

41700.1

STEEL TOGGLE CLAMPS

Material

Body: steel, zinc plated.
 Rivets: stainless steel running in case hardened bushes. Pre-lubricated bearings (grease suitable for food industry use).
 Ergonomic, soft feel, oil-resistant handle with large grip area.

Technical Notes

Ideally suited for use as a toggle type

fastener for the lids or covers of fixed or rotating drums and containers.

The length of the hook is adjustable by rotating the threaded hook to extend or contract it's reach.

Temperature range -10°C to +80°C.

Tips

For counter strike see part no. 41700.W0011- .W0015.

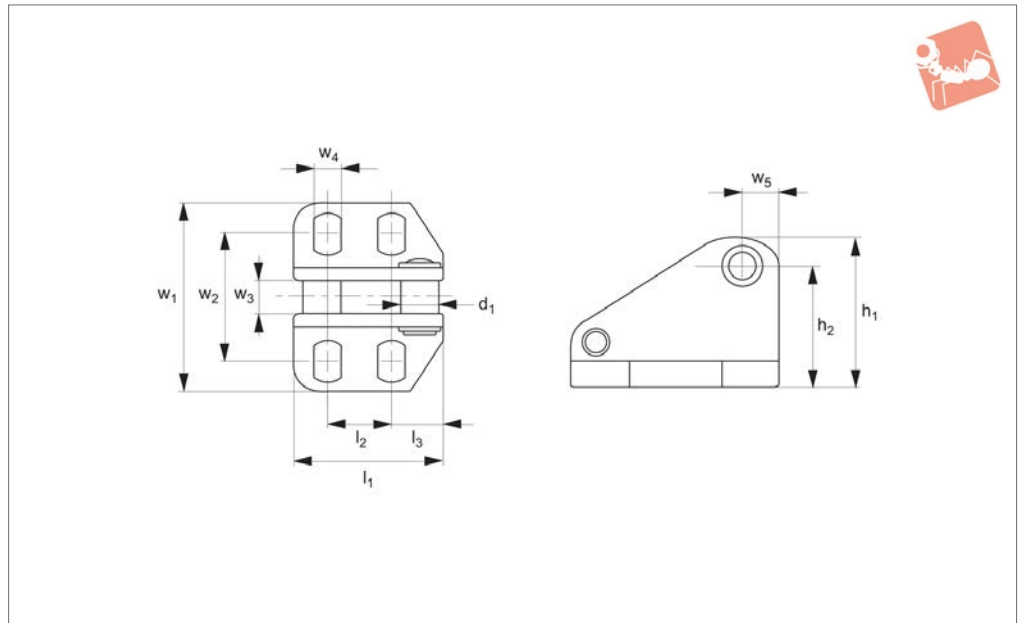
For stainless steel version see part no. 41740.W0001- .W0005.

| Order No. | Size | F ₁ kN | h ₁ | d ₁ | d ₂ | h ₂ | h ₃ | l ₁ | l ₂ | Weight g |
|-------------|------|----------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-------------|
| 41700.W0001 | 1 | 2 | 111 | 5.3 | 4.5 | 34.5 | 22.7 | 88 | 45 | 100 |
| 41700.W0003 | 3 | 3 | 179 | 7.1 | 5.6 | 36.0 | 22.7 | 148 | 98 | 270 |
| 41700.W0005 | 5 | 5 | 280 | 10.8 | 11.2 | 69.0 | 49.1 | 228 | 146 | 850 |

| Order No. | l ₃ | l ₄ | l ₅ | l ₆ | l ₇ | l ₈ | l ₉ | w ₁ | w ₂ | r ₁ | Adj. distance |
|-------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|---------------|
| 41700.W0001 | 35,0-42,0 | 31 | 35,0-42,5 | 19 | 6 | 16,0-23,0 | 16,5-23,5 | 40 | 25,5-30,5 | 4.5 | 8 |
| 41700.W0003 | 65,5-77,0 | 40 | 72,5-84,0 | 19 | 13 | 32,5-44,0 | 39,5-50,5 | 45 | 31,0-36,0 | 5.5 | 12 |
| 41700.W0005 | 57,0-71,0 | 55 | 58,0-72,0 | 29 | 13 | 26,5-40,0 | 27,5-42,0 | 85 | 56,0-63,5 | 8.0 | 14 |



41740.1



Material

Body: steel, zinc plated.
Rivets: stainless steel running in case hardened bushes.

Technical Notes

For use with no. 41600 and 41700.W0001 - .W0005.

Tips

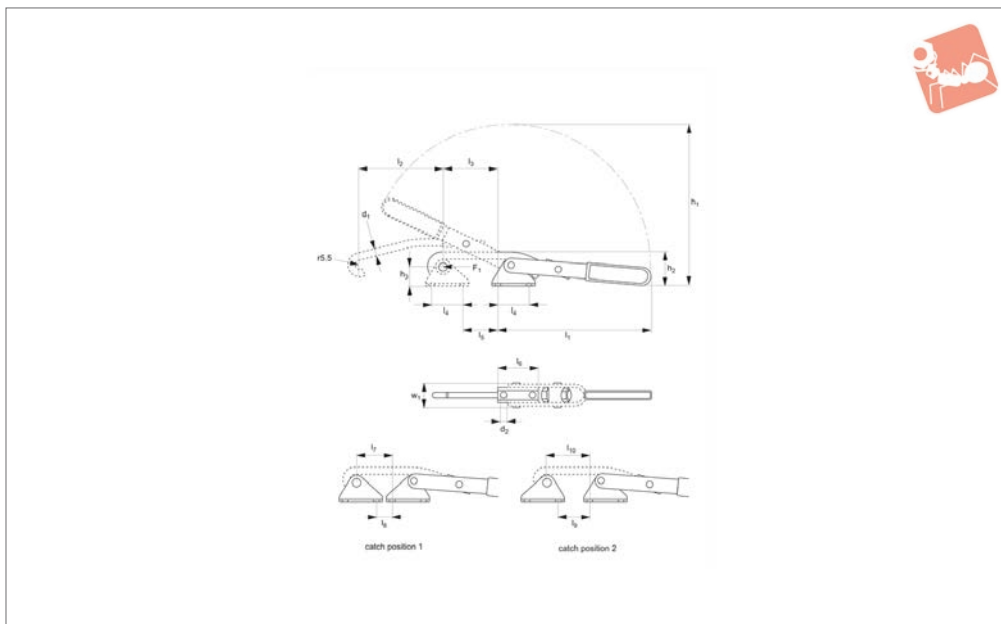
For stainless steel version see part no. 41740.W0311 - .W0315.

| Order No. | Size | h_1 | d_1 | h_2 | l_1 | l_2 | l_3 | w_1 | w_2 | w_3 | w_4 | w_5 | Weight g |
|-------------|------|-------|-------|-------|-------|-------|-------|-------|-----------|-------|-------|-------|----------|
| 41740.W0011 | 1 | 29 | 8 | 22.7 | 31 | 19 | 6 | 40 | 26,0-30,0 | 6.9 | 4.5 | 6 | 40 |
| 41740.W0013 | 3 | 29 | 10 | 22.7 | 40 | 19 | 13 | 45 | 31,3-35,8 | 10.9 | 5.5 | 6 | 70 |
| 41740.W0015 | 5 | 61 | 15 | 49.1 | 55 | 29 | 13 | 86 | 56,5-64,0 | 13.8 | 11.2 | 12 | 320 |



Hook Type Toggle Clamp

narrow base



41781.1

STEEL TOGGLE CLAMPS

Material

Body: steel, zinc plated.
 Rivets: stainless steel running in hardened bushes. Pre-lubricated bearings (grease suitable for food industry use).
 Handle: oil-resistant plastic with large grip area.

Technical Notes

Suitable for use as a toggle type fastener

for the lids or covers of fixed or rotating drums and containers.

Their narrow base makes them ideal for applications where space is limited but holding forces must not be compromised.

The length of the hook is adjustable, up to 22mm. Adjustment is made by rotating the threaded hook to extend or contract its reach.

Temperature range -10°C to +80°C.

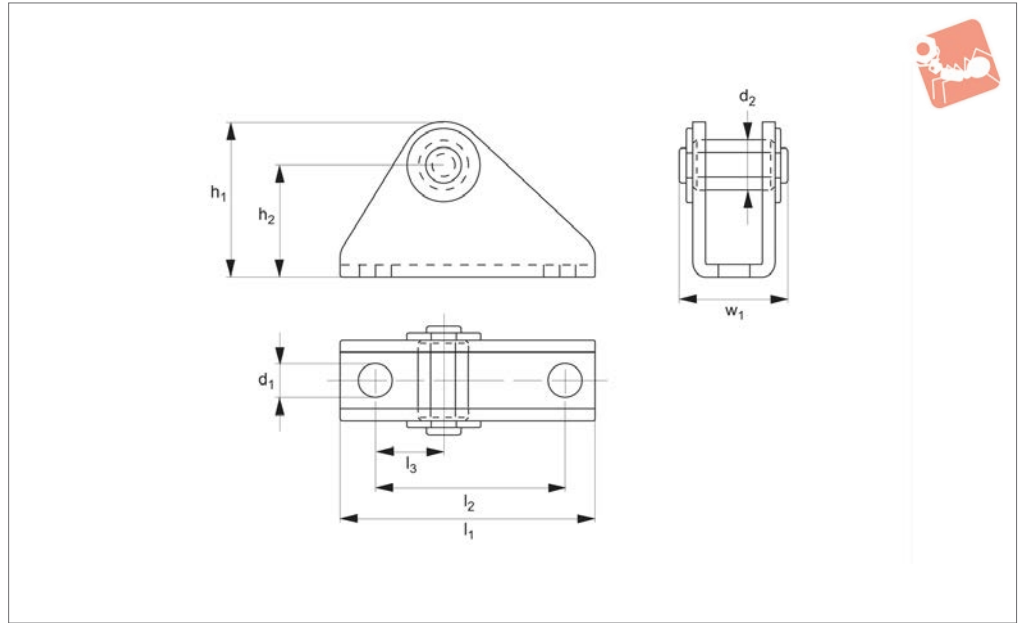
Tips

See part no. 41791.W0013 for strike catch.
 For stainless steel version see part no. 41781.W0303.

| Order No. | Size | F_1 kN | h_1 | d_1 | d_2 | h_2 | h_3 | l_1 | l_2 | Weight g |
|-------------|-------|-------------|-------|-------|-------|-------|-------|----------|-------|---------------|
| 41781.W0003 | 3 | 3 | 179 | 7.1 | 6.5 | 36 | 23 | 170 | 99 | 270 |
| Order No. | l_3 | l_4 | l_5 | l_6 | l_7 | l_8 | l_9 | l_{10} | w_1 | Adj. distance |
| 41781.W0003 | 44-56 | 38 | 20-32 | 52 | 38-46 | 14-22 | 30-42 | 44-56 | 27 | 22 |



41791.1



Material

Body: steel, zinc plated.

Rivets: stainless steel running in hardened

bushes.

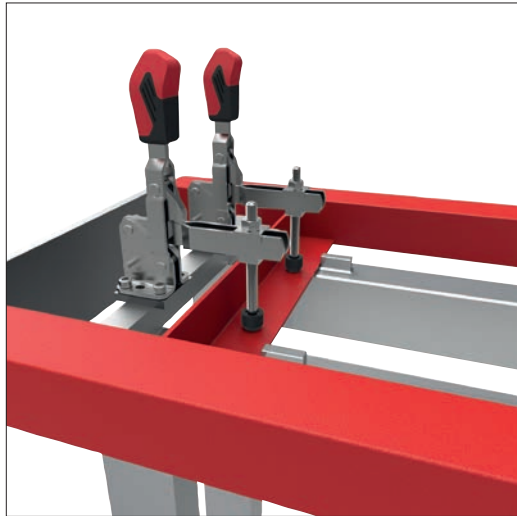
Technical Notes

The adjustment range of the clamp can be

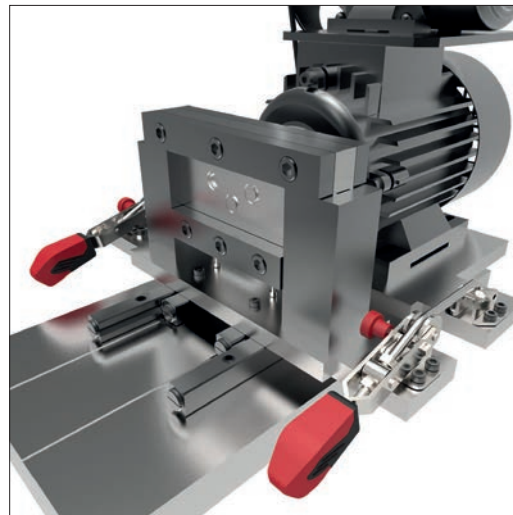
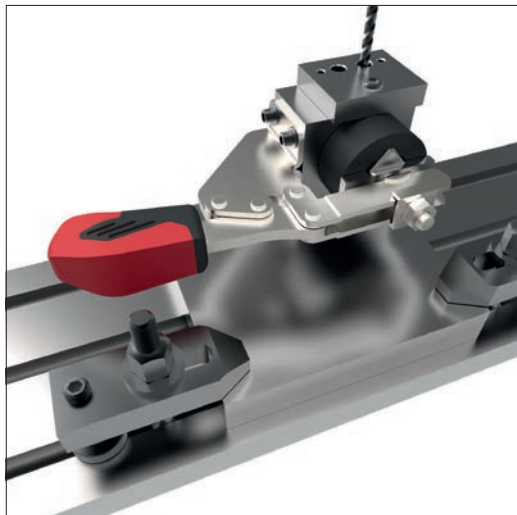
altered by rotating the fixed catch.

Use socket cap screws for mounting.

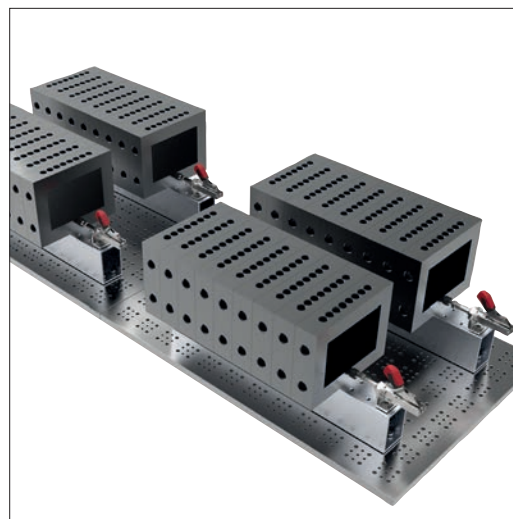
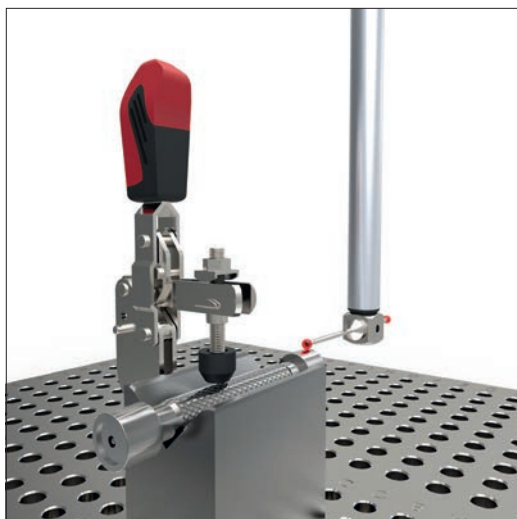
| Order No. | Size | h_1 | d_1 | d_2 | h_2 | l_1 | l_2 | l_3 | w_1 | Weight g |
|-------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------------|
| 41791.W0013 | 3 | 32 | 6.5 | 10 | 23 | 52 | 38 | 14 | 22 | 65 |



Welding Fixtures



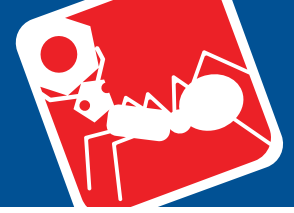
Machining and Jig Assemblies



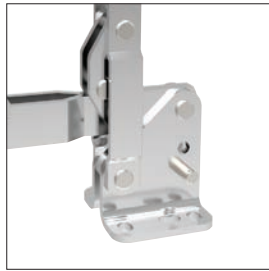
Cmm's

STEEL TOGGLE CLAMPS

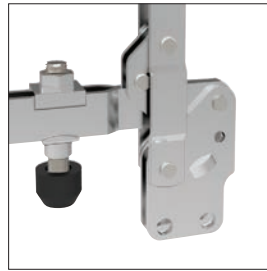
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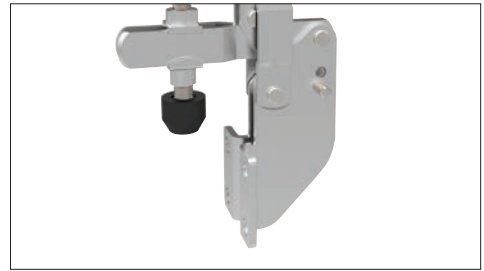
Mounting Base Variations



Horizontal base



Vertical base



Angled base

Clamping Variations



Vertical acting



Horizontal acting



Push-pull



Hook type

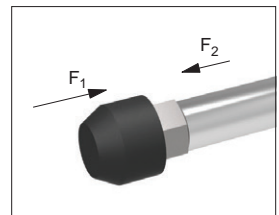
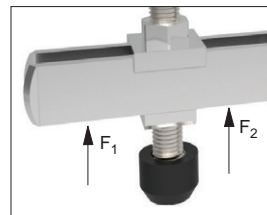


Latch type

Explanation of forces

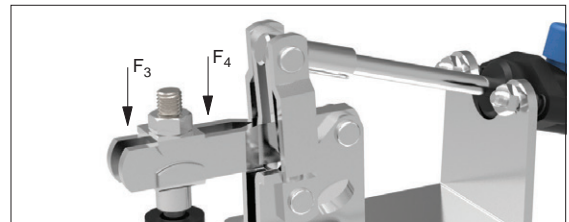
Holding Forces F_1 or F_2

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).



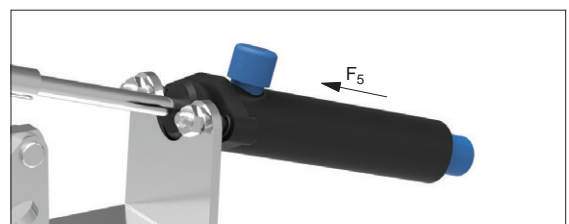
Clamping Forces F_3 or F_4

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.



Piston Forces F_5

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





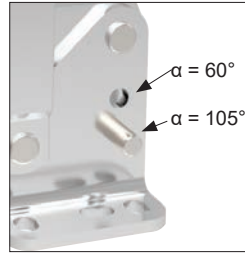
Quality Features



Ergonomic soft grip
2-component handle



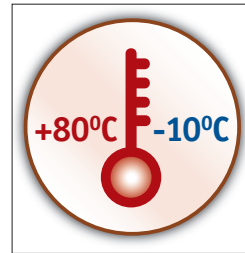
Stainless rivets and
hardened bushings



Moveable stop for
variable opening angle



Operator
finger protection



Temperature resistant

STEEL TOGGLE CLAMPS

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.

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