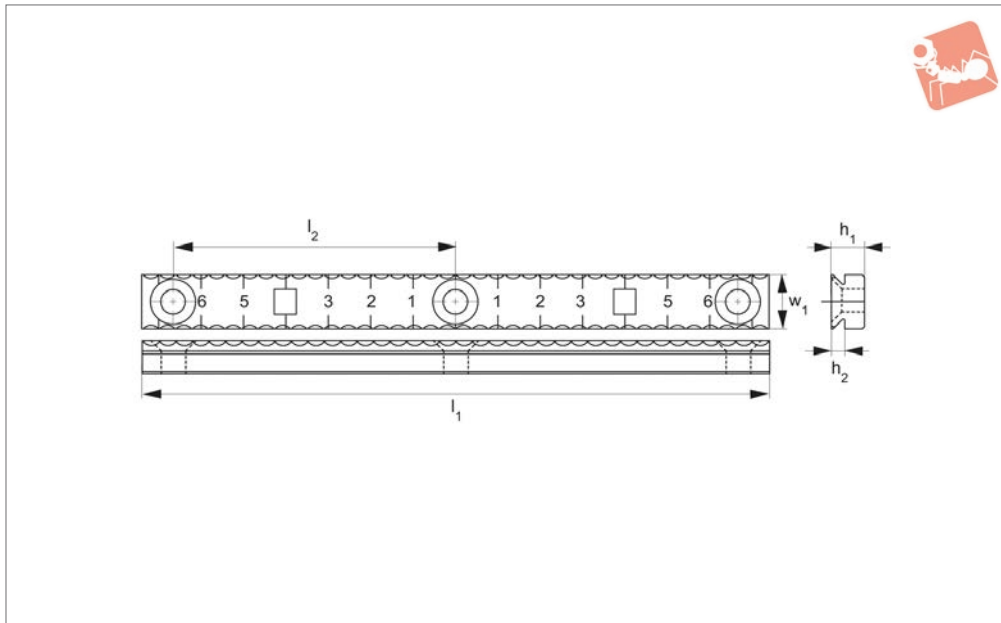




Talongrip Serrated Grip long

Low Profile Side Clamping



12030

LOW PROFILE SIDE CLAMPING

Material

Steel (S7), heat-treated, black oxide.

Technical Notes

Installation instructions:

1. Set grip in Talongrip jaw, install with screws provided. For fixture, machine slot 0,025mm-0,075mm larger than dimension w_1 , drill and tap.
2. Torque screws to 6,1 Nm. for standard

cap screw and 3,3 Nm. for low head cap screw.

3. Tighten vice until penetration is felt. As a general rule, an additional 1/4-3/4 turn of vice handle is needed to secure the workpiece dependent on material type and vice model. Recommended penetration is 0,15mm-0,40mm.

Tips

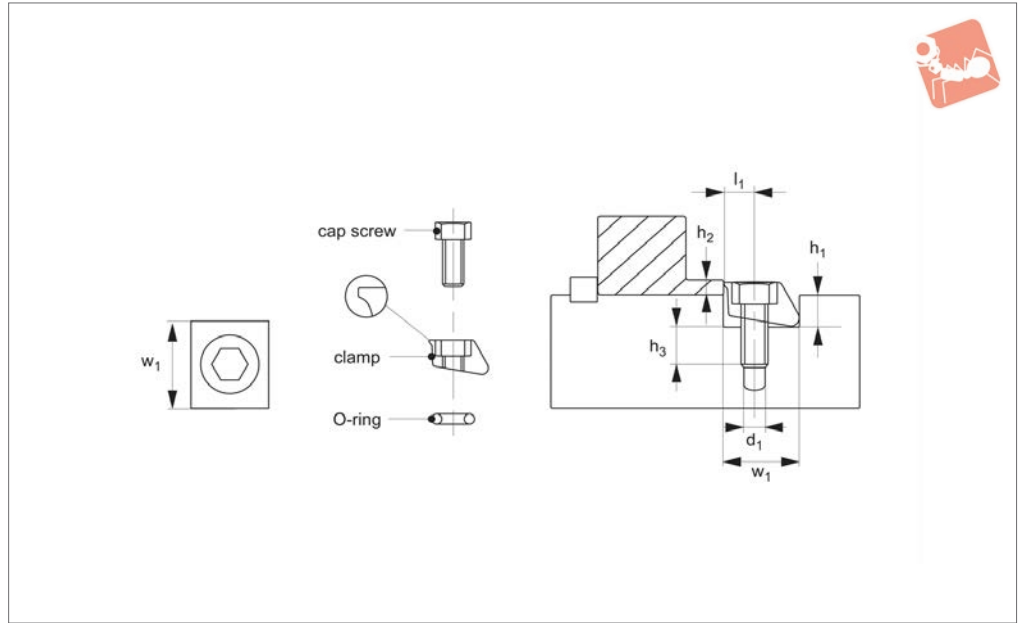
M 5x12 screws provided, as well as 10-32x1/2". Either can be used in M 5 threaded holes as long as they do not exceed 25mm in length.

The 10-32 screws sit better in the gripper rail and are less likely to bind during removal.

Order No.	Qty/pack	h_1	l_1	l_2	w_1	Fits Wixroyd jaw set	Gripping height h_2	Weight g
12030.W0052	2	9.3	50.0	38.1	19.1	12035 & 12464	1,3-4,1	113
12030.W0054	2	7.8	98.8	41.3	12.7	12035	1,3-3,2	181
12030.W0056	2	7.8	148.1	66.7	12.7	12035	1,3-3,2	259



12031.1



Material

Tool: steel (Hrc 43-45) or brass.
Screw: steel and oil resistant nitrile rubber.
O-ring: plastic.

Technical Notes

Provides positive down force and a very low grip height. High vertical and horizontal clamping forces. The O-ring lifts the clamp when unclamping.
Hardness: approx. Hrc 45.
Temperature range -30°C to +80°C.
Clamps sold by pack quantity.

Tips

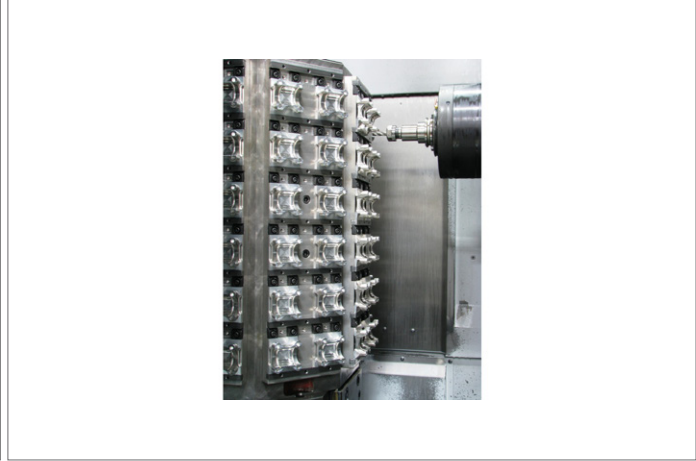
The tool steel blunt edge is less likely to mark workpieces, whilst the knife edge version bites into the material for more aggressive machining requirements. Often used with 12034 Talongrip or 12036 Versagrip. Location rails are ideal for use with pitbull clamps.

Important Notes

1. Machine a slot for the Pitbull clamp in the fixture according to dimensions „w₁“ and „h₁“.

2. Drill and tap a fixing hole to match screw size- refer to dimension „l₁“ for distance of hole from the component.
 3. Assemble clamp as shown in the diagram above.
 4. Position the clamp, and loosely screw to fixture.
 5. Load the component and tighten screw cap.
- Dimension „h₂“ is the minimum recommended clamping height.

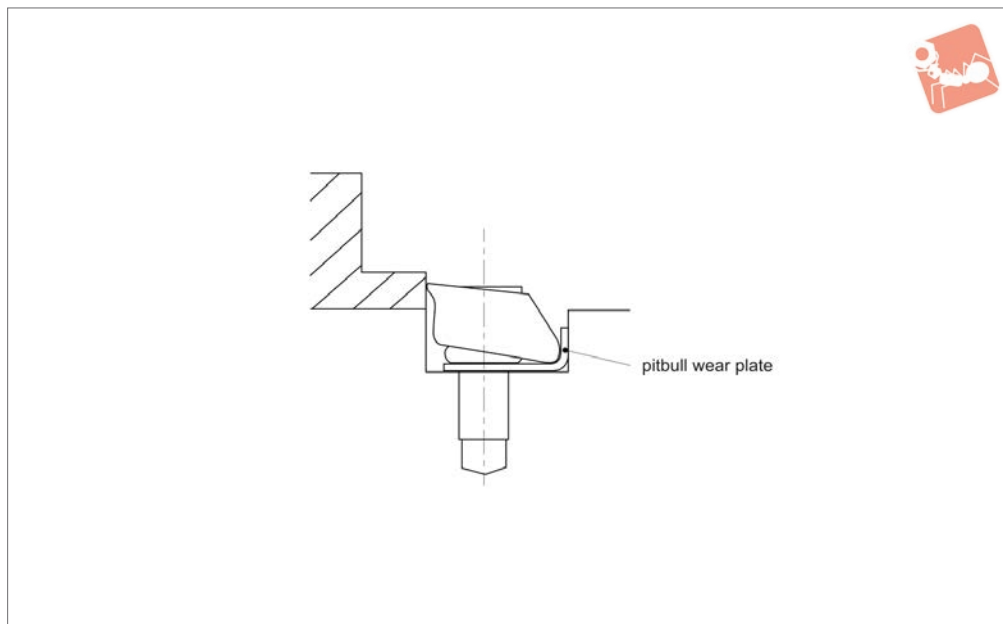
Order No.	Material	Type	Qty/pack	d ₁	h ₁	h ₂	h ₃	l ₁	Stroke s ₁	w ₁	Torque to Nm max.	Holding force kN	Weight g
12031.W0015	Brass	Blunt Edge	8	M 2,5	3.6	1.9	5.6	3.8	0.2	9.5	0.6	0.9	45
12031.W0040	Brass	Blunt Edge	8	M 4	4.8	2.6	8.6	5.1	0.4	12.7	2.8	1.8	64
12031.W0065	Brass	Blunt Edge	6	M 6	7.1	3.8	11.2	7.6	0.6	19.0	5.6	4.2	163
12031.W0005	Tool Steel	Knife Edge	8	M 2,5	3.6	1.9	6.6	3.8	0.2	9.5	1.8	2.8	32
12031.W0010	Tool Steel	Blunt Edge	8	M 2,5	3.6	1.9	6.6	3.8	0.2	9.5	1.8	2.8	45
12031.W0020	Tool Steel	Knife Edge	8	M 4	4.8	2.6	9.9	5.1	0.4	12.7	5.6	6.6	64
12031.W0030	Tool Steel	Blunt Edge	8	M 4	4.8	2.6	9.9	5.1	0.4	12.7	5.6	6.6	64
12031.W0050	Tool Steel	Knife Edge	6	M 6	7.1	3.8	14.5	7.6	0.6	19.0	22.5	16.0	136
12031.W0060	Tool Steel	Blunt Edge	6	M 6	7.1	3.8	14.5	7.6	0.6	19.0	22.5	16.0	132
12031.W0070	Tool Steel	Knife Edge	4	M10	11.4	6.4	18.0	10.2	1.3	25.4	40.6	26.0	256
12031.W0075	Tool Steel	Blunt Edge	4	M10	11.4	6.4	18.0	10.2	1.3	25.4	40.6	26.0	277
12031.W0080	Tool Steel	Knife Edge	2	M12	16.3	9.5	19.6	15.2	1.9	38.1	145.0	50.0	408
12031.W0085	Tool Steel	Blunt Edge	2	M12	16.3	9.5	19.6	15.2	1.9	38.1	145.0	50.0	408



LOW PROFILE SIDE CLAMPING



12031.2



Technical Notes

Provides a hard barrier between pitbull clamp and fixture, preventing distortion of back wall when using aluminium or mild

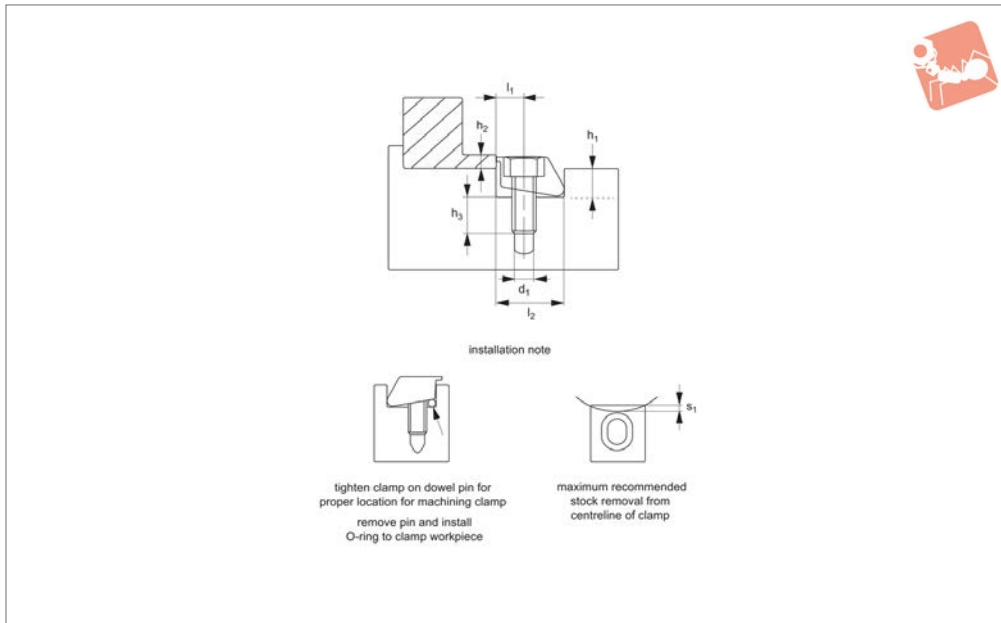
steel fixtures.

Tips

To keep fixtures light, maintain full clamp

travel and holding forces at max. pressure. Refurbish old fixtures or add to existing aluminium fixtures to maximise machining capabilities.

Order No.	Screw	Part number	Qty/pack
12031.W0615	M 2,5	12031.W0005, 12031.W0010, 12031.W0015	8
12031.W0640	M 4	12031.W0020, 12031.W0030, 12031.W0040	8
12031.W0665	M 6	12031.W0050, 12031.W0060, 12031.W0065	6
12031.W0670	M10	12031.W0070, 12031.W0075, 12032.W0570	4
12031.W0680	M12	12031.W0080, 12031.W0085, 12032.W0580	2



12032

LOW PROFILE SIDE CLAMPING

Material

Tool: steel, heat treated to HRC 43, machinable.

Screw: steel and oil resistant nitrile rubber.

O-ring: plastic.

Technical Notes

A machinable version of the standard pitbull clamps.

Provides positive down force and a very low grip height.

High vertical and horizontal clamping forces.

Hardness: approx. 45HRC

Tips

There is additional material of the clamp

face to allow machining of a radius. Often used with part no. 12034 Talongrip or part no. 12036 Versagrip.

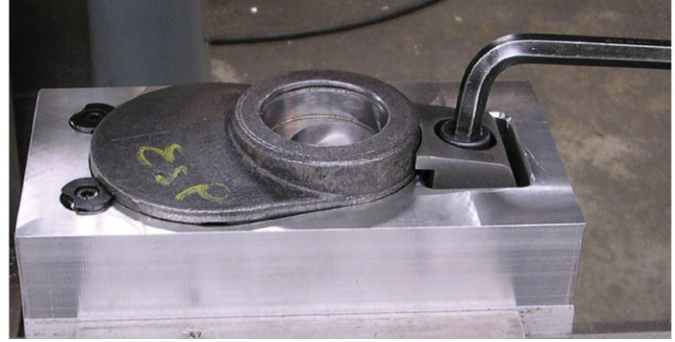
Important Notes

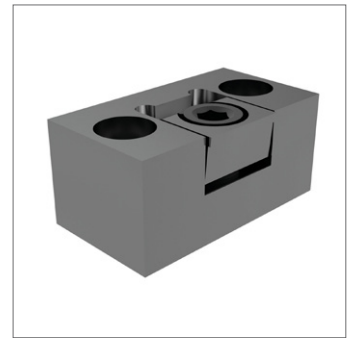
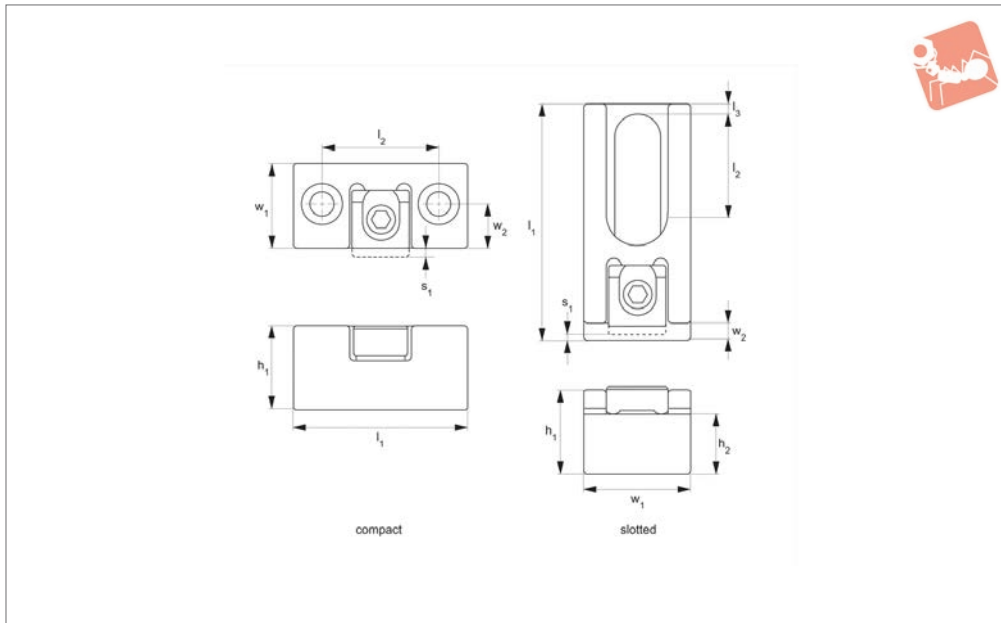
Installation:

1. Machine face of clamp to suit profile of component, taking note of dimension „s₁“ as the max. recommended stock removal. A dowel pin is included in each pack to locate the clamp whilst machining the face. After machining of face, remove pin and install O-ring to clamp workpiece.
2. Machine a slot for the pitbull clamp in the fixture, according to dimensions „l₂“ and „h₂“.
3. Drill and tap a fixing hole to match

4. Assemble clamp as shown in the diagram above.
 5. Position the clamp, and loosely screw to fix.
 6. Load the component and tighten the cap screw.
- Dimension „h₂“ is the minimum recommended clamping height.

Order No.	Qty/pack	d ₁	Stroke max.	h ₁	h ₂	h ₃	l ₁	l ₂	s ₁	Dowel pin dia.	Torque to Nm max.	Holding force kN	Weight g
12032.W0570	4	M10	1.27	11.43	6.4	18.0	10.16	25.4	1.5	3.18	40	26	263
12032.W0580	2	M12	1.90	16.26	9.5	19.6	15.24	38.1	4.5	6.35	145	50	463





12033.1

LOW PROFILE SIDE CLAMPING

Material

Body: steel hardened and ground with pitbull clamps insert (part no. 12031).

Technical Notes

Designed to be used in fixtures, on cubes etc.

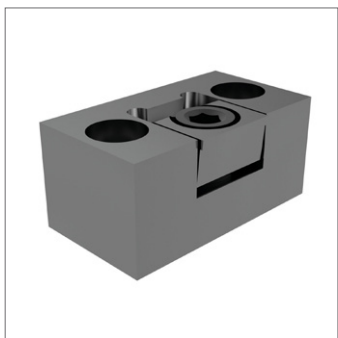
The slotted version has a clamp step to support the workpiece off the machine table for through milling or drilling.

The height of the clamp can be adjusted by varying the depth of the milled slot used to locate the clamp.

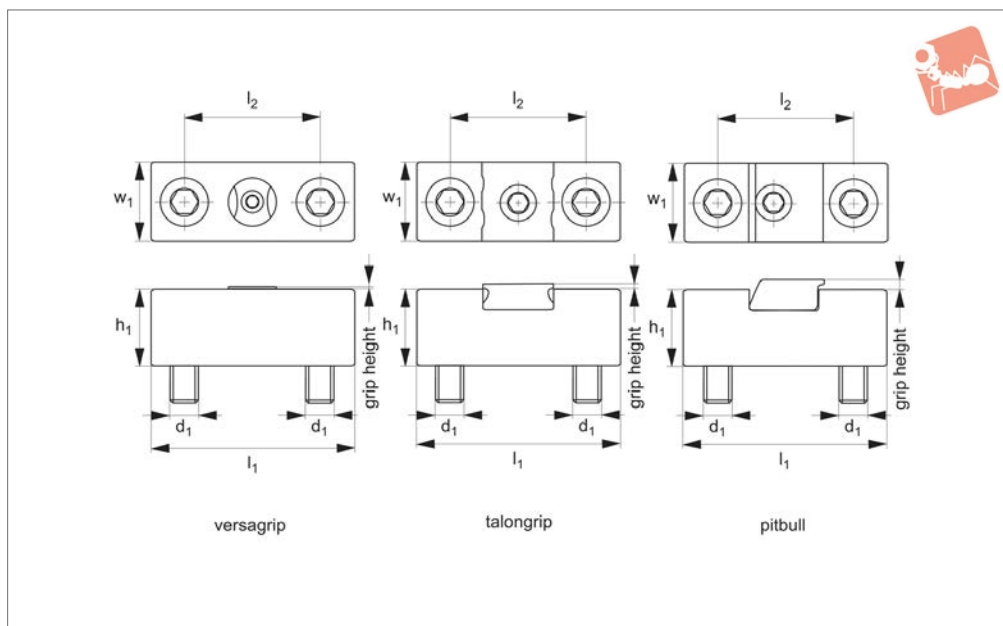
Tips

The compact version is ideal for clamping workpieces in series using the back surface of clamp to locate the next workpiece. Back of clamp is ground square to the bottom for precise part location.

Order No.	Body type	Clamp type	h_1	h_2 +0.000 -0.013	l_1	l_2	l_3	Stroke s_1	w_1	w_2	Torque to Nm max.	Clamping force kN max.	Mounting screw	Replacement clamps 12031	Weight g
12033.W0020	Compact	Knife	25,1		57,1	38,1		0,6	31,2	15,7	22,5	16	M 8	.W0050	
12033.W0025	Compact	Blunt	25,1		57,1	38,1		0,6	31,2	15,7	22,5	16	M 8	.W0060	
12033.W0030	Compact	Knife	31,5		68,6	47,0		1,3	37,6	18,8	40,6	26	M10	.W0070	
12033.W0035	Compact	Blunt	31,5		68,6	47,0		1,3	37,6	18,8	40,6	26	M10	.W0075	
12033.W0040	Slotted	Knife	25,1	18,5	103,6	43,2	12,7	0,6	31,7	9,1	22,5	16	M12	.W0050	12,7
12033.W0045	Slotted	Blunt	25,1	18,5	103,6	43,2	12,7	0,6	31,7	9,1	22,5	16	M12	.W0060	12,7
12033.W0050	Slotted	Knife	40,9	35,0	107,0	37,6	10,9	1,3	38,1	9,1	40,6	26	M16	.W0075	10,9
12033.W0055	Slotted	Blunt	40,9	35,0	107,0	37,6	10,9	1,3	38,1	9,1	40,6	26	M16	.W0075	10,9



12033.2



Material

Hardened and ground steel bodies with pitbull clamps insert (part no. 12031).

Technical Notes

Designed to be used in fixtures, on cubes etc.

The slotted version has a clamp step to

support the workpiece off the machine table for through milling or drilling. The height of the clamp can be adjusted by varying the depth of the milled slot used to locate the clamp.

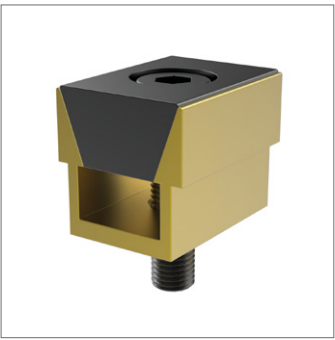
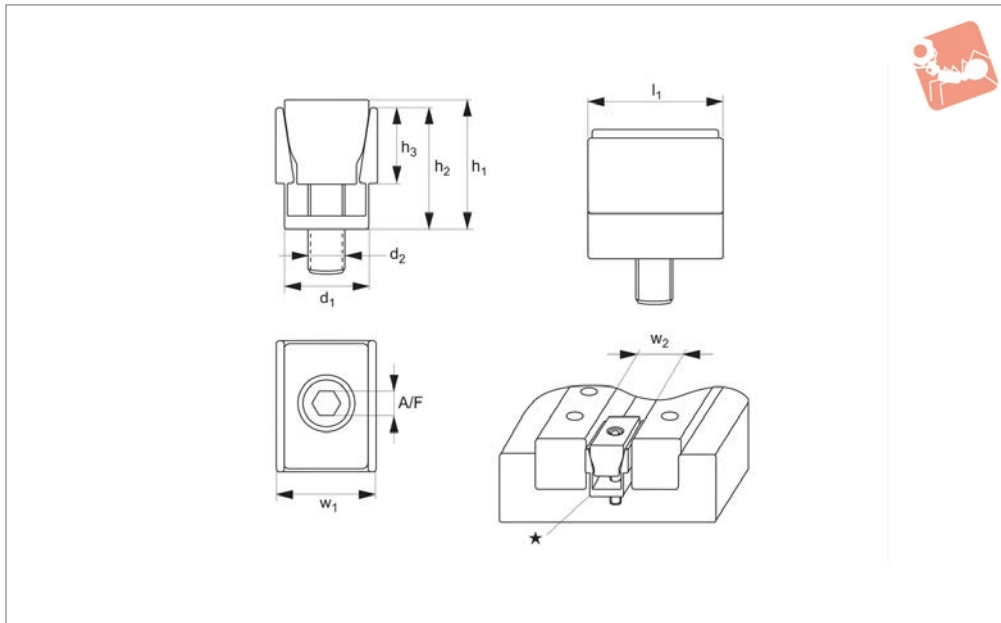
Tips

The compact version is ideal for clamping

workpieces in series, using the back surface of the clamp to locate the next workpiece.

Back of clamp is ground square to the bottom for precise part location.

Order No.	Clamp type	d ₁	h ₁	l ₁	l ₂	w ₁	Grip height	Replacement clamps
12033.W0150	Versagrip	M12	35	76.2	50	25.4	1,5 to 3,0	12036.W0175
12033.W0155	Talongrip	M12	35	76.2	50	25.4	1,5 to 3,0	12034.W0050
12033.W0160	Pitbull - Knife	M12	35	76.2	50	25.4	6.4	12031.W0060
12033.W0165	Pitbull - Blunt	M12	35	76.2	50	25.4	6.4	12031.W0070
12033.W0170	Pitbull - Mach.	M12	35	76.2	50	25.4	6.4	12032.W0570



12130

LOW PROFILE SIDE CLAMPING

Material

Channel: aluminium, anodised (7075-T6).
Wedge and screw: steel, hardened and blackened.

Technical Notes

Holds two parts with an equal clamping action. Very effective for multiple workpiece clamping. Can easily be used with hydraulic pull cylinders. Can be used to

clamp round bar, as long as centre line of clamp is above the centre line of the workpiece.

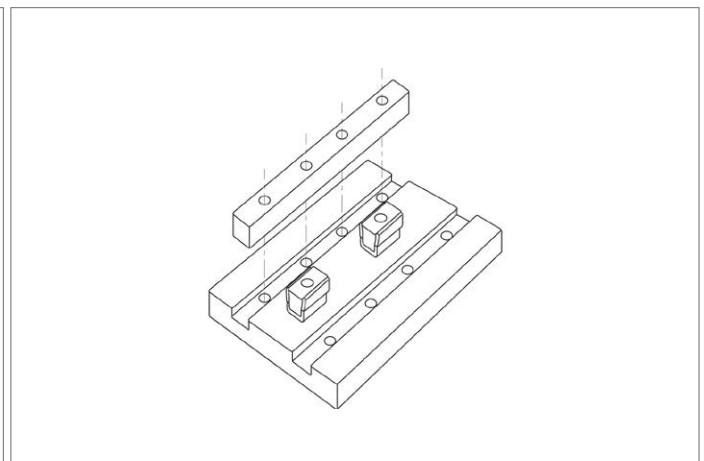
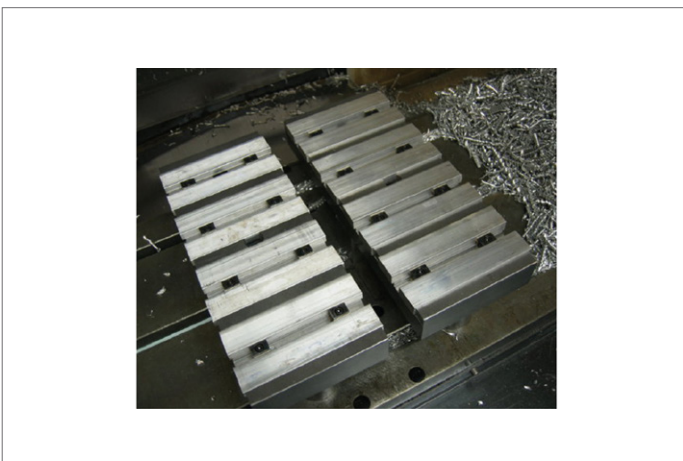
Tips

Clockwise rotation is recommended. The workpiece should be on the right of the clamp. For replacement cam screws see parts 12112.

Important Notes

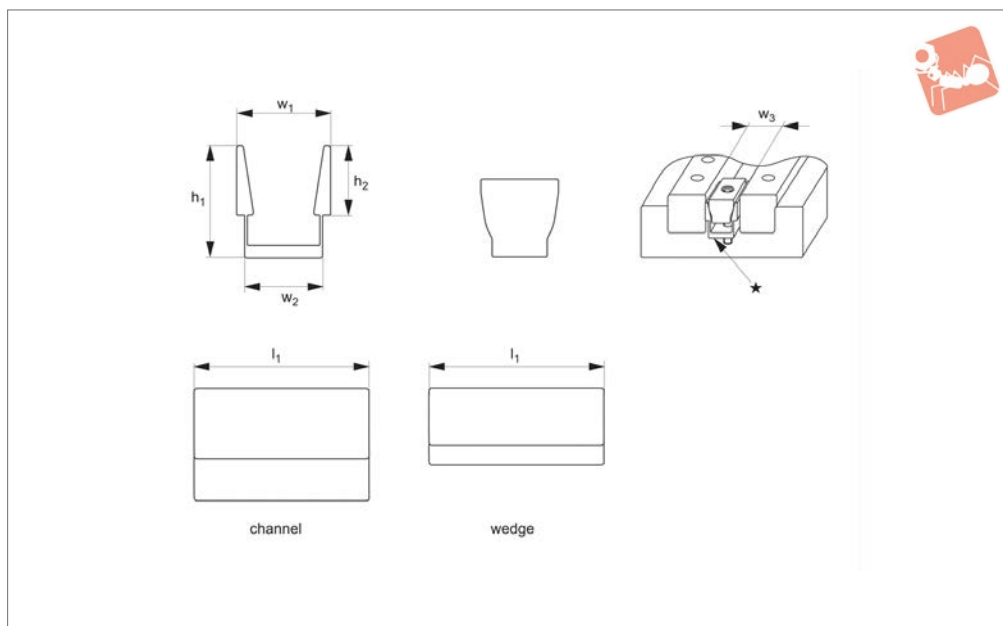
Dimension w_2 is the distance needed between workpieces for clamp clearance. Drill and tap mounting hole on the centre of this dimension.
"*" a milled slot wider than d_1 will ensure the clamp remains in line with the workpiece. Clamp sides should not come into contact with slot walls during expansion.

Order No.	d_1	d_2	h_1	h_2	h_3	l_1	w_1	w_2	Spread max.	A/F	Torque to Nm max.	Qty/pack	Holding force kN	Weight g
12130.W0001	5.3	M 2	6.9	6.40	3.6	8.1	6.1	6.4	6.7	1.5	0.7	6	0.88	45
12130.W0002	7.9	M2,5	9.7	9.50	4.7	11.9	9.1	9.5	10.0	2.0	1.5	6	1.35	68
12130.W0004	10.4	M 4	14.5	12.70	5.6	15.9	12.3	12.7	13.2	3.0	3.4	8	2.23	100
12130.W0006	16.1	M 6	19.0	19.05	9.5	23.8	18.6	19.0	20.3	5.0	13.5	6	6.68	222
12130.W0008	20.8	M 8	25.9	25.40	12.7	31.7	24.8	25.4	26.9	6.0	25.0	4	11.13	340
12130.W0012	30.8	M12	38.6	38.10	19.0	47.6	37.3	38.1	39.9	10.0	38.4	2	15.58	612
12130.W0016	41.2	M16	51.5	50.80	25.4	63.5	49.7	50.8	53.0	14.0	74.6	2	26.70	1404





12131



Material

Channel: aluminium (7075-T6).
Wedge: steel.

Technical Notes

Standard length of 508mm supplied, to allow machining to your own requirements.

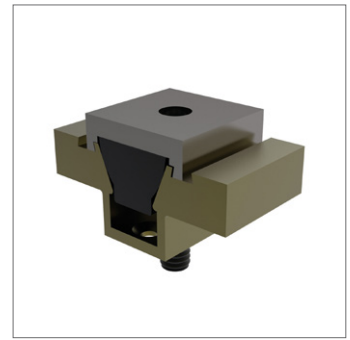
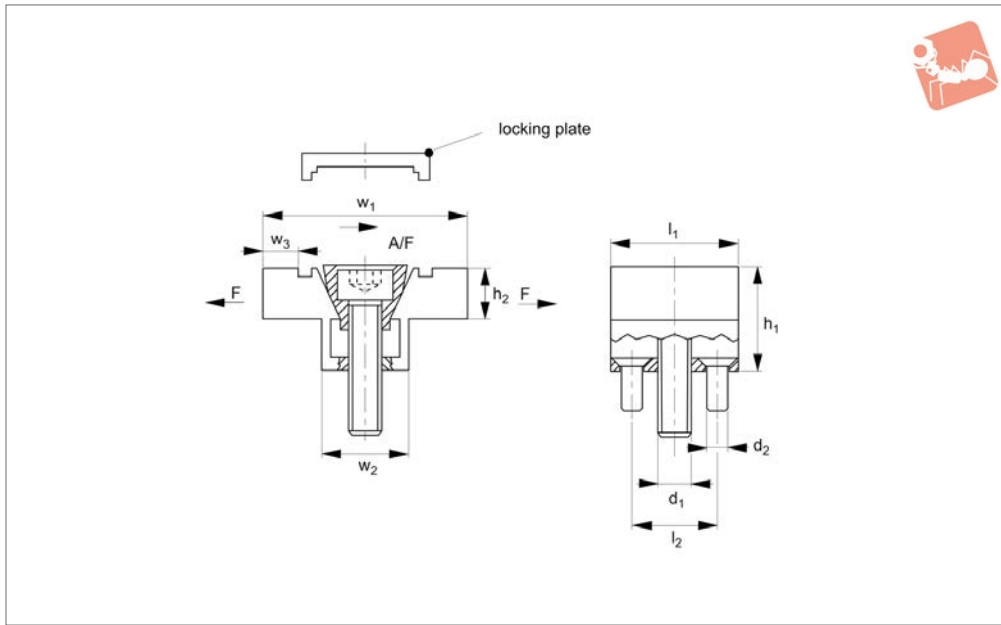
No drilled holes.

Important Notes

Dimension „w₃“ is distance needed between workpieces for clamp clearance. Drill and tap mounting hole on centre of this dimension.
„*“ a milled slot wider than w₂ will ensure

clamp remains in line with workpiece. Clamp sides should not come into contact with slot wall during expansion. Channel and wedge supplied separately. If both parts are required please order them separately.

Order No.	Part	h ₁	h ₂	l ₁	w ₁	w ₂	w ₃	Spread max.
12131.W0001	Channel	6.4	3.6	508	6.1	5.3	6.4	6.7
12131.W0002	Channel	9.5	4.7	508	9.1	7.9	9.5	10.0
12131.W0004	Channel	12.7	5.6	508	12.3	10.4	12.7	13.2
12131.W0006	Channel	19.1	9.5	508	18.6	16.1	19.0	20.3
12131.W0008	Channel	25.4	12.7	508	24.8	20.8	25.4	26.9
12131.W0012	Channel	38.1	19.0	508	37.3	30.8	38.1	39.9
12131.W0016	Channel	50.8	25.4	508	49.7	41.2	50.8	53.0
12131.W0201	Wedge	-	-	508	6.1	-	-	-
12131.W0202	Wedge	-	-	508	9.1	-	-	-
12131.W0204	Wedge	-	-	508	12.3	-	-	-
12131.W0206	Wedge	-	-	508	18.6	-	-	-
12131.W0208	Wedge	-	-	508	24.8	-	-	-
12131.W0212	Wedge	-	-	508	37.3	-	-	-
12131.W0216	Wedge	-	-	508	49.7	-	-	-



12140

LOW PROFILE SIDE CLAMPING

Material

Channel: aluminium, anodised (7075-T6).
Wedge and screw: steel, hardened, blackened.

Technical Notes

Extra material on the clamp jaws can be machined away to suit the shape of your workpiece.
The specially designed steel wedge spreads

the clamp force uniformly across both sides of the clamp.

Tips

The locking plate should be used to machine the jaws, and removed after this process to enable workpiece clamping. When the clamp is used to machine flat faced parts, use the locking plates to machine the faces parallel.

Full clamping cannot be achieved if locking plate has not been removed.

Important Notes

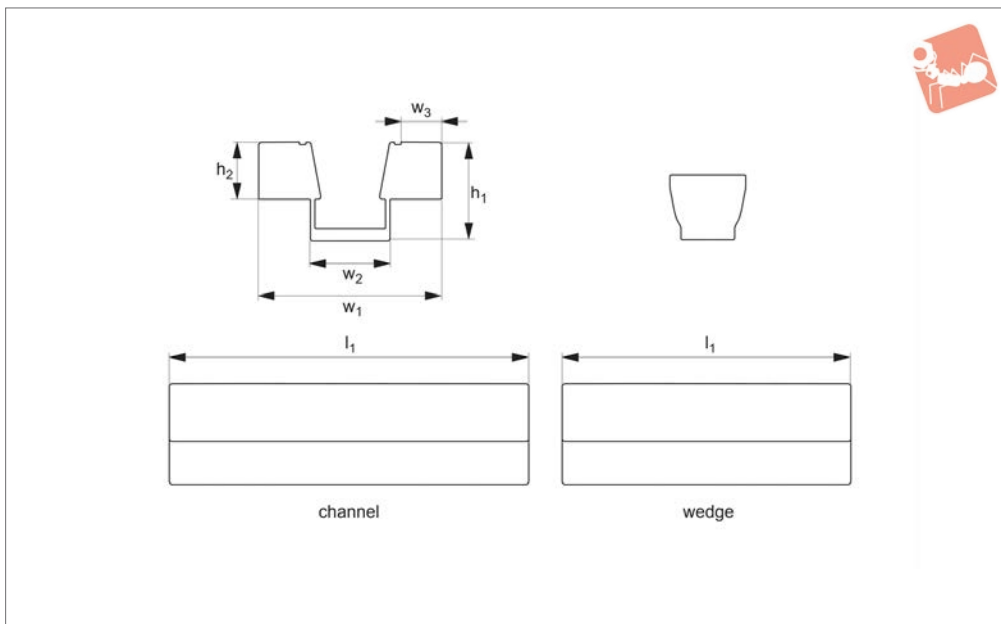
w_1 is the distance needed between workpieces for clamp clearance. Drill and tap mounting holes on the centre of this dimension.
 w_3 is the amount of machinable stock on the jaws.

Order No.	d_1	d_2	h_1	h_2	l_1	l_2	w_1	w_2	w_3	Torque to Nm max.	Holding force F kN	Weight g
12140.W0050	M 4	M 2	12.7	6.3	15.7	10.2	28.6	10.7	4.6	3.4	2.2	18
12140.W0075	M 6	M 4	19.1	9.4	23.9	15.9	38.1	16.1	6.6	13.5	6.6	25
12140.W0100	M 8	M 4	25.4	12.7	31.8	20.6	50.8	20.8	9.9	25.0	11.1	13
12140.W0150	M12	M 5	38.1	19.1	47.5	30.5	76.2	30.9	15.7	38.4	15.5	93
12140.W0200	M16	M 6	50.8	25.4	63.5	41.3	101.6	41.3	20.3	74.6	26.7	1000





12145



Material

Channel: aluminium, anodised (7075-T6).
Wedge: steel.

Technical Notes

The specially designed steel wedge spreads the clamp force uniformly across both sides of the clamp.
Channel supplied with 4 mounting screws.

Wedge supplied with 3 drive bolts.

Tips

Standard length of 190mm supplied to allow machining to your own requirements.

Important Notes

w_1 is the distance needed between work-

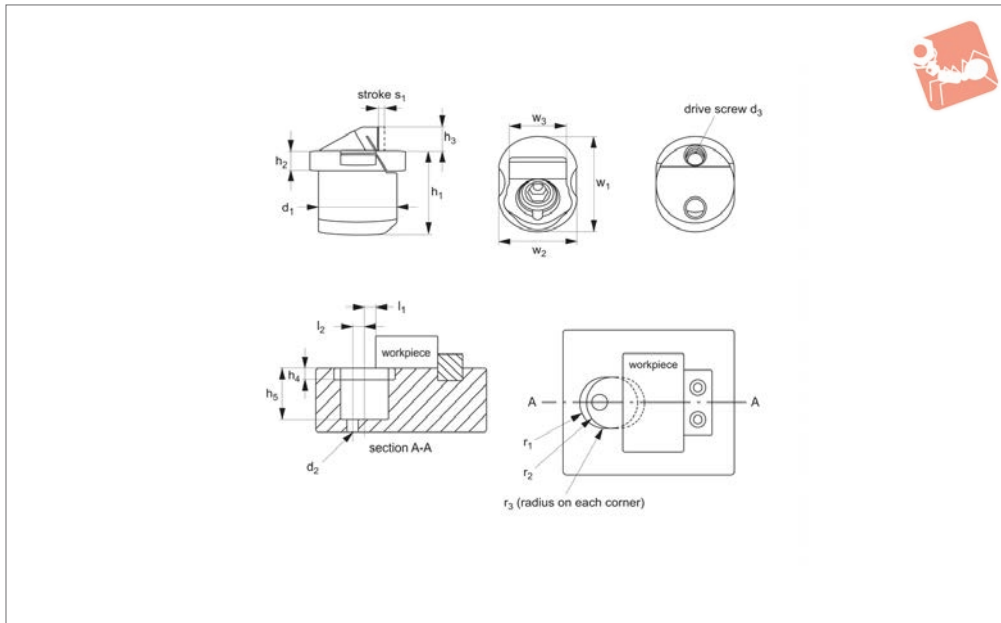
pieces for clamp clearance. Drill and tap mounting holes on the centre of this dimension.

w_3 is the amount of machinable stock on the jaws.

Channel and wedge supplied separately. If both parts are required please order them separately.

Order No.	Part	h_1	h_2	l_1	w_1	w_2	w_3	Screw	Torque to Nm max.	Holding force kN	Weight g
12145.W0550	Channel	12.7	6.3	190	28.6	10.67	4.6	M 2	3.4	2.2	91
12145.W0575	Channel	19.1	9.4	190	38.1	16.05	6.6	M 4	14.6	6.6	172
12145.W0600	Channel	25.4	12.7	190	50.8	20.83	9.9	M 4	14.1	8.9	299
12145.W0650	Channel	38.1	19.1	190	76.2	30.86	15.7	M 5	38.4	15.5	376
12145.W0850	Wedge	-	-	190	28.6	-	-	M 4	-	-	114
12145.W0875	Wedge	-	-	190	38.1	-	-	M 6	-	-	231
12145.W0900	Wedge	-	-	190	50.8	-	-	M 8	-	-	403
12145.W0950	Wedge	-	-	190	76.2	-	-	M12	-	-	874





12010

LOW PROFILE SIDE CLAMPING

Material

Stainless steel (17-4 PH, AISI 630).
Smooth faced jaws (34 HRC), serrated jaws (44 HRC).

Technical Notes

Very low profile, compact design, strong clamping. With smooth or serrated faces. The clamp jaw slides on an angle for positive downhold force - the down force is approx. 25% of the holding force.

The support surface of the clamp is wire-cut to ensure accurate positioning.

Tips

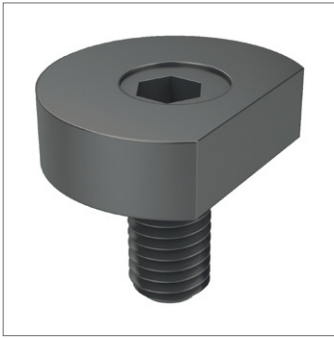
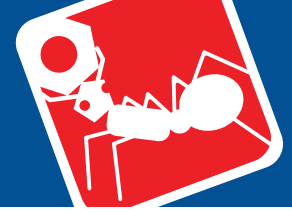
The support surface of the clamp can be installed flush with the fixture plate or raised to allow through drilling. Often used in conjunction with our Talongrips, part no. 12034.

Important Notes

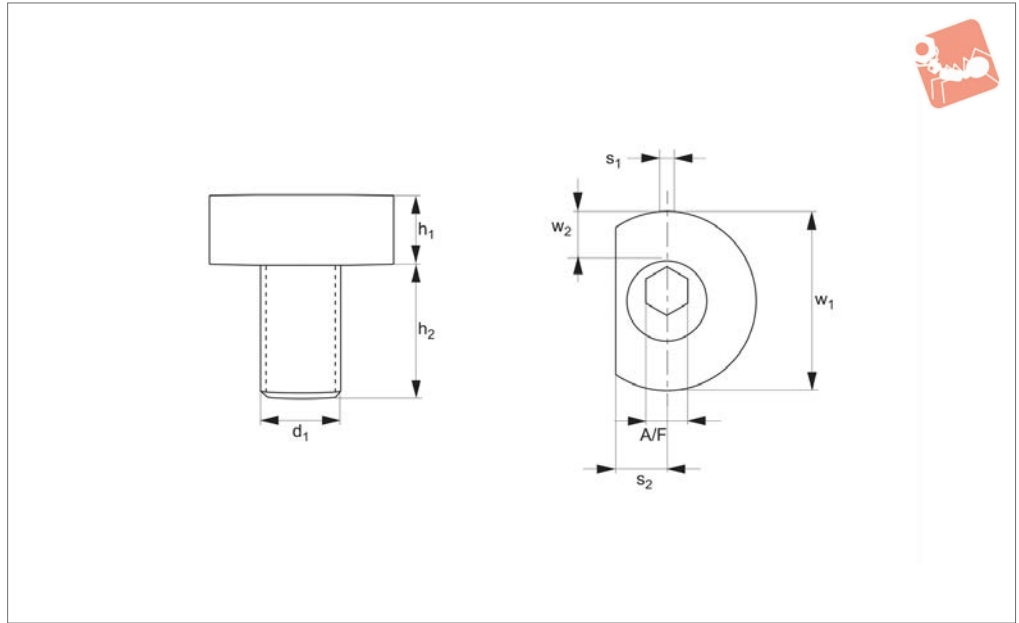
1. Bore installation hole d_1 , with a centre-line at distance l_1 (tol. M8) from edge of workpiece.
2. Drill and tap „ d_2 “ to mount the clamp in the pocket.
3. Machine counterbore „ h_4 “ if recessing the clamp into the fixture.
4. Provide a back stop to locate the part.

Order No.	Jaw type	d_1	d_2	Drive screw d_3	h_1	h_2	h_3 min.	h_3 opt.	h_3 max.	h_4	h_5 +0.1 -0.1	l_1 +0.1 -0.1	l_2	r_1 +0.1 -0.0	Weight g
12010.W0014	Smooth	20	M 5	M 6x12	19.0	4.5	3.3	5.0	6.8	4.5	20	4.9	5.0	25	54
12010.W0018	Serrated	20	M 5	M 6x12	19.0	4.5	3.3	5.0	6.8	4.5	20	4.9	5.0	25	54
12010.W0020	Smooth	25	M 6	M 8x16	24.0	5.0	4.5	6.5	8.3	5.0	25	5.6	6.0	30	100
12010.W0022	Serrated	25	M 6	M 8x16	24.0	5.0	4.5	6.5	8.3	5.0	25	5.6	6.0	30	100
12010.W0024	Smooth	30	M 8	M10x18	29.0	7.0	4.5	7.5	10.8	7.0	30	7.1	7.5	38	159
12010.W0028	Serrated	30	M 8	M10x18	29.0	7.0	4.5	7.5	10.8	7.0	30	7.1	7.5	38	159

Order No.	r_2 +0.1 -0.0	R_3	Stroke s_1	w_1	w_2	w_3	Torque to Nm max.	Key size A/F	Holding force kN
12010.W0014	20	6.0	2.0	24.9	19.9	13.5	10	5	8.8
12010.W0018	20	6.0	2.0	24.9	19.9	13.5	10	5	8.8
12010.W0020	25	6.5	2.2	29.9	24.9	15.0	24	6	11.5
12010.W0022	25	6.5	2.2	29.9	24.9	15.0	24	6	11.5
12010.W0024	30	8.0	3.8	37.9	29.9	20.0	42	8	14.2
12010.W0028	30	8.0	3.8	37.9	29.9	20.0	42	8	14.2



12020



Material

Steel, mild.

Technical Notes

Used to machine and hold irregular or round parts.

Dimension „w₂“ is the amount of machinable stock. Dimension „s₂“ is the distance to drill and tap hole from edge of workpiece to use flat face.

Tips

Suitable for holding flat, round or irregular shaped workpieces, the mild steel washer

can easily be machined to match the profile of a component.

Supplied with cam screws, and one machining screw to hold clamp during machining of clamp face to fit profile of the component.

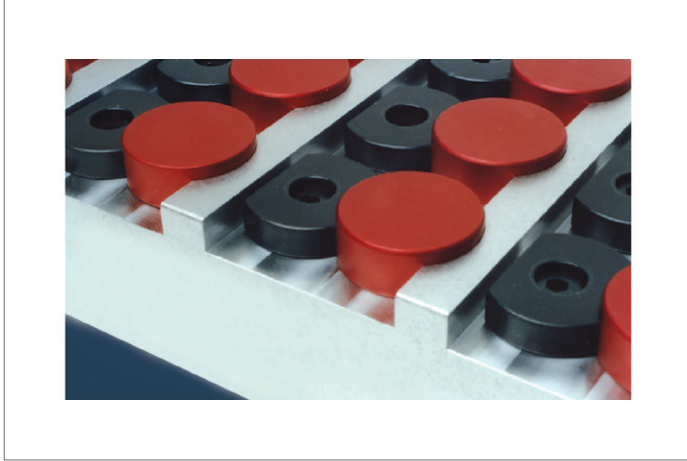
Important Notes

1. Drill and tap hole in required location, refer to dimension „s₂“ if using the clamp flat face.
2. Clear drill 1,5mm deep.
3. Using the special machining screw

supplied (identifiable by NOT having a cam action), insert and tighten the steel washer.

4. Machine the washer to conform with profile of the workpiece.
5. Exchange the machining screw for a cam screw, load the component and clamp with cam screw.
6. CAUTION: Never assume clamp is tight, always check the tightened clamp prior to machining.

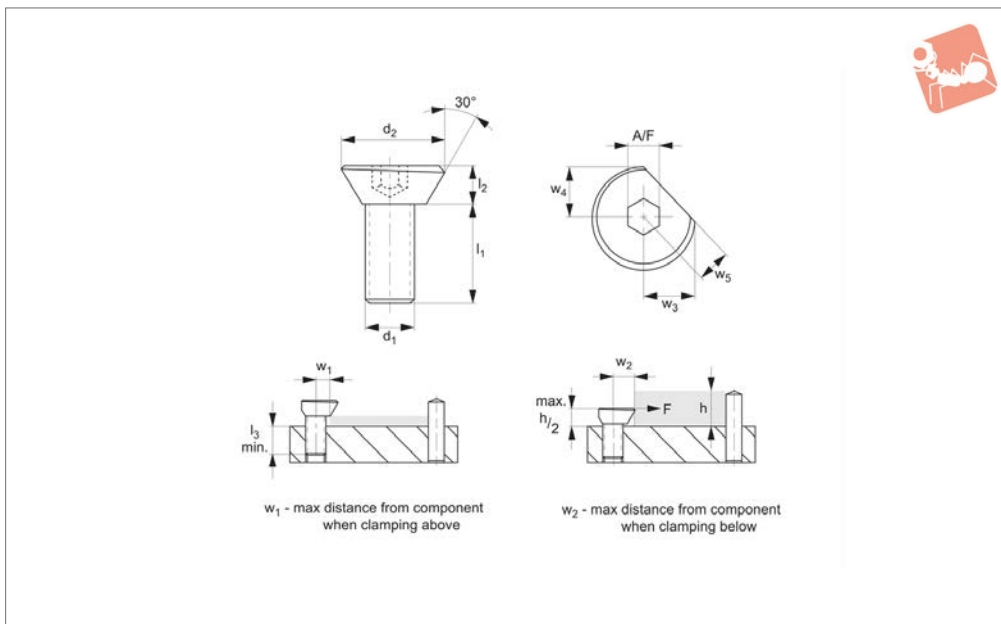
Order No.	d ₁	h ₁	h ₂	Clamping force kN max.	Stroke s ₁	Stroke s ₂	w ₁	w ₂	A/F	Torque to Nm max.	Qty/pack	Weight g
12020.W0006	M 6	6.4	11.9	3.4	1.0	7.8	24.9	6.4	4	8.5	4	100
12020.W0010	M10	8.9	18.0	8.9	1.5	10.2	31.2	7.0	7	28.0	4	236
12020.W0012	M12	11.4	22.9	17.8	2.0	12.7	37.6	7.6	8	88.0	4	435
12020.W0016	M16	14.0	28.6	26.7	2.5	15.0	43.9	8.9	12	135.0	4	748



LOW PROFILE SIDE CLAMPING



12111



Material

Steel, hardened and blue zinc coated.

Technical Notes

Single piece clamping screw. Unique eccentric side profile of the clamp ensures

both downhold and side clamping action.

„ w_1 “ = max. distance from component when clamping above component surface.

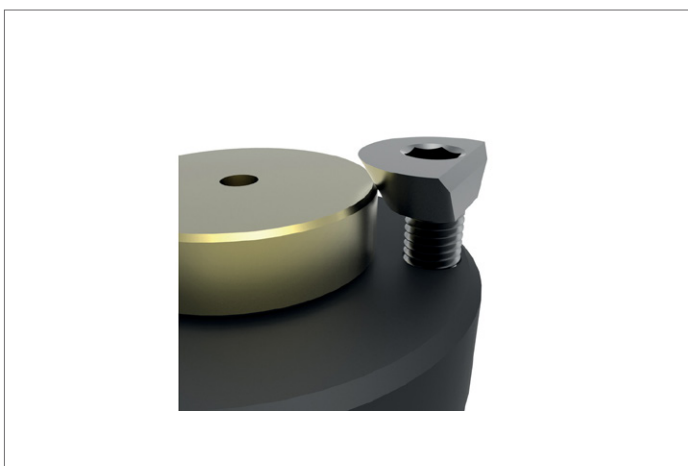
„ w_2 “ = max. distance from component when clamping below component surface.

„ h “ - workpiece height.

„ l_3 “ - min. suggested thread engagement.

Clamping stroke achieved via 120° turn of clamping screw.

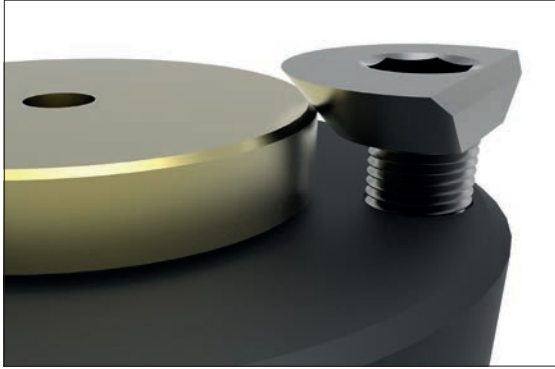
Order No.	d_1	d_2	l_1	l_2	l_3 min.	w_1	$w_2 \pm 0.2$	w_3	w_4	w_5	A/F	Torque to Nm max.	Holding force F kN	Weight g
12111.W0003	M 3	6.7	6	2	3	3.0	3.2	3.5	2.9	2.2	2.0	1.0	0.05	0.57
12111.W0004	M 4	8.7	8	3	4	3.5	4.2	4.6	4.0	3.0	2.5	1.5	0.09	1.43
12111.W0005	M 5	10.9	10	4	5	4.2	5.2	5.7	5.0	3.5	3.0	2.0	0.10	2.84
12111.W0006	M 6	13.5	12	5	6	5.4	6.4	7.1	6.1	4.5	4.0	4.5	0.30	4.95
12111.W0008	M 8	16.9	16	6	8	6.6	8.0	8.9	7.7	5.5	5.0	20.0	2.70	9.10
12111.W0010	M10	20.9	20	7	10	8.3	9.8	11.1	9.4	6.5	6.0	30.0	4.00	17.0
12111.W0012	M12	26.1	24	9	12	10.1	12.0	13.5	11.6	8.0	8.0	44.0	5.40	31.0





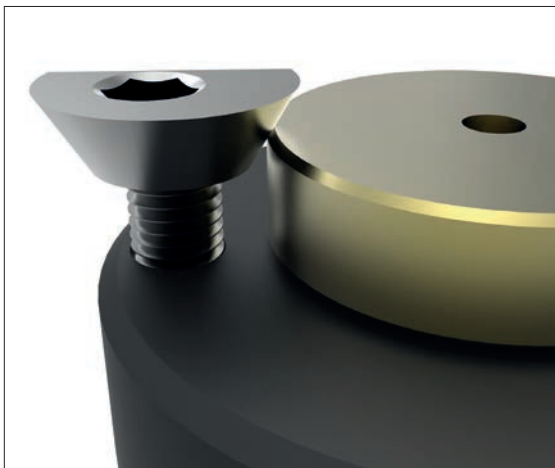
A unique one-piece eccentric pull down clamping screw with compact design is an ideal solution for providing both pull down and side clamping forces in applications where space is limited. Our eccentric Pull Down Clamping Screw, uniquely combines a tapered cone and an offset eccentric thread to provide clamping above or below a component's surface.

Unique Solution



- Durable, stable, compact design.
- Unaffected by swarf ingress.
- Easily actuated.
- Effective pull down and side thrust clamping.
- High clamping force.
- Small installation footprint, ideal for multi-component clamping.
- Low height clamping solution.

Advantages



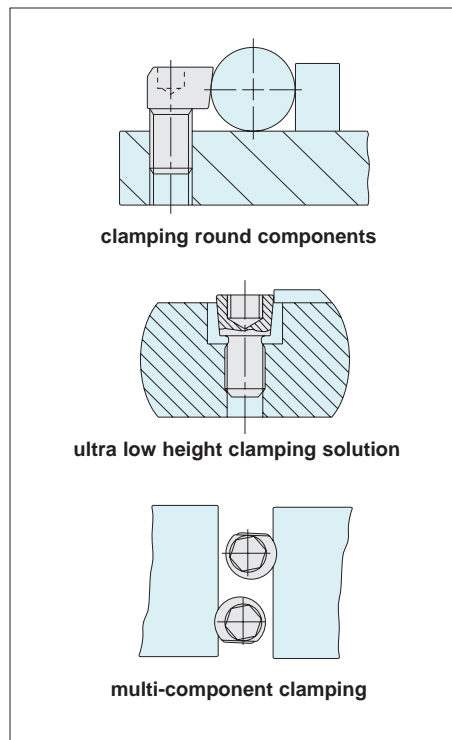
Clamping above component.



Clamping below component surface.

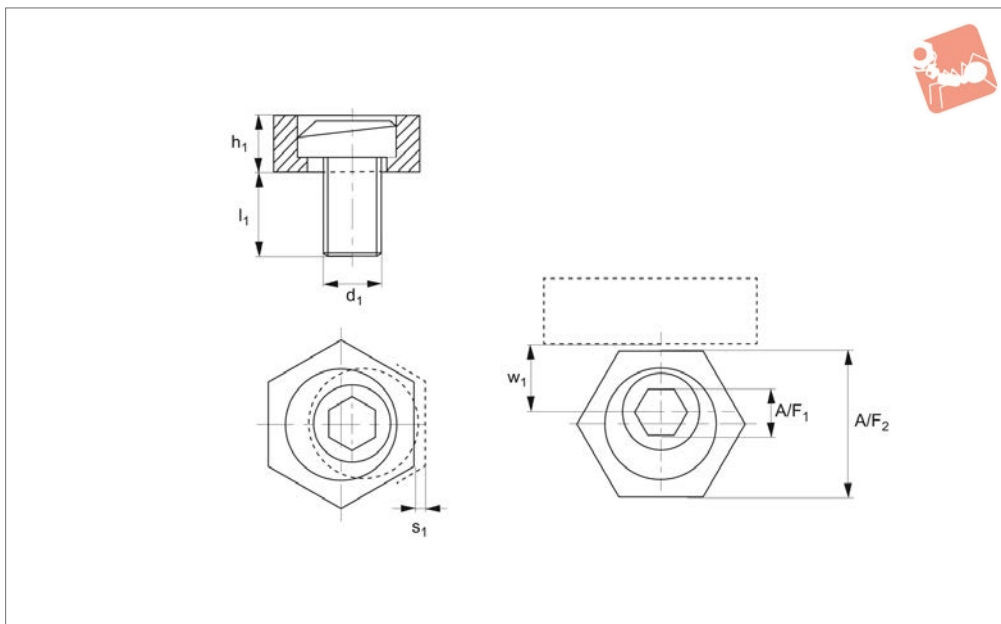
1. Drill and tap hole for required clamp size.
2. Install screw into the hole, and lower to the desired height of the component.
3. Ensure the flat side of the clamp is facing the workpiece - to allow for easy installation of component.
4. Once the clamping screw is installed, insert workpiece/ component.
5. Make a 120° turn of the screw to clamp the component.
6. A simple 120° reverse turn of the screw unclamps the component.

Installation





12112



Material

Hexagonal clamp: brass.
Screw: steel, hardened, strength class 10,9.

Technical Notes

Cam action provides fast, strong clamping.
Small size allows more parts per load.

Workpiece stop is on the right hand side of the clamp.

Tips

Clockwise rotation is recommended. The workpiece stop should be to the right of the clamp. Replacement cam screws are suitable for all clamp parts 12112, 12120,

12020 and 12150. For stainless steel version, see 12113.

Important Notes

w_1 - is the location to drill and tap from the edge of workpiece.

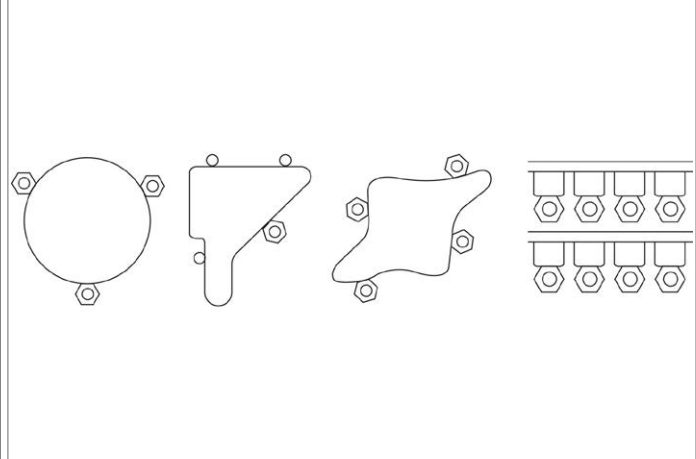
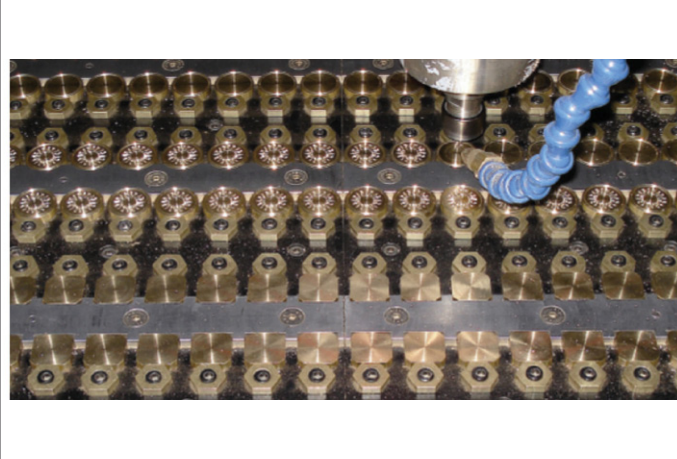
Order No.	Type	d_1	h_1	l_1	Clamping force kN	Stroke s_1	w_1	A/F_1	A/F_2	Torque to Nm max.	Qty/pack	Weight g
12112.W0004	Brass Clamp	M 4x0,7	2.80	9.6	0.9	0.76	3.8	3	7.93	2.5	10	3.0
12112.W0006	Brass Clamp	M 6x1	4.75	11.2	3.5	1.01	7.8	4	15.86	10.0	10	11.0
12112.W0008	Brass Clamp	M 8x1,25	4.55	15.0	3.5	1.01	10.2	5	20.60	18.0	12	18.0
12112.W0010	Brass Clamp	M10x1,5	6.35	19.0	8.8	1.27	10.2	7	20.60	26.0	10	27.0
12112.W0012	Brass Clamp	M12x1,75	9.52	22.8	17.7	2.03	12.7	8	25.38	75.0	8	53.0
12112.W0016	Brass Clamp	M16x2	12.70	28.5	26.6	2.54	15.0	12	30.13	120.0	4	103.0
12112.W0504	Replacement Screw	M 4x0,7	-	-	-	-	-	-	-	-	-	-
12112.W0506	Replacement Screw	M 6x1	-	-	-	-	-	-	-	-	-	-
12112.W0508	Replacement Screw	M 8x1,25	-	-	-	-	-	-	-	-	-	-
12112.W0510	Replacement Screw	M10x1,5	-	-	-	-	-	-	-	-	-	-
12112.W0512	Replacement Screw	M12x1.75	-	-	-	-	-	-	-	-	-	-
12112.W0516	Replacement Screw	M16x2	-	-	-	-	-	-	-	-	-	-



Eccentric Fixture Clamps

low profile

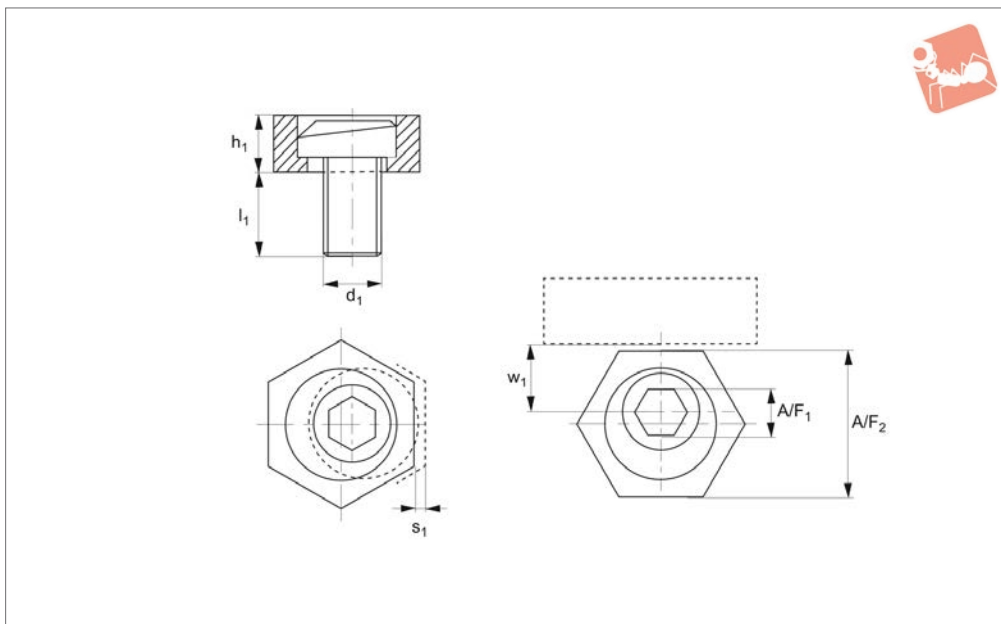
Low Profile Side Clamping



LOW PROFILE SIDE CLAMPING



12113



Material

Hexagonal clamp: stainless steel.
Eccentric clamp screw and washer: stainless steel.

Technical Notes

Clockwise rotation is recommended. Work-

piece stop is on the right hand side of the clamp. For non-stainless steel versions of 12112.

Tips

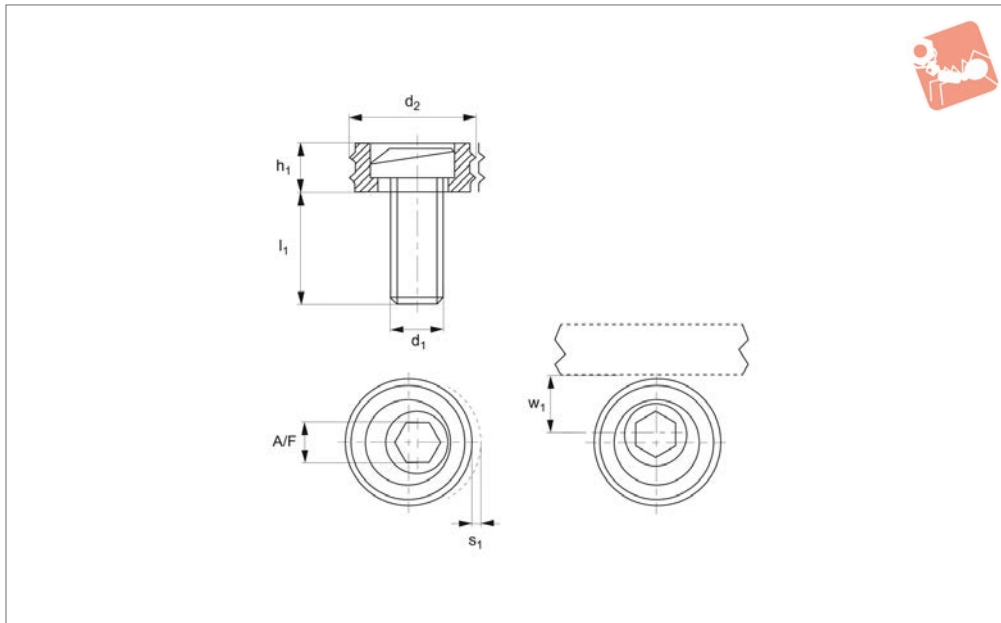
Compact size and fast, strong clamping allows maximum number of parts to be

clamped.

Important Notes

w_1 - is the location to drill and tap from the edge of workpiece.

Order No.	Type	d_1	h_1	l_1	Stroke s_1	w_1	A/F_1	A/F_2	Clamp force kN	Torque to Nm max.	Qty/pack	Weight g
12113.W0525	Stainless Screw	M 4 x 0,7	-	-	-	-	-	-	-	-	4	-
12113.W0205	Stainless Clamp	M 4x0,7	2.80	9.6	0.76	3.80	3	7.93	0.9	2.0	4	3.0
12113.W0206	Stainless Clamp	M 6x1	4.75	11.2	1.01	7.80	4	15.86	3.5	8.5	4	11.0
12113.W0208	Stainless Clamp	M 8x1,25	6.35	15.0	1.01	10.20	5	20.60	3.5	11.3	4	18.0
12113.W0526	Stainless Screw	M 6x1	-	-	-	-	-	-	-	-	4	-
12113.W0528	Stainless Screw	M 8x1,25	-	-	-	-	-	-	-	-	4	-



12120

LOW PROFILE SIDE CLAMPING

Material

Ribbed face steel, hardened and plated.
Screw steel hardened, strength class 10,9.

Technical Notes

For clamping workpieces with uneven

surfaces, this clamp provides serrations to help the clamp grip the workpiece.

Tips

Clockwise rotation is recommended. The workpiece should be to the right of the

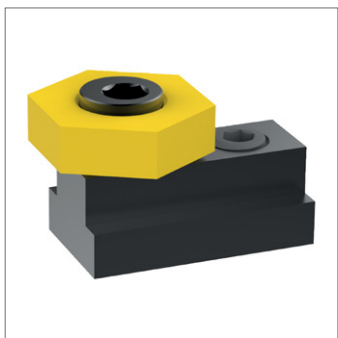
clamp. For replacement cam screws see parts 12112.

Important Notes

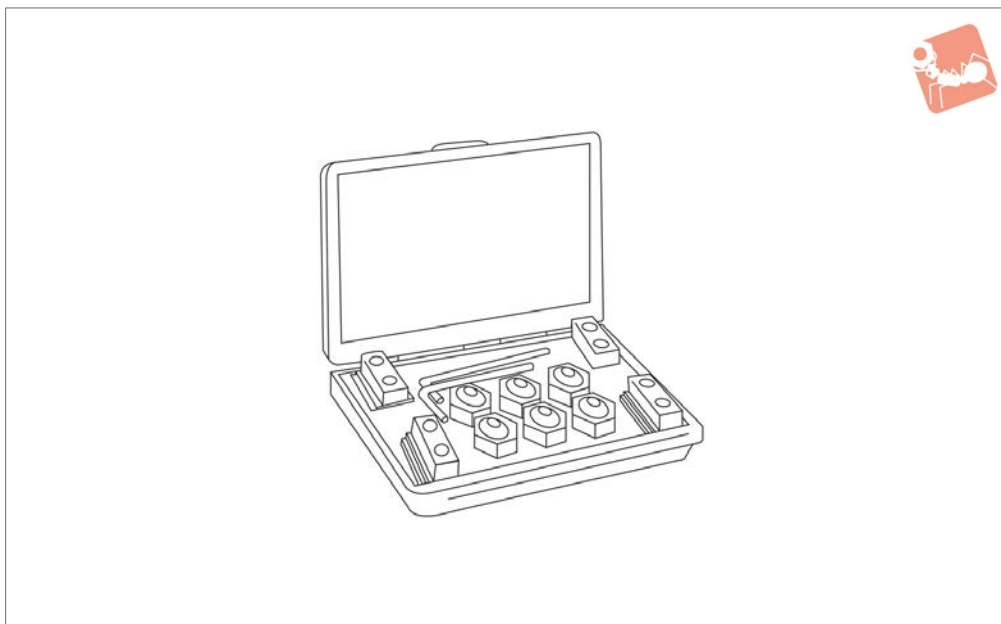
w_1 is distance to drill and tap from edge of workpiece.

Order No.	d_1	d_2	h_1	l_1	Clamping force kN	Stroke s_1	w_1	A/F	Torque to Nm max.	Qty/pack	Weight g
12120.W0020	M10x1,5	20.60	6.35	19.0	8.8	1.22	10.2	7	28	8	40
12120.W0025	M12x1,75	25.40	9.52	22.8	17.7	2.03	12.7	8	88	8	45
12120.W0030	M16x2	30.15	12.70	28.5	26.6	2.54	15.0	12	135	4	90





12170



Material

Clamping kits comprising no.12150 clamps.

Please see no. 12150 for dimensions.

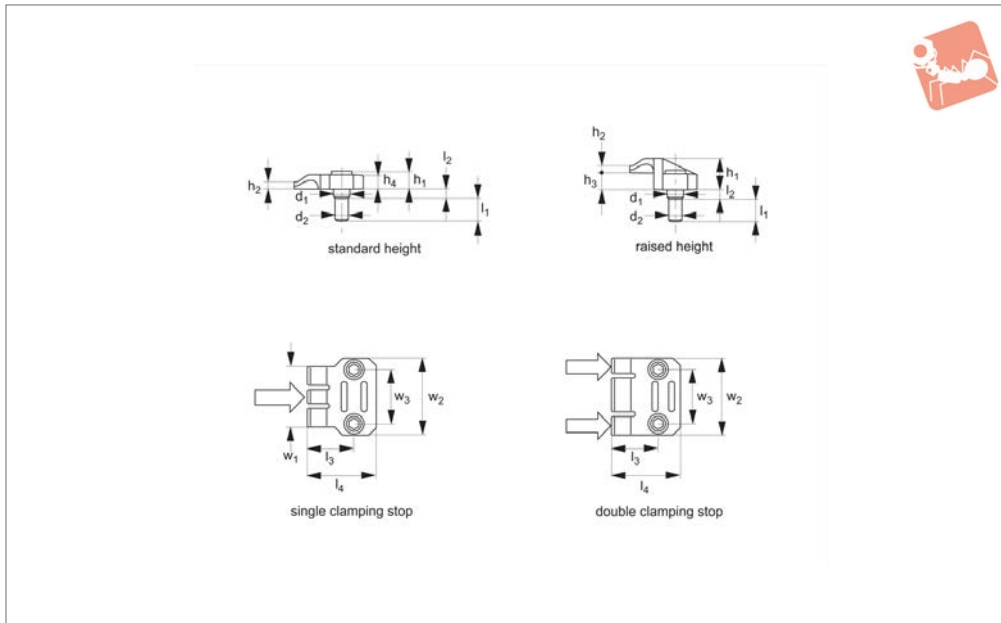
Order No.	Slot size	Contents
12170.W0008	8	6 Clamps (12150.W0008), 4 T-nuts, 2 Hex keys
12170.W0010	10	6 Clamps (12150.W0010), 4 T-nuts, 2 Hex keys
12170.W0012	12	6 Clamps (12150.W0012), 4 T-nuts, 2 Hex keys
12170.W0014	14	6 Clamps (12150.W0014), 4 T-nuts, 2 Hex keys
12170.W0016	16	6 Clamps (12150.W0016), 4 T-nuts, 2 Hex keys
12170.W0018	18	6 Clamps (12150.W0018), 4 T-nuts, 2 Hex keys
12170.W0020	20	6 Clamps (12150.W0020), 4 T-nuts, 2 Hex keys
12170.W0022	22	6 Clamps (12150.W0022), 4 T-nuts, 2 Hex keys



Fixed Mini Finger Clamp Stops

single or double point

Low Profile Side Clamping



10900

LOW PROFILE SIDE CLAMPING

Material

Spring steel.

Technical Notes

Fixed in place with special screws allowing

the precise location and re-positioning of parts.

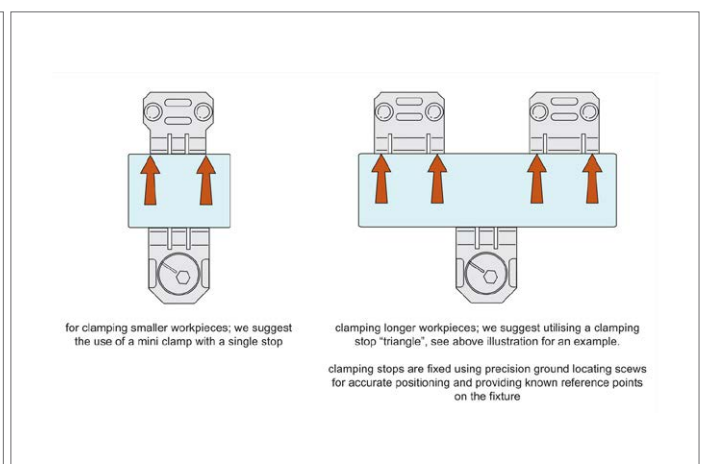
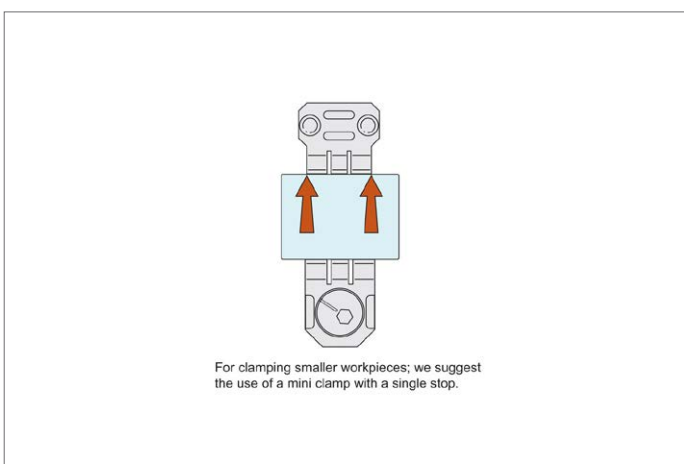
Tips

Single or double version stops.

Use double clamping stop version on long, slender or flexible parts.

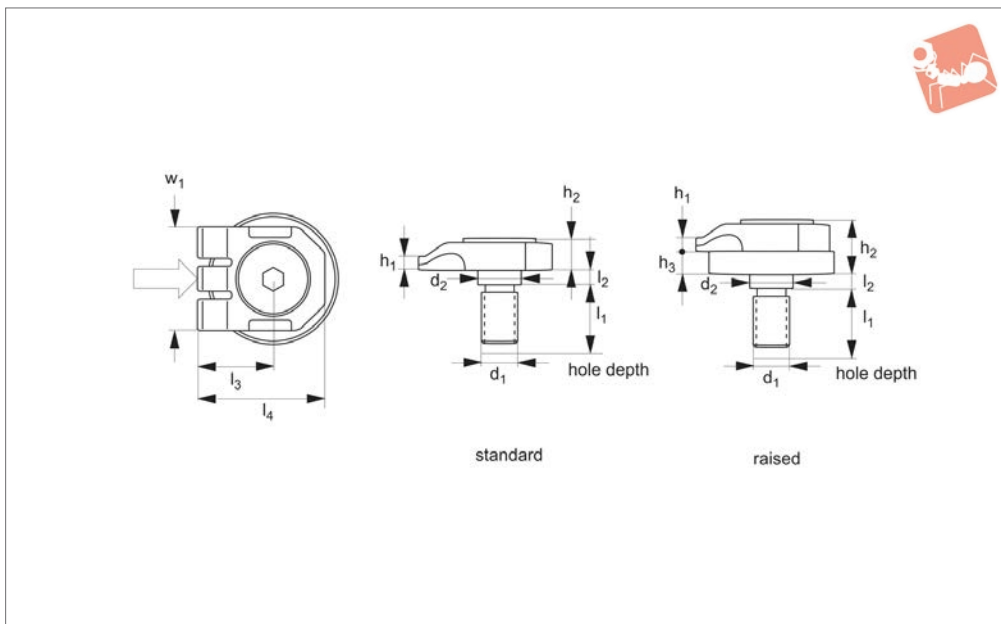
Use if possible with our mini finger clamp, part no. 10940.

Order No.	Type	Clamp height	h_1	h_2	h_3	h_4	l_1	l_2	l_3	l_4	w_1	w_2	w_3 ± 0.01	d_1	d_2 tol. H7
10900.W0105	Single - standard	2.5	6.5	2.5	-	5	12	3.5	15	22	20	25	18	M 4	4.2
10900.W0110	Double - standard	2.5	6.5	2.5	-	5	12	3.5	15	22	-	25	18	M 4	4.2
10900.W0115	Single - raised	7.5	10	2.5	5	-	12	3.5	15	22	20	25	18	M 4	4.2
10900.W0120	Double - raised	7.5	10	2.5	5	-	12	3.5	15	22	-	25	18	M 4	4.2





10920



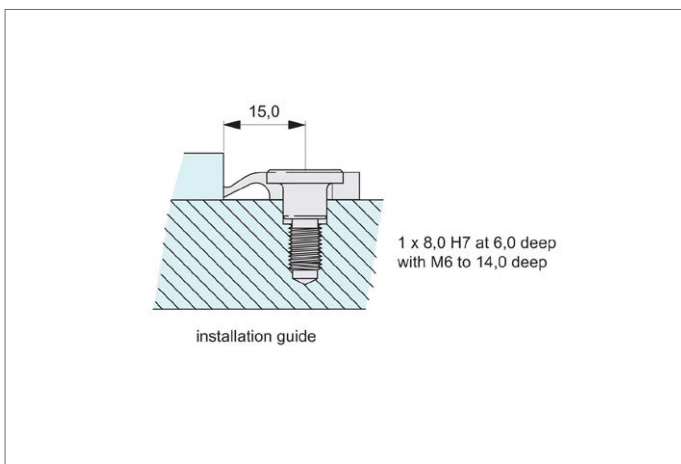
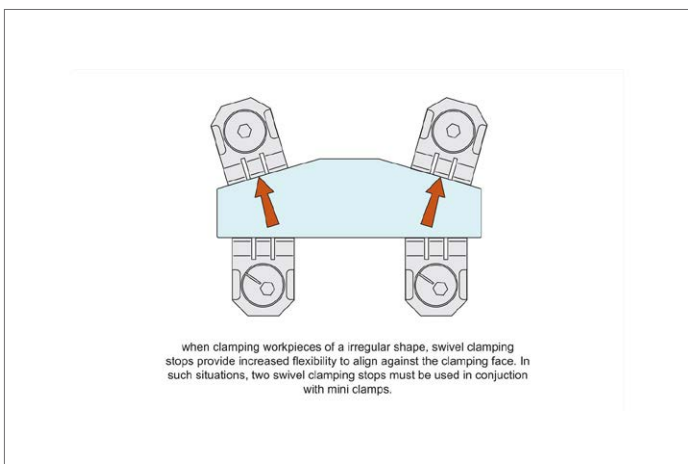
Material
Spring steel.

allowing the precise location and re-positioning of parts.

Technical Notes
Fixed in place with special locking screws

Tips
Use with our mini clamp, part no. 10940.

Order No.	Type	Grip height	h_1	h_2	h_3	l_1	l_2	l_3	l_4	w_1	d_1	d_2 tol. H7
10920.W0125	Standard	2.5	2.5	5	-	14	6	15	25	20	M 6	8
10920.W0130	Raised	7.5	2.5	10	5	14	6	15	25	20	M 6	8

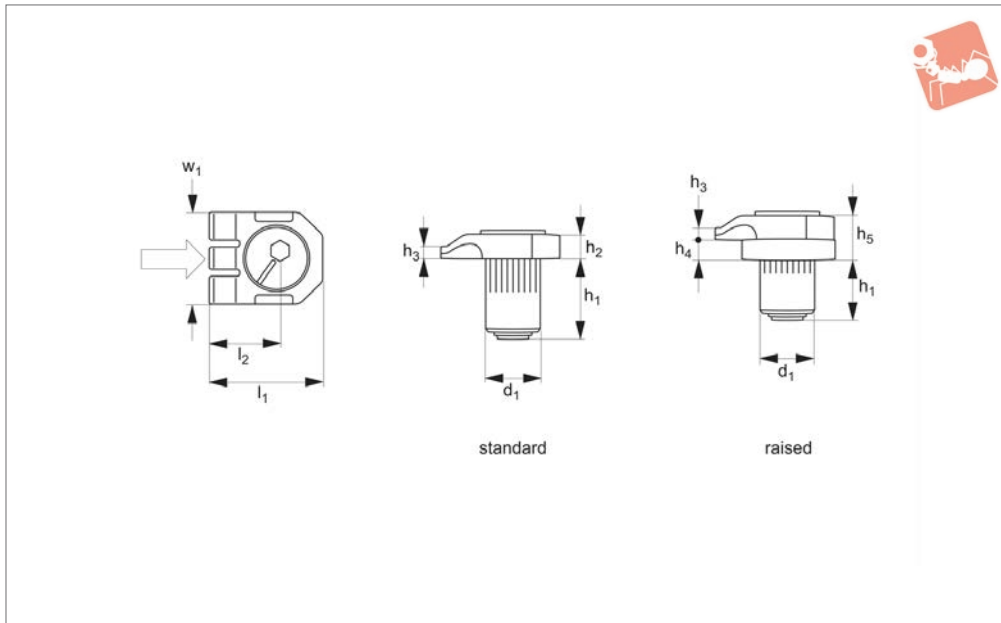




Mini Finger Clamps

up to 4000 N

Low Profile Side Clamping



10940

LOW PROFILE SIDE CLAMPING

Material

Spring steel.

Technical Notes

Simple, very heavy-duty, low profile clamping. A quarter turn of the clamping screw generates up to 4000 N clamping force.

They have a swivel facility to allow clamping in any direction.

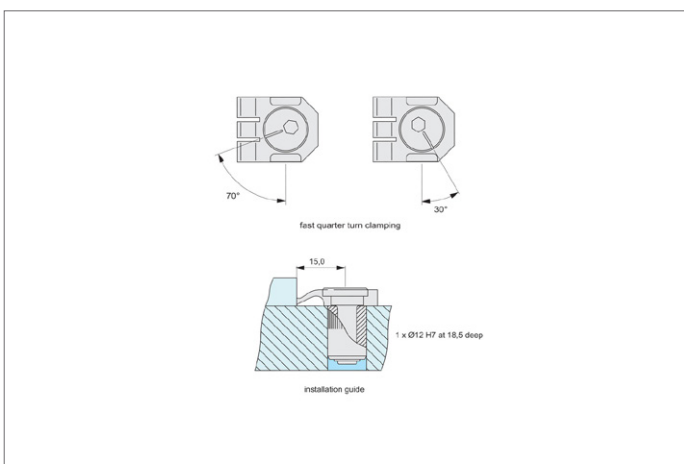
Tips

The clamps have unique „fingers“ that push the workpiece down before clamping - even on castings with a negative draft.

Important Notes

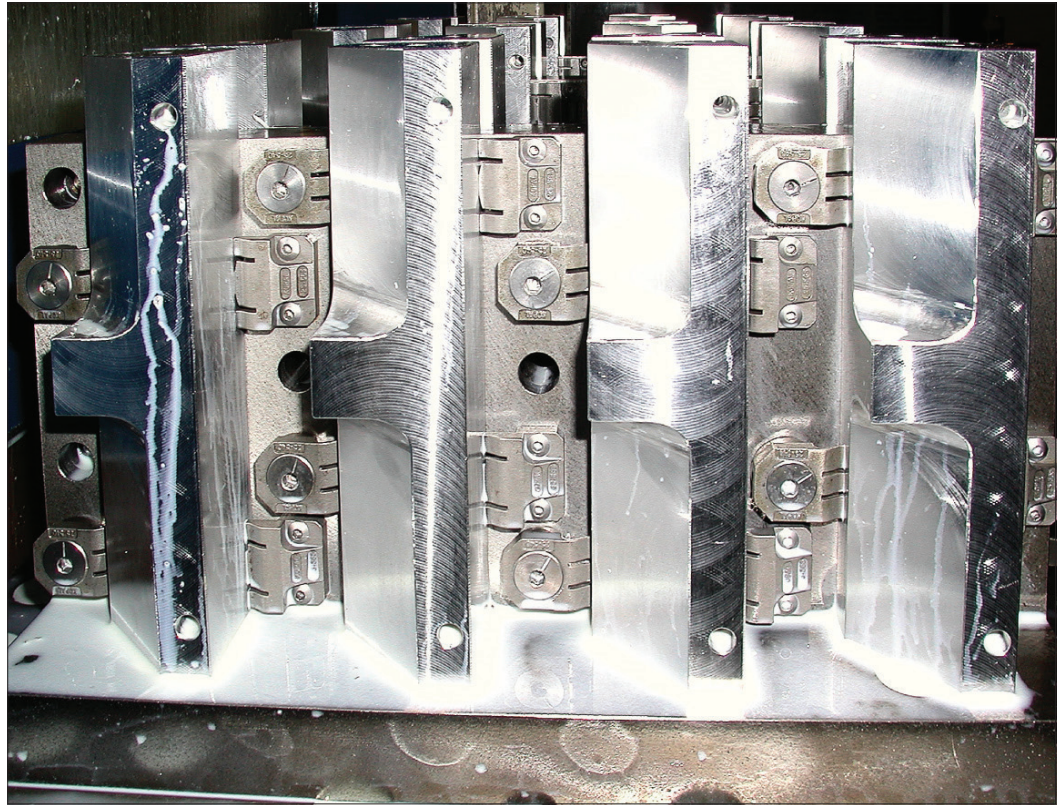
These clamps achieve a positive downforce on both faces of the workpiece when used in conjunction with fixed stop, part nos. 10900 or 10920.

Order No.	Type	Clamp height	Clamp stroke	h_1	h_2	h_3	h_4	h_5	l_1	l_2	w_1	d_1	Torque to Nm max.	Clamping force kN max.
10940.W0210	Standard	2.5	1.2	18	5	2.5	-	-	25	15	20	12	9	4
10940.W0215	Raised	7.5	1.2	18	-	2.5	5	10	25	15	20	12	9	4





Application



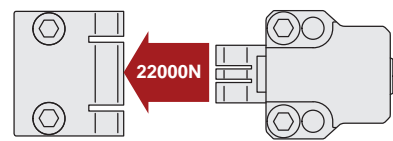
LOW PROFILE SIDE CLAMPING

Unique Horizontal Clamping Set-Ups

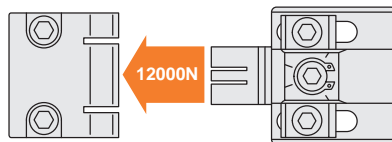
Part No. 10900, 10920, 10940
T-slot table and special machining set-ups



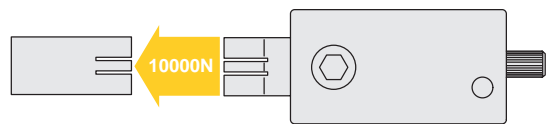
Part No. 11040, 11041, 11042, 11043
Supports and special machining set-ups



Part No. 11070, 11071
Supports and special machining set-ups



Part No. 11080, 11081, 11083
T-slot table, supports and special machining set-ups



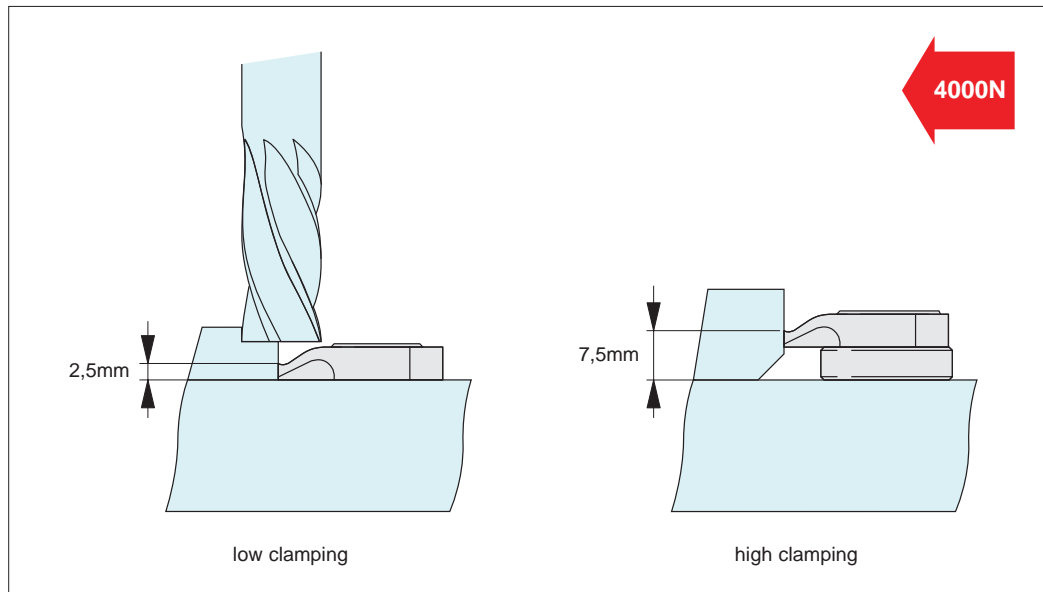


Mini Finger Clamps

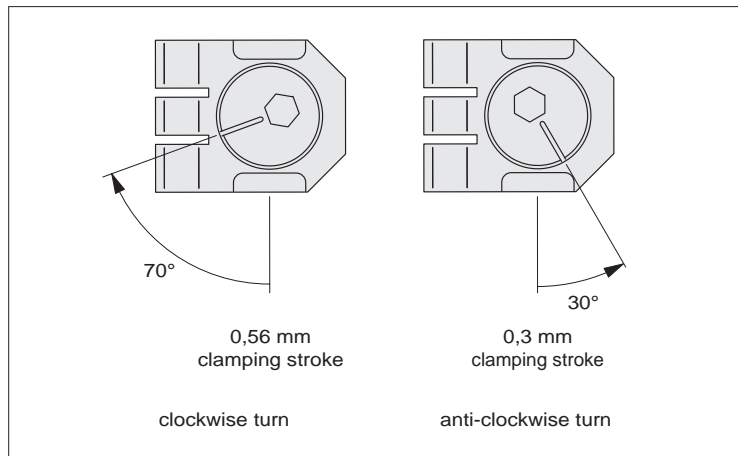
one of the most powerful clamps for its size

10900 - 10940
Clamping & Height Setting

Mini finger clamps operate using our unique “three finger” clamping action – providing unmatched levels of pull down force and side clamping, for maximum component stability during machining.

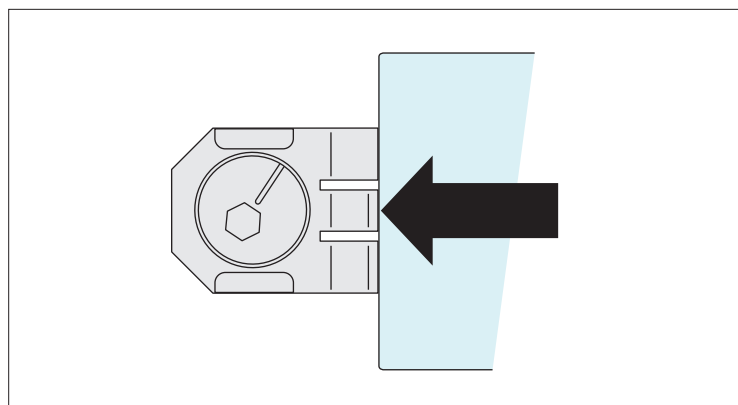


With a height of less than 6mm and a length of just 20mm mini finger clamps are ideal for multi-component clamping, while maximising access of the tooling. The clamp body is made from spring steel and the eccentric and screw from heat-treated steel. For quick, precise and high clamping forces up to 4000 Newtons.



The finger clamps pivot around an eccentric axis, with clamping via either a right (30°) or left (70°) actuation of the eccentric screw.

Actuation



Mini finger clamps can position as well as clamp the workpiece – putting pressure against the stops and pulling the workpiece onto the reference surface in one motion. Often just a single mini clamp can achieve workpiece positioning and clamping against its stops.

Clamping

LOW PROFILE SIDE CLAMPING



Unique Action - "three finger" Clamping

Pull down AND clamp with the highest of clamping forces – from 0,4 tons to 2,2 tons!

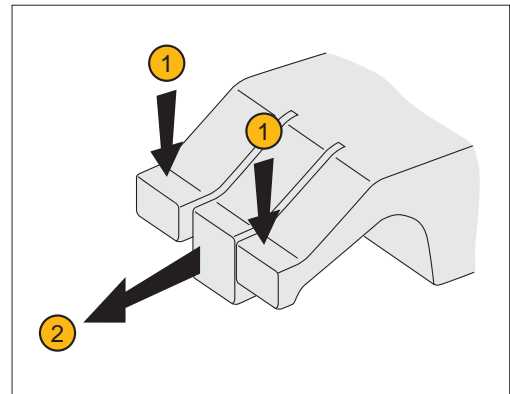
Used in our clamping series:

- 10900, 10940, 10880,
- 10920, 11040, 11041,
- 11042, 11043, 11070,
- 11071, 11080, 11081,
- 11082, 11083

Our horizontal clamps have a unique "three finger" arrangement ensuring components are both pulled down and clamped in the same motion. The face of the clamp is made of three parts or "fingers":

- Two outer flexible fingers (1); for pulling down the component to the work table.
- One solid central finger (2), to provide direct clamping action.

Available in two styles – smooth and serrated face. They can also cater for workpieces with an adverse angle on the clamping face – for example flame cut steel blanks.

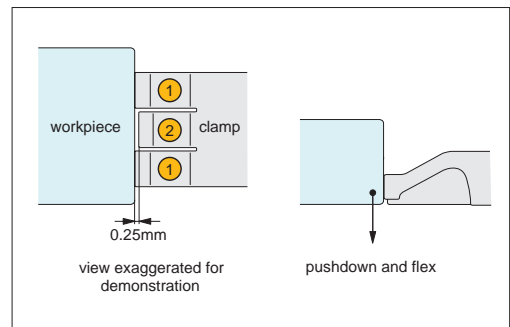


Clamping Action

Contact

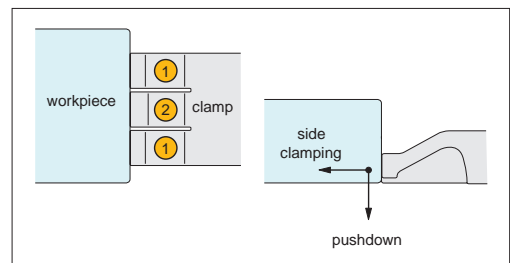
The clamps outer flexible fingers (1) are approx. 0,25mm longer than the solid central finger/clamping stop (2), this slight difference in length means it is the flexible fingers which first come into contact with the workpiece.

As initial contact is made with the work-piece the flexible fingers (1) apply downward pressure forcing the workpiece down against the work table, the flexible fingers are compressed until they are the same length as the solid central finger/clamping stop (2).



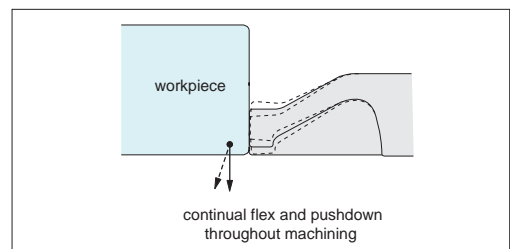
Clamping

As the solid central finger/clamping stop (2) comes into contact with the work-piece it applies high side clamping pressure to achieve clamping forces up to 2,2 tons (dependent upon clamping model selected).



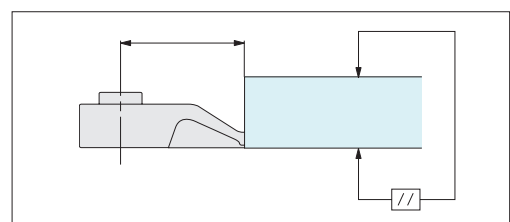
Machining

During machining the uniquely designed flexible fingers (1) continue to flex and twist applying downward pressure to keep the workpiece flat to the work table throughout.



Precision Positioning

The unique clamping action achieves precision positioning of workpieces – ensuring the workpiece remains parallel to the reference surface.





Horizontal Clamping

up to 2.2 tons



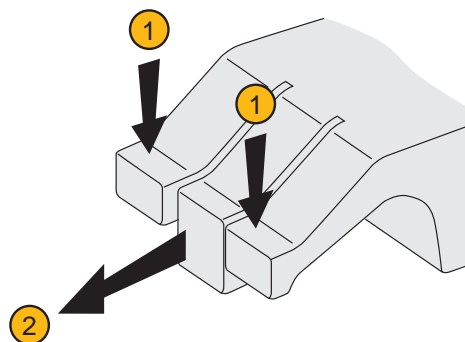
Clamping & Height Setting

Unique Action - "three finger" Clamping

Our horizontal clamps have a unique "three finger" arrangement ensuring components are both pulled down and clamped in the same motion. The face of the clamp is made of three parts or "fingers":

- Two outer flexible fingers ①; for pulling down the component to the work table.
- One solid central finger ②, to provide direct clamping action.

Available in two styles – smooth and serrated face. They can also cater for workpieces with an adverse angle on the clamping face – for example flame cut steel blanks.



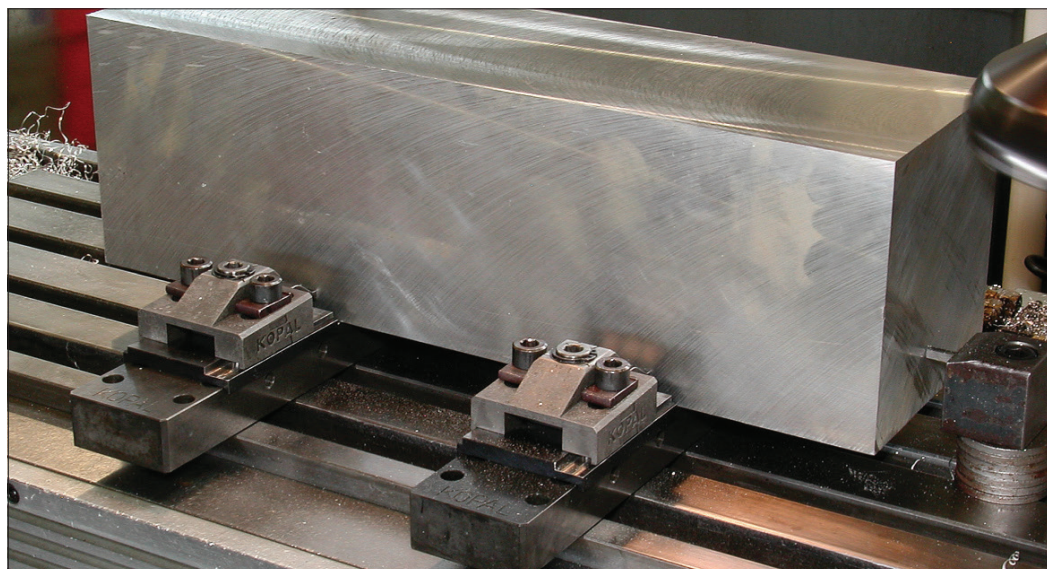
11040/41/42/43

22000N

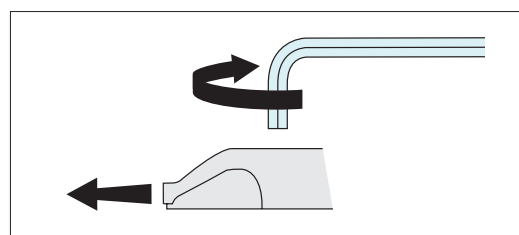
11070/71

12000N

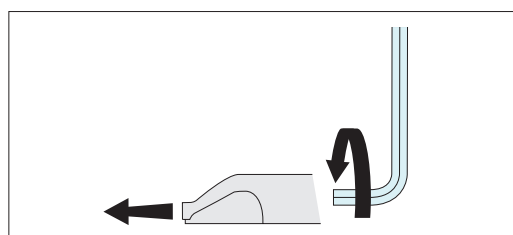
LOW PROFILE SIDE CLAMPING



Options

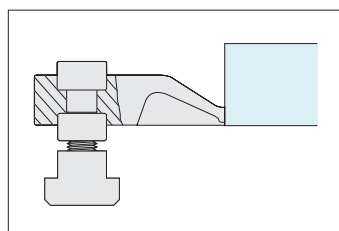


Quick 1/4 turn eccentric clamping – on models offering 4000 and 12000 Newtons clamping force.

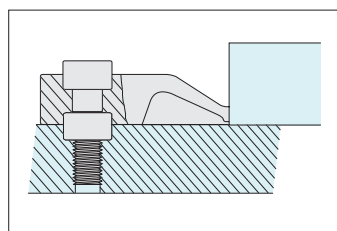


Rear screw clamping – on models offering 6500, 10000 and 22000 Newtons clamping force.

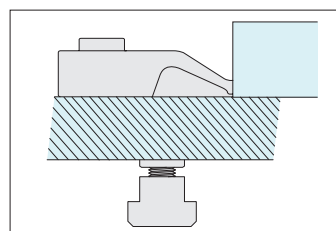
Actuation



T-Slotted tables



Dedicated fixturing

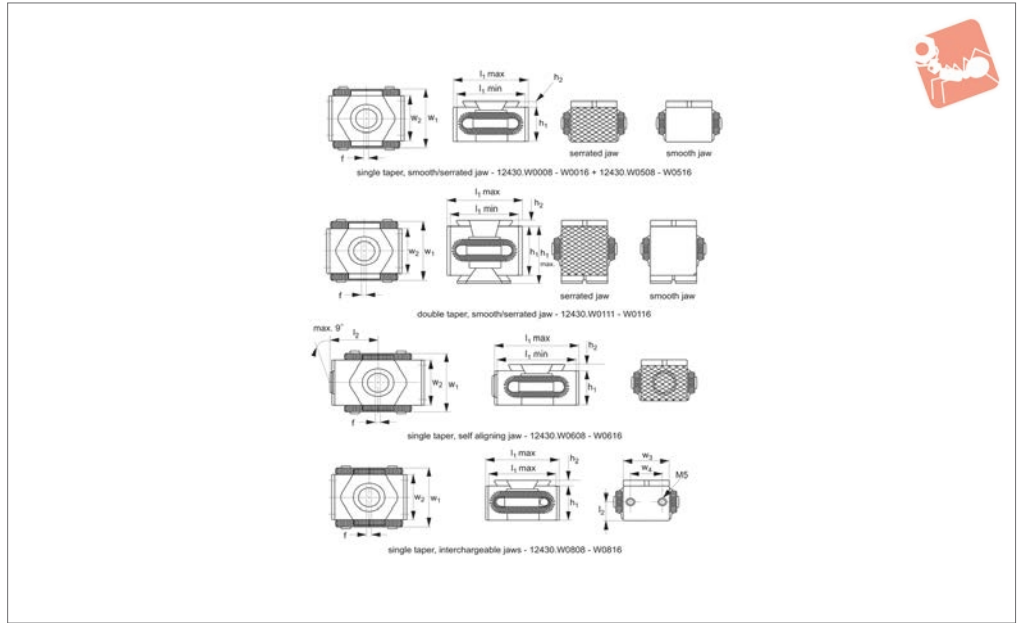


Modular fixturing

Mounting



12430



Material

Body: tool steel, hardened, bright.
Clamping segments: tool steel, hardened, ground and blackened.
Spring: steel, screw grade 12,9.

Technical Notes

Ideal for horizontal or vertical clamping of multiple parts. Tighten the socket head cap screw to move clamping segments outwards to press the workpiece(s) against a fixed stop. Can be mounted in a threaded

hole or T-slot.

„f*“ is the float around the clamping screw centre.

Tips

Double taper clamps provide higher clamping force.

Taper clamps with interchangeable jaws are ideal where short runs of different parts are required. Economies can be achieved through changing only the jaw, rather than the whole clamp.

Important Notes

Jaw Hardness-12430.W0008 to .W0116: 48-52 HRC.

12430.W0608 and .W0616: X=30-34, Y=48-52 HRC.

12430.W0508 to .W0516 and 12430.W808 to .W0816: 30-34 HRC.

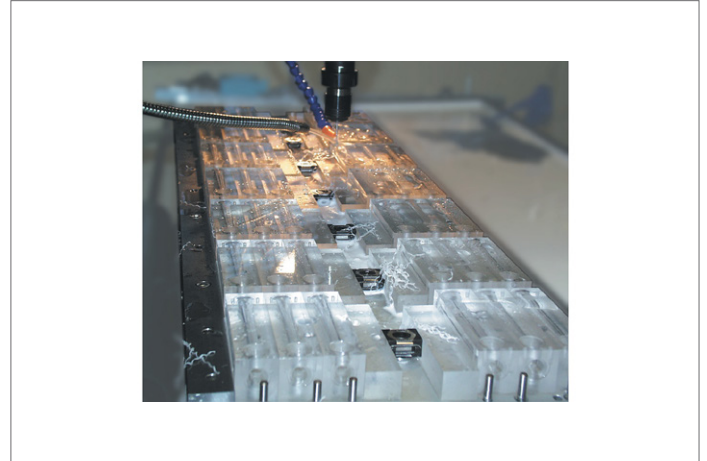
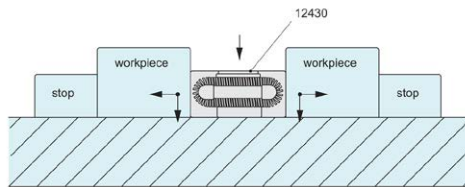
Taper surfaces ground, for increased precision.

Order No.	Taper	Jaw type	l_1 min.	l_1 max.	l_2	d_1	h_1	h_1 max.	h_2	w_1	w_2	w_3	w_4	f max.	Clamping force kN max.	Torque to Nm max.	Weight g
12430.W0008	Single	Smooth	27	31		M 8	15		2,5	29	21			1	20	44	55
12430.W0009	Single	Serrated	27	31		M 8	15		2,5	29	21			1	20	44	55
12430.W0011	Single	Smooth	42	49		M12	22		4,0	41	30			2	30	85	180
12430.W0012	Single	Serrated	42	49		M12	22		4,0	41	30			2	30	85	180
12430.W0015	Single	Smooth	57	64		M16	29		5,0	56	42			3	50	210	465
12430.W0016	Single	Serrated	57	65		M16	29		5,0	56	42			3	50	210	465
12430.W0111	Double	Smooth	41	48		M12	30	36	5,0	41	30			2	50	85	275
12430.W0112	Double	Serrated	42	49		M12	30	36	5,0	41	30			2	50	85	275
12430.W0115	Double	Smooth	58	66		M16	42	50	5,0	56	52			3	80	210	730
12430.W0116	Double	Serrated	58	66		M16	42	50	5,0	56	52			3	80	210	730
12430.W0508	Single	Machinable	33	37		M 8	15		2,5	29	21			1	20	44	70
12430.W0512	Single	Machinable	52	59		M12	22		4,0	41	30			2	30	85	235
12430.W0516	Single	Machinable	67	75		M16	29		5,0	56	42			3	60	210	550
12430.W0608	Single	Self-Aligning	33	37	19,5	M 8	15		2,5	29	21		21,5	1	20	44	64
12430.W0616	Single	Self-Aligning	52	59	31,0	M12	22		4,0	41	30		34,5	2	30	85	212
12430.W0808	Single	Interchange	33	37	7,5	M 8	15		2,5	29	21	21	12	1	20	44	60
12430.W0812	Single	Interchange	46	53	11	M12	22		4,0	41	30	28	18	2	30	85	200
12430.W0816	Single	Interchange	61	69	14,5	M16	29		5,0	56	42	40	26	3	60	210	480



Taper Clamps with downhold action

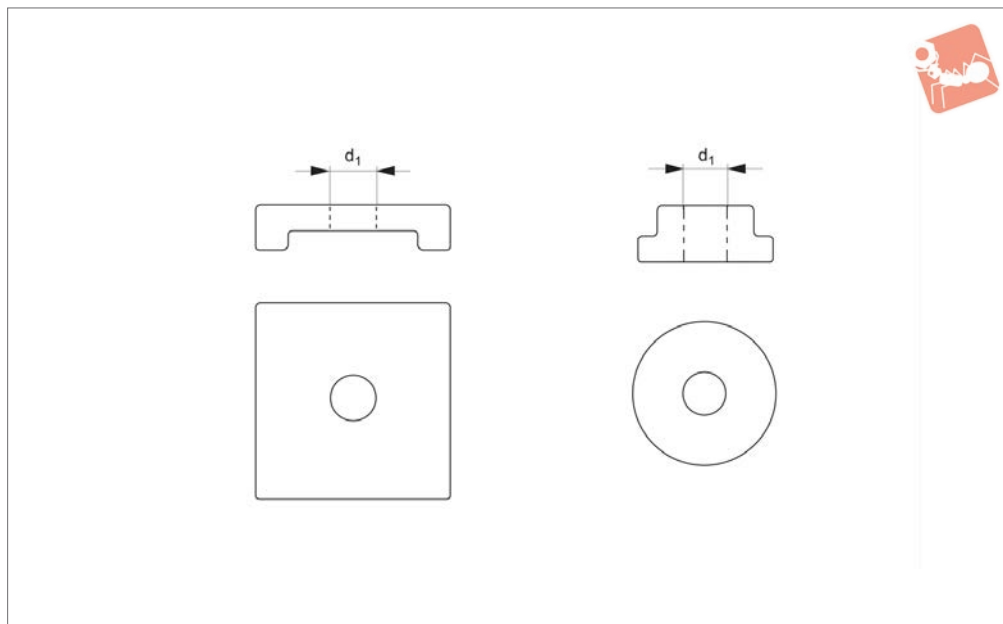
Low Profile Side Clamping



LOW PROFILE SIDE CLAMPING



12432



Material

Fixing plate and bush: tool steel, hardened.

Technical Notes

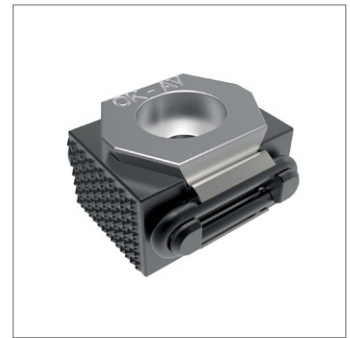
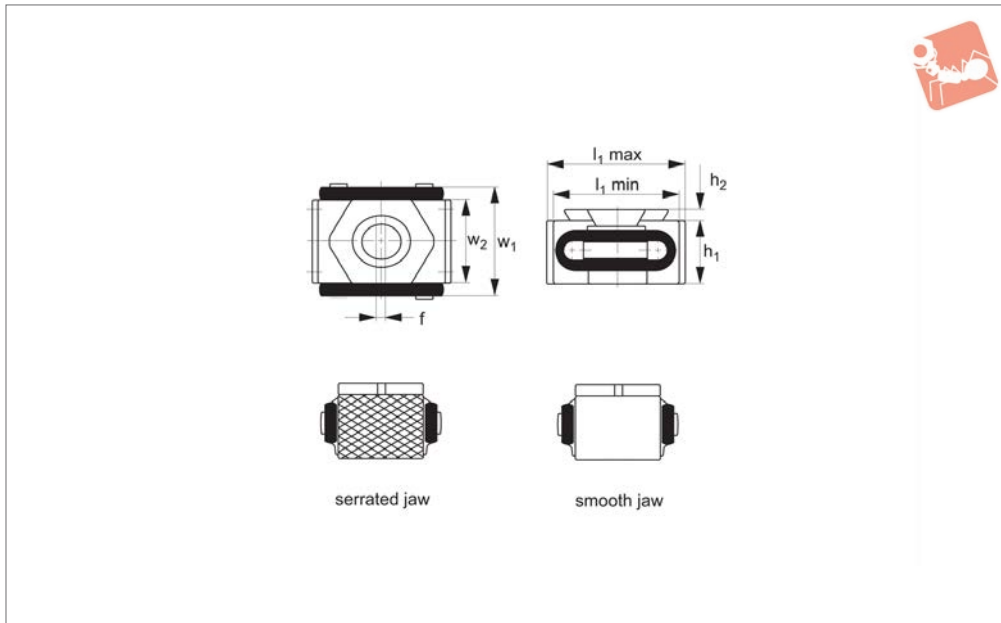
With the adapter set a single taper clamp

can be adapted to act as a double taper clamp, i.e. to pull down components as well as clamp sideways. Simply invert your existing single taper models, fit the adapter set and clamp as normal.

Important Notes

For use with „single taper“ clamps 12430, 12440 and 12450 only - not for use with „double taper“ clamps. Clamping screw not supplied.

Order No.	Description	To suit taper clamp of thread d_1
12432.W0008	Single Taper Adapter Set	M 8
12432.W0012	Single Taper Adapter Set	M12
12432.W0016	Single Taper Adapter Set	M16



12440

LOW PROFILE SIDE CLAMPING

Material

Body: tool steel, hardened, bright.
Clamping segments: tool steel, hardened to 48-52 HRC, ground and blackened.
Spring: rubber o-ring (12440.W0005) or steel (12440.W0008 and .W0009).

Technical Notes

Ideal for horizontal or vertical clamping of

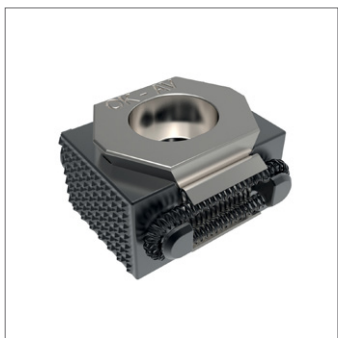
multiple parts. Tighten the socket head cap screw to move clamping segments outwards to press the workpiece(s) against a fixed stop. Can be mounted in a threaded hole or T-slot.
„f*“ is the float around the clamping screw centre. Only bottom of jaw is ground.

Tips

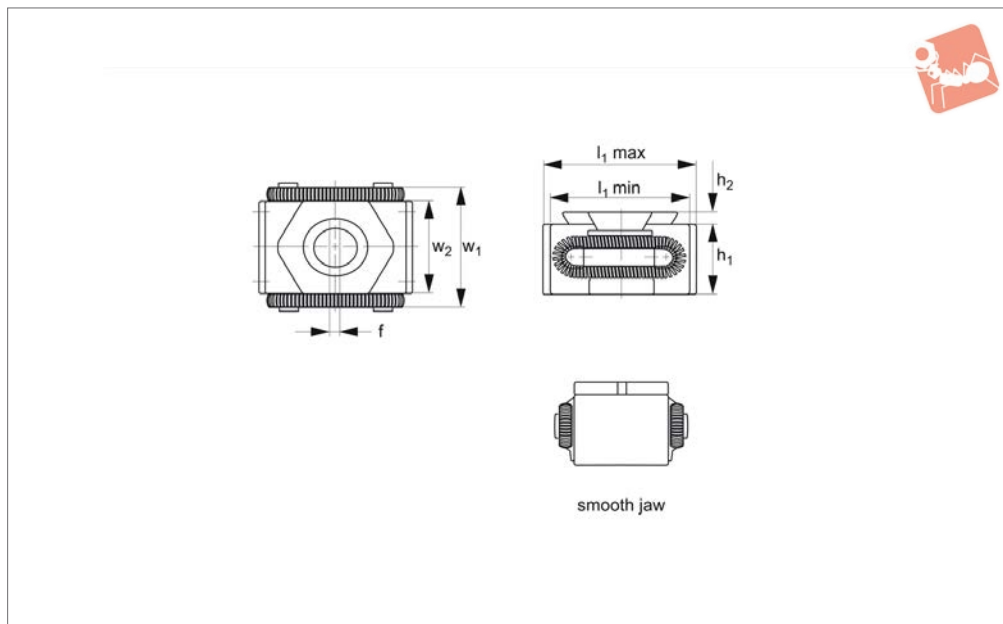
OK-VISE is a registered trademark of OK-VISE OY.

For suitable T-nuts see no. 24000

Order No.	Taper	Jaw type	l_1 min.	l_1 max.	d_1	h_1	h_2	w_1	w_2	f max.	Clamping force kN max.	Torque to Nm max.	Weight g
12440.W0005	Single	Smooth	20	25	M 5	11	4.2	22	15	0.5	10	10	22
12440.W0008	Single	Serrated	28	32	M 8	15	4.0	29	21	1.0	15	25	55
12440.W0009	Single	Smooth	28	32	M 8	15	3.5	29	21	1.0	15	25	55



12450



Material

Body: stainless steel.

Clamping segment and spring: stainless steel.

Technical Notes

Ideal for wire EDM applications to clamp

multiple parts. Tighten the socket head cap screw to move clamping segments outwards to press the workpiece(s) against a fixed stop. Can be mounted in a threaded hole or T-slot.

„f*“ is the float around the clamping screw

centre. Only the bottom of jaw is ground.

Tips

OK-VISE is a registered trademark of OK-VISE OY.

Order No.	Taper	Jaw type	l_1 min.	l_1 max.	d_1	h_1	h_2	w_1	w_2	f max.	Clamping force kN max.	Torque to Nm max.	Weight g
12450.W0008	Single	Smooth	27	31	M 8	15	2.5	29	21	1.0	25	44	55



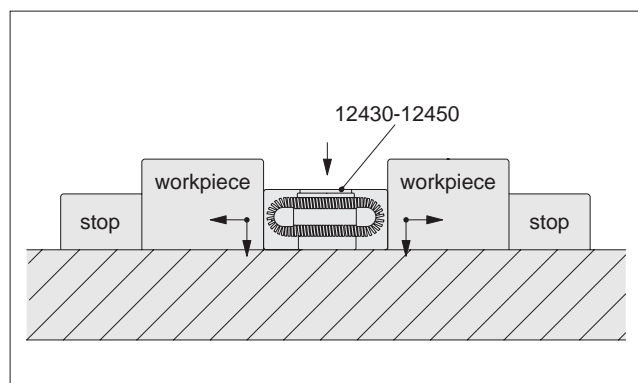
Single Taper Clamps

small but powerful

12430 - 12450
Clamping & Height Setting

Our low-profile taper clamps can be used on stand alone machines just as successfully as on large, flexible manufacturing systems. Working on the principle that, when tightened, they expand to simultaneously pull down and clamp the workpiece against stops, preventing any movement or play, they can produce clamping forces of up to 150 kN. With faces hardened to 48-52 HRC they are ideal for a range of clamping applications.

Operating Principle



When tightening the clamping screw, the clamp's tapers expand simultaneously, pushing components against the fixture stops as well as exerting a pull-down force, pulling components to the fixture base (double taper models only).

With excellent clamping forces of up to 150 kN, these clamps generate high enough forces for workpieces to be safely clamped.



Models Available



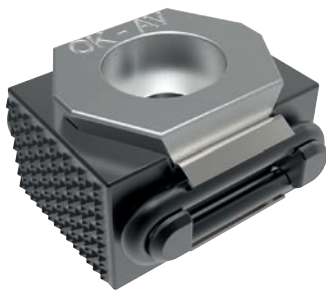
Single Taper

Providing horizontal clamping forces, holding workpieces solidly in place.



Single Taper Adapter Set

Single taper clamps can be adapted to perform as a double taper model. Simply invert your existing single taper models, fit our adapter set and clamp as normal.



Economy Model

When ultra precision and the highest clamping forces are not necessary, our economy models offer a cost-effective choice. Ground only on the bottom jaw of the clamp for a cost saving.



Stainless Steel

Designed with the demands of wire EDM clamping applications in mind.



Double Taper

Horizontal clamping and pull-down action, ensuring full contact of workpiece with fixture base.

LOW PROFILE SIDE CLAMPING

ov-W12.111-A-T-eccentric-pull-down-clamping-screw-rnh - Updated -24-10-2022

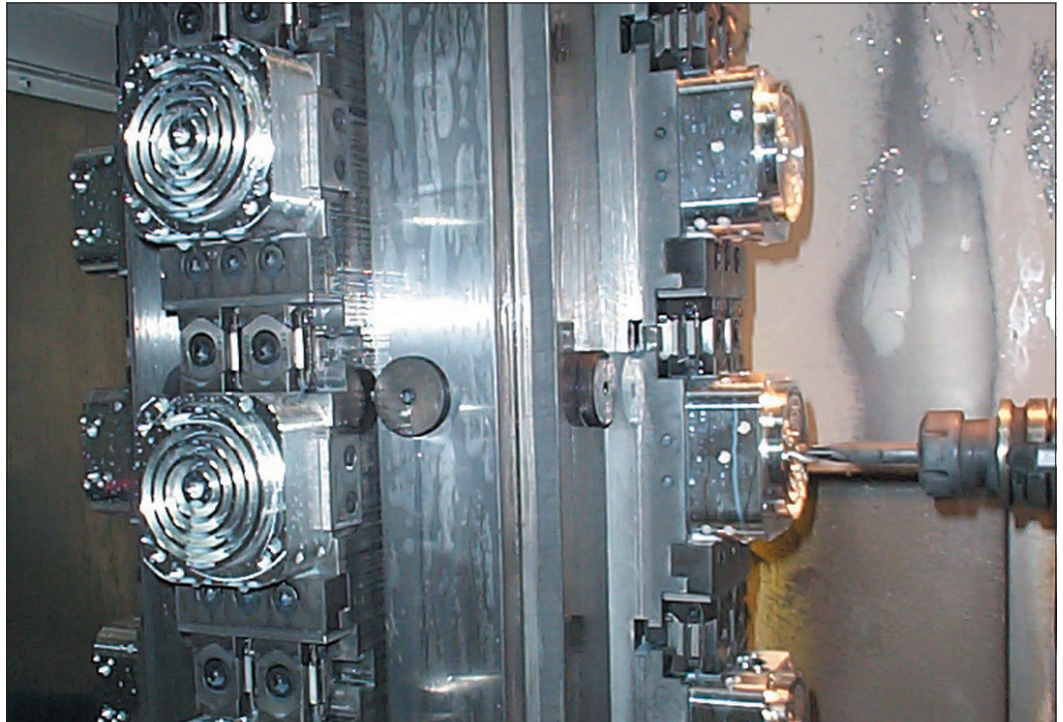


Features

- Compact with small clamping footprint for multi-component clamping.
- Powerful clamping, up to 150 kN.
- Low profile with no obstruction of tooling path.
- Maximum clamping stability.
- Pulls down and clamps.

Benefits

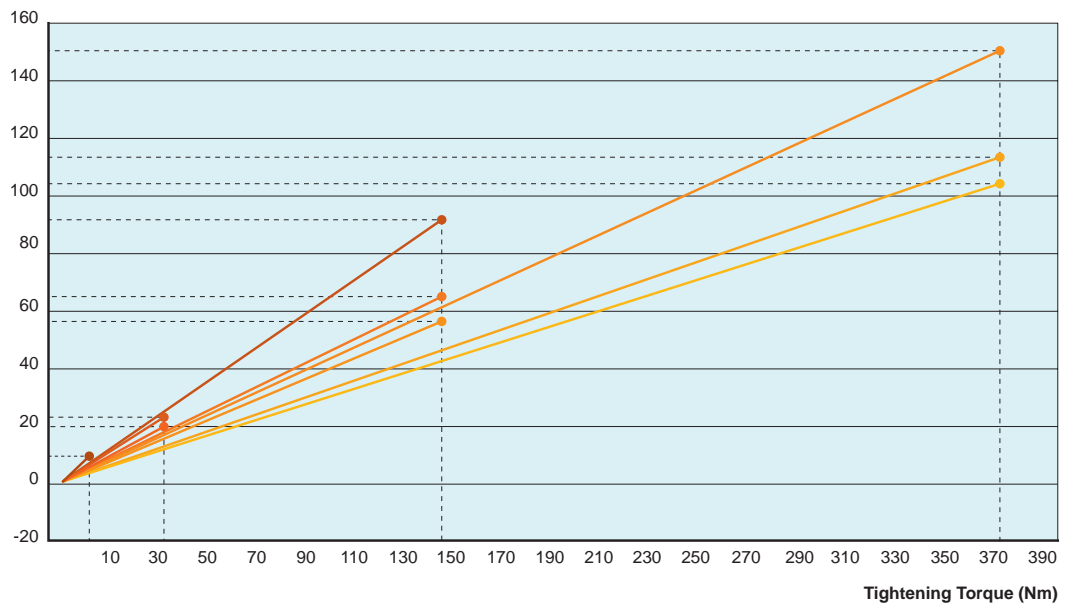
- Quick set-up and clamping.
- Maximise workpieces per fixture.
- Enables three-dimensional machining of components in a single operation, improving accuracy and quality.



Horizontal Forces of Wixroyd Low Profile Clamps 12430 to 12450

Product no./graph key	Force up to (kN)
12440.W0005	10
12430.W0009	25
12430.W0508	20
12430.W0608	25
12440.W0008	25
12430.W0008	25
12440.W0009	25
12450.W0008	25
12430.W0808	25
12430.W0012	65
12430.W0512	55
12430.W0616	65
12430.W0011	65
12430.W0812	65
12430.W0112	90
12430.W0111	90
12430.W0016	110
12430.W0516	105
12430.W0015	110
12430.W0816	110
12430.W0116	150
12430.W0115	150

Clamping Force (kN)

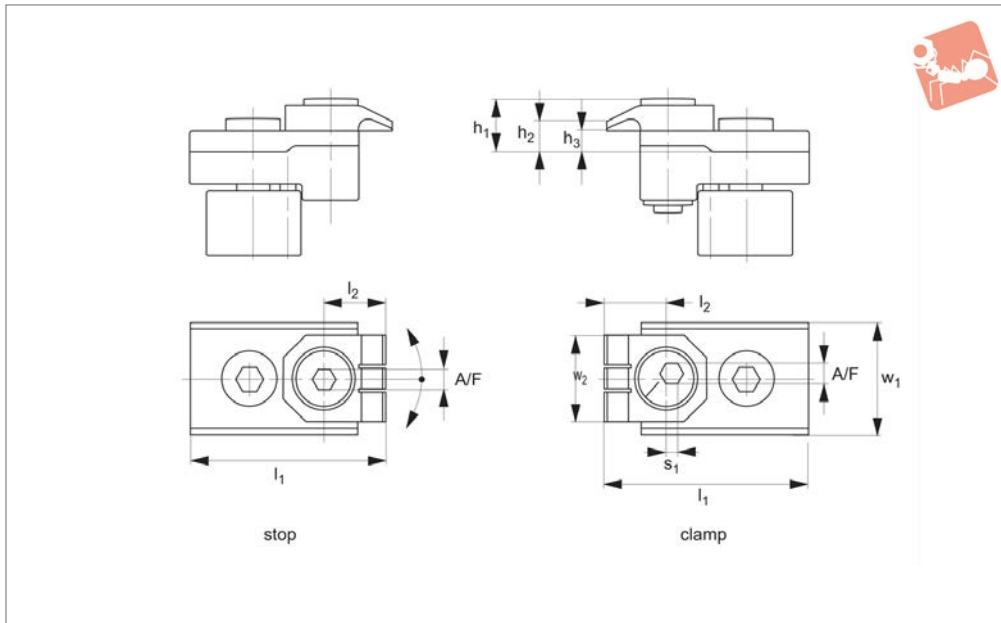




T-Slot Finger Clamp Set

low profile

Low Profile Side Clamping



10960

LOW PROFILE SIDE CLAMPING

Material

Clamp: spring steel.
Block: steel.

Technical Notes

The clamping point is 5mm above the machine table. Risers can be used to allow

for through machining and drilling.

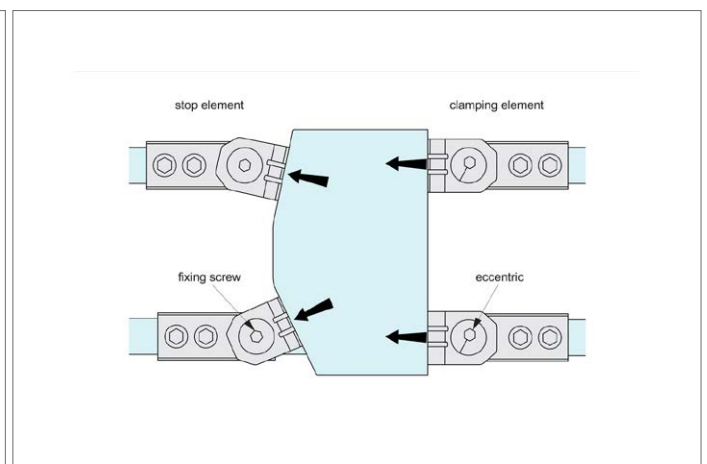
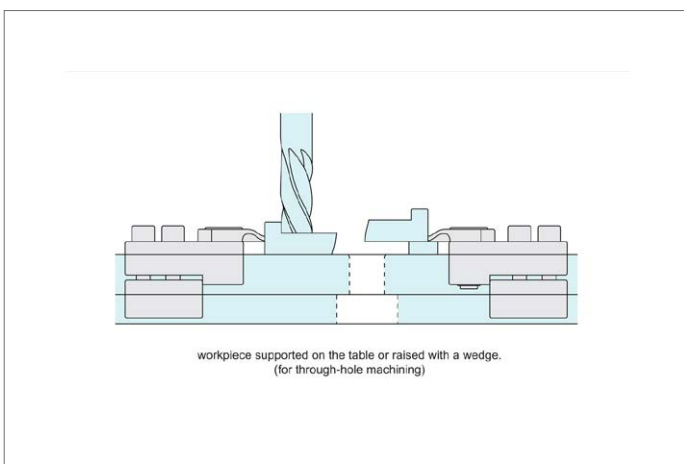
Supplied as a set: one-piece clamp, one-piece stop.

Tips

These low-profile clamps and stops have a holding force of 4000 N. The fingers push

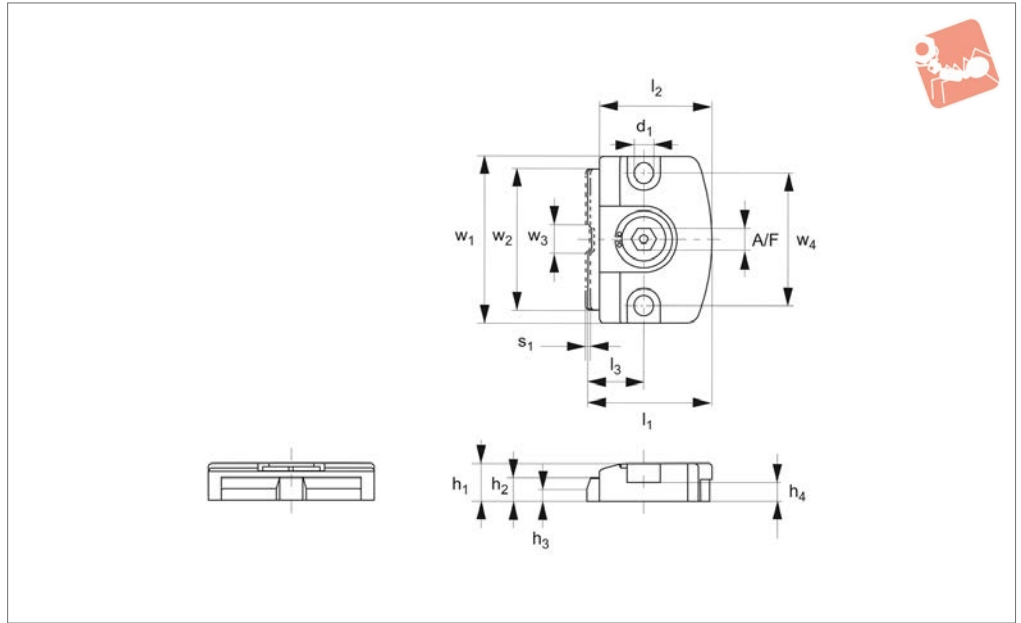
the workpiece down before clamping. The small height of the clamps eliminate any risk of collision between clamp and tooling- ideal for machining small and low profile components.

Order No.	Type	Clamping stroke s_1	For T-slot	Clamping height min.	l_1	l_2	h_1	h_2	h_3	w_1	w_2	Torque to Nm max.	A/F	Clamping force kN max.	Weight g
10960.W0260	Clamp + Stop	1,2	10	5	46	15	10,5	7,5	5	18	20	9	4	4	140
10960.W0262	Clamp + Stop	1,2	12	5	48	15	10,5	7,5	5	18	20	9	4	4	150
10960.W0264	Clamp + Stop	1,2	14	5	52	15	10,5	7,5	5	22	20	9	4	4	162
10960.W0266	Clamp + Stop	1,2	16	5	48	15	10,5	7,5	5	25	20	9	4	4	178
10960.W0268	Clamp + Stop	1,2	18	5	48	15	10,5	7,5	5	25	20	9	4	4	190





10980.1



Material

Body: steel (C45), black oxide finish.
 Jaw/cam: steel (42CrMo), tempered, black oxide finish.

Technical Notes

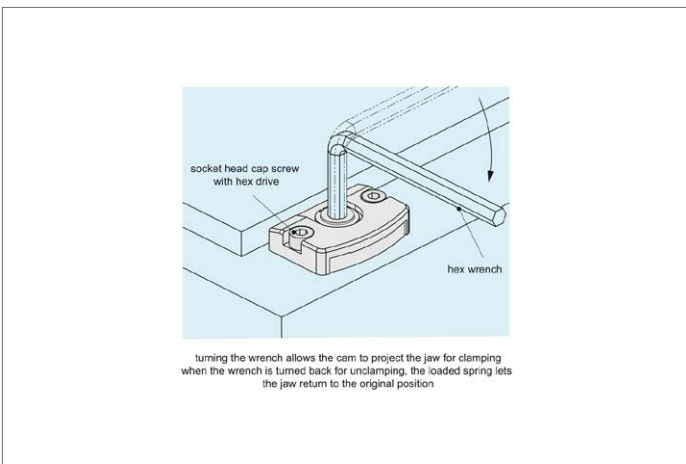
Designed to prevent part lift.

Turning the wrench allows the cam to move the jaw forward for clamping. When the wrench is turned back for unclamping, the loaded spring allows the jaw to return to the original position.

Tips

Ensure that mounting surfaces are finished to 6.3a or better, without any scratches or dents.

Order No.	Clamping stroke s_1	d_1	l_1	l_2	l_3	h_1	h_2	h_3	h_4	w_1	w_2	w_3	w_4	Torque to Nm max.	A/F	Clamping force kN max.	Weight g
10980.W0038	1	5.2	33.5	30.5	15	10	6	3	5	45	38	8	36	10	6	4	85
10980.W0060	2	8.2	50.0	46.0	22	15	9	5	7	70	60	12	55	27	10	6	290

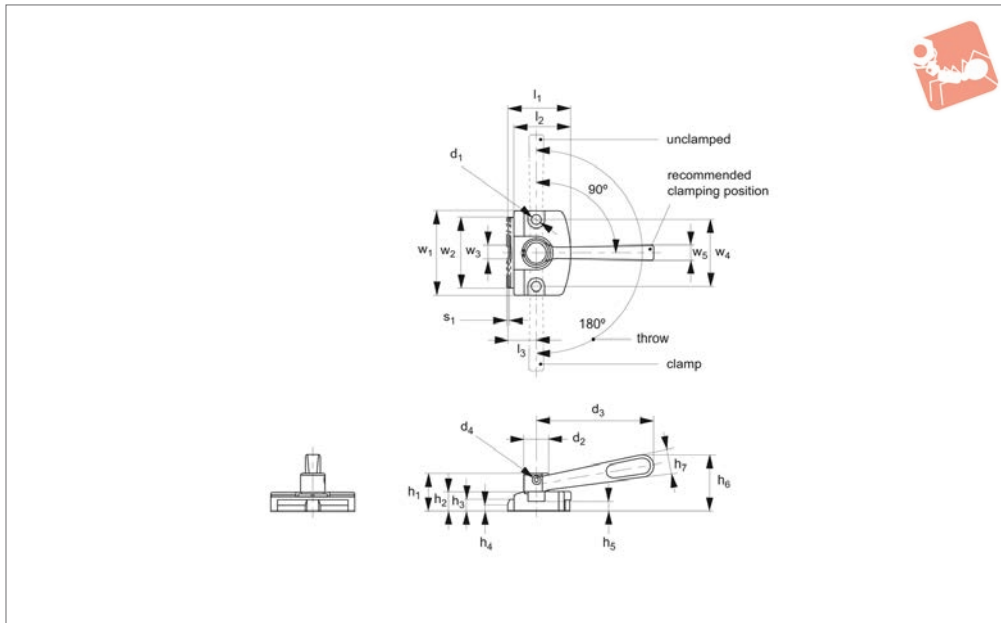




Low Profile Cam Edge Clamps

lever actuation

Low Profile Side Clamping



10980.2

LOW PROFILE SIDE CLAMPING

Material

Body: steel (C45), black oxide finish.
 Jaw/cam: steel (42CrMo), tempered, black oxide finish.
 Handle: steel (C45), tempered, black oxide finish.

Turning the wrench allows the cam to move the jaw forward for clamping. When the wrench is turned back for unclamping, the loaded spring allows the jaw to return to the original position.

Tips

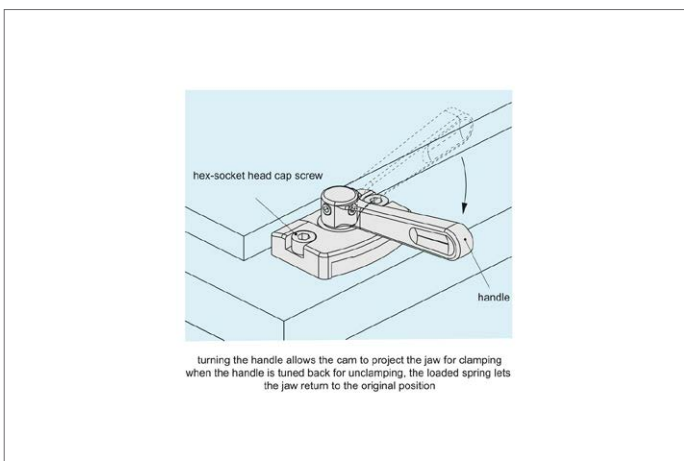
Ensure that mounting surfaces are finished to 6.3a or better, without any scratches or

Technical Notes

Designed to prevent part lift.

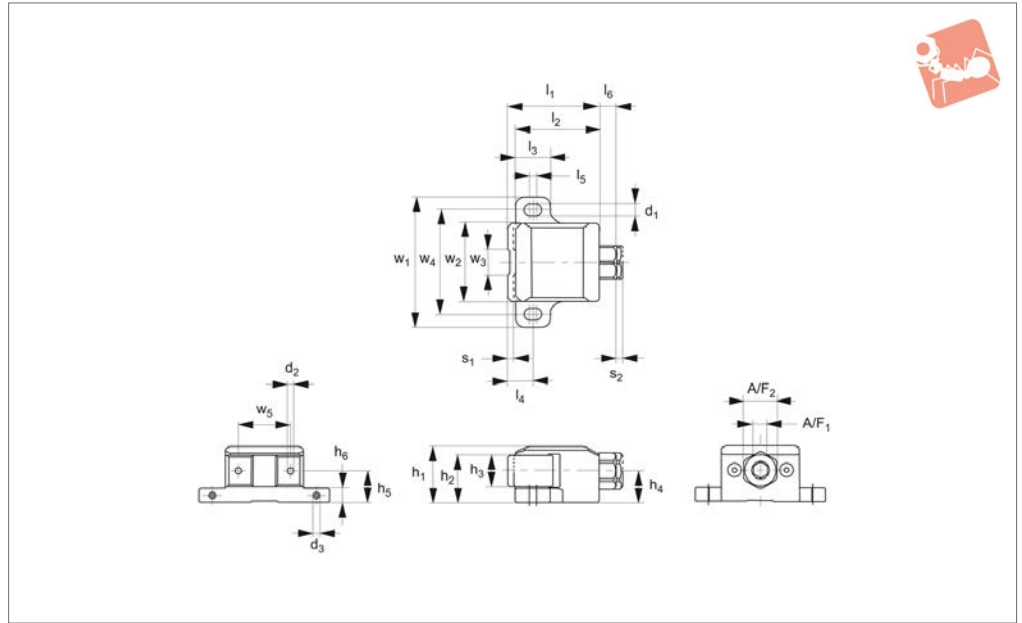
Order No.	Clamping stroke s_1	d_1	d_2	d_3	d_4	l_1	l_2	l_3	Weight g
10980.W0138	1	5.2	13	63	M 4x0,7-4L	33.5	30.5	15	130
10980.W0160	2	8.2	19	100	M 5x0,8-5L	50.0	46.0	22	440

Order No.	h_1	h_2	h_3	h_4	h_5	h_6	h_7	w_1	w_2	w_3	w_4	w_5	Torque to Nm max.	Clamping force kN max.
10980.W0138	20	10	6	3	5	30	12	45	38	8	36	8	17	4
10980.W0160	30	15	9	5	7	46	18	70	60	12	55	12	28	6





10982.1



Material

Body: steel (C45), black oxide finish.
 Jaw: steel (42CrMo), tempered. Black oxide finish. Precision ground.
 Shaft: steel (42CrMo), black oxide finish.

long clamping stroke and firm clamping. The precision-ground jaw is perfect for clamping the workpiece on its finished surface. The jaw provides downward force to prevent part lift.

Tips

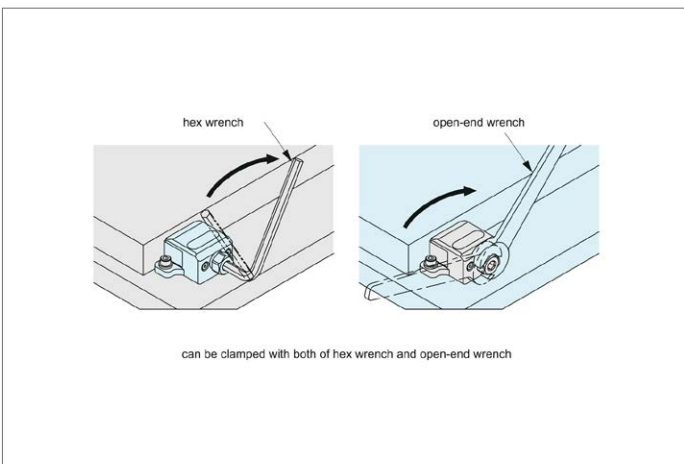
Can be clamped with both hex wrench and spanner.

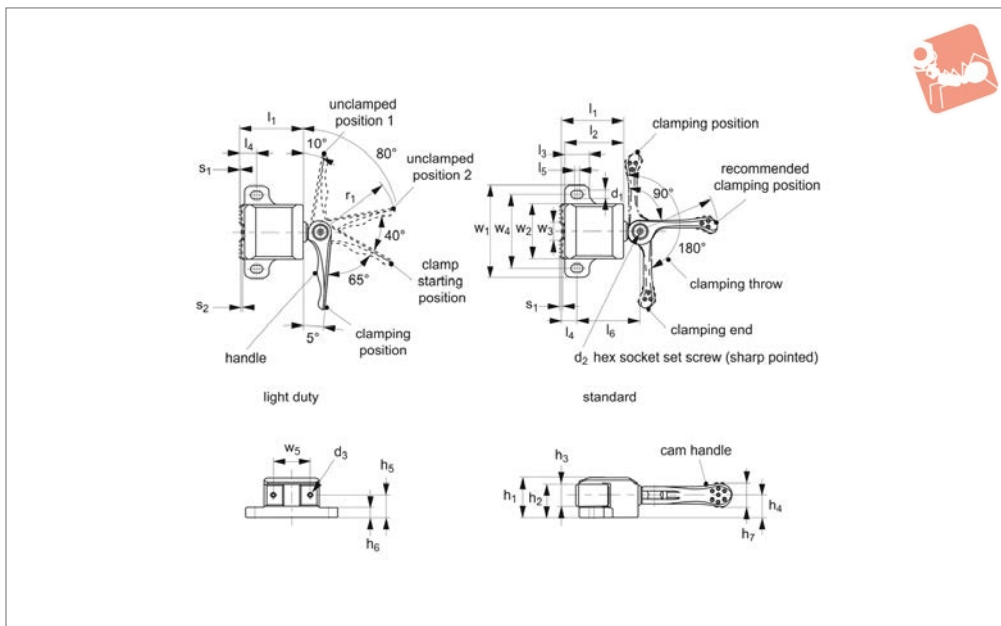
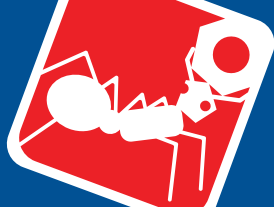
Technical Notes

A screw type clamping mechanism allows a

Order No.	Clamping stroke s_1	d_1	d_2	d_3	l_1	l_2	l_3	l_4	l_5	l_6	h_1	h_2	h_3	Weight g
10982.W0045	3	6.6	M 4x0,7 Depth 6	M 4x0,7-6L	52	48	20	14	3	10	32	27	18	560
10982.W0060	4	8.6	M 5x0,8 Depth 8	M 5x0,8-8L	69	63	26	19	4	13	40	33	22	1240

Order No.	h_4	h_5	h_6	w_1	w_2	w_3	w_4	w_5	s_2	Torque to Nm max.	A/F ₁	A/F ₂	Clamping force kN max.
10982.W0045	18	18	8	75	45	15	60	30	3	25	8	19	9
10982.W0060	22	22	10	100	60	20	80	40	4	50	10	24	14





10982.2

LOW PROFILE SIDE CLAMPING

Material

Body: steel (C45), black oxide finish.
 Jaw/handle shaft: steel (C45), tempered.
 Black oxide finish, precision-ground.
 Handle: steel (42CrMo), tempered. Electroless nickel plated (light-duty type), black

oxide finish (standard type).

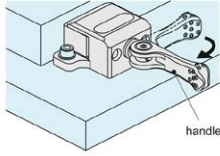
Technical Notes

The cam handle allows fast clamping in a single operation. Spring-loaded light duty version distributes constant clamping

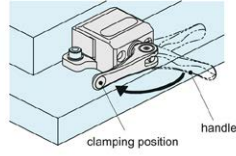
force. Standard version allows the adjustment of clamping force depending on operating loads. Precision-ground jaw is perfect for clamping the workpiece on its finished surface. The jaw provides downward force to prevent part lift.

Order No.	Type	Clamping stroke s_1	d_1	d_2	d_3	l_1	l_2	l_3	l_4	l_5	l_6	h_1	h_2	Weight g
10982.W0145	Light Duty	0.3	-	-	-	-	-	-	-	-	-	-	-	600
10982.W0160	Light Duty	0.4	-	-	-	-	-	-	-	-	-	-	-	1320
10982.W0245	Standard	1.6	6.6	M 4x0,7 6 Depth	M 4x0,7- 5L	51	48	20	13	3	51.5	32	27	620
10982.W0260	Standard	2.2	8.6	M 4x0,7 8 Depth	M 5x0,8- 6L	67	63	25	17	4	67.0	40	33	1360

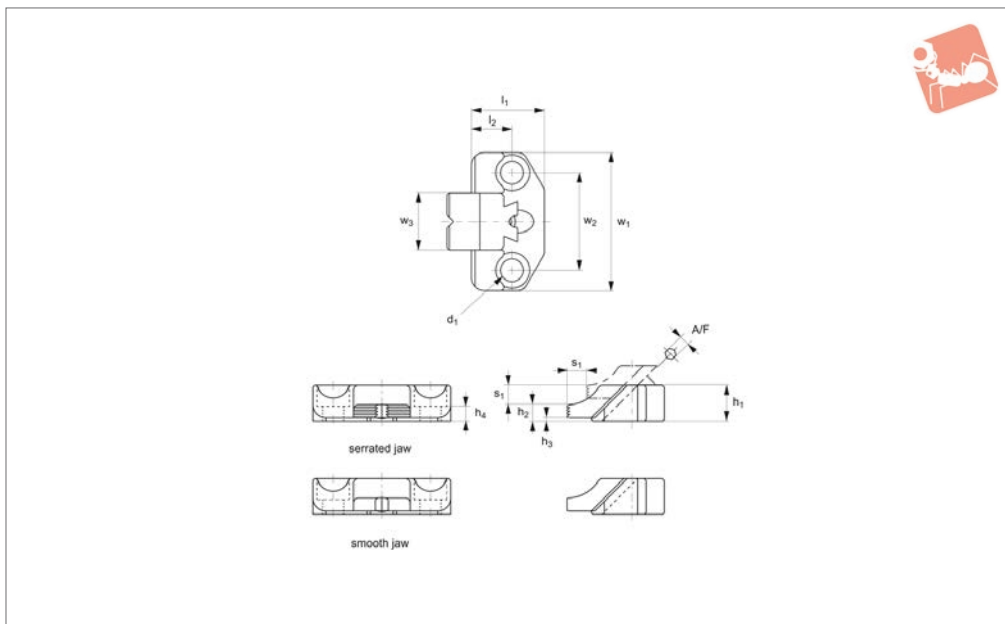
Order No.	h_3	h_4	h_5	h_6	h_7	w_1	w_2	w_3	w_4	w_5	r_1	Advance stroke s_2	Clamping force kN max.	Operating load N max.
10982.W0145	-	-	-	-	14	-	-	-	-	-	-	0.8	0.6	40
10982.W0160	-	-	-	-	18	-	-	-	-	-	-	0.8	1.2	50
10982.W0245	18	18	18	8	19	75	45	15	60	30	63	-	2.0	150
10982.W0260	22	22	22	10	24	100	60	20	80	40	80	-	3.0	200



standard
turning the cam handle allows the jaw to advance to the workpiece for clamping



light duty
turning the handle to the clamping position clamps the workpiece with constant clamping force



10988

LOW PROFILE SIDE CLAMPING

Material

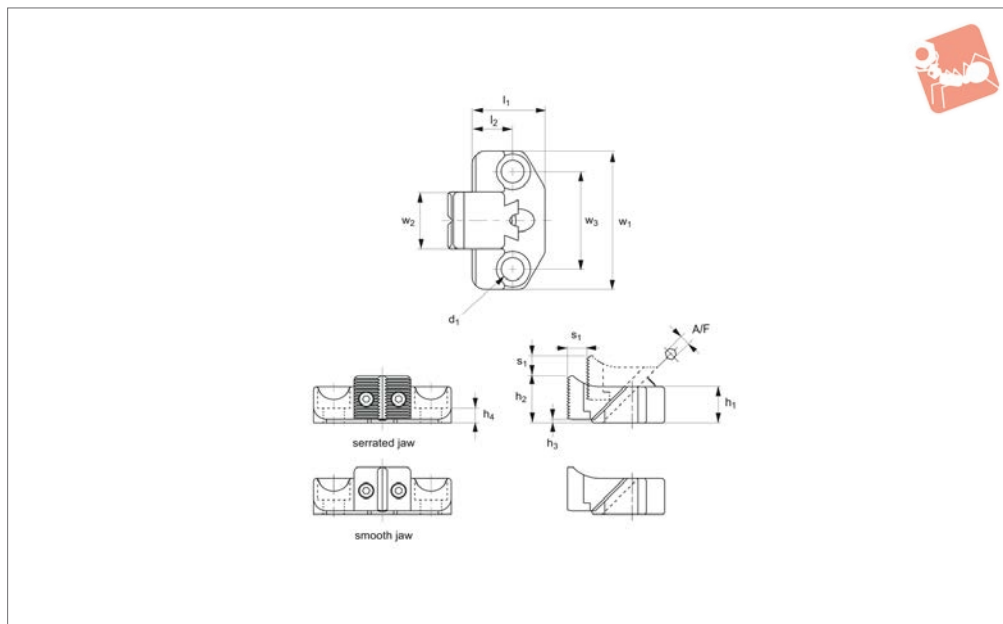
Body: steel (42CrMo), tempered. Black oxide finish.

Jaw: steel (42CrMo), induction hardened (clamping face). Black oxide finish. Precision ground (smooth jaw).

Order No.	Type	d ₁	l ₁	l ₂	h ₁	h ₂	h ₃	h ₄	w ₁	w ₂	w ₃	Torque to Nm max.	Stroke s ₁	A/F	Clamping force kN max.	Weight g
10988.W0025	Serrated	M 8	39.5	25	16	7.5	1.5	7	65	45	25	8	7	4	4	160
10988.W0035	Serrated	M12	60.0	40	22	10.0	2.0	9	85	60	35	26	12	6	9	450
10988.W0040	Serrated	M16	77.0	50	30	14.0	2.0	13	100	70	40	60	14	8	17	900
10988.W0125	Smooth	M 8	39.5	25	16	7.5	1.5	7	65	45	25	8	7	4	4	160
10988.W0135	Smooth	M12	60.0	40	22	10.0	2.0	9	85	60	35	26	12	6	9	450
10988.W0140	Smooth	M16	77.0	50	30	14.0	2.0	13	100	70	40	60	14	8	17	900



10990

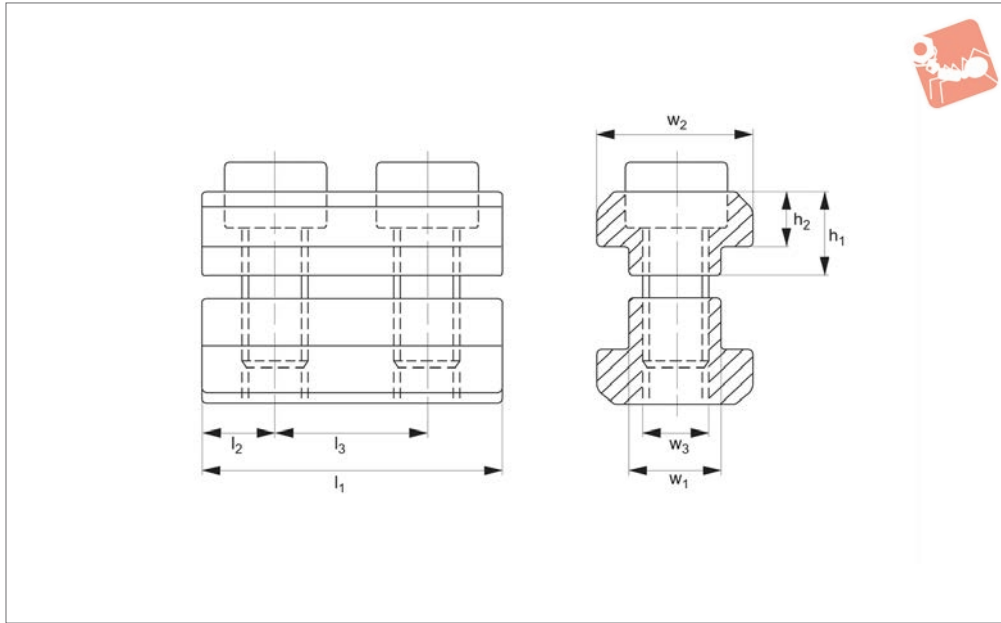


Material

Body: steel (42CrMo), tempered. Black oxide finish.

Jaw: steel (42CrMo), tempered, black oxide finish. Precision ground (smooth jaw).

Order No.	Type	d ₁	l ₁	l ₂	h ₁	h ₂	h ₃	h ₄	w ₁	w ₂	w ₃	s ₁	Torque to Nm max.	A/F	Clamping force kN max.	Weight g
10990.W0025	Serrated	M 8	39.5	25	16	19.5	1.5	7	65	25	45	7	8	4	4	180
10990.W0035	Serrated	M12	60.0	40	22	29.0	2.0	9	85	35	60	12	26	6	9	500
10990.W0040	Serrated	M16	77.0	50	30	38.0	2.0	13	100	40	70	14	60	8	17	1010
10990.W0125	Smooth	M 8	39.5	25	16	19.5	1.5	7	65	25	45	7	8	4	4	180
10990.W0135	Smooth	M12	60.0	40	22	29.0	2.0	9	85	35	60	12	26	6	9	510
10990.W0140	Smooth	M16	77.0	50	30	38.0	2.0	13	100	40	70	14	60	8	17	1020



12000

LOW PROFILE SIDE CLAMPING

Material

Tempered steel, burnished.

transverse direction. Their low overall height allows use in applications with flat workpieces.

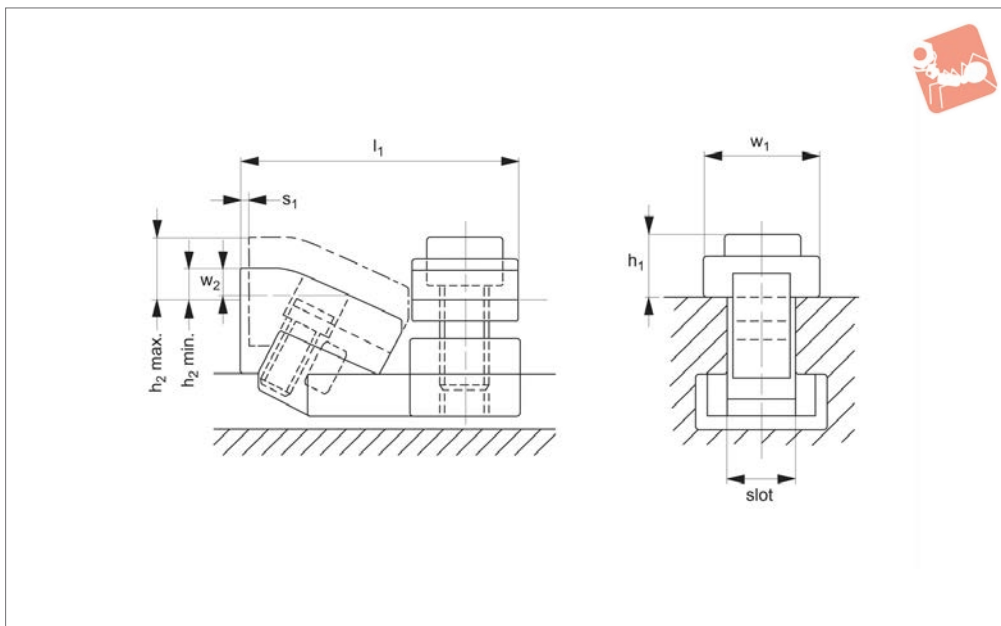
Technical Notes

The stops can be used in a longitudinal or

Order No.	Slot size	l_1	l_2	l_3	h_1	h_2	w_1	w_2	w_3	Weight g
12000.W0012	12	36	9.0	18	12	7	11.7	18	M 8	100
12000.W0014	14	44	11.0	22	12	8	13.7	22	M 8	140
12000.W0016	16	50	12.5	25	15	9	15.7	25	M12	240
12000.W0018	18	56	14.0	28	16	10	17.7	28	M12	340
12000.W0020	20	64	16.0	32	19	12	19.7	32	M16	520
12000.W0022	22	70	17.5	35	21	14	21.7	35	M16	720
12000.W0024	24	80	20.0	40	23	16	23.7	40	M20	880
12000.W0028	28	88	22.0	44	24	18	27.7	44	M20	1460



12100



Material

Steel, heat-treated, blackened.

The clamps produce a downwards and forwards clamping force.

up to dimension „w₂“, via grinding.
Sold in pairs.

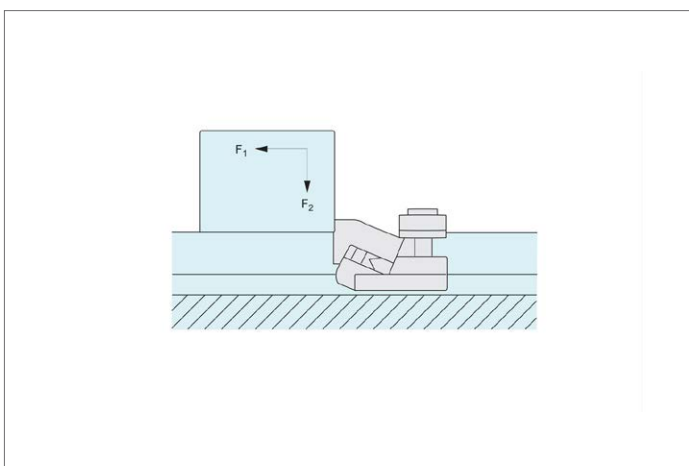
Technical Notes

Ideal for clamping low profile plates.

Tips

The clamp height can be further reduced by

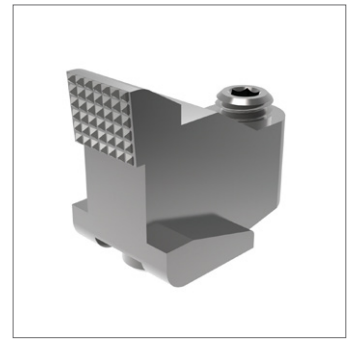
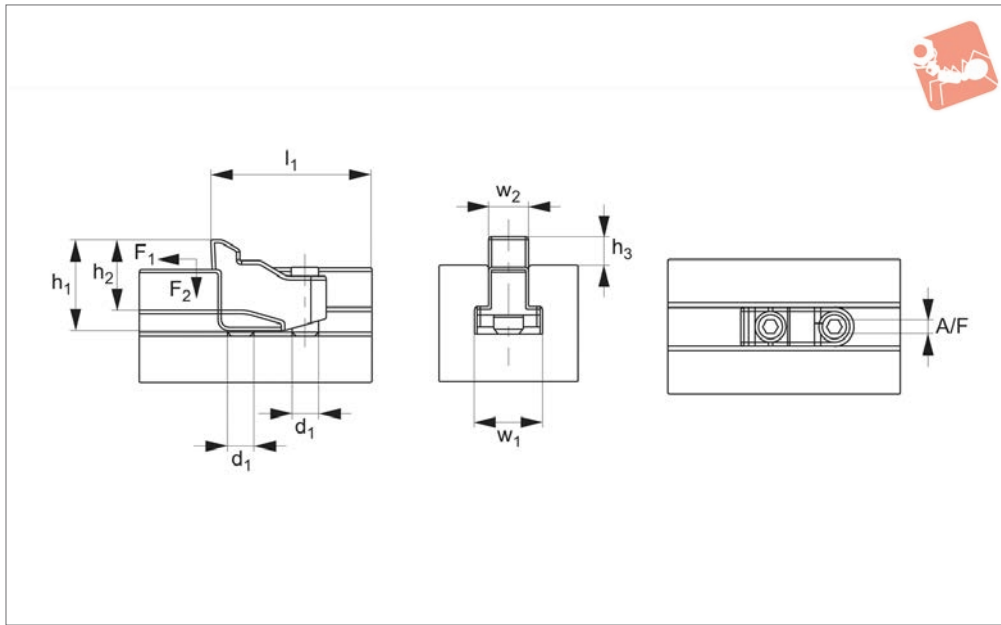
Order No.	Slot size	F ₁ kN	F ₂ kN	l ₁ max.	h ₁	h ₂ min.	h ₂ max.	w ₁	w ₂	Stroke s ₁	Weight g
12100.W0012	12	5.0	0.6	52	11	2.5	13.5	18	5	1.8	300
12100.W0014	14	5.5	0.7	55	11	1.5	13.5	22	5	1.8	380
12100.W0016	16	8.0	0.9	68	15	2.5	17.0	25	6	2.5	700
12100.W0018	18	9.0	1.0	71	15	1.5	16.0	28	6	2.5	830
12100.W0022	22	16.0	1.9	89	20	4.5	21.5	35	9	3.0	1740





T-Slot Clamp with mounting

Low Profile Side Clamping



12105

LOW PROFILE SIDE CLAMPING

Material

Clamp: steel (AISI 4140), HRc 33-39, blackened.

Plate: stainless steel (AISI 304, 1.4301).

Technical Notes

Extremely small and low height cam clamp offering up to 14 kN. clamping force. Ideal for multi-component fixtures.

Clamp is actuated with use of a hexagon key.

To avoid any deformation to workpiece

during clamping, select our clamping plate type.

Also available with an easy to actuate clamping handle model - see parts 12108.W2012 through .W2116.

Spare clamping plates can be ordered separately, see part no. 12108.W5010 through .W5016.

Dimension w_5 is the recommended distance between mounting hole and workpiece.

Note: $w_5 + 1$ is required distance when

using clamping plates.

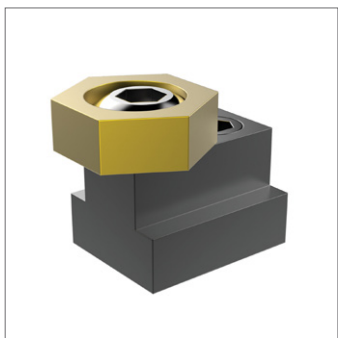
Tips

To install, drill and tap required hole to dimensions d_2 and space hole to dimension w_5 away from workpiece surface (or $w_5 + 1$ if using clamping plate).

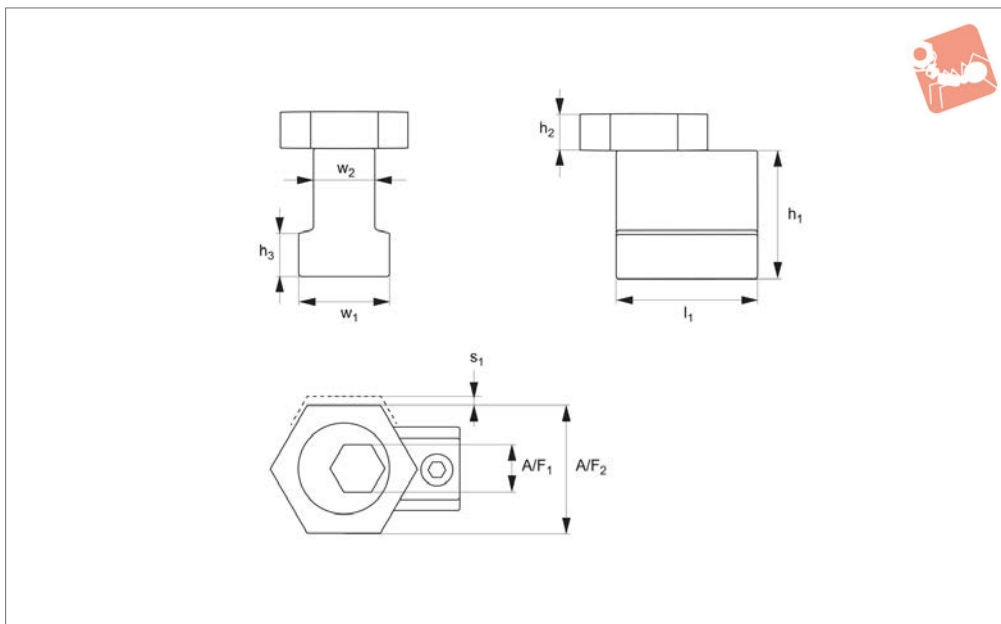
Fully tighten spiral clamp, then slacken off by one turn. Mount workpiece and then re-tighten clockwise to clamp workpiece.

Place a stop to the right of the workpiece to prevent movement.

Order No.	Slot size	d_1	F_1 kN	F_2 kN	l_1	h_1	h_2	h_3	w_1	w_2	A/F	Weight g
12105.W0012	12	M10	7	3.5	40	31	24	10	22	13.6	5	91
12105.W0016	16	M12	10	5.0	49	39	30	12	28	17.4	6	188
12105.W0020	18	M16	16	8.0	63	50	37	15	35	21.5	8	363



12150



Material

Clamp: brass.
Body: steel heat treated.

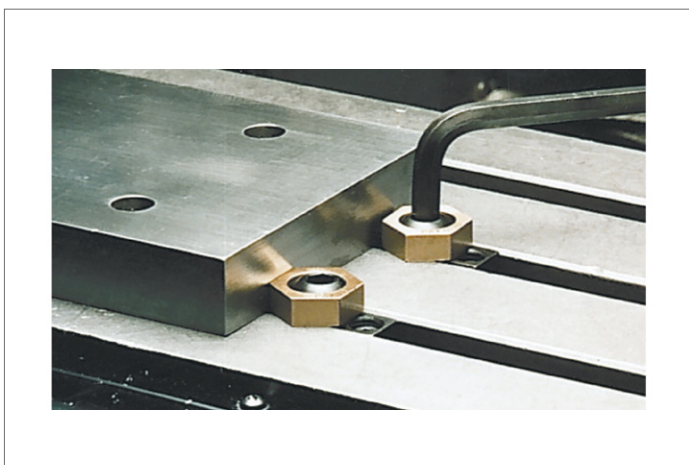
Tips

For replacement clamping screws see 12112.
Hex. key not included.
Sold in packs of 2.

Technical Notes

For use in T-slots of machine tables.

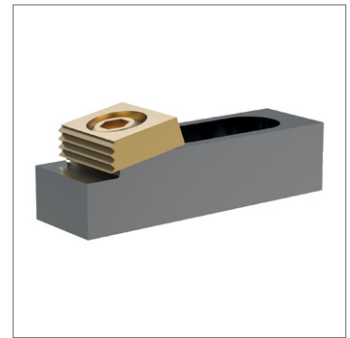
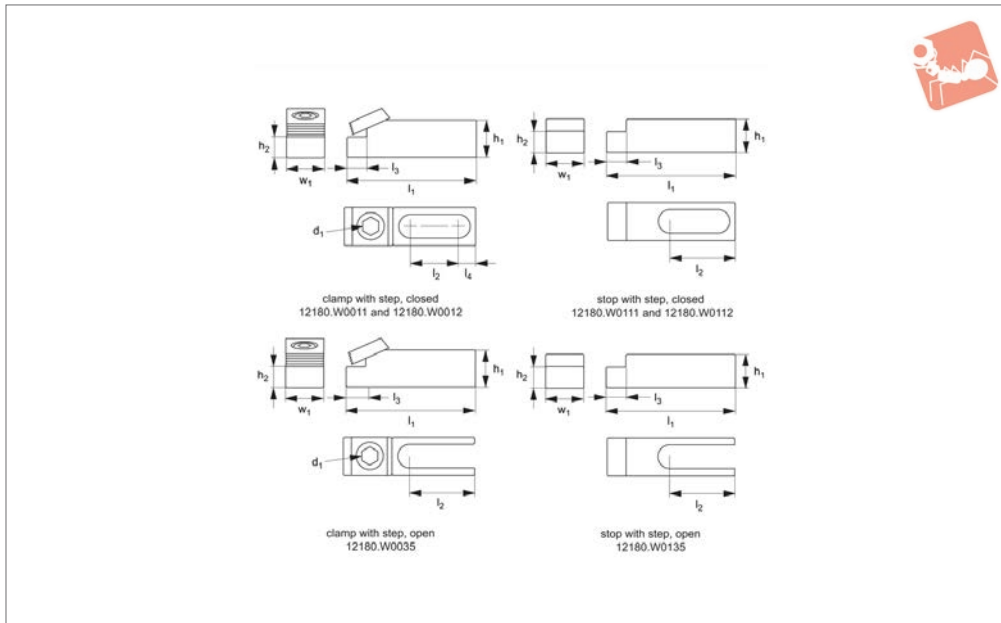
Order No.	For T-slot	Cam screw	l_1	h_1	h_2	h_3	w_1	w_2	Torque to Nm max.	Stroke s_1	A/F_1	A/F_2	Holding force kN
12150.W0008	8	M 6x1,00	23.2	9.5	4.8	4.6	12.7	8	8.5	1.01	5	15.9	3.5
12150.W0010	10	M 6x1,00	23.2	14.2	4.8	4.3	14.2	10	8.5	1.01	5	15.9	3.5
12150.W0012	12	M 8x1,25	27.9	15.9	4.8	6.4	15.9	12	11.3	1.01	5	20.6	3.3
12150.W0014	14	M10x1,50	30.5	22.2	6.4	8.5	22.4	14	28.0	1.52	7	20.6	8.9
12150.W0016	16	M12x1,75	30.9	22.2	9.5	9.2	25.4	16	61.0	2.03	8	25.4	13.3
12150.W0018	18	M12x1,75	34.7	28.6	9.5	10.5	28.6	18	61.0	2.03	8	25.4	13.3
12150.W0020	20	M16x2,00	39.2	31.8	12.7	12.6	31.8	20	135.0	2.54	12	30.2	26.7
12150.W0022	22	M16x2,00	44.3	41.3	12.7	12.5	34.9	22	135.0	2.54	12	30.2	26.7





Multi-Fixture Clamps and Stops with locating step

Low Profile Side Clamping



12180.1

LOW PROFILE SIDE CLAMPING

Material

Body: steel, hardened.
Clamp: brass.

threaded holes and in T-slots. Can be mounted vertically or horizontally.
Typically used as a clamp and stop pair - please order separately.

Technical Notes

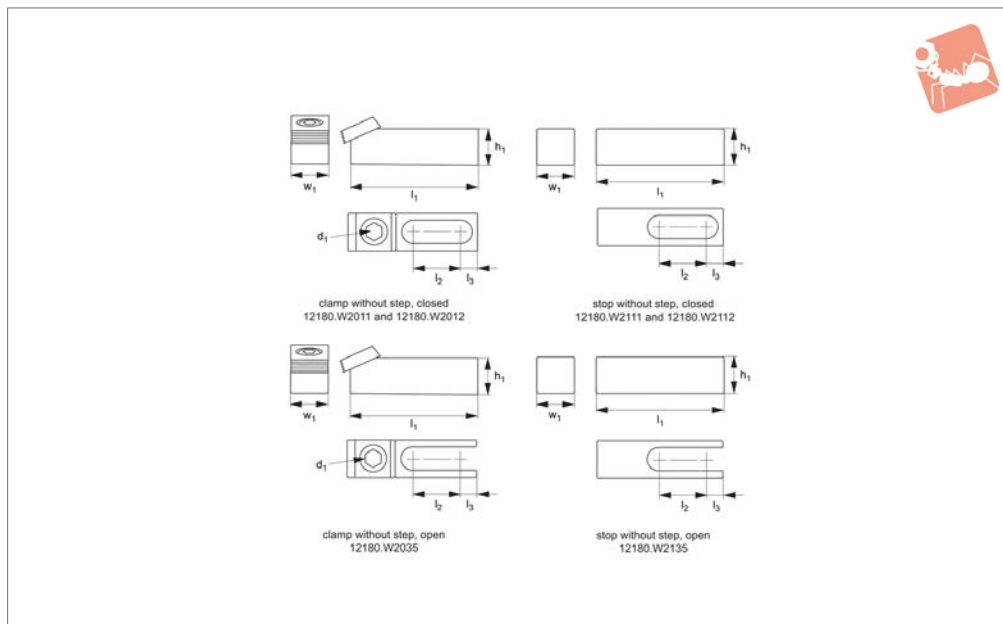
Enables flexible setups. For use in both

Order No.	Type	Slot type	Mounting screw	d ₁ cam screw	l ₁	l ₂	l ₃	l ₄	h ₁	h ₂ +0.0 -0.013	w ₁	Torque to Nm max.	Stroke	For use with	Holding force kN
12180.W0011	Clamp - With Step Closed	Closed	M 8	M 8	63,5	21,1	8,0	13,5	15,8	11,68	19,1	28	1,6	12180.W0111	8,9
12180.W0012	Clamp - With Step Closed	Closed	M12	M12	95,3	42,7	9,4	12,7	15,8	12,19	28,5	88	2,0	12180.W0112	17,8
12180.W0035	Clamp - With Step Open	Open	M16	M16	107,0	46,2	9,4		41,2	35,0	38,1	135	2,5	12180.W0135	26,7
12180.W0111	Stop - With Step Closed	Closed	M 8		63,5	28,2	8,0	13,5	19,1	11,68	19,1			12180.W0011	
12180.W0112	Stop - With Step Closed	Closed	M12		95,3	42,7	9,4	12,7	22,1	12,19	28,5			12180.W0012	
12180.W0135	Stop - With Step Open	Open	M16		107,0	46,2	9,4		50,8	35,0	38,1			12180.W0035	





12180.2



Material

Body: steel, hardened.
Clamp: brass.

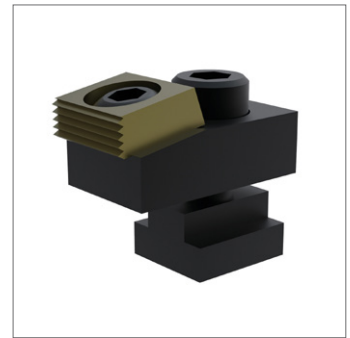
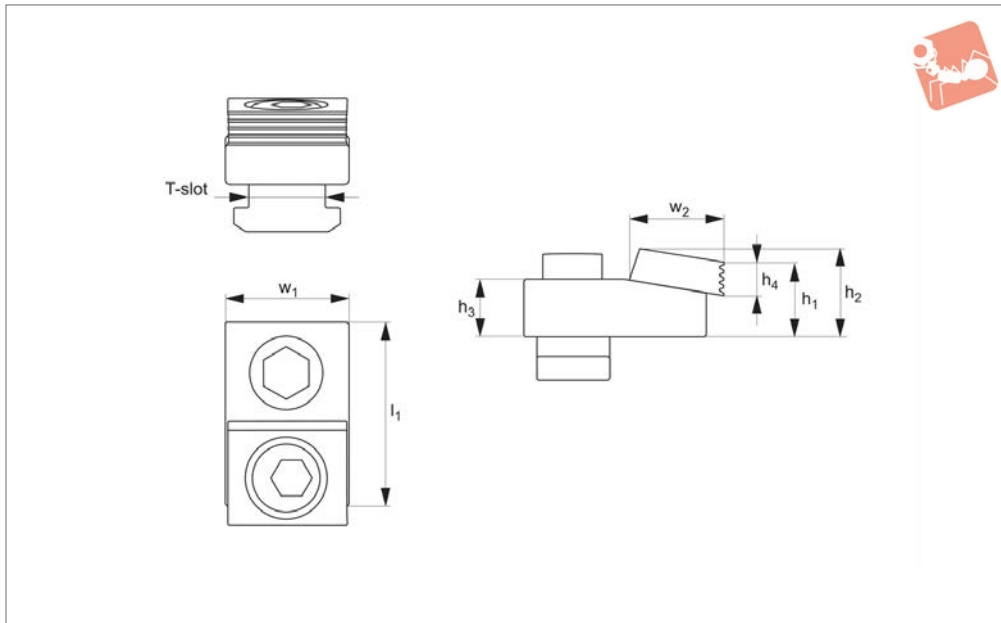
threaded holes and in T-slots. Can be mounted vertically or horizontally.
Typically used as a clamp and stop pair - please order separately.

Technical Notes

Enables flexible setups. For use in both

Order No.	Type	Slot type	Mounting screw	Cam screw d_1	l_1	l_2	l_3	h_1	w_1	Torque to Stroke Nm max.	For use with	Holding force kN	
12180.W2011	Clamp - w/o Step	Closed	M 8	M 8	54,9	21,1	13,5	15,8	19,1	28	1,6	12180.W2111	8,9
12180.W2012	Clamp - w/o Step	Closed	M12	M12	58,6	42,7	12,7	15,8	28,5	88	2,0	12180.W2112	17,8
12180.W2035	Clamp - w/o Step	Open	M16	M16	96,5	46,2		41,2	38,1	135	2,5	12180.W2135	26,7
12180.W2111	Stop - w/o Step	Closed	M 8		55,9	28,2	13,5	19,1	19,1			12180.W2011	
12180.W2112	Stop - w/o Step	Closed	M12		83,5	42,7	12,7	22,1	28,5			12180.W2012	
12180.W2135	Stop - w/o Step	Open	M16		83,8	46,2		50,8	38,1			12180.W2035	





12191

LOW PROFILE SIDE CLAMPING

Material

Steel hardened face.

Technical Notes

Designed to be used in the T-slots of machine tables.

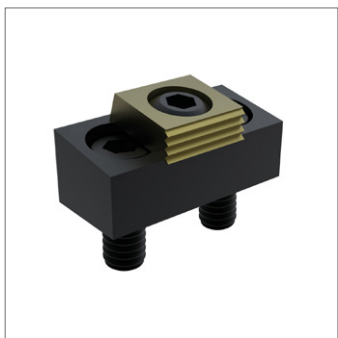
The clamp has both a smooth face (for machined workpieces) and a serrated face (for rougher work). Provides a positive downhold action whilst maintaining a low profile.

Tips

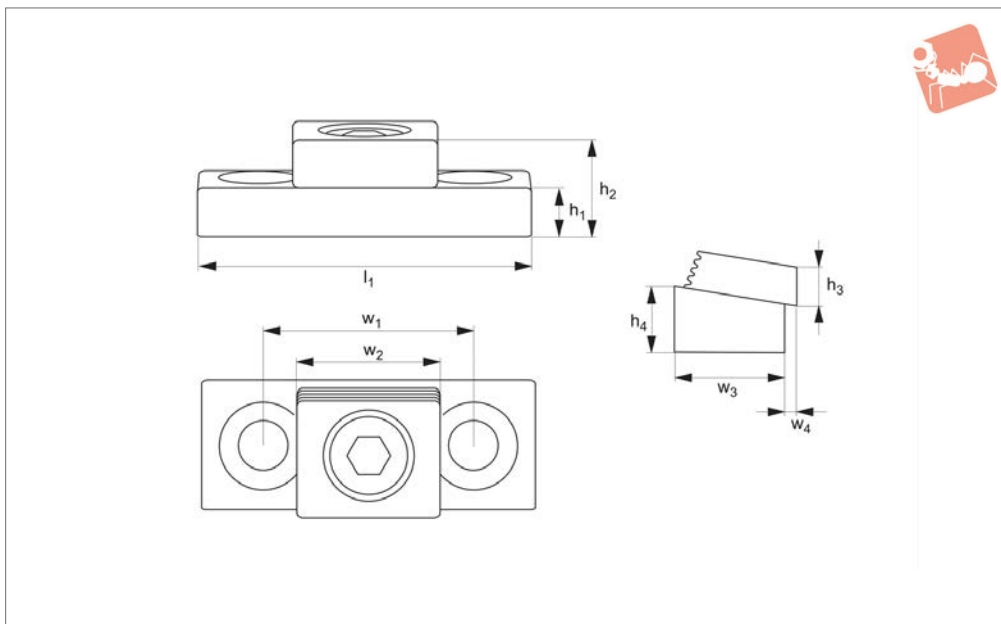
Torque screw for T-slot nut to 150 Nm.
*Not supplied with T-nut or mounting screw.

Order No.	T-slot size	l_1	h_1	h_2	h_3	h_4	w_1	w_2	Torque to Nm max.	Stroke s_1	Holding force kN
12191.W0000	*	50	25.4	22.2	15.7	9.6	28.5	25.4	88	1.6	17.8
12191.W0014	14	50	25.4	22.2	15.7	9.6	28.5	25.4	88	1.6	17.8
12191.W0016	16	50	25.4	22.2	15.7	9.6	28.5	25.4	88	1.6	17.8
12191.W0018	18	50	25.4	22.2	15.7	9.6	28.5	25.4	88	1.6	17.8





12193



Material

Clamping face: steel, hardened.
Body: mild steel, blackened.

Technical Notes

The clamp has both a smooth face (for machined workpieces) and a serrated face (for rougher work).

Provides a positive downhold action whilst maintaining a low profile.

Tips

The height of the clamp can be varied by milling the slot deeper into the fixture.

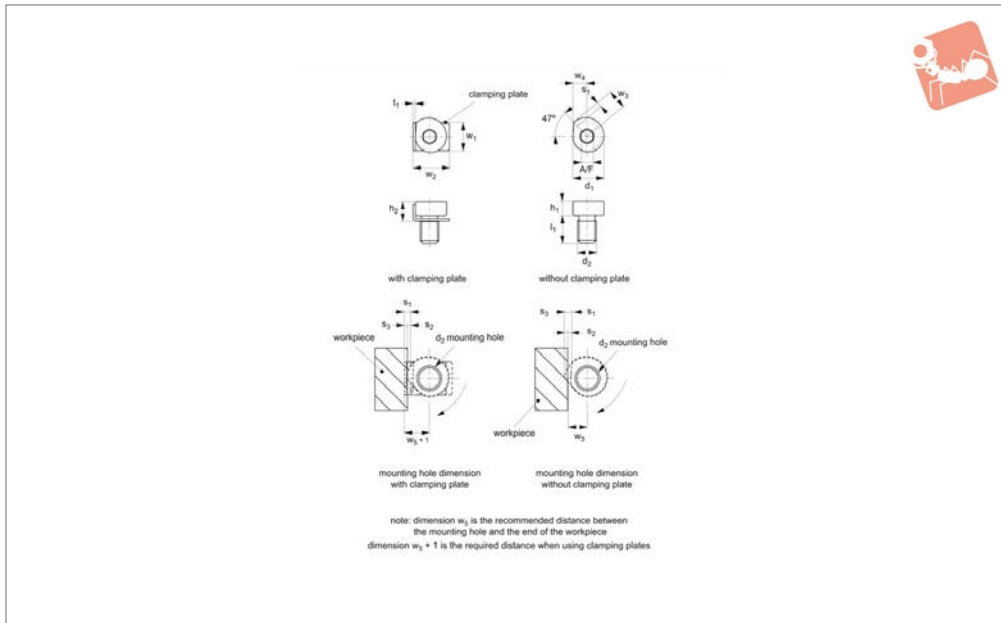
Important Notes

w_3 - the distance between the front of the clamp base and the workpiece. Drill and tap the centreline of „ w_1 “ for mounting holes.

For replacement cam screws see part 12112.

Order No.	Clamp screw	Mounting screw	l_1	h_1	h_2	h_3	h_4	w_1	w_2	w_3	w_4	Torque to Nm max.	Stroke	Holding force kN
12193.W0110	M 8	M 8	43.2	12.7	21.5	6.4	15.75	25.4	19.0	19.0	2.3	28	1.6	8.9
12193.W0112	M10	M10	54.0	11.4	24.4	9.7	15.75	33.5	25.4	25.4	2.8	88	2.0	17.8
12193.W0116	M12	M12	75.0	25.2	43.2	12.7	31.75	50.8	38.1	38.1	3.3	135	2.5	26.7





12108.1

LOW PROFILE SIDE CLAMPING

Material

Clamp: steel AISI 4140, HRC 33-39, blackened.

Plate: stainless steel (AISI 304, 1.4301).

Technical Notes

Extremely small and low height cam clamp offering upto 14 kN. clamping force. Ideal for multi-component fixtures.

Clamp is actuated with use of a hexagon key.

To avoid any deformation to work piece during clamping, select our clamping plate type.

Also available with an easy to actuate clamping handle model - see parts 12108.W2012 through .W2116.

Spare clamping plates can be ordered separately, see part no. 12108.W5010 through .W5016.

Tips

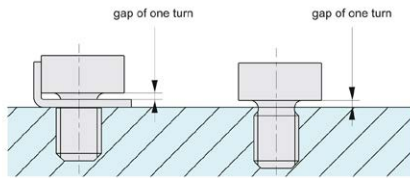
To install, drill and tap required hole to dimension d_2 and space hole to dimension w_5 away from workpiece surface (or $w_5 + 1$ if using clamping plate).

Fully tighten spiral clamp, then slacken off by one turn. Mount workpiece and then re-tighten clockwise to clamp workpiece.

Place a stop to the right of the workpiece to prevent movement.

Order No.	Type	d_1	d_2	h_1	h_2	l_1	w_1	w_2	Weight g
12108.W0010	W/o Clamping Plate	10	M 6x1,00	5	-	9	-	-	6
12108.W0012	W/o Clamping Plate	12	M 8x1,25	6	-	12	-	-	11
12108.W0014	W/o Clamping Plate	14	M10x1,50	7	-	15	-	-	19
12108.W0016	W/o Clamping Plate	16	M12x1,75	8	-	18	-	-	30
12108.W0110	With Clamping Plate	10	M 6x1,00	5	6	9	10	13.0	7
12108.W0112	With Clamping Plate	12	M 8x1,25	6	7	12	12	15.5	13
12108.W0114	With Clamping Plate	14	M10x1,50	7	8	15	14	18.0	21
12108.W0116	With Clamping Plate	16	M12x1,75	8	9	18	16	20.0	33

Order No.	w_3	w_4	w_5	Stroke s_1	Stroke s_2	Stroke s_3	t_1	A/F	Torque to Nm max.	Clamping force kN max.
12108.W0010	6.8	5	5.9	1.8	0.9	0.9	-	4	7.4	2.2
12108.W0012	8.2	6	7.1	2.2	1.1	1.1	-	5	18.0	4.7
12108.W0014	9.5	7	8.3	2.5	1.3	1.2	-	6	35.0	7.9
12108.W0016	10.9	8	9.5	2.9	1.5	1.4	-	8	60.0	14.0
12108.W0110	6.8	5	5.9	1.8	0.9	0.9	1	4	7.4	2.2
12108.W0112	8.2	6	7.1	2.2	1.1	1.1	1	5	18.0	4.7
12108.W0114	9.5	7	8.3	2.5	1.3	1.2	1	6	35.0	7.9
12108.W0116	10.9	8	9.5	2.9	1.5	1.4	1	8	60.0	14.0



tighten spiral cam clamp fully and loosen it about one turn
then mount to workpiece



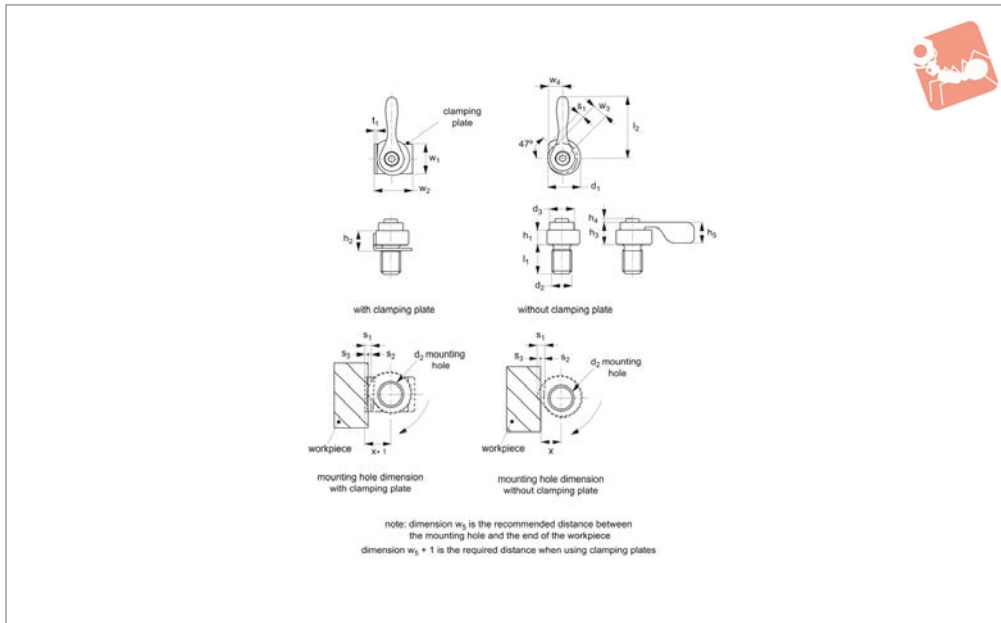
Spiral Cam Clamps actuating handle

Low Profile Side Clamping



12108.2

LOW PROFILE SIDE CLAMPING



Material

Clamp: steel (AISI 4140), HRc 33-39, blackened.

Plate: stainless steel (AISI 304, 1.4301).

Technical Notes

Extremely small and low height cam clamp offering upto 14 kN. clamping force. Ideal for multi-component fixtures.

Clamp is actuated via small handle/lever. To avoid any deformation to workpiece

during clamping, select our with clamping plate type.

Also available in model actuated with use of hexagon key - see parts 12108.W0010 through .W0116.

Spare clamping plates can be ordered separately, see part no. 12108.W5010 through .W5016.

Tips

To install, drill and tap required hole to

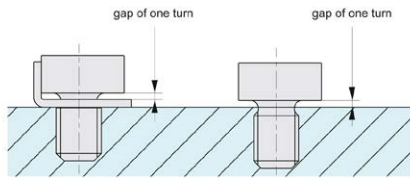
dimension d_2 and space hole to dimension w_5 away from workpiece surface (or $w_5 + 1$ if using clamping plate).

Fully tighten spiral clamp, then slacken off by one turn. Mount workpiece and then re-tighten clockwise to clamp workpiece.

Place a stop to the right of the workpiece to prevent movement.

Order No.	Type	d_1	d_2	d_3	h_1	h_2	h_3	h_4	h_5	l_1	Weight g
12108.W2012	W/o Clamping Plate	12	M 8x1,25	10	6	-	9	1.5	8.5	12	17
12108.W2014	W/o Clamping Plate	14	M10x1,50	12	7	-	11	1.8	10.0	15	30
12108.W2016	W/o Clamping Plate	16	M12x1,75	14	8	-	13	2.2	12.0	18	51
12108.W2112	With Clamping Plate	12	M 8x1,25	10	6	7	9	1.5	8.5	12	19
12108.W2114	With Clamping Plate	14	M10x1,50	12	7	8	11	1.8	10.0	15	32
12108.W2116	With Clamping Plate	16	M12x1,75	14	8	9	13	2.2	12.0	18	54

Order No.	l_2	w_1	w_2	w_3	w_4	w_5	Stroke s_1	Stroke s_2	Stroke s_3	t_1	Torque to Nm max.	Clamping force kN max.
12108.W2012	25	-	-	8.2	6	7.1	2.2	1.1	1.1	-	18	4.7
12108.W2014	30	-	-	9.5	7	8.3	2.5	1.3	1.2	-	35	7.9
12108.W2016	40	-	-	10.9	8	9.5	2.9	1.5	1.4	-	60	14.0
12108.W2112	25	12	15.5	8.2	6	7.1	2.2	1.1	1.1	1	18	4.7
12108.W2114	30	14	18.0	9.5	7	8.3	2.5	1.3	1.2	1	35	7.9
12108.W2116	40	16	20.0	10.9	8	9.5	2.9	1.5	1.4	1	60	14.0

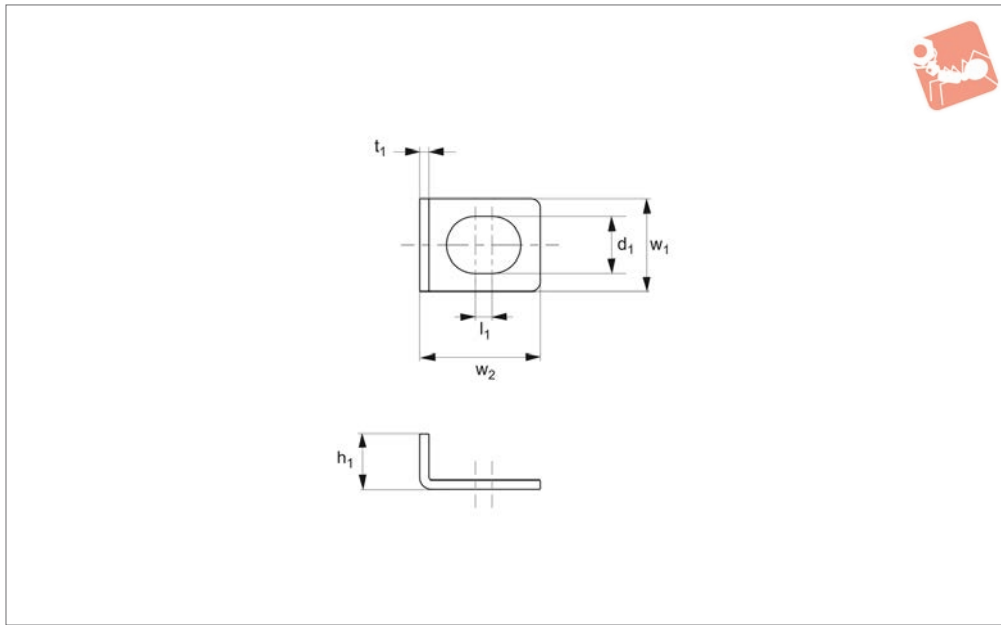


tighten spiral cam clamp fully and loosen it about one turn
then mount to workpiece



Clamping Plate for spiral cam clamps 12108

Low Profile Side Clamping



12108.3

LOW PROFILE SIDE CLAMPING

Material

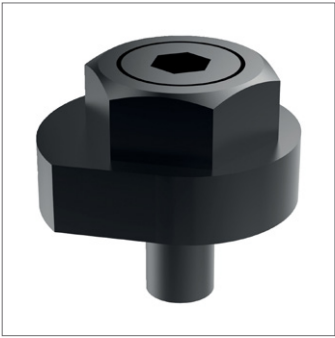
Stainless steel (AISI 304, 1.4301).

no. 12108. Use plates to avoid any deformation to workpiece during clamping.

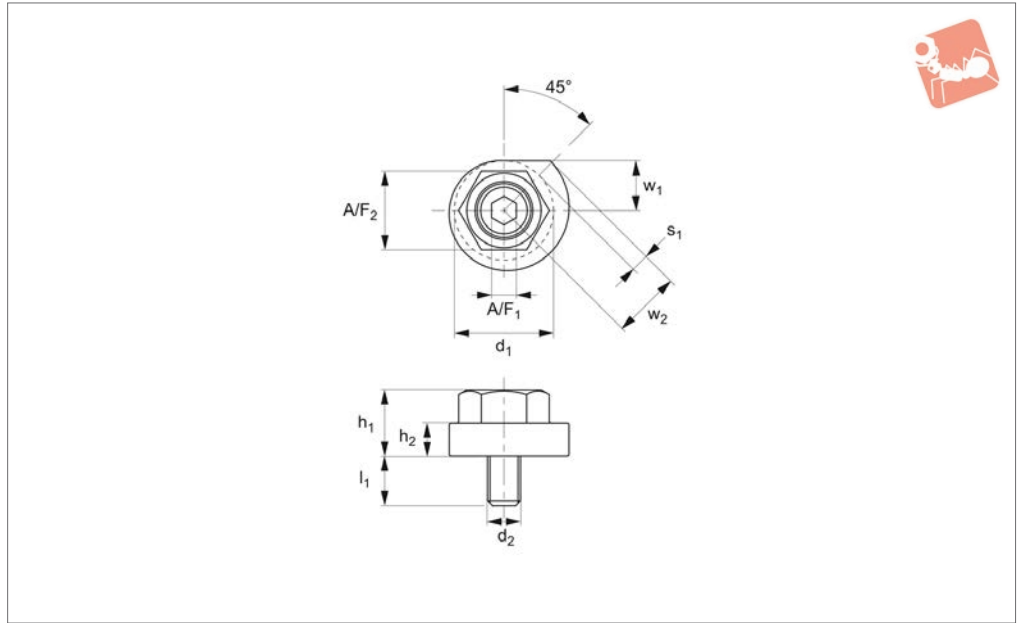
Technical Notes

Clamping plates for spiral cam clamp, part

Order No.	d ₁	For spiral clamp size d ₂	h ₁	l ₁	w ₁	w ₂	t ₁	Weight g
12108.W5010	6.2	10	6	1.8	10	13.0	1	17
12108.W5012	8.2	12	7	2.2	12	15.5	1	17
12108.W5014	10.2	14	8	2.6	14	18.0	1	30
12108.W5016	12.2	16	9	2.9	16	20.0	1	51



12109



Material

Steel (AISI 4140), HRc 33-39, blackened.

Technical Notes

Simple and robust cam clamp. Easy to

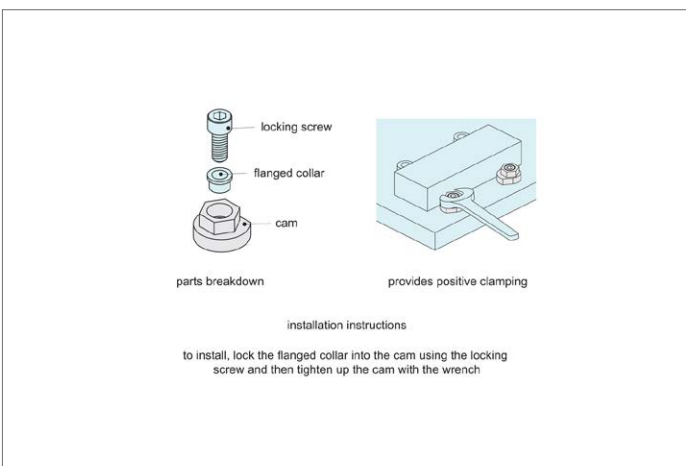
install. Actuated with spanner.

Tips

To install: insert flanged collar and locking screw into cam body. Tighten locking screw

to fix cam in position. Load component, then use spanner to turn and actuate cam to clamp up to workpiece surface.

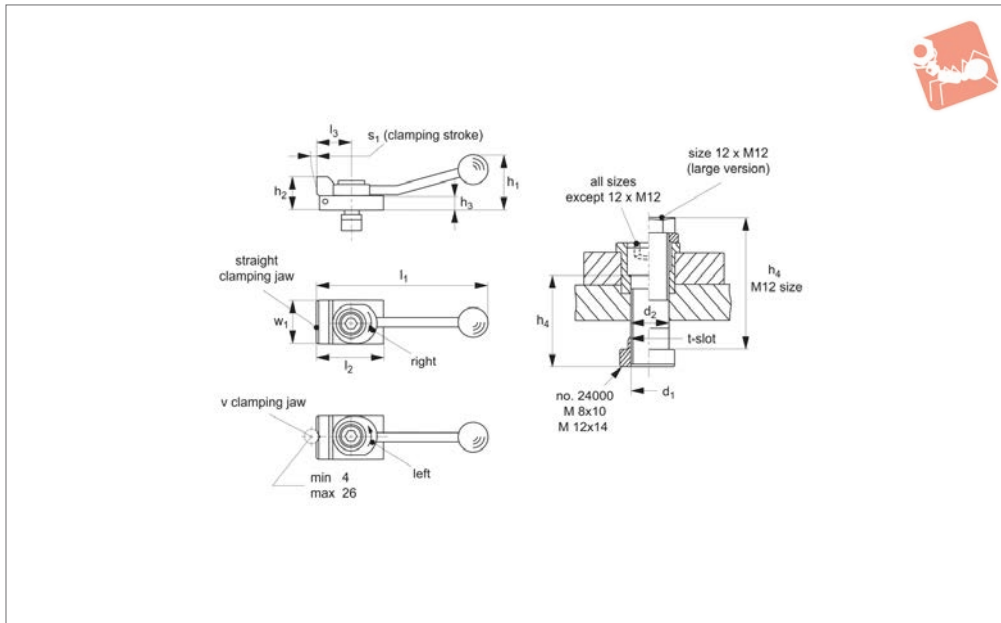
Order No.	d_1	d_2	h_1	h_2	l_1	w_1	w_2	Stroke s_1	A/F_1	A/F_2	Torque to Nm max.	Clamping force kN max.	Weight g
12109.W0024	24	M 8x1,25	16	8	12	12	16.4	4.4	6	19	50	5.2	55
12109.W0030	30	M10x1,50	20	10	15	15	20.5	5.5	8	24	75	8.0	110
12109.W0034	34	M12x1,75	24	12	18	17	23.2	6.2	10	27	90	9.3	185





Downhold Clamps with cranked clamping lever

Low Profile Side Clamping



12400

LOW PROFILE SIDE CLAMPING

Material

Steel, case-hardened, blackened.

Technical Notes

For quick clamping from the side. The clamps give forwards and downwards clamping forces.

Tips

Can bridge T-slots when used with holding plate no. 12410. The clamps low profile enables full-face machining. Often used in conjunction with cylindrical stops and bedding supports.

Supplied with standard T-nut. Clamps can be used in other T-slot sizes by selecting T-nuts no. 24000 as required, e.g. M 8x12, M 8x14, M12x16, M12x18.

Order No.	For T-slot	Type	h_1	h_2	h_3	h_4	l_1	l_2	l_3	d_1	d_2	Stroke s_1	w_1	Clamping force horizontal kN max.	Weight g
12400.W0101	10	Straight Jaw, Clamps Right	20	30	8	40	132	50	32	M 8	8,4	3	32	3,5	262
12400.W0321	12	Straight Jaw, Clamps Right	38	60	16	62	190	72	40	M12	12,5	4	48	7,0	870
12400.W0341	14	Straight Jaw, Clamps Right	38	40	16	62	190	72	40	M12	12,5	4	48	7,0	845
12400.W0105	10	Straight Jaw, Clamps Left	20	30	8	40	132	50	32	M 8	8,4	3	32	3,5	262
12400.W0325	12	Straight Jaw, Clamps Left	38	60	16	62	190	72	40	M12	12,5	4	48	7,0	868
12400.W0345	14	Straight Jaw, Clamps Left	38	40	16	62	190	72	40	M12	12,5	4	48	7,0	847
12400.W0102	10	V-Jaw, Clamps Right	20	30	8	40	132	50	32	M 8	8,4	3	32	3,5	263
12400.W0322	12	V-Jaw, Clamps Right	38	60	16	62	190	72	40	M12	12,5	4	48	7,0	893
12400.W0342	14	V-Jaw, Clamps Right	38	40	16	62	190	72	40	M12	12,5	4	48	7,0	838
12400.W0106	10	V-Jaw, Clamps Left	20	30	8	40	132	50	32	M 8	8,4	3	32	3,5	264
12400.W0326	12	V-Jaw, Clamps Left	38	60	16	62	190	72	40	M12	12,5	4	48	7,0	900
12400.W0346	14	V-Jaw, Clamps Left	38	40	16	62	190	72	40	M12	12,5	4	48	7,0	841

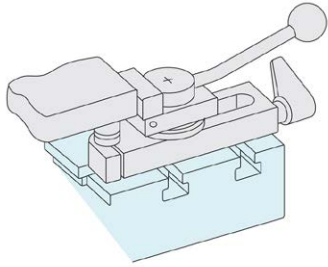
Low Profile Side Clamping



Downhold Clamps with cranked clamping lever



LOW PROFILE SIDE CLAMPING

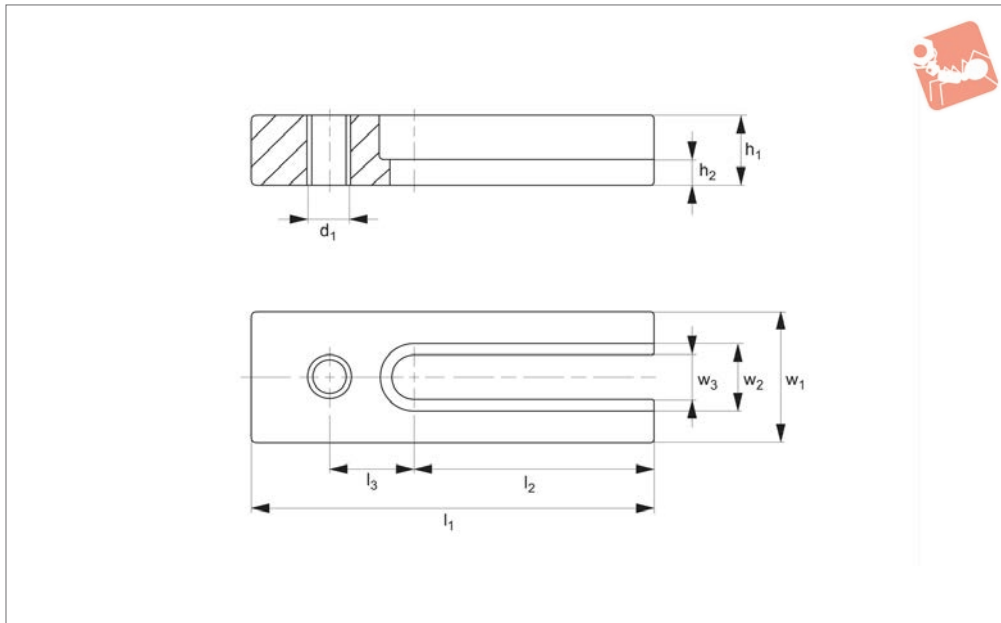




Holding Plates

for downhold clamps nos. 12400 & 12420

Low Profile Side Clamping



12410

LOW PROFILE SIDE CLAMPING

Material

Steel, heat treated, blackened.

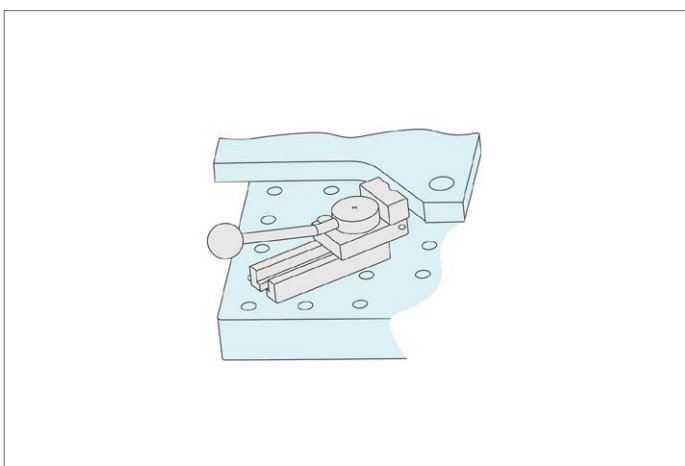
Tips

Allows downhold clamps to be placed in any desired position, across T-slots etc.

Technical Notes

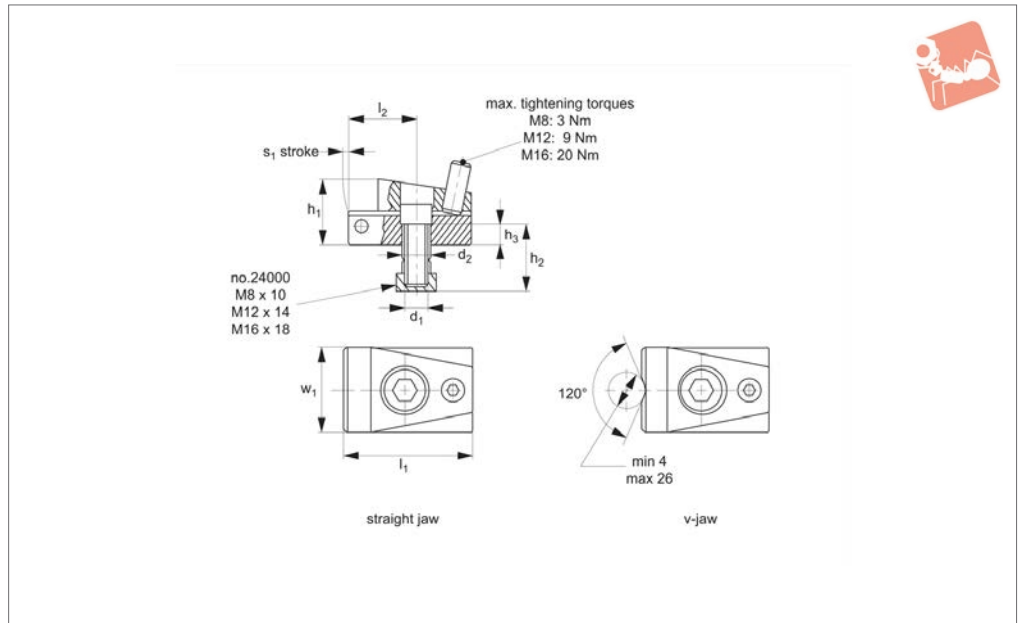
For use with clamps nos. 12400 and 12420.

Order No.	h_1 -0.4	h_2	l_1	l_2	l_3	d_1	w_1	w_2	w_3	Weight g
12410.W0730	15	6.5	100	63	20	M 8	30	15	9	246
12410.W0740	20	7.5	120	72	25	M12	40	20	13	515
12410.W0760	30	13.0	140	80	30	M16	60	26	17	1456
12410.W0770	40	18.0	200	110	50	M20	80	32	21	3900
12410.W0780	50	24.0	220	130	55	M24	90	38	25	5850





12420



Material

Steel, ground, case-hardened and blackened.

Technical Notes

Actuate by self-aligning screw on top, rear of the clamp. Extremely high clamping

forces, as the clamp pivots forwards and downwards to securely hold the workpiece. **T-nuts no. 24000 allow the clamps to be used in a variety of T slot sizes.**

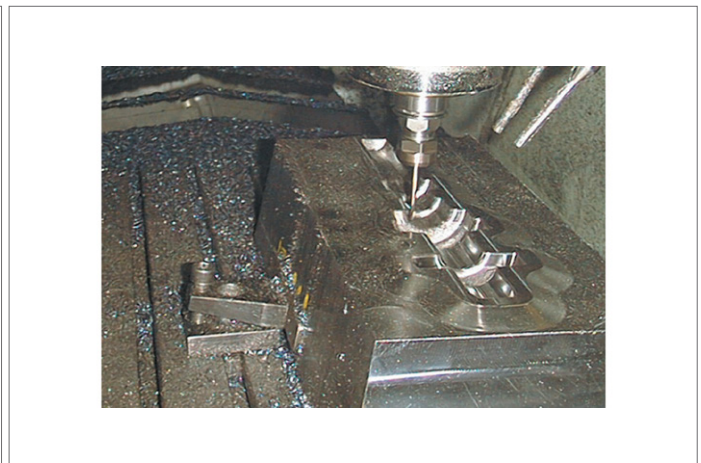
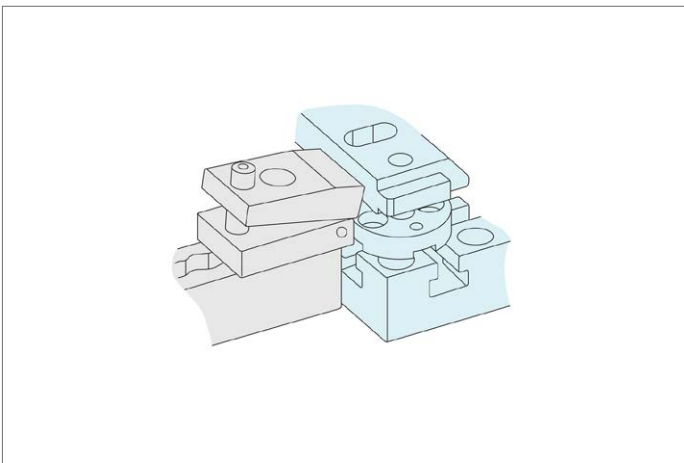
Tips

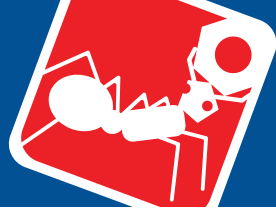
Do not over torque clamping screw as

this can result in the stripping of the thread. For recommended torques - please see table.

May be used with holding plate no. 12410.

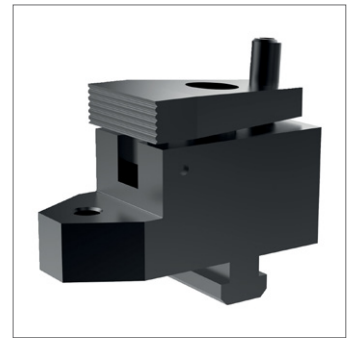
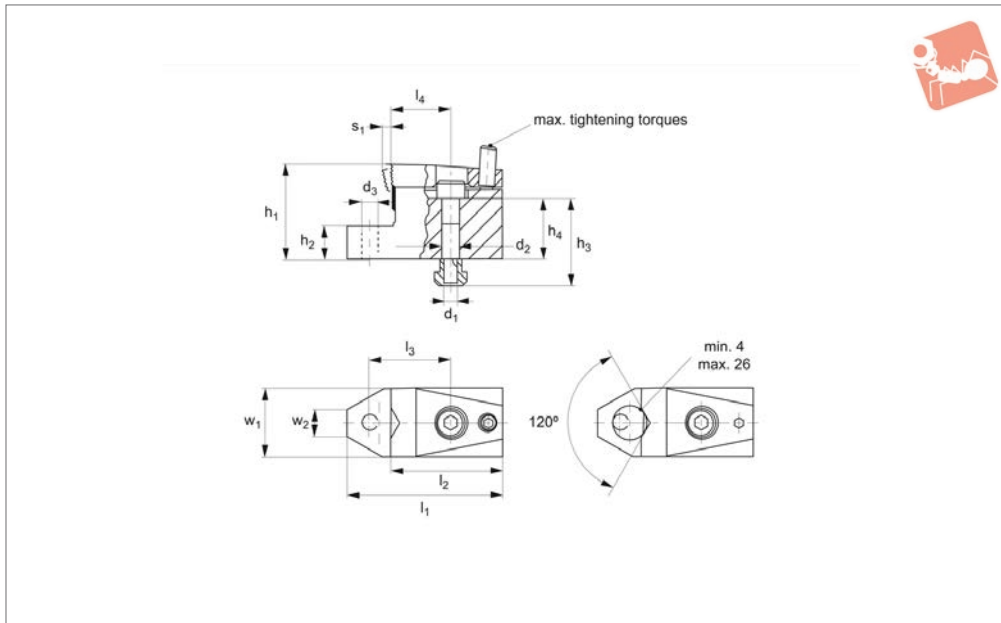
Order No.	For T-slot	Type	h_1	h_2	h_3	l_1	l_2	d_1	d_2	Stroke s_1	w_1	Clamping force horizontal kN max.	Torque to Nm max.	Weight g
12420.W0501	10	Straight Jaw	24	20	8	52	28,0	M 8	8,4	3	32	7,0	3	276
12420.W0521	14	Straight Jaw	37	30	11	72	40,0	M12	12,5	4	48	15,0	9	831
12420.W0541	18	Straight Jaw	47	35	13	86	41,0	M16	16,5	7	68	21,5	20	1749
12420.W0502	10	V-Jaw	24	20	8	52	28,0	M 8	8,4	3	32	7,0	3	266
12420.W0522	14	V-Jaw	37	30	11	72	40,0	M12	12,5	4	48	15,0	9	833
12420.W0542	18	V-Jaw	47	35	13	86	41,0	M16	16,5	7	68	21,5	20	1730





Downhold Clamps with support ledge

Low Profile Side Clamping



12422

LOW PROFILE SIDE CLAMPING

Material

Steel, case-hardened, blackened, ground.

Technical Notes

By tightening the ball-ended thrust screw the workpiece is simultaneously pressed towards the stops and fixture plate. This

pivoting action enables high horizontal clamping forces. The integrated support has a thread suitable for rest buttons.

Tips

Do not over torque clamping screw as this can result in the stripping of the

thread. For recommended torques - please see table.

May be used with holding plate no. 12410.

Order No.	For T-slot	Jaw type	h_1	h_2 ± 0.01	h_3 \approx	h_4 \approx	l_1	l_2	Weight g
12422.W0051	10	Straight Jaw	44	15	40	28	52	28	556
12422.W0061	14	Straight Jaw	53	15	45	27	72	40	1342
12422.W0071	18	Straight Jaw	72	20	60	38	86	41	3149
12422.W0052	10	V- Jaw	44	15	40	28	52	28	553
12422.W0062	14	V- Jaw	53	15	45	27	72	40	1324
12422.W0072	18	V- Jaw	72	20	60	38	86	41	3100

Order No.	l_3	l_4	d_1	d_2	d_3	Stroke s_1	w_1	w_2	Clamping force horizontal kN max.	Tightening torque Nm max.
12422.W0051	72.5	38	M 8	8.4	M 8	3	32	12.1	7.0	3
12422.W0061	100.0	55	M12	13.0	M12	4	48	16.0	15.0	9
12422.W0071	126.0	63	M16	17.0	M16	7	68	18.8	21.5	20
12422.W0052	72.5	38	M 8	8.4	M 8	3	32	12.1	7.0	3
12422.W0062	100.0	55	M12	13.0	M12	4	48	16.0	15.0	9
12422.W0072	126.0	63	M16	17.0	M16	7	68	18.8	21.5	20

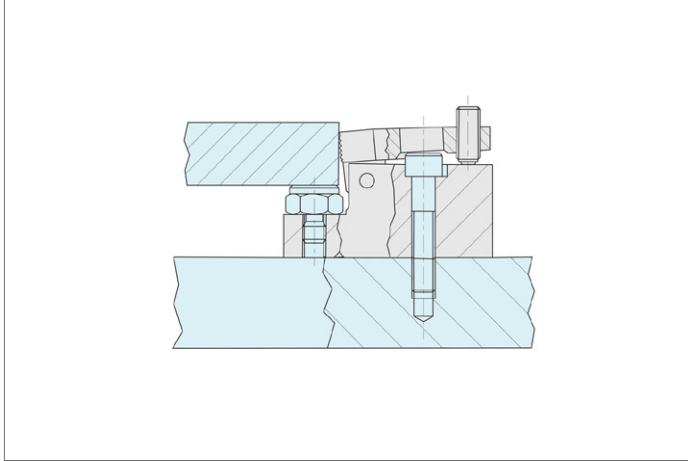
Low Profile Side Clamping

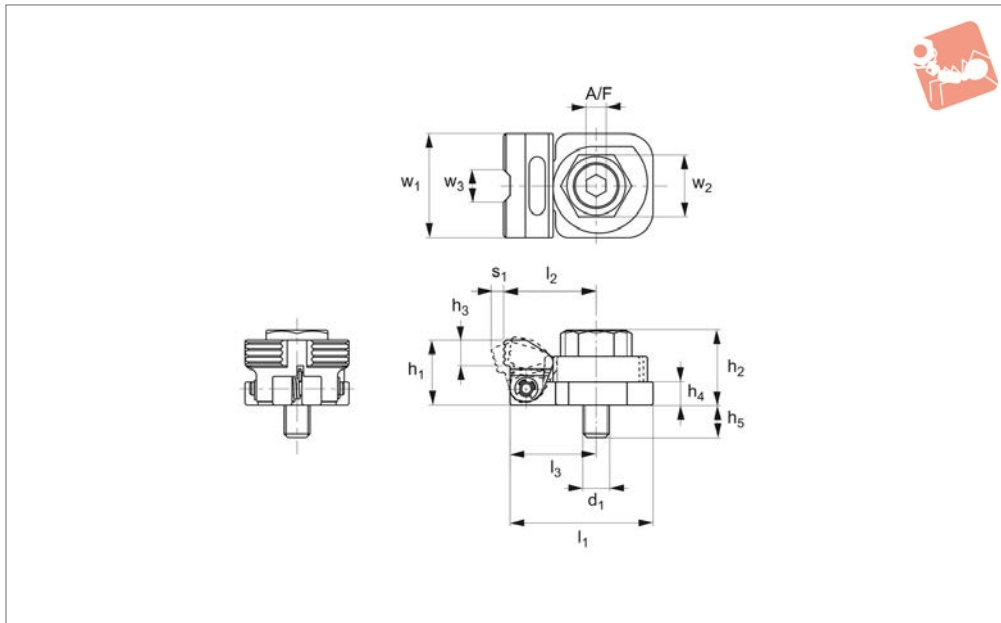
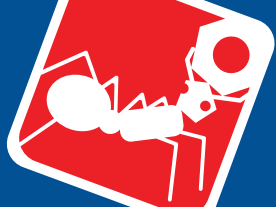


Downhold Clamps with support ledge



LOW PROFILE SIDE CLAMPING





12426

LOW PROFILE SIDE CLAMPING

Material

Body/jaw: steel (42CrMo), tempered and black oxide finish.

Cam: steel (C45), tempered and black

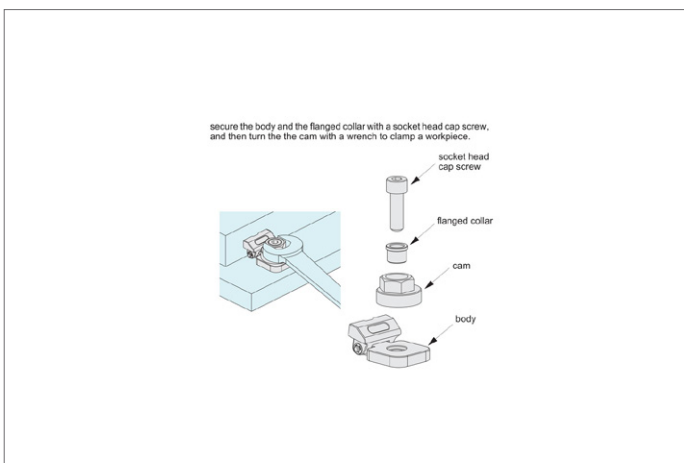
oxide finish.

Technical Notes

Secure the body and the flanged collar

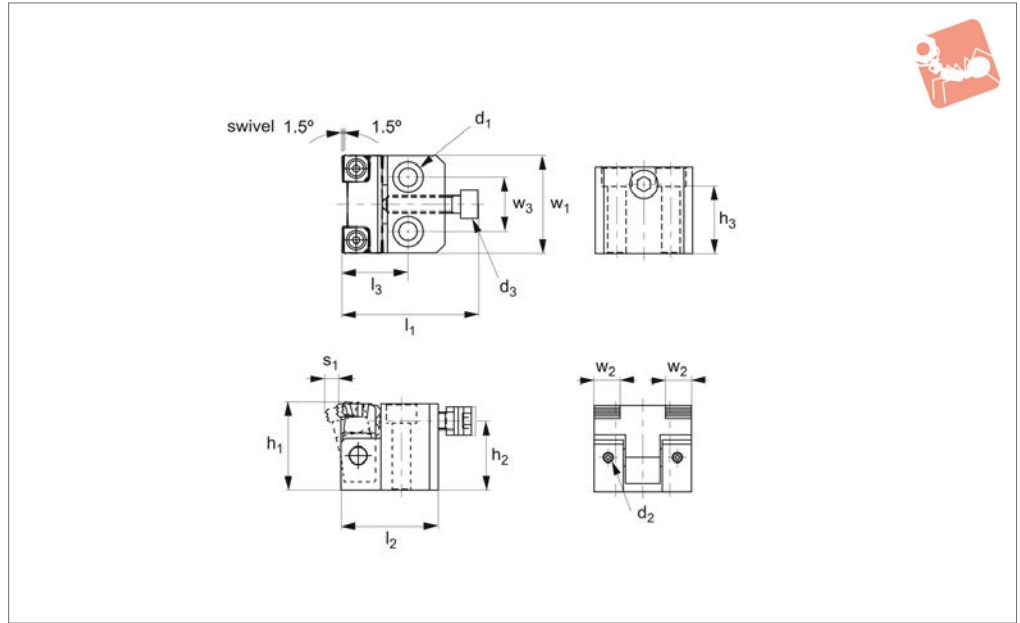
with a socket head cap screw. Turn the cam with a wrench to clamp a workpiece.

Order No.	h_1	h_2	h_3	h_4	h_5	l_1	l_2	l_3	d_1	Stroke s_1	w_1	w_2	w_3	A/F	Clamping force kN max.	Torque to Nm max.	Weight g
12426.W0032	20	23	8	7	15	44	28,5	26,5	M 8x30	4,0	32	19	10	6	3,5	45	160
12426.W0040	25	29	10	9	16	54	35,0	33,0	M10x35	5,0	40	24	12	8	5,5	55	310
12426.W0046	30	35	12	11	17	62	39,5	37,5	M12x40	5,5	46	27	14	10	7,0	70	490





12428



Material

Body: steel (C45), black oxide finish.
 Arm: steel (C45), tempered and black oxide finish.
 Jaw: steel (SKH51), tempered and black oxide finish.

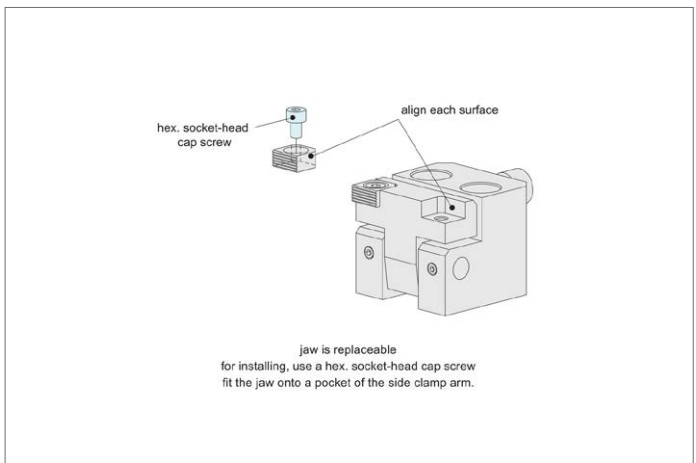
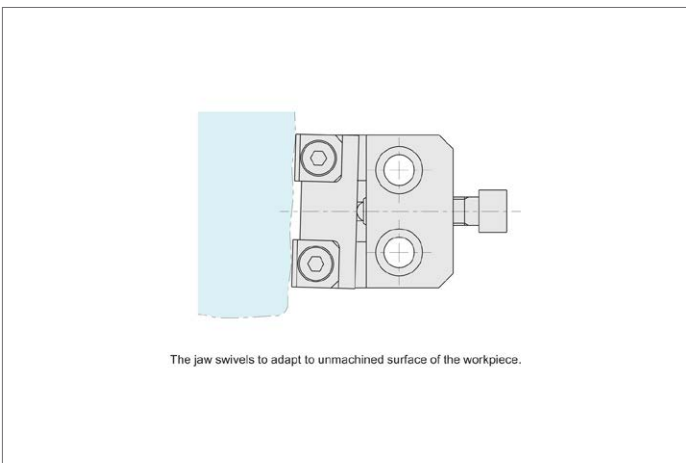
Technical Notes

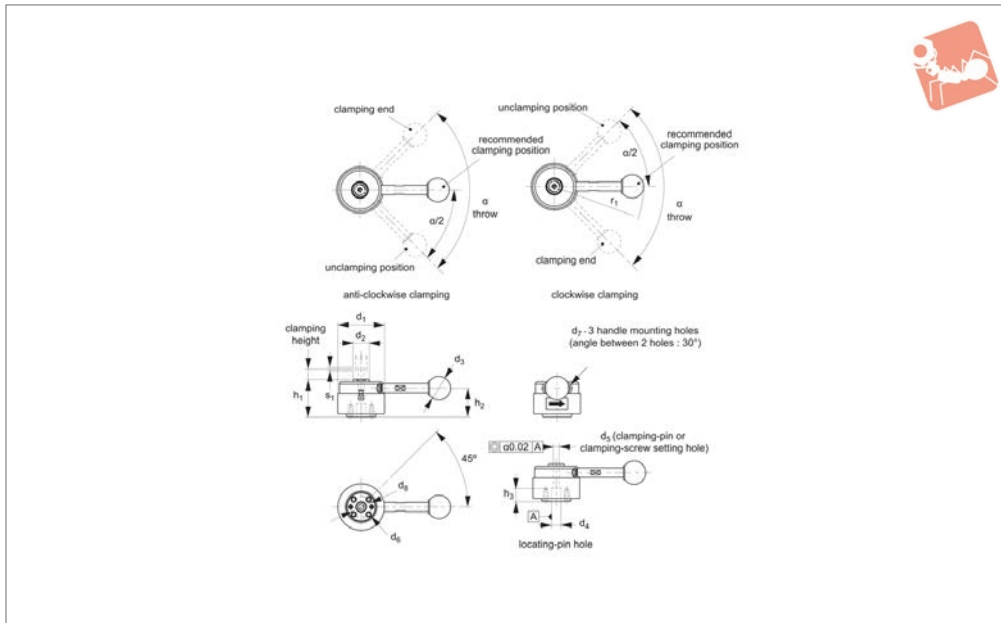
The jaw swivels to align to an unmachined surface of the workpiece. The jaw is replaceable.
 For mounting, use a cap screw to suit d_1

Tips

For replacement jaws, see part nos. 35520.W0303, 35520.W0306 and 35520.W0310.

Order No.	h_1	h_2	h_3	l_1	l_2	l_3	d_1	d_2	d_3	Stroke s_1	w_1	w_2	w_3	Clamping force kN max.	Torque to Nm max.	Weight g
12428.W0012	40	32	31	62.5	45	30	M 8	M 4x4	M 8x35	5.3	45	12	25	15	25	0.6
12428.W0016	50	40	39	74.0	55	40	M10	M 4x4	M10x40	7.1	55	16	30	27	50	1.0
12428.W0020	60	48	47	91.0	65	45	M12	M 5x5	M12x50	8.0	65	20	35	38	90	1.7





12620.1

LOW PROFILE SIDE CLAMPING

Material

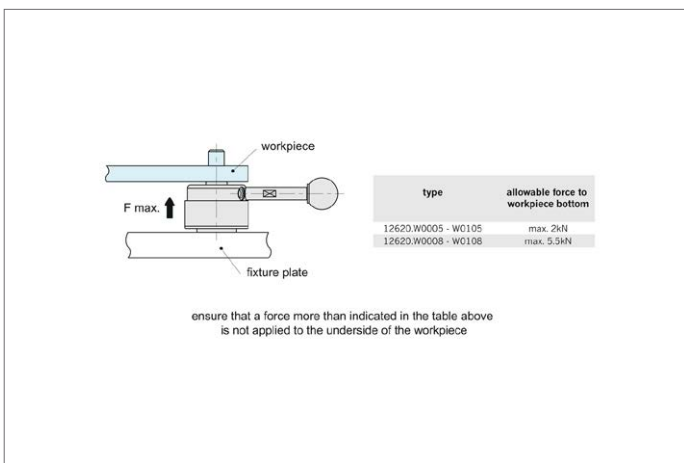
Body: steel (42CrMo), quenched and tempered, black oxide finish.

Handle shank: steel (C43), black oxide finish.

Ball knob: ABS resin, black.

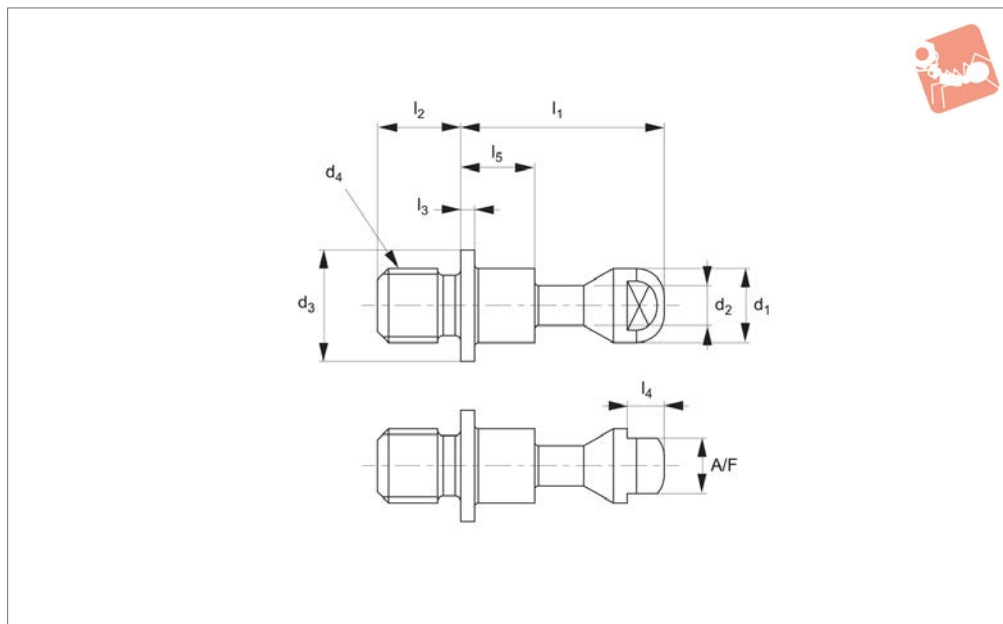
Order No.	Type	s ₁	h ₁ ±0.01	h ₂	h ₃	d ₁	d ₂	d ₃	d ₄ tol. G6	d ₅ tol. H7	Weight g
12620.W0005	Clockwise	1.5	32	24.5	10	40	13.5	20	8	5	245
12620.W0105	Anti Clockwise	1.5	32	24.5	10	40	13.5	20	8	5	245
12620.W0008	Clockwise	2.0	40	30.7	13	50	18	25	12	8	470
12620.W0108	Anti Clockwise	2.0	40	30.7	13	50	18	25	12	8	470

Order No.	d ₆	d ₇	d ₈	r ₁	α	Recommended workpiece thickness tolerance	Clamping mechanism	Handle load N max.	Clamping force kN max.
12620.W0005	M4x8	M5x0.8	18	76.5	90°	±0,3	Spiral Cam, 4°	150	0.9
12620.W0105	M4x8	M5x0.8	18	76.5	90°	±0,3	Spiral Cam, 4°	150	0.9
12620.W0008	M6x9	M6x1	25	111.5	110°	±0,5	Spiral Cam, 4°	200	2.5
12620.W0108	M6x9	M6x1	25	111.5	110°	±0,5	Spiral Cam, 4°	200	2.5





12620.2



Material

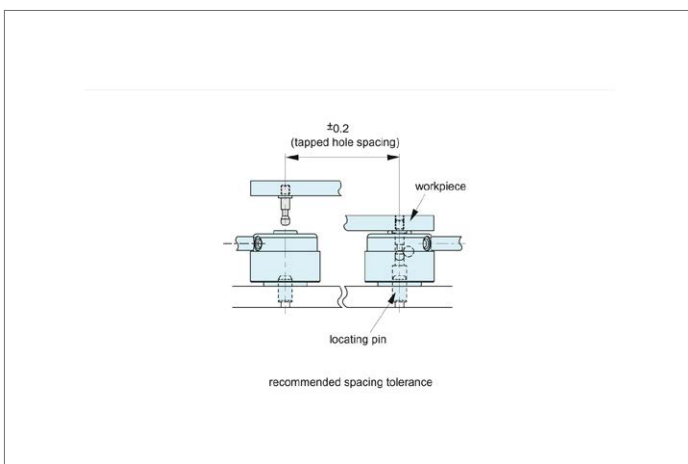
Steel (35CrMo), tempered and black oxide finish.

Technical Notes

Used with Pull clamp 12620.W0005- . W0108.

Recommended spacing tolerance between clamping screws $\pm 0,2$.

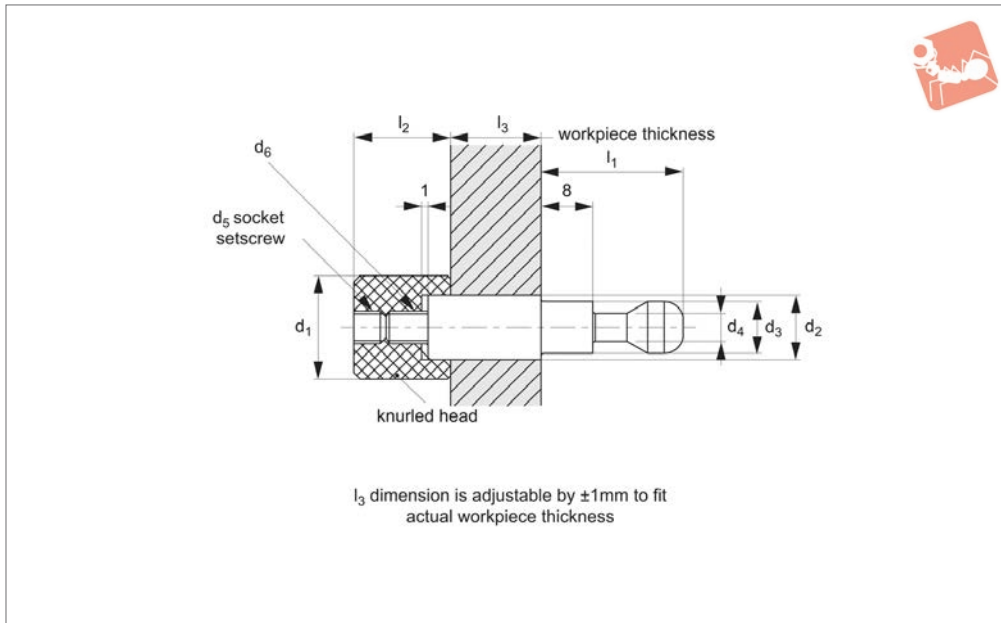
Order No.	d ₁	d ₂	d ₃	d ₄	l ₁	l ₂	l ₃	l ₄	A/F	Weight g
12620.W0351	5	3.0	8	M 5x0,8	17	6	1.2	2.5	4	3
12620.W0352	5	3.0	8	M 6x1	17	7	1.2	2.5	4	4
12620.W0381	8	4.3	12	M 8x1,25	22	9	1.5	4.0	6	10
12620.W0382	8	4.3	12	M10x1,5	22	11	1.5	4.0	6	13





Clamping Pins for pull clamps

Low Profile Side Clamping



12620.3

LOW PROFILE SIDE CLAMPING

Material

Shank: steel (35CrMo), induction hardened (taper seat), precision ground.
Head: steel (C45), tempered and black oxide finish.

Technical Notes

The length l_3 should be decided depending on the workpiece thickness, adjustable by ± 1 mm.

Tips

In the order table replace XX with l_3 length required to suit workpiece (in mm).

Order No.	d_1	d_2 tol. f7	d_3 tol. f7	d_4	d_5	d_6	l_1	l_2	l_3	Weight g
12620.W0551-XX	10	5	5	3	M 3x4	M 3x0,5	17	10	$3 < l_3 < 50$	8~16
12620.W0552-XX	10	6	5	3	M 3x4	M 3x0,5	17	10	$3 < l_3 < 50$	8~19
12620.W0581-XX	16	8	8	4.3	M 5x5	M 5x0,8	22	15	$4 < l_3 < 80$	30~60
12620.W0582-XX	16	10	8	4.3	M 5x5	M 5x0,8	22	15	$4 < l_3 < 80$	31~77

