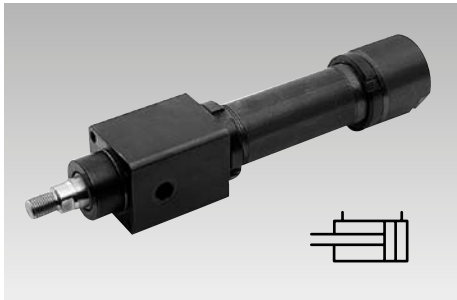




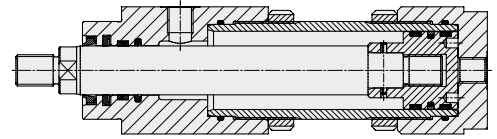
## Hydro-Cylinders

without stroke end cushioning, short version,  
max. operating pressure 200 bar



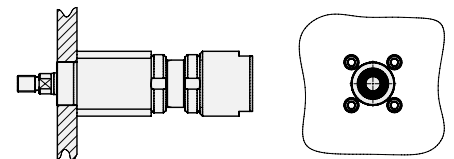
### Advantages

- Compact design
- Max. piston speed 0.5 m/s
- Low wear and friction Glydring seals
- High service life due to the use of guide rings at the piston and the piston rod
- Negligible leakage by double sealing piston rod
- Piston rod induction hardened and chromium-plated
- Effective wiper seal
- Particularly suitable for fixture building by direct mounting on cylinder head (small pitch circle dia.) and accurate centring
- Connecting dimensions as per DIN ISO 6020



### Fixing possibilities

#### • Basic version



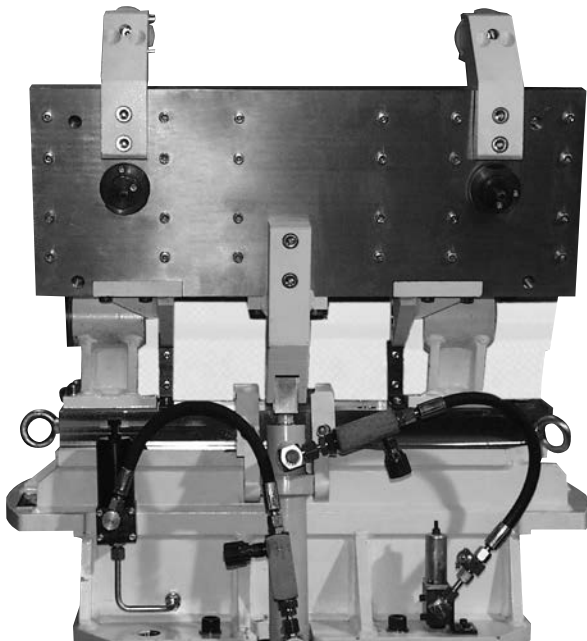
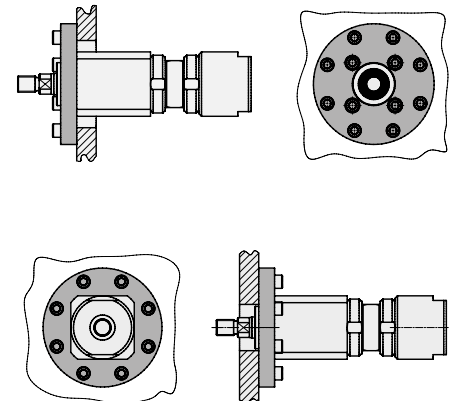
### Application example

The shown hydro-cylinder is used for operation of a clamping plate in a special fixture for machining of aluminium parts.

### Important note

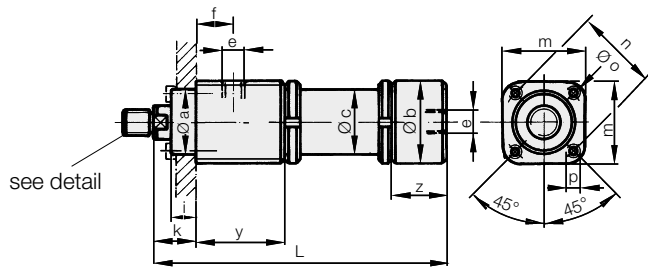
Operating conditions, tolerances and other data see data sheet A 0.100.

#### • with accessory flange



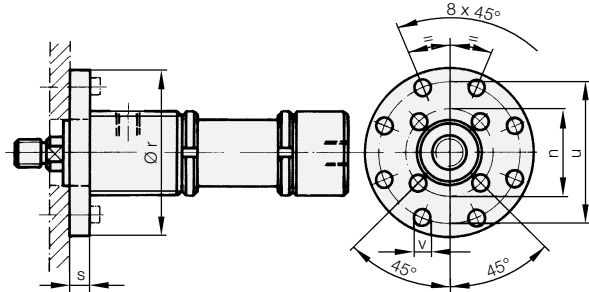
## 1. Basic type

Mounting on the cylinder head from the front

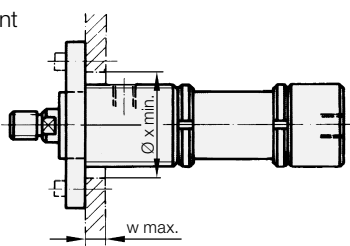


## 2. Flange mounting

2.1 Mounting from the rear



2.2 Mounting from the front



Special versions are available on request.

## Examples for ordering:

### Example 1

1 off hydro-cylinder

Ø 32/20 x 250 stroke

Text: 1 off hydro-cylinder

**Part no. 1284035**

### Example 2

2 off hydro-cylinders

Ø 32/20 x 250 stroke

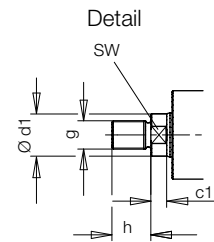
both with flange at the front

Text: 2 off hydro-cylinders

**Part no. 1284035**

2 off flange at the front

**Part no. 1284910**



| Piston Ø D          |                | [mm]  | 25             | 32             | 40             | 50             | 63             | 80             |
|---------------------|----------------|-------|----------------|----------------|----------------|----------------|----------------|----------------|
| Rod Ø d             |                | [mm]  | 16             | 20             | 25             | 32             | 40             | 50             |
| Nominal force       | Forward thrust | [kN]  | 9.8            | 16             | 25             | 39.2           | 62.3           | 100.5          |
|                     | Pull thrust    | [kN]  | 5.7            | 9.8            | 15.3           | 23.1           | 37.2           | 61.2           |
| Piston area         |                | [cm²] | 4.9            | 8.04           | 12.56          | 19.63          | 31.17          | 50.26          |
| Annulus area        |                | [cm²] | 2.89           | 4.9            | 7.65           | 11.59          | 18.6           | 30.6           |
| L = stroke +        |                | [mm]  | 88             | 100            | 119            | 130            | 150            | 180            |
| Ø a f7              |                | [mm]  | 32             | 40             | 50             | 60             | 70             | 85             |
| Ø b                 |                | [mm]  | 48             | 55             | 65             | 80             | 95             | 115            |
| Ø c                 |                | [mm]  | 35             | 42             | 50             | 60             | 75             | 95             |
| Ø d1 x c1           |                | [mm]  | 15x9           | 19x8           | 24x9           | 31x10          | 38,5x12        | 48,5x13        |
| e                   |                |       | G 1/4          | G 1/4          | G 1/4          | G 1/2          | G 1/2          | G 1/2          |
| f                   |                | [mm]  | 20             | 22             | 30             | 34             | 40             | 43             |
| g                   |                | [mm]  | M 12 x 1.25    | M 14 x 1.5     | M 16 x 1.5     | M 20 x 1,5     | M 27 x 2       | M 33 x 2       |
| h                   |                | [mm]  | 16             | 18             | 22             | 28             | 36             | 45             |
| i                   |                | [mm]  | 15             | 20             | 20             | 24             | 29             | 37             |
| k                   |                | [mm]  | 28             | 32             | 32             | 38             | 45             | 54             |
| m                   |                | [mm]  | 48             | 55             | 65             | 80             | 95             | 115            |
| Ø n                 |                | [mm]  | 45             | 58             | 68             | 82             | 95             | 115            |
| Ø o                 |                | [mm]  | 61             | 73             | 86             | 104            | 119            | 144            |
| p x depth of thread |                | [mm]  | M 6 x 12       | M 8 x 15       | M 8 x 15       | M 10 x 20      | M 12 x 20      | M 16 x 28      |
| Ø r                 |                | [mm]  | 90             | 110            | 125            | 150            | 170            | 200            |
| s                   |                | [mm]  | 12             | 16             | 16             | 20             | 25             | 32             |
| Ø u                 |                | [mm]  | 75             | 92             | 106            | 126            | 145            | 165            |
| Ø v                 |                | [mm]  | 7              | 9              | 9              | 11             | 14             | 18             |
| w max.              |                | [mm]  | 9              | 11             | 15             | 18             | 21             | 24             |
| Ø x min.            |                | [mm]  | 62             | 74             | 87             | 105            | 120            | 145            |
| y                   |                | [mm]  | 55             | 61             | 75             | 81             | 93             | 103            |
| z                   |                | [mm]  | 39             | 44             | 46             | 49             | 54             | 60             |
| SW                  |                | [mm]  | 13             | 17             | 22             | 27             | 36             | 46             |
| Part no. Cylinder   |                |       | <b>12830X5</b> | <b>12840X5</b> | <b>12850X5</b> | <b>12860X5</b> | <b>12870X5</b> | <b>12880X5</b> |

| Stroke [mm]     | Stroke code number 128X0X5 | Admissible operating pressure [bar] at safety against buckling of s = 3.5 |                |                |                |                |                |     |
|-----------------|----------------------------|---------------------------------------------------------------------------|----------------|----------------|----------------|----------------|----------------|-----|
| 100             | <b>0</b>                   | 200                                                                       | 200            | 200            | 200            | 200            | 200            | 200 |
| 160             | <b>1</b>                   | 200                                                                       | 200            | 200            | 200            | 200            | 200            | 200 |
| 200             | <b>2</b>                   | 200                                                                       | 200            | 200            | 200            | 200            | 200            | 200 |
| 250             | <b>3</b>                   | 200                                                                       | 200            | 200            | 200            | 200            | 200            | 200 |
| 320             | <b>4</b>                   | 200                                                                       | 200            | 200            | 200            | 200            | 200            | 200 |
| 400             | <b>5</b>                   | 200                                                                       | 200            | 200            | 200            | 200            | 200            | 200 |
| 500             | <b>6</b>                   | 200                                                                       | 200            | 200            | 200            | 200            | 200            | 200 |
| 630             | <b>7</b>                   | 160                                                                       | 200            | 200            | 200            | 200            | 200            | 200 |
| 800             | <b>8</b>                   | 100                                                                       | 160            | 200            | 200            | 200            | 200            | 200 |
| 1000            | <b>9</b>                   | 63                                                                        | 100            | 160            | 200            | 200            | 200            | 200 |
| Part no. Flange |                            | <b>1283910</b>                                                            | <b>1284910</b> | <b>1285910</b> | <b>1286910</b> | <b>1287910</b> | <b>1288910</b> |     |

Intermediate strokes available