



**Workholding Systems**

# Concentric vices

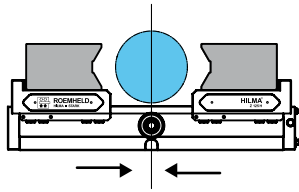


## Concentric vice, hydraulically operated

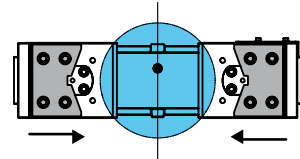


### Your benefits at a glance:

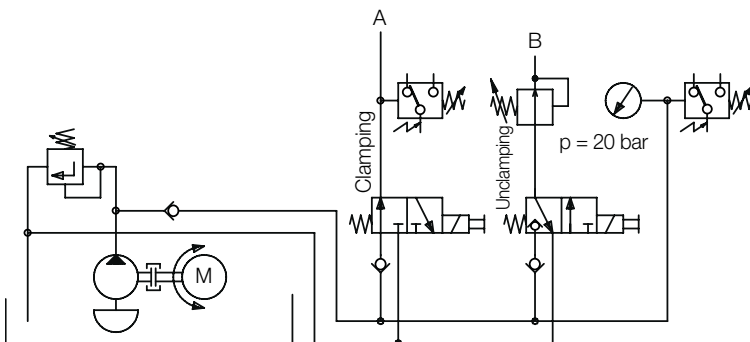
- ★ High repetitive clamping accuracy
- ★ Constant length and long strokes
- ★ Flexible use
- ★ Opening stroke limitation
- ★ High stability and good protection against swarf



**Z 100H** Ø 15 mm – Ø 120 mm  
**Z 125H** Ø 22 mm – Ø 170 mm  
**Z 160H** Ø 28 mm – Ø 224 mm



**Z 100H** Ø 150 mm – Ø 260 mm  
**Z 125H** Ø 180 mm – Ø 360 mm  
**Z 160H** Ø 200 mm – Ø 450 mm



#### Pressure transducer

For hydraulic oil supply, hydraulic power units working intermittently are preferred. Please ask for our detailed information about power units of the series 5 and 6.

#### Use of Vee jaws

For calculation of the retention force  $F_H$  and holding torque  $M_H$  when using Vee jaws for pipe or shaft end machining we are pleased to provide you with our brochure 0.5000.1676.

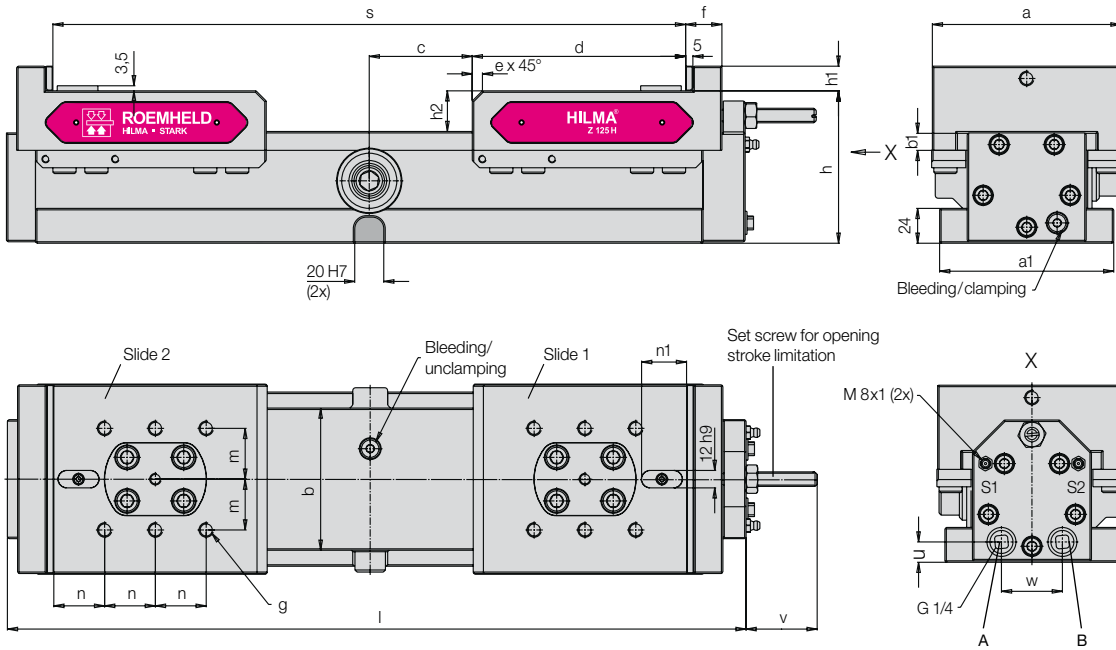
Due to the play-free adjustment of the synchronization mechanism clamping and positioning accuracies of  $\pm 0.01$  mm are obtained.

A multitude of components can be clamped in one clamping system. Also large jaw openings are obtained without variation of the total length.

Concentric clamping systems can be used on all machining centres, in special machines, but also as elements within fixtures.

The opening stroke at the clamping system can be adjusted to the respective requirements by means of an adjusting screw or proximity switch.

Long slide guides and a compact encapsulation ensure high process safety, also in automated processes.



**Ports:** A - clamping, B - unclamping, S1 - Oil lubrication slide 1, S2 - Oil lubrication slide 2

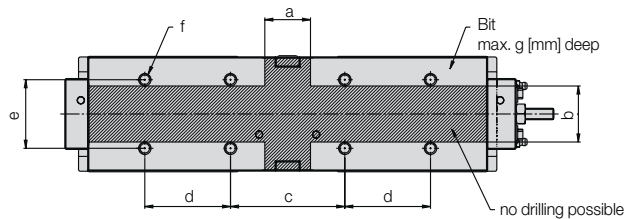
| Type           | Part no.           |                    | Jaw width<br>a<br>[mm] | Clamping force<br>Operating pressure<br>[kN] [bar] |     | Unclamping<br>pressure<br>[bar] | Power stroke<br>per slide<br>[mm] | Oil volume<br>Clamping<br>[cm <sup>3</sup> ] | Total stroke<br>Unclamping<br>[cm <sup>3</sup> ] | Weight<br>[kg] |
|----------------|--------------------|--------------------|------------------------|--|-----|---------------------------------|-----------------------------------|--|--|----------------|
| <b>Z 100 H</b> | <b>9.3542.0101</b> | <b>9.3542.0201</b> | 100                    | 16   | 150 | 20                              | 22                                | 61   | 61   | 22             |
| <b>Z 125 H</b> | <b>9.3543.0101</b> | <b>9.3543.0201</b> | 130                    | 25   | 150 | 20                              | 35                                | 138  | 138  | 39             |
| <b>Z 160 H</b> | <b>9.3544.0101</b> | <b>9.3544.0201</b> | 160                    | 40   | 150 | 20                              | 45                                | 280  | 280  | 68             |

Design with opening stroke limitation over proximity switch **on request**.

| Type          | a   | a1  | b   | b1 | c  | d   | e  | f  | g       | h   | h1 | h2 | l   | m  | n  | n1 | s   | u  | v  | w  |
|---------------|-----|-----|-----|----|----|-----|----|----|---------|-----|----|----|-----|----|----|----|-----|----|----|----|
| <b>Z 100H</b> | 100 | 100 | 74  | 10 | 43 | 115 | 12 | 25 | M 8x12  | 95  | 16 | 26 | 395 | 30 | 25 | 25 | 316 | 13 | 33 | 36 |
| <b>Z 125H</b> | 130 | 120 | 98  | 13 | 71 | 147 | 7  | 25 | M 10x15 | 105 | 17 | 28 | 509 | 35 | 35 | 32 | 436 | 14 | 49 | 42 |
| <b>Z 160H</b> | 160 | 142 | 122 | 15 | 75 | 185 | 22 | 30 | M 12x18 | 125 | 20 | 34 | 605 | 40 | 50 | 32 | 520 | 16 | 60 | 46 |

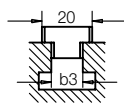
Dimensions in mm

**Free space for customized mounting hole pattern**



| Type          | a  | b  | c   | d   | e  | Available thread<br>f | g  |
|---------------|----|----|-----|-----|----|-----------------------|----|
| <b>Z 100H</b> | 40 | 49 | 100 | 75  | 60 | M 10 x 15             | 20 |
| <b>Z 125H</b> | 45 | 55 | 164 | 83  | 68 | M 12 x 20             | 22 |
| <b>Z 160H</b> | 55 | 60 | 160 | 120 | 80 | M 12 x 20             | 22 |

**Set of key blocks DIN 6323**



1 set = 2 off

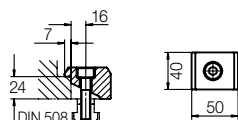
**Part no. 9.3917.4121**

**Part no. 9.3917.4141**

Slot in machine table 14h6 (b3)

Slot in machine table 18h6 (b3)

**Set of clamping claws with screws M 12x45**



For safe clamping on the machine table

1 set = 4 off

**Part no. 9.3777.2011**

We will be pleased to send more data as a PDF or CAD file. Please contact [info@hilma.de](mailto:info@hilma.de)