



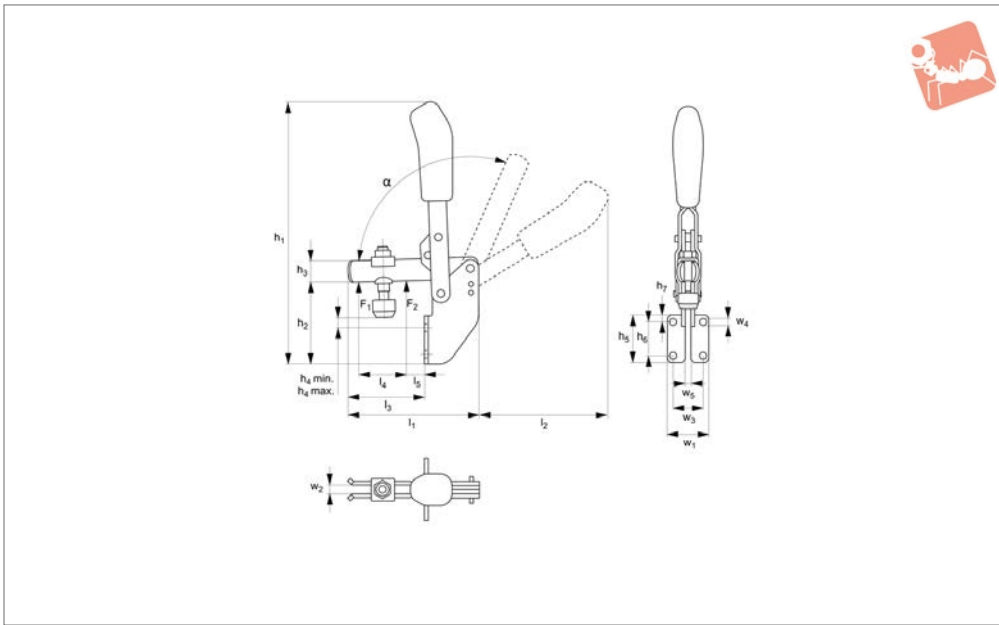
Vertical Acting Toggle Clamps

angle base



40100.1

STEEL TOGGLE CLAMPS



Material

Body: steel, zinc plated.
 Rivets: stainless steel running in hardened bushes (sizes 2-3). Pre-lubricated bearings (grease suitable for food industry use).
 Ergonomic, soft feel, oil-resistant handle

with large grip area.
 Supplied complete with clamping screw (with rubber pad).

Technical Notes

For fastening to mounting plates, etc.

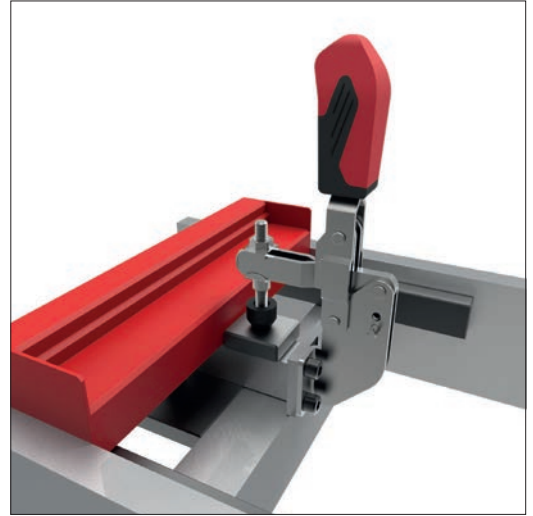
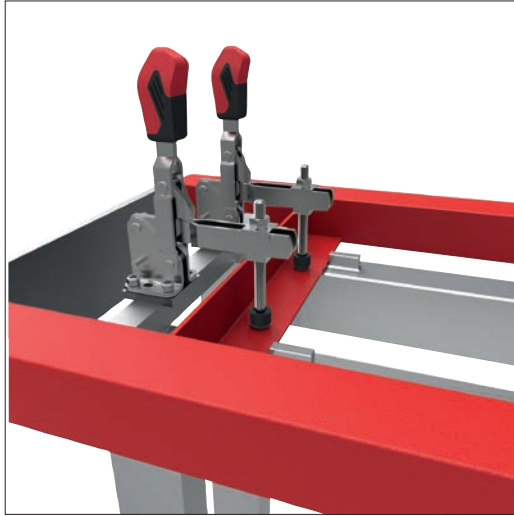
Opening angle (symbol α /symbol α symbol α /symbol α *) can be changed by pressing in a stop pin on the clamp body.
 Lock washer for the thrust bolt at the end of the clamping arm.
 Temperature range -10°C to +80°C.

Order No.	Size	F ₁ kN	F ₂ kN	Clamping screw	h ₁	h ₂	h ₃	h ₄ min.	h ₄ max.	h ₅	h ₆	h ₇	Weight g
40100.W0001	1	0.8	1.1	M 5x30	125.0	45.0	10	2.5	9.0	30	14	10	125
40100.W0002	2	1.0	1.2	M 6x35	176.5	60.0	12	8.0	15.5	32	20	6	220
40100.W0003	3	1.4	2.5	M 8x45	223.0	71.0	18	9.0	17.5	38	24	7	400
40100.W0004	4	2.0	3.0	M 8x65	280.0	101.5	20	11.0	39.5	96	32	54	650

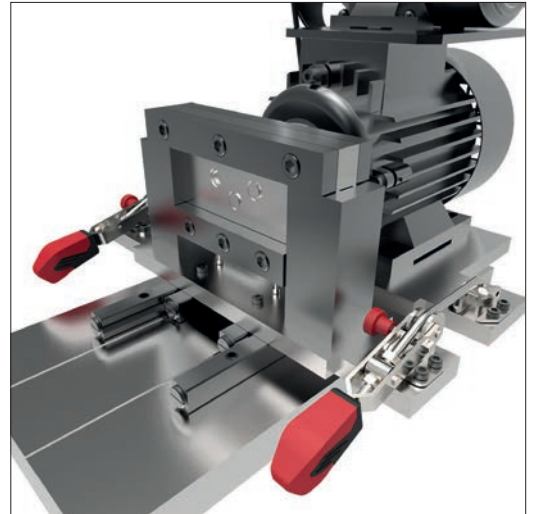
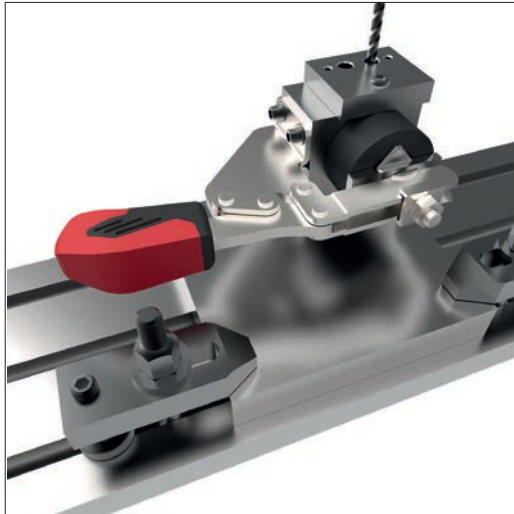
Order No.	l ₁	l ₂	l ₃	l ₄	l ₅	w ₁	w ₂	w ₃	w ₄	w ₅	α	α^*
40100.W0001	61	58	34.5	18	7	30.0	5	20.0	4.5	5	98°	-
40100.W0002	77	90	41.0	25	6	37.0	6	25.5	6.1	5	105°	60°
40100.W0003	110	112	62.0	37	11	42.5	8	28.5	6.5	6	105°	60°
40100.W0004	141	129	83.0	54	11	52.0	10	32.0	8.5	8	105°	60°



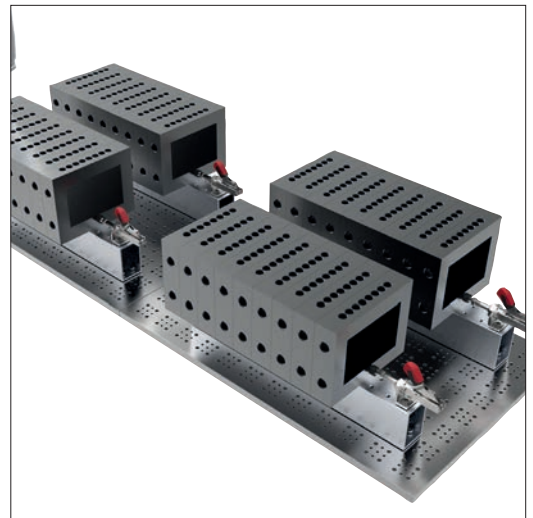
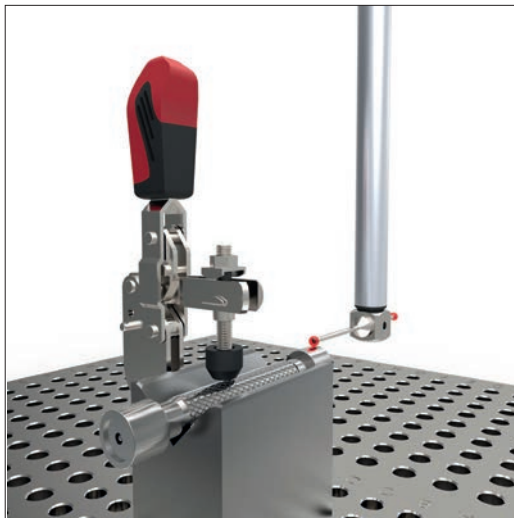
Welding Fixtures



Machining and Jig Assemblies

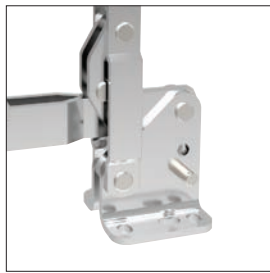


Cmm's

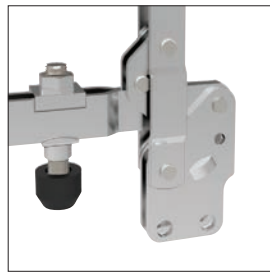




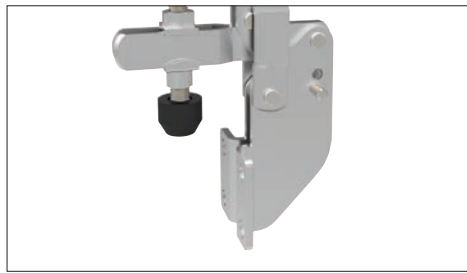
STEEL TOGGLE CLAMPS



Horizontal base



Vertical base



Angled base

Mounting Base Variations



Vertical acting



Horizontal acting



Push-pull

Clamping Variations



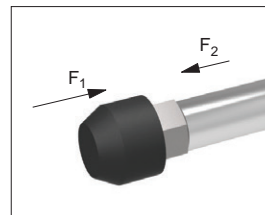
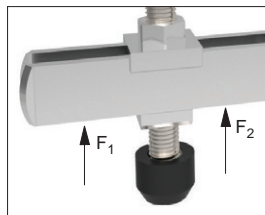
Hook type



Latch type

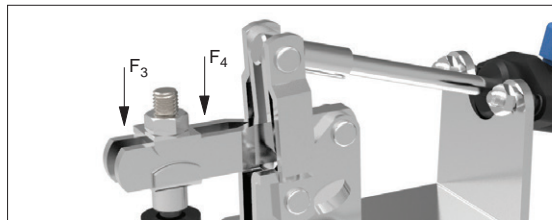
Explanation of forces

The force transmitted to the workpiece by the toggle clamp's closed arm, without itself being deformed when machine forces are applied. The holding force value is dependent upon the proximity of the measuring load point to the toggle clamp's pivot point (therefore two values, F_1 and F_2 are provided).



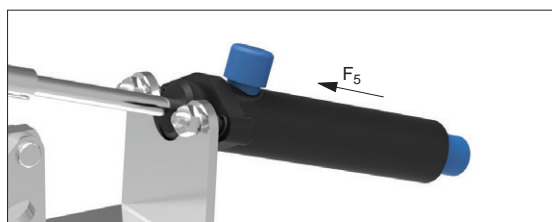
Holding Forces F_1 or F_2

The force applied to the workpiece when the toggle clamp's arm is closed. These clamping forces can only be stated for pneumatic toggle clamps, clamping forces of manual clamps cannot be easily measured as they are dependent upon the operator.



Clamping Forces F_3 or F_4

For pneumatically controlled toggle clamps only, F_5 is the piston force required (at 6 bar to) achieve the stated clamping force.



Piston Forces F_5

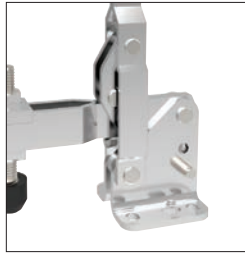
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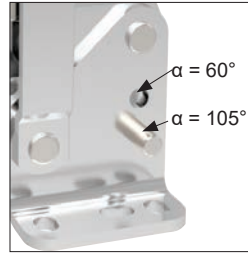
Quality Features



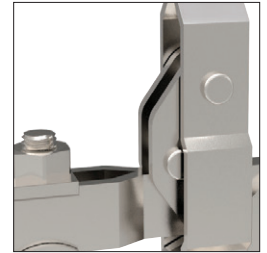
Ergonomic soft grip
2-component handle



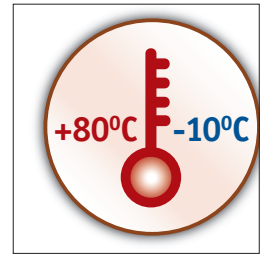
Stainless rivets and
hardened bushings



Moveable stop for
variable opening angle



Operator
finger protection



Temperature resistant

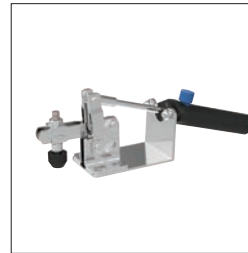
Unique Features



Safety catches



Heavy duty versions



Pneumatic versions



Matt black surface for
optical measurement

Materials



Steel, zinc plated
and passivated



Stainless steel (304)



Steel, matt black
vario-spektron coated



Protective cap and
handle made of an
electrostatic conductive
(dissipative) material.