Swing Clamps with Overload Protection Device
threaded-body type, single and double acting,
max. operating pressure 500 bar

**Application**
These hydraulic swing clamps are used when it is required to keep the fixture workpieces area free of straps and clamping components for unrestricted workpiece loading and unloading.

**Description**
This design allows the use of swing clamps even in restricted places. The threaded-body swing clamp can be sunk directly into the fixture up to the hexagon. Oil feed through two holes, allowing for 3 fitting and hose connections:
1. **Individual connection**
   - With only one swing clamp being used, both connections can be tapped directly.
2. **Series connection**
   - If several swing clamps arranged in a row are required, the arrangement and size of holes shown below must be complied with. Instead of the expander stopper also, of course, an G 1/4 plug (Part no. 3610006) may be used.
3. **Connecting housing**
   - By means of the connecting housing available as an accessory, the swing clamps can be individually fixed with screws and piped (page 2).
   - Standard swing angles are 45°, 60°, and 90° ±2°.
   - Mounting of the clamping arms can be made in standard swing angles are 45°, 60°, and 90° ±2°.
   - All units are equipped with piston rod wipers and any angular position.

**Important notes**
Due to the screwed mounting, this initial position cannot be predetermined. Therefore, the clamping arm can only be fixed when the housing is screwed in tight. The hexagon socket of the piston is used for counterparting when the clamping arm is tightened by means of the flanged nut.

**Operating conditions, tolerances and other data**
see data sheet G 0.110.

When using single-acting swing clamps, it is absolutely necessary to follow the instructions for venting of the spring area on data sheet G 0.110.

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**Single-acting version**
Hexagon socket SW 8

**Double-acting version**
Hexagon socket SW 8

**Effective piston area**
1.01 cm²

**Swing stroke**
7 mm

**Clamping stroke**
7 mm

**Total stroke**
14 mm

**Oil volume / stroke**
1.5 cm³

**Max. oil flow rate**
1.5 cm³/s

**Sealing torque**
60 Nm

**Min. actuation**
Ø 30 bar

**Pressure to swing**
50 bar

**Single acting**
Part no.

**Swing direction 90° cw**
1881 102

**Swing direction 90° ccw**
1881 202

**0-degree**
1881 242

**Double acting**
Part no.

**Swing direction 90° cw**
1891 101

**Swing direction 90° ccw**
1891 201

**0-degree**
1891 241

**Seal kit, external seals**
0131 530

**Insertion nipple fitting**
Part no. 3890 091

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**Subject to modifications**
Issue 11-18 E

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**Code numbers for available swing angles**

<table>
<thead>
<tr>
<th>Swing angle</th>
<th>Part no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>90°</td>
<td>18X1 X0X</td>
</tr>
<tr>
<td>60°</td>
<td>18X1 X2X</td>
</tr>
<tr>
<td>45°</td>
<td>18X1 X3X</td>
</tr>
</tbody>
</table>

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**FKM wiper standard**

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Mounting instructions

The screw-in thread must be cut with utmost care, especially in the area of the two joints. The round-off of the oil feed hole shown in detail "Z" is necessary or the lower O-ring will be damaged when screwed in. For this purpose there are two possibilities:

1. By means of a diameter 6 spherical grinder and a hand drill, the thread is deburred according to detail "Z".
2. A diameter 5 steel ball is gauged with a light hammer blow as shown in the figure below. A final check with a finger shows best whether the transitions are smooth and free of burns.

Detail “Z”

Mounting instructions

Strap attachment dimensions

Connecting housing

for double acting swing clamp

Part no. 3467 143

Effective clamping force as a function of max. operating pressure p

Double clamping arm assembly, complete

Weight [kg] 0.08
Part no. 3548 159

Weight [kg] 0.57
Part no. 0354000

Weight [kg] 0.83
Part no. 0354131

Part no. 3921 016
(without thread M 10)

Part no. 3467 143
Connecting housing for double acting swing clamp

Part no. 0354001
Weight [kg] 0.18
Part no. 3921 016
(without thread M 10)

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