



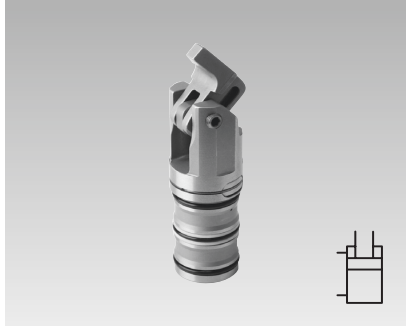
**ROEMHELD**  
HILMA ■ STARK

Issue 4-17 E

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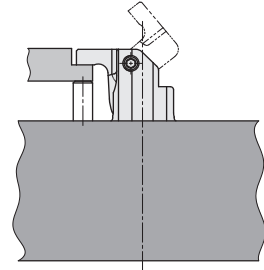
## Mini Compact Clamp

Cartridge type, clamping force 1.3 kN  
double acting, max. operating pressure 200 bar



### Advantages

- Minimum dimensions (Ø 22 mm)
- Partially immersed body
- Space-saving integration by a patented fixing principle
- Housing can be rotated by 360°
- Mounting without pipes
- Workpiece clamping without any side loads
- Narrow clamping lever
- Metallic wiper edge
- Mounting position: any



### Application

Mini compact clamps are designed for application in hydraulic clamping fixtures where oil supply is effected through drilled channels in the fixture body.

Thanks to the small housing diameter of only 22 mm, the mini compact clamp can be installed in places where up to now there was insufficient space for a hydraulic clamping element. In multiple clamping fixtures, the minimum distance between cylinders is 28 mm. A clamping recess in the workpiece a little bit wider than the clamping lever is sufficient for clamping.

Typical applications are:

- Clamping fixtures for small workpieces and workpieces which are very sensitive against deformation
- Multiple clamping fixtures with many workpieces that are closely arranged
- Assembly fixtures
- Clamping fixtures for machining of several sides and complete machining
- Rotary indexing fixtures on horizontal and vertical machining centres

### Description

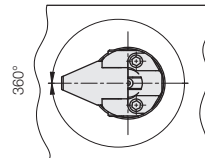
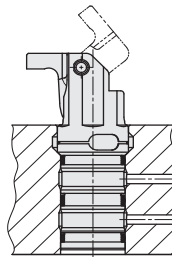
The hydraulic mini compact clamp is a double-acting pull-type cylinder where a part of the linear stroke is used to swing the clamping lever onto the workpiece. In order to minimise the dimensions, the usual flange for screw fixing is omitted.

Instead 2 clamp pieces engage in a radial slot in the cartridge-type hole. When mounting, these clamp pieces are radially expanded by set screws accessible from above. Thus, the clamping force is compensated by form fit and without clearance.

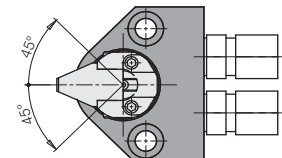
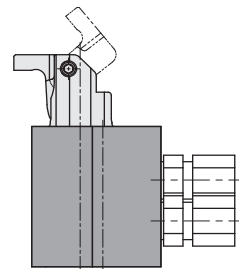
The mini compact clamp can be turned by 360° in the cartridge-type hole.

### Installation and connecting possibilities

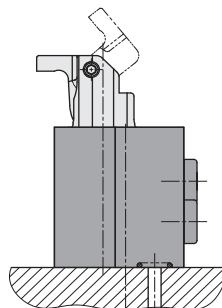
#### Drilled channels



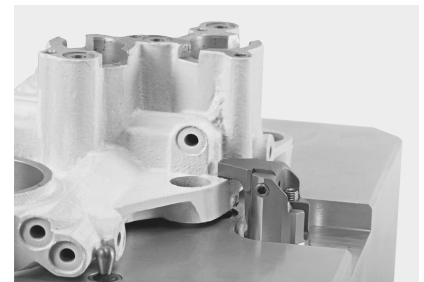
#### Pipe thread with accessory mounting body



with accessory mounting body

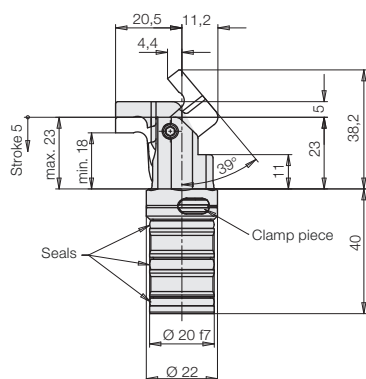


### Application example

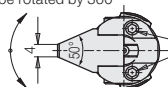


Clamping of a cast part

Dimensions  
Technical data • Accessories



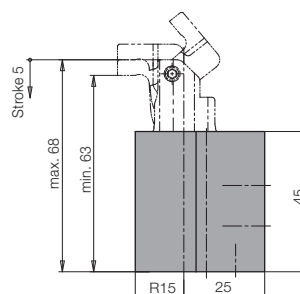
can be rotated by  $360^\circ$



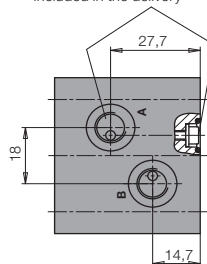
**Expansion of the clamp pieces:**  
Set screws SW 2.5  
Tightening torque 3 Nm

### Accessory

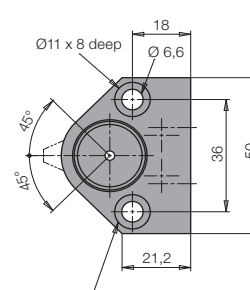
#### Mounting body



Screw plugs and O-rings are included in the delivery

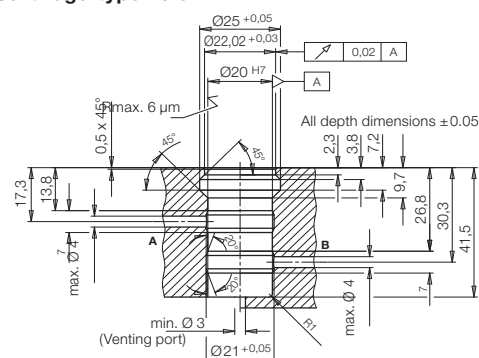


Connecting thread G 1/8

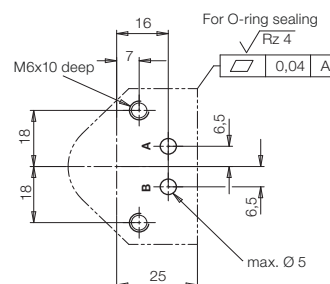


Plastic covers  
see accessories

### Cartridge-type hole



### Connecting scheme for drilled channels



**A** = Clamping  
**B** = Unclamping

Spare O-ring 8x1.5  
Part no. 3000343

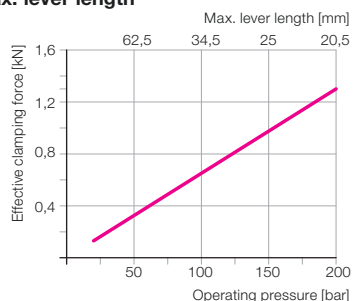
## Technical data

Clamping force at 200 bar	[kN]	1.3
Stroke	[mm]	5
Piston Ø	[mm]	14
Rod Ø	[mm]	9
Oil volume clamping	[cm³]	approx. 1
unclamping	[cm³]	approx. 1.6
Max. flow rate	[cm³/s]	5
Min. operating pressure	[bar]	20
Weight	[kg]	approx. 0.13
<b>Part no.</b>		<b>1800110</b>

## Accessories

Mounting body	
Weight	[kg] 0.44
<b>Part no.</b>	<b>0346821</b>
Plastic cover Ø 11	
<b>Part no.</b>	<b>3300685</b>

### Effective clamping force and max. lever length



Special levers are available on request.

### Important notes

**Important notes**

Mini compact clamps must only be used for clamping of workpieces in industrial applications and may only be operated with hydraulic oil.

In the effective area of the piston rod and the clamping arm there is the danger of crushing. The manufacturer of the fixture or the machine is obliged to provide effective protection devices.

During loading and unloading of the fixture a collision with the clamping lever has to be avoided.

Remedy: Mount position adaptor.

Due to the relatively small clamping stroke the height of the workpiece should be adapted so that the clamping point is approximately in the centre of the usable clamping stroke. By doing so a sufficient clamping reserve remains also in the case of larger workpiece tolerances.

The mini compact clamp has to be checked regularly on contamination by swarf and has to be cleaned, if required. In the case of increased swarf formation, the mini compact clamp must be included into the cleaning process with coolant

The mini compact clamp is not suitable for dry machining, minimum quantity lubrication and in case of accumulation of very small swarf.

Operating conditions, tolerances and other data  
see data sheet A 0.100 and A 0.130.