

SWING CLAMP CYLINDERS

threaded body, single-acting, pmax. 350 bar

Discription:

This hydraulic swing clamp cylinder operates as single-acting pull cylinder, whereas part of the stroke is used to rotate the piston. The model with 0° swing angle operates only vertical as pull cylinder.

Models with 0°, 45°, 60°, 90° swing angles are available. The clamping force is depending from the clamp arm length.

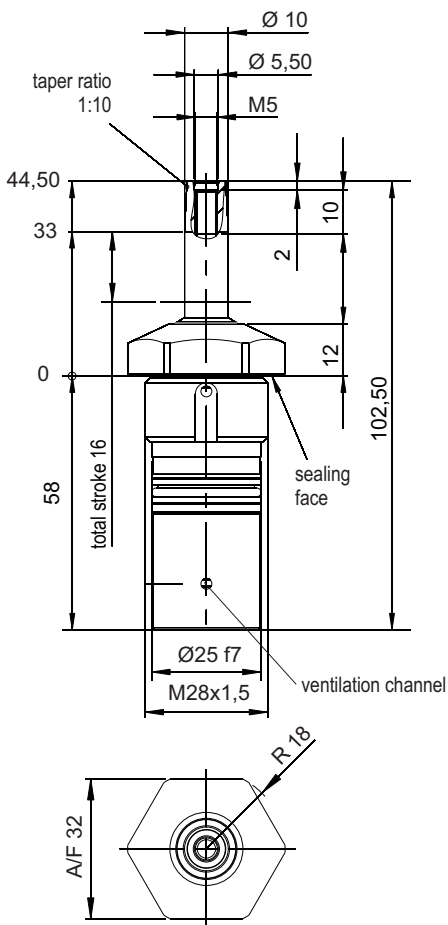
Swing clamp cylinders release the clamping point on the workpiece. With this, it is easy to change the workpiece.

Operating conditions:

The single-acting swing clamp cylinder is equipped with a reset spring. For hydraulic oil supply the drilled channels at the threaded port can be used.

Except from standard clamp arms also special clamp arms can be assembled. At one-sided clamp arms the maximum operating pressure of 350 bar applies only at a maximum of 26 mm clamp arm length.

Before assembling the clamp arm the swing clamp cylinder must be screwed tight into the fixture body. Counter-hold the clamp arm whenever tightening or loosening the counter nut in order to prevent torque transfer to the piston rod and to avoid damage to the ball guide.



Accessories:

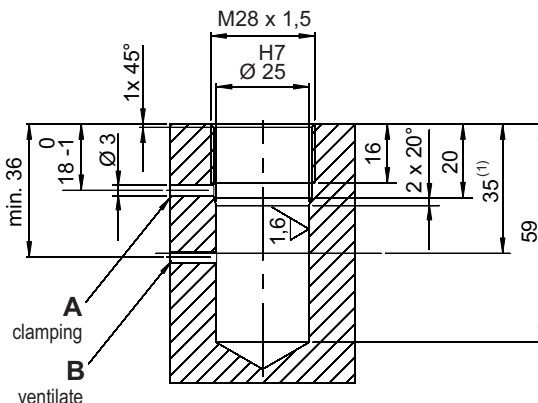
Clamp arms and contact bolts are not included in scope of supply. They're sold separately as accessories.

For information about standard clamp arms and for house production of special clamp arms, see page 2.

Contact bolts: see data sheet 1000-1 (Webcode: 100001)

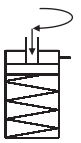
Installation contour:

⁽¹⁾ Plate thickness at least 35 mm for single-acting types and depth of the fit diameter



Webcode: 024003

We also design and manufacture special designs



Housing design: D

(refer to SSZY Selection guide)

Wichtiger Hinweis:

When installing the cylinder into the fixture plate the ventilation channel must be protected from ingress of liquids and dirt.

If the swing clamp cylinder is screwed into a blind bore, the ventilation must be guaranteed through a protected bore.

Before initial operation the swing clamp cylinder must be fully ventilated.

The safety instructions for swing clamp cylinders in our catalogue or on our website and the current accident prevention regulations must be considered.

Advantages:

- ☒ Integrated wiper made of FKM
- ☒ Oil supply through drilled channels
- ☒ Swing clamp mechanism easy to maintain
- ☒ Standard and special clamp arms available



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Swing clamp cylinders / threaded body

Technical data:

Piston Ø	[mm]	14
Rod Ø	[mm]	10
Oil requirement/stroke	[cm ³]	1,2
Max. volume flow	[cm ³]	2,5
Spannhub	[mm]	6
Swing stroke	[mm]	10
Total stroke	[mm]	16
Min. operating pressure	[bar]	25
Max. operating pressure	[bar]	350
Clamping force at 100 bar ⁽²⁾	[kN]	0,5
Clamping force at 350 bar ⁽²⁾	[kN]	2,2

⁽²⁾ Value only valid with single clamp arm L = 26 mm, (pictures on page 1) Order no. SPE-126-001

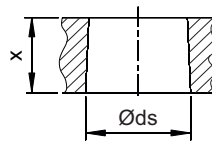
Clamp arms:

For these swing clamp cylinders, standard clamp arms are available as accessories. All necessary information about this can be found on the data sheet **240-0 «Clamp arms»** in the catalogue or at www.hydrokomp.de.

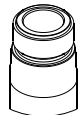
Compatible clamp arms: **A B**

Special clamp arms are available on request.

Dimensions for house production of clamp arms:



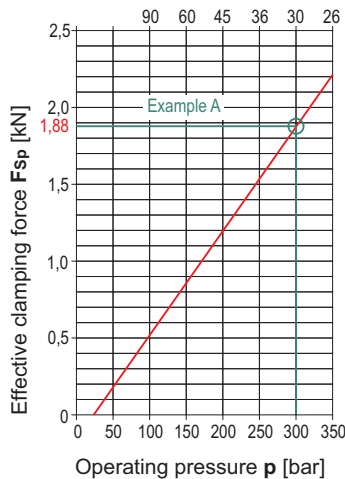
Piston Ø	[mm]	14
Ø ds	[mm]	10
x	[mm]	12
Taper ratio		1:10



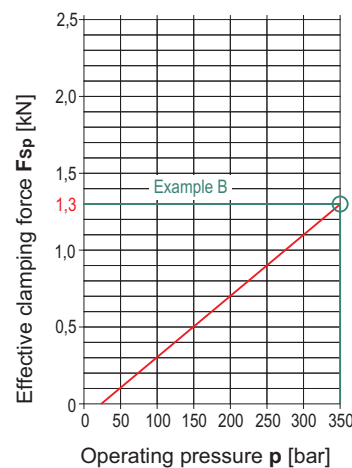
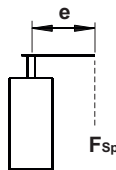
Taper

Effective clamping force F_{Sp} depending from operating pressure p:

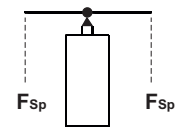
Max. clamp arm length e [mm] only relevant for clamp arms of this type.



A Single clamp arm:



B Double clamp arm:



Example A:

- present operating pressure $p = 300$ bar
- clamp arm length $e = 30$ mm
- resulting clamping force $F_{Sp} \sim 1,88$ kN

Example B:

- present operating pressure $p = 350$ bar
- resulting clamping force $F_{Sp} \sim 1,3$ kN

Order number key:

Example **SSZY** - **RE90** - **D1406** - **K00** - **003**

1 Swing motion: right turning = **R**, left turning = **L**, neutral 0° = **N**
 Operating method: single-acting = **E**
 Swing angle [degree]: standard = **0, 45, 60, 90**

2 Housing design: threaded body = **D**
 Piston Ø [mm]: standard = **14**
 Clamping stroke [mm]: standard = **06**

3 Clamp arm holder: taper = **K**
 Overload protection: without = **0**
 Position control: without = **0**

4 Connection type: drilled channels = **003**

For additional help in model selection, see data sheet «Swing Clamp Cylinders - Selection Guide».