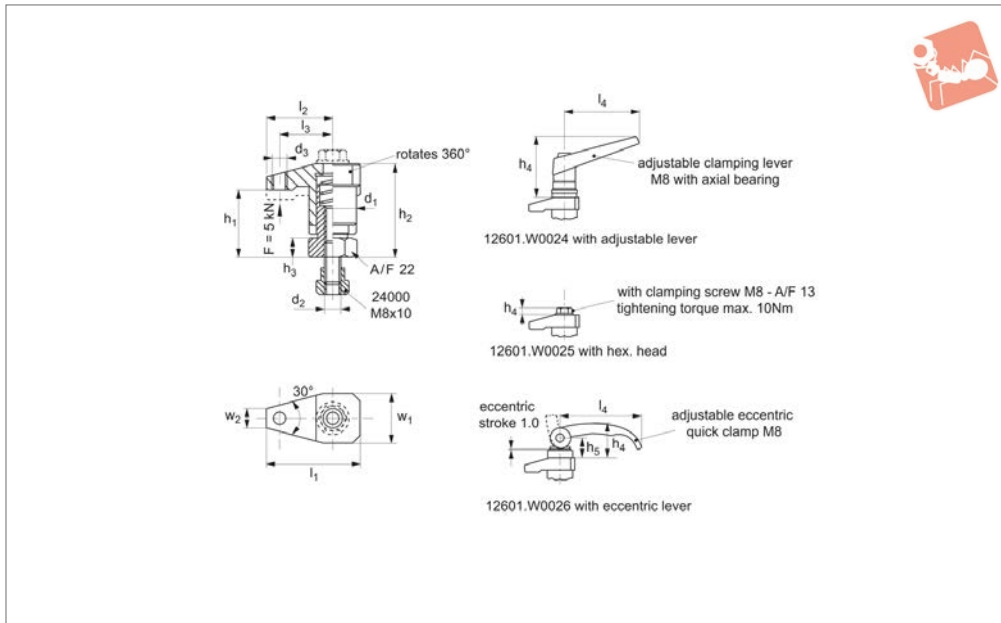




Miniature Down Thrust Clamps swivelling

Adjustable Vertical Clamps



12601

ADJUSTABLE VERTICAL CLAMPS

Material

Steel case-hardened, blackened and ground.

Technical Notes

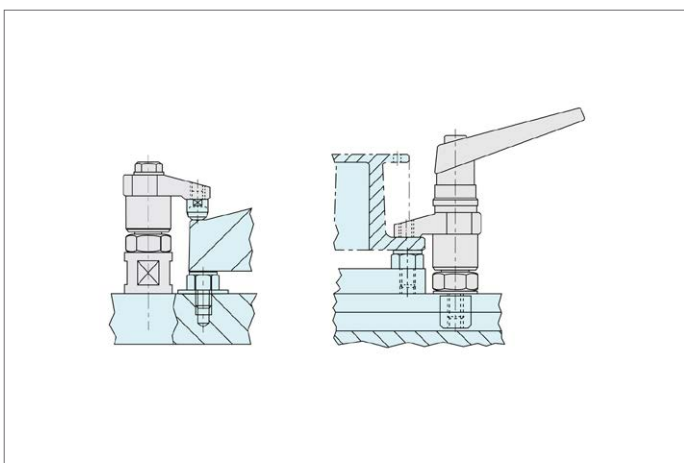
Ideally suited for clamping small

components. The 10mm wide nose allows a very small clamping footprint. For suitable self-aligning pads (if required) see no. 34100.

Tips

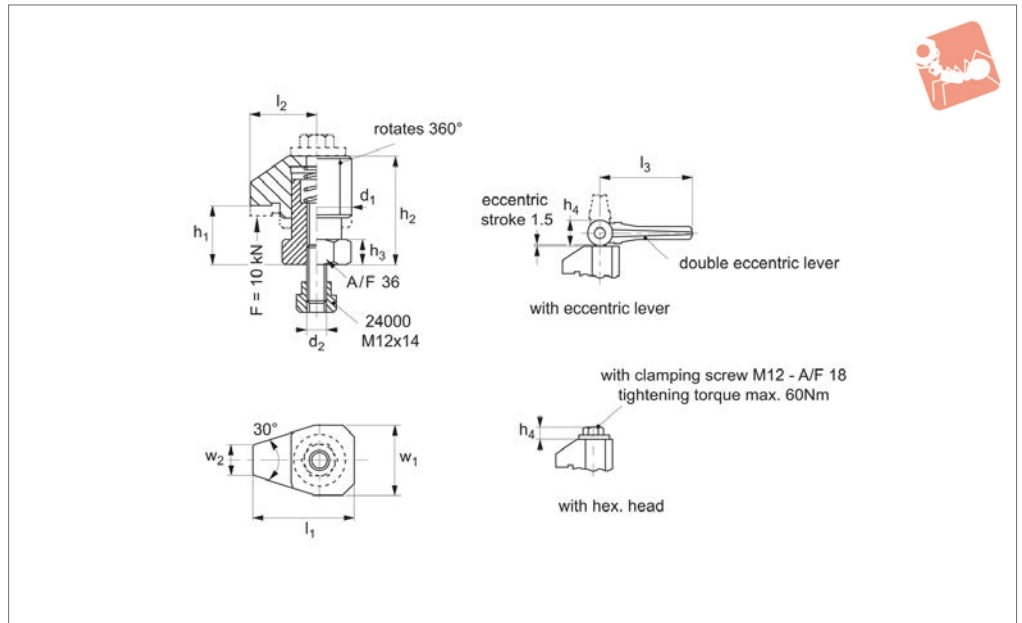
T-nuts can be supplied in any M8 sizes, see no. 24000.

| Order No. | Type | Clamping height h_1 min. | Clamping height h_1 max. | Stroke | d_1 | d_2 | w_1 | w_2 | h_2 min. | h_2 max. | h_3 | h_4 | h_5 | l_1 | l_2 | l_3 | l_4 | Weight g |
|-------------|--------------------------|----------------------------|----------------------------|--------|-------|-------|-------|-------|------------|------------|-------|-------|-------|-------|-------|-------|-------|----------|
| 12601.W0024 | with adj. clamping lever | 30 | 35 | 5 | 25 | M8 | 26 | 10 | 44 | 49 | 10 | 60,0 | | 49,5 | 35 | 28 | 74 | 363 |
| 12601.W0025 | with hex. head | 30 | 35 | 5 | 25 | M8 | 26 | 10 | 44 | 49 | 10 | 6,9 | | 49,5 | 35 | 28 | | 215 |
| 12601.W0026 | with ecc. clamping lever | 30 | 35 | 5 | 25 | M8 | 26 | 10 | 44 | 49 | 10 | 35,0 | 20,5 | 49,5 | 35 | 28 | 82 | 340 |





12602



Material

Steel case-hardened, blackened and ground.

Technical Notes

For heavy-duty clamping applications

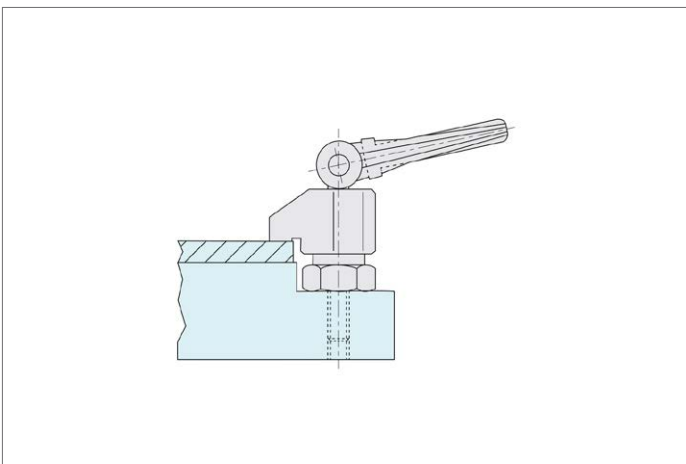
where space and height are limiting factors.

Tips

Often used for clamping of injection mould tools and the like.

T-nuts removable. For other T-nut sizes please refer to no. 24000.

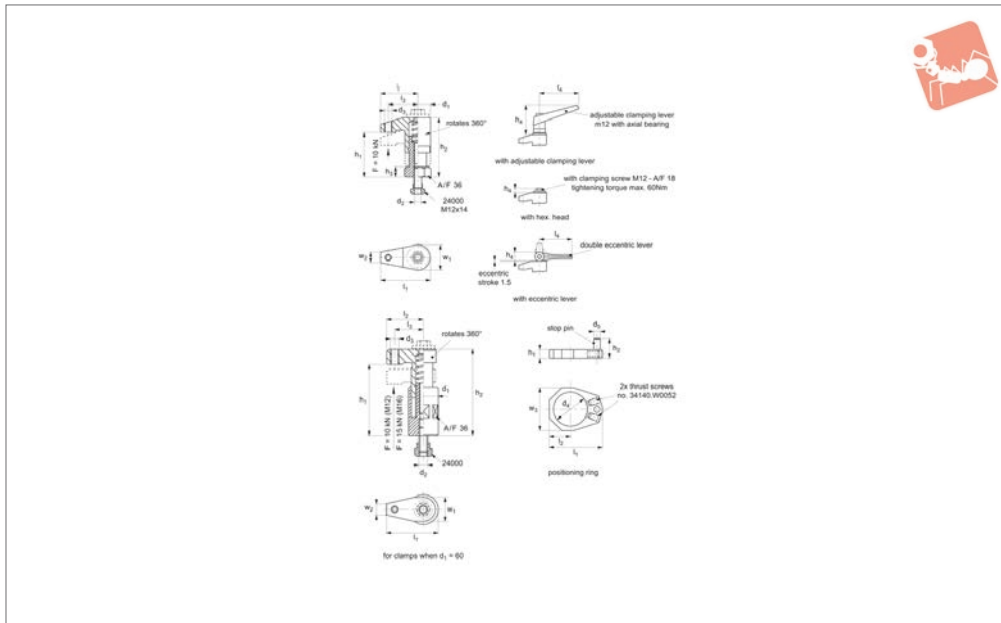
| Order No. | Type | Clamping height h_1 min. | Clamping height h_1 max. | Stroke | d_1 | d_2 | w_1 | w_2 | h_2 min. | h_2 max. | h_3 | h_4 | l_1 | l_2 | l_3 | Weight g |
|--------------------|----------------------------|----------------------------|----------------------------|--------|-------|-------|-------|-------|------------|------------|-------|-------|-------|-------|-------|----------|
| 12602.W0034 | With Eccentric Clamp Lever | 25 | 30 | 5 | 44 | M12 | 42 | 18 | 54 | 59 | 15 | 28 | 61 | 40 | 100 | 1022 |
| 12602.W0035 | With Hex. Head Bolt | 25 | 30 | 5 | 44 | M12 | 42 | 18 | 54 | 59 | 15 | 13 | 61 | 40 | | 708 |





Down Thrust Clamps swivelling

Adjustable Vertical Clamps



12603

ADJUSTABLE VERTICAL CLAMPS

Material

Steel case-hardened, blackened and ground.

Technical Notes

Clamping height increased with the addition of height adjusting cylinders no. 12605.W0125-.W0167 and reduced with self-aligning pads nos.34100 or 34120.

Maximum clamping height (h_1 max.) must

not be exceeded.

Use of positioning ring 12603.W0350 increases height h_2 by 7mm and reduces stroke by 7mm.

* Part no. 12603.W0063 has a M16 threaded stud.

Tips

Offers rapid manual clamping with easy removal of workpieces through rotation of

clamp arm away from component.

Positioning ring no. 12603.W0063, and its integral stop, provides repeated accuracy of the clamping position.

SAFETY: base of the clamping cylinder must make full surface contact.

T-nuts removable. For other T-nut sizes please refer to no.24000.

| Order No. | Type | Stroke | d_1 | d_2 | d_3 | d_4 | d_5 | w_1 | w_2 | w_3 | h_1 min. | h_1 max. | Weight g |
|-------------|--------------------------|--------|-------|-------|-------|-------|-------|-------|-------|-------|------------|------------|----------|
| 12603.W0050 | With Adj. Clamping Lever | 20 | 40 | M12 | M12 | - | - | 40 | 17 | - | 50 | 70 | 1194 |
| 12603.W0053 | With Adj. Clamping Lever | 30 | 40 | M12 | M12 | - | - | 40 | 17 | - | 68 | 98 | 1359 |
| 12603.W0056 | With Adj. Clamping Lever | 40 | 40 | M12 | M12 | - | - | 40 | 17 | - | 95 | 135 | 1639 |
| 12603.W0051 | With Hex. Head | 20 | 40 | M12 | M12 | - | - | 40 | 17 | - | 50 | 70 | 876 |
| 12603.W0054 | With Hex. Head | 30 | 40 | M12 | M12 | - | - | 40 | 17 | - | 68 | 98 | 964 |
| 12603.W0057 | With Hex. Head | 40 | 40 | M12 | M12 | - | - | 40 | 17 | - | 95 | 135 | 1300 |
| 12603.W0061 | With Hex. Head | 35 | 60 | M12 | M12 | - | - | 44 | 17 | - | 100 | 135 | 2695 |
| 12603.W0063 | With Hex. Head * | 35 | 60 | M16 | M16 | - | - | 53 | 24 | - | 100 | 135 | 2939 |
| 12603.W0052 | With Ecc. Clamping Lever | 20 | 40 | M12 | M12 | - | - | 40 | 17 | - | 50 | 50 | 1213 |
| 12603.W0055 | With Ecc. Clamping Lever | 30 | 40 | M12 | M12 | - | - | 40 | 17 | - | 68 | 70 | 1370 |
| 12603.W0058 | With Ecc. Clamping Lever | 40 | 40 | M12 | M12 | - | - | 40 | 17 | - | 95 | 98 | 1585 |
| 12603.W0060 | With Ecc. Clamping Lever | 35 | 60 | M12 | M12 | - | - | 40 | 17 | - | 100 | 135 | 3015 |
| 12603.W0350 | Positioning Ring | - | - | - | - | 28 | 5 | - | - | 35 | 7 | - | 32 |

| Order No. | h_2 min. | h_2 max. | h_3 | h_4 | l_1 | l_2 | l_3 | l_4 | A/F |
|-------------|------------|------------|-------|-------|-------|-------|-------|-------|-----|
| 12603.W0050 | 73 | 93 | 15 | 82 | 75 | 55 | 43 | 108 | 36 |
| 12603.W0053 | 91 | 121 | 15 | 82 | 75 | 55 | 43 | 108 | 36 |
| 12603.W0056 | 118 | 158 | 22 | 82 | 75 | 55 | 43 | 108 | 36 |
| 12603.W0051 | 73 | 93 | 15 | 13 | 75 | 55 | 43 | 108 | 36 |
| 12603.W0054 | 91 | 121 | 15 | 13 | 75 | 55 | 43 | 108 | 36 |
| 12603.W0057 | 118 | 158 | 22 | 13 | 75 | 55 | 43 | 108 | 36 |
| 12603.W0061 | 123 | 158 | 98 | 13 | 95 | 65 | 53 | - | 36 |
| 12603.W0063 | 123 | 158 | 98 | 16 | 99 | 69 | 53 | - | 36 |
| 12603.W0052 | 50 | 50 | 15 | 73-93 | 75 | 55 | 43 | 108 | 36 |
| 12603.W0055 | 73 | 93 | 15 | 28 | 75 | 55 | 43 | 108 | 36 |
| 12603.W0058 | 91 | 121 | 22 | 28 | 75 | 55 | 43 | 108 | 36 |

Adjustable Vertical Clamps

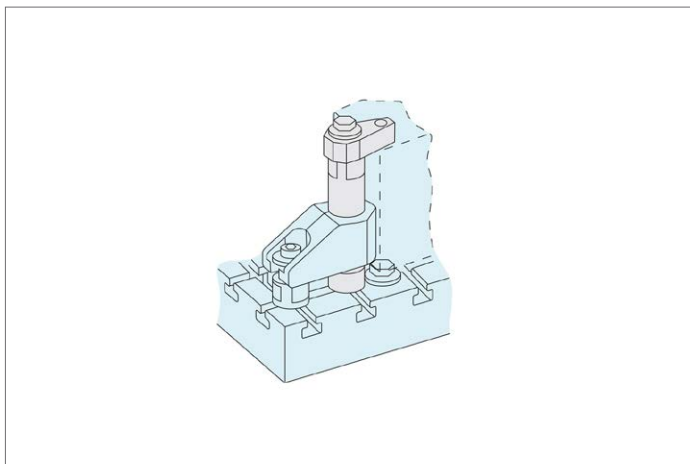


Down Thrust Clamps swivelling



| Order No. | h_2 min. | h_2 max. | h_3 | h_4 | l_1 | l_2 | l_3 | l_4 | A/F |
|-------------|---------------|---------------|-------|-------|-------|-------|-------|-------|-----|
| 12603.W0060 | 123 | 158 | 98 | 28 | 95 | 65 | 53 | 100 | 36 |
| 12603.W0350 | 16 | - | - | - | 43.5 | 17.5 | - | - | - |

ADJUSTABLE VERTICAL CLAMPS

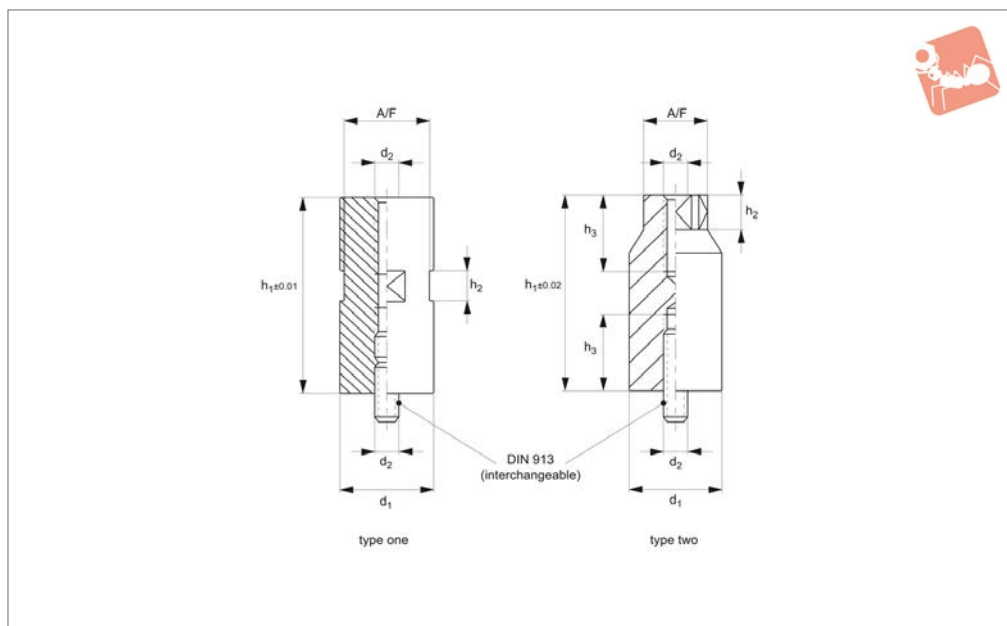




Height Adjusting Cylinders

for down thrust clamps 12603

Adjustable Vertical Clamps



12605

ADJUSTABLE VERTICAL CLAMPS

Material

Steel case-hardened, blackened and ground.

Technical Notes

Increase clamping height for down-thrust clamps, alternatively can be used as

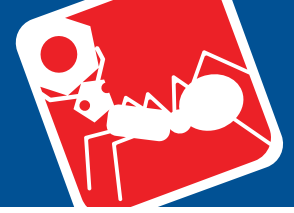
general height setting and supporting elements.

| Order No. | Type | d ₁ tol. h9 | d ₂ | h ₁ ±0.01 | h ₂ | h ₃ | A/F | Weight g |
|-------------|------|---------------------------|----------------|-------------------------|----------------|----------------|-----|-------------|
| 12605.W0125 | One | 25 | M 8 | 20 | 10 | - | 22 | 71 |
| 12605.W0126 | One | 25 | M 8 | 40 | 20 | - | 22 | 139 |
| 12605.W0127 | One | 25 | M 8 | 80 | 20 | - | 22 | 292 |
| 12605.W0140 | One | 40 | M12 | 35 | 20 | - | 36 | 319 |
| 12605.W0141 | One | 40 | M12 | 70 | 20 | - | 36 | 644 |
| 12605.W0142 | One | 40 | M12 | 140 | 20 | - | 36 | 1325 |
| 12605.W0145 | One | 40 | M16 | 35 | 20 | - | 36 | 318 |
| 12605.W0146 | One | 40 | M16 | 70 | 20 | - | 36 | 634 |
| 12605.W0147 | One | 40 | M16 | 140 | 20 | - | 36 | 1307 |
| 12605.W0160 | One | 60 | M12 | 35 | 20 | - | 55 | 755 |
| 12605.W0161 | One | 60 | M12 | 70 | 20 | - | 55 | 1460 |
| 12605.W0162 | One | 60 | M12 | 140 | 20 | - | 55 | 3034 |
| 12605.W0165 | One | 60 | M16 | 35 | 20 | - | 55 | 438 |
| 12605.W0166 | One | 60 | M16 | 70 | 20 | - | 55 | 1493 |
| 12605.W0167 | One | 60 | M16 | 140 | 20 | - | 55 | 3016 |
| 12605.W0241 | One | 70 | M24 | 50 | 25 | - | 65 | 1310 |
| 12605.W0242 | One | 70 | M24 | 100 | 25 | - | 65 | 2682 |
| 12605.W0243 | Two | 90 | M24 | 200 | 35 | 50 | 65 | 8655 |
| 12605.W0244 | Two | 90 | M24 | 300 | 35 | 50 | 65 | 13617 |

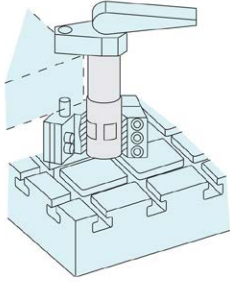
Adjustable Vertical Clamps



Height Adjusting Cylinders for down thrust clamps 12603



ADJUSTABLE VERTICAL CLAMPS

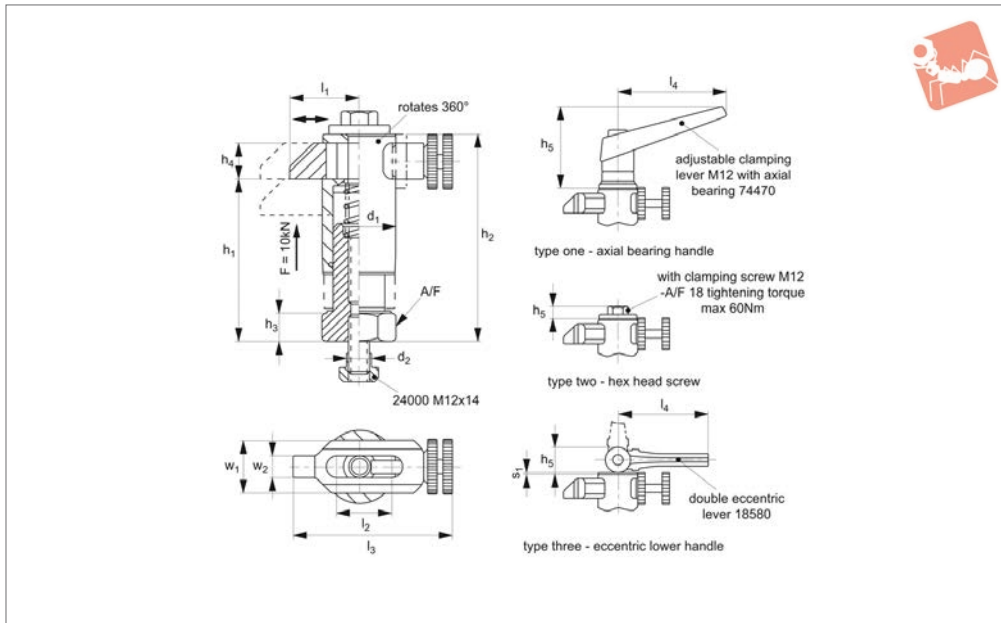




Down Thrust Clamps

retractable

Adjustable Vertical Clamps



12608

ADJUSTABLE VERTICAL CLAMPS

Material

Steel case-hardened, blackened and ground

Technical Notes

Use when swivelling of clamp is not possible, horizontal retraction available, see l_1 min - l_1 max.
Use of positioning ring 12603.W0350

increases height h_1 by 7mm and reduces stroke by 7mm.

Operation:

Push clamp jaw back. Insert workpiece to fixture. Push clamp jaw forwards, adjust position with knurled clamp screw, lock off. Apply clamping pressure.

Tips

Offers quick manual clamping by use of clamping screw/lever. Compact design and height adjustable.

Used with:

24000 T-nuts
12603.W0350 positioning ring.

| Order No. | Type | Stroke s_1 | d_1 | d_2 | w_1 | w_2 | h_1 min. | h_1 max. | h_2 min. | h_2 max. | Weight g |
|-------------|-------|--------------|-------|-------|-------|-------|------------|------------|------------|------------|----------|
| 12608.W0083 | One | 20 | 40 | M12 | 30 | 13 | 70 | 90 | 95 | 115 | 1400 |
| 12608.W0086 | One | 30 | 40 | M12 | 30 | 13 | 88 | 118 | 113 | 143 | 1560 |
| 12608.W0084 | Two | 20 | 40 | M12 | 30 | 13 | 70 | 90 | 95 | 115 | 1070 |
| 12608.W0087 | Two | 30 | 40 | M12 | 30 | 13 | 88 | 118 | 113 | 143 | 1240 |
| 12608.W0085 | Three | 20 | 40 | M12 | 30 | 13 | 70 | 90 | 95 | 115 | 1400 |
| 12608.W0088 | Three | 30 | 40 | M12 | 30 | 13 | 88 | 118 | 113 | 143 | 1560 |

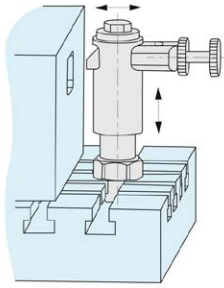
| Order No. | h_3 | h_4 | h_5 | l_1 min. | l_1 max. | l_2 | l_3 min. | l_3 max. | l_4 | A/F |
|-------------|-------|-------|-------|------------|------------|-------|------------|------------|-------|-----|
| 12608.W0083 | 15 | 20 | 82 | 38 | 55 | 30 | 90 | 107 | 108 | 36 |
| 12608.W0086 | 15 | 20 | 82 | 38 | 55 | 30 | 90 | 107 | 108 | 36 |
| 12608.W0084 | 15 | 20 | 13 | 38 | 55 | 30 | 90 | 107 | - | 36 |
| 12608.W0087 | 15 | 20 | 13 | 38 | 55 | 30 | 90 | 107 | - | 36 |
| 12608.W0085 | 15 | 20 | 28 | 38 | 55 | 30 | 90 | 107 | 100 | 36 |
| 12608.W0088 | 15 | 20 | 28 | 38 | 55 | 30 | 90 | 107 | 100 | 36 |

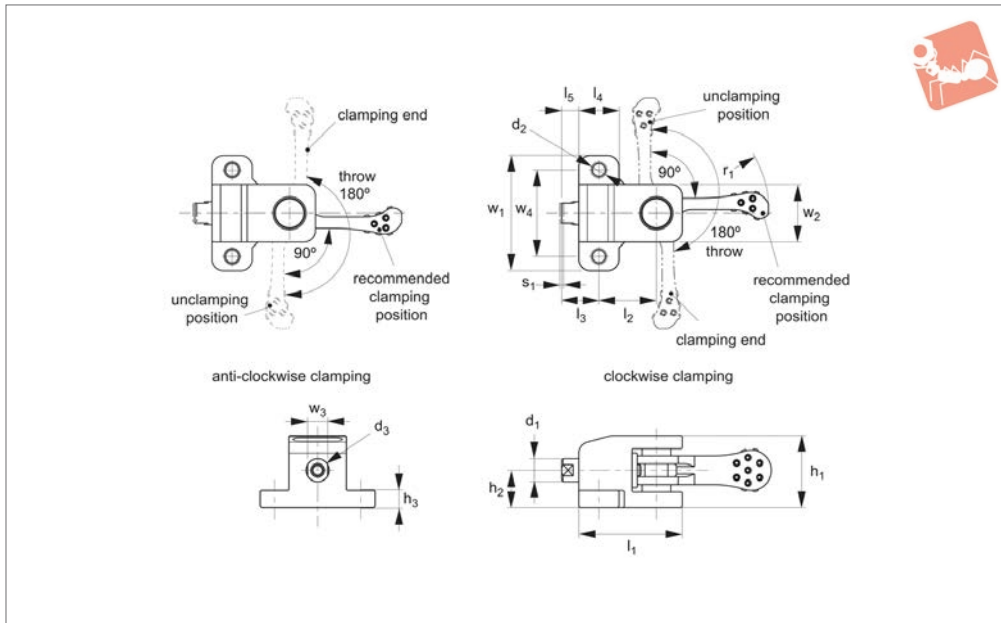
Adjustable Vertical Clamps

Down Thrust Clamps retractable



ADJUSTABLE VERTICAL CLAMPS





12618

ADJUSTABLE VERTICAL CLAMPS

Material

Steel (35CrMo), heat treated, black oxide finish, precision ground.
Body: steel (C45), black oxide finish.

Piston/pin: steel (C45), tempered and black oxide finish.

Cam handle: steel (42CrMo), tempered and black oxide finish.

Technical Notes

The tapped hole in the piston allows a pad to be fitted to the clamp.

| Order No. | Clamping direction | Clamping stroke s_1 | d_1 | d_2 | d_3 | w_1 | w_2 | w_3 | w_4 | h_1 | Weight g |
|-------------|--------------------|-----------------------|-------|-------|-----------------|-------|-------|-------|-------|-------|----------|
| 12618.W0008 | Clockwise | 1.2 | 8 | 4.5 | M 4x0,7 Depth 8 | 40 | 20 | 7 | 30 | 25 | 130 |
| 12618.W0012 | Clockwise | 1.6 | 12 | 6.6 | M 6x1 Depth 12 | 55 | 26 | 10 | 40 | 33 | 350 |
| 12618.W0108 | Anti Clockwise | 1.2 | 8 | 4.5 | M 4x0,7 Depth 8 | 40 | 20 | 7 | 30 | 25 | 130 |
| 12618.W0112 | Anti Clockwise | 1.6 | 12 | 6.6 | M 6x1 Depth 12 | 55 | 26 | 10 | 40 | 33 | 350 |

| Order No. | h_2 | h_3 | l_1 | l_2 | l_3 | l_4 | l_5 | r_1 | Handle load N max. | Clamping force kN max. | Clamping mechanism |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------|------------------------|--------------------|
| 12618.W0008 | 13 | 6 | 36 | 20 | 13 | 14 | 6 | 40 | 80 | 0.9 | Spiral Cam, 4° |
| 12618.W0012 | 18 | 10 | 50 | 28 | 19 | 20 | 9 | 63 | 150 | 2.4 | Spiral Cam, 4° |
| 12618.W0108 | 13 | 6 | 36 | 20 | 13 | 14 | 6 | 40 | 80 | 0.9 | Spiral Cam, 4° |
| 12618.W0112 | 18 | 10 | 50 | 28 | 19 | 20 | 9 | 63 | 150 | 2.4 | Spiral Cam, 4° |

