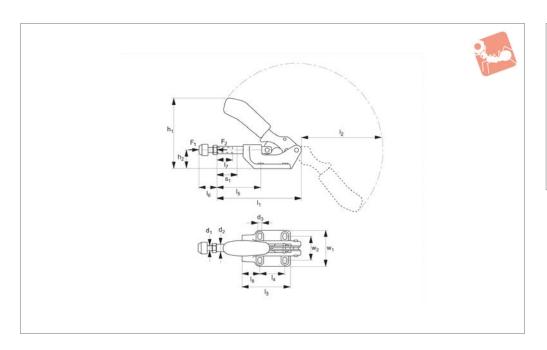


# **Heavy Duty Push-Pull Toggle Clamp**

# Steel Toggle Clamps





42050.1

#### Material

Base: cast iron, malleable, varnished. Lever and push rod: zinc plated, passivated and tempered.

Rivets: stainless steel running in hardened

bushes. Pre-lubricated bearings (grease suitable for food industry use). Ergonomic, soft feel, oil-resistant handle with large grip area.

Supplied complete with clamping screw

and rubber nose.

#### **Technical Notes**

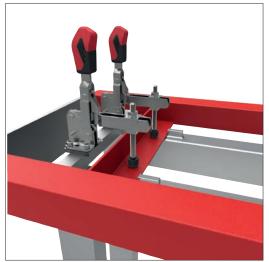
Temperature range -10°C to +80°C.

| Order No.   | Size           | Clamping screw $\mathbf{d}_1$ |                        | F <sub>1</sub><br>kN   | F <sub>2</sub><br>kN   | $d_2$                  | $d_3$          | $h_1$          | h <sub>2</sub> | $I_1$ | I <sub>2</sub>        | Weight<br>g           |
|-------------|----------------|-------------------------------|------------------------|------------------------|------------------------|------------------------|----------------|----------------|----------------|-------|-----------------------|-----------------------|
| 42050.W0003 | 3              | M 8x35                        |                        | 4                      | 4                      | 12                     | 6.5            | 116.0          | 30             | 139   | 135                   | 540                   |
| 42050.W0005 | 5              | M12x50                        |                        | 10                     | 10                     | 16                     | 8.5            | 137.5          | 38             | 174   | 156                   | 1115                  |
| 42050.W0007 | 7              | M12x50                        |                        | 25                     | 25                     | 22                     | 11.0           | 179.0          | 55             | 218   | 192                   | 2840                  |
| Order No.   | I <sub>3</sub> | I <sub>4</sub>                | l <sub>5</sub><br>min. | I <sub>5</sub><br>max. | l <sub>6</sub><br>min. | I <sub>6</sub><br>max. | I <sub>7</sub> | I <sub>8</sub> | $w_1$          | \     | <b>w</b> <sub>2</sub> | Stroke s <sub>1</sub> |
| 42050.W0003 | 95             | 41                            | 40                     | 72                     | 22                     | 35                     | 30             | 28             | 60             | 36    | 5-44                  | 32                    |
| 42050.W0005 | 121            | 41                            | 58                     | 98                     | 30                     | 50                     | 50             | 45             | 71             | 41-50 |                       | 40                    |
| 42050.W0007 | 158            | 70                            | 59                     | 105                    | 30                     | 50                     | 50             | 45             | 93             | 57    | '-65                  | 50                    |



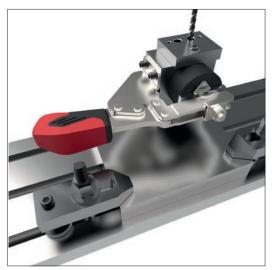


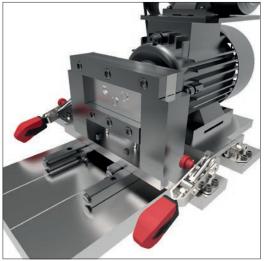
# **Welding Fixtures**





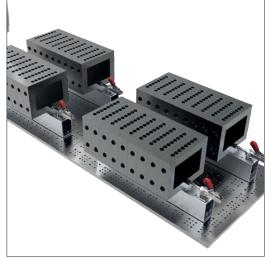
# Machining and Jig Assemblies





## Cmm's







# **Wixroyd Toggle Clamps**

overview







Mounting Base Variations

Horizontal base

Vertical base

Angled base







**Clamping Variations** 

Vertical acting

Horizontal acting

Push-pull



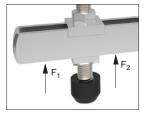


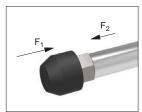
Hook type

Latch type

# **Explanation of forces**

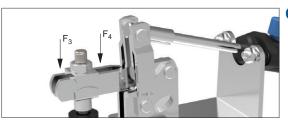
The force transmitted to the workpiece by the toggle clamp's closed arm, without itself being deformed when machine forces are applied. The holding force value is dependent upon the proximity of the measuring load point to the toggle clamp's pivot point (therefore two values, F1 and F2 are provided).





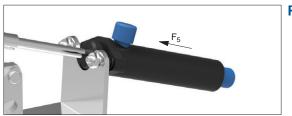
Holding Forces F<sub>1</sub> or F<sub>2</sub>

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<sub>3</sub> or F<sub>4</sub>

For pneumatically controlled toggle clamps only, F5 is the piston force required (at 6 bar to) achieve the stated clamping force.



Piston Forces F<sub>5</sub>



ov-W40000,1-A-T-W42070-A-T-b-rnh- Updated -27-10-2022



## **Quality Features**



Ergonomic soft grip 2-component handle



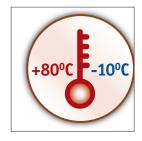
Stainless rivets and hardened bushings



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.