | 25 | -                              | -    | 44,4 | 25 | 21   | 45 | 6  | 66                           | 20                        | 0,81                    |

## Centring tension jack

with and without protection



### Material:

Body 1.2842;  
balls and hexagonal 1.4112;  
tension spring 1.4310

### Surface finish:

Body hardened and black oxide finished;  
balls and hexagonal hardened and ground

### Sample order:

K0358.101203

### Note:

Form A: With ball suitable for tensioning in holes where slight impressions are acceptable.

Form B: With hexagonal for surface-sensitive holes.

### Application:

To position and self-centre round holes from inside to outside.

### Advantages:

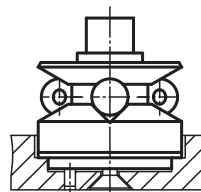
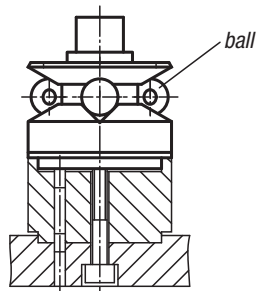
- Precise self-centring.
- No-warp tensioning.
- Large travels.
- Low height.

### Technical data:

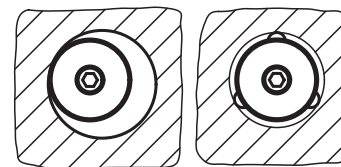
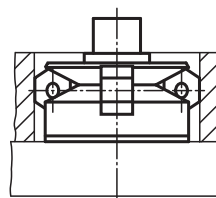
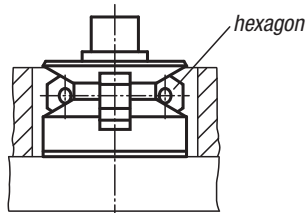
Repeat accuracy  $\pm 0.025$

Truth of running  $\pm 0.05$

Form A  
without protection:  
point of contact



Form B  
with protection:  
blunt line contact



## KIPP Centring tension jack with and without protection

| Order No.<br>Form A | Order No.<br>Form B | A   | D<br>min. | D<br>max. | D1  | D2 | D3  | D4   | H    | H1   | H2   | H3   | H4  | L   | M   | SW  | Ball-Ø | hexagon | Number<br>of balls/<br>hexagon | F<br>kN | Approx.<br>weight<br>kg |
|---------------------|---------------------|-----|-----------|-----------|-----|----|-----|------|------|------|------|------|-----|-----|-----|-----|--------|---------|--------------------------------|---------|-------------------------|
| K0358.101203        | -                   | 3,5 | 11,7      | 14,2      | M3  | 10 | 1,5 | 3,3  | 15,9 | 12   | 9,2  | 8,6  | 1,5 | 3,5 | 2,5 | 2,5 | 2,5    | -       | 3                              | 0,5     | 0,018                   |
| K0358.101504        | K0358.201504        | 4,5 | 14,5      | 18,5      | M4  | 12 | 2   | 4,3  | 19,6 | 14,1 | 9,1  | 7,9  | 2,3 | 5,5 | 3,5 | 3   | 4/-    | -/4     | 3                              | 3,5     | 0,020                   |
| K0358.101905        | K0358.201905        | 5,5 | 18,5      | 22,5      | M5  | 15 | 2,5 | 5,3  | 23,6 | 16,6 | 11,6 | 10,4 | 2,3 | 7,5 | 3   | 4   | 4/-    | -/4     | 3                              | 4,5     | 0,039                   |
| K0358.102306        | K0358.202306        | 7   | 22,5      | 26,5      | M6  | 15 | 3   | 6,4  | 29,1 | 20,1 | 15,1 | 13,9 | 2,3 | 6   | 4   | 5   | 4/-    | -/4     | 3                              | 5       | 0,060                   |
| K0358.102706        | K0358.202706        | 7   | 26,5      | 30,5      | M6  | 20 | 3   | 6,4  | 29,1 | 20,1 | 15,1 | 13,9 | 2,3 | 6   | 4,5 | 5   | 4/-    | -/4     | 3                              | 5       | 0,086                   |
| K0358.103106        | K0358.203106        | 9   | 30,5      | 38,5      | M6  | 25 | 4   | 6,4  | 33,2 | 24,2 | 15,2 | 12,8 | 4,6 | 7   | 4,5 | 5   | 8/-    | -/8     | 3                              | 5       | 0,125                   |
| K0358.103908        | K0358.203908        | 11  | 38,5      | 46,5      | M8  | 30 | 4   | 8,4  | 38,6 | 27,1 | 18,1 | 15,7 | 4,6 | 7,5 | 4,5 | 6   | 8/-    | -/8     | 6                              | 6,5     | 0,233                   |
| K0358.104708        | K0358.204708        | 11  | 46,5      | 54,5      | M8  | 30 | 4   | 8,4  | 38,6 | 27,1 | 18,1 | 15,7 | 4,6 | 7,5 | 4,5 | 6   | 8/-    | -/8     | 6                              | 6,5     | 0,323                   |
| K0358.105510        | K0358.205510        | 15  | 54,5      | 70,5      | M10 | 45 | 5   | 10,5 | 54,7 | 40,7 | 23,7 | 19   | 9,3 | 9   | 5,5 | 8   | 16/-   | -/16    | 6                              | 8       | 0,653                   |
| K0358.107112        | K0358.207112        | 17  | 70,5      | 86,5      | M12 | 60 | 5   | 13   | 62,1 | 45,6 | 28,3 | 23,6 | 9,3 | 10  | 5,5 | 10  | 16/-   | -/16    | 6                              | 10      | 1,271                   |
| K0358.108712        | K0358.208712        | 17  | 86,5      | 102,5     | M12 | 60 | 5   | 13   | 62,1 | 45,6 | 28,3 | 23,6 | 9,3 | 10  | 5,5 | 10  | 16/-   | -/16    | 6                              | 10      | 1,783                   |

## Centring tension jack

with and without protection



**Material:**

Body 1.2842;  
balls and hexagonal 1.4112;  
tension spring 1.4310

**Surface finish:**

Body hardened and black oxide finished; balls and hexagonal hardened and ground

**Sample order:**

K0644.0101203

**Note:**

Form A: with ball suitable for tensioning in holes, where slight impressions are acceptable.  
Form B: with hexagon for surface-sensitive holes.

**Application:**

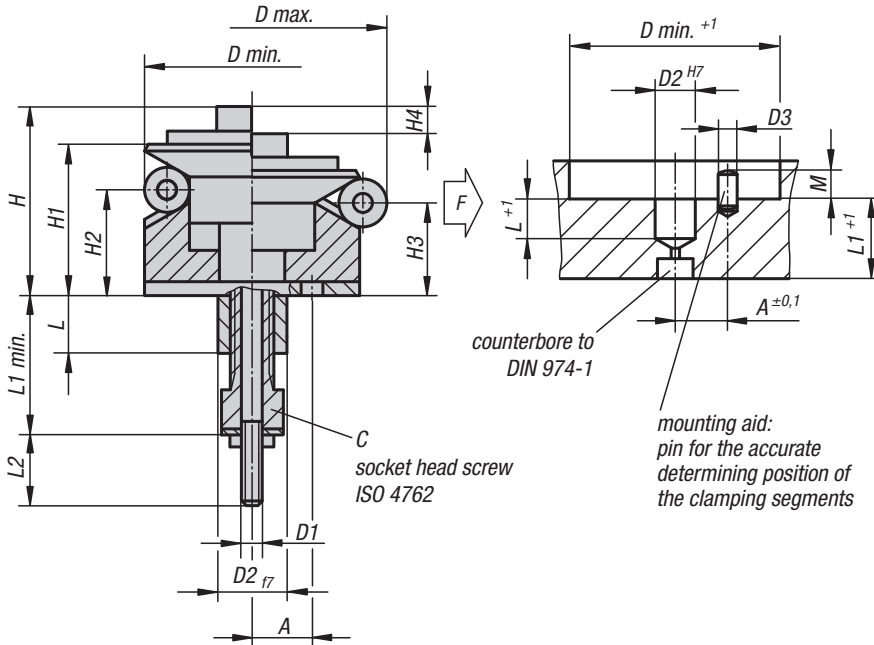
For central positioning and tightening in blind holes. Operated from below, either manual or automated via pneumatic or hydraulic systems.

**Advantages:**

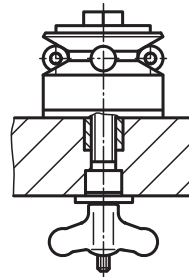
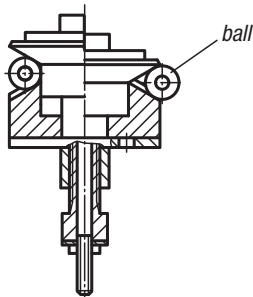
- Precise self-centring.
- No-warp tensioning.
- Large travels.
- Low height.
- Side clamping effect (downward pressure).

**Technical data:**

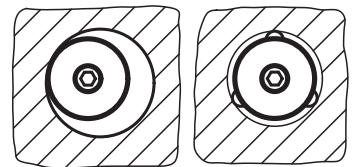
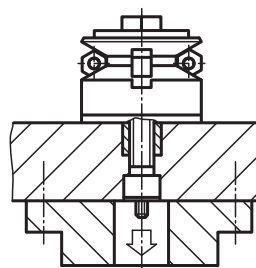
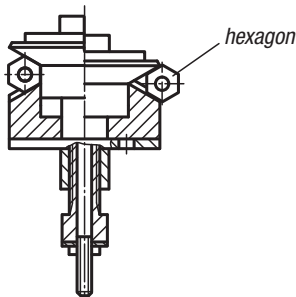
Repeat accuracy  $\pm 0.025$   
Truth of running  $\pm 0.05$



Form A  
without protection:  
point of contact



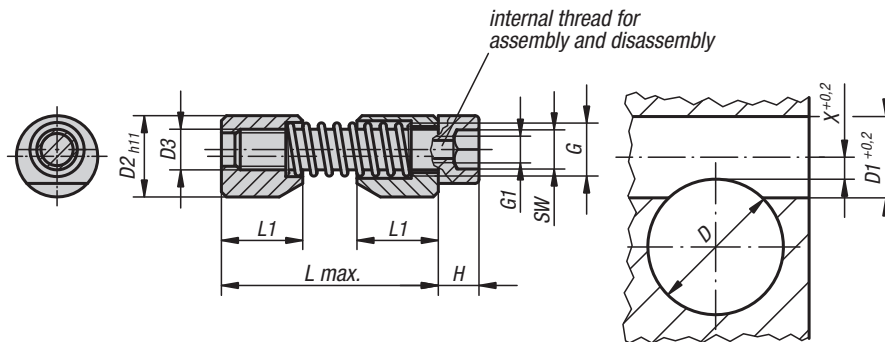
Form B  
with protection:  
blunt line contact



### KIPP Centring tension jack with and without protection

| Order No.<br>Form A | Order No.<br>Form B | A    | D<br>min. | D<br>max. | D1 | D2 | D3  | H    | H1   | H2   | H3   | H4  | L    | L1<br>min. | L2 | M   | Ball-Ø<br>hexagon | Number<br>of balls/<br>hexagon | C<br>(DIN 912) | F<br>kN | Approx.<br>weight<br>kg |       |
|---------------------|---------------------|------|-----------|-----------|----|----|-----|------|------|------|------|-----|------|------------|----|-----|-------------------|--------------------------------|----------------|---------|-------------------------|-------|
| K0644.0101203       | -                   | 5,2  | 11,7      | 14,2      | M3 | 8  | 1,5 | 15   | 11,9 | 9,2  | 8,6  | 1,5 | 7,5  | 19,5       | 10 | 1   | 2,5               | -                              | 3              | M6x10   | 2                       | 0,009 |
| K0644.0101503       | K0644.0201503       | 6    | 14,5      | 18,5      | M3 | 8  | 2   | 17   | 14,1 | 9,1  | 7,9  | 2,3 | 7,5  | 19,5       | 10 | 1,5 | 4/-               | -/4                            | 3              | M6x10   | 2                       | 0,022 |
| K0644.0101904       | K0644.0201904       | 7,8  | 18,5      | 22,5      | M4 | 12 | 2,5 | 20,6 | 16,6 | 11,6 | 10,4 | 2,3 | 11,5 | 28         | 16 | 1,5 | 4/-               | -/4                            | 3              | M8x16   | 3,5                     | 0,054 |
| K0644.0102305       | K0644.0202305       | 9,4  | 22,5      | 26,5      | M5 | 15 | 3   | 27,1 | 20,1 | 15,1 | 13,9 | 2,3 | 11,5 | 30         | 14 | 2   | 4/-               | -/4                            | 3              | M10x16  | 6                       | 0,064 |
| K0644.0102705       | K0644.0202705       | 10,5 | 26,5      | 30,5      | M5 | 15 | 3   | 27,1 | 20,1 | 15,1 | 13,9 | 2,3 | 11,5 | 30         | 14 | 2   | 4/-               | -/4                            | 3              | M10x16  | 6                       | 0,098 |
| K0644.0103106       | K0644.0203106       | 12,5 | 30,5      | 38,5      | M6 | 20 | 4   | 32,7 | 24,2 | 15,2 | 12,8 | 4,6 | 15,5 | 36         | 16 | 2   | 8/-               | -/8                            | 3              | M12x20  | 8,5                     | 0,139 |
| K0644.0103906       | K0644.0203906       | 12,5 | 38,5      | 46,5      | M6 | 20 | 4   | 35,6 | 27,1 | 18,1 | 15,7 | 4,6 | 15,5 | 36         | 16 | 2,5 | 8/-               | -/8                            | 6              | M12x20  | 8,5                     | 0,248 |
| K0644.0104706       | K0644.0204706       | 12,5 | 46,5      | 54,5      | M6 | 20 | 4   | 35,6 | 27,1 | 18,1 | 15,7 | 4,6 | 15,5 | 36         | 16 | 2,5 | 8/-               | -/8                            | 6              | M12x20  | 8,5                     | 0,338 |
| K0644.0105508       | K0644.0205508       | 20   | 54,5      | 70,5      | M8 | 30 | 5   | 50,2 | 40,7 | 23,7 | 19   | 9,3 | 16,5 | 43         | 16 | 2,5 | 16/-              | -/16                           | 6              | M16x20  | 16                      | 0,660 |
| K0644.0107108       | K0644.0207108       | 25   | 70,5      | 86,5      | M8 | 40 | 5   | 55,1 | 45,6 | 28,3 | 23,6 | 9,3 | 16,5 | 43         | 16 | 2,5 | 16/-              | -/16                           | 6              | M16x20  | 16                      | 1,252 |
| K0644.0108708       | K0644.0208708       | 36,5 | 86,5      | 102,5     | M8 | 60 | 5   | 55,1 | 45,6 | 28,3 | 23,6 | 9,3 | 16,5 | 43         | 16 | 2,5 | 16/-              | -/16                           | 6              | M16x20  | 16                      | 1,765 |

# Cylindrical washer elements



**Material:**  
Clamping jaw: steel;  
pressure spring 1.4310;  
clamping screw: quality class 8.8

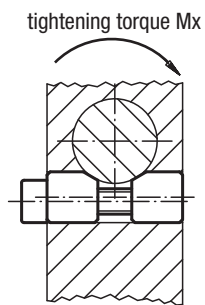
**Surface finish:**  
Clamping jaw black oxide finish;  
clamping screw blue galvanised

**Sample order:**  
K0375.04

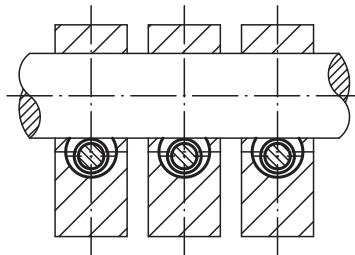
**Note:**  
The cylindrical washer elements are the simple alternative to conventional clamping (slot and tensioning crew of cylindrical parts). These components are ideally suited for the most varied materials (e.g., metals, plastics, wood...). To loosen a tight clamping jaw, it simply has to be hit axially or extracted by means of an additional thread in the clamping jaw respectively in the hexagon socket of the socket head screw. Spacer rings are available on request.

**Application:**

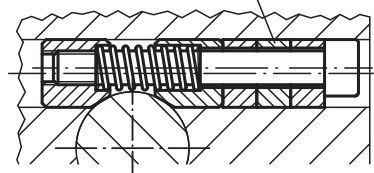
tighten axially and radially



adjustment and tightening



spacer rings K for deep holes



Holes located far from the outer edge can also be tightened using spacer rings and longer screws (without assembly thread).

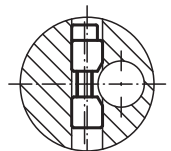
assembly tool



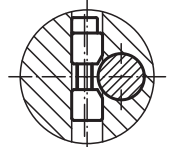
This tool is a special hexagon screwdriver with a threaded pin. To position respectively to loosen the cylindrical washer element, the screwdriver has to be screwed in the thread G1 of the socket head screw.

installation note:

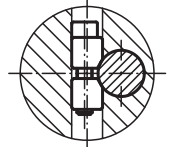
insert cylindrical washer element



insert cylindrical part



tighten



## KIPP Cylindrical washer elements

| Order No. | D      | D1 | D2 | D3  | L max. | L1 | X   | G   | G1   | H  | K  | SW | Mx Nm    | Approx. weight g | Order No. assembly tool |
|-----------|--------|----|----|-----|--------|----|-----|-----|------|----|----|----|----------|------------------|-------------------------|
| K0375.04  | 6-10   | 8  | 8  | M4  | 27     | 8  | 2,8 | M5  | M2,5 | 4  | 10 | 3  | max. 20  | 6                | K0375.904               |
| K0375.05  | 10-15  | 10 | 10 | M5  | 33     | 10 | 3,3 | M6  | M3   | 5  | 10 | 4  | max. 45  | 12               | K0375.905               |
| K0375.06  | 15-20  | 12 | 12 | M6  | 39     | 12 | 3,5 | M7  | M4   | 6  | 10 | 5  | max. 100 | 21               | K0375.906               |
| K0375.08  | 20-30  | 16 | 16 | M8  | 46     | 16 | 4   | M10 | M5   | 8  | 10 | 6  | max. 170 | 52               | K0375.908               |
| K0375.10  | 30-40  | 20 | 20 | M10 | 53     | 20 | 4,8 | M12 | M6   | 10 | 15 | 8  | max. 290 | 98               | K0375.910               |
| K0375.12  | 40-60  | 25 | 25 | M12 | 70     | 25 | 5,6 | M14 | M8   | 12 | 15 | 10 | max. 450 | 183              | K0375.912               |
| K0375.16  | 60-125 | 30 | 30 | M16 | 81     | 30 | 7,9 | M18 | M10  | 16 | 15 | 14 | max. 650 | 344              | K0375.916               |









## Spring plungers, locking bolts, ball locking bolts

Spring plungers  
with recess and ball, steel  
**K0309**



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Spring plungers  
with recess and ball, stainless steel  
**K0310**



Page 586-587

Spring plungers  
with recess and ball in delrin  
**K0311**



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Spring plungers  
with recess and ball in stain-  
less steel  
**K0312**



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Spring plungers  
with recess and ceramic ball, stainless  
steel  
**K0609**



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Spring plungers  
with recess and pressure pin,  
steel  
**K0313**



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Spring plungers  
with recess and pressure pin,  
stainless steel  
**K0314**



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Spring plungers  
with end position feedback  
**K0656**



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Spring plungers  
with hexagon socket and ball,  
steel  
**K0315**



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Spring plungers  
with hexagon socket and ball,  
stainless steel  
**K0316**



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Spring plungers  
with hexagon socket and ceramic ball  
**K0610**



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Spring plungers  
with hexagon socket and pressure pin,  
long version  
**K0657**



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Spring plungers  
with hexagon socket and  
pressure pin, steel  
**K0317**



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Spring plungers  
with hexagon socket and pressu-  
re pin in plastic, steel  
**K0318**



Page 602-603

Spring plungers  
with hexagon socket and pressu-  
re pin, stainless steel  
**K0319**



Page 604-605

Spring plungers  
with hexagon socket and pres-  
sure pin in plastic, stainless  
steel  
**K0320**



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Spring plungers  
with recess and ball, steel,  
LONG-LOK secured  
**K0321**



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Spring plungers  
with recess and ball, stainless steel,  
LONG-LOK secured  
**K0322**



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## Spring plungers, locking bolts, ball locking bolts

Spring plungers  
with recess and pressure pin, steel,  
LONG-LOK secured  
**K0323**



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Spring plungers  
with recess and pressure pin,  
stainless steel, LONG-LOK  
secured  
**K0324**



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Spring plungers  
with hexagon socket and ball, steel,  
LONG-LOK secured  
**K0325**



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Spring plungers  
with hexagon socket and ball, stain-  
less steel, LONG-LOK secured  
**K0326**



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Spring plungers  
with hexagon socket and pressu-  
re pin, steel, LONG-LOK secured  
**K0327**



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Spring plungers  
with hexagon socket and pressu-  
re pin in plastic, steel, LONG-LOK  
secured  
**K0328**



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Spring plungers  
with hexagon socket and pressu-  
re pin, stainless steel, LONG-LOK  
secured  
**K0329**



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Spring Plungers  
with hexagon socket and pres-  
sure pin in plastic, stainless  
steel, LONG-LOK secured  
**K0330**



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Spring plungers  
with head  
**K0331**



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Locators  
**K0332**



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Spring plungers  
smooth surface, stainless steel  
**K0333**



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Spring plungers  
smooth surface, plastic  
**K0334**



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Spring plungers  
with adhesive ring  
**K0582**



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Spring plungers  
smooth surface, without collar  
in stainless steel  
**K0335**



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Spring plungers  
with head  
**K0336**



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Spring plungers  
smooth surface, double-sided  
**K0337**



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Double ball catch  
**K0583**



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Lateral spring plungers  
**K0368**



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## Spring plungers, locking bolts, ball locking bolts

Eccentric bushes and assembly tools for lateral spring plungers  
**K0369**



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Lateral spring plungers without pressure pin  
**K0370**



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Lateral spring plungers with threaded sleeve  
**K0371**



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Lateral spring plungers with threaded sleeve, without pressure pin  
**K0372**



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Spring traction units and pressure pads  
**K0373**



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Lateral spring plungers  
**K0374**



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Locking bolts  
**K0338**



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Locking Bolts with extended locking pin  
**K0630**



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Locking bolts short version  
**K0631**



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Locking bolts stainless steel  
**K0632**



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Locking bolts  
**K0339**



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Locking bolts  
**K0340**



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Locking bolts  
**K0341**



Page 650-651

Locking bolts  
**K0342**



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Locking bolts without collar  
**K0343**



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Locking bolts without collar with extended locking pin  
**K0633**



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Locking bolts in stainless steel without collar  
**K0634**



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Locking bolts without collar  
**K0344**



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## Spring plungers, locking bolts, ball locking bolts

Locking bolts  
without collar  
**K0345**



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Locking bolts  
without collar  
**K0635**



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Locking bolts  
without collar  
**K0346**



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Locking bolts  
without collar  
**K0347**



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Locking bolts  
without collar  
**K0636**



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Spacer rings  
**K0665**



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Precision locking bolts  
with tapered support  
**K0359**



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Tapered sleeves  
**K0360**



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Precision locking bolts  
with cylindrical support  
**K0361**



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Cylindrical sleeves  
**K0362**



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Locking and clamp grips  
**K0245**



**NG**

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Locking bolts with grip  
**K0348**



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Locking bolts with grip  
in stainless steel  
**K0637**



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Bracing parts  
**K0638**



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Locking bolts with grip  
**K0639**



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Locking bolts with grip  
in stainless steel  
**K0640**



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Locking bar  
**K0349**



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Ball locking bolts  
self-locking  
**K0363**



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## Spring plungers, locking bolts, ball locking bolts

Ball locking bolts  
in stainless steel self-locking  
**K0364**



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Ball locking bolts with  
mushroom knob  
in stainless steel, self-locking  
**K0641**



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Locking pins  
**K0365**



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Ball locking bolts with T-grip  
self-locking  
**K0366**



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Ball locking bolts with L-grip  
self-locking  
**K0642**



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Safety helix cable  
**K0367**



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Restraining cables  
with eye  
**K0367**



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Key rings  
**K0367**

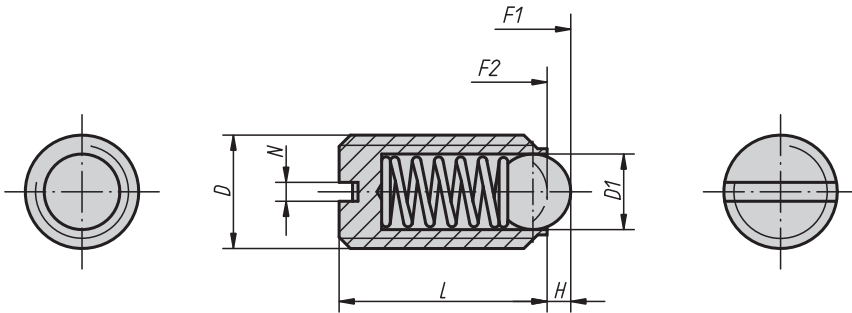


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## Spring plungers

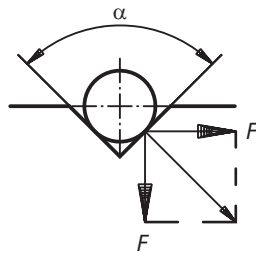
with recess and ball, steel



**Material:**  
Sleeve in steel quality class 5.8.  
Ball in steel.  
Spring in spring steel D.

**Surface finish:**  
Black oxide finish.  
Ball hardened.

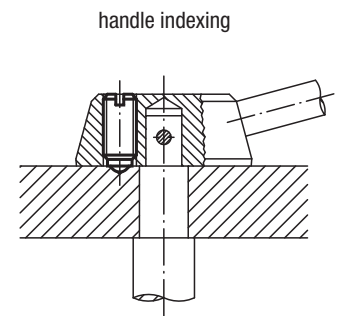
**Sample order:**  
K0309.203



$$\alpha = 60^\circ, F' = 1.732 \times F$$

$$\alpha = 90^\circ, F' = F$$

$$\alpha = 120^\circ, F' = 0.577 \times F$$



# Spring plungers

with recess and ball, steel

## KIPP Spring plungers with recess and ball, standard spring force

| Order No. | D   | D1  | L  | H   | N   | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N | Approx.<br>weight g |
|-----------|-----|-----|----|-----|-----|--|--|---------------------|
| K0309.03  | M3  | 1,5 | 7  | 0,5 | 0,4 | 1,5  | 3  | 0,2                 |
| K0309.04  | M4  | 2,5 | 9  | 0,8 | 0,6 | 4  | 10   | 0,6                 |
| K0309.05  | M5  | 3   | 12 | 0,9 | 0,8 | 6  | 11   | 0,9                 |
| K0309.06  | M6  | 3,5 | 14 | 1   | 1   | 9  | 13   | 1,5                 |
| K0309.08  | M8  | 5   | 16 | 1,5 | 1,2 | 15   | 30   | 3,5                 |
| K0309.10  | M10 | 6   | 19 | 2   | 1,6 | 20   | 35   | 7                   |
| K0309.12  | M12 | 8   | 22 | 2,5 | 2   | 30   | 55   | 10                  |
| K0309.16  | M16 | 10  | 24 | 3,5 | 2,5 | 65   | 125  | 24                  |
| K0309.20  | M20 | 12  | 30 | 4,5 | 2,5 | 80   | 160  | 44,3                |

## KIPP Spring plungers with recess and ball, strong spring force

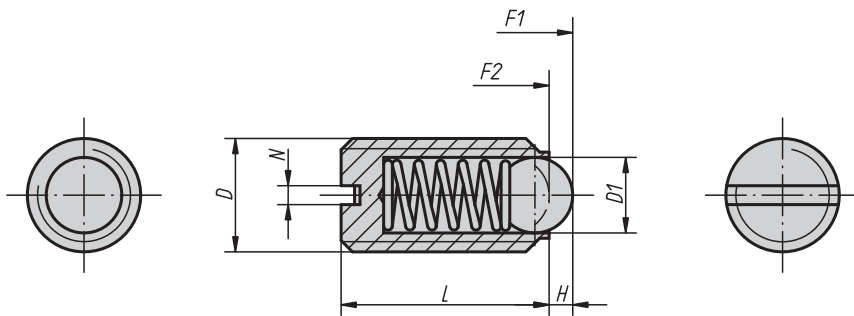
| Order No. | D   | D1  | L  | H   | N   | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N | Approx.<br>weight g |
|-----------|-----|-----|----|-----|-----|--|--|---------------------|
| K0309.203 | M3  | 1,5 | 7  | 0,5 | 0,4 | 5  | 7  | 0,2                 |
| K0309.204 | M4  | 2,5 | 9  | 0,8 | 0,6 | 12   | 22   | 0,6                 |
| K0309.205 | M5  | 3   | 12 | 0,9 | 0,8 | 19   | 30   | 0,9                 |
| K0309.206 | M6  | 3,5 | 14 | 1   | 1   | 28   | 40   | 1,5                 |
| K0309.208 | M8  | 5   | 16 | 1,5 | 1,2 | 47   | 73   | 3,5                 |
| K0309.210 | M10 | 6   | 19 | 2   | 1,6 | 66   | 100  | 7                   |
| K0309.212 | M12 | 8   | 22 | 2,5 | 2   | 66   | 120  | 10                  |
| K0309.216 | M16 | 10  | 24 | 3,5 | 2,5 | 90   | 180  | 24                  |
| K0309.220 | M20 | 12  | 30 | 4,5 | 2,5 | 115  | 240  | 44,3                |

## KIPP Spring plungers with recess and ball, long version, standard spring force

| Order No. | D   | D1  | L  | H   | N   | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N | Approx.<br>weight g |
|-----------|-----|-----|----|-----|-----|--|--|---------------------|
| K0309.404 | M4  | 2,5 | 16 | 0,8 | 0,6 | 4  | 10   | 0,6                 |
| K0309.405 | M5  | 3   | 20 | 0,9 | 0,8 | 6  | 11   | 0,9                 |
| K0309.406 | M6  | 3,5 | 25 | 1   | 1   | 9  | 13   | 1,5                 |
| K0309.408 | M8  | 5   | 30 | 1,5 | 1,2 | 15   | 30   | 3,5                 |
| K0309.410 | M10 | 6   | 35 | 2   | 1,6 | 20   | 35   | 7                   |
| K0309.412 | M12 | 8   | 40 | 2,5 | 2   | 30   | 55   | 10                  |
| K0309.416 | M16 | 10  | 45 | 3,5 | 2,5 | 65   | 125  | 24                  |

## Spring plungers

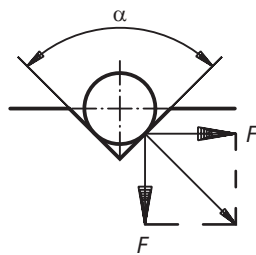
with recess and ball, stainless steel



**Material:**  
Sleeve 1.4305.  
Ball 1.4034.  
Spring 1.4310.

**Surface finish:**  
Natural finish.  
Ball hardened.

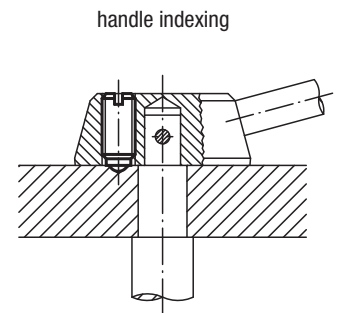
**Sample order:**  
K0310.203



$$\alpha = 60^\circ, F' = 1.732 \times F$$

$$\alpha = 90^\circ, F' = F$$

$$\alpha = 120^\circ, F' = 0.577 \times F$$



# Spring plungers

with recess and ball, stainless steel

## KIPP Spring plungers with recess and ball, standard spring force

| Order No. | D   | D1  | L  | H   | N   | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N | Approx.<br>weight g |
|-----------|-----|-----|----|-----|-----|--|--|---------------------|
| K0310.03  | M3  | 1,5 | 7  | 0,5 | 0,4 | 1,5  | 3  | 0,2                 |
| K0310.04  | M4  | 2,5 | 9  | 0,8 | 0,6 | 4  | 10   | 0,6                 |
| K0310.05  | M5  | 3   | 12 | 0,9 | 0,8 | 6  | 11   | 0,9                 |
| K0310.06  | M6  | 3,5 | 14 | 1   | 1   | 9  | 13   | 1,5                 |
| K0310.08  | M8  | 5   | 16 | 1,5 | 1,2 | 15   | 30   | 3,5                 |
| K0310.10  | M10 | 6   | 19 | 2   | 1,6 | 20   | 35   | 7                   |
| K0310.12  | M12 | 8   | 22 | 2,5 | 2   | 30   | 55   | 10                  |
| K0310.16  | M16 | 10  | 24 | 3,5 | 2,5 | 65   | 125  | 24                  |
| K0310.20  | M20 | 12  | 30 | 4,5 | 2,5 | 80   | 160  | 44,3                |

## KIPP Spring plungers with recess and ball, strong spring force

| Order No. | D   | D1  | L  | H   | N   | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N | Approx.<br>weight g |
|-----------|-----|-----|----|-----|-----|--|--|---------------------|
| K0310.203 | M3  | 1,5 | 7  | 0,5 | 0,4 | 5  | 7  | 0,2                 |
| K0310.204 | M4  | 2,5 | 9  | 0,8 | 0,6 | 12   | 22   | 0,6                 |
| K0310.205 | M5  | 3   | 12 | 0,9 | 0,8 | 19   | 30   | 0,9                 |
| K0310.206 | M6  | 3,5 | 14 | 1   | 1   | 28   | 40   | 1,5                 |
| K0310.208 | M8  | 5   | 16 | 1,5 | 1,2 | 47   | 73   | 3,5                 |
| K0310.210 | M10 | 6   | 19 | 2   | 1,6 | 66   | 100  | 7                   |
| K0310.212 | M12 | 8   | 22 | 2,5 | 2   | 66   | 120  | 10                  |
| K0310.216 | M16 | 10  | 24 | 3,5 | 2,5 | 90   | 180  | 24                  |
| K0310.220 | M20 | 12  | 30 | 4,5 | 2,5 | 115  | 240  | 44,3                |

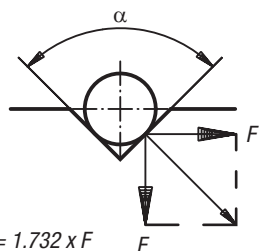
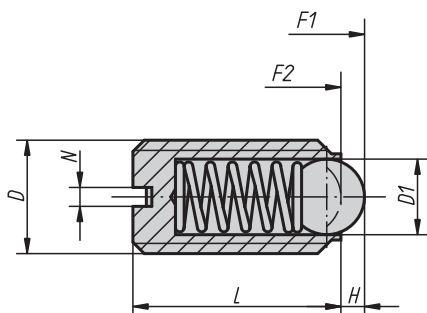
## KIPP Spring plungers with recess and ball, long version, standard spring force

| Order No. | D   | D1  | L  | H   | N   | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N | Approx.<br>weight g |
|-----------|-----|-----|----|-----|-----|--|--|---------------------|
| K0310.404 | M4  | 2,5 | 16 | 0,8 | 0,6 | 4  | 10   | 0,6                 |
| K0310.405 | M5  | 3   | 20 | 0,9 | 0,8 | 6  | 11   | 0,9                 |
| K0310.406 | M6  | 3,5 | 25 | 1   | 1   | 9  | 13   | 1,5                 |
| K0310.408 | M8  | 5   | 30 | 1,5 | 1,2 | 15   | 30   | 3,5                 |
| K0310.410 | M10 | 6   | 35 | 2   | 1,6 | 20   | 35   | 7                   |
| K0310.412 | M12 | 8   | 40 | 2,5 | 2   | 30   | 55   | 10                  |
| K0310.416 | M16 | 10  | 45 | 3,5 | 2,5 | 65   | 125  | 24                  |



## Spring plungers

with recess and ball in Delrin



$$\alpha = 60^\circ, F' = 1.732 \times F$$

$$\alpha = 90^\circ, F' = F$$

$$\alpha = 120^\circ, F' = 0.577 \times F$$



**Material, surface finish:**  
Sleeve in plastic.  
Ball in white Delrin.  
Spring 1.4310.

**Sample order:**  
K0311.10

**Note:**  
Spring plungers are used for indexing and positioning.  
They can also be used as ejectors.

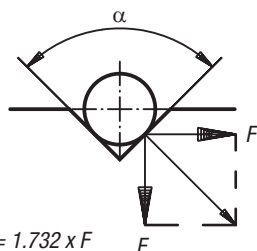
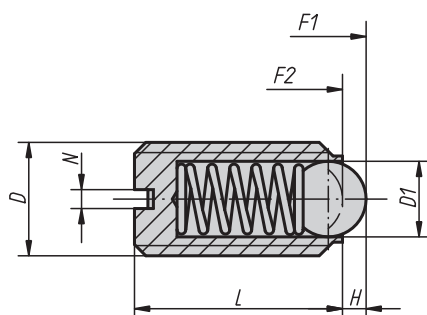
### KIPP Spring plungers with recess and ball in Delrin

| Order No. | D   | D1  | L  | H   | N   | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N | Approx.<br>weight g |
|-----------|-----|-----|----|-----|-----|--|--|---------------------|
| K0311.06  | M6  | 3,5 | 14 | 1   | 1   | 9  | 13   | 0,4                 |
| K0311.08  | M8  | 5   | 16 | 1,5 | 1,2 | 15   | 30   | 0,8                 |
| K0311.10  | M10 | 6   | 19 | 2   | 1,6 | 20   | 40   | 1,6                 |

# K0312

## Spring plungers

with recess and ball in stainless steel



$$\alpha = 60^\circ, F' = 1.732 \times F$$

$$\alpha = 90^\circ, F' = F$$

$$\alpha = 120^\circ, F' = 0.577 \times F$$



**Material, surface finish:**  
Sleeve in plastic.  
Ball in stainless steel 1.4034, hardened.  
Spring 1.4310.

**Sample order:**  
K0312.10

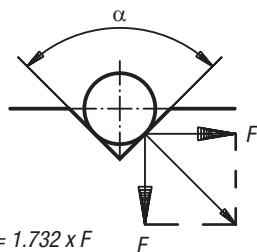
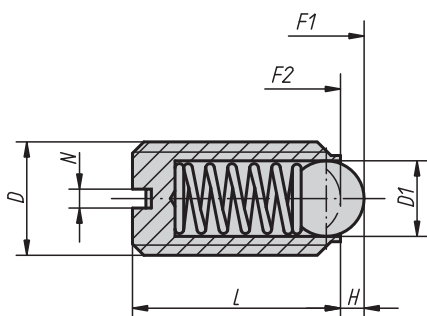
**Note:**  
Spring plungers are used for indexing and positioning.  
They can also be used as ejectors.

### KIPP Spring plungers with recess and ball in stainless steel

| Order No. | D   | D1  | L  | H   | N   | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N | Approx.<br>weight g |
|-----------|-----|-----|----|-----|-----|--|--|---------------------|
| K0312.06  | M6  | 3,5 | 14 | 1   | 1   | 9  | 13   | 0,6                 |
| K0312.08  | M8  | 5   | 16 | 1,5 | 1,2 | 15   | 30   | 1,2                 |
| K0312.10  | M10 | 6   | 19 | 2   | 1,6 | 20   | 40   | 2,3                 |

## Spring plungers

with recess and ceramic ball, stainless steel



$\alpha = 60^\circ, F' = 1.732 \times F$   
 $\alpha = 90^\circ, F' = F$   
 $\alpha = 120^\circ, F' = 0.577 \times F$

**Material:**

Sleeve 1.4305.  
 Ceramic ball  $\text{Si}_3\text{N}_4$ .  
 Spring 1.4310.

**Surface finish:**

Natural finish

**Sample order:**

K0609.05

**Note:**

The combination of excellent material properties is a special feature of silicon nitride ( $\text{Si}_3\text{N}_4$ ). These include, for example, high tenacity and stability, excellent wear resistance and efficient chemical resistance.

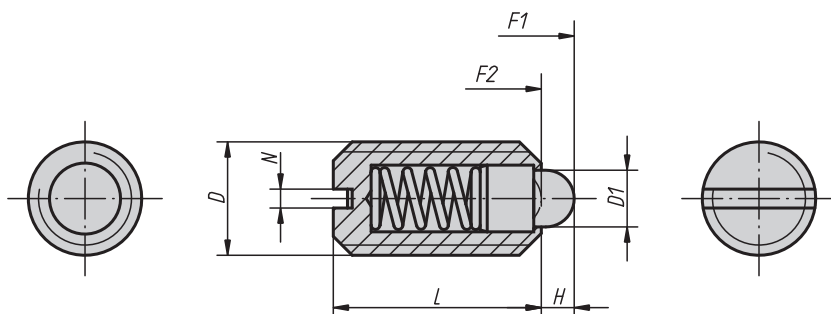
### KIPP Spring plungers with recess and ceramic ball, stainless steel

| Order No. | D   | D1  | L  | H   | N   | Spring force initial pressure F1 approx. N | Spring force final pressure F2 approx. N | Approx. weight g |
|-----------|-----|-----|----|-----|-----|--|--|------------------|
| K0609.05  | M5  | 3   | 12 | 0,9 | 0,8 | 6  | 11                                       | 0,9              |
| K0609.06  | M6  | 3,5 | 14 | 1   | 1   | 9  | 13                                       | 1,5              |
| K0609.08  | M8  | 5   | 16 | 1,5 | 1,2 | 15   | 30                                       | 3,5              |
| K0609.10  | M10 | 6   | 19 | 2   | 1,6 | 20   | 35                                       | 7                |
| K0609.12  | M12 | 8   | 22 | 2,5 | 2   | 30   | 55                                       | 10               |
| K0609.16  | M16 | 10  | 24 | 3,5 | 2,5 | 65   | 125                                      | 24               |



## Spring plungers

with recess and pressure pin, steel



**Material:**  
Sleeve in steel quality class 5.8.  
Pressure pin in steel.  
Spring in spring steel D.

**Surface finish:**  
Black oxide finish.  
Pressure pin hardened.

**Sample order:**  
K0313.10

### KIPP Spring plungers with recess and pressure pin, standard spring force

| Order No. | D   | D1  | L  | H   | N   | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N | Approx.<br>weight g |
|-----------|-----|-----|----|-----|-----|--|--|---------------------|
| K0313.04  | M4  | 1,8 | 9  | 1,5 | 0,6 | 6  | 20   | 0,39                |
| K0313.05  | M5  | 2,4 | 12 | 2   | 0,8 | 6  | 20   | 1                   |
| K0313.06  | M6  | 2,7 | 14 | 2   | 1   | 7  | 20   | 1,7                 |
| K0313.08  | M8  | 4   | 16 | 2   | 1,2 | 15   | 30   | 4                   |
| K0313.10  | M10 | 4,5 | 19 | 2,5 | 1,6 | 20   | 35   | 7                   |
| K0313.12  | M12 | 6   | 22 | 3,5 | 2   | 30   | 55   | 13                  |
| K0313.16  | M16 | 8,5 | 24 | 4,5 | 2,5 | 45   | 100  | 24                  |
| K0313.20  | M20 | 10  | 30 | 6,5 | 2,5 | 60   | 120  | 46,3                |

### KIPP Spring plungers with recess and pressure pin, light spring force

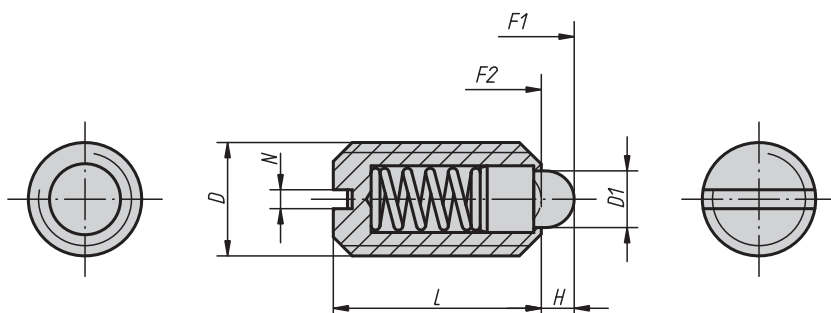
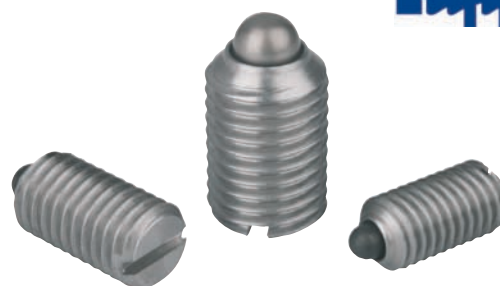
| Order No. | D   | D1  | L  | H   | N   | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N | Approx.<br>weight g |
|-----------|-----|-----|----|-----|-----|--|--|---------------------|
| K0313.104 | M4  | 1,8 | 9  | 1,5 | 0,6 | 3  | 10   | 0,39                |
| K0313.105 | M5  | 2,4 | 12 | 2   | 0,8 | 3  | 10   | 1                   |
| K0313.106 | M6  | 2,7 | 14 | 2   | 1   | 4  | 10   | 1,7                 |
| K0313.108 | M8  | 4   | 16 | 2   | 1,2 | 7  | 15   | 4                   |
| K0313.110 | M10 | 4,5 | 19 | 2,5 | 1,6 | 9  | 16   | 7                   |
| K0313.112 | M12 | 6   | 22 | 3,5 | 2   | 14   | 26   | 13                  |
| K0313.116 | M16 | 8,5 | 24 | 4,5 | 2,5 | 22   | 50   | 24                  |
| K0313.120 | M20 | 10  | 30 | 6,5 | 2,5 | 30   | 60   | 46,3                |

### KIPP Spring plungers with recess and pressure pin, strong spring force

| Order No. | D   | D1  | L  | H   | N   | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N | Approx.<br>weight g |
|-----------|-----|-----|----|-----|-----|--|--|---------------------|
| K0313.205 | M5  | 2,4 | 12 | 2   | 0,8 | 9  | 25   | 1                   |
| K0313.206 | M6  | 2,7 | 14 | 2   | 1   | 11   | 25   | 1,7                 |
| K0313.208 | M8  | 4   | 16 | 2   | 1,2 | 22   | 43   | 4                   |
| K0313.210 | M10 | 4,5 | 19 | 2,5 | 1,6 | 20   | 54   | 7                   |
| K0313.212 | M12 | 6   | 22 | 3,5 | 2   | 36   | 94   | 13                  |
| K0313.216 | M16 | 8,5 | 24 | 4,5 | 2,5 | 60   | 110  | 24                  |

## Spring plungers

with recess and pressure pin, stainless steel



**Material:**

Sleeve 1.4305.  
Pressure pin 1.4034.  
Spring 1.4310.

**Surface finish:**

Natural finish.  
Pressure pin hardened.

**Sample order:**

K0314.10

### KIPP Spring plungers with recess and pressure pin, standard spring force

| Order No. | D   | D1  | L  | H   | N   | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N | Approx.<br>weight g |
|-----------|-----|-----|----|-----|-----|--|--|---------------------|
| K0314.04  | M4  | 1,8 | 9  | 1,5 | 0,6 | 6  | 20   | 0,39                |
| K0314.05  | M5  | 2,4 | 12 | 2   | 0,8 | 6  | 20   | 1                   |
| K0314.06  | M6  | 2,7 | 14 | 2   | 1   | 7  | 20   | 1,7                 |
| K0314.08  | M8  | 4   | 16 | 2   | 1,2 | 15   | 30   | 4                   |
| K0314.10  | M10 | 4,5 | 19 | 2,5 | 1,6 | 20   | 35   | 7                   |
| K0314.12  | M12 | 6   | 22 | 3,5 | 2   | 30   | 55   | 13                  |
| K0314.16  | M16 | 8,5 | 24 | 4,5 | 2,5 | 45   | 100  | 24                  |
| K0314.20  | M20 | 10  | 30 | 6,5 | 2,5 | 60   | 120  | 46,3                |

### KIPP Spring plungers with recess and pressure pin, light spring force

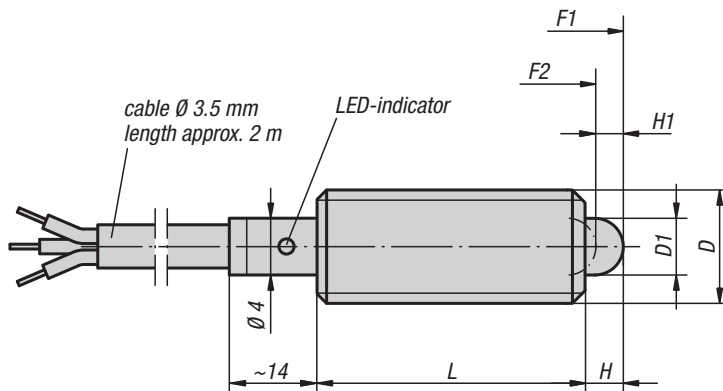
| Order No. | D   | D1  | L  | H   | N   | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N | Approx.<br>weight g |
|-----------|-----|-----|----|-----|-----|--|--|---------------------|
| K0314.104 | M4  | 1,8 | 9  | 1,5 | 0,6 | 3  | 10   | 0,39                |
| K0314.105 | M5  | 2,4 | 12 | 2   | 0,8 | 3  | 10   | 1                   |
| K0314.106 | M6  | 2,7 | 14 | 2   | 1   | 4  | 10   | 1,7                 |
| K0314.108 | M8  | 4   | 16 | 2   | 1,2 | 7  | 15   | 4                   |
| K0314.110 | M10 | 4,5 | 19 | 2,5 | 1,6 | 9  | 16   | 7                   |
| K0314.112 | M12 | 6   | 22 | 3,5 | 2   | 14   | 26   | 13                  |
| K0314.116 | M16 | 8,5 | 24 | 4,5 | 2,5 | 22   | 50   | 24                  |
| K0314.120 | M20 | 10  | 30 | 6,5 | 2,5 | 30   | 60   | 46,3                |

### KIPP Spring plungers with recess and pressure pin, strong spring force

| Order No. | D   | D1  | L  | H   | N   | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N | Approx.<br>weight g |
|-----------|-----|-----|----|-----|-----|--|--|---------------------|
| K0314.205 | M5  | 2,4 | 12 | 2   | 0,8 | 9  | 25   | 1                   |
| K0314.206 | M6  | 2,7 | 14 | 2   | 1   | 11   | 25   | 1,7                 |
| K0314.208 | M8  | 4   | 16 | 2   | 1,2 | 22   | 43   | 4                   |
| K0314.210 | M10 | 4,5 | 19 | 2,5 | 1,6 | 20   | 54   | 7                   |
| K0314.212 | M12 | 6   | 22 | 3,5 | 2   | 36   | 94   | 13                  |
| K0314.216 | M16 | 8,5 | 24 | 4,5 | 2,5 | 60   | 110  | 24                  |

## Spring plungers

with end position feedback



**Material:**

Sleeve, pressure pin and spring in steel.  
Inductive proximity switch.

**Surface finish:**

Black oxide finish.  
Pressure pin hardened.

**Sample order:**

K0656.5081

**Note:**

An electrical control signal can be sent via the built-in end switch.

Voltage:  $U = 10 - 30 \text{ V DC}$

Electricity:  $I \text{ max.} = 200 \text{ mA}$

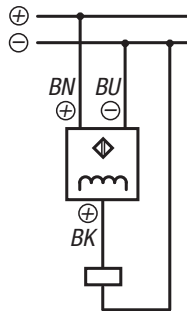
Temperature range:  $-25 \text{ }^\circ\text{C} - +70 \text{ }^\circ\text{C}$

Protection class: IP 67

**Safety:**

The use of spring plungers with end position feedback is not suitable for restraining people.

Connection diagram:



BN = brown  
BK = black  
BU = blue

PNP

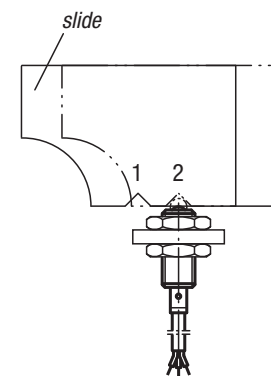
Normally closed

Normally open

Application, position feedback:

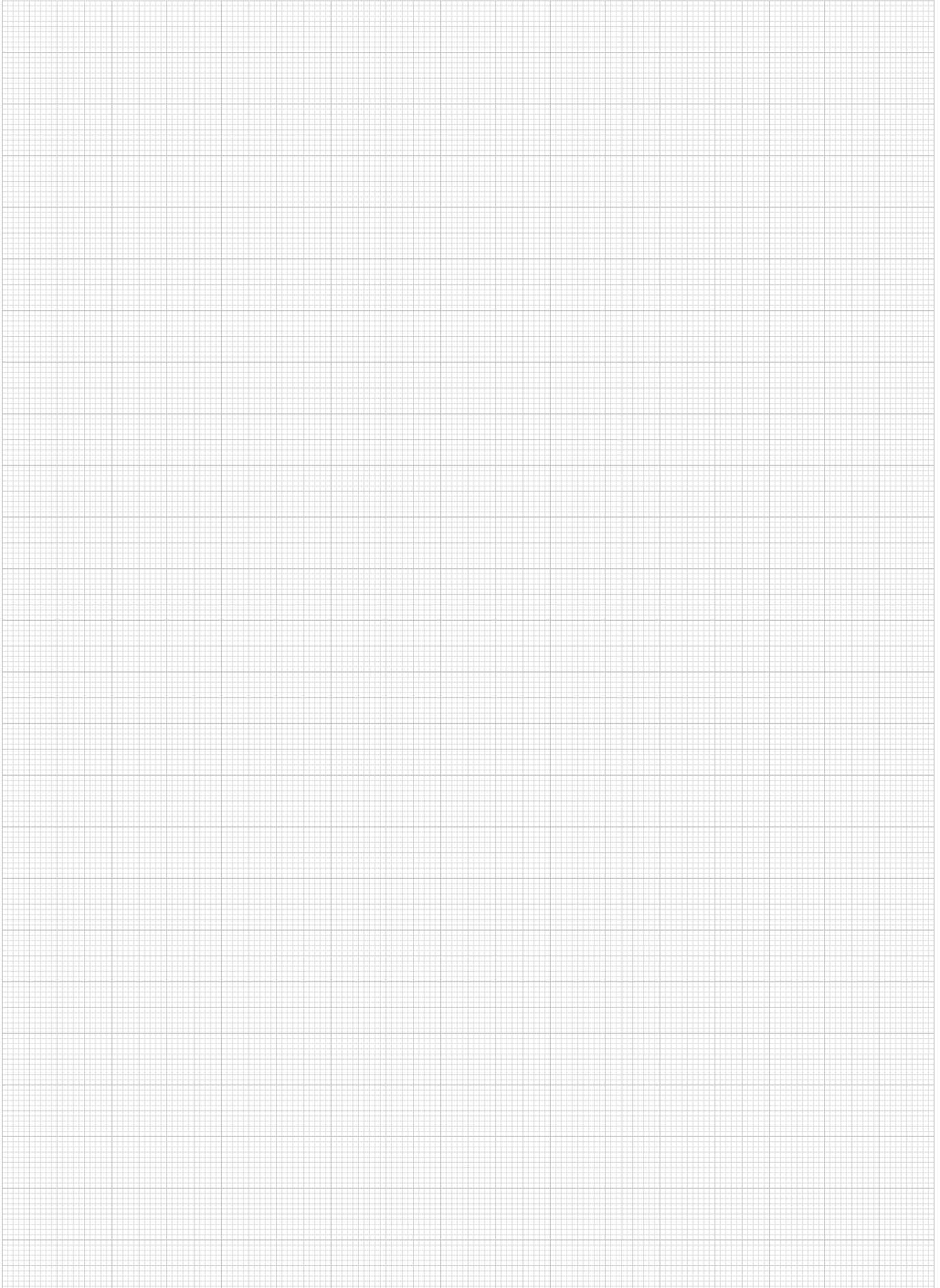
Pos. 1: slide engaged

Pos. 2: slide disengaged



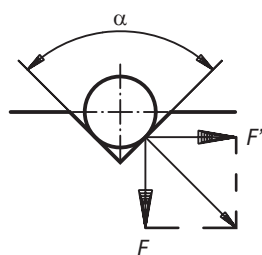
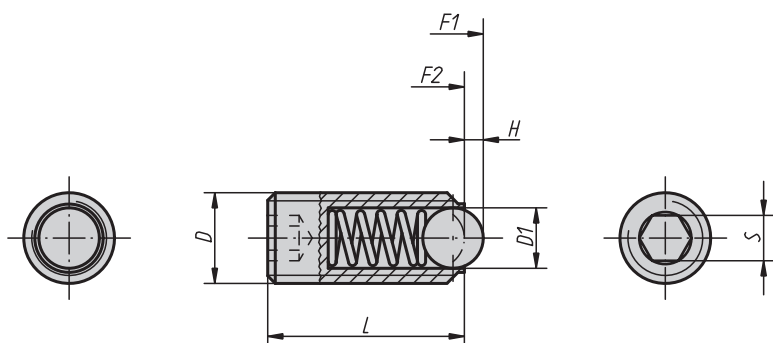
### KIPP Spring plungers with end position feedback

| Order No.  | Surface finish  | D   | D1  | L  | H | H1 | Switching contact from stroke H1 | Spring force initial pressure F1 approx. N | Spring force final pressure F2 approx. N |
|------------|-----------------|-----|-----|----|---|----|----------------------------------|--|--|
| K0656.5061 | normally closed | M6  | 2,7 | 27 | 3 | 2  | 1,2 - 1,6                        | 7  | 20                                       |
| K0656.5081 | normally closed | M8  | 4   | 29 | 3 | 2  | 1,2 - 1,8                        | 15   | 30                                       |
| K0656.5101 | normally closed | M10 | 4,5 | 36 | 4 | 3  | 2,2 - 2,8                        | 26   | 44                                       |
| K0656.5062 | normally open   | M6  | 2,7 | 27 | 3 | 2  | 1,2 - 1,6                        | 7  | 20                                       |
| K0656.5082 | normally open   | M8  | 4   | 29 | 3 | 2  | 1,2 - 1,8                        | 15   | 30                                       |
| K0656.5102 | normally open   | M10 | 4,5 | 36 | 4 | 3  | 2,2 - 2,8                        | 26   | 44                                       |



## Spring plungers

with hexagon socket and ball, steel



$\alpha = 60^\circ, F' = 1.732 \times F$   
 $\alpha = 90^\circ, F' = F$   
 $\alpha = 120^\circ, F' = 0.577 \times F$

**Material:**

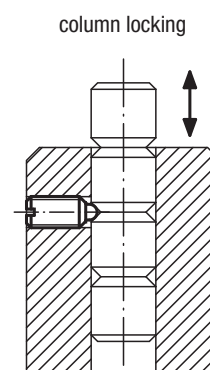
Sleeve in steel quality class 5.8.  
 Ball in steel.  
 Spring in spring steel D.

**Surface finish:**

Black oxide finish.  
 Ball hardened.

**Sample order:**

K0315.210



# Spring plungers

with hexagon socket and ball, steel

## KIPP Spring plungers with hexagon socket and ball, standard spring force

| Order No. | D   | D1  | L  | H   | S   | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N | Approx.<br>weight g |
|-----------|-----|-----|----|-----|-----|--|--|---------------------|
| K0315.03  | M3  | 1,5 | 9  | 0,5 | 1,5 | 1,5  | 3  | 0,23                |
| K0315.04  | M4  | 2,5 | 10 | 0,8 | 2   | 4  | 10   | 0,46                |
| K0315.05  | M5  | 3   | 14 | 0,9 | 2,5 | 6  | 11   | 1,27                |
| K0315.06  | M6  | 3,5 | 15 | 1   | 3   | 9  | 13   | 2                   |
| K0315.08  | M8  | 5   | 18 | 1,5 | 4   | 15   | 30   | 4                   |
| K0315.10  | M10 | 6   | 23 | 2   | 5   | 20   | 35   | 8                   |
| K0315.12  | M12 | 8   | 26 | 2,5 | 6   | 30   | 55   | 12                  |
| K0315.16  | M16 | 10  | 33 | 3,5 | 8   | 65   | 125  | 31                  |
| K0315.20  | M20 | 12  | 43 | 4,5 | 10  | 80   | 160  | 64                  |
| K0315.24  | M24 | 15  | 48 | 5,5 | 12  | 90   | 180  | 100                 |

## KIPP Spring plungers with hexagon socket and ball, strong spring force

| Order No. | D   | D1  | L  | H   | S   | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N | Approx.<br>weight g |
|-----------|-----|-----|----|-----|-----|--|--|---------------------|
| K0315.203 | M3  | 1,5 | 9  | 0,5 | 1,5 | 5  | 7  | 0,23                |
| K0315.204 | M4  | 2,5 | 10 | 0,8 | 2   | 12   | 22   | 0,46                |
| K0315.205 | M5  | 3   | 14 | 0,9 | 2,5 | 19   | 30   | 1,27                |
| K0315.206 | M6  | 3,5 | 15 | 1   | 3   | 28   | 40   | 2                   |
| K0315.208 | M8  | 5   | 18 | 1,5 | 4   | 47   | 73   | 4                   |
| K0315.210 | M10 | 6   | 23 | 2   | 5   | 66   | 100  | 8                   |
| K0315.212 | M12 | 8   | 26 | 2,5 | 6   | 66   | 120  | 12                  |
| K0315.216 | M16 | 10  | 33 | 3,5 | 8   | 90   | 180  | 31                  |
| K0315.220 | M20 | 12  | 43 | 4,5 | 10  | 115  | 240  | 64                  |
| K0315.224 | M24 | 15  | 48 | 5,5 | 12  | 130  | 270  | 100                 |

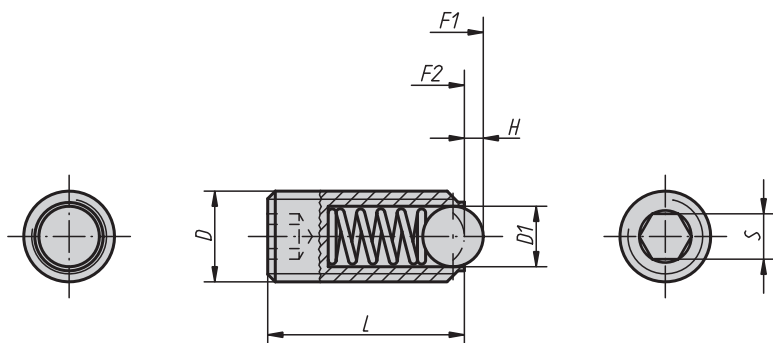
## KIPP Spring plungers with hexagon socket and ball, long version, standard spring force

| Order No. | D   | D1  | L  | H   | S   | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N | Approx.<br>weight g |
|-----------|-----|-----|----|-----|-----|--|--|---------------------|
| K0315.404 | M4  | 2,5 | 16 | 0,8 | 2   | 4  | 10   | 0,89                |
| K0315.405 | M5  | 3   | 20 | 0,9 | 2,5 | 6  | 11   | 1,82                |
| K0315.406 | M6  | 3,5 | 25 | 1   | 3   | 9  | 13   | 3,37                |
| K0315.408 | M8  | 5   | 30 | 1,5 | 4   | 15   | 30   | 7,36                |
| K0315.410 | M10 | 6   | 35 | 2   | 5   | 20   | 35   | 13,52               |
| K0315.412 | M12 | 8   | 40 | 2,5 | 6   | 30   | 55   | 21,61               |
| K0315.416 | M16 | 10  | 45 | 3,5 | 8   | 65   | 125  | 46,56               |



## Spring plungers

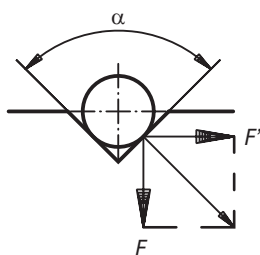
with hexagon socket and ball, stainless steel



**Material:**  
Sleeve 1.4305.  
Ball 1.4034.  
Spring 1.4310.

**Surface finish:**  
Natural finish.  
Ball hardened.

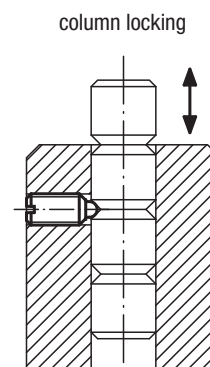
**Sample order:**  
K0316.210



$$\alpha = 60^\circ, F' = 1.732 \times F$$

$$\alpha = 90^\circ, F' = F$$

$$\alpha = 120^\circ, F' = 0.577 \times F$$



# Spring plungers

with hexagon socket and ball, stainless steel

## KIPP Spring plungers with hexagon socket and ball, standard spring force

| Order No. | D   | D1  | L  | H   | S   | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N | Approx.<br>weight g |
|-----------|-----|-----|----|-----|-----|--|--|---------------------|
| K0316.03  | M3  | 1,5 | 9  | 0,5 | 1,5 | 1,5  | 3  | 0,23                |
| K0316.04  | M4  | 2,5 | 10 | 0,8 | 2   | 4  | 10   | 0,46                |
| K0316.05  | M5  | 3   | 14 | 0,9 | 2,5 | 6  | 11   | 1,27                |
| K0316.06  | M6  | 3,5 | 15 | 1   | 3   | 9  | 13   | 2                   |
| K0316.08  | M8  | 5   | 18 | 1,5 | 4   | 15   | 30   | 4                   |
| K0316.10  | M10 | 6   | 23 | 2   | 5   | 20   | 35   | 8                   |
| K0316.12  | M12 | 8   | 26 | 2,5 | 6   | 30   | 55   | 12                  |
| K0316.16  | M16 | 10  | 33 | 3,5 | 8   | 65   | 125  | 31                  |
| K0316.20  | M20 | 12  | 43 | 4,5 | 10  | 80   | 160  | 64                  |
| K0316.24  | M24 | 15  | 48 | 5,5 | 12  | 90   | 180  | 100                 |

## KIPP Spring plungers with hexagon socket and ball, strong spring force

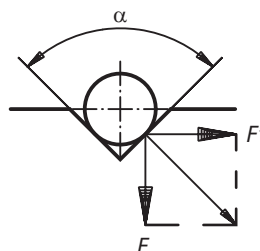
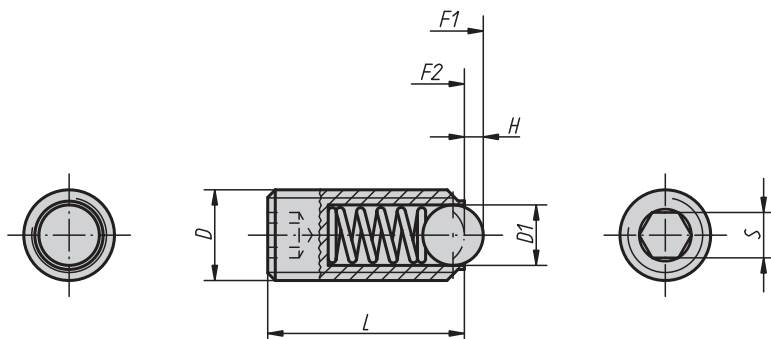
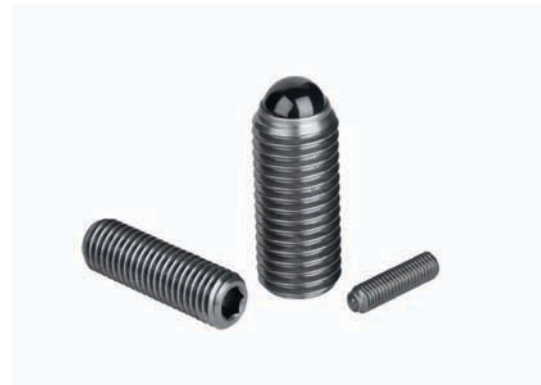
| Order No. | D   | D1  | L  | H   | S   | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N | Approx.<br>weight g |
|-----------|-----|-----|----|-----|-----|--|--|---------------------|
| K0316.203 | M3  | 1,5 | 9  | 0,5 | 1,5 | 5  | 7  | 0,23                |
| K0316.204 | M4  | 2,5 | 10 | 0,8 | 2   | 12   | 22   | 0,46                |
| K0316.205 | M5  | 3   | 14 | 0,9 | 2,5 | 19   | 30   | 1,27                |
| K0316.206 | M6  | 3,5 | 15 | 1   | 3   | 28   | 40   | 2                   |
| K0316.208 | M8  | 5   | 18 | 1,5 | 4   | 47   | 73   | 4                   |
| K0316.210 | M10 | 6   | 23 | 2   | 5   | 66   | 100  | 8                   |
| K0316.212 | M12 | 8   | 26 | 2,5 | 6   | 66   | 120  | 12                  |
| K0316.216 | M16 | 10  | 33 | 3,5 | 8   | 90   | 180  | 31                  |
| K0316.220 | M20 | 12  | 43 | 4,5 | 10  | 115  | 240  | 64                  |
| K0316.224 | M24 | 15  | 48 | 5,5 | 12  | 130  | 270  | 100                 |

## KIPP Spring plungers with hexagon socket and ball, long version, standard spring force

| Order No. | D   | D1  | L  | H   | S   | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N | Approx.<br>weight g |
|-----------|-----|-----|----|-----|-----|--|--|---------------------|
| K0316.404 | M4  | 2,5 | 16 | 0,8 | 2   | 4  | 10   | 0,89                |
| K0316.405 | M5  | 3   | 20 | 0,9 | 2,5 | 6  | 11   | 1,82                |
| K0316.406 | M6  | 3,5 | 25 | 1   | 3   | 9  | 13   | 3,37                |
| K0316.408 | M8  | 5   | 30 | 1,5 | 4   | 15   | 30   | 7,36                |
| K0316.410 | M10 | 6   | 35 | 2   | 5   | 20   | 35   | 13,52               |
| K0316.412 | M12 | 8   | 40 | 2,5 | 6   | 30   | 55   | 21,61               |
| K0316.416 | M16 | 10  | 45 | 3,5 | 8   | 65   | 125  | 46,56               |

## Spring plungers

with hexagon socket and ceramic ball



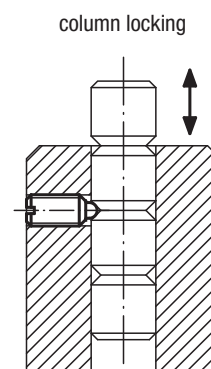
$\alpha = 60^\circ, F' = 1.732 \times F$   
 $\alpha = 90^\circ, F' = F$   
 $\alpha = 120^\circ, F' = 0.577 \times F$

**Material:**  
 Sleeve 1.4305.  
 Ceramic ball  $\text{Si}_3\text{N}_4$ .  
 Spring 1.4310.

**Surface finish:**  
 Natural finish.

**Sample order:**  
 K0610.05

**Note:**  
 The combination of excellent material properties is a special feature of silicon nitride ( $\text{Si}_3\text{N}_4$ ). These include, for example, high tenacity and stability, excellent wear resistance and efficient chemical resistance.

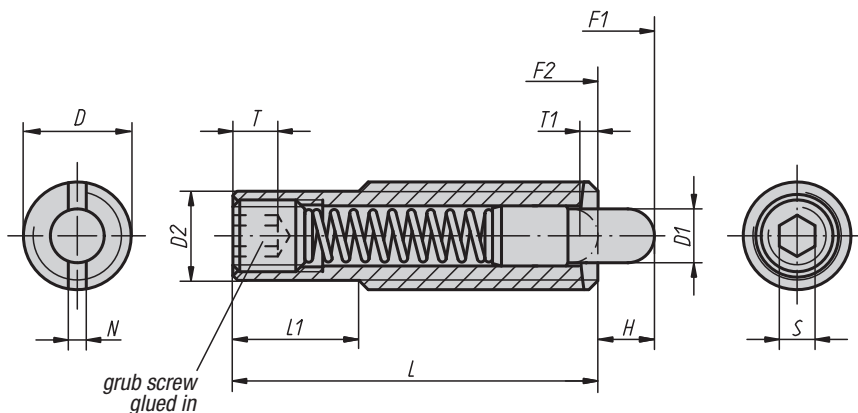


### KIPP Spring plungers with hexagon socket and ceramic ball

| Order No. | D   | D1  | L  | H   | S   | Spring force initial pressure F1 approx. N | Spring force final pressure F2 approx. N | Approx. weight g |
|-----------|-----|-----|----|-----|-----|--|--|------------------|
| K0610.05  | M5  | 3   | 14 | 0,9 | 2,5 | 6  | 11                                       | 1,3              |
| K0610.06  | M6  | 3,5 | 15 | 1   | 3   | 9  | 13                                       | 2                |
| K0610.08  | M8  | 5   | 18 | 1,5 | 4   | 15   | 30                                       | 4                |
| K0610.10  | M10 | 6   | 23 | 2   | 5   | 20   | 35                                       | 8                |
| K0610.12  | M12 | 8   | 26 | 2,5 | 6   | 30   | 55                                       | 12               |
| K0610.16  | M16 | 10  | 33 | 3,5 | 8   | 65   | 125                                      | 31               |

## Spring plungers

with hexagon socket and pressure pin, long version



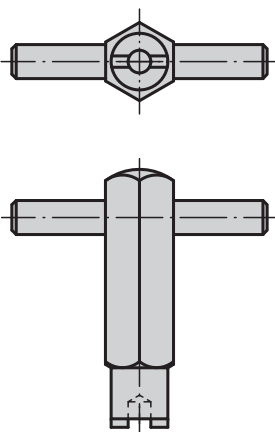
**Material:**  
Sleeve in steel quality class 5.8.  
Pressure pin in steel.  
Spring in spring steel D.

**Surface finish:**  
Black oxide finish.  
Pressure pin hardened.

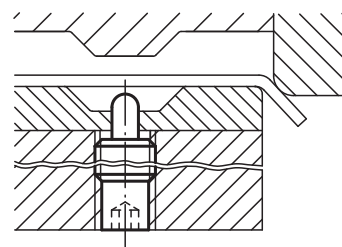
**Sample order:**  
K0657.616

**Note:**  
These spring plungers are chiefly used as ejectors and spring stops in machine construction.

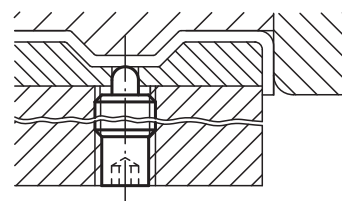
assembly key



bending the shank



press

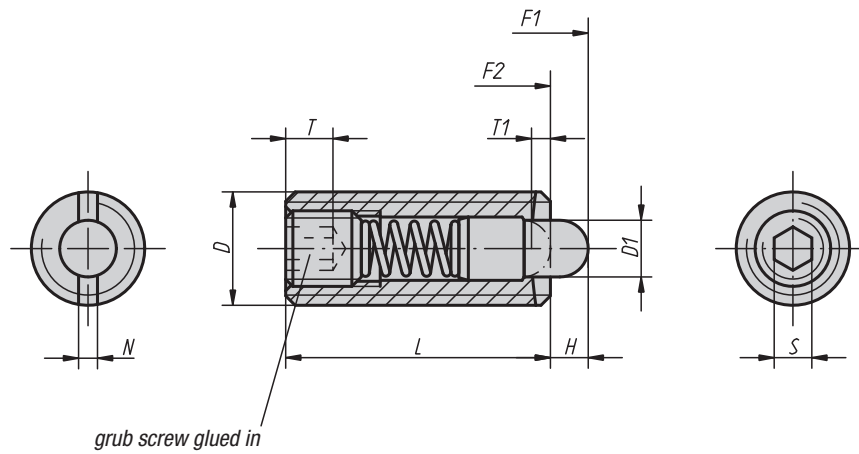


### KIPP Spring plungers with hexagon socket and pressure pin, long version

| Order No. | D   | D1  | D2   | L  | L1 | H  | T | T1  | N   | S   | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N | Order No.<br>assembly key |
|-----------|-----|-----|------|----|----|----|---|-----|-----|-----|--|--|---------------------------|
| K0657.608 | M8  | 3,5 | 6,2  | 30 | 10 | 6  | 2 | 1,4 | 1,2 | 2,5 | 8  | 22   | K0317.908                 |
| K0657.610 | M10 | 4   | 8    | 40 | 10 | 8  | 3 | 1,4 | 1,6 | 3   | 12   | 30   | K0317.910                 |
| K0657.612 | M12 | 6   | 9,6  | 50 | 20 | 10 | 5 | 2   | 2   | 4   | 20   | 50   | K0317.912                 |
| K0657.616 | M16 | 7,5 | 13,4 | 60 | 30 | 12 | 6 | 2,5 | 2,5 | 5   | 30   | 64   | K0317.916                 |

# Spring plungers

with hexagon socket and pressure pin, steel

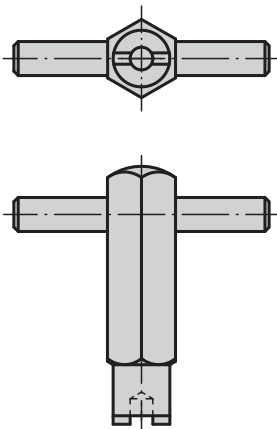


**Material:**  
Sleeve in steel quality class 5.8.  
Pressure pin in steel.  
Spring in spring steel D.

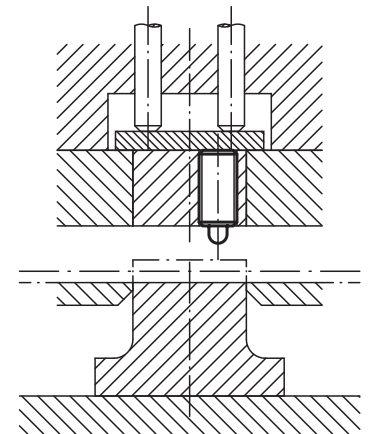
**Surface finish:**  
Black oxide finish.  
Pressure pin hardened.

**Sample order:**  
K0317.16

assembly key



Spring plunger cutaway view



# Spring plungers

with hexagon socket and pressure pin, steel

## KIPP Spring plungers with hexagon socket and pressure pin, standard spring force

| Order No. | D   | D1  | L  | H   | T   | T1  | N   | S   | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N | Approx.<br>weight g | Order No.<br>assembly key |
|-----------|-----|-----|----|-----|-----|-----|-----|-----|--|--|---------------------|---------------------------|
| K0317.03  | M3  | 1   | 10 | 1,5 | 1,5 | 1   | 0,4 | 0,7 | 0,5  | 3  | 0,35                | K0317.903                 |
| K0317.04  | M4  | 1,5 | 15 | 1,5 | 2   | 0,6 | 0,6 | 1,3 | 5  | 16   | 0,8                 | K0317.904                 |
| K0317.05  | M5  | 2,4 | 18 | 2,3 | 2   | 0,8 | 0,8 | 1,5 | 6  | 20   | 1,3                 | K0317.905                 |
| K0317.06  | M6  | 2,7 | 20 | 2,5 | 2,5 | 1   | 1   | 2   | 7  | 20   | 2,5                 | K0317.906                 |
| K0317.08  | M8  | 3,5 | 22 | 3   | 3   | 1,4 | 1,2 | 2,5 | 9  | 35   | 6                   | K0317.908                 |
| K0317.10  | M10 | 4   | 22 | 3   | 3,5 | 1,4 | 1,6 | 3   | 9  | 35   | 9                   | K0317.910                 |
| K0317.12  | M12 | 6   | 28 | 4   | 5   | 2   | 2   | 4   | 10   | 55   | 16                  | K0317.912                 |
| K0317.16  | M16 | 7,5 | 32 | 5   | 6   | 2,5 | 2,5 | 5   | 45   | 100  | 35                  | K0317.916                 |
| K0317.20  | M20 | 10  | 40 | 7   | 8   | 3   | 2,5 | 6   | 60   | 120  | 66,3                | -                         |
| K0317.24  | M24 | 12  | 52 | 10  | 10  | 3   | 2,5 | 8   | 80   | 160  | 122,2               | -                         |

## KIPP Spring plungers with hexagon socket and pressure pin, light spring force

| Order No. | D   | D1  | L  | H   | T   | T1  | N   | S   | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N | Approx.<br>weight g | Order No.<br>assembly key |
|-----------|-----|-----|----|-----|-----|-----|-----|-----|--|--|---------------------|---------------------------|
| K0317.104 | M4  | 1,5 | 15 | 1,5 | 2   | 0,6 | 0,6 | 1,3 | 2  | 7  | 0,8                 | K0317.904                 |
| K0317.105 | M5  | 2,4 | 18 | 2,3 | 2   | 0,8 | 0,8 | 1,5 | 3  | 10   | 1,3                 | K0317.905                 |
| K0317.106 | M6  | 2,7 | 20 | 2,5 | 2,5 | 1   | 1   | 2   | 3  | 9  | 2,5                 | K0317.906                 |
| K0317.108 | M8  | 3,5 | 22 | 3   | 3   | 1,4 | 1,2 | 2,5 | 4  | 16   | 6                   | K0317.908                 |
| K0317.110 | M10 | 4   | 22 | 3   | 3,5 | 1,4 | 1,6 | 3   | 4  | 16   | 9                   | K0317.910                 |
| K0317.112 | M12 | 6   | 28 | 4   | 5   | 2   | 2   | 4   | 5  | 27   | 16                  | K0317.912                 |
| K0317.116 | M16 | 7,5 | 32 | 5   | 6   | 2,5 | 2,5 | 5   | 20   | 45   | 35                  | K0317.916                 |

## KIPP Spring plungers with hexagon socket and pressure pin, strong spring force

| Order No. | D   | D1  | L  | H   | T   | T1  | N   | S   | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N | Approx.<br>weight g | Order No.<br>assembly key |
|-----------|-----|-----|----|-----|-----|-----|-----|-----|--|--|---------------------|---------------------------|
| K0317.205 | M5  | 2,4 | 18 | 2,3 | 2   | 0,8 | 0,8 | 1,5 | 11   | 29   | 1,3                 | K0317.905                 |
| K0317.206 | M6  | 2,7 | 20 | 2,5 | 2,5 | 1   | 1   | 2   | 14   | 37   | 2,5                 | K0317.906                 |
| K0317.208 | M8  | 3,5 | 22 | 3   | 3   | 1,4 | 1,2 | 2,5 | 22   | 65   | 6                   | K0317.908                 |
| K0317.210 | M10 | 4   | 22 | 3   | 3,5 | 1,4 | 1,6 | 3   | 19   | 70   | 9                   | K0317.910                 |
| K0317.212 | M12 | 6   | 28 | 4   | 5   | 2   | 2   | 4   | 25   | 85   | 16                  | K0317.912                 |
| K0317.216 | M16 | 7,5 | 32 | 5   | 6   | 2,5 | 2,5 | 5   | 60   | 150  | 35                  | K0317.916                 |
| K0317.220 | M20 | 10  | 40 | 7   | 8   | 3   | 2,5 | 6   | 75   | 190  | 66,3                | -                         |
| K0317.224 | M24 | 12  | 52 | 10  | 10  | 3   | 2,5 | 8   | 95   | 240  | 122,2               | -                         |

# Spring plungers

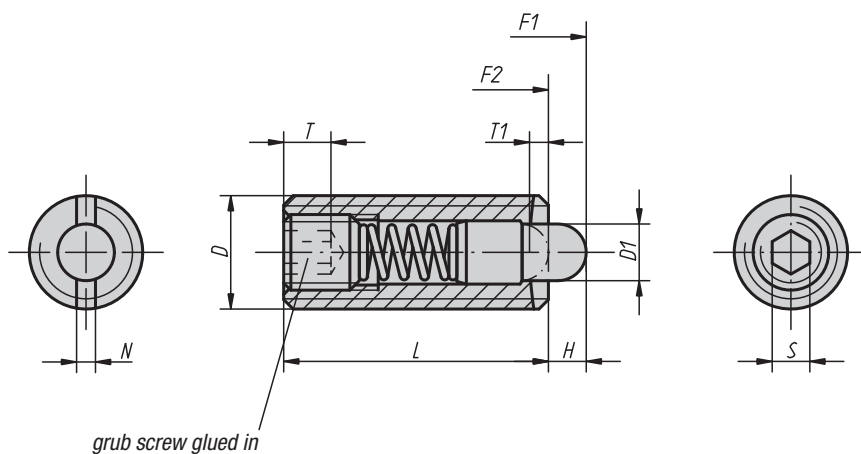
with hexagon socket and pressure pin in plastic, steel



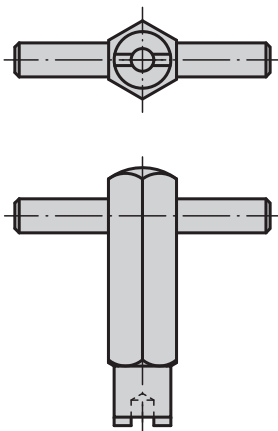
**Material:**  
Sleeve in steel quality class 5.8.  
Pressure pin in plastic.  
Spring in spring steel D.

**Surface finish:**  
Black oxide finish.

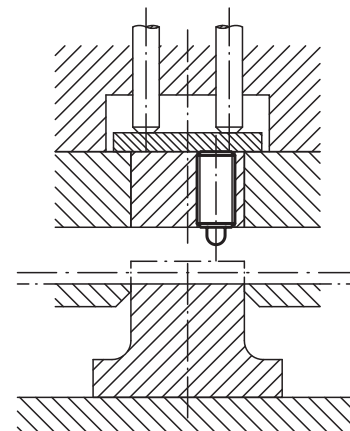
**Sample order:**  
K0318.16



assembly key



Spring plunger cutaway view



# Spring plungers

with hexagon socket and pressure pin in plastic, steel

## KIPP Spring plungers with hexagon socket and pressure pin, standard spring force

| Order No. | D   | D1  | L  | H   | T   | T1  | N   | S   | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N | Approx.<br>weight g | Order No.<br>assembly key |
|-----------|-----|-----|----|-----|-----|-----|-----|-----|--|--|---------------------|---------------------------|
| K0318.03  | M3  | 1   | 10 | 1,5 | 1,5 | 1   | 0,4 | 0,7 | 0,5  | 3  | 0,35                | K0317.903                 |
| K0318.04  | M4  | 1,5 | 15 | 1,5 | 2   | 0,6 | 0,6 | 1,3 | 5  | 16   | 0,8                 | K0317.904                 |
| K0318.05  | M5  | 2,4 | 18 | 2,3 | 2   | 0,8 | 0,8 | 1,5 | 6  | 20   | 1,3                 | K0317.905                 |
| K0318.06  | M6  | 2,7 | 20 | 2,5 | 2,5 | 1   | 1   | 2   | 7  | 20   | 2,5                 | K0317.906                 |
| K0318.08  | M8  | 3,5 | 22 | 3   | 3   | 1,4 | 1,2 | 2,5 | 9  | 35   | 6                   | K0317.908                 |
| K0318.10  | M10 | 4   | 22 | 3   | 3,5 | 1,4 | 1,6 | 3   | 9  | 35   | 9                   | K0317.910                 |
| K0318.12  | M12 | 6   | 28 | 4   | 5   | 2   | 2   | 4   | 10   | 55   | 16                  | K0317.912                 |
| K0318.16  | M16 | 7,5 | 32 | 5   | 6   | 2,5 | 2,5 | 5   | 45   | 100  | 35                  | K0317.916                 |

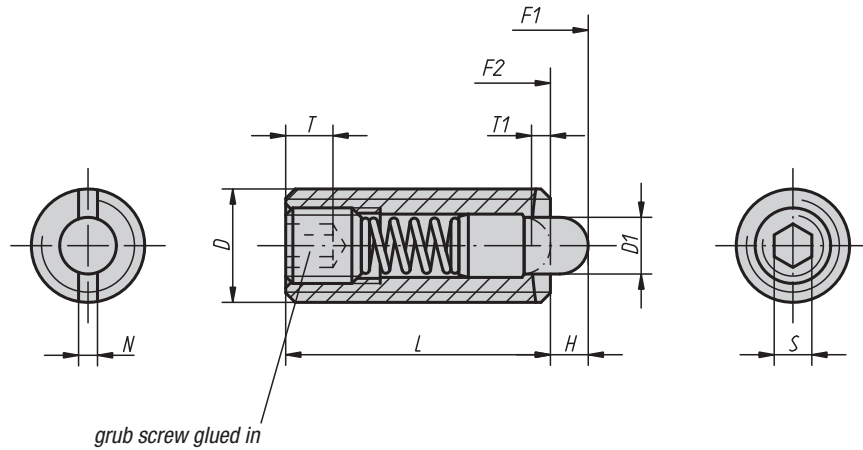
## KIPP Spring plungers with hexagon socket and pressure pin, light spring force

| Order No. | D   | D1  | L  | H   | T   | T1  | N   | S   | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N | Approx.<br>weight g | Order No.<br>assembly key |
|-----------|-----|-----|----|-----|-----|-----|-----|-----|--|--|---------------------|---------------------------|
| K0318.104 | M4  | 1,5 | 15 | 1,5 | 2   | 0,6 | 0,6 | 1,3 | 2  | 7  | 0,8                 | K0317.904                 |
| K0318.105 | M5  | 2,4 | 18 | 2,3 | 2   | 0,8 | 0,8 | 1,5 | 3  | 10   | 1,3                 | K0317.905                 |
| K0318.106 | M6  | 2,7 | 20 | 2,5 | 2,5 | 1   | 1   | 2   | 3  | 9  | 2,5                 | K0317.906                 |
| K0318.108 | M8  | 3,5 | 22 | 3   | 3   | 1,4 | 1,2 | 2,5 | 4  | 16   | 6                   | K0317.908                 |
| K0318.110 | M10 | 4   | 22 | 3   | 3,5 | 1,4 | 1,6 | 3   | 4  | 16   | 9                   | K0317.910                 |
| K0318.112 | M12 | 6   | 28 | 4   | 5   | 2   | 2   | 4   | 5  | 27   | 16                  | K0317.912                 |
| K0318.116 | M16 | 7,5 | 32 | 5   | 6   | 2,5 | 2,5 | 5   | 20   | 45   | 35                  | K0317.916                 |



# Spring plungers

with hexagon socket and pressure pin, stainless steel

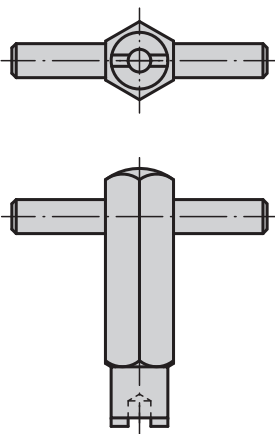


**Material:**  
Sleeve 1.4305.  
Pressure pin 1.4034.  
Spring 1.4310.

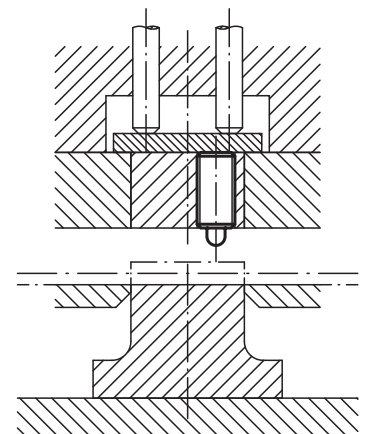
**Surface finish:**  
Natural finish.  
Pressure pin hardened.

**Sample order:**  
K0319.16

assembly key



Spring plunger cutaway view



# Spring plungers

with hexagon socket and pressure pin, stainless steel

## KIPP Spring plungers with hexagon socket and pressure pin, standard spring force

| Order No. | D   | D1  | L  | H   | T   | T1  | N   | S   | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N | Approx.<br>weight g | Order No.<br>assembly key |
|-----------|-----|-----|----|-----|-----|-----|-----|-----|--|--|---------------------|---------------------------|
| K0319.03  | M3  | 1   | 10 | 1,5 | 1,5 | 1   | 0,4 | 0,7 | 0,5  | 3  | 0,35                | K0317.903                 |
| K0319.04  | M4  | 1,5 | 15 | 1,5 | 2   | 0,6 | 0,6 | 1,3 | 5  | 16   | 0,8                 | K0317.904                 |
| K0319.05  | M5  | 2,4 | 18 | 2,3 | 2   | 0,8 | 0,8 | 1,5 | 5  | 17   | 1,3                 | K0317.905                 |
| K0319.06  | M6  | 2,7 | 20 | 2,5 | 2,5 | 1   | 1   | 2   | 6  | 17   | 2,5                 | K0317.906                 |
| K0319.08  | M8  | 3,5 | 22 | 3   | 3   | 1,4 | 1,2 | 2,5 | 7  | 29   | 6                   | K0317.908                 |
| K0319.10  | M10 | 4   | 22 | 3   | 3,5 | 1,4 | 1,6 | 3   | 8  | 31   | 9                   | K0317.910                 |
| K0319.12  | M12 | 6   | 28 | 4   | 5   | 2   | 2   | 4   | 10   | 47   | 16                  | K0317.912                 |
| K0319.16  | M16 | 7,5 | 32 | 5   | 6   | 2,5 | 2,5 | 5   | 45   | 100  | 35                  | K0317.916                 |

## KIPP Spring plungers with hexagon socket and pressure pin, strong spring force

| Order No. | D   | D1  | L  | H   | T   | T1  | N   | S   | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N | Approx.<br>weight g | Order No.<br>assembly key |
|-----------|-----|-----|----|-----|-----|-----|-----|-----|--|--|---------------------|---------------------------|
| K0319.205 | M5  | 2,4 | 18 | 2,3 | 2   | 0,8 | 0,8 | 1,5 | 9  | 26   | 1,3                 | K0317.905                 |
| K0319.206 | M6  | 2,7 | 20 | 2,5 | 2,5 | 1   | 1   | 2   | 11   | 35   | 2,5                 | K0317.906                 |
| K0319.208 | M8  | 3,5 | 22 | 3   | 3   | 1,4 | 1,2 | 2,5 | 15   | 48   | 6                   | K0317.908                 |
| K0319.210 | M10 | 4   | 22 | 3   | 3,5 | 1,4 | 1,6 | 3   | 15   | 58   | 9                   | K0317.910                 |
| K0319.212 | M12 | 6   | 28 | 4   | 5   | 2   | 2   | 4   | 19   | 74   | 16                  | K0317.912                 |

## Spring plungers

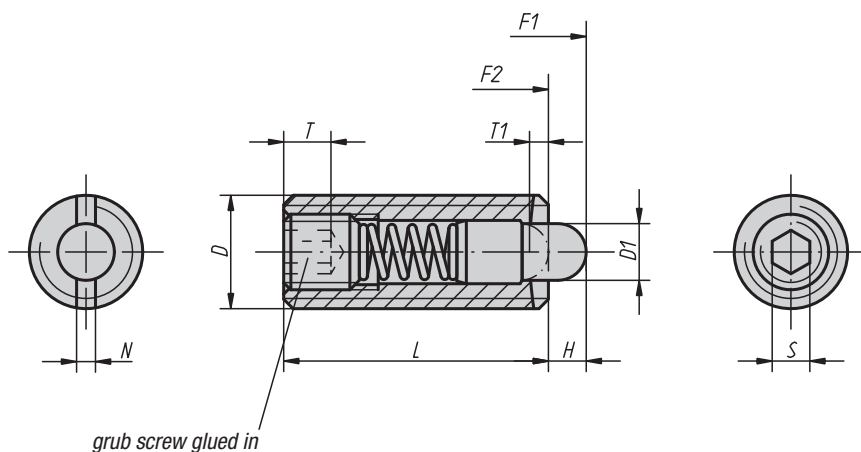
with hexagon socket and pressure pin in plastic, stainless steel



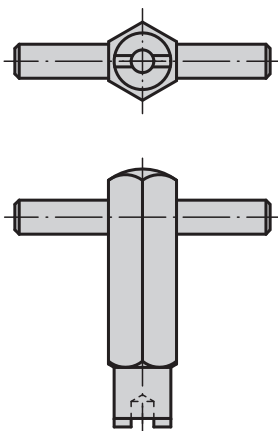
**Material:**  
Sleeve in stainless steel 1.4305.  
Pressure pin in plastic.  
Spring in stainless steel 1.4310.

**Surface finish:**  
Natural finish.

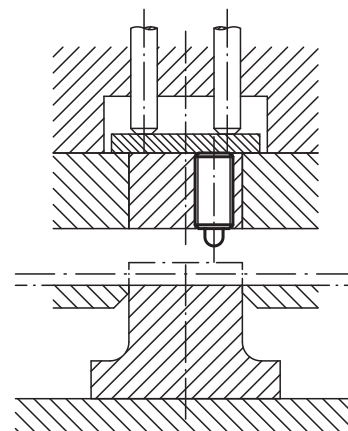
**Sample order:**  
K0320.16



assembly key

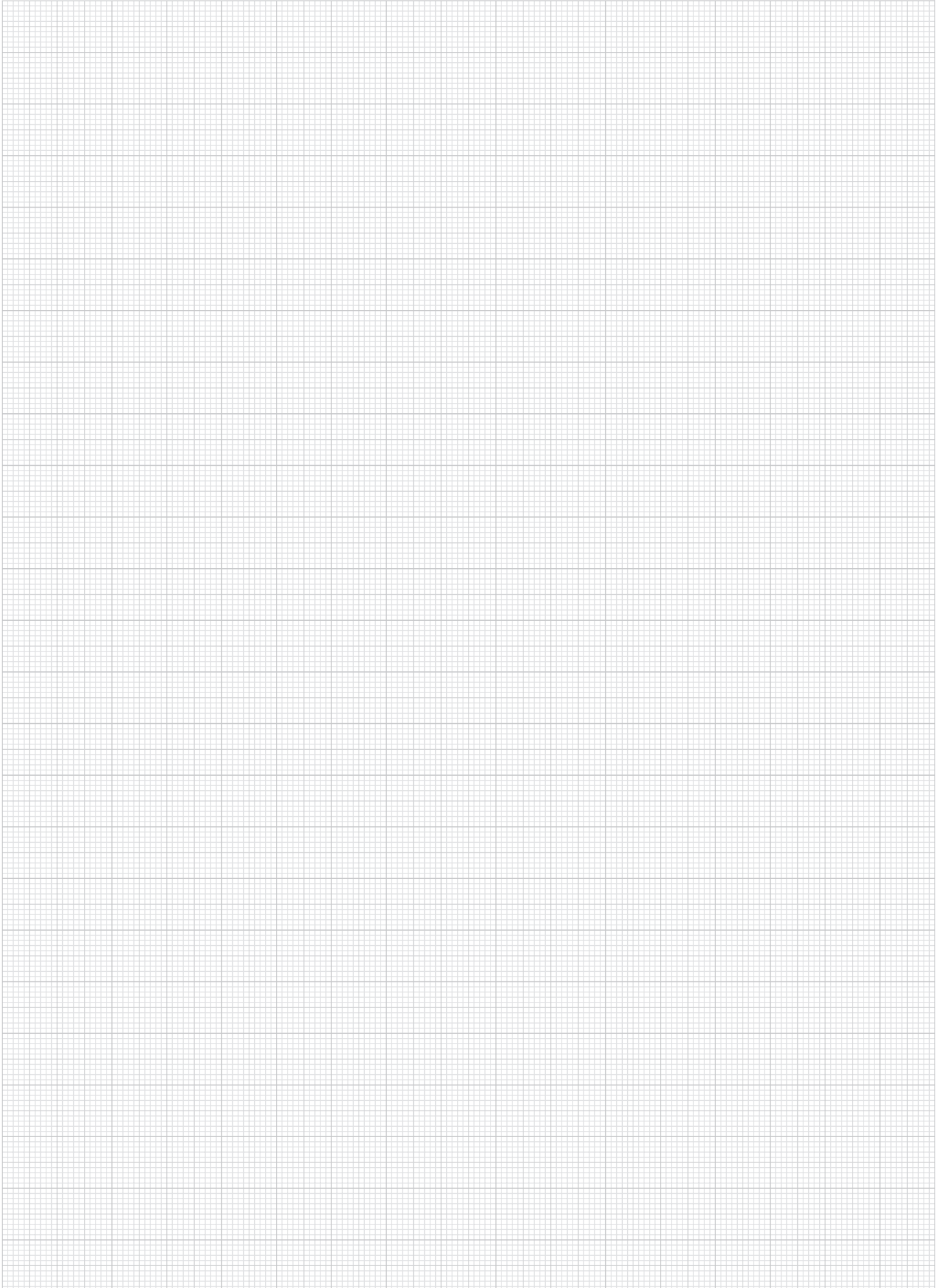


Spring plunger cutaway view



### KIPP Spring plungers with hexagon socket and pressure pin, standard spring force

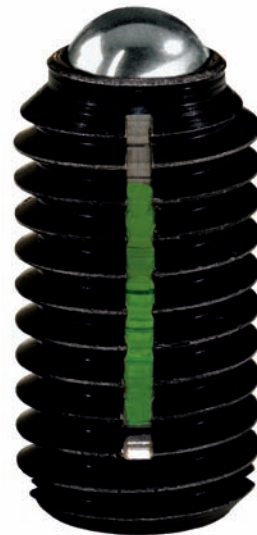
| Order No. | D   | D1  | L  | H   | T   | T1  | N   | S   | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N | Approx.<br>weight g | Order No.<br>assembly key |
|-----------|-----|-----|----|-----|-----|-----|-----|-----|--|--|---------------------|---------------------------|
| K0320.03  | M3  | 1   | 10 | 1,5 | 1,5 | 1   | 0,4 | 0,7 | 0,5  | 3  | 0,35                | K0317.903                 |
| K0320.04  | M4  | 1,5 | 15 | 1,5 | 2   | 0,6 | 0,6 | 1,3 | 5  | 16   | 0,8                 | K0317.904                 |
| K0320.05  | M5  | 2,4 | 18 | 2,3 | 2   | 0,8 | 0,8 | 1,5 | 5  | 17   | 1,3                 | K0317.905                 |
| K0320.06  | M6  | 2,7 | 20 | 2,5 | 2,5 | 1   | 1   | 2   | 6  | 17   | 2,5                 | K0317.906                 |
| K0320.08  | M8  | 3,5 | 22 | 3   | 3   | 1,4 | 1,2 | 2,5 | 7  | 29   | 6                   | K0317.908                 |
| K0320.10  | M10 | 4   | 22 | 3   | 3,5 | 1,4 | 1,6 | 3   | 8  | 31   | 9                   | K0317.910                 |
| K0320.12  | M12 | 6   | 28 | 4   | 5   | 2   | 2   | 4   | 10   | 47   | 16                  | K0317.912                 |
| K0320.16  | M16 | 7,5 | 32 | 5   | 6   | 2,5 | 2,5 | 5   | 45   | 100  | 35                  | K0317.916                 |



# Spring plungers with LONG-LOK thread lock



**LONG-LOK,  
the most advanced  
locking thread  
mechanism**



## The following advantages are yours:

### 1. Vibration resistant.

The integrated LONG-LOK thread lock secures spring plungers rationally and economically. No loosening or falling out after impacts, knocks or vibrations.

### 2. Extremely high loosening torque.

The resilient nylon insert is squeezed like a wedge between the thread of the spring plunger and the fastening component. By means of the nylon locking system, the thread backlash is shifted to one side, which in turn causes surface pressure at the thread flanks. The resulting loosening torque is higher than that achieved with most conventional, mechanical methods.

### 3. Secure in every position.

The LONG-LOK thread lock requires neither initial tension nor any defined position. This is ideal for the positioning of the spring plungers.

### 4. Saves assembly time and stocking space.

The LONG-LOK thread lock is integrated into spring plungers. There are no additional components. No circlips, no spring washers, no locking nuts. As a result, assembly and stocking costs are reduced considerably.

### 5. For repeated use.

When using the LONG-LOK thread lock for the first time, it requires a slightly higher tightening torque. After third or fourth use, the last reached value remains nearly constant for about 20 times.

### 6. Problem solver from M3 to M16.

Light-weight or heavy-weight: name your requirements! We will supply you with the suitable spring plungers with integrated LONG-LOK thread lock.



## Spring plungers

with recess and ball, steel, LONG-LOK secured



**Material:**

Sleeve in steel quality class 5.8.  
Ball in steel.  
Spring in spring steel D.

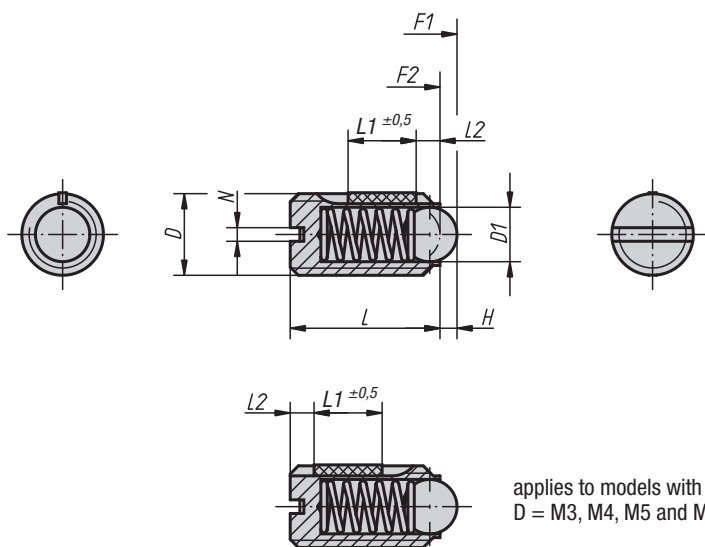
LONG-LOK thread lock in nylon.

**Surface finish:**

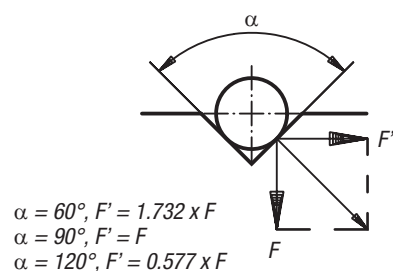
Black oxide finish.  
Ball hardened.

**Sample order:**

K0321.12



L2 = approx. two thread turns



### KIPP Spring plungers with recess and ball, standard spring force, LONG-LOK secured

| Order No. | D   | D1  | L  | L1 | H   | N   | Spring force initial pressure F1 approx. N | Spring force final pressure F2 approx. N | Tightening torque approx. Nm | Loosening torque, after third unscrewing approx. Nm | Approx. weight g |
|-----------|-----|-----|----|----|-----|-----|--|--|------------------------------|---|------------------|
| K0321.03  | M3  | 1,5 | 7  | 4  | 0,5 | 0,4 | 1,5  | 3  | 0,10                         | 0,07  | 0,2              |
| K0321.04  | M4  | 2,5 | 9  | 5  | 0,8 | 0,6 | 4  | 10                                       | 0,18                         | 0,12  | 0,6              |
| K0321.05  | M5  | 3   | 12 | 6  | 0,9 | 0,8 | 6  | 11                                       | 0,12                         | 0,08  | 0,9              |
| K0321.06  | M6  | 3,5 | 14 | 7  | 1   | 1   | 9  | 13                                       | 0,43                         | 0,21  | 1,5              |
| K0321.08  | M8  | 5   | 16 | 8  | 1,5 | 1,2 | 15   | 30                                       | 1,09                         | 0,37  | 3,5              |
| K0321.10  | M10 | 6   | 19 | 9  | 2   | 1,6 | 20   | 35                                       | 1,36                         | 0,62  | 7                |
| K0321.12  | M12 | 8   | 22 | 10 | 2,5 | 2   | 30   | 55                                       | 2,03                         | 1,36  | 10               |
| K0321.16  | M16 | 10  | 24 | 14 | 3,5 | 2,5 | 65   | 125                                      | 3,95                         | 2,95  | 24               |

### KIPP Spring plungers with recess and ball, strong spring force, LONG-LOK secured

| Order No. | D   | D1  | L  | L1 | H   | N   | Spring force initial pressure F1 approx. N | Spring force final pressure F2 approx. N | Tightening torque approx. Nm | Loosening torque, after third unscrewing approx. Nm | Approx. weight g |
|-----------|-----|-----|----|----|-----|-----|--|--|------------------------------|---|------------------|
| K0321.203 | M3  | 1,5 | 7  | 4  | 0,5 | 0,4 | 5  | 7  | 0,10                         | 0,07  | 0,2              |
| K0321.204 | M4  | 2,5 | 9  | 5  | 0,8 | 0,6 | 12   | 22                                       | 0,18                         | 0,12  | 0,6              |
| K0321.205 | M5  | 3   | 12 | 6  | 0,9 | 0,8 | 19   | 30                                       | 0,12                         | 0,08  | 0,9              |
| K0321.206 | M6  | 3,5 | 14 | 7  | 1   | 1   | 28   | 40                                       | 0,43                         | 0,21  | 1,5              |
| K0321.208 | M8  | 5   | 16 | 8  | 1,5 | 1,2 | 47   | 73                                       | 1,09                         | 0,37  | 3,5              |
| K0321.210 | M10 | 6   | 19 | 9  | 2   | 1,6 | 66   | 100                                      | 1,36                         | 0,62  | 7                |
| K0321.212 | M12 | 8   | 22 | 10 | 2,5 | 2   | 66   | 120                                      | 2,03                         | 1,36  | 10               |
| K0321.216 | M16 | 10  | 24 | 14 | 3,5 | 2,5 | 90   | 180                                      | 3,95                         | 2,95  | 24               |

## Spring plungers

with recess and ball, stainless steel, LONG-LOK secured

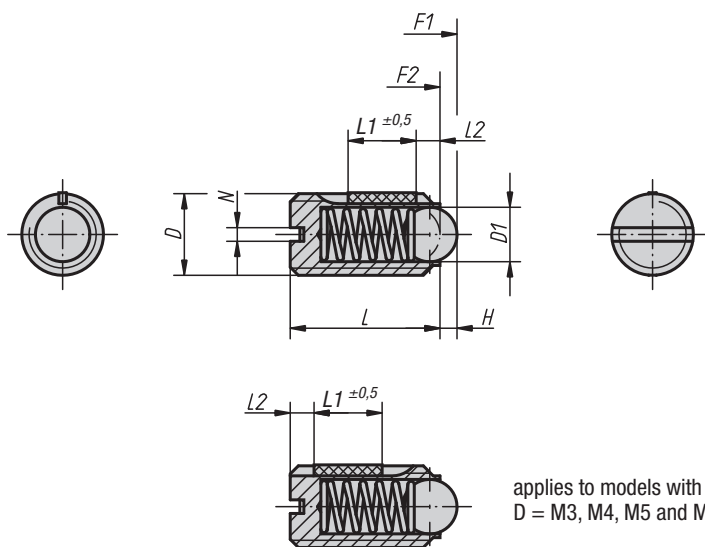


**Material:**  
Sleeve 1.4305.  
Ball 1.4034.  
Spring 1.4310.

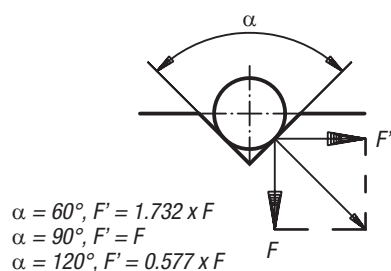
LONG-LOK thread lock in nylon.

**Surface finish:**  
Natural finish.  
Ball hardened.

**Sample order:**  
K0322.12



L2 = approx. two thread turns



### KIPP Spring plungers with recess and ball, standard spring force, LONG-LOK secured

| Order No. | D   | D1  | L  | L1 | H   | N   | Spring force initial pressure F1 approx. N | Spring force final pressure F2 approx. N | Tightening torque approx. Nm | Loosening torque, after third unscrewing approx. Nm | Approx. weight g |
|-----------|-----|-----|----|----|-----|-----|--|--|------------------------------|---|------------------|
| K0322.03  | M3  | 1,5 | 7  | 4  | 0,5 | 0,4 | 1,5  | 3  | 0,10                         | 0,07  | 0,2              |
| K0322.04  | M4  | 2,5 | 9  | 5  | 0,8 | 0,6 | 4  | 10                                       | 0,18                         | 0,12  | 0,6              |
| K0322.05  | M5  | 3   | 12 | 6  | 0,9 | 0,8 | 6  | 11                                       | 0,12                         | 0,08  | 0,9              |
| K0322.06  | M6  | 3,5 | 14 | 7  | 1   | 1   | 9  | 13                                       | 0,43                         | 0,21  | 1,5              |
| K0322.08  | M8  | 5   | 16 | 8  | 1,5 | 1,2 | 15   | 30                                       | 1,09                         | 0,37  | 3,5              |
| K0322.10  | M10 | 6   | 19 | 9  | 2   | 1,6 | 20   | 35                                       | 1,36                         | 0,62  | 7                |
| K0322.12  | M12 | 8   | 22 | 10 | 2,5 | 2   | 30   | 55                                       | 2,03                         | 1,36  | 10               |
| K0322.16  | M16 | 10  | 24 | 14 | 3,5 | 2,5 | 65   | 125                                      | 3,95                         | 2,95  | 24               |

### KIPP Spring plungers with recess and ball, strong spring force, LONG-LOK secured

| Order No. | D   | D1  | L  | L1 | H   | N   | Spring force initial pressure F1 approx. N | Spring force final pressure F2 approx. N | Tightening torque approx. Nm | Loosening torque, after third unscrewing approx. Nm | Approx. weight g |
|-----------|-----|-----|----|----|-----|-----|--|--|------------------------------|---|------------------|
| K0322.203 | M3  | 1,5 | 7  | 4  | 0,5 | 0,4 | 5  | 7  | 0,10                         | 0,07  | 0,2              |
| K0322.204 | M4  | 2,5 | 9  | 5  | 0,8 | 0,6 | 12   | 22                                       | 0,18                         | 0,12  | 0,6              |
| K0322.205 | M5  | 3   | 12 | 6  | 0,9 | 0,8 | 19   | 30                                       | 0,12                         | 0,08  | 0,9              |
| K0322.206 | M6  | 3,5 | 14 | 7  | 1   | 1   | 28   | 40                                       | 0,43                         | 0,21  | 1,5              |
| K0322.208 | M8  | 5   | 16 | 8  | 1,5 | 1,2 | 47   | 73                                       | 1,09                         | 0,37  | 3,5              |
| K0322.210 | M10 | 6   | 19 | 9  | 2   | 1,6 | 66   | 100                                      | 1,36                         | 0,62  | 7                |
| K0322.212 | M12 | 8   | 22 | 10 | 2,5 | 2   | 66   | 120                                      | 2,03                         | 1,36  | 10               |
| K0322.216 | M16 | 10  | 24 | 14 | 3,5 | 2,5 | 90   | 180                                      | 3,95                         | 2,95  | 24               |

## Spring plungers

with recess and pressure pin, steel, LONG-LOK secured

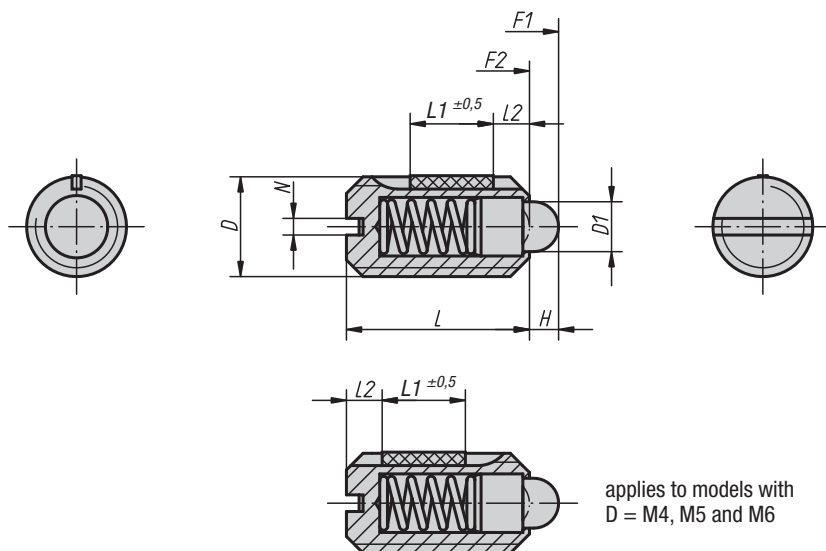


**Material:**  
Sleeve in steel quality class 5.8.  
Pressure pin in steel.  
Spring in spring steel D.

LONG-LOK thread lock in nylon.

**Surface finish:**  
Black oxide finish.  
Pressure pin hardened.

**Sample order:**  
K0323.10



L2 = approx. two thread turns

### KIPP Spring plungers with recess and pressure pin, standard spring force, LONG-LOK secured

| Order No. | D   | D1  | L  | L1 | H   | N   | Spring force initial pressure F1 approx. N | Spring force final pressure F2 approx. N | Tightening torque approx. Nm | Loosening torque, after third unscrewing approx. Nm | Approx. weight g |
|-----------|-----|-----|----|----|-----|-----|--|--|------------------------------|---|------------------|
| K0323.04  | M4  | 1,8 | 9  | 5  | 1,5 | 0,6 | 6  | 20                                       | 0,18                         | 0,12  | 0,39             |
| K0323.05  | M5  | 2,4 | 12 | 6  | 2   | 0,8 | 6  | 20                                       | 0,12                         | 0,08  | 1                |
| K0323.06  | M6  | 2,7 | 14 | 7  | 2   | 1   | 7  | 20                                       | 0,44                         | 0,21  | 1,7              |
| K0323.08  | M8  | 4   | 16 | 8  | 2   | 1,2 | 15   | 30                                       | 1,10                         | 0,38  | 4                |
| K0323.10  | M10 | 4,5 | 19 | 9  | 2,5 | 1,6 | 20   | 35                                       | 1,36                         | 0,62  | 7                |
| K0323.12  | M12 | 6   | 22 | 10 | 3,5 | 2   | 30   | 55                                       | 2,11                         | 1,41  | 13               |
| K0323.16  | M16 | 8,5 | 24 | 14 | 4,5 | 2,5 | 45   | 100                                      | 3,95                         | 3,05  | 24               |

### KIPP Spring plungers with recess and pressure pin, light spring force, LONG-LOK secured

| Order No. | D   | D1  | L  | L1 | H   | N   | Spring force initial pressure F1 approx. N | Spring force final pressure F2 approx. N | Tightening torque approx. Nm | Loosening torque, after third unscrewing approx. Nm | Approx. weight g |
|-----------|-----|-----|----|----|-----|-----|--|--|------------------------------|---|------------------|
| K0323.104 | M4  | 1,8 | 9  | 5  | 1,5 | 0,6 | 3  | 10                                       | 0,18                         | 0,12  | 0,39             |
| K0323.105 | M5  | 2,4 | 12 | 6  | 2   | 0,8 | 3  | 10                                       | 0,12                         | 0,08  | 1                |
| K0323.106 | M6  | 2,7 | 14 | 7  | 2   | 1   | 4  | 10                                       | 0,44                         | 0,21  | 1,7              |
| K0323.108 | M8  | 4   | 16 | 8  | 2   | 1,2 | 7  | 15                                       | 1,10                         | 0,38  | 4                |
| K0323.110 | M10 | 4,5 | 19 | 9  | 2,5 | 1,6 | 9  | 16                                       | 1,36                         | 0,62  | 7                |
| K0323.112 | M12 | 6   | 22 | 10 | 3,5 | 2   | 14   | 26                                       | 2,11                         | 1,41  | 13               |
| K0323.116 | M16 | 8,5 | 24 | 14 | 4,5 | 2,5 | 22   | 50                                       | 3,95                         | 3,05  | 24               |

### KIPP Spring plungers with recess and pressure pin, strong spring force, LONG-LOK secured

| Order No. | D   | D1  | L  | L1 | H   | N   | Spring force initial pressure F1 approx. N | Spring force final pressure F2 approx. N | Tightening torque approx. Nm | Loosening torque, after third unscrewing approx. Nm | Approx. weight g |
|-----------|-----|-----|----|----|-----|-----|--|--|------------------------------|---|------------------|
| K0323.205 | M5  | 2,4 | 12 | 6  | 2   | 0,8 | 9  | 25                                       | 0,12                         | 0,08  | 1                |
| K0323.206 | M6  | 2,7 | 14 | 7  | 2   | 1   | 11   | 25                                       | 0,44                         | 0,21  | 1,7              |
| K0323.208 | M8  | 4   | 16 | 8  | 2   | 1,2 | 22   | 43                                       | 1,1                          | 0,38  | 4                |
| K0323.210 | M10 | 4,5 | 19 | 9  | 2,5 | 1,6 | 20   | 54                                       | 1,36                         | 0,62  | 7                |
| K0323.212 | M12 | 6   | 22 | 10 | 3,5 | 2   | 36   | 94                                       | 2,11                         | 1,41  | 13               |
| K0323.216 | M16 | 8,5 | 24 | 14 | 4,5 | 2,5 | 60   | 110                                      | 3,99                         | 3,05  | 29               |



## Spring plungers

with recess and pressure pin, stainless steel, LONG-LOK secured

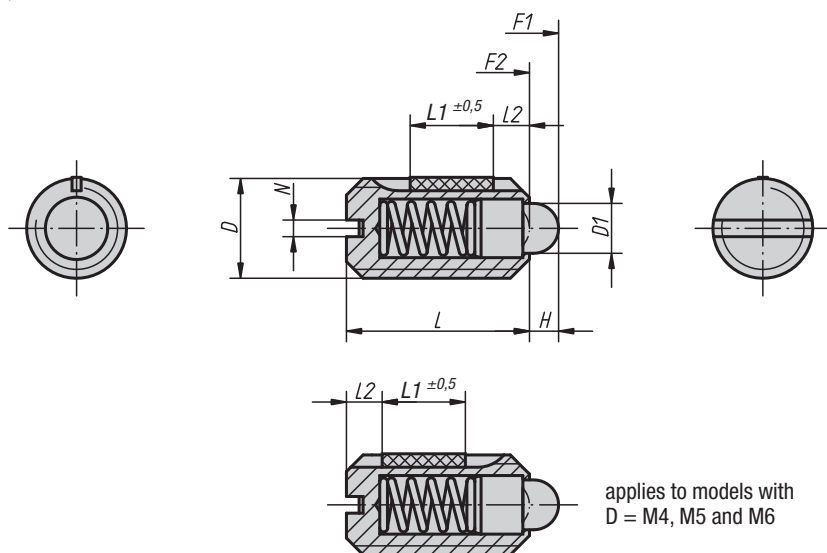


**Material:**  
Sleeve 1.4305.  
Pressure pin 1.4034.  
Spring 1.4310.

LONG-LOK thread lock in nylon.

**Surface finish:**  
Natural finish.  
Pressure pin hardened.

**Sample order:**  
K0324.10



L2 = approx. two thread turns

### KIPP Spring plungers with recess and pressure pin, standard spring force, LONG-LOK secured

| Order No. | D   | D1  | L  | L1 | H   | N   | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N | Tightening<br>torque<br>approx. Nm | Loosening torque,<br>after third unscrewing<br>approx. Nm | Approx.<br>weight g |
|-----------|-----|-----|----|----|-----|-----|--|--|------------------------------------|---|---------------------|
| K0324.04  | M4  | 1,8 | 9  | 5  | 1,5 | 0,6 | 6  | 20   | 0,18                               | 0,12  | 0,39                |
| K0324.05  | M5  | 2,4 | 12 | 6  | 2   | 0,8 | 6  | 20   | 0,12                               | 0,08  | 1                   |
| K0324.06  | M6  | 2,7 | 14 | 7  | 2   | 1   | 7  | 20   | 0,44                               | 0,21  | 1,7                 |
| K0324.08  | M8  | 4   | 16 | 8  | 2   | 1,2 | 15   | 30   | 1,10                               | 0,38  | 4                   |
| K0324.10  | M10 | 4,5 | 19 | 9  | 2,5 | 1,6 | 20   | 35   | 1,36                               | 0,62  | 7                   |
| K0324.12  | M12 | 6   | 22 | 10 | 3,5 | 2   | 30   | 55   | 2,11                               | 1,41  | 13                  |
| K0324.16  | M16 | 8,5 | 24 | 14 | 4,5 | 2,5 | 45   | 100  | 3,95                               | 3,05  | 24                  |

### KIPP Spring plungers with recess and pressure pin, light spring force, LONG-LOK secured

| Order No. | D   | D1  | L  | L1 | H   | N   | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N | Tightening<br>torque<br>approx. Nm | Loosening torque,<br>after third unscrewing<br>approx. Nm | Approx.<br>weight g |
|-----------|-----|-----|----|----|-----|-----|--|--|------------------------------------|---|---------------------|
| K0324.104 | M4  | 1,8 | 9  | 5  | 1,5 | 0,6 | 3  | 10   | 0,18                               | 0,12  | 0,39                |
| K0324.105 | M5  | 2,4 | 12 | 6  | 2   | 0,8 | 3  | 10   | 0,12                               | 0,08  | 1                   |
| K0324.106 | M6  | 2,7 | 14 | 7  | 2   | 1   | 4  | 10   | 0,44                               | 0,21  | 1,7                 |
| K0324.108 | M8  | 4   | 16 | 8  | 2   | 1,2 | 7  | 15   | 1,10                               | 0,38  | 4                   |
| K0324.110 | M10 | 4,5 | 19 | 9  | 2,5 | 1,6 | 9  | 16   | 1,36                               | 0,62  | 7                   |
| K0324.112 | M12 | 6   | 22 | 10 | 3,5 | 2   | 14   | 26   | 2,11                               | 1,41  | 13                  |
| K0324.116 | M16 | 8,5 | 24 | 14 | 4,5 | 2,5 | 22   | 50   | 3,95                               | 3,05  | 24                  |

### KIPP Spring plungers with recess and pressure pin, strong spring force, LONG-LOK secured

| Order No. | D   | D1  | L  | L1 | H   | N   | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N | Tightening<br>torque<br>approx. Nm | Loosening torque,<br>after third unscrewing<br>approx. Nm | Approx.<br>weight g |
|-----------|-----|-----|----|----|-----|-----|--|--|------------------------------------|---|---------------------|
| K0324.205 | M5  | 2,4 | 12 | 6  | 2   | 0,8 | 9  | 25   | 0,12                               | 0,08  | 1                   |
| K0324.206 | M6  | 2,7 | 14 | 7  | 2   | 1   | 11   | 25   | 0,44                               | 0,21  | 1,7                 |
| K0324.208 | M8  | 4   | 16 | 8  | 2   | 1,2 | 22   | 43   | 1,1                                | 0,38  | 4                   |
| K0324.210 | M10 | 4,5 | 19 | 9  | 2,5 | 1,6 | 20   | 54   | 1,36                               | 0,62  | 7                   |
| K0324.212 | M12 | 6   | 22 | 10 | 3,5 | 2   | 36   | 94   | 2,11                               | 1,41  | 13                  |
| K0324.216 | M16 | 8,5 | 24 | 14 | 4,5 | 2,5 | 60   | 110  | 3,99                               | 3,05  | 29                  |

## Spring plungers

with hexagon socket and ball, steel, LONG-LOK secured



**Material:**

Sleeve in steel quality class 5.8.  
Ball in steel.  
Spring in spring steel D.

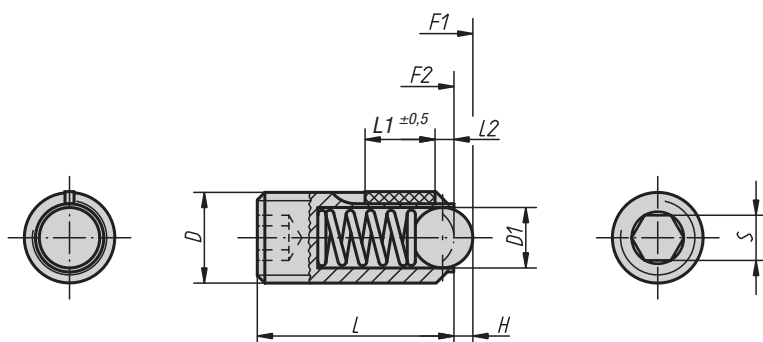
LONG-LOK thread lock in nylon.

**Surface finish:**

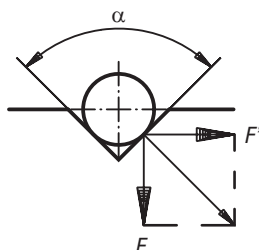
Black oxide finish.  
Ball hardened.

**Sample order:**

K0325.08



L2 = approx. two thread turns



$$\alpha = 60^\circ, F' = 1.732 \times F$$

$$\alpha = 90^\circ, F' = F$$

$$\alpha = 120^\circ, F' = 0.577 \times F$$

### KIPP Spring plungers with hexagon socket and ball, standard spring force, LONG-LOK secured

| Order No. | D   | D1  | L  | L1 | H   | S   | Spring force initial pressure F1 approx. N | Spring force final pressure F2 approx. N | Tightening torque approx. Nm | Loosening torque, after third unscrewing approx. Nm | Approx. weight g |
|-----------|-----|-----|----|----|-----|-----|--|--|------------------------------|---|------------------|
| K0325.03  | M3  | 1,5 | 9  | 4  | 0,5 | 1,5 | 1,5  | 3  | 0,10                         | 0,07  | 0,23             |
| K0325.04  | M4  | 2,5 | 10 | 5  | 0,8 | 2   | 4  | 10                                       | 0,18                         | 0,12  | 0,46             |
| K0325.05  | M5  | 3   | 14 | 6  | 0,9 | 2,5 | 6  | 11                                       | 0,12                         | 0,08  | 1,27             |
| K0325.06  | M6  | 3,5 | 15 | 7  | 1   | 3   | 9  | 13                                       | 0,44                         | 0,21  | 2                |
| K0325.08  | M8  | 5   | 18 | 8  | 1,5 | 4   | 15   | 30                                       | 1,10                         | 0,38  | 4                |
| K0325.10  | M10 | 6   | 23 | 9  | 2   | 5   | 20   | 35                                       | 1,30                         | 0,60  | 8                |
| K0325.12  | M12 | 8   | 26 | 10 | 2,5 | 6   | 30   | 55                                       | 2,00                         | 1,30  | 12               |
| K0325.16  | M16 | 10  | 33 | 14 | 3,5 | 8   | 65   | 125                                      | 3,90                         | 3,00  | 31               |

### KIPP Spring plungers with hexagon socket and ball, strong spring force, LONG-LOK secured

| Order No. | D   | D1  | L  | L1 | H   | S   | Spring force initial pressure F1 approx. N | Spring force final pressure F2 approx. N | Tightening torque approx. Nm | Loosening torque, after third unscrewing approx. Nm | Approx. weight g |
|-----------|-----|-----|----|----|-----|-----|--|--|------------------------------|---|------------------|
| K0325.203 | M3  | 1,5 | 9  | 4  | 0,5 | 1,5 | 5  | 7  | 0,10                         | 0,07  | 0,23             |
| K0325.204 | M4  | 2,5 | 10 | 5  | 0,8 | 2   | 12   | 22                                       | 0,18                         | 0,12  | 0,46             |
| K0325.205 | M5  | 3   | 14 | 6  | 0,9 | 2,5 | 19   | 30                                       | 0,12                         | 0,08  | 1,27             |
| K0325.206 | M6  | 3,5 | 15 | 7  | 1   | 3   | 28   | 40                                       | 0,44                         | 0,21  | 2                |
| K0325.208 | M8  | 5   | 18 | 8  | 1,5 | 4   | 47   | 73                                       | 1,10                         | 0,38  | 4                |
| K0325.210 | M10 | 6   | 23 | 9  | 2   | 5   | 66   | 100                                      | 1,30                         | 0,60  | 8                |
| K0325.212 | M12 | 8   | 26 | 10 | 2,5 | 6   | 66   | 120                                      | 2,00                         | 1,30  | 12               |
| K0325.216 | M16 | 10  | 33 | 14 | 3,5 | 8   | 90   | 180                                      | 3,90                         | 3,00  | 31               |

## Spring plungers

with hexagon socket and ball, stainless steel, LONG-LOK secured

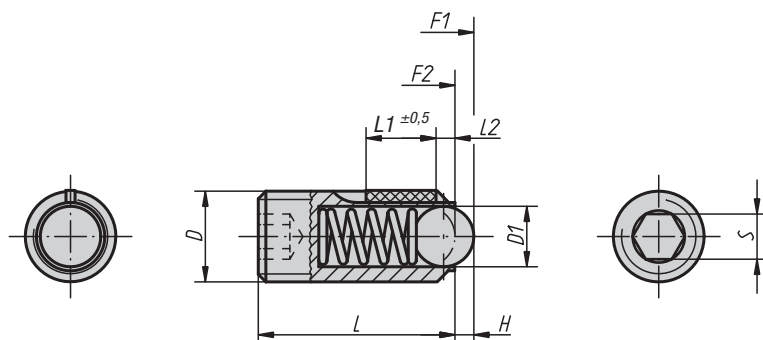


**Material:**  
Sleeve 1.4305.  
Ball 1.4034.  
Spring 1.4310.

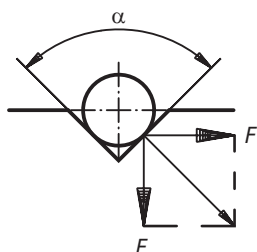
LONG-LOK thread lock in nylon.

**Surface finish:**  
Natural finish.  
Ball hardened.

**Sample order:**  
K0326.08



L2 = approx. two thread turns



$$\alpha = 60^\circ, F' = 1.732 \times F$$

$$\alpha = 90^\circ, F' = F$$

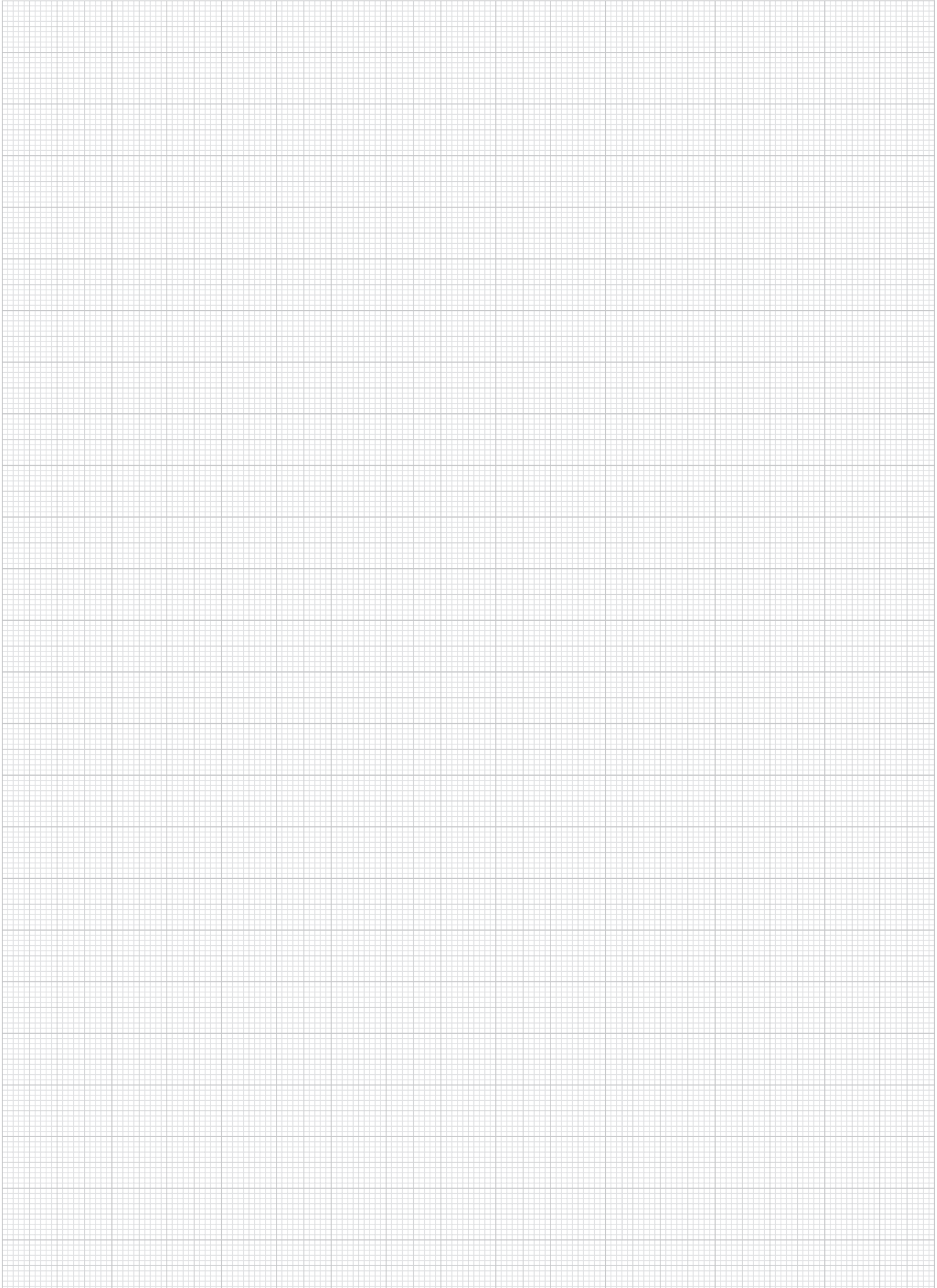
$$\alpha = 120^\circ, F' = 0.577 \times F$$

### KIPP Spring plungers with hexagon socket and ball, standard spring force, LONG-LOK secured

| Order No. | D   | D1  | L  | L1 | H   | S   | Spring force initial pressure F1 approx. N | Spring force final pressure F2 approx. N | Tightening torque approx. Nm | Loosening torque, after third unscrewing approx. Nm | Approx. weight g |
|-----------|-----|-----|----|----|-----|-----|--|--|------------------------------|---|------------------|
| K0326.03  | M3  | 1,5 | 9  | 4  | 0,5 | 1,5 | 1,5  | 3  | 0,10                         | 0,07  | 0,23             |
| K0326.04  | M4  | 2,5 | 10 | 5  | 0,8 | 2   | 4  | 10                                       | 0,18                         | 0,12  | 0,46             |
| K0326.05  | M5  | 3   | 14 | 6  | 0,9 | 2,5 | 6  | 11                                       | 0,12                         | 0,08  | 1,27             |
| K0326.06  | M6  | 3,5 | 15 | 7  | 1   | 3   | 9  | 13                                       | 0,44                         | 0,21  | 2                |
| K0326.08  | M8  | 5   | 18 | 8  | 1,5 | 4   | 15   | 30                                       | 1,10                         | 0,38  | 4                |
| K0326.10  | M10 | 6   | 23 | 9  | 2   | 5   | 20   | 35                                       | 1,30                         | 0,60  | 8                |
| K0326.12  | M12 | 8   | 26 | 10 | 2,5 | 6   | 30   | 55                                       | 2,00                         | 1,30  | 12               |
| K0326.16  | M16 | 10  | 33 | 14 | 3,5 | 8   | 65   | 125                                      | 3,90                         | 3,00  | 31               |

### KIPP Spring plungers with hexagon socket and ball, strong spring force, LONG-LOK secured

| Order No. | D   | D1  | L  | L1 | H   | S   | Spring force initial pressure F1 approx. N | Spring force final pressure F2 approx. N | Tightening torque approx. Nm | Loosening torque, after third unscrewing approx. Nm | Approx. weight g |
|-----------|-----|-----|----|----|-----|-----|--|--|------------------------------|---|------------------|
| K0326.203 | M3  | 1,5 | 9  | 4  | 0,5 | 1,5 | 5  | 7  | 0,10                         | 0,07  | 0,23             |
| K0326.204 | M4  | 2,5 | 10 | 5  | 0,8 | 2   | 12   | 22                                       | 0,18                         | 0,12  | 0,46             |
| K0326.205 | M5  | 3   | 14 | 6  | 0,9 | 2,5 | 19   | 30                                       | 0,12                         | 0,08  | 1,27             |
| K0326.206 | M6  | 3,5 | 15 | 7  | 1   | 3   | 28   | 40                                       | 0,44                         | 0,21  | 2                |
| K0326.208 | M8  | 5   | 18 | 8  | 1,5 | 4   | 47   | 73                                       | 1,10                         | 0,38  | 4                |
| K0326.210 | M10 | 6   | 23 | 9  | 2   | 5   | 66   | 100                                      | 1,30                         | 0,60  | 8                |
| K0326.212 | M12 | 8   | 26 | 10 | 2,5 | 6   | 66   | 120                                      | 2,00                         | 1,30  | 12               |
| K0326.216 | M16 | 10  | 33 | 14 | 3,5 | 8   | 90   | 180                                      | 3,90                         | 3,00  | 31               |



# Spring plungers

with hexagon socket and pressure pin, steel, LONG-LOK secured



**Material:**

Sleeve in steel quality class 5.8.  
 Pressure pin in steel.  
 Spring in spring steel D.

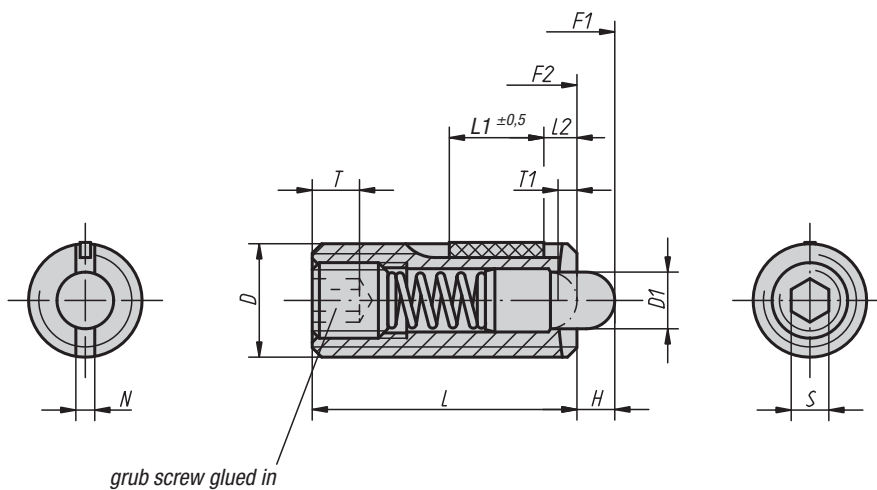
LONG-LOK thread lock in nylon.

**Surface finish:**

Black oxide finish.  
 Pressure pin hardened.

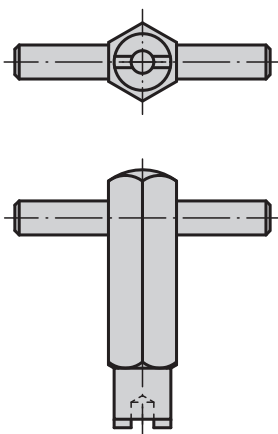
**Sample order:**

K0327.12



L2 = approx. two thread turns

assembly key



# Spring plungers

with hexagon socket and pressure pin, steel, LONG-LOK secured

## KIPP Spring plungers with hexagon socket and pressure pin, standard spring force, LONG-LOK secured

| Order No. | D   | D1  | L  | L1 | H   | T   | T1  | N   | S   | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N | Tightening<br>torque<br>approx. Nm | Loosening torque,<br>after third unscrewing<br>approx. Nm | Approx.<br>weight g | Order No.<br>assembly key |
|-----------|-----|-----|----|----|-----|-----|-----|-----|-----|--|--|------------------------------------|---|---------------------|---------------------------|
| K0327.05  | M5  | 2,4 | 18 | 7  | 2,3 | 2   | 0,8 | 0,8 | 1,5 | 6  | 20   | 0,12                               | 0,08  | 1,3                 | K0317.905                 |
| K0327.06  | M6  | 2,7 | 20 | 7  | 2,5 | 2,5 | 1   | 1   | 2   | 7  | 20   | 0,45                               | 0,22  | 2,5                 | K0317.906                 |
| K0327.08  | M8  | 3,5 | 22 | 8  | 3   | 3   | 1,4 | 1,2 | 2,5 | 9  | 35   | 1,05                               | 0,37  | 6                   | K0317.908                 |
| K0327.10  | M10 | 4   | 22 | 9  | 3   | 3,5 | 1,4 | 1,6 | 3   | 9  | 35   | 1,30                               | 0,60  | 9                   | K0317.910                 |
| K0327.12  | M12 | 6   | 28 | 10 | 4   | 5   | 2   | 2   | 4   | 10   | 55   | 2,00                               | 1,30  | 16                  | K0317.912                 |
| K0327.16  | M16 | 7,5 | 32 | 14 | 5   | 6   | 2,5 | 2,5 | 5   | 45   | 100  | 3,90                               | 3,00  | 35                  | K0317.916                 |

## KIPP Spring plungers with hexagon socket and pressure pin, light spring force, LONG-LOK secured

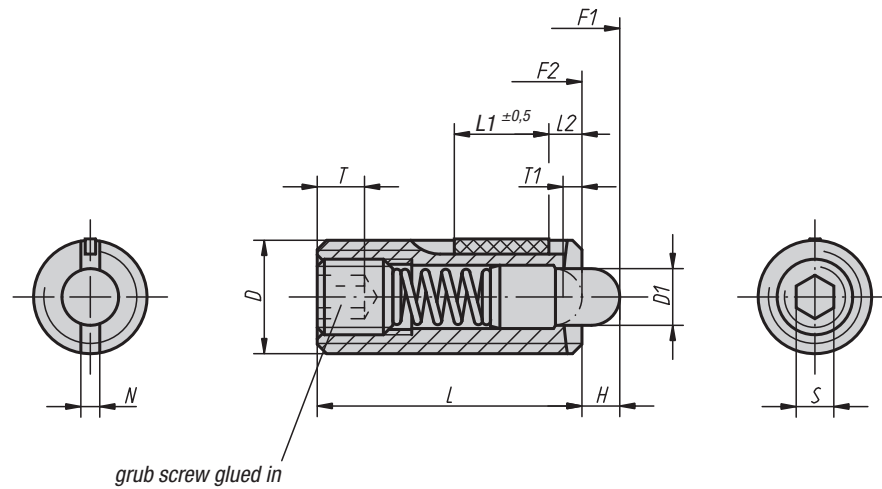
| Order No. | D   | D1  | L  | L1 | H   | T   | T1  | N   | S   | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N | Tightening<br>torque<br>approx. Nm | Loosening torque,<br>after third unscrewing<br>approx. Nm | Approx.<br>weight g | Order No.<br>assembly key |
|-----------|-----|-----|----|----|-----|-----|-----|-----|-----|--|--|------------------------------------|---|---------------------|---------------------------|
| K0327.105 | M5  | 2,4 | 18 | 7  | 2,3 | 2   | 0,8 | 0,8 | 1,5 | 3  | 10   | 0,12                               | 0,08  | 1,3                 | K0317.905                 |
| K0327.106 | M6  | 2,7 | 20 | 7  | 2,5 | 2,5 | 1   | 1   | 2   | 3  | 9  | 0,45                               | 0,22  | 2,5                 | K0317.906                 |
| K0327.108 | M8  | 3,5 | 22 | 8  | 3   | 3   | 1,4 | 1,2 | 2,5 | 4  | 16   | 1,05                               | 0,37  | 6                   | K0317.908                 |
| K0327.110 | M10 | 4   | 22 | 9  | 3   | 3,5 | 1,4 | 1,6 | 3   | 4  | 16   | 1,30                               | 0,60  | 9                   | K0317.910                 |
| K0327.112 | M12 | 6   | 28 | 10 | 4   | 5   | 2   | 2   | 4   | 5  | 27   | 2,00                               | 1,30  | 16                  | K0317.912                 |
| K0327.116 | M16 | 7,5 | 32 | 14 | 5   | 6   | 2,5 | 2,5 | 5   | 20   | 45   | 3,90                               | 3,00  | 35                  | K0317.916                 |

## KIPP Spring plungers with hexagon socket and pressure pin, strong spring force, LONG-LOK secured

| Order No. | D   | D1  | L  | L1 | H   | T   | T1  | N   | S   | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N | Tightening<br>torque<br>approx. Nm | Loosening torque,<br>after third unscrewing<br>approx. Nm | Approx.<br>weight g | Order No.<br>assembly key |
|-----------|-----|-----|----|----|-----|-----|-----|-----|-----|--|--|------------------------------------|---|---------------------|---------------------------|
| K0327.205 | M5  | 2,4 | 18 | 7  | 2,3 | 2   | 0,8 | 0,8 | 1,5 | 11   | 29   | 0,12                               | 0,08  | 1,3                 | K0317.905                 |
| K0327.206 | M6  | 2,7 | 20 | 7  | 2,5 | 2,5 | 1   | 1   | 2   | 14   | 37   | 0,45                               | 0,22  | 2,5                 | K0317.906                 |
| K0327.208 | M8  | 3,5 | 22 | 8  | 3   | 3   | 1,4 | 1,2 | 2,5 | 22   | 65   | 1,05                               | 0,37  | 6                   | K0317.908                 |
| K0327.210 | M10 | 4   | 22 | 9  | 3   | 3,5 | 1,4 | 1,6 | 3   | 19   | 70   | 1,30                               | 0,60  | 9                   | K0317.910                 |
| K0327.212 | M12 | 6   | 28 | 10 | 4   | 5   | 2   | 2   | 4   | 25   | 85   | 2,00                               | 1,30  | 16                  | K0317.912                 |
| K0327.216 | M16 | 7,5 | 32 | 14 | 5   | 6   | 2,5 | 2,5 | 5   | 60   | 150  | 3,90                               | 3,00  | 35                  | K0317.916                 |

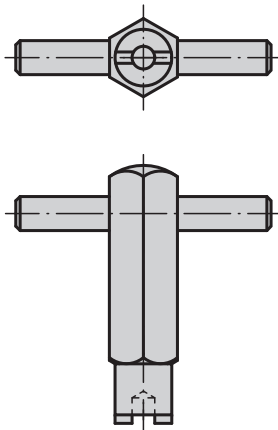
# Spring plungers

with hexagon socket and pressure pin in plastic, steel, LONG-LOK secured



L2 = approx. two thread turns

assembly key



**Material:**  
Sleeve in steel quality class 5.8.  
Pressure pin in plastic.  
Spring in spring steel D.

LONG-LOK thread lock in nylon.

**Surface finish:**  
Black oxide finish.

**Sample order:**  
K0328.12

## KIPP Spring plungers with hexagon socket and pressure pin, standard spring force, LONG-LOK secured

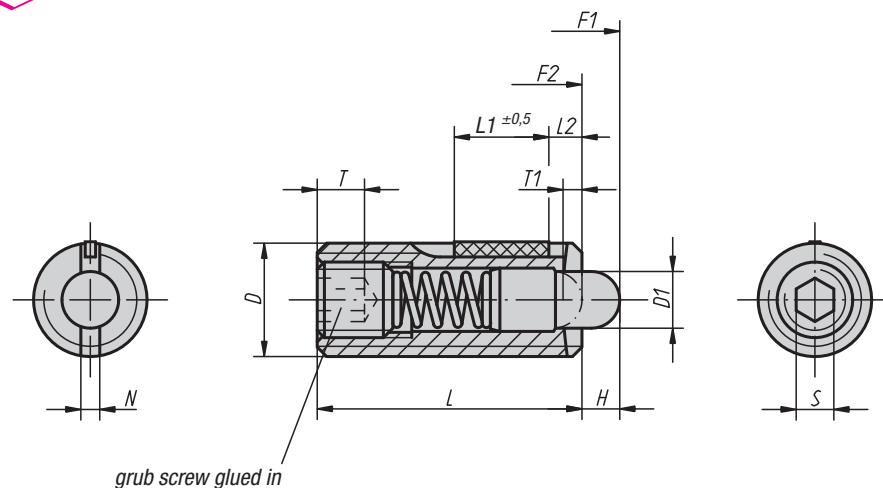
| Order No. | D   | D1  | L  | L1 | H   | T   | T1  | N   | S   | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N | Tightening<br>torque<br>approx. Nm | Loosening torque,<br>after third unscrewing<br>approx. Nm | Approx.<br>weight g | Order No.<br>assembly key |
|-----------|-----|-----|----|----|-----|-----|-----|-----|-----|--|--|------------------------------------|---|---------------------|---------------------------|
| K0328.05  | M5  | 2,4 | 18 | 7  | 2,3 | 2   | 0,8 | 0,8 | 1,5 | 6  | 20   | 0,12                               | 0,08  | 1,3                 | K0317.905                 |
| K0328.06  | M6  | 2,7 | 20 | 7  | 2,5 | 2,5 | 1   | 1   | 2   | 7  | 20   | 0,45                               | 0,22  | 2,5                 | K0317.906                 |
| K0328.08  | M8  | 3,5 | 22 | 8  | 3   | 3   | 1,4 | 1,2 | 2,5 | 9  | 35   | 1,05                               | 0,37  | 6                   | K0317.908                 |
| K0328.10  | M10 | 4   | 22 | 9  | 3   | 3,5 | 1,4 | 1,6 | 3   | 9  | 35   | 1,30                               | 0,60  | 9                   | K0317.910                 |
| K0328.12  | M12 | 6   | 28 | 10 | 4   | 5   | 2   | 2   | 4   | 10   | 55   | 2,00                               | 1,30  | 16                  | K0317.912                 |
| K0328.16  | M16 | 7,5 | 32 | 14 | 5   | 6   | 2,5 | 2,5 | 5   | 45   | 100  | 3,90                               | 3,00  | 35                  | K0317.916                 |

## KIPP Spring plungers with hexagon socket and pressure pin, light spring force, LONG-LOK secured

| Order No. | D   | D1  | L  | L1 | H   | T   | T1  | N   | S   | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N | Tightening<br>torque<br>approx. Nm | Loosening torque,<br>after third unscrewing<br>approx. Nm | Approx.<br>weight g | Order No.<br>assembly key |
|-----------|-----|-----|----|----|-----|-----|-----|-----|-----|--|--|------------------------------------|---|---------------------|---------------------------|
| K0328.105 | M5  | 2,4 | 18 | 7  | 2,3 | 2   | 0,8 | 0,8 | 1,5 | 3  | 10   | 0,12                               | 0,08  | 1,3                 | K0317.905                 |
| K0328.106 | M6  | 2,7 | 20 | 7  | 2,5 | 2,5 | 1   | 1   | 2   | 3  | 9  | 0,45                               | 0,22  | 2,5                 | K0317.906                 |
| K0328.108 | M8  | 3,5 | 22 | 8  | 3   | 3   | 1,4 | 1,2 | 2,5 | 4  | 16   | 1,05                               | 0,37  | 6                   | K0317.908                 |
| K0328.110 | M10 | 4   | 22 | 9  | 3   | 3,5 | 1,4 | 1,6 | 3   | 4  | 16   | 1,30                               | 0,60  | 9                   | K0317.910                 |
| K0328.112 | M12 | 6   | 28 | 10 | 4   | 5   | 2   | 2   | 4   | 5  | 27   | 2,00                               | 1,30  | 16                  | K0317.912                 |
| K0328.116 | M16 | 7,5 | 32 | 14 | 5   | 6   | 2,5 | 2,5 | 5   | 20   | 45   | 3,90                               | 3,00  | 35                  | K0317.916                 |

## Spring plungers

with hexagon socket and pressure pin, stainless steel, LONG-LOK secured



**Material:**  
Sleeve 1.4305.  
Pressure pin 1.4034.  
Spring 1.4310.

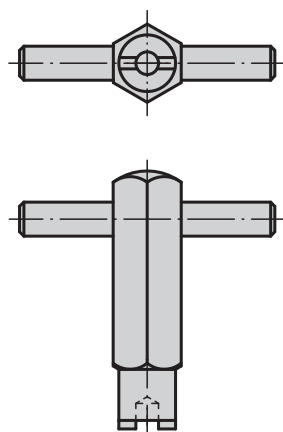
LONG-LOK thread lock in nylon.

**Surface finish:**  
Natural finish.  
Pressure pin hardened.

**Sample order:**  
K0329.12

L2 = approx. two thread turns

assembly key



### KIPP Spring plungers with hexagon socket and pressure pin, standard spring force, LONG-LOK secured

| Order No. | D   | D1  | L  | L1 | H   | T   | T1  | N   | S   | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N | Tightening<br>torque<br>approx. Nm | Loosening torque,<br>after third unscrewing<br>approx. Nm | Approx.<br>weight g | Order No.<br>assembly key |
|-----------|-----|-----|----|----|-----|-----|-----|-----|-----|--|--|------------------------------------|---|---------------------|---------------------------|
| K0329.05  | M5  | 2,4 | 18 | 7  | 2,3 | 2   | 0,8 | 0,8 | 1,5 | 5  | 17   | 0,12                               | 0,08  | 1,3                 | K0317.905                 |
| K0329.06  | M6  | 2,7 | 20 | 7  | 2,5 | 2,5 | 1   | 1   | 2   | 6  | 17   | 0,45                               | 0,22  | 2,5                 | K0317.906                 |
| K0329.08  | M8  | 3,5 | 22 | 8  | 3   | 3   | 1,4 | 1,2 | 2,5 | 7  | 29   | 1,05                               | 0,37  | 6                   | K0317.908                 |
| K0329.10  | M10 | 4   | 22 | 9  | 3   | 3,5 | 1,4 | 1,6 | 3   | 8  | 31   | 1,30                               | 0,60  | 9                   | K0317.910                 |
| K0329.12  | M12 | 6   | 28 | 10 | 4   | 5   | 2   | 2   | 4   | 10   | 47   | 2,00                               | 1,30  | 16                  | K0317.912                 |
| K0329.16  | M16 | 7,5 | 32 | 14 | 5   | 6   | 2,5 | 2,5 | 5   | 45   | 100  | 3,90                               | 3,00  | 35                  | K0317.916                 |

### KIPP Spring plungers with hexagon socket and pressure pin, strong spring force, LONG-LOK secured

| Order No. | D   | D1  | L  | L1 | H   | T   | T1  | N   | S   | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N | Tightening<br>torque<br>approx. Nm | Loosening torque,<br>after third unscrewing<br>approx. Nm | Approx.<br>weight g | Order No.<br>assembly key |
|-----------|-----|-----|----|----|-----|-----|-----|-----|-----|--|--|------------------------------------|---|---------------------|---------------------------|
| K0329.205 | M5  | 2,4 | 18 | 7  | 2,3 | 2   | 0,8 | 0,8 | 1,5 | 9  | 26   | 0,12                               | 0,08  | 1,3                 | K0317.905                 |
| K0329.206 | M6  | 2,7 | 20 | 7  | 2,5 | 2,5 | 1   | 1   | 2   | 11   | 35   | 0,45                               | 0,22  | 2,5                 | K0317.906                 |
| K0329.208 | M8  | 3,5 | 22 | 8  | 3   | 3   | 1,4 | 1,2 | 2,5 | 15   | 48   | 1,05                               | 0,37  | 6                   | K0317.908                 |
| K0329.210 | M10 | 4   | 22 | 9  | 3   | 3,5 | 1,4 | 1,6 | 3   | 15   | 58   | 1,30                               | 0,60  | 9                   | K0317.910                 |
| K0329.212 | M12 | 6   | 28 | 10 | 4   | 5   | 2   | 2   | 4   | 19   | 74   | 2,00                               | 1,30  | 16                  | K0317.912                 |



## Spring plungers

with hexagon socket and pressure pin in plastic, stainless steel, LONG-LOK secured

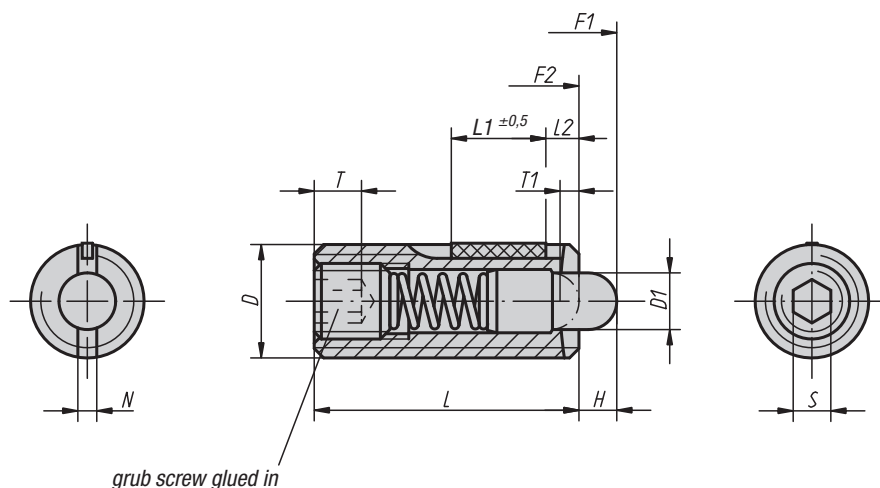


**Material:**  
Sleeve in stainless steel 1.4305.  
Pressure pin in plastic.  
Spring in stainless steel 1.4310.

LONG-LOK thread lock in nylon.

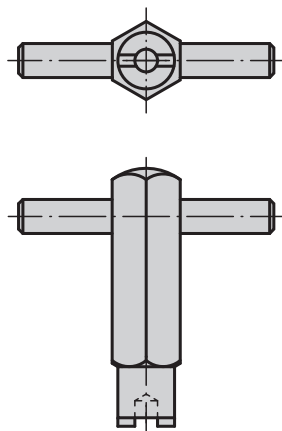
**Surface finish:**  
Natural finish.

**Sample order:**  
K0330.12



L2 = approx. two thread turns

assembly key

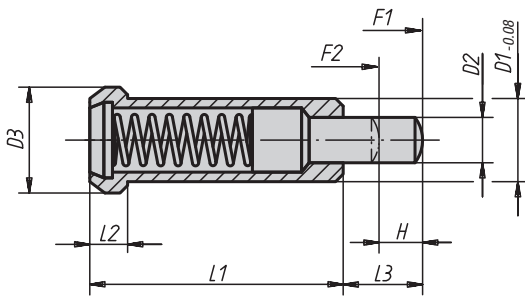


### KIPP Spring plungers with hexagon socket and pressure pin, standard spring force, LONG-LOK secured

| Order No. | D   | D1  | L  | L1 | H   | T   | T1  | N   | S   | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N | Tightening<br>torque<br>approx. Nm | Loosening torque,<br>after third unscrewing<br>approx. Nm | Approx.<br>weight g | Order No.<br>assembly key |
|-----------|-----|-----|----|----|-----|-----|-----|-----|-----|--|--|------------------------------------|---|---------------------|---------------------------|
| K0330.05  | M5  | 2,4 | 18 | 7  | 2,3 | 2   | 0,8 | 0,8 | 1,5 | 5  | 17   | 0,12                               | 0,08  | 1,3                 | K0317.905                 |
| K0330.06  | M6  | 2,7 | 20 | 7  | 2,5 | 2,5 | 1   | 1   | 2   | 6  | 17   | 0,45                               | 0,22  | 2,5                 | K0317.906                 |
| K0330.08  | M8  | 3,5 | 22 | 8  | 3   | 3   | 1,4 | 1,2 | 2,5 | 7  | 29   | 1,05                               | 0,37  | 6                   | K0317.908                 |
| K0330.10  | M10 | 4   | 22 | 9  | 3   | 3,5 | 1,4 | 1,6 | 3   | 8  | 31   | 1,30                               | 0,60  | 9                   | K0317.910                 |
| K0330.12  | M12 | 6   | 28 | 10 | 4   | 5   | 2   | 2   | 4   | 10   | 47   | 2,00                               | 1,30  | 16                  | K0317.912                 |
| K0330.16  | M16 | 7,5 | 32 | 14 | 5   | 6   | 2,5 | 2,5 | 5   | 45   | 100  | 3,90                               | 3,00  | 35                  | K0317.916                 |

## Spring plungers

with head

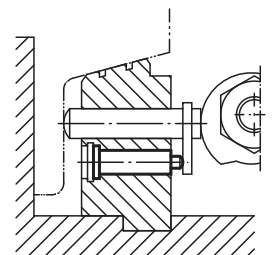


**Material:**  
Free cutting steel.

**Surface finish:**  
Black oxide finish.  
Pressure pin hardened.

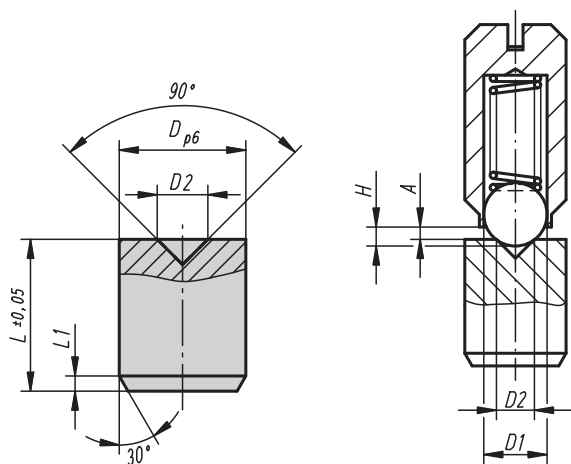
**Sample order:**  
K0331.10

**Note:**  
These spring plungers are chiefly used as ejectors and spring stops in machine construction.



### KIPP Spring plungers with head

| Order No. | D1 | D2   | D3 | L1 | L2  | L3 | H   | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N | Approx.<br>weight g |
|-----------|----|------|----|----|-----|----|-----|--|--|---------------------|
| K0331.08  | 8  | 3,95 | 10 | 24 | 3,2 | 8  | 4,5 | 30   | 90   | 8                   |
| K0331.10  | 10 | 5,95 | 13 | 30 | 4   | 10 | 5,5 | 42   | 110  | 14                  |
| K0331.12  | 12 | 7,95 | 16 | 36 | 5   | 12 | 6,5 | 50   | 130  | 26                  |



**Material, surface finish:**

Free-cutting steel, natural finish, hardened.

**Sample order:**

K0332.05020

**Note:**

If abrasion-resistant and exact locking is necessary, locators can be used together with spring plungers, especially with strong spring force.

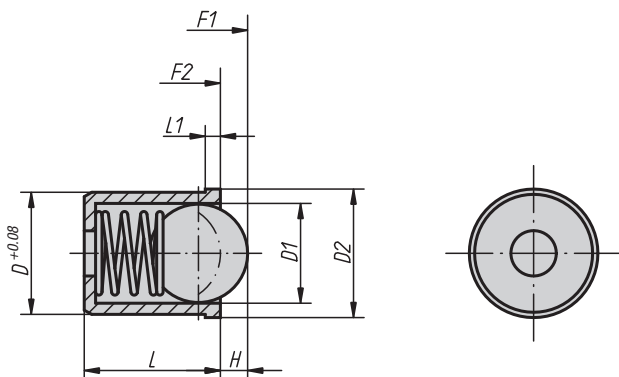
$$A = H - \left( \frac{D1 + D2}{2} - \frac{\sqrt{2}}{2} \times D1 \right)$$

### KIPP Locators

| Order No.   | Suitable for Spring Plunger D | D  | D1                                       | D2  | H  | L  | L1  |
|-------------|-------------------------------|----|--|-----|--|----|-----|
| K0332.04015 | - / M4                        | 4  | see relevant product page for dimensions | 1,5 | see relevant product page for dimensions | 5  | 0,5 |
| K0332.05020 | ø 4 / M5                      | 5  | see relevant product page for dimensions | 2   | see relevant product page for dimensions | 6  | 0,5 |
| K0332.06020 | ø 5 / M6                      | 6  | see relevant product page for dimensions | 2   | see relevant product page for dimensions | 8  | 0,7 |
| K0332.08030 | ø 6 / M8                      | 8  | see relevant product page for dimensions | 3   | see relevant product page for dimensions | 10 | 1   |
| K0332.10040 | ø 8 / M10                     | 10 | see relevant product page for dimensions | 4   | see relevant product page for dimensions | 12 | 1,2 |
| K0332.12060 | ø 10 / M12                    | 12 | see relevant product page for dimensions | 6   | see relevant product page for dimensions | 14 | 1,5 |
| K0332.16080 | ø 12 / M16                    | 16 | see relevant product page for dimensions | 8   | see relevant product page for dimensions | 18 | 2   |

## Spring plungers

smooth surface, stainless steel



**Material:**

Sleeve and spring in stainless steel.  
Ball in plastic or hardened stainless steel.

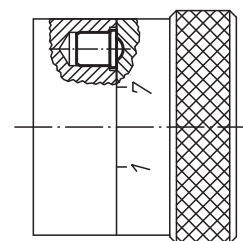
**Surface finish:**

Sleeve natural finish. Ball hardened, natural finish.

**Sample order:**

K0333.05

example:

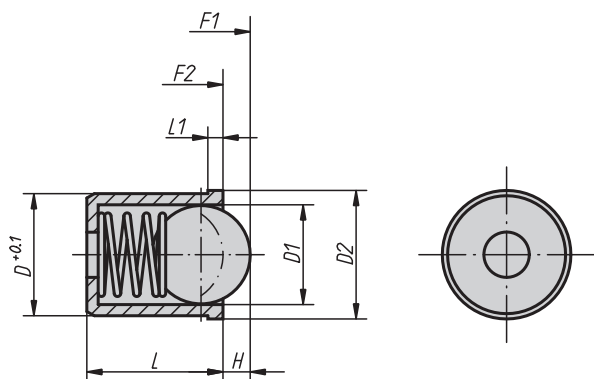


### KIPP Spring plungers smooth surface in stainless steel

| Order No. | Surface finish        | D  | D1  | D2  | L    | L1  | H    | Spring force initial pressure F1 approx. N | Spring force final pressure F2 approx. N | Approx. weight g |
|-----------|-----------------------|----|-----|-----|------|-----|------|--|--|------------------|
| K0333.03  | ball, stainless steel | 3  | 2,5 | 3,5 | 4    | 0,8 | 0,65 | 1,7  | 3,4                                      | 0,18             |
| K0333.04  | ball, stainless steel | 4  | 3   | 4,6 | 5    | 1   | 0,8  | 3  | 7  | 0,3              |
| K0333.05  | ball, stainless steel | 5  | 4   | 5,6 | 6    | 1   | 1    | 4  | 7  | 0,6              |
| K0333.06  | ball, stainless steel | 6  | 5   | 6,5 | 7    | 1   | 1,5  | 6  | 12                                       | 1                |
| K0333.08  | ball, stainless steel | 8  | 6,5 | 8,5 | 9    | 1   | 1,8  | 6  | 12                                       | 2                |
| K0333.10  | ball, stainless steel | 10 | 8   | 12  | 13,5 | 2,5 | 2,7  | 10   | 20                                       | 6                |
| K0333.12  | ball, stainless steel | 12 | 10  | 14  | 16   | 2,5 | 3,5  | 15   | 25                                       | 10               |
| K0333.304 | ball in plastic       | 4  | 3   | 4,6 | 5    | 1   | 0,5  | 3  | 7  | 0,3              |
| K0333.305 | ball in plastic       | 5  | 4   | 5,6 | 6    | 1   | 0,6  | 4  | 7  | 0,6              |
| K0333.306 | ball in plastic       | 6  | 5   | 6,5 | 7    | 1   | 1,1  | 6  | 12                                       | 1                |
| K0333.308 | ball in plastic       | 8  | 6,5 | 8,5 | 9    | 1   | 1,5  | 6  | 12                                       | 2                |
| K0333.310 | ball in plastic       | 10 | 8   | 12  | 13,5 | 2,5 | 2,3  | 10   | 20                                       | 6                |
| K0333.312 | ball in plastic       | 12 | 10  | 14  | 16   | 2,5 | 3,1  | 15   | 25                                       | 10               |

## Spring plungers

smooth surface, plastic



**Material:**

Sleeve thermoplastic.  
Spring stainless steel 1.4300.  
Ball in plastic or hardened stainless steel.

**Surface finish:**

Sleeve black.  
Ball hardened, natural finish.

**Sample order:**

K0334.05

### KIPP Spring plungers smooth surface in plastic

| Order No. | Surface finish        | D  | D1  | D2  | L    | L1  | H   | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N | Approx.<br>weight g |
|-----------|-----------------------|----|-----|-----|------|-----|-----|--|--|---------------------|
| K0334.04  | ball, stainless steel | 4  | 3   | 4,6 | 5    | 1   | 0,7 | 3  | 7  | 0,2                 |
| K0334.05  | ball, stainless steel | 5  | 4   | 5,6 | 6    | 1   | 1   | 4  | 7  | 0,4                 |
| K0334.06  | ball, stainless steel | 6  | 5   | 6,5 | 7    | 1   | 1,5 | 6  | 12   | 0,7                 |
| K0334.08  | ball, stainless steel | 8  | 6,5 | 8,5 | 9    | 1   | 1,8 | 6  | 12   | 1,5                 |
| K0334.10  | ball, stainless steel | 10 | 8   | 12  | 13,5 | 2,5 | 2,7 | 10   | 20   | 3,14                |
| K0334.12  | ball, stainless steel | 12 | 10  | 14  | 16   | 2,5 | 3,5 | 15   | 25   | 5,66                |
| K0334.204 | ball in plastic       | 4  | 3   | 4,6 | 5    | 1   | 0,9 | 3  | 7  | 0,17                |
| K0334.205 | ball in plastic       | 5  | 4   | 5,6 | 6    | 1   | 1,2 | 4  | 7  | 0,35                |
| K0334.206 | ball in plastic       | 6  | 5   | 6,5 | 7    | 1   | 1,5 | 6  | 12   | 0,66                |
| K0334.208 | ball in plastic       | 8  | 6,5 | 8,5 | 9    | 1   | 2   | 6  | 12   | 1,46                |
| K0334.210 | ball in plastic       | 10 | 8   | 12  | 13,5 | 2,5 | 2,7 | 10   | 20   | 1,44                |
| K0334.212 | ball in plastic       | 12 | 10  | 14  | 16   | 2,5 | 3,5 | 15   | 25   | 2,29                |

## Spring plungers

with adhesive ring



**Material:**

Sleeve, spring and ball in stainless steel  
O-ring NBR.

**Surface finish:**

Sleeve natural finish. Ball hardened, natural finish.  
O-ring black.

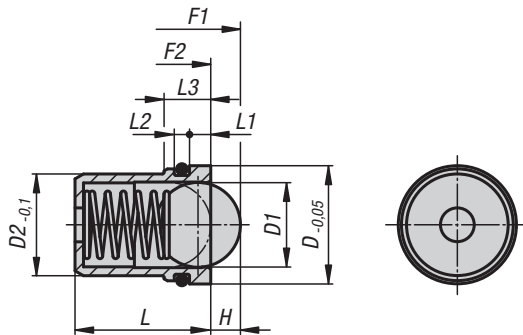
**Sample order:**

K0582.05

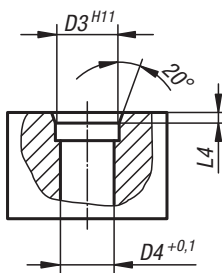
**Note:**

The spring plungers with adhesive ring are for installation in the „overhead position“ or for installation situations that are difficult to access.

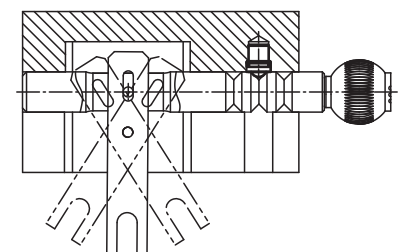
They can be pressed directly with the hand or a finger, or with the aid of a simple assembly aid, into the provided receiving hole. The O-ring then ensures the necessary adhesion and thus secures the spring plunger against dropping out. Other components can be comfortably installed without additional measures.



Assembly dimensions



Application example:

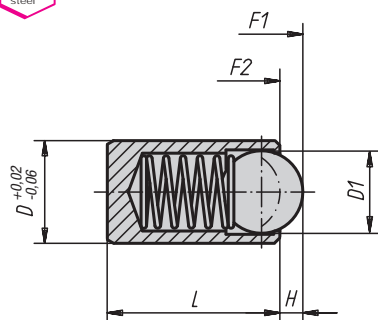


### KIPP Spring plungers with adhesive ring

| Order No. | D     | D1  | D2 | D3 | D4   | H   | L    | L1  | L2  | L3  | L4  | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N | Approx.<br>weight g |
|-----------|-------|-----|----|----|------|-----|------|-----|-----|-----|-----|--|--|---------------------|
| K0582.05  | 4,95  | 3   | 4  | 5  | 4,1  | 0,8 | 5    | 1   | 0,7 | 2,3 | 0,7 | 3  | 7  | 0,4                 |
| K0582.06  | 5,95  | 4   | 5  | 6  | 5,1  | 1   | 6    | 1   | 0,7 | 2,3 | 0,7 | 4  | 7  | 0,7                 |
| K0582.08  | 7,95  | 5   | 6  | 8  | 6,1  | 1,5 | 7    | 1,5 | 1,2 | 3,7 | 1   | 6  | 12   | 1,4                 |
| K0582.10  | 9,95  | 6,5 | 8  | 10 | 8,1  | 1,8 | 9    | 2   | 1,2 | 4,2 | 1,5 | 6  | 12   | 3,1                 |
| K0582.12  | 11,95 | 8   | 10 | 12 | 10,1 | 2,7 | 13,5 | 2,5 | 1,8 | 5,3 | 2   | 10   | 20   | 6,3                 |
| K0582.14  | 13,95 | 10  | 12 | 14 | 12,1 | 3,5 | 16   | 2,5 | 1,8 | 5,5 | 2   | 15   | 25   | 10,1                |

## Spring plungers

smooth surface, without collar in stainless steel



**Material:**  
Sleeve, ball and spring in stainless steel.

**Surface finish:**  
Ball hardened, natural finish.

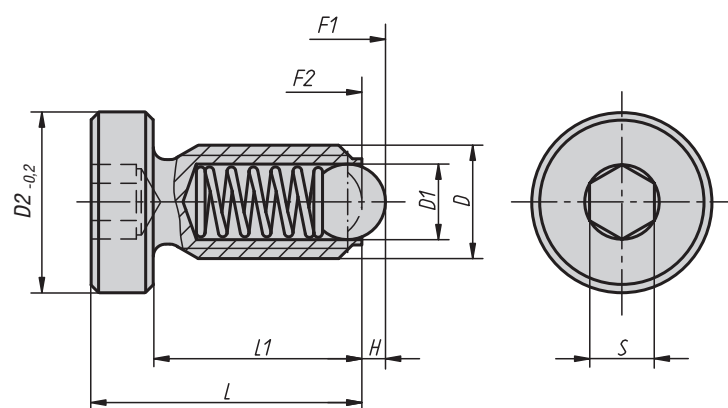
**Sample order:**  
K0335.208

### KIPP Spring plungers smooth surface, without collar in stainless steel

| Order No. | D  | D1 | L  | H    | Spring force initial pressure F1 approx. N | Spring force final pressure F2 approx. N | Approx. weight g |
|-----------|----|----|----|------|--|--|------------------|
| K0335.203 | 3  | 2  | 7  | 0,65 | 5  | 7  | 0,32             |
| K0335.204 | 4  | 3  | 9  | 0,8  | 12   | 22                                       | 0,6              |
| K0335.205 | 5  | 4  | 12 | 1    | 19   | 30                                       | 1,2              |
| K0335.206 | 6  | 5  | 14 | 1,5  | 22   | 40                                       | 2,0              |
| K0335.208 | 8  | 6  | 16 | 1,8  | 42   | 73                                       | 4,8              |
| K0335.210 | 10 | 8  | 22 | 2,7  | 54   | 100                                      | 9,2              |
| K0335.212 | 12 | 10 | 24 | 3,2  | 54   | 122                                      | 14,5             |

## Spring plungers

with head



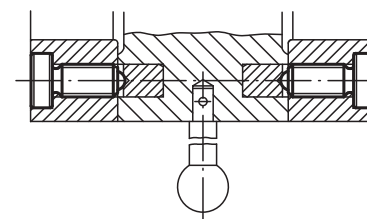
**Material:**  
Free cutting steel or stainless steel.

**Surface finish:**  
Steel black oxide finish.  
Stainless steel natural finish.  
Ball in steel or stainless steel, hardened, natural finish.

**Sample order:**  
K0336.10

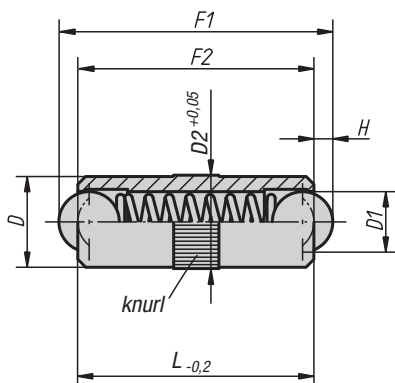
### KIPP Spring plungers with head

| Order No. steel | Order No. stainless steel | D   | D1  | D2 | L  | L1 | H   | S | Spring force initial pressure F1 approx. N | Spring force final pressure F2 approx. N | Approx. weight g |
|-----------------|---------------------------|-----|-----|----|----|----|-----|---|--|--|------------------|
| K0336.06        | K0336.061                 | M6  | 3,5 | 10 | 16 | 12 | 1   | 3 | 9  | 13                                       | 4                |
| K0336.08        | K0336.081                 | M8  | 5   | 13 | 21 | 16 | 1,5 | 4 | 15   | 30                                       | 9                |
| K0336.10        | K0336.101                 | M10 | 6   | 16 | 26 | 20 | 2   | 5 | 20   | 35                                       | 17               |
| K0336.12        | K0336.121                 | M12 | 8   | 18 | 32 | 25 | 2,5 | 6 | 30   | 55                                       | 28               |



## Spring plungers

smooth surface, double-sided



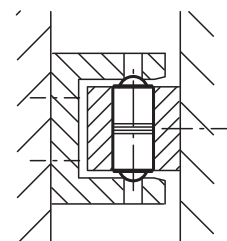
**Material:**  
Sleeve in brass.  
Balls and spring in stainless steel.

**Surface finish:**  
Balls hardened, natural finish.

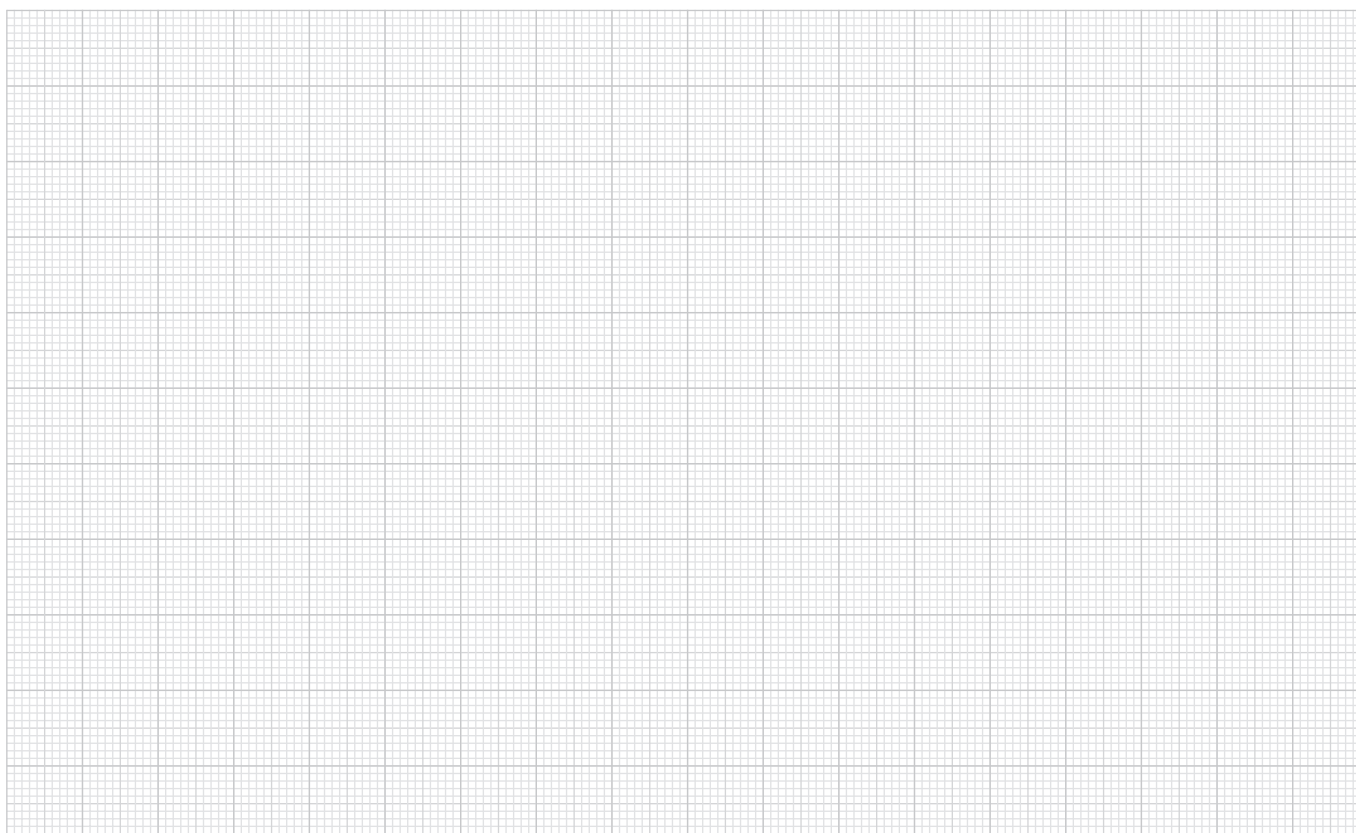
**Sample order:**  
K0337.05

### KIPP Spring plungers smooth surface, double-sided

| Order No. | D  | D1 | D2    | L  | H   | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N | Approx.<br>weight g |
|-----------|----|----|-------|----|-----|--|--|---------------------|
| K0337.04  | 4  | 3  | 4,05  | 10 | 0,9 | 3  | 7  | 0,7                 |
| K0337.05  | 5  | 4  | 5,05  | 12 | 1,2 | 4  | 8  | 1,3                 |
| K0337.06  | 6  | 5  | 6,05  | 16 | 1,6 | 6  | 10   | 2,4                 |
| K0337.08  | 8  | 6  | 8,05  | 20 | 2   | 8  | 12   | 5,8                 |
| K0337.10  | 10 | 8  | 10,05 | 24 | 2,9 | 10   | 16   | 10,5                |



## Notes

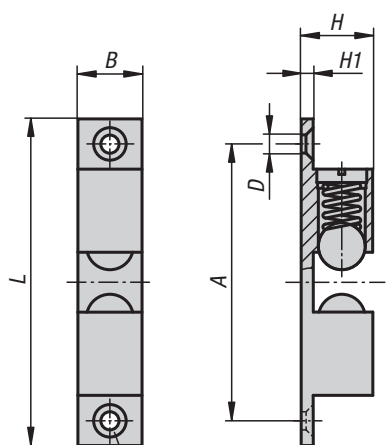




# Double ball catch

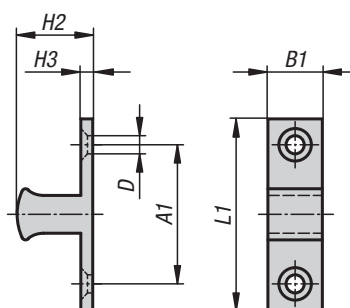


housing



counterbore to DIN 74-A

latching pawl



**Material, surface finish:**

Housing and latching pawl in chromium-plated brass. Balls and springs in stainless steel.

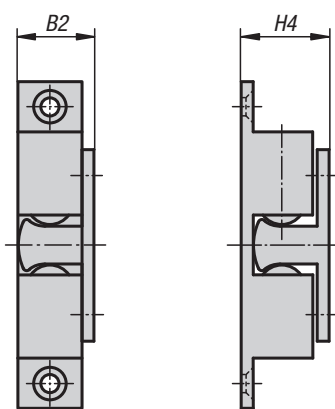
**Sample order:**

K0583.50

**Note:**

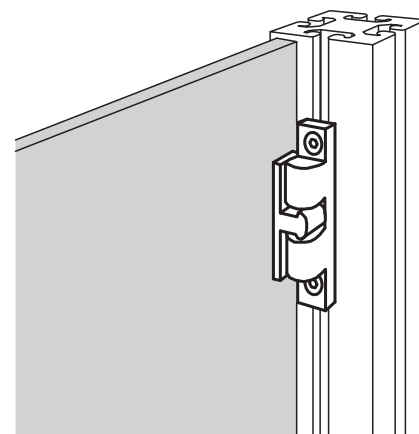
Quick closure for diverse applications such as holding doors, flaps and blinds shut. The double ball catch consists of a bush and an opposing piece, the latching pawl, which engages with the bush. The latching pawl can be pushed into the bush laterally or frontally. The engagement pressure is adjustable.

catch



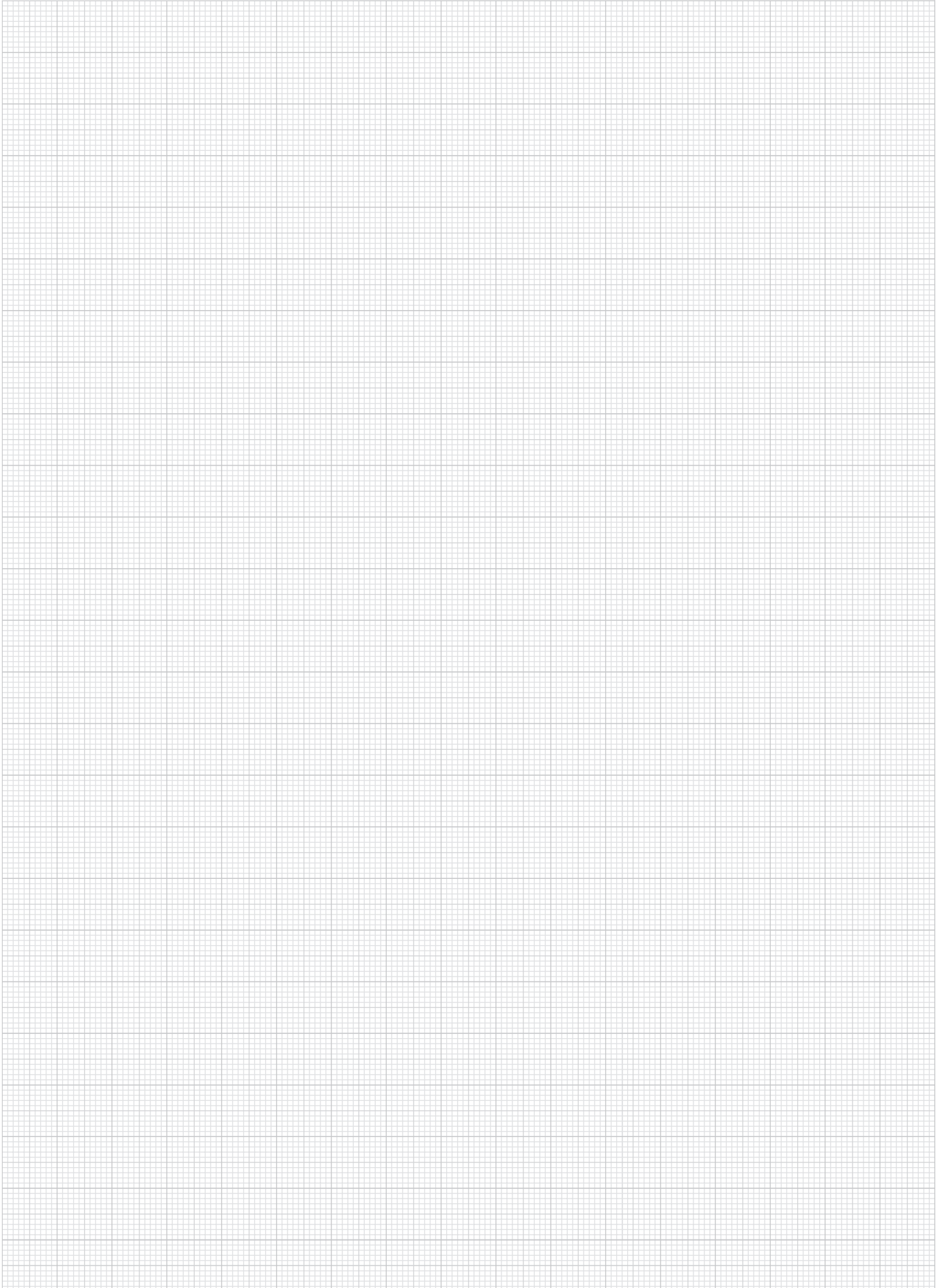
laterally

frontal

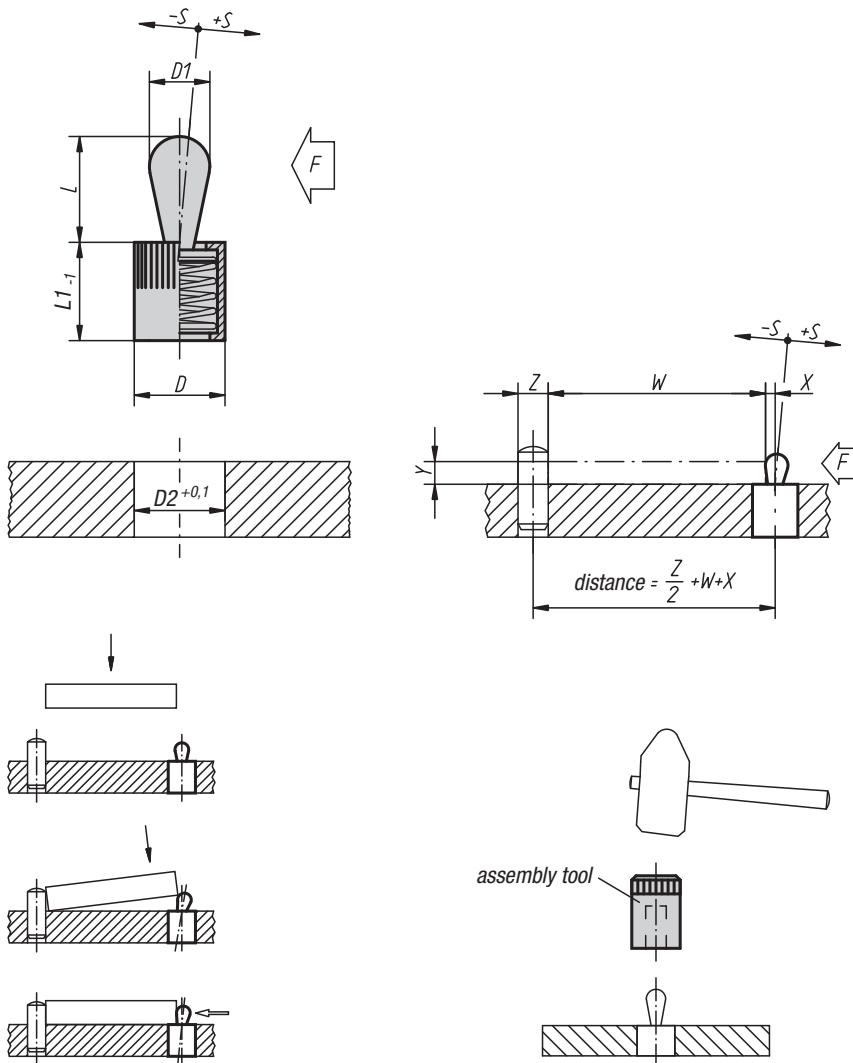


**KIPP Double ball catch**

| Order No. | A    | A1   | B   | B1  | B2   | D   | H    | H1  | H2   | H3  | H4   | L    | L1   | Approx. weight kg |
|-----------|------|------|-----|-----|------|-----|------|-----|------|-----|------|------|------|-------------------|
| K0583.50  | 39,8 | 19,8 | 8,8 | 7,6 | 10,8 | 3,8 | 10,6 | 2   | 11,2 | 2   | 13,2 | 49   | 28,8 | 0,024             |
| K0583.60  | 50   | 23,5 | 11  | 9   | 13,5 | 4,8 | 13,2 | 2,4 | 13,5 | 2,2 | 15,5 | 60   | 35   | 0,04              |
| K0583.70  | 58   | 30   | 13  | 12  | 15,2 | 4,8 | 15   | 2,4 | 15,7 | 2,2 | 18,1 | 68,4 | 40,2 | 0,065             |



## Lateral spring plungers



**Material:**

Sleeve in aluminium.  
Spring in steel.  
Pressure pin in steel or in plastic.

**Surface finish:**

Pressure pin (steel) surface hardened and galvanized.  
Sleeve blue galvanized.

**Sample order:**

K0368.72064

**Note:**

Lateral spring plungers aid in the positioning and clamping, holding and fastening of tools and parts during engraving, labelling, drilling, galling, threading, honing, grinding, welding, soldering, hard-facing, assembling, etc.

In order to position, see K0369 for suitable eccentric bushes.

**KIPP Lateral spring plungers without seal, pressure pin and spring in steel**

| Order No.   | D  | D1 | L    | L1 | D2 | ±S  | F<br>approx. N | X if<br>Y = 1 | X if<br>Y = 2 | X if<br>Y = 3 | X if<br>Y = 4,5 | X if<br>Y = 6 | X if<br>Y = 8 | Approx.<br>weight g | Order No.<br>assembly tool |
|-------------|----|----|------|----|----|-----|----------------|---------------|---------------|---------------|-----------------|---------------|---------------|---------------------|----------------------------|
| K0368.21034 | 6  | 3  | 4    | 7  | 6  | 0,5 | 10             | 0,8           | 1             | 1             | 1               | 1             | 1             | 0,6                 | K0369.03                   |
| K0368.21036 | 6  | 3  | 4    | 7  | 6  | 0,5 | 20             | 0,8           | 1             | 1             | 1               | 1             | 1             | 0,6                 | K0369.03                   |
| K0368.21038 | 6  | 3  | 4    | 7  | 6  | 0,5 | 40             | 0,8           | 1             | 1             | 1               | 1             | 1             | 0,7                 | K0369.03                   |
| K0368.21054 | 10 | 5  | 6,7  | 11 | 10 | 0,8 | 20             | -             | 1,5           | 1,7           | 1,7             | 1,7           | 1,7           | 2,7                 | K0369.05                   |
| K0368.21056 | 10 | 5  | 6,7  | 11 | 10 | 0,8 | 50             | -             | 1,5           | 1,7           | 1,7             | 1,7           | 1,7           | 2,8                 | K0369.05                   |
| K0368.21058 | 10 | 5  | 6,7  | 11 | 10 | 0,8 | 100            | -             | 1,5           | 1,7           | 1,7             | 1,7           | 1,7           | 3,1                 | K0369.05                   |
| K0368.21064 | 10 | 6  | 10,7 | 11 | 10 | 1   | 40             | -             | -             | -             | 1,7             | 1,9           | 1,9           | 3,4                 | K0369.05                   |
| K0368.21066 | 10 | 6  | 10,7 | 11 | 10 | 1   | 75             | -             | -             | -             | 1,7             | 1,9           | 1,9           | 3,6                 | K0369.05                   |
| K0368.21068 | 10 | 6  | 10,7 | 11 | 10 | 1   | 150            | -             | -             | -             | 1,7             | 1,9           | 1,9           | 3,8                 | K0369.05                   |
| K0368.21084 | 12 | 8  | 13,9 | 13 | 12 | 1,3 | 50             | -             | -             | -             | -               | 2,5           | 2,7           | 6,8                 | K0369.08                   |
| K0368.21086 | 12 | 8  | 13,9 | 13 | 12 | 1,3 | 100            | -             | -             | -             | -               | 2,5           | 2,7           | 7,4                 | K0369.08                   |
| K0368.21088 | 12 | 8  | 13,9 | 13 | 12 | 1,3 | 200            | -             | -             | -             | -               | 2,5           | 2,7           | 7,4                 | K0369.08                   |
| K0368.21104 | 16 | 10 | 16,7 | 17 | 16 | 1,6 | 100            | -             | -             | -             | -               | -             | 3,1           | 15,0                | K0369.10                   |
| K0368.21106 | 16 | 10 | 16,7 | 17 | 16 | 1,6 | 200            | -             | -             | -             | -               | -             | 3,1           | 15,0                | K0369.10                   |
| K0368.21108 | 16 | 10 | 16,7 | 17 | 16 | 1,6 | 300            | -             | -             | -             | -               | -             | 3,1           | 15,3                | K0369.10                   |

# Lateral spring plungers

## KIPP Lateral spring plungers with seal, pressure pin and spring in steel

| Order No.   | D  | D1 | L  | L1 | D2 | ±S  | F<br>approx. N | X if<br>Y = 1 | X if<br>Y = 2 | X if<br>Y = 3 | X if<br>Y = 4,5 | X if<br>Y = 6 | X if<br>Y = 8 | Approx.<br>weight g | Order No.<br>assembly tool |
|-------------|----|----|----|----|----|-----|----------------|---------------|---------------|---------------|-----------------|---------------|---------------|---------------------|----------------------------|
| K0368.22034 | 6  | 3  | 4  | 7  | 6  | 0,5 | 10             | 0,8           | 1             | 1             | 1               | 1             | 1             | 0,6                 | K0369.03                   |
| K0368.22036 | 6  | 3  | 4  | 7  | 6  | 0,5 | 20             | 0,8           | 1             | 1             | 1               | 1             | 1             | 0,6                 | K0369.03                   |
| K0368.22038 | 6  | 3  | 4  | 7  | 6  | 0,5 | 40             | 0,8           | 1             | 1             | 1               | 1             | 1             | 0,7                 | K0369.03                   |
| K0368.22054 | 10 | 5  | 6  | 12 | 10 | 0,8 | 20             | -             | 1,5           | 1,7           | 1,7             | 1,7           | 1,7           | 2,7                 | K0369.05                   |
| K0368.22056 | 10 | 5  | 6  | 12 | 10 | 0,8 | 50             | -             | 1,5           | 1,7           | 1,7             | 1,7           | 1,7           | 2,9                 | K0369.05                   |
| K0368.22058 | 10 | 5  | 6  | 12 | 10 | 0,8 | 100            | -             | 1,5           | 1,7           | 1,7             | 1,7           | 1,7           | 3,1                 | K0369.05                   |
| K0368.22064 | 10 | 6  | 10 | 12 | 10 | 1   | 40             | -             | -             | -             | 1,7             | 1,9           | 1,9           | 3,4                 | K0369.05                   |
| K0368.22066 | 10 | 6  | 10 | 12 | 10 | 1   | 75             | -             | -             | -             | 1,7             | 1,9           | 1,9           | 3,6                 | K0369.05                   |
| K0368.22068 | 10 | 6  | 10 | 12 | 10 | 1   | 150            | -             | -             | -             | 1,7             | 1,9           | 1,9           | 3,8                 | K0369.05                   |
| K0368.22084 | 12 | 8  | 13 | 14 | 12 | 1,3 | 50             | -             | -             | -             | -               | 2,5           | 2,7           | 7,0                 | K0369.08                   |
| K0368.22086 | 12 | 8  | 13 | 14 | 12 | 1,3 | 100            | -             | -             | -             | -               | 2,5           | 2,7           | 8,0                 | K0369.08                   |
| K0368.22088 | 12 | 8  | 13 | 14 | 12 | 1,3 | 200            | -             | -             | -             | -               | 2,5           | 2,7           | 7,4                 | K0369.08                   |
| K0368.22104 | 16 | 10 | 16 | 18 | 16 | 1,6 | 100            | -             | -             | -             | -               | -             | 3,1           | 15,0                | K0369.10                   |
| K0368.22106 | 16 | 10 | 16 | 18 | 16 | 1,6 | 200            | -             | -             | -             | -               | -             | 3,1           | 15,2                | K0369.10                   |
| K0368.22108 | 16 | 10 | 16 | 18 | 16 | 1,6 | 300            | -             | -             | -             | -               | -             | 3,1           | 15,6                | K0369.10                   |

## KIPP Lateral spring plungers without seal, pressure pin in plastic, spring in steel

| Order No.   | D  | D1 | L    | L1 | D2 | ±S  | F<br>approx. N | X if<br>Y = 1 | X if<br>Y = 2 | X if<br>Y = 3 | X if<br>Y = 4,5 | X if<br>Y = 6 | X if<br>Y = 8 | Approx.<br>weight g | Order No.<br>assembly tool |
|-------------|----|----|------|----|----|-----|----------------|---------------|---------------|---------------|-----------------|---------------|---------------|---------------------|----------------------------|
| K0368.71034 | 6  | 3  | 4    | 7  | 6  | 0,5 | 10             | 0,8           | 1             | 1             | 1               | 1             | 1             | 0,4                 | K0369.03                   |
| K0368.71036 | 6  | 3  | 4    | 7  | 6  | 0,5 | 20             | 0,8           | 1             | 1             | 1               | 1             | 1             | 0,4                 | K0369.03                   |
| K0368.71054 | 10 | 5  | 6,7  | 11 | 10 | 0,8 | 20             | -             | 1,5           | 1,7           | 1,7             | 1,7           | 1,7           | 1,3                 | K0369.05                   |
| K0368.71056 | 10 | 5  | 6,7  | 11 | 10 | 0,8 | 50             | -             | 1,5           | 1,7           | 1,7             | 1,7           | 1,7           | 1,3                 | K0369.05                   |
| K0368.71064 | 10 | 6  | 10,7 | 11 | 10 | 1   | 40             | -             | -             | -             | 1,7             | 1,9           | 1,9           | 1,5                 | K0369.05                   |
| K0368.71066 | 10 | 6  | 10,7 | 11 | 10 | 1   | 75             | -             | -             | -             | 1,7             | 1,9           | 1,9           | 1,5                 | K0369.05                   |
| K0368.71084 | 12 | 8  | 13,9 | 13 | 12 | 1,3 | 50             | -             | -             | -             | -               | 2,5           | 2,7           | 2,9                 | K0369.08                   |
| K0368.71086 | 12 | 8  | 13,9 | 13 | 12 | 1,3 | 100            | -             | -             | -             | -               | 2,5           | 2,7           | 2,9                 | K0369.08                   |
| K0368.71104 | 16 | 10 | 16,7 | 17 | 16 | 1,6 | 100            | -             | -             | -             | -               | -             | 3,1           | 6,6                 | K0369.10                   |
| K0368.71106 | 16 | 10 | 16,7 | 17 | 16 | 1,6 | 200            | -             | -             | -             | -               | -             | 3,1           | 6,6                 | K0369.10                   |

## KIPP Lateral spring plungers with seal, pressure pin in plastic, spring in steel

| Order No.   | D  | D1 | L  | L1 | D2 | ±S  | F<br>approx. N | X if<br>Y = 1 | X if<br>Y = 2 | X if<br>Y = 3 | X if<br>Y = 4,5 | X if<br>Y = 6 | X if<br>Y = 8 | Approx.<br>weight g | Order No.<br>assembly tool |
|-------------|----|----|----|----|----|-----|----------------|---------------|---------------|---------------|-----------------|---------------|---------------|---------------------|----------------------------|
| K0368.72034 | 6  | 3  | 4  | 7  | 6  | 0,5 | 10             | 0,8           | 1             | 1             | 1               | 1             | 1             | 0,4                 | K0369.03                   |
| K0368.72036 | 6  | 3  | 4  | 7  | 6  | 0,5 | 20             | 0,8           | 1             | 1             | 1               | 1             | 1             | 0,4                 | K0369.03                   |
| K0368.72054 | 10 | 5  | 6  | 12 | 10 | 0,8 | 20             | -             | 1,5           | 1,7           | 1,7             | 1,7           | 1,7           | 1,3                 | K0369.05                   |
| K0368.72056 | 10 | 5  | 6  | 12 | 10 | 0,8 | 50             | -             | 1,5           | 1,7           | 1,7             | 1,7           | 1,7           | 1,3                 | K0369.05                   |
| K0368.72064 | 10 | 6  | 10 | 12 | 10 | 1   | 40             | -             | -             | -             | 1,7             | 1,9           | 1,9           | 1,5                 | K0369.05                   |
| K0368.72066 | 10 | 6  | 10 | 12 | 10 | 1   | 75             | -             | -             | -             | 1,7             | 1,9           | 1,9           | 1,5                 | K0369.05                   |
| K0368.72084 | 12 | 8  | 13 | 14 | 12 | 1,3 | 50             | -             | -             | -             | -               | 2,5           | 2,7           | 3,0                 | K0369.08                   |
| K0368.72086 | 12 | 8  | 13 | 14 | 12 | 1,3 | 100            | -             | -             | -             | -               | 2,5           | 2,7           | 3,0                 | K0369.08                   |
| K0368.72104 | 16 | 10 | 16 | 18 | 16 | 1,6 | 100            | -             | -             | -             | -               | -             | 3,1           | 6,7                 | K0369.10                   |
| K0368.72106 | 16 | 10 | 16 | 18 | 16 | 1,6 | 200            | -             | -             | -             | -               | -             | 3,1           | 6,7                 | K0369.10                   |

## Eccentric bushes and assembly tools

for lateral spring plungers

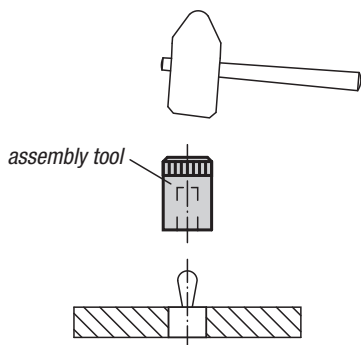
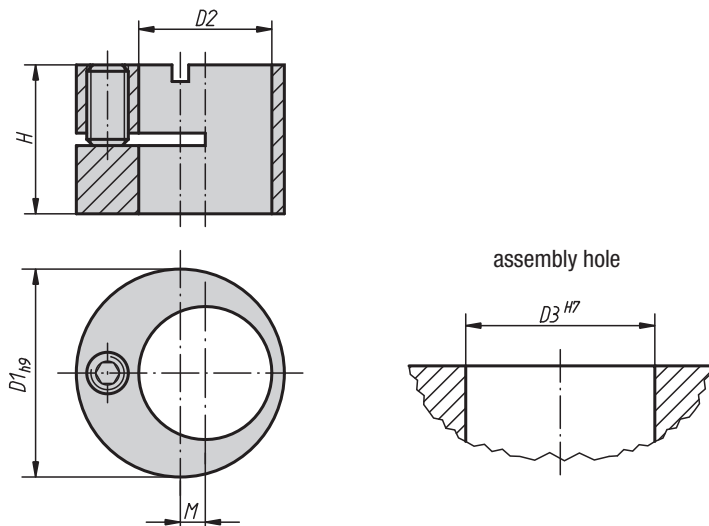


**Material:**  
Steel.

**Surface finish:**  
Black oxide finish.

**Sample order:**  
K0369.180

**Note:**  
Eccentric bushes enable lateral spring plungers to be positioned exactly to the workpiece.

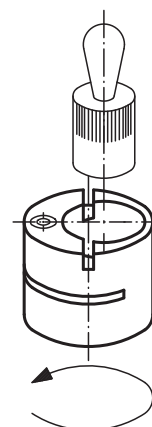


### KIPP Assembly tools

| Order No. | Suitable for Lateral spring plungers with D = |
|-----------|---|
| K0369.03  | 6   |
| K0369.05  | 10  |
| K0369.08  | 12  |
| K0369.10  | 16  |

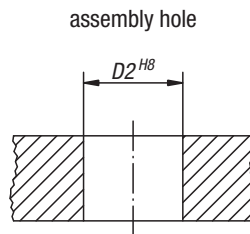
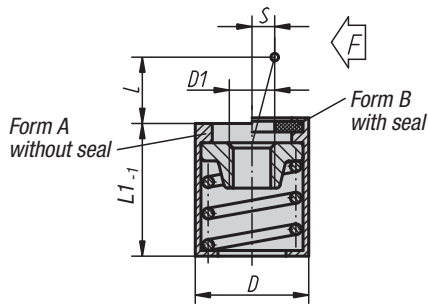
### KIPP Eccentric bushes for lateral spring plungers

| Order No. | D1 | D2 | D3 | H    | M | Approx. weight kg | Suitable for lateral spring plungers with D = |
|-----------|----|----|----|------|---|-------------------|---|
| K0369.120 | 12 | 6  | 12 | 9,9  | 2 | 0,006             | 6   |
| K0369.160 | 16 | 10 | 16 | 11,9 | 2 | 0,010             | 10  |
| K0369.180 | 18 | 12 | 18 | 13,9 | 2 | 0,012             | 12  |
| K0369.250 | 25 | 16 | 25 | 17,9 | 3 | 0,036             | 16  |



## Lateral spring plungers

without pressure pin



**Material:**

Sleeve in aluminium.  
Receiving washer in steel, hardened and black oxide finish.  
Spring in steel.

**Surface finish:**

Sleeve blue galvanized.

**Sample order:**

K0370.31058

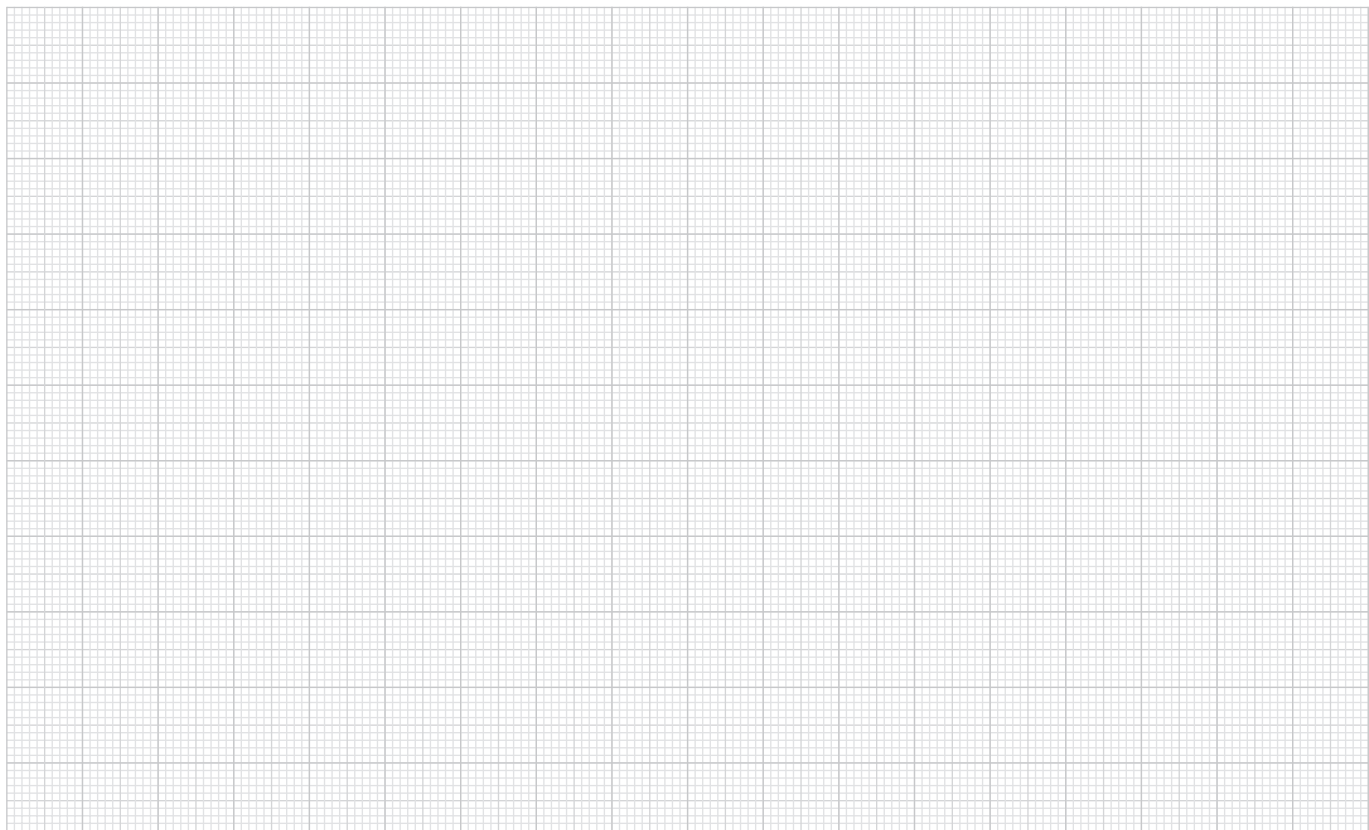
**Note:**

Depending on the circumstances, the pressure pin can be fabricated by the customer and screwed into the threaded hole of the receiving washer. Utilizing stroke (S) and the corresponding length (L), lateral pressure (F) can be achieved. In addition, form B is equipped with a seal to prevent chips and dirt from entering.

**KIPP Lateral spring plungers without pressure pin**

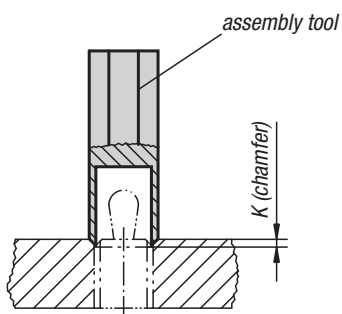
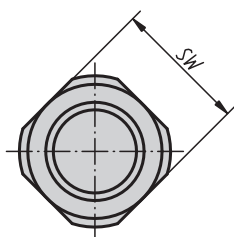
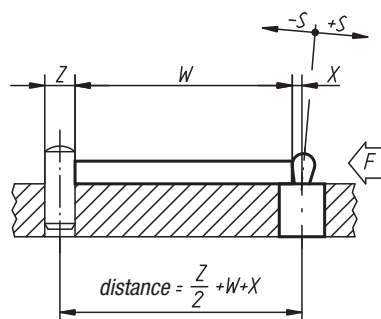
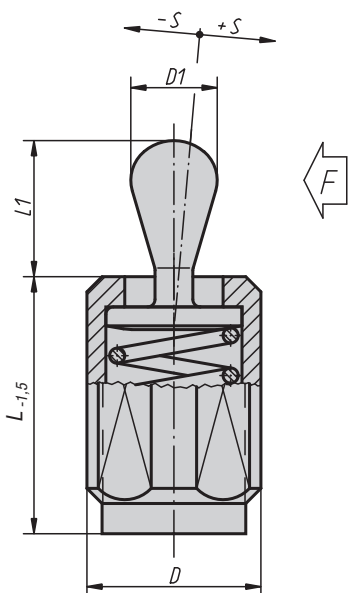
| Order No.<br>Form A | Order No.<br>Form B | D  | D1 | D2 | L    | L1 | S   | F<br>approx.N | Approx.<br>weight<br>kg |
|---------------------|---------------------|----|----|----|------|----|-----|---------------|-------------------------|
| K0370.31054         | K0370.32054         | 10 | M4 | 10 | 4    | 12 | 1,6 | 20            | 0,004                   |
| K0370.31056         | K0370.32056         | 10 | M4 | 10 | 4    | 12 | 1,6 | 50            | 0,004                   |
| K0370.31058         | K0370.32058         | 10 | M4 | 10 | 4    | 12 | 1,6 | 100           | 0,004                   |
| K0370.31064         | K0370.32064         | 10 | M4 | 10 | 7,5  | 12 | 2   | 40            | 0,004                   |
| K0370.31066         | K0370.32066         | 10 | M4 | 10 | 7,5  | 12 | 2   | 75            | 0,004                   |
| K0370.31068         | K0370.32068         | 10 | M4 | 10 | 7,5  | 12 | 2   | 150           | 0,004                   |
| K0370.31104         | K0370.32104         | 16 | M6 | 16 | 11,5 | 18 | 3,2 | 100           | 0,010                   |
| K0370.31106         | K0370.32106         | 16 | M6 | 16 | 11,5 | 18 | 3,2 | 200           | 0,010                   |
| K0370.31108         | K0370.32108         | 16 | M6 | 16 | 11,5 | 18 | 3,2 | 300           | 0,010                   |

## Notes



## Lateral spring plungers

with threaded sleeve



**Material:**

Sleeve and spring in steel.  
Pressure pin in steel or in plastic.

**Surface finish:**

Pressure pin in steel, hardened and galvanized.  
Sleeve blue galvanized.

**Sample order:**

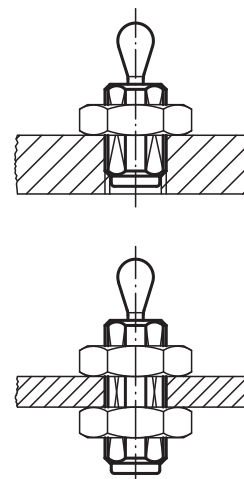
K0371.1020X12 (please also indicate size L)

- L 11.5 = L 12
- L 19 = L 20
- L 26.5 = L 27
- L 18 = L 16
- L 31.5 = L 29
- L 45 = L 43

**Note:**

Lateral spring plungers with threaded sleeve can be positioned individually to the part to be clamped. Furthermore, the threaded sleeve is suitable to be screwed into thin sheets, as it can be mounted with one or two nuts.

mounting example



# Lateral spring plungers

with threaded sleeve

## KIPP Lateral spring plungers without seal, pressure pin in steel or in plastic

| Order No.   | Surface finish          | L            | L1   | D       | D1 | ±S  | F<br>approx.N | X   | SW | K       | Order No.<br>assembly tool |
|-------------|-------------------------|--------------|------|---------|----|-----|---------------|-----|----|---------|----------------------------|
| K0371.1020X | pressure pin in steel   | 11,5/19/26,5 | 6,7  | M12     | 5  | 0,8 | 20            | 1,6 | 10 | 2x60°   | K0371.06                   |
| K0371.1040X | pressure pin in steel   | 11,5/19/26,5 | 10,7 | M12     | 6  | 1   | 40            | 1,8 | 10 | 2x60°   | K0371.06                   |
| K0371.1050X | pressure pin in steel   | 11,5/19/26,5 | 6,7  | M12     | 5  | 0,8 | 50            | 1,6 | 10 | 2x60°   | K0371.06                   |
| K0371.1075X | pressure pin in steel   | 11,5/19/26,5 | 10,7 | M12     | 6  | 1   | 75            | 1,8 | 10 | 2x60°   | K0371.06                   |
| K0371.1100X | pressure pin in steel   | 11,5/19/26,5 | 6,7  | M12     | 5  | 0,8 | 100           | 1,6 | 10 | 2x60°   | K0371.06                   |
| K0371.1100X | pressure pin in steel   | 18/31,5/45   | 16,7 | M18x1,5 | 10 | 1,6 | 100           | 3,2 | 16 | 2,5x60° | K0371.10                   |
| K0371.1150X | pressure pin in steel   | 11,5/19/26,5 | 10,7 | M12     | 6  | 1   | 150           | 1,8 | 10 | 2x60°   | K0371.06                   |
| K0371.1200X | pressure pin in steel   | 18/31,5/45   | 16,7 | M18x1,5 | 10 | 1,6 | 200           | 3,2 | 16 | 2,5x60° | K0371.10                   |
| K0371.1300X | pressure pin in steel   | 18/31,5/45   | 16,7 | M18x1,5 | 10 | 1,6 | 300           | 3,2 | 16 | 2,5x60° | K0371.10                   |
| K0371.2020X | pressure pin in plastic | 11,5/19/26,5 | 6,7  | M12     | 5  | 0,8 | 20            | 1,6 | 10 | 2x60°   | K0371.06                   |
| K0371.2040X | pressure pin in plastic | 11,5/19/26,5 | 10,7 | M12     | 6  | 1   | 40            | 1,8 | 10 | 2x60°   | K0371.06                   |
| K0371.2050X | pressure pin in plastic | 11,5/19/26,5 | 6,7  | M12     | 5  | 0,8 | 50            | 1,6 | 10 | 2x60°   | K0371.06                   |
| K0371.2075X | pressure pin in plastic | 11,5/19/26,5 | 10,7 | M12     | 6  | 1   | 75            | 1,8 | 10 | 2x60°   | K0371.06                   |
| K0371.2100X | pressure pin in plastic | 18/31,5/45   | 16,7 | M18x1,5 | 10 | 1,6 | 100           | 3,2 | 16 | 2,5x60° | K0371.10                   |
| K0371.2200X | pressure pin in plastic | 18/31,5/45   | 16,7 | M18x1,5 | 10 | 1,6 | 200           | 3,2 | 16 | 2,5x60° | K0371.10                   |

## KIPP Lateral spring plungers with seal, pressure pin in steel or in plastic

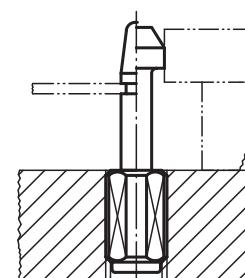
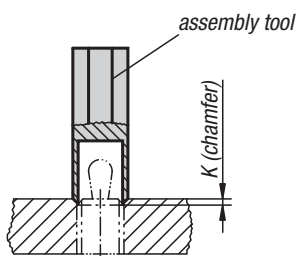
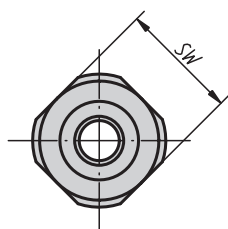
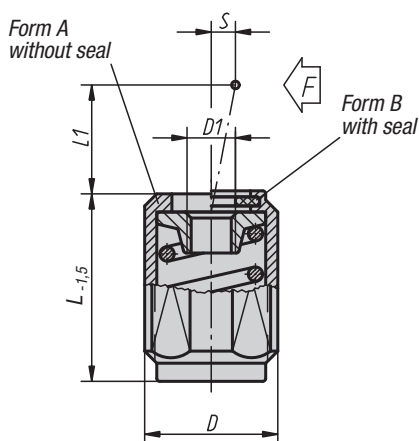
| Order No.   | Surface finish          | L            | L1 | D       | D1 | ±S  | F<br>approx.N | X   | SW | K       | Order No.<br>assembly tool |
|-------------|-------------------------|--------------|----|---------|----|-----|---------------|-----|----|---------|----------------------------|
| K0371.3020X | pressure pin in steel   | 11,5/19/26,5 | 6  | M12     | 5  | 0,8 | 20            | 1,6 | 10 | 2x60°   | K0371.06                   |
| K0371.3040X | pressure pin in steel   | 11,5/19/26,5 | 10 | M12     | 6  | 1   | 40            | 1,8 | 10 | 2x60°   | K0371.06                   |
| K0371.3050X | pressure pin in steel   | 11,5/19/26,5 | 6  | M12     | 5  | 0,8 | 50            | 1,6 | 10 | 2x60°   | K0371.06                   |
| K0371.3075X | pressure pin in steel   | 11,5/19/26,5 | 10 | M12     | 6  | 1   | 75            | 1,8 | 10 | 2x60°   | K0371.06                   |
| K0371.3100X | pressure pin in steel   | 11,5/19/26,5 | 6  | M12     | 5  | 0,8 | 100           | 1,6 | 10 | 2x60°   | K0371.06                   |
| K0371.3100X | pressure pin in steel   | 18/31,5/45   | 16 | M18x1,5 | 10 | 1,6 | 100           | 3,2 | 16 | 2,5x60° | K0371.10                   |
| K0371.3150X | pressure pin in steel   | 11,5/19/26,5 | 10 | M12     | 6  | 1   | 150           | 1,8 | 10 | 2x60°   | K0371.06                   |
| K0371.3200X | pressure pin in steel   | 18/31,5/45   | 16 | M18x1,5 | 10 | 1,6 | 200           | 3,2 | 16 | 2,5x60° | K0371.10                   |
| K0371.3300X | pressure pin in steel   | 18/31,5/45   | 16 | M18x1,5 | 10 | 1,6 | 300           | 3,2 | 16 | 2,5x60° | K0371.10                   |
| K0371.4020X | pressure pin in plastic | 11,5/19/26,5 | 6  | M12     | 5  | 0,8 | 20            | 1,6 | 10 | 2x60°   | K0371.06                   |
| K0371.4040X | pressure pin in plastic | 11,5/19/26,5 | 10 | M12     | 6  | 1   | 40            | 1,8 | 10 | 2x60°   | K0371.06                   |
| K0371.4050X | pressure pin in plastic | 11,5/19/26,5 | 6  | M12     | 5  | 0,8 | 50            | 1,6 | 10 | 2x60°   | K0371.06                   |
| K0371.4075X | pressure pin in plastic | 11,5/19/26,5 | 10 | M12     | 6  | 1   | 75            | 1,8 | 10 | 2x60°   | K0371.06                   |
| K0371.4100X | pressure pin in plastic | 18/31,5/45   | 16 | M18x1,5 | 10 | 1,6 | 100           | 3,2 | 16 | 2,5x60° | K0371.10                   |
| K0371.4200X | pressure pin in plastic | 18/31,5/45   | 16 | M18x1,5 | 10 | 1,6 | 200           | 3,2 | 16 | 2,5x60° | K0371.10                   |





## Lateral spring plungers

with threaded sleeve, without pressure pin



**Material:**

Sleeve and spring in steel.  
Receiving washer in steel, hardened and black oxide finish.

**Surface finish:**

Sleeve blue galvanized.

**Sample order:**

K0372.1100X20 (please also indicate size L)

L 11.5 = L 12

L 19 = L 20

L 26.5 = L 27

L 18 = L 16

L 31.5 = L 29

L 45 = L 43

**Note:**

Depending on the circumstances, the pressure pin can be fabricated by the customer and screwed into the threaded hole of the receiving washer.

Utilizing stroke (S) and the corresponding length (L), lateral pressure (F) can be achieved.

In addition, form B is equipped with a seal to prevent chips and dirt from entering.

### KIPP Lateral spring plungers with threaded sleeve, without pressure pin

| Order No.<br>Form A | Order No.<br>Form B | L            | L1   | D       | D1 | ±S  | F<br>approx.N | SW | K       | Order No.<br>assembly tool |
|---------------------|---------------------|--------------|------|---------|----|-----|---------------|----|---------|----------------------------|
| K0372.1020X         | K0372.2020X         | 11,5/19/26,5 | 4    | M12     | M4 | 1,6 | 20            | 10 | 2x60°   | K0371.06                   |
| K0372.1040X         | K0372.2040X         | 11,5/19/26,5 | 7,5  | M12     | M4 | 2   | 40            | 10 | 2x60°   | K0371.06                   |
| K0372.1050X         | K0372.2050X         | 11,5/19/26,5 | 4    | M12     | M4 | 1,6 | 50            | 10 | 2x60°   | K0371.06                   |
| K0372.1075X         | K0372.2075X         | 11,5/19/26,5 | 7,5  | M12     | M4 | 2   | 75            | 10 | 2x60°   | K0371.06                   |
| K0372.1100X         | K0372.2100X         | 11,5/19/26,5 | 4    | M12     | M4 | 1,6 | 100           | 10 | 2x60°   | K0371.06                   |
| K0372.1100X         | K0372.2100X         | 18/31,5/45   | 11,5 | M18x1,5 | M6 | 3,2 | 100           | 16 | 2,5x60° | K0371.10                   |
| K0372.1150X         | K0372.2150X         | 11,5/19/26,5 | 7,5  | M12     | M4 | 2   | 150           | 10 | 2x60°   | K0371.06                   |
| K0372.1200X         | K0372.2200X         | 18/31,5/45   | 11,5 | M18x1,5 | M6 | 3,2 | 200           | 16 | 2,5x60° | K0371.10                   |
| K0372.1300X         | K0372.2300X         | 18/31,5/45   | 11,5 | M18x1,5 | M6 | 3,2 | 300           | 16 | 2,5x60° | K0371.10                   |

## Spring traction units and pressure pads



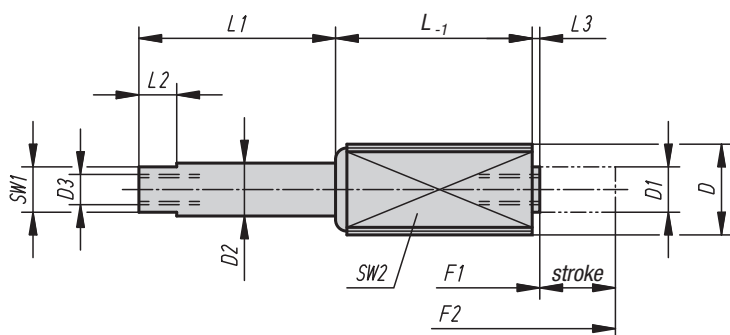
**Material:**  
Bush, spring bolt and spring in steel.

**Surface finish:**  
Body blue galvanized.  
Spring bolts black oxide finish.

**Sample order:**  
K0373.1202004

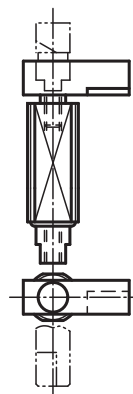
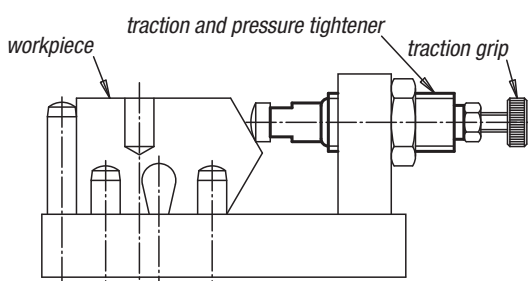
**Note:**  
As a result of the bilateral thread in the spring bolt, many inserts are possible for individual applications, e.g. with prisms, studs, pendulum seats, handles, knobs, milled nuts, etc.

**Assembly:**  
To lock the threaded bush in position, we recommend a LOCTITE screw lock No. K0655.243....

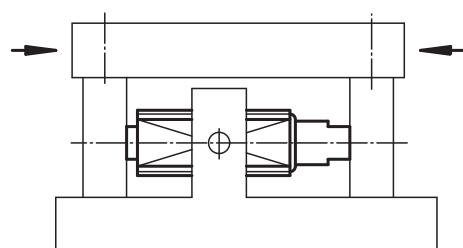


traction and pressure tightener

traction tightener as locking mechanism

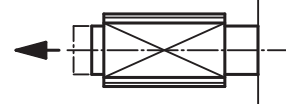


traction and pressure tightener as base carrier

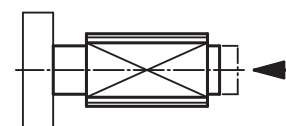


Application:

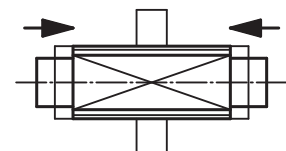
**As pressure tightener:**  
The active force presses the part.



**As traction tightener:**  
The active force tractions the part.



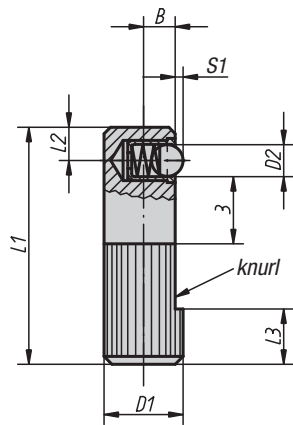
**As traction and pressure tightener:**  
In this case the inner bolt has a fixed position. Threaded bush acts as the base carrier. The active force tractions or presses the part in both directions.



### KIPP Spring traction units and pressure pads

| Order No.     | D       | D1 | D2 | D3    | F1 (N) | F2 (N) | Stroke | L    | L1   | L2 | L3  | SW1 | SW2 4-sided |
|---------------|---------|----|----|-------|--------|--------|--------|------|------|----|-----|-----|-------------|
| K0373.1202004 | M12     | 6  | 7  | M4x8  | 5      | 20     | 3,5    | 11   | 4,5  | 5  | 1   | 6   | 10          |
| K0373.1202006 | M12     | 6  | 7  | M4x8  | 5      | 20     | 6      | 18,5 | 7    | 5  | 1   | 6   | 10          |
| K0373.1202010 | M12     | 6  | 7  | M4x8  | 5      | 20     | 10     | 26   | 11   | 5  | 1   | 6   | 10          |
| K0373.1206003 | M12     | 6  | 7  | M4x8  | 15     | 60     | 3      | 11   | 4,5  | 5  | 1   | 6   | 10          |
| K0373.1206005 | M12     | 6  | 7  | M4x8  | 15     | 60     | 5      | 18,5 | 7    | 5  | 1   | 6   | 10          |
| K0373.1206008 | M12     | 6  | 7  | M4x8  | 15     | 60     | 8      | 26   | 11   | 5  | 1   | 6   | 10          |
| K0373.1212503 | M12     | 6  | 7  | M4x8  | 30     | 125    | 3      | 11   | 4,5  | 5  | 1   | 6   | 10          |
| K0373.1212505 | M12     | 6  | 7  | M4x8  | 30     | 125    | 5      | 18,5 | 7    | 5  | 1   | 6   | 10          |
| K0373.1212508 | M12     | 6  | 7  | M4x8  | 30     | 125    | 8      | 26   | 11   | 5  | 1   | 6   | 10          |
| K0373.1815004 | M18x1,5 | 10 | 11 | M6x12 | 50     | 150    | 4      | 17   | 6    | 6  | 2,5 | 9   | 16          |
| K0373.1815007 | M18x1,5 | 10 | 11 | M6x12 | 50     | 150    | 7      | 29,5 | 11,5 | 6  | 2,5 | 9   | 16          |
| K0373.1815013 | M18x1,5 | 10 | 11 | M6x12 | 50     | 150    | 12,5   | 45,5 | 16   | 6  | 2,5 | 9   | 16          |

## Lateral spring plungers

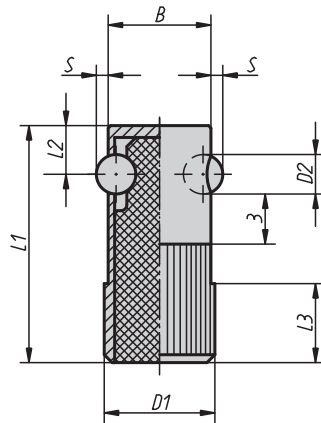
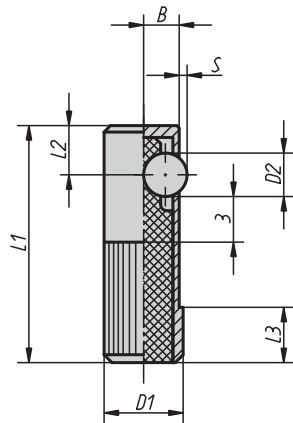


Form A  
ball in stainless steel,  
on one side

Form B  
ball in delrin,  
on one side

Form C  
ball in steel,  
spring in plastic, on one side

Form D  
ball in steel,  
spring in plastic, on both sides



**Material:**

Body in free-cutting steel.  
Ball in steel or stainless steel, hardened or delrin.  
Spring in stainless steel or in plastic.

**Surface finish:**

Body black oxide finish.  
Ball natural finish.

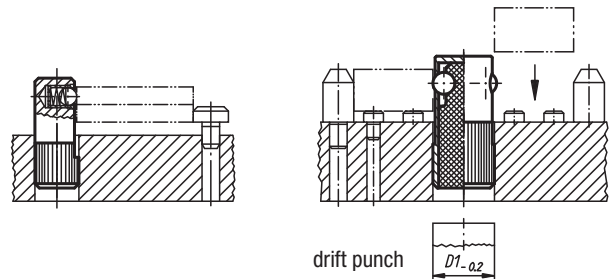
**Sample order:**

K0374.410

**Note:**

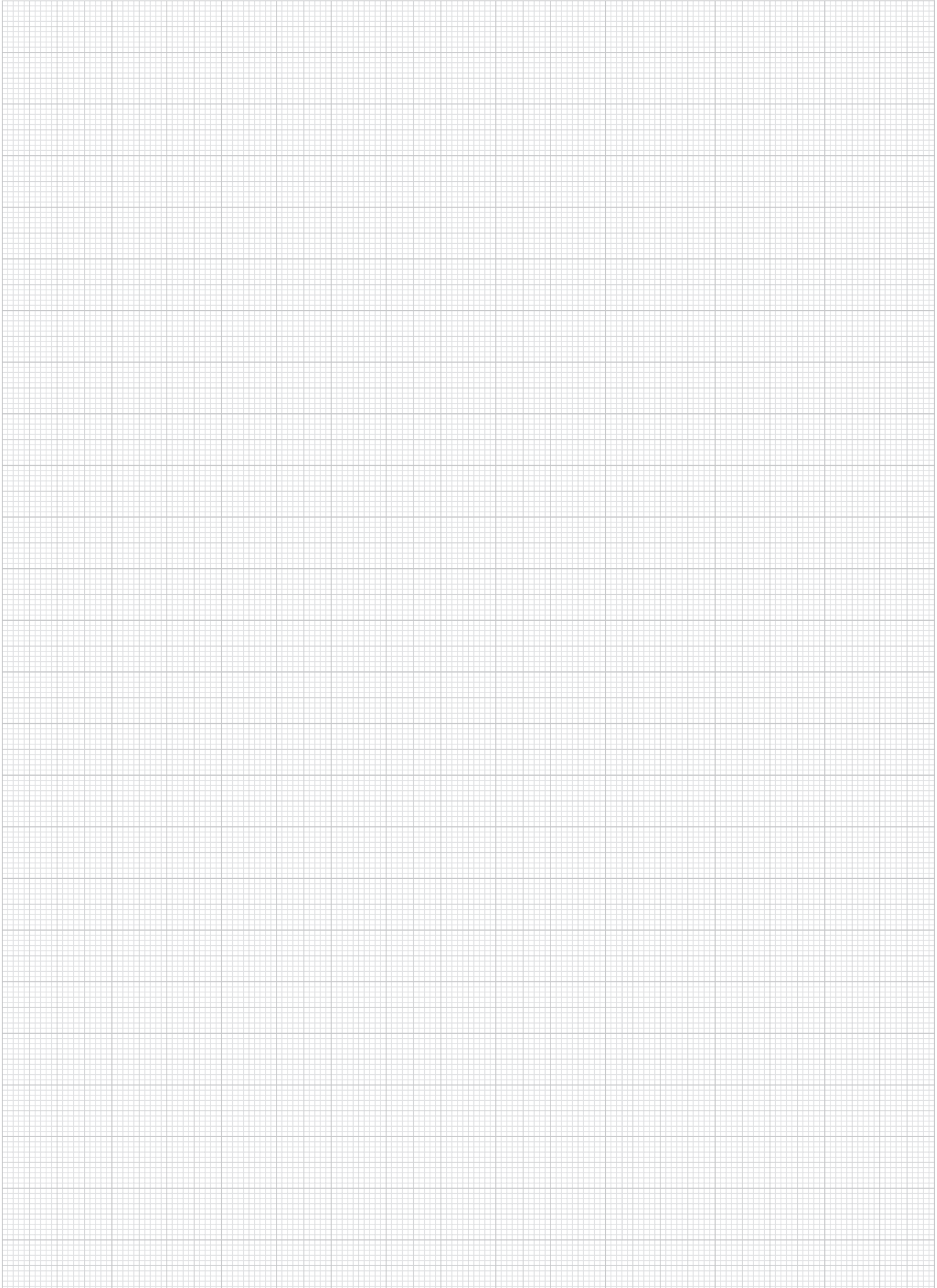
The lateral spring plunger must be pressed into the hole to at least dimension L3. It positions and presses small parts into fixtures and devices. If a mechanical machining process is executed on the workpiece, further clamping units might be necessary to clamp it. When storing fixtures and devices, make sure that the plastic spring is not loaded.

The spring force is a statistical average.



### KIPP Lateral spring plungers

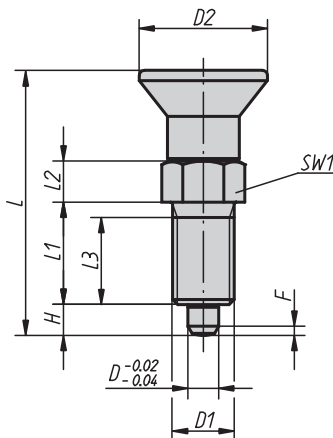
| Order No. | Form | D1 | D2  | L1 | L2  | L3 | B   | S   | S1  | Receiving hole H8 | Spring force initial pressure N | Spring force final pressure N | Approx. weight kg |
|-----------|------|----|-----|----|-----|----|-----|-----|-----|-------------------|---------------------------------|-------------------------------|-------------------|
| K0374.008 | A    | 8  | 3   | 25 | 3,6 | 6  | 3,2 | -   | 0,7 | 8                 | 2,5                             | 6,5                           | 0,009             |
| K0374.010 | A    | 10 | 4   | 30 | 4,2 | 7  | 4   | -   | 1   | 10                | 4,5                             | 9                             | 0,017             |
| K0374.012 | A    | 12 | 5   | 35 | 4,8 | 9  | 5   | -   | 1,5 | 12                | 6,5                             | 13                            | 0,029             |
| K0374.014 | A    | 14 | 6,5 | 40 | 5,8 | 10 | 5,4 | -   | 1,8 | 14                | 8                               | 18                            | 0,043             |
| K0374.108 | B    | 8  | 3   | 25 | 3,6 | 6  | 3,2 | -   | 0,9 | 8                 | 2,5                             | 6,5                           | 0,009             |
| K0374.110 | B    | 10 | 4   | 30 | 4,2 | 7  | 4   | -   | 1,2 | 10                | 4,5                             | 9                             | 0,017             |
| K0374.112 | B    | 12 | 5   | 35 | 4,8 | 9  | 5   | -   | 1,5 | 12                | 6,5                             | 13                            | 0,029             |
| K0374.114 | B    | 14 | 6,5 | 40 | 5,8 | 10 | 5,4 | -   | 2   | 14                | 8                               | 18                            | 0,043             |
| K0374.410 | C    | 10 | 5,5 | 30 | 7   | 8  | 4,5 | 1   | -   | 10                | 60                              | 170                           | 0,009             |
| K0374.412 | C    | 12 | 6,5 | 35 | 8   | 9  | 5,5 | 1,5 | -   | 12                | 80                              | 260                           | 0,013             |
| K0374.414 | C    | 14 | 8   | 40 | 9   | 10 | 6,5 | 2   | -   | 14                | 120                             | 480                           | 0,019             |
| K0374.616 | D    | 16 | 5,5 | 35 | 7   | 11 | 15  | 1,5 | -   | 16                | 110                             | 220                           | 0,020             |
| K0374.618 | D    | 18 | 6,5 | 40 | 8   | 12 | 17  | 1,8 | -   | 18                | 120                             | 330                           | 0,027             |
| K0374.622 | D    | 22 | 8   | 45 | 9   | 15 | 21  | 2,5 | -   | 22                | 130                             | 540                           | 0,043             |



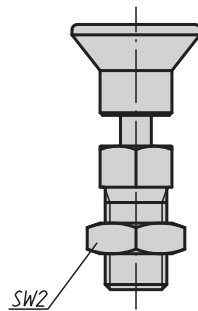
## Locking bolts



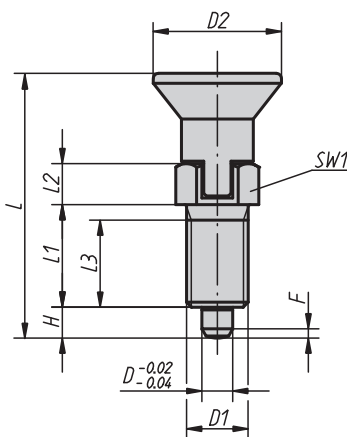
Form A  
without locking slot  
without locking nut



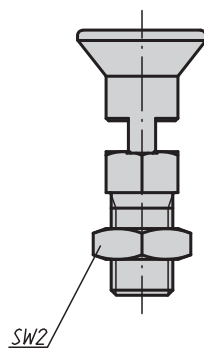
Form B  
without locking slot  
with locking nut



Form C  
with locking slot  
without locking nut



Form D  
with locking slot  
with locking nut

**Material:**

- Steel version, locking pin hardened: quality class 5.8.
- Stainless steel version, locking pin hardened: threaded sleeve 1.4305. Locking pin 1.4034.
- Stainless steel version, locking pin not hardened: threaded sleeve 1.4305. Locking pin 1.4305.

Mushroom knob in anthracite grey thermoplastic.

**Surface finish:**

- Steel version, locking pin hardened: black oxide finish. Locking pin ground.
- Stainless steel version, locking pin hardened: natural finish. Locking pin ground.
- Stainless steel version, locking pin not hardened: natural finish. Locking pin ground.

**Sample order:**

K0338.04206

**Note:**

Locking bolts are used to prevent any change in locking position due to lateral forces. A new locking position can only be set after the bolt has been manually disengaged. Form C or D is recommended for applications in which gradual disengagement of the locking bolt is desired, without any relocking of the locking pin.

**On request:**

Special versions and spacer rings.

## KIPP Locking bolts, in steel, locking pin hardened

| Order No.<br>Form A | Order No.<br>Form B | Order No.<br>Form C | Order No.<br>Form D | D  | D1      | D2 | L    | L1 | L2 | L3 | H   | SW1 | SW2             | F x 30° | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N |
|---------------------|---------------------|---------------------|---------------------|----|---------|----|------|----|----|----|-----|-----|-----------------|---------|--|--|
| K0338.1903          | K0338.2903          | K0338.3903          | K0338.4903          | 3  | M6x0,75 | 14 | 31,5 | 12 | 5  | 10 | 3,5 | 8   | -   10   -   10 | 0,8     | 4,5  | 10   |
| K0338.1004          | K0338.2004          | K0338.3004          | K0338.4004          | 4  | M8x1    | 18 | 38,5 | 15 | 6  | 13 | 4   | 10  | -   13   -   13 | 1       | 6  | 12   |
| K0338.1105          | K0338.2105          | K0338.3105          | K0338.4105          | 5  | M10x1   | 21 | 43,5 | 17 | 7  | 15 | 5   | 13  | -   17   -   17 | 1,3     | 5  | 12   |
| K0338.1206          | K0338.2206          | K0338.3206          | K0338.4206          | 6  | M12x1,5 | 25 | 51,7 | 20 | 8  | 17 | 6   | 14  | -   19   -   19 | 1,8     | 6  | 14   |
| K0338.1308          | K0338.2308          | K0338.3308          | K0338.4308          | 8  | M16x1,5 | 33 | 68   | 26 | 10 | 23 | 8   | 19  | -   24   -   24 | 2,3     | 15   | 35   |
| K0338.1410          | K0338.2410          | K0338.3410          | K0338.4410          | 10 | M20x1,5 | 33 | 74   | 28 | 12 | 25 | 10  | 22  | -   30   -   30 | 2,8     | 15   | 34   |
| K0338.1412          | K0338.2412          | K0338.3412          | K0338.4412          | 12 | M20x1,5 | 33 | 78   | 28 | 14 | 25 | 12  | 22  | -   30   -   30 | 2,8     | 15   | 39   |
| K0338.1516          | K0338.2516          | K0338.3516          | K0338.4516          | 16 | M24x2   | 40 | 96   | 32 | 18 | 28 | 16  | 27  | -   36   -   36 | 3,2     | 20   | 46   |

## KIPP Locking bolts, in stainless steel, locking pin hardened

| Order No.<br>Form A | Order No.<br>Form B | Order No.<br>Form C | Order No.<br>Form D | D  | D1      | D2 | L    | L1 | L2 | L3 | H   | SW1 | SW2             | F x 30° | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N |
|---------------------|---------------------|---------------------|---------------------|----|---------|----|------|----|----|----|-----|-----|-----------------|---------|--|--|
| K0338.01903         | K0338.02903         | K0338.03903         | K0338.04903         | 3  | M6x0,75 | 14 | 31,5 | 12 | 5  | 10 | 3,5 | 8   | -   10   -   10 | 0,8     | 4,5  | 10   |
| K0338.01004         | K0338.02004         | K0338.03004         | K0338.04004         | 4  | M8x1    | 18 | 38,5 | 15 | 6  | 13 | 4   | 10  | -   13   -   13 | 1       | 6  | 12   |
| K0338.01105         | K0338.02105         | K0338.03105         | K0338.04105         | 5  | M10x1   | 21 | 43,5 | 17 | 7  | 15 | 5   | 13  | -   17   -   17 | 1,3     | 5  | 12   |
| K0338.01206         | K0338.02206         | K0338.03206         | K0338.04206         | 6  | M12x1,5 | 25 | 51,7 | 20 | 8  | 17 | 6   | 14  | -   19   -   19 | 1,8     | 6  | 14   |
| K0338.01308         | K0338.02308         | K0338.03308         | K0338.04308         | 8  | M16x1,5 | 33 | 68   | 26 | 10 | 23 | 8   | 19  | -   24   -   24 | 2,3     | 15   | 35   |
| K0338.01410         | K0338.02410         | K0338.03410         | K0338.04410         | 10 | M20x1,5 | 33 | 74   | 28 | 12 | 25 | 10  | 22  | -   30   -   30 | 2,8     | 15   | 34   |
| K0338.01412         | K0338.02412         | K0338.03412         | K0338.04412         | 12 | M20x1,5 | 33 | 78   | 28 | 14 | 25 | 12  | 22  | -   30   -   30 | 2,8     | 15   | 39   |
| K0338.01516         | K0338.02516         | K0338.03516         | K0338.04516         | 16 | M24x2   | 40 | 96   | 32 | 18 | 28 | 16  | 27  | -   36   -   36 | 3,2     | 20   | 46   |

## KIPP Locking bolts, in stainless steel, locking pin not hardened

| Order No.<br>Form A | Order No.<br>Form B | Order No.<br>Form C | Order No.<br>Form D | D  | D1      | D2 | L    | L1 | L2 | L3 | H   | SW1 | SW2             | F x 30° | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N |
|---------------------|---------------------|---------------------|---------------------|----|---------|----|------|----|----|----|-----|-----|-----------------|---------|--|--|
| K0338.11903         | K0338.12903         | K0338.13903         | K0338.14903         | 3  | M6x0,75 | 14 | 31,5 | 12 | 5  | 10 | 3,5 | 8   | -   10   -   10 | 0,8     | 4,5  | 10   |
| K0338.11004         | K0338.12004         | K0338.13004         | K0338.14004         | 4  | M8x1    | 18 | 38,5 | 15 | 6  | 13 | 4   | 10  | -   13   -   13 | 1       | 6  | 12   |
| K0338.11105         | K0338.12105         | K0338.13105         | K0338.14105         | 5  | M10x1   | 21 | 43,5 | 17 | 7  | 15 | 5   | 13  | -   17   -   17 | 1,3     | 5  | 12   |
| K0338.11206         | K0338.12206         | K0338.13206         | K0338.14206         | 6  | M12x1,5 | 25 | 51,7 | 20 | 8  | 17 | 6   | 14  | -   19   -   19 | 1,8     | 6  | 14   |
| K0338.11308         | K0338.12308         | K0338.13308         | K0338.14308         | 8  | M16x1,5 | 33 | 68   | 26 | 10 | 23 | 8   | 19  | -   24   -   24 | 2,3     | 15   | 35   |
| K0338.11410         | K0338.12410         | K0338.13410         | K0338.14410         | 10 | M20x1,5 | 33 | 74   | 28 | 12 | 25 | 10  | 22  | -   30   -   30 | 2,8     | 15   | 34   |
| K0338.11412         | K0338.12412         | K0338.13412         | K0338.14412         | 12 | M20x1,5 | 33 | 78   | 28 | 14 | 25 | 12  | 22  | -   30   -   30 | 2,8     | 15   | 39   |
| K0338.11516         | K0338.12516         | K0338.13516         | K0338.14516         | 16 | M24x2   | 40 | 96   | 32 | 18 | 28 | 16  | 27  | -   36   -   36 | 3,2     | 20   | 46   |

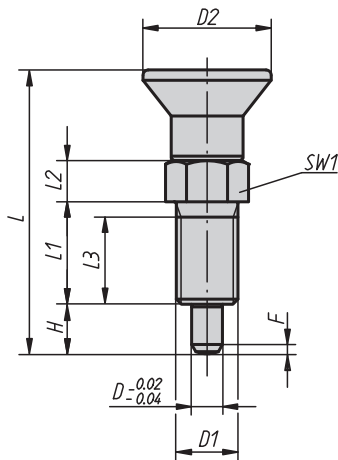


# Locking Bolts

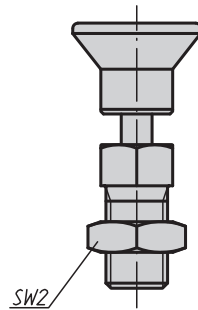
with extended locking pin



Form A  
without locking slot  
without locking nut



Form B  
without locking slot  
with locking nut



### Material:

- Steel version, locking pin hardened: quality class 5.8.
- Stainless steel version, locking pin hardened: threaded sleeve 1.4305. Locking pin 1.4034.
- Stainless steel version, locking pin not hardened: threaded sleeve 1.4305. Locking pin 1.4305.

Mushroom knob in anthracite grey thermoplastic.

### Surface finish:

- Steel version, locking pin hardened: black oxide finish. Locking pin ground.
- Stainless steel version, locking pin hardened: natural finish. Locking pin ground.
- Stainless steel version, locking pin not hardened: natural finish. Locking pin ground.

### Sample order:

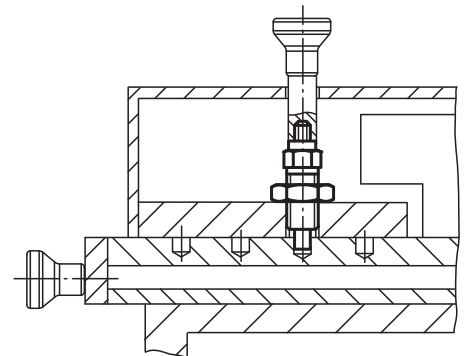
K0630.21903

### Note:

Locking bolts are used to prevent any change in locking position due to lateral forces. A new locking position can only be set after the bolt has been manually disengaged.

### On request:

Special versions and spacer rings.



# Locking Bolts

with extended locking pin

## KIPP Locking bolts, with extended locking pin, in steel, locking pin hardened

| Order No.<br>Form A | Order No.<br>Form B | D  | D1      | D2 | L    | L1 | L2 | L3 | H  | SW1 | SW2    | F x 30° | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N |
|---------------------|---------------------|----|---------|----|------|----|----|----|----|-----|--------|---------|--|--|
| K0630.21903         | K0630.22903         | 3  | M6x0,75 | 14 | 33   | 12 | 5  | 10 | 5  | 8   | - / 10 | 0,8     | 4,5  | 12   |
| K0630.21004         | K0630.22004         | 4  | M8x1    | 18 | 40,5 | 15 | 6  | 13 | 6  | 10  | - / 13 | 1       | 6  | 15   |
| K0630.21105         | K0630.22105         | 5  | M10x1   | 21 | 46,5 | 17 | 7  | 15 | 8  | 13  | - / 17 | 1,3     | 5  | 16   |
| K0630.21206         | K0630.22206         | 6  | M12x1,5 | 25 | 54,7 | 20 | 8  | 17 | 9  | 14  | - / 19 | 1,8     | 6  | 18   |
| K0630.21308         | K0630.22308         | 8  | M16x1,5 | 33 | 72   | 26 | 10 | 23 | 12 | 19  | - / 24 | 2,3     | 15   | 45   |
| K0630.21410         | K0630.22410         | 10 | M20x1,5 | 33 | 79   | 28 | 12 | 25 | 15 | 22  | - / 30 | 2,8     | 15   | 43   |
| K0630.21412         | K0630.22412         | 12 | M20x1,5 | 33 | 84   | 28 | 14 | 25 | 18 | 22  | - / 30 | 2,8     | 15   | 51   |
| K0630.21516         | K0630.22516         | 16 | M24x2   | 40 | 104  | 32 | 18 | 28 | 24 | 27  | - / 36 | 3,2     | 20   | 60   |

## KIPP Locking bolts, with extended locking pin, in stainless steel, with extended locking pin, locking pin hardened

| Order No.<br>Form A | Order No.<br>Form B | D  | D1      | D2 | L    | L1 | L2 | L3 | H  | SW1 | SW2    | F x 30° | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N |
|---------------------|---------------------|----|---------|----|------|----|----|----|----|-----|--------|---------|--|--|
| K0630.201903        | K0630.202903        | 3  | M6x0,75 | 14 | 33   | 12 | 5  | 10 | 5  | 8   | - / 10 | 0,8     | 4,5  | 12   |
| K0630.201004        | K0630.202004        | 4  | M8x1    | 18 | 40,5 | 15 | 6  | 13 | 6  | 10  | - / 13 | 1       | 6  | 15   |
| K0630.201105        | K0630.202105        | 5  | M10x1   | 21 | 46,5 | 17 | 7  | 15 | 8  | 13  | - / 17 | 1,3     | 5  | 16   |
| K0630.201206        | K0630.202206        | 6  | M12x1,5 | 25 | 54,7 | 20 | 8  | 17 | 9  | 14  | - / 19 | 1,8     | 6  | 18   |
| K0630.201308        | K0630.202308        | 8  | M16x1,5 | 33 | 72   | 26 | 10 | 23 | 12 | 19  | - / 24 | 2,3     | 15   | 45   |
| K0630.201410        | K0630.202410        | 10 | M20x1,5 | 33 | 79   | 28 | 12 | 25 | 15 | 22  | - / 30 | 2,8     | 15   | 43   |
| K0630.201412        | K0630.202412        | 12 | M20x1,5 | 33 | 84   | 28 | 14 | 25 | 18 | 22  | - / 30 | 2,8     | 15   | 51   |
| K0630.201516        | K0630.202516        | 16 | M24x2   | 40 | 104  | 32 | 18 | 28 | 24 | 27  | - / 36 | 3,2     | 20   | 60   |

## KIPP Locking bolts, with extended locking pin, in stainless steel, locking pin not hardened

| Order No.<br>Form A | Order No.<br>Form B | D  | D1      | D2 | L    | L1 | L2 | L3 | H  | SW1 | SW2    | F x 30° | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N |
|---------------------|---------------------|----|---------|----|------|----|----|----|----|-----|--------|---------|--|--|
| K0630.211903        | K0630.212903        | 3  | M6x0,75 | 14 | 33   | 12 | 5  | 10 | 5  | 8   | - / 10 | 0,8     | 4,5  | 12   |
| K0630.211004        | K0630.212004        | 4  | M8x1    | 18 | 40,5 | 15 | 6  | 13 | 6  | 10  | - / 13 | 1       | 6  | 15   |
| K0630.211105        | K0630.212105        | 5  | M10x1   | 21 | 46,5 | 17 | 7  | 15 | 8  | 13  | - / 17 | 1,3     | 5  | 16   |
| K0630.211206        | K0630.212206        | 6  | M12x1,5 | 25 | 54,7 | 20 | 8  | 17 | 9  | 14  | - / 19 | 1,8     | 6  | 18   |
| K0630.211308        | K0630.212308        | 8  | M16x1,5 | 33 | 72   | 26 | 10 | 23 | 12 | 19  | - / 24 | 2,3     | 15   | 45   |
| K0630.211410        | K0630.212410        | 10 | M20x1,5 | 33 | 79   | 28 | 12 | 25 | 15 | 22  | - / 30 | 2,8     | 15   | 43   |
| K0630.211412        | K0630.212412        | 12 | M20x1,5 | 33 | 84   | 28 | 14 | 25 | 18 | 22  | - / 30 | 2,8     | 15   | 51   |
| K0630.211516        | K0630.212516        | 16 | M24x2   | 40 | 104  | 32 | 18 | 28 | 24 | 27  | - / 36 | 3,2     | 20   | 60   |

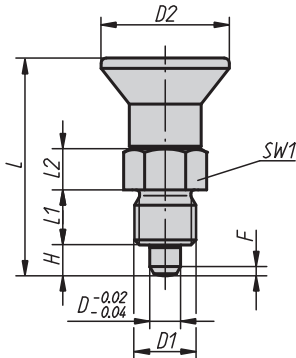


## Locking bolts

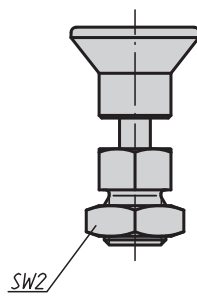
short version



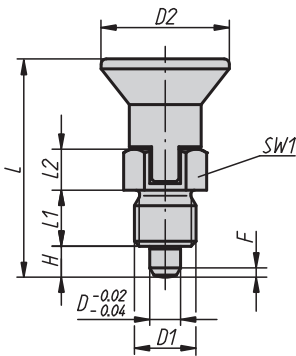
Form A  
without locking slot  
without locking nut



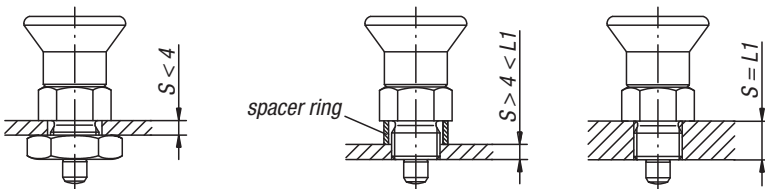
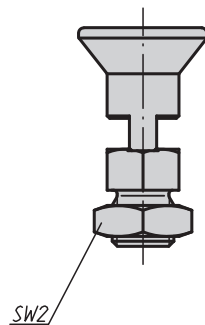
Form B  
without locking slot  
with locking nut



Form C  
with locking slot  
without locking nut



Form D  
with locking slot  
with locking nut



**Material:**

- Steel version, locking pin hardened: quality class 5.8.
- Stainless steel version, locking pin not hardened: threaded sleeve 1.4305. Locking pin 1.4305.

Mushroom knob in anthracite grey thermoplastic.

**Surface finish:**

- Steel version, locking pin hardened: black oxide finish. Locking pin ground.
- Stainless steel version, locking pin not hardened: natural finish. Locking pin ground.

**Sample order:**

K0631.16206

**Note:**

Locking bolts are used to prevent any change in locking position due to lateral forces. A new locking position can only be set after the bolt has been manually disengaged. Form C or D is recommended for applications in which gradual disengagement of the locking bolt is desired, without any relocking of the locking pin.

**On request:**

Special versions and spacer rings.

### KIPP Locking bolts, short version, in steel, locking pin hardened

| Order No.<br>Form A | Order No.<br>Form B | Order No.<br>Form C | Order No.<br>Form D | D  | D1      | D2 | L    | L1 | L2 | H  | SW1 | SW2             | F x 30° | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N |
|---------------------|---------------------|---------------------|---------------------|----|---------|----|------|----|----|----|-----|-----------------|---------|--|--|
| K0631.5004          | K0631.6004          | K0631.7004          | K0631.8004          | 4  | M8x1    | 18 | 29,5 | 6  | 6  | 4  | 10  | - / 13 / - / 13 | 1       | 6  | 12   |
| K0631.5105          | K0631.6105          | K0631.7105          | K0631.8105          | 5  | M10x1   | 21 | 34,5 | 8  | 7  | 5  | 13  | - / 17 / - / 17 | 1,3     | 5  | 12   |
| K0631.5206          | K0631.6206          | K0631.7206          | K0631.8206          | 6  | M12x1,5 | 25 | 41,7 | 10 | 8  | 6  | 14  | - / 19 / - / 19 | 1,8     | 6  | 14   |
| K0631.5308          | K0631.6308          | K0631.7308          | K0631.8308          | 8  | M16x1,5 | 33 | 54   | 12 | 10 | 8  | 19  | - / 24 / - / 24 | 2,3     | 14   | 28   |
| K0631.5410          | K0631.6410          | K0631.7410          | K0631.8410          | 10 | M20x1,5 | 33 | 61   | 15 | 12 | 10 | 22  | - / 30 / - / 30 | 2,8     | 15   | 32   |

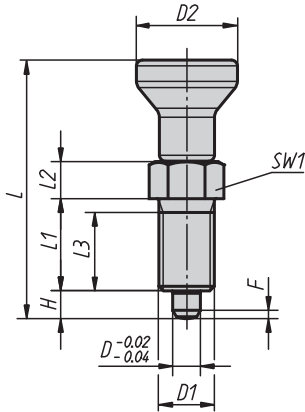
### KIPP Locking bolts, short version, in steel, locking pin not hardened

| Order No.<br>Form A | Order No.<br>Form B | Order No.<br>Form C | Order No.<br>Form D | D  | D1      | D2 | L    | L1 | L2 | H  | SW1 | SW2             | F x 30° | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N |
|---------------------|---------------------|---------------------|---------------------|----|---------|----|------|----|----|----|-----|-----------------|---------|--|--|
| K0631.15004         | K0631.16004         | K0631.17004         | K0631.18004         | 4  | M8x1    | 18 | 29,5 | 6  | 6  | 4  | 10  | - / 13 / - / 13 | 1       | 6  | 12   |
| K0631.15105         | K0631.16105         | K0631.17105         | K0631.18105         | 5  | M10x1   | 21 | 34,5 | 8  | 7  | 5  | 13  | - / 17 / - / 17 | 1,3     | 5  | 12   |
| K0631.15206         | K0631.16206         | K0631.17206         | K0631.18206         | 6  | M12x1,5 | 25 | 41,7 | 10 | 8  | 6  | 14  | - / 19 / - / 19 | 1,8     | 6  | 14   |
| K0631.15308         | K0631.16308         | K0631.17308         | K0631.18308         | 8  | M16x1,5 | 33 | 54   | 12 | 10 | 8  | 19  | - / 24 / - / 24 | 2,3     | 14   | 28   |
| K0631.15410         | K0631.16410         | K0631.17410         | K0631.18410         | 10 | M20x1,5 | 33 | 61   | 15 | 12 | 10 | 22  | - / 30 / - / 30 | 2,8     | 15   | 32   |

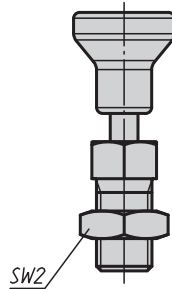
## Locking bolts stainless steel



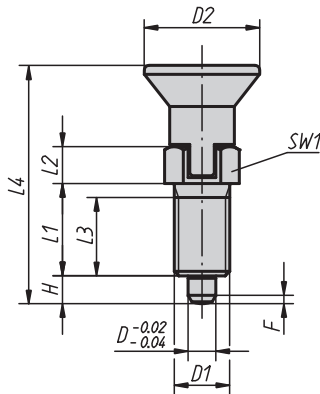
Form A  
without locking slot  
without locking nut



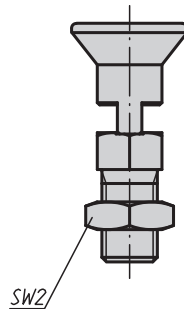
Form B  
without locking slot  
with locking nut



Form C  
with locking slot  
without locking nut



Form D  
with locking slot  
with locking nut



**Material:**

- Locking pin hardened:  
threaded sleeve 1.4305.  
Locking pin 1.4034.
- Locking pin not hardened:  
threaded sleeve 1.4305.  
Locking pin 1.4305.

Mushroom knob 1.4305, electrolytic-polish.

**Surface finish:**

- Natural finish.
- Locking pin ground.

**Sample order:**

K0632.001004

**Note:**

Locking bolts are used to prevent any change in locking position due to lateral forces. A new locking position can only be set after the bolt has been manually disengaged. Form C or D is recommended for applications in which gradual disengagement of the locking pin is desired, without any relocking of the locking pin.

**On request:**

Special versions and spacer rings.

### KIPP Locking bolts in stainless steel, locking pin hardened

| Order No.<br>Form A | Order No.<br>Form B | Order No.<br>Form C | Order No.<br>Form D | D  | D1      | D2 | L             | L1 | L2 | L3 | L4            | H   | SW1 | SW2       | F x 30° | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N |
|---------------------|---------------------|---------------------|---------------------|----|---------|----|---------------|----|----|----|---------------|-----|-----|-----------|---------|--|--|
| K0632.001903        | K0632.002903        | K0632.003903        | K0632.004903        | 3  | M6x0,75 | 14 | 34,5/34,5/-/- | 12 | 5  | 10 | -/-/31,5/31,5 | 3,5 | 8   | -/10/-/10 | 0,8     | 4,5  | 10   |
| K0632.001004        | K0632.002004        | K0632.003004        | K0632.004004        | 4  | M8x1    | 18 | 43/43/-/-     | 15 | 6  | 13 | -/-/38,5/38,5 | 4   | 10  | -/13/-/13 | 1       | 6  | 12   |
| K0632.001105        | K0632.002105        | K0632.003105        | K0632.004105        | 5  | M10x1   | 21 | 50/50/-/-     | 17 | 7  | 15 | -/-/43,5/43,5 | 5   | 13  | -/17/-/17 | 1,3     | 5  | 12   |
| K0632.001206        | K0632.002206        | K0632.003206        | K0632.004206        | 6  | M12x1,5 | 25 | 59/59/-/-     | 20 | 8  | 17 | -/-/51,7/51,7 | 6   | 14  | -/19/-/19 | 1,8     | 6  | 14   |
| K0632.001308        | K0632.002308        | K0632.003308        | K0632.004308        | 8  | M16x1,5 | 33 | 77/77/-/-     | 26 | 10 | 23 | -/-/68/68     | 8   | 19  | -/24/-/24 | 2,3     | 15   | 35   |
| K0632.001410        | K0632.002410        | K0632.003410        | K0632.004410        | 10 | M20x1,5 | 33 | 83/83/-/-     | 28 | 12 | 25 | -/-/74/74     | 10  | 22  | -/30/-/30 | 2,8     | 15   | 34   |
| K0632.001412        | K0632.002412        | K0632.003412        | K0632.004412        | 12 | M20x1,5 | 33 | 87/87/-/-     | 28 | 14 | 25 | -/-/78/78     | 12  | 22  | -/30/-/30 | 2,8     | 15   | 39   |
| K0632.001516        | K0632.002516        | K0632.003516        | K0632.004516        | 16 | M24x2   | 40 | 106/106/-/-   | 32 | 18 | 28 | -/-/96/96     | 16  | 27  | -/36/-/36 | 3,2     | 20   | 46   |

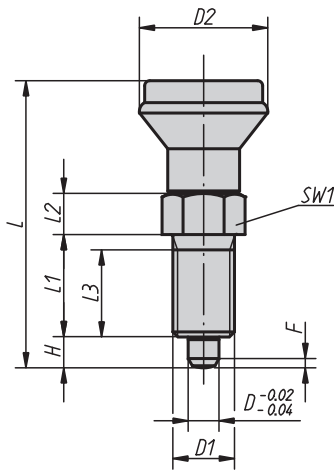
### KIPP Locking bolts in stainless steel, locking pin not hardened

| Order No.<br>Form A | Order No.<br>Form B | Order No.<br>Form C | Order No.<br>Form D | D  | D1      | D2 | L             | L1 | L2 | L3 | L4            | H   | SW1 | SW2       | F x 30° | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N |
|---------------------|---------------------|---------------------|---------------------|----|---------|----|---------------|----|----|----|---------------|-----|-----|-----------|---------|--|--|
| K0632.111903        | K0632.112903        | K0632.113903        | K0632.114903        | 3  | M6x0,75 | 14 | 34,5/34,5/-/- | 12 | 5  | 10 | -/-/31,5/31,5 | 3,5 | 8   | -/10/-/10 | 0,8     | 4,5  | 10   |
| K0632.111004        | K0632.112004        | K0632.113004        | K0632.114004        | 4  | M8x1    | 18 | 43/43/-/-     | 15 | 6  | 13 | -/-/38,5/38,5 | 4   | 10  | -/13/-/13 | 1       | 6  | 12   |
| K0632.111105        | K0632.112105        | K0632.113105        | K0632.114105        | 5  | M10x1   | 21 | 50/50/-/-     | 17 | 7  | 15 | -/-/43,5/43,5 | 5   | 13  | -/17/-/17 | 1,3     | 5  | 12   |
| K0632.111206        | K0632.112206        | K0632.113206        | K0632.114206        | 6  | M12x1,5 | 25 | 59/59/-/-     | 20 | 8  | 17 | -/-/51,7/51,7 | 6   | 14  | -/19/-/19 | 1,8     | 6  | 14   |
| K0632.111308        | K0632.112308        | K0632.113308        | K0632.114308        | 8  | M16x1,5 | 33 | 77/77/-/-     | 26 | 10 | 23 | -/-/68/68     | 8   | 19  | -/24/-/24 | 2,3     | 15   | 35   |
| K0632.111410        | K0632.112410        | K0632.113410        | K0632.114410        | 10 | M20x1,5 | 33 | 83/83/-/-     | 28 | 12 | 25 | -/-/74/74     | 10  | 22  | -/30/-/30 | 2,8     | 15   | 34   |
| K0632.111412        | K0632.112412        | K0632.113412        | K0632.114412        | 12 | M20x1,5 | 33 | 87/87/-/-     | 28 | 14 | 25 | -/-/78/78     | 12  | 22  | -/30/-/30 | 2,8     | 15   | 39   |
| K0632.111516        | K0632.112516        | K0632.113516        | K0632.114516        | 16 | M24x2   | 40 | 106/106/-/-   | 32 | 18 | 28 | -/-/96/96     | 16  | 27  | -/36/-/36 | 3,2     | 20   | 46   |

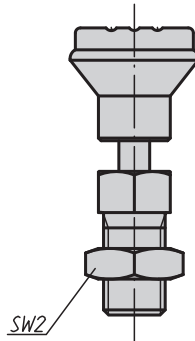
# Locking bolts



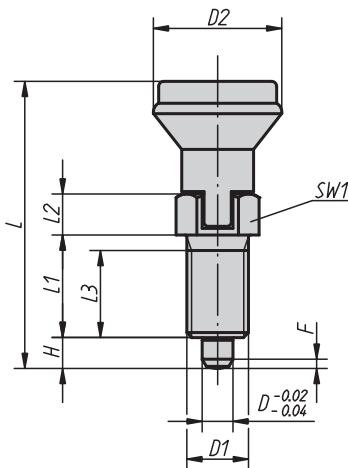
Form A  
without locking slot  
without locking nut



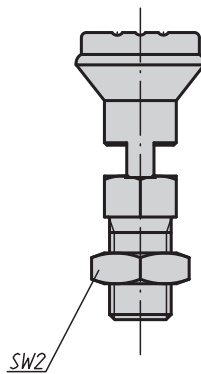
Form B  
without locking slot  
with locking nut



Form C  
with locking slot  
without locking nut



Form D  
with locking slot  
with locking nut



**Material:**

- Steel version, locking pin hardened: quality class 5.8.
- Stainless steel version, locking pin hardened: threaded sleeve 1.4305. Locking pin 1.4034.
- Stainless steel version, locking pin not hardened: threaded sleeve 1.4305. Locking pin 1.4305.

Mushroom knob in anthracite grey thermoplastic.

**Surface finish:**

- Steel version, locking pin hardened: black oxide finish, locking pin ground.
- Stainless steel version, locking pin hardened: natural finish, locking pin ground.
- Stainless steel version, locking pin not hardened: natural finish, locking pin ground.

**Sample order:**

K0339.04206

**Note:**

Locking bolts are used to prevent any change in locking position due to lateral forces. A new locking position can only be set after the bolt has been manually disengaged. Form C or D is recommended for applications in which gradual disengagement of the locking bolt is desired, without any relocking of the locking pin.

**On request:**

Special versions and spacer rings.

## KIPP Locking bolts, in steel, locking pin hardened

| Order No.<br>Form A | Order No.<br>Form B | Order No.<br>Form C | Order No.<br>Form D | D  | D1      | D2 | L  | L1 | L2 | L3 | H  | SW1 | SW2             | F x 30° | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N |
|---------------------|---------------------|---------------------|---------------------|----|---------|----|----|----|----|----|----|-----|-----------------|---------|--|--|
| K0339.1105          | K0339.2105          | K0339.3105          | K0339.4105          | 5  | M10x1   | 21 | 47 | 17 | 7  | 15 | 5  | 13  | - / 17 / - / 17 | 1,3     | 5  | 12   |
| K0339.1206          | K0339.2206          | K0339.3206          | K0339.4206          | 6  | M12x1,5 | 25 | 56 | 20 | 8  | 17 | 6  | 14  | - / 19 / - / 19 | 1,8     | 6  | 14   |
| K0339.1308          | K0339.2308          | K0339.3308          | K0339.4308          | 8  | M16x1,5 | 33 | 74 | 26 | 10 | 23 | 8  | 19  | - / 24 / - / 24 | 2,3     | 15   | 35   |
| K0339.1410          | K0339.2410          | K0339.3410          | K0339.4410          | 10 | M20x1,5 | 33 | 80 | 28 | 12 | 25 | 10 | 22  | - / 30 / - / 30 | 2,8     | 15   | 34   |

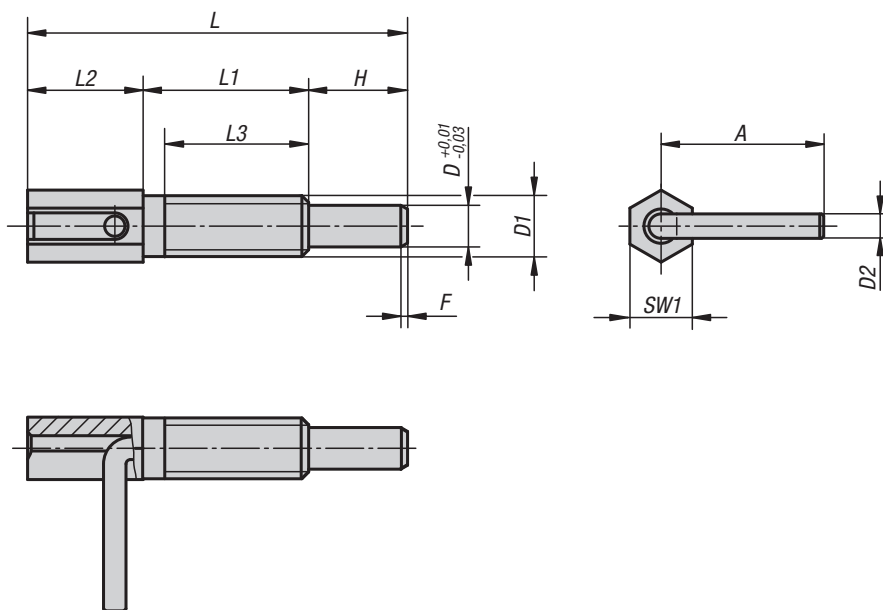
## KIPP Locking bolts, in stainless steel, locking pin hardened

| Order No.<br>Form A | Order No.<br>Form B | Order No.<br>Form C | Order No.<br>Form D | D  | D1      | D2 | L  | L1 | L2 | L3 | H  | SW1 | SW2             | F x 30° | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N |
|---------------------|---------------------|---------------------|---------------------|----|---------|----|----|----|----|----|----|-----|-----------------|---------|--|--|
| K0339.01105         | K0339.02105         | K0339.03105         | K0339.04105         | 5  | M10x1   | 21 | 47 | 17 | 7  | 15 | 5  | 13  | - / 17 / - / 17 | 1,3     | 5  | 12   |
| K0339.01206         | K0339.02206         | K0339.03206         | K0339.04206         | 6  | M12x1,5 | 25 | 56 | 20 | 8  | 17 | 6  | 14  | - / 19 / - / 19 | 1,8     | 6  | 14   |
| K0339.01308         | K0339.02308         | K0339.03308         | K0339.04308         | 8  | M16x1,5 | 33 | 74 | 26 | 10 | 23 | 8  | 19  | - / 24 / - / 24 | 2,3     | 15   | 35   |
| K0339.01410         | K0339.02410         | K0339.03410         | K0339.04410         | 10 | M20x1,5 | 33 | 80 | 28 | 12 | 25 | 10 | 22  | - / 30 / - / 30 | 2,8     | 15   | 34   |

## KIPP Locking bolts, in stainless steel, locking pin not hardened

| Order No.<br>Form A | Order No.<br>Form B | Order No.<br>Form C | Order No.<br>Form D | D  | D1      | D2 | L  | L1 | L2 | L3 | H  | SW1 | SW2             | F x 30° | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N |
|---------------------|---------------------|---------------------|---------------------|----|---------|----|----|----|----|----|----|-----|-----------------|---------|--|--|
| K0339.11105         | K0339.12105         | K0339.13105         | K0339.14105         | 5  | M10x1   | 21 | 47 | 17 | 7  | 15 | 5  | 13  | - / 17 / - / 17 | 1,3     | 5  | 12   |
| K0339.11206         | K0339.12206         | K0339.13206         | K0339.14206         | 6  | M12x1,5 | 25 | 56 | 20 | 8  | 17 | 6  | 14  | - / 19 / - / 19 | 1,8     | 6  | 14   |
| K0339.11308         | K0339.12308         | K0339.13308         | K0339.14308         | 8  | M16x1,5 | 33 | 74 | 26 | 10 | 23 | 8  | 19  | - / 24 / - / 24 | 2,3     | 15   | 35   |
| K0339.11410         | K0339.12410         | K0339.13410         | K0339.14410         | 10 | M20x1,5 | 33 | 80 | 28 | 12 | 25 | 10 | 22  | - / 30 / - / 30 | 2,8     | 15   | 34   |

## Locking bolts



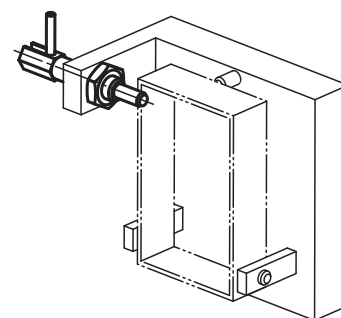
**Material:**  
Steel quality class 5.8.

**Surface finish:**  
Blue chromated.

**Sample order:**  
K0340.1206

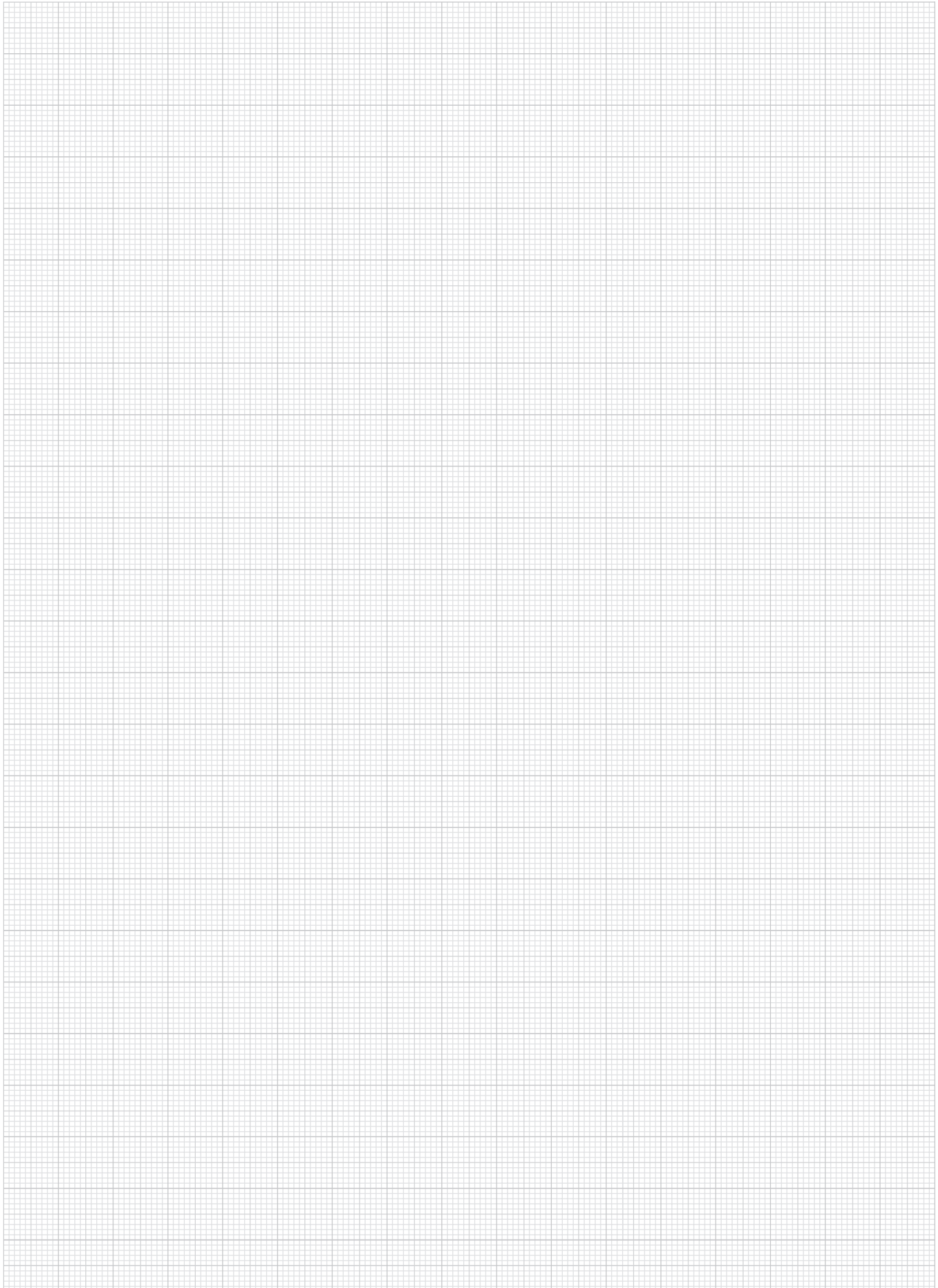
**Note:**  
Locking bolts are used to prevent any change in locking position due to lateral forces. A new locking position can only be set after the bolt has been manually disengaged.

**On request:**  
Special versions.



### KIPP Locking bolts

| Order No.  | D  | D1  | D2  | L     | L1   | L2   | L3   | H   | A    | SW1 | F x 30° | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N | Tightening<br>torque<br>max. Nm |
|------------|----|-----|-----|-------|------|------|------|-----|------|-----|---------|--|--|---------------------------------|
| K0340.1104 | 4  | M6  | 2,3 | 41,5  | 20   | 12   | 17   | 9,5 | 15,5 | 6   | 0,7     | 3  | 10   | 1,6                             |
| K0340.1905 | 5  | M8  | 3   | 54    | 27   | 15   | 24   | 12  | 19,2 | 8   | 0,9     | 3,5  | 13,5   | 4,5                             |
| K0340.1206 | 6  | M10 | 3,5 | 65    | 33,5 | 17,5 | 30   | 14  | 22,9 | 10  | 1,1     | 4  | 16   | 10                              |
| K0340.1308 | 8  | M12 | 4,7 | 73    | 31,8 | 22,2 | 28   | 19  | 31,2 | 12  | 1,3     | 4  | 22   | 13                              |
| K0340.1410 | 10 | M16 | 4,7 | 102,5 | 50,5 | 27   | 44,5 | 25  | 32,7 | 16  | 1,6     | 4  | 23   | 42                              |



## Locking bolts



**Material:**

- Steel version, locking pin hardened: quality class 5.8.
- Stainless steel version, locking pin hardened: threaded sleeve 1.4305. Locking pin 1.4034.
- Stainless steel version, locking pin not hardened: threaded sleeve 1.4305. Locking pin 1.4305.

**Surface finish:**

- Steel version, locking pin hardened: black oxide finish, locking pin ground.
- Stainless steel version, locking pin hardened: natural finish, locking pin ground.
- Stainless steel version, locking pin not hardened: natural finish, locking pin ground.

**Sample order:**

K0341.02308

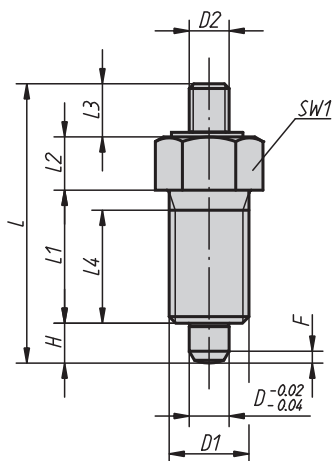
**Note:**

Locking bolts are used to prevent any change in locking position due to lateral forces. A new locking position can only be set after the bolt has been disengaged. Special grips can be fitted on the projecting threaded pin.

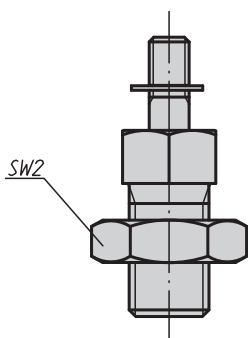
This pin is also suitable for actuation of the locking bolt, for example automatically (programme-controlled) with the aid of a pneumatic cylinder or actuation by remote control with bowden cables.

**On request:**

Special versions and spacer rings.

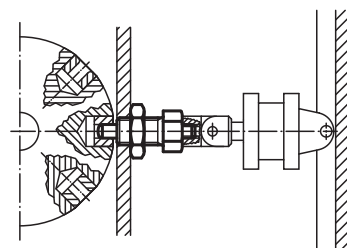


Form E  
with threaded pin  
without locking nut



Form F  
with threaded pin  
with locking nut

example:



## KIPP Locking bolts, in steel, locking pin hardened

| Order No.<br>Form E | Order No.<br>Form F | D  | D1      | D2  | L  | L1 | L2 | L3  | L4 | H   | SW1 | SW2    | F x 30° | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N |
|---------------------|---------------------|----|---------|-----|----|----|----|-----|----|-----|-----|--------|---------|--|--|
| K0341.1903          | K0341.2903          | 3  | M6x0,75 | M2  | 24 | 12 | 5  | 3,5 | 10 | 3,5 | 8   | - / 10 | 0,8     | 4,5  | 10   |
| K0341.1004          | K0341.2004          | 4  | M8x1    | M3  | 32 | 15 | 6  | 7   | 13 | 4   | 10  | - / 13 | 1       | 6  | 12   |
| K0341.1105          | K0341.2105          | 5  | M10x1   | M4  | 37 | 17 | 7  | 8   | 15 | 5   | 13  | - / 17 | 1,3     | 5  | 12   |
| K0341.1206          | K0341.2206          | 6  | M12x1,5 | M6  | 42 | 20 | 8  | 8   | 17 | 6   | 14  | - / 19 | 1,8     | 6  | 14   |
| K0341.1308          | K0341.2308          | 8  | M16x1,5 | M8  | 56 | 26 | 10 | 12  | 23 | 8   | 19  | - / 24 | 2,3     | 15   | 35   |
| K0341.1410          | K0341.2410          | 10 | M20x1,5 | M8  | 62 | 28 | 12 | 12  | 25 | 10  | 22  | - / 30 | 2,8     | 15   | 34   |
| K0341.1412          | K0341.2412          | 12 | M20x1,5 | M8  | 66 | 28 | 14 | 12  | 25 | 12  | 22  | - / 30 | 2,8     | 15   | 39   |
| K0341.1516          | K0341.2516          | 16 | M24x2   | M10 | 80 | 32 | 18 | 14  | 28 | 16  | 27  | - / 36 | 3,2     | 20   | 46   |

## KIPP Locking bolts, in stainless steel, locking pin hardened

| Order No.<br>Form E | Order No.<br>Form F | D  | D1      | D2  | L  | L1 | L2 | L3  | L4 | H   | SW1 | SW2    | F x 30° | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N |
|---------------------|---------------------|----|---------|-----|----|----|----|-----|----|-----|-----|--------|---------|--|--|
| K0341.01903         | K0341.02903         | 3  | M6x0,75 | M2  | 24 | 12 | 5  | 3,5 | 10 | 3,5 | 8   | - / 10 | 0,8     | 4,5  | 10   |
| K0341.01004         | K0341.02004         | 4  | M8x1    | M3  | 32 | 15 | 6  | 7   | 13 | 4   | 10  | - / 13 | 1       | 6  | 12   |
| K0341.01105         | K0341.02105         | 5  | M10x1   | M4  | 37 | 17 | 7  | 8   | 15 | 5   | 13  | - / 17 | 1,3     | 5  | 12   |
| K0341.01206         | K0341.02206         | 6  | M12x1,5 | M6  | 42 | 20 | 8  | 8   | 17 | 6   | 14  | - / 19 | 1,8     | 6  | 14   |
| K0341.01308         | K0341.02308         | 8  | M16x1,5 | M8  | 56 | 26 | 10 | 12  | 23 | 8   | 19  | - / 24 | 2,3     | 15   | 35   |
| K0341.01410         | K0341.02410         | 10 | M20x1,5 | M8  | 62 | 28 | 12 | 12  | 25 | 10  | 22  | - / 30 | 2,8     | 15   | 34   |
| K0341.01412         | K0341.02412         | 12 | M20x1,5 | M8  | 66 | 28 | 14 | 12  | 25 | 12  | 22  | - / 30 | 2,8     | 15   | 39   |
| K0341.01516         | K0341.02516         | 16 | M24x2   | M10 | 80 | 32 | 18 | 14  | 28 | 16  | 27  | - / 36 | 3,2     | 20   | 46   |

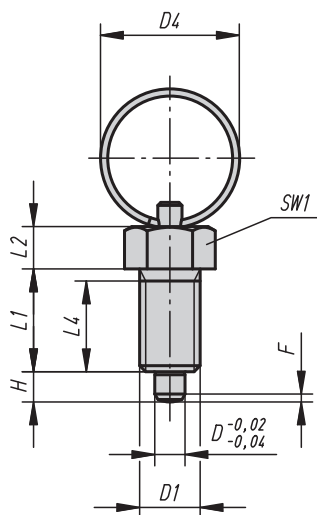
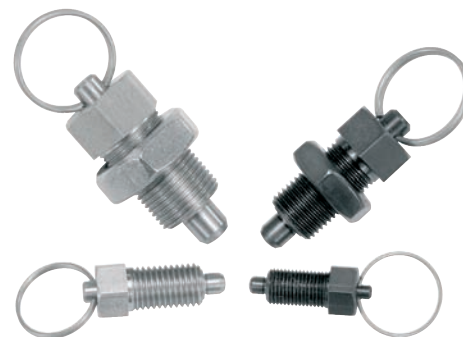
## KIPP Locking bolts, in stainless steel, locking pin not hardened

| Order No.<br>Form E | Order No.<br>Form F | D  | D1      | D2  | L  | L1 | L2 | L3  | L4 | H   | SW1 | SW2    | F x 30° | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N |
|---------------------|---------------------|----|---------|-----|----|----|----|-----|----|-----|-----|--------|---------|--|--|
| K0341.11903         | K0341.12903         | 3  | M6x0,75 | M2  | 24 | 12 | 5  | 3,5 | 10 | 3,5 | 8   | - / 10 | 0,8     | 4,5  | 10   |
| K0341.11004         | K0341.12004         | 4  | M8x1    | M3  | 32 | 15 | 6  | 7   | 13 | 4   | 10  | - / 13 | 1       | 6  | 12   |
| K0341.11105         | K0341.12105         | 5  | M10x1   | M4  | 37 | 17 | 7  | 8   | 15 | 5   | 13  | - / 17 | 1,3     | 5  | 12   |
| K0341.11206         | K0341.12206         | 6  | M12x1,5 | M6  | 42 | 20 | 8  | 8   | 17 | 6   | 14  | - / 19 | 1,8     | 6  | 14   |
| K0341.11308         | K0341.12308         | 8  | M16x1,5 | M8  | 56 | 26 | 10 | 12  | 23 | 8   | 19  | - / 24 | 2,3     | 15   | 35   |
| K0341.11410         | K0341.12410         | 10 | M20x1,5 | M8  | 62 | 28 | 12 | 12  | 25 | 10  | 22  | - / 30 | 2,8     | 15   | 34   |
| K0341.11412         | K0341.12412         | 12 | M20x1,5 | M8  | 66 | 28 | 14 | 12  | 25 | 12  | 22  | - / 30 | 2,8     | 15   | 39   |
| K0341.11516         | K0341.12516         | 16 | M24x2   | M10 | 80 | 32 | 18 | 14  | 28 | 16  | 27  | - / 36 | 3,2     | 20   | 46   |

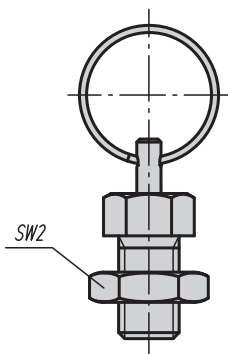




# Locking bolts



Form R  
without locking nut



Form S  
with locking nut

### Material:

- Steel version, locking pin hardened: quality class 5.8.
- Stainless steel version, locking pin hardened: threaded sleeve 1.4305. Locking pin 1.4034.
- Stainless steel version, locking pin not hardened: threaded sleeve 1.4305. Locking pin 1.4305.

Key ring 1.4310, natural finish.

### Surface finish:

- Steel version, locking pin hardened: black oxide finish, locking pin ground.
- Stainless steel version, locking pin hardened: natural finish, locking pin ground.
- Stainless steel version, locking pin not hardened: natural finish, locking pin ground.

### Sample order:

K0342.03308

### Note:

Locking bolts are used to prevent any change in locking position due to lateral forces. A new locking position can only be set after the bolt has been disengaged. The key ring is also suitable for actuation of the locking bolt, for example automatically (programme-controlled) with the aid of a pneumatic cylinder or actuation by remote control with bowden cables.

### On request:

Special versions and spacer rings.

## KIPP Locking bolts, in steel, locking pin hardened

| Order No.<br>Form R | Order No.<br>Form S | D  | D1      | D4 | L1 | L2 | L4 | H  | SW1 | SW2    | F x 30° | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N |
|---------------------|---------------------|----|---------|----|----|----|----|----|-----|--------|---------|--|--|
| K0342.3004          | K0342.4004          | 4  | M8x1    | 15 | 15 | 6  | 13 | 4  | 10  | - / 13 | 1       | 6  | 12   |
| K0342.3105          | K0342.4105          | 5  | M10x1   | 23 | 17 | 7  | 15 | 5  | 13  | - / 17 | 1,3     | 5  | 12   |
| K0342.3206          | K0342.4206          | 6  | M12x1,5 | 23 | 20 | 8  | 17 | 6  | 14  | - / 19 | 1,8     | 6  | 14   |
| K0342.3308          | K0342.4308          | 8  | M16x1,5 | 28 | 26 | 10 | 23 | 8  | 19  | - / 24 | 2,3     | 15   | 35   |
| K0342.3410          | K0342.4410          | 10 | M20x1,5 | 28 | 28 | 12 | 25 | 10 | 22  | - / 30 | 2,8     | 15   | 34   |

## KIPP Locking bolts, in stainless steel, locking pin hardened

| Order No.<br>Form R | Order No.<br>Form S | D  | D1      | D4 | L1 | L2 | L4 | H  | SW1 | SW2    | F x 30° | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N |
|---------------------|---------------------|----|---------|----|----|----|----|----|-----|--------|---------|--|--|
| K0342.03004         | K0342.04004         | 4  | M8x1    | 15 | 15 | 6  | 13 | 4  | 10  | - / 13 | 1       | 6  | 12   |
| K0342.03105         | K0342.04105         | 5  | M10x1   | 23 | 17 | 7  | 15 | 5  | 13  | - / 17 | 1,3     | 5  | 12   |
| K0342.03206         | K0342.04206         | 6  | M12x1,5 | 23 | 20 | 8  | 17 | 6  | 14  | - / 19 | 1,8     | 6  | 14   |
| K0342.03308         | K0342.04308         | 8  | M16x1,5 | 28 | 26 | 10 | 23 | 8  | 19  | - / 24 | 2,3     | 15   | 35   |
| K0342.03410         | K0342.04410         | 10 | M20x1,5 | 28 | 28 | 12 | 25 | 10 | 22  | - / 30 | 2,8     | 15   | 34   |

## KIPP Locking bolts, in stainless steel, locking pin not hardened

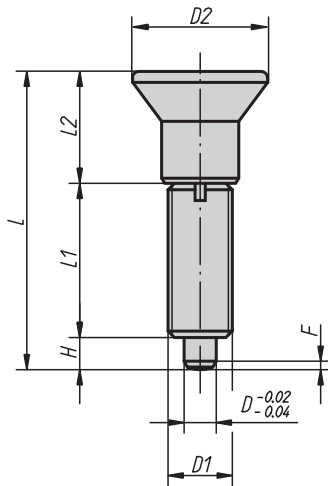
| Order No.<br>Form R | Order No.<br>Form S | D  | D1      | D4 | L1 | L2 | L4 | H  | SW1 | SW2    | F x 30° | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N |
|---------------------|---------------------|----|---------|----|----|----|----|----|-----|--------|---------|--|--|
| K0342.13004         | K0342.14004         | 4  | M8x1    | 15 | 15 | 6  | 13 | 4  | 10  | - / 13 | 1       | 6  | 12   |
| K0342.13105         | K0342.14105         | 5  | M10x1   | 23 | 17 | 7  | 15 | 5  | 13  | - / 17 | 1,3     | 5  | 12   |
| K0342.13206         | K0342.14206         | 6  | M12x1,5 | 23 | 20 | 8  | 17 | 6  | 14  | - / 19 | 1,8     | 6  | 14   |
| K0342.13308         | K0342.14308         | 8  | M16x1,5 | 28 | 26 | 10 | 23 | 8  | 19  | - / 24 | 2,3     | 15   | 35   |
| K0342.13410         | K0342.14410         | 10 | M20x1,5 | 28 | 28 | 12 | 25 | 10 | 22  | - / 30 | 2,8     | 15   | 34   |

## Locking bolts

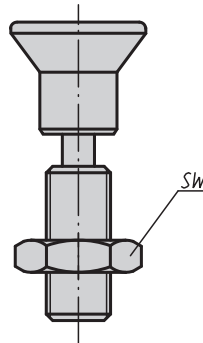
without collar



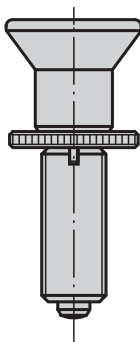
Form G  
without locking nut



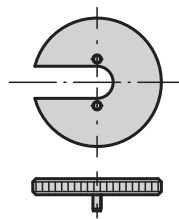
Form H  
with locking nut



Locking bolt  
with screw-in washer



screw-in washer



**Material:**

- Steel version, locking pin hardened: quality class 5.8.
- Stainless steel version, locking pin hardened: threaded sleeve 1.4305. Locking pin 1.4034.
- Stainless steel version, locking pin not hardened: threaded sleeve 1.4305. Locking pin 1.4305.

Mushroom knob in anthracite grey thermoplastic.

**Surface finish:**

- Steel version, locking pin hardened: black oxide finish, locking pin ground.
- Stainless steel version, locking pin hardened: natural finish, locking pin ground.
- Stainless steel version, locking pin not hardened: natural finish, locking pin ground.

**Sample order:**

K0343.02206

**Note:**

Locking bolts are used to prevent any change in locking position due to lateral forces. A new locking position can only be set after the bolt has been manually disengaged. In order to screw in the locking bolts, a screw-in washer can be supplied. The washer is slid beneath the disengaged mushroom knob so that the follower pins engage in the slot.

**On request:**

Special versions.

# Locking bolts

without collar

## KIPP Locking bolts without collar, in steel, locking pin hardened

| Order No.<br>Form G | Order No.<br>Form H | D  | D1      | D2 | L    | L1 | L2   | H   | SW     | F x 30° | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N | Order No.<br>screw-in<br>washer |
|---------------------|---------------------|----|---------|----|------|----|------|-----|--------|---------|--|--|---------------------------------|
| K0343.1903          | K0343.2903          | 3  | M6x0,75 | 14 | 31,5 | 17 | 11   | 3,5 | - / 10 | 0,8     | 4,5  | 10   | K0344.99                        |
| K0343.1004          | K0343.2004          | 4  | M8x1    | 18 | 38,5 | 21 | 13,5 | 4   | - / 13 | 1,3     | 6  | 12   | K0344.90                        |
| K0343.1105          | K0343.2105          | 5  | M10x1   | 21 | 43,5 | 24 | 14,5 | 5   | - / 17 | 1,3     | 5  | 12   | K0344.91                        |
| K0343.1206          | K0343.2206          | 6  | M12x1,5 | 25 | 51,7 | 28 | 17,7 | 6   | - / 19 | 1,8     | 6  | 14   | K0344.92                        |
| K0343.1308          | K0343.2308          | 8  | M16x1,5 | 33 | 68   | 36 | 24   | 8   | - / 24 | 2,3     | 15   | 35   | K0344.93                        |
| K0343.1410          | K0343.2410          | 10 | M20x1,5 | 33 | 74   | 40 | 24   | 10  | - / 30 | 2,8     | 15   | 34   | K0344.94                        |
| K0343.1412          | K0343.2412          | 12 | M20x1,5 | 33 | 78   | 42 | 24   | 12  | - / 30 | 2,8     | 15   | 39   | K0344.94                        |
| K0343.1516          | K0343.2516          | 16 | M24x2   | 40 | 96   | 50 | 30   | 16  | - / 36 | 3,2     | 20   | 46   | K0344.95                        |

## KIPP Locking bolts without collar, in stainless steel, locking pin hardened

| Order No.<br>Form G | Order No.<br>Form H | D  | D1      | D2 | L    | L1 | L2   | H   | SW     | F x 30° | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N | Order No.<br>screw-in<br>washer |
|---------------------|---------------------|----|---------|----|------|----|------|-----|--------|---------|--|--|---------------------------------|
| K0343.01903         | K0343.02903         | 3  | M6x0,75 | 14 | 31,5 | 17 | 11   | 3,5 | - / 10 | 0,8     | 4,5  | 10   | K0344.99                        |
| K0343.01004         | K0343.02004         | 4  | M8x1    | 18 | 38,5 | 21 | 13,5 | 4   | - / 13 | 1,3     | 6  | 12   | K0344.90                        |
| K0343.01105         | K0343.02105         | 5  | M10x1   | 21 | 43,5 | 24 | 14,5 | 5   | - / 17 | 1,3     | 5  | 12   | K0344.91                        |
| K0343.01206         | K0343.02206         | 6  | M12x1,5 | 25 | 51,7 | 28 | 17,7 | 6   | - / 19 | 1,8     | 6  | 14   | K0344.92                        |
| K0343.01308         | K0343.02308         | 8  | M16x1,5 | 33 | 68   | 36 | 24   | 8   | - / 24 | 2,3     | 15   | 35   | K0344.93                        |
| K0343.01410         | K0343.02410         | 10 | M20x1,5 | 33 | 74   | 40 | 24   | 10  | - / 30 | 2,8     | 15   | 34   | K0344.94                        |
| K0343.01412         | K0343.02412         | 12 | M20x1,5 | 33 | 78   | 42 | 24   | 12  | - / 30 | 2,8     | 15   | 39   | K0344.94                        |
| K0343.01516         | K0343.02516         | 16 | M24x2   | 40 | 96   | 50 | 30   | 16  | - / 36 | 3,2     | 20   | 46   | K0344.95                        |

## KIPP Locking bolts without collar, in stainless steel, locking pin not hardened

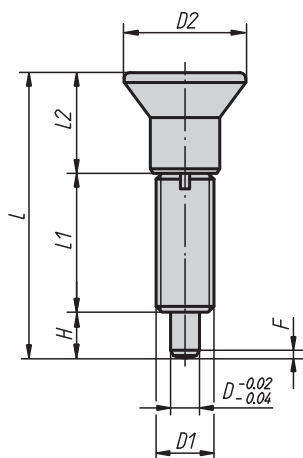
| Order No.<br>Form G | Order No.<br>Form H | D  | D1      | D2 | L    | L1 | L2   | H   | SW     | F x 30° | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N | Order No.<br>screw-in<br>washer |
|---------------------|---------------------|----|---------|----|------|----|------|-----|--------|---------|--|--|---------------------------------|
| K0343.11903         | K0343.12903         | 3  | M6x0,75 | 14 | 31,5 | 17 | 11   | 3,5 | - / 10 | 0,8     | 4,5  | 10   | K0344.99                        |
| K0343.11004         | K0343.12004         | 4  | M8x1    | 18 | 38,5 | 21 | 13,5 | 4   | - / 13 | 1,3     | 6  | 12   | K0344.90                        |
| K0343.11105         | K0343.12105         | 5  | M10x1   | 21 | 43,5 | 24 | 14,5 | 5   | - / 17 | 1,3     | 5  | 12   | K0344.91                        |
| K0343.11206         | K0343.12206         | 6  | M12x1,5 | 25 | 51,7 | 28 | 17,7 | 6   | - / 19 | 1,8     | 6  | 14   | K0344.92                        |
| K0343.11308         | K0343.12308         | 8  | M16x1,5 | 33 | 68   | 36 | 24   | 8   | - / 24 | 2,3     | 15   | 35   | K0344.93                        |
| K0343.11410         | K0343.12410         | 10 | M20x1,5 | 33 | 74   | 40 | 24   | 10  | - / 30 | 2,8     | 15   | 34   | K0344.94                        |
| K0343.11412         | K0343.12412         | 12 | M20x1,5 | 33 | 78   | 42 | 24   | 12  | - / 30 | 2,8     | 15   | 39   | K0344.94                        |
| K0343.11516         | K0343.12516         | 16 | M24x2   | 40 | 96   | 50 | 30   | 16  | - / 36 | 3,2     | 20   | 46   | K0344.95                        |

# Locking bolts

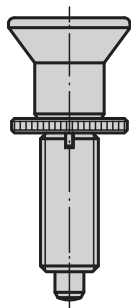
without collar with extended locking pin



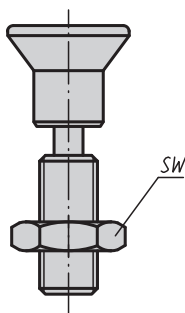
Form G  
without locking nut



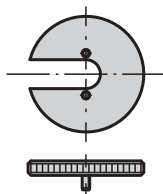
Locking bolt  
with screw-in washer



Form H  
with locking nut



screw-in washer



## Material:

- Steel version, locking pin hardened: quality class 5.8.
- Stainless steel version, locking pin hardened: threaded sleeve 1.4305. Locking pin 1.4034.
- Stainless steel version, locking pin not hardened: threaded sleeve 1.4305. Locking pin 1.4305.

Mushroom knob in anthracite grey thermoplastic.

## Surface finish:

- Steel version, locking pin hardened: black oxide finish, locking pin ground.
- Stainless steel version, locking pin hardened: natural finish, locking pin ground.
- Stainless steel version, locking pin not hardened: natural finish, locking pin ground.

## Sample order:

K0633.21004

## Note:

Locking bolts are used to prevent any change in locking position due to lateral forces. A new locking position can only be set after the bolt has been manually disengaged.

In order to screw in the locking bolts, a screw-in washer can be supplied. The washer is slid beneath the disengaged mushroom knob so that the follower pins engage in the slot.

## On request:

Special versions.

# Locking bolts

without collar with extended locking pin

## KIPP Locking bolts without collar with extended locking pin, in steel, locking pin hardened

| Order No.<br>Form G | Order No.<br>Form H | D  | D1      | D2 | L    | L1 | L2   | H  | SW     | F x 30° | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N | Order No.<br>screw-in washer |
|---------------------|---------------------|----|---------|----|------|----|------|----|--------|---------|--|--|------------------------------|
| K0633.21903         | K0633.22903         | 3  | M6x0,75 | 14 | 33   | 17 | 11   | 5  | - / 10 | 0,8     | 4,5  | 12   | K0344.99                     |
| K0633.21004         | K0633.22004         | 4  | M8x1    | 18 | 40,5 | 21 | 13,5 | 6  | - / 13 | 1       | 6  | 15   | K0344.90                     |
| K0633.21105         | K0633.22105         | 5  | M10x1   | 21 | 46,5 | 24 | 14,5 | 8  | - / 17 | 1,3     | 5  | 16   | K0344.91                     |
| K0633.21206         | K0633.22206         | 6  | M12x1,5 | 25 | 54,7 | 28 | 17,7 | 9  | - / 19 | 1,8     | 6  | 18   | K0344.92                     |
| K0633.21308         | K0633.22308         | 8  | M16x1,5 | 33 | 72   | 36 | 24   | 12 | - / 24 | 2,3     | 15   | 45   | K0344.93                     |
| K0633.21410         | K0633.22410         | 10 | M20x1,5 | 33 | 79   | 40 | 24   | 15 | - / 30 | 2,8     | 15   | 43   | K0344.94                     |
| K0633.21412         | K0633.22412         | 12 | M20x1,5 | 33 | 84   | 42 | 24   | 18 | - / 30 | 2,8     | 15   | 51   | K0344.94                     |
| K0633.21516         | K0633.22516         | 16 | M24x2   | 40 | 104  | 50 | 30   | 24 | - / 36 | 3,2     | 20   | 60   | K0344.95                     |

## KIPP Locking bolts without collar with extended locking pin, in stainless steel, locking pin hardened

| Order No.<br>Form G | Order No.<br>Form H | D  | D1      | D2 | L    | L1 | L2   | H  | SW     | F x 30° | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N | Order No.<br>screw-in washer |
|---------------------|---------------------|----|---------|----|------|----|------|----|--------|---------|--|--|------------------------------|
| K0633.201903        | K0633.202903        | 3  | M6x0,75 | 14 | 33   | 17 | 11   | 5  | - / 10 | 0,8     | 4,5  | 12   | K0344.99                     |
| K0633.201004        | K0633.202004        | 4  | M8x1    | 18 | 40,5 | 21 | 13,5 | 6  | - / 13 | 1       | 6  | 15   | K0344.90                     |
| K0633.201105        | K0633.202105        | 5  | M10x1   | 21 | 46,5 | 24 | 14,5 | 8  | - / 17 | 1,3     | 5  | 16   | K0344.91                     |
| K0633.201206        | K0633.202206        | 6  | M12x1,5 | 25 | 54,7 | 28 | 17,7 | 9  | - / 19 | 1,8     | 6  | 18   | K0344.92                     |
| K0633.201308        | K0633.202308        | 8  | M16x1,5 | 33 | 72   | 36 | 24   | 12 | - / 24 | 2,3     | 15   | 45   | K0344.93                     |
| K0633.201410        | K0633.202410        | 10 | M20x1,5 | 33 | 79   | 40 | 24   | 15 | - / 30 | 2,8     | 15   | 43   | K0344.94                     |
| K0633.201412        | K0633.202412        | 12 | M20x1,5 | 33 | 84   | 42 | 24   | 18 | - / 30 | 2,8     | 15   | 51   | K0344.94                     |
| K0633.201516        | K0633.202516        | 16 | M24x2   | 40 | 104  | 50 | 30   | 24 | - / 36 | 3,2     | 20   | 60   | K0344.95                     |

## KIPP Locking bolts without collar with extended locking pin, in stainless steel, locking pin not hardened

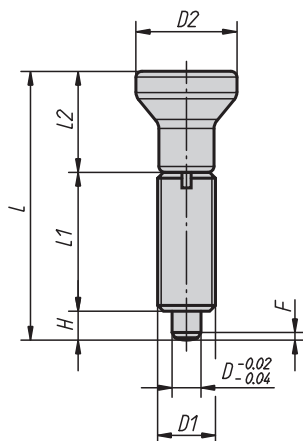
| Order No.<br>Form G | Order No.<br>Form H | D  | D1      | D2 | L    | L1 | L2   | H  | SW     | F x 30° | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N | Order No.<br>screw-in washer |
|---------------------|---------------------|----|---------|----|------|----|------|----|--------|---------|--|--|------------------------------|
| K0633.211903        | K0633.212903        | 3  | M6x0,75 | 14 | 33   | 17 | 11   | 5  | - / 10 | 0,8     | 4,5  | 12   | K0344.99                     |
| K0633.211004        | K0633.212004        | 4  | M8x1    | 18 | 40,5 | 21 | 13,5 | 6  | - / 13 | 1       | 6  | 15   | K0344.90                     |
| K0633.211105        | K0633.212105        | 5  | M10x1   | 21 | 46,5 | 24 | 14,5 | 8  | - / 17 | 1,3     | 5  | 16   | K0344.91                     |
| K0633.211206        | K0633.212206        | 6  | M12x1,5 | 25 | 54,7 | 28 | 17,7 | 9  | - / 19 | 1,8     | 6  | 18   | K0344.92                     |
| K0633.211308        | K0633.212308        | 8  | M16x1,5 | 33 | 72   | 36 | 24   | 12 | - / 24 | 2,3     | 15   | 45   | K0344.93                     |
| K0633.211410        | K0633.212410        | 10 | M20x1,5 | 33 | 79   | 40 | 24   | 15 | - / 30 | 2,8     | 15   | 43   | K0344.94                     |
| K0633.211412        | K0633.212412        | 12 | M20x1,5 | 33 | 84   | 42 | 24   | 18 | - / 30 | 2,8     | 15   | 51   | K0344.94                     |
| K0633.211516        | K0633.212516        | 16 | M24x2   | 40 | 104  | 50 | 30   | 24 | - / 36 | 3,2     | 20   | 60   | K0344.95                     |

## Locking bolts

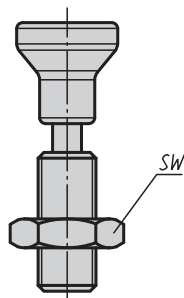
in stainless steel without collar



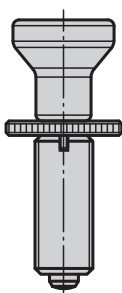
Form G  
without locking nut



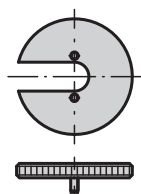
Form H  
with locking nut



Locking Bolt  
with screw-in washer



screw-in washer



**Material:**

- Locking pin hardened:  
threaded sleeve 1.4305.  
Locking pin 1.4034.
- Locking pin not hardened:  
threaded sleeve 1.4305.  
Locking pin 1.4305.

Mushroom knob 1.4305, electrolytic-polish.

**Surface finish:**

Natural finish.  
Locking pin ground.

**Sample order:**

K0634.001004

**Note:**

Locking bolts are used to prevent any change in locking position due to lateral forces. A new locking position can only be set after the bolt has been manually disengaged.

In order to screw in the locking bolts, a screw-in washer can be supplied. The washer is slid beneath the disengaged mushroom knob so that the follower pins engage in the slot.

**On request:**

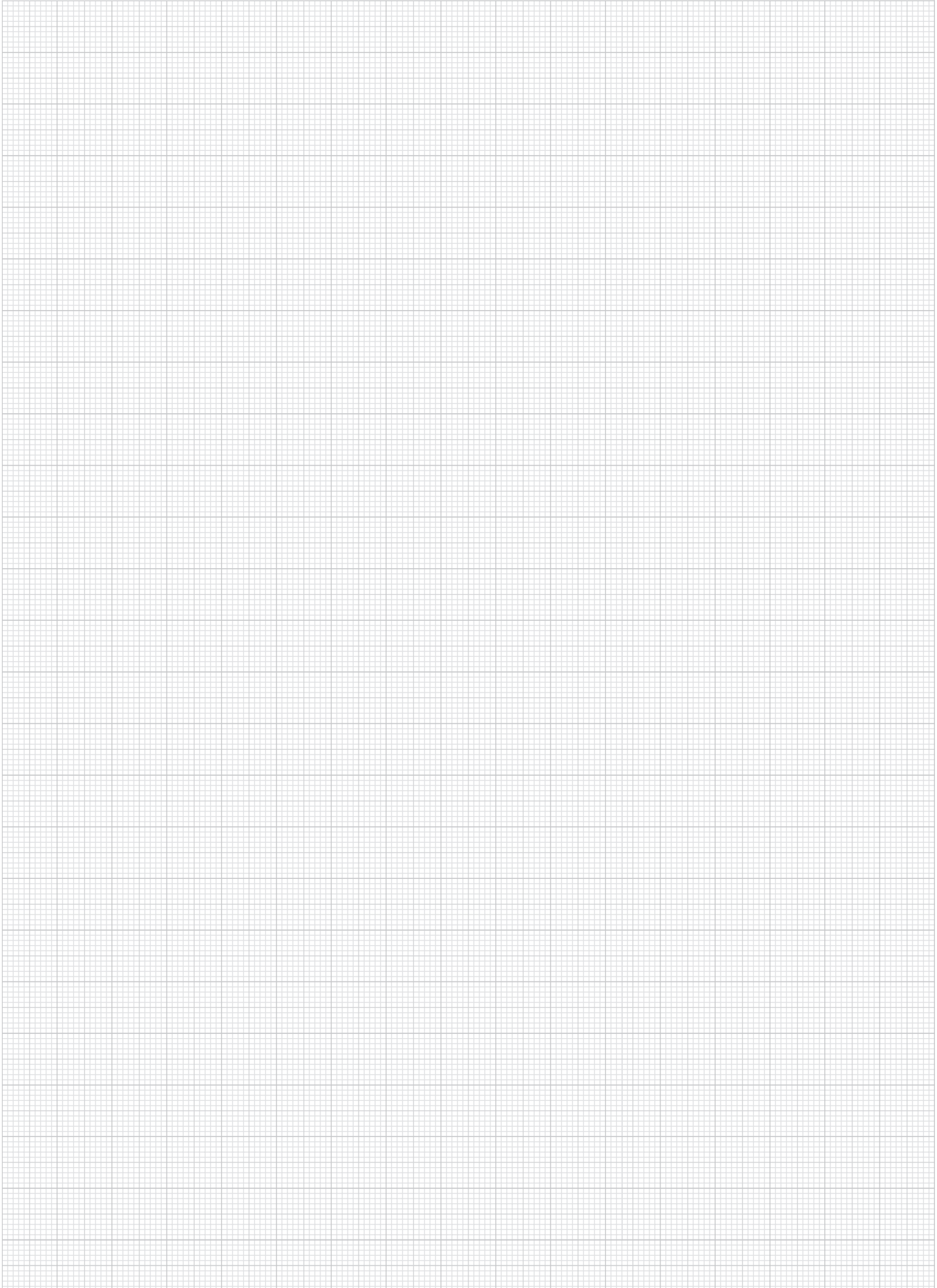
Special versions.

### KIPP Locking bolts in stainless steel, without collar, locking pin hardened

| Order No.<br>Form G | Order No.<br>Form H | D  | D1      | D2 | L    | L1 | L2 | H   | SW     | F x 30° | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N | Order No.<br>screw-in<br>washer |
|---------------------|---------------------|----|---------|----|------|----|----|-----|--------|---------|--|--|---------------------------------|
| K0634.001903        | K0634.002903        | 3  | M6x0,75 | 14 | 34,5 | 17 | 14 | 3,5 | - / 10 | 0,8     | 4,5  | 10   | K0344.99                        |
| K0634.001004        | K0634.002004        | 4  | M8x1    | 18 | 43   | 21 | 18 | 4   | - / 13 | 1       | 6  | 12   | K0344.90                        |
| K0634.001105        | K0634.002105        | 5  | M10x1   | 21 | 50   | 24 | 21 | 5   | - / 17 | 1,3     | 5  | 12   | K0344.91                        |
| K0634.001206        | K0634.002206        | 6  | M12x1,5 | 25 | 59   | 28 | 25 | 6   | - / 19 | 1,8     | 6  | 14   | K0344.92                        |
| K0634.001308        | K0634.002308        | 8  | M16x1,5 | 33 | 77   | 36 | 33 | 8   | - / 24 | 2,3     | 15   | 35   | K0344.93                        |
| K0634.001410        | K0634.002410        | 10 | M20x1,5 | 33 | 83   | 40 | 33 | 10  | - / 30 | 2,8     | 15   | 34   | K0344.94                        |
| K0634.001412        | K0634.002412        | 12 | M20x1,5 | 33 | 87   | 42 | 33 | 12  | - / 30 | 2,8     | 15   | 39   | K0344.94                        |
| K0634.001516        | K0634.002516        | 16 | M24x2   | 40 | 106  | 50 | 40 | 16  | - / 36 | 3,2     | 20   | 46   | K0344.95                        |

### KIPP Locking bolts in stainless steel, without collar, locking pin not hardened

| Order No.<br>Form G | Order No.<br>Form H | D  | D1      | D2 | L    | L1 | L2 | H   | SW     | F x 30° | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N | Order No.<br>screw-in<br>washer |
|---------------------|---------------------|----|---------|----|------|----|----|-----|--------|---------|--|--|---------------------------------|
| K0634.111903        | K0634.112903        | 3  | M6x0,75 | 14 | 34,5 | 17 | 14 | 3,5 | - / 10 | 0,8     | 4,5  | 10   | K0344.99                        |
| K0634.111004        | K0634.112004        | 4  | M8x1    | 18 | 43   | 21 | 18 | 4   | - / 13 | 1       | 6  | 12   | K0344.90                        |
| K0634.111105        | K0634.112105        | 5  | M10x1   | 21 | 50   | 24 | 21 | 5   | - / 17 | 1,3     | 5  | 12   | K0344.91                        |
| K0634.111206        | K0634.112206        | 6  | M12x1,5 | 25 | 59   | 28 | 25 | 6   | - / 19 | 1,8     | 6  | 14   | K0344.92                        |
| K0634.111308        | K0634.112308        | 8  | M16x1,5 | 33 | 77   | 36 | 33 | 8   | - / 24 | 2,3     | 15   | 35   | K0344.93                        |
| K0634.111410        | K0634.112410        | 10 | M20x1,5 | 33 | 83   | 40 | 33 | 10  | - / 30 | 2,8     | 15   | 34   | K0344.94                        |
| K0634.111412        | K0634.112412        | 12 | M20x1,5 | 33 | 87   | 42 | 33 | 12  | - / 30 | 2,8     | 15   | 39   | K0344.94                        |
| K0634.111516        | K0634.112516        | 16 | M24x2   | 40 | 106  | 50 | 40 | 16  | - / 36 | 3,2     | 20   | 46   | K0344.95                        |



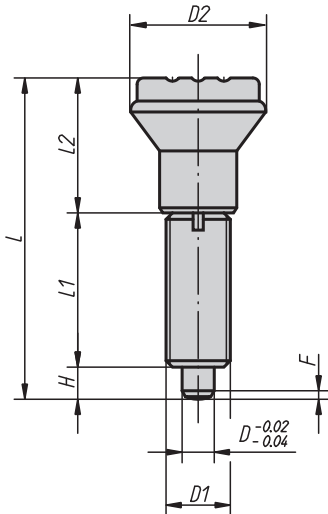


## Locking bolts

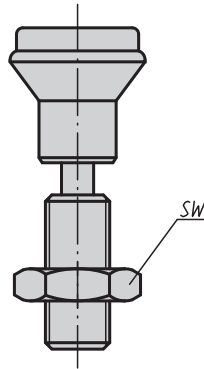
without collar



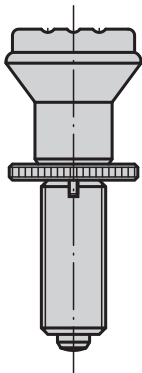
Form G  
without locking nut



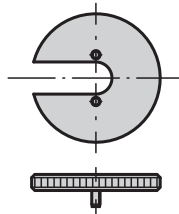
Form H  
with locking nut



Locking bolt  
with screw-in washer



screw-in washer



**Material:**

- Steel version, locking pin hardened: quality class 5.8.
- Stainless steel version, locking pin hardened: threaded sleeve 1.4305. Locking pin 1.4304.
- Stainless steel version, locking pin not hardened: threaded sleeve 1.4305. Locking pin 1.4305.

Mushroom knob in anthracite grey thermoplastic.

**Surface finish:**

- Steel version, locking pin hardened: black oxide finish, locking pin ground.
- Stainless steel version, locking pin hardened: natural finish, locking pin ground.
- Stainless steel version, locking pin not hardened: natural finish, locking pin ground.

**Sample order:**

K0344.02206

**Note:**

Locking bolts are used to prevent any change in locking position due to lateral forces. A new locking position can only be set after the bolt has been manually disengaged.

In order to screw in the locking bolts, a screw-in washer can be supplied. The washer is slid beneath the disengaged mushroom knob so that the follower pins engage in the slot.

**On request:**

Special versions.

# Locking bolts

without collar

## KIPP Locking bolts without collar, in steel, locking pin hardened

| Order No.<br>Form G | Order No.<br>Form H | D  | D1      | D2 | L  | L1 | L2 | H  | SW   | F x 30° | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N | Order No.<br>screw-in washer |
|---------------------|---------------------|----|---------|----|----|----|----|----|------|---------|--|--|------------------------------|
| K0344.1105          | K0344.2105          | 5  | M10x1   | 21 | 47 | 24 | 18 | 5  | -/17 | 1,3     | 5  | 12   | K0344.91                     |
| K0344.1206          | K0344.2206          | 6  | M12x1,5 | 25 | 56 | 28 | 22 | 6  | -/19 | 1,8     | 6  | 14   | K0344.92                     |
| K0344.1308          | K0344.2308          | 8  | M16x1,5 | 33 | 74 | 36 | 30 | 8  | -/24 | 2,3     | 15   | 35   | K0344.93                     |
| K0344.1410          | K0344.2410          | 10 | M20x1,5 | 33 | 80 | 40 | 30 | 10 | -/30 | 2,8     | 15   | 34   | K0344.94                     |

## KIPP Locking bolts without collar, in stainless steel, locking pin hardened

| Order No.<br>Form G | Order No.<br>Form H | D  | D1      | D2 | L  | L1 | L2 | H  | SW   | F x 30° | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N | Order No.<br>screw-in washer |
|---------------------|---------------------|----|---------|----|----|----|----|----|------|---------|--|--|------------------------------|
| K0344.01105         | K0344.02105         | 5  | M10x1   | 21 | 47 | 24 | 18 | 5  | -/17 | 1,3     | 5  | 12   | K0344.91                     |
| K0344.01206         | K0344.02206         | 6  | M12x1,5 | 25 | 56 | 28 | 22 | 6  | -/19 | 1,8     | 6  | 14   | K0344.92                     |
| K0344.01308         | K0344.02308         | 8  | M16x1,5 | 33 | 74 | 36 | 30 | 8  | -/24 | 2,3     | 15   | 35   | K0344.93                     |
| K0344.01410         | K0344.02410         | 10 | M20x1,5 | 33 | 80 | 40 | 30 | 10 | -/30 | 2,8     | 15   | 34   | K0344.94                     |

## KIPP Locking bolts without collar, in stainless steel, locking pin not hardened

| Order No.<br>Form G | Order No.<br>Form H | D  | D1      | D2 | L  | L1 | L2 | H  | SW   | F x 30° | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N | Order No.<br>screw-in washer |
|---------------------|---------------------|----|---------|----|----|----|----|----|------|---------|--|--|------------------------------|
| K0344.11105         | K0344.12105         | 5  | M10x1   | 21 | 47 | 24 | 18 | 5  | -/17 | 1,3     | 5  | 12   | K0344.91                     |
| K0344.11206         | K0344.12206         | 6  | M12x1,5 | 25 | 56 | 28 | 22 | 6  | -/19 | 1,8     | 6  | 14   | K0344.92                     |
| K0344.11308         | K0344.12308         | 8  | M16x1,5 | 33 | 74 | 36 | 30 | 8  | -/24 | 2,3     | 15   | 35   | K0344.93                     |
| K0344.11410         | K0344.12410         | 10 | M20x1,5 | 33 | 80 | 40 | 30 | 10 | -/30 | 2,8     | 15   | 34   | K0344.94                     |

## Locking bolts

without collar



**Material:**

- Steel version, locking pin hardened: quality class 5.8.
- Stainless steel version, locking pin hardened: threaded sleeve 1.4305. Locking pin 1.4034.
- Stainless steel version, locking pin not hardened: threaded sleeve 1.4305. Locking pin 1.4305.

**Surface finish:**

- Steel version, locking pin hardened: black oxide finish, locking pin ground.
- Stainless steel version, locking pin hardened: natural finish, locking pin ground.
- Stainless steel version, locking pin not hardened: natural finish, locking pin ground.

**Sample order:**

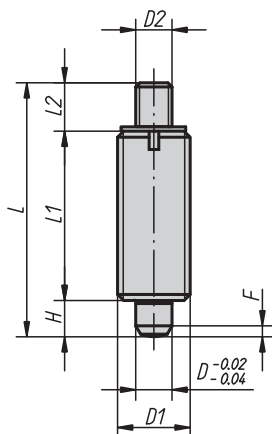
K0345.01206

**Note:**

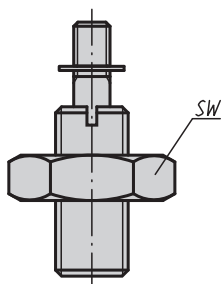
Locking bolts are used to prevent any change in locking position due to lateral forces. A new locking position can only be set after the bolt has been disengaged. Special grips can be fitted on the projecting threaded pin. This pin is also suitable for actuation of the locking bolt, for example automatically (programme-controlled) with the aid of a pneumatic cylinder or actuation by remote control with bowden cables. In order to screw in the locking bolts, a screw-in washer can be supplied. The washer is put on the threaded sleeve so that the follower pins engage in the slot.

**On request:**

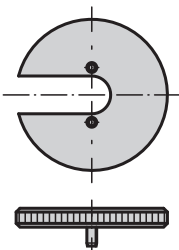
Special versions.



Form J  
with threaded pin  
without locking nut



Form K  
with threaded pin  
with locking nut



screw-in washer

# Locking bolts

without collar

## KIPP Locking bolts without collar, in steel, locking pin hardened

| Order No.<br>Form J | Order No.<br>Form K | D  | D1      | D2  | L  | L1 | L2  | H   | SW     | F x 30° | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N | Order No.<br>screw-in washer |
|---------------------|---------------------|----|---------|-----|----|----|-----|-----|--------|---------|--|--|------------------------------|
| K0345.1903          | K0345.2903          | 3  | M6x0,75 | M2  | 24 | 17 | 3,5 | 3,5 | - / 10 | 0,8     | 4,5  | 9  | K0344.99                     |
| K0345.1004          | K0345.2004          | 4  | M8x1    | M3  | 32 | 21 | 7   | 4   | - / 13 | 1       | 6  | 12   | K0344.90                     |
| K0345.1105          | K0345.2105          | 5  | M10x1   | M4  | 37 | 24 | 8   | 5   | - / 17 | 1,3     | 5  | 12   | K0344.91                     |
| K0345.1206          | K0345.2206          | 6  | M12x1,5 | M6  | 42 | 28 | 8   | 6   | - / 19 | 1,8     | 6  | 14   | K0344.92                     |
| K0345.1308          | K0345.2308          | 8  | M16x1,5 | M8  | 56 | 36 | 12  | 8   | - / 24 | 2,3     | 15   | 35   | K0344.93                     |
| K0345.1410          | K0345.2410          | 10 | M20x1,5 | M8  | 62 | 40 | 12  | 10  | - / 30 | 2,8     | 15   | 34   | K0344.94                     |
| K0345.1412          | K0345.2412          | 12 | M20x1,5 | M8  | 66 | 42 | 12  | 12  | - / 30 | 2,8     | 15   | 39   | K0344.94                     |
| K0345.1516          | K0345.2516          | 16 | M24x2   | M10 | 80 | 50 | 14  | 16  | - / 36 | 3,2     | 20   | 46   | K0344.95                     |

## KIPP Locking bolts without collar, in stainless steel, locking pin hardened

| Order No.<br>Form J | Order No.<br>Form K | D  | D1      | D2  | L  | L1 | L2  | H   | SW     | F x 30° | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N | Order No.<br>screw-in washer |
|---------------------|---------------------|----|---------|-----|----|----|-----|-----|--------|---------|--|--|------------------------------|
| K0345.01903         | K0345.02903         | 3  | M6x0,75 | M2  | 24 | 17 | 3,5 | 3,5 | - / 10 | 0,8     | 4,5  | 9  | K0344.99                     |
| K0345.01004         | K0345.02004         | 4  | M8x1    | M3  | 32 | 21 | 7   | 4   | - / 13 | 1       | 6  | 12   | K0344.90                     |
| K0345.01105         | K0345.02105         | 5  | M10x1   | M4  | 37 | 24 | 8   | 5   | - / 17 | 1,3     | 5  | 12   | K0344.91                     |
| K0345.01206         | K0345.02206         | 6  | M12x1,5 | M6  | 42 | 28 | 8   | 6   | - / 19 | 1,8     | 6  | 14   | K0344.92                     |
| K0345.01308         | K0345.02308         | 8  | M16x1,5 | M8  | 56 | 36 | 12  | 8   | - / 24 | 2,3     | 15   | 35   | K0344.93                     |
| K0345.01410         | K0345.02410         | 10 | M20x1,5 | M8  | 62 | 40 | 12  | 10  | - / 30 | 2,8     | 15   | 34   | K0344.94                     |
| K0345.01412         | K0345.02412         | 12 | M20x1,5 | M8  | 66 | 42 | 12  | 12  | - / 30 | 2,8     | 15   | 39   | K0344.94                     |
| K0345.01516         | K0345.02516         | 16 | M24x2   | M10 | 80 | 50 | 14  | 16  | - / 36 | 3,2     | 20   | 46   | K0344.95                     |

## KIPP Locking bolts without collar, in stainless steel, locking pin not hardened

| Order No.<br>Form J | Order No.<br>Form K | D  | D1      | D2  | L  | L1 | L2  | H   | SW     | F x 30° | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N | Order No.<br>screw-in washer |
|---------------------|---------------------|----|---------|-----|----|----|-----|-----|--------|---------|--|--|------------------------------|
| K0345.11903         | K0345.12903         | 3  | M6x0,75 | M2  | 24 | 17 | 3,5 | 3,5 | - / 10 | 0,8     | 4,5  | 9  | K0344.99                     |
| K0345.11004         | K0345.12004         | 4  | M8x1    | M3  | 32 | 21 | 7   | 4   | - / 13 | 1       | 6  | 12   | K0344.90                     |
| K0345.11105         | K0345.12105         | 5  | M10x1   | M4  | 37 | 24 | 8   | 5   | - / 17 | 1,3     | 5  | 12   | K0344.91                     |
| K0345.11206         | K0345.12206         | 6  | M12x1,5 | M6  | 42 | 28 | 8   | 6   | - / 19 | 1,8     | 6  | 14   | K0344.92                     |
| K0345.11308         | K0345.12308         | 8  | M16x1,5 | M8  | 56 | 36 | 12  | 8   | - / 24 | 2,3     | 15   | 35   | K0344.93                     |
| K0345.11410         | K0345.12410         | 10 | M20x1,5 | M8  | 62 | 40 | 12  | 10  | - / 30 | 2,8     | 15   | 34   | K0344.94                     |
| K0345.11412         | K0345.12412         | 12 | M20x1,5 | M8  | 66 | 42 | 12  | 12  | - / 30 | 2,8     | 15   | 39   | K0344.94                     |
| K0345.11516         | K0345.12516         | 16 | M24x2   | M10 | 80 | 50 | 14  | 16  | - / 36 | 3,2     | 20   | 46   | K0344.95                     |

## Locking bolts

without collar



**Material:**

- Steel version, locking pin hardened: quality class 5.8.
- Stainless steel version, locking pin hardened: threaded sleeve 1.4305. Locking pin 1.4034.
- Stainless steel version, locking pin not hardened: threaded sleeve 1.4305. Locking pin 1.4305.

Key ring 1.4310, natural finish.

**Surface finish:**

- Steel version, locking pin hardened: black oxide finish, locking pin ground.
- Stainless steel version, locking pin hardened: natural finish, locking pin ground.
- Stainless steel version, locking pin not hardened: natural finish, locking pin ground.

**Sample order:**

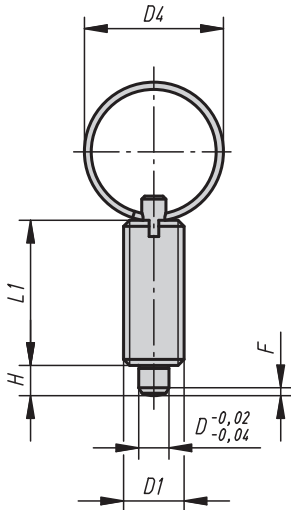
K0635.03206

**Note:**

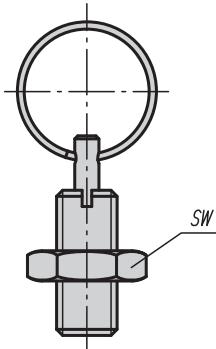
Locking bolts are used to prevent any change in locking position due to lateral forces. A new locking position can only be set after the bolt has been disengaged. The key ring is also suitable for actuation of the locking bolt, for example automatically (programme-controlled) with the aid of a pneumatic cylinder or actuation by remote control with bowden cables. In order to screw in the locking bolts, a screw-in washer can be supplied. The washer is put on the threaded sleeve so that the follower pins engage in the slot.

**On request:**

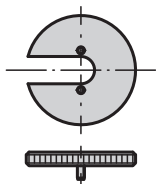
Special versions.



Form T  
without locking nut



Form U  
with locking nut



screw-in washer

# Locking bolts

without collar

## KIPP Locking bolts without collar, in steel, locking pin hardened

| Order No.<br>Form T | Order No.<br>Form U | D  | D1      | D4 | L1 | H  | SW   | F x 30° | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N | Order No.<br>screw-in washer |
|---------------------|---------------------|----|---------|----|----|----|------|---------|--|--|------------------------------|
| K0635.3004          | K0635.4004          | 4  | M8x1    | 15 | 21 | 4  | -/13 | 1       | 6  | 12   | K0344.90                     |
| K0635.3105          | K0635.4105          | 5  | M10x1   | 23 | 24 | 5  | -/17 | 1,3     | 5  | 12   | K0344.91                     |
| K0635.3206          | K0635.4206          | 6  | M12x1,5 | 23 | 28 | 6  | -/19 | 1,8     | 6  | 14   | K0344.92                     |
| K0635.3308          | K0635.4308          | 8  | M16x1,5 | 28 | 36 | 8  | -/24 | 2,3     | 15   | 35   | K0344.93                     |
| K0635.3410          | K0635.4410          | 10 | M20x1,5 | 28 | 40 | 10 | -/30 | 2,8     | 15   | 34   | K0344.94                     |

## KIPP Locking bolts without collar, in stainless steel, locking pin hardened

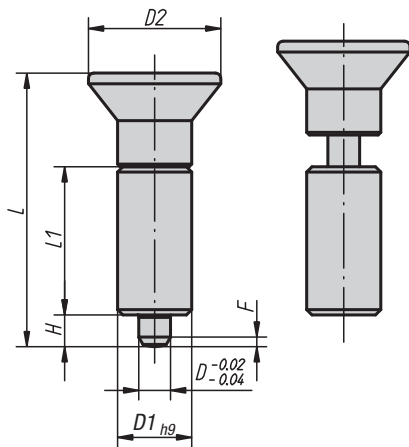
| Order No.<br>Form T | Order No.<br>Form U | D  | D1      | D4 | L1 | H  | SW   | F x 30° | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N | Order No.<br>screw-in washer |
|---------------------|---------------------|----|---------|----|----|----|------|---------|--|--|------------------------------|
| K0635.03004         | K0635.04004         | 4  | M8x1    | 15 | 21 | 4  | -/13 | 1       | 6  | 12   | K0344.90                     |
| K0635.03105         | K0635.04105         | 5  | M10x1   | 23 | 24 | 5  | -/17 | 1,3     | 5  | 12   | K0344.91                     |
| K0635.03206         | K0635.04206         | 6  | M12x1,5 | 23 | 28 | 6  | -/19 | 1,8     | 6  | 14   | K0344.92                     |
| K0635.03308         | K0635.04308         | 8  | M16x1,5 | 28 | 36 | 8  | -/24 | 2,3     | 15   | 35   | K0344.93                     |
| K0635.03410         | K0635.04410         | 10 | M20x1,5 | 28 | 40 | 10 | -/30 | 2,8     | 15   | 34   | K0344.94                     |

## KIPP Locking bolts without collar, in stainless steel, locking pin not hardened

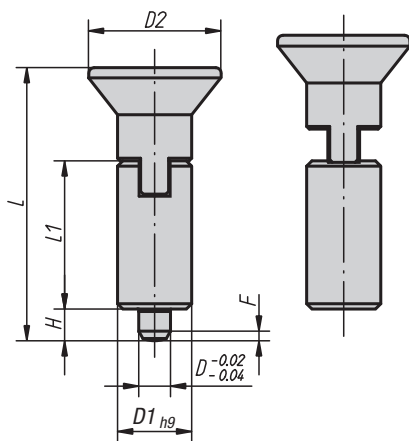
| Order No.<br>Form T | Order No.<br>Form U | D  | D1      | D4 | L1 | H  | SW   | F x 30° | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N | Order No.<br>screw-in washer |
|---------------------|---------------------|----|---------|----|----|----|------|---------|--|--|------------------------------|
| K0635.13004         | K0635.14004         | 4  | M8x1    | 15 | 21 | 4  | -/13 | 1       | 6  | 12   | K0344.90                     |
| K0635.13105         | K0635.14105         | 5  | M10x1   | 23 | 24 | 5  | -/17 | 1,3     | 5  | 12   | K0344.91                     |
| K0635.13206         | K0635.14206         | 6  | M12x1,5 | 23 | 28 | 6  | -/19 | 1,8     | 6  | 14   | K0344.92                     |
| K0635.13308         | K0635.14308         | 8  | M16x1,5 | 28 | 36 | 8  | -/24 | 2,3     | 15   | 35   | K0344.93                     |
| K0635.13410         | K0635.14410         | 10 | M20x1,5 | 28 | 40 | 10 | -/30 | 2,8     | 15   | 34   | K0344.94                     |

# Locking bolts

without collar



Form L  
without locking slot



Form M  
with locking slot

## Material:

- Steel version, locking pin hardened:  
sleeve 1.0403 weldable.  
Locking pin quality class 5.8.
- Stainless steel version, locking pin hardened:  
sleeve 1.4301 weldable.  
Locking pin 1.4034.
- Stainless steel version, locking pin not hardened:  
sleeve 1.4301 weldable.  
Locking pin 1.4305.

Mushroom knob in anthracite grey thermoplastic.

## Surface finish:

- Steel version, locking pin hardened:  
black oxide finish, locking pin ground.
- Stainless steel version, locking pin hardened:  
natural finish, locking pin ground.
- Stainless steel version, locking pin not hardened:  
natural finish, locking pin ground.

## Sample order:

K0346.01206

## Note:

Locking bolts are used to prevent any change in locking position due to lateral forces. A new locking position can only be set after the bolt has been manually disengaged.

Form M is recommended for applications in which gradual disengagement of the locking bolt is desired, without any relocking of the pin.

In order to weld the locking bolts to another surface, we recommend inert gas-shielded welding with MIG welding equipment.

## On request:

Special versions.

# Locking bolts

without collar

## KIPP Locking bolts without collar, in steel, locking pin hardened

| Order No.<br>Form L | Order No.<br>Form M | D  | D1 | D2 | L    | L1 | H  | F x 30° | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N |
|---------------------|---------------------|----|----|----|------|----|----|---------|--|--|
| K0346.1004          | K0346.2004          | 4  | 10 | 18 | 38,5 | 21 | 4  | 1       | 6  | 12   |
| K0346.1105          | K0346.2105          | 5  | 12 | 21 | 43,5 | 24 | 5  | 1,3     | 5  | 12   |
| K0346.1206          | K0346.2206          | 6  | 14 | 25 | 51,7 | 28 | 6  | 1,8     | 6  | 14   |
| K0346.1308          | K0346.2308          | 8  | 18 | 33 | 68   | 36 | 8  | 2,3     | 15   | 35   |
| K0346.1410          | K0346.2410          | 10 | 22 | 33 | 74   | 40 | 10 | 2,8     | 15   | 34   |

## KIPP Locking bolts without collar, in stainless steel, locking pin hardened

| Order No.<br>Form L | Order No.<br>Form M | D  | D1 | D2 | L    | L1 | H  | F x 30° | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N |
|---------------------|---------------------|----|----|----|------|----|----|---------|--|--|
| K0346.01004         | K0346.02004         | 4  | 10 | 18 | 38,5 | 21 | 4  | 1       | 6  | 12   |
| K0346.01105         | K0346.02105         | 5  | 12 | 21 | 43,5 | 24 | 5  | 1,3     | 5  | 12   |
| K0346.01206         | K0346.02206         | 6  | 14 | 25 | 51,7 | 28 | 6  | 1,8     | 6  | 14   |
| K0346.01308         | K0346.02308         | 8  | 18 | 33 | 68   | 36 | 8  | 2,3     | 15   | 35   |
| K0346.01410         | K0346.02410         | 10 | 22 | 33 | 74   | 40 | 10 | 2,8     | 15   | 34   |

## KIPP Locking bolts without collar, in stainless steel, locking pin not hardened

| Order No.<br>Form L | Order No.<br>Form M | D  | D1 | D2 | L    | L1 | H  | F x 30° | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N |
|---------------------|---------------------|----|----|----|------|----|----|---------|--|--|
| K0346.11004         | K0346.12004         | 4  | 10 | 18 | 38,5 | 21 | 4  | 1       | 6  | 12   |
| K0346.11105         | K0346.12105         | 5  | 12 | 21 | 43,5 | 24 | 5  | 1,3     | 5  | 12   |
| K0346.11206         | K0346.12206         | 6  | 14 | 25 | 51,7 | 28 | 6  | 1,8     | 6  | 14   |
| K0346.11308         | K0346.12308         | 8  | 18 | 33 | 68   | 36 | 8  | 2,3     | 15   | 35   |
| K0346.11410         | K0346.12410         | 10 | 22 | 33 | 74   | 40 | 10 | 2,8     | 15   | 34   |



# Locking bolts

without collar



## Material:

- Steel version, locking pin hardened:  
sleeve 1.0403 weldable.  
Locking pin quality class 5.8.
- Stainless steel version, locking pin hardened:  
sleeve 1.4301 weldable.  
Locking pin 1.4034.
- Stainless steel version, locking pin not hardened:  
sleeve 1.4301 weldable.  
Locking pin 1.4305.

Mushroom knob in anthracite grey thermoplastic.

## Surface finish:

- Steel version, locking pin hardened:  
black oxide finish, locking pin ground.
- Stainless steel version, locking pin hardened:  
natural finish, locking pin ground.
- Stainless steel version, locking pin not hardened:  
natural finish, locking pin ground.

## Sample order:

K0347.02206

## Note:

Locking bolts are used to prevent any change in locking position due to lateral forces. A new locking position can only be set after the bolt has been manually disengaged.

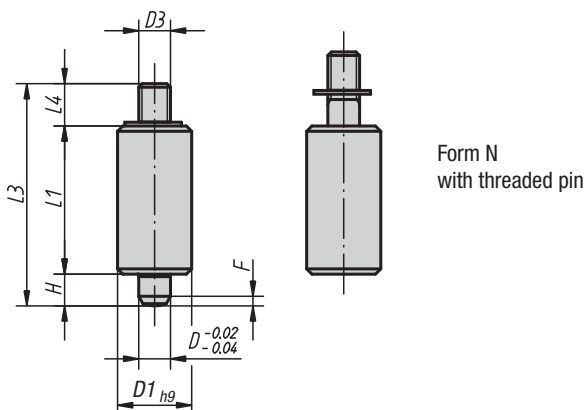
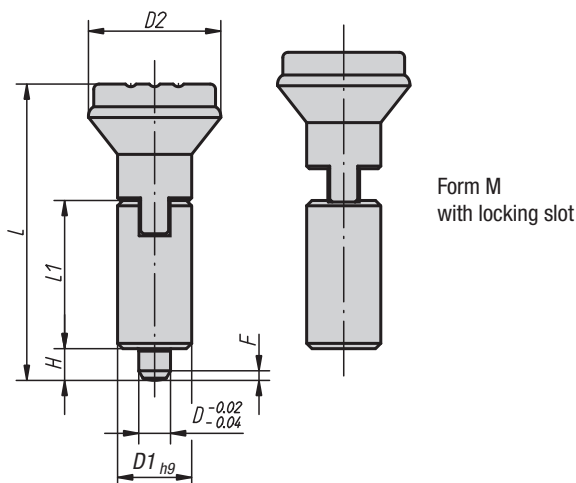
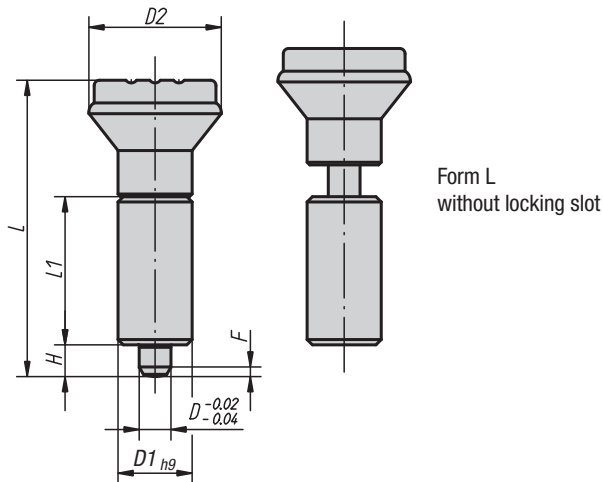
Form M is recommended for applications in which gradual disengagement of the locking bolt is desired, without any relocking of the pin.

Special grips can be fitted on the projecting threaded pin of form N. This pin is also suitable for actuation of the locking bolt, for example automatically (programme-controlled) with the aid of a pneumatic cylinder or actuation by remote control with bowden cables.

In order to weld the locking bolts to another surface, we recommend inert gas-shielded welding with TIG welding equipment.

## On request:

Special versions.



# Locking bolts

without collar



## KIPP Locking bolts without collar, in steel, locking pin hardened

| Order No.<br>Form L | Order No.<br>Form M | Order No.<br>Form N | D  | D1 | D2      | D3    | L       | L1 | L3    | L4    | H  | F x 30° | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N |
|---------------------|---------------------|---------------------|----|----|---------|-------|---------|----|-------|-------|----|---------|--|--|
| K0347.1105          | K0347.2105          | K0347.3105          | 5  | 12 | 21/21/- | -/-M4 | 47/47/- | 24 | -/-37 | -/-8  | 5  | 1,3     | 5  | 12   |
| K0347.1206          | K0347.2206          | K0347.3206          | 6  | 14 | 25/25/- | -/-M6 | 56/56/- | 28 | -/-43 | -/-9  | 6  | 1,8     | 6  | 14   |
| K0347.1308          | K0347.2308          | K0347.3308          | 8  | 18 | 33/33/- | -/-M8 | 74/74/- | 36 | -/-56 | -/-12 | 8  | 2,3     | 15   | 35   |
| K0347.1410          | K0347.2410          | K0347.3410          | 10 | 22 | 33/33/- | -/-M8 | 80/80/- | 40 | -/-62 | -/-12 | 10 | 2,8     | 15   | 34   |

## KIPP Locking bolts without collar, in stainless steel, locking pin hardened

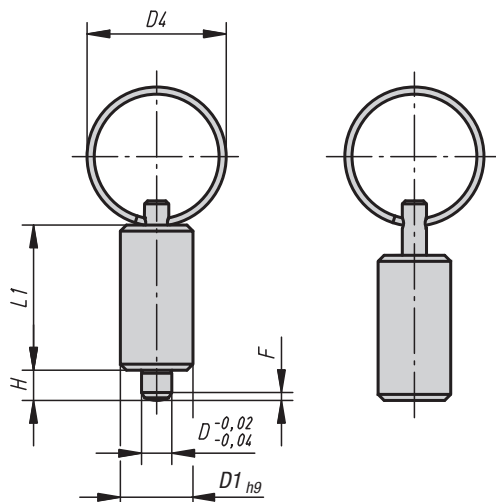
| Order No.<br>Form L | Order No.<br>Form M | Order No.<br>Form N | D  | D1 | D2      | D3    | L       | L1 | L3    | L4    | H  | F x 30° | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N |
|---------------------|---------------------|---------------------|----|----|---------|-------|---------|----|-------|-------|----|---------|--|--|
| K0347.01105         | K0347.02105         | K0347.03105         | 5  | 12 | 21/21/- | -/-M4 | 47/47/- | 24 | -/-37 | -/-8  | 5  | 1,3     | 5  | 12   |
| K0347.01206         | K0347.02206         | K0347.03206         | 6  | 14 | 25/25/- | -/-M6 | 56/56/- | 28 | -/-43 | -/-9  | 6  | 1,8     | 6  | 14   |
| K0347.01308         | K0347.02308         | K0347.03308         | 8  | 18 | 33/33/- | -/-M8 | 74/74/- | 36 | -/-56 | -/-12 | 8  | 2,3     | 15   | 35   |
| K0347.01410         | K0347.02410         | K0347.03410         | 10 | 22 | 33/33/- | -/-M8 | 80/80/- | 40 | -/-62 | -/-12 | 10 | 2,8     | 15   | 34   |

## KIPP Locking bolts without collar, in stainless steel, locking pin not hardened

| Order No.<br>Form L | Order No.<br>Form M | Order No.<br>Form N | D  | D1 | D2      | D3    | L       | L1 | L3    | L4    | H  | F x 30° | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N |
|---------------------|---------------------|---------------------|----|----|---------|-------|---------|----|-------|-------|----|---------|--|--|
| K0347.11105         | K0347.12105         | K0347.13105         | 5  | 12 | 21/21/- | -/-M4 | 47/47/- | 24 | -/-37 | -/-8  | 5  | 1,3     | 5  | 12   |
| K0347.11206         | K0347.12206         | K0347.13206         | 6  | 14 | 25/25/- | -/-M6 | 56/56/- | 28 | -/-43 | -/-9  | 6  | 1,8     | 6  | 14   |
| K0347.11308         | K0347.12308         | K0347.13308         | 8  | 18 | 33/33/- | -/-M8 | 74/74/- | 36 | -/-56 | -/-12 | 8  | 2,3     | 15   | 35   |
| K0347.11410         | K0347.12410         | K0347.13410         | 10 | 22 | 33/33/- | -/-M8 | 80/80/- | 40 | -/-62 | -/-12 | 10 | 2,8     | 15   | 34   |

## Locking bolts

without collar



Form V  
with key ring

### Material:

- Steel version, locking pin hardened:  
sleeve 1.0403 weldable.  
Locking pin quality class 5.8.
- Stainless steel version, locking pin hardened:  
sleeve 1.4301 weldable.  
Locking pin 1.4034.
- Stainless steel version, locking pin not hardened:  
sleeve 1.4301 weldable.  
Locking pin 1.4305.

Key ring 1.4310, natural finish.

### Surface finish:

- Steel version, locking pin hardened:  
black oxide finish, locking pin ground.
- Stainless steel version, locking pin hardened:  
natural finish, locking pin ground.
- Stainless steel version, locking pin not hardened:  
natural finish, locking pin ground.

### Sample order:

K0636.4206

### Note:

Locking bolts are used to prevent any change in locking position due to lateral forces. A new locking position can only be set after the bolt has been disengaged.

The key ring is also suitable for actuation of the locking bolt, for example automatically (programme-controlled) with the aid of a pneumatic cylinder or actuation by remote control with bowden cables.

In order to weld the locking bolts to another surface, we recommend inert gas-shielded welding with TIG welding equipment.

### On request:

Special versions.

### KIPP Locking bolts without collar, in steel, locking pin hardened

| Order No.<br>Form V | D  | D1 | D4 | L1 | H  | F x 30° | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N |
|---------------------|----|----|----|----|----|---------|--|--|
| K0636.4004          | 4  | 10 | 15 | 21 | 4  | 1       | 6  | 12   |
| K0636.4105          | 5  | 12 | 23 | 24 | 5  | 1,3     | 5  | 12   |
| K0636.4206          | 6  | 14 | 23 | 28 | 6  | 1,8     | 6  | 14   |
| K0636.4308          | 8  | 18 | 28 | 36 | 8  | 2,3     | 15   | 35   |
| K0636.4410          | 10 | 22 | 28 | 40 | 10 | 2,8     | 15   | 34   |

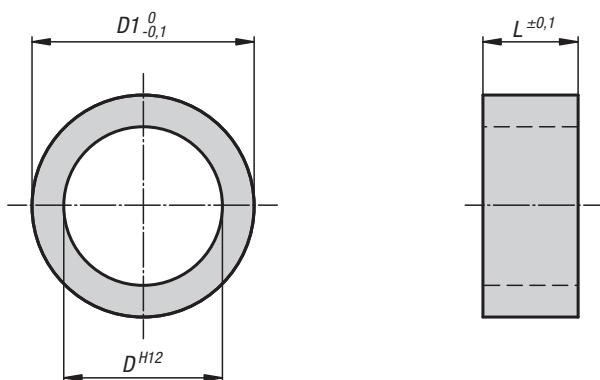
### KIPP Locking bolts without collar, in stainless steel, locking pin hardened

| Order No.<br>Form V | D  | D1 | D4 | L1 | H  | F x 30° | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N |
|---------------------|----|----|----|----|----|---------|--|--|
| K0636.04004         | 4  | 10 | 15 | 21 | 4  | 1       | 6  | 12   |
| K0636.04105         | 5  | 12 | 23 | 24 | 5  | 1,3     | 5  | 12   |
| K0636.04206         | 6  | 14 | 23 | 28 | 6  | 1,8     | 6  | 14   |
| K0636.04308         | 8  | 18 | 28 | 36 | 8  | 2,3     | 15   | 35   |
| K0636.04410         | 10 | 22 | 28 | 40 | 10 | 2,8     | 15   | 34   |

### KIPP Locking bolts without collar, in stainless steel, locking pin not hardened

| Order No.<br>Form V | D  | D1 | D4 | L1 | H  | F x 30° | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N |
|---------------------|----|----|----|----|----|---------|--|--|
| K0636.14004         | 4  | 10 | 15 | 21 | 4  | 1       | 6  | 12   |
| K0636.14105         | 5  | 12 | 23 | 24 | 5  | 1,3     | 5  | 12   |
| K0636.14206         | 6  | 14 | 23 | 28 | 6  | 1,8     | 6  | 14   |
| K0636.14308         | 8  | 18 | 28 | 36 | 8  | 2,3     | 15   | 35   |
| K0636.14410         | 10 | 22 | 28 | 40 | 10 | 2,8     | 15   | 34   |

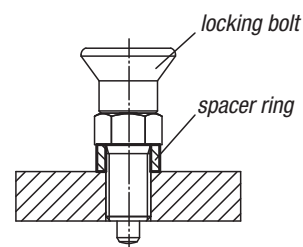
## Spacer rings



**Material, surface finish:**  
Stainless steel, natural finish.

**Sample order:**  
K0665.90811021

**Note:**  
Using the spacer rings, the locking bolt thread lengths can be adjusted to the requisite thread reach (wall thickness).



### KIPP Spacer rings

| Order No.      | D  | D1 | L  | Approx. weight g |
|----------------|----|----|----|------------------|
| K0665.90811021 | 8  | 11 | 2  | 0,6              |
| K0665.90811031 | 8  | 11 | 3  | 0,9              |
| K0665.90811041 | 8  | 11 | 4  | 1,3              |
| K0665.90811061 | 8  | 11 | 6  | 2                |
| K0665.90811081 | 8  | 11 | 8  | 2,6              |
| K0665.91014021 | 10 | 14 | 2  | 1,1              |
| K0665.91014031 | 10 | 14 | 3  | 1,7              |
| K0665.91014041 | 10 | 14 | 4  | 2,2              |
| K0665.91014061 | 10 | 14 | 6  | 3,4              |
| K0665.91014081 | 10 | 14 | 8  | 4,5              |
| K0665.91215021 | 12 | 15 | 2  | 0,9              |
| K0665.91215041 | 12 | 15 | 4  | 1,9              |
| K0665.91215051 | 12 | 15 | 5  | 2,4              |
| K0665.91215061 | 12 | 15 | 6  | 2,8              |
| K0665.91215081 | 12 | 15 | 8  | 3,8              |
| K0665.91217021 | 12 | 17 | 2  | 1,6              |
| K0665.91217041 | 12 | 17 | 4  | 3,4              |
| K0665.91217051 | 12 | 17 | 5  | 4,3              |
| K0665.91217061 | 12 | 17 | 6  | 5,2              |
| K0665.91217081 | 12 | 17 | 8  | 6,9              |
| K0665.91621041 | 16 | 21 | 4  | 4,4              |
| K0665.91621051 | 16 | 21 | 5  | 5,5              |
| K0665.91621061 | 16 | 21 | 6  | 6,6              |
| K0665.91621081 | 16 | 21 | 8  | 8,8              |
| K0665.91621101 | 16 | 21 | 10 | 11               |



## Precision locking bolts

with tapered support



**Material:**

Steel.  
Grip ball thermoplastic.

**Surface finish:**

Hardened and ground.  
Grip ball anthracite grey.

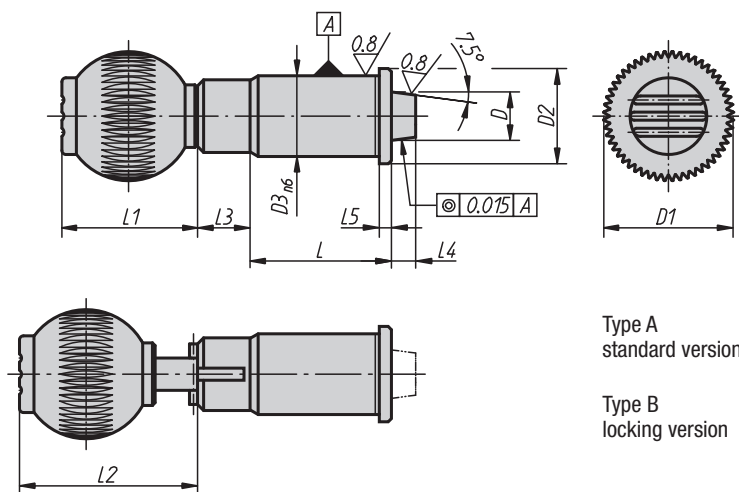
**Sample order:**

K0359.020

**Note:**

The locking bolts with sleeves are a perfect combination for rapid positioning and fixing. The precise finish of both the locking bolt and the sleeve guarantees high repeating accuracy when assembling two elements.

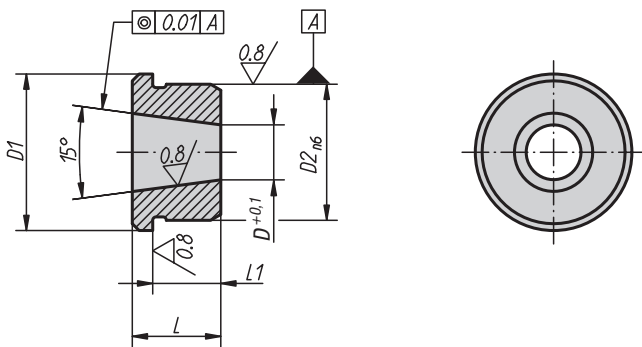
Technical Information see assembly and installation instructions.



### KIPP Precision locking bolts with tapered support

| Order No.<br>Type A | Order No.<br>Type B | D  | D1 | D2 | D3 | L  | L1   | L2     | L3 | L4<br>min. | L5  | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N | Internal<br>thread<br>Grip Ball | Approx.<br>weight<br>kg |
|---------------------|---------------------|----|----|----|----|----|------|--------|----|------------|-----|--|--|---------------------------------|-------------------------|
| K0359.010           | K0359.110           | 10 | 25 | 19 | 16 | 31 | 25   | -/32,5 | 13 | 6          | 2,5 | 19   | 29   | M6                              | 0,067                   |
| K0359.012           | K0359.112           | 12 | 32 | 23 | 20 | 35 | 33   | -/40,5 | 13 | 6          | 3   | 22   | 35   | M8                              | 0,127                   |
| K0359.016           | K0359.116           | 16 | 40 | 28 | 25 | 42 | 41,5 | -/49   | 13 | 6          | 3   | 30   | 50   | M10                             | 0,221                   |
| K0359.020           | K0359.120           | 20 | 40 | 33 | 30 | 50 | 41,5 | -/49   | 13 | 6          | 3   | 46   | 63   | M10                             | 0,350                   |
| K0359.025           | K0359.125           | 25 | 50 | 42 | 38 | 60 | 51   | -/58,5 | 13 | 6          | 3   | 39   | 73   | M10                             | 0,655                   |

## Tapered sleeves



**Material:**

Steel.

**Surface finish:**

Hardened and ground.

**Sample order:**

K0360.20

**Note:**

Sleeves suitable for precision locking bolts K0359.

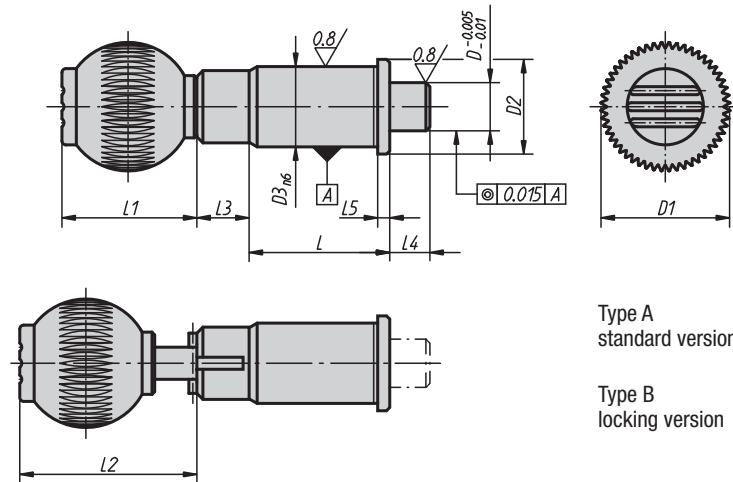


### KIPP Tapered sleeves

| Order No. | D     | D1 | D2 | L  | L1  | Approx. weight kg |
|-----------|-------|----|----|----|-----|-------------------|
| K0360.10  | 7,1   | 19 | 16 | 11 | 8,5 | 0,013             |
| K0360.12  | 8,28  | 23 | 20 | 13 | 10  | 0,021             |
| K0360.16  | 11,52 | 28 | 25 | 17 | 14  | 0,048             |
| K0360.20  | 15,49 | 33 | 30 | 16 | 13  | 0,056             |
| K0360.25  | 19,7  | 42 | 38 | 19 | 16  | 0,115             |

## Precision locking bolts

with cylindrical support



Type A  
standard version

Type B  
locking version

**Material:**

Steel.  
Grip ball thermoplastic.

**Surface finish:**

Hardened and ground.  
Grip ball anthracite grey.

**Sample order:**

K0361.020

**Note:**

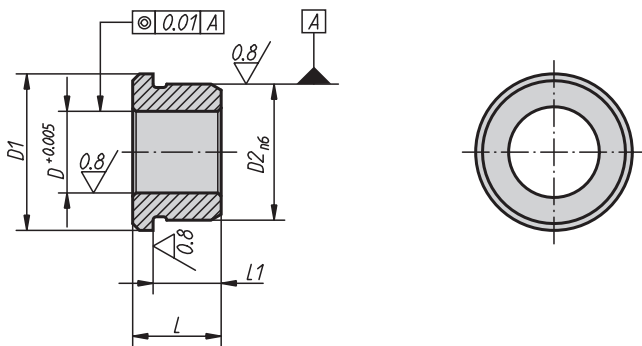
The locking bolts with sleeves are a perfect combination for rapid positioning and fixing. The precise finish of both the locking bolt and the sleeve guarantees high repeating accuracy when assembling two elements.

Technical Information see assembly and installation instructions.

### KIPP Precision locking bolts with cylindrical support

| Order No.<br>Type A | Order No.<br>Type B | D  | D1 | D2 | D3 | L  | L1   | L2     | L3 | L4<br>min. | L5  | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N | Internal<br>thread<br>Grip Ball | Approx.<br>weight<br>kg |
|---------------------|---------------------|----|----|----|----|----|------|--------|----|------------|-----|--|--|---------------------------------|-------------------------|
| K0361.010           | K0361.110           | 10 | 25 | 19 | 16 | 31 | 25   | -/36,5 | 13 | 10         | 2,5 | 15   | 30   | M6                              | 0,067                   |
| K0361.012           | K0361.112           | 12 | 32 | 23 | 20 | 35 | 33   | -/44,5 | 13 | 10         | 3   | 15   | 35   | M8                              | 0,127                   |
| K0361.016           | K0361.116           | 16 | 40 | 28 | 25 | 42 | 41,5 | -/53   | 13 | 10         | 3   | 20   | 50   | M10                             | 0,221                   |
| K0361.020           | K0361.120           | 20 | 40 | 33 | 30 | 50 | 41,5 | -/53   | 13 | 10         | 3   | 36   | 63   | M10                             | 0,350                   |
| K0361.025           | K0361.125           | 25 | 50 | 42 | 38 | 60 | 51   | -/62,5 | 13 | 10         | 3   | 20   | 73   | M10                             | 0,655                   |

## Cylindrical sleeves

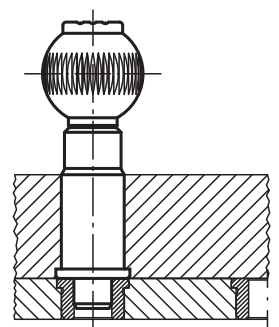


**Material:**  
Steel.

**Surface finish:**  
Hardened and ground.

**Sample order:**  
K0362.20

**Note:**  
Sleeves suitable for precision locking bolts K0361.



### KIPP Cylindrical sleeves

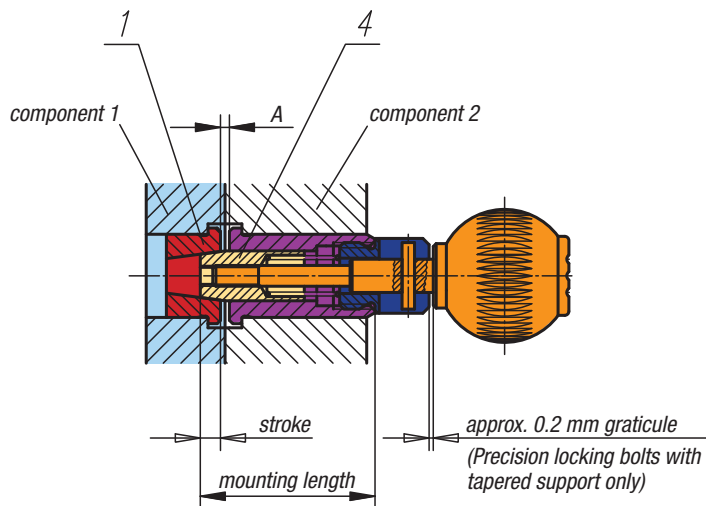
| Order No. | D  | D1 | D2 | L  | L1  | Approx. weight kg |
|-----------|----|----|----|----|-----|-------------------|
| K0362.10  | 10 | 19 | 16 | 11 | 8,5 | 0,012             |
| K0362.12  | 12 | 23 | 20 | 13 | 10  | 0,015             |
| K0362.16  | 16 | 28 | 25 | 17 | 14  | 0,041             |
| K0362.20  | 20 | 33 | 30 | 16 | 13  | 0,045             |
| K0362.25  | 25 | 42 | 38 | 19 | 16  | 0,100             |



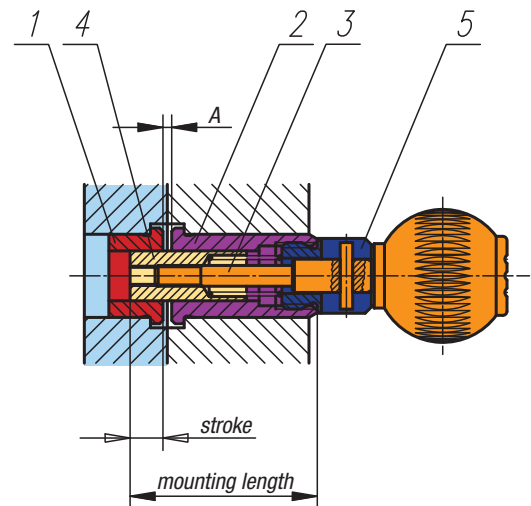
# Assembly and installation instructions for precision locking bolts



## Precision locking bolts with tapered support



## Precision locking bolts with cylindrical support



### Assembly instructions:

1. Fit tapered or cylindrical sleeve (No. 1) into component 1.
2. Fit sleeve (No. 2) into component 2.
3. Determine the mounting length (actual dimension). Mounting length =  $A + \text{stroke} + \text{length of No. 2}$ . Note the graticule of 0.2 mm with models with tapered support.
4. Glue threaded bolt (No. 3) and centering pin (No. 4) together grease-free with anaerobic adhesive. We recommend Loctite 638.
5. Screw centering pin with nut (No. 4) and handle into the mounted sleeve (No. 2). If necessary glue together grease-free with anaerobic adhesive.
6. Check whether the product is operational. Adhere to the release stroke in the catalogue with locking device versions.

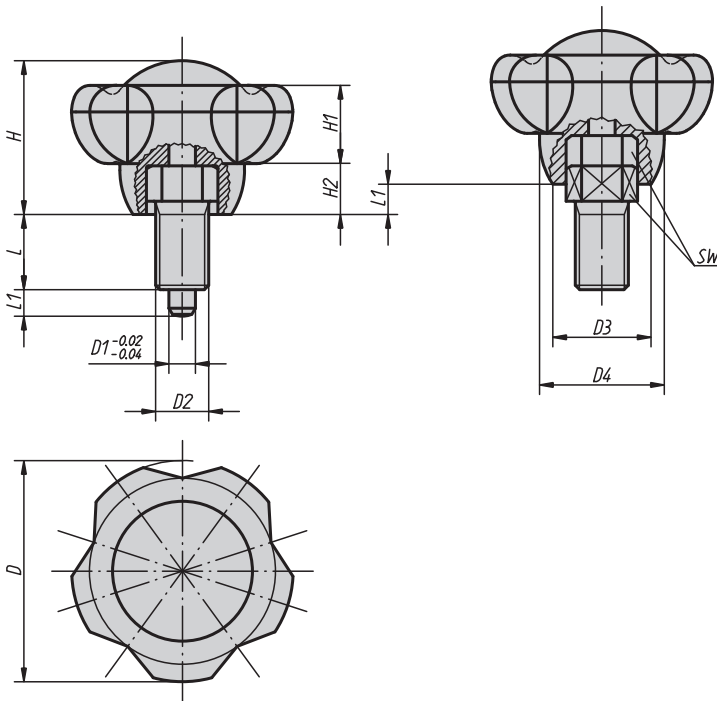
### Note:

The precision locking bolt is only ready for operation after the stated adhesive hardening time. When gluing the components, ensure that no adhesive enters into contact with movable parts.



## Locking and clamp grips

N<sup>G</sup>



The Novo-Grip locking and clamp grip makes it possible: locking and clamping with one single product. The so-called telescopic adjustments can be positioned and clamped quickly, precisely and simply.

**Material, surface finish:**

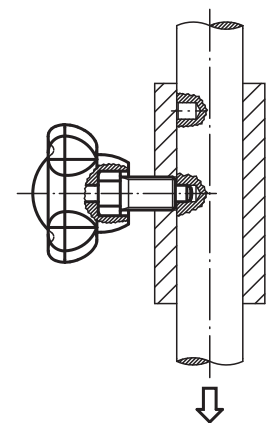
Anthracite grey thermoplastic.  
Locking pin and threaded bolt in steel 5.8, black oxide finish.  
Locking pin hardened and ground.

**Sample order:**

K0245.11056 (cap colour traffic red)

**Note:**

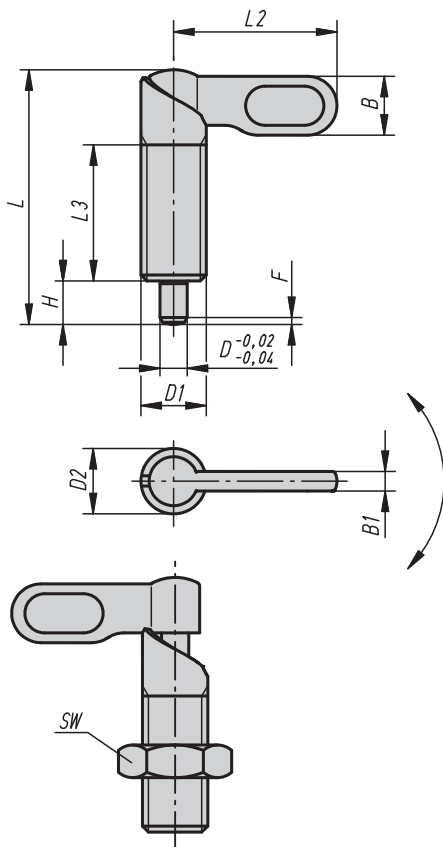
Δ Add the desired cap colour here. No colour code is required with anthracite grey grip caps.



### KIPP Locking and clamp grips

| Order No.   | Size | D  | D1 | D2      | D3   | D4   | H    | H1   | H2   | L  | L1 | SW | Approx. weight kg |
|-------------|------|----|----|---------|------|------|------|------|------|----|----|----|-------------------|
| K0245.1105Δ | 1    | 50 | 5  | M10x1   | 22,2 | 28,2 | 34,8 | 17,8 | 11,5 | 13 | 5  | 13 | 0,033             |
| K0245.1206Δ | 2    | 50 | 6  | M12x1,5 | 22,2 | 28,2 | 34,8 | 17,8 | 11,5 | 17 | 6  | 14 | 0,040             |
| K0245.1308Δ | 3    | 63 | 8  | M16x1,5 | 28   | 35,5 | 44   | 22,5 | 14,5 | 22 | 8  | 19 | 0,097             |
| K0245.1410Δ | 4    | 63 | 10 | M20x1,5 | 28   | 35,5 | 44   | 22,5 | 14,5 | 24 | 10 | 22 | 0,135             |

## Locking bolts with grip



Form A  
grip uncoated  
without nut

Form C  
grip powder-coated  
without nut

Form B  
grip uncoated  
with nut

Form D  
grip powder-coated  
with nut



**Material:**  
Steel quality class 5.8.

**Surface finish:**  
Black oxide finish.  
Locking pin hardened and ground.

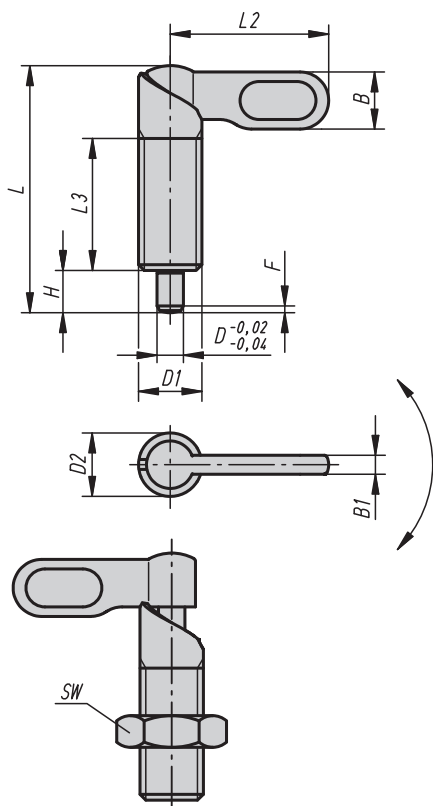
**Sample order:**  
K0348.040616

**Note:**  
Locking bolts with grip are used when the locking pin should not project at certain times. Turning the bolt through 180° pulls in the locking pin. A locking notch ensures that the locking bolt is held in this position.

### KIPP Locking bolts with grip

| Order No.<br>Form A | Order No.<br>Form C | Order No.<br>Form B | Order No.<br>Form D | D  | D1      | D2 | L    | L2 | L3 | B    | B1  | H  | SW        | F x 30°<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N |    |
|---------------------|---------------------|---------------------|---------------------|----|---------|----|------|----|----|------|-----|----|-----------|---|--|----|
| K0348.040410        | K0348.060410        | K0348.050410        | K0348.070410        | 4  | M10     | 10 | 38   | 25 | 20 | 9    | 3   | 6  | -/-/17/17 | 1   | 8  | 14 |
| K0348.040510        | K0348.060510        | K0348.050510        | K0348.070510        | 5  | M10     | 10 | 38   | 25 | 20 | 9    | 3   | 6  | -/-/17/17 | 1,3   | 8  | 14 |
| K0348.040610        | K0348.060610        | K0348.050610        | K0348.070610        | 6  | M10     | 10 | 38   | 25 | 20 | 9    | 3   | 6  | -/-/17/17 | 1,8   | 8  | 14 |
| K0348.0404101       | K0348.0604101       | K0348.0504101       | K0348.0704101       | 4  | M10x1   | 10 | 38   | 25 | 20 | 9    | 3   | 6  | -/-/17/17 | 1   | 8  | 14 |
| K0348.0405101       | K0348.0605101       | K0348.0505101       | K0348.0705101       | 5  | M10x1   | 10 | 38   | 25 | 20 | 9    | 3   | 6  | -/-/17/17 | 1,3   | 8  | 14 |
| K0348.0406101       | K0348.0606101       | K0348.0506101       | K0348.0706101       | 6  | M10x1   | 10 | 38   | 25 | 20 | 9    | 3   | 6  | -/-/17/17 | 1,8   | 8  | 14 |
| K0348.040512        | K0348.060512        | K0348.050512        | K0348.070512        | 5  | M12     | 12 | 46,8 | 30 | 25 | 10,8 | 3,6 | 8  | -/-/19/19 | 1,3   | 8  | 15 |
| K0348.040612        | K0348.060612        | K0348.050612        | K0348.070612        | 6  | M12     | 12 | 46,8 | 30 | 25 | 10,8 | 3,6 | 8  | -/-/19/19 | 1,8   | 8  | 15 |
| K0348.040812        | K0348.060812        | K0348.050812        | K0348.070812        | 8  | M12     | 12 | 46,8 | 30 | 25 | 10,8 | 3,6 | 8  | -/-/19/19 | 2,3   | 8  | 15 |
| K0348.0405121       | K0348.0605121       | K0348.0505121       | K0348.0705121       | 5  | M12x1,5 | 12 | 46,8 | 30 | 25 | 10,8 | 3,6 | 8  | -/-/19/19 | 1,3   | 8  | 15 |
| K0348.0406121       | K0348.0606121       | K0348.0506121       | K0348.0706121       | 6  | M12x1,5 | 12 | 46,8 | 30 | 25 | 10,8 | 3,6 | 8  | -/-/19/19 | 1,8   | 8  | 15 |
| K0348.0408121       | K0348.0608121       | K0348.0508121       | K0348.0708121       | 8  | M12x1,5 | 12 | 46,8 | 30 | 25 | 10,8 | 3,6 | 8  | -/-/19/19 | 2,3   | 8  | 15 |
| K0348.040616        | K0348.060616        | K0348.050616        | K0348.070616        | 6  | M16     | 16 | 60,4 | 40 | 32 | 14,4 | 4,8 | 10 | -/-/24/24 | 1,8   | 15   | 35 |
| K0348.040816        | K0348.060816        | K0348.050816        | K0348.070816        | 8  | M16     | 16 | 60,4 | 40 | 32 | 14,4 | 4,8 | 10 | -/-/24/24 | 2,3   | 15   | 35 |
| K0348.041016        | K0348.061016        | K0348.051016        | K0348.071016        | 10 | M16     | 16 | 60,4 | 40 | 32 | 14,4 | 4,8 | 10 | -/-/24/24 | 2,8   | 15   | 35 |
| K0348.0406161       | K0348.0606161       | K0348.0506161       | K0348.0706161       | 6  | M16x1,5 | 16 | 60,4 | 40 | 32 | 14,4 | 4,8 | 10 | -/-/24/24 | 1,8   | 15   | 35 |
| K0348.0408161       | K0348.0608161       | K0348.0508161       | K0348.0708161       | 8  | M16x1,5 | 16 | 60,4 | 40 | 32 | 14,4 | 4,8 | 10 | -/-/24/24 | 2,3   | 15   | 35 |
| K0348.0410161       | K0348.0610161       | K0348.0510161       | K0348.0710161       | 10 | M16x1,5 | 16 | 60,4 | 40 | 32 | 14,4 | 4,8 | 10 | -/-/24/24 | 2,8   | 15   | 35 |
| K0348.040820        | K0348.060820        | K0348.050820        | K0348.070820        | 8  | M20     | 20 | 70   | 50 | 35 | 18   | 6   | 12 | -/-/30/30 | 2,3   | 20   | 60 |
| K0348.041020        | K0348.061020        | K0348.051020        | K0348.071020        | 10 | M20     | 20 | 70   | 50 | 35 | 18   | 6   | 12 | -/-/30/30 | 2,8   | 20   | 60 |
| K0348.041220        | K0348.061220        | K0348.051220        | K0348.071220        | 12 | M20     | 20 | 70   | 50 | 35 | 18   | 6   | 12 | -/-/30/30 | 3   | 20   | 60 |
| K0348.0408201       | K0348.0608201       | K0348.0508201       | K0348.0708201       | 8  | M20x1,5 | 20 | 70   | 50 | 35 | 18   | 6   | 12 | -/-/30/30 | 2,3   | 20   | 60 |
| K0348.0410201       | K0348.0610201       | K0348.0510201       | K0348.0710201       | 10 | M20x1,5 | 20 | 70   | 50 | 35 | 18   | 6   | 12 | -/-/30/30 | 2,8   | 20   | 60 |
| K0348.0412201       | K0348.0612201       | K0348.0512201       | K0348.0712201       | 12 | M20x1,5 | 20 | 70   | 50 | 35 | 18   | 6   | 12 | -/-/30/30 | 3   | 20   | 60 |

## Locking bolts with grip in stainless steel



Form A  
grip uncoated  
without nut

Form B  
grip uncoated  
with nut



**Material:**  
Stainless steel 1.4305.

**Surface finish:**  
Natural finish.  
Locking pin ground, not hardened.

**Sample order:**  
K0637.1040616

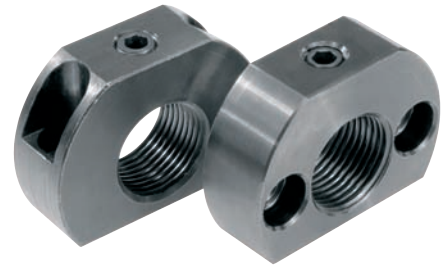
**Note:**  
Locking bolts with grip are used when the locking pin should not project at certain times. Turning the bolt through 180° pulls in the locking pin. A locking notch ensures that the locking bolt is held in this position.

### KIPP Locking bolts with grip in stainless steel

| Order No.<br>Form A | Order No.<br>Form B | D  | D1      | D2 | L    | L2 | L3 | B    | B1  | H  | SW  | F x 30° | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N |
|---------------------|---------------------|----|---------|----|------|----|----|------|-----|----|-----|---------|--|--|
| K0637.1040410       | K0637.1050410       | 4  | M10     | 10 | 38   | 25 | 20 | 9    | 3   | 6  | -17 | 1       | 8  | 14   |
| K0637.1040510       | K0637.1050510       | 5  | M10     | 10 | 38   | 25 | 20 | 9    | 3   | 6  | -17 | 1,3     | 8  | 14   |
| K0637.1040610       | K0637.1050610       | 6  | M10     | 10 | 38   | 25 | 20 | 9    | 3   | 6  | -17 | 1,8     | 8  | 14   |
| K0637.10404101      | K0637.10504101      | 4  | M10x1   | 10 | 38   | 25 | 20 | 9    | 3   | 6  | -17 | 1       | 8  | 14   |
| K0637.10405101      | K0637.10505101      | 5  | M10x1   | 10 | 38   | 25 | 20 | 9    | 3   | 6  | -17 | 1,3     | 8  | 14   |
| K0637.10406101      | K0637.10506101      | 6  | M10x1   | 10 | 38   | 25 | 20 | 9    | 3   | 6  | -17 | 1,8     | 8  | 14   |
| K0637.1040512       | K0637.1050512       | 5  | M12     | 12 | 46,8 | 30 | 25 | 10,8 | 3,6 | 8  | -19 | 1,3     | 8  | 15   |
| K0637.1040612       | K0637.1050612       | 6  | M12     | 12 | 46,8 | 30 | 25 | 10,8 | 3,6 | 8  | -19 | 1,8     | 8  | 15   |
| K0637.1040812       | K0637.1050812       | 8  | M12     | 12 | 46,8 | 30 | 25 | 10,8 | 3,6 | 8  | -19 | 2,3     | 8  | 15   |
| K0637.10405121      | K0637.10505121      | 5  | M12x1,5 | 12 | 46,8 | 30 | 25 | 10,8 | 3,6 | 8  | -19 | 1,3     | 8  | 15   |
| K0637.10406121      | K0637.10506121      | 6  | M12x1,5 | 12 | 46,8 | 30 | 25 | 10,8 | 3,6 | 8  | -19 | 1,8     | 8  | 15   |
| K0637.10408121      | K0637.10508121      | 8  | M12x1,5 | 12 | 46,8 | 30 | 25 | 10,8 | 3,6 | 8  | -19 | 2,3     | 8  | 15   |
| K0637.1040616       | K0637.1050616       | 6  | M16     | 16 | 60,4 | 40 | 32 | 14,4 | 4,8 | 10 | -24 | 1,8     | 15   | 35   |
| K0637.1040816       | K0637.1050816       | 8  | M16     | 16 | 60,4 | 40 | 32 | 14,4 | 4,8 | 10 | -24 | 2,3     | 15   | 35   |
| K0637.1041016       | K0637.1051016       | 10 | M16     | 16 | 60,4 | 40 | 32 | 14,4 | 4,8 | 10 | -24 | 2,8     | 15   | 35   |
| K0637.10406161      | K0637.10506161      | 6  | M16x1,5 | 16 | 60,4 | 40 | 32 | 14,4 | 4,8 | 10 | -24 | 1,8     | 15   | 35   |
| K0637.10408161      | K0637.10508161      | 8  | M16x1,5 | 16 | 60,4 | 40 | 32 | 14,4 | 4,8 | 10 | -24 | 2,3     | 15   | 35   |
| K0637.10410161      | K0637.10510161      | 10 | M16x1,5 | 16 | 60,4 | 40 | 32 | 14,4 | 4,8 | 10 | -24 | 2,8     | 15   | 35   |
| K0637.1040820       | K0637.1050820       | 8  | M20     | 20 | 70   | 50 | 35 | 18   | 6   | 12 | -30 | 2,3     | 20   | 60   |
| K0637.1041020       | K0637.1051020       | 10 | M20     | 20 | 70   | 50 | 35 | 18   | 6   | 12 | -30 | 2,8     | 20   | 60   |
| K0637.1041220       | K0637.1051220       | 12 | M20     | 20 | 70   | 50 | 35 | 18   | 6   | 12 | -30 | 3       | 20   | 60   |
| K0637.10408201      | K0637.10508201      | 8  | M20x1,5 | 20 | 70   | 50 | 35 | 18   | 6   | 12 | -30 | 2,3     | 20   | 60   |
| K0637.10410201      | K0637.10510201      | 10 | M20x1,5 | 20 | 70   | 50 | 35 | 18   | 6   | 12 | -30 | 2,8     | 20   | 60   |
| K0637.10412201      | K0637.10512201      | 12 | M20x1,5 | 20 | 70   | 50 | 35 | 18   | 6   | 12 | -30 | 3       | 20   | 60   |



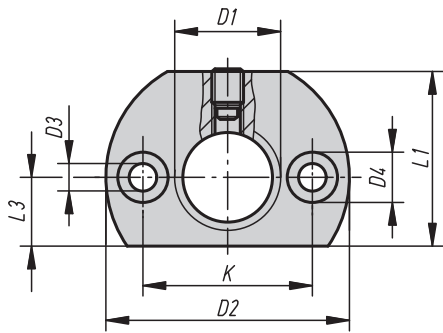
## Bracing parts



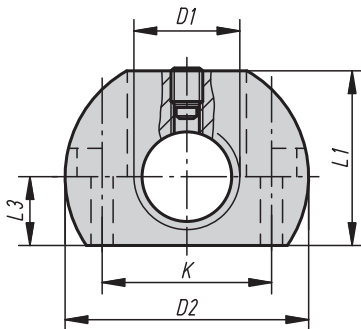
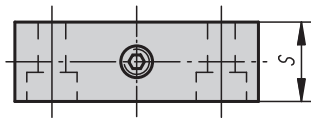
**Material, surface finish:**  
Steel, black oxide finish.

**Sample order:**  
K0638.116

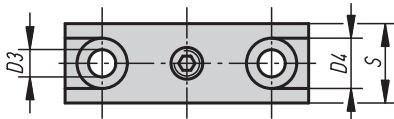
**Note:**  
Bracing parts provide assistance with assembly for locking bolts with grips and extend their area of application. They can also be used for locking bolts.



Form A  
fastening hole parallel  
to locking bolt with grip



Form B  
fastening hole vertical  
to locking bolt with grip



### KIPP Bracing parts

| Order No.  | Form | D1      | D2 | D3  | D4 | K  | L1 | L3 | S  |
|------------|------|---------|----|-----|----|----|----|----|----|
| K0638.112  | A    | M12     | 36 | 5,5 | 10 | 24 | 25 | 10 | 12 |
| K0638.1121 | A    | M12x1,5 | 36 | 5,5 | 10 | 24 | 25 | 10 | 12 |
| K0638.116  | A    | M16     | 46 | 5,5 | 10 | 32 | 33 | 13 | 15 |
| K0638.1161 | A    | M16x1,5 | 46 | 5,5 | 10 | 32 | 33 | 13 | 15 |
| K0638.120  | A    | M20     | 46 | 5,5 | 10 | 32 | 33 | 13 | 15 |
| K0638.1201 | A    | M20x1,5 | 46 | 5,5 | 10 | 32 | 33 | 13 | 15 |
| K0638.212  | B    | M12     | 36 | 5,5 | 10 | 24 | 25 | 10 | 12 |
| K0638.2121 | B    | M12x1,5 | 36 | 5,5 | 10 | 24 | 25 | 10 | 12 |
| K0638.216  | B    | M16     | 46 | 5,5 | 10 | 32 | 33 | 13 | 15 |
| K0638.2161 | B    | M16x1,5 | 46 | 5,5 | 10 | 32 | 33 | 13 | 15 |
| K0638.220  | B    | M20     | 46 | 5,5 | 10 | 32 | 33 | 13 | 15 |
| K0638.2201 | B    | M20x1,5 | 46 | 5,5 | 10 | 32 | 33 | 13 | 15 |

## Locking bolts with grip

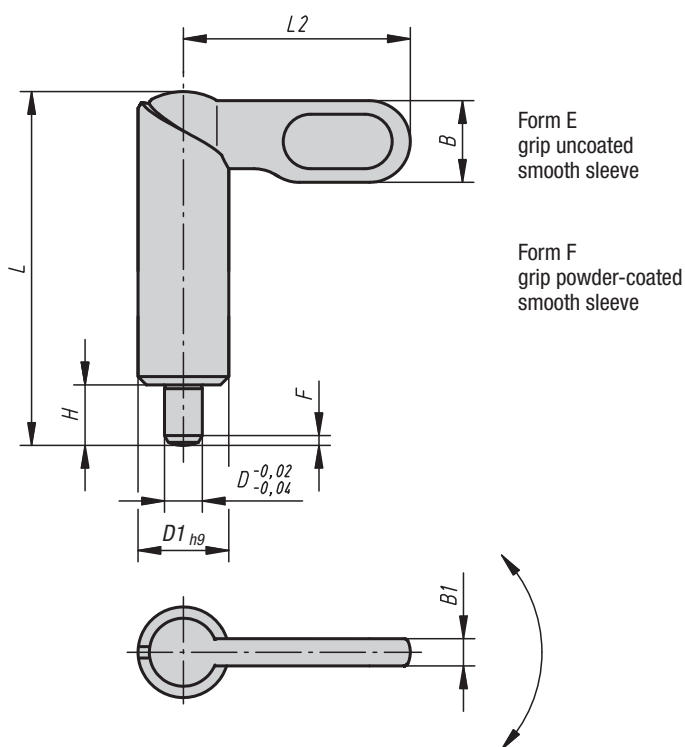


**Material:**  
 Locking bar 1.0503.  
 Locking pin steel quality class 5.8.  
 Sleeve 1.0403 weldable.

**Surface finish:**  
 Black oxide finish.  
 Locking pin hardened and ground.

**Sample order:**  
 K0639.091220

**Note:**  
 Locking bolts with grip are used when the locking pin should not project at certain times. Turning the bolt through 180° pulls in the locking pin. A locking notch ensures that the locking bolt is held in this position. In order to weld the locking bolt with grip to another surface, we recommend inert gas-shielded welding with TIG welding equipment.

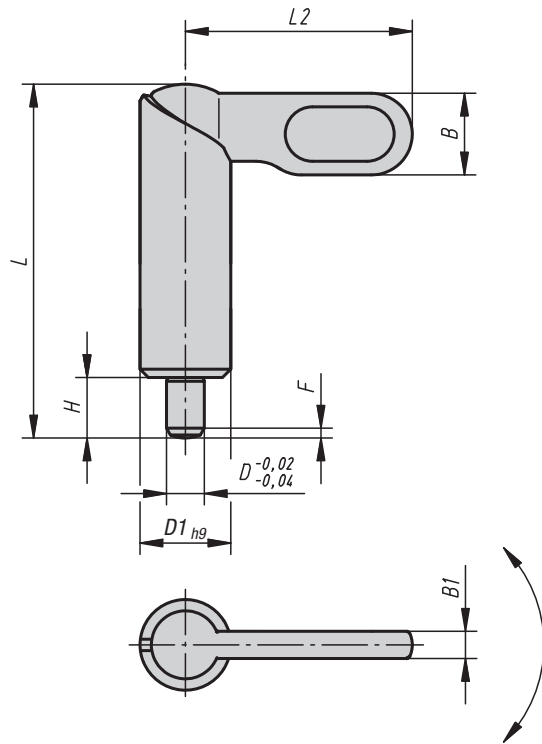
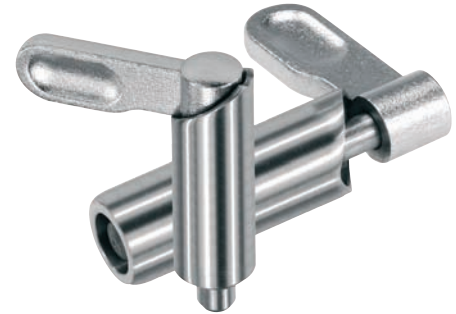


### KIPP Locking bolts with grip

| Order No.<br>Form E | Order No.<br>Form F | D  | D1 | L    | L2 | B    | B1  | H  | F x 30° | Spring force<br>initial pressure<br>F1 approx. N | Spring force<br>final pressure<br>F2 approx. N |
|---------------------|---------------------|----|----|------|----|------|-----|----|---------|--|--|
| K0639.080410        | K0639.090410        | 4  | 10 | 38   | 25 | 9    | 3   | 6  | 1       | 8  | 14   |
| K0639.080510        | K0639.090510        | 5  | 10 | 38   | 25 | 9    | 3   | 6  | 1,3     | 8  | 14   |
| K0639.080610        | K0639.090610        | 6  | 10 | 38   | 25 | 9    | 3   | 6  | 1,8     | 8  | 14   |
| K0639.080512        | K0639.090512        | 5  | 12 | 46,8 | 30 | 10,8 | 3,6 | 8  | 1,3     | 8  | 15   |
| K0639.080612        | K0639.090612        | 6  | 12 | 46,8 | 30 | 10,8 | 3,6 | 8  | 1,8     | 8  | 15   |
| K0639.080812        | K0639.090812        | 8  | 12 | 46,8 | 30 | 10,8 | 3,6 | 8  | 2,3     | 8  | 15   |
| K0639.080616        | K0639.090616        | 6  | 16 | 60,4 | 40 | 14,4 | 4,8 | 10 | 1,8     | 15   | 35   |
| K0639.080816        | K0639.090816        | 8  | 16 | 60,4 | 40 | 14,4 | 4,8 | 10 | 2,3     | 15   | 35   |
| K0639.081016        | K0639.091016        | 10 | 16 | 60,4 | 40 | 14,4 | 4,8 | 10 | 2,8     | 15   | 35   |
| K0639.080820        | K0639.090820        | 8  | 20 | 70   | 50 | 18   | 6   | 12 | 2,3     | 20   | 60   |
| K0639.081020        | K0639.091020        | 10 | 20 | 70   | 50 | 18   | 6   | 12 | 2,8     | 20   | 60   |
| K0639.081220        | K0639.091220        | 12 | 20 | 70   | 50 | 18   | 6   | 12 | 3       | 20   | 60   |



## Locking bolts with grip in stainless steel



Form E  
grip uncoated  
smooth sleeve

**Material:**

Locking bar 1.4308.  
Locking pin 1.4305.  
Sleeve 1.4301 weldable.

**Surface finish:**

Natural finish.  
Locking pin ground, not hardened.

**Sample order:**

K0640.1081220

**Note:**

Locking bolts with grip are used when the locking pin should not project at certain times. Turning the bolt through 180° pulls in the locking pin.

A locking notch ensures that the locking bolt is held in this position.

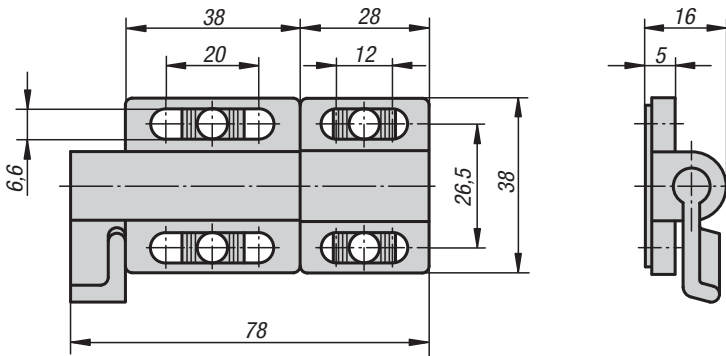
In order to weld the locking bolt with grip to another surface, we recommend inert gas-shielded welding with TIG welding equipment.

### KIPP Locking bolts with grip in stainless steel

| Order No.     | Form | D  | D1 | L    | L2 | B    | B1  | H  | F x 30° | Spring force initial pressure F1 approx. N | Spring force final pressure F2 approx. N |
|---------------|------|----|----|------|----|------|-----|----|---------|--|--|
| K0640.1080410 | E    | 4  | 10 | 38   | 25 | 9    | 3   | 6  | 1       | 8  | 14                                       |
| K0640.1080510 | E    | 5  | 10 | 38   | 25 | 9    | 3   | 6  | 1,3     | 8  | 14                                       |
| K0640.1080610 | E    | 6  | 10 | 38   | 25 | 9    | 3   | 6  | 1,8     | 8  | 14                                       |
| K0640.1080512 | E    | 5  | 12 | 46,8 | 30 | 10,8 | 3,6 | 8  | 1,3     | 8  | 15                                       |
| K0640.1080612 | E    | 6  | 12 | 46,8 | 30 | 10,8 | 3,6 | 8  | 1,8     | 8  | 15                                       |
| K0640.1080812 | E    | 8  | 12 | 46,8 | 30 | 10,8 | 3,6 | 8  | 2,3     | 8  | 15                                       |
| K0640.1080616 | E    | 6  | 16 | 60,4 | 40 | 14,4 | 4,8 | 10 | 1,8     | 15   | 35                                       |
| K0640.1080816 | E    | 8  | 16 | 60,4 | 40 | 14,4 | 4,8 | 10 | 2,3     | 15   | 35                                       |
| K0640.1081016 | E    | 10 | 16 | 60,4 | 40 | 14,4 | 4,8 | 10 | 2,8     | 15   | 35                                       |
| K0640.1080820 | E    | 8  | 20 | 70   | 50 | 18   | 6   | 12 | 2,3     | 20   | 60                                       |
| K0640.1081020 | E    | 10 | 20 | 70   | 50 | 18   | 6   | 12 | 2,8     | 20   | 60                                       |
| K0640.1081220 | E    | 12 | 20 | 70   | 50 | 18   | 6   | 12 | 3       | 20   | 60                                       |



## Locking bar



**Material:**

Housing in die cast zinc.  
Grip, support and slot fixation thermoplastic PA.  
Bolt in stainless steel.

**Surface finish:**

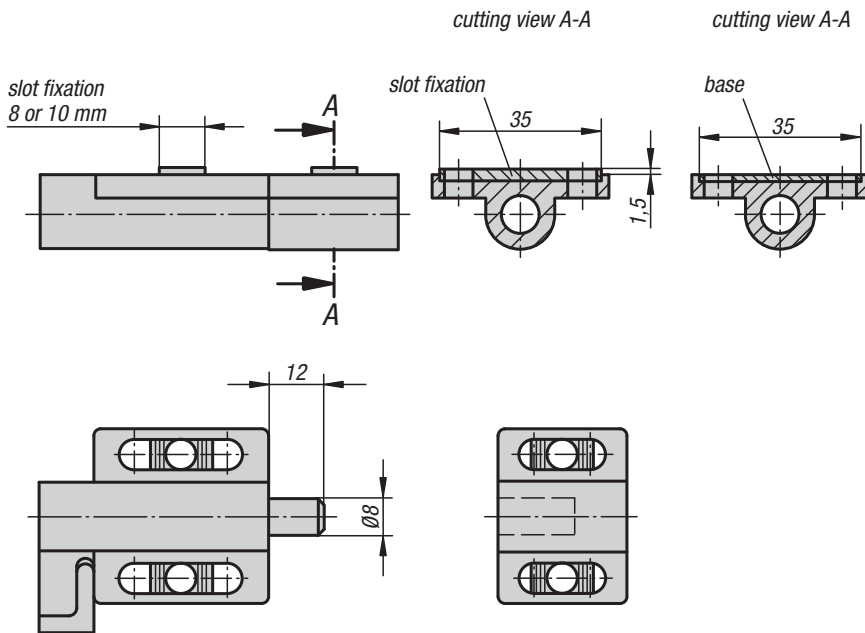
Housing silver painted.  
Grip, support and slot fixation black.  
Bolt natural finish.

**Sample order:**

K0349.38038028

**Note:**

Spring-loaded closing pin.  
Included in delivery are:  
- for assembly on flat surfaces, 2 bases.  
- for assembly on profiles with slot, 2 slotted fixtures each (for 8 and 10 mm slot).



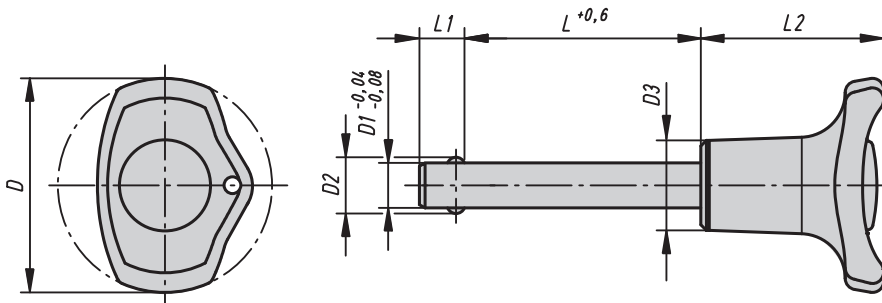
**KIPP Locking bar**

| Order No.      | Spring force initial pressure F1 approx. N | Spring force final pressure F2 approx. N | Approx. weight kg |
|----------------|--|--|-------------------|
| K0349.38038028 | 5  | 15                                       | 0,120             |



## Ball locking bolts

self-locking



**Material, surface finish:**

Grip black thermoplastic.  
Push button red thermoplastic.  
Steel parts in stainless steel, natural finish.

**Sample order:**

K0363.3806050  
(Please also indicate dimension L, e.g. 050 for L = 50 mm.)

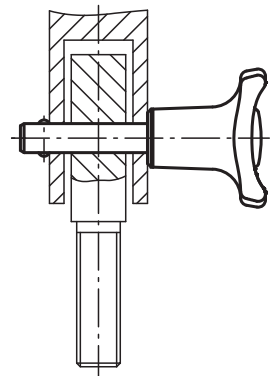
**Note:**

Ball locking bolts are used for fast and easy fixing and joining of parts and workpieces. The two balls can be disengaged by depressing the push button, so that the parts to be joined can be pegged. When the push button is released the balls lock the connection safely and permanently.

Shearing force double-edged (F) = S · τ aB max.

**Accessory:**

Safety helix cable K0367.10200  
Restraining cable with eye K0367. ....  
Key ring K0367.15/19/23

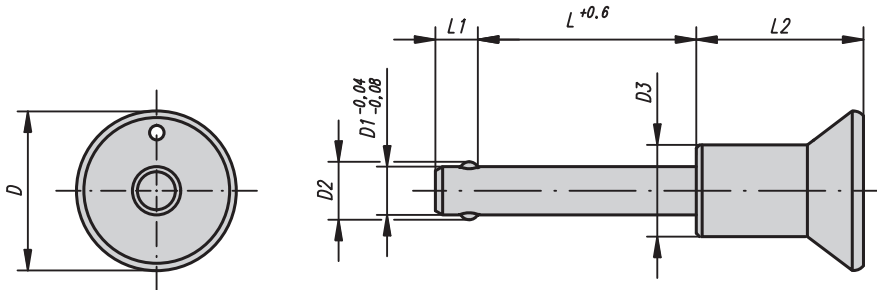


### KIPP Ball locking bolts self-locking

| Order No.     | D  | D1 | D2   | D3 | L                          | L1 | L2   | Receiving hole H11 | Shearing force double-edged max. kN |
|---------------|----|----|------|----|----------------------------|----|------|--------------------|-------------------------------------|
| K0363.3805*** | 38 | 5  | 5,5  | 16 | 10/15/20/25/30             | 6  | 32,5 | 5                  | 15                                  |
| K0363.3806*** | 38 | 6  | 6,85 | 16 | 10/15/20/25/30/35/40/45/50 | 7  | 32,5 | 6                  | 22                                  |
| K0363.3808*** | 38 | 8  | 9,5  | 16 | 20/25/30/35/40/45/50       | 8  | 32,5 | 8                  | 38                                  |
| K0363.4710*** | 47 | 10 | 12   | 23 | 20/25/30/35/40/45/50/60    | 9  | 40   | 10                 | 60                                  |
| K0363.4712*** | 47 | 12 | 14,5 | 23 | 25/30/35/40/45/50/60/70/80 | 10 | 40   | 12                 | 86                                  |
| K0363.4716*** | 47 | 16 | 19   | 23 | 30/35/40/45/50/60/70/80    | 13 | 40   | 16                 | 153                                 |

## Ball locking bolts

in stainless steel self-locking



**Material, surface finish:**

Steel parts in stainless steel, natural finish.

**Sample order:**

K0364.3110030

(Please also indicate dimension L, e.g. 030 for L = 30 mm.)

**Note:**

Ball locking bolts are used for fast and easy fixing and joining of parts and workpieces. The two balls can be disengaged by depressing the push button, so that the parts to be joined can be pegged. When the push button is released the balls lock the connection safely and permanently. Corrosion resistant. Fixing option for restraining cable. Temperature range of application max. +250 °C.

Shearing force double-edged (F) =  $S \cdot \tau \cdot aB$  max.

**Accessory:**

- Safety helix cable K0367.10200
- Restraining cable with eye K0367. ....
- Key ring K0367.15/19/23

### KIPP Ball locking bolts in stainless steel self-locking

| Order No.     | D  | D1 | D2   | D3 | L                          | L1   | L2   | Receiving hole H11 | Shearing force double-edged max. kN |
|---------------|----|----|------|----|----------------------------|------|------|--------------------|-------------------------------------|
| K0364.2305*** | 25 | 5  | 5,5  | 14 | 10/15/20/25/30             | 6    | 26,5 | 5                  | 15                                  |
| K0364.2306*** | 25 | 6  | 6,85 | 14 | 10/15/20/25/30/35/40/45/50 | 7    | 26,5 | 6                  | 22                                  |
| K0364.2308*** | 25 | 8  | 9,5  | 14 | 20/25/30/35/40/45/50       | 8    | 26,5 | 8                  | 38                                  |
| K0364.3110*** | 33 | 10 | 12   | 19 | 20/25/30/35/40/45/50/60    | 9    | 34,6 | 10                 | 60                                  |
| K0364.3112*** | 33 | 12 | 14,5 | 19 | 25/30/35/40/45/50/60/70/80 | 10   | 34,6 | 12                 | 86                                  |
| K0364.3116*** | 33 | 16 | 19   | 20 | 30/35/40/45/50/60/70/80    | 13,3 | 34,6 | 16                 | 153                                 |



## Ball locking bolts with mushroom knob

in stainless steel, self-locking



**Material:**

Bolt in stainless steel 1.4542.  
Mushroom knob and push button in stainless steel 1.4305.  
Balls in stainless steel 1.4125.  
Compression spring in stainless steel.

**Surface finish:**

Bolt, hardened min. 40 HRC and passivated.  
Passivated mushroom knob and push button.  
Balls hardened 58 +4 HRC and passivated.  
Passivated compression spring.

**Sample order:**

K0641.02105030  
(Please also indicate dimension L, e.g. 030 for L = 30 mm.)

**Note:**

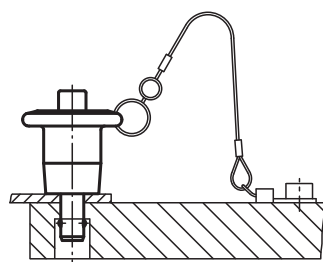
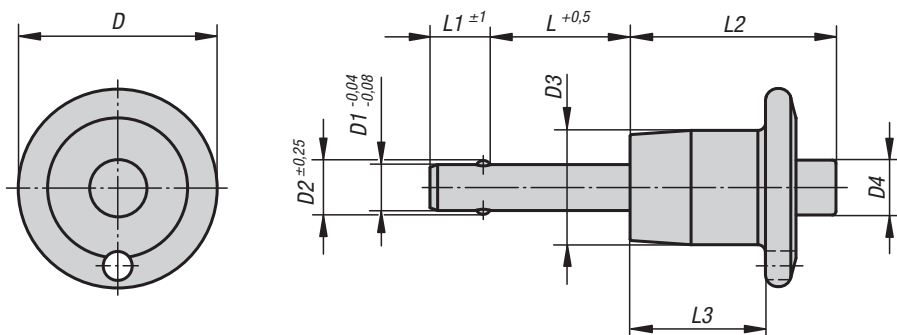
Ball locking bolts are used for fast and easy fixing and joining of parts and workpieces. The two balls can be disengaged by depressing the push button, so that the parts to be joined can be pegged. When the push button is released the balls lock the connection safely and permanently. If required, the ball locking bolts can be provided with a holding rope.

The bolt made of high-strength, hardened stainless steel is suitable for extreme loads and provides a very high level of wear protection. Thanks to the high corrosion and acid resistance, they are mainly used in the foodstuff industry, in the chemical and petrochemical industry and as constructional elements in the aerospace industry.

Shearing force double-edged (F) = S · τ aB max.

**Accessory:**

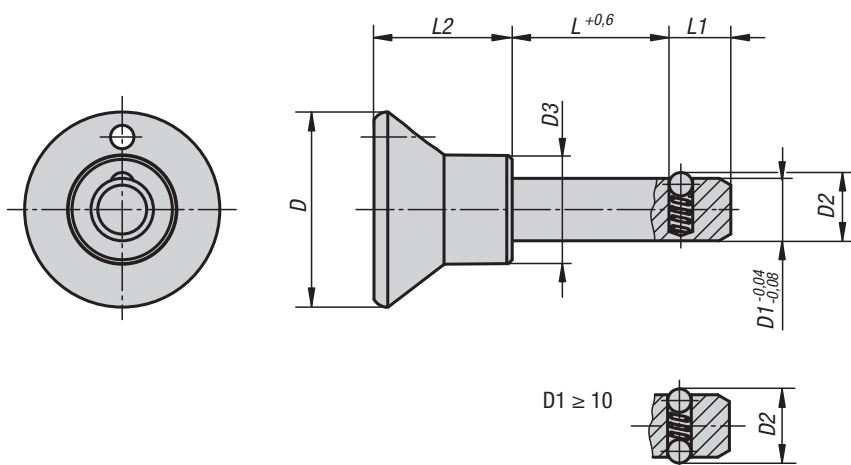
Safety helix cable K0367.10200  
Restraining cable with eye K0367. ....  
Key ring K0367.15/19/23



### KIPP Ball locking bolts with mushroom knob in stainless steel, self-locking

| Order No.      | D    | D1 | D2    | D3   | D4   | L                                    | L1 | L2   | L3   | Receiving hole H11 | Shearing force double-edged max.kN |
|----------------|------|----|-------|------|------|--------------------------------------|----|------|------|--------------------|------------------------------------|
| K0641.02105*** | 20,6 | 5  | 5,54  | 11,9 | 5,8  | 10/15/20/25/30/35/40/50/60/70        | 6  | 23,4 | 16   | 5                  | 24,40                              |
| K0641.02510*** | 25,4 | 10 | 11,86 | 14,2 | 7,4  | 15/20/25/30/35/40/50/60/70/80/90/100 | 9  | 25,7 | 17,8 | 10                 | 100,10                             |
| K0641.02108*** | 20,6 | 8  | 9,42  | 11,9 | 5,8  | 10/15/20/25/30/35/40/50/60/70/80     | 8  | 23,4 | 16   | 8                  | 63,80                              |
| K0641.02106*** | 20,6 | 6  | 6,99  | 11,9 | 5,8  | 10/15/20/25/30/35/40/50/60/70/80     | 7  | 23,4 | 16   | 6                  | 35,64                              |
| K0641.03512*** | 34,7 | 12 | 14,45 | 18,3 | 10,7 | 20/25/30/35/40/50/60/70/80/90/100    | 10 | 32,3 | 21,6 | 12                 | 144,06                             |

## Locking pins



**Material, surface finish:**

Grip black thermoplastic.  
Steel parts in stainless steel, natural finish.

**Sample order:**

K0365.2508020  
(Please also indicate dimension L, e.g. 020 for L = 20 mm.)

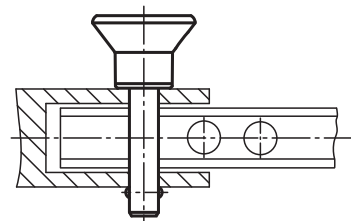
**Note:**

Locking pins are used for fast and easy fixing and joining of parts and workpieces.

Shearing force double-edged (F) = S · τ aB max.

**Accessory:**

Safety helix cable K0367.10200  
Restraining cable with eye K0367. ....  
Key ring K0367.15/19/23

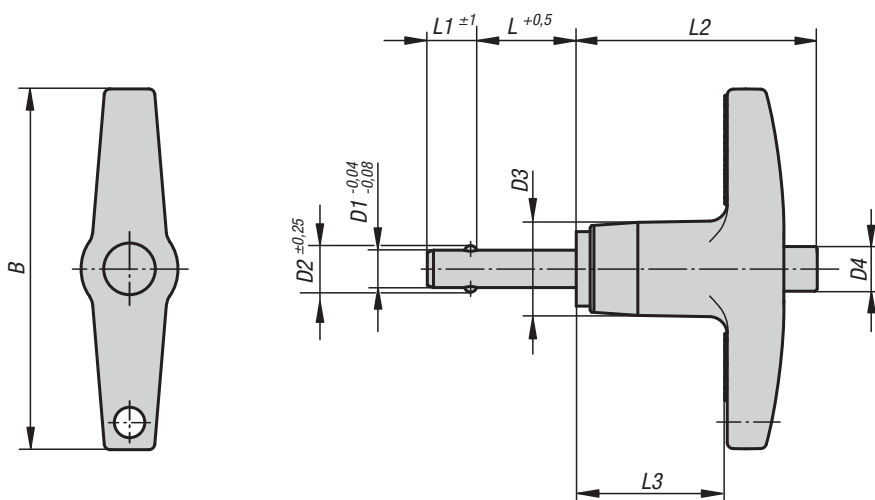


**KIPP Locking pins**

| Order No.     | D  | D1 | D2   | D3 | L                    | L1 | L2   | Receiving hole H11 | Shearing force double-edged max.kN |
|---------------|----|----|------|----|----------------------|----|------|--------------------|------------------------------------|
| K0365.2506*** | 25 | 6  | 6,5  | 14 | 10/15/20/25/30/40/50 | 7  | 17,7 | 6                  | 22                                 |
| K0365.2508*** | 25 | 8  | 8,75 | 14 | 15/20/25/30/40/50    | 8  | 17,7 | 8                  | 38                                 |
| K0365.3310*** | 33 | 10 | 12   | 19 | 15/20/25/30/40/50    | 9  | 24   | 10                 | 60                                 |
| K0365.3312*** | 33 | 12 | 14,5 | 19 | 20/30/40/50          | 10 | 24   | 12                 | 86                                 |

## Ball locking bolts with T-grip

self-locking



### Material:

Bolt in stainless steel 1.4542.  
Grip aluminium die casting EN-AC 46000.  
Push button in aluminium EN-AW 2024 T4.  
Balls in stainless steel 1.4125.  
Compression spring in stainless steel.

### Surface finish:

Bolt, hardened min. 40 HRC and passivated.  
Grip black anodised.  
Push button blue anodised.  
Balls hardened 58 +4 HRC and passivated.  
Passivated compression spring.

### Sample order:

K0366.24605030  
(Please also indicate dimension L, e.g. 030 for L = 30 mm.)

### Note:

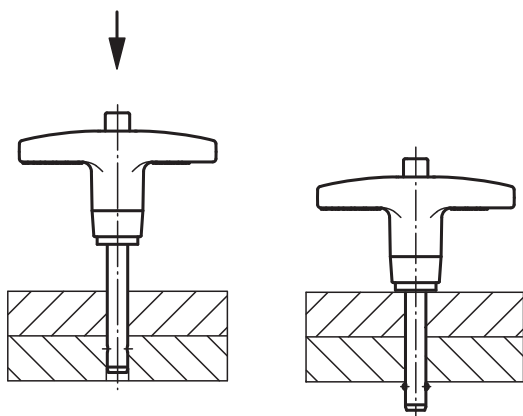
Ball locking bolts are used for fast and easy fixing and joining of parts and workpieces. The two balls can be disengaged by depressing the push button, so that the parts to be joined can be pegged. When the push button is released the balls lock the connection safely and permanently. If required, the ball locking bolts can be provided with a holding rope.

The bolt made of high-strength, hardened stainless steel is suitable for extreme loads and provides a very high level of wear protection.

Shearing force double-edged (F) = S · τ aB max.

### Accessory:

Safety helix cable K0367.10200  
Restraining cable with eye K0367. ....  
Key ring K0367.15/19/23

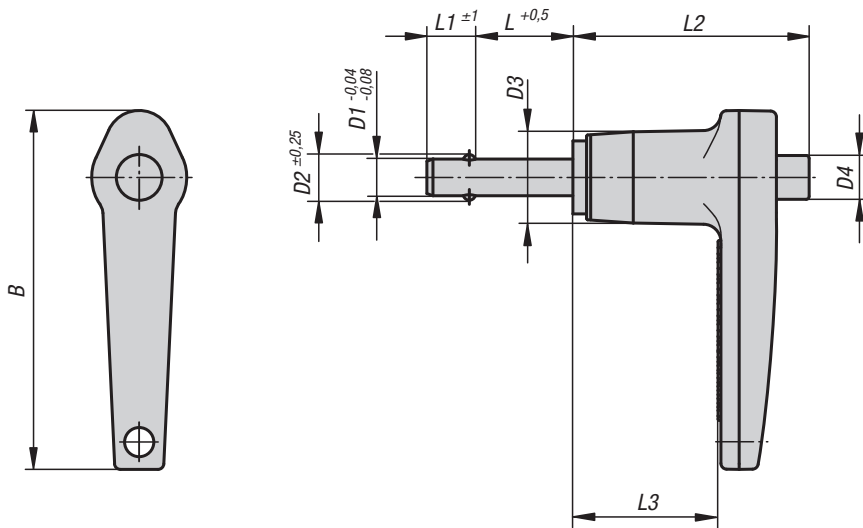


### KIPP Ball locking bolts with T-grip self-locking

| Order No.      | B    | D1 | D2    | D3   | D4   | L                                    | L1 | L2   | L3   | Receiving hole H11 | Shearing force double-edged max.kN |
|----------------|------|----|-------|------|------|--------------------------------------|----|------|------|--------------------|------------------------------------|
| K0366.24605*** | 46   | 5  | 5,54  | 11,9 | 5,8  | 10/15/20/25/30/35/40/50/60/70        | 6  | 30,7 | 19,3 | 5                  | 24,40                              |
| K0366.24606*** | 46   | 6  | 6,99  | 11,9 | 5,8  | 10/15/20/25/30/35/40/50/60/70/80     | 7  | 30,7 | 19,3 | 6                  | 35,64                              |
| K0366.24608*** | 46   | 8  | 9,42  | 11,9 | 5,8  | 10/15/20/25/30/35/40/50/60/70/80     | 8  | 30,7 | 19,3 | 8                  | 63,80                              |
| K0366.25110*** | 50,8 | 10 | 11,86 | 14,2 | 7,4  | 15/20/25/30/35/40/50/60/70/80/90/100 | 9  | 34,8 | 22,1 | 10                 | 100,10                             |
| K0366.25812*** | 57,2 | 12 | 14,45 | 18,3 | 10,7 | 20/25/30/35/40/50/60/70/80/90/100    | 10 | 40,6 | 25,4 | 12                 | 144,06                             |
| K0366.27816*** | 78   | 16 | 19    | 23,9 | 13,7 | 25/30/35/40/50/60/70/80/90/100       | 14 | 45   | 28,2 | 16                 | 257,18                             |

## Ball locking bolts with L-grip

self-locking



**Material:**

Bolt in stainless steel 1.4542.  
Grip aluminium die casting EN-AC 46000.  
Push button in aluminium EN-AW 2024 T4.  
Balls in stainless steel 1.4125.  
Compression spring in stainless steel.

**Surface finish:**

Bolt, hardened min. 40 HRC and passivated.  
Grip black anodized.  
Push button blue anodized.  
Balls hardened 58 +4 HRC and passivated.  
Compression spring passivated.

**Sample order:**

K0642.14405030  
(please also indicate dimension L, e.g. 030 for L = 30 mm)

**Note:**

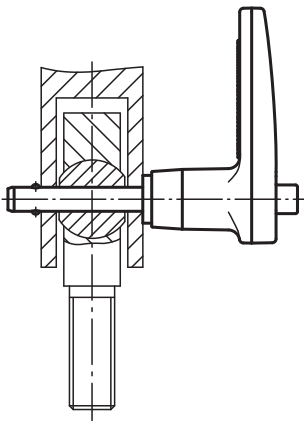
Ball locking bolts are used for fast and easy fixing and joining of parts and workpieces. The two balls can be disengaged by depressing the push button, so that the parts to be joined can be pegged. When the push button is released the balls lock the connection safely and permanently. If required, the ball locking bolts can be provided with a holding rope.

The bolt made of high-strength, hardened stainless steel is suitable for extreme loads and provides a very high level of wear protection.

Shearing force double-edged (F) = S · τ aB max.

**Accessory:**

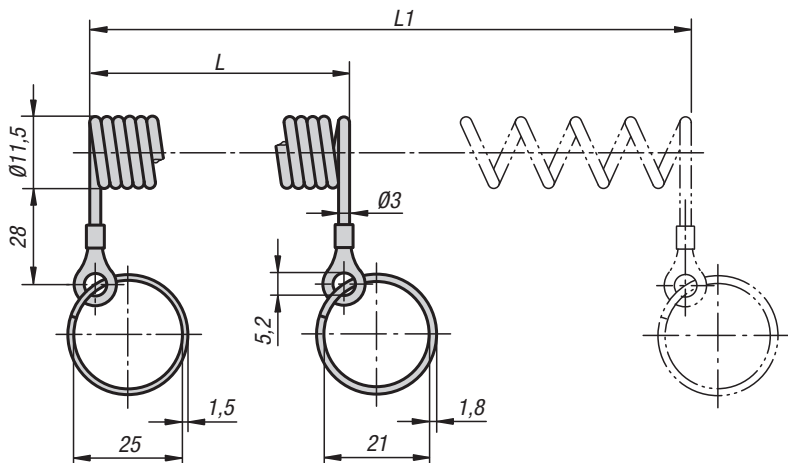
Safety helix cable K0367.10200  
Restraining cable with eye K0367. ....  
Key ring K0367.15/19/23



### KIPP Ball locking bolts with L-grip self-locking

| Order No.      | B    | D1 | D2    | D3   | D4   | L                                    | L1 | L2   | L3   | Receiving hole H11 | Shearing force double-edged max.kN |
|----------------|------|----|-------|------|------|--------------------------------------|----|------|------|--------------------|------------------------------------|
| K0642.14405*** | 46,7 | 5  | 5,54  | 11,9 | 5,8  | 10/15/20/25/30/35/40/50/60/70        | 6  | 30,7 | 19,3 | 5                  | 24,40                              |
| K0642.14406*** | 46,7 | 6  | 6,99  | 11,9 | 5,8  | 10/15/20/25/30/35/40/50/60/70/80     | 7  | 30,7 | 19,3 | 6                  | 35,64                              |
| K0642.14408*** | 46,7 | 8  | 9,42  | 11,9 | 5,8  | 10/15/20/25/30/35/40/50/60/70/80     | 8  | 30,7 | 19,3 | 8                  | 63,80                              |
| K0642.15110*** | 54,1 | 10 | 11,86 | 14,2 | 7,4  | 15/20/25/30/35/40/50/60/70/80/90/100 | 9  | 34,8 | 22,1 | 10                 | 100,10                             |
| K0642.15712*** | 60,2 | 12 | 14,45 | 18,3 | 10,7 | 20/25/30/35/40/50/60/70/80/90/100    | 10 | 40,6 | 25,4 | 12                 | 144,06                             |
| K0642.16816*** | 68,3 | 16 | 19    | 23,9 | 13,7 | 25/30/35/40/50/60/70/80/90/100       | 14 | 45   | 28,2 | 16                 | 257,18                             |

## Safety helix cable



**Material, surface finish:**  
Copper litz wire coated in PUR, black.  
Eye in galvanized copper.  
Key ring in steel, chromium-plated.

**Sample order:**  
K0367.10200

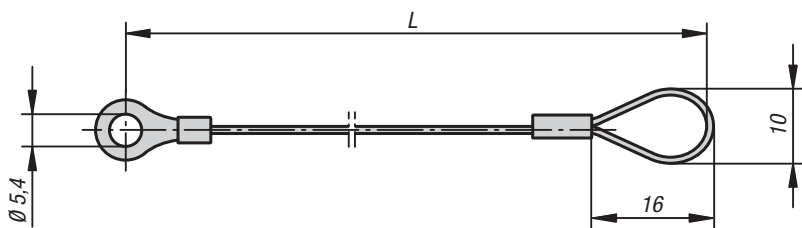
**Note:**  
Elastic helix cable to secure equipment parts. Very good reset force, robust and wear-resistant.

### KIPP Safety helix cable

| Order No.   | L   | L1   |
|-------------|-----|------|
| K0367.10200 | 200 | 1000 |

## Restraining cables

with eye



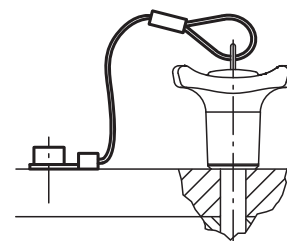
**Material, surface finish:**  
Stainless steel restraining cable with plastic casing.  
Clip and eye in aluminium.

**Sample order:**  
K0367.0200

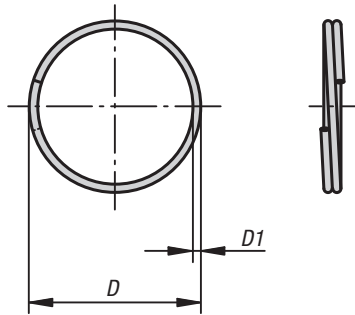
**Note:**  
With the restraining cable and key ring (K0367) the ball lock pins (K0363, K0364, K0641, K0366, K0642 and K0365) can be secured so that they cannot be lost. A screw M5 is used to secure the retaining cable.  
Application temperature: +80 °C.

### KIPP Restraining cables with eye

| Order No.  | L   |
|------------|-----|
| K0367.0150 | 150 |
| K0367.0200 | 200 |
| K0367.0300 | 300 |



## Key rings



**Material, surface finish:**  
Stainless steel 1.4310, natural finish.

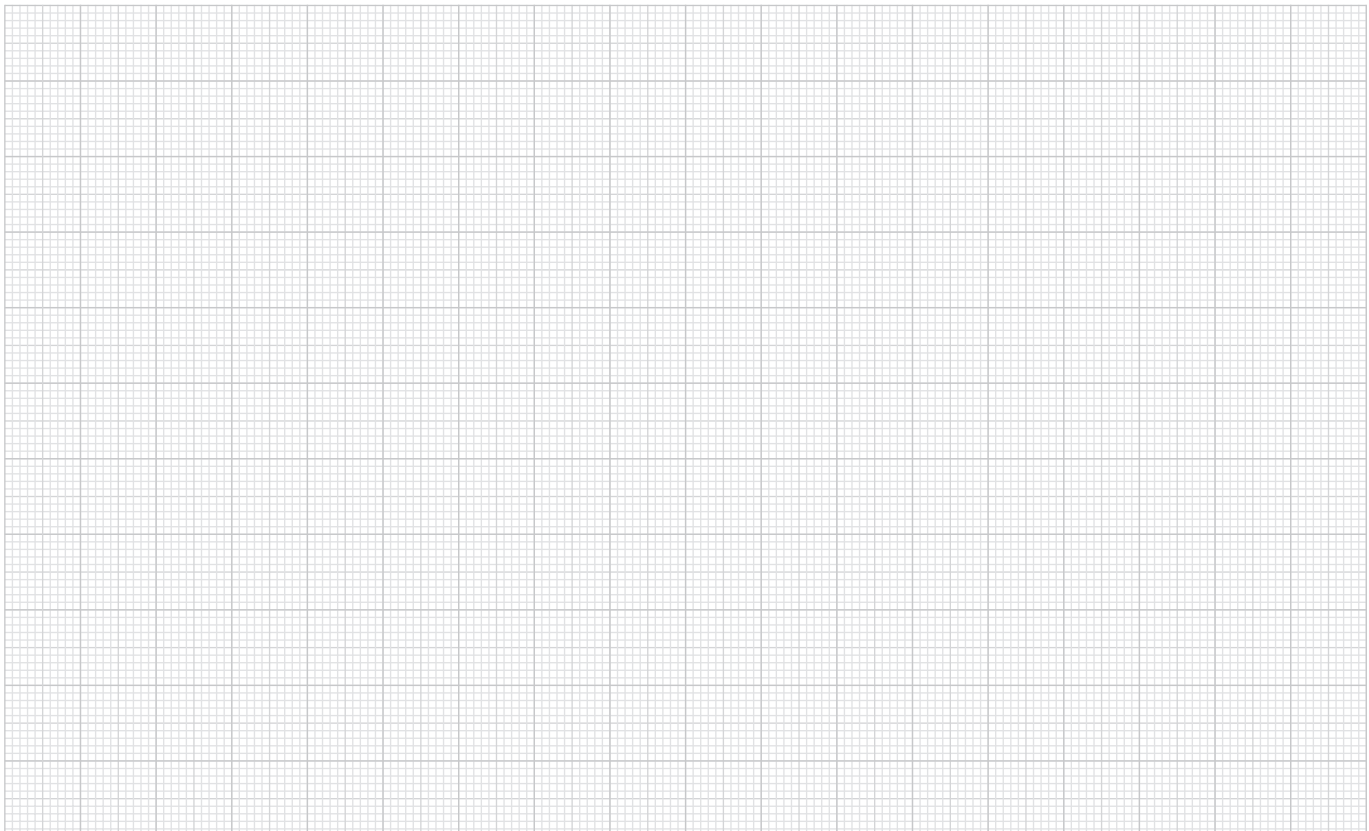
**Sample order:**  
K0367.23

**Note:**  
Suitable for restraining cable with eye K0367, ball locking bolts K0363, K0364, K0641, K0366, K0642, locking pins K0365 and locking bolts K0342, K0635, K0636.

### KIPP Key rings

| Order No. | D  | D1  |
|-----------|----|-----|
| K0367.15  | 15 | 1   |
| K0367.19  | 19 | 1   |
| K0367.23  | 23 | 1,2 |
| K0367.28  | 28 | 1,7 |

## Notes









## Support, locating and stop elements

Toggle locators  
**K0282**



Page 698-699

Toggle locators  
swivel angle 12°  
**K0302**



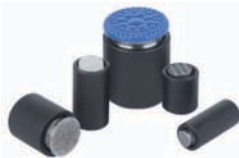
Page 700

Toggle locators  
with swivel angle 20°  
**K0283**



Page 701

Toggle locators  
with O-ring  
**K0284**



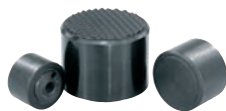
Page 702-703

Toggle locators  
with O-ring and exchangeable inserts  
**K0285**



Page 704-705

Toggle locators  
swivel back automatically  
**K0286**



Page 706

Adjustable toggle locators  
**K0287**



Page 707

Adjustable toggle locators  
with O-ring  
**K0288**



Page 708-709

Adjustable toggle locators  
with O-ring and exchangeable inserts  
**K0289**



Page 710-713

Adjustable toggle locators  
with O-ring and hexagon socket  
**K0290**



Page 714-715

Adjustable toggle locators  
with O-ring, exchangeable inserts and  
hexagon socket  
**K0291**



Page 716-717

Ball pressure screws with hexagon  
socket head  
**K0380**



Page 718-719

Ball pressure screws with hexagon  
socket head  
in stainless steel  
**K0381**



Page 720

Ball pressure screws without head  
with fine thread  
**K0382**



Page 721

Ball pressure screws without head  
with full ball  
**K0383**



Page 722-723

Ball pressure screws without head,  
in stainless steel  
with full ball  
**K0384**



Page 724

Ball pressure screws without head  
with flattened ball  
**K0383**



Page 726-727

Ball pressure screws without head,  
in stainless steel  
with flattened ball  
**K0384**



Page 728



## Support, locating and stop elements

Ball pressure screws without head with flattened ball and torsion protection  
**K0383**



Page 729

Ball pressure screws without head in steel with full ball, LONG-LOK secured  
**K0666**



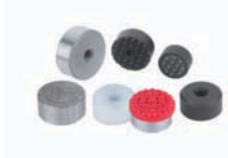
Page 730

Ball pressure screws without head in steel with flattened ball LONG-LOK secured  
**K0666**



Page 731

Round grippers and inserts  
**K0385**



Page 732-733

Grippers and inserts, round with counterbore  
**K0385**



Page 734

Hexagonal grippers  
**K0386**



Page 735

Square grippers  
**K0387**



Page 736

Adjustable grippers  
**K0388**



Page 737

Pressure screws  
**K0389**



Page 738

Pressure screws, stainless steel  
**K0667**



Page 739

Pressure screws, LONG-LOK secured  
**K0668**



Page 740

Straight bolts with ball end form A  
**K0350**



Page 741

Straight bolts with flattened ball end form C  
**K0350**



Page 741

Straight bolts with ball end form B  
**K0351**



Page 742

Straight bolts with flattened ball end Form D  
**K0351**



Page 742

Cylindrical positioning pins ground  
**K0352**



Page 743

Cylindrical positioning pins not ground  
**K0353**



Page 743

Free-milled positioning pins ground  
**K0354**



Page 744



## Support, locating and stop elements

Free-milled positioning pins  
not ground  
**K0355**



Page 745

Locating bolts  
spread type  
**K0356**



Page 746

Thrust bolts  
**K0292**



Page 747

Straight and thrust bolts  
to DIN 6321 (edition 1973)  
**K0293**



Page 748

Positioning feet  
**K0298**



Page 749

Positioning feet  
**K0299**



Page 750

Jig feet  
with threaded pin  
**K0300**



Page 751

Jig feet  
with internal thread  
**K0301**



Page 752

Thrust bolts  
**K0294**



Page 753

Thrust bolts  
with positioning pin  
**K0295**



Page 754

Feet  
with threaded pin, DIN 6320  
(edition 1971)  
**K0296**



Page 755

Locating feet  
**K0303**



Page 756

Support bolts  
**K0297**



Page 757

Thrust pins  
**K0305**



Page 758

Adjustable thrust bolts  
with counternut  
**K0306**



Page 758

Thrust bolts  
**K0307**



Page 759

Jack screws  
**K0308**



Page 760

Stop, adjustable  
with end position feedback  
**K0581**



Page 761



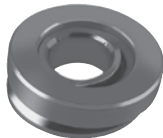
## Support, locating and stop elements

Concave and convex washers  
DIN 6319, edition 10/01  
**K0729**



Page 762-763

Ball head position adjusters  
**K0691**



Page 764

Height adjustment bolts  
**K0692**



Page 766

Height adjustment bolts with  
counter-nuts  
**K0693**



Page 767

Level-compensating  
components  
**K0694**



Page 768

Spherical level-compensating  
bolts  
**K0695**



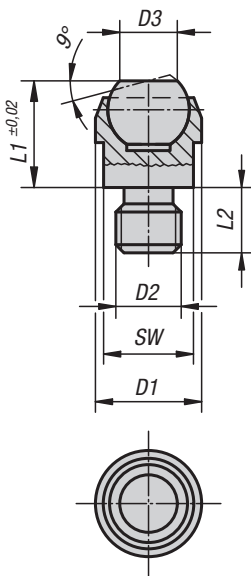
Page 735



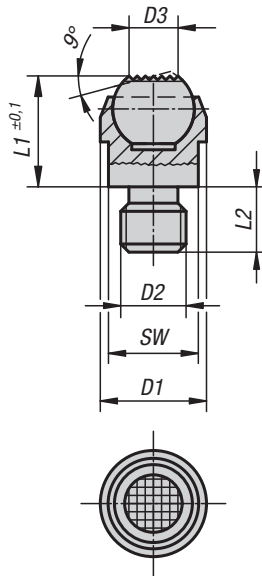
# Toggle locators



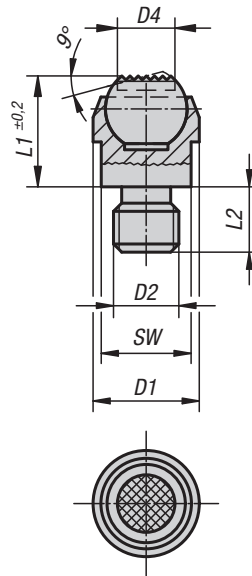
Form C  
with external thread,  
plain, flattened ball



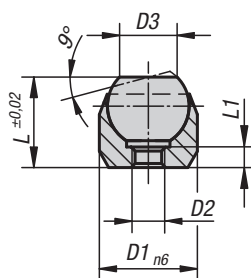
Form F  
with external thread,  
serrated, flattened ball



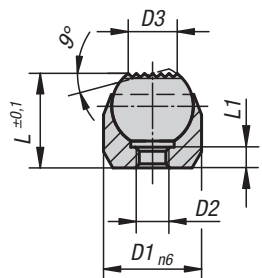
Form M  
with external thread,  
flattened ball,  
serration in hard metal



Form G  
with fitted support,  
plain, flattened ball



Form J  
with fitted support,  
serrated, flattened ball



**Material:**

Body in tempered steel.  
Ball in ball-bearing steel 1.2067.  
Form M: ball in tempered steel, insert with serration in hard metal.

**Surface finish:**

Body heat-treated and phosphated. Ball hardened.  
Form M ball heat-treated.

**Sample order:**

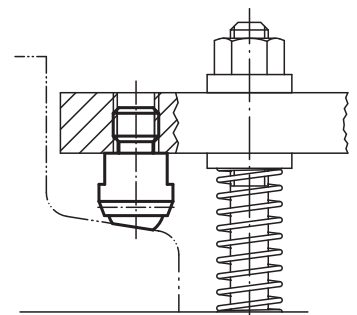
K0282.120

**Note:**

The toggle locators serve as stops, supports and thrust pads in fixture constructions.  
The serrated hard metal tips are soldered in.

Ball is protected against torsion.

\* Only valid if the minimum borehole depth is observed.



## KIPP Toggle locators

| Order No. | Form | D1 | D2  | D3   | D4  | L1   | L2 | Ball-Ø | SW | Load capacity<br>max. kN<br>(static load only) | Approx.<br>weight<br>kg |
|-----------|------|----|-----|------|-----|------|----|--------|----|--|-------------------------|
| K0282.108 | C    | 13 | M8  | 7,2  | -   | 13   | 8  | 10     | 11 | 10   | 0,013                   |
| K0282.110 | C    | 20 | M10 | 10,5 | -   | 18   | 10 | 16     | 17 | 25   | 0,040                   |
| K0282.112 | C    | 20 | M12 | 10,5 | -   | 18   | 12 | 16     | 17 | 25   | 0,040                   |
| K0282.116 | C    | 30 | M16 | 20   | -   | 27   | 16 | 25     | 27 | 90   | 0,100                   |
| K0282.120 | C    | 50 | M20 | 34,5 | -   | 35   | 20 | 40     | 41 | 165  | 0,520                   |
| K0282.308 | F    | 13 | M8  | 7,2  | -   | 13   | 8  | 10     | 11 | 10   | 0,013                   |
| K0282.310 | F    | 20 | M10 | 10,5 | -   | 18   | 10 | 16     | 17 | 25   | 0,040                   |
| K0282.312 | F    | 20 | M12 | 10,5 | -   | 18   | 12 | 16     | 17 | 25   | 0,040                   |
| K0282.316 | F    | 30 | M16 | 20   | -   | 27   | 16 | 25     | 27 | 90   | 0,100                   |
| K0282.320 | F    | 50 | M20 | 34,5 | -   | 35   | 20 | 40     | 41 | 165  | 0,520                   |
| K0282.908 | M    | 13 | M8  | -    | 7,7 | 13,3 | 8  | 10     | 11 | 10   | 0,013                   |
| K0282.910 | M    | 20 | M10 | -    | 12  | 18   | 10 | 16     | 17 | 25   | 0,040                   |
| K0282.912 | M    | 20 | M12 | -    | 12  | 18   | 12 | 16     | 17 | 25   | 0,040                   |

| Order No. | Form | D1 | D2 | D3   | L  | L1  | Ball-Ø | Receiving hole    | Load capacity<br>max. kN<br>(static load only) | Approx.<br>weight<br>kg |
|-----------|------|----|----|------|----|-----|--------|-------------------|--|-------------------------|
| K0282.403 | G    | 12 | M3 | 7,2  | 11 | 3,5 | 10     | ∅ 12 H7 x 6 min.  | 10*  | 0,010                   |
| K0282.404 | G    | 18 | M4 | 10,5 | 17 | 4,4 | 16     | ∅ 18 H7 x 8 min.  | 25*  | 0,030                   |
| K0282.405 | G    | 28 | M5 | 20   | 25 | 6,3 | 25     | ∅ 28 H7 x 13 min. | 90*  | 0,080                   |
| K0282.603 | J    | 12 | M3 | 7,2  | 11 | 3,5 | 10     | ∅ 12 H7 x 6 min.  | 10*  | 0,010                   |
| K0282.604 | J    | 18 | M4 | 10,5 | 17 | 4,4 | 16     | ∅ 18 H7 x 8 min.  | 25*  | 0,030                   |
| K0282.605 | J    | 28 | M5 | 20   | 25 | 6,3 | 25     | ∅ 28 H7 x 13 min. | 90*  | 0,080                   |

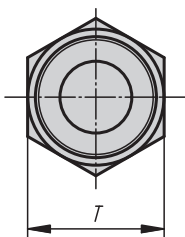
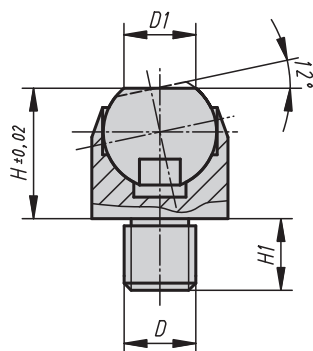


## Toggle locators

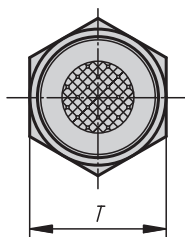
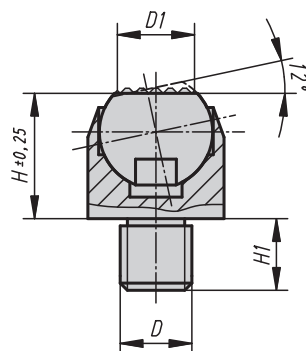
swivel angle 12°



Form C  
with external thread  
plain, flattened ball



Form F  
with external thread  
serrated, flattened ball



**Material:**

Body in tempered steel.  
Ball in ball-bearing steel 1.3505.

**Surface finish:**

Body heat-treated, ball hardened (50 - 55 HRC).

**Sample order:**

K0302.106

**Note:**

The toggle locators serve as stops, supports and pressure pads in the fixture construction. They can also be installed in existing clamping devices, e.g. „arness“ clamping device.

Ball is protected against torsion.

### KIPP Toggle locators swivel angle 12°

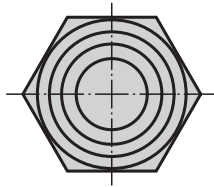
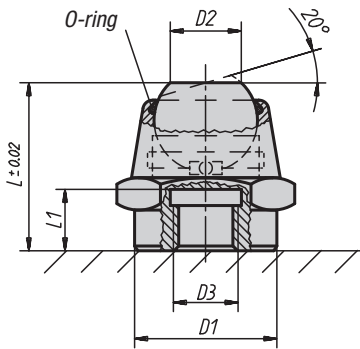
| Order No.<br>Form C | Order No.<br>Form F | D   | D1  | H  | H1 | Ball-Ø | T  | Load capacity<br>max. kN<br>(static load only) | Approx.<br>weight<br>kg |
|---------------------|---------------------|-----|-----|----|----|--------|----|--|-------------------------|
| K0302.106           | K0302.306           | M6  | 6,7 | 13 | 7  | 10     | 13 | 10   | 0,015                   |
| K0302.108           | K0302.308           | M8  | 6,7 | 13 | 8  | 10     | 13 | 10   | 0,020                   |
| K0302.110           | K0302.310           | M10 | 10  | 18 | 10 | 16     | 19 | 25   | 0,035                   |
| K0302.112           | K0302.312           | M12 | 10  | 18 | 12 | 16     | 19 | 25   | 0,045                   |
| K0302.116           | K0302.316           | M16 | 20  | 27 | 16 | 24     | 30 | 90   | 0,160                   |
| K0302.120           | K0302.320           | M20 | 20  | 27 | 20 | 24     | 30 | 90   | 0,180                   |

## Toggle locators

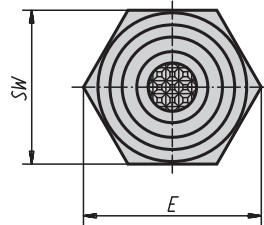
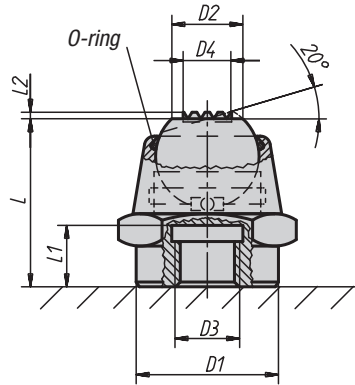
with swivel angle 20°



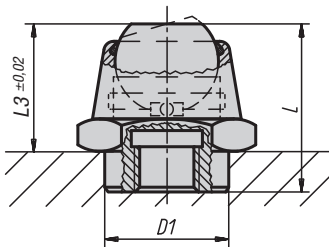
Form C  
plain, flattened ball



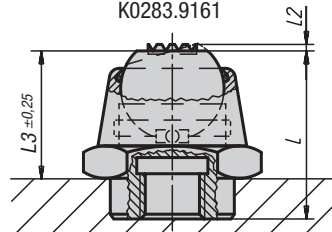
Form M  
flattened ball,  
serration in hard metal



Version:  
K0283.1061  
K0283.1101  
K0283.1161



Version:  
K0283.9061  
K0283.9101  
K0283.9161



**Material:**

Body in steel. Ball in rust and acid resistant steel.  
Form M with hard metal insert.

**Surface finish:**

Body black oxide finish. Ball natural finish

**Sample order:**

K0283.108

**Note:**

Toggle locators are used to support and clamp unmachined and machined workpieces. In addition, they serve as stops, supports and thrust pads in fixture and tool shops.

Patent applied for.

Grub screws or threaded studs can be screwed and glued into thread D3. This is an easy way of obtaining a toggle locator with external thread.

Ball is protected against torsion.

**Advantages:**

- The toggle locator can be swiveled by 20°.
- High load forces can be absorbed.
- The built-in O-ring keeps dirt and foreign particles out, which in turn guarantees reliable operation.

### KIPP Toggle locators with swivel angle 20°

| Order No.<br>Form C | Order No.<br>Form M | D1 | D2 | D3  | D4    | L    | L1 | L2    | L3   | E    | SW | Ball-Ø | Load capacity<br>max. kN<br>(static load only) |
|---------------------|---------------------|----|----|-----|-------|------|----|-------|------|------|----|--------|--|
| K0283.1061          | K0283.9061          | 12 | 7  | M6  | -/5   | 17,5 | 6  | -/0,4 | 12,5 | 19,6 | 17 | 10     | 14   |
| K0283.106           | K0283.906           | 16 | 7  | M6  | -/5   | 17,5 | 6  | -/0,4 | -    | 19,6 | 17 | 10     | 14   |
| K0283.108           | K0283.908           | 22 | 11 | M8  | -/7,5 | 26   | 9  | -/0,8 | -    | 27,7 | 24 | 16     | 34   |
| K0283.1101          | K0283.9101          | 18 | 11 | M10 | -/7,5 | 26   | 9  | -/0,8 | 20   | 27,7 | 24 | 16     | 34   |
| K0283.110           | K0283.910           | 22 | 11 | M10 | -/7,5 | 26   | 9  | -/0,8 | -    | 27,7 | 24 | 16     | 34   |
| K0283.112           | K0283.912           | 22 | 11 | M12 | -/7,5 | 26   | 9  | -/0,8 | -    | 27,7 | 24 | 16     | 34   |
| K0283.1161          | K0283.9161          | 26 | 18 | M16 | -/13  | 40   | 15 | -/0,6 | 30   | 41,6 | 36 | 25     | 90   |
| K0283.116           | K0283.916           | 34 | 18 | M16 | -/13  | 40   | 15 | -/0,6 | -    | 41,6 | 36 | 25     | 90   |
| K0283.120           | K0283.920           | 34 | 18 | M20 | -/13  | 40   | 15 | -/0,6 | -    | 41,6 | 36 | 25     | 90   |

# Toggle locators

with O-ring



Form C  
plain, flattened steel ball

Form F  
serrated, flattened steel ball

Form K  
plain, flattened delrin ball

**Material:**  
Body tempered steel.  
Ball:  
Form C, F tool steel.  
Form K Delrin.  
Form O stainless steel with diamond surface.  
Form P stainless steel with polyurethane surface.

**Surface finish:**  
Body heat-treated and black oxide finish.  
Ball:  
Form C, F hardened, black oxide finish.  
Form K Delrin ball in white.  
Form O surface comparable with abrasive grit size 100.  
Form P polyurethane, Shore hardness 60°.

**Sample order:**  
K0284.704X012

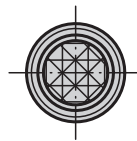
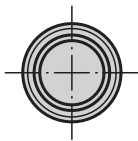
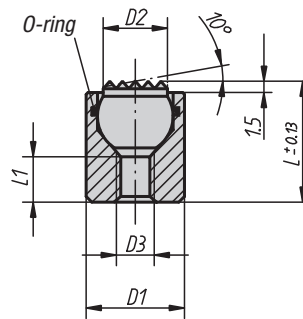
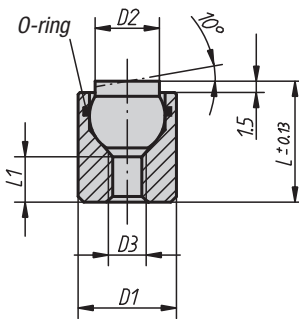
**Note:**  
The toggle locators are used to support and clamp unmachined and machined workpieces. In addition, they serve as stops, supports and pressure pieces in jig- and toolmaking.

Ball secured against torsion.

Form O: The abrasive diamond surface is welded firmly to the ball. It is ideally suited to supporting smooth or slippery applications with a minimum of clamping pressure. This allows the diamond particles to get a firm grip on a very small area with minimum damage to the surface. The diamond surface offers excellent wear resistance.

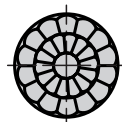
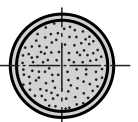
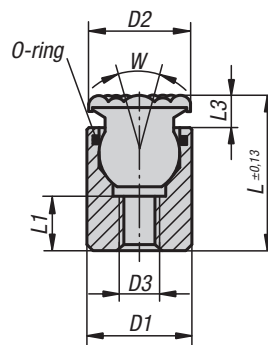
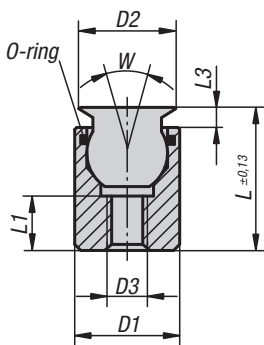
Form P: The polyurethane surface is permanently vulcanised on the ball. It is abrasion-resistant and does not discolour. Offers optimum protection against damage to delicate surfaces. The pearl-like surface gives a firm grip and allows air to escape so as to prevent any suction effect between the contact surface and the toggle locator.

**Advantages:**  
– The built-in O-ring keeps the ball in its place and prevents dirt and foreign particles from entering.  
– This assures smooth and steady movements.



Form O  
stainless steel ball with diamond surface

Form P  
stainless steel ball with polyurethane surface



# Toggle locators

with O-ring

## KIPP Toggle locators with O-ring

| Order No.     | Form | D1 | D2  | D3 | L  | L1  | Ball-Ø | Load capacity<br>max. kN<br>(static load only) | Approx.<br>weight<br>kg |
|---------------|------|----|-----|----|----|-----|--------|--|-------------------------|
| K0284.104X012 | C    | 10 | 6   | M4 | 12 | 4,5 | 7      | 12   | 0,006                   |
| K0284.104X025 | C    | 10 | 6   | M4 | 25 | 12  | 7      | 12   | 0,013                   |
| K0284.105X016 | C    | 13 | 8,5 | M5 | 16 | 5   | 10     | 20   | 0,015                   |
| K0284.105X025 | C    | 13 | 8,5 | M5 | 25 | 12  | 10     | 20   | 0,023                   |

| Order No.     | Form | D1 | D2  | D3 | L  | L1  | Ball-Ø | Load capacity<br>max. kN<br>(static load only) | Approx.<br>weight<br>kg |
|---------------|------|----|-----|----|----|-----|--------|--|-------------------------|
| K0284.304X012 | F    | 10 | 6   | M4 | 12 | 4,5 | 7      | 12   | 0,006                   |
| K0284.304X025 | F    | 10 | 6   | M4 | 25 | 12  | 7      | 12   | 0,013                   |
| K0284.305X016 | F    | 13 | 8,5 | M5 | 16 | 5   | 10     | 20   | 0,014                   |
| K0284.305X025 | F    | 13 | 8,5 | M5 | 25 | 12  | 10     | 20   | 0,022                   |

| Order No.     | Form | D1 | D2  | D3 | L  | L1  | Ball-Ø | Load capacity<br>max. kN<br>(static load only) | Approx.<br>weight<br>kg |
|---------------|------|----|-----|----|----|-----|--------|--|-------------------------|
| K0284.704X012 | K    | 10 | 6   | M4 | 12 | 4,5 | 7      | 2  | 0,005                   |
| K0284.704X025 | K    | 10 | 6   | M4 | 25 | 12  | 7      | 2  | 0,012                   |
| K0284.705X016 | K    | 13 | 8,5 | M5 | 16 | 5   | 10     | 4  | 0,011                   |
| K0284.705X025 | K    | 13 | 8,5 | M5 | 25 | 12  | 10     | 4  | 0,019                   |

| Order No.     | Form | D1 | D2 | D3  | L    | L1  | L3 | W  | Ball-Ø | Load capacity<br>max. kN<br>(static load only) | Approx.<br>weight<br>kg |
|---------------|------|----|----|-----|------|-----|----|----|--------|--|-------------------------|
| K0284.504X012 | O    | 10 | 8  | M4  | 12,5 | 3,5 | 2  | 28 | 7      | 11,5   | 0,006                   |
| K0284.504X025 | O    | 10 | 8  | M4  | 25,5 | 9   | 2  | 28 | 7      | 11,5   | 0,013                   |
| K0284.505X017 | O    | 13 | 11 | M5  | 17,5 | 6,5 | 3  | 28 | 10     | 19,8   | 0,015                   |
| K0284.505X026 | O    | 13 | 11 | M5  | 26,5 | 9   | 3  | 28 | 10     | 19,8   | 0,023                   |
| K0284.506X021 | O    | 17 | 14 | M6  | 21   | 7,5 | 3  | 28 | 13     | 27,4   | 0,031                   |
| K0284.508X024 | O    | 19 | 19 | M8  | 24   | 8,5 | 4  | 24 | 15     | 38,6   | 0,045                   |
| K0284.510X028 | O    | 24 | 21 | M10 | 28   | 9   | 4  | 24 | 20     | 58,3   | 0,084                   |

| Order No.     | Form | D1 | D2 | D3  | L    | L1  | L3 | W  | Ball-Ø | Approx.<br>weight<br>kg |
|---------------|------|----|----|-----|------|-----|----|----|--------|-------------------------|
| K0284.604X014 | P    | 10 | 10 | M4  | 14,5 | 3,5 | 4  | 28 | 7      | 0,006                   |
| K0284.604X027 | P    | 10 | 10 | M4  | 27,5 | 9   | 4  | 28 | 7      | 0,013                   |
| K0284.605X019 | P    | 13 | 13 | M5  | 19,5 | 6,5 | 5  | 28 | 10     | 0,015                   |
| K0284.605X028 | P    | 13 | 13 | M5  | 28,5 | 9   | 5  | 28 | 10     | 0,023                   |
| K0284.606X023 | P    | 17 | 16 | M6  | 23   | 7,5 | 5  | 28 | 13     | 0,032                   |
| K0284.608X026 | P    | 19 | 21 | M8  | 26   | 8,5 | 6  | 24 | 15     | 0,046                   |
| K0284.610X030 | P    | 24 | 23 | M10 | 30   | 9   | 6  | 24 | 20     | 0,085                   |

## Toggle locators

with O-ring and exchangeable inserts



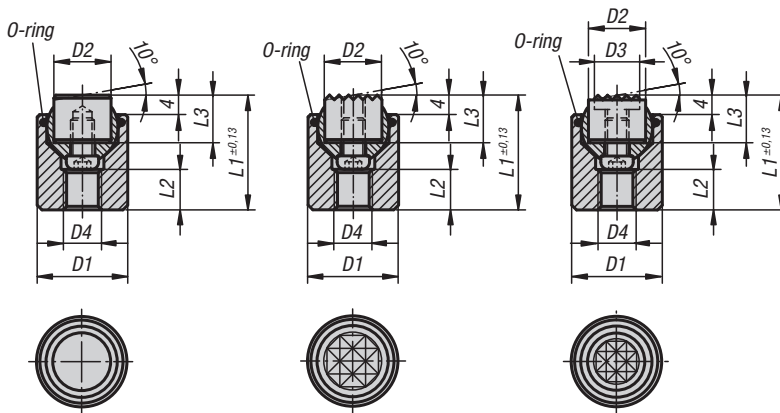
Form C  
plain, flattened steel insert

Form E  
Stainless steel insert plain, flattened

Form K  
plain, flattened delrin insert

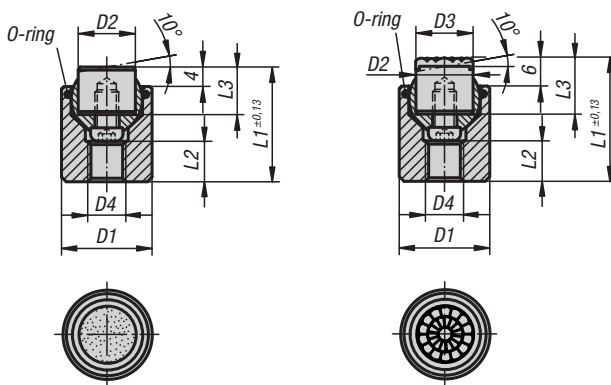
Form F  
serrated, flattened gripper

Form M  
gripper flattened, serration in hard metal



Form O  
stainless steel insert with diamond surface

Form P  
stainless steel insert with polyurethane surface



### Material, surface finish:

Body in tempered steel, heat-treated and black oxide finish.

Ball in rust and acid-resistant steel, hardened and natural finish.

Insert:

Form C in tool steel, hardened and black oxide finish.

Form F in tool steel, hardened and black oxide finish.

Form M in tool steel with carbide serration, black oxide finish.

Form K in white Delrin

Form E stainless steel, hardened, natural finish.

Form O stainless steel with diamond surface comparable with abrasive grit size 100.

Form P stainless steel with polyurethane surface, Shore hardness 60°.

### Sample order:

K0285.736X036

### Note:

Toggle locators are used to support and clamp unmachined and machined workpieces.

In addition, they serve as stops, supports and thrust pads in fixture and tool shops.

The ball can be removed from the housing by applying light pressure to the socket head screw.

Ball is protected against torsion.

### Advantages:

- Highly cost-effective as inserts can be exchanged.
- The built-in O-ring keeps the ball in its place and prevents dirt and foreign particles from entering.
- This assures smooth and steady movements.

## KIPP Toggle locators with O-ring and exchangeable inserts

| Order No.     | Form | D1 | D2 | D4  | L1 | L2 | L3 | Ball-Ø | Load capacity max. kN (static load only) | Approx. weight kg | Order No. steel insert |
|---------------|------|----|----|-----|----|----|----|--------|--|-------------------|------------------------|
| K0285.117X022 | C    | 17 | 10 | M6  | 22 | 7  | 10 | 13     | 28                                       | 0,031             | K0385.10108            |
| K0285.119X024 | C    | 19 | 12 | M8  | 24 | 8  | 10 | 15     | 39                                       | 0,043             | K0385.12108            |
| K0285.124X028 | C    | 24 | 16 | M10 | 28 | 8  | 10 | 20     | 58                                       | 0,081             | K0385.16108            |
| K0285.130X030 | C    | 30 | 20 | M12 | 30 | 9  | 10 | 23     | 95                                       | 0,139             | K0385.20108            |
| K0285.136X036 | C    | 36 | 25 | M12 | 36 | 11 | 10 | 28     | 136                                      | 0,251             | K0385.25108            |

| Order No.     | Form | D1 | D2 | D4  | L1 | L2 | L3 | Ball-Ø | Load capacity max. kN<br>(static load only) | Approx. weight<br>kg | Order No. for<br>stainless steel insert |
|---------------|------|----|----|-----|----|----|----|--------|---|----------------------|---|
| K0285.217X022 | E    | 17 | 10 | M6  | 22 | 7  | 10 | 13     | 28  | 0,031                | K0385.10102                             |
| K0285.219X024 | E    | 19 | 12 | M8  | 24 | 8  | 10 | 15     | 39  | 0,043                | K0385.12102                             |
| K0285.224X028 | E    | 24 | 16 | M10 | 28 | 8  | 10 | 20     | 58  | 0,081                | K0385.16102                             |
| K0285.230X030 | E    | 30 | 20 | M12 | 30 | 9  | 10 | 23     | 95  | 0,139                | K0385.20102                             |
| K0285.236X036 | E    | 36 | 25 | M12 | 36 | 11 | 10 | 28     | 136   | 0,251                | K0385.25102                             |

| Order No.     | Form | D1 | D2 | D4  | L1 | L2 | L3 | Ball-Ø | Load capacity max. kN<br>(static load only) | Approx. weight<br>kg | Order No. gripper |
|---------------|------|----|----|-----|----|----|----|--------|---|----------------------|-------------------|
| K0285.317X022 | F    | 17 | 10 | M6  | 22 | 7  | 10 | 13     | 28  | 0,031                | K0385.1010        |
| K0285.319X024 | F    | 19 | 12 | M8  | 24 | 8  | 10 | 15     | 39  | 0,045                | K0385.1210        |
| K0285.324X028 | F    | 24 | 16 | M10 | 28 | 8  | 10 | 20     | 58  | 0,082                | K0385.1610        |
| K0285.330X030 | F    | 30 | 20 | M12 | 30 | 9  | 10 | 23     | 95  | 0,141                | K0385.2010        |
| K0285.336X036 | F    | 36 | 25 | M12 | 36 | 11 | 10 | 28     | 136   | 0,249                | K0385.2510        |

| Order No.     | Form | D1 | D2 | D4  | L1 | L2 | L3 | Ball-Ø | Load capacity max. kN<br>(static load only) | Approx. weight<br>kg | Order No. delrin insert |
|---------------|------|----|----|-----|----|----|----|--------|---|----------------------|-------------------------|
| K0285.717X022 | K    | 17 | 10 | M6  | 22 | 7  | 10 | 13     | 4   | 0,027                | K0385.10109             |
| K0285.719X024 | K    | 19 | 12 | M8  | 24 | 8  | 10 | 15     | 7   | 0,036                | K0385.12109             |
| K0285.724X028 | K    | 24 | 16 | M10 | 28 | 8  | 10 | 20     | 14  | 0,069                | K0385.16109             |
| K0285.730X030 | K    | 30 | 20 | M12 | 30 | 9  | 10 | 23     | 27  | 0,121                | K0385.20109             |
| K0285.736X036 | K    | 36 | 25 | M12 | 36 | 11 | 10 | 28     | 47  | 0,221                | K0385.25109             |

| Order No.     | Form | D1 | D2 | D3   | D4  | L1 | L2 | L3 | Ball-Ø | Load capacity max. kN<br>(static load only) | Approx. weight<br>kg | Order No. gripper |
|---------------|------|----|----|------|-----|----|----|----|--------|---|----------------------|-------------------|
| K0285.917X022 | M    | 17 | 10 | 7,9  | M6  | 22 | 7  | 10 | 13     | 28  | 0,031                | K0385.10107       |
| K0285.919X024 | M    | 19 | 12 | 9,5  | M8  | 24 | 8  | 10 | 15     | 39  | 0,045                | K0385.12107       |
| K0285.924X028 | M    | 24 | 16 | 12,7 | M10 | 28 | 8  | 10 | 20     | 58  | 0,082                | K0385.16107       |
| K0285.930X030 | M    | 30 | 20 | 15,9 | M12 | 30 | 9  | 10 | 23     | 95  | 0,141                | K0385.20107       |
| K0285.936X036 | M    | 36 | 25 | 19   | M12 | 36 | 11 | 10 | 28     | 136   | 0,249                | K0385.25107       |

| Order No.     | Form | D1 | D2 | D4  | L1 | L2 | L3 | Ball-Ø | Load capacity max. kN<br>(static load only) | Approx. weight<br>kg | Order No. for stainless steel insert,<br>diamond surface |
|---------------|------|----|----|-----|----|----|----|--------|---|----------------------|--|
| K0285.517X022 | O    | 17 | 10 | M6  | 22 | 7  | 10 | 13     | 28  | 0,031                | K0385.10105  |
| K0285.519X024 | O    | 19 | 12 | M8  | 24 | 8  | 10 | 15     | 39  | 0,043                | K0385.12105  |
| K0285.524X028 | O    | 24 | 16 | M10 | 28 | 8  | 10 | 20     | 58  | 0,081                | K0385.16105  |
| K0285.530X030 | O    | 30 | 20 | M12 | 30 | 9  | 10 | 23     | 95  | 0,139                | K0385.20105  |
| K0285.536X036 | O    | 36 | 25 | M12 | 36 | 11 | 10 | 28     | 136   | 0,251                | K0385.25105  |

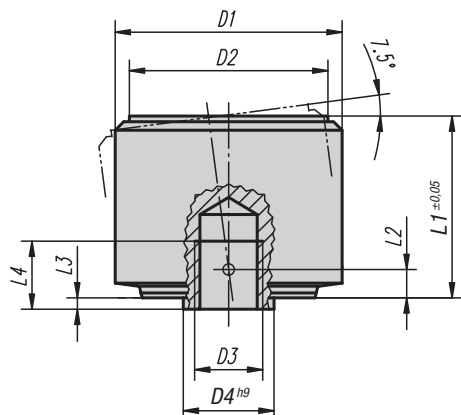
| Order No.     | Form | D1 | D2 | D3 | D4  | L1 | L2 | L3 | Ball-Ø | Approx. weight<br>kg | Order No. for stainless steel insert,<br>polyurethane surface |
|---------------|------|----|----|----|-----|----|----|----|--------|----------------------|---|
| K0285.617X024 | P    | 17 | 10 | 10 | M6  | 24 | 7  | 12 | 13     | 0,031                | K0385.10126   |
| K0285.619X026 | P    | 19 | 12 | 13 | M8  | 26 | 8  | 12 | 15     | 0,043                | K0385.12126   |
| K0285.624X030 | P    | 24 | 16 | 16 | M10 | 30 | 8  | 12 | 20     | 0,081                | K0385.16126   |
| K0285.630X032 | P    | 30 | 20 | 21 | M12 | 32 | 9  | 12 | 23     | 0,139                | K0385.20126   |
| K0285.636X038 | P    | 36 | 25 | 27 | M12 | 38 | 11 | 12 | 28     | 0,251                | K0385.25126   |

## Toggle locators

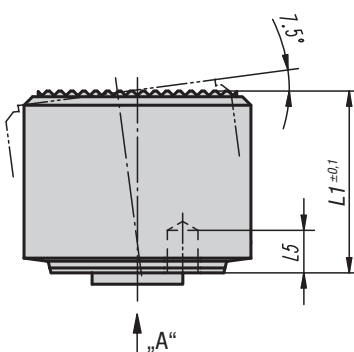
swivel back automatically



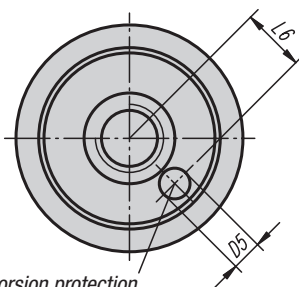
Form C  
flat support surface



Form F  
serrated support surface



view "A"



hole for pin as torsion protection

**Material:**

Tempered steel.

**Surface finish:**

Hardened and black oxide finish.

**Sample order:**

K0286.105

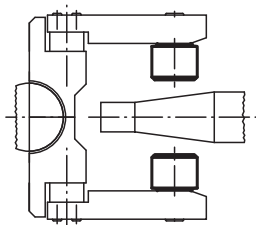
**Note:**

Toggle locators are used to support and clamp unmachined and machined workpieces. In addition, they serve as stops, supports and thrust pads in fixture and tool shops.

**Advantages:**

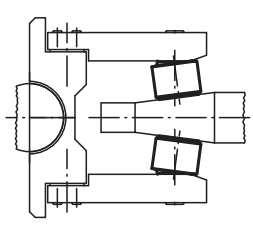
- The built-in O-ring prevents dirt and foreign particles from entering.
- The clamping surface swivels back to zero-point position automatically after clamping.
- High load rating and small size.

1. bring gripper into position



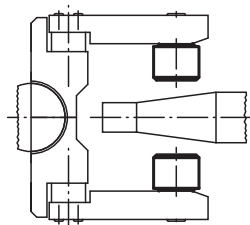
zero-point position of toggle locator

2. grasp workpiece



toggle locator adapts to workpiece contour

3. open gripper



toggle locator swivels back automatically

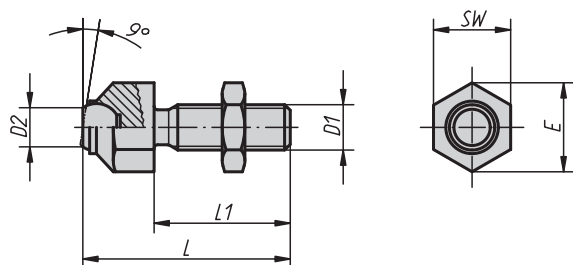
### KIPP Toggle locators swivel back automatically

| Order No. | Form | D1 | D2 | D3  | D4 | D5  | L1   | L2  | L3  | L4 | L5 | L6   | Load capacity<br>max. kN<br>(static load only) | Approx.<br>weight<br>kg |
|-----------|------|----|----|-----|----|-----|------|-----|-----|----|----|------|--|-------------------------|
| K0286.105 | C    | 18 | 15 | M5  | 7  | 1,8 | 14   | 2,1 | 0,8 | 5  | 3  | 4,6  | 30   | 0,022                   |
| K0286.106 | C    | 22 | 18 | M6  | 8  | 2,8 | 16,5 | 2,5 | 1   | 6  | 4  | 5,6  | 50   | 0,040                   |
| K0286.108 | C    | 28 | 23 | M8  | 11 | 3,3 | 21,5 | 3,4 | 1,3 | 8  | 5  | 7,5  | 90   | 0,082                   |
| K0286.110 | C    | 34 | 29 | M10 | 13 | 4,4 | 27   | 4,2 | 1,6 | 10 | 6  | 9,2  | 140  | 0,153                   |
| K0286.112 | C    | 40 | 35 | M12 | 16 | 5,4 | 32   | 5   | 2   | 12 | 8  | 11,3 | 220  | 0,253                   |
| K0286.305 | F    | 18 | 15 | M5  | 7  | 1,8 | 14   | 2,1 | 0,8 | 5  | 3  | 4,6  | 30   | 0,022                   |
| K0286.306 | F    | 22 | 18 | M6  | 8  | 2,8 | 16,5 | 2,5 | 1   | 6  | 4  | 5,6  | 50   | 0,040                   |
| K0286.308 | F    | 28 | 23 | M8  | 11 | 3,3 | 21,5 | 3,4 | 1,3 | 8  | 5  | 7,5  | 90   | 0,082                   |
| K0286.310 | F    | 34 | 29 | M10 | 13 | 4,4 | 27   | 4,2 | 1,6 | 10 | 6  | 9,2  | 140  | 0,153                   |
| K0286.312 | F    | 40 | 35 | M12 | 16 | 5,4 | 32   | 5   | 2   | 12 | 8  | 11,3 | 220  | 0,253                   |

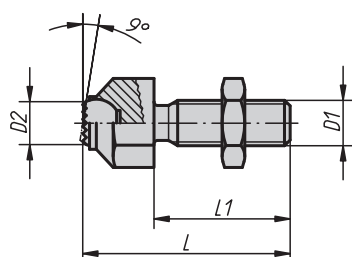
## Adjustable toggle locators



Form C  
plain, flattened ball



Form F  
serrated, flattened ball



**Material:**  
Steel.

**Surface finish:**  
Housing heat-treated and manganese phosphate treated.  
Ball hardened, natural finish.  
Nut with black oxide finish.

**Sample order:**  
K0287.316

**Note:**  
Ball is protected against torsion.

### KIPP Adjustable toggle locators

| Order No. | Form | D1  | D2   | L    | L1 | E    | SW | Ball-Ø | Load capacity<br>max. kN<br>(static load only) | Approx.<br>weight<br>kg |
|-----------|------|-----|------|------|----|------|----|--------|--|-------------------------|
| K0287.108 | C    | M8  | 5,8  | 36,6 | 25 | 14,5 | 13 | 8,5    | 8  | 0,025                   |
| K0287.110 | C    | M10 | 8,6  | 45,7 | 30 | 19   | 17 | 12     | 8  | 0,055                   |
| K0287.112 | C    | M12 | 8,6  | 50,7 | 35 | 19   | 17 | 12     | 15   | 0,055                   |
| K0287.116 | C    | M16 | 10,5 | 60,7 | 40 | 27   | 24 | 16     | 25   | 0,115                   |
| K0287.120 | C    | M20 | 20   | 77,3 | 50 | 33   | 30 | 25     | 90   | 0,230                   |
| K0287.308 | F    | M8  | 5,8  | 36,6 | 25 | 14,5 | 13 | 8,5    | 8  | 0,025                   |
| K0287.310 | F    | M10 | 8,6  | 45,7 | 30 | 19   | 17 | 12     | 8  | 0,055                   |
| K0287.312 | F    | M12 | 8,6  | 50,7 | 35 | 19   | 17 | 12     | 15   | 0,055                   |
| K0287.316 | F    | M16 | 10,5 | 60,7 | 40 | 27   | 24 | 16     | 25   | 0,115                   |
| K0287.320 | F    | M20 | 20   | 77,3 | 50 | 33   | 30 | 25     | 90   | 0,230                   |



# Adjustable toggle locators

with O-ring



Form C  
plain, flattened steel ball

Form F  
serrated, flattened steel ball

Form K  
plain, flattened delrin ball

**Material:**

Body in tempered steel.

Ball:

Form C, F, tool steel.

Form K Delrin.

Form O stainless steel with diamond surface.

Form P stainless steel with polyurethane surface.

**Surface finish:**

Body tempered, black oxide finish.

Ball:

Form C, F hardened, black oxide finish.

Form K Delrin ball white.

Form O surface comparable with abrasive grit size 100.

Form P polyurethane, Shore hardness 60°.

**Sample order:**

K0288.506X012

(Please also indicate dimension L1)

**Note:**

The toggle locators are used to support and clamp unmachined and machined workpieces.

In addition, they serve as stops, supports and pressure pieces in jig- and toolmaking.

Ball secured against torsion.

Form O: The abrasive diamond surface is welded firmly to the ball. It is ideally suited to supporting smooth or slippery applications with a minimum of clamping pressure. This allows the diamond particles to get a firm grip on a very small area with minimum damage to the surface.

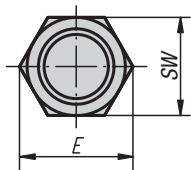
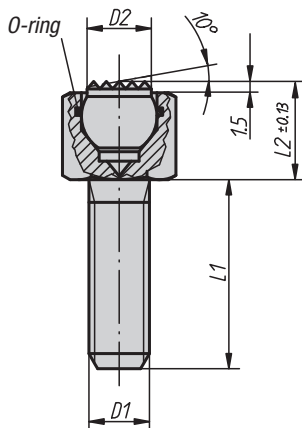
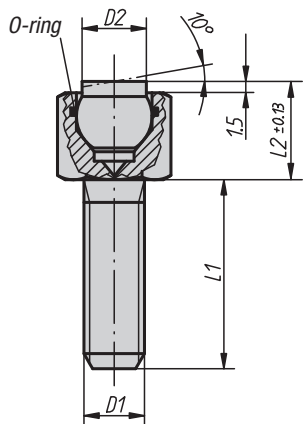
The diamond surface offers excellent wear resistance.

Form P: The polyurethane surface is vulcanised firmly to the ball. It is abrasion-resistant and does not discolour.

It offers optimum protection against damage to delicate surfaces. The pearl-like surface gives a firm grip and allows air to escape so as to prevent any suction effect between the contact surface and the toggle locator.

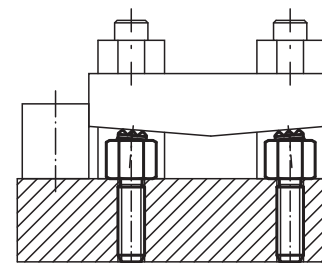
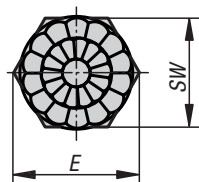
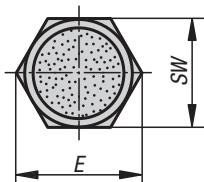
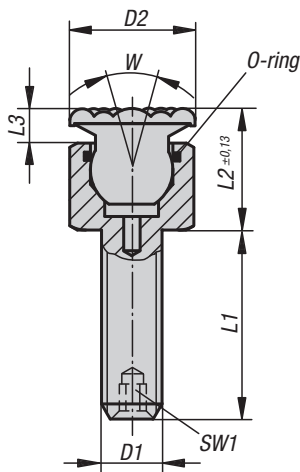
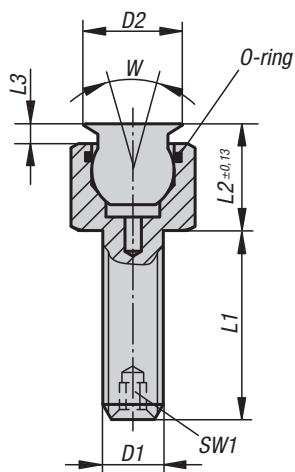
**Advantages:**

- The built-in O-ring keeps the ball in its place and prevents dirt and foreign particles from entering.
- This assures smooth and steady movements.



Form O  
stainless steel ball with diamond surface

Form P  
stainless steel ball with polyurethane surface



# Adjustable toggle locators

with O-ring

## KIPP Adjustable toggle locators with O-ring

| Order No.     | Form | D1 | D2  | L1 | L2  | E    | SW | Ball-Ø | Load capacity<br>max. kN<br>(static load only) | Approx.<br>weight<br>kg |
|---------------|------|----|-----|----|-----|------|----|--------|--|-------------------------|
| K0288.106X012 | C    | M6 | 6   | 12 | 9,5 | 11,5 | 10 | 7      | 9  | 0,007                   |
| K0288.106X025 | C    | M6 | 6   | 25 | 9,5 | 11,5 | 10 | 7      | 9  | 0,010                   |
| K0288.106X040 | C    | M6 | 6   | 40 | 9,5 | 11,5 | 10 | 7      | 9  | 0,012                   |
| K0288.108X012 | C    | M8 | 8,5 | 12 | 13  | 15   | 13 | 10     | 15   | 0,016                   |
| K0288.108X025 | C    | M8 | 8,5 | 25 | 13  | 15   | 13 | 10     | 15   | 0,021                   |
| K0288.108X040 | C    | M8 | 8,5 | 40 | 13  | 15   | 13 | 10     | 15   | 0,026                   |

| Order No.     | Form | D1 | D2  | L1 | L2  | E    | SW | Ball-Ø | Load capacity<br>max. kN<br>(static load only) | Approx.<br>weight<br>kg |
|---------------|------|----|-----|----|-----|------|----|--------|--|-------------------------|
| K0288.306X012 | F    | M6 | 6   | 12 | 9,5 | 11,5 | 10 | 7      | 9  | 0,007                   |
| K0288.306X025 | F    | M6 | 6   | 25 | 9,5 | 11,5 | 10 | 7      | 9  | 0,010                   |
| K0288.306X040 | F    | M6 | 6   | 40 | 9,5 | 11,5 | 10 | 7      | 9  | 0,012                   |
| K0288.308X012 | F    | M8 | 8,5 | 12 | 13  | 15   | 13 | 10     | 15   | 0,016                   |
| K0288.308X025 | F    | M8 | 8,5 | 25 | 13  | 15   | 13 | 10     | 15   | 0,021                   |
| K0288.308X040 | F    | M8 | 8,5 | 40 | 13  | 15   | 13 | 10     | 15   | 0,025                   |

| Order No.     | Form | D1 | D2  | L1 | L2  | E    | SW | Ball-Ø | Load capacity<br>max. kN<br>(static load only) | Approx.<br>weight<br>kg |
|---------------|------|----|-----|----|-----|------|----|--------|--|-------------------------|
| K0288.706X012 | K    | M6 | 6   | 12 | 9,5 | 11,5 | 10 | 7      | 2  | 0,006                   |
| K0288.706X025 | K    | M6 | 6   | 25 | 9,5 | 11,5 | 10 | 7      | 2  | 0,009                   |
| K0288.706X040 | K    | M6 | 6   | 40 | 9,5 | 11,5 | 10 | 7      | 2  | 0,011                   |
| K0288.708X012 | K    | M8 | 8,5 | 12 | 13  | 15   | 13 | 10     | 4  | 0,012                   |
| K0288.708X025 | K    | M8 | 8,5 | 25 | 13  | 15   | 13 | 10     | 4  | 0,017                   |
| K0288.708X040 | K    | M8 | 8,5 | 40 | 13  | 15   | 13 | 10     | 4  | 0,022                   |

| Order No.  | Form | D1  | D2 | L1       | L2   | L3 | E    | SW | SW1 | W  | Ball-Ø | Load capacity<br>max. kN<br>(static load only) | Approx.<br>weight<br>kg |
|------------|------|-----|----|----------|------|----|------|----|-----|----|--------|--|-------------------------|
| K0288.506X | O    | M6  | 8  | 12/25/40 | 10   | 2  | 11,5 | 10 | -   | 28 | 1      | 9,2  | 0,008                   |
| K0288.508X | O    | M8  | 11 | 12/25/40 | 14,5 | 3  | 15   | 13 | -   | 28 | 10     | 15,5   | 0,018                   |
| K0288.510X | O    | M10 | 14 | 15/30/50 | 16   | 3  | 19,6 | 17 | 3   | 28 | 13     | 18,8   | 0,032                   |
| K0288.512X | O    | M12 | 19 | 20/40/60 | 19   | 4  | 21,9 | 19 | 5   | 24 | 15     | 29,8   | 0,051                   |
| K0288.516X | O    | M16 | 21 | 25/50/80 | 23   | 4  | 27,7 | 24 | 6   | 24 | 20     | 50,3   | 0,104                   |

| Order No.  | Form | D1  | D2 | L1       | L2   | L3 | E    | SW | SW1 | W  | Ball-Ø |
|------------|------|-----|----|----------|------|----|------|----|-----|----|--------|
| K0288.606X | P    | M6  | 10 | 12/25/40 | 12   | 4  | 11,5 | 10 | -   | 28 | 7      |
| K0288.608X | P    | M8  | 13 | 12/25/40 | 16,5 | 5  | 15   | 13 | -   | 28 | 10     |
| K0288.610X | P    | M10 | 16 | 15/30/50 | 18   | 5  | 19,6 | 17 | 3   | 28 | 13     |
| K0288.612X | P    | M12 | 21 | 20/40/60 | 21   | 6  | 21,9 | 19 | 5   | 24 | 15     |
| K0288.616X | P    | M16 | 23 | 25/50/80 | 25   | 6  | 27,7 | 24 | 6   | 24 | 20     |

# Adjustable toggle locators

with O-ring and exchangeable inserts



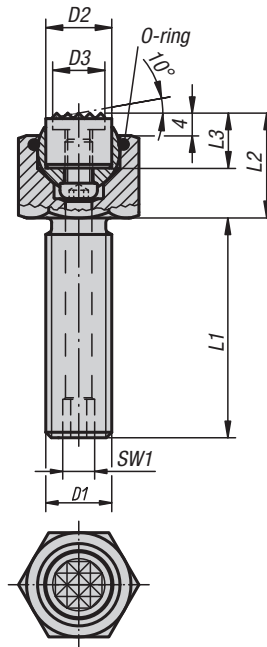
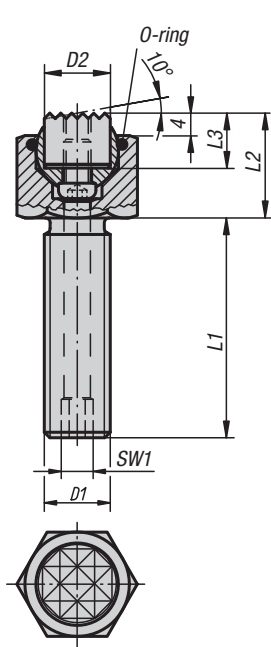
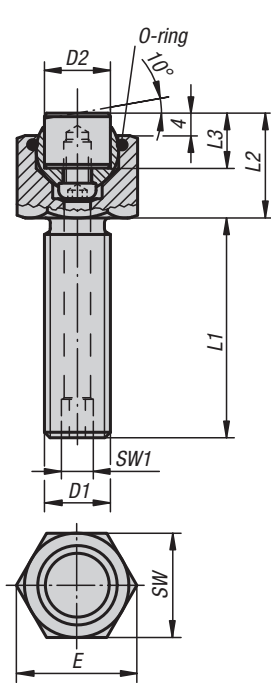
Form C  
plain, flattened steel insert

Form F  
serrated, flattened gripper

Form M  
gripper flattened,  
serration in hard metal

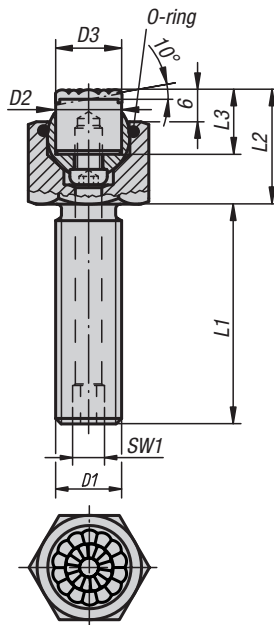
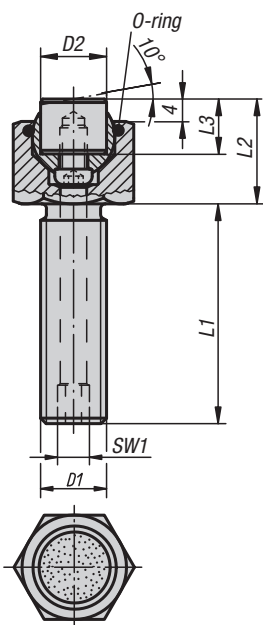
Form E  
stainless steel insert plain,  
flattened

Form K  
plain, flattened delrin insert



Form O  
stainless steel insert with  
diamond surface

Form P  
stainless steel insert with  
polyurethane surface



**Material, surface finish:**

Body in tempered steel, heat-treated and black oxide finish.

Ball in rust and acid-resistant steel, hardened and natural finish.

Insert:

Form C in tool steel, hardened and black oxide finish.

Form F in tool steel, hardened and black oxide finish.

Form M in tool steel with carbide serration, black oxide finish.

Form K in white Delrin.

Form E stainless steel, hardened, natural finish.

Form O stainless steel with diamond surface comparable with abrasive grit size 100.

Form P stainless steel with polyurethane surface, Shore hardness 60°.

**Sample order:**

K0289.124X100

**Note:**

Toggle locators are used to support and clamp unmachined and machined workpieces. In addition, they serve as stops, supports and thrust pads in fixture and tool shops. The ball can be removed from the housing by applying light pressure to the socket head screw.

Ball is protected against torsion.

**Advantages:**

- Highly cost-effective as inserts can be exchanged.
- The built-in O-ring keeps the ball in its place and prevents dirt and foreign particles from entering.
- This assures smooth and steady movements.

# Adjustable toggle locators

with O-ring and exchangeable inserts

| Order No.     | Form | D1  | D2 | L1  | L2 | L3 | E    | SW | SW1 | Ball-Ø | Load capacity<br>max. kN<br>(static load only) | Approx.<br>weight<br>kg | Order No.<br>steel insert |
|---------------|------|-----|----|-----|----|----|------|----|-----|--------|--|-------------------------|---------------------------|
| K0289.110X015 | C    | M10 | 10 | 15  | 17 | 10 | 19,6 | 17 | 3   | 13     | 19   | 0,032                   | K0385.10108               |
| K0289.110X030 | C    | M10 | 10 | 30  | 17 | 10 | 19,6 | 17 | 3   | 13     | 19   | 0,039                   | K0385.10108               |
| K0289.110X050 | C    | M10 | 10 | 50  | 17 | 10 | 19,6 | 17 | 3   | 13     | 19   | 0,047                   | K0385.10108               |
| K0289.112X020 | C    | M12 | 12 | 20  | 19 | 10 | 21,9 | 19 | 5   | 15     | 30   | 0,048                   | K0385.12108               |
| K0289.112X040 | C    | M12 | 12 | 40  | 19 | 10 | 21,9 | 19 | 5   | 15     | 30   | 0,059                   | K0385.12108               |
| K0289.112X060 | C    | M12 | 12 | 60  | 19 | 10 | 21,9 | 19 | 5   | 15     | 30   | 0,071                   | K0385.12108               |
| K0289.116X025 | C    | M16 | 16 | 25  | 23 | 10 | 27,7 | 24 | 6   | 20     | 50   | 0,100                   | K0385.16108               |
| K0289.116X050 | C    | M16 | 16 | 50  | 23 | 10 | 27,7 | 24 | 6   | 20     | 50   | 0,127                   | K0385.16108               |
| K0289.116X080 | C    | M16 | 16 | 80  | 23 | 10 | 27,7 | 24 | 6   | 20     | 50   | 0,159                   | K0385.16108               |
| K0289.120X030 | C    | M20 | 20 | 30  | 24 | 10 | 34,6 | 30 | 8   | 23     | 85   | 0,171                   | K0385.20108               |
| K0289.120X060 | C    | M20 | 20 | 60  | 24 | 10 | 34,6 | 30 | 8   | 23     | 85   | 0,220                   | K0385.20108               |
| K0289.120X100 | C    | M20 | 20 | 100 | 24 | 10 | 34,6 | 30 | 8   | 23     | 85   | 0,289                   | K0385.20108               |
| K0289.124X040 | C    | M24 | 25 | 40  | 30 | 10 | 41,6 | 36 | 10  | 28     | 121  | 0,321                   | K0385.25108               |
| K0289.124X100 | C    | M24 | 25 | 100 | 30 | 10 | 41,6 | 36 | 10  | 28     | 121  | 0,468                   | K0385.25108               |

| Order No.     | Form | D1  | D2 | L1  | L2 | L3 | E    | SW | SW1 | Ball-Ø | Load capacity<br>max. kN<br>(static load only) | Approx.<br>weight<br>kg | Order No.<br>for<br>stainless steel insert |
|---------------|------|-----|----|-----|----|----|------|----|-----|--------|--|-------------------------|--|
| K0289.210X015 | E    | M10 | 10 | 15  | 17 | 10 | 19,6 | 17 | 3   | 13     | 19   | 0,032                   | K0385.10102                                |
| K0289.210X030 | E    | M10 | 10 | 30  | 17 | 10 | 19,6 | 17 | 3   | 13     | 19   | 0,039                   | K0385.10102                                |
| K0289.210X050 | E    | M10 | 10 | 50  | 17 | 10 | 19,6 | 17 | 3   | 13     | 19   | 0,047                   | K0385.10102                                |
| K0289.212X020 | E    | M12 | 12 | 20  | 19 | 10 | 21,9 | 19 | 5   | 15     | 30   | 0,048                   | K0385.12102                                |
| K0289.212X040 | E    | M12 | 12 | 40  | 19 | 10 | 21,9 | 19 | 5   | 15     | 30   | 0,059                   | K0385.12102                                |
| K0289.212X060 | E    | M12 | 12 | 60  | 19 | 10 | 21,9 | 19 | 5   | 15     | 30   | 0,071                   | K0385.12102                                |
| K0289.216X025 | E    | M16 | 16 | 25  | 23 | 10 | 27,7 | 24 | 6   | 20     | 50   | 0,100                   | K0385.16102                                |
| K0289.216X050 | E    | M16 | 16 | 50  | 23 | 10 | 27,7 | 24 | 6   | 20     | 50   | 0,127                   | K0385.16102                                |
| K0289.216X080 | E    | M16 | 16 | 80  | 23 | 10 | 27,7 | 24 | 6   | 20     | 50   | 0,159                   | K0385.16102                                |
| K0289.220X030 | E    | M20 | 20 | 30  | 24 | 10 | 34,6 | 30 | 8   | 23     | 85   | 0,171                   | K0385.20102                                |
| K0289.220X060 | E    | M20 | 20 | 60  | 24 | 10 | 34,6 | 30 | 8   | 23     | 85   | 0,220                   | K0385.20102                                |
| K0289.220X100 | E    | M20 | 20 | 100 | 24 | 10 | 34,6 | 30 | 8   | 23     | 85   | 0,289                   | K0385.20102                                |
| K0289.224X040 | E    | M24 | 25 | 40  | 30 | 10 | 41,6 | 36 | 10  | 28     | 121  | 0,321                   | K0385.25102                                |
| K0289.224X100 | E    | M24 | 25 | 100 | 30 | 10 | 41,6 | 36 | 10  | 28     | 121  | 0,468                   | K0385.25102                                |

| Order No.     | Form | D1  | D2 | L1  | L2 | L3 | E    | SW | SW1 | Ball-Ø | Load capacity<br>max. kN<br>(static load only) | Approx.<br>weight<br>kg | Order No.<br>gripper |
|---------------|------|-----|----|-----|----|----|------|----|-----|--------|--|-------------------------|----------------------|
| K0289.310X015 | F    | M10 | 10 | 15  | 17 | 10 | 19,6 | 17 | 3   | 13     | 19   | 0,031                   | K0385.1010           |
| K0289.310X030 | F    | M10 | 10 | 30  | 17 | 10 | 19,6 | 17 | 3   | 13     | 19   | 0,038                   | K0385.1010           |
| K0289.310X050 | F    | M10 | 10 | 50  | 17 | 10 | 19,6 | 17 | 3   | 13     | 19   | 0,047                   | K0385.1010           |
| K0289.312X020 | F    | M12 | 12 | 20  | 19 | 10 | 21,9 | 19 | 5   | 15     | 30   | 0,050                   | K0385.1210           |
| K0289.312X040 | F    | M12 | 12 | 40  | 19 | 10 | 21,9 | 19 | 5   | 15     | 30   | 0,061                   | K0385.1210           |
| K0289.312X060 | F    | M12 | 12 | 60  | 19 | 10 | 21,9 | 19 | 5   | 15     | 30   | 0,073                   | K0385.1210           |
| K0289.316X025 | F    | M16 | 16 | 25  | 23 | 10 | 27,7 | 24 | 6   | 20     | 50   | 0,100                   | K0385.1610           |
| K0289.316X050 | F    | M16 | 16 | 50  | 23 | 10 | 27,7 | 24 | 6   | 20     | 50   | 0,127                   | K0385.1610           |
| K0289.316X080 | F    | M16 | 16 | 80  | 23 | 10 | 27,7 | 24 | 6   | 20     | 50   | 0,159                   | K0385.1610           |
| K0289.320X030 | F    | M20 | 20 | 30  | 24 | 10 | 34,6 | 30 | 8   | 23     | 85   | 0,173                   | K0385.2010           |
| K0289.320X060 | F    | M20 | 20 | 60  | 24 | 10 | 34,6 | 30 | 8   | 23     | 85   | 0,222                   | K0385.2010           |
| K0289.320X100 | F    | M20 | 20 | 100 | 24 | 10 | 34,6 | 30 | 8   | 23     | 85   | 0,290                   | K0385.2010           |
| K0289.324X040 | F    | M24 | 25 | 40  | 30 | 10 | 41,6 | 36 | 10  | 28     | 121  | 0,319                   | K0385.2510           |
| K0289.324X100 | F    | M24 | 25 | 100 | 30 | 10 | 41,6 | 36 | 10  | 28     | 121  | 0,466                   | K0385.2510           |



# Adjustable toggle locators

with O-ring and exchangeable inserts

| Order No.     | Form | D1  | D2 | L1  | L2 | L3 | E    | SW | SW1 | Ball-Ø | Load capacity<br>max. kN<br>(static load only) | Approx.<br>weight<br>kg | Order No.<br>delrin insert |
|---------------|------|-----|----|-----|----|----|------|----|-----|--------|--|-------------------------|----------------------------|
| K0289.710X015 | K    | M10 | 10 | 15  | 17 | 10 | 19,6 | 17 | 3   | 13     | 4  | 0,027                   | K0385.10109                |
| K0289.710X030 | K    | M10 | 10 | 30  | 17 | 10 | 19,6 | 17 | 3   | 13     | 4  | 0,034                   | K0385.10109                |
| K0289.710X050 | K    | M10 | 10 | 50  | 17 | 10 | 19,6 | 17 | 3   | 13     | 4  | 0,043                   | K0385.10109                |
| K0289.712X020 | K    | M12 | 12 | 20  | 19 | 10 | 21,9 | 19 | 5   | 15     | 7  | 0,041                   | K0385.12109                |
| K0289.712X040 | K    | M12 | 12 | 40  | 19 | 10 | 21,9 | 19 | 5   | 15     | 7  | 0,052                   | K0385.12109                |
| K0289.712X060 | K    | M12 | 12 | 60  | 19 | 10 | 21,9 | 19 | 5   | 15     | 7  | 0,064                   | K0385.12109                |
| K0289.716X025 | K    | M16 | 16 | 25  | 23 | 10 | 27,7 | 24 | 6   | 20     | 14   | 0,088                   | K0385.16109                |
| K0289.716X050 | K    | M16 | 16 | 50  | 23 | 10 | 27,7 | 24 | 6   | 20     | 14   | 0,115                   | K0385.16109                |
| K0289.716X080 | K    | M16 | 16 | 80  | 23 | 10 | 27,7 | 24 | 6   | 20     | 14   | 0,147                   | K0385.16109                |
| K0289.720X030 | K    | M20 | 20 | 30  | 24 | 10 | 34,6 | 30 | 8   | 23     | 27   | 0,152                   | K0385.20109                |
| K0289.720X060 | K    | M20 | 20 | 60  | 24 | 10 | 34,6 | 30 | 8   | 23     | 27   | 0,202                   | K0385.20109                |
| K0289.720X100 | K    | M20 | 20 | 100 | 24 | 10 | 34,6 | 30 | 8   | 23     | 27   | 0,270                   | K0385.20109                |
| K0289.724X040 | K    | M24 | 25 | 40  | 30 | 10 | 41,6 | 36 | 10  | 28     | 47   | 0,291                   | K0385.25109                |
| K0289.724X100 | K    | M24 | 25 | 100 | 30 | 10 | 41,6 | 36 | 10  | 28     | 47   | 0,438                   | K0385.25109                |

| Order No.     | Form | D1  | D2 | D3   | L1  | L2 | L3 | E    | SW | SW1 | Ball-Ø | Load capacity<br>max. kN<br>(static load only) | Approx.<br>weight<br>kg | Order No.<br>gripper |
|---------------|------|-----|----|------|-----|----|----|------|----|-----|--------|--|-------------------------|----------------------|
| K0289.910X015 | M    | M10 | 10 | 7,9  | 15  | 17 | 10 | 19,6 | 17 | 3   | 13     | 19   | 0,031                   | K0385.10107          |
| K0289.910X030 | M    | M10 | 10 | 7,9  | 30  | 17 | 10 | 19,6 | 17 | 3   | 13     | 19   | 0,038                   | K0385.10107          |
| K0289.910X050 | M    | M10 | 10 | 7,9  | 50  | 17 | 10 | 19,6 | 17 | 3   | 13     | 19   | 0,047                   | K0385.10107          |
| K0289.912X020 | M    | M12 | 12 | 9,5  | 20  | 19 | 10 | 21,9 | 19 | 5   | 15     | 30   | 0,050                   | K0385.12107          |
| K0289.912X040 | M    | M12 | 12 | 9,5  | 40  | 19 | 10 | 21,9 | 19 | 5   | 15     | 30   | 0,061                   | K0385.12107          |
| K0289.912X060 | M    | M12 | 12 | 9,5  | 60  | 19 | 10 | 21,9 | 19 | 5   | 15     | 30   | 0,073                   | K0385.12107          |
| K0289.916X025 | M    | M16 | 16 | 12,7 | 25  | 23 | 10 | 27,7 | 24 | 6   | 20     | 50   | 0,100                   | K0385.16107          |
| K0289.916X050 | M    | M16 | 16 | 12,7 | 50  | 23 | 10 | 27,7 | 24 | 6   | 20     | 50   | 0,127                   | K0385.16107          |
| K0289.916X080 | M    | M16 | 16 | 12,7 | 80  | 23 | 10 | 27,7 | 24 | 6   | 20     | 50   | 0,159                   | K0385.16107          |
| K0289.920X030 | M    | M20 | 20 | 15,9 | 30  | 24 | 10 | 34,6 | 30 | 8   | 23     | 85   | 0,173                   | K0385.20107          |
| K0289.920X060 | M    | M20 | 20 | 15,9 | 60  | 24 | 10 | 34,6 | 30 | 8   | 23     | 85   | 0,222                   | K0385.20107          |
| K0289.920X100 | M    | M20 | 20 | 15,9 | 100 | 24 | 10 | 34,6 | 30 | 8   | 23     | 85   | 0,290                   | K0385.20107          |
| K0289.924X040 | M    | M24 | 25 | 19   | 40  | 30 | 10 | 41,6 | 36 | 10  | 28     | 121  | 0,319                   | K0385.25107          |
| K0289.924X100 | M    | M24 | 25 | 19   | 100 | 30 | 10 | 41,6 | 36 | 10  | 28     | 121  | 0,466                   | K0385.25107          |

# Adjustable toggle locators

with O-ring and exchangeable inserts

| Order No.     | Form | D1  | D2 | L1  | L2 | L3 | E    | SW | SW1 | Ball-Ø | Load capacity<br>max. kN<br>(static load only) | Approx.<br>weight<br>kg | Order No. for<br>stainless steel insert,<br>diamond surface |
|---------------|------|-----|----|-----|----|----|------|----|-----|--------|--|-------------------------|---|
| K0289.510X015 | O    | M10 | 10 | 15  | 17 | 10 | 19,6 | 17 | 3   | 13     | 19   | 0,032                   | K0385.10105   |
| K0289.510X030 | O    | M10 | 10 | 30  | 17 | 10 | 19,6 | 17 | 3   | 13     | 19   | 0,039                   | K0385.10105   |
| K0289.510X050 | O    | M10 | 10 | 50  | 17 | 10 | 19,6 | 17 | 3   | 13     | 19   | 0,047                   | K0385.10105   |
| K0289.512X020 | O    | M12 | 12 | 20  | 19 | 10 | 21,9 | 19 | 5   | 15     | 30   | 0,048                   | K0385.12105   |
| K0289.512X040 | O    | M12 | 12 | 40  | 19 | 10 | 21,9 | 19 | 5   | 15     | 30   | 0,059                   | K0385.12105   |
| K0289.512X060 | O    | M12 | 12 | 60  | 19 | 10 | 21,9 | 19 | 5   | 15     | 30   | 0,071                   | K0385.12105   |
| K0289.516X025 | O    | M16 | 16 | 25  | 23 | 10 | 27,7 | 24 | 6   | 20     | 50   | 0,100                   | K0385.16105   |
| K0289.516X050 | O    | M16 | 16 | 50  | 23 | 10 | 27,7 | 24 | 6   | 20     | 50   | 0,127                   | K0385.16105   |
| K0289.516X080 | O    | M16 | 16 | 80  | 23 | 10 | 27,7 | 24 | 6   | 20     | 50   | 0,159                   | K0385.16105   |
| K0289.520X030 | O    | M20 | 20 | 30  | 24 | 10 | 34,6 | 30 | 8   | 23     | 85   | 0,171                   | K0385.20105   |
| K0289.520X060 | O    | M20 | 20 | 60  | 24 | 10 | 34,6 | 30 | 8   | 23     | 85   | 0,220                   | K0385.20105   |
| K0289.520X100 | O    | M20 | 20 | 100 | 24 | 10 | 34,6 | 30 | 8   | 23     | 85   | 0,289                   | K0385.20105   |
| K0289.524X040 | O    | M24 | 25 | 40  | 30 | 10 | 41,6 | 36 | 10  | 28     | 121  | 0,321                   | K0385.25105   |
| K0289.524X100 | O    | M24 | 25 | 100 | 30 | 10 | 41,6 | 36 | 10  | 28     | 121  | 0,468                   | K0385.25105   |

| Order No.     | Form | D1  | D2 | D3 | L1  | L2 | L3 | E    | SW | SW1 | Ball-Ø | Approx.<br>weight<br>kg | Order No. for<br>stainless steel insert,<br>polyurethane surface |
|---------------|------|-----|----|----|-----|----|----|------|----|-----|--------|-------------------------|--|
| K0289.610X015 | P    | M10 | 10 | 10 | 15  | 19 | 12 | 19,6 | 17 | 3   | 13     | 0,032                   | K0385.10126  |
| K0289.610X030 | P    | M10 | 10 | 10 | 30  | 19 | 12 | 19,6 | 17 | 3   | 13     | 0,039                   | K0385.10126  |
| K0289.610X050 | P    | M10 | 10 | 10 | 50  | 19 | 12 | 19,6 | 17 | 3   | 13     | 0,047                   | K0385.10126  |
| K0289.612X020 | P    | M12 | 12 | 13 | 20  | 21 | 12 | 21,9 | 19 | 5   | 15     | 0,049                   | K0385.12126  |
| K0289.612X040 | P    | M12 | 12 | 13 | 40  | 21 | 12 | 21,9 | 19 | 5   | 15     | 0,059                   | K0385.12126  |
| K0289.612X060 | P    | M12 | 12 | 13 | 60  | 21 | 12 | 21,9 | 19 | 5   | 15     | 0,071                   | K0385.12126  |
| K0289.616X025 | P    | M16 | 16 | 16 | 25  | 25 | 12 | 27,7 | 24 | 6   | 20     | 0,100                   | K0385.16126  |
| K0289.616X050 | P    | M16 | 16 | 16 | 50  | 25 | 12 | 27,7 | 24 | 6   | 20     | 0,127                   | K0385.16126  |
| K0289.616X080 | P    | M16 | 16 | 16 | 80  | 25 | 12 | 27,7 | 24 | 6   | 20     | 0,159                   | K0385.16126  |
| K0289.620X030 | P    | M20 | 20 | 21 | 30  | 26 | 12 | 34,6 | 30 | 8   | 23     | 0,171                   | K0385.20126  |
| K0289.620X060 | P    | M20 | 20 | 21 | 60  | 26 | 12 | 34,6 | 30 | 8   | 23     | 0,220                   | K0385.20126  |
| K0289.620X100 | P    | M20 | 20 | 21 | 100 | 26 | 12 | 34,6 | 30 | 8   | 23     | 0,289                   | K0385.20126  |
| K0289.624X040 | P    | M24 | 25 | 27 | 40  | 32 | 12 | 41,6 | 36 | 10  | 28     | 0,321                   | K0385.25126  |
| K0289.624X100 | P    | M24 | 25 | 27 | 100 | 32 | 12 | 41,6 | 36 | 10  | 28     | 0,468                   | K0385.25126  |

# Adjustable toggle locators

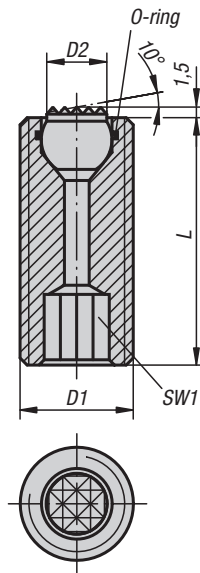
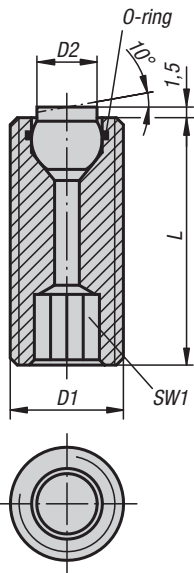
with O-ring and hexagon socket



Form C  
plain, flattened steel ball

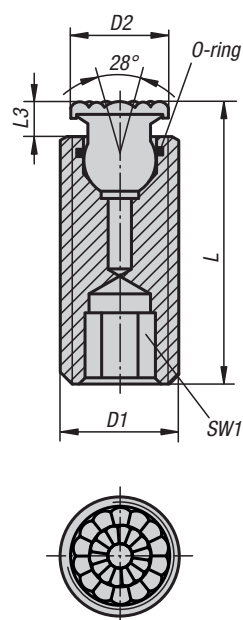
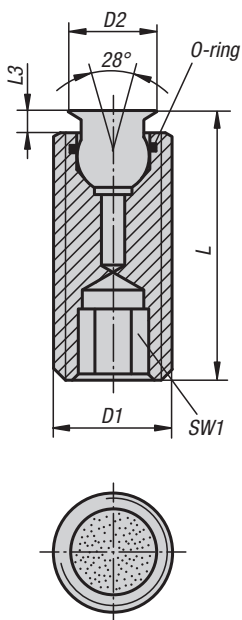
Form F  
serrated, flattened steel ball

Form K  
plain, flattened Delrin ball



Form O  
stainless steel ball with  
diamond surface

Form P  
stainless steel ball with  
polyurethane surface



**Material:**

Body in tempered steel.

Ball:

Form C, F, tool steel.

Form K Delrin.

Form O stainless steel with diamond surface.

Form P stainless steel with polyurethane surface.

**Surface finish:**

Body tempered, black oxide finish.

Ball:

Form C, F hardened, black oxide finish.

Form K Delrin ball white.

Form O surface comparable with abrasive grit size 100.

Form P polyurethane, Shore hardness 60°.

**Sample order:**

K0290.510X026

(Please also indicate dimension L.)

**Note:**

The toggle locators are used to support and clamp unmachined and machined workpieces.

In addition, they serve as stops, supports and pressure pieces in jig- and toolmaking.

Ball secured against torsion.

Form O: The abrasive diamond surface is welded firmly to the ball. It is ideally suited to supporting smooth or slippery applications with a minimum of clamping pressure. This allows the diamond particles to get a firm grip on a very small area with minimum damage to the surface.

The diamond surface offers excellent wear resistance.

Form P: The polyurethane surface is vulcanised firmly to the ball. It is abrasion-resistant and does not discolour. Offers optimum protection against damage to delicate surfaces. The pearl-like surface gives a firm grip and allows air to escape so as to prevent any suction effect between the contact surface and the toggle locator.

**Advantages:**

- The built-in O-ring keeps the ball in its place and prevents dirt and foreign particles from entering.
- This assures smooth and steady movements.
- The hexagon socket allows easy locating and positioning in through holes.

# Adjustable toggle locators

with O-ring and hexagon socket

## KIPP Adjustable toggle locators with O-ring and hexagon socket

| Order No.     | Form | D1  | D2  | L  | SW1 | Ball-Ø | Load capacity<br>max. kN<br>(static load only) | Approx.<br>weight<br>kg |
|---------------|------|-----|-----|----|-----|--------|--|-------------------------|
| K0290.112X025 | C    | M12 | 6   | 25 | 6   | 7      | 15   | 0,015                   |
| K0290.112X035 | C    | M12 | 6   | 35 | 6   | 7      | 15   | 0,022                   |
| K0290.112X050 | C    | M12 | 6   | 50 | 6   | 7      | 15   | 0,032                   |
| K0290.116X025 | C    | M16 | 8,5 | 25 | 8   | 10     | 23   | 0,028                   |
| K0290.116X035 | C    | M16 | 8,5 | 35 | 8   | 10     | 23   | 0,039                   |
| K0290.116X050 | C    | M16 | 8,5 | 50 | 8   | 10     | 23   | 0,058                   |

| Order No.     | Form | D1  | D2  | L  | SW1 | Ball-Ø | Load capacity<br>max. kN<br>(static load only) | Approx.<br>weight<br>kg |
|---------------|------|-----|-----|----|-----|--------|--|-------------------------|
| K0290.312X025 | F    | M12 | 6   | 25 | 6   | 7      | 15   | 0,015                   |
| K0290.312X035 | F    | M12 | 6   | 35 | 6   | 7      | 15   | 0,022                   |
| K0290.312X050 | F    | M12 | 6   | 50 | 6   | 7      | 15   | 0,032                   |
| K0290.316X025 | F    | M16 | 8,5 | 25 | 8   | 10     | 23   | 0,027                   |
| K0290.316X035 | F    | M16 | 8,5 | 35 | 8   | 10     | 23   | 0,039                   |
| K0290.316X050 | F    | M16 | 8,5 | 50 | 8   | 10     | 23   | 0,057                   |

| Order No.     | Form | D1  | D2  | L  | SW1 | Ball-Ø | Load capacity<br>max. kN<br>(static load only) | Approx.<br>weight<br>kg |
|---------------|------|-----|-----|----|-----|--------|--|-------------------------|
| K0290.712X025 | K    | M12 | 6   | 25 | 6   | 7      | 2  | 0,013                   |
| K0290.712X035 | K    | M12 | 6   | 35 | 6   | 7      | 2  | 0,021                   |
| K0290.712X050 | K    | M12 | 6   | 50 | 6   | 7      | 2  | 0,031                   |
| K0290.716X025 | K    | M16 | 8,5 | 25 | 8   | 10     | 4  | 0,024                   |
| K0290.716X035 | K    | M16 | 8,5 | 35 | 8   | 10     | 4  | 0,035                   |
| K0290.716X050 | K    | M16 | 8,5 | 50 | 8   | 10     | 4  | 0,054                   |

| Order No.  | Form | D1  | D2 | L              | L3  | SW1 | Ball-Ø | Load capacity<br>max. kN<br>(static load only) |
|------------|------|-----|----|----------------|-----|-----|--------|--|
| K0290.510X | O    | M10 | 6  | 26,5/36,5/51,5 | 1,5 | 5   | 5      | -  |
| K0290.512X | O    | M12 | 8  | 27/37/52       | 2   | 6   | 7      | 15,4   |
| K0290.516X | O    | M16 | 11 | 28/38/53       | 3   | 8   | 10     | 23,3   |
| K0290.520X | O    | M20 | 14 | 33/53/73       | 3   | 10  | 13     | 37,7   |

| Order No.  | Form | D1  | D2 | L              | L3  | SW1 | Ball-Ø |
|------------|------|-----|----|----------------|-----|-----|--------|
| K0290.610X | P    | M10 | 8  | 28,5/38,5/53,5 | 3,5 | 5   | 5      |
| K0290.612X | P    | M12 | 10 | 29/39/54       | 4   | 6   | 7      |
| K0290.616X | P    | M16 | 13 | 30/40/55       | 5   | 8   | 10     |
| K0290.620X | P    | M20 | 16 | 35/55/75       | 5   | 10  | 13     |





# Adjustable toggle locators

with O-ring, exchangeable inserts and hexagon socket

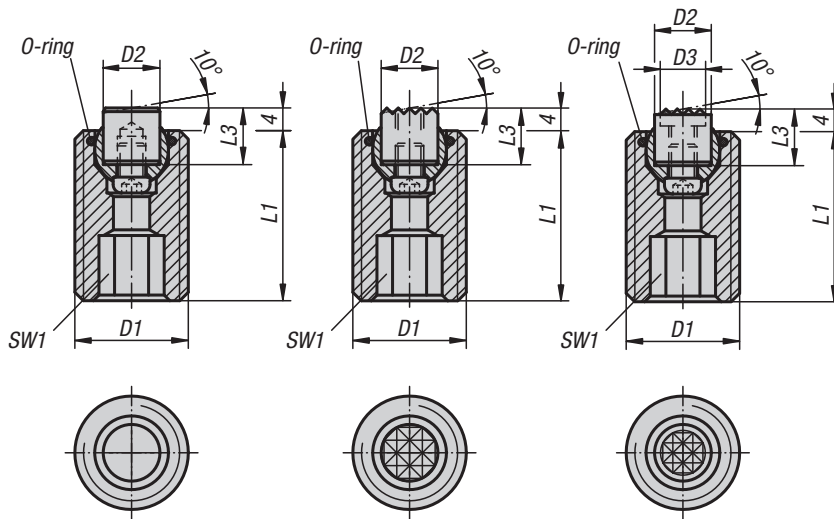
Form C  
plain, flattened steel insert

Form E  
stainless steel insert plain,  
flattened

Form K  
plain, flattened Delrin insert

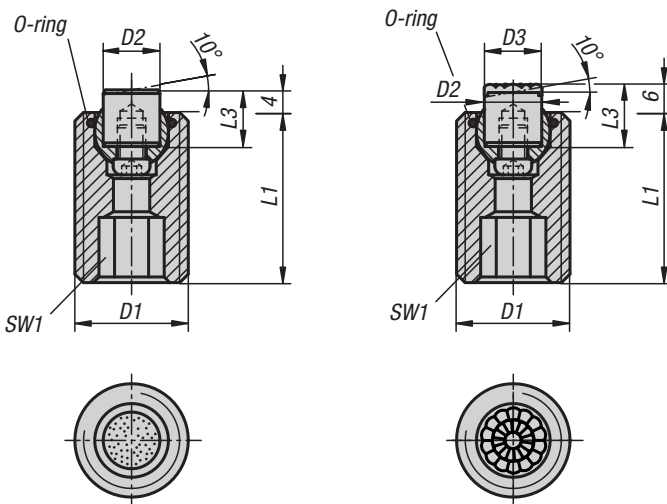
Form F  
serrated, flattened gripper

Form M  
gripper flattened,  
serration in hard metal



Form O  
stainless steel insert with  
diamond surface

Form P  
stainless steel insert with  
polyurethane surface



**Material, surface finish:**

Body in tempered steel, heat-treated and black oxide finish.

Ball in rust and acid-resistant steel, hardened and natural finish.

Insert:

Form C in tool steel, hardened and black oxide finish.

Form F in tool steel, hardened and black oxide finish.

Form M in tool steel with carbide serration, black oxide finish.

Form K in white Delrin.

Form E stainless steel, hardened, natural finish.

Form O stainless steel with diamond surface comparable with abrasive grit size 100.

Form P stainless steel with polyurethane surface, Shore hardness 60°.

**Sample order:**

K0291.720X070

**Note:**

Toggle locators are used to support and clamp unmachined and machined workpieces.

In addition, they serve as stops, supports and thrust pads in fixture and tool shops.

The ball can be removed from the housing by applying light pressure to the socket head screw.

Ball is protected against torsion.

**Advantages:**

- Highly cost-effective as inserts can be exchanged.
- The built-in O-ring keeps the ball in its place and prevents dirt and foreign particles from entering.
- This assures smooth and steady movements.

**KIPP Adjustable toggle locators with O-ring, exchangeable inserts and hexagon socket**

| Order No.     | Form | D1  | D2 | L1 | L3 | SW1 | Ball-Ø | Load capacity<br>max. kN<br>(static load only) | Approx.<br>weight<br>kg | Order No.<br>steel insert |
|---------------|------|-----|----|----|----|-----|--------|--|-------------------------|---------------------------|
| K0291.120X030 | C    | M20 | 10 | 30 | 10 | 8   | 13     | 37   | 0,049                   | K0385.10108               |
| K0291.120X050 | C    | M20 | 10 | 50 | 10 | 8   | 13     | 37   | 0,084                   | K0385.10108               |
| K0291.120X070 | C    | M20 | 10 | 70 | 10 | 8   | 13     | 37   | 0,122                   | K0385.10108               |
| K0291.124X040 | C    | M24 | 12 | 40 | 10 | 10  | 15     | 55   | 0,101                   | K0385.12108               |
| K0291.124X080 | C    | M24 | 12 | 80 | 10 | 10  | 15     | 55   | 0,200                   | K0385.12108               |

# Adjustable toggle locators

with O-ring, exchangeable inserts and hexagon socket

| Order No.     | Form | D1  | D2 | L1 | L3 | SW1 | Ball-Ø | Load capacity<br>max. kN<br>(static load only) | Approx.<br>weight<br>kg | Order No. for<br>stainless steel insert,<br>diamond surface |
|---------------|------|-----|----|----|----|-----|--------|--|-------------------------|---|
| K0291.220X030 | E    | M20 | 10 | 30 | 10 | 8   | 13     | 37   | 0,049                   | K0385.10102   |
| K0291.220X050 | E    | M20 | 10 | 50 | 10 | 8   | 13     | 37   | 0,084                   | K0385.10102   |
| K0291.220X070 | E    | M20 | 10 | 70 | 10 | 8   | 13     | 37   | 0,122                   | K0385.10102   |
| K0291.224X040 | E    | M24 | 12 | 40 | 10 | 10  | 15     | 55   | 0,101                   | K0385.12102   |
| K0291.224X080 | E    | M24 | 12 | 80 | 10 | 10  | 15     | 55   | 0,200                   | K0385.12102   |

| Order No.     | Form | D1  | D2 | L1 | L3 | SW1 | Ball-Ø | Load capacity<br>max. kN<br>(static load only) | Approx.<br>weight<br>kg | Order No.<br>gripper |
|---------------|------|-----|----|----|----|-----|--------|--|-------------------------|----------------------|
| K0291.320X030 | F    | M20 | 10 | 30 | 10 | 8   | 13     | 37   | 0,049                   | K0385.1010           |
| K0291.320X050 | F    | M20 | 10 | 50 | 10 | 8   | 13     | 37   | 0,084                   | K0385.1010           |
| K0291.320X070 | F    | M20 | 10 | 70 | 10 | 8   | 13     | 37   | 0,121                   | K0385.1010           |
| K0291.324X040 | F    | M24 | 12 | 40 | 10 | 10  | 15     | 55   | 0,103                   | K0385.1210           |
| K0291.324X080 | F    | M24 | 12 | 80 | 10 | 10  | 15     | 55   | 0,201                   | K0385.1210           |

| Order No.     | Form | D1  | D2 | L1 | L3 | SW1 | Ball-Ø | Load capacity<br>max. kN<br>(static load only) | Approx.<br>weight<br>kg | Order No.<br>delrin insert |
|---------------|------|-----|----|----|----|-----|--------|--|-------------------------|----------------------------|
| K0291.720X030 | K    | M20 | 10 | 30 | 10 | 8   | 13     | 4  | 0,045                   | K0385.10109                |
| K0291.720X050 | K    | M20 | 10 | 50 | 10 | 8   | 13     | 4  | 0,080                   | K0385.10109                |
| K0291.720X070 | K    | M20 | 10 | 70 | 10 | 8   | 13     | 4  | 0,117                   | K0385.10109                |
| K0291.724X040 | K    | M24 | 12 | 40 | 10 | 10  | 15     | 7  | 0,094                   | K0385.12109                |
| K0291.724X080 | K    | M24 | 12 | 80 | 10 | 10  | 15     | 7  | 0,193                   | K0385.12109                |

| Order No.     | Form | D1  | D2 | D3  | L1 | L3 | SW1 | Ball-Ø | Load capacity<br>max. kN<br>(static load only) | Approx.<br>weight<br>kg | Order No.<br>gripper |
|---------------|------|-----|----|-----|----|----|-----|--------|--|-------------------------|----------------------|
| K0291.920X030 | M    | M20 | 10 | 7,9 | 30 | 10 | 8   | 13     | 37   | 0,049                   | K0385.10107          |
| K0291.920X050 | M    | M20 | 10 | 7,9 | 50 | 10 | 8   | 13     | 37   | 0,084                   | K0385.10107          |
| K0291.920X070 | M    | M20 | 10 | 7,9 | 70 | 10 | 8   | 13     | 37   | 0,121                   | K0385.10107          |
| K0291.924X040 | M    | M24 | 12 | 9,5 | 40 | 10 | 10  | 15     | 55   | 0,103                   | K0385.12107          |
| K0291.924X080 | M    | M24 | 12 | 9,5 | 80 | 10 | 10  | 15     | 55   | 0,201                   | K0385.12107          |

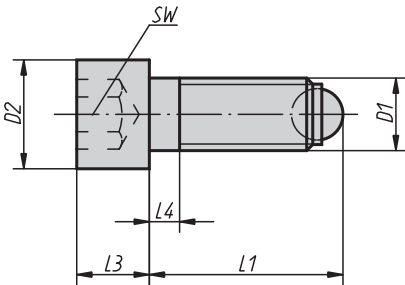
| Order No.     | Form | D1  | D2 | L1 | L3 | SW1 | Ball-Ø | Load capacity<br>max. kN<br>(static load only) | Approx.<br>weight<br>kg | Order No. for<br>stainless steel insert,<br>diamond surface |
|---------------|------|-----|----|----|----|-----|--------|--|-------------------------|---|
| K0291.520X030 | O    | M20 | 10 | 30 | 10 | 8   | 13     | 37   | 0,049                   | K0385.10105   |
| K0291.520X050 | O    | M20 | 10 | 50 | 10 | 8   | 13     | 37   | 0,084                   | K0385.10105   |
| K0291.520X070 | O    | M20 | 10 | 70 | 10 | 8   | 13     | 37   | 0,122                   | K0385.10105   |
| K0291.524X040 | O    | M24 | 12 | 40 | 10 | 10  | 15     | 55   | 0,101                   | K0385.12105   |
| K0291.524X080 | O    | M24 | 12 | 80 | 10 | 10  | 15     | 55   | 0,200                   | K0385.12105   |

| Order No.     | Form | D1  | D2 | D3 | L1 | L3 | SW1 | Ball-Ø | Load capacity<br>max. kN<br>(static load only) | Approx.<br>weight<br>kg | Order No. for<br>stainless steel insert,<br>polyurethane surface |
|---------------|------|-----|----|----|----|----|-----|--------|--|-------------------------|--|
| K0291.620X030 | P    | M20 | 10 | 10 | 30 | 12 | 8   | 13     | 37   | 0,049                   | K0385.10126  |
| K0291.620X050 | P    | M20 | 10 | 10 | 50 | 12 | 8   | 13     | 37   | 0,084                   | K0385.10126  |
| K0291.620X070 | P    | M20 | 10 | 10 | 70 | 12 | 8   | 13     | 37   | 0,122                   | K0385.10126  |
| K0291.624X040 | P    | M24 | 12 | 13 | 40 | 12 | 10  | 15     | 55   | 0,101                   | K0385.12126  |
| K0291.624X080 | P    | M24 | 12 | 13 | 80 | 12 | 10  | 15     | 55   | 0,200                   | K0385.12126  |

# Ball pressure screws with hexagon socket head

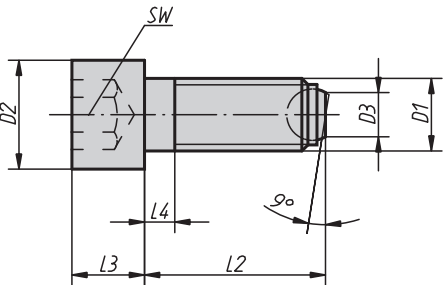


Form A  
with full ball



Form B  
with flattened ball

Form BV  
flattened ball  
with torsion protection



Form F  
with serrated,  
flattened ball

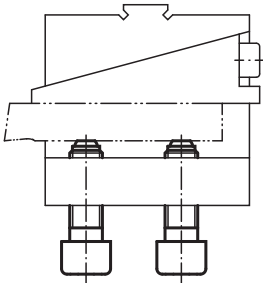
Form FV  
serrated, flattened ball  
with torsion protection

**Material:**  
Screw in tempered steel.  
Ball in ball-bearing steel.

**Surface finish:**  
Black screw, quality class 10.9.  
Ball hardened, natural finish.

**Sample order:**  
K0380.10820

**Note:**  
Form A with full ball is used when a clean, polished pressure surface is required. Surfaces which are not plane and parallel can be firmly clamped or supported with form B with flattened ball because the movable ball can adapt itself up to 9°.



## Ball pressure screws with hexagon socket head



## KIPP Ball pressure screws with hexagon socket head

| Order No.<br>Form A | Order No.<br>Form B | Order No.<br>Form F | D1  | L1       | L2      | D2 | D3          | L3 | L4  | Ball-Ø | SW | Load capacity<br>max. kN<br>(static load only) | Approx.<br>weight<br>g |
|---------------------|---------------------|---------------------|-----|----------|---------|----|-------------|----|-----|--------|----|--|------------------------|
| K0380.10620         | K0380.20620         | -                   | M6  | 20,8/-   | -/20    | 10 | -/3,2       | 6  | 3   | 4      | 5  | -/9  | 6,6                    |
| K0380.10630         | K0380.20630         | -                   | M6  | 30,8/-   | -/30    | 10 | -/3,2       | 6  | 3   | 4      | 5  | -/9  | 8,7                    |
| K0380.10640         | K0380.20640         | -                   | M6  | 40,8/-   | -/40    | 10 | -/3,2       | 6  | 16  | 4      | 5  | -/9  | 11,0                   |
| K0380.10820         | K0380.20820         | -                   | M8  | 21,2/-   | -/20    | 13 | -/4,5       | 8  | 3,5 | 5,5    | 6  | -/15   | 13,5                   |
| K0380.10835         | K0380.20835         | -                   | M8  | 36,2/-   | -/35    | 13 | -/4,5       | 8  | 3,5 | 5,5    | 6  | -/15   | 19,0                   |
| K0380.10850         | K0380.20850         | -                   | M8  | 51,2/-   | -/50    | 13 | -/4,5       | 8  | 22  | 5,5    | 6  | -/15   | 25,0                   |
| K0380.11025         | K0380.21025         | K0380.31025         | M10 | 26,7/-/- | -/25/25 | 16 | -/6/6       | 10 | 4,5 | 7      | 8  | -/20/20  | 26,0                   |
| K0380.11040         | K0380.21040         | K0380.31040         | M10 | 41,7/-/- | -/40/40 | 16 | -/6/6       | 10 | 4,5 | 7      | 8  | -/20/20  | 34,0                   |
| K0380.11060         | K0380.21060         | K0380.31060         | M10 | 61,7/-/- | -/60/60 | 16 | -/6/6       | 10 | 28  | 7      | 8  | -/20/20  | 47,0                   |
| K0380.11230         | K0380.21230         | K0380.31230         | M12 | 32/-/-   | -/30/30 | 18 | -/7,2/7,2   | 12 | 5   | 8,5    | 10 | -/30/30  | 40,0                   |
| K0380.11250         | K0380.21250         | K0380.31250         | M12 | 52/-/-   | -/50/50 | 18 | -/7,2/7,2   | 12 | 5   | 8,5    | 10 | -/30/30  | 56,0                   |
| K0380.11280         | K0380.21280         | K0380.31280         | M12 | 82/-/-   | -/80/80 | 18 | -/7,2/7,2   | 12 | 44  | 8,5    | 10 | -/30/30  | 83,0                   |
| K0380.11640         | K0380.21640         | K0380.31640         | M16 | 43,3/-/- | -/40/40 | 24 | -/10,7/10,7 | 16 | 6   | 12     | 14 | -/60/60  | 91,0                   |
| K0380.11660         | K0380.21660         | K0380.31660         | M16 | 63,3/-/- | -/60/60 | 24 | -/10,7/10,7 | 16 | 6   | 12     | 14 | -/60/60  | 122,0                  |
| K0380.11680         | K0380.21680         | K0380.31680         | M16 | 83,3/-/- | -/80/80 | 24 | -/10,7/10,7 | 16 | 36  | 12     | 14 | -/60/60  | 154,0                  |
| K0380.12050         | K0380.22050         | -                   | M20 | 54,2/-   | -/50    | 30 | -/13,5      | 20 | 7,5 | 15     | 17 | -/90   | 190,0                  |
| K0380.12080         | K0380.22080         | -                   | M20 | 84,2/-   | -/80    | 30 | -/13,5      | 20 | 28  | 15     | 17 | -/90   | 260,0                  |
| K0380.120100        | K0380.220100        | -                   | M20 | 104,2/-  | -/100   | 30 | -/13,5      | 20 | 48  | 15     | 17 | -/90   | 310,0                  |
| K0380.12460         | K0380.22460         | -                   | M24 | 64,7/-   | -/60    | 36 | -/15,8      | 24 | 9   | 18     | 19 | -/120  | 330,0                  |
| K0380.12490         | K0380.22490         | -                   | M24 | 94,7/-   | -/90    | 36 | -/15,8      | 24 | 30  | 18     | 19 | -/120  | 435,0                  |
| K0380.124120        | K0380.224120        | -                   | M24 | 124,7/-  | -/120   | 36 | -/15,8      | 24 | 60  | 18     | 19 | -/120  | 540,0                  |

| Order No.<br>Form BV | Order No.<br>Form FV | D1  | L2 | D2 | D3   | L3 | L4  | Ball-Ø | SW | Load capacity<br>max. kN<br>(static load only) | Approx.<br>weight<br>g |
|----------------------|----------------------|-----|----|----|------|----|-----|--------|----|--|------------------------|
| K0380.40820          | -                    | M8  | 20 | 13 | 4,5  | 8  | 3,5 | 5,5    | 6  | 9  | 13,5                   |
| K0380.40835          | -                    | M8  | 35 | 13 | 4,5  | 8  | 3,5 | 5,5    | 6  | 9  | 19,0                   |
| K0380.40850          | -                    | M8  | 50 | 13 | 4,5  | 8  | 22  | 5,5    | 6  | 9  | 25,0                   |
| K0380.41025          | K0380.51025          | M10 | 25 | 16 | 6    | 10 | 4,5 | 7      | 8  | 12   | 26,0                   |
| K0380.41040          | K0380.51040          | M10 | 40 | 16 | 6    | 10 | 4,5 | 7      | 8  | 12   | 34,0                   |
| K0380.41060          | K0380.51060          | M10 | 60 | 16 | 6    | 10 | 28  | 7      | 8  | 12   | 47,0                   |
| K0380.41230          | K0380.51230          | M12 | 30 | 18 | 7,2  | 12 | 5   | 8,5    | 10 | 18   | 40,0                   |
| K0380.41250          | K0380.51250          | M12 | 50 | 18 | 7,2  | 12 | 5   | 8,5    | 10 | 18   | 56,0                   |
| K0380.41280          | K0380.51280          | M12 | 80 | 18 | 7,2  | 12 | 44  | 8,5    | 10 | 18   | 83,0                   |
| K0380.41640          | K0380.51640          | M16 | 40 | 24 | 10,7 | 16 | 6   | 12     | 14 | 36   | 91,0                   |
| K0380.41660          | K0380.51660          | M16 | 60 | 24 | 10,7 | 16 | 6   | 12     | 14 | 36   | 122,0                  |
| K0380.41680          | K0380.51680          | M16 | 80 | 24 | 10,7 | 16 | 36  | 12     | 14 | 36   | 154,0                  |

## Ball pressure screws with hexagon socket head

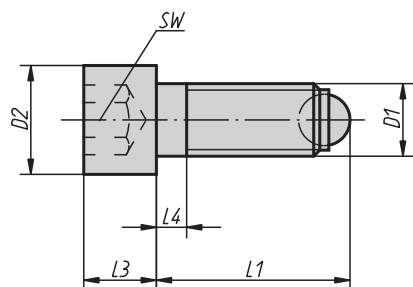
in stainless steel



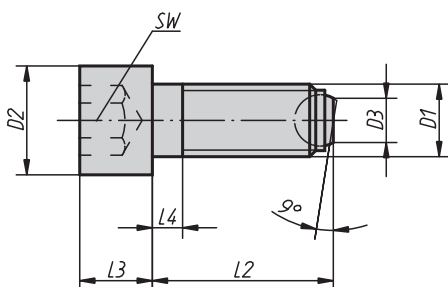
**Material, surface finish:**  
Stainless steel, natural finish.

**Sample order:**  
K0381.11230

**Note:**  
Form A with full ball is used when a clean, polished pressure surface is required. Surfaces which are not plane and parallel can be firmly clamped or supported with form B with flattened ball because the movable ball can adapt itself up to 9°.



Form A  
with full ball



Form B  
with flattened ball

### KIPP Ball pressure screws with hexagon socket head in stainless steel

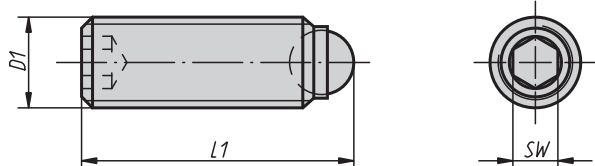
| Order No.<br>Form A | Order No.<br>Form B | D1  | D2 | D3     | L1     | L2   | L3 | L4  | Ball-Ø | SW | Approx.<br>weight g |
|---------------------|---------------------|-----|----|--------|--------|------|----|-----|--------|----|---------------------|
| K0381.10620         | K0381.20620         | M6  | 10 | -/3,2  | 20,8/- | -/20 | 6  | 3   | 4      | 5  | 6,6                 |
| K0381.10630         | K0381.20630         | M6  | 10 | -/3,2  | 30,8/- | -/30 | 6  | 3   | 4      | 5  | 8,7                 |
| K0381.10640         | K0381.20640         | M6  | 10 | -/3,2  | 40,8/- | -/40 | 6  | 16  | 4      | 5  | 11,0                |
| K0381.10820         | K0381.20820         | M8  | 13 | -/4,5  | 21,2/- | -/20 | 8  | 3,5 | 5,5    | 6  | 13,5                |
| K0381.10835         | K0381.20835         | M8  | 13 | -/4,5  | 36,2/- | -/35 | 8  | 3,5 | 5,5    | 6  | 19,0                |
| K0381.10850         | K0381.20850         | M8  | 13 | -/4,5  | 51,2/- | -/50 | 8  | 22  | 5,5    | 6  | 25,0                |
| K0381.11025         | K0381.21025         | M10 | 16 | -/6    | 26,7/- | -/25 | 10 | 4,5 | 7      | 8  | 26,0                |
| K0381.11040         | K0381.21040         | M10 | 16 | -/6    | 41,7/- | -/40 | 10 | 4,5 | 7      | 8  | 34,0                |
| K0381.11060         | K0381.21060         | M10 | 16 | -/6    | 61,7/- | -/60 | 10 | 28  | 7      | 8  | 47,0                |
| K0381.11230         | K0381.21230         | M12 | 18 | -/7,2  | 32/-   | -/30 | 12 | 5   | 8,5    | 10 | 48,0                |
| K0381.11250         | K0381.21250         | M12 | 18 | -/7,2  | 52/-   | -/50 | 12 | 5   | 8,5    | 10 | 56,0                |
| K0381.11280         | K0381.21280         | M12 | 18 | -/7,2  | 82/-   | -/80 | 12 | 44  | 8,5    | 10 | 83,0                |
| K0381.11640         | K0381.21640         | M16 | 24 | -/10,7 | 43,3/- | -/40 | 16 | 6   | 12     | 14 | 91,0                |
| K0381.11660         | K0381.21660         | M16 | 24 | -/10,7 | 63,3/- | -/60 | 16 | 6   | 12     | 14 | 122,0               |
| K0381.11680         | K0381.21680         | M16 | 24 | -/10,7 | 83,3/- | -/80 | 16 | 36  | 12     | 14 | 154,0               |

## Ball pressure screws without head

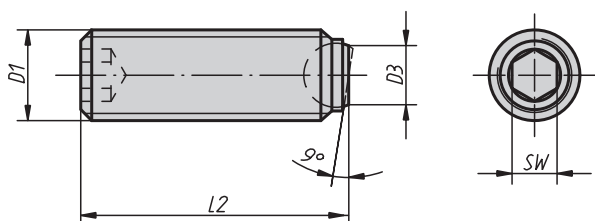
with fine thread



Form A  
with full ball



Form B  
with flattened ball



**Material, surface finish:**

Screw in tempered steel, quality class 10.9, black.  
Ball in ball-bearing steel, hardened with natural finish.

**Sample order:**

K0382.11025

**Note:**

Form A with full ball is used when a clean, polished pressure surface is required. Surfaces which are not plane and parallel can be firmly clamped or supported with form B with flattened ball because the movable ball can adapt itself up to 9°.

Fine thread enables extremely sensitive alignment of the ball pressure screws.

### KIPP Ball pressure screws without head with fine thread

| Order No.<br>Form A | Order No.<br>Form B | D1      | D3     | L1     | L2     | Ball-Ø | SW | Load capacity<br>max. kN<br>(static load only) |
|---------------------|---------------------|---------|--------|--------|--------|--------|----|--|
| K0382.10810         | K0382.20810         | M8x1    | -/4,1  | 11,2/- | -/10,3 | 5,5    | 4  | 10   |
| K0382.10820         | K0382.20820         | M8x1    | -/4,1  | 21,2/- | -/20,3 | 5,5    | 4  | 15   |
| K0382.11012         | K0382.21012         | M10x1   | -/5,6  | 13,7/- | -/12,3 | 7      | 5  | 20   |
| K0382.11025         | K0382.21025         | M10x1   | -/5,6  | 26,7/- | -/25,3 | 7      | 5  | 20   |
| K0382.11216         | K0382.21216         | M12x1,5 | -/7    | 18/-   | -/16,2 | 8,5    | 6  | 30   |
| K0382.11230         | K0382.21230         | M12x1,5 | -/7    | 32/-   | -/30,2 | 8,5    | 6  | 30   |
| K0382.11620         | K0382.21620         | M16x1,5 | -/10,7 | 23,3/- | -/20   | 12     | 8  | 60   |
| K0382.11635         | K0382.21635         | M16x1,5 | -/10,7 | 38,3/- | -/35   | 12     | 8  | 60   |
| K0382.12030         | K0382.22030         | M20x1,5 | -/13,5 | 34,2/- | -/30   | 15     | 10 | 90   |
| K0382.12040         | K0382.22040         | M20x1,5 | -/13,5 | 44,2/- | -/40   | 15     | 10 | 90   |

## Ball pressure screws without head

with full ball



### Material, surface finish:

Screw in tempered steel, quality class 10.9, black. Ball in ball-bearing steel, hardened with natural finish or Delrin.

### Sample order:

K0383.10810

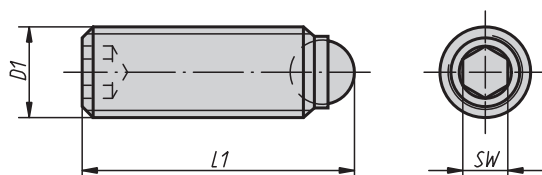
### Note:

Ball pressure screws without head with full ball are used when a clean, polished pressure surface is required.

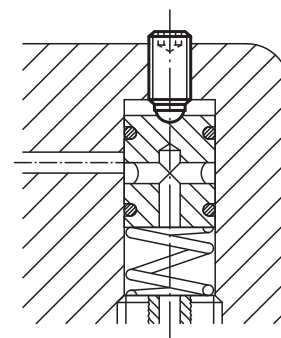
Further lengths have been designed especially so that ball pressure screws can be glued up. They allow mechanical connecting elements with external thread to be made cost-effectively for small and medium-sized series.

Form A  
ball in steel

Form D  
ball in Delrin



## KIPP Ball pressure screws without head with full ball



| Order No.<br>Form A | Order No.<br>Form D | D1 | L1   | Ball-Ø | SW  | Load capacity<br>max. kN<br>(static load only) |
|---------------------|---------------------|----|------|--------|-----|--|
| K0383.1046          | K0383.3046          | M4 | 6    | 2,5    | 2   | 3,5/0,3  |
| K0383.1048          | K0383.3048          | M4 | 8    | 2,5    | 2   | 3,5/0,3  |
| K0383.10410         | K0383.30410         | M4 | 10   | 2,5    | 2   | 3,5/0,3  |
| K0383.10412         | K0383.30412         | M4 | 12   | 2,5    | 2   | 3,5/0,3  |
| K0383.10416         | K0383.30416         | M4 | 16   | 2,5    | 2   | 3,5/0,3  |
| K0383.1058          | K0383.3058          | M5 | 8    | 3      | 2,5 | 4,5/0,5  |
| K0383.10510         | K0383.30510         | M5 | 10   | 3      | 2,5 | 4,5/0,5  |
| K0383.10512         | K0383.30512         | M5 | 12   | 3      | 2,5 | 4,5/0,5  |
| K0383.10516         | K0383.30516         | M5 | 16   | 3      | 2,5 | 4,5/0,5  |
| K0383.10520         | K0383.30520         | M5 | 20   | 3      | 2,5 | 4,5/0,5  |
| K0383.10525         | K0383.30525         | M5 | 25   | 3      | 2,5 | 4,5/0,5  |
| K0383.10610         | K0383.30610         | M6 | 10,8 | 4      | 3   | 9/0,9  |
| K0383.10612         | K0383.30612         | M6 | 12,8 | 4      | 3   | 9/0,9  |
| K0383.10616         | K0383.30616         | M6 | 16,8 | 4      | 3   | 9/0,9  |
| K0383.10620         | K0383.30620         | M6 | 20,8 | 4      | 3   | 9/0,9  |
| K0383.10625         | K0383.30625         | M6 | 25,8 | 4      | 3   | 9/0,9  |
| K0383.10650         | -                   | M6 | 50,8 | 4      | 3   | 9  |
| K0383.10660         | -                   | M6 | 60,8 | 4      | 3   | 9  |
| K0383.10680         | -                   | M6 | 80,8 | 4      | 3   | 9  |

# Ball pressure screws without head

with full ball

## KIPP Ball pressure screws without head with full ball

| Order No.<br>Form A | Order No.<br>Form D | D1  | L1   | Ball-Ø | SW | Load capacity<br>max. kN<br>(static load only) |
|---------------------|---------------------|-----|------|--------|----|--|
| K0383.10810         | K0383.30810         | M8  | 11,2 | 5,5    | 4  | 10/1,5   |
| K0383.10812         | K0383.30812         | M8  | 13,2 | 5,5    | 4  | 10/1,5   |
| K0383.10816         | K0383.30816         | M8  | 17,2 | 5,5    | 4  | 15/1,5   |
| K0383.10820         | K0383.30820         | M8  | 21,2 | 5,5    | 4  | 15/1,5   |
| K0383.10825         | K0383.30825         | M8  | 26,2 | 5,5    | 4  | 15/1,5   |
| K0383.10830         | K0383.30830         | M8  | 31,2 | 5,5    | 4  | 15/1,5   |
| K0383.10850         | -                   | M8  | 51,2 | 5,5    | 4  | 15   |
| K0383.10860         | -                   | M8  | 61,2 | 5,5    | 4  | 15   |
| K0383.10880         | -                   | M8  | 81,2 | 5,5    | 4  | 15   |
| K0383.11012         | K0383.31012         | M10 | 13,7 | 7      | 5  | 20/2   |
| K0383.11016         | K0383.31016         | M10 | 17,7 | 7      | 5  | 20/2   |
| K0383.11020         | K0383.31020         | M10 | 21,7 | 7      | 5  | 20/2   |
| K0383.11025         | K0383.31025         | M10 | 26,7 | 7      | 5  | 20/2   |
| K0383.11035         | K0383.31035         | M10 | 36,7 | 7      | 5  | 20/2   |
| K0383.11216         | K0383.31216         | M12 | 18   | 8,5    | 6  | 30/3   |
| K0383.11220         | K0383.31220         | M12 | 22   | 8,5    | 6  | 30/3   |
| K0383.11230         | K0383.31230         | M12 | 32   | 8,5    | 6  | 30/3   |
| K0383.11240         | K0383.31240         | M12 | 42   | 8,5    | 6  | 30/3   |
| K0383.11620         | -                   | M16 | 23,3 | 12     | 8  | 60   |
| K0383.11625         | -                   | M16 | 28,3 | 12     | 8  | 60   |
| K0383.11635         | -                   | M16 | 38,3 | 12     | 8  | 60   |
| K0383.11650         | -                   | M16 | 53,3 | 12     | 8  | 60   |
| K0383.12030         | -                   | M20 | 34,2 | 15     | 10 | 90   |
| K0383.12040         | -                   | M20 | 44,2 | 15     | 10 | 90   |
| K0383.12060         | -                   | M20 | 64,2 | 15     | 10 | 90   |
| K0383.12435         | -                   | M24 | 39,7 | 18     | 12 | 120  |
| K0383.12450         | -                   | M24 | 54,7 | 18     | 12 | 120  |
| K0383.12480         | -                   | M24 | 84,7 | 18     | 12 | 120  |





## Ball pressure screws without head, in stainless steel

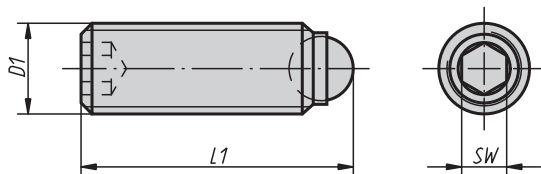
with full ball



Form A  
ball in stainless steel

Form D  
ball in Delrin

Form E  
ball in ceramic



### Material, surface finish:

Screw in stainless steel, natural finish.

Ball in stainless steel, natural finish, Delrin or ceramic  $Si_3N_4$ .

### Sample order:

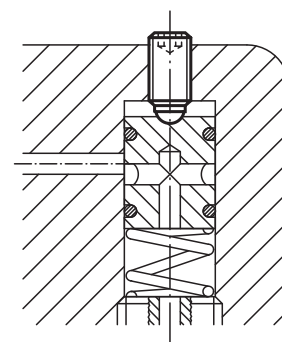
K0384.1046

### Note:

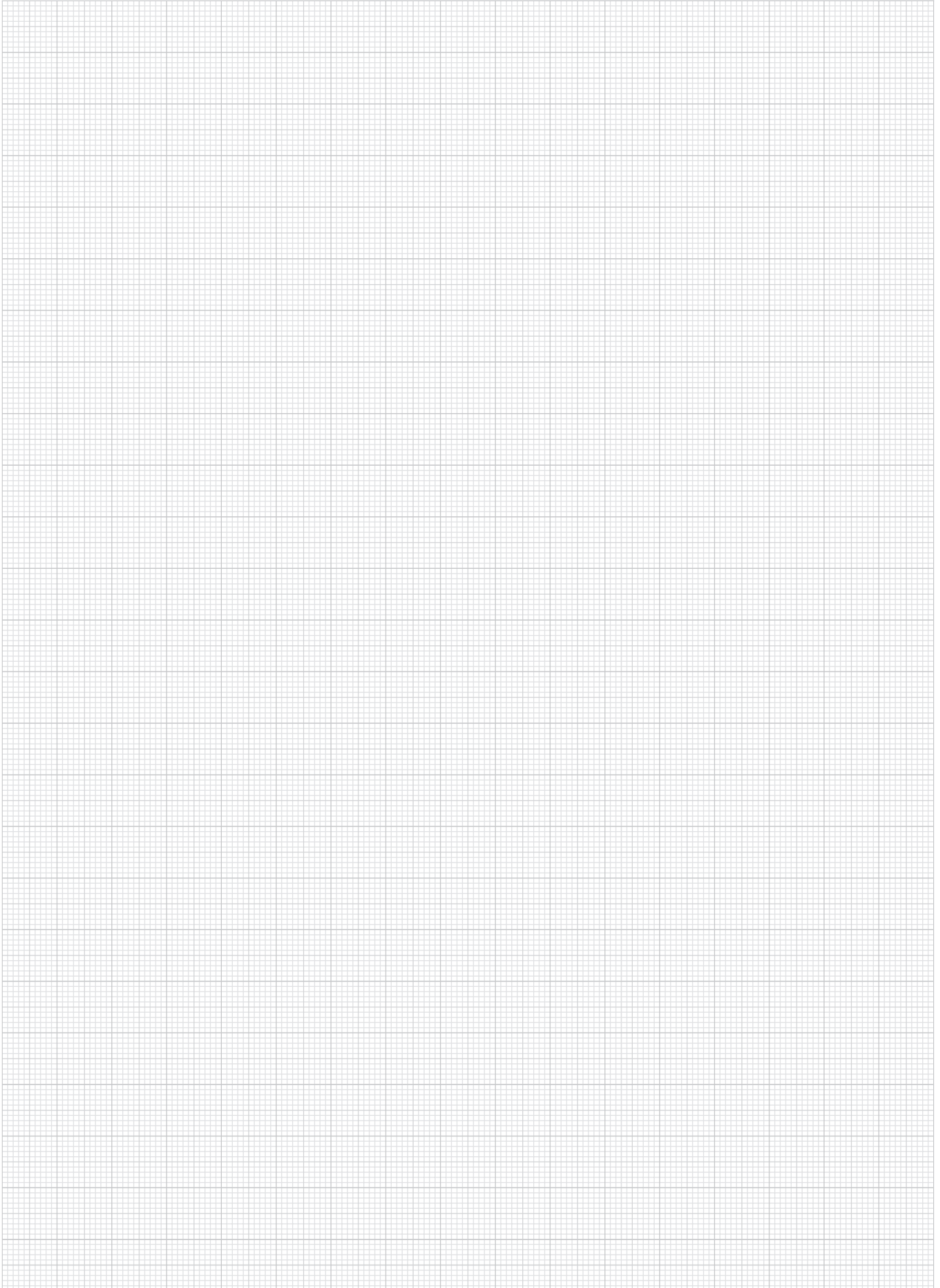
Ball pressure screws, without head, with full ball are used when a clean, polished pressure surface is required. Longer models have been designed especially so that ball pressure screws can be glued up. They allow mechanical connecting elements with external threads to be made cost-effectively for small and medium-sized runs. Silicon nitride ( $Si_3N_4$ ) is especially suitable thanks to the combination of its excellent properties. These include great toughness and strength, excellent wear characteristics and good chemical resistance.

### KIPP Ball pressure screws without head, in stainless steel, with full ball

| Order No.<br>Form A | Order No.<br>Form D | Order No.<br>Form E | D1  | L1   | Ball-Ø | SW  |
|---------------------|---------------------|---------------------|-----|------|--------|-----|
| K0384.1046          | K0384.3046          | -                   | M4  | 6    | 2,5    | 2   |
| K0384.1048          | K0384.3048          | -                   | M4  | 8    | 2,5    | 2   |
| K0384.10410         | K0384.30410         | -                   | M4  | 10   | 2,5    | 2   |
| K0384.10412         | K0384.30412         | -                   | M4  | 12   | 2,5    | 2   |
| K0384.10416         | K0384.30416         | -                   | M4  | 16   | 2,5    | 2   |
| K0384.1058          | K0384.3058          | K0384.8058          | M5  | 8    | 3      | 2,5 |
| K0384.10510         | K0384.30510         | -                   | M5  | 10   | 3      | 2,5 |
| K0384.10512         | K0384.30512         | K0384.80512         | M5  | 12   | 3      | 2,5 |
| K0384.10516         | K0384.30516         | -                   | M5  | 16   | 3      | 2,5 |
| K0384.10520         | K0384.30520         | K0384.80520         | M5  | 20   | 3      | 2,5 |
| K0384.10525         | K0384.30525         | -                   | M5  | 25   | 3      | 2,5 |
| K0384.10610         | K0384.30610         | K0384.80610         | M6  | 10,8 | 4      | 3   |
| K0384.10612         | K0384.30612         | -                   | M6  | 12,8 | 4      | 3   |
| K0384.10616         | K0384.30616         | K0384.80616         | M6  | 16,8 | 4      | 3   |
| K0384.10620         | K0384.30620         | K0384.80620         | M6  | 20,8 | 4      | 3   |
| K0384.10625         | K0384.30625         | K0384.80625         | M6  | 25,8 | 4      | 3   |
| K0384.10810         | K0384.30810         | K0384.80810         | M8  | 11,2 | 5,5    | 4   |
| K0384.10812         | K0384.30812         | K0384.80812         | M8  | 13,2 | 5,5    | 4   |
| K0384.10816         | K0384.30816         | -                   | M8  | 17,2 | 5,5    | 4   |
| K0384.10820         | K0384.30820         | K0384.80820         | M8  | 21,2 | 5,5    | 4   |
| K0384.10825         | K0384.30825         | K0384.80825         | M8  | 26,2 | 5,5    | 4   |
| K0384.10830         | K0384.30830         | K0384.80830         | M8  | 31,2 | 5,5    | 4   |
| K0384.11012         | -                   | K0384.81012         | M10 | 13,7 | 7      | 5   |
| K0384.11016         | -                   | K0384.81016         | M10 | 17,7 | 7      | 5   |
| K0384.11020         | -                   | K0384.81020         | M10 | 21,7 | 7      | 5   |
| K0384.11025         | -                   | K0384.81025         | M10 | 26,7 | 7      | 5   |
| K0384.11035         | -                   | K0384.81035         | M10 | 36,7 | 7      | 5   |
| K0384.11216         | -                   | K0384.81216         | M12 | 18   | 8,5    | 6   |
| K0384.11220         | -                   | K0384.81220         | M12 | 22   | 8,5    | 6   |
| K0384.11230         | -                   | K0384.81230         | M12 | 32   | 8,5    | 6   |
| K0384.11240         | -                   | K0384.81240         | M12 | 42   | 8,5    | 6   |
| K0384.11620         | -                   | -                   | M16 | 23,3 | 12     | 8   |
| K0384.11625         | -                   | -                   | M16 | 28,3 | 12     | 8   |
| K0384.11635         | -                   | -                   | M16 | 38,3 | 12     | 8   |
| K0384.11650         | -                   | -                   | M16 | 53,3 | 12     | 8   |



# Notes



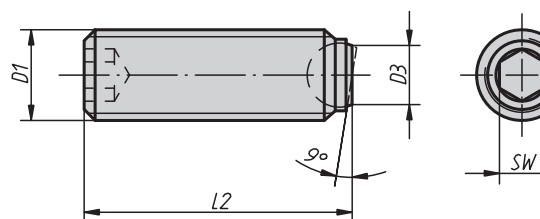
## Ball pressure screws without head

with flattened ball

Form B  
ball in steel

Form C  
ball in Delrin

Form F  
serrated ball in steel



### KIPP Ball Pressure screws without head with flattened ball, ball in Delrin

| Order No.   | Form | D1 | D3  | L2   | Ball-Ø | SW  | Load capacity<br>max. kN<br>(static load only) | Approx.<br>weight g |
|-------------|------|----|-----|------|--------|-----|--|---------------------|
| K0383.7046  | C    | M4 | 1,8 | 5,8  | 2,5    | 2   | 0,3  | 0,3                 |
| K0383.7048  | C    | M4 | 1,8 | 7,8  | 2,5    | 2   | 0,3  | 0,4                 |
| K0383.70410 | C    | M4 | 1,8 | 9,8  | 2,5    | 2   | 0,3  | 0,5                 |
| K0383.70412 | C    | M4 | 1,8 | 11,8 | 2,5    | 2   | 0,3  | 0,6                 |
| K0383.70416 | C    | M4 | 1,8 | 15,8 | 2,5    | 2   | 0,3  | 0,9                 |
| K0383.7058  | C    | M5 | 2,1 | 7,6  | 3      | 2,5 | 0,5  | 0,6                 |
| K0383.70510 | C    | M5 | 2,1 | 9,6  | 3      | 2,5 | 0,5  | 0,8                 |
| K0383.70512 | C    | M5 | 2,1 | 11,6 | 3      | 2,5 | 0,5  | 1,0                 |
| K0383.70516 | C    | M5 | 2,1 | 15,6 | 3      | 2,5 | 0,5  | 1,5                 |
| K0383.70520 | C    | M5 | 2,1 | 19,6 | 3      | 2,5 | 0,5  | 1,9                 |
| K0383.70525 | C    | M5 | 2,1 | 24,6 | 3      | 2,5 | 0,5  | 2,5                 |
| K0383.70610 | C    | M6 | 3   | 10,1 | 4      | 3   | 0,9  | 1,3                 |
| K0383.70612 | C    | M6 | 3   | 12,1 | 4      | 3   | 0,9  | 1,5                 |
| K0383.70616 | C    | M6 | 3   | 16,1 | 4      | 3   | 0,9  | 2,0                 |
| K0383.70620 | C    | M6 | 3   | 20,1 | 4      | 3   | 0,9  | 2,7                 |
| K0383.70625 | C    | M6 | 3   | 25,1 | 4      | 3   | 0,9  | 3,4                 |
| K0383.70810 | C    | M8 | 4,1 | 10,3 | 5,5    | 4   | 1,5  | 1,8                 |
| K0383.70812 | C    | M8 | 4,1 | 12,3 | 5,5    | 4   | 1,5  | 2,3                 |
| K0383.70816 | C    | M8 | 4,1 | 16,3 | 5,5    | 4   | 1,5  | 3,1                 |
| K0383.70820 | C    | M8 | 4,1 | 20,3 | 5,5    | 4   | 1,5  | 4,6                 |
| K0383.70825 | C    | M8 | 4,1 | 25,3 | 5,5    | 4   | 1,5  | 6,0                 |
| K0383.70830 | C    | M8 | 4,1 | 30,3 | 5,5    | 4   | 1,5  | 7,6                 |

### KIPP Ball pressure screws without heads with flattened ball, ball made of serrated steel

| Order No.   | Form | D1  | D3   | L2   | Ball-Ø | SW | Load capacity<br>max. kN<br>(static load only) | Approx.<br>weight g |
|-------------|------|-----|------|------|--------|----|--|---------------------|
| K0383.41012 | F    | M10 | 5,6  | 12,3 | 7      | 5  | 20   | 5,0                 |
| K0383.41016 | F    | M10 | 5,6  | 16,3 | 7      | 5  | 20   | 6,8                 |
| K0383.41025 | F    | M10 | 5,6  | 25,3 | 7      | 5  | 20   | 11,2                |
| K0383.41035 | F    | M10 | 5,6  | 35,3 | 7      | 5  | 20   | 16,2                |
| K0383.41216 | F    | M12 | 7    | 16,2 | 8,5    | 6  | 30   | 10,0                |
| K0383.41220 | F    | M12 | 7    | 20,2 | 8,5    | 6  | 30   | 12,4                |
| K0383.41230 | F    | M12 | 7    | 30,2 | 8,5    | 6  | 30   | 19,6                |
| K0383.41240 | F    | M12 | 7    | 40,2 | 8,5    | 6  | 30   | 28,5                |
| K0383.41620 | F    | M16 | 10,7 | 20   | 12     | 8  | 60   | 22,0                |
| K0383.41625 | F    | M16 | 10,7 | 25   | 12     | 8  | 60   | 28,0                |
| K0383.41635 | F    | M16 | 10,7 | 35   | 12     | 8  | 60   | 41,0                |
| K0383.41650 | F    | M16 | 10,7 | 50   | 12     | 8  | 60   | 48,0                |

#### Material, surface finish:

Screw in tempered steel, quality class 10.9, black.  
Ball in ball-bearing steel, hardened with natural finish or Delrin.

#### Sample order:

K0383.41012

#### Note:

Surfaces which are not plane and parallel can be firmly clamped or supported with form B, C or F with flattened ball because the movable ball can adapt itself up to 9°.

Further lengths have been designed especially so that ball pressure screws can be glued up. They allow mechanical connecting elements with external thread to be made cost-effectively for small and medium-sized series.

# Ball pressure screws without head

with flattened ball

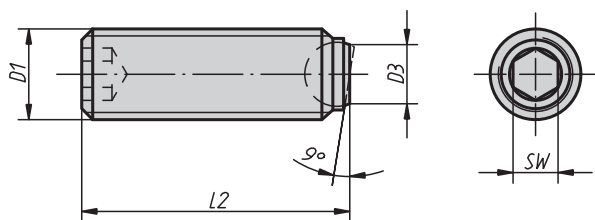
## KIPP Ball pressure screws without head with flattened ball, ball in steel

| Order No.   | Form | D1  | D3   | L2   | Ball-Ø | SW  | Load capacity<br>max. kN<br>(static load only) | Approx.<br>weight g |
|-------------|------|-----|------|------|--------|-----|--|---------------------|
| K0383.2046  | B    | M4  | 1,4  | 5,8  | 2,5    | 2   | 3,5  | 0,4                 |
| K0383.2048  | B    | M4  | 1,4  | 7,8  | 2,5    | 2   | 3,5  | 0,6                 |
| K0383.20410 | B    | M4  | 1,4  | 9,8  | 2,5    | 2   | 3,5  | 0,7                 |
| K0383.20412 | B    | M4  | 1,4  | 11,8 | 2,5    | 2   | 3,5  | 0,9                 |
| K0383.20416 | B    | M4  | 1,4  | 15,8 | 2,5    | 2   | 3,5  | 1,1                 |
| K0383.2058  | B    | M5  | 2    | 7,6  | 3      | 2,5 | 4,5  | 0,8                 |
| K0383.20510 | B    | M5  | 2    | 9,6  | 3      | 2,5 | 4,5  | 1                   |
| K0383.20512 | B    | M5  | 2    | 11,6 | 3      | 2,5 | 4,5  | 1,3                 |
| K0383.20516 | B    | M5  | 2    | 15,6 | 3      | 2,5 | 4,5  | 1,8                 |
| K0383.20520 | B    | M5  | 2    | 19,6 | 3      | 2,5 | 4,5  | 2,3                 |
| K0383.20525 | B    | M5  | 2    | 24,6 | 3      | 2,5 | 4,5  | 2,8                 |
| K0383.20610 | B    | M6  | 3    | 10,1 | 4      | 3   | 9  | 1,5                 |
| K0383.20612 | B    | M6  | 3    | 12,1 | 4      | 3   | 9  | 1,9                 |
| K0383.20616 | B    | M6  | 3    | 16,1 | 4      | 3   | 9  | 2,4                 |
| K0383.20620 | B    | M6  | 3    | 20,1 | 4      | 3   | 9  | 3,0                 |
| K0383.20625 | B    | M6  | 3    | 25,1 | 4      | 3   | 9  | 3,9                 |
| K0383.20650 | B    | M6  | 3    | 50,1 | 4      | 3   | 9  | 10,6                |
| K0383.20660 | B    | M6  | 3    | 60,1 | 4      | 3   | 9  | 13,5                |
| K0383.20680 | B    | M6  | 3    | 80,1 | 4      | 3   | 9  | 19,3                |
| K0383.20810 | B    | M8  | 4,1  | 10,3 | 5,5    | 4   | 10   | 2,6                 |
| K0383.20812 | B    | M8  | 4,1  | 12,3 | 5,5    | 4   | 10   | 3,2                 |
| K0383.20816 | B    | M8  | 4,1  | 16,3 | 5,5    | 4   | 15   | 4,5                 |
| K0383.20820 | B    | M8  | 4,1  | 20,3 | 5,5    | 4   | 15   | 5,7                 |
| K0383.20825 | B    | M8  | 4,1  | 25,3 | 5,5    | 4   | 15   | 7,3                 |
| K0383.20830 | B    | M8  | 4,1  | 30,3 | 5,5    | 4   | 15   | 8,9                 |
| K0383.20850 | B    | M8  | 4,1  | 50,3 | 5,5    | 4   | 15   | 18,8                |
| K0383.20860 | B    | M8  | 4,1  | 60,3 | 5,5    | 4   | 15   | 24,0                |
| K0383.20880 | B    | M8  | 4,1  | 80,3 | 5,5    | 4   | 15   | 30,7                |
| K0383.21012 | B    | M10 | 5,6  | 12,3 | 7      | 5   | 20   | 5,0                 |
| K0383.21016 | B    | M10 | 5,6  | 16,3 | 7      | 5   | 20   | 6,8                 |
| K0383.21020 | B    | M10 | 5,6  | 20,3 | 7      | 5   | 20   | 8,7                 |
| K0383.21025 | B    | M10 | 5,6  | 25,3 | 7      | 5   | 20   | 11,2                |
| K0383.21035 | B    | M10 | 5,6  | 35,3 | 7      | 5   | 20   | 16,2                |
| K0383.21216 | B    | M12 | 7    | 16,2 | 8,5    | 6   | 30   | 10,0                |
| K0383.21220 | B    | M12 | 7    | 20,2 | 8,5    | 6   | 30   | 12,4                |
| K0383.21230 | B    | M12 | 7    | 30,2 | 8,5    | 6   | 30   | 19,6                |
| K0383.21240 | B    | M12 | 7    | 40,2 | 8,5    | 6   | 30   | 28,5                |
| K0383.21620 | B    | M16 | 10,7 | 20   | 12     | 8   | 60   | 22,0                |
| K0383.21625 | B    | M16 | 10,7 | 25   | 12     | 8   | 60   | 28,0                |
| K0383.21635 | B    | M16 | 10,7 | 35   | 12     | 8   | 60   | 41,0                |
| K0383.21650 | B    | M16 | 10,7 | 50   | 12     | 8   | 60   | 48,0                |
| K0383.22030 | B    | M20 | 13,5 | 30   | 15     | 10  | 90   | 54,0                |
| K0383.22040 | B    | M20 | 13,5 | 40   | 15     | 10  | 90   | 74,0                |
| K0383.22060 | B    | M20 | 13,5 | 60   | 15     | 10  | 90   | 120,0               |
| K0383.22435 | B    | M24 | 15,8 | 35   | 18     | 12  | 120  | 90,0                |
| K0383.22450 | B    | M24 | 15,8 | 50   | 18     | 12  | 120  | 130,0               |
| K0383.22480 | B    | M24 | 15,8 | 80   | 18     | 12  | 120  | 235,0               |



## Ball pressure screws without head, in stainless steel

with flattened ball



**Material, surface finish:**

Screw and ball in stainless steel, natural finish.

**Sample order:**

K0384.2046

**Note:**

Surfaces which are not plane and parallel can be firmly clamped or supported with with flattened ball because the movable ball can adapt itself up to 9°.

Further lengths have been designed especially so that ball pressure screws can be glued up. They allow mechanical connecting elements with external thread to be made cost-effectively for small and medium-sized series.

### KIPP Ball pressure screws without head, in stainless steel with flattened ball

| Order No.   | D1  | D3   | L2   | Ball-Ø | SW  | Approx. weight g |
|-------------|-----|------|------|--------|-----|------------------|
| K0384.2046  | M4  | 1,4  | 5,8  | 2,5    | 2   | 0,4              |
| K0384.2048  | M4  | 1,4  | 7,8  | 2,5    | 2   | 0,6              |
| K0384.20410 | M4  | 1,4  | 9,8  | 2,5    | 2   | 0,7              |
| K0384.20412 | M4  | 1,4  | 11,8 | 2,5    | 2   | 0,9              |
| K0384.20416 | M4  | 1,4  | 15,8 | 2,5    | 2   | 1,1              |
| K0384.2058  | M5  | 2    | 7,6  | 3      | 2,5 | 0,8              |
| K0384.20510 | M5  | 2    | 9,6  | 3      | 2,5 | 1                |
| K0384.20512 | M5  | 2    | 11,6 | 3      | 2,5 | 1,3              |
| K0384.20516 | M5  | 2    | 15,6 | 3      | 2,5 | 0,8              |
| K0384.20520 | M5  | 2    | 19,6 | 3      | 2,5 | 2,3              |
| K0384.20525 | M5  | 2    | 24,6 | 3      | 2,5 | 2,8              |
| K0384.20610 | M6  | 3    | 10,1 | 4      | 3   | 1,5              |
| K0384.20612 | M6  | 3    | 12,1 | 4      | 3   | 1,9              |
| K0384.20616 | M6  | 3    | 16,1 | 4      | 3   | 2,4              |
| K0384.20620 | M6  | 3    | 20,1 | 4      | 3   | 3,0              |
| K0384.20625 | M6  | 3    | 25,1 | 4      | 3   | 3,9              |
| K0384.20810 | M8  | 4,1  | 10,3 | 5,5    | 4   | 2,6              |
| K0384.20812 | M8  | 4,1  | 12,3 | 5,5    | 4   | 3,2              |
| K0384.20816 | M8  | 4,1  | 16,3 | 5,5    | 4   | 4,5              |
| K0384.20820 | M8  | 4,1  | 20,3 | 5,5    | 4   | 5,7              |
| K0384.20825 | M8  | 4,1  | 25,3 | 5,5    | 4   | 7,3              |
| K0384.20830 | M8  | 4,1  | 30,3 | 5,5    | 4   | 8,9              |
| K0384.21012 | M10 | 5,6  | 12,3 | 7      | 5   | 5,0              |
| K0384.21016 | M10 | 5,6  | 16,3 | 7      | 5   | 6,8              |
| K0384.21020 | M10 | 5,6  | 20,3 | 7      | 5   | 8,7              |
| K0384.21025 | M10 | 5,6  | 25,3 | 7      | 5   | 11,2             |
| K0384.21035 | M10 | 5,6  | 35,3 | 7      | 5   | 16,2             |
| K0384.21216 | M12 | 7    | 16,2 | 8,5    | 6   | 10,0             |
| K0384.21220 | M12 | 7    | 20,2 | 8,5    | 6   | 12,4             |
| K0384.21230 | M12 | 7    | 30,2 | 8,5    | 6   | 19,6             |
| K0384.21240 | M12 | 7    | 40,2 | 8,5    | 6   | 28,5             |
| K0384.21620 | M16 | 10,7 | 20   | 12     | 8   | 22,0             |
| K0384.21625 | M16 | 10,7 | 25   | 12     | 8   | 28,0             |
| K0384.21635 | M16 | 10,7 | 35   | 12     | 8   | 41,0             |
| K0384.21650 | M16 | 10,7 | 50   | 12     | 8   | 48,0             |

## Ball pressure screws without head

with flattened ball and torsion protection



Form BV  
with flattened ball  
and torsion protection

Form FV  
with serrated, flattened ball  
and torsion protection

**Material, surface finish:**

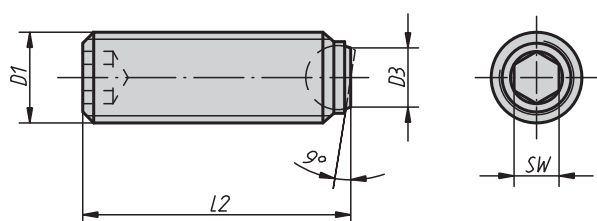
Screw in tempered steel, quality class 10.9, black.  
Ball in ball-bearing steel, hardened with natural finish.

**Sample order:**

K0383.50820

**Note:**

Surfaces which are not plane and parallel can be firmly clamped or supported with with flattened ball because the movable ball can adapt itself up to 9°. Further lengths have been designed especially so that ball pressure screws can be glued up. They allow mechanical connecting elements with external thread to be made cost-effectively for small and medium-sized series.



### KIPP Ball pressure screws without head, with flattened ball and torsion protection

| Order No.<br>Form BV | Order No.<br>Form FV | D1  | D3   | L2   | Ball-Ø | SW | Load capacity<br>max. kN<br>(static load only) |
|----------------------|----------------------|-----|------|------|--------|----|--|
| K0383.50820          | -                    | M8  | 4,1  | 20,3 | 5,5    | 4  | 9  |
| K0383.50830          | -                    | M8  | 4,1  | 30,3 | 5,5    | 4  | 9  |
| K0383.51025          | K0383.61025          | M10 | 5,6  | 25,3 | 7      | 5  | 12   |
| K0383.51035          | K0383.61035          | M10 | 5,6  | 35,3 | 7      | 5  | 12   |
| K0383.51240          | K0383.61240          | M12 | 7    | 40,2 | 8,5    | 6  | 18   |
| K0383.51230          | K0383.61230          | M12 | 7    | 30,2 | 8,5    | 6  | 18   |
| K0383.51635          | K0383.61635          | M16 | 10,7 | 35   | 12     | 8  | 36   |
| K0383.51650          | K0383.61650          | M16 | 10,7 | 50   | 12     | 8  | 36   |



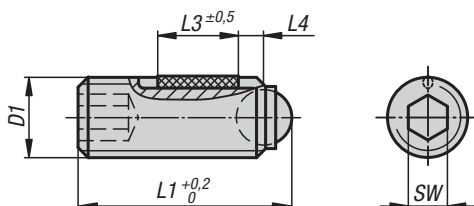
## Ball pressure screws without head in steel

with full ball, LONG-LOK secured



Form A  
ball in steel

Form D  
ball in Delrin



L4 = approx. two thread turns

### Material, surface finish:

Screw in tempered steel, quality class 10.9, black.  
Ball in ball-bearing steel, hardened, natural finish or Delrin.

LONG-LOK thread lock in nylon.

### Sample order:

K0666.1046

### Note:

Ball pressure screws without head with full ball are used when a clean, polished pressure surface is required.

## KIPP Ball pressure screws without head, in steel, with full ball, LONG-LOK secured

| Order No.<br>Form A | Order No.<br>Form D | D1      | L1        | L3    | Ball-Ø | SW  | Load capacity<br>max. kN<br>(static load only) |
|---------------------|---------------------|---------|-----------|-------|--------|-----|--|
| K0666.1046          | K0666.3046          | M4      | 6         | 2,5   | 2,5    | 2   | 3,5/0,3  |
| K0666.10410         | K0666.30410         | M4      | 10        | 3,5   | 2,5    | 2   | 3,5/0,3  |
| K0666.10416         | K0666.30416         | M4      | 16        | 5     | 2,5    | 2   | 3,5/0,3  |
| K0666.1058          | K0666.3058          | M5      | 8         | 3,5   | 3      | 2,5 | 4,5/0,5  |
| K0666.10512         | K0666.30512         | M5      | 12        | 5     | 3      | 2,5 | 4,5/0,5  |
| K0666.10520         | K0666.30520         | M5      | 20        | 6     | 3      | 2,5 | 4,5/0,5  |
| K0666.10610         | K0666.30610         | M6      | 10,8      | 3,5   | 4      | 3   | 9/0,9  |
| K0666.10616         | K0666.30616         | M6      | 16,8      | 7     | 4      | 3   | 9/0,9  |
| K0666.10620         | K0666.30620         | M6      | 20,8      | 7     | 4      | 3   | 9/0,9  |
| K0666.10625         | K0666.30625         | M6      | 25,8      | 7     | 4      | 3   | 9/0,9  |
| K0666.10650         | K0666.30810         | M6/M8   | 50,8/11,2 | 7/3,5 | 4/5,5  | 3/4 | 9/1,5  |
| K0666.10660         | K0666.30812         | M6/M8   | 60,8/13,2 | 7/5   | 4/5,5  | 3/4 | 9/1,5  |
| K0666.10810         | K0666.30820         | M8      | 11,2/21,2 | 3,5/8 | 5,5    | 4   | 10/1,5   |
| K0666.10812         | K0666.30825         | M8      | 13,2/26,2 | 5/8   | 5,5    | 4   | 10/1,5   |
| K0666.10820         | K0666.30830         | M8      | 21,2/31,2 | 8     | 5,5    | 4   | 15/1,5   |
| K0666.10825         | K0666.31012         | M8/M10  | 26,2/13,7 | 8/5   | 5,5/7  | 4/5 | 15/2   |
| K0666.10830         | K0666.31016         | M8/M10  | 31,2/17,7 | 8/9   | 5,5/7  | 4/5 | 15/2   |
| K0666.10850         | K0666.31020         | M8/M10  | 51,2/21,7 | 8/9   | 5,5/7  | 4/5 | 15/2   |
| K0666.10860         | K0666.31025         | M8/M10  | 61,2/26,7 | 8/9   | 5,5/7  | 4/5 | 15/2   |
| K0666.10880         | K0666.31035         | M8/M10  | 81,2/36,7 | 8/9   | 5,5/7  | 4/5 | 15/2   |
| K0666.11012         | K0666.31216         | M10/M12 | 13,7/18   | 5/8   | 7/8,5  | 5/6 | 20/3   |
| K0666.11016         | K0666.31220         | M10/M12 | 17,7/22   | 9/10  | 7/8,5  | 5/6 | 20/3   |
| K0666.11020         | K0666.31230         | M10/M12 | 21,7/32   | 9/10  | 7/8,5  | 5/6 | 20/3   |
| K0666.11025         | K0666.31240         | M10/M12 | 26,7/42   | 9/10  | 7/8,5  | 5/6 | 20/3   |
| K0666.11035         | -                   | M10     | 36,7      | 9     | 7      | 5   | 20   |
| K0666.11216         | -                   | M12     | 18        | 8     | 8,5    | 6   | 30   |
| K0666.11220         | -                   | M12     | 22        | 10    | 8,5    | 6   | 30   |
| K0666.11230         | -                   | M12     | 32        | 10    | 8,5    | 6   | 30   |
| K0666.11240         | -                   | M12     | 42        | 10    | 8,5    | 6   | 30   |
| K0666.11620         | -                   | M16     | 23,3      | 10    | 12     | 8   | 60   |
| K0666.11625         | -                   | M16     | 28,3      | 14    | 12     | 8   | 60   |
| K0666.11635         | -                   | M16     | 38,3      | 14    | 12     | 8   | 60   |
| K0666.11650         | -                   | M16     | 53,3      | 14    | 12     | 8   | 60   |

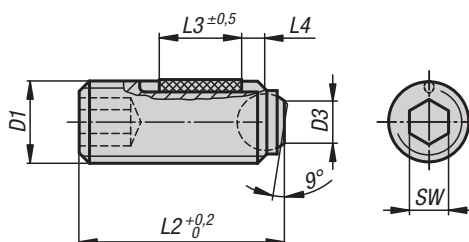


## Ball pressure screws without head in steel

with flattened ball LONG-LOK secured



Form B  
with flattened ball



L4 = approx. two thread turns

### Material, surface finish:

Screw in tempered steel, quality class 10.9, black.  
Ball in ball-bearing steel, hardened, natural finish.  
LONG-LOK thread lock in nylon.

### Sample order:

K0666.20610

### Note:

Surfaces which are not plane and parallel can be firmly clamped or supported with form B with flattened ball because the movable ball can adapt itself up to 9°.

### KIPP Ball pressure screws without head, with flattened ball, steel, LONG-LOK secured

| Order No.<br>Form B | D1  | D3   | L2   | L3  | Ball-Ø | SW | Load capacity max. kN<br>(static load only) |
|---------------------|-----|------|------|-----|--------|----|---|
| K0666.20610         | M6  | 3    | 10,1 | 3,5 | 4      | 3  | 9   |
| K0666.20616         | M6  | 3    | 16,1 | 7   | 4      | 3  | 9   |
| K0666.20620         | M6  | 3    | 20,1 | 7   | 4      | 3  | 9   |
| K0666.20625         | M6  | 3    | 25,1 | 7   | 4      | 3  | 9   |
| K0666.20650         | M6  | 3    | 50,1 | 7   | 4      | 3  | 9   |
| K0666.20660         | M6  | 3    | 60,1 | 7   | 4      | 3  | 9   |
| K0666.20810         | M8  | 4,1  | 10,3 | 3,5 | 5,5    | 4  | 10  |
| K0666.20812         | M8  | 4,1  | 12,3 | 5   | 5,5    | 4  | 10  |
| K0666.20820         | M8  | 4,1  | 20,3 | 8   | 5,5    | 4  | 15  |
| K0666.20825         | M8  | 4,1  | 25,3 | 8   | 5,5    | 4  | 15  |
| K0666.20830         | M8  | 4,1  | 30,3 | 8   | 5,5    | 4  | 15  |
| K0666.20850         | M8  | 4,1  | 50,3 | 8   | 5,5    | 4  | 15  |
| K0666.20860         | M8  | 4,1  | 60,3 | 8   | 5,5    | 4  | 15  |
| K0666.20880         | M8  | 4,1  | 80,3 | 8   | 5,5    | 4  | 15  |
| K0666.21012         | M10 | 5,6  | 12,3 | 5   | 7      | 5  | 20  |
| K0666.21016         | M10 | 5,6  | 16,3 | 9   | 7      | 5  | 20  |
| K0666.21020         | M10 | 5,6  | 20,3 | 9   | 7      | 5  | 20  |
| K0666.21025         | M10 | 5,6  | 25,3 | 9   | 7      | 5  | 20  |
| K0666.21035         | M10 | 5,6  | 35,3 | 9   | 7      | 5  | 20  |
| K0666.21216         | M12 | 7    | 16,2 | 8   | 8,5    | 6  | 30  |
| K0666.21220         | M12 | 7    | 20,2 | 10  | 8,5    | 6  | 30  |
| K0666.21230         | M12 | 7    | 30,2 | 10  | 8,5    | 6  | 30  |
| K0666.21240         | M12 | 7    | 40,2 | 10  | 8,5    | 6  | 30  |
| K0666.21620         | M16 | 10,7 | 20   | 10  | 12     | 8  | 60  |
| K0666.21625         | M16 | 10,7 | 25   | 14  | 12     | 8  | 60  |
| K0666.21635         | M16 | 10,7 | 35   | 14  | 12     | 8  | 60  |
| K0666.21650         | M16 | 10,7 | 50   | 14  | 12     | 8  | 60  |





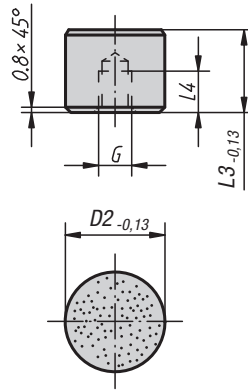
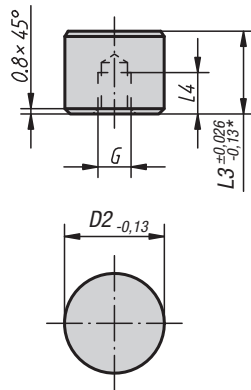
# Round grippers and inserts

Form E  
stainless steel insert plain,  
flattened

Form C  
plain, flattened steel insert

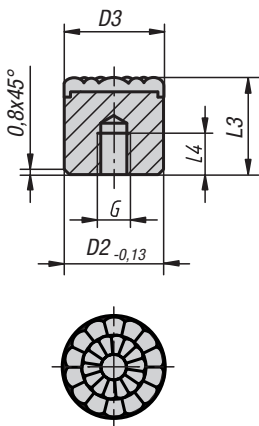
Form K  
plain, flattened Delrin insert

Form O  
stainless steel insert, flattened,  
plain with diamond surface

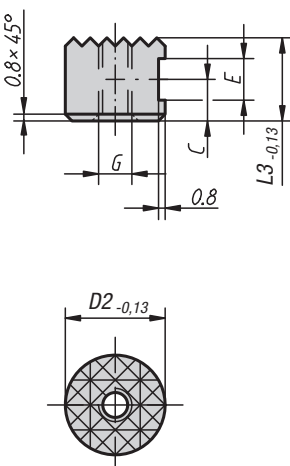


\* Applies for form K

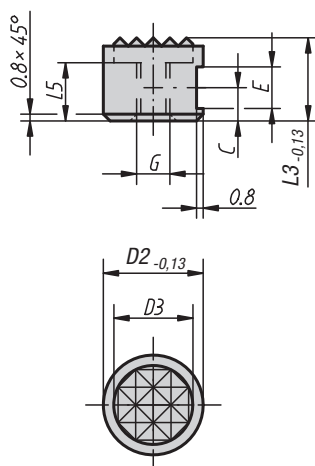
Form P  
stainless steel insert, flattened,  
plain with polyurethane surface



Form F  
serrated, flattened gripper



Form M  
gripper flattened,  
serration in hard metal



**Material, surface finish:**

Form C in tool steel, hardened and black oxide finish.  
Form F in tool steel, hardened and black oxide finish.  
Form M in tool steel with carbide serration, black oxide finish.  
Form K in white Delrin.  
Form E stainless steel, hardened, natural finish.  
Form O stainless steel with diamond surface comparable with abrasive grit size 100.  
Form P stainless steel with polyurethane surface, Shore hardness 60°.

**Sample order:**  
K0385.2510

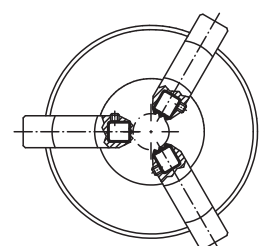
**Note:**

Grippers and inserts are ideal for use in clamping arms, gripping systems, clamping fixtures, clamping jaws and toggle locators. The use of grippers allows the transfer of very high torque values and above average grip, even with hard materials and surface irregularities.

Form O: The abrasive diamond surface is welded firmly to the base. It is ideally suited to supporting smooth or slippery applications with a minimum of clamping pressure. This allows the diamond particles to get a firm grip on a very small area with minimum damage to the surface. The diamond surface offers excellent wear resistance.

Form P: The polyurethane surface is vulcanised firmly to the ball. It is abrasion-resistant and does not discolour. It offers optimum protection against damage to delicate surfaces. The pearl-like surface gives a firm grip and allows air to escape so as to prevent any suction effect between the contact surface and the toggle locator.

Grippers and inserts can be fitted in the following toggle locators:  
Order No. K0285.117X022 up to K0285.936X036  
Order No. K0289.110X015 up to K0289.924X100  
Order No. K0291.120X030 up to K0291.924X080





## KIPP Round inserts form C, K, E, O

| Order No.<br>Form C | Order No.<br>Form K | Order No.<br>Form E | Order No.<br>Form O | D2 | L3 | L4  | G  |
|---------------------|---------------------|---------------------|---------------------|----|----|-----|----|
| K0385.10108         | K0385.10109         | K0385.10102         | K0385.10105         | 10 | 10 | 5   | M5 |
| K0385.10128         | K0385.10129         | K0385.10122         | K0385.10125         | 10 | 12 | 6,4 | M5 |
| K0385.12108         | K0385.12109         | K0385.12102         | K0385.12105         | 12 | 10 | 5   | M5 |
| K0385.12128         | K0385.12129         | K0385.12122         | K0385.12125         | 12 | 12 | 6,4 | M5 |
| K0385.16108         | K0385.16109         | K0385.16102         | K0385.16105         | 16 | 10 | 5   | M6 |
| K0385.16128         | K0385.16129         | K0385.16122         | K0385.16125         | 16 | 12 | 6,4 | M6 |
| K0385.20108         | K0385.20109         | K0385.20102         | K0385.20105         | 20 | 10 | 5   | M6 |
| K0385.20128         | K0385.20129         | K0385.20122         | K0385.20125         | 20 | 12 | 6,4 | M6 |
| K0385.25108         | K0385.25109         | K0385.25102         | K0385.25105         | 25 | 10 | 5   | M6 |
| K0385.25128         | K0385.25129         | K0385.25122         | K0385.25125         | 25 | 12 | 6,4 | M6 |

## KIPP Round inserts form P

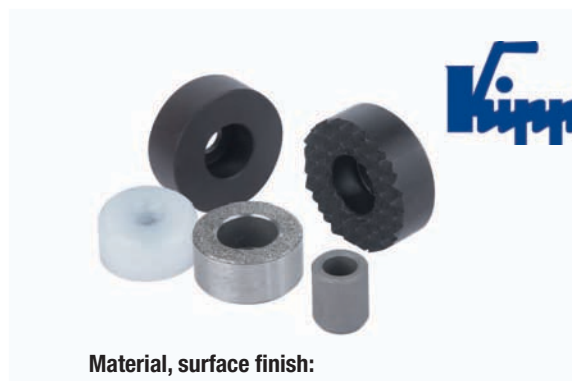
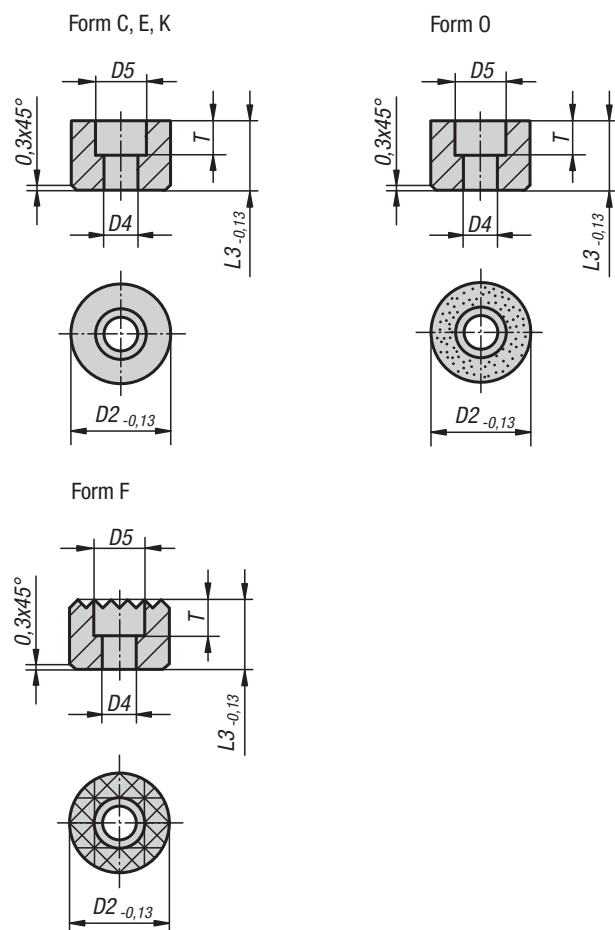
| Order No.<br>Form P | D2 | D3 | L3 | L4 | G  |
|---------------------|----|----|----|----|----|
| K0385.08126         | 8  | 8  | 12 | 6  | M4 |
| K0385.10126         | 10 | 10 | 12 | 6  | M5 |
| K0385.12126         | 12 | 13 | 12 | 6  | M5 |
| K0385.16126         | 16 | 16 | 12 | 6  | M6 |
| K0385.20126         | 20 | 21 | 12 | 6  | M6 |
| K0385.25126         | 25 | 27 | 12 | 6  | M6 |

## KIPP Round grippers form F, M

| Order No.<br>Form F | Order No.<br>Form M | D2 | D3    | L3 | L5 | C   | E    | G  |
|---------------------|---------------------|----|-------|----|----|-----|------|----|
| K0385.1010          | K0385.10107         | 10 | -7,9  | 10 | -6 | 4,5 | 4,75 | M5 |
| K0385.1210          | K0385.12107         | 12 | -9,5  | 10 | -6 | 4,5 | 4,75 | M5 |
| K0385.1212          | K0385.12127         | 12 | -9,5  | 12 | -7 | 6   | 4,75 | M5 |
| K0385.1610          | K0385.16107         | 16 | -12,7 | 10 | -6 | 4,5 | 4,75 | M6 |
| K0385.2010          | K0385.20107         | 20 | -15,9 | 10 | -6 | 4,5 | 4,75 | M6 |
| K0385.2510          | K0385.25107         | 25 | -19   | 10 | -6 | 4,5 | 4,75 | M6 |

## Grippers and inserts, round

with counterbore



### Material, surface finish:

Form C, E, K tool steel, hardened and black oxide finish, stainless steel, hardened, natural finish or Delrin.

Form O stainless steel with diamond surface comparable with abrasive grit size 100.

Form F tool steel, hardened and black oxide finish.

### Sample order:

K0385.110108

### Note:

Grippers and inserts are ideal for use in clamping arms, gripping systems, clamping fixtures, clamping jaws and toggle locators. The use of grippers allows the transfer of very high torque values and above average grip, even with hard materials and surface irregularities.

Form O: The abrasive diamond surface is welded firmly to the base. It is ideally suited to supporting smooth or slippery applications with a minimum of clamping pressure. This allows the diamond particles to get a firm grip on a very small area with minimum damage to the surface.

The diamond surface offers excellent wear resistance.

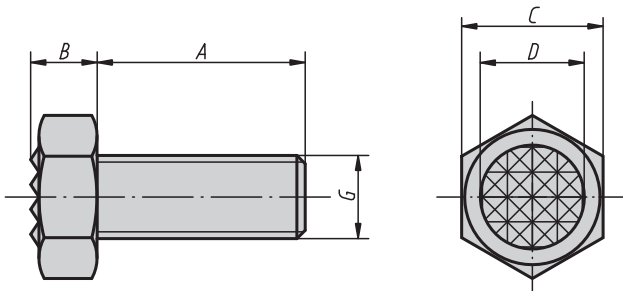
### KIPP Round inserts

| Order No.<br>Form C | Order No.<br>Form E | Order No.<br>Form K | Order No.<br>Form O | D2 | D4  | D5 | L3 | T   |
|---------------------|---------------------|---------------------|---------------------|----|-----|----|----|-----|
| K0385.110108        | K0385.110102        | K0385.110109        | K0385.110105        | 10 | 3,4 | 6  | 10 | 5   |
| K0385.110128        | K0385.110122        | K0385.110129        | K0385.110125        | 10 | 3,4 | 6  | 12 | 5   |
| K0385.112108        | K0385.112102        | K0385.112109        | K0385.112105        | 12 | 4,5 | 9  | 10 | 5,6 |
| K0385.112128        | K0385.112122        | K0385.112129        | K0385.112125        | 12 | 4,5 | 9  | 12 | 5,6 |
| K0385.116108        | K0385.116102        | K0385.116109        | K0385.116105        | 16 | 5,5 | 11 | 10 | 6,6 |
| K0385.116128        | K0385.116122        | K0385.116129        | K0385.116125        | 16 | 5,5 | 11 | 12 | 6,6 |
| K0385.120108        | K0385.120102        | K0385.120109        | K0385.120105        | 20 | 6,6 | 13 | 10 | 7,6 |
| K0385.120128        | K0385.120122        | K0385.120129        | K0385.120125        | 20 | 6,6 | 13 | 12 | 7,6 |
| K0385.125108        | K0385.125102        | K0385.125109        | K0385.125105        | 25 | 6,6 | 13 | 10 | 7,6 |
| K0385.125128        | K0385.125122        | K0385.125129        | K0385.125125        | 25 | 6,6 | 13 | 12 | 7,6 |

### KIPP Round grippers

| Order No.<br>Form F | D2 | D4  | D5 | L3 | T   |
|---------------------|----|-----|----|----|-----|
| K0385.11210         | 12 | 4,5 | 8  | 10 | 5,6 |
| K0385.11212         | 12 | 4,5 | 8  | 12 | 5,6 |
| K0385.11610         | 16 | 4,5 | 8  | 10 | 5,6 |
| K0385.11612         | 16 | 4,5 | 8  | 12 | 5,6 |
| K0385.12010         | 20 | 5,5 | 10 | 10 | 6,6 |
| K0385.12012         | 20 | 5,5 | 10 | 12 | 6,6 |
| K0385.12510         | 25 | 6,6 | 11 | 10 | 7,6 |
| K0385.12512         | 25 | 6,6 | 11 | 12 | 7,6 |

## Hexagonal grippers



**Material:**

Hex head screw, strength class 10.9.  
Serrated tips in carbide, hardness 72-74 HRC.

**Surface finish:**

Black oxide finish.

**Sample order:**

K0386.1710

**Note:**

The serrated hard metal tips are soldered in.

### KIPP Hexagonal grippers

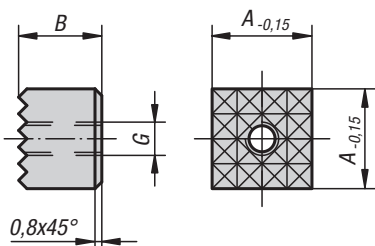
| Order No.   | A  | B    | C  | D    | G   | Serration | Approx. weight kg |
|-------------|----|------|----|------|-----|-----------|-------------------|
| K0386.1006  | 25 | 5    | 10 | 7,9  | M6  | superfine | 0,005             |
| K0386.1308  | 25 | 6,4  | 13 | 9,5  | M8  | fine      | 0,015             |
| K0386.1710  | 25 | 8,3  | 17 | 12,7 | M10 | fine      | 0,025             |
| K0386.17102 | 40 | 8,3  | 17 | 12,7 | M10 | fine      | 0,035             |
| K0386.1912  | 25 | 8,7  | 19 | 15,9 | M12 | fine      | 0,040             |
| K0386.19122 | 40 | 8,7  | 19 | 15,9 | M12 | fine      | 0,050             |
| K0386.2416  | 35 | 11   | 24 | 19   | M16 | fine      | 0,085             |
| K0386.24162 | 50 | 11   | 24 | 19   | M16 | fine      | 0,105             |
| K0386.3020  | 40 | 13,7 | 30 | 25,4 | M20 | superfine | 0,165             |
| K0386.30202 | 60 | 13,7 | 30 | 25,4 | M20 | superfine | 0,205             |



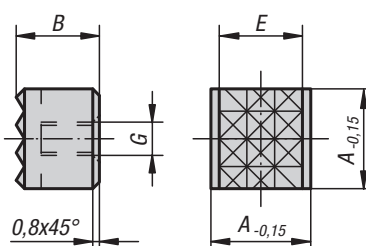
## Square grippers



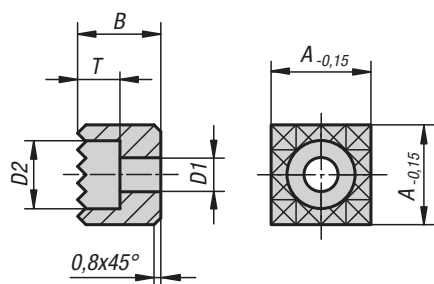
Form A  
tool steel



Form B  
tool steel  
serration in hard metal



Form C  
tool steel



**Material:**

Hardened tool steel resp. hard metal.

**Surface finish:**

Black oxide finish.

**Sample order:**

K0387.2506

**Note:**

Grippers and inserts are ideal for use in clamping arms, gripping systems, clamping fixtures, clamping jaws and toggle locators.

Grippers transfer very high torque values, even with hard materials and surface irregularities. Grippers guarantee above average holding forces at high cutting forces.

The serrated hard metal tips are soldered in.

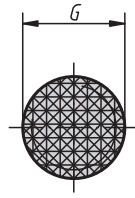
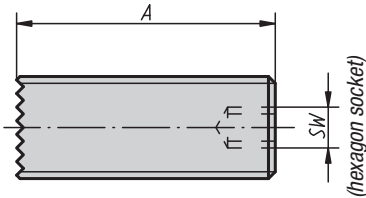
### KIPP Square grippers

| Order No.     | Form | A  | B  | D1  | D2 | E    | G  | T   | Serration | Approx. weight kg |
|---------------|------|----|----|-----|----|------|----|-----|-----------|-------------------|
| K0387.1005    | A    | 10 | 10 | -   | -  | -    | M5 | -   | superfine | 0,005             |
| K0387.101205  | A    | 10 | 12 | -   | -  | -    | M5 | -   | superfine | 0,007             |
| K0387.1205    | A    | 12 | 10 | -   | -  | -    | M5 | -   | fine      | 0,010             |
| K0387.121205  | A    | 12 | 12 | -   | -  | -    | M5 | -   | fine      | 0,011             |
| K0387.1606    | A    | 16 | 10 | -   | -  | -    | M6 | -   | fine      | 0,017             |
| K0387.161206  | A    | 16 | 12 | -   | -  | -    | M6 | -   | fine      | 0,021             |
| K0387.2005    | A    | 20 | 10 | -   | -  | -    | M5 | -   | fine      | 0,025             |
| K0387.201205  | A    | 20 | 12 | -   | -  | -    | M5 | -   | fine      | 0,034             |
| K0387.2506    | A    | 25 | 10 | -   | -  | -    | M6 | -   | fine      | 0,045             |
| K0387.251206  | A    | 25 | 12 | -   | -  | -    | M6 | -   | fine      | 0,053             |
| K0387.12057   | B    | 12 | 10 | -   | -  | 10,3 | M5 | -   | fine      | 0,010             |
| K0387.1210048 | C    | 12 | 10 | 4,5 | 9  | -    | -  | 5,6 | fine      | 0,008             |
| K0387.1212048 | C    | 12 | 12 | 4,5 | 9  | -    | -  | 5,6 | fine      | 0,010             |
| K0387.1610048 | C    | 16 | 10 | 4,5 | 9  | -    | -  | 5,6 | fine      | 0,016             |
| K0387.1612048 | C    | 16 | 12 | 4,5 | 9  | -    | -  | 5,6 | fine      | 0,020             |
| K0387.2010058 | C    | 20 | 10 | 5,5 | 10 | -    | -  | 6,6 | fine      | 0,025             |
| K0387.2012058 | C    | 20 | 12 | 5,5 | 10 | -    | -  | 6,6 | fine      | 0,030             |
| K0387.2510068 | C    | 25 | 10 | 6,6 | 11 | -    | -  | 7,6 | fine      | 0,040             |
| K0387.2512068 | C    | 25 | 12 | 6,6 | 11 | -    | -  | 7,6 | fine      | 0,049             |

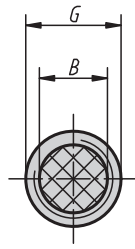
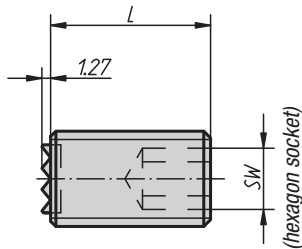
## Adjustable grippers



Form A  
tool steel



Form B  
serration in hard metal



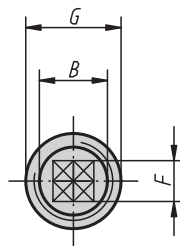
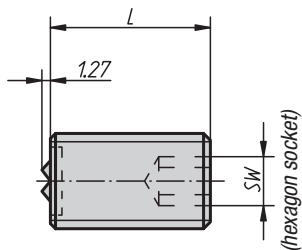
**Material:**  
Hardened tool steel or hard metal.

**Surface finish:**  
Black oxide finish.

**Sample order:**  
K0388.5012

**Note:**  
The continuous external thread of the adjustable grippers allows exact adjusting to the clamping job. The hard metal tips are soldered in.

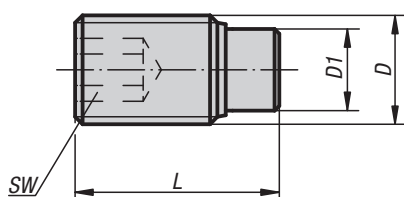
Form C  
4-point-serration in hard metal



### KIPP Adjustable grippers

| Order No.   | Form | A  | L  | B    | G   | F   | SW |
|-------------|------|----|----|------|-----|-----|----|
| K0388.4010  | A    | 40 | -  | -    | M10 | -   | 3  |
| K0388.4012  | A    | 40 | -  | -    | M12 | -   | 5  |
| K0388.4016  | A    | 40 | -  | -    | M16 | -   | 6  |
| K0388.4020  | A    | 40 | -  | -    | M20 | -   | 8  |
| K0388.2510  | B    | -  | 25 | 6,4  | M10 | -   | 5  |
| K0388.5010  | B    | -  | 50 | 6,4  | M10 | -   | 5  |
| K0388.2512  | B    | -  | 25 | 7,9  | M12 | -   | 6  |
| K0388.5012  | B    | -  | 50 | 7,9  | M12 | -   | 6  |
| K0388.2516  | B    | -  | 25 | 11,2 | M16 | -   | 8  |
| K0388.5016  | B    | -  | 50 | 11,2 | M16 | -   | 8  |
| K0388.2520  | B    | -  | 25 | 12,7 | M20 | -   | 10 |
| K0388.5020  | B    | -  | 50 | 12,7 | M20 | -   | 10 |
| K0388.25124 | C    | -  | 25 | 7,9  | M12 | 6,5 | 6  |
| K0388.50124 | C    | -  | 50 | 7,9  | M12 | 6,5 | 6  |
| K0388.25164 | C    | -  | 25 | 11,2 | M16 | 8   | 8  |
| K0388.50164 | C    | -  | 50 | 11,2 | M16 | 8   | 8  |
| K0388.25204 | C    | -  | 25 | 12,7 | M20 | 8   | 10 |
| K0388.50204 | C    | -  | 50 | 12,7 | M20 | 8   | 10 |

## Pressure screws



**Material:**

Screw quality class 10.9.  
Bolt in brass or Delrin.

**Surface finish:**

Screw black oxide finish.

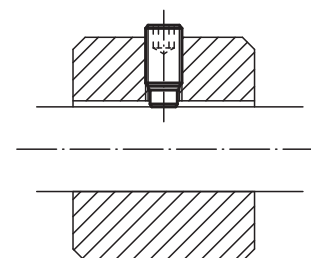
**Sample order:**

K0389.04X105 (Please also indicate dimension L.)

**Note:**

Pressure screws are particularly suitable for protective clamping or for pressing on threaded spindles, axles, shafts and surface-treated parts.

Further lengths have been designed especially so that pressure screws can be glued up. They allow mechanical connecting elements with external thread to be made cost-effectively for small and medium-sized series.

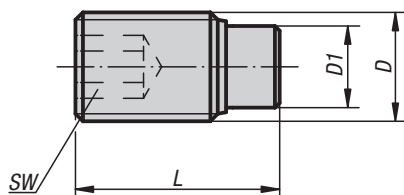


### KIPP Pressure screws

| Order No. | Surface finish | D   | D1  | L                                  | SW  |
|-----------|----------------|-----|-----|------------------------------------|-----|
| K0389.04X | bolt brass     | M4  | 2,5 | 6,5/10,5/16,5/30,5/40,5            | 2   |
| K0389.05X | bolt brass     | M5  | 3   | 8,5/12,5/20,5/30,5/40,5            | 2,5 |
| K0389.06X | bolt brass     | M6  | 4   | 11,5/17,5/26,5/41,5/51,5/61,5      | 3   |
| K0389.08X | bolt brass     | M8  | 5,5 | 12/22/32/52/62/82                  | 4   |
| K0389.10X | bolt brass     | M10 | 7   | 14/18/27/37/52/62/82               | 5   |
| K0389.12X | bolt brass     | M12 | 8,5 | 18,5/22,5/32,5/42,5/52,5/62,5/82,5 | 6   |

| Order No.  | Surface finish | D   | D1  | L                                       | SW  |
|------------|----------------|-----|-----|---|-----|
| K0389.104X | bolt delrin    | M4  | 2   | 7/9/11/13/17/31/41                      | 2   |
| K0389.105X | bolt delrin    | M5  | 3   | 9/11/13/17/21/31/41                     | 2,5 |
| K0389.106X | bolt delrin    | M6  | 3,5 | 11,3/13,3/17,3/21,3/26,3/41,3/51,3/61,3 | 3   |
| K0389.108X | bolt delrin    | M8  | 5   | 13,6/17,6/21,6/26,6/33,6/51,6/61,6/81,6 | 4   |
| K0389.110X | bolt delrin    | M10 | 6,5 | 17,9/21,9/26,9/33,9/41,9/51,9/61,9/81,9 | 5   |
| K0389.112X | bolt delrin    | M12 | 8   | 22,1/27,1/34,1/42,1/52,1/62,1/82,1      | 6   |

## Pressure screws, stainless steel

**Material:**

Screw in stainless steel.  
Bolts, brass or Delrin.

**Surface finish:**

Screw natural finish.

**Sample order:**

K0667.041X105 (Please also indicate dimension L.)

**Note:**

Screws are especially suitable for protective clamping or pressing of threaded spindles, axles, shafts and surface-processing parts. Further lengths have been designed especially so that pressure screws can be glued up. They allow mechanical connecting elements with external thread to be made cost-effectively for small and medium-sized series.

## KIPP Pressure screws, stainless steel

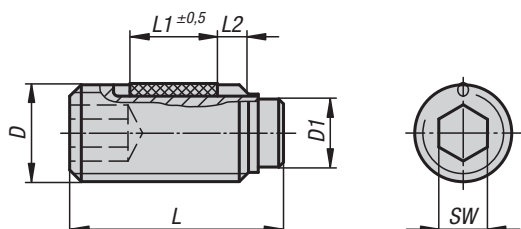
| Order No.  | Surface finish | D   | D1  | L                        | SW  |
|------------|----------------|-----|-----|--------------------------|-----|
| K0667.041X | Bolts, brass   | M4  | 2,5 | 6,5/10,5/16,5            | 2   |
| K0667.051X | Bolts, brass   | M5  | 3   | 8,5/12,5/20,5            | 2,5 |
| K0667.061X | Bolts, brass   | M6  | 4   | 11,5/13,5/17,5/21,5/26,5 | 3   |
| K0667.081X | Bolts, brass   | M8  | 5,5 | 12/22/32                 | 4   |
| K0667.101X | Bolts, brass   | M10 | 7   | 14/18/27/37              | 5   |
| K0667.121X | Bolts, brass   | M12 | 8,5 | 22,5/32,5/42,5           | 6   |

| Order No.   | Surface finish | D   | D1  | L                        | SW  |
|-------------|----------------|-----|-----|--------------------------|-----|
| K0667.1041X | Bolts, delrin  | M4  | 2   | 7/9/11/13/17             | 2   |
| K0667.1051X | Bolts, delrin  | M5  | 3   | 9/11/13/17/21            | 2,5 |
| K0667.1061X | Bolts, delrin  | M6  | 3,5 | 11,3/13,3/17,3/21,3/26,3 | 3   |
| K0667.1081X | Bolts, delrin  | M8  | 5   | 13,6/17,6/21,6/26,6      | 4   |
| K0667.1101X | Bolts, delrin  | M10 | 6,5 | 17,9/21,9/26,9/36,9      | 5   |
| K0667.1121X | Bolts, delrin  | M12 | 8   | 22,1/32,1/42,1           | 6   |



## Pressure screws,

LONG-LOK secured



L2 = approx. two thread turns

**Material:**

Screw quality class 10.9, bolt in brass or Delrin.  
LONG-LOK thread lock in nylon.

**Surface finish:**

Screw black oxide finish.

**Sample order:**

K0668.204X65 (Please also indicate dimension L.)

**Note:**

Screws are especially suitable for protective clamping or pressing of threaded spindles, axles, shafts and surface-processing parts.

Further lengths have been designed especially so that pressure screws can be glued up. They allow mechanical connecting elements with external thread to be made cost-effectively for small and medium-sized series.

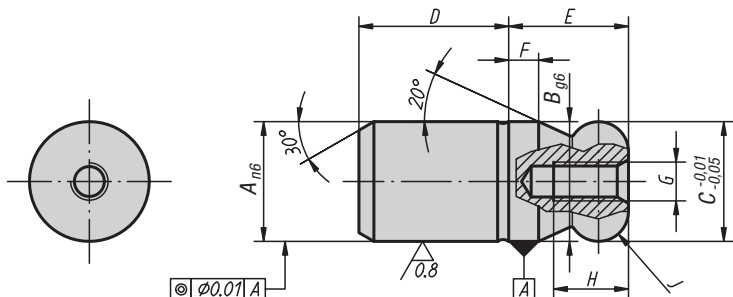
### KIPP Pressure screws, LONG-LOK secured

| Order No.  | Surface finish | D   | D1  | L (L1)   | SW  |
|------------|----------------|-----|-----|--|-----|
| K0668.204X | Bolts, brass   | M4  | 2,5 | 6,5 (2,5)/10,5 (3,5)/16,5 (5)/30,5 (5)/40,5 (5)                      | 2   |
| K0668.205X | Bolts, brass   | M5  | 3   | 8,5 (3,5)/12,5 (5)/20,5 (6)/30,5 (6)/40,5 (6)                        | 2,5 |
| K0668.206X | Bolts, brass   | M6  | 4   | 11,5 (3,5)/17,5 (7)/26,5 (7)/41,5 (7)/51,5 (7)/61,5 (7)              | 3   |
| K0668.208X | Bolts, brass   | M8  | 5,5 | 12 (3,5)/22 (8)/32 (8)/52 (8)/62 (8)/82 (8)                          | 4   |
| K0668.210X | Bolts, brass   | M10 | 7   | 14 (5)/18 (9)/27 (9)/37 (9)/52 (9)/62 (9)/82 (9)                     | 5   |
| K0668.212X | Bolts, brass   | M12 | 8,5 | 18,5 (8)/22,5 (10)/32,5 (10)/42,5 (10)/52,5 (10)/62,5 (10)/82,5 (10) | 6   |

| Order No.  | Surface finish | D   | D1  | L (L1)  | SW  |
|------------|----------------|-----|-----|---|-----|
| K0668.304X | Bolts, delrin  | M4  | 2   | 7 (2,5)/9 (3,5)/11 (3,5)/13 (5)/17 (5)/31 (5)/41 (5)                      | 2   |
| K0668.305X | Bolts, delrin  | M5  | 3   | 9 (3,5)/11 (3,5)/13 (5)/17 (6)/21 (6)/31 (6)/41 (6)                       | 2,5 |
| K0668.306X | Bolts, delrin  | M6  | 3,5 | 11,3 (3,5)/13,3 (5)/17,3 (7)/21,3 (7)/26,3 (7)/41,3 (7)/51,3 (7)/61,3 (7) | 3   |
| K0668.308X | Bolts, delrin  | M8  | 5   | 13,6 (5)/17,6 (8)/21,6 (8)/26,6 (8)/33,6 (8)/51,6 (8)/61,6 (8)/81,6 (8)   | 4   |
| K0668.310X | Bolts, delrin  | M10 | 6,5 | 17,9 (9)/21,9 (9)/26,9 (9)/33,9 (9)/41,9 (9)/51,9 (9)/61,9 (9)/81,9 (9)   | 5   |
| K0668.312X | Bolts, delrin  | M12 | 8   | 22,1 (10)/27,1 (10)/34,1 (10)/42,1 (10)/52,1 (10)/62,1 (10)/82,1 (10)     | 6   |

## Straight bolts

with ball end form A



**Material:**  
Tool steel or stainless steel 1.4305.

**Surface finish:**  
Steel hardened and ground.  
Stainless steel ground and kolsterised.

**Sample order:**  
K0350.12

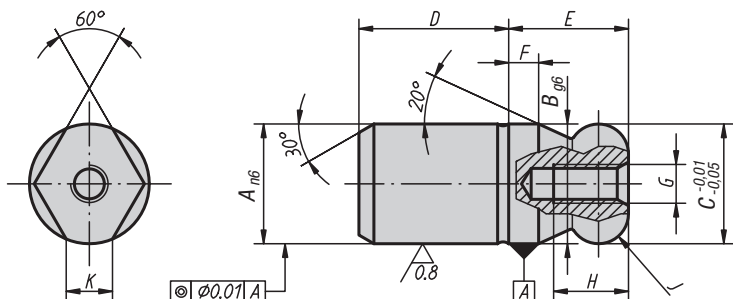
**Note:**  
Straight bolts with ball end facilitate mounting operations as they are specifically designed for this process.  
The tendency to cant parts, also known as „drawer effect“, is caused by forces not effective in the bolt axis or by parts being mounted at a slanted angle. This tendency is minimized by the ball end and the ball incline (see also mounting illustration K0351 form B).

### KIPP Straight bolts with ball end form A

| Order No. steel | Order No. stainless steel | A  | B  | C  | D  | E  | F   | G  | H  | J     | Approx. weight kg |
|-----------------|---------------------------|----|----|----|----|----|-----|----|----|-------|-------------------|
| K0350.08        | K0350.508                 | 8  | 8  | 8  | 10 | 8  | 2   | M3 | 6  | R 2   | 0,006             |
| K0350.10        | K0350.510                 | 10 | 10 | 10 | 13 | 10 | 2,5 | M3 | 6  | R 2,5 | 0,012             |
| K0350.12        | K0350.512                 | 12 | 12 | 12 | 15 | 12 | 3   | M4 | 8  | R 3   | 0,021             |
| K0350.16        | K0350.516                 | 16 | 16 | 16 | 20 | 16 | 4   | M5 | 10 | R 4   | 0,051             |
| K0350.20        | K0350.520                 | 20 | 20 | 20 | 25 | 20 | 5   | M5 | 10 | R 5   | 0,101             |
| K0350.25        | -                         | 25 | 25 | 25 | 25 | 25 | 6   | M5 | 10 | R 6   | 0,176             |
| K0350.30        | -                         | 30 | 30 | 30 | 30 | 30 | 8   | M6 | 12 | R 8   | 0,307             |
| K0350.40        | -                         | 40 | 40 | 40 | 40 | 40 | 10  | M6 | 12 | R 10  | 0,729             |
| K0350.50        | -                         | 50 | 50 | 50 | 50 | 50 | 12  | M6 | 12 | R 12  | 1,422             |

## Straight bolts

with flattened ball end form C



**Material:**  
Tool steel or stainless steel 1.4305.

**Surface finish:**  
Steel hardened and ground.  
Stainless steel ground and kolsterised.

**Sample order:**  
K0350.162

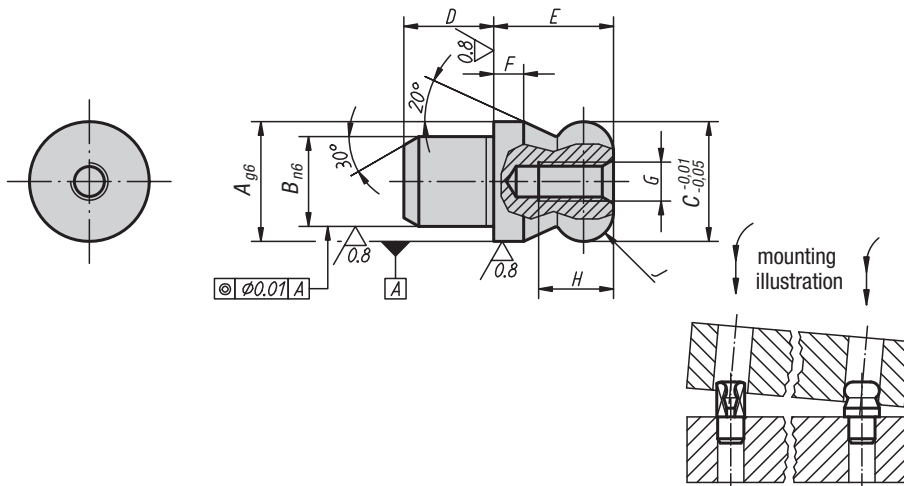
**Note:**  
Straight bolts with ball end facilitate mounting operations as they are specifically designed for this process.  
The tendency to cant parts, also known as „drawer effect“, is caused by forces not effective in the bolt axis or by parts being mounted at a slanted angle. This tendency is minimized by the ball end and the ball incline (see also mounting illustration K0351 form B).

### KIPP Straight bolts with flattened ball end form C

| Order No. steel | Order No. stainless steel | A  | B  | C  | D  | E  | F   | G  | H  | J     | K    | Approx. weight kg |
|-----------------|---------------------------|----|----|----|----|----|-----|----|----|-------|------|-------------------|
| K0350.082       | K0350.5082                | 8  | 8  | 8  | 10 | 8  | 2   | M3 | 6  | R 2   | 1,9  | 0,005             |
| K0350.102       | K0350.5102                | 10 | 10 | 10 | 13 | 10 | 2,5 | M3 | 6  | R 2,5 | 2,5  | 0,011             |
| K0350.122       | K0350.5122                | 12 | 12 | 12 | 15 | 12 | 3   | M4 | 8  | R 3   | 2,5  | 0,017             |
| K0350.162       | K0350.5162                | 16 | 16 | 16 | 20 | 16 | 4   | M5 | 10 | R 4   | 4,3  | 0,044             |
| K0350.202       | K0350.5202                | 20 | 20 | 20 | 25 | 20 | 5   | M5 | 10 | R 5   | 5    | 0,088             |
| K0350.252       | -                         | 25 | 25 | 25 | 25 | 25 | 6   | M5 | 10 | R 6   | 5,6  | 0,149             |
| K0350.302       | -                         | 30 | 30 | 30 | 30 | 30 | 8   | M6 | 12 | R 8   | 8,8  | 0,270             |
| K0350.402       | -                         | 40 | 40 | 40 | 40 | 40 | 10  | M6 | 12 | R 10  | 12,8 | 0,657             |
| K0350.502       | -                         | 50 | 50 | 50 | 50 | 50 | 12  | M6 | 12 | R 12  | 16,7 | 1,243             |

## Straight bolts

with ball end form B



**Material:**

Tool steel or stainless steel 1.4305.

**Surface finish:**

Steel hardened and ground.  
Stainless steel ground and kolsterised.

**Sample order:**

K0351.20

**Note:**

Straight bolts with ball end facilitate mounting operations as they are specifically designed for this process.

The tendency to cant parts, also known as „drawer effect“, is caused by forces not effective in the bolt axis or by parts being mounted at a slanted angle.

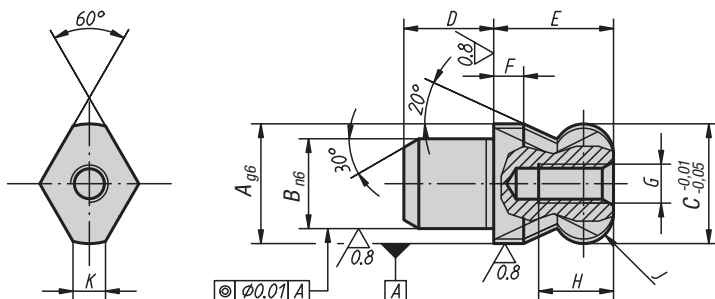
This tendency is minimized by the ball end and the ball incline (see mounting illustration).

### KIPP Straight bolts with ball end form B

| Order No. steel | Order No. stainless steel | A  | B  | C  | D  | E  | F   | G  | H  | J     | Approx. weight kg |
|-----------------|---------------------------|----|----|----|----|----|-----|----|----|-------|-------------------|
| K0351.10        | K0351.510                 | 10 | 7  | 10 | 7  | 10 | 2,5 | M3 | 6  | R 2,5 | 0,007             |
| K0351.12        | K0351.512                 | 12 | 8  | 12 | 8  | 12 | 3   | M4 | 8  | R 3   | 0,011             |
| K0351.16        | K0351.516                 | 16 | 12 | 16 | 12 | 16 | 4   | M5 | 10 | R 4   | 0,030             |
| K0351.20        | K0351.520                 | 20 | 14 | 20 | 14 | 20 | 5   | M5 | 10 | R 5   | 0,057             |
| K0351.22        | -                         | 22 | 16 | 22 | 16 | 22 | 5,5 | M5 | 10 | R 5,5 | 0,079             |
| K0351.25        | -                         | 25 | 18 | 25 | 18 | 25 | 6   | M5 | 10 | R 6   | 0,116             |

## Straight bolts

with flattened ball end Form D



**Material:**

Tool steel or stainless steel 1.4305.

**Surface finish:**

Steel hardened and ground.  
Stainless steel ground and kolsterised.

**Sample order:**

K0351.162

**Note:**

Straight bolts with ball end facilitate mounting operations as they are specifically designed for this process.

The tendency to cant parts, also known as „drawer effect“, is caused by forces not effective in the bolt axis or by parts being mounted at a slanted angle.

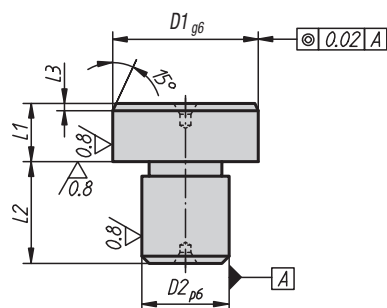
This tendency is minimized by the ball end and the ball incline (see also mounting illustration K0351 form B).

### KIPP Straight bolts with flattened ball end form D

| Order No. steel | Order No. stainless steel | A  | B  | C  | D  | E  | F   | G  | H  | J     | K   | Approx. weight kg |
|-----------------|---------------------------|----|----|----|----|----|-----|----|----|-------|-----|-------------------|
| K0351.102       | K0351.5102                | 10 | 7  | 10 | 7  | 10 | 2,5 | M3 | 6  | R 2,5 | 2,5 | 0,005             |
| K0351.122       | K0351.5122                | 12 | 8  | 12 | 8  | 12 | 3   | M4 | 8  | R 3   | 2,5 | 0,008             |
| K0351.162       | K0351.5162                | 16 | 12 | 16 | 12 | 16 | 4   | M5 | 10 | R 4   | 4,3 | 0,023             |
| K0351.202       | K0351.5202                | 20 | 14 | 20 | 14 | 20 | 5   | M5 | 10 | R 5   | 5   | 0,045             |
| K0351.222       | -                         | 22 | 16 | 22 | 16 | 22 | 5,5 | M5 | 10 | R 5,5 | 5   | 0,062             |
| K0351.252       | -                         | 25 | 18 | 25 | 18 | 25 | 6   | M5 | 10 | R 6   | 5,6 | 0,091             |

## Cylindrical positioning pins

ground



**Material:**  
Tool steel.

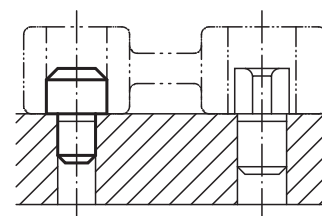
**Surface finish:**  
Hardened and ground.

**Sample order:**  
K0352.08

**Note:**  
Face surfaces with centre hole.

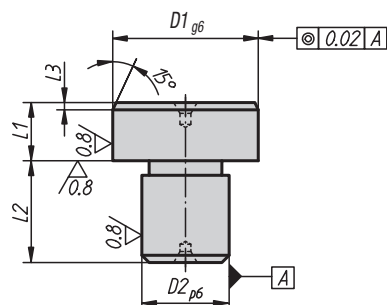
### KIPP Cylindrical positioning pins, ground

| Order No. | Surface finish | D1    | D2 | L1 | L2 | L3 | Approx. weight kg |
|-----------|----------------|-------|----|----|----|----|-------------------|
| K0352.05  | D1 ground      | 8 g6  | 5  | 8  | 8  | 2  | 0,005             |
| K0352.07  | D1 ground      | 10 g6 | 7  | 8  | 8  | 2  | 0,010             |
| K0352.08  | D1 ground      | 12 g6 | 8  | 8  | 10 | 2  | 0,012             |
| K0352.081 | D1 ground      | 14 g6 | 8  | 8  | 10 | 3  | 0,015             |
| K0352.09  | D1 ground      | 16 g6 | 9  | 8  | 12 | 3  | 0,020             |
| K0352.12  | D1 ground      | 18 g6 | 12 | 8  | 12 | 3  | 0,028             |
| K0352.121 | D1 ground      | 20 g6 | 12 | 8  | 14 | 3  | 0,034             |
| K0352.14  | D1 ground      | 22 g6 | 14 | 8  | 14 | 3  | 0,038             |
| K0352.16  | D1 ground      | 25 g6 | 16 | 8  | 16 | 3  | 0,044             |



## Cylindrical positioning pins

not ground



**Material:**  
Tool steel.

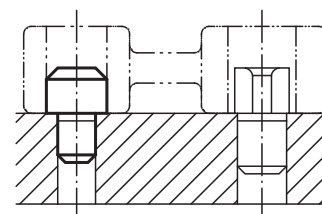
**Surface finish:**  
Hardened.

**Sample order:**  
K0353.05

**Note:**  
Face surfaces with centre hole.

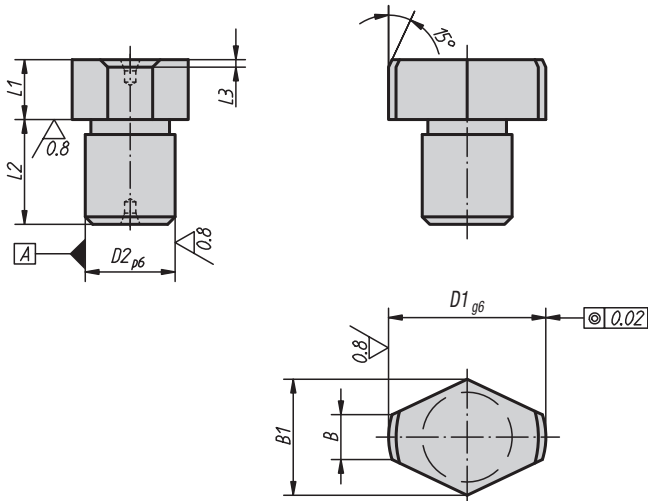
### KIPP Cylindrical positioning pins, not ground

| Order No. | Surface finish | D1   | D2 | L1 | L2 | L3 | Approx. weight kg |
|-----------|----------------|------|----|----|----|----|-------------------|
| K0353.05  | D1 not ground  | 8,5  | 5  | 8  | 8  | 2  | 0,005             |
| K0353.07  | D1 not ground  | 10,5 | 7  | 8  | 8  | 2  | 0,010             |
| K0353.08  | D1 not ground  | 12,5 | 8  | 8  | 10 | 2  | 0,012             |
| K0353.081 | D1 not ground  | 14,5 | 8  | 8  | 10 | 3  | 0,015             |
| K0353.09  | D1 not ground  | 16,5 | 9  | 8  | 12 | 3  | 0,020             |
| K0353.12  | D1 not ground  | 18,5 | 12 | 8  | 12 | 3  | 0,028             |
| K0353.121 | D1 not ground  | 20,5 | 12 | 8  | 14 | 3  | 0,034             |
| K0353.14  | D1 not ground  | 22,5 | 14 | 8  | 14 | 3  | 0,038             |
| K0353.16  | D1 not ground  | 25,5 | 16 | 8  | 16 | 3  | 0,044             |



## Free-milled positioning pins

ground

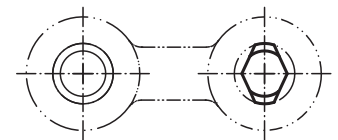


**Material:**  
Tool steel.

**Surface finish:**  
Hardened and ground.

**Sample order:**  
K0354.08

**Note:**  
Face surfaces with centre hole.

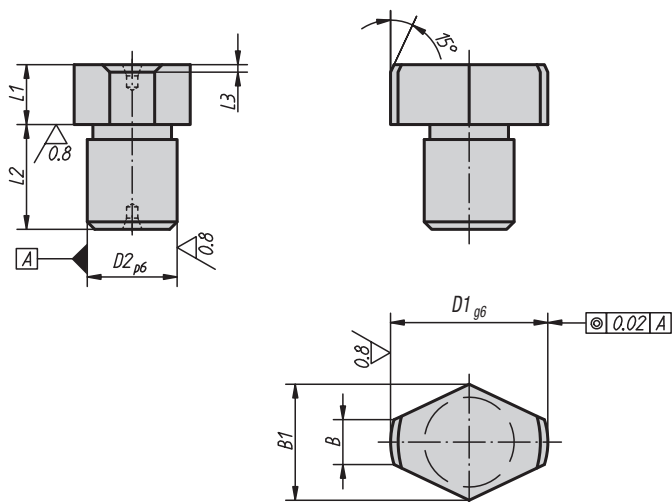


### KIPP Free-milled positioning pins ground

| Order No. | Surface finish | D1    | D2 | L1 | L2 | L3 | B   | B1   | Approx. weight kg |
|-----------|----------------|-------|----|----|----|----|-----|------|-------------------|
| K0354.05  | D1 ground      | 8 g6  | 5  | 8  | 8  | 2  | 2   | 6,6  | 0,004             |
| K0354.07  | D1 ground      | 10 g6 | 7  | 8  | 8  | 2  | 3   | 8,6  | 0,006             |
| K0354.08  | D1 ground      | 12 g6 | 8  | 8  | 10 | 2  | 3   | 9,8  | 0,010             |
| K0354.081 | D1 ground      | 14 g6 | 8  | 8  | 10 | 3  | 3,5 | 11,2 | 0,011             |
| K0354.09  | D1 ground      | 16 g6 | 9  | 8  | 12 | 3  | 4   | 13,2 | 0,015             |
| K0354.12  | D1 ground      | 18 g6 | 12 | 8  | 12 | 3  | 4,5 | 14,7 | 0,021             |
| K0354.121 | D1 ground      | 20 g6 | 12 | 8  | 14 | 3  | 5   | 16,6 | 0,025             |
| K0354.14  | D1 ground      | 22 g6 | 14 | 8  | 14 | 3  | 5,6 | 18   | 0,028             |
| K0354.16  | D1 ground      | 25 g6 | 16 | 8  | 16 | 3  | 6   | 19,8 | 0,034             |

## Free-milled positioning pins

not ground

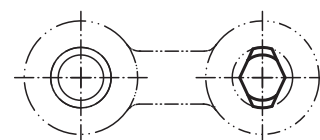


**Material:**  
Tool steel.

**Surface finish:**  
Hardened.

**Sample order:**  
K0355.05

**Note:**  
Face surfaces with centre hole.

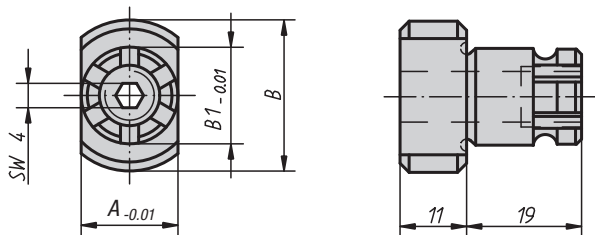
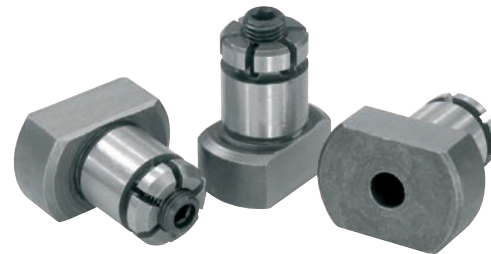


### KIPP Free-milled positioning pins, not ground

| Order No. | Surface finish | D1   | D2 | L1 | L2 | L3 | B   | B1   | Approx. weight kg |
|-----------|----------------|------|----|----|----|----|-----|------|-------------------|
| K0355.05  | D1 not ground  | 8,5  | 5  | 8  | 8  | 2  | 2   | 6,6  | 0,004             |
| K0355.07  | D1 not ground  | 10,5 | 7  | 8  | 8  | 2  | 3   | 8,6  | 0,006             |
| K0355.08  | D1 not ground  | 12,5 | 8  | 8  | 10 | 2  | 3   | 9,8  | 0,010             |
| K0355.081 | D1 not ground  | 14,5 | 8  | 8  | 10 | 3  | 3,5 | 11,2 | 0,011             |
| K0355.09  | D1 not ground  | 16,5 | 9  | 8  | 12 | 3  | 4   | 13,2 | 0,015             |
| K0355.12  | D1 not ground  | 18,5 | 12 | 8  | 12 | 3  | 4,5 | 14,7 | 0,021             |
| K0355.121 | D1 not ground  | 20,5 | 12 | 8  | 14 | 3  | 5   | 16,6 | 0,025             |
| K0355.14  | D1 not ground  | 22,5 | 14 | 8  | 14 | 3  | 5,6 | 18   | 0,028             |
| K0355.16  | D1 not ground  | 25,5 | 16 | 8  | 16 | 3  | 6   | 19,8 | 0,034             |

## Locating bolts

spread type



**Material:**

Tempered steel.

**Surface finish:**

Heat-treated and black oxide finish.  
Locating diameter and guide surfaces ground.

**Sample order:**

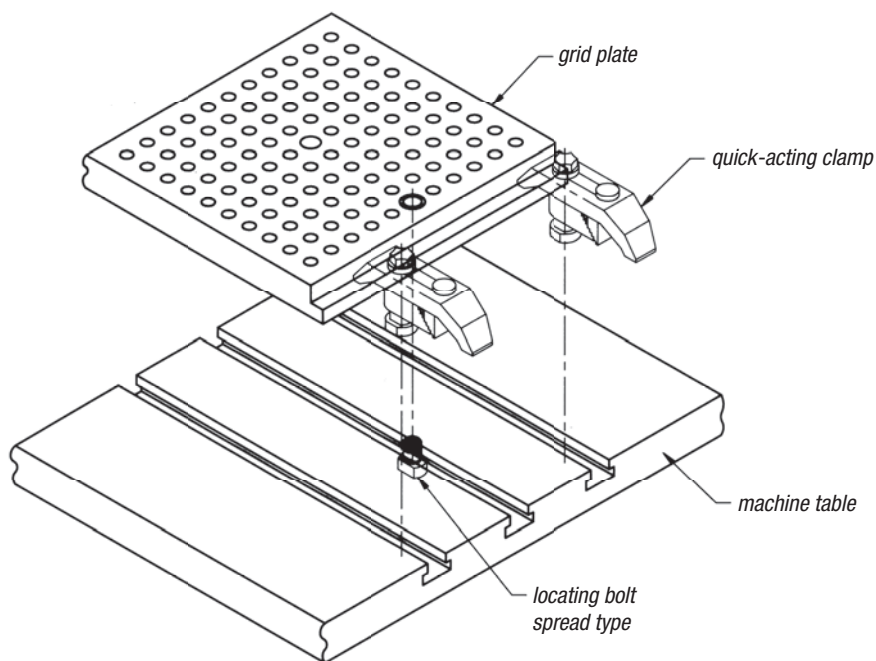
K0356.16016

**Note:**

With the aid of spread type locating bolts for example, grid plates can be positioned on machine tables with T-slots (see illustration).

The plates to be positioned must have two holes matching the spread type shaft.

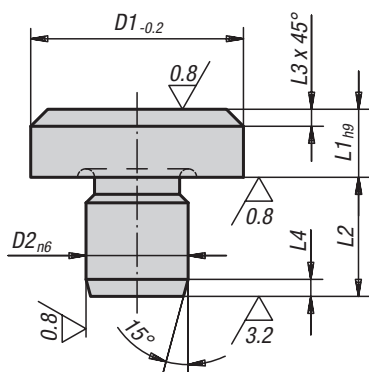
The continuous hexagonal socket in the spread type screw allows operation from two sides.



### KIPP Locating bolts spread type

| Order No.   | A  | B  | B1 | Approx. weight kg |
|-------------|----|----|----|-------------------|
| K0356.12016 | 12 | 25 | 16 | 0,040             |
| K0356.14016 | 14 | 25 | 16 | 0,050             |
| K0356.16016 | 16 | 25 | 16 | 0,050             |
| K0356.18016 | 18 | 29 | 16 | 0,050             |
| K0356.20016 | 20 | 29 | 16 | 0,060             |
| K0356.22016 | 22 | 29 | 16 | 0,060             |
| K0356.24020 | 24 | 35 | 20 | 0,240             |
| K0356.28020 | 28 | 35 | 20 | 0,280             |
| K0356.32020 | 32 | 40 | 20 | 0,320             |

## Thrust bolts



**Material:**

Tool steel.

**Surface finish:**

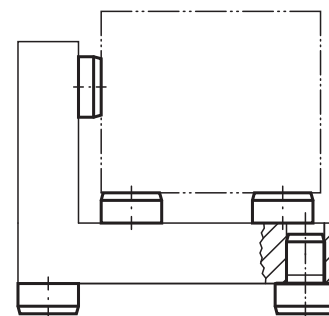
Hardened and ground.  
Support surface without centring.

**Sample order:**

K0292.041

**Note:**

If more than one thrust bolt is used, the support height can be reground. Thrust bolts can also be used as feet for jigs and fixtures.



### KIPP Thrust bolts

| Order No. | D1 | L1  | D2 | L2  | L3  | L4  | Approx. weight kg |
|-----------|----|-----|----|-----|-----|-----|-------------------|
| K0292.041 | 6  | 2,5 | 4  | 6,5 | 0,7 | 1,2 | 0,001             |
| K0292.042 | 6  | 4,5 | 4  | 8,5 | 0,7 | 1,2 | 0,002             |
| K0292.04  | 6  | 5   | 4  | 6   | 0,7 | 1,2 | 0,002             |
| K0292.061 | 10 | 4,5 | 6  | 8,5 | 0,9 | 1,5 | 0,004             |
| K0292.06  | 10 | 8   | 6  | 8,5 | 0,9 | 1,5 | 0,006             |
| K0292.08  | 16 | 5   | 8  | 10  | 2   | 2   | 0,011             |
| K0292.081 | 16 | 13  | 8  | 10  | 2   | 2   | 0,024             |
| K0292.10  | 20 | 6   | 10 | 12  | 2   | 2   | 0,022             |
| K0292.101 | 20 | 12  | 10 | 12  | 2   | 2   | 0,025             |
| K0292.12  | 25 | 8   | 12 | 14  | 2   | 2   | 0,041             |
| K0292.122 | 25 | 20  | 12 | 14  | 2   | 2   | 0,087             |
| K0292.123 | 25 | 30  | 12 | 14  | 2   | 2   | 0,130             |
| K0292.16  | 30 | 25  | 16 | 20  | 2,5 | 2,5 | 0,170             |
| K0292.164 | 30 | 40  | 16 | 20  | 2,5 | 2,5 | 0,250             |
| K0292.165 | 30 | 50  | 16 | 20  | 2,5 | 2,5 | 0,310             |
| K0292.166 | 30 | 65  | 16 | 20  | 2,5 | 2,5 | 0,390             |
| K0292.20  | 30 | 80  | 20 | 20  | 2,5 | 2,5 | 0,485             |
| K0292.201 | 30 | 100 | 20 | 20  | 2,5 | 2,5 | 0,600             |
| K0292.202 | 40 | 13  | 20 | 20  | 3,2 | 3,2 | 0,175             |
| K0292.203 | 40 | 32  | 20 | 20  | 3,2 | 3,2 | 0,360             |



## Straight and thrust bolts

to DIN 6321 (edition 1973)



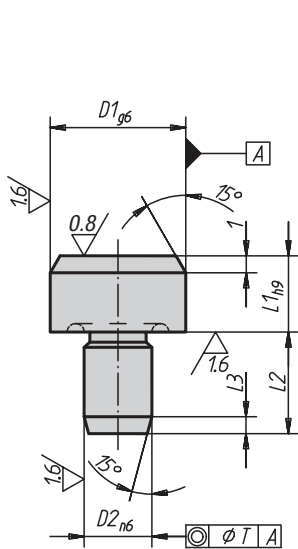
**Material:**  
Tool steel.

**Surface finish:**  
Hardened and ground.  
Support surface without centring.

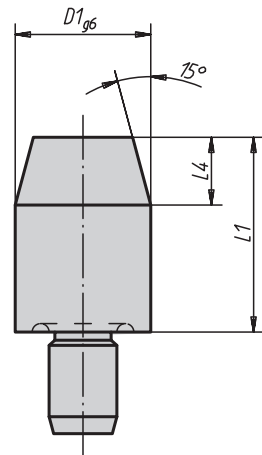
**Sample order:**  
K0293.212

**Note:**  
Thrust bolts form A serve as a mount for workpieces and fixtures.  
Straight bolts form B serve to position workpieces and fixture parts in holes with locating dimensions.  
The flattened form C can be used to bridge tolerances in hole spacing or to secure the part to be positioned in one direction only.  
Form A and B can also be used as hardened stop and as foot for fixtures.  
For similar bolts see K0352, K0353, K0354 and K0355.

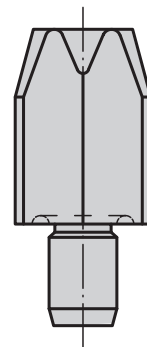
Form A  
thrust bolt



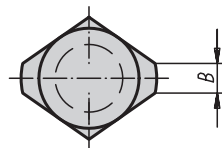
Form B  
cylindrical  
straight bolt



Form C  
flattened  
straight bolt



other dimensions and  
data same as form A



### KIPP Straight and thrust bolts

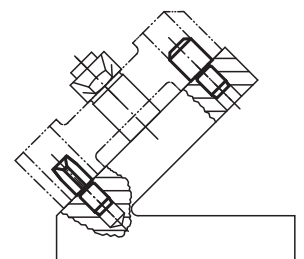
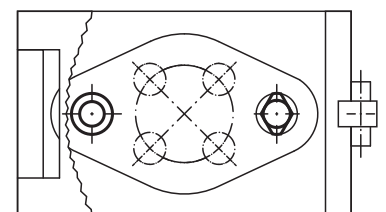
| Order No. | Form | D1 | L1 | D2 | L2 | L3  | T    | Approx. weight g |
|-----------|------|----|----|----|----|-----|------|------------------|
| K0293.106 | A    | 6  | 5  | 4  | 6  | 1,2 | 0,02 | 1,5              |
| K0293.110 | A    | 10 | 6  | 6  | 9  | 1,6 | 0,02 | 5,5              |
| K0293.116 | A    | 16 | 8  | 8  | 12 | 2   | 0,04 | 16,0             |
| K0293.125 | A    | 25 | 10 | 12 | 18 | 2,5 | 0,04 | 50,0             |

### KIPP Straight bolts, short

| Order No. Form B | Order No. Form C | D1 | L1 | D2 | L2 | L3  | L4 | B    | T    | Approx. weight g |
|------------------|------------------|----|----|----|----|-----|----|------|------|------------------|
| K0293.206        | K0293.406        | 6  | 7  | 4  | 6  | 1,2 | 4  | -1   | 0,02 | 2                |
| K0293.208        | K0293.408        | 8  | 10 | 6  | 9  | 1,6 | 6  | -1,6 | 0,02 | 6                |
| K0293.210        | K0293.410        | 10 | 10 | 6  | 9  | 1,6 | 6  | -2,5 | 0,02 | 7                |
| K0293.212        | K0293.412        | 12 | 10 | 6  | 9  | 1,6 | 6  | -2,5 | 0,02 | 8                |
| K0293.216        | K0293.416        | 16 | 13 | 8  | 12 | 2   | 8  | -3,5 | 0,04 | 21               |
| K0293.220        | K0293.420        | 20 | 15 | 12 | 18 | 2,5 | 9  | -5   | 0,04 | 46               |
| K0293.225        | K0293.425        | 25 | 15 | 12 | 18 | 2,5 | 9  | -5   | 0,04 | 66               |

### KIPP Straight bolts, long

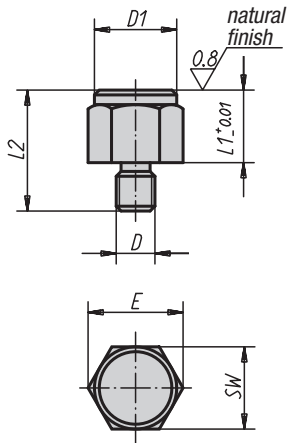
| Order No. Form B | Order No. Form C | D1 | L1 | D2 | L2 | L3  | L4 | B    | T    | Approx. weight g |
|------------------|------------------|----|----|----|----|-----|----|------|------|------------------|
| K0293.306        | K0293.506        | 6  | 12 | 4  | 6  | 1,2 | 4  | -1   | 0,02 | 3                |
| K0293.308        | K0293.508        | 8  | 16 | 6  | 9  | 1,6 | 6  | -1,6 | 0,02 | 8                |
| K0293.310        | K0293.510        | 10 | 18 | 6  | 9  | 1,6 | 6  | -2,5 | 0,02 | 10               |
| K0293.312        | K0293.512        | 12 | 18 | 6  | 9  | 1,6 | 6  | -2,5 | 0,02 | 12               |
| K0293.316        | K0293.516        | 16 | 22 | 8  | 12 | 2   | 8  | -3,5 | 0,04 | 31               |
| K0293.320        | K0293.520        | 20 | 25 | 12 | 18 | 2,5 | 9  | -5   | 0,04 | 64               |
| K0293.325        | K0293.525        | 25 | 25 | 12 | 18 | 2,5 | 9  | -5   | 0,04 | 98               |



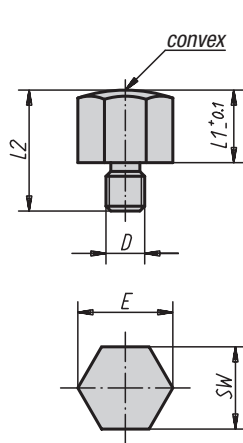
## Positioning feet



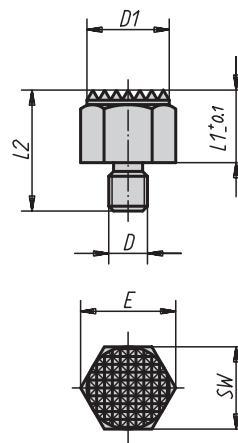
Form A  
with external thread  
and face surface



Form B  
with external thread  
and convex surface



Form C  
with external thread  
and serrated surface



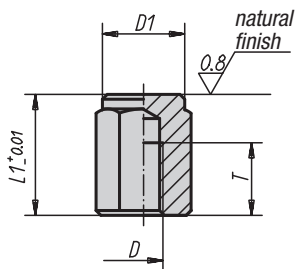
**Material:**  
Free-cutting steel.

**Surface finish:**  
Case-hardened with black oxide finish.

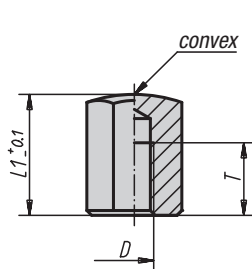
**Sample order:**  
K0298.215

**Note:**  
Positioning feet are used as supports, stops and plungers for jigs and fixtures, as well as in general machine and appliance construction.

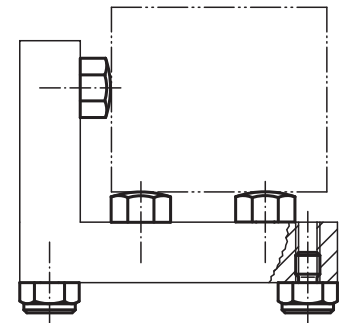
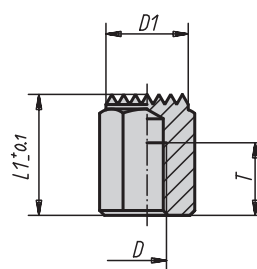
Form D  
with internal thread  
and face surface



Form E  
with internal thread  
and convex surface



Form F  
with internal thread  
and serrated surface



### KIPP Positioning feet with external thread

| Order No.<br>Form A | Order No.<br>Form B | Order No.<br>Form C | D   | L1 | D1 | L2 | E    | SW | Approx.<br>weight<br>kg |
|---------------------|---------------------|---------------------|-----|----|----|----|------|----|-------------------------|
| K0298.1101          | K0298.2101          | K0298.3101          | M8  | 10 | 17 | 20 | 19,4 | 17 | 0,024                   |
| K0298.110           | K0298.210           | K0298.310           | M12 | 10 | 22 | 24 | 25,2 | 22 | 0,040                   |
| K0298.115           | K0298.215           | K0298.315           | M12 | 15 | 22 | 29 | 25,2 | 22 | 0,056                   |
| K0298.1151          | K0298.2151          | K0298.3151          | M16 | 15 | 30 | 34 | 33   | 30 | 0,130                   |
| K0298.1201          | K0298.2201          | K0298.3201          | M16 | 20 | 30 | 39 | 33   | 30 | 0,155                   |

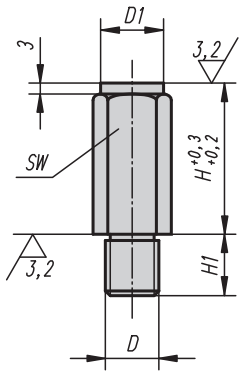
### KIPP Positioning feet with internal thread

| Order No.<br>Form D | Order No.<br>Form E | Order No.<br>Form F | D   | L1 | D1 | T  | E    | SW | Approx.<br>weight<br>kg |
|---------------------|---------------------|---------------------|-----|----|----|----|------|----|-------------------------|
| K0298.415           | K0298.515           | K0298.615           | M8  | 15 | 17 | 6  | 19,4 | 17 | 0,023                   |
| K0298.4251          | K0298.5251          | K0298.6251          | M8  | 25 | 17 | 16 | 19,4 | 17 | 0,040                   |
| K0298.420           | K0298.520           | K0298.620           | M12 | 20 | 22 | 10 | 25,2 | 22 | 0,052                   |
| K0298.425           | K0298.525           | K0298.625           | M12 | 25 | 22 | 15 | 25,2 | 22 | 0,065                   |
| K0298.430           | K0298.530           | K0298.630           | M12 | 30 | 22 | 20 | 25,2 | 22 | 0,077                   |
| K0298.440           | K0298.540           | K0298.640           | M12 | 40 | 22 | 25 | 25,2 | 22 | 0,105                   |
| K0298.450           | K0298.550           | K0298.650           | M12 | 50 | 22 | 25 | 25,2 | 22 | 0,135                   |
| K0298.4301          | K0298.5301          | K0298.6301          | M16 | 30 | 30 | 20 | 33   | 30 | 0,140                   |
| K0298.4501          | K0298.5501          | K0298.6501          | M16 | 50 | 30 | 25 | 33   | 30 | 0,250                   |

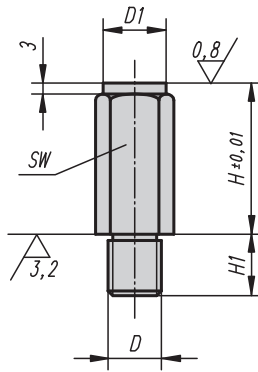
## Positioning feet



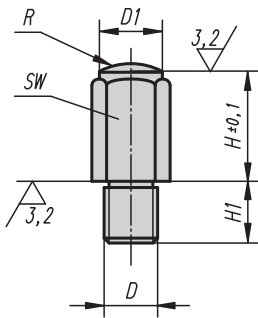
Form A  
hardened face surface



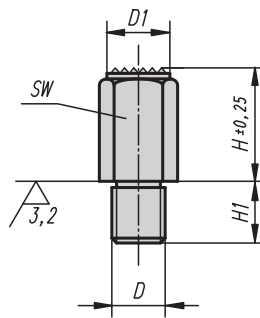
Form B  
face surface,  
hardened and ground



Form C  
hardened convex surface



Form D  
heat-treated serrated surface



**Material:**  
Body in tempered steel.

**Surface finish:**  
Body heat-treated with black oxide finish.  
Support surfaces case-hardened.

**Sample order:**  
K0299.106010

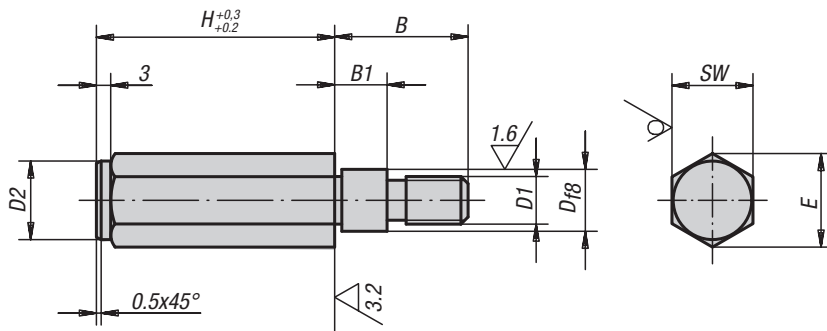
**Note:**  
The positioning feet act as supports for rough and machined parts and as stops. They can also be integrated into standard clamping or support elements.

### KIPP Positioning feet

| Order No.<br>Form A | Order No.<br>Form B | Order No.<br>Form C | Order No.<br>Form D | D   | D1         | H  | H1 | R        | SW |
|---------------------|---------------------|---------------------|---------------------|-----|------------|----|----|----------|----|
| K0299.106010        | K0299.206010        | K0299.306010        | K0299.406010        | M6  | 10/10/-/10 | 10 | 11 | -/-/15/- | 10 |
| K0299.106020        | K0299.206020        | K0299.306020        | K0299.406020        | M6  | 10/10/-/10 | 20 | 11 | -/-/15/- | 10 |
| K0299.108010        | K0299.208010        | K0299.308010        | -                   | M8  | 13/13/-    | 10 | 13 | -/-/20   | 13 |
| K0299.108015        | K0299.208015        | K0299.308015        | K0299.408015        | M8  | 13/13/-/13 | 15 | 13 | -/-/20/- | 13 |
| K0299.108030        | K0299.208030        | K0299.308030        | K0299.408030        | M8  | 13/13/-/13 | 30 | 13 | -/-/20/- | 13 |
| K0299.110010        | K0299.210010        | K0299.310010        | -                   | M10 | 17/17/-    | 10 | 16 | -/-/30   | 17 |
| K0299.110020        | K0299.210020        | K0299.310020        | K0299.410020        | M10 | 17/17/-/17 | 20 | 16 | -/-/30/- | 17 |
| K0299.110040        | K0299.210040        | K0299.310040        | K0299.410040        | M10 | 17/17/-/17 | 40 | 16 | -/-/30/- | 17 |
| K0299.112010        | K0299.212010        | K0299.312010        | -                   | M12 | 19/19/-    | 10 | 20 | -/-/40   | 19 |
| K0299.112025        | K0299.212025        | K0299.312025        | K0299.412025        | M12 | 19/19/-/19 | 25 | 20 | -/-/35/- | 19 |
| K0299.112050        | K0299.212050        | K0299.312050        | K0299.412050        | M12 | 19/19/-/19 | 50 | 20 | -/-/35/- | 19 |
| K0299.116015        | K0299.216015        | K0299.316015        | -                   | M16 | 27/27/-    | 15 | 24 | -/-/50   | 27 |
| K0299.116030        | K0299.216030        | K0299.316030        | K0299.416030        | M16 | 27/27/-/27 | 30 | 24 | -/-/50/- | 27 |
| K0299.116060        | K0299.216060        | K0299.316060        | K0299.416060        | M16 | 27/27/-/27 | 60 | 24 | -/-/50/- | 27 |
| K0299.120040        | K0299.220040        | K0299.320040        | K0299.420040        | M20 | 32/32/-/32 | 40 | 29 | -/-/60/- | 32 |
| K0299.120080        | K0299.220080        | K0299.320080        | K0299.420080        | M20 | 32/32/-/32 | 80 | 29 | -/-/60/- | 32 |

## Jig feet

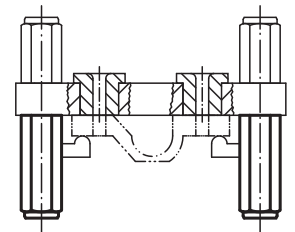
with threaded pin



**Material:**  
Tempered steel 1.1181.

**Surface finish:**  
Black oxide finish.

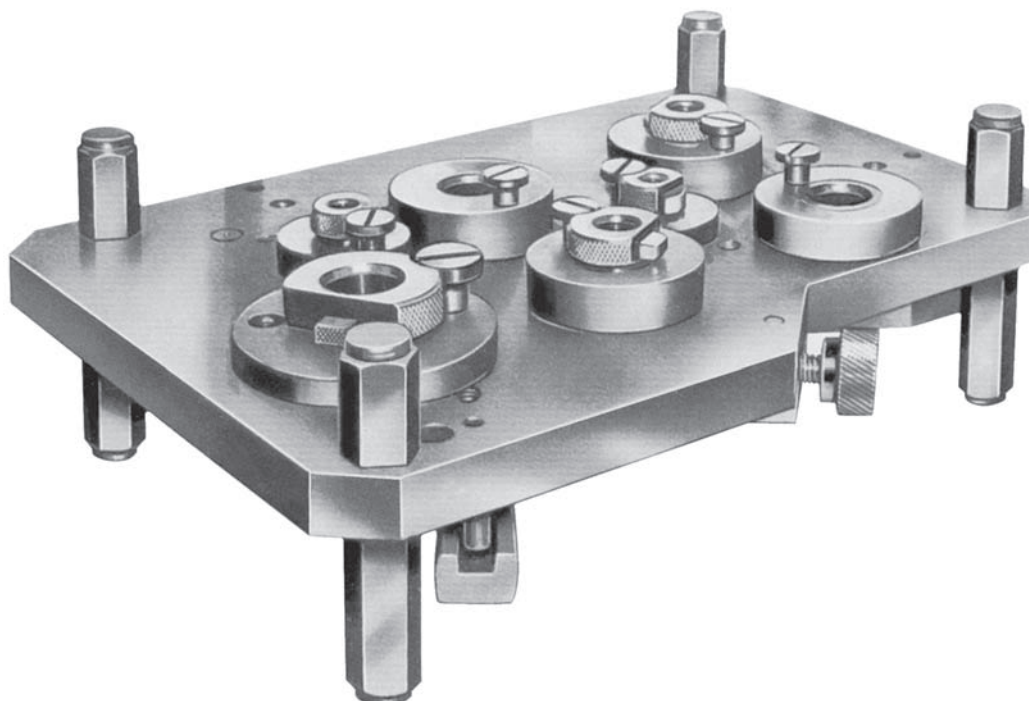
**Sample order:**  
K0300.10X75 (Please also indicate dimension H.)



### KIPP Jig feet with threaded pin

| Order No. | H             | B  | B1 | D  | D1  | D2   | E    | SW |
|-----------|---------------|----|----|----|-----|------|------|----|
| K0300.10X | 50/75/100     | 28 | 11 | 11 | M10 | 16,5 | 19,5 | 17 |
| K0300.12X | 50/75/100/125 | 35 | 18 | 13 | M12 | 18,5 | 21,5 | 19 |

## Application: drilling jig

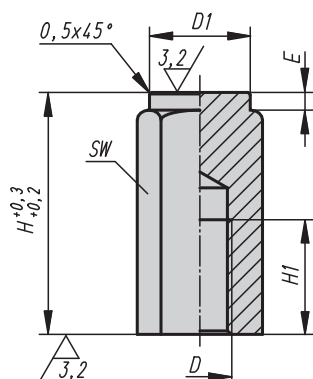


## Jig feet

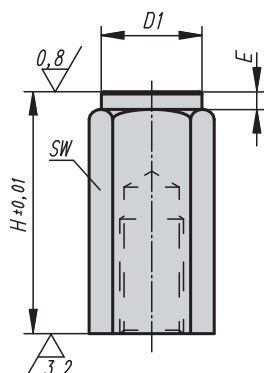
with internal thread



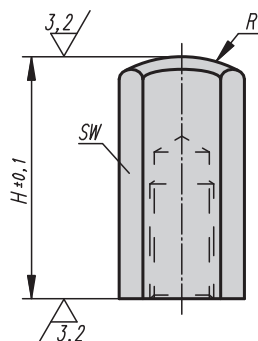
Form A  
hardened face surface



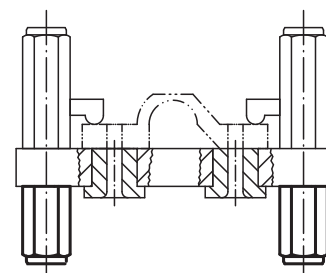
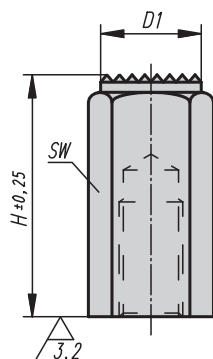
Form B  
face surface,  
hardened and ground



Form C  
hardened convex surface



Form D  
heat-treated serrated surface



**Material:**

Body in tempered steel.

**Surface finish:**

Body heat-treated with black oxide finish.  
Support surfaces case-hardened.

**Sample order:**

K0301.106X20

**Note:**

The jig feet with internal thread act as supports for rough and machined parts and as stops. They can also be integrated into standard clamping or support elements.

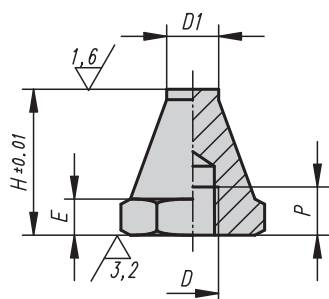
### KIPP Jig feet with internal thread

| Order No.<br>Form A | Order No.<br>Form B | Order No.<br>Form C | Order No.<br>Form D | D   | D1               | E      | H   | H1 | R        | SW |
|---------------------|---------------------|---------------------|---------------------|-----|------------------|--------|-----|----|----------|----|
| K0301.106X20        | K0301.206X20        | K0301.306X20        | K0301.406X20        | M6  | 9,5/9,5/-/9,5    | 2/2/-/ | 20  | 12 | -/-/15/- | 10 |
| K0301.106X40        | K0301.206X40        | K0301.306X40        | K0301.406X40        | M6  | 9,5/9,5/-/9,5    | 2/2/-/ | 40  | 12 | -/-/15/- | 10 |
| K0301.110X32        | K0301.210X32        | K0301.310X32        | K0301.410X32        | M10 | 16,5/16,5/-/16,5 | 3/3/-/ | 32  | 18 | -/-/30/- | 17 |
| K0301.110X63        | K0301.210X63        | K0301.310X63        | K0301.410X63        | M10 | 16,5/16,5/-/16,5 | 3/3/-/ | 63  | 18 | -/-/30/- | 17 |
| K0301.112X32        | K0301.212X32        | K0301.312X32        | K0301.412X32        | M12 | 18,5/18,5/-/18,5 | 3/3/-/ | 32  | 18 | -/-/35/- | 19 |
| K0301.112X63        | K0301.212X63        | K0301.312X63        | K0301.412X63        | M12 | 18,5/18,5/-/18,5 | 3/3/-/ | 63  | 18 | -/-/35/- | 19 |
| K0301.116X50        | K0301.216X50        | K0301.316X50        | K0301.416X50        | M16 | 23/23/-/23       | 4/4/-/ | 50  | 24 | -/-/40/- | 24 |
| K0301.116X100       | K0301.216X100       | K0301.316X100       | K0301.416X100       | M16 | 23/23/-/23       | 4/4/-/ | 100 | 24 | -/-/40/- | 24 |

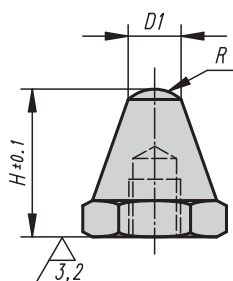
## Thrust bolts



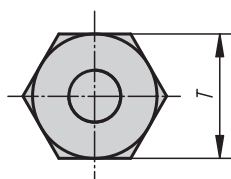
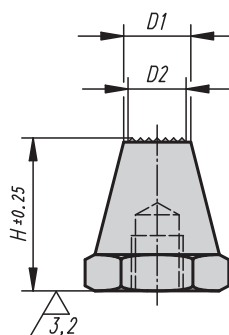
Form A  
face surface



Form B  
convex surface



Form C  
serrated surface



**Material:**  
Body in tempered steel.

**Surface finish:**  
Body heat-treated with black oxide finish.

**Sample order:**  
K0294.106012

**Note:**  
The thrust bolts act as supports for rough and machined parts and as stops. They can also be integrated into standard clamping or support elements. To change these parts into male threaded feet, just screw and glue a grub screw or threaded stud in tap D.

### KIPP Thrust bolts

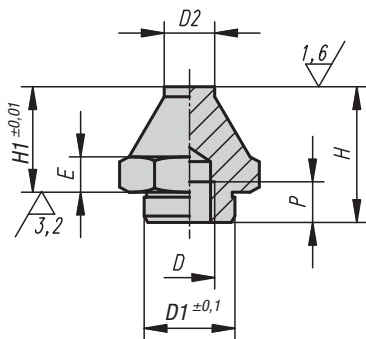
| Order No.<br>Form A | Order No.<br>Form B | Order No.<br>Form C | D   | D1 | D2      | E | H    | P  | R         | T  | Approx.<br>weight<br>kg |
|---------------------|---------------------|---------------------|-----|----|---------|---|------|----|-----------|----|-------------------------|
| K0294.106012        | K0294.206012        | K0294.306012        | M6  | 6  | -/-/5   | 3 | 12,5 | 4  | -/5/-     | 11 | 0,005                   |
| K0294.106025        | K0294.206025        | K0294.306025        | M6  | 6  | -/-/5   | 3 | 25   | 7  | -/5/-     | 11 | 0,008                   |
| K0294.108015        | K0294.208015        | K0294.308015        | M8  | 8  | -/-/6   | 4 | 15   | 6  | -/8,5/-   | 13 | 0,009                   |
| K0294.108030        | K0294.208030        | K0294.308030        | M8  | 8  | -/-/6   | 4 | 30   | 9  | -/8,5/-   | 13 | 0,018                   |
| K0294.110020        | K0294.210020        | K0294.310020        | M10 | 10 | -/-/8   | 5 | 20   | 9  | -/9/-     | 17 | 0,017                   |
| K0294.110040        | K0294.210040        | K0294.310040        | M10 | 10 | -/-/8   | 5 | 40   | 13 | -/9/-     | 17 | 0,035                   |
| K0294.112025        | K0294.212025        | K0294.312025        | M12 | 12 | -/-/9,5 | 6 | 25   | 11 | -/12,75/- | 19 | 0,025                   |
| K0294.112050        | K0294.212050        | K0294.312050        | M12 | 12 | -/-/9,5 | 6 | 50   | 16 | -/12,75/- | 19 | 0,062                   |
| K0294.116030        | K0294.216030        | K0294.316030        | M16 | 16 | -/-/13  | 8 | 30   | 12 | -/17/-    | 24 | 0,050                   |
| K0294.116060        | K0294.216060        | K0294.316060        | M16 | 16 | -/-/13  | 8 | 60   | 20 | -/17/-    | 24 | 0,112                   |

## Thrust bolts

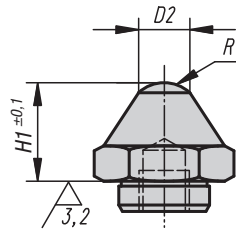
with positioning pin



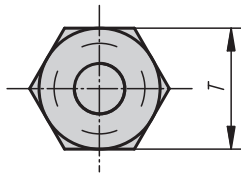
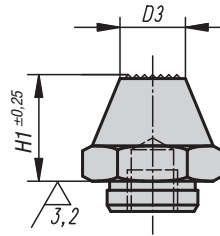
Form A  
face surface



Form B  
convex surface



Form C  
serrated surface



**Material:**  
Body in tempered steel.

**Surface finish:**  
Body heat-treated with black oxide finish.  
Support surfaces case-hardened.

**Sample order:**  
K0295.106012

**Note:**  
The thrust bolts act as supports for rough and machined parts and as stops. They can also be integrated into standard clamping or support elements. To change these parts into male threaded feet, just screw and glue a grub screw or threaded stud in tap D.

### KIPP Thrust bolts with positioning pin

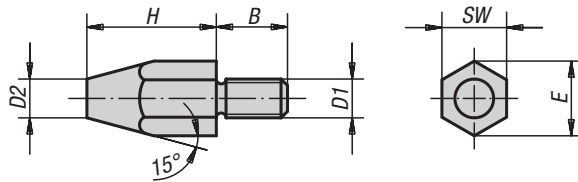
| Order No.    | Form | D   | D1   | D2 | D3 | E  | H    | H1   | P  | R   | T  | Approx. weight kg |
|--------------|------|-----|------|----|----|----|------|------|----|-----|----|-------------------|
| K0295.106012 | A    | M6  | 11,9 | 7  | -  | 4  | 16,5 | 12,5 | 6  | -   | 17 | 0,042             |
| K0295.106025 | A    | M6  | 11,9 | 7  | -  | 4  | 29   | 25   | 6  | -   | 17 | 0,062             |
| K0295.110020 | A    | M10 | 17,8 | 10 | -  | 7  | 25   | 20   | 10 | -   | 24 | 0,130             |
| K0295.110040 | A    | M10 | 17,8 | 10 | -  | 7  | 46   | 40   | 10 | -   | 24 | 0,180             |
| K0295.116030 | A    | M16 | 25,8 | 20 | -  | 13 | 40   | 30   | 16 | -   | 41 | 0,295             |
| K0295.116060 | A    | M16 | 25,8 | 20 | -  | 13 | 70   | 60   | 16 | -   | 41 | 0,480             |
| K0295.206012 | B    | M6  | 11,9 | 7  | -  | 4  | 16,5 | 12,5 | 6  | 6   | 17 | 0,042             |
| K0295.206025 | B    | M6  | 11,9 | 7  | -  | 4  | 29   | 25   | 6  | 6   | 17 | 0,062             |
| K0295.210020 | B    | M10 | 17,8 | 10 | -  | 7  | 25   | 20   | 10 | 7,5 | 24 | 0,130             |
| K0295.210040 | B    | M10 | 17,8 | 10 | -  | 7  | 46   | 40   | 10 | 7,5 | 24 | 0,180             |
| K0295.216030 | B    | M16 | 25,8 | 20 | -  | 13 | 40   | 30   | 16 | 26  | 41 | 0,295             |
| K0295.216060 | B    | M16 | 25,8 | 20 | -  | 13 | 70   | 60   | 16 | 26  | 41 | 0,480             |
| K0295.310020 | C    | M10 | 17,8 | -  | 15 | 7  | 25   | 20   | 10 | -   | 24 | 0,130             |
| K0295.310040 | C    | M10 | 17,8 | -  | 10 | 7  | 46   | 40   | 10 | -   | 24 | 0,180             |
| K0295.316030 | C    | M16 | 25,8 | -  | 20 | 13 | 40   | 30   | 16 | -   | 41 | 0,295             |
| K0295.316060 | C    | M16 | 25,8 | -  | 20 | 13 | 70   | 60   | 16 | -   | 41 | 0,480             |

## Feet

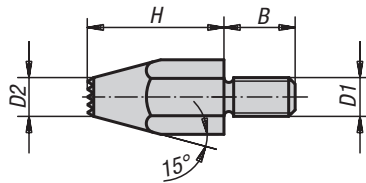
with threaded pin, DIN 6320 (edition 1971)



Form A  
with smooth  
support surface



Form B  
with hard metal tips

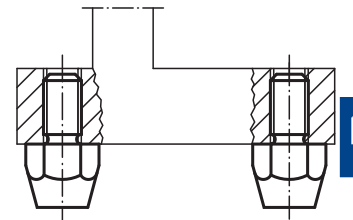


**Material:**  
Tempered steel 1.1172.

**Surface finish:**  
Black oxide finish.

**Sample order:**  
K0296.10

**Note:**  
Thrust bolts K0292 and K0293 can also be used as feet.

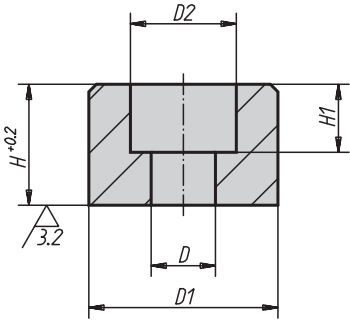


### KIPP Feet with threaded pin, DIN 6320 (edition 1971)

| Order No. | Form | D1  | D2   | H  | B  | E    | SW | Approx. weight kg |
|-----------|------|-----|------|----|----|------|----|-------------------|
| K0296.06  | A    | M6  | 8    | 10 | 11 | 11,5 | 10 | 0,008             |
| K0296.061 | A    | M6  | 6    | 20 | 11 | 11,5 | 10 | 0,013             |
| K0296.08  | A    | M8  | 10   | 15 | 13 | 15   | 13 | 0,018             |
| K0296.081 | A    | M8  | 9    | 30 | 13 | 15   | 13 | 0,033             |
| K0296.10  | A    | M10 | 13   | 20 | 16 | 19,6 | 17 | 0,044             |
| K0296.101 | A    | M10 | 13   | 40 | 16 | 19,6 | 17 | 0,080             |
| K0296.12  | A    | M12 | 15   | 25 | 20 | 21,9 | 19 | 0,070             |
| K0296.121 | A    | M12 | 15   | 50 | 20 | 21,9 | 19 | 0,126             |
| K0296.083 | B    | M8  | 11,5 | 15 | 13 | 15   | 13 | 0,018             |
| K0296.123 | B    | M12 | 15   | 25 | 20 | 21,9 | 19 | 0,070             |



## Locating feet



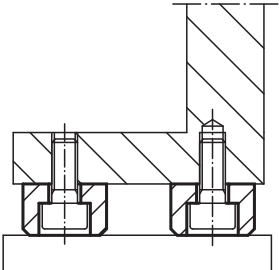
**Material:**  
Hardened steel 1.0301.

**Surface finish:**  
Case-hardened with black oxide finish.

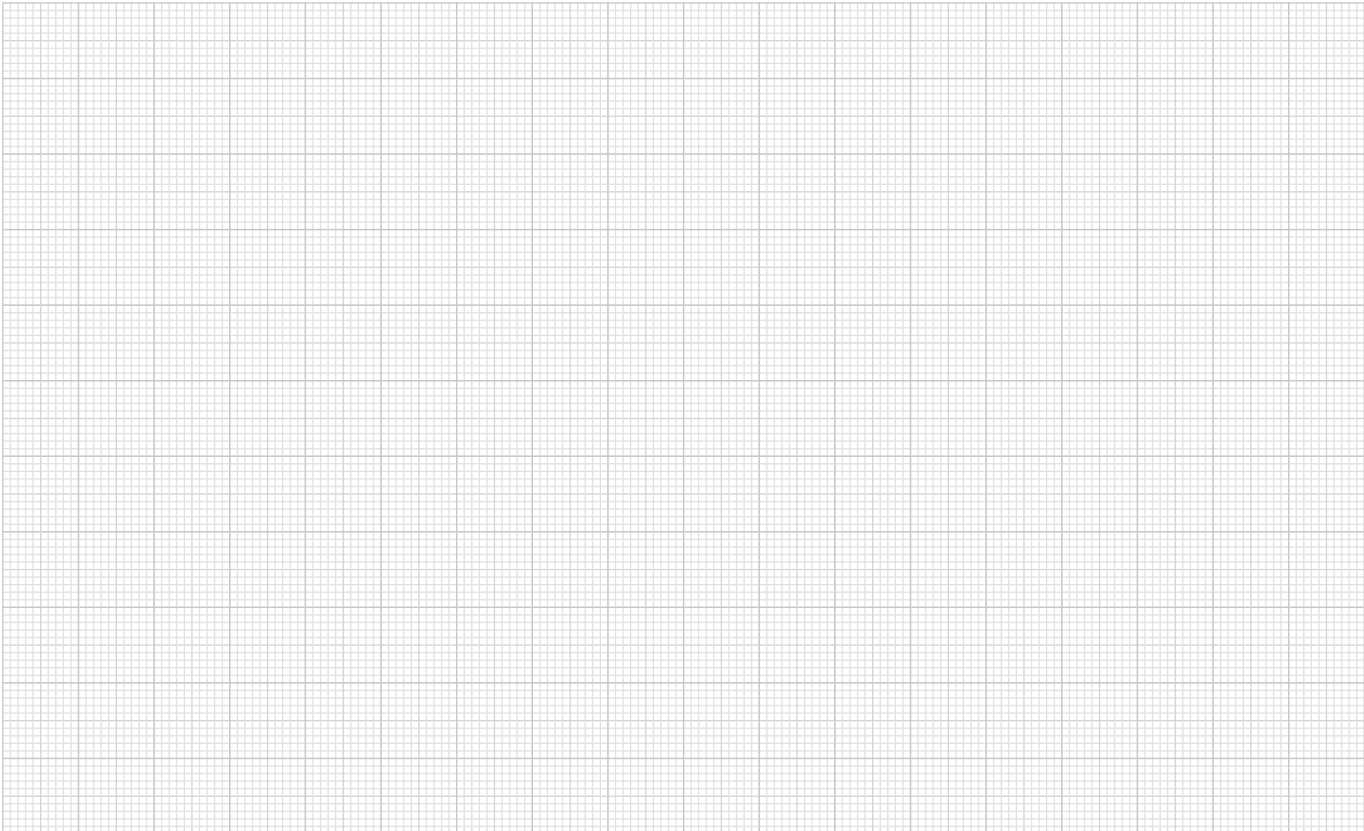
**Sample order:**  
K0303.08

### KIPP Locating feet

| Order No. | D    | D1 | D2 | H  | H1  | Approx. weight kg |
|-----------|------|----|----|----|-----|-------------------|
| K0303.05  | 5,5  | 16 | 10 | 10 | 5,7 | 0,012             |
| K0303.06  | 6,6  | 20 | 11 | 12 | 7   | 0,023             |
| K0303.08  | 9    | 25 | 15 | 16 | 9   | 0,048             |
| K0303.10  | 11   | 32 | 18 | 20 | 11  | 0,100             |
| K0303.12  | 13,5 | 36 | 20 | 25 | 13  | 0,156             |



## Notes



## Support bolts



**Material:**

Tempered steel, heat-treated.

**Surface finish:**

Black oxide finish.

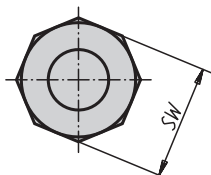
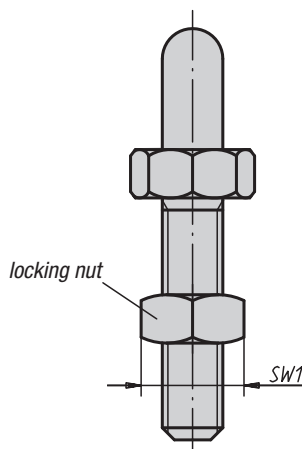
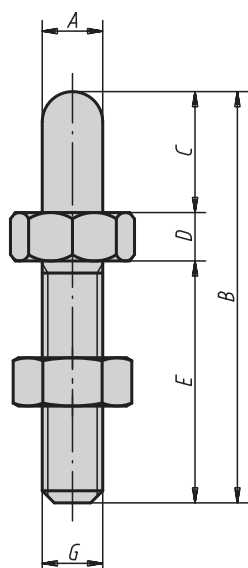
**Sample order:**

K0297.16016

**Note:**

The rounded nose allows support bolts to be used as positioning elements for workpieces with holes, too.

The version K0297.08016 has a hexagonal.

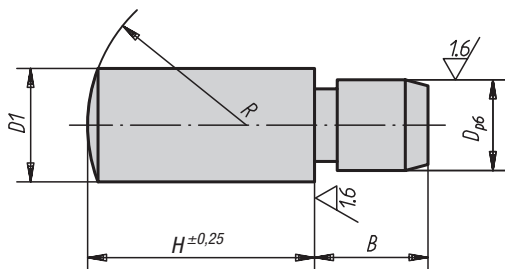


### KIPP Support bolts

| Order No.   | A  | B   | C  | D  | E  | G   | SW | SW1 | Approx. weight kg |
|-------------|----|-----|----|----|----|-----|----|-----|-------------------|
| K0297.06006 | 6  | 37  | 6  | 6  | 25 | M6  | 13 | 10  | 0,011             |
| K0297.06012 | 6  | 43  | 12 | 6  | 25 | M6  | 13 | 10  | 0,013             |
| K0297.08008 | 8  | 45  | 8  | 7  | 30 | M8  | 13 | 13  | 0,040             |
| K0297.08016 | 8  | 53  | 16 | 7  | 30 | M8  | 13 | 13  | 0,045             |
| K0297.10010 | 10 | 58  | 10 | 8  | 40 | M10 | 17 | 17  | 0,060             |
| K0297.10020 | 10 | 68  | 20 | 8  | 40 | M10 | 17 | 17  | 0,065             |
| K0297.12012 | 12 | 72  | 12 | 10 | 50 | M12 | 19 | 19  | 0,110             |
| K0297.12024 | 12 | 84  | 24 | 10 | 50 | M12 | 19 | 19  | 0,120             |
| K0297.16016 | 16 | 89  | 16 | 13 | 60 | M16 | 24 | 24  | 0,240             |
| K0297.16032 | 16 | 105 | 32 | 13 | 60 | M16 | 24 | 24  | 0,265             |
| K0297.20020 | 20 | 115 | 20 | 15 | 80 | M20 | 36 | 30  | 0,350             |
| K0297.20040 | 20 | 135 | 40 | 15 | 80 | M20 | 36 | 30  | 0,400             |



## Thrust pins



### KIPP Thrust pins

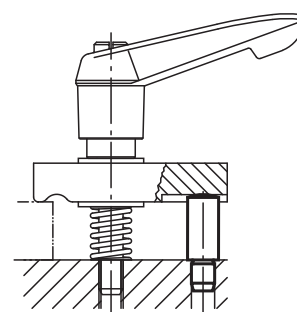
| Order No. | H           | B  | D  | D1 | R  |
|-----------|-------------|----|----|----|----|
| K0305.05X | 8/10/12/16  | 5  | 4  | 5  | 7  |
| K0305.06X | 10/12/16/20 | 6  | 5  | 6  | 8  |
| K0305.08X | 12/16/20/25 | 8  | 6  | 8  | 11 |
| K0305.10X | 16/20/25/32 | 10 | 8  | 10 | 14 |
| K0305.12X | 20/25/32/40 | 12 | 10 | 12 | 16 |
| K0305.14X | 20/25/32/40 | 14 | 12 | 14 | 20 |
| K0305.16X | 25/32/40/50 | 16 | 14 | 16 | 25 |
| K0305.20X | 25/32/40/50 | 20 | 16 | 20 | 28 |



**Material:**  
Hardened steel 1.0301.

**Surface finish:**  
Case-hardened, black oxide finish and ground.

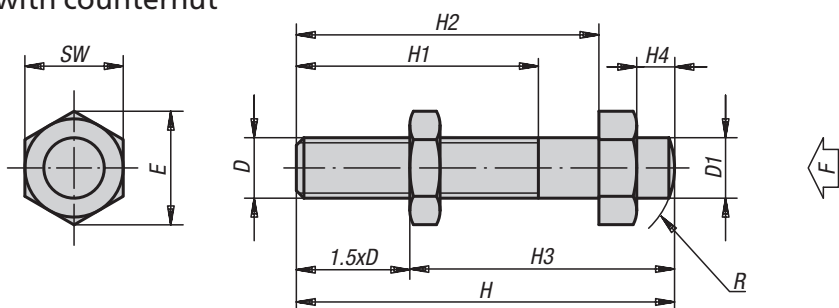
**Sample order:**  
K0305.05X8 (Please also indicate dimension H.)



# K0306

## Adjustable thrust bolts

with counternut



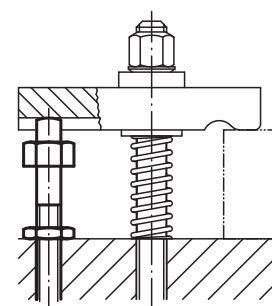
**Material:**  
Tempered steel 1.1181.

**Surface finish:**  
Surface hardened and black oxide finish.

**Sample order:**  
K0306.05

### KIPP Adjustable thrust bolts with counternut

| Order No. | D   | D1 | H   | H1 | H2  | H3 min. | H3 max. | H4 | E    | SW | R  | F approx. | N weight kg |
|-----------|-----|----|-----|----|-----|---------|---------|----|------|----|----|-----------|-------------|
| K0306.05  | M5  | 5  | 50  | 32 | 40  | 20,5    | 42,5    | 5  | 11,5 | 10 | 7  | 1000      | 0,019       |
| K0306.06  | M6  | 6  | 50  | 32 | 40  | 21      | 41      | 5  | 11,5 | 10 | 8  | 1430      | 0,024       |
| K0306.08  | M8  | 8  | 50  | 32 | 40  | 22      | 38      | 5  | 15   | 13 | 11 | 2620      | 0,028       |
| K0306.10  | M10 | 10 | 52  | 32 | 40  | 25      | 37      | 5  | 19,6 | 17 | 14 | 4180      | 0,048       |
| K0306.101 | M10 | 10 | 70  | 32 | 56  | 42      | 55      | 6  | 19,6 | 17 | 14 | 4180      | 0,054       |
| K0306.12  | M12 | 12 | 70  | 40 | 56  | 36      | 52      | 6  | 21,9 | 19 | 16 | 6100      | 0,078       |
| K0306.121 | M12 | 12 | 95  | 50 | 80  | 51      | 77      | 6  | 21,9 | 19 | 16 | 6100      | 0,098       |
| K0306.14  | M14 | 14 | 100 | 63 | 80  | 44      | 79      | 8  | 25,4 | 22 | 20 | 8320      | 0,135       |
| K0306.16  | M16 | 16 | 100 | 63 | 80  | 45      | 76      | 8  | 27,7 | 24 | 25 | 11520     | 0,178       |
| K0306.161 | M16 | 16 | 120 | 63 | 100 | 65      | 96      | 8  | 27,7 | 24 | 25 | 11520     | 0,220       |
| K0306.20  | M20 | 20 | 110 | 70 | 88  | 50      | 90      | 10 | 34,6 | 30 | 28 | 18000     | 0,260       |



## Thrust bolts



**Material, surface finish:**

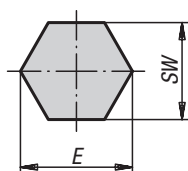
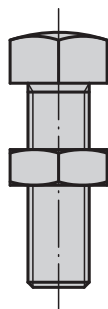
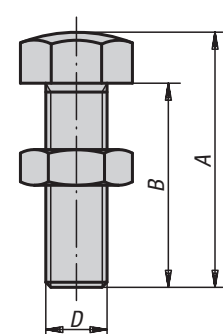
Tempered steel, heat-treated with black oxide finish.

**Sample order:**

K0307.16055

**Note:**

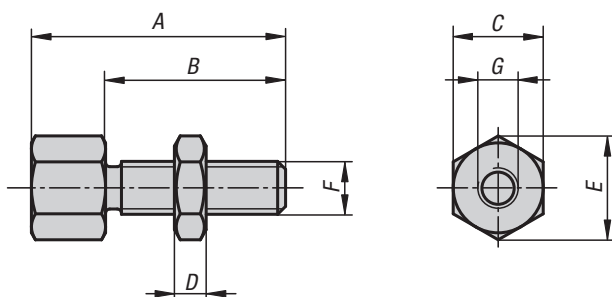
The versions K0307.12148 and K0307.16155 are made of brass.



### KIPP Thrust bolts

| Order No.   | A  | B  | D   | E    | SW | Approx. weight kg |
|-------------|----|----|-----|------|----|-------------------|
| K0307.06030 | 30 | 25 | M6  | 11,5 | 10 | 0,007             |
| K0307.06040 | 40 | 35 | M6  | 11,5 | 10 | 0,009             |
| K0307.06050 | 50 | 45 | M6  | 11,5 | 10 | 0,011             |
| K0307.08036 | 36 | 30 | M8  | 15   | 13 | 0,020             |
| K0307.08046 | 46 | 40 | M8  | 15   | 13 | 0,019             |
| K0307.08056 | 56 | 50 | M8  | 15   | 13 | 0,022             |
| K0307.10042 | 42 | 35 | M10 | 19,6 | 17 | 0,035             |
| K0307.10048 | 48 | 40 | M10 | 19,6 | 17 | 0,033             |
| K0307.10058 | 58 | 50 | M10 | 19,6 | 17 | 0,038             |
| K0307.10068 | 68 | 60 | M10 | 19,6 | 17 | 0,042             |
| K0307.12048 | 50 | 40 | M12 | 21,9 | 19 | 0,055             |
| K0307.12070 | 70 | 60 | M12 | 21,9 | 19 | 0,065             |
| K0307.12080 | 80 | 70 | M12 | 21,9 | 19 | 0,070             |
| K0307.16055 | 55 | 45 | M16 | 27,7 | 24 | 0,114             |
| K0307.16075 | 75 | 65 | M16 | 27,7 | 24 | 0,125             |
| K0307.16085 | 85 | 75 | M16 | 27,7 | 24 | 0,135             |
| K0307.12148 | 50 | 40 | M12 | 21,9 | 19 | 0,061             |
| K0307.16155 | 55 | 45 | M16 | 27,7 | 24 | 0,127             |

## Jack screws

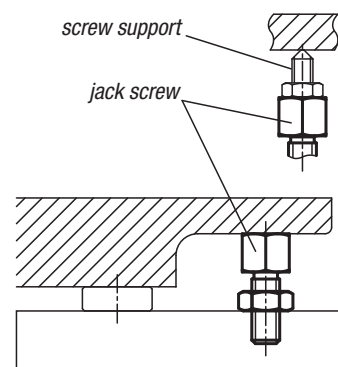


**Material:**  
Tempered steel.

**Surface finish:**  
Black oxide finish.

**Sample order:**  
K0308.0803006

Adjustable support that accepts different tops.

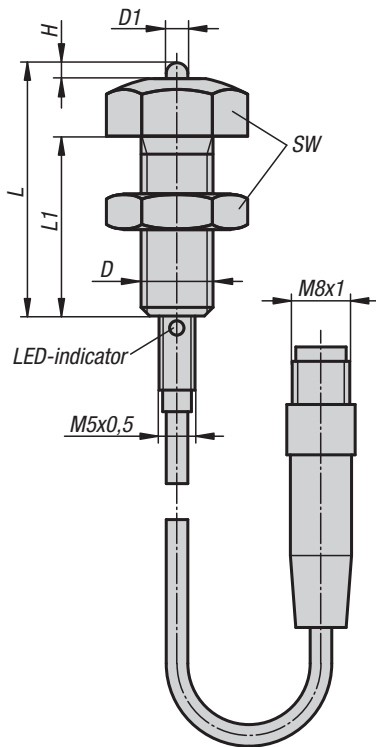


### KIPP Jack screws

| Order No.     | A  | B  | C  | D  | E    | F   | G      | Approx. weight kg |
|---------------|----|----|----|----|------|-----|--------|-------------------|
| K0308.0803006 | 30 | 20 | 13 | 5  | 14,4 | M8  | M6x6   | 0,020             |
| K0308.0804006 | 40 | 30 | 13 | 5  | 14,4 | M8  | M6x6   | 0,025             |
| K0308.1003808 | 38 | 24 | 17 | 6  | 18,9 | M10 | M8x8   | 0,045             |
| K0308.1004808 | 48 | 34 | 17 | 6  | 18,9 | M10 | M8x8   | 0,050             |
| K0308.1205110 | 51 | 33 | 22 | 7  | 24,5 | M12 | M10x10 | 0,095             |
| K0308.1206610 | 66 | 48 | 22 | 7  | 24,5 | M12 | M10x10 | 0,110             |
| K0308.1606212 | 62 | 40 | 27 | 10 | 30,1 | M16 | M12x12 | 0,185             |
| K0308.1607712 | 77 | 55 | 27 | 10 | 30,1 | M16 | M12x12 | 0,210             |

## Stop, adjustable

with end position feedback



**Material, surface finish:**

Screw and plunger in stainless steel 1.4301, natural finish.

Guide bush in stainless steel 1.4112, natural finish.

Sensor housing in stainless steel, natural finish.

Inductive sensor:

make contact (NO)

operating voltage 10 - 30 V DC

operating current 100 mA

sensing distance 0.8

protection class: IP 67

connection type: 0.3 m cable, PUR, with plug connector

temperature range: -25°C - +70°C

approvals: CE, c-UL-us

**Sample order:**

K0581.080352

**Note:**

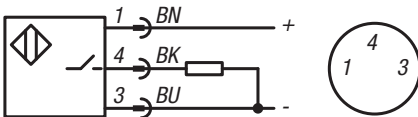
The ensured sensing distance is achieved if the plunger is actuated flush up to the stop surface of the guide bush. The sensor is supplied unassembled.

Installation recommendation: glue in with Loctite 638.

Caution: screw sensor in until it comes to a stop.

**Safety:**

The use of adjustable stops is not suitable for protecting people.



Connection diagram:

BN = brown

BK = black

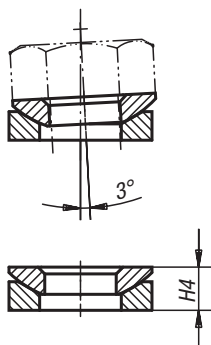
BU = blue

### KIPP Stop, adjustable, with end position feedback

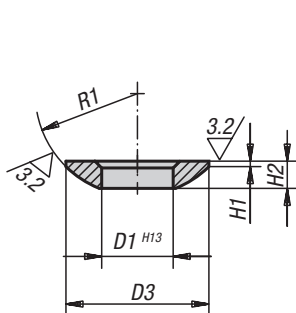
| Order No.    | Size | D   | D1 | H | L    | L1 | SW | Approx. weight kg |
|--------------|------|-----|----|---|------|----|----|-------------------|
| K0581.080352 | 1    | M8  | 3  | 2 | 35,2 | 25 | 13 | 0,025             |
| K0581.100352 | 2    | M10 | 3  | 2 | 35,2 | 25 | 17 | 0,035             |
| K0581.120352 | 3    | M12 | 3  | 2 | 35,2 | 25 | 19 | 0,045             |

# Concave and convex washers

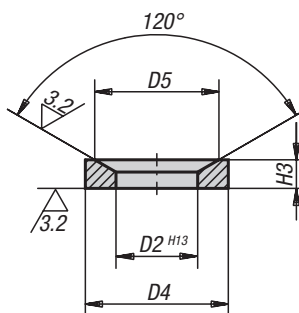
DIN 6319, edition 10/01



Form C  
convex washer



Form D concave washer  $D4 = D3$   
Form G concave washer  $D4 > D3$



**Material:**

Hardened steel or stainless steel.  
Form G in tempered, heat-treated steel at HV 390 ±40.

**Surface finish:**

Case-hardened.  
Stainless steel not hardened, natural finish.

**Sample order:**

K0729.216

**Note:**

Use form G for rough surfaces, along holes or notches.

Statements on load capacity are not valid for stainless steel versions.

# Concave and convex washers

DIN 6319, edition 10/01

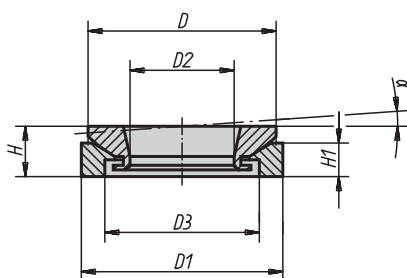
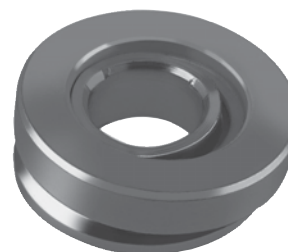
## KIPP Concave and convex washers DIN 6319, edition 10/01

| Order No.<br>Material steel | Order No.<br>Material stainless steel | Form | D1   | D2   | D3   | D4   | D5   | H1  | H2   | H3  | H4<br>with<br>concave washer | R1  | for<br>screw Ø | Load capacity<br>max. kN<br>(static load only) | Approx.<br>weight<br>g |
|-----------------------------|---------------------------------------|------|------|------|------|------|------|-----|------|-----|------------------------------|-----|----------------|--|------------------------|
| K0729.105                   | -                                     | C    | 5,25 | -    | 10,5 | -    | -    | 0,4 | 2    | -   | -                            | 7,5 | 5              | -  | 0,8                    |
| K0729.106                   | K0729.0106                            | C    | 6,4  | -    | 12   | -    | -    | 0,7 | 2,3  | -   | -                            | 9   | 6              | 9/-  | 0,9                    |
| K0729.108                   | K0729.0108                            | C    | 8,4  | -    | 17   | -    | -    | 0,6 | 3,2  | -   | -                            | 12  | 8              | 17/-   | 2,5                    |
| K0729.110                   | K0729.0110                            | C    | 10,5 | -    | 21   | -    | -    | 0,8 | 4    | -   | -                            | 15  | 10             | 26/-   | 5,0                    |
| K0729.112                   | K0729.0112                            | C    | 13   | -    | 24   | -    | -    | 1,1 | 4,6  | -   | -                            | 17  | 12             | 38/-   | 7,3                    |
| K0729.114                   | -                                     | C    | 15   | -    | 28   | -    | -    | 1,2 | 5    | -   | -                            | 22  | 14             | 53   | 11,4                   |
| K0729.116                   | K0729.0116                            | C    | 17   | -    | 30   | -    | -    | 1,3 | 5,3  | -   | -                            | 22  | 16             | 73/-   | 12,7                   |
| K0729.120                   | K0729.0120                            | C    | 21   | -    | 36   | -    | -    | 2   | 6,3  | -   | -                            | 27  | 20             | 117/-  | 22,0                   |
| K0729.124                   | K0729.0124                            | C    | 25   | -    | 44   | -    | -    | 2,4 | 8,2  | -   | -                            | 32  | 24             | 168/-  | 43,0                   |
| K0729.130                   | K0729.0130                            | C    | 31   | -    | 56   | -    | -    | 3,6 | 11,2 | -   | -                            | 41  | 30             | 269/-  | 110,0                  |
| K0729.136                   | K0729.0136                            | C    | 37   | -    | 68   | -    | -    | 4,6 | 14   | -   | -                            | 50  | 36             | 394/-  | 190,0                  |
| K0729.142                   | K0729.0142                            | C    | 43   | -    | 78   | -    | -    | 6,5 | 17   | -   | -                            | 58  | 42             | 542/-  | 305,0                  |
| K0729.148                   | K0729.0148                            | C    | 50   | -    | 92   | -    | -    | 8   | 21   | -   | -                            | 67  | 48             | 714/-  | 540,0                  |
| K0729.156                   | -                                     | C    | 58   | -    | 103  | -    | -    | 9,5 | 23   | -   | -                            | 79  | 56             | -  | 760,0                  |
| K0729.164                   | -                                     | C    | 66   | -    | 120  | -    | -    | 12  | 27   | -   | -                            | 93  | 64             | -  | 1220,0                 |
| K0729.205                   | -                                     | D    | -    | 6    | -    | 10,5 | 9,25 | -   | -    | 2,1 | 3,1                          | -   | 5              | -  | 1,5                    |
| K0729.206                   | K0729.0206                            | D    | -    | 7,1  | -    | 12   | 11   | -   | -    | 2,8 | 4                            | -   | 6              | 9/-  | 1,3                    |
| K0729.208                   | K0729.0208                            | D    | -    | 9,6  | -    | 17   | 14,5 | -   | -    | 3,5 | 5,6                          | -   | 8              | 17/-   | 3,5                    |
| K0729.210                   | K0729.0210                            | D    | -    | 12   | -    | 21   | 18,5 | -   | -    | 4,2 | 6,3                          | -   | 10             | 26/-   | 6,7                    |
| K0729.212                   | K0729.0212                            | D    | -    | 14,2 | -    | 24   | 20   | -   | -    | 5   | 8                            | -   | 12             | 38/-   | 10,0                   |
| K0729.214                   | -                                     | D    | -    | 16,5 | -    | 28   | 24,8 | -   | -    | 5,6 | 8,2                          | -   | 14             | 53   | 14,4                   |
| K0729.216                   | K0729.0216                            | D    | -    | 19   | -    | 30   | 26   | -   | -    | 6,2 | 9,3                          | -   | 16             | 73/-   | 18,0                   |
| K0729.220                   | K0729.0220                            | D    | -    | 23,2 | -    | 36   | 31   | -   | -    | 7,5 | 11,6                         | -   | 20             | 117/-  | 31,0                   |
| K0729.224                   | K0729.0224                            | D    | -    | 28   | -    | 44   | 37   | -   | -    | 9,5 | 15                           | -   | 24             | 168/-  | 61,0                   |
| K0729.230                   | K0729.0230                            | D    | -    | 35   | -    | 56   | 49   | -   | -    | 12  | 18,9                         | -   | 30             | 269/-  | 130,0                  |
| K0729.236                   | K0729.0236                            | D    | -    | 42   | -    | 68   | 60   | -   | -    | 15  | 23,3                         | -   | 36             | 394/-  | 230,0                  |
| K0729.242                   | K0729.0242                            | D    | -    | 49   | -    | 78   | 70   | -   | -    | 18  | 28,3                         | -   | 42             | 542/-  | 360,0                  |
| K0729.248                   | K0729.0248                            | D    | -    | 56   | -    | 92   | 82   | -   | -    | 22  | 35,2                         | -   | 48             | 714/-  | 640,0                  |
| K0729.256                   | -                                     | D    | -    | 65   | -    | 103  | 92   | -   | -    | 25  | 39,7                         | -   | 56             | -  | 900,0                  |
| K0729.264                   | -                                     | D    | -    | 75   | -    | 120  | 110  | -   | -    | 30  | 46,5                         | -   | 64             | -  | 1430,0                 |
| K0729.305                   | -                                     | G    | -    | 6    | -    | 15   | 9,25 | -   | -    | 2,5 | 3,5                          | -   | 5              | -  | 3,5                    |
| K0729.306                   | K0729.0306                            | G    | -    | 7,1  | -    | 17   | 11   | -   | -    | 4   | 5,2                          | -   | 6              | 9/-  | 5,3                    |
| K0729.308                   | K0729.0308                            | G    | -    | 9,6  | -    | 24   | 14,5 | -   | -    | 5   | 6,8                          | -   | 8              | 17/-   | 13,5                   |
| K0729.310                   | K0729.0310                            | G    | -    | 12   | -    | 30   | 18,5 | -   | -    | 5   | 7,1                          | -   | 10             | 26/-   | 21,0                   |
| K0729.312                   | K0729.0312                            | G    | -    | 14,2 | -    | 36   | 20   | -   | -    | 6   | 9                            | -   | 12             | 38/-   | 38,0                   |
| K0729.314                   | -                                     | G    | -    | 16,5 | -    | 40   | 24,8 | -   | -    | 6   | 8,6                          | -   | 14             | 53   | 47,0                   |
| K0729.316                   | K0729.0316                            | G    | -    | 19   | -    | 44   | 26   | -   | -    | 7   | 10,1                         | -   | 16             | 73/-   | 64,0                   |
| K0729.320                   | K0729.0320                            | G    | -    | 23,2 | -    | 50   | 31   | -   | -    | 8   | 12                           | -   | 20             | 117/-  | 92,0                   |
| K0729.324                   | K0729.0324                            | G    | -    | 28   | -    | 60   | 37   | -   | -    | 10  | 15,5                         | -   | 24             | 168/-  | 165,0                  |
| K0729.330                   | K0729.0330                            | G    | -    | 35   | -    | 68   | 49   | -   | -    | 12  | 18,7                         | -   | 30             | 269/-  | 238,0                  |
| K0729.336                   | -                                     | G    | -    | 42   | -    | 80   | 60   | -   | -    | 12  | 20,3                         | -   | 36             | 394  | 350,0                  |





## Ball head position adjusters



**Material:**

Steel 1.7225. Stainless steel 1.4305.

**Surface finish:**

Steel blue-chromated.

Stainless steel natural finish.

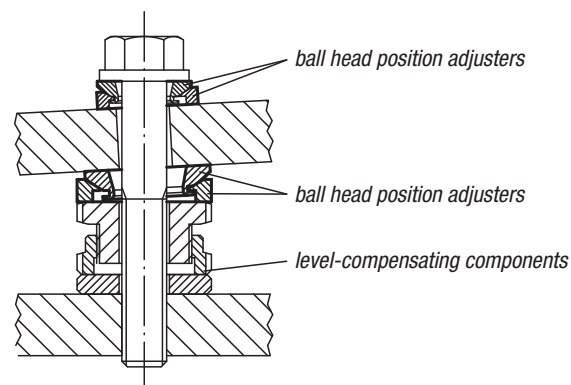
**Sample order:**

K0691.401

**Note:**

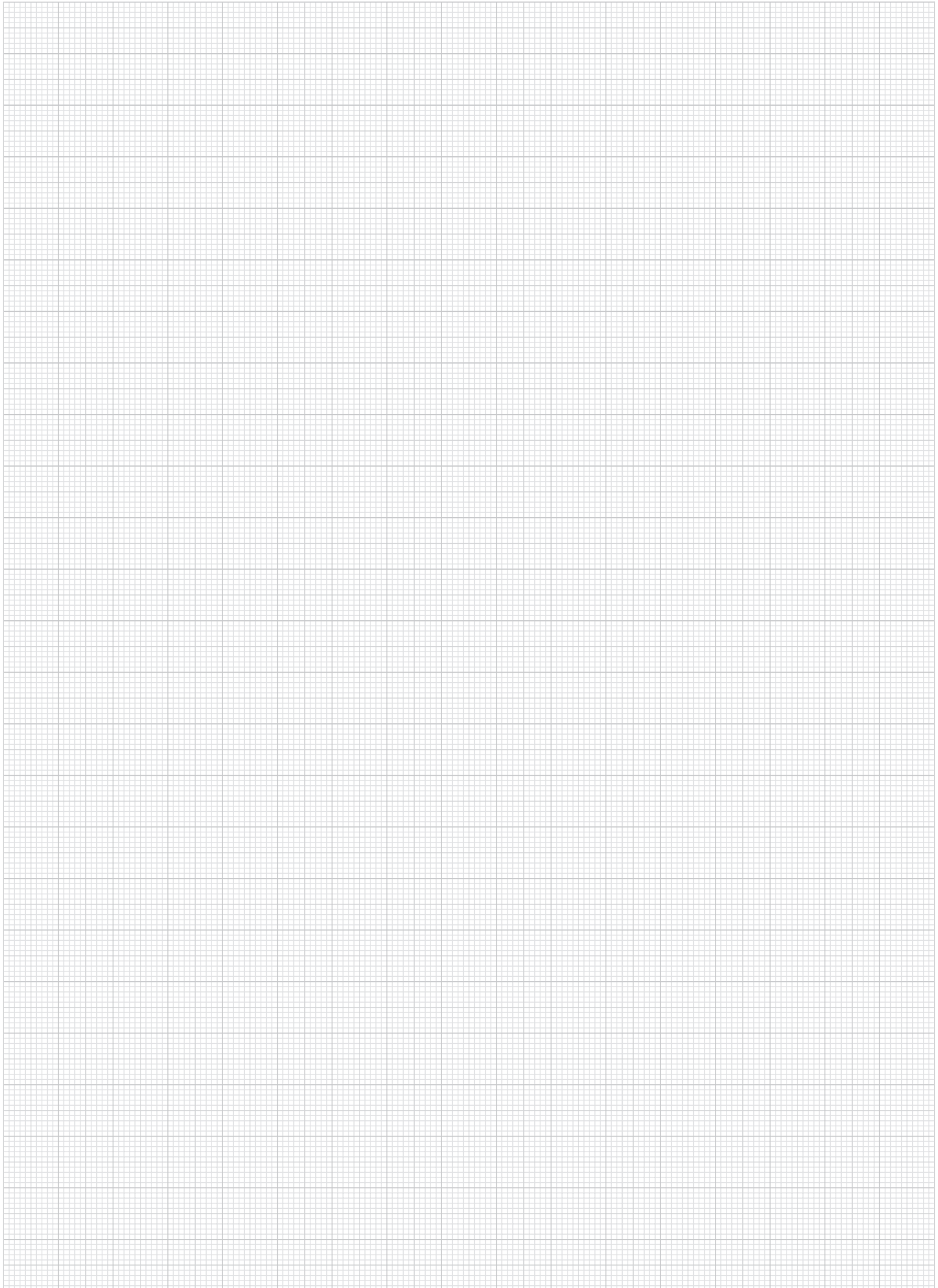
The ball head position adjuster allows exact positioning when assembling sloping bases up to approx. 4° angle of inclination. A further ball head position adjuster is recommended as a base in sloped positions of  $D3 > 1^\circ$  for evenly positioning the bolts. Top and bottom can not fall apart as they are secured.

application example:

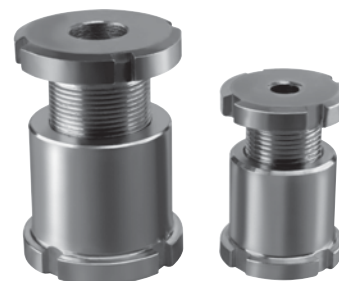


### KIPP Ball head position adjuster

| Order No.<br>Material steel | Order No.<br>Material stainless steel | H    | H1  | D  | D1 | D2  | D3 | $\alpha$ |
|-----------------------------|---------------------------------------|------|-----|----|----|-----|----|----------|
| K0691.151                   | K0691.152                             | 8    | 5,5 | 23 | 25 | 8,5 | 15 | 4°       |
| K0691.201                   | K0691.202                             | 10   | 6,2 | 30 | 32 | 13  | 20 | 4°       |
| K0691.301                   | K0691.302                             | 12,5 | 9   | 40 | 45 | 20  | 30 | 4°       |
| K0691.401                   | K0691.402                             | 16   | 13  | 52 | 58 | 29  | 38 | 4°       |
| K0691.501                   | K0691.502                             | 20   | 14  | 65 | 70 | 36  | 48 | 4°       |



## Height adjustment bolts

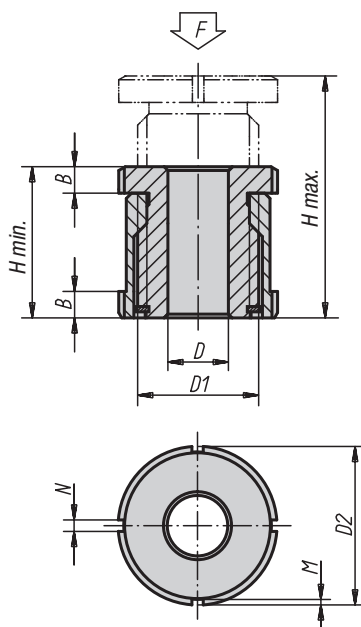


**Material:**  
Steel 1.7225. Stainless steel 1.4305.

**Surface finish:**  
Steel zinc plated, blue chromated.  
Stainless steel surface finish.

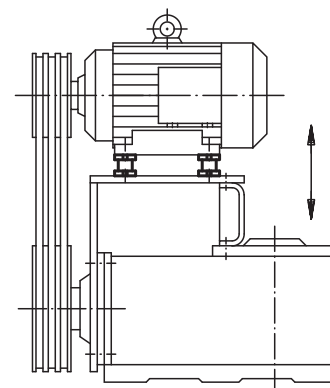
**Sample order:**  
K0692.01505

**Note:**  
The height adjustment bolts are used when dealing with the positioning and alignment of motors, motor units, drive components and production lines. They are characterised by their large travel of 15 mm to 40 mm. Other sizes available on request.



### KIPP Height adjustment bolts

| Order No.    | Material        | D    | for screw | D1      | D2 | H min. | H max. | B  | N | M   | F kN |
|--------------|-----------------|------|-----------|---------|----|--------|--------|----|---|-----|------|
| K0692.01504  | steel           | 4,5  | M4        | M15x1   | 25 | 28     | 43     | 5  | 4 | 2   | 40   |
| K0692.01505  | steel           | 5,5  | M5        | M15x1   | 25 | 28     | 43     | 5  | 4 | 2   | 40   |
| K0692.01506  | steel           | 6,6  | M6        | M15x1   | 25 | 28     | 43     | 5  | 4 | 2   | 40   |
| K0692.02006  | steel           | 6,6  | M6        | M20x1   | 32 | 35     | 55     | 6  | 4 | 2   | 65   |
| K0692.02008  | steel           | 9    | M8        | M20x1   | 32 | 35     | 55     | 6  | 4 | 2   | 65   |
| K0692.02010  | steel           | 11   | M10       | M20x1   | 32 | 35     | 55     | 6  | 4 | 2   | 65   |
| K0692.02510  | steel           | 11   | M10       | M30x1,5 | 45 | 42     | 67     | 7  | 5 | 2   | 120  |
| K0692.02512  | steel           | 13,5 | M12       | M30x1,5 | 45 | 42     | 67     | 7  | 5 | 2   | 120  |
| K0692.02516  | steel           | 17,5 | M16       | M30x1,5 | 45 | 42     | 67     | 7  | 5 | 2   | 120  |
| K0692.03216  | steel           | 17,5 | M16       | M40x1,5 | 58 | 54     | 86     | 9  | 6 | 2,5 | 210  |
| K0692.03220  | steel           | 22   | M20       | M40x1,5 | 58 | 54     | 86     | 9  | 6 | 2,5 | 210  |
| K0692.03224  | steel           | 26   | M24       | M40x1,5 | 58 | 54     | 86     | 9  | 6 | 2,5 | 210  |
| K0692.04020  | steel           | 22   | M20       | M50x1,5 | 70 | 66     | 106    | 11 | 6 | 2,5 | 330  |
| K0692.04024  | steel           | 26   | M24       | M50x1,5 | 70 | 66     | 106    | 11 | 6 | 2,5 | 330  |
| K0692.04030  | steel           | 33   | M30       | M50x1,5 | 70 | 66     | 106    | 11 | 6 | 2,5 | 330  |
| K0692.015041 | stainless steel | 4,5  | M4        | M15x1   | 25 | 28     | 43     | 5  | 4 | 2   | 27,1 |
| K0692.015051 | stainless steel | 5,5  | M5        | M15x1   | 25 | 28     | 43     | 5  | 4 | 2   | 27,1 |
| K0692.015061 | stainless steel | 6,6  | M6        | M15x1   | 25 | 28     | 43     | 5  | 4 | 2   | 27,1 |
| K0692.020061 | stainless steel | 6,6  | M6        | M20x1   | 32 | 35     | 55     | 6  | 4 | 2   | 43,4 |
| K0692.020081 | stainless steel | 9    | M8        | M20x1   | 32 | 35     | 55     | 6  | 4 | 2   | 43,4 |
| K0692.020101 | stainless steel | 11   | M10       | M20x1   | 32 | 35     | 55     | 6  | 4 | 2   | 43,4 |
| K0692.025101 | stainless steel | 11   | M10       | M30x1,5 | 45 | 42     | 67     | 7  | 5 | 2   | 84   |
| K0692.025121 | stainless steel | 13,5 | M12       | M30x1,5 | 45 | 42     | 67     | 7  | 5 | 2   | 84   |
| K0692.025161 | stainless steel | 17,5 | M16       | M30x1,5 | 45 | 42     | 67     | 7  | 5 | 2   | 84   |
| K0692.032161 | stainless steel | 17,5 | M16       | M40x1,5 | 58 | 54     | 86     | 9  | 6 | 2,5 | 148  |
| K0692.032201 | stainless steel | 22   | M20       | M40x1,5 | 58 | 54     | 86     | 9  | 6 | 2,5 | 148  |
| K0692.032241 | stainless steel | 26   | M24       | M40x1,5 | 58 | 54     | 86     | 9  | 6 | 2,5 | 148  |
| K0692.040201 | stainless steel | 22   | M20       | M50x1,5 | 70 | 66     | 106    | 11 | 6 | 2,5 | 225  |
| K0692.040241 | stainless steel | 26   | M24       | M50x1,5 | 70 | 66     | 106    | 11 | 6 | 2,5 | 225  |
| K0692.040301 | stainless steel | 33   | M30       | M50x1,5 | 70 | 66     | 106    | 11 | 6 | 2,5 | 225  |



## Height adjustment bolts with counter-nuts

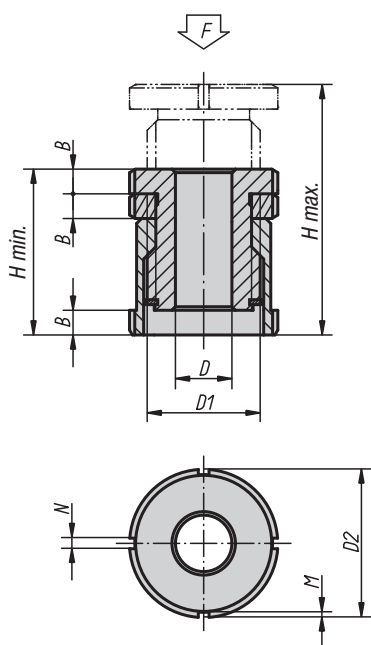


**Material:**  
Steel 1.7225. Stainless steel 1.4305.

**Surface finish:**  
Steel zinc plated, blue chromated.  
Stainless steel surface finish.

**Sample order:**  
K0693.01004

**Note:**  
The height adjustment bolts are used when dealing with the positioning and alignment of motors, motor units, drive components and production lines. The counter-nut secures the given adjustment. Other sizes available on request.



### KIPP Height adjustment bolts with counter-nuts

| Order No.    | Material        | D    | for screw | D1      | D2 | H min. | H max. | B  | N | M   | F kN |
|--------------|-----------------|------|-----------|---------|----|--------|--------|----|---|-----|------|
| K0693.01004  | steel           | 4,5  | M4        | M15x1   | 25 | 33     | 43     | 5  | 4 | 2   | 40   |
| K0693.01005  | steel           | 5,5  | M5        | M15x1   | 25 | 33     | 43     | 5  | 4 | 2   | 40   |
| K0693.01006  | steel           | 6,6  | M6        | M15x1   | 25 | 33     | 43     | 5  | 4 | 2   | 40   |
| K0693.01406  | steel           | 6,6  | M6        | M20x1   | 32 | 41     | 55     | 6  | 4 | 2   | 65   |
| K0693.01408  | steel           | 9    | M8        | M20x1   | 32 | 41     | 55     | 6  | 4 | 2   | 65   |
| K0693.01410  | steel           | 11   | M10       | M20x1   | 32 | 41     | 55     | 6  | 4 | 2   | 65   |
| K0693.01810  | steel           | 11   | M10       | M30x1,5 | 45 | 49     | 67     | 7  | 5 | 2   | 120  |
| K0693.01812  | steel           | 13,5 | M12       | M30x1,5 | 45 | 49     | 67     | 7  | 5 | 2   | 120  |
| K0693.01816  | steel           | 17,5 | M16       | M30x1,5 | 45 | 49     | 67     | 7  | 5 | 2   | 120  |
| K0693.02316  | steel           | 17,5 | M16       | M40x1,5 | 58 | 63     | 86     | 9  | 6 | 2,5 | 210  |
| K0693.02320  | steel           | 22   | M20       | M40x1,5 | 58 | 63     | 86     | 9  | 6 | 2,5 | 210  |
| K0693.02324  | steel           | 26   | M24       | M40x1,5 | 58 | 63     | 86     | 9  | 6 | 2,5 | 210  |
| K0693.02920  | steel           | 22   | M20       | M50x1,5 | 70 | 77     | 106    | 11 | 6 | 2,5 | 330  |
| K0693.02924  | steel           | 26   | M24       | M50x1,5 | 70 | 77     | 106    | 11 | 6 | 2,5 | 330  |
| K0693.02930  | steel           | 33   | M30       | M50x1,5 | 70 | 77     | 106    | 11 | 6 | 2,5 | 330  |
| K0693.010041 | stainless steel | 4,5  | M4        | M15x1   | 25 | 33     | 43     | 5  | 4 | 2   | 27,1 |
| K0693.010051 | stainless steel | 5,5  | M5        | M15x1   | 25 | 33     | 43     | 5  | 4 | 2   | 27,1 |
| K0693.010061 | stainless steel | 6,6  | M6        | M15x1   | 25 | 33     | 43     | 5  | 4 | 2   | 27,1 |
| K0693.014061 | stainless steel | 6,6  | M6        | M20x1   | 32 | 41     | 55     | 6  | 4 | 2   | 43,4 |
| K0693.014081 | stainless steel | 9    | M8        | M20x1   | 32 | 41     | 55     | 6  | 4 | 2   | 43,4 |
| K0693.014101 | stainless steel | 11   | M10       | M20x1   | 32 | 41     | 55     | 6  | 4 | 2   | 43,4 |
| K0693.018101 | stainless steel | 11   | M10       | M30x1,5 | 45 | 49     | 67     | 7  | 5 | 2   | 84   |
| K0693.018121 | stainless steel | 13,5 | M12       | M30x1,5 | 45 | 49     | 67     | 7  | 5 | 2   | 84   |
| K0693.018161 | stainless steel | 17,5 | M16       | M30x1,5 | 45 | 49     | 67     | 7  | 5 | 2   | 84   |
| K0693.023161 | stainless steel | 17,5 | M16       | M40x1,5 | 58 | 63     | 86     | 9  | 6 | 2,5 | 148  |
| K0693.023201 | stainless steel | 22   | M20       | M40x1,5 | 58 | 63     | 86     | 9  | 6 | 2,5 | 148  |
| K0693.023241 | stainless steel | 26   | M24       | M40x1,5 | 58 | 63     | 86     | 9  | 6 | 2,5 | 148  |
| K0693.029201 | stainless steel | 22   | M20       | M50x1,5 | 70 | 77     | 106    | 11 | 6 | 2,5 | 225  |
| K0693.029241 | stainless steel | 26   | M24       | M50x1,5 | 70 | 77     | 106    | 11 | 6 | 2,5 | 225  |
| K0693.029301 | stainless steel | 33   | M30       | M50x1,5 | 70 | 77     | 106    | 11 | 6 | 2,5 | 225  |

## Level-compensating components



**Material:**

Steel 1.7225. Stainless steel 1.4305.

**Surface finish:**

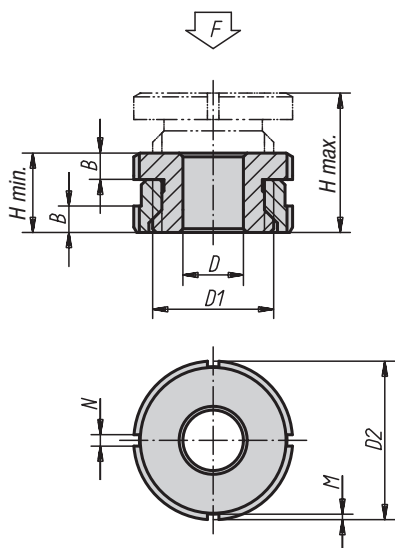
Steel zinc plated, blue chromated.  
Stainless steel surface finish.

**Sample order:**

K0694.0404

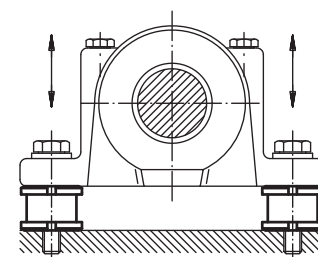
**Note:**

The level-compensating bolts are used when dealing with the positioning and alignment of motors, motor units, drive components and production lines. The advantage of a level adjustment bolt is its low height. Using the level-compensating bolt, alignments can be quickly and easily made, even if several ball-bearing positions are involved. This guarantees assembly with no risk of deviation.

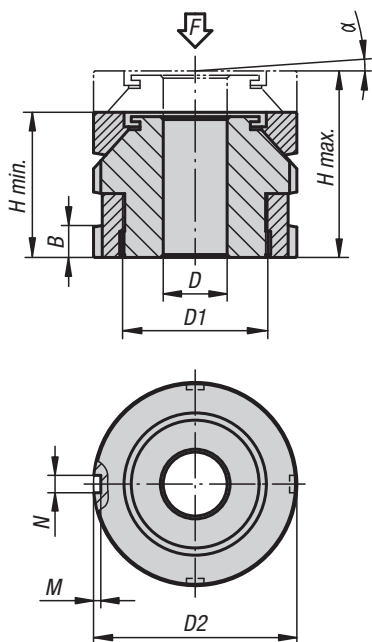


### KIPP Level-compensating components

| Order No.   | Material        | D    | for screw | D1      | D2 | H min. | H max. | B  | N | M   | F kN |
|-------------|-----------------|------|-----------|---------|----|--------|--------|----|---|-----|------|
| K0694.0404  | steel           | 4,5  | M4        | M15x1   | 25 | 15     | 19     | 5  | 4 | 2   | 40   |
| K0694.0405  | steel           | 5,5  | M5        | M15x1   | 25 | 15     | 19     | 5  | 4 | 2   | 40   |
| K0694.0406  | steel           | 6,6  | M6        | M15x1   | 25 | 15     | 19     | 5  | 4 | 2   | 40   |
| K0694.0506  | steel           | 6,6  | M6        | M20x1   | 32 | 18     | 23     | 6  | 4 | 2   | 65   |
| K0694.0508  | steel           | 9    | M8        | M20x1   | 32 | 18     | 23     | 6  | 4 | 2   | 65   |
| K0694.0510  | steel           | 11   | M10       | M20x1   | 32 | 18     | 23     | 6  | 4 | 2   | 65   |
| K0694.0710  | steel           | 11   | M10       | M30x1,5 | 45 | 22     | 29     | 7  | 5 | 2   | 120  |
| K0694.0712  | steel           | 13,5 | M12       | M30x1,5 | 45 | 22     | 29     | 7  | 5 | 2   | 120  |
| K0694.0716  | steel           | 17,5 | M16       | M30x1,5 | 45 | 22     | 29     | 7  | 5 | 2   | 120  |
| K0694.0916  | steel           | 17,5 | M16       | M40x1,5 | 58 | 28     | 37     | 9  | 6 | 2,5 | 210  |
| K0694.0920  | steel           | 22   | M20       | M40x1,5 | 58 | 28     | 37     | 9  | 6 | 2,5 | 210  |
| K0694.0924  | steel           | 26   | M24       | M40x1,5 | 58 | 28     | 37     | 9  | 6 | 2,5 | 210  |
| K0694.1020  | steel           | 22   | M20       | M50x1,5 | 70 | 33     | 43     | 11 | 6 | 2,5 | 330  |
| K0694.1024  | steel           | 26   | M24       | M50x1,5 | 70 | 33     | 43     | 11 | 6 | 2,5 | 330  |
| K0694.1030  | steel           | 33   | M30       | M50x1,5 | 70 | 33     | 43     | 11 | 6 | 2,5 | 330  |
| K0694.04041 | stainless steel | 4,5  | M4        | M15x1   | 25 | 15     | 19     | 5  | 4 | 2   | 27,1 |
| K0694.04051 | stainless steel | 5,5  | M5        | M15x1   | 25 | 15     | 19     | 5  | 4 | 2   | 27,1 |
| K0694.04061 | stainless steel | 6,6  | M6        | M15x1   | 25 | 15     | 19     | 5  | 4 | 2   | 27,1 |
| K0694.05061 | stainless steel | 6,6  | M6        | M20x1   | 32 | 18     | 23     | 6  | 4 | 2   | 43,4 |
| K0694.05081 | stainless steel | 9    | M8        | M20x1   | 32 | 18     | 23     | 6  | 4 | 2   | 43,4 |
| K0694.05101 | stainless steel | 11   | M10       | M20x1   | 32 | 18     | 23     | 6  | 4 | 2   | 43,4 |
| K0694.07101 | stainless steel | 11   | M10       | M30x1,5 | 45 | 22     | 29     | 7  | 5 | 2   | 84   |
| K0694.07121 | stainless steel | 13,5 | M12       | M30x1,5 | 45 | 22     | 29     | 7  | 5 | 2   | 84   |
| K0694.07161 | stainless steel | 17,5 | M16       | M30x1,5 | 45 | 22     | 29     | 7  | 5 | 2   | 84   |
| K0694.09161 | stainless steel | 17,5 | M16       | M40x1,5 | 58 | 28     | 37     | 9  | 6 | 2,5 | 148  |
| K0694.09201 | stainless steel | 22   | M20       | M40x1,5 | 58 | 28     | 37     | 9  | 6 | 2,5 | 148  |
| K0694.09241 | stainless steel | 26   | M24       | M40x1,5 | 58 | 28     | 37     | 9  | 6 | 2,5 | 148  |
| K0694.10201 | stainless steel | 22   | M20       | M50x1,5 | 70 | 33     | 43     | 11 | 6 | 2,5 | 225  |
| K0694.10241 | stainless steel | 26   | M24       | M50x1,5 | 70 | 33     | 43     | 11 | 6 | 2,5 | 225  |
| K0694.10301 | stainless steel | 33   | M30       | M50x1,5 | 70 | 33     | 43     | 11 | 6 | 2,5 | 225  |



## Spherical level-compensating bolts



**Material:**  
Steel 1.7225. Stainless steel 1.4305.

**Surface finish:**  
Steel zinc plated, blue chromated.  
Stainless steel surface finish.

**Sample order:**  
K0695.0406

**Note:**  
The spherical level-compensating bolt is used when dealing with the positioning and alignment of motors, motor units, drive elements and production lines. Exact positioning in the assembly of sloped baseplates up to a 4° angle of inclination can be achieved with the spherical level-compensating bolt.

### KIPP Spherical level-compensating bolts

| Order No.   | Material        | D    | for screw | D1      | D2 | H min. | H max. | B  | N | M   | α  | F kN |
|-------------|-----------------|------|-----------|---------|----|--------|--------|----|---|-----|----|------|
| K0695.0406  | steel           | 6,6  | M6        | M15x1   | 25 | 22     | 26     | 5  | 4 | 2   | 4° | 40   |
| K0695.0506  | steel           | 6,6  | M6        | M20x1   | 32 | 26     | 31     | 6  | 4 | 2   | 4° | 65   |
| K0695.0508  | steel           | 9    | M8        | M20x1   | 32 | 26     | 31     | 6  | 4 | 2   | 4° | 65   |
| K0695.0510  | steel           | 11   | M10       | M20x1   | 32 | 26     | 31     | 6  | 4 | 2   | 4° | 65   |
| K0695.0710  | steel           | 11   | M10       | M30x1,5 | 45 | 34     | 41     | 7  | 5 | 2   | 4° | 120  |
| K0695.0712  | steel           | 13,5 | M12       | M30x1,5 | 45 | 34     | 41     | 7  | 5 | 2   | 4° | 120  |
| K0695.0716  | steel           | 17,5 | M16       | M30x1,5 | 45 | 34     | 41     | 7  | 5 | 2   | 4° | 120  |
| K0695.0916  | steel           | 17,5 | M16       | M40x1,5 | 58 | 44     | 53     | 9  | 6 | 2,5 | 4° | 210  |
| K0695.0920  | steel           | 22   | M20       | M40x1,5 | 58 | 44     | 53     | 9  | 6 | 2,5 | 4° | 210  |
| K0695.0924  | steel           | 26   | M24       | M40x1,5 | 58 | 44     | 53     | 9  | 6 | 2,5 | 4° | 210  |
| K0695.1020  | steel           | 22   | M20       | M50x1,5 | 70 | 50     | 60     | 11 | 6 | 2,5 | 4° | 330  |
| K0695.1024  | steel           | 26   | M24       | M50x1,5 | 70 | 50     | 60     | 11 | 6 | 2,5 | 4° | 330  |
| K0695.1030  | steel           | 33   | M30       | M50x1,5 | 70 | 50     | 60     | 11 | 6 | 2,5 | 4° | 330  |
| K0695.1224  | steel           | 26   | M24       | M60x2   | 80 | 56     | 68     | 11 | 7 | 3   | 4° | 495  |
| K0695.1230  | steel           | 33   | M30       | M60x2   | 80 | 56     | 68     | 11 | 7 | 3   | 4° | 495  |
| K0695.04061 | stainless steel | 6,6  | M6        | M15x1   | 25 | 22     | 26     | 5  | 4 | 2   | 4° | 27,1 |
| K0695.05061 | stainless steel | 6,6  | M6        | M20x1   | 32 | 26     | 31     | 6  | 4 | 2   | 4° | 43,4 |
| K0695.05081 | stainless steel | 9    | M8        | M20x1   | 32 | 26     | 31     | 6  | 4 | 2   | 4° | 43,4 |
| K0695.05101 | stainless steel | 11   | M10       | M20x1   | 32 | 26     | 31     | 6  | 4 | 2   | 4° | 43,4 |
| K0695.07101 | stainless steel | 11   | M10       | M30x1,5 | 45 | 34     | 41     | 7  | 5 | 2   | 4° | 84   |
| K0695.07121 | stainless steel | 13,5 | M12       | M30x1,5 | 45 | 34     | 41     | 7  | 5 | 2   | 4° | 84   |
| K0695.07161 | stainless steel | 17,5 | M16       | M30x1,5 | 45 | 34     | 41     | 7  | 5 | 2   | 4° | 84   |
| K0695.09161 | stainless steel | 17,5 | M16       | M40x1,5 | 58 | 44     | 53     | 9  | 6 | 2,5 | 4° | 148  |
| K0695.09201 | stainless steel | 22   | M20       | M40x1,5 | 58 | 44     | 53     | 9  | 6 | 2,5 | 4° | 148  |
| K0695.09241 | stainless steel | 26   | M24       | M40x1,5 | 58 | 44     | 53     | 9  | 6 | 2,5 | 4° | 148  |
| K0695.10201 | stainless steel | 22   | M20       | M50x1,5 | 70 | 50     | 60     | 11 | 6 | 2,5 | 4° | 225  |
| K0695.10241 | stainless steel | 26   | M24       | M50x1,5 | 70 | 50     | 60     | 11 | 6 | 2,5 | 4° | 225  |
| K0695.10301 | stainless steel | 33   | M30       | M50x1,5 | 70 | 50     | 60     | 11 | 6 | 2,5 | 4° | 225  |
| K0695.12241 | stainless steel | 26   | M24       | M60x2   | 80 | 56     | 68     | 11 | 7 | 3   | 4° | 323  |
| K0695.12301 | stainless steel | 33   | M30       | M60x2   | 80 | 56     | 68     | 11 | 7 | 3   | 4° | 323  |



## Machine and jig devices







## Machine and jig devices

Rolled thread studs  
DIN 6379  
**K0697**



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Rolled thread T-slot bolts  
DIN 787  
**K0698**



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Rolled thread T-slot bolts  
DIN 787, 12.9  
**K0699**



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Hexagon thin nuts  
DIN 439  
**K0700**



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Hexagon nuts with collar  
height 1.5 D, to DIN 6331  
extended  
**K0701**



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Hexagon nuts  
height 1.5 D, to DIN 6330  
extended  
**K0702**



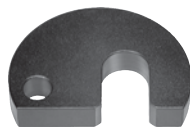
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Projecting washer for  
devices  
DIN 6372 extended  
**K0730**



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Captive C-washers  
DIN 6371  
**K0703**



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Shoulder screws with  
slotted flat head  
DIN 923  
**K0704**



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Hexagon socket head  
shoulder screws  
similar to DIN ISO 7379  
**K0705**



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Hexagon locating bolts with  
long thread  
DIN 609  
**K0706**



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Hexagon socket set  
screws with flat tip  
DIN 913  
**K0707**



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Hexagon socket countersunk  
head screws  
DIN 7991  
**K0708**



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Feathers  
DIN 6885 A  
**K0696**



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Nuts for T-slots  
DIN 508 extended  
**K0377**



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Nuts for T-slots  
blanks  
**K0378**



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Rhombic nuts for T-slots  
**K0379**



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Eye bolts  
DIN 444, form B  
**K0396**



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## Machine and jig devices

Threaded inserts  
**K0398**



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Reinforced threaded inserts  
**K0399**



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Solid body threaded inserts  
**K0400**



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Threaded inserts with internal thread, self-locking  
**K0401**



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Reinforced threaded inserts with internal thread, self-locking  
**K0402**



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Repair kit  
**K0653**



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Grub screws with screw-in stop for gluing  
**K0404**



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Grub screw sets with screw-in stop for gluing  
**K0405**



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Adjusting rings  
DIN 705, steel  
**K0406**



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Adjusting rings  
DIN 705, stainless steel  
**K0406**



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Adjusting rings with clamp grip  
similar DIN 705, steel  
**K0407**



Page 808

Fork pieces with threaded bolt  
**K0397**



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Grub screws with thrust point  
DIN 6332  
**K0390**



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Grub screws with ball thrust point  
**K0391**



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Thrust pads  
DIN 6311 extended  
**K0392**



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Thrust pads  
**K0393**



Page 813

Pressure spindles  
**K0394**



Page 814

Handles  
**K0179**



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## Machine and jig devices

Clamp hubs  
**K0376**



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Clamping joints  
**K0133**



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Clamping joints  
individually adjustable  
**K0134**



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Multiple connectors  
**K0135**



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Clamping joints  
**K0136**



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Swash plates  
**K0053**



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Hook  
with a quick-acting star grip  
**K0054**



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Wing screws  
with a counter grip  
**K0182**

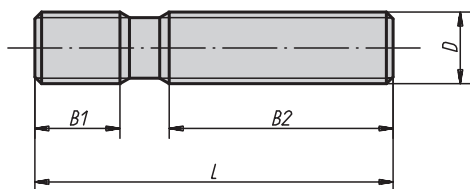


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## Rolled thread studs

DIN 6379



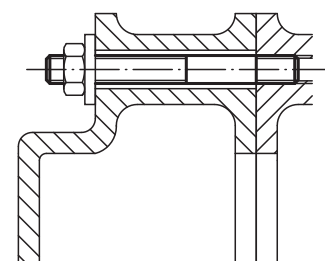
**Material:**  
Tempered steel.

**Surface finish:**  
Thread rolled.  
Class 10.9 heat-treated for M6-M12, black.  
Class 8.8 heat-treated for M14-M36, black.

**Sample order:**  
K0697.12125

### KIPP Rolled thread studs DIN 6379

| Order No.   | D   | L   | B1 | B2  | Approx. weight g |
|-------------|-----|-----|----|-----|------------------|
| K0697.0632  | M6  | 32  | 9  | 16  | 8                |
| K0697.0640  | M6  | 40  | 9  | 20  | 9                |
| K0697.0650  | M6  | 50  | 9  | 30  | 11               |
| K0697.0663  | M6  | 63  | 9  | 40  | 14               |
| K0697.0680  | M6  | 80  | 9  | 50  | 18               |
| K0697.06100 | M6  | 100 | 9  | 63  | 20               |
| K0697.0840  | M8  | 40  | 11 | 20  | 10               |
| K0697.0863  | M8  | 63  | 11 | 40  | 20               |
| K0697.0880  | M8  | 80  | 11 | 50  | 27               |
| K0697.08100 | M8  | 100 | 11 | 63  | 30               |
| K0697.08125 | M8  | 125 | 11 | 75  | 40               |
| K0697.08160 | M8  | 160 | 11 | 100 | 45               |
| K0697.1050  | M10 | 50  | 13 | 25  | 25               |
| K0697.1080  | M10 | 80  | 13 | 50  | 40               |
| K0697.10100 | M10 | 100 | 13 | 75  | 50               |
| K0697.10125 | M10 | 125 | 13 | 75  | 62               |
| K0697.10160 | M10 | 160 | 13 | 100 | 80               |
| K0697.10200 | M10 | 200 | 13 | 125 | 100              |
| K0697.1250  | M12 | 50  | 15 | 25  | 35               |
| K0697.1263  | M12 | 63  | 15 | 32  | 45               |
| K0697.1280  | M12 | 80  | 15 | 50  | 55               |
| K0697.12100 | M12 | 100 | 15 | 63  | 70               |
| K0697.12125 | M12 | 125 | 15 | 75  | 90               |
| K0697.12160 | M12 | 160 | 15 | 100 | 113              |
| K0697.12200 | M12 | 200 | 15 | 125 | 140              |
| K0697.1463  | M14 | 63  | 17 | 32  | 80               |
| K0697.1480  | M14 | 80  | 17 | 50  | 85               |
| K0697.14100 | M14 | 100 | 17 | 63  | 95               |
| K0697.14125 | M14 | 125 | 17 | 75  | 120              |
| K0697.14160 | M14 | 160 | 17 | 100 | 150              |
| K0697.14200 | M14 | 200 | 17 | 125 | 195              |
| K0697.14250 | M14 | 250 | 17 | 160 | 240              |
| K0697.1663  | M16 | 63  | 19 | 32  | 85               |
| K0697.1680  | M16 | 80  | 19 | 50  | 105              |
| K0697.16100 | M16 | 100 | 19 | 63  | 130              |
| K0697.16125 | M16 | 125 | 19 | 75  | 160              |
| K0697.16160 | M16 | 160 | 19 | 100 | 210              |
| K0697.16200 | M16 | 200 | 19 | 125 | 280              |
| K0697.16250 | M16 | 250 | 19 | 160 | 325              |
| K0697.16315 | M16 | 315 | 19 | 180 | 425              |



# Rolled thread studs

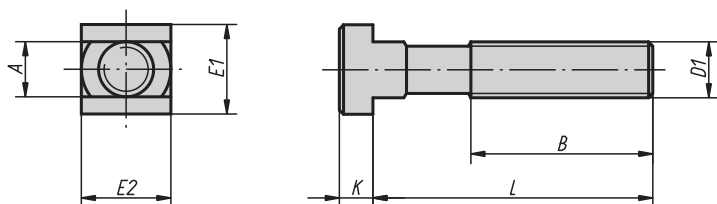
DIN 6379

| Order No.    | D   | L    | B1 | B2  | Approx. weight g |
|--------------|-----|------|----|-----|------------------|
| K0697.16350  | M16 | 350  | 19 | 200 | 460              |
| K0697.16500  | M16 | 500  | 20 | 315 | 650              |
| K0697.1880   | M18 | 80   | 23 | 50  | 130              |
| K0697.18125  | M18 | 125  | 23 | 75  | 200              |
| K0697.18160  | M18 | 160  | 23 | 100 | 255              |
| K0697.18200  | M18 | 200  | 23 | 125 | 320              |
| K0697.18250  | M18 | 250  | 23 | 150 | 400              |
| K0697.18315  | M18 | 315  | 23 | 180 | 500              |
| K0697.2080   | M20 | 80   | 27 | 32  | 185              |
| K0697.20125  | M20 | 125  | 27 | 70  | 255              |
| K0697.20160  | M20 | 160  | 27 | 100 | 330              |
| K0697.20200  | M20 | 200  | 27 | 125 | 410              |
| K0697.20250  | M20 | 250  | 27 | 160 | 510              |
| K0697.20315  | M20 | 315  | 27 | 200 | 640              |
| K0697.20400  | M20 | 400  | 27 | 250 | 815              |
| K0697.20500  | M20 | 500  | 27 | 315 | 1020             |
| K0697.22100  | M22 | 100  | 31 | 45  | 270              |
| K0697.22160  | M22 | 160  | 31 | 100 | 430              |
| K0697.22200  | M22 | 200  | 31 | 125 | 500              |
| K0697.22250  | M22 | 250  | 31 | 160 | 670              |
| K0697.22315  | M22 | 315  | 31 | 180 | 790              |
| K0697.22400  | M22 | 400  | 31 | 250 | 1070             |
| K0697.24100  | M24 | 100  | 35 | 45  | 290              |
| K0697.24125  | M24 | 125  | 35 | 63  | 380              |
| K0697.24160  | M24 | 160  | 35 | 100 | 470              |
| K0697.24200  | M24 | 200  | 35 | 125 | 580              |
| K0697.24250  | M24 | 250  | 35 | 160 | 730              |
| K0697.24315  | M24 | 315  | 35 | 200 | 920              |
| K0697.24400  | M24 | 400  | 35 | 250 | 1160             |
| K0697.24500  | M24 | 500  | 35 | 315 | 1460             |
| K0697.24630  | M24 | 630  | 35 | 315 | 1850             |
| K0697.27125  | M27 | 125  | 39 | 56  | 485              |
| K0697.27200  | M27 | 200  | 39 | 125 | 770              |
| K0697.27315  | M27 | 315  | 39 | 200 | 1110             |
| K0697.27400  | M27 | 400  | 39 | 250 | 1535             |
| K0697.27500  | M27 | 500  | 39 | 315 | 1930             |
| K0697.30125  | M30 | 125  | 43 | 56  | 590              |
| K0697.30200  | M30 | 200  | 43 | 125 | 950              |
| K0697.30315  | M30 | 315  | 43 | 200 | 1490             |
| K0697.30500  | M30 | 500  | 43 | 315 | 2360             |
| K0697.30700  | M30 | 700  | 43 | 400 | 3300             |
| K0697.301000 | M30 | 1000 | 44 | 400 | 4700             |
| K0697.36160  | M36 | 160  | 51 | 80  | 1100             |
| K0697.36200  | M36 | 200  | 51 | 125 | 1380             |
| K0697.36250  | M36 | 250  | 51 | 160 | 1710             |
| K0697.36315  | M36 | 315  | 51 | 200 | 2150             |
| K0697.36400  | M36 | 400  | 51 | 250 | 2740             |
| K0697.36500  | M36 | 500  | 51 | 315 | 3540             |
| K0697.36700  | M36 | 700  | 51 | 400 | 4780             |



## Rolled thread T-slot bolts

DIN 787

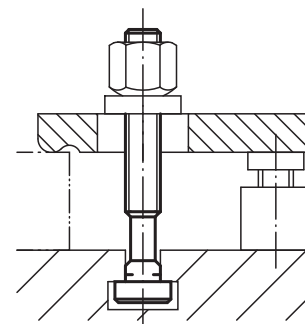


**Material:**  
Tempered steel.

**Surface finish:**  
Forged, milled guide slot, rolled thread.  
Class 10.9 heat-treated for M6-M12, black.  
Class 8.8 heat-treated for M14-M42, black.

### KIPP Rolled thread T-slot bolts DIN 787

| Order No.    | Nominal size of slot | D1  | L   | A    | B   | E1/E2 | K | Approx. weight g |
|--------------|----------------------|-----|-----|------|-----|-------|---|------------------|
| K0698.0625   | 6                    | M6  | 25  | 5,7  | 15  | 10    | 4 | 9                |
| K0698.0640   | 6                    | M6  | 40  | 5,7  | 28  | 10    | 4 | 12               |
| K0698.0663   | 6                    | M6  | 63  | 5,7  | 40  | 10    | 4 | 18               |
| K0698.0832   | 8                    | M8  | 32  | 7,7  | 22  | 13    | 6 | 20               |
| K0698.0850   | 8                    | M8  | 50  | 7,7  | 35  | 13    | 6 | 25               |
| K0698.0880   | 8                    | M8  | 80  | 7,7  | 50  | 13    | 6 | 30               |
| K0698.1040   | 10                   | M10 | 40  | 9,7  | 30  | 15    | 6 | 30               |
| K0698.1063   | 10                   | M10 | 63  | 9,7  | 45  | 15    | 6 | 50               |
| K0698.10100  | 10                   | M10 | 100 | 9,7  | 60  | 15    | 6 | 70               |
| K0698.1250   | 12                   | M12 | 50  | 11,7 | 35  | 18    | 7 | 60               |
| K0698.1263   | 12                   | M12 | 63  | 11,7 | 40  | 18    | 7 | 65               |
| K0698.1280   | 12                   | M12 | 80  | 11,7 | 55  | 18    | 7 | 75               |
| K0698.12100  | 12                   | M12 | 100 | 11,7 | 65  | 18    | 7 | 90               |
| K0698.12125  | 12                   | M12 | 125 | 11,7 | 75  | 18    | 7 | 110              |
| K0698.12160  | 12                   | M12 | 160 | 11,7 | 100 | 18    | 7 | 135              |
| K0698.12200  | 12                   | M12 | 200 | 11,7 | 120 | 18    | 7 | 160              |
| K0698.1450   | 14                   | M12 | 50  | 13,7 | 35  | 22    | 8 | 70               |
| K0698.1463   | 14                   | M12 | 63  | 13,7 | 45  | 22    | 8 | 80               |
| K0698.1480   | 14                   | M12 | 80  | 13,7 | 55  | 22    | 8 | 100              |
| K0698.14100  | 14                   | M12 | 100 | 13,7 | 65  | 22    | 8 | 110              |
| K0698.14125  | 14                   | M12 | 125 | 13,7 | 75  | 22    | 8 | 120              |
| K0698.14160  | 14                   | M12 | 160 | 13,7 | 100 | 22    | 8 | 150              |
| K0698.14200  | 14                   | M12 | 200 | 13,7 | 120 | 22    | 8 | 180              |
| K0698.16631  | 16                   | M14 | 63  | 15,7 | 45  | 25    | 9 | 115              |
| K0698.16801  | 16                   | M14 | 80  | 15,7 | 55  | 25    | 9 | 130              |
| K0698.161001 | 16                   | M14 | 100 | 15,7 | 65  | 25    | 9 | 150              |
| K0698.161251 | 16                   | M14 | 125 | 15,7 | 75  | 25    | 9 | 180              |
| K0698.161601 | 16                   | M14 | 160 | 15,7 | 100 | 25    | 9 | 220              |
| K0698.162501 | 16                   | M14 | 250 | 15,7 | 150 | 25    | 9 | 300              |
| K0698.1663   | 16                   | M16 | 63  | 15,7 | 45  | 25    | 9 | 140              |
| K0698.1680   | 16                   | M16 | 80  | 15,7 | 55  | 25    | 9 | 160              |
| K0698.16100  | 16                   | M16 | 100 | 15,7 | 65  | 25    | 9 | 180              |
| K0698.16125  | 16                   | M16 | 125 | 15,7 | 85  | 25    | 9 | 225              |
| K0698.16160  | 16                   | M16 | 160 | 15,7 | 100 | 25    | 9 | 260              |
| K0698.16200  | 16                   | M16 | 200 | 15,7 | 125 | 25    | 9 | 315              |
| K0698.16250  | 16                   | M16 | 250 | 15,7 | 150 | 25    | 9 | 380              |



# Rolled thread T-slot bolts

DIN 787

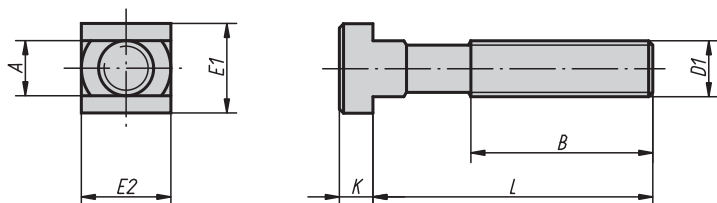
| Order No.   | Nominal size of slot | D1  | L   | A    | B   | E1/E2 | K  | Approx. weight g |
|-------------|----------------------|-----|-----|------|-----|-------|----|------------------|
| K0698.1863  | 18                   | M16 | 63  | 17,7 | 45  | 28    | 10 | 160              |
| K0698.1880  | 18                   | M16 | 80  | 17,7 | 55  | 28    | 10 | 185              |
| K0698.18100 | 18                   | M16 | 100 | 17,7 | 65  | 28    | 10 | 203              |
| K0698.18125 | 18                   | M16 | 125 | 17,7 | 85  | 28    | 10 | 245              |
| K0698.18160 | 18                   | M16 | 160 | 17,7 | 100 | 28    | 10 | 280              |
| K0698.18200 | 18                   | M16 | 200 | 17,7 | 125 | 28    | 10 | 330              |
| K0698.18250 | 18                   | M16 | 250 | 17,7 | 150 | 28    | 10 | 430              |
| K0698.2080  | 20                   | M20 | 80  | 19,7 | 55  | 32    | 12 | 290              |
| K0698.20100 | 20                   | M20 | 100 | 19,7 | 65  | 32    | 12 | 340              |
| K0698.20125 | 20                   | M20 | 125 | 19,7 | 85  | 32    | 12 | 390              |
| K0698.20160 | 20                   | M20 | 160 | 19,7 | 110 | 32    | 12 | 470              |
| K0698.20200 | 20                   | M20 | 200 | 19,7 | 125 | 32    | 12 | 550              |
| K0698.20250 | 20                   | M20 | 250 | 19,7 | 150 | 32    | 12 | 670              |
| K0698.20315 | 20                   | M20 | 315 | 19,7 | 190 | 32    | 12 | 800              |
| K0698.2280  | 22                   | M20 | 80  | 21,7 | 55  | 35    | 14 | 330              |
| K0698.22100 | 22                   | M20 | 100 | 21,7 | 65  | 35    | 14 | 400              |
| K0698.22125 | 22                   | M20 | 125 | 21,7 | 85  | 35    | 14 | 428              |
| K0698.22160 | 22                   | M20 | 160 | 21,7 | 110 | 35    | 14 | 500              |
| K0698.22200 | 22                   | M20 | 200 | 21,7 | 125 | 35    | 14 | 570              |
| K0698.22250 | 22                   | M20 | 250 | 21,7 | 150 | 35    | 14 | 680              |
| K0698.22315 | 22                   | M20 | 315 | 21,7 | 190 | 35    | 14 | 820              |
| K0698.24100 | 24                   | M24 | 100 | 23,7 | 70  | 40    | 16 | 540              |
| K0698.24125 | 24                   | M24 | 125 | 23,7 | 85  | 40    | 16 | 640              |
| K0698.24160 | 24                   | M24 | 160 | 23,7 | 110 | 40    | 16 | 770              |
| K0698.24200 | 24                   | M24 | 200 | 23,7 | 125 | 40    | 16 | 900              |
| K0698.24250 | 24                   | M24 | 250 | 23,7 | 150 | 40    | 16 | 1040             |
| K0698.24315 | 24                   | M24 | 315 | 23,7 | 190 | 40    | 16 | 1270             |
| K0698.24400 | 24                   | M24 | 400 | 23,7 | 240 | 40    | 16 | 1410             |
| K0698.28100 | 28                   | M24 | 100 | 27,7 | 70  | 44    | 18 | 650              |
| K0698.28125 | 28                   | M24 | 125 | 27,7 | 85  | 44    | 18 | 720              |
| K0698.28160 | 28                   | M24 | 160 | 27,7 | 110 | 44    | 18 | 800              |
| K0698.28200 | 28                   | M24 | 200 | 27,7 | 125 | 44    | 18 | 950              |
| K0698.28250 | 28                   | M24 | 250 | 27,7 | 150 | 44    | 18 | 1120             |
| K0698.28315 | 28                   | M24 | 315 | 27,7 | 190 | 44    | 18 | 1350             |
| K0698.28400 | 28                   | M24 | 400 | 27,7 | 240 | 44    | 18 | 1490             |
| K0698.36125 | 36                   | M30 | 125 | 35,6 | 80  | 54    | 22 | 1250             |
| K0698.36160 | 36                   | M30 | 160 | 35,6 | 110 | 54    | 22 | 1440             |
| K0698.36200 | 36                   | M30 | 200 | 35,6 | 135 | 54    | 22 | 1630             |
| K0698.36250 | 36                   | M30 | 250 | 35,6 | 150 | 54    | 22 | 1920             |
| K0698.36315 | 36                   | M30 | 315 | 35,6 | 200 | 54    | 22 | 2300             |
| K0698.36500 | 36                   | M30 | 500 | 35,6 | 300 | 54    | 22 | 3300             |
| K0698.42160 | 42                   | M36 | 160 | 41,6 | 100 | 65    | 26 | 2200             |
| K0698.42250 | 42                   | M36 | 250 | 41,6 | 175 | 65    | 26 | 2820             |
| K0698.42400 | 42                   | M36 | 400 | 41,6 | 250 | 65    | 26 | 3930             |
| K0698.42600 | 42                   | M36 | 600 | 41,6 | 340 | 65    | 26 | 5480             |





## Rolled thread T-slot bolts

DIN 787, 12.9



### KIPP Rolled thread T-slot bolts DIN 787, 12.9

| Order No.    | Nominal size of slot | D1  | L   | A    | B   | E1/E2 | K  | Approx. weight g |
|--------------|----------------------|-----|-----|------|-----|-------|----|------------------|
| K0699.11250  | 12                   | M12 | 50  | 11,7 | 35  | 18    | 7  | 60               |
| K0699.11280  | 12                   | M12 | 80  | 11,7 | 55  | 18    | 7  | 75               |
| K0699.112100 | 12                   | M12 | 100 | 11,7 | 65  | 18    | 7  | 90               |
| K0699.112125 | 12                   | M12 | 125 | 11,7 | 75  | 18    | 7  | 110              |
| K0699.112160 | 12                   | M12 | 160 | 11,7 | 100 | 18    | 7  | 135              |
| K0699.112200 | 12                   | M12 | 200 | 11,7 | 120 | 18    | 7  | 160              |
| K0699.11450  | 14                   | M12 | 50  | 13,7 | 35  | 22    | 8  | 70               |
| K0699.11480  | 14                   | M12 | 80  | 13,7 | 55  | 22    | 8  | 100              |
| K0699.114100 | 14                   | M12 | 100 | 13,7 | 65  | 22    | 8  | 110              |
| K0699.114125 | 14                   | M12 | 125 | 13,7 | 75  | 22    | 8  | 120              |
| K0699.114160 | 14                   | M12 | 160 | 13,7 | 100 | 22    | 8  | 150              |
| K0699.114200 | 14                   | M12 | 200 | 13,7 | 120 | 22    | 8  | 180              |
| K0699.11663  | 16                   | M16 | 63  | 15,7 | 45  | 25    | 9  | 140              |
| K0699.116100 | 16                   | M16 | 100 | 15,7 | 65  | 25    | 9  | 180              |
| K0699.116125 | 16                   | M16 | 125 | 15,7 | 85  | 25    | 9  | 225              |
| K0699.116160 | 16                   | M16 | 160 | 15,7 | 100 | 25    | 9  | 260              |
| K0699.116250 | 16                   | M16 | 250 | 15,7 | 150 | 25    | 9  | 380              |
| K0699.11863  | 18                   | M16 | 63  | 17,7 | 45  | 28    | 10 | 160              |
| K0699.118100 | 18                   | M16 | 100 | 17,7 | 65  | 28    | 10 | 203              |
| K0699.118125 | 18                   | M16 | 125 | 17,7 | 85  | 28    | 10 | 230              |
| K0699.118160 | 18                   | M16 | 160 | 17,7 | 100 | 28    | 10 | 280              |
| K0699.118250 | 18                   | M16 | 250 | 17,7 | 150 | 28    | 10 | 430              |
| K0699.12080  | 20                   | M20 | 80  | 19,7 | 55  | 32    | 12 | 290              |
| K0699.120125 | 20                   | M20 | 125 | 19,7 | 85  | 32    | 12 | 390              |
| K0699.120200 | 20                   | M20 | 200 | 19,7 | 125 | 32    | 12 | 550              |
| K0699.120315 | 20                   | M20 | 315 | 19,7 | 190 | 32    | 12 | 800              |
| K0699.12280  | 22                   | M20 | 80  | 21,7 | 55  | 35    | 14 | 330              |
| K0699.122125 | 22                   | M20 | 125 | 21,7 | 85  | 35    | 14 | 428              |
| K0699.122200 | 22                   | M20 | 200 | 21,7 | 125 | 35    | 14 | 570              |
| K0699.122315 | 22                   | M20 | 315 | 21,7 | 190 | 35    | 14 | 820              |
| K0699.124100 | 24                   | M24 | 100 | 23,7 | 70  | 40    | 16 | 540              |
| K0699.124160 | 24                   | M24 | 160 | 23,7 | 110 | 40    | 16 | 770              |
| K0699.124250 | 24                   | M24 | 250 | 23,7 | 150 | 40    | 16 | 1040             |
| K0699.124400 | 24                   | M24 | 400 | 23,7 | 240 | 40    | 16 | 1410             |
| K0699.128100 | 28                   | M24 | 100 | 27,7 | 70  | 44    | 18 | 650              |
| K0699.128160 | 28                   | M24 | 160 | 27,7 | 110 | 44    | 18 | 800              |
| K0699.128250 | 28                   | M24 | 250 | 27,7 | 150 | 44    | 18 | 1120             |
| K0699.128400 | 28                   | M24 | 400 | 27,7 | 240 | 44    | 18 | 1490             |

#### Material:

Tempered steel.

#### Surface finish:

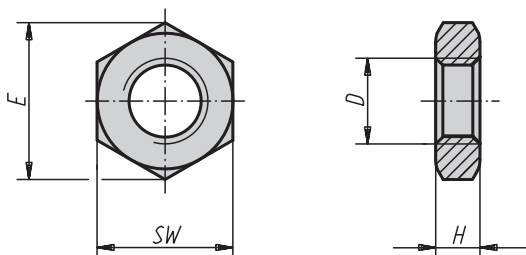
Forged.  
Milled guide slot, rolled thread.  
Class 12.9 heat-treated, black.

#### Sample order:

K0699.112125

## Hexagon thin nuts

DIN 439

**Material:**

Steel or stainless steel (A 2).

**Surface finish:**Steel class 04, galvanized or black oxide finish.  
Stainless steel (A 2), natural finish.**Sample order:**

K0700.10

**Note:**

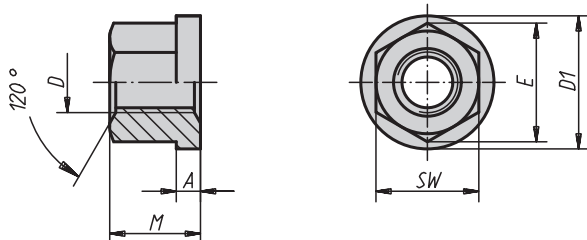
This hexagon nut is used in bolted assemblies exposed to limited loads, e.g. as a counter nut in forked joints or the head of an articulated joint.

## KIPP Hexagon thin nuts DIN 439

| Order No.<br>Materialgalvanized steel | Order No.<br>Materialstainless steel | Order No.<br>Materialsteel black oxide finish | Surface finish    | D          | E     | H   | SW |
|---------------------------------------|--------------------------------------|---|-------------------|------------|-------|-----|----|
| K0700.05                              | K0700.105                            | K0700.205                                     | right-hand thread | M5         | 8,79  | 2,7 | 8  |
| K0700.06                              | K0700.106                            | K0700.206                                     | right-hand thread | M6         | 11,05 | 3,2 | 10 |
| -                                     | K0700.1062                           | K0700.2063                                    | right-hand thread | M6x0,75    | 11,05 | 3,2 | 10 |
| K0700.08                              | K0700.108                            | K0700.208                                     | right-hand thread | M8         | 14,38 | 4   | 13 |
| -                                     | K0700.1083                           | K0700.2083                                    | right-hand thread | M8x1       | 14,38 | 4   | 13 |
| K0700.10                              | K0700.110                            | K0700.210                                     | right-hand thread | M10        | 18,9  | 5   | 17 |
| K0700.103                             | K0700.1103                           | K0700.2103                                    | right-hand thread | M10 x 1    | 18,9  | 5   | 17 |
| K0700.104                             | K0700.1104                           | -   | right-hand thread | M10 x 1,25 | 18,9  | 5   | 17 |
| K0700.12                              | K0700.112                            | K0700.212                                     | right-hand thread | M12        | 21,1  | 6   | 19 |
| K0700.123                             | K0700.1123                           | -   | right-hand thread | M12 x 1,25 | 21,1  | 6   | 19 |
| K0700.124                             | K0700.1124                           | K0700.2124                                    | right-hand thread | M12 x 1,5  | 21,1  | 6   | 19 |
| K0700.16                              | K0700.116                            | K0700.216                                     | right-hand thread | M16        | 26,76 | 8   | 24 |
| K0700.163                             | K0700.1163                           | K0700.2163                                    | right-hand thread | M16 x 1,5  | 26,76 | 8   | 24 |
| K0700.183                             | -                                    | -   | right-hand thread | M18 x 1,5  | 29,56 | 9   | 27 |
| K0700.203                             | K0700.1203                           | K0700.2203                                    | right-hand thread | M20 x 1,5  | 32,95 | 10  | 30 |
| K0700.223                             | K0700.1223                           | -   | right-hand thread | M22 x 1,5  | 36,9  | 10  | 32 |
| -                                     | K0700.1243                           | K0700.2243                                    | right-hand thread | M24x2      | 39,6  | 12  | 36 |
| K0700.061                             | K0700.1061                           | -   | left-hand thread  | M6         | 11,05 | 3,2 | 10 |
| K0700.081                             | K0700.1081                           | -   | left-hand thread  | M8         | 14,38 | 4   | 13 |
| K0700.101                             | K0700.1101                           | -   | left-hand thread  | M10        | 18,9  | 5   | 17 |
| K0700.1031                            | K0700.11031                          | -   | left-hand thread  | M10 x 1    | 18,9  | 5   | 17 |
| K0700.1041                            | K0700.11041                          | -   | left-hand thread  | M10 x 1,25 | 18,9  | 5   | 17 |
| K0700.121                             | K0700.1121                           | -   | left-hand thread  | M12        | 21,1  | 6   | 19 |
| K0700.1231                            | K0700.11231                          | -   | left-hand thread  | M12 x 1,25 | 21,1  | 6   | 19 |
| K0700.1241                            | K0700.11241                          | -   | left-hand thread  | M12 x 1,5  | 21,1  | 6   | 19 |
| K0700.161                             | K0700.1161                           | -   | left-hand thread  | M16        | 26,76 | 8   | 24 |
| K0700.2031                            | K0700.12031                          | -   | left-hand thread  | M20 x 1,5  | 32,95 | 10  | 30 |
| K0700.2231                            | K0700.12231                          | -   | left-hand thread  | M22 x 1,5  | 36,9  | 10  | 32 |

## Hexagon nuts with collar

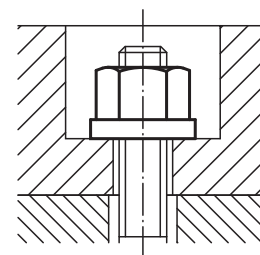
height 1.5 D, to DIN 6331 extended



**Material:**  
Tempered steel or stainless steel (A2).

**Surface finish:**  
Steel class 10, black.  
Stainless steel A 2-70, natural finish.

**Sample order:**  
K0701.16

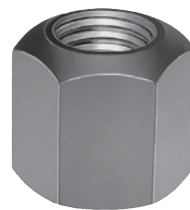


### KIPP Hexagon nuts with collar height 1.5 D, to DIN 6331 extended

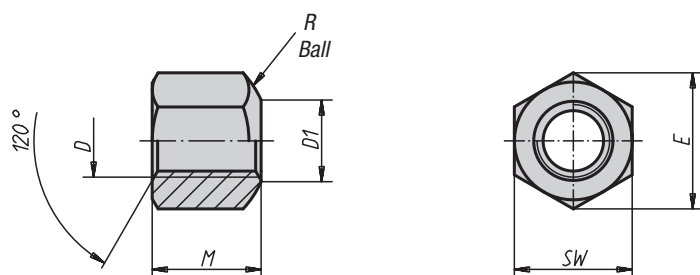
| Order No.  | Material        | D   | M = 1,5 x D | A   | D1 | SW | E    | Approx. weight g |
|------------|-----------------|-----|-------------|-----|----|----|------|------------------|
| K0701.05   | steel           | M5  | 7,5         | 2   | 12 | 9  | 10,4 | 3                |
| K0701.06   | steel           | M6  | 9           | 3   | 14 | 10 | 11,5 | 6                |
| K0701.08   | steel           | M8  | 12          | 3,5 | 18 | 13 | 15   | 12               |
| K0701.10   | steel           | M10 | 15          | 4   | 22 | 16 | 18,5 | 22               |
| K0701.101  | steel           | M10 | 15          | 4   | 22 | 17 | 19,6 | 25               |
| K0701.12   | steel           | M12 | 18          | 4   | 25 | 18 | 20,8 | 31               |
| K0701.121  | steel           | M12 | 18          | 4   | 25 | 19 | 21,9 | 35               |
| K0701.14   | steel           | M14 | 21          | 4,5 | 28 | 22 | 25,4 | 51               |
| K0701.16   | steel           | M16 | 24          | 5   | 31 | 24 | 27,7 | 70               |
| K0701.18   | steel           | M18 | 27          | 5   | 34 | 27 | 31,2 | 95               |
| K0701.20   | steel           | M20 | 30          | 6   | 37 | 30 | 34,6 | 130              |
| K0701.22   | steel           | M22 | 33          | 6   | 40 | 34 | 36,9 | 160              |
| K0701.24   | steel           | M24 | 36          | 6   | 45 | 36 | 41,6 | 230              |
| K0701.30   | steel           | M30 | 45          | 8   | 58 | 46 | 53,1 | 470              |
| K0701.36   | steel           | M36 | 54          | 10  | 68 | 55 | 63,5 | 810              |
| K0701.806  | stainless steel | M6  | 9           | 3   | 14 | 10 | 11,5 | 6                |
| K0701.808  | stainless steel | M8  | 12          | 3,5 | 18 | 13 | 15   | 12               |
| K0701.810  | stainless steel | M10 | 15          | 4   | 22 | 16 | 18,5 | 22               |
| K0701.811  | stainless steel | M10 | 15          | 4   | 22 | 17 | 19,6 | 25               |
| K0701.812  | stainless steel | M12 | 18          | 4   | 25 | 18 | 20,8 | 31               |
| K0701.8121 | stainless steel | M12 | 18          | 4   | 25 | 19 | 21,9 | 35               |
| K0701.816  | stainless steel | M16 | 24          | 5   | 31 | 24 | 27,7 | 70               |
| K0701.820  | stainless steel | M20 | 30          | 6   | 37 | 30 | 34,6 | 130              |

## Hexagon nuts

height 1.5 D, to DIN 6330 extended



Form B  
with rounded baseplate on one side



**Material:**

Tempered steel or stainless steel (A2).

**Surface finish:**

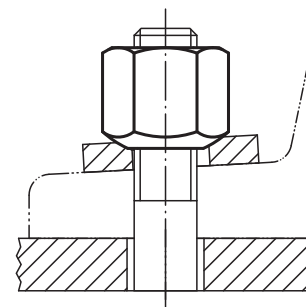
Heat-treated class 10, black.  
Stainless steel A 2-70, natural finish.

**Sample order:**

K0702.12

**Note:**

Hexagon nuts can be used with concave washers K0729, form D and G.

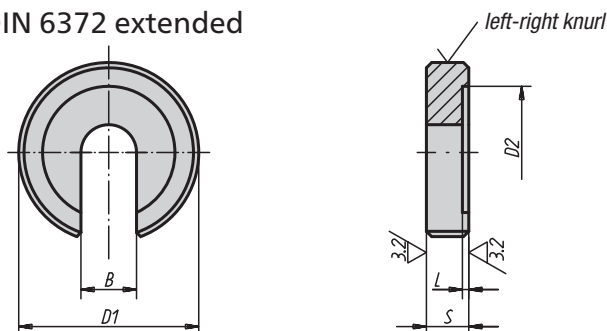


### KIPP Hexagon nuts height 1.5 D, to DIN 6330 extended

| Order No. | D   | M = 1,5 x D | D1   | SW | E    | R    | Approx. weight g |
|-----------|-----|-------------|------|----|------|------|------------------|
| K0702.05  | M5  | 7,5         | 6,5  | 9  | 10,4 | 7    | 4,0              |
| K0702.06  | M6  | 9           | 7    | 10 | 11,5 | 9    | 4,5              |
| K0702.08  | M8  | 12          | 9    | 13 | 15   | 11   | 9,0              |
| K0702.10  | M10 | 15          | 11,5 | 16 | 18,4 | 15   | 14,0             |
| K0702.101 | M10 | 15          | 11,5 | 17 | 19,6 | 15   | 20,0             |
| K0702.12  | M12 | 18          | 14   | 18 | 20,7 | 17   | 20,0             |
| K0702.121 | M12 | 18          | 14   | 19 | 21,9 | 17   | 28,0             |
| K0702.14  | M14 | 21          | 16   | 22 | 25,4 | 20   | 45,0             |
| K0702.16  | M16 | 24          | 18   | 24 | 27,7 | 22   | 58,0             |
| K0702.18  | M18 | 27          | 20   | 27 | 31,2 | 24,5 | 83,0             |
| K0702.20  | M20 | 30          | 22   | 30 | 34,6 | 27   | 110,0            |
| K0702.22  | M22 | 33          | 24   | 32 | 36,9 | 29   | 130,0            |
| K0702.24  | M24 | 36          | 26   | 36 | 41,6 | 32   | 195,0            |
| K0702.30  | M30 | 45          | 32   | 46 | 53,1 | 41   | 405,0            |
| K0702.36  | M36 | 54          | 38   | 55 | 63,5 | 50   | 715,0            |
| K0702.806 | M6  | 9           | 7    | 10 | 11,5 | 9    | 4,5              |
| K0702.808 | M8  | 12          | 9    | 13 | 15   | 11   | 9,0              |
| K0702.810 | M10 | 15          | 11,5 | 16 | 18,4 | 15   | 14,0             |
| K0702.811 | M10 | 15          | 11,5 | 17 | 19,6 | 15   | 20,0             |
| K0702.812 | M12 | 18          | 14   | 18 | 20,7 | 17   | 20,0             |
| K0702.813 | M12 | 18          | 14   | 19 | 21,9 | 17   | 28,0             |
| K0702.816 | M16 | 24          | 18   | 24 | 27,7 | 22   | 58,0             |
| K0702.820 | M20 | 30          | 22   | 30 | 34,6 | 27   | 110,0            |

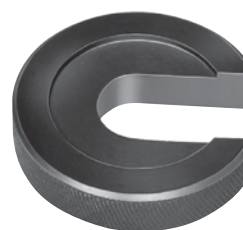
## Projecting washer for devices

DIN 6372 extended



### KIPP Projecting washer for devices DIN 6372 extended

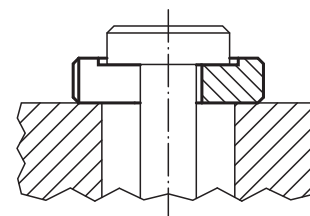
| Order No. | B    | D1  | D2 | L    | S  | Approx. weight kg |
|-----------|------|-----|----|------|----|-------------------|
| K0730.05  | 5,25 | 17  | 12 | 0,75 | 5  | 0,011             |
| K0730.06  | 6,4  | 22  | 16 | 0,8  | 6  | 0,012             |
| K0730.08  | 8,4  | 28  | 21 | 1    | 7  | 0,022             |
| K0730.10  | 10,5 | 34  | 25 | 1,2  | 8  | 0,040             |
| K0730.12  | 13   | 40  | 30 | 1,8  | 9  | 0,058             |
| K0730.14  | 14,5 | 48  | 33 | 1,8  | 12 | 0,110             |
| K0730.16  | 17   | 56  | 37 | 1,8  | 12 | 0,165             |
| K0730.20  | 21   | 64  | 45 | 2    | 14 | 0,230             |
| K0730.24  | 25   | 75  | 52 | 2    | 16 | 0,320             |
| K0730.30  | 31   | 90  | 65 | 2    | 18 | 0,720             |
| K0730.36  | 37   | 100 | 75 | 2,5  | 20 | 0,870             |



**Material:**  
Tempered steel.

**Surface finish:**  
Heat-treated and black oxide finish.

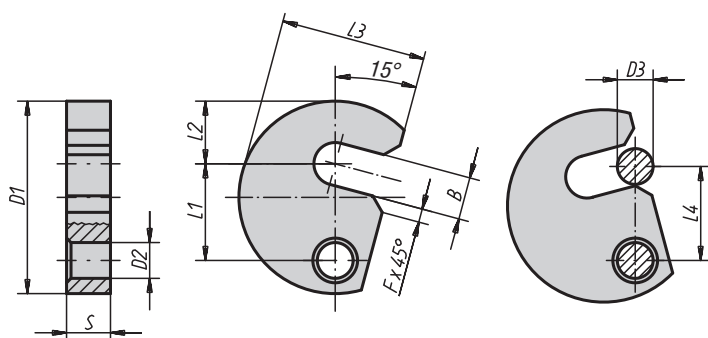
**Sample order:**  
K0730.12



# K0703

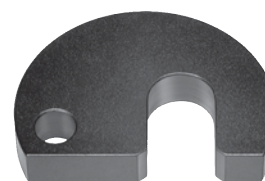
## Captive C-washers

DIN 6371



### KIPP Captive C-washers DIN 6371

| Order No. | B    | D1 | D2 | D3 | F | L1   | L2 | L3   | L4 | S    | Approx. weight kg |
|-----------|------|----|----|----|---|------|----|------|----|------|-------------------|
| K0703.06  | 7,5  | 38 | 9  | 6  | 3 | 19,6 | 11 | 29   | 19 | 9,8  | 0,061             |
| K0703.08  | 9,5  | 43 | 9  | 8  | 3 | 21,6 | 14 | 32,5 | 21 | 9,8  | 0,076             |
| K0703.10  | 11,5 | 48 | 9  | 10 | 3 | 23,6 | 17 | 36,5 | 23 | 9,8  | 0,090             |
| K0703.12  | 13,5 | 61 | 11 | 12 | 3 | 29,6 | 22 | 45   | 29 | 11,8 | 0,180             |
| K0703.14  | 15,5 | 65 | 11 | 14 | 3 | 31,6 | 23 | 49   | 31 | 11,8 | 0,200             |
| K0703.16  | 17,5 | 68 | 11 | 16 | 3 | 33,6 | 25 | 50   | 33 | 11,8 | 0,210             |
| K0703.20  | 21,5 | 74 | 11 | 20 | 4 | 36,6 | 28 | 55   | 36 | 11,8 | 0,230             |

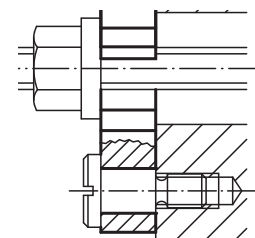


**Material:**  
Tempered steel 1.0503.

**Surface finish:**  
Nitrided and black oxide finish.

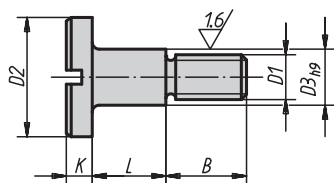
**Sample order:**  
K0703.12

**Note:**  
K0703.14 is not standard. Suitable shoulder screws see K0704.



## Shoulder screws with slotted flat head

DIN 923



**Material:**  
Steel.

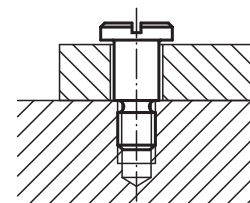
**Surface finish:**  
Black oxide finish, class 5.8.

**Sample order:**  
K0704.08

**Note:**  
For use with captive C-washers K0703.

### KIPP Shoulder screws with slotted flat head DIN 923

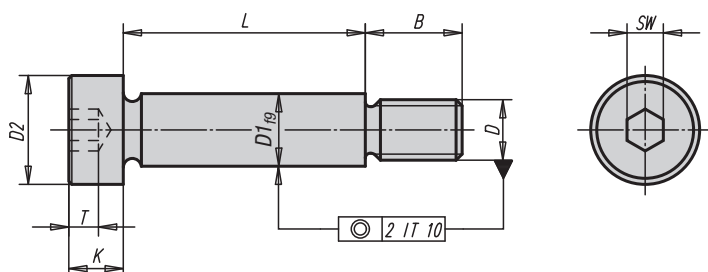
| Order No. | D1  | D2 | D3 | L              | B    | K   | Approx. weight g |
|-----------|-----|----|----|----------------|------|-----|------------------|
| K0704.06  | M6  | 13 | 8  | 10 +0,15/+0,07 | 9    | 3,1 | 9                |
| K0704.08  | M8  | 16 | 10 | 12 +0,2/+0,1   | 11   | 3,8 | 17               |
| K0704.10  | M10 | 20 | 13 | 16 +0,2/+0,1   | 13,5 | 4,6 | 36               |



# K0705

## Hexagon socket head shoulder screws

similar to DIN ISO 7379



**Material:**  
Steel.

**Surface finish:**  
Class 12.9, black oxide finish.  
Shaft diameter ground.

**Sample order:**  
K0705.06X20 (Please also indicate dimension L.)

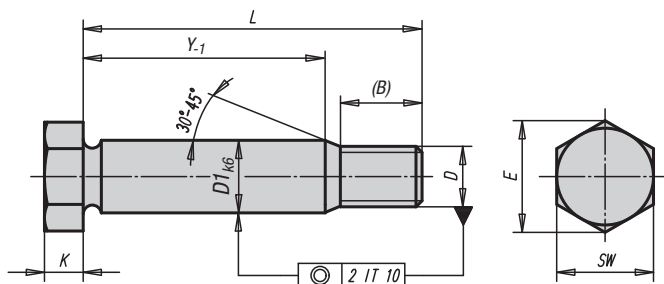
**Note:**  
Hexagon socket head shoulder screws can do more than conventional screws. They are considered as „design elements“ for many purposes. They frequently lead to the most cost-effective solution because they simplify complicated designs. Hexagon socket head shoulder screws provide the nowadays decisive rationalisation effects.

### KIPP Hexagon socket head shoulder screws similar to DIN ISO 7379

| Order No. | D1 | D   | D2 | B         | K   | T   | SW | L                          |
|-----------|----|-----|----|-----------|-----|-----|----|----------------------------|
| K0705.06X | 6  | M5  | 10 | 9,5 ±0,25 | 4,5 | 2,4 | 3  | 16/20/25/30/40/50/60       |
| K0705.08X | 8  | M6  | 13 | 11 ±0,25  | 5,5 | 3,3 | 4  | 16/20/25/30/40/50/60       |
| K0705.10X | 10 | M8  | 16 | 13 ±0,25  | 7   | 4,2 | 5  | 16/20/25/30/40/50/60/70/80 |
| K0705.12X | 12 | M10 | 18 | 16 ±0,40  | 9   | 4,9 | 6  | 30/40/50/60/70/80/90/100   |
| K0705.16X | 16 | M12 | 24 | 18 ±0,40  | 11  | 6,6 | 8  | 40/50/60/70/80/90/100/120  |
| K0705.20X | 20 | M16 | 30 | 22 ±0,40  | 14  | 8,8 | 10 | 50/60/70/80/90/100/120     |

## Hexagon locating bolts with long thread

DIN 609



**Material:**

Steel.

**Surface finish:**

Class 8.8, black oxide finish.

Shaft diameter ground.

**Sample order:**

K0706.09X40 (Please also indicate dimension L.)

**Note:**

Hexagon locating bolts are used if the bolted joint has to absorb transverse forces or if the pieces for machining have to be secured in position relative to each other.

### KIPP Hexagon locating bolts with long thread DIN 609

| Order No.    | D1 | D   | (B)<br>Auxiliary dimension | E     | K   | SW | Y  | L   |
|--------------|----|-----|----------------------------|-------|-----|----|----|-----|
| K0706.09X25  | 9  | M8  | 14,5                       | 14,38 | 5,3 | 13 | 8  | 25  |
| K0706.09X30  | 9  | M8  | 14,5                       | 14,38 | 5,3 | 13 | 13 | 30  |
| K0706.09X35  | 9  | M8  | 14,5                       | 14,38 | 5,3 | 13 | 18 | 35  |
| K0706.09X40  | 9  | M8  | 14,5                       | 14,38 | 5,3 | 13 | 23 | 40  |
| K0706.09X45  | 9  | M8  | 14,5                       | 14,38 | 5,3 | 13 | 28 | 45  |
| K0706.09X50  | 9  | M8  | 14,5                       | 14,38 | 5,3 | 13 | 33 | 50  |
| K0706.09X60  | 9  | M8  | 16,5                       | 14,38 | 5,3 | 13 | 41 | 60  |
| K0706.11X30  | 11 | M10 | 17,5                       | 17,77 | 6,4 | 17 | 10 | 30  |
| K0706.11X35  | 11 | M10 | 17,5                       | 17,77 | 6,4 | 17 | 15 | 35  |
| K0706.11X40  | 11 | M10 | 17,5                       | 17,77 | 6,4 | 17 | 20 | 40  |
| K0706.11X45  | 11 | M10 | 17,5                       | 17,77 | 6,4 | 17 | 25 | 45  |
| K0706.11X50  | 11 | M10 | 17,5                       | 17,77 | 6,4 | 17 | 30 | 50  |
| K0706.11X60  | 11 | M10 | 19,5                       | 17,77 | 6,4 | 17 | 38 | 60  |
| K0706.11X70  | 11 | M10 | 19,5                       | 17,77 | 6,4 | 17 | 48 | 70  |
| K0706.11X80  | 11 | M10 | 19,5                       | 17,77 | 6,4 | 17 | 58 | 80  |
| K0706.11X90  | 11 | M10 | 19,5                       | 17,77 | 6,4 | 17 | 68 | 90  |
| K0706.11X100 | 11 | M10 | 19,5                       | 17,77 | 6,4 | 17 | 78 | 100 |

## Hexagon locating bolts with long thread

DIN 609



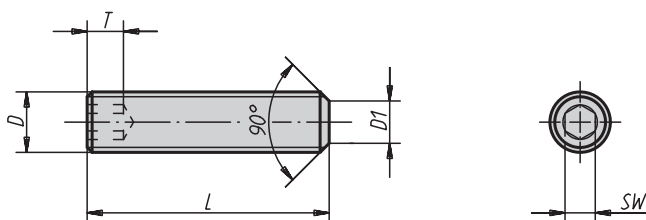
## KIPP Hexagon locating bolts with long thread DIN 609

| Order No.    | D1 | D   | (B)<br>Auxiliary dimension | E     | K    | SW | Y    | L   |
|--------------|----|-----|----------------------------|-------|------|----|------|-----|
| K0706.13X35  | 13 | M12 | 20,5                       | 19,85 | 7,5  | 19 | 11,5 | 35  |
| K0706.13X40  | 13 | M12 | 20,5                       | 19,85 | 7,5  | 19 | 16,5 | 40  |
| K0706.13X45  | 13 | M12 | 20,5                       | 19,85 | 7,5  | 19 | 21,5 | 45  |
| K0706.13X50  | 13 | M12 | 20,5                       | 19,85 | 7,5  | 19 | 26,5 | 50  |
| K0706.13X60  | 13 | M12 | 22,5                       | 19,85 | 7,5  | 19 | 34,5 | 60  |
| K0706.13X70  | 13 | M12 | 22,5                       | 19,85 | 7,5  | 19 | 44,5 | 70  |
| K0706.13X80  | 13 | M12 | 22,5                       | 19,85 | 7,5  | 19 | 54,5 | 80  |
| K0706.13X90  | 13 | M12 | 22,5                       | 19,85 | 7,5  | 19 | 64,5 | 90  |
| K0706.13X100 | 13 | M12 | 22,5                       | 19,85 | 7,5  | 19 | 74,5 | 100 |
| K0706.17X40  | 17 | M16 | 25                         | 26,17 | 10   | 24 | 11,5 | 40  |
| K0706.17X45  | 17 | M16 | 25                         | 26,17 | 10   | 24 | 16,5 | 45  |
| K0706.17X50  | 17 | M16 | 25                         | 26,17 | 10   | 24 | 21,5 | 50  |
| K0706.17X60  | 17 | M16 | 27                         | 26,17 | 10   | 24 | 29,5 | 60  |
| K0706.17X70  | 17 | M16 | 27                         | 26,17 | 10   | 24 | 39,5 | 70  |
| K0706.17X80  | 17 | M16 | 27                         | 26,17 | 10   | 24 | 49,5 | 80  |
| K0706.17X90  | 17 | M16 | 27                         | 26,17 | 10   | 24 | 59,5 | 90  |
| K0706.17X100 | 17 | M16 | 27                         | 26,17 | 10   | 24 | 69,5 | 100 |
| K0706.21X50  | 21 | M20 | 28,5                       | 32,95 | 12,5 | 30 | 17,5 | 50  |
| K0706.21X60  | 21 | M20 | 30,5                       | 32,95 | 12,5 | 30 | 25,5 | 60  |
| K0706.21X70  | 21 | M20 | 30,5                       | 32,95 | 12,5 | 30 | 35,5 | 70  |
| K0706.21X80  | 21 | M20 | 30,5                       | 32,95 | 12,5 | 30 | 45,5 | 80  |
| K0706.21X90  | 21 | M20 | 30,5                       | 32,95 | 12,5 | 30 | 55,5 | 90  |
| K0706.21X100 | 21 | M20 | 30,5                       | 32,95 | 12,5 | 30 | 65,5 | 100 |
| K0706.21X120 | 21 | M20 | 30,5                       | 32,95 | 12,5 | 30 | 85,5 | 120 |
| K0706.25X60  | 25 | M24 | 36,5                       | 39,35 | 15   | 36 | 19   | 60  |
| K0706.25X70  | 25 | M24 | 36,5                       | 39,35 | 15   | 36 | 29   | 70  |
| K0706.25X80  | 25 | M24 | 36,5                       | 39,35 | 15   | 36 | 39   | 80  |
| K0706.25X90  | 25 | M24 | 36,5                       | 39,35 | 15   | 36 | 49   | 90  |
| K0706.25X100 | 25 | M24 | 36,5                       | 39,35 | 15   | 36 | 59   | 100 |
| K0706.25X120 | 25 | M24 | 36,5                       | 39,35 | 15   | 36 | 79   | 120 |



## Hexagon socket set screws with flat tip

DIN 913



**Material:**

Steel or stainless steel (A 2).

LONG-LOK thread lock in nylon.

**Surface finish:**

Steel class 45 H, black.

Stainless steel A 2-70, natural finish.

**Sample order:**

K0707.110X20 (Please also indicate dimension L.)

**Note:**

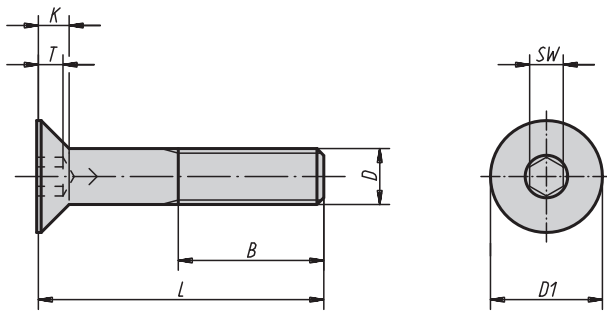
Steel version partially fitted with LONG-LOK thread lock.

### KIPP Hexagon socket set screws with flat tip DIN 913

| Order No.  | Material        | D   | L   | D1  | T   | SW  |
|------------|-----------------|-----|---|-----|-----|-----|
| K0707.03X  | steel           | M3  | 5/6/8/10/12/16/20                             | 2   | 1,2 | 1,5 |
| K0707.04X  | steel           | M4  | 5/6/8/10/12/16/20/25                          | 2,5 | 1,5 | 2   |
| K0707.05X  | steel           | M5  | 5/6/8/10/12/16/20/25/30                       | 3,5 | 2   | 2,5 |
| K0707.06X  | steel           | M6  | 6/8/10/12/16/20/25/30/35/40/45/50/60          | 4   | 2   | 3   |
| K0707.08X  | steel           | M8  | 8/10/12/16/20/25/30/35/40/45/50/60/70/80      | 5,5 | 3   | 4   |
| K0707.10X  | steel           | M10 | 10/12/16/20/25/30/35/40/45/50/60/70/80/90/100 | 7   | 6   | 5   |
| K0707.103X | stainless steel | M3  | 5/6/8/10/12                                   | 2   | 1,2 | 1,5 |
| K0707.104X | stainless steel | M4  | 5/6/8/10/12/16/20                             | 2,5 | 1,5 | 2   |
| K0707.105X | stainless steel | M5  | 5/6/8/10/12/16/20/25/30                       | 3,5 | 2   | 2,5 |
| K0707.106X | stainless steel | M6  | 6/8/10/12/16/20/25/30/35/40                   | 4   | 2   | 3   |
| K0707.108X | stainless steel | M8  | 8/10/12/16/20/25/30/35/40/45/50               | 5,5 | 3   | 4   |
| K0707.110X | stainless steel | M10 | 10/12/16/20/25/30/35/40/45/50                 | 7   | 6   | 5   |
| K0707.203X | steel LONG-LOK  | M3  | 5/10  | 2   | 1,2 | 1,5 |
| K0707.204X | steel LONG-LOK  | M4  | 6/10  | 2,5 | 1,5 | 2   |
| K0707.205X | steel LONG-LOK  | M5  | 6/12  | 3,5 | 2   | 2,5 |
| K0707.206X | steel LONG-LOK  | M6  | 8/12  | 4   | 2   | 3   |
| K0707.208X | steel LONG-LOK  | M8  | 8/16  | 5,5 | 3   | 4   |
| K0707.210X | steel LONG-LOK  | M10 | 10/20   | 7   | 6   | 5   |

## Hexagon socket countersunk head screws

DIN 7991



**Material:**

Steel or stainless steel (A 2).

**Surface finish:**

Steel class 8.8, black.

Stainless steel A 2-70, natural finish.

**Sample order:**

K0708.106X20 (Please also indicate dimension L.)

### KIPP Hexagon socket countersunk head screws DIN 7991

| Order No.<br>Material steel | Order No.<br>Material stainless steel | D   | L                                | K   | T   | B  | D1 | SW  |
|-----------------------------|---------------------------------------|-----|----------------------------------|-----|-----|----|----|-----|
| K0708.04X                   | K0708.104X                            | M4  | 10/12/16/20/25                   | 2,3 | 1,8 | 14 | 8  | 2,5 |
| K0708.05X                   | K0708.105X                            | M5  | 10/12/16/20/25/30                | 2,8 | 2,3 | 16 | 10 | 3   |
| K0708.06X                   | K0708.106X                            | M6  | 10/12/16/20/25/30/35/40/45/50/60 | 3,3 | 2,5 | 18 | 12 | 4   |
| K0708.08X                   | K0708.108X                            | M8  | 16/20/25/30/35/40/45/50/60       | 4,4 | 3,5 | 22 | 16 | 5   |
| K0708.10X                   | K0708.110X                            | M10 | 16/20/25/30/35/40/45/50/60/70    | 5,5 | 4,4 | 26 | 20 | 6   |
| K0708.12X                   | K0708.112X                            | M12 | 20/25/30/35/40/45/50/60/70/80    | 6,5 | 4,6 | 30 | 24 | 8   |
| K0708.16X                   | K0708.116X                            | M16 | 30/35/40/45/50/60/70/80          | 7,5 | 5,3 | 38 | 30 | 10  |



## Feathers

DIN 6885 A



**Material:**

Steel 1.1192.

**Surface finish:**

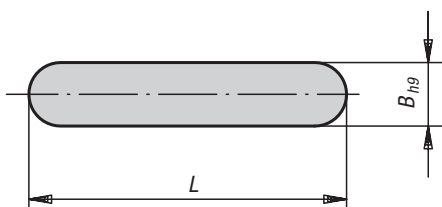
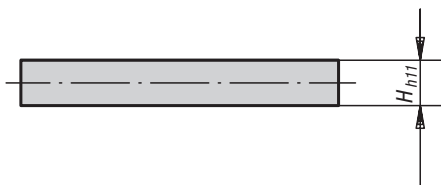
Natural finish.

**Sample order:**

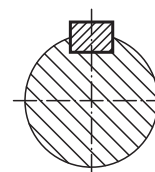
K0696.04X12 (Please also indicate dimension L.)

**On request:**

Feathers in stainless steel 1.4571.



Application example:

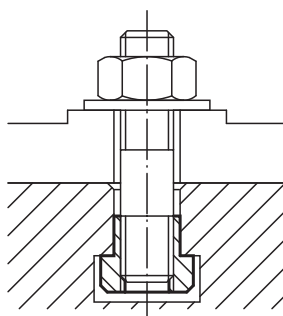
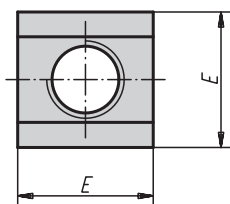
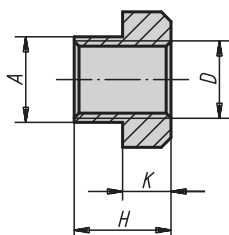


### KIPP Feathers DIN 6885 A

| Order No. | B  | H  | L = length                             |
|-----------|----|----|--|
| K0696.03X | 3  | 3  | 8/10/12/14/16/18/20/22/25/28           |
| K0696.04X | 4  | 4  | 8/10/12/14/16/18/20/22/25/28           |
| K0696.05X | 5  | 5  | 12/14/16/18/20/22/25/28/32/36/40       |
| K0696.06X | 6  | 6  | 12/14/16/18/20/22/25/28/32/36/40/45    |
| K0696.08X | 8  | 7  | 14/16/18/20/22/25/28/32/36/40/45/50/70 |
| K0696.10X | 10 | 8  | 22/25/28/32/36/40/45/50/56/70/80       |
| K0696.12X | 12 | 8  | 25/28/32/36/40/45/50/56/70/80          |
| K0696.14X | 14 | 9  | 25/28/32/36/40/45/50/56/70/80          |
| K0696.16X | 16 | 10 | 50/56/63/70/80/90/100                  |

## Nuts for T-slots

DIN 508 extended



**Material:**

Tempered steel quality class 10, EN AW-7075 or stainless steel 1.4305.

**Surface finish:**

Steel black.  
Aluminium and stainless steel natural finish.

**Sample order:**

K0377.20

**Note:**

Nuts for T-slots in aluminium have threaded steel inserts.

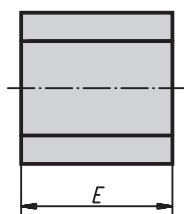
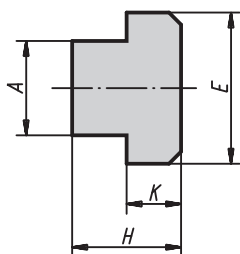
### KIPP Nuts for T-Slots to DIN 508 extended

| Order No. steel | Order No. aluminium | Order No. stainless steel | Nominal size of slot | D       | A    | E  | H  | K  |
|-----------------|---------------------|---------------------------|----------------------|---------|------|----|----|----|
| K0377.05        | K0377.204           | -                         | 6                    | M5/M4   | 5,6  | 10 | 8  | 4  |
| K0377.06        | K0377.206           | K0377.806                 | 8                    | M6      | 7,6  | 13 | 10 | 6  |
| K0377.061       | K0377.2061          | -                         | 10                   | M6      | 9,6  | 15 | 12 | 6  |
| K0377.08        | -                   | K0377.808                 | 10                   | M8      | 9,6  | 15 | 12 | 6  |
| K0377.081       | K0377.208           | -                         | 12                   | M8      | 11,5 | 18 | 14 | 7  |
| K0377.10        | -                   | K0377.810                 | 12                   | M10     | 11,5 | 18 | 14 | 7  |
| K0377.082       | -                   | -                         | 14                   | M8      | 13,5 | 22 | 16 | 8  |
| K0377.101       | K0377.210           | -                         | 14                   | M10     | 13,5 | 22 | 16 | 8  |
| K0377.12        | -                   | K0377.812                 | 14                   | M12     | 13,5 | 22 | 16 | 8  |
| K0377.121       | -                   | -                         | 16                   | M12     | 15,6 | 25 | 18 | 9  |
| K0377.14        | -                   | K0377.814                 | 16                   | M14     | 15,6 | 25 | 18 | 9  |
| K0377.122       | -                   | -                         | 18                   | M12     | 17,5 | 28 | 20 | 10 |
| K0377.141       | -                   | -                         | 18                   | M14     | 17,5 | 28 | 20 | 10 |
| K0377.16        | -                   | K0377.816                 | 18                   | M16     | 17,5 | 28 | 20 | 10 |
| K0377.123       | -                   | -                         | 20                   | M12     | 19,6 | 32 | 24 | 12 |
| K0377.161       | -                   | -                         | 20                   | M16     | 19,6 | 32 | 24 | 12 |
| K0377.18        | -                   | -                         | 20                   | M18     | 19,6 | 32 | 24 | 12 |
| K0377.124       | K0377.216           | -                         | 22                   | M12/M16 | 21,6 | 35 | 28 | 14 |
| K0377.181       | -                   | -                         | 22                   | M18     | 21,6 | 35 | 28 | 14 |
| K0377.20        | -                   | -                         | 22                   | M20     | 21,6 | 35 | 28 | 14 |
| K0377.163       | -                   | -                         | 24                   | M16     | 23,6 | 40 | 32 | 16 |
| K0377.201       | -                   | -                         | 24                   | M20     | 23,6 | 40 | 32 | 16 |
| K0377.22        | -                   | -                         | 24                   | M22     | 23,6 | 40 | 32 | 16 |
| K0377.164       | -                   | -                         | 28                   | M16     | 27,6 | 44 | 36 | 18 |
| K0377.202       | -                   | -                         | 28                   | M20     | 27,6 | 44 | 36 | 18 |
| K0377.24        | -                   | -                         | 28                   | M24     | 27,6 | 44 | 36 | 18 |
| K0377.27        | -                   | -                         | 32                   | M27     | 31,5 | 50 | 40 | 20 |
| K0377.241       | -                   | -                         | 36                   | M24     | 35,5 | 54 | 44 | 22 |
| K0377.30        | -                   | -                         | 36                   | M30     | 35,5 | 54 | 44 | 22 |
| K0377.36        | -                   | -                         | 42                   | M36     | 41,5 | 65 | 52 | 26 |



## Nuts for T-slots

blanks



**Material:**

Tempered steel or stainless steel 1.4305.

**Sample order:**

K0378.16

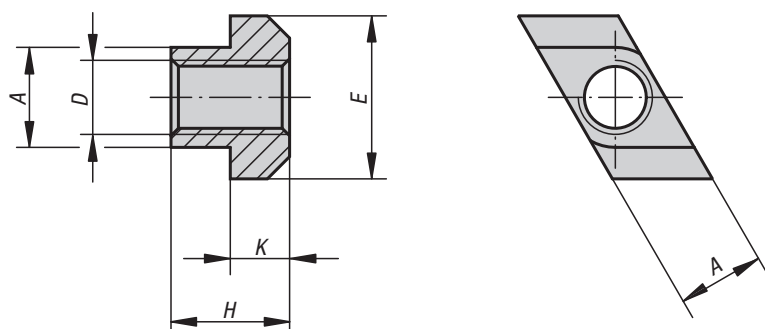
**Note:**

These blank nuts are used to make nuts for T-slots with all sorts of thread sizes cost-effectively.

### KIPP Nuts for T-slots, blanks

| Order No. steel | Order No. stainless steel | Nominal size of slot | A    | E  | H  | K  |
|-----------------|---------------------------|----------------------|------|----|----|----|
| K0378.06        | -                         | 6                    | 5,6  | 10 | 8  | 4  |
| K0378.08        | K0378.808                 | 8                    | 7,6  | 13 | 10 | 6  |
| K0378.10        | K0378.810                 | 10                   | 9,6  | 15 | 12 | 6  |
| K0378.12        | K0378.812                 | 12                   | 11,5 | 18 | 14 | 7  |
| K0378.14        | K0378.814                 | 14                   | 13,5 | 22 | 16 | 8  |
| K0378.16        | -                         | 16                   | 15,6 | 25 | 18 | 9  |
| K0378.18        | -                         | 18                   | 17,5 | 28 | 20 | 10 |
| K0378.20        | -                         | 20                   | 19,6 | 32 | 24 | 12 |
| K0378.22        | -                         | 22                   | 21,6 | 35 | 28 | 14 |
| K0378.24        | -                         | 24                   | 23,6 | 40 | 32 | 16 |
| K0378.28        | -                         | 28                   | 27,6 | 44 | 36 | 18 |
| K0378.36        | -                         | 36                   | 35,5 | 54 | 44 | 22 |
| K0378.42        | -                         | 42                   | 41,6 | 65 | 52 | 26 |

## Rhombic nuts for T-slots



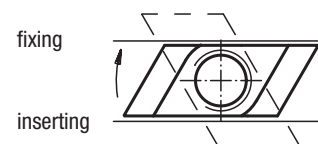
**Material:**  
Tempered steel.

**Surface finish:**  
Heat-treated class 8, black oxide finish.

**Sample order:**  
K0379.114

**Note:**  
The benefit of rhombic nuts for T-slots is that they can be fitted in the slot from the top. They are particularly expedient for long T-slots, or when the configuration on the machine table does not permit clamping screws or nuts for T-slots to be inserted from the side.

**Application:**  
Fit the rhombic nut in the slot, turn it by 90° and check that it is wedged in the slot.



## KIPP Rhombic Nuts for T-slots

| Order No. | Nominal size of slot | D   | A    | E  | H  | K  | Approx. weight kg |
|-----------|----------------------|-----|------|----|----|----|-------------------|
| K0379.105 | 6                    | M5  | 5,6  | 10 | 8  | 4  | 0,005             |
| K0379.106 | 8                    | M6  | 7,6  | 13 | 10 | 6  | 0,007             |
| K0379.108 | 10                   | M8  | 9,7  | 15 | 12 | 6  | 0,009             |
| K0379.110 | 12                   | M10 | 11,7 | 18 | 14 | 7  | 0,011             |
| K0379.210 | 14                   | M10 | 13,5 | 22 | 16 | 8  | 0,020             |
| K0379.310 | 18                   | M10 | 17,5 | 28 | 20 | 10 | 0,048             |
| K0379.112 | 14                   | M12 | 13,7 | 22 | 16 | 8  | 0,020             |
| K0379.114 | 16                   | M14 | 15,7 | 25 | 18 | 9  | 0,030             |
| K0379.116 | 18                   | M16 | 17,7 | 28 | 20 | 10 | 0,045             |
| K0379.216 | 20                   | M16 | 19,7 | 32 | 24 | 12 | 0,070             |
| K0379.316 | 22                   | M16 | 21,5 | 35 | 28 | 14 | 0,095             |
| K0379.416 | 28                   | M16 | 27,5 | 44 | 36 | 18 | 0,215             |
| K0379.118 | 20                   | M18 | 19,7 | 32 | 24 | 12 | 0,070             |
| K0379.120 | 22                   | M20 | 21,7 | 35 | 28 | 14 | 0,095             |
| K0379.124 | 28                   | M24 | 27,7 | 44 | 36 | 18 | 0,215             |
| K0379.130 | 36                   | M30 | 35,6 | 54 | 44 | 22 | 0,430             |
| K0379.136 | 42                   | M36 | 41,5 | 65 | 52 | 26 | 0,690             |

## Eye bolts

DIN 444, form B



**Material:**

Steel, quality class 8.8 or stainless steel.

**Surface finish:**

Steel black oxide finish.

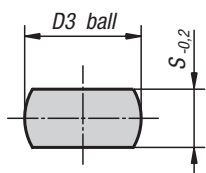
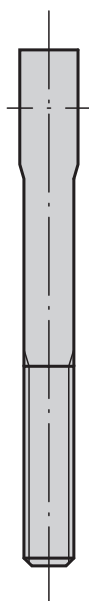
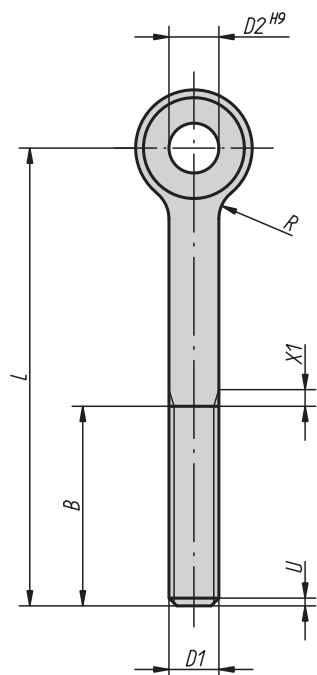
Stainless steel natural finish.

**Sample order:**

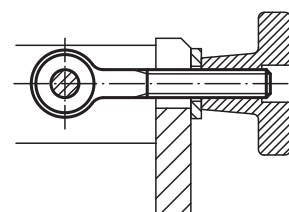
K0396.12100

**Note:**

Suitable hinge pin, see K0007.



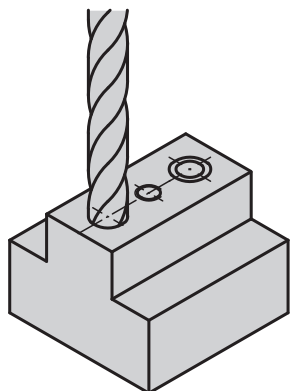
U = max. 2 P  
incomplete thread  
X1 to DIN 76 part 1



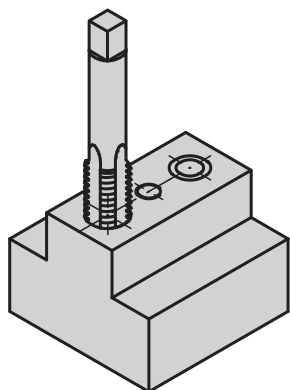
### KIPP Eye bolts DIN 444

| Order No. steel | Order No. stainless steel | D1  | L   | D2 | D3 | B  | S  | R   | Approx. weight kg |
|-----------------|---------------------------|-----|-----|----|----|----|----|-----|-------------------|
| K0396.0550      | K0396.10550               | M5  | 50  | 5  | 12 | 16 | 6  | 2,5 | 0,011             |
| K0396.0575      | -                         | M5  | 75  | 5  | 12 | 16 | 6  | 2,5 | 0,015             |
| K0396.0650      | K0396.10650               | M6  | 50  | 6  | 14 | 18 | 7  | 4   | 0,016             |
| K0396.0675      | K0396.10675               | M6  | 75  | 6  | 14 | 18 | 7  | 4   | 0,021             |
| K0396.0850      | K0396.10850               | M8  | 50  | 8  | 18 | 22 | 9  | 4   | 0,030             |
| K0396.0875      | K0396.10875               | M8  | 75  | 8  | 18 | 22 | 9  | 4   | 0,040             |
| K0396.1075      | K0396.11075               | M10 | 75  | 10 | 20 | 26 | 12 | 4   | 0,055             |
| K0396.10100     | K0396.110100              | M10 | 100 | 10 | 20 | 26 | 12 | 4   | 0,070             |
| K0396.1275      | K0396.11275               | M12 | 75  | 12 | 25 | 30 | 14 | 6   | 0,085             |
| K0396.12100     | K0396.112100              | M12 | 100 | 12 | 25 | 30 | 14 | 6   | 0,100             |
| K0396.12120     | K0396.112120              | M12 | 120 | 12 | 25 | 30 | 14 | 6   | 0,124             |
| K0396.12130     | K0396.112130              | M12 | 130 | 12 | 25 | 36 | 14 | 6   | 0,135             |
| K0396.1475      | K0396.11475               | M14 | 75  | 14 | 28 | 36 | 16 | 6   | 0,118             |
| K0396.14130     | K0396.114130              | M14 | 130 | 14 | 28 | 36 | 16 | 6   | 0,182             |
| K0396.16130     | K0396.116130              | M16 | 130 | 16 | 32 | 44 | 17 | 6   | 0,244             |
| K0396.20140     | K0396.120140              | M20 | 140 | 18 | 40 | 52 | 22 | 6   | 0,433             |

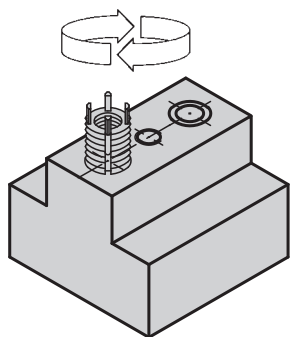
## Mounting instructions



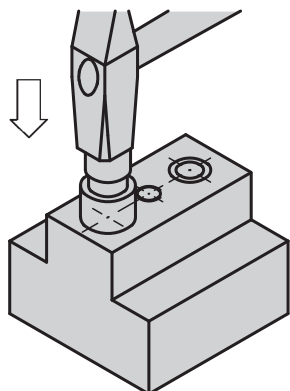
1.\*  
Rebore the old thread and countersink it (82° – 100°).



2.\*  
Tap planned thread with a standard screw tap.



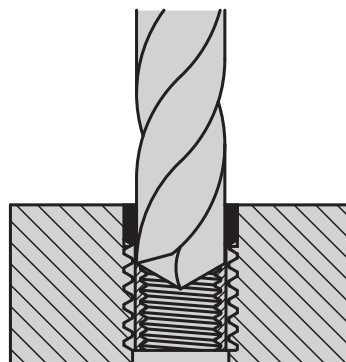
3.  
Screw in the insert to just below the surface (0.3 – 0.7 mm).



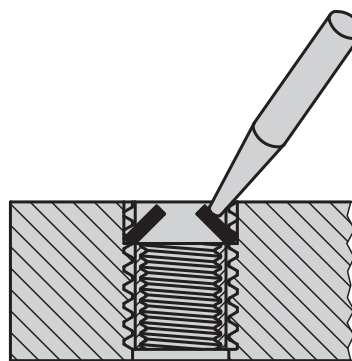
4.  
Drive in the locking pins by striking the assembly tool lightly with a hammer.

\* For steps 1 and 2 see table under installation of threaded inserts.

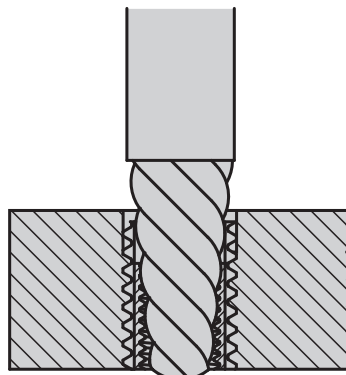
## Demounting instructions



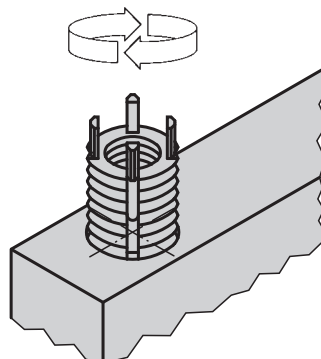
1.\*  
Rebore the material between the locking pins and the internal thread to the specified depth.



2.  
Bend the locking pins inwards and break them off.



3.  
Remove the old insert with a screw extractor.



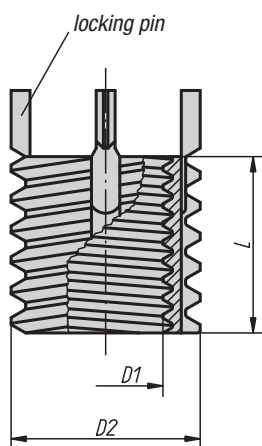
4.  
Install a new threaded insert in the original threaded hole.

\* For step 1 see table under removal of threaded inserts.





## Threaded inserts



**Material, surface finish:**

Threaded insert in steel or stainless steel, passivated.

**Sample order:**

Threaded Insert K0398.12

Assembly tool K0398.812

**Note:**

Threaded inserts allow threaded holes which have been damaged, torn out or jammed to be used again or to be repaired. This makes it possible to recover scrap and rejects of expensive products.

Threaded inserts are suitable for use in various materials, including light metals and casting.

Inserts with internal threads larger than M6 are supplied with four locking pins instead of two.

Permissible deviations:

The medium tolerance class applies to the threads listed, i.e. 6H for nut threads and 6g for bolt threads. Other dimensions  $\pm 0.25$  mm.

Technical information see operating instructions for threaded inserts.

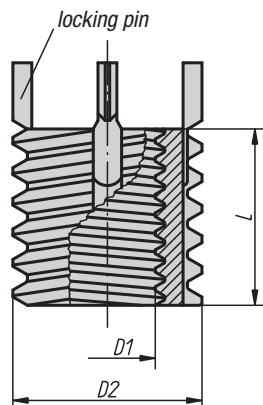
**Advantages:**

- Quick and easy installation.
- The insert is fixed with pins in order to prevent torsion due to twisting or vibrations.
- No other special tools are required besides the assembly tool.

### KIPP Threaded inserts and assembly tools

| Order No. steel | Order No. stainless steel | D1 Internal thread | D2 External thread | L Length | Installation drill $\varnothing$ | Installation countersunk $\varnothing$ +0,25 | Installation screw tab | Installation Min. thread depth | Removal drill $\varnothing$ | Removal drilling depth | Order no. assembly tools |
|-----------------|---------------------------|--------------------|--------------------|----------|----------------------------------|--|------------------------|--------------------------------|-----------------------------|------------------------|--------------------------|
| K0398.05        | K0398.105                 | M5                 | M8                 | 8        | 6,9                              | 8,3  | M8                     | 9,5                            | 5,5                         | 4                      | K0398.805                |
| K0398.06        | K0398.106                 | M6                 | M10x1,25           | 10       | 8,8                              | 10,3   | M10x1,25               | 11,5                           | 7,5                         | 4,8                    | K0398.806                |
| K0398.08        | K0398.108                 | M8                 | M12x1,25           | 12       | 10,8                             | 12,3   | M12x1,25               | 13,5                           | 9,5                         | 4,8                    | K0398.808                |
| K0398.08X1      | K0398.108X1               | M8x1               | M12x1,25           | 12       | 10,8                             | 12,3   | M12x1,25               | 13,5                           | 9,5                         | 4,8                    | K0398.808                |
| K0398.10        | K0398.110                 | M10                | M14x1,5            | 14       | 12,8                             | 14,3   | M14x1,5                | 15,5                           | 11,5                        | 4,8                    | K0398.810                |
| K0398.10X125    | K0398.110X125             | M10x1,25           | M14x1,5            | 14       | 12,8                             | 14,3   | M14x1,5                | 15,5                           | 11,5                        | 4,8                    | K0398.810                |
| K0398.12        | K0398.112                 | M12                | M16x1,5            | 16       | 14,8                             | 16,3   | M16x1,5                | 17,5                           | 13,5                        | 4,8                    | K0398.812                |
| K0398.12X125    | K0398.112X125             | M12x1,25           | M16x1,5            | 16       | 14,8                             | 16,3   | M16x1,5                | 17,5                           | 13,5                        | 4,8                    | K0398.812                |

## Reinforced threaded inserts



### Material, surface finish:

Threaded insert in steel or stainless steel, passivated.

### Sample order:

Reinforced threaded insert K0399.12  
 Assembly tool K0399.812

### Note:

Reinforced threaded inserts allow threaded holes which have been damaged, torn out or jammed to be used again or to be repaired. This makes it possible to recover scrap and rejects of expensive products.

Reinforced threaded inserts are suitable for use in various materials, including light metals and casting.

Inserts with internal threads larger than M6 are supplied with four locking pins instead of two.

### Permissible deviations:

The medium tolerance class applies to the threads listed, i.e. 6H for nut threads and 6g for bolt threads. Other dimensions  $\pm 0.25$  mm.

With reinforced threaded inserts we also offer a version with a stronger cross-section for use in applications with greater stress.

Technical information see operating instructions for threaded inserts.

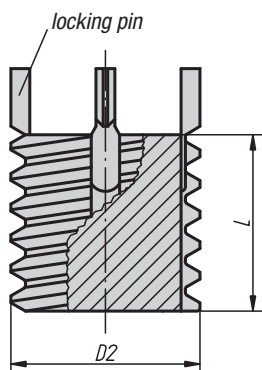
### Advantages:

- Quick and easy installation.
- The insert is fixed with pins in order to prevent torsion due to twisting or vibrations.
- No other special tools are required besides the assembly tool.

## KIPP Reinforced threaded inserts and assembly tools

| Order No. steel | Order No. stainless steel | D1 Internal thread | D2 External thread | L Length | Installation drill $\varnothing$ | Installation countersunk $\varnothing$ +0,25 | Installation screw tab $\varnothing$ | Installation Min. thread depth | Removal drill $\varnothing$ | Removal drilling depth | Order no. assembly tools |
|-----------------|---------------------------|--------------------|--------------------|----------|----------------------------------|--|--------------------------------------|--------------------------------|-----------------------------|------------------------|--------------------------|
| K0399.04        | K0399.104                 | M4                 | M8                 | 8        | 6,9                              | 8,3  | M8                                   | 9,5                            | 5,5                         | 4                      | K0399.804                |
| K0399.05        | K0399.105                 | M5                 | M10x1,25           | 10       | 8,8                              | 10,3   | M10x1,25                             | 12,5                           | 7,5                         | 4,8                    | K0399.805                |
| K0399.06        | K0399.106                 | M6                 | M12x1,25           | 12       | 10,8                             | 12,3   | M12x1,25                             | 14,5                           | 9,5                         | 4,8                    | K0399.806                |
| K0399.08        | K0399.108                 | M8                 | M14x1,5            | 14       | 12,8                             | 14,3   | M14x1,5                              | 16,5                           | 11,5                        | 4,8                    | K0399.808                |
| K0399.08X1      | K0399.108X1               | M8x1               | M14x1,5            | 14       | 12,8                             | 14,3   | M14x1,5                              | 16,5                           | 11,5                        | 4,8                    | K0399.808                |
| K0399.10        | K0399.110                 | M10                | M16x1,5            | 16       | 14,8                             | 16,3   | M16x1,5                              | 18,5                           | 13,5                        | 4,8                    | K0399.810                |
| K0399.10X125    | K0399.110X125             | M10x1,25           | M16x1,5            | 16       | 14,8                             | 16,3   | M16x1,5                              | 18,5                           | 13,5                        | 4,8                    | K0399.810                |
| K0399.12        | K0399.112                 | M12                | M18x1,5            | 18       | 16,8                             | 18,3   | M18x1,5                              | 20,5                           | 15,5                        | 4,8                    | K0399.812                |
| K0399.12X125    | K0399.112X125             | M12x1,25           | M18x1,5            | 18       | 16,8                             | 18,3   | M18x1,5                              | 20,5                           | 15,5                        | 4,8                    | K0399.812                |
| K0399.14        | K0399.114                 | M14                | M20x1,5            | 20       | 18,8                             | 20,3   | M20x1,5                              | 22,5                           | 17,5                        | 4,8                    | K0399.814                |
| K0399.14X15     | K0399.114X15              | M14x1,5            | M20x1,5            | 20       | 18,8                             | 20,3   | M20x1,5                              | 22,5                           | 17,5                        | 4,8                    | K0399.814                |
| K0399.16        | K0399.116                 | M16                | M22x1,5            | 22       | 20,7                             | 22,3   | M22x1,5                              | 24,5                           | 17,8                        | 6,4                    | K0399.816                |
| K0399.16X15     | K0399.116X15              | M16x1,5            | M22x1,5            | 22       | 20,7                             | 22,3   | M22x1,5                              | 24,5                           | 17,8                        | 6,4                    | K0399.816                |
| K0399.18X15     | K0399.118X15              | M18x1,5            | M24x1,5            | 24       | 22,5                             | 24,3   | M24x1,5                              | 26,5                           | 19,8                        | 6,4                    | K0399.818                |
| K0399.20        | K0399.120                 | M20                | M30x2              | 30       | 28                               | 30,3   | M30x2                                | 34,5                           | 25,8                        | 6,4                    | K0399.820                |
| K0399.20X15     | K0399.120X15              | M20x1,5            | M30x2              | 30       | 28                               | 30,3   | M30x2                                | 34,5                           | 25,8                        | 6,4                    | K0399.820                |
| K0399.22X15     | K0399.122X15              | M22x1,5            | M32x2              | 32       | 30                               | 32,3   | M32x2                                | 36,5                           | 27,8                        | 6,4                    | K0399.822                |
| K0399.24        | K0399.124                 | M24                | M33x2              | 33       | 31                               | 33,3   | M33x2                                | 37,5                           | 28,8                        | 6,4                    | K0399.824                |
| K0399.24X2      | K0399.124X2               | M24x2              | M33x2              | 33       | 31                               | 33,3   | M33x2                                | 37,5                           | 28,8                        | 6,4                    | K0399.824                |

## Solid body threaded inserts



**Material, surface finish:**

Threaded insert in steel, passivated.

**Sample order:**

Solid body threaded insert K0400.10X125  
 Assembly tool K0400.810

**Note:**

Solid body threaded inserts allow threaded holes which have been damaged, torn out or jammed to be used again or to be repaired. This makes it possible to recover scrap and rejects of expensive products. Solid body threaded inserts are suitable for use in various materials, including light metals and castings. Permissible deviations:

The medium tolerance class applies to the threads listed, i.e. 6g for bolt threads.  
 Other dimensions  $\pm 0.25$  mm.

Solid body threaded inserts are used where threaded holes that have been drilled too large or drill hole spacings that have not been observed in workpieces need to be redone.

Technical information see operating instructions for threaded inserts.

**Advantages:**

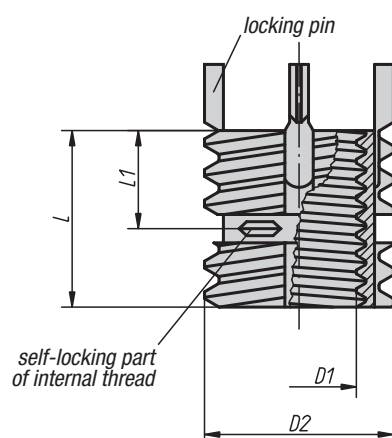
- Quick and easy installation.
- The insert is fixed with pins in order to prevent torsion due to twisting or vibrations.
- No other special tools are required besides the assembly tool.

### KIPP Solid body threaded inserts and assembly tools

| Order No.    | D2<br>External thread | L<br>Length | Installation<br>drill $\emptyset$ | Installation<br>countersunk $\emptyset$<br>+0,25 | Installation<br>screw tab | Installation<br>Min. thread<br>depth | Removal<br>drill<br>$\emptyset$ | Removal<br>drilling<br>depth | Order no.<br>assembly tools |
|--------------|-----------------------|-------------|-----------------------------------|--|---------------------------|--------------------------------------|---------------------------------|------------------------------|-----------------------------|
| K0400.08     | M8                    | 8           | 6,9                               | 8,3  | M8                        | 9,5                                  | 5,5                             | 4                            | K0400.808                   |
| K0400.10X125 | M10x1,25              | 10          | 8,8                               | 10,3   | M10x1,25                  | 12,5                                 | 7,5                             | 4,8                          | K0400.810                   |
| K0400.12X125 | M12x1,25              | 12          | 10,8                              | 12,3   | M12x1,25                  | 14,5                                 | 9,5                             | 4,8                          | K0400.812                   |
| K0400.14X15  | M14x1,5               | 14          | 12,8                              | 14,3   | M14x1,5                   | 16,5                                 | 11,5                            | 4,8                          | K0400.814                   |
| K0400.16X15  | M16x1,5               | 16          | 14,8                              | 16,3   | M16x1,5                   | 18,5                                 | 13,5                            | 4,8                          | K0400.816                   |
| K0400.18X15  | M18x1,5               | 18          | 16,8                              | 18,3   | M18x1,5                   | 20,5                                 | 15,5                            | 4,8                          | K0400.818                   |
| K0400.20X15  | M20x1,5               | 20          | 18,8                              | 20,3   | M20x1,5                   | 22,5                                 | 17,5                            | 4,8                          | K0400.820                   |
| K0400.22X15  | M22x1,5               | 22          | 20,7                              | 22,3   | M22x1,5                   | 24,5                                 | 17,8                            | 6,4                          | K0400.822                   |
| K0400.24X15  | M24x1,5               | 24          | 22,5                              | 24,3   | M24x1,5                   | 26,5                                 | 19,8                            | 6,4                          | K0400.824                   |
| K0400.30X2   | M30x2                 | 30          | 28                                | 30,3   | M30x2                     | 34,5                                 | 25,8                            | 6,4                          | K0400.830                   |

## Threaded inserts

with internal thread, self-locking



**Material, surface finish:**

Threaded insert in stainless steel, passivated.

**Sample order:**

Threaded Insert K0401.112

Assembly tool K0401.812

**Note:**

Threaded inserts allow threaded holes which have been damaged, torn out or jammed to be used again or to be repaired. This makes it possible to recover scrap and rejects of expensive products.

Threaded inserts are suitable for use in various materials, including light metals and casting. Inserts with internal threads larger than M6 are supplied with four locking pins instead of two.

Permissible deviations:

the medium tolerance class applies to the threads listed, i.e. 6H for nut threads and 6g for bolt threads. Other dimensions  $\pm 0.25$  mm.

Technical information see operating instructions for threaded inserts.

**Advantages:**

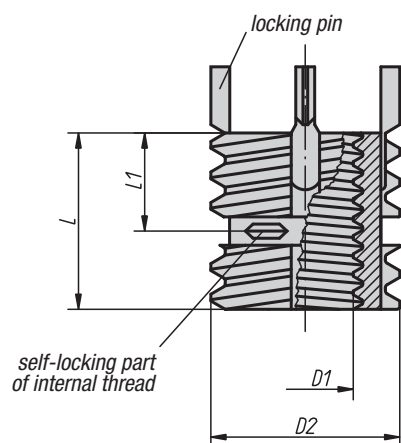
- Quick and easy installation.
- The insert is fixed with pins in order to prevent torsion due to twisting or vibrations.
- No other special tools are required besides the assembly tool.

### KIPP Threaded inserts with internal thread, self-locking and assembly tools

| Order No. | D1<br>Internal thread | D2<br>External thread | L1<br>Length | L<br>Length | Installation<br>drill $\emptyset$ | Installation<br>countersunk $\emptyset$<br>+0,25 | Installation<br>screw tab | Installation<br>Min. thread<br>depth | Removal<br>drill<br>$\emptyset$ | Removal<br>drilling<br>depth | Order no.<br>assembly tools |
|-----------|-----------------------|-----------------------|--------------|-------------|-----------------------------------|--|---------------------------|--------------------------------------|---------------------------------|------------------------------|-----------------------------|
| K0401.105 | M5                    | M8                    | 4            | 8           | 6,9                               | 8,3  | M8                        | 9,5                                  | 5,5                             | 4                            | K0398.805                   |
| K0401.106 | M6                    | M10x1,25              | 5            | 10          | 8,8                               | 10,3   | M10x1,25                  | 11,5                                 | 7,5                             | 4,8                          | K0398.806                   |
| K0401.108 | M8                    | M12x1,25              | 6            | 12          | 10,8                              | 12,3   | M12x1,25                  | 13,5                                 | 9,5                             | 4,8                          | K0398.808                   |
| K0401.110 | M10                   | M14x1,5               | 7            | 14          | 12,8                              | 14,3   | M14x1,5                   | 15,5                                 | 11,5                            | 4,8                          | K0398.810                   |
| K0401.112 | M12                   | M16x1,5               | 8            | 16          | 14,8                              | 16,3   | M16x1,5                   | 17,5                                 | 13,5                            | 4,8                          | K0398.812                   |

## Reinforced threaded inserts

with internal thread, self-locking



### Material, surface finish:

Threaded insert in stainless steel, passivated.

### Sample order:

Reinforced threaded insert K0402.110  
Assembly tool K0402.810

### Note:

Reinforced threaded inserts allow threaded holes which have been damaged, torn out or jammed to be used again or to be repaired. This makes it possible to recover scrap and rejects of expensive products. Reinforced threaded inserts are suitable for use in various materials, including light metals and casting. Inserts with internal threads larger than M6 are supplied with four locking pins instead of two.

### Permissible deviations:

The medium tolerance class applies to the threads listed, i.e. 6H for nut threads and 6g for bolt threads. Other dimensions  $\pm 0.25$  mm.

Technical information see operating instructions for threaded inserts.

### Advantages:

- Quick and easy installation.
- The insert is fixed with pins in order to prevent torsion due to twisting or vibrations.
- No other special tools are required besides the assembly tool.

## KIPP Reinforced threaded inserts with internal thread, self-locking and assembly tools

| Order No.    | D1<br>Internal thread | D2<br>External thread | L1<br>Length | L<br>Length | Installation<br>drill $\emptyset$ | Installation<br>countersunk $\emptyset$<br>+0,25 | Installation<br>screw tab | Installation<br>Min. thread<br>depth | Removal<br>drill<br>$\emptyset$ | Removal<br>drilling<br>depth | Order no.<br>assembly tools |
|--------------|-----------------------|-----------------------|--------------|-------------|-----------------------------------|--|---------------------------|--------------------------------------|---------------------------------|------------------------------|-----------------------------|
| K0402.104    | M4                    | M8                    | 4            | 8           | 6,9                               | 8,3  | M8                        | 9,5                                  | 5,5                             | 4                            | K0399.804                   |
| K0402.105    | M5                    | M10x1,25              | 5            | 10          | 8,8                               | 10,3   | M10x1,25                  | 12,5                                 | 7,5                             | 4,8                          | K0399.805                   |
| K0402.106    | M6                    | M12x1,25              | 6            | 12          | 10,8                              | 12,3   | M12x1,25                  | 14,5                                 | 9,5                             | 4,8                          | K0399.806                   |
| K0402.108    | M8                    | M14x1,5               | 7            | 14          | 12,8                              | 14,3   | M14x1,5                   | 16,5                                 | 11,5                            | 4,8                          | K0399.808                   |
| K0402.110    | M10                   | M16x1,5               | 8            | 16          | 14,8                              | 16,3   | M16x1,5                   | 18,5                                 | 13,5                            | 4,8                          | K0399.810                   |
| K0402.112    | M12                   | M18x1,5               | 9            | 18          | 16,8                              | 18,3   | M18x1,5                   | 20,5                                 | 15,5                            | 4,8                          | K0399.812                   |
| K0402.114    | M14                   | M20x1,5               | 10           | 20          | 18,8                              | 20,3   | M20x1,5                   | 22,5                                 | 17,5                            | 4,8                          | K0399.814                   |
| K0402.116    | M16                   | M22x1,5               | 11           | 22          | 20,7                              | 22,3   | M22x1,5                   | 24,5                                 | 17,8                            | 6,4                          | K0399.816                   |
| K0402.116X15 | M16x1,5               | M22x1,5               | 11           | 22          | 20,7                              | 22,3   | M22x1,5                   | 24,5                                 | 17,8                            | 6,4                          | K0399.816                   |
| K0402.118X15 | M18x1,5               | M24x1,5               | 12           | 24          | 22,5                              | 24,3   | M24x1,5                   | 26,5                                 | 19,8                            | 6,4                          | K0399.818                   |
| K0402.120    | M20                   | M30x2                 | 15           | 30          | 28                                | 30,3   | M30x2                     | 34,5                                 | 25,8                            | 6,4                          | K0399.820                   |

**Material, surface finish:**

Threaded insert in steel, passivated.

**Sample order:**

K0653.01

**Note:**

The repair kit allows threaded holes which have been damaged, torn out or jammed to be used again or to be repaired. This makes it possible to recover scrap and rejects of expensive products.

Threaded inserts are suitable for use in various materials, including light metals and casting. Inserts with internal threads larger than M6 are supplied with four locking pins instead of two.

Permissible deviations:

the medium tolerance class applies to the threads listed, i.e. 6H for nut threads and 6g for bolt threads. Other dimensions  $\pm 0.25$  mm.

Technical information see operating instructions for threaded inserts.

**Advantages:**

- Quick and easy installation.
- The insert is fixed with pins in order to prevent torsion due to twisting or vibrations.
- No other special tools are required besides the assembly tool.

**KIPP Repair kit**

| Order No. | Threaded inserts supplied internal thread | Threaded inserts supplied external thread | Length of inserts | Number of inserts | Number of assembly tool | Order No. Threaded insert |
|-----------|---|---|-------------------|-------------------|-------------------------|---------------------------|
| K0653.01  | M5  | M8  | 8                 | 8                 | 1                       | K0398.05                  |
|           | M6  | M10x1,25                                  | 10                | 8                 | 1                       | K0398.06                  |
|           | M8  | M12x1,25                                  | 12                | 6                 | 1                       | K0398.08                  |
|           | M8x1                                      | M12x1,25                                  | 12                | 6                 | -                       | K0398.08X1                |
|           | M10                                       | M14x1,5                                   | 14                | 4                 | 1                       | K0398.10                  |
|           | M10x1,25                                  | M14x1,5                                   | 14                | 4                 | -                       | K0398.10X125              |
|           | M12                                       | M16x1,5                                   | 16                | 3                 | 1                       | K0398.12                  |
|           | M12x1,25                                  | M16x1,5                                   | 16                | 3                 | -                       | K0398.12X125              |

## Grub screws

with screw-in stop for gluing

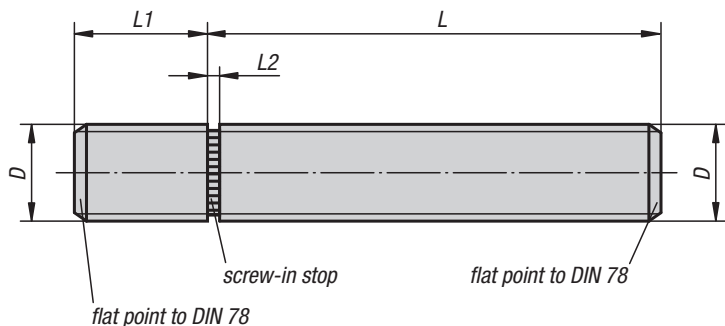


**Material:**  
Steel or stainless steel 1.4305.

**Surface finish:**  
Steel blue chromated.  
Stainless steel natural finish.

**Sample order:**  
K0404.1040201

**Note:**  
Grub screws with screw-in stop have been designed especially for gluing-in. They allow mechanical connecting elements with external thread to be made cost-effectively for small and medium-sized series.  
The LOCTITE products 638 and 648 (see K0655) have proven themselves in practice as a successful bonding agent.



### KIPP Grub screws with screw-in stop

| Order No. steel | Order No. stainless steel | D   | L  | L1 | L2  | Approx. weight kg |
|-----------------|---------------------------|-----|----|----|-----|-------------------|
| K0404.1040201   | K0404.1040202             | M4  | 20 | 6  | 1   | 0,002             |
| K0404.1040301   | K0404.1040302             | M4  | 30 | 6  | 1   | 0,003             |
| K0404.1040401   | K0404.1040402             | M4  | 40 | 6  | 1   | 0,004             |
| K0404.1040501   | K0404.1040502             | M4  | 50 | 6  | 1   | 0,005             |
| K0404.1050201   | K0404.1050202             | M5  | 20 | 8  | 1   | 0,003             |
| K0404.1050301   | K0404.1050302             | M5  | 30 | 8  | 1   | 0,004             |
| K0404.1050401   | K0404.1050402             | M5  | 40 | 8  | 1   | 0,006             |
| K0404.1050501   | K0404.1050502             | M5  | 50 | 8  | 1   | 0,007             |
| K0404.1050601   | K0404.1050602             | M5  | 60 | 8  | 1   | 0,008             |
| K0404.1060201   | K0404.1060202             | M6  | 20 | 9  | 1,5 | 0,004             |
| K0404.1060301   | K0404.1060302             | M6  | 30 | 9  | 1,5 | 0,007             |
| K0404.1060401   | K0404.1060402             | M6  | 40 | 9  | 1,5 | 0,008             |
| K0404.1060501   | K0404.1060502             | M6  | 50 | 9  | 1,5 | 0,009             |
| K0404.1060601   | K0404.1060602             | M6  | 60 | 9  | 1,5 | 0,011             |
| K0404.1080201   | K0404.1080202             | M8  | 20 | 12 | 1,5 | 0,009             |
| K0404.1080301   | K0404.1080302             | M8  | 30 | 12 | 1,5 | 0,012             |
| K0404.1080401   | K0404.1080402             | M8  | 40 | 12 | 1,5 | 0,015             |
| K0404.1080501   | K0404.1080502             | M8  | 50 | 12 | 1,5 | 0,018             |
| K0404.1080601   | K0404.1080602             | M8  | 60 | 12 | 1,5 | 0,022             |
| K0404.1080801   | K0404.1080802             | M8  | 80 | 12 | 1,5 | 0,027             |
| K0404.1100201   | K0404.1100202             | M10 | 20 | 14 | 2   | 0,014             |
| K0404.1100301   | K0404.1100302             | M10 | 30 | 14 | 2   | 0,019             |
| K0404.1100401   | K0404.1100402             | M10 | 40 | 14 | 2   | 0,024             |
| K0404.1100501   | K0404.1100502             | M10 | 50 | 14 | 2   | 0,029             |
| K0404.1100601   | K0404.1100602             | M10 | 60 | 14 | 2   | 0,034             |
| K0404.1100801   | K0404.1100802             | M10 | 80 | 14 | 2   | 0,044             |
| K0404.1120301   | K0404.1120302             | M12 | 30 | 17 | 2   | 0,031             |
| K0404.1120401   | K0404.1120402             | M12 | 40 | 17 | 2   | 0,038             |
| K0404.1120501   | K0404.1120502             | M12 | 50 | 17 | 2   | 0,045             |
| K0404.1120601   | K0404.1120602             | M12 | 60 | 17 | 2   | 0,053             |
| K0404.1120801   | K0404.1120802             | M12 | 80 | 17 | 2   | 0,067             |
| K0404.1160301   | K0404.1160302             | M16 | 30 | 22 | 2   | 0,064             |
| K0404.1160401   | K0404.1160402             | M16 | 40 | 22 | 2   | 0,078             |
| K0404.1160501   | K0404.1160502             | M16 | 50 | 22 | 2   | 0,092             |
| K0404.1160601   | K0404.1160602             | M16 | 60 | 22 | 2   | 0,105             |
| K0404.1160801   | K0404.1160802             | M16 | 80 | 22 | 2   | 0,132             |



## Grub screw sets

with screw-in stop for gluing



**Material:**

Steel or stainless steel 1.4305.

**Surface finish:**

Steel blue chromated.  
Stainless steel natural finish.

**Sample order:**

K0405.01

**Note:**

Grub screws with screw-in stop have been designed especially for gluing-in. They allow mechanical connecting elements with external thread to be made cost-effectively for small and medium-sized series. The LOCTITE products 638 and 648 have proven themselves in practice as a successful bonding agent. Technical data see K0404.

### KIPP Grub screw sets with screw-in stop

| Order No.<br>Steel | Order No.<br>Stainless steel | Content (pcs.)<br>(LOCTITE bonding agents 638 and 648 to be ordered separately)   |
|--------------------|------------------------------|---|
| K0405.01           | K0405.02                     | M5x20 (20 pieces), M5x40 (20 pieces), M5x60 (10 pieces),<br>M6x20 (20 pieces), M6x40 (20 pieces), M6x60 (10 pieces),<br>M8x20 (10 pieces), M8x40 (10 pieces), M8x60 (6 pieces),<br>M10x20 (10 pieces), M10x40 (10 pieces), M10x60 (6 pieces),<br>M12x40 (6 pieces), M12x60 (6 pieces) |

### KIPP LOCTITE Bonding agents (accessories)

| Order No.     | Surface finish | Package      | Shearing strength<br>N/mm <sup>2</sup> | Break-away torque<br>Nm | Temperature resistance |
|---------------|----------------|--------------|--|-------------------------|------------------------|
| K0655.6380010 | LOCTITE 638    | 10 ml flagon | 20-35                                  | 35-60                   | -55 °C up to 150 °C    |
| K0655.6480010 | LOCTITE 648    | 10 ml flagon | 16-30                                  | 30-55                   | -55 °C up to 175 °C    |



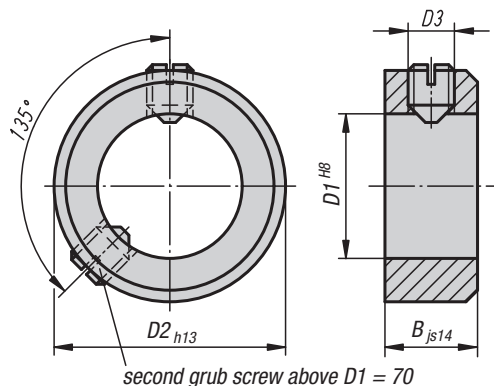
## Adjusting rings

DIN 705, steel



**Material, surface finish:**  
Steel, natural finish.

**Sample order:**  
K0406.100301



Form A  
with grub screw DIN 553  
(recess)

Form E  
with grub screw DIN 914  
(hexagon socket)

### KIPP Adjusting rings DIN 705, steel

| Order No.<br>Form A | Order No.<br>Form E | D1 | B  | D2 | D3<br>grub screw | Approx.<br>weight<br>kg |
|---------------------|---------------------|----|----|----|------------------|-------------------------|
| K0406.100301        | K0406.300301        | 3  | 5  | 7  | M2x3             | 0,001                   |
| K0406.100401        | K0406.300401        | 4  | 5  | 8  | M2,5x3           | 0,001                   |
| K0406.100501        | K0406.300501        | 5  | 6  | 10 | M3x4             | 0,003                   |
| K0406.100601        | K0406.300601        | 6  | 8  | 12 | M4x5             | 0,005                   |
| K0406.100701        | K0406.300701        | 7  | 8  | 12 | M4x5             | 0,005                   |
| K0406.100801        | K0406.300801        | 8  | 8  | 16 | M4x6             | 0,009                   |
| K0406.100901        | K0406.300901        | 9  | 10 | 18 | M5x8             | 0,015                   |
| K0406.101001        | K0406.301001        | 10 | 10 | 20 | M5x8             | 0,018                   |
| K0406.101101        | K0406.301101        | 11 | 10 | 20 | M5x8             | 0,017                   |
| K0406.101201        | K0406.301201        | 12 | 12 | 22 | M6x8             | 0,025                   |
| K0406.101401        | K0406.301401        | 14 | 12 | 25 | M6x8             | 0,032                   |
| K0406.101501        | K0406.301501        | 15 | 12 | 25 | M6x8             | 0,030                   |
| K0406.101601        | K0406.301601        | 16 | 12 | 28 | M6x8             | 0,039                   |
| K0406.101801        | K0406.301801        | 18 | 14 | 32 | M6x8             | 0,060                   |

## Adjusting rings

DIN 705, steel



## KIPP Adjusting rings DIN 705, steel

| Order No.<br>Form A | Order No.<br>Form E | D1  | B  | D2  | D3<br>grub screw | Approx.<br>weight<br>kg |
|---------------------|---------------------|-----|----|-----|------------------|-------------------------|
| K0406.102001        | K0406.302001        | 20  | 14 | 32  | M6x8             | 0,054                   |
| K0406.102201        | K0406.302201        | 22  | 14 | 36  | M6x10            | 0,070                   |
| K0406.102401        | K0406.302401        | 24  | 16 | 40  | M8x12            | 0,101                   |
| K0406.102501        | K0406.302501        | 25  | 16 | 40  | M8x10            | 0,096                   |
| K0406.102601        | K0406.302601        | 26  | 16 | 40  | M8x10            | 0,091                   |
| K0406.102801        | K0406.302801        | 28  | 16 | 45  | M8x12            | 0,122                   |
| K0406.103001        | K0406.303001        | 30  | 16 | 45  | M8x10            | 0,111                   |
| K0406.103201        | K0406.303201        | 32  | 16 | 50  | M8x12            | 0,146                   |
| K0406.103401        | K0406.303401        | 34  | 16 | 50  | M8x12            | 0,133                   |
| K0406.103501        | K0406.303501        | 35  | 16 | 56  | M8x12            | 0,189                   |
| K0406.103601        | K0406.303601        | 36  | 16 | 56  | M8x12            | 0,182                   |
| K0406.103801        | K0406.303801        | 38  | 16 | 56  | M8x12            | 0,167                   |
| K0406.104001        | K0406.304001        | 40  | 18 | 63  | M10x16           | 0,263                   |
| K0406.104201        | K0406.304201        | 42  | 18 | 63  | M10x16           | 0,245                   |
| K0406.104501        | K0406.304501        | 45  | 18 | 70  | M10x16           | 0,319                   |
| K0406.104801        | K0406.304801        | 48  | 18 | 70  | M10x16           | 0,288                   |
| K0406.105001        | K0406.305001        | 50  | 18 | 80  | M10x16           | 0,433                   |
| K0406.105201        | K0406.305201        | 52  | 18 | 80  | M10x16           | 0,410                   |
| K0406.105501        | K0406.305501        | 55  | 18 | 80  | M10x16           | 0,375                   |
| K0406.105601        | K0406.305601        | 56  | 18 | 80  | M10x16           | 0,362                   |
| K0406.105801        | K0406.305801        | 58  | 20 | 90  | M10x16           | 0,584                   |
| K0406.106001        | K0406.306001        | 60  | 20 | 90  | M10x16           | 0,555                   |
| K0406.106301        | K0406.306301        | 63  | 20 | 90  | M10x16           | 0,509                   |
| K0406.106501        | K0406.306501        | 65  | 20 | 100 | M10x20           | 0,712                   |
| K0406.106801        | K0406.306801        | 68  | 20 | 100 | M10x20           | 0,663                   |
| K0406.107001        | K0406.307001        | 70  | 20 | 100 | M10x20           | 0,629                   |
| K0406.107201        | K0406.307201        | 72  | 22 | 110 | M12x20           | 0,938                   |
| K0406.107501        | K0406.307501        | 75  | 22 | 110 | M12x20           | 0,878                   |
| K0406.108001        | K0406.308001        | 80  | 22 | 110 | M12x20           | 0,773                   |
| K0406.108501        | K0406.308501        | 85  | 22 | 125 | M12x25           | 1,139                   |
| K0406.109001        | K0406.309001        | 90  | 22 | 125 | M12x20           | 1,021                   |
| K0406.110001        | K0406.310001        | 100 | 25 | 140 | M12x25           | 1,480                   |

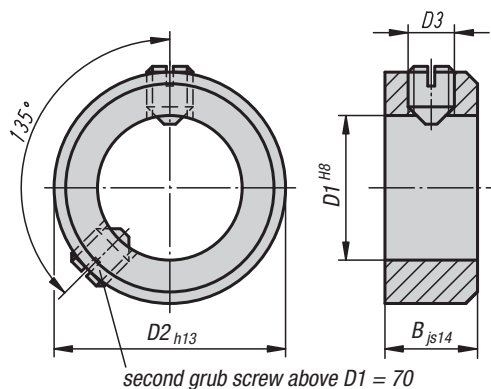
## Adjusting rings

DIN 705, stainless steel



**Material, surface finish:**  
Stainless steel 1.4305, natural finish.

**Sample order:**  
K0406.100302



Form A  
with grub screw DIN 553  
(recess)

Form E  
with grub screw DIN 914  
(hexagon socket)

### KIPP Adjusting rings DIN 705, stainless steel

| Order No.<br>Form A | Order No.<br>Form E | D1 | B  | D2 | D3<br>grub screw | Approx.<br>weight<br>kg |
|---------------------|---------------------|----|----|----|------------------|-------------------------|
| K0406.100302        | K0406.300302        | 3  | 5  | 7  | M2x3             | 0,001                   |
| K0406.100402        | K0406.300402        | 4  | 5  | 8  | M2,5x3           | 0,001                   |
| K0406.100502        | K0406.300502        | 5  | 6  | 10 | M3x4             | 0,003                   |
| K0406.100602        | K0406.300602        | 6  | 8  | 12 | M4x5             | 0,005                   |
| K0406.100702        | K0406.300702        | 7  | 8  | 12 | M4x5             | 0,005                   |
| K0406.100802        | K0406.300802        | 8  | 8  | 16 | M4x6             | 0,009                   |
| K0406.100902        | K0406.300902        | 9  | 10 | 18 | M5x8             | 0,015                   |
| K0406.101002        | K0406.301002        | 10 | 10 | 20 | M5x8             | 0,018                   |
| K0406.101102        | K0406.301102        | 11 | 10 | 20 | M5x8             | 0,017                   |
| K0406.101202        | K0406.301202        | 12 | 12 | 22 | M6x8             | 0,025                   |
| K0406.101402        | K0406.301402        | 14 | 12 | 25 | M6x8             | 0,032                   |
| K0406.101502        | K0406.301502        | 15 | 12 | 25 | M6x8             | 0,030                   |
| K0406.101602        | K0406.301602        | 16 | 12 | 28 | M6x8             | 0,039                   |
| K0406.101802        | K0406.301802        | 18 | 14 | 32 | M6x8             | 0,060                   |

## Adjusting rings

DIN 705, stainless steel

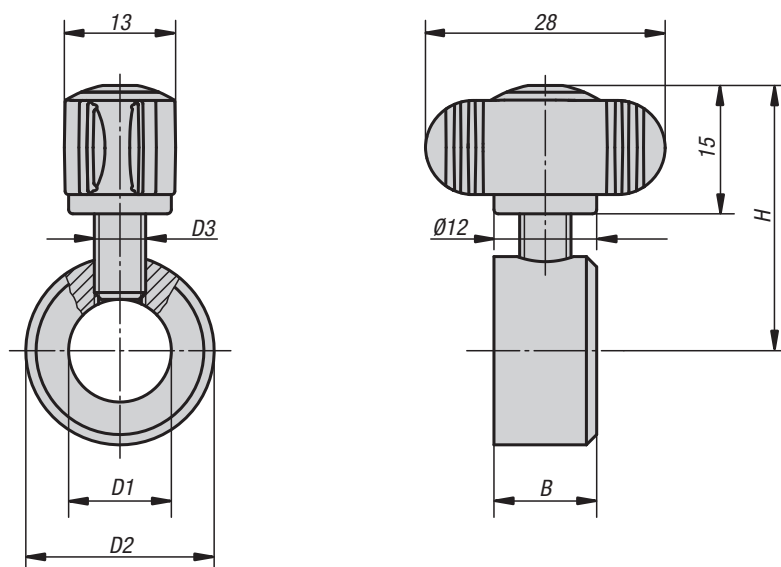


## KIPP Adjusting rings DIN 705, stainless steel

| Order No.<br>Form A | Order No.<br>Form E | D1  | B  | D2  | D3<br>grub screw | Approx.<br>weight<br>kg |
|---------------------|---------------------|-----|----|-----|------------------|-------------------------|
| K0406.102002        | K0406.302002        | 20  | 14 | 32  | M6x8             | 0,054                   |
| K0406.102202        | K0406.302202        | 22  | 14 | 36  | M6x10            | 0,070                   |
| K0406.102402        | K0406.302402        | 24  | 16 | 40  | M8x12            | 0,101                   |
| K0406.102502        | K0406.302502        | 25  | 16 | 40  | M8x10            | 0,096                   |
| K0406.102602        | K0406.302602        | 26  | 16 | 40  | M8x10            | 0,091                   |
| K0406.102802        | K0406.302802        | 28  | 16 | 45  | M8x12            | 0,122                   |
| K0406.103002        | K0406.303002        | 30  | 16 | 45  | M8x10            | 0,111                   |
| K0406.103202        | K0406.303202        | 32  | 16 | 50  | M8x12            | 0,146                   |
| K0406.103402        | K0406.303402        | 34  | 16 | 50  | M8x12            | 0,133                   |
| K0406.103502        | K0406.303502        | 35  | 16 | 56  | M8x12            | 0,189                   |
| K0406.103602        | K0406.303602        | 36  | 16 | 56  | M8x12            | 0,182                   |
| K0406.103802        | K0406.303802        | 38  | 16 | 56  | M8x12            | 0,167                   |
| K0406.104002        | K0406.304002        | 40  | 18 | 63  | M10x16           | 0,263                   |
| K0406.104202        | K0406.304202        | 42  | 18 | 63  | M10x16           | 0,245                   |
| K0406.104502        | K0406.304502        | 45  | 18 | 70  | M10x16           | 0,319                   |
| K0406.104802        | K0406.304802        | 48  | 18 | 70  | M10x16           | 0,288                   |
| K0406.105002        | K0406.305002        | 50  | 18 | 80  | M10x16           | 0,433                   |
| K0406.105202        | K0406.305202        | 52  | 18 | 80  | M10x16           | 0,410                   |
| K0406.105502        | K0406.305502        | 55  | 18 | 80  | M10x16           | 0,375                   |
| K0406.105602        | K0406.305602        | 56  | 18 | 80  | M10x16           | 0,362                   |
| K0406.105802        | K0406.305802        | 58  | 20 | 90  | M10x16           | 0,584                   |
| K0406.106002        | K0406.306002        | 60  | 20 | 90  | M10x16           | 0,555                   |
| K0406.106302        | K0406.306302        | 63  | 20 | 90  | M10x16           | 0,509                   |
| K0406.106502        | K0406.306502        | 65  | 20 | 100 | M10x20           | 0,712                   |
| K0406.106802        | K0406.306802        | 68  | 20 | 100 | M10x20           | 0,663                   |
| K0406.107002        | K0406.307002        | 70  | 20 | 100 | M10x20           | 0,629                   |
| K0406.107202        | K0406.307202        | 72  | 22 | 110 | M12x20           | 0,938                   |
| K0406.107502        | K0406.307502        | 75  | 22 | 110 | M12x20           | 0,878                   |
| K0406.108002        | K0406.308002        | 80  | 22 | 110 | M12x20           | 0,773                   |
| K0406.108502        | K0406.308502        | 85  | 22 | 125 | M12x25           | 1,139                   |
| K0406.109002        | K0406.309002        | 90  | 22 | 125 | M12x20           | 1,021                   |
| K0406.110002        | K0406.310002        | 100 | 25 | 140 | M12x25           | 1,480                   |

## Adjusting rings with clamp grip

similar DIN 705, steel



### Material, surface finish:

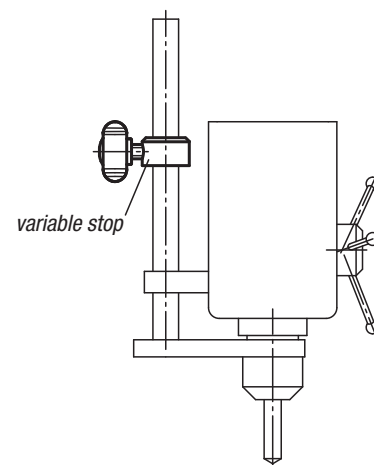
Adjusting ring: steel, natural finish.

Clamp grip: anthracite grey thermoplastic.

Threaded bolt in steel, quality class 5.8, blue chromated.

### Sample order:

K0407.100601

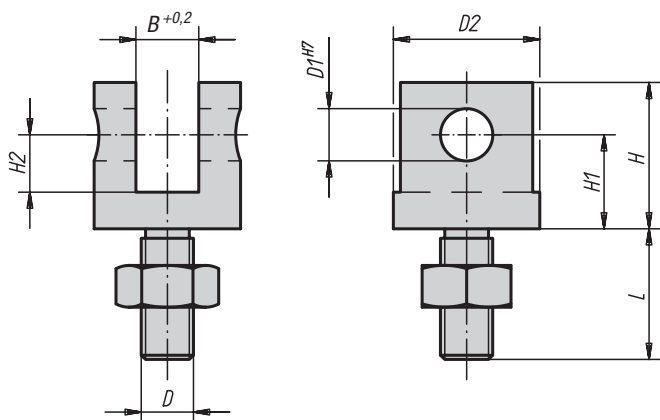


### KIPP Adjusting rings with clamp grip similar DIN 705, steel

| Order No.    | B  | D1 | D2 | D3 | H    |
|--------------|----|----|----|----|------|
| K0407.100601 | 8  | 6  | 12 | M4 | 26   |
| K0407.100801 | 8  | 8  | 16 | M4 | 27   |
| K0407.101001 | 10 | 10 | 20 | M5 | 30   |
| K0407.101201 | 12 | 12 | 22 | M6 | 31   |
| K0407.101601 | 12 | 16 | 28 | M6 | 33   |
| K0407.102001 | 14 | 20 | 32 | M6 | 35   |
| K0407.102501 | 16 | 25 | 40 | M8 | 37,5 |
| K0407.103201 | 16 | 32 | 50 | M8 | 46   |

## Fork pieces

with threaded bolt



**Material:**

Tempered steel 1.1191.

**Surface finish:**

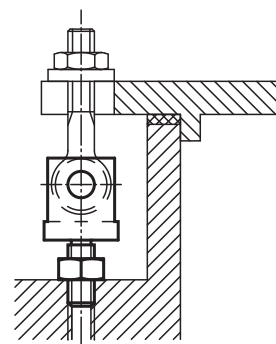
Heat-treated and black oxide finish.

**Sample order:**

K0397.05

**Note:**

Suitable hinge pin, see K0007.

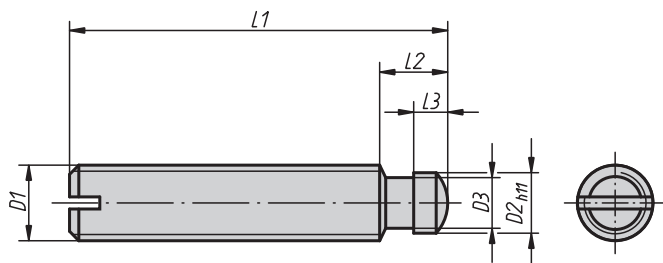


### KIPP Fork pieces with threaded bolt

| Order No. | D   | D1 | D2 | B  | H  | H1 | H2   | L    | Approx. weight g |
|-----------|-----|----|----|----|----|----|------|------|------------------|
| K0397.05  | M5  | 5  | 12 | 6  | 16 | 10 | 7    | 14,5 | 8,5              |
| K0397.06  | M6  | 6  | 16 | 7  | 19 | 12 | 8    | 15   | 14,0             |
| K0397.08  | M8  | 8  | 20 | 9  | 23 | 15 | 10   | 20   | 20,0             |
| K0397.10  | M10 | 10 | 28 | 12 | 28 | 18 | 11   | 25   | 35,0             |
| K0397.12  | M12 | 12 | 30 | 14 | 34 | 21 | 13,5 | 30   | 70,0             |
| K0397.14  | M14 | 14 | 36 | 16 | 37 | 23 | 15   | 35   | 84,0             |
| K0397.16  | M16 | 16 | 40 | 17 | 42 | 26 | 17   | 40   | 140,0            |
| K0397.20  | M20 | 18 | 50 | 22 | 52 | 32 | 21   | 50   | 160,0            |

## Grub screws

with thrust point DIN 6332



**Material:**

Steel.

**Surface finish:**

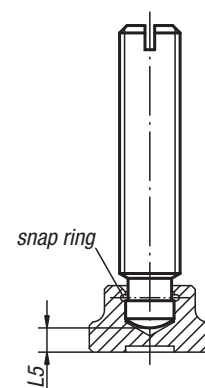
Grub screw case-hardened, black .

**Sample order:**

K0390.12X60 (Please also indicate dimension L1.)

**Note:**

The thrust journal of the grub screws per DIN 6332 is designed for direct clamping as well as for use in conjunction with a thrust pad K0392.

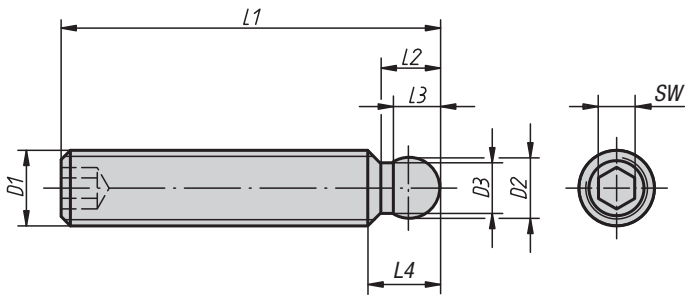


**KIPP Grub screws with thrust point DIN 6332**

| Order No. | D1  | L1                | D2   | D3   | L2  | L3  | L5  |
|-----------|-----|-------------------|------|------|-----|-----|-----|
| K0390.06X | M6  | 30/35/40/50       | 4,5  | 4    | 6   | 2,5 | 2,2 |
| K0390.08X | M8  | 35/40/45/50/60    | 6    | 5,4  | 7,5 | 3   | 3   |
| K0390.10X | M10 | 50/55/60/65/80    | 8    | 7,2  | 9   | 4,5 | 3,6 |
| K0390.12X | M12 | 60/65/70/80/100   | 8    | 7,2  | 10  | 4,5 | 4,5 |
| K0390.14X | M14 | 60/80/100         | 10   | 9    | 12  | 5   | 5   |
| K0390.16X | M16 | 65/70/80/100/125  | 12   | 11   | 12  | 5   | 5,3 |
| K0390.20X | M20 | 80/90/100/125/150 | 15,5 | 14,4 | 14  | 5,5 | 5,6 |

## Grub screws

with ball thrust point



**Material, surface finish:**

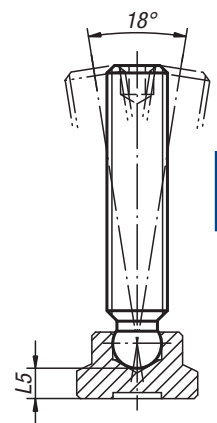
Quality class 5.8, black oxide finish.

**Sample order:**

K0391.06X50 (Please also indicate dimension L1.)

**Note:**

The grub screws are used in conjunction with a thrust pad K0393.



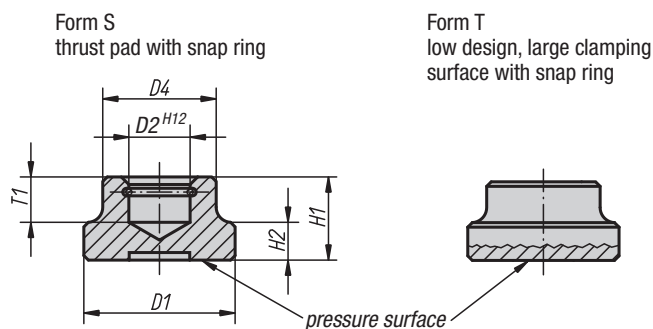
**KIPP Grub screws with ball thrust point**

| Order No. | D1  | L1             | D2  | D3  | L2  | L3  | L4  | L5  | SW |
|-----------|-----|----------------|-----|-----|-----|-----|-----|-----|----|
| K0391.06X | M6  | 30/35/40/50    | 4,5 | 3,5 | 4,3 | 3,7 | 5,5 | 3,8 | 3  |
| K0391.08X | M8  | 35/40/45/50/60 | 6   | 4,8 | 5,8 | 4,8 | 7,4 | 4,4 | 4  |
| K0391.10X | M10 | 50/55/60/65/80 | 8   | 6,5 | 7,3 | 6,3 | 9   | 5   | 5  |
| K0391.12X | M12 | 60/65/70/80    | 8   | 6,6 | 7,1 | 6,3 | 9,8 | 6,9 | 6  |



## Thrust pads

DIN 6311 extended

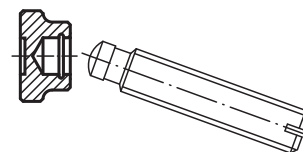


**Material:**  
Steel case-hardened.  
Snap ring spring steel.

**Surface finish:**  
Black oxide finish.

**Sample order:**  
K0392.12

**Note:**  
When fitting the thrust pad, ensure that it is inclined as far as possible in the direction of the snap ring opening. The snap ring is supplied assembled.



### KIPP Thrust pads DIN 6311 extended

| Order No. | Form | D1 | D2   | D4 | H1 | H2  | T1  | For grub screws with trust point DIN 6332 | Approx. weight g |
|-----------|------|----|------|----|----|-----|-----|---|------------------|
| K0392.06  | S    | 12 | 4,6  | 10 | 7  | 2,5 | 4   | M6  | 4,4              |
| K0392.08  | S    | 16 | 6,1  | 12 | 9  | 4   | 5   | M8  | 9                |
| K0392.10  | S    | 20 | 8,1  | 15 | 11 | 5   | 6   | M10                                       | 17               |
| K0392.12  | S    | 25 | 8,1  | 18 | 13 | 7   | 7   | M12                                       | 33               |
| K0392.16  | S    | 32 | 12,1 | 22 | 15 | 7   | 7,5 | M16                                       | 57               |
| K0392.20  | S    | 40 | 15,6 | 28 | 16 | 9   | 8   | M20                                       | 103              |
| K0392.108 | T    | 25 | 6,1  | 12 | 8  | 4   | 4,5 | M8  | 17               |
| K0392.110 | T    | 32 | 8,1  | 18 | 10 | 6   | 6   | M10 / M12                                 | 42               |
| K0392.116 | T    | 40 | 12,1 | 22 | 12 | 7   | 7   | M16                                       | 75               |

## Thrust pads

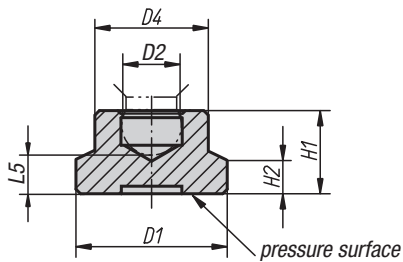


**Material, surface finish:**

Steel black oxide finish.  
Thermoplastic PA 6.

**Sample order:**

K0393.08



### KIPP Thrust pads

| Order No. | Material | D1 | D2  | D4  | H1  | H2  | L5  | Suitable for Grub Screws |
|-----------|----------|----|-----|-----|-----|-----|-----|--------------------------|
| K0393.06  | Steel    | 15 | 4,4 | 8,6 | 7,6 | 2,5 | 3,8 | K0391.06X                |
| K0393.08  | Steel    | 18 | 5,9 | 12  | 9   | 3,5 | 4,4 | K0391.08X                |
| K0393.10  | Steel    | 21 | 7,9 | 15  | 11  | 4   | 5   | K0391.10X                |
| K0393.12  | Steel    | 25 | 7,9 | 18  | 13  | 5   | 6,9 | K0391.12X                |
| K0393.206 | Plastic  | 15 | 4,4 | 8,6 | 7,6 | 2,5 | 3,8 | K0391.06X                |
| K0393.208 | Plastic  | 18 | 5,9 | 12  | 9   | 3,5 | 4,4 | K0391.08X                |
| K0393.210 | Plastic  | 21 | 7,9 | 15  | 11  | 4   | 5   | K0391.10X                |
| K0393.212 | Plastic  | 25 | 7,9 | 18  | 13  | 5   | 6,9 | K0391.12X                |



## Pressure spindles



**Material, surface finish:**

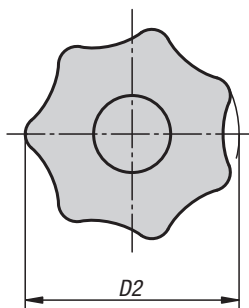
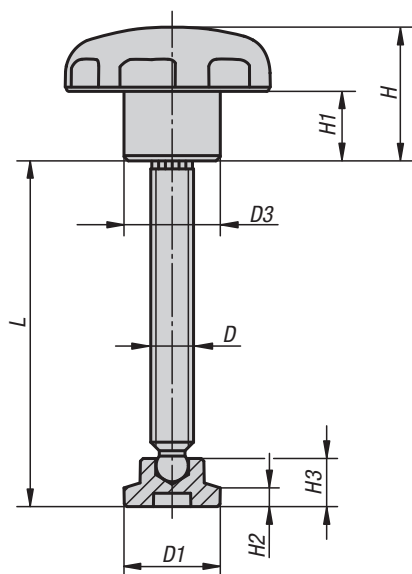
Star grip: black thermoplastic.  
 Bush in galvanized steel and blue chromated.  
 Grub screw: steel quality class 5.8, black oxide finish.  
 Pressure button: black thermoplastic PA 6.

**Sample order:**

K0394.06053

**Note:**

The pressure button is supplied loosely. To connect with the threaded bolt simply press it in.



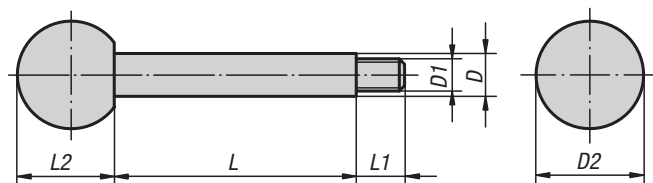
### KIPP Pressure spindles

| Order No.   | D   | D1 | D2 | D3 | L    | H  | H1 | H2  | H3  |
|-------------|-----|----|----|----|------|----|----|-----|-----|
| K0394.06053 | M6  | 15 | 32 | 14 | 53,8 | 20 | 10 | 2,5 | 7,6 |
| K0394.08064 | M8  | 18 | 40 | 18 | 64,6 | 25 | 13 | 3,5 | 9   |
| K0394.10070 | M10 | 21 | 50 | 22 | 70,1 | 32 | 17 | 4   | 11  |
| K0394.12086 | M12 | 25 | 63 | 26 | 86   | 40 | 21 | 5   | 13  |

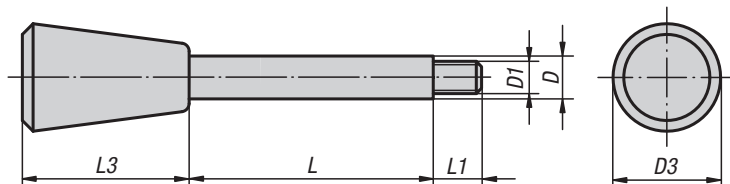
## Handles



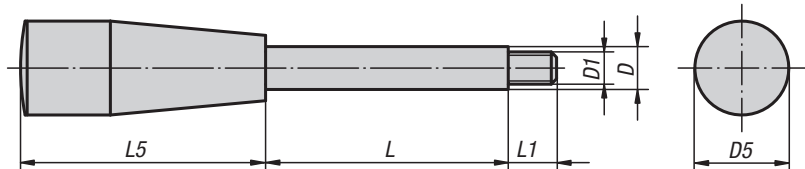
Form A



Form C



Form E



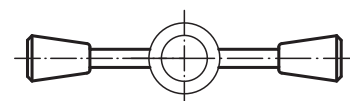
**Material, surface finish:**

Duroplastic PF 31 knobs, black, deburred with high-polish finish.

Steel rod 1.0718, black oxide finish or stainless steel 1.4305, natural finish.

**Sample order:**

K0179.208X35 (Please also indicate dimension L.)



### KIPP Handles in steel

| Order No.  | Form | D  | D1  | D2 | D3 | D5 | L              | L1 | L2   | L3 | L5 |
|------------|------|----|-----|----|----|----|----------------|----|------|----|----|
| K0179.208X | A    | 8  | M6  | 20 | -  | -  | 35/50/65       | 9  | 18   | -  | -  |
| K0179.210X | A    | 10 | M8  | 25 | -  | -  | 50/65/80/100   | 13 | 22,5 | -  | -  |
| K0179.212X | A    | 12 | M10 | 32 | -  | -  | 65/80/100/125  | 15 | 29   | -  | -  |
| K0179.214X | A    | 14 | M12 | 35 | -  | -  | 80/100/125/160 | 16 | 32,5 | -  | -  |
| K0179.408X | C    | 8  | M6  | -  | 20 | -  | 35/50/65       | 9  | -    | 30 | -  |
| K0179.410X | C    | 10 | M8  | -  | 25 | -  | 50/65/80/100   | 13 | -    | 38 | -  |
| K0179.412X | C    | 12 | M10 | -  | 30 | -  | 65/80/100/125  | 15 | -    | 46 | -  |
| K0179.414X | C    | 14 | M12 | -  | 35 | -  | 80/100/125/160 | 16 | -    | 53 | -  |
| K0179.608X | E    | 8  | M6  | -  | -  | 17 | 35/50/65       | 9  | -    | -  | 45 |
| K0179.610X | E    | 10 | M8  | -  | -  | 23 | 50/65/80/100   | 13 | -    | -  | 60 |
| K0179.612X | E    | 12 | M10 | -  | -  | 28 | 65/80/100/125  | 15 | -    | -  | 70 |
| K0179.614X | E    | 14 | M12 | -  | -  | 28 | 80/100/125/160 | 16 | -    | -  | 70 |

### KIPP Handles in stainless steel

| Order No.   | Form | D  | D1  | D2 | D3 | D5 | L              | L1 | L2   | L3 | L5 |
|-------------|------|----|-----|----|----|----|----------------|----|------|----|----|
| K0179.1208X | A    | 8  | M6  | 20 | -  | -  | 35/50/65       | 9  | 18   | -  | -  |
| K0179.1210X | A    | 10 | M8  | 25 | -  | -  | 50/65/80/100   | 13 | 22,5 | -  | -  |
| K0179.1212X | A    | 12 | M10 | 32 | -  | -  | 65/80/100/125  | 15 | 29   | -  | -  |
| K0179.1214X | A    | 14 | M12 | 35 | -  | -  | 80/100/125/160 | 16 | 32,5 | -  | -  |
| K0179.1408X | C    | 8  | M6  | -  | 20 | -  | 35/50/65       | 9  | -    | 30 | -  |
| K0179.1410X | C    | 10 | M8  | -  | 25 | -  | 50/65/80/100   | 13 | -    | 38 | -  |
| K0179.1412X | C    | 12 | M10 | -  | 30 | -  | 65/80/100/125  | 15 | -    | 46 | -  |
| K0179.1414X | C    | 14 | M12 | -  | 35 | -  | 80/100/125/160 | 16 | -    | 53 | -  |
| K0179.1608X | E    | 8  | M6  | -  | -  | 17 | 35/50/65       | 9  | -    | -  | 45 |
| K0179.1610X | E    | 10 | M8  | -  | -  | 23 | 50/65/80/100   | 13 | -    | -  | 60 |
| K0179.1612X | E    | 12 | M10 | -  | -  | 28 | 65/80/100/125  | 15 | -    | -  | 70 |
| K0179.1614X | E    | 14 | M12 | -  | -  | 28 | 80/100/125/160 | 16 | -    | -  | 70 |

## Clamp hubs



**Material, surface finish:**

Tempered steel 1.1206, black oxide finish.

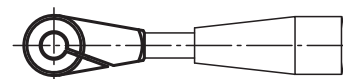
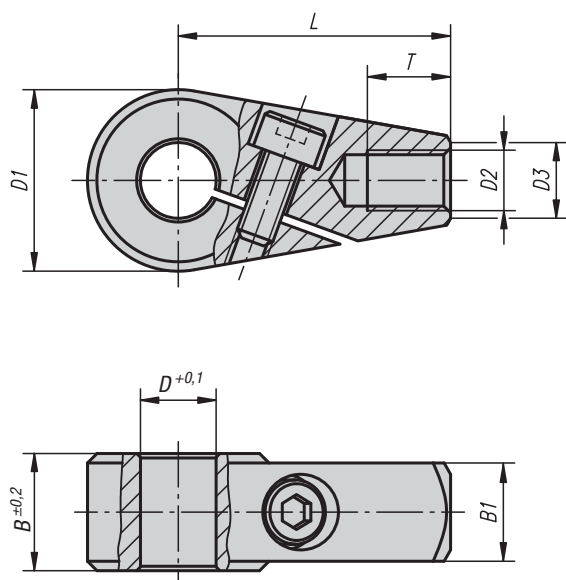
**Sample order:**

K0376.1012

**Note:**

Clamp hubs can be quickly and easily attached to shafts, adjusted in the proper operating position and then locked. For secure transmission of torque, shaft tolerance should not exceed h11.

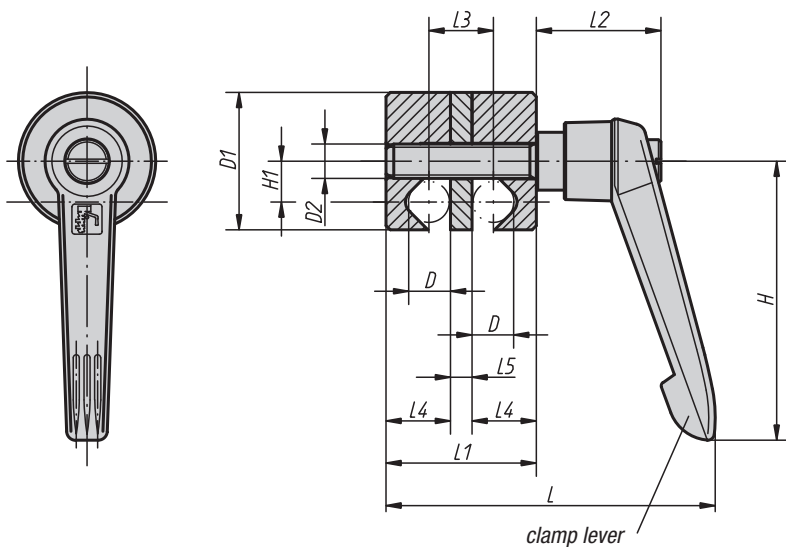
At fastening thread (D2), handles can be screwed on.



**KIPP Clamp hubs**

| Order No.  | D  | D1 | D2  | D3 | B    | B1 | L  | T  | Approx. weight kg |
|------------|----|----|-----|----|------|----|----|----|-------------------|
| K0376.0810 | 10 | 24 | M8  | 10 | 15,5 | 13 | 36 | 11 | 0,078             |
| K0376.0812 | 12 | 24 | M8  | 10 | 15,5 | 13 | 36 | 11 | 0,074             |
| K0376.1012 | 12 | 28 | M10 | 12 | 17,5 | 15 | 41 | 14 | 0,118             |
| K0376.1014 | 14 | 28 | M10 | 12 | 17,5 | 15 | 41 | 14 | 0,113             |
| K0376.1214 | 14 | 32 | M12 | 14 | 19,5 | 17 | 45 | 16 | 0,169             |
| K0376.1216 | 16 | 32 | M12 | 14 | 19,5 | 17 | 45 | 16 | 0,162             |

## Clamping joints



**Material, surface finish:**

Clamp lever:

Handle, glass-fibre thermoplastic, anthracite grey.

Steel parts:

Quality class 5.8, black oxide finish.

Remaining components:

High-strength aluminium, nickel silver anodized.

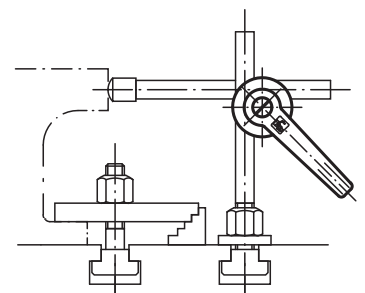
**Sample order:**

K0133.03

**Note:**

Clamping joints are used to clamp round cross sections (bars, tubes, etc.) and are continuously adjustable.

The design has been kept as simple as possible and, in conjunction with the adjustable clamp lever, it permits rapid clamping.

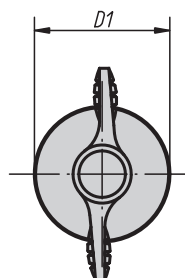
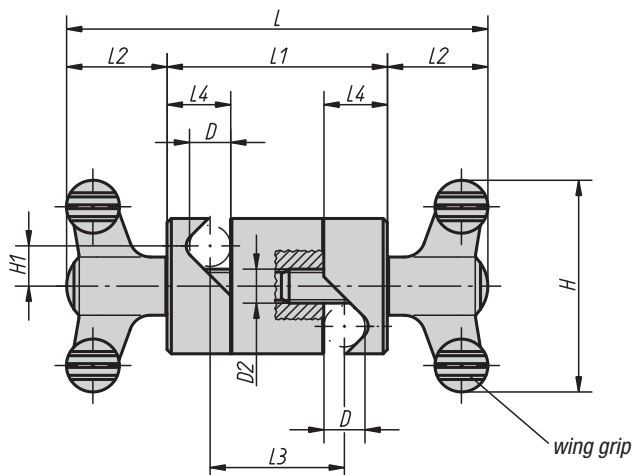


**KIPP Clamping joints**

| Order No. | Size | D  | D1 | D2  | L   | L1 | L2   | L3 | L4 | L5 | H  | H1   | Approx. weight kg |
|-----------|------|----|----|-----|-----|----|------|----|----|----|----|------|-------------------|
| K0133.01  | 1    | 8  | 28 | M8  | 72  | 31 | 29   | 13 | 13 | 5  | 65 | 8,5  | 0,082             |
| K0133.02  | 2    | 10 | 32 | M8  | 76  | 35 | 29   | 15 | 15 | 5  | 65 | 9,5  | 0,100             |
| K0133.03  | 3    | 12 | 36 | M8  | 81  | 40 | 29   | 18 | 17 | 6  | 65 | 10,5 | 0,127             |
| K0133.04  | 4    | 16 | 45 | M10 | 103 | 50 | 37,5 | 22 | 22 | 6  | 80 | 13,5 | 0,233             |
| K0133.05  | 5    | 20 | 74 | M10 | 131 | 70 | 42,5 | 30 | 30 | 10 | 95 | 22   | 0,750             |

## Clamping joints

individually adjustable



**Material, surface finish:**

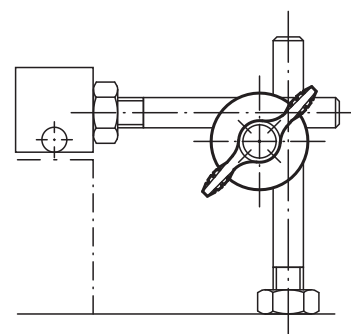
Wing grip:  
Handle in thermoplastic, anthracite grey.  
Threaded bolt in blue chromated steel 5.8.  
Other parts in high-strength aluminium nickel silver anodized.

**Sample order:**

K0134.02

**Note:**

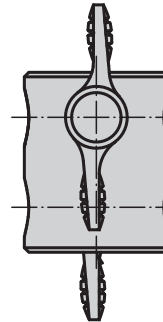
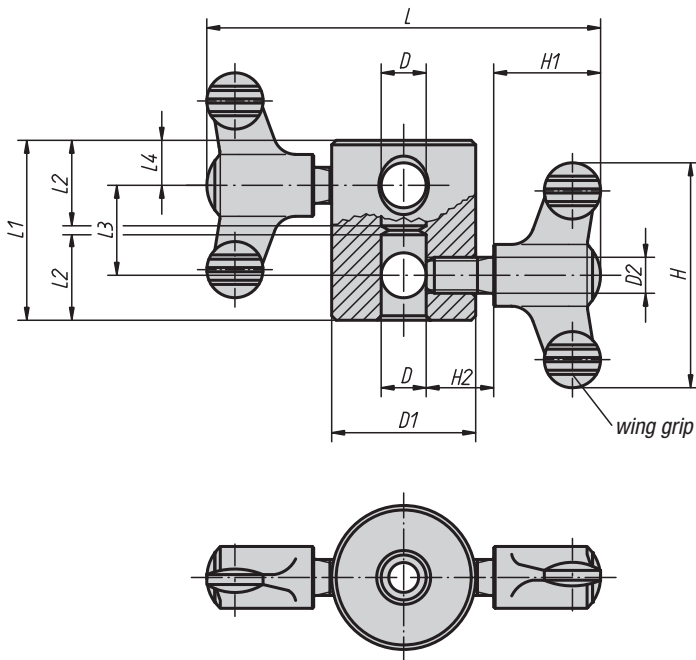
Clamping joints are used to clamp round cross sections (bars, tubes, etc.) and are continuously adjustable. The design has been kept as simple as possible and, in conjunction with the wing grips, it permits rapid clamping.



**KIPP Clamping joints individually adjustable**

| Order No. | Size | D  | D1 | D2  | L     | L1  | L2   | L3 | L4 | H  | H1   | Approx. weight kg |
|-----------|------|----|----|-----|-------|-----|------|----|----|----|------|-------------------|
| K0134.01  | 1    | 8  | 28 | M8  | 90    | 42  | 24   | 24 | 13 | 50 | 8,5  | 0,086             |
| K0134.02  | 2    | 10 | 32 | M8  | 100   | 52  | 24   | 32 | 15 | 50 | 9,5  | 0,124             |
| K0134.03  | 3    | 12 | 36 | M8  | 104   | 56  | 24   | 34 | 17 | 50 | 10,5 | 0,157             |
| K0134.04  | 4    | 16 | 45 | M10 | 143,2 | 72  | 35,6 | 44 | 22 | 75 | 13,5 | 0,345             |
| K0134.05  | 5    | 20 | 74 | M10 | 173,2 | 102 | 35,6 | 62 | 30 | 75 | 22   | 1,110             |

## Multiple connectors



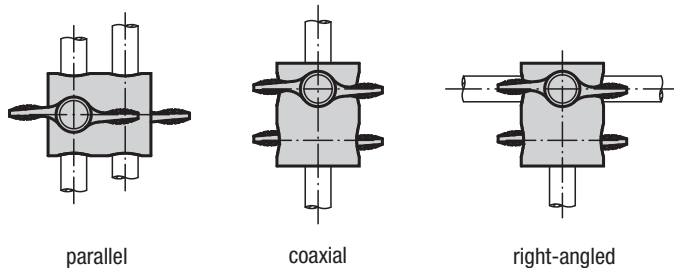
**Material, surface finish:**

Wing grip:  
 Handle in thermoplastic, anthracite grey.  
 Threaded bolt in blue chromated steel 5.8.  
 Main body in high-strength aluminium nickel silver anodized.

**Sample order:**  
 K0135.04

**Note:**  
 Multiple connectors are used to extend round cross sections (bars, tubes, etc.) in a coaxial or parallel arrangement.  
 A parallel arrangement of bars, for example, can also be used to strengthen or stiffen an assembly.  
 The locating hole system in the main body also makes it possible to produce right-angled connections.

**Arrangement:**



**KIPP Multiple connectors**

| Order No. | Size | D  | D1 | D2  | L     | L1 | L2 | L3 | L4 | H  | H1   | H2 | Approx. weight kg |
|-----------|------|----|----|-----|-------|----|----|----|----|----|------|----|-------------------|
| K0135.01  | 1    | 8  | 28 | M8  | 86    | 36 | 17 | 20 | 8  | 50 | 24   | 15 | 0,074             |
| K0135.02  | 2    | 10 | 32 | M8  | 88    | 40 | 19 | 20 | 10 | 50 | 24   | 15 | 0,093             |
| K0135.03  | 3    | 12 | 36 | M8  | 90    | 44 | 21 | 20 | 12 | 50 | 24   | 15 | 0,118             |
| K0135.04  | 4    | 16 | 45 | M10 | 127,2 | 56 | 27 | 24 | 16 | 75 | 35,6 | 20 | 0,262             |



## Clamping joints



**Material, surface finish:**

Bushing and bolt in steel, high-polish chromium-plated.  
Clamping piece in high-strength aluminium, black anodized.  
Wing grip handle in anthracite grey thermoplastic.

**Sample order:**

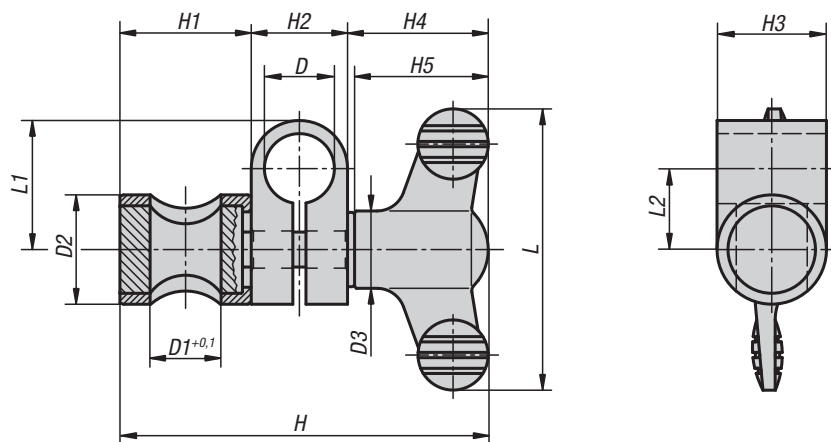
K0136.1616

**Note:**

Continuously adjustable. Rapid clamping with wing grip.

**On request:**

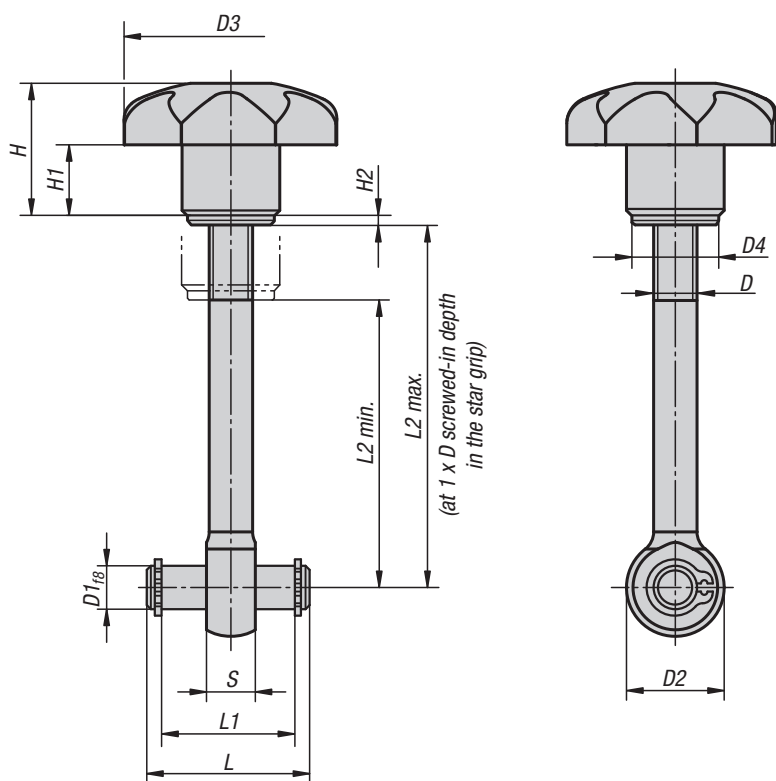
Different combinations of diameters D and D1.



### KIPP Clamping joints

| Order No.  | Size | D  | D1 | D2 | D3 | H    | H1 | H2 | H3 | H4   | H5   | L  | L1   | L2   | Approx. weight kg |
|------------|------|----|----|----|----|------|----|----|----|------|------|----|------|------|-------------------|
| K0136.0606 | 1    | 6  | 6  | 14 | 12 | 43,6 | 15 | 9  | 14 | 19,6 | 18   | 38 | 13   | 8,5  | 0,025             |
| K0136.0808 | 2    | 8  | 8  | 16 | 14 | 54,6 | 17 | 12 | 16 | 25,6 | 24   | 50 | 18   | 12   | 0,039             |
| K0136.1010 | 3    | 10 | 10 | 18 | 14 | 60,6 | 20 | 15 | 18 | 25,6 | 24   | 50 | 22   | 14,5 | 0,055             |
| K0136.1212 | 4    | 12 | 12 | 20 | 21 | 77,2 | 23 | 17 | 20 | 37,2 | 35,6 | 75 | 24   | 15,5 | 0,091             |
| K0136.1616 | 5    | 16 | 16 | 25 | 21 | 90,2 | 31 | 22 | 25 | 37,2 | 35,6 | 75 | 29,5 | 18,5 | 0,144             |
| K0136.2020 | 6    | 20 | 20 | 30 | 21 | 98,2 | 36 | 25 | 30 | 37,2 | 35,6 | 75 | 30   | 17,5 | 0,209             |

## Swash plates



### Material, surface finish:

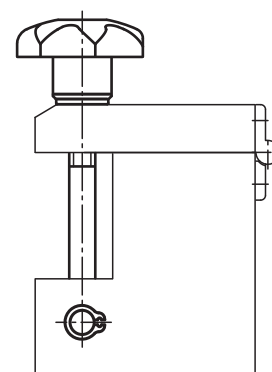
- Star grip: Black thermoplastic.
- Bush in galvanised steel, blue chromated.
- Washer: Steel 140 HV, natural finish.
- Eye bolt: Steel, quality class 8.8, black oxide finish.
- Hinge pins: Tempered steel 1.1181, heat-treated, ground, natural finish.

### Sample order:

K0053.06050

### Note:

The swash plates are delivered unassembled. Suitable circlips are enclosed.



### KIPP Swash plates

| Order No.   | D   | D1 | D2 | D3 | D4 | H  | H1 | H2  | L  | L1 | L2 min. | L2 max. | S  |
|-------------|-----|----|----|----|----|----|----|-----|----|----|---------|---------|----|
| K0053.06050 | M6  | 6  | 14 | 32 | 12 | 20 | 10 | 1,6 | 22 | 17 | 32      | 44      | 7  |
| K0053.06075 | M6  | 6  | 14 | 32 | 12 | 20 | 10 | 1,6 | 22 | 17 | 57      | 69      | 7  |
| K0053.08050 | M8  | 8  | 18 | 40 | 16 | 24 | 13 | 1,6 | 30 | 25 | 28      | 42      | 9  |
| K0053.08075 | M8  | 8  | 18 | 40 | 16 | 24 | 13 | 1,6 | 30 | 25 | 53      | 67      | 9  |
| K0053.10075 | M10 | 10 | 20 | 50 | 20 | 31 | 17 | 2   | 37 | 32 | 49      | 65      | 12 |
| K0053.10100 | M10 | 10 | 20 | 50 | 20 | 31 | 17 | 2   | 37 | 32 | 74      | 90      | 12 |

## Hook

with a quick-acting star grip



**Material, surface finish:**

Hook: Steel 1.0718, galvanized and blue chromated.

Quick-acting star grip: Black thermoplastic.

Bush in galvanized steel and blue chromated.

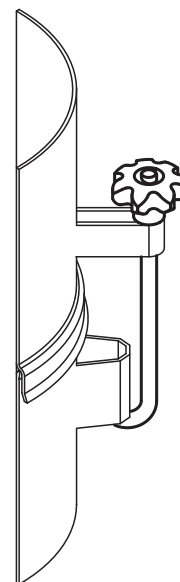
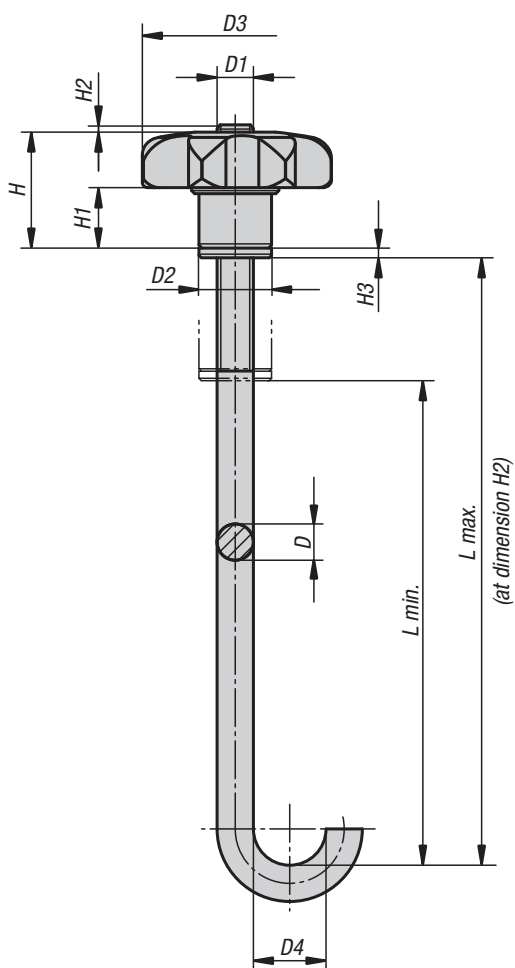
Washer: Steel 140 HV, natural finish.

**Sample order:**

K0054.05075

**Note:**

The module is delivered unassembled.



**KIPP Hook with a quick-acting star grip**

| Order No.   | D | D1 | D2 | D3 | D4 | H    | H1 | H2  | H3  | L min. | L max. | Clamping force F (kN) |
|-------------|---|----|----|----|----|------|----|-----|-----|--------|--------|-----------------------|
| K0054.05075 | 5 | M5 | 10 | 25 | 10 | 15,5 | 8  | 0,5 | 1   | 60     | 75     | 1                     |
| K0054.05100 | 5 | M5 | 10 | 25 | 10 | 15,5 | 8  | 0,5 | 1   | 85     | 100    | 1                     |
| K0054.06100 | 6 | M6 | 12 | 32 | 12 | 19,5 | 10 | 1   | 1,6 | 80     | 100    | 1,5                   |
| K0054.06125 | 6 | M6 | 12 | 32 | 12 | 19,5 | 10 | 1   | 1,6 | 105    | 125    | 1,5                   |
| K0054.08125 | 8 | M8 | 16 | 40 | 16 | 24,5 | 13 | 1,6 | 1,6 | 100    | 125    | 2                     |
| K0054.08140 | 8 | M8 | 16 | 40 | 16 | 24,5 | 13 | 1,6 | 1,6 | 115    | 140    | 2                     |

## Wing screws

with a counter grip

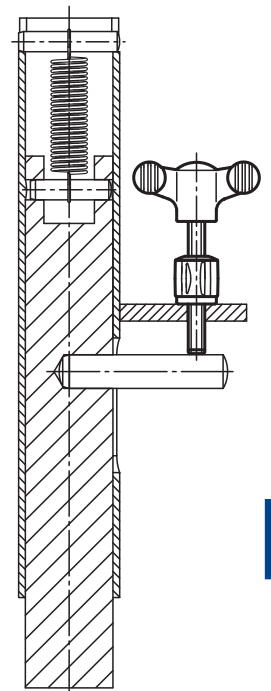
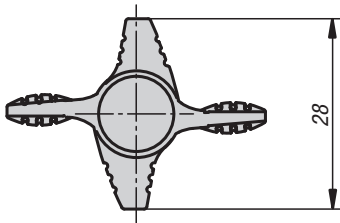
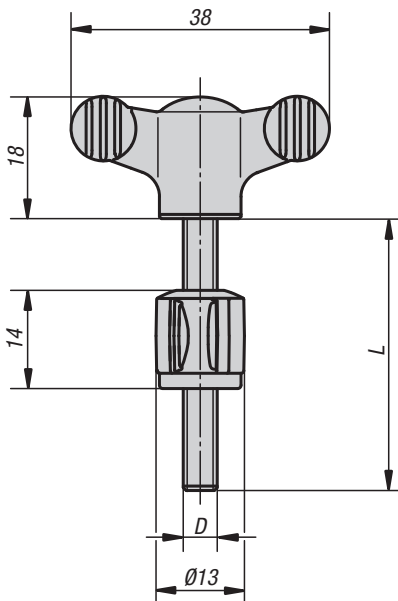


**Material, surface finish:**

Wing screw: Anthracite grey thermoplastic.  
 Threaded bolt in steel 5.8, blue chromated.  
 Counter grip: Anthracite grey thermoplastic.  
 Bush in steel, blue chromated.

**Sample order:**

K0182.904X30



**KIPP Wing screws with a counter grip**

| Order No.    | D  | L  |
|--------------|----|----|
| K0182.904X30 | M4 | 30 |
| K0182.904X40 | M4 | 40 |
| K0182.905X30 | M5 | 30 |
| K0182.905X40 | M5 | 40 |
| K0182.906X30 | M6 | 30 |
| K0182.906X40 | M6 | 40 |









## Joins

Quick plug couplings  
with radial offset compensation  
**K0709**



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Quick plug couplings with  
radial offset compensation  
and screw-on flange  
**K0710**



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Quick plug couplings  
with angular and radial  
offset compensation  
**K0711**



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Fork joints with snap-  
on spring  
**K0731**



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Fork joints  
in stainless steel  
**K0732**



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Fork joints  
**K0733**



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Ball joints  
DIN 71802  
**K0734**



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Ball seats for angle  
joints  
DIN 71805  
**K0712**



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Ball studs for angle  
joints  
DIN 71803  
**K0713**



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Circlips for ball seats  
DIN 71805  
**K0714**



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Axial joints  
similar to DIN 71802  
**K0715**



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Rod ends with ball  
bearing  
external thread  
**K0716**



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Rod ends with ball  
bearing  
internal thread  
**K0717**



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Rod ends with slide  
bearing  
external thread  
**K0718**



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Rod ends with slide  
bearing  
internal thread  
**K0719**



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Rod ends with slide bearing  
external thread, stainless steel  
**K0720**



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Rod ends with slide bearing  
internal thread, stainless steel  
**K0721**



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Rod ends with slide bearing  
external thread, narrow head  
**K0722**



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## Joints

Rod ends with slide bearing  
internal thread, narrow head  
**K0723**



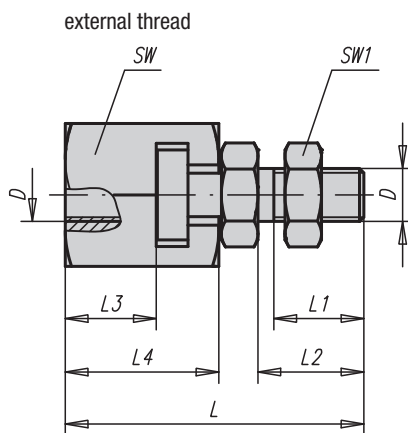
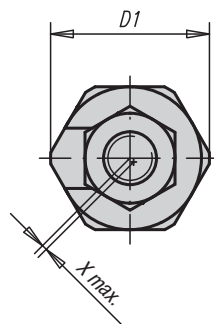
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## Quick plug couplings

with radial offset compensation



**Material, surface finish:**

Coupling part and claw in steel, heat-treated and phosphated.

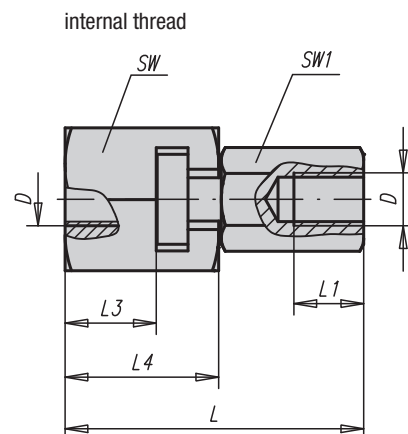
Nut (DIN 439) in steel, black oxide finish; quality class 8.8

**Sample order:**

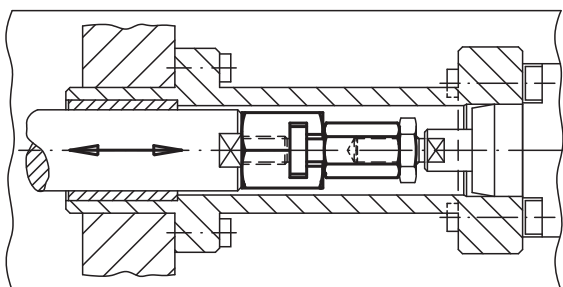
K0709.16

**Note:**

Quick plug couplings with radial offset compensation for multiple applications, e.g. as a link between a piston rod and a linear-movement unit. Assembly and disassembly of this simple, solid and two-part coupling is carried out by means of a T-slot; a manual re-adjustment is not necessary. The quick plug coupling can be linked to all commonly used pneumatic and hydraulic lifting cylinders via the connecting thread.



application example:



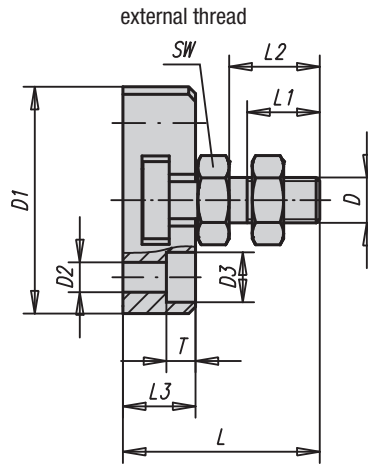
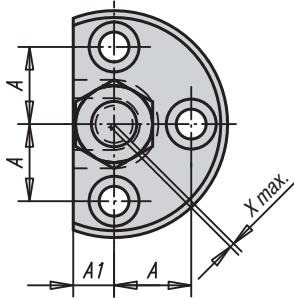
**The quick plug coupling does not transmit any torque.**

### KIPP Quick plug couplings with radial offset compensation

| Order No.   | Surface finish  | D        | D1   | ~L   | L1 min. | L2 | L3 min. | L4   | SW | SW1 | Max. radial shift compensation | Max. permissible tensile and compressive stress in kN | Approx. weight kg |
|-------------|-----------------|----------|------|------|---------|----|---------|------|----|-----|--------------------------------|---|-------------------|
| K0709.06    | Internal thread | M6       | 21   | 37,5 | 11      | -  | 9       | 18   | 19 | 10  | 0,6                            | 2,5   | 0,045             |
| K0709.08    | Internal thread | M8       | 26   | 45   | 13,5    | -  | 11,5    | 22,5 | 24 | 13  | 0,7                            | 4,5   | 0,089             |
| K0709.10    | Internal thread | M10      | 30   | 56,2 | 15      | -  | 16      | 29   | 27 | 17  | 0,7                            | 6,5   | 0,155             |
| K0709.101   | Internal thread | M10x1,25 | 30   | 56,2 | 15      | -  | 16      | 29   | 27 | 17  | 0,7                            | 6,5   | 0,155             |
| K0709.12    | Internal thread | M12      | 32,5 | 66,7 | 17,5    | -  | 17      | 34   | 30 | 19  | 0,8                            | 10  | 0,220             |
| K0709.121   | Internal thread | M12x1,25 | 32,5 | 66,7 | 17,5    | -  | 17      | 34   | 30 | 19  | 0,8                            | 10  | 0,220             |
| K0709.16    | Internal thread | M16      | 39   | 83   | 22      | -  | 23      | 42   | 36 | 24  | 1                              | 18  | 0,397             |
| K0709.161   | Internal thread | M16x1,5  | 39   | 83   | 22      | -  | 23      | 42   | 36 | 24  | 1                              | 18  | 0,398             |
| K0709.20    | Internal thread | M20      | 44   | 93,5 | 25      | -  | 23,5    | 45,5 | 41 | 30  | 1                              | 30  | 0,599             |
| K0709.201   | Internal thread | M20x1,5  | 44   | 93,5 | 25      | -  | 23,5    | 45,5 | 41 | 30  | 1                              | 30  | 0,594             |
| K0709.0614  | External thread | M6       | 21   | 37,5 | 11      | 14 | 9       | 18   | 19 | 10  | 0,6                            | 2,5   | 0,042             |
| K0709.0817  | External thread | M8       | 26   | 45   | 13,5    | 17 | 11,5    | 22,5 | 24 | 13  | 0,7                            | 4,5   | 0,084             |
| K0709.1020  | External thread | M10      | 30   | 56,2 | 16      | 20 | 16      | 29   | 27 | 17  | 0,7                            | 6,5   | 0,144             |
| K0709.10201 | External thread | M10x1,25 | 30   | 56,2 | 16      | 20 | 16      | 29   | 27 | 17  | 0,7                            | 6,5   | 0,145             |
| K0709.1225  | External thread | M12      | 32,5 | 66,7 | 21      | 25 | 17      | 34   | 30 | 19  | 0,8                            | 10  | 0,205             |
| K0709.12251 | External thread | M12x1,25 | 32,5 | 66,7 | 21      | 25 | 17      | 34   | 30 | 19  | 0,8                            | 10  | 0,205             |
| K0709.1630  | External thread | M16      | 39   | 83   | 25      | 30 | 23      | 42   | 36 | 24  | 1                              | 18  | 0,384             |
| K0709.16301 | External thread | M16x1,5  | 39   | 83   | 25      | 30 | 23      | 42   | 36 | 24  | 1                              | 18  | 0,385             |
| K0709.2035  | External thread | M20      | 44   | 93,5 | 29      | 35 | 23,5    | 45,5 | 41 | 30  | 1                              | 30  | 0,568             |
| K0709.20351 | External thread | M20x1,5  | 44   | 93,5 | 29      | 35 | 23,5    | 45,5 | 41 | 30  | 1                              | 30  | 0,568             |

## Quick plug couplings

with radial offset compensation and screw-on flange



**Material, surface finish:**

Coupling part and flange in steel, heat-treated and phosphated.

Nut (DIN 439) in steel, black oxide finish; quality class 8.8

**Sample order:**

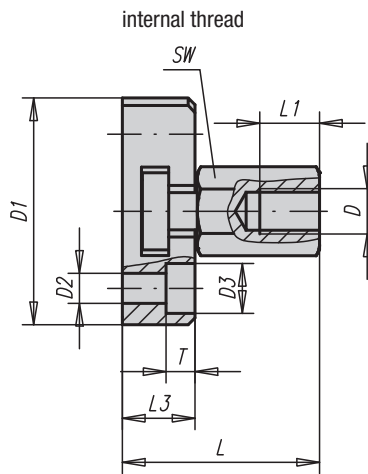
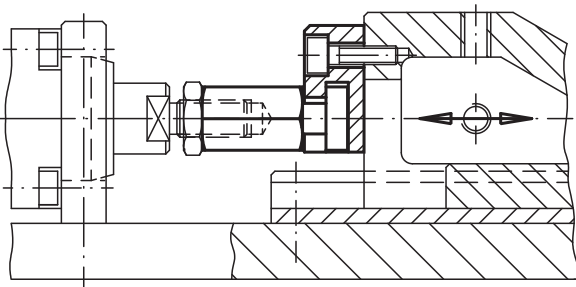
K0710.20351

**Note:**

Quick plug couplings with radial offset compensation requiring only little space. Suitable for multiple applications, e.g. as a link between a piston rod and a linear-movement unit. Assembly and disassembly of this simple, solid and two-part coupling is carried out by means of a T-slot; a manual re-adjustment is not necessary. The quick plug coupling can be linked to all commonly used pneumatic and hydraulic lifting cylinders via the connecting thread.

**The quick plug coupling does not transmit any torque.**

application example:

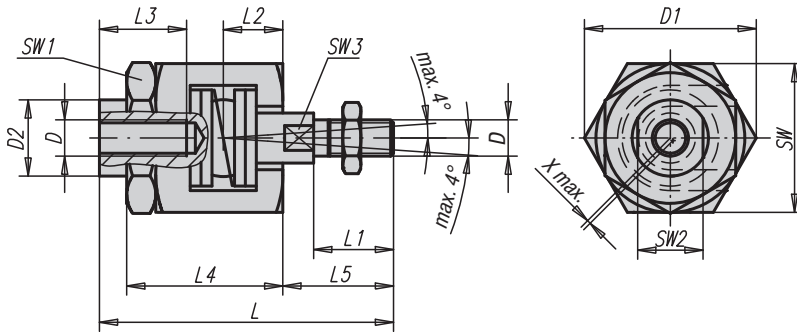


### KIPP Quick plug couplings with radial offset compensation and screw-on flange

| Order No.   | Surface finish  | D        | D1 | D2  | D3 | A    | A1   | ~L   | L1 min. | L2 | L3   | T   | SW | Max. radial shift compensation | Max. permissible tensile and compressive stress in kN | Approx. weight kg |
|-------------|-----------------|----------|----|-----|----|------|------|------|---------|----|------|-----|----|--------------------------------|---|-------------------|
| K0710.06    | Internal thread | M6       | 42 | 5,5 | 10 | 14   | 7    | 30,5 | 11      | -  | 11   | 5,4 | 10 | 0,6                            | 2,5   | 0,076             |
| K0710.08    | Internal thread | M8       | 48 | 6,6 | 11 | 16   | 8    | 35,5 | 13,5    | -  | 13   | 6,4 | 13 | 0,7                            | 4,5   | 0,122             |
| K0710.10    | Internal thread | M10      | 50 | 6,6 | 11 | 17   | 9    | 43,2 | 15      | -  | 16   | 6,4 | 17 | 0,7                            | 6,5   | 0,184             |
| K0710.101   | Internal thread | M10x1,25 | 50 | 6,6 | 11 | 17   | 9    | 43,2 | 15      | -  | 16   | 6,4 | 17 | 0,7                            | 6,5   | 0,184             |
| K0710.12    | Internal thread | M12      | 55 | 6,6 | 11 | 19   | 10   | 53,2 | 17,5    | -  | 20,5 | 6,4 | 19 | 0,8                            | 10  | 0,276             |
| K0710.121   | Internal thread | M12x1,25 | 55 | 6,6 | 11 | 19   | 10   | 53,2 | 17,5    | -  | 20,5 | 6,4 | 19 | 0,8                            | 10  | 0,276             |
| K0710.16    | Internal thread | M16      | 65 | 9   | 15 | 22,5 | 12,5 | 64   | 22      | -  | 23   | 8,5 | 24 | 1                              | 18  | 0,449             |
| K0710.161   | Internal thread | M16x1,5  | 65 | 9   | 15 | 22,5 | 12,5 | 64   | 22      | -  | 23   | 8,5 | 24 | 1                              | 18  | 0,449             |
| K0710.20    | Internal thread | M20      | 80 | 11  | 18 | 28   | 17   | 74   | 25      | -  | 26   | 10  | 30 | 1                              | 30  | 0,845             |
| K0710.201   | Internal thread | M20x1,5  | 80 | 11  | 18 | 28   | 17   | 74   | 25      | -  | 26   | 10  | 30 | 1                              | 30  | 0,840             |
| K0710.0614  | External thread | M6       | 42 | 5,5 | 10 | 14   | 7    | 30,5 | 11      | 14 | 11   | 5,4 | 10 | 0,6                            | 2,5   | 0,073             |
| K0710.0817  | External thread | M8       | 48 | 6,6 | 11 | 16   | 8    | 35,5 | 13,5    | 17 | 13   | 6,4 | 13 | 0,7                            | 4,5   | 0,116             |
| K0710.1020  | External thread | M10      | 50 | 6,6 | 11 | 17   | 9    | 43,2 | 16      | 20 | 16   | 6,4 | 17 | 0,7                            | 6,5   | 0,173             |
| K0710.10201 | External thread | M10x1,25 | 50 | 6,6 | 11 | 17   | 9    | 43,2 | 16      | 20 | 16   | 6,4 | 17 | 0,7                            | 6,5   | 0,174             |
| K0710.1225  | External thread | M12      | 55 | 6,6 | 11 | 19   | 10   | 53,2 | 21      | 25 | 20,5 | 6,4 | 19 | 0,8                            | 10  | 0,261             |
| K0710.12251 | External thread | M12x1,25 | 55 | 6,6 | 11 | 19   | 10   | 53,2 | 21      | 25 | 20,5 | 6,4 | 19 | 0,8                            | 10  | 0,262             |
| K0710.1630  | External thread | M16      | 65 | 9   | 15 | 22,5 | 12,5 | 64   | 25      | 30 | 23   | 8,5 | 24 | 1                              | 18  | 0,431             |
| K0710.16301 | External thread | M16x1,5  | 65 | 9   | 15 | 22,5 | 12,5 | 64   | 25      | 30 | 23   | 8,5 | 24 | 1                              | 18  | 0,433             |
| K0710.2035  | External thread | M20      | 80 | 11  | 18 | 28   | 17   | 74   | 29      | 35 | 26   | 10  | 30 | 1                              | 30  | 0,815             |
| K0710.20351 | External thread | M20x1,5  | 80 | 11  | 18 | 28   | 17   | 74   | 29      | 35 | 26   | 10  | 30 | 1                              | 30  | 0,815             |

## Quick plug couplings

with angular and radial offset compensation



### Material, surface finish:

Coupling part in tempered steel, nitrided, black.  
Claw and seat in steel, heat-treated and phosphated.  
Nut in tempered steel, phosphated.  
Locking nut (EN 24035) in steel, quality class 8.8, black.  
Spring in stainless steel

### Sample order:

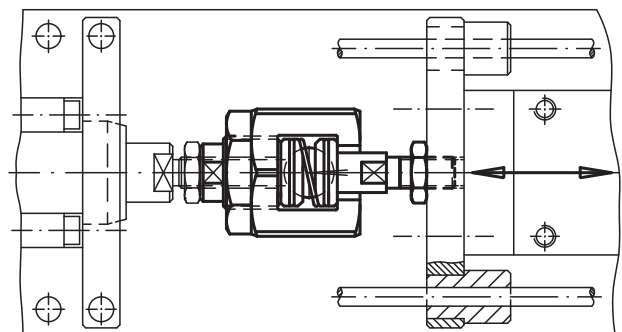
K0711.12

### Note:

Quick plug coupling, adjustable without axial play, including angular and radial offset compensation. Suitable for multiple applications, e.g. for non-aligned linear-movements. Solid and compact design, no loose elements. Assembly and disassembly is carried out by means of a T-slot; a manual re-adjustment is not necessary. The quick plug coupling can be linked to all commonly used pneumatic and hydraulic lifting cylinders via the connecting thread.

**The quick plug coupling does not transmit any torque.**

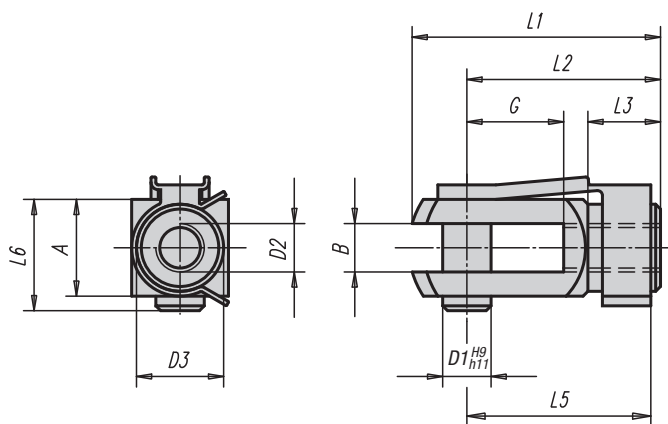
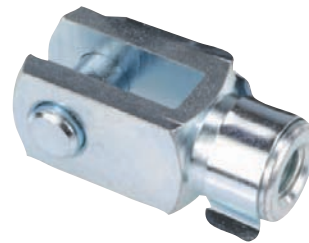
application example:



### KIPP Quick plug couplings with angular and radial offset compensation

| Order No. | D        | D1   | D2  | ~L  | L1 | L2   | L3<br>min. | L4 | L5   | SW | SW1 | SW2 | SW3 | Max. radial shift<br>compensation | Max. permissible tensile and<br>compressive stress in<br>kN | Approx.<br>weight<br>kg |
|-----------|----------|------|-----|-----|----|------|------------|----|------|----|-----|-----|-----|-----------------------------------|---|-------------------------|
| K0711.06  | M6       | 24,5 | 9,6 | 52  | 14 | 9,5  | 13         | 29 | 18,5 | 22 | 19  | 8   | 5   | 0,6                               | 2,5   | 0,075                   |
| K0711.08  | M8       | 30   | 15  | 63  | 18 | 11,5 | 16         | 33 | 23,5 | 27 | 24  | 13  | 7   | 0,6                               | 4,5   | 0,135                   |
| K0711.10  | M10      | 44   | 21  | 81  | 22 | 16   | 24         | 43 | 30,5 | 41 | 36  | 18  | 12  | 0,7                               | 6,5   | 0,403                   |
| K0711.101 | M10x1,25 | 44   | 21  | 81  | 22 | 16   | 24         | 43 | 30,5 | 41 | 36  | 18  | 12  | 0,7                               | 6,5   | 0,403                   |
| K0711.12  | M12      | 44   | 21  | 85  | 26 | 16   | 24         | 43 | 34,5 | 41 | 36  | 18  | 12  | 0,7                               | 10  | 0,405                   |
| K0711.121 | M12x1,25 | 44   | 21  | 85  | 26 | 16   | 24         | 43 | 34,5 | 41 | 36  | 18  | 12  | 0,7                               | 10  | 0,409                   |
| K0711.16  | M16      | 60   | 32  | 121 | 34 | 26   | 34         | 62 | 45   | 55 | 46  | 27  | 18  | 1                                 | 18  | 1,090                   |
| K0711.161 | M16x1,5  | 60   | 32  | 121 | 34 | 26   | 34         | 62 | 45   | 55 | 46  | 27  | 18  | 1                                 | 18  | 1,094                   |
| K0711.20  | M20      | 60   | 32  | 129 | 42 | 26   | 34         | 62 | 53   | 55 | 46  | 27  | 18  | 1                                 | 30  | 1,136                   |
| K0711.201 | M20x1,5  | 60   | 32  | 129 | 42 | 26   | 34         | 62 | 53   | 55 | 46  | 27  | 18  | 1                                 | 30  | 1,143                   |

## Fork joints with snap-on spring



**Material:**

Fork head and bolts of free-cutting steel, spring leg of spring steel

**Surface finish:**

Galvanized and chromated

**Sample order:**

K0731.0510

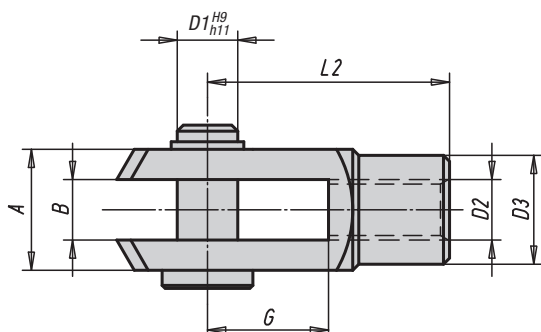
**On request:**

Left-handed thread.

### KIPP Fork joints with snap-on spring

| Order No.   | Surface finish      | D1 | D2       | D3 | L1 | L2 | L3   | ~L5 | ~L6 | A  | B  | G  | Approx. weight g |
|-------------|---------------------|----|----------|----|----|----|------|-----|-----|----|----|----|------------------|
| K0731.0510  | right-handed thread | 5  | M5       | 9  | 26 | 20 | 7,5  | 19  | 12  | 10 | 5  | 10 | 12,0             |
| K0731.0612  | right-handed thread | 6  | M6       | 10 | 31 | 24 | 9    | 23  | 14  | 12 | 6  | 12 | 20,0             |
| K0731.0816  | right-handed thread | 8  | M8       | 14 | 42 | 32 | 12   | 31  | 19  | 16 | 8  | 16 | 37,0             |
| K0731.0832  | right-handed thread | 8  | M8       | 14 | 58 | 48 | 12   | 47  | 19  | 16 | 8  | 32 | 66,0             |
| K0731.1020  | right-handed thread | 10 | M10      | 18 | 52 | 40 | 15   | 39  | 23  | 20 | 10 | 20 | 93,0             |
| K0731.10120 | right-handed thread | 10 | M10x1,25 | 18 | 52 | 40 | 15   | 39  | 23  | 20 | 10 | 20 | 93,0             |
| K0731.1040  | right-handed thread | 10 | M10      | 18 | 72 | 60 | 15   | 59  | 23  | 20 | 10 | 40 | 137,0            |
| K0731.10140 | right-handed thread | 10 | M10x1,25 | 18 | 72 | 60 | 15   | 59  | 23  | 20 | 10 | 40 | 137,0            |
| K0731.1224  | right-handed thread | 12 | M12      | 20 | 62 | 48 | 18   | 47  | 28  | 24 | 12 | 24 | 155,0            |
| K0731.12124 | right-handed thread | 12 | M12x1,25 | 20 | 62 | 48 | 18   | 47  | 28  | 24 | 12 | 24 | 155,0            |
| K0731.1248  | right-handed thread | 12 | M12      | 20 | 86 | 72 | 18   | 69  | 28  | 24 | 12 | 48 | 210,0            |
| K0731.12148 | right-handed thread | 12 | M12x1,25 | 20 | 86 | 72 | 18   | 69  | 28  | 24 | 12 | 48 | 210,0            |
| K0731.1428  | right-handed thread | 14 | M14      | 24 | 72 | 56 | 22,5 | 52  | 31  | 27 | 14 | 28 | 223,0            |
| K0731.1632  | right-handed thread | 16 | M16      | 26 | 83 | 64 | 24   | 62  | 36  | 32 | 16 | 32 | 352,0            |
| K0731.16132 | right-handed thread | 16 | M16x1,5  | 26 | 83 | 64 | 24   | 62  | 36  | 32 | 16 | 32 | 352,0            |

## Fork joints in stainless steel



**Material:**  
Stainless steel 1.4305

**Surface finish:**  
Natural finish

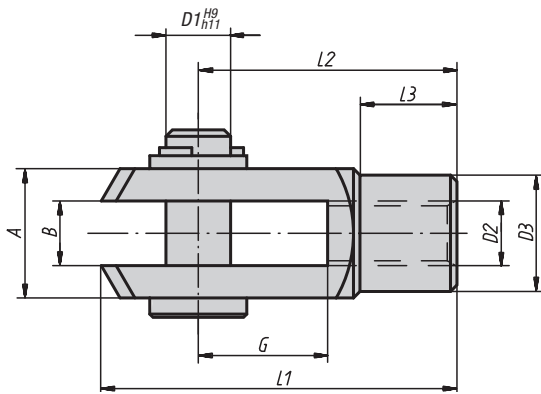
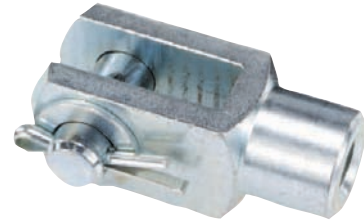
**Sample order:**  
K0732.0816

**On request:**  
Left-handed thread.

### KIPP Fork joints in stainless steel

| Order No.   | D1 | D2       | D3 | L2 | A  | B  | G  | Approx. weight kg |
|-------------|----|----------|----|----|----|----|----|-------------------|
| K0732.0510  | 5  | M5       | 9  | 20 | 10 | 5  | 10 | 0,011             |
| K0732.0612  | 6  | M6       | 10 | 24 | 12 | 6  | 12 | 0,018             |
| K0732.0816  | 8  | M8       | 14 | 32 | 16 | 8  | 16 | 0,046             |
| K0732.0832  | 8  | M8       | 14 | 48 | 16 | 8  | 32 | 0,062             |
| K0732.1020  | 10 | M10      | 18 | 40 | 20 | 10 | 20 | 0,091             |
| K0732.10120 | 10 | M10x1,25 | 18 | 40 | 20 | 10 | 20 | 0,091             |
| K0732.1040  | 10 | M10      | 18 | 60 | 20 | 10 | 40 | 0,120             |
| K0732.1224  | 12 | M12      | 20 | 48 | 24 | 12 | 24 | 0,150             |
| K0732.12124 | 12 | M12x1,25 | 20 | 48 | 24 | 12 | 24 | 0,150             |
| K0732.1248  | 12 | M12      | 20 | 72 | 24 | 12 | 48 | 0,201             |
| K0732.12148 | 12 | M12x1,25 | 20 | 72 | 24 | 12 | 48 | 0,201             |
| K0732.1428  | 14 | M14      | 24 | 56 | 27 | 14 | 28 | 0,218             |
| K0732.1632  | 16 | M16      | 26 | 64 | 32 | 16 | 32 | 0,338             |
| K0732.16132 | 16 | M16x1,5  | 26 | 64 | 32 | 16 | 32 | 0,338             |

## Fork joints



**Material:**  
Free-cutting steel

**Surface finish:**  
Galvanized

**Sample order:**  
K0733.0510

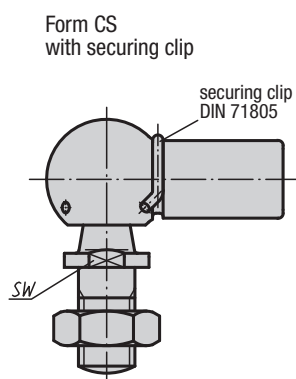
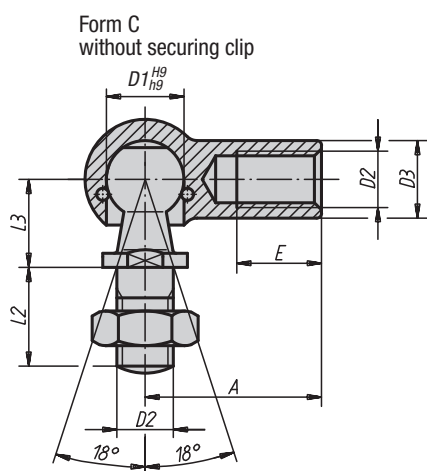
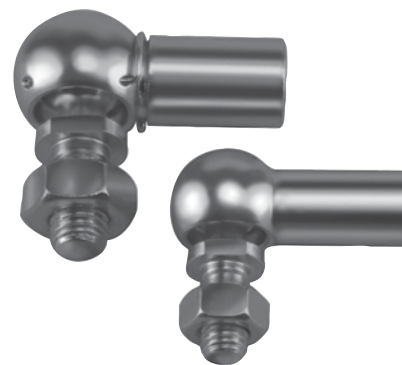
**On request:**  
Left-handed thread.

### KIPP Fork joints

| Order No.   | Surface finish      | D1 | D2       | D3 | L1 | L2 | L3   | A  | B  | G  | Approx. weight g |
|-------------|---------------------|----|----------|----|----|----|------|----|----|----|------------------|
| K0733.0510  | right-handed thread | 5  | M5       | 9  | 26 | 20 | 7,5  | 10 | 5  | 10 | 10,0             |
| K0733.0612  | right-handed thread | 6  | M6       | 10 | 31 | 24 | 9    | 12 | 6  | 12 | 16,0             |
| K0733.0816  | right-handed thread | 8  | M8       | 14 | 42 | 32 | 12   | 16 | 8  | 16 | 38,0             |
| K0733.0832  | right-handed thread | 8  | M8       | 14 | 58 | 48 | 12   | 16 | 8  | 32 | 55,0             |
| K0733.1020  | right-handed thread | 10 | M10      | 18 | 52 | 40 | 15   | 20 | 10 | 20 | 80,0             |
| K0733.10120 | right-handed thread | 10 | M10x1,25 | 18 | 52 | 40 | 15   | 20 | 10 | 20 | 80,0             |
| K0733.1040  | right-handed thread | 10 | M10      | 18 | 72 | 60 | 15   | 20 | 10 | 40 | 120,0            |
| K0733.10140 | right-handed thread | 10 | M10x1,25 | 18 | 72 | 60 | 15   | 20 | 10 | 40 | 120,0            |
| K0733.1224  | right-handed thread | 12 | M12      | 20 | 62 | 48 | 18   | 24 | 12 | 24 | 125,0            |
| K0733.12124 | right-handed thread | 12 | M12x1,25 | 20 | 62 | 48 | 18   | 24 | 12 | 24 | 125,0            |
| K0733.1248  | right-handed thread | 12 | M12      | 20 | 86 | 72 | 18   | 24 | 12 | 48 | 180,0            |
| K0733.12148 | right-handed thread | 12 | M12x1,25 | 20 | 86 | 72 | 18   | 24 | 12 | 48 | 180,0            |
| K0733.1428  | right-handed thread | 14 | M14      | 24 | 72 | 56 | 22,5 | 27 | 14 | 28 | 190,0            |
| K0733.1632  | right-handed thread | 16 | M16      | 26 | 83 | 64 | 24   | 32 | 16 | 32 | 300,0            |
| K0733.16132 | right-handed thread | 16 | M16x1,5  | 26 | 83 | 64 | 24   | 32 | 16 | 32 | 300,0            |

## Ball joints

DIN 71802



**Material:**

Steel or stainless steel 1.4305

**Surface finish:**

galvanized and chromated;  
stainless steel natural finish

**Sample order:**

K0734.08051

**On request:**

Left-handed thread available on request.

### KIPP Ball joints DIN 71802

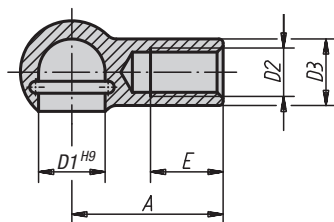
| Order No.   | Form | Material        | D1 | D2      | D3 | A  | L2 | L3 | E    | SW | Approx. weight g |
|-------------|------|-----------------|----|---------|----|----|----|----|------|----|------------------|
| K0734.0805  | C    | steel           | 8  | M5      | 8  | 22 | 10 | 9  | 10,2 | 7  | 15,2             |
| K0734.1006  | C    | steel           | 10 | M6      | 10 | 25 | 12 | 11 | 11,5 | 8  | 25,2             |
| K0734.1308  | C    | steel           | 13 | M8      | 13 | 30 | 16 | 13 | 14   | 11 | 53,1             |
| K0734.1610  | C    | steel           | 16 | M10     | 16 | 35 | 19 | 16 | 15,5 | 13 | 103,8            |
| K0734.1612  | C    | steel           | 16 | M12     | 16 | 35 | 19 | 16 | 15,5 | 13 | 103,8            |
| K0734.1914  | C    | steel           | 19 | M14x1,5 | 22 | 45 | 27 | 20 | 21,5 | 16 | 220,9            |
| K0734.1916  | C    | steel           | 19 | M16     | 22 | 45 | 27 | 20 | 21,5 | 16 | 220,9            |
| K0734.08051 | CS   | steel           | 8  | M5      | 8  | 22 | 10 | 9  | 10,2 | 7  | 15,2             |
| K0734.10061 | CS   | steel           | 10 | M6      | 10 | 25 | 12 | 11 | 11,5 | 8  | 25,2             |
| K0734.13081 | CS   | steel           | 13 | M8      | 13 | 30 | 16 | 13 | 14   | 11 | 53,1             |
| K0734.16101 | CS   | steel           | 16 | M10     | 16 | 35 | 19 | 16 | 15,5 | 13 | 103,8            |
| K0734.16121 | CS   | steel           | 16 | M12     | 16 | 35 | 19 | 16 | 15,5 | 13 | 103,8            |
| K0734.19141 | CS   | steel           | 19 | M14x1,5 | 22 | 45 | 27 | 20 | 21,5 | 16 | 220,9            |
| K0734.19161 | CS   | steel           | 19 | M16     | 22 | 45 | 27 | 20 | 21,5 | 16 | 220,9            |
| K0734.08052 | CS   | stainless steel | 8  | M5      | 8  | 22 | 10 | 9  | 10,2 | 7  | 15,2             |
| K0734.10062 | CS   | stainless steel | 10 | M6      | 10 | 25 | 12 | 11 | 11,5 | 8  | 25,2             |
| K0734.13082 | CS   | stainless steel | 13 | M8      | 13 | 30 | 16 | 13 | 14   | 11 | 53,1             |
| K0734.16102 | CS   | stainless steel | 16 | M10     | 16 | 35 | 19 | 16 | 15,5 | 13 | 103,8            |
| K0734.16122 | CS   | stainless steel | 16 | M12     | 16 | 35 | 19 | 16 | 15,5 | 13 | 103,8            |

## Ball seats for angle joints

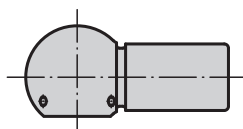
DIN 71805



Form A  
with snap ring



Form B  
with snap ring and slot  
for securing clip



**Material:**

Steel

**Surface finish:**

galvanized and chromated

**Sample order:**

K0712.08051

**Note:**

The ball sockets are spare parts for DIN 71802 ball joints. See circlips for ball seats for suitable retaining rings for Form B. Stainless steel ball joints available on request.

### KIPP Ball seats for angle joints DIN 71805

| Order No.<br>Form A | Order No.<br>Form B | D1 | D2      | D3 | A  | E    |
|---------------------|---------------------|----|---------|----|----|------|
| K0712.0805          | K0712.08051         | 8  | M5      | 8  | 22 | 10,2 |
| K0712.1006          | K0712.10061         | 10 | M6      | 10 | 25 | 11,5 |
| K0712.1308          | K0712.13081         | 13 | M8      | 13 | 30 | 14   |
| K0712.1610          | K0712.16101         | 16 | M10     | 16 | 35 | 15,5 |
| K0712.1612          | K0712.16121         | 16 | M12     | 16 | 35 | 15,5 |
| K0712.1914          | K0712.19141         | 19 | M14x1,5 | 22 | 45 | 21,5 |
| K0712.1916          | K0712.19161         | 19 | M16     | 22 | 45 | 21,5 |

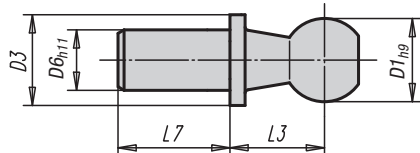


## Ball studs for angle joints

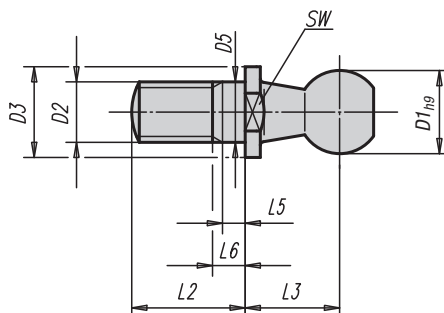
DIN 71803



Form B  
with rivet pin



Form C  
with threaded pin and SW

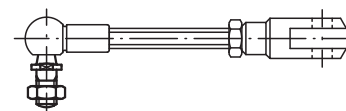


**Material:**  
Steel

**Surface finish:**  
galvanized and chromated

**Sample order:**  
K0713.1006

**Note:**  
The ball pivots are spare parts for DIN 71802 ball joints.

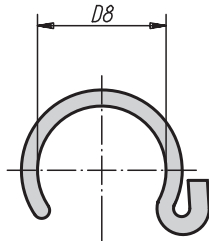
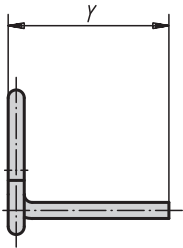


### KIPP Ball studs for angle joints DIN 71803

| Order No.  | Form | Surface finish | D1 | D2      | D3 | D5 | D6 | L2   | L3 | L5 min. | L6 max. | L7  | SW | Approx. weight g |
|------------|------|----------------|----|---------|----|----|----|------|----|---------|---------|-----|----|------------------|
| K0713.0840 | B    | short          | 8  | -       | 8  | -  | 5  | -    | 9  | -       | -       | 4   | -  | 3,85             |
| K0713.1045 | B    | short          | 10 | -       | 10 | -  | 6  | -    | 11 | -       | -       | 4,5 | -  | 7,10             |
| K0713.1305 | B    | short          | 13 | -       | 13 | -  | 8  | -    | 13 | -       | -       | 5   | -  | 14,20            |
| K0713.1606 | B    | short          | 16 | -       | 16 | -  | 10 | -    | 16 | -       | -       | 6   | -  | 23,50            |
| K0713.1912 | B    | short          | 19 | -       | 19 | -  | 14 | -    | 20 | -       | -       | 12  | -  | 56,20            |
| K0713.0875 | B    | long           | 8  | -       | 8  | -  | 5  | -    | 9  | -       | -       | 7,5 | -  | 4,35             |
| K0713.1080 | B    | long           | 10 | -       | 10 | -  | 6  | -    | 11 | -       | -       | 8   | -  | 7,80             |
| K0713.1310 | B    | long           | 13 | -       | 13 | -  | 8  | -    | 13 | -       | -       | 10  | -  | 16,00            |
| K0713.1613 | B    | long           | 16 | -       | 16 | -  | 10 | -    | 16 | -       | -       | 13  | -  | 29,60            |
| K0713.1918 | B    | long           | 19 | -       | 19 | -  | 14 | -    | 20 | -       | -       | 18  | -  | 63,70            |
| K0713.0805 | C    | -              | 8  | M5      | 8  | 5  | -  | 10,2 | 9  | 1,2     | 4       | -   | 7  | 4,6              |
| K0713.1006 | C    | -              | 10 | M6      | 10 | 6  | -  | 12,5 | 11 | 1,2     | 4       | -   | 8  | 8,5              |
| K0713.1308 | C    | -              | 13 | M8      | 13 | 8  | -  | 16,5 | 13 | 1,5     | 5,3     | -   | 11 | 17,7             |
| K0713.1610 | C    | -              | 16 | M10     | 16 | 10 | -  | 20   | 16 | 2,5     | 7,3     | -   | 13 | 35,1             |
| K0713.1612 | C    | -              | 16 | M12     | 16 | 12 | -  | 20   | 16 | 2,5     | 7,3     | -   | 13 | 35,1             |
| K0713.1914 | C    | -              | 19 | M14x1,5 | 19 | 14 | -  | 28   | 20 | 5       | 10,8    | -   | 16 | 71,2             |

## Circlips for ball seats

DIN 71805



**Material:**  
Spring steel

**Surface finish:**  
galvanized and chromated

**Sample order:**  
K0714.08

**Note:**  
For Ball seats DIN 71805

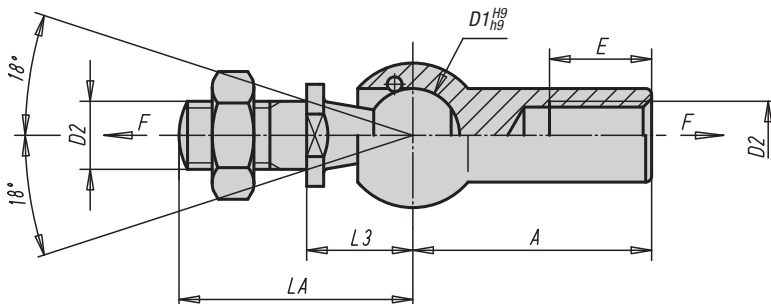
### KIPP Circlips for ball seats DIN 71805

| Order No. | Type | D8  | Y    | Suitable for ball sockets with D1 |
|-----------|------|-----|------|-----------------------------------|
| K0714.08  | S 8  | 7   | 12   | 8                                 |
| K0714.10  | S10  | 8,7 | 12,5 | 10                                |
| K0714.13  | S13  | 11  | 15,7 | 13                                |
| K0714.16  | S16  | 13  | 19   | 16                                |
| K0714.19  | S19  | 20  | 24   | 19                                |



## Axial joints

similar to DIN 71802



**Material:**  
Steel

**Surface finish:**  
galvanized and chromated

**Sample order:**  
K0715.10

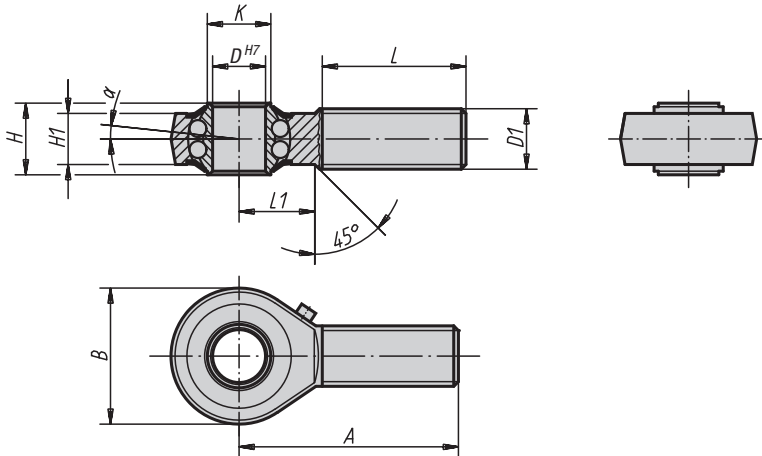
**Note:**  
Axial joints with greater extraction force and left-hand thread available on request.

### KIPP Axial joints similar to DIN 71802

| Order No. | D1 | D2      | A  | LA   | L3 | E    | Extraction force F<br>in N | Approx.<br>weight<br>kg |
|-----------|----|---------|----|------|----|------|----------------------------|-------------------------|
| K0715.08  | 8  | M5      | 22 | 19,2 | 9  | 10,2 | 30                         | 0,015                   |
| K0715.10  | 10 | M6      | 25 | 23,5 | 11 | 11,5 | 40                         | 0,025                   |
| K0715.13  | 13 | M8      | 30 | 29,5 | 13 | 14   | 60                         | 0,053                   |
| K0715.16  | 16 | M10     | 35 | 36   | 16 | 15,5 | 80                         | 0,104                   |
| K0715.19  | 19 | M14x1,5 | 45 | 48   | 20 | 21,5 | 100                        | 0,221                   |

## Rod ends with ball bearing

external thread



**Material:**

Casing: drop-forged steel, tempered.

**Surface finish:**

Galvanized.

Internal Clearance 15 - 40 µm.

**Sample order:**

K0716.12

**Note:**

The hardened ball bearing is long-term greased and sealed with cover washers. The connection dimensions comply with DIN 648 Form Series KA.

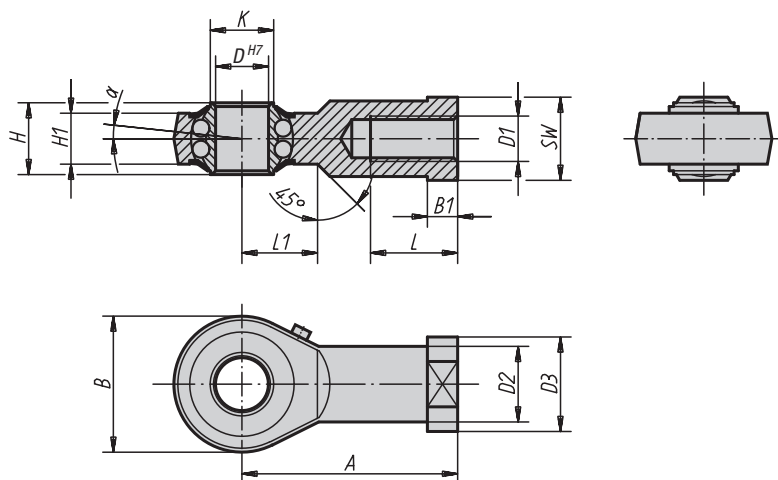
Rod ends are primarily used where movement processes are transmitted and there is no exact alignment.

### KIPP Rod ends with ball bearing external thread

| Order No.<br>right-handed thread | Order No.<br>left-handed thread | D  | D1      | A  | B  | H  | H1   | K    | L  | L1 | α    | Dynamic<br>base loads<br>N | Static<br>base loads<br>N | Rev. limit n<br>max. 1/min | Approx.<br>weight<br>kg |
|----------------------------------|---------------------------------|----|---------|----|----|----|------|------|----|----|------|----------------------------|---------------------------|----------------------------|-------------------------|
| K0716.06                         | K0716.061                       | 6  | M6      | 36 | 20 | 9  | 6,75 | 9    | 22 | 12 | 8°   | 2750                       | 650                       | 1350                       | 0,019                   |
| K0716.08                         | K0716.081                       | 8  | M8      | 42 | 24 | 12 | 9    | 10,5 | 25 | 15 | 8,5° | 4000                       | 1000                      | 1300                       | 0,036                   |
| K0716.10                         | K0716.101                       | 10 | M10     | 48 | 28 | 14 | 10,5 | 12   | 29 | 15 | 8°   | 4450                       | 1450                      | 1225                       | 0,060                   |
| K0716.12                         | K0716.121                       | 12 | M12     | 54 | 32 | 16 | 12   | 14,5 | 33 | 19 | 7,5° | 4950                       | 1800                      | 1125                       | 0,087                   |
| K0716.16                         | K0716.161                       | 16 | M16     | 66 | 42 | 21 | 15   | 19   | 40 | 22 | 8°   | 6250                       | 2350                      | 975                        | 0,190                   |
| K0716.20                         | K0716.201                       | 20 | M20x1,5 | 78 | 50 | 25 | 18   | 24,5 | 47 | 28 | 7°   | 7900                       | 3450                      | 825                        | 0,338                   |
| K0716.22                         | K0716.221                       | 22 | M22x1,5 | 84 | 54 | 28 | 20   | 26   | 51 | 26 | 8°   | 9300                       | 3980                      | 725                        | 0,450                   |

## Rod ends with ball bearing

internal thread



**Material:**

Casing: drop-forged steel, tempered.

**Surface finish:**

Galvanized. Internal Clearance 15 - 40 µm.

**Sample order:**

K0717.16

**Note:**

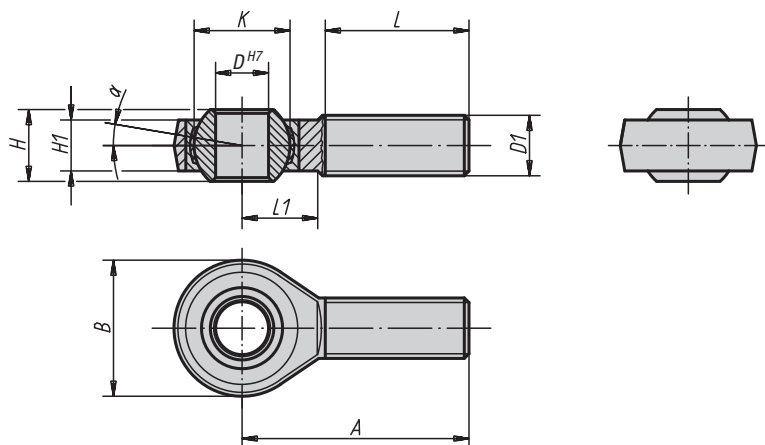
The hardened ball bearing is long-term greased and sealed with cover washers. The connection dimensions comply with DIN 648 Form Series KA.

### KIPP Rod ends with ball bearing internal thread

| Order No.<br>left-handed thread | Order No.<br>right-handed thread | D  | D1      | D2   | D3 | A  | B  | B1  | H  | H1   | K    | L  | L1 | SW | α    | Dynamic<br>base loads<br>N | Static<br>base loads<br>N | Rev. limit n<br>max. 1/min | Approx.<br>weight<br>kg |
|---------------------------------|----------------------------------|----|---------|------|----|----|----|-----|----|------|------|----|----|----|------|----------------------------|---------------------------|----------------------------|-------------------------|
| K0717.081                       | K0717.08                         | 8  | M8      | 12,5 | 16 | 36 | 24 | 5   | 12 | 9    | 10,5 | 16 | 12 | 14 | 8,5° | 4000                       | 1000                      | 1300                       | 0,044                   |
| K0717.201                       | K0717.20                         | 20 | M20x1,5 | 27,5 | 34 | 77 | 50 | 10  | 25 | 18   | 24,5 | 33 | 26 | 30 | 7°   | 7900                       | 3450                      | 825                        | 0,367                   |
| K0717.061                       | K0717.06                         | 6  | M6      | 10   | 13 | 30 | 20 | 5   | 9  | 6,75 | 9    | 12 | 10 | 11 | 8°   | 2750                       | 650                       | 1350                       | 0,024                   |
| K0717.221                       | K0717.22                         | 22 | M22x1,5 | 30   | 38 | 84 | 54 | 12  | 28 | 20   | 26   | 37 | 26 | 32 | 8°   | 9300                       | 3980                      | 725                        | 0,480                   |
| K0717.161                       | K0717.16                         | 16 | M16     | 22   | 27 | 64 | 42 | 8   | 21 | 15   | 19   | 28 | 22 | 22 | 8°   | 6250                       | 2350                      | 975                        | 0,224                   |
| K0717.101                       | K0717.10                         | 10 | M10     | 15   | 19 | 43 | 28 | 6,5 | 14 | 10,5 | 12   | 20 | 15 | 17 | 8°   | 4450                       | 1450                      | 1225                       | 0,072                   |
| K0717.121                       | K0717.12                         | 12 | M12     | 17,5 | 22 | 50 | 32 | 6,5 | 16 | 12   | 14,5 | 22 | 16 | 19 | 7,5° | 4950                       | 1800                      | 1125                       | 0,107                   |

## Rod ends with slide bearing

external thread



**Material:**

Casing size (D) 5-12: free-cutting steel, turned. Casing from size (D) 16: tempered steel, forged. Ball joint: roller bearing steel, hardened, ground and polished. Bearing shell: free-cutting steel with PTFE cloth glued in

**Surface finish:**

galvanized

**Sample order:**

K0718.20

**Note:**

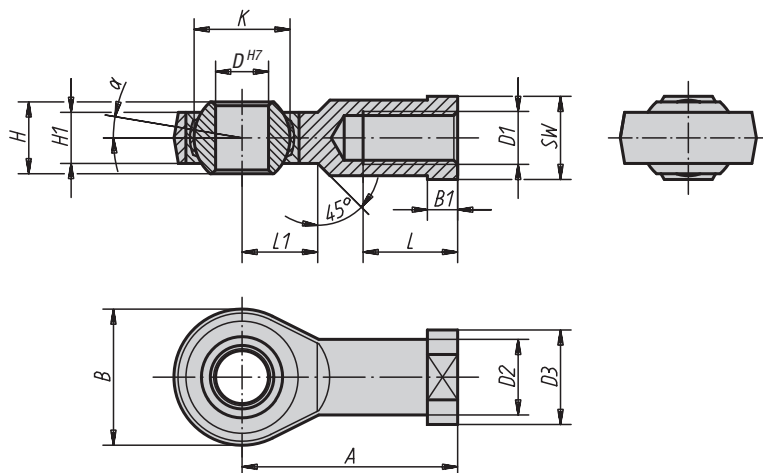
The slide bearing of the rod ends is maintenance-free. The connection dimensions comply with DIN 648 Form Series KA.

### KIPP Rod ends with slide bearing, external thread

| Order No.<br>right-handed thread | Order No.<br>left-handed thread | D  | D1      | A  | B  | H  | H1   | K     | L  | L1 | α   | Dynamic<br>base loads<br>kN | Static<br>base loads<br>kN | Approx.<br>weight<br>kg |
|----------------------------------|---------------------------------|----|---------|----|----|----|------|-------|----|----|-----|-----------------------------|----------------------------|-------------------------|
| K0718.05                         | K0718.051                       | 5  | M5      | 33 | 18 | 8  | 6    | 11,11 | 20 | 9  | 13° | 7,5                         | 4,3                        | 0,013                   |
| K0718.06                         | K0718.061                       | 6  | M6      | 36 | 20 | 9  | 6,75 | 12,7  | 22 | 12 | 13° | 9,3                         | 6                          | 0,020                   |
| K0718.08                         | K0718.081                       | 8  | M8      | 42 | 24 | 12 | 9    | 15,87 | 25 | 15 | 13° | 16,7                        | 11                         | 0,033                   |
| K0718.10                         | K0718.101                       | 10 | M10     | 48 | 28 | 14 | 10,5 | 19,05 | 29 | 15 | 13° | 23,4                        | 17,4                       | 0,056                   |
| K0718.12                         | K0718.121                       | 12 | M12     | 54 | 32 | 16 | 12   | 22,22 | 33 | 19 | 13° | 32                          | 23,5                       | 0,087                   |
| K0718.16                         | K0718.161                       | 16 | M16     | 66 | 42 | 21 | 15   | 28,57 | 40 | 22 | 15° | 52,7                        | 32                         | 0,189                   |
| K0718.20                         | K0718.201                       | 20 | M20x1,5 | 78 | 50 | 25 | 18   | 34,92 | 47 | 28 | 15° | 78,1                        | 43,8                       | 0,348                   |
| K0718.22                         | K0718.221                       | 22 | M22x1,5 | 84 | 54 | 28 | 20   | 38,1  | 51 | 26 | 15° | 97,2                        | 52,6                       | 0,443                   |

## Rod ends with slide bearing

internal thread



**Material:**

Casing size (D) 5-12: free-cutting steel, turned. Casing from size (D) 16: tempered steel, forged. Ball joint: roller bearing steel, hardened, ground and polished. Bearing shell: free-cutting steel with PTFE cloth glued in

**Surface finish:**

galvanized

**Sample order:**

K0719.22

**Note:**

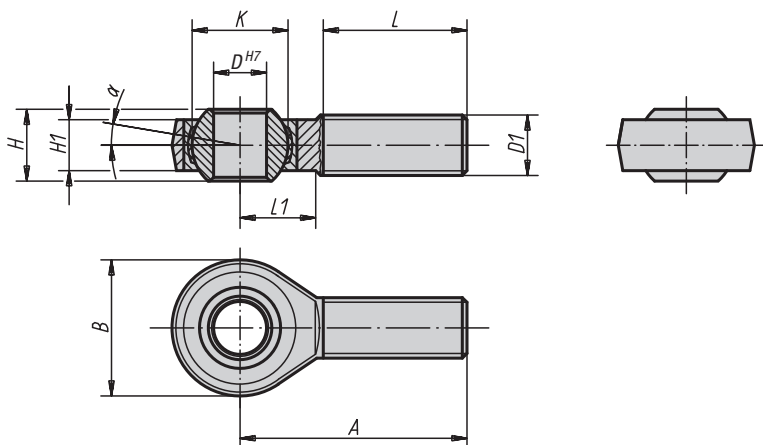
The slide bearing of the rod ends is maintenance-free. The connection dimensions comply with DIN 648 Form Series KJ.

### KIPP Rod ends with slide bearing internal thread

| Order No.<br>right-handed thread | Order No.<br>left-handed thread | D  | D1       | D2   | D3 | A  | B  | B1  | H  | H1   | K     | L  | L1 | SW | α   | Dynamic<br>base loads<br>kN | Static<br>base loads<br>kN | Approx.<br>weight<br>kg |
|----------------------------------|---------------------------------|----|----------|------|----|----|----|-----|----|------|-------|----|----|----|-----|-----------------------------|----------------------------|-------------------------|
| K0719.05                         | K0719.051                       | 5  | M5       | 9    | 11 | 27 | 18 | 4   | 8  | 6    | 11,11 | 10 | 10 | 9  | 13° | 7,5                         | 8                          | 0,018                   |
| K0719.06                         | K0719.061                       | 6  | M6       | 10   | 13 | 30 | 20 | 5   | 9  | 6,75 | 12,7  | 12 | 10 | 11 | 13° | 9,3                         | 8,9                        | 0,027                   |
| K0719.08                         | K0719.081                       | 8  | M8       | 12,5 | 16 | 36 | 24 | 5   | 12 | 9    | 15,87 | 16 | 12 | 13 | 13° | 16,7                        | 14,1                       | 0,046                   |
| K0719.10                         | K0719.101                       | 10 | M10      | 15   | 19 | 43 | 28 | 6,5 | 14 | 10,5 | 19,05 | 20 | 15 | 17 | 13° | 23,4                        | 19,3                       | 0,076                   |
| K0719.10125                      | K0719.101251                    | 10 | M10x1,25 | 15   | 19 | 43 | 28 | 6,5 | 14 | 10,5 | 19,05 | 20 | 15 | 17 | 13° | 23,4                        | 19,3                       | 0,076                   |
| K0719.12                         | K0719.121                       | 12 | M12      | 17,5 | 22 | 50 | 32 | 6,5 | 16 | 12   | 22,22 | 22 | 16 | 19 | 13° | 32                          | 23,5                       | 0,115                   |
| K0719.12125                      | K0719.121251                    | 12 | M12x1,25 | 17,5 | 22 | 50 | 32 | 6,5 | 16 | 12   | 22,22 | 22 | 16 | 19 | 13° | 32                          | 23,5                       | 0,115                   |
| K0719.16                         | K0719.161                       | 16 | M16      | 22   | 27 | 64 | 42 | 8   | 21 | 15   | 28,57 | 28 | 22 | 22 | 15° | 52,7                        | 32                         | 0,230                   |
| K0719.1615                       | K0719.16151                     | 16 | M16x1,5  | 22   | 27 | 64 | 42 | 8   | 21 | 15   | 28,57 | 28 | 22 | 22 | 15° | 52,7                        | 32                         | 0,230                   |
| K0719.20                         | K0719.201                       | 20 | M20x1,5  | 27,5 | 34 | 77 | 50 | 10  | 25 | 18   | 34,92 | 33 | 26 | 32 | 15° | 78,1                        | 43,8                       | 0,415                   |
| K0719.22                         | K0719.221                       | 22 | M22x1,5  | 30   | 37 | 84 | 54 | 12  | 28 | 20   | 38,1  | 37 | 26 | 32 | 15° | 97,2                        | 52,6                       | 0,540                   |

## Rod ends with slide bearing

external thread, stainless steel



**Material:**

Casing: forged special steel 1.4057. Ball joint 1.4034 hardened and ground. Bearing shell: stainless steel 1.4571.

**Surface finish:**

polished

**Sample order:**

K0720.20

**Note:**

The slide bearing of the rod ends is maintenance-free. The connection dimensions comply with DIN 648 Form Series KA.

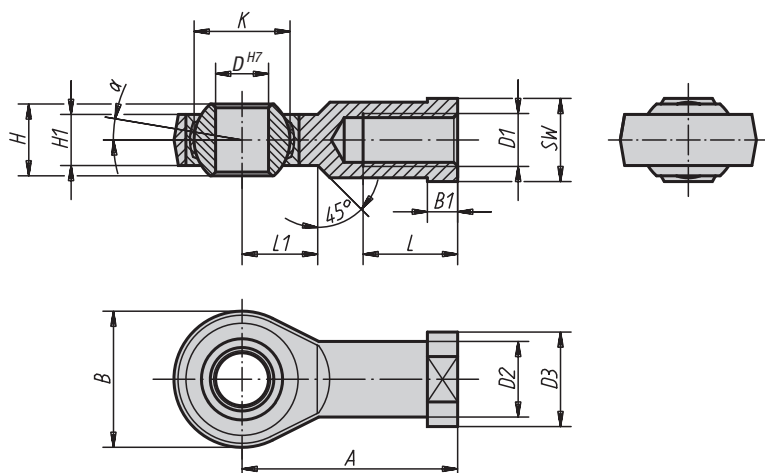
### KIPP Rod ends with slide bearing external thread, stainless steel

| Order No.<br>right-handed thread | Order No.<br>left-handed thread | D  | D1      | A  | B  | H  | H1   | K     | L  | L1 | α   | Dynamic<br>base loads<br>kN | Static<br>base loads<br>kN | Approx.<br>weight<br>kg |
|----------------------------------|---------------------------------|----|---------|----|----|----|------|-------|----|----|-----|-----------------------------|----------------------------|-------------------------|
| K0720.05                         | K0720.051                       | 5  | M5      | 33 | 18 | 8  | 6    | 11,11 | 20 | 9  | 13° | 7,5                         | 6,2                        | 0,013                   |
| K0720.06                         | K0720.061                       | 6  | M6      | 36 | 20 | 9  | 6,75 | 12,7  | 22 | 12 | 13° | 9,3                         | 8,8                        | 0,020                   |
| K0720.08                         | K0720.081                       | 8  | M8      | 42 | 24 | 12 | 9    | 15,87 | 25 | 15 | 13° | 16,7                        | 16,1                       | 0,033                   |
| K0720.10                         | K0720.101                       | 10 | M10     | 48 | 28 | 14 | 10,5 | 19,05 | 29 | 15 | 13° | 23,4                        | 25,5                       | 0,056                   |
| K0720.12                         | K0720.121                       | 12 | M12     | 54 | 32 | 16 | 12   | 22,22 | 33 | 19 | 13° | 32                          | 34,5                       | 0,087                   |
| K0720.16                         | K0720.161                       | 16 | M16     | 66 | 42 | 21 | 15   | 28,57 | 40 | 22 | 15° | 52,7                        | 60,6                       | 0,189                   |
| K0720.20                         | K0720.201                       | 20 | M20x1,5 | 78 | 50 | 25 | 18   | 34,92 | 47 | 28 | 15° | 78,1                        | 83,1                       | 0,348                   |
| K0720.22                         | K0720.221                       | 22 | M22x1,5 | 84 | 54 | 28 | 20   | 38,1  | 51 | 26 | 15° | 97,2                        | 99,7                       | 0,443                   |



## Rod ends with slide bearing

internal thread, stainless steel



**Material:**

Casing: forged special steel 1.4057. Ball joint 1.4034 hardened and ground. Bearing shell: stainless steel 1.4571.

**Surface finish:**

polished

**Sample order:**

K0721.22

**Note:**

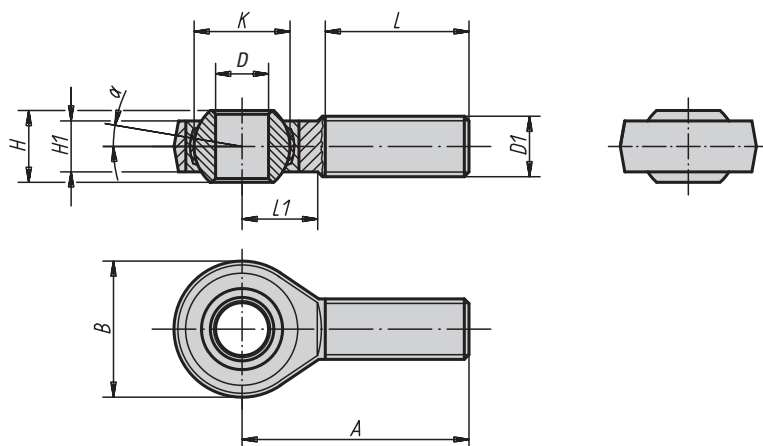
The slide bearing of the rod ends is maintenance-free. The connection dimensions comply with DIN 648 Form Series KJ.

### KIPP Rod ends with slide bearing internal thread, stainless steel

| Order No.<br>right-handed thread | Order No.<br>left-handed thread | D  | D1       | D2   | D3 | A  | B  | B1  | H  | H1   | K     | L  | L1 | SW | α   | Dynamic<br>base loads<br>kN | Static<br>base loads<br>kN | Approx.<br>weight<br>kg |
|----------------------------------|---------------------------------|----|----------|------|----|----|----|-----|----|------|-------|----|----|----|-----|-----------------------------|----------------------------|-------------------------|
| K0721.05                         | K0721.051                       | 5  | M5       | 9    | 11 | 27 | 18 | 4   | 8  | 6    | 11,11 | 10 | 10 | 9  | 13° | 7,5                         | 11,8                       | 0,018                   |
| K0721.08                         | K0721.081                       | 8  | M8       | 12,5 | 16 | 36 | 24 | 5   | 12 | 9    | 15,87 | 16 | 12 | 13 | 13° | 16,7                        | 20,7                       | 0,046                   |
| K0721.12                         | K0721.121                       | 12 | M12      | 17,5 | 22 | 50 | 32 | 6,5 | 16 | 12   | 22,22 | 22 | 16 | 19 | 13° | 32                          | 34,5                       | 0,115                   |
| K0721.10                         | K0721.101                       | 10 | M10      | 15   | 19 | 43 | 28 | 6,5 | 14 | 10,5 | 19,05 | 20 | 15 | 17 | 13° | 23,4                        | 28,3                       | 0,076                   |
| K0721.06                         | K0721.061                       | 6  | M6       | 10   | 13 | 30 | 20 | 5   | 9  | 6,75 | 12,7  | 12 | 10 | 11 | 13° | 9,3                         | 13,1                       | 0,027                   |
| K0721.12125                      | K0721.121251                    | 12 | M12x1,25 | 17,5 | 22 | 50 | 32 | 6,5 | 16 | 12   | 22,22 | 22 | 16 | 19 | 13° | 32                          | 34,5                       | 0,115                   |
| K0721.22                         | K0721.221                       | 22 | M22x1,5  | 30   | 37 | 84 | 54 | 12  | 28 | 20   | 38,1  | 37 | 26 | 32 | 15° | 97,2                        | 99,7                       | 0,540                   |
| K0721.1615                       | K0721.16151                     | 16 | M16x1,5  | 22   | 27 | 64 | 42 | 8   | 21 | 15   | 28,57 | 28 | 22 | 22 | 15° | 52,7                        | 60,6                       | 0,230                   |
| K0721.16                         | K0721.161                       | 16 | M16      | 22   | 27 | 64 | 42 | 8   | 21 | 15   | 28,57 | 28 | 22 | 22 | 15° | 52,7                        | 60,6                       | 0,230                   |
| K0721.20                         | K0721.201                       | 20 | M20x1,5  | 27,5 | 34 | 77 | 50 | 10  | 25 | 18   | 34,92 | 33 | 26 | 32 | 15° | 78,1                        | 83,1                       | 0,415                   |
| K0721.10125                      | K0721.101251                    | 10 | M10x1,25 | 15   | 19 | 43 | 28 | 6,5 | 14 | 10,5 | 19,05 | 20 | 15 | 17 | 13° | 23,4                        | 28,3                       | 0,076                   |

## Rod ends with slide bearing

external thread, narrow head



**Material:**

Casing size (D) 6-10: free-cutting steel, turned. Casing as of size (D) 12: tempered steel, forged. Ball joint: roller bearing steel, hardened, ground, polished and hard-chromium-plated. Bearing shell: roller bearing steel with PTFE cloth glued in

**Surface finish:**

galvanized

**Sample order:**

K0722.20

**Note:**

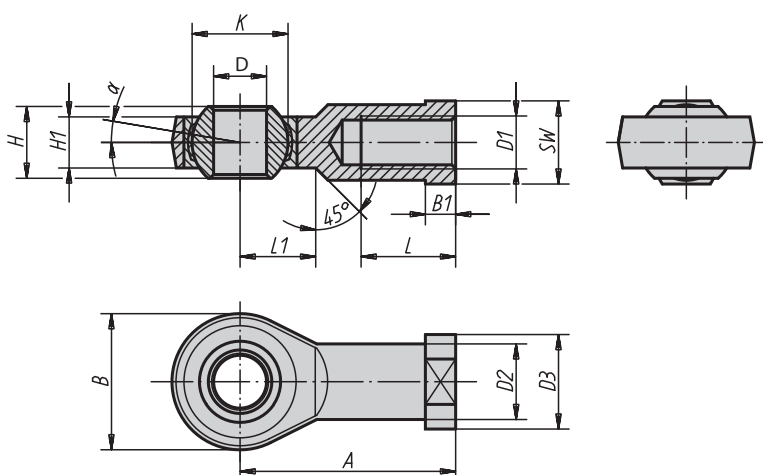
The slide bearing of the rod ends is maintenance-free. The connection dimensions comply with DIN 648 Form Series E.

### KIPP Rod ends with slide bearing external thread, narrow head

| Order No.<br>right-handed thread | Order No.<br>left-handed thread | D         | D1      | A  | B  | H  | H1  | K  | L  | L1 | $\alpha$ | Dynamic<br>base loads<br>kN | Static<br>base loads<br>kN | Approx.<br>weight<br>kg |
|----------------------------------|---------------------------------|-----------|---------|----|----|----|-----|----|----|----|----------|-----------------------------|----------------------------|-------------------------|
| K0722.06                         | K0722.061                       | 6 -0,008  | M6      | 36 | 20 | 6  | 4,4 | 10 | 18 | 11 | 12°      | 3,6                         | 8,2                        | 0,016                   |
| K0722.08                         | K0722.081                       | 8 -0,008  | M8      | 42 | 24 | 8  | 6   | 13 | 22 | 12 | 12°      | 5,8                         | 12,9                       | 0,028                   |
| K0722.10                         | K0722.101                       | 10 -0,008 | M10     | 48 | 28 | 9  | 7   | 16 | 26 | 15 | 12°      | 8,6                         | 17,6                       | 0,050                   |
| K0722.12                         | K0722.121                       | 12 -0,008 | M12     | 54 | 34 | 10 | 8   | 18 | 28 | 15 | 8°       | 11,4                        | 24,5                       | 0,086                   |
| K0722.16                         | K0722.161                       | 17 -0,008 | M16     | 69 | 46 | 14 | 11  | 25 | 36 | 23 | 8°       | 22                          | 45                         | 0,190                   |
| K0722.20                         | K0722.201                       | 20 -0,010 | M20x1,5 | 78 | 53 | 16 | 13  | 29 | 43 | 25 | 8°       | 31,5                        | 60                         | 0,320                   |

## Rod ends with slide bearing

internal thread, narrow head



**Material:**

Casing size (D) 6-10: free-cutting steel, turned. Casing as of size (D) 12: tempered steel, forged. Ball joint: roller bearing steel, hardened, ground, polished and hard-chromium-plated. Bearing shell: roller bearing steel with PTFE cloth glued in

**Surface finish:**

galvanized

**Sample order:**

K0723.12

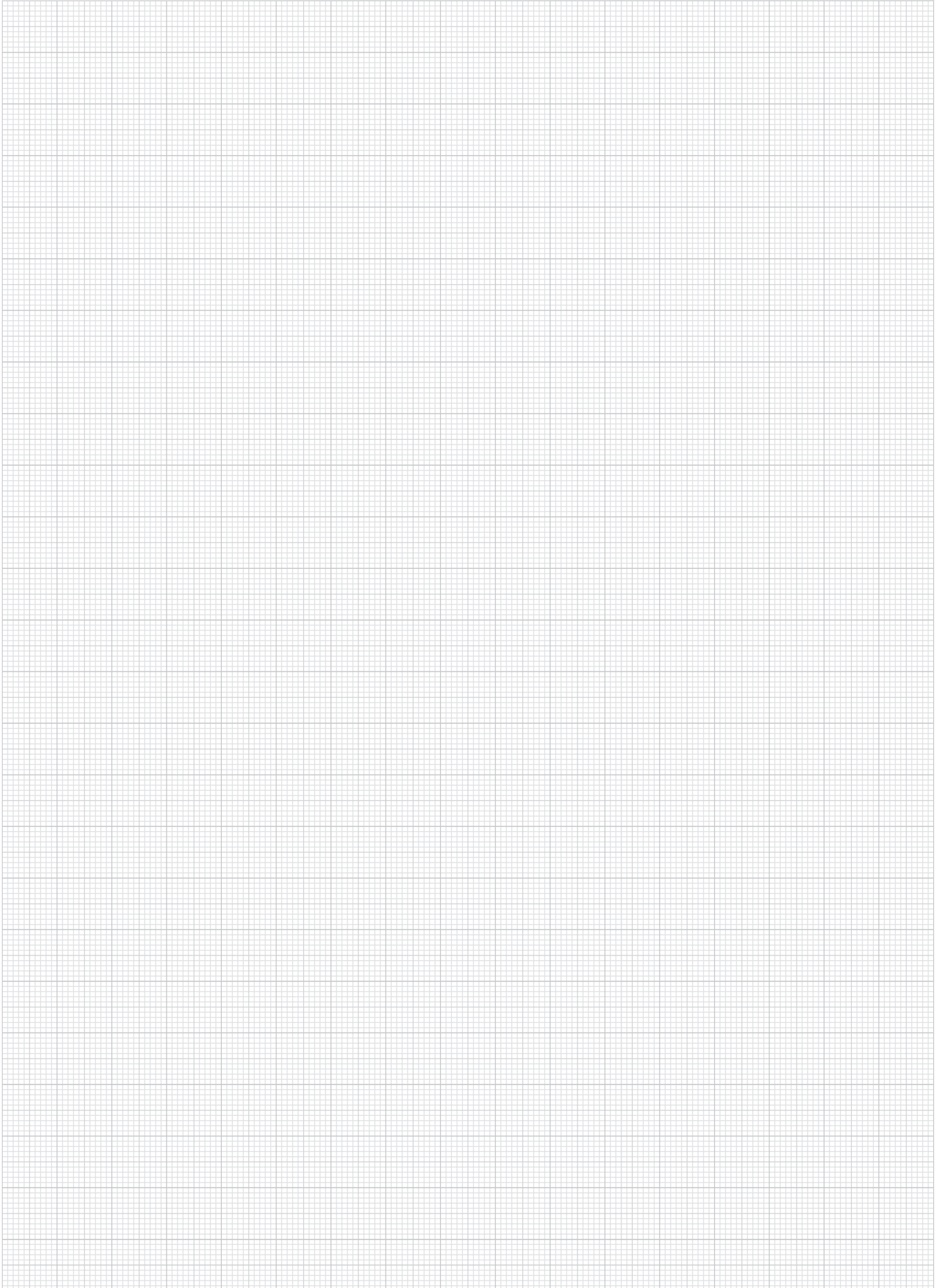
**Note:**

The slide bearing of the rod ends is maintenance-free. The connection dimensions comply with DIN 648 Form Series E.

### KIPP Rod ends with slide bearing internal thread, narrow head

| Order No.<br>right-handed thread | Order No.<br>left-handed thread | D         | D1       | D2   | D3 | A  | B  | B1  | H  | H1  | K  | L  | L1 | SW | α   | Dynamic<br>base loads<br>kN | Static<br>base loads<br>kN | Approx.<br>weight<br>kg |
|----------------------------------|---------------------------------|-----------|----------|------|----|----|----|-----|----|-----|----|----|----|----|-----|-----------------------------|----------------------------|-------------------------|
| K0723.20                         | K0723.201                       | 20 -0,010 | M20x1,5  | 27,5 | 35 | 77 | 53 | 10  | 16 | 13  | 29 | 38 | 23 | 32 | 8°  | 31,5                        | 60                         | 0,350                   |
| K0723.06                         | K0723.061                       | 6 -0,008  | M6       | 10   | 13 | 30 | 20 | 5   | 6  | 4,4 | 10 | 12 | 11 | 11 | 12° | 3,6                         | 8,2                        | 0,021                   |
| K0723.12125                      | K0723.121251                    | 12 -0,008 | M12x1,25 | 17,5 | 22 | 50 | 34 | 6,5 | 10 | 8   | 18 | 22 | 15 | 19 | 8°  | 11,4                        | 24,5                       | 0,096                   |
| K0723.16                         | K0723.161                       | 17 -0,008 | M16      | 24   | 30 | 67 | 46 | 10  | 14 | 11  | 25 | 33 | 20 | 27 | 8°  | 22                          | 45                         | 0,280                   |
| K0723.08                         | K0723.081                       | 8 -0,008  | M8       | 12,5 | 16 | 36 | 24 | 5   | 8  | 6   | 13 | 16 | 12 | 14 | 12° | 5,8                         | 12,9                       | 0,038                   |
| K0723.10                         | K0723.101                       | 10 -0,008 | M10      | 15   | 19 | 43 | 28 | 6,5 | 9  | 7   | 16 | 20 | 13 | 17 | 12° | 8,6                         | 17,6                       | 0,060                   |
| K0723.10125                      | K0723.101251                    | 10 -0,008 | M10x1,25 | 15   | 19 | 43 | 28 | 6,5 | 9  | 7   | 16 | 20 | 13 | 17 | 12° | 8,6                         | 17,6                       | 0,060                   |
| K0723.12                         | K0723.121                       | 12 -0,008 | M12      | 17,5 | 22 | 50 | 34 | 6,5 | 10 | 8   | 18 | 22 | 15 | 19 | 8°  | 11,4                        | 24,5                       | 0,096                   |

# Notes







## Magnets

Round holding magnets  
(round bar grippers)  
in AlNiCo with fitting tolerance  
**K0545**



Page 853

Round holding magnets  
(round bar grippers)  
in AlNiCo without fitting tolerance  
**K0546**



Page 854

Round holding magnets with pin  
(round bar grippers)  
in AlNiCo  
**K0547**



Page 855

Flat holding magnets (flat gripper)  
in hard ferrite  
**K0548**



Page 856

Flat holding magnets with thread  
(flat gripper)  
in hard ferrite  
**K0549**



Page 857

Flat gripper  
in SmCo  
**K0550**



Page 858

Bar magnet  
in SmCo  
**K0551**



Page 859

Round holding magnets with internal thread  
(round bar gripper)  
in NdFeB  
**K0552**



Page 860

Flat gripper  
in NdFeB  
**K0553**



Page 861

Flat gripper with through hole  
in hard ferrite  
**K0554**



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Flat gripper with counterbore  
in hard ferrite  
**K0555**



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Flat gripper with internal thread  
in NdFeB  
**K0556**



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Pot magnets  
**K0557**



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Flat pot magnets  
**K0558**



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Button magnets  
**K0559**



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Strong magnets  
**K0560**



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Protective rubber caps for flat gripper  
**K0561**



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Flat gripper with internal thread  
in NdFeB, with rubber  
protective jacket  
**K0562**



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## Magnets

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Flat gripper with threaded bush  
in NdFeB, with rubber  
protective jacket  
**K0563**



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Flat gripper with threaded pin  
in NdFeB,  
with rubber protective jacket  
**K0564**



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Flat gripper with borehole in  
NdFeB,  
with rubber protective jacket  
**K0565**



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# Technical data for holding magnets (gripper magnets)



## Structure:

Gripper magnets are magnets that have only one adhesive surface, because of their structure. No magnetic force action originates from any of the other surfaces of the gripper magnet body. This construction makes it possible to limit the three-dimensional affect of the magnetic field so that no unintentional magnetization of the entire workpiece in contact with the gripper magnet, or of the machine elements surrounding the gripper magnet, occurs.

## Designs:

The round gripper magnets of the the model series:

K0545.01 through K0545.10

K0546.01 through K0546.09

K0547.01 through K0547.10

have a core made of the permanent magnetic material AlNiCo, which is inserted for magnetic shielding into a soft iron pot with an intervening sleeve made of a non-magnetizable material. The ceramic permanent magnetic material SrFe (hard ferrite) is used for the Flat Gripper magnets of the model series

K0548.01 through K0548.10 and

K0549.01 through K0549.26.

Here as well, a pot of soft iron ensures the desired magnetic shielding.

The magnets of the model series

K0550.01 through K0550.18 and

K0551.01 through K0551.15

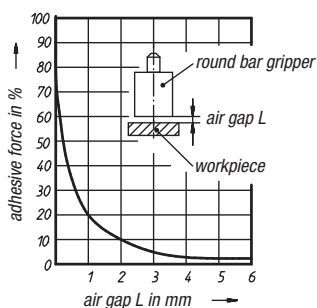
have a core of SmCo, an alloy of metallic rare earth elements with cobalt. For a given overall size, SmCo increases the adhesive force by three to five times that of AlNiCo or hard ferrite grippers.

## Adhesive forces:

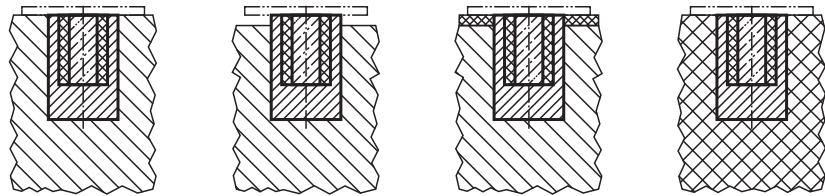
The values indicated in the table are minimum values that are achieved for a vertical pull-down with full-surface contact of the gripper magnets on soft iron or low-carbon steel workpieces of sufficient thickness. In case of unclean pole faces or non-flat workpieces, air gaps are formed, which sharply decrease the adhesive forces. It is therefore advisable to always ensure a clean pole face and to clean it from time to time if necessary.

## Diagram:

Reduction of the adhesive force of a round bar gripper with increasing air gap (magnetically nonconductive intermediate layers function like air gaps).



Fixing instructions for screened gripper magnets with no pins

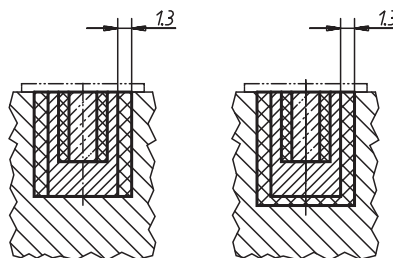


incorrect

correct

correct

correct

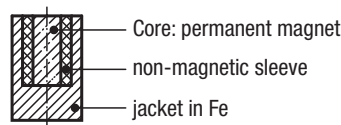


incorrect

correct

Holding magnets (round bar and flat grippers) must not be used directly in iron, but must be bolted, glued, pressed or poured into a sleeve of non-magnetic material (see representation opposite).

Gripper magnets - Series type Shielded system



workpieces to clamp

iron

Non-magnetic material such as CuZn, Al, Cu or plastic

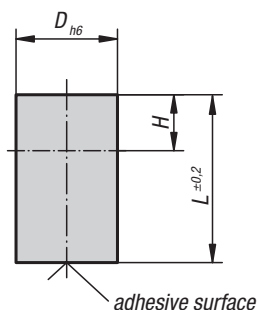
Installation or fastening possibilities of gripper magnets

| Order No.                                  | Description       | System   | Temperature* max. °C | Fastening possibility                       |
|--|-------------------|----------|----------------------|---|
| from <b>K0545.01</b><br>to <b>K0545.10</b> | Round bar gripper | shielded | 450                  | Pressing in/shrink-fitting/<br>gluing in    |
| from <b>K0546.01</b><br>to <b>K0546.10</b> | Round bar gripper | shielded | 450                  | Soldering in (soft soldering)/<br>gluing in |
| from <b>K0547.01</b><br>to <b>K0547.10</b> | Round bar gripper | shielded | 450                  | Riveting the pin in/<br>screwing in         |
| from <b>K0551.01</b><br>to <b>K0551.15</b> | Round bar gripper | shielded | 200                  | Pressing in/gluing in<br>screwing in        |
| from <b>K0548.01</b><br>to <b>K0548.10</b> | Flat gripper      | shielded | 100                  | Pressing in/gluing in                       |
| from <b>K0549.01</b><br>to <b>K0549.26</b> | Flat gripper      | shielded | 100                  | Screwing in                                 |
| from <b>K0550.01</b><br>to <b>K0550.18</b> | Flat gripper      | shielded | 200                  | Pressing in/gluing in                       |

\* Long-term heating or alternating thermal stresses may result in mechanical changes of the magnet system in some cases. In many cases they have no influence on the function. The same applies to the case of chemical stresses (chemical baths, aggressive gases, etc.).

## Round holding magnets (round bar grippers)

in AlNiCo with fitting tolerance



**Material, surface finish:**

Housing in galvanized steel.  
Magnetic core AlNiCo.

**Sample order:**

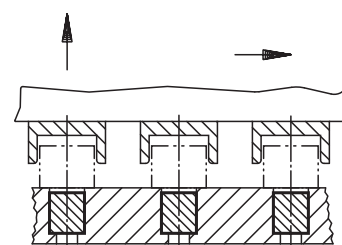
K0545.01

**Note:**

Shielded system. Diameter „D“ ground to a fitting tolerance of h 6. Fastening possibilities by pressing, shrink-fitting or gluing.  
Round bar grippers can be shortened by the dimension „H“ with no loss of adhesive force.

**Temperature range:**

max. 450°C.



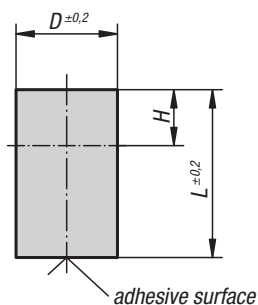
### KIPP Round holding magnets (round bar grippers) in AlNiCo with fitting tolerance

| Order No. | D  | L  | H | Adhesive force N | Approx. weight g |
|-----------|----|----|---|------------------|------------------|
| K0545.01  | 6  | 10 | 2 | 1,5              | 2                |
| K0545.02  | 8  | 12 | 3 | 3,5              | 4                |
| K0545.03  | 10 | 16 | 6 | 7                | 9                |
| K0545.04  | 13 | 18 | 7 | 10               | 17               |
| K0545.05  | 16 | 20 | 5 | 18               | 29               |
| K0545.06  | 20 | 25 | 6 | 42               | 57               |
| K0545.07  | 25 | 30 | 5 | 96               | 110              |
| K0545.08  | 32 | 35 | 3 | 180              | 200              |
| K0545.09  | 40 | 45 | 5 | 240              | 420              |
| K0545.10  | 50 | 50 | 2 | 420              | 720              |



# Round holding magnets (round bar grippers)

in AlNiCo without fitting tolerance



**Material, surface finish:**

Housing in galvanized steel.  
Magnetic core AlNiCo.

**Sample order:**

K0546.01

**Note:**

Shielded system. Diameter „D“ without fitting tolerance. Fastening possibilities are pressing, shrink-fitting or gluing.

Round bar grippers can be shortened by the dimension „H“ with no loss of adhesive force.

**Temperature range:**

max. 450°C.

## KIPP Round holding magnets (round bar grippers) in AlNiCo without fitting tolerance

| Order No. | D  | L  | H  | Adhesive force N | Approx. weight g |
|-----------|----|----|----|------------------|------------------|
| K0546.01  | 6  | 20 | 12 | 1,5              | 4                |
| K0546.02  | 8  | 20 | 11 | 3,5              | 7                |
| K0546.03  | 10 | 20 | 10 | 7                | 11               |
| K0546.04  | 13 | 20 | 9  | 10               | 19               |
| K0546.05  | 16 | 20 | 5  | 18               | 29               |
| K0546.06  | 20 | 25 | 6  | 42               | 57               |
| K0546.07  | 25 | 35 | 10 | 96               | 140              |
| K0546.08  | 32 | 40 | 8  | 180              | 240              |
| K0546.09  | 40 | 50 | 10 | 240              | 500              |
| K0546.10  | 50 | 60 | 12 | 420              | 900              |

# Round holding magnets with pin (round bar grippers)

in AlNiCo



**Material, surface finish:**

Housing in galvanized steel.  
Magnetic core AlNiCo.

**Sample order:**

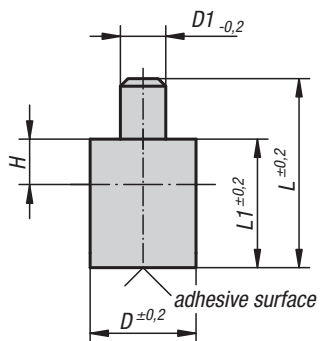
K0547.01

**Note:**

Round bar grippers with smooth pin, shielded system.  
The pin can be lengthened by the dimension „H“ with  
no loss of adhesive force.

**Technical data:**

max. 450°C.



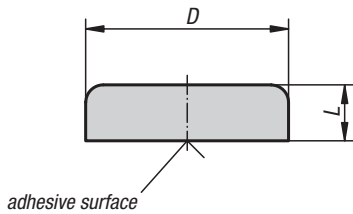
## KIPP Round holding magnets with pin (round bar grippers) in AlNiCo

| Order No. | D  | D1 | L  | L1 | H | Adhesive force N | Approx. weight g |
|-----------|----|----|----|----|---|------------------|------------------|
| K0547.01  | 6  | 3  | 28 | 20 | 2 | 1,7              | 4                |
| K0547.02  | 8  | 3  | 28 | 20 | 3 | 4                | 7                |
| K0547.03  | 10 | 4  | 28 | 20 | 6 | 8,5              | 12               |
| K0547.04  | 13 | 4  | 28 | 20 | 7 | 12               | 20               |
| K0547.05  | 16 | 5  | 28 | 20 | 5 | 20               | 32               |
| K0547.06  | 20 | 6  | 33 | 25 | 6 | 50               | 62               |
| K0547.07  | 25 | 8  | 45 | 35 | 5 | 115              | 137              |
| K0547.08  | 32 | 10 | 50 | 40 | 3 | 200              | 245              |
| K0547.09  | 40 | 15 | 70 | 50 | 5 | 240              | 520              |
| K0547.10  | 50 | 18 | 85 | 60 | 2 | 420              | 960              |



## Flat holding magnets (flat gripper)

in hard ferrite



**Material, surface finish:**

Housing in galvanized steel.  
Magnetic core hard ferrite

**Sample order:**

K0548.01

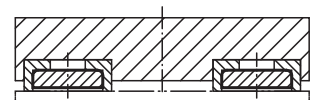
**Note:**

Flat Gripper without threaded bush. Flat holding magnets are pressed or glued into location holes.

Hairline cracks in the installed magnetic material are unavoidable for technical reasons in version D 80. They do not impair the function of the adhesive magnets in any way.

**Temperature range:**

max. 200°C.



### KIPP Flat holding magnets (flat grippers) in hard ferrite

| Order No. | D        | L   | Adhesive force N | Approx. weight g |
|-----------|----------|-----|------------------|------------------|
| K0548.01  | 10 ±0,15 | 4,5 | 4                | 2                |
| K0548.02  | 13 ±0,15 | 4,5 | 10               | 3                |
| K0548.03  | 16 ±0,15 | 4,5 | 18               | 4,5              |
| K0548.04  | 20 ±0,15 | 6   | 30               | 10               |
| K0548.05  | 25 ±0,15 | 7   | 40               | 19               |
| K0548.06  | 32 ±0,20 | 7   | 80               | 30               |
| K0548.07  | 40 ±0,20 | 8   | 125              | 55               |
| K0548.08  | 50 ±0,20 | 10  | 220              | 100              |
| K0548.09  | 63 ±0,20 | 14  | 350              | 230              |
| K0548.10  | 80 ±0,25 | 18  | 600              | 485              |

## Flat holding magnets with thread (flat gripper)

in hard ferrite



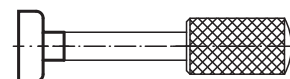
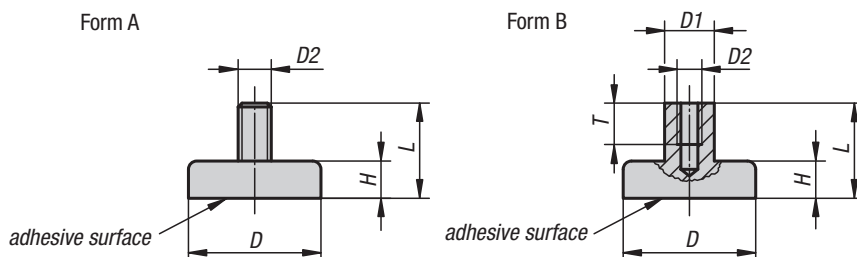
**Material, surface finish:**  
Housing in galvanized steel.  
Magnetic core hard ferrite

**Sample order:**  
K0549.01

**Note:**  
Flat gripper with thread shielded system.

Hairline cracks in the installed magnetic material are unavoidable for technical reasons in versions D 80, D 100 and D 125. They do not impair the function of the adhesive magnets in any way.

**Temperature range:**  
max. 200°C.



### KIPP Flat holding magnets with thread (flat grippers) in hard ferrite

| Order No. Form A | Order No. Form B | D         | D1  | D2  | L    | H   | T   | Adhesive force N |
|------------------|------------------|-----------|-----|-----|------|-----|-----|------------------|
| K0549.21         | K0549.01         | 10 ±0,15  | -/6 | M3  | 11,5 | 4,5 | -/5 | 4                |
| K0549.22         | K0549.02         | 13 ±0,15  | -/6 | M3  | 11,5 | 4,5 | -/5 | 10               |
| K0549.23         | K0549.03         | 16 ±0,15  | -/6 | M3  | 11,5 | 4,5 | -/5 | 18               |
| K0549.24         | K0549.04         | 20 ±0,15  | -/6 | M3  | 13   | 6   | -/5 | 30               |
| K0549.25         | K0549.05         | 25 ±0,15  | -/8 | M4  | 15   | 7   | -/6 | 40               |
| K0549.26         | K0549.06         | 32 ±0,20  | -/8 | M4  | 15   | 7   | -/6 | 80               |
| -                | K0549.07         | 40 ±0,20  | 10  | M5  | 18   | 8   | 8   | 125              |
| -                | K0549.08         | 50 ±0,20  | 12  | M6  | 22   | 10  | 10  | 220              |
| -                | K0549.09         | 63 ±0,20  | 15  | M8  | 30   | 14  | 14  | 350              |
| -                | K0549.10         | 80 ±0,25  | 20  | M10 | 34   | 18  | 14  | 600              |
| -                | K0549.11         | 99 ±0,25  | 22  | M12 | 42   | 22  | 17  | 900              |
| -                | K0549.12         | 125 ±0,25 | 25  | M14 | 50   | 26  | 20  | 1.300            |



## Flat gripper

in SmCo



**Material, surface finish:**

Housing in galvanized steel. Magnetic core SmCo

**Sample order:**

K0550.01

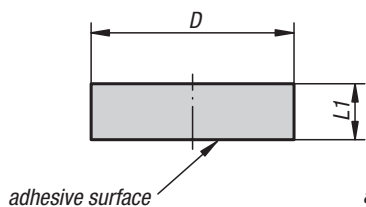
**Note:**

Flat Grippers, shielded system. Flat grippers with an SmCo core have three to five times the adhesive force of AlNiCo of hard ferrite grippers.

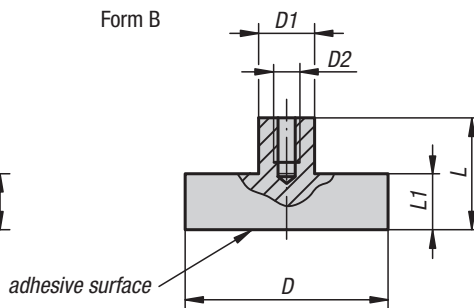
**Temperature range:**

max. 200°C.

Form A



Form B



### KIPP Flat grippers in SmCo

| Order No.<br>Form A | Order No.<br>Form B | D        | D1   | D2   | L      | L1  | Adhesive<br>force N |
|---------------------|---------------------|----------|------|------|--------|-----|---------------------|
| K0550.01            | K0550.11            | 6 ±0,15  | -/6  | -/M3 | -/11,5 | 4,5 | 5                   |
| K0550.02            | K0550.12            | 8 ±0,15  | -/6  | -/M3 | -/11,5 | 4,5 | 11                  |
| K0550.03            | K0550.13            | 10 ±0,15 | -/6  | -/M3 | -/11,5 | 4,5 | 20                  |
| K0550.04            | K0550.14            | 13 ±0,15 | -/6  | -/M3 | -/11,5 | 4,5 | 40                  |
| K0550.05            | K0550.15            | 16 ±0,15 | -/8  | -/M4 | -/11,5 | 4,5 | 60                  |
| K0550.06            | K0550.16            | 20 ±0,15 | -/8  | -/M4 | -/13   | 6   | 90                  |
| K0550.07            | K0550.17            | 25 ±0,15 | -/8  | -/M4 | -/14   | 7   | 150                 |
| K0550.08            | K0550.18            | 32 ±0,20 | -/10 | -/M5 | -/15,5 | 7   | 220                 |

## Bar magnet

in SmCo



**Material, surface finish:**

Housing in brass. Magnetic core SmCo

**Sample order:**

K0551.01

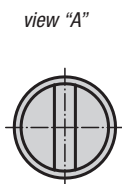
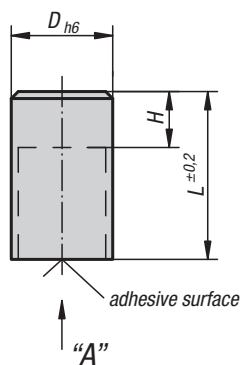
**Note:**

Smooth design, shielded system. Diameter „D“ ground with fitting tolerance h 6. Under no circumstances may SmCo grippers be pressed directly into iron, as otherwise loss of adhesive force occurs as a result of magnetic short circuits. SmCo gripper magnets are especially suitable for direct use in spot-welding machines, as no demagnetisation occurs.

Round bar grippers can be shortened by the dimension „H“ with no loss of adhesive force.

**Temperature range:**

max. 200°C.



### KIPP Round bar gripper in SmCo

| Order No. | D  | L  | H   | Adhesive force N | Distance to iron wall/mm | Approx. weight g |
|-----------|----|----|-----|------------------|--------------------------|------------------|
| K0551.01  | 6  | 20 | 10  | 8                | 1,5                      | 4,5              |
| K0551.03  | 8  | 20 | 10  | 22               | 1,5                      | 8                |
| K0551.05  | 10 | 20 | 8   | 40               | 2                        | 12               |
| K0551.07  | 13 | 20 | 6   | 60               | 2,5                      | 20               |
| K0551.09  | 16 | 20 | 2   | 125              | 3                        | 30               |
| K0551.11  | 20 | 25 | 5   | 250              | 4                        | 60               |
| K0551.13  | 25 | 35 | 7   | 400              | 5                        | 134              |
| K0551.15  | 32 | 40 | 4,5 | 600              | 6                        | 251              |





## Round holding magnets with internal thread (round bar gripper)

in NdFeB



**Material, surface finish:**

Housing in galvanized steel.  
Magnetic core NdFeB

**Sample order:**

K0552.01

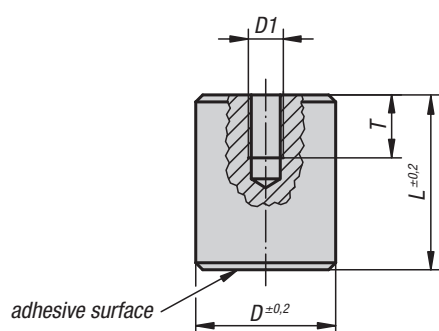
**Note:**

Shielded system. Bar grippers are used for fitting into steel and iron. This requirement is principally specified in plant and mechanical engineering. Can also be used as blind-hole magnets.

Size D 50: System having 4 magnets of Ø 18 mm.

**Temperature range:**

max. 80°C.



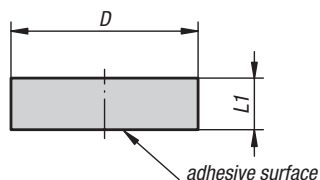
### KIPP Round holding magnets with internal thread (round bar gripper) in NdFeB

| Order No. | D  | D1  | L  | T  | Can be shortened by | Adhesive force N | Approx. weight g |
|-----------|----|-----|----|----|---------------------|------------------|------------------|
| K0552.01  | 8  | M3  | 12 | 5  | 3                   | 12               | 7                |
| K0552.02  | 10 | M4  | 16 | 7  | 7                   | 24               | 8                |
| K0552.03  | 13 | M4  | 18 | 7  | 3                   | 60               | 18               |
| K0552.04  | 16 | M4  | 20 | 7  | 6                   | 90               | 30               |
| K0552.05  | 20 | M5  | 25 | 9  | 9                   | 135              | 60               |
| K0552.06  | 25 | M6  | 30 | 9  | 10                  | 190              | 110              |
| K0552.07  | 35 | M8  | 40 | 13 | 10                  | 300              | 290              |
| K0552.08  | 50 | M12 | 50 | 13 | 13                  | 550              | 750              |

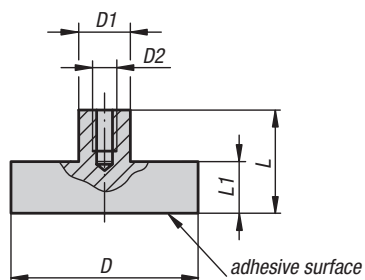
## Flat gripper

in NdFeB

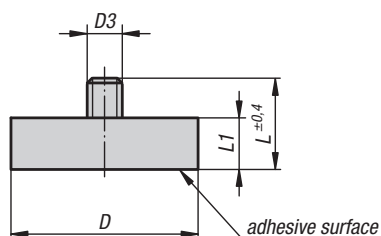
Form A



Form B



Form C



**Material, surface finish:**  
Housing in galvanized steel.  
Magnetic core NdFeB

**Sample order:**  
K0553.01

**Note:**  
Shielded system. With the permanent magnetic material NdFeB the adhesive force increases by approx. 10-20% compared with SmCo.

**Temperature range:**  
max. 80°C.

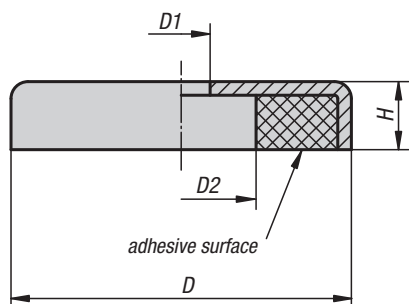
### KIPP Flat gripper in NdFeB

| Order No. | Form | D        | D1 | D2  | D3  | L    | L1  | Adhesive force N | Approx. weight g |
|-----------|------|----------|----|-----|-----|------|-----|------------------|------------------|
| K0553.01  | A    | 6 ±0,15  | -  | -   | -   | -    | 4,5 | 5                | 1                |
| K0553.02  | A    | 8 ±0,15  | -  | -   | -   | -    | 4,5 | 13               | 1,5              |
| K0553.03  | A    | 10 ±0,15 | -  | -   | -   | -    | 4,5 | 25               | 2,5              |
| K0553.04  | A    | 13 ±0,15 | -  | -   | -   | -    | 4,5 | 60               | 4,5              |
| K0553.05  | A    | 16 ±0,15 | -  | -   | -   | -    | 4,5 | 95               | 6,5              |
| K0553.06  | A    | 20 ±0,15 | -  | -   | -   | -    | 6   | 140              | 15               |
| K0553.07  | A    | 25 ±0,15 | -  | -   | -   | -    | 7   | 200              | 22               |
| K0553.08  | A    | 32 ±0,20 | -  | -   | -   | -    | 7   | 350              | 40               |
| K0553.11  | B    | 6 ±0,15  | 6  | M 3 | -   | 11,5 | 4,5 | 5                | 1,5              |
| K0553.12  | B    | 8 ±0,15  | 6  | M 3 | -   | 11,5 | 4,5 | 13               | 2                |
| K0553.13  | B    | 10 ±0,15 | 6  | M 3 | -   | 11,5 | 4,5 | 25               | 3                |
| K0553.14  | B    | 13 ±0,15 | 6  | M 3 | -   | 11,5 | 4,5 | 60               | 5                |
| K0553.15  | B    | 16 ±0,15 | 6  | M 4 | -   | 11,5 | 4,5 | 95               | 7,5              |
| K0553.16  | B    | 20 ±0,15 | 8  | M 4 | -   | 13   | 6   | 140              | 16               |
| K0553.17  | B    | 25 ±0,15 | 8  | M 4 | -   | 14   | 7   | 200              | 25               |
| K0553.18  | B    | 32 ±0,20 | 10 | M 5 | -   | 15,5 | 7   | 350              | 48               |
| K0553.23  | C    | 10 ±0,15 | -  | -   | M 3 | 11,5 | 4,5 | 25               | 3                |
| K0553.24  | C    | 13 ±0,15 | -  | -   | M 5 | 12,5 | 4,5 | 60               | 5                |
| K0553.25  | C    | 16 ±0,15 | -  | -   | M 6 | 12,5 | 4,5 | 95               | 8                |
| K0553.26  | C    | 20 ±0,15 | -  | -   | M 6 | 16   | 6   | 140              | 16               |
| K0553.27  | C    | 25 ±0,15 | -  | -   | M 6 | 17   | 7   | 200              | 25               |
| K0553.28  | C    | 32 ±0,20 | -  | -   | M 6 | 17   | 7   | 350              | 48               |



## Flat gripper with through hole

in hard ferrite



**Material, surface finish:**  
Housing in galvanized steel.  
Magnetic core hard ferrite

**Sample order:**  
K0554.50

**Note:**  
Shielded system

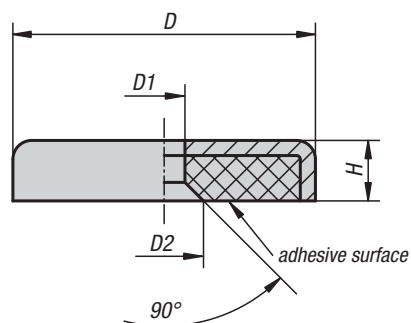
**Temperature range:**  
max. 200°C.

### KIPP Flat gripper with through hole in hard ferrite

| Order No. | D        | D1  | D2   | H  | Adhesive force N | Approx. weight g |
|-----------|----------|-----|------|----|------------------|------------------|
| K0554.50  | 50 ±0,20 | 8,5 | 22   | 10 | 180              | 85               |
| K0554.63  | 63 ±0,20 | 6,5 | 24   | 14 | 290              | 197              |
| K0554.80  | 80 ±0,25 | 6,5 | 11,5 | 18 | 540              | 458              |

## Flat gripper with counterbore

in hard ferrite



**Material, surface finish:**  
Housing in galvanized steel.  
Magnetic core hard ferrite

**Sample order:**  
K0555.01

**Note:**  
Shielded system

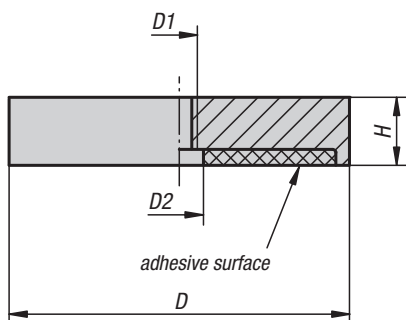
**Temperature range:**  
max. 200°C.

### KIPP Flat gripper with counterbore in hard ferrite

| Order No. | D        | D1  | D2 | H   | Adhesive force N | Approx. weight g |
|-----------|----------|-----|----|-----|------------------|------------------|
| K0555.01  | 16 ±0,15 | 3,3 | 7  | 4,5 | 14               | 4                |
| K0555.02  | 20 ±0,15 | 4,2 | 9  | 6   | 27               | 9                |
| K0555.03  | 25 ±0,15 | 5,5 | 11 | 7   | 36               | 17               |
| K0555.04  | 32 ±0,20 | 5,5 | 11 | 7   | 72               | 27               |
| K0555.05  | 40 ±0,20 | 5,5 | 11 | 8   | 90               | 52               |

## Flat gripper with internal thread

in NdFeB



**Material, surface finish:**  
Housing in galvanized steel.  
Magnetic core NdFeB

**Sample order:**  
K0556.01

**Note:**  
Shielded system

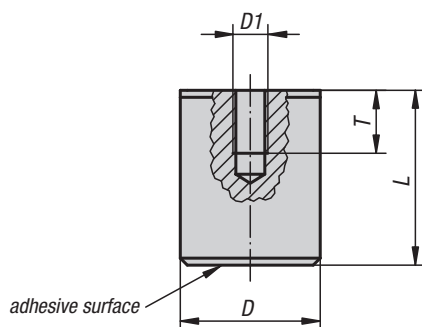
**Temperature range:**  
max. 80°C.

### KIPP Flat gripper with internal thread in NdFeB

| Order No. | D  | D1  | D2   | H  | Adhesive force N | Approx. weight g |
|-----------|----|-----|------|----|------------------|------------------|
| K0556.01  | 32 | M5  | 5,5  | 7  | 330              | 40               |
| K0556.02  | 40 | M5  | 10,5 | 8  | 550              | 73               |
| K0556.03  | 63 | M10 | 11,7 | 14 | 1.100            | 316              |
| K0556.04  | 75 | M10 | 13   | 15 | 1.750            | 480              |

# K0557

## Pot magnets



**Material, surface finish:**  
Housing in steel, painted red.  
Magnetic core AlNiCo.

**Sample order:**  
K0557.01

**Note:**  
Hard magnet in aluminium housing and steel jacket.  
Shielded system. Pot magnets are used for holding, for lifting and for fitting into devices.

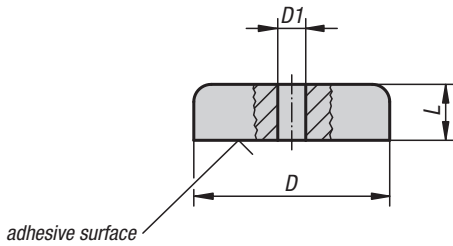


### KIPP Pot magnets

| Order No. | D  | D1  | L  | T  | Adhesive force N | Approx. weight g |
|-----------|----|-----|----|----|------------------|------------------|
| K0557.01  | 17 | M6  | 16 | 4  | 18               | 26               |
| K0557.02  | 21 | M6  | 19 | 5  | 28               | 50               |
| K0557.03  | 27 | M6  | 25 | 6  | 65               | 110              |
| K0557.04  | 35 | M6  | 30 | 9  | 115              | 215              |
| K0557.05  | 65 | M12 | 43 | 13 | 400              | 1.080            |

**Temperature range:**  
max. 450°C.

## Flat pot magnets



**Material, surface finish:**  
Housing in steel, painted red.  
Magnetic core AINiCo.

**Sample order:**  
K0558.01

**Note:**  
Shielded system. Pot magnets are used for installation in systems if little space is needed.

**Temperature range:**  
max. 450°C.

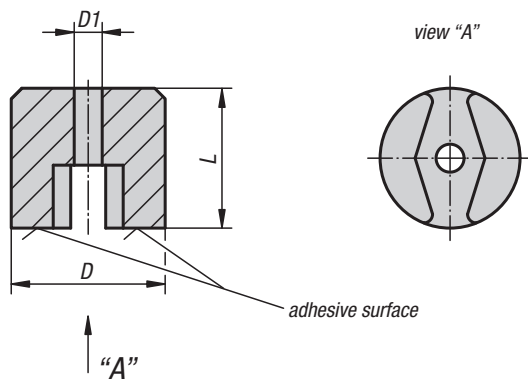
**On request:**  
Other colours.

### KIPP Flat pot magnets

| Order No. | D  | D1  | L    | Adhesive force N | Approx. weight g |
|-----------|----|-----|------|------------------|------------------|
| K0558.01  | 19 | 3,5 | 8    | 30               | 18               |
| K0558.02  | 29 | 5   | 9    | 55               | 46               |
| K0558.03  | 38 | 5   | 10,5 | 95               | 97               |

# K0559

## Button magnets



**Material, surface finish:**  
Magnet core AINiCo, painted red.

**Sample order:**  
K0559.01

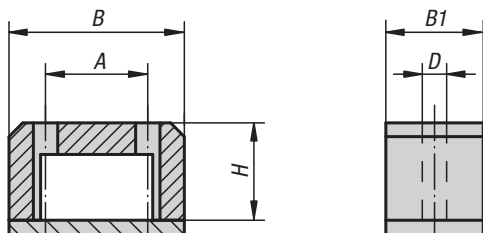
**Note:**  
Split adhesive surface with through fastening hole. Non-shielded system. Button magnets with a divided adhesive surface are used for laboratory purposes, measurement and to hold metal objects still.

**Temperature range:**  
max. 450°C.

### KIPP Button magnets

| Order No. | D  | D1  | L  | Adhesive force N | Approx. weight g |
|-----------|----|-----|----|------------------|------------------|
| K0559.01  | 13 | 4,2 | 10 | 7                | 7                |
| K0559.02  | 19 | 5,4 | 13 | 19               | 20               |
| K0559.03  | 25 | 5,4 | 16 | 29               | 56               |
| K0559.04  | 32 | 7   | 25 | 66               | 133              |

## Strong magnets



**Material, surface finish:**  
Magnet core AlNiCo, painted red.

**Sample order:**  
K0560.01

**Note:**  
U-shaped magnets with high adhesive force. Non-shielded system. The magnets are supplied with a galvanised protective plate and are used for holding, sorting and lifting. Sizes 1, 2 and 3 have only one attachment hole in the centre.

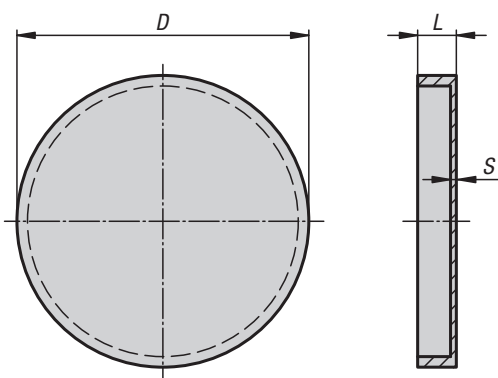
**Temperature range:**  
max. 450°C.

### KIPP Strong magnets

| Order No. | Size | A  | B  | B1   | D | H  | Adhesive force N | Approx. weight g |
|-----------|------|----|----|------|---|----|------------------|------------------|
| K0560.01  | 1    | -  | 31 | 20   | 4 | 20 | 45               | 65               |
| K0560.02  | 2    | -  | 40 | 25   | 5 | 25 | 90               | 150              |
| K0560.03  | 3    | -  | 45 | 29   | 6 | 30 | 120              | 220              |
| K0560.04  | 4    | 30 | 58 | 35,5 | 8 | 35 | 230              | 380              |
| K0560.05  | 5    | 40 | 70 | 57   | 8 | 41 | 320              | 1.600            |

# K0561

## Protective rubber caps for flat gripper



**Material, surface finish:**  
Synthetic rubber, black.

**Sample order:**  
K0561.50

**Note:**  
For protecting sensitive surfaces. The rubber protective caps are slipped over the adhesive surfaces of flat grippers. The shearing force with which the magnet can be displaced is doubled and reaches almost the original adhesive force of the magnet.

**Temperature range:**  
max. 60°C.

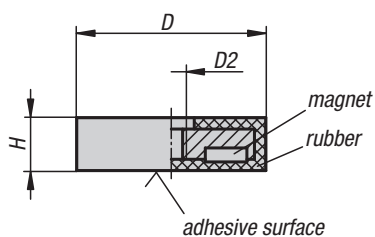
### KIPP Protective rubber caps for flat gripper

| Order No. | D  | L  | S   |
|-----------|----|----|-----|
| K0561.50  | 52 | 6  | 0,5 |
| K0561.63  | 65 | 8  | 0,5 |
| K0561.80  | 83 | 11 | 0,5 |



# Flat gripper with internal thread

in NdFeB, with rubber protective jacket



### Material, surface finish:

Housing in galvanized steel.

Magnetic core NdFeB (neodymium)

Protective rubber jacket, synthetic rubber, black.

### Sample order:

K0562.01

### Note:

Flat gripper with internal thread. Shielded system.

With rubber protective jacket for protecting sensitive surfaces. The coefficient of friction is increased by the rubber protective jacket, so that high lateral static friction forces are achieved.

### Temperature range:

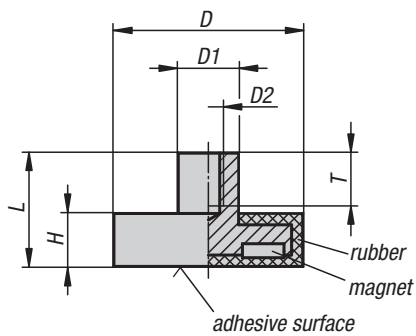
max. 60°C.

## KIPP Flat gripper with internal thread in NdFeB, with rubber protective jacket

| Order No. | D  | D2 | H   | Adhesive force N | Approx. weight g |
|-----------|----|----|-----|------------------|------------------|
| K0562.01  | 22 | M4 | 6   | 35               | 9                |
| K0562.02  | 31 | M5 | 6   | 75               | 21               |
| K0562.03  | 43 | M4 | 6   | 85               | 29               |
| K0562.04  | 66 | M6 | 8,5 | 180              | 100              |
| K0562.05  | 88 | M8 | 8   | 420              | 186              |

## Flat gripper with threaded bush

in NdFeB, with rubber protective jacket



**Material, surface finish:**

Housing in galvanized steel.  
Magnetic core NdFeB (neodymium)  
Protective rubber jacket, synthetic rubber, black.

**Sample order:**

K0563.01

**Note:**

Flat gripper with threaded bush, shielded system.  
With rubber protective jacket for protecting sensitive surfaces. The coefficient of friction is increased by the rubber protective jacket, so that high lateral static friction forces are achieved.

**Temperature range:**

max. 60°C.

### KIPP Flat gripper with threaded bush in NdFeB, with rubber protective jacket

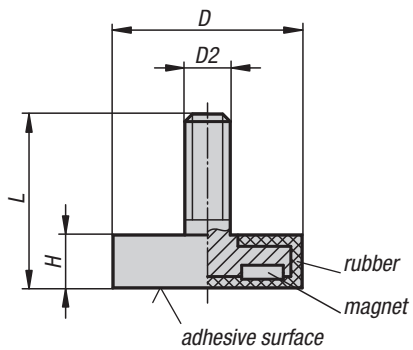


| Order No. | D  | D1 | D2 | H   | L    | T  | Adhesive force N | Approx. weight g |
|-----------|----|----|----|-----|------|----|------------------|------------------|
| K0563.01  | 12 | 8  | M4 | 7   | 14,8 | 6  | 10               | 6                |
| K0563.02  | 22 | 8  | M4 | 6   | 11,5 | 6  | 50               | 13               |
| K0563.03  | 31 | 8  | M4 | 6   | 11,5 | 5  | 75               | 22               |
| K0563.04  | 43 | 8  | M4 | 6   | 10,5 | 5  | 85               | 30               |
| K0563.05  | 66 | 10 | M5 | 8,2 | 15   | 8  | 180              | 105              |
| K0563.06  | 88 | 12 | M8 | 8,2 | 17   | 11 | 420              | 192              |



# Flat gripper with threaded pin in NdFeB,

with rubber protective jacket



**Material, surface finish:**

Housing in galvanized steel.

Magnetic core NdFeB (neodymium)

Protective rubber jacket, synthetic rubber, black.

**Sample order:**

K0564.01

**Note:**

Flat gripper with threaded pin, shielded system.

With rubber protective jacket for protecting sensitive surfaces. The coefficient of friction is increased by the rubber protective jacket, so that high lateral static friction forces are achieved.

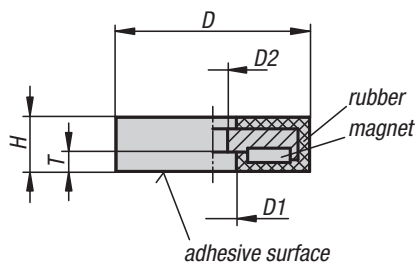
**Temperature range:**

max. 60°C

## KIPP Flat gripper with threaded pin in NdFeB, with rubber protective jacket

| Order No. | D  | D2 | H   | L    | Adhesive force N | Approx. weight g |
|-----------|----|----|-----|------|------------------|------------------|
| K0564.01  | 22 | M4 | 6   | 12,5 | 50               | 11               |
| K0564.02  | 43 | M6 | 6   | 21   | 85               | 32               |
| K0564.03  | 66 | M8 | 8,2 | 23   | 180              | 107              |
| K0564.04  | 88 | M8 | 8,2 | 23,5 | 420              | 193              |

## Flat gripper with borehole in NdFeB, with rubber protective jacket



**Material, surface finish:**

Housing in galvanized steel.  
Magnetic core NdFeB (neodymium)  
Protective rubber jacket, synthetic rubber, black.

**Sample order:**

K0565.01

**Note:**

Flat gripper with borehole, shielded system. With rubber protective jacket for protecting sensitive surfaces. The coefficient of friction is increased by the rubber protective jacket, so that high lateral static friction forces are achieved.

**Temperature range:**

max. 60°C.

### KIPP Flat gripper with borehole in NdFeB, with rubber protective jacket

| Order No. | D  | D1   | D2  | H   | T   | Adhesive force N | Approx. weight g |
|-----------|----|------|-----|-----|-----|------------------|------------------|
| K0565.01  | 22 | 8    | 4   | 6   | 3,5 | 35               | 8                |
| K0565.02  | 31 | 9    | 6   | 6   | 3,5 | 75               | 20               |
| K0565.03  | 43 | 12,8 | 7   | 6   | 4,2 | 85               | 27               |
| K0565.04  | 57 | 25,3 | 8   | 7,6 | 3,3 | 175              | 77               |
| K0565.05  | 66 | 22   | 5,5 | 8,5 | 3,2 | 210              | 100              |











## Absorption units

Rubber-metal buffer,  
type A  
**K0566**



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Rubber-metal buffer,  
type AT tapered  
**K0567**



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Rubber-metal buffer,  
type B  
**K0568**



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Rubber-metal buffer,  
type C  
**K0569**



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Rubber-metal buffer,  
type CT tapered  
**K0570**



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Rubber-metal buffer,  
type D  
**K0571**



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Rubber-metal buffer,  
type DS suction base  
**K0572**



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Rubber impact buffer,  
parabolic  
**K0574**



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Rubber impact buffer,  
conical  
**K0575**



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Rubber impact buffer,  
spherical  
**K0576**



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# Technical information for rubber-metal buffers

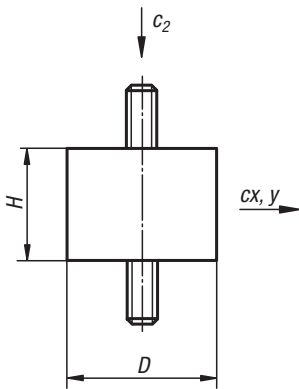


## Note:

Our rubber-metal buffers are simple and cost-efficient standard units for elastic bearings. They are ideally suited for compressive and axial loads of the most diverse ranges of application. In the case of shear stress, however, they are substantially less resilient than in that of compressive stress. The adjacent tables provide an overview of the guide values for static load. In the case of high dynamic alternating loads or that of high frequencies, the load indices are to be reduced proportionately.

## Guide values for static load (excerpt from K0556, K0568, K0569 and K0571)

| Type | D  | H  | Compressive loads                  |        |      |                         |        |      | Shear stresses                        |        |      |                         |        |      |
|------|----|----|------------------------------------|--------|------|-------------------------|--------|------|---------------------------------------|--------|------|-------------------------|--------|------|
|      |    |    | Spring rate c <sub>2</sub> in N/mm |        |      | Permissible load F in N |        |      | Spring rate c <sub>x, y</sub> in N/mm |        |      | Permissible load F in N |        |      |
|      |    |    | hard                               | medium | soft | hard                    | medium | soft | hard                                  | medium | soft | hard                    | medium | soft |
| A    | 20 | 15 | 300                                | 190    | 120  | 500                     | 320    | 200  | 60                                    | 40     | 30   | 190                     | 120    | 70   |
| A    | 30 | 15 | 670                                | 410    | 250  | 1100                    | 700    | 400  | 90                                    | 60     | 40   | 350                     | 210    | 130  |
| A    | 30 | 30 | 240                                | 150    | 100  | 900                     | 570    | 340  | 50                                    | 30     | 20   | 430                     | 280    | 170  |
| A    | 40 | 30 | 480                                | 300    | 170  | 1800                    | 1110   | 670  | 90                                    | 60     | 30   | 770                     | 500    | 250  |
| A    | 50 | 20 | 240                                | 1500   | 90   | 5000                    | 3190   | 1870 | 240                                   | 160    | 100  | 1200                    | 770    | 460  |
| A    | 50 | 40 | 600                                | 280    | 220  | 2800                    | 1750   | 1050 | 120                                   | 80     | 50   | 1280                    | 800    | 460  |
| A    | 75 | 25 | 5000                               | 2900   | 1700 | 12800                   | 8000   | 4700 | 410                                   | 260    | 160  | 2800                    | 1750   | 1030 |
| A    | 75 | 55 | 650                                | 400    | 240  | 4700                    | 3000   | 1750 | 130                                   | 80     | 50   | 2100                    | 1300   | 800  |
| B    | 25 | 20 | 320                                | 160    | 120  | 490                     | 320    | 190  | 70                                    | 45     | 25   | 230                     | 160    | 90   |
| B    | 30 | 20 | 660                                | 430    | 260  | 830                     | 520    | 310  | 100                                   | 75     | 50   | 330                     | 210    | 130  |
| B    | 40 | 30 | 550                                | 350    | 210  | 1250                    | 750    | 450  | 110                                   | 70     | 40   | 520                     | 330    | 200  |
| B    | 40 | 30 | 550                                | 350    | 210  | 1250                    | 750    | 450  | 110                                   | 70     | 40   | 520                     | 330    | 200  |
| B    | 50 | 40 | 560                                | 370    | 220  | 2100                    | 1270   | 760  | 120                                   | 80     | 45   | 930                     | 580    | 350  |
| B    | 50 | 50 | 350                                | 220    | 130  | 1750                    | 1100   | 650  | 80                                    | 50     | 30   | 800                     | 510    | 310  |
| B    | 75 | 50 | 950                                | 630    | 330  | 4700                    | 2910   | 1720 | 180                                   | 120    | 80   | 1900                    | 1200   | 710  |
| C    | 20 | 25 | 200                                | 130    | 80   | 300                     | 190    | 120  | 50                                    | 30     | 20   | 150                     | 90     | 60   |
| C    | 30 | 30 | 590                                | 380    | 220  | 720                     | 450    | 270  | 90                                    | 60     | 50   | 260                     | 170    | 110  |
| C    | 40 | 30 | 900                                | 570    | 340  | 1080                    | 680    | 410  | 150                                   | 90     | 60   | 380                     | 240    | 140  |
| C    | 50 | 30 | 1700                               | 1090   | 650  | 2500                    | 1750   | 950  | 210                                   | 150    | 70   | 470                     | 290    | 170  |
| C    | 50 | 50 | 360                                | 220    | 140  | 1390                    | 870    | 520  | 80                                    | 40     | 30   | 610                     | 390    | 230  |
| C    | 75 | 50 | 1010                               | 630    | 370  | 3650                    | 2050   | 1200 | 200                                   | 130    | 80   | 1560                    | 980    | 580  |



| Type | D  | H  | Compressive loads                            |                                   |
|------|----|----|--|-----------------------------------|
|      |    |    | Spring rate c <sub>2</sub> in N/mm<br>medium | Permissible load F in N<br>medium |
| D    | 25 | 20 | 150  | 260                               |
| D    | 30 | 20 | 330  | 730                               |
| D    | 40 | 30 | 250  | 950                               |
| D    | 50 | 20 | 660  | 1750                              |
| D    | 75 | 25 | 1430   | 4650                              |

## Rubber hardenings:

hard = 70° Shore medium = 55° Shore soft = 45° Shore

For general alignment apply approx. 55° Shore in the case of natural rubber.

static compression load: F (max.) = approx. 6.5 kg/cm<sup>2</sup> (63.77 N/cm<sup>2</sup>)

static axial load: F (max.) = approx. 1.5 kg/cm<sup>2</sup> (14.72 N/cm<sup>2</sup>)

at approx. 10 % spring deflection, or transverse travel in the case of axial load.

Of course, clearly higher loads are possible without destruction of the item. However, these affect considerably the rubber-metal buffer in its primary purpose. Tensile loads are possible but should be avoided on account of the peak voltages at the contact edges and the notch sensitivity of the rubber.

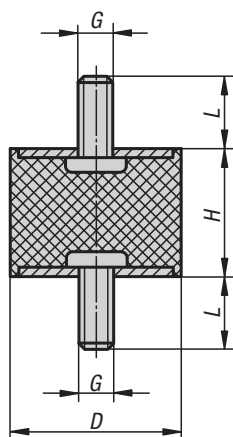
## Synoptical Table - Properties of the Individual Materials

| Abbreviation | Rubber material<br>Polymer     | Main Characteristics - Resistance to |                  |                 |       |       |        |     |         |         |                |
|--------------|--------------------------------|--------------------------------------|------------------|-----------------|-------|-------|--------|-----|---------|---------|----------------|
|              |                                | Temperature                          | Tensile strength | Fracture strain | Aging | Ozone | Petrol | Oil | Acidity | Alkalis | Tensile strain |
| NR (NK)      | Natural rubber                 | -30 °C – +80 °C                      | 1                | 1               | 3     | 4     | 6      | 6   | 3       | 3       | 600%           |
| SBR          | Styrene-butadiene rubber       | -30 °C – +80 °C                      | 5                | 2               | 3     | 4     | 4      | 5   | 3       | 3       | 450%           |
| CR           | Chloroprene rubber             | -20 °C – +110 °C                     | 3                | 2               | 2     | 2     | 2      | 2   | 2       | 2       | 450%           |
| NBR          | Acrylonitrile-butadiene rubber | -30 °C – +120 °C                     | 5                | 2               | 3     | 3     | 1      | 1   | 4       | 3       | 450%           |
| EPDM         | Ethylene propylene terpolymer  | -30 °C – +130 °C                     | 5                | 3               | 1     | 1     | 5      | 4   | 1       | 2       | 450%           |
| SI           | Silicone rubber                | -60 °C – +200 °C                     | 6                | 4               | 1     | 1     | 5      | 4   | 5       | 5       | 500%           |

1 = excellent 2 = very good 3 = good 4 = moderate 5 = low 6 = insufficient

# Rubber-metal buffer,

type A



### Material, surface finish:

Metal parts, galvanized steel, class 5.6;  
elastomer, natural rubber, medium hardness,  
55° Shore A

### Sample order:

K0566.00800855

### Note:

The rubber-metal buffers are widely-used construction devices for elastic bearings. They are used, among other things, as bearings for assemblies, motors, compressors, pumps and testing machines.

### Temperature range:

-30 °C to +80 °C.

## KIPP Rubber-metal buffer, type A

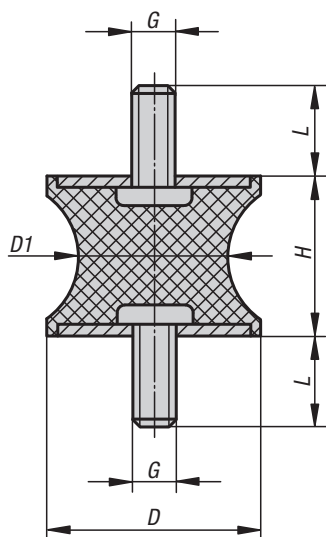
| Order No.      | D  | G   | L  | H  | Approx. weight g |
|----------------|----|-----|----|----|------------------|
| K0566.00800855 | 8  | M3  | 6  | 8  | 1,0              |
| K0566.01001055 | 10 | M4  | 10 | 10 | 3,2              |
| K0566.01001555 | 10 | M4  | 10 | 15 | 3,9              |
| K0566.01500855 | 15 | M4  | 10 | 8  | 6,0              |
| K0566.01501055 | 15 | M4  | 10 | 10 | 6,4              |
| K0566.01501555 | 15 | M4  | 10 | 15 | 7,8              |
| K0566.02000855 | 20 | M6  | 18 | 8  | 15,0             |
| K0566.02001055 | 20 | M6  | 18 | 10 | 15,0             |
| K0566.02001555 | 20 | M6  | 18 | 15 | 20,0             |
| K0566.02002055 | 20 | M6  | 18 | 20 | 19,0             |
| K0566.02002555 | 20 | M6  | 18 | 25 | 20,0             |
| K0566.02501055 | 25 | M6  | 18 | 10 | 20,0             |
| K0566.02501555 | 25 | M6  | 18 | 15 | 27,5             |
| K0566.02502055 | 25 | M6  | 18 | 20 | 30,0             |
| K0566.02502555 | 25 | M6  | 18 | 25 | 32,0             |
| K0566.02503055 | 25 | M6  | 18 | 30 | 40,0             |
| K0566.03001555 | 30 | M8  | 23 | 15 | 37,0             |
| K0566.03002055 | 30 | M8  | 23 | 20 | 56,0             |
| K0566.03002555 | 30 | M8  | 23 | 25 | 58,0             |
| K0566.03003055 | 30 | M8  | 23 | 30 | 65,0             |
| K0566.03004055 | 30 | M8  | 23 | 40 | 74,0             |
| K0566.04001555 | 40 | M8  | 23 | 15 | 79,0             |
| K0566.04002055 | 40 | M8  | 23 | 20 | 82,0             |
| K0566.04003055 | 40 | M8  | 23 | 30 | 102,0            |
| K0566.04004055 | 40 | M8  | 23 | 40 | 115,0            |
| K0566.05002055 | 50 | M10 | 28 | 20 | 141,0            |
| K0566.05002555 | 50 | M10 | 28 | 25 | 155,0            |
| K0566.05003055 | 50 | M10 | 28 | 30 | 163,0            |
| K0566.05004055 | 50 | M10 | 28 | 40 | 178,0            |
| K0566.05005055 | 50 | M10 | 28 | 50 | 199,0            |
| K0566.06004055 | 60 | M10 | 28 | 40 | 231,0            |
| K0566.07004555 | 70 | M10 | 28 | 45 | 401,0            |
| K0566.07502555 | 75 | M12 | 37 | 25 | 369,0            |
| K0566.07504055 | 75 | M12 | 37 | 40 | 420,0            |
| K0566.07505055 | 75 | M12 | 37 | 50 | 483,0            |
| K0566.07505555 | 75 | M12 | 37 | 55 | 514,0            |





## Rubber-metal buffer,

type AT tapered



**Material, surface finish:**

Metal parts, galvanized steel, class 5.6;  
elastomer, natural rubber, medium hardness,  
57° Shore A

**Sample order:**

K0567.01001057

**Note:**

The rubber-metal buffers are widely-used construction devices for elastic bearings. They are used, among other things, as bearings for assemblies, motors, compressors, pumps and testing machines.

Rubber-metal buffers with tapered rubber contour reduce high edge loads of the rubber in case of axial excursion and thus increase the service life of the component.

**Temperature range:**

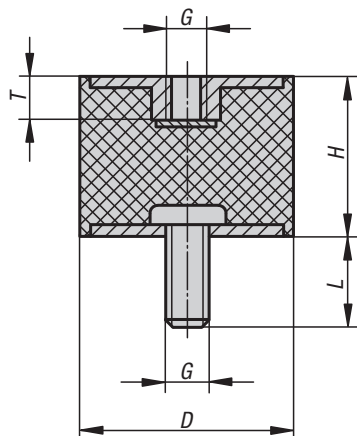
-30 up to +80 °C.

### KIPP Rubber-metal buffer, type AT tapered

| Order No.      | D  | D1 | H  | G   | L  | Approx. weight g |
|----------------|----|----|----|-----|----|------------------|
| K0567.01001057 | 10 | 8  | 10 | M4  | 13 | 3                |
| K0567.01501557 | 15 | 12 | 15 | M4  | 13 | 7                |
| K0567.02001557 | 20 | 14 | 15 | M6  | 18 | 17               |
| K0567.03002057 | 30 | 22 | 20 | M8  | 23 | 55               |
| K0567.04003057 | 40 | 33 | 30 | M8  | 23 | 81               |
| K0567.04004857 | 40 | 20 | 48 | M8  | 23 | 87               |
| K0567.05003057 | 50 | 40 | 30 | M10 | 33 | 170              |
| K0567.07504057 | 75 | 50 | 40 | M12 | 37 | 350              |

## Rubber-metal buffer, type B

type B



**Material, surface finish:**

Metal parts, galvanized steel, class 5.6;  
elastomer, natural rubber, medium hardness,  
55° Shore A

**Sample order:**

K0568.00800855

**Note:**

The rubber-metal buffers are widely-used construction devices for elastic bearings. They are used, among other things, as bearings for assemblies, motors, compressors, pumps and testing machines.

**Temperature range:**

-30 up to +80 °C.

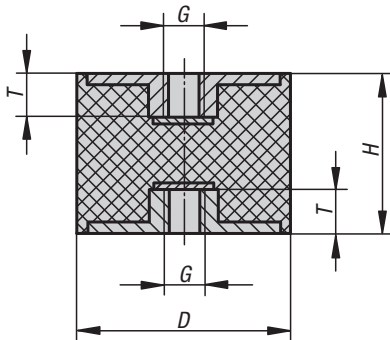
### KIPP Rubber-metal buffer, type B

| Order No.      | D  | H  | G   | L  | T  | Approx. weight g |
|----------------|----|----|-----|----|----|------------------|
| K0568.00800855 | 8  | 8  | M3  | 6  | 3  | 1,0              |
| K0568.01001055 | 10 | 10 | M4  | 10 | 4  | 2,7              |
| K0568.01001555 | 10 | 15 | M4  | 10 | 4  | 3,6              |
| K0568.01500855 | 15 | 10 | M4  | 10 | 4  | 7,6              |
| K0568.01501555 | 15 | 15 | M4  | 10 | 4  | 8,3              |
| K0568.02001555 | 20 | 15 | M6  | 18 | 5  | 14,0             |
| K0568.02002055 | 20 | 20 | M6  | 18 | 5  | 16,0             |
| K0568.02002555 | 20 | 25 | M6  | 18 | 5  | 17,0             |
| K0568.02501555 | 25 | 15 | M6  | 18 | 5  | 25,0             |
| K0568.02502055 | 25 | 20 | M6  | 18 | 5  | 28,0             |
| K0568.02502555 | 25 | 25 | M6  | 18 | 5  | 30,0             |
| K0568.02503055 | 25 | 30 | M6  | 18 | 5  | 30,0             |
| K0568.03001555 | 30 | 15 | M8  | 23 | 7  | 38,0             |
| K0568.03002055 | 30 | 20 | M8  | 23 | 7  | 51,0             |
| K0568.03002555 | 30 | 25 | M8  | 23 | 7  | 47,0             |
| K0568.03003055 | 30 | 30 | M8  | 23 | 7  | 48,0             |
| K0568.03004055 | 30 | 40 | M8  | 23 | 7  | 60,0             |
| K0568.04002055 | 40 | 20 | M8  | 23 | 7  | 75,0             |
| K0568.04003055 | 40 | 30 | M8  | 23 | 7  | 91,0             |
| K0568.04004055 | 40 | 40 | M8  | 23 | 7  | 103,0            |
| K0568.05002055 | 50 | 20 | M10 | 28 | 8  | 112,0            |
| K0568.05002555 | 50 | 25 | M10 | 28 | 8  | 125,0            |
| K0568.05003055 | 50 | 30 | M10 | 28 | 8  | 135,0            |
| K0568.05004055 | 50 | 40 | M10 | 28 | 8  | 168,0            |
| K0568.05005055 | 50 | 50 | M10 | 28 | 8  | 183,0            |
| K0568.06004055 | 60 | 40 | M10 | 28 | 8  | 224,0            |
| K0568.07004555 | 70 | 45 | M10 | 28 | 8  | 348,0            |
| K0568.07502555 | 75 | 25 | M12 | 37 | 10 | 299,0            |
| K0568.07504055 | 75 | 40 | M12 | 37 | 10 | 420,0            |
| K0568.07505055 | 75 | 50 | M12 | 37 | 10 | 467,0            |
| K0568.07505555 | 75 | 55 | M12 | 37 | 10 | 469,0            |



# Rubber-metal buffer,

type C



**Material, surface finish:**

Metal parts, galvanized steel, class 5.6;  
elastomer, natural rubber, medium hardness,  
55° Shore A

**Sample order:**

K0569.01001055

**Note:**

The rubber-metal buffers are widely-used construction devices for elastic bearings. They are used, among other things, as bearings for assemblies, motors, compressors, pumps and testing machines.

**Temperature range:**

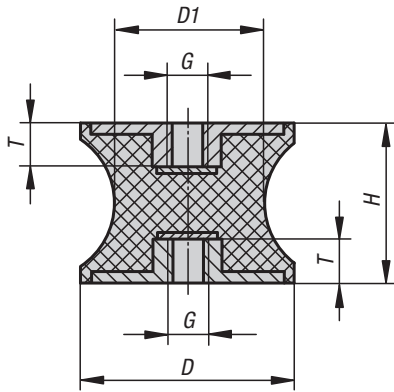
-30 up to +80 °C.

## KIPP Rubber-metal buffer, type C

| Order No.      | D  | H  | G   | T  | Approx. weight g |
|----------------|----|----|-----|----|------------------|
| K0569.01001055 | 10 | 10 | M4  | 4  | 2,0              |
| K0569.01001555 | 10 | 15 | M4  | 4  | 2,0              |
| K0569.01501555 | 15 | 15 | M4  | 4  | 5,0              |
| K0569.02002055 | 20 | 20 | M6  | 5  | 14,0             |
| K0569.02002555 | 20 | 25 | M6  | 5  | 17,0             |
| K0569.02502055 | 25 | 20 | M6  | 5  | 24,0             |
| K0569.02502555 | 25 | 25 | M6  | 5  | 27,0             |
| K0569.02503055 | 25 | 30 | M6  | 5  | 30,0             |
| K0569.03002055 | 30 | 20 | M8  | 7  | 35,0             |
| K0569.03003055 | 30 | 30 | M8  | 7  | 44,0             |
| K0569.03004055 | 30 | 40 | M8  | 7  | 50,0             |
| K0569.04003055 | 40 | 30 | M8  | 7  | 78,0             |
| K0569.04004055 | 40 | 40 | M8  | 7  | 93,0             |
| K0569.05003055 | 50 | 30 | M10 | 8  | 126,0            |
| K0569.05004055 | 50 | 40 | M10 | 8  | 145,0            |
| K0569.05005055 | 50 | 50 | M10 | 8  | 169,0            |
| K0569.07504055 | 75 | 40 | M12 | 10 | 366,0            |
| K0569.07505055 | 75 | 50 | M12 | 10 | 425,0            |

# Rubber-metal buffer,

type CT tapered



**Material, surface finish:**

Metal parts, galvanized steel, class 5.6;  
elastomer, natural rubber, medium hardness, 57°  
Shore A

**Sample order:**

K0570.01501557

**Note:**

The rubber-metal buffers are widely-used construction devices for elastic bearings. They are used, among other things, as bearings for assemblies, motors, compressors, pumps and testing machines.

Rubber-metal buffers with tapered rubber contour reduce high edge loads of the rubber in case of axial excursion and thus increase the service life of the component.

**Temperature range:**

-30 up to +80 °C.

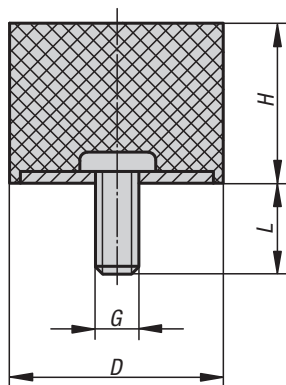
## KIPP Rubber-metal buffer, type CT tapered

| Order No.      | D  | D1 | H  | G   | T  | Approx. weight g |
|----------------|----|----|----|-----|----|------------------|
| K0570.01501557 | 15 | 12 | 15 | M4  | 4  | 6                |
| K0570.02001557 | 20 | 14 | 15 | M6  | 6  | 13               |
| K0570.03002057 | 30 | 22 | 20 | M8  | 8  | 35               |
| K0570.04003057 | 40 | 33 | 30 | M8  | 8  | 74               |
| K0570.04004857 | 40 | 20 | 48 | M8  | 8  | 73               |
| K0570.05003057 | 50 | 40 | 30 | M10 | 10 | 117              |
| K0570.07504057 | 75 | 50 | 40 | M12 | 12 | 298              |



# Rubber-metal buffer,

type D



### Material, surface finish:

Metal parts, galvanized steel, class 5.6;  
elastomer, natural rubber, medium hardness,  
55° Shore A

### Sample order:

K0571.00800855

### Note:

The rubber-metal buffers are used, among other things, for the bearing of aggregates and as a shock stop for the limitation of spring travel in the case of moving masses. Also used with machines that are not firmly anchored to a stand and rest on weak floorings, e.g., office machines.

### Temperature range:

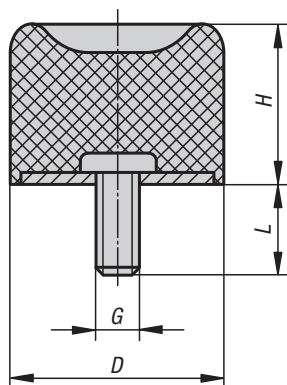
-30 to +80 °C.

## KIPP Rubber-metal buffer, type D

| Order No.      | D  | H  | G   | L  | Approx. weight g |
|----------------|----|----|-----|----|------------------|
| K0571.00800855 | 8  | 8  | M3  | 6  | 2,0              |
| K0571.01001055 | 10 | 10 | M4  | 10 | 2,6              |
| K0571.01001555 | 10 | 15 | M4  | 10 | 2,9              |
| K0571.01500655 | 15 | 6  | M4  | 10 | 3,4              |
| K0571.01500855 | 15 | 8  | M4  | 10 | 3,6              |
| K0571.01501055 | 15 | 10 | M4  | 10 | 3,8              |
| K0571.01501555 | 15 | 15 | M4  | 10 | 7,3              |
| K0571.02000555 | 20 | 5  | M6  | 18 | 7,0              |
| K0571.02000855 | 20 | 8  | M6  | 18 | 7,9              |
| K0571.02001055 | 20 | 10 | M6  | 18 | 8,5              |
| K0571.02001555 | 20 | 15 | M6  | 18 | 10,3             |
| K0571.02002055 | 20 | 20 | M6  | 18 | 11,0             |
| K0571.02002555 | 20 | 25 | M6  | 18 | 14,0             |
| K0571.02500855 | 25 | 8  | M6  | 18 | 14,0             |
| K0571.02501055 | 25 | 10 | M6  | 18 | 14,0             |
| K0571.02501555 | 25 | 15 | M6  | 18 | 17,2             |
| K0571.02502055 | 25 | 20 | M6  | 18 | 20,0             |
| K0571.02502555 | 25 | 25 | M6  | 18 | 24,0             |
| K0571.02503055 | 25 | 30 | M6  | 18 | 30,0             |
| K0571.03001555 | 30 | 15 | M8  | 23 | 27,0             |
| K0571.03002055 | 30 | 20 | M8  | 23 | 29,0             |
| K0571.03002555 | 30 | 25 | M8  | 23 | 35,0             |
| K0571.03003055 | 30 | 30 | M8  | 23 | 35,0             |
| K0571.03004055 | 30 | 40 | M8  | 23 | 48,0             |
| K0571.04001555 | 40 | 15 | M8  | 23 | 50,0             |
| K0571.04002055 | 40 | 20 | M8  | 23 | 52,0             |
| K0571.04003055 | 40 | 30 | M8  | 23 | 75,0             |
| K0571.04004055 | 40 | 40 | M8  | 23 | 80,0             |
| K0571.05002055 | 50 | 20 | M10 | 28 | 85,0             |
| K0571.05003055 | 50 | 30 | M10 | 28 | 100,0            |
| K0571.05004055 | 50 | 40 | M10 | 28 | 132,0            |
| K0571.05005055 | 50 | 50 | M10 | 28 | 152,0            |
| K0571.06004055 | 60 | 40 | M10 | 28 | 179,0            |
| K0571.07002555 | 70 | 25 | M10 | 28 | 198,0            |
| K0571.07004555 | 70 | 45 | M10 | 28 | 292,0            |
| K0571.07502555 | 75 | 25 | M12 | 37 | 241,0            |
| K0571.07504055 | 75 | 40 | M12 | 37 | 320,0            |
| K0571.07505055 | 75 | 50 | M12 | 37 | 357,0            |
| K0571.07505555 | 75 | 55 | M12 | 37 | 384,0            |

# Rubber-metal buffer,

type DS suction base



**Material, surface finish:**

Metal parts, galvanized steel, class 5.6;  
elastomer, natural rubber, medium hardness,  
57° Shore A

**Sample order:**

K0572.01501457

**Note:**

The rubber-metal buffers are used, among other things, for the bearing of aggregates and as a shock stop for the limitation of spring travel in the case of moving masses.

**Temperature range:**

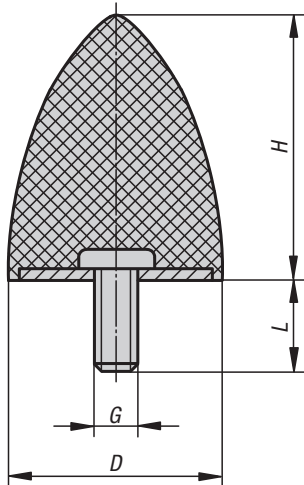
-30 up to +80 °C.

## KIPP Rubber-metal buffer, type DS suction base

| Order No.      | D   | H    | G   | L  | Approx. weight g |
|----------------|-----|------|-----|----|------------------|
| K0572.01501457 | 15  | 14   | M4  | 13 | 5                |
| K0572.02501857 | 25  | 18   | M6  | 18 | 20               |
| K0572.03002857 | 30  | 28,5 | M8  | 23 | 41               |
| K0572.04002857 | 40  | 28   | M8  | 23 | 60               |
| K0572.05002857 | 50  | 28   | M10 | 28 | 100              |
| K0572.07003057 | 70  | 43   | M10 | 28 | 300              |
| K0572.07503757 | 75  | 37   | M12 | 37 | 270              |
| K0572.10005057 | 100 | 50   | M16 | 42 | 623              |

## Rubber impact buffer, parabolic

parabolic



**Material, surface finish:**

Metal parts, galvanized steel, class 5.6; elastomer, natural rubber, medium hardness, 55° Shore A

**Sample order:**

K0574.02002455

**Note:**

Rubber impact buffers excel in their robustness and the effective cushioning and abatement of shocks. Rubber impact buffers are ideally suited for elastic travel limitation and for the cushioning of shocks in the case of mobile and immobile aggregates, machines as well as stops in general.

**Temperature range:**

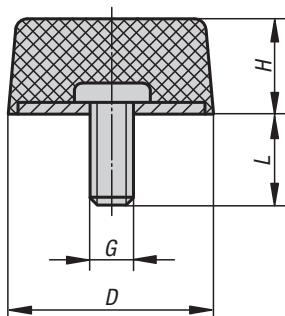
-30°C to 80°C.

### KIPP Rubber impact buffer, parabolic

| Order No.      | D  | H  | G   | L  | Approx. weight kg |
|----------------|----|----|-----|----|-------------------|
| K0574.02002455 | 20 | 24 | M6  | 18 | 0,011             |
| K0574.03003655 | 30 | 36 | M8  | 20 | 0,037             |
| K0574.03504055 | 35 | 40 | M8  | 20 | 0,045             |
| K0574.05005855 | 50 | 58 | M10 | 28 | 0,127             |
| K0574.05006755 | 50 | 67 | M8  | 38 | 0,136             |
| K0574.07508955 | 75 | 89 | M12 | 37 | 0,341             |

## Rubber impact buffer,

conical



**Material, surface finish:**

Metal parts, galvanized steel, class 5.6; elastomer, natural rubber, medium hardness, 55° Shore A

**Sample order:**

K0575.02501755

**Note:**

Rubber impact buffers excel in their robustness and the effective cushioning and abatement of shocks. Rubber impact buffers are ideally suited for elastic travel limitation and for the cushioning of shocks in the case of mobile and immobile aggregates, machines as well as stops in general.

**Temperature range:**

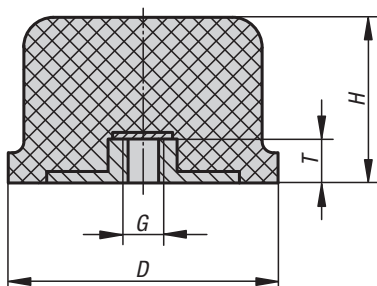
-30 °C .to +80 °C.

### KIPP Rubber impact buffer, conical

| Order No.      | D  | H  | G   | L  | Approx. weight kg |
|----------------|----|----|-----|----|-------------------|
| K0575.02501755 | 25 | 17 | M6  | 18 | 0,015             |
| K0575.05001855 | 50 | 18 | M10 | 28 | 0,075             |

## Rubber impact buffer,

spherical



**Material, surface finish:**

Metal parts, galvanized steel, class 5.6; elastomer, natural rubber, medium hardness, 55° Shore A

**Sample order:**

K0576.05003555

**Note:**

Rubber impact buffers excel in their robustness and the effective cushioning and abatement of shocks. Rubber impact buffers are ideally suited for elastic travel limitation and for the cushioning of shocks in the case of mobile and immobile aggregates, machines as well as stops in general.

**Temperature range:**

-30 °C .to +80 °C.

### KIPP Rubber impact buffer, spherical

| Order No.      | D   | H  | G   | T  | Approx. weight kg |
|----------------|-----|----|-----|----|-------------------|
| K0576.05003555 | 50  | 35 | M10 | 8  | 0,088             |
| K0576.08006055 | 80  | 60 | M12 | 10 | 0,308             |
| K0576.12509055 | 125 | 90 | M16 | 14 | 0,830             |







## Level indicators, screw plugs



## Level indicators, screw plugs

Oil level gauges  
**K0443**



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Oil level gauges  
**K0444**



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Oil level sight glasses  
**K0445**



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Press-in oil level sight glasses  
**K0446**



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Dome oil level sight glasses  
**K0447**



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Aluminium oil level sight glasses  
**K0448**



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Screw-in protection plugs  
**K0449**



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Screw-in plugs  
**K0450**



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Press-in plugs  
**K0451**



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Plastic plugs  
**K0452**



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Aluminium plugs  
**K0453**



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Hexagon screw plugs  
**K0454**



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Screw plugs  
**K0455**



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Caps for filler necks  
**K0456**



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Vent screws  
**K0457**



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Vent screws  
with splash guard  
**K0458**



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Vent screws  
with nonreturn valve  
**K0459**



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Brass vent screws  
**K0460**



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## Level indicators, screw plugs

Brass vent screws  
with nonreturn valve  
**K0461**



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Press-in plugs  
with dipstick  
**K0462**



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Vent screws  
with dipstick  
**K0465**



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Vent screws  
with nonreturn valve and  
dipstick  
**K0467**



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Dipsticks  
**K0468**



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Filler neck  
**K0470**



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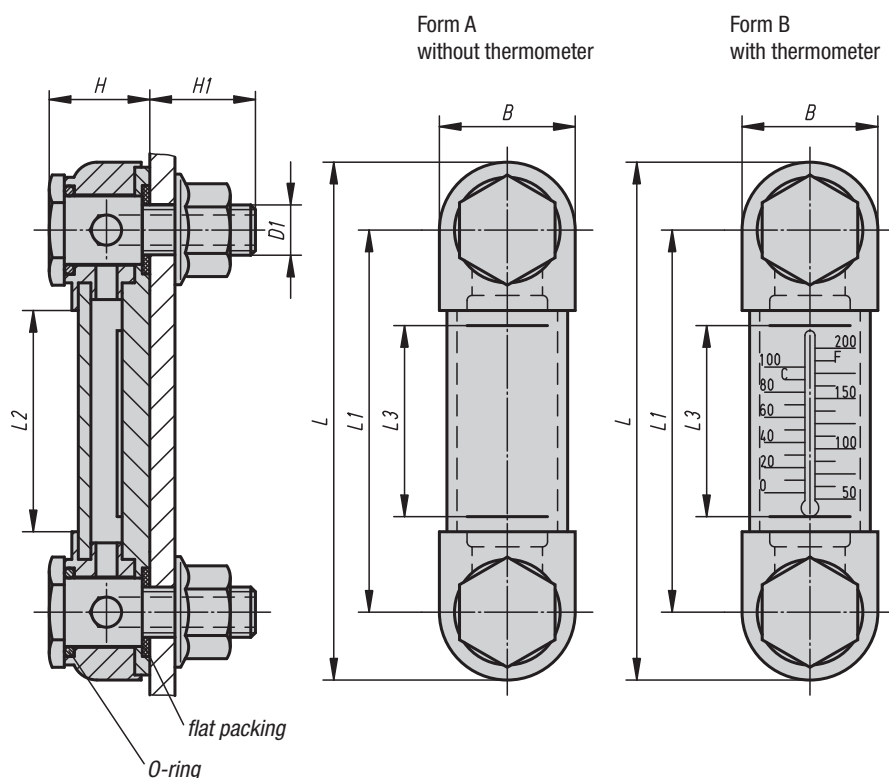
Filler necks  
**K0471**



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## Oil level gauges



**Material, surface finish:**

Housing in thermoplastic polyamide, transparent, high mechanical stability, non-ageing, temperature resistant with oil up to 100 °C, with water up to 70 °C; O-ring and flat-packing in rubber (NBR); aluminium reflector, painted white; graduation and scale marks black; screw, hexagon nut and washer in galvanized steel

**Sample order:**

K0443.1127

**Note:**

The oil level gauges can either be fastened as shown in the illustration or directly in the threaded hole. Centre distance for the fastening holes =  $L1 \pm 0.5$ .

### KIPP Oil level gauges

| Order No.  | Form | B  | D1  | H  | H1 | L   | L1  | L2  | L3  | Number of fastening screws | Thermometer scale        | Approx. weight kg |
|------------|------|----|-----|----|----|-----|-----|-----|-----|----------------------------|--------------------------|-------------------|
| K0443.1076 | A    | 27 | M10 | 20 | 21 | 103 | 76  | 44  | 37  | 2                          | -                        | 0,123             |
| K0443.1127 | A    | 27 | M12 | 19 | 18 | 151 | 127 | 95  | 80  | 2                          | -                        | 0,186             |
| K0443.1210 | A    | 41 | M12 | 26 | 19 | 250 | 210 | 182 | 168 | 3                          | -                        | 0,298             |
| K0443.2076 | B    | 27 | M10 | 20 | 21 | 103 | 76  | 44  | 37  | 2                          | 0 - 100 °C / 50 - 200 °F | 0,123             |
| K0443.2127 | B    | 27 | M12 | 19 | 18 | 151 | 127 | 95  | 80  | 2                          | 0 - 100 °C / 50 - 200 °F | 0,186             |

## Oil level gauges



### Material, surface finish:

Housing in steel, black paint finish; sight glass in polyamide, transparent, high mechanical stability, non-ageing, temperature resistant with oil up to 100 °C, with water up to 70 °C; O-ring and flat packing in rubber (NBR); aluminium reflector, painted white; graduation and scale marks black; screw and hexagon nut in galvanized steel

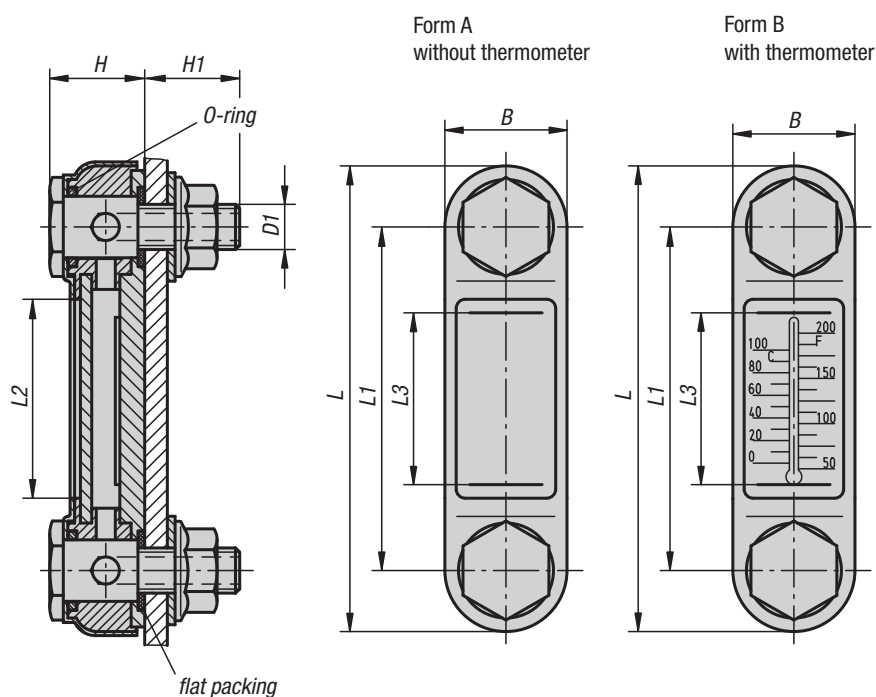
### Sample order:

K0444.107610

### Note:

The oil level gauges can either be fastened as shown in the illustration or directly in the threaded hole. Centre distance for the fastening holes =  $L1 \pm 0.5$ . The oil level gauges are suitable for tanks operating without pressure. Maximum operating temperature: 100 °C.

The versions K0444.125412 and K0444.225412 have a housing in aluminium.



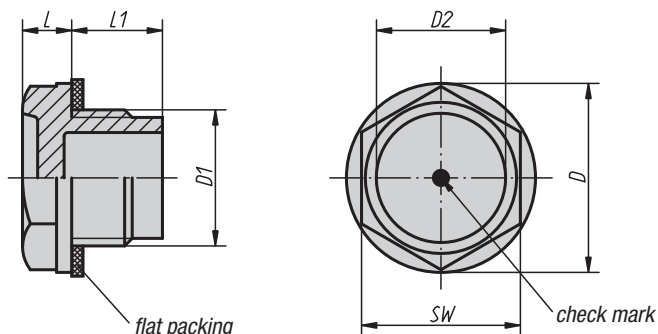
### KIPP Oil level gauges

| Order No.    | Form | B  | D1  | H  | H1 | L   | L1  | L2  | L3  | Number of fastening screws | Thermometer scale         | Approx. weight kg |
|--------------|------|----|-----|----|----|-----|-----|-----|-----|----------------------------|---------------------------|-------------------|
| K0444.107610 | A    | 31 | M10 | 21 | 17 | 107 | 76  | 39  | 37  | 2                          | -                         | 0,150             |
| K0444.107612 | A    | 31 | M12 | 21 | 20 | 107 | 76  | 39  | 37  | 2                          | -                         | 0,150             |
| K0444.112710 | A    | 31 | M10 | 21 | 17 | 156 | 127 | 90  | 80  | 2                          | -                         | 0,180             |
| K0444.112712 | A    | 31 | M12 | 21 | 20 | 156 | 127 | 90  | 80  | 2                          | -                         | 0,180             |
| K0444.125412 | A    | 34 | M12 | 26 | 27 | 280 | 254 | 213 | 204 | 2                          | -                         | 0,240             |
| K0444.207610 | B    | 31 | M10 | 21 | 17 | 107 | 76  | 39  | 37  | 2                          | 0 - 100 °C / 50 - 200 °F  | 0,150             |
| K0444.207612 | B    | 31 | M12 | 21 | 20 | 107 | 76  | 39  | 37  | 2                          | 0 - 100 °C / 50 - 200 °F  | 0,150             |
| K0444.212710 | B    | 31 | M10 | 21 | 17 | 156 | 127 | 90  | 80  | 2                          | 0 - 100 °C / 50 - 200 °F  | 0,180             |
| K0444.212712 | B    | 31 | M12 | 21 | 20 | 156 | 127 | 90  | 80  | 2                          | 0 - 100 °C / 50 - 200 °F  | 0,180             |
| K0444.225412 | B    | 34 | M12 | 26 | 27 | 280 | 254 | 213 | 204 | 2                          | -10 - 80 °C / 20 - 180 °F | 0,240             |

## Oil level sight glasses



Form A  
without reflector



**Material, surface finish:**

Housing in polyamide, transparent, high mechanical stability, non-ageing, temperature resistant with oil up to 100 °C, with water up to 70 °C; resistant to solvents but not to alcohol; flat packing asbestos-free; reflector in white plastic

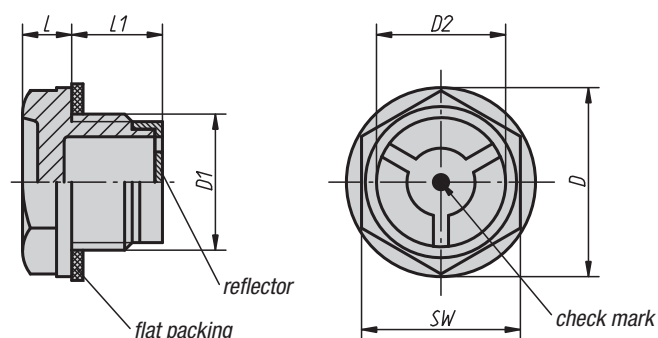
**Sample order:**

K0445.143100

**On request:**

Rubber gasket (NBR).

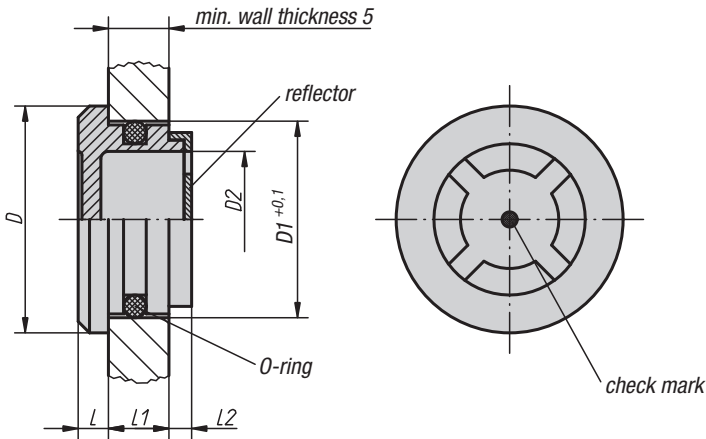
Form B  
with reflector



### KIPP Oil level sight glasses

| Order No.     | Form | D  | D1      | D2 | L   | L1   | SW | Tightening torque<br>max. Nm | Approx.<br>weight<br>kg |
|---------------|------|----|---------|----|-----|------|----|------------------------------|-------------------------|
| K0445.120014  | A    | 20 | G 1/4   | 15 | 7   | 8    | 17 | 6                            | 0,002                   |
| K0445.122038  | A    | 22 | G 3/8   | 14 | 6,5 | 10,5 | 18 | 8                            | 0,004                   |
| K0445.128012  | A    | 28 | G 1/2   | 16 | 8   | 11   | 24 | 12                           | 0,006                   |
| K0445.135034  | A    | 35 | G 3/4   | 21 | 8   | 12   | 30 | 16                           | 0,008                   |
| K0445.143100  | A    | 43 | G 1     | 32 | 11  | 12   | 36 | -                            | 0,012                   |
| K0445.151114  | A    | 51 | G 1 1/4 | 33 | 10  | 16   | 42 | -                            | 0,020                   |
| K0445.158112  | A    | 58 | G 1 1/2 | 40 | 12  | 16   | 50 | -                            | 0,026                   |
| K0445.174200  | A    | 74 | G 2     | 48 | 12  | 22   | 64 | -                            | 0,052                   |
| K0445.1201415 | A    | 20 | M14x1,5 | 15 | 7   | 8    | 17 | 7                            | 0,002                   |
| K0445.1221615 | A    | 22 | M16x1,5 | 14 | 6,5 | 10   | 18 | 8                            | 0,003                   |
| K0445.1251815 | A    | 25 | M18x1,5 | 16 | 7   | 10,5 | 21 | 10                           | 0,003                   |
| K0445.1282015 | A    | 28 | M20x1,5 | 18 | 7,5 | 11   | 24 | 16                           | 0,004                   |
| K0445.222038  | B    | 22 | G 3/8   | 14 | 6,5 | 10,5 | 18 | 8                            | 0,004                   |
| K0445.228012  | B    | 28 | G 1/2   | 16 | 8   | 11   | 24 | 12                           | 0,006                   |
| K0445.235034  | B    | 35 | G 3/4   | 21 | 8   | 12   | 30 | 16                           | 0,008                   |
| K0445.243100  | B    | 43 | G 1     | 32 | 11  | 12   | 36 | -                            | 0,012                   |
| K0445.251114  | B    | 51 | G 1 1/4 | 33 | 10  | 16   | 42 | -                            | 0,020                   |
| K0445.258112  | B    | 58 | G 1 1/2 | 40 | 12  | 16   | 50 | -                            | 0,026                   |
| K0445.274200  | B    | 74 | G 2     | 48 | 12  | 22   | 64 | -                            | 0,052                   |
| K0445.2221615 | B    | 22 | M16x1,5 | 14 | 6,5 | 10   | 18 | 8                            | 0,003                   |
| K0445.2251815 | B    | 25 | M18x1,5 | 16 | 7   | 10,5 | 21 | 10                           | 0,003                   |
| K0445.2282015 | B    | 28 | M20x1,5 | 18 | 7,5 | 11   | 24 | 16                           | 0,004                   |

## Press-in oil level sight glasses



**Material, surface finish:**

Housing in polyamide, transparent, high mechanical stability, non-ageing, temperature resistant with oil up to 100 °C, with water up to 70 °C; resistant to solvents but not to alcohol; O-ring in rubber (NBR); reflector in white plastic

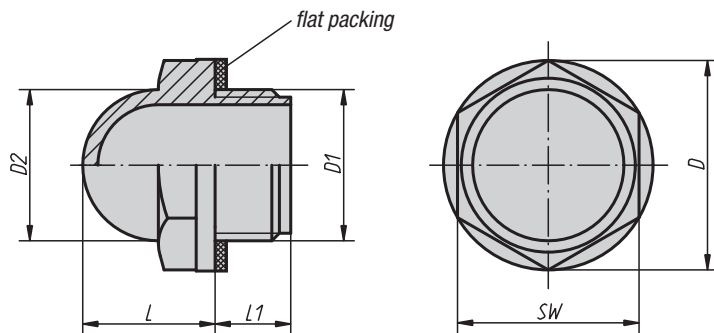
**Sample order:**

K0446.3026

### KIPP Press-in oil level sight glasses

| Order No.  | D  | drill-Ø<br>D1 | D2 | L | L1 | L2  | Approx.<br>weight<br>kg |
|------------|----|---------------|----|---|----|-----|-------------------------|
| K0446.2420 | 24 | 20            | 14 | 4 | 7  | 3   | 0,003                   |
| K0446.3026 | 30 | 26            | 20 | 4 | 8  | 3,5 | 0,004                   |
| K0446.3632 | 36 | 32            | 24 | 4 | 9  | 4   | 0,008                   |
| K0446.4238 | 42 | 38            | 30 | 4 | 10 | 4   | 0,010                   |
| K0446.4440 | 44 | 40            | 32 | 4 | 10 | 4   | 0,012                   |

## Dome oil level sight glasses



**Material, surface finish:**

Housing in polyamide, transparent, high mechanical stability, non-ageing, temperature resistant with oil up to 100 °C, with water up to 70 °C; resistant to solvents but not to alcohol; flat packing asbestos-free

**Sample order:**

K0447.28012

**On request:**

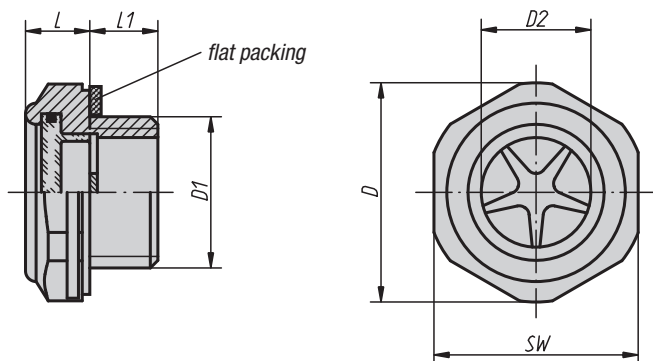
Rubber gasket (NBR).

### KIPP Dome Oil Level Sight Glasses

| Order No.   | D  | D1    | D2 | L  | L1   | SW | Tightening torque<br>max. Nm | Approx.<br>weight<br>kg |
|-------------|----|-------|----|----|------|----|------------------------------|-------------------------|
| K0447.22038 | 22 | G 3/8 | 15 | 14 | 10   | 19 | 8                            | 0,004                   |
| K0447.28012 | 28 | G 1/2 | 20 | 17 | 10   | 24 | 12                           | 0,006                   |
| K0447.35034 | 35 | G 3/4 | 25 | 20 | 10   | 30 | 16                           | 0,008                   |
| K0447.42100 | 42 | G 1   | 31 | 24 | 10,5 | 36 | 20                           | 0,016                   |



## Aluminium oil level sight glasses



### Material, surface finish:

Housing in aluminium;  
reflector in aluminium or white plastic;  
sight glass in polyamide, transparent, temperature resistant with oil up to 100 °C, with water up to 70 °C;  
flat packing asbestos-free

### Sample order:

K0448.29012

### Note:

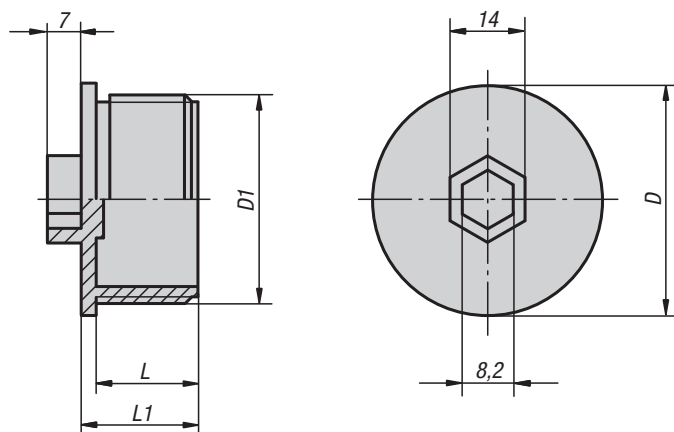
With versions G3/4 and G1 the reflector is made in white plastic.

### KIPP Aluminium oil level sight glasses

| Order No.   | D    | D1    | D2 | L    | L1   | SW | Tightening torque max. Nm | Pressure load max. bar | Approx. weight kg |
|-------------|------|-------|----|------|------|----|---------------------------|------------------------|-------------------|
| K0448.20014 | 20   | G 1/4 | 11 | 8    | 7,5  | 18 | 9                         | 10                     | 0,004             |
| K0448.24038 | 24,5 | G 3/8 | 12 | 8    | 9    | 22 | 12                        | 10                     | 0,008             |
| K0448.29012 | 29,5 | G 1/2 | 15 | 8    | 9    | 27 | 18                        | 10                     | 0,013             |
| K0448.36034 | 34,5 | G 3/4 | 19 | 10,7 | 10,9 | 32 | 24                        | 10                     | 0,022             |
| K0448.42100 | 42,5 | G 1   | 27 | 10,5 | 11   | 40 | -                         | 10                     | 0,033             |

# K0449

## Screw-in protection plugs



### Material:

Elastomer, soft polyurethane

### Surface finish:

Red

### Sample order:

K0449.038

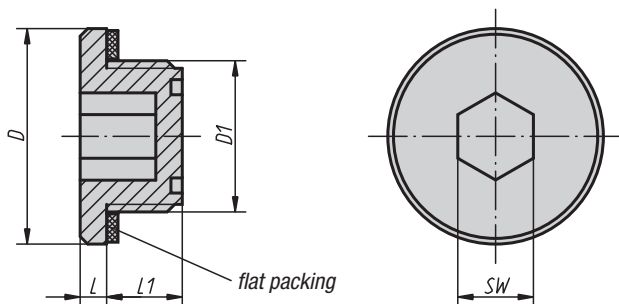
### Note:

The double-lip seal guarantees to withstand pressure of 2-3 bar. Furthermore, it keeps paint out during painting.

### KIPP Screw-in protection plugs

| Order No. | D    | D1    | L    | L1   | Approx. weight kg |
|-----------|------|-------|------|------|-------------------|
| K0449.018 | 16,2 | G 1/8 | 8    | 10   | 0,001             |
| K0449.014 | 18,1 | G 1/4 | 9,9  | 12,5 | 0,002             |
| K0449.038 | 21   | G 3/8 | 9    | 11   | 0,002             |
| K0449.012 | 25,2 | G 1/2 | 11   | 14   | 0,004             |
| K0449.034 | 31,3 | G 3/4 | 11,5 | 14   | 0,006             |
| K0449.100 | 36   | G 1   | 12   | 15,5 | 0,008             |

## Screw-in plugs



**Material:**  
Thermoplastic polyamide 66

**Surface finish:**  
Black, flat packing asbestos-free

**Sample order:**  
K0450.22038

**Note:**  
Temperature resistant with oil up to 100 °C, with water up to 70 °C.

**On request:**  
O-ring or materials with higher stability and temperature resistance (150 °C).

### KIPP Screw-in plugs

| Order No.    | D    | D1      | L   | L1   | SW | Tightening torque max. Nm | Approx. weight kg |
|--------------|------|---------|-----|------|----|---------------------------|-------------------|
| K0450.18014  | 18,2 | G 1/4   | 2,5 | 8    | 6  | 3                         | 0,002             |
| K0450.22038  | 22,5 | G 3/8   | 3,5 | 10,5 | 8  | 6                         | 0,004             |
| K0450.28012  | 28,5 | G 1/2   | 3,5 | 10,5 | 10 | 8                         | 0,006             |
| K0450.35034  | 35   | G 3/4   | 4   | 10,5 | 12 | 10                        | 0,010             |
| K0450.201415 | 20   | M14x1,5 | 2,5 | 8    | 6  | 3                         | 0,002             |
| K0450.221615 | 22,5 | M16x1,5 | 3,5 | 11   | 8  | 6                         | 0,004             |
| K0450.261815 | 26   | M18x1,5 | 3   | 10   | 10 | 7                         | 0,004             |
| K0450.282015 | 28,5 | M20x1,5 | 3   | 11   | 10 | 7                         | 0,006             |
| K0450.282215 | 28,5 | M22x1,5 | 3,5 | 10,5 | 10 | 7                         | 0,006             |
| K0450.352615 | 35   | M26x1,5 | 3   | 12   | 12 | 10                        | 0,010             |

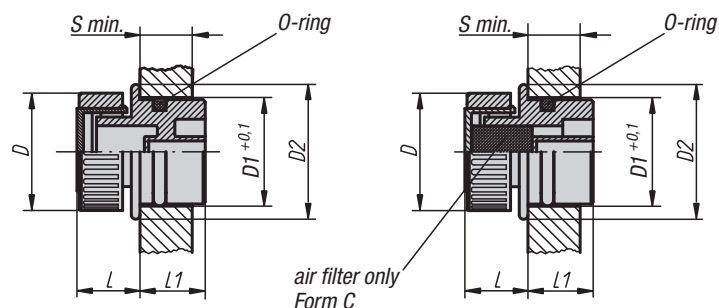
## Press-in plugs



Form A  
without ventilation

Form B  
with ventilation

Form C  
with ventilation and air filter



**Material, surface finish:**  
Housing in black thermoplastic polyamide 66; cap in red thermoplastic polyamide 66; air filter in polyurethane (PU foam), filter fineness 50 µm; O-ring in rubber (NBR)

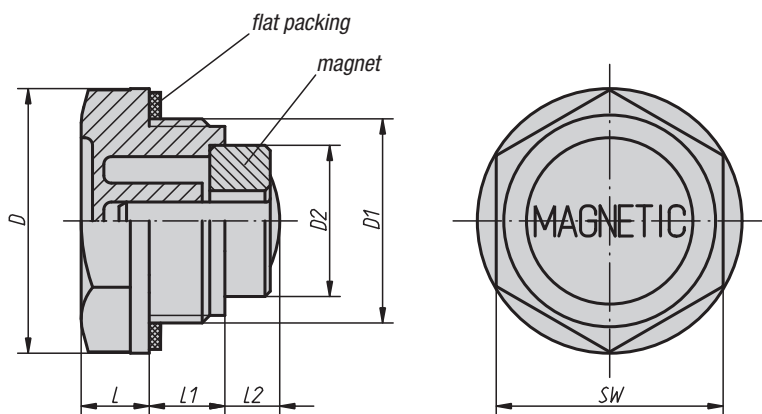
**Sample order:**  
K0451.33030

**Note:**  
Temperature resistant with oil up to 100 °C, with water up to 70 °C.

### KIPP Press-in plugs

| Order No. Form A | Order No. Form B | Order No. Form C | D  | drill-Ø D1 | D2 | L  | L1   | S min. | Approx. weight kg |
|------------------|------------------|------------------|----|------------|----|----|------|--------|-------------------|
| K0451.13018      | K0451.23018      | K0451.33018      | 30 | 18         | 23 | 14 | 14   | 8      | 0,006             |
| K0451.13020      | K0451.23020      | K0451.33020      | 30 | 20         | 24 | 14 | 15,5 | 8      | 0,008             |
| K0451.13026      | K0451.23026      | K0451.33026      | 30 | 26         | 30 | 14 | 16,5 | 9,5    | 0,010             |
| K0451.13030      | K0451.23030      | K0451.33030      | 30 | 30         | 34 | 14 | 17   | 9,5    | 0,012             |

## Plastic plugs



**Material:**  
Thermoplastic polyamide 66, permanent magnet in ferrite

**Surface finish:**  
Black, flat packing asbestos-free

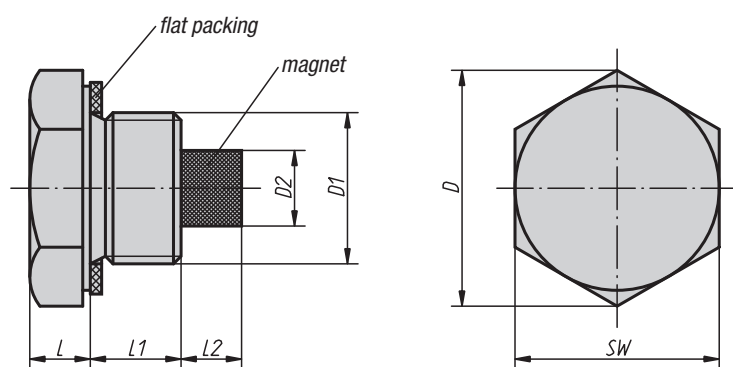
**Sample order:**  
K0452.22038

**Note:**  
Temperature resistant with oil up to 100 °C,  
with water up to 70 °C.

### KIPP Plastic plugs

| Order No.    | D  | D1      | D2   | L    | L1 | L2  | SW | Approx. weight kg |
|--------------|----|---------|------|------|----|-----|----|-------------------|
| K0452.20014  | 20 | G 1/4   | 8    | 7    | 9  | 5   | 17 | 0,004             |
| K0452.22038  | 22 | G 3/8   | 13   | 7,5  | 10 | 10  | 18 | 0,010             |
| K0452.27012  | 27 | G 1/2   | 13   | 8    | 11 | 9   | 24 | 0,012             |
| K0452.34034  | 34 | G 3/4   | 19,6 | 9    | 11 | 6,5 | 30 | 0,020             |
| K0452.42100  | 42 | G 1     | 19,6 | 10,5 | 12 | 14  | 35 | 0,040             |
| K0452.201415 | 20 | M14x1,5 | 8    | 7    | 9  | 5   | 17 | 0,004             |

## Aluminium plugs



**Material:**  
Aluminium, permanent magnet in ferrite

**Surface finish:**  
Natural finish, flat packing asbestos-free

**Sample order:**  
K0453.24038

### KIPP Aluminium plugs

| Order No.   | D    | D1    | D2 | L | L1 | L2 | SW | Approx. weight kg |
|-------------|------|-------|----|---|----|----|----|-------------------|
| K0453.21014 | 21   | G 1/4 | 5  | 7 | 10 | 6  | 19 | 0,010             |
| K0453.24038 | 24,5 | G 3/8 | 8  | 7 | 10 | 7  | 22 | 0,014             |
| K0453.30012 | 30   | G 1/2 | 10 | 8 | 10 | 7  | 27 | 0,028             |
| K0453.36034 | 36,5 | G 3/4 | 13 | 8 | 10 | 7  | 34 | 0,040             |
| K0453.42100 | 42,5 | G 1   | 13 | 8 | 14 | 7  | 40 | 0,062             |

## Hexagon screw plugs



**Material:**

Thermoplastic polyamide 66

**Surface finish:**

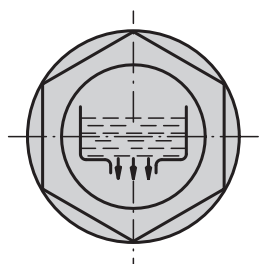
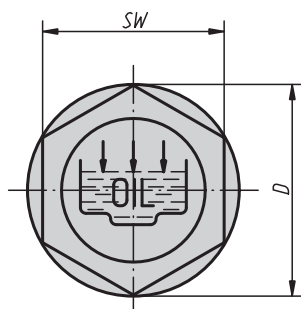
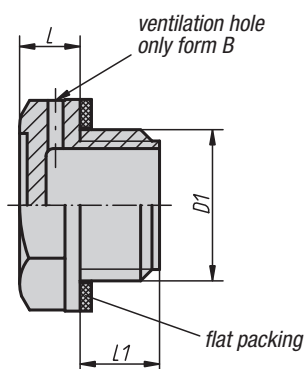
Black, flat packing asbestos-free

**Sample order:**

K0454.142100

**Note:**

Temperature resistant with oil up to 100 °C, with water up to 70 °C.



### KIPP Hexagon screw plugs

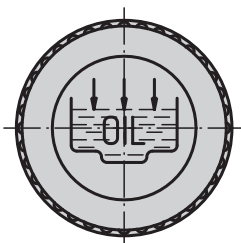
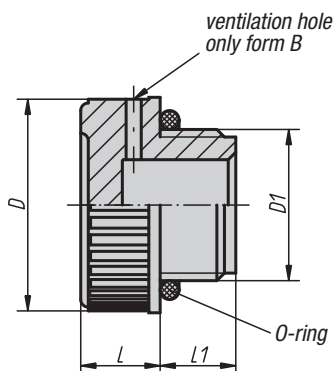
| Order No.<br>Form A | Order No.<br>Form B | Order No.<br>Form C | D    | D1      | L    | L1   | SW | Tightening torque<br>max. Nm | Approx.<br>weight<br>kg |
|---------------------|---------------------|---------------------|------|---------|------|------|----|------------------------------|-------------------------|
| K0454.119014        | K0454.219014        | K0454.319014        | 19,5 | G 1/4   | 7    | 9    | 17 | 5                            | 0,002                   |
| K0454.122038        | K0454.222038        | K0454.322038        | 22   | G 3/8   | 7,5  | 10   | 18 | 8                            | 0,004                   |
| K0454.128012        | K0454.228012        | K0454.328012        | 28   | G 1/2   | 7,5  | 11   | 24 | 9                            | 0,006                   |
| K0454.134034        | K0454.234034        | K0454.334034        | 34   | G 3/4   | 9    | 11   | 30 | 11                           | 0,008                   |
| K0454.142100        | K0454.242100        | K0454.342100        | 42   | G 1     | 10,5 | 12   | 35 | -                            | 0,018                   |
| K0454.151114        | K0454.251114        | K0454.351114        | 51   | G 1 1/4 | 12   | 13,5 | 42 | -                            | 0,026                   |
| K0454.158112        | K0454.258112        | K0454.358112        | 58   | G 1 1/2 | 10   | 14,5 | 50 | -                            | 0,030                   |
| K0454.174200        | K0454.274200        | K0454.374200        | 74   | G 2     | 13,5 | 16   | 64 | -                            | 0,054                   |
| K0454.1191415       | K0454.2191415       | K0454.3191415       | 19,5 | M14x1,5 | 7    | 9    | 17 | 5                            | 0,002                   |
| K0454.1211615       | K0454.2211615       | K0454.3211615       | 21   | M16x1,5 | 7,5  | 10   | 18 | 6                            | 0,004                   |
| K0454.1261815       | K0454.2261815       | K0454.3261815       | 26   | M18x1,5 | 7,5  | 10   | 21 | 7                            | 0,004                   |
| K0454.1282015       | K0454.2282015       | K0454.3282015       | 28   | M20x1,5 | 8    | 10   | 24 | 8                            | 0,006                   |
| K0454.1282215       | K0454.2282215       | K0454.3282215       | 28   | M22x1,5 | 8    | 11   | 24 | 10                           | 0,006                   |
| K0454.1524015       | K0454.2524015       | K0454.3524015       | 52   | M40x1,5 | 10   | 13   | 42 | -                            | 0,024                   |

## Screw plugs



Form A  
with fill symbol

Form B  
with fill symbol and  
ventilation hole



**Material:**  
Thermoplastic polyamide 66;  
O-ring in rubber (NBR)

**Surface finish:**  
Black

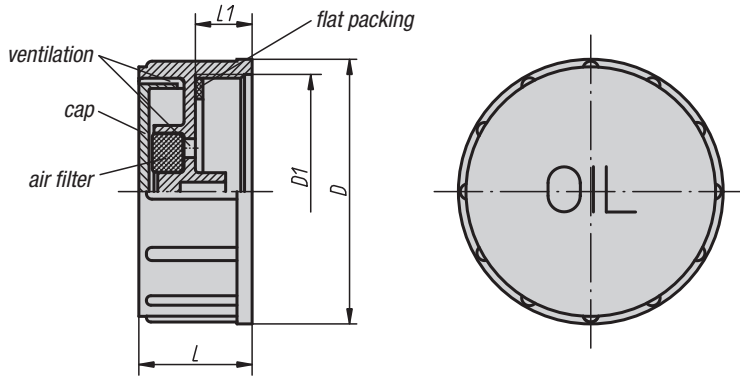
**Sample order:**  
K0455.128012

**Note:**  
Temperature resistant with oil up to 100 °C,  
with water up to 70 °C.

### KIPP Screw plugs

| Order No.     | Form | D    | D1      | L    | L1   | Approx. weight kg |
|---------------|------|------|---------|------|------|-------------------|
| K0455.120014  | A    | 20   | G 1/4   | 9    | 9    | 0,004             |
| K0455.120038  | A    | 20,5 | G 3/8   | 9    | 10   | 0,004             |
| K0455.128012  | A    | 28   | G 1/2   | 10,5 | 10,5 | 0,008             |
| K0455.131034  | A    | 31   | G 3/4   | 12   | 11   | 0,010             |
| K0455.139100  | A    | 39   | G 1     | 12   | 12   | 0,020             |
| K0455.149114  | A    | 49   | G 1 1/4 | 13   | 13,5 | 0,028             |
| K0455.155112  | A    | 55   | G 1 1/2 | 14,7 | 14,5 | 0,038             |
| K0455.168200  | A    | 68,5 | G 2     | 15   | 16   | 0,058             |
| K0455.1201415 | A    | 20   | M14x1,5 | 9    | 9    | 0,004             |
| K0455.1201615 | A    | 20   | M16x1,5 | 9    | 10   | 0,004             |
| K0455.1281815 | A    | 28   | M18x1,5 | 10,5 | 10   | 0,006             |
| K0455.1282015 | A    | 28   | M20x1,5 | 10,5 | 10   | 0,008             |
| K0455.1282215 | A    | 28   | M22x1,5 | 10,5 | 10   | 0,008             |
| K0455.220014  | B    | 20   | G 1/4   | 9    | 9    | 0,004             |
| K0455.220038  | B    | 20,5 | G 3/8   | 9    | 10   | 0,004             |
| K0455.228012  | B    | 28   | G 1/2   | 10,5 | 10,5 | 0,008             |
| K0455.231034  | B    | 31   | G 3/4   | 12   | 11   | 0,010             |
| K0455.239100  | B    | 39   | G 1     | 12   | 12   | 0,020             |
| K0455.249114  | B    | 49   | G 1 1/4 | 13   | 13,5 | 0,028             |
| K0455.255112  | B    | 55   | G 1 1/2 | 14,7 | 14,5 | 0,038             |
| K0455.268200  | B    | 68,5 | G 2     | 15   | 16   | 0,058             |
| K0455.2201415 | B    | 20   | M14x1,5 | 9    | 9    | 0,004             |
| K0455.2201615 | B    | 20   | M16x1,5 | 9    | 10   | 0,004             |
| K0455.2281815 | B    | 28   | M18x1,5 | 10,5 | 10   | 0,006             |
| K0455.2282015 | B    | 28   | M20x1,5 | 10,5 | 10   | 0,008             |
| K0455.2282215 | B    | 28   | M22x1,5 | 10,5 | 10   | 0,008             |

## Caps for filler necks



**Material, surface finish:**

Housing in black thermoplastic polyamide 66;  
cap in red thermoplastic polyamide 66;  
air filter in polyurethane (PU foam),  
filter fineness 50 µm;  
flat packing in rubber (NBR)

**Sample order:**

K0456.67200

**Note:**

Temperature resistant with oil up to 100 °C,  
with water up to 70 °C.

**On request:**

Cap in yellow for diesel oil.

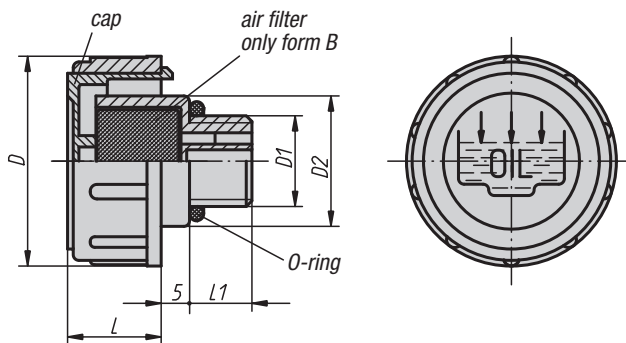
### KIPP Caps for filler necks

| Order No.    | D    | D1    | L  | L1 | Approx. weight kg |
|--------------|------|-------|----|----|-------------------|
| K0456.67200  | 67,5 | G 2   | 30 | 15 | 0,048             |
| K0456.676020 | 67,5 | M60x2 | 30 | 15 | 0,048             |

## Vent screws

Form A  
without air filter

Form B  
with air filter



**Material, surface finish:**

Housing in black thermoplastic polyamide 66;  
cap in red thermoplastic polyamide 66;  
air filter (only form B) in polyurethane (PU foam), filter  
fineness 60 µm;  
O-ring in rubber (NBR)

**Sample order:**

K0457.147034

**Note:**

Temperature resistant with oil up to 100 °C, with  
water up to 70 °C.  
The removable cap allows easy cleaning of the air  
filter.

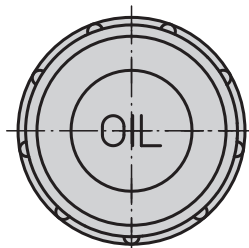
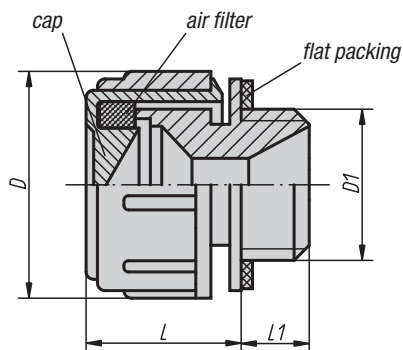
### KIPP Vent screws

| Order No.<br>Form A | Order No.<br>Form B | D  | D1      | D2 | L    | L1   | Approx. weight kg |
|---------------------|---------------------|----|---------|----|------|------|-------------------|
| K0457.136038        | K0457.236038        | 36 | G 3/8   | 23 | 17   | 11   | 0,012             |
| K0457.141012        | K0457.241012        | 41 | G 1/2   | 28 | 18   | 12   | 0,018             |
| K0457.147034        | K0457.247034        | 47 | G 3/4   | 33 | 17   | 12   | 0,024             |
| K0457.152100        | K0457.252100        | 52 | G 1     | 38 | 20   | 12   | 0,036             |
| K0457.163114        | K0457.263114        | 63 | G 1 1/4 | 49 | 23   | 13   | 0,056             |
| K0457.163112        | K0457.263112        | 63 | G 1 1/2 | 55 | 23   | 13,5 | 0,060             |
| K0457.1361615       | K0457.2361615       | 36 | M16x1,5 | 23 | 17   | 11   | 0,014             |
| K0457.1411815       | K0457.2411815       | 41 | M18x1,5 | 28 | 17,5 | 12   | 0,016             |
| K0457.1412015       | K0457.2412015       | 41 | M20x1,5 | 28 | 17,5 | 12   | 0,018             |
| K0457.1412215       | K0457.2412215       | 41 | M22x1,5 | 28 | 17,5 | 12   | 0,018             |



## Vent screws

with splash guard



**Material, surface finish:**

Housing in black thermoplastic polyamide 66;  
 cap in red thermoplastic polyamide 66;  
 air filter in polyurethane (PU foam),  
 filter fineness 50 µm;  
 flat packing in rubber (NBR)

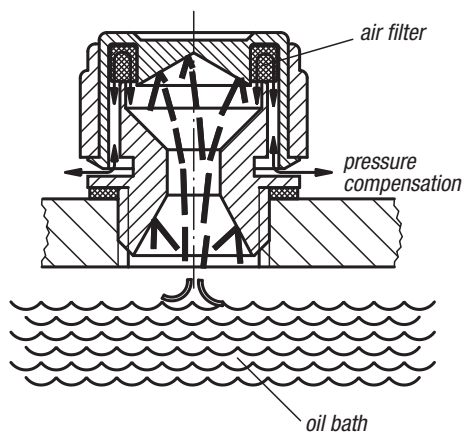
**Sample order:**

K0458.30038

**Note:**

Temperature resistant with oil up to 100 °C,  
 with water up to 70 °C.

**splash guard**



A gearbox running in an oil bath may cause oil to escape through the ventilation screw. To avoid this, the screw has been fitted with a splash guard. Only a part of the splashing oil passes through the taper bore. The remaining oil is deviated at the cap bottom in such a way that it returns without notably hindering the ventilation process.

**KIPP Vent screws with splash guard**

| Order No.   | D  | D1    | L  | L1 | Approx. weight kg |
|-------------|----|-------|----|----|-------------------|
| K0458.30014 | 30 | G 1/4 | 21 | 10 | 0,010             |
| K0458.30038 | 30 | G 3/8 | 21 | 10 | 0,010             |
| K0458.30012 | 30 | G 1/2 | 21 | 10 | 0,012             |

## Vent screws

with nonreturn valve



**Material, surface finish:**

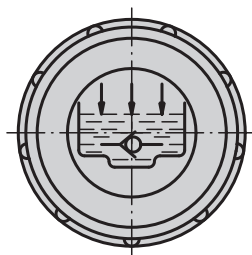
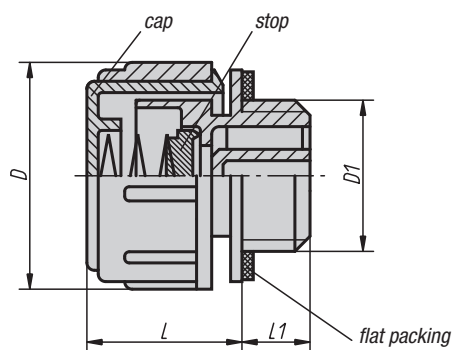
Housing in black thermoplastic polyamide 66;  
cap in red thermoplastic polyamide 66;  
compression spring in stainless steel;  
stop and flat packing in rubber (NBR)

**Sample order:**

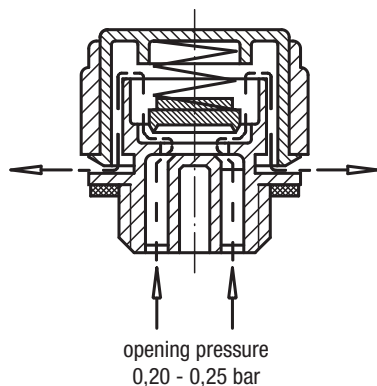
K0459.30014

**Note:**

Temperature resistant with oil up to 100 °C,  
with water up to 70 °C.  
Opening pressure 0.20 – 0.25 bar.



**function principle**

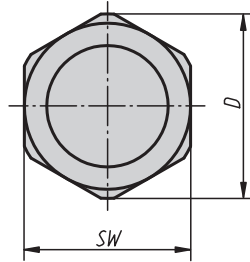
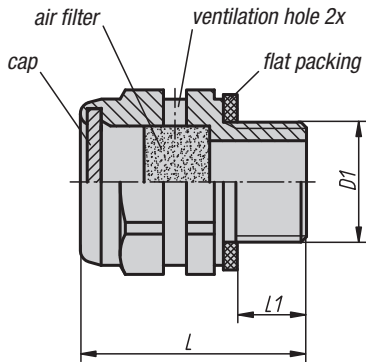


**KIPP Vent screws with nonreturn valve**

| Order No.   | D  | D1    | L  | L1 | Approx. weight kg |
|-------------|----|-------|----|----|-------------------|
| K0459.30014 | 30 | G 1/4 | 21 | 10 | 0,010             |
| K0459.30038 | 30 | G 3/8 | 21 | 10 | 0,012             |
| K0459.30012 | 30 | G 1/2 | 21 | 10 | 0,012             |



## Brass vent screws



**Material, surface finish:**

Housing and cap in brass;  
air filter in galvanized steel wire fabric,  
filter fineness 50 - 60 µm;  
flat packing asbestos-free

**Sample order:**

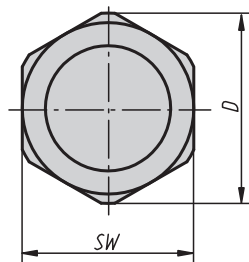
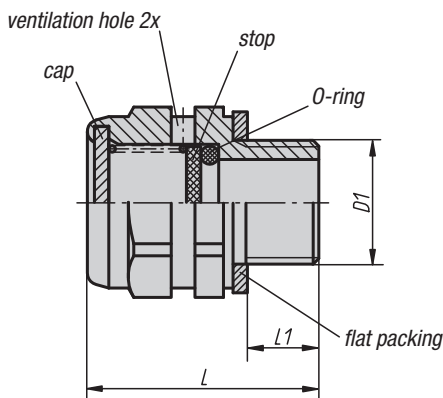
K0460.20014

### KIPP Brass vent screws

| Order No.   | D    | D1    | L    | L1  | SW | Approx. weight kg |
|-------------|------|-------|------|-----|----|-------------------|
| K0460.20014 | 20   | G 1/4 | 24,5 | 7,5 | 18 | 0,022             |
| K0460.24038 | 24,5 | G 3/8 | 24,5 | 8,5 | 22 | 0,046             |
| K0460.30012 | 30   | G 1/2 | 24,5 | 8,5 | 27 | 0,072             |

## Brass vent screws

with nonreturn valve



**Material, surface finish:**

Housing and cap in brass;  
compression spring in stainless steel;  
stop in aluminium;  
O-ring in rubber (NBR);  
flat packing asbestos-free

**Sample order:**

K0461.20014

**Note:**

Opening pressure 0.3 bar (±0.1).

**Functional principle:**

See K0459 vent screws with nonreturn valve.

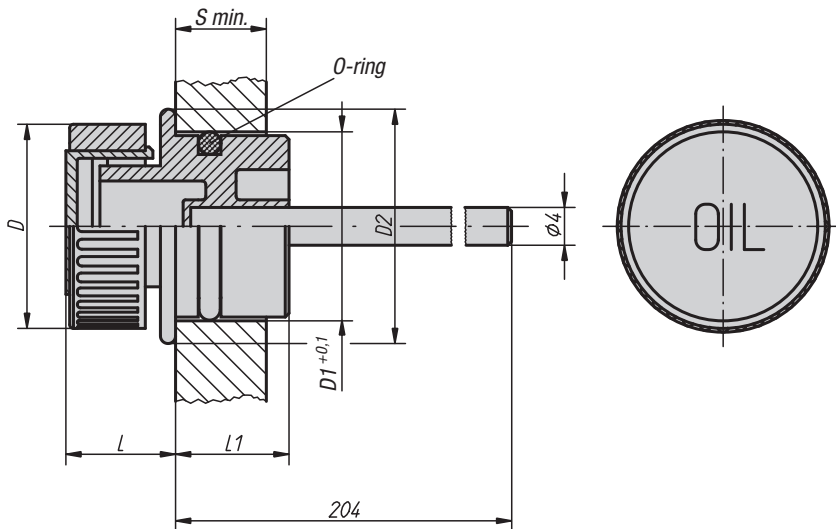
### KIPP Brass vent screws with nonreturn valve

| Order No.   | D    | D1    | L    | L1  | SW | Approx. weight kg |
|-------------|------|-------|------|-----|----|-------------------|
| K0461.20014 | 20   | G 1/4 | 24,3 | 7,5 | 18 | 0,022             |
| K0461.24038 | 24,5 | G 3/8 | 24,5 | 8,5 | 22 | 0,044             |
| K0461.30012 | 30   | G 1/2 | 24,5 | 8,5 | 27 | 0,070             |

## Press-in plugs with dipstick



Form A  
without ventilation



**Material, surface finish:**

Housing in black thermoplastic polyamide 66;  
cap in red thermoplastic polyamide 66;  
air filter in polyurethane (PU foam), filter fineness 50 µm;  
dipstick in phosphated zinc;  
O-ring in rubber (NBR)

**Sample order:**

K0462.13018

**Note:**

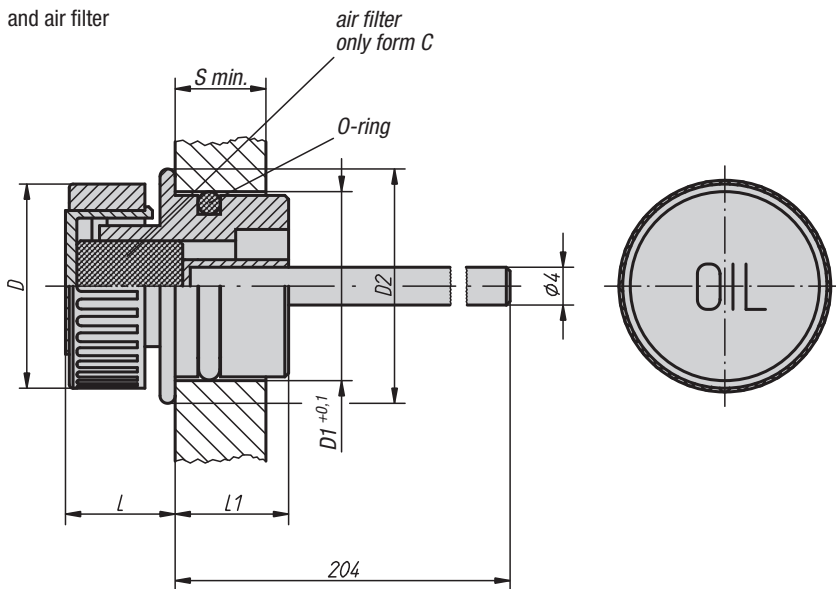
Temperature resistant with oil up to 100 °C, with water up to 70 °C.

**On request:**

Min-Max mark notches and other dipstick lengths.

Form B  
with ventilation

Form C  
with ventilation  
and air filter



### KIPP Press-in plugs with dipstick

| Order No.<br>Form A | Order No.<br>Form B | Order No.<br>Form C | D  | drill-Ø<br>D1 | D2 | L  | L1 | S min. | Approx.<br>weight<br>kg |
|---------------------|---------------------|---------------------|----|---------------|----|----|----|--------|-------------------------|
| K0462.13018         | K0462.23018         | K0462.33018         | 30 | 18            | 23 | 14 | 14 | 8      | 0,028                   |



## Vent screws

with dipstick



### Material, surface finish:

Housing in black thermoplastic polyamide 66;  
cap in red thermoplastic polyamide 66;  
air filter (only form B) in polyurethane (PU foam), filter fineness 50 µm;  
dipstick in phosphated zinc;  
O-ring in rubber (NBR)

### Sample order:

K0465.141012

### Note:

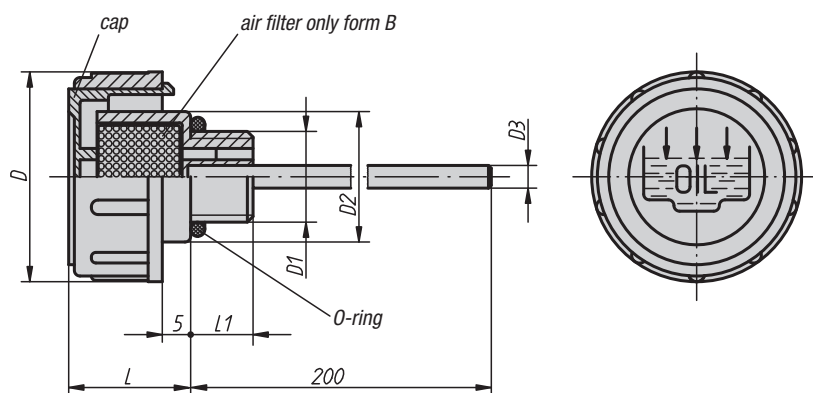
Temperature resistant with oil up to 100 °C, with water up to 70 °C.  
The removable cap allows easy cleaning of the air filter.

### On request:

Min-Max mark notches and other dipstick lengths.

Form A  
without air filter

Form B  
with air filter



## KIPP Vent screws with dipstick

| Order No.     | Form | D  | D1      | D2 | D3 | L    | L1   | Approx. weight kg |
|---------------|------|----|---------|----|----|------|------|-------------------|
| K0465.136038  | A    | 36 | G 3/8   | 23 | 4  | 17   | 11   | 0,032             |
| K0465.141012  | A    | 41 | G 1/2   | 28 | 4  | 18   | 12   | 0,048             |
| K0465.147034  | A    | 47 | G 3/4   | 33 | 5  | 17   | 12   | 0,054             |
| K0465.152100  | A    | 52 | G 1     | 38 | 5  | 20   | 12   | 0,060             |
| K0465.163114  | A    | 63 | G 1 1/4 | 49 | 5  | 23   | 13   | 0,086             |
| K0465.163112  | A    | 63 | G 1 1/2 | 55 | 5  | 23   | 13,5 | 0,090             |
| K0465.1361615 | A    | 36 | M16x1,5 | 23 | 4  | 17   | 11   | 0,032             |
| K0465.1411815 | A    | 41 | M18x1,5 | 28 | 4  | 17,5 | 12   | 0,046             |
| K0465.1412015 | A    | 41 | M20x1,5 | 28 | 4  | 17,5 | 12   | 0,048             |
| K0465.1412215 | A    | 41 | M22x1,5 | 28 | 4  | 17,5 | 12   | 0,048             |
| K0465.236038  | B    | 36 | G 3/8   | 23 | 4  | 17   | 11   | 0,032             |
| K0465.241012  | B    | 41 | G 1/2   | 28 | 4  | 18   | 12   | 0,048             |
| K0465.247034  | B    | 47 | G 3/4   | 33 | 5  | 17   | 12   | 0,054             |
| K0465.252100  | B    | 52 | G 1     | 38 | 5  | 20   | 12   | 0,060             |
| K0465.263114  | B    | 63 | G 1 1/4 | 49 | 5  | 23   | 13   | 0,086             |
| K0465.263112  | B    | 63 | G 1 1/2 | 55 | 5  | 23   | 13,5 | 0,090             |
| K0465.2361615 | B    | 36 | M16x1,5 | 23 | 4  | 17   | 11   | 0,032             |
| K0465.2411815 | B    | 41 | M18x1,5 | 28 | 4  | 17,5 | 12   | 0,046             |
| K0465.2412015 | B    | 41 | M20x1,5 | 28 | 4  | 17,5 | 12   | 0,048             |
| K0465.2412215 | B    | 41 | M22x1,5 | 28 | 4  | 17,5 | 12   | 0,048             |

## Vent screws

with nonreturn valve and dipstick



**Material, surface finish:**

Housing in black thermoplastic polyamide 66;  
cap in red thermoplastic polyamide 66;  
compression spring in stainless steel;  
dipstick in phosphated zinc;  
stop and flat packing in rubber (NBR)

**Sample order:**

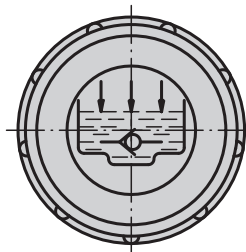
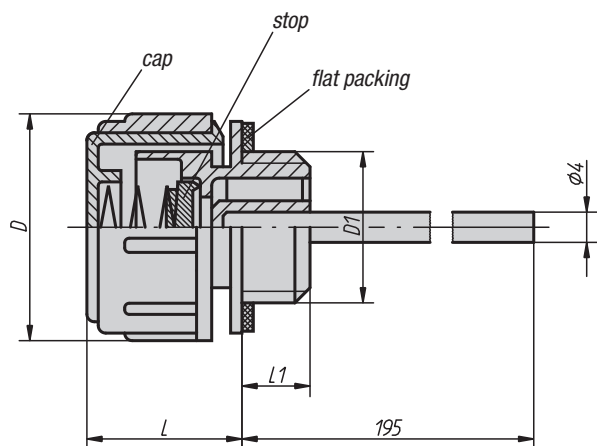
K0467.30038

**Note:**

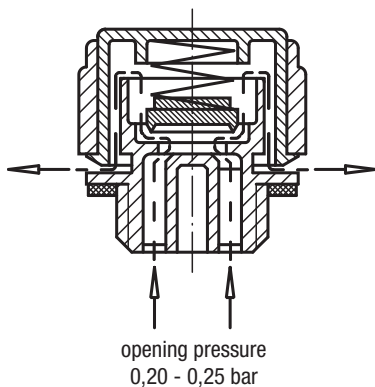
Temperature resistant with oil up to 100 °C,  
with water up to 70 °C.  
Opening pressure 0.20 – 0.25 bar.

**On request:**

Min-Max mark notches and other dipstick lengths.



**function principle**



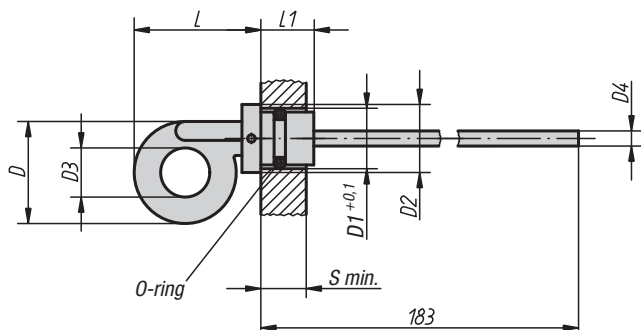
**KIPP Vent screws with nonreturn valve and dipstick**

| Order No.   | D  | D1    | L  | L1 | Approx. weight kg |
|-------------|----|-------|----|----|-------------------|
| K0467.30038 | 30 | G 3/8 | 21 | 10 | 0,030             |
| K0467.30012 | 30 | G 1/2 | 21 | 10 | 0,030             |

## Dipsticks

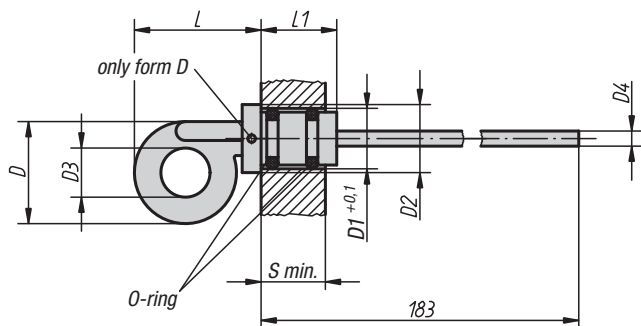


Form B  
with ventilation hole



Form C  
without ventilation hole

Form D  
with ventilation hole



**Material, surface finish:**

Grip in black thermoplastic polyamide 66;  
dipstick in phosphated zinc;  
O-ring in rubber (NBR)

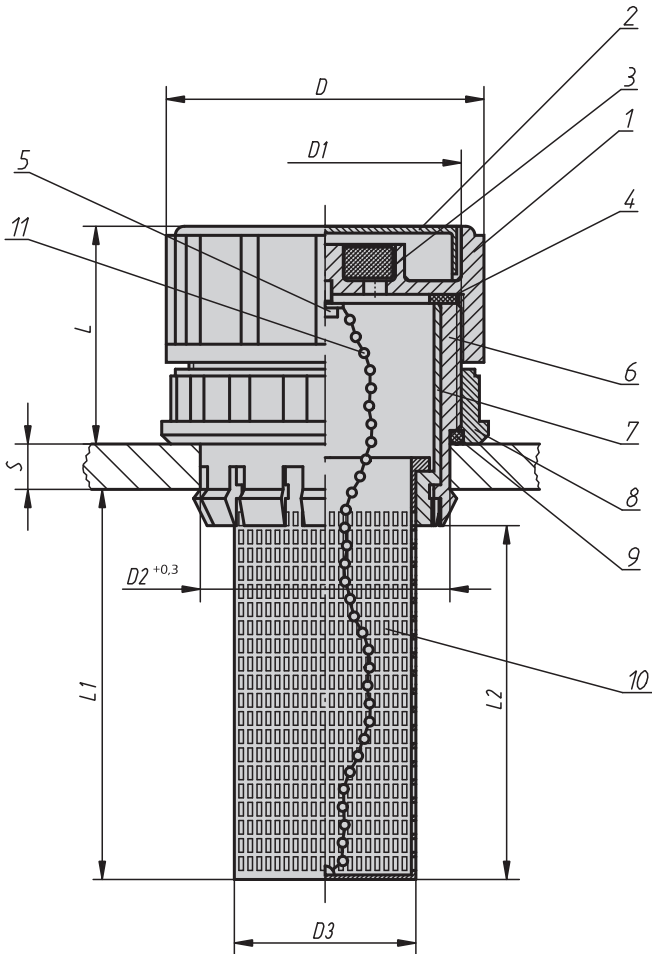
**Sample order:**

K0468.23218

### KIPP Dipsticks

| Order No.   | Form | D  | drill-Ø<br>D1 | D2 | D3 | D4<br>Ø | L    | L1 | S min. | Approx.<br>weight<br>kg |
|-------------|------|----|---------------|----|----|---------|------|----|--------|-------------------------|
| K0468.22714 | B    | 27 | 14            | 18 | 13 | 4       | 34   | 13 | 10     | 0,028                   |
| K0468.23218 | B    | 32 | 18            | 24 | 14 | 5       | 45   | 17 | 9      | 0,040                   |
| K0468.23220 | B    | 32 | 20            | 24 | 14 | 5       | 44,5 | 18 | 10     | 0,040                   |
| K0468.32714 | C    | 27 | 14            | 18 | 13 | 4       | 34   | 20 | 17     | 0,028                   |
| K0468.33012 | C    | 27 | 12            | 18 | 14 | 4       | 36   | 20 | 16     | 0,028                   |
| K0468.33318 | C    | 33 | 18            | 24 | 14 | 5       | 44   | 21 | 17,5   | 0,042                   |
| K0468.33520 | C    | 35 | 20            | 24 | 16 | 5       | 46   | 21 | 17,5   | 0,048                   |
| K0468.42714 | D    | 27 | 14            | 18 | 13 | 4       | 34   | 20 | 17     | 0,028                   |
| K0468.43318 | D    | 33 | 18            | 24 | 14 | 5       | 44   | 21 | 17,5   | 0,042                   |

## Filler neck



**Material, surface finish:**

- 1. Closing housing in black thermoplastic polyamide 66
- 2. Closing lid in red thermoplastic polyamide 66
- 3. Air filter in polyurethane (PU foam), fineness 50 µm
- 4. Flat packing in rubber (NBR)
- 5. Fastening screw in nickel-plated steel
- 6. Press-in part in black thermoplastic polyamide 66
- 7. Stop sleeve in black thermoplastic polyamide 66
- 8. Fastening nut in black thermoplastic polyamide 66
- 9. O-ring in rubber (NBR)
- 10. Filler strainer in black thermoplastic polypropylene
- 11. Chain in nickel-plated brass

**Sample order:**

K0470.706020

**Note:**

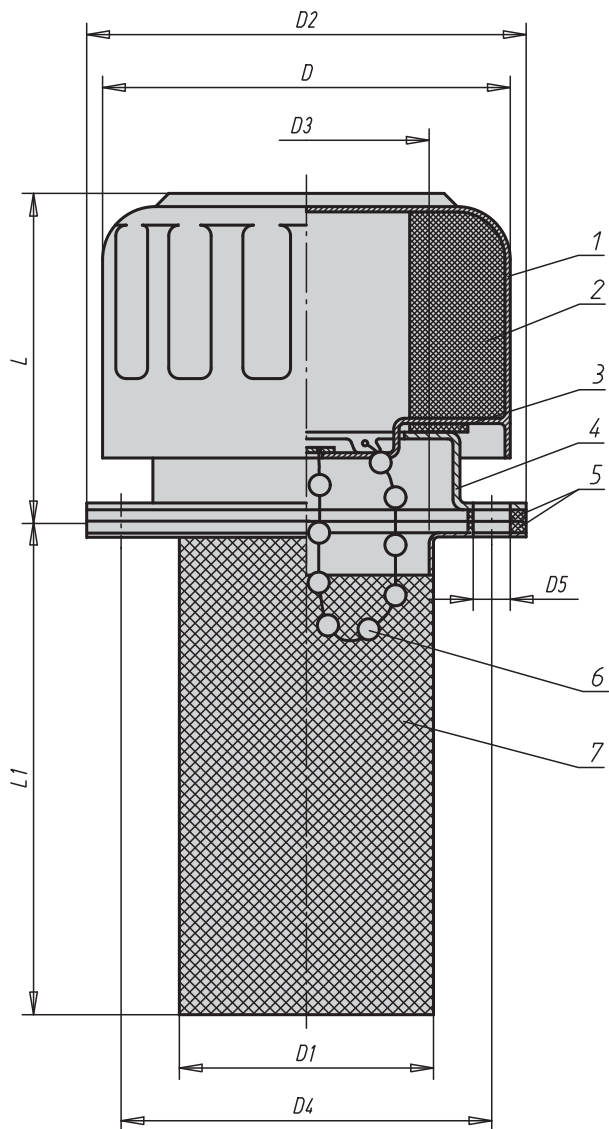
Temperature resistant up to 90 °C.

**KIPP Filler neck**

| Order No.    | D  | D1    | D2 | D3 | L    | L1 | L2 | S     | Approx. weight kg |
|--------------|----|-------|----|----|------|----|----|-------|-------------------|
| K0470.706020 | 70 | M60x2 | 55 | 38 | 46,5 | 88 | 80 | 2 - 8 | 0,120             |



## Filler necks



### Material, surface finish:

1. Closing housing in chrome steel
2. Air filter in polyurethane (PU foam), filter fineness 40  $\mu\text{m}$ .  
Air flow rate up to 720 l/min
3. Flat packing in cork
4. Mounting flange with fixing screws, bayonet fitting
5. Flat packing in cork
6. Chain in nickel-plated brass
7. Filler strainer in galvanized steel

### Sample order:

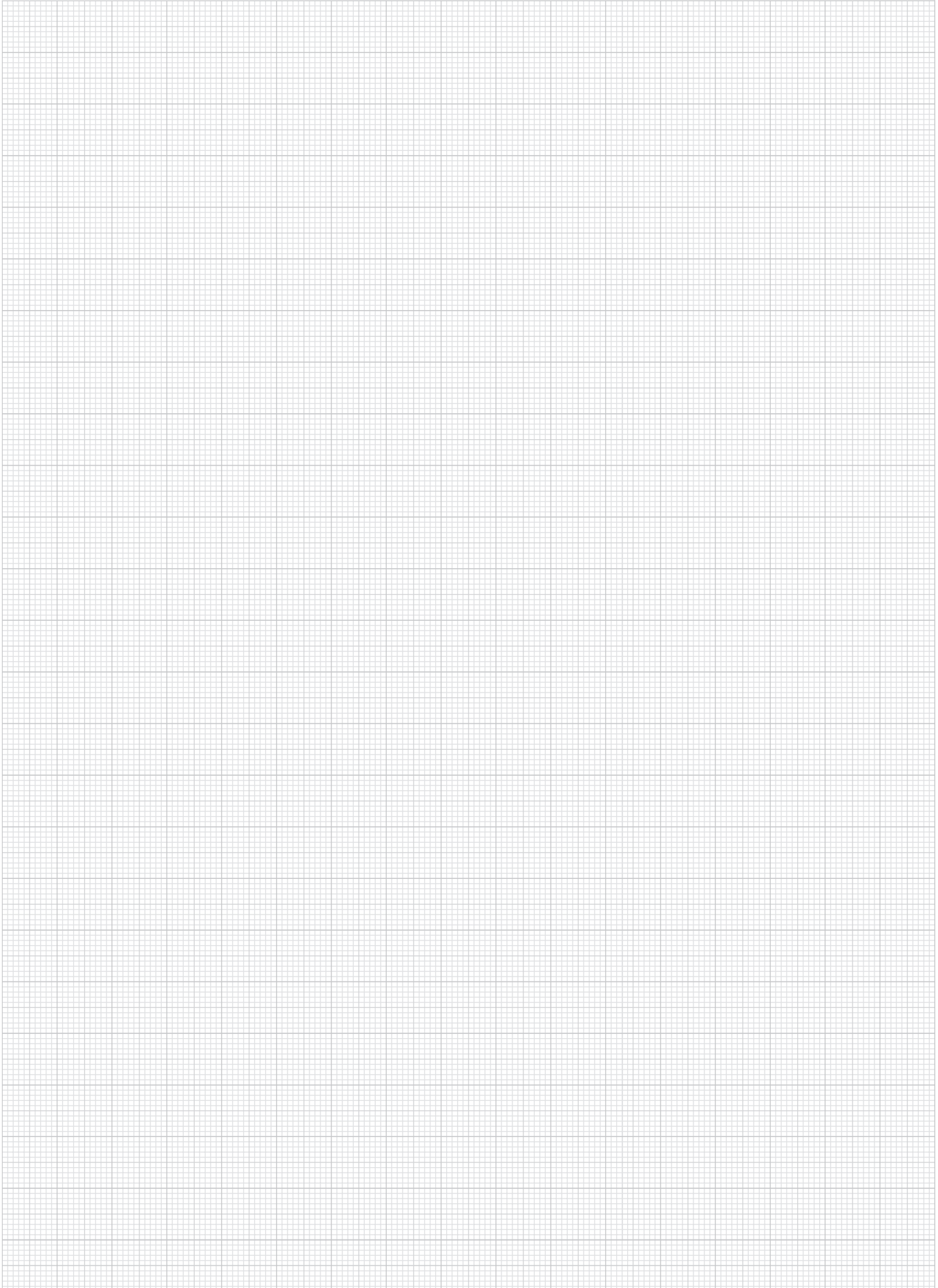
K0471.45

### Note:

The filler necks are supplied with packings and fixing screws (M5).

### KIPP Filler necks

| Order No. | Surface finish | D    | D1   | D2 | D3 | D4   | D5     | L  | L1 | Approx. weight kg |
|-----------|----------------|------|------|----|----|------|--------|----|----|-------------------|
| K0471.45  | without chain  | 46,5 | 27,5 | 52 | 25 | 41,3 | 6 (3x) | 43 | 66 | 0,110             |
| K0471.77  | with chain     | 80   | 49   | 83 | 44 | 71,5 | 6 (6x) | 57 | 80 | 0,280             |









# Scale rings to customer's specifications



**Material:**  
Steel 1.192.

**Surface finish:**  
Matt-finished chromium-plated.  
Scale marks and figures in black.

**Note:**  
The above version has proven itself for „avoiding reading errors“. The matt-finished chromium-plated surface and the black scale marks and figures contrast very well.  
However, other surface finishes and materials are available on request.

**Stainless steel  
versions**

**Technical appendix**

**More of the  
KIPP clamping  
programme**

## Stainless steel versions



Cam levers  
with internal thread and external thread,  
steel or stainless steel  
K0005



Page 32

Cam levers in stainless steel  
with internal thread and external thread  
K0645



Page 33

Cam levers with plastic handle  
with internal and external thread,  
steel or stainless steel  
K0646



Page 34

Adjustable cam levers  
with external thread,  
steel or stainless steel  
K0006



Page 35

Adjustable cam levers in stainless steel  
with external thread  
K0647



Page 36

Adjustable cam levers with plastic handle  
with external thread, steel or stainless steel  
K0648



Page 37

Clamp levers  
with internal thread, steel parts in  
stainless steel  
K0117



Page 40

Clamp levers  
with external thread, steel parts in  
stainless steel  
K0117



Page 41

Clamp levers in stainless steel  
with internal thread  
K0121



Page 44

Clamp levers in stainless steel  
with external thread  
K0121



Page 45

Clamp levers  
with internal thread, steel parts in  
stainless steel  
K0123



Page 48

Clamp levers  
with external thread, steel parts in  
stainless steel  
K0123



Page 49

Clamp levers with protective cap  
with internal thread, steel parts in  
stainless steel  
K0123



Page 52

Clamp levers with protective cap  
with external thread, steel parts in  
stainless steel  
K0123



Page 53

Clamp levers in stainless steel  
with internal thread  
K0124



Page 54

Clamp levers in stainless steel  
with external thread  
K0124



Page 55

Clamp levers in stainless steel with  
protective cap  
with internal thread  
K0124



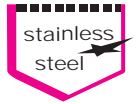
Page 56

Clamp levers in stainless steel with  
protective cap  
with external thread  
K0124



Page 57

## Stainless steel versions



Clamp levers  
with internal thread and plastic handle,  
steel parts in stainless steel  
K0270



Page 60

Clamp levers  
with external thread and plastic handle,  
steel parts in stainless steel  
K0270



Page 61

Clamp levers 2K „Cockatoo“  
two-component with internal thread,  
steel parts in stainless steel  
K0126



Page 64

Clamp levers 2K „Cockatoo“  
two-component with external thread,  
steel parts in stainless steel  
K0126



Page 65

Tension levers in stainless steel  
with internal thread  
K0109



Page 68

Tension levers in stainless steel  
with external thread  
K0109



Page 69

Knurled nuts  
in steel and stainless steel,  
DIN 6303  
K0137



Page 90

Thin knurled nuts  
in steel and stainless steel,  
DIN 467  
K0144



Page 93

High knurled nuts  
in steel and stainless steel,  
DIN 466  
K0143



Page 93

High knurled thumb screws  
in steel and stainless steel, DIN 464  
K0140



Page 94

Knurled knobs  
K0247



Page 95

Knurled knobs  
K0110



Page 96

Palm grips  
in stainless steel,  
similar to DIN 6335  
K0146



Page 102

Star grips  
in stainless steel,  
similar to DIN 6336  
K0150



Page 112

Star grips  
with projecting steel bush  
K0153



Page 115

Star grips  
similar to DIN 6336,  
steel parts in stainless steel  
K0154



Page 116

Clamp grips  
K0255



Page 128

Triangular star grips  
with high collar  
K0183



Page 129

## Stainless steel versions



Knurled wheels  
steel parts in stainless steel  
K0261



Page 132-133

Mushroom knobs  
with internal thread  
in steel or stainless steel  
K0250



Page 134

Mushroom knobs  
with internal thread  
K0251



Page 135

Mushroom knobs  
with external thread  
K0251



Page 136

Wing grips in stainless steel  
K0273



Page 137

Wing grips  
K0274



Page 138

Wing grips  
with continuous internal thread  
K0274



Page 139

Wing grips, one-sided  
K0608



Page 140

Miniwings  
K0274



Page 141

Miniwing  
with continuous internal thread  
K0658



Page 142

Ball knobs  
stainless steel or aluminium  
DIN 319  
K0650



Page 146

Grip balls  
K0253



Page 150

Grip balls  
revolving  
K0254



Page 151

Locking bars  
K0178



Page 155

Stirrup-shaped handles stainless steel  
K0198



Page 174

Stirrup-shaped handles  
K0200



Page 175

Stirrup-shaped handles  
in stainless steel  
K0206



Page 179

Stirrup-shaped handles in stainless steel  
K0208



Page 180



## Stainless steel versions



Stirrup-shaped handles,  
in stainless steel  
K0215



Page 186

Measurement device handles  
K0218



Page 188

Tube handles in stainless steel  
K0652



Page 192

Tube handles  
K0226



Page 195

Tube handles in stainless steel  
K0227



Page 196

Ledge handles  
in stainless steel  
K0233



Page 202

Fitting grip  
in stainless steel  
K0243



Page 214

Disc handwheels  
with revolving taper grip  
K0164



Page 231

Disc handwheels  
without taper grip  
K0165



Page 232

Revolving taper grips  
K0170



Page 253

Revolving taper grips  
K0651



Page 253

Hinges  
in plastic, detachable, left  
K0434



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Hinges  
in plastic, detachable, right  
K0434



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Hinges  
in plastic  
K0435



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Hinges  
with oblong holes in plastic  
K0437



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Hinges  
with guide tabs in plastic,  
detachable  
K0438



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Hinges  
in plastic with a catching  
function  
K0439



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Hinges  
in plastic with adjustable  
friction  
K0440



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## Stainless steel versions



Threaded spindles for swivel pads  
in steel or stainless steel  
K0421



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Ball joints  
with internal thread  
K0422



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Plates for swivel pads  
in die cast zinc or  
stainless steel  
K0416



Page 310-311

Plates for swivel pads  
in stainless steel  
K0418



Page 314

Plates for swivel pads  
with vibration absorption  
K0419



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Swivel feet  
with vibration absorption  
K0420



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Threaded spindles for swivel feet  
in steel or stainless steel  
K0427



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Plates for swivel feet  
in die cast zinc or stainless steel  
K0425



Page 324-325

Threaded spindles for swivel feet  
ECO-Line  
in steel or stainless steel  
K0429



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Plates for swivel feet, ECO-Line  
in die cast zinc, stainless steel  
or plastic  
K0428



Page 330-331

Swivel feet  
K0395



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Threaded spindles for swivel feet  
in steel or stainless steel  
K0669



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Plates for swivel feet  
in steel or stainless steel  
K0672



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Plates for swivel feet  
with rubber plate  
in steel or stainless steel  
K0673



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Fasteners  
with spring clip  
K0043



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Fasteners  
with a pulling latch  
K0044



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Fasteners  
with a pulling latch  
K0045



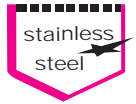
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Fasteners adjustable  
screw-on holes visible  
K0046



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## Stainless steel versions



Fasteners adjustable  
screw-on holes covered  
K0047



Page 436

Fasteners adjustable  
screw-on holes visible  
K0048



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Fasteners adjustable  
screw-on holes covered  
K0049



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Fasteners adjustable  
with a movable hook clamp  
K0050



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Fasteners adjustable  
K0051



Page 440

Spring plungers  
with recess and ball, stainless steel  
K0310



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Spring plungers  
with recess and ball in stainless steel  
K0312



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Spring plungers  
with recess and ceramic ball  
K0609



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Spring plungers  
with recess and pressure pin,  
stainless steel  
K0314



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Spring plungers  
with hexagon socket and ball,  
stainless steel  
K0316



Page 596-597

Spring plungers  
with hexagon socket and ceramic ball  
K0610



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Spring plungers  
with hexagon socket and pressure pin,  
stainless steel  
K0319



Page 604-605

Spring plungers  
with hexagon socket and pressure pin in  
plastic, stainless steel  
K0320



Page 606

Spring plungers  
with recess and ball, stainless steel,  
LONG-LOK secured  
K0322



Page 610

Spring plungers  
with recess and pressure pin, stainless  
steel, LONG-LOK secured  
K0324



Page 612

Spring plungers  
with hexagon socket and ball, stainless  
steel, LONG-LOK secured  
K0326



Page 614

Spring plungers  
with hexagon socket and pressure pin,  
stainless steel, LONG-LOK secured  
K0329



Page 619

Spring Plungers  
with hexagon socket and pressure pin  
in plastic, stainless steel, LONG-LOK  
secured  
K0330



Page 620

## Stainless steel versions



Spring plungers  
smooth surface, stainless steel  
K0333



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Spring plungers  
smooth surface, plastic  
K0334



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Spring plungers  
with adhesive ring  
K0582



Page 625

Spring plungers  
smooth surface, without collar in  
stainless steel  
K0335



Page 626

Spring plungers  
with head  
K0336



Page 626

Locking bolts  
K0338



Page 640-641

Locking Bolts  
with extended locking pin  
K0630



Page 642-643

Locking bolts  
short version  
K0631



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Locking bolts  
stainless steel  
K0632



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Locking bolts  
K0339



Page 646-647

Locking bolts  
K0341



Page 650-651

Locking bolts  
K0342



Page 652-653

Locking bolts  
without collar  
K0343



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Locking bolts  
without collar with extended locking  
pin  
K0633



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Locking bolts  
in stainless steel without collar  
K0634



Page 658

Locking bolts  
without collar  
K0344



Page 660-661

Locking bolts  
without collar  
K0345



Page 662-663

Locking bolts  
without collar  
K0635



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## Stainless steel versions



Locking bolts  
without collar  
K0346



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Locking bolts  
without collar  
K0347



Page 668-669

Locking bolts  
without collar  
K0636



Page 670

Spacer rings  
K0665



Page 671

Locking bolts with grip  
in stainless steel  
K0637



Page 679

Locking bolts with grip  
in stainless steel  
K0640



Page 682

Ball locking bolts  
self-locking  
K0363



Page 684

Ball locking bolts  
in stainless steel self-locking  
K0364



Page 685

Ball locking bolts with mushroom knob  
in stainless steel, self-locking  
K0641



Page 686

Locking pins  
K0365



Page 687

Ball locking bolts with T-grip  
self-locking  
K0366



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Ball locking bolts with L-grip  
self-locking  
K0642



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Key rings  
K0367



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Ball pressure screws with hexagon  
socket head  
in stainless steel  
K0381



Page 720

Ball pressure screws without head,  
in stainless steel with full ball  
K0384



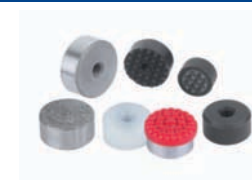
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Ball pressure screws without head, in  
stainless steel  
with flattened ball  
K0384



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Round grippers and inserts  
K0385



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Grippers and inserts, round  
with counterbore  
K0385



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## Stainless steel versions



Pressure screws, stainless steel  
K0667



Page 739

Straight bolts  
with ball end form A  
K0350



Page 741

Straight bolts  
with flattened ball end form C  
K0350



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Straight bolts  
with ball end form B  
K0351



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Straight Bolts  
with flattened ball end Form D  
K0351



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Stop, adjustable,  
with end position feedback  
K0581



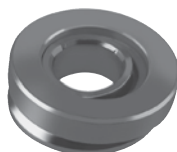
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Concave and convex washers  
DIN 6319, Edition 10/01  
K0729



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Ball head position adjusters  
K0691



Page 764

Height adjustment bolts  
K0692



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Height adjustment bolts  
with counter-nuts  
K0693



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Level-compensating components  
K0694



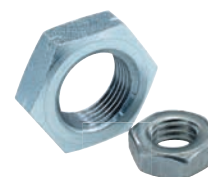
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Spherical level-compensating bolts  
K0695



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Hexagon thin nuts  
DIN 439  
K0700



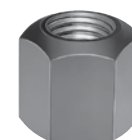
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Hexagon nuts with collar  
height 1.5 D, to DIN 6331 extended  
K0701



Page 782

Hexagon nuts  
height 1.5 D, to DIN 6330 extended  
K0702



Page 783

Hexagon socket set screws with flat tip  
DIN 913  
K0707



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Hexagon socket countersunk  
head screws  
DIN 7991  
K0708



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Nuts for T-slots  
DIN 508 extended  
K0377



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## Stainless steel versions



Nuts for T-slots  
blanks  
K0378



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Eye bolts  
DIN 444, form B  
K0396



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Threaded inserts  
K0398



Page 796

Reinforced threaded inserts  
K0399



Page 797

Threaded inserts  
with internal thread, self-locking  
K0401



Page 799

Reinforced threaded inserts  
with internal thread, self-locking  
K0402



Page 800

Grub screws  
with screw-in stop for gluing  
K0404



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Grub screw sets  
with screw-in stop for gluing  
K0405



Page 803

Adjusting rings  
DIN 705, stainless steel  
K0406



Page 806-807

Handles  
K0179



Page 815

Fork joints  
in stainless steel  
K0732



Page 832

Ball joints  
DIN 71802  
K0734



Page 834

Rod ends with slide bearing  
external thread, stainless steel  
K0720



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Rod ends with slide bearing  
internal thread, stainless steel  
K0721

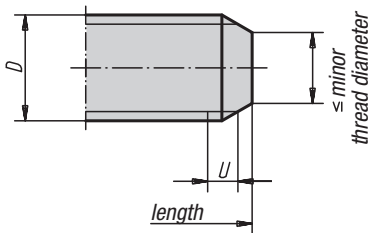


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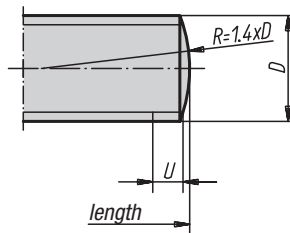
# Thread Ends to DIN 78 Thrust Points to DIN 6332



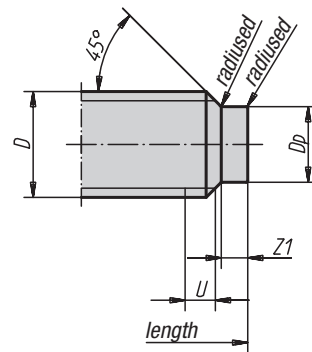
K flat point



L oval point



Ka short dog point



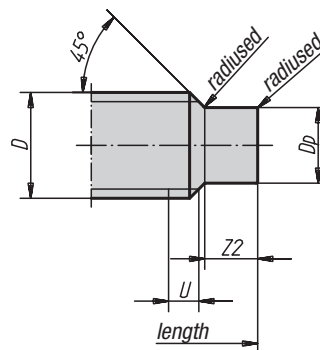
**Standard form:**

Flat point to DIN 78.

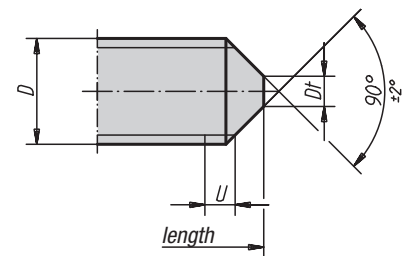
Depending on the quantity ordered, thread ends will incur extra charges.

U = max. 2P incomplete thread

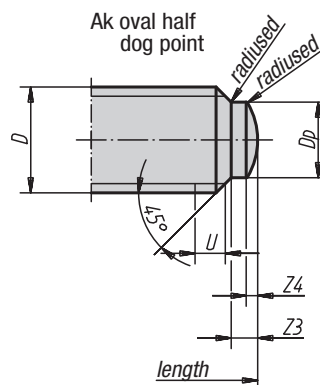
Za long dog point



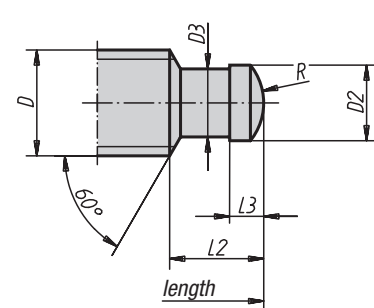
Sp cone point



Ak oval half dog point



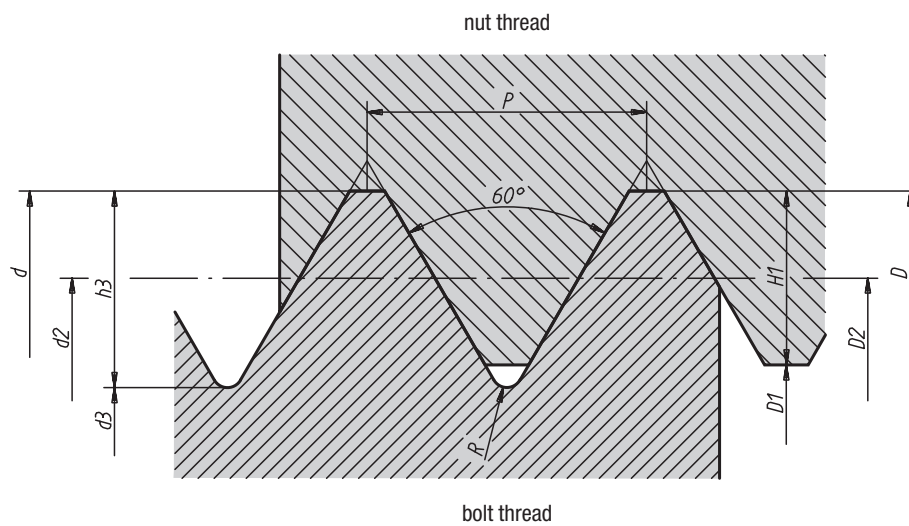
thrust point to DIN 6332



| Thread diameter D | Thread ends to DIN 78 |         |          |          |          |      | Thread ends with thrust points to DIN 6332 |         |     |     |    |
|-------------------|-----------------------|---------|----------|----------|----------|------|--|---------|-----|-----|----|
|                   | Dp h13                | Dt h16* | Z1 +IT14 | Z2 +IT14 | Z3 +IT14 | Z4 ≈ | D2 h11                                     | D3 -0,1 | L2  | L3  | R  |
| M4                | 2.5                   | –       | 1        | 2        | 1        | 0.5  | –  | –       | –   | –   | –  |
| M5                | 3.5                   | –       | 1.25     | 2.5      | 1.25     | 0.6  | –  | –       | –   | –   | –  |
| M6                | 4                     | 1.5     | 1.5      | 3        | 1.5      | 0.7  | 4.5  | 4       | 6   | 2.5 | 3  |
| M8                | 5.5                   | 2       | 2        | 4        | 2        | 1    | 6  | 5.4     | 7.5 | 3   | 5  |
| M10               | 7                     | 2.5     | 2.5      | 5        | 2.5      | 1    | 8  | 7.2     | 9   | 4.5 | 6  |
| M12               | 8.5                   | 3       | 3        | 6        | 3        | 1.25 | 8  | 7.2     | 10  | 4.5 | 6  |
| M14               | 10                    | 4       | 3.5      | 7        | 3.5      | 1.5  | –  | –       | –   | –   | –  |
| M16               | 12                    | 4       | 4        | 8        | 4        | 1.75 | 12   | 11      | 12  | 5   | 9  |
| M18               | 13                    | 5       | 4.5      | 9        | 4.5      | 2    | –  | –       | –   | –   | –  |
| M20               | 15                    | 5       | 5        | 10       | 5        | 2    | 15.5                                       | 14.4    | 14  | 5.5 | 13 |
| M22               | 17                    | 6       | 5.5      | 11       | 5.5      | 2.5  | –  | –       | –   | –   | –  |
| M24               | 18                    | 6       | 6        | 12       | 6        | 2.5  | –  | –       | –   | –   | –  |
| M27               | 21                    | 8       | 6.7      | 13.5     | 6.7      | 3    | –  | –       | –   | –   | –  |

\* Up to 5 mm diameter: thread end lightly flattened or lightly rounded.

# ISO Metric Screw Threads to DIN 13



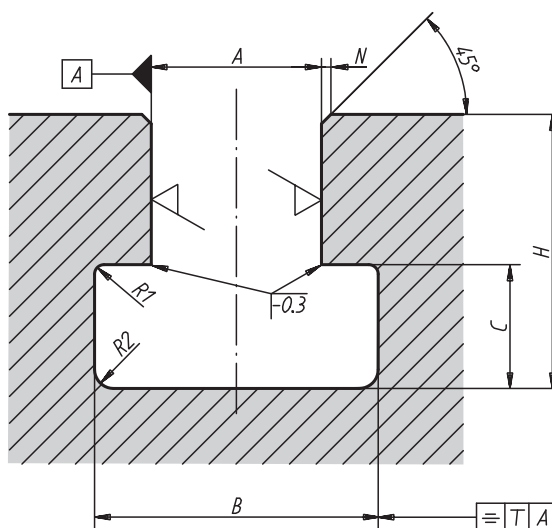
The medium tolerance class applies to the threads listed, i.e. 6H for nut threads and 6g for bolt threads. The (metal) threads in this catalogue are manufactured according to these tolerance classes.

## Coarse Screw Thread line 1

| Thread description<br>$d = D$ | Pitch<br>$P$ | Thread-pitch<br>$\emptyset$<br>$d_2 = D_2$ | Minor $\emptyset$<br>bolt<br>$d_3$ | Minor $\emptyset$<br>nut<br>$D_1$ | Thread depth<br>bolt<br>$h_3$ | Thread depth<br>nut<br>$H_1$ | Radius<br>$R$ | Core hole<br>drill<br>$\emptyset$ |
|-------------------------------|--------------|--|------------------------------------|-----------------------------------|-------------------------------|------------------------------|---------------|-----------------------------------|
| M3                            | 0.5          | 2.68                                       | 2.39                               | 2.46                              | 0.31                          | 0.27                         | 0.07          | 2.5                               |
| M4                            | 0.7          | 3.55                                       | 3.14                               | 3.24                              | 0.43                          | 0.38                         | 0.10          | 3.3                               |
| M5                            | 0.8          | 4.48                                       | 4.02                               | 4.13                              | 0.49                          | 0.43                         | 0.12          | 4.2                               |
| M6                            | 1            | 5.35                                       | 4.77                               | 4.92                              | 0.61                          | 0.54                         | 0.14          | 5                                 |
| M8                            | 1.25         | 7.19                                       | 6.47                               | 6.65                              | 0.77                          | 0.68                         | 0.18          | 6.8                               |
| M10                           | 1.5          | 9.03                                       | 8.16                               | 8.38                              | 0.92                          | 0.81                         | 0.22          | 8.5                               |
| M12                           | 1.75         | 10.86                                      | 9.85                               | 10.11                             | 1.07                          | 0.95                         | 0.25          | 10.2                              |
| M16                           | 2            | 14.70                                      | 13.55                              | 13.84                             | 1.23                          | 1.08                         | 0.29          | 14                                |
| M20                           | 2.5          | 18.38                                      | 16.93                              | 17.29                             | 1.53                          | 1.35                         | 0.36          | 17.5                              |
| M24                           | 3            | 22.05                                      | 20.32                              | 20.75                             | 1.84                          | 1.62                         | 0.43          | 21                                |
| M30                           | 3.5          | 27.73                                      | 25.71                              | 26.21                             | 2.15                          | 1.89                         | 0.51          | 26.5                              |
| M36                           | 4            | 33.40                                      | 31.09                              | 31.67                             | 2.45                          | 2.17                         | 0.58          | 32                                |



# T-Slots to DIN 650

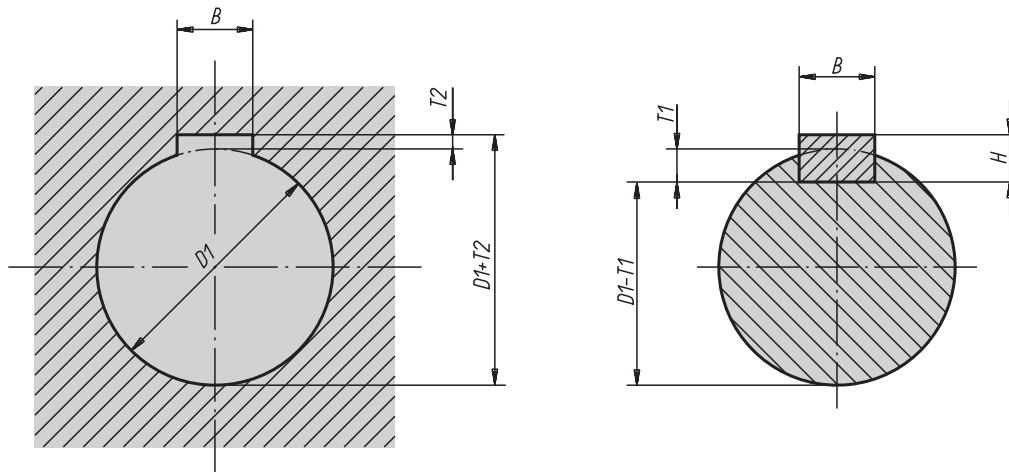


$\sqrt[6.3]{}$  (  $\sqrt[6.3]{}$  =  $\sqrt[16]{}$  for tolerance H8 or  $\sqrt[6.3]{}$  =  $\sqrt[3.2]{}$  for tolerance H12 )

| A* | B    | B<br>permissible<br>deviation | C  | C<br>permissible<br>deviation | H<br>max. | H<br>min. | N<br>max. | R1<br>max. | R2<br>max. | T   |
|----|------|-------------------------------|----|-------------------------------|-----------|-----------|-----------|------------|------------|-----|
| 6  | 11   | $+1.5$<br>$0$                 | 5  | $+1$<br>$0$                   | 13        | 11        | 1         | 0.6        | 1          | 0.5 |
| 8  | 14.5 |                               | 7  |                               | 18        | 15        | 1         | 0.6        | 1          | 0.5 |
| 10 | 16   |                               | 7  |                               | 21        | 17        | 1         | 0.6        | 1          | 0.5 |
| 12 | 19   | $+2$<br>$0$                   | 8  | $+2$<br>$0$                   | 25        | 20        | 1         | 0.6        | 1          | 0.5 |
| 14 | 23   |                               | 9  |                               | 28        | 23        | 1.6       | 0.6        | 1.6        | 0.5 |
| 18 | 30   |                               | 12 |                               | 36        | 30        | 1.6       | 1          | 1.6        | 0.5 |
| 22 | 37   | $+3$<br>$0$                   | 16 | $+2$<br>$0$                   | 45        | 38        | 1.6       | 1          | 2.5        | 0.5 |
| 28 | 46   |                               | 20 |                               | 56        | 48        | 1.6       | 1          | 2.5        | 0.5 |
| 36 | 56   | $+4$<br>$0$                   | 25 | $+3$<br>$0$                   | 71        | 61        | 2.5       | 1          | 2.5        | 1   |
| 42 | 68   |                               | 32 |                               | 85        | 74        | 2.5       | 1.6        | 4          | 1   |

\* Tolerance H8 for tenon and clamping slots, H12 for clamping slots

# Slots and Feathers to DIN 6885



## High Form (sheet 1)

| For shaft<br>Ø<br>D1 | Hub slot B*     |                   | H  | T1<br>with back<br>clearance | T2<br>back<br>clearance | T2<br>oversize      |
|----------------------|-----------------|-------------------|----|------------------------------|-------------------------|---------------------|
|                      | tight fit<br>P9 | sliding fit<br>N9 |    |                              |                         |                     |
| over 8 up to 10      | 3               | 3                 | 3  | 1.8 <sup>+0.1</sup>          | 1.4 <sup>+0.1</sup>     | 0.9 <sup>+0.1</sup> |
| over 10 up to 12     | 4               | 4                 | 4  | 2.5 <sup>+0.1</sup>          | 1.8 <sup>+0.1</sup>     | 1.2 <sup>+0.1</sup> |
| over 12 up to 17     | 5               | 5                 | 5  | 3 <sup>+0.1</sup>            | 2.3 <sup>+0.1</sup>     | 1.7 <sup>+0.1</sup> |
| over 17 up to 22     | 6               | 6                 | 6  | 3.5 <sup>+0.1</sup>          | 2.8 <sup>+0.1</sup>     | 2.2 <sup>+0.1</sup> |
| over 22 up to 30     | 8               | 8                 | 7  | 4 <sup>+0.2</sup>            | 3.3 <sup>+0.2</sup>     | 2.4 <sup>+0.2</sup> |
| over 30 up to 38     | 10              | 10                | 8  | 5 <sup>+0.2</sup>            | 3.3 <sup>+0.2</sup>     | 2.4 <sup>+0.2</sup> |
| over 38 up to 44     | 12              | 12                | 8  | 5 <sup>+0.2</sup>            | 3.3 <sup>+0.2</sup>     | 2.4 <sup>+0.2</sup> |
| over 44 up to 50     | 14              | 14                | 9  | 5.5 <sup>+0.2</sup>          | 3.8 <sup>+0.2</sup>     | 2.9 <sup>+0.2</sup> |
| over 50 up to 58     | 16              | 16                | 10 | 6 <sup>+0.2</sup>            | 4.3 <sup>+0.2</sup>     | 3.4 <sup>+0.2</sup> |

## High Form for Machine Tools (sheet 2)

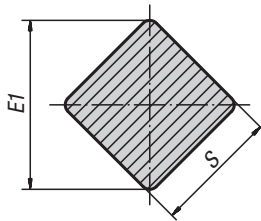
| For shaft<br>Ø<br>D1 | Shaft slot B*   |                   | Hub slot B*     |                    | H  | T1                  | T2                  |
|----------------------|-----------------|-------------------|-----------------|--------------------|----|---------------------|---------------------|
|                      | tight fit<br>P9 | sliding fit<br>N9 | tight fit<br>P9 | sliding fit<br>IS9 |    |                     |                     |
| over 10 up to 12     | 4               | 4                 | 4               | 4                  | 4  | 3 <sup>+0.1</sup>   | 1.1 <sup>+0.1</sup> |
| over 12 up to 17     | 5               | 5                 | 5               | 5                  | 5  | 3.8 <sup>+0.1</sup> | 1.3 <sup>+0.1</sup> |
| over 17 up to 22     | 6               | 6                 | 6               | 6                  | 6  | 4.4 <sup>+0.1</sup> | 1.7 <sup>+0.1</sup> |
| over 22 up to 30     | 8               | 8                 | 8               | 8                  | 7  | 5.4 <sup>+0.2</sup> | 1.7 <sup>+0.2</sup> |
| over 30 up to 38     | 10              | 10                | 10              | 10                 | 8  | 6 <sup>+0.2</sup>   | 2.1 <sup>+0.2</sup> |
| over 38 up to 44     | 12              | 12                | 12              | 12                 | 8  | 6 <sup>+0.2</sup>   | 2.1 <sup>+0.2</sup> |
| over 44 up to 50     | 14              | 14                | 14              | 14                 | 9  | 6 <sup>+0.2</sup>   | 2.6 <sup>+0.2</sup> |
| over 50 up to 58     | 16              | 16                | 16              | 16                 | 10 | 7.5 <sup>+0.2</sup> | 2.6 <sup>+0.2</sup> |

\* The indicated tolerances for slot widths apply, as a rule, for milled slots.  
ISO quality IT8 (i.e. P8 instead of P9, N8 instead of N9 and IS8 instead of IS9) are recommended for the width of broached slots.  
Tolerance H9 for the shaft slot and D10 for the hub slot are recommended for sliding fits.

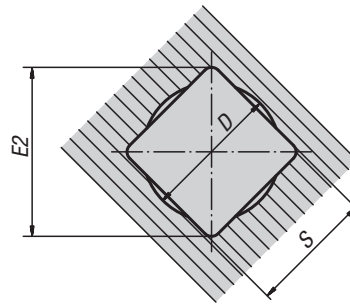
# Squares for Operating Spindles and Operating Parts to DIN 79



A External square



B Internal square



| S<br>H11 / h11 | D<br>max.* | E1<br>max. | E1<br>min.** | E2<br>min. |
|----------------|------------|------------|--------------|------------|
| 4              | 4.2        | 5          | 4.8          | 5.3        |
| 5              | 5.3        | 6.5        | 6            | 6.6        |
| 5.5            | 5.8        | 7          | 6.6          | 7.2        |
| 6              | 6.3        | 8          | 7.2          | 8.1        |
| 7              | 7.3        | 9          | 8.4          | 9.1        |
| 8              | 8.4        | 10         | 9.6          | 10.1       |
| 9              | 9.5        | 12         | 10.8         | 12.1       |
| 10             | 10.5       | 13         | 12           | 13.1       |
| 11             | 11.6       | 14         | 13.2         | 14.1       |
| 12             | 12.6       | 16         | 14.4         | 16.1       |
| 13             | 13.7       | 17         | 15.6         | 17.1       |
| 14             | 14.7       | 18         | 16.8         | 18.1       |
| 16             | 16.8       | 21         | 19.2         | 21.2       |
| 17             | 17.9       | 22         | 20.4         | 22.2       |
| 19             | 20         | 25         | 22.8         | 25.2       |
| 22             | 23.1       | 28         | 26.4         | 28.2       |

\* Internal squares are allowed to be recessed in the middle third of each side. D max. defines the borehole diameter which leaves appropriate clearance when disposed concentrically to the internal square.

\*\* External squares made on round steel bar may fall below the minimum size by the amount of tolerance on the steel bar, i.e. by h11.

# Method of Indicating Surface Finish to DIN ISO 1302 General Tolerances to DIN ISO 2768 T1 and T2



## Method of Indicating Surface Finish to DIN ISO 1302

| Graphical symbol of surface finish to DIN 3141 | Surface finish values, Ra for permissible roughness height Rt assignment according to DIN 3141 |        | Surface finish values, Ra for permissible roughness height Rt meaning according to ISO 1302         |
|--|--|--------|---|
|  | line 1   | line 2 |   |
| (Surface without graphical symbol)<br>         |  |        | Surfaces which do not need to meet specific requirements  |
|  |  |        | Surfaces which only have to meet requirements of general evenness and better appearance             |
|  |  |        | Individual raw surfaces which may be remachined   |
|  |  |        | Clean raw surface with higher requirements  |
|  |  |        | Surface with a roughness value which must not exceed the highest permissible medium roughness value |
|  |  |        |   |
|  |  |        |   |

- KIPP products are adapted and manufactured in such a way that they are suitable for their general purpose with reference to material and surface finish. As such, they meet all normal tolerance requirements.

- All dimensions are indicated in mm.

- The latest DIN standard sheet version applies to all parts made to DIN standards.

- Variations on dimensions without tolerance values are according to "DIN ISO 2768-mk".

## General Tolerances for Linear and Angular Dimensions (DIN ISO 2768 T1)

| Tolerance class |             | Linear Dimensions  |                |                 |                   |                    |                     |                      |                      |
|-----------------|-------------|--|----------------|-----------------|-------------------|--------------------|---------------------|----------------------|----------------------|
|                 |             | Permissible deviations in mm for ranges of nominal sizes |                |                 |                   |                    |                     |                      |                      |
| designation     | description | 0.5 up to 3  | over 3 up to 6 | over 6 up to 30 | over 30 up to 120 | over 120 up to 400 | over 400 up to 1000 | over 1000 up to 2000 | over 2000 up to 4000 |
| f               | fine        | ± 0.05   | ± 0.05         | ± 0.1           | ± 0.15            | ± 0.2              | ± 0.3               | ± 0.5                | -                    |
| m               | medium      | ± 0.1  | ± 0.1          | ± 0.2           | ± 0.3             | ± 0.5              | ± 0.8               | ± 1.2                | ± 2                  |
| c               | coarse      | ± 0.2  | ± 0.3          | ± 0.5           | ± 0.8             | ± 1.2              | ± 2                 | ± 3                  | ± 4                  |
| v               | very coarse | -  | ± 0.5          | ± 1             | ± 1.5             | ± 2.5              | ± 4                 | ± 6                  | ± 8                  |

| Tolerance class |             | External Radii and Chamfer Heights                       |                |        | Angular Dimensions |                  |                   |                    |          |
|-----------------|-------------|--|----------------|--------|--------------------|------------------|-------------------|--------------------|----------|
|                 |             | Permissible deviations in mm for ranges of nominal sizes |                |        |                    |                  |                   |                    |          |
| designation     | description | 0.5 up to 3  | over 3 up to 6 | over 6 | over 10            | over 10 up to 50 | over 50 up to 120 | over 120 up to 400 | over 400 |
| f               | fine        | ± 0.2  | ± 0.5          | ± 1    | ± 1°               | ± 0°30'          | ± 0°20'           | ± 0°10'            | ± 0°5'   |
| m               | medium      | ± 0.2  | ± 0.5          | ± 1    | ± 1°               | ± 0°30'          | ± 0°20'           | ± 0°10'            | ± 0°5'   |
| c               | coarse      | ± 0.4  | ± 1            | ± 2    | ± 1°30'            | ± 1°             | ± 0°30'           | ± 0°15'            | ± 0°10'  |
| v               | very coarse | ± 0.4  | ± 1            | ± 2    | ± 3°               | ± 2°             | ± 1°              | ± 0°30'            | ± 0°20'  |

## General Tolerances for Form and Position (DIN ISO 2768 T2)

| Tolerance class | Straightness and Flatness     |                  |                   |                    |                     |                      | Perpendicularity              |                    |                     |                      | Symmetry                      |                    |                     |                      | Run-out |
|-----------------|-------------------------------|------------------|-------------------|--------------------|---------------------|----------------------|-------------------------------|--------------------|---------------------|----------------------|-------------------------------|--------------------|---------------------|----------------------|---------|
|                 | Ranges of nominal sizes in mm |                  |                   |                    |                     |                      | Ranges of nominal sizes in mm |                    |                     |                      | Ranges of nominal sizes in mm |                    |                     |                      |         |
|                 | up to 10                      | over 10 up to 30 | over 30 up to 100 | over 100 up to 300 | over 300 up to 1000 | over 1000 up to 3000 | up to 100                     | over 100 up to 300 | over 300 up to 1000 | over 1000 up to 3000 | up to 100                     | over 100 up to 300 | over 300 up to 1000 | over 1000 up to 3000 |         |
| H               | 0.02                          | 0.05             | 0.1               | 0.2                | 0.3                 | 0.4                  | 0.2                           | 0.3                | 0.4                 | 0.5                  | 0.5                           | 0.5                | 0.5                 | 0.5                  | 0.1     |
| K               | 0.05                          | 0.1              | 0.2               | 0.4                | 0.6                 | 0.8                  | 0.4                           | 0.6                | 0.8                 | 1                    | 0.6                           | 0.6                | 0.8                 | 1                    | 0.2     |
| L               | 0.1                           | 0.2              | 0.4               | 0.8                | 1.2                 | 1.6                  | 0.6                           | 1                  | 1.5                 | 2                    | 0.6                           | 1                  | 1.5                 | 2                    | 0.5     |

# Customer Questionnaire

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- Rapid order processing, also for further questions and technical advice.
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### Information for company communications

Firm's address

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Customer No.

Address (please do not give a postbox)

Postcode City

Sector

Order processing via EDI

Size of business (number of employees)

- 1 up to 10     100 up to 500  
 10 up to 25     500 up to 1000  
 25 up to 100     over 1000

### Information about yourself

My personal contact information

Title  Mrs.  Mr.

Surname

First name

Department

Business telephone number in case of queries

Business mobile telephone Fax

E-Mail address

Functional department

- Management  
 R & D / Research and Development  
 Production  
 Engineering department  
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 Technical purchasing  
 Planning  
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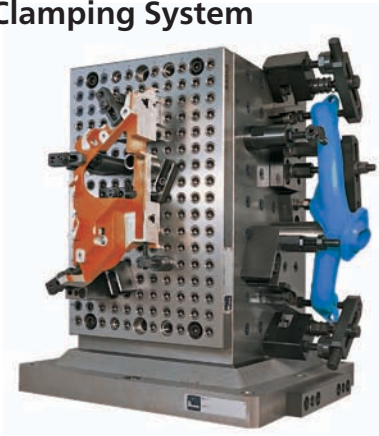


# Workholding systems

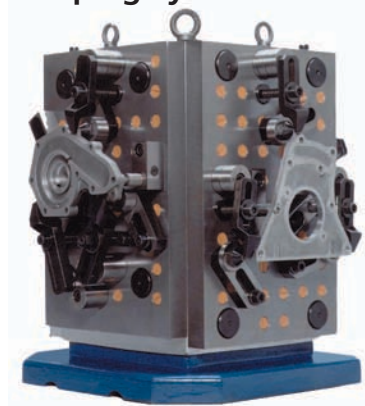


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## Modular Clamping System



## Multi Clamping System

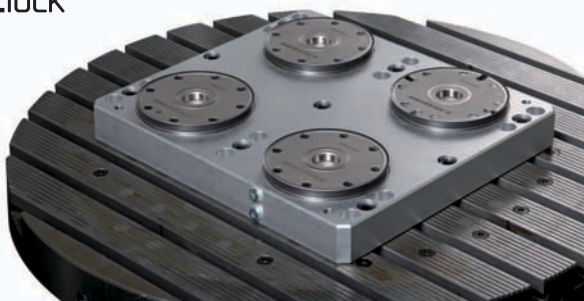


## One Touch Clamping System



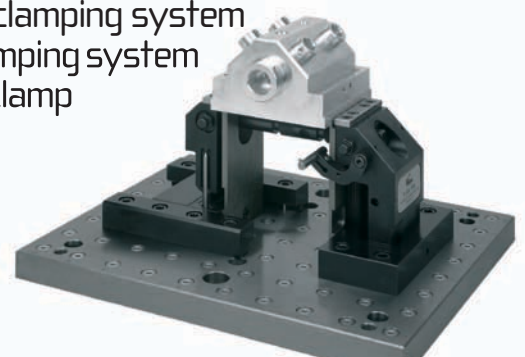
## Zero Point Clamping System

**ZERO**lock  
**BALL**lock



## Vice Clamping System

**POSITIVE**clamping system  
**5AXIS**clamping system  
**CENTRIC**clamp





# Your way to KIPP



## Route to Sulz-Holzhausen

### By car.

A 81 Stuttgart-Singen, exit Sulz a.N.  
 Left on to L 409  
 Right on to K 5505 and K 5508 to Holzhausen

From Switzerland  
 Zurich A 1/A 4 direction Schaffhausen-Süd  
 Exit A 4/15 direction border crossing  
 A 81 direction Stuttgart exit Sulz a.N.

From France  
 Strasbourg border crossing Kehl  
 B 28 to Freudenstadt  
 B 294 to Lossburg  
 L 412 to Leinstetten  
 L 409 to Sulz

### By plane.

Stuttgart Airport, Kloten Zurich, Euro-Airport  
 Basel, Baden Airport Rheinmünster-Söllingen



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