

Swing clamp cylinders, compact

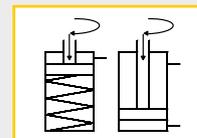
upper flange, single-/double-acting, pmax. 350 bar

240-1
Issue: 11/2023



A

Webcode: 024001



Housing design:

☒ **Type A** (upper flange)

Description:

Swing clamp cylinders operate single-acting with spring reset or double-acting hydraulically. The hydraulic oil supply can be connected by G1/8 threaded port or by manifold connection with O-ring.

For any risk of exceeding the permitted volume flow a throttle check valve must be interposed into the oil supply line (see data sheet 700-15). Counter-hold the clamp arm when tightening or loosening the counter nut in order to prevent torque transfer to the piston rod and to avoid damage to the ball guide.

The clamping motion is initiated with a superimposed swing and stroke movement. After that, a linear clamping stroke follows.

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

Except for the standard clamp arm also special clamp arms can be assembled. The maximum operating pressure of 350 bar only applies to clamp arms with a maximum length of 26 mm..

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

We also design and manufacture customized variants!

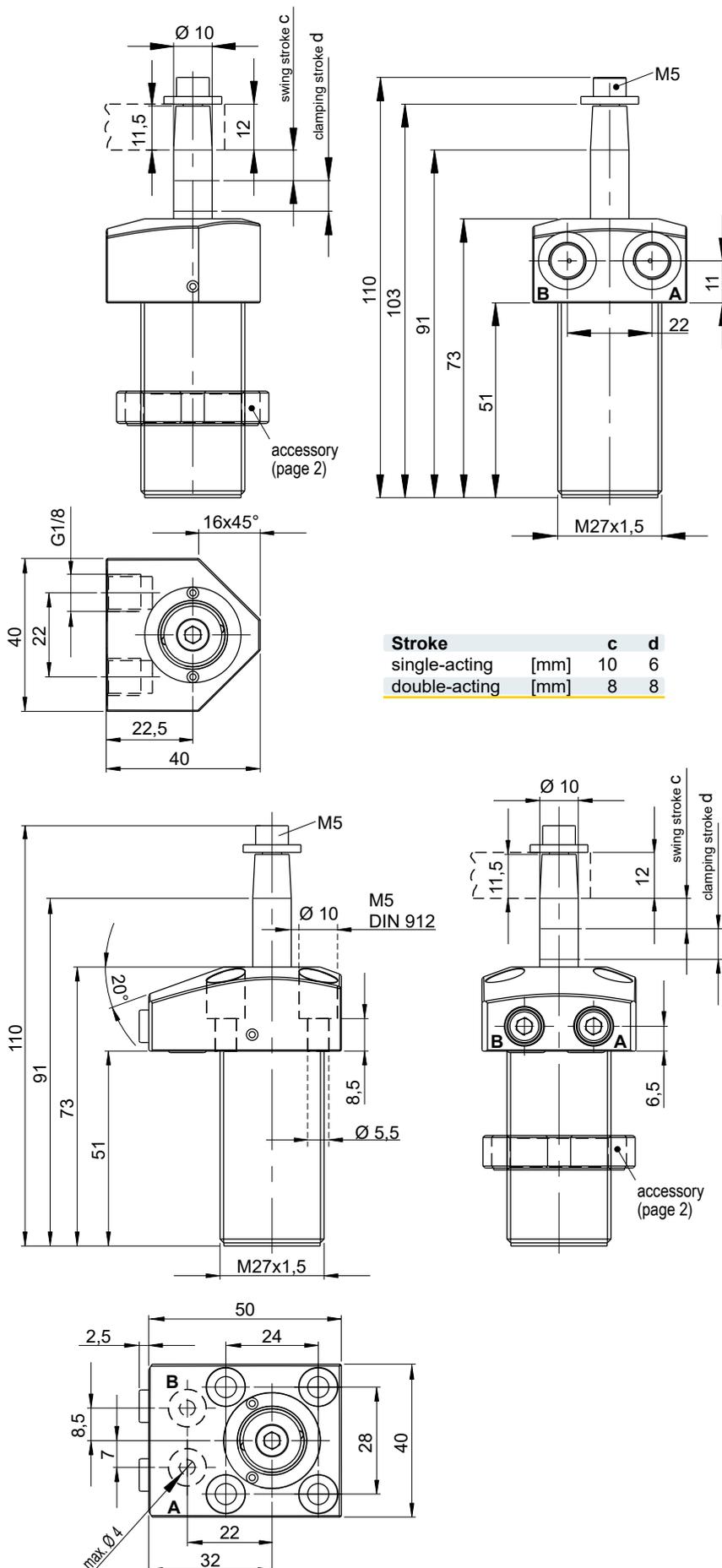
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Stroke	c	d
single-acting [mm]	10	6
double-acting [mm]	8	8

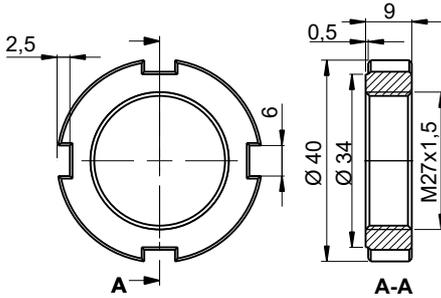


Accessories:

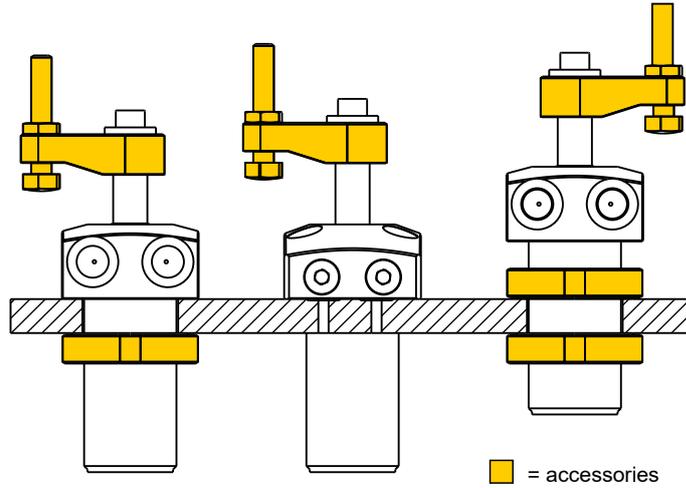
Clamp arms and contact bolts are not included in scope of supply. They are available as accessories (see page 2).

Slotted nut

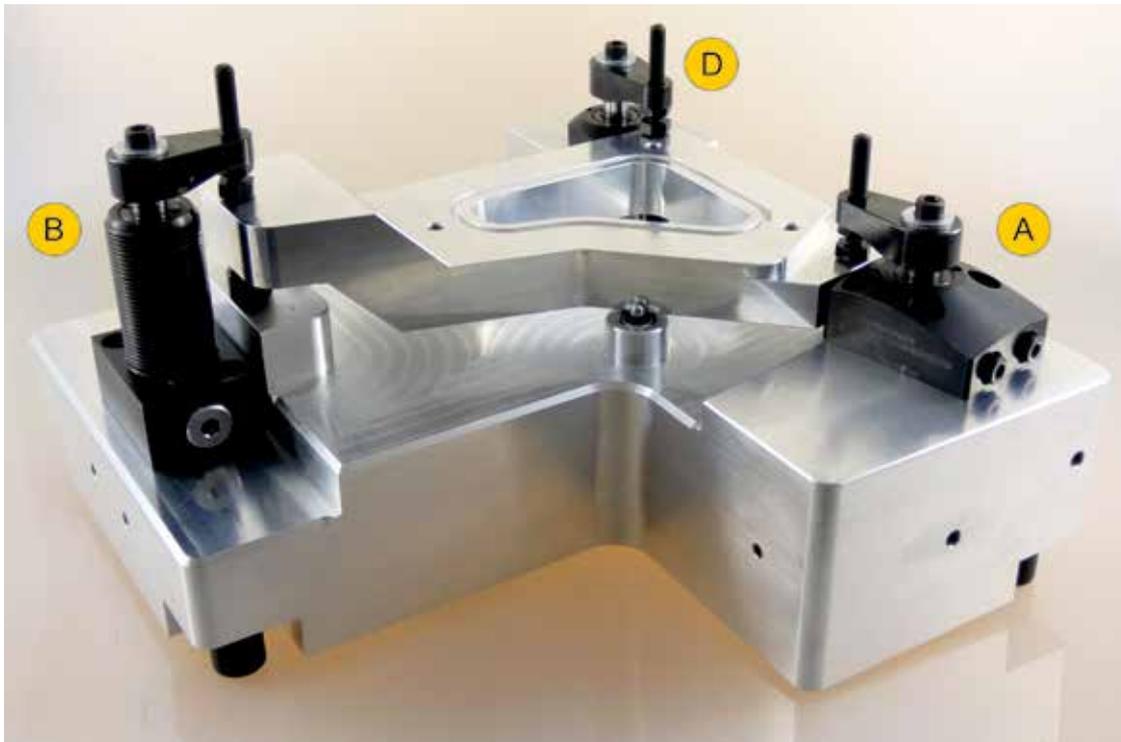
Order number: 4040-086
(see installation options)



Installation options:



Application example (workholding fixture):



- A** = Swing clamp cylinder, upper flange (type A), manifold connection with O-ring Data sheet 240-1
- B** = Swing clamp cylinder, lower flange (type B), manifold connection with O-ring Data sheet 240-2
- D** = Swing clamp cylinder, threaded body (type D), drilled channels Data sheet 240-3



Technical data:

Piston Ø	[mm]	14
Piston rod Ø	[mm]	10
Oil requirement/stroke	[cm ³]	1,2
Max. volume flow	[cm ³]	2,5
Swing stroke (single-acting)	[mm]	10
Clamping stroke (single-acting)	[mm]	6
Swing stroke (double-acting)	[mm]	8
Clamping stroke (double-acting)	[mm]	8
Min. operating pressure ⁽¹⁾	[bar]	25
Max. operating pressure ⁽¹⁾	[bar]	350
Clamping force at 100 bar	[kN]	0,5
Clamping force at 350 bar	[kN]	2,2

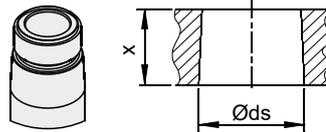
⁽¹⁾ Value only valid with single clamp arm L = 26 mm, (pictures on page 1) **Order no. SPK-A10-026-002**

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**

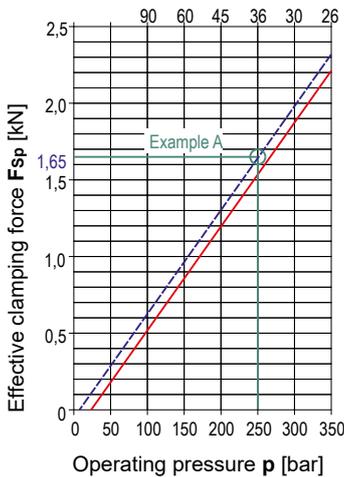
Taper (SPK):



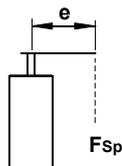
Piston Ø	[mm]	14
Ø ds	[mm]	10
x	[mm]	12
Taper ratio		1:10

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

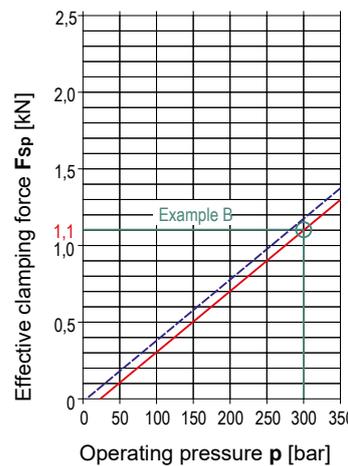
Max. length of the clamp arm e [mm] only relevant for clamp arms of this type.



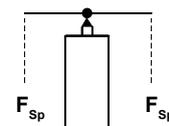
a Single clamp arm:



--- double-acting
— single-acting



b Double clamp arm:



--- double-acting
— single-acting

Example A:

- double-acting cylinder
- present operating pressure $p = 250$ bar
- clamp arm length $e = 36$ mm
- resulting clamping force $F_{Sp} \sim 1,65$ kN

Example B:

- single-acting cylinder
- present operating pressure $p = 300$ bar
- resulting clamping force $F_{Sp} \sim 1,10$ kN

The retraction force of the spring in single-acting swing clamp cylinders reduces the clamping force slightly. To achieve the same clamping force as with double-acting cylinders, the operating pressure must be increased slightly.

Order number key:

Example: **SSZY** - **RD60** - **A1408** - **K00** - **002**

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

2 **Housing design:** upper flange = **A**
Piston Ø [mm]: standard = **14**
Clamping stroke [mm]: single-acting 6 = **06**, double-acting 8 = **08**

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

4 **Oil supply:** G1/8 threaded port = **001**, manifold with O-ring = **002**

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