

## Toggle Clamps Push-Pull Type · with angle base

EH 23330.



### Product Description

Due to their favourable power to movement ratio and their easy action the toggle clamps are versatile applicable for a wide range of uses.

These toggle clamps can be used in the metal working industry when drilling, welding, bending, grinding, testing and fitting as well as in the wood and plastic industry in glueing, drilling, cutting and milling jigs.

The "toggle" principle of the toggle clamp allows a large and quick opening of the clamp. If unclamped the workpieces are completely cleared for unimpeded removal. The large power transmission results maximum clamping force by low hand force. The clamps are self-arresting they remain locked, resisting the force produced when machining components.

The toggle clamps are manufactured from high quality components and are designed for maintenance-free continuous use.

An oil resistant ergonomic 2-component handle, with slip-proof, soft surface and large grip area for high ease of use.

### Material

#### Clamp

- Steel, zinc-plated by galvanization, passivated

#### Rivet

- Stainless steel
- Steel

#### Handle

- plastic

#### Clamping screw

- Steel, tempered, zinc-plated by galvanization

#### Clamping cap

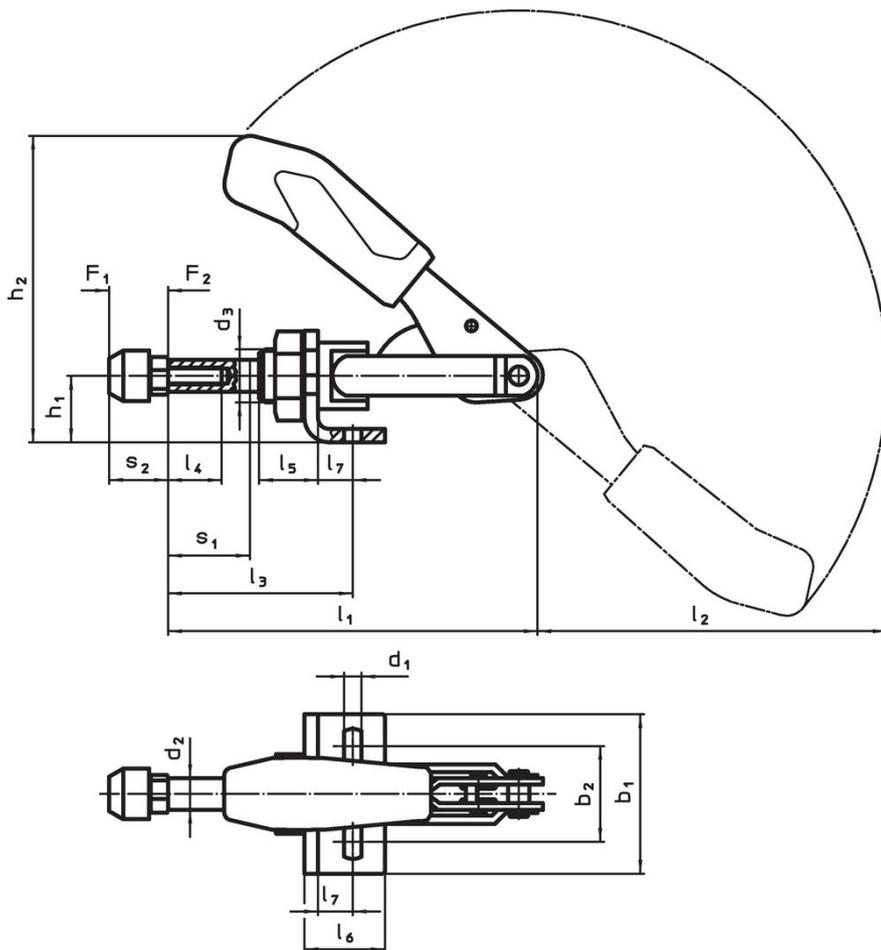
- Rubber, black

### More information

#### References

Replacement clamping screws are available as accessories in the online shop.

Drawing



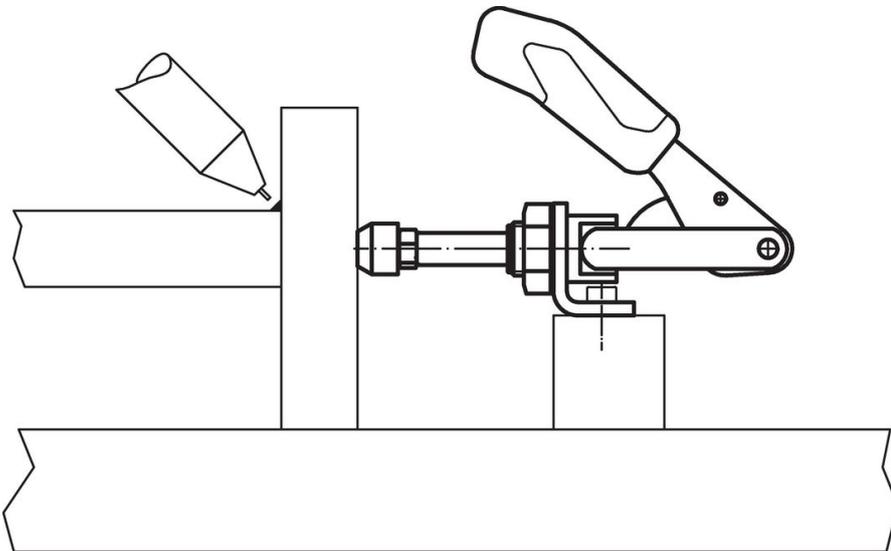
Order information

Nominal size	Clamping screw	Dimensions																	Stroke		Holding force		Temperature		Art. No.
		d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	b <sub>1</sub>	b <sub>2</sub>	h <sub>1</sub>	h <sub>2</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub> min.	l <sub>3</sub> max.	l <sub>4</sub>	l <sub>5</sub>	l <sub>6</sub>	l <sub>7</sub>	s <sub>2</sub> min.	s <sub>2</sub> max.	s <sub>1</sub>	F <sub>1</sub>	F <sub>2</sub>	min.	max.	[°C]	
	[mm]	[mm]																	[mm]	[kN]	[°C]		[g]		
1	M 4 x 20	4.5	6.5	M10 x 1	25	16.0	12	49.3	66.5	54.0	17.0	33.0	13	10	16	6.5	12	20	16	0.8	0.8	-10	80	73	23330.2001
2	M 4 x 20	4.5	8.0	M12 x 1,5	30	16.0 – 19.5	15	60.5	91.0	74.0	24.5	44.5	20	16	20	7.0	12	20	20	1.0	1.0	-10	80	124	23330.2002
3	M 6 x 25	5.6	10.0	M16 x 1,5	50	31.8 – 36.0	20	85.5	114.0	105.0	32.5	58.5	20	19	34	12.5	17	25	26	2.0	2.0	-10	80	328	23330.2003
4	M 8 x 35	6.5	12.0	M20 x 1,5	60	29.5 – 42.5	25	108.0	140.0	127.5	37.0	69.0	30	22	30	13.0	22	35	32	2.5	2.5	-10	80	505	23330.2004
6	M12 x 50	8.5	16.0	M24 x 1,5	65	29.0 – 46.0	30	129.5	171.5	158.0	41.5	81.5	50	25	35	15.5	30	50	40	4.5	4.5	-10	80	927	23330.2006

Accessories

	d <sub>2</sub>		Art. No.
	[mm]	[g]	
Clamping screw (spare part of toggle clamps push-pull type)			
 <p>No Photo available</p>	M 4 x 20	3.6	23330.9011
	M 6 x 25	11.0	23330.9013
	M 8 x 35	25.0	23330.9014
	M12 x 50	73.0	23330.9016

Application example



Compliance

For detailed compliance information please select the desired article number.