

# BLOCK CYLINDERS

piston with outer thread, double-acting, pmax. 500 bar



The image shows a block cylinder with external threaded piston together with accessories joint head and bearing support. The bearing support is supplied with 4 cylinder head screws and mounted to the cylinder through bleeder bores.

## Description:

Where linear movements are hydraulically created and exact strokes are essential, this double-acting block cylinder is ideal for application.

Block cylinders are typically used in plant engineering, moldmaking, general mechanical engineering, fixture construction and toolmaking.

The compact cubic design and the transverse groove make assembly easy and guarantee service under high operating pressure.

HYDROKOMP offers various versions of oil supply.

Apart from the double sealing at the rod diameter, block cylinders are equipped with an additional metal wiper.

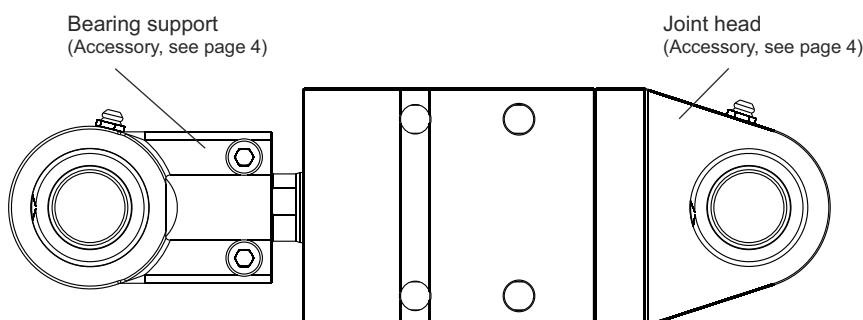
The metal wiper prevents ingress of metallic filings into the soft wiper and ensures continuous operation with little leakage.

The piston rods of the block cylinders have an outer thread. This enables mounting of joint heads for example and other fastening elements.

For more information see page 4.

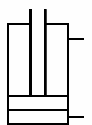
As standard, HYDROKOMP offers the block cylinder in five sizes. Special designs and other strokes are available.

## Mounting example:



Webcode: 020005

We also design and manufacture special designs



## Designs:

- Threaded port
- Manifold connection with O-ring
- Bleeder bores
- Transverse bores

## Sealing:

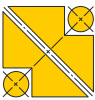
- NBR, Operating temperature: -10° up to +80°C
- FKM, Operating temperature: up to max. 150°C

## Advantages:

- Continuous operation with little leakage
- Allows exact strokes
- 4 mounting options
- Outer thread for accessories
- Metal wiper as standard
- Double hydraulic sealing

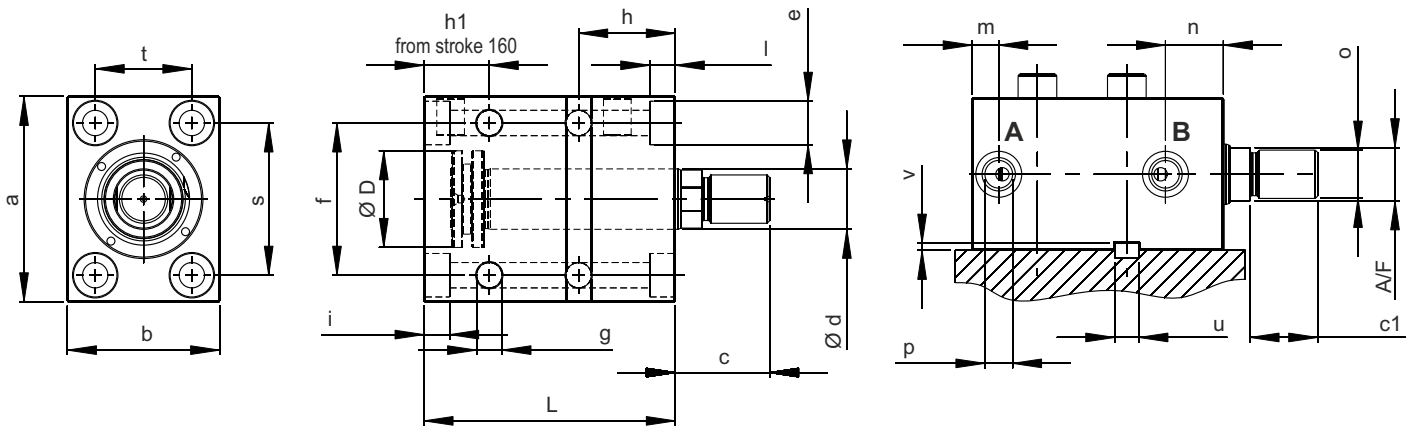
**HYDROKOMP®**  
Hydraulische Komponenten GmbH

Siemensstraße 16, 35325 Mücke (Germany)  
Phone: +49 6401 225999-0  
Fax: +49 6401 225999-50  
E-mail: info@hydrokomp.de  
Internet: www.hydrokomp.de



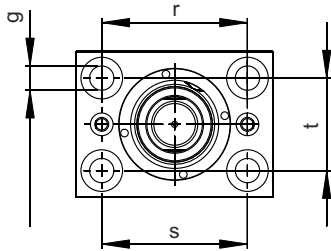
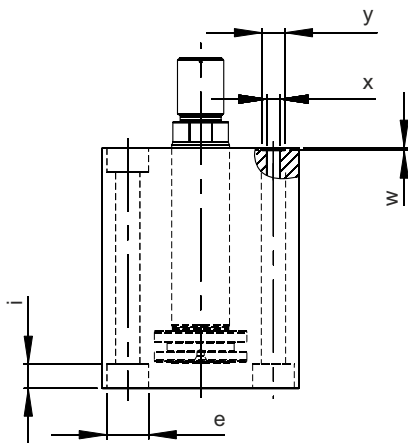
# Block cylinders, piston with outer thread / Designs

## A threaded port, bleeder bores and transverse bores



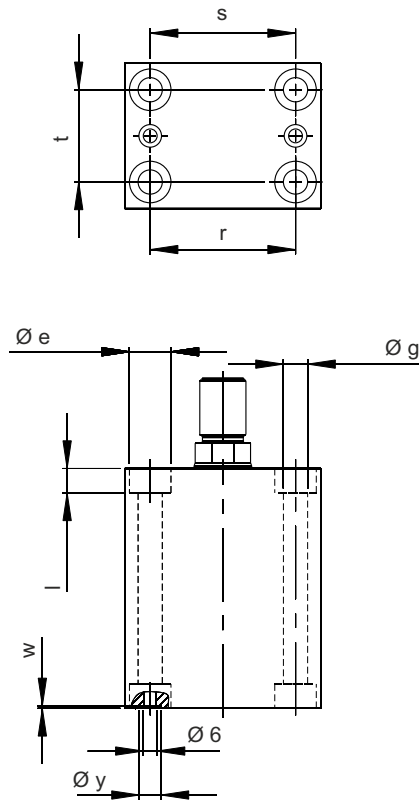
## C

manifold connection with O-rings, rod-side mounting



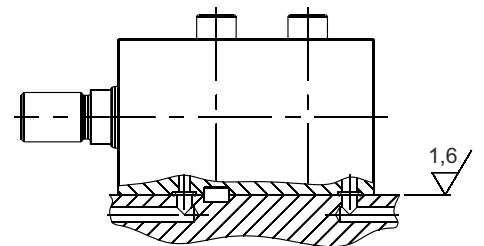
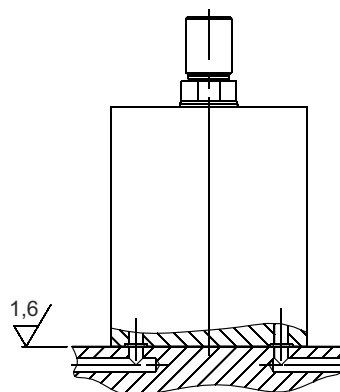
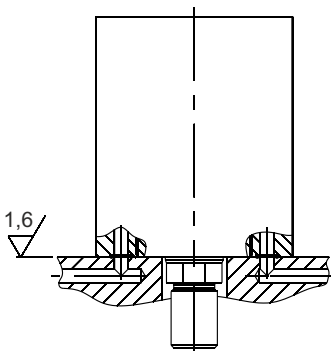
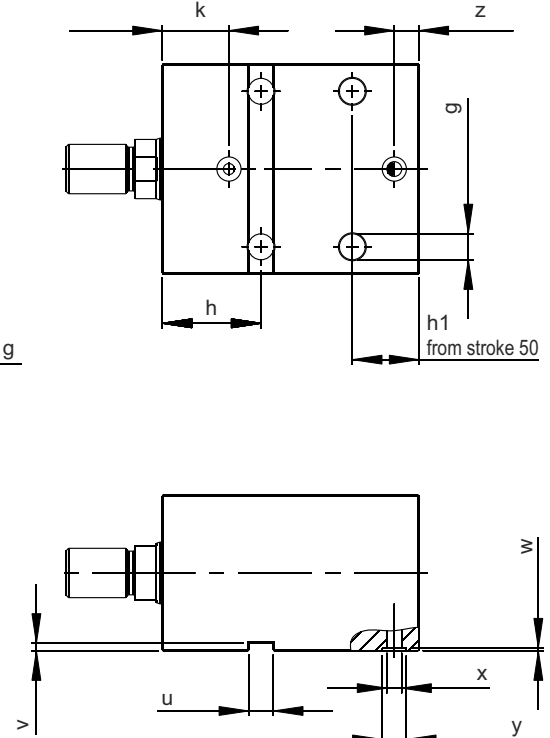
## D

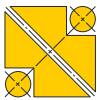
manifold connection with O-rings, bottom-side mounting



## E

manifold connection with O-rings, broadside mounting





## Block cylinders, piston with outer thread / Designs

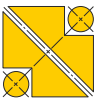
### Order numbers:

|  |                    |                 |                 |                 |                 |                 |
|--|--------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| <b>D Piston Ø<sup>(1)</sup></b>  | [mm]               | <b>25</b>       | <b>32</b>       | <b>40</b>       | <b>50</b>       | <b>63</b>       |
| d Rod Ø  | [mm]               | 16              | 20              | 25              | 32              | 40              |
| Stroke <sup>(2)</sup> ±1   | [mm]               | 50              | 50              | 50              | 50              | 63              |
| Pressure force at 100 bar  | [kN]               | 4,9             | 8,0             | 12,6            | 19,6            | 31,2            |
| Tension force at 100 bar   | [kN]               | 2,9             | 4,9             | 7,7             | 11,6            | 18,6            |
| Oil requ./10 mm supply   | [cm <sup>3</sup> ] | 4,9             | 8,0             | 12,6            | 19,6            | 31,0            |
| Oil requ./10 mm return flow  | [cm <sup>3</sup> ] | 2,9             | 4,9             | 7,7             | 11,6            | 18,6            |
| a  | [mm]               | 65              | 75              | 85              | 100             | 125             |
| b  | [mm]               | 45              | 55              | 63              | 75              | 95              |
| c  | [mm]               | 26              | 33              | 39              | 47              | 63              |
| c1   | [mm]               | 18              | 22              | 28              | 36              | 45              |
| Ø e  | [mm]               | 14              | 18              | 18              | 20              | 26              |
| f  | [mm]               | 50              | 55              | 63              | 76              | 95              |
| Ø g  | [mm]               | 8,5             | 10,5            | 10,5            | 13              | 17              |
| h  | [mm]               | 33              | 38              | 40              | 44              | 50              |
| h1   | [mm]               | 26              | 27              | 27              | 30              | 41              |
| i  | [mm]               | 6,4             | 7,6             | 10,6            | 12,6            | 16,6            |
| k  | [mm]               | 21              | 25              | 27              | 29,5            | 32              |
| l  | [mm]               | 8,6             | 10,6            | 10,6            | 12,6            | 16,6            |
| L  | [mm]               | 94              | 100             | 104             | 115             | 135             |
| m  | [mm]               | 11              | 11              | 11              | 13              | 17              |
| n  | [mm]               | 18              | 22              | 24              | 27              | 26              |
| o  |                    | M14x1,5         | M16x1,5         | M20x1,5         | M27x2           | M33x2           |
| p  |                    | G1/4            | G1/4            | G1/4            | G1/4            | G1/2            |
| r  | [mm]               | 50              | 55              | 63              | 76              | 95              |
| s  | [mm]               | 50              | 55              | 63              | 76              | 95              |
| A/F  | [mm]               | 13              | 17              | 22              | 27              | 36              |
| t  | [mm]               | 30              | 35              | 40              | 45              | 65              |
| u  | [mm]               | 10              | 12              | 12              | 15              | 20              |
| v  | [mm]               | 2               | 3               | 3               | 5               | 5               |
| w  | [mm]               | 1,1             | 1,1             | 1,1             | 1,1             | 1,5             |
| Ø x  | [mm]               | 4               | 5               | 6               | 6               | 8               |
| Ø y  | [mm]               | 9,8             | 9,8             | 9,8             | 10,8            | 13,8            |
| z  | [mm]               | 7,5             | 10              | 10              | 13              | 16              |
| <b>Design A (threaded port, bleeder bores and transverse bores)</b>      |                    |                 |                 |                 |                 |                 |
| Sealing:   |                    |                 |                 |                 |                 |                 |
| NBR  | BZY...             | 025-050-AP-G001 | 032-050-AP-G001 | 040-050-AP-G001 | 050-050-AP-G001 | 063-063-AP-G001 |
| FKM  | BZY...             | 025-050-AV-G001 | 032-050-AV-G001 | 040-050-AV-G001 | 050-050-AV-G001 | 063-063-AV-G001 |
| <b>Design C (manifold connection with O-rings, rod-side mounting)</b>    |                    |                 |                 |                 |                 |                 |
| Sealing:   |                    |                 |                 |                 |                 |                 |
| NBR  | BZY...             | 025-050-CP-G001 | 032-050-CP-G001 | 040-050-CP-G001 | 050-050-CP-G001 | 063-063-CP-G001 |
| FKM  | BZY...             | 025-050-CV-G001 | 032-050-CV-G001 | 040-050-CV-G001 | 050-050-CV-G001 | 063-063-CV-G001 |
| <b>Design D (manifold connection with O-rings, bottom-side mounting)</b> |                    |                 |                 |                 |                 |                 |
| Sealing:   |                    |                 |                 |                 |                 |                 |
| NBR  | BZY...             | 025-050-DP-G001 | 032-050-DP-G001 | 040-050-DP-G001 | 050-050-DP-G001 | 063-063-DP-G001 |
| FKM  | BZY...             | 025-050-DV-G001 | 032-050-DV-G001 | 040-050-DV-G001 | 050-050-DV-G001 | 063-063-DV-G001 |
| <b>Design E (manifold connection with O-rings, broadside mounting)</b>   |                    |                 |                 |                 |                 |                 |
| Sealing:   |                    |                 |                 |                 |                 |                 |
| NBR  | BZY...             | 025-050-EP-G001 | 032-050-EP-G001 | 040-050-EP-G001 | 050-050-EP-G001 | 063-063-EP-G001 |
| FKM  | BZY...             | 025-050-EV-G001 | 032-050-EV-G001 | 040-050-EV-G001 | 050-050-EV-G001 | 063-063-EV-G001 |
| <b>Accessories (see page 4)</b>  |                    |                 |                 |                 |                 |                 |
| Bearing support  |                    | 8700-006        | 8700-009        | 8700-003        | 8700-012        | 8700-015        |
| Joint head   |                    | 8700-005        | 8700-008        | 8700-002        | 8700-011        | 8700-014        |

<sup>(1)</sup>Special piston diameters available on request.

<sup>(2)</sup>Special stroke lengths available on request

Scope of supply includes the O-rings.



## Block cylinders, piston with outer thread / Accessories

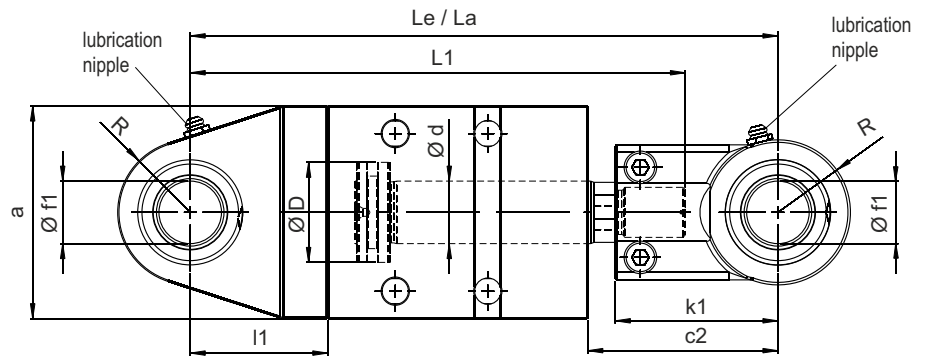
### Description:

The piston rods of the block cylinders are equipped with an outer thread. This way also joint heads for example and other fastening elements can be mounted. For the cylinder bottom we offer a bearing support which is mounted with cylinder screws.

When mounting the joint head it is important to make sure that it is tightly fastened with the piston rod shoulder and jammed by screwing with the piston rod.

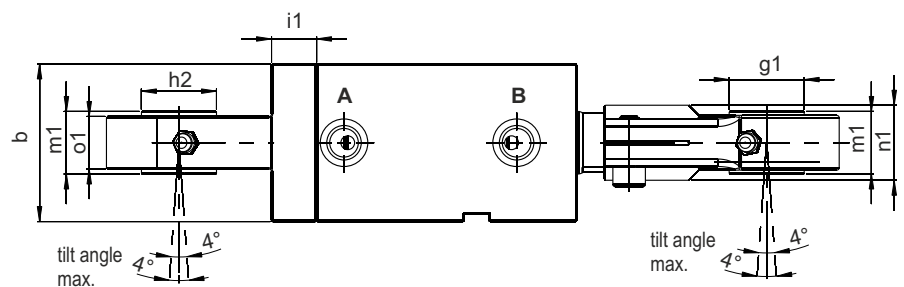
Lubrication nipples enable relubrication of joint head and bearing support.

### Bearing support:



### Joint head:

(including fastening screws)



### Technical Data:

| D Piston Ø <sup>(3)</sup>         | [mm]               | 25   | 32   | 40   | 50   | 63   |
|-----------------------------------|--------------------|------|------|------|------|------|
| d Rod Ø                           | [mm]               | 16   | 20   | 25   | 32   | 40   |
| Stroke <sup>(4)</sup> ±1          | [mm]               | 50   | 50   | 50   | 50   | 63   |
| Pressure force at 100 bar         | [kN]               | 4,9  | 8,0  | 12,6 | 19,6 | 31,2 |
| Tensile force at 100 bar          | [kN]               | 2,9  | 4,9  | 7,7  | 11,6 | 18,6 |
| Oil requirement/10 mm supply      | [cm <sup>3</sup> ] | 4,9  | 8,0  | 12,6 | 19,6 | 31,0 |
| Oil requirement/10 mm return flow | [cm <sup>3</sup> ] | 2,9  | 4,9  | 7,7  | 11,6 | 18,6 |
| a                                 | [mm]               | 65   | 75   | 85   | 100  | 125  |
| b                                 | [mm]               | 45   | 55   | 63   | 75   | 95   |
| c2                                | [mm]               | 52   | 63   | 76   | 91   | 115  |
| Ø f1 H7                           | [mm]               | 16   | 20   | 25   | 32   | 40   |
| Ø g1                              | [mm]               | 20   | 25   | 30   | 38   | 46   |
| Ø h2                              | [mm]               | 20   | 25   | 30   | 38   | 46   |
| i1                                | [mm]               | 12   | 12   | 18   | 20   | 25   |
| k1                                | [mm]               | 44   | 52   | 65   | 80   | 97   |
| l1                                | [mm]               | 37   | 42   | 55   | 65   | 80   |
| m1                                | [mm]               | 16   | 20   | 25   | 32   | 40   |
| n1                                | [mm]               | 21   | 25   | 30   | 38   | 47   |
| o1                                | [mm]               | 13   | 17   | 21   | 27   | 32   |
| R                                 | [mm]               | 20   | 23,5 | 29   | 35,5 | 45   |
| Length cylinder L1                | [mm]               | 157  | 175  | 198  | 227  | 278  |
| Length retracted Le               | [mm]               | 183  | 205  | 235  | 271  | 330  |
| Length extracted La               | [mm]               | 233  | 255  | 285  | 321  | 393  |
| Weight approx.                    | [kg]               | 2,45 | 3,75 | 5,6  | 7,9  | 11,3 |

<sup>(3)</sup>Special piston diameters available on request.

<sup>(4)</sup>Special stroke lengths available on request

Order numbers on page 3