

HOME OF CLAMPING



CATALOGUE 2023



2023
STANDARD CLAMPING ELEMENTS

WE GENERATE EXCITEMENT.

Since the foundation of the company in 1890 until today the goal has remained the same: the highest quality in products and services. Nevertheless, the circumstances, tasks and challenges have changed, of course. By focussing on our core areas of expertise, we have long set new standards for innovative clamping technology - driven by our own development, the greatest possible flexibility and passion for individual solutions.

All this is only possible with committed and contented employees. Respectful interaction with others, personal development and measures for the wellbeing of each individual are therefore values that matter to us.



Company Management:
Wolfgang Balle, Johannes Maier (CEO), Jürgen Förster

OUR COMPANY HISTORY

- 1890 Company founded as a lock manufacturer by Andreas Maier.
- 1920 Product range extended to include spanners.
- 1928 Production line assembly of FELLBACH LOCKS.
- 1951 Introduces clamping elements and diversifies into workpiece and tool clamping technology.
- 1965 Toggle clamps extend the AMF product range, AMF catalogues are now printed in ten languages.
- 1975 Further specialisation into hydraulic clamping technology.
- 1982 Clamping and fixture systems round off AMF's clamping expertise.
- 1996 AMF team organisation in all sectors of the business, Quality management with certification to ISO 9001.
- 2001 AMF Service Guarantee for all products.
- 2004 Introduction of the ZPS zero-point clamping system.
- 2007 The magnetic clamping technology extends the AMF product range.
- 2009 Development and marketing of AMF Vacuum clamping technology.
- 2012 LOW-COST AUTOMATION gripping, clamping, marking and cleaning.
- 2014 AMF presents the most extensive product range of automation solution in zero-point clamping technology.
- 2017 Wireless sensing systems extend the expertise into Industry 4.0 and blends seamlessly into the AMF product range.

PLEDGES THAT COUNT IN EVERYDAY LIFE

For this reason, we have a few principles that we follow by conviction and which always apply.

INDIVIDUAL DEVELOPMENT

Even if the product you need does not even exist yet, we will find the right solution with you: from special designs to new developments, everything is possible.

WARRANTY

If, despite our high quality standard, there is a complaint, this is dealt with quickly and unbureaucratically, even beyond the warranty period.

HIGHEST QUALITY STANDARDS

Careful manufacturing based on tradition since 1890, and naturally with a modern quality management system according to ISO 9001 for many years.

SHORT DELIVERY TIME

With over 5,000 articles in our warehouse, you can expect your order to be dispatched on the same day.

COMPETENT SERVICE FROM EXPERTS

Your local retail partner or the specialists in our team will find the right solution for every task.

MADE IN GERMANY

Our entire product range is developed and manufactured exclusively by our employees in Germany.

| | | |
|---|--|------------------|
| POWER CLAMPS, COMPACT CLAMP | | 6 - 16 |
| CLAMPS | | 17 - 44 |
| SUPPORT BLOCKS | | 45 - 50 |
| SETTING ELEMENTS MANDREL AND FLOATING CLAMPS | | 51 - 82 |
| CLAMPING BOLTS, NUTS AND WASHERS | | 83 - 105 |
| CLAMPING SETS AND ACCESSORIES | | 106 - 114 |
| PULL-DOWN CLAMPS | | 115 - 133 |
| POSITIONING ELEMENTS | | 134 - 146 |
| STOPS AND PRECISION T-NUTS | | 147 - 152 |
| CENTRING CLAMPS AND ECCENTRIC CLAMPS | | 154 - 162 |



**SCREW JACK,
MODULAR**

6425-706, page 54



**SIDE CLAMP WITH
CLAMPING POINT**

6472, page 129

NEW!



COMPACT CLAMP

7640, page 12

**ZWISCHENELEMENT MIT
SCHNELLVERSCHLUSS**

7640Z, page 13

NEW!



NEW!

**SPHERICAL ATTACHMENT
WITH THREAD**

6440G, page 72



NEW!

MOUNTING KIT

7640BFS, page 14

NEW!



THRUST PIECE SET

7640D, page 14

NOT ONLY INCREDIBLE IN TERMS OF USE - OUR MODULAR SCREW JACK ALSO BOASTS AN IMPRESSIVE PRODUCT DESIGN.

Andreas Maier GmbH & Co. KG (AMF) has won an international design award. In the capital goods/tools category, our flexible, modular screw jack was able to convince the jury.



Focus Open 2020
Gold

TAKE A LOOK AT OUR
PRIZE WINNER!
MORE FROM PAGE 48 ...



THE POWER CLAMP THAT KEEPS ITS PROMISES

- > **Uses:** All clamping tasks in cutting and non-cutting finishing operations. There are no limits to the possible uses in tool-making, injection moulding, presses and die-cutters as well as in model- and mould-making.
- > **Characteristics:**
 - > Clamping force up to 22 kN or 60 kN
 - > Low installation height
 - > Fast and simple clamping possible
 - > Continuously adjustable

When using clamps in non-cutting and cutting metal finishing processes, as well as in mould making, clamping force and precision that meet the highest demands are required. With the sliding power clamp made of alloyed tempered steel, we offer an exceptionally robust and versatile mechanical clamping element, which can achieve extremely high clamping force of up to 60 kN.

The power clamp, which is usable both horizontally and vertically, can be fastened to regular T-slot tables using T-nuts or, alternatively, to grid pallets using threaded mounting.



No. 7600

Power clamp

Continuously adjustable clamping element made of alloyed tempered steel in forged, black galvanised design. Complete with mounting kit 7600BFS.
Thrust piece in smooth and ribbed variant, optionally available.



| Order no. | Size | max. load static [kN] | M | Slot | H | E | L | Weight [g] |
|-----------|------|-----------------------|-----|------|---------|----------|-----|------------|
| 562184 | 22 | 22 | M10 | 12 | 5 - 38 | 19 - 54 | 65 | 700 |
| 556406 | 22 | 22 | M12 | 14 | 5 - 38 | 19 - 54 | 65 | 700 |
| 556186 | 30 | 30 | M12 | 14 | 6 - 68 | 20 - 110 | 135 | 2013 |
| 556187 | 30 | 30 | M16 | 18 | 6 - 68 | 24 - 113 | 135 | 2045 |
| 556189 | 32 | 32 | M12 | 14 | 6 - 50 | 20 - 82 | 95 | 1462 |
| 556190 | 40 | 40 | M16 | 18 | 6 - 55 | 25 - 94 | 110 | 2262 |
| 556188 | 43 | 43 | M16 | 18 | 6 - 80 | 29 - 134 | 155 | 3158 |
| 563656 | 44 | 44 | M18 | 20 | 7 - 88 | 36 - 165 | 176 | 5880 |
| 554198 | 49 | 49 | M20 | 22 | 7 - 88 | 36 - 165 | 176 | 5928 |
| 564654 | 60 | 60 | M24 | 28 | 8 - 102 | 63 - 180 | 203 | 8950 |

Application:

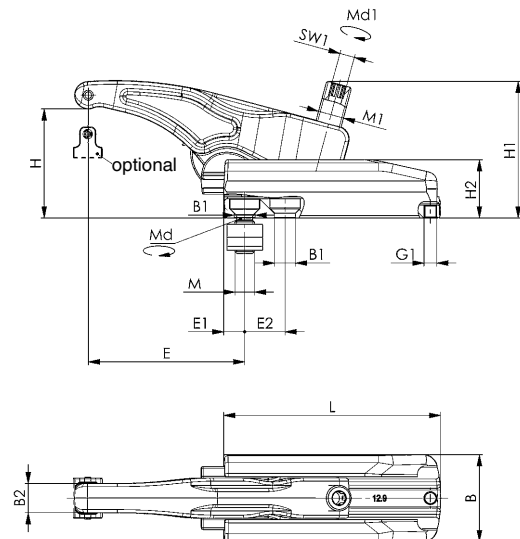
1. Position carrier element on the tool table and secure with the specified tightening torque Md.
2. Move the clamp arm to the desired position.
3. Moving the adjusting screw clamps the workpiece.

Advantage:

- Low installation height
- High clamping force of 22 - 60 kN
- Height and length continuously adjustable
- The very robust design enables quick and easy clamping
- Elements easy to install
- For use in T-slots 12 - 28 mm and/or grid plates M10, M12, M16, M18, M20, M24
- 2 thrust piece variants

Note:

- The max. load may differ, depending on the manner of clamping and condition of the threads (lubrication).
- To reduce the wear on the adjusting screw, we recommend the use of AMF screw compound no. 6339. It has a synergistic combination of highly effective solid lubricants, is heat-resistant, and cannot be washed out.
- Use only the corresponding AMF mounting kit 7600BFS.
- If the clamping element without T-slot nut DIN 508 is used, the tensile strength of the support plate must be at least 900 N/mm²!
- Sizes 30 M16 / 44 M18 and 60 M24 are not suitable for use with no. 7600Z.



Dimensions:

| Order no. | Size | Max. load, dynamic swelling [kN] | B | B1 | B2 | E1 | E2 | G1 | H1 | H2 | M1 | SW1 | Md 1 [Nm] | Md [Nm] |
|-----------|------|----------------------------------|----|------|----|----|----|-----|-----|----|-----|-----|-----------|---------|
| 562184 | 22 | 17 | 45 | 13 | 13 | 11 | - | M6 | 58 | 30 | M12 | 6 | 50 | 35 |
| 556406 | 22 | 17 | 45 | 13 | 13 | 11 | - | M6 | 58 | 30 | M12 | 6 | 50 | 40 |
| 556186 | 30 | 23 | 54 | 13 | 18 | 13 | 25 | M8 | 85 | 36 | M16 | 8 | 100 | 70 |
| 556187 | 30 | 23 | 54 | 17 | 18 | 16 | 28 | M8 | 85 | 36 | M16 | 8 | 100 | 150 |
| 556189 | 32 | 24 | 54 | 13 | 18 | 12 | 20 | M8 | 78 | 36 | M16 | 8 | 100 | 70 |
| 556190 | 40 | 31 | 59 | 17 | 20 | 15 | 26 | M8 | 92 | 42 | M20 | 10 | 150 | 150 |
| 556188 | 43 | 32 | 59 | 17 | 20 | 16 | 32 | M8 | 105 | 42 | M20 | 10 | 150 | 150 |
| 563656 | 44 | 34 | 75 | 21 | 25 | 20 | 36 | M20 | 125 | 52 | M24 | 12 | 180 | 160 |
| 554198 | 49 | 38 | 75 | 21 | 25 | 20 | 36 | M10 | 125 | 52 | M24 | 12 | 220 | 200 |
| 564654 | 60 | 45 | 90 | 24,5 | 30 | 23 | 45 | M10 | 143 | 57 | M24 | 12 | 300 | 280 |



No. 7600Z

Spacer element

Made of alloyed tempered steel in forged, black galvanised design. Complete with mounting kit.



GERMAN DESIGN AWARD SPECIAL 2017



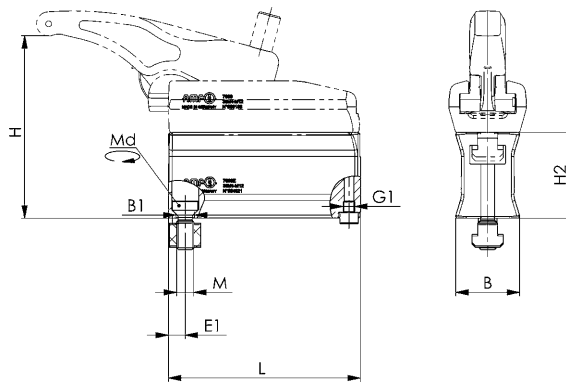
| Order no. | Size | M | Slot | H | H2 | L | Weight [g] |
|-----------|------|-----|------|----------|----|-----|------------|
| 562185 | 22 | M10 | 12 | 40 - 73 | 35 | 65 | 480 |
| 556407 | 22 | M12 | 14 | 40 - 73 | 35 | 65 | 480 |
| 554821 | 30 | M12 | 14 | 66 - 128 | 60 | 135 | 2300 |
| 554822 | 32 | M12 | 14 | 66 - 110 | 60 | 95 | 1570 |
| 554823 | 40 | M16 | 18 | 76 - 120 | 70 | 110 | 2290 |
| 554824 | 43 | M16 | 18 | 75 - 150 | 70 | 155 | 3344 |
| 554825 | 49 | M20 | 22 | 87 - 168 | 80 | 175 | 5286 |

Advantage:

- Additional clamping heights can be achieved by installing multiple spacer elements
- Continuous transition between the clamping heights
- For use in T-slots 12 - 28 mm and/or grid plates M10, M12, M16, M20

Note:

- Use only the corresponding AMF mounting kit 7600BFS.
- If the clamping element without T-slot nut DIN 508 is used, the tensile strength of the support plate must be at least 900 N/mm²!



Recommendations



No. 6339, page 111

Dimensions:

| Order no. | Size | B | B1 | E1 | G1 | Md [Nm] |
|-----------|------|------|----|----|-----|---------|
| 562185 | 22 | 36,0 | 13 | 12 | M6 | 35 |
| 556407 | 22 | 36,0 | 13 | 12 | M6 | 40 |
| 554821 | 30 | 44,5 | 13 | 12 | M8 | 70 |
| 554822 | 32 | 44,5 | 13 | 12 | M8 | 70 |
| 554823 | 40 | 47,5 | 17 | 16 | M8 | 150 |
| 554824 | 43 | 47,5 | 17 | 16 | M8 | 150 |
| 554825 | 49 | 58,0 | 21 | 19 | M10 | 200 |

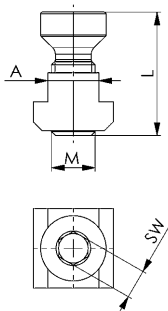
CAD



No. 7600BFS

Mounting kit

comprising flat-head screw strength class 12.9 and T-nuts DIN 508.



| Order no. | Size | A | L | M | SW | Weight [g] |
|-----------|---------|----|------|-----|----|------------|
| 562186 | 22 | 12 | 29,0 | M10 | 6 | 61 |
| 556576 | 22 | 14 | 31,5 | M12 | 6 | 61 |
| 556152 | 30 / 32 | 14 | 34,0 | M12 | 8 | 70 |
| 556153 | 30 / 32 | 16 | 38,0 | M12 | 8 | 98 |
| 556154 | 30 / 32 | 18 | 38,0 | M12 | 8 | 125 |
| 556155 | 30 | 18 | 41,0 | M16 | 8 | 143 |
| 556156 | 30 | 20 | 45,0 | M16 | 8 | 208 |
| 556157 | 30 | 22 | 49,0 | M16 | 8 | 270 |
| 556158 | 30 | 24 | 49,0 | M16 | 8 | 348 |
| 556159 | 40 / 43 | 18 | 43,0 | M16 | 10 | 145 |
| 556160 | 40 / 43 | 20 | 47,0 | M16 | 10 | 195 |
| 556161 | 40 / 43 | 22 | 51,0 | M16 | 10 | 264 |
| 556162 | 40 / 43 | 24 | 51,0 | M16 | 10 | 350 |
| 563658 | 44 | 20 | 49,0 | M18 | 12 | 235 |
| 554298 | 49 | 22 | 52,0 | M20 | 12 | 300 |
| 554299 | 49 | 24 | 55,0 | M20 | 12 | 390 |
| 554300 | 49 | 28 | 62,0 | M20 | 12 | 505 |
| 564665 | 60 | 28 | 64,0 | M24 | 12 | 550 |
| 564681 | 60 | 36 | 77,0 | M24 | 12 | 985 |

CAD



Subject to technical alterations.

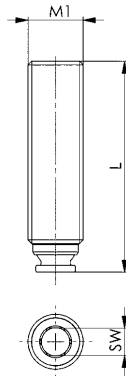
No. 7600S

Ball pressure screw

Tempered steel, burnished.



| Order no. | Size | M1 | L | SW | Weight [g] |
|-----------|---------|-----|-----|----|------------|
| 556408 | 22 | M12 | 43 | 6 | 30 |
| 553353 | 30 | M16 | 62 | 8 | 80 |
| 554214 | 32 | M16 | 55 | 8 | 70 |
| 554215 | 40 | M20 | 65 | 10 | 128 |
| 553441 | 43 | M20 | 80 | 10 | 165 |
| 554216 | 44 / 49 | M24 | 93 | 12 | 275 |
| 564669 | 60 | M24 | 105 | 12 | 320 |



No. 7600D

Pressure pad

Complete with dowel pin.
Stainless steel.

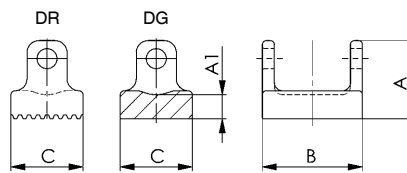


DG

DR

| Order no. | Size | Form | A | A1 | B | C | Weight [g] |
|-----------|---------|------|------|-----|----|----|------------|
| 556409 | 22 | DG | 14 | 4,5 | 19 | 12 | 11 |
| 556410 | 22 | DR | 14 | 4,5 | 19 | 12 | 10 |
| 553351 | 30 / 32 | DG | 19,5 | 6,0 | 25 | 18 | 28 |
| 553352 | 30 / 32 | DR | 19,5 | 6,0 | 25 | 18 | 27 |
| 553442 | 40 / 43 | DG | 24,0 | 6,5 | 30 | 20 | 47 |
| 553443 | 40 / 43 | DR | 24,0 | 6,5 | 30 | 20 | 48 |
| 554301 | 44 / 49 | DG | 28 | 7,0 | 36 | 25 | 75 |
| 554302 | 44 / 49 | DR | 28 | 7,0 | 36 | 25 | 78 |
| 564667 | 60 | DG | 29 | 8,0 | 43 | 28 | 115 |
| 564668 | 60 | DR | 29 | 8,0 | 43 | 28 | 110 |

DG = smooth contact surface, DR = wavy contact surface



Recommendations



ISO 2936C



No. 6339, page 111



No. 7600DGK

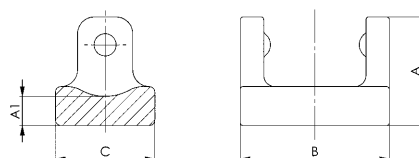
Thrust piece plastic (plain)



| Order no. | Size | A | A1 | B | C | Weight [g] |
|-----------|---------|------|------|----|------|------------|
| 563695 | 22 | 12,5 | 3,0 | 20 | 11,4 | 2 |
| 563697 | 30 / 32 | 19,5 | 5,25 | 27 | 18,0 | 6 |
| 563698 | 40 / 43 | 24,0 | 5,75 | 30 | 24 | 9 |
| 563699 | 44 / 49 | 28,0 | 6,25 | 38 | 25 | 15 |

Advantage:

Suitable for processing sensitive workpieces/surfaces (e.g. aluminium).



Recommendations



No. 7600, page 7



No. 7600D, page 9

Subject to technical alterations.

No. 7630

Power clamp 3-step

Made of alloyed tempered steel, forged and black galvanized. Complete with 3-step support element, clamping unit and mounting kit 7630BFS.

Thrust piece in smooth and ribbed variant, optionally available.



| Order no. | Size | max. load static [kN] | M | H | E | L | Weight [g] |
|-----------|------|-----------------------|-----|----------|----------|-----|------------|
| 559877 | 22 | 22 | M12 | 9 - 74 | 30 - 58 | 65 | 1120 |
| 559879 | 30 | 30 | M12 | 13 - 129 | 37 - 106 | 130 | 4600 |
| 559881 | 43 | 43 | M16 | 16 - 147 | 48 - 144 | 150 | 6844 |
| 559882 | 49 | 49 | M20 | 16 - 169 | 68 - 172 | 170 | 10870 |

Application:

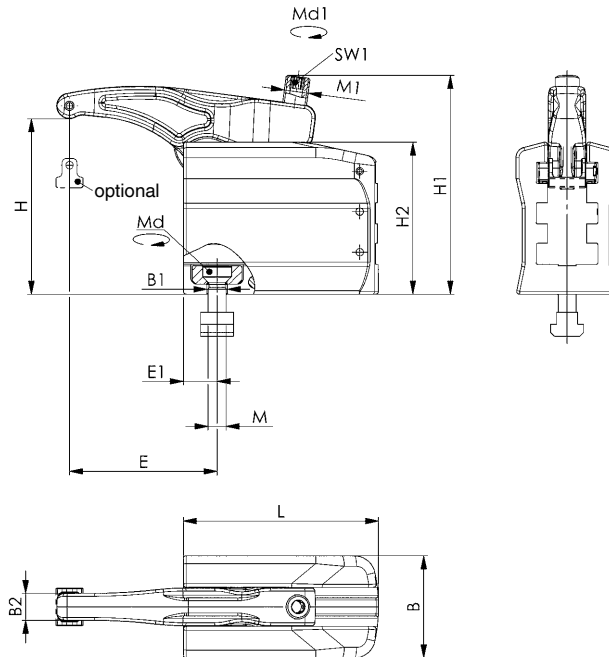
1. Position carrier element on the tool table and secure with the specified tightening torque Md.
2. Move the clamp arm to the desired position.
3. Moving the adjusting screw clamps the workpiece.

Advantage:

- Captive feature by means of threaded stud at all levels
- 3-fold continuously adjustable adjustment range
- High clamping forces of 22 kN - 49 kN
- Height and length continuously adjustable
- The very robust design enables quick and easy clamping
- Elements easy to install
- For use in T-slots 14 - 28 mm or grid plates M12, M16, M20
- 2 thrust piece variants

Note:

- The max. load may differ, depending on the manner of clamping and condition of the threads (lubrication).
- To reduce the wear on the adjusting screw, we recommend the use of AMF screw compound no. 6339. It possesses a synergistic combination of highly-effective solid lubricants, is heat-resistant, and does not wash out.
- Use only the corresponding AMF mounting kit No. 7630BFS.
- If the clamping element without T-slot nut DIN 508 is used, the tensile strength of the support plate must be at least 900 N/mm²!
- **Not suitable for use on injection moulding and die-casting machines and presses.**



Dimensions:

| Order no. | Size | B | B1 | B2 | E1 | H1 | H2 | M1 | SW1 | Md [Nm] | Md 1 [Nm] |
|-----------|------|----|------|------|------|-----|-----|-----|-----|---------|-----------|
| 559877 | 22 | 52 | 13,5 | 13,0 | 14,5 | 98 | 67 | M12 | 6 | 40 | 55 |
| 559879 | 30 | 68 | 13,5 | 18,0 | 22,5 | 146 | 101 | M16 | 8 | 70 | 100 |
| 559881 | 43 | 75 | 17,5 | 20,0 | 25,0 | 175 | 116 | M20 | 10 | 150 | 200 |
| 559882 | 49 | 85 | 22,0 | 25,0 | 29,0 | 207 | 138 | M24 | 12 | 200 | 220 |

Subject to technical alterations.



No. 7630T

Carrier element 3-step

Made of alloyed tempered steel, forged and black galvanized. Complete with pressure plate and mounting kit 7630BFS.



| Order no. | Size | M | Slot | H | H2 | L | Weight [g] |
|-----------|------|-----|------|----------|-----|-----|------------|
| 559925 | 22 | M12 | 14 | 9 - 74 | 67 | 65 | 795 |
| 559926 | 30 | M12 | 14 | 13 - 129 | 101 | 130 | 3440 |
| 559930 | 43 | M16 | 18 | 16 - 147 | 116 | 150 | 5010 |
| 559931 | 49 | M20 | 22 | 16 - 169 | 138 | 170 | 7710 |

Application:

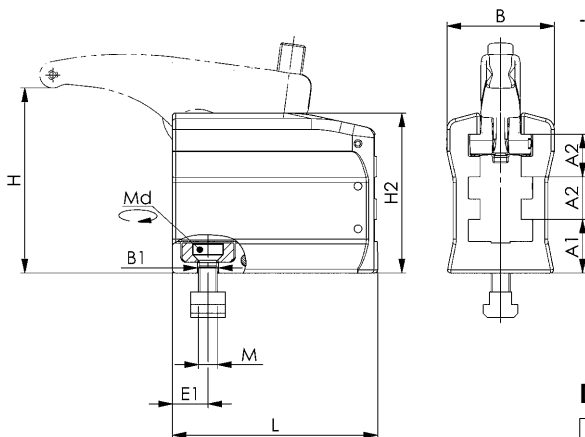
1. Position carrier element on the tool table and secure with the specified tightening torque Md.
2. Move the clamp arm to the desired position.
3. Moving the adjusting screw clamps the workpiece.

Advantage:

- Captive feature by means of threaded stud at all levels
- 3-fold continuously adjustable adjustment range
- High clamping forces of 22 kN - 49 kN
- Height and length continuously adjustable
- The very robust design enables quick and easy clamping
- Elements easy to install
- For use in T-slots 14 - 28 mm or grid plates M12, M16, M20
- 2 thrust piece variants

Note:

- The max. load may differ, depending on the manner of clamping and condition of the threads (lubrication).
- To reduce the wear on the adjusting screw, we recommend the use of AMF screw compound no. 6339. It possesses a synergistic combination of highly-effective solid lubricants, is heat-resistant, and does not wash out.
- Use only the corresponding AMF mounting kit No. 7630BFS.
- If the clamping element without T-slot nut DIN 508 is used, the tensile strength of the support plate must be at least 900 N/mm²!
- **Not suitable for use on injection moulding and die-casting machines and presses.**



Dimensions:

| Order no. | Size | A1 | A2 | B | B1 | E1 | Md [Nm] |
|-----------|------|------|------|----|------|------|---------|
| 559925 | 22 | 25,0 | 16,5 | 52 | 13,5 | 14,5 | 40 |
| 559926 | 30 | 34,0 | 27,0 | 68 | 13,5 | 22,5 | 70 |
| 559930 | 43 | 43,0 | 29,0 | 75 | 17,5 | 25,0 | 150 |
| 559931 | 49 | 51,5 | 34,0 | 85 | 22,0 | 29,0 | 200 |

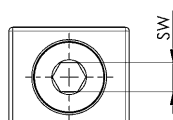
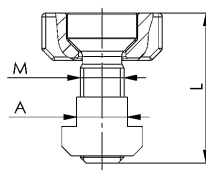
No. 7630BFS

Fastening kit for carrier element 3-step

Comprising fastening bolt of strength class 12.9, T-nut DIN 508 and pressure plate.



| Order no. | Size | A | L | M | SW | Weight [g] |
|-----------|------|----|------|----|----|------------|
| 559909 | 22 | 14 | 35,5 | 12 | 6 | 95 |
| 559912 | 30 | 14 | 41,0 | 12 | 8 | 139 |
| 559914 | 43 | 18 | 52,0 | 16 | 10 | 258 |
| 559915 | 49 | 22 | 66 | 20 | 12 | 511 |



No. 7640

Compact clamp

Continuously adjustable clamping element made of tempered steel. Black, galvanised in tempered investment casting. Complete with fastening kit 7640BFS and captive, smooth compression piece.

NEW!



| Order no. | Size | max. load static [kN] | G | Slot | H | E | L | Weight [g] |
|-----------|------|-----------------------|-----|------|---------|-------------|---------------|------------|
| 567996 | 12 | 12 | M12 | 14 | 0 - 100 | 38,5 - 59,5 | 141,5 - 163,0 | 2271 |
| 567997 | 16 | 16 | M12 | 14 | 0 - 90 | 22,8 - 40,2 | 126,0 - 143,5 | 2166 |

Application:

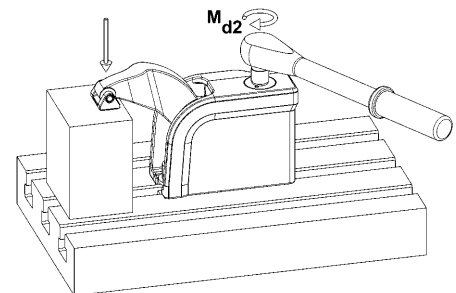
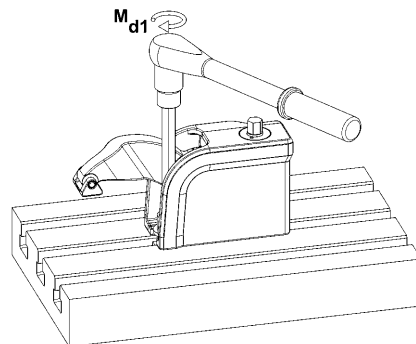
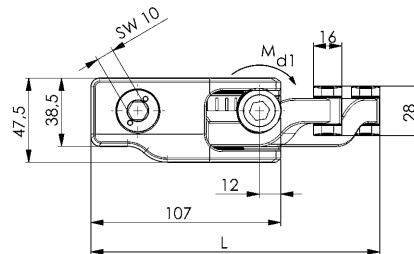
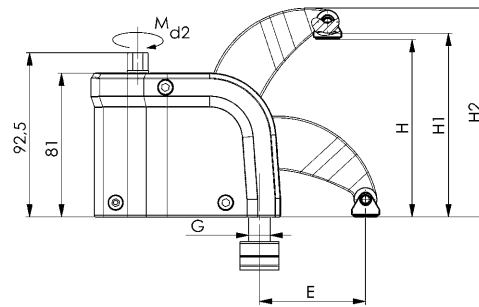
Mount compact clamp on the machine table with fastening kit 7640BFS, then position and fasten to the machine table with the specified torque. Clamp workpiece (observe torque).

Advantage:

- Continuous clamping
- clamping forces 12kN / 16kN
- compact design
- height scale permits fast presetting of the clamping height
- thrust piece captive-mounted
- repels dirt and chips
- Curved clamping arm ensures reliable vertical clamping of the fastening bolt with defined torque
- The compact clamp can be connected to the spacer element 7640Z without screws through a new type of quick-action clip

Note:

- Use only the corresponding AMF mounting kit 7640BFS.
- When using the clamping element without T-slot nut DIN508, the tensile strength of the support plate must be at least 900 N/mm²
- Do not clean with compressed air.



1

2

Recommendations



No. 7640Z,
page 13



No. 7640D,
page 14



No. 7640BFS,
page 14

Dimensions:

| Order no. | Size | Max. load, dynamic swelling [kN] | H1 | H2 | Md 1 [Nm] | Md 2 [Nm] |
|-----------|------|----------------------------------|-------------|------------|-----------|-----------|
| 567996 | 12 | 9 | 3,5 - 103,5 | 56,5 - 118 | 40 | 100 |
| 567997 | 16 | 12 | 3,5 - 93,5 | 52,0 - 107 | 40 | 100 |

Subject to technical alterations.

No. 7640Z

Spacer element with quick-action clip

Made of alloyed tempered steel. Black, galvanised in tempered investment casting. Complete with mounting kit 7640BFS.

NEW!



| Order no. | Size | Height [mm] | Md 1 [Nm] | Weight [g] |
|-----------|-------|----------------|--------------|---------------|
| 567998 | 12/16 | 80 | 80 | 1406 |

Application:

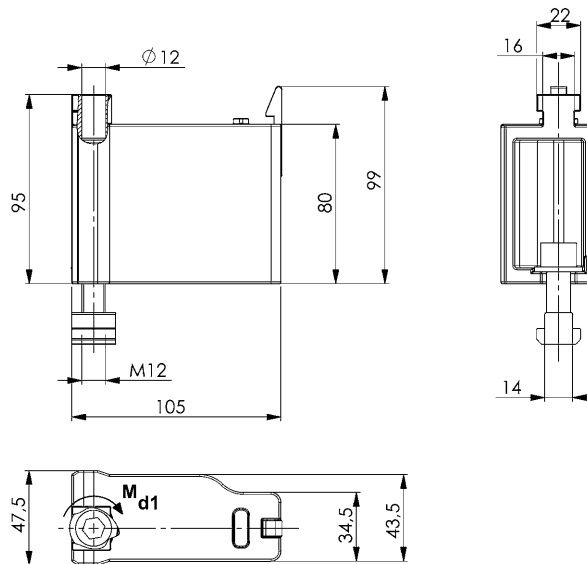
Mount the spacer element on the machine table with the fastening kit 7640BFS. Then connect the compact clamp with the quick-action clip. Fasten the clamping unit to the machine table with the specified torque. Now the workpiece can be clamped.

Advantage:

- new type of quick-action clip permits screw-free connection of the spacer elements to each other and to the compact clamp.
- Continuous transition between the clamping heights.
- Reliable clamping of the fastening bolt with defined torque guaranteed.

Note:

- Use only the corresponding AMF mounting kit 7640BFS.
- When using the clamping element without T-slot nut DIN508, the tensile strength of the support plate must be at least 900 N/mm².
- Recommendation: build a maximum of 2 spacer elements onto each other.



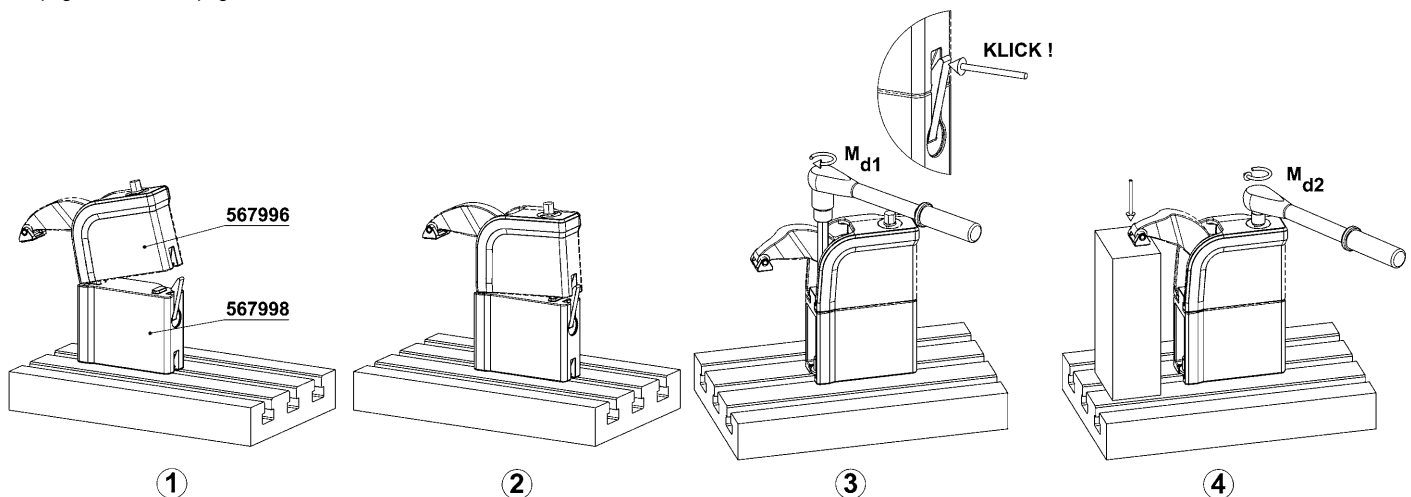
Recommendations



No. 7640,
page 12



No. 7640BFS,
page 14



No. 7640BFS

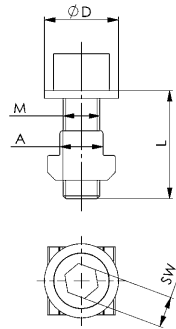
Mounting kit

Consisting of cylinder screw ISO4762, T-nut 508, disc ISO7090.



NEW!

| Order no. | Size | A | dia. D | L | M | SW | Weight [g] |
|-----------|-------|----|--------|----|-----|----|------------|
| 568000 | 12/16 | 14 | 24 | 30 | M12 | 10 | 90 |



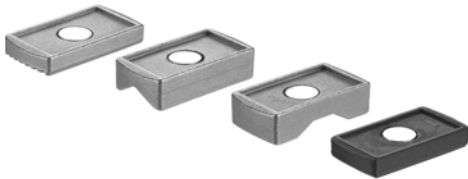
No. 7640D

Thrust piece set

Top parts with magnetic insert.

Design: fluted, crosswise prism, lengthwise prism and plastic.

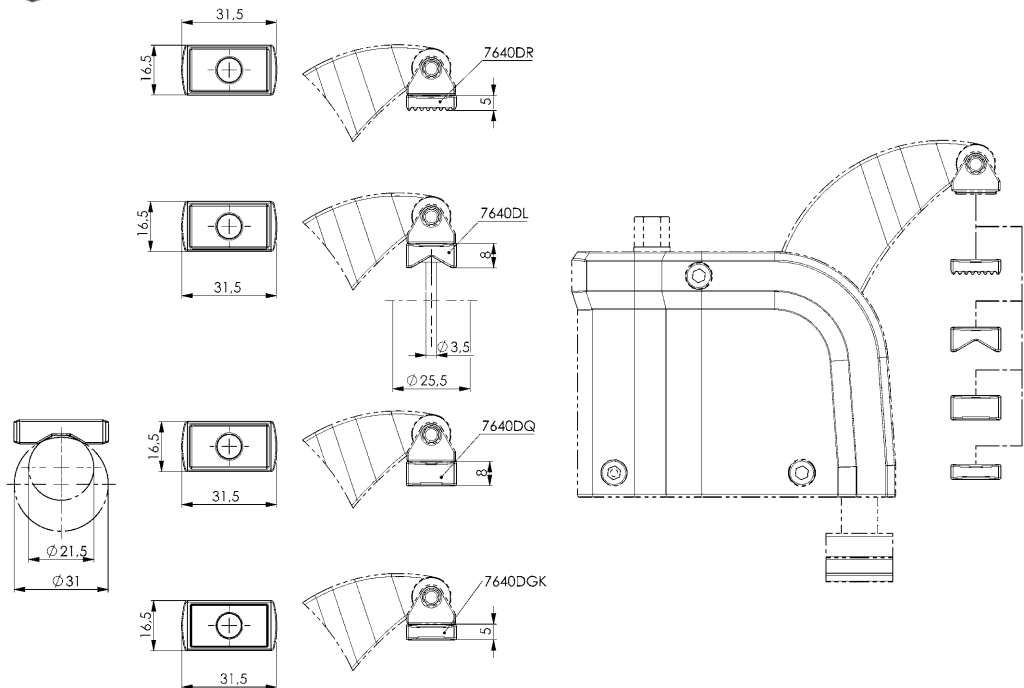
NEW!



| Order no. | Size | Weight [g] |
|-----------|-------|------------|
| 567999 | 12/16 | 60 |

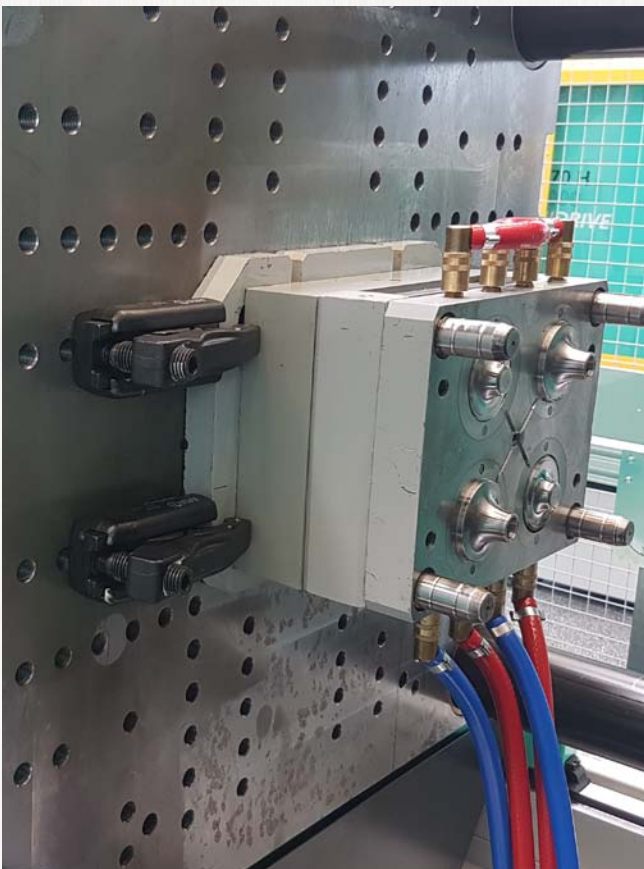
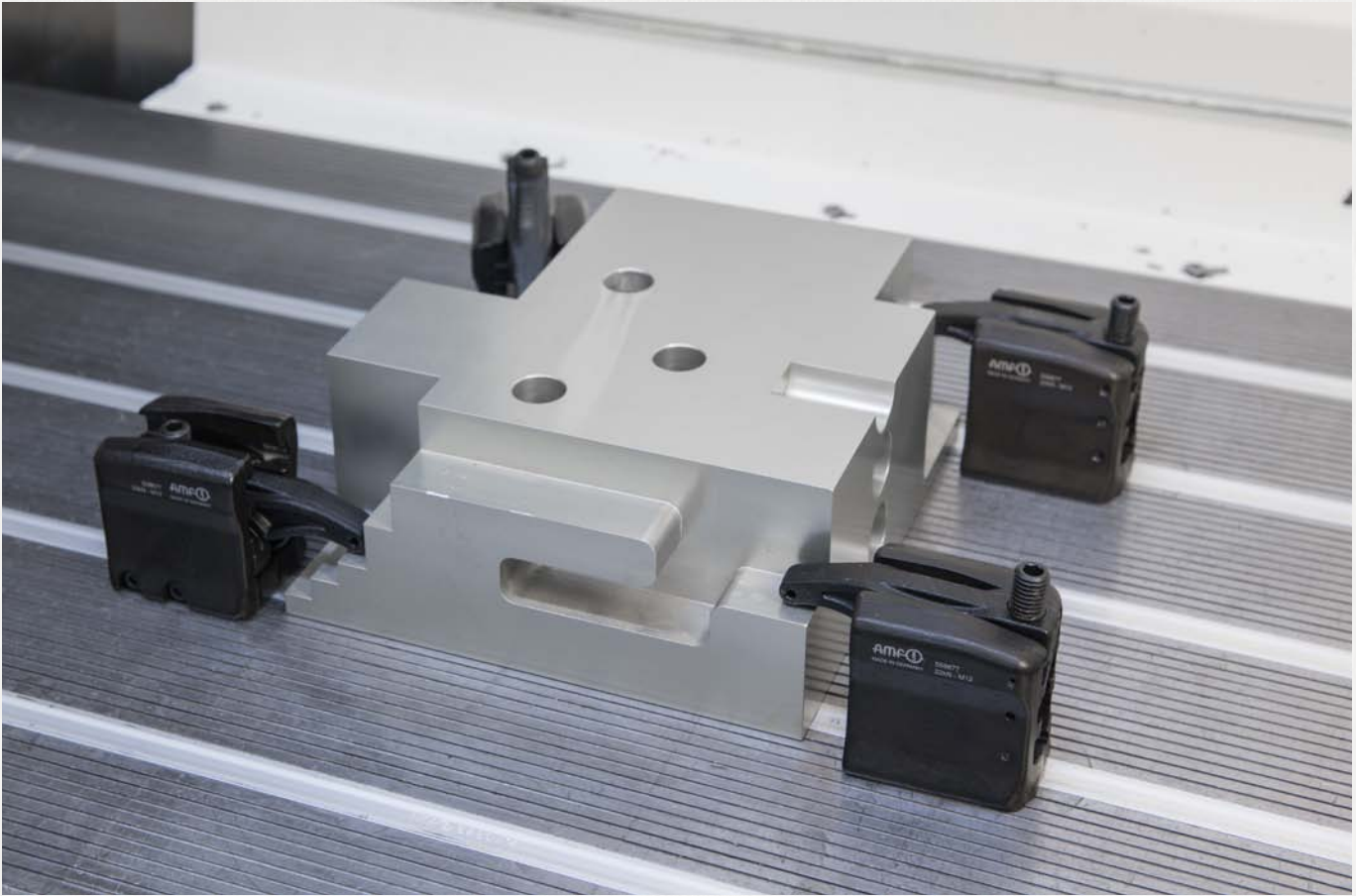
Advantage:

Depending on the workpiece surface, top parts can be attached easily and quickly to the existing thrust piece using the installed magnet.





Subject to technical alterations.



CLAMPING WITH SINGLE CLAMPS OR WITH COMPACT CLAMPING UNITS

- > **Material:** Tempering steel to DIN regulations.
- > **Machining:** Plane-parallel base- and clamping faces ensure safe force transmission.
- > **Tempering:** According to DIN regulations.
- > **Finishing:** All clamps are abrasionproof quality varnished, or of equal quality finish.

Where high clamping forces or flexible adaption to shapes and sizes of workpieces are demanded, we offer our single clamps or clamping combinations by using our adjustable clamps.

All AMF-clamps shown in this catalogue be combined with different support blocks and are therefore adaptable to different shaped and sized workpieces.

The Advantages of these adjustable clamps are their universal application abilities for single parts up to medium series production with changing clamping dimensions. They allow simple and fast horizontal and vertical application, are interchangeable and price worthy. Their compact design ensures high clamping forces even at large clamping dimensions.



No. 6312V

„Crocodile“ clamp

Continuously adjustable, tempered, galvanized, with undetachable compression piece and back support.



| Order no. | B1 | for clamping screw | Slot | Clamping force max.* [kN] | H1 | L | Weight [g] |
|-----------|----|--------------------|----------------|------------------------------|-------|-----|---------------|
| 79756 | 13 | M10, M12 | 10, 12, 14 | 30 | 0-55 | 115 | 661 |
| 79798 | 17 | M12, M16 | 12, 14, 16, 18 | 40 | 0-70 | 150 | 1494 |
| 79855 | 21 | M16, M20 | 16, 18, 20, 22 | 60 | 0-80 | 187 | 2252 |
| 79913 | 25 | M20, M24 | 20, 22, 24, 28 | 75 | 0-100 | 235 | 3635 |
| 376475 | 25 | M20, M24 | 20, 22, 24, 28 | 75 | 0-100 | 285 | 4335 |

* Specified clamping forces in optimal clamping position (smallest distance from the clamping screw to the clamping point). Clamping forces can vary depending clamping, strength class of the clamping screw and condition of the thread (lubrication).

Application:

The crocodile clamping claw is used for all clamping tasks using T-slots and threaded holes. Thrust piece and counter-bearing are connected permanently to the clamping jaw, and thus the crocodile is quickly ready to use. The clamping jaw features two ridges and can be turned around easily depending on the application. In this way, it is possible to cover all fields of application involving cutting and non-cutting processes (e.g. injection moulding and pressure forming).

Advantage:

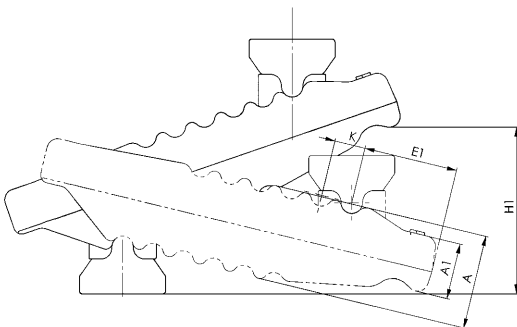
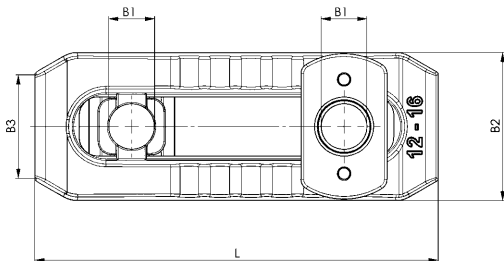
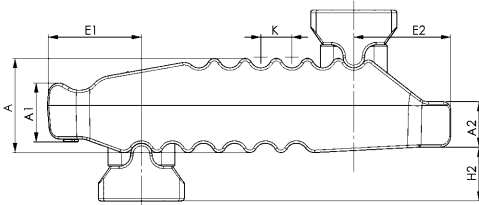
- Variable and fast adjustment option at a distance from the workpiece
- Use in all areas involving cutting and non-cutting processes
- Especially well-suited for use on injection moulding machines and presses
- No additional supports needed to achieve the required clamping height
- Thrust piece and counter-bearing are connected permanently to the clamping jaw
- The crocodile can be extended easily for every clamping height.

Note:

For clamping, either clamping studs DIN 787, studs DIN 6379 and cylinder screws ISO 4762 can be used. Greater clamping heights can be achieved using the support extension No. 6312S. A washer disc DIN 6340 must always be used between the hexagonal nut and compression piece!

Dimensions:

| Order no. | A | A1 | A2 | B2 | B3 | E1 | E2 | H2 | K |
|-----------|----|----|----|----|----|----|----|----|----|
| 79756 | 27 | 17 | 12 | 44 | 30 | 25 | 30 | 18 | 11 |
| 79798 | 36 | 21 | 17 | 55 | 41 | 35 | 36 | 20 | 12 |
| 79855 | 42 | 27 | 20 | 62 | 30 | 44 | 44 | 30 | 14 |
| 79913 | 51 | 34 | 24 | 70 | 30 | 60 | 47 | 31 | 17 |
| 376475 | 56 | 35 | 24 | 73 | 30 | 62 | 51 | 35 | 17 |



Recommendations



No. 6312S,
page 22



No. 787,
page 88



No. 6379I,
page 94



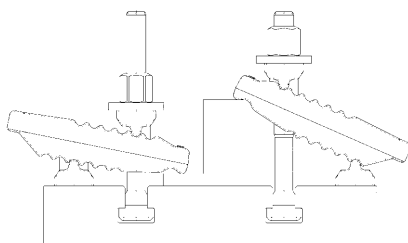
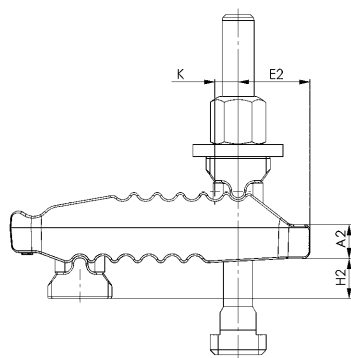
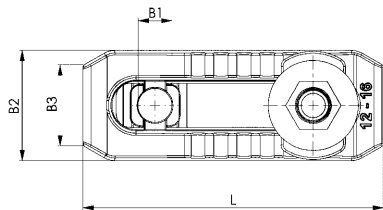
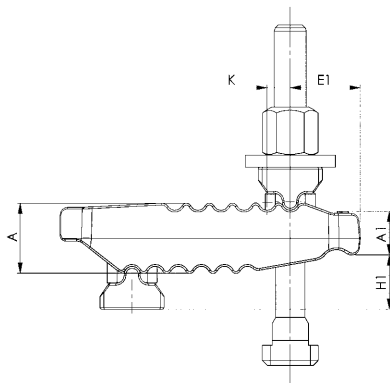
CAD

Subject to technical alterations.

No. 6312VT

„Crocodile“ clamp, complete with DIN 787

with clamping bolt DIN 787, washer DIN 6340 and nut DIN 6330B. Infinitely adjustable, tempered, galvanised with captive compression piece and counter bearing.



| Order no. | B1 | Slot | Clamping bolt DIN 787 | Clamping force max.* | H1 | Weight |
|-----------|----|------|-----------------------|----------------------|-------|--------|
| | | | | [kN] | | |
| 79780 | 13 | 10 | M10x10x100 | 25 | 0-40 | 613 |
| 79806 | 13 | 12 | M12x12x125 | 30 | 0-55 | 686 |
| 79822 | 13 | 14 | M12x14x125 | 30 | 0-55 | 705 |
| 79848 | 17 | 12 | M12x12x160 | 35 | 0-70 | 1591 |
| 79863 | 17 | 14 | M12x14x160 | 35 | 0-70 | 1610 |
| 79889 | 17 | 16 | M16x16x160 | 40 | 0-70 | 1798 |
| 79905 | 17 | 18 | M16x18x160 | 40 | 0-70 | 1818 |
| 79921 | 21 | 16 | M16x16x200 | 55 | 0-80 | 2715 |
| 79210 | 21 | 18 | M16x18x200 | 55 | 0-80 | 3018 |
| 79228 | 21 | 20 | M20x20x200 | 60 | 0-80 | 3018 |
| 374926 | 21 | 22 | M20x22x200 | 60 | 0-80 | 3060 |
| 374942 | 25 | 20 | M20x20x250 | 70 | 0-100 | 4368 |
| 374967 | 25 | 22 | M20x22x250 | 70 | 0-100 | 4410 |
| 374983 | 25 | 24 | M24x24x250 | 75 | 0-100 | 4895 |
| 375006 | 25 | 28 | M24x28x250 | 75 | 0-100 | 4966 |

* Specified clamping forces in optimal clamping position (smallest distance from the clamping screw to the clamping point). Clamping forces can vary depending clamping, strength class of the clamping screw and condition of the thread (lubrication).

Application:

The crocodile clamping claw is used for all clamping tasks using T-slots and threaded holes. Thrust piece and counter-bearing are connected permanently to the clamping jaw, and thus the crocodile is quickly ready to use. The clamping jaw features two ridges and can be turned around easily depending on the application. In this way, it is possible to cover all fields of application involving cutting and non-cutting processes (e.g. injection moulding and pressure forming).

Advantage:

- Variable and fast adjustment option at a distance from the workpiece
- Use in all areas involving cutting and non-cutting processes
- Especially well-suited for use on injection moulding machines and presses
- No additional supports needed to achieve the required clamping height
- Thrust piece and counter-bearing are connected permanently to the clamping jaw
- The crocodile can be extended easily for every clamping height.

Note:

For missing dimensions, see No. 6312V.

Dimensions:

| Order no. | A | A1 | A2 | B2 x L | B3 | E1 | E2 | H2 | K |
|-----------|----|----|----|--------|----|----|----|----|----|
| 79780 | 27 | 17 | 12 | 44x115 | 30 | 25 | 30 | 18 | 11 |
| 79806 | 27 | 17 | 12 | 44x115 | 30 | 25 | 30 | 18 | 11 |
| 79822 | 27 | 17 | 12 | 44x115 | 30 | 25 | 30 | 18 | 11 |
| 79848 | 36 | 21 | 17 | 55x150 | 41 | 35 | 36 | 20 | 12 |
| 79863 | 36 | 21 | 17 | 55x150 | 41 | 35 | 36 | 20 | 12 |
| 79889 | 36 | 21 | 17 | 55x150 | 41 | 35 | 36 | 20 | 12 |
| 79905 | 36 | 21 | 17 | 55x150 | 41 | 35 | 36 | 20 | 12 |
| 79921 | 42 | 27 | 20 | 62x187 | 30 | 44 | 44 | 30 | 14 |
| 79210 | 42 | 27 | 20 | 62x187 | 30 | 44 | 44 | 30 | 14 |
| 79228 | 42 | 27 | 20 | 62x187 | 30 | 44 | 44 | 30 | 14 |
| 374926 | 42 | 27 | 20 | 62x187 | 30 | 44 | 44 | 30 | 14 |
| 374942 | 51 | 34 | 24 | 70x235 | 30 | 60 | 47 | 31 | 17 |
| 374967 | 51 | 34 | 24 | 70x235 | 30 | 60 | 47 | 31 | 17 |
| 374983 | 51 | 34 | 24 | 70x235 | 30 | 60 | 47 | 31 | 17 |
| 375006 | 51 | 34 | 24 | 70x235 | 30 | 60 | 47 | 31 | 17 |

Recommendations



No. 6312S,
page 22



No. 787,
page 88



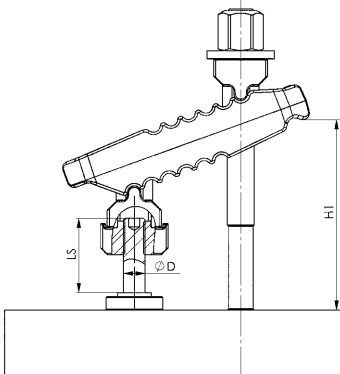
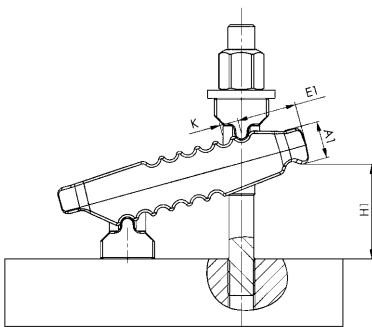
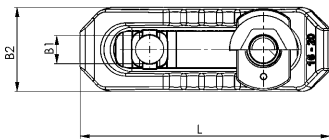
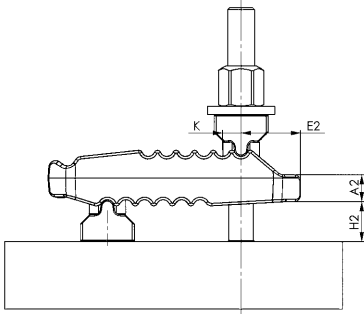
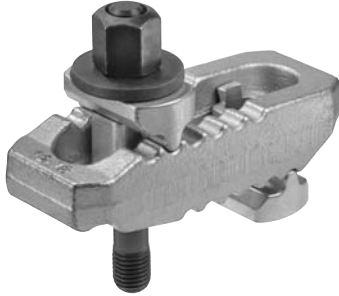
No. 6379I,
page 94



No. 6312VS

„Crocodile“ clamp, complete with DIN 6379

with stud bolt DIN 6379, washer DIN 6340 and nut DIN 6330B.
Infinitely adjustable, tempered, galvanised with captive
compression piece and counter bearing.



| Order no. | B1 | Clamping bolt DIN 6379 | Support extension 6312V | Clamping force max.* [kN] | H1 | Weight [g] |
|-----------|----|---------------------------|----------------------------|---------------------------------|--------|---------------|
| 375766 | 13 | M12x100 | - | 30 | 0-30 | 639 |
| 375782 | 13 | M12x125 | - | 30 | 0-55 | 659 |
| 375808 | 17 | M12x125 | - | 40 | 0-50 | 1535 |
| 375824 | 17 | M12x160 | - | 40 | 0-70 | 1558 |
| 375840 | 17 | M16x125 | - | 40 | 0-40 | 1660 |
| 375865 | 17 | M16x160 | - | 40 | 0-70 | 1718 |
| 375881 | 21 | M20x160 | - | 60 | 0-40 | 2754 |
| 375907 | 21 | M20x200 | - | 60 | 0-80 | 2834 |
| 375923 | 25 | M20x200 | - | 75 | 0-70 | 4072 |
| 375949 | 25 | M20x250 | - | 75 | 0-100 | 4172 |
| 375964 | 25 | M24x200 | - | 75 | 0-50 | 4374 |
| 375980 | 25 | M24x250 | - | 75 | 0-100 | 4524 |
| 375816 | 21 | M20x250 | M16x55 | 60 | 30-141 | 3428 |
| 375832 | 21 | M20x315 | M16x90 | 60 | 40-190 | 3704 |
| 375857 | 25 | M20x315 | M20x69 | 75 | 50-175 | 5438 |
| 375873 | 25 | M20x400 | M20x109 | 75 | 50-220 | 5873 |
| 375899 | 25 | M24x315 | M20x69 | 75 | 45-180 | 5850 |
| 375915 | 25 | M24x400 | M20x109 | 75 | 45-215 | 6350 |

* Specified clamping forces in optimal clamping position (smallest distance from the clamping screw to the clamping point). Clamping forces can vary depending clamping, strength class of the clamping screw and condition of the thread (lubrication).

Application:

The crocodile clamping claw is used for all clamping tasks using T-slots and threaded holes. Thrust piece and counter-bearing are connected permanently to the clamping jaw, and thus the crocodile is quickly ready to use. The clamping jaw features two ridges and can be turned around easily depending on the application. In this way, it is possible to cover all fields of application involving cutting and non-cutting processes (e.g. injection moulding and pressure forming).

Advantage:

- Variable and fast adjustment option at a distance from the workpiece
- Use in all areas involving cutting and non-cutting processes
- Especially well-suited for use on injection moulding machines and presses
- No additional supports needed to achieve the required clamping height
- Thrust piece and counter-bearing are connected permanently to the clamping jaw
- The crocodile can be extended easily for every clamping height.

Note:

For missing dimensions, see no. 6312V.

Dimensions:

| Order no. | A | A1 | A2 | B2 x L | B3 | E1 | E2 | H2 | K |
|-----------|----|----|----|--------|----|----|----|--------|----|
| 375766 | 27 | 17 | 12 | 44x115 | 30 | 25 | 30 | 18 | 11 |
| 375782 | 27 | 17 | 12 | 44x115 | 30 | 25 | 30 | 18 | 11 |
| 375808 | 36 | 21 | 17 | 55x150 | 41 | 35 | 36 | 20 | 12 |
| 375824 | 36 | 21 | 17 | 55x150 | 41 | 35 | 36 | 20 | 12 |
| 375840 | 36 | 21 | 17 | 55x150 | 41 | 35 | 36 | 20 | 12 |
| 375865 | 36 | 21 | 17 | 55x150 | 41 | 35 | 36 | 20 | 12 |
| 375881 | 42 | 27 | 20 | 62x187 | 30 | 44 | 44 | 30 | 14 |
| 375907 | 42 | 27 | 20 | 62x187 | 30 | 44 | 44 | 30 | 14 |
| 375923 | 51 | 34 | 24 | 70x235 | 30 | 60 | 47 | 31 | 17 |
| 375949 | 51 | 34 | 24 | 70x235 | 30 | 60 | 47 | 31 | 17 |
| 375964 | 51 | 34 | 24 | 70x235 | 30 | 60 | 47 | 31 | 17 |
| 375980 | 51 | 34 | 24 | 70x235 | 30 | 60 | 47 | 31 | 17 |
| 375816 | 42 | 27 | 20 | 62x187 | 30 | 44 | 44 | 63-91 | 63 |
| 375832 | 42 | 27 | 20 | 62x187 | 30 | 44 | 44 | 63-123 | 63 |
| 375857 | 51 | 34 | 24 | 70x235 | 30 | 60 | 47 | 72-108 | 72 |
| 375873 | 51 | 34 | 24 | 70x235 | 30 | 60 | 47 | 72-147 | 72 |
| 375899 | 51 | 34 | 24 | 70x235 | 30 | 60 | 47 | 72-108 | 72 |
| 375915 | 51 | 34 | 24 | 70x235 | 30 | 60 | 47 | 72-147 | 72 |

Recommendations



No. 6312S,
page 22



No. 6379I,
page 94



Subject to technical alterations.

No. 6312VI

„Crocodile“ clamp, complete with no. 6379I

with stud no. 6379I, hexagon screwdriver ISO 2936C, washer DIN 6340 and nut DIN 6330B. Continuously adjustable, tempered, galvanised with captive thrust piece and counter bearing.



| Order no. | B1 | Clamping bolt No. 6379I | Clamping force max.* [kN] | H1 | SW [mm] | Weight [g] |
|-----------|----|-------------------------|------------------------------|-------|------------|---------------|
| 375956 | 13 | M12x100 | 30 | 0-30 | 4 | 639 |
| 375972 | 13 | M12x125 | 30 | 0-55 | 4 | 659 |
| 375998 | 17 | M12x125 | 40 | 0-50 | 4 | 1535 |
| 376004 | 17 | M12x160 | 40 | 0-70 | 4 | 1558 |
| 376012 | 17 | M16x125 | 40 | 0-40 | 4 | 1660 |
| 376020 | 17 | M16x160 | 40 | 0-70 | 4 | 1718 |
| 376038 | 21 | M16x160 | 60 | 0-40 | 4 | 2587 |
| 376046 | 21 | M16x200 | 60 | 0-80 | 4 | 2625 |
| 376053 | 21 | M20x160 | 60 | 0-40 | 5 | 2745 |
| 376061 | 21 | M20x200 | 60 | 0-80 | 5 | 2834 |
| 376079 | 25 | M20x200 | 75 | 0-70 | 5 | 4072 |
| 376087 | 25 | M20x250 | 75 | 0-100 | 5 | 4172 |
| 376103 | 25 | M24x200 | 75 | 0-50 | 5 | 4374 |
| 376095 | 25 | M24x250 | 75 | 0-100 | 5 | 4524 |

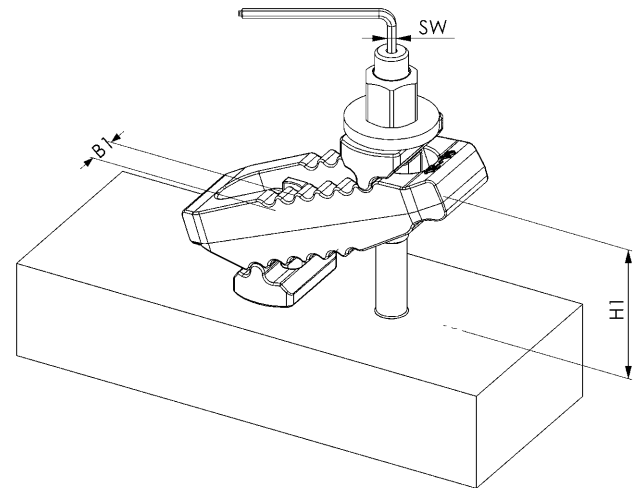
* Specified clamping forces in optimal clamping position (smallest distance from the clamping screw to the clamping point). Clamping forces can vary depending clamping, strength class of the clamping screw and condition of the thread (lubrication).

Advantage:

For better handling when setting up the clamping element, the threaded pin can be mounted and removed using an Allen key.

Note:

Use the Allen key only to set up the clamping element, not for clamping!
For missing dimension, see no. 6312V.



Recommendations



No. 6312S,
page 22

Subject to technical alterations.



No. 6312S

Support extension

Steel, galvanised and tempered, support screw, hardened, strength class 8.8. Comprising body, support screw and fastening bolts.



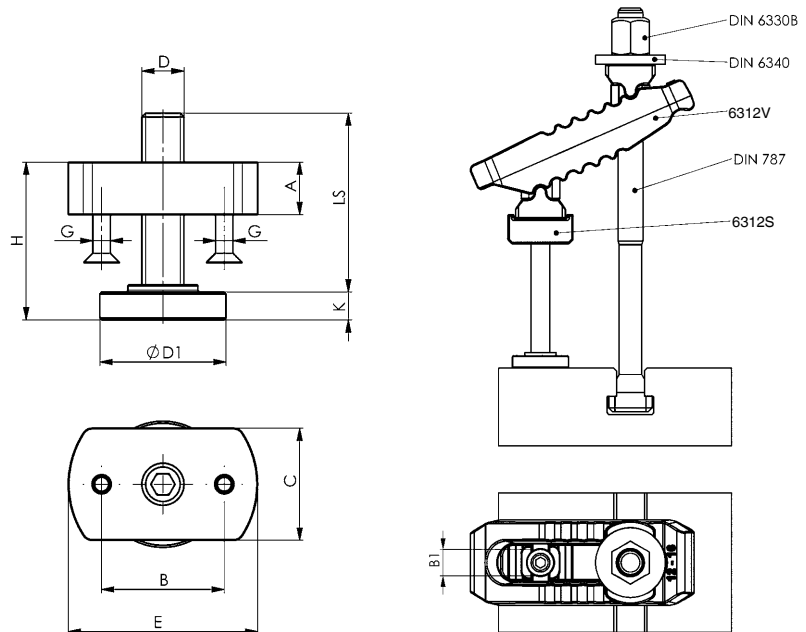
| Order no. | B1 | D x LS | A | B | C | D1 | E | G | H | K | Weight [g] |
|-----------|----|---------|----|----|----|----|----|----|----------|----|------------|
| 79772 | 13 | M10x39 | 10 | 30 | 30 | 30 | 44 | M5 | 18 - 40 | 8 | 197 |
| 79814 | 17 | M12x49 | 16 | 35 | 42 | 36 | 54 | M5 | 25 - 53 | 10 | 433 |
| 79830 | 17 | M12x94 | 16 | 35 | 42 | 36 | 54 | M5 | 26 - 96 | 10 | 473 |
| 79871 | 21 | M16x55 | 20 | 40 | 50 | 42 | 60 | M5 | 33 - 61 | 13 | 608 |
| 79897 | 21 | M16x90 | 20 | 40 | 50 | 42 | 60 | M5 | 33 - 93 | 13 | 640 |
| 79749 | 25 | M20x69 | 25 | 50 | 46 | 50 | 70 | M6 | 41 - 77 | 16 | 910 |
| 79764 | 25 | M20x109 | 25 | 50 | 46 | 50 | 70 | M6 | 41 - 116 | 16 | 1000 |

Application:

To increase the clamping height, the support extension is screwed to the counter-bearing of the crocodile.

Advantage:

Continuous adjustment of clamping heights.



CAD



The right size for your application is always available, for example, order no. 6312V, without clamping bolt

Requirements: Table slot 18 / required clamping height: 125 mm / required clamping force: 35 kN

1) Select clamp no. 6312V

Groove 18 ▶ clamping force 40 kN ▶ B1 = 17 ▶ crocodile order no. 79798

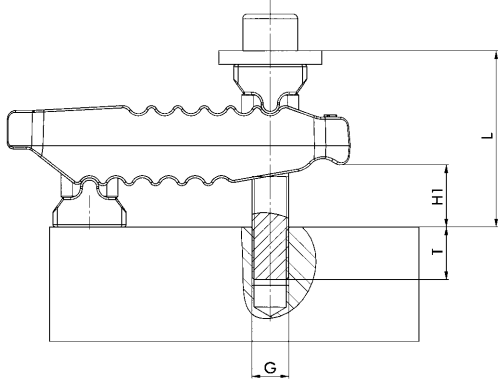
2) For a clamping height of 125 mm, support extension no. 6312S is used

B1 = 17 ▶ groove 18 ▶ clamping height 125 mm (clamping range 26-166 mm) ▶ DxLS = M12x94
▶ Support extension order no. 79830

3) Size of the T-slot bolts DIN787, complete with washer and hexagon nut

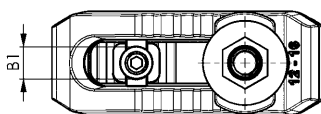
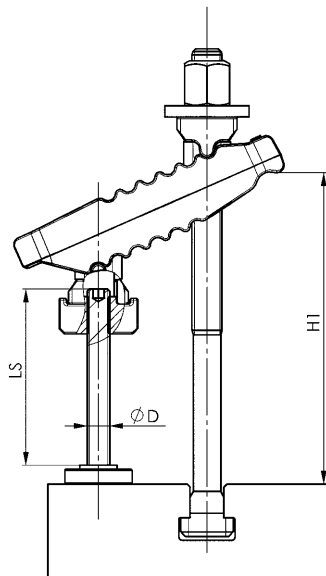
M16x18x250 ▶ order no. 81042

Installation recommendations and dimensions when using the clamping bolt ISO 4762 (without support extension 6312S)



| B1 | Dimensions ISO 4762 G x L | Clamping height H1 | Thread depth T |
|----|---------------------------|--------------------|----------------|
| 13 | M10x80 | 4-25 | 15-31 |
| 13 | M10x90 | 17-40 | 15-31 |
| 13 | M10x100 | 31-55 | 15-31 |
| 13 | M12x80 | 0-20 | 18-33 |
| 13 | M12x90 | 10-34 | 18-36 |
| 13 | M12x100 | 22-50 | 18-36 |
| 17 | M12x90 | 0-22 | 18-34 |
| 17 | M12x110 | 24-50 | 18-36 |
| 17 | M12x120 | 38-66 | 18-36 |
| 17 | M16x100 | 0-26 | 24-43 |
| 17 | M16x110 | 12-40 | 24-44 |
| 17 | M16x120 | 26-55 | 24-44 |
| 21 | M16x120 | 2-29 | 24-44 |
| 21 | M16x130 | 15-43 | 24-44 |
| 21 | M16x150 | 43-72 | 24-44 |
| 21 | M20x140 | 18-48 | 30-52 |
| 21 | M20x150 | 31-63 | 30-52 |
| 21 | M20x160 | 45-78 | 30-52 |
| 25 | M20x160 | 23-54 | 30-52 |
| 25 | M20x180 | 51-83 | 30-52 |
| 25 | M20x195 | 72-100 | 34-52 |
| 25 | M24x140 | 0-15 | 36-48 |
| 25 | M24x160 | 10-42 | 36-60 |
| 25 | M24x180 | 37-71 | 36-60 |

Installation recommendations and dimensions when using the clamping bolt DIN 787 (with support extension 6312S)



| B1 | D x LS | Dimensions DIN 787 | Clamping range H1 |
|----|---------|--------------------|-------------------|
| 13 | M10x39 | M10x10x100 | 18-31 |
| 13 | M10x39 | M12x12x160 | 18-95 |
| 13 | M10x39 | M12x14x160 | 18-95 |
| 17 | M12x49 | M12x12x200 | 26-123 |
| 17 | M12x49 | M12x14x200 | 26-123 |
| 17 | M12x49 | M16x16x200 | 26-123 |
| 17 | M12x49 | M16x18x200 | 26-123 |
| 17 | M12x94 | M12x12x200 | 26-120 |
| 17 | M12x94 | M12x14x200 | 26-120 |
| 17 | M12x94 | M16x16x250 | 26-166 |
| 17 | M12x94 | M16x18x250 | 26-166 |
| 21 | M16x55 | M16x16x250 | 33-141 |
| 21 | M16x55 | M16x18x250 | 33-141 |
| 21 | M16x55 | M20x20x250 | 33-141 |
| 21 | M16x55 | M20x22x250 | 33-141 |
| 21 | M16x90 | M16x16x250 | 33-150 |
| 21 | M16x90 | M16x18x250 | 33-150 |
| 21 | M16x90 | M20x20x315 | 33-173 |
| 21 | M16x90 | M20x22x315 | 33-173 |
| 25 | M20x69 | M20x20x315 | 41-177 |
| 25 | M20x69 | M20x22x315 | 41-177 |
| 25 | M20x69 | M24x24x315 | 41-177 |
| 25 | M20x69 | M24x28x315 | 41-177 |
| 25 | M20x109 | M20x20x315 | 41-197 |
| 25 | M20x109 | M20x22x315 | 41-193 |
| 25 | M20x109 | M24x24x315 | 41-180 |
| 25 | M20x109 | M24x28x315 | 41-180 |

No. 6310

Clamp with plastic cap

and U-piece undetachable. (without clamping stud),
burnished tempered steel.



| Order no. | Size | for clamping screw | H1 * | B1 | B2 | L | A | A1 | E1 | Weight [g] |
|-----------|------|--------------------|------|----|----|-----|------|------|----|------------|
| 376863 | 10 | M10 | 0-15 | 11 | 44 | 80 | 30,5 | 32,0 | 30 | 257 |
| 376889 | 14 | M12 M14 | 0-33 | 14 | 57 | 125 | 47,0 | 49,5 | 37 | 708 |
| 376905 | 18 | M16 M18 | 0-45 | 18 | 67 | 160 | 58,5 | 62,0 | 49 | 1235 |
| 376921 | 22 | M20 M22 | 0-65 | 22 | 72 | 200 | 71,5 | 75,0 | 58 | 1880 |
| 376947 | 26 | M22 M24 | 0-85 | 26 | 82 | 250 | 89,5 | 94,0 | 74 | 2799 |

*depending on depth of slot to DIN 650 and position of fixture nut.

Application:

The clamp is used for all clamping tasks in which clamping is effected via T-grooves, grooves and threaded bores.

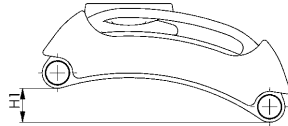
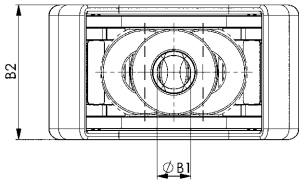
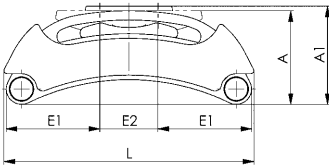
Advantage:

Weight-saving thanks to lightweight design. Variable and fast adjustment option at a distance from the workpiece. No additional clamping supports are needed to reach the required clamping height. The U-piece is undetachable from the clamp.

Note:

For clamping, either clamping screws DIN 787, stud bolts DIN 6379 and cheese head screws ISO 4762 can be used.

A washer DIN 6340 must always be used between the hexagonal nut and U-piece!



Recommendations



DIN 6340,
page 105



DIN 787,
page 86



DIN 6330B,
page 99

No. 6310

Clamp with plastic cap, complete

with DIN 787, DIN 6340, DIN 6330B and undetachable U-piece,
burnished tempered steel.



| Order no. | Slot | with clamping stud | H1 * | B1 | B2 | L | A | A1 | E1 | E2 | Weight [g] |
|-----------|------|--------------------|------|----|----|-----|------|------|----|----|------------|
| 376555 | 10 | M10x10x80 | 0-15 | 11 | 44 | 80 | 30,5 | 32,0 | 30 | 19 | 349 |
| 376871 | 12 | M12x12x100 | 0-33 | 14 | 57 | 125 | 47,0 | 49,5 | 37 | 51 | 886 |
| 376897 | 14 | M12x14x125 | 0-33 | 14 | 57 | 125 | 47,0 | 49,5 | 37 | 51 | 905 |
| 376913 | 16 | M16x16x160 | 0-45 | 18 | 67 | 160 | 58,5 | 62,0 | 49 | 63 | 1648 |
| 376939 | 18 | M16x18x160 | 0-45 | 18 | 67 | 160 | 58,5 | 62,0 | 49 | 63 | 1668 |

*depending on depth of slot to DIN 650 and position of fixture nut.

Application:

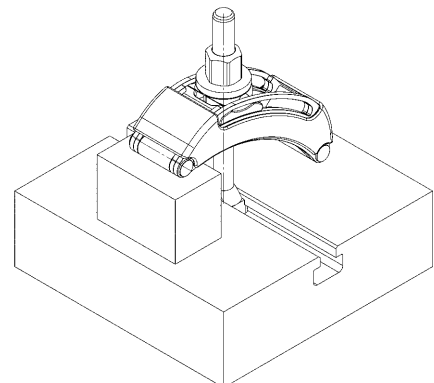
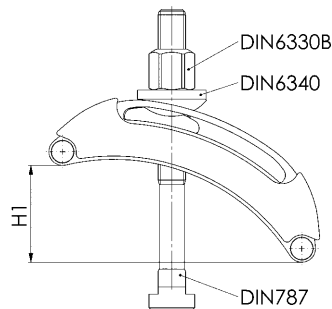
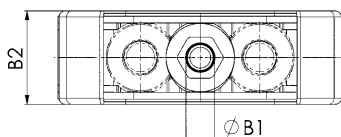
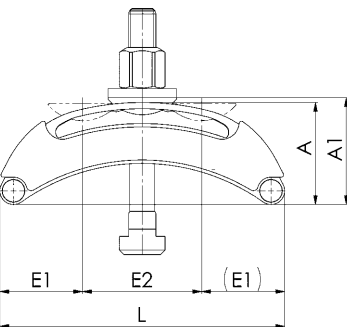
The clamp is used for all clamping tasks in which clamping is effected via T-grooves, grooves and threaded bores.

Advantage:

Weight-saving thanks to lightweight design. Variable and fast adjustment option at a distance from the workpiece. No additional clamping supports are needed to reach the required clamping height. The U-piece is undetachable from the clamp.

Note:

A washer DIN 6340 must always be used between the hexagonal nut and U-piece!



Subject to technical alterations.

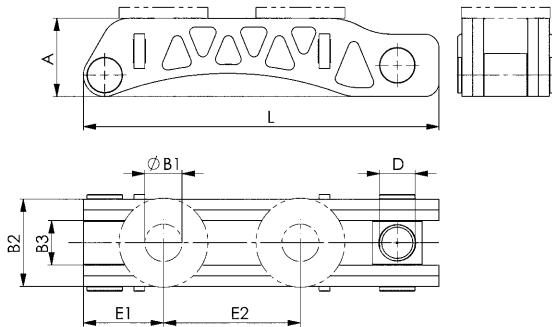
No. 6311

Clamp, „light design“

Tempered steel, burnished.



CAD



| Order no. | Size | for clamping screw | B1 | B2 | B3 | D | L | A | E1 | E2 | Weight [g] |
|-----------|------|--------------------|----|-----|----|-----|-----|----|----|-----|------------|
| 376962 | 22 | M20 M22 | 22 | 49 | 25 | M20 | 200 | 44 | 45 | 77 | 1289 |
| 377002 | 26 | M24 | 26 | 54 | 30 | M24 | 250 | 44 | 46 | 116 | 1630 |
| 377044 | 33 | M30 | 33 | 72 | 40 | M30 | 315 | 71 | 59 | 152 | 4522 |
| 377069 | 43 | M36 M42 | 43 | 102 | 54 | M30 | 400 | 80 | 74 | 209 | 9709 |

*depending on depth of slot to DIN 650 and position of fixture nut.

Application:

The clamp is used for all clamping tasks in which clamping is effected via T-grooves, grooves and threaded bores.

Advantage:

Through the weight-saving design, the clamping iron is up to 50% lighter, but still offers 100% clamping force and can thus also be used even for rotating clamping tasks. Variable and fast adjustment option at a distance from the workpiece.

Note:

For clamping, either clamping screws DIN 787, stud bolts DIN 6379 and cheese head screws ISO 4762 can be used.

**Up to 50 % lighter –
100 % clamping force**

No. 6311

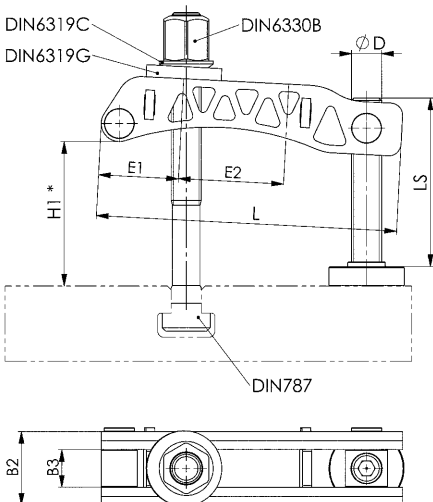
Clamp „light design“, with adjustable support screw, complete

with DIN 787, DIN 6340, DIN 6330B.

Tempered steel, burnished.



CAD



| Order no. | Slot | with clamping stud | H1 * | D x LS | B1 | B2 | B3 | L | A | E1 | E2 | Weight [g] |
|-----------|------|--------------------|--------|---------|----|-----|----|-----|----|----|-----|------------|
| 376731 | 20 | M20x20x160 | 8-58 | M20x69 | 22 | 49 | 25 | 200 | 44 | 45 | 77 | 2434 |
| 376756 | 20 | M20x20x200 | 8-98 | M20x109 | 22 | 49 | 25 | 200 | 44 | 45 | 77 | 2531 |
| 376772 | 24 | M24x28x200 | 10-81 | M24x87 | 26 | 54 | 30 | 250 | 44 | 46 | 116 | 3779 |
| 376798 | 24 | M24x28x250 | 10-130 | M24x137 | 26 | 54 | 30 | 250 | 44 | 59 | 116 | 3884 |
| 376814 | 36 | M30x36x315 | 7-214 | M30x180 | 33 | 72 | 40 | 315 | 71 | 59 | 152 | 9044 |
| 376830 | 48 | M36x42x400 | 7-153 | M30x180 | 43 | 102 | 54 | 400 | 80 | 74 | 209 | 17560 |

*depending on depth of slot to DIN 650 and position of fixture nut.

Application:

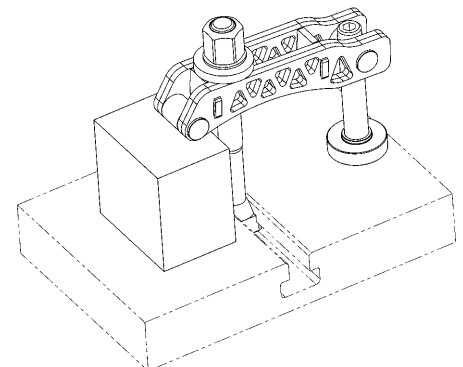
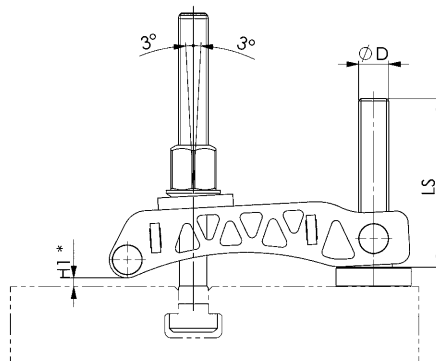
The clamp is used for all clamping tasks in which clamping is effected via T-grooves, grooves and threaded bores.

Advantage:

Through the weight-saving design, the clamping iron is up to 50% lighter, but still offers 100% clamping force and can thus also be used even for rotating clamping tasks. Variable and fast adjustment option at a distance from the workpiece.

Note:

For clamping, either clamping screws DIN 787, stud bolts DIN 6379 and cheese head screws ISO 4762 can be used.

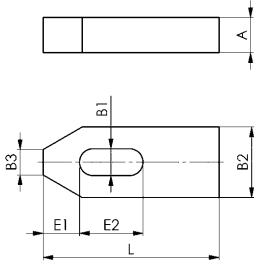


Subject to technical alterations.

DIN 6314

Clamp, flat

Tempering steel, varnished.



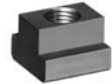
| Order no. | B1 | L | for clamping screw metric | for clamping screw inch | A | B2 | B3 | E1 | E2 | Weight [g] |
|-----------|-----|-----|---------------------------|-------------------------|-----|-----|----|-----|-----|------------|
| 70003 | 6,6 | 50 | M6 | 1/4 | 10 | 20 | 8 | 10 | 20 | 63 |
| 70011 | 9 | 60 | M8 | 5/16 | 12 | 25 | 10 | 13 | 22 | 113 |
| 70029 | 11 | 80 | M10 | 3/8 | 15 | 30 | 12 | 15 | 30 | 226 |
| 70037 | 14 | 100 | M12 M14 | 1/2 | 20 | 40 | 14 | 21 | 40 | 490 |
| 70045 | 14 | 125 | M12 M14 | 1/2 | 20 | 40 | 14 | 21 | 50 | 621 |
| 70052 | 18 | 125 | M16 M18 | 5/8 | 25 | 50 | 18 | 26 | 45 | 960 |
| 70060 | 18 | 160 | M16 M18 | 5/8 | 25 | 50 | 18 | 26 | 65 | 1240 |
| 70078 | 22 | 160 | M20 M22 | 3/4 | 30 | 60 | 22 | 30 | 60 | 1787 |
| 70086 | 22 | 200 | M20 M22 | 3/4 | 30 | 60 | 22 | 30 | 80 | 2237 |
| 70094 | 26 | 200 | M24 | 1 | 30 | 70 | 26 | 35 | 80 | 2580 |
| 70102 | 26 | 250 | M24 | 1 | 35* | 70 | 26 | 35 | 105 | 3800 |
| 70110 | 33 | 250 | M30 | 1 1/4 | 40 | 80 | 34 | 45 | 100 | 4934 |
| 70128 | 33 | 315 | M30 | 1 1/4 | 50 | 80 | 34 | 45 | 130 | 7788 |
| 70136 | 43* | 400 | M36 M42 | 1 1/2 1 5/8 | 60 | 100 | 43 | 100 | 150 | 15000 |

* Size not included in DIN, dimensions similar to DIN

Recommendations



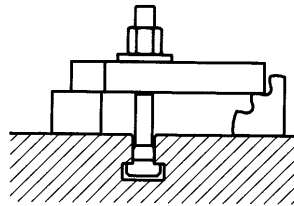
DIN 787,
page 86



DIN 508,
page 96



DIN 6331,
page 100



CAD

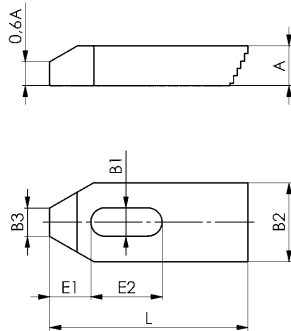


Subject to technical alterations.

No. 6314Z

Step clamp

Tempering steel, varnished.
Only match step blocks no. 6500E. The longer versions are used for large clamping distances due to large T-slot distance or enlarged work depth, i.e. on graving machines.



| Order no. | B1 | L | for clamping screw metric | for clamping screw inch | A | B2 | B3 | E1 | E2 | Weight [g] |
|-----------|-----|-----|---------------------------|-------------------------|----|----|----|----|-----|------------|
| 70359 | 6,6 | 50 | M6 | 1/4 | 10 | 20 | 8 | 10 | 20 | 55 |
| 70227 | 6,6 | 80 | M6 | 1/4 | 10 | 20 | 8 | 10 | 45 | 90 |
| 70367 | 9 | 60 | M8 | 5/16 | 12 | 25 | 10 | 13 | 22 | 100 |
| 70243 | 9 | 100 | M8 | 5/16 | 12 | 25 | 10 | 13 | 60 | 180 |
| 70375 | 11 | 80 | M10 | 3/8 | 15 | 30 | 12 | 15 | 30 | 200 |
| 70235 | 11 | 125 | M10 | 3/8 | 15 | 30 | 12 | 15 | 70 | 350 |
| 70383 | 14 | 100 | M12 M14 | 1/2 | 20 | 40 | 14 | 21 | 40 | 450 |
| 70250 | 14 | 160 | M12 M14 | 1/2 | 20 | 40 | 14 | 21 | 90 | 770 |
| 70391 | 18 | 125 | M16 M18 | 5/8 | 25 | 50 | 18 | 26 | 45 | 900 |
| 70334 | 18 | 200 | M16 M18 | 5/8 | 25 | 50 | 18 | 26 | 110 | 1500 |
| 70409 | 22 | 160 | M20 M22 | 3/4 | 30 | 60 | 22 | 30 | 60 | 1700 |
| 70417 | 26 | 200 | M24 | 1 | 30 | 70 | 26 | 35 | 80 | 2500 |

Recommendations



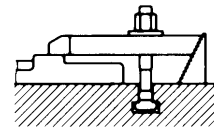
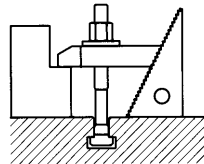
No. 6500E, page 47



No. 6379I, page 94



DIN 508, page 96



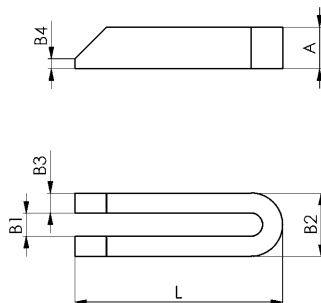
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DIN 6315B

Forked clamp tapered

Tempering steel, varnished.



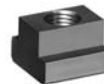
| Order no. | B1 | L | for clamping screw metric | for clamping screw inch | A | B2 | B3 | B4 | Weight [g] |
|-----------|------|------|---------------------------|-------------------------|----|-----|----|----|------------|
| 70466 | 6,6 | 60 | M6 | 1/4 | 12 | 19 | 6 | 3 | 60 |
| 70474 | 9 | 80 | M8 | 5/16 | 15 | 25 | 8 | 4 | 140 |
| 70482 | 11 | 100 | M10 | 3/8 | 20 | 31 | 10 | 5 | 300 |
| 70490 | 14 | 125 | M12 M14 | 1/2 | 25 | 38 | 12 | 6 | 570 |
| 70508 | 14 | 160 | M12 M14 | 1/2 | 25 | 38 | 12 | 6 | 730 |
| 70516 | 14 | 200 | M12 M14 | 1/2 | 25 | 38 | 12 | 6 | 910 |
| 70524 | 18 | 160 | M16 M18 | 5/8 | 30 | 48 | 15 | 8 | 1080 |
| 70532 | 18 | 200 | M16 M18 | 5/8 | 30 | 48 | 15 | 8 | 1360 |
| 70540 | 18 | 250 | M16 M18 | 5/8 | 40 | 48 | 15 | 10 | 2250 |
| 70557 | 22 | 200 | M20 M22 | 3/4 | 40 | 52 | 15 | 10 | 1800 |
| 70565 | 22 | 250 | M20 M22 | 3/4 | 40 | 62 | 20 | 10 | 3000 |
| 70573 | 22 | 315 | M20 M22 | 3/4 | 40 | 62 | 20 | 10 | 3850 |
| 70425 | 22 * | 500 | M20 M22 | 3/4 | 50 | 62 | 20 | 10 | 7500 |
| 70581 | 26 | 200 | M24 | 1 | 40 | 66 | 20 | 10 | 2400 |
| 70599 | 26 | 250 | M24 | 1 | 40 | 66 | 20 | 10 | 3000 |
| 70607 | 26 | 315 | M24 | 1 | 40 | 66 | 20 | 10 | 3850 |
| 37390 | 26 * | 400 | M24 | 1 | 50 | 66 | 20 | 10 | 5962 |
| 70433 | 26 * | 500 | M24 | 1 | 50 | 66 | 20 | 10 | 7600 |
| 3079 | 26 * | 600 | M24 | 1 | 50 | 66 | 20 | 10 | 9042 |
| 30064 | 26 * | 800 | M24 | 1 | 50 | 66 | 20 | 10 | 12122 |
| 70615 | 33 | 250 | M30 | 1 1/4 | 50 | 74 | 20 | 12 | 3700 |
| 70623 | 33 | 315 | M30 | 1 1/4 | 50 | 74 | 20 | 12 | 4750 |
| 70631 | 33 | 400 | M30 | 1 1/4 | 50 | 74 | 20 | 12 | 6100 |
| 70441 | 33 * | 600 | M30 | 1 1/4 | 50 | 74 | 20 | 12 | 9200 |
| 70458 | 33 * | 1000 | M30 | 1 1/4 | 60 | 94 | 30 | 12 | 28000 |
| 70649 | 40 * | 400 | M36 | 1 1/2 | 60 | 100 | 30 | 12 | 11000 |
| 70656 | 40 * | 600 | M36 | 1 1/2 | 60 | 100 | 30 | 12 | 16500 |
| 70672 | 43 * | 600 | M36 M42 | 1 1/2 1 5/8 | 80 | 123 | 40 | 12 | 29600 |

* Size not included in DIN, dimensions similar to DIN

Recommendations



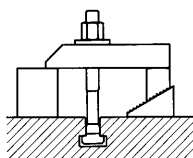
DIN 787, page 86



DIN 508, page 96



DIN 6331, page 100



CAD

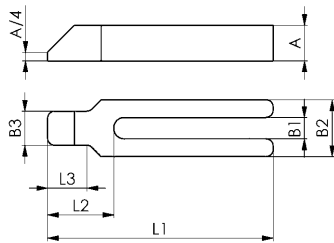


Subject to technical alterations.

No. 6315GN

Forked clamp with shoe

Tempering steel, varnished.

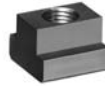


| Order no. | B1 | L1 | for clamping screw metric | for clamping screw inch | A | B2 | B3 | L2 | L3 | Weight [g] |
|-----------|----|-----|---------------------------|-------------------------|----|----|----|----|----|------------|
| 70862 | 9 | 100 | M8 | 5/16 | 15 | 30 | 16 | 32 | 18 | 240 |
| 70870 | 11 | 125 | M10 | 3/8 | 20 | 30 | 20 | 38 | 24 | 380 |
| 70888 | 14 | 160 | M12 M14 | 1/2 | 25 | 40 | 24 | 47 | 30 | 800 |
| 70896 | 14 | 200 | M12 M14 | 1/2 | 25 | 40 | 24 | 47 | 30 | 950 |
| 70904 | 18 | 200 | M16 M18 | 5/8 | 30 | 50 | 28 | 57 | 36 | 1500 |
| 70912 | 18 | 250 | M16 M18 | 5/8 | 30 | 50 | 28 | 57 | 36 | 1850 |
| 70920 | 22 | 250 | M20 M22 | 3/4 | 40 | 60 | 35 | 68 | 45 | 2900 |
| 70938 | 22 | 315 | M20 M22 | 3/4 | 40 | 60 | 35 | 68 | 45 | 3600 |
| 70946 | 26 | 250 | M24 | 1 | 40 | 70 | 43 | 83 | 56 | 3400 |
| 70953 | 26 | 315 | M24 | 1 | 40 | 70 | 43 | 83 | 56 | 4300 |
| 70961 | 33 | 315 | M30 | 1 1/4 | 50 | 80 | 50 | 88 | 56 | 6000 |
| 70979 | 33 | 400 | M30 | 1 1/4 | 50 | 80 | 50 | 88 | 56 | 7300 |

Recommendations



DIN 787,
page 86



DIN 508,
page 96



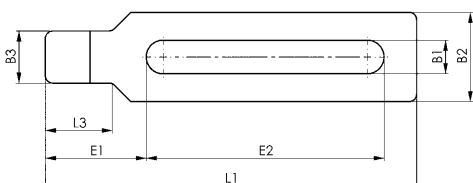
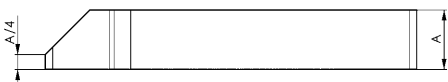
DIN 6331,
page 100



No. 6315NGG

Clamp with nose, closed

Infinitely adjustable, tempered and painted, with closed slot for use with rotating workpieces



| Order no. | B1 | L | for clamping screw metric | for clamping screw inch | A | B2 | B3 | E1 | E2 | L3 | Weight [g] |
|-----------|----|-----|---------------------------|-------------------------|----|----|----|----|-----|----|------------|
| 376145 | 22 | 250 | M20 M22 | 3/4 | 40 | 60 | 35 | 68 | 160 | 45 | 3025 |
| 376160 | 22 | 315 | M20 M22 | 3/4 | 40 | 60 | 35 | 68 | 220 | 45 | 3810 |
| 376186 | 22 | 400 | M20 M22 | 3/4 | 50 | 60 | 35 | 68 | 300 | 45 | 5995 |
| 376202 | 22 | 500 | M20 M22 | 3/4 | 50 | 60 | 35 | 68 | 400 | 45 | 7440 |
| 376228 | 26 | 250 | M24 | 1 | 40 | 70 | 43 | 83 | 140 | 56 | 3639 |
| 376244 | 26 | 315 | M24 | 1 | 40 | 70 | 43 | 83 | 200 | 56 | 4560 |
| 376269 | 26 | 400 | M24 | 1 | 50 | 70 | 43 | 83 | 270 | 56 | 7243 |
| 376285 | 26 | 500 | M24 | 1 | 50 | 70 | 43 | 83 | 370 | 56 | 8937 |
| 376301 | 33 | 315 | M30 | 1 1/4 | 50 | 80 | 50 | 88 | 200 | 56 | 6367 |
| 376327 | 33 | 400 | M30 | 1 1/4 | 50 | 80 | 50 | 88 | 283 | 56 | 7798 |
| 376343 | 33 | 500 | M30 | 1 1/4 | 50 | 80 | 50 | 88 | 383 | 56 | 9607 |

Recommendations



DIN 787,
page 86



DIN 508,
page 96



DIN 6331,
page 100

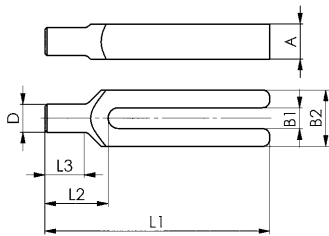


Subject to technical alterations.

DIN 6315C

Forked clamp with pin end

Tempering steel, varnished.

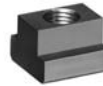


| Order no. | B1 | L1 | for clamping screw metric | for clamping screw inch | A | B2 | D | L2 | L3 | Weight [g] |
|-----------|----|-----|---------------------------|-------------------------|----|----|----|----|----|------------|
| 70706 | 9 | 100 | M8 | 5/16 | 15 | 30 | 12 | 30 | 18 | 220 |
| 70714 | 11 | 125 | M10 | 3/8 | 20 | 30 | 16 | 36 | 24 | 350 |
| 70722 | 14 | 160 | M12 M14 | 1/2 | 25 | 40 | 20 | 45 | 30 | 750 |
| 70730 | 14 | 200 | M12 M14 | 1/2 | 25 | 40 | 20 | 45 | 30 | 950 |
| 70748 | 18 | 200 | M16 M18 | 5/8 | 30 | 50 | 24 | 55 | 36 | 1400 |
| 70755 | 18 | 250 | M16 M18 | 5/8 | 30 | 50 | 24 | 55 | 36 | 1750 |
| 70763 | 22 | 250 | M20 M22 | 3/4 | 40 | 60 | 30 | 65 | 45 | 2700 |
| 70771 | 22 | 315 | M20 M22 | 3/4 | 40 | 60 | 30 | 65 | 45 | 3400 |
| 70789 | 26 | 250 | M24 | 1 | 40 | 70 | 38 | 80 | 56 | 3200 |
| 70797 | 26 | 315 | M24 | 1 | 40 | 70 | 38 | 80 | 56 | 4100 |
| 70805 | 33 | 315 | M30 | 1 1/4 | 50 | 80 | 45 | 85 | 56 | 5700 |
| 70813 | 33 | 400 | M30 | 1 1/4 | 50 | 80 | 45 | 85 | 56 | 7000 |

Recommendations



DIN 787, page 86



DIN 508, page 96



DIN 6331, page 100

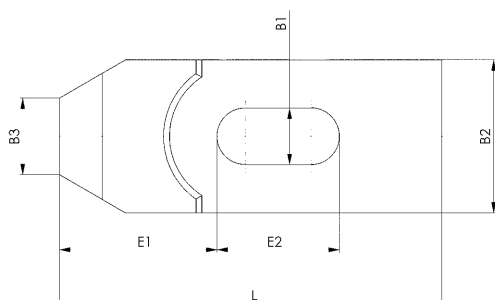
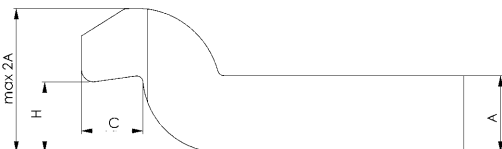
CAD



DIN 6316

Clamp, cranked

Tempering steel, varnished.



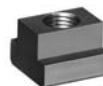
| Order no. | B1 | L | for clamping screw metric | for clamping screw inch | A | B2 | B3 | C | E1 | E2 | H | Weight [g] |
|-----------|------|-----|---------------------------|-------------------------|----|-----|----|----|-------|-----|----|------------|
| 71027 | 6,6 | 60 | M6 | 1/4 | 10 | 20 | 10 | 8 | 22,0 | 20 | 9 | 81 |
| 71035 | 9 | 80 | M8 | 5/16 | 12 | 25 | 12 | 9 | 27,5 | 25 | 11 | 166 |
| 71043 | 11 | 100 | M10 | 3/8 | 15 | 30 | 15 | 12 | 36,0 | 32 | 14 | 299 |
| 71050 | 14 | 125 | M12 M14 | 1/2 | 20 | 40 | 20 | 16 | 44,0 | 40 | 18 | 678 |
| 71068 | 18 * | 125 | M16 M18 | 5/8 | 25 | 50 | 25 | 20 | 51,5 | 40 | 23 | 1049 |
| 71076 | 18 | 160 | M16 M18 | 5/8 | 25 | 50 | 25 | 20 | 51,5 | 50 | 23 | 1366 |
| 71084 | 22 * | 160 | M20 M22 | 3/4 | 30 | 60 | 30 | 24 | 59,0 | 55 | 27 | 1911 |
| 71092 | 22 | 200 | M20 M22 | 3/4 | 30 | 60 | 30 | 24 | 59,0 | 70 | 27 | 2417 |
| 71100 | 26 * | 200 | M24 | 1 | 35 | 70 | 35 | 25 | 76,5 | 60 | 32 | 3315 |
| 71118 | 26 | 250 | M24 | 1 | 35 | 70 | 35 | 25 | 76,5 | 80 | 32 | 4132 |
| 71126 | 33 * | 250 | M30 | 1 1/4 | 40 | 80 | 40 | 40 | 96,0 | 80 | 45 | 5225 |
| 71134 | 33 | 315 | M30 | 1 1/4 | 50 | 80 | 40 | 40 | 96,0 | 100 | 45 | 8459 |
| 71159 | 43 * | 400 | M36 M42 | 1 1/2 1 5/8 | 60 | 100 | 50 | 50 | 105,0 | 120 | 55 | 17078 |

* Size not included in DIN, dimensions similar to DIN

Recommendations



DIN 787, page 86



DIN 508, page 96



DIN 6331, page 100

CAD



Subject to technical alterations.

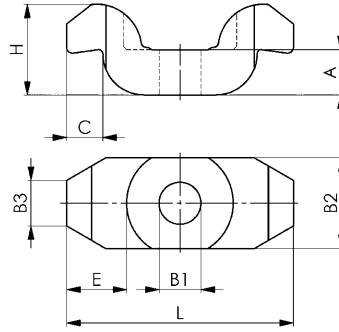
No. 6317

Double goose-neck clamp

Tempering steel, varnished.

| Order no. | B1 | L | for clamping screw | A | B2 | B3 | C | E | H | Weight [g] |
|-----------|----|-----|--------------------|----|----|----|----|----|----|------------|
| 71340 | 18 | 100 | M12-M18 | 20 | 40 | 20 | 16 | 26 | 40 | 620 |
| 71357 | 25 | 140 | M20-M24 | 30 | 60 | 30 | 24 | 38 | 60 | 2040 |

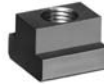
For use with washers DIN 6340 or DIN 6319G.



Recommendations



DIN 787,
page 86



DIN 508,
page 96



DIN 6331,
page 100

CAD



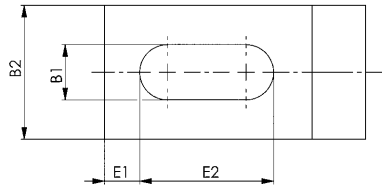
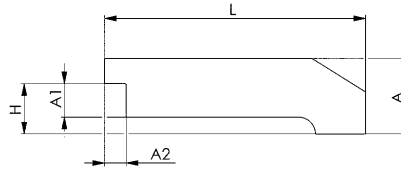
Subject to technical alterations.

No. 6325

Clamps for machine vices

Tempered steel, milled, quenched in blue oxide finish. Packaged in pairs.

| Order no. | H | B1 | L | for clamping screw metric | for clamping screw inch | A | A1 | A2 | B2 | E1 | E2 | Weight [g] |
|-----------|----|------|----|---------------------------|-------------------------|------|----|-----|----|------|----|------------|
| 74682 | 15 | 16,5 | 78 | M12, 14, 16 | 1/2, 5/8 | 22,5 | 10 | 6,5 | 40 | 10,5 | 40 | 660 |
| 74690 | 20 | 16,5 | 78 | M12, 14, 16 | 1/2, 5/8 | 27,5 | 10 | 6,5 | 40 | 10,5 | 40 | 705 |



Recommendations



DIN 787,
page 86



No. 63791,
page 94



DIN 508,
page 96

CAD

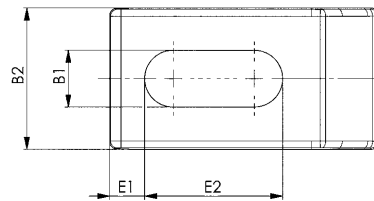
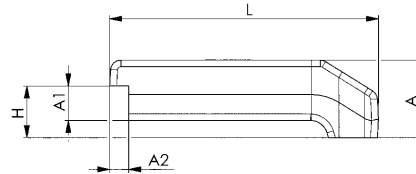


No. 6325G

Clamps for machine vices

Forged design, packaged in pairs.

| Order no. | H | B1 | L | for clamping screw metric | for clamping screw inch | A | A1 | A2 | B2 | E1 | E2 | Weight [g] |
|-----------|----|------|----|---------------------------|-------------------------|------|----|-----|----|----|----|------------|
| 373878 | 15 | 16,5 | 78 | M12, 14, 16 | 1/2, 5/8 | 22,5 | 10 | 5,5 | 41 | 10 | 40 | 570 |
| 373886 | 20 | 16,5 | 78 | M12, 14, 16 | 1/2, 5/8 | 27,5 | 10 | 6,5 | 41 | 10 | 40 | 620 |



Recommendations



DIN 787,
page 86

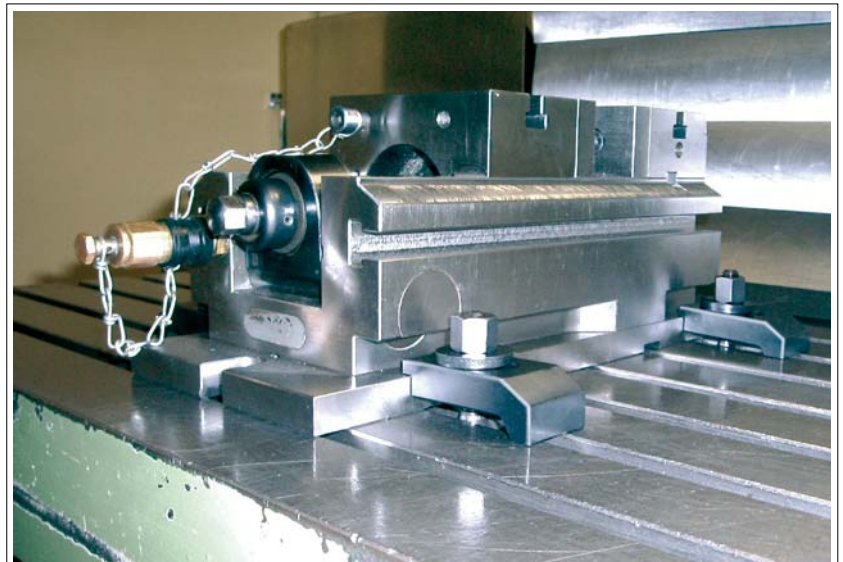


No. 63791,
page 94



DIN 508,
page 96

CAD



Subject to technical alterations.

No. 6314V

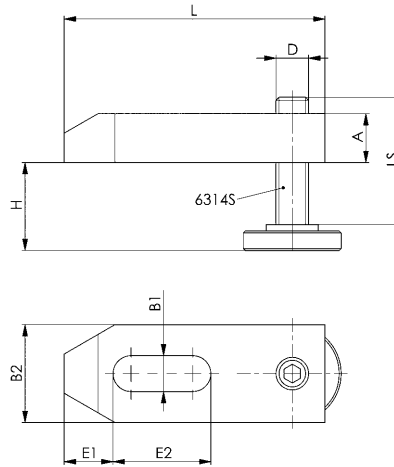
Tapered clamp with adjusting support screw

(without clamping stud)
Painted tempered steel.



| Order no. | for clamping screw | H* | sim. DIN6314 B1 x L | D x LS | A | B2 | E1 | E2 | Weight [g] |
|-----------|--------------------|--------|---------------------|---------|----|-----|----|-----|------------|
| 70177 | M10 | 8-37 | 11x80 | M10x39 | 15 | 30 | 15 | 30 | 200 |
| 70193 | M12 M14 | 10-47 | 14x100 | M12x49 | 20 | 40 | 21 | 40 | 560 |
| 70821 | M12 M14 | 10-92 | 14x100 | M12x94 | 20 | 40 | 21 | 40 | 635 |
| 70219 | M16 M18 | 13-52 | 18x125 | M16x55 | 25 | 50 | 26 | 45 | 1110 |
| 70839 | M16 M18 | 13-87 | 18x125 | M16x90 | 25 | 50 | 26 | 45 | 1230 |
| 70201 | M20 M22 | 16-65 | 22x160 | M20x69 | 30 | 60 | 30 | 60 | 2050 |
| 70847 | M20 M22 | 16-105 | 22x160 | M20x109 | 30 | 60 | 30 | 60 | 2230 |
| 70151 | M24 | 20-83 | 26x200 | M24x87 | 30 | 70 | 35 | 80 | 3200 |
| 70854 | M24 | 20-133 | 26x200 | M24x137 | 30 | 70 | 35 | 80 | 3470 |
| 373928 | M24 | 20-80 | 26x250 | M24x87 | 35 | 70 | 35 | 105 | 4340 |
| 373936 | M24 | 20-130 | 26x250 | M24x137 | 35 | 70 | 35 | 105 | 4520 |
| 374405 | M30 | 24-150 | 33x315 | M30x180 | 50 | 80 | 45 | 130 | 11215 |
| 374439 | M36 M42 | 24-150 | 43x400 | M30x180 | 80 | 100 | 80 | 170 | 24350 |

*depending on depth of slot to DIN 650 and position of fixture nut.
Clamps without T-bolts are same item for sizes 12 and 14, 16 and 18, 20 and 22, each.



No. 6314V

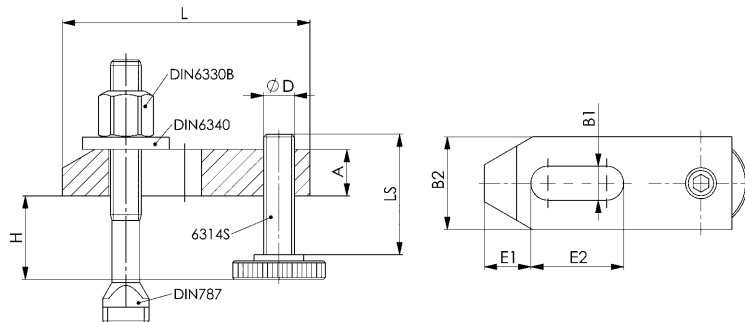
Tapered clamp with adjusting support screw, complete

with DIN 787, DIN 6340, DIN 6330B. Painted tempered steel.



| Order no. | Slot | with clamping stud | H* | sim. DIN6314 B1 x L | D x LS | A | B2 | E1 | E2 | Weight [g] |
|-----------|------|--------------------|--------|---------------------|---------|----|-----|----|-----|------------|
| 70268 | 10 | M10x10x80 | 8-32 | 11x80 | M10x39 | 15 | 30 | 15 | 30 | 340 |
| 70276 | 12 | M12x12x100 | 10-40 | 14x100 | M12x49 | 20 | 40 | 21 | 40 | 700 |
| 72801 | 12 | M12x12x160 | 24-92 | 14x100 | M12x94 | 20 | 40 | 21 | 40 | 830 |
| 70284 | 14 | M12x14x100 | 10-38 | 14x100 | M12x49 | 20 | 40 | 21 | 40 | 720 |
| 72827 | 14 | M12x14x160 | 23-92 | 14x100 | M12x94 | 20 | 40 | 21 | 40 | 845 |
| 70292 | 16 | M16x16x125 | 13-48 | 18x125 | M16x55 | 25 | 50 | 26 | 45 | 1400 |
| 72942 | 16 | M16x16x160 | 15-83 | 18x125 | M16x90 | 25 | 50 | 26 | 45 | 1610 |
| 70300 | 18 | M16x18x125 | 13-46 | 18x125 | M16x55 | 25 | 50 | 26 | 45 | 1400 |
| 73056 | 18 | M16x18x160 | 13-81 | 18x125 | M16x90 | 25 | 50 | 26 | 45 | 1630 |
| 70326 | 20 | M20x20x160 | 16-65 | 22x160 | M20x69 | 30 | 60 | 30 | 60 | 2600 |
| 73064 | 20 | M20x20x200 | 21-105 | 22x160 | M20x109 | 30 | 60 | 30 | 60 | 2930 |
| 70318 | 22 | M20x22x160 | 16-65 | 22x160 | M20x69 | 30 | 60 | 30 | 60 | 2770 |
| 73072 | 22 | M20x22x200 | 19-105 | 22x160 | M20x109 | 30 | 60 | 30 | 60 | 2980 |
| 373944 | 28 | M24x28x200 | 20-80 | 26x250 | M24x87 | 35 | 70 | 35 | 105 | 5486 |
| 373951 | 28 | M24x28x250 | 30-130 | 26x250 | M24x137 | 35 | 70 | 35 | 105 | 5716 |
| 381988 | 36 | M30x36x315 | 24-150 | 33x315 | M30x180 | 50 | 80 | 45 | 130 | 11995 |
| 382002 | 42 | M36x42x400 | 24-150 | 43x400 | M30x180 | 80 | 100 | 80 | 170 | 25683 |

*depending on depth of slot to DIN 650 and position of fixture nut.
Clamps without T-bolts are same item for sizes 12 and 14, 16 and 18, 20 and 22, each.



Recommendations



No. 6621,
page 38



Subject to technical alterations.

No. 6316V

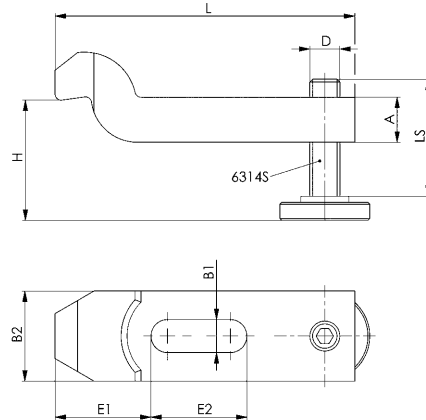
Cranked clamp with adjusting support screw

(without clamping stud)
Painted tempered steel.



| Order no. | for clamping screw | H* | sim. DIN6316 B1 x L | D x LS | A | B2 | E1 | E2 | Weight [g] |
|-----------|--------------------|--------|---------------------|--------|----|----|------|----|------------|
| 71183 | M10 | 22-51 | 11x100 | M10x39 | 15 | 30 | 36,0 | 32 | 344 |
| 71209 | M12 M14 | 28-65 | 14x125 | M12x49 | 20 | 40 | 44,0 | 40 | 761 |
| 71225 | M16 M18 | 36-75 | 18x160 | M16x55 | 25 | 50 | 51,5 | 50 | 1516 |
| 71217 | M20 M22 | 43-92 | 22x200 | M20x69 | 30 | 60 | 59,0 | 70 | 2669 |
| 71266 | M24 | 52-115 | 26x200 | M24x87 | 35 | 70 | 76,5 | 60 | 3810 |

*depending on depth of slot to DIN 650 and position of fixture nut.



No. 6316V

Cranked clamp with adjusting support screw, complete

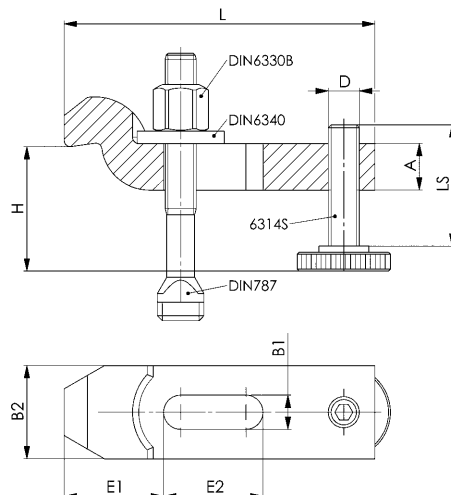
with DIN 787, DIN 6340, DIN 6330B.
Painted tempered steel.



| Order no. | Slot | with clamping stud | H* | sim. DIN6316 B1 x L | D x LS | A | B2 | E1 | E2 | Weight [g] |
|-----------|------|--------------------|-------|---------------------|--------|----|----|------|----|------------|
| 71274 | 10 | M10x10x80 | 22-46 | 11x100 | M10x39 | 15 | 30 | 36,0 | 32 | 440 |
| 71282 | 12 | M12x12x100 | 28-58 | 14x125 | M12x49 | 20 | 40 | 44,0 | 40 | 906 |
| 71290 | 14 | M12x14x100 | 28-56 | 14x125 | M12x49 | 20 | 40 | 44,0 | 40 | 926 |
| 71308 | 16 | M16x16x125 | 36-71 | 18x160 | M16x55 | 25 | 50 | 51,5 | 50 | 1859 |
| 71316 | 18 | M16x18x125 | 36-69 | 18x160 | M16x55 | 25 | 50 | 51,5 | 50 | 1875 |
| 71332 | 20 | M20x20x160 | 43-92 | 22x200 | M20x69 | 30 | 60 | 59,0 | 70 | 3322 |
| 71324 | 22 | M20x22x160 | 43-92 | 22x200 | M20x69 | 30 | 60 | 59,0 | 70 | 3352 |

*depending on depth of slot to DIN 650 and position of fixture nut.

Clamps without T-bolts are same item for sizes 12 and 14, 16 and 18, 20 and 22, each.



No. 6314AV

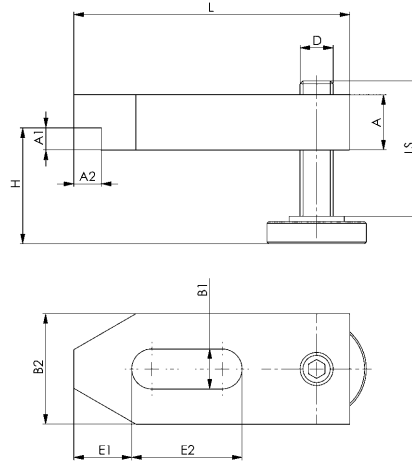
Stepped clamp with adjusting support screw

(without clamping stud)
Painted tempered steel.



| Order no. | for clamping screw | H* | sim. DIN6314 B1 x L | D x LS | A | A1xA2 | B2 | E1 | E2 | Weight [g] |
|-----------|--------------------|-------|---------------------|--------|----|---------|----|----|----|------------|
| 74567 | M12, M14 | 10-55 | 14x100 | M12x49 | 20 | 8 x10,0 | 40 | 21 | 40 | 580 |
| 74575 | M16, M18 | 13-62 | 18x125 | M16x55 | 25 | 10x12,5 | 50 | 26 | 45 | 1140 |
| 74583 | M20, M22 | 16-77 | 22x160 | M20x69 | 30 | 12x15,0 | 60 | 30 | 60 | 2100 |

*depending on depth of slot to DIN 650 and position of fixture nut.
To clamp thin parts, turn the clamp over.



No. 6314AV

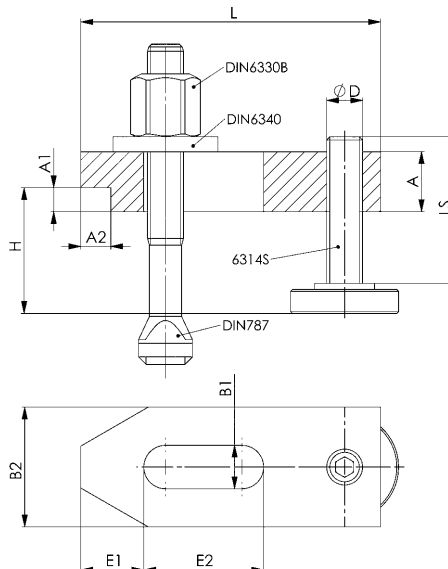
Stepped clamp with adjusting support screw, complete

with DIN 787, DIN 6340, DIN 6330B.
Painted tempered steel.



| Order no. | Slot | with clamping stud | H* | sim. DIN6314 B1 x L | D x LS | A | A1xA2 | B2 | E1 | E2 | Weight [g] |
|-----------|------|--------------------|-------|---------------------|--------|----|---------|----|----|----|------------|
| 74591 | 12 | M12x12x100 | 10-48 | 14x100 | M12x49 | 20 | 8 x10,0 | 40 | 21 | 40 | 745 |
| 74625 | 14 | M12x14x100 | 10-46 | 14x100 | M12x49 | 20 | 8 x10,0 | 40 | 21 | 40 | 764 |
| 74633 | 16 | M16x16x125 | 13-58 | 18x125 | M16x55 | 25 | 10x12,5 | 50 | 26 | 45 | 1510 |
| 74641 | 18 | M16x18x125 | 13-56 | 18x125 | M16x55 | 25 | 10x12,5 | 50 | 26 | 45 | 1530 |
| 74658 | 20 | M20x20x160 | 16-77 | 22x160 | M20x69 | 30 | 12x15,0 | 60 | 30 | 60 | 2800 |
| 74666 | 22 | M20x22x160 | 16-77 | 22x160 | M20x69 | 30 | 12x15,0 | 60 | 30 | 60 | 2840 |

*depending on depth of slot to DIN 650 and position of fixture nut.
To clamp thin parts, turn the clamp over.
Clamps without T-bolts are same item for sizes 12 and 14, 16 and 18, 20 and 22, each.

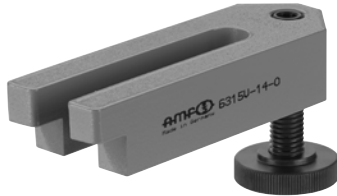


Subject to technical alterations.

No. 6315V

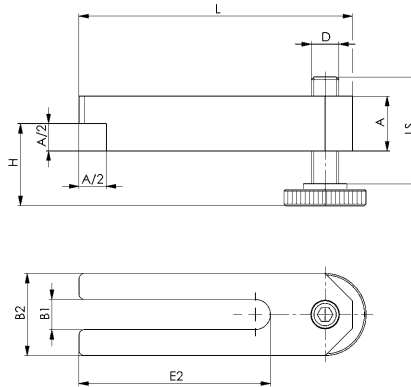
Stepped clamp with adjusting support screw

(without clamping stud)
Painted tempered steel.



| Order no. | for clamping screw | H* | sim. DIN 6315B B1 x L | D x LS | A | B2 | E2 | Weight [g] |
|-----------|--------------------|-------|-----------------------|--------|----|----|-----|------------|
| 71167 | M10 | 8-47 | 11x100 | M10x39 | 20 | 30 | 70 | 330 |
| 71175 | M12 M14 | 10-59 | 14x125 | M12x49 | 25 | 40 | 90 | 700 |
| 71191 | M16 M18 | 13-67 | 18x160 | M16x55 | 30 | 50 | 110 | 1300 |
| 71258 | M20 M22 | 16-85 | 22x200 | M20x69 | 40 | 60 | 135 | 2600 |

*depending on depth of slot to DIN 650 and position of fixture nut.
To clamp thin parts, turn the clamp over.



Recommendations



No. 6342,
page 111



No. 6315V

Stepped clamp with adjusting support screw, complete

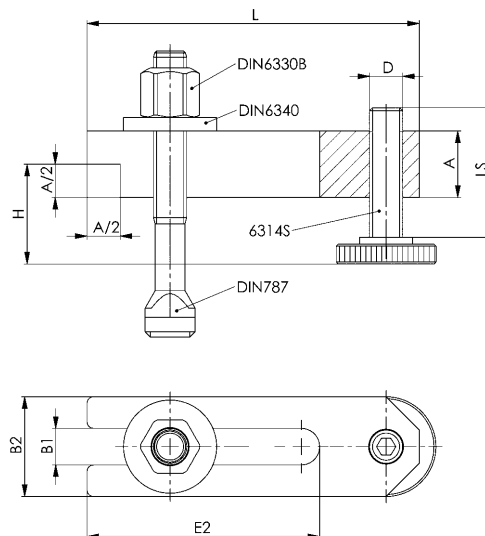
with DIN 787, DIN 6340, DIN 6330B.
Painted tempered steel.



| Order no. | Slot | with clamping stud | H* | sim. DIN 6315B B1 x L | D x LS | A | B2 | E2 | Weight [g] |
|-----------|------|--------------------|-------|-----------------------|--------|----|----|-----|------------|
| 73189 | 10 | M10x10x 80 | 8-37 | 11x100 | M10x39 | 20 | 30 | 70 | 403 |
| 73197 | 12 | M12x12x100 | 10-48 | 14x125 | M12x49 | 25 | 40 | 90 | 920 |
| 73205 | 14 | M12x14x100 | 10-45 | 14x125 | M12x49 | 25 | 40 | 90 | 940 |
| 73247 | 16 | M16x16x125 | 13-58 | 18x160 | M16x55 | 30 | 50 | 110 | 1860 |
| 73254 | 18 | M16x18x125 | 13-56 | 18x160 | M16x55 | 30 | 50 | 110 | 1880 |
| 73262 | 20 | M20x20x160 | 16-77 | 22x200 | M20x69 | 40 | 60 | 135 | 3610 |
| 73288 | 22 | M20x22x160 | 16-75 | 22x200 | M20x69 | 40 | 60 | 135 | 3650 |

*depending on depth of slot to DIN 650 and position of fixture nut.
To clamp thin parts, turn the clamp over.

Clamps without T-bolts are same item for sizes 12 and 14, 16 and 18, 20 and 22, each.



No. 6313K

Clamp, short, with U-piece

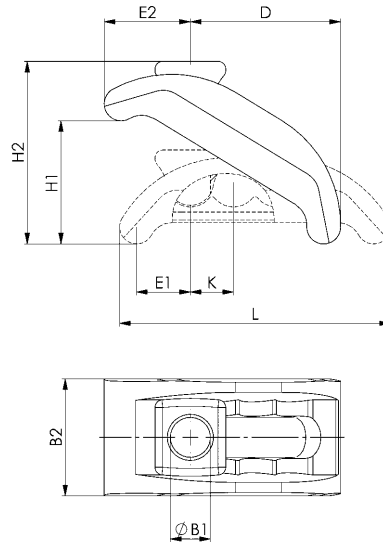
(without clamping bolt)
continuously adjustable, tempered and galvanized.



| Order no. | Size | for clamping screw | H1 | B1 | B2 x L | D | E1 | E2 | H2 | K | Weight [g] |
|-----------|------|--------------------|------|----|--------|-----|----|----|--------|----|------------|
| 73932 | 13 | M12 | 0-35 | 13 | 38x88 | 48 | 23 | 28 | 30-55 | 14 | 260 |
| 73940 | 18 | M16 | 0-55 | 18 | 56x130 | 74 | 29 | 38 | 42-84 | 18 | 809 |
| 73957 | 22 | M20 | 0-65 | 22 | 66x144 | 80 | 32 | 46 | 50-100 | 20 | 1253 |
| 73965 | 26 | M24 | 0-75 | 25 | 76x174 | 100 | 39 | 52 | 54-111 | 24 | 1718 |
| 73973 | 32 | M30 | 0-80 | 31 | 90x200 | 110 | 44 | 61 | 62-125 | 28 | 2785 |

Note:

Suitable fastening elements: DIN 787 clamping bolts, DIN 6340 washers and DIN 6330B hexagon nuts.



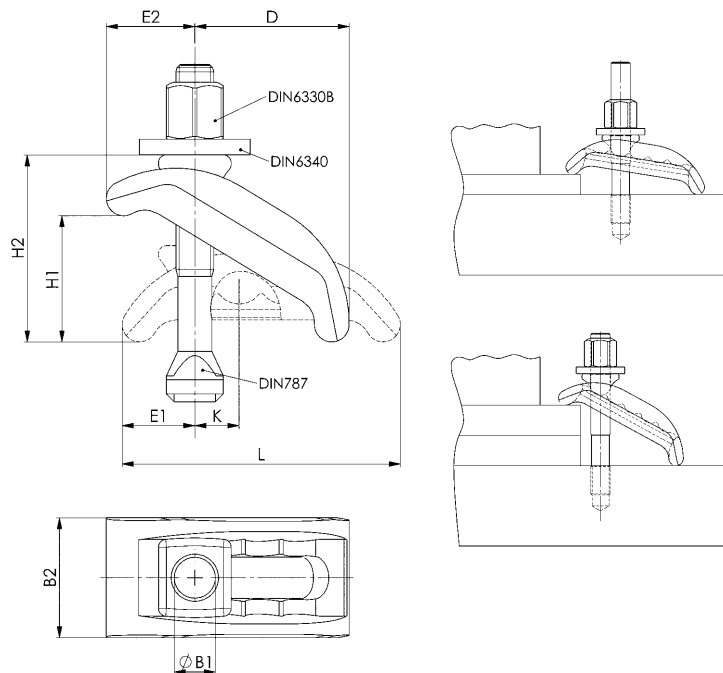
No. 6313K

Clamp, short, with U-piece, complete

with DIN 787, DIN 6340, DIN 6330B.
continuously adjustable, tempered and galvanized.



| Order no. | Slot | with clamping stud | H1 | B1 | B2 x L | D | E1 | E2 | H2 | K | Weight [g] |
|-----------|------|--------------------|------|----|--------|----|----|----|--------|----|------------|
| 77149 | 12 | M12x12x100 | 0-35 | 13 | 38x88 | 52 | 23 | 27 | 30-55 | 14 | 395 |
| 77156 | 14 | M12x14x100 | 0-35 | 13 | 38x88 | 52 | 23 | 27 | 30-55 | 14 | 415 |
| 77180 | 16 | M16x16x160 | 0-55 | 18 | 56x130 | 79 | 29 | 37 | 42-84 | 18 | 1130 |
| 77198 | 18 | M16x18x160 | 0-55 | 18 | 56x130 | 79 | 29 | 37 | 42-84 | 18 | 1550 |
| 77206 | 20 | M20x20x200 | 0-65 | 22 | 66x144 | 84 | 32 | 42 | 50-100 | 20 | 1880 |



Subject to technical alterations.

No. 6321

Clamp, continuously adjustable

with U-piece. Steel, forged and tempered, galvanised.



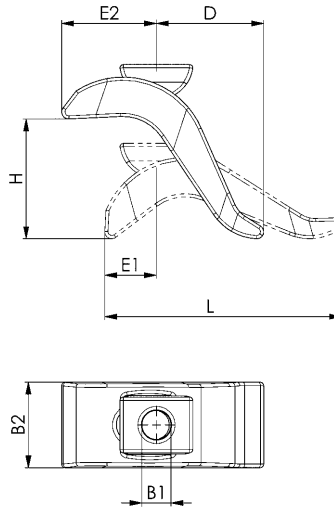
| Order no. | Size | for clamping screw | H | B1 | B2 x L | D | E1 | E2 | Weight [g] |
|-----------|------|--------------------|------|----|--------|----|----|----|------------|
| 71522 | 17 | M12, M14, M16 | 0-75 | 17 | 50x140 | 60 | 30 | 55 | 900 |
| 71530 | 21 | M20 | 0-85 | 21 | 60x175 | 80 | 40 | 70 | 1600 |

Application:

Stepless clamp for fast coverage of several ranges of work height without additional supports. Low space requirement on machine table. Heavy-duty design and specially suitable for clamping of press- and punching tools.

Note:

Suitable fastening elements: DIN 787 clamping bolts, DIN 6340 washers and DIN 6330B hexagon nuts.



CAD



No. 6321

Clamp, continuously adjustable, complete

with DIN 787, DIN 6340, DIN 6330B and U-piece. Steel, forged and tempered, galvanised.



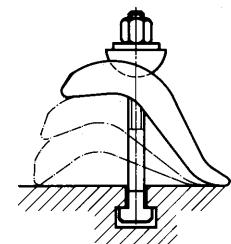
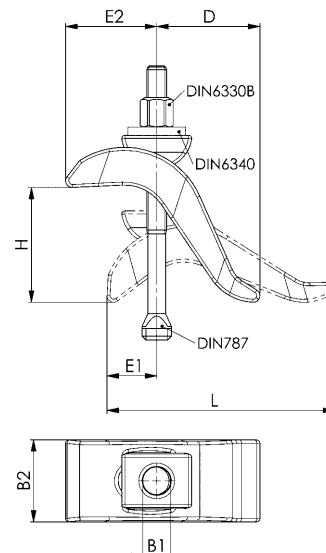
| Order no. | Slot | with clamping stud | H | B1 | B2 x L | D | E1 | E2 | Weight [g] |
|-----------|------|--------------------|------|----|--------|----|----|----|------------|
| 74906 | 12 | M12x12x125 | 0-50 | 17 | 50x140 | 60 | 30 | 55 | 1070 |
| 74914 | 14 | M12x14x125 | 0-50 | 17 | 50x140 | 60 | 30 | 55 | 1080 |
| 74922 | 16 | M16x16x160 | 0-75 | 17 | 50x140 | 60 | 30 | 55 | 1270 |
| 74930 | 18 | M16x18x160 | 0-75 | 17 | 50x140 | 60 | 30 | 55 | 1280 |
| 74971 | 20 | M20x20x200 | 0-85 | 21 | 60x175 | 80 | 40 | 70 | 2300 |
| 74963 | 22 | M20x22x200 | 0-85 | 21 | 60x175 | 80 | 40 | 70 | 2370 |

Application:

Stepless clamp for fast coverage of several ranges of work height without additional supports. Low space requirement on machine table. Heavy-duty design and specially suitable for clamping of press- and punching tools.

Note:

With the clamping jaw size 17 a maximum clamping height of 75 mm can be achieved with screws for T-slots DIN 787, length 160 mm.



CAD



Recommendations



No. 6312V,
page 18



No. 6312VT,
page 19

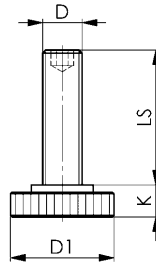
Subject to technical alterations.

No. 6314S

Support screw

Hardened, strength class 8.8 Suitable for all lockable clamps.

| Order no. | D x LS | D1 | K | Weight [g] |
|-----------|---------|----|----|------------|
| 73437 | M10x39 | 30 | 8 | 52 |
| 73445 | M12x49 | 36 | 10 | 96 |
| 74039 | M12x94 | 36 | 10 | 145 |
| 73452 | M16x55 | 42 | 13 | 180 |
| 74047 | M16x90 | 42 | 13 | 230 |
| 73460 | M20x69 | 50 | 16 | 320 |
| 74054 | M20x109 | 50 | 16 | 400 |
| 73478 | M24x87 | 60 | 20 | 590 |
| 74062 | M24x137 | 60 | 20 | 820 |
| 374413 | M30x180 | 80 | 24 | 1704 |

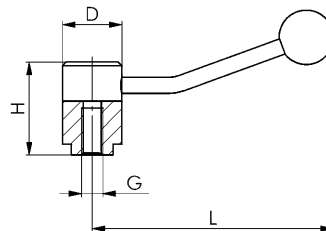


No. 6621

Detent clamp lever

Steel, blued. Suitable for adjustable clamps no. 6313K, 6314V, 6315V, 6316V and 6321.

| Order no. | G | D | H | L | Weight [g] |
|-----------|-----|----|----|-----|------------|
| 74609 | M12 | 33 | 48 | 135 | 360 |
| 74617 | M16 | 40 | 64 | 158 | 620 |

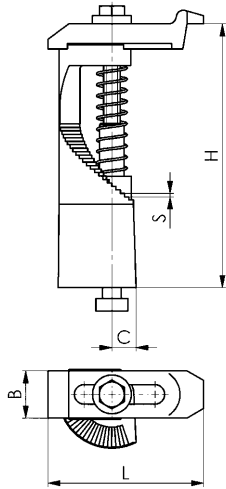


Subject to technical alterations.

No. 7000

Step clamp

Special cast iron, screw and bushing 8.8.



Recommendations



No. 6312V,
page 18



No. 6312VT,
page 19

| Order no. | Size | Slot | Clamping force max.* [kN] | Md [Nm] | B | C | H | L | S | Weight [g] |
|-----------|------|------|------------------------------|------------|----|----|---------|-----|------|---------------|
| 74708 | 12-0 | 12 | 11,5 | 50 | 34 | 14 | 0- 45 | 140 | 0,75 | 700 |
| 74716 | 12-1 | 12 | 11,4 | 50 | 34 | 14 | 15- 45 | 112 | 0,75 | 600 |
| 74724 | 12-2 | 12 | 11,4 | 50 | 34 | 15 | 30- 75 | 112 | 1,25 | 800 |
| 74732 | 12-3 | 12 | 11,4 | 50 | 34 | 16 | 60-135 | 112 | 2,50 | 1200 |
| 74740 | 12-4 | 12 | 11,4 | 50 | 34 | 18 | 120-195 | 112 | 2,50 | 1700 |
| 74757 | 12-5 | 12 | 11,4 | 50 | 34 | 19 | 180-255 | 112 | 2,50 | 2200 |
| 74765 | 14-0 | 14 | 15,5 | 80 | 34 | 14 | 0- 45 | 140 | 0,75 | 700 |
| 74773 | 14-1 | 14 | 15,3 | 80 | 34 | 14 | 15- 45 | 112 | 0,75 | 600 |
| 74781 | 14-2 | 14 | 15,3 | 80 | 34 | 15 | 30- 75 | 112 | 1,25 | 800 |
| 74799 | 14-3 | 14 | 15,3 | 80 | 34 | 16 | 60-135 | 112 | 2,50 | 1200 |
| 74807 | 14-4 | 14 | 15,3 | 80 | 34 | 18 | 120-195 | 112 | 2,50 | 1700 |
| 74815 | 14-5 | 14 | 15,3 | 100 | 34 | 19 | 180-255 | 112 | 2,50 | 2200 |
| 74823 | 16-0 | 16 | 15,3 | 100 | 50 | 20 | 0- 70 | 160 | 1,25 | 1900 |
| 74831 | 16-1 | 16 | 16,3 | 100 | 50 | 20 | 25- 70 | 125 | 1,25 | 1700 |
| 74849 | 16-2 | 16 | 16,3 | 100 | 50 | 21 | 50-120 | 125 | 2,50 | 2500 |
| 74856 | 16-3 | 16 | 16,3 | 100 | 50 | 21 | 100-220 | 125 | 3,75 | 3540 |
| 74864 | 16-4 | 16 | 16,3 | 100 | 50 | 24 | 200-320 | 125 | 3,75 | 4900 |
| 74989 | 18-0 | 18 | 17,8 | 130 | 50 | 20 | 0- 70 | 160 | 1,25 | 1870 |
| 74997 | 18-1 | 18 | 19,0 | 130 | 50 | 20 | 25- 70 | 125 | 1,25 | 1670 |
| 75002 | 18-2 | 18 | 19,0 | 130 | 50 | 21 | 50-120 | 125 | 2,50 | 2500 |
| 75010 | 18-3 | 18 | 19,0 | 130 | 50 | 21 | 100-220 | 125 | 3,75 | 3580 |
| 75028 | 18-4 | 18 | 19,0 | 130 | 50 | 24 | 200-320 | 125 | 3,75 | 4750 |

* Specified clamping forces in optimal clamping position (smallest distance of the clamping screw to the clamping position).

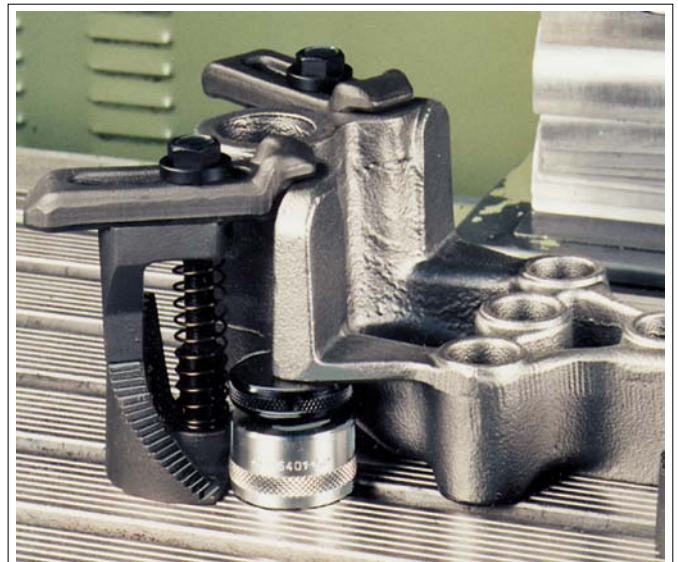
Application:

- thanks to the compact design the helical clamp requires little space on the machine table

Advantage:

- quickly ready
- The spiral serration allows fast adapting to any workpiece height up to approx. 320 mm

CAD



Subject to technical alterations.

No. 6314AT

Clamping unit to clamp outside of the tool table

Tempered steel. Infinitely adjustable.



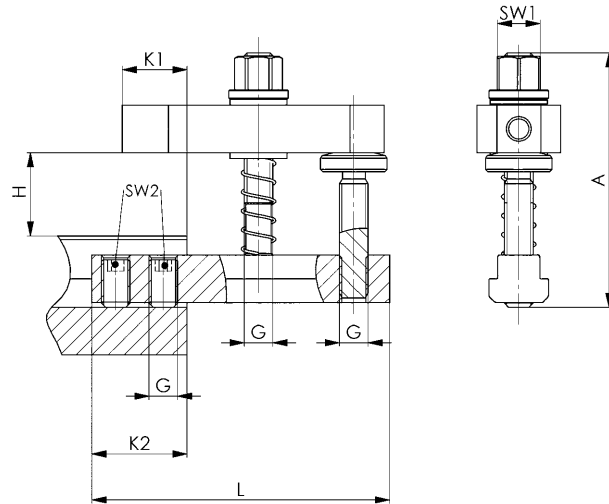
| Order no. | Clamping force [kN] | Tightening torque [Nm] | Slot | G | H | Weight [g] |
|-----------|---------------------|------------------------|------|-----|-------|------------|
| 73999 | 15 | 70 | 18 | M12 | 20-35 | 840 |
| 73981 | 25 | 170 | 22 | M16 | 30-45 | 2126 |
| 79194 | 50 | 320 | 28 | M20 | 40-53 | 5000 |

Application:

Used for clamping outside of the tool table. For use when clamping large workpieces or tools that do not allow any space for clamping elements on the tool or machine table.

Note:

For the installation dimensions of the clamp, see No. 7110GX**-1. Do not use on presses!



Dimensions:

| Order no. | A | L | K1 | K2 | SW1 | SW2 |
|-----------|-----|-----|----|----|-----|-----|
| 73999 | 105 | 125 | 27 | 40 | 18 | 6 |
| 73981 | 168 | 165 | 35 | 55 | 24 | 8 |
| 79194 | 206 | 255 | 33 | 85 | 30 | 10 |



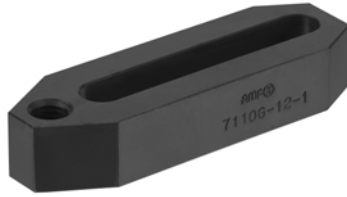
Subject to technical alterations.

CAD

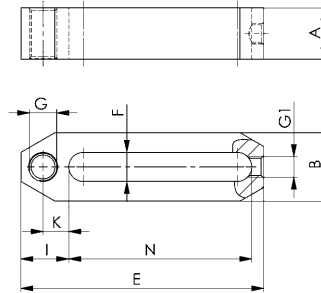


No. 7110GX-**-1

Clamp, straight
tempered.



| Order no. | Size | A x B | E | F | G | G1 | I | K | N | Weight [g] |
|-----------|------|-------|-----|------|-----|-----|------|------|-----|------------|
| 73528 | 12 | 20x35 | 110 | 12,5 | M12 | M10 | 21,5 | 11,5 | 82 | 340 |
| 73536 | 16 | 30x40 | 142 | 17,0 | M16 | M12 | 28,0 | 15,0 | 107 | 770 |
| 73544 | 20 | 40x50 | 200 | 21,0 | M20 | M16 | 38,0 | 21,0 | 150 | 1800 |

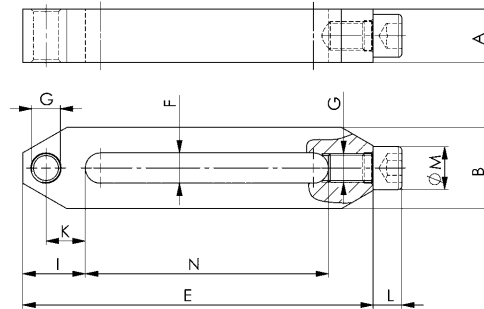


No. 7110GLX-**-1

Clamp, straight (long)
with screw-in pin end tempered.



| Order no. | Size | A x B | E | F | G | I | K | L | M | N | Weight [g] |
|-----------|------|---------|-----|------|-----|----|----|----|----|-----|------------|
| 73551 | 12 | 20x35,0 | 156 | 12,5 | M12 | 30 | 20 | 12 | 18 | 106 | 600 |
| 73577 | 16 | 30x45,5 | 196 | 17,0 | M16 | 35 | 22 | 16 | 24 | 136 | 1400 |
| 73585 | 20 | 40x60,0 | 298 | 21,0 | M20 | 47 | 30 | 20 | 30 | 221 | 3900 |

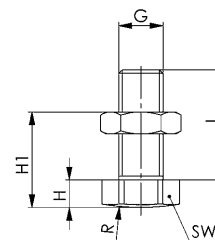


No. 7110DX-**xM**

Set screw
ball-shaped, strength class 10.9.



| Order no. | Size | G | H | H1 | L | R | SW | Weight [g] |
|-----------|------|-----|------|-------|----|----|----|------------|
| 73593 | 12 | M12 | 7,5 | 16-28 | 30 | 60 | 19 | 50 |
| 73601 | 16 | M16 | 10,0 | 20-38 | 40 | 75 | 24 | 100 |

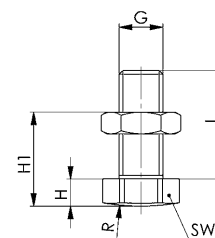


No. 7110DMX-**xM**

Set screw, brass
ball-shaped, with steel nut.



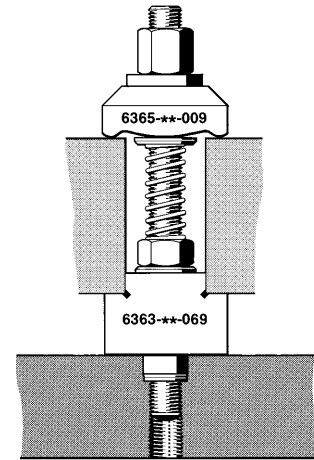
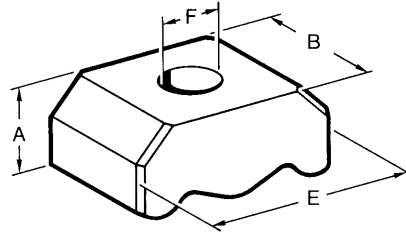
| Order no. | Size | G | H | H1 | L | R | SW | Weight [g] |
|-----------|------|-----|------|-------|----|----|----|------------|
| 73635 | 12 | M12 | 7,5 | 16-28 | 30 | 60 | 19 | 50 |
| 73643 | 16 | M16 | 10,0 | 20-38 | 40 | 75 | 24 | 100 |



No. 6365-**-009

Clamp, double
tempered.

| Order no. | Size | A | B | E | F | Weight [g] |
|-----------|------|----|----|----|----|------------|
| 78626 | 12 | 20 | 30 | 48 | 14 | 192 |
| 78667 | 16 | 25 | 40 | 62 | 18 | 385 |



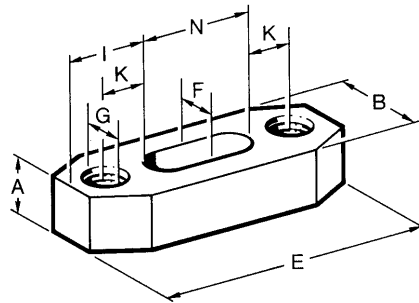
No. 7110GD-**-1

Clamp, double (short)
tempered.

| Order no. | Size | A x B | E | F | G | I | K | N | Weight [g] |
|-----------|------|-------|-----|------|-----|------|------|----|------------|
| 78956 | 12 | 15x30 | 80 | 12,5 | M12 | 23,5 | 13,5 | 33 | 200 |
| 78972 | 16 | 25x40 | 100 | 17 | M16 | 29 | 16 | 42 | 525 |

Note:

For pressure screws that fit, see accessories.



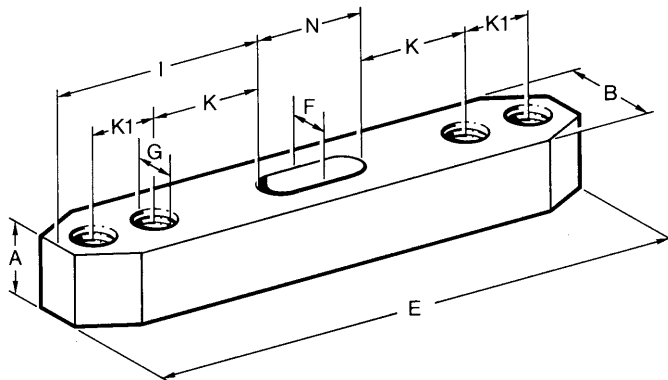
No. 7110GD-**-2

Clamp, double (long)
tempered.

| Order no. | Size | A x B | E | F | G | I | K | K1 | N | Weight [g] |
|-----------|------|-------|-----|------|-----|------|------|----|----|------------|
| 78964 | 12 | 20x30 | 160 | 12,5 | M12 | 63,5 | 33,5 | 20 | 33 | 610 |
| 78980 | 16 | 30x40 | 200 | 17 | M16 | 79 | 41 | 25 | 42 | 1480 |

Note:

For pressure screws that fit, see accessories.



No. 7110DHX-**xM**

Set screw with ball

Adjustable, ribbed, with nut ISO 4035.
Flat-faced ball: ball bearing steel, hardened, ribbed
body: tempered steel, tempered



| Order no. | Size | G | H | dia. K | L | SW1 | SW2 | max. load static [kN] | Max. tightening torque [Nm] | Weight [g] |
|-----------|------|-----|------|--------|----|-----|-----|-----------------------|-----------------------------|------------|
| 374447 | M8 | M8 | 11,6 | 5,8 | 25 | 13 | 13 | 8 | 25 | 20 |
| 73650 | M12 | M12 | 15,7 | 8,6 | 35 | 17 | 17 | 15 | 82 | 55 |
| 73668 | M16 | M16 | 20,7 | 10,5 | 40 | 24 | 24 | 25 | 206 | 128 |
| 73692 | M20 | M20 | 27,3 | 20,0 | 50 | 30 | 30 | 90 | 407 | 274 |

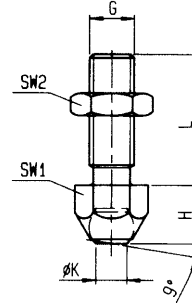
No. 7110DIX-**xM**

Set screw with ball

Adjustable, plain, with nut ISO 4035.
Ball bearing: ball bearing steel, hardened, smooth
body: tempered steel, tempered



| Order no. | Size | G | H | dia. K | L | SW1 | SW2 | max. load static [kN] | Max. tightening torque [Nm] | Weight [g] |
|-----------|------|-----|------|--------|----|-----|-----|-----------------------|-----------------------------|------------|
| 374454 | M8 | M8 | 11,6 | 5,8 | 25 | 13 | 13 | 8 | 25 | 20 |
| 73684 | M12 | M12 | 15,7 | 8,6 | 35 | 17 | 17 | 15 | 82 | 55 |
| 73718 | M16 | M16 | 20,7 | 10,5 | 40 | 24 | 24 | 25 | 206 | 128 |
| 73726 | M20 | M20 | 27,3 | 20,0 | 50 | 30 | 30 | 90 | 407 | 275 |



No. 7110DKX-**xM**

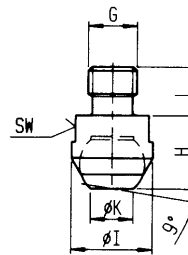
Set screw with ball, plain

Ball bearing: ball bearing steel, hardened, smooth
body: tempered steel, tempered



NEW!

| Order no. | Size | G | H | dia. I | dia. K | L | SW | max. load static [kN] | Max. tightening torque [Nm] | Weight [g] |
|-----------|------|-----|----|--------|--------|----|----|-----------------------|-----------------------------|------------|
| 374462 | M8 | M8 | 13 | 13 | 7,2 | 8 | 11 | 10 | 25 | 13 |
| 568020 | M10 | M10 | 18 | 20 | 10,5 | 10 | 17 | 25 | 46 | 40 |
| 73734 | M12 | M12 | 18 | 20 | 10,5 | 12 | 17 | 25 | 82 | 43 |
| 73742 | M16 | M16 | 27 | 30 | 20,0 | 16 | 27 | 90 | 206 | 150 |
| 73759 | M20 | M20 | 35 | 50 | 34,5 | 20 | 41 | 165 | 407 | 486 |



No. 7110DFX-**xM**

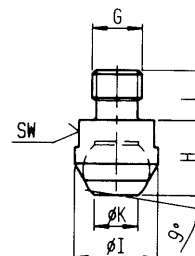
Set screw with flat-faced ball, ribbed

Flat-faced ball: ball bearing steel, hardened, ribbed
body: tempered steel, tempered



NEW!

| Order no. | Size | G | H | dia. I | dia. K | L | SW | max. load static [kN] | Max. tightening torque [Nm] | Weight [g] |
|-----------|------|-----|----|--------|--------|----|----|-----------------------|-----------------------------|------------|
| 75432 | M8 | M8 | 13 | 13 | 7,2 | 8 | 11 | 10 | 25 | 13 |
| 568021 | M10 | M10 | 18 | 20 | 10,5 | 10 | 17 | 25 | 46 | 40 |
| 73767 | M12 | M12 | 18 | 20 | 10,5 | 12 | 17 | 25 | 82 | 43 |
| 73775 | M16 | M16 | 27 | 30 | 20,0 | 16 | 27 | 90 | 206 | 150 |
| 73783 | M20 | M20 | 35 | 50 | 34,5 | 20 | 41 | 165 | 407 | 486 |



Subject to technical alterations.



- + Fully automatic cleaning of the fixture and the complete inside space of the machine
- + Removes from employees the burden of disliked and unproductive tasks



- + Economical marking of workpieces directly in the machine tool
- + Reduces throughput times of parts in production



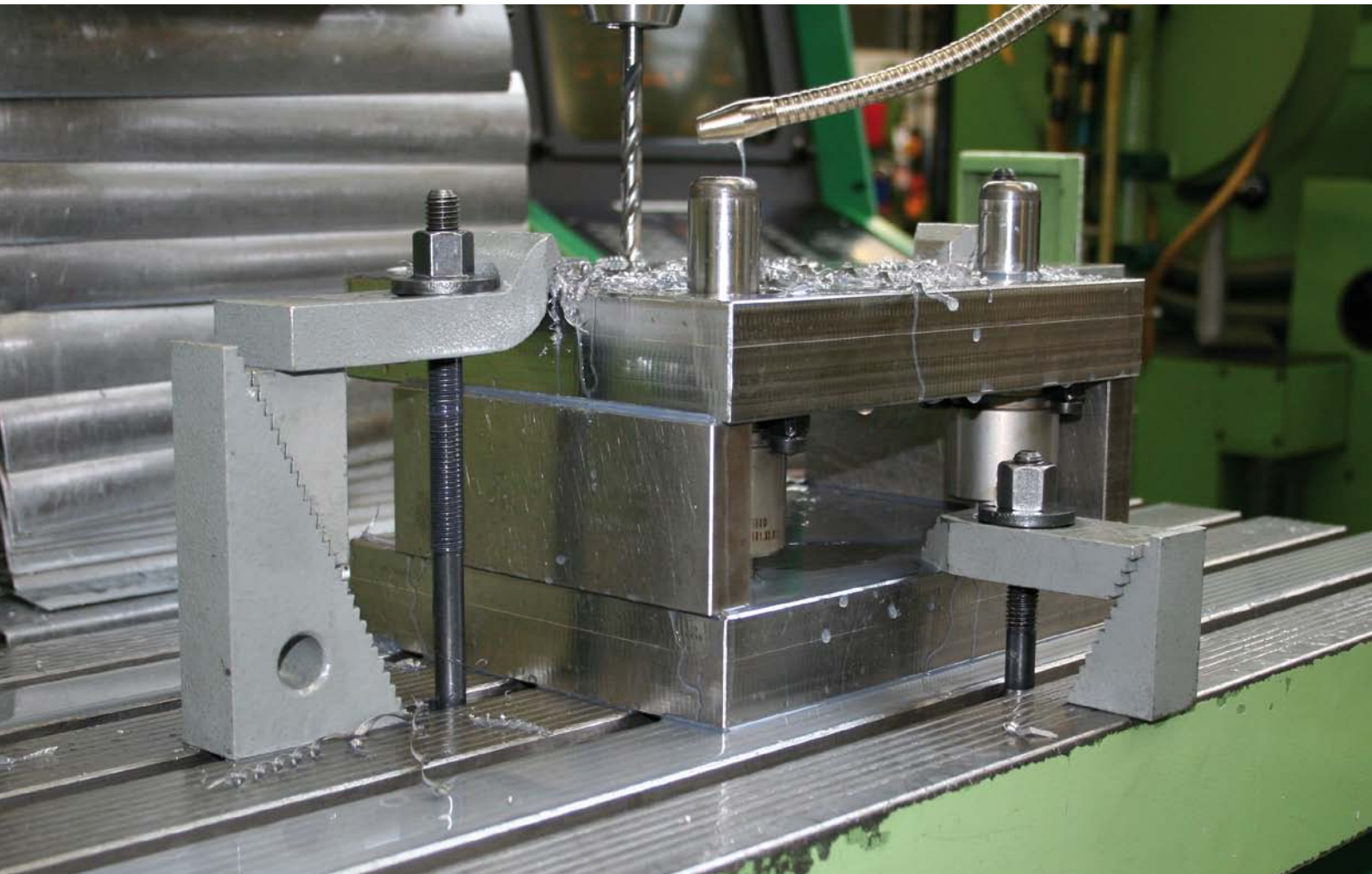
THE MOST IMPORTANT FACTS ABOUT SUPPORT BLOCKS

- > **Material:** High quality tempering steel resp. castings.
- > **Machining:** All support blocks shown, have machined base- and contact faces. The serrated elements are precisely milled or broached. Leveled work support and safe force transmission are therefore provided.
- > **Execusion:** To DIN regulations.
- > **Finishing:** All support blocks are abrasionproof quality varnished.

The following pages contain suitable support blocks, finely graduated or infinitely adjustable, for any application. Support heights from 12.5 to 340 mm are achievable with all support blocks.

For clamping heights over 340 mm, we recommend our screw jacks on pages 66 to 67.

- > Conventional workpiece clamping for drilling and pinning a fixture.



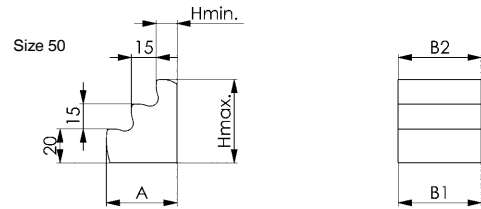
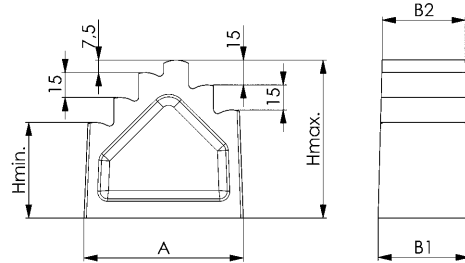
DIN 6318

Step blocks

with step increments of 7.5 mm each. Machine casting, varnished, base and step faces milled.



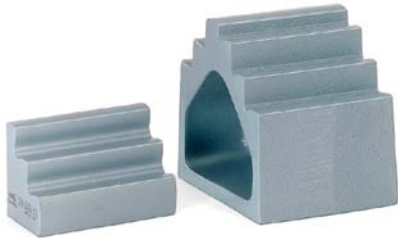
| Order no. | Size | H min. | H max. | A | B1 | B2 | Weight [g] |
|-----------|------|--------|--------|-------|----|----|------------|
| 71365 | 50 | 12,5 | 50 | 42,5 | 50 | 50 | 500 |
| 71373 | 95 | 57,5 | 95 | 95,0 | 55 | 50 | 1600 |
| 71381 | 140 | 102,5 | 140 | 100,0 | 60 | 50 | 2000 |
| 71399 | 185 | 147,5 | 185 | 105,0 | 65 | 50 | 2900 |
| 71407 | 230 | 192,5 | 230 | 110,0 | 70 | 50 | 3600 |
| 71415 | 275 | 237,5 | 275 | 115,0 | 75 | 50 | 4300 |
| 71423 | 320 | 282,5 | 320 | 120,0 | 80 | 50 | 5200 |



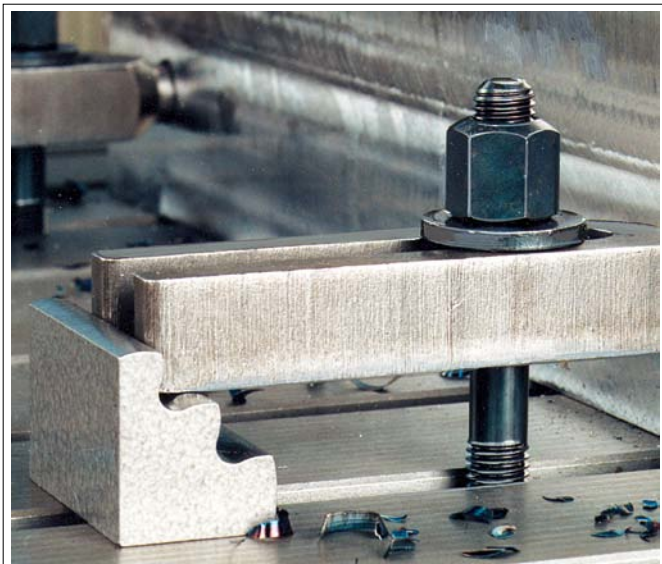
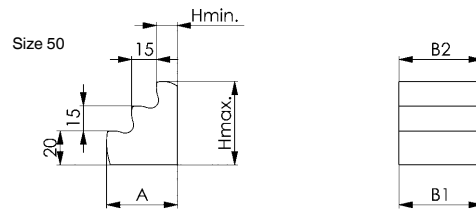
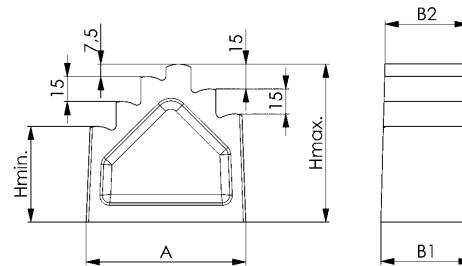
No. 6318B

Step blocks, wide

with step increments of 7.5 mm each. Machine casting, varnished, base and step faces milled.



| Order no. | Size | H min. | H max. | A | B1 | B2 | Weight [g] |
|-----------|------|--------|--------|-------|----|----|------------|
| 71480 | 50 | 12,5 | 50 | 42,5 | 80 | 80 | 800 |
| 71498 | 95 | 57,5 | 95 | 95,0 | 85 | 80 | 2300 |
| 71506 | 140 | 102,5 | 140 | 100,0 | 90 | 80 | 3450 |



Subject to technical alterations.

No. 6500E

Universal step blocks

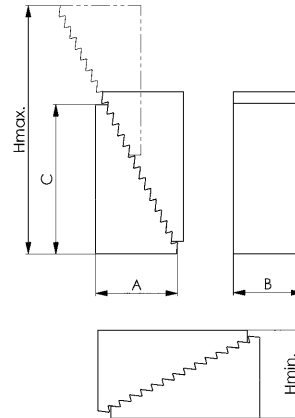
Step increments: vertical 4.65 mm, horizontal 2.3 mm.
Tempering steel, varnished.



| Order no. | Size | H min. | H max. | A | B | C | Weight [g] |
|-----------|------|--------|--------|------|----|-----|------------|
| 73296 | 1 | 23 | 51 | 19,0 | 30 | 33 | 90 |
| 73304 | 2 | 39 | 107 | 35,5 | 30 | 66 | 300 |
| 73312 | 3 | 71 | 208 | 68,0 | 30 | 131 | 1050 |

Application:

For use in pairs with all clamps and single use with clamp no. 6314Z.



Recommendations



No. 6314Z,
page 27



No. 6501,
page 48



No. 6500H

Universal step block set

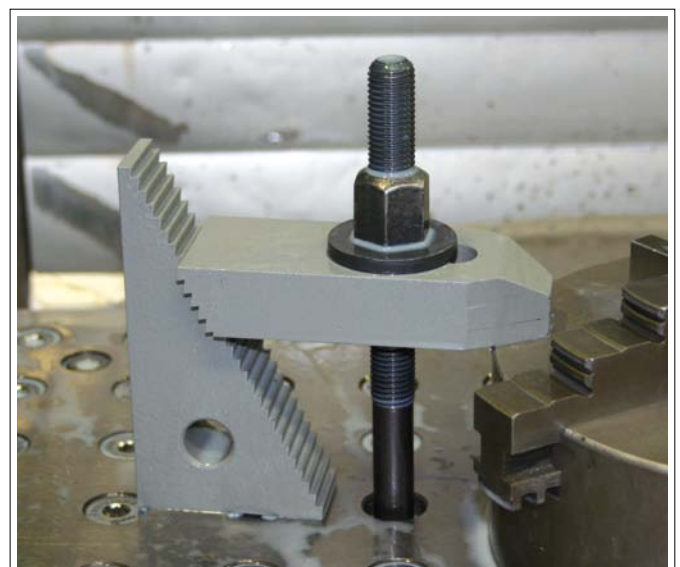
in solid wooden case with lid.
Tempering steel, varnished.



| Order no. | Contents | H min. | H max. | Case L x B x H | Weight [Kg] |
|-----------|---------------------------------|--------|--------|----------------|-------------|
| 73346 | 8x6500E-1, 8x6500E-2, 4x6500E-3 | 23 | 208 | 280x155x40 | 8,4 |

Application:

For use in pairs with all clamps and single use with clamp no. 6314Z.



Subject to technical alterations.

No. 6501

Step block

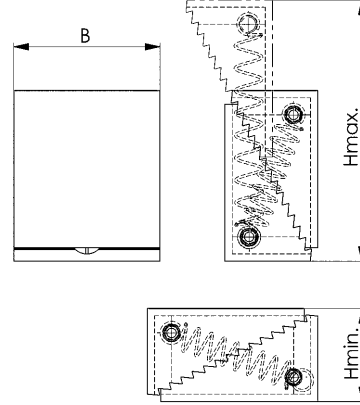
contact face 60 mm wide. With link spring.
 Step increments: vertical 4.65 mm, horizontal 2.3 mm.
 Tempering steel, varnished.



| Order no. | Size | H min. | H max. | B | Weight [g] |
|-----------|------|--------|--------|----|------------|
| 73353 | 2 | 37 | 107 | 60 | 1000 |

Note:

The two parts of this AMF-support blocks are linked with a spring for easy handling.



No. 6501M

Support block with magnet

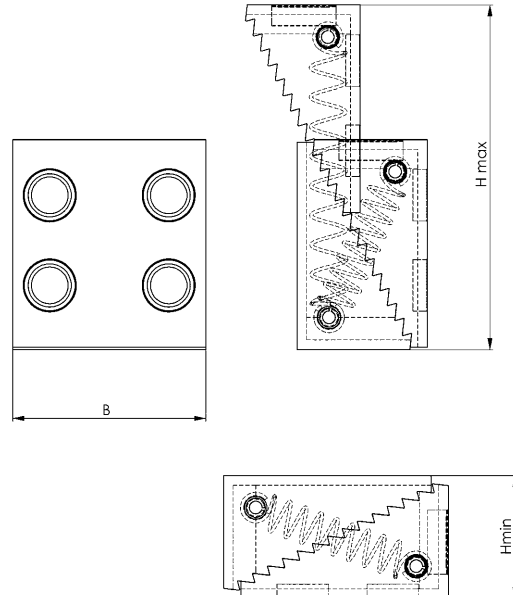
Mounting surface 60 mm wide, with connecting spring.
 Step increments: vertical 4.65 mm, horizontal 2.3 mm.
 Tempered steel, burnished.



| Order no. | Size | H min. | H max. | B | Weight [g] |
|-----------|------|--------|--------|----|------------|
| 373969 | 2 | 37 | 107 | 60 | 980 |

Note:

The two parts of this AMF support block are connected by a spring for ease of handling.
 Holding force 4 magnets = 380 N
 Holding force 2 magnets = 280 N



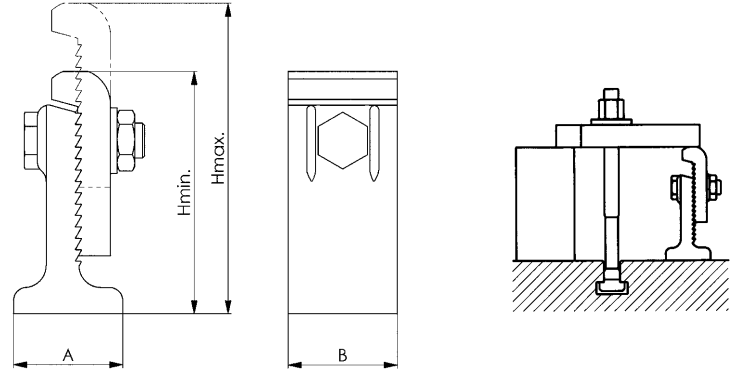
Subject to technical alterations.

No. 6510

Serrated heel block

(serrated jacks). Step increments: 5.2 mm. Malleable casting, varnished. Base mill finished.

| Order no. | Size | H min. | H max. | A | B | F max. [kN] | Weight [g] |
|-----------|------|--------|--------|----|----|----------------|---------------|
| 73379 | 2 | 111 | 147 | 50 | 50 | 40 | 1225 |
| 73387 | 3 | 155 | 223 | 60 | 60 | 60 | 2607 |
| 73395 | 4 | 220 | 340 | 80 | 80 | 90 | 6028 |

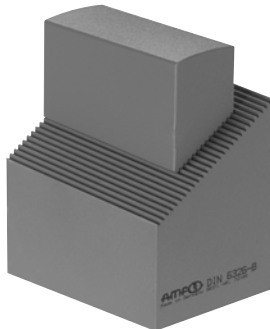


DIN 6326

Support blocks for continuous adjustment, combination

with spiral gearing. Tempering steel, varnished.

| Order no. | Combination | H min. | H max. | Lower part | H1 | Upper part | H2 | Weight [g] |
|-----------|-------------|--------|--------|------------|-----|------------|---------|---------------|
| 71969 | AK | 25 | 45 | A | 42 | K | 24 | 1050 |
| 71977 | AG | 45 | 65 | A | 42 | G | 44 | 1350 |
| 71985 | BK | 65 | 85 | B | 82 | K | 24 | 2500 |
| 71993 | BG | 85 | 105 | B | 82 | G | 44 | 2800 |
| 72009 | CK | 105 | 125 | C | 122 | K | 24 | 4000 |
| 72017 | CG | 125 | 145 | C | 122 | G | 44 | 4300 |
| 72025 | AKG | 25 | 65 | A | 42 | K / G | 24 / 44 | 1550 |
| 72033 | BKG | 65 | 105 | B | 82 | K / G | 24 / 44 | 3000 |
| 72041 | CKG | 105 | 145 | C | 122 | K / G | 24 / 44 | 4500 |

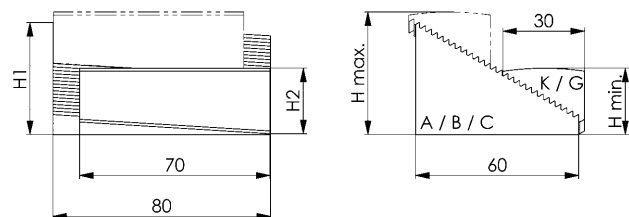
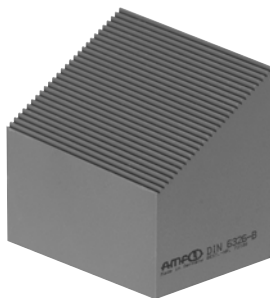


DIN 6326

Support blocks for continuous adjustment, single

with spiral gearing. Tempering steel, varnished.

| Order no. | Single parts | H1 | H2 | Weight [g] |
|-----------|--------------|-----|----|---------------|
| 72090 | A | 42 | - | 850 |
| 72108 | B | 82 | - | 2300 |
| 72116 | C | 122 | - | 3800 |
| 72124 | K | - | 24 | 200 |
| 72132 | G | - | 44 | 500 |





- + Outstanding price-performance ratio
- + Drastically reduced tooling time
- + Immediate improvement of productivity
- + Repeat accuracy < 5um
- + Stainless steel
- + Form fit



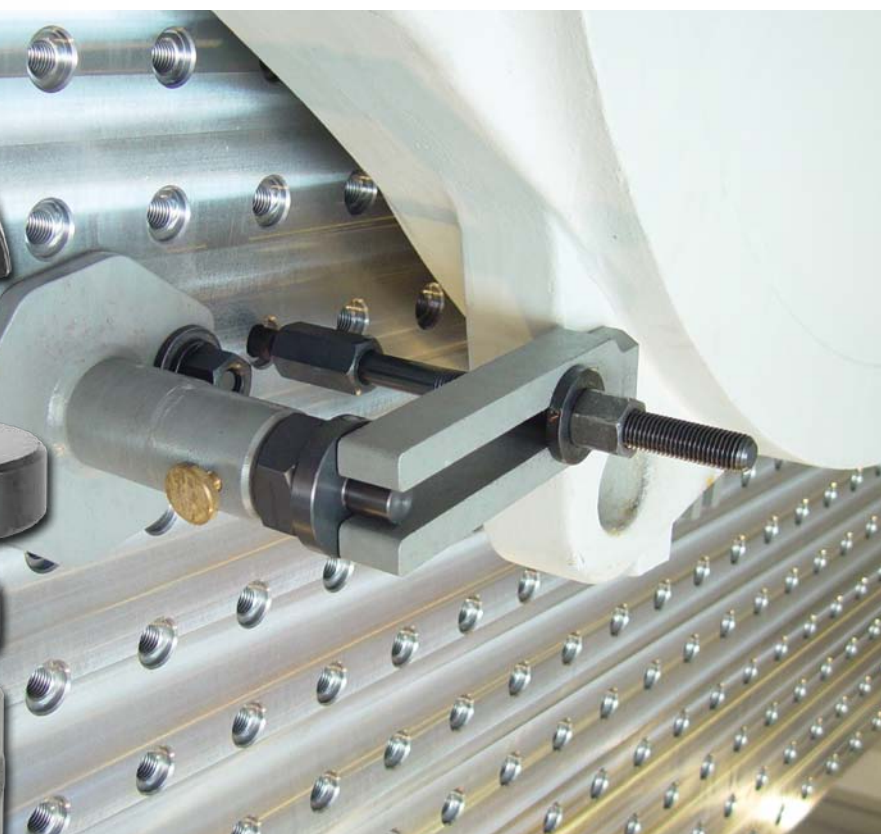
Subject to technical alterations.

THE MOST IMPORTANT FACTS ABOUT SETTING ELEMENTS

Developed by AMF and proven in service for decades, these screw and aligning jacks offer a broad range of applications. Due to their robust construction, these screw jacks function securely and precisely, with stepless adjustment even under heavy loads.

APPLICATIONS AND COMBINATIONS:

- > Safe and reliable clamp supports for heights from 38 to 1250 mm.
- > Accurate and safe supporting and setting of any workpiece in various levels and heights.
- > Aluminium screw jacks for delicate machine tables, surface plates and plane tables.
- > Magnetic screw jacks for horizontal and vertical supporting and setting.



SIMPLY CLEVERLY COMBINE – THE MODULAR SCREW JACK FROM AMF

With the modular screw jack from AMF your production becomes even more flexible and economical.

When cleverly combined, you can achieve a maximum height of 1620 mm. The screw jack can be used on T-slots and grid plates. The individual elements are plugged together, connected by means of a threaded ring ensuring process reliability and guarantee you maximum flexibility during the installation.

THE BENEFITS:

- > The maximum height of 1620 mm is continuously adjustable and a height overlap is attainable.
- > The connecting points are protected against soiling.
- > Improved handling by means of individual elements.
- > Set-up time saving thanks to flexibility of parts.
- > Storage optimisation.

SUPPORT ELEMENT WITH FINE THREAD

- > Used as an extra support point to prevent sagging and vibration of the workpiece.
- > Mounted directly under a clamping point, distortion of the workpiece is prevented.



SCREW JACK ELEMENT



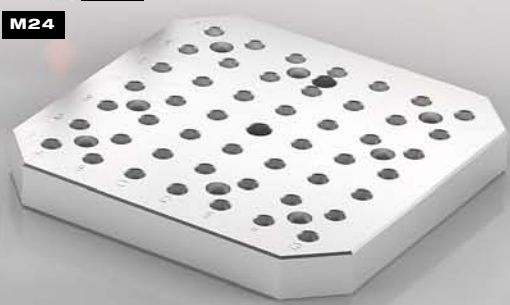
SPACER ELEMENTS



BASE ELEMENTS



THREAD ADAPTER



No. 6425-706

Screw jack, modular

Tempered steel, burnished.

Comprising:

- Screw jack element with base element 6425FB
- Spacer element small
- Spacer element medium
- Thread adapter M16, M20, M24
- T-nuts groove 18, 22, 28
- Insertion tool



CAD

| Order no. | TR | H min. | H max. | F max. [kN] | Weight [g] |
|-----------|--------|--------|--------|----------------|---------------|
| 562000 | 40 x 7 | 306 | 706 | 60 | 21481 |

Application:

Can be used on T-slots and grid plates by means of adapters, which are screwed in the base element. The individual elements are plugged together and connected by means of a threaded ring ensuring process reliability. The threaded ring must not be retightened under load. The insertion tool makes it possible to use the head and base elements as well as thread adapter.

Advantage:

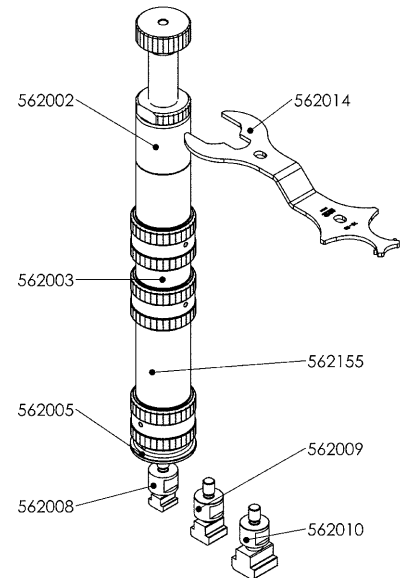
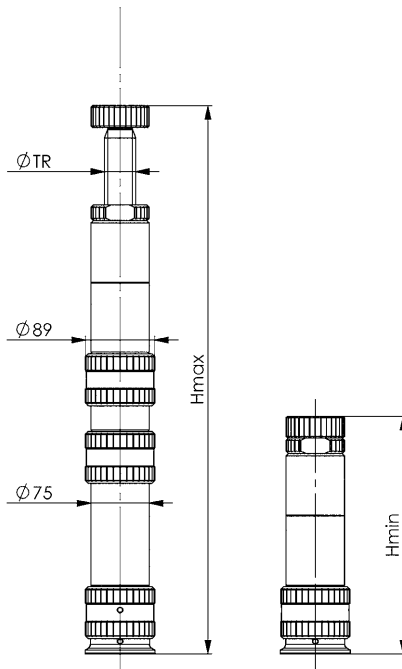
- The maximum height of 1626 mm is continuously adjustable and a height overlap is attainable (with base element 6425FG or 6425FY).
- The connecting points are protected against soiling.
- Improved handling by means of individual elements.
- Set-up time saving thanks to flexibility of parts.
- Storage optimisation.

Note:

- The modular design makes it possible to use different head and intermediate elements. Thus, a maximum height (with base element 6425FG or 6425FY) of 1626 mm with a permissible support force of 60 kN is possible. In addition, there is a risk of buckling.
- Do not adjust under load.



Focus Open 2020
Gold



Recommendations



No. 6425FY,
page 57



No. 6425FG,
page 57



No. 6425WW,
page 60

Subject to technical alterations.

No. 6425S-406

Screw jack element with acme thread and base element 6425FB

with locknut for locking, centring hole diameter 12 mm. Spindle with acme thread made completely of tempered steel, spindle head burnished.

Body and base element, tempered steel, burnished.



Focus Open 2020
Gold



Recommendations



No. 6425Z,
page 55



No. 6425MW,
page 60

| Order no. | TR | H min. | H max. | F max. [kN] | Weight [g] |
|-----------|--------|--------|--------|----------------|---------------|
| 562002 | 40 x 7 | 306 | 406 | 60 | 9436 |

Application:

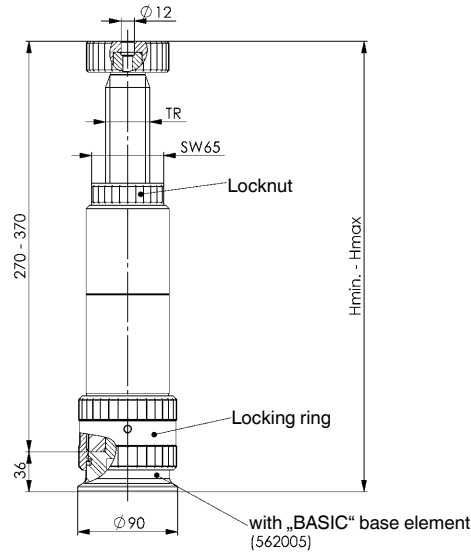
Can be used on T-slots and grid plates by means of adapters, which are screwed in the base element. The individual elements are plugged together and connected by means of a threaded ring ensuring process reliability. The insertion tool makes it possible to use the locknut and base element as well as the thread adapter.

Advantage:

- Can be used modularly.

Note:

- The use as a head element in the screw jack modular makes a maximum height of 1626 mm with a permissible support force of 60 kN possible. In addition, there is a risk of buckling.
- Do not adjust under load.



CAD



No. 6425Z

Spacer element

Tempered steel, burnished.



| Order no. | Size | H | H1 | Weight [g] |
|-----------|------|-----|-------------|---------------|
| 562003 | 100 | 100 | 150 - 166,5 | 3132 |
| 562155 | 200 | 200 | 250 - 266,5 | 6228 |
| 562004 | 300 | 300 | 350 - 366,5 | 7493 |

Application:

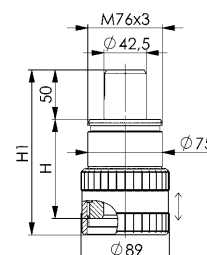
- As extension of the modular screw jack to achieve the maximum permitted support height of 1626 mm (with base element 6425FG or 6425FY).

Advantage:

- The maximum height of 1626 mm is continuously adjustable and a height overlap is attainable.
- The connecting points are protected against soiling.
- Improved handling by means of individual elements.
- Set-up time saving thanks to flexibility of parts.
- Storage optimisation.

Note:

- The use as an intermediate element in the screw jack modular makes a maximum height of 1626 mm with a permissible support force of 60 kN possible. In addition, there is a risk of buckling.
- Do not adjust under load.



CAD



Subject to technical alterations.

No. 6425FB

Base element

Tempered steel, burnished.

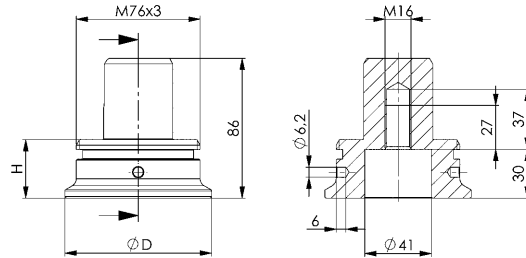


CAD

| Order no. | D | H | Weight [g] |
|-----------|----|----|------------|
| 562005 | 90 | 36 | 1497 |

Application:

Can be used on T-slots and grid plates by means of adapters, which are screwed in the base element. The individual elements are plugged together and connected by means of a threaded ring ensuring process reliability. The insertion tool makes it possible to use the base element as well as thread adapter.



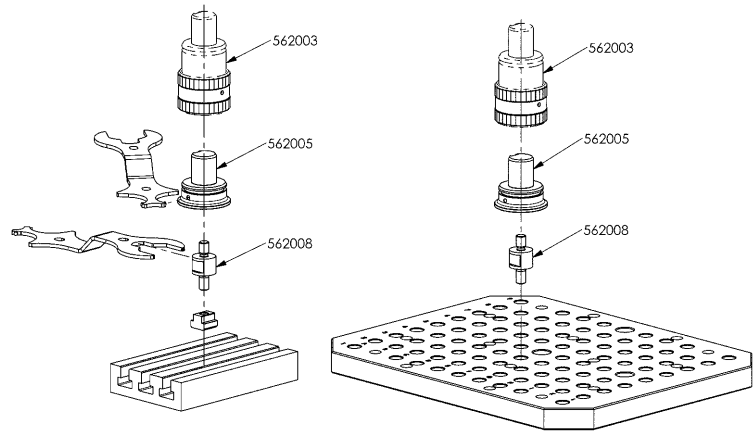
Recommendations



No. 6425GA, page 56



No. 6425MW, page 60



No. 6425GA

Thread adapter

Tempered steel, burnished.

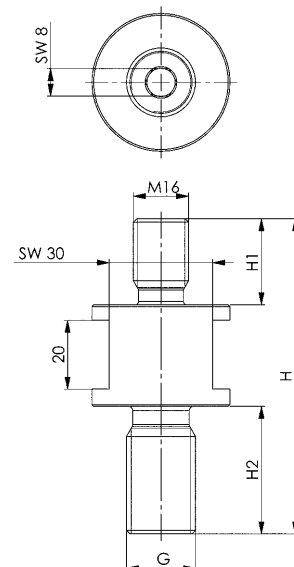


CAD

| Order no. | G | H | H1 | H2 | Weight [g] |
|-----------|-----|-------|----|----|------------|
| 562008 | M16 | 83,5 | 25 | 29 | 339 |
| 562009 | M20 | 91,5 | 25 | 37 | 381 |
| 562010 | M24 | 101,5 | 25 | 47 | 452 |

Application:

The thread adapters are screwed in the base element 6425FB and can thus be used on T-slots and grid plates. The insertion tool makes it easy to use the thread adapter.



Subject to technical alterations.

No. 6425FG

Base element

Tempered steel, burnished.



CAD

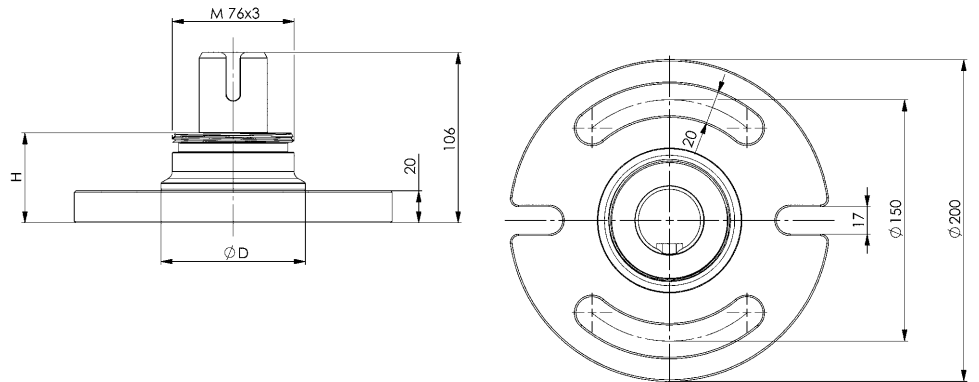
| Order no. | D | H | Weight [g] |
|-----------|----|----|------------|
| 562006 | 90 | 56 | 5717 |

Application:

Can be used on T-slots and grid plates. The individual elements are plugged together and connected by means of a threaded ring ensuring process reliability. The insertion tool makes it possible to use the base element as well as thread adapter.

Advantage:

- Enables variable positioning on the machine table.
- The threaded interface allows the base element to be replaced easily on the modular screw jack.



No. 6425FY

Base element

Tempered steel, burnished.



CAD

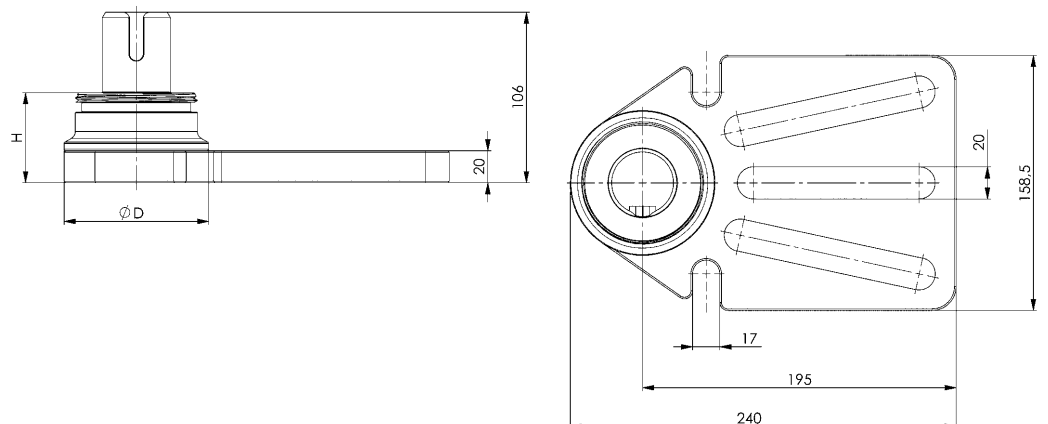
| Order no. | D | H | Weight [g] |
|-----------|----|----|------------|
| 562007 | 90 | 56 | 5652 |

Application:

Can be used on T-slots and grid plates. The individual elements are plugged together and connected by means of a threaded ring ensuring process reliability. The insertion tool makes it possible to use the base element as well as thread adapter.

Advantage:

- Enables variable positioning on the machine table.
- The threaded interface allows the base element to be replaced easily on the modular screw jack.



Subject to technical alterations.

No. 6425A-230

Height adjustment jack with fine thread and base element 6425FB

Body and base element, tempered steel, burnished. Spindle and bearing smooth, tempered steel, plasma-nitrided and burnished.



CAD

| Order no. | H min. | H max. * | F max. [kN] | Weight [g] |
|-----------|--------|----------|-------------|------------|
| 562001 | 210 | 230 | 35 | 6671 |

* maximum attainable height with an spacer element 6425Z-100 is 330 mm

Application:

Can be used on T-slots and grid plates by means of adapters, which are screwed into the base element. The height adjustment jack can be adjusted up to a support height of max. 330 mm under load. The bearings can be adjusted with an angle of $\pm 3^\circ$.

Advantage:

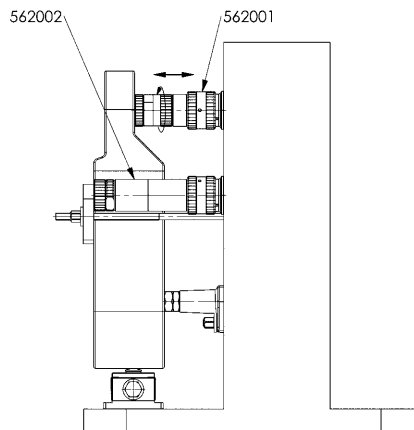
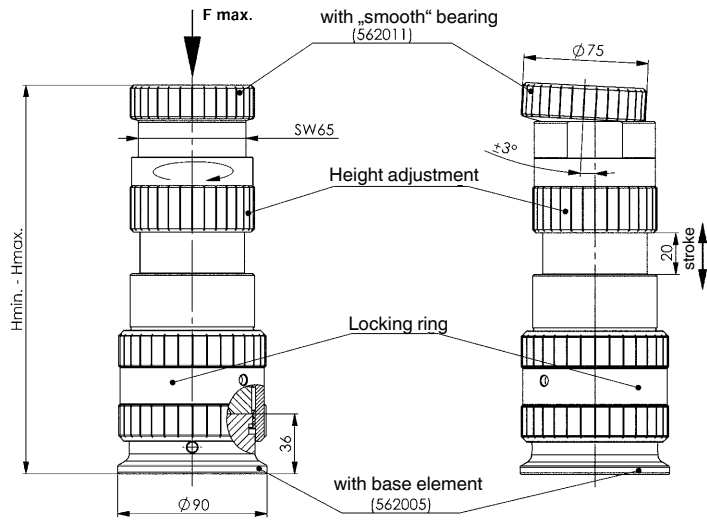
- Used as an extra support point to prevent sagging and vibration of the workpiece.
- Mounted directly under a clamping point, distortion of the workpiece is prevented.
- Compensation of large workpiece tolerances (castings and forgings).
- For use in horizontal and vertical clamping.

Note:

- maximum height 330 mm
- 3 different bearings are held in place by magnets
- bearings (smooth, spherical, point) are interchangeable



Focus Open 2020
Gold



Subject to technical alterations.

No. 6425AB

Bearing, spherical

Tempered steel, plasma-nitrided and burnished.



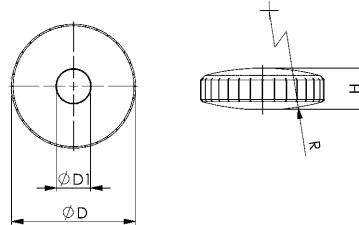
| Order no. | dia. D | dia. D1 | H | R | Weight [g] |
|-----------|--------|---------|------|-----|------------|
| 562012 | 75 | 20,5 | 24,7 | 140 | 655 |

Application:

- Interchangeable bearing for the support element 6425A-230.

Advantage:

- Compensation of large workpiece tolerances (castings and forgings).
- For use in horizontal and vertical clamping, since secured by magnet and cylinder pin.



No. 6425AG

Bearing, smooth

Tempered steel, plasma-nitrided and burnished.



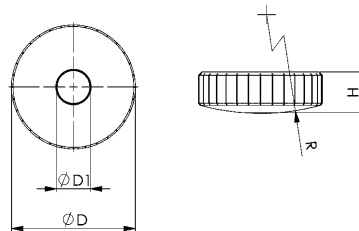
| Order no. | dia. D | dia. D1 | H | R | Weight [g] |
|-----------|--------|---------|------|-----|------------|
| 562011 | 75 | 20,5 | 24,7 | 140 | 739 |

Application:

- Interchangeable bearing for the support element 6425A-230.

Advantage:

- Compensation of large workpiece tolerances (castings and forgings).
- For use in horizontal and vertical clamping, since secured by magnet and cylinder pin.



No. 6425AP

Bearing, point

Tempered steel, plasma-nitrided and burnished.



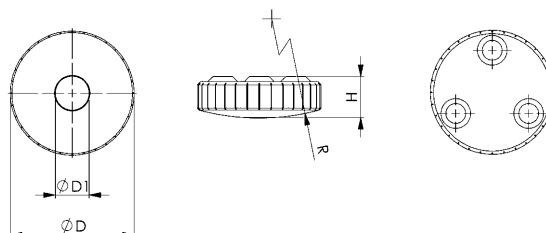
| Order no. | dia. D | dia. D1 | H | R | Weight [g] |
|-----------|--------|---------|------|-----|------------|
| 562013 | 75 | 20,5 | 24,7 | 140 | 651 |

Application:

- Interchangeable bearing for the support element 6425A-230.

Advantage:

- Compensation of large workpiece tolerances (castings and forgings).
- For use in horizontal and vertical clamping, since secured by magnet and cylinder pin.



No. 6425WW

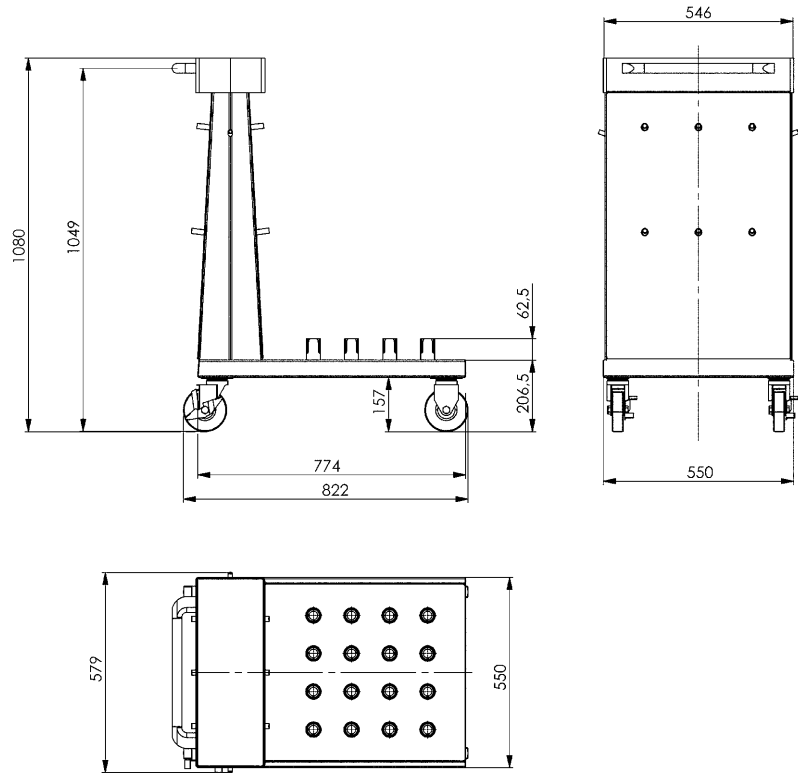
Tool cart

without screw jack elements
 Steel housing powder-coated.
 All surfaces protected with rubber mats.
 2 rollers + 2 castors with locking brake

| Order no. | Height x length | Weight [g] |
|-----------|-----------------|------------|
| | [mm] | |
| 562015 | 1080 x 822 | 63240 |

Advantage:

- mobile = quickly ready when needed at the workplace
- Tidy = convenient, space-saving and always readily available
- Individual equipment configurations possible through construction of many mounting points



No. 6425MW

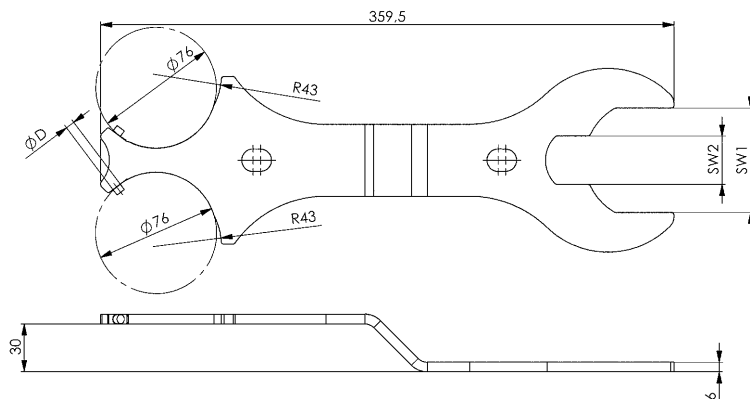
Insertion tool

Special steel, hardened and blued in black oxide finish.

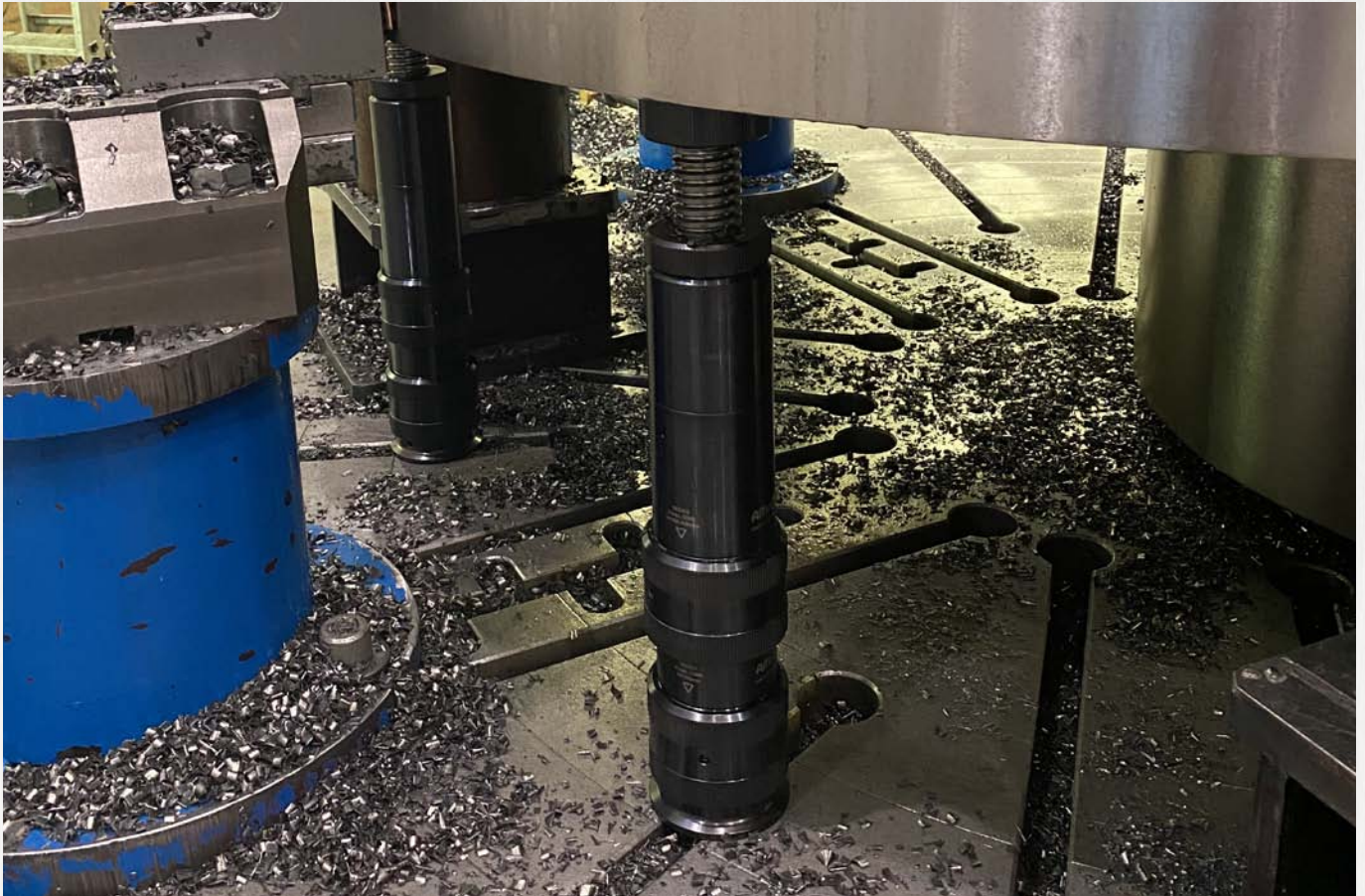
| Order no. | Size | D | SW1 | SW2 | Weight [g] |
|-----------|------|---|-----|-----|------------|
| 562014 | 76 | 6 | 65 | 30 | 960 |

Application:

The insertion tool makes it possible to use the head and base elements of the screw jack modular as well as thread adapter.



Subject to technical alterations.



Subject to technical alterations.

No. 6415

Height setting screw jack

with a cylinder pin ISO8734-12x50. Centring hole $\varnothing 12$ mm. Spindle: Metric fine thread M30x1.5 with final stop. Sliding insert runs on pressed plain bearing bushing. Tempered steel, burnished.



| Order no. | Size | H min. | H max. | D1 | D2 | H1 min. | H1 max. | F max. [kN] | Weight [g] |
|-----------|------|--------|--------|----|----|---------|---------|----------------|---------------|
| 86504 | 75 | 55 | 75 | 50 | 34 | 82 | 102 | 30 | 680 |
| 86512 | 115 | 75 | 115 | 50 | 34 | 102 | 142 | 30 | 950 |

Application:

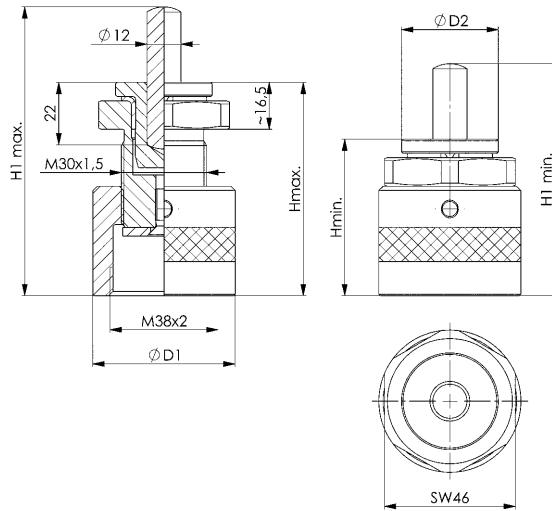
The height guide bench vice can also be used without cylinder pin or with the attachments No. 6440 and No. 6441. The combination with all AMF screw jacks is possible with centring plate.

Advantage:

Sensitive adjustment. A bearing insert prevents the workpiece from being turned while the jack is adjusted.

Note:

Suitable attachments: No. 6440, 6441 and 6442.
Suitable support: No. 6442G.



Recommendations



No. 6440,
page 72



No. 6441,
page 72



No. 6442,
page 72

CAD



No. 6416

Height setting screw jack with magnetic base

with a cylinder pin ISO8737-12x50. Centring hole $\varnothing 12$ mm. Spindle: Metric fine thread M30x1.5 with final stop. Sliding insert runs on pressed plain bearing bushing. Tempered steel, burnished.



| Order no. | Size | H min. | H max. | D1 | D2 | H1 min. | H1 max. | F max. [kN] | Weight [g] |
|-----------|------|--------|--------|----|----|---------|---------|----------------|---------------|
| 86520 | 85 | 65 | 85 | 50 | 34 | 92 | 112 | 30 | 800 |
| 86538 | 125 | 85 | 125 | 50 | 34 | 112 | 152 | 30 | 1000 |

Application:

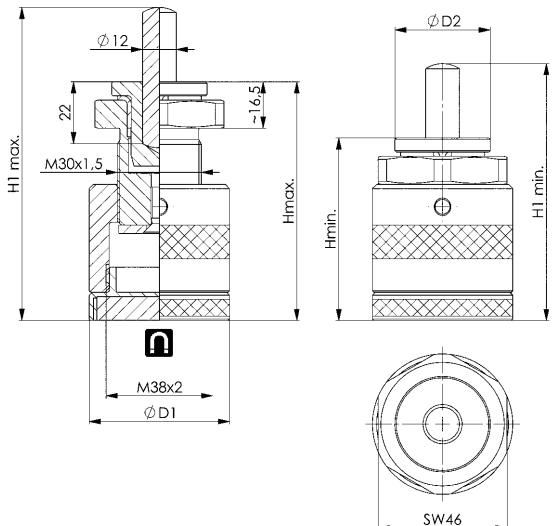
The height guide bench vice can also be used without cylinder pin or with the attachments No. 6440 and No. 6441. The combination with all AMF screw jacks is possible with centring plate.

Advantage:

Sensitive adjustment. A bearing insert prevents the workpiece from being turned while the jack is adjusted.

Note:

Suitable attachments: No. 6440, 6441 and 6442.
Suitable support for dismantled magnetic base: No. 6442G.



Recommendations



No. 6315GN,
page 28



No. 6315GNG,
page 28

CAD



Subject to technical alterations.

No. 6420

Height setting screw jack with pivotable ball

Steel tempered, burnished. Ball made of hardened steel.



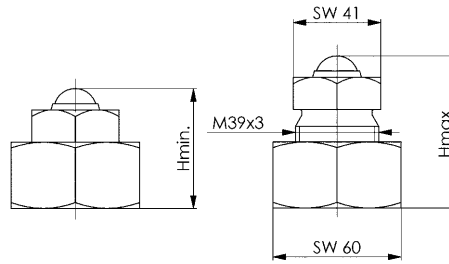
| Order no. | Size | H min. | H max. | F max. [kN] | Weight [g] |
|-----------|------|--------|--------|----------------|---------------|
| 72546 | 70 | 56 | 70 | 30 | 950 |

Application:

This element with its punctual support is particularly useful in the support and alignment of free-form surfaces e.g. of workpieces which are made of cast iron and forging-grade steels. The precision of alignment is approx. 0.1 mm.

Advantage:

- The pivotable ball minimizes the friction on the support and reduces the required operating forces.
- The use of a point-like support prevents the transmission of the torsional force created by the movement of the spindle. The position of the workpiece remains unchanged.
- The simple and rugged construction provides for a long lasting service life.



Recommendations



No. 6400

Screw jack with flat support

Centring hole dia. 12 mm. Spindle: Trapezoidal thread, self-locking with end stopbody. Tempering steel, varnished.



| Order no. | Size | H min. | H max. | TR | D1 | D2 | M | F max. [kN] | Weight [g] |
|-----------|------|--------|--------|---------|-----|-----|---------|----------------|---------------|
| 72397 | 50 | 38 | 50 | 20 x 4 | 31 | 31 | - | 25 | 190 |
| 72389 | 52 | 42 | 52 | 30 x 4 | 50 | 50 | M38 x 2 | 100 | 550 |
| 72405 | 70 | 50 | 70 | 30 x 4 | 50 | 50 | M38 x 2 | 100 | 620 |
| 72413 | 100 | 70 | 100 | 30 x 4 | 50 | 50 | M38 x 2 | 100 | 900 |
| 72421 | 140 | 100 | 140 | 40 x 7 | 68 | 68 | - | 120 | 2760 |
| 72439 | 210 | 140 | 210 | 50 x 8 | 80 | 70 | - | 170 | 4600 |
| 72496 | 200 | 140 | 200 | 65 x 10 | 100 | 80 | - | 350 | 6900 |
| 72447 | 300 | 190 | 300 | 65 x 10 | 100 | 80 | - | 350 | 9000 |
| 72504 | 280 | 190 | 280 | 80 x 10 | 140 | 110 | - | 600 | 19000 |

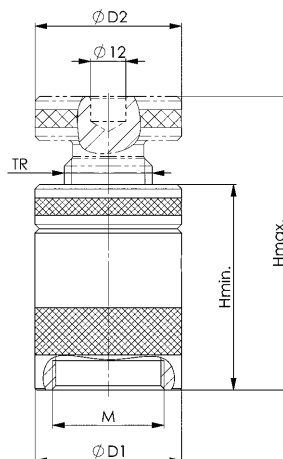
Advantage:

Higher support forces F max. through material optimisation with sizes 50 - 140.

Note:

Size 50 without centring hole \varnothing 12 mm. The sizes 52-100 are suitable for clamps with a slot width of approx. 14-22 mm. The screw jack no. 6430S represents a useful addition for large clamping heights. The sizes 140-300 are suitable for clamps with a slot width of approx. 20-40 mm. For these, the screw jacks no. 6435S represent a useful addition for large clamping heights. When using clamps DIN 6315B, 6315C and 6315GN from 26 mm slot width, we recommend, fixing cap no. 6443. The sizes 200-280 are intended for supporting large workpieces. Suitable attachments for screw jack sizes 52-280 are nos. 6440, 6441, 6442, 6443 and 6445. The suitable support for sizes 52-100 is no. 6442 or 6442G.

Do not adjust screw jack under load!



Recommendations



Subject to technical alterations.

No. 6400M

Screw jack with flat support and magnetic base

Centring hole dia. 12 mm. Spindle: Self-locking trapezoidal thread with final stop. Painted tempered steel.



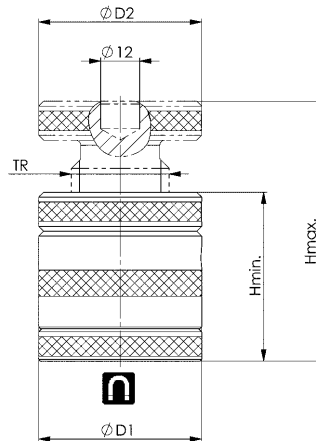
| Order no. | Size | H min. | H max. | TR | D1 | D2 | F max. [kN] | Weight [g] |
|-----------|------|--------|--------|------|----|----|-------------|------------|
| 73320 | 62 | 52 | 62 | 30x4 | 50 | 50 | 100 | 700 |
| 73361 | 80 | 60 | 80 | 30x4 | 50 | 50 | 100 | 770 |
| 73403 | 110 | 80 | 110 | 30x4 | 50 | 50 | 100 | 1050 |

Advantage:

Higher support forces F max through material optimisation.

Note:

AMF screw jacks with magnetic base are designed for horizontal and vertical application. The permanent magnet allows permanent and exact positioning of the workpiece in a vertical position. The screw jacks are suitable for clamps of approx. 14-22 mm. When using clamps DIN 6415B, 6315C and 6315GN from 26 mm slot width, we recommend, by way of precaution, fixing cap no. 6443. Suitable attachments: No. 6440, 6441, 6442, 6443 and 6445. Suitable support for dismantled magnetic base: No. 6442G. Do not adjust screw jack under load!



Recommendations



No. 6440, page 72



No. 6443, page 73

CAD



No. 6400G

Screw jack with flat support and thread

Thread for fastening.

Centring hole M12. Spindle: Trapezoidal thread, self-locking with end stopbody. Tempering steel, varnished.



| Order no. | Size | H min. | H max. | TR | D1 | D2 | F max. [kN] | Weight [g] |
|-----------|------|--------|--------|------|----|----|-------------|------------|
| 376194 | 52 | 42 | 52 | 30x4 | 50 | 50 | 100 | 550 |
| 376210 | 70 | 50 | 70 | 30x4 | 50 | 50 | 100 | 620 |
| 376236 | 100 | 70 | 100 | 30x4 | 50 | 50 | 100 | 948 |

Application:

Especially suited for use on vertical turning and boring machines to achieve optimal clamping heights and absorb centrifugal forces.

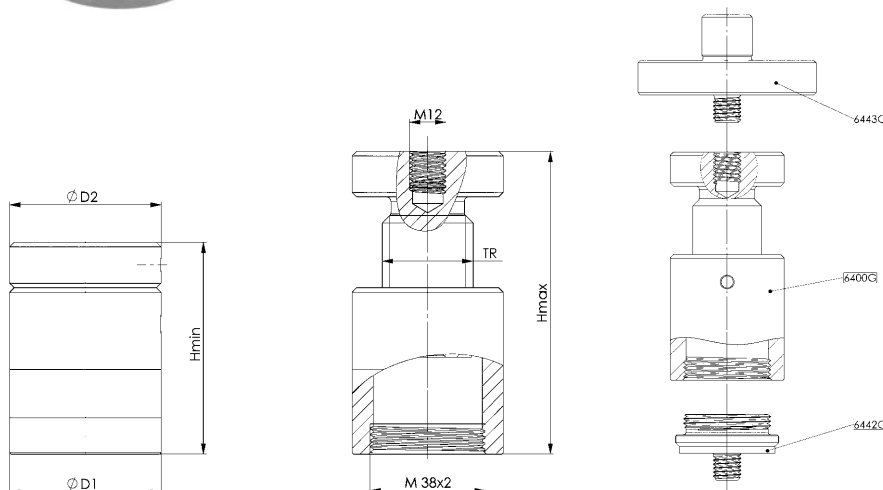
Advantage:

Screw jack can be screwed onto the heavy-duty screw jack no. 6435SG to guarantee optimum security against the occurrence of centrifugal forces. Fixing cap no. 6443G or a screw for retaining a clamp can be incorporated into the screw jack top.

Higher support forces through material optimisation with sizes 52 - 100.

Note:

Do not adjust screw jack under load!



Recommendations



No. 6442G, page 74



No. 6443G, page 74

CAD



Subject to technical alterations.

No. 6401

Aluminium screw jack

Centring hole dia. 12 mm. Spindle: Tempering steel, blued. Trapezoidal thread, self-locking with end stopbody. Base: Aluminium 400 N/mm² tensile strength.



| Order no. | Size | H min. | H max. | TR | D1 | D2 | M | F max. [kN] | Weight [g] |
|-----------|------|--------|--------|------|----|----|---------|-------------|------------|
| 75770 | 52 | 42 | 52 | 30x4 | 50 | 50 | M38 x 2 | 30 * | 370 |
| 75788 | 70 | 50 | 70 | 30x4 | 50 | 50 | M38 x 2 | 30 * | 430 |
| 75796 | 100 | 70 | 100 | 30x4 | 50 | 50 | M38 x 2 | 30 * | 600 |

Application:

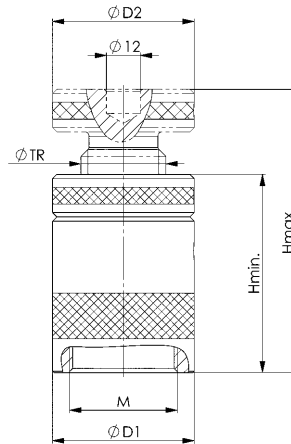
Protects the tables from precision machines (steel chips do not penetrate into the machine table, but into the aluminium base). Suitable for all machine tool tables as well as for guide and measuring plates with precision machined surfaces.

Advantage:

Greater clamping heights can be achieved using the support with aluminium intermediate rings 6406A.

Note:

F max.* until max. 350 mm total height ensured. In addition, there is a risk of buckling. Suitable attachments: no. 6440, 6441, 6442, 6443/14 and 6445. Do not subject the screw jack to excessive load!



Recommendations



No. 6442, page 72



No. 6440, page 72

No. 6405

Aluminium screw jack with magnetic base

Centring hole dia. 12 mm. Spindle: Tempering steel, blued. Trapezoidal thread, self-locking with end stopbody. Base: Aluminium 400 N/mm² tensile strength.



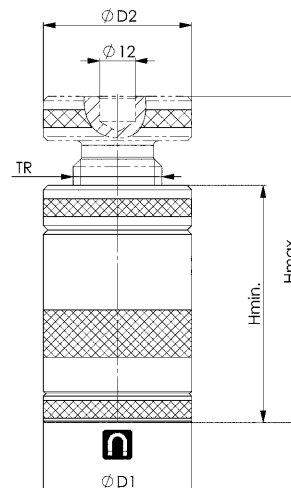
| Order no. | Size | H min. | H max. | TR | D1 | D2 | F max. [kN] | Weight [g] |
|-----------|------|--------|--------|------|----|----|-------------|------------|
| 75804 | 62 | 52 | 62 | 30x4 | 50 | 50 | 30 * | 380 |
| 75812 | 80 | 60 | 80 | 30x4 | 50 | 50 | 30 * | 550 |
| 75820 | 110 | 80 | 110 | 30x4 | 50 | 50 | 30 * | 710 |

Advantage:

Greater clamping heights can be achieved by installing aluminium intermediate rings 6406A. Magnetic base removable.

Note:

AMF screw jacks with magnetic base are designed for horizontal and vertical application. The permanent magnet allows permanent and exact positioning of the workpiece in a vertical position. F max.* until max. 350 mm total height ensured. In addition, there is a risk of buckling. Suitable attachments: No. 6440, 6441, 6442, 6443/14 and 6445. Do not adjust screw jack under load!



No. 6406

Aluminium screw jack with swarf protection

Scraper ring protects screw jack spindle against chips. Centring hole dia. 12 mm. Spindle tempering steel, blued. Trapezoidal thread, self-locking with end stopbody.

Composed of:

- screw jack with swarf protection
- Alu-base (size 10) or magnetic base (size 20).



CAD



| Order no. | Size | H min. | H max. | TR | D1 | D2 | F max. [kN] | Weight [g] |
|-----------|------|--------|--------|------|----|----|----------------|---------------|
| 72850 | 10 | 75 | 88 | 30x4 | 50 | 50 | 30 | 630 |
| 72868 | 20 | 75 | 88 | 30x4 | 50 | 50 | 30 | 720 |

Application:

AMF screw jacks with magnetic base are designed for horizontal and vertical application. The permanent magnet allows permanent and exact positioning of the workpiece in a vertical position.

Advantage:

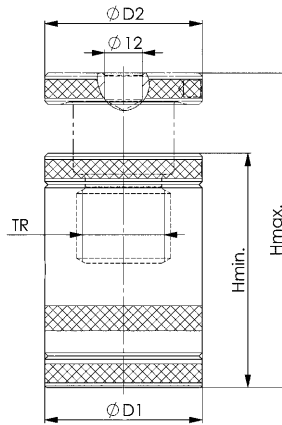
The screw thread is protected from the penetration of chips by the scraper.

Note:

F max. until max. 350 mm total height ensured. In addition, there is a risk of buckling.

Suitable attachments: no. 6440, 6441 and 6445

Do not subject the screw jack to excessive load!



Recommendations



No. 6440,
page 72



No. 6441,
page 72

No. 6406A

Alu-intermediate ring

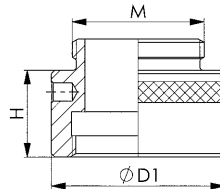
for the height extension of aluminium screw jacks.



CAD



| Order no. | Size | H | D1 | M | F max. [kN] | Weight [g] |
|-----------|------|------|----|---------|----------------|---------------|
| 72876 | 12 | 12,5 | 50 | M38 x 2 | 30 | 38 |
| 72884 | 25 | 25,0 | 50 | M38 x 2 | 30 | 76 |
| 72926 | 50 | 50,0 | 50 | M38 x 2 | 30 | 165 |



No. 6401M

Magnetic base for screw jacks

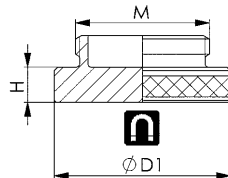
Case: Steel, zinc-plated



CAD



| Order no. | H | D1 | M | Weight [g] |
|-----------|----|----|---------|---------------|
| 558436 | 10 | 50 | M38 x 2 | 125 |



No. 6406AF

Aluminium base for screw jacks

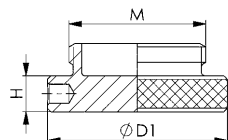
Case: Aluminium



CAD



| Order no. | H | D1 | M | Weight [g] |
|-----------|----|----|---------|---------------|
| 557186 | 10 | 50 | M38 x 2 | 60 |



Subject to technical alterations.

No. 6406-125

Aluminium screw jack with swarf protection

Scraper ring protects screw jack spindle against chips. Centring hole dia. 12 mm. Spindle tempering steel, blued. Trapezoidal thread, self-locking with end stopbody.

Composed of:

- screw jack with swarf protection
- intermediate ring 12.5 mm
- intermediate ring 25 mm and
- Alu- and magnetic base.

| Order no. | Size | H min. | H max. | TR | D1 | D2 | F max. [kN] | Weight [g] |
|-----------|------|--------|--------|------|----|----|----------------|---------------|
| 72371 | 125 | 75 | 125 | 30x4 | 50 | 50 | 30* | 920 |

Application:

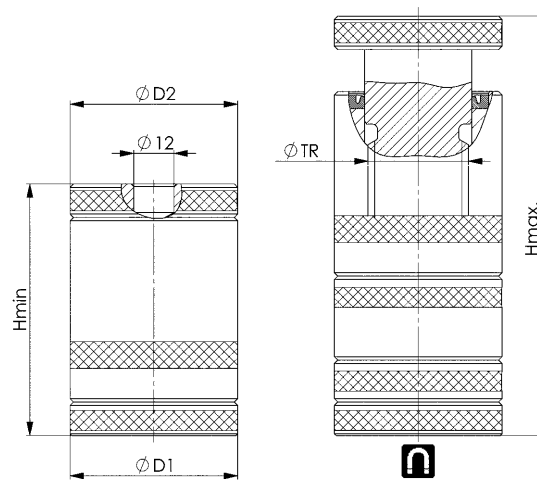
AMF screw jacks with magnetic base are designed for horizontal and vertical application. The permanent magnet allows permanent and exact positioning of the workpiece in a vertical position.

Advantage:

The screw jack thread is protected from the penetration of chips by the scraper.

Note:

F max. until max. 350 mm total height ensured. In addition, there is a risk of buckling. Suitable attachments: no. 6440, 6441 and 6445 do not subject the screw jack to excessive load!



Recommendations



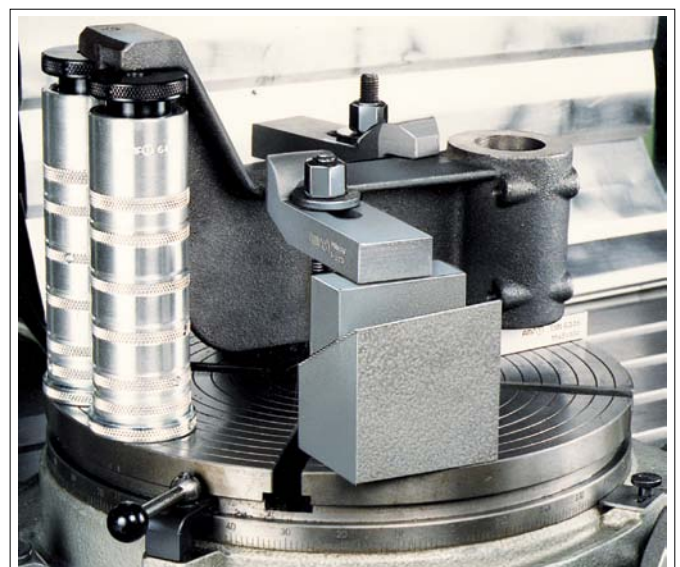
No. 6440,
page 72



No. 6441,
page 72



No. 6445,
page 73



Subject to technical alterations.



No. 6460

Wedge block „Herkules“ height wedge

Ø12 mm centring hole. Ductile iron and steel, tempered, quenched in black oxide finish. Wedge surface finely machined. A spherical attachment 6440 or 6440G accompanies each wedge block.



| Order no. | Size | H min. | H max. | B1 | B2 | H1 | H4 | L | SW | H/U* [mm] | F max. [kN] | Weight [g] |
|-----------|------|--------|--------|-----|----|-----|----|-----|----|--------------|----------------|---------------|
| 72777 | 63 | 50 | 68 | 63 | 40 | 80 | 7 | 63 | 13 | 0,86 | 40 | 1700 |
| 72785 | 125 | 100 | 125 | 115 | 60 | 135 | 20 | 125 | 24 | 1,16 | 100 | 8600 |
| 72793 | 190 | 170 | 190 | 145 | 80 | 200 | 20 | 175 | 36 | 2,02 | 250 | 23750 |

*H/U= height adjustment per single turn.

Application:

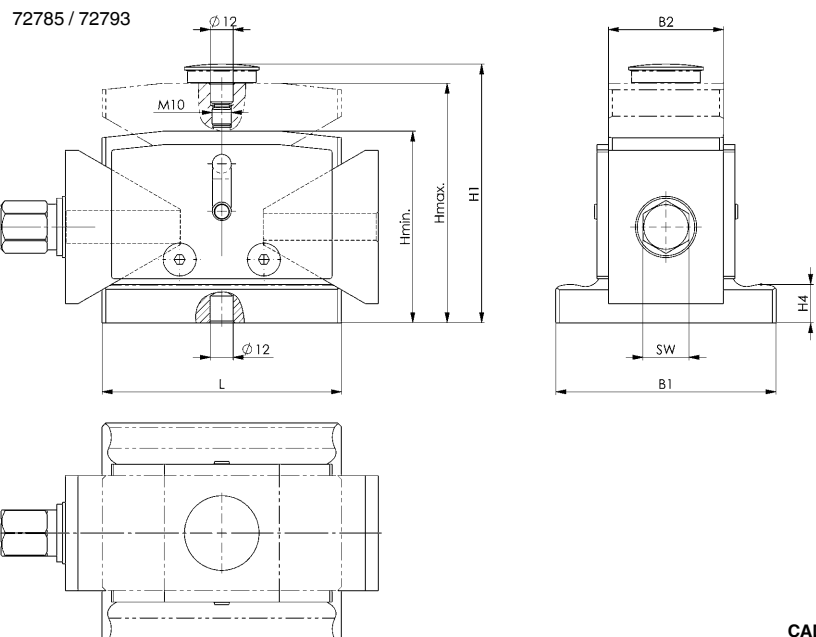
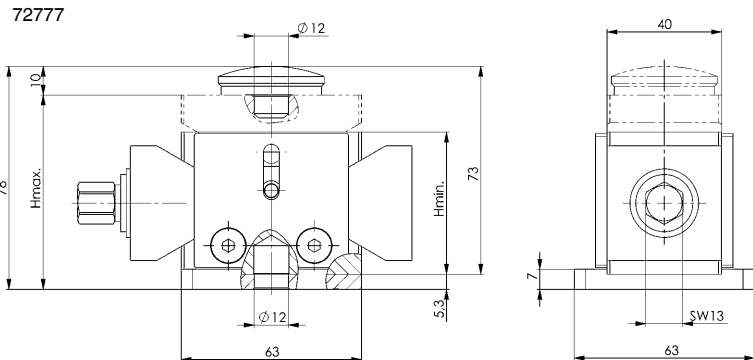
The fine-machined wedge surfaces permits a smooth, precise adjustment to less than 1/10 mm. The double wedge effect produces a large stroke and precise vertical movement with no lateral shift. The height wedge proves its worth with heavy castings or forgings on large tool machines. The AMF „Herkules“ whipstock has an additional centring hole in the floor of the base area.

Advantage:

For the sizes 125 and 190, the attachment 6440G can be screwed in so it cannot be lost.

Note:

Suitable attachments for wedge block No. 6460 are No. 6440, 6440G, 6441 and 6442. All sizes with lateral clamping rim for fastening on the machine table. For size 63, the base plate is removable for reaching Hmin.



Recommendations



No. 6440,
page 72



No. 6440G,
page 72



No. 6444,
page 73



Subject to technical alterations.

No. 6465

Precision wedge block

Centring hole \varnothing 12 mm. Case-hardened steel and fine-machined wedge surfaces. A spherical attachment no. 6440 is included with every precision whipstock.



| Order no. | Size | H min. | H max. | H/U* [mm] | F max. [kN] | SW [mm] | Weight [Kg] |
|-----------|------|--------|--------|--------------|----------------|------------|----------------|
| 375592 | 55 | 50 | 55 | 0,71 | 40 | 22 | 2,8 |
| 375618 | 85 | 77 | 85 | 0,71 | 250 | 36 | 11,5 |

*H/U= height adjustment per single turn.

Application:

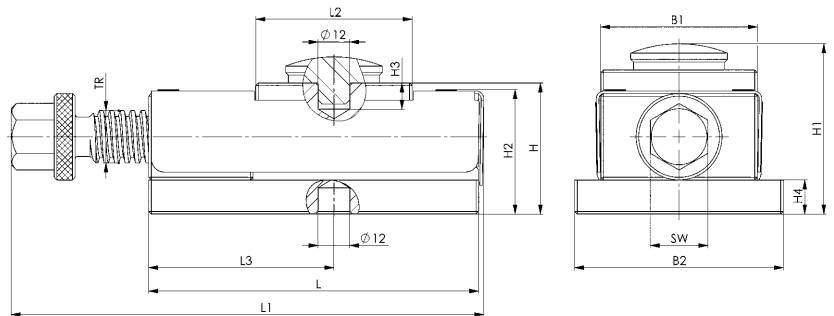
- The fine-machined wedge surfaces permits a smooth, precise adjustment to less than 1/10 mm.
- Operation can be via an open-ended spanner - hence ensuring enhanced safety and ease of handling due to the large adjusting forces.
- The double wedge effect produces a precise vertical movement with no lateral slide.
- The flat design of the precision height wedge enables higher safety properties to be realised when aligning heavy and large components.
- The precision whipstock has an additional centring hole in the floor of the base surface for alignment on the machine table. (suitable for a pin ISO 8734 - 12 mm diameter)

Advantage:

Precision whipstock can be adjusted under load.

Note:

- Suitable caps for the precision whipstock are nos. 6440, 6441 and 6442
- Height adjustment is 0.71 mm / revolution



Recommendations



No. 6440,
page 72



No. 6445,
page 73



No. 6443,
page 73

Dimensions:

| Order no. | B1 | B2 | TR | H1 | H2 | H3 | H4 | L | L1 | L2 | L3 |
|-----------|-----|-----|----|-------|------|----|----|-----|---------|----|-----|
| 375592 | 60 | 80 | 20 | 60-65 | 47,5 | 10 | 13 | 128 | 150-179 | 60 | 71 |
| 375618 | 100 | 140 | 30 | 87-95 | 74,0 | 15 | 15 | 204 | 242-287 | 81 | 102 |

CAD



Subject to technical alterations.

No. 6430S

Atlas screw jack with counter nut

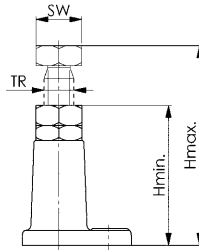
Centring hole dia. 12 mm. Spindle complete: tempering steel with trapezoidal thread. Spindle head blued. Housing: cast iron, varnished.



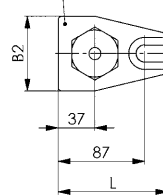
| Order no. | Size | H min. | H max. | TR | B1 | B2 | L | SW | F max. [kN] | Weight [Kg] |
|-----------|------|--------|--------|------|----|----|-----|----|-------------|-------------|
| 72553 | 140 | 100 | 140 | 30x6 | 18 | 75 | 110 | 46 | 60 | 1,8 |
| 72561 | 200 | 140 | 200 | 30x6 | 18 | 75 | 110 | 46 | 60 | 2,2 |
| 72579 | 320 | 200 | 320 | 30x6 | 22 | 90 | 160 | 46 | 40 | 3,8 |
| 72587 | 550 | 320 | 550 | 30x6 | 22 | 90 | 160 | 46 | 25 | 4,9 |

Note:

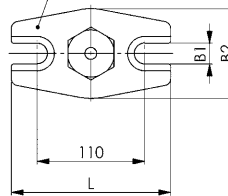
When using clamps DIN 6315B, 6315C and no. 6315GN with slot-sizes above 26 mm we recommend the use of locating pad no. 6443 for safety. Suitable pads are no. 6440, 6441, 6442, 6443 and 6445. Do not adjust screw jack under load!



6430S-140
6430S-200



6430S-320
6430S-550



Recommendations



No. 6442,
page 72



No. 6443,
page 73



No. 6445,
page 73

CAD



No. 6435S

Heavy screw jack

with nickel lock bolt. Centring hole D12 / M10. Spindle: Tempered steel, self-locking acme thread, with final stop. Spindle head burnished. Body: tempered steel, painted.



| Order no. | Size | H min. | H max. | TR | B1 | B2 | L | SW | F max. [kN] | Weight [Kg] |
|-----------|------|--------|--------|------|----|-----|-----|----|-------------|-------------|
| 72637 | 300 | 200 | 300 | 40x7 | 26 | 190 | 220 | 65 | 80 | 8 |
| 72645 | 460 | 290 | 470 | 40x7 | 26 | 190 | 220 | 65 | 60 | 10 |
| 72652 | 750 | 430 | 750 | 40x7 | 26 | 190 | 220 | 65 | 50 | 13 |
| 72660 | 1250 | 710 | 1250 | 40x7 | 26 | 190 | 220 | 65 | 40 | 18 |

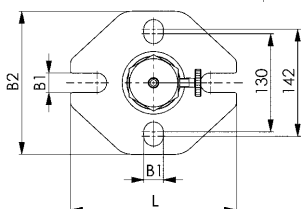
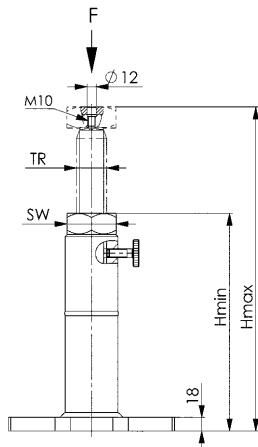
Advantage:

- Thread M10 on the spindle top for fixing attachment elements.
- Greater clamping heights can be achieved by installing with no. 6442G and no. 6415.
- Base plate with closed slots for fastening onto the machine table. Accordingly, it can also be used for rotating clamping tasks.

Note:

When using clamps DIN 6315B, 6315C and No. 6315GN from 26 mm slot width, we recommend the fixing cap No. 6443. Suitable attachments for screw jack No. 6435S are No. 6440, 6441, 6442, 6443, 6445 and 6442G.

Do not adjust screw jack under load!



Recommendations



No. 6440,
page 72



No. 6441,
page 72



No. 6445,
page 73

CAD



Subject to technical alterations.

No. 6438S

Screw jack, quick-action

continuously adjustable with nickel lock bolt.
 Centring hole D12 / M10. Spindle: Tempered steel, self-locking
 acme thread with final stop.
 Spindle head burnished. Body: tempered steel, painted.



| Order no. | Size | H min. | H max. | TR | B1 | B2 | D | L | SW | F max. [kN] | Weight [Kg] |
|-----------|------|--------|--------|------|----|-----|----|-----|----|----------------|----------------|
| 75705 | 450 | 320 | 450 | 40x7 | 26 | 190 | 90 | 220 | 65 | 50 | 11,5 |
| 75713 | 710 | 450 | 710 | 40x7 | 26 | 190 | 90 | 220 | 65 | 40 | 13,7 |
| 75721 | 1250 | 710 | 1250 | 40x7 | 26 | 190 | 90 | 220 | 65 | 30 | 18,3 |

Application:

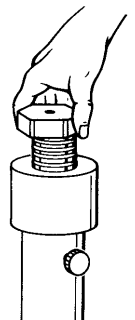
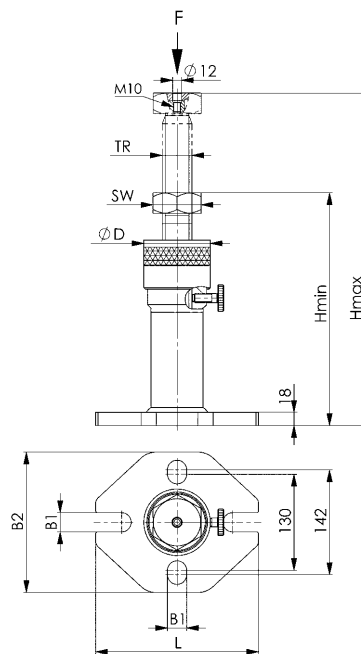
This screw jack allows fast adjustment and continuous adjustment within the entire height range.
 Suitable attachments: No. 6440, 6441, 6443, 6445 and 6442G.

Advantage:

- Thread M10 on the spindle top for fixing attachment elements.
- Greater clamping heights can be achieved by installing with No. 6442G and No. 6415.
- Base plate with closed slots for fastening on the machine table.

Note:

- Hold spindle, max. 6 kg
 - Undo lock bolt
 - Turn actuating ring to undo the spindle
 - Adjust height
 - Turn actuating ring to fasten the spindle
 - Secure spindle with lock bolt
- Do not subject the screw jack to excessive load!



Recommendations



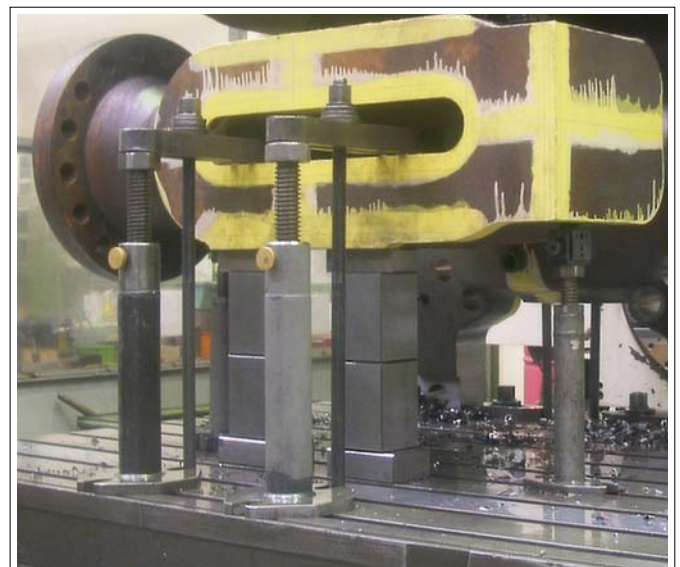
No. 6440,
page 72



No. 6441,
page 72



No. 6442,
page 72



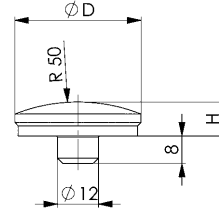
Subject to technical alterations.

No. 6440

Ball-pad

Steel tempered, burnished.

| Order no. | H | D | Weight [g] |
|-----------|----|----|------------|
| 72710 | 10 | 39 | 75 |



CAD



No. 6440G

Spherical attachment with thread

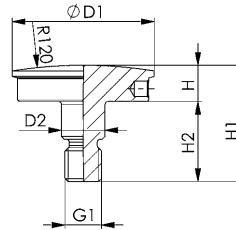
Tempered steel, burnished quenched.

| Order no. | H | D1 | D2 | G1 | H1 | H2 | Weight [g] |
|-----------|----|----|------|-----|----|----|------------|
| 567981 | 10 | 39 | 11,9 | M10 | 32 | 22 | 95 |



Application:

The centring plate can be screwed to the screw jacks 6435S, 6438S or onto the wedge block 6460 size 125/190.



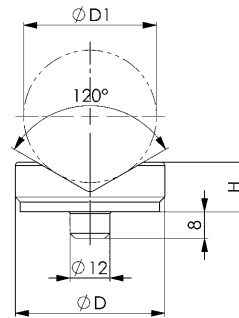
NEW!

No. 6441

Vee-pad

Steel tempered, burnished.

| Order no. | Size | H | D | D1 min. | D1 max. | Weight [g] |
|-----------|------|----|----|---------|---------|------------|
| 72728 | 45 | 15 | 45 | 10 | 50 | 120 |
| 72769 | 65 | 30 | 65 | 22 | 100 | 545 |



CAD

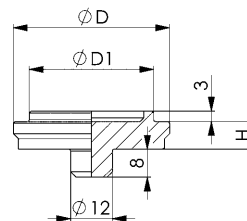


No. 6442

Centering-pad

Steel tempered, burnished.

| Order no. | H | D | D1 | Weight [g] |
|-----------|---|----|------|------------|
| 72736 | 8 | 45 | 35,8 | 120 |



CAD



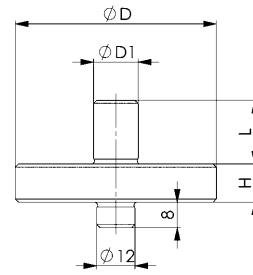
Subject to technical alterations.

No. 6443

Locating-pad

for forked clamps. Steel tempered, burnished.

| Order no. | Size | H | D | D1 | L | Weight [g] |
|-----------|------|----|----|----|----|------------|
| 72751 | 14 | 12 | 63 | 14 | 15 | 310 |
| 72744 | 25 | 15 | 78 | 25 | 25 | 650 |

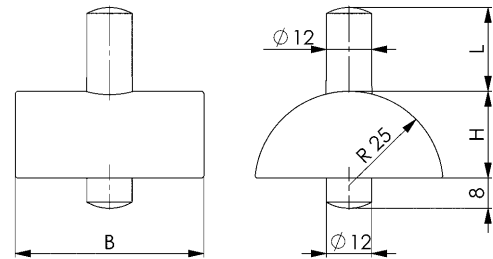


No. 6444

Locating-pad

with cylindrical face. Steel tempered and burnished.

| Order no. | H | B | L | Weight [g] |
|-----------|----|----|----|------------|
| 72454 | 23 | 50 | 19 | 370 |



No. 6445

Support with pivotable ball

Steel tempered, burnished. Ball made of hardened steel.

| Order no. | H | D | F max. [kN] | Weight [g] |
|-----------|----|----|-------------|------------|
| 72819 | 25 | 45 | 30 | 240 |

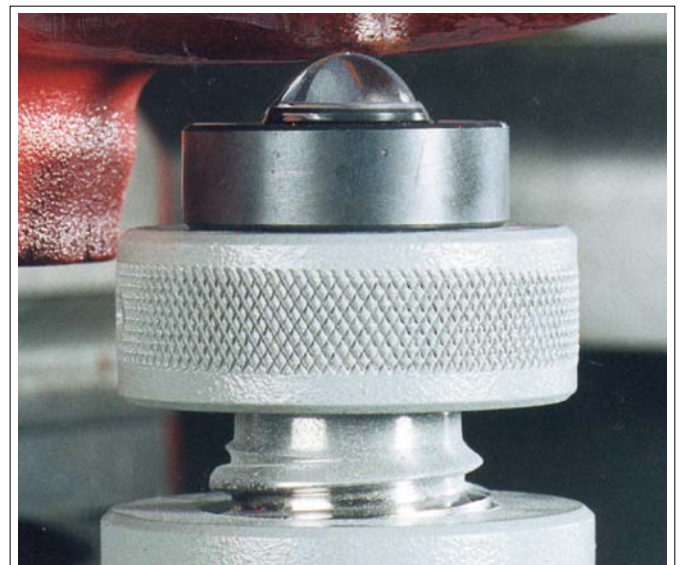
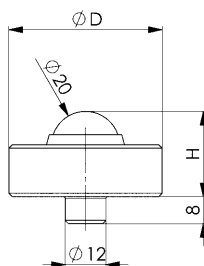


Application:

This rugged element was designed for the supporting and alignment of workpieces made of cast iron and forging-grade steels. Designed for use with AMF-screw jacks.

Advantage:

- The pivotable ball minimizes the friction on the support and reduces the required operating forces.
- The use of a point-like support prevents the transmission of the torsional force created by the movement of the spindle. The position of the workpiece remains unchanged.
- The simple and rugged construction provides for a long lasting service life.



Subject to technical alterations.

No. 6442G

Centring plate with thread

Steel tempered, burnished.

| Order no. | Size | D1 | D2 | H | H1 | H2 | M | Weight [g] |
|-----------|------|----|------|----|----|----|-------|------------|
| 562125 | M10 | 50 | 11,9 | 10 | 33 | 25 | M38x2 | 200 |
| 376335 | M12 | 50 | - | 12 | 44 | 12 | M38x2 | 240 |

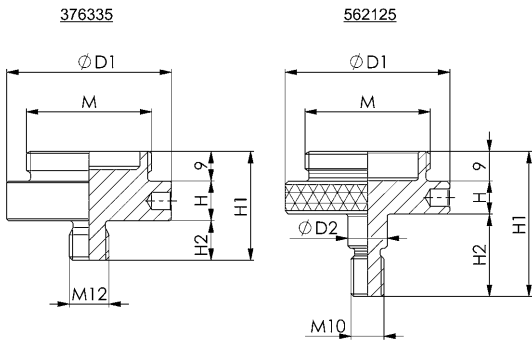
Application:

Centring plate can be screwed onto screw jacks. The screw jacks can be screwed onto the centring plate.

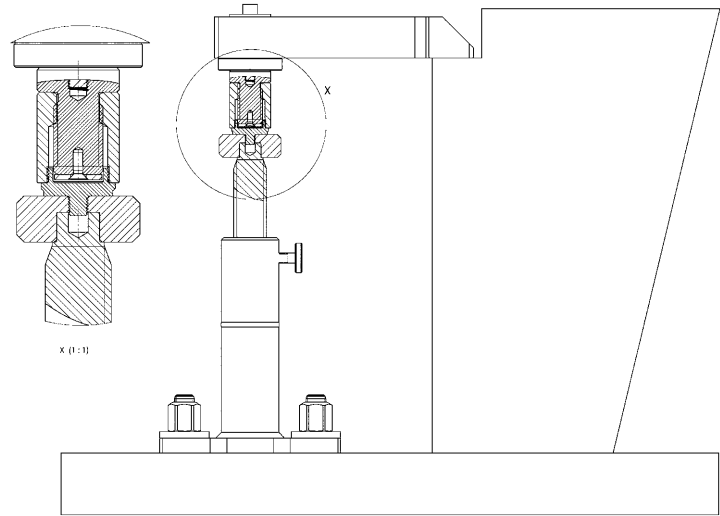
- Height guide bench 6415
- Screw jack with flat bearing 6400-52 /-70/-100
- Screw jack with flat bearing and thread 6400G
- Aluminium-screw jack 6401

Note:

The maximum possible support force of the screw jack combination must be adjusted to the support force ($F_{max.}$) of the screw jack used.



CAD



No. 6443G

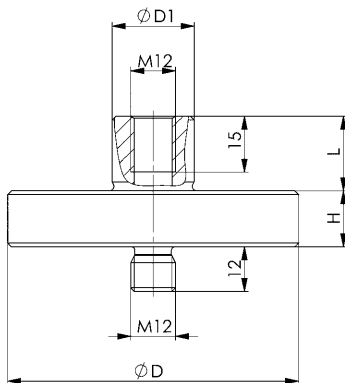
Fixing cap with thread

for forked clamps. Steel tempered, burnished.

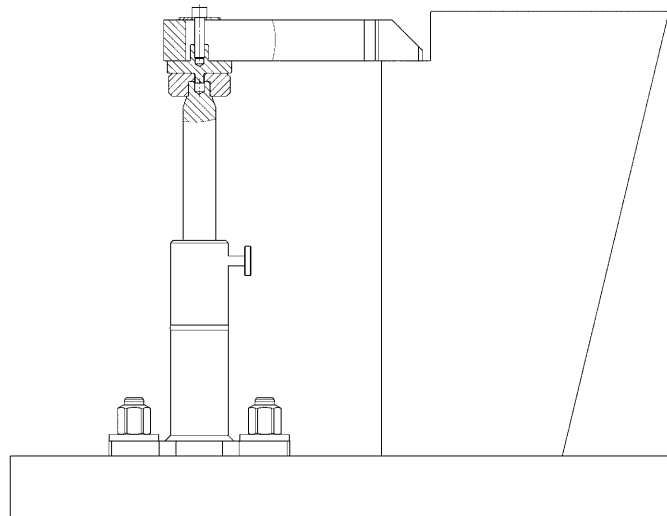
| Order no. | Size | H | D | D1 | L | Weight [g] |
|-----------|------|----|----|----|----|------------|
| 376350 | 25 | 15 | 78 | 22 | 20 | 601 |

Advantage:

Centring plate can be screwed onto screw jacks. Internal thread for additional fastening of clamps onto screw jacks. Safety with vertical turning and boring machines.



CAD



Subject to technical alterations.

No. 6417
Mandrel

blued, with brass thrust piece.

| Order no. | Size | Slot | H ±0,1 | H1 min. | H1 max. | H2 min. | H2 max. | dia. D1 | dia. D2 | dia. D3 | G1 | G2 | SW | Weight [g] |
|--------------|-----------|------|--------|---------|---------|---------|---------|---------|---------|---------|-----|-----|----|------------|
| 74179 | 80 | 14 | 80 | 116 | 148 | 8 | 40 | 40 | 50 | 32 | M12 | M16 | 27 | 1270 |

Application:

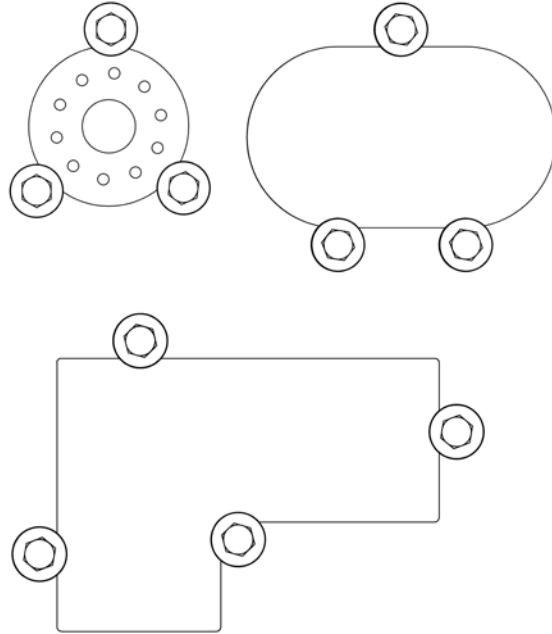
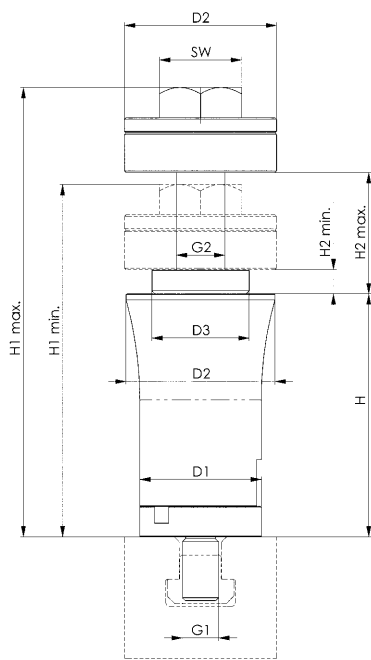
- The mandrels are fastened to the machine table by means of T-nuts.
- The mandrel is fixed on the slotted table by operating the SW 27 mm pre-tensioning nut.
- Clamping is by means of the SW 27 mm screw of tempered steel.
- Damage to the workpiece is prevented by a brass clamping ring.

Advantage:

- Reduced tooling time and tool elements cuts tooling costs
- Optimal use of the machine table
- Tension on flat workpieces increased to make holes, threads and grooves

Note:

- Suitable for workpiece thicknesses from 8 to 40 mm
- Support height 80 mm
- Also available is an extension screw for workpiece thicknesses from 40 - 72 mm and spacer elements of 25 mm and 50 mm to increase the support height


Recommendations

 No. 6417Z,
page 76

 No. 6417SP,
page 76


Subject to technical alterations.

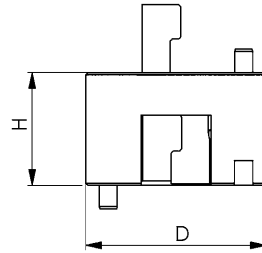
No. 6417Z
Spacer element

blued.

| Order no. | Size | dia. D | H | Weight [g] |
|-----------|------|--------|----|------------|
| 74195 | 25 | 40 | 25 | 214 |
| 74211 | 50 | 40 | 50 | 459 |

Application:

Used to increase the support height.

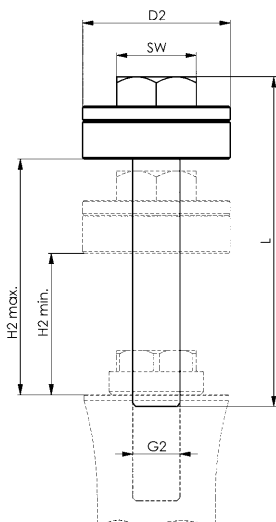

No. 6417SP
Spindle, long

blued.

| Order no. | Size | L | dia. D2 | G2 | SW | H2 min. | H2 max. | Weight [g] |
|-----------|------|-----|---------|-----|----|---------|---------|------------|
| 74237 | M16 | 104 | 50 | M16 | 27 | 40 | 72 | 423 |

Application:

Used to increase the clamping height.



Subject to technical alterations.

No. 6418

Support element, mechanical

incl. DIN 508-M12x14 nut for T-grooves, M12x30-10.9 threaded stud. Body: Case-hardened steel, manganese phosphatised and ground. Body: Aluminium.



| Order no. | Size | Support force F max. [kN] | H | Stroke [mm] | SW1 | SW2 | G | Weight [g] |
|-----------|------|------------------------------|-------|----------------|-----|-----|-----|---------------|
| 75416 | M12 | 8 | 78-83 | 5 | 21 | 6 | M12 | 939 |

Application:

1. Fasten support element (2x M6 connecting thread) on fixture.
- Note operator side!
- Alternatively: Remove M12 x 10 threaded stud and replace with M12 x 30 threaded stud and mount the support element with key (size 21), e.g. for T-groove mounting
- (No defined operator side ensured).
2. Turning the clamping cam (hexagon socket size 6) on the outside surface of the red protective sleeve positions the supporting bolt against the workpiece with light spring force.
3. Turning further as far as it will go (lock) - a total of 180° - locks the clamping mechanism of the supporting bolt without length change.
The support element is positioned on the workpiece and locked.
4. Turning in the opposite direction (unlock) releases the clamping. Continuing to turn back as far as it will go - a total of 180° - moves the supporting bolt to the end position.

Advantage:

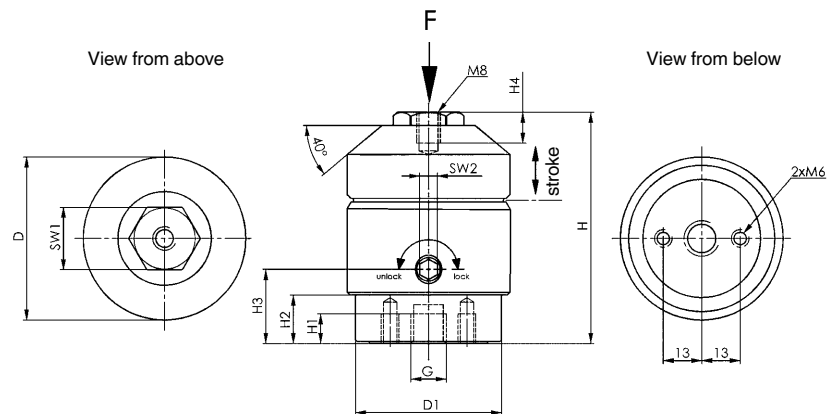
- Used as an extra support to prevent sagging and vibration of the workpiece.
- Mounted directly under a clamping point, it prevents distortion of the workpiece.
- Compensation of large workpiece tolerances (castings).

Note:

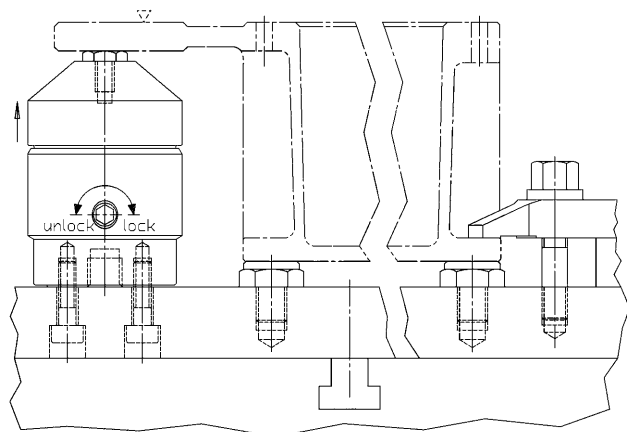
- M8 thread on supporting bolt can be mounted with pressure screws (Nos. 7110DHX, 7110DIX, 7110DKX, 7110DFX).
- Customer-specific extensions can also be mounted.
- For reliable function the M12 threaded hole must always be closed.

Dimensions:

| Order no. | Size | D | D1 | H1 | H2 | H3 | H4 |
|-----------|------|----|------|----|----|----|------|
| 75416 | M12 | 55 | 49,4 | 10 | 16 | 25 | 10,5 |



Application example:



No. 6419

Floating clamp

combined support and clamping,
incl. fastening for T-slots.



| Order no. | Size | Slot | G | Md min. - max. [Nm] | F [kN] | Setting travel H | Clamping stroke H2* | Weight [g] |
|-----------|------|------|-----|------------------------|-----------|------------------|---------------------|---------------|
| 75754 | 12 | 14 | M12 | 15-30 | 2-8 | 102-112 | 0-12 | 1880 |
| 75622 | 16 | 18 | M16 | 50-115 | 8-25 | 163-175 | 10-25 | 6250 |

* Clamping stroke = clamping range with upper and lower standard clamping jaw.

Application:

1. Fasten floating clamp on fixture or machine table.
2. Adjust height stop and swivel range with red adjustment sleeve and lock with threaded stud. When setting the upwards height limitation, allow for generous play (workpiece manufacturing tolerance).
3. Press floating clamp downwards.
4. Swivel clamping jaws in as far as they will go.
 - The floating clamp is positioned with light spring force on bottom of workpiece.
5. Tighten floating clamp with hexagon nut.
 - During the clamping process the workpiece is clamped and at the same time supported.
6. Unclamping is carried out in the reverse sequence.

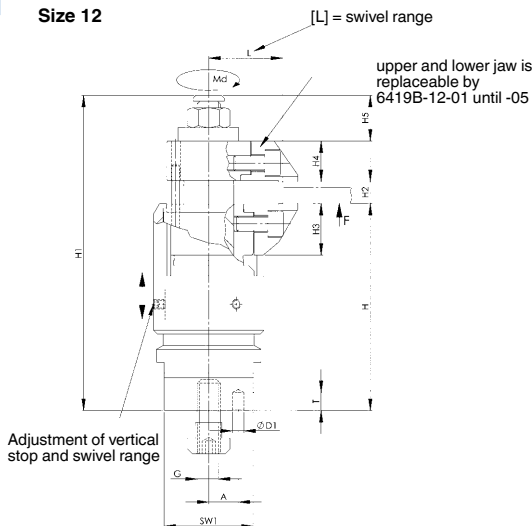
Advantage:

- Especially suitable for large, hard-to-machine components (size 16).
- No deformation when clamping weak components.
- Vibration suppression during machining.
- Clamping of ribs, creases and tabs for stiffening on clamped components.
- Deformation-free clamping of blanks.

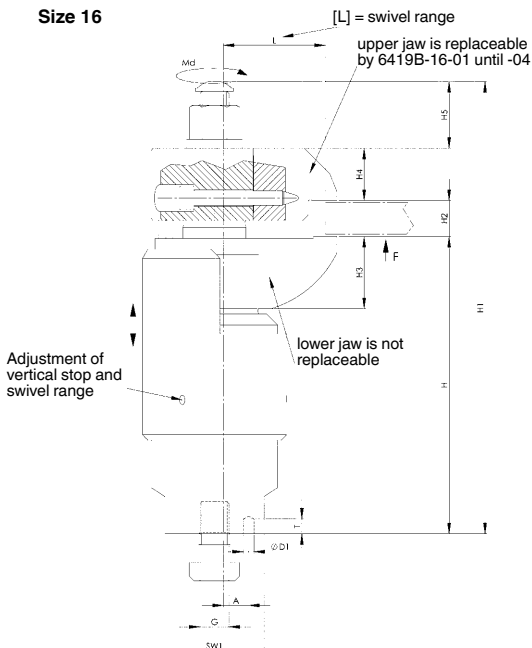
Note:

- The floating clamp is used to clamp and support overdetermined clamping points on components.
- For customer-specific clamping situations the supplied clamping jaws can be replaced with the following clamping jaws (Nos. 6419B-12 and 6418B-16) (max. tightening torque = 43 Nm)

Size 12



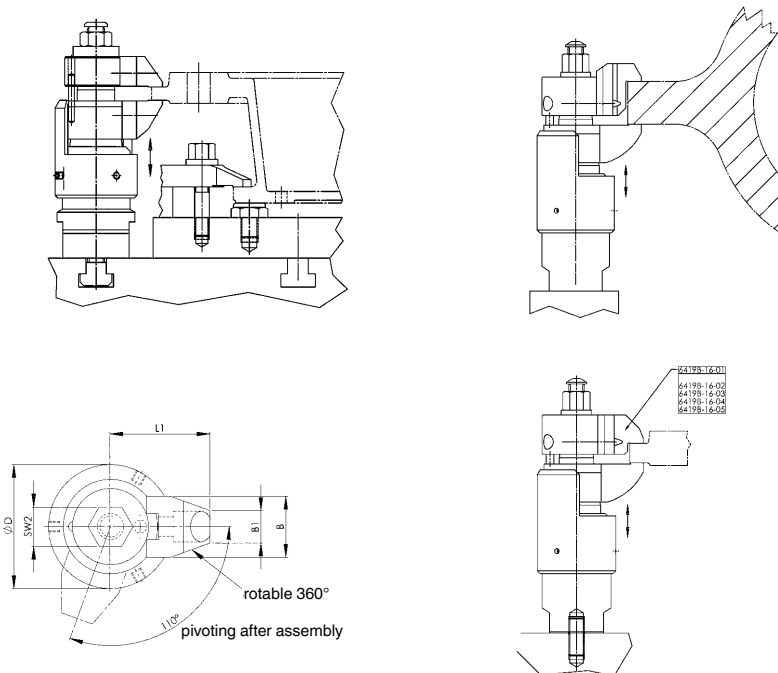
Size 16



Dimensions:

| Order no. | Size | A | B | B1 | D | ØD1 +0.3 | H1 | H3 | H4 | H5 | L | SW2 | SW1 | L1 | T |
|-----------|------|----|----|----|----|----------|-----|------|----|----|----|-----|-----|----|---|
| 75754 | 12 | 14 | 28 | 15 | 57 | 6 | 163 | 26,8 | 21 | 32 | 39 | 18 | 46 | 46 | 8 |
| 75622 | 16 | 20 | 54 | 20 | 80 | 6 | 261 | 40,0 | 29 | 45 | 54 | 24 | 55 | 68 | 8 |

Application examples:



CAD



Subject to technical alterations.

No. 6419B-12-01

Clamping jaw

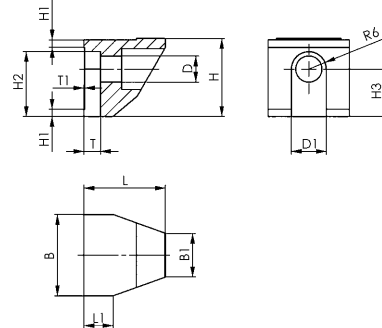
Case-hardened steel, nitrided and burnished.
Lower standard clamping jaw.



| Order no. | Size | B | B1 | D | D1 +0,02 | H -0,1 | H1 | H2 -0,1 | H3 ±0,1 | L | L1 | T +0,2 | T1 | Weight [g] |
|-----------|------|----|----|---|----------|--------|-----|---------|---------|----|----|--------|-----|------------|
| 71233 | 12 | 28 | 15 | 9 | 12 | 26,8 | 2,5 | 22,3 | 16,3 | 28 | 10 | 5,5 | 0,2 | 83 |

Note:

Fastening with ISO 4762-M8 cylinder bolts.



No. 6419B-12-02

Clamping jaw

Case-hardened steel, nitrided and burnished.
Upper standard clamping jaw.

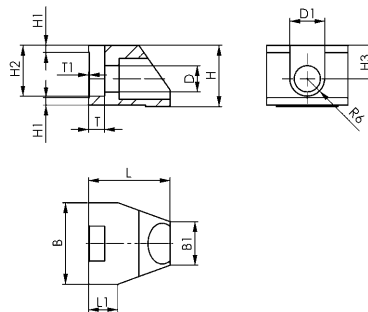


| Order no. | Size | B | B1 | D | D1 +0,02 | H -0,1 | H1 | H2 -0,1 | H3 ±0,1 | L | L1 | T +0,2 | T1 | Weight [g] |
|-----------|------|----|----|---|----------|--------|-----|---------|---------|------|------|--------|-----|------------|
| 71605 | 12 | 28 | 15 | 9 | 12 | 21 | 2,5 | 17,5 | 11,5 | 29,5 | 11,5 | 5,5 | 0,2 | 71 |

Clamping range = workpiece thickness 0-12 mm.

Note:

Fastening with ISO 4762-M8 cylinder bolts.



No. 6419B-12-03

Clamping jaw

Case-hardened steel, nitrided and burnished.
Upper exchangeable clamping jaw.

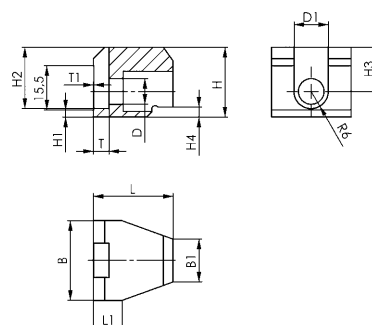


| Order no. | Size | B | B1 | D | D1 +0,02 | H -0,1 | H1 | H2 -0,1 | H3 ±0,1 | H4 | L | L1 | T +0,2 | T1 | Weight [g] |
|-----------|------|----|----|---|----------|--------|-----|---------|---------|-----|------|------|--------|-----|------------|
| 74229 | 12 | 28 | 15 | 9 | 12 | 24,5 | 2,5 | 21,5 | 15,5 | 3,5 | 29,5 | 11,5 | 5,5 | 0,2 | 94 |

Clamping range = workpiece thickness 4-16 mm.

Note:

Fastening with ISO 4762-M8 cylinder bolts.



No. 6419B-12-04

Clamping jaw

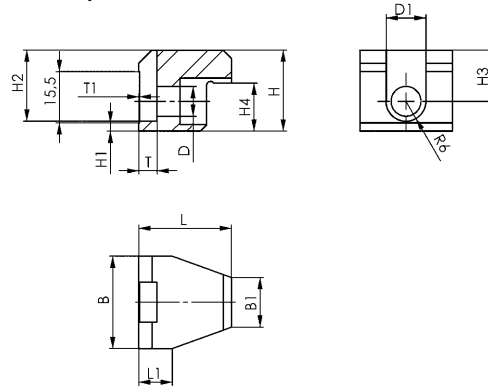
Case-hardened steel, nitrided and burnished.
Upper exchangeable clamping jaw.

| Order no. | Size | B | B1 | D | D1 +0,02 | H -0,1 | H1 | H2 -0,1 | H3 ±0,1 | H4 | L | L1 | T +0,2 | T1 | Weight [g] |
|-----------|------|----|----|---|----------|--------|-----|---------|---------|------|------|------|--------|-----|------------|
| 74245 | 12 | 28 | 15 | 9 | 12 | 24,5 | 2,5 | 21,5 | 15,5 | 14,5 | 29,5 | 11,5 | 5,5 | 0,2 | 90 |

Clamping range = workpiece thickness 15-27 mm.

Note:

Fastening with ISO 4762-M8 cylinder bolts.



No. 6419B-12-05

Clamping jaw

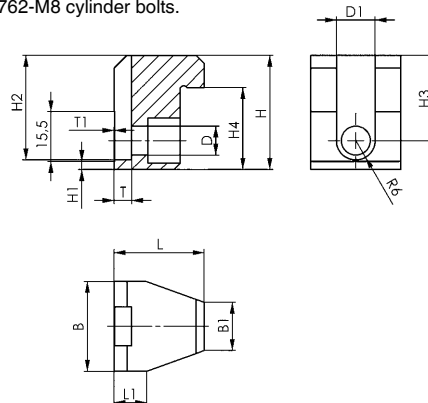
Case-hardened steel, nitrided and burnished.
Upper exchangeable clamping jaw.

| Order no. | Size | B | B1 | D | D1 +0,02 | H -0,1 | H1 | H2 -0,1 | H3 ±0,1 | H4 | L | L1 | T +0,2 | T1 | Weight [g] |
|-----------|------|----|----|---|----------|--------|-----|---------|---------|------|------|------|--------|-----|------------|
| 75051 | 12 | 28 | 15 | 9 | 12 | 35,5 | 2,5 | 32,5 | 26,5 | 25,5 | 29,5 | 11,5 | 5,5 | 0,2 | 132 |

Clamping range = workpiece thickness 26-38 mm.

Note:

Fastening with ISO 4762-M8 cylinder bolts.



No. 6419B-16-01

Clamping jaw

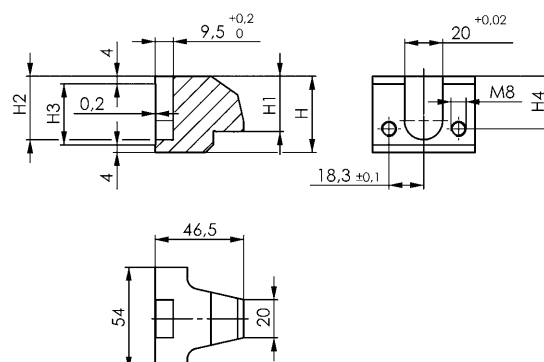
Case-hardened steel, nitrided and manganese phosphatised.
Upper standard clamping jaw.

| Order no. | Size | H | H1 | H2 | H3 | H4 | Weight [g] |
|-----------|------|----|----|------|----|------|------------|
| 75382 | 16 | 40 | 29 | 33,3 | 32 | 27,6 | 400 |

Clamping range = workpiece thickness 10-25 mm.

Note:

Fastening with ISO 4762-M8x50 cylinder bolts.



Subject to technical alterations.

No. 6419B-16-02

Clamping jaw

Case-hardened steel, nitrided and manganese phosphatised.
Upper exchangeable clamping jaw.

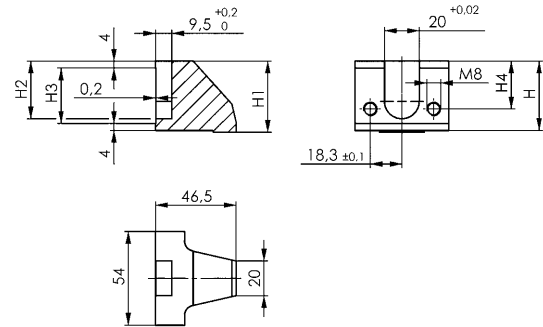


| Order no. | Size | H | H1 | H2 | H3 | H4 | Weight [g] |
|-----------|------|----|----|------|----|------|------------|
| 75424 | 16 | 40 | 41 | 33,3 | 32 | 27,6 | 380 |

Clamping range = workpiece thickness 0-14 mm.

Note:

Fastening with ISO 4762-M8x50 cylinder bolts.



No. 6419B-16-03

Clamping jaw

Case-hardened steel, nitrided and manganese phosphatised.
Upper exchangeable clamping jaw.

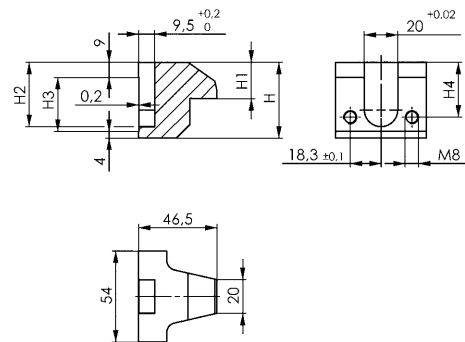


| Order no. | Size | H | H1 | H2 | H3 | H4 | Weight [g] |
|-----------|------|----|------|------|----|------|------------|
| 75440 | 16 | 45 | 21,6 | 38,3 | 32 | 32,6 | 440 |

Clamping range = workpiece thickness 23-38 mm.

Note:

Fastening with ISO 4762-M8x50 cylinder bolts.



No. 6419B-16-04

Clamping jaw

Case-hardened steel, nitrided and manganese phosphatised.
Upper exchangeable clamping jaw.

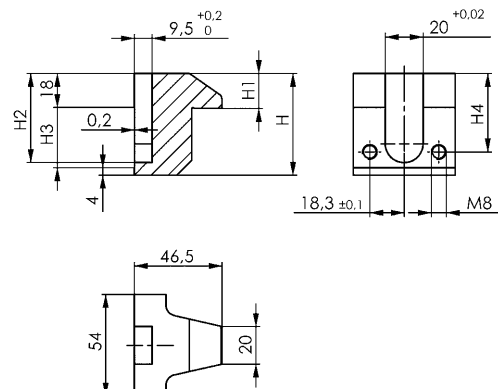


| Order no. | Size | H | H1 | H2 | H3 | H4 | Weight [g] |
|-----------|------|----|------|------|----|------|------------|
| 75630 | 16 | 54 | 18,6 | 47,3 | 32 | 41,6 | 510 |

Clamping range = workpiece thickness 35-50 mm.

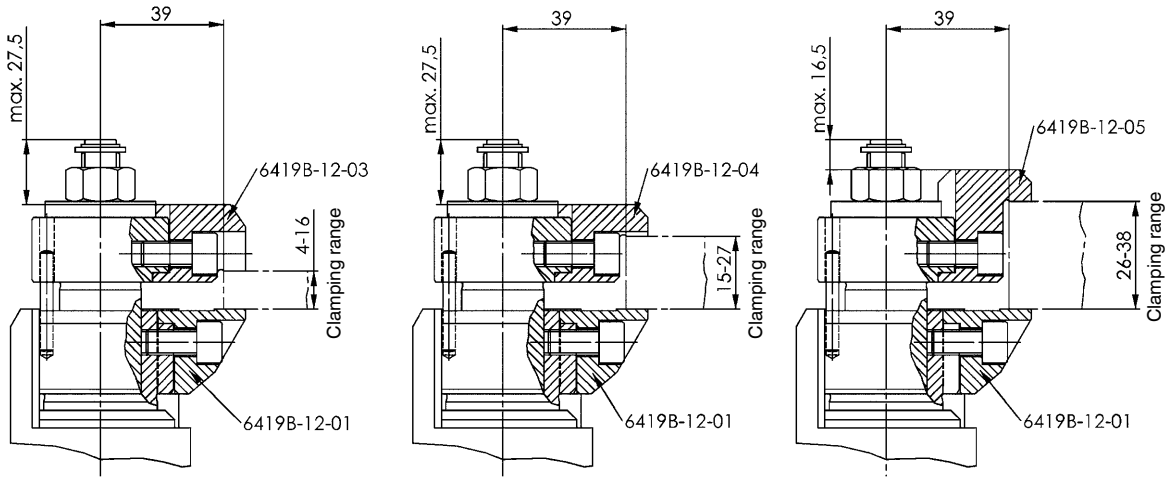
Note:

Fastening with ISO 4762-M8x50 cylinder bolts.

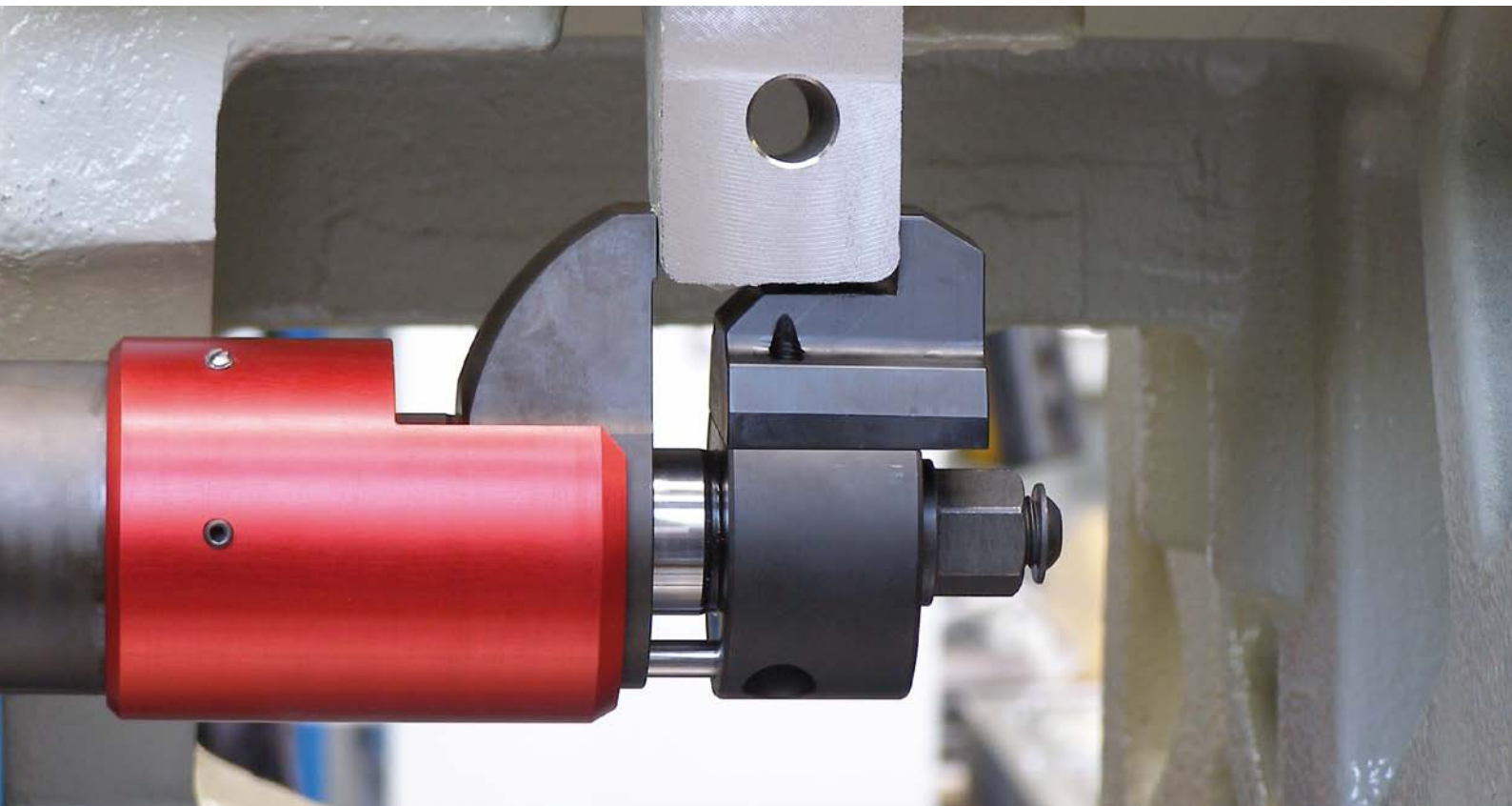
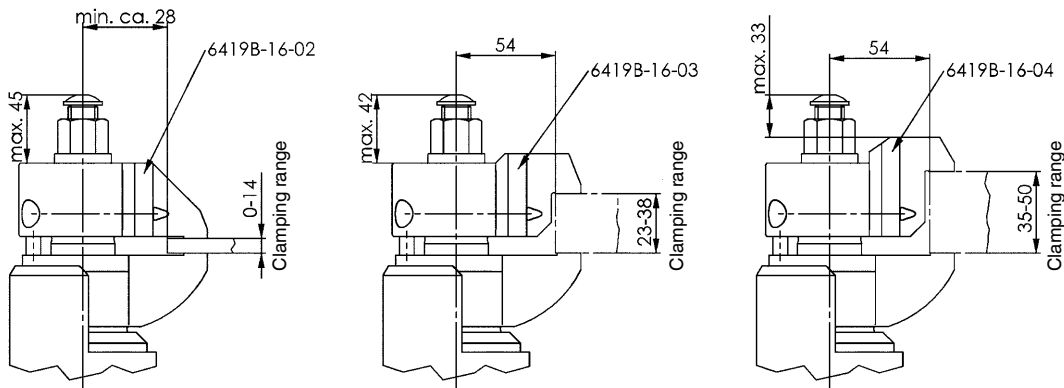


Subject to technical alterations.

Application examples clamping jaw 6419B-12



Application examples clamping jaw 6419B-16



CLAMPING BOLTS, NUTS AND WASHERS - QUALITY OF AMF

- > **Material:** Tempering steel to DIN regulations within tensile strength classes 8.8, 10.9 and 12.9.
- > **Machining:** All bolts and studs have rolled threads and guarantee high clamping forces and long life.
- > **Tempering:** Tensile strength classes according to DIN regulations.

Bolts, T-nuts and nuts are manufactured to DIN 267 and ISO 898. By galvanizing tempered and hardened components there is a certain risk of the material getting brittle. In the event of components being subsequently galvanized we refuse all possible claims regarding breakages and damages.

There are strong reasons for demanding operators to only use AMF-clamping bolts of highest quality:

- > Strict checks guarantee a consistent quality level.
- > High quality clamping bolts and nuts last longer, reduce tool management and idle periods resulting in more economy in the long run.

Please notice!

The torque which can be achieved by hand can be higher than required by DIN standard for screws sizes up to 12 mm dia. Result: Only under worst conditions will the screw first of all twist and eventually break when overstressed. A small but decisive contribution to safety at the workplace.





AMF-T-SLOT BOLTS DIN 787 and No. 787

are manufactured within tensile strength classes 8.8, 10.9 and 12.9.

AMF-STUDS DIN 6379 and No. 6379

are manufactured within tensile strength classes 8.8, 10.9 and 12.9.

AMF-HEXAGON NUTS DIN 6330B, DIN 6331 and No. 6334

are manufactured within tensile strength class 10.

The individual characteristics in tensile strength classes 8.8, 10.9 and 12.9 are defined as follows:

- 8. = minimum tensile strength = 800 N/mm²
- .8 = minimum yield point (80% of min. tensile strength) = 640 N/mm²
- 10. = minimum tensile strength = 1000 N/mm²
- .9 = minimum yield point (90% of min. tensile strength) = 900 N/mm²
- 12. = minimum tensile strength = 1200 N/mm²
- .9 = minimum yield point (90% of min. tensile strength) = 1080 N/mm²

STRENGTH OF HEXAGON NUTS:

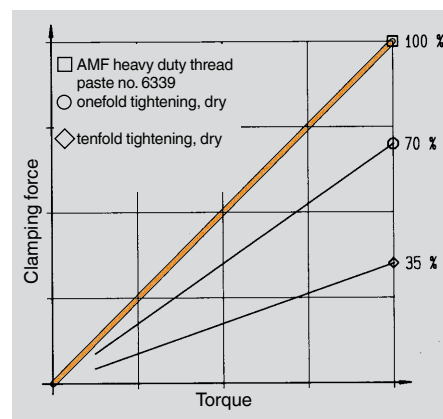
The individual characteristic in tensile strength class 10. defined is:

10. = minimum test strength = 1000 N/mm²

This test strength is equal to the minimum tensile strength of a screw which can be charged to its minimum breaking load, when matched with the respective nut.

A normal screw / nut combination for load transmission would be a nut of tensile strength class "8" for 8.8 screws. For manufacturing of this nut, a minor quality material than for 8.8 screws necessary could be used, since lower tensions occur in the nut, compared with screw. But since nuts require a high wear resistance in addition to sufficient strength, we manufacture them of the same material as our 8.8-screws. This results with tensile strength class "10" for nuts.

Clamping forces depending on lubrication.

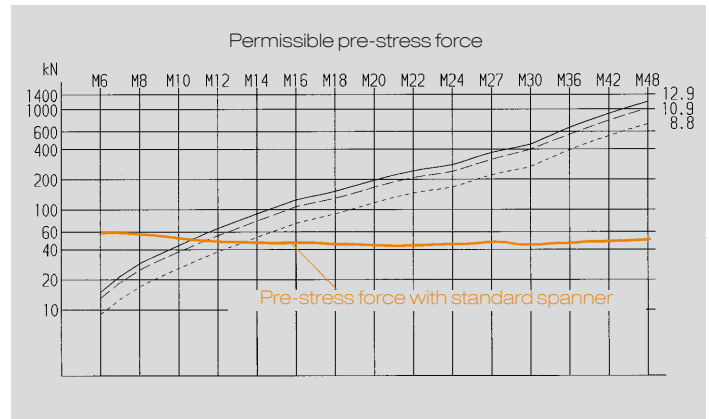


Test results revealed clearly:
Frequent use of non-greased bolt/nut connections in fixtures will reduce clamping forces considerably at still constant torques, with additional wear involved!

We therefore recommend the AMF-Heavy-duty thread paste no. 6339. It has a synergetic acting combination of highly active white solid lubrications and is resistant to heat and wash-off. It provides optimal sliding characteristics for increased clamping force and improved thread life.

| | Tensile strength classes | | | |
|---|--------------------------|------|------|-------|
| | 8.8 | 10.9 | 12.9 | 10 |
| DIN 787 / No. 787 | X | X | X | - |
| DIN 6379 / No. 6379 | X | X | X | - |
| DIN 6330B DIN 6331 No. 6334 | - | - | - | X |
| Nominal tensile strength [N/mm ²] | 800 | 1000 | 1200 | 1000* |
| Minimum yield point [N/mm ²] | 640 | 900 | 1080 | - |

CHART OF PERMISSIBLE AND POSSIBLE PRE-STRESS FORCES:



* Strength figures of the right bolts

EXPLANATION OF TABLE CHARACTERISTICS:

- > **PERMISSIBLE BOLT LOAD** is the maximum tension load, the screw can be stressed with taking into account all active forces. The yield point is only utilized to 80% for safety.
- > **PERMISSIBLE PRE-STRESS FORCE** is the load, the screw can be pre-stressed at most, when tightening the matching nut. Figures of table are valid for a friction of $\mu = 0,14$ in thrust faces and thread, corresponding to the friction of greased medium faces.
- > **REQUIRED LENGTH FOR LEVER OF SPANNER:** These length figures were calculated with the mean value of hand forces achieved in test series by different workmen.

STRENGTH FIGURES AND TORQUES FOR BOLTS AND NUTS:

| Thread | Tensile | M6 | M8 | M10 | M12 | M14 | M16 | M18 | M20 | M22 | M24 | M27 | M30 | M36 | M42 | M48 | |
|--|---------|---------|---------|--------|--------|------|--------|---------|--------|-------|--------|-------|---------|--------|---------|--------|---|
| Pitch of thread | | mm | 1 | 1.25 | 1.50 | 1.75 | 2 | 2 | 2.50 | 2.50 | 2.50 | 3 | 3 | 3.50 | 4 | 4.50 | 5 |
| Nuts: | | | | | | | | | | | | | | | | | |
| Hardness DIN6330/6331/6334 | HRC | 10 | 26 - 36 | | | | | | | | | | | | 20 - 30 | | |
| Test force (AS x Sp) DIN EN ISO 898-2 | kN | 10 | 20.9 | 38.1 | 60.3 | 88.5 | 120.8 | 164.9 | 203.5 | 259.7 | 321.2 | 374.2 | 486.5 | 594.7 | 866 | - | - |
| Nuts for T-slots DIN508/DIN508L: | | | | | | | | | | | | | | | | | |
| Size | | M6x8 | M8x10 | M10x12 | M12x14 | - | M16x18 | - | M20x22 | - | M24x28 | - | M30x36 | M36x42 | M42x48 | M48x54 | |
| Hardness | HRC | 22 - 30 | | | | | | | | | | | | | | | |
| Test force to DIN 508 | kN | 16 | 29 | 46 | 67 | - | 128 | - | 196 | - | 282 | - | 448 | 653 | 653 | 653 | |
| Bolts: | | | | | | | | | | | | | | | | | |
| Hardness | HRC | 8.8 | 22 - 32 | | | | | 32 - 39 | | | | | 23 - 34 | | | | |
| | | 10.9 | 32 - 39 | | | | | | | | | | | | | | |
| | | 12.9 | 39 - 44 | | | | | | | | | | | | | | |

PERMITTED SCREW LOADS AND TIGHTENING TORQUES:

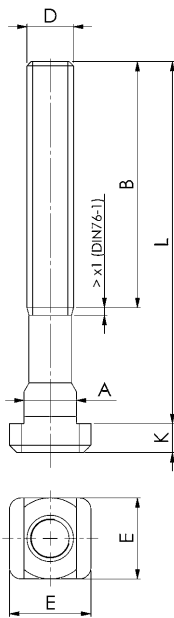
| | | 8.8 | 10.9 | 12.9 | 10 | 8.8 | 10.9 | 12.9 | 10 | 8.8 | 10.9 | 12.9 | 10 | 8.8 | 10.9 | 12.9 | 10 |
|---|----|------|------|------|-----|-----|------|------|------|------|------|------|------|------|------|------|------|
| Minimum breaking force (AS x R _m) | kN | 8.8 | 16 | 29 | 46 | 67 | 92 | 125 | 159 | 203 | 252 | 293 | 381 | 466 | 678 | 930 | 1222 |
| | | 10.9 | 21 | 38 | 60 | 88 | 120 | 163 | 200 | 255 | 315 | 367 | 477 | 583 | 850 | 1165 | 1531 |
| | | 12.9 | 24 | 45 | 71 | 103 | 140 | 192 | 234 | 299 | 370 | 431 | 560 | 684 | 997 | 1367 | 1797 |
| Permissible bolt load max. 80% of yield point | kN | 8.8 | 10 | 19 | 30 | 43 | 59 | 80 | 101 | 129 | 160 | 186 | 242 | 296 | 431 | 591 | 777 |
| | | 10.9 | 14 | 27 | 43 | 63 | 86 | 118 | 144 | 184 | 228 | 265 | 345 | 421 | 614 | 843 | 1107 |
| | | 12.9 | 17 | 32 | 51 | 74 | 101 | 138 | 169 | 215 | 266 | 310 | 404 | 493 | 719 | 986 | 1296 |
| Test force (AS x Sp) to DIN EN ISO 898, part 1 | kN | 8.8 | 12 | 21 | 34 | 49 | 67 | 91 | 115 | 147 | 182 | 212 | 275 | 337 | 490 | 672 | 882 |
| | | 10.9 | 17 | 30 | 48 | 70 | 96 | 130 | 159 | 203 | 252 | 293 | 381 | 466 | 678 | 930 | 1222 |
| | | 12.9 | 20 | 35 | 56 | 82 | 112 | 152 | 186 | 238 | 294 | 342 | 445 | 544 | 792 | 1087 | 1428 |
| Permissible pre-stress force max. 90% of yield point and friction $\mu = 0,14$ | kN | 8.8 | 9 | 17 | 26 | 38 | 53 | 73 | 91 | 117 | 146 | 168 | 221 | 269 | 394 | 542 | 714 |
| | | 10.9 | 13 | 25 | 38 | 55 | 77 | 107 | 130 | 167 | 208 | 240 | 315 | 384 | 561 | 773 | 1018 |
| | | 12.9 | 15 | 29 | 44 | 65 | 91 | 125 | 152 | 196 | 243 | 281 | 369 | 449 | 657 | 904 | 1191 |
| Necessary tightening torque for permissible pre-tensioning force and a friction of $\mu=0,14$ | Nm | 8.8 | 10 | 25 | 46 | 82 | 130 | 206 | 284 | 407 | 542 | 698 | 1021 | 1355 | 2372 | 3802 | 5730 |
| | | 10.9 | 14 | 36 | 67 | 120 | 191 | 302 | 405 | 580 | 772 | 994 | 1455 | 1930 | 3378 | 5415 | 8162 |
| | | 12.9 | 17 | 43 | 79 | 141 | 223 | 354 | 474 | 679 | 903 | 1163 | 1703 | 2258 | 3953 | 6337 | 9571 |
| Required length for lever to achieve permissible pre-stress force | mm | 8.8 | 30 | 67 | 120 | 205 | 310 | 479 | 645 | 900 | 1130 | 1395 | - | - | - | - | - |
| | | 10.9 | 42 | 97 | 175 | 300 | 545 | 700 | 920 | 1285 | 1600 | 1980 | - | - | - | - | - |
| | | 12.9 | 51 | 116 | 207 | 352 | 530 | 823 | 1075 | 1500 | 1880 | 2300 | - | - | - | - | - |
| Combination wrench test torque in accordance with ISO 1711-1 | Nm | - | 58 | 107 | 175 | 230 | 330 | 451 | 594 | 760 | 884 | 1165 | 1579 | 2067 | 3140 | 4021 | 5394 |

AS = nominal cross section in mm² / Sp = min. clamping force in N/mm² / R_m = minimum tensile strength in N/mm² / μ = friction

DIN 787

Bolts for T-slots

forged, T-slot guide cleared, rolled thread, stamped with AMF logo and strength class. M6 to M12 tempered to strength class 10.9, M14 to M42 tempered to strength class 8.8.



Recommendations



DIN 6331,
page 100



DIN 6340,
page 105

| Order no. | D x Slot x L | Strength class | A | B | E | K | Packaging Unit | Weight [g] |
|-----------|--------------|----------------|------|-----|----|----|----------------|------------|
| 84004 | M6x6x25 | 10.9 | 5,7 | 15 | 10 | 4 | 25 | 9 |
| 84012 | M6x6x40 | 10.9 | 5,7 | 28 | 10 | 4 | 25 | 12 |
| 84038 | M8x8x32 | 10.9 | 7,7 | 22 | 13 | 6 | 25 | 20 |
| 80374 | M8x8x50 | 10.9 | 7,7 | 35 | 13 | 6 | 25 | 25 |
| 80382 | M8x8x80 | 10.9 | 7,7 | 50 | 13 | 6 | 25 | 30 |
| 84046 | M10x10x40 | 10.9 | 9,7 | 30 | 15 | 6 | 25 | 30 |
| 80390 | M10x10x63 | 10.9 | 9,7 | 45 | 15 | 6 | 25 | 50 |
| 81323 | M10x10x80 * | 10.9 | 9,7 | 50 | 15 | 6 | 25 | 60 |
| 80408 | M10x10x100 | 10.9 | 9,7 | 60 | 15 | 6 | 25 | 70 |
| 80416 | M12x12x50 * | 10.9 | 11,7 | 33 | 18 | 7 | 25 | 60 |
| 85605 | M12x12x63 * | 10.9 | 11,7 | 40 | 18 | 7 | 25 | 65 |
| 80424 | M12x12x80 | 10.9 | 11,7 | 55 | 18 | 7 | 25 | 75 |
| 81406 | M12x12x100 * | 10.9 | 11,7 | 65 | 18 | 7 | 25 | 90 |
| 80432 | M12x12x125 | 10.9 | 11,7 | 75 | 18 | 7 | 25 | 110 |
| 81497 | M12x12x160 * | 10.9 | 11,7 | 100 | 18 | 7 | - | 135 |
| 80440 | M12x12x200 | 10.9 | 11,7 | 120 | 18 | 7 | - | 160 |
| 80457 | M12x14x50 | 10.9 | 13,7 | 35 | 22 | 8 | 25 | 70 |
| 85613 | M12x14x63 * | 10.9 | 13,7 | 45 | 22 | 8 | 25 | 80 |
| 80465 | M12x14x80 | 10.9 | 13,7 | 55 | 22 | 8 | 25 | 100 |
| 81851 | M12x14x100 * | 10.9 | 13,7 | 65 | 22 | 8 | 25 | 110 |
| 80473 | M12x14x125 | 10.9 | 13,7 | 75 | 22 | 8 | 25 | 120 |
| 82966 | M12x14x160 * | 10.9 | 13,7 | 100 | 22 | 8 | - | 150 |
| 80481 | M12x14x200 | 10.9 | 13,7 | 120 | 22 | 8 | - | 180 |
| 80499 | M14x16x63 * | 8.8 | 15,7 | 45 | 25 | 9 | 25 | 115 |
| 84426 | M14x16x80 * | 8.8 | 15,7 | 55 | 25 | 9 | 25 | 130 |
| 80507 | M14x16x100 * | 8.8 | 15,7 | 65 | 25 | 9 | 25 | 150 |
| 84434 | M14x16x125 * | 8.8 | 15,7 | 75 | 25 | 9 | 25 | 180 |
| 80515 | M14x16x160 * | 8.8 | 15,7 | 100 | 25 | 9 | 25 | 220 |
| 80523 | M14x16x250 * | 8.8 | 15,7 | 150 | 25 | 9 | - | 300 |
| 80531 | M16x16x63 * | 8.8 | 15,7 | 45 | 25 | 9 | 25 | 140 |
| 85621 | M16x16x80 * | 8.8 | 15,7 | 55 | 25 | 9 | 10 | 160 |
| 80549 | M16x16x100 * | 8.8 | 15,7 | 65 | 25 | 9 | 10 | 180 |
| 84384 | M16x16x125 * | 8.8 | 15,7 | 85 | 25 | 9 | 10 | 225 |
| 80556 | M16x16x160 * | 8.8 | 15,7 | 100 | 25 | 9 | 10 | 270 |
| 85647 | M16x16x200 * | 8.8 | 15,7 | 125 | 25 | 9 | - | 315 |
| 80564 | M16x16x250 * | 8.8 | 15,7 | 150 | 25 | 9 | - | 380 |
| 80572 | M16x18x63 | 8.8 | 17,7 | 45 | 28 | 10 | 25 | 160 |
| 85639 | M16x18x80 * | 8.8 | 17,7 | 55 | 28 | 10 | 10 | 185 |
| 80580 | M16x18x100 | 8.8 | 17,7 | 65 | 28 | 10 | 10 | 203 |
| 84400 | M16x18x125 * | 8.8 | 17,7 | 85 | 28 | 10 | 10 | 230 |
| 80598 | M16x18x160 | 8.8 | 17,7 | 100 | 28 | 10 | 10 | 280 |
| 85654 | M16x18x200 * | 8.8 | 17,7 | 125 | 28 | 10 | - | 330 |
| 80606 | M16x18x250 | 8.8 | 17,7 | 150 | 28 | 10 | - | 430 |
| 84103 | M20x20x80 * | 8.8 | 19,7 | 55 | 32 | 12 | - | 290 |
| 84053 | M20x20x100 * | 8.8 | 19,7 | 65 | 32 | 12 | - | 340 |
| 84111 | M20x20x125 * | 8.8 | 19,7 | 85 | 32 | 12 | - | 390 |
| 85662 | M20x20x160 * | 8.8 | 19,7 | 110 | 32 | 12 | - | 470 |
| 84129 | M20x20x200 * | 8.8 | 19,7 | 125 | 32 | 12 | - | 550 |
| 84079 | M20x20x250 * | 8.8 | 19,7 | 150 | 32 | 12 | - | 670 |
| 84137 | M20x20x315 * | 8.8 | 19,7 | 190 | 32 | 12 | - | 800 |
| 80614 | M20x22x80 | 8.8 | 21,7 | 55 | 35 | 14 | - | 330 |
| 85829 | M20x22x100 * | 8.8 | 21,7 | 65 | 35 | 14 | - | 370 |
| 80622 | M20x22x125 | 8.8 | 21,7 | 85 | 35 | 14 | - | 428 |
| 85670 | M20x22x160 * | 8.8 | 21,7 | 110 | 35 | 14 | - | 500 |
| 80630 | M20x22x200 | 8.8 | 21,7 | 125 | 35 | 14 | - | 570 |
| 85845 | M20x22x250 * | 8.8 | 21,7 | 150 | 35 | 14 | - | 680 |
| 80648 | M20x22x315 | 8.8 | 21,7 | 190 | 35 | 14 | - | 820 |
| 80770 | M24x24x100 * | 8.8 | 23,7 | 70 | 40 | 16 | - | 540 |
| 85688 | M24x24x125 * | 8.8 | 23,7 | 85 | 40 | 16 | - | 600 |
| 80788 | M24x24x160 * | 8.8 | 23,7 | 110 | 40 | 16 | - | 770 |
| 85704 | M24x24x200 * | 8.8 | 23,7 | 125 | 40 | 16 | - | 900 |
| 80796 | M24x24x250 * | 8.8 | 23,7 | 150 | 40 | 16 | - | 960 |
| 84061 | M24x24x315 * | 8.8 | 23,7 | 190 | 40 | 16 | - | 1270 |
| 80804 | M24x24x400 * | 8.8 | 23,7 | 240 | 40 | 16 | - | 1410 |
| 80655 | M24x28x100 | 8.8 | 27,7 | 70 | 44 | 18 | - | 650 |
| 85696 | M24x28x125 * | 8.8 | 27,7 | 85 | 44 | 18 | - | 720 |
| 80663 | M24x28x160 | 8.8 | 27,7 | 110 | 44 | 18 | - | 800 |
| 85712 | M24x28x200 * | 8.8 | 27,7 | 125 | 44 | 18 | - | 950 |
| 80671 | M24x28x250 | 8.8 | 27,7 | 150 | 44 | 18 | - | 1120 |

Subject to technical alterations.

DIN 787

Bolts for T-slots

forged, T-slot guide cleared, rolled thread, stamped with AMF logo and strength class. M6 to M12 tempered to strength class 10.9, M14 to M42 tempered to strength class 8.8.

| Order no. | D x Slot x L | Strength class | A | B | E | K | Packaging Unit | Weight [g] |
|-----------|--------------|----------------|------|-----|----|----|----------------|------------|
| 84087 | M24x28x315 * | 8.8 | 27,7 | 190 | 44 | 18 | - | 1350 |
| 80689 | M24x28x400 * | 8.8 | 27,7 | 240 | 44 | 18 | - | 1490 |
| 87643 | M27x32x160 * | 8.8 | 31,6 | 100 | 50 | 20 | - | 1168 |
| 87783 | M27x32x200 * | 8.8 | 31,6 | 135 | 50 | 20 | - | 1345 |
| 87809 | M27x32x315 * | 8.8 | 31,6 | 200 | 50 | 20 | - | 1828 |
| 80697 | M30x36x125 | 8.8 | 35,6 | 80 | 54 | 22 | - | 1250 |
| 85720 | M30x36x160 * | 8.8 | 35,6 | 110 | 54 | 22 | - | 1440 |
| 80705 | M30x36x200 | 8.8 | 35,6 | 135 | 54 | 22 | - | 1630 |
| 85738 | M30x36x250 * | 8.8 | 35,6 | 150 | 54 | 22 | - | 1920 |
| 80713 | M30x36x315 | 8.8 | 35,6 | 200 | 54 | 22 | - | 2100 |
| 80721 | M30x36x500 | 8.8 | 35,6 | 300 | 54 | 22 | - | 3300 |
| 80739 | M36x42x160 | 8.8 | 41,6 | 100 | 65 | 26 | - | 2200 |
| 80747 | M36x42x250 | 8.8 | 41,6 | 175 | 65 | 26 | - | 2820 |
| 80754 | M36x42x400 | 8.8 | 41,6 | 250 | 65 | 26 | - | 3930 |
| 84152 | M42x48x250 | 8.8 | 47,6 | 175 | 75 | 30 | - | 4300 |
| 84160 | M42x48x400 | 8.8 | 47,6 | 250 | 75 | 30 | - | 5800 |

* Size not included in DIN, dimensions similar to DIN

Advantage:

Benefits of thread rolling:

- no interrupted fibre orientation
- reduced notch sensitivity
- very good roughness values on the thread flanks and in the base radius

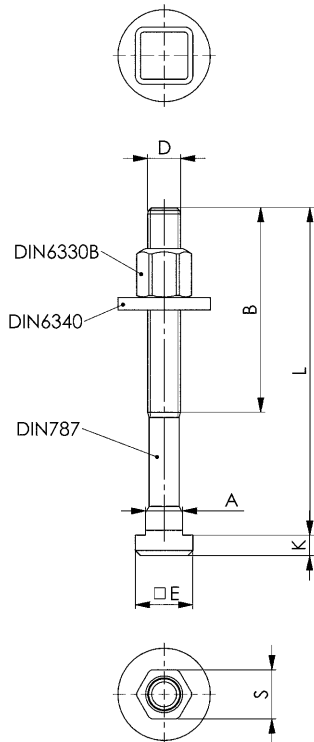


No. 787

Bolts for T-slots, complete

with DIN 787 screws for T-slots, hexagon nut DIN 6330B and washer DIN 6340.

Forged, T-slot guide cleared, rolled thread, stamped with AMF logo and strength class. M6 to M12 tempered to strength class 10.9, M14 to M42 tempered to strength class 8.8.



| Order no. | D x Slot x L | Strength class | A | B | E | K | S | Weight [g] |
|-----------|--------------|----------------|------|-----|----|----|----|------------|
| 84202 | M6x6x25 | 10.9 | 5,7 | 15 | 10 | 4 | 10 | 19 |
| 84210 | M6x6x40 | 10.9 | 5,7 | 28 | 10 | 4 | 10 | 22 |
| 84236 | M8x8x32 | 10.9 | 7,7 | 22 | 13 | 6 | 13 | 40 |
| 80812 | M8x8x50 | 10.9 | 7,7 | 35 | 13 | 6 | 13 | 45 |
| 80820 | M8x8x80 | 10.9 | 7,7 | 50 | 13 | 6 | 13 | 55 |
| 84244 | M10x10x40 | 10.9 | 9,7 | 30 | 15 | 6 | 16 | 65 |
| 80838 | M10x10x63 | 10.9 | 9,7 | 45 | 15 | 6 | 16 | 80 |
| 81356 | M10x10x80 | 10.9 | 9,7 | 50 | 15 | 6 | 16 | 90 |
| 80846 | M10x10x100 | 10.9 | 9,7 | 60 | 15 | 6 | 16 | 110 |
| 80853 | M12x12x50 | 10.9 | 11,7 | 35 | 18 | 7 | 18 | 120 |
| 85746 | M12x12x63 | 10.9 | 11,7 | 40 | 18 | 7 | 18 | 128 |
| 80861 | M12x12x80 | 10.9 | 11,7 | 55 | 18 | 7 | 18 | 130 |
| 81448 | M12x12x100 | 10.9 | 11,7 | 65 | 18 | 7 | 18 | 145 |
| 80879 | M12x12x125 | 10.9 | 11,7 | 75 | 18 | 7 | 18 | 170 |
| 81505 | M12x12x160 | 10.9 | 11,7 | 100 | 18 | 7 | 18 | 195 |
| 80887 | M12x12x200 | 10.9 | 11,7 | 120 | 18 | 7 | 18 | 220 |
| 80895 | M12x14x50 | 10.9 | 13,7 | 35 | 22 | 8 | 18 | 130 |
| 85753 | M12x14x63 | 10.9 | 13,7 | 45 | 22 | 8 | 18 | 145 |
| 80903 | M12x14x80 | 10.9 | 13,7 | 55 | 22 | 8 | 18 | 155 |
| 82974 | M12x14x100 | 10.9 | 13,7 | 65 | 22 | 8 | 18 | 165 |
| 80911 | M12x14x125 | 10.9 | 13,7 | 75 | 22 | 8 | 18 | 180 |
| 84376 | M12x14x160 | 10.9 | 13,7 | 100 | 22 | 8 | 18 | 210 |
| 80929 | M12x14x200 | 10.9 | 13,7 | 120 | 22 | 8 | 18 | 240 |
| 80937 | M14x16x63 | 8.8 | 15,7 | 45 | 25 | 9 | 21 | 200 |
| 84442 | M14x16x80 | 8.8 | 15,7 | 55 | 25 | 9 | 21 | 220 |
| 80945 | M14x16x100 | 8.8 | 15,7 | 65 | 25 | 9 | 21 | 230 |
| 84459 | M14x16x125 | 8.8 | 15,7 | 75 | 25 | 9 | 21 | 280 |
| 80952 | M14x16x160 | 8.8 | 15,7 | 100 | 25 | 9 | 21 | 310 |
| 80960 | M14x16x250 | 8.8 | 15,7 | 120 | 25 | 9 | 21 | 390 |
| 80978 | M16x16x63 | 8.8 | 15,7 | 45 | 25 | 9 | 24 | 250 |
| 85761 | M16x16x80 | 8.8 | 15,7 | 55 | 25 | 9 | 24 | 275 |
| 80986 | M16x16x100 | 8.8 | 15,7 | 65 | 25 | 9 | 24 | 290 |
| 84392 | M16x16x125 | 8.8 | 15,7 | 85 | 25 | 9 | 24 | 300 |
| 80994 | M16x16x160 | 8.8 | 15,7 | 100 | 25 | 9 | 24 | 380 |
| 85779 | M16x16x200 | 8.8 | 15,7 | 125 | 25 | 9 | 24 | 435 |
| 81000 | M16x16x250 | 8.8 | 15,7 | 150 | 25 | 9 | 24 | 530 |
| 81018 | M16x18x63 | 8.8 | 17,7 | 45 | 28 | 10 | 24 | 260 |
| 85787 | M16x18x80 | 8.8 | 17,7 | 55 | 28 | 10 | 24 | 305 |
| 81026 | M16x18x100 | 8.8 | 17,7 | 65 | 28 | 10 | 24 | 315 |
| 84418 | M16x18x125 | 8.8 | 17,7 | 85 | 28 | 10 | 24 | 360 |
| 81034 | M16x18x160 | 8.8 | 17,7 | 100 | 28 | 10 | 24 | 400 |
| 85795 | M16x18x200 | 8.8 | 17,7 | 125 | 28 | 10 | 24 | 448 |
| 81042 | M16x18x250 | 8.8 | 17,7 | 150 | 28 | 10 | 24 | 560 |
| 84301 | M20x20x80 | 8.8 | 19,7 | 55 | 32 | 12 | 30 | 520 |
| 81547 | M20x20x100 | 8.8 | 19,7 | 65 | 32 | 12 | 30 | 570 |
| 84319 | M20x20x125 | 8.8 | 19,7 | 85 | 32 | 12 | 30 | 600 |
| 85803 | M20x20x160 | 8.8 | 19,7 | 110 | 32 | 12 | 30 | 680 |
| 84327 | M20x20x200 | 8.8 | 19,7 | 125 | 32 | 12 | 30 | 750 |
| 81562 | M20x20x250 | 8.8 | 19,7 | 150 | 32 | 12 | 30 | 800 |
| 84335 | M20x20x315 | 8.8 | 19,7 | 190 | 32 | 12 | 30 | 940 |
| 81059 | M20x22x80 | 8.8 | 21,7 | 55 | 35 | 14 | 30 | 530 |
| 85837 | M20x22x100 | 8.8 | 21,7 | 65 | 35 | 14 | 30 | 610 |
| 81067 | M20x22x125 | 8.8 | 21,7 | 85 | 35 | 14 | 30 | 670 |
| 85811 | M20x22x160 | 8.8 | 21,7 | 110 | 35 | 14 | 30 | 710 |
| 81075 | M20x22x200 | 8.8 | 21,7 | 125 | 35 | 14 | 30 | 750 |
| 85852 | M20x22x250 | 8.8 | 21,7 | 150 | 35 | 14 | 30 | 850 |
| 81083 | M20x22x315 | 8.8 | 21,7 | 190 | 35 | 14 | 30 | 980 |
| 81216 | M24x24x100 | 8.8 | 23,7 | 70 | 40 | 16 | 36 | 910 |
| 85860 | M24x24x125 | 8.8 | 23,7 | 85 | 40 | 16 | 36 | 970 |
| 81224 | M24x24x160 | 8.8 | 23,7 | 110 | 40 | 16 | 36 | 1040 |
| 85878 | M24x24x200 | 8.8 | 23,7 | 125 | 40 | 16 | 36 | 1265 |
| 81232 | M24x24x250 | 8.8 | 23,7 | 150 | 40 | 16 | 36 | 1410 |
| 81588 | M24x24x315 | 8.8 | 23,7 | 190 | 40 | 16 | 36 | 1640 |
| 81240 | M24x24x400 | 8.8 | 23,7 | 240 | 40 | 16 | 36 | 1780 |
| 81091 | M24x28x100 | 8.8 | 27,7 | 70 | 44 | 18 | 36 | 980 |
| 85886 | M24x28x125 | 8.8 | 27,7 | 85 | 44 | 18 | 36 | 1010 |
| 81109 | M24x28x160 | 8.8 | 27,7 | 110 | 44 | 18 | 36 | 1150 |
| 85894 | M24x28x200 | 8.8 | 27,7 | 125 | 44 | 18 | 36 | 1240 |
| 81117 | M24x28x250 | 8.8 | 27,7 | 150 | 44 | 18 | 36 | 1500 |

Subject to technical alterations.

No. 787

Bolts for T-slots, complete

with DIN 787 screws for T-slots, hexagon nut DIN 6330B and washer DIN 6340.

Forged, T-slot guide cleared, rolled thread, stamped with AMF logo and strength class. M6 to M12 tempered to strength class 10.9, M14 to M42 tempered to strength class 8.8.

| Order no. | D x Slot x L | Strength class | A | B | E | K | S | Weight [g] |
|-----------|--------------|----------------|------|-----|----|----|----|------------|
| 81604 | M24x28x315 | 8.8 | 27,7 | 190 | 44 | 18 | 36 | 1730 |
| 81125 | M24x28x400 | 8.8 | 27,7 | 240 | 44 | 18 | 36 | 1860 |
| 81133 | M30x36x125 | 8.8 | 35,6 | 80 | 54 | 22 | 46 | 1860 |
| 85902 | M30x36x160 | 8.8 | 35,6 | 110 | 54 | 22 | 46 | 1950 |
| 81141 | M30x36x200 | 8.8 | 35,6 | 135 | 54 | 22 | 46 | 2230 |
| 85910 | M30x36x250 | 8.8 | 35,6 | 150 | 54 | 22 | 46 | 2555 |
| 81158 | M30x36x315 | 8.8 | 35,6 | 200 | 54 | 22 | 46 | 2950 |
| 81166 | M30x36x500 | 8.8 | 35,6 | 300 | 54 | 22 | 46 | 3950 |
| 81174 | M36x42x160 | 8.8 | 41,6 | 100 | 65 | 26 | 55 | 3220 |
| 81182 | M36x42x250 | 8.8 | 41,6 | 175 | 65 | 26 | 55 | 3840 |
| 81190 | M36x42x400 | 8.8 | 41,6 | 250 | 65 | 26 | 55 | 4950 |
| 84186 | M42x48x250 | 8.8 | 47,6 | 175 | 75 | 30 | 65 | 6900 |
| 84194 | M42x48x400 | 8.8 | 47,6 | 250 | 75 | 30 | 65 | 8400 |

Advantage:

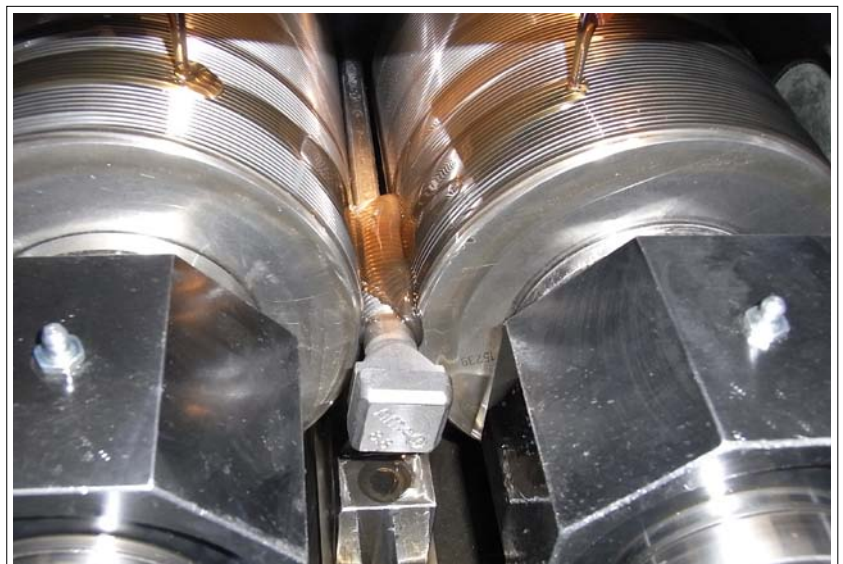
Benefits of thread rolling:

- no interrupted fibre orientation
- reduced notch sensitivity
- very good roughness values on the thread flanks and in the base radius

Note:

AMF quality starts with controlled raw material!

Our fully-automated forging plant produces clamping screws. Once cleared, the thread is rolled.



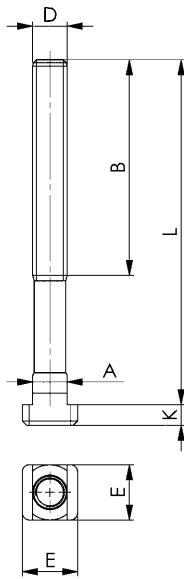
Subject to technical alterations.



No. 787

Screws for T-slot, strength class 12.9

Forged, T-slot guid-faces broached, rolled. Thread, tempered. Strength class punched into head.



| Order no. | D x Slot x L | A | B | E | K | Packaging Unit | Weight [g] |
|-----------|--------------|------|-----|----|----|----------------|------------|
| 83956 | M10x10x40 | 9,7 | 30 | 15 | 6 | 25 | 30 |
| 83972 | M10x10x50 | 9,7 | 35 | 15 | 6 | 25 | 40 |
| 83998 | M10x10x80 | 9,7 | 50 | 15 | 6 | 25 | 60 |
| 83923 | M10x10x100 | 9,7 | 60 | 15 | 6 | 25 | 70 |
| 86140 | M12x12x50 | 11,7 | 35 | 18 | 7 | 25 | 60 |
| 86231 | M12x12x63 | 11,7 | 40 | 18 | 7 | 25 | 65 |
| 86157 | M12x12x80 | 11,7 | 55 | 18 | 7 | 25 | 75 |
| 86256 | M12x12x100 | 11,7 | 65 | 18 | 7 | 25 | 90 |
| 86165 | M12x12x125 | 11,7 | 75 | 18 | 7 | 25 | 110 |
| 87304 | M12x12x160 | 11,7 | 100 | 18 | 7 | - | 135 |
| 86173 | M12x12x200 | 11,7 | 120 | 18 | 7 | - | 160 |
| 86181 | M12x14x50 | 13,7 | 35 | 22 | 8 | 25 | 70 |
| 86611 | M12x14x63 | 13,7 | 45 | 22 | 8 | 25 | 80 |
| 86199 | M12x14x80 | 13,7 | 55 | 22 | 8 | 25 | 100 |
| 86678 | M12x14x100 | 13,7 | 65 | 22 | 8 | 25 | 110 |
| 86207 | M12x14x125 | 13,7 | 75 | 22 | 8 | 25 | 120 |
| 87320 | M12x14x160 | 13,7 | 100 | 22 | 8 | - | 150 |
| 86215 | M12x14x200 | 13,7 | 120 | 22 | 8 | - | 180 |
| 86264 | M16x16x63 | 15,7 | 45 | 25 | 9 | 25 | 140 |
| 87346 | M16x16x80 | 15,7 | 55 | 25 | 9 | 10 | 160 |
| 86272 | M16x16x100 | 15,7 | 65 | 25 | 9 | 10 | 180 |
| 87361 | M16x16x125 | 15,7 | 85 | 25 | 9 | 10 | 225 |
| 86280 | M16x16x160 | 15,7 | 100 | 25 | 9 | 10 | 270 |
| 87387 | M16x16x200 | 15,7 | 125 | 25 | 9 | - | 315 |
| 86298 | M16x16x250 | 15,7 | 150 | 25 | 9 | - | 380 |
| 86306 | M16x18x63 | 17,7 | 45 | 28 | 10 | 25 | 160 |
| 86629 | M16x18x80 | 17,7 | 55 | 28 | 10 | 10 | 185 |
| 86314 | M16x18x100 | 17,7 | 65 | 28 | 10 | 10 | 203 |
| 86645 | M16x18x125 | 17,7 | 85 | 28 | 10 | 10 | 230 |
| 86322 | M16x18x160 | 17,7 | 100 | 28 | 10 | 10 | 280 |
| 87403 | M16x18x200 | 17,7 | 125 | 28 | 10 | - | 330 |
| 86330 | M16x18x250 | 17,7 | 150 | 28 | 10 | - | 430 |
| 86421 | M20x20x80 | 19,7 | 55 | 32 | 12 | - | 290 |
| 86439 | M20x20x125 | 19,7 | 85 | 32 | 12 | - | 390 |
| 87429 | M20x20x160 | 19,7 | 110 | 32 | 12 | - | 470 |
| 86447 | M20x20x200 | 19,7 | 125 | 32 | 12 | - | 550 |
| 87437 | M20x20x250 | 19,7 | 150 | 32 | 12 | - | 670 |
| 86454 | M20x20x315 | 19,7 | 190 | 32 | 12 | - | 800 |
| 86348 | M20x22x80 | 21,7 | 55 | 35 | 14 | - | 330 |
| 86355 | M20x22x125 | 21,7 | 85 | 35 | 14 | - | 428 |
| 87445 | M20x22x160 | 21,7 | 110 | 35 | 14 | - | 500 |
| 86363 | M20x22x200 | 21,7 | 125 | 35 | 14 | - | 570 |
| 87510 | M20x22x250 | 21,7 | 150 | 35 | 14 | - | 680 |
| 86371 | M20x22x315 | 21,7 | 190 | 35 | 14 | - | 820 |
| 86462 | M24x24x100 | 23,7 | 70 | 40 | 16 | - | 540 |
| 86470 | M24x24x160 | 23,7 | 110 | 40 | 16 | - | 770 |
| 87577 | M24x24x200 | 23,7 | 125 | 40 | 16 | - | 900 |
| 86488 | M24x24x250 | 23,7 | 150 | 40 | 16 | - | 960 |
| 86496 | M24x24x400 | 23,7 | 240 | 40 | 16 | - | 1410 |
| 86389 | M24x28x100 | 27,7 | 70 | 44 | 18 | - | 650 |
| 86397 | M24x28x160 | 27,7 | 110 | 44 | 18 | - | 800 |
| 87585 | M24x28x200 | 27,7 | 125 | 44 | 18 | - | 950 |
| 86405 | M24x28x250 | 27,7 | 150 | 44 | 18 | - | 1120 |
| 86413 | M24x28x400 | 27,7 | 240 | 44 | 18 | - | 1490 |
| 81281 | M30x36x160 | 35,6 | 110 | 54 | 22 | - | 1950 |
| 81364 | M30x36x200 | 35,6 | 135 | 54 | 22 | - | 2230 |
| 81463 | M30x36x250 | 35,6 | 150 | 54 | 22 | - | 2555 |
| 82131 | M30x36x315 | 35,6 | 200 | 54 | 22 | - | 2950 |

Advantage:

- higher strength class compared to DIN 787

Benefits of thread rolling:

- no interrupted fibre orientation
- reduced notch sensitivity
- very good roughness values on the thread flanks and in the base radius

Recommendations



DIN 6330B,
page 99



DIN 6340,
page 105



Subject to technical alterations.

No. 797

Rhombus-head screws for T-slots

forged, T-slots milled, rolled thread, heat-treated.



| Order no. | D x Slot x L | Strength class | A | B | E | K | Weight [g] |
|-----------|--------------|----------------|------|-----|----|----|------------|
| 87296 | M12x14x 50 | 8.8 | 13,7 | 35 | 22 | 8 | 70 |
| 87312 | M12x14x 80 | 8.8 | 13,7 | 55 | 22 | 8 | 100 |
| 87338 | M12x14x125 | 8.8 | 13,7 | 75 | 22 | 8 | 120 |
| 87353 | M16x18x 63 | 8.8 | 17,7 | 45 | 28 | 10 | 160 |
| 87379 | M16x18x100 | 8.8 | 17,7 | 65 | 28 | 10 | 220 |
| 87395 | M16x18x160 | 8.8 | 17,7 | 100 | 28 | 10 | 280 |
| 86793 | M20x22x 80 | 8.8 | 21,7 | 55 | 35 | 14 | 330 |
| 86801 | M20x22x125 | 8.8 | 21,7 | 85 | 35 | 14 | 430 |
| 86819 | M20x22x200 | 8.8 | 21,7 | 120 | 35 | 14 | 570 |
| 86959 | M24x28x125 | 8.8 | 27,7 | 85 | 44 | 18 | 770 |
| 87114 | M24x28x250 | 8.8 | 27,7 | 150 | 44 | 18 | 1120 |

Application:

- additional setup of a clamping point for a previously clamped fixture
- subsequent setup of a clamping point for previously occupied machine table T-slot
- Insertion of the rhombus-head screw from above into the T-slot and turning up to the stop in the T-slot
- This is also possible with the combination of rhombus-head screw no. 510 and stud DIN 6379

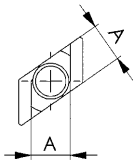
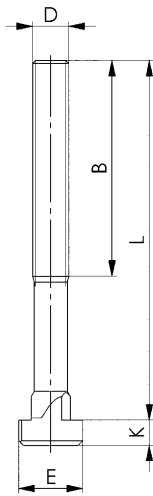
Advantage:

Benefits of thread rolling:

- no interrupted fibre orientation
- reduced notch sensitivity
- very good roughness values on the thread flanks and in the base radius

Note:

Owing to the reduced contact surface in the T-slot, the max. permissible screw load capacity corresponds to the values for strength class 8.8. Matching nuts DIN 6330B and washers DIN 6340.



Recommendations



DIN 6331,
page 100



DIN 6340,
page 105



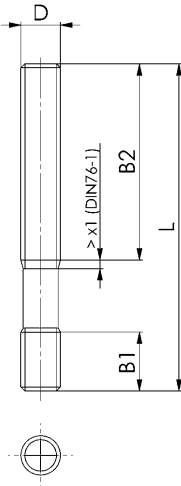
Subject to technical alterations.



DIN 6379

Studs for nuts and T-slots

Rolled thread. M 6-M12 tempered to strength class 10.9, M14-M42 tempered to strength class 8.8.



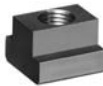
Recommendations



DIN 6331,
page 100



DIN 6340,
page 105



DIN 508,
page 96

| Order no. | D x L | Strength class | B1 | B2 | Packaging Unit | Weight [g] |
|-----------|-----------|----------------|----|-----|----------------|------------|
| 84772 | M 6x 32 * | 10.9 | 9 | 16 | 50 | 8 |
| 86546 | M 6x 40 * | 10.9 | 9 | 20 | 50 | 9 |
| 84780 | M 6x 50 | 10.9 | 9 | 30 | 50 | 11 |
| 85522 | M 6x 63 * | 10.9 | 9 | 40 | 50 | 14 |
| 84798 | M 6x 80 | 10.9 | 9 | 50 | 50 | 18 |
| 81257 | M 8x 40 | 10.9 | 11 | 20 | 100 | 10 |
| 84806 | M 8x 63 | 10.9 | 11 | 40 | 50 | 20 |
| 81273 | M 8x 80 * | 10.9 | 11 | 50 | 50 | 25 |
| 84814 | M 8x100 | 10.9 | 11 | 63 | 50 | 30 |
| 84756 | M 8x125 * | 10.9 | 11 | 75 | 50 | 36 |
| 84822 | M 8x160 * | 10.9 | 11 | 100 | 50 | 45 |
| 81299 | M10x 50 | 10.9 | 13 | 25 | 50 | 25 |
| 84830 | M10x 80 | 10.9 | 13 | 50 | 50 | 40 |
| 86041 | M10x100 * | 10.9 | 13 | 75 | 50 | 50 |
| 81315 | M10x125 | 10.9 | 13 | 75 | 25 | 62 |
| 85928 | M10x160 * | 10.9 | 13 | 100 | 50 | 80 |
| 84848 | M10x200 | 10.9 | 13 | 125 | - | 100 |
| 84855 | M12x 50 | 10.9 | 15 | 25 | 25 | 37 |
| 81331 | M12x 63 * | 10.9 | 15 | 32 | 25 | 45 |
| 84863 | M12x 80 | 10.9 | 15 | 50 | 50 | 55 |
| 81349 | M12x100 * | 10.9 | 15 | 63 | 50 | 70 |
| 84871 | M12x125 | 10.9 | 15 | 75 | 25 | 90 |
| 85480 | M12x160 * | 10.9 | 15 | 100 | 25 | 113 |
| 84889 | M12x200 * | 10.9 | 15 | 125 | - | 140 |
| 81372 | M14x 63 * | 8.8 | 17 | 32 | 25 | 80 |
| 84467 | M14x80 * | 8.8 | 17 | 50 | 25 | 85 |
| 81380 | M14x100 * | 8.8 | 17 | 63 | 25 | 90 |
| 84475 | M14x125 * | 8.8 | 17 | 75 | 25 | 120 |
| 81398 | M14x160 * | 8.8 | 17 | 100 | 25 | 150 |
| 86553 | M14x200 * | 8.8 | 17 | 125 | - | 195 |
| 84897 | M14x250 * | 8.8 | 17 | 160 | - | 240 |
| 84905 | M16x 63 | 8.8 | 19 | 32 | 25 | 85 |
| 81414 | M16x 80 * | 8.8 | 19 | 50 | 25 | 105 |
| 84913 | M16x100 | 8.8 | 19 | 63 | 25 | 130 |
| 81422 | M16x125 * | 8.8 | 19 | 75 | 25 | 160 |
| 84921 | M16x160 | 8.8 | 19 | 100 | 25 | 218 |
| 85498 | M16x200 * | 8.8 | 19 | 125 | - | 280 |
| 84939 | M16x250 | 8.8 | 19 | 160 | - | 325 |
| 85548 | M16x315 * | 8.8 | 19 | 190 | - | 425 |
| 85472 | M16x500 * | 8.8 | 19 | 315 | - | 650 |
| 84947 | M18x 80 * | 8.8 | 23 | 50 | 25 | 130 |
| 84954 | M18x125 * | 8.8 | 23 | 75 | 25 | 200 |
| 86561 | M18x160 * | 8.8 | 23 | 100 | - | 255 |
| 81471 | M18x200 * | 8.8 | 23 | 125 | - | 320 |
| 81489 | M18x250 * | 8.8 | 23 | 150 | - | 400 |
| 84962 | M18x315 * | 8.8 | 23 | 180 | - | 500 |
| 84970 | M20x 80 | 8.8 | 27 | 32 | - | 185 |
| 84988 | M20x125 | 8.8 | 27 | 70 | - | 255 |
| 85506 | M20x160 * | 8.8 | 27 | 100 | - | 330 |
| 81513 | M20x200 | 8.8 | 27 | 125 | - | 410 |
| 81521 | M20x250 * | 8.8 | 27 | 160 | - | 510 |
| 84996 | M20x315 | 8.8 | 27 | 190 | - | 640 |
| 85977 | M20x400 * | 8.8 | 27 | 250 | - | 815 |
| 85001 | M20x500 * | 8.8 | 27 | 315 | - | 1020 |
| 85019 | M22x100 * | 8.8 | 31 | 45 | - | 270 |
| 81539 | M22x160 * | 8.8 | 31 | 100 | - | 430 |
| 86579 | M22x200 * | 8.8 | 31 | 125 | - | 500 |
| 81554 | M22x250 * | 8.8 | 31 | 160 | - | 670 |
| 86595 | M22x315 * | 8.8 | 31 | 190 | - | 790 |
| 85027 | M22x400 * | 8.8 | 31 | 250 | - | 1070 |
| 85035 | M24x100 | 8.8 | 35 | 45 | - | 290 |
| 85563 | M24x125 * | 8.8 | 35 | 70 | - | 380 |
| 81570 | M24x160 | 8.8 | 35 | 100 | - | 470 |
| 85514 | M24x200 * | 8.8 | 35 | 125 | - | 580 |
| 81596 | M24x250 | 8.8 | 35 | 160 | - | 730 |
| 86009 | M24x315 * | 8.8 | 35 | 190 | - | 920 |
| 85043 | M24x400 | 8.8 | 35 | 250 | - | 1160 |
| 86025 | M24x500 * | 8.8 | 35 | 315 | - | 1460 |
| 85050 | M24x630 * | 8.8 | 35 | 315 | - | 1860 |

Subject to technical alterations.

DIN 6379

Studs for nuts and T-slots

Rolled thread. M 6-M12 tempered to strength class 10.9,
M14-M42 tempered to strength class 8.8.

| Order no. | D x L | Strength class | B1 | B2 | Packaging Unit | Weight [g] |
|-----------|------------|----------------|----|-----|----------------|------------|
| 81695 | M27x125 * | 8.8 | 39 | 56 | - | 485 |
| 81703 | M27x200 * | 8.8 | 39 | 125 | - | 770 |
| 81711 | M27x315 * | 8.8 | 39 | 190 | - | 1110 |
| 86587 | M27x400 * | 8.8 | 39 | 250 | - | 1535 |
| 81729 | M27x500 * | 8.8 | 39 | 315 | - | 1930 |
| 85068 | M30x125 | 8.8 | 43 | 56 | - | 590 |
| 81612 | M30x200 * | 8.8 | 43 | 125 | - | 950 |
| 81620 | M30x315 | 8.8 | 43 | 190 | - | 1490 |
| 81638 | M30x500 | 8.8 | 43 | 315 | - | 2360 |
| 81646 | M30x700 * | 8.8 | 43 | 400 | - | 3300 |
| 81661 | M30x1000 * | 8.8 | 43 | 400 | - | 4700 |
| 85076 | M36x160 | 8.8 | 51 | 80 | - | 1100 |
| 81653 | M36x200 * | 8.8 | 51 | 125 | - | 1340 |
| 85084 | M36x250 | 8.8 | 51 | 160 | - | 1710 |
| 85555 | M36x315 * | 8.8 | 51 | 190 | - | 2150 |
| 85092 | M36x400 | 8.8 | 51 | 250 | - | 2700 |
| 81679 | M36x500 * | 8.8 | 51 | 315 | - | 3450 |
| 81687 | M36x700 * | 8.8 | 51 | 400 | - | 4750 |
| 85589 | M42x315 * | 8.8 | 59 | 190 | - | 2950 |
| 85597 | M42x400 * | 8.8 | 59 | 250 | - | 3750 |
| 85530 | M42x500 * | 8.8 | 59 | 315 | - | 4690 |

* Size not included in DIN, dimensions similar to DIN

Advantage:

Benefits of thread rolling:

- no interrupted fibre orientation
- reduced notch sensitivity
- very good roughness values on the thread flanks and in the base radius



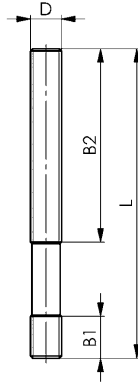
Subject to technical alterations.



No. 6379

Studs for nuts and T-slots, strength class 12.9

Steel, tempered, rolled thread.



| Order no. | D x L | B1 | B2 | Packaging Unit | Weight [g] |
|-----------|---------|----|-----|----------------|------------|
| 82123 | M12x 80 | 15 | 50 | 50 | 55 |
| 89193 | M12x100 | 15 | 63 | 25 | 70 |
| 89250 | M12x125 | 15 | 75 | 25 | 90 |
| 89276 | M12x160 | 15 | 100 | 25 | 113 |
| 82180 | M16x 80 | 19 | 50 | 25 | 105 |
| 82263 | M16x100 | 19 | 63 | 25 | 130 |
| 85571 | M16x125 | 19 | 75 | 25 | 160 |
| 87734 | M16x160 | 19 | 100 | 25 | 218 |
| 87759 | M16x200 | 19 | 125 | - | 280 |
| 87791 | M16x250 | 19 | 160 | - | 325 |
| 87668 | M20x125 | 27 | 70 | - | 255 |
| 87684 | M20x160 | 27 | 100 | - | 330 |
| 87700 | M20x200 | 27 | 125 | - | 410 |
| 87742 | M20x250 | 27 | 160 | - | 510 |
| 87833 | M20x315 | 27 | 190 | - | 640 |
| 87692 | M20x500 | 27 | 315 | - | 1020 |
| 88286 | M24x160 | 35 | 100 | - | 470 |
| 88930 | M24x200 | 35 | 125 | 50 | 580 |
| 89094 | M24x250 | 35 | 160 | - | 730 |
| 89136 | M24x315 | 35 | 200 | - | 920 |
| 89151 | M24x400 | 35 | 250 | - | 1160 |
| 89177 | M24x500 | 35 | 315 | - | 1460 |

Advantage:

- higher strength class compared to IN 6379

Benefits of thread rolling:

- no interrupted fibre orientation
- reduced notch sensitivity
- very good roughness values on the thread flanks and in the base radius

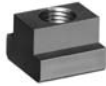
Recommendations



DIN 6331, page 100



DIN 6340, page 105



DIN 508, page 96

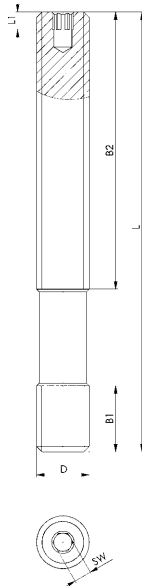
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No. 6379I

Studs with hexagon socket, strength class 12.9

Steel, tempered, rolled thread.



| Order no. | D x L | Strength class | B1 | B2 | L1 | SW | Weight [g] |
|-----------|---------|----------------|----|-----|----|----|------------|
| 381954 | M12x100 | 12.9 | 15 | 63 | 4 | 4 | 70 |
| 381913 | M12x125 | 12.9 | 15 | 75 | 4 | 4 | 90 |
| 381970 | M12x160 | 12.9 | 15 | 100 | 4 | 4 | 113 |
| 381996 | M16x125 | 12.9 | 19 | 75 | 4 | 4 | 160 |
| 381939 | M16x160 | 12.9 | 19 | 100 | 4 | 4 | 218 |
| 382010 | M16x200 | 12.9 | 19 | 125 | 4 | 4 | 280 |
| 382028 | M20x160 | 12.9 | 27 | 100 | 5 | 5 | 330 |
| 382036 | M20x200 | 12.9 | 27 | 125 | 5 | 5 | 410 |
| 382044 | M20x250 | 12.9 | 27 | 160 | 5 | 5 | 510 |
| 382051 | M24x200 | 12.9 | 35 | 125 | 5 | 5 | 580 |
| 382069 | M24x250 | 12.9 | 35 | 160 | 5 | 5 | 730 |

Application:

- For use in all areas of cutting and non-cutting production
- particularly suitable for use on injection moulding machines and presses

Advantage:

- fast loosening or tightening by additional hexagon socket
- variable and fast adjustment options at a distance from the workpiece
- higher strength class compared to IN 6379

Benefits of thread rolling:

- no interrupted fibre orientation
- reduced notch sensitivity
- very good roughness values on the thread flanks and in the base radius

Note:

The nuts DIN 6330B, strength class 10 and washers DIN 6340 must be used in combination with this threaded pin.

Recommendations

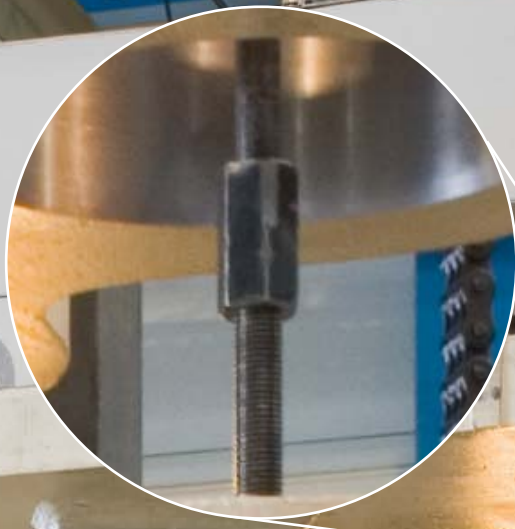


ISO 2936C

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Subject to technical alterations.

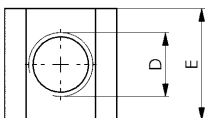
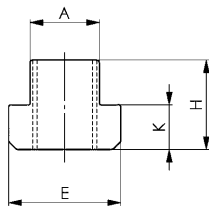


+K

DIN 508

Nuts for T-slots (T-nuts)

tempered, grade 10.



| Order no. | D x Slot | Test force [kN] | A | E | H | K | Packaging Unit | Weight [g] |
|-----------|----------|-----------------|------|----|----|----|----------------|------------|
| 80002 | M 5x 6 | 11,4 | 5,7 | 10 | 8 | 4 | 50 | 4 |
| 80010 | M 6x 8 | 16,0 | 7,7 | 13 | 10 | 6 | 100 | 9 |
| 80028 | M 8x10 | 29,0 | 9,7 | 15 | 12 | 6 | 100 | 12 |
| 140301 | M 8x12* | 29,0 | 11,7 | 18 | 14 | 7 | 50 | 22 |
| 140327 | M 8x14* | 29,0 | 13,7 | 22 | 16 | 8 | 50 | 41 |
| 153460 | M 8x16* | 29,0 | 15,7 | 25 | 18 | 9 | 25 | 50 |
| 153478 | M 8x18* | 29,0 | 17,7 | 28 | 20 | 10 | 25 | 91 |
| 80036 | M10x12 | 46,0 | 11,7 | 18 | 14 | 7 | 50 | 22 |
| 80234 | M10x14* | 46,0 | 13,7 | 22 | 16 | 8 | 50 | 37 |
| 80366 | M10x16* | 46,0 | 15,7 | 25 | 18 | 9 | 25 | 60 |
| 81265 | M10x18* | 46,0 | 17,7 | 28 | 20 | 10 | 25 | 87 |
| 80044 | M12x14 | 67,0 | 13,7 | 22 | 16 | 8 | 50 | 35 |
| 80168 | M12x16* | 67,0 | 15,7 | 25 | 18 | 9 | 25 | 50 |
| 158907 | M12x18* | 67,0 | 17,7 | 28 | 20 | 10 | 25 | 82 |
| 80051 | M14x16* | - | 15,7 | 25 | 18 | 9 | 25 | 50 |
| 80176 | M14x18* | - | 17,7 | 28 | 20 | 10 | 25 | 70 |
| 80069 | M16x18 | 128,0 | 17,7 | 28 | 20 | 10 | 50 | 70 |
| 80184 | M16x20* | 128,0 | 19,7 | 32 | 24 | 12 | 25 | 110 |
| 155630 | M16x22* | 128,0 | 21,7 | 35 | 28 | 14 | 25 | 176 |
| 159418 | M16x24* | 128,0 | 23,7 | 40 | 32 | 16 | 10 | 260 |
| 159426 | M16x28* | 128,0 | 27,7 | 44 | 36 | 18 | - | 383 |
| 80077 | M18x20* | - | 19,7 | 32 | 24 | 12 | 25 | 110 |
| 80242 | M18x22* | - | 21,7 | 35 | 28 | 14 | 10 | 163 |
| 80085 | M20x22 | 196,0 | 21,7 | 35 | 28 | 14 | 25 | 155 |
| 80192 | M20x24* | 196,0 | 23,7 | 40 | 32 | 16 | 10 | 235 |
| 158899 | M20x28* | 196,0 | 27,7 | 44 | 36 | 18 | - | 355 |
| 80093 | M22x24* | - | 23,7 | 40 | 32 | 16 | 10 | 220 |
| 80358 | M22x28* | - | 27,7 | 44 | 36 | 18 | 10 | 340 |
| 80101 | M24x28 | 282,0 | 27,7 | 44 | 36 | 18 | - | 322 |
| 80200 | M24x30* | 282,0 | 29,7 | 48 | 38 | 19 | - | 440 |
| 80218 | M24x36* | 282,0 | 35,6 | 54 | 44 | 22 | - | 700 |
| 80119 | M27x32* | - | 31,6 | 50 | 40 | 20 | - | 460 |
| 80127 | M30x36 | 448,0 | 35,6 | 54 | 44 | 22 | - | 590 |
| 80226 | M30x42* | 448,0 | 41,6 | 65 | 52 | 26 | - | 1150 |
| 80135 | M36x42 | 653,0 | 41,6 | 65 | 52 | 26 | - | 1010 |
| 80143 | M42x48 | 653,0 | 47,6 | 75 | 60 | 30 | - | 1600 |
| 80150 | M48x54 | 653,0 | 53,6 | 85 | 70 | 34 | - | 2300 |

* Size not included in DIN, dimensions similar to DIN

Note:

The full load capacity can only be achieved if the screw connection is applied over the entire length „H“ of the thread.

For test force see DIN 508

On request:

Special makes on request.

Recommendations



DIN 6379,
page 92



DIN 6331,
page 100



DIN 6340,
page 105

CAD

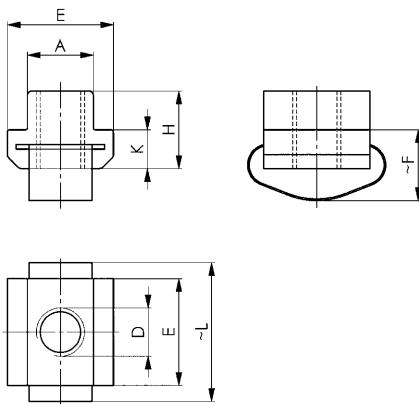


Subject to technical alterations.

No. 508F

T-nuts with spring

tempered, grade 10.
Spring: Stainless steel.



| Order no. | D x Slot | Test force [kN] | A | E | F | H | K | L | Weight [g] |
|-----------|----------|-----------------|------|----|------|----|----|----|------------|
| 89730 | M8x12 | 29 | 11,7 | 18 | 12,5 | 14 | 7 | 31 | 24 |
| 89755 | M8x14 | 29 | 13,7 | 22 | 13,5 | 16 | 8 | 33 | 42 |
| 89789 | M8x16 | 29 | 15,7 | 25 | 15,5 | 18 | 9 | 42 | 63 |
| 89748 | M10x12 | 46 | 11,7 | 18 | 12,5 | 14 | 7 | 31 | 21 |
| 89763 | M10x14 | 46 | 13,7 | 22 | 13,5 | 16 | 8 | 33 | 38 |
| 89797 | M10x16 | 46 | 15,7 | 25 | 15,5 | 18 | 9 | 42 | 60 |
| 89813 | M10x18 | 46 | 17,7 | 28 | 17,5 | 20 | 10 | 43 | 87 |
| 89771 | M12x14 | 67 | 13,7 | 22 | 13,5 | 16 | 8 | 33 | 34 |
| 89839 | M16x18 | 128 | 17,7 | 28 | 17,5 | 20 | 10 | 43 | 70 |
| 89904 | M20x22 | 196 | 21,7 | 35 | 21,5 | 28 | 14 | 56 | 153 |

Advantage:

- stable position in the T-slot, especially in vertical position
- easy screwing of the stud, pull rod etc.
- slot cleaning effect

Note:

For test force see DIN 508

Recommendations



DIN 6379,
page 92



DIN 6331,
page 100



DIN 6340,
page 105

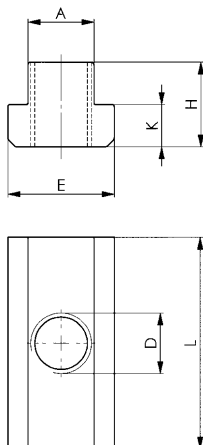
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No. 508L

Nuts for T-slots, extended

tempered, grade 10.



| Order no. | D x Slot | Test force [kN] | A | E | H | K | L | Packaging Unit | Weight [g] |
|-----------|----------|-----------------|------|----|----|----|-----|----------------|------------|
| 84640 | M5x6 | 11,4 | 5,7 | 10 | 8 | 4 | 20 | 50 | 8 |
| 84657 | M6x8 | 16,0 | 7,7 | 13 | 10 | 6 | 26 | 50 | 14 |
| 84665 | M8x10 | 29,0 | 9,7 | 15 | 12 | 6 | 30 | 50 | 30 |
| 84673 | M10x12 | 46,0 | 11,7 | 18 | 14 | 7 | 36 | 50 | 49 |
| 84681 | M12x14 | 67,0 | 13,7 | 22 | 16 | 8 | 44 | 25 | 82 |
| 84699 | M14x16 | - | 15,7 | 25 | 18 | 9 | 50 | 50 | 120 |
| 84707 | M16x18 | 128,0 | 17,7 | 28 | 20 | 10 | 56 | 20 | 170 |
| 84715 | M18x20 | - | 19,7 | 32 | 24 | 12 | 64 | 10 | 260 |
| 84723 | M20x22 | 196,0 | 21,7 | 35 | 28 | 14 | 70 | - | 360 |
| 84749 | M24x28 | 282,0 | 27,7 | 44 | 36 | 18 | 88 | - | 730 |
| 84764 | M30x36 | 448,0 | 35,6 | 54 | 44 | 22 | 108 | - | 1390 |

Advantage:

This extended form safeguards the T-slots of precision machine tables.

Note:

For test force see DIN 508

Recommendations



DIN 6379,
page 92



DIN 6331,
page 100



DIN 6340,
page 105

CAD

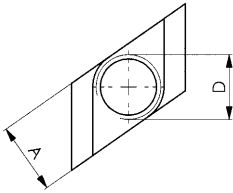
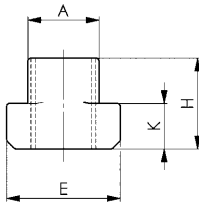


Subject to technical alterations.

No. 510

Nuts for T-slots „Rhombus“

Tempered.



| Order no. | D x Slot | Test force [kN] | A | E | H | K | Packaging Unit | Weight [g] |
|-----------|----------|-----------------|------|----|----|----|----------------|------------|
| 85993 | M 6x8 | 10 | 7,7 | 13 | 10 | 6 | 50 | 7 |
| 87411 | M 8x10 | 19 | 9,7 | 15 | 12 | 6 | 50 | 11 |
| 80259 | M10x12 | 30 | 11,7 | 18 | 14 | 7 | 50 | 14 |
| 158220 | M10x14 | 30 | 13,7 | 22 | 16 | 8 | 50 | 27 |
| 158238 | M10x18 | 30 | 17,7 | 28 | 20 | 10 | 25 | 64 |
| 80267 | M12x14 | 43 | 13,7 | 22 | 16 | 8 | 50 | 22 |
| 80275 | M14x16 | 59 | 15,7 | 25 | 18 | 9 | 25 | 33 |
| 80283 | M16x18 | 80 | 17,7 | 28 | 20 | 10 | 25 | 46 |
| 80341 | M16x20 | 80 | 19,7 | 32 | 24 | 12 | 25 | 79 |
| 158246 | M16x22 | 80 | 21,7 | 35 | 28 | 14 | 25 | 119 |
| 158253 | M16x28 | 80 | 27,7 | 44 | 36 | 18 | - | 278 |
| 80291 | M18x20 | 101 | 19,7 | 32 | 24 | 12 | 25 | 70 |
| 80309 | M20x22 | 129 | 21,7 | 35 | 28 | 14 | 25 | 98 |
| 88153 | M20x24 | 129 | 23,7 | 40 | 32 | 16 | - | 170 |
| 84731 | M20x28 | 129 | 27,7 | 44 | 36 | 18 | - | 248 |
| 80317 | M24x28 | 186 | 27,7 | 44 | 36 | 18 | - | 215 |
| 80325 | M30x36 | 296 | 35,6 | 54 | 44 | 22 | - | 430 |
| 80333 | M36x42 | 431 | 41,6 | 65 | 52 | 26 | - | 690 |

Application:

- additional setup of a clamping point for a fixture already clamped
- subsequent setup of a clamping point for machine table T-slots already occupied
- Insertion of the nut for „Rhombus“ T-slots from above into the T-slot and turning up to the stop in the T-slot
- To be used in conjunction with the studs DIN 6379

Note:

The nuts for „Rhombus“ T-slots are tempered to grade 10. Owing to the reduced contact surface in the T-slot, the load capacity is less than with the comparable sizes of DIN 508. The screw connection must be applied over the entire length of thread „H“.

Recommendations



DIN 6379,
page 92



DIN 6331,
page 100



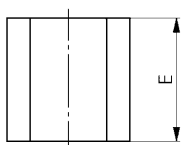
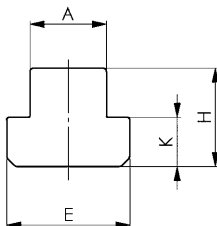
DIN 6340,
page 105



No. 508R

Blanks for T-nuts

Tempered steel 0.35-0.45 % C, unhardened, bare.



| Order no. | Slot | A | E | H | K | Packaging Unit | Weight [g] |
|-----------|------|------|----|----|----|----------------|------------|
| 84509 | 6 | 5,7 | 10 | 8 | 4 | 25 | 4 |
| 84517 | 8 | 7,7 | 13 | 10 | 6 | 25 | 10 |
| 84525 | 10 | 9,7 | 15 | 12 | 6 | 50 | 16 |
| 84533 | 12 | 11,7 | 18 | 14 | 7 | 50 | 27 |
| 84541 | 14 | 13,7 | 22 | 16 | 8 | 50 | 50 |
| 84558 | 16 | 15,7 | 25 | 18 | 9 | 25 | 70 |
| 84566 | 18 | 17,7 | 28 | 20 | 10 | 25 | 95 |
| 84574 | 20 | 19,7 | 32 | 24 | 12 | 25 | 150 |
| 84582 | 22 | 21,7 | 35 | 28 | 14 | 25 | 210 |
| 84590 | 24 | 23,7 | 40 | 32 | 16 | 10 | 300 |
| 84608 | 28 | 27,7 | 44 | 36 | 18 | - | 430 |
| 84483 | 32 | 31,7 | 50 | 40 | 20 | - | 630 |
| 84632 | 36 | 35,6 | 54 | 44 | 22 | - | 800 |
| 84491 | 42 | 41,6 | 65 | 52 | 26 | - | 1400 |
| 84616 | 48 | 47,6 | 75 | 60 | 30 | - | 2100 |
| 84624 | 54 | 53,6 | 85 | 70 | 34 | - | 3150 |

Note:

Heat treatment for achieving grade 10 according to 22-32 HRC. Harden: 880°C for 45 minutes, quench in oil at 75°C. Temper: 550°C for 2 hours. This blank can be used to economically produce „Nuts for T-slots“ with customised thread.

Recommendations



DIN 6379,
page 92



DIN 6331,
page 100



DIN 6340,
page 105

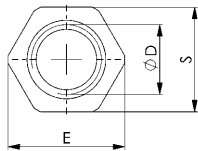
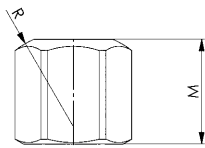


Subject to technical alterations.

DIN 6330B

Hexagon nuts (1.5 d high)

Steel, tempered, strength class 10.
Can be used for conical socket DIN 6319D or DIN 6319G.
Can be used with the flat end for washers DIN 6340.



| Order no. | Size D | E | M | R | S | Packaging Unit | Weight [g] |
|-----------|--------|-------|----|----|------|----------------|------------|
| 82362 | M6 | 11,05 | 9 | 9 | 10 | 100 | 5 |
| 82370 | M8 | 14,38 | 12 | 12 | 13 | 100 | 9 |
| 82354 | M10 | 17,77 | 15 | 15 | 16 | 50 | 14 |
| 82388 | M10 * | 18,90 | 15 | 15 | 17 * | 50 | 20 |
| 82347 | M12 | 20,03 | 18 | 17 | 18 | 50 | 20 |
| 82396 | M12 * | 21,10 | 18 | 17 | 19 * | 50 | 28 |
| 82321 | M14 * | 23,36 | 21 | 20 | 21 | 50 | 34 |
| 82404 | M14 * | 24,49 | 21 | 20 | 22 * | 50 | 45 |
| 82412 | M16 | 26,75 | 24 | 22 | 24 | 50 | 58 |
| 82420 | M18 * | 30,14 | 27 | 24 | 27 | 25 | 83 |
| 82438 | M20 | 33,53 | 30 | 27 | 30 | 25 | 110 |
| 82339 | M22 * | 37,72 | 33 | 30 | 34 | 10 | 185 |
| 82446 | M22 * | 35,72 | 33 | 30 | 32 * | 10 | 130 |
| 82453 | M24 | 39,98 | 36 | 32 | 36 | 10 | 195 |
| 82461 | M27 * | 45,63 | 40 | 36 | 41 | - | 280 |
| 82479 | M30 | 51,28 | 45 | 41 | 46 | - | 405 |
| 82487 | M36 | 61,31 | 54 | 50 | 55 | - | 715 |
| 82495 | M42 | 72,61 | 63 | 58 | 65 | - | 1170 |
| 82503 | M48 | 83,91 | 72 | 67 | 75 | - | 1800 |

* Size not included in DIN, dimensions similar to DIN

Recommendations



DIN 6379,
page 92



DIN 787,
page 86



DIN 6340,
page 105

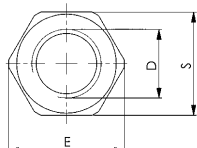
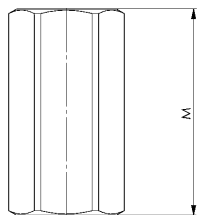
CAD



No. 6334

Elongation nuts (3.0 d high)

Steel, tempered, strength class 10.



| Order no. | Size D | E | M | S | Packaging Unit | Weight [g] |
|-----------|--------|-------|-----|----|----------------|------------|
| 82651 | M6 | 11,05 | 18 | 10 | 100 | 8 |
| 82669 | M8 | 14,38 | 24 | 13 | 50 | 19 |
| 82271 | M10 | 17,77 | 30 | 16 | 25 | 30 |
| 82677 | M10 | 18,90 | 30 | 17 | 25 | 42 |
| 82289 | M12 | 20,03 | 36 | 18 | 25 | 48 |
| 82685 | M12 | 21,10 | 36 | 19 | 25 | 64 |
| 82297 | M14 | 23,36 | 42 | 21 | 25 | 73 |
| 82693 | M14 | 24,49 | 42 | 22 | 25 | 95 |
| 82701 | M16 | 26,75 | 48 | 24 | 25 | 120 |
| 82719 | M18 | 30,14 | 54 | 27 | 20 | 170 |
| 82727 | M20 | 33,53 | 60 | 30 | 10 | 240 |
| 82305 | M22 | 37,72 | 66 | 34 | 10 | 390 |
| 82735 | M22 | 35,72 | 66 | 32 | 10 | 280 |
| 82743 | M24 | 39,98 | 72 | 36 | - | 400 |
| 82750 | M27 | 45,63 | 81 | 41 | - | 600 |
| 82768 | M30 | 51,28 | 90 | 46 | - | 850 |
| 82776 | M36 | 61,31 | 108 | 55 | - | 1470 |
| 82784 | M42 | 72,61 | 126 | 65 | - | 2340 |
| 82792 | M48 | 83,91 | 144 | 75 | - | 3600 |

Application:

The extension nut no. 6334 is used to connect T-slot bolts DIN 787 with studs DIN 6379. Through-drive of thread is not possible. For function and safety both screws should match half the length of nut on either side. Minimum depth is 1,2 x D

CAD

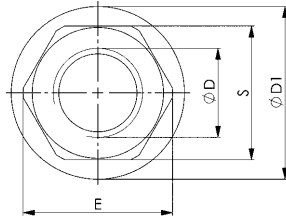
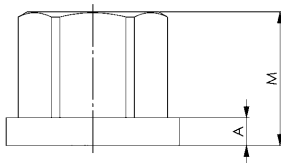


Subject to technical alterations.

DIN 6331

Hexagonal nuts with collar (1.5 d high)

Steel, turned, tempered, strength class 10.



| Order no. | Size D | A | D1 | E | M | S | Packaging Unit | Weight [g] |
|-----------|--------|------|----|-------|----|------|----------------|------------|
| 82529 | M6 | 3,0 | 14 | 11,05 | 9 | 10 | 50 | 6 |
| 82537 | M8 | 3,5 | 18 | 14,38 | 12 | 13 | 50 | 12 |
| 82222 | M10 | 4,0 | 22 | 17,77 | 15 | 16 | 50 | 21 |
| 82545 | M10 * | 4,0 | 22 | 18,90 | 15 | 17 * | 50 | 25 |
| 82230 | M12 | 4,0 | 25 | 20,03 | 18 | 18 | 25 | 30 |
| 82552 | M12 * | 4,0 | 25 | 21,10 | 18 | 19 * | 25 | 36 |
| 82248 | M14 * | 4,5 | 28 | 23,36 | 21 | 21 | 25 | 43 |
| 82560 | M14 * | 4,5 | 28 | 24,49 | 21 | 22 * | 25 | 51 |
| 82578 | M16 | 5,0 | 31 | 26,75 | 24 | 24 | 25 | 70 |
| 82586 | M18 * | 5,0 | 34 | 30,14 | 27 | 27 | 25 | 95 |
| 82594 | M20 | 6,0 | 37 | 33,53 | 30 | 30 | 25 | 130 |
| 82255 | M22 * | 6,0 | 40 | 37,72 | 33 | 34 | 10 | 200 |
| 82602 | M22 * | 6,0 | 40 | 35,72 | 33 | 32 * | 10 | 160 |
| 82610 | M24 | 6,0 | 45 | 39,98 | 36 | 36 | 10 | 230 |
| 82628 | M27 | 8,0 | 50 | 45,63 | 40 | 41 | - | 320 |
| 82636 | M30 | 8,0 | 58 | 51,28 | 45 | 46 | - | 470 |
| 82644 | M36 | 10,0 | 68 | 61,31 | 54 | 55 | - | 800 |
| 82511 | M42 | 12,0 | 80 | 72,61 | 63 | 65 | - | 1340 |
| 82800 | M48 | 14,0 | 92 | 83,91 | 72 | 75 | - | 2040 |

* Size not included in DIN, dimensions similar to DIN

Advantage:

- very good roughness values on the clamping surface by means of lathed surface

Recommendations



DIN 6379,
page 92



DIN 787,
page 86

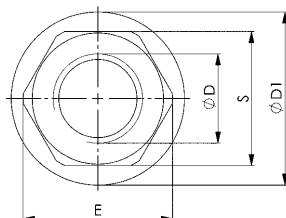
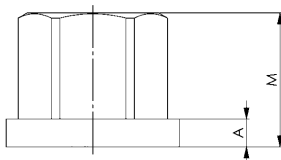
CAD



DIN 6331

Hexagonal nuts with collar (1.5 d high)

Steel, forged, tempered, strength class 10.



| Order no. | Size D | A | D1 | E | M | S | Packaging Unit | Weight [g] |
|-----------|--------|-----|----|-------|----|----|----------------|------------|
| 82198 | M6 | 3,0 | 14 | 11,05 | 9 | 10 | 50 | 6 |
| 82115 | M8 | 3,5 | 18 | 14,38 | 12 | 13 | 50 | 12 |
| 82214 | M10 | 4,0 | 22 | 17,77 | 15 | 16 | 50 | 21 |
| 82107 | M12 | 4,0 | 25 | 20,03 | 18 | 18 | 25 | 30 |
| 82149 | M16 | 5,0 | 31 | 26,75 | 24 | 24 | 25 | 70 |
| 82206 | M18 * | 5,0 | 34 | 30,14 | 27 | 27 | 25 | 95 |
| 82156 | M20 | 6,0 | 37 | 33,53 | 30 | 30 | 25 | 130 |
| 82164 | M24 | 6,0 | 45 | 39,98 | 36 | 36 | 10 | 230 |
| 82313 | M27 | 8,0 | 50 | 45,63 | 40 | 41 | - | 320 |
| 82172 | M30 | 8,0 | 58 | 51,28 | 45 | 46 | - | 470 |

* Size not included in DIN, dimensions similar to DIN

Recommendations



DIN 6379,
page 92



DIN 787,
page 86

CAD

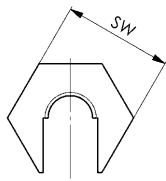
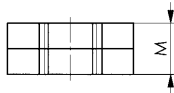


Subject to technical alterations.

No. 6332S

Quick-action clamping nut without collar

Steel, galvanised, strength class 6.



Recommendations



DIN 6379,
page 92



DIN 787,
page 86

| Order no. | Size | Test force [kN] | SW | M | Weight [g] |
|-----------|------|-----------------|----|------|------------|
| 88146 | M 6 | 13,5 | 16 | 9,0 | 10 |
| 88534 | M 8 | 24,9 | 19 | 10,5 | 15 |
| 88559 | M10 | 39,4 | 22 | 12,5 | 23 |
| 88567 | M12 | 59,0 | 27 | 15,0 | 44 |
| 88575 | M16 | 109,9 | 34 | 16,0 | 68 |
| 88583 | M20 | 176,4 | 41 | 22,0 | 85 |

Application:

Slide quick-action clamping nut directly over screw thread up to clamping point and then lock it. If the quick-action clamping nut base is firmly in contact at the clamping point, then the head can be locked with the base by means of a 1/4 to 1/2 turn.

Advantage:

- time-saving in the case of long and damaged studding
- easy assembly/disassembly at narrow and non-visible places
- no seizing up on the thread by external influences
- no impairment by soiling such as paint residues or rust

Note:

For test force see EN ISO 898-2

CAD



DIN 894

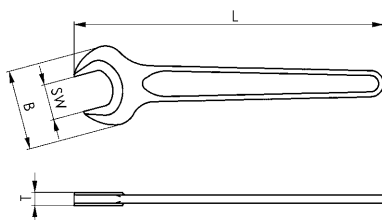
Open-ended spanner, single-ended

Special steel forging, jaws machined, angle of jaws 15°, hardened and phosphated.



| Order no. | SW | Thread metric | B | L | T | Packaging unit | Weight [g] |
|-----------|----|---------------|----|-----|----|----------------|------------|
| 53579 | 8 | 5 | 19 | 100 | 4 | 10 | 15 |
| 53595 | 10 | 6 | 22 | 105 | 5 | 10 | 22 |
| 53611 | 12 | - | 26 | 125 | 5 | 10 | 31 |
| 53629 | 13 | 8 | 29 | 130 | 5 | 10 | 37 |
| 53645 | 17 | 10* | 36 | 160 | 6 | 10 | 81 |
| 53520 | 18 | 12 | 39 | 160 | 7 | 10 | 89 |
| 53652 | 19 | 12* | 40 | 175 | 7 | 10 | 98 |
| 53660 | 22 | 14* | 46 | 195 | 8 | 10 | 139 |
| 53678 | 24 | 16 | 50 | 215 | 9 | 10 | 165 |
| 53686 | 27 | 18 | 56 | 235 | 10 | 10 | 210 |
| 53694 | 30 | 20 | 62 | 260 | 11 | 10 | 290 |
| 53702 | 32 | 22* | 67 | 275 | 12 | 10 | 333 |
| 53710 | 36 | 24 | 74 | 300 | 13 | 10 | 500 |

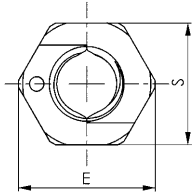
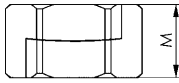
* Size not according to DIN ISO 272.



No. 6333S

AMF-TWINNUT nut - without collar

with hard detent.
Bright, strength class 10.



| Order no. | Size | E | M | S | Weight [g] |
|-----------|------|----|----|----|------------|
| 381772 | M6 | 11 | 6 | 10 | 3 |
| 381780 | M8 | 14 | 8 | 13 | 6 |
| 381798 | M10 | 19 | 10 | 17 | 14 |
| 381806 | M12 | 21 | 12 | 19 | 20 |
| 381814 | M16 | 27 | 16 | 24 | 39 |
| 381822 | M20 | 33 | 20 | 30 | 75 |
| 381830 | M24 | 40 | 24 | 36 | 131 |

Application:

Separable bolt nuts for quick-mounting applications. It can be simply pushed over long or damaged studding. Nut halves are undetachable through the separation block, even in the swivelled out condition.

Advantage:

- Time saved with long and damaged studding
- Overcomes studding that is corroded, damaged at the thread and even bent up to approx. 20°
- Compact design., extremely easy to handle
- Fast installation and disassembly using standard tools
- Retention as solid nuts of the same size with strength class 10.

Note:

After they are pushed together, a 1/4 to 1/2 turn suffices for locking.

On request:

Other materials and special sizes on request.

Recommendations



DIN 6379,
page 92



DIN 787,
page 86

Easy mounting of the TWINNUT collar nut:



Easy removal of the TWINNUT collar nut:

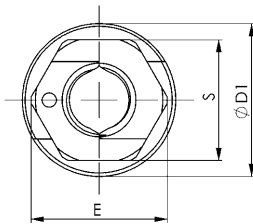
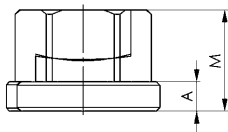


Subject to technical alterations.

No. 6333SB

AMF-TWINNUT nut - with collar

with hard detent.
Bright, strength class 10.



| Order no. | Size | A | D1 | E | M | S | Weight [g] |
|-----------|------|-----|----|----|----|----|------------|
| 381848 | M6 | 3,0 | 14 | 11 | 9 | 10 | 5 |
| 381855 | M8 | 3,5 | 18 | 14 | 12 | 13 | 12 |
| 381863 | M10 | 4,0 | 22 | 19 | 14 | 17 | 24 |
| 381871 | M12 | 4,0 | 25 | 21 | 16 | 19 | 33 |
| 381889 | M16 | 5,0 | 31 | 27 | 21 | 24 | 62 |
| 381897 | M20 | 6,0 | 37 | 33 | 26 | 30 | 114 |
| 381905 | M24 | 6,0 | 45 | 40 | 30 | 36 | 188 |

Application:

Separable bolt nuts for quick-mounting applications. It can be simply pushed over long or damaged studding. Nut halves are undetachable through the separation block, even in the swivelled out condition.

Advantage:

- Time saved with long and damaged studding
- Overcomes studding that is corroded, damaged at the thread and even bent up to approx. 20°
- Compact design, extremely easy to handle
- Fast installation and disassembly using standard tools
- Retention as solid nuts of the same size with strength class 10.

Note:

After they are pushed together, a 1/4 to 1/2 turn suffices for locking.

On request:

Other materials and special sizes on request.

Recommendations



DIN 6379,
page 92



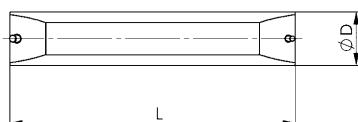
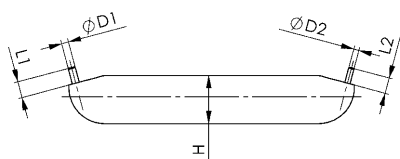
DIN 787,
page 86



No. 6333

Mounting key

Aluminium.



| Order no. | D | D1 | D2 | H | L | L1 | Weight [g] |
|-----------|----|----|-----|------|----|----|------------|
| 381921 | 15 | 2 | 1,5 | 13,3 | 80 | 5 | 36 |

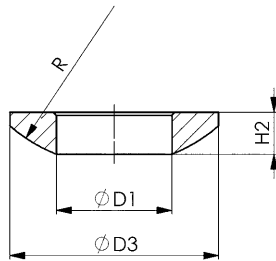
Application:

- for opening the AMF-TWINNUT nuts
- can be used for all nut sizes

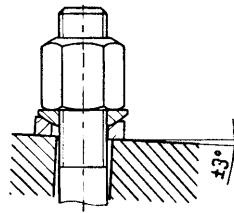
DIN 6319C

Spherical seat washer

Case hardened.



| Order no. | Size | D1 | D3 | H2 | R | Packaging Unit | Weight [g] |
|-----------|------|------|----|------|----|----------------|------------|
| 81828 | M6 | 6,4 | 12 | 2,3 | 9 | 100 | 1,0 |
| 81737 | M8 | 8,4 | 17 | 3,2 | 12 | 100 | 2,5 |
| 81745 | M10 | 10,5 | 21 | 4,0 | 15 | 100 | 5,0 |
| 81752 | M12 | 13 | 24 | 4,6 | 17 | 100 | 7,0 |
| 81760 | M14 | 15 | 28 | 5,0 | 22 | 50 | 10 |
| 81778 | M16 | 17 | 30 | 5,3 | 22 | 100 | 12 |
| 81786 | M20 | 21 | 36 | 6,3 | 27 | 50 | 23 |
| 81794 | M24 | 25 | 44 | 8,2 | 32 | 25 | 42 |
| 81802 | M30 | 31 | 56 | 11,2 | 41 | - | 87 |
| 81810 | M36 | 37 | 68 | 14,0 | 50 | - | 184 |
| 81836 | M42 | 43 | 78 | 17,0 | 58 | - | 297 |
| 81844 | M48 | 50 | 92 | 21,0 | 67 | - | 525 |



Recommendations

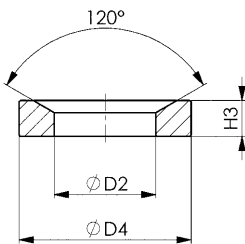


DIN 6330B, page 99

DIN 6319D

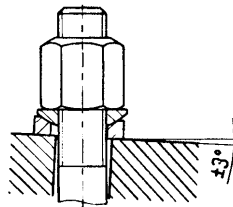
Dished washer

Case hardened. Designed for screw solidity in compliance with 8.8. Limited for use on flat closed ring areas (not allowed for elongated holes, we recommend DIN 6319G for these).



| Order no. | Size | max.* [kN] | D2 | D4 | H3 | Packaging Unit | Weight [g] |
|-----------|------|------------|------|----|-----|----------------|------------|
| 81950 | M6 | 9 | 7,1 | 12 | 2,8 | 100 | 1,5 |
| 81869 | M8 | 17 | 9,6 | 17 | 3,5 | 100 | 4,0 |
| 81877 | M10 | 26 | 12,0 | 21 | 4,2 | 100 | 6,5 |
| 81885 | M12 | 38 | 14,2 | 24 | 5,0 | 100 | 10 |
| 81893 | M14 | 53 | 16,5 | 28 | 5,6 | 50 | 18 |
| 81901 | M16 | 73 | 19,0 | 30 | 6,2 | 50 | 19 |
| 81919 | M20 | 117 | 23,2 | 36 | 7,5 | 25 | 32 |
| 81927 | M24 | 168 | 28,0 | 44 | 9,5 | 25 | 63 |
| 81935 | M30 | 269 | 35,0 | 56 | 12 | - | 133 |
| 81943 | M36 | 394 | 42,0 | 68 | 15 | - | 236 |
| 81968 | M42 | 542 | 49,0 | 78 | 18 | - | 365 |
| 81976 | M48 | 714 | 56,0 | 92 | 22 | - | 641 |

* max. transmittable static screw force.



Recommendations

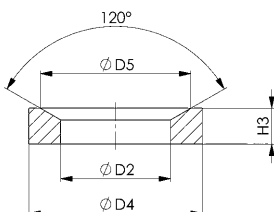


DIN 6330B, page 99

No. 6319D

Conical sockets, tempered

made of C45. Designed for screw solidity in compliance with 12.9. Limited for use on flat closed ring areas (not allowed for elongated holes, we recommend DIN 6319G for these).



| Order no. | Size | D2 | D4 | D5 | H3 | F max. [kN] | Packaging Unit | Weight [g] |
|-----------|------|------|----|----|-----|-------------|----------------|------------|
| 87171 | M12 | 14,2 | 24 | 20 | 5,0 | 38 | 100 | 10 |
| 87197 | M16 | 19,0 | 30 | 26 | 6,2 | 73 | 50 | 19 |
| 87239 | M20 | 23,2 | 36 | 31 | 7,5 | 117 | 25 | 32 |
| 87254 | M24 | 28,0 | 44 | 37 | 9,5 | 168 | 25 | 63 |

Note:

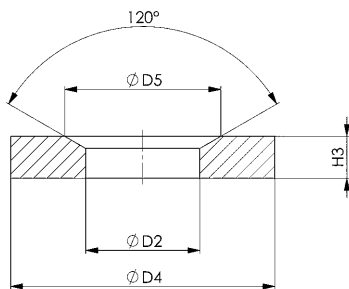
F max. = max. transferable static screw force.

Subject to technical alterations.

DIN 6319G

Dished washer

Steel, tempered to 350 + 80 HV30.
Suitable for clamping over slots with clamps.

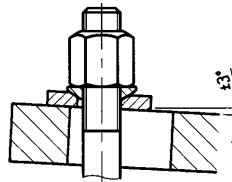


| Order no. | Size | D2 | D4 | D5 | H3 | F max. [kN] | Packaging Unit | Weight [g] |
|-----------|-------|------|-----|------|----|-------------|----------------|------------|
| 82073 | M6 | 7,1 | 17 | 11,0 | 4 | 9 | 25 | 5,5 |
| 81984 | M8 | 9,6 | 24 | 14,5 | 5 | 17 | 100 | 13 |
| 81992 | M10 | 12,0 | 30 | 18,5 | 5 | 26 | 100 | 19 |
| 82008 | M12 | 14,2 | 36 | 20,0 | 6 | 38 | 100 | 32 |
| 82016 | M14 | 16,5 | 40 | 24,8 | 6 | 53 | 50 | 48 |
| 82024 | M16 | 19,0 | 44 | 26,0 | 7 | 73 | 50 | 56 |
| 82032 | M20 | 23,2 | 50 | 31,0 | 8 | 117 | 25 | 94 |
| 82040 | M24 | 28,0 | 60 | 37,0 | 10 | 168 | 10 | 169 |
| 82057 | M30 | 35,0 | 68 | 49,0 | 12 | 269 | - | 230 |
| 82065 | M36 * | 42,0 | 80 | 60,0 | 12 | 394 | - | 350 |
| 82081 | M42 * | 49,0 | 100 | 70,0 | 15 | - | - | 640 |
| 82099 | M48 * | 56,0 | 108 | 82,0 | 17 | - | - | 830 |

* Size not included in DIN, dimensions similar to DIN

Note:

F max. = max. transferable static screw force.



Recommendations



DIN 6330B,
page 99

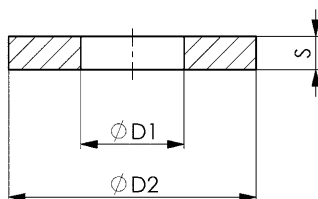


DIN 6319C,
page 104

DIN 6340

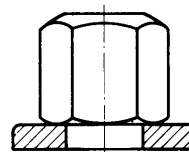
Washers for clamping tools

Steel, tempered (350 + 80 HV30)



| Order no. | Size | Size inch | D1 | D2 | S | Packaging Unit | Weight [g] |
|-----------|-------|---------------|------|-----|----|----------------|------------|
| 82818 | M6 | 1/4 | 6,4 | 17 | 3 | 100 | 5 |
| 82826 | M8 | 5/16 | 8,4 | 23 | 4 | 100 | 10 |
| 82834 | M10 | 3/8 | 10,5 | 28 | 4 | 100 | 16 |
| 82842 | M12 | 1/2 | 13 | 35 | 5 | 100 | 35 |
| 82859 | M14 * | - | 15 | 40 | 5 | 50 | 40 |
| 82867 | M16 | 5/8 | 17 | 45 | 6 | 50 | 60 |
| 82875 | M18 * | - | 19 | 45 | 6 | 50 | 60 |
| 82883 | M20 | 3/4 | 21 | 50 | 6 | 50 | 73 |
| 82891 | M22 * | 7/8 | 23 | 50 | 8 | 25 | 92 |
| 82909 | M24 | 7/8 | 25 | 60 | 8 | 20 | 170 |
| 82917 | M27 * | 1 1/16 | 28 | 68 | 10 | - | 210 |
| 82925 | M30 | 1 1/8, 1 3/16 | 31 | 68 | 10 | - | 230 |
| 82933 | M36 * | 1 1/4, 1 3/8 | 38 | 80 | 10 | - | 350 |
| 82941 | M42 * | 1 1/2 | 44 | 100 | 15 | - | 670 |
| 82958 | M48 * | 1 3/4 | 50 | 108 | 17 | - | 920 |

* Size not included in DIN, dimensions similar to DIN



Recommendations



DIN 6379,
page 92



DIN 787,
page 86

Subject to technical alterations.

No. 6530

Boxed set of assorted clamping elements

With deep clamping jaw no. 6490 and screw compound no. 6339. The clamping tool assortment boxes are designed for machine tools with T-slot tables and contain all the elements required for the fast clamping of tools, fixtures and workpieces. They are produced from tempered steel according to DIN or factory standards. Screw parts strength class 8 and/or 10. In a sturdy and high-quality wooden box with removable folding lid.



| Order no. | Slot | No. 6500E Pcs.xSize | No. 6314Z Pcs.xSize | DIN 787 Pcs.xLength | DIN 6379 Pcs.xLength | DIN 6330B | DIN 6319G | No. 6334 | No. 6490* Pcs.xSize | No. 6485 Pcs.xSize | No. 3113A Pcs.xSize | No. 6339 | L x W x H | Weight [Kg] |
|-----------|--------|------------------------|-------------------------|------------------------|-------------------------|-----------|-----------|----------|------------------------|-----------------------|------------------------|----------|------------|----------------|
| 83584 | M10x10 | 4x1, 4x2, 2x3 | 4x 11x80 | 2x40, 4x63, 4x100 | 4x80 | 6x | 6x | 4x | 4x12 | - | 1x 16x16 | 1x | 355x270x47 | 9,2 |
| 83592 | M12x12 | 4x2, 4x3 | 4x 14x100 | 2x50, 4x80, 4x125 | 4x100 | 6x | 6x | 4x | 4x12 | - | 1x 18x18 | 1x | 460x330x50 | 14,3 |
| 83600 | M12x14 | 4x2, 4x3 | 4x 14x100 | 2x50, 4x80, 4x125 | 4x100 | 6x | 6x | 4x | 4x14 | 1x 14-20 | 1x 18x18 | 1x | 460x330x50 | 14,6 |
| 83691 | M14x16 | 4x2, 4x3 | 2x 14x100, 4x 14x160 | 2x63,4x100,4x160 | 4x125 | 6x | 6x | 4x | 4x16 | 1x 14-20 | 1x 22x22 | 1x | 510x415x50 | 18,5 |
| 83618 | M16x16 | 4x2, 4x3 | 4x 18x125 | 2x63,4x100,4x160 | 4x125 | 6x | 6x | 4x | 4x16 | 1x 14-20 | 1x 24x24 | 1x | 510x415x50 | 21,5 |
| 83626 | M16x18 | 4x2, 4x3 | 4x 18x125 | 2x63,4x100,4x160 | 4x125 | 6x | 6x | 4x | 4x18 | 1x 14-20 | 1x 24x24 | 1x | 510x415x50 | 21,5 |

* The low height clamping jaws no. 6490 are complete sets with T-nuts DIN 508, screws ISO 4762 and two hexagon keys ISO 2936. Single items available.

No. 6531

Boxed set of assorted clamping elements

With sprung clamp holder no. 6342 and screw compound no. 6339.

The clamping tool assortment boxes are designed for machine tools with T-slot tables and contain all the elements required for the fast clamping of tools, fixtures and workpieces. They are produced from tempered steel according to DIN or factory standards. Screw parts strength class 8 and/or 10. In a sturdy and high-quality wooden box with removable folding lid.



| Order no. | Slot | No. 6500E Pcs.xSize | No. 6314Z Pcs.xSize | DIN 787 Pcs.xLength | DIN 6379 Pcs.xLength | DIN 508 | DIN 6330B | DIN 6319G | No. 6485 Pcs.xSize | No. 3113A Pcs.xSize | DIN 6342 Pcs.xSize | No. 6334 | No. 6339 | L x W x H | Weight [Kg] |
|-----------|--------|------------------------|------------------------|------------------------|-------------------------|---------|-----------|-----------|-----------------------|------------------------|-----------------------|----------|----------|------------|----------------|
| 83808 | M10x10 | 4x1, 4x2, 2x3 | 4x 11x80 | 4x63, 4x100 | 4x80 | - | 6x | 6x | - | 1x 16x16 | 4x1 | 4x | 1x | 350x225x47 | 6,5 |
| 83816 | M12x12 | 4x2, 4x3 | 4x 14x100 | 4x80, 4x125 | 4x100 | - | 4x | 6x | - | 1x 18x18 | 4x2 | 4x | 1x | 359x333x57 | 11,0 |
| 83824 | M12x14 | 4x2, 4x3 | 4x 14x100 | 4x80, 4x125 | 4x100 | - | 4x | 6x | 1x 14-20 | 1x 18x18 | 4x2 | 4x | 1x | 359x333x57 | 11,0 |
| 83832 | M16x16 | 4x2, 4x3 | 4x 18x125 | 4x100, 4x160 | 4x125 | - | 4x | 6x | 1x 14-20 | 1x 24x24 | 4x3 | 4x | 1x | 390x415x55 | 16,5 |
| 83840 | M16x18 | 4x2, 4x3 | 4x 18x125 | 4x100, 4x160 | 4x125 | - | 4x | 6x | 1x 14-20 | 1x 24x24 | 4x3 | 4x | 1x | 390x415x55 | 16,5 |
| 83634 | M20x20 | 4x2, 4x3 | 4x 22x160 | 4x125, 4x200 | 4x125 | - | 6x | 6x | 1x 14-20 | 1x 30x30 | 4x4 | 4x | 1x | 480x528x60 | 24,5 |
| 83642 | M20x22 | 4x2, 4x3 | 4x 22x160 | 4x125, 4x200 | 4x125 | - | 6x | 6x | 1x 22-32 | 1x 30x30 | 4x4 | 4x | 1x | 480x528x60 | 24,5 |
| 83659 | M20x24 | 4x2, 4x3 | 4x 22x160 | - | 4x200, 8x125 | 8x | 6x | 6x | 1x 22-32 | 1x 30x30 | 4x4 | 4x | 1x | 480x528x60 | 24,8 |

Single items available.

Subject to technical alterations.

No. 6520

T-bolt set

In a sturdy and high-quality wooden box with removable folding lid. All parts tempered, strength class 8 or 10.



| Order no. | Slot | DIN 787 Pcs.xLength | DIN 6379 Pcs.xLength | DIN 508 | DIN 6330B | No. 6334 | DIN 6319C+G | DIN 6340 | L x W x H | Weight [Kg] |
|-----------|--------|---------------------|----------------------------|---------|-----------|----------|-------------|----------|------------|-------------|
| 82982 | M10x10 | 2x40, 4x63, 4x100 | 4x50, 4x80, 4x200 | 1) | 4x | 4x | 4x | 4x | 254x188x32 | 2,0 |
| 82990 | M12x12 | 2x50, 4x80, 4x125 | 4x63, 4x100, 4x200 | 1) | 4x | 4x | 4x | 4x | 278x234x36 | 3,2 |
| 83006 | M12x14 | 2x50, 4x80 | 4x63, 4x100, 4x125, 4x200 | 4x | 4x | 4x | 4x | 4x | 278x234x36 | 3,5 |
| 83014 | M14x16 | 2x63, 4x100 | 4x63, 4x100, 4x160, 4x250 | 4x | 4x | 4x | 4x | 4x | 317x239x44 | 5,4 |
| 83022 | M16x16 | 2x63, 4x100, 4x160 | 4x80, 4x125, 4x250 | 1) | 4x | 4x | 4x | 4x | 339x294x48 | 7,4 |
| 83030 | M16x18 | 2x63, 4x100 | 4x80, 4x125, 4x160, 4x250 | 4x | 4x | 4x | 4x | 4x | 339x294x48 | 7,4 |
| 83048 | M18x20 | 2) | 6x80, 8x125, 4x200, 4x315 | 10x | 4x | 4x | - | 10x | 359x342x56 | 11,0 |
| 83055 | M20x22 | 2x80, 4x125 | 4x80, 4x125, 4x200, 4x315 | 4x | 4x | 4x | 4x | 4x | 358x342x56 | 13,5 |
| 83063 | M24x28 | 2x100, 4x160 | 4x100, 4x160, 4x250, 4x400 | 4x | 4x | 4x | 4x | 4x | 444x409x72 | 23,6 |

1) = T-nuts DIN 508 not suitable for this size.

2) = M18x20, included instead DIN 787 are 4 studs DIN 6379x125 mm and 2x80 mm, with DIN 508 T-nuts and DIN 6340 washers each. Single items available.

No. 6532

Basic sortiment

All parts are produced from tempered steel according to DIN or factory standards, screw parts tempered to strength class 8 or 10. Ideal for tool making, manufacturing and training facilities.



| Order no. | Size | Clamping force [kN] | max. clamping height using 2 clamps [mm] | max. clamping height using 4 clamps [mm] | No. 6314Z Pcs.xSize | No. 6500E Pcs.xSize | DIN 787 Pcs.xLength | DIN 6379 Pcs.xLength | DIN 6330B | DIN 6340 | No. 6334 | Weight [Kg] |
|-----------|--------|---------------------|--|--|---------------------|---------------------|---------------------|----------------------|-----------|----------|----------|-------------|
| 83899 | M12x14 | 20 | 165 | 70 | 2x14x100, 2x14x160 | 4x2, 4x3 | 2x50, 4x80, 4x125 | 2x100 | 6x | 6x | 2x | 10,0 |
| 83915 | M14x16 | 28 | 195 | 100 | 2x14x100, 2x14x160 | 4x2, 4x3 | 2x63, 4x100, 4x160 | 2x100, 2x160 | 6x | 6x | 2x | 11,1 |
| 83907 | M16x18 | 40 | 205 | 130 | 2x18x125, 2x18x200 | 4x2, 4x3 | 2x63, 4x80, 4x160 | 2x200, 4x125 | 6x | 6x | 4x | 15,2 |

No. 6470

Trolley for clamping equipment

without clamping equipment and without holders.
Rugged steel housing, storage compartments designed with rubber mats. 2 rollers + 2 castors with locking brake.



| Order no. | Load [Kg] | Height [cm] | Width [cm] | Depth [cm] | Weight [Kg] |
|-----------|-----------|-------------|------------|------------|-------------|
| 74252 | 400 | 126 | 123 | 80 | 100 |

Advantage:

- Mobile = quickly ready when needed at the workplace
- Tidy = convenient, space-saving and always readily available
- Individual equipment configurations possible through variable arrangement of holders

Note:

Holders for clamps (No. 6470H-2) and clamping bolts (No. 6470H-1) can be selected as required.

No. 6470-Mxx

Trolley for clamping equipment with basic set of clamping equipment

incl. clamping equipment tool cart no. 6470.

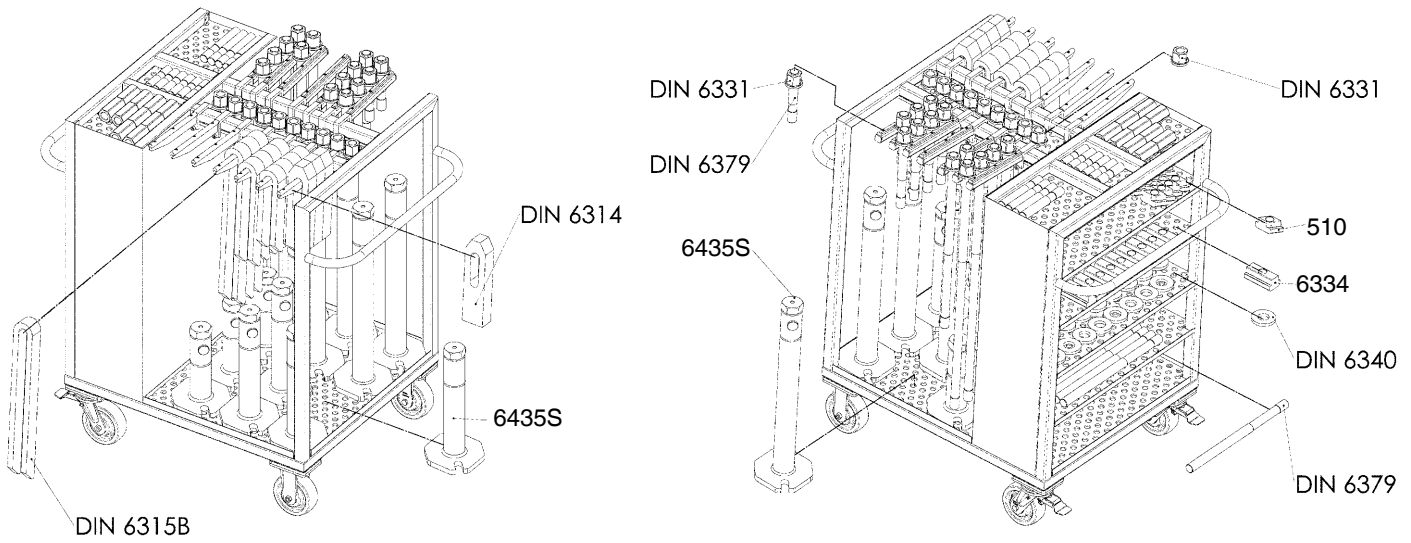


| Order no. | Size | Holder no. 6470H-01 | | Holder no. 6470H-02 | | Weight [Kg] |
|-----------|------|---------------------|-------|---------------------|-------|-------------|
| | | [St.] | [St.] | [St.] | [St.] | |
| 72520 | M16 | 5 | | 4 | | 257,0 |
| 73270 | M20 | 5 | | 4 | | 277,0 |
| 74674 | M24 | 5 | | 4 | | 304,0 |
| 74880 | M30 | 7 | | 4 | | 512,5 |

Design:

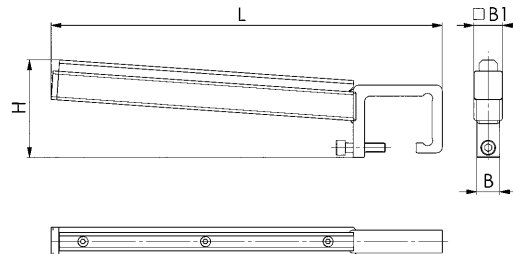
| Product | Order no. 72520 (Size M16) | | | Order no. 73270 (Size M20) | | | Order no. 74674 (Size M24) | | | Order no. 74880 (Size M30) | | |
|-----------|----------------------------|---------|-----|----------------------------|---------|-----|----------------------------|---------|-----|----------------------------|----------|-----|
| | Order no. | Size | Pc. | Order no. | Size | Pc. | Order no. | Size | Pc. | Order no. | Size | Pc. |
| DIN 6379 | 81422 | M16x125 | 6 | 84988 | M20x125 | 6 | 85563 | M24x125 | 6 | 85068 | M30x125 | 6 |
| | 85498 | M16x200 | 6 | 81513 | M20x200 | 6 | 85514 | M24x200 | 6 | 81612 | M30x200 | 6 |
| | 85548 | M16x315 | 6 | 84996 | M20x315 | 6 | 86009 | M24x315 | 6 | 81620 | M30x315 | 6 |
| | 85472 | M16x500 | 6 | 85001 | M20x500 | 6 | 86025 | M24x500 | 6 | 81638 | M30x500 | 6 |
| | | | | | | | | | | 81646 | M30x700 | 6 |
| | | | | | | | | | | 81661 | M30x1000 | 6 |
| DIN 6331 | 82578 | M16 | 30 | 82594 | M20 | 30 | 82610 | M24 | 30 | 82636 | M30 | 30 |
| DIN 6340 | 82867 | M16 | 30 | 82883 | M20 | 30 | 82909 | M24 | 30 | 82925 | M30 | 30 |
| DIN 6314 | 70060 | 18x160 | 4 | 70086 | 22x200 | 4 | 70102 | 26x250 | 4 | 70128 | 33x315 | 4 |
| DIN 6315B | 70524 | 18x160 | 4 | 70557 | 22x200 | 4 | 70581 | 26x250 | 4 | 70623 | 33x315 | 4 |
| | 70532 | 18x200 | 4 | 70573 | 22x315 | 4 | 70607 | 26x315 | 4 | 70631 | 33x400 | 4 |
| | 70540 | 18x250 | 4 | 70425 | 22x500 | 4 | 70433 | 26x500 | 4 | 70441 | 33x600 | 4 |
| No. 6334 | 82701 | M16 | 10 | 82727 | M20 | 10 | 82743 | M24 | 10 | 82768 | M30 | 10 |
| No. 6400 | 72413 | 100 | 4 | | | | | | | | | |
| | 72439 | 210 | 4 | | | | | | | | | |
| No. 6435S | 72637 | 300 | 4 | 72637 | 300 | 4 | 72637 | 300 | 4 | 72645 | 460 | 4 |
| | 72645 | 460 | 4 | 72645 | 460 | 4 | 72645 | 460 | 4 | 72652 | 750 | 4 |
| | | | | | | | | | | 72660 | 1250 | 4 |
| No. 508L | 84707 | M16x18 | 10 | 84723 | M20x22 | 10 | 84749 | M24x28 | 10 | 84764 | M30x36 | 10 |
| No. 510 | 80283 | M16x18 | 10 | 88153 | M20x24 | 10 | 80317 | M24x28 | 10 | 80325 | M30x36 | 10 |

Subject to technical alterations.



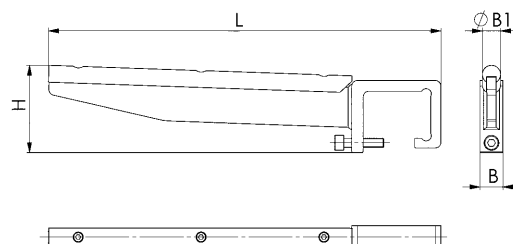
No. 6470H-1
Holder for clamping bolts

| Order no. | L [mm] | B [mm] | B1 [mm] | H [mm] | Weight [g] |
|-----------|--------|--------|---------|--------|------------|
| 74187 | 342 | 20 | 25 | 85 | 866 |



No. 6470H-2
Holder for clamps

| Order no. | L [mm] | B [mm] | B1 [mm] | H [mm] | Weight [g] |
|-----------|--------|--------|---------|--------|------------|
| 74203 | 342 | 20 | 16 | 76 | 870 |



Subject to technical alterations.

No. 6535

Set of assorted plastic clamping elements

depending on size consisting of:
 4 x support blocks with stepped teeth
 2 x clamping jaws with stepped teeth
 2 x clamping jaws double
 10 x knurled nuts with hexagonal
 high-strength plastic PBT, red.
 Studs: Aluminium anodised.



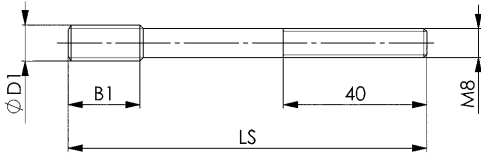
| Order no. | Size | D1 x M | B1 | St. x LS | L x W x H | Weight [g] |
|-----------|------|----------|----|-----------------------------------|------------|------------|
| 83071 | 06 | M6 x M8 | 10 | 4x100, 4x125, 4x150, 4x175, 4x200 | 440x370x50 | 1700 |
| 83105 | 08 | M8 x M8 | 40 | 4x100, 4x125, 4x150, 4x175, 4x200 | 440x370x50 | 1740 |
| 83089 | 10 | M10 x M8 | 20 | 4x100, 4x125, 4x150, 4x175, 4x200 | 440x370x50 | 1770 |
| 83097 | 12 | M12 x M8 | 25 | 4x100, 4x125, 4x150, 4x175, 4x200 | 440x370x50 | 1800 |

Application:

Most suitable for 3D-coordinate measuring machines, engraving and E.D.M. machine application and any light duty clamping. The possible clamping force (up to 500 N), depending on the actual leverage, can be achieved by manual tightening of knurled nut, while its hexagon section allows release through use of open jaw wrench.

Advantage:

- The weight is only 1/4 compared with aluminium and 1/10 compared with steel elements.
- anticorrosive against hand sweat
- very easy to handle
- no damage to surface plate, supporting table or workpiece
- suitable for multi-combination.



Recommendations



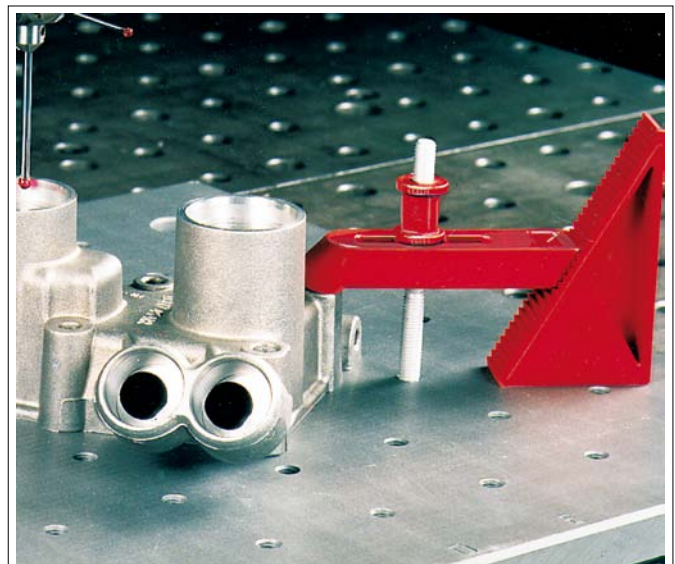
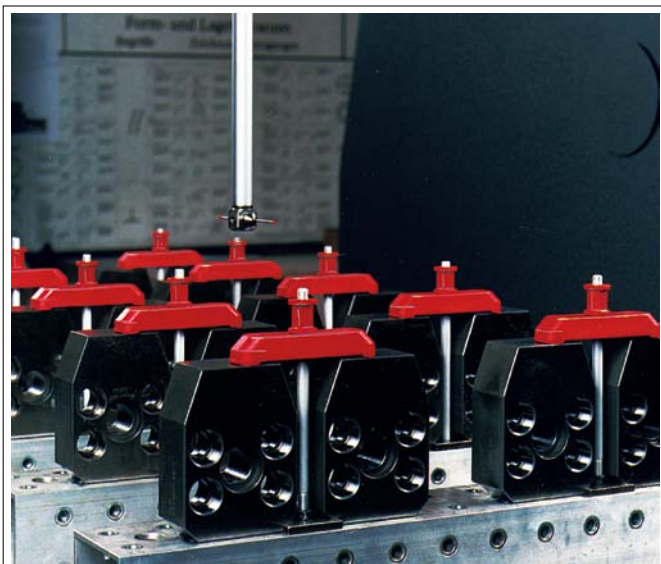
No. 6530,
page 106



No. 6531,
page 106



No. 6520,
page 107



Subject to technical alterations.

No. 6339

Heavy duty thread paste



| Order no. | Temperature range | Contents | Weight |
|-----------|-------------------|----------|--------|
| | | [ml] | [g] |
| 86686 | -25 - + 125°C | 75 | 75 |

Application:

For lubricating screw connections in clamping fixtures. Especially when aggressive coolants are used. Unlubricated (dry) screw connections are subjected to high friction forces (clamping force reduction) and rapid wear when tightened securely often. Thanks to its optimal lubricity, AMF screw compound increases the achievable clamping force and protects the material (longer service life).

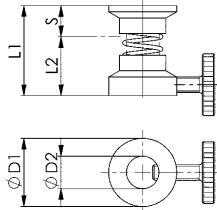
Features:

The paste, based on mineral fat, has a synergetic acting combination of highly active white solid lubricants. It is resistant to heat and wash off. (Washouttest according DIN 51807, part 2; loss of lubricant after 1 h/37.8°C = 1.4%).

No. 6342

Spring type clamp support

with brass locking screw



| Order no. | Size | D1 | D2 | L1 | L2 | Travel of spring S | for clamping screw | Weight [g] |
|-----------|------|----|------|----|----|--------------------|--------------------|------------|
| 75952 | 1 | 22 | 10,5 | 30 | 22 | 8 | M8-M10 | 41 |
| 75960 | 2 | 26 | 14,5 | 32 | 22 | 10 | M12-M14 | 55 |
| 75978 | 3 | 32 | 18,5 | 38 | 26 | 12 | M16-M18 | 89 |
| 75986 | 4 | 38 | 22,5 | 40 | 28 | 12 | M20-M22 | 133 |
| 75994 | 5 | 45 | 27,5 | 44 | 32 | 12 | M24-M27 | 177 |

The spring type clamp support holds the clamp while the work piece is removed and loaded, ensuring fast and safe clamping sequence.

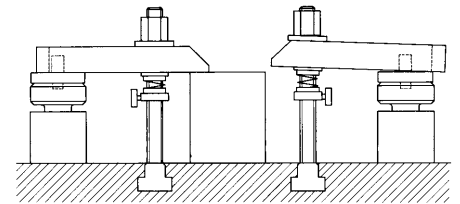
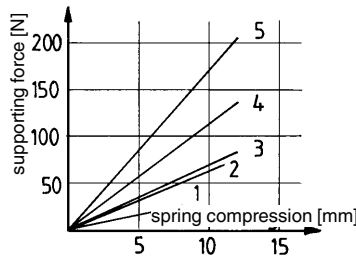
Recommendations



DIN 6379, page 92



DIN 787, page 86



No. 6485

T-slot scraper

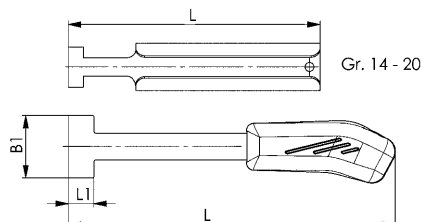
Steel, zinc-plated.



| Order no. | Size | Slot | B1 | L1 | L | Packaging Unit | Weight [g] |
|-----------|-------|-------|------|------|-----|----------------|------------|
| 72892 | 14-20 | 14-20 | 22,5 | 8,5 | 142 | 100 | 105 |
| 72900 | 22-32 | 22-32 | 35,0 | 14,5 | 184 | 50 | 170 |
| 72918 | 36-54 | 35-54 | 54,0 | 23,0 | 260 | - | 525 |

Note:

Size 14-20 without 2k hand grip.



Subject to technical alterations.



Subject to technical alterations.

No. 6486AO

T-slot side cover

Recyclable TPE plastic, RAL2008 orange.
Packaging unit: 10 each/size



| Order no. | Slot | A | E | H | K | L | L1 | L2 | Packaging unit | Weight [g] |
|-----------|------|----|------|------|------|----|----|----|----------------|------------|
| 565405 | 14 | 14 | 23,0 | 14,5 | 15,5 | 23 | 30 | 8 | 10 | 5 |
| 565401 | 16 | 16 | 26,5 | 16,5 | 18,5 | 26 | 33 | 9 | 10 | 7 |
| 565402 | 18 | 18 | 30,0 | 18,5 | 20,0 | 30 | 37 | 10 | 10 | 9 |
| 565403 | 22 | 22 | 37,0 | 22,5 | 24,5 | 35 | 42 | 12 | 10 | 14 |
| 565404 | 28 | 28 | 46,0 | 28,5 | 29,5 | 44 | 54 | 15 | 10 | 28 |

Application:

In addition to our cover strips for T-slots 6486, these **new, lateral covers for T-slots** also protect the machine slot from chips and soiling.

This is especially advantageous for T-slot tables of a 5-axis processing machine.

Advantage:

- 100% recyclable plastic
- Holes and bevels permit unhindered coolant flow
- Grip possibility for pulling out of the T-slot
- The flexible cover compensates for all slot tolerances in accordance with DIN650
- Use in all machine table T-slots
- Labelled with size, fast assignment possible

No. 6486AS

T-slot side cover

Recyclable TPE plastic, RAL9017 black.
Packaging unit: 10 each/size



| Order no. | Slot | A | E | H | K | L | L1 | L2 | Packaging unit | Weight [g] |
|-----------|------|----|------|------|------|----|----|----|----------------|------------|
| 565165 | 14 | 14 | 23,0 | 14,5 | 15,5 | 23 | 30 | 8 | 10 | 5 |
| 565320 | 16 | 16 | 26,5 | 16,5 | 18,5 | 26 | 33 | 9 | 10 | 7 |
| 565321 | 18 | 18 | 30,0 | 18,5 | 20,0 | 30 | 37 | 10 | 10 | 9 |
| 565322 | 22 | 22 | 37,0 | 22,5 | 24,5 | 35 | 42 | 12 | 10 | 14 |
| 565323 | 28 | 28 | 46,0 | 28,5 | 29,5 | 44 | 54 | 15 | 10 | 28 |

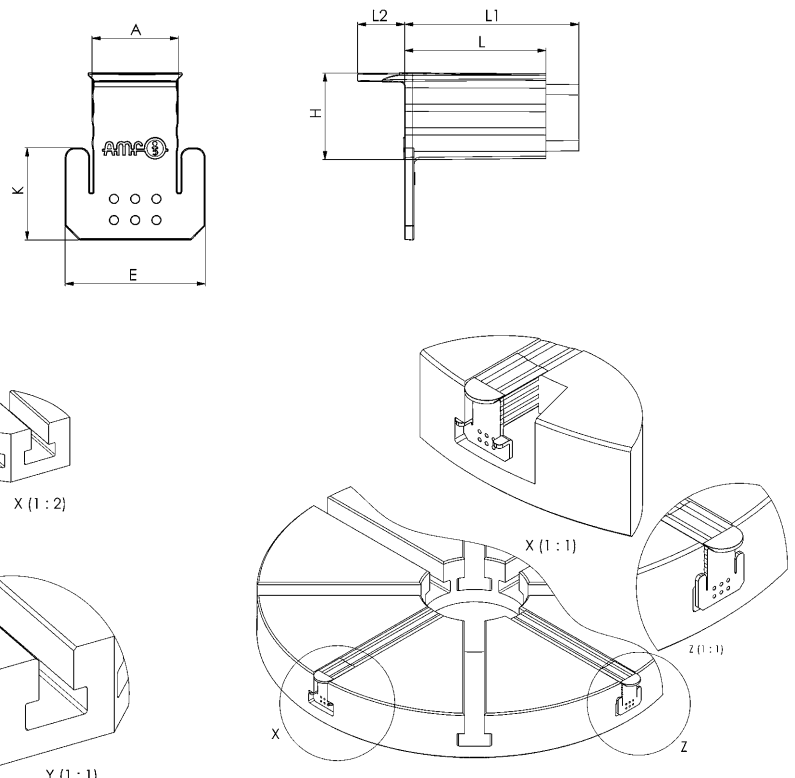
Application:

In addition to our cover strips for T-slots 6486, these **new, lateral covers for T-slots** also protect the machine slot from chips and soiling.

This is especially advantageous for T-slot tables of a 5-axis processing machine.

Advantage:

- 100% recyclable plastic
- Holes and bevels permit unhindered coolant flow
- Grip possibility for pulling out of the T-slot
- The flexible cover compensates for all slot tolerances in accordance with DIN650
- Use in all machine table T-slots
- Labelled with size, fast assignment possible

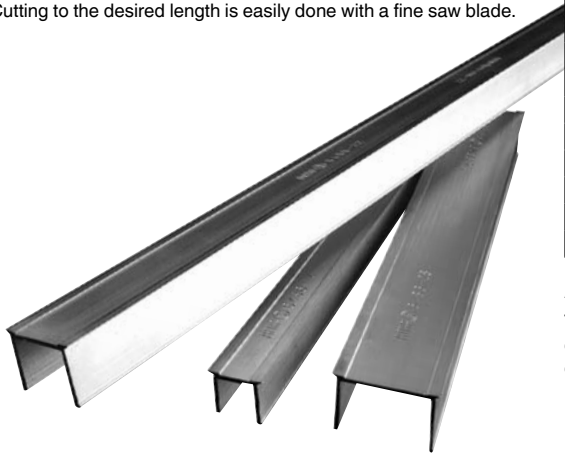


Subject to technical alterations.

No. 6486

T-slot cover

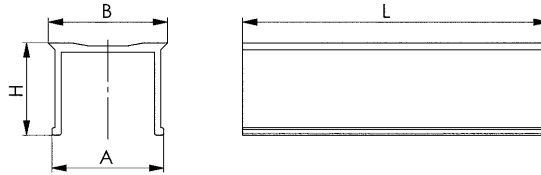
Made of aluminium profile.
Cutting to the desired length is easily done with a fine saw blade.



| Order no. | Size | Slot | A | B | H | L | Weight [g] |
|-----------|---------|------|------|------|------|------|------------|
| 71449 | 12x1000 | 12 | 12,0 | 13,0 | 10,5 | 1000 | 88 |
| 71456 | 14x1000 | 14 | 14,0 | 15,5 | 11,5 | 1000 | 100 |
| 71464 | 16x1000 | 16 | 16,0 | 17,5 | 14,0 | 1000 | 120 |
| 71472 | 18x1000 | 18 | 18,0 | 19,5 | 15,0 | 1000 | 135 |
| 71928 | 20x1000 | 20 | 20,5 | 21,5 | 16,5 | 1000 | 150 |
| 71936 | 22x1000 | 22 | 22,5 | 23,5 | 18,0 | 1000 | 165 |
| 71787 | 24x1000 | 24 | 24,5 | 25,5 | 20,0 | 1000 | 170 |
| 71944 | 28x1000 | 28 | 28,5 | 29,5 | 22,0 | 1000 | 200 |
| 71951 | 36x1000 | 36 | 36,5 | 38,0 | 22,0 | 1000 | 220 |
| 564437 | 42x1000 | 42 | 42,7 | 43,4 | 30,0 | 1000 | 367 |

Advantage:

The thorough subsequent cleaning of the slot on the machine table is no longer required. Always cover free slots by using the original AMF-T-slot cover before starting with machining. The T-slot covers can easily be removed after machining.



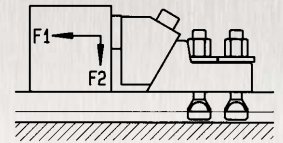
CAD



Subject to technical alterations.

The wedge action of clamping jaws is the characteristic feature of these pull down clamps. It causes the "pull down effect", which presses the workpiece against both, stop and machine table. The clamping force is resolved to its horizontal and vertical components F1 and F2. The lateral catch of jaws allows complete machining from above of top faces even for low sized workpieces without problems.

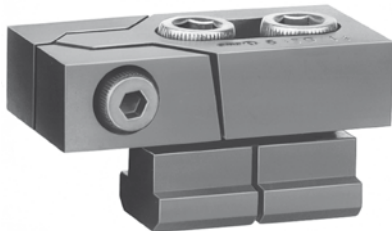
The clamp forces mentioned in the tables are achieved by using the optimal size of bolts and utilizing the respective permissible torque. Force F1 presses the workpiece against the stop, pull down force F2 is achieved with a plain face of workpiece.



No. 6490

Low height clamping jaws, model „Bulle“

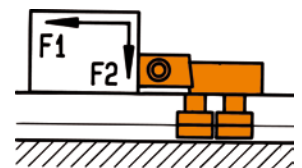
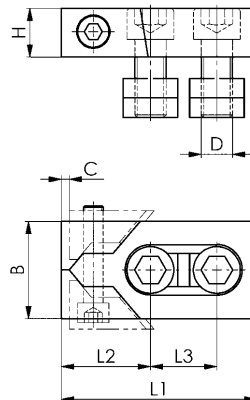
tempered and blued in black oxide finish. Complete with fastening bolts ISO 4762 (10.9), nuts for T-slots DIN 508 and hexagon screwdriver ISO 2936. Packed in carton in pairs.



| Order no. | Slot | B | C | D | H | L1 | L2 | L3 | F1 [kN] | F2 [kN] | Weight [g] |
|-----------|------|----|---|-----|----|-----|----|----|---------|---------|------------|
| 72959 | 12 | 40 | 3 | M10 | 20 | 80 | 39 | 26 | 16 | 0,6 | 1150 |
| 72967 | 14 | 40 | 3 | M12 | 20 | 80 | 39 | 26 | 22 | 0,9 | 1250 |
| 72975 | 16 | 40 | 3 | M12 | 20 | 80 | 39 | 26 | 22 | 0,9 | 1330 |
| 72983 | 16 | 50 | 4 | M14 | 25 | 100 | 46 | 34 | 32 | 1,2 | 2340 |
| 72991 | 18 | 50 | 4 | M16 | 25 | 100 | 46 | 34 | 36 | 1,4 | 2540 |
| 73007 | 20 | 50 | 4 | M16 | 25 | 100 | 46 | 34 | 36 | 1,4 | 2660 |
| 73015 | 22 | 78 | 5 | M20 | 30 | 140 | 65 | 50 | 36 | 1,4 | 5980 |
| 73023 | 24 | 78 | 5 | M20 | 30 | 140 | 65 | 50 | 36 | 1,4 | 6330 |
| 73031 | 28 | 78 | 5 | M24 | 30 | 140 | 65 | 50 | 40 | 1,6 | 7060 |
| 73049 | 30 | 78 | 5 | M24 | 30 | 140 | 65 | 50 | 40 | 1,6 | 7580 |

Note:

The clamping forces F1 and F2 are achieved with optimum design and utilisation of the max. tightening torque of the fastening bolts.



No. 6491

Slot stop

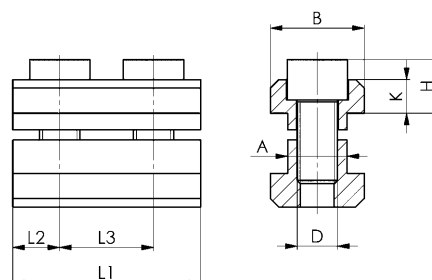
tempered and burnished.



| Order no. | Slot | A | B | D | H | K | L1 | L2 | L3 | Weight [g] |
|-----------|------|------|----|-----|----|----|----|------|----|------------|
| 73817 | 12 | 11,7 | 18 | M8 | 12 | 7 | 36 | 9,0 | 18 | 100 |
| 73825 | 14 | 13,7 | 22 | M8 | 12 | 8 | 44 | 11,0 | 22 | 140 |
| 73833 | 16 | 15,7 | 25 | M12 | 15 | 9 | 50 | 12,5 | 25 | 240 |
| 73841 | 18 | 17,7 | 28 | M12 | 16 | 10 | 56 | 14,0 | 28 | 340 |
| 73858 | 20 | 19,7 | 32 | M16 | 19 | 12 | 64 | 16,0 | 32 | 520 |
| 73866 | 22 | 21,7 | 35 | M16 | 21 | 14 | 70 | 17,5 | 35 | 720 |
| 73874 | 24 | 23,7 | 40 | M20 | 23 | 16 | 80 | 20,0 | 40 | 880 |
| 73882 | 28 | 27,7 | 44 | M20 | 24 | 18 | 88 | 22,0 | 44 | 1460 |

Application:

To be used for longitudinal or transversal function. The low overall height allows application with flat workpieces.



Recommendations



No. 911LG-H100F



Subject to technical alterations.

No. 6492

Flat clamp, model „Mini-Bulle“

tempered and blued in black oxide finish. Complete with fastening bolts ISO 4762 (8.8), and hexagon screwdriver ISO 2936.

Packed in carton in pairs.



| Order no. | Slot | H min. | H max. | B | C | H1 | L | X | F1 [kN] | F2 [kN] | Weight [g] |
|-----------|------|--------|--------|----|-----|----|----|---|---------|---------|------------|
| 73098 | 12 | 2,5 | 13,5 | 18 | 1,8 | 11 | 52 | 5 | 5,0 | 0,6 | 300 |
| 73106 | 14 | 1,5 | 13,5 | 22 | 1,8 | 11 | 55 | 5 | 5,5 | 0,7 | 380 |
| 73114 | 16 | 2,5 | 17,0 | 25 | 2,5 | 15 | 68 | 6 | 8,0 | 0,9 | 700 |
| 73122 | 18 | 1,5 | 16,0 | 28 | 2,5 | 15 | 71 | 6 | 9,0 | 1,0 | 830 |
| 73080 | 22 | 4,5 | 21,5 | 35 | 3,0 | 20 | 89 | 9 | 16 | 1,9 | 1740 |

Application:

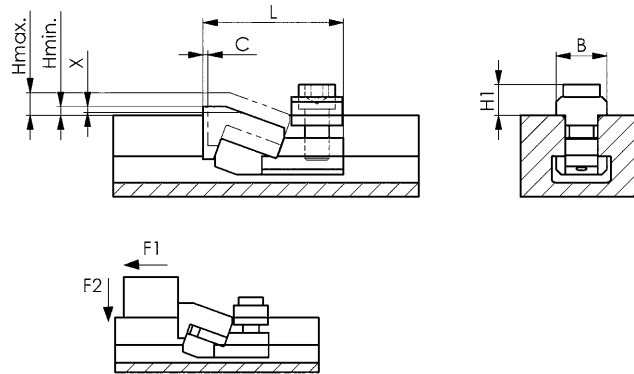
These tempered clamps are designed for extremely low workpieces. Wedge action of jaws presses the workpiece firmly and safely against the machine table. The horizontal forces are compensated by a screw related to slot size, which blocks the clamp without damage to table.

Note:

Hmin./Hmax.: depending on the groove depth according to DIN 650.

The clamping piece can be ground by X mm. This allows lower clamping heights to be achieved.

The clamping forces F1 and F2 are achieved with optimum design and utilisation of the max. tightening torque of the fastening bolts.



No. 6365

Pull-Down Clamp

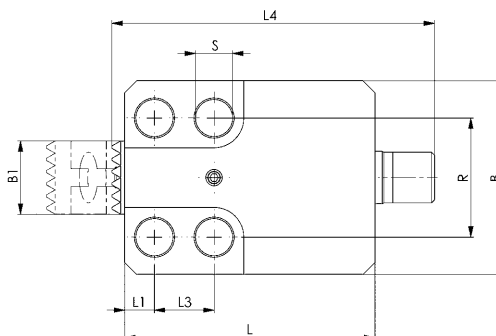
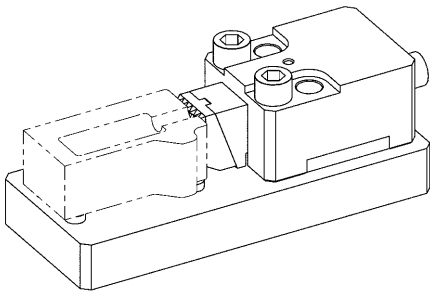
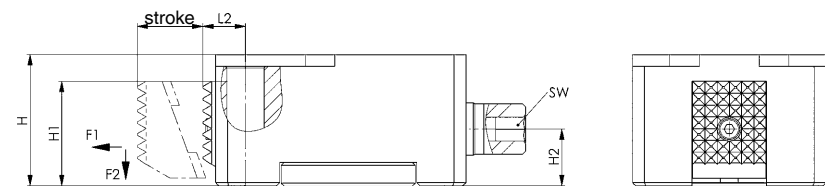
Hardened steel



| Order no. | Size | B | B1 | H | H1 | H2 | Stroke | F1 [kN] | F2 [kN] | Weight [g] |
|-----------|------|----|----|----|----|----|--------|---------|---------|------------|
| 88492 | 12 | 65 | 25 | 44 | 36 | 19 | 22 | 20 | 2 | 1515 |
| 79392 | 16 | 80 | 30 | 50 | 41 | 21 | 27 | 40 | 4 | 2604 |

Application:

This clamping jaw must be able to run on the mounting surface.



Recommendations



No. 6365G, page 117



No. 6365N, page 117

Dimensions:

| Order no. | L | L1 | L2 | L3 | L4 | R | dia. S | SW | Md [Nm] |
|-----------|-----|----|----|----|-------|----|--------|----|---------|
| 88492 | 84 | 10 | 14 | 20 | 108,5 | 40 | 12,5 | 8 | 50 |
| 79392 | 102 | 15 | 18 | 25 | 123,0 | 50 | 16,5 | 10 | 100 |

Subject to technical alterations.

No. 6365G

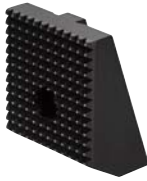
Clamping Jaws, serrated

Hardened steel



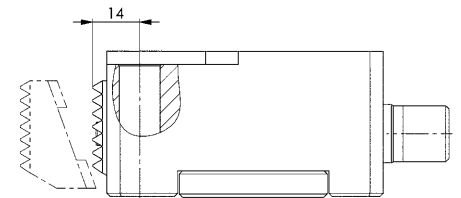
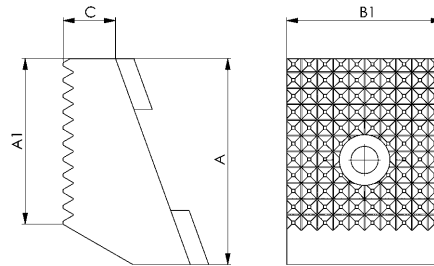
CAD

| Order no. | Size | A | A1 | B1 | C | Weight [g] |
|---------------|-----------|------|----|------|-----|------------|
| 88500 | 12 | 32,5 | 26 | 24,6 | 8,5 | 69 |
| 120360 | 16 | 37,5 | 31 | 29,8 | 7,5 | 99 |



Note:

This clamping jaw be part of standart sortiment for draw-down clamp 6365-**-001.



No. 6365N

Clamping Jaws, with ridge

hardened steel



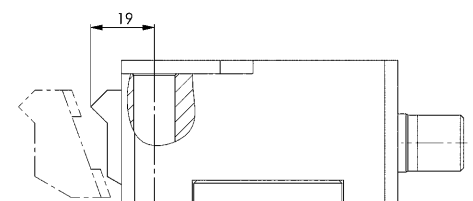
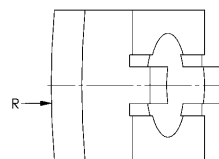
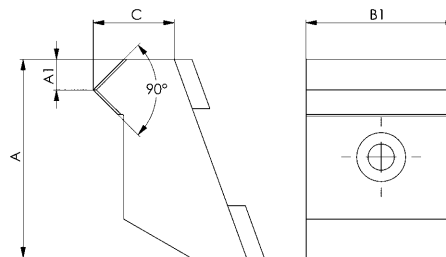
CAD

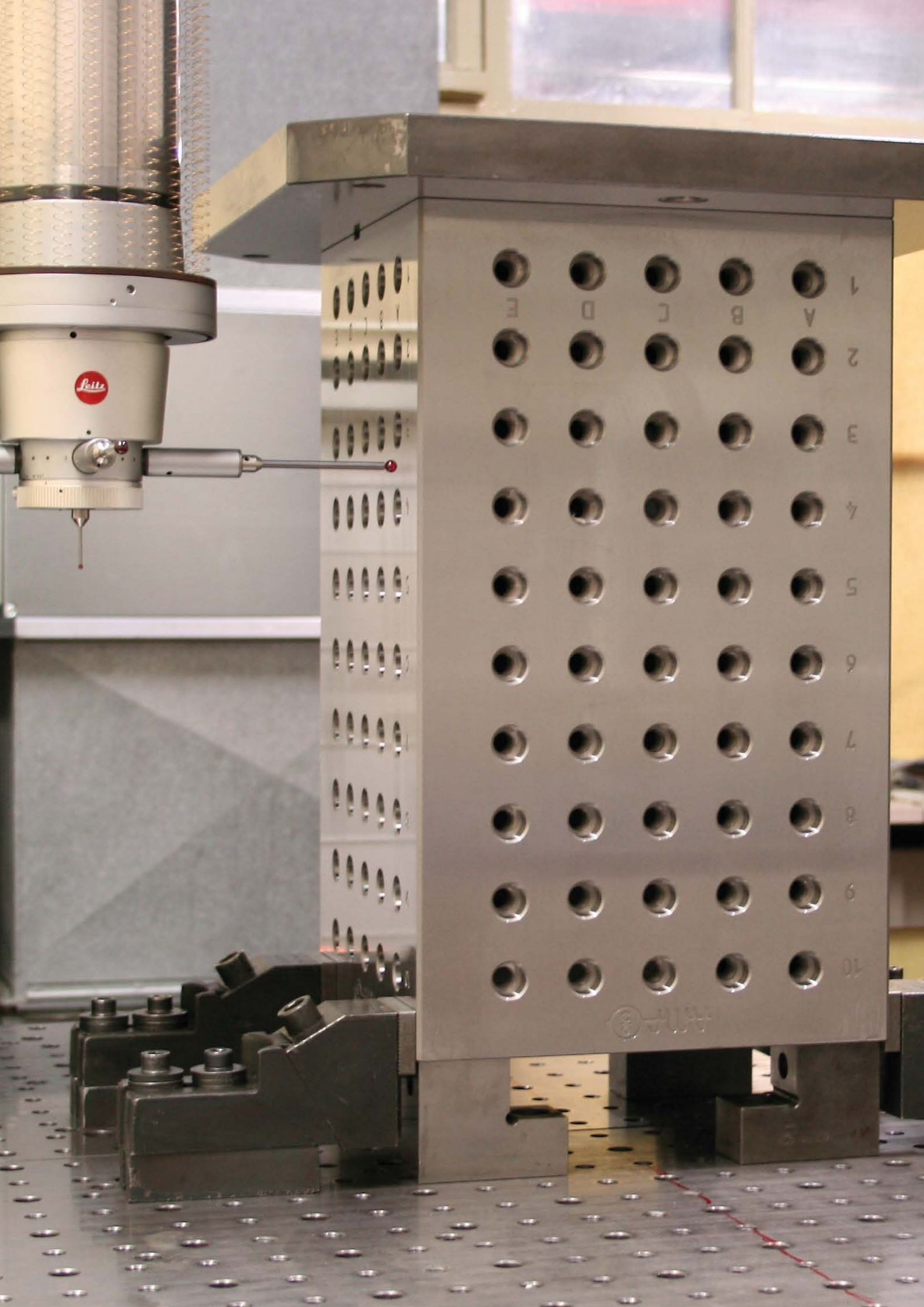
| Order no. | Size | A | A1 | B1 | C | R | Weight [g] |
|--------------|-----------|------|----|------|------|-----|------------|
| 88526 | 12 | 32,5 | 5 | 24,6 | 13 | 200 | 74 |
| 88542 | 16 | 37,5 | 5 | 29,8 | 12,5 | 250 | 110 |



Application:

Suitable for pull-down clamp no. 6365. Especially suitable for workpieces with a very uneven or hard surface (castings).





Leitz

| | | | | | |
|---|---|---|---|---|----|
| | | | | | 1 |
| E | D | C | B | A | |
| | | | | | 2 |
| | | | | | 3 |
| | | | | | 4 |
| | | | | | 5 |
| | | | | | 6 |
| | | | | | 7 |
| | | | | | 8 |
| | | | | | 9 |
| | | | | | 10 |

Leitz

No. 6494

Low height clamping jaws, model „Maxi-Bulle“

Body: spherical casting. Jaws: tempered and burnished.
Packing: 2 units in carton with hexagon key ISO 2936 without screws
or bolts. Available in pairs only!



CAD

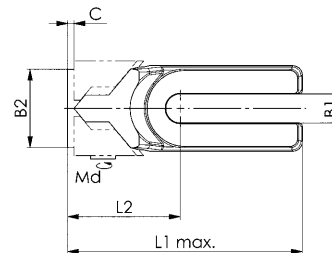


| Order no. | Slot | B1 | B2 | C | H min. | H max. | H1 | H2 | L1 max. | L2 | F1* [kN] | F2* [kN] | Weight/ pair [g] |
|-----------|------|----|----|---|--------|--------|----|----|---------|-----|-------------|-------------|------------------------|
| 73130 | 10 | 14 | 40 | 3 | 50 | 52 | 20 | 30 | 115 | 60 | 6 | 0,2 | 1590 |
| | 12 | | | | | | | | | | 10 | 0,4 | |
| | 14 | | | | | | | | | | 15 | 0,6 | |
| 73148 | 16 | 19 | 50 | 4 | 60 | 63 | 25 | 35 | 150 | 72 | 20 | 0,8 | 2940 |
| | 18 | | | | | | | | | | 28 | 1,1 | |
| | 20 | | | | | | | | | | 36 | 1,4 | |
| 73155 | 22 | 31 | 80 | 5 | 75 | 79 | 30 | 45 | 205 | 102 | 38 | 1,5 | 7900 |
| | 24 | | | | | | | | | | 38 | 1,5 | |
| | 28 | | | | | | | | | | 40 | 1,6 | |
| | 30 | | | | | | | | | | 40 | 1,6 | |
| | 32 | | | | | | | | | | 44 | 1,7 | |
| | 36 | | | | | | | | | | 44 | 1,7 | |

* Clamping forces F1 and F2 depend on the groove width.

Application:

The clamping jaws „Maxi-Bulle“ for work on larger heights was developed from the tried and tested Model „Bulle“ no. 6490. The wedge faces of these clamps are skillfully arranged to achieve maximum clamping force with low exertion. For fastening, 2 T-slot bolts DIN 787 for each clamping jaw, according to T-slot size in use, should be ordered separately. For lower arrangement of clamping screws use cap screws ISO 4762 with washers DIN 6340 and T-nuts 508.



Recommendations



No. 911LG-H100F

Subject to technical alterations.

No. 6497F

Solid clamping jaws, flat design

with exact prismatic guide.

Body: Tempered steel.

Clamping jaws: Case-hardened steel, case-hardened.

Reversible clamping jaws with smooth side for machined workpieces and serrated side for rough clamping surfaces.

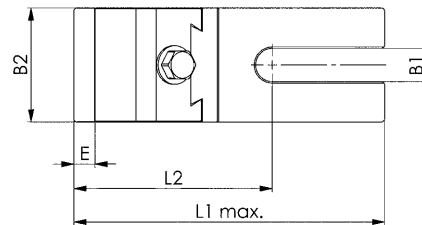
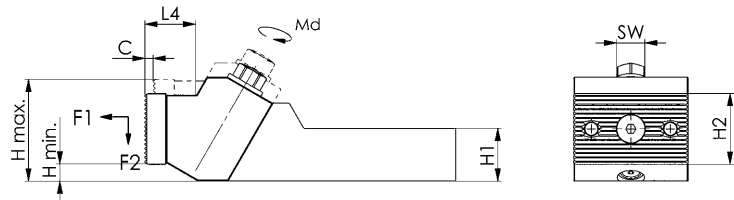


| Order no. | Slot | B1 | B2 | C | E | H min. | H max. | H1 | H2 | L1 max. | L2 | L4 | SW | F1* [kN] | F2* [kN] | Md [Nm] | Weight [g] |
|-----------|------|----|----|-----|----|--------|--------|----|------|---------|-----|----|----|-------------|-------------|------------|---------------|
| 564074 | 10 | 14 | 40 | 3 | 8 | 3 | 33,5 | 20 | 25,4 | 128 | 82 | 19 | 13 | 4 | 0,7 | 11 | 840 |
| | 12 | | | | | | | | | | | | | 8 | 1,2 | 20 | |
| | 14 | | | | | | | | | | | | | 15 | 2,2 | 40 | |
| 562016 | 12 | 19 | 65 | 6 | 12 | 20 | 60 | 30 | 40 | 177 | 113 | 29 | 16 | 8 | 1,2 | 20 | 3020 |
| | 14 | | | | | | | | | | | | | 15 | 2,2 | 40 | |
| | 16 | | | | | | | | | | | | | 20 | 3,0 | 45 | |
| | 18 | | | | | | | | | | | | | 28 | 4,2 | 60 | |
| 562017 | 20 | 26 | 75 | 7,5 | 12 | 33 | 73 | 36 | 40 | 224 | 135 | 29 | 18 | 25 | 4,5 | 85 | 4880 |
| | 22 | | | | | | | | | | | | | 25 | 4,5 | 85 | |
| | 24 | | | | | | | | | | | | | 32 | 4,8 | 95 | |
| | 28 | | | | | | | | | | | | | 32 | 4,8 | 95 | |
| | 30 | | | | | | | | | | | | | 36 | 5,4 | 110 | |
| 562018 | 32 | 38 | 90 | 10 | 12 | 51 | 91,5 | 46 | 40 | 256 | 152 | 34 | 21 | 50 | 7,5 | 160 | 7715 |
| | 36 | | | | | | | | | | | | | | | | |
| | 42 | | | | | | | | | | | | | | | | |

* Clamping forces F1 and F2 depend on the groove width

Application:

The large clamping surface makes these solid clamping jaws suitable for laterally clamping workpieces. We recommend using two clamping studs for fastening the solid clamping jaw on the machine table. Screws for T-slots DIN 787 - two screws per clamping jaw - should be ordered separately as a fastening bolt depending on the width of the slot.



Subject to technical alterations.

No. 6497

Extra strong clamping jaw

High design with exact prismatic guide.

Main body: malleable iron.

Clamping jaws: case-hardening steel, case-hardened. Reversible clamping jaws with smooth side for machined workpieces and serrated side for rough clamping surfaces.



CAD

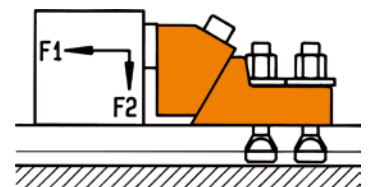
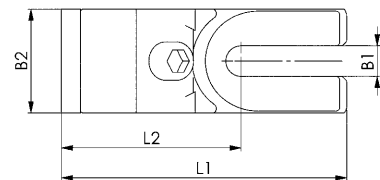
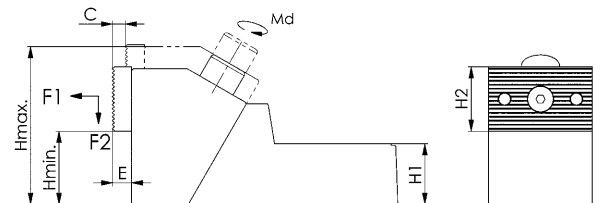


| Order no. | Slot | B1 | B2 | C | E | H min. | H max. | H1 | H2 | L1 | L2 | F1* [kN] | F2* [kN] | Md [Nm] | Weight [g] |
|-----------|------|----|----|----|----|--------|--------|----|----|-----|-------|-------------|-------------|------------|---------------|
| 73213 | 12 | 19 | 65 | 8 | 12 | 46 | 99 | 38 | 40 | 179 | 112,5 | 8 | 1,2 | 20 | 4037 |
| | 14 | | | | | | | | | | | 2,2 | 40 | | |
| | 16 | | | | | | | | | | | 3,0 | 45 | | |
| | 18 | | | | | | | | | | | 4,2 | 60 | | |
| 73221 | 20 | 26 | 75 | 11 | 12 | 61 | 118 | 45 | 40 | 230 | 138,5 | 25 | 4,5 | 85 | 6688 |
| | 22 | | | | | | | | | | | 4,5 | 85 | | |
| | 24 | | | | | | | | | | | 4,8 | 95 | | |
| | 28 | | | | | | | | | | | 4,8 | 95 | | |
| | 30 | | | | | | | | | | | 5,4 | 110 | | |
| 73239 | 32 | 38 | 90 | 15 | 12 | 89 | 145 | 56 | 40 | 265 | 158 | 50 | 7,5 | 160 | 11031 |
| | 36 | | | | | | | | | | | | | | |
| | 42 | | | | | | | | | | | | | | |

* Clamping forces F1 and F2 depend on the groove width.

Application:

Due to their large clamping faces these clamping jaws are suitable for lateral clamping of high workpieces. For fastening on the machine table we recommend the use of 2 clamping screws! Related to T-slot size in use, 2 T-slot bolts DIN 787 for each clamp should be ordered separately.

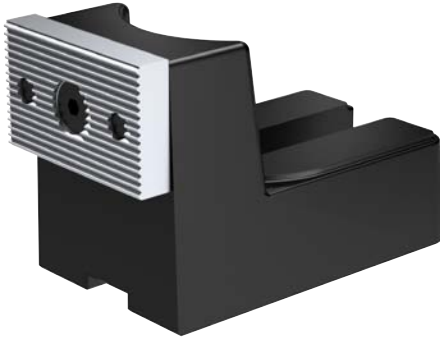


Subject to technical alterations.

No. 6497A

Stop, fixed

High design.
 Body: Cast steel.
 Clamping jaws: Case-hardening steel, case-hardened.
 Reversible clamping jaws with smooth side for machined workpieces and serrated side for rough clamping surfaces.



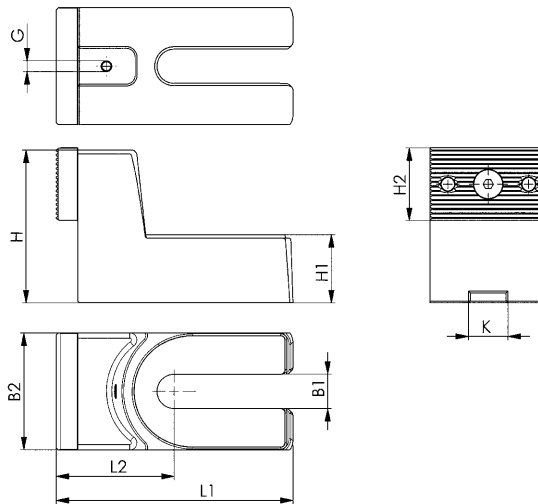
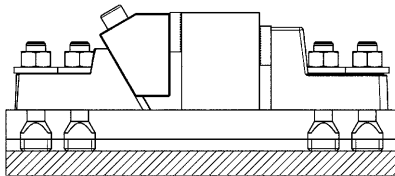
| Order no. | Slot | B1 | B2 | E | G | H | H1 | H2 | K | L1 | L2 | Weight [g] |
|-----------|------|----|----|----|----|-----|----|----|----|-----|------|------------|
| 550509 | 12 | 19 | 65 | 12 | M6 | 85 | 38 | 40 | 20 | 132 | 66,0 | 2857 |
| | 14 | | | | | | | | | | | |
| | 16 | | | | | | | | | | | |
| | 18 | | | | | | | | | | | |
| 550510 | 20 | 26 | 75 | 12 | M6 | 100 | 45 | 40 | 20 | 177 | 85,5 | 4673 |
| | 22 | | | | | | | | | | | |
| | 24 | | | | | | | | | | | |
| | 28 | | | | | | | | | | | |
| | 30 | | | | | | | | | | | |
| 550511 | 32 | 38 | 90 | 12 | M6 | 120 | 56 | 40 | 20 | 211 | 95,0 | 7900 |
| | 36 | | | | | | | | | | | |
| | 40 | | | | | | | | | | | |
| | 42 | | | | | | | | | | | |

Application:

Stop for workpieces or fixtures that are clamped or fastened to the machine table using a stable clamping jaw. Depending on requirements, the clamping jaw can be rotated so that either a smooth surface or a serrated surface is available.

Note:

Flat sliding block no. 6322A or 6322B enables the stop to be accurately positioned in the machine table groove.



Recommendations



No. 6497B,
page 123

Subject to technical alterations.

No. 6497B

Clamping jaw

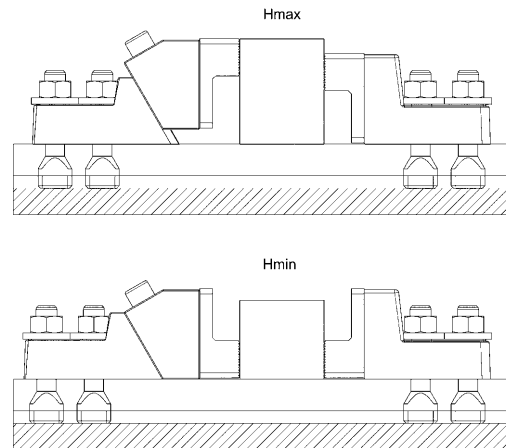
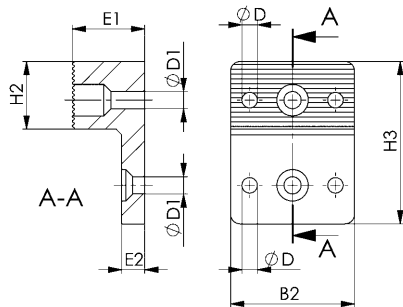
Case-hardened steel, nitrided, with fastening bolt M8



| Order no. | Size | B2 | D | D1 | E1 | E2 | H2 | H3 | Weight [g] |
|-----------|------|----|-----|----|----|----|----|-----|------------|
| 550512 | 19 | 65 | 8,1 | 9 | 38 | 12 | 35 | 85 | 889 |
| 550513 | 26 | 75 | 8,1 | 9 | 38 | 12 | 45 | 100 | 1306 |
| 550514 | 38 | 90 | 8,1 | 9 | 38 | 12 | 50 | 120 | 1829 |

Application:

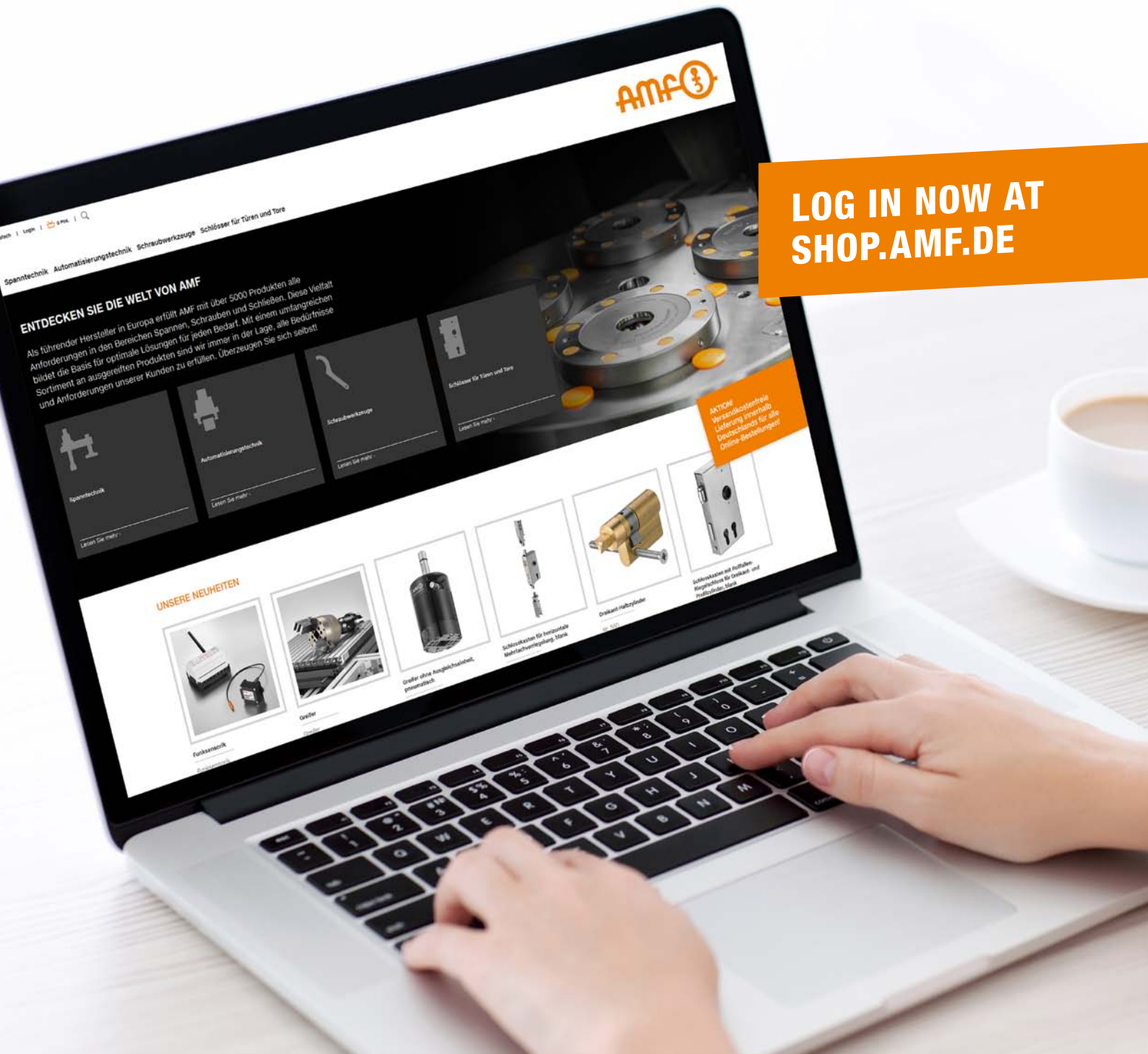
Clamping jaw with serrated surface for machining of unmachined parts. Can be mounted on the stable clamping jaw or the stop.





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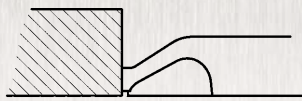


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CLAMPING WITH HORIZONTAL PRESSURE:

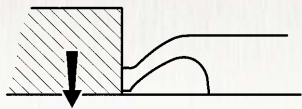
Fastening the horizontal clamp with screws is sufficient to hold and clamp the workpiece. The active part of the clamp consists of three elements - one rigid and two flexible parts

A workpiece is clamped in 3 steps:



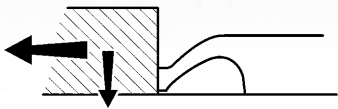
Contact:

The flexible clamp elements are positioned against the workpiece.



Hold:

The flexible clamp elements push the workpiece down until it comes into contact with the rigid clamping fingers.

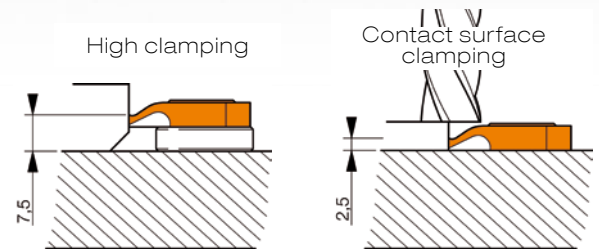
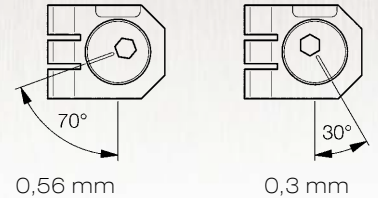


Clamping and positioning:

The rigid clamping finger clamps the workpiece.

Clamping force: 4,000 N
Tightening torque: 9 Nm
Cam stroke: 1.2 mm

Use of the cam:
1/4-turn quick clamp



No. 6493SP

Clamping element, horizontal

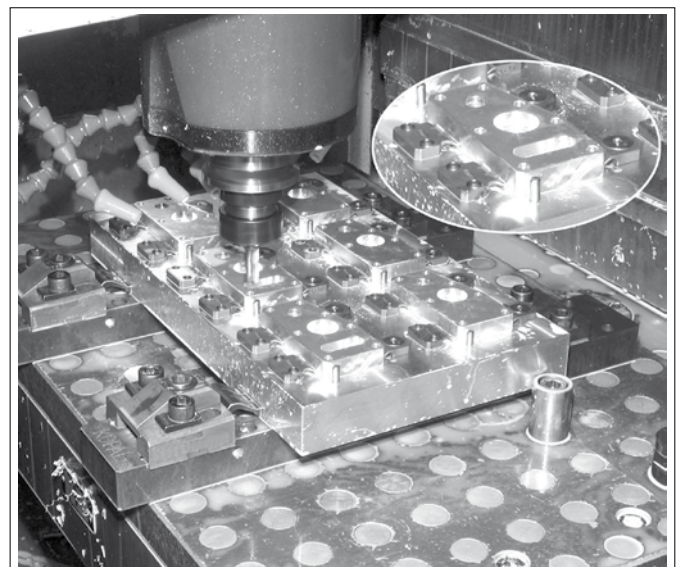
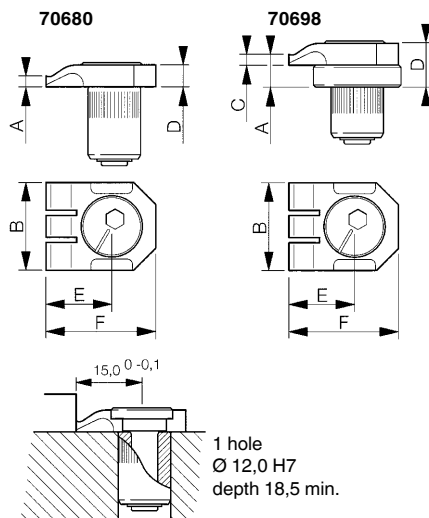
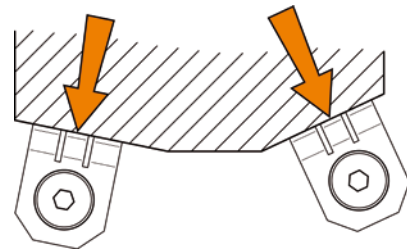


| Order no. | Clamping force [N] | Clamping height A [mm] | Stroke Eccentric [mm] | Md Eccentric [Nm] | B | C | D | E | F | Weight [g] |
|-----------|--------------------|------------------------|-----------------------|-------------------|----|-----|----|----|----|------------|
| 70680 | 4000 | 2,5 | 0,86 | 9 | 20 | - | 5 | 15 | 25 | 29 |
| 70698 | 4000 | 7,5 | 0,86 | 9 | 20 | 2,5 | 10 | 15 | 25 | 29 |

SW of the cam stroke = 4 mm

Application:

These hold-down clamps rotate around a camshaft that provides the clamping force. They can clamp in any direction.
Clamping element (1 rigid stop) enables the workpiece to lie flush with the stops.



Subject to technical alterations.



No. 6493S

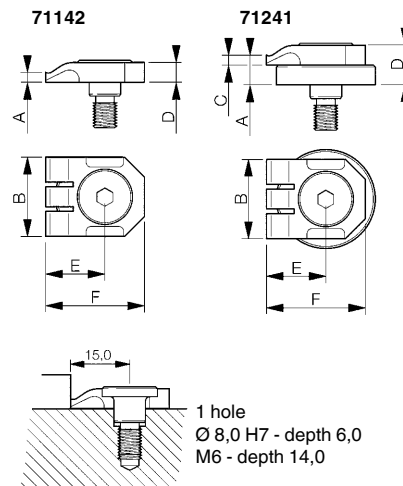
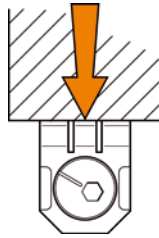
Stop, pivoting

the rigid, ground, pivoting stops are secured by special screws that guarantee high accuracy during installation.

| Order no. | Clamping height A [mm] | B | C | D | E | F | Weight [g] |
|-----------|------------------------|----|-----|----|----|----|------------|
| 71142 | 2,5 | 20 | - | 5 | 15 | 25 | 19 |
| 71241 | 7,5 | 20 | 2,5 | 10 | 15 | 25 | 19 |

Application:

The pivoting stop (1 rigid stop) requires two stops to position a workpiece along a straight line.



CAD

Subject to technical alterations.

No. 6493F

Stop, fixed

the ground, fixed stops are secured by special screws that guarantee high accuracy during installation.

Size 1 - Simple stop

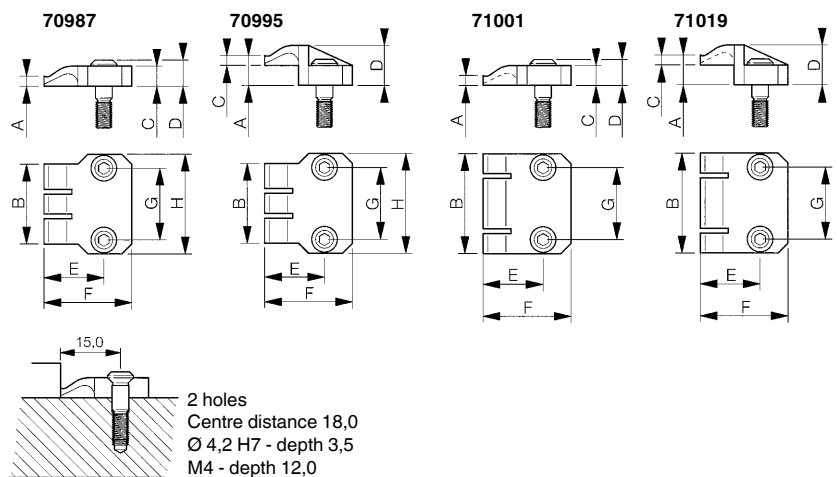
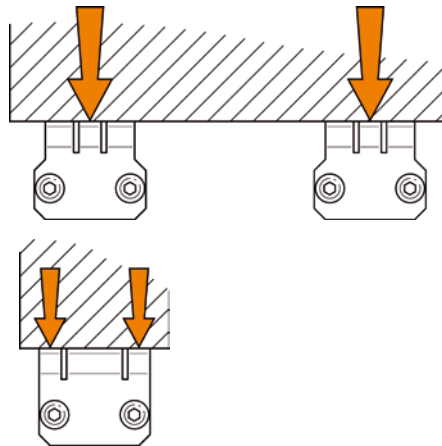
Size 2 - Double stop

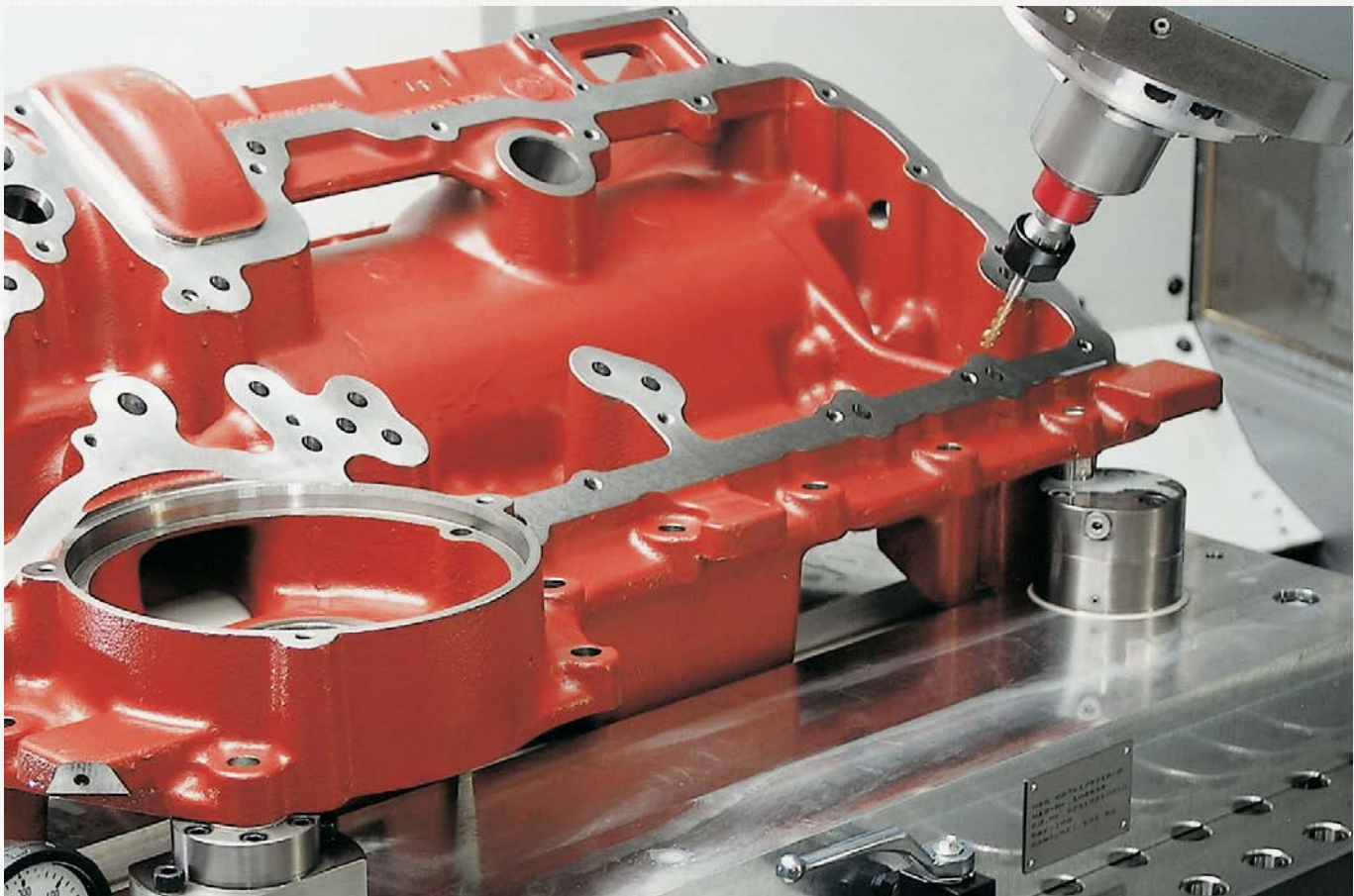
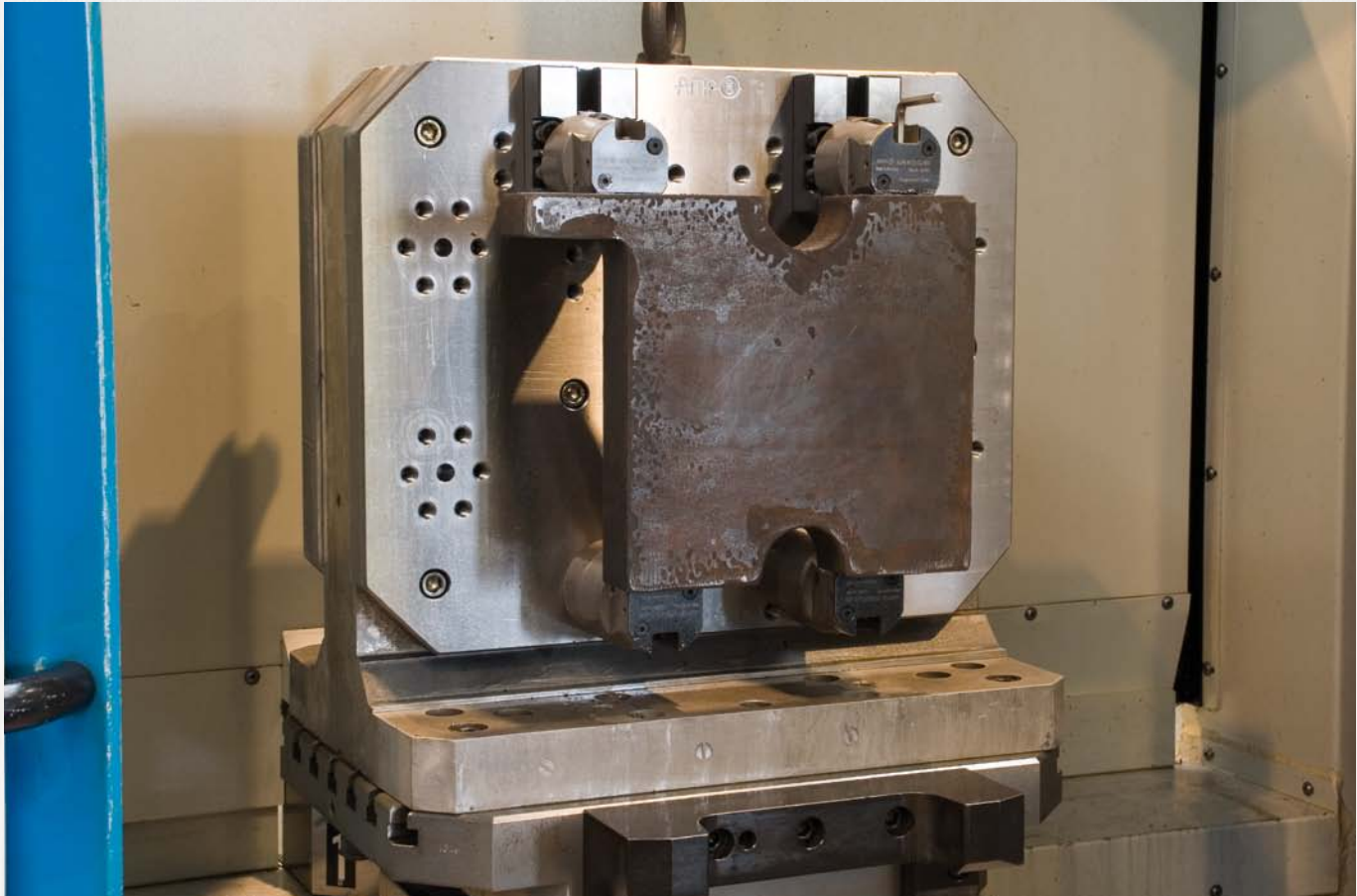
| Order no. | Size | Clamping height A [mm] | B | C | D | E | F | G | H | Weight [g] |
|-----------|------|------------------------|----|-----|------|----|----|----|----|------------|
| 70987 | 1 | 2,5 | 20 | 5,0 | 6,5 | 15 | 22 | 18 | 25 | 23 |
| 70995 | 1 | 7,5 | 20 | 2,5 | 10,0 | 15 | 22 | 18 | 25 | 23 |
| 71001 | 2 | 2,5 | 25 | 5,0 | 6,5 | 15 | 22 | 18 | - | 23 |
| 71019 | 2 | 7,5 | 25 | 2,5 | 10,0 | 15 | 22 | 18 | - | 23 |

Application:

Size 1 - Single stop (1 rigid stop): Two stops are required to position a workpiece along a straight line.

Size 2 - Double stop (2 rigid stops): One stop is sufficient to position a workpiece along a straight line.





Subject to technical alterations.

No. 6472

Side clamp with clamping point

(without pull-down action)
Complete with fastening bolts ISO4014 (10.9) and nuts for T-slots DIN508.



| Order no. | Size | G | Slot | F1 [kN] | B | H | H1 | L | Stroke | Weight [g] |
|-----------|------|-----|------|------------|------|------|------|-----|--------|---------------|
| 565651 | 14 | M10 | 12 | 14 | 40,0 | 50,0 | 25,5 | 85 | 4 | 1395 |
| 565580 | 20 | M12 | 14 | 20 | 47,5 | 56,0 | 27,5 | 98 | 6 | 2105 |
| 565652 | 30 | M16 | 18 | 30 | 67,0 | 71,5 | 34,0 | 134 | 10 | 5200 |

Application:

The mechanical side clamp without pull-down effect can be used as a clamping element and as a stop element.

When used in conjunction with the base plate with slot 6498FT, the side clamp can also be placed across the table slot.

Advantage:

- Compact design
- Can be used horizontally and vertically
- Changeable set screw

Note:

The clamping force is achieved with optimum design and utilisation of the max. tightening torque of the fastening bolts.

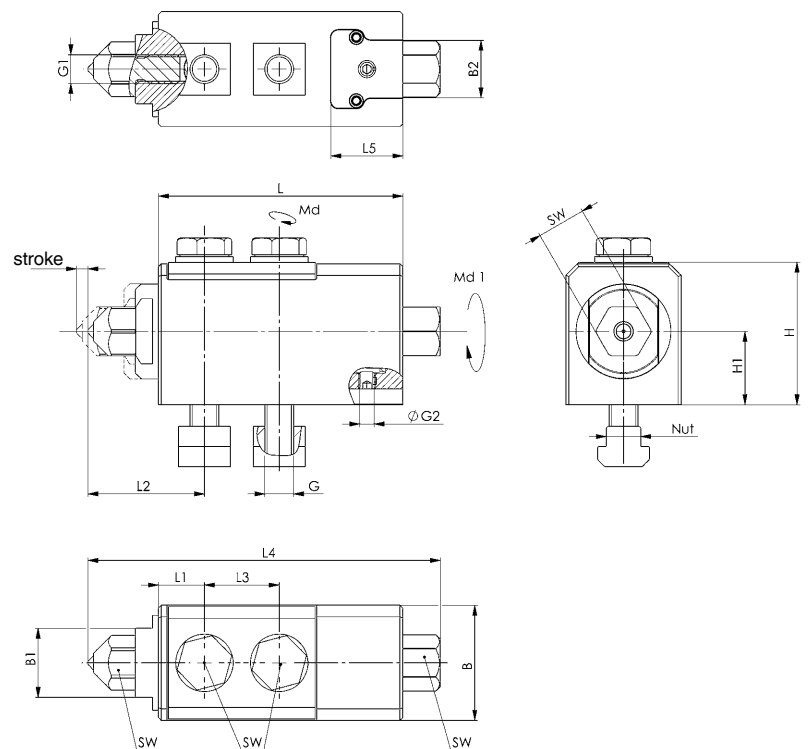
If larger T-nuts are used, pay attention to the screw length! Use of the flat sliding block no. 6322A enables the side clamp to be accurately positioned in the machine table groove.

Fastening takes place with a cylinder screw ISO 4762 M6 x 10.

Corresponding set screws:

7110DKX-12xM12 Set screw with ball, smooth

7110DFX-12xM12 Set screw with ball, striated



Recommendations



No. 7110DKX-**xM**,
page 43

No. 7110DFX-**xM**,
page 43

Dimensions:

| Order no. | Size | B1 | B2 | G1 | G2 | L1 | L2 | L3 | L4 | L5 | SW | torque Md [Nm] | Tightening torque Md1 [Nm] |
|-----------|------|----|----|-----|----|------|-------------|----|---------------|----|----|-------------------|-------------------------------|
| 565651 | 14 | 24 | 20 | M10 | M6 | 16,0 | 40,5 - 44,5 | 26 | 122,5 - 126,5 | 25 | 17 | 67 | 45 |
| 565580 | 20 | 27 | 20 | M12 | M6 | 18,2 | 43,7 - 50,4 | 30 | 139,0 - 146,0 | 25 | 19 | 83 | 60 |
| 565652 | 30 | 36 | 20 | M16 | M6 | 26,5 | 60,5 - 70,5 | 36 | 189,5 - 199,5 | 32 | 24 | 205 | 125 |

Subject to technical alterations.

No. 6498

Edge Clamp

complete with mounting kit. Fastened with screws of strength class 10.9.



| Order no. | Size | Slot | torque Md [Nm] | H ±0,1 | F1 [kN] | F2 [kN] | Weight [g] |
|-----------|--------|------|----------------|--------|---------|---------|------------|
| 73890 | M12x14 | 14 | 75 | 65 | 12 | 7 | 1530 |
| 375501 | M16x18 | 18 | 80 | 75 | 20 | 10 | 2627 |
| 374355 | M20x22 | 22 | 160 | 100 | 25 | 17 | 5996 |

Application:

The mechanical side clamp with hold-down effect can be used as a clamping element and as a fixed stop. Moving the adjusting bolt causes hook ends to clamp the workpiece. At the same time, a pull-down effect occurs on the contact surface. Attaching a lateral stop enables the workpiece to be repeatedly clamped. When used in conjunction with base plate 6498FT, the side clamp can also be placed across the table groove. In conjunction with round base plate no. 6498FR, only along the table groove.

Advantage:

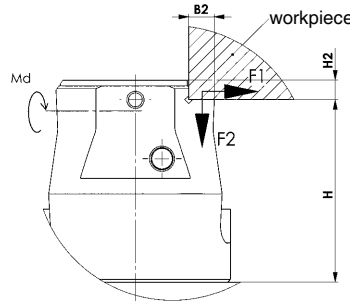
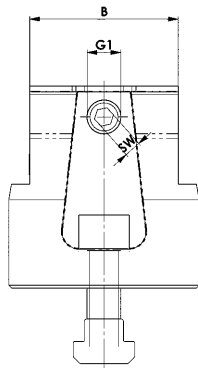
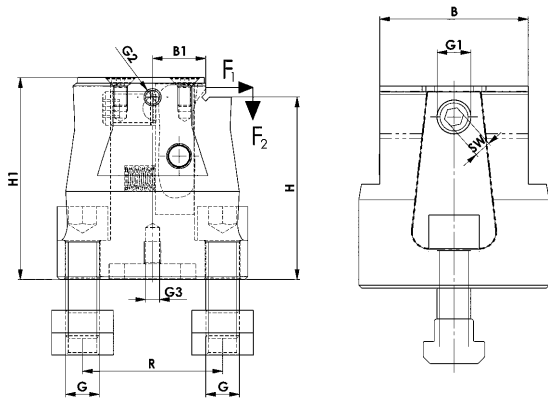
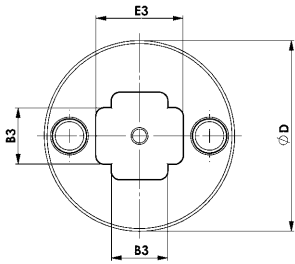
- compact dimensions
- workpiece fastened rigid and secure through pull-down effect
- plate tension increased to make holes and grooves
- lateral plate tension to completely finish surfaces without collision contour
- lateral thread enables a stop to be fastened
- can be used for horizontal and vertical applications
- reduced tooling time and tool elements cuts tooling costs
- diverse and variable applications.

Note:

Use of a flat sliding block no. 6322A or no. 6322B enables the side clamp to be accurately positioned in the machine table groove.

On request:

Special versions (dimension H ±0.01) are available.



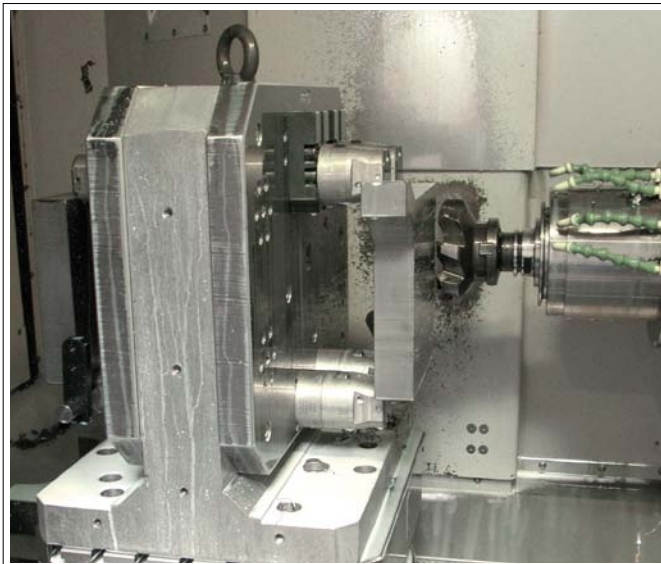
Recommendations



No. 911LG-H100F

Dimensions:

| Order no. | Size | B | B1 | B2 | B3 | D +2 | E3 | G | G1 | G2 | G3 | H1 | H2 | R | SW |
|-----------|--------|----|------|------|----|------|------|-----|-----|----|----|-----|----|----|----|
| 73890 | M12x14 | 53 | 19,0 | 9,0 | 20 | 68 | 31,0 | M12 | M12 | M6 | M6 | 72 | 7 | 50 | 6 |
| 375501 | M16x18 | 60 | 20,5 | 13,5 | 20 | 78 | 25,5 | M16 | M16 | M6 | M6 | 95 | 20 | 50 | 8 |
| 374355 | M20x22 | 88 | 28,5 | 18,0 | 20 | 108 | 38,0 | M20 | M16 | M6 | M6 | 118 | 18 | 75 | 10 |



Subject to technical alterations.

No. 6498FR

Base plate, round

complete with fixing screws. Fastened with screws of strength class 10.9.



| Order no. | Size | Slot | H ±0,1 | B3 | B4 | D +2 | E3 | E4 | G | G3 | R | Weight [g] |
|-----------|--------|------|--------|----|----|------|------|------|-----|----|----|------------|
| 73916 | M12x14 | 14 | 30 | 20 | 20 | 68 | 31,0 | 28,0 | M12 | M6 | 50 | 930 |
| 375527 | M16x18 | 18 | 50 | 20 | 20 | 78 | 25,5 | 25,5 | M16 | M6 | 50 | 1780 |
| 374371 | M20x22 | 22 | 60 | 20 | 22 | 108 | 38,5 | 38,5 | M20 | M6 | 75 | 4680 |

Application:

Used in conjunction with side clamp no. 6498 to clamp across and along the table groove. The size M16x18 fits properly for use on the M16 grid plate.

Advantage:

- Increase in the workpiece mounting surface.

Note:

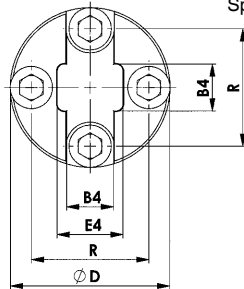
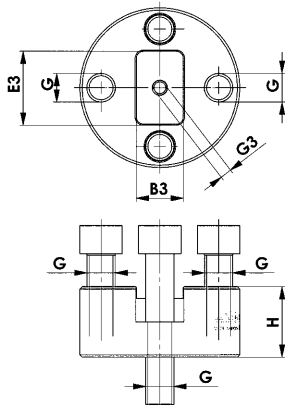
The flat T-nut no. 6322A or 6322B allows the side clamp to be connected exactly to the round base plate. The base plate can be positioned exactly on the machine table using the flat T-nuts 6322A or 6322B.

On request:

Special versions (dimension H ±0.01) are available.

view from below

view from above



Recommendations



No. 911LG-H100F,

No. 6498FT

Base plate with groove

complete with mounting kit. Fastened with screws of strength class 10.9.



| Order no. | Size | Slot | H ±0,1 | B | E1 | E2 | G | L | R | Weight [g] |
|-----------|--------|------|--------|-----|----|-----|-----|-----|-----|------------|
| 73908 | M12x14 | 14 | 30 | 70 | 40 | 65 | M12 | 110 | 50 | 1330 |
| 375543 | M16x18 | 18 | 50 | 125 | 40 | 90 | M16 | 130 | 100 | 4864 |
| 374397 | M20x22 | 22 | 60 | 120 | 75 | 150 | M20 | 200 | 85 | 7614 |

Application:

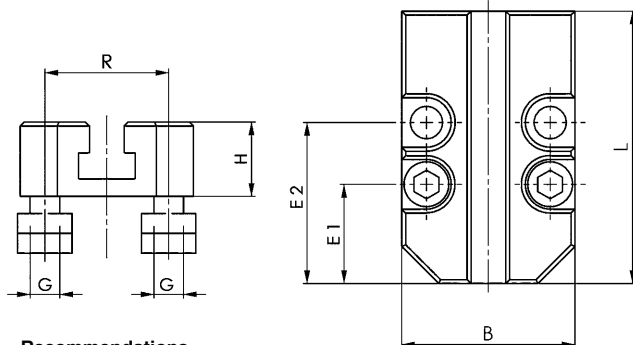
Used in conjunction with side clamp no. 6498 to also clamp across the table groove.

Advantage:

- Simple use of the side clamp when clamping even across the groove
- Increase in the workpiece mounting surface.

On request:

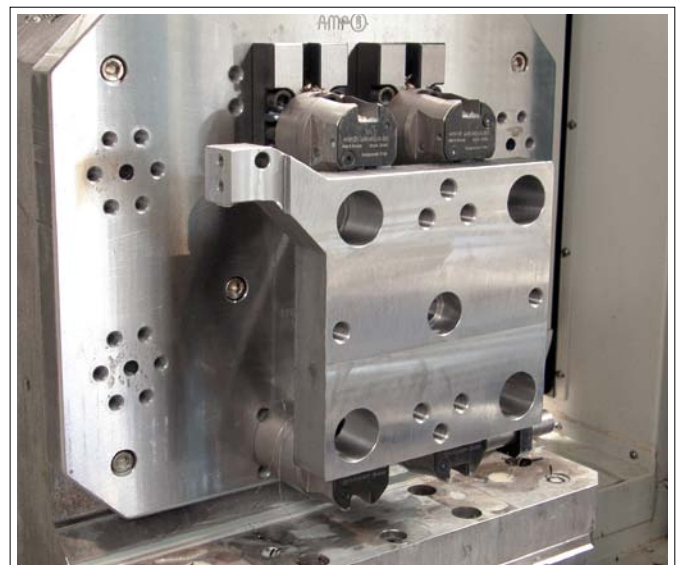
Special versions (dimension H ±0.01) are available.



Recommendations



No. 911LG-H100F



Subject to technical alterations.

No. 6495

T-slot clamp

complete with mounting.
Steel, tempered and burnished.



| Order no. | Size | Slot | F1 [kN] | F2 [kN] | H2 | SW [mm] | Weight [g] |
|-----------|------|------|------------|------------|----|------------|---------------|
| 374140 | 12 | 14 | 7 | 3,5 | 10 | 5 | 91 |
| 374132 | 16 | 18 | 10 | 5,0 | 12 | 6 | 188 |
| 374124 | 20 | 22 | 16 | 8,0 | 15 | 8 | 363 |

Application:

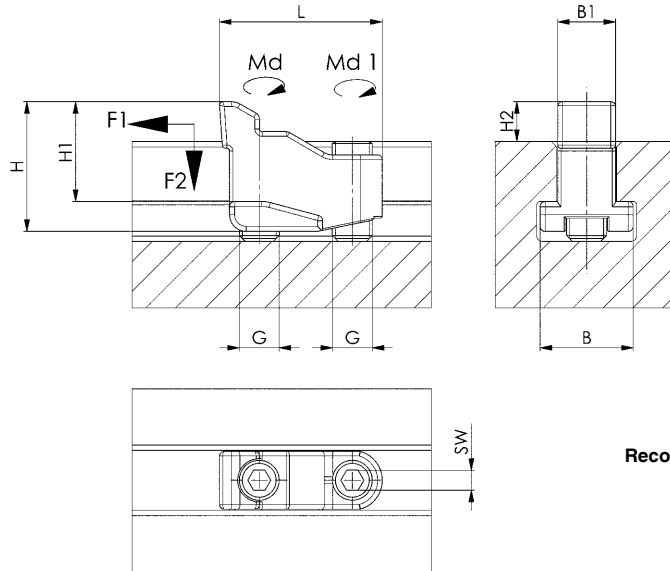
1. Slide T-slot clamp into T-slot of the machine table.
2. Position on workpiece.
3. Secure fastening bolt for machine table.
4. Actuating the clamping bolt clamps the workpiece.

Advantage:

- For clamping of very thin workpieces
- Lateral clamping of workpieces to completely finish surfaces without interference contours
- Can be used for horizontal and vertical applications.

Note:

- To reduce the wear on the fastening bolt, we recommend using AMF screw compound 6339. It possesses a synergistic combination of highly-effective solid lubricants and is heat-resistant and does not wash out.
- Use the associated AMF fastening bolt 6495S.



Recommendations



No. 911LG-H100F

Dimensions:

| Order no. | Size | B | B1 | G | H | H1 | L | Md [Nm] | Md 1 [Nm] |
|-----------|------|----|------|-----|----|----|----|------------|--------------|
| 374140 | 12 | 22 | 13,6 | M10 | 31 | 24 | 40 | 18 | 9 |
| 374132 | 16 | 28 | 17,4 | M12 | 39 | 30 | 49 | 32 | 15 |
| 374124 | 20 | 35 | 21,5 | M16 | 50 | 37 | 63 | 75 | 35 |

CAD



No. 6495S

Fastening bolt for T-slot clamp

Strength class 10.9



| Order no. | Size | G | L | SW [mm] | Weight [g] |
|-----------|------|-----|----|------------|---------------|
| 79186 | 12 | M10 | 25 | 5 | 14 |
| 78907 | 16 | M12 | 30 | 6 | 24 |
| 77834 | 20 | M16 | 40 | 8 | 59 |

Subject to technical alterations.

No. 6496

Flat clamp

Complete with mounting.
Steel, tempered and burnished.



| Order no. | Size | Slot | G | F1 [kN] | F2 [kN] | H min. | H max. | Weight [g] |
|-----------|--------|------|-----|------------|------------|--------|--------|---------------|
| 374157 | M12x14 | 14 | M12 | 15 | 7,5 | 16 | 25 | 579 |
| 374165 | M12x16 | 16 | M12 | 15 | 7,5 | 16 | 25 | 600 |
| 374173 | M16x18 | 18 | M16 | 25 | 12,5 | 19 | 30 | 1011 |
| 374181 | M16x20 | 20 | M16 | 25 | 12,5 | 19 | 30 | 1055 |
| 374199 | M20x22 | 22 | M20 | 36 | 18,0 | 22 | 36 | 1670 |
| 374207 | M20x24 | 24 | M20 | 36 | 18,0 | 22 | 36 | 1705 |
| 374215 | M20x28 | 28 | M20 | 36 | 18,0 | 22 | 36 | 1807 |

Application:

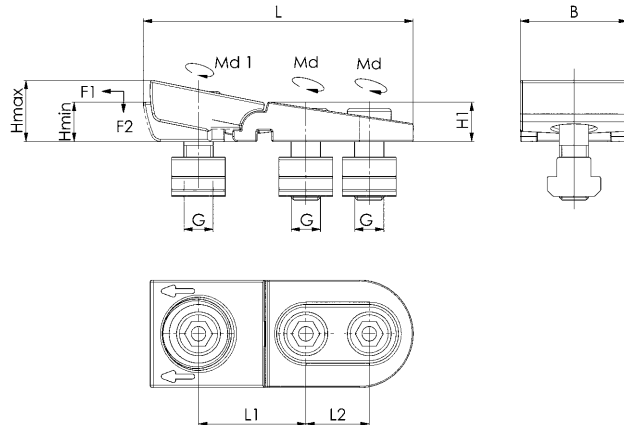
1. Slide flat clamp into T-groove of the machine table.
2. Position on workpiece.
3. Secure fastening bolts for machine table.
4. Actuating the clamping bolt clamps the workpiece.

Advantage:

- For clamping of very thin workpieces
- Lateral clamping of workpieces to completely finish surfaces without interference contours
- Can be used for horizontal and vertical applications.

Note:

- To reduce the wear on the fastening bolts, we recommend using AMF screw compound 6339. It possesses a synergistic combination of highly-effective solid lubricants and is heat-resistant and does not wash out.
- Use only the corresponding AMF mounting kit 6496BF.



Dimensions:

| Order no. | Size | B | H1 | L | L1 min. | L1 max. | L2 | Md [Nm] | Md 1 [Nm] |
|-----------|--------|----|----|-----|---------|---------|----|------------|--------------|
| 374157 | M12x14 | 44 | 16 | 110 | 45 | 48 | 26 | 65 | 52 |
| 374165 | M12x16 | 44 | 16 | 110 | 45 | 48 | 26 | 65 | 52 |
| 374173 | M16x18 | 56 | 19 | 130 | 50 | 54 | 33 | 150 | 120 |
| 374181 | M16x20 | 56 | 19 | 130 | 50 | 54 | 33 | 150 | 120 |
| 374199 | M20x22 | 62 | 22 | 152 | 58 | 63 | 41 | 300 | 240 |
| 374207 | M20x24 | 62 | 22 | 152 | 58 | 63 | 41 | 300 | 240 |
| 374215 | M20x28 | 62 | 22 | 152 | 58 | 63 | 41 | 300 | 240 |

CAD



No. 6496BF

Mounting kit for flat clamp

comprising 3 DIN 6912 hexagonal bolts, 3 DIN 508 T-groove nuts and 1 DIN 6319C spherical washer.



CAD



| Order no. | Size | Slot | G | L | SW [mm] | Weight [g] |
|-----------|--------|------|-----|----|------------|---------------|
| 313379 | M12x14 | 14 | M12 | 30 | 10 | 49 |
| 313395 | M12x16 | 16 | M12 | 35 | 10 | 56 |
| 313411 | M16x18 | 18 | M16 | 35 | 14 | 90 |
| 313437 | M16x20 | 20 | M16 | 40 | 14 | 104 |
| 313452 | M20x22 | 22 | M20 | 45 | 17 | 177 |
| 313478 | M20x24 | 24 | M20 | 45 | 17 | 189 |
| 313494 | M20x28 | 28 | M20 | 55 | 17 | 228 |

Recommendations



No. 911LG-H100F

Subject to technical alterations.

ABOUT ALIGNING AND POSITIONING

- > **Design:** The skilfull graduation of sizes to DIN series figures allows for numerous combinations.
- > **Quality:** AMF-parallels guarantee for long life due to their high wear resistance.
- > **The right quality for any application:** Our parallel washers are available in three quality levels:

Standard ★
 Precision ★★
 Super-precision ★★★

AMF-parallels are used as packing blocks, stops or distance pieces on machine tools. They are indispensable for the parallel support of components in machine vices and on surface plates.

- > AMF parallel washers, stops and power clamp being used for drilling a base plate.



DIN 6346

Parallel supports-set

In wooden box with detachable folding lid.
Plain parallel, fine-ground, in pairs.
Size data on the product.
Case-hardened.

Pair tolerance in height tp2 and width tp1 to IT 5.
Rated dimensional tolerance in height and width to DIN ISO 2768m.
Remaining dimensions to DIN ISO 2768m.

Geometrical graduation enables full use of the support height.
2.5 - 25 mm over 40 different heights 2.5 - 45 mm
4 - 32 mm over 40 different heights 4 - 57 mm
4 - 40 mm over 40 different heights 4 - 72 mm
8 - 50 mm over 30 different heights 8 - 90 mm
8 - 63 mm over 40 different heights 8 - 113 mm
20 - 100 mm over 14 different heights 20 - 180 mm.



| Order no. | Size | Pair | Case L x B x H | Weight [Kg] |
|-----------|--------|------|----------------|-------------|
| 72322 | 2,5-25 | 9 | 200x100x 36 | 1,3 |
| 72330 | 4-40 | 7 | 305x115x 50 | 3,8 |
| 72348 | 8-63 | 5 | 305x115x 70 | 7,4 |
| 72355 | 20-100 | 3 | 280x215x125 | 27,1 |
| 72165 | 4-32 | 5 | 132x145x 50 | 1,5 |
| 72173 | 8-50 | 4 | 192x158x 75 | 4,9 |

Note:

Workshop sets

Size 2.5-25 including (BxHxL):

2.5x8x63 / 3.2x10x63 / 4.0x12x63 / 5.0x16x63 / 6.3x20x63 / 4.0x12x100 / 5.0x16x100 / 6.3x20x100 / 8.0x25x100 mm

Size 4.0-40 including (BxHxL):

4.0x12x100 / 5.0x16x100 / 6.3x20x100 / 8.0x25x100 / 8.0x25x160 / 10.0x32x160 / 12.0x40x160 mm

Size 8.0-63 including (BxHxL):

8.0x25x100 / 10.0x32x100 / 12.0x40x100 / 16.0x50x160 / 20.0x63x160 mm

Size 20-100 including (BxHxL):

20.0x63x250 / 25.0x80x250 / 32.0x100x250 mm

Vice sets

Size 4.0-32 including (BxHxL):

4.0x12x100 / 5.0x16x100 / 6.3x20x100 / 8.0x25x100 / 10.0x32x100 mm

Size 8.0-50 including (BxHxL):

8.0x25x160 / 10.0x32x160 / 12.0x40x160 / 16.0x50x160 mm

DIN 6346P

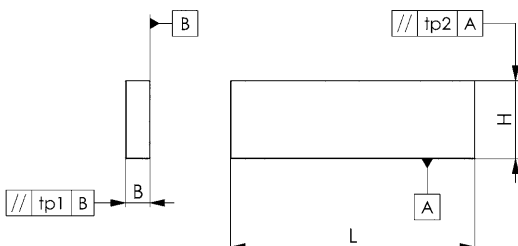
Parallel supports-pairs

Plain parallel, fine-ground, in pairs.
Size data on the product.
Case-hardened.

Pair tolerance in height tp2 and width tp1 to IT 5.
Rated dimensional tolerance in height and width to DIN ISO 2768m.
Remaining dimensions to DIN ISO 2768m.



| Order no. | H | B | L | Pair tolerance (tp1 / /tp2) | Weight [g] |
|-----------|-----|------|-----|-----------------------------|------------|
| 75309 | 8 | 2,5 | 63 | IT5 | 20 |
| 75317 | 10 | 3,2 | 63 | IT5 | 30 |
| 75325 | 12 | 4,0 | 63 | IT5 | 45 |
| 75333 | 16 | 5,0 | 63 | IT5 | 80 |
| 75341 | 20 | 6,3 | 63 | IT5 | 125 |
| 72181 | 12 | 4,0 | 100 | IT5 | 75 |
| 72199 | 16 | 5,0 | 100 | IT5 | 125 |
| 72207 | 20 | 6,3 | 100 | IT5 | 200 |
| 72215 | 25 | 8,0 | 100 | IT5 | 315 |
| 72223 | 32 | 10,0 | 100 | IT5 | 500 |
| 72231 | 40 | 12,0 | 100 | IT5 | 750 |
| 72249 | 25 | 8,0 | 160 | IT5 | 500 |
| 72256 | 32 | 10,0 | 160 | IT5 | 800 |
| 72264 | 40 | 12,0 | 160 | IT5 | 1200 |
| 72272 | 50 | 16,0 | 160 | IT5 | 2000 |
| 72280 | 63 | 20,0 | 160 | IT5 | 3170 |
| 72298 | 63 | 20,0 | 250 | IT5 | 4950 |
| 72306 | 80 | 25,0 | 250 | IT5 | 7900 |
| 72314 | 100 | 32,0 | 250 | IT5 | 12680 |
| 72363 | 100 | 40,0 | 400 | IT5 | 25300 |



CAD



Subject to technical alterations.

No. 6347

Parallel support set in wooden box

with 14 pairs of parallel supports.
Plain parallel, finely ground, in pairs.
Case-hardened.



| Order no. | Quality level | H | H Rated dimensional tolerance | H Pair tolerance (tp) | B | L | Case [mm] | Weight [Kg] |
|-----------|---------------|--|----------------------------------|--------------------------|----|-----|----------------|----------------|
| 558279 | SP | 14, 16, 18, 20, 22, 22, 24, 26, 28, 30, 32, 35, 40, 45, 50 | ±0,004 | 0,004 | 10 | 150 | 435 x 200 x 64 | 10,9 |
| 558280 | P | 14, 16, 18, 20, 22, 22, 24, 26, 28, 30, 32, 35, 40, 45, 50 | ±0,01 | 0,01 | 10 | 150 | 435 x 200 x 64 | 10,9 |
| 558281 | S | 14, 16, 18, 20, 22, 22, 24, 26, 28, 30, 32, 35, 40, 45, 50 | 2768 - m | 0,01 | 10 | 150 | 435 x 200 x 64 | 10,9 |

Design:

Content per 1 pair (WxH):
10x14 / 10x16 / 10x18 / 10x22 / 10x24 / 10x26 / 10x28 / 10x30 / 10x32 / 10x35 / 10x40 / 10x45 / 10x50 mm.

Quality level:
SP = Super-precision, P = Precision, S = Standard

Application:

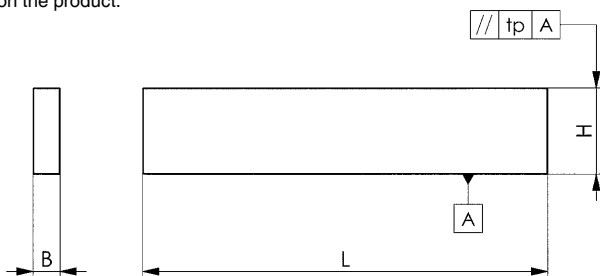
These documents are used as washers for workpieces exposed to diverse machining processes. The high precision of the parallel washers guarantees parallel workpiece clamping.

Advantage:

- high wear resistance and long service life
- wooden box with removable lid for perfect handling at the workplace and safe storage
- different quality levels for any application

Note:

Remaining dimensions according to DIN ISO 2768 - m.
Size data on the product.



**Optimised wooden case
for perfect handling!**

No. 6347PSP

Parallel supports-pairs, super-precision

Plain parallel, finely ground, in pairs.
Case-hardened.
Quality level: Super-precision ***



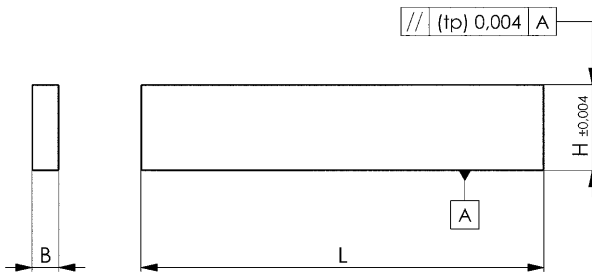
| Order no. | H Rated dimensional tolerance ±0.004 | H Pair tolerance (tp) | B | L | Weight [g] |
|-----------|--|-----------------------------|----|-----|---------------|
| 75473 | 14 | 0,004 | 10 | 150 | 330 |
| 75481 | 16 | 0,004 | 10 | 150 | 380 |
| 75499 | 18 | 0,004 | 10 | 150 | 420 |
| 75507 | 20 | 0,004 | 10 | 150 | 470 |
| 75515 | 22 | 0,004 | 10 | 150 | 520 |
| 75523 | 24 | 0,004 | 10 | 150 | 570 |
| 75531 | 26 | 0,004 | 10 | 150 | 610 |
| 75549 | 28 | 0,004 | 10 | 150 | 660 |
| 75556 | 30 | 0,004 | 10 | 150 | 710 |
| 75564 | 32 | 0,004 | 10 | 150 | 750 |
| 75572 | 35 | 0,004 | 10 | 150 | 830 |
| 75580 | 40 | 0,004 | 10 | 150 | 940 |
| 75291 | 45 | 0,004 | 10 | 150 | 1060 |
| 75283 | 50 | 0,004 | 10 | 150 | 1180 |

Application:

These documents are used as washers for workpieces exposed to diverse machining processes. The high precision of the parallel washers guarantees parallel workpiece clamping.

Note:

Remaining dimensions according to DIN ISO 2768 - m.
Size data on the product.



CAD



No. 6347PP

Parallel supports-pairs, precision

Plain parallel, finely ground, in pairs.
Case-hardened.
Quality level: Precision **



| Order no. | H Rated dimensional tolerance ±0.01 | H Pair tolerance (tp) | B | L | Weight [g] |
|-----------|---|-----------------------------|----|-----|---------------|
| 370684 | 14 | 0,01 | 10 | 150 | 330 |
| 370692 | 16 | 0,01 | 10 | 150 | 380 |
| 370700 | 18 | 0,01 | 10 | 150 | 420 |
| 370718 | 20 | 0,01 | 10 | 150 | 470 |
| 370726 | 22 | 0,01 | 10 | 150 | 520 |
| 370734 | 24 | 0,01 | 10 | 150 | 570 |
| 370742 | 26 | 0,01 | 10 | 150 | 610 |
| 370759 | 28 | 0,01 | 10 | 150 | 660 |
| 370767 | 30 | 0,01 | 10 | 150 | 710 |
| 370775 | 32 | 0,01 | 10 | 150 | 750 |
| 370783 | 35 | 0,01 | 10 | 150 | 830 |
| 370791 | 40 | 0,01 | 10 | 150 | 940 |
| 370809 | 45 | 0,01 | 10 | 150 | 1060 |
| 370817 | 50 | 0,01 | 10 | 150 | 1180 |

Application:

These documents are used as washers for workpieces exposed to diverse machining processes.

Note:

Remaining dimensions according to DIN ISO 2768 - m.
Size data on the product.



CAD



Subject to technical alterations.

No. 6347PS

Parallel supports-pairs, standard

Plain parallel, finely ground, in pairs.
Case-hardened.
Quality level: Standard *



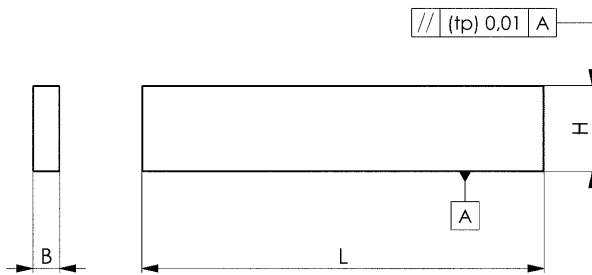
| Order no. | H Rated dimensional tolerance DIN ISO 2768 - m | H Pair tolerance (tp) | B | L | Weight [g] |
|-----------|--|-----------------------------|----|-----|---------------|
| 370825 | 14 | 0,01 | 10 | 150 | 330 |
| 370833 | 16 | 0,01 | 10 | 150 | 380 |
| 370841 | 18 | 0,01 | 10 | 150 | 420 |
| 370858 | 20 | 0,01 | 10 | 150 | 470 |
| 370866 | 22 | 0,01 | 10 | 150 | 520 |
| 370874 | 24 | 0,01 | 10 | 150 | 570 |
| 370882 | 26 | 0,01 | 10 | 150 | 610 |
| 370890 | 28 | 0,01 | 10 | 150 | 660 |
| 370908 | 30 | 0,01 | 10 | 150 | 710 |
| 370916 | 32 | 0,01 | 10 | 150 | 750 |
| 370924 | 35 | 0,01 | 10 | 150 | 830 |
| 370932 | 40 | 0,01 | 10 | 150 | 940 |
| 370940 | 45 | 0,01 | 10 | 150 | 1060 |
| 370957 | 50 | 0,01 | 10 | 150 | 1180 |

Application:

These documents are used as washers for workpieces exposed to diverse machining processes.

Note:

Remaining dimensions according to DIN ISO 2768 - m.
Size data on the product.



Subject to technical alterations.

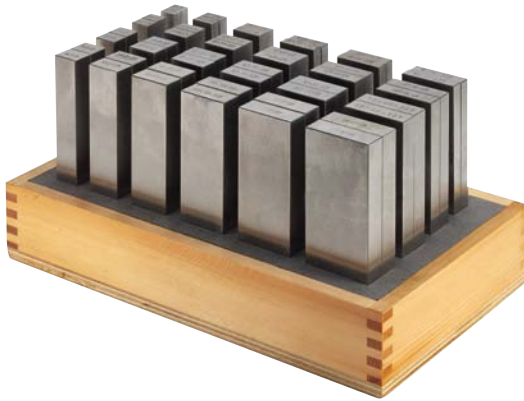
CAD



No. 6348

Parallel support set in wooden stand

Plain parallel, finely ground, in pairs.
Case-hardened.



| Order no. | Quality level | Size | Pair | H Rated dimensional tolerance | H Pair tolerance (tp) | B Rated dimensional tolerance | L | Weight [Kg] |
|-----------|---------------|------|------|----------------------------------|--------------------------|----------------------------------|-----|----------------|
| 75606 | SP | 100 | 20 | ±0,01 | IT5 | ±0,01 | 100 | 2,2 |
| 75614 | SP | 125 | 24 | ±0,01 | IT5 | ±0,01 | 125 | 14 |
| 75648 | SP | 150 | 24 | ±0,01 | IT5 | ±0,01 | 150 | 17 |
| 371062 | P | 100 | 20 | ±0,01 | IT5 | 2768 - m | 100 | 2,2 |
| 371070 | P | 125 | 24 | ±0,01 | IT5 | 2768 - m | 125 | 14 |
| 371088 | P | 150 | 24 | ±0,01 | IT5 | 2768 - m | 150 | 17 |
| 371096 | S | 100 | 20 | 2768 - m | IT5 | 2768 - m | 100 | 2,2 |
| 371104 | S | 125 | 24 | 2768 - m | IT5 | 2768 - m | 125 | 14 |
| 371112 | S | 150 | 24 | 2768 - m | IT5 | 2768 - m | 150 | 17 |

Design:

Size 100, content per 1 pair (WxH):

2x5 / 2x10 / 2x15 / 2x20 / 3x6 / 3x11 / 3x16 / 3x21 / 4x7 / 4x12 / 4x17 / 4x22 / 5x8 / 5x13 / 5x18 / 5x23 / 6x9 / 6x14 / 6x19 / 6x24 mm

Size 125 and 150, content per 1 pair (WxH):

8x11 / 8x16 / 8x21 / 8x26 / 8x31 / 8x36 / 10x13 / 10x18 / 10x23 / 10x28 / 10x33 / 10x38 / 12x15 / 12x20 / 12x25 / 12x30 / 12x35 / 12x40 / 14x17 / 14x22 / 14x27 / 14x32 / 14x37 / 14x42 mm

Quality level:

SP = Super-precision, P = Precision, S = Standard

Application:

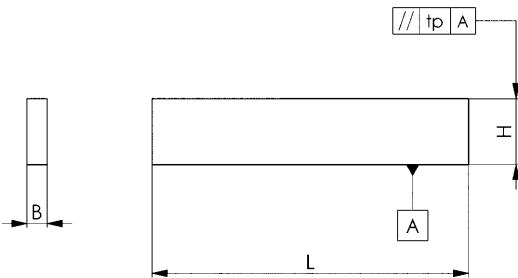
These documents are used as washers for workpieces exposed to diverse machining processes. The high precision of the parallel washers guarantees parallel workpiece clamping.

Advantage:

- high wear resistance and long service life
- wooden box with removable lid for perfect handling at the workplace and safe storage
- different quality levels for any application

Note:

Remaining dimensions according to DIN ISO 2768 - m.
Size data on front of product.



No. 6348PSP

Parallel supports-pairs, super-precision, 100 mm long

Plain parallel, finely ground, in pairs.
Case-hardened.
Quality level: Super-precision ***



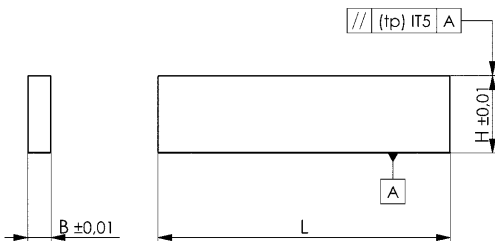
| Order no. | H Rated dimensional tolerance ±0.01 | H Pair tolerance (tp) | B Rated dimensional tolerance ±0.01 | L | Weight [g] |
|-----------|---|-----------------------------|---|-----|---------------|
| 370007 | 5 | IT5 | 2 | 100 | 16 |
| 370015 | 10 | IT5 | 2 | 100 | 31 |
| 370023 | 15 | IT5 | 2 | 100 | 47 |
| 370031 | 20 | IT5 | 2 | 100 | 62 |
| 370049 | 6 | IT5 | 3 | 100 | 28 |
| 370056 | 11 | IT5 | 3 | 100 | 51 |
| 370064 | 16 | IT5 | 3 | 100 | 75 |
| 370072 | 21 | IT5 | 3 | 100 | 98 |
| 370080 | 7 | IT5 | 4 | 100 | 44 |
| 370098 | 12 | IT5 | 4 | 100 | 75 |
| 370106 | 17 | IT5 | 4 | 100 | 106 |
| 370114 | 22 | IT5 | 4 | 100 | 137 |
| 370122 | 8 | IT5 | 5 | 100 | 62 |
| 370130 | 13 | IT5 | 5 | 100 | 101 |
| 370148 | 18 | IT5 | 5 | 100 | 140 |
| 370155 | 23 | IT5 | 5 | 100 | 179 |
| 370163 | 9 | IT5 | 6 | 100 | 84 |
| 370171 | 14 | IT5 | 6 | 100 | 131 |
| 370189 | 19 | IT5 | 6 | 100 | 178 |
| 370197 | 24 | IT5 | 6 | 100 | 224 |

Application:

These documents are used as washers for workpieces exposed to diverse machining processes. The high precision of the parallel washers guarantees parallel workpiece clamping.

Note:

Remaining dimensions according to DIN ISO 2768 - m.
Size data on the product.



No. 6348PSP

Parallel supports-pairs, super-precision, 125 mm long

Plain parallel, finely ground, in pairs.
Case-hardened.
Quality level: Super-precision ***



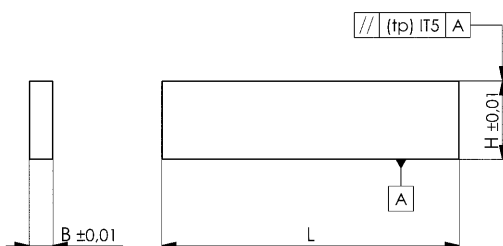
| Order no. | H Rated dimensional tolerance ±0.01 | H Pair tolerance (tp) | B Rated dimensional tolerance ±0.01 | L | Weight [g] |
|-----------|---|-----------------------------|---|-----|---------------|
| 370205 | 11 | IT5 | 8 | 125 | 171 |
| 370213 | 16 | IT5 | 8 | 125 | 249 |
| 370221 | 21 | IT5 | 8 | 125 | 326 |
| 370239 | 26 | IT5 | 8 | 125 | 404 |
| 370247 | 31 | IT5 | 8 | 125 | 482 |
| 370254 | 36 | IT5 | 8 | 125 | 561 |
| 370262 | 13 | IT5 | 10 | 125 | 253 |
| 370270 | 18 | IT5 | 10 | 125 | 351 |
| 370288 | 23 | IT5 | 10 | 125 | 448 |
| 370296 | 28 | IT5 | 10 | 125 | 545 |
| 370304 | 33 | IT5 | 10 | 125 | 642 |
| 370312 | 38 | IT5 | 10 | 125 | 741 |
| 370320 | 15 | IT5 | 12 | 125 | 350 |
| 370338 | 20 | IT5 | 12 | 125 | 466 |
| 370346 | 25 | IT5 | 12 | 125 | 583 |
| 370353 | 30 | IT5 | 12 | 125 | 700 |
| 370361 | 35 | IT5 | 12 | 125 | 817 |
| 370379 | 40 | IT5 | 12 | 125 | 933 |
| 370387 | 17 | IT5 | 14 | 125 | 462 |
| 370395 | 22 | IT5 | 14 | 125 | 599 |
| 370403 | 27 | IT5 | 14 | 125 | 734 |
| 370411 | 32 | IT5 | 14 | 125 | 871 |
| 370429 | 37 | IT5 | 14 | 125 | 1009 |
| 370437 | 42 | IT5 | 14 | 125 | 1144 |

Application:

These documents are used as washers for workpieces exposed to diverse machining processes. The high precision of the parallel washers guarantees parallel workpiece clamping.

Note:

Remaining dimensions according to DIN ISO 2768 - m.
Size data on the product.

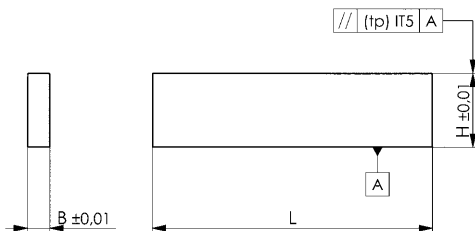


Subject to technical alterations.

No. 6348PSP

Parallel supports-pairs, super-precision, 150 mm long

Plain parallel, finely ground, in pairs.
Case-hardened.
Quality level: Super-precision ***



| Order no. | H Rated dimensional tolerance ±0.01 | H Pair tolerance (tp) | B Rated dimensional tolerance ±0.01 | L | Weight [g] |
|-----------|---|-----------------------------|---|-----|---------------|
| 370445 | 11 | IT5 | 8 | 150 | 203 |
| 370452 | 16 | IT5 | 8 | 150 | 295 |
| 370460 | 21 | IT5 | 8 | 150 | 389 |
| 370478 | 26 | IT5 | 8 | 150 | 482 |
| 370486 | 31 | IT5 | 8 | 150 | 574 |
| 370494 | 36 | IT5 | 8 | 150 | 668 |
| 370502 | 13 | IT5 | 10 | 150 | 300 |
| 370510 | 18 | IT5 | 10 | 150 | 417 |
| 370528 | 23 | IT5 | 10 | 150 | 533 |
| 370536 | 28 | IT5 | 10 | 150 | 649 |
| 370544 | 33 | IT5 | 10 | 150 | 768 |
| 370551 | 38 | IT5 | 10 | 150 | 884 |
| 370569 | 15 | IT5 | 12 | 150 | 416 |
| 370577 | 20 | IT5 | 12 | 150 | 556 |
| 370585 | 25 | IT5 | 12 | 150 | 694 |
| 370593 | 30 | IT5 | 12 | 150 | 835 |
| 370601 | 35 | IT5 | 12 | 150 | 974 |
| 370619 | 40 | IT5 | 12 | 150 | 1113 |
| 370627 | 17 | IT5 | 14 | 150 | 550 |
| 370635 | 22 | IT5 | 14 | 150 | 714 |
| 370643 | 27 | IT5 | 14 | 150 | 879 |
| 370650 | 32 | IT5 | 14 | 150 | 1040 |
| 370668 | 37 | IT5 | 14 | 150 | 1203 |
| 370676 | 42 | IT5 | 14 | 150 | 1369 |

Application:

These documents are used as washers for workpieces exposed to diverse machining processes. The high precision of the parallel washers guarantees parallel workpiece clamping.

Note:

Remaining dimensions according to DIN ISO 2768 - m.
Size data on the product.

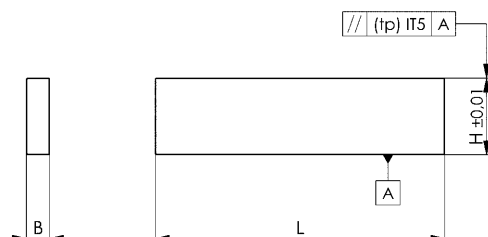
CAD



No. 6348PP

Parallel supports-pairs, precision, 100 mm long

Plain parallel, finely ground, in pairs.
Case-hardened.
Quality level: Precision **



| Order no. | H Rated dimensional tolerance ±0.01 | H Pair tolerance (tp) | B | L | Weight [g] |
|-----------|---|-----------------------------|---|-----|---------------|
| 371120 | 5 | IT5 | 2 | 100 | 16 |
| 371138 | 10 | IT5 | 2 | 100 | 31 |
| 371146 | 15 | IT5 | 2 | 100 | 47 |
| 371153 | 20 | IT5 | 2 | 100 | 62 |
| 371161 | 6 | IT5 | 3 | 100 | 28 |
| 371179 | 11 | IT5 | 3 | 100 | 51 |
| 371187 | 16 | IT5 | 3 | 100 | 75 |
| 371195 | 21 | IT5 | 3 | 100 | 98 |
| 371203 | 7 | IT5 | 4 | 100 | 44 |
| 371211 | 12 | IT5 | 4 | 100 | 75 |
| 371229 | 17 | IT5 | 4 | 100 | 106 |
| 371237 | 22 | IT5 | 4 | 100 | 137 |
| 371245 | 8 | IT5 | 5 | 100 | 62 |
| 371252 | 13 | IT5 | 5 | 100 | 101 |
| 371260 | 18 | IT5 | 5 | 100 | 140 |
| 371278 | 23 | IT5 | 5 | 100 | 179 |
| 371286 | 9 | IT5 | 6 | 100 | 84 |
| 371294 | 14 | IT5 | 6 | 100 | 131 |
| 371302 | 19 | IT5 | 6 | 100 | 178 |
| 371310 | 24 | IT5 | 6 | 100 | 224 |

Application:

These documents are used as washers for workpieces exposed to diverse machining processes.

Note:

Remaining dimensions according to DIN ISO 2768 - m.
Size data on front of product.

CAD

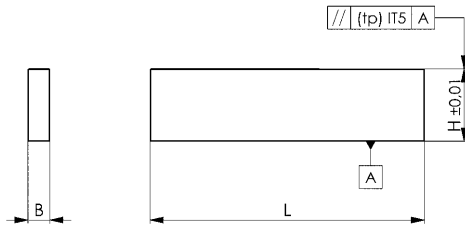


Subject to technical alterations.

No. 6348PP

Parallel supports-pairs, precision, 125 mm long

Plain parallel, finely ground, in pairs.
Case-hardened.
Quality level: Precision **



| Order no. | H Rated dimensional tolerance ±0.01 | H Pair tolerance (tp) | B | L | Weight [g] |
|-----------|---|-----------------------------|----|-----|---------------|
| 371328 | 11 | IT5 | 8 | 125 | 171 |
| 371336 | 16 | IT5 | 8 | 125 | 249 |
| 371344 | 21 | IT5 | 8 | 125 | 326 |
| 371351 | 26 | IT5 | 8 | 125 | 404 |
| 371369 | 31 | IT5 | 8 | 125 | 482 |
| 371377 | 36 | IT5 | 8 | 125 | 561 |
| 371385 | 13 | IT5 | 10 | 125 | 253 |
| 371393 | 18 | IT5 | 10 | 125 | 351 |
| 371401 | 23 | IT5 | 10 | 125 | 448 |
| 371419 | 28 | IT5 | 10 | 125 | 545 |
| 371427 | 33 | IT5 | 10 | 125 | 642 |
| 371435 | 38 | IT5 | 10 | 125 | 741 |
| 371443 | 15 | IT5 | 12 | 125 | 350 |
| 371450 | 20 | IT5 | 12 | 125 | 466 |
| 371468 | 25 | IT5 | 12 | 125 | 583 |
| 371476 | 30 | IT5 | 12 | 125 | 700 |
| 371484 | 35 | IT5 | 12 | 125 | 817 |
| 371492 | 40 | IT5 | 12 | 125 | 933 |
| 371500 | 17 | IT5 | 14 | 125 | 462 |
| 371518 | 22 | IT5 | 14 | 125 | 599 |
| 371526 | 27 | IT5 | 14 | 125 | 734 |
| 371534 | 32 | IT5 | 14 | 125 | 871 |
| 371542 | 37 | IT5 | 14 | 125 | 1009 |
| 371559 | 42 | IT5 | 14 | 125 | 1144 |

Application:

These documents are used as washers for workpieces exposed to diverse machining processes.

Note:

Remaining dimensions according to DIN ISO 2768 - m.
Size data on front of product.

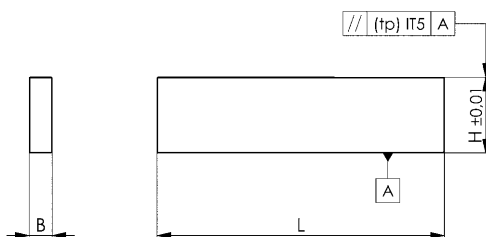
CAD



No. 6348PP

Parallel supports-pairs, precision, 150 mm long

Plain parallel, finely ground, in pairs.
Case-hardened.
Quality level: Precision **



| Order no. | H Rated dimensional tolerance ±0.01 | H Pair tolerance (tp) | B | L | Weight [g] |
|-----------|---|-----------------------------|----|-----|---------------|
| 372243 | 11 | IT5 | 8 | 150 | 203 |
| 372250 | 16 | IT5 | 8 | 150 | 295 |
| 372268 | 21 | IT5 | 8 | 150 | 389 |
| 372276 | 26 | IT5 | 8 | 150 | 482 |
| 372284 | 31 | IT5 | 8 | 150 | 574 |
| 372292 | 36 | IT5 | 8 | 150 | 668 |
| 372300 | 13 | IT5 | 10 | 150 | 300 |
| 372318 | 18 | IT5 | 10 | 150 | 417 |
| 372326 | 23 | IT5 | 10 | 150 | 533 |
| 372334 | 28 | IT5 | 10 | 150 | 649 |
| 372342 | 33 | IT5 | 10 | 150 | 768 |
| 372359 | 38 | IT5 | 10 | 150 | 884 |
| 372367 | 15 | IT5 | 12 | 150 | 416 |
| 372375 | 20 | IT5 | 12 | 150 | 556 |
| 372383 | 25 | IT5 | 12 | 150 | 694 |
| 372391 | 30 | IT5 | 12 | 150 | 835 |
| 372409 | 35 | IT5 | 12 | 150 | 974 |
| 372417 | 40 | IT5 | 12 | 150 | 1113 |
| 372425 | 17 | IT5 | 14 | 150 | 550 |
| 372433 | 22 | IT5 | 14 | 150 | 714 |
| 372441 | 27 | IT5 | 14 | 150 | 879 |
| 372458 | 32 | IT5 | 14 | 150 | 1040 |
| 372466 | 37 | IT5 | 14 | 150 | 1203 |
| 372474 | 42 | IT5 | 14 | 150 | 1369 |

Application:

These documents are used as washers for workpieces exposed to diverse machining processes.

Note:

Remaining dimensions according to DIN ISO 2768 - m.
Size data on front of product.

CAD

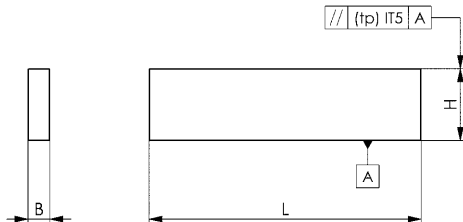


Subject to technical alterations.

No. 6348PS

Parallel supports-pairs, standard, 100 mm long

Plain parallel, finely ground, in pairs.
Case-hardened.
Quality level: Standard *



| Order no. | H Rated dimensional tolerance DIN ISO 2768 - m | H Pair tolerance (tp) | B | L | Weight [g] |
|-----------|--|-----------------------------|---|-----|---------------|
| 371807 | 5 | IT5 | 2 | 100 | 16 |
| 371815 | 10 | IT5 | 2 | 100 | 31 |
| 371823 | 15 | IT5 | 2 | 100 | 47 |
| 371831 | 20 | IT5 | 2 | 100 | 62 |
| 371849 | 6 | IT5 | 3 | 100 | 28 |
| 371856 | 11 | IT5 | 3 | 100 | 51 |
| 371864 | 16 | IT5 | 3 | 100 | 75 |
| 371872 | 21 | IT5 | 3 | 100 | 98 |
| 371880 | 7 | IT5 | 4 | 100 | 44 |
| 371898 | 12 | IT5 | 4 | 100 | 75 |
| 371906 | 17 | IT5 | 4 | 100 | 106 |
| 371914 | 22 | IT5 | 4 | 100 | 137 |
| 371922 | 8 | IT5 | 5 | 100 | 62 |
| 371930 | 13 | IT5 | 5 | 100 | 101 |
| 371948 | 18 | IT5 | 5 | 100 | 140 |
| 371955 | 23 | IT5 | 5 | 100 | 179 |
| 371963 | 9 | IT5 | 6 | 100 | 84 |
| 371971 | 14 | IT5 | 6 | 100 | 131 |
| 371989 | 19 | IT5 | 6 | 100 | 178 |
| 371997 | 24 | IT5 | 6 | 100 | 224 |

Application:

These documents are used as washers for workpieces exposed to diverse machining processes.

Note:

Remaining dimensions according to DIN ISO 2768 - m.
Size data on front of product.

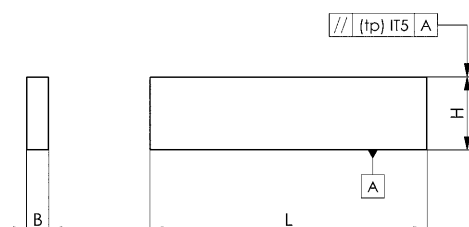
CAD



No. 6348PS

Parallel supports-pairs, standard, 125 mm long

Plain parallel, finely ground, in pairs.
Case-hardened.
Quality level: Standard *



| Order no. | H Rated dimensional tolerance DIN ISO 2768 - m | H Pair tolerance (tp) | B | L | Weight [g] |
|-----------|--|-----------------------------|----|-----|---------------|
| 372003 | 11 | IT5 | 8 | 125 | 171 |
| 372011 | 16 | IT5 | 8 | 125 | 249 |
| 372029 | 21 | IT5 | 8 | 125 | 326 |
| 372037 | 26 | IT5 | 8 | 125 | 404 |
| 372045 | 31 | IT5 | 8 | 125 | 482 |
| 372052 | 36 | IT5 | 8 | 125 | 561 |
| 372060 | 13 | IT5 | 10 | 125 | 253 |
| 372078 | 18 | IT5 | 10 | 125 | 351 |
| 372086 | 23 | IT5 | 10 | 125 | 448 |
| 372094 | 28 | IT5 | 10 | 125 | 545 |
| 372102 | 33 | IT5 | 10 | 125 | 642 |
| 372110 | 38 | IT5 | 10 | 125 | 741 |
| 372128 | 15 | IT5 | 12 | 125 | 350 |
| 372136 | 20 | IT5 | 12 | 125 | 466 |
| 372144 | 25 | IT5 | 12 | 125 | 583 |
| 372151 | 30 | IT5 | 12 | 125 | 700 |
| 372169 | 35 | IT5 | 12 | 125 | 817 |
| 372177 | 40 | IT5 | 12 | 125 | 933 |
| 372185 | 17 | IT5 | 14 | 125 | 462 |
| 372193 | 22 | IT5 | 14 | 125 | 599 |
| 372201 | 27 | IT5 | 14 | 125 | 734 |
| 372219 | 32 | IT5 | 14 | 125 | 871 |
| 372227 | 37 | IT5 | 14 | 125 | 1009 |
| 372235 | 42 | IT5 | 14 | 125 | 1144 |

Application:

These documents are used as washers for workpieces exposed to diverse machining processes.

Note:

Remaining dimensions according to DIN ISO 2768 - m.
Size data on front of product.

CAD



Subject to technical alterations.

No. 6348PS

Parallel supports-pairs, standard, 150 mm long

Plain parallel, finely ground, in pairs.
Case-hardened.
Quality level: Standard *



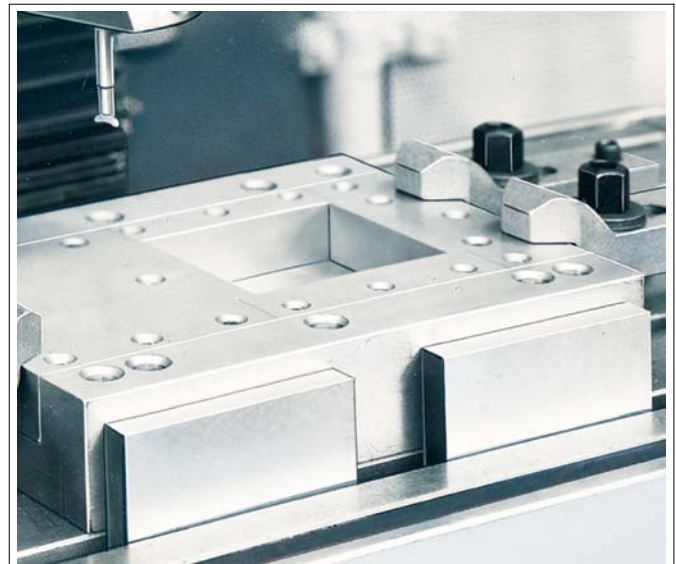
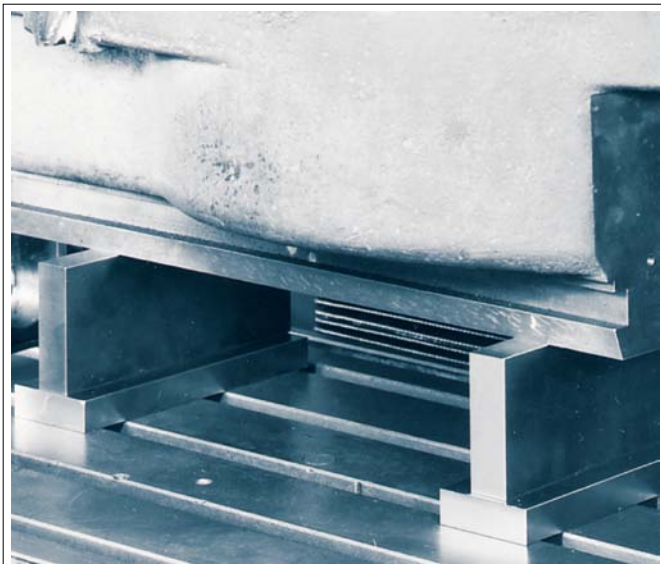
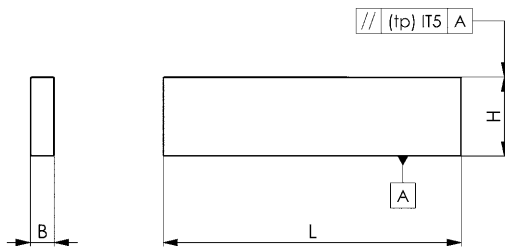
| Order no. | H Rated dimensional tolerance DIN ISO 2768 - m | H Pair tolerance (tp) | B | L | Weight [g] |
|-----------|--|-----------------------------|----|-----|---------------|
| 371567 | 11 | IT5 | 8 | 150 | 203 |
| 371575 | 16 | IT5 | 8 | 150 | 295 |
| 371583 | 21 | IT5 | 8 | 150 | 389 |
| 371591 | 26 | IT5 | 8 | 150 | 482 |
| 371609 | 31 | IT5 | 8 | 150 | 574 |
| 371617 | 36 | IT5 | 8 | 150 | 668 |
| 371625 | 13 | IT5 | 10 | 150 | 300 |
| 371633 | 18 | IT5 | 10 | 150 | 417 |
| 371641 | 23 | IT5 | 10 | 150 | 533 |
| 371658 | 28 | IT5 | 10 | 150 | 649 |
| 371666 | 33 | IT5 | 10 | 150 | 768 |
| 371674 | 38 | IT5 | 10 | 150 | 884 |
| 371682 | 15 | IT5 | 12 | 150 | 416 |
| 371690 | 20 | IT5 | 12 | 150 | 556 |
| 371708 | 25 | IT5 | 12 | 150 | 694 |
| 371716 | 30 | IT5 | 12 | 150 | 835 |
| 371724 | 35 | IT5 | 12 | 150 | 974 |
| 371732 | 40 | IT5 | 12 | 150 | 1113 |
| 371740 | 17 | IT5 | 14 | 150 | 550 |
| 371757 | 22 | IT5 | 14 | 150 | 714 |
| 371765 | 27 | IT5 | 14 | 150 | 879 |
| 371773 | 32 | IT5 | 14 | 150 | 1040 |
| 371781 | 37 | IT5 | 14 | 150 | 1203 |
| 371799 | 42 | IT5 | 14 | 150 | 1369 |

Application:

These documents are used as washers for workpieces exposed to diverse machining processes.

Note:

Remaining dimensions according to DIN ISO 2768 - m.
Size data on front of product.

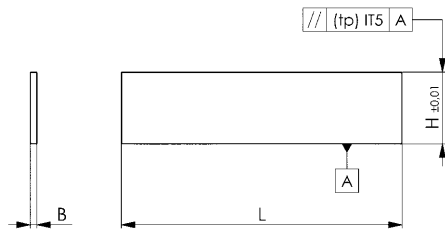


Subject to technical alterations.

No. 6349PP

Parallel supports-pairs, precision

Plain parallel, finely ground, in pairs.
Case-hardened.
Quality level: Precision **



| Order no. | H Rated dimensional tolerance ± 0.01 | H Pair tolerance (tp) | B | L | Weight [g] |
|-----------|--|-----------------------------|---|-----|---------------|
| 372508 | 11 | IT5 | 3 | 125 | 64 |
| 372516 | 12 | IT5 | 3 | 125 | 70 |
| 372524 | 13 | IT5 | 3 | 125 | 76 |
| 372532 | 14 | IT5 | 3 | 125 | 82 |
| 372540 | 15 | IT5 | 3 | 125 | 88 |
| 372557 | 16 | IT5 | 3 | 125 | 94 |
| 372565 | 17 | IT5 | 3 | 125 | 100 |
| 372573 | 18 | IT5 | 3 | 125 | 106 |
| 372581 | 19 | IT5 | 3 | 125 | 112 |
| 372599 | 20 | IT5 | 3 | 125 | 118 |
| 372607 | 21 | IT5 | 3 | 125 | 124 |
| 372615 | 22 | IT5 | 3 | 125 | 130 |
| 372623 | 23 | IT5 | 3 | 125 | 136 |
| 372631 | 24 | IT5 | 3 | 125 | 142 |
| 372649 | 25 | IT5 | 3 | 125 | 148 |
| 372656 | 26 | IT5 | 3 | 125 | 154 |
| 372664 | 27 | IT5 | 3 | 125 | 160 |
| 372672 | 28 | IT5 | 3 | 125 | 164 |
| 372680 | 29 | IT5 | 3 | 125 | 170 |
| 372698 | 30 | IT5 | 3 | 125 | 176 |
| 372706 | 31 | IT5 | 3 | 125 | 182 |
| 372714 | 32 | IT5 | 3 | 125 | 188 |
| 372722 | 33 | IT5 | 3 | 125 | 194 |
| 372730 | 34 | IT5 | 3 | 125 | 200 |
| 372748 | 35 | IT5 | 3 | 125 | 206 |
| 372755 | 36 | IT5 | 3 | 125 | 212 |
| 372763 | 37 | IT5 | 3 | 125 | 218 |
| 372771 | 38 | IT5 | 3 | 125 | 224 |
| 372789 | 39 | IT5 | 3 | 125 | 230 |
| 372797 | 40 | IT5 | 3 | 125 | 236 |
| 372805 | 41 | IT5 | 3 | 125 | 242 |
| 372813 | 42 | IT5 | 3 | 125 | 248 |

Application:

These documents are used as washers for workpieces exposed to diverse machining processes.

Note:

Remaining dimensions according to DIN ISO 2768 - m.
Size data on front of product.

CAD



Subject to technical alterations.

No. 6349P

Parallel supports-pairs, precision

In wooden stand.
Plain parallel, finely ground, in pairs.
Case-hardened.
Quality level: Precision **



| Order no. | Size | Pair | H Rated dimensional tolerance ± 0.01 | H Pair tolerance (tp) | B | L | Weight [Kg] |
|-----------|------|------|--|-----------------------------|---|-----|----------------|
| 372482 | 24 | 24 | 11, 13, 15, 16, 17, 18, 20, 21, 22, 23, 25, 26, 27, 28, 30, 31, 32, 33, 35, 36, 37, 38, 40, 42 | IT5 | 3 | 125 | 4,5 |
| 372490 | 32 | 32 | 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 42 | IT5 | 3 | 125 | 5,5 |

Design:

Size 24, content per 1 pair (W x H):

3x11 / 3x13 / 3x15 / 3x16 / 3x17 / 3x18 / 3x20 / 3x21 / 3x22 / 3x23 / 3x25 / 3x26 / 3x27 / 3x28 / 3x30 / 3x31 / 3x32 / 3x33 / 3x35 / 3x36 / 3x37 / 3x38 / 3x40 / 3x42 mm.

Size 32 content per 1 pair (W x H):

3x11 / 3x12 / 3x13 / 3x14 / 3x15 / 3x16 / 3x17 / 3x18 / 3x19 / 3x20 / 3x21 / 3x22 / 3x23 / 3x24 / 3x25 / 3x26 / 3x27 / 3x28 / 3x29 / 3x30 / 3x31 / 3x32 / 3x33 / 3x34 / 3x35 / 3x36 / 3x37 / 3x38 / 3x39 / 3x40 / 3x41 / 3x42 mm.

Wooden stand: 276 x 162 x 55 mm

Application:

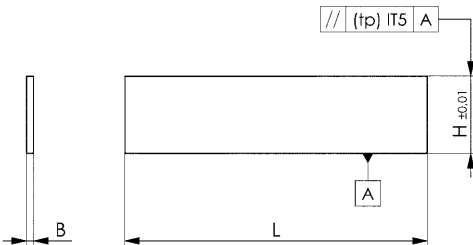
These documents are used as washers for workpieces exposed to diverse machining processes.

Advantage:

- high wear resistance and long service life
- Wooden stand for perfect handling at the workplace.

Note:

Remaining dimensions according to DIN ISO 2768 - m.
Size data on front of product.



No. 6344SP

Parallel supports-set, corrugated

In wooden box with folding lid.
Hardened, tempered spring steel.
Precision ground.
Height graduation 2 mm.
Quality level: Super-precision ***

Pair tolerance tp in height IT 5.
Rated dimensional tolerance in height ± 0.004 mm.
Remaining dimensions according to DIN ISO 2768 - m.

| Order no. | Size | Pair | H ± 0.004 | H Pair tolerance (tp) | B | L | Weight [g] |
|-----------|-------|------|--------------------------------|-----------------------------|-----|-----|---------------|
| 372821 | 9 -23 | 8 | 9, 11, 13, 15, 17, 19, 21, 23 | IT5 | 0,3 | 110 | 450 |
| 372839 | 25-39 | 8 | 25, 27, 29, 31, 33, 35, 37, 39 | IT5 | 0,3 | 110 | 490 |

Design:

Size 9-23, 1 pair each (B x H):

0.3x9 / 0.3x11 / 0.3x13 / 0.3x15 / 0.3x17 / 0.3x19 / 0.3x21 / 0.3x23 mm.

Size 25-39, 1 pair each (B x H):

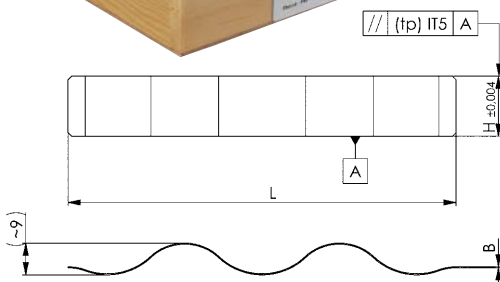
0.3x25 / 0.3x27 / 0.3x29 / 0.3x31 / 0.3x33 / 0.3x35 / 0.3x37 / 0.3x39 mm.

Application:

The corrugated parallel washers create a time-saving when clamping workpieces for grinding, milling, cutting, boring, etc.

Advantage:

- no swarf remains on the mounting surface
- parallelism of the clamped workpiece is not affected
- several flat or single thin workpieces can easily be clamped.



Subject to technical alterations.

No. 6350

Parallel stops in pairs

For machine grooves.
Can also be used as parallel washers.
Plain parallel in height, fine-ground, in pairs.
Case-hardened.



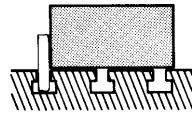
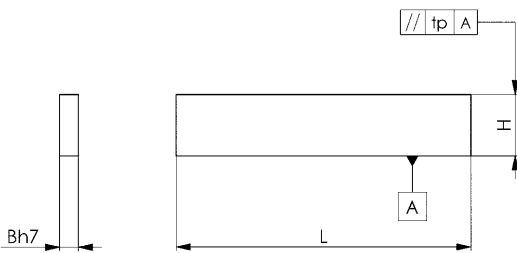
| Order no. | B | H | H Pair tolerance (tp) | L | Weight [g] |
|-----------|----|-----|-----------------------------|-----|---------------|
| 74260 | 8 | 25 | IT5 | 100 | 315 |
| 74278 | 10 | 32 | IT5 | 100 | 500 |
| 74286 | 12 | 40 | IT5 | 100 | 750 |
| 74294 | 14 | 50 | IT5 | 100 | 1100 |
| 74302 | 16 | 50 | IT5 | 160 | 2000 |
| 74310 | 18 | 63 | IT5 | 160 | 2850 |
| 74328 | 20 | 63 | IT5 | 160 | 3170 |
| 74336 | 22 | 80 | IT5 | 160 | 4400 |
| 74344 | 24 | 80 | IT5 | 160 | 4800 |
| 74351 | 28 | 100 | IT5 | 160 | 7000 |

Application:

The parallel stops are intended primarily for small to medium-sized machines. Their thickness is matched to the machine groove with a tolerance of H8. A pair of these stops is inserted into a machine groove, allowing the workpieces to be quickly positioned parallel to the table.

Note:

Rated dimensional tolerance in height according to DIN ISO 2768 - m.
Rated dimensional tolerance in width according to DIN EN ISO 286: h7.
Remaining dimensions according to DIN ISO 2768 -m.



CAD



No. 6328

Cylindrical stop

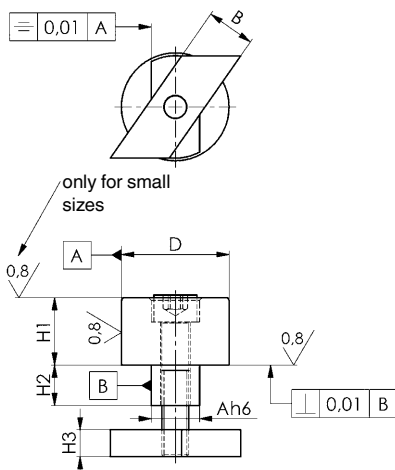
case hardened and ground. The short version, ground to ± 0.01 mm tolerance in height can be used as support.



| Order no. | Slot | A h6 | B -0.6 | D ± 0.01 | H1 ± 0.01 short | H1 ± 0.2 long | H2 | H3 | Screw ISO 4762 | Weight [g] |
|-----------|------|---------|--------|--------------|---------------------|-------------------|----|----|-------------------|---------------|
| 75150 | 12 | 0-0,011 | 12 | 20 | 15 | - | 8 | 6 | M6x25 | 55 |
| 75192 | 12 | 0-0,011 | 12 | 20 | - | 25 | 8 | 6 | M6x35 | 80 |
| 75200 | 14 | 0-0,011 | 14 | 32 | 25 | - | 9 | 8 | M8x35 | 200 |
| 75218 | 14 | 0-0,011 | 14 | 32 | - | 50 | 9 | 8 | M8x60 | 355 |
| 75168 | 16 | 0-0,011 | 16 | 32 | 25 | - | 10 | 8 | M8x45 | 220 |
| 75176 | 16 | 0-0,011 | 16 | 32 | - | 50 | 10 | 8 | M8x70 | 375 |
| 75226 | 18 | 0-0,011 | 18 | 40 | 25 | - | 15 | 10 | M10x50 | 360 |
| 75234 | 18 | 0-0,011 | 18 | 40 | - | 50 | 15 | 10 | M10x75 | 600 |
| 75242 | 22 | 0-0,013 | 20 | 40 | 25 | - | 15 | 14 | M10x55 | 410 |
| 75259 | 22 | 0-0,013 | 20 | 40 | - | 50 | 15 | 14 | M10x80 | 650 |
| 75267 | 28 | 0-0,013 | 22 | 46 | 25 | - | 20 | 16 | M12x60 | 630 |
| 75275 | 28 | 0-0,013 | 22 | 46 | - | 50 | 20 | 16 | M12x90 | 950 |

On request:

Further sizes available.

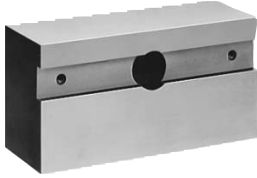


Subject to technical alterations.

No. 6351

Parallel stop

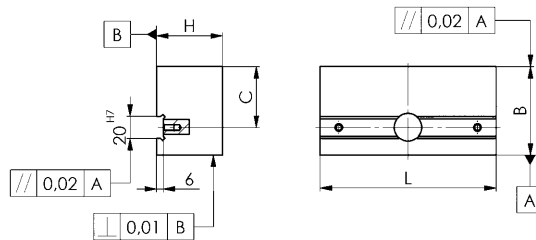
case hardened and ground. Parallelism within 0.02 mm. Nominal tolerance DIN 7168 medium.



| Order no. | Slot | B | C | H | L | suitable bolt combination: DIN508, ISO4762, DIN6340, DIN787 compl. | Weight [Kg] |
|-----------|-------|-----|----|-----|-----|---|----------------|
| 74369 | 10-24 | 60 | 40 | 30 | 125 | M10x10-M20x24 | 1,6 |
| 74377 | 12-36 | 80 | 55 | 60 | 160 | M12x12-M24x36 | 5,7 |
| 74385 | 12-36 | 100 | 75 | 100 | 160 | M12x12-M24x36 | 12,1 |

Application:

Parallel stops are the ideal setting elements for medium and large sized machines. Fixed type blocks. 6322 A and sliding blocks DIN 6323 fit the 20H7 slots of the parallel stop. Combinations with the various precision blocks allow use on tables with different slot sizes.



CAD



No. 6353

Precision angle stop

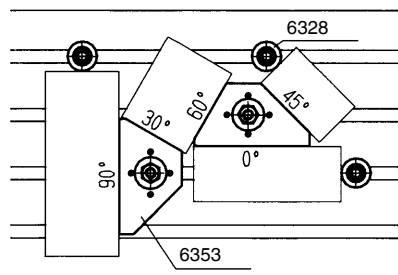
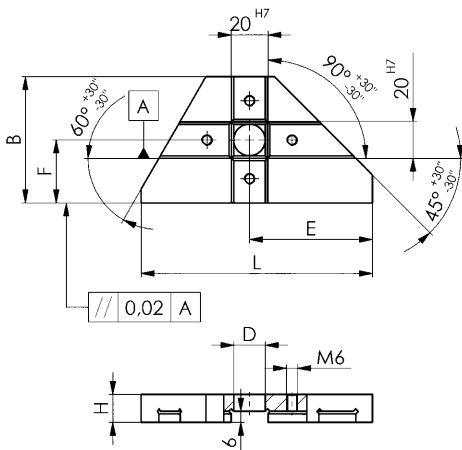
case hardened and ground.
Setting: parallel and at angles of 30, 45, 60 and 90° related to T-slots. Guaranteed precision for all faces according to slots ±30°.



| Order no. | Size | Slot | B | D | E | F | H | L | Weight [g] |
|-----------|------|-------|----|----|-------|----|----|-----|---------------|
| 74450 | 125 | 10-20 | 68 | 17 | 66,5 | 34 | 15 | 125 | 550 |
| 74468 | 200 | 12-36 | 98 | 25 | 100,0 | 49 | 20 | 200 | 1900 |

Application:

Fixed type tenons no. 6322A and loose type tenons DIN 6323 match with the mentioned table slots. The universal stops can alternatively be fastened complete with T-slots bolts DIN 787 or with T-nuts DIN 508 with screws ISO 4762 and washers DIN 6340. The high precision of the above mentioned universal stops guarantees the positioning accuracy required for almost any machining job. Machining can start straight away. There is no need to meter stop.



CAD



Subject to technical alterations.

No. 6355V

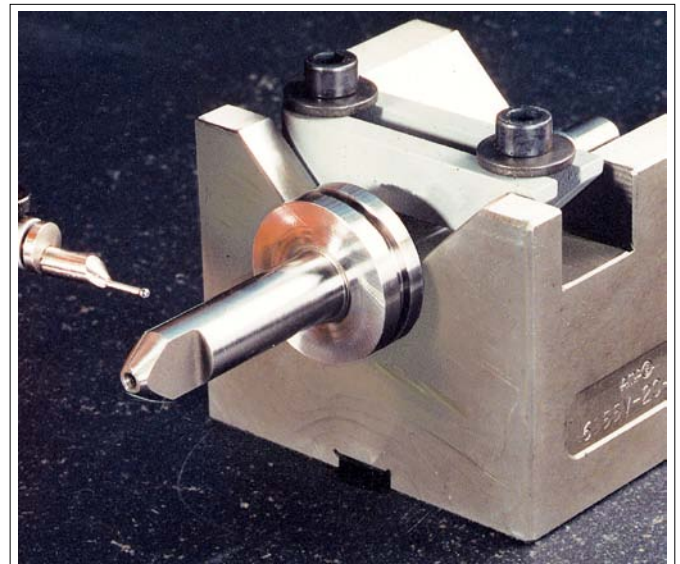
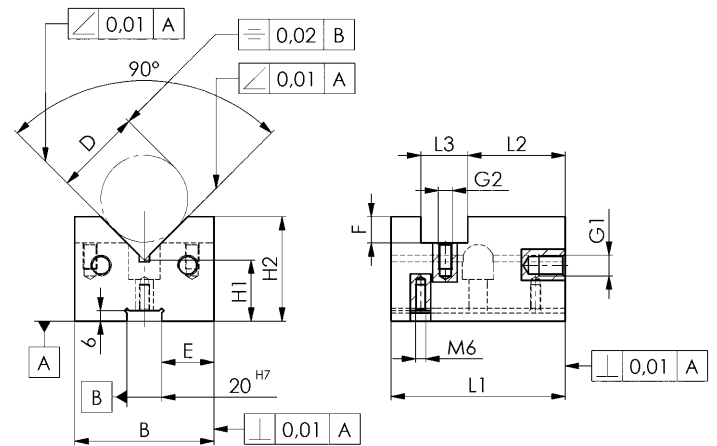
Prismatic clamping block

case hardened and ground

| Order no. | Size | B | D | E ±0.01 | F | G1 | G2 | H1 ±0.014 | H2 | L1 | L2 | L3 | Weight [Kg] |
|-----------|--------|-----|--------|---------|----|------|------|-----------|-----|-----|----|----|-------------|
| 75085 | 12-65 | 80 | 12-65 | 30,0 | 15 | M 12 | M 8 | 35 | 60 | 100 | 56 | 27 | 3,2 |
| 75093 | 20-110 | 125 | 20-110 | 52,5 | 25 | M 16 | M 10 | 55 | 100 | 100 | 53 | 32 | 8,1 |

Application:

For alignment and clamping of round shafts and workpieces parallel and centric to a table slot. Can be used as parallel stops and supports!



Subject to technical alterations.



No. 6357

Stop, adjustable

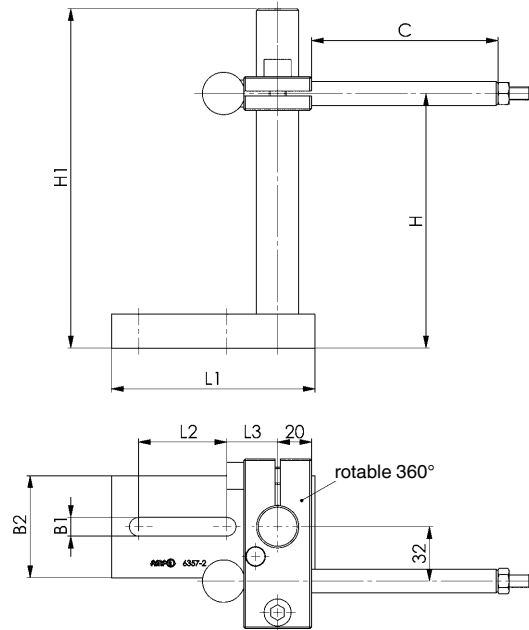
with hexagon key.
Tempering steel



| Order no. | Size | Slot | B1 | B2 | C | H | H1 | L1 | L2 | L3 | Weight [g] |
|-----------|------|------------------------|----|----|-------|--------|-----|-----|----|----|------------|
| 75655 | 2 | 10, 12, 14, 16, 18 | 11 | 60 | 0-110 | 30-190 | 200 | 120 | 52 | 30 | 2450 |
| 75663 | 3 | 16, 18, 20, 22, 24, 28 | 17 | 80 | 0-110 | 30-190 | 200 | 160 | 73 | 40 | 3250 |

Application:

The quickly adjustable stop is suitable for positioning workpieces on various tooling machines and vices. It has a wide range for height and length adjustments. Setting is done with the supplied T-handle hexagon key.



No. 6358

Side stop

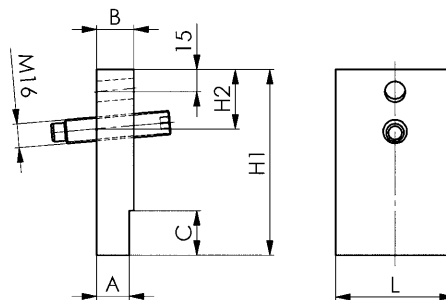
Tempering steel blued, with 2 threaded holes M16 for 2 positions.
Set screw DIN 915 M16x80.



| Order no. | Slot | B | C | H1 | H2 | L | Weight [g] |
|-----------|------|----|----|-----|----|-----|------------|
| 75879 | 18 | 20 | 20 | 100 | 40 | 50 | 805 |
| 75887 | 20 | 25 | 30 | 125 | 40 | 80 | 1880 |
| 75895 | 22 | 25 | 30 | 125 | 40 | 80 | 1920 |
| 75903 | 24 | 32 | 40 | 150 | 65 | 100 | 3515 |
| 75911 | 28 | 32 | 40 | 150 | 65 | 100 | 3645 |
| 75929 | 36 | 40 | 50 | 160 | 65 | 120 | 4870 |

Application:

The stop is used for safe positioning of long and heavy workpieces on slotted machine tables. It is inserted into the slot - at an inclined position due to its undersize and locks the workpiece against the parallel stop, e.g. no. 6351.



Subject to technical alterations.

DIN 6323

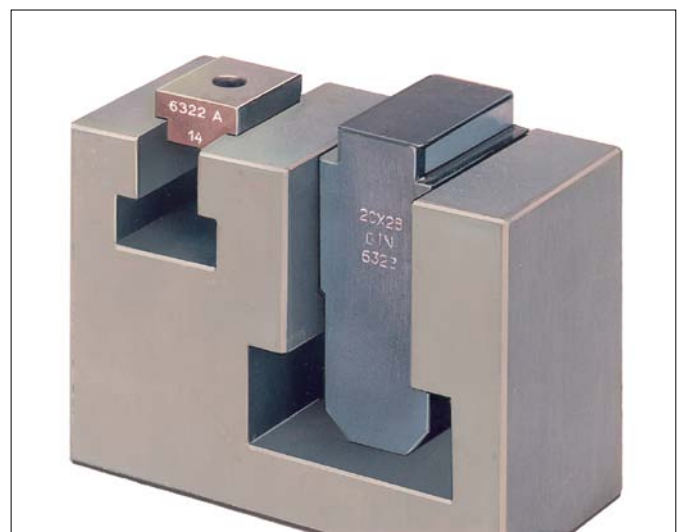
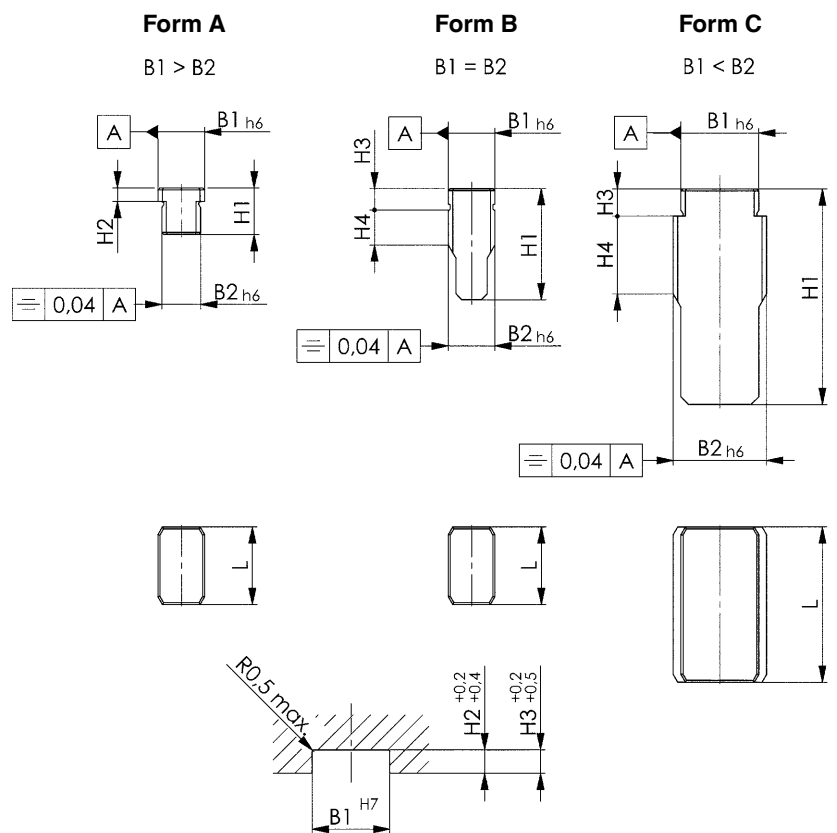
Loose type tenons

Steel C15, case hardened and ground.

| Order no. | Nominal width of T-slot on fixture B1 | Nominal width of T-slot on machine B2 | Form | H1 | H2 | H3 | H4 | L | Weight [g] |
|-----------|---------------------------------------|---------------------------------------|------|------|-----|-----|----|----|------------|
| 71811 | 12 | 10 | A | 12,0 | 3,6 | - | - | 20 | 20 |
| 71829 | 12 | 12 | B | 28,6 | - | 5,5 | 9 | 20 | 45 |
| 71837 | 20 | 12 | A | 14,0 | 5,5 | - | - | 32 | 50 |
| 71845 | 20 | 14 | A | 14,0 | 5,5 | - | - | 32 | 55 |
| 71852 | 20 | 16 | A | 14,0 | 5,5 | - | - | 32 | 60 |
| 71860 | 20 | 18 | A | 14,0 | 5,5 | - | - | 32 | 65 |
| 71878 | 20 | 20 | B | 45,5 | - | 7 | 16 | 32 | 200 |
| 71886 | 20 | 22 | C | 50,5 | - | 7 | 18 | 40 | 290 |
| 71894 | 20 | 24 | C | 55,5 | - | 7 | 20 | 40 | 350 |
| 71902 | 20 | 28 | C | 61,5 | - | 7 | 24 | 40 | 460 |
| 71910 | 20 | 36 | C | 76,5 | - | 7 | 30 | 50 | 940 |

Application:

After rough alignment of fixture, the tenons DIN 6323 are pushed into T-slot from the side. No fixed T-nuts can obstruct the transport of fixtures and no damage to machine tables can occur.



Subject to technical alterations.



No. 6322A

Fixed type tenons

Steel C15, case hardened and ground.

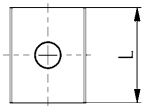
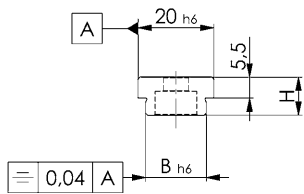


| Order no. | Nominal width of T-slot on machine B | Nominal width of T-slot on fixture | Form | H | L | Screw DIN84 or ISO4762 | Weight [g] |
|-----------|--------------------------------------|------------------------------------|------|----|----|------------------------|------------|
| 71555 | 10 | 20 | A | 10 | 22 | M6x10 | 20 |
| 71563 | 12 | 20 | A | 10 | 22 | M6x10 | 25 |
| 71571 | 14 | 20 | A | 10 | 25 | M6x16 | 28 |
| 71589 | 16 | 20 | A | 10 | 25 | M6x16 | 30 |
| 71597 | 18 | 20 | A | 10 | 25 | M6x16 | 30 |
| 71613 | 22 | 20 | C | 12 | 32 | M6x16 | 50 |
| 71621 | 24 | 20 | C | 12 | 32 | M6x16 | 55 |
| 71639 | 28 | 20 | C | 12 | 32 | M6x16 | 60 |
| 71647 | 36 | 20 | C | 12 | 32 | M6x16 | 75 |

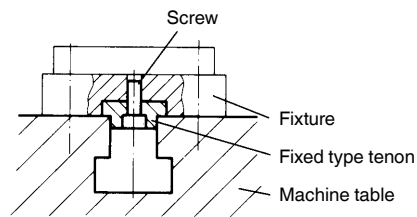
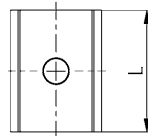
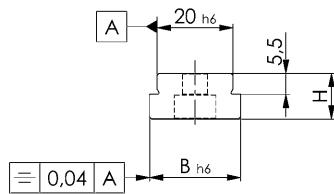
Application:

These fixed type tenons are screwed in pairs into the standard 20 mm wide set slots of vices or fixtures. By changing the tenons you can work on machines with different slot sizes. For very heavy fixtures we recommend the use of loose type tenons DIN 6323.

"A"



"C"



No. 6322B

Low type tenons

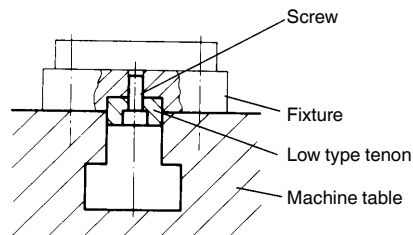
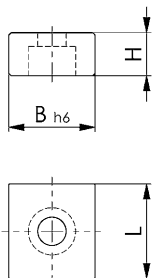
Steel C15, case hardened and ground.



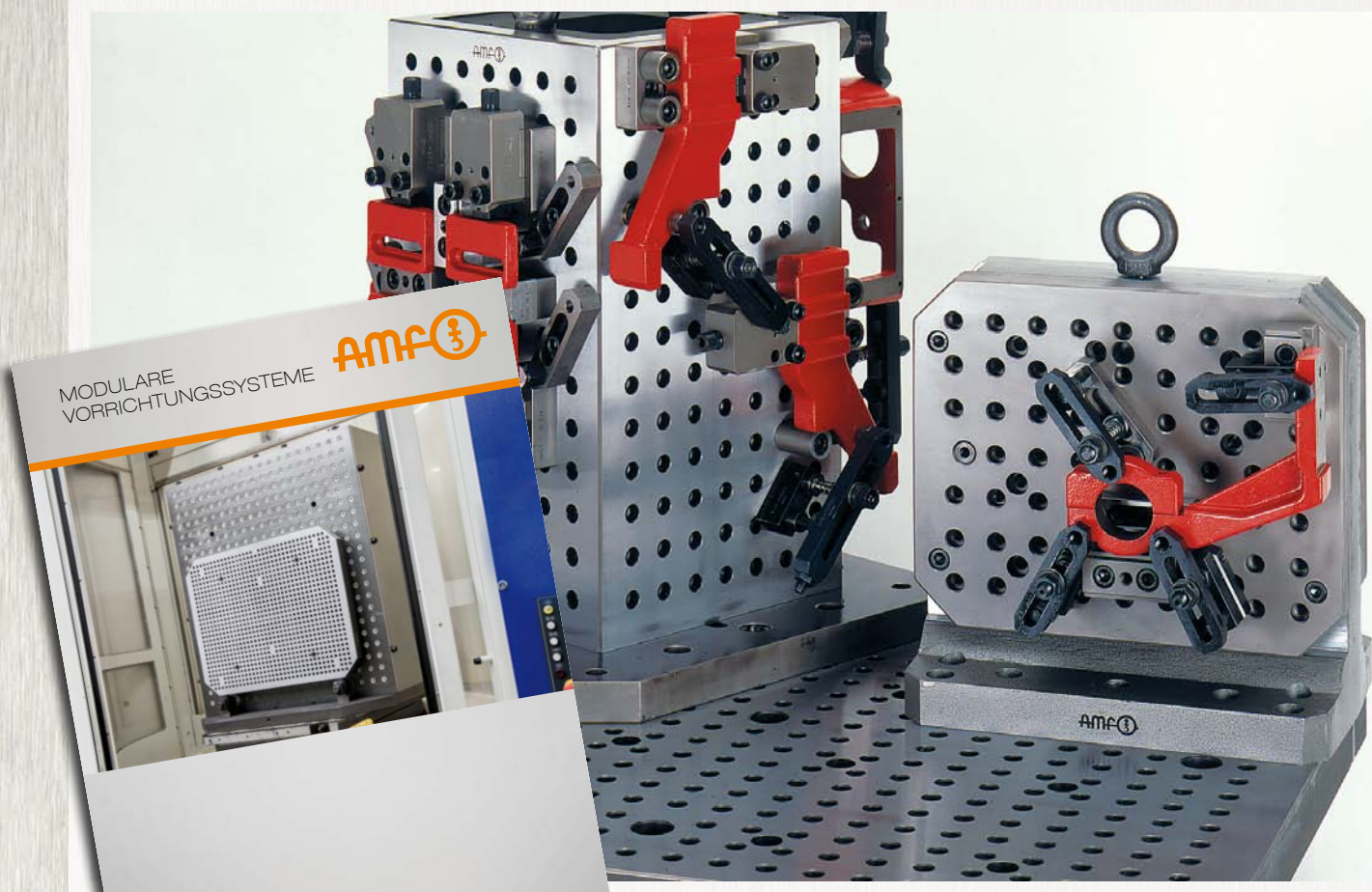
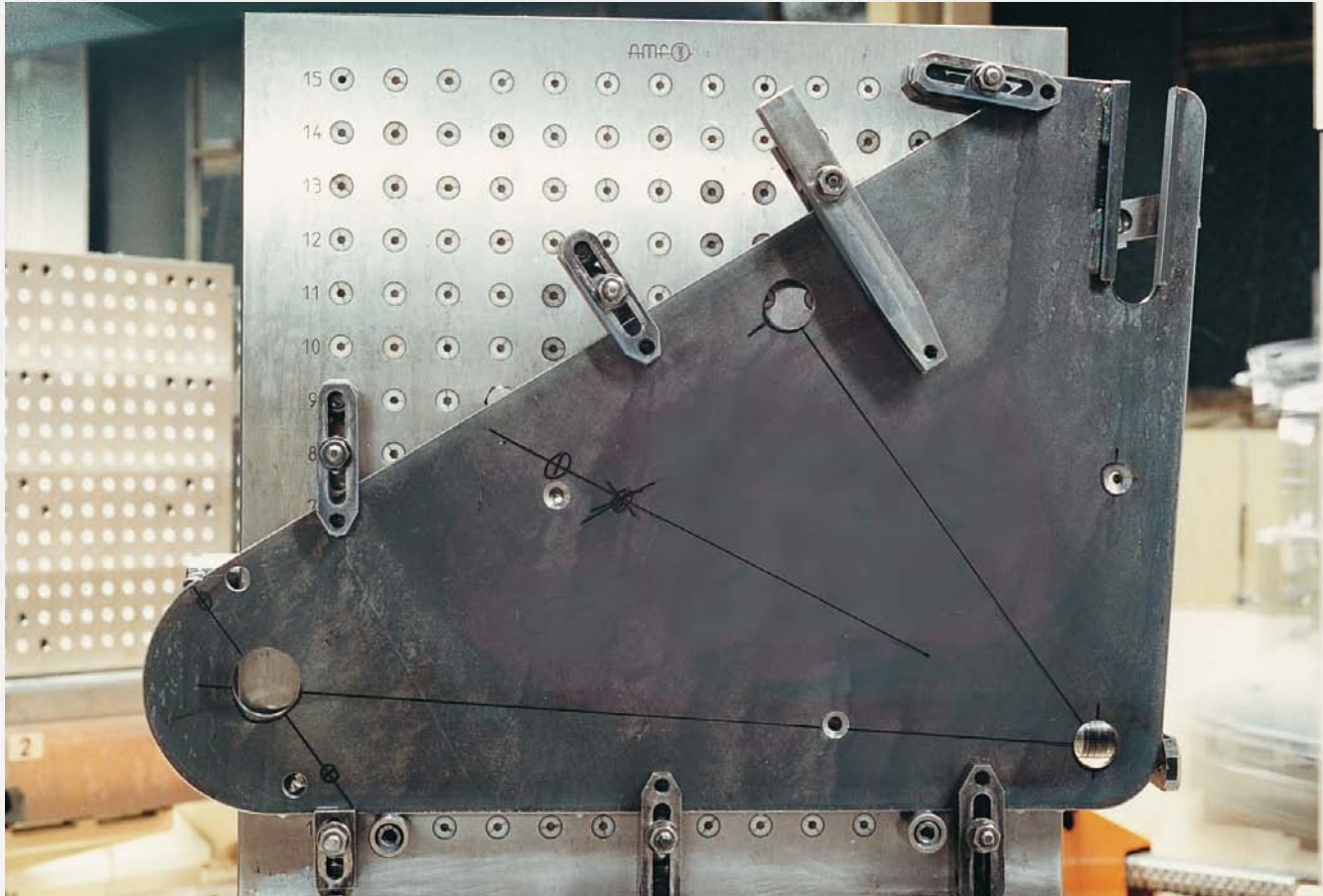
| Order no. | B | H | L | Screw DIN84 or ISO4762 | Weight [g] |
|-----------|----|----|----|------------------------|------------|
| 71696 | 10 | 8 | 20 | M4x10 | 11 |
| 71704 | 12 | 8 | 20 | M5x12 | 12 |
| 71712 | 14 | 10 | 22 | M6x16 | 18 |
| 71720 | 16 | 10 | 22 | M6x16 | 22 |
| 71738 | 18 | 10 | 22 | M6x16 | 25 |
| 71746 | 20 | 10 | 22 | M6x16 | 30 |
| 71753 | 22 | 12 | 32 | M6x16 | 60 |
| 71761 | 24 | 12 | 32 | M6x16 | 65 |

Application:

Low-type tenons are useful and inexpensive to use, when a fixture is always used on the same machine. For very heavy fixtures we recommend the use of loose type tenons DIN 6323.



Subject to technical alterations.



Subject to technical alterations.

No. 6600

Eccentric clamp with end clamping

hardened and burnished.

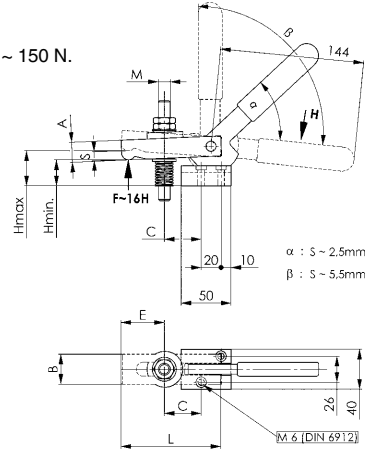


| Order no. | Size | H min. | H max. | A | B | C | E | L | M | Weight [g] |
|-----------|------|--------|--------|----|----|----|-------|-----|-----|------------|
| 73502 | 1 | 26 | 35 | 20 | 30 | 37 | 21-43 | 100 | M12 | 1000 |
| 73510 | 2 | 26 | 35 | 20 | 40 | 45 | 34-66 | 125 | M16 | 1400 |

Eccentric clamps are useful for specialized fixtures.

Note:

Actuation by hand - hand force ~ 150 N.



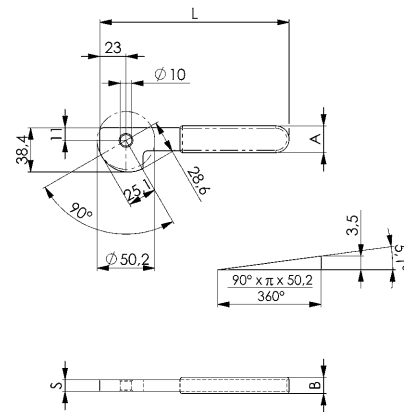
No. 6601

Eccentric lever, loose

for end clamping
(part of 6600)



| Order no. | A | B | L | S | Weight [g] |
|-----------|----|----|-----|----|------------|
| 73569 | 24 | 14 | 167 | 10 | 300 |



No. 6610

Eccentric clamp with middle clamping

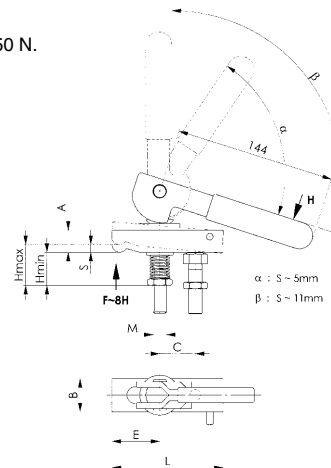
hardened and burnished, lever plastic coated.



| Order no. | Size | H min. | H max. | A | B | C | E | L | M | Weight [g] |
|-----------|------|--------|--------|----|----|----|-------|-----|-----|------------|
| 73619 | 1 | 30 | 45 | 20 | 30 | 32 | 21-43 | 100 | M12 | 1000 |
| 73627 | 2 | 35 | 50 | 20 | 40 | 40 | 34-66 | 125 | M16 | 1450 |

Note:

Actuation by hand - hand force ~ 150 N.



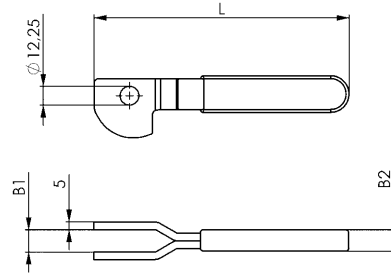
Subject to technical alterations.

No. 6611

Eccentric lever, loose

for middle clamping
(part of 6610)

| Order no. | B1 | B2 | L | Weight [g] |
|-----------|----|----|-----|------------|
| 73676 | 14 | 14 | 167 | 310 |



CAD

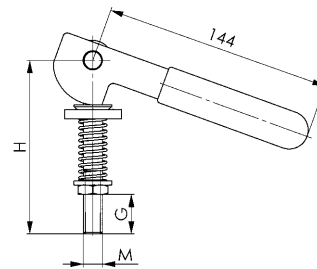


No. 6612

Eccentric lever with eye bolt

(part of 6610)

| Order no. | Size | G | H | M | Weight [g] |
|-----------|------|----|-----|-----|------------|
| 74500 | 1 | 25 | 110 | M12 | 500 |
| 74518 | 2 | 30 | 120 | M16 | 610 |



CAD

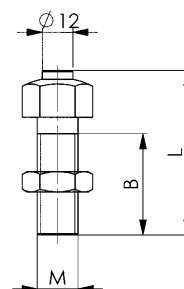


No. 6616

Set screw with nut

(part of 6610)

| Order no. | Size | B | L | M | Weight [g] |
|-----------|------|----|------|-----|------------|
| 74542 | 1 | 40 | 58,5 | M12 | 70 |
| 74559 | 2 | 40 | 65,0 | M16 | 135 |



CAD



Subject to technical alterations.

No. 6383ZEK

Centring clamp with ball

Can be used from above.
 Repeatability ± 0.025 mm
 Concentricity ± 0.050 mm



| Order no. | D min. | D max. | A min. | A max. | H | P [kN] | Weight [g] |
|-----------|--------|--------|--------|--------|------|--------|------------|
| 373357 | 11,7 | 14,2 | 3,2 | 3,9 | 10,0 | 0,5 | 8,2 |
| 373365 | 14,5 | 18,5 | 8,6 | 9,8 | 14,2 | 3,5 | 19 |
| 373373 | 18,5 | 22,5 | 10,4 | 11,6 | 16,5 | 4,5 | 40 |
| 373381 | 22,5 | 26,5 | 12,9 | 14,1 | 19,6 | 5,0 | 73 |
| 373399 | 26,5 | 30,5 | 13,0 | 14,1 | 19,8 | 5,0 | 93 |
| 373407 | 30,5 | 38,5 | 11,8 | 14,1 | 23,2 | 5,0 | 118 |
| 373415 | 38,5 | 46,5 | 15,7 | 18,0 | 27,2 | 6,5 | 249 |
| 373423 | 46,5 | 54,5 | 15,7 | 18,0 | 27,1 | 6,5 | 342 |
| 373431 | 54,5 | 70,5 | 19,1 | 23,7 | 40,6 | 8,0 | 652 |
| 373449 | 70,5 | 86,5 | 23,7 | 28,3 | 46,1 | 10,0 | 1303 |
| 373456 | 86,5 | 102,5 | 25,6 | 30,3 | 51,2 | 10,0 | 1765 |

Application:

For centric positioning and clamping in holes, where light ball imprints can be accepted.

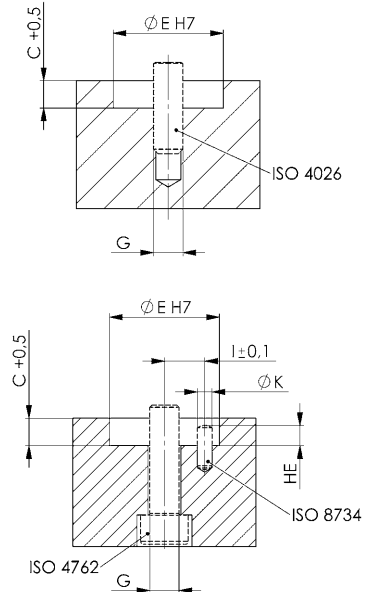
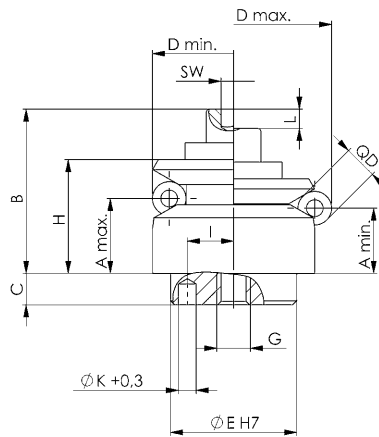
Advantage:

- Low installation height
- Clamping in the zero point
- Pull-down effect
- Distortion-free clamping

Note:

For deep installation, clearance D max. must be provided.

Installation tool: Retaining pin for determining the precise position of the balls. (supplied without installation tool)



Dimensions:

| Order no. | B | C | E f7 | G | HE | I $\pm 0,1$ | K | L | Q | QD | SW |
|-----------|------|------|------|-----|-----|-------------|-----|-----|---|------|----|
| 373357 | 14,7 | 3,5 | 10 | M4 | 2,0 | 3,5 | 1,5 | 1,3 | 3 | 2,5 | 3 |
| 373365 | 19,2 | 5,5 | 12 | M4 | 2,5 | 4,5 | 2,0 | 2,3 | 3 | 4,0 | 3 |
| 373373 | 22,7 | 7,5 | 15 | M5 | 3,5 | 5,5 | 2,5 | 2,3 | 3 | 4,0 | 4 |
| 373381 | 28,6 | 6,0 | 20 | M6 | 3,5 | 7,0 | 3,0 | 2,3 | 3 | 4,0 | 5 |
| 373399 | 28,8 | 6,0 | 20 | M6 | 3,5 | 7,0 | 3,0 | 2,3 | 3 | 4,0 | 5 |
| 373407 | 32,2 | 7,0 | 25 | M6 | 3,5 | 9,0 | 4,0 | 4,6 | 3 | 8,0 | 5 |
| 373415 | 39,2 | 7,5 | 30 | M8 | 4,5 | 11,0 | 4,0 | 4,6 | 6 | 8,0 | 6 |
| 373423 | 39,2 | 7,5 | 30 | M8 | 6,5 | 11,0 | 4,0 | 4,6 | 6 | 8,0 | 6 |
| 373431 | 54,6 | 9,0 | 45 | M10 | 6,5 | 15,0 | 5,0 | 9,2 | 6 | 16,0 | 8 |
| 373449 | 63,1 | 10,0 | 60 | M12 | 6,5 | 17,0 | 5,0 | 9,2 | 6 | 16,0 | 10 |
| 373456 | 72,2 | 10,0 | 60 | M16 | 6,5 | 25,0 | 5,0 | 9,2 | 6 | 16,0 | 14 |

Q = number of balls

Subject to technical alterations.

No. 6383ZES

Centring clamp with protective segments

Can be used from above.
 Repeatability ± 0.025 mm
 Concentricity ± 0.050 mm



| Order no. | D min. | D max. | A min. | A max. | H | P [kN] | Weight [g] |
|-----------|--------|--------|--------|--------|------|--------|------------|
| 373464 | 14,5 | 18,5 | 8,6 | 9,8 | 14,3 | 3,5 | 26 |
| 373472 | 18,5 | 22,5 | 10,4 | 11,5 | 16,6 | 4,5 | 45 |
| 373480 | 22,5 | 26,5 | 13,0 | 14,1 | 19,7 | 5,0 | 73 |
| 373498 | 26,5 | 30,5 | 13,0 | 14,2 | 19,9 | 5,0 | 95 |
| 373506 | 30,5 | 38,5 | 11,7 | 14,0 | 23,2 | 5,0 | 131 |
| 373514 | 38,5 | 46,5 | 15,5 | 18,0 | 27,2 | 6,5 | 259 |
| 373522 | 46,5 | 54,5 | 15,7 | 18,0 | 27,2 | 6,5 | 343 |
| 373530 | 54,5 | 70,5 | 19,1 | 23,7 | 40,7 | 8,0 | 675 |
| 373548 | 70,5 | 86,5 | 23,6 | 28,3 | 46,0 | 10,0 | 1347 |
| 373555 | 86,5 | 102,5 | 25,6 | 30,3 | 51,1 | 10,0 | 2099 |

Application:

For surface-protecting and centric positioning and clamping in holes.

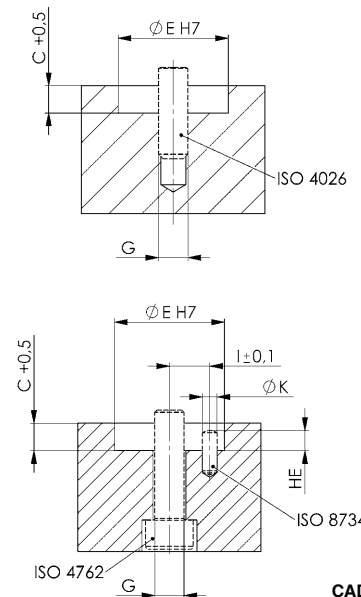
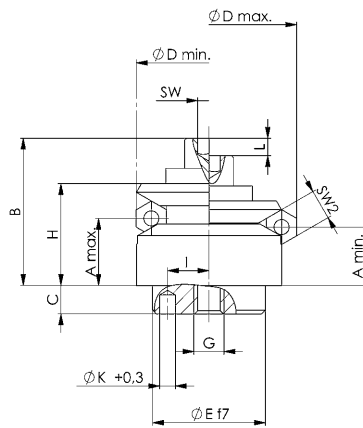
Advantage:

- Low installation height
- Clamping in the zero point
- Pull-down effect
- Distortion-free clamping

Note:

For deep installation, clearance D max. must be provided.

Installation tool: Retaining pin for determining the precise position of the segments. (supplied without installation tool)



CAD



Dimensions:

| Order no. | B | C | E f7 | G | HE | I $\pm 0,1$ | K | L | Q | QD | SW | SW2 |
|-----------|------|------|------|-----|-----|-------------|-----|-----|---|----|----|-----|
| 373464 | 19,3 | 5,5 | 12 | M4 | 2,0 | 4,5 | 2,0 | 2,3 | 3 | 4 | 3 | 4 |
| 373472 | 22,8 | 7,5 | 15 | M5 | 2,5 | 5,5 | 2,5 | 2,3 | 3 | 4 | 4 | 4 |
| 373480 | 28,7 | 6,0 | 20 | M6 | 3,0 | 7,0 | 3,0 | 2,3 | 3 | 4 | 5 | 4 |
| 373498 | 28,9 | 6,0 | 20 | M6 | 3,0 | 7,0 | 3,0 | 2,3 | 3 | 4 | 5 | 4 |
| 373506 | 32,2 | 7,0 | 25 | M6 | 4,0 | 9,0 | 4,0 | 4,6 | 3 | 8 | 5 | 8 |
| 373514 | 39,2 | 7,5 | 30 | M8 | 4,0 | 11,0 | 4,0 | 4,6 | 6 | 8 | 6 | 8 |
| 373522 | 39,2 | 7,5 | 30 | M8 | 4,0 | 11,0 | 4,0 | 4,6 | 6 | 8 | 6 | 8 |
| 373530 | 54,7 | 9,0 | 45 | M10 | 5,0 | 15,0 | 5,0 | 9,2 | 6 | 16 | 8 | 16 |
| 373548 | 63,0 | 10,0 | 60 | M12 | 5,0 | 17,0 | 5,0 | 9,2 | 6 | 16 | 10 | 16 |
| 373555 | 72,1 | 10,0 | 60 | M16 | 5,0 | 25,0 | 5,0 | 9,2 | 6 | 16 | 14 | 16 |

Q = number of segments

No. 6383ZUK

Centring clamp with ball

Can be used from below.
 Repeatability ± 0.025 mm
 Concentricity ± 0.050 mm



| Order no. | D min. | D max. | A min. | A max. | H | P [kN] | Weight [g] |
|-----------|--------|--------|--------|--------|------|--------|------------|
| 373563 | 11,7 | 14,2 | 3,2 | 3,9 | 9,9 | 0,5 | 12 |
| 373571 | 14,5 | 18,5 | 8,6 | 9,8 | 14,2 | 3,5 | 21 |
| 373589 | 18,5 | 22,5 | 10,4 | 11,6 | 16,5 | 4,0 | 52 |
| 373597 | 22,5 | 26,5 | 12,9 | 14,1 | 19,6 | 4,5 | 77 |
| 373605 | 26,5 | 30,5 | 13,0 | 14,1 | 19,8 | 4,5 | 103 |
| 373613 | 30,5 | 38,5 | 11,8 | 14,1 | 23,2 | 4,5 | 155 |
| 373621 | 38,5 | 46,5 | 15,5 | 18,0 | 27,1 | 6,5 | 268 |
| 373639 | 46,5 | 54,5 | 15,7 | 18,0 | 27,2 | 6,5 | 355 |
| 373647 | 54,5 | 70,5 | 19,1 | 23,7 | 40,6 | 8,0 | 702 |
| 373654 | 70,5 | 86,5 | 23,7 | 28,3 | 46,1 | 10,0 | 1332 |
| 373662 | 86,5 | 102,5 | 25,7 | 30,3 | 51,2 | 12,5 | 1880 |

Application:

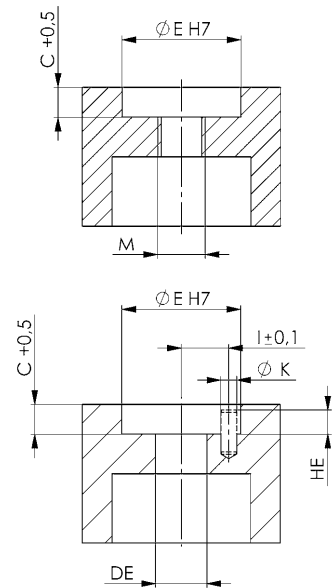
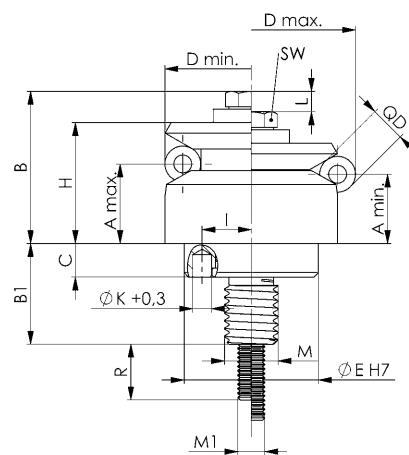
For central positioning and clamping in blind holes where slight ball impressions are acceptable. Operation from below, automated or manual.

Advantage:

- Low installation height
- Clamping in the zero point
- Pull-down effect
- Distortion-free clamping

Note:

For deep installation, clearance D max. must be provided.
 Installation tool: Hole K for retaining pin for determining the precise position of the balls. (supplied without installation tool)



Dimensions:

| Order no. | B | B1 | C | DE | E f7 | HE | I±0,1 | K | L | M | M1 | Q | QD | R | SW |
|-----------|------|------|------|----|------|-----|-------|-----|-----|-----------|-----|---|------|----|------|
| 373563 | 12,7 | 11,0 | 3,5 | 5 | 10 | 2,0 | 3,5 | 1,5 | 1,3 | M5 | M3 | 3 | 2,5 | 10 | 5,5 |
| 373571 | 17,0 | 14,1 | 5,5 | 6 | 12 | 2,5 | 4,5 | 2,0 | 1,3 | M6 | M3 | 3 | 4,0 | 12 | 5,5 |
| 373589 | 20,4 | 18,2 | 7,5 | 8 | 15 | 3,5 | 5,5 | 2,5 | 2,3 | M8 | M4 | 3 | 4,0 | 14 | 7,0 |
| 373597 | 24,3 | 17,4 | 6,0 | 10 | 20 | 3,5 | 7,0 | 3,0 | 2,3 | M10 | M5 | 3 | 4,0 | 15 | 8,0 |
| 373605 | 24,5 | 17,4 | 6,0 | 10 | 20 | 3,5 | 7,0 | 3,0 | 2,3 | M10 | M5 | 3 | 4,0 | 15 | 8,0 |
| 373613 | 28,8 | 21,9 | 7,0 | 12 | 25 | 3,5 | 9,0 | 4,0 | 4,6 | M12 | M6 | 3 | 8,0 | 20 | 10,0 |
| 373621 | 33,0 | 22,5 | 7,5 | 12 | 30 | 4,5 | 11,0 | 4,0 | 4,6 | M12 | M6 | 6 | 8,0 | 20 | 10,0 |
| 373639 | 33,1 | 22,5 | 7,5 | 12 | 30 | 6,5 | 11,0 | 4,0 | 4,6 | M12 | M6 | 6 | 8,0 | 20 | 10,0 |
| 373647 | 49,9 | 24,5 | 9,0 | 14 | 45 | 6,5 | 15,0 | 5,0 | 9,2 | M14 x 1,5 | M8 | 6 | 16,0 | 32 | 13,0 |
| 373654 | 55,4 | 29,4 | 10,0 | 16 | 60 | 6,5 | 17,0 | 5,0 | 9,2 | M16 x 1,5 | M8 | 6 | 16,0 | 20 | 13,0 |
| 373662 | 61,6 | 29,4 | 10,0 | 16 | 60 | 6,5 | 25,0 | 5,0 | 9,2 | M16 x 1,5 | M10 | 6 | 16,0 | 25 | 16,0 |

Q = number of balls

Subject to technical alterations.

No. 6383ZUS

Centring clamp with protective segments

Can be used from below.
 Repeatability ± 0.025 mm
 Concentricity ± 0.025 mm



| Order no. | D min. | D max. | A min. | A max. | H | P [kN] | Weight [g] |
|-----------|--------|--------|--------|--------|------|--------|------------|
| 373670 | 14,5 | 18,5 | 8,6 | 9,8 | 14,2 | 3,5 | 21 |
| 373688 | 18,5 | 22,5 | 10,4 | 11,5 | 16,6 | 4,0 | 51 |
| 373696 | 22,5 | 26,5 | 13,0 | 14,1 | 19,7 | 4,5 | 83 |
| 373704 | 26,5 | 30,5 | 13,0 | 14,2 | 19,9 | 4,5 | 102 |
| 373712 | 30,5 | 38,5 | 11,7 | 14,0 | 23,2 | 4,5 | 139 |
| 373720 | 38,5 | 46,5 | 15,5 | 18,0 | 27,2 | 6,5 | 274 |
| 373738 | 46,5 | 54,5 | 15,7 | 18,0 | 27,2 | 6,5 | 339 |
| 373746 | 54,5 | 70,5 | 19,1 | 23,7 | 40,7 | 8,0 | 690 |
| 373753 | 70,5 | 86,5 | 23,5 | 28,1 | 46,0 | 10,0 | 1349 |
| 373761 | 86,5 | 102,5 | 25,5 | 30,1 | 51,1 | 12,5 | 2028 |

Application:

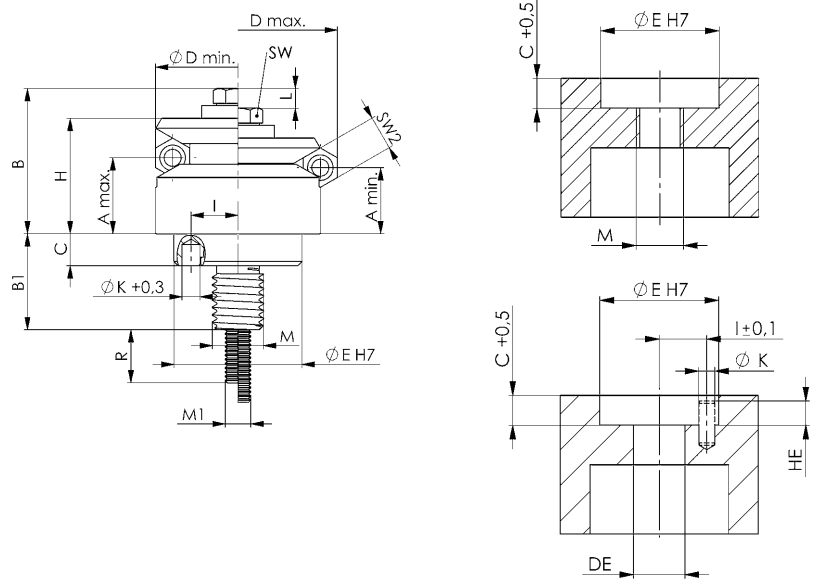
For unmarred surfaces with central positioning and clamping in blind holes. Operation from below, automated or manual.

Advantage:

- Low installation height
- Clamping in the zero point
- Pull-down effect
- Distortion-free clamping

Note:

For deep installation, clearance D max. must be provided.
 Installation tool: Hole K for retaining pin for determining the precise position of the segments.
 (supplied without installation tool)



Dimensions:

| Order no. | B | B1 | C | DE | E f7 | HE | I $\pm 0,1$ | K | L | M | M1 | Q | R | SW | SW2 |
|-----------|------|------|------|----|------|-----|-------------|-----|-----|-----------|-----|---|----|------|-----|
| 373670 | 17,0 | 14,1 | 5,5 | 6 | 12 | 2,5 | 4,5 | 2,0 | 2,3 | M6 | M3 | 3 | 12 | 5,5 | 4 |
| 373688 | 20,5 | 18,2 | 7,5 | 8 | 15 | 3,5 | 5,5 | 2,5 | 2,3 | M8 | M4 | 3 | 14 | 7,0 | 4 |
| 373696 | 24,4 | 17,4 | 6,0 | 10 | 20 | 3,5 | 7,0 | 3,0 | 2,3 | M10 | M5 | 3 | 15 | 8,0 | 4 |
| 373704 | 24,6 | 17,4 | 6,0 | 10 | 20 | 3,5 | 7,0 | 3,0 | 2,3 | M10 | M5 | 3 | 15 | 8,0 | 4 |
| 373712 | 28,8 | 21,9 | 7,0 | 12 | 25 | 3,5 | 9,0 | 4,0 | 4,6 | M12 | M6 | 3 | 20 | 10,0 | 8 |
| 373720 | 33,1 | 22,5 | 7,5 | 12 | 30 | 4,5 | 11,0 | 4,0 | 4,6 | M12 | M6 | 6 | 20 | 10,0 | 8 |
| 373738 | 33,1 | 22,5 | 7,5 | 12 | 30 | 6,5 | 11,0 | 4,0 | 4,6 | M12 | M6 | 6 | 20 | 10,0 | 8 |
| 373746 | 50,0 | 24,5 | 9,0 | 14 | 45 | 6,5 | 15,0 | 5,0 | 9,2 | M14 x 1,5 | M8 | 6 | 32 | 13,0 | 16 |
| 373753 | 55,3 | 29,4 | 10,0 | 16 | 60 | 6,5 | 17,0 | 5,0 | 9,2 | M16 x 1,5 | M8 | 6 | 20 | 13,0 | 16 |
| 373761 | 61,5 | 29,4 | 10,0 | 16 | 60 | 6,5 | 25,0 | 5,0 | 9,2 | M16 x 1,5 | M10 | 6 | 25 | 16,0 | 16 |

Q = number of segments

THE FIRST STEP FOR USE AND EMPLOYMENT OF SIDE THRUST PIECES:

- > What is being positioned or clamped?
- > Which side thrust pieces will be used?
- > What size corresponds to the workpiece?
- > What tolerance does the workpiece have?
- > How large is the dimension Y? (Workpiece height)
- > How large is the dimension X? (See table)
- > Should the spring deflection be completely used?
- > How is the coordinate dimension determined?

EXAMPLE: POSITIONING OR CLAMPING A PLATE 100 X 50 X 8 MM

Should the pin diameter be 5, 6 or 8 mm?

- > If nothing may extend over the plate 5 mm
- > If projection would not be a problem 6 or 8 mm
- > If clamping will be done additionally 6 mm
- > If drilling will be performed without additional clamping 8 mm

Workpiece height Y?

The tolerance can be ignored

What force should be selected?

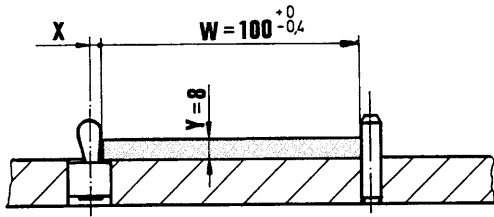
- > For positioning tasks 30 - 60 N
- > For clamping forces 90 - 150 N

Length / width of the workpiece?

- > Length = $100 +0/-0.4$ = medium dimension 99,8 mm
- > Width = $50 +0,2/-0.2$ = medium dimension 50,0 mm

Dimension X for side thrust pieces with steel spring?

- > See table or formula below



W = workpiece (+/- tolerance)
- F = pre-tension
F = (-F) + (+F)

Y = workpiece height
+ F = clamping force (spring deflection for tolerance)
T = tolerance

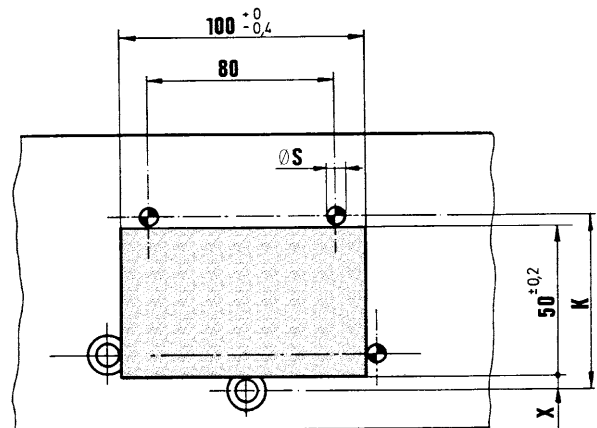
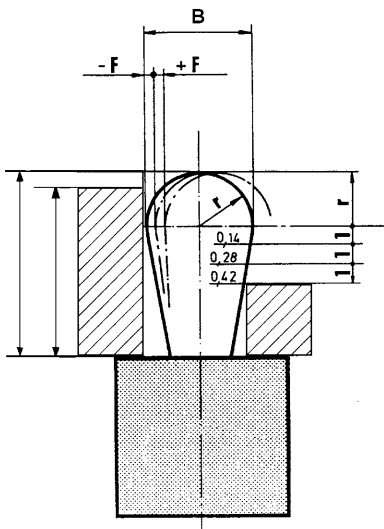
For workpieces that are higher than C minus r, the table values for dimension X or the formula $X = B/2 - (-F)$ apply.

For workpieces that are smaller than C minus r, the table values for dimension X or the formula $X = B/2 - (-F) - [(C - r - Y) \times 0,123]$ apply.

Formula for coordinates:

$$K = W - T/2 + x + S/2$$

The table values are standard values that should ideally be checked using a sample clamping.



No. 6380D

Side thrust piece, with seal

against chips and dirt.

Steel pin for clamping: hardened and galvanised

Sleeve: Aluminium

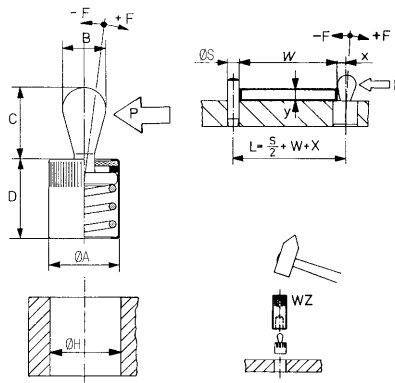


| Order no. | dia. A | B | ~P Spring force [N] | C | D-1 | ØH H8 | F | X | Tool 6380WZ | Weight [g] |
|-----------|--------|----|---------------------------|----|-----|-------|------|-----|----------------|---------------|
| 373159 | 6 | 3 | 10 | 4 | 7 | 6 | ±0,5 | 0,9 | 03 | 0,6 |
| 373167 | 6 | 3 | 20 | 4 | 7 | 6 | ±0,5 | 0,9 | 03 | 0,6 |
| 373175 | 6 | 3 | 40 | 4 | 7 | 6 | ±0,5 | 0,9 | 03 | 0,7 |
| 373183 | 10 | 5 | 20 | 6 | 12 | 10 | ±0,8 | 1,6 | 05 | 2,7 |
| 373191 | 10 | 5 | 50 | 6 | 12 | 10 | ±0,8 | 1,6 | 05 | 2,9 |
| 373209 | 10 | 5 | 100 | 6 | 12 | 10 | ±0,8 | 1,6 | 05 | 2,9 |
| 373217 | 10 | 6 | 40 | 10 | 12 | 10 | ±1,0 | 1,8 | 06 | 3,1 |
| 373225 | 10 | 6 | 75 | 10 | 12 | 10 | ±1,0 | 1,8 | 06 | 3,6 |
| 373233 | 10 | 6 | 150 | 10 | 12 | 10 | ±1,0 | 1,8 | 06 | 3,7 |
| 373241 | 12 | 8 | 50 | 13 | 14 | 12 | ±1,3 | 2,6 | 08 | 3,9 |
| 373258 | 12 | 8 | 100 | 13 | 14 | 12 | ±1,3 | 2,6 | 08 | 7,1 |
| 373266 | 12 | 8 | 200 | 13 | 14 | 12 | ±1,3 | 2,6 | 08 | 7,3 |
| 373274 | 16 | 10 | 100 | 16 | 18 | 16 | ±1,6 | 3,2 | 10 | 7,6 |
| 373282 | 16 | 10 | 200 | 16 | 18 | 16 | ±1,6 | 3,2 | 10 | 15 |
| 373290 | 16 | 10 | 300 | 16 | 18 | 16 | ±1,6 | 3,2 | 10 | 15,4 |

Note:

With sealing for chip-producing operations with dirt, temperature-resistant up to 150°C.

Sealing: CR, black, 60 Shore. Installation by pressing in.



Recommendations



No. 6380WZ,
page 162



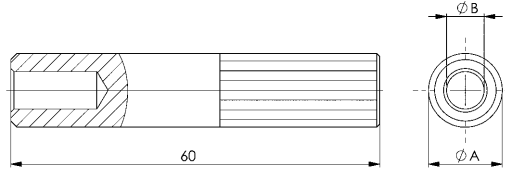
No. 6380WZ

Insertion tool

for pressing in the lateral pressure pad.



| Order no. | Size | dia. A | B | Weight [g] |
|-----------|-------|--------|------|------------|
| 373308 | 03 | 8 | 3,1 | 16 |
| 373316 | 05/06 | 12 | 6,1 | 19 |
| 373332 | 08 | 14 | 8,1 | 64 |
| 373340 | 10 | 18 | 10,2 | 105 |



No. 6387

Eccentric clamping bolt

clamp in x-y direction with pull down effect.
Hardened steel 56±1 HRC.



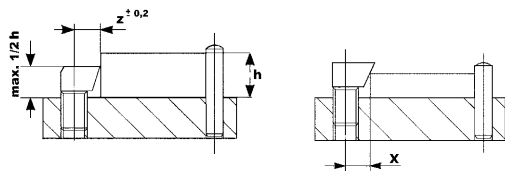
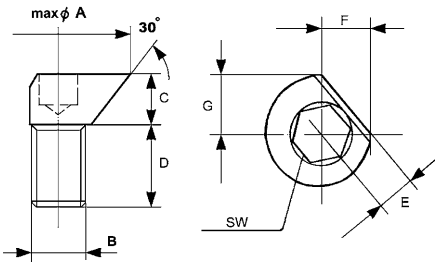
| Order no. | dia. A | B | C | D | E | F | G | SW | X | Z | max. holding force [kN] | Md [Nm] | Weight [g] |
|-----------|--------|-----|---|----|-----|------|------|-----|------|------|-------------------------|---------|------------|
| 373779 | 9,2 | M4 | 3 | 8 | 3,0 | 4,6 | 4,0 | 2,5 | 3,5 | 4,2 | 0,09 | 1,5 | 2 |
| 373787 | 14,2 | M6 | 5 | 12 | 4,5 | 7,1 | 6,1 | 4,0 | 5,4 | 6,4 | 0,3 | 5,0 | 6 |
| 373795 | 18,0 | M8 | 6 | 16 | 5,5 | 8,9 | 7,7 | 5,0 | 6,6 | 8,0 | 2,7 | 22,0 | 9 |
| 373803 | 22,2 | M10 | 7 | 20 | 6,5 | 11,1 | 9,4 | 6,0 | 8,3 | 9,8 | 4,0 | 35,0 | 16 |
| 373811 | 27,0 | M12 | 9 | 24 | 8,0 | 13,5 | 11,6 | 8,0 | 10,1 | 12,0 | 5,4 | 45,0 | 31 |

Application:

- Clamping above the machining surface
- Clamping below the machining surface
- Clamping in holes.

Advantage:

- stepless adjustment with eccentric
- high wear resistance.



Clamping above the machining surface



Clamping below the machining surface



Subject to technical alterations.



WE DEVELOP THE RIGHT SOLUTION – POTENTIAL SAVINGS BY REDUCING SET-UP TIMES

As a system provider with its own production facility, not only do we have the right product for every need. With many years of experience from all fields of clamping technology we develop the perfect solution for different industries, special projects and for very individual requirements.

With full concentration on a single project, an entire team supports you at AMF, which unites all facets for a successful result.

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during your current project .
+49 711 5766-2531



... BY ITEM NO.

| Article no. | Page | Article no. | Page | Article no. | Page | Article no. | Page | Article no. | Page |
|-------------|--------|-----------------|----------|-----------------|------|--------------|------|--------------------|-------|
| DIN 508 | 96 | No. 6319D | 104 | No. 6383ZUS | 159 | No. 6430S | 70 | No. 6500H | 47 |
| DIN 6314 | 26 | No. 6321 | 37 | No. 6387 | 162 | No. 6435S | 70 | No. 6501 | 48 |
| DIN 6315B | 27 | No. 6322A | 152 | No. 6400 | 63 | No. 6438S | 71 | No. 6501M | 48 |
| DIN 6315C | 29 | No. 6322B | 152 | No. 6400G | 64 | No. 6440 | 72 | No. 6510 | 49 |
| DIN 6316 | 29 | No. 6325 | 31 | No. 6400M | 64 | No. 6440G | 72 | No. 6520 | 107 |
| DIN 6318 | 46 | No. 6325G | 31 | No. 6401 | 65 | No. 6441 | 72 | No. 6530 | 106 |
| DIN 6319C | 104 | No. 6328 | 147 | No. 6401M | 66 | No. 6442 | 72 | No. 6531 | 106 |
| DIN 6319D | 104 | No. 6332S | 101 | No. 6405 | 65 | No. 6442G | 74 | No. 6532 | 107 |
| DIN 6319G | 105 | No. 6333 | 103 | No. 6406 | 66 | No. 6443 | 73 | No. 6535 | 110 |
| DIN 6323 | 151 | No. 6333S | 102 | No. 6406A | 66 | No. 6443G | 74 | No. 6600 | 154 |
| DIN 6326 | 49 | No. 6333SB | 103 | No. 6406AF | 66 | No. 6444 | 73 | No. 6601 | 154 |
| DIN 6330B | 99 | No. 6334 | 99 | No. 6406-125 | 67 | No. 6445 | 73 | No. 6610 | 154 |
| DIN 6331 | 100 | No. 6339 | 111 | No. 6415 | 62 | No. 6460 | 68 | No. 6611 | 155 |
| DIN 6340 | 105 | No. 6342 | 111 | No. 6416 | 62 | No. 6465 | 69 | No. 6612 | 155 |
| DIN 6346 | 135 | No. 6344SP | 146 | No. 6417 | 75 | No. 6470 | 108 | No. 6616 | 155 |
| DIN 6346P | 135 | No. 6347 | 136 | No. 6417SP | 76 | No. 6470H-1 | 109 | No. 6621 | 38 |
| DIN 6379 | 92, 93 | No. 6347PP | 137 | No. 6417Z | 76 | No. 6470H-2 | 109 | No. 7000 | 39 |
| DIN 787 | 86, 87 | No. 6347PS | 138 | No. 6418 | 77 | No. 6470-Mxx | 108 | No. 7110DFX-**xM** | 43 |
| DIN 894 | 101 | No. 6347PSP | 137 | No. 6419 | 78 | No. 6472 | 129 | No. 7110DHX-**xM** | 43 |
| No. 508F | 97 | No. 6348 | 139 | No. 6419B-12-01 | 79 | No. 6485 | 111 | No. 7110DIX-**xM** | 43 |
| No. 508L | 97 | No. 6348PP | 141, 142 | No. 6419B-12-02 | 79 | No. 6486 | 114 | No. 7110DKX-**xM** | 43 |
| No. 508R | 98 | No. 6348PS | 143, 144 | No. 6419B-12-03 | 79 | No. 6486AO | 113 | No. 7110DMX-**xM** | 41 |
| No. 510 | 98 | No. 6348PSP | 140, 141 | No. 6419B-12-04 | 80 | No. 6486AS | 113 | No. 7110DX-**xM** | 41 |
| No. 6310 | 24 | No. 6349P | 146 | No. 6419B-12-05 | 80 | No. 6490 | 115 | No. 7110GD-**-1 | 42 |
| No. 6311 | 25 | No. 6349PP | 145 | No. 6419B-16-01 | 80 | No. 6491 | 115 | No. 7110GD-**-2 | 42 |
| No. 6312S | 22 | No. 6350 | 147 | No. 6419B-16-02 | 81 | No. 6492 | 116 | No. 7110GLX-**-1 | 41 |
| No. 6312V | 18 | No. 6351 | 148 | No. 6419B-16-03 | 81 | No. 6493F | 127 | No. 7110GX-**-1 | 41 |
| No. 6312VI | 21 | No. 6353 | 148 | No. 6419B-16-04 | 81 | No. 6493S | 126 | No. 7600 | 7 |
| No. 6312VS | 20 | No. 6355V | 149 | No. 6420 | 63 | No. 6493SP | 125 | No. 7600BFS | 8 |
| No. 6312VT | 19 | No. 6357 | 150 | No. 6425AB | 59 | No. 6494 | 119 | No. 7600D | 9 |
| No. 6313K | 36 | No. 6358 | 150 | No. 6425AG | 59 | No. 6495 | 132 | No. 7600DGK | 9 |
| No. 6314AT | 40 | No. 6365 | 116 | No. 6425AP | 59 | No. 6495S | 132 | No. 7600S | 9 |
| No. 6314AV | 34 | No. 6365G | 117 | No. 6425A-230 | 58 | No. 6496 | 133 | No. 7600Z | 8 |
| No. 6314S | 38 | No. 6365N | 117 | No. 6425FB | 56 | No. 6496BF | 133 | No. 7630 | 10 |
| No. 6314V | 32 | No. 6365-**-009 | 42 | No. 6425FG | 57 | No. 6497 | 121 | No. 7630BFS | 11 |
| No. 6314Z | 27 | No. 6379 | 94 | No. 6425FY | 57 | No. 6497A | 122 | No. 7630T | 11 |
| No. 6315GN | 28 | No. 6379I | 94 | No. 6425GA | 56 | No. 6497B | 123 | No. 7640 | 12 |
| No. 6315GNG | 28 | No. 6380D | 161 | No. 6425MW | 60 | No. 6497F | 120 | No. 7640BFS | 14 |
| No. 6315V | 35 | No. 6380WZ | 162 | No. 6425S-406 | 55 | No. 6498 | 130 | No. 7640D | 14 |
| No. 6316V | 33 | No. 6383ZEK | 156 | No. 6425WWV | 60 | No. 6498FR | 131 | No. 7640Z | 13 |
| No. 6317 | 30 | No. 6383ZES | 157 | No. 6425Z | 55 | No. 6498FT | 131 | No. 787 | 88-90 |
| No. 6318B | 46 | No. 6383ZUK | 158 | No. 6425-706 | 54 | No. 6500E | 47 | No. 797 | 91 |

... BY ORDER NO.

| Order no. | Page | Order no. | Page | Order no. | Page | Order no. | Page | Order no. | Page |
|-----------|------|-----------|------|-----------|------|-----------|------|-----------|------|
| 120360 | 117 | 370049 | 140 | 370312 | 140 | 370585 | 141 | 370858 | 138 |
| 140301 | 96 | 370056 | 140 | 370320 | 140 | 370593 | 141 | 370866 | 138 |
| 140327 | 96 | 370064 | 140 | 370338 | 140 | 370601 | 141 | 370874 | 138 |
| 153460 | 96 | 370072 | 140 | 370346 | 140 | 370619 | 141 | 370882 | 138 |
| 153478 | 96 | 370080 | 140 | 370353 | 140 | 370627 | 141 | 370890 | 138 |
| 155630 | 96 | 370098 | 140 | 370361 | 140 | 370635 | 141 | 370908 | 138 |
| 158220 | 98 | 370106 | 140 | 370379 | 140 | 370643 | 141 | 370916 | 138 |
| 158238 | 98 | 370114 | 140 | 370387 | 140 | 370650 | 141 | 370924 | 138 |
| 158246 | 98 | 370122 | 140 | 370395 | 140 | 370668 | 141 | 370932 | 138 |
| 158253 | 98 | 370130 | 140 | 370403 | 140 | 370676 | 141 | 370940 | 138 |
| 158899 | 96 | 370148 | 140 | 370411 | 140 | 370684 | 137 | 370957 | 138 |
| 158907 | 96 | 370155 | 140 | 370429 | 140 | 370692 | 137 | 371062 | 139 |
| 159418 | 96 | 370163 | 140 | 370437 | 140 | 370700 | 137 | 371070 | 139 |
| 159426 | 96 | 370171 | 140 | 370445 | 141 | 370718 | 137 | 371088 | 139 |
| 30064 | 27 | 370189 | 140 | 370452 | 141 | 370726 | 137 | 371096 | 139 |
| 3079 | 27 | 370197 | 140 | 370460 | 141 | 370734 | 137 | 371104 | 139 |
| 313379 | 133 | 370205 | 140 | 370478 | 141 | 370742 | 137 | 371112 | 139 |
| 313395 | 133 | 370213 | 140 | 370486 | 141 | 370759 | 137 | 371120 | 141 |
| 313411 | 133 | 370221 | 140 | 370494 | 141 | 370767 | 137 | 371138 | 141 |
| 313437 | 133 | 370239 | 140 | 370502 | 141 | 370775 | 137 | 371146 | 141 |
| 313452 | 133 | 370247 | 140 | 370510 | 141 | 370783 | 137 | 371153 | 141 |
| 313478 | 133 | 370254 | 140 | 370528 | 141 | 370791 | 137 | 371161 | 141 |
| 313494 | 133 | 370262 | 140 | 370536 | 141 | 370809 | 137 | 371179 | 141 |
| 370007 | 140 | 370270 | 140 | 370544 | 141 | 370817 | 137 | 371187 | 141 |
| 370015 | 140 | 370288 | 140 | 370551 | 141 | 370825 | 138 | 371195 | 141 |
| 370023 | 140 | 370296 | 140 | 370569 | 141 | 370833 | 138 | 371203 | 141 |
| 370031 | 140 | 370304 | 140 | 370577 | 141 | 370841 | 138 | 371211 | 141 |

... BY ORDER NO.

| Order no. | Page | Order no. | Page | Order no. | Page | Order no. | Page | Order no. | Page |
|-----------|------|---------------|------|---------------|------|---------------|------|---------------|------|
| 371229 | 141 | 371955 | 143 | 372680 | 145 | 373738 | 159 | 376061 | 21 |
| 371237 | 141 | 371963 | 143 | 372698 | 145 | 373746 | 159 | 376079 | 21 |
| 371245 | 141 | 371971 | 143 | 372706 | 145 | 373753 | 159 | 376087 | 21 |
| 371252 | 141 | 371989 | 143 | 372714 | 145 | 373761 | 159 | 376095 | 21 |
| 371260 | 141 | 371997 | 143 | 372722 | 145 | 373779 | 162 | 376103 | 21 |
| 371278 | 141 | 372003 | 143 | 372730 | 145 | 373787 | 162 | 376145 | 28 |
| 371286 | 141 | 372011 | 143 | 372748 | 145 | 373795 | 162 | 376160 | 28 |
| 371294 | 141 | 372029 | 143 | 372755 | 145 | 373803 | 162 | 376186 | 28 |
| 371302 | 141 | 372037 | 143 | 372763 | 145 | 373811 | 162 | 376194 | 64 |
| 371310 | 141 | 372045 | 143 | 372771 | 145 | 373878 | 31 | 376202 | 28 |
| 371328 | 142 | 372052 | 143 | 372789 | 145 | 373886 | 31 | 376210 | 64 |
| 371336 | 142 | 372060 | 143 | 372797 | 145 | 37390 | 27 | 376228 | 28 |
| 371344 | 142 | 372078 | 143 | 372805 | 145 | 373928 | 32 | 376236 | 64 |
| 371351 | 142 | 372086 | 143 | 372813 | 145 | 373936 | 32 | 376244 | 28 |
| 371369 | 142 | 372094 | 143 | 372821 | 146 | 373944 | 32 | 376269 | 28 |
| 371377 | 142 | 372102 | 143 | 372839 | 146 | 373951 | 32 | 376285 | 28 |
| 371385 | 142 | 372110 | 143 | 373159 | 161 | 373969 | 48 | 376301 | 28 |
| 371393 | 142 | 372128 | 143 | 373167 | 161 | 374124 | 132 | 376327 | 28 |
| 371401 | 142 | 372136 | 143 | 373175 | 161 | 374132 | 132 | 376335 | 74 |
| 371419 | 142 | 372144 | 143 | 373183 | 161 | 374140 | 132 | 376343 | 28 |
| 371427 | 142 | 372151 | 143 | 373191 | 161 | 374140 | 132 | 376343 | 28 |
| 371435 | 142 | 372169 | 143 | 373209 | 161 | 374157 | 133 | 376350 | 74 |
| 371443 | 142 | 372177 | 143 | 373217 | 161 | 374165 | 133 | 376475 | 18 |
| 371450 | 142 | 372185 | 143 | 373225 | 161 | 374173 | 133 | 376555 | 24 |
| 371468 | 142 | 372193 | 143 | 373233 | 161 | 374181 | 133 | 376731 | 25 |
| 371476 | 142 | 372201 | 143 | 373241 | 161 | 374199 | 133 | 376756 | 25 |
| 371484 | 142 | 372219 | 143 | 373258 | 161 | 374207 | 133 | 376772 | 25 |
| 371492 | 142 | 372227 | 143 | 373266 | 161 | 374215 | 133 | 376798 | 25 |
| 371500 | 142 | 372235 | 143 | 373274 | 161 | 374255 | 130 | 376814 | 25 |
| 371518 | 142 | 372243 | 142 | 373282 | 161 | 374371 | 131 | 376830 | 25 |
| 371526 | 142 | 372250 | 142 | 373290 | 161 | 374397 | 131 | 376863 | 24 |
| 371534 | 142 | 372268 | 142 | 373290 | 161 | 374405 | 32 | 376871 | 24 |
| 371542 | 142 | 372276 | 142 | 373308 | 162 | 374413 | 38 | 376889 | 24 |
| 371559 | 142 | 372284 | 142 | 373316 | 162 | 374413 | 38 | 376889 | 24 |
| 371567 | 144 | 372292 | 142 | 373332 | 162 | 374439 | 32 | 376897 | 24 |
| 371575 | 144 | 372300 | 142 | 373340 | 162 | 374447 | 43 | 376905 | 24 |
| 371583 | 144 | 372318 | 142 | 373357 | 156 | 374454 | 43 | 376913 | 24 |
| 371591 | 144 | 372326 | 142 | 373365 | 156 | 374462 | 43 | 376921 | 24 |
| 371609 | 144 | 372334 | 142 | 373373 | 156 | 374926 | 19 | 376939 | 24 |
| 371617 | 144 | 372342 | 142 | 373381 | 156 | 374942 | 19 | 376947 | 24 |
| 371625 | 144 | 372359 | 142 | 373399 | 156 | 374967 | 19 | 376962 | 25 |
| 371633 | 144 | 372367 | 142 | 373407 | 156 | 374983 | 19 | 377002 | 25 |
| 371641 | 144 | 372375 | 142 | 373415 | 156 | 375006 | 19 | 377044 | 25 |
| 371658 | 144 | 372383 | 142 | 373423 | 156 | 375501 | 130 | 377069 | 25 |
| 371666 | 144 | 372391 | 142 | 373431 | 156 | 375527 | 131 | 381772 | 102 |
| 371674 | 144 | 372409 | 142 | 373431 | 156 | 375543 | 131 | 381780 | 102 |
| 371682 | 144 | 372417 | 142 | 373449 | 156 | 375592 | 69 | 381798 | 102 |
| 371690 | 144 | 372425 | 142 | 373456 | 156 | 375618 | 69 | 381806 | 102 |
| 371708 | 144 | 372433 | 142 | 373464 | 157 | 375766 | 20 | 381814 | 102 |
| 371716 | 144 | 372441 | 142 | 373472 | 157 | 375782 | 20 | 381822 | 102 |
| 371724 | 144 | 372458 | 142 | 373480 | 157 | 375808 | 20 | 381830 | 102 |
| 371732 | 144 | 372466 | 142 | 373498 | 157 | 375816 | 20 | 381848 | 103 |
| 371740 | 144 | 372474 | 142 | 373506 | 157 | 375824 | 20 | 381855 | 103 |
| 371757 | 144 | 372482 | 146 | 373514 | 157 | 375832 | 20 | 381863 | 103 |
| 371765 | 144 | 372490 | 146 | 373522 | 157 | 375840 | 20 | 381871 | 103 |
| 371773 | 144 | 372508 | 145 | 373530 | 157 | 375857 | 20 | 381889 | 103 |
| 371781 | 144 | 372516 | 145 | 373548 | 157 | 375865 | 20 | 381897 | 103 |
| 371799 | 144 | 372524 | 145 | 373555 | 157 | 375873 | 20 | 381905 | 103 |
| 371807 | 143 | 372532 | 145 | 373563 | 158 | 375881 | 20 | 381913 | 94 |
| 371815 | 143 | 372540 | 145 | 373571 | 158 | 375899 | 20 | 381921 | 103 |
| 371823 | 143 | 372557 | 145 | 373589 | 158 | 375907 | 20 | 381939 | 94 |
| 371831 | 143 | 372565 | 145 | 373597 | 158 | 375915 | 20 | 381954 | 94 |
| 371849 | 143 | 372573 | 145 | 373605 | 158 | 375923 | 20 | 381970 | 94 |
| 371856 | 143 | 372581 | 145 | 373613 | 158 | 375949 | 20 | 381988 | 32 |
| 371864 | 143 | 372599 | 145 | 373621 | 158 | 375956 | 21 | 381996 | 94 |
| 371872 | 143 | 372607 | 145 | 373639 | 158 | 375964 | 20 | 382002 | 32 |
| 371880 | 143 | 372615 | 145 | 373647 | 158 | 375972 | 21 | 382010 | 94 |
| 371898 | 143 | 372623 | 145 | 373654 | 158 | 375980 | 20 | 382028 | 94 |
| 371906 | 143 | 372631 | 145 | 373662 | 158 | 375998 | 21 | 382036 | 94 |
| 371914 | 143 | 372649 | 145 | 373670 | 159 | 376004 | 21 | 382044 | 94 |
| 371922 | 143 | 372656 | 145 | 373688 | 159 | 376012 | 21 | 382051 | 94 |
| 371930 | 143 | 372664 | 145 | 373696 | 159 | 376020 | 21 | 382069 | 94 |
| 371948 | 143 | 372672 | 145 | 373704 | 159 | 376038 | 21 | 53520 | 101 |
| | | | | 373712 | 159 | 376046 | 21 | 53579 | 101 |
| | | | | 373720 | 159 | 376053 | 21 | 53595 | 101 |

... BY ORDER NO.

| Order no. | Page | Order no. | Page | Order no. | Page | Order no. | Page | Order no. | Page |
|-----------|------|-----------|------|-----------|------|-----------|------|-----------|------|
| 53611 | 101 | 559930 | 11 | 70128 | 26 | 70904 | 28 | 71704 | 152 |
| 53629 | 101 | 559931 | 11 | 70136 | 26 | 70912 | 28 | 71712 | 152 |
| 53645 | 101 | 562000 | 54 | 70151 | 32 | 70920 | 28 | 71720 | 152 |
| 53652 | 101 | 562001 | 58 | 70177 | 32 | 70938 | 28 | 71738 | 152 |
| 53660 | 101 | 562002 | 55 | 70193 | 32 | 70946 | 28 | 71746 | 152 |
| 53678 | 101 | 562003 | 55 | 70201 | 32 | 70953 | 28 | 71753 | 152 |
| 53686 | 101 | 562004 | 55 | 70219 | 32 | 70961 | 28 | 71761 | 152 |
| 53694 | 101 | 562005 | 56 | 70227 | 27 | 70979 | 28 | 71787 | 114 |
| 53702 | 101 | 562006 | 57 | 70235 | 27 | 70987 | 127 | 71811 | 151 |
| 53710 | 101 | 562007 | 57 | 70243 | 27 | 70995 | 127 | 71829 | 151 |
| 550509 | 122 | 562008 | 56 | 70250 | 27 | 71001 | 127 | 71837 | 151 |
| 550510 | 122 | 562009 | 56 | 70268 | 32 | 71019 | 127 | 71845 | 151 |
| 550511 | 122 | 562010 | 56 | 70276 | 32 | 71027 | 29 | 71852 | 151 |
| 550512 | 123 | 562011 | 59 | 70284 | 32 | 71035 | 29 | 71860 | 151 |
| 550513 | 123 | 562012 | 59 | 70292 | 32 | 71043 | 29 | 71878 | 151 |
| 550514 | 123 | 562013 | 59 | 70300 | 32 | 71050 | 29 | 71886 | 151 |
| 553351 | 9 | 562014 | 60 | 70318 | 32 | 71068 | 29 | 71894 | 151 |
| 553352 | 9 | 562015 | 60 | 70326 | 32 | 71076 | 29 | 71902 | 151 |
| 553353 | 9 | 562016 | 120 | 70334 | 27 | 71084 | 29 | 71910 | 151 |
| 553441 | 9 | 562017 | 120 | 70359 | 27 | 71092 | 29 | 71928 | 114 |
| 553442 | 9 | 562018 | 120 | 70367 | 27 | 71100 | 29 | 71936 | 114 |
| 553443 | 9 | 562125 | 74 | 70375 | 27 | 71118 | 29 | 71944 | 114 |
| 554198 | 7 | 562155 | 55 | 70383 | 27 | 71126 | 29 | 71951 | 114 |
| 554214 | 9 | 562184 | 7 | 70391 | 27 | 71134 | 29 | 71969 | 49 |
| 554215 | 9 | 562185 | 8 | 70409 | 27 | 71142 | 126 | 71977 | 49 |
| 554216 | 9 | 562186 | 8 | 70417 | 27 | 71159 | 29 | 71985 | 49 |
| 554298 | 8 | 563656 | 7 | 70425 | 27 | 71167 | 35 | 71993 | 49 |
| 554299 | 8 | 563658 | 8 | 70433 | 27 | 71175 | 35 | 72009 | 49 |
| 554300 | 8 | 563695 | 9 | 70441 | 27 | 71183 | 33 | 72017 | 49 |
| 554301 | 9 | 563697 | 9 | 70458 | 27 | 71191 | 35 | 72025 | 49 |
| 554302 | 9 | 563698 | 9 | 70466 | 27 | 71209 | 33 | 72033 | 49 |
| 554821 | 8 | 563699 | 9 | 70474 | 27 | 71217 | 33 | 72041 | 49 |
| 554822 | 8 | 564074 | 120 | 70482 | 27 | 71225 | 33 | 72090 | 49 |
| 554823 | 8 | 564437 | 114 | 70490 | 27 | 71233 | 79 | 72108 | 49 |
| 554824 | 8 | 564654 | 7 | 70508 | 27 | 71241 | 126 | 72116 | 49 |
| 554825 | 8 | 564665 | 8 | 70516 | 27 | 71258 | 35 | 72124 | 49 |
| 556152 | 8 | 564667 | 9 | 70524 | 27 | 71266 | 33 | 72132 | 49 |
| 556153 | 8 | 564668 | 9 | 70532 | 27 | 71274 | 33 | 72165 | 135 |
| 556154 | 8 | 564669 | 9 | 70540 | 27 | 71282 | 33 | 72173 | 135 |
| 556155 | 8 | 564681 | 8 | 70557 | 27 | 71290 | 33 | 72181 | 135 |
| 556156 | 8 | 565165 | 113 | 70565 | 27 | 71308 | 33 | 72199 | 135 |
| 556157 | 8 | 565320 | 113 | 70573 | 27 | 71316 | 33 | 72207 | 135 |
| 556158 | 8 | 565321 | 113 | 70581 | 27 | 71324 | 33 | 72215 | 135 |
| 556159 | 8 | 565322 | 113 | 70599 | 27 | 71332 | 33 | 72223 | 135 |
| 556160 | 8 | 565323 | 113 | 70607 | 27 | 71340 | 30 | 72231 | 135 |
| 556161 | 8 | 565401 | 113 | 70615 | 27 | 71357 | 30 | 72249 | 135 |
| 556162 | 8 | 565402 | 113 | 70623 | 27 | 71365 | 46 | 72256 | 135 |
| 556186 | 7 | 565403 | 113 | 70631 | 27 | 71373 | 46 | 72264 | 135 |
| 556187 | 7 | 565404 | 113 | 70649 | 27 | 71381 | 46 | 72272 | 135 |
| 556188 | 7 | 565405 | 113 | 70656 | 27 | 71399 | 46 | 72280 | 135 |
| 556189 | 7 | 565580 | 129 | 70672 | 27 | 71407 | 46 | 72298 | 135 |
| 556190 | 7 | 565651 | 129 | 70680 | 125 | 71415 | 46 | 72306 | 135 |
| 556406 | 7 | 565652 | 129 | 70698 | 125 | 71423 | 46 | 72314 | 135 |
| 556407 | 8 | 567981 | 72 | 70706 | 29 | 71449 | 114 | 72322 | 135 |
| 556408 | 9 | 567996 | 12 | 70714 | 29 | 71456 | 114 | 72330 | 135 |
| 556409 | 9 | 567997 | 12 | 70722 | 29 | 71464 | 114 | 72348 | 135 |
| 556410 | 9 | 567998 | 13 | 70730 | 29 | 71472 | 114 | 72355 | 135 |
| 556576 | 8 | 567999 | 14 | 70748 | 29 | 71480 | 46 | 72363 | 135 |
| 557186 | 66 | 568000 | 14 | 70755 | 29 | 71498 | 46 | 72371 | 67 |
| 558279 | 136 | 568020 | 43 | 70763 | 29 | 71506 | 46 | 72389 | 63 |
| 558280 | 136 | 568021 | 43 | 70771 | 29 | 71522 | 37 | 72397 | 63 |
| 558281 | 136 | 70003 | 26 | 70789 | 29 | 71530 | 37 | 72405 | 63 |
| 558436 | 66 | 70011 | 26 | 70797 | 29 | 71555 | 152 | 72413 | 63 |
| 559877 | 10 | 70029 | 26 | 70805 | 29 | 71563 | 152 | 72421 | 63 |
| 559879 | 10 | 70037 | 26 | 70813 | 29 | 71571 | 152 | 72439 | 63 |
| 559881 | 10 | 70045 | 26 | 70821 | 32 | 71589 | 152 | 72447 | 63 |
| 559882 | 10 | 70052 | 26 | 70839 | 32 | 71597 | 152 | 72454 | 73 |
| 559909 | 11 | 70060 | 26 | 70847 | 32 | 71605 | 79 | 72496 | 63 |
| 559912 | 11 | 70078 | 26 | 70854 | 32 | 71613 | 152 | 72504 | 63 |
| 559914 | 11 | 70086 | 26 | 70862 | 28 | 71621 | 152 | 72520 | 108 |
| 559915 | 11 | 70094 | 26 | 70870 | 28 | 71639 | 152 | 72546 | 63 |
| 559925 | 11 | 70102 | 26 | 70888 | 28 | 71647 | 152 | 72553 | 70 |
| 559926 | 11 | 70110 | 26 | 70896 | 28 | 71696 | 152 | 72561 | 70 |

... BY ORDER NO.

| Order no. | Page | Order no. | Page | Order no. | Page | Order no. | Page | Order no. | Page |
|--------------|------|--------------|------|--------------|------|--------------|------|--------------|------|
| 72579 | 70 | 73460 | 38 | 74385 | 148 | 75416 | 77 | 79855 | 18 |
| 72587 | 70 | 73478 | 38 | 74450 | 148 | 75424 | 81 | 79863 | 19 |
| 72637 | 70 | 73502 | 154 | 74468 | 148 | 75432 | 43 | 79871 | 22 |
| 72645 | 70 | 73510 | 154 | 74500 | 155 | 75440 | 81 | 79889 | 19 |
| 72652 | 70 | 73528 | 41 | 74518 | 155 | 75473 | 137 | 79897 | 22 |
| 72660 | 70 | 73536 | 41 | 74542 | 155 | 75481 | 137 | 79905 | 19 |
| 72710 | 72 | 73544 | 41 | 74559 | 155 | 75499 | 137 | 79913 | 18 |
| 72728 | 72 | 73551 | 41 | 74567 | 34 | 75507 | 137 | 79921 | 19 |
| 72736 | 72 | 73569 | 154 | 74575 | 34 | 75515 | 137 | 80002 | 96 |
| 72744 | 73 | 73577 | 41 | 74583 | 34 | 75523 | 137 | 80010 | 96 |
| 72751 | 73 | 73585 | 41 | 74591 | 34 | 75531 | 137 | 80028 | 96 |
| 72769 | 72 | 73593 | 41 | 74609 | 38 | 75549 | 137 | 80036 | 96 |
| 72777 | 68 | 73601 | 41 | 74617 | 38 | 75556 | 137 | 80044 | 96 |
| 72785 | 68 | 73619 | 154 | 74625 | 34 | 75564 | 137 | 80051 | 96 |
| 72793 | 68 | 73627 | 154 | 74633 | 34 | 75572 | 137 | 80069 | 96 |
| 72801 | 32 | 73635 | 41 | 74641 | 34 | 75580 | 137 | 80077 | 96 |
| 72819 | 73 | 73643 | 41 | 74658 | 34 | 75606 | 139 | 80085 | 96 |
| 72827 | 32 | 73650 | 43 | 74666 | 34 | 75614 | 139 | 80093 | 96 |
| 72850 | 66 | 73668 | 43 | 74674 | 108 | 75622 | 78 | 80101 | 96 |
| 72868 | 66 | 73676 | 155 | 74682 | 31 | 75630 | 81 | 80119 | 96 |
| 72876 | 66 | 73684 | 43 | 74690 | 31 | 75648 | 139 | 80127 | 96 |
| 72884 | 66 | 73692 | 43 | 74708 | 39 | 75655 | 150 | 80135 | 96 |
| 72892 | 111 | 73718 | 43 | 74716 | 39 | 75663 | 150 | 80143 | 96 |
| 72900 | 111 | 73726 | 43 | 74724 | 39 | 75705 | 71 | 80150 | 96 |
| 72918 | 111 | 73734 | 43 | 74732 | 39 | 75713 | 71 | 80168 | 96 |
| 72926 | 66 | 73742 | 43 | 74740 | 39 | 75721 | 71 | 80176 | 96 |
| 72942 | 32 | 73759 | 43 | 74757 | 39 | 75754 | 78 | 80184 | 96 |
| 72959 | 115 | 73767 | 43 | 74765 | 39 | 75770 | 65 | 80192 | 96 |
| 72967 | 115 | 73775 | 43 | 74773 | 39 | 75788 | 65 | 80200 | 96 |
| 72975 | 115 | 73783 | 43 | 74781 | 39 | 75796 | 65 | 80218 | 96 |
| 72983 | 115 | 73817 | 115 | 74799 | 39 | 75804 | 65 | 80226 | 96 |
| 72991 | 115 | 73825 | 115 | 74807 | 39 | 75812 | 65 | 80234 | 96 |
| 73007 | 115 | 73833 | 115 | 74815 | 39 | 75820 | 65 | 80242 | 96 |
| 73015 | 115 | 73841 | 115 | 74823 | 39 | 75879 | 150 | 80259 | 98 |
| 73023 | 115 | 73858 | 115 | 74831 | 39 | 75887 | 150 | 80267 | 98 |
| 73031 | 115 | 73866 | 115 | 74849 | 39 | 75895 | 150 | 80275 | 98 |
| 73049 | 115 | 73874 | 115 | 74856 | 39 | 75903 | 150 | 80283 | 98 |
| 73056 | 32 | 73882 | 115 | 74864 | 39 | 75911 | 150 | 80291 | 98 |
| 73064 | 32 | 73890 | 130 | 74880 | 108 | 75929 | 150 | 80309 | 98 |
| 73072 | 32 | 73908 | 131 | 74906 | 37 | 75952 | 111 | 80317 | 98 |
| 73080 | 116 | 73916 | 131 | 74914 | 37 | 75960 | 111 | 80325 | 98 |
| 73098 | 116 | 73932 | 36 | 74922 | 37 | 75978 | 111 | 80333 | 98 |
| 73106 | 116 | 73940 | 36 | 74930 | 37 | 75986 | 111 | 80341 | 98 |
| 73114 | 116 | 73957 | 36 | 74963 | 37 | 75994 | 111 | 80358 | 96 |
| 73122 | 116 | 73965 | 36 | 74971 | 37 | 77149 | 36 | 80366 | 96 |
| 73130 | 119 | 73973 | 36 | 74989 | 39 | 77156 | 36 | 80374 | 86 |
| 73148 | 119 | 73981 | 40 | 74997 | 39 | 77180 | 36 | 80382 | 86 |
| 73155 | 119 | 73999 | 40 | 75002 | 39 | 77198 | 36 | 80390 | 86 |
| 73189 | 35 | 74039 | 38 | 75010 | 39 | 77206 | 36 | 80408 | 86 |
| 73197 | 35 | 74047 | 38 | 75028 | 39 | 77834 | 132 | 80416 | 86 |
| 73205 | 35 | 74054 | 38 | 75051 | 80 | 78626 | 42 | 80424 | 86 |
| 73213 | 121 | 74062 | 38 | 75085 | 149 | 78667 | 42 | 80432 | 86 |
| 73221 | 121 | 74179 | 75 | 75093 | 149 | 78907 | 132 | 80440 | 86 |
| 73239 | 121 | 74187 | 109 | 75150 | 147 | 78956 | 42 | 80457 | 86 |
| 73247 | 35 | 74195 | 76 | 75168 | 147 | 78964 | 42 | 80465 | 86 |
| 73254 | 35 | 74203 | 109 | 75176 | 147 | 78972 | 42 | 80473 | 86 |
| 73262 | 35 | 74211 | 76 | 75192 | 147 | 78980 | 42 | 80481 | 86 |
| 73270 | 108 | 74229 | 79 | 75200 | 147 | 79186 | 132 | 80499 | 86 |
| 73288 | 35 | 74237 | 76 | 75218 | 147 | 79194 | 40 | 80507 | 86 |
| 73296 | 47 | 74245 | 80 | 75226 | 147 | 79210 | 19 | 80515 | 86 |
| 73304 | 47 | 74252 | 108 | 75234 | 147 | 79228 | 19 | 80523 | 86 |
| 73312 | 47 | 74260 | 147 | 75242 | 147 | 79392 | 116 | 80531 | 86 |
| 73320 | 64 | 74278 | 147 | 75259 | 147 | 79749 | 22 | 80549 | 86 |
| 73346 | 47 | 74286 | 147 | 75267 | 147 | 79756 | 18 | 80556 | 86 |
| 73353 | 48 | 74294 | 147 | 75275 | 147 | 79764 | 22 | 80564 | 86 |
| 73361 | 64 | 74302 | 147 | 75283 | 137 | 79772 | 22 | 80572 | 86 |
| 73379 | 49 | 74310 | 147 | 75291 | 137 | 79780 | 19 | 80580 | 86 |
| 73387 | 49 | 74328 | 147 | 75309 | 135 | 79798 | 18 | 80598 | 86 |
| 73395 | 49 | 74336 | 147 | 75317 | 135 | 79806 | 19 | 80606 | 86 |
| 73403 | 64 | 74344 | 147 | 75325 | 135 | 79814 | 22 | 80614 | 86 |
| 73437 | 38 | 74351 | 147 | 75333 | 135 | 79822 | 19 | 80622 | 86 |
| 73445 | 38 | 74369 | 148 | 75341 | 135 | 79830 | 22 | 80630 | 86 |
| 73452 | 38 | 74377 | 148 | 75382 | 80 | 79848 | 19 | 80648 | 86 |

... BY ORDER NO.

| Order no. | Page | Order no. | Page | Order no. | Page | Order no. | Page | Order no. | Page |
|-----------|------|-----------|------|-----------|------|-----------|------|-----------|------|
| 80655 | 86 | 81414 | 92 | 82164 | 100 | 82891 | 105 | 84434 | 86 |
| 80663 | 86 | 81422 | 92 | 82172 | 100 | 82909 | 105 | 84442 | 88 |
| 80671 | 86 | 81448 | 88 | 82180 | 94 | 82917 | 105 | 84459 | 88 |
| 80689 | 86 | 81463 | 90 | 82198 | 100 | 82925 | 105 | 84467 | 92 |
| 80697 | 86 | 81471 | 92 | 82206 | 100 | 82933 | 105 | 84475 | 92 |
| 80705 | 86 | 81489 | 92 | 82214 | 100 | 82941 | 105 | 84483 | 98 |
| 80713 | 86 | 81497 | 86 | 82222 | 100 | 82958 | 105 | 84491 | 98 |
| 80721 | 86 | 81505 | 88 | 82230 | 100 | 82966 | 86 | 84509 | 98 |
| 80739 | 86 | 81513 | 92 | 82248 | 100 | 82974 | 88 | 84517 | 98 |
| 80747 | 86 | 81521 | 92 | 82255 | 100 | 82982 | 107 | 84525 | 98 |
| 80754 | 86 | 81539 | 92 | 82263 | 94 | 82990 | 107 | 84533 | 98 |
| 80770 | 86 | 81547 | 88 | 82271 | 99 | 83006 | 107 | 84541 | 98 |
| 80788 | 86 | 81554 | 92 | 82289 | 99 | 83014 | 107 | 84558 | 98 |
| 80796 | 86 | 81562 | 88 | 82297 | 99 | 83022 | 107 | 84566 | 98 |
| 80804 | 86 | 81570 | 92 | 82305 | 99 | 83030 | 107 | 84574 | 98 |
| 80812 | 88 | 81588 | 88 | 82313 | 100 | 83048 | 107 | 84582 | 98 |
| 80820 | 88 | 81596 | 92 | 82321 | 99 | 83055 | 107 | 84590 | 98 |
| 80838 | 88 | 81604 | 88 | 82339 | 99 | 83063 | 107 | 84608 | 98 |
| 80846 | 88 | 81612 | 92 | 82347 | 99 | 83071 | 110 | 84616 | 98 |
| 80853 | 88 | 81620 | 92 | 82354 | 99 | 83089 | 110 | 84624 | 98 |
| 80861 | 88 | 81638 | 92 | 82362 | 99 | 83097 | 110 | 84632 | 98 |
| 80879 | 88 | 81646 | 92 | 82370 | 99 | 83105 | 110 | 84640 | 97 |
| 80887 | 88 | 81653 | 92 | 82388 | 99 | 83584 | 106 | 84657 | 97 |
| 80895 | 88 | 81661 | 92 | 82396 | 99 | 83592 | 106 | 84665 | 97 |
| 80903 | 88 | 81679 | 92 | 82404 | 99 | 83600 | 106 | 84673 | 97 |
| 80911 | 88 | 81687 | 92 | 82412 | 99 | 83618 | 106 | 84681 | 97 |
| 80929 | 88 | 81695 | 92 | 82420 | 99 | 83626 | 106 | 84699 | 97 |
| 80937 | 88 | 81703 | 92 | 82438 | 99 | 83634 | 106 | 84707 | 97 |
| 80945 | 88 | 81711 | 92 | 82446 | 99 | 83642 | 106 | 84715 | 97 |
| 80952 | 88 | 81729 | 92 | 82453 | 99 | 83659 | 106 | 84723 | 97 |
| 80960 | 88 | 81737 | 104 | 82461 | 99 | 83691 | 106 | 84731 | 98 |
| 80978 | 88 | 81745 | 104 | 82479 | 99 | 83808 | 106 | 84749 | 97 |
| 80986 | 88 | 81752 | 104 | 82487 | 99 | 83816 | 106 | 84756 | 92 |
| 80994 | 88 | 81760 | 104 | 82495 | 99 | 83824 | 106 | 84764 | 97 |
| 81000 | 88 | 81778 | 104 | 82503 | 99 | 83832 | 106 | 84772 | 92 |
| 81018 | 88 | 81786 | 104 | 82511 | 100 | 83840 | 106 | 84780 | 92 |
| 81026 | 88 | 81794 | 104 | 82529 | 100 | 83899 | 107 | 84798 | 92 |
| 81034 | 88 | 81802 | 104 | 82537 | 100 | 83907 | 107 | 84806 | 92 |
| 81042 | 88 | 81810 | 104 | 82545 | 100 | 83915 | 107 | 84814 | 92 |
| 81059 | 88 | 81828 | 104 | 82552 | 100 | 83923 | 90 | 84822 | 92 |
| 81067 | 88 | 81836 | 104 | 82560 | 100 | 83956 | 90 | 84830 | 92 |
| 81075 | 88 | 81844 | 104 | 82578 | 100 | 83972 | 90 | 84848 | 92 |
| 81083 | 88 | 81851 | 86 | 82586 | 100 | 83998 | 90 | 84855 | 92 |
| 81091 | 88 | 81869 | 104 | 82594 | 100 | 84004 | 86 | 84863 | 92 |
| 81109 | 88 | 81877 | 104 | 82602 | 100 | 84012 | 86 | 84871 | 92 |
| 81117 | 88 | 81885 | 104 | 82610 | 100 | 84038 | 86 | 84889 | 92 |
| 81125 | 88 | 81893 | 104 | 82628 | 100 | 84046 | 86 | 84897 | 92 |
| 81133 | 88 | 81901 | 104 | 82636 | 100 | 84053 | 86 | 84905 | 92 |
| 81141 | 88 | 81919 | 104 | 82644 | 100 | 84061 | 86 | 84913 | 92 |
| 81158 | 88 | 81927 | 104 | 82651 | 99 | 84079 | 86 | 84921 | 92 |
| 81166 | 88 | 81935 | 104 | 82669 | 99 | 84087 | 86 | 84939 | 92 |
| 81174 | 88 | 81943 | 104 | 82677 | 99 | 84103 | 86 | 84947 | 92 |
| 81182 | 88 | 81950 | 104 | 82685 | 99 | 84111 | 86 | 84954 | 92 |
| 81190 | 88 | 81968 | 104 | 82693 | 99 | 84129 | 86 | 84962 | 92 |
| 81216 | 88 | 81976 | 104 | 82701 | 99 | 84137 | 86 | 84970 | 92 |
| 81224 | 88 | 81984 | 105 | 82719 | 99 | 84152 | 86 | 84988 | 92 |
| 81232 | 88 | 81992 | 105 | 82727 | 99 | 84160 | 86 | 84996 | 92 |
| 81240 | 88 | 82008 | 105 | 82735 | 99 | 84186 | 88 | 85001 | 92 |
| 81257 | 92 | 82016 | 105 | 82743 | 99 | 84194 | 88 | 85019 | 92 |
| 81265 | 96 | 82024 | 105 | 82750 | 99 | 84202 | 88 | 85027 | 92 |
| 81273 | 92 | 82032 | 105 | 82768 | 99 | 84210 | 88 | 85035 | 92 |
| 81281 | 90 | 82040 | 105 | 82776 | 99 | 84236 | 88 | 85043 | 92 |
| 81299 | 92 | 82057 | 105 | 82784 | 99 | 84244 | 88 | 85050 | 92 |
| 81315 | 92 | 82065 | 105 | 82792 | 99 | 84301 | 88 | 85068 | 92 |
| 81323 | 86 | 82073 | 105 | 82800 | 100 | 84319 | 88 | 85076 | 92 |
| 81331 | 92 | 82081 | 105 | 82818 | 105 | 84327 | 88 | 85084 | 92 |
| 81349 | 92 | 82099 | 105 | 82826 | 105 | 84335 | 88 | 85092 | 92 |
| 81356 | 88 | 82107 | 100 | 82834 | 105 | 84376 | 88 | 85472 | 92 |
| 81364 | 90 | 82115 | 100 | 82842 | 105 | 84384 | 86 | 85480 | 92 |
| 81372 | 92 | 82123 | 94 | 82859 | 105 | 84392 | 88 | 85498 | 92 |
| 81380 | 92 | 82131 | 90 | 82867 | 105 | 84400 | 86 | 85506 | 92 |
| 81398 | 92 | 82149 | 100 | 82875 | 105 | 84418 | 88 | 85514 | 92 |
| 81406 | 86 | 82156 | 100 | 82883 | 105 | 84426 | 86 | 85522 | 92 |

... BY ORDER NO.

| Order no. | Page | Order no. | Page | Order no. | Page | Order no. | Page | Order no. | Page |
|-----------|------|-----------|------|-----------|------|-----------|------|-----------|------|
| 85530 | 92 | 85860 | 88 | 86371 | 90 | 87171 | 104 | 87809 | 86 |
| 85548 | 92 | 85878 | 88 | 86389 | 90 | 87197 | 104 | 87833 | 94 |
| 85555 | 92 | 85886 | 88 | 86397 | 90 | 87239 | 104 | 88146 | 101 |
| 85563 | 92 | 85894 | 88 | 86405 | 90 | 87254 | 104 | 88153 | 98 |
| 85571 | 94 | 85902 | 88 | 86413 | 90 | 87296 | 91 | 88286 | 94 |
| 85589 | 92 | 85910 | 88 | 86421 | 90 | 87304 | 90 | 88492 | 116 |
| 85597 | 92 | 85928 | 92 | 86439 | 90 | 87312 | 91 | 88500 | 117 |
| 85605 | 86 | 85977 | 92 | 86447 | 90 | 87320 | 90 | 88526 | 117 |
| 85613 | 86 | 85993 | 98 | 86454 | 90 | 87338 | 91 | 88534 | 101 |
| 85621 | 86 | 86009 | 92 | 86462 | 90 | 87346 | 90 | 88542 | 117 |
| 85639 | 86 | 86025 | 92 | 86470 | 90 | 87353 | 91 | 88559 | 101 |
| 85647 | 86 | 86041 | 92 | 86488 | 90 | 87361 | 90 | 88567 | 101 |
| 85654 | 86 | 86140 | 90 | 86496 | 90 | 87379 | 91 | 88575 | 101 |
| 85662 | 86 | 86157 | 90 | 86504 | 62 | 87387 | 90 | 88583 | 101 |
| 85670 | 86 | 86165 | 90 | 86512 | 62 | 87395 | 91 | 88930 | 94 |
| 85688 | 86 | 86173 | 90 | 86520 | 62 | 87403 | 90 | 89094 | 94 |
| 85696 | 86 | 86181 | 90 | 86538 | 62 | 87411 | 98 | 89136 | 94 |
| 85704 | 86 | 86199 | 90 | 86546 | 92 | 87429 | 90 | 89151 | 94 |
| 85712 | 86 | 86207 | 90 | 86553 | 92 | 87437 | 90 | 89177 | 94 |
| 85720 | 86 | 86215 | 90 | 86561 | 92 | 87445 | 90 | 89193 | 94 |
| 85738 | 86 | 86231 | 90 | 86579 | 92 | 87510 | 90 | 89250 | 94 |
| 85746 | 88 | 86256 | 90 | 86587 | 92 | 87577 | 90 | 89276 | 94 |
| 85753 | 88 | 86264 | 90 | 86595 | 92 | 87585 | 90 | 89730 | 97 |
| 85761 | 88 | 86272 | 90 | 86611 | 90 | 87643 | 86 | 89748 | 97 |
| 85779 | 88 | 86280 | 90 | 86629 | 90 | 87668 | 94 | 89755 | 97 |
| 85787 | 88 | 86298 | 90 | 86645 | 90 | 87684 | 94 | 89763 | 97 |
| 85795 | 88 | 86306 | 90 | 86678 | 90 | 87692 | 94 | 89771 | 97 |
| 85803 | 88 | 86314 | 90 | 86686 | 111 | 87700 | 94 | 89789 | 97 |
| 85811 | 88 | 86322 | 90 | 86793 | 91 | 87734 | 94 | 89797 | 97 |
| 85829 | 86 | 86330 | 90 | 86801 | 91 | 87742 | 94 | 89813 | 97 |
| 85837 | 88 | 86348 | 90 | 86819 | 91 | 87759 | 94 | 89839 | 97 |
| 85845 | 86 | 86355 | 90 | 86959 | 91 | 87783 | 86 | 89904 | 97 |
| 85852 | 88 | 86363 | 90 | 87114 | 91 | 87791 | 94 | | |

... IN ALPHABETICAL ORDER

| Description | Page | Description | Page |
|--|----------|---|-----------------|
| A | | | |
| Alu-intermediate ring | 66 | Clamp, „light design“ | 25 |
| Aluminium base for screw jacks | 66 | Clamp „light design“, with adjustable support screw, complete | 25 |
| Aluminium screw jack | 65 | Clamp, short, with U-piece | 36 |
| Aluminium screw jack with magnetic base | 65 | Clamp, short, with U-piece, complete | 36 |
| Aluminium screw jack with swarf protection | 66, 67 | Clamp, straight | 41 |
| AMF-TWINNUT nut - with collar | 103 | Clamp, straight (long) | 41 |
| AMF-TWINNUT nut - without collar | 102 | Clamp with nose, closed | 28 |
| Atlas screw jack with counter nut | 70 | Clamp with plastic cap | 24 |
| B | | | |
| Ball pressure screw | 9 | Clamp with plastic cap, complete | 24 |
| Ball-pad | 72 | Clamping element, horizontal | 125 |
| Base element | 56, 57 | Clamping jaw | 79, 80, 81, 123 |
| Base plate, round | 131 | Clamping Jaws, serrated | 117 |
| Base plate with groove | 131 | Clamping Jaws, with ridge | 117 |
| Basic sortiment | 107 | Clamping unit to clamp outside of the tool table | 40 |
| Bearing, point | 59 | Clamps for machine vices | 31 |
| Bearing, smooth | 59 | Compact clamp | 12 |
| Bearing, spherical | 59 | Conical sockets, tempered | 104 |
| Blanks for T-nuts | 98 | Cranked clamp with adjusting support screw | 33 |
| Bolts for T-slots | 86, 87 | Cranked clamp with adjusting support screw, complete | 33 |
| Bolts for T-slots, complete | 88, 89 | „ | |
| Boxed set of assorted clamping elements | 106 | „Crocodile“ clamp | 18 |
| C | | | |
| Carrier element 3-step | 11 | „Crocodile“ clamp, complete with DIN 6379 | 20 |
| Centering-pad | 72 | „Crocodile“ clamp, complete with DIN 787 | 19 |
| Centring clamp with ball | 156, 158 | „Crocodile“ clamp, complete with no. 63791 | 21 |
| Centring clamp with protective segments | 157, 159 | C | |
| Centring plate with thread | 74 | Cylindrical stop | 147 |
| Clamp, continuously adjustable | 37 | D | |
| Clamp, continuously adjustable, complete | 37 | Detent clamp lever | 38 |
| Clamp, cranked | 29 | Dished washer | 104, 105 |
| Clamp, double | 42 | Double goose-neck clamp | 30 |
| Clamp, double (long) | 42 | E | |
| Clamp, double (short) | 42 | Eccentric clamp with end clamping | 154 |
| Clamp, flat | 26 | Eccentric clamp with middle clamping | 154 |
| | | Eccentric clamping bolt | 162 |
| | | Eccentric lever, loose | 154, 155 |

... IN ALPHABETICAL ORDER

| Description | Page |
|---|---------------|
| Eccentric lever with eye bolt | 155 |
| Edge Clamp | 130 |
| Elongation nuts (3.0 d high) | 99 |
| Extra strong clamping jaw | 121 |
| F | |
| Fastening bolt for T-slot clamp | 132 |
| Fastening kit for carrier element 3-step | 11 |
| Fixed type tenons | 152 |
| Fixing cap with thread | 74 |
| Flat clamp | 133 |
| Flat clamp, model „Mini-Bulle“ | 116 |
| Floating clamp | 78 |
| Forked clamp tapered | 27 |
| Forked clamp with pin end | 29 |
| Forked clamp with shoe | 28 |
| H | |
| Heavy duty thread paste | 111 |
| Heavy screw jack | 70 |
| Height adjustment jack with fine thread and base element 6425FB | 58 |
| Height setting screw jack | 62 |
| Height setting screw jack with magnetic base | 62 |
| Height setting screw jack with pivotable ball | 63 |
| Hexagon nuts (1.5 d high) | 99 |
| Hexagonal nuts with collar (1.5 d high) | 100 |
| Holder for clamping bolts | 109 |
| Holder for clamps | 109 |
| I | |
| Insertion tool | 60, 162 |
| L | |
| Locating-pad | 73 |
| Loose type tenons | 151 |
| Low height clamping jaws, model „Bulle“ | 115 |
| Low height clamping jaws, model „Maxi-Bulle“ | 119 |
| Low type tenons | 152 |
| M | |
| Magnetic base for screw jacks | 66 |
| Mandrel | 75 |
| Mounting key | 103 |
| Mounting kit | 8, 14 |
| Mounting kit for flat clamp | 133 |
| N | |
| Nuts for T-slots, extended | 97 |
| Nuts for T-slots „Rhombus“ | 98 |
| Nuts for T-slots (T-nuts) | 96 |
| O | |
| Open-ended spanner, single-ended | 101 |
| P | |
| Parallel stop | 148 |
| Parallel stops in pairs | 147 |
| Parallel support set in wooden box | 136 |
| Parallel support set in wooden stand | 139 |
| Parallel supports-pairs | 135 |
| Parallel supports-pairs, precision | 137, 145, 146 |
| Parallel supports-pairs, precision, 100 mm long | 141 |
| Parallel supports-pairs, precision, 125 mm long | 142 |
| Parallel supports-pairs, precision, 150 mm long | 142 |
| Parallel supports-pairs, standard | 138 |
| Parallel supports-pairs, standard, 100 mm long | 143 |
| Parallel supports-pairs, standard, 125 mm long | 143 |
| Parallel supports-pairs, standard, 150 mm long | 144 |
| Parallel supports-pairs, super-precision | 137 |
| Parallel supports-pairs, super-precision, 100 mm long | 140 |
| Parallel supports-pairs, super-precision, 125 mm long | 140 |
| Parallel supports-pairs, super-precision, 150 mm long | 141 |
| Parallel supports-set | 135 |
| Parallel supports-set, corrugated | 146 |
| Power clamp | 7 |
| Power clamp 3-step | 10 |
| Precision angle stop | 148 |
| Precision wedge block | 69 |
| Pressure pad | 9 |
| Prismatic clamping block | 149 |
| Pull-Down Clamp | 116 |

| Description | Page |
|---|-----------|
| Q | |
| Quick-action clamping nut without collar | 101 |
| R | |
| Rhombus-head screws for T-slots | 91 |
| S | |
| Screw jack element with acme thread and base element 6425FB | 55 |
| Screw jack, modular | 54 |
| Screw jack, quick-action | 71 |
| Screw jack with flat support | 63 |
| Screw jack with flat support and magnetic base | 64 |
| Screw jack with flat support and thread | 64 |
| Screws for T-slot, strength class 12.9 | 90 |
| Serrated heel block | 49 |
| Set of assorted plastic clamping elements | 110 |
| Set screw | 41 |
| Set screw, brass | 41 |
| Set screw with ball | 43 |
| Set screw with ball, plain | 43 |
| Set screw with flat-faced ball, ribbed | 43 |
| Set screw with nut | 155 |
| Side clamp with clamping point | 129 |
| Side stop | 150 |
| Side thrust piece, with seal | 161 |
| Slot stop | 115 |
| Solid clamping jaws, flat design | 120 |
| Spacer element | 8, 55, 76 |
| Spacer element with quick-action clip | 13 |
| Spherical attachment with thread | 72 |
| Spherical seat washer | 104 |
| Spindle, long | 76 |
| Spring type clamp support | 111 |
| Step block | 48 |
| Step blocks | 46 |
| Step blocks, wide | 46 |
| Step clamp | 27, 39 |
| Stepped clamp with adjusting support screw | 34, 35 |
| Stepped clamp with adjusting support screw, complete | 34, 35 |
| Stop, adjustable | 150 |
| Stop, fixed | 122, 127 |
| Stop, pivoting | 126 |
| Studs for nuts and T-slots | 92, 93 |
| Studs for nuts and T-slots, strength class 12.9 | 94 |
| Studs with hexagon socket, strength class 12.9 | 94 |
| Support block with magnet | 48 |
| Support blocks for continuous adjustment, combination | 49 |
| Support blocks for continuous adjustment, single | 49 |
| Support element, mechanical | 77 |
| Support extension | 22 |
| Support screw | 38 |
| Support with pivotable ball | 73 |
| T | |
| Tapered clamp with adjusting support screw | 32 |
| Tapered clamp with adjusting support screw, complete | 32 |
| T-bolt set | 107 |
| Thread adapter | 56 |
| Thrust piece plastic (plain) | 9 |
| Thrust piece set | 14 |
| T-nuts with spring | 97 |
| Tool cart | 60 |
| Trolley for clamping equipment | 108 |
| Trolley for clamping equipment with basic set of clamping equipment | 108 |
| T-slot clamp | 132 |
| T-slot cover | 114 |
| T-slot scraper | 111 |
| T-slot side cover | 113 |
| U | |
| Universal step block set | 47 |
| Universal step blocks | 47 |
| V | |
| Vee-pad | 72 |
| W | |
| Washers for clamping tools | 105 |
| Wedge block „Herkules“ height wedge | 68 |

These Terms of Payment apply for companies, legal entities governed by public law and public law special funds. Our goods and services are supplied exclusively on the basis of the following conditions. Any deviating purchasing conditions of the customer not expressly recognised by us will not become part of the contract through acceptance of the order. By placing the order and accepting the goods we deliver, the customer confirms its consent to our terms and conditions.

1. Offer and contractual conclusion

All our offers are always subject to change without notice unless otherwise explicitly agreed. Our delivery contracts are based on the latest version of our catalogue. Dimension and weight values, as well as illustrations, drawings and data, are non-binding and can be changed by us at any time. Therefore, deviations cannot be ruled out and do not justify any compensation claims against us.

Orders are considered accepted only when confirmed by us in writing. If, for organisational reasons, the customer does not receive a separate confirmation upon the delivery of goods, the invoice shall also be deemed the order confirmation.

2. Prices

The prices are in EURO, ex-works, excluding VAT, packing, freight, postage and insurance. Unless otherwise agreed, our list prices valid on the day of delivery shall apply. For orders below 50 EUR goods net, we must make a minimum quantity surcharge of a 20 EURO for cost reasons.

3. Tool costs

Unless any other agreements have been reached, the tools fabricated for the purpose of executing the order shall remain our property in all cases, even if we have invoiced a tool cost component separately.

4. Payment

Unless otherwise stated on the invoice, the purchase price falls due for net payment within 30 days of the invoice date (without deduction of discount). Invoice amounts of below 50 EURO are due for payment immediately.

In case of payment default, we shall be entitled to charge default interest. The amount corresponds to our interest rate for current account credits at our main bank; the minimum however being 8 percentage points above the relevant base interest rate applied by the European Central Bank. Moreover, in case of default following written notice to the customer, we shall be entitled to cease to fulfil our obligations until payments are received.

5. No set-off

The customer can set-off only with legally confirmed or undisputed counterclaims.

6. Right of withdrawal in case of delayed acceptance or payment and insolvency

If the customer fails to accept the goods in due time, we shall be entitled to set a reasonable period of grace, after which we can dispose of the goods elsewhere and supply the customer on a reasonably longer term. Our rights to withdraw from the contract under the provisions of Section 326 BGB and demand damages for non-performance shall not be affected. If the customer fails to pay for the goods once payment is due, we shall be entitled, at the end of a reasonable period of grace we have set, to withdraw from the contract and demand the return of any goods already supplied. Section 323 BGB remains unaffected in all other cases.

If the customer applies for the opening of insolvency proceedings, we shall be entitled, prior to the ordering of security measures by the insolvency court, to withdraw from the contract and demand the immediate return of the goods.

7. Customer-specific fabrications/project fabrications (custom fabrications)

Customer-specific fabrications require binding information on design, quantity etc. in written form at the time of ordering. For manufacturing reasons, we reserve the right to supply up to 10% above or below the order quantity. Technical modifications or cancellations are subject to any costs incurred. The return of customer-specific fabrications is impossible.

8. Delivery and packaging, transfer of risk

The delivery date is non-binding; although stated to the best of our knowledge. It is subject to us receiving correct, defect-free and complete deliveries. The stated delivery dates relate to completion in the factory, starting on the day the order is accepted by us. Delivery is EXW (ex-works) in accordance with Incoterms 2010. Therefore, the costs are borne by the customer. The risk is transferred to the customer when the goods are passed to the person, company or facility nominated to execute the shipment. This applies also for partial deliveries, or if we have assumed responsibility for delivery and installation. The risk shall be transferred to the customer even in the case of delayed acceptance.

In the absence of specific shipping instructions, we shall proceed as we deem fit and without any obligation to the cheapest or most expedient method. The customer agrees that the order can also be delivered in parts, insofar as this is reasonable for the customer. We shall charge a 5 EURO processing free for shipping to third parties that we supply on behalf of the customer.

The packaging complies with the packaging ordinance. Disposable packaging shall be charged at cost price. The packaging cannot be taken back.

9. Performance impediment and/or impossibility

If we are hindered in the fulfilment of our obligation due to the onset of unforeseeable circumstances, which we are unable to avoid despite reasonable effort in relation to the nature of the circumstances (e.g. operational interruption, delay in the delivery of important raw materials, defects in the delivery), the delivery time shall be extended by a reasonable period, insofar as the supply of goods or services is not rendered unreasonably difficult or impossible.

If we have to accept that these circumstances are not only temporary, we shall be entitled to withdraw from the contract either in whole or in part.

If the supply of goods or services becomes impossible, the customer shall not be obliged to furnish its own contractual service. Section 275 BGB applies mutatis mutandis. If, however, the customer is solely or predominantly responsible for the

circumstances that led to impossibility, it shall remain under an obligation to render the return service. The same applies if this circumstance occurs at a time when the customer is behind schedule with acceptance.

10. Samples/returns

Samples shall be provided only against payment. If samples or models are provided, a credit note shall be issued with the subsequent order if the order value is 125 EURO net or more. Goods can be returned only by agreement, although custom fabrications are excluded from such return.

In the case of returns for which we are not responsible (e.g. incorrect order), we shall charge a processing fee of 10%, the minimum value, however, being 7.50 EURO.

11. Retention of title

The goods shall remain our property unless full payment of all claims and/or until the cheques provided for this purpose are honoured. The itemisation of claims in an ongoing invoice, as well as balancing the account and the recognition thereof does not affect the retention of title. The customer is entitled to sell on the retained goods during the ordinary course of business. However, the customer is not permitted to pledge the goods or transfer them by way of security. It shall assign its claim ensuing from the selling on of the retained goods to us in advance. The customer shall be entitled to collect the claim to the extent that it has fulfilled its obligations towards us. At our request, the customer shall be obliged to state third-party debtors and we shall be entitled to report this and the assignment.

12. Property rights

We reserve property rights and copyrights to all contractual documents such as drafts, drawings, calculations and cost estimates. Such documents must not be reproduced or disclosed to third parties without our consent. Any rights to patents, utility models etc. reside solely with us, insofar as such patents have not yet been filed. Our products are allowed to be replicated only with our written consent.

If objects are fabricated according to drawings or samples, the customer shall warrant that any third party property rights are not infringed by manufacture or delivery. If a third party forbids manufacture and delivery on account of property rights, we shall be entitled to stop manufacture and delivery immediately. The customer shall be obliged to reimburse us with all costs incurred and indemnify us from third party compensation claims. Compensation claims by the customer are impossible.

13. Warranty

If the customer agrees with us a particular quality of the goods, we shall base this agreement on our technical delivery specifications. If we have to deliver according to customer drawings, specifications, samples etc., the customer shall assume the risk for suitability for the intended purpose. If, after the contract is concluded, the scope of goods or services is changed at the customer's request and this impairs the quality or suitability of the goods, claims for defects on the part of the customer shall be ruled out, insofar as such impairments are caused by the customer's requests for change. The time at which the risk is transferred is decisive for the contractual state of the goods. Wear and tear of wearing parts caused by ordinary use does not constitute a defect. Claims for defects are ruled out in the following cases in particular: Unsuitable or improper use, incorrect installation and/or commissioning by the customer or third party, normal wear and tear, incorrect or negligent handling - in particular excessive use -, unsuitable equipment, replacement materials, chemical, electrochemical or electrical influences, unless such defects are caused by ourselves.

If the goods contain a defects, we shall provide, following a reasonable period of grace set by the customer, either a replacement or a repair as we deem fit. If such subsequent performance fails, the customer shall be entitled to either reduce the purchase price or withdraw from the contract. Any further warranty claims are ruled out. In case of negligible deviations from the agreed quality, no claims for defects shall be recognised.

The discovery of defects must be communicated to us immediately in writing. In the case of recognisable defects, however, within 10 days of acceptance, in the case of non-recognisable defects immediately after they become evident. The warranty is 12 months, starting with delivery of the goods ex-works.

14. Liability

With the exception of harm to life, body or health on account of a breach of duty by ourselves, our liability shall be limited to intent or gross negligence.

15. Place of fulfilment, place or jurisdiction and governing law

The place of fulfilment for all obligations ensuing from this contractual relationship is D-70734 Fellbach.

The place of jurisdiction for all legal disputes ensuing from the contractual relationship is the court responsible for the headquarters of Andreas Maier GmbH & Co. KG.

All disputes ensuing from the contract or regarding the validity thereof shall be finally decided by a court of arbitration in accordance with the Court of Arbitration Ordinance of the German Committee for Arbitration Court Procedures or the Conciliation and Arbitration Arrangement of the International Chamber of Commerce, recourse to ordinary courts of law being excluded. The legal dunning process, however, remains permissible.

German law shall govern (BGB and HGB). The applicability of the UN Convention on Contracts for the International Sale of Goods (CISG) is ruled out.

16. Severability clause

If individual provisions become legally invalid, the remaining provisions shall not be affected. The legally invalid provision shall be replaced by regulations that most closely reflect the economic purpose of the contract with reasonable consideration for the mutual interests. The publication of these Terms of Sale, Delivery and Payment renders all previous versions invalid. This does not apply for any contracts concluded prior to announcement.

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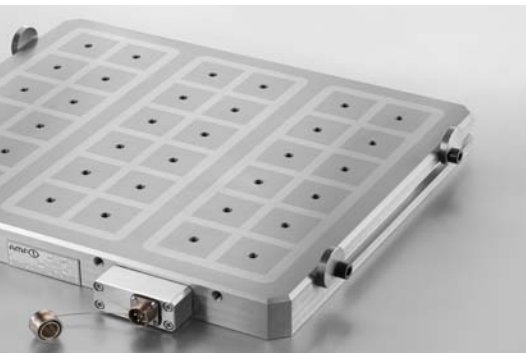
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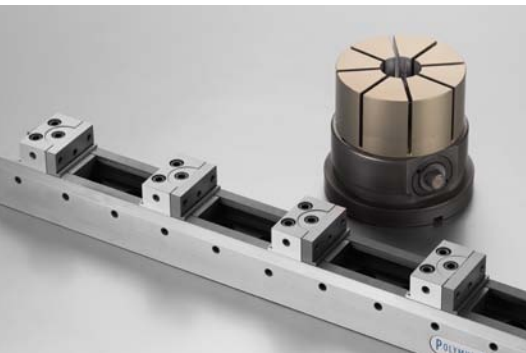
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