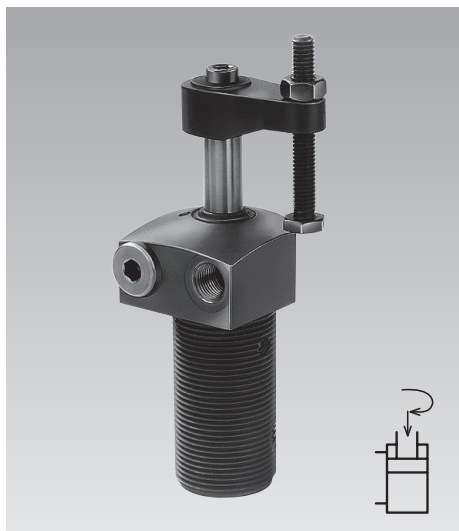




## Compact Swing Clamps with robust sturdy swing mechanism

### Top flange, metal-protected wiper, double-acting, max. operating pressure 350 bar



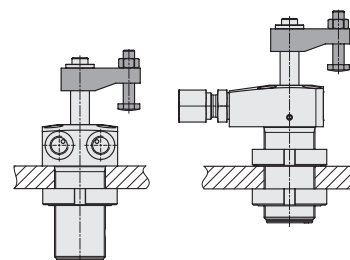
This product has been removed from the standard range and is now only available as a replacement item.

For new applications, please use our configurable articles as found in B 1.8491.

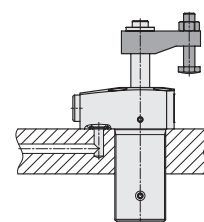
Direct interchangeability is not possible. The flange geometry has changed. We recommend comparing the 3D data available on our web-site.

The version with a flange at the top and O-ring sealing has an interference contour (see adjacent figure).

#### Top flange

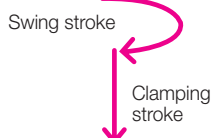


#### Top flange with O-ring sealing



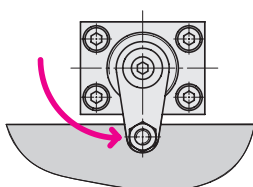
#### Function

This hydraulic clamping element is a pull-type cylinder where a part of the total stroke is used to swing the piston.



#### Application

Hydraulic swing clamps are used for clamping of workpieces when it is essential to keep the clamping area free of straps and clamping components for unrestricted workpiece loading and unloading.



#### Materials

- Housing and piston are made of high alloy steel. By nitrating, wear is reduced and protection against corrosion increased.
- FKM seals

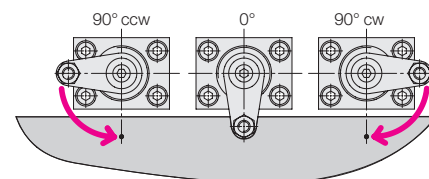
#### Technical characteristics

|                         |                      |                    |
|-------------------------|----------------------|--------------------|
| Piston Ø                | [mm]                 | 14                 |
| Rod Ø                   | [mm]                 | 10                 |
| Effective piston area   |                      |                    |
| Clamping                | [cm <sup>2</sup> ]   | 0.754              |
| Unclamping              | [cm <sup>2</sup> ]   | 1.54               |
| Required oil per stroke |                      |                    |
| Clamping                | [cm <sup>3</sup> ]   | 1.2                |
| Unclamping              | [cm <sup>3</sup> ]   | 2.5                |
| Max. flow rate          |                      |                    |
| Clamping                | [cm <sup>3</sup> /s] | 5                  |
| Unclamping              | [cm <sup>3</sup> /s] | 10                 |
| Min. operating pressure | [bar]                | 30                 |
| Max. operating pressure | [bar]                | 350                |
| Max. pull force         | [kN]                 | 2.63               |
| Eff. clamping force     | [kN]                 | see diagram        |
| Swing angle             | [°]                  | (0, 45, 60, 90) ±2 |
| Swing stroke*           | [mm]                 | 8                  |
| Clamping stroke*        | [mm]                 | 8                  |
| Total stroke            | [mm]                 | 16                 |

\* At swing angle 0°:  
Swing stroke = 0 mm Clamping stroke = 16 mm

#### Swing direction

The swing clamps are available with clockwise or counterclockwise swing motion or without swing motion (0°).



#### Standard swing angles are 45°, 60° and 90° ±2°.

Special angles on request.

Other variants, as e.g. versions with metallic wiper on request.

#### 0° version

Use as pure pull-type cylinder with a piston which is secured against torsion and which allows eccentric load as per clamping force diagram.

#### Option: metallic wiper

In addition to the FKM wiper, the following double-acting swing clamps can be equipped with a metallic wiper:

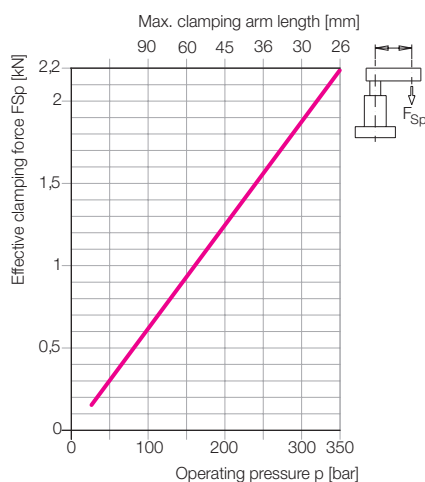
- Flange at the top with O-ring sealing
- Threaded-body type

Part no.: Add only letter "M" to the part number of the swing clamp without metallic wiper.

#### Order example:

Swing clamp **1850 124**  
 With metallic wiper **1850 124 M**

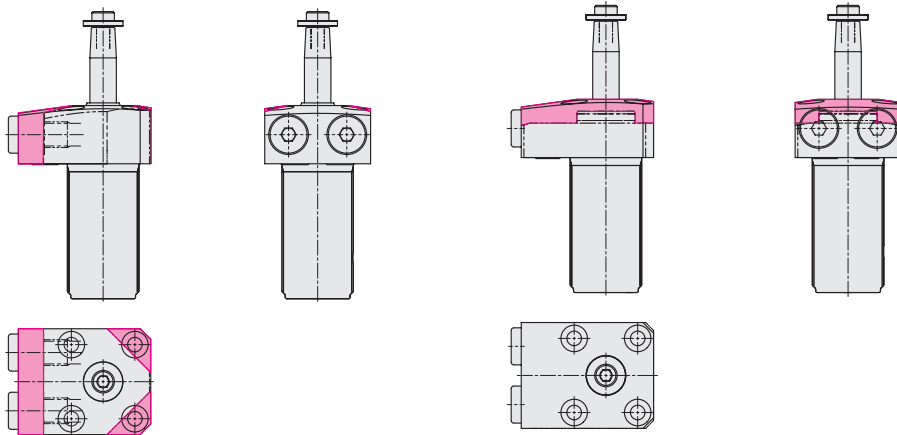
#### Clamping force diagram



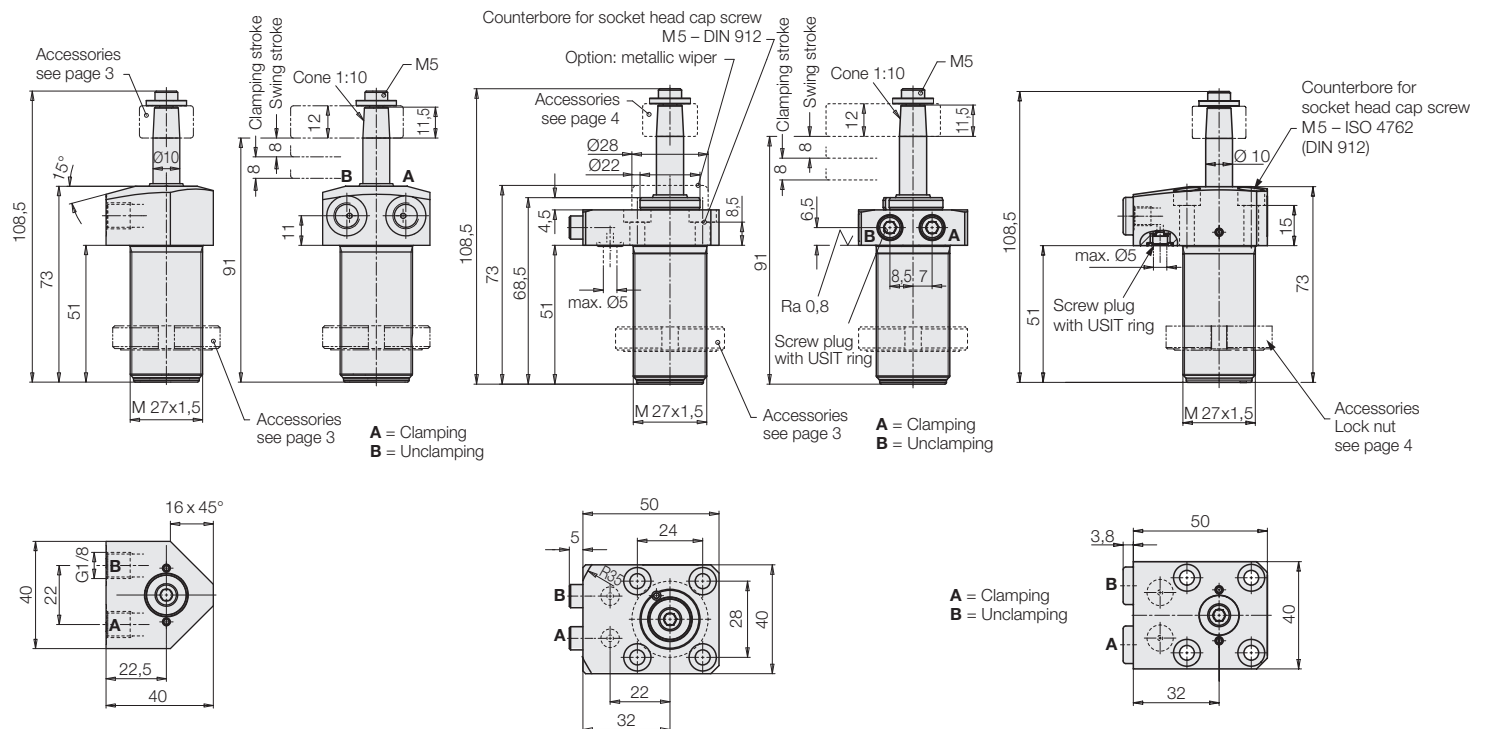
Top flange

Flange at the top  
with O-ring sealing

Top flange  
Version as per B 1.8491



The adjacent sketches show possible interference contours when using stand-ard compact swivel clamps with robust swing mechanism according to data sheet B 1.8491.



Weight: 0.35 kg

| Swing angle | Swing direction | Part no.<br>Double acting |
|-------------|-----------------|---------------------------|
| 0°          | —               | <b>1850 103</b>           |
| 90°         | right           | <b>1850 113</b>           |
| 90°         | left            | <b>1850 123</b>           |
| 60°         | right           | <b>1850 133</b>           |
| 60°         | left            | <b>1850 143</b>           |
| 45°         | right           | <b>1850 153</b>           |
| 45°         | left            | <b>1850 163</b>           |

Weight: 0.42 kg

| Swing angle                 | Swing direction | Part no.<br>Double acting |
|-----------------------------|-----------------|---------------------------|
| 0°                          | —               | <b>1850 104</b>           |
| 90°                         | right           | <b>1850 114</b>           |
| 90°                         | left            | <b>1850 124</b>           |
| 60°                         | right           | <b>1850 134</b>           |
| 60°                         | left            | <b>1850 144</b>           |
| 45°                         | right           | <b>1850 154</b>           |
| 45°                         | left            | <b>1850 164</b>           |
| Spare O-ring (FKM) 7 x 1.5  |                 | <b>3001077</b>            |
| Metallic wiper (spare part) |                 | <b>0341 111</b>           |

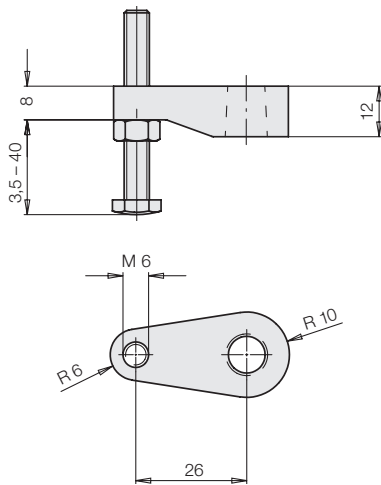
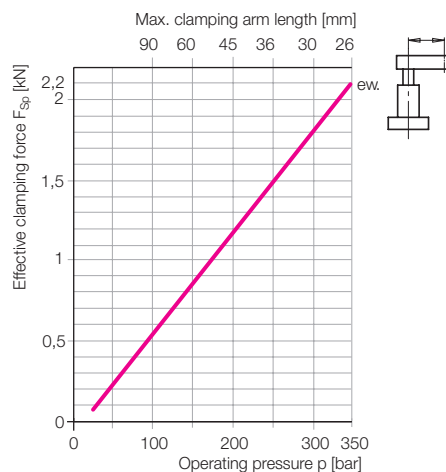
**For both flange versions  
check interchangeability with:**

- **V1SAFA BK6 0000 H016FE**
- **V1SAFA BK6 R090 H008FE**
- **V1SAFA BK6 L090 H008FE**
- **V1SAFA BK6 R060 H008FE**
- **V1SAFA BK6 L060 H008FE**
- **V1SAFA BK6 R045 H008FE**
- **V1SAFA BK6 L045 H008FE**

**Product available on request**

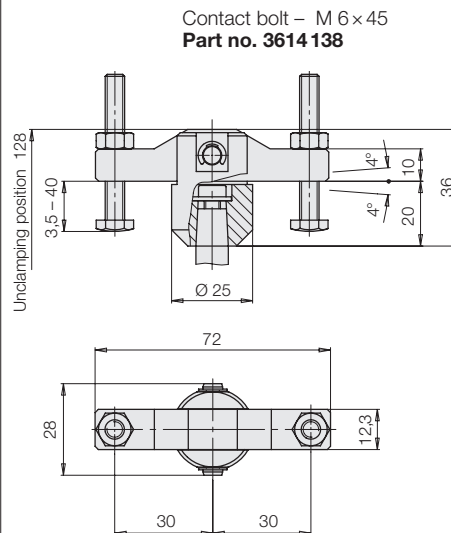
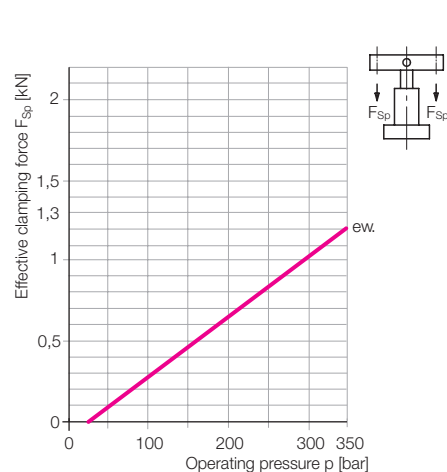
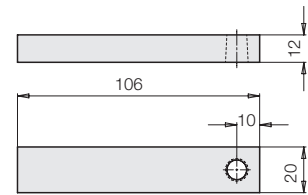
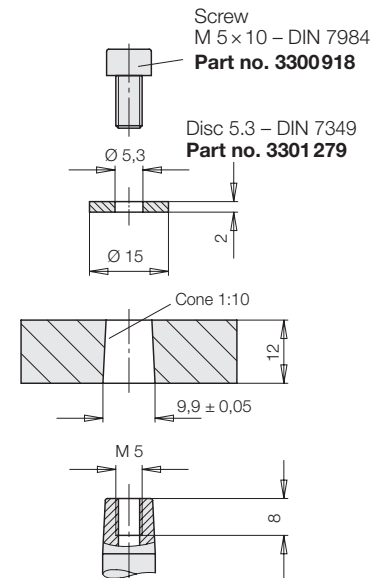
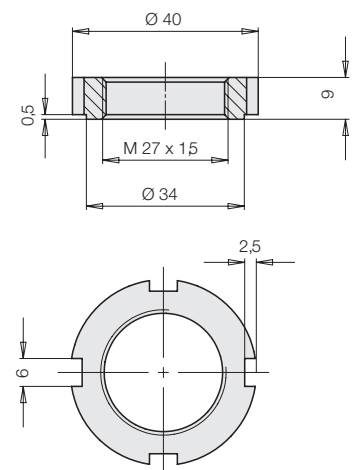
On request, we will check whether the article is still available.

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

**Clamping arm, complete  
max. 350 bar****Part no. 0354057****Clamping force diagram****Special clamping arm**

When using special clamping arms with other lengths, the corresponding operating pressures as shown in the clamping force diagram must not be exceeded.

If longer clamping arms will be used, not only the operating pressure but also the flow rate have to be reduced.

**Double clamping arm, complete****Part no. 0354082****Clamping force diagram****Clamping arm blank****Part no. 3548900****Dimensions for special clamping arms****Lock nut as per DIN 1804****Part no. 3527076****Tube male stud coupling for G1/8**

| ND [bar] | Designation | Part no. |
|----------|-------------|----------|
| 250      | D 8L G 1/8  | 9208034  |
| 500      | D 8S G 1/8  | 9208116  |

**Thread reducing adaptor**

| ND [bar] | Designation | Part no. |
|----------|-------------|----------|
| 500      | GWR 1/8-1/4 | 3613003  |