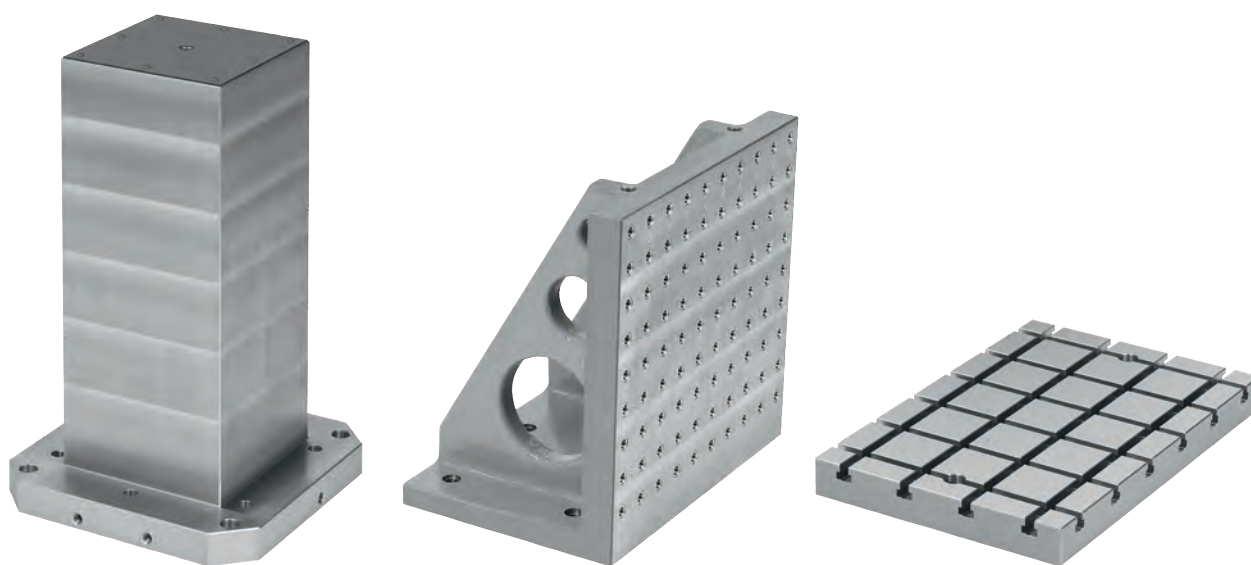
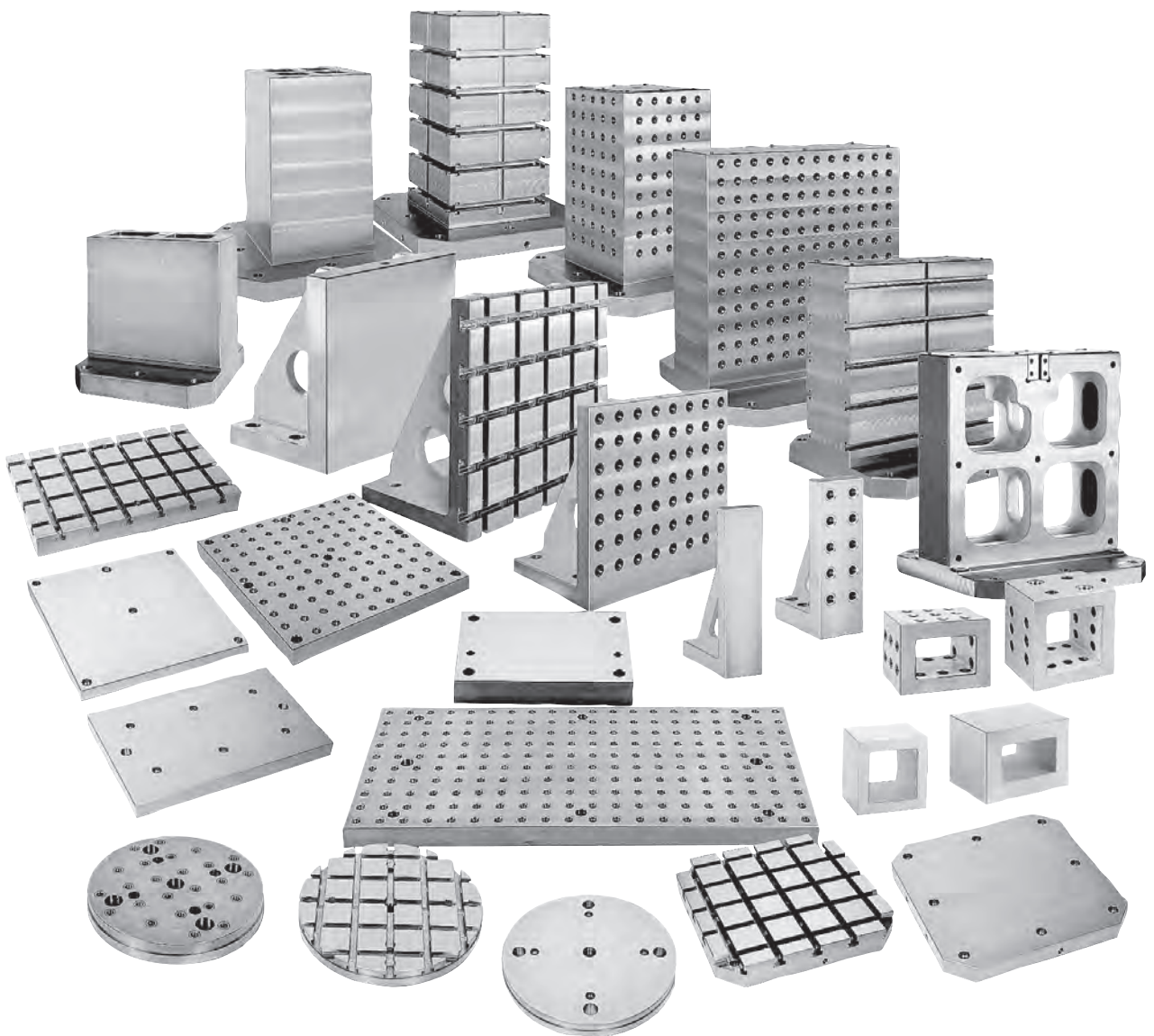
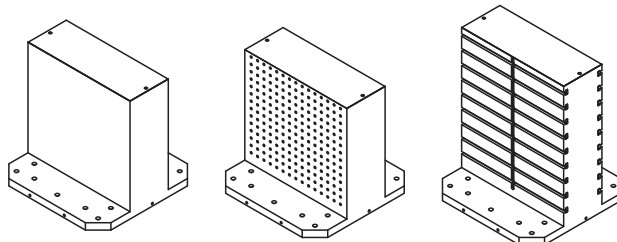
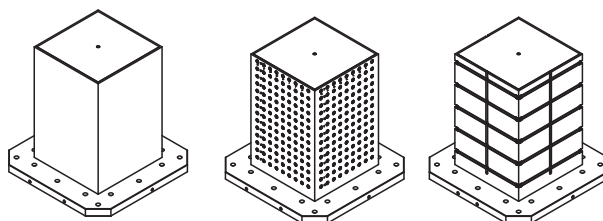
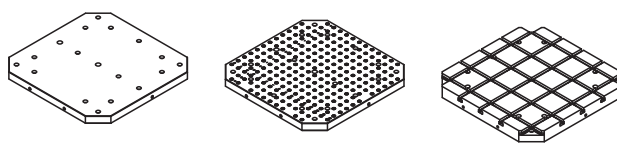


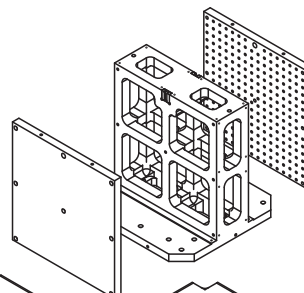
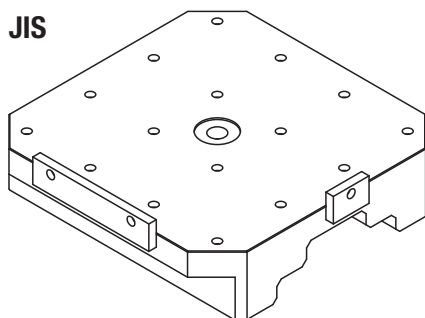
## Basic elements



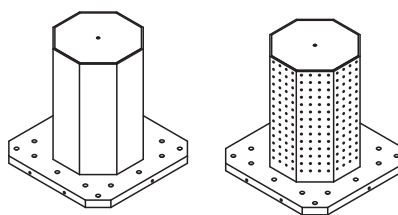
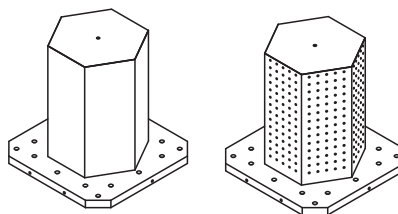
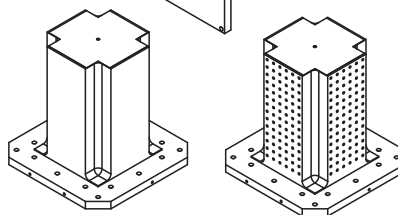
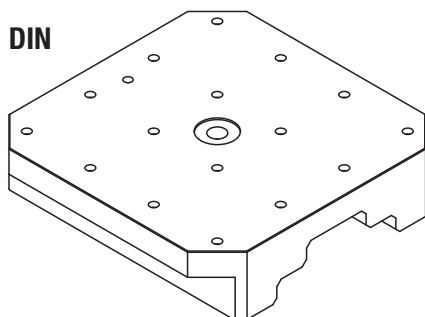




**JIS**



**DIN**



# Positioning the base elements

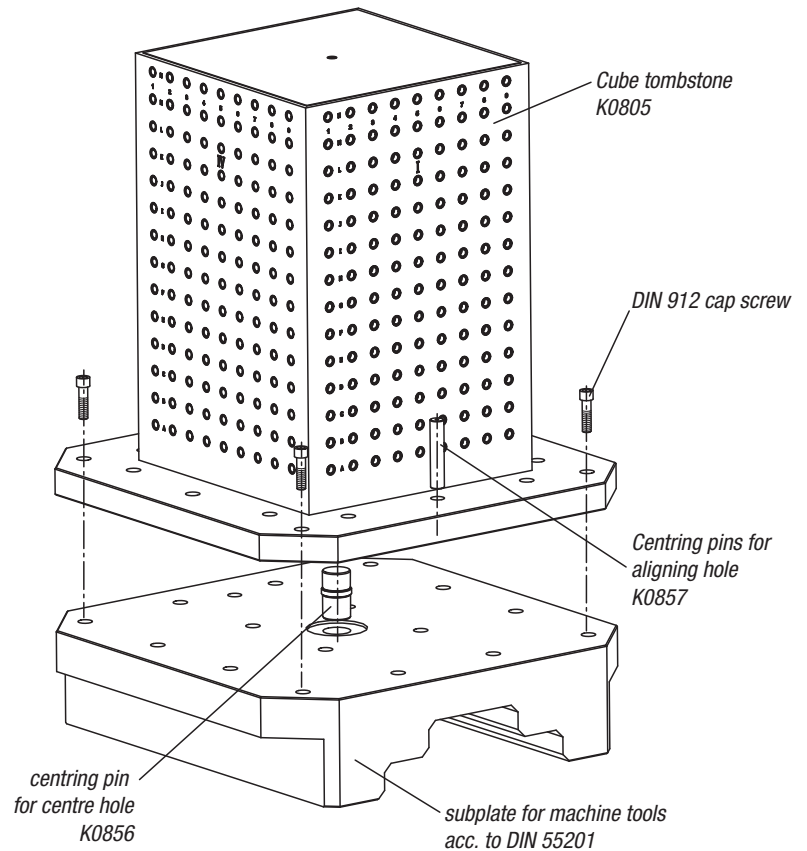


Single side tombstone K0802, double side tombstone K0803, cube tombstone K0805 and subplates K0806 have two positioning options:

## a) Positioning on subplates for machine-tools acc. to DIN 55 201.

### Positioning procedure:

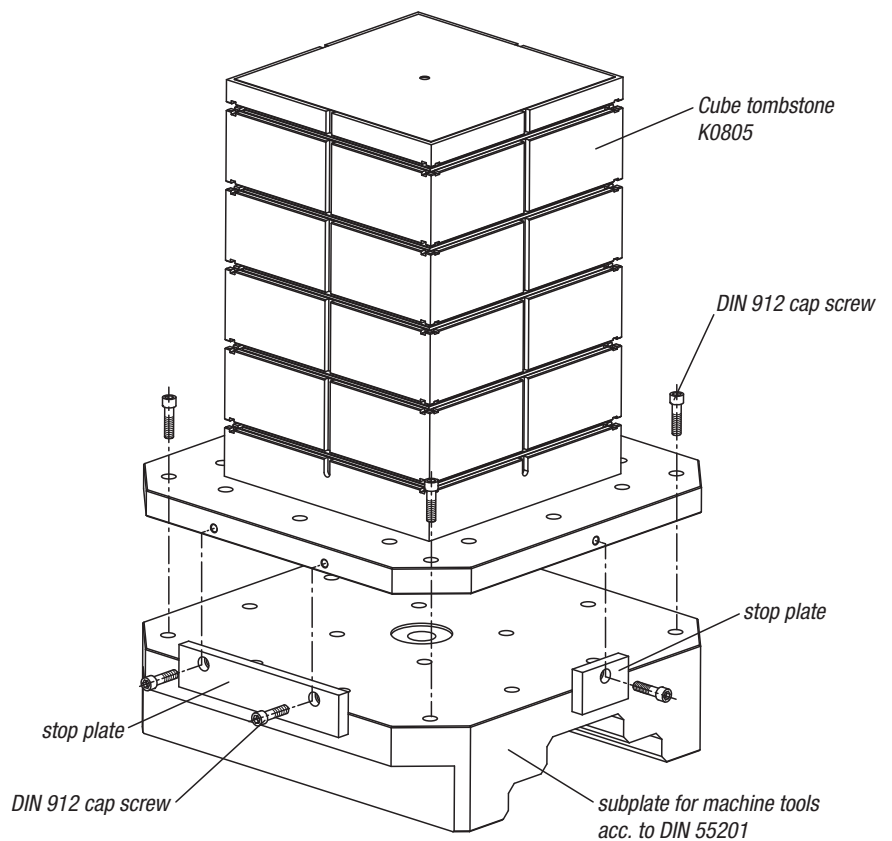
1. Insert locating pin in the centre bore of the subplate.
2. Position the tombstones, cube tombstones and subplates over the central hole.
3. Use the locating pin for the aligning hole to align the basic elements.



## b) Positioning on subplates for machine tools acc. to JIS 6337-1980.

### Positioning procedure:

1. Mount stop plates on the machine table.
2. Attach stop points to the reference faces (stop plates) using socket head screws.

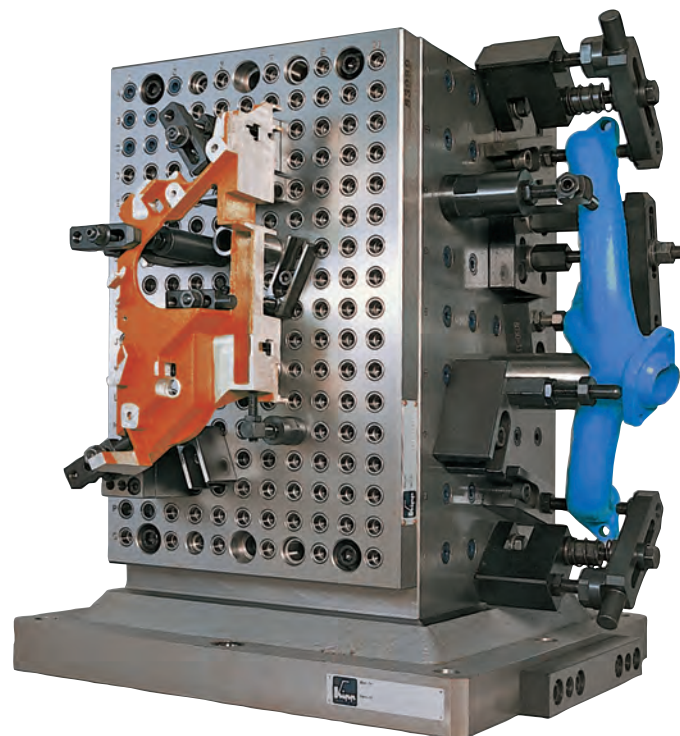
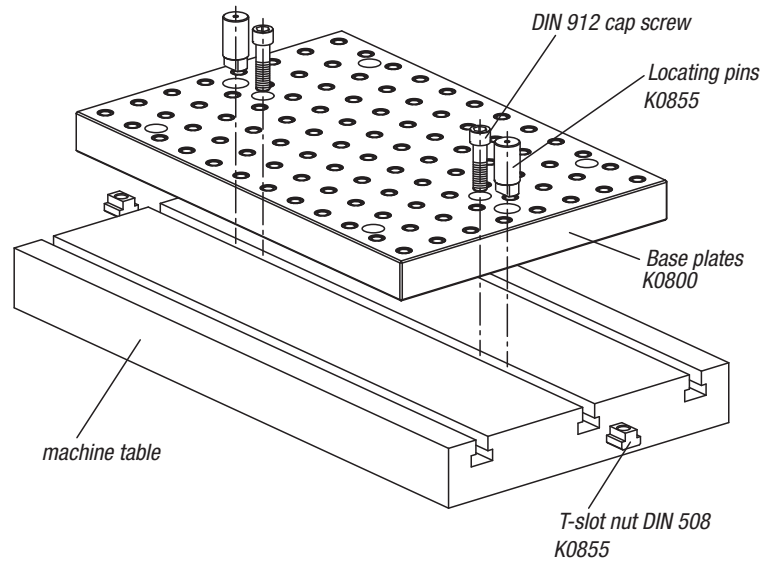


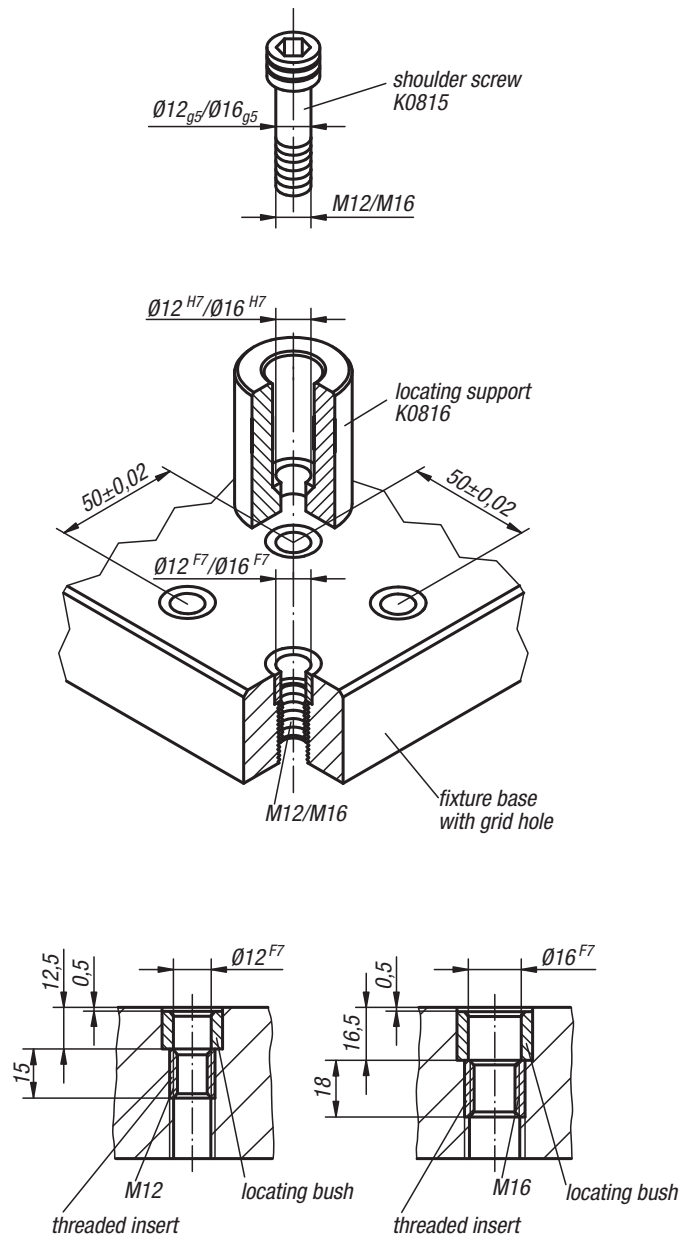
# Positioning base elements on machine tables



Locating pins are used for positioning tooling plates K0800. The tooling plates each have four precision holes for the locating pins (two holes on each axis).

An M6 screw inserted into the head of the locating pin is used to insert this pin accurately into the T-slots or to remove it.





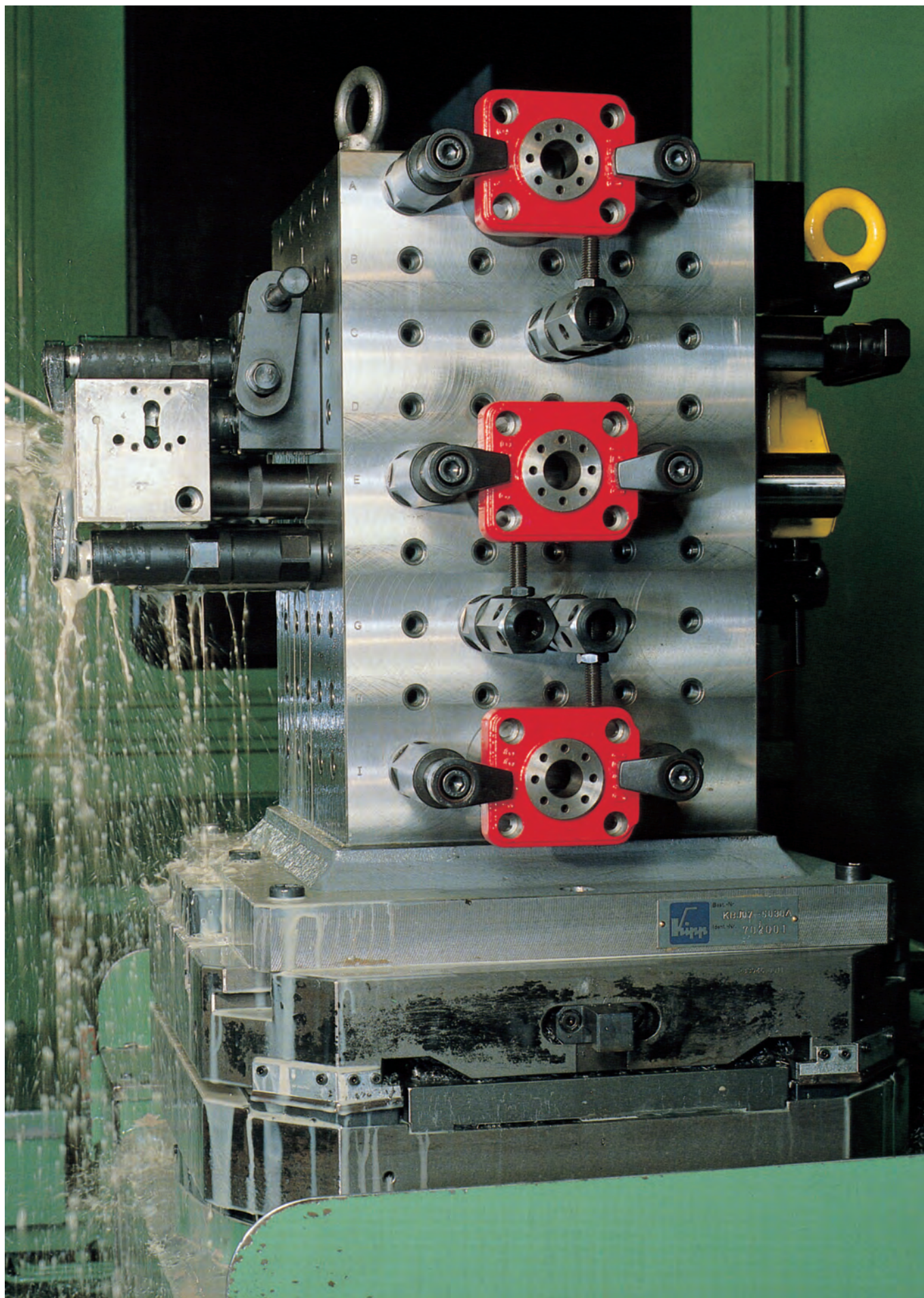
## Grid hole:

The characteristic feature of the grid hole is its dual function: the coaxial arrangement of the locating and the threaded parts allows positioning and fastening at the same time with one grid hole (see illustrations). As a result, the size of the fixture elements can be reduced to a minimum and their flexibility increased accordingly.

Each grid hole consists of two parts:

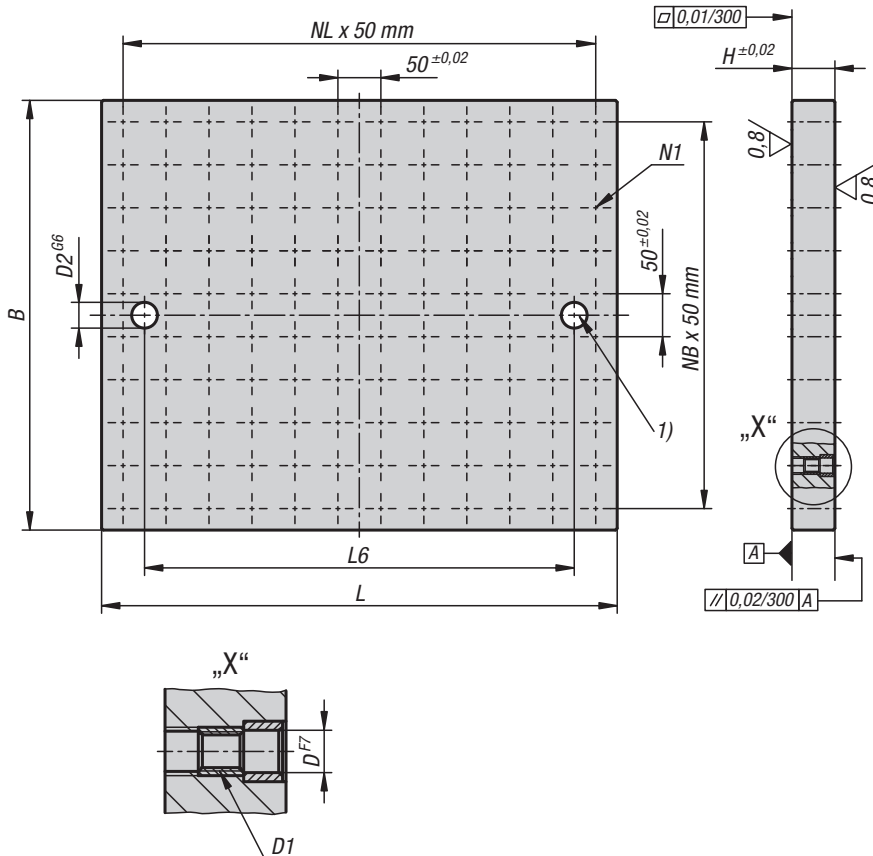
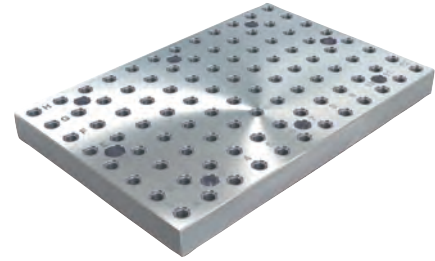
- reamed bush. Material: hardened tool steel.
- threaded insert. Material: carbon steel, tempered to ca. 1100-1300 N/mm<sup>2</sup>.

Since the reamed bushes are recessed 0.5 mm from the surface of the fixture bases, the mounting surfaces can be re-machined in the event of wear.



## Baseplates, grey cast iron

with grid holes



**Material:**  
GJL 300.

**Version:**  
Support and mounting surfaces ground

**Sample order:**  
K0800.21240060

**Note:**  
Grid spacing  $50 \pm 0.02$  mm.  
Baseplates with grid holes are used for constructing modular fixtures. These baseplates are positioned and mounted directly on machine tables. The two aligning holes are used to align the baseplate on the machine table. Fastening holes are produced by the customer to suit their machine table. The alphanumerically labelled grid holes guarantee a defined assignment of clamping elements by repeat setups. Please order positioning pins to equip the baseplates separately. Please order protection plugs to plug unused grid holes separately.. Ring bolts for hoisting are supplied. Other dimensions available on request.

**Drawing reference:**  
1) locating hole

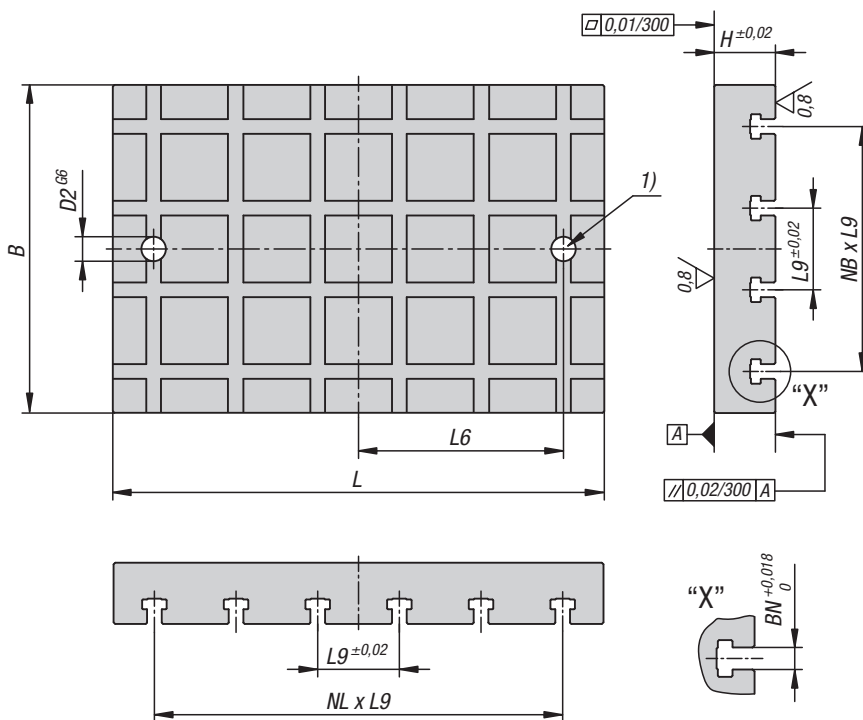
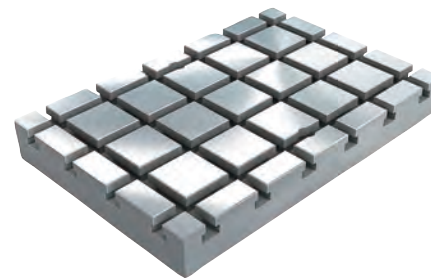
### KIPP Baseplates, grey cast iron with grid holes

| Order No.      | L    | B   | H  | L6   | D  | D1  | D2 | N1=No. of grid holes | NL=No. lengthwise | NB=No. across |
|----------------|------|-----|----|------|----|-----|----|----------------------|-------------------|---------------|
| K0800.21240060 | 600  | 400 | 50 | 500  | 12 | M12 | 30 | 96                   | 11                | 7             |
| K0800.21250060 | 600  | 500 | 50 | 500  | 12 | M12 | 30 | 120                  | 11                | 9             |
| K0800.21260060 | 600  | 600 | 50 | 500  | 12 | M12 | 30 | 144                  | 11                | 11            |
| K0800.21240080 | 800  | 400 | 50 | 700  | 12 | M12 | 30 | 128                  | 15                | 7             |
| K0800.21245090 | 900  | 450 | 50 | 800  | 12 | M12 | 30 | 158                  | 17                | 8             |
| K0800.21250100 | 1000 | 500 | 50 | 900  | 12 | M12 | 30 | 200                  | 19                | 9             |
| K0800.21260120 | 1200 | 600 | 50 | 1100 | 12 | M12 | 30 | 288                  | 23                | 11            |
| K0800.21640060 | 600  | 400 | 50 | 500  | 16 | M16 | 30 | 96                   | 11                | 7             |
| K0800.21650060 | 600  | 500 | 50 | 500  | 16 | M16 | 30 | 120                  | 11                | 9             |
| K0800.21660060 | 600  | 600 | 50 | 500  | 16 | M16 | 30 | 144                  | 11                | 11            |
| K0800.21640080 | 800  | 400 | 50 | 700  | 16 | M16 | 30 | 128                  | 15                | 7             |
| K0800.21645090 | 900  | 450 | 50 | 800  | 16 | M16 | 16 | 158                  | 17                | 8             |
| K0800.21650100 | 1000 | 500 | 50 | 900  | 16 | M16 | 30 | 200                  | 19                | 9             |
| K0800.21660120 | 1200 | 600 | 50 | 1100 | 16 | M16 | 30 | 288                  | 23                | 11            |



## Baseplates, grey cast iron

with T-slots



**Material:**  
GJL 300.

**Version:**  
Support and mounting surfaces ground

**Sample order:**  
K0800.31440060

**Note:**  
Baseplates with T-slots are used for constructing modular fixtures. These baseplates are positioned and mounted directly on machine tables. The precise longitudinal and transverse slot spacing ensures very high repeat clamping accuracy. The two aligning holes are used to align the baseplate on the machine table. Fastening holes are produced by the customer to suit their machine table. Please order positioning pins to equip the baseplates separately. Ring bolts with T-nuts for hoisting are supplied. Other dimensions available on request.

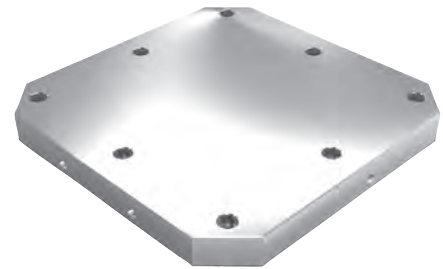
**Drawing reference:**  
1) locating hole

### KIPP Baseplates, grey cast iron with T-slots

| Order No.<br>BN=slot width 14 | Order No.<br>BN=slot width 18 | L    | B   | H     | D2 | L6   | L9  | NL=No.<br>lengthwise | NB=No.<br>across |
|-------------------------------|-------------------------------|------|-----|-------|----|------|-----|----------------------|------------------|
| K0800.31440060                | K0800.31840060                | 600  | 400 | 60/75 | 30 | 500  | 100 | 5                    | 3                |
| K0800.31450060                | K0800.31850060                | 600  | 500 | 60/75 | 30 | 500  | 100 | 5                    | 4                |
| K0800.31460060                | K0800.31860060                | 600  | 600 | 60/75 | 30 | 500  | 100 | 5                    | 5                |
| K0800.31440080                | K0800.31840080                | 800  | 400 | 60/75 | 30 | 700  | 100 | 7                    | 3                |
| K0800.31445090                | K0800.31845090                | 900  | 450 | 60/75 | 30 | 800  | 100 | 8                    | 3                |
| K0800.31450100                | K0800.31850100                | 1000 | 500 | 60/75 | 30 | 900  | 100 | 9                    | 4                |
| K0800.31460120                | K0800.31860120                | 1200 | 600 | 60/75 | 30 | 1100 | 100 | 11                   | 5                |

# Subplates, grey cast iron

with pre-machined clamping faces



**Material:**

GJL 300.

**Version:**

Support and mounting surfaces ground

**Sample order:**

K0806.1004040

**Note:**

Subplates with pre-machined clamping faces provide a quick and economic way of producing bodies with specific grid or individual holes. The subplates conform to machine tables for machine tools acc. to DIN 55201 and JIS 6337-1980.

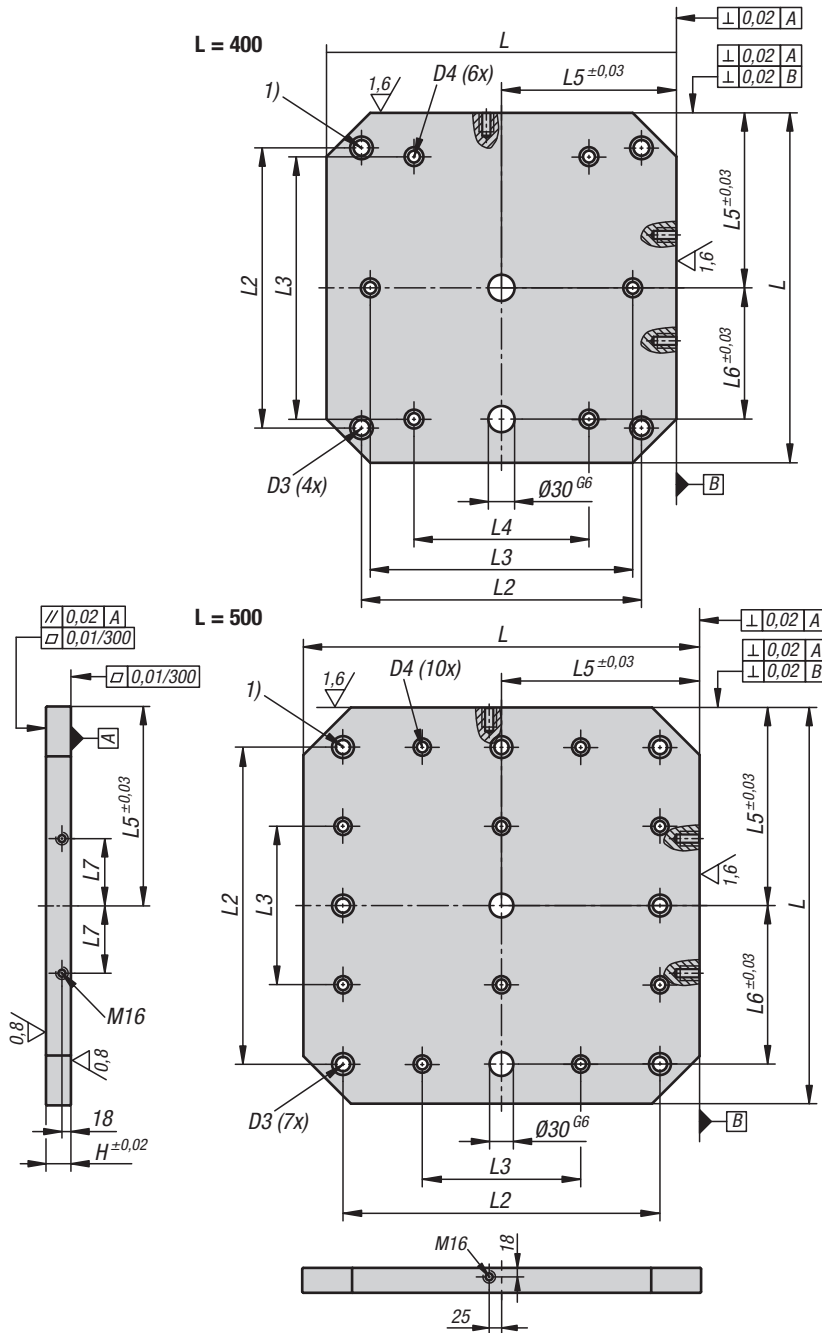
Please order locating pins for positioning subplates on machine tables acc. to DIN 55201 separately.

Ring bolts for hoisting are supplied.

Other dimensions available on request.

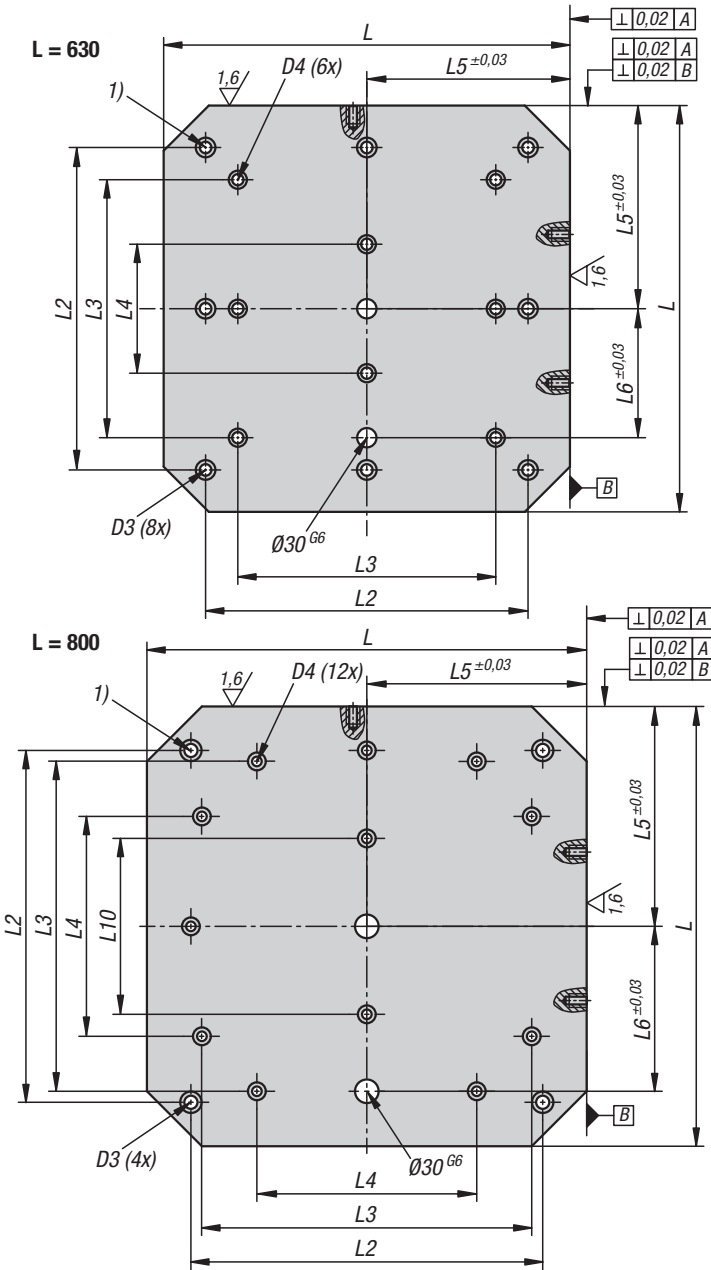
**Drawing reference:**

1) hole for DIN 912 cap screw (D3/D4)



# Subplates, grey cast iron

with pre-machined clamping faces

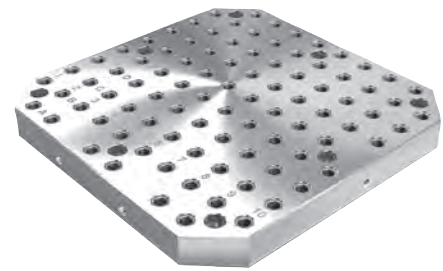


## KIPP Subplates, grey cast iron with pre-machined clamping faces

| Order No.     | L   | H  | D3  | D4  | L2  | L3  | L4  | L5  | L6  | L7  | L10 |
|---------------|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| K0806.1004040 | 400 | 50 | M16 | M12 | 320 | 300 | 200 | 200 | 150 | 55  | -   |
| K0806.1005050 | 500 | 50 | M16 | M12 | 400 | 200 | -   | 250 | 200 | 75  | -   |
| K0806.1006363 | 630 | 50 | M16 | M16 | 500 | 400 | 200 | 315 | 200 | 100 | -   |
| K0806.1008080 | 800 | 50 | M16 | M16 | 640 | 600 | 400 | 400 | 300 | 135 | 320 |

## Subplates, grey cast iron

with grid holes



**Material:**  
GJL 300.

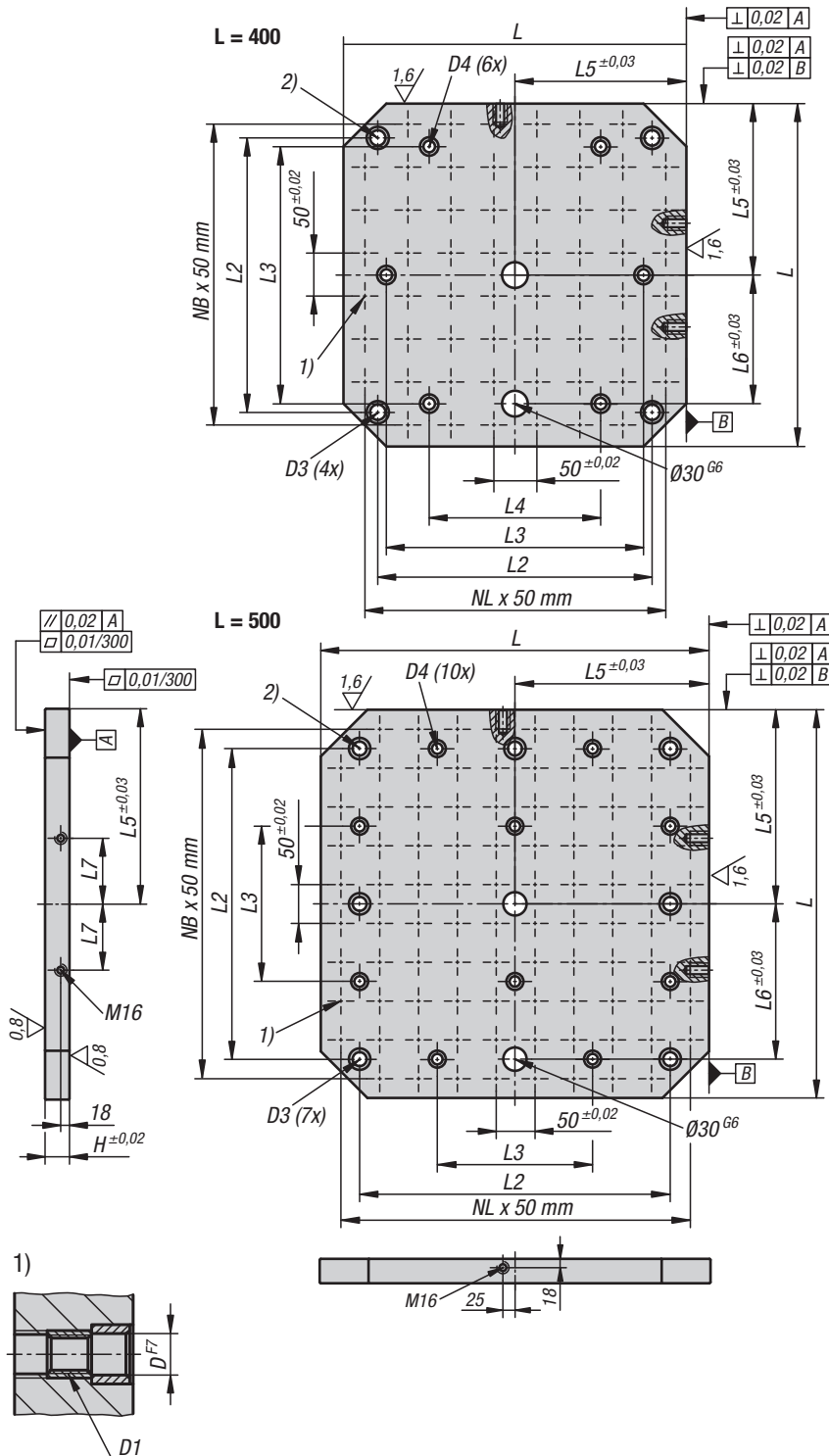
**Version:**  
Support and mounting surfaces ground

**Sample order:**  
K0806.2124040

**Note:**  
Grid spacing  $50 \pm 0.02$  mm.  
Plates with grid holes are used for constructing modular fixtures. These plates are positioned and fastened directly on machine tables.  
The alphanumerically labelled grid holes guarantee a defined assignment of clamping elements by repeat setups.  
The subplates conform to machine tables for machine tools acc. to DIN 55201 and JIS 6337-1980.  
Please order locating pins for positioning subplates on machine tables acc. to DIN 55201 separately.  
Please order protection plugs to plug unused grid holes separately.  
Ring bolts for hoisting are supplied.  
Other dimensions available on request.

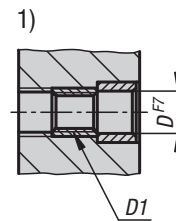
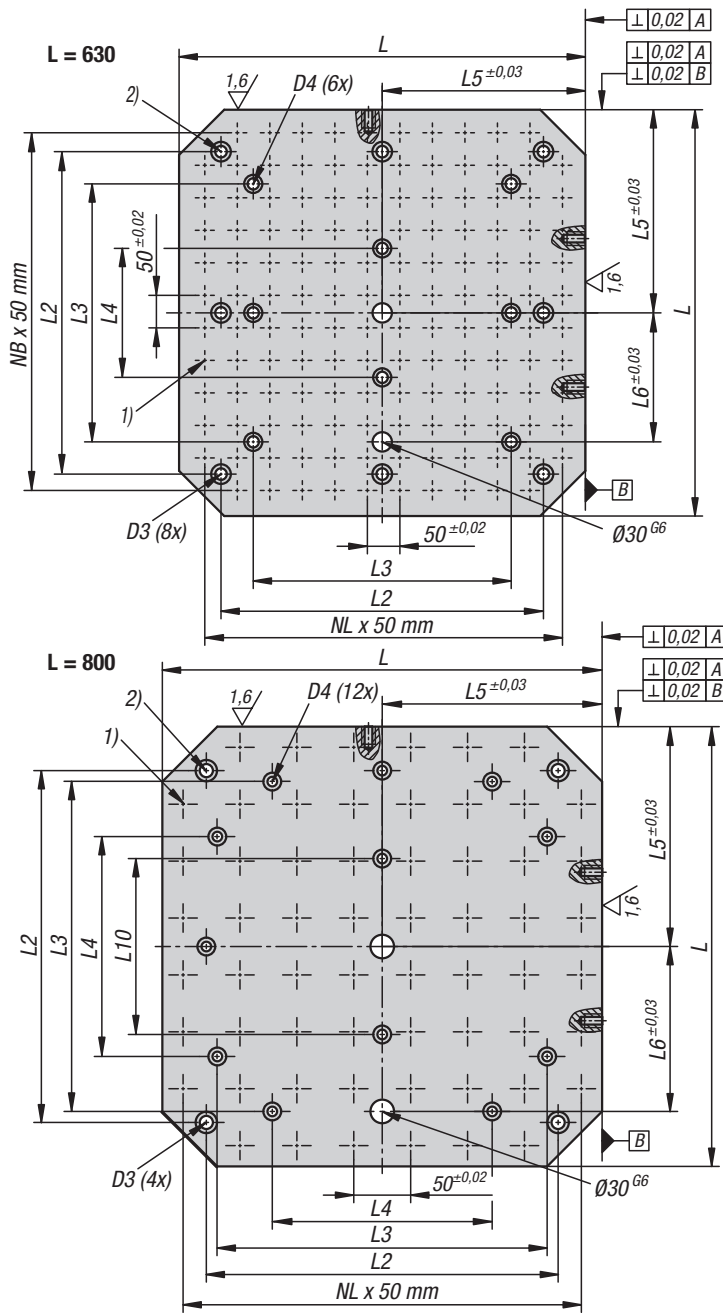
**Drawing reference:**

- 1) grid hole
- 2) hole for DIN 912 cap screw (D3/D4)



# Subplates, grey cast iron

with grid holes

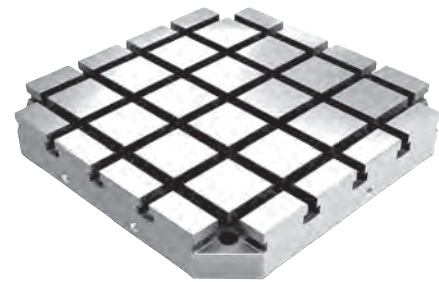


## KIPP Subplates, grey cast iron with grid holes

| Order No.     | L   | H  | D  | D1  | D3  | D4  | L2  | L3  | L4  | L5  | L6  | L7  | L10 | N1=No. of grid holes | NL=No. lengthwise | NB=No. across |
|---------------|-----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------------------|-------------------|---------------|
| K0806.2124040 | 400 | 50 | 12 | M12 | M16 | M12 | 320 | 300 | 200 | 200 | 150 | 55  | -   | 59                   | 7                 | 7             |
| K0806.2125050 | 500 | 50 | 12 | M12 | M16 | M12 | 400 | 200 | -   | 250 | 200 | 75  | -   | 93                   | 9                 | 9             |
| K0806.2126363 | 630 | 50 | 12 | M12 | M16 | M16 | 500 | 400 | 200 | 315 | 200 | 100 | -   | 139                  | 11                | 11            |
| K0806.2128080 | 800 | 50 | 12 | M12 | M16 | M16 | 640 | 600 | 400 | 400 | 300 | 135 | 320 | 237                  | 15                | 15            |
| K0806.2164040 | 400 | 50 | 16 | M16 | M16 | M12 | 320 | 300 | 200 | 200 | 150 | 55  | -   | 59                   | 7                 | 7             |
| K0806.2165050 | 500 | 50 | 16 | M16 | M16 | M12 | 400 | 200 | -   | 250 | 200 | 75  | -   | 93                   | 9                 | 9             |
| K0806.2166363 | 630 | 50 | 16 | M16 | M16 | M16 | 500 | 400 | 200 | 315 | 200 | 100 | -   | 139                  | 11                | 11            |
| K0806.2168080 | 800 | 50 | 16 | M16 | M16 | M16 | 640 | 600 | 400 | 400 | 300 | 135 | 320 | 237                  | 15                | 15            |

# Subplates, grey cast iron

with T-slots



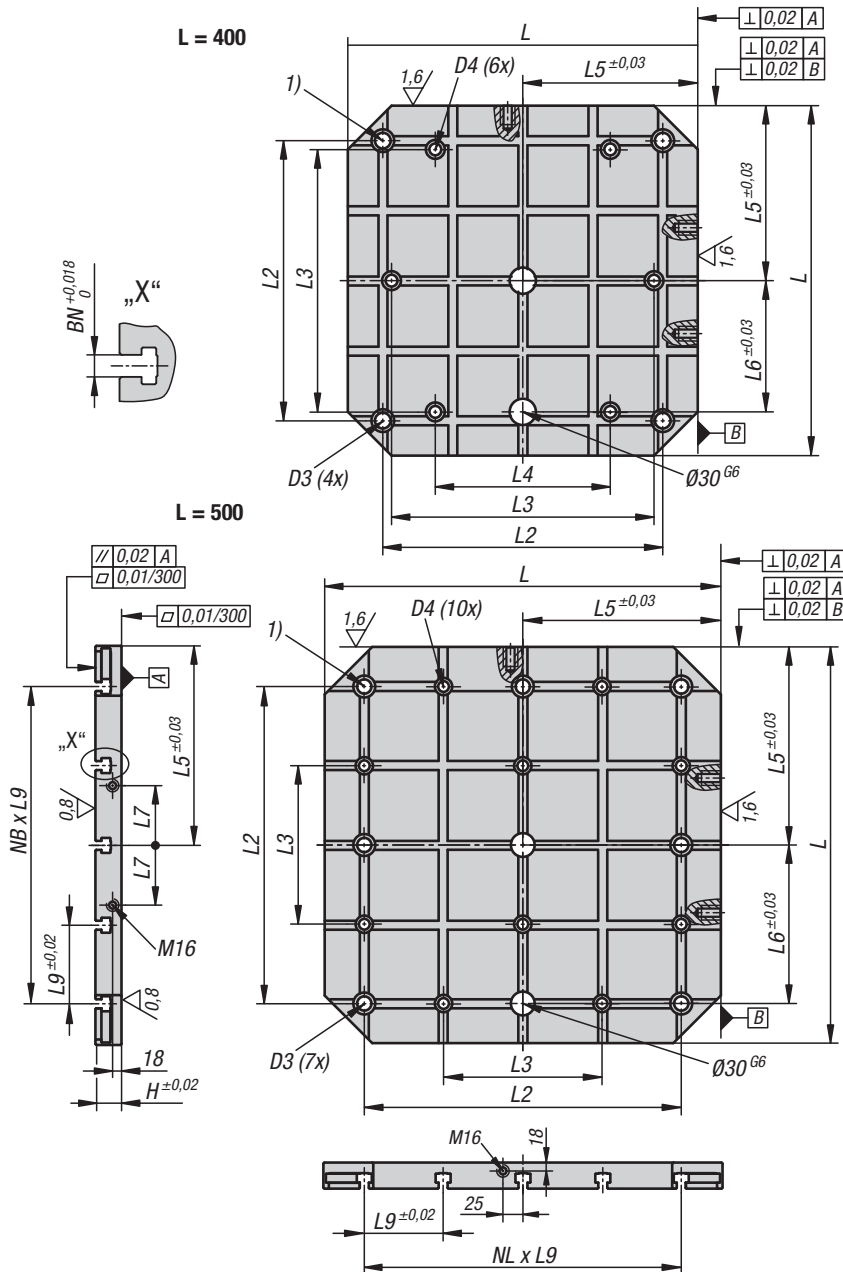
**Material:**  
GJL 300.

**Version:**  
Support and mounting surfaces ground

**Sample order:**  
K0806.3144040

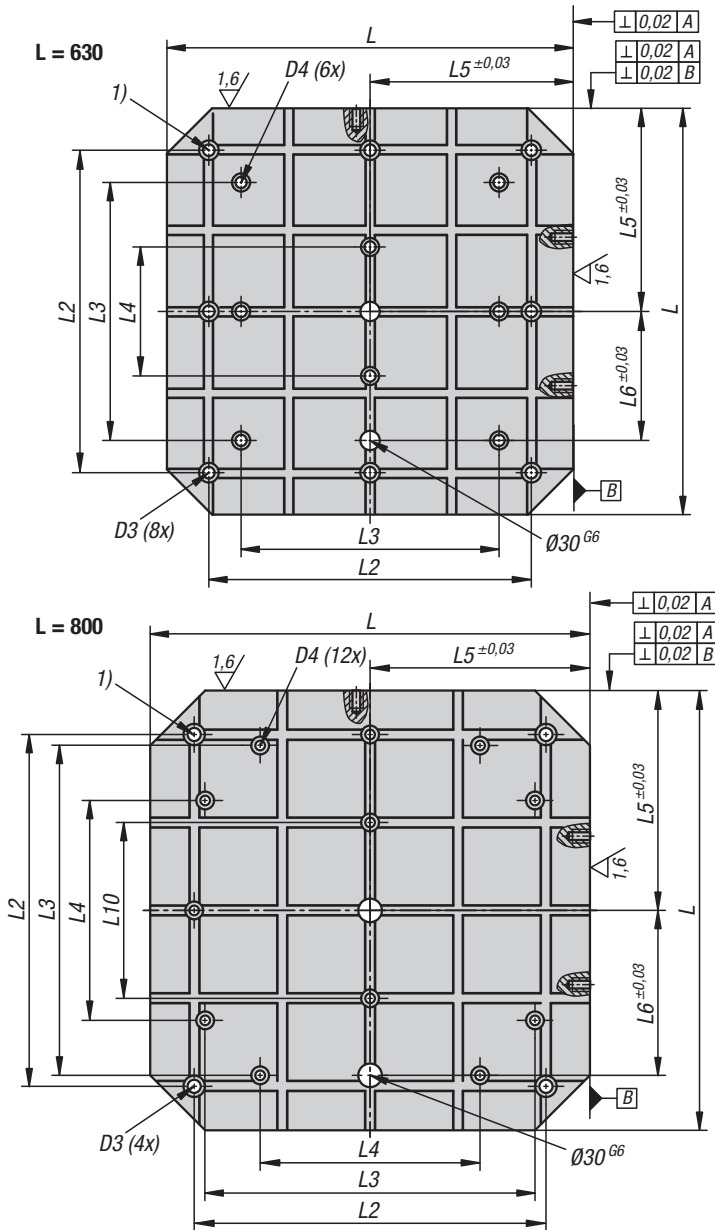
**Note:**  
Subplates with T-slots are used for constructing modular fixtures. These subplates are positioned and fastened directly on machine tables. The precise longitudinal and transverse slot spacing ensures very high repeat clamping accuracy. The subplates conform to machine tables for machine tools acc. to DIN 55201 and JIS 6337-1980. Please order locating pins for positioning subplates on machine tables acc. to DIN 55201 separately. Ring bolts with T-nuts for hoisting are supplied. Other dimensions available on request.

**Drawing reference:**  
1) hole for DIN 912 cap screw (D3/D4)



## Subplates, grey cast iron

with T-slots



### KIPP Subplates, grey cast iron with T-slots

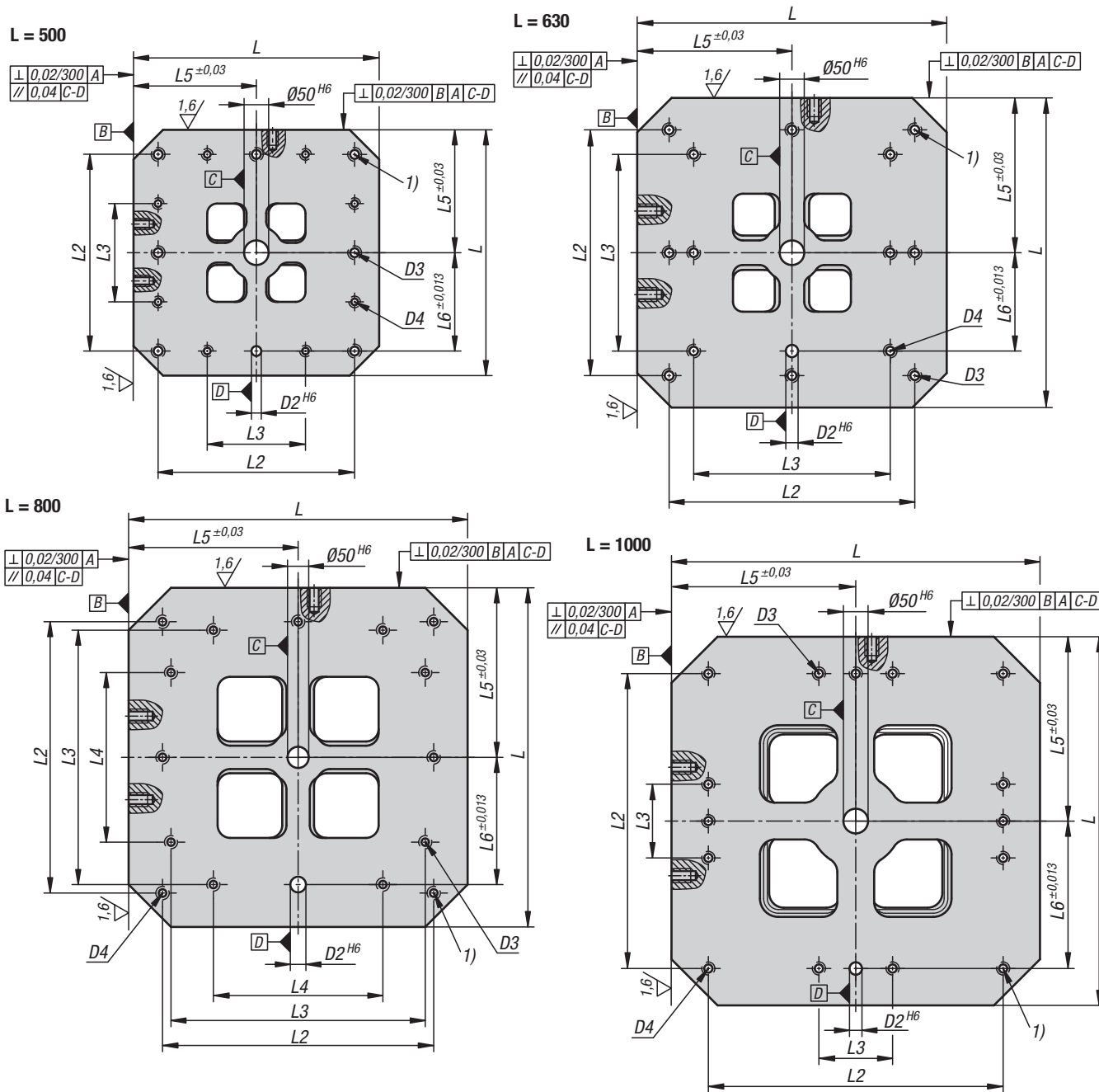
| Order No.     | L   | H  | D3  | D4  | L2  | L3  | L4  | L5  | L6  | L7  | L9  | L10 | Slot width | NL=No. lengthwise | NB=No. across |
|---------------|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------------|-------------------|---------------|
| K0806.3144040 | 400 | 60 | M16 | M12 | 320 | 300 | 200 | 200 | 150 | 55  | 80  | -   | 14         | 4                 | 4             |
| K0806.3145050 | 500 | 60 | M16 | M12 | 400 | 200 | -   | 250 | 200 | 75  | 100 | -   | 14         | 4                 | 4             |
| K0806.3146363 | 630 | 60 | M16 | M16 | 500 | 400 | 200 | 315 | 200 | 100 | 125 | -   | 14         | 4                 | 4             |
| K0806.3148080 | 800 | 60 | M16 | M16 | 640 | 600 | 400 | 400 | 300 | 135 | 160 | 320 | 14         | 4                 | 4             |
| K0806.3184040 | 400 | 75 | M16 | M12 | 320 | 300 | 200 | 200 | 150 | 55  | 80  | -   | 18         | 4                 | 4             |
| K0806.3185050 | 500 | 75 | M16 | M12 | 400 | 200 | -   | 250 | 200 | 75  | 100 | -   | 18         | 4                 | 4             |
| K0806.3186363 | 630 | 75 | M16 | M16 | 500 | 400 | 200 | 315 | 200 | 100 | 125 | -   | 18         | 4                 | 4             |
| K0806.3188080 | 800 | 75 | M16 | M16 | 640 | 600 | 400 | 400 | 300 | 135 | 160 | 320 | 18         | 4                 | 4             |





## Workholding cubes, grey cast iron

with pre-machined clamping faces



KIPP Workholding cubes, grey cast iron with pre-machined clamping faces

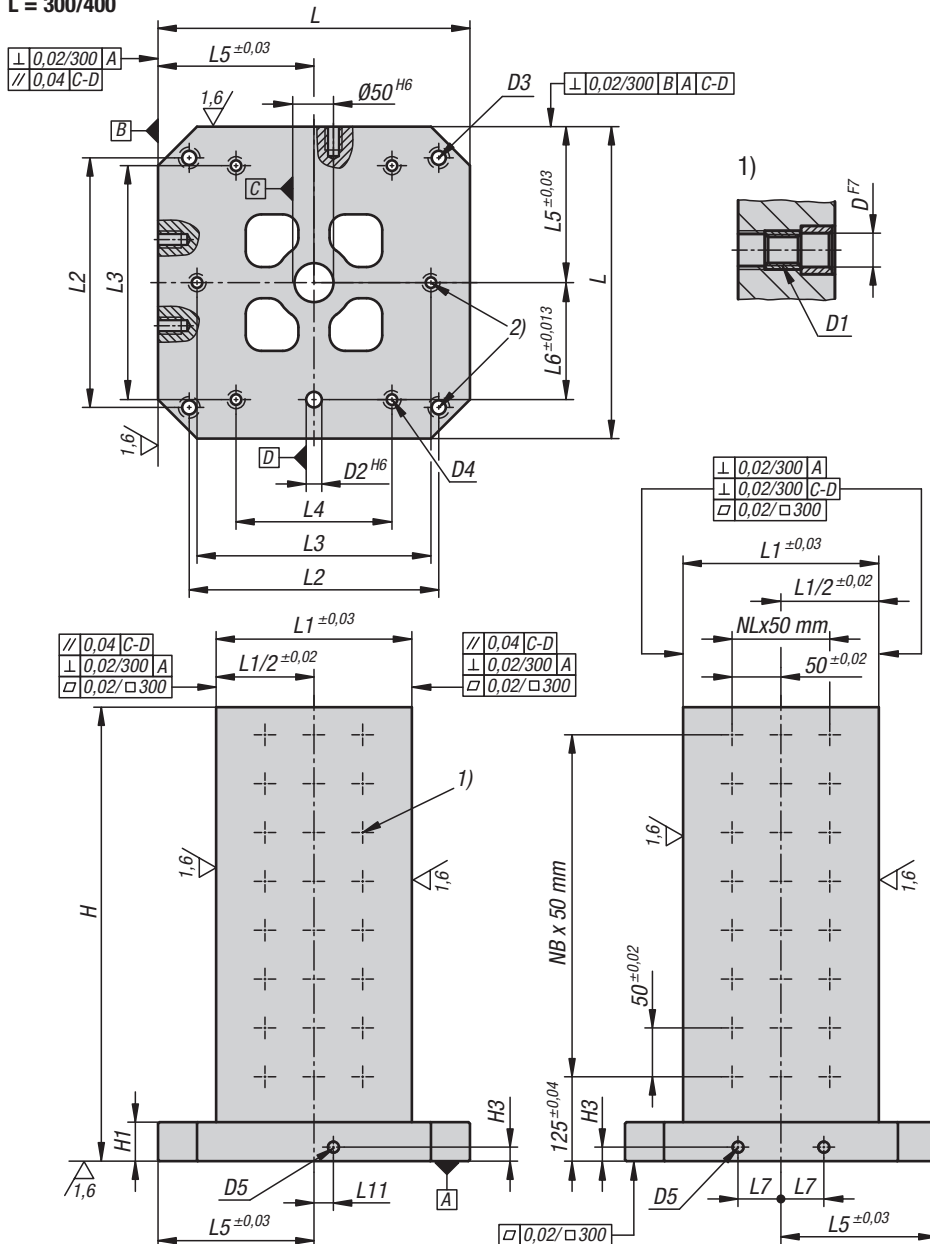
| Order No.       | L    | H    | H1 | D2 | D3  | D4  | D5  | H3 | L1  | L2  | L3  | L4  | L5  | L6  | L7  | L11 |
|-----------------|------|------|----|----|-----|-----|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|
| K0805.100030050 | 300  | 500  | 50 | 20 | M12 | M10 | M12 | 15 | 151 | 250 | 200 | -   | 150 | 100 | 40  | 0   |
| K0805.100040050 | 400  | 500  | 50 | 20 | M16 | M12 | M16 | 18 | 251 | 320 | 300 | 200 | 200 | 150 | 55  | 25  |
| K0805.100040065 | 400  | 650  | 50 | 20 | M16 | M12 | M16 | 18 | 251 | 320 | 300 | 200 | 200 | 150 | 55  | 25  |
| K0805.100050060 | 500  | 600  | 50 | 20 | M16 | M12 | M16 | 18 | 301 | 400 | 200 | -   | 250 | 200 | 75  | 25  |
| K0805.100050075 | 500  | 750  | 50 | 20 | M16 | M12 | M16 | 18 | 301 | 400 | 200 | -   | 250 | 200 | 75  | 25  |
| K0805.100063070 | 630  | 700  | 50 | 25 | M16 | M16 | M16 | 18 | 351 | 500 | 400 | -   | 315 | 200 | 100 | 25  |
| K0805.100063085 | 630  | 850  | 50 | 25 | M16 | M16 | M16 | 18 | 351 | 500 | 400 | -   | 315 | 200 | 100 | 25  |
| K0805.100080080 | 800  | 800  | 50 | 25 | M16 | M16 | M16 | 18 | 501 | 640 | 600 | 400 | 400 | 300 | 135 | 25  |
| K0805.100080100 | 800  | 1000 | 50 | 25 | M16 | M16 | M16 | 18 | 501 | 640 | 600 | 400 | 400 | 300 | 135 | 25  |
| K0805.100100100 | 1000 | 1000 | 55 | 25 | M20 | M20 | M16 | 18 | 601 | 800 | 200 | -   | 500 | 400 | 165 | 25  |
| K0805.100100125 | 1000 | 1250 | 55 | 25 | M20 | M20 | M16 | 18 | 601 | 800 | 200 | -   | 500 | 400 | 165 | 25  |

## Workholding cubes, grey cast iron

with grid holes



L = 300/400



**Material:**  
GJL 300.

**Version:**  
Support and mounting surfaces precision machined

**Sample order:**  
K0805.212030050

**Note:**  
Grid spacing  $50 \pm 0,02$  mm.  
Tombstones with grid holes are used on horizontal machining centres.  
The alphanumerically labelled grid holes guarantee a defined assignment of clamping elements by repeat setups.  
The tombstones conform to machine tables for machine tools acc. to DIN 55201 and JIS 6337-1980.  
Please order locating pins for positioning subplates on machine tables acc. to DIN 55201 separately.  
Please order protection plugs to plug unused grid holes separately.  
Ring bolts for hoisting are supplied.  
Other dimensions available on request.

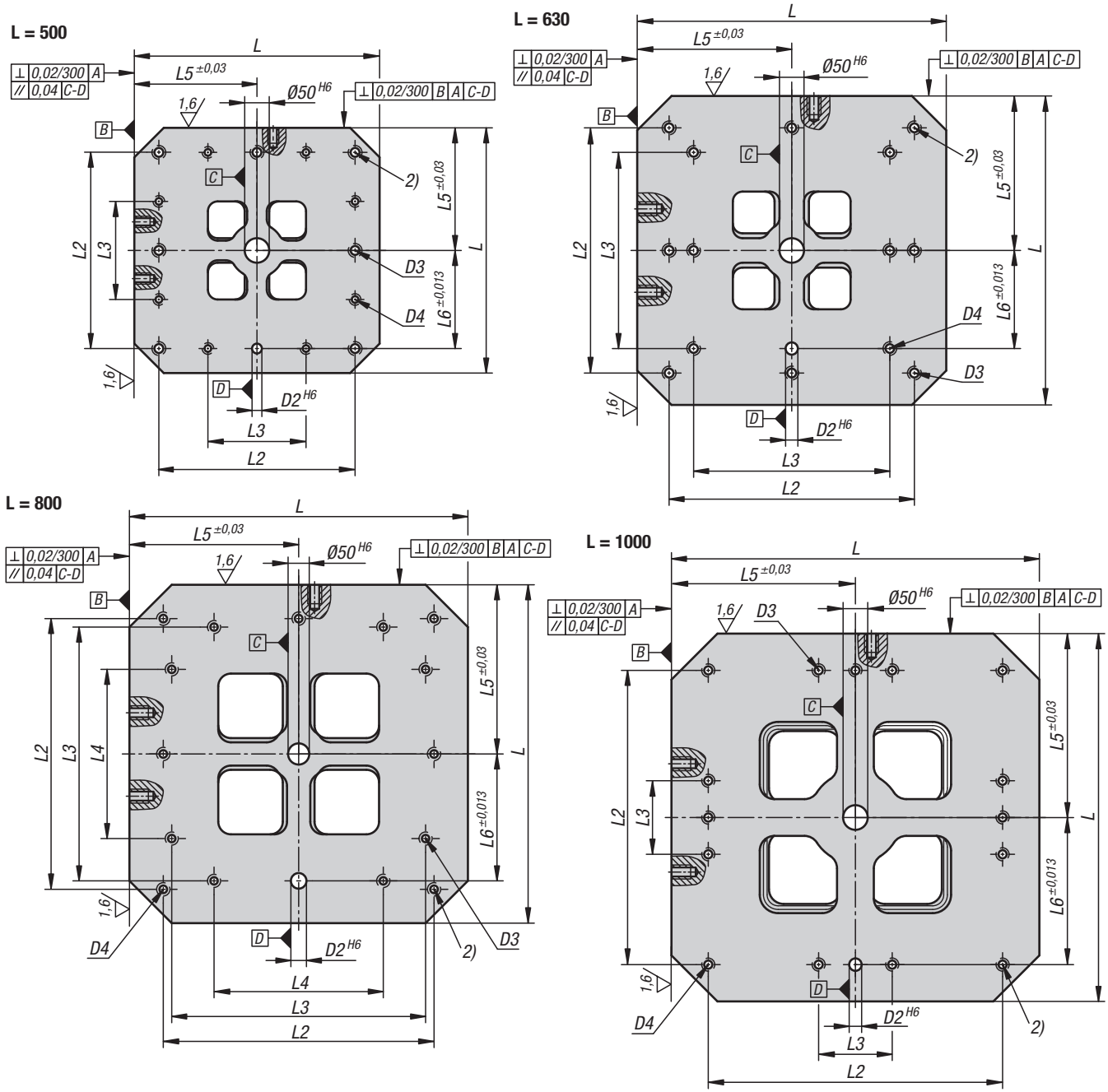
**Drawing reference:**  
1) grid hole  
2) hole for DIN 912 cap screw (D3/D4)

### KIPP Workholding cubes, grey cast iron with grid holes

| Order No.<br>D=Reamed hole 12 | Order No.<br>D=Reamed hole 16 | L    | H    | H1 | D1      | D2 | D3  | D4  | D5  | H3 | L1  | L2  |
|-------------------------------|-------------------------------|------|------|----|---------|----|-----|-----|-----|----|-----|-----|
| K0805.212030050               | K0805.216030050               | 300  | 500  | 50 | M12/M16 | 20 | M12 | M10 | M12 | 15 | 150 | 250 |
| K0805.212040050               | K0805.216040050               | 400  | 500  | 50 | M12/M16 | 20 | M16 | M12 | M16 | 18 | 250 | 320 |
| K0805.212040065               | K0805.216040065               | 400  | 650  | 50 | M12/M16 | 20 | M16 | M12 | M16 | 18 | 250 | 320 |
| K0805.212050060               | K0805.216050060               | 500  | 600  | 50 | M12/M16 | 20 | M16 | M12 | M16 | 18 | 300 | 400 |
| K0805.212050075               | K0805.216050075               | 500  | 750  | 50 | M12/M16 | 20 | M16 | M12 | M16 | 18 | 300 | 400 |
| K0805.212063070               | K0805.216063070               | 630  | 700  | 50 | M12/M16 | 25 | M16 | M16 | M16 | 18 | 350 | 500 |
| K0805.212063085               | K0805.216063085               | 630  | 850  | 50 | M12/M16 | 25 | M16 | M16 | M16 | 18 | 350 | 500 |
| K0805.212080080               | K0805.216080080               | 800  | 800  | 50 | M12/M16 | 25 | M16 | M16 | M16 | 18 | 500 | 640 |
| K0805.212080100               | K0805.216080100               | 800  | 1000 | 50 | M12/M16 | 25 | M16 | M16 | M16 | 18 | 500 | 640 |
| K0805.212100100               | K0805.216100100               | 1000 | 1000 | 55 | M12/M16 | 25 | M20 | M20 | M16 | 18 | 600 | 800 |
| K0805.212100125               | K0805.216100125               | 1000 | 1250 | 55 | M12/M16 | 25 | M20 | M20 | M16 | 18 | 600 | 800 |

## Workholding cubes, grey cast iron

with grid holes



**KIPP Workholding cubes, grey cast iron with grid holes**

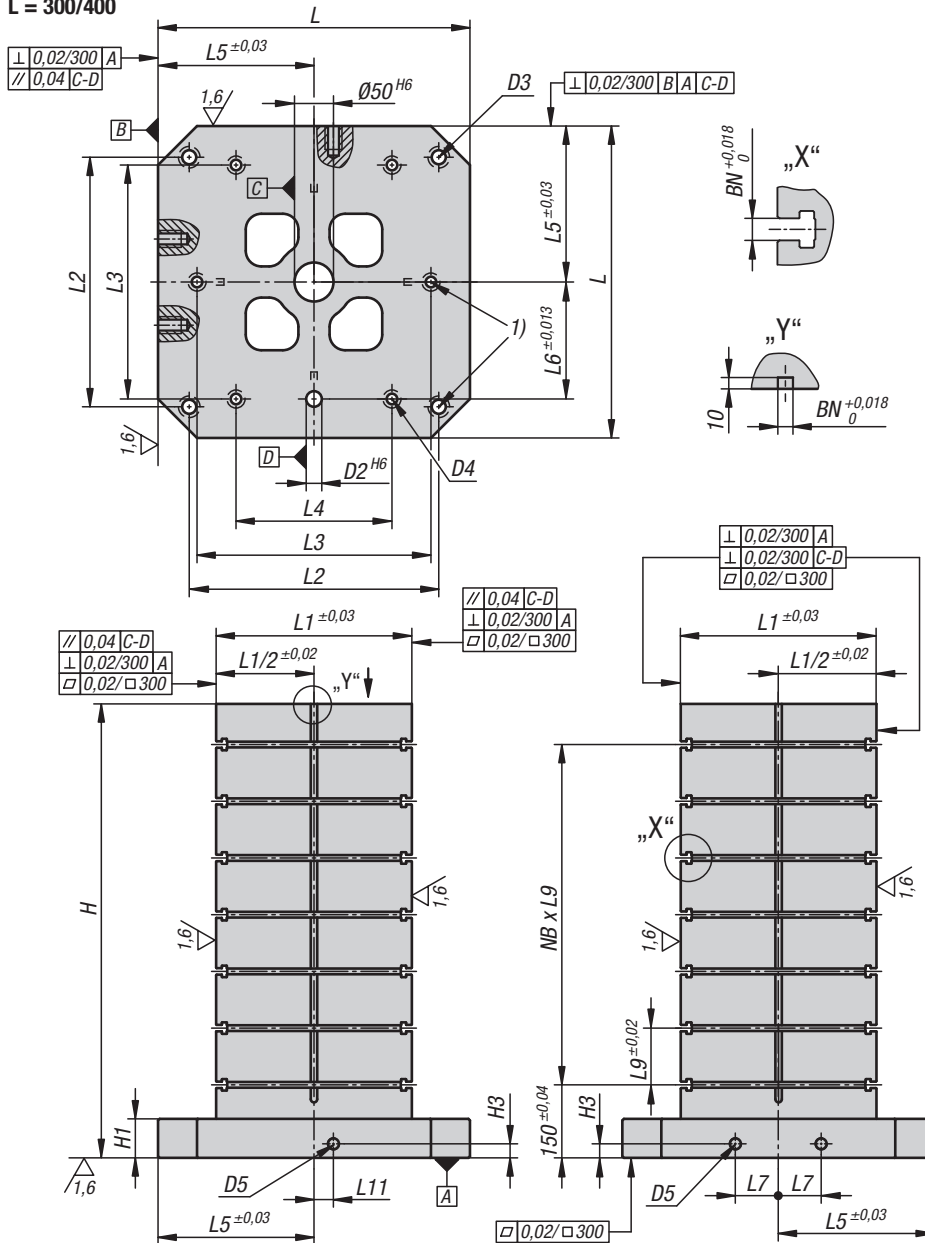
| Order No.<br>D=Reamed hole 12 | Order No.<br>D=Reamed hole 16 | L3  | L4  | L5  | L6  | L7  | L11 | No. of<br>grid holes | NL=No.<br>lengthwise | NB=No.<br>across |
|-------------------------------|-------------------------------|-----|-----|-----|-----|-----|-----|----------------------|----------------------|------------------|
| K0805.212030050               | K0805.216030050               | 200 | -   | 150 | 100 | 40  | 0   | 64                   | 1                    | 7                |
| K0805.212040050               | K0805.216040050               | 300 | 200 | 200 | 150 | 55  | 25  | 128                  | 3                    | 7                |
| K0805.212040065               | K0805.216040065               | 300 | 200 | 200 | 150 | 55  | 25  | 176                  | 3                    | 10               |
| K0805.212050060               | K0805.216050060               | 200 | -   | 250 | 200 | 75  | 25  | 200                  | 4                    | 9                |
| K0805.212050075               | K0805.216050075               | 200 | -   | 250 | 200 | 75  | 25  | 260                  | 4                    | 12               |
| K0805.212063070               | K0805.216063070               | 400 | -   | 315 | 200 | 100 | 25  | 288                  | 5                    | 11               |
| K0805.212063085               | K0805.216063085               | 400 | -   | 315 | 200 | 100 | 25  | 360                  | 5                    | 14               |
| K0805.212080080               | K0805.216080080               | 600 | 400 | 400 | 300 | 135 | 25  | 504                  | 8                    | 13               |
| K0805.212080100               | K0805.216080100               | 600 | 400 | 400 | 300 | 135 | 25  | 648                  | 8                    | 17               |
| K0805.212100100               | K0805.216100100               | 200 | -   | 500 | 400 | 165 | 25  | 792                  | 10                   | 17               |
| K0805.212100125               | K0805.216100125               | 200 | -   | 500 | 400 | 165 | 25  | 1012                 | 10                   | 22               |

# Workholding cubes, grey cast iron

with T-slots



L = 300/400



**Material:**  
G.JL 300.

**Version:**  
Support and mounting surfaces precision machined

**Sample order:**  
K0805.314040050

**Note:**  
Tombstones with T-slots are used for constructing modular fixtures on horizontal machines. The precise longitudinal and transverse slot spacing ensures very high repeat clamping accuracy. The tombstones conform to machine tables for machine tools acc. to DIN 55201 and JIS 6337-1980. Please order locating pins for positioning subplates on machine tables acc. to DIN 55201 separately. Ring bolts for hoisting are supplied. Other dimensions available on request.

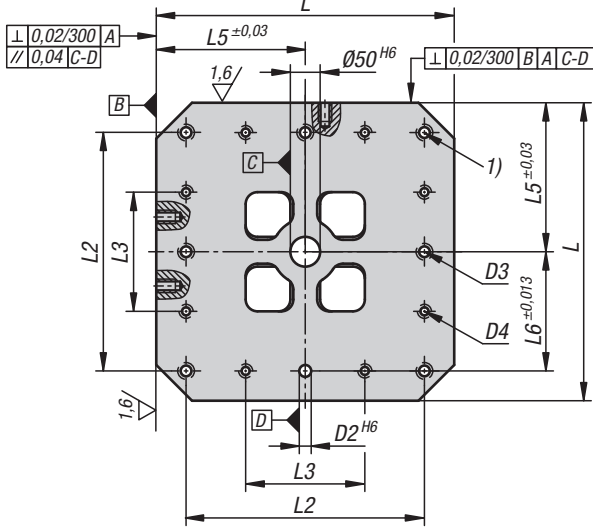
**Drawing reference:**  
1) hole for DIN 912 cap screw (D3/D4)

## Workholding cubes, grey cast iron

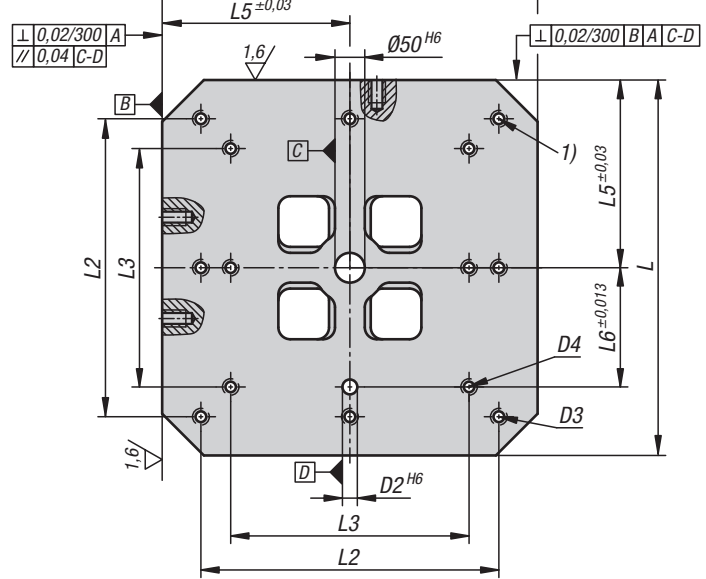
with T-slots



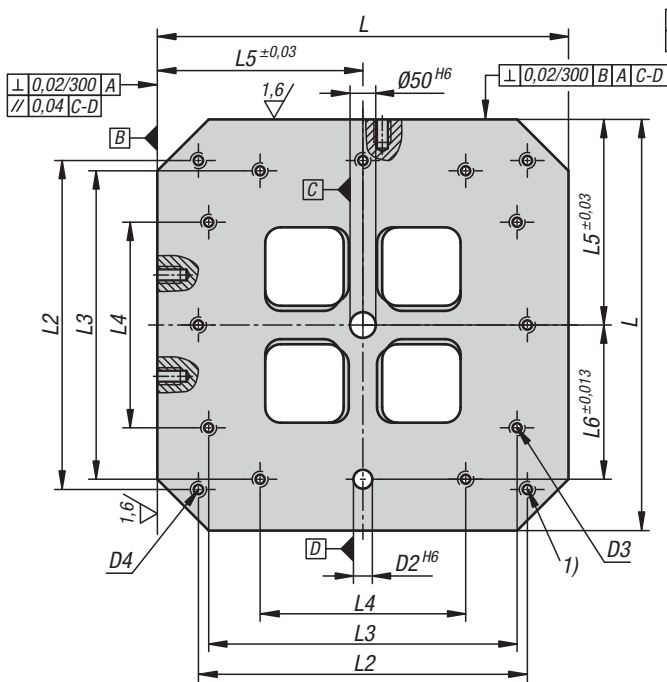
L = 500



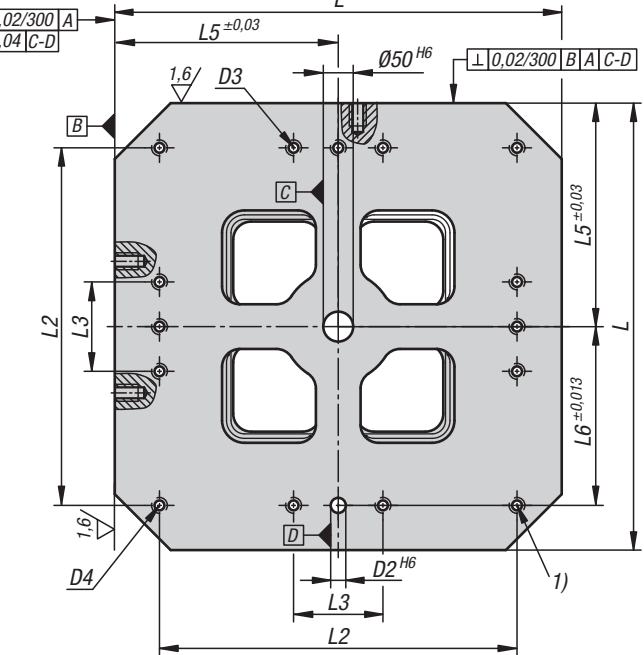
L = 630



L = 800



L = 1000

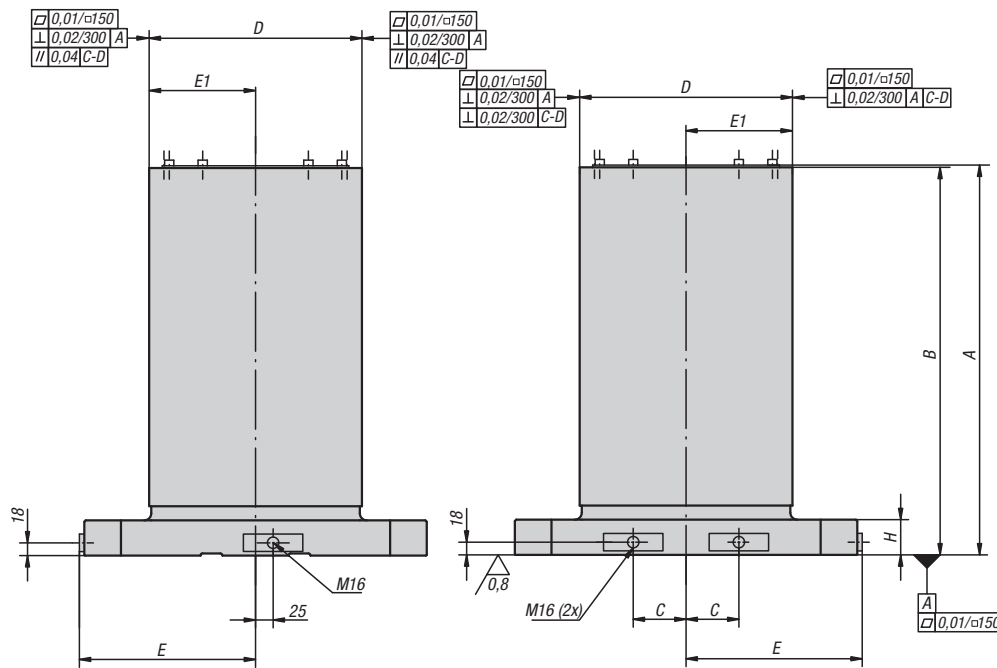


### KIPP Workholding cubes, grey cast iron with T-slots

| Order No.<br>BN=slot width 14 | Order No.<br>BN=slot width 18 | L    | H    | H1 | D2 | D3  | D4  | D5  | H3 | L1  | L2  | L3  | L4  | L5  | L6  | L7  | L9  | L11 | NB=No.<br>across |
|-------------------------------|-------------------------------|------|------|----|----|-----|-----|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------------------|
| K0805.314040050               | K0805.318040050               | 400  | 500  | 50 | 20 | M16 | M12 | M16 | 18 | 250 | 320 | 300 | 200 | 200 | 150 | 55  | 100 | 25  | 3                |
| K0805.314040065               | K0805.318040065               | 400  | 650  | 50 | 20 | M16 | M12 | M16 | 18 | 250 | 320 | 300 | 200 | 200 | 150 | 55  | 100 | 25  | 4                |
| K0805.314050060               | K0805.318050060               | 500  | 600  | 50 | 20 | M16 | M12 | M16 | 18 | 300 | 400 | 200 | -   | 250 | 200 | 75  | 100 | 25  | 4                |
| K0805.314050075               | K0805.318050075               | 500  | 750  | 50 | 20 | M16 | M12 | M16 | 18 | 300 | 400 | 200 | -   | 250 | 200 | 75  | 100 | 25  | 5                |
| K0805.314063070               | K0805.318063070               | 630  | 700  | 50 | 25 | M16 | M16 | M16 | 18 | 350 | 500 | 400 | -   | 315 | 200 | 100 | 125 | 25  | 4                |
| K0805.314063085               | K0805.318063085               | 630  | 850  | 50 | 25 | M16 | M16 | M16 | 18 | 350 | 500 | 400 | -   | 315 | 200 | 100 | 125 | 25  | 5                |
| K0805.314080080               | K0805.318080080               | 800  | 800  | 50 | 25 | M16 | M16 | M16 | 18 | 500 | 640 | 600 | 400 | 400 | 300 | 135 | 150 | 25  | 4                |
| K0805.314080100               | K0805.318080100               | 800  | 1000 | 50 | 25 | M16 | M16 | M16 | 18 | 500 | 640 | 600 | 400 | 400 | 300 | 135 | 150 | 25  | 5                |
| K0805.314100100               | K0805.318100100               | 1000 | 1000 | 55 | 25 | M20 | M20 | M16 | 18 | 600 | 800 | 200 | -   | 500 | 400 | 165 | 160 | 25  | 5                |
| K0805.314100125               | K0805.318100125               | 1000 | 1250 | 55 | 25 | M20 | M20 | M16 | 18 | 600 | 800 | 200 | -   | 500 | 400 | 165 | 160 | 25  | 6                |

## Tombstones cube

without grid holes



**Material:**  
GJL 300.

**Version:**

Reference surfaces precision machined.  
The clamping surfaces have 0.5 mm allowance.

**Sample order:**

K0805.005030

**Note:**

The cube tombstones are matched to subplates for machine tools acc. to DIN 55201 and JIS 6337-1980.

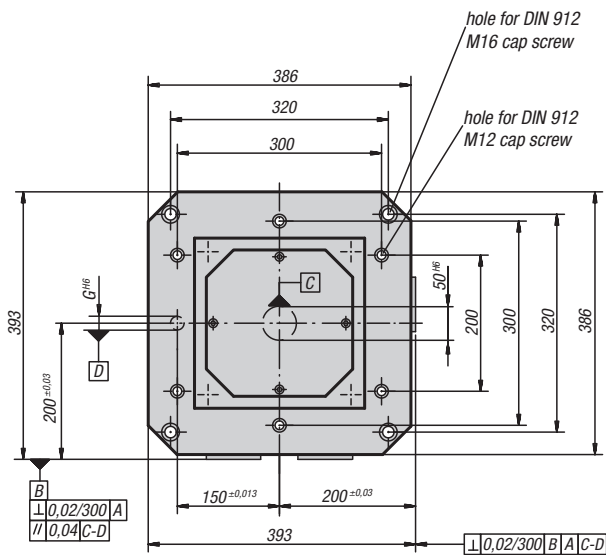
Ring bolts for lifting are supplied. A cover prevents the cavities filling with swarf.

## Tombstones cube

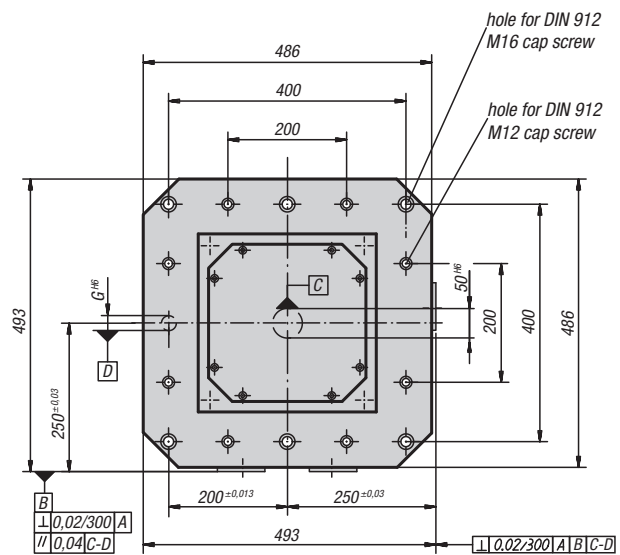
without grid holes



K0805.0040251



K0805.005030  
K0805.0050301



### KIPP Cube tombstones without grid holes

| Order No.     | A   | B   | C  | D        | E   | E1         | G  | H  | weight<br>ca. kg |
|---------------|-----|-----|----|----------|-----|------------|----|----|------------------|
| K0805.0040251 | 553 | 550 | 55 | 251 ±0,2 | 200 | 125,5 ±0,2 | 20 | 50 | 183              |
| K0805.005030  | 553 | 550 | 75 | 301 ±0,2 | 250 | 150,5 ±0,2 | 20 | 50 | 231              |
| K0805.0050301 | 653 | 650 | 75 | 301 ±0,2 | 250 | 150,5 ±0,2 | 20 | 50 | 268              |



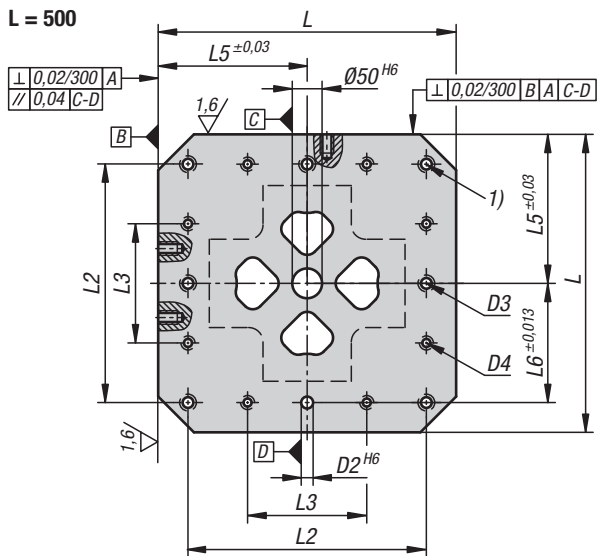


## Clamping towers, grey cast iron, 4-sided,

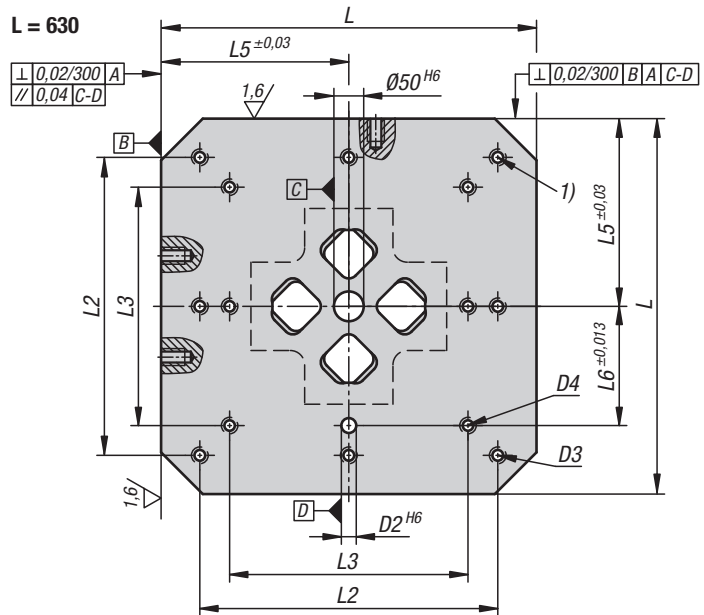
with pre-machined clamping faces



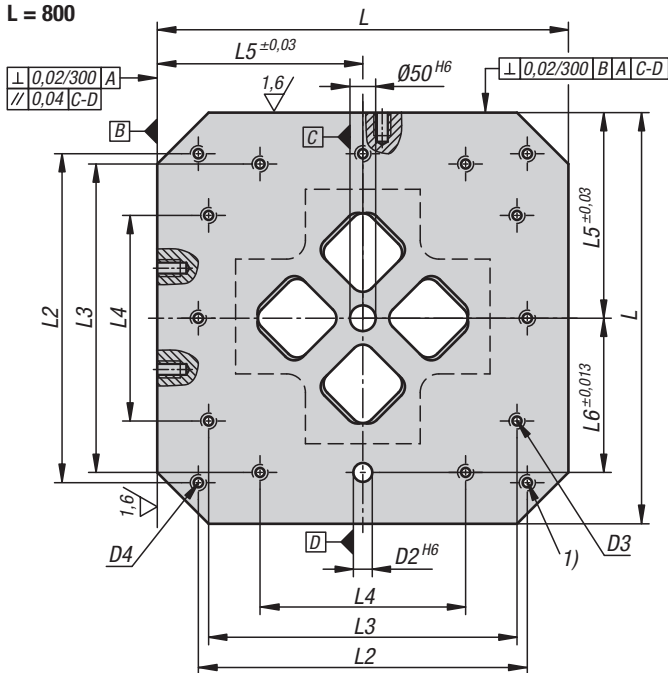
L = 500



L = 630



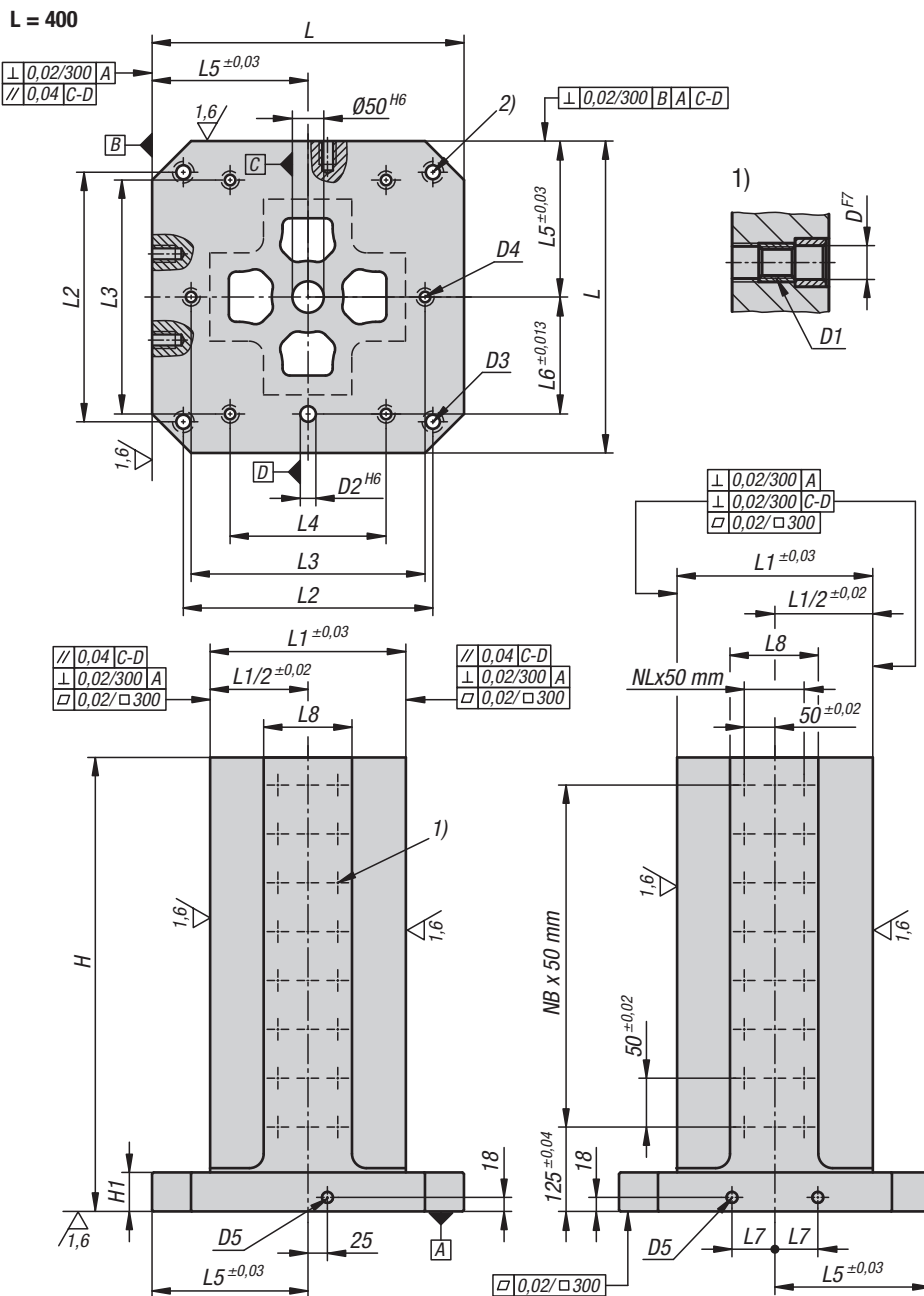
L = 800



### KIPP Clamping towers, grey cast iron, 4-sided, with pre-machined clamping faces

| Order No.      | L   | H    | H1 | D2 | D3  | D4  | D5   | L1  | L2  | L3  | L4  | L5  | L6  | L7  | L8  |
|----------------|-----|------|----|----|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|
| K1533.10040050 | 400 | 500  | 50 | 20 | M16 | M12 | M 16 | 251 | 320 | 300 | 200 | 200 | 150 | 55  | 125 |
| K1533.10040065 | 400 | 650  | 50 | 20 | M16 | M12 | M 16 | 251 | 320 | 300 | 200 | 200 | 150 | 55  | 125 |
| K1533.10050060 | 500 | 600  | 50 | 20 | M16 | M12 | M 16 | 301 | 400 | 200 | -   | 250 | 200 | 75  | 150 |
| K1533.10050075 | 500 | 750  | 50 | 20 | M16 | M12 | M 16 | 301 | 400 | 200 | -   | 250 | 200 | 75  | 150 |
| K1533.10063070 | 630 | 700  | 50 | 25 | M16 | M16 | M 16 | 351 | 500 | 400 | -   | 315 | 200 | 100 | 200 |
| K1533.10063085 | 630 | 850  | 50 | 25 | M16 | M16 | M 16 | 351 | 500 | 400 | -   | 315 | 200 | 100 | 200 |
| K1533.10080080 | 800 | 800  | 50 | 25 | M16 | M16 | M 16 | 501 | 640 | 600 | 400 | 400 | 300 | 135 | 300 |
| K1533.10080100 | 800 | 1000 | 50 | 25 | M16 | M16 | M 16 | 501 | 640 | 600 | 400 | 400 | 300 | 135 | 300 |

## Clamping towers, grey cast iron, 4-sided, with grid holes



**Material:**  
GJL 300.

**Version:**  
Support and mounting surfaces precision machined

**Sample order:**  
K1533.21240050

**Note:**  
Grid spacing  $50 \pm 0.02$  mm.  
Clamping towers with grid holes are used on horizontal machining centres.  
The alphanumerically labelled grid holes mean that the clamping elements can be assigned in a defined manner in the event of repeat setups.  
The clamping towers conform to machine tables for machine tools acc. to DIN 55201 and JIS6337-1980.  
Please order locating pins for positioning subplates on machine tables acc. to DIN 55201 separately.  
Please order protection plugs to plug unused grid holes separately.  
Ring bolts for hoisting are supplied.  
Other dimensions available on request.

**On request:**  
other dimensions.

**Drawing reference:**  
1) grid hole  
2) hole for DIN 912 cap screw (D3/D4)

### KIPP Clamping towers, grey cast iron, 4-sided, with grid holes

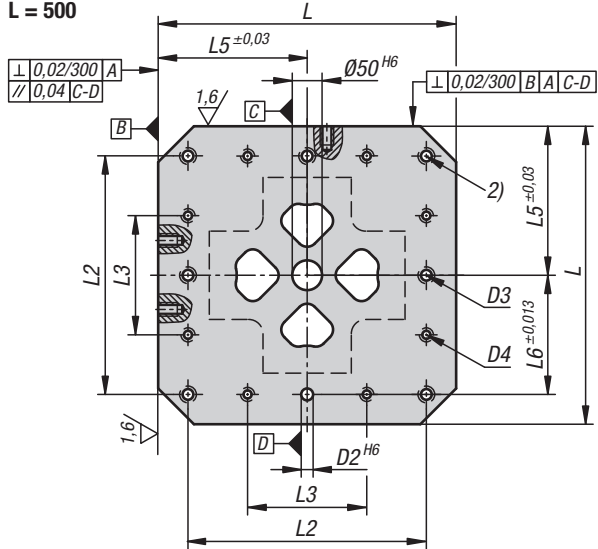
| Order No.<br>D=Reamed hole 12 | Order No.<br>D=Reamed hole 16 | L   | H    | H1 | D1      | D2 | D3  | D4  | D5   | L1  | L2  |
|-------------------------------|-------------------------------|-----|------|----|---------|----|-----|-----|------|-----|-----|
| K1533.21240050                | K1533.21640050                | 400 | 500  | 50 | M12/M16 | 20 | M16 | M12 | M 16 | 250 | 320 |
| K1533.21240065                | K1533.21640065                | 400 | 650  | 50 | M12/M16 | 20 | M16 | M12 | M 16 | 250 | 320 |
| K1533.21250060                | K1533.21650060                | 500 | 600  | 50 | M12/M16 | 20 | M16 | M12 | M 16 | 300 | 400 |
| K1533.21250075                | K1533.21650075                | 500 | 750  | 50 | M12/M16 | 20 | M16 | M12 | M 16 | 300 | 400 |
| K1533.21263070                | K1533.21663070                | 630 | 700  | 50 | M12/M16 | 25 | M16 | M16 | M 16 | 350 | 500 |
| K1533.21263085                | K1533.21663085                | 630 | 850  | 50 | M12/M16 | 25 | M16 | M16 | M 16 | 350 | 500 |
| K1533.21280080                | K1533.21680080                | 800 | 800  | 50 | M12/M16 | 25 | M16 | M16 | M 16 | 500 | 640 |
| K1533.21280100                | K1533.21680100                | 800 | 1000 | 50 | M12/M16 | 25 | M16 | M16 | M 16 | 500 | 640 |

## Clamping towers, grey cast iron, 4-sided,

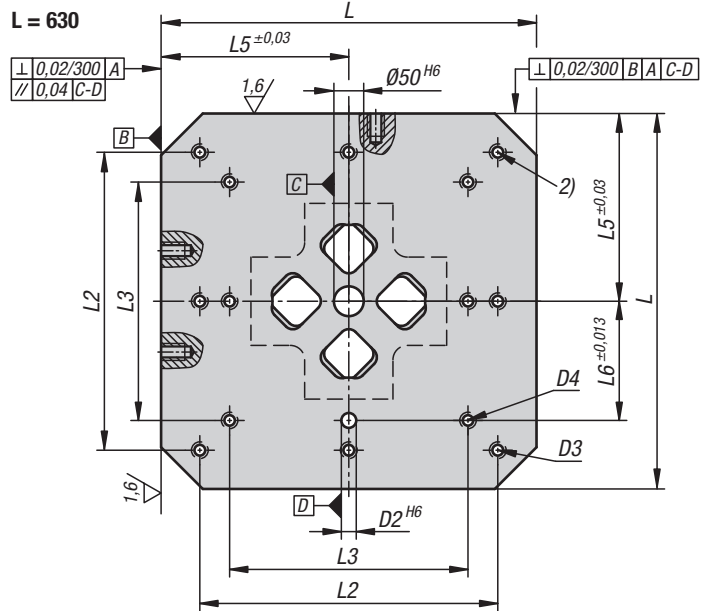
with grid holes



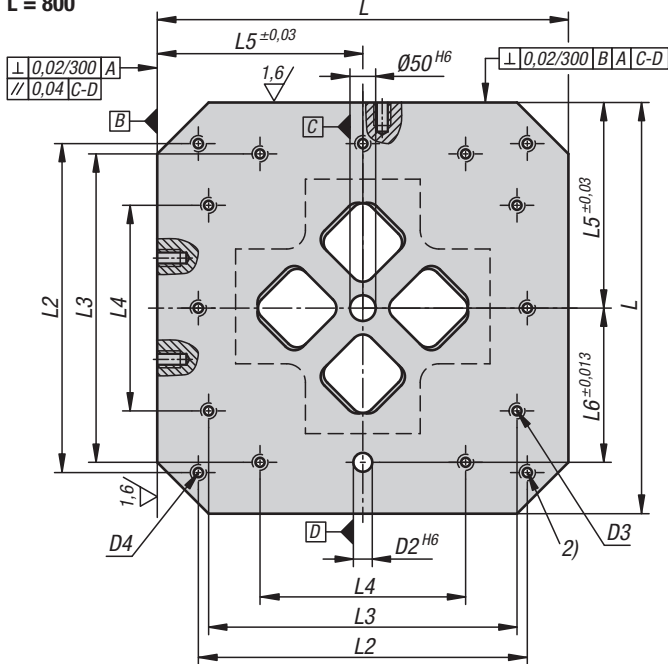
L = 500



L = 630



L = 800



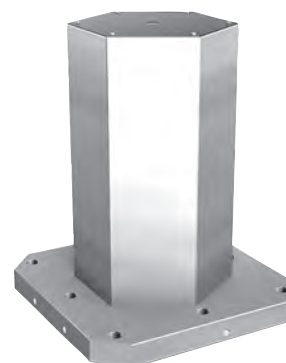
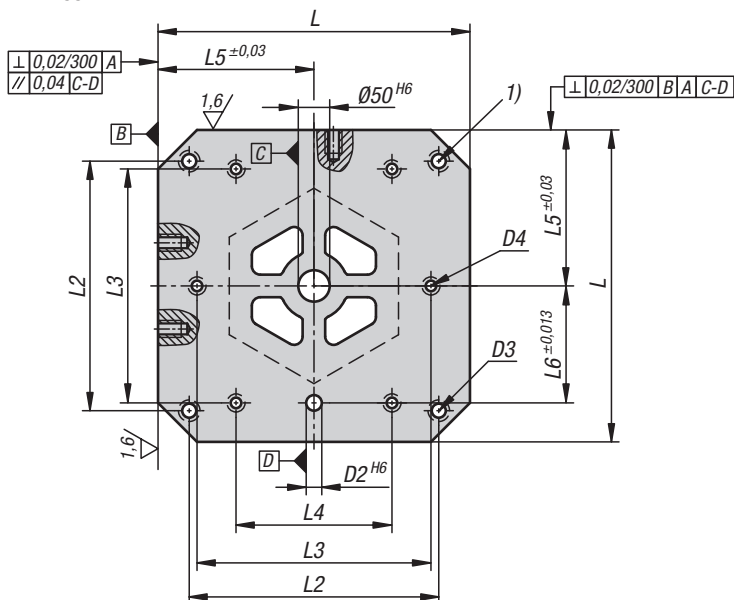
### KIPP Clamping towers, grey cast iron, 4-sided, with grid holes

| Order No.<br>D=Reamed hole 12 | Order No.<br>D=Reamed hole 16 | L3  | L4  | L5  | L6  | L7  | L8  | No. of<br>grid holes | NL=No.<br>lengthwise | NB=No.<br>across |
|-------------------------------|-------------------------------|-----|-----|-----|-----|-----|-----|----------------------|----------------------|------------------|
| K1533.21240050                | K1533.21640050                | 300 | 200 | 200 | 150 | 55  | 125 | 64                   | 1                    | 7                |
| K1533.21240065                | K1533.21640065                | 300 | 200 | 200 | 150 | 55  | 125 | 88                   | 1                    | 10               |
| K1533.21250060                | K1533.21650060                | 200 | -   | 250 | 200 | 75  | 150 | 120                  | 2                    | 9                |
| K1533.21250075                | K1533.21650075                | 200 | -   | 250 | 200 | 75  | 150 | 156                  | 2                    | 12               |
| K1533.21263070                | K1533.21663070                | 400 | -   | 315 | 200 | 100 | 200 | 192                  | 3                    | 11               |
| K1533.21263085                | K1533.21663085                | 400 | -   | 315 | 200 | 100 | 200 | 240                  | 3                    | 14               |
| K1533.21280080                | K1533.21680080                | 600 | 400 | 400 | 300 | 135 | 300 | 336                  | 5                    | 13               |
| K1533.21280100                | K1533.21680100                | 600 | 400 | 400 | 300 | 135 | 300 | 432                  | 5                    | 17               |

## Clamping towers, grey cast iron, 6-sided, with pre-machined clamping faces



L = 400



**Material:**

GJL 300.

**Version:**

Support and clamping faces are precision-machined. The clamping faces have a +1 mm allowance.

**Sample order:**

K1534.10040050

**Note:**

Clamping towers with pre-machined clamping faces provide a fast and economic way of producing bodies with specific grid or individual holes. The base is ready for mounting on the machine table. The clamping faces can be machined to the end dimensions by the user. The clamping towers conform to machine tables for machine tools acc. to DIN 55201 and JIS6337-1980.

Please order locating pins for positioning subplates on machine tables acc. to DIN 55201 separately.

Ring bolts for hoisting are supplied.

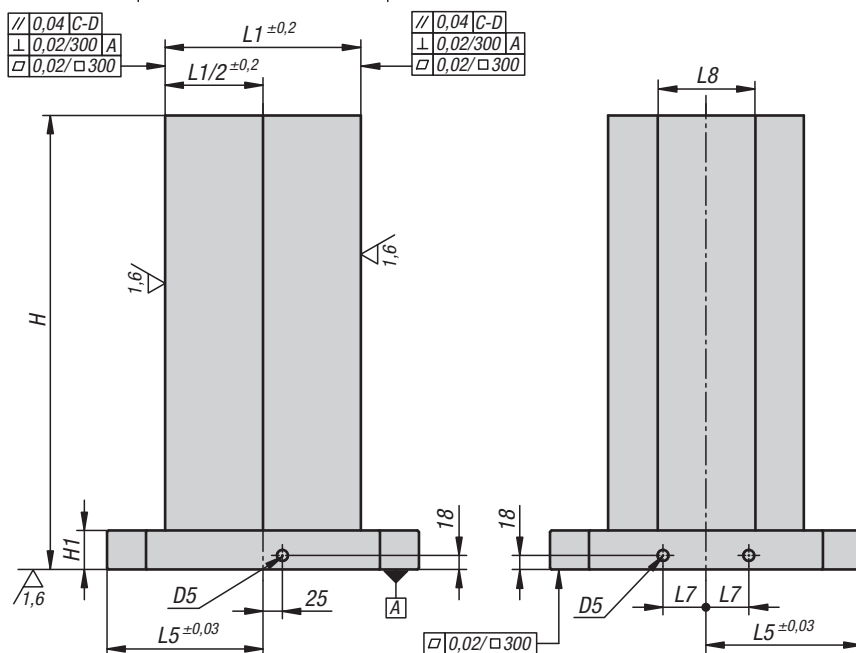
Other dimensions available on request.

**On request:**

other dimensions.

**Drawing reference:**

1) hole for DIN 912 cap screw (D3/D4)

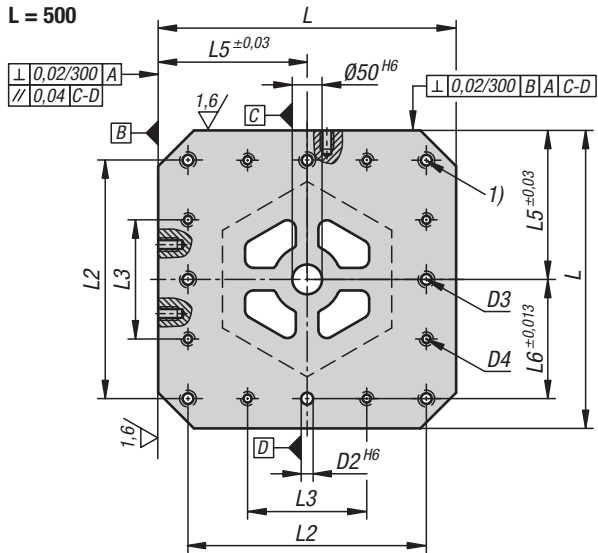


## Clamping towers, grey cast iron, 6-sided,

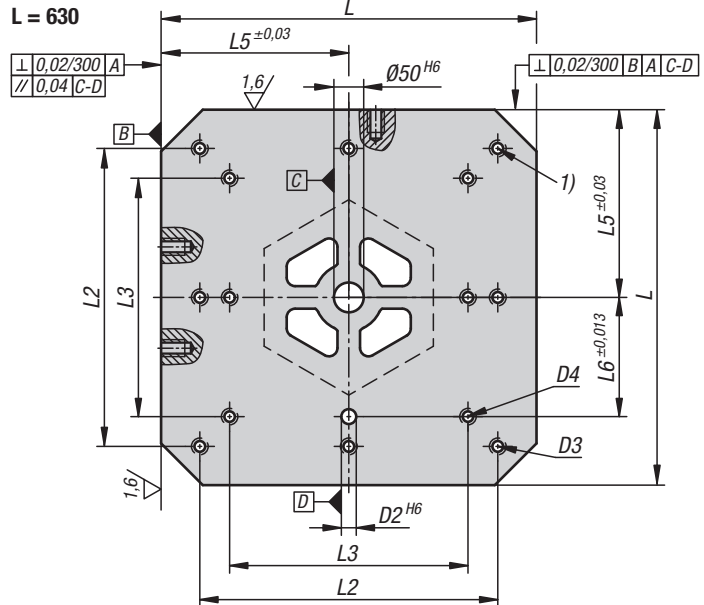
with pre-machined clamping faces



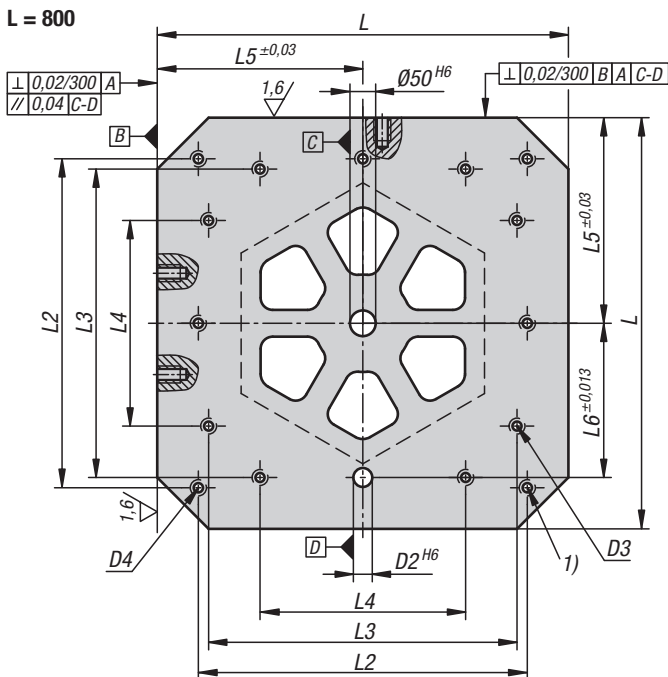
L = 500



L = 630



L = 800



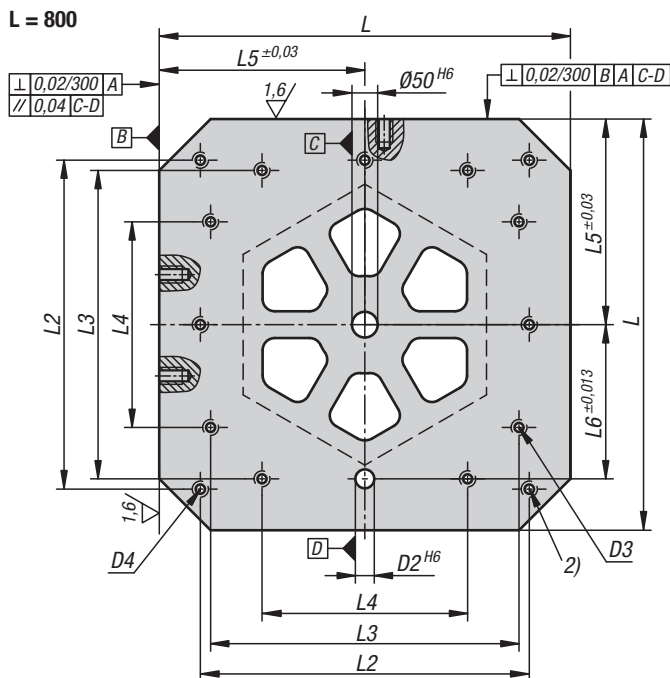
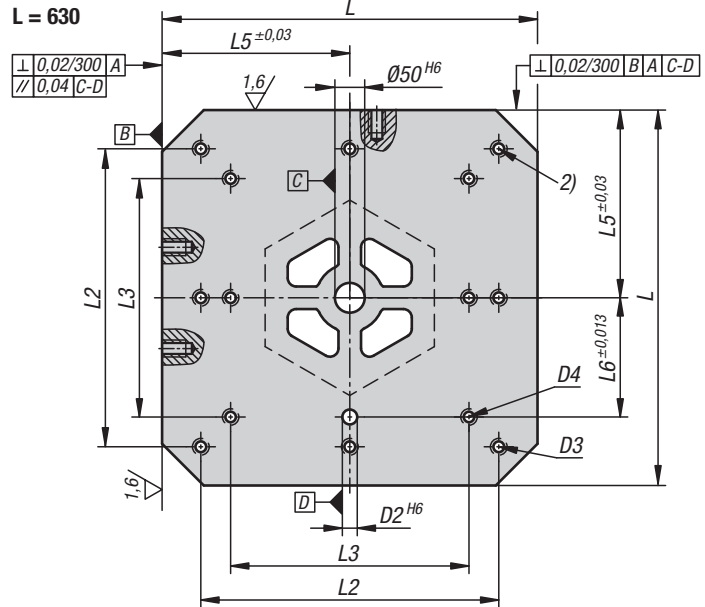
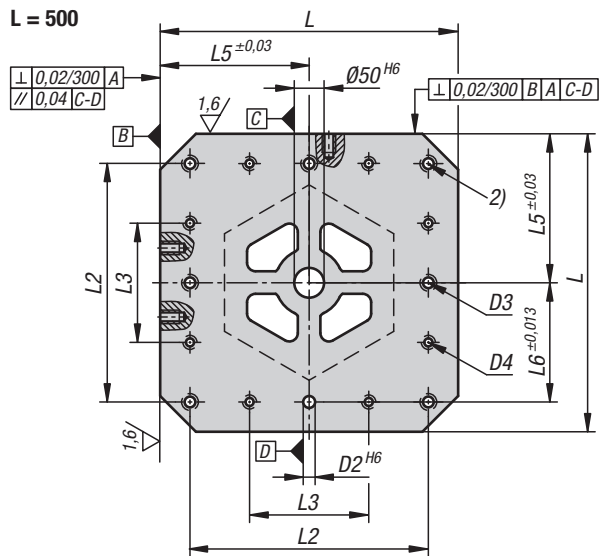
### KIPP Clamping towers, grey cast iron, 6-sided, with pre-machined clamping faces

| Order No.      | L   | H    | H1 | D2 | D3  | D4  | D5   | L1  | L2  | L3  | L4  | L5  | L6  | L7  | L8    |
|----------------|-----|------|----|----|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|-------|
| K1534.10040050 | 400 | 500  | 50 | 20 | M16 | M12 | M 16 | 251 | 320 | 300 | 200 | 200 | 150 | 55  | 144,6 |
| K1534.10040065 | 400 | 650  | 50 | 20 | M16 | M12 | M 16 | 251 | 320 | 300 | 200 | 200 | 150 | 55  | 144,6 |
| K1534.10050060 | 500 | 600  | 50 | 20 | M16 | M12 | M 16 | 301 | 400 | 200 | -   | 250 | 200 | 75  | 173,6 |
| K1534.10050075 | 500 | 750  | 50 | 20 | M16 | M12 | M 16 | 301 | 400 | 200 | -   | 250 | 200 | 75  | 173,6 |
| K1534.10063070 | 630 | 700  | 50 | 25 | M16 | M16 | M 16 | 351 | 500 | 400 | -   | 315 | 200 | 100 | 202,6 |
| K1534.10063085 | 630 | 850  | 50 | 25 | M16 | M16 | M 16 | 351 | 500 | 400 | -   | 315 | 200 | 100 | 202,6 |
| K1534.10080080 | 800 | 800  | 50 | 25 | M16 | M16 | M 16 | 501 | 640 | 600 | 400 | 400 | 300 | 135 | 289,6 |
| K1534.10080100 | 800 | 1000 | 50 | 25 | M16 | M16 | M 16 | 501 | 640 | 600 | 400 | 400 | 300 | 135 | 289,6 |



## Clamping towers, grey cast iron, 6-sided,

with grid holes



### KIPP Clamping towers, grey cast iron, 6-sided, with grid holes

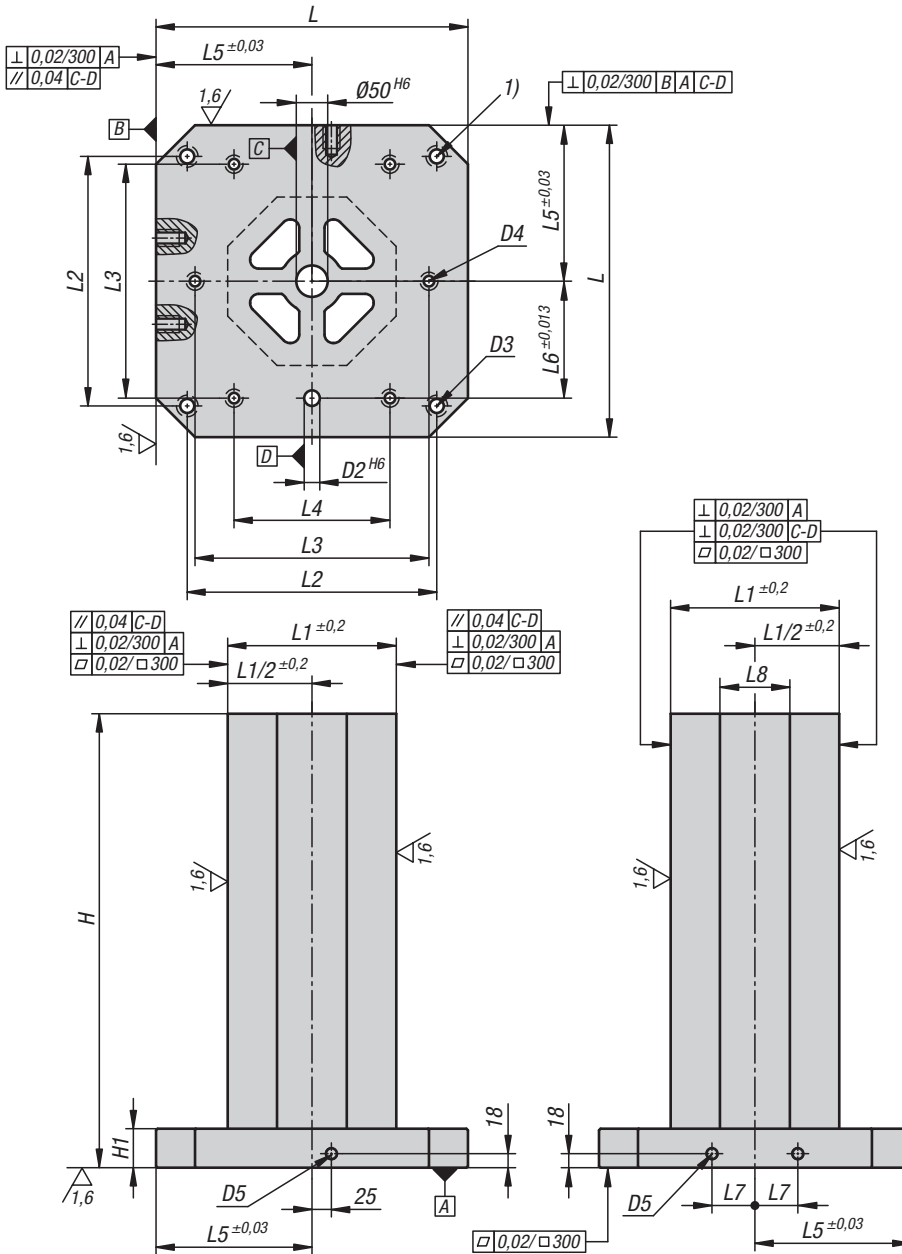
| Order No.<br>D=Reamed hole 12 | Order No.<br>D=Reamed hole 16 | L3  | L4  | L5  | L6  | L7  | L8  | No. of<br>grid holes | NL=No.<br>lengthwise | NB=No.<br>across |
|-------------------------------|-------------------------------|-----|-----|-----|-----|-----|-----|----------------------|----------------------|------------------|
| K1534.21240050                | K1534.21640050                | 300 | 200 | 200 | 150 | 55  | 144 | 96                   | 1                    | 7                |
| K1534.21240065                | K1534.21640065                | 300 | 200 | 200 | 150 | 55  | 144 | 132                  | 1                    | 10               |
| K1534.21250060                | K1534.21650060                | 200 | -   | 250 | 200 | 75  | -   | 180                  | 2                    | 9                |
| K1534.21250075                | K1534.21650075                | 200 | -   | 250 | 200 | 75  | -   | 234                  | 2                    | 12               |
| K1534.21263070                | K1534.21663070                | 400 | -   | 315 | 200 | 100 | 202 | 216                  | 2                    | 11               |
| K1534.21263085                | K1534.21663085                | 400 | -   | 315 | 200 | 100 | 202 | 270                  | 2                    | 14               |
| K1534.21280080                | K1534.21680080                | 600 | 400 | 400 | 300 | 135 | -   | 420                  | 4                    | 13               |
| K1534.21280100                | K1534.21680100                | 600 | 400 | 400 | 300 | 135 | -   | 540                  | 4                    | 17               |

## Clamping towers, grey cast iron, 8-sided,

with pre-machined clamping faces



L = 400



**Material:**  
GJL 300.

**Version:**  
Support and clamping faces are precision-machined.  
The clamping faces have a +1 mm allowance.

**Sample order:**  
K1535.10040050

**Note:**  
Clamping towers with pre-machined clamping faces provide a fast and economic way of producing bodies with specific grid or individual holes. The base is ready for mounting on the machine table. The clamping faces can be machined to the end dimensions by the user. The clamping towers conform to machine tables for machine tools acc. to DIN 55201 and JIS6337-1980.

Please order locating pins for positioning subplates on machine tables acc. to DIN 55201 separately.  
Ring bolts for hoisting are supplied.  
Other dimensions available on request.

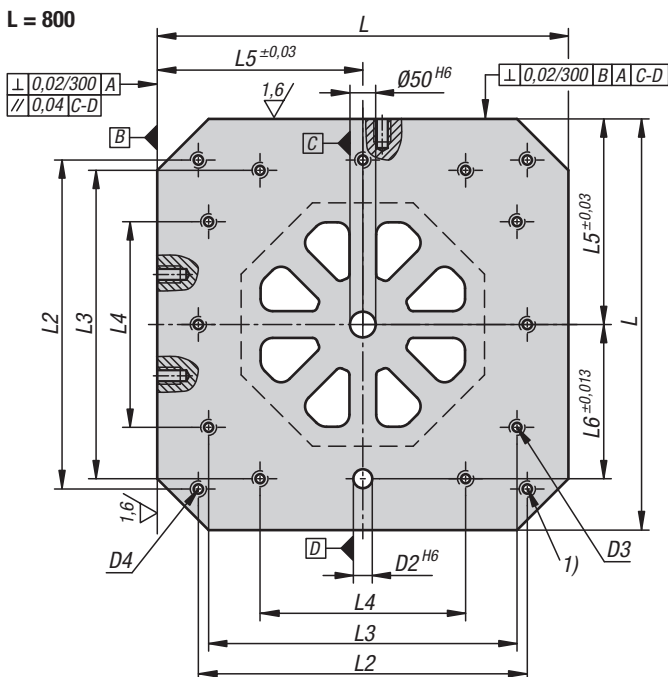
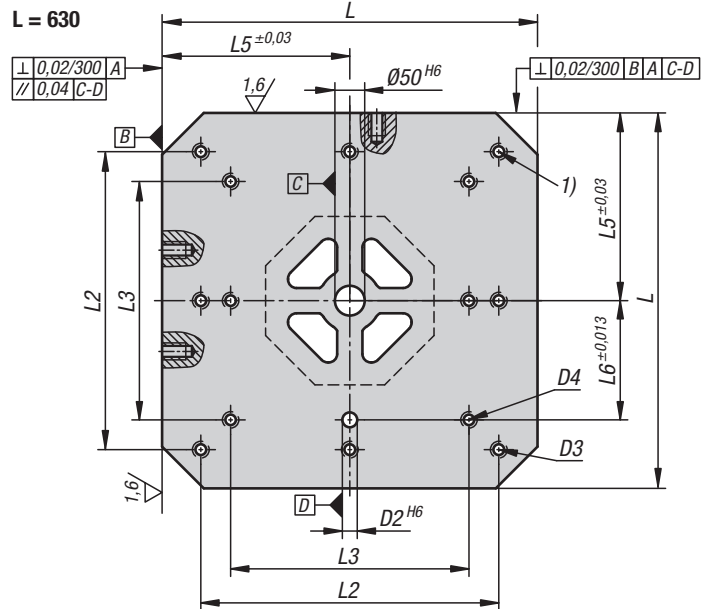
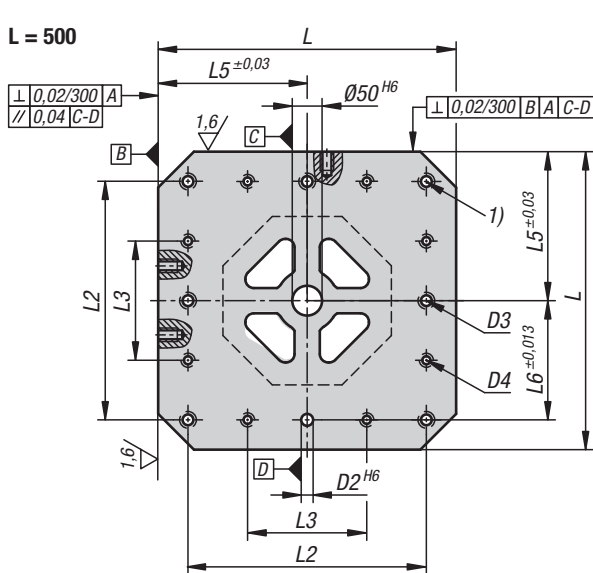
**On request:**  
other dimensions.

**Drawing reference:**  
1) hole for DIN 912 cap screw (D3/D4)



## Clamping towers, grey cast iron, 8-sided,

with pre-machined clamping faces

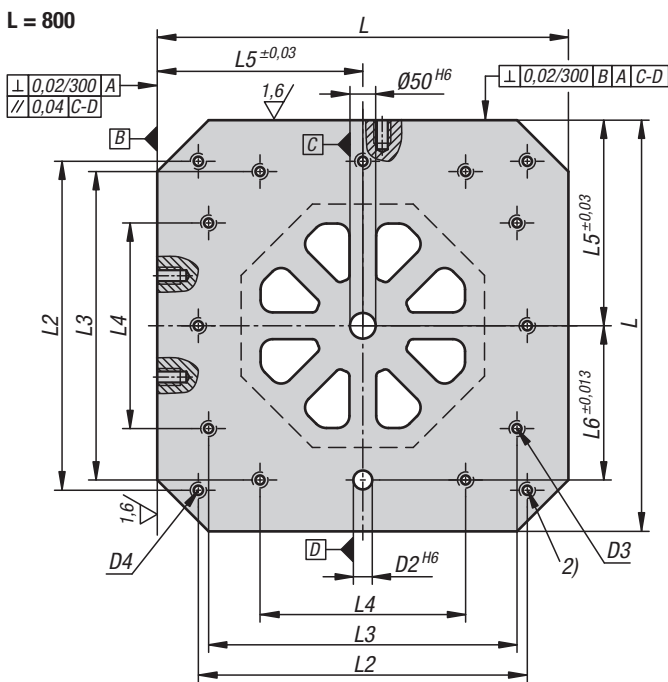
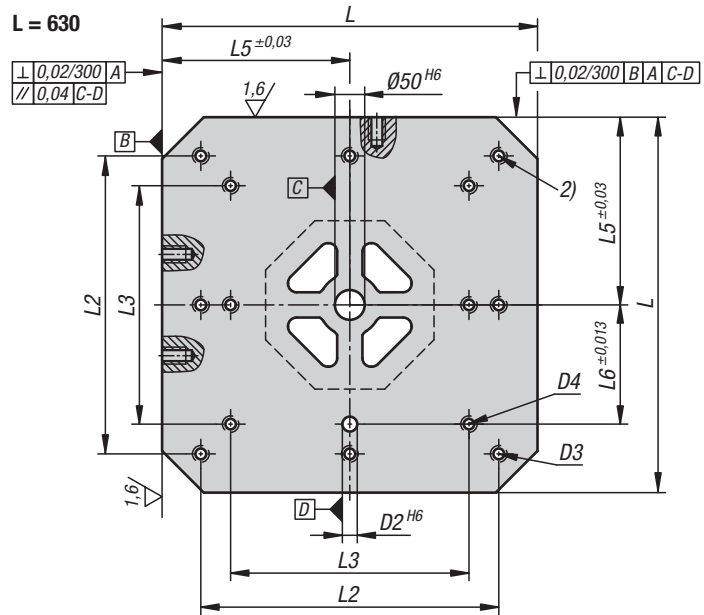
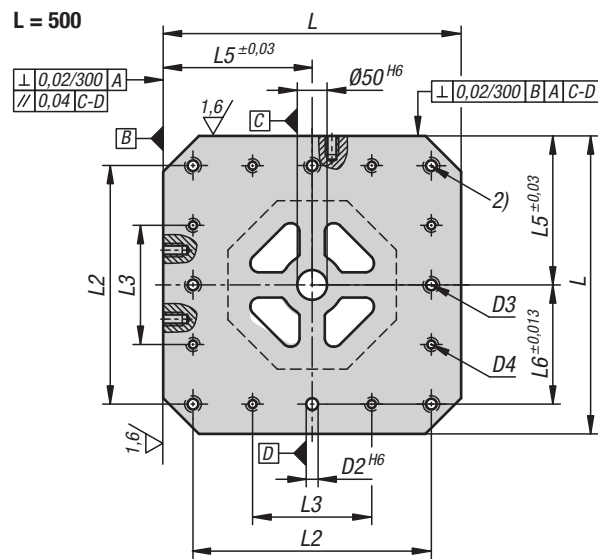


### KIPP Clamping towers, grey cast iron, 8-sided, with pre-machined clamping faces

| Order No.      | L   | H    | H1 | D2 | D3  | D4  | D5   | L1  | L2  | L3  | L4  | L5  | L6  | L7  | L8    |
|----------------|-----|------|----|----|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|-------|
| K1535.10040050 | 400 | 500  | 50 | 20 | M16 | M12 | M 16 | 251 | 320 | 300 | 200 | 200 | 150 | 55  | 103,4 |
| K1535.10040065 | 400 | 650  | 50 | 20 | M16 | M12 | M 16 | 251 | 320 | 300 | 200 | 200 | 150 | 55  | 103,4 |
| K1535.10050060 | 500 | 600  | 50 | 20 | M16 | M12 | M 16 | 301 | 400 | 200 | -   | 250 | 200 | 75  | 124,4 |
| K1535.10050075 | 500 | 750  | 50 | 20 | M16 | M12 | M 16 | 301 | 400 | 200 | -   | 250 | 200 | 75  | 124,4 |
| K1535.10063070 | 630 | 700  | 50 | 25 | M16 | M16 | M 16 | 351 | 500 | 400 | -   | 315 | 200 | 100 | 145,4 |
| K1535.10063085 | 630 | 850  | 50 | 25 | M16 | M16 | M 16 | 351 | 500 | 400 | -   | 315 | 200 | 100 | 145,4 |
| K1535.10080080 | 800 | 800  | 50 | 25 | M16 | M16 | M 16 | 501 | 640 | 600 | 400 | 400 | 300 | 135 | 207,4 |
| K1535.10080100 | 800 | 1000 | 50 | 25 | M16 | M16 | M 16 | 501 | 640 | 600 | 400 | 400 | 300 | 135 | 207,4 |



## Clamping towers, grey cast iron, 8-sided, with grid holes

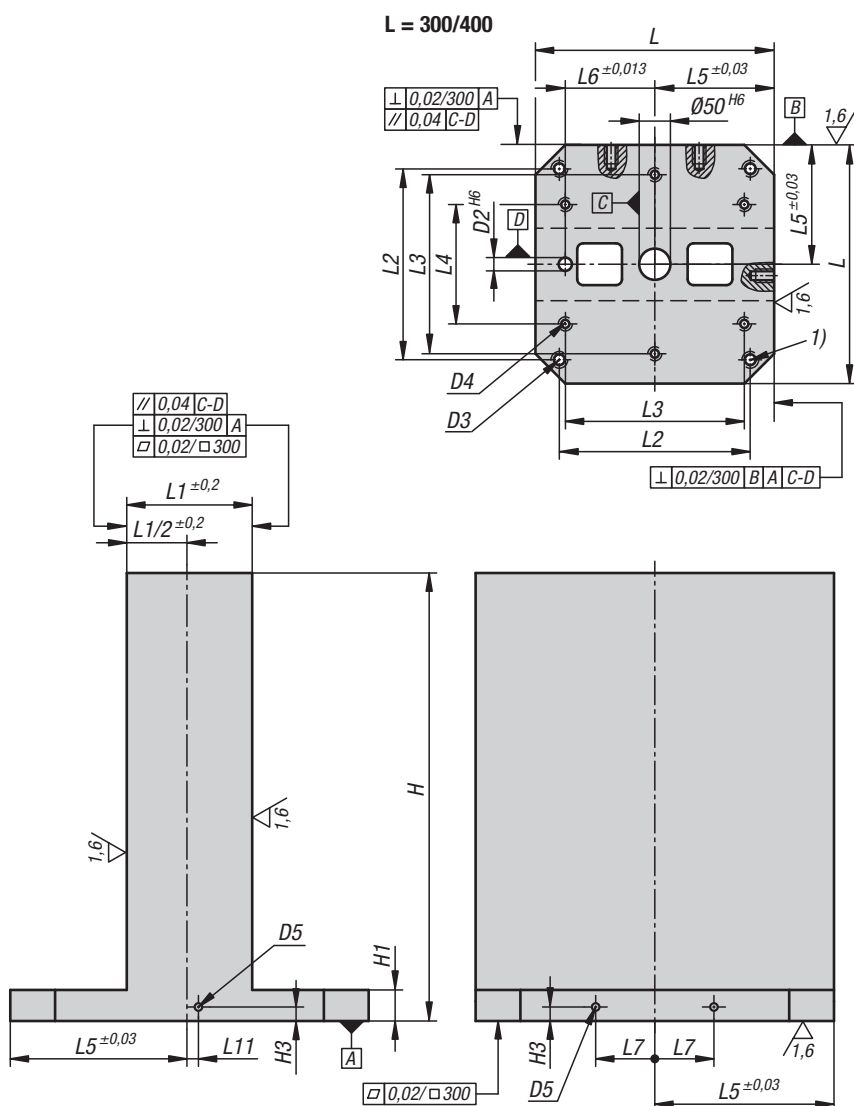


### KIPP Clamping towers, grey cast iron, 8-sided, with grid holes

| Order No.<br>D=Reamed hole 12 | Order No.<br>D=Reamed hole 16 | L3  | L4  | L5  | L6  | L7  | L8  | No. of<br>grid holes | NL=No.<br>lengthwise | NB=No.<br>across |
|-------------------------------|-------------------------------|-----|-----|-----|-----|-----|-----|----------------------|----------------------|------------------|
| K1535.21240050                | K1535.21640050                | 300 | 200 | 200 | 150 | 55  | 103 | 128                  | 1                    | 7                |
| K1535.21240065                | K1535.21640065                | 300 | 200 | 200 | 150 | 55  | 103 | 176                  | 1                    | 10               |
| K1535.21250060                | K1535.21650060                | 200 | -   | 250 | 200 | 75  | 124 | 160                  | 1                    | 9                |
| K1535.21250075                | K1535.21650075                | 200 | -   | 250 | 200 | 75  | 124 | 208                  | 1                    | 12               |
| K1535.21263070                | K1535.21663070                | 400 | -   | 315 | 200 | 100 | 145 | 192                  | 1                    | 11               |
| K1535.21263085                | K1535.21663085                | 400 | -   | 315 | 200 | 100 | 145 | 240                  | 1                    | 14               |
| K1535.21280080                | K1535.21680080                | 600 | 400 | 400 | 300 | 135 | 207 | 448                  | 3                    | 13               |
| K1535.21280100                | K1535.21680100                | 600 | 400 | 400 | 300 | 135 | 207 | 576                  | 3                    | 17               |

# Tombstones, grey cast iron, double-sided,

with pre-machined clamping faces



**Material:**  
GJL 300.

**Version:**  
Support and clamping faces are precision-machined. The clamping faces have a +1 mm allowance.

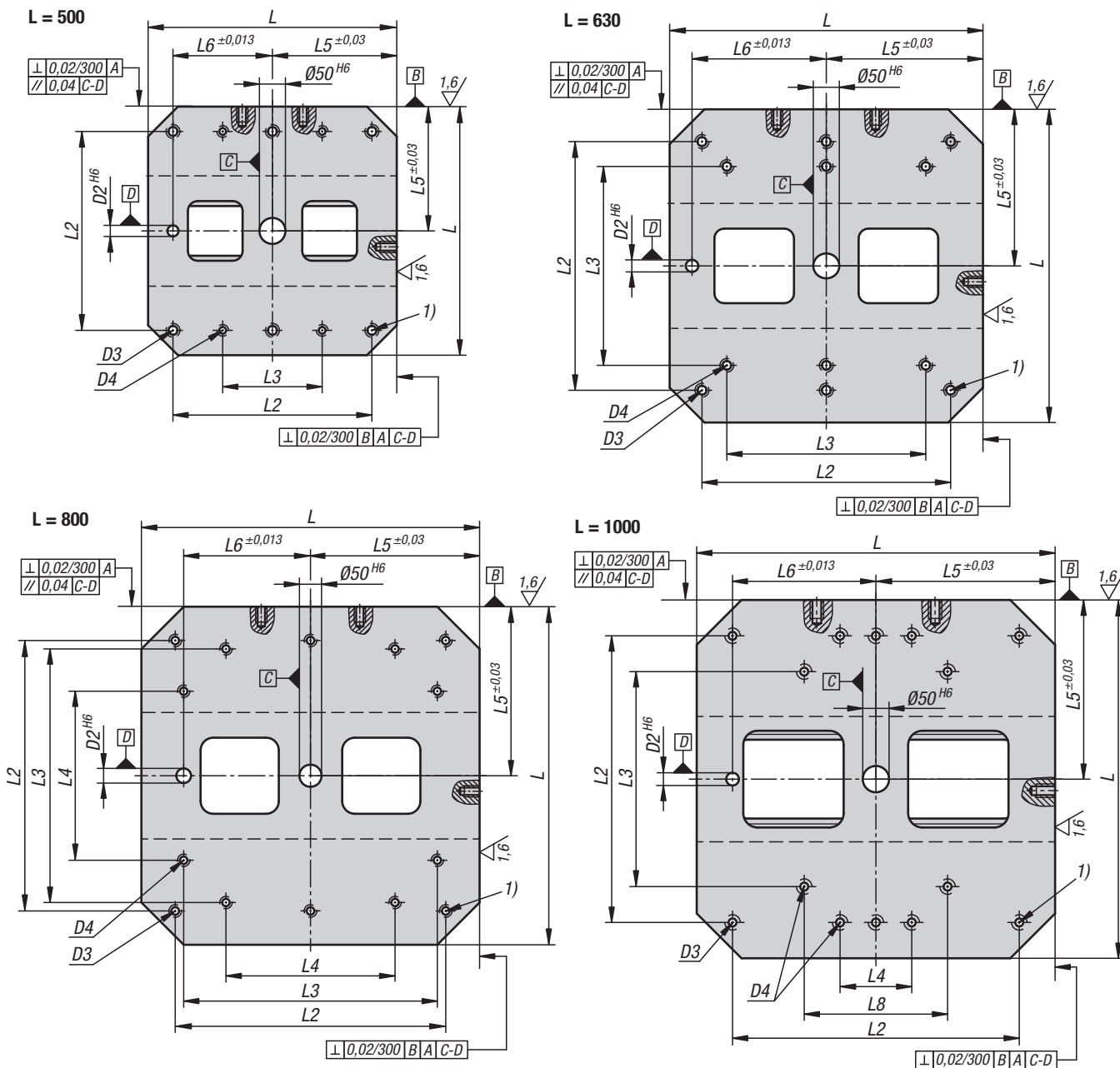
**Sample order:**  
K0803.100030050

**Note:**  
Tombstones with pre-machined clamping faces provide a fast and economic method of producing a body with specific grid or individual holes. The base is ready for mounting on the machine table. The two clamping faces can be machined to the end dimensions by the user. The tombstones conform to machine tables for machine tools acc. to DIN 55201 and JIS6337-1980. Please order locating pins for positioning subplates on machine tables acc. to DIN 55201 separately. Ring bolts for hoisting are supplied. Other dimensions available on request.

**Drawing reference:**  
1) hole for DIN 912 cap screw (D3/D4)

## Tombstones, grey cast iron, double-sided,

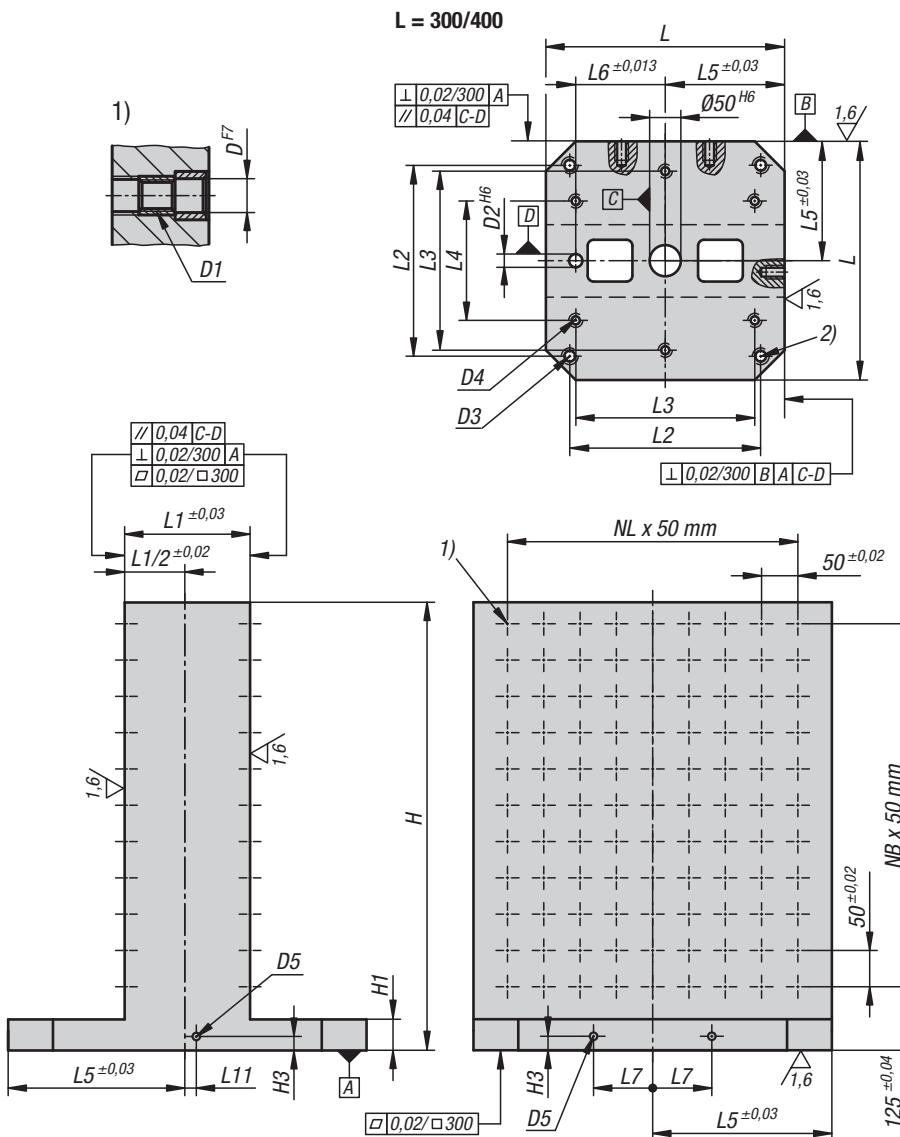
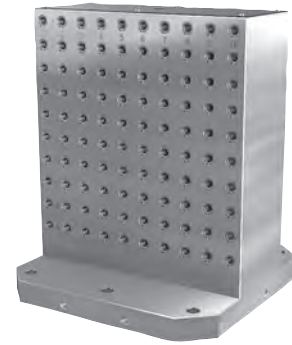
with pre-machined clamping faces



### KIPP Tombstones, grey cast iron, double-sided, with pre-machined clamping faces

| Order No.       | L    | H    | H1 | D2 | D3  | D4  | D5  | H3 | L1  | L2  | L3  | L4  | L5  | L6  | L7  | L8  | L11 |
|-----------------|------|------|----|----|-----|-----|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| K0803.100030050 | 300  | 500  | 50 | 20 | M12 | M10 | M12 | 15 | 81  | 250 | 200 | -   | 150 | 100 | 40  | -   | 0   |
| K0803.100040050 | 400  | 500  | 50 | 20 | M16 | M12 | M16 | 18 | 151 | 320 | 300 | 200 | 200 | 150 | 55  | -   | 25  |
| K0803.100040065 | 400  | 650  | 50 | 20 | M16 | M12 | M16 | 18 | 151 | 320 | 300 | 200 | 200 | 150 | 55  | -   | 25  |
| K0803.100050060 | 500  | 600  | 50 | 20 | M16 | M12 | M16 | 18 | 201 | 400 | 200 | -   | 250 | 200 | 75  | -   | 25  |
| K0803.100050075 | 500  | 750  | 50 | 20 | M16 | M12 | M16 | 18 | 201 | 400 | 200 | -   | 250 | 200 | 75  | -   | 25  |
| K0803.100063070 | 630  | 700  | 50 | 25 | M16 | M16 | M16 | 18 | 251 | 500 | 400 | -   | 315 | 200 | 100 | -   | 25  |
| K0803.100063085 | 630  | 850  | 50 | 25 | M16 | M16 | M16 | 18 | 251 | 500 | 400 | -   | 315 | 200 | 100 | -   | 25  |
| K0803.100080080 | 800  | 800  | 50 | 25 | M16 | M16 | M16 | 18 | 301 | 640 | 600 | 400 | 400 | 300 | 135 | -   | 25  |
| K0803.100080100 | 800  | 1000 | 50 | 25 | M16 | M16 | M16 | 18 | 301 | 640 | 600 | 400 | 400 | 300 | 135 | -   | 25  |
| K0803.100100100 | 1000 | 1000 | 55 | 25 | M20 | M20 | M16 | 18 | 351 | 800 | 600 | 200 | 500 | 400 | 165 | 400 | 25  |
| K0803.100100125 | 1000 | 1250 | 55 | 25 | M20 | M20 | M16 | 18 | 351 | 800 | 600 | 200 | 500 | 400 | 165 | 400 | 25  |

## Tombstones, grey cast iron, double-sided, with grid holes



**Material:**

GJL 300.

**Version:**

Support and mounting surfaces precision machined

**Sample order:**

K0803.212030050

**Note:**

Grid spacing  $50 \pm 0,02$  mm.  
Tombstones with grid holes are used on horizontal machining centres. The alphanumerically labelled grid holes guarantee a defined assignment of clamping elements by repeat setups. The tombstones conform to machine tables for machine tools acc. to DIN 55201 and JIS 6337-1980. Please order locating pins for positioning subplates on machine tables acc. to DIN 55201 separately. Please order protection plugs to plug unused grid holes separately. Ring bolts for hoisting are supplied. Other dimensions available on request.

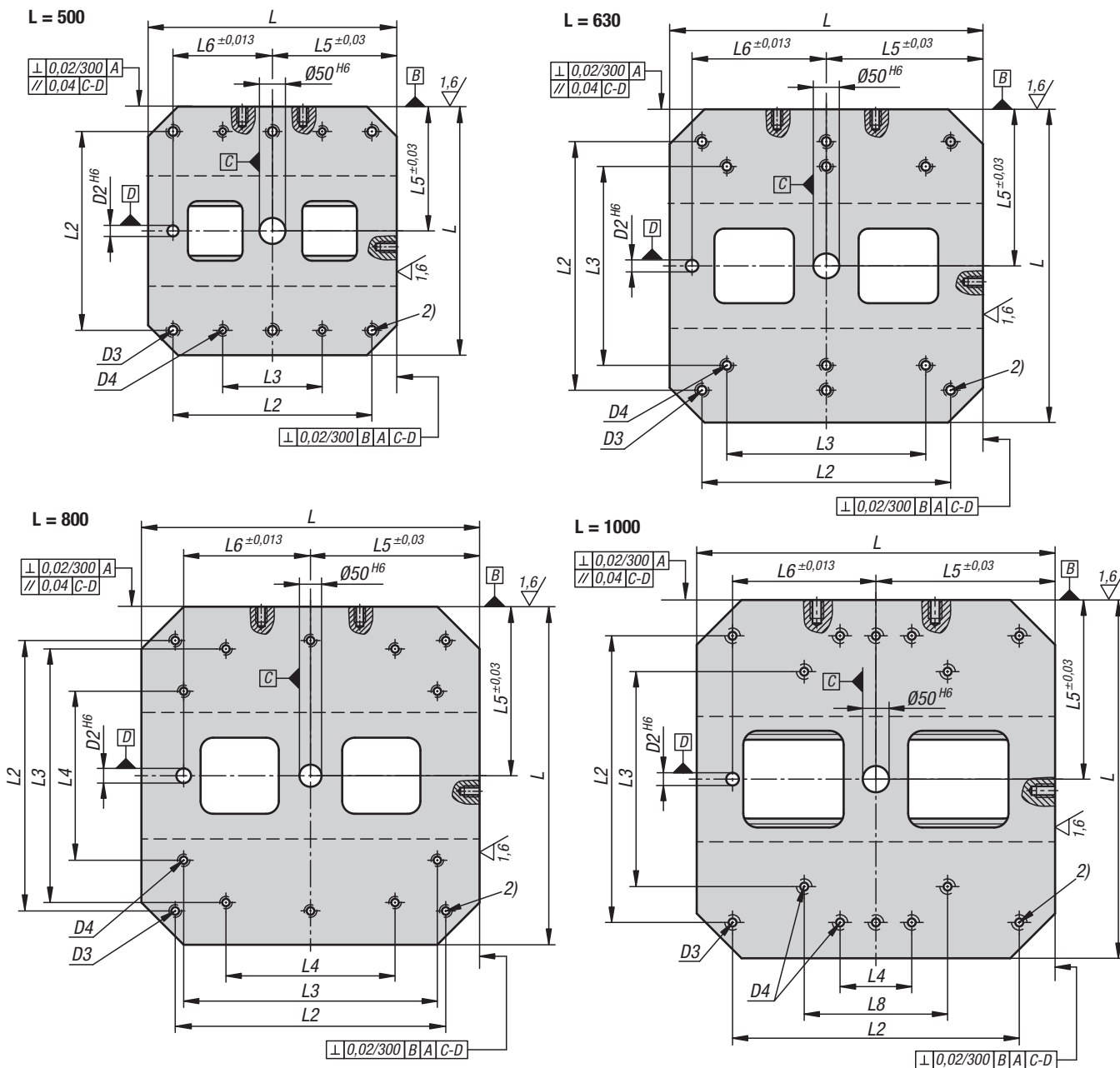
**Drawing reference:**

- 1) grid hole
- 2) hole for DIN 912 cap screw (D3/D4)

### KIPP Tombstones, grey cast iron, double-sided, with grid holes

| Order No.<br>D=Reamed hole 12 | Order No.<br>D=Reamed hole 16 | L    | H    | H1 | D1      | D2 | D3  | D4  | D5  | H3 |
|-------------------------------|-------------------------------|------|------|----|---------|----|-----|-----|-----|----|
| K0803.212030050               | K0803.216030050               | 300  | 500  | 50 | M12/M16 | 20 | M12 | M10 | M12 | 15 |
| K0803.212040050               | K0803.216040050               | 400  | 500  | 50 | M12/M16 | 20 | M16 | M12 | M16 | 18 |
| K0803.212040065               | K0803.216040065               | 400  | 650  | 50 | M12/M16 | 20 | M16 | M12 | M16 | 18 |
| K0803.212050060               | K0803.216050060               | 500  | 600  | 50 | M12/M16 | 20 | M16 | M12 | M16 | 18 |
| K0803.212050075               | K0803.216050075               | 500  | 750  | 50 | M12/M16 | 20 | M16 | M12 | M16 | 18 |
| K0803.212063070               | K0803.216063070               | 630  | 700  | 50 | M12/M16 | 25 | M16 | M16 | M16 | 18 |
| K0803.212063085               | K0803.216063085               | 630  | 850  | 50 | M12/M16 | 25 | M16 | M16 | M16 | 18 |
| K0803.212080080               | K0803.216080080               | 800  | 800  | 50 | M12/M16 | 25 | M16 | M16 | M16 | 18 |
| K0803.212080100               | K0803.216080100               | 800  | 1000 | 50 | M12/M16 | 25 | M16 | M16 | M16 | 18 |
| K0803.212100100               | K0803.216100100               | 1000 | 1000 | 55 | M12/M16 | 25 | M20 | M20 | M16 | 18 |
| K0803.212100125               | K0803.216100125               | 1000 | 1250 | 55 | M12/M16 | 25 | M20 | M20 | M16 | 18 |

## Tombstones, grey cast iron, double-sided, with grid holes



### KIPP Tombstones, grey cast iron, double-sided, with grid holes

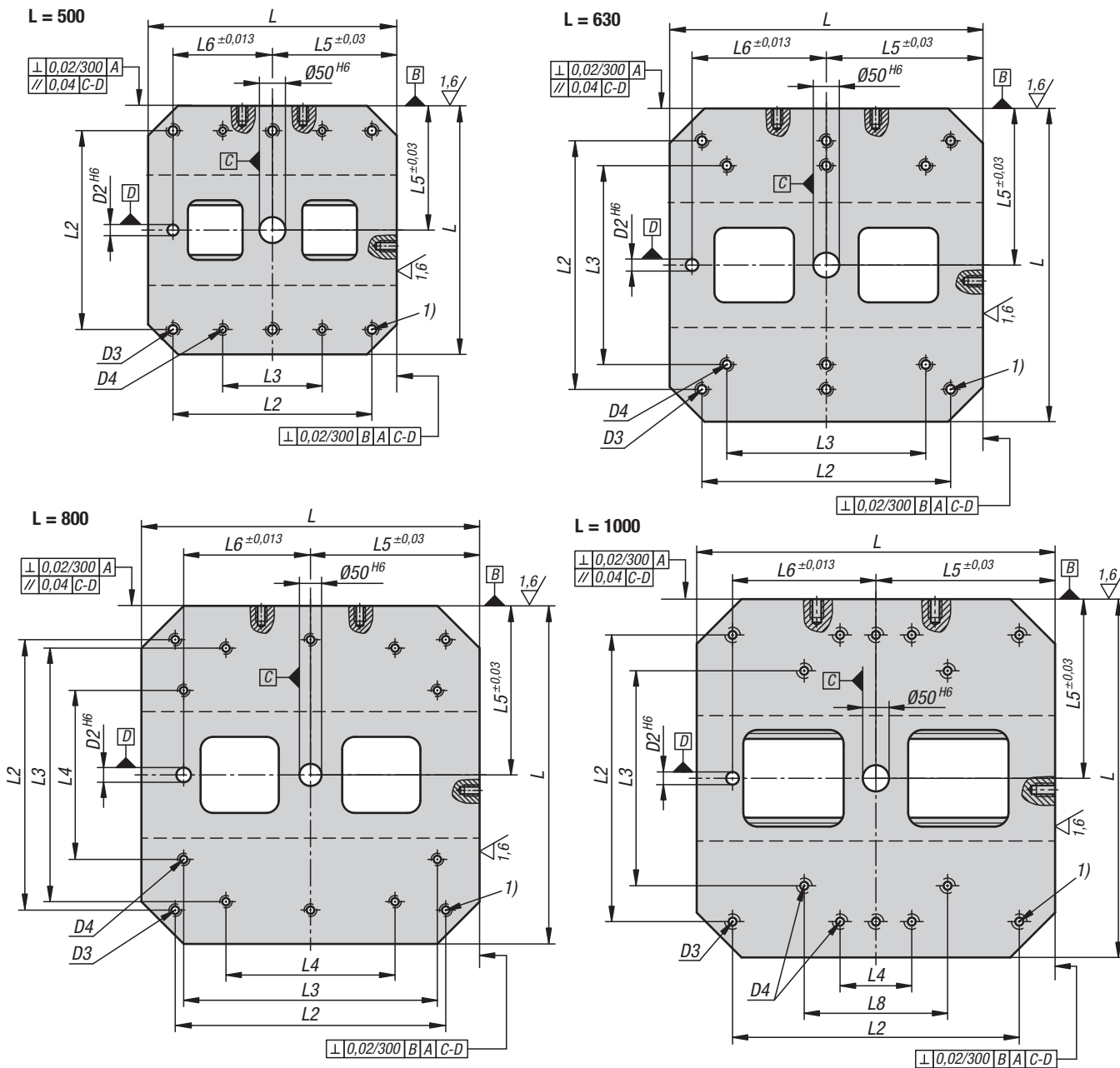
| Order No.<br>D=Reamed hole 12 | Order No.<br>D=Reamed hole 16 | L2  | L3  | L4  | L5  | L6  | L7  | L8  | L11 | No. of<br>grid holes | NL=No.<br>lengthwise | NB=No.<br>across |
|-------------------------------|-------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|----------------------|----------------------|------------------|
| K0803.212030050               | K0803.216030050               | 250 | 200 | -   | 150 | 100 | 40  | -   | 0   | 96                   | 5                    | 7                |
| K0803.212040050               | K0803.216040050               | 320 | 300 | 200 | 200 | 150 | 55  | -   | 25  | 128                  | 7                    | 7                |
| K0803.212040065               | K0803.216040065               | 320 | 300 | 200 | 200 | 150 | 55  | -   | 25  | 176                  | 7                    | 10               |
| K0803.212050060               | K0803.216050060               | 400 | 200 | -   | 250 | 200 | 75  | -   | 25  | 200                  | 9                    | 9                |
| K0803.212050075               | K0803.216050075               | 400 | 200 | -   | 250 | 200 | 75  | -   | 25  | 260                  | 9                    | 12               |
| K0803.212063070               | K0803.216063070               | 500 | 400 | -   | 315 | 200 | 100 | -   | 25  | 288                  | 11                   | 11               |
| K0803.212063085               | K0803.216063085               | 500 | 400 | -   | 315 | 200 | 100 | -   | 25  | 360                  | 11                   | 14               |
| K0803.212080080               | K0803.216080080               | 640 | 600 | 400 | 400 | 300 | 135 | -   | 25  | 420                  | 14                   | 13               |
| K0803.212080100               | K0803.216080100               | 640 | 600 | 400 | 400 | 300 | 135 | -   | 25  | 540                  | 14                   | 17               |
| K0803.212100100               | K0803.216100100               | 800 | 600 | 200 | 500 | 400 | 165 | 400 | 25  | 684                  | 18                   | 17               |
| K0803.212100125               | K0803.216100125               | 800 | 600 | 200 | 500 | 400 | 165 | 400 | 25  | 874                  | 18                   | 22               |





## Tombstones, grey cast iron, double-sided,

with T-slots

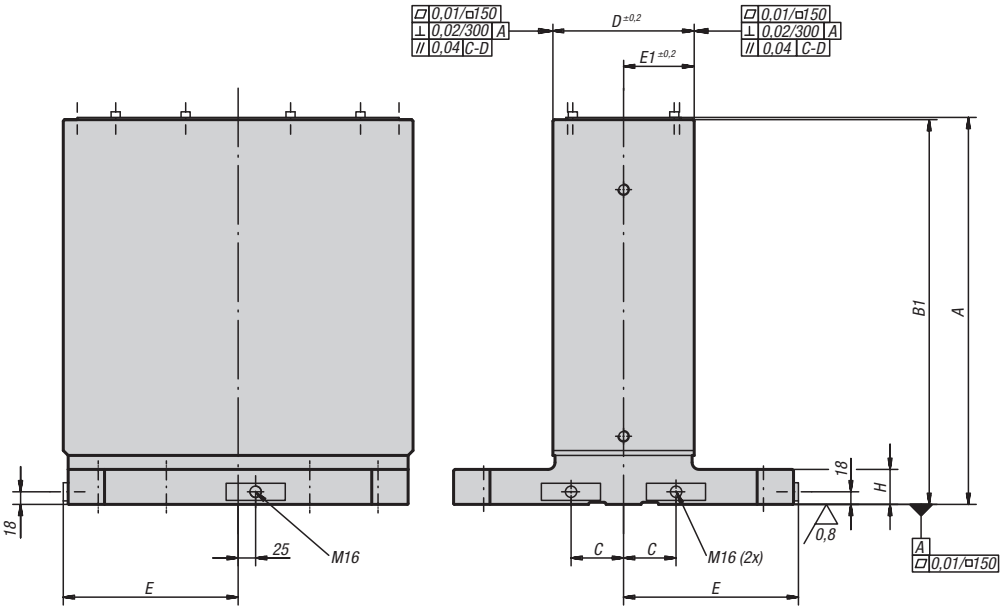


### KIPP Tombstones, grey cast iron, double-sided, with T-slots

| Order No.<br>BN=slot width 14 | Order No.<br>BN=slot width 18 | L    | H    | H1 | D2 | D3  | D4  | D5  | H3 | L1  | L2  | L3  | L4  | L5  | L6  | L7  | L8  | L9  | L11 | NB=No.<br>across |
|-------------------------------|-------------------------------|------|------|----|----|-----|-----|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------------------|
| K0803.314040050               | K0803.318040050               | 400  | 500  | 50 | 20 | M16 | M12 | M16 | 18 | 150 | 320 | 300 | 200 | 200 | 150 | 55  | -   | 100 | 25  | 3                |
| K0803.314040065               | K0803.318040065               | 400  | 650  | 50 | 20 | M16 | M12 | M16 | 18 | 150 | 320 | 300 | 200 | 200 | 150 | 55  | -   | 100 | 25  | 4                |
| K0803.314050060               | K0803.318050060               | 500  | 600  | 50 | 20 | M16 | M12 | M16 | 18 | 200 | 400 | 200 | -   | 250 | 200 | 75  | -   | 100 | 25  | 4                |
| K0803.314050075               | K0803.318050075               | 500  | 750  | 50 | 20 | M16 | M12 | M16 | 18 | 200 | 400 | 200 | -   | 250 | 200 | 75  | -   | 100 | 25  | 5                |
| K0803.314063070               | K0803.318063070               | 630  | 700  | 50 | 25 | M16 | M16 | M16 | 18 | 250 | 500 | 400 | -   | 315 | 200 | 100 | -   | 125 | 25  | 4                |
| K0803.314063085               | K0803.318063085               | 630  | 850  | 50 | 25 | M16 | M16 | M16 | 18 | 250 | 500 | 400 | -   | 315 | 200 | 100 | -   | 125 | 25  | 5                |
| K0803.314080080               | K0803.318080080               | 800  | 800  | 50 | 25 | M16 | M16 | M16 | 18 | 300 | 640 | 600 | 400 | 400 | 300 | 135 | -   | 150 | 25  | 4                |
| K0803.314080100               | K0803.318080100               | 800  | 1000 | 50 | 25 | M16 | M16 | M16 | 18 | 300 | 640 | 600 | 400 | 400 | 300 | 135 | -   | 150 | 25  | 5                |
| K0803.314100100               | K0803.318100100               | 1000 | 1000 | 55 | 25 | M20 | M20 | M16 | 18 | 350 | 800 | 600 | 200 | 500 | 400 | 165 | 400 | 160 | 25  | 5                |
| K0803.314100125               | K0803.318100125               | 1000 | 1250 | 55 | 25 | M20 | M20 | M16 | 18 | 350 | 800 | 600 | 200 | 500 | 400 | 165 | 400 | 160 | 25  | 6                |

## Tombstones double-sided

without grid holes



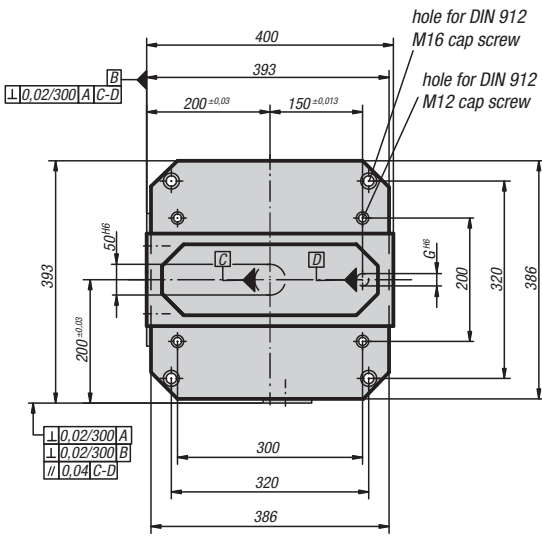
**Material:**  
GJL 300.

**Version:**  
Reference surfaces precision machined.  
The clamping surfaces have 0.5 mm allowance.

**Sample order:**  
K0803.0040151

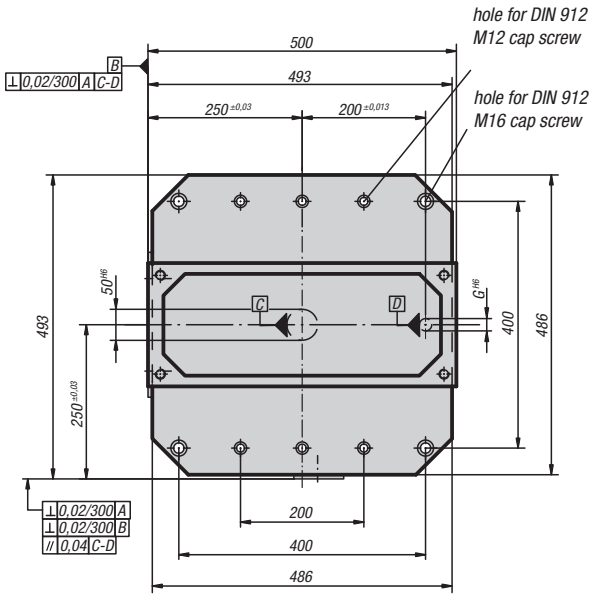
**Note:**  
The double-sided tombstones are matched to subplates for machine tools acc. to DIN 55201 and JIS 6337-1980.  
Ring bolts for lifting are supplied. A cover prevents the cavity of the tombstone filling up with swarf.

K0803.0040151



K0803.005020

K0803.0050201

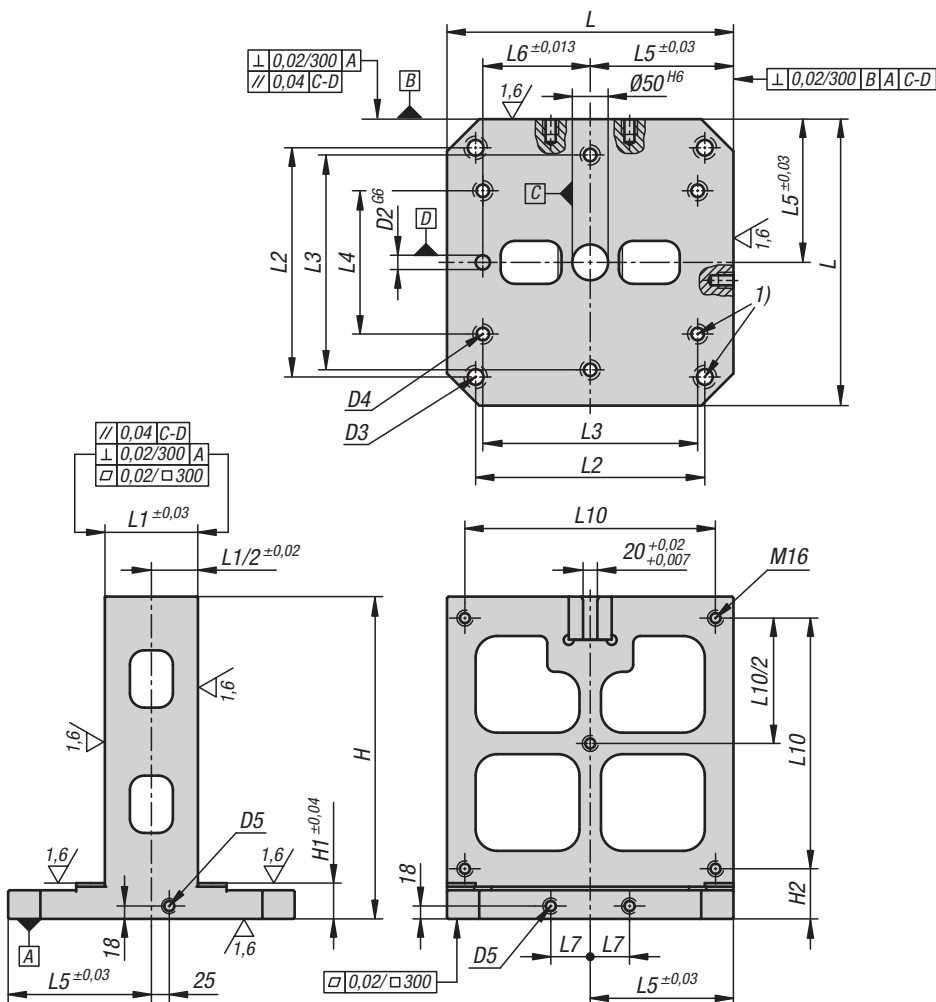


### KIPP Tombstones double-sided without grid holes

| Order No.     | A   | B1  | C  | D       | E   | E1         | G  | H  | weight ca. kg |
|---------------|-----|-----|----|---------|-----|------------|----|----|---------------|
| K0803.0040151 | 553 | 550 | 55 | 151±0,2 | 200 | 75,5 ±0,2  | 20 | 50 | 202           |
| K0803.0050201 | 653 | 650 | 75 | 201±0,2 | 250 | 101,5 ±0,2 | 20 | 50 | 317           |

## Tombstone, grey cast iron, double-sided,

for interchangeable subplates



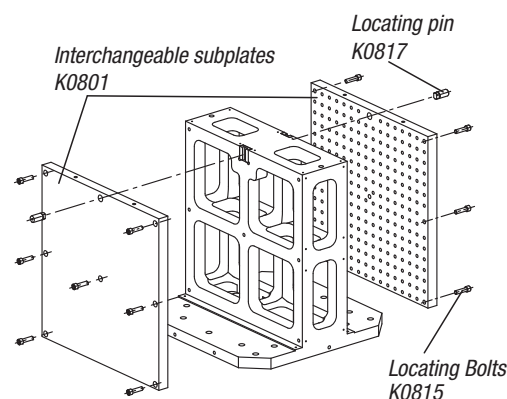
**Material:**  
GJL 300.

**Version:**  
Support and mounting surfaces precision machined

**Sample order:**  
K0804.14045

**Note:**  
Interchangeable subplates can be positioned and mounted on both sides of the tombstone. This means that clamping fixtures can be replaced efficiently. The tombstones conform to machine tables for machine tools acc. to DIN 55201 and JIS6337-1980. Please order locating pins for positioning subplates on machine tables acc. to DIN 55201 separately. Ring bolts for hoisting are supplied, as well as 2 positioning pins for positioning the interchangeable subplates.

**Drawing reference:**  
1) hole for DIN 912 cap screw

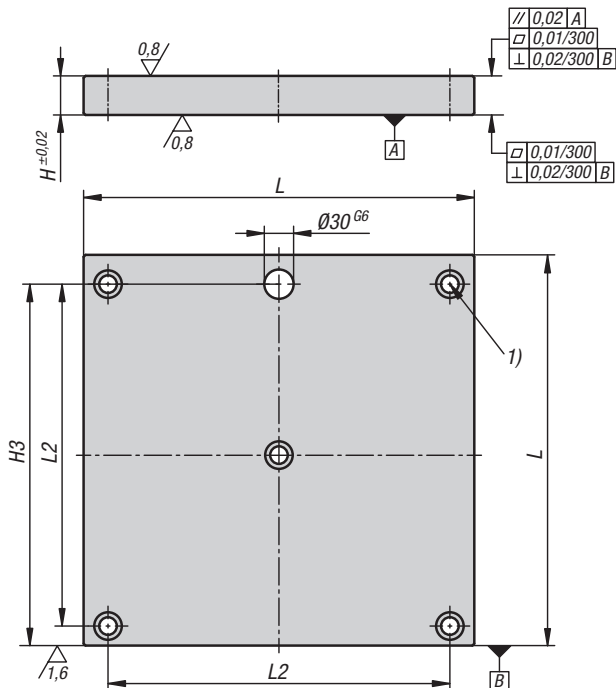
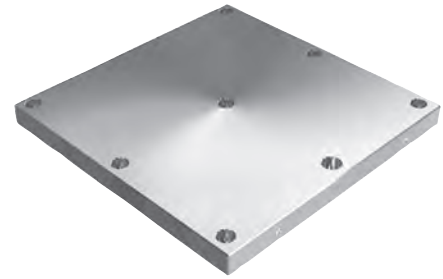


### KIPP Tombstone, grey cast iron, double-sided, for interchangeable subplates

| Order No.   | L   | L1  | H   | D2 | D3  | D4  | D5   | H1 | H2 | L2  | L3  | L4  | L5  | L6  | L7  | L10 |
|-------------|-----|-----|-----|----|-----|-----|------|----|----|-----|-----|-----|-----|-----|-----|-----|
| K0804.14045 | 400 | 130 | 450 | 20 | M16 | M12 | M 16 | 50 | 70 | 320 | 300 | 200 | 200 | 150 | 55  | 350 |
| K0804.15055 | 500 | 150 | 550 | 20 | M16 | M12 | M 16 | 55 | 75 | 400 | 200 | -   | 250 | 200 | 75  | 450 |
| K0804.16369 | 630 | 220 | 690 | 25 | M16 | M16 | M 16 | 60 | 80 | 500 | 400 | -   | 315 | 200 | 100 | 580 |
| K0804.18086 | 800 | 250 | 860 | 25 | M16 | M16 | M 16 | 60 | 80 | 640 | 600 | 400 | 400 | 300 | 135 | 750 |

## Interchangeable subplates, grey cast iron,

with pre-machined clamping faces



**Material:**

GJL 300.

**Version:**

Support and mounting surfaces ground

**Sample order:**

K0801.1004040

**Note:**

Interchangeable subplates with pre-machine clamping faces are used double-sided, together with the tombstones. The interchangeable subplates are positioned and mounted on both sides of the tombstone. This means that clamping fixtures can be replaced efficiently. The interchangeable subplates can be machined accordingly by the customer.

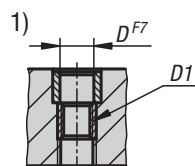
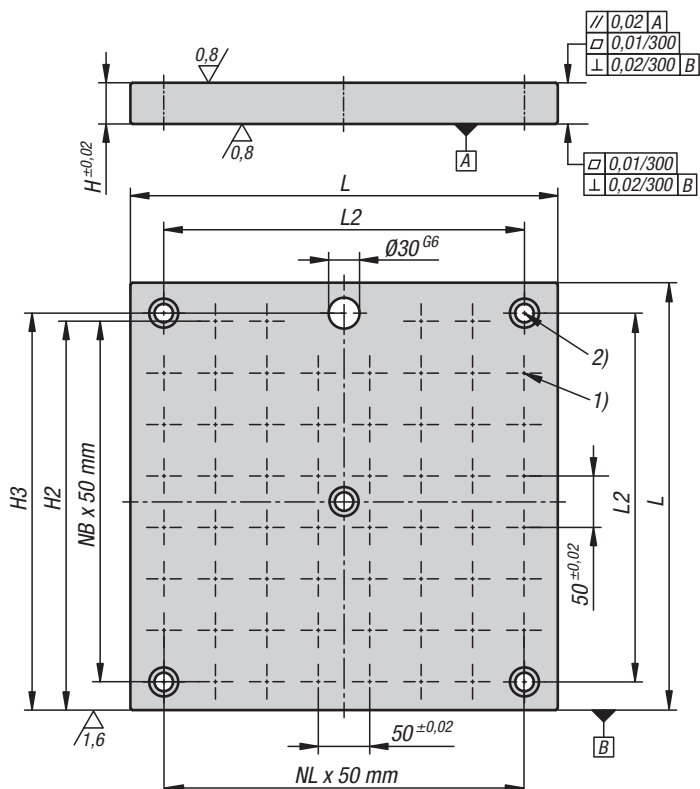
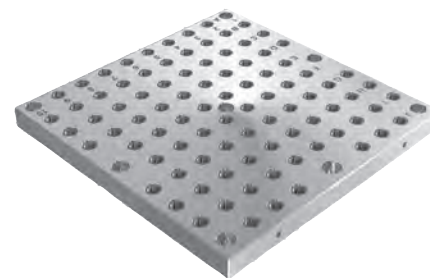
**Drawing reference:**

1) hole for DIN 912 cap screw, M16

### KIPP Interchangeable subplates, grey cast iron, with pre-machined clamping faces

| Order No.     | L   | H  | H3  | L2  | No. of fastening holes |
|---------------|-----|----|-----|-----|------------------------|
| K0801.1004040 | 400 | 40 | 370 | 350 | 5                      |
| K0801.1005050 | 500 | 40 | 470 | 450 | 7                      |
| K0801.1006363 | 630 | 40 | 600 | 580 | 7                      |
| K0801.1008080 | 800 | 50 | 770 | 750 | 7                      |

## Interchangeable subplates, grey cast iron, with grid holes



**Material:**  
GJL 300.

**Version:**  
Mounting surfaces ground

**Sample order:**  
K0801.2124040

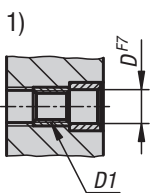
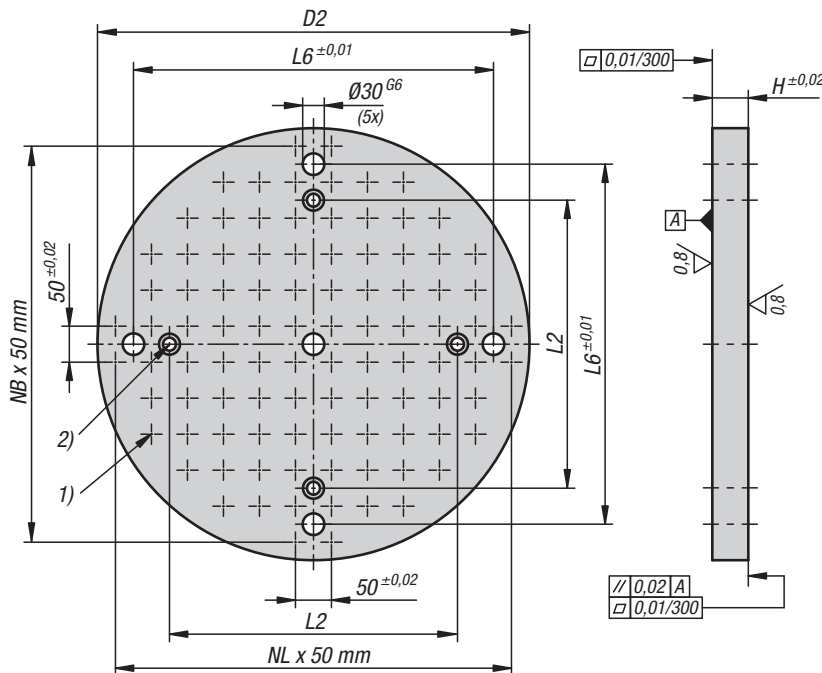
**Note:**  
Interchangeable subplates with grid holes are used double-sided, together with the tombstones. The interchangeable subplates are positioned and mounted on both sides of the tombstone. This means that clamping fixtures can be replaced efficiently. The alphanumerically labelled grid holes mean that the clamping elements can be assigned in a defined manner in the event of repeat setups. Please order protection plugs to plug unused grid holes separately.

**Drawing reference:**  
1) grid hole  
2) hole for DIN 912 cap screw, M16

### KIPP Interchangeable subplates, grey cast iron, with grid holes

| Order No.     | L   | H  | D  | D1  | H2  | H3  | L2  | N1=No. of grid holes | NL=No. lengthwise | NB=No. across | No. of fastening holes |
|---------------|-----|----|----|-----|-----|-----|-----|----------------------|-------------------|---------------|------------------------|
| K0801.2124040 | 400 | 40 | 12 | M12 | 370 | 370 | 350 | 58                   | 7                 | 7             | 5                      |
| K0801.2125050 | 500 | 40 | 12 | M12 | 470 | 470 | 450 | 94                   | 9                 | 9             | 7                      |
| K0801.2126363 | 630 | 40 | 12 | M12 | 585 | 600 | 580 | 138                  | 11                | 11            | 7                      |
| K0801.2128080 | 800 | 50 | 12 | M12 | 770 | 770 | 750 | 250                  | 15                | 15            | 7                      |
| K0801.2164040 | 400 | 40 | 16 | M16 | 370 | 370 | 350 | 58                   | 7                 | 7             | 5                      |
| K0801.2165050 | 500 | 40 | 16 | M16 | 470 | 470 | 450 | 90                   | 9                 | 9             | 7                      |
| K0801.2166363 | 630 | 40 | 16 | M16 | 585 | 600 | 580 | 138                  | 11                | 11            | 7                      |
| K0801.2168080 | 800 | 50 | 16 | M16 | 770 | 770 | 750 | 246                  | 15                | 15            | 7                      |

## Baseplates, grey cast iron, round, with grid holes



**Material:**  
GJL 300.

**Version:**  
Support and mounting surfaces ground

**Sample order:**  
K1532.21230050

**Note:**  
Grid spacing  $50 \pm 0,02$  mm.  
Round baseplates with grid holes are used for setting up modular fixtures. These baseplates are positioned and mounted directly on machine tables. The aligning holes are used to align the baseplate on the machine table.  
Please order locating pins to locate the baseplates separately.  
Please order protection plugs to plug unused grid holes separately.  
Ring bolts for hoisting are supplied.  
Other dimensions available on request.

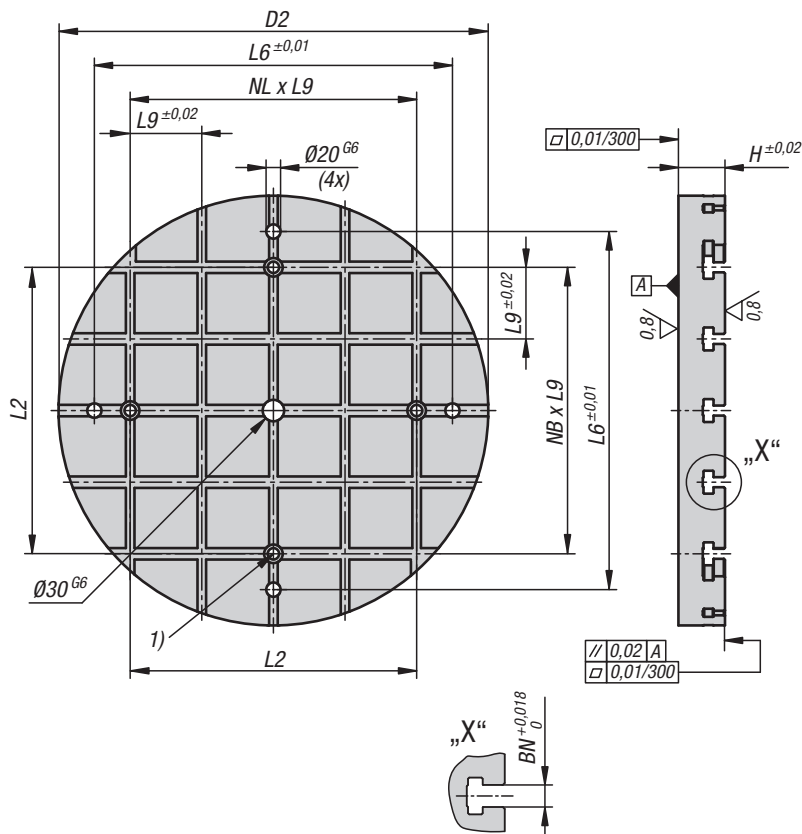
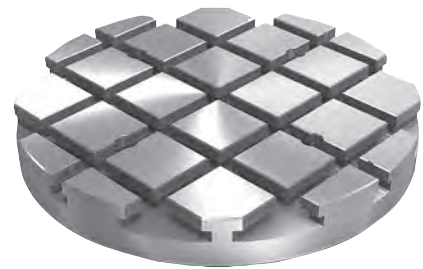
**On request:**  
other dimensions.

**Drawing reference:**  
1) grid hole  
2) hole for DIN 912 cap screw (D4)

### KIPP Baseplates, grey cast iron, round, with grid holes

| Order No.      | D2  | H  | D  | D1  | D4  | L2  | L6  | N1=No. of grid holes | NL=No. lengthwise | NB=No. across |
|----------------|-----|----|----|-----|-----|-----|-----|----------------------|-------------------|---------------|
| K1532.21230050 | 300 | 50 | 12 | M12 | M12 | 150 | 220 | 24                   | 5                 | 5             |
| K1532.21240050 | 400 | 50 | 12 | M12 | M12 | 250 | 320 | 44                   | 7                 | 7             |
| K1532.21250050 | 500 | 50 | 12 | M12 | M16 | 300 | 400 | 68                   | 9                 | 9             |
| K1532.21260050 | 600 | 50 | 12 | M12 | M16 | 400 | 500 | 96                   | 11                | 11            |
| K1532.21650050 | 500 | 50 | 16 | M16 | M16 | 300 | 400 | 68                   | 9                 | 9             |
| K1532.21660050 | 600 | 50 | 16 | M16 | M16 | 400 | 500 | 96                   | 11                | 11            |

## Baseplates, grey cast iron, round, with T-slots



**Material:**  
GJL 300.

**Version:**  
Support and mounting surfaces ground

**Sample order:**  
K1532.31430050

**Note:**  
Round baseplates with T-slots are used for constructing modular fixtures. These baseplates are positioned and mounted directly on machine tables. The precise longitudinal and transverse slot spacing ensures very high repeat clamping accuracy. The aligning holes are used to align the baseplate on the machine table. Please order locating pins to locate the baseplates separately. Ring bolts with T-nuts for hoisting are supplied. Other dimensions available on request.

**On request:**  
other dimensions.

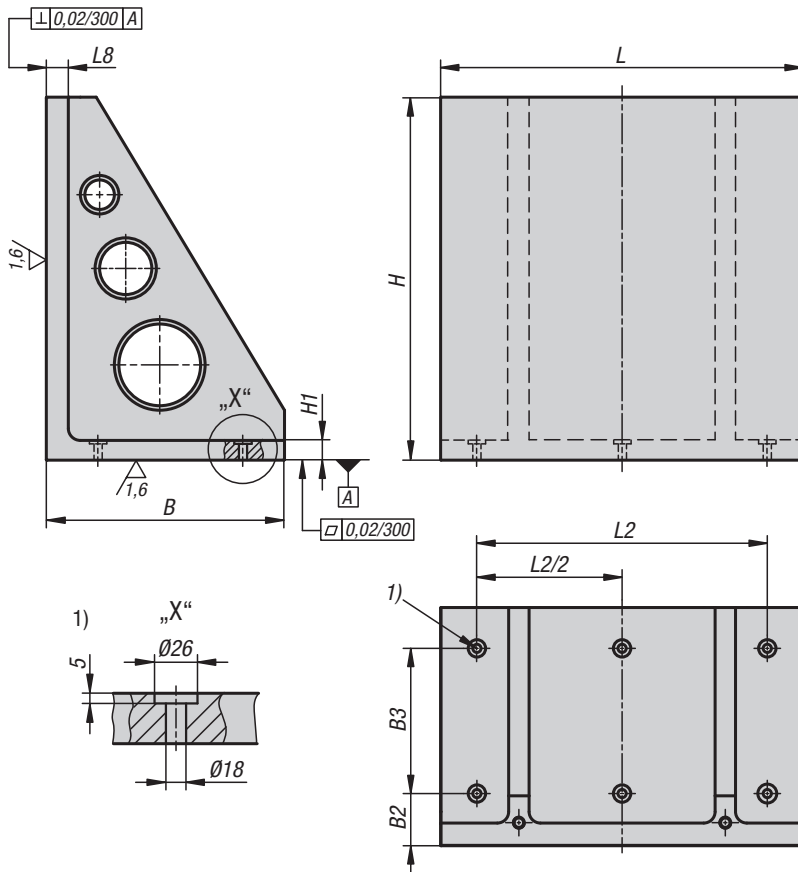
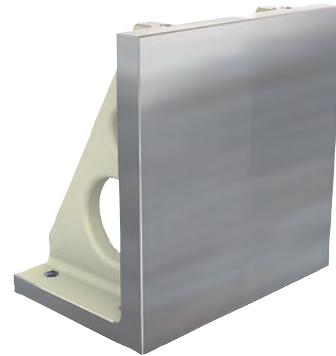
**Drawing reference:**  
1) hole for DIN 912 cap screw (D4)

### KIPP Baseplates, grey cast iron, round, with T-slots

| Order No.      | D2  | H  | D4  | L2  | L6  | L9  | BN=slot width | NL=No. lengthwise | NB=No. across |
|----------------|-----|----|-----|-----|-----|-----|---------------|-------------------|---------------|
| K1532.31430050 | 300 | 50 | M12 | 150 | 250 | 75  | 14            | 2                 | 2             |
| K1532.31440050 | 400 | 50 | M12 | 250 | 350 | 75  | 14            | 4                 | 4             |
| K1532.31850065 | 500 | 65 | M16 | 300 | 450 | 100 | 18            | 4                 | 4             |
| K1532.31860065 | 600 | 65 | M16 | 400 | 550 | 100 | 18            | 4                 | 4             |

## Angle plates, grey cast iron, wide

with pre-machined clamping faces



**Material:**  
GJL 300.

**Version:**  
Support and mounting surfaces precision machined

**Sample order:**  
K1531.100302230

**Note:**  
Angle plates are used for the vertical positioning and mounting of workpieces and fixtures. Angle plates with pre-machined clamping faces provide a quick and economic method of producing a base with specific grid or individual holes. Ring bolts for hoisting are supplied.

**Drawing reference:**  
1) hole for DIN 912 cap screw

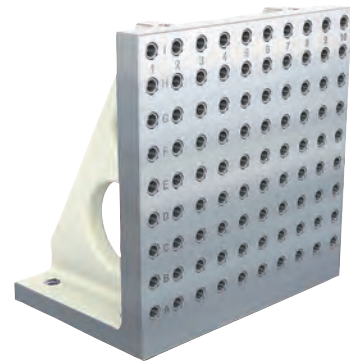
### KIPP Angle plates, grey cast iron, wide with pre-machined clamping faces

| Order No.       | L   | B   | H   | L2  | B2  | B3  | H1 | L8 |
|-----------------|-----|-----|-----|-----|-----|-----|----|----|
| K1531.100302230 | 300 | 220 | 300 | 250 | 90  | 100 | 30 | 40 |
| K1531.100402840 | 400 | 280 | 400 | 320 | 90  | 160 | 30 | 40 |
| K1531.100503450 | 500 | 340 | 500 | 400 | 90  | 200 | 35 | 50 |
| K1531.100634363 | 630 | 435 | 630 | 500 | 100 | 250 | 40 | 50 |
| K1531.100805280 | 800 | 525 | 800 | 640 | 115 | 320 | 45 | 50 |



## Angle plates, grey cast iron, wide

with grid holes



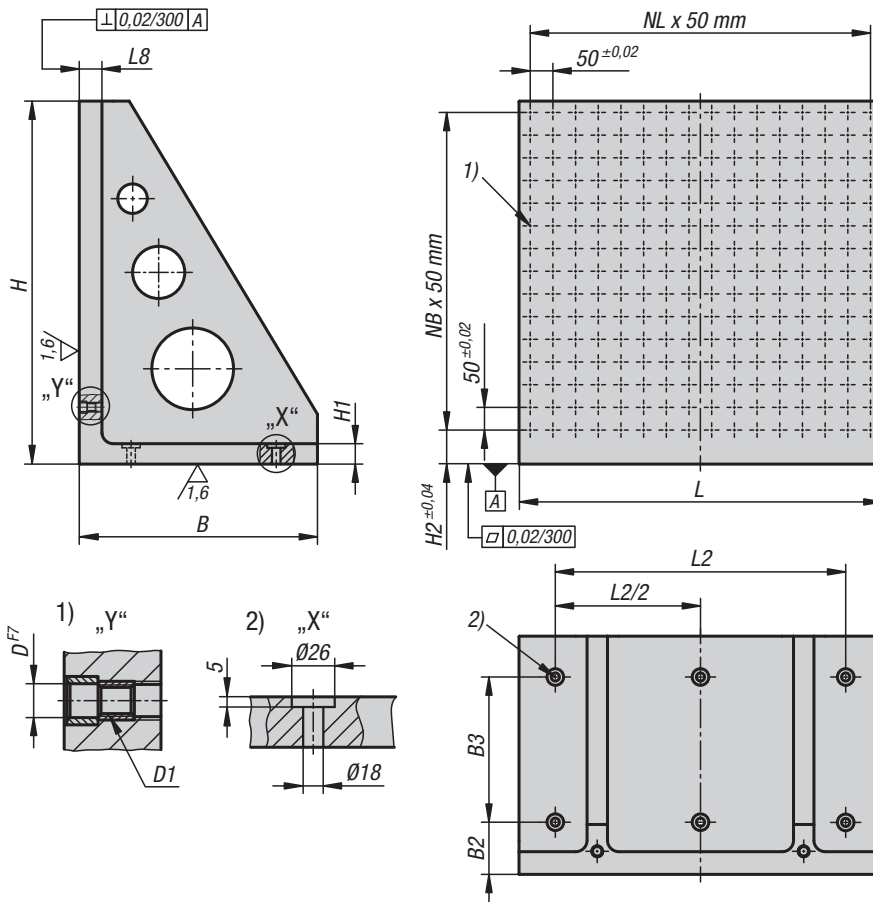
**Material:**  
GJL 300.

**Version:**  
Support and mounting surfaces precision machined

**Sample order:**  
K1531.212302230

**Note:**  
Grid spacing  $50 \pm 0.02$  mm.  
Angle plates are used for the vertical positioning and mounting of workpieces and fixtures. These angle plates with grid holes provide a quick and economic method of clamping workpieces with standardised clamping elements. The alphanumerically labelled grid holes guarantee a defined assignment of clamping elements by repeat setups. Ring bolts for hoisting are supplied. Please order protection plugs to plug unused grid holes separately.

**Drawing reference:**  
1) grid hole  
2) hole for DIN 912 cap screw



### KIPP Angle plates, grey cast iron, wide with grid holes

| Order No.       | L   | H   | L2  | B   | B2  | B3  | H1 | H2 | L8 | D  | D1  | N1=No. of grid holes | NL=No. lengthwise | NB=No. across |
|-----------------|-----|-----|-----|-----|-----|-----|----|----|----|----|-----|----------------------|-------------------|---------------|
| K1531.212302230 | 300 | 300 | 250 | 220 | 90  | 100 | 30 | 75 | 40 | 12 | M12 | 30                   | 5                 | 4             |
| K1531.212402840 | 400 | 400 | 320 | 280 | 90  | 160 | 30 | 75 | 40 | 12 | M12 | 56                   | 7                 | 6             |
| K1531.212503450 | 500 | 500 | 400 | 340 | 90  | 200 | 35 | 75 | 50 | 12 | M12 | 90                   | 9                 | 8             |
| K1531.212634363 | 630 | 630 | 500 | 435 | 100 | 250 | 40 | 40 | 50 | 12 | M12 | 144                  | 11                | 11            |
| K1531.212805280 | 800 | 800 | 640 | 525 | 115 | 320 | 45 | 75 | 50 | 12 | M12 | 240                  | 15                | 14            |
| K1531.216302230 | 300 | 300 | 250 | 220 | 90  | 100 | 30 | 75 | 40 | 16 | M16 | 30                   | 5                 | 4             |
| K1531.216402840 | 400 | 400 | 320 | 280 | 90  | 160 | 30 | 75 | 40 | 16 | M16 | 56                   | 7                 | 6             |
| K1531.216503450 | 500 | 500 | 400 | 340 | 90  | 200 | 35 | 75 | 50 | 16 | M16 | 90                   | 9                 | 8             |
| K1531.216634363 | 630 | 630 | 500 | 435 | 100 | 250 | 40 | 40 | 50 | 16 | M16 | 144                  | 11                | 11            |
| K1531.216805280 | 800 | 800 | 640 | 525 | 115 | 320 | 45 | 75 | 50 | 16 | M16 | 240                  | 15                | 14            |

## Angle plates, grey cast iron, wide

with T-slots



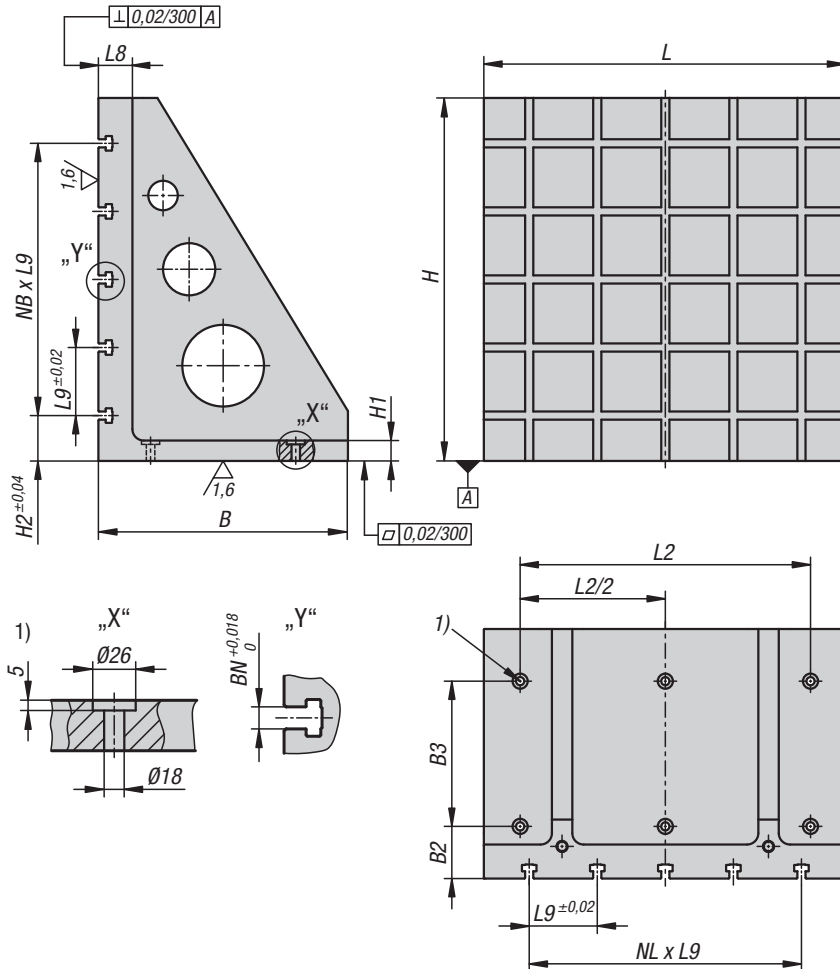
**Material:**  
GJL 300.

**Version:**  
Support and mounting surfaces precision machined

**Sample order:**  
K1531.314302230

**Note:**  
Angle plates are used for the vertical positioning and mounting of workpieces and fixtures. These angle plates with T-slots provide a quick and economic way of clamping workpieces with standardised clamping elements. The precise longitudinal and transverse slot spacing ensures high repeat clamping accuracy. Ring bolts for hoisting are supplied.

**Drawing reference:**  
1) hole for DIN 912 cap screw

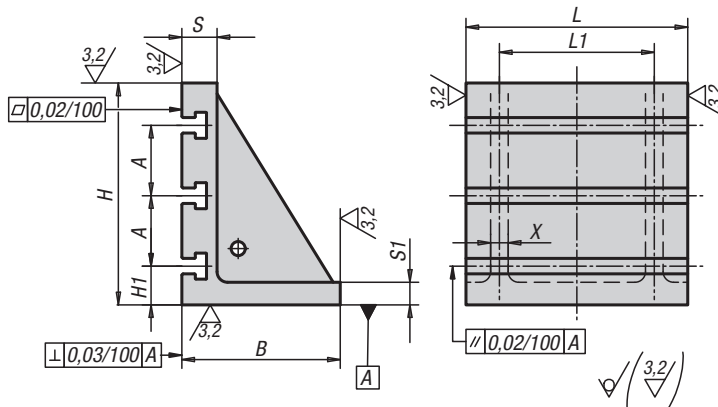


### KIPP Angle plates, grey cast iron, wide with T-slots

| Order No.       | L   | B   | H   | L2  | B2  | B3  | H1 | H2  | L8 | L9  | BN=slot width | NL=No. lengthwise | NB=No. across |
|-----------------|-----|-----|-----|-----|-----|-----|----|-----|----|-----|---------------|-------------------|---------------|
| K1531.314302230 | 300 | 220 | 300 | 250 | 90  | 100 | 30 | 50  | 60 | 100 | 14            | 2                 | 2             |
| K1531.314402840 | 400 | 300 | 400 | 320 | 90  | 160 | 30 | 50  | 60 | 100 | 14            | 3                 | 3             |
| K1531.314503450 | 500 | 350 | 500 | 400 | 90  | 200 | 35 | 50  | 60 | 100 | 14            | 4                 | 4             |
| K1531.314634363 | 630 | 450 | 630 | 500 | 100 | 250 | 40 | 65  | 65 | 125 | 14            | 4                 | 4             |
| K1531.314805280 | 800 | 550 | 800 | 640 | 115 | 320 | 45 | 100 | 75 | 150 | 14            | 4                 | 4             |
| K1531.318302230 | 300 | 220 | 300 | 250 | 90  | 100 | 30 | 50  | 60 | 100 | 18            | 2                 | 2             |
| K1531.318402840 | 400 | 300 | 400 | 320 | 90  | 160 | 30 | 50  | 60 | 100 | 18            | 3                 | 3             |
| K1531.318503450 | 500 | 350 | 500 | 400 | 90  | 200 | 35 | 50  | 60 | 100 | 18            | 4                 | 4             |
| K1531.318634363 | 630 | 450 | 630 | 500 | 100 | 250 | 40 | 65  | 65 | 125 | 18            | 4                 | 4             |
| K1531.318805280 | 800 | 550 | 800 | 640 | 115 | 320 | 45 | 100 | 75 | 150 | 18            | 4                 | 4             |

## Angle plates

with or without T-slots cast iron

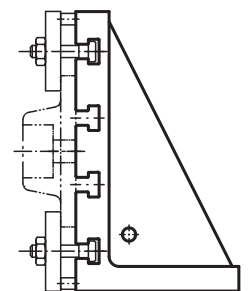


**Material:**  
GJL 250 annealed.

**Sample order:**  
K1451.3203701

**On request:**  
Other slot widths.

**Drawing reference:**  
machined faces: +0.2 mm/ +0.5 mm  
unmachined faces: ±2 mm



### KIPP Angle plates with or without T-slots cast iron

| Order No.<br>without slot | Order No.<br>with t-slot | L   | L1  | B   | H   | H1   | S  | S1 | A     | X  | T-slot |
|---------------------------|--------------------------|-----|-----|-----|-----|------|----|----|-------|----|--------|
| K1451.100125              | -                        | 100 | 40  | 100 | 125 | -    | 20 | 10 | -     | 10 | -      |
| K1451.125160              | -                        | 125 | 100 | 100 | 160 | -    | 20 | 10 | -     | 10 | -      |
| K1451.200250              | -                        | 200 | 120 | 125 | 250 | -    | 30 | 15 | -     | 15 | -      |
| K1451.250300              | -                        | 250 | 200 | 150 | 300 | -    | 40 | 20 | -     | 20 | -      |
| K1451.320370              | K1451.3203701            | 320 | 280 | 200 | 370 | -/65 | 50 | 25 | -/80  | 25 | -/14   |
| K1451.400450              | K1451.4004501            | 400 | 280 | 265 | 450 | -/75 | 60 | 30 | -/100 | 30 | -/18   |
| K1451.500550              | K1451.5005501            | 500 | 360 | 315 | 550 | -/75 | 70 | 35 | -/100 | 35 | -/18   |



## Mineral cast



“KIPPblock” workholding towers are used as an alternative to cast or steel tooling columns. Due to its low specific weight (lighter than aluminium), mineral cast towers are suitable for keeping the loading on 4 and 5-axis machines as low as possible. Ideal for use on machines with high accelerations and rapid traverse speeds.

The flexibility of design is highly convincing. Steel jacketed versions are also available in a wide range of shapes and sizes.

#### ADVANTAGES:

- Outstanding absorption properties, 6-10 times better than grey cast iron
- Very low specific weight, lighter than aluminium
- Low heat conductivity
- Flexible planning regarding design
- Up to 30% increased service life of cutting tools

**For many years mineral cast has been used as an alternative to iron castings and steel constructions. Today it is the leading technology for many applications. It is thanks to mineral cast that new innovations in electronics and medical technology were made possible.**

#### MINERAL CAST TECHNOLOGY

1. Mineral cast is a dual component system consisting of a mineral filler and an epoxy resin bonding agent.
2. The mineral filler makes up roughly 90% of the total weight.
3. Mineral cast is produced using a cold casting method injected into precision negative moulds at room temperature.
4. Due to the true form and high precision casting method, added elements such as plates, thread inserts, guides or tubes can be precisely placed in the casting mould.



# KIPPblock



## Mineral cast workholding tower



## Mineral cast workholding tower with steel jacket



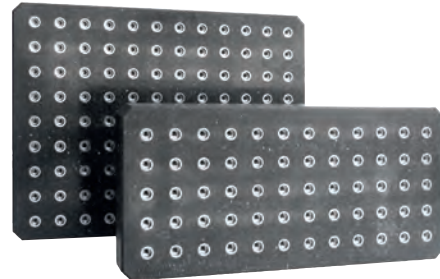
## Mineral cast workholding tower with zero-point clamping system



## Mineral cast cross tower

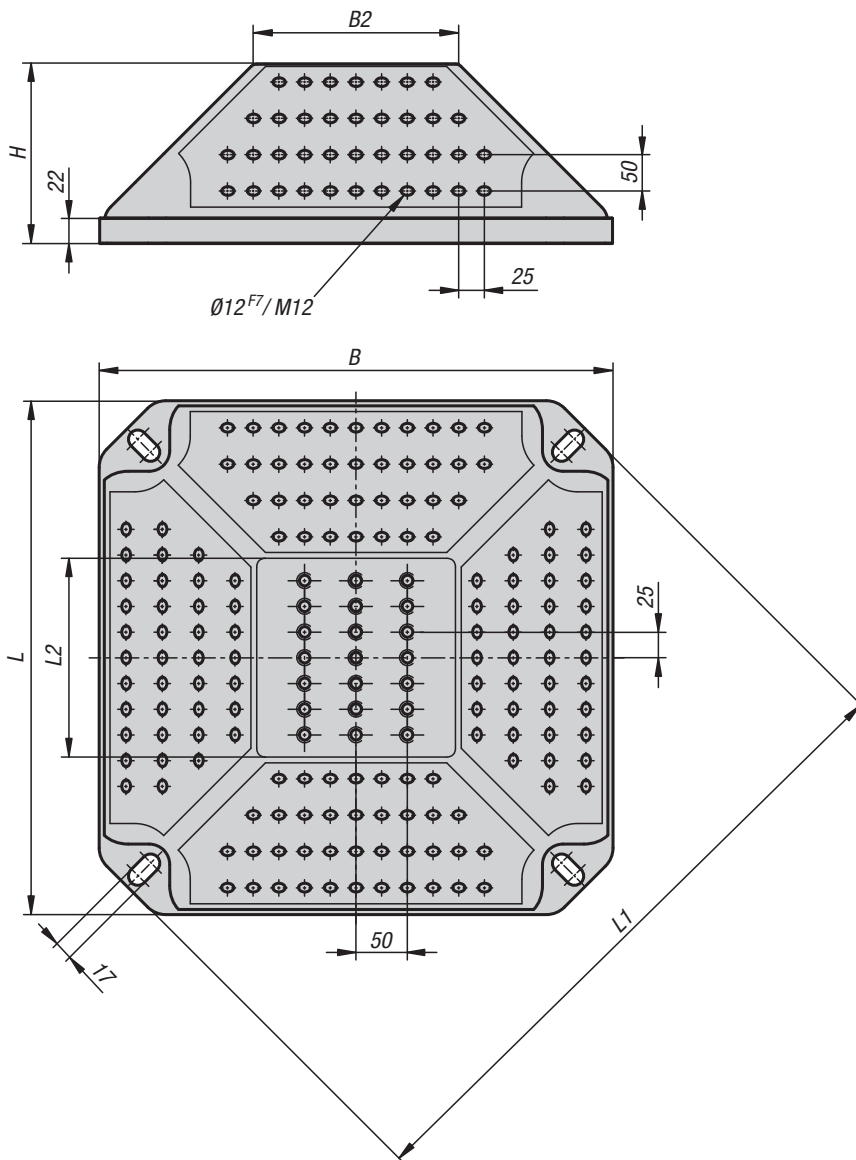


## Mineral cast plates



## Workholding pyramid

mineral cast



**Material:**

Mineral cast is a two-component system comprising mineral fillers and an epoxy resin as the binding agent.

**Version:**

Mineral cast is cold-cast using precision negative moulds at room temperature and subsequently hardened.

**Sample order:**

K1235.12400400140

**Note:**

The mineral cast workholding pyramid was specifically developed for use on 5-axis machines. The pyramid form enables 5 different clamping systems or setups can be mounted on the clamping surfaces. The low net weight of the clamping pyramid means that the overall loading on the machine table is only slightly increased.

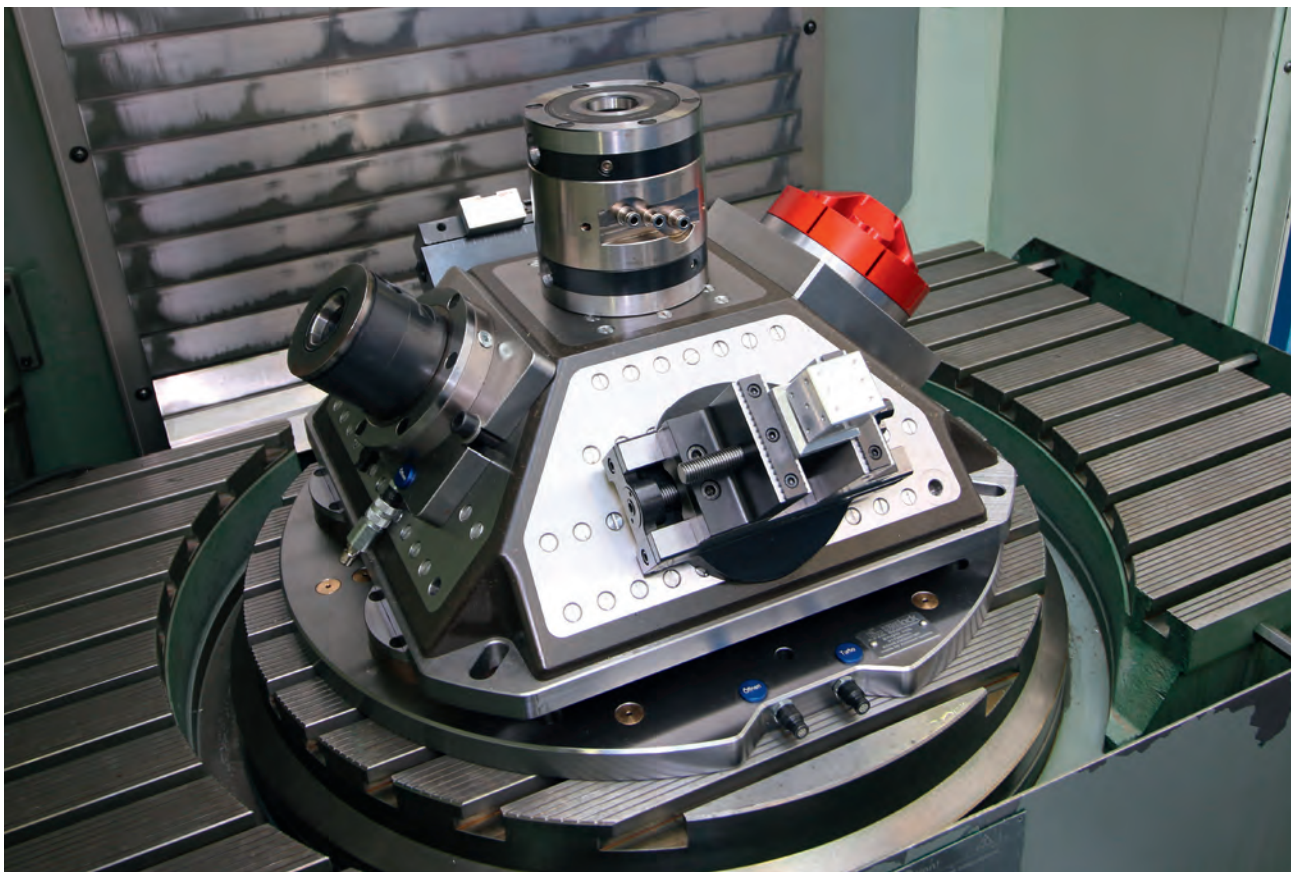
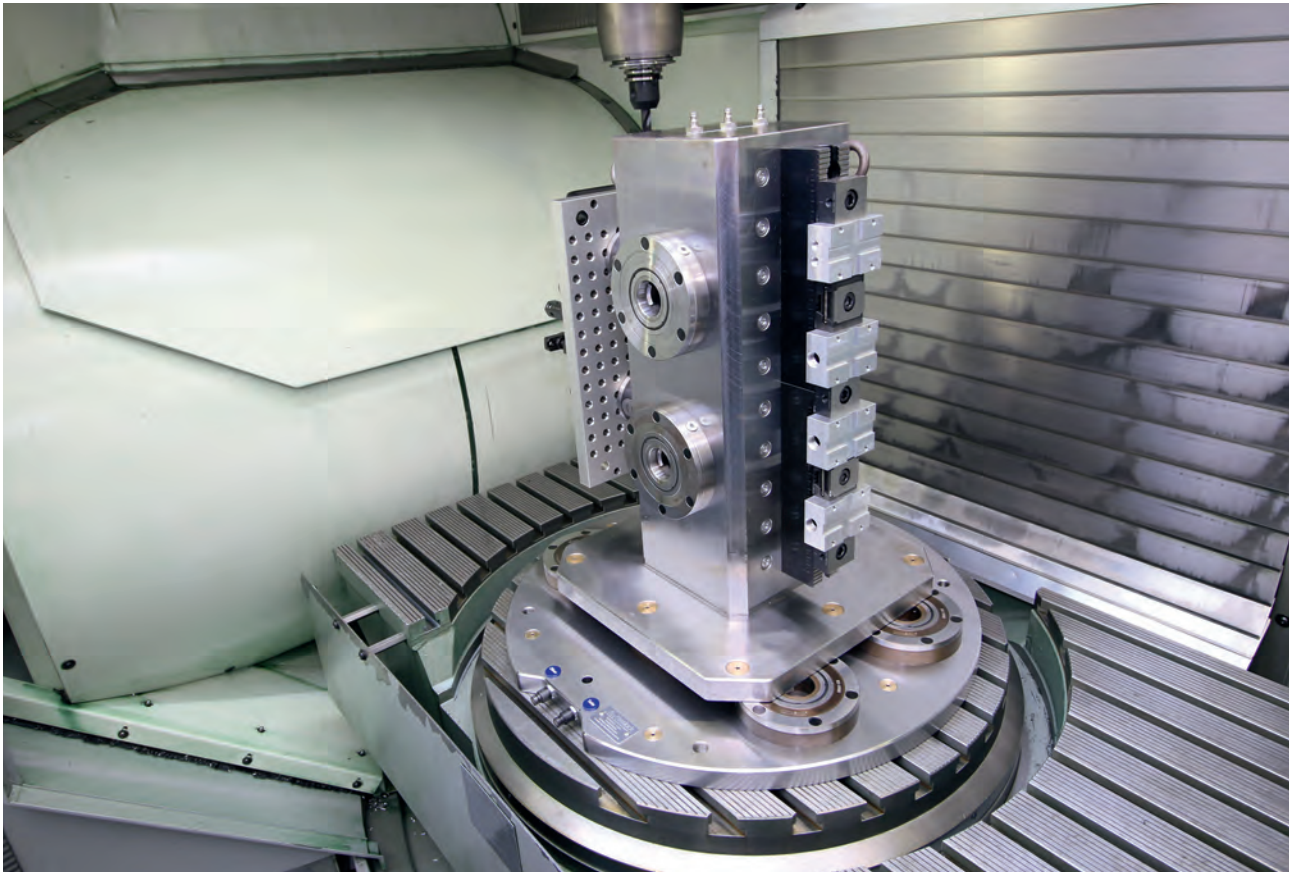
**Advantages:**

- Low specific weight, lighter than aluminium
- Outstanding vibration absorbing properties, 6–10 times better than grey cast iron
- Increased service life
- Low heat conductivity
- Flexible design options

**KIPP Workholding pyramid, mineral cast**

| Order No.         | B   | B2  | H   | L   | L1  | L2  | weight ca. kg |
|-------------------|-----|-----|-----|-----|-----|-----|---------------|
| K1235.12400400140 | 400 | 160 | 140 | 400 | 470 | 160 | 52            |
| K1235.12500500175 | 500 | 200 | 175 | 500 | 630 | 200 | 97            |





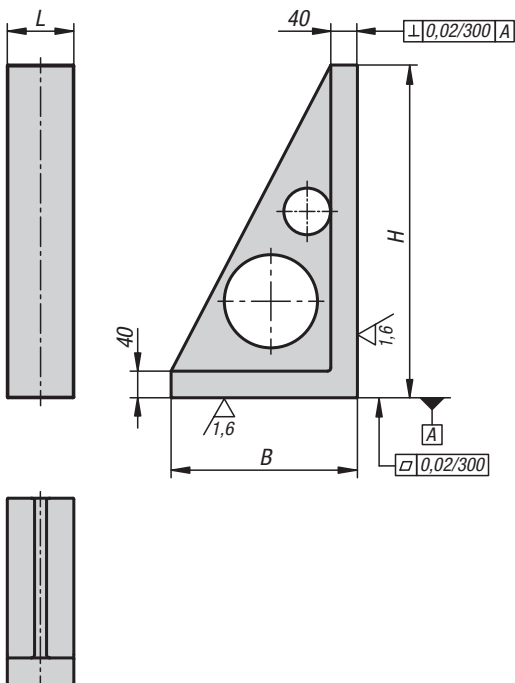


## Add-on elements



## Angle plates, grey cast iron, narrow

with pre-machined clamping faces



**Material:**

GJL 300.

**Version:**

Support and mounting surfaces precision machined

**Sample order:**

K0807.100181030

**Note:**

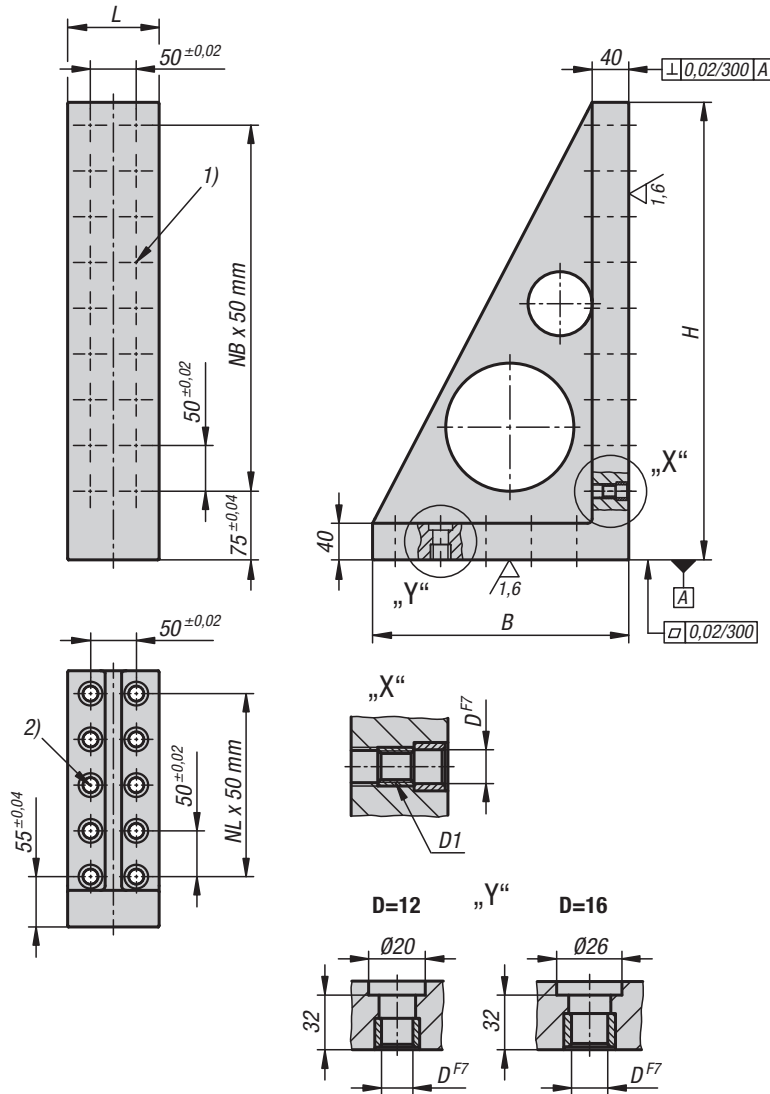
Angle plates are used for the vertical positioning and mounting of workpieces and fixtures. These angle plates with pre-machined clamping faces provide a quick and economic method of producing bodies with specific grid or individual holes.

**KIPP Angle plates, grey cast iron, narrow with pre-machined clamping faces**

| Order No.       | L   | B   | H   |
|-----------------|-----|-----|-----|
| K0807.100181030 | 100 | 180 | 300 |
| K0807.100231040 | 100 | 230 | 400 |
| K0807.100281050 | 100 | 280 | 500 |

## Angle plates, grey cast iron, narrow

with grid holes



**Material:**

GJL 300.

**Version:**

Support and mounting surfaces precision machined

**Sample order:**

K0807.212181030

**Note:**

Grid spacing  $50 \pm 0,02$  mm.

Angle plates are used for the vertical positioning and mounting of workpieces and fixtures. The shoulder screws K0815 are used to position and fasten the angle plates on the grid plates K0800 or subplates K0806.

Size M12 angle plates are fastened using shoulder screws K0815.112065.

Size M16 angle plates are fastened using shoulder screws K0815.116065.

Please order protection plugs to plug unused grid holes separately.

**Drawing reference:**

1) grid hole

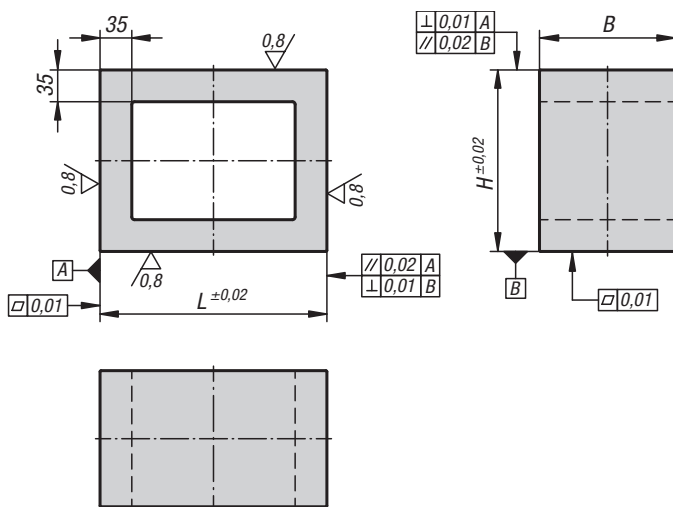
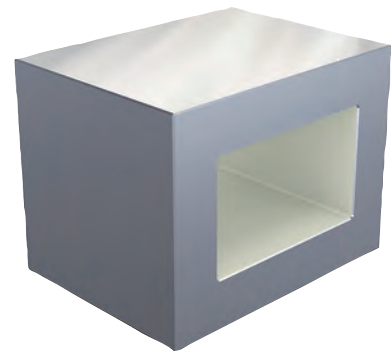
2) hole for shoulder screw

### KIPP Angle plates, grey cast iron, narrow with grid holes

| Order No.       | L   | B   | H   | D  | D1  | N1=No. of grid holes | No. of fastening holes | NL=No. lengthwise | NB=No. across |
|-----------------|-----|-----|-----|----|-----|----------------------|------------------------|-------------------|---------------|
| K0807.212181030 | 100 | 180 | 300 | 12 | M12 | 10                   | 6                      | 2                 | 4             |
| K0807.212231040 | 100 | 230 | 400 | 12 | M12 | 14                   | 8                      | 3                 | 6             |
| K0807.212281050 | 100 | 280 | 500 | 12 | M12 | 18                   | 10                     | 4                 | 8             |
| K0807.216181030 | 100 | 180 | 300 | 16 | M16 | 10                   | 6                      | 2                 | 4             |
| K0807.216231040 | 100 | 230 | 400 | 16 | M16 | 14                   | 8                      | 3                 | 6             |
| K0807.216281050 | 100 | 280 | 500 | 16 | M16 | 18                   | 10                     | 4                 | 8             |

# Tooling blocks, grey cast iron

with pre-machined clamping faces



**Material:**  
GJL 300.

**Version:**  
Support and mounting surfaces ground

**Sample order:**  
K0809.100201515

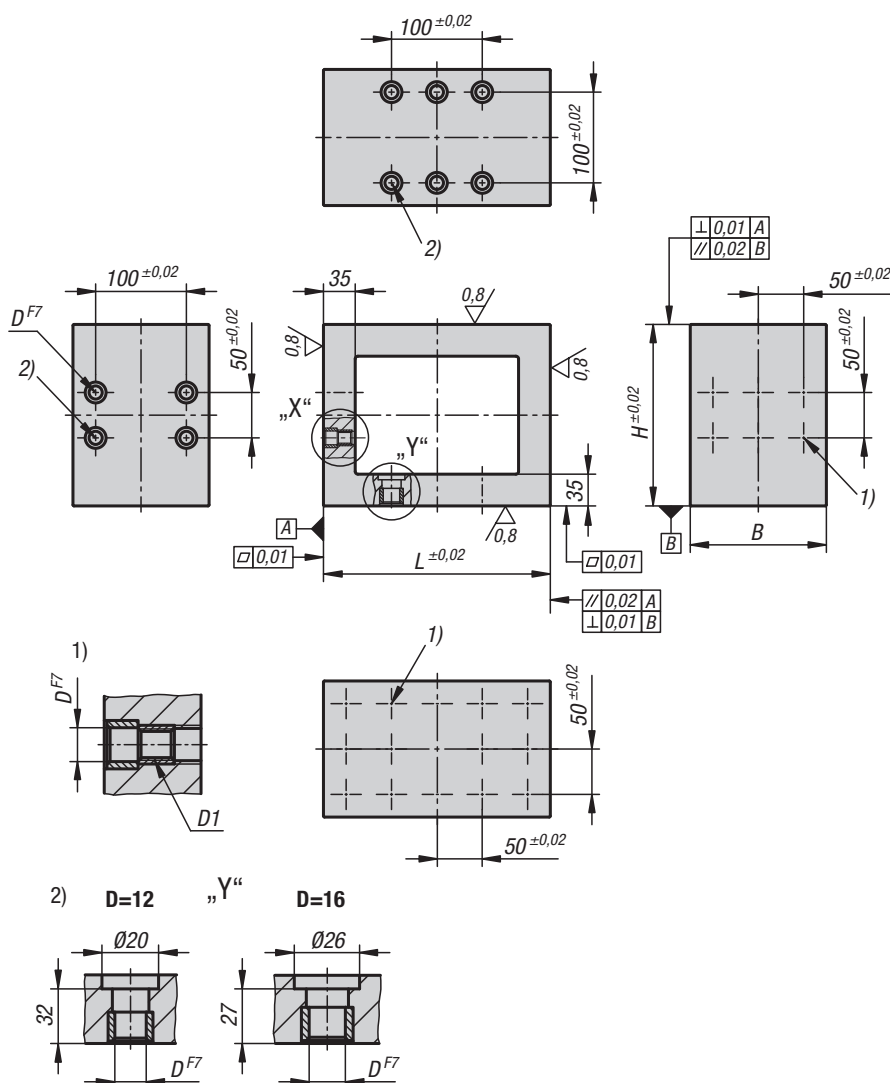
**Note:**  
Tooling blocks with pre-machined clamping faces are used for constructing fixtures. These tooling blocks provide a fast and economic way of producing elements with specific grid or individual holes. Tooling blocks can also be used as a base for clamping smaller workpieces.  
By length L=300, the middle reinforcing rib should be taken into consideration.

## KIPP Tooling blocks, grey cast iron with pre-machined clamping faces

| Order No.       | L   | B   | H   |
|-----------------|-----|-----|-----|
| K0809.100201515 | 200 | 150 | 150 |
| K0809.100251520 | 250 | 150 | 200 |
| K0809.100302025 | 300 | 200 | 250 |

## Tooling blocks, grey cast iron

with grid holes



**Material:**

GJL 300.

**Version:**

Support and mounting surfaces ground

**Sample order:**

K0809.212201515

**Note:**

Grid spacing  $50 \pm 0,02$  mm.

Tooling blocks with grid holes are used for constructing modular fixtures. They can be positioned and mounted precisely on grid systems. This means that the grid hole spacing is maintained on the raised clamping face.

Tooling blocks can also be used as a base element for clamping smaller workpieces.

Size M12 tooling blocks are fastened using shoulder screws K0815.112065. Size M16 tooling blocks are fastened using shoulder screws K0815.116065.

Please order protection plugs to plug unused grid holes separately.

**Drawing reference:**

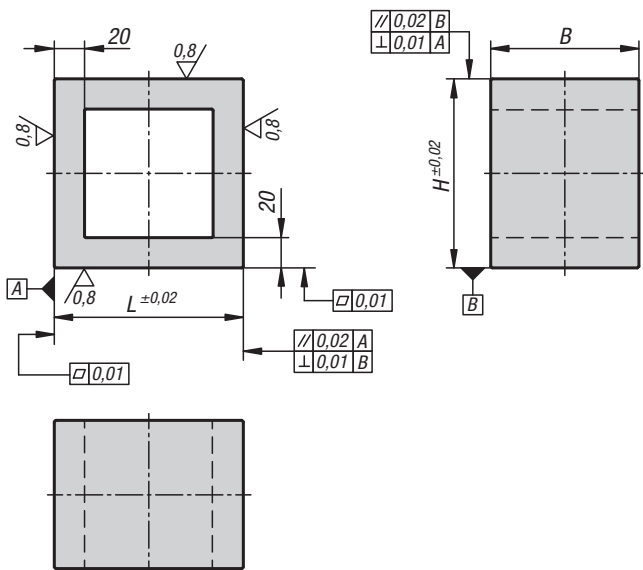
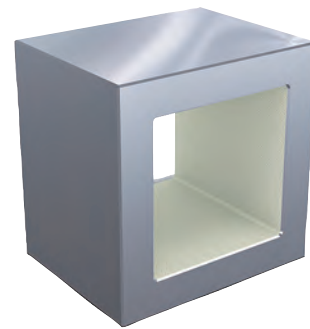
- 1) grid hole
- 2) hole for shoulder screw

### KIPP Tooling blocks, grey cast iron with grid holes

| Order No.       | L   | B   | H   | D  | D1  | N1=No. of grid holes | No. of fastening holes |
|-----------------|-----|-----|-----|----|-----|----------------------|------------------------|
| K0809.212201515 | 200 | 150 | 150 | 12 | M12 | 15                   | 10                     |
| K0809.212251520 | 250 | 150 | 200 | 12 | M12 | 21                   | 14                     |
| K0809.216201515 | 200 | 150 | 150 | 16 | M16 | 15                   | 10                     |
| K0809.216251520 | 250 | 150 | 200 | 16 | M16 | 21                   | 14                     |

# Mini tooling blocks, grey cast iron

with pre-machined clamping faces



**Material:**

GJL 300.

**Version:**

Support and mounting surfaces ground

**Sample order:**

K0809.10012598125

**Note:**

Tooling blocks with pre-machined clamping faces are used for constructing fixtures. These tooling blocks provide a fast and economic method of producing bodies with specific grid or individual holes. Tooling blocks can also be used as a body for clamping smaller workpieces.

**KIPP Mini tooling blocks, grey cast iron with pre-machined clamping faces**

| Order No.         | L   | B  | H   |
|-------------------|-----|----|-----|
| K0809.10012598125 | 125 | 98 | 125 |



## Mini tooling blocks, grey cast iron

with grid holes



**Material:**

GJL 300.

**Version:**

Support and mounting surfaces ground

**Sample order:**

K0809.21212598125

**Note:**

Grid spacing  $50 \pm 0.02$  mm.

Tooling blocks with grid holes are used for constructing modular fixtures. They can be positioned and mounted precisely on grid systems. This means that the grid hole spacing is maintained on the raised clamping face.

Tooling blocks can also be used as a base element for clamping smaller workpieces.

Size M12 tooling blocks are fastened using shoulder screws K0815.112065.

Size M16 tooling blocks are fastened using shoulder screws K0815.116065.

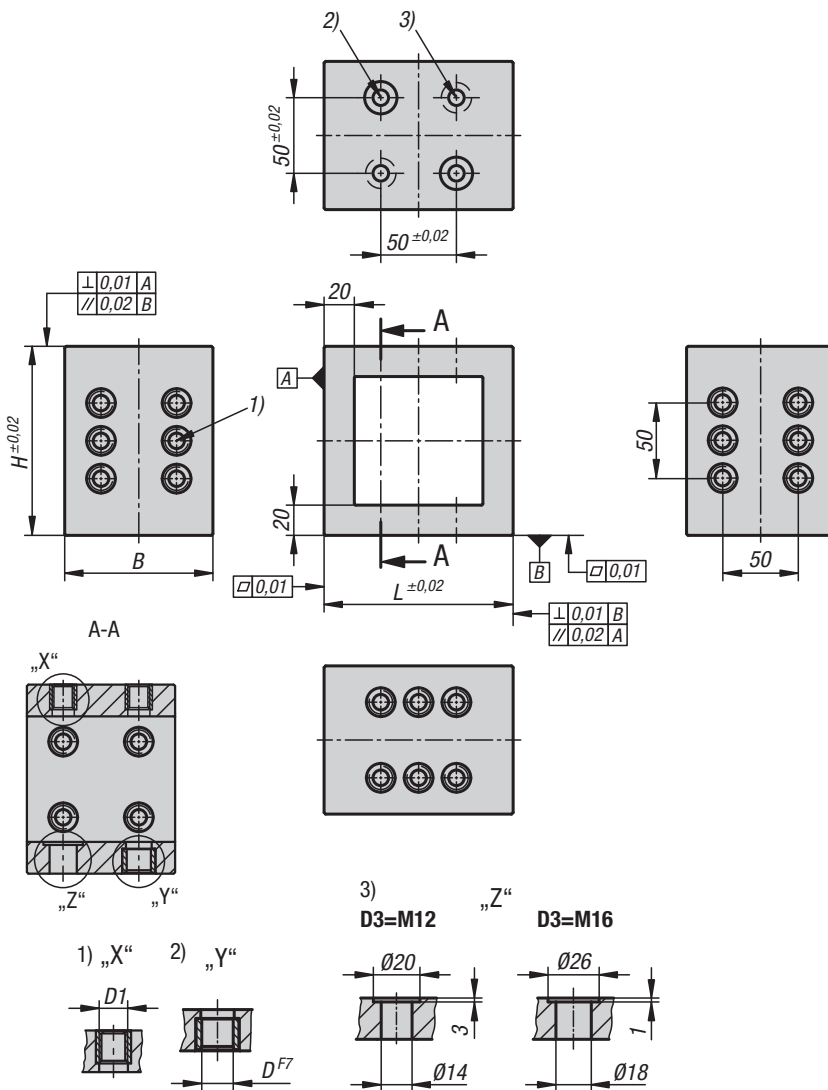
Please order protection plugs to plug unused grid holes separately.

**Drawing reference:**

1) tapped hole

2) hole for shoulder screw

3) hole for DIN 912 cap screw



**KIPP Mini tooling blocks, grey cast iron with grid holes**

| Order No.         | L   | B  | H   | D  | D1  | D3  |
|-------------------|-----|----|-----|----|-----|-----|
| K0809.21212598125 | 125 | 98 | 125 | 12 | M12 | M12 |
| K0809.21612598125 | 125 | 98 | 125 | 16 | M16 | M16 |

## Riser blocks, grey cast iron

Form H, short version



**Material:**

GJL 300.

**Version:**

Support and mounting surfaces ground

**Sample order:**

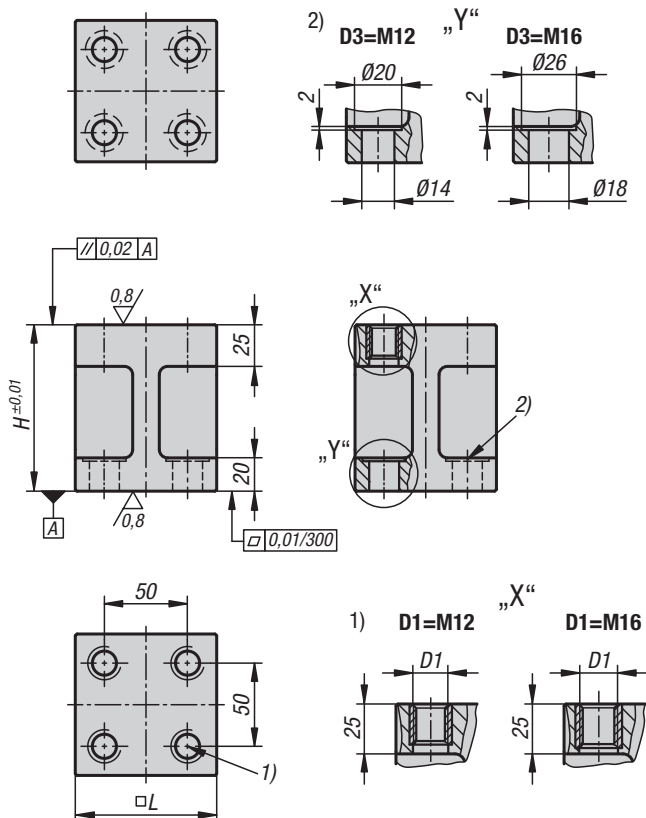
K1536.21208585100

**Note:**

Riser blocks are used for constructing modular fixtures. Several riser blocks can be mounted on each other. Support elements, clamping devices, and stops can then be mounted on the top riser block. Riser blocks are fastened using DIN 912 cap screws.

**Drawing reference:**

- 1) tapped hole
- 2) hole for DIN 912 cap screw



### KIPP Riser blocks, grey cast iron Form H, short version

| Order No.         | D1  | D3  | H   | L  |
|-------------------|-----|-----|-----|----|
| K1536.21208585100 | M12 | M12 | 100 | 85 |
| K1536.21208585125 | M12 | M12 | 125 | 85 |
| K1536.21608585100 | M16 | M16 | 100 | 85 |
| K1536.91608585125 | M16 | M16 | 125 | 85 |

## Riser blocks, grey cast iron

Form H, long version



**Material:**

GJL 300.

**Version:**

Support and mounting surfaces ground

**Sample order:**

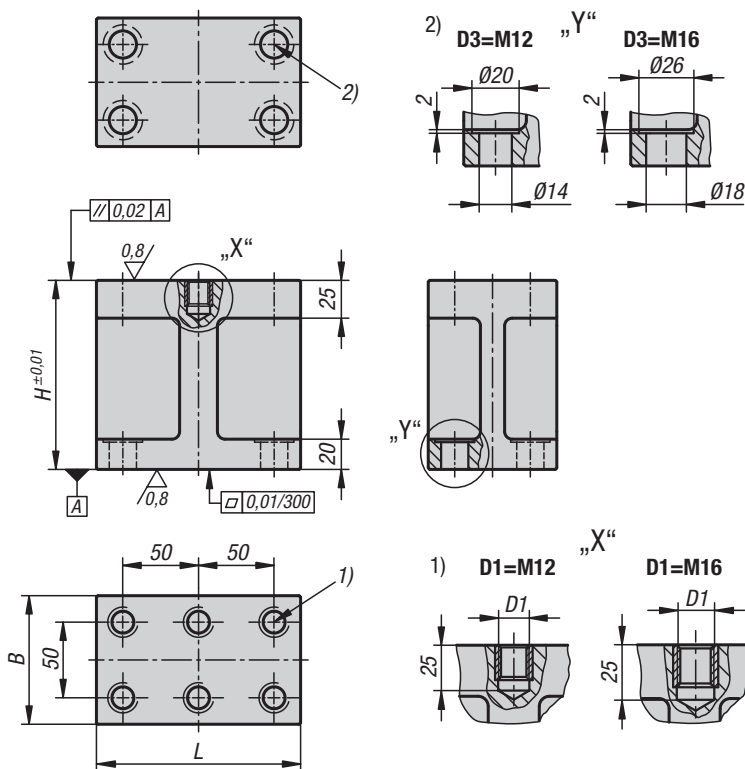
K1536.21213585100

**Note:**

Riser blocks are used for constructing modular fixtures. Several riser blocks can be mounted on each other. Support elements, clamping devices, and stops can then be mounted on the top riser block. Riser blocks are fastened using DIN 912 cap screws.

**Drawing reference:**

- 1) tapped hole
- 2) hole for DIN 912 cap screw



**KIPP Riser blocks, grey cast iron Form H, long version**

| Order No.         | L   | B  | H   | D1  | D3  |
|-------------------|-----|----|-----|-----|-----|
| K1536.21213585100 | 135 | 85 | 100 | M12 | M12 |
| K1536.21213585125 | 135 | 85 | 125 | M12 | M12 |
| K1536.21613585100 | 135 | 85 | 100 | M16 | M16 |
| K1536.21613585125 | 135 | 85 | 125 | M16 | M16 |

## Fastening blocks

Form M

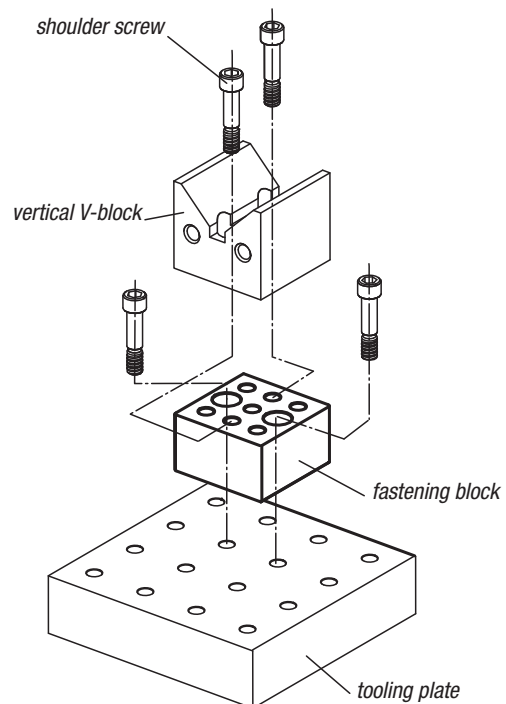
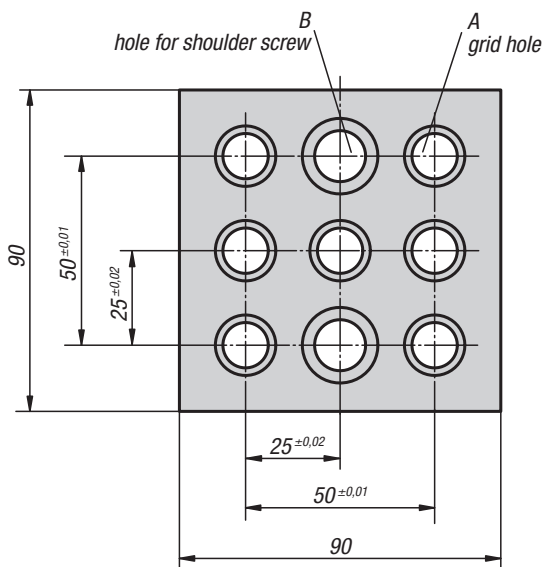
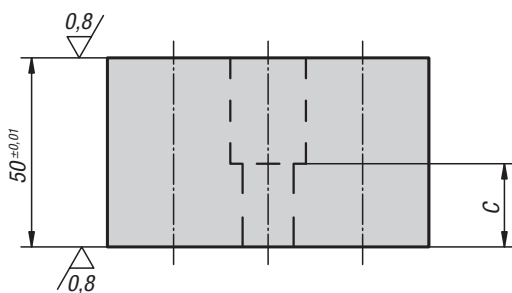


**Material:**  
Carbon steel.

**Version:**  
Black oxidised.  
Contact faces ground.

**Sample order:**  
K0810.12112050

**Note:**  
Fastening blocks are used as risers for all system elements which have no movable seating faces - these include locating supports K0816, vertical V-blocks K0819.600.  
They also allow positioning and fastening elements within a  $50 \pm 0.01$  mm pitch (see application example).



### KIPP Fastening blocks Form M

| Order No.      | A locating hole | A thread | B $\emptyset$ for shoulder screw | C  | No. of grid holes | No. of mounting holes | Suitable shoulder screw | weight kg |
|----------------|-----------------|----------|----------------------------------|----|-------------------|-----------------------|-------------------------|-----------|
| K0810.12112050 | 12 F7           | M12      | 12 F7                            | 22 | 7                 | 2                     | K0815.112055            | 2,693     |
| K0810.12116050 | 16 F7           | M16      | 16 F7                            | 26 | 7                 | 2                     | K0815.116055            | 2,38      |

## Precision riser blocks

Form D

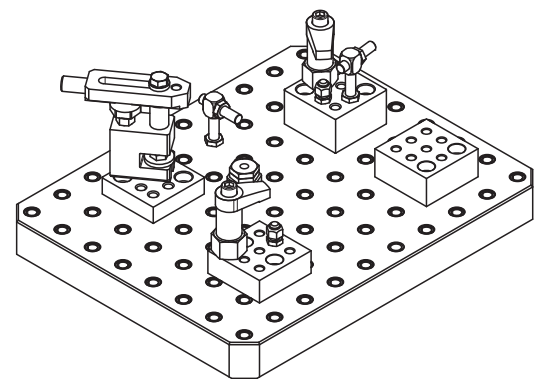
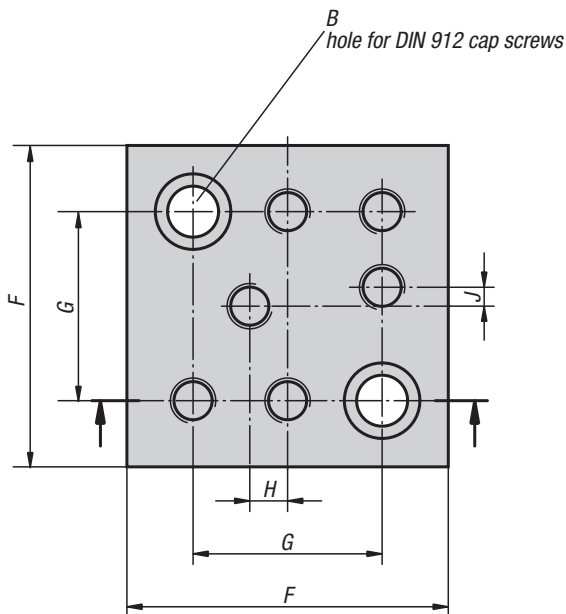
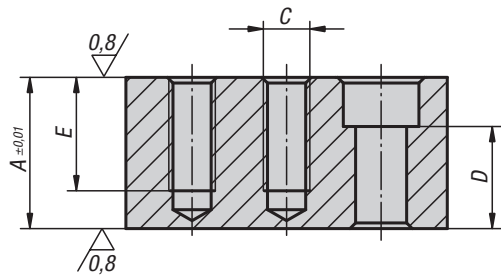


**Material:**  
Carbon steel.

**Version:**  
Black oxidised.  
Contact faces ground.

**Sample order:**  
K0811.14012025

**Note:**  
Riser blocks are used to achieve a certain support height. The additional tapped holes in the risers are for mounting further fixture elements.



### KIPP Precision riser blocks Form D

| Order No.      | A  | B<br>hole for<br>DIN 912 screw | C   | D  | E  | F  | G  | H  | J | weight<br>kg |
|----------------|----|--------------------------------|-----|----|----|----|----|----|---|--------------|
| K0811.14012025 | 25 | M12                            | M12 | 12 | 25 | 85 | 50 | 10 | 5 | 1,218        |
| K0811.14012032 | 32 | M12                            | M12 | 19 | 32 | 85 | 50 | 10 | 5 | 1,56         |
| K0811.14012040 | 40 | M12                            | M12 | 27 | 30 | 85 | 50 | 10 | 5 | 1,97         |
| K0811.14012050 | 50 | M12                            | M12 | 37 | 30 | 85 | 50 | 10 | 5 | 2,5          |
| K0811.14016025 | 25 | M16                            | M16 | 8  | 25 | 85 | 50 | 10 | 5 | 1,039        |
| K0811.14016032 | 32 | M16                            | M16 | 15 | 32 | 85 | 50 | 10 | 5 | 1,33         |
| K0811.14016040 | 40 | M16                            | M16 | 23 | 35 | 85 | 50 | 10 | 5 | 1,7          |
| K0811.14016050 | 50 | M16                            | M16 | 33 | 35 | 85 | 50 | 10 | 5 | 2,123        |

## Precision riser blocks

Form M

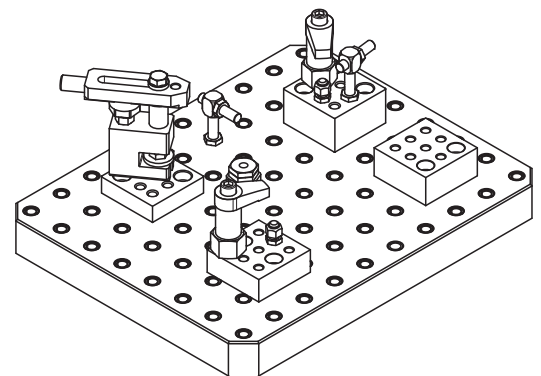
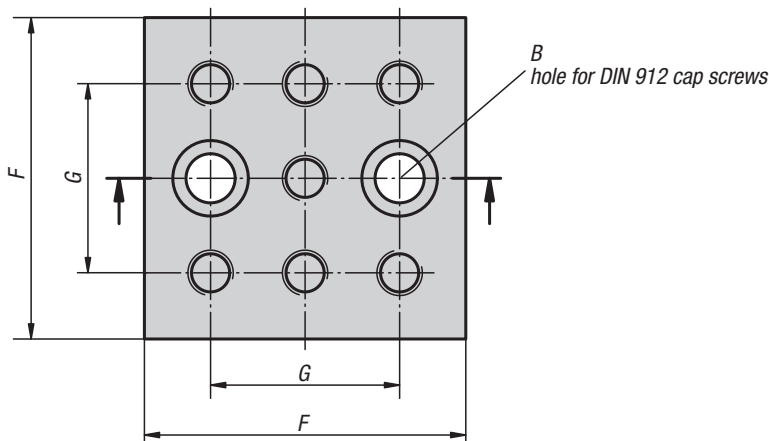
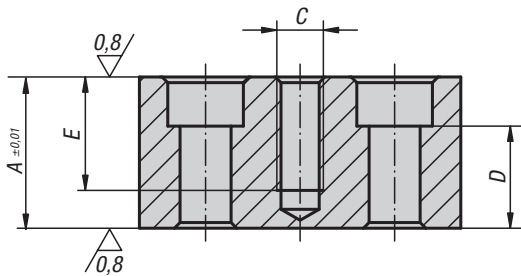


**Material:**  
Carbon steel.

**Version:**  
Black oxidised.  
Contact faces ground.

**Sample order:**  
K0811.14112025

**Note:**  
Riser blocks are used to achieve a certain support height. The additional tapped holes in the risers are for mounting further fixture elements.



### KIPP Precision riser blocks Form M

| Order No.      | A  | B<br>hole for<br>DIN 912 screw | C   | D  | E  | F  | G  | weight<br>kg |
|----------------|----|--------------------------------|-----|----|----|----|----|--------------|
| K0811.14112025 | 25 | M12                            | M12 | 12 | 25 | 85 | 50 | 1,199        |
| K0811.14112032 | 32 | M12                            | M12 | 19 | 32 | 85 | 50 | 1,535        |
| K0811.14112040 | 40 | M12                            | M12 | 27 | 30 | 85 | 50 | 1,955        |
| K0811.14112050 | 50 | M12                            | M12 | 37 | 30 | 85 | 50 | 2,43         |
| K0811.14116025 | 25 | M16                            | M16 | 8  | 25 | 85 | 50 | 1,007        |
| K0811.14116032 | 32 | M16                            | M16 | 15 | 32 | 85 | 50 | 1,31         |
| K0811.14116040 | 40 | M16                            | M16 | 23 | 35 | 85 | 50 | 1,648        |
| K0811.14116050 | 50 | M16                            | M16 | 33 | 35 | 85 | 50 | 2,104        |

## Precision riser blocks

Form E

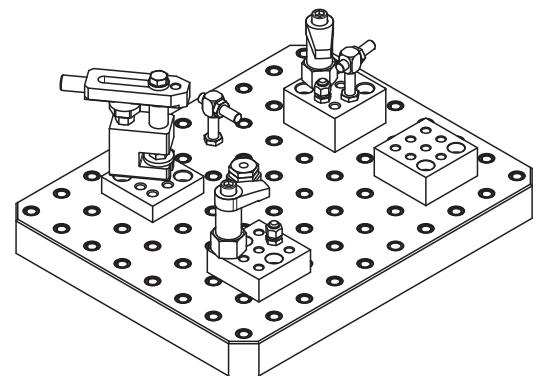
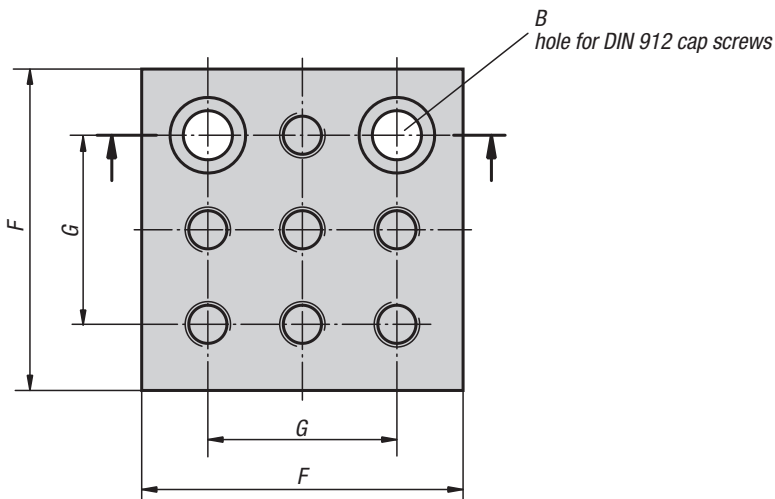
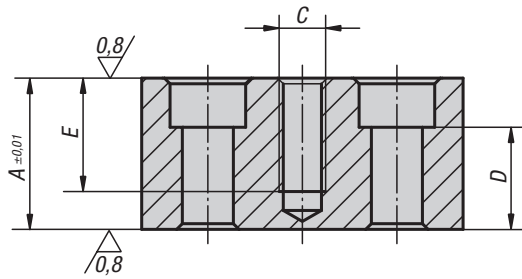


**Material:**  
Carbon steel.

**Version:**  
Black oxidised.  
Contact faces ground.

**Sample order:**  
K0811.14212025

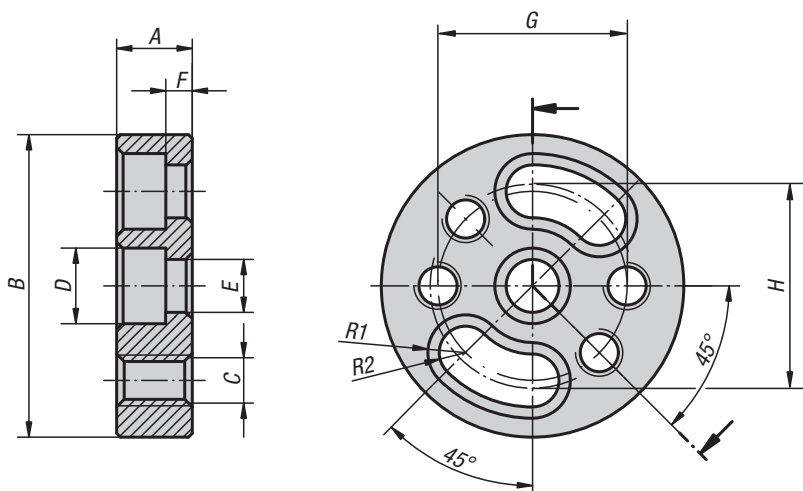
**Note:**  
Riser blocks are used to achieve a certain support height. The additional tapped holes in the risers are for mounting further fixture elements.



### KIPP Precision riser blocks Form E

| Order No.      | A  | B<br>hole for<br>DIN 912 screw | C   | D  | E  | F  | G  | weight<br>kg |
|----------------|----|--------------------------------|-----|----|----|----|----|--------------|
| K0811.14212025 | 25 | M12                            | M12 | 12 | 25 | 85 | 50 | 1,208        |
| K0811.14212032 | 32 | M12                            | M12 | 19 | 25 | 85 | 50 | 1,52         |
| K0811.14212040 | 40 | M12                            | M12 | 27 | 30 | 85 | 50 | 1,95         |
| K0811.14212050 | 50 | M12                            | M12 | 37 | 30 | 85 | 50 | 2,454        |
| K0811.14216025 | 25 | M16                            | M16 | 8  | 25 | 85 | 50 | 1,005        |
| K0811.14216032 | 32 | M16                            | M16 | 15 | 32 | 85 | 50 | 1,289        |
| K0811.14216040 | 40 | M16                            | M16 | 23 | 35 | 85 | 50 | 1,68         |
| K0811.14216050 | 50 | M16                            | M16 | 33 | 35 | 85 | 50 | 2,18         |

## Round positioning plates

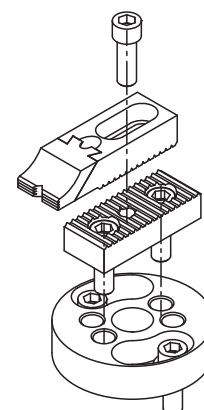


**Material:**  
Carbon steel.

**Version:**  
Black oxidised.

**Sample order:**  
K0812.24212020

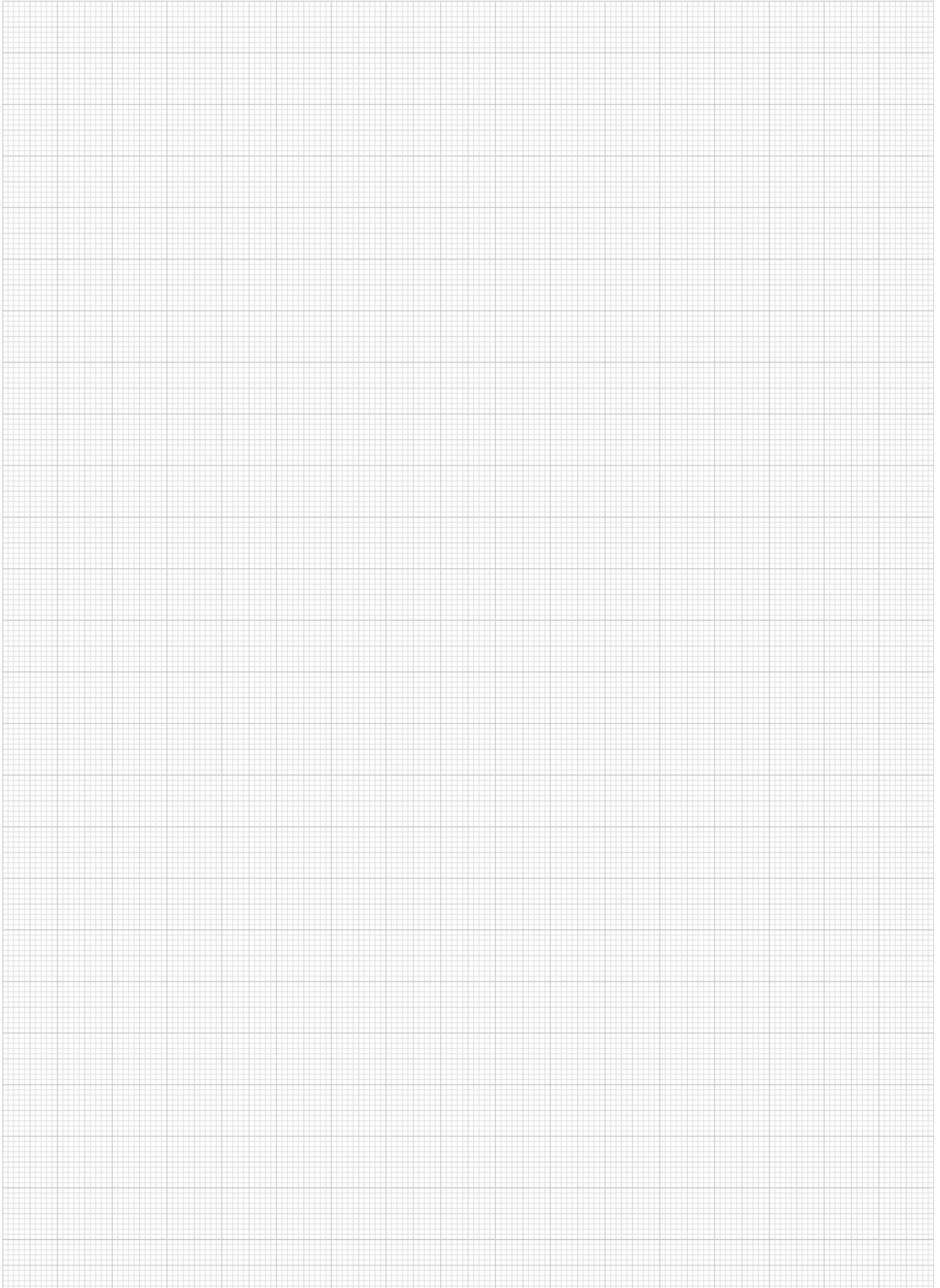
**Note:**  
Round positioning plates allow clamps such as K0853.920 and K0853.930 to be positioned against the workpiece at an angle of e.g. 30°. The rack plates CL K0853.940 are mounted on the round positioning plate as intermediate adapters, the clamps are fitted and rotated to the correct position.



### KIPP Round positioning plates

| Order No.      | A  | B   | C   | D  | E  | F | G  | H    | R1 | R2 | weight<br>kg |
|----------------|----|-----|-----|----|----|---|----|------|----|----|--------------|
| K0812.24212020 | 20 | 80  | M12 | 20 | 14 | 7 | 50 | 50   | 10 | 7  | 0,492        |
| K0812.24216025 | 25 | 100 | M16 | 26 | 18 | 7 | 50 | 70,7 | 13 | 9  | 0,867        |







## Fastener elements, Accessories



## Connecting blocks

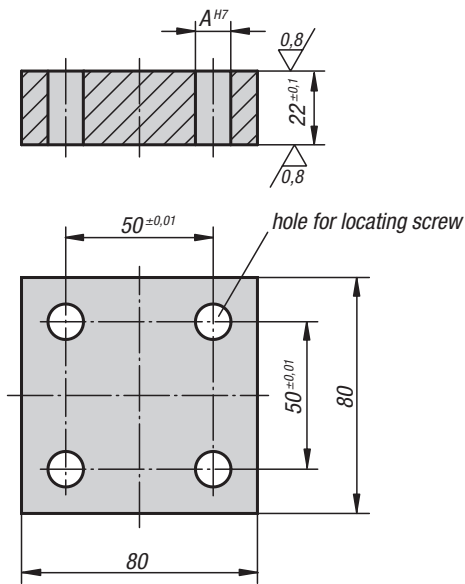


**Material:**  
Carbon steel.

**Version:**  
Black oxidised.  
Contact faces ground.

**Sample order:**  
K0854.40012050

**Note:**  
When several tooling plates K0800 are used, connecting blocks are needed to maintain the correct grid hole pitch from one plate to the next. They are secured using 4 shoulder screws K0815.1....



### KIPP Connecting blocks

| Order No.      | A  | Suitable shoulder screw |
|----------------|----|-------------------------|
| K0854.40012050 | 12 | K0815.112055            |
| K0854.40016050 | 16 | K0815.116065            |

## Locating pins

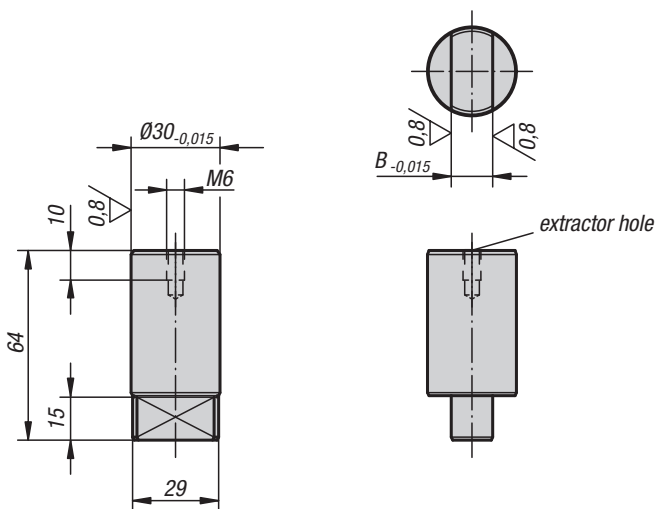


**Material:**  
Carbon steel.

**Version:**  
Tempered and black oxidised.  
Precision diameters and guide faces ground.

**Sample order:**  
K0855.12030

**Note:**  
Locating pins are used for positioning grid plates K0800 on machine tables.



### KIPP Locating pins

| Order No.   | B  |
|-------------|----|
| K0855.12030 | 12 |
| K0855.14030 | 14 |
| K0855.18030 | 18 |
| K0855.20030 | 20 |
| K0855.22030 | 22 |

## Centring pins

for central hole

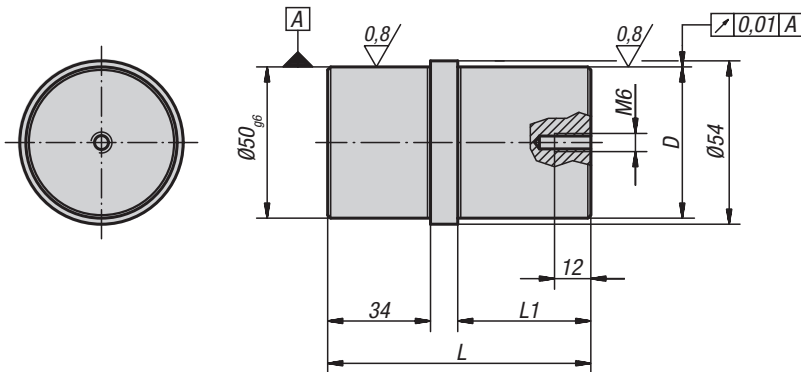


**Material:**  
Steel.

**Version:**  
Case-hardened.  
Toleranced diameter ground.

**Sample order:**  
K0856.5025

**Note:**  
Centring pins for central holes are suitable for basic elements K0806, K0802, K0803, K0804 and K0805.



### KIPP Centring pins for central hole

| Order No.  | D     | L  | L1 |
|------------|-------|----|----|
| K0856.5025 | 25 g6 | 77 | 34 |
| K0856.5030 | 30 h6 | 87 | 44 |
| K0856.5050 | 50 g6 | 87 | 44 |

## Centring pins

for aligning hole

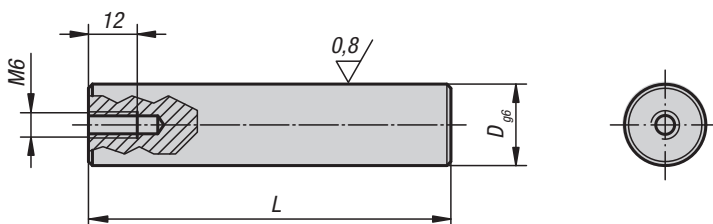


**Material:**  
Steel.

**Version:**  
Case-hardened.  
Toleranced diameter ground.

**Sample order:**  
K0857.25125

**Note:**  
Centring pins for aligning holes are suitable for basic elements K0802, K0803 and K0805.

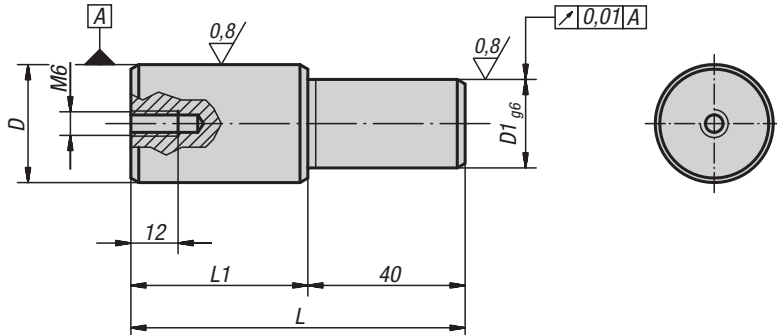


### KIPP Centring pins for aligning hole

| Order No.   | D  | L   |
|-------------|----|-----|
| K0857.20075 | 20 | 75  |
| K0857.20089 | 20 | 89  |
| K0857.25125 | 25 | 125 |

## Centring pins

for aligning hole



**Material:**  
Steel.

**Version:**  
Case-hardened.  
Toleranced diameter ground.

**Sample order:**  
K0858.2520

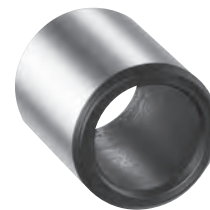
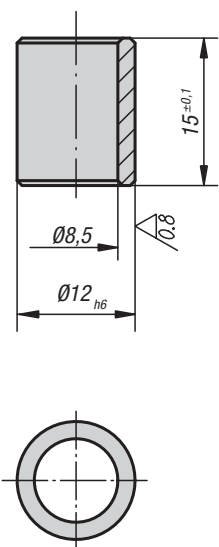
**Note:**  
Centring pins for aligning holes are suitable for subplates K0806.

### KIPP Centering pins for aligning hole

| Order No.  | D     | D1 | L  | L1 |
|------------|-------|----|----|----|
| K0858.2520 | 25 g6 | 20 | 75 | 35 |
| K0858.3020 | 30 h6 | 20 | 85 | 45 |
| K0858.3025 | 30 h6 | 25 | 85 | 45 |

# K0814

## Locating sleeve



**Material:**  
Tool steel.

**Version:**  
Hardened and black oxidised.  
Toleranced diameter ground.

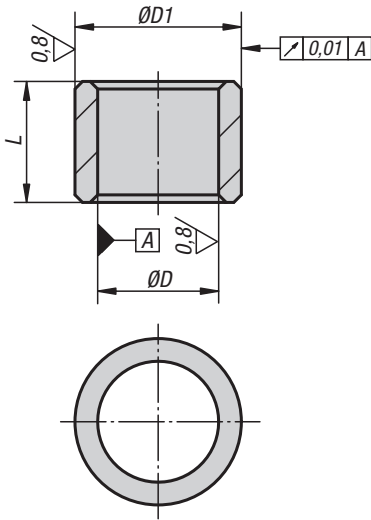
**Sample order:**  
K0814.44008012

### KIPP Locating sleeve

| Order No.      | Dimensions  |
|----------------|-------------|
| K0814.44008012 | see drawing |

## Locating bushings

for grid systems



**Material:**  
Special case-hardened steel

**Version:**  
Hardened and ground.

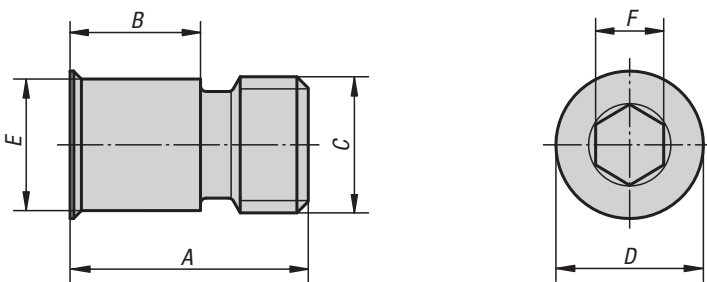
**Sample order:**  
K0861.01508305002

**Note:**  
See next page for assembly instructions for changing locating bushings.

### KIPP Locating bushings for grid systems

| Order No.         | D    | D1    | L  |
|-------------------|------|-------|----|
| K0861.01508305002 | 12h6 | 16 g5 | 8  |
| K0861.01012304002 | 12F7 | 18 g6 | 12 |
| K0861.01016405002 | 16F7 | 22 g6 | 16 |

## Aluminium protection plugs



**Material:**  
Aluminium.

**Version:**  
Bright.

**Sample order:**  
K0862.60108015

**Note:**  
Use these plugs to seal grid holes and protect them from swarf and dirt.  
Leave the protection plugs in holes not in use!  
Aluminium plugs are used when aggressive coolants are used or when cutting dry.

### KIPP Aluminium protection plugs

| Order No.      | A  | B    | C   | D    | E    | F |
|----------------|----|------|-----|------|------|---|
| K0862.60108015 | 15 | 7,5  | M8  | 12,6 | 11,8 | 5 |
| K0862.60112021 | 21 | 11,5 | M12 | 13   | 11,6 | 6 |
| K0862.60116026 | 26 | 15   | M16 | 17   | 15,6 | 8 |

## Threaded bushings

for grid systems



**Material:**

Carbon steel.

**Version:**

Tempered to 1100-1300 N/mm<sup>2</sup>.

**Sample order:**

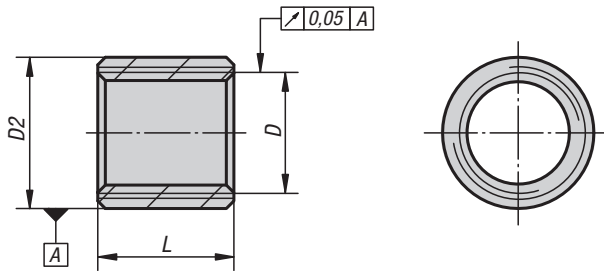
K0863.01508305003

**Note:**

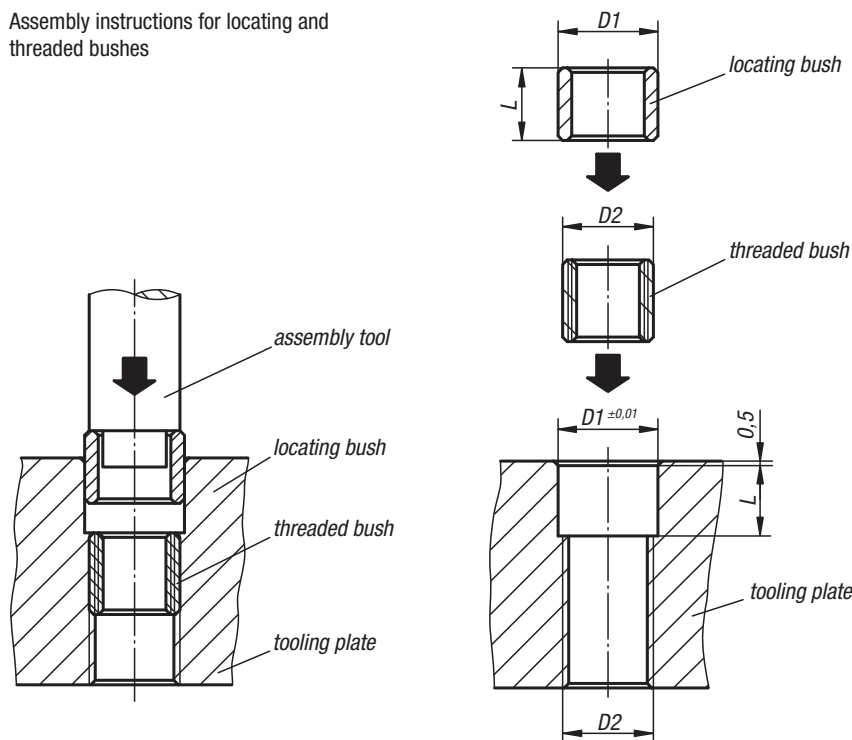
Assembly instructions for changing threaded bushing.

Inserting the locating and threaded bushing

1. Remove grease from the locating and threaded bushing.
2. Apply adhesive (Loctite 638) in the hole.
3. Apply adhesive (Loctite 638) on the threaded bushing and screw in.
4. Apply adhesive (Loctite 638) to the locating bushing and insert it. If the locating bushing cannot be inserted by hand, please use an assembly tool as shown application example.
5. Remove any adhesive pressed out by insertion of the locating and threaded bushing before it hardens.



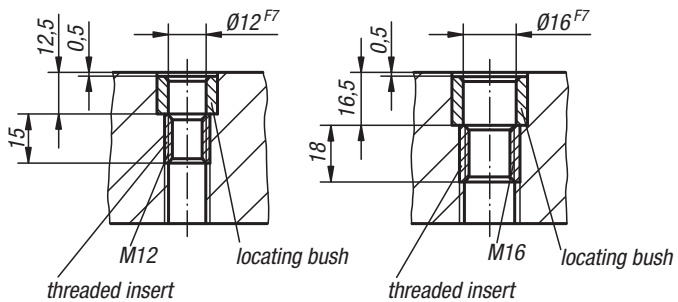
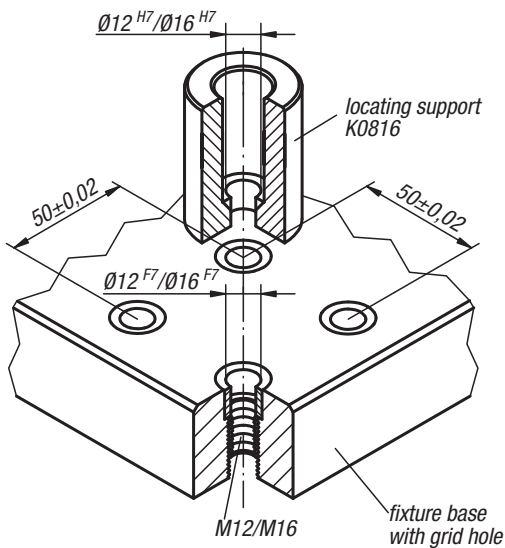
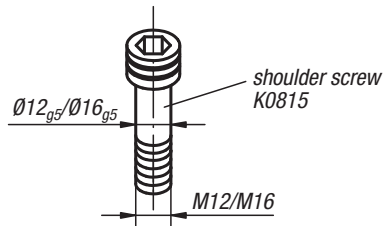
Assembly instructions for locating and threaded bushes



### KIPP Threaded bushings for grid systems

| Order No.         | D   | D2       | L  |
|-------------------|-----|----------|----|
| K0863.01508305003 | M8  | M12x1,75 | 12 |
| K0863.01012304003 | M12 | M16x1,5  | 15 |
| K0863.01016405003 | M16 | M20x1,5  | 18 |





## Grid hole:

The characteristic feature of the grid hole is its dual function: the coaxial arrangement of the locating and the threaded parts allows positioning and fastening at the same time with one grid hole (see illustrations). As a result, the size of the fixture elements can be reduced to a minimum and their flexibility increased accordingly.

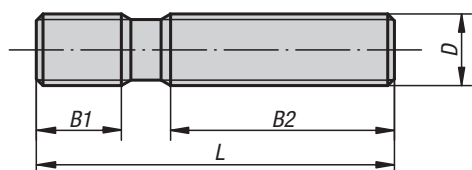
Each grid hole consists of two parts:

- a) reamed bush. Material: hardened tool steel.
- b) threaded insert. Material: carbon steel, tempered to ca. 1100-1300 N/mm<sup>2</sup>.

Since the reamed bushes are recessed 0.5 mm from the surface of the fixture bases, the mounting surfaces can be re-machined in the event of wear.

## Studs

DIN 6379



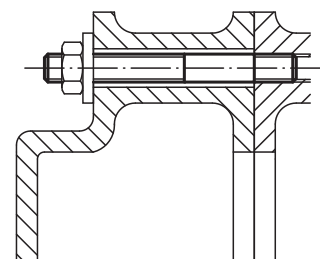
**Material:**  
Carbon steel.

**Version:**  
Thread rolled.  
M6-M12 tempered to 10.9, black.  
M14-M36 tempered to 8.8, black.

### KIPP Studs DIN 6379

| Order No.   | D   | L   | B1 | B2  |
|-------------|-----|-----|----|-----|
| K0697.0632  | M6  | 32  | 9  | 16  |
| K0697.0640  | M6  | 40  | 9  | 20  |
| K0697.0650  | M6  | 50  | 9  | 30  |
| K0697.0663  | M6  | 63  | 9  | 40  |
| K0697.0680  | M6  | 80  | 9  | 50  |
| K0697.06100 | M6  | 100 | 9  | 63  |
| K0697.0840  | M8  | 40  | 11 | 20  |
| K0697.0863  | M8  | 63  | 11 | 40  |
| K0697.0880  | M8  | 80  | 11 | 50  |
| K0697.08100 | M8  | 100 | 11 | 63  |
| K0697.08125 | M8  | 125 | 11 | 75  |
| K0697.08160 | M8  | 160 | 11 | 100 |
| K0697.1050  | M10 | 50  | 13 | 25  |
| K0697.1080  | M10 | 80  | 13 | 50  |
| K0697.10100 | M10 | 100 | 13 | 75  |
| K0697.10125 | M10 | 125 | 13 | 75  |
| K0697.10160 | M10 | 160 | 13 | 100 |
| K0697.10200 | M10 | 200 | 13 | 125 |
| K0697.1250  | M12 | 50  | 15 | 25  |
| K0697.1263  | M12 | 63  | 15 | 32  |
| K0697.1280  | M12 | 80  | 15 | 50  |
| K0697.12100 | M12 | 100 | 15 | 63  |
| K0697.12125 | M12 | 125 | 15 | 75  |
| K0697.12160 | M12 | 160 | 15 | 100 |
| K0697.12200 | M12 | 200 | 15 | 125 |
| K0697.1463  | M14 | 63  | 17 | 32  |
| K0697.1480  | M14 | 80  | 17 | 50  |
| K0697.14100 | M14 | 100 | 17 | 63  |
| K0697.14125 | M14 | 125 | 17 | 75  |
| K0697.14160 | M14 | 160 | 17 | 100 |
| K0697.14200 | M14 | 200 | 17 | 125 |
| K0697.14250 | M14 | 250 | 17 | 160 |
| K0697.1663  | M16 | 63  | 19 | 32  |
| K0697.1680  | M16 | 80  | 19 | 50  |
| K0697.16100 | M16 | 100 | 19 | 63  |
| K0697.16125 | M16 | 125 | 19 | 75  |
| K0697.16160 | M16 | 160 | 19 | 100 |
| K0697.16200 | M16 | 200 | 19 | 125 |
| K0697.16250 | M16 | 250 | 19 | 160 |
| K0697.16315 | M16 | 315 | 19 | 180 |
| K0697.16350 | M16 | 350 | 19 | 200 |
| K0697.16500 | M16 | 500 | 20 | 315 |

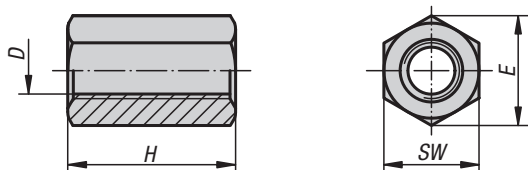
**Sample order:**  
K0697.12125



| Order No.    | D   | L    | B1 | B2  |
|--------------|-----|------|----|-----|
| K0697.1880   | M18 | 80   | 23 | 50  |
| K0697.18125  | M18 | 125  | 23 | 75  |
| K0697.18160  | M18 | 160  | 23 | 100 |
| K0697.18200  | M18 | 200  | 23 | 125 |
| K0697.18250  | M18 | 250  | 23 | 150 |
| K0697.18315  | M18 | 315  | 23 | 180 |
| K0697.2080   | M20 | 80   | 27 | 32  |
| K0697.20125  | M20 | 125  | 27 | 70  |
| K0697.20160  | M20 | 160  | 27 | 100 |
| K0697.20200  | M20 | 200  | 27 | 125 |
| K0697.20250  | M20 | 250  | 27 | 160 |
| K0697.20315  | M20 | 315  | 27 | 200 |
| K0697.20400  | M20 | 400  | 27 | 250 |
| K0697.20500  | M20 | 500  | 27 | 315 |
| K0697.22100  | M22 | 100  | 31 | 45  |
| K0697.22160  | M22 | 160  | 31 | 100 |
| K0697.22200  | M22 | 200  | 31 | 125 |
| K0697.22250  | M22 | 250  | 31 | 160 |
| K0697.22315  | M22 | 315  | 31 | 180 |
| K0697.22400  | M22 | 400  | 31 | 250 |
| K0697.24100  | M24 | 100  | 35 | 45  |
| K0697.24125  | M24 | 125  | 35 | 63  |
| K0697.24160  | M24 | 160  | 35 | 100 |
| K0697.24200  | M24 | 200  | 35 | 125 |
| K0697.24250  | M24 | 250  | 35 | 160 |
| K0697.24315  | M24 | 315  | 35 | 200 |
| K0697.24400  | M24 | 400  | 35 | 250 |
| K0697.24500  | M24 | 500  | 35 | 315 |
| K0697.24630  | M24 | 630  | 35 | 315 |
| K0697.27125  | M27 | 125  | 39 | 56  |
| K0697.27200  | M27 | 200  | 39 | 125 |
| K0697.27315  | M27 | 315  | 39 | 200 |
| K0697.27400  | M27 | 400  | 39 | 250 |
| K0697.27500  | M27 | 500  | 39 | 315 |
| K0697.30125  | M30 | 125  | 43 | 56  |
| K0697.30200  | M30 | 200  | 43 | 125 |
| K0697.30315  | M30 | 315  | 43 | 200 |
| K0697.30500  | M30 | 500  | 43 | 315 |
| K0697.30700  | M30 | 700  | 43 | 400 |
| K0697.301000 | M30 | 1000 | 44 | 400 |
| K0697.36160  | M36 | 160  | 51 | 80  |
| K0697.36200  | M36 | 200  | 51 | 125 |
| K0697.36250  | M36 | 250  | 51 | 160 |
| K0697.36315  | M36 | 315  | 51 | 200 |
| K0697.36400  | M36 | 400  | 51 | 250 |
| K0697.36500  | M36 | 500  | 51 | 315 |
| K0697.36700  | M36 | 700  | 51 | 400 |

## Extension nuts

height 3xD



**Material:**

Carbon steel.

**Version:**

Tempered to grade 10.

**Sample order:**

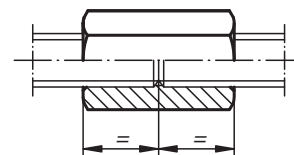
K0865.16

**Note:**

For functional and safety reasons screws should be screwed into a maximum of half the nut height from both sides. Minimum thread depth 1x diameter.

**On request:**

DIN ISO 272 spanner sizes.

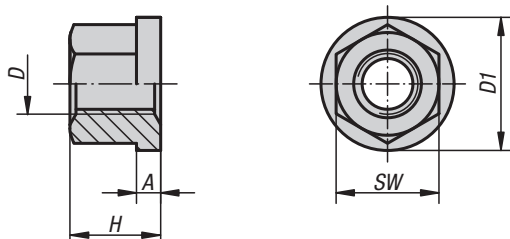


### KIPP Extension nuts height 3xD

| Order No. | D   | H = 3 x D | SW | E    |
|-----------|-----|-----------|----|------|
| K0865.06  | M6  | 18        | 10 | 11,5 |
| K0865.08  | M8  | 24        | 13 | 15   |
| K0865.10  | M10 | 30        | 17 | 19,6 |
| K0865.12  | M12 | 36        | 19 | 21,9 |
| K0865.16  | M16 | 48        | 24 | 27,7 |
| K0865.20  | M20 | 60        | 30 | 34,6 |

## Hexagon nuts with collar

height 1.5xD, DIN 6331 enhanced



**Material:**

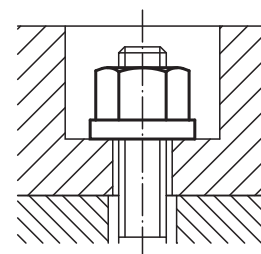
Carbon steel or stainless steel 1.4301.

**Version:**

Steel grade 10, black.  
Stainless steel bright.

**Sample order:**

K0701.16

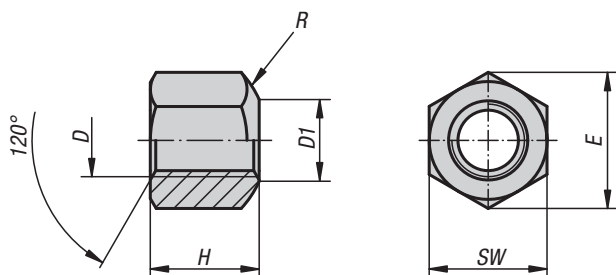
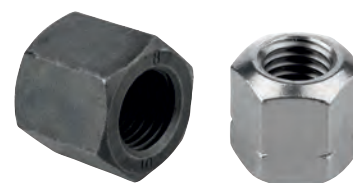


### KIPP Hexagon nuts with collars, height 1.5xD, DIN 6331

| Order No.<br>high carbon steel<br>- | Order No.<br>stainless steel<br>1.4301 | Order No.<br>stainless steel<br>1.4401 | D   | H = 1,5 x D | A   | D1 | SW |
|-------------------------------------|--|--|-----|-------------|-----|----|----|
| K0701.05                            | -                                      | -                                      | M5  | 7,5         | 2   | 12 | 9  |
| K0701.06                            | K0701.806                              | -                                      | M6  | 9           | 3   | 14 | 10 |
| K0701.08                            | K0701.808                              | K0701.908                              | M8  | 12          | 3,5 | 18 | 13 |
| K0701.10                            | K0701.810                              | -                                      | M10 | 15          | 4   | 22 | 16 |
| K0701.101                           | K0701.811                              | K0701.910                              | M10 | 15          | 4   | 22 | 17 |
| K0701.12                            | K0701.812                              | -                                      | M12 | 18          | 4   | 25 | 18 |
| K0701.121                           | K0701.8121                             | K0701.912                              | M12 | 18          | 4   | 25 | 19 |
| K0701.14                            | -                                      | -                                      | M14 | 21          | 4,5 | 28 | 22 |
| K0701.16                            | K0701.816                              | K0701.916                              | M16 | 24          | 5   | 31 | 24 |
| K0701.18                            | -                                      | -                                      | M18 | 27          | 5   | 34 | 27 |
| K0701.20                            | K0701.820                              | K0701.920                              | M20 | 30          | 6   | 37 | 30 |
| K0701.22                            | -                                      | -                                      | M22 | 33          | 6   | 40 | 34 |
| K0701.24                            | -                                      | -                                      | M24 | 36          | 6   | 45 | 36 |
| K0701.30                            | -                                      | -                                      | M30 | 45          | 8   | 58 | 46 |
| K0701.36                            | -                                      | -                                      | M36 | 54          | 10  | 68 | 55 |

## Hexagon nuts

height 1.5xD, DIN 6330 enhanced



**Material:**

Carbon steel or stainless steel (A2).

**Version:**

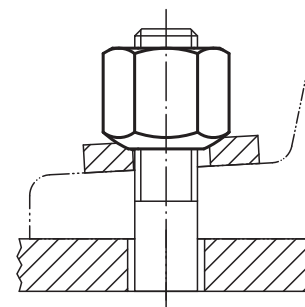
Tempered to 10, black.  
Stainless steel A 2-70, bright.

**Sample order:**

K0702.12

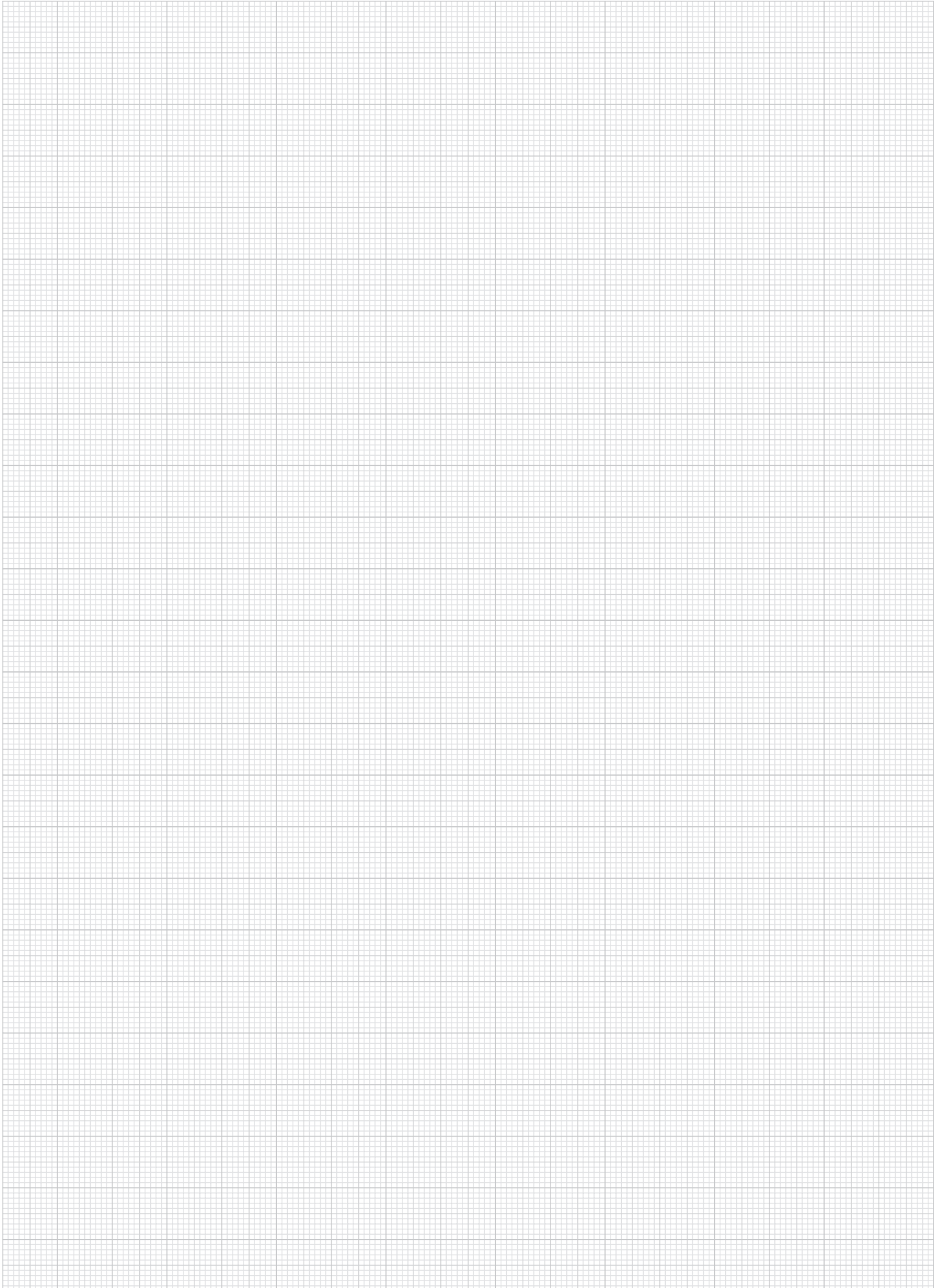
**Note:**

These hexagon nuts can be used with the conical seats K0729, Form D and G.



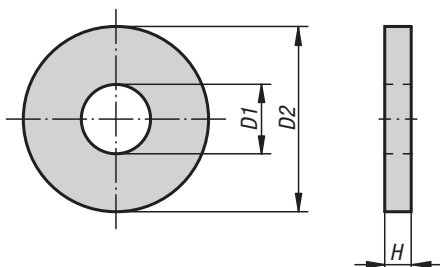
### KIPP Hexagon nuts height 1.5xD, DIN 6330 enhanced

| Order No. | Main material     | D   | H = 1,5 x D | D1   | SW | E    | R    |
|-----------|-------------------|-----|-------------|------|----|------|------|
| K0702.05  | high carbon steel | M5  | 7,5         | 6,5  | 9  | 10,4 | 7    |
| K0702.06  | high carbon steel | M6  | 9           | 7    | 10 | 11,5 | 9    |
| K0702.08  | high carbon steel | M8  | 12          | 9    | 13 | 15   | 11   |
| K0702.10  | high carbon steel | M10 | 15          | 11,5 | 16 | 18,4 | 15   |
| K0702.101 | high carbon steel | M10 | 15          | 11,5 | 17 | 19,6 | 15   |
| K0702.12  | high carbon steel | M12 | 18          | 14   | 18 | 20,7 | 17   |
| K0702.121 | high carbon steel | M12 | 18          | 14   | 19 | 21,9 | 17   |
| K0702.14  | high carbon steel | M14 | 21          | 16   | 22 | 25,4 | 20   |
| K0702.16  | high carbon steel | M16 | 24          | 18   | 24 | 27,7 | 22   |
| K0702.18  | high carbon steel | M18 | 27          | 20   | 27 | 31,2 | 24,5 |
| K0702.20  | high carbon steel | M20 | 30          | 22   | 30 | 34,6 | 27   |
| K0702.22  | high carbon steel | M22 | 33          | 24   | 32 | 36,9 | 29   |
| K0702.24  | high carbon steel | M24 | 36          | 26   | 36 | 41,6 | 32   |
| K0702.30  | high carbon steel | M30 | 45          | 32   | 46 | 53,1 | 41   |
| K0702.36  | high carbon steel | M36 | 54          | 38   | 55 | 63,5 | 50   |
| K0702.806 | stainless steel   | M6  | 9           | 7    | 10 | 11,5 | 9    |
| K0702.808 | stainless steel   | M8  | 12          | 9    | 13 | 15   | 11   |
| K0702.810 | stainless steel   | M10 | 15          | 11,5 | 16 | 18,4 | 15   |
| K0702.811 | stainless steel   | M10 | 15          | 11,5 | 17 | 19,6 | 15   |
| K0702.812 | stainless steel   | M12 | 18          | 14   | 18 | 20,7 | 17   |
| K0702.816 | stainless steel   | M16 | 24          | 18   | 24 | 27,7 | 22   |
| K0702.820 | stainless steel   | M20 | 30          | 22   | 30 | 34,6 | 27   |



## Washers for clamps

DIN 6340



**Material:**

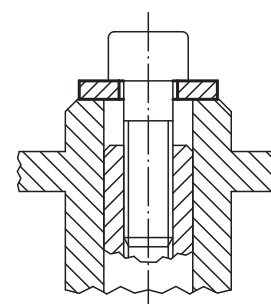
Steel.

**Version:**

Stamped out, pressed flat and tempered to 1200-1400 N/mm<sup>2</sup>, black.

**Sample order:**

K0867.16



### KIPP Heavy-duty washers DIN 6340

| Order No.<br>steel | D1   | D2 | H | for<br>screw |
|--------------------|------|----|---|--------------|
| K0867.06           | 6,4  | 17 | 3 | M6           |
| K0867.08           | 8,4  | 23 | 4 | M8           |
| K0867.10           | 10,5 | 28 | 4 | M10          |
| K0867.12           | 13   | 35 | 5 | M12          |
| K0867.16           | 17   | 45 | 6 | M16          |
| K0867.20           | 21   | 50 | 6 | M20          |



## C-washers

DIN 6372, enhanced



**Material:**

Carbon steel.

**Version:**

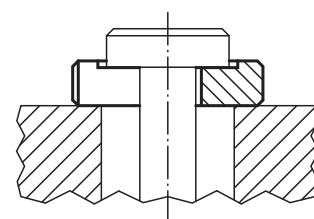
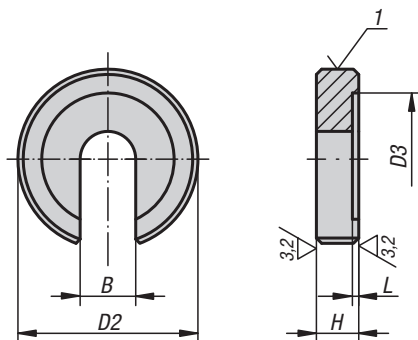
Tempered and black oxidised.

**Sample order:**

K0730.12

**Drawing reference:**

1) cross knurl



**KIPP C-washers for fixtures DIN 6372, enhanced**

| Order No. | B    | D2  | D3 | H  | L    |
|-----------|------|-----|----|----|------|
| K0730.05  | 5,25 | 17  | 12 | 5  | 0,75 |
| K0730.06  | 6,4  | 22  | 16 | 6  | 0,8  |
| K0730.08  | 8,4  | 28  | 21 | 7  | 1    |
| K0730.10  | 10,5 | 34  | 25 | 8  | 1,2  |
| K0730.12  | 13   | 40  | 30 | 9  | 1,8  |
| K0730.14  | 14,5 | 48  | 33 | 12 | 1,8  |
| K0730.16  | 17   | 56  | 37 | 12 | 1,8  |
| K0730.20  | 21   | 64  | 45 | 14 | 2    |
| K0730.24  | 25   | 75  | 52 | 16 | 2    |
| K0730.30  | 31   | 90  | 65 | 18 | 2    |
| K0730.36  | 37   | 100 | 75 | 20 | 2,5  |

## Spacing washers

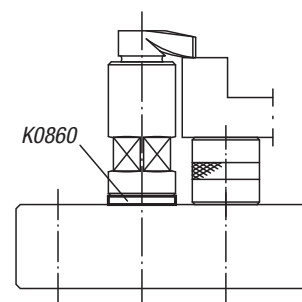
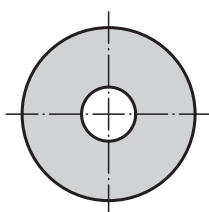
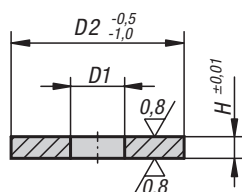


**Material:**  
Carbon steel.

**Version:**  
Tempered, black oxidised.  
Contact faces ground.

**Sample order:**  
K0860.16005

**Note:**  
The spacing washer is used to alter the clamping range of hook clamps and hook holders. When a spacing washer is inserted between the base and the hook holder or riser cylinder it prevents damage to the support face.



### KIPP Spacer washers, ground

| Order No.   | D1   | D2 | H |
|-------------|------|----|---|
| K0860.08003 | 9    | 24 | 3 |
| K0860.08005 | 9    | 24 | 5 |
| K0860.08008 | 9    | 24 | 8 |
| K0860.12001 | 12,5 | 40 | 1 |
| K0860.12003 | 12,5 | 40 | 3 |
| K0860.12005 | 12,5 | 40 | 5 |
| K0860.16001 | 16,5 | 50 | 1 |
| K0860.16003 | 16,5 | 50 | 3 |
| K0860.16005 | 16,5 | 50 | 5 |
| K0860.16105 | 16,5 | 60 | 5 |

## Washers

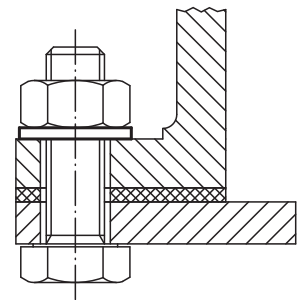
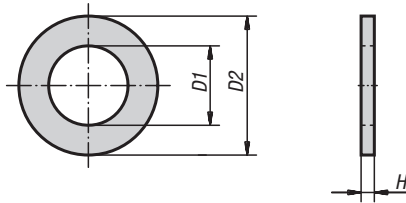
medium, DIN EN ISO 7089 A



**Material:**  
Steel 140 HV or stainless steel (A 2-70)

**Version:**  
Bright.

**Sample order:**  
K0868.10

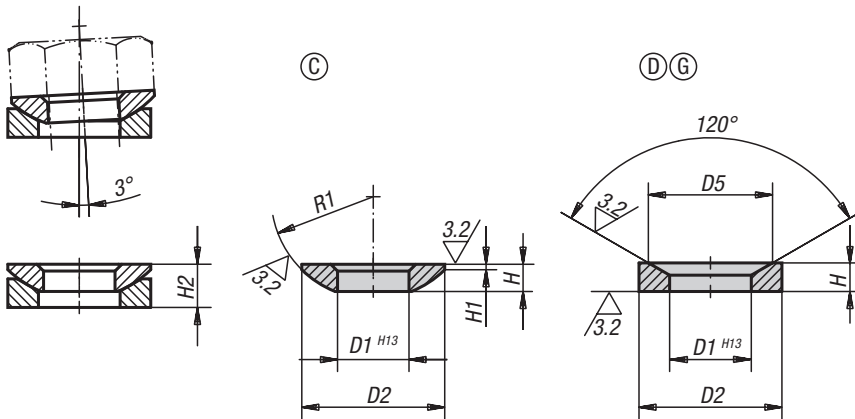


### KIPP Medium washers DIN EN ISO 7089 A

| Order No. steel | Order No. stainless steel | for screws | D1   | D2 | H   |
|-----------------|---------------------------|------------|------|----|-----|
| K0868.03        | K0868.103                 | M3         | 3,2  | 7  | 0,5 |
| K0868.04        | K0868.104                 | M4         | 4,3  | 9  | 0,8 |
| K0868.05        | K0868.105                 | M5         | 5,3  | 10 | 1   |
| K0868.06        | K0868.106                 | M6         | 6,4  | 12 | 1,6 |
| K0868.08        | K0868.108                 | M8         | 8,4  | 16 | 1,6 |
| K0868.10        | K0868.110                 | M10        | 10,5 | 20 | 2   |
| K0868.12        | K0868.112                 | M12        | 13   | 24 | 2,5 |
| K0868.14        | K0868.114                 | M14        | 15   | 28 | 2,5 |
| K0868.16        | K0868.116                 | M16        | 17   | 30 | 3   |
| K0868.20        | K0868.120                 | M20        | 21   | 37 | 3   |
| K0868.24        | K0868.124                 | M24        | 25   | 44 | 4   |
| K0868.30        | K0868.130                 | M30        | 31   | 56 | 4   |
| K0868.36        | K0868.136                 | M36        | 37   | 66 | 5   |

# Spherical washers

DIN 6319, 10/01



**Material:**

Mild steel or stainless steel.  
Form G high carbon steel tempered to HV 390 ±40.

**Version:**

Steel version case hardened.  
Stainless steel version bright, not hardened.

**Sample order:**

K0729.216

**Note:**

Conical seat Form G should be used over slots.

**Drawing reference:**

Form C: spherical washer  
Form D: conical seat  
Form G: conical seat for slots

**KIPP Spherical washers Form C, DIN 6319, edition 10/01**

| Order No.<br>mild steel | Order No.<br>stainless steel | Form | D1   | D2   | H    | H1  | R1  | Load rating<br>max. kN<br>(static load only) |
|-------------------------|------------------------------|------|------|------|------|-----|-----|--|
| K0729.105               | -                            | C    | 5,25 | 10,5 | 2    | 0,4 | 7,5 | 6,5  |
| K0729.106               | K0729.0106                   | C    | 6,4  | 12   | 2,3  | 0,7 | 9   | 9/6  |
| K0729.108               | K0729.0108                   | C    | 8,4  | 17   | 3,2  | 0,6 | 12  | 17/12  |
| K0729.110               | K0729.0110                   | C    | 10,5 | 21   | 4    | 0,8 | 15  | 26/16  |
| K0729.112               | K0729.0112                   | C    | 13   | 24   | 4,6  | 1,1 | 17  | 38/24  |
| K0729.114               | -                            | C    | 15   | 28   | 5    | 1,2 | 22  | 53   |
| K0729.116               | K0729.0116                   | C    | 17   | 30   | 5,3  | 1,3 | 22  | 73/45  |
| K0729.120               | K0729.0120                   | C    | 21   | 36   | 6,3  | 2   | 27  | 117/71                                       |
| K0729.124               | K0729.0124                   | C    | 25   | 44   | 8,2  | 2,4 | 32  | 168/105                                      |
| K0729.130               | K0729.0130                   | C    | 31   | 56   | 11,2 | 3,6 | 41  | 269/191                                      |
| K0729.136               | K0729.0136                   | C    | 37   | 68   | 14   | 4,6 | 50  | 394/-  |
| K0729.142               | K0729.0142                   | C    | 43   | 78   | 17   | 6,5 | 58  | 542/-  |
| K0729.148               | K0729.0148                   | C    | 50   | 92   | 21   | 8   | 67  | 714/-  |
| K0729.156               | -                            | C    | 58   | 103  | 23   | 9,5 | 79  | 960  |
| K0729.164               | -                            | C    | 66   | 120  | 27   | 12  | 93  | 1269   |

## Spherical washers

DIN 6319, 10/01



## KIPP Conical seats Form D, DIN 6319, edition 10/01

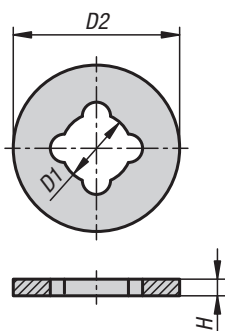
| Order No.<br>mild steel | Order No.<br>stainless steel | Form | D1   | D2   | D5   | H   | H2   | Load rating<br>max. kN<br>(static load only) |
|-------------------------|------------------------------|------|------|------|------|-----|------|--|
| K0729.205               | -                            | D    | 6    | 10,5 | 9,25 | 2,1 | 3,1  | 6,5  |
| K0729.206               | K0729.0206                   | D    | 7,1  | 12   | 11   | 2,8 | 4    | 9/6  |
| K0729.208               | K0729.0208                   | D    | 9,6  | 17   | 14,5 | 3,5 | 5,6  | 17/12  |
| K0729.210               | K0729.0210                   | D    | 12   | 21   | 18,5 | 4,2 | 6,3  | 26/16  |
| K0729.212               | K0729.0212                   | D    | 14,2 | 24   | 20   | 5   | 8    | 38/24  |
| K0729.214               | -                            | D    | 16,5 | 28   | 24,8 | 5,6 | 8,2  | 53   |
| K0729.216               | K0729.0216                   | D    | 19   | 30   | 26   | 6,2 | 9,3  | 73/45  |
| K0729.220               | K0729.0220                   | D    | 23,2 | 36   | 31   | 7,5 | 11,6 | 117/71                                       |
| K0729.224               | K0729.0224                   | D    | 28   | 44   | 37   | 9,5 | 15   | 168/105                                      |
| K0729.230               | K0729.0230                   | D    | 35   | 56   | 49   | 12  | 18,9 | 269/191                                      |
| K0729.236               | K0729.0236                   | D    | 42   | 68   | 60   | 15  | 23,3 | 394/-  |
| K0729.242               | K0729.0242                   | D    | 49   | 78   | 70   | 18  | 28,3 | 542/-  |
| K0729.248               | K0729.0248                   | D    | 56   | 92   | 82   | 22  | 35,2 | 714/-  |
| K0729.256               | -                            | D    | 65   | 103  | 92   | 25  | 39,7 | 960  |
| K0729.264               | -                            | D    | 75   | 120  | 110  | 30  | 46,5 | 1269   |

## KIPP Conical seats Form G, DIN 6319 Edition 10/01

| Order No.<br>high carbon steel | Order No.<br>stainless steel | Form | D1   | D2 | D5   | H   | H2   | Load rating<br>max. kN<br>(static load only) |
|--------------------------------|------------------------------|------|------|----|------|-----|------|--|
| K0729.305                      | -                            | G    | 6    | 15 | 9,25 | 2,5 | 3,5  | 6,5  |
| K0729.306                      | K0729.0306                   | G    | 7,1  | 17 | 11   | 4   | 5,2  | 9/6  |
| K0729.308                      | K0729.0308                   | G    | 9,6  | 24 | 14,5 | 5   | 6,8  | 17/12  |
| K0729.310                      | K0729.0310                   | G    | 12   | 30 | 18,5 | 5   | 7,1  | 26/16  |
| K0729.312                      | K0729.0312                   | G    | 14,2 | 36 | 20   | 6   | 9    | 38/24  |
| K0729.314                      | -                            | G    | 16,5 | 40 | 24,8 | 6   | 8,6  | 53   |
| K0729.316                      | K0729.0316                   | G    | 19   | 44 | 26   | 7   | 10,1 | 73/45  |
| K0729.320                      | K0729.0320                   | G    | 23,2 | 50 | 31   | 8   | 12   | 117/71                                       |
| K0729.324                      | K0729.0324                   | G    | 28   | 60 | 37   | 10  | 15,5 | 168/105                                      |
| K0729.330                      | K0729.0330                   | G    | 35   | 68 | 49   | 12  | 18,7 | 269/191                                      |
| K0729.336                      | -                            | G    | 42   | 80 | 60   | 12  | 20,3 | 394  |

## Washers plastic

captive



**Material:**  
Polyamide

**Version:**  
white

**Sample order:**  
K1526.05

**Note:**  
The washers are vibration dampers and protect the screw connection during e.g. pre-assembly. The washers also protect the surface from damage. Only suitable for threads with undercut i.e. ring bolts

**Application:**  
Press or twist the washers over the thread.

**Attention:**  
When shim washers with rings bolts are used, the forces specified for the ring bolts cannot be guaranteed.

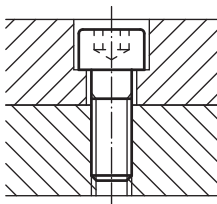
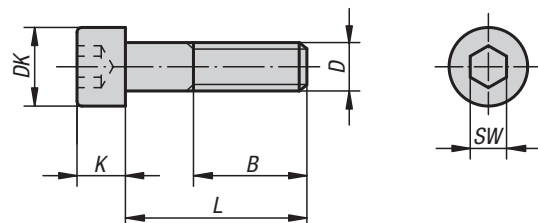


## KIPP Captive washers, plastic

| Order No. | D1   | D2 | G   | H   |
|-----------|------|----|-----|-----|
| K1526.05  | 4,3  | 10 | M5  | 0,5 |
| K1526.06  | 5,1  | 12 | M6  | 0,5 |
| K1526.08  | 6,2  | 14 | M8  | 0,5 |
| K1526.10  | 8,4  | 20 | M10 | 1   |
| K1526.12  | 9,8  | 20 | M12 | 1   |
| K1526.16  | 13,5 | 28 | M16 | 1   |

## Socket head screws

DIN 912 / DIN EN ISO 4762



**Material:**  
Steel or stainless steel (A 2)

**Version:**  
Steel grade 8.8, black or electro zinc-plated.  
Steel grade 10.9, black or electro zinc-plated.  
Stainless steel A 2-70, bright.

**Sample order:**  
K0869.08X40 (include length L)

### KIPP Socket head screws DIN 912 / EN ISO 4762, steel or stainless steel

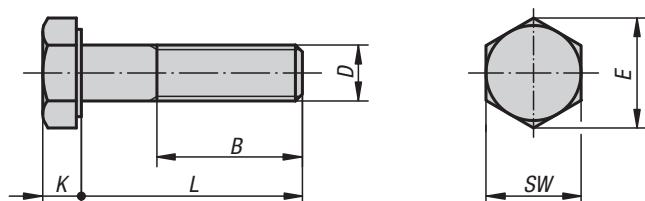
| Order No.<br>Grade 8.8<br>black | Order No.<br>Grade 8.8 | D   | L  | B  | DK  | K  | SW |
|---------------------------------|------------------------|-----|--|----|-----|----|----|
| K0869.04X                       | K0869.404X             | M4  | 10/12/16/18/20/25                            | 20 | 7   | 4  | 3  |
| K0869.05X                       | K0869.405X             | M5  | 10/12/16/18/20/25/30/40                      | 22 | 8,5 | 5  | 4  |
| K0869.06X                       | K0869.406X             | M6  | 10/12/16/18/20/25/30/35/40/45/50/55/60       | 24 | 10  | 6  | 5  |
| K0869.08X                       | K0869.408X             | M8  | 16/18/20/25/30/35/40/45/50/60/70/80          | 28 | 13  | 8  | 6  |
| K0869.10X                       | K0869.410X             | M10 | 16/18/20/25/30/35/40/45/50/60/70/80/90/100   | 32 | 16  | 10 | 8  |
| K0869.12X                       | K0869.412X             | M12 | 20/25/30/35/40/45/50/60/70/80/90/100/110/120 | 36 | 18  | 12 | 10 |
| K0869.14X                       | K0869.414X             | M14 | 50/80/120                                    | 40 | 21  | 14 | 12 |
| K0869.16X                       | K0869.416X             | M16 | 30/35/40/45/50/60/70/80/90/100/110/120       | 44 | 24  | 16 | 14 |
| K0869.20X                       | K0869.420X             | M20 | 40/45/50/60/70/80/90/100/110/120             | 52 | 30  | 20 | 17 |

| Order No.  | Grade | Main colour | D   | L   | B  | DK  | K  | SW |
|------------|-------|-------------|-----|---|----|-----|----|----|
| K0869.304X | 10.9  | black       | M4  | 10/12/16/18/20/25/10/12/16/18/20/25   | 20 | 7   | 4  | 3  |
| K0869.305X | 10.9  | black       | M5  | 10/12/16/18/20/25/30/40/10/12/16/18/20/25/30/40   | 22 | 8,5 | 5  | 4  |
| K0869.306X | 10.9  | black       | M6  | 10/12/16/18/20/25/30/35/40/55/45/50/60/10/12/16/18/20/25/30/35/40/45/50/55/60             | 24 | 10  | 6  | 5  |
| K0869.308X | 10.9  | black       | M8  | 16/18/20/25/30/35/40/45/50/60/70/80/16/20/25/30/35/40/45/50/60/70/80                      | 28 | 13  | 8  | 6  |
| K0869.310X | 10.9  | black       | M10 | 16/18/20/25/30/35/40/45/50/60/70/80/90/100/16/18/20/25/30/35/40/45/50/60/70/80/90/100     | 32 | 16  | 10 | 8  |
| K0869.312X | 10.9  | black       | M12 | 20/25/30/35/40/45/50/60/70/80/90/100/110/120/20/25/30/35/40/45/50/60/70/80/90/100/110/120 | 36 | 18  | 12 | 10 |
| K0869.314X | 10.9  | black       | M14 | 50/80/120/50/80/120   | 40 | 21  | 14 | 12 |
| K0869.316X | 10.9  | black       | M16 | 30/35/40/45/50/60/70/80/90/100/110/120/30/35/40/45/50/60/70/80/90/100/110/120             | 44 | 24  | 16 | 14 |
| K0869.320X | 10.9  | black       | M20 | 40/45/50/60/70/80/90/100/110/120/40/45/50/60/70/80/90/100/110/120                         | 52 | 30  | 20 | 17 |

| Order No.  | Main material   | D   | L  | B  | DK  | K  | SW |
|------------|-----------------|-----|--|----|-----|----|----|
| K0869.104X | stainless steel | M4  | 10/12/16/18/20/25                            | 20 | 7   | 4  | 3  |
| K0869.105X | stainless steel | M5  | 10/12/16/18/20/25/30/40                      | 22 | 8,5 | 5  | 4  |
| K0869.106X | stainless steel | M6  | 10/12/16/18/20/25/30/35/40/45/50/60/55       | 24 | 10  | 6  | 5  |
| K0869.108X | stainless steel | M8  | 16/18/20/25/30/35/40/45/50/60/70/80          | 28 | 13  | 8  | 6  |
| K0869.110X | stainless steel | M10 | 18/16/20/25/30/35/40/45/50/60/70/80/90/100   | 32 | 16  | 10 | 8  |
| K0869.112X | stainless steel | M12 | 20/25/30/35/40/45/50/60/70/80/90/100/110/120 | 36 | 18  | 12 | 10 |

## Hexagon head bolts

DIN EN ISO 4014 / DIN EN 24014



**Material:**

Steel or stainless steel (A 2)

**Version:**

Steel grade 8.8, black or electro zinc-plated.  
 Steel grade 10.9, black or electro zinc-plated.  
 Steel grade 12.9, black.  
 Stainless steel A 2-70, bright.

**Sample order:**

K0870.110X50 (include length L)

**On request:**

DIN ISO 272 spanner sizes.

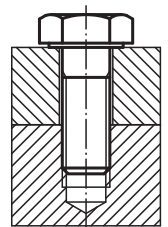
### KIPP Hexagon head bolts DIN 931/DIN EN ISO 4014/DIN EN 24014

| Order No.<br>steel<br>Grade 8.8 | Order No.<br>steel<br>Grade 10.9 | Main<br>colour | D   | B  | E     | K    | L                             | SW |
|---------------------------------|----------------------------------|----------------|-----|----|-------|------|-------------------------------|----|
| K0870.04X                       | -                                | black          | M4  | 14 | 7,66  | 2,8  | 25/30/35/40/45/50             | 7  |
| K0870.05X                       | -                                | black          | M5  | 16 | 8,79  | 3,5  | 25/30/35/40/45/50/60          | 8  |
| K0870.06X                       | K0870.306X                       | black          | M6  | 18 | 11,05 | 4    | 30/35/40/45/50/60/70          | 10 |
| K0870.08X                       | K0870.308X                       | black          | M8  | 22 | 14,38 | 5,3  | 35/40/45/50/60/70/80          | 13 |
| K0870.10X                       | K0870.310X                       | black          | M10 | 26 | 18,9  | 6,4  | 40/45/50/60/70/80/90/100      | 17 |
| K0870.12X                       | K0870.312X                       | black          | M12 | 30 | 21,1  | 7,5  | 45/50/60/70/80/90/100/110/120 | 19 |
| K0870.16X                       | K0870.316X                       | black          | M16 | 38 | 26,75 | 10   | 60/70/80/90/100/110/120       | 24 |
| K0870.20X                       | K0870.320X                       | black          | M20 | 46 | 33,53 | 12,5 | 70/80/90/100/110/120          | 30 |
| K0870.404X                      | -                                | galvanised     | M4  | 14 | 7,66  | 2,8  | 25/30/35/40/45/50             | 7  |
| K0870.405X                      | -                                | galvanised     | M5  | 16 | 8,79  | 3,5  | 25/30/35/40/45/50/60          | 8  |
| K0870.406X                      | K0870.506X                       | galvanised     | M6  | 18 | 11,05 | 4    | 30/35/40/45/50/60/70          | 10 |
| K0870.408X                      | K0870.508X                       | galvanised     | M8  | 22 | 14,38 | 5,3  | 35/40/45/50/60/70/80          | 13 |
| K0870.410X                      | K0870.510X                       | galvanised     | M10 | 26 | 18,9  | 6,4  | 40/45/50/60/70/80/90/100      | 17 |
| K0870.412X                      | K0870.512X                       | galvanised     | M12 | 30 | 21,1  | 7,5  | 45/50/60/70/80/90/100/110/120 | 19 |
| K0870.416X                      | K0870.516X                       | galvanised     | M16 | 38 | 26,75 | 10   | 60/70/80/90/100/110/120       | 24 |
| K0870.420X                      | K0870.520X                       | galvanised     | M20 | 46 | 33,53 | 12,5 | 70/80/90/100/110/120          | 30 |



## Hexagon head bolts

DIN EN ISO 4014 / DIN EN 24014

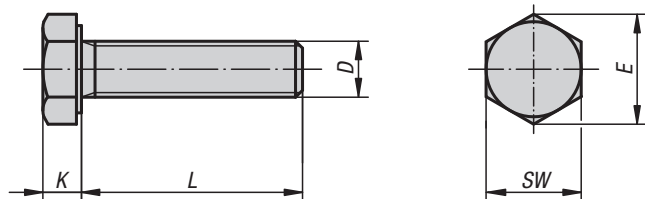


| Order No.  | Main material | Grade | D   | B  | E     | K    | L                         | SW |
|------------|---------------|-------|-----|----|-------|------|---------------------------|----|
| K0870.210X | steel         | 12.9  | M10 | 26 | 18,9  | 6,4  | 40/45/50/60/70/80/90/100  | 17 |
| K0870.212X | steel         | 12.9  | M12 | 30 | 21,1  | 7,5  | 45/50/60/70/80/90/100/120 | 19 |
| K0870.216X | steel         | 12.9  | M16 | 38 | 26,75 | 10   | 60/70/80/90/100/120       | 24 |
| K0870.220X | steel         | 12.9  | M20 | 46 | 33,53 | 12,5 | 70/80/90/100/120          | 30 |

| Order No.  | Main material   | D   | B  | E     | K   | L                             | SW |
|------------|-----------------|-----|----|-------|-----|-------------------------------|----|
| K0870.105X | stainless steel | M5  | 16 | 8,79  | 3,5 | 25/30/35/40/45/50/60          | 8  |
| K0870.106X | stainless steel | M6  | 18 | 11,05 | 4   | 30/35/40/45/50/60/70          | 10 |
| K0870.108X | stainless steel | M8  | 22 | 14,38 | 5,3 | 35/40/45/50/60/70/80          | 13 |
| K0870.110X | stainless steel | M10 | 26 | 18,9  | 6,4 | 40/45/50/60/70/80/90/100      | 17 |
| K0870.112X | stainless steel | M12 | 30 | 21,1  | 7,5 | 45/50/60/70/80/90/100/110/120 | 19 |
| K0870.116X | stainless steel | M16 | 38 | 26,75 | 10  | 60/70/80/90/100/110/120       | 24 |

## Hexagon head bolts

full thread DIN 933



**Material:**

Steel or stainless steel (A 2)

**Version:**

Steel grade 8.8, black or electro zinc-plated.  
 Steel grade 10.9, black or electro zinc-plated.  
 Steel grade 12.9, black.  
 Stainless steel A 2-70, bright.

**Sample order:**

K0871.05X40 (include length L)

### KIPP Hexagon head bolts DIN 933

| Order No. steel Grade 8.8 | Order No. steel Grade 10.9 | Main colour | D   | E     | K    | L  | SW |
|---------------------------|----------------------------|-------------|-----|-------|------|--|----|
| K0871.04X                 | -                          | black       | M4  | 7,66  | 2,8  | 10/12/16/18/20/25                            | 7  |
| K0871.05X                 | -                          | black       | M5  | 8,79  | 3,5  | 10/12/16/18/20/25/30/35/40                   | 8  |
| K0871.06X                 | K0871.306X                 | black       | M6  | 11,05 | 4    | 10/12/16/18/20/25/30/35/40/45/50/55/60       | 10 |
| K0871.08X                 | K0871.308X                 | black       | M8  | 14,38 | 5,3  | 16/18/20/25/30/35/40/45/50/60/70/80/90/100   | 13 |
| K0871.10X                 | K0871.310X                 | black       | M10 | 18,9  | 6,4  | 16/18/20/25/30/35/40/45/50/60/70/80/90/100   | 17 |
| K0871.12X                 | K0871.312X                 | black       | M12 | 21,1  | 7,5  | 20/25/30/35/40/45/50/60/70/80/90/100/110/120 | 19 |
| K0871.14X                 | -                          | black       | M14 | 24,49 | 8,8  | 30/35/40/45/50/60/70/80/90/100/110/120       | 22 |
| K0871.16X                 | K0871.316X                 | black       | M16 | 26,75 | 10   | 30/35/40/45/50/60/70/80/90/100/110/120       | 24 |
| K0871.20X                 | K0871.320X                 | black       | M20 | 33,53 | 12,5 | 40/45/50/60/70/80/90/100/110/120             | 30 |
| K0871.404X                | -                          | -           | M4  | 7,66  | 2,8  | 10/12/16/18/20/25                            | 7  |
| K0871.405X                | -                          | -           | M5  | 8,79  | 3,5  | 10/12/16/18/20/25/30/35/40                   | 8  |
| K0871.406X                | K0871.506X                 | -           | M6  | 11,05 | 4    | 10/12/16/18/20/25/30/35/40/45/50/55/60       | 10 |
| K0871.408X                | K0871.508X                 | -           | M8  | 14,38 | 5,3  | 16/18/20/25/30/35/40/45/50/60/70/80/90/100   | 13 |
| K0871.410X                | K0871.510X                 | -           | M10 | 18,9  | 6,4  | 16/18/20/25/30/35/40/45/50/60/70/80/90/100   | 17 |
| K0871.412X                | K0871.512X                 | -           | M12 | 21,1  | 7,5  | 20/25/30/35/40/45/50/60/70/80/90/100/110/120 | 19 |
| K0871.414X                | -                          | -           | M14 | 24,49 | 8,8  | 30/35/40/45/50/60/70/80/90/100/110/120       | 22 |
| K0871.416X                | K0871.516X                 | -           | M16 | 26,75 | 10   | 30/35/40/45/50/60/70/80/90/100/110/120       | 24 |
| K0871.420X                | K0871.520X                 | -           | M20 | 33,53 | 12,5 | 40/45/50/60/70/80/90/100/110/120             | 30 |

## Hexagon head bolts

full thread DIN 933

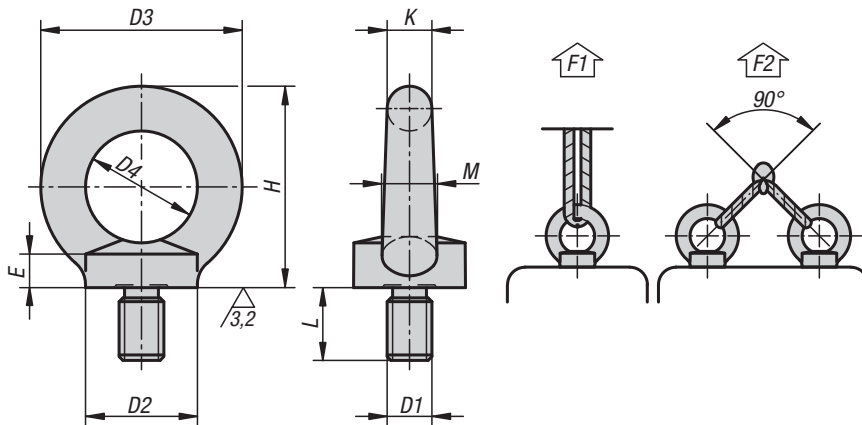


| Order No.  | Main material | Grade | D   | E     | K    | L                              | SW |
|------------|---------------|-------|-----|-------|------|--------------------------------|----|
| K0871.206X | steel         | 12.9  | M6  | 11,05 | 4    | 12/16/20/25/30                 | 10 |
| K0871.208X | steel         | 12.9  | M8  | 14,38 | 5,3  | 16/20/25/30/35/40/45/50/60     | 13 |
| K0871.210X | steel         | 12.9  | M10 | 18,9  | 6,4  | 20/25/30/35/40/45/50/60        | 17 |
| K0871.212X | steel         | 12.9  | M12 | 21,1  | 7,5  | 25/30/35/40/45/50/60           | 19 |
| K0871.216X | steel         | 12.9  | M16 | 26,75 | 10   | 30/35/40/45/50/60/70/80/90/100 | 24 |
| K0871.220X | steel         | 12.9  | M20 | 33,53 | 12,5 | 40/45/50/60/70/80/90/100       | 30 |

| Order No.  | Main material   | D   | E     | K    | L  | SW |
|------------|-----------------|-----|-------|------|--|----|
| K0871.104X | stainless steel | M4  | 7,66  | 2,8  | 10/12/16/18/20/25                            | 7  |
| K0871.105X | stainless steel | M5  | 8,79  | 3,5  | 10/12/16/18/20/25/30/35/40                   | 8  |
| K0871.106X | stainless steel | M6  | 11,05 | 4    | 10/12/16/18/20/25/30/35/40/45/50/55/60       | 10 |
| K0871.108X | stainless steel | M8  | 14,38 | 5,3  | 16/18/20/25/30/35/40/45/50/60/70/80/90/100   | 13 |
| K0871.110X | stainless steel | M10 | 18,9  | 6,4  | 16/18/20/25/30/35/40/45/50/60/70/80/90/100   | 17 |
| K0871.112X | stainless steel | M12 | 21,1  | 7,5  | 20/25/30/35/40/45/50/60/70/80/90/100/110/120 | 19 |
| K0871.116X | stainless steel | M16 | 26,75 | 10   | 30/35/40/45/50/60/70/80/90/100/110/120       | 24 |
| K0871.120X | stainless steel | M20 | 33,53 | 12,5 | 40/45/50/60/70/80/90/100/110/120             | 30 |

## Ring bolts

DIN 580



**Material:**

1.1141 steel, 1.4301 stainless steel or 1.4401 stainless steel.

**Version:**

drop forged.

**Sample order:**

K0767.20

**Note:**

For high demand hoisting and carrying tasks in safety-relevant areas (machine construction, load handling equipment, lifting tackle).

The CE mark is impressed into the ring bolt.

F2 permissible load under max. 45° per ring bolt.

**On request:**

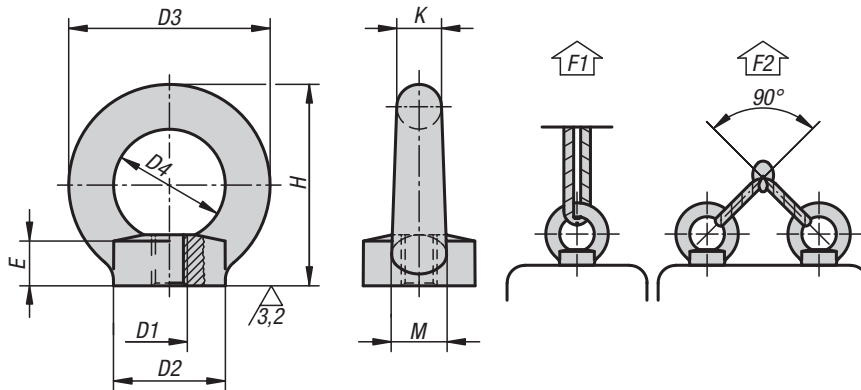
Certificate of conformity.

### KIPP Ring bolts DIN 580

| Order No. steel<br>1.1141 | Order No. stainless steel<br>1.4301 | Order No. stainless steel<br>1.4401 | D1  | L    | D2 | D3 | D4 | E  | H  | K  | M  | F1 max. kN | F2 max. kN | Permissible load kg |
|---------------------------|-------------------------------------|-------------------------------------|-----|------|----|----|----|----|----|----|----|------------|------------|---------------------|
| K0767.08                  | K0767.108                           | K0767.208                           | M8  | 13   | 20 | 36 | 20 | 6  | 36 | 8  | 10 | 1,4        | 0,95       | 96,9                |
| K0767.10                  | K0767.110                           | K0767.210                           | M10 | 17   | 25 | 45 | 25 | 8  | 45 | 10 | 12 | 2,3        | 1,7        | 173,4               |
| K0767.12                  | K0767.112                           | K0767.212                           | M12 | 20,5 | 30 | 54 | 30 | 10 | 53 | 12 | 14 | 3,4        | 2,4        | 244,8               |
| K0767.16                  | K0767.116                           | K0767.216                           | M16 | 27   | 35 | 63 | 35 | 12 | 62 | 14 | 16 | 7          | 5          | 510                 |
| K0767.20                  | K0767.120                           | K0767.220                           | M20 | 30   | 40 | 72 | 40 | 14 | 71 | 16 | 19 | 12         | 8,3        | 846,6               |
| K0767.24                  | K0767.124                           | K0767.224                           | M24 | 36   | 50 | 90 | 50 | 18 | 90 | 20 | 24 | 18         | 12,7       | 1295,4              |

## Ring nuts

DIN 582



**Material:**

1.1141 steel, 1.4301 stainless steel or 1.4401 stainless steel.

**Version:**

drop forged.

**Sample order:**

K0768.10

**Note:**

For high demand hoisting and carrying tasks in safety-relevant areas (machine construction, load handling equipment, lifting tackle).

The CE mark is impressed into the ring bolt.

F2 permissible load under max. 45° per ring bolt.

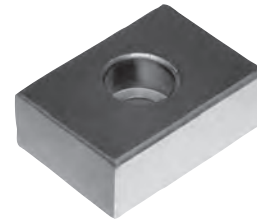
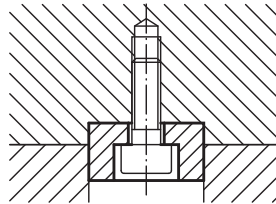
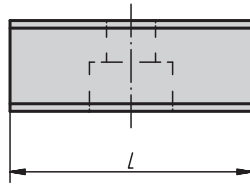
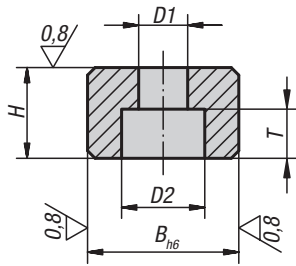
**On request:**

Certificate of conformity.

### KIPP Ring nuts DIN 582

| Order No. steel 1.1141 | Order No. stainless steel 1.4301 | Order No. stainless steel 1.4401 | D1  | D2 | D3 | D4 | E   | H  | K  | M  | F1 max. kN | F2 max. kN | Permissible load kg |
|------------------------|----------------------------------|----------------------------------|-----|----|----|----|-----|----|----|----|------------|------------|---------------------|
| K0768.08               | K0768.108                        | K0768.208                        | M8  | 20 | 36 | 20 | 8,5 | 36 | 8  | 10 | 1,4        | 0,95       | 96,9                |
| K0768.10               | K0768.110                        | K0768.210                        | M10 | 25 | 45 | 25 | 10  | 45 | 10 | 12 | 2,3        | 1,7        | 173,4               |
| K0768.12               | K0768.112                        | K0768.212                        | M12 | 30 | 54 | 30 | 11  | 53 | 12 | 14 | 3,4        | 2,4        | 244,8               |
| K0768.16               | K0768.116                        | K0768.216                        | M16 | 35 | 63 | 35 | 13  | 62 | 14 | 16 | 7          | 5          | 510                 |
| K0768.20               | K0768.120                        | K0768.220                        | M20 | 40 | 72 | 40 | 16  | 71 | 16 | 19 | 12         | 8,3        | 846,6               |
| K0768.24               | K0768.124                        | K0768.224                        | M24 | 50 | 90 | 50 | 20  | 90 | 20 | 24 | 18         | 12,7       | 1295,4              |

## Slot keys



**Material:**  
Steel.

**Version:**  
Case-hardened, black oxidised and ground.

**Sample order:**  
K0864.16

**Note:**  
Slot keys are used to align fixtures and clamps on machine tables with DIN 650 T-slots. They are screwed into the fixture alignment slots. Slot keys are only used when the fixture and machine table have the same slot width.

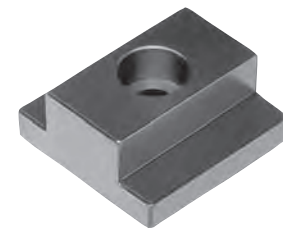
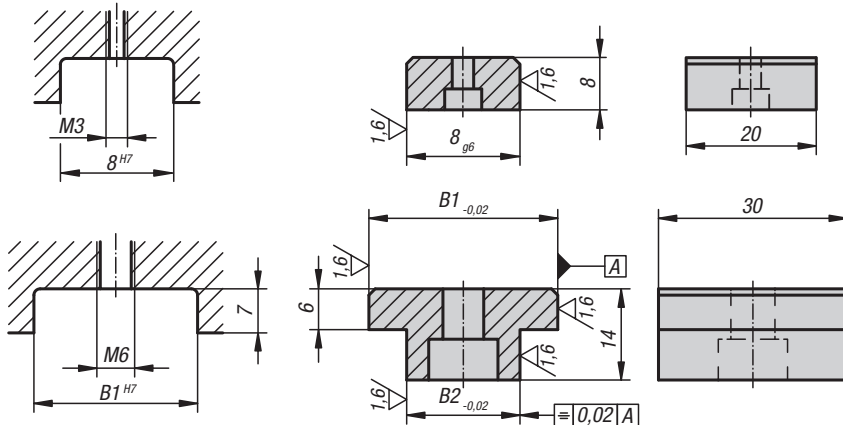
### KIPP Slot keys

| Order No. | B  | H  | L  | D1  | D2 | T   | for screws<br>DIN 84 or 912 |
|-----------|----|----|----|-----|----|-----|-----------------------------|
| K0864.10  | 10 | 8  | 20 | 4,5 | 8  | 4,3 | M4x10                       |
| K0864.12  | 12 | 8  | 20 | 5,5 | 10 | 5,3 | M5x12                       |
| K0864.14  | 14 | 10 | 22 | 6,6 | 11 | 6,3 | M6x16                       |
| K0864.16  | 16 | 10 | 22 | 6,6 | 11 | 6,3 | M6x16                       |
| K0864.18  | 18 | 10 | 22 | 6,6 | 11 | 6,3 | M6x16                       |
| K0864.20  | 20 | 10 | 22 | 6,6 | 11 | 6,3 | M6x16                       |
| K0864.22  | 22 | 12 | 32 | 6,6 | 11 | 6,3 | M6x16                       |

# K0954

## T-slot keys

K0954.08x8



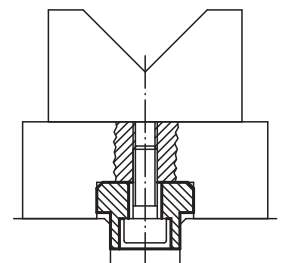
**Material:**  
Carbon steel 1.1191

**Version:**  
Black oxidised.

**Sample order:**  
K0954.08X8 (include dimension B1)

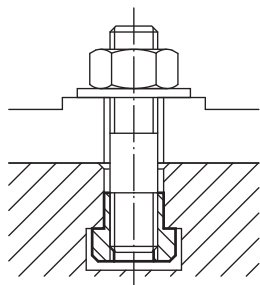
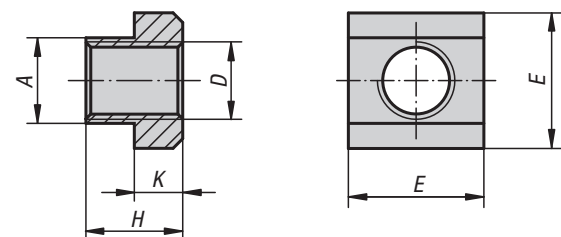
### KIPP T-slot keys

| Order No. | B1       | B2 |
|-----------|----------|----|
| K0954.08X | 8        | 8  |
| K0954.12X | 20/22/30 | 12 |
| K0954.14X | 20/22/30 | 14 |
| K0954.16X | 20/22/30 | 16 |
| K0954.18X | 20/22/30 | 18 |
| K0954.22X | 20/22/30 | 22 |



## Nuts for T-slots

DIN 508 enhanced



**Material:**

Carbon steel grade 10, EN AW-7075 or stainless steel 1.4305.

**Version:**

Steel black.  
Aluminium and stainless steel bright.

**Sample order:**

K0377.20

**Note:**

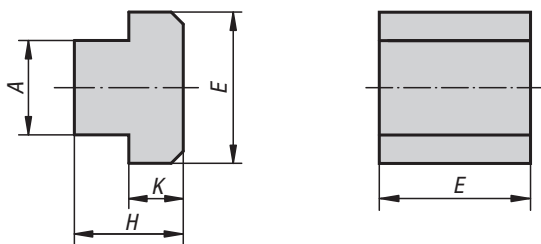
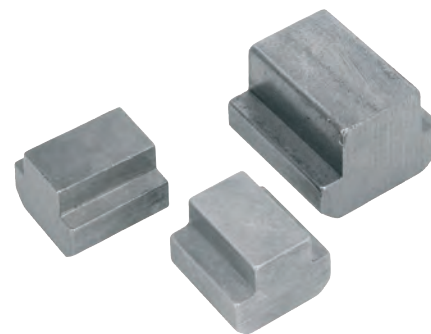
Nuts for T-slots in aluminium have threaded steel inserts.

### KIPP Nuts for T-slots to DIN 508 enhanced

| Order No. aluminium | Order No. high carbon steel | Order No. stainless steel | Slot width | D       | A    | E  | H  | K  |
|---------------------|-----------------------------|---------------------------|------------|---------|------|----|----|----|
| K0377.204           | K0377.05                    | -                         | 6          | M4/M5   | 5,6  | 10 | 8  | 4  |
| K0377.206           | K0377.06                    | K0377.806                 | 8          | M6      | 7,6  | 13 | 10 | 6  |
| K0377.2061          | K0377.061                   | -                         | 10         | M6      | 9,6  | 15 | 12 | 6  |
| -                   | K0377.082                   | -                         | 14         | M8      | 13,6 | 22 | 16 | 8  |
| K0377.208           | K0377.081                   | -                         | 12         | M8      | 11,6 | 18 | 14 | 7  |
| -                   | K0377.08                    | K0377.808                 | 10         | M8      | 9,6  | 15 | 12 | 6  |
| -                   | K0377.10                    | K0377.810                 | 12         | M10     | 11,6 | 18 | 14 | 7  |
| K0377.210           | K0377.101                   | -                         | 14         | M10     | 13,6 | 22 | 16 | 8  |
| -                   | K0377.123                   | -                         | 20         | M12     | 19,6 | 32 | 24 | 12 |
| -                   | K0377.12                    | K0377.812                 | 14         | M12     | 13,6 | 22 | 16 | 8  |
| -                   | K0377.121                   | -                         | 16         | M12     | 15,6 | 25 | 18 | 9  |
| -                   | K0377.122                   | -                         | 18         | M12     | 17,6 | 28 | 20 | 10 |
| -                   | K0377.14                    | K0377.814                 | 16         | M14     | 15,6 | 25 | 18 | 9  |
| -                   | K0377.141                   | -                         | 18         | M14     | 17,6 | 28 | 20 | 10 |
| -                   | K0377.164                   | -                         | 28         | M16     | 27,6 | 44 | 36 | 18 |
| -                   | K0377.161                   | -                         | 20         | M16     | 19,6 | 32 | 24 | 12 |
| -                   | K0377.16                    | K0377.816                 | 18         | M16     | 17,6 | 28 | 20 | 10 |
| K0377.216           | K0377.124                   | -                         | 22         | M16/M12 | 21,6 | 35 | 28 | 14 |
| -                   | K0377.163                   | -                         | 24         | M16     | 23,6 | 40 | 32 | 16 |
| -                   | K0377.181                   | -                         | 22         | M18     | 21,6 | 35 | 28 | 14 |
| -                   | K0377.18                    | -                         | 20         | M18     | 19,6 | 32 | 24 | 12 |
| -                   | K0377.20                    | -                         | 22         | M20     | 21,6 | 35 | 28 | 14 |
| -                   | K0377.201                   | -                         | 24         | M20     | 23,6 | 40 | 32 | 16 |
| -                   | K0377.202                   | -                         | 28         | M20     | 27,6 | 44 | 36 | 18 |
| -                   | K0377.22                    | -                         | 24         | M22     | 23,6 | 40 | 32 | 16 |
| -                   | K0377.24                    | -                         | 28         | M24     | 27,6 | 44 | 36 | 18 |
| -                   | K0377.241                   | -                         | 36         | M24     | 35,5 | 54 | 44 | 22 |
| -                   | K0377.27                    | -                         | 32         | M27     | 31,5 | 50 | 40 | 20 |
| -                   | K0377.30                    | -                         | 36         | M30     | 35,5 | 54 | 44 | 22 |
| -                   | K0377.36                    | -                         | 42         | M36     | 41,5 | 65 | 52 | 26 |

## Nuts for T-slots

blanks



**Material:**

High carbon 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.<br>high carbon steel | Order No.<br>stainless steel | Slot<br>width | 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 |



## Nuts for T-slots

rhombic form



**Material:**

Carbon steel.

**Version:**

Tempered to 8 and black oxidised.

**Sample order:**

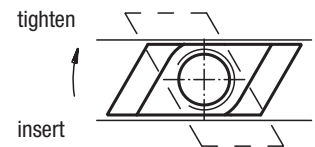
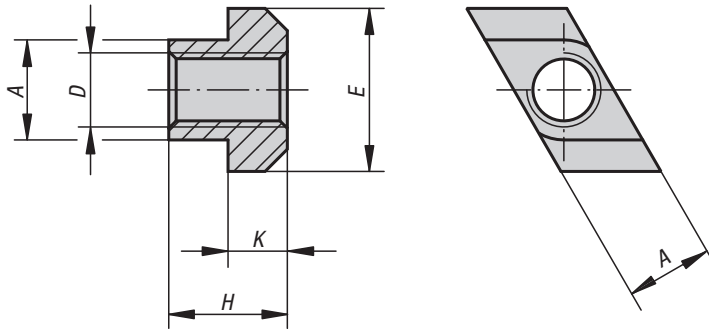
K0379.114

**Note:**

The benefit of rhombic nuts for T-slots is that they can be fitted in the slot from the top. They are particularly useful 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:**

Insert from above then twist in the slot until it stops.

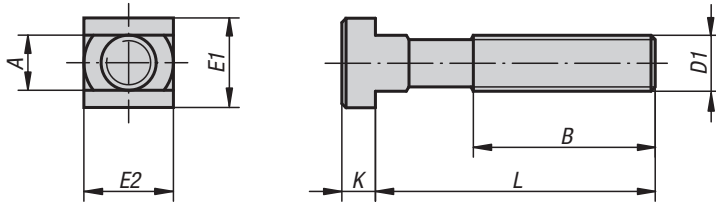


### KIPP Nuts for T-slots, rhombic form

| Order No. | Slot width | D   | A    | E  | H  | K  |
|-----------|------------|-----|------|----|----|----|
| K0379.105 | 6          | M5  | 5,6  | 10 | 8  | 4  |
| K0379.106 | 8          | M6  | 7,6  | 13 | 10 | 6  |
| K0379.108 | 10         | M8  | 9,7  | 15 | 12 | 6  |
| K0379.110 | 12         | M10 | 11,7 | 18 | 14 | 7  |
| K0379.210 | 14         | M10 | 13,5 | 22 | 16 | 8  |
| K0379.310 | 18         | M10 | 17,5 | 28 | 20 | 10 |
| K0379.112 | 14         | M12 | 13,7 | 22 | 16 | 8  |
| K0379.114 | 16         | M14 | 15,7 | 25 | 18 | 9  |
| K0379.116 | 18         | M16 | 17,7 | 28 | 20 | 10 |
| K0379.216 | 20         | M16 | 19,7 | 32 | 24 | 12 |
| K0379.316 | 22         | M16 | 21,5 | 35 | 28 | 14 |
| K0379.416 | 28         | M16 | 27,5 | 44 | 36 | 18 |
| K0379.118 | 20         | M18 | 19,7 | 32 | 24 | 12 |
| K0379.120 | 22         | M20 | 21,7 | 35 | 28 | 14 |
| K0379.124 | 28         | M24 | 27,7 | 44 | 36 | 18 |
| K0379.130 | 36         | M30 | 35,6 | 54 | 44 | 22 |
| K0379.136 | 42         | M36 | 41,5 | 65 | 52 | 26 |

## T-slot bolts

DIN 787



### KIPP T-slot bolts DIN 787

| Order No.    | Slot width | D1  | L   | A    | B   | E1/E2 | K  |
|--------------|------------|-----|-----|------|-----|-------|----|
| K0698.0625   | 6          | M6  | 25  | 5,7  | 15  | 10    | 4  |
| K0698.0640   | 6          | M6  | 40  | 5,7  | 28  | 10    | 4  |
| K0698.0663   | 6          | M6  | 63  | 5,7  | 40  | 10    | 4  |
| K0698.0832   | 8          | M8  | 32  | 7,7  | 22  | 13    | 6  |
| K0698.0850   | 8          | M8  | 50  | 7,7  | 35  | 13    | 6  |
| K0698.0880   | 8          | M8  | 80  | 7,7  | 50  | 13    | 6  |
| K0698.1040   | 10         | M10 | 40  | 9,7  | 30  | 15    | 6  |
| K0698.1063   | 10         | M10 | 63  | 9,7  | 45  | 15    | 6  |
| K0698.10100  | 10         | M10 | 100 | 9,7  | 60  | 15    | 6  |
| K0698.1250   | 12         | M12 | 50  | 11,7 | 35  | 18    | 7  |
| K0698.1263   | 12         | M12 | 63  | 11,7 | 40  | 18    | 7  |
| K0698.1280   | 12         | M12 | 80  | 11,7 | 55  | 18    | 7  |
| K0698.12100  | 12         | M12 | 100 | 11,7 | 65  | 18    | 7  |
| K0698.12125  | 12         | M12 | 125 | 11,7 | 75  | 18    | 7  |
| K0698.12160  | 12         | M12 | 160 | 11,7 | 100 | 18    | 7  |
| K0698.12200  | 12         | M12 | 200 | 11,7 | 120 | 18    | 7  |
| K0698.1450   | 14         | M12 | 50  | 13,7 | 35  | 22    | 8  |
| K0698.1463   | 14         | M12 | 63  | 13,7 | 45  | 22    | 8  |
| K0698.1480   | 14         | M12 | 80  | 13,7 | 55  | 22    | 8  |
| K0698.14100  | 14         | M12 | 100 | 13,7 | 65  | 22    | 8  |
| K0698.14125  | 14         | M12 | 125 | 13,7 | 75  | 22    | 8  |
| K0698.14160  | 14         | M12 | 160 | 13,7 | 100 | 22    | 8  |
| K0698.14200  | 14         | M12 | 200 | 13,7 | 120 | 22    | 8  |
| K0698.16631  | 16         | M14 | 63  | 15,7 | 45  | 25    | 9  |
| K0698.16801  | 16         | M14 | 80  | 15,7 | 55  | 25    | 9  |
| K0698.161001 | 16         | M14 | 100 | 15,7 | 65  | 25    | 9  |
| K0698.161251 | 16         | M14 | 125 | 15,7 | 75  | 25    | 9  |
| K0698.161601 | 16         | M14 | 160 | 15,7 | 100 | 25    | 9  |
| K0698.162501 | 16         | M14 | 250 | 15,7 | 150 | 25    | 9  |
| K0698.1663   | 16         | M16 | 63  | 15,7 | 45  | 25    | 9  |
| K0698.1680   | 16         | M16 | 80  | 15,7 | 55  | 25    | 9  |
| K0698.16100  | 16         | M16 | 100 | 15,7 | 65  | 25    | 9  |
| K0698.16125  | 16         | M16 | 125 | 15,7 | 85  | 25    | 9  |
| K0698.16160  | 16         | M16 | 160 | 15,7 | 100 | 25    | 9  |
| K0698.16200  | 16         | M16 | 200 | 15,7 | 125 | 25    | 9  |
| K0698.16250  | 16         | M16 | 250 | 15,7 | 150 | 25    | 9  |
| K0698.1863   | 18         | M16 | 63  | 17,7 | 45  | 28    | 10 |

**Material:**

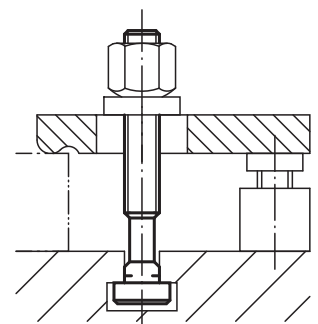
Carbon steel.

**Version:**

Forged and milled, rolled thread.  
M6-M12 tempered to 10.9, black.  
M14-M36 tempered to 8.8, black.

**Sample order:**

K0698.1263



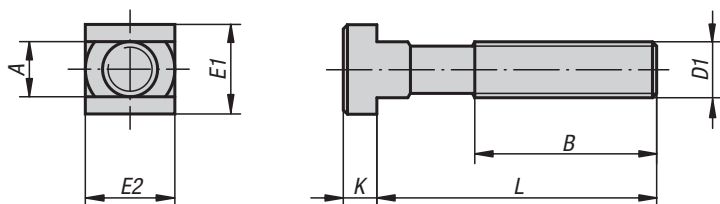
# T-slot bolts

DIN 787

| Order No.   | Slot width | D1  | L   | A    | B   | E1/E2 | K  |
|-------------|------------|-----|-----|------|-----|-------|----|
| K0698.1880  | 18         | M16 | 80  | 17,7 | 55  | 28    | 10 |
| K0698.18100 | 18         | M16 | 100 | 17,7 | 65  | 28    | 10 |
| K0698.18125 | 18         | M16 | 125 | 17,7 | 85  | 28    | 10 |
| K0698.18160 | 18         | M16 | 160 | 17,7 | 100 | 28    | 10 |
| K0698.18200 | 18         | M16 | 200 | 17,7 | 125 | 28    | 10 |
| K0698.18250 | 18         | M16 | 250 | 17,7 | 150 | 28    | 10 |
| K0698.2080  | 20         | M20 | 80  | 19,7 | 55  | 32    | 12 |
| K0698.20100 | 20         | M20 | 100 | 19,7 | 65  | 32    | 12 |
| K0698.20125 | 20         | M20 | 125 | 19,7 | 85  | 32    | 12 |
| K0698.20160 | 20         | M20 | 160 | 19,7 | 110 | 32    | 12 |
| K0698.20200 | 20         | M20 | 200 | 19,7 | 125 | 32    | 12 |
| K0698.20250 | 20         | M20 | 250 | 19,7 | 150 | 32    | 12 |
| K0698.20315 | 20         | M20 | 315 | 19,7 | 190 | 32    | 12 |
| K0698.2280  | 22         | M20 | 80  | 21,7 | 55  | 35    | 14 |
| K0698.22100 | 22         | M20 | 100 | 21,7 | 65  | 35    | 14 |
| K0698.22125 | 22         | M20 | 125 | 21,7 | 85  | 35    | 14 |
| K0698.22160 | 22         | M20 | 160 | 21,7 | 110 | 35    | 14 |
| K0698.22200 | 22         | M20 | 200 | 21,7 | 125 | 35    | 14 |
| K0698.22250 | 22         | M20 | 250 | 21,7 | 150 | 35    | 14 |
| K0698.22315 | 22         | M20 | 315 | 21,7 | 190 | 35    | 14 |
| K0698.24100 | 24         | M24 | 100 | 23,7 | 70  | 40    | 16 |
| K0698.24125 | 24         | M24 | 125 | 23,7 | 85  | 40    | 16 |
| K0698.24160 | 24         | M24 | 160 | 23,7 | 110 | 40    | 16 |
| K0698.24200 | 24         | M24 | 200 | 23,7 | 125 | 40    | 16 |
| K0698.24250 | 24         | M24 | 250 | 23,7 | 150 | 40    | 16 |
| K0698.24315 | 24         | M24 | 315 | 23,7 | 190 | 40    | 16 |
| K0698.24400 | 24         | M24 | 400 | 23,7 | 240 | 40    | 16 |
| K0698.28100 | 28         | M24 | 100 | 27,7 | 70  | 44    | 18 |
| K0698.28125 | 28         | M24 | 125 | 27,7 | 85  | 44    | 18 |
| K0698.28160 | 28         | M24 | 160 | 27,7 | 110 | 44    | 18 |
| K0698.28200 | 28         | M24 | 200 | 27,7 | 125 | 44    | 18 |
| K0698.28250 | 28         | M24 | 250 | 27,7 | 150 | 44    | 18 |
| K0698.28315 | 28         | M24 | 315 | 27,7 | 190 | 44    | 18 |
| K0698.28400 | 28         | M24 | 400 | 27,7 | 240 | 44    | 18 |
| K0698.36125 | 36         | M30 | 125 | 35,6 | 80  | 54    | 22 |
| K0698.36160 | 36         | M30 | 160 | 35,6 | 110 | 54    | 22 |
| K0698.36200 | 36         | M30 | 200 | 35,6 | 135 | 54    | 22 |
| K0698.36250 | 36         | M30 | 250 | 35,6 | 150 | 54    | 22 |
| K0698.36315 | 36         | M30 | 315 | 35,6 | 200 | 54    | 22 |
| K0698.36500 | 36         | M30 | 500 | 35,6 | 300 | 54    | 22 |
| K0698.42160 | 42         | M36 | 160 | 41,6 | 100 | 65    | 26 |
| K0698.42250 | 42         | M36 | 250 | 41,6 | 175 | 65    | 26 |
| K0698.42400 | 42         | M36 | 400 | 41,6 | 250 | 65    | 26 |

## T-slot bolts

DIN 787, 12.9



### KIPP T-slot bolts DIN 787, 12.9

| Order No.    | Slot width | D1  | L   | A    | B   | E1/E2 | K  |
|--------------|------------|-----|-----|------|-----|-------|----|
| K0699.11250  | 12         | M12 | 50  | 11,7 | 35  | 18    | 7  |
| K0699.11280  | 12         | M12 | 80  | 11,7 | 55  | 18    | 7  |
| K0699.112100 | 12         | M12 | 100 | 11,7 | 65  | 18    | 7  |
| K0699.112125 | 12         | M12 | 125 | 11,7 | 75  | 18    | 7  |
| K0699.112160 | 12         | M12 | 160 | 11,7 | 100 | 18    | 7  |
| K0699.112200 | 12         | M12 | 200 | 11,7 | 120 | 18    | 7  |
| K0699.11450  | 14         | M12 | 50  | 13,7 | 35  | 22    | 8  |
| K0699.11480  | 14         | M12 | 80  | 13,7 | 55  | 22    | 8  |
| K0699.114100 | 14         | M12 | 100 | 13,7 | 65  | 22    | 8  |
| K0699.114125 | 14         | M12 | 125 | 13,7 | 75  | 22    | 8  |
| K0699.114160 | 14         | M12 | 160 | 13,7 | 100 | 22    | 8  |
| K0699.114200 | 14         | M12 | 200 | 13,7 | 120 | 22    | 8  |
| K0699.11663  | 16         | M16 | 63  | 15,7 | 45  | 25    | 9  |
| K0699.116100 | 16         | M16 | 100 | 15,7 | 65  | 25    | 9  |
| K0699.116125 | 16         | M16 | 125 | 15,7 | 85  | 25    | 9  |
| K0699.116160 | 16         | M16 | 160 | 15,7 | 100 | 25    | 9  |
| K0699.116250 | 16         | M16 | 250 | 15,7 | 150 | 25    | 9  |
| K0699.11863  | 18         | M16 | 63  | 17,7 | 45  | 28    | 10 |
| K0699.118100 | 18         | M16 | 100 | 17,7 | 65  | 28    | 10 |
| K0699.118125 | 18         | M16 | 125 | 17,7 | 85  | 28    | 10 |
| K0699.118160 | 18         | M16 | 160 | 17,7 | 100 | 28    | 10 |
| K0699.118250 | 18         | M16 | 250 | 17,7 | 150 | 28    | 10 |
| K0699.12080  | 20         | M20 | 80  | 19,7 | 55  | 32    | 12 |
| K0699.120125 | 20         | M20 | 125 | 19,7 | 85  | 32    | 12 |
| K0699.120200 | 20         | M20 | 200 | 19,7 | 125 | 32    | 12 |
| K0699.120315 | 20         | M20 | 315 | 19,7 | 190 | 32    | 12 |
| K0699.12280  | 22         | M20 | 80  | 21,7 | 55  | 35    | 14 |
| K0699.122125 | 22         | M20 | 125 | 21,7 | 85  | 35    | 14 |
| K0699.122200 | 22         | M20 | 200 | 21,7 | 125 | 35    | 14 |
| K0699.122315 | 22         | M20 | 315 | 21,7 | 190 | 35    | 14 |
| K0699.124100 | 24         | M24 | 100 | 23,7 | 70  | 40    | 16 |
| K0699.124160 | 24         | M24 | 160 | 23,7 | 110 | 40    | 16 |
| K0699.124250 | 24         | M24 | 250 | 23,7 | 150 | 40    | 16 |
| K0699.124400 | 24         | M24 | 400 | 23,7 | 240 | 40    | 16 |
| K0699.128100 | 28         | M24 | 100 | 27,7 | 70  | 44    | 18 |
| K0699.128160 | 28         | M24 | 160 | 27,7 | 110 | 44    | 18 |
| K0699.128250 | 28         | M24 | 250 | 27,7 | 150 | 44    | 18 |
| K0699.128400 | 28         | M24 | 400 | 27,7 | 240 | 44    | 18 |

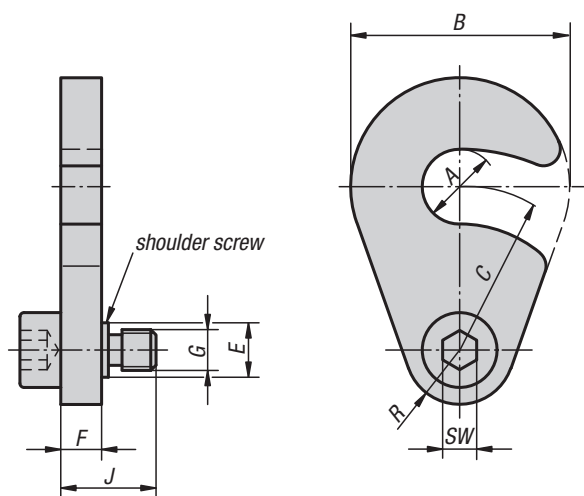
**Material:**  
Carbon steel.

**Version:**  
Forged and milled, rolled thread, tempered to 12.9, black.

**Sample order:**  
K0699.112125

## C-washers

captive, with shoulder screw



**Material, version:**

Swing C-washer case-hardened steel, black oxidised.  
Shoulder screw tempered steel, black oxidised.

**Sample order:**

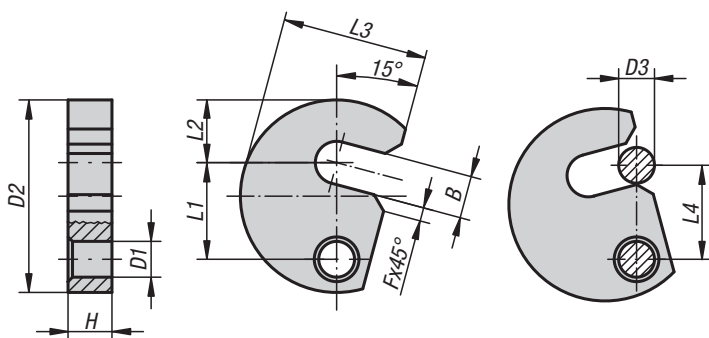
K0872.90010

### KIPP C-washers, captive, with shoulder screw

| Order No.   | B  | C  | D  | E  | F | G  | SW | J  |
|-------------|----|----|----|----|---|----|----|----|
| K0872.90010 | 32 | 24 | 8  | 8  | 6 | M6 | 5  | 14 |
| K0872.90012 | 40 | 27 | 10 | 10 | 8 | M8 | 6  | 19 |
| K0872.90016 | 50 | 33 | 10 | 10 | 8 | M8 | 6  | 19 |

## C-washers captive

DIN 6371



**Material:**

Carbon steel 1.0760.

**Version:**

Nitrided and black oxidised.

**Sample order:**

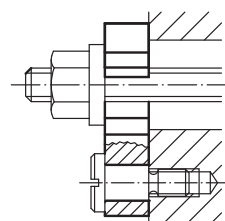
K0703.12

**Note:**

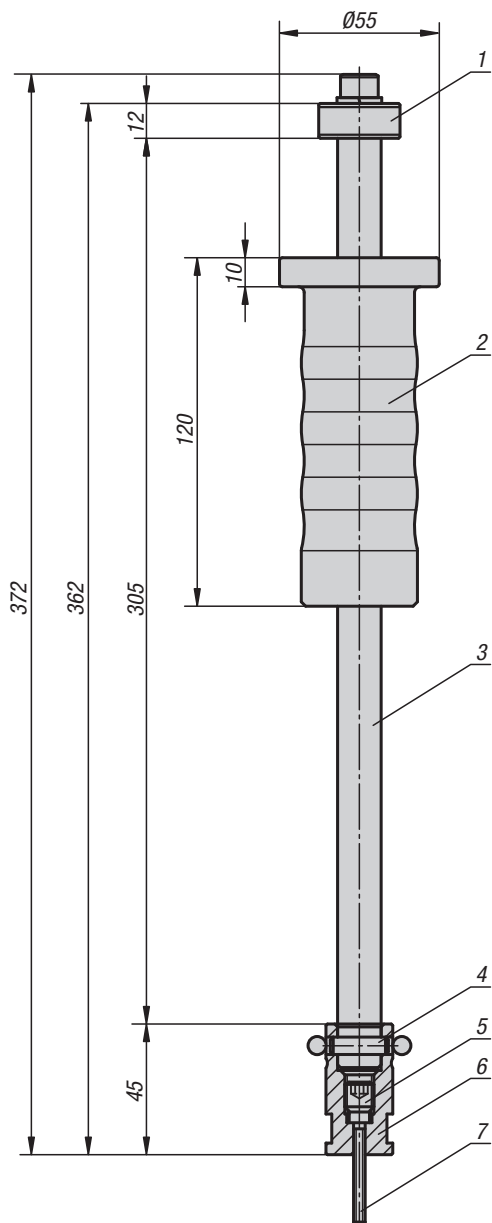
K0703.14 is not standard. Suitable shoulder screws see K0704.

### KIPP C-washers captive DIN 6371

| Order No. | B    | D1 | D2 | D3 | F | H    | L1   | L2 | L3   | L4 |
|-----------|------|----|----|----|---|------|------|----|------|----|
| K0703.06  | 7,5  | 9  | 38 | 6  | 3 | 9,8  | 19,6 | 11 | 29   | 19 |
| K0703.08  | 9,5  | 9  | 43 | 8  | 3 | 9,8  | 21,6 | 14 | 32,5 | 21 |
| K0703.10  | 11,5 | 9  | 48 | 10 | 3 | 9,8  | 23,6 | 17 | 36,5 | 23 |
| K0703.12  | 13,5 | 11 | 61 | 12 | 3 | 11,8 | 29,6 | 22 | 45   | 29 |
| K0703.14  | 15,5 | 11 | 65 | 14 | 3 | 11,8 | 31,6 | 23 | 49   | 31 |
| K0703.16  | 17,5 | 11 | 68 | 16 | 3 | 11,8 | 33,6 | 25 | 50   | 33 |
| K0703.20  | 21,5 | 11 | 74 | 20 | 4 | 11,8 | 36,6 | 28 | 55   | 36 |



## Dowel pin puller

**Material:**

Hammer head carbon steel.  
Shaft, stop and guide sleeves tool steel.

**Version:**

Slide hammer tempered and chromed.  
Shaft, stop and guide sleeve hardened and chromed.

**Sample order:**

K0873.40

**Note:**

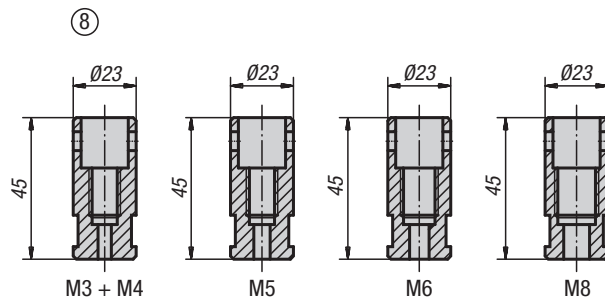
These extractors are used to remove locating pins and centring pins (K0817, K0818, K0350, K0351) with M3 - M8 tapped holes.

**Accessories:**

Storage case for guide sleeves.

**Drawing reference:**

- 1) stop
- 2) slide hammer
- 3) shaft
- 4) cross pin
- 5) lock screw
- 6) guide sleeve
- 7) cap screw
- 8) 1 set guide sleeves



## KIPP Dowel pin puller

Order No.

Dimensions

K0873.40

see drawing

