



## Workholding Systems MC-P Z Balance, Position Flexible mechanically operated, jaw widths 60, 100 and 125 mm



### Advantages

- Patented segment design
- Clamping without deformation of workpieces by position flexible clamping point
- Clamping system also suitable for concentric clamping
- Compact design
- High precision and accuracy of the manufactured workpieces by high rigidity
- Sturdy design and good swarf protection
- Large jaw openings
- Extensive range of jaws
- Clamping of raw and finished parts without retrofitting
- Easy to maintain

### Description

Workholding systems of the MC-P Z Balance series excel by a very compact design and their patented segment design.

Due to the position flexible function, deformation of the workpiece during clamping can be avoided.

The patented segment design ensures a high degree of precision and stability. The guiding clearance is reduced to nearly zero.

All essential components are made of hardened steel.

The workholding systems MC-P100/125 Z Balance are already prepared for the use on zero point clamping systems. For this purpose, there are location threads for retractable nipples at the bottom side of the housing.

For workholding systems MC-P Z Balance a wide range of clamping jaws is available (see data sheet WS 5.450-Z).

### Customised versions

MC-P Z Balance workholding systems can also be delivered as customised versions. For example with other lengths or with individual mounting holes.

Please contact us.

### Consultation

Our experts will be pleased to advise you also on site, and work with you to find the optimum clamping solution.

Extensive information such as drawings and CAD models are available on request.

### Technical data

Clamping principle: **position flexible**  
 Operation: **mechanically**  
 with a torque wrench

Position flexible clamping stroke: ± 2 mm

#### MC-P 60 ZB

Jaw width: 60 mm  
 Clamping force: 15 kN at 50 Nm  
 Clamping stroke: 30 mm  
 Max. jaw opening: 6–150 mm

#### MC-P 100 ZB

Jaw width: 100 mm  
 Clamping force: 25 kN at 80 Nm  
 Clamping stroke: 50 mm  
 Max. jaw opening: 6–204 mm

#### MC-P 125 ZB

Jaw width: 125 mm  
 Clamping force: 35 kN at 200 Nm  
 Clamping stroke: 101 mm  
 Max. jaw opening: 6–400 mm

### Function

The position flexible workholding system MC-P Z Balance has a floating clamping point (with released locking). After operation of the clamping spindle, first the two clamping slides concentrically approach the workpiece. When the first clamping jaw has reached the workpiece, only the second clamping bar will be moved until both clamping jaws are in contact with the workpiece. Only then, the desired clamping force will be introduced into the workpiece using a torque wrench. Subsequently, the clamping position is fixed with the locking spindle.

The adaptation of the clamping point to the workpiece position will prevent a deformation of the workpiece.

### Application

Besides 5-axis machining and concentric clamping, the position flexible workholding system MC-P Z Balance offers the solution for individual or series clamping of bars, rails, profiles, guide rails or housings. The compensating function avoids tensioning and deformation on the workpiece.

Also workpieces that are fixed by internal contours or positioning elements can be clamped concentrically. For this purpose, customer-specific dowel holes or tapped holes can be provided in the guide bars of the MC-P Z Balance in which the workpiece supports or stops can be fixed.

### Accessories

- Clamping jaws and jaw inserts, accessories for mounting, positioning and operation see data sheet WS 5.450-Z
- Rapid change block Quintus see data sheet WS 5.6150

### Application example

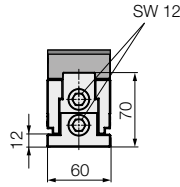
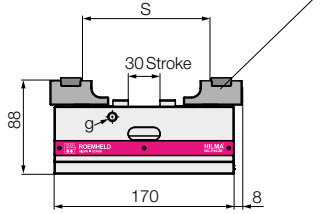


Clamping of aluminium bars with workholding system MC-P Z Balance.

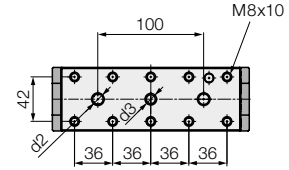
# Technical data Dimensions

## MC-P 60 ZB

Accessory: Clamping jaw  
(Fig. shows reversible step jaw 9.4583.6901)

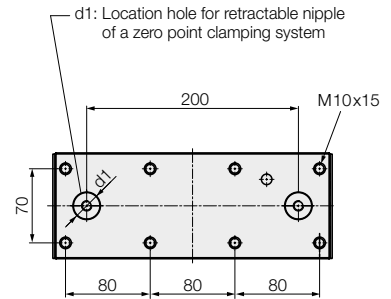
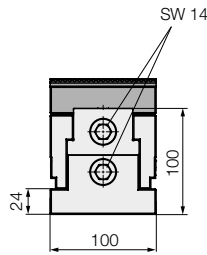
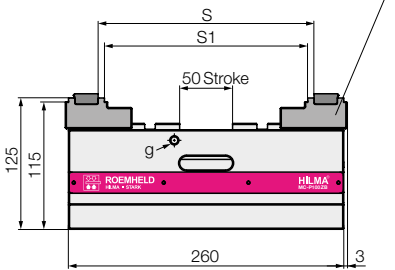


View from below



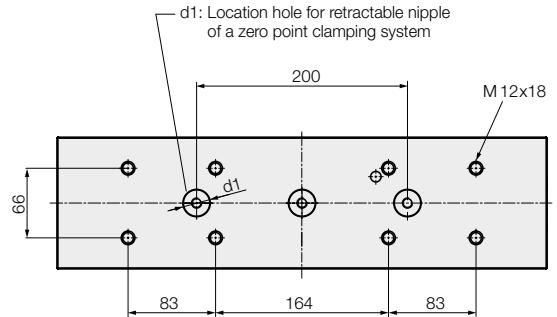
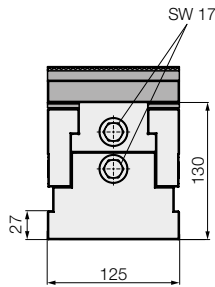
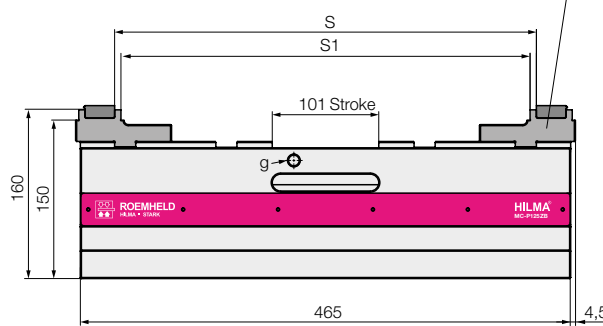
## MC-P 100 ZB

Accessory: Clamping jaw  
(Fig. shows reversible step jaw 9.4585.6901)



## MC-P 125 ZB

Accessory: Clamping jaw  
(Fig. shows reversible step jaw 9.4586.6901)



All dimensions in [mm]

Type		MC-P 60 ZB	MC-P 100 ZB	MC-P 125 ZB
Clamping principle		position flexible	position flexible	position flexible
Operation		mechanical	mechanical	mechanical
Clamping force / torque	[kN/Nm]	15/50	25/80	35/200
Stroke, position flexible	[mm]	± 2	± 2	± 2
S*	[mm]	6–150	18–204	18–400
S1*	[mm]	–	6–192	6–388
d1	[mm]	–	25+0.01x5 / M10x14	25+0.01x5 / M10x18
d2	[mm]	10F7	–	–
d3	[mm]	M10x11	–	–
g on both sides	[mm]	M8x10	M8x14	M12x18
Weight without clamping jaws	[kg]	4.6	17.5	52.3
Part no. without clamping jaws		9.4583.0701	9.4585.0701	9.4586.0701

\* depending on the used clamping jaw