

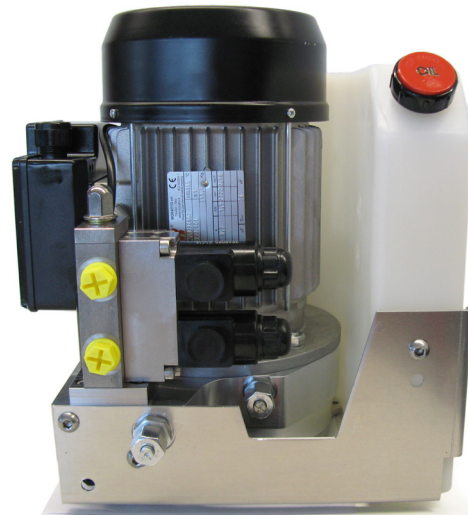
# Compact hydraulic power unit

## Type BKA

Single- and two-stage up to 700 bar  
LP: 100 bar / 2,1 to 6,36 l/min  
HP: 700 bar / 0,38 to 2,04 l/min

### Features

- Compact design
- Self-venting
- Various combinations possible
- Single- or two-stage models



### Design

- Integrated low-pressure unloading valve
- Integrated fail safe valve
- For the assembly of valve banks
- Identical flange connections for electric motors from 0,55 to 2,2 kW
- Various tank sizes

### Applications

- Presses
- Rescue equipment
- Stamping
- Torque wrench
- Clamping
- Test equipment
- Crimping tools
- General mobile applications

### Technical Data

Hydraulic fluid	Mineral oil according to DIN ISO 6743-4 (other fluids on request)	
Fluid temperature range	-20 to 80 °C	
Ambient temperature range	-20 to 50 °C	
Viscosity range	12 to 220 mm <sup>2</sup> /s	
Max. operating pressure HP	700 bar	
Max. operating pressure LP	100 bar	
Noise level	approx. 86 dB (at 3000 rpm) approx. 78 dB (at 1500 rpm)	
Filtration	According to NAS 1638 class 6 resp. ISO/DIN 4406 17/15/12	
Weight	See product information	
Installation position	Vertical	
Overall dimensions	See product information page 4	
Material	Excentric shaft:	steel
	Pump housing:	aluminium
	Tank:	plastic

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## Ordering code

### Example

**BKA** - **E** - **1** **15** - **1,1** - **0,38/700** - **2,84/100** - **2** - **M** - **00**

#### Bieri compact power unit

**Driver** E (electrical motor)

**For electrical motors**  
 1 (1-phase 230V)  
 2 (1-phase 115V)  
 3 (3-phase 230V)  
 4 (3-phase 400V)

**Speed**  
 15 (1500 rpm)  
 18 (1800 rpm)  
 30 (3000 rpm)  
 36 (3600 rpm)

**Electrical motor output**  
 0,55 (0,55 kW)  
 0,75 (0,75 kW)  
 1,1 (1,1 kW)  
 1,5 (1,5 kW)  
 2,2 (2,2 kW)

**Flow rate characteristics HP / Pressure HP [bar]**  
 see table page 6

**Flow rate characteristics LP / Pressure LP [bar]**  
 see table page 6

**Tank volume [Litre]**  
 2 (2,5)  
 6 (6)

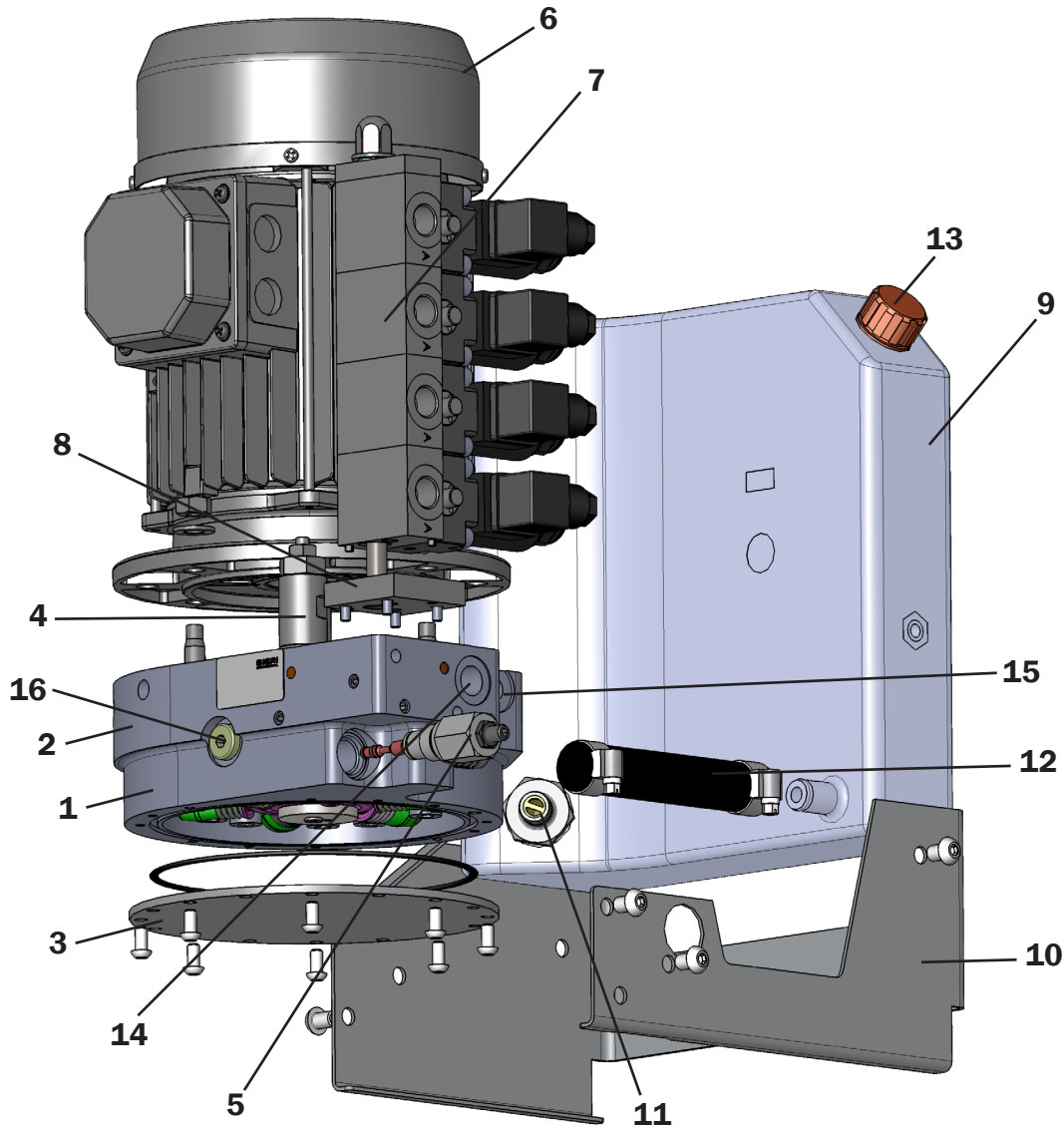
**Options**  
 X (without options)  
 M (Pressure gauge)  
 P (Pressure switch)  
 S (Pressure sensor)

#### Special model

00 (Basic unit)  
 01 (with bypass valve 24VDC)  
 02 (with bypass valve 230VAC)  
 03 (with bypass valve 110VAC)  
 04 ..  
 05 ..

**Type BKA**

LP: 100 bar / 2,1 to 6,36 l/min  
 HP: 700 bar / 0,38 to 2,04 l/min

**Pos. Components**

- |   |  |
|---|--|
| 1 | Pump   |
| 2 | Pump flange  |
| 3 | Pump head  |
| 4 | Pressure relief valve                                  |
| 5 | Pressure Shut-off valve (only for 2-Stage power units) |
| 6 | Electric motor   |
| 7 | Control valve (optional)                               |
| 8 | Adaptor plate (optional)                               |

**Pos. Components**

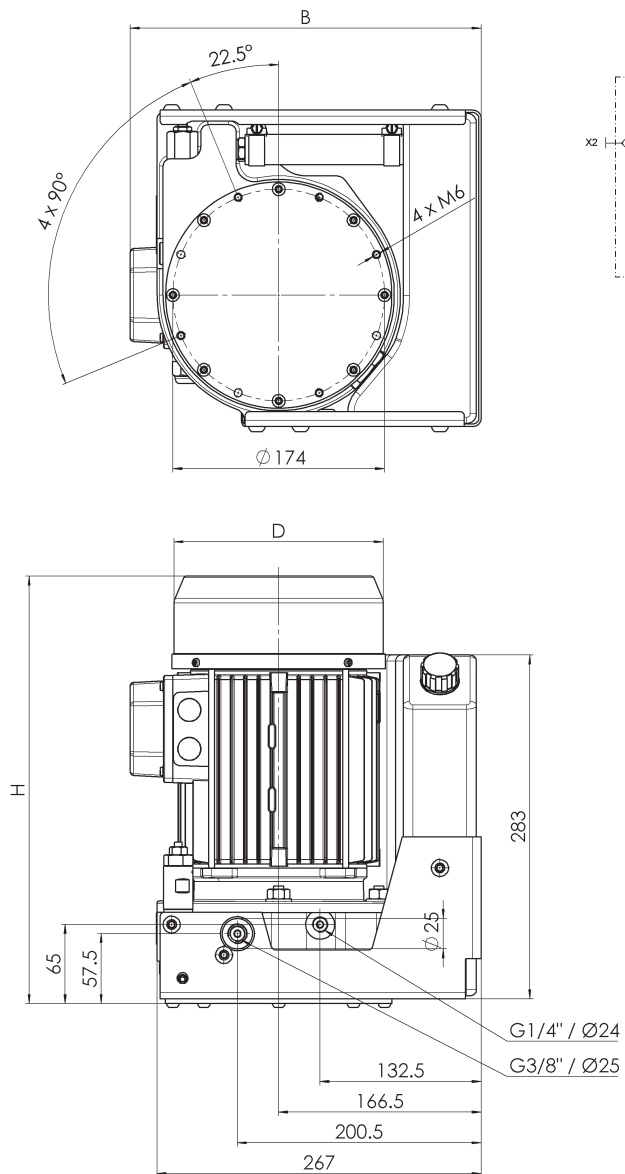
- |    |                      |
|----|----------------------|
| 9  | Tank                 |
| 10 | Tank attachment      |
| 11 | Suction              |
| 12 | Return flow          |
| 13 | Filling              |
| 14 | Appliance connection |
| 15 | Pressure connection  |
| 16 | Air-vent screw       |

## Type BKA

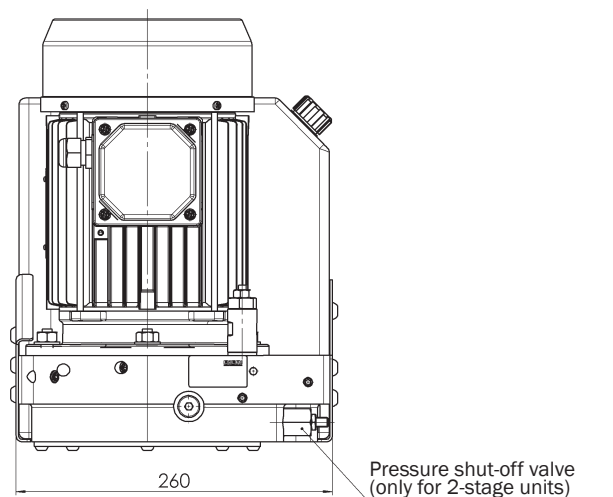
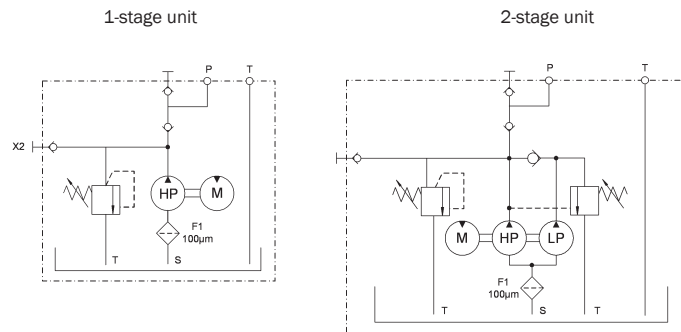
LP: 100 bar / 2,1 to 6,36 l/min  
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## Dimensional drawings

### BKA model for electric motors



### Hydraulic schematics

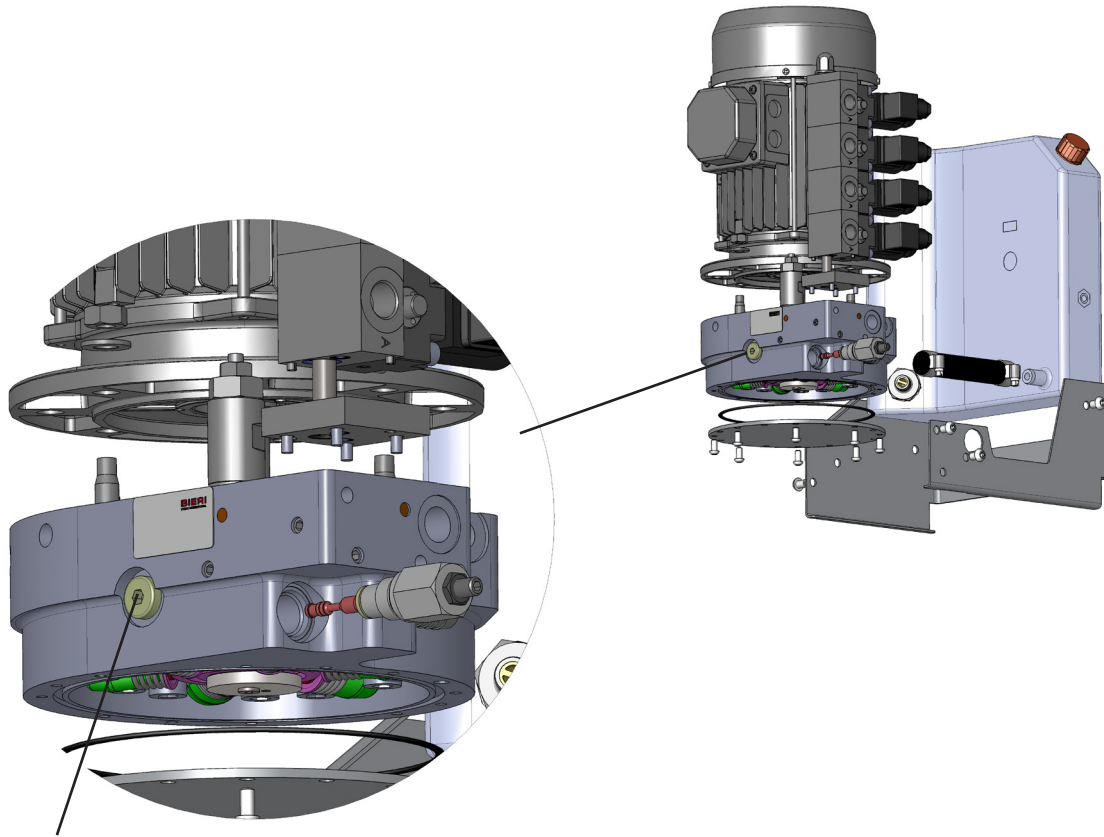


### Dimension chart for units 1500 & 3000 l/min.

D	H	B		Dimension 1-stage [kg]	Dimension 2-stage [kg]	Motor
		2.5 L Tank	6 L Tank			
Ø160	315	253	343	15	18	0,75 kW
Ø175.5	330	260	350	18	21	1,1 kW
Ø175.5	382	289	379	20	23	2,2 kW

**Type BKA**

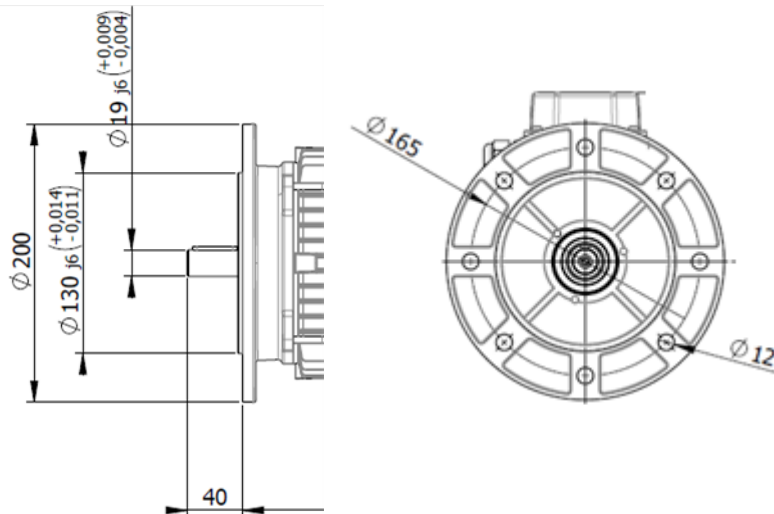
LP: 100 bar / 2,1 to 6,36 l/min  
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Air-vent screw

**Unit interface for electric motor**

according to IEC size 80 and connection flange B5



## Type BKA

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## Selection tables

**1-stage unit** (1500 1/min ; 1800 1/min)

Ordering example: BKA-E-415-1,1-**0,54**/700-2-X-00

Flow rate characteristics HP

Value to be entered in the type code (HP)	1500 1/min (50 Hz)	1800 1/min (60 Hz)	
<b>Flow rate characteristics HP</b>	Q (HP) [l/min]	Q (HP) [l/min]	Vg (HP) [cm <sup>3</sup> /rev]
<b>0,28</b>	0,38	0,45	0,28
<b>0,38</b>	0,53	0,63	0,38
<b>0,54</b>	0,75	0,90	0,54
<b>0,84</b>	1,20	1,44	0,84
<b>1,2</b>	1,70	2,04	1,2

**1-stage unit** (3000 1/min ; 3600 1/min)

Ordering example: BKA-E-430-1,1-**0,30**/700-2-X-00

Flow rate characteristics HP

Value to be entered in the type code (HP)	3000 1/min (50 Hz)	3600 1/min (60 Hz)	
<b>Flow rate characteristics HP</b>	Q (HP) [l/min]	Q (HP) [l/min]	Vg (HP) [cm <sup>3</sup> /rev]
<b>0,14</b>	0,38	0,45	0,14
<b>0,21</b>	0,57	0,68	0,21
<b>0,3</b>	0,83	0,99	0,3
<b>0,46</b>	1,20	1,44	0,46
<b>0,64</b>	1,70	2,04	0,64

**2-stage unit** (1500 1/min ; 1800 1/min)

Ordering example:

BKA-E-415-1,1-**0,62**/700-**3,08**/100-2-X-00

Flow rate characteristics HP

Flow rate characteristics LP

Value to be entered in the type code (HP)	1500 1/min (50 Hz)	1800 1/min (60 Hz)		Value to be entered in the type code (LP)	1500 1/min (50 Hz)	1800 1/min (60 Hz)	
<b>Flow rate characteristics HP</b>	Q (HP) [l/min]	Q (HP) [l/min]	Vg (HP) [cm <sup>3</sup> /rev]	<b>Flow rate characteristics LP</b>	Q (HP + LP) [l/min]	Q (HP + LP) [l/min]	Vg (HP + LP) [cm <sup>3</sup> /rev]
<b>0,32</b>	0,43	0,51	0,32	<b>1,55</b>	2,20	2,52	1,55
<b>0,38</b>	0,53	0,63	0,38	<b>2,84</b>	3,90	4,68	2,84
<b>0,62</b>	0,86	1,03	0,62	<b>3,08</b>	4,20	5,04	3,08
<b>0,8</b>	1,10	1,32	0,8	<b>3,26</b>	4,50	5,40	3,26
<b>1,13</b>	1,60	1,92	1,13	<b>3,59</b>	4,90	6,00	3,59

**2-stage unit** (3000 1/min ; 3600 1/min)

Ordering example:

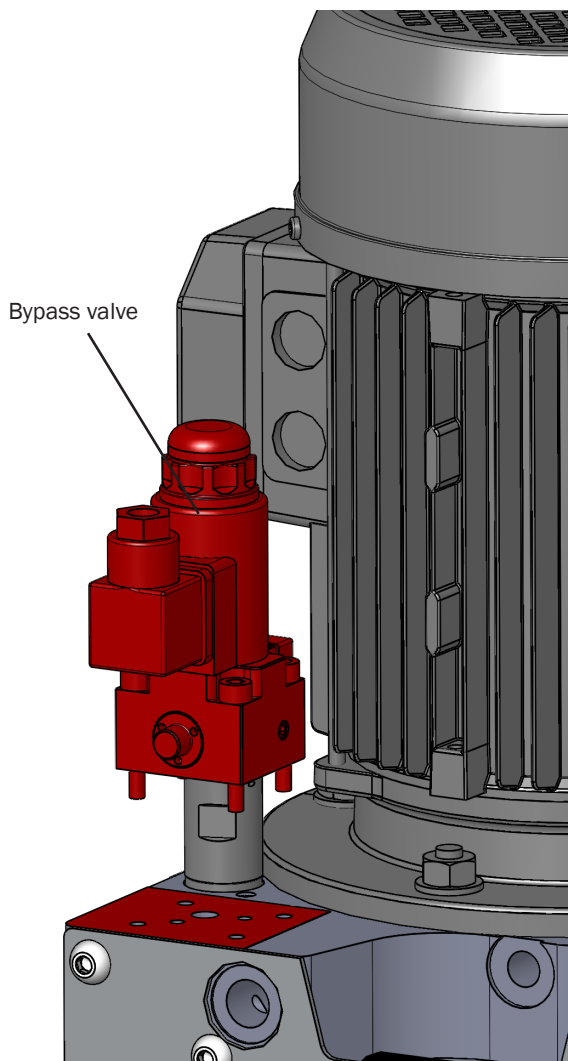
BKA-E-430-1,1-**0,32**/700-**1,55**/100-2-X-00

Flow rate characteristics HP

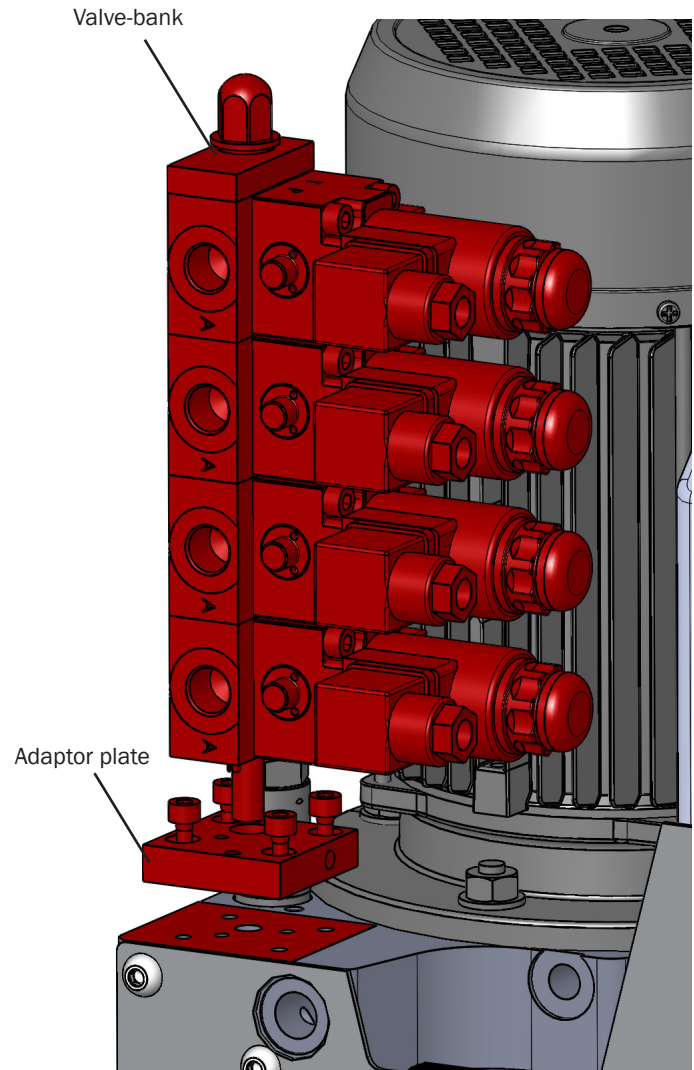
Flow rate characteristics LP

Value to be entered in the type code (HP)	3000 1/min (50 Hz)	3600 1/min (60 Hz)		Value to be entered in the type code (LP)	3000 1/min (50 Hz)	3600 1/min (60 Hz)	
<b>Flow rate characteristics HP</b>	Q (HP) [l/min]	Q (HP) [l/min]	Vg (HP) [cm <sup>3</sup> /rev]	<b>Flow rate characteristics LP</b>	Q (HP + LP) [l/min]	Q (HP + LP) [l/min]	Vg (HP + LP) [cm <sup>3</sup> /rev]
<b>0,15</b>	0,43	0,51	0,15	<b>0,77</b>	2,10	2,64	0,77
<b>0,22</b>	0,61	0,73	0,22	<b>1,12</b>	3,40	3,84	1,12
<b>0,32</b>	0,85	1,02	0,32	<b>1,55</b>	4,20	5,04	1,55
<b>0,44</b>	1,20	1,44	0,44	<b>1,67</b>	4,60	5,64	1,67
<b>0,62</b>	1,70	2,04	0,62	<b>1,85</b>	5,10	6,36	1,85

## Valve installation

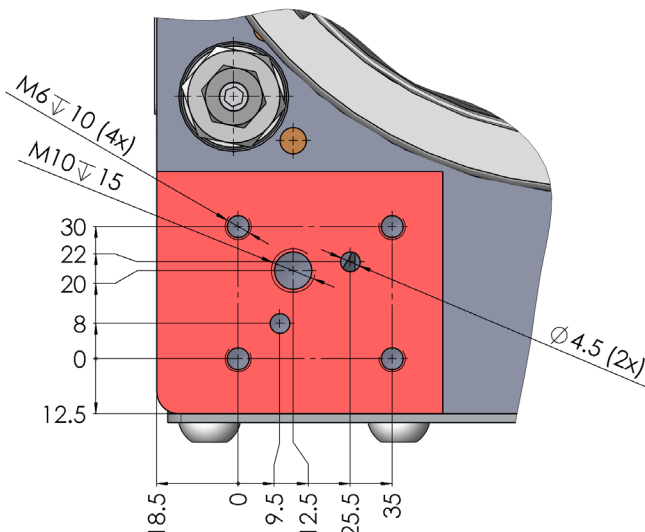


Bypass valve installation P-T  
 (Valve see data sheet WVM/WVH700)



Installation valve-bank  
 (Valve see data sheet WVM/WVH700)

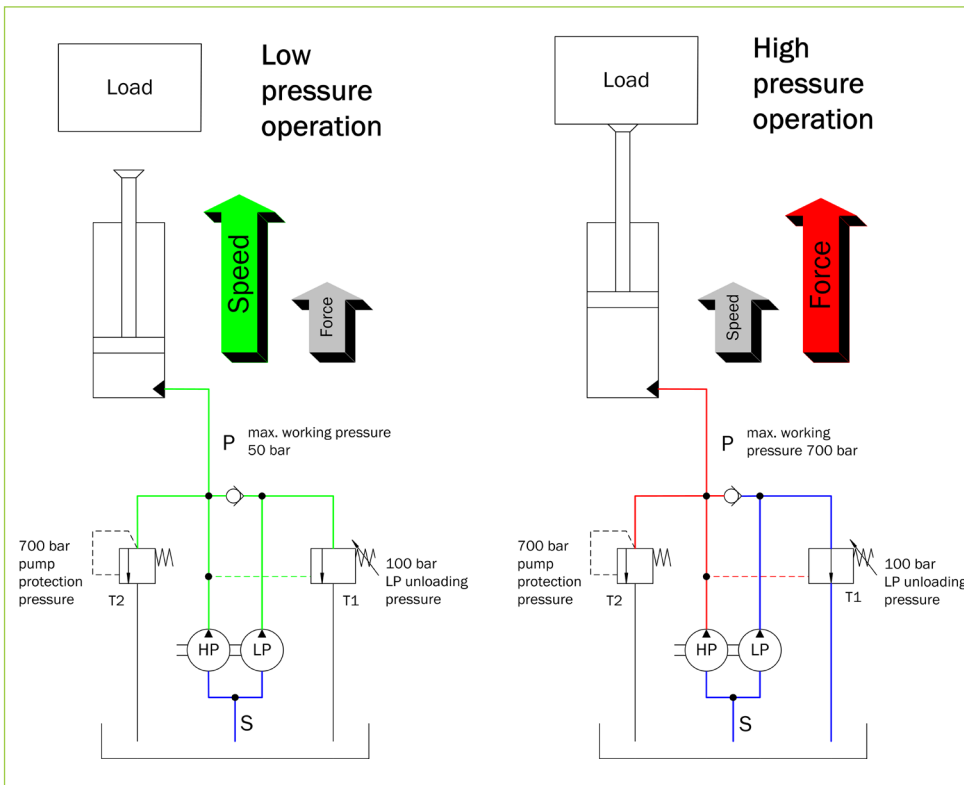
## Drilling template



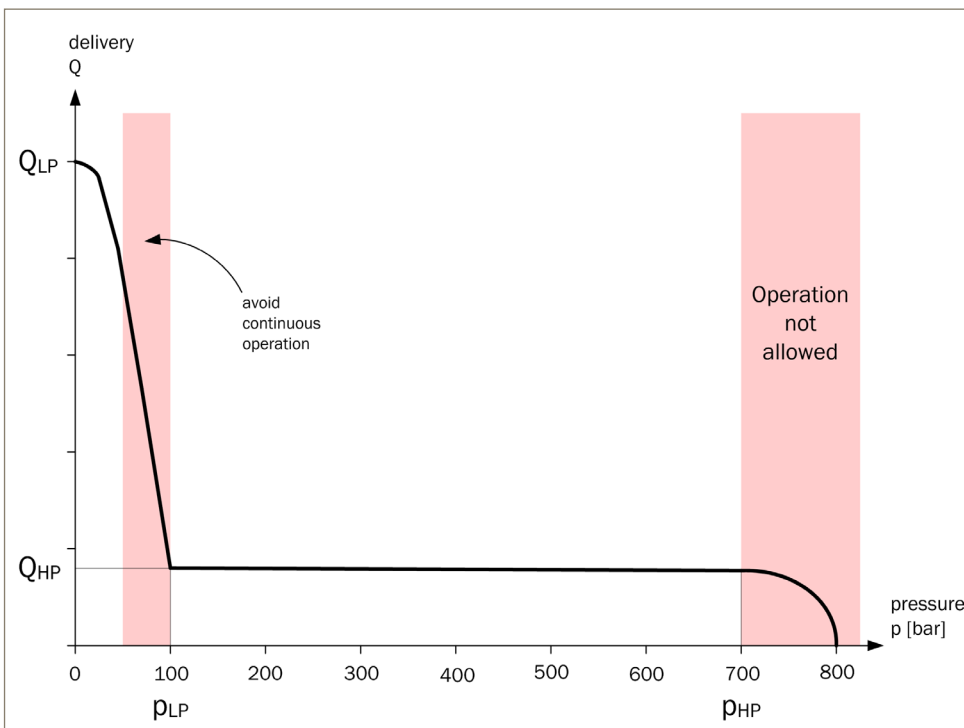
Type	Part. No
Adaptor plate	4002724

## Functional schematic/diagram

### Functional schematic



### Pressure diagram



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The information in this brochure relates to the operating conditions and applications described.  
 For applications and operating conditions not described, please contact the relevant technical department.  
 Subject to technical modifications.