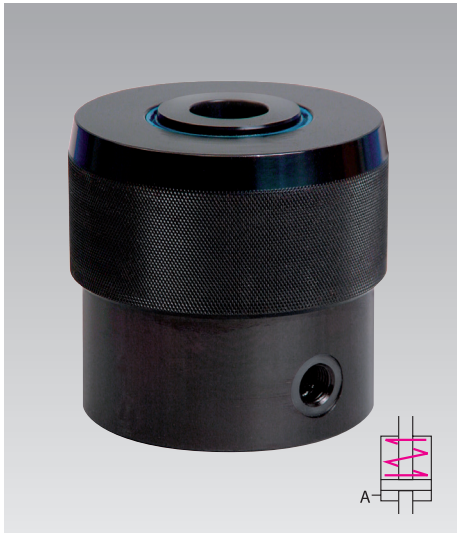




**Hollow Piston Cylinders**  
single acting, with spring return  
max. operating pressure 400 bar



**Advantages**

- Flat and compact design
- Jerkless piston movement
- Stroke limitation designed for max. operating pressure
- Easy to retrofit
- Ideal force transmission

**Description**

Installation is possible by insertion or manifold mounting in any position. The clamping force is generated by applying hydraulic pressure to the piston, and the piston is returned by a spring. The piston is provided with a through hole and is hardened and ground. The housing of the hollow-piston cylinder is made of high alloy steel, the surface is black oxidized.

**Application**

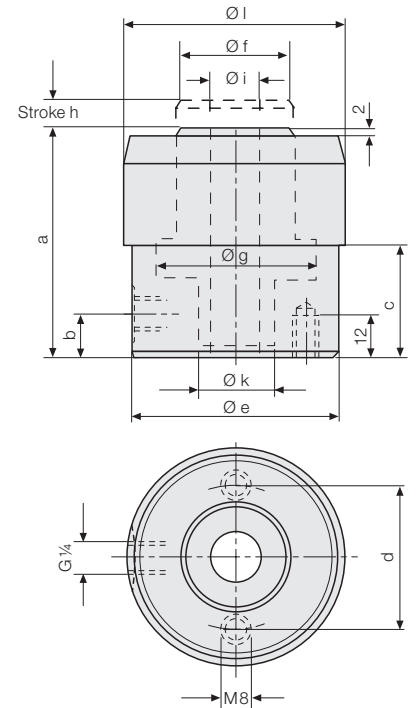
Hollow piston cylinders are used in connection with tie rods, screws and threaded rods, for clamping and locking dies on presses and machines.

**Hydraulic power units**

see product group 7

**Accessories**

see product group 11



**Technical data**

Max. operating pressure 400 bar

Clamping force at 100 bar	[kN]	8.7	13.5	21	34.3
Clamping force at 400 bar	[kN]	34.8	54	84	137.2
Stroke h	[mm]	12	12	15	15
Spring return force	[kN]	0.26	0.36	0.50	0.75
Piston area	[cm <sup>2</sup> ]	8.7	13.5	21	34.3
Oil volume per 1 mm stroke	[cm <sup>3</sup> ]	0.9	1.4	2.1	3.5
a	[mm]	76	76	97	97
b	[mm]	11	15	18.5	24
c	[mm]	38	38	41	41
d	[mm]	44	55	68	84
e	[mm]	60	75	93	113
f	[mm]	28	38	45	58
g	[mm]	40	50	63	80
i	[mm]	16.5	20.5	24.5	30.5
k	[mm]	22	28	36	45
l	[mm]	60	80	100	120
Weight	[kg]	1.3	2.2	4.2	6.1
<b>Part no.</b>		<b>1323003</b>	<b>1325003</b>	<b>1327003</b>	<b>1329003</b>

Special versions on request

**Application examples**

