

Low-block clamping cylinders

hydraulic, with spring reset, single-acting, pmax. 500 bar

230-1
Issue: 10/2022

Description:

Low-block clamping cylinders are used, if the clamping force has to be applied to the work-piece laterally.

Regarding the force application, the design requires horizontal and vertical components of force with stroke-dependended magnitudes.

The magnitude of the vertical (F_v) component of force cannot exceed approx. 25% of the clamping force (F_{sp}) magnitude. This force presses the workpiece against the support.

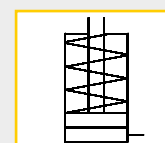
The horizontal (F_h) component of force magnitude drops to a minimum of 95% of the initial force magnitude, depending on the stroke.

The pressurised oil can be supplied either via a G1/4 threaded port or via manifold connection with O-ring.

The clamping piston has an internal stroke limiter. The piston and the pressure piece are returned to their home position after the pressure has been released via a spring. The cylinders must be protected against ingress of coolants and cutting lubricants.



Webcode: 023001



Connections:

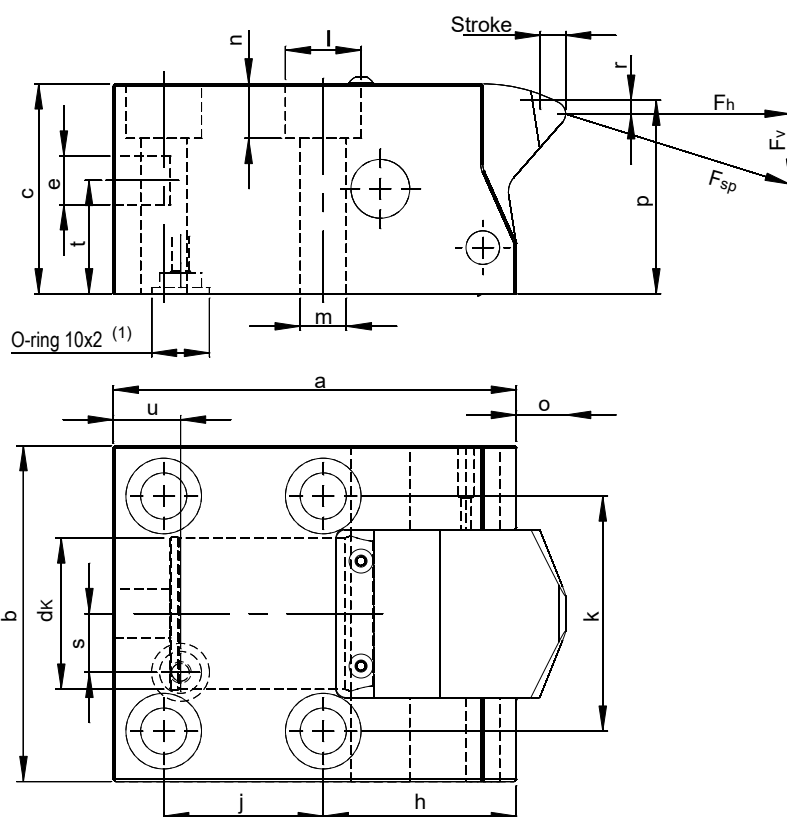
- ☒ Threaded port G1/4
- ☒ Manifold connection with O-ring

Materials:

- ☒ Housing: burnished steel
- ☒ Piston: case-hardened steel
- ☒ Pressure piece: case-hardened steel

Spare parts:

- | | |
|--|---|
| ☒ O-ring 10x2
all Piston Ø | Order numbers:
6010-003 |
| ☒ Seal ring
all Piston Ø | 6005-004 |
| ☒ Torsion springs
Piston Ø 16, 25
Piston Ø 36 | 2006-004
2008-024 |
| ☒ Seal kits
Piston Ø 16
Piston Ø 25
Piston Ø 36 | DS-TBZY-016
DS-TBZY-025
DS-TBZY-036 |



dK Piston Ø:	[mm]	16	25	36
Stroke	[mm]	8	10	10
Clamping force at 100 bar	[kN]	1,7	4	8
Clamping force at 500 bar	[kN]	8,5	20	40
Oil requ./10 mm stroke	[cm³]	2	4,9	10,2
a	[mm]	68	90	96
b	[mm]	50	60	80
c	[mm]	32	40	50
e		G1/4	G1/4	G1/4
h	[mm]	32	42	46
j	[mm]	27	38	38
k	[mm]	32	40	56
l	[mm]	13,5	15	18
m	[mm]	8,5	9	11
n	[mm]	8,5	9	11
o	[mm]	2	-	2
p	[mm]	31	39	49
r	[mm]	4	4	4
s	[mm]	-	-	14
t	[mm]	19	23	27
u	[mm]	13	14	16
Weight	[kg]	0,9	1,4	2,1
Order numbers:		TBZY-016-001	TBZY-025-001	TBZY-36-001

(1) Scope of supply includes the O-ring.

We also design and manufacture customized variants!



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Technology that connects