# Down-Thrust Clamps • swivelling, size 60

EH 23310.



### **Product Description**

Universal mechanical clamping element for fast and comfortable changing and clamping of workpieces by means of manually swivelling clamping claw.

The clamps have the following advantages:

- Rapid manual clamping by means of clamping screw or double eccentric lever.
- · Easy and rapid changing of workpieces by swinging away the clamping claw to the left or right.
- Compact design, thus only a small amount of space is required for clamping.
- · Easy adjustment even to large clamping heights due to the height adjusting cylinders.

As the force applied by the operator is not known for the versions with levers, the clamping force is given in the tables as a guide value. The average value was determined by tests.

#### Material

• Case-hardened steel, case-hardened, blackened and ground

### **Assembly**

Down-thrust clamps can be attached in two wavs:

- 1. in a T-slot, using a nut for T-slots DIN 508 (EH 23010.)
- 2. with the set screw directly in the mounting plate of, for example, a fixture

The cylinder must make contact over the whole surface.

The clamping height h<sub>1</sub> must not be exceeded.

#### More information

#### **Notes**

This is a discontinued model. The successor model is available as a version with clamping screw (item no. 23310.0065 and 23310.0067).

#### References

The clamping height can be increased by using height adjusting cylinders EH 23310. and disks EH 1107., EH 1108. and EH 1617. It can be reduced by using clamping inserts.

#### **Further products**

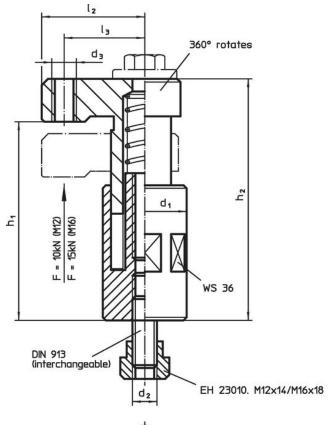
- · Height Adjusting Cylinders
- Spacers
- Wrenches
- Spacers

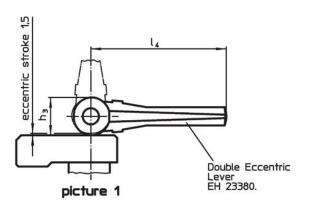


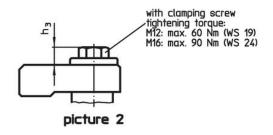
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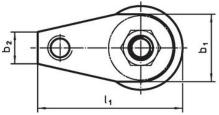
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## **Drawing**









## **Order information**

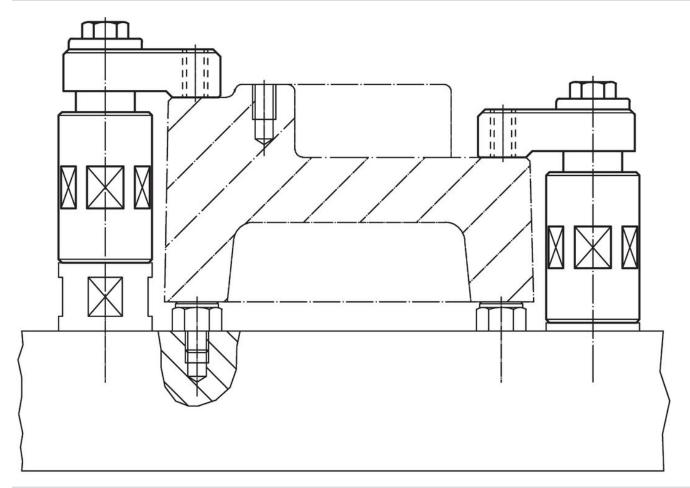
|                | Dimensions                               |                |                |                |                |                |                |                |                |                |                |      | Clamping        | Tightening     | I    | Art. No.   |
|----------------|------------------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|------|-----------------|----------------|------|------------|
| d <sub>1</sub> | d <sub>2</sub>                           | b <sub>1</sub> | b <sub>2</sub> | d <sub>3</sub> | h <sub>1</sub> | h <sub>2</sub> | h <sub>3</sub> | I <sub>1</sub> | l <sub>2</sub> | l <sub>3</sub> | I <sub>4</sub> |      | force           | torque<br>max. | _    |            |
| [mm]           |                                          |                |                |                |                |                |                |                |                |                |                | [mm] | [kN]            | [Nm]           | [9]  |            |
| with d         | with double eccentric levers – picture 1 |                |                |                |                |                |                |                |                |                |                |      |                 |                |      |            |
| 60             | M12                                      | 44             | 17             | M12            | 100 – 135      | 123 – 158      | 28             | 95             | 65             | 53             | 100            | 35   | 4 <sup>1)</sup> | _              | 3015 | 23310.0060 |
| with cl        | with clamping screw – picture 2          |                |                |                |                |                |                |                |                |                |                |      |                 |                |      |            |
| 60             | M12                                      | 44             | 17             | M12            | 100 – 135      | 123 – 158      | 13             | 95             | 65             | 53             | -              | 35   | 10              | 60             | 2694 | 23310.0061 |
| 60             | M16                                      | 53             | 24             | M16            | 100 – 135      | 123 – 158      | 16             | 99             | 69             | 53             | -              | 35   | 15              | 90             | 2939 | 23310.0063 |

<sup>1)</sup> Average value established in trials.

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## **Application example**



## Compliance

### **RoHS** compliant

Contains lead - compliant according to exceptions 6a / 6b / 6c.

#### Contains SVHC substances >0,1% w/w

Contains lead - SVHC list [REACH] as of 23.01.2024.

## **Contains Proposition 65 substances**



Lead can cause cancer and reproductive harm from exposure https://www.P65Warnings.ca.gov/

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### **Free from Conflict Minerals**

This product does not contain any substances designated as "conflict minerals" such as tantalum, tin, gold or tungsten from the Democratic Republic of Congo or adjacent countries.



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