

# Combination pumps

## Type SKP

LP: 100 bar/4,45 to 16,71 cm<sup>3</sup>/rev  
HP: 700 bar/0,45 to 2,71 cm<sup>3</sup>/rev

### Features

- Compact design
- Self-venting
- Various combinations possible

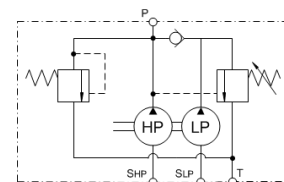


### Design

- Integrated low-pressure unloading valve
- Integrated fail safe valve (not suitable for continuous operation, must not be used to restrict the system pressure!)
- With hollow shaft for direct assembling of motor without bell housing and coupling

### Applications

- For applications that require high flow rates in the low pressure (LP) range and low flow rates in the high pressure (HP) range
- Presses
- Power units for industrial applications such as punching machines and rescue devices
- Not suited for pulsation



### Technical Data

Hydraulic fluid	Mineral oil according to DIN 51524 (other fluids on request)
Fluid temperature range	-20 up to 80 °C
Ambient temperature range	-30 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 (preset by producer)
Suction pressure	-0,2 bar up to +0,5 bar (relative)
Filtration (recommendation)	According to NAS 1638 class 6 resp. ISO/DIN 4406 17/15/12
Weight	See product information
Installation position	In oil reservoir (vertical)
Radial force / Axial force onto driving shaft	Not allowed
Max. speed	2000 rpm
Direction of rotation	Clockwise
Suction height	Max. 400 mm
Material	Excentric shaft and valve block: steel Pump housing and gear pump: cast aluminium

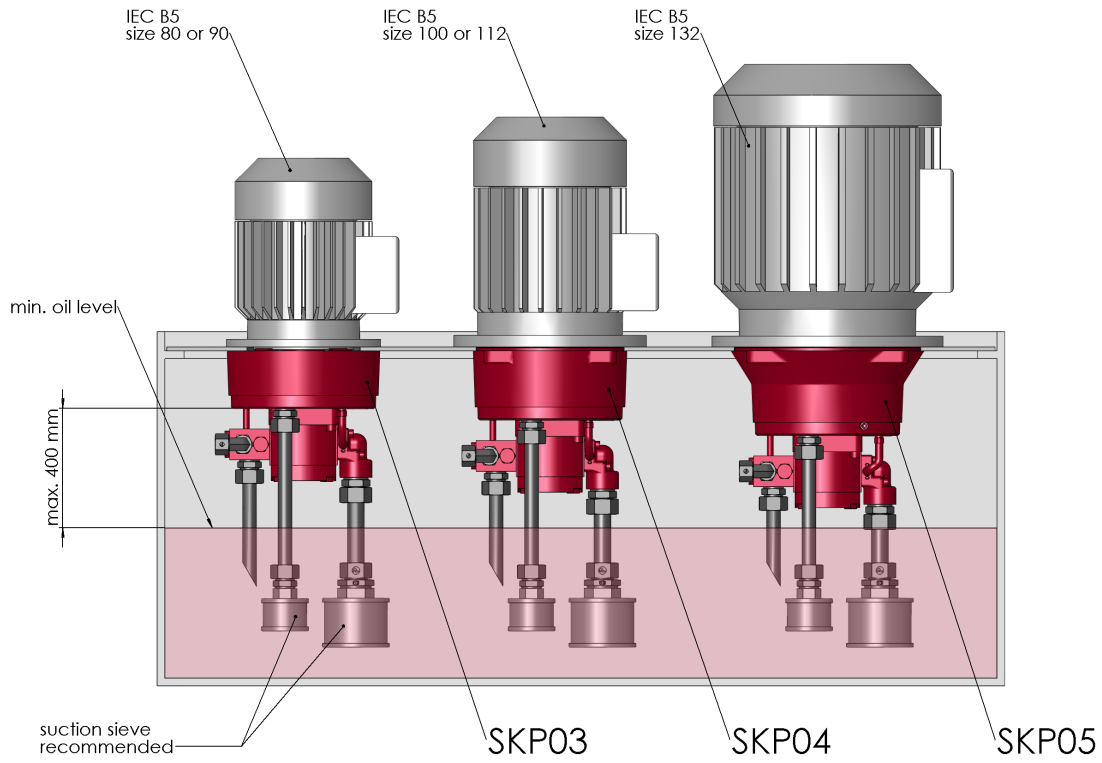
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## Ordering code

<b>Example</b>	<b>SKP</b>	<b>03</b>	-	<b>0,45</b>	-	<b>700</b>	-	<b>4,45</b>	-	<b>100</b>	<b>V</b>	-			<b>00</b>	
<b>Combination pumps</b>																<b>Special design</b> 01 ... 99 (00 for Standard)
<b>Size</b>	03															<b>Part index</b> Please leave it blank (small letters a-z; different letters do not effect interchangeability)
	04															
	05															
<b>Displacement HP [cm<sup>3</sup>/rev]</b>	see product information															
<b>Max. operating pressure HP [bar]</b>	see product information															
<b>Displacement LP [cm<sup>3</sup>/rev]</b>	see product information															
<b>Max. operating pressure LP [bar]</b>	see product information															
<b>Seal material</b>	V [FPM] other seal materials on request															

## Mounting



**Type SKP**

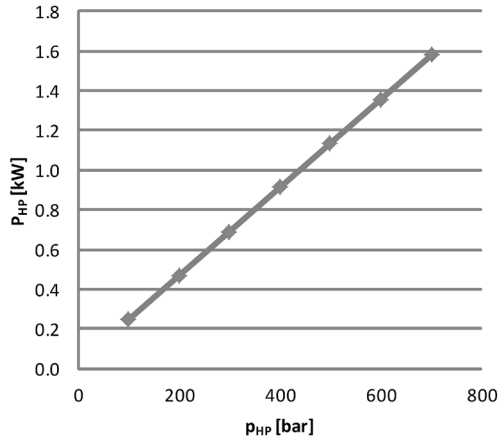
LP: 100 bar/4,45 to 16.71 cm<sup>3</sup>/rev  
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**Product information**

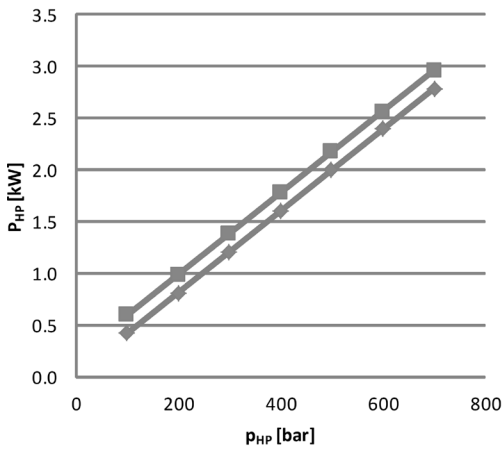
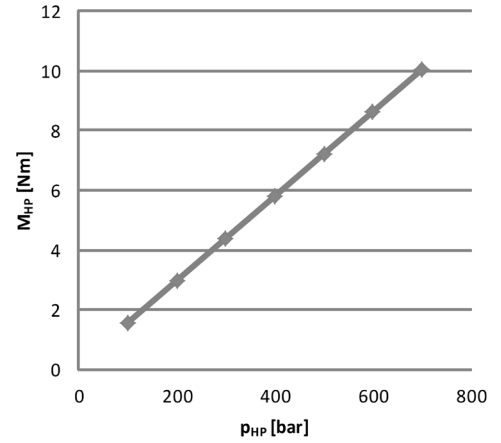
Type	HP mode		LP mode			Number of pumping elements [HP]	Motor size acc. DIN 42677	Weight ca. [kg]	Part No.
	Displacement HP [cm <sup>3</sup> /rev]	max. operating pressure [bar]	Displacement LP [cm <sup>3</sup> /rev]	Displacement HP+LP [cm <sup>3</sup> /rev]	max. cut-out pressure [bar]				
03	0,45	700	4	4,45	100	2	80	9,2	4002174
03	0,80	700	6	6,80	100	2	90	9,3	3973268
03	0,80	700	8	8,80	100	2	90	9,5	4002179
04	1,26	700	6	7,26	100	2	100	9,9	3999420
04	1,53	700	6	7,53	100	2	112	9,9	3999422
04	1,53	700	8	9,53	100	2	112	10,0	4002459
04	1,53	700	14	15,53	100	2	112	10,2	4002190
04	1,88	700	14	15,88	100	3	112	10,4	4002192
04	2,16	700	6	8,16	100	3	112	10,1	4002194
04	2,16	700	8	10,16	100	3	112	10,2	4002195
04	2,16	700	14	16,16	100	3	112	10,4	4002196
05	2,71	700	6	8,71	100	3	132	10,3	4002198
05	2,71	700	14	16,71	100	3	132	10,6	4002199

Other combinations on request

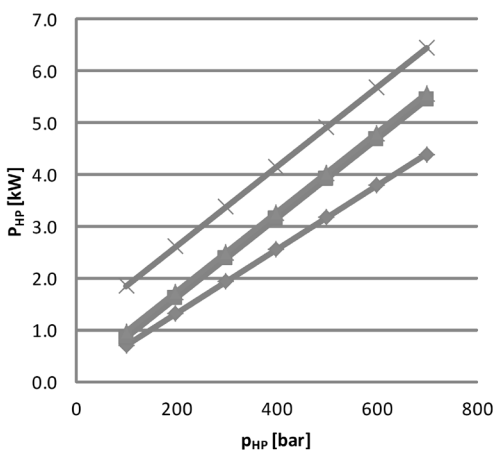
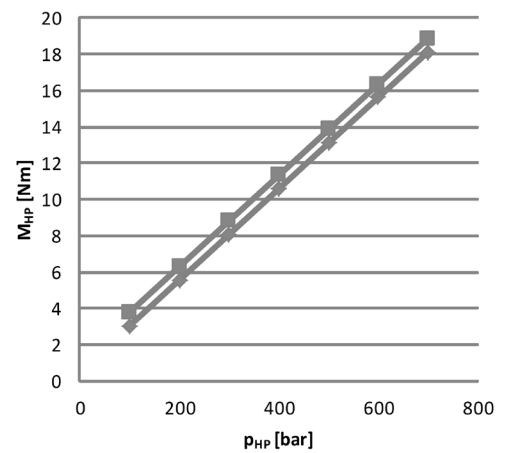
## Driving motor power and torque



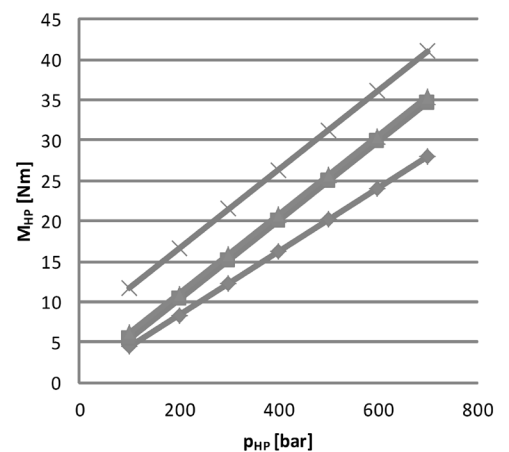
SKP03-0,45-700-4,45-100



SKP03-0,80-700-6,80-100  
 SKP03-0,80-700-8,80-100



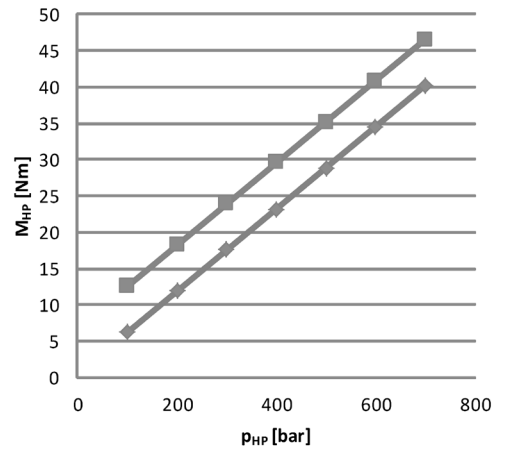
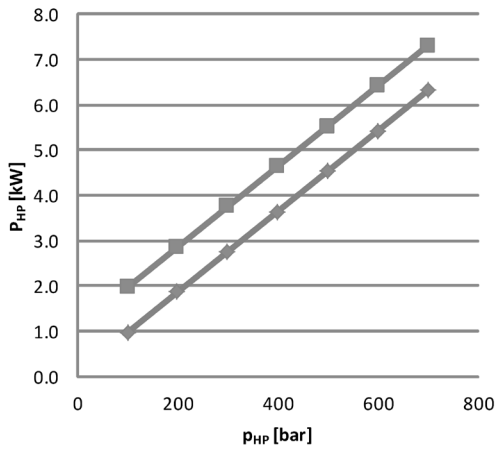
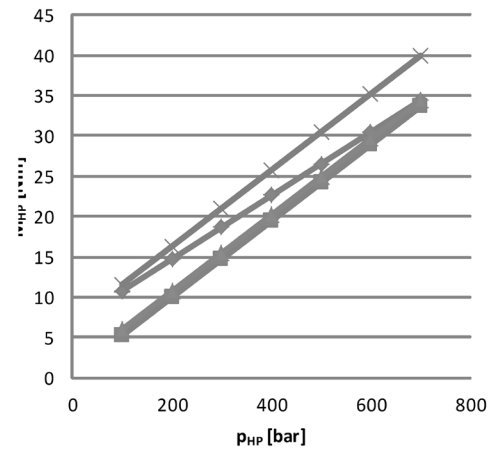
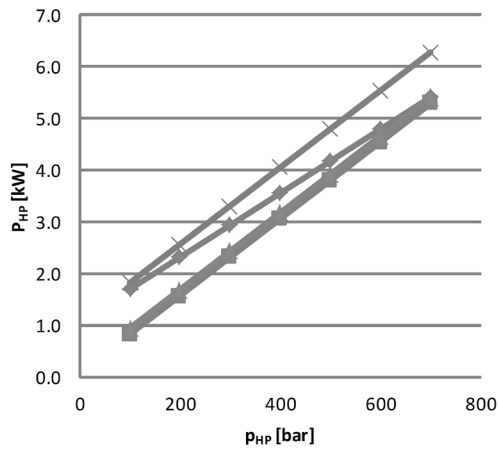
SKP04-1,26-700-7,26-100  
 SKP04-1,53-700-7,53-100  
 SKP04-1,53-700-9,53-100  
 SKP04-1,53-700-15,53-100



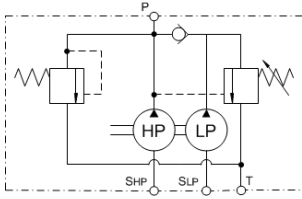
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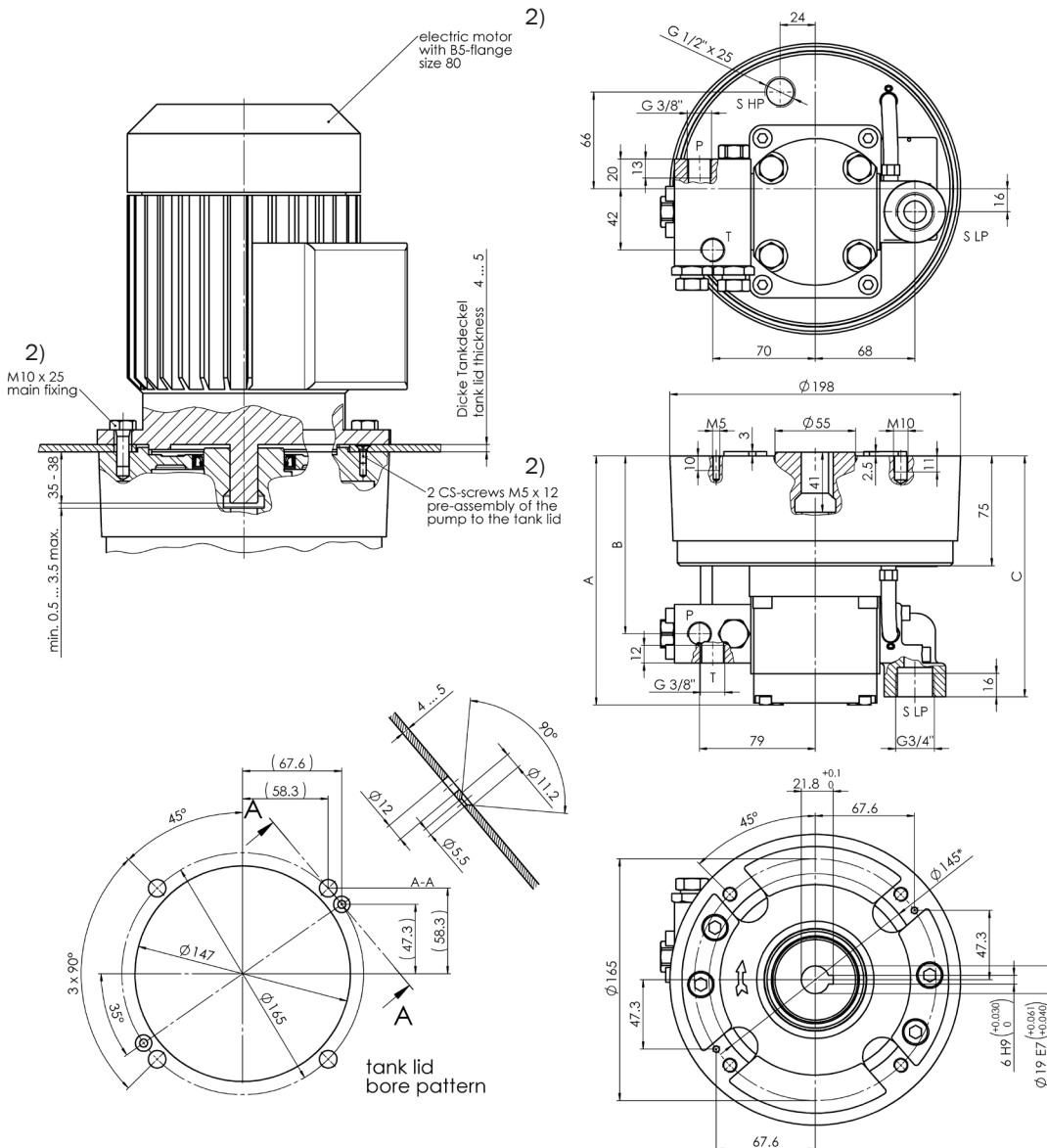


**Hydraulic schematics**



**Dimensional drawings**

Size SKP03 for electric motor IEC-size 80 / Design revision B



2) Not included in the scope of supplier

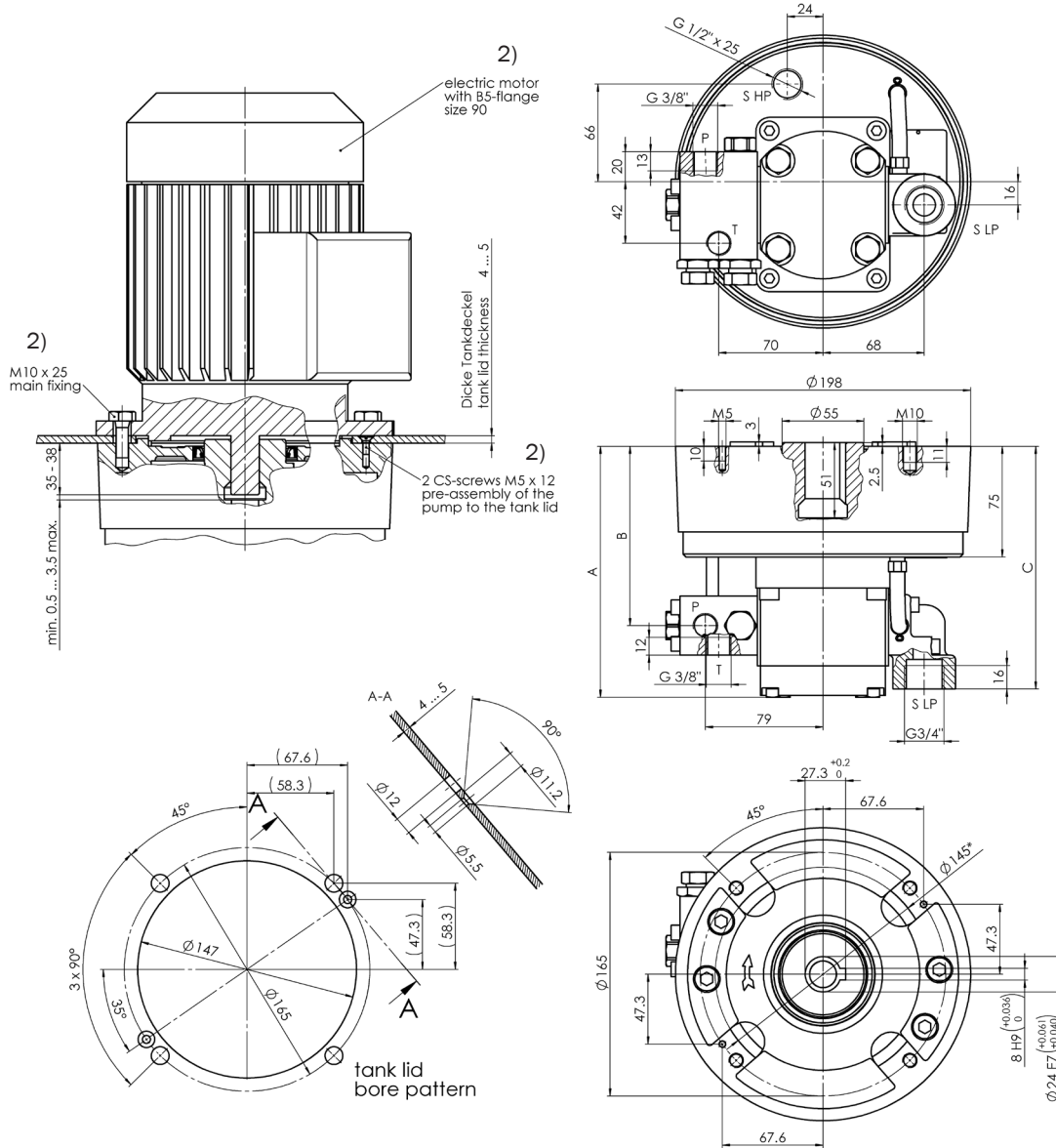
**Installation dimensions low-pressure pump (LP)**

Displacement low-pressure pump [cm <sup>3</sup> /rev]	A	B	C
	[mm]		
4	170.0	121.4	164.4

## Type SKP

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 HP: 700 bar/0,45 to 2,71 cm<sup>3</sup>/rev

### Size SKP03 for electric motor IEC-size 90 / Design revision B



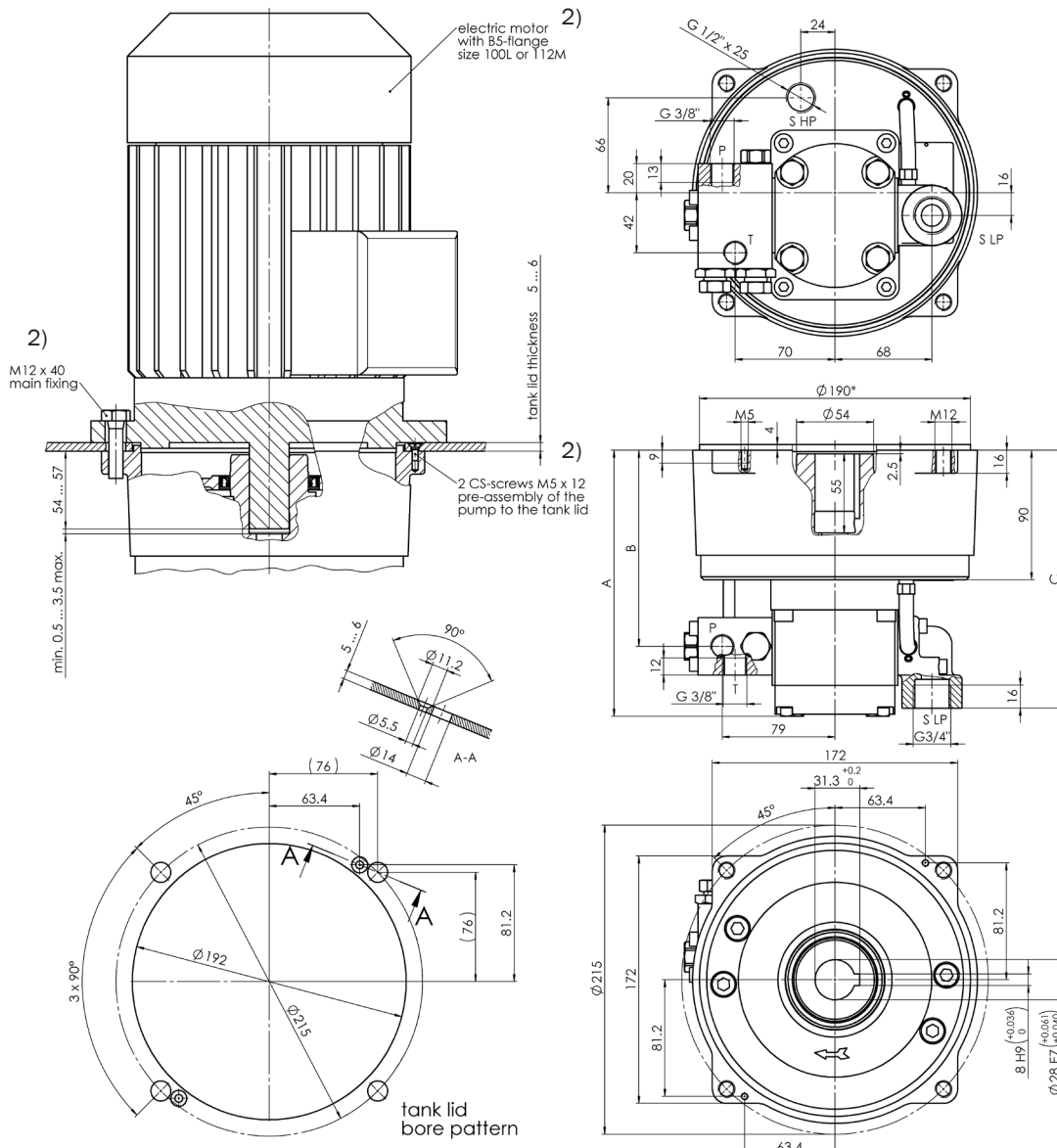
2) Not included in the scope of supplier

#### Installation dimensions low-pressure pump (LP)

Displacement low-pressure pump [cm <sup>3</sup> /rev]	A	B	C
	[mm]		
4	170.0	121.4	164.4
6	173.3	123.0	166.0
8	177.5	125.1	168.1



**Size SKP04 for electric motor IEC-size 100 or 112 / Design revision B**



2) Not included in the scope of supplier

**Installation dimensions low-pressure pump (LP)**

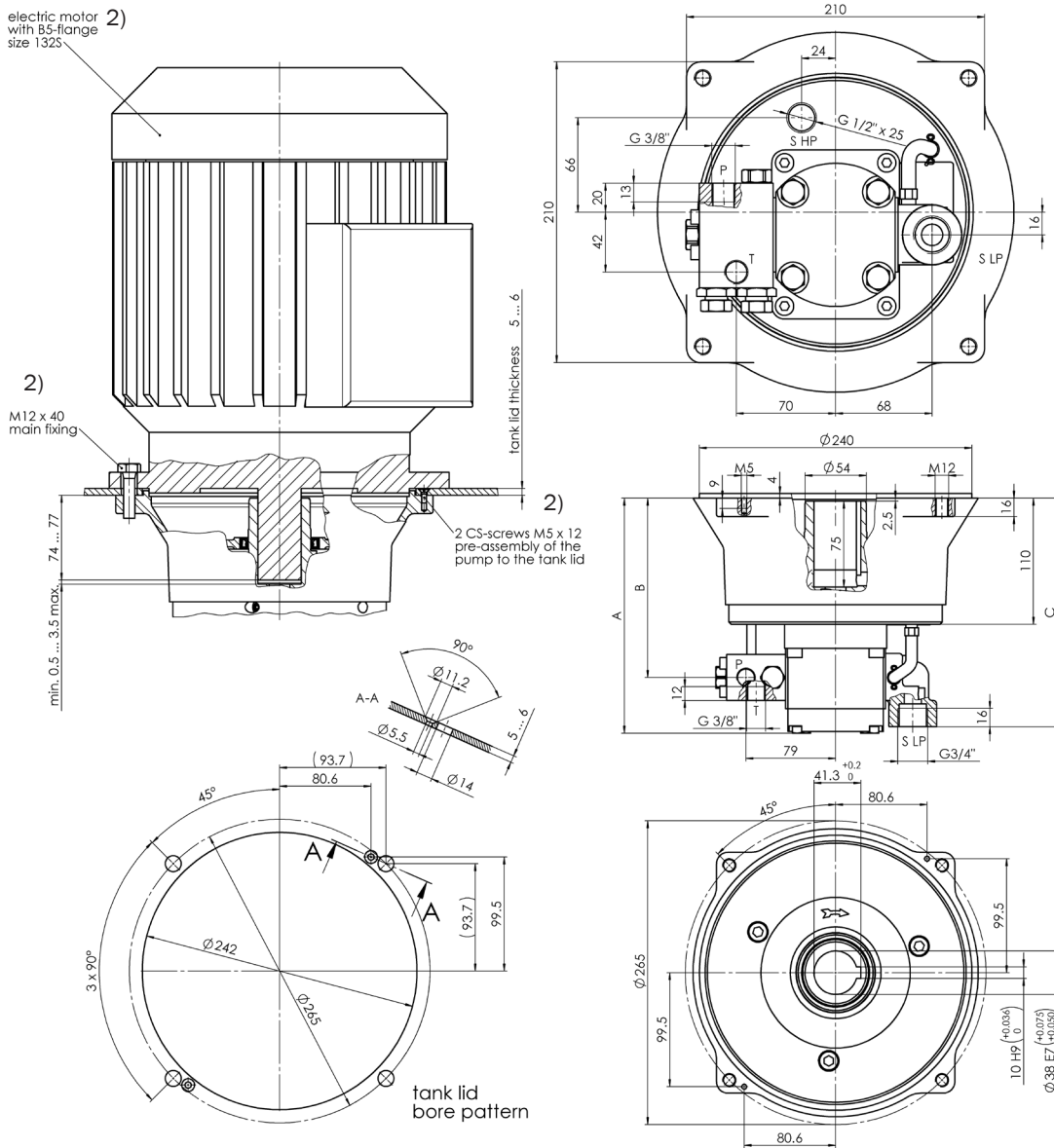
Displacement low pressure pump [cm <sup>3</sup> /rev]	A	B	C
	[mm]		
4	185.0	136.4	179.4
6	188.3	138.0	181.0
8	192.5	140.1	183.1
14	201.6	144.7	187.7

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HP: 700 bar/0,45 to 2,71 cm<sup>3</sup>/rev

### Size SKP05 for electric motor IEC-size 132 / Design revision B

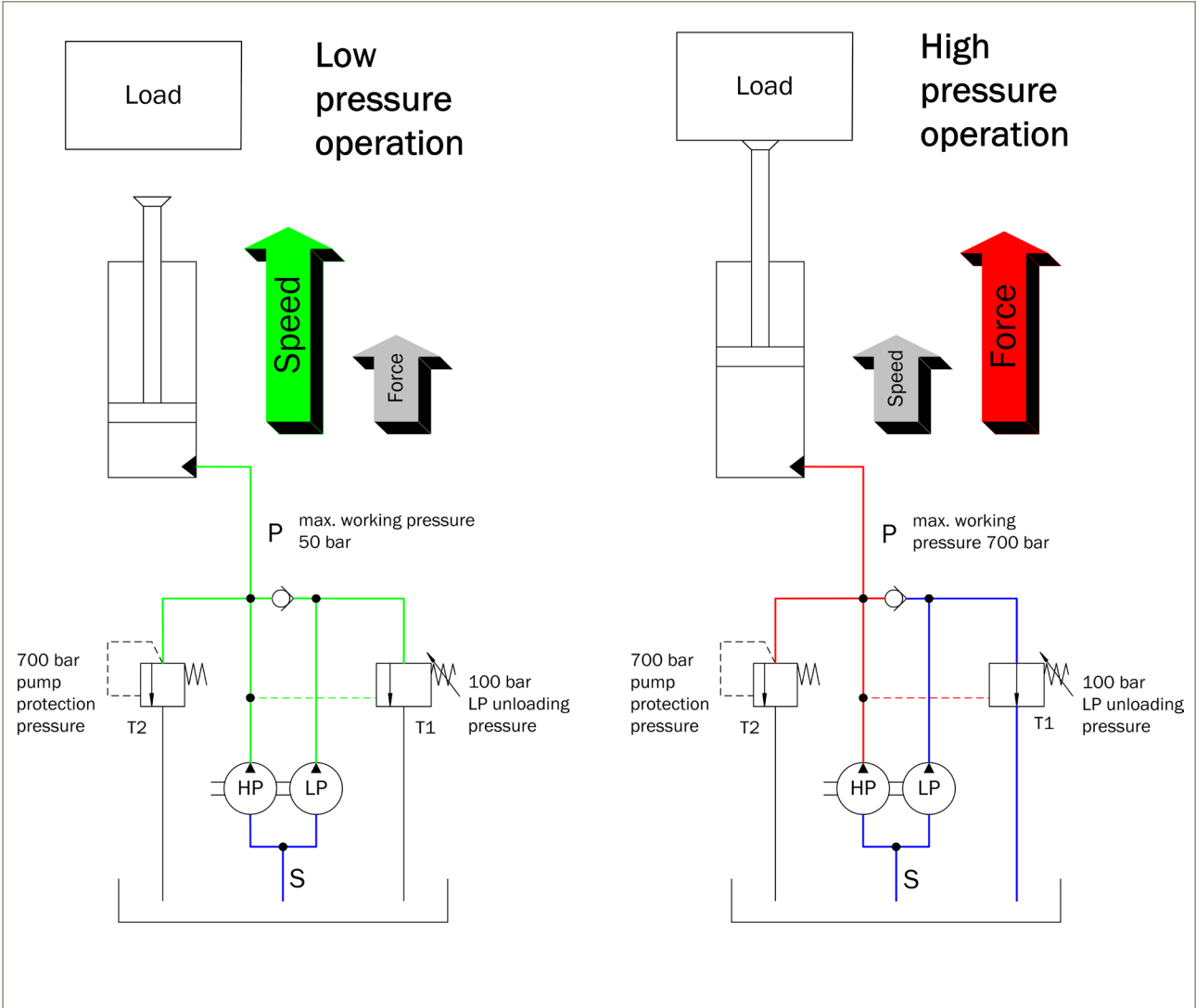


2) Not included in the scope of supplier

### Installation dimensions low-pressure pump (LP)

Displacement low pressure pump [cm <sup>3</sup> /rev]	A	B	C
	[mm]		
4	205.0	156.4	199.4
6	208.3	158.0	201.0
8	212.5	160.1	203.1
14	221.6	164.7	207.7

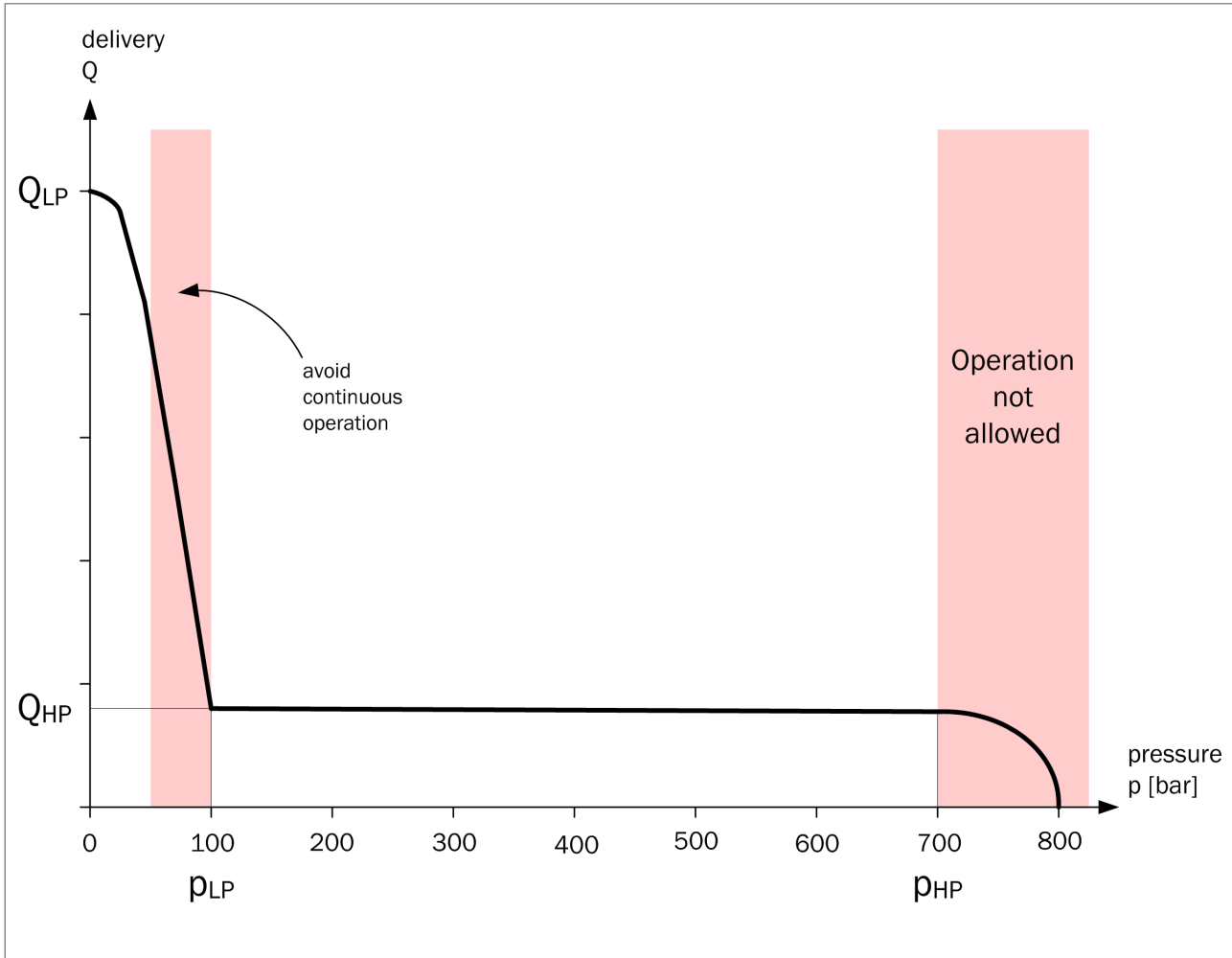
**Functional schematic**



## Type SKP

LP: 100 bar/4,45 to 16.71 cm<sup>3</sup>/rev  
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## 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.