Motor pump and hydraulic power pack type R, RG

Product documentation

Operating pressure p_{max}:	700 bar
Displacement volume $V_{g\ max}$:	64.2 cm^3/rev
Flow rate Q_{max}:	91.2 l/min

D 6010 H
04-2026 -1.1 en

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Table of Contents

1 Overview of motor pump and hydraulic power pack type R, RG 4

2 Available versions 5
2.1 Radial piston pump 5
2.1.1 Basic type 5
2.1.2 Delivery flow coding 5
2.2 Motor pump 9
2.2.1 Version 9
2.3 Hydraulic power pack 10
2.3.1 Tank and cover plate version 11
2.3.2 Additional options for tanks 12
2.3.2.1 Installation position 12
2.3.3 Version 12
2.3.4 Connection block 13
2.3.5 Option to mount directional valve banks 15

3 Parameters 16
3.1 General data 16
3.2 Pressure and volumetric flow 17
3.3 Weight 18
3.4 Characteristic lines 24
3.5 Motor data 24

4 Dimensions 27
4.1 Motor 28
4.2 Motor pump 29
4.2.1 Electrical connection 30
4.3 Hydraulic power pack 31
4.3.1 Tank and cover plate version 31
4.3.1.1 B 6 as well as D 6 31
4.3.1.2 B 13 and B 20 as well as D 13.1 to D 20 33
4.3.1.3 B 30 and B 40 as well D 30 and D 40 35
4.3.1.4 B 50 and B 75 as well as D 50.1 and D 50.2 37
4.3.1.5 B 100 as well as D 100.1 39
4.3.1.6 Tank and cover plates 41
4.3.2 Additional options for tanks 50
4.3.2.1 Installation position 52
4.3.3 Connection block 54
4.4 Intermediate flanges and bell housings 56
4.5 Suction parts 64
4.6 Venting parts 65
4.7 Couplings 66

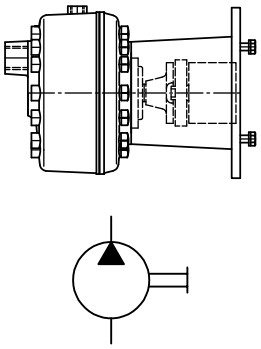
5 Installation, operation and maintenance information 67

6 Other information 68
6.1 Accessories for motor pumps and hydraulic power packs 68
6.2 Combination options 68
6.2.1 Accessory for motor pump 68
6.2.2 Accessory for hydraulic power pack 69

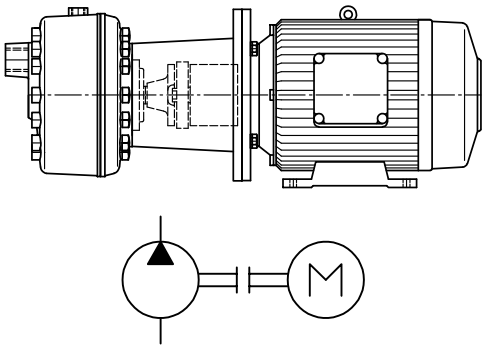
1 Overview of motor pump and hydraulic power pack type R, RG

Motor pumps

For separate setup outside of an oil tank

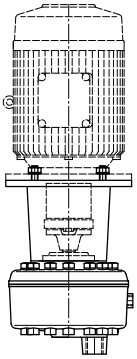


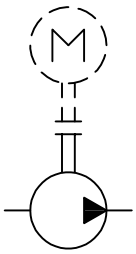
Ready for DIY installation on standard motor version IM B35



Ready-for-connection motor pump with standard motor version IM B35

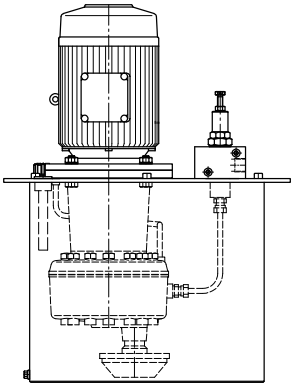
Hydraulic power pack

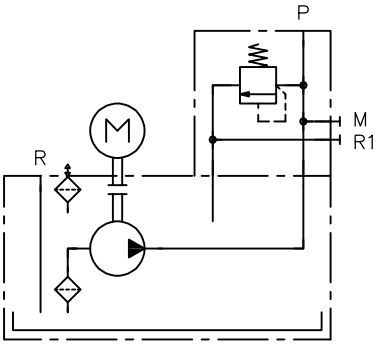




Flange combination for self-piping and hanging in self-provided cover plates and tanks

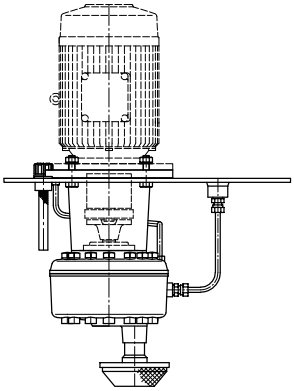
- without and with standard motor IM B5

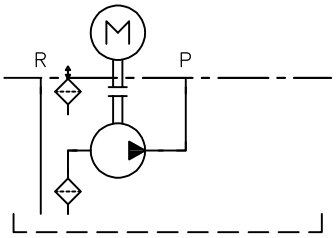




Cover plate version for hanging in self-manufactured tanks

- without and with standard motor IM B5
- without and with pressure-limiting valve





Ready-to-connect hydraulic power pack

- without and with standard motor IM B5
- without and with pressure-limiting valve

2 Available versions

2.1 Radial piston pump

Radial piston pump as per D 6010. Further information can be found in document D 6010.

Ordering example

R **5,8**

2.1.2 "Delivery flow coding"

2.1.1 "Basic type "

2.1.1 Basic type

Type	Description
R	▪ Series ▪ Version with roller bearing as eccentric bearing ▪ Also suitable for lowest rotation speeds
RG	▪ Version with plain bearings as eccentric bearing ▪ Highly suitable for media with low lubricity (e.g. HFC) ▪ Not suitable for low rotation speeds as the necessary lubricating film cannot then be established ▪ Not available for assembly 7631

Where the load duration is between 75% and 100% in successive work cycles, e.g. accumulator charging mode or similar, the maximum permissible operating pressure should not be fully utilised in order to preserve an economical bearing service life. It is better to select a pump with a similar displacement volume and smaller piston diameter.

2.1.2 Delivery flow coding

INFORMATION

- The optimum area of application of the radial piston pump type R, RG is at a rotation speed of approx. 1450 min^{-1}.
- Individual variants can be operated at up to 3600 min^{-1}; see the column Flow rate (l/min) at 3600 min^{-1}, but not in conjunction with HFA version.
- Increase in the rotation speed results in a reduction in service life.

Coding delivery flow (l/min) at 1450 min^{-1}	Displacement volume V_g (cm^3/rev)	Operating pressure / operating pressure HFA version p_{max} (bar)	Assembly	Pump elements		Flow rate (l/min) at 3600 min^{-1}
				Number	Piston ∅ (mm)	
0.18	0.13	700	7631	2	4	--
0.27	0.19	700	7631	3	4	--
0.28	0.2	550	7631	2	5	--
0.3	0.21	700 / 525	6010	1	6	0.74
0.41	0.29	700 / 450	6010	1	7	1.02
0.42	0.29	550	7631	3	5	--
0.43	0.28	450	7631	2	6	--
0.46	0.31	700	7631	5	4	--

Coding delivery flow (l/min) at 1450 min^{-1}	Displacement volume V_g (cm^3/rev)	Operating pressure / operating pressure HFA version p_{max} (bar)	Assembly	Pump elements		Flow rate (l/min) at 3600 min^{-1}
				Number	Piston ∅ (mm)	
0.5	0.38	700 / 410	6010	1	8	--
0.56	0.38	350	7631	2	7	--
0.6	0.43	700 / 525	6010	2	6	1.49
0.64	0.42	450	7631	3	6	--
0.7	0.49	550	7631	5	5	--
0.73	0.5	300	7631	2	8	--
0.8	0.6	500 / 335	6010	1	10	--
0.81	0.58	350	7631	3	7	--
0.83	0.58	700 / 450	6010	2	7	2.06
0.9	0.64	700 / 525	6010	3	6	2.23
0.92	0.64	250	7631	2	9	--
1	0.76	700 / 410	6010	2	8	--
1.08	0.71	450	7631	5	6	--
1.1	0.75	300	7631	3	8	--
1.2	0.86	350 / 260	6010	1	12	--
1.25	0.88	700 / 450	6010	3	7	3.10
1.35	0.95	250	7631	3	9	--
1.39	0.96	350	7631	5	7	--
1.4	1.07	700 / 525	6011	5	6	3.47
1.45	1.01	300	6010	1	13	--
1.5	1.15	700 / 410	6010	3	8	--
1.6	1.19	500 / 335	6010	2	10	--
1.7	1.17	250	6010	1	14	--
1.77	1.26	300	7631	5	8	--
1.9	1.34	200	6010	1	15	--
2.08	1.46	700 / 450	6011	5	7	--
2.1	1.5	700 / 525	6011	7	6	--
2.2	1.53	200	6010	1	16	--
2.27	1.59	250	7631	5	9	--
2.4	1.72	350 / 260	6010	2	12	--
2.5	1.79	500 / 335	6010	3	10	--
2.6	1.91	600 / 410	6011	5	8	--
2.7	2.15	700 / 525	6012	10	6	6.70
2.8	2.02	300	6010	2	13	--
2.9	2.05	600 / 450	6011	7	7	--
3.3	2.34	250	6010	2	14	--
3.6	2.58	350 / 260	6010	3	12	--
3.7	2.67	550 / 410	6011	7	8	--
3.8	2.69	200	6010	2	15	--
4	3.01	700 / 525	6012	14	6	--

Coding delivery flow (l/min) at 1450 min-1	Displacement volume V_g (cm³/rev)	Operating pressure / operating pressure HFA version p_{max} (bar)	Assembly	Pump elements		Flow rate (l/min) at 3600 min-1
				Number	Piston ∅ (mm)	
4.15	2.92	700 / 450	6012	10	7	--
4.2	2.98	450 / 335	6011	5	10	--
4.3	3.03	300	6010	3	13	--
4.4	3.06	200	6010	2	16	--
5.1	3.51	250	6010	3	14	--
5.3	3.82	600 / 410	6012	10	8	--
5.6	4.03	200	6010	3	15	--
5.8	4.18	450 / 335	6011	7	10	--
5.85	4.09	600 / 450	6012	14	7	--
6	4.3	350 / 260	6011	5	12	--
6.1	4.3	700 / 525	6014	20	6	15.13
6.5	4.58	200	6010	3	16	--
7	5.04	300	6011	5	13	--
7.4	5.35	550 / 410	6012	14	8	--
8	6.02	700 / 525	6014	28	6	19.84
8.2	5.97	450 / 335	6012	10	10	--
8.3	5.85	250	6011	5	14	--
8.35	5.85	700 / 450	6014	20	7	20.71
8.4	6.02	350 / 260	6011	7	12	--
9.5	6.72	200	6011	5	15	--
9.8	7.06	30	6011	7	13	--
10.9	7.64	160	6011	5	16	--
11	7.64	700 / 450	6014	20	8	--
11.6	8.36	450 / 335	6012	14	10	--
11.65	8.19	700 / 450	6014	28	7	--
11.8	8.19	250	6011	7	14	--
12	8.6	350 / 260	6012	10	12	--
12.7	9.03	700 / 525	6016	42	6	31.50
13.3	9.4	200	6011	7	15	--
14.2	10.09	300	6012	10	13	--
15	10.7	600 / 410	6014	28	8	--
15.3	10.7	160	6011	7	16	--
16.8	11.7	250	6012	10	14	--
17	12.03	350 / 260	6012	14	12	--
17.4	11.94	500 / 335	6014	20	10	--
17.45	12.28	700 / 450	6016	42	7	43.28
19.3	13.43	200	6012	10	15	--
20	14.12	300	6012	14	13	--
21.7	15.28	160	6012	10	16	--
22	16.04	700 / 410	6016	42	8	--

Coding delivery flow (l/min) at 1450 min-1	Displacement volume V_g (cm³/rev)	Operating pressure / operating pressure HFA version p_{max} (bar)	Assembly	Pump elements		Flow rate (l/min) at 3600 min-1
				Number	Piston ∅ (mm)	
23 *	16.71	450 / 335	6014	28	10	--
23.5	16.38	250	6012	14	14	--
25	17.19	350 / 260	6014	20	12	--
26.5	18.8	200	6012	14	15	--
30	20.18	300	6014	20	13	--
30.4	21.39	160	6012	14	16	--
34 *	24.07	350 / 260	6014	28	12	--
34.5	25.07	500 / 335	6016	42	10	--
35	23.4	250	6014	20	14	--
38	26.86	250	6014	20	15	--
40 *	28.24	300	6014	28	13	--
43.4	30.56	200	6014	20	16	--
47 *	32.76	250	6014	28	14	--
51	36.1	350 / 260	6016	42	12	--
53 *	37.6	200	6014	28	15	--
60	42.37	300	6016	42	13	--
60.8 *	42.79	160	6014	28	16	--
70 *	49.14	250	6016	42	14	--
80	56.41	200	6016	42	15	--
91.2	64.18	200	6016	42	16	--

* Pump type not suitable for continuous operation. Calculations can be performed by indicating the working cycle.

INFORMATION

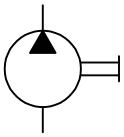
The variants shown display a wide range of possible versions. Further combinations are available upon request.

INFORMATION

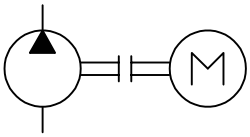
Since the service life of a hydraulic pump is affected by a wide range of factors, it can only be calculated approximately. Operating pressure, rotation speed, flow rate, working cycle, selection and purity of the hydraulic fluid, temperatures and environmental conditions are key variables.

2.2 Motor pump

Circuit symbol



Pump ready for DIY installation on standard motor



Ready-for-connection motor pump

Ordering example

R	4,0	/W 4,0

2.2.1 "Version"

2.1.2 "Delivery flow coding"

2.1 "Radial piston pump"

2.2.1 Version

Coding	Description
W	Ready-to-install pump ▪ for DIY installation on standard motor version IM B35
M	Ready-for-connection motor pump ▪ with standard motor version IM B35

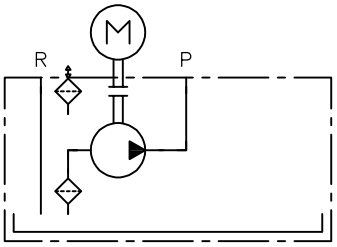
Drive power (kW)	Assembly combinable as standard				
	7361	6010	6011	6012	6014
0.25 0.37	●	●			
0.55 0.75	●	●	●		
1.1 1.5	●	●	●		
2.2 3.0 4.0		●	●	●	
5.5 7.5			●	●	●

INFORMATION

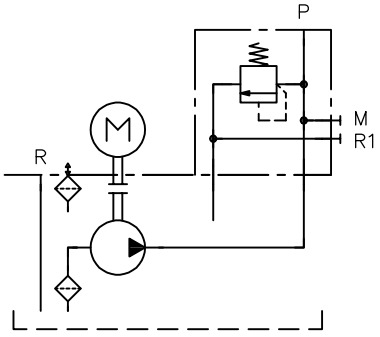
HAWE only offers motors up to 7.5 kW. Couplings and flanges suitable for up to 30 kW are available. Further details on couplings and flanges, see Chapter 4.2, "Motor pump".

2.3 Hydraulic power pack

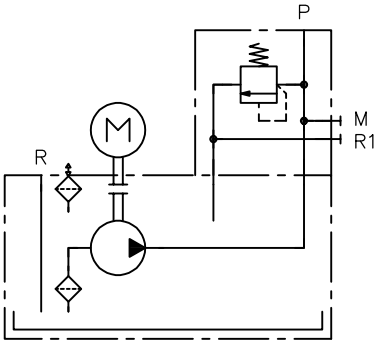
Circuit symbols



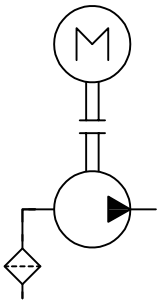
Tank version



Cover plate version



Tank and cover plate versions
with pressure-limiting valve



Motor/pump combination
for DIY installation in your own tanks

Ordering examples

R R	1,39 5,8	/B 6 /D 13,2	K	1	-V 0,55 -V 2,2	-E/160	3 x 400/230 V 50 Hz 3 x 400/230 V 50 Hz

Motor voltage

2.3.4 "Connection block"

2.3.3 "Version"

2.3.2.1 "Installation position"

2.3.2 "Additional options for tanks"

2.3.1 "Tank and cover plate version"

2.1.2 "Delivery flow coding"

2.1 "Radial piston pump"

2.3.1 Tank and cover plate version

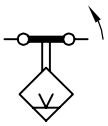
The tank consists of a tank body, seals and an oil drain screw. For **B 50** to **B 100**, fastening screws for the corresponding cover plates are also included in the scope of delivery.

The cover plate consists of an oil dipstick, pressure pipes and return pipes. For cover plates **D 6** to **D 40**, fastening screws are also included in the scope of delivery. For individual orders, the pump used (R, RG) and the assembly (7631, 6010, ...) must be specified in plain text.

Tank version			Cover plate version	combinable with assembly as standard	Drive power (kW)				
Coding	Usable volume approx. (l)	Fill volume approx. (l)			0.25 0.37	0.55 0.75	1.1 1.5	2.2 3 4	5.5 7.5
B 6	6	9–9.3	**D 6**	7631	●	●	●		
				6010	●	●	●		
				6011		●	●		
B 13	13	16 - 17	**D 13.1**	7631	●	●	●		
				6010	●	●	●		
				6011		●	●	●	
B 20	20	24 - 25	**D 13.2**	7631	●	●	●		
				6010	●	●	●		
				6011		●	●	●	
			D 20	6012				●	
B 30 **B 40**	31 45	37 - 39 52 - 55	**D 30**	7631	●	●	●		
				6010	●	●	●	●	
				6011		●	●	●	
			D 40	6012				●	
B 50	60	81 - 85	**D 50.1**	6010	●	●	●	●	
				6011		●	●	●	●
				6012				●	●
B 75	80	98 - 107	**D 50.2**	6010	●	●	●	●	
				6011		●	●	●	●
				6012				●	●
				6014					●
B 100	120	140 - 152	**D 100.1**	6011		●	●	●	
				6012				●	●
				6014					●
				6016					

2.3.2 Additional options for tanks

Additional options are not available for AT and PYD versions.

Coding	Number	Nomenclature	Characteristics
K	1	Fluid level gauge	
T	1	Temperature switch	MICROTHERM thermocouple T10V 80°C ± 5K U112 P102 L510
D	1	Level switch 	▪ Level switch made of PA ▪ Float made of NBR ▪ Function - N/C contact, opens with dropping oil level; switching capacity 230 V DC/AC 0.5A 30 VA ▪ max. permissible temperature 90 °C
DD	2		

2.3.2.1 Installation position

Coding	Description	Fluid level gauge	Temperature or level switch
without coding	Series	●	●
1	Position 1	● (only for tanks B 50 to B 100)	●
2	Position 2	--	●
3	Position 3	--	●

Dimensions and position see Chapter 4.3.2.1, "Installation position"

2.3.3 Version

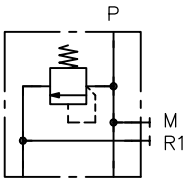
Coding	Description
Z	Hydraulic power pack without motor
V	Hydraulic power pack complete with motor

NOTICE
If you are only ordering pump/motor combination **-Z..** for installation in your own tanks, please also specify the desired bell housing size **L..** in plain text. Different flange sizes are available depending on the drive power, see Chapter 4.4, "Intermediate flanges and bell housings"

2.3.4 Connection block

The connection blocks are mounted directly on the hydraulic power packs. A pressure-limiting valve is generally integrated. It is possible to attach directional valve banks. Versions with a return line filter may be chosen optionally.

Circuit symbol



Ordering examples

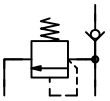
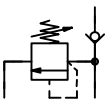
R 11,6 / B 75 - V 7,5 R 5,8 / B 20 - V 2,2	**-A** **-EF 1**	**/315** **/160**	3 x 400 V 50 Hz 3 x 400/230 V 50 Hz

Pressure setting (bar)

Connection block

NOTICE
Always observe the respective pressure limits permitted for the chosen pump!

Connection block	Suitable for tank and cover plate size	Pressure setting p_{max} (bar)	Versions	MANN micro Top filter Filter material: water-proofed paper Filter fineness: approx. 12 µm nom. 50% -30 µm abs.		
				Manufacturer's designation	Nominal flow (l/min)	Filter area approx. (cm²)
A /...	B 6 to B 40 D 6 to D 40	700	fixed	--	--	--
	B 50 to B 100 D 50 to D 100					
AF 0 /...	B 6 to B 40 D 6 to D 40			W 77/2	7	637
AF 1 /...				HAWE 6905 117 F1	15	1230
AF 2 /...				HAWE 6905 117 F2	21	1900
AF 3 /...				HAWE 6905 117 F3	32	3190
AF 4 /...	B 50 to B 100 D 50 to D 100			WD 940/2	32	3190
AF 5 /...				WD 962	52	5110
B /...	B 6 to B 40 D 6 to D 40	700	manually adjustable	--	--	--
	B 50 to B 100 D 50 to D 100					
BF 0 /...	B 6 to B 40 D 6 to D 40			W 77/2	7	637
BF 1 /...				HAWE 6905 117 F1	15	1230
BF 2 /...				HAWE 6905 117 F2	21	1900
BF 3 /...				HAWE 6905 117 F3	32	3190
BF 4 /...	B 50 to B 100 D 50 to D 100			WD 940/2	32	3190
BF 5 /...				WD 962	52	5110
E /...	B 6 to B 40	700	fixed	--	--	--

Connection block	Suitable for tank and cover plate size	Pressure setting p_{max} (bar)	Versions	MANN micro Top filter Filter material: water-proofed paper Filter fineness: approx. 12 µm nom. 50% -30 µm abs.		
				Manufacturer's designation	Nominal flow (l/min)	Filter area approx. (cm²)
EF 0 /...	D 6 to D 40			W 77/2	7	637
EF 1 /...				HAWE 6905 117 F1	15	1230
EF 2 /...				HAWE 6905 117 F2	21	1900
EF 3 /...				HAWE 6905 117 F3	32	3190
F /...	B 6 to B 40 D 6 to D 40	700	manually adjustable	--	--	--
FF 0 /...				W 77/2	7	637
FF 1 /...				HAWE 6905 117 F1	15	1230
FF 2 /...				HAWE 6905 117 F2	21	1900
FF 3 /...				HAWE 6905 117 F3	32	3190

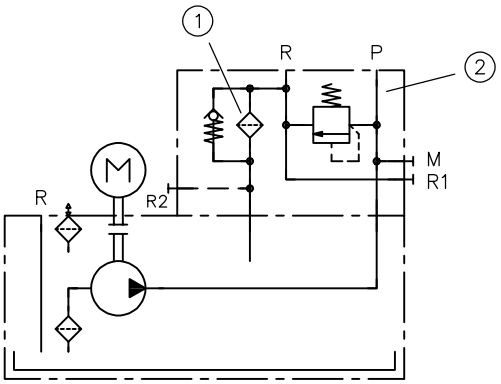
Pressure-limiting valves used and pressure ranges

Tank, cover plate	Connection block	Pressure-limiting valve	Pressure ranges (bar)
B 6 to B 40 D 6 to D 40	A /... B /... E /... F /...	MVE 5 A (R) MVE 5 B (R) MVE 5 C (R) MVE 5 E (R) MVE 5 F (R) see D 7000/1	500 ... 700 315 ... 500 160 ... 315 80 ... 160 (0) ... 80
B 6 to B 40 D 6 to D 40	AF 0(1, 2, 3) /... to FF 0(1, 2, 3) /...	MVF 5 A (R) MVF 5 B (R) MVF 5 C (R) MVF 5 E (R) MVF 5 F (R) see D 7000/1	500 ... 700 315 ... 500 160 ... 315 80 ... 160 (0) ... 80
B 50 to B 75 D 50	A /... B /...	SVP 6 A (R) SVP 6 B (R) SVP 6 C (R) SVP 6 E (R) SVP 6 F (R) see D 7722	500 ... 700 315 ... 500 160 ... 315 80 ... 160 (0) ... 80
B 100 D 100	AF 4(5) /... BF 4(5) /...	MVF 6 A (R) MVF 6 B (R) MVF 6 C (R) MVF 6 E (R) MVF 6 F (R) see D 7000 E/1	500 ... 700 315 ... 500 160 ... 315 80 ... 160 (0) ... 80

2.3.5 Option to mount directional valve banks

Ordering example

R 17,0/B50 V7,5
-AF 5/220



1 Return line filter
2 Option to mount directional valve banks

Connection block	Tank, cover plate	Directional valve bank	
A /..., AF 0(1, 2, 3) /... B /..., BF 0(1, 2, 3) /... E /..., EF 0(1, 2, 3) /... F /..., FF 0(1, 2, 3) /...	(B 6 to B 40)	BWN(H) 1C BWH 2(3) C VB 01(11, 21) C	as per D 7470 B/1 as per D 7470 B/1 as per D 7302
A /..., B /... AF 4(5) /..., BF 4(5) /...	(B 50 to B 75) (B 50 to B 100)	SWR 1D BWH 2(3) D VB 31D	as per D 7450 as per D 7470 B/1 as per D 7302
A /... B /...	(B 100)	VB 31E	as per D 7302

If the design accommodates mounting of directional valve banks, please add two fastening screws and two tapped plugs to your order (if you will be using P and R):

Connection block complete	Drawing no.	Cylinder screw ISO 4762	Tapped plug
AF 0(1, 2, 3) /... to FF 0(1, 2, 3) /...	4000 640	M8x35-8.8-A2K	G 1/2 as per drawing no. 943 008
AF 4(5) /... BF 4(5) /...	6330 100 a...d	M10x50-8.8-A2K	G 1/2 as per drawing no. 943 008
	6340 100 a...d	M12x60-8.8-A2K	G 3/4 as per drawing no. 1980 010

3 Parameters

3.1 General data

INFORMATION
The following conditions may result in efficiency losses:

- Viscosities > 500 mm^2/s and < 10 mm^2/s
- Operating pressures < 20 bar
- Rotation speeds > 2000 min^{-1}; especially with a small piston diameter

Designation	Radial piston pump, constant pump
Attachment	On the front side via the flange
Installation position	Horizontal to vertical
Surface protection	**B 6 and D 6** ▪ Tanks electroplated ▪ Cover plates with one pressure port either electroplated or aluminium (choice) ▪ Cover plates with more than one pressure port are made of aluminium **B 13 and B 20 as well as D 13.1 to D 20** ▪ Tanks powder-coated on outside ▪ Cover plates with one pressure port either electroplated or aluminium (choice) ▪ Cover plates with more than one pressure port are made of aluminium **B 30 and B 40 as well D 30 and D 40** ▪ Tank B 30 electroplated ▪ Tank B 40 powder-coated on outside ▪ Cover plates with one pressure port either electroplated or aluminium (choice) ▪ Cover plates with more than one pressure port are made of aluminium **B 50 and B 75 as well as D 50.1 and D 50.2** **B 100 as well as D 100.1** ▪ Exposed surfaces (tanks and cover plates) electrogalvanised
Line connection	Pipe thread ISO 228-1, port sizes see Chapter 4, "Dimensions"
Drive	Via flexible coupling
Rotation direction	As desired
Speed range (min ... max)	Continuous: ▪ R = 100 to 2000 min^{-1} ▪ RG = 1000 to 2000 min^{-1} 2800 min^{-1} admissible for brief periods, please note in this connection that bell housings, flanges, couplings etc. are only available for standard motor sizes 71 to 132 M. The assigned motor power in accordance with DIN 42677 applies to the standard range. If the motor is used under increased speed conditions, a reduction of the maximum pump pressure should be expected. Defined pump types permissible up to 3600 min^{-1}, however not in conjunction with HFA version.
Flow direction	Determined by suction and pressure connection, independent of the rotation direction

Hydraulic fluid	Hydraulic fluid, according to DIN 51524 Parts 1 to 3; ISO VG 10 to 68 according to DIN ISO 3448 Optimal operating range: approx. 10 - 500 mm²/s Viscosity range: ▪ R 0.18 to R 2.27: 4 - 800 mm²/s ▪ R 0.3 to R 91.2: 4 - 1500 mm²/s **NOTICE** Viscosity range for pumps up to 3600 min^{-1} : 5 - 250 mm²/s. Also suitable for biologically degradable hydraulic fluids type HEPG (polyalkylene glycol) and HEES (synthetic ester) at operating temperatures up to approx. +70°C. Version type R..-HFA is also suitable for water-based hydraulic fluids. Due to the limited lubricity of the hydraulic fluid, the pump should only be operated in standby mode in order to preserve a reasonable service life. The maximum operating pressure should not exceed approx. 75% of the specified p_{max}.
Cleanliness level	**ISO 4406** 21/18/15...19/17/13 see oil recommendation D 5488/1
Temperatures	Ambient: approx. -40 to +40 °C; hydraulic fluid: -25 to +80 °C; ensure the correct viscosity range. Start temperature: down to -40 °C is permissible (take account of the start viscosities!), as long as the steady-state temperature is at least 20 K higher during subsequent operation. Biologically degradable hydraulic fluids: note manufacturer specifications. With consideration for the seal compatibility, not above +70°C.

3.2 Pressure and volumetric flow

Operating pressure	Pressure side (outlet):	depending on piston diameter, see Chapter 2, "Available versions"
	Suction side:	- 0.3 bar to + 1 bar (approx. 0.7 bar abs. to approx. 2 bar abs.) + 2 bar (3 bar abs.) for type R(G) ... - A,
Flow rate	see Chapter 2.1.2, "Delivery flow coding" Reference value depending on rotation speed: $Q_{Pu} = V_g \, n \cdot \eta_{vol} \cdot 10^{-3} \, l/\min$ Where:	
	V_g in cm³/rev	Displacement volume
	n in min^{-1}	Rotation speed
	$\eta_{Vol} \approx 0.98$	Volumetric efficiency

3.3 Weight

Radial piston pump	See D 6010, section 3 Parameters

Motor pump

Power rating (kW)	Weight of flange and coupling when combined with assembly (kg)				
	7631	6010	6011	6012	6014
0.25 0.37	3.1	3.1	--	--	--
0.55 0.75	3.5	3.5	--	--	--
1.1	3.5	3.5	3.8	--	--
1.5				--	--
2.2	--	3.8	3.9	4.0	--
3	--				--
4	--				--
5.5	--	--	6.4	6.4	6.4
7.5	--	--			

Tank and cover plate version	Assembly	m (kg) ▪ Tank version = first value ▪ Cover plate version = ( ) - value For drive power (kW) used			Versions with pressure-limiting valve add
		0.25 - 1.5	2.2; 3; 4	5.5; 7	
B 6 D 6	7631 6010 6011	9.2 (6.2)			1.2
B 13 D 13.1		13.5 (9)			
B 20 D 13.2 D 20		15 (9)	15.3 (9.5)		
	6012		15.2 (9.3)		
B 30 D 30 D 40	7631 6010 6011	19.2 (11.7)	19.5 (12)		
	6012				
B 40 D 30 D 40	7631 6010 6011	21.2 (11.7)	21.5 (12)		
	6012				
B 50 D 50.1	7631 6010	33.2 (16.2)	33.5 (16.5)		2.0
	6011	33.3 (16.3)	35 (18)	35.5 (18.5)	
	6012		35.5 (18.5)		
B 75 D 50.2	7631 6010	36 (16.5)	36 (16.5)		
	6011			38.5 (19)	
	6012				
	6014				
B 100 D 100.1	6011	55.7 (24.7)	56.5 (25.5)		4.0
	6012			59.5 (28.5)	
	6014			61 (30)	

NOTICE

Weights include cover plate, coupling, bell housing, suction elements and oil tank.
( ) - value = cover plate version D without tank.

Connection block

Coding				m (kg)
A /...	B /...	E /...	F /...	1.2
AF 0 /...	BF 0 /...	EF 0 /...	FF 0 /...	2.8
AF 1 /...	BF 1 /...	EF 1 /...	FF 1 /...	2.8
AF 2 /...	BF 2 /...	EF 2 /...	FF 2 /...	2.8
AF 3 /...	BF 3 /...	EF 3 /...	FF 3 /...	3.0
A /...	B /...	--	--	1.4
AF 4 /...	BF 4 /...	--	--	5.4
AF 5 /...	BF 5 /...	--	--	5.6

Three-phase standard motors, 4-pin

Power rating in kW

0.25 0.37	= 6.8 - 7.1 kg
0.55 0.75	= 11 - 14 kg
1.1	= 12 - 14 kg
1.5	= 15 kg
2.2	= 20 - 21 kg
3	= 23 - 24 kg
4	= 28 - 35 kg
5.5	= 45 - 58 kg
7.5	= 60 - 72 kg

NOTICE

The values specified for motors are reference values. Check the manufacturer's specifications for actual values.

Intermediate flanges	**Coding**	
	F 31	= 1.2 kg
	F 41	= 1.6 kg
	F 42	= 1.8 kg
	F 51	= 2 kg
	F 52	= 2.1 kg
	F 61	= 2.8 kg
	F 71	= 4.1 kg
	F 73	= 4.5 kg
	F 81	= 5.9 kg
Bell housings	**Coding**	
	L 32	= 1.6 kg
	L 41	= 1.6 kg
	L 42	= 1.8 kg
	L 51	= 2.0 kg
	L 52	= 2.1 kg
	L 53	= 2.8 kg
	L 61	= 2.8 kg
	L 70	= 4.1 kg
	L 71	= 4.1 kg
	L 72	= 4.1 kg
	L 73	= 4.5 kg
	L 81	= 5.9 kg

Suction parts	Coding	
	S 11	= 0.3 kg
	S 12	= 0.6 kg
	S 13	= 0.7 kg
	S 14	= 0.85 kg
	S 21	= 0.2 kg
	S 22	= 0.5 kg
	S 23	= 0.7 kg
	S 24	= 0.9 kg
	S 25	= 1.1 kg
	S 31	= 0.4 kg
	S 32	= 0.6 kg
	S 33	= 0.7 kg
	S 35	= 0.8 kg
	S 34	= 0.9 kg
	S 36	= 1.0 kg
	S 41	= 0.3 kg
	S 42	= 0.7 kg
	S 43	= 1.1 kg
	S 44	= 1.5 kg
	S 51	= 1.5 kg
	S 52	= 2.1 kg
	S 54	= 2.7 kg

Couplings	Coding	
	K 31	= 1.1 kg
	K 32	= 1.9 kg
	K 41	= 1.9 kg
	K 42	= 2.0 kg
	K 43	= 1.8 kg
	K 44	= 1.9 kg
	K 51	= 1.8 kg
	K 52	= 1.9 kg
	K 53	= 2.6 kg
	K 61	= 3.6 kg
	K 62	= 3.9 kg
	K 63	= 4.8 kg
	K 70	= 4.8 kg
	K 71	= 4.8 kg
	K 72	= 5.1 kg
	K 73	= 5.8 kg
	K 74	= 4.7 kg
	K 75	= 5.4 kg
	K 81	= 6.0 kg

Oil tank	Coding	
	B 6	= 3 kg
	B 13	= 4.5 kg
	B 20	= 5.9 kg
	B 30	= 7.5 kg
	B 40	= 9.5 kg
	B 50	= 17 kg
	B 75	= 19.5 kg
	B 100	= 31 kg

Cover plates	Coding	without pressure-limiting valve	with pressure-limiting valve
	D 6	= 2.2 kg	= 3.4 kg
	D 13.1 D 13.2 D 20	= 4.9 kg	= 6.1 kg
	D 30 D 40	= 7.5 kg	= 8.7 kg
	D 50.1 D 50.2	= 12 kg	= 14 kg
	D 100.1	= 20 kg	= 24 kg

3.4 Characteristic lines

Running noise

There are no significant differences in the noise levels of the motor pumps as per Chapter 2.2 and the hydraulic power packs as per Chapter 2.3. As a rough guide, the specifications for the respective pumps can be found directly in D 6010, Section 3.

3.5 Motor data

INFORMATION

- Energy efficiency class for 3-phase motors: IE3
- Energy efficiency class for single-phase motors: IE2
- The rated speed may vary slightly depending on the manufacturer.

Assembly	Nominal voltage U_N and power frequency f	Nominal power P_N (kW) at 50 Hz / 60 Hz	Rated speed n_N (min^{-1}) at 50 Hz / 60 Hz	Recommended operating capacitor C_B (µF)
7631	3 x 400/230 V 50 Hz ⅄△	0.25	1350	
	3 x 460/265 V 60 Hz ⅄△	0.29	1620	
	3 x 400/230 V 50 Hz ⅄△	0.37	1350	
	3 x 460/265 V 60 Hz ⅄△	0.43	1620	
	3 x 400/230 V 50 Hz ⅄△	0.55	1400	
	3 x 460/265 V 60 Hz ⅄△	0.63	1680	
	3 x 400/230 V 50 Hz ⅄△	0.75	1430	
	3 x 460/265 V 60 Hz ⅄△	0.86	1716	
	3 x 400/230 V 50 Hz ⅄△	1.1	1440	
	3 x 460/265 V 60 Hz ⅄△	1.3	1716	
	3 x 400/230 V 50 Hz ⅄△	1.5	1440	
	3 x 460/265 V 60 Hz ⅄△	1.75	1728	
	3 x 500 V 50 Hz △	1.5	1445	
	1 x 230 V 50 Hz	0.75	1420	20 (450 V)
	1 x 230V 50 Hz	1.5	1400	40 (450 V)
6010	3 x 400/230 V 50 Hz ⅄△	0.25	1350	
	3 x 460/265 V 60 Hz ⅄△	0.29	1620	
	3 x 400/230 V 50 Hz ⅄△	0.37	1350	
	3 x 460/265 V 60 Hz ⅄△	0.43	1620	
	3 x 400/230 V 50 Hz ⅄△	0.55	1400	
	3 x 460/265 V 60 Hz ⅄△	0.63	1680	
	3 x 400/230 V 50 Hz ⅄△	0.75	1430	
	3 x 460/265 V 60 Hz ⅄△	0.86	1716	
	3 x 400/230 V 50 Hz ⅄△	1.1	1440	
	3 x 460/265 V 60 Hz ⅄△	1.3	1716	
	3 x 400/230 V 50 Hz ⅄△	1.5	1440	
	3 x 460/265 V 60 Hz ⅄△	1.75	1728	
	3 x 400/230 V 50 Hz ⅄△	2.2	1455	
	3 x 460/265 V 60 Hz ⅄△	2.55	1746	

Assembly	Nominal voltage U_N and power frequency f	Nominal power P_N (kW) at 50 Hz / 60 Hz	Rated speed n_N (min^{-1}) at 50 Hz / 60 Hz	Recommended operating capacitor C_B (µF)
	3 x 690/400 V 50 Hz ⅄△	3	1455	
	3 x 795/460 60 Hz ⅄△	3.45	1746	
	3 x 500 V 50 Hz △	4	1460	
	3 x 575 V 60 Hz △	4	1770	
	3 x 400/230 V 50 Hz ⅄△	4	1460	
	3 x 795/460 V 60 Hz ⅄△	4.6	1752	
	1 x 230 V 50 Hz	0.75	1420	20 (450 V)
	1 x 230 V 50 Hz	1.5	1400	40 (450 V)
6011	3 x 400/230 V 50 Hz ⅄△	0.55	1400	
	3 x 460/265 V 60 Hz ⅄△	0.63	1680	
	3 x 400/230 V 50 Hz ⅄△	0.75	1430	
	3 x 460/265 V 60 Hz ⅄△	0.86	1716	
	3 x 400/230 V 50 Hz ⅄△	1.1	1440	
	3 x 460/265 V 60 Hz ⅄△	1.3	1716	
	3 x 400/230 V 50 Hz ⅄△	1.5	1440	
	3 x 460/265 V 60 Hz ⅄△	1.75	1728	
	3 x 400/230 V 50 Hz ⅄△	2.2	1455	
	3 x 460/265 V 60 Hz ⅄△	2.55	1746	
	3 x 690/400 V 50 Hz ⅄△	3	1455	
	3 x 795/460 60 Hz ⅄△	3.45	1746	
	3 x 500 V 50 Hz △	4	1460	
	3 x 575 V 60 Hz △	4	1770	
	3 x 400/230 V 50 Hz ⅄△	4	1460	
	3 x 795/460 V 60 Hz ⅄△	4.6	1752	
	3 x 400/230 V 50 Hz ⅄△	5.5	1470	
	3 x 795/460 V 60 Hz ⅄△	6.3	1764	
	3 x 400/230 V 50 Hz ⅄△	7.5	1470	
	3 x 795/460 V 60 Hz ⅄△	8.6	1764	
	1 x 230 V 50 Hz	0.75	1420	20 (450 V)
	1 x 230 V 50 Hz	1.5	1400	40 (450 V)
6012	3 x 400/230 V 50 Hz ⅄△	2.2	1455	
	3 x 460/265 V 60 Hz ⅄△	2.55	1746	
	3 x 690/400 V 50 Hz ⅄△	3	1455	
	3 x 795/460 60 Hz ⅄△	3.45	1746	
	3 x 500 V 50 Hz △	2.2	1455	
	3 x 575 V 60 Hz △	2.2	1760	
	3 x 500 V 50 Hz △	3	1450	
	3 x 575 V 60 Hz △	3	1760	
	3 x 400/230 V 50 Hz ⅄△	4	1460	
	3 x 795/460 V 60 Hz ⅄△	4.6	1752	
	3 x 400/230 V 50 Hz ⅄△	5.5	1470	

Assembly	Nominal voltage U_N and power frequency f	Nominal power P_N (kW) at 50 Hz / 60 Hz	Rated speed n_N (min^{-1}) at 50 Hz / 60 Hz	Recommended operating capacitor C_B (µF)
	3 x 795/460 V 60 Hz ⅄△	6.3	1764	
	3 x 400/230 V 50 Hz ⅄△	7.5	1470	
	3 x 795/460 V 60 Hz ⅄△	8.6	1764	
	1 x 230 V 50 Hz	1.5	1400	40 (450 V)
6014	3 x 500 V 50 Hz △	5.5	1470	
	3 x 575 V 60 Hz △	5.5	1775	
	3 x 500 V 50 Hz △	7.5	1465	
	3 x 575 V 60 Hz △	7.5	1770	
	3 x 400/230 V 50 Hz ⅄△	5.5	1470	
	3 x 795/460 V 60 Hz ⅄△	6.3	1764	
	3 x 400/230 V 50 Hz ⅄△	7.5	1470	
	3 x 795/460 V 60 Hz ⅄△	8.6	1764	

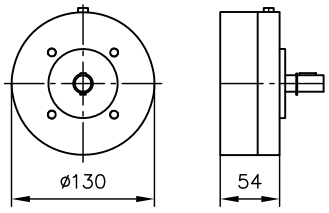
INFORMATION

The operating capacitor is included in the scope of delivery for the single-phase motor.

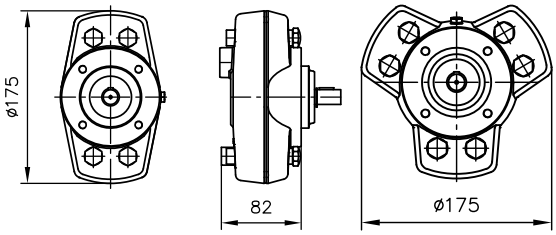
4 Dimensions

All dimensions in mm, subject to change.

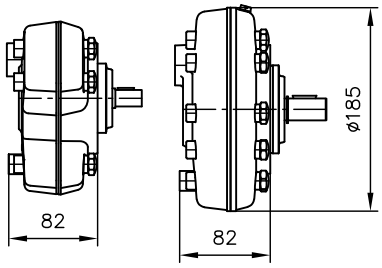
Assembly 7631



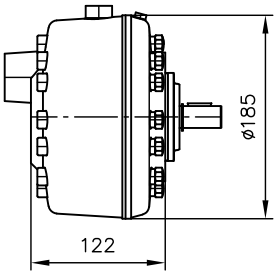
Assembly 6010



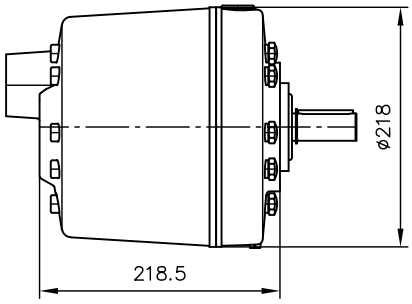
Assembly 6011



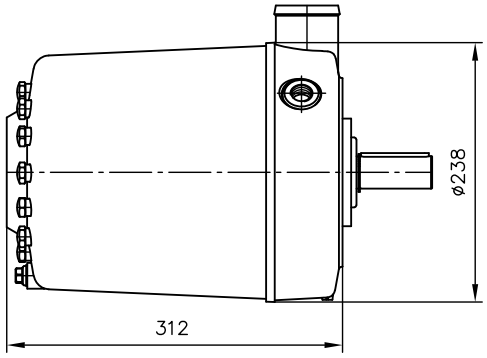
Assembly 6012



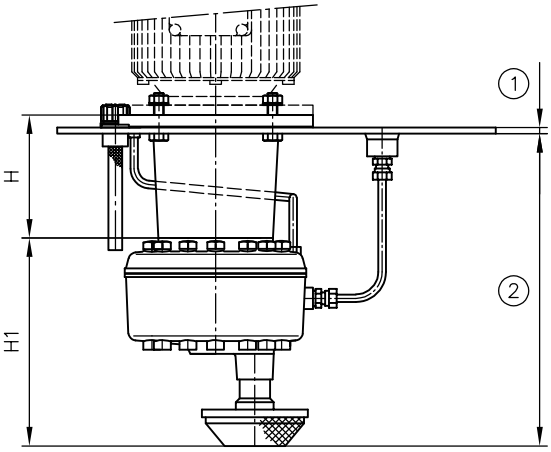
Assembly 6014



Assembly 6016



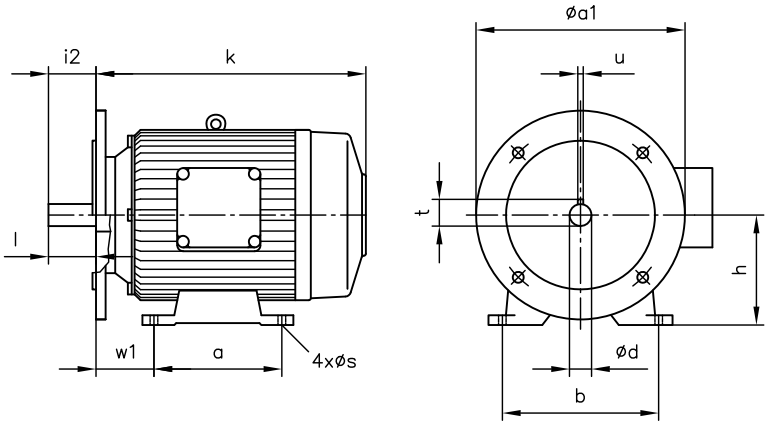
For cover plate versions, the immersion depth depends on the pump combination and should be calculated from the specific values for cover plate thickness as well as H and H1, see Chapter 4.3.1.6, "Tank and cover plates". Minimum clearance between suction head's lower edge and tank floor should be 10 mm.



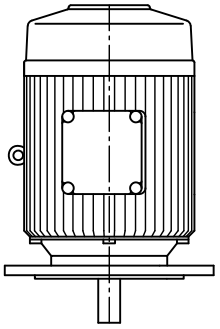
1 Cover plate
2 Immersion depth

4.1 Motor

IM B35



IM B5 (V1)



Flange and shaft dimensions as for IM B35

Coding = Power rating (kW)	DIN size	Principal dimensions (mm)											
		Motor corpus			Shaft journal				Mounting pedestal				
		∅a1	i2	k	∅d	l	u	t	h	a	b	w1	∅s
0.25	71	160	30	215	14	30	5	16	71	90	112	45	7
0.37													
0.55	80	200	40	252 ... 255	19	40	6	21.5	80	100	125	50	10
0.75													
1.1	90 S		50	297 ... 303	24	50	9	27	90		140	56	10
1.5	90 L			323 ... 337						125			
2.2	100 L	250	60	371 ... 373	28	60	8	27	100	140	160	63	12
3													
4	112 M			354 ... 401					112		190	70	
5.5	132 S	300	80	419 ... 435	38	80	10	41	132	178	216	89	
7.5	132 M			435 ... 441									

INFORMATION

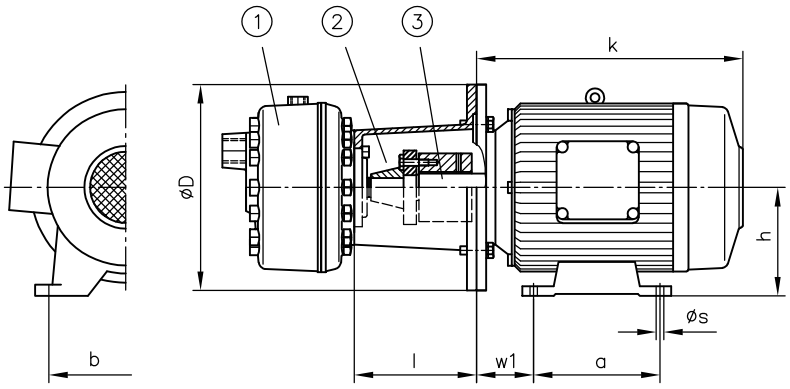
The coding only indicates the power rating. For individual orders, version **IM B35** or **IM B5** should be specified.

The values specified for motors are reference values. Check the manufacturer's specifications for actual values.

INFORMATION

HAWE only offers motors up to 7.5 kW. Couplings and flanges suitable for up to 30 kW are available.

4.2 Motor pump



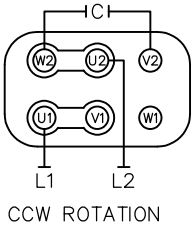
1 Pump
2 Flange
3 Coupling

Power rating (kW)	Flange outer ∅D (mm)	Surface length I (mm) when combined with size						External dimensions standard motor					
		7631	6010	6011	6012	6014	6016	h	a	b	∅s	w1	k *
3-phase motors													
0.25 0.37	160	83	83	123	--	--	--	71	90	112	7	45	215
0.55 0.75	200	109	109	123	--	--	--	80	100	125	9	50	252 ... 255
1.1	200	109	109	123	--	--	--	90	100	140	9 (10)	56	297 ... 303
1.5	200	109	109	123	--	--	--	90	125	140	9 (10)	56	323 ... 337
2.2	250	--	113	113	123	--	--	100	140	160	12	63	371 ... 373
3	250	--	113	113	123	--	--	100	140	160	12	63	
4	250	--	113	113	123	--	--	112	140	190	12	70	354 ... 401
5.5	300	--	--	160	160	160	--	132	140	216	12	89	419 ... 439
7.5	300	--	--	160	160	160	--	132	178	216	12	89	435 ... 441
11	350	--	--	--	188	188	209	--	--	--	--	--	--
15	350	--	--	--	188	188	209	--	--	--	--	--	--
18.5	350	--	--	--	--	188	209	--	--	--	--	--	
22	350	--	--	--	--	188	209	--	--	--	--	--	--
30	400	--	--	--	--	--	212	--	--	--	--	--	--
Single-phase motors													
0.75	200	109	109	123	--	--	--	80	100	125	10	50	235
1.5	200	109	109	123	--	--	--	90	125	140	10	56	282
2.2	250	--	113	113	123	--	--	100	140	160	12	63	307

* Not standardised, rough reference values. Check the manufacturer's specifications for actual values. See also DIN 42673-4 and DIN 42677-4 (envelope dimensions)

INFORMATION
HAWE only offers motors up to 7.5 kW. Couplings and flanges suitable for up to 30 kW are available.

4.2.1 Electrical connection



CCW ROTATION

INFORMATION

The operating capacitor is included in the scope of delivery for the single-phase motor.

4.3 Hydraulic power pack

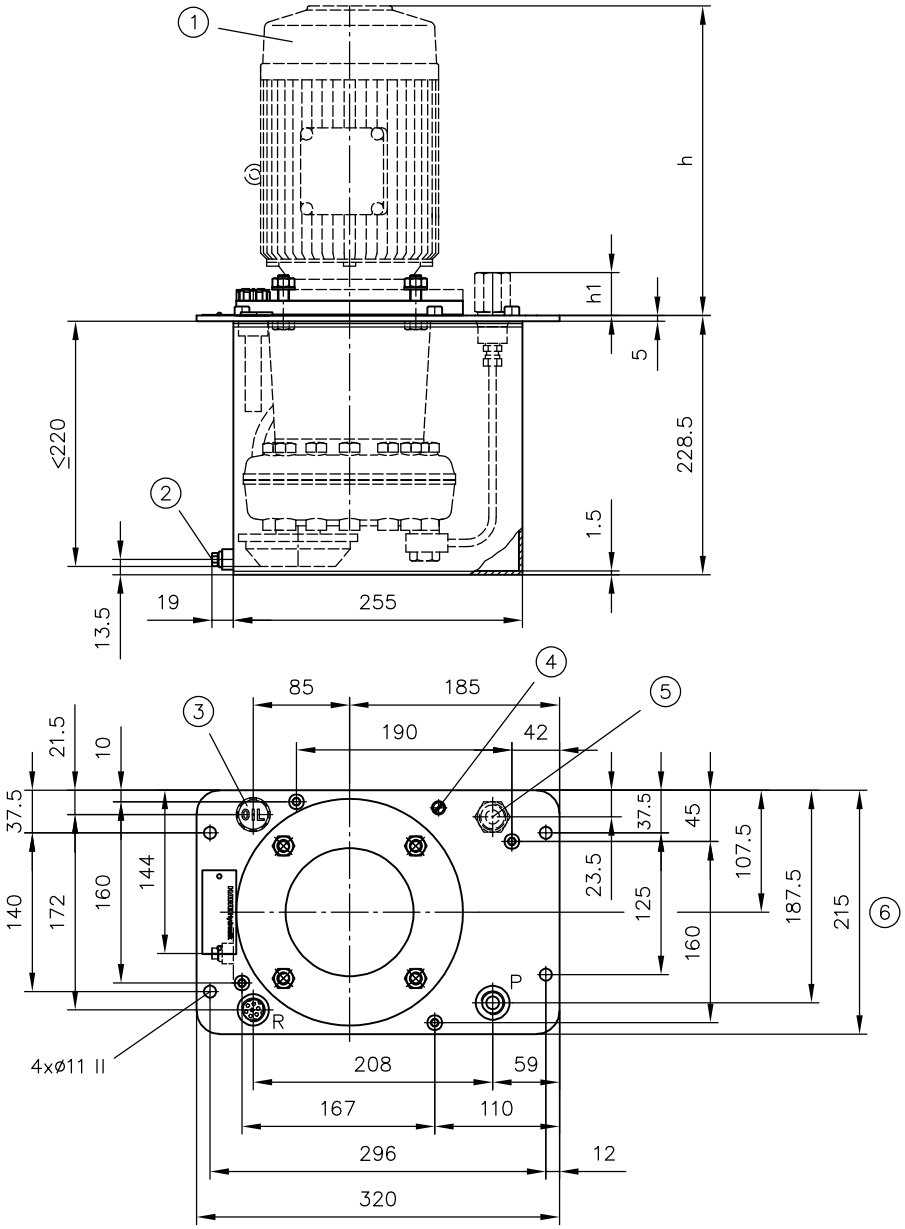
4.3.1 Tank and cover plate version

For a list of standard intermediate flanges and bell housings see Chapter 4.4, for suction parts see Chapter 4.5 and for coupligs see Chapter 4.7.

4.3.1.1 B 6 as well as D 6

NOTICE
For cover plate version (D 6), seals and fastening screws ISO 4762-M8x30-8.8-A2K for the tank are included in the scope of delivery.

B 6, D 6



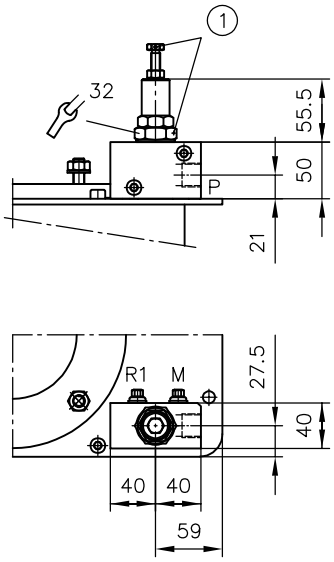
h ≈ 200 to 220 (0.25 and 0.37 kW)
≈ 235 to 250 (0.55 and 0.75 kW)
≈ 260 to 300 (1.1 and 1.5 kW)

Only reference values for two makes. Check motor manufacturer's data sheets for actual values. For motor dimensions and the thickness of the bell housing flange collars, see Chapter 4.4, "Intermediate flanges and bell housings" and for the dimensions of the tanks and cover plates, see Chapter 4.3.1.6, "Tank and cover plates"

1 Motor
2 Oil drain screw G 1/8
3 Oil filler and air filter with oil dipstick
4 Bleeder
5 If desired (specify separately when ordering): 2nd. return line port G 1/2 (h1 = 26) or suction port G 1/2 (h1 = 38) for hand pump
6 Tank

Mounting option for directional valve banks

B 6 **A(E)..**, D 6 **A(E)..**
B 6 **B(F)..**, D 6 **B(F)..**

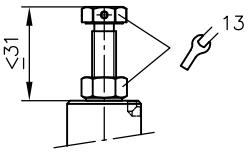


1 Sealing option

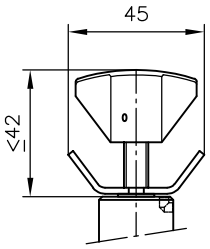
	Connections (ISO 228-1)
P, R	G 1/2
R1, M	G 1/8

Adjustment

fixed



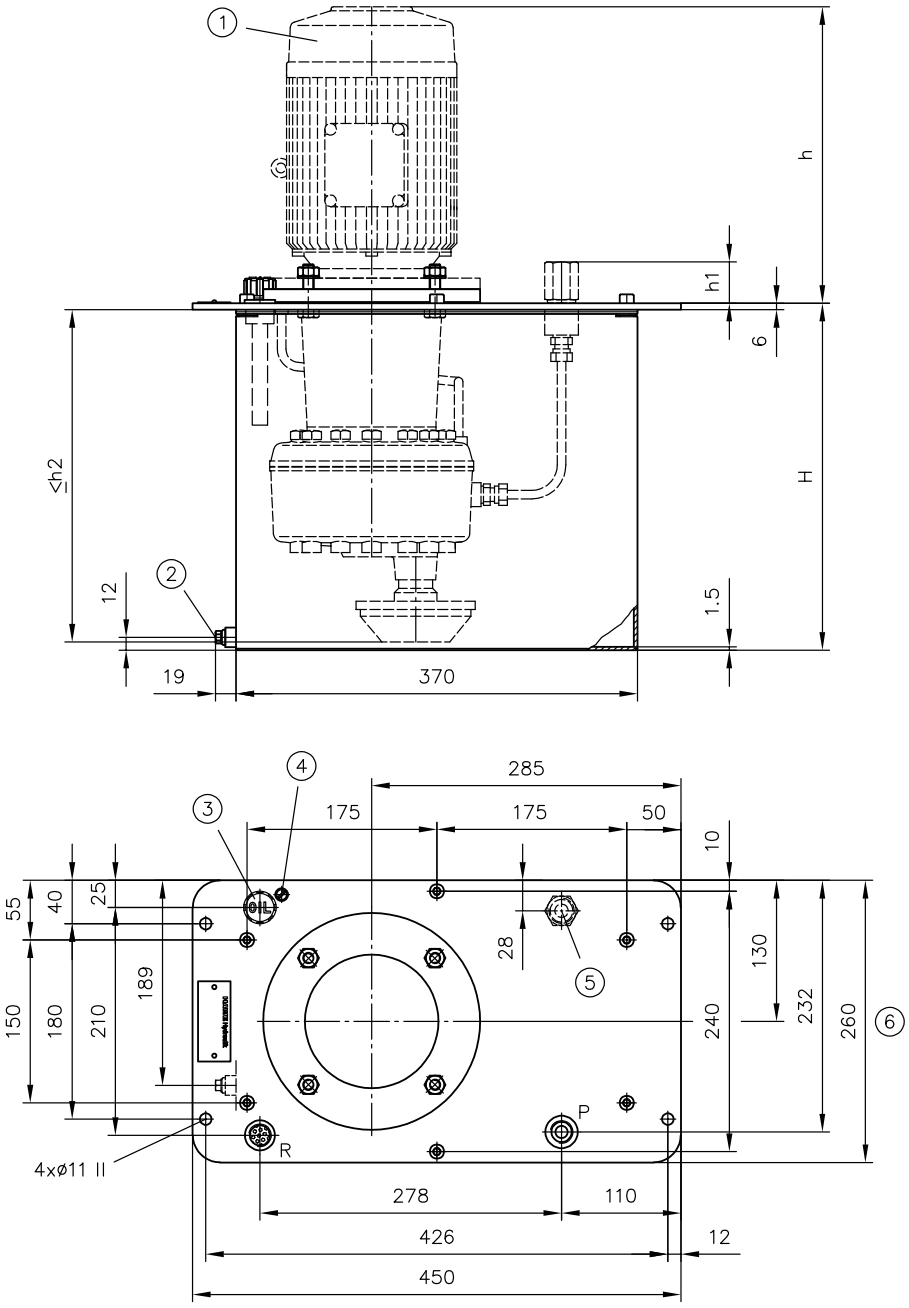
Manually adjustable



4.3.1.2 B 13 and B 20 as well as D 13.1 to D 20

NOTICE
For cover plate version (D 13.1 to D 20), seals and fastening screws ISO 4762-M8x30-8.8-A2K for the tank are included in the scope of delivery.

B 13, B 20
D 13.1 to D 20



h ≈ 200 to 220 (0.25 and 0.37 kW)
≈ 235 to 250 (0.55 and 0.75 kW)
≈ 260 to 300 (1.1 and 1.5 kW)
≈ 300 to 340 (2.2 and 3 kW)
≈ 330 to 350 (4 kW)

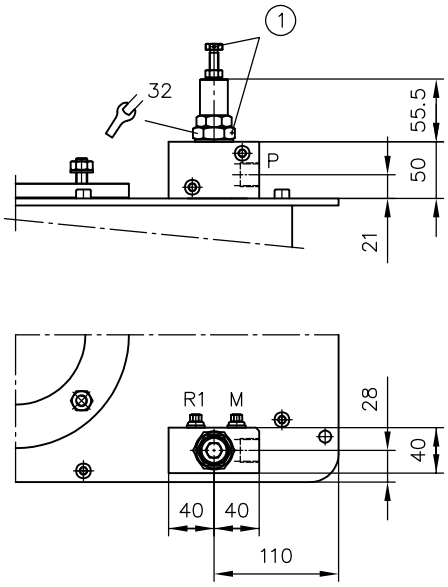
Only reference values for two makes. Check motor manufacturer's data sheets for actual values. For motor dimensions and the thickness of the bell housing flange collars, see Chapter 4.4, "Intermediate flanges and bell housings" and for the dimensions of the tanks and cover plates, see Chapter 4.3.1.6, "Tank and cover plates"

Coding	H	h2
B 13	230	220
B 20	320	310

1 Motor
2 Oil drain screw G 1/8
3 Oil filler and air filter with oil dipstick
4 Bleeder
5 If desired (specify separately when ordering): 2nd. return line port G 1/2 (h1 = 26) or suction port G 1/2 (h1 = 38) for hand pump
6 Tank

Mounting option for directional valve banks

B 13 **A(E)..** etc., D 13.1 **A(E)..** etc.
B 13 **B(F)..** etc., D 13.1 **B(F)..** etc.

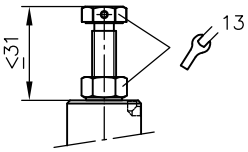


1 Sealing option

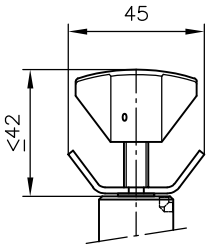
	Connections (ISO 228-1)
P, R	G 1/2
R1, M	G 1/8

Adjustment

fixed



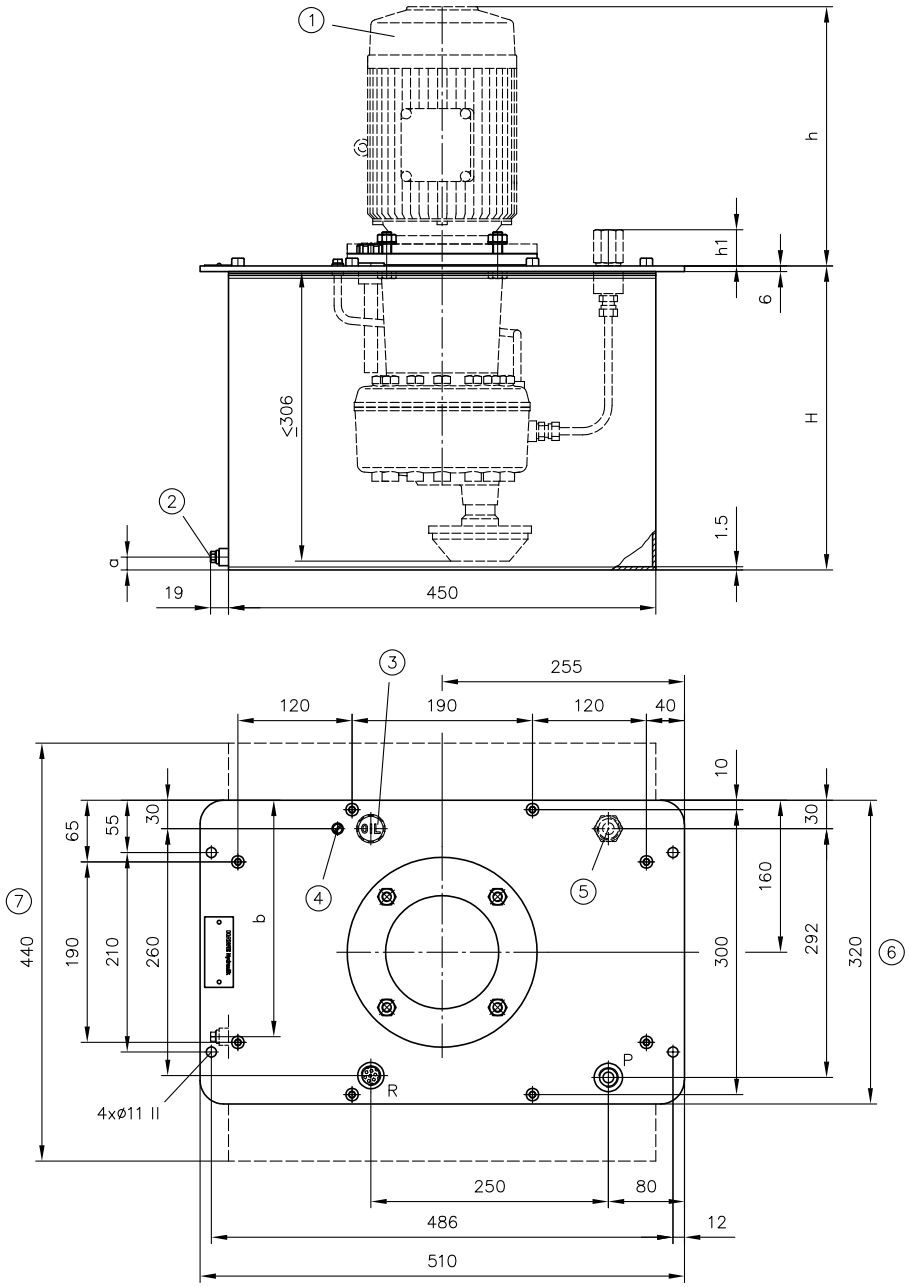
Manually adjustable



4.3.1.3 B 30 and B 40 as well D 30 and D 40

NOTICE
For cover plate version (D 30 to D 40), seals and fastening screws ISO 4762-M8x30-8.8-A2K for the tank are included in the scope of delivery.

B 30, B 40
D 30, D 40



h ≈ 200 to 220 (0.25 and 0.37 kW)
44 ≈ 235 to 250 (0.55 and 0.75 kW)
44 ≈ 260 to 300 (1.1 and 1.5 kW)
44 ≈ 300 to 340 (2.2 and 3 kW)
44 ≈ 330 to 350 (4 kW)

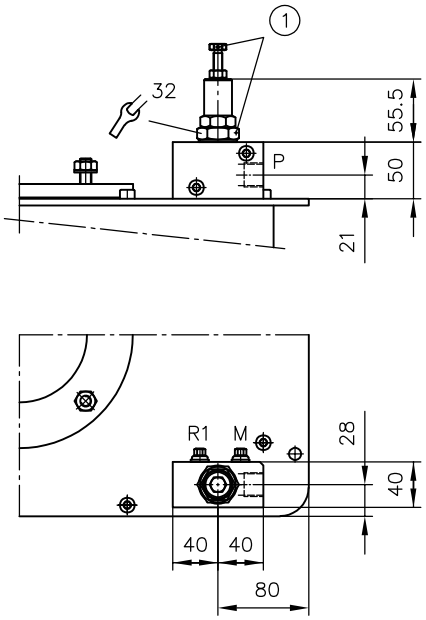
Only reference values for two makes. Check motor manufacturer's data sheets for actual values. For motor dimensions and the thickness of the bell housing flange collars, see Chapter 4.4, "Intermediate flanges and bell housings" and for the dimensions of the tanks and cover plates, see Chapter 4.3.1.6, "Tank and cover plates"

Coding	H	a	b
B 30	321.5	13.5	249
B 40	320	12	380

1 Motor
2 Oil drain screw G 1/8
3 Oil filler and air filter with oil dipstick
4 Bleeder
5 If desired (specify separately when ordering): 2nd. return line port G 1/2 (h1 = 26) or suction port G 1/2 (h1 = 38) for hand pump
6 Tank from B 30 to
7 Tank from B 40 to

Mounting option for directional valve banks

B 30 **A(E)..** etc., D 30 **A(E)..** etc.
B 30 **B(F)..** etc., D 30 **B(F)..** etc.

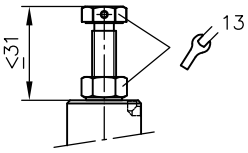


1 Sealing option

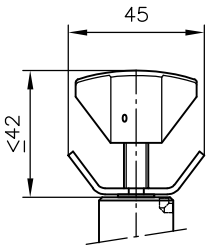
	Connections (ISO 228-1)
P, R	G 1/2
R1, M	G 1/8

Adjustment

fixed



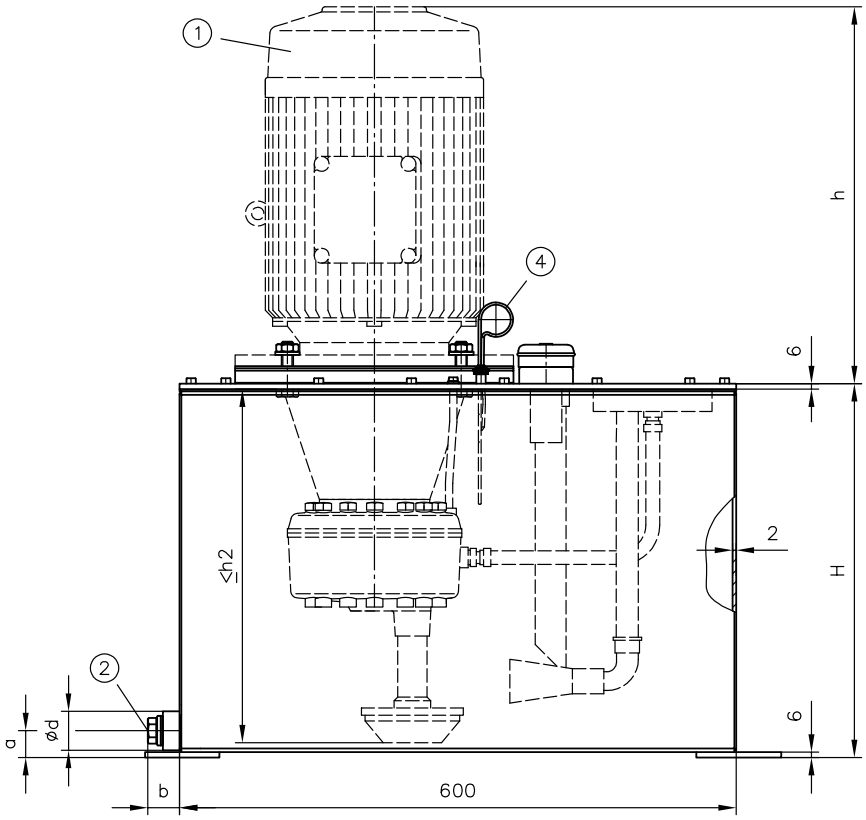
Manually adjustable

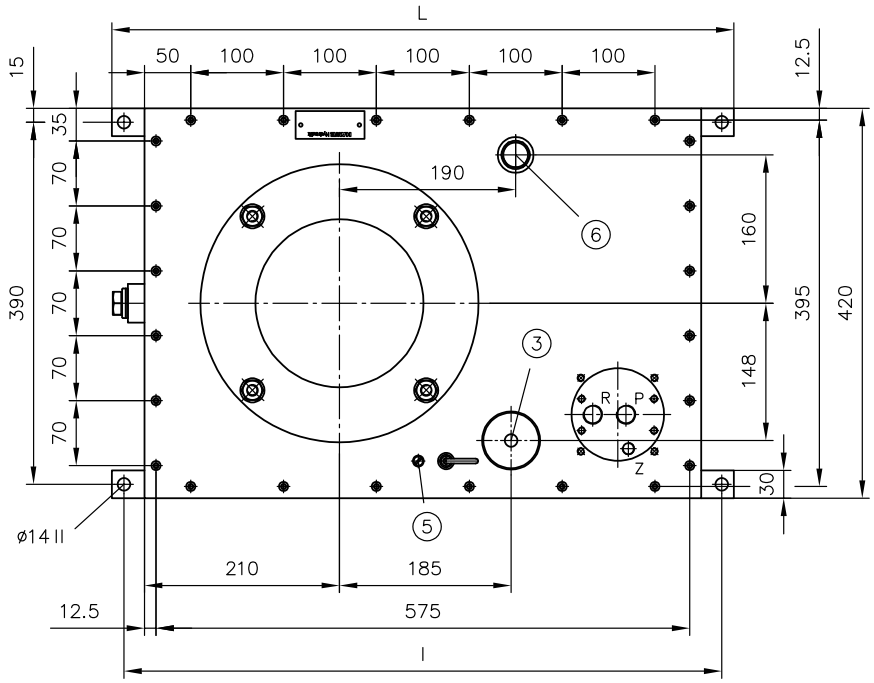


4.3.1.4 B 50 and B 75 as well as D 50.1 and D 50.2

NOTICE
For cover plate version (D 50), seals and fastening screws ISO 4762-M6x16-8.8-A2K for the tank are included in the scope of delivery.

B 50, B 75
D 50.1, D 50.2





h ≈ 200 to 220 (0.25 and 0.37 kW)
≈ 235 to 250 (0.55 and 0.75 kW)
≈ 260 to 300 (1.1 and 1.5 kW)
≈ 300 to 340 (2.2 and 3 kW)
≈ 330 to 350 (4 kW)
≈ 410 to 420 (5.5 to 9 kW)
≈ 520 to 570 (11 and 15 kW)

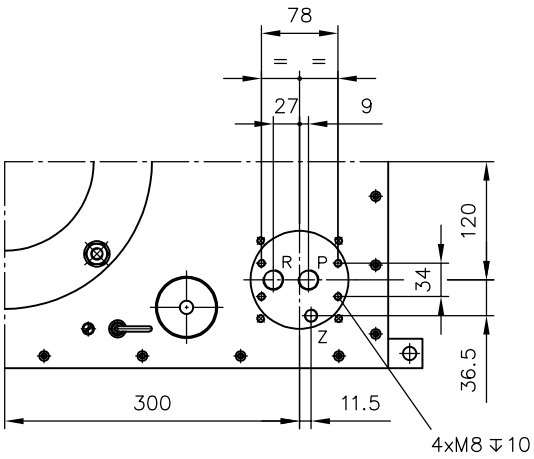
Only reference values for two makes. Check motor manufacturer's data sheets for actual values. For motor dimensions and the thickness of the bell housing flange collars, see Chapter 4.4, "Intermediate flanges and bell housings" and for the dimensions of the tanks and cover plates, see Chapter 4.3.1.6, "Tank and cover plates"

Coding	H	h2	L	I
B 50	403	370	670	644
B 75	478	450	660	630

Coding	a	b	Ød
B 50	27	34	42
B 75	26	52	31.8

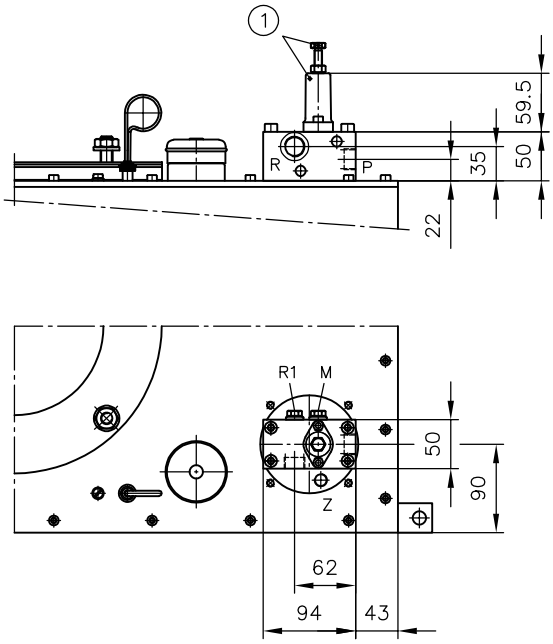
1 Motor
2 Oil drain screw G 3/4
3 Oil filler and air filter
4 Oil dipstick
5 Bleeder
6 2nd Return port G 1

Hole pattern for hydraulic power pack



Mounting option for directional valve banks

B 50 **A..** etc., D 50.1 **A..** etc.
B 50 **B..** etc., D 50.1 **B..** etc.



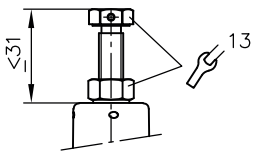
1 Sealing option

	Connections (ISO 228-1)
P, R	G 1/2
R1, M, Z	G 1/4

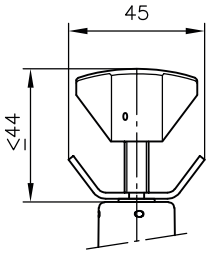
Control port Z only for versions as per D 6010 S

Adjustment

fixed



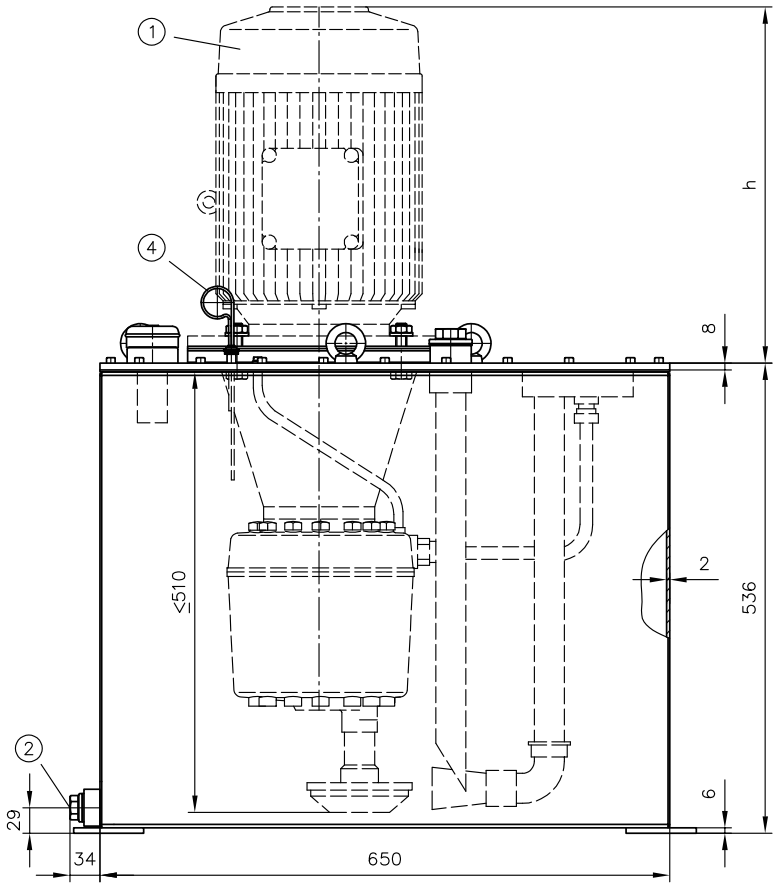
Manually adjustable

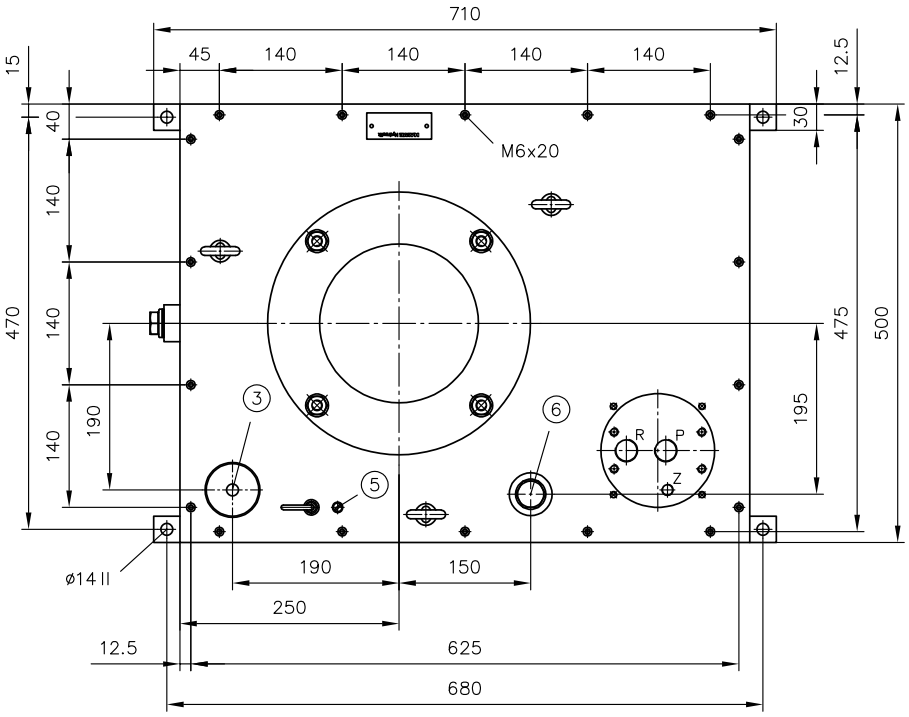


4.3.1.5 B 100 as well as D 100.1

NOTICE
For cover plate version (D 100.1), seals and fastening screws for the tank are included in the scope of delivery.

B 100, D 100.1



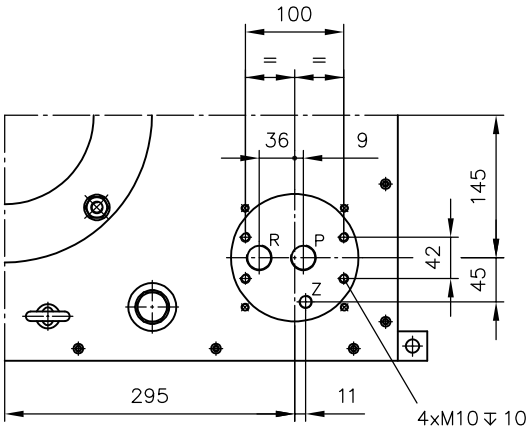


h ≈ 235 to 250 (0.55 and 0.75 kW)
≈ 260 to 300 (1.1 and 1.5 kW)
≈ 300 to 340 (2.2 and 3 kW)
≈ 330 to 350 (4 kW)
≈ 410 to 420 (5.5 to 7 kW)

Only reference values for two makes. Check motor manufacturer's data sheets for actual values. For motor dimensions and the thickness of the bell housing flange collars, see Chapter 4.4, "Intermediate flanges and bell housings" and for the dimensions of the tanks and cover plates, see Chapter 4.3.1.6, "Tank and cover plates"

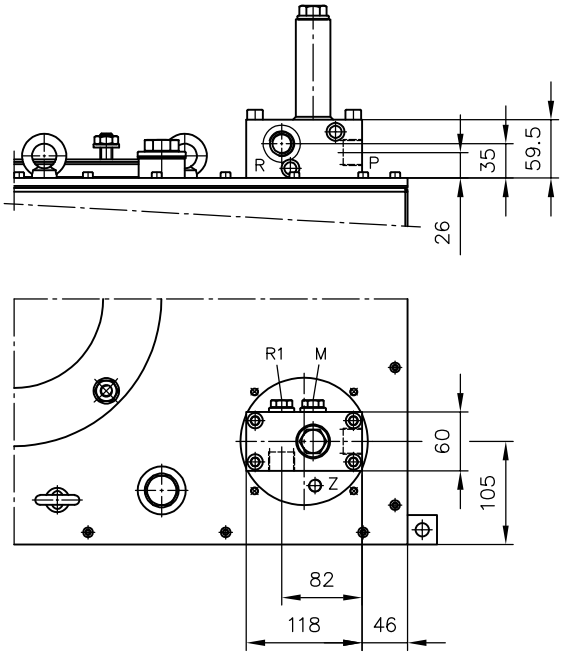
1 Motor
2 Oil drain screw G 3/4
3 Oil filler and air filter
4 Oil dipstick
5 Bleeder
6 2nd Return port G 1 1/4

Hole pattern for hydraulic power pack



Mounting option for directional valve banks

B 100 **A..** etc., D 100.1 **A..** etc.
B 100 **B..** etc., D 100.1 **B..** etc.

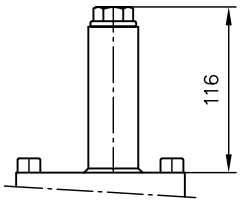


	Connections (ISO 228-1)
P, R	G 3/4
R1, M	G 1/2
Z	G 1/4

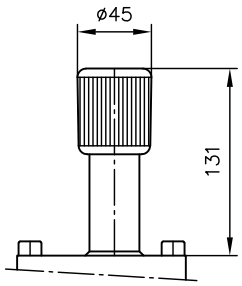
Control port Z only for versions as per D 6010 S

Adjustment

fixed

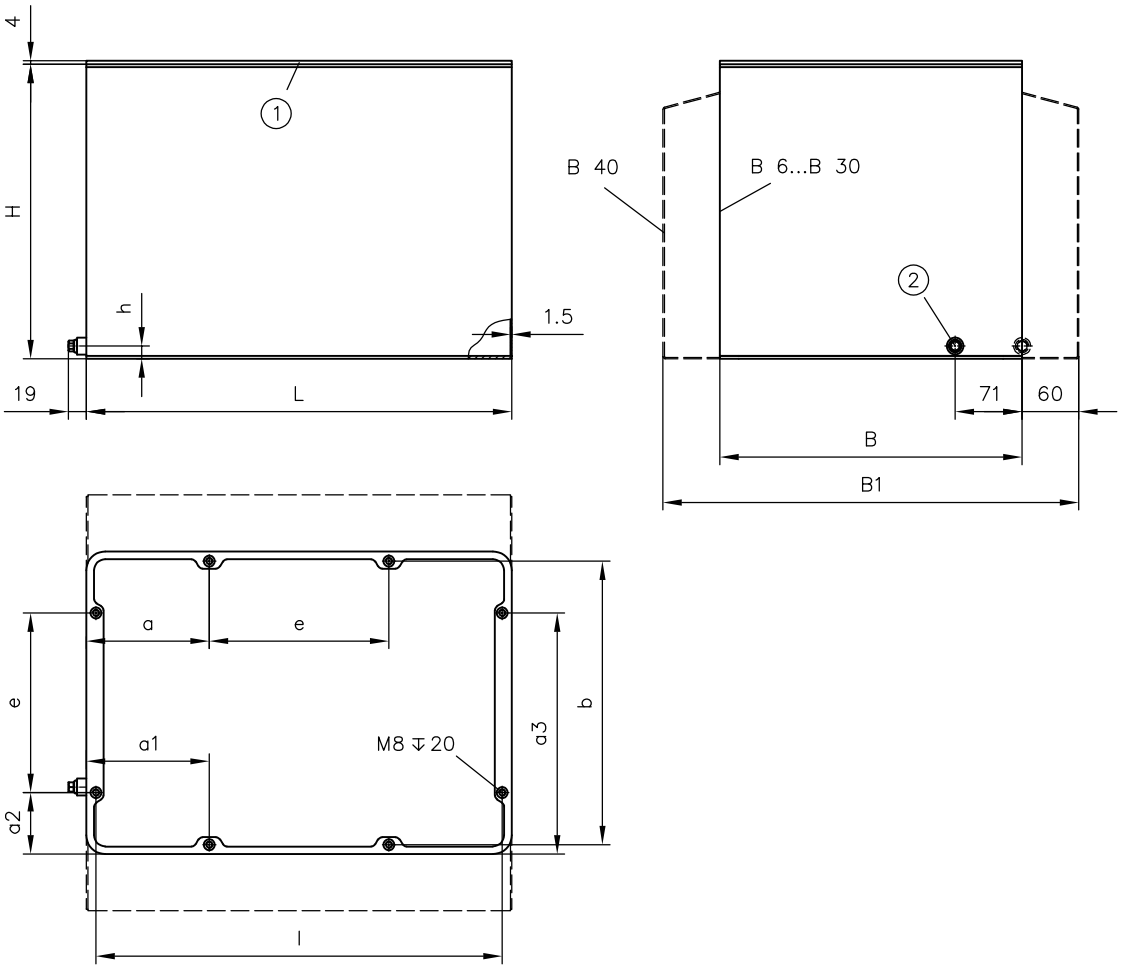


Manually adjustable



4.3.1.6 Tank and cover plates

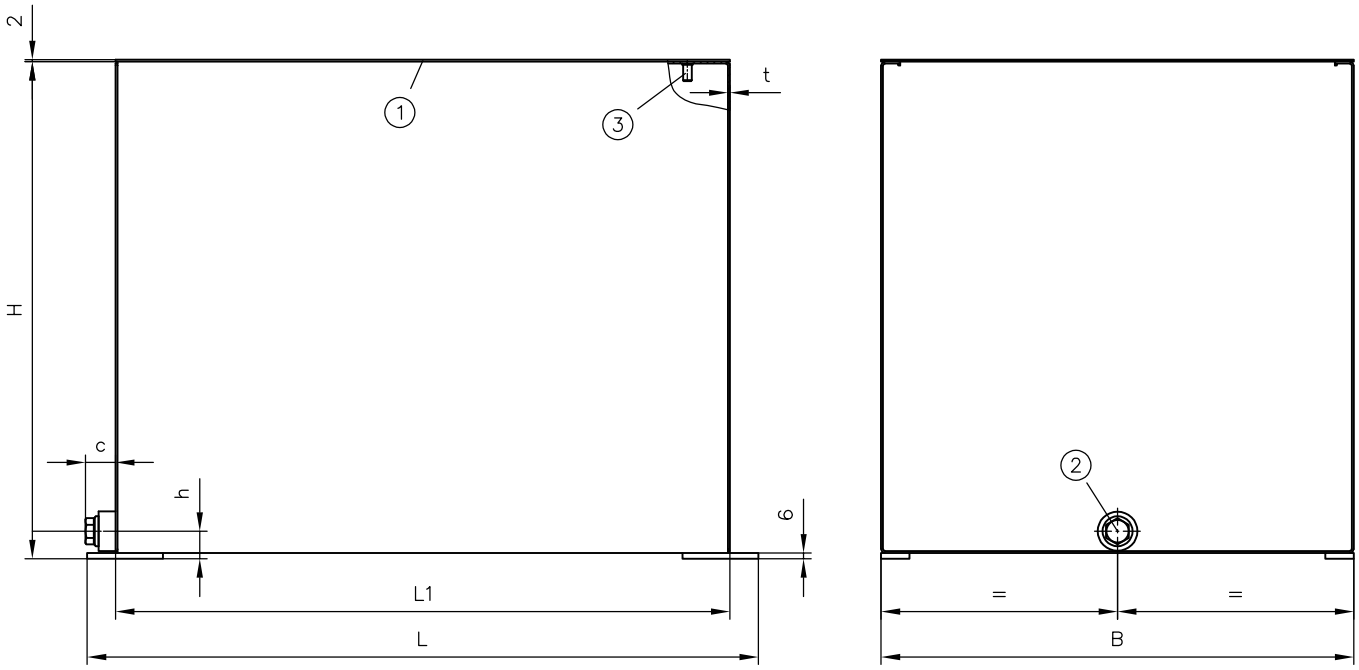
B 6 - B 40

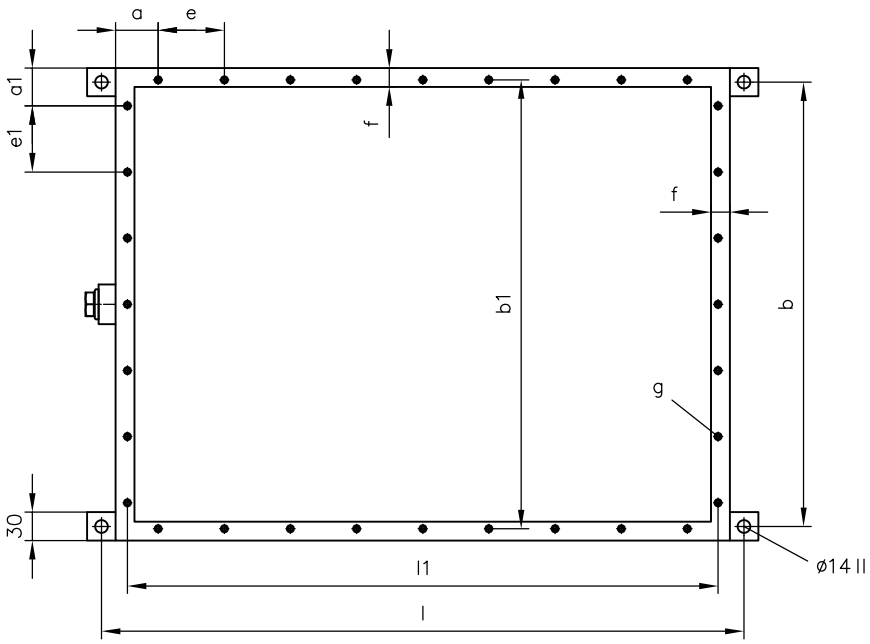


1 Seals
2 Oil drain screw G 1/8

Coding	L	B	B1	H	a	a1	a2	a3	b	e	h	l
B 6	255	215	--	223.5	55.5	177.5	45	170	195	--	13.5	238
B 13	370	260	--	220	185	--	55	--	240	--	12	350
B 20	370	260	--	310	185	--	55	--	240	--	12	350
B 30	450	320	--	311.5	130	--	65	--	300	190	13.5	430
B 40	450	320	440	310	130	--	65	--	300	190	12	430

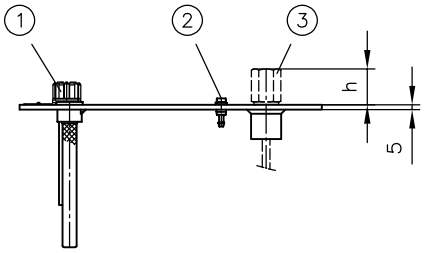
B 50 - B 100

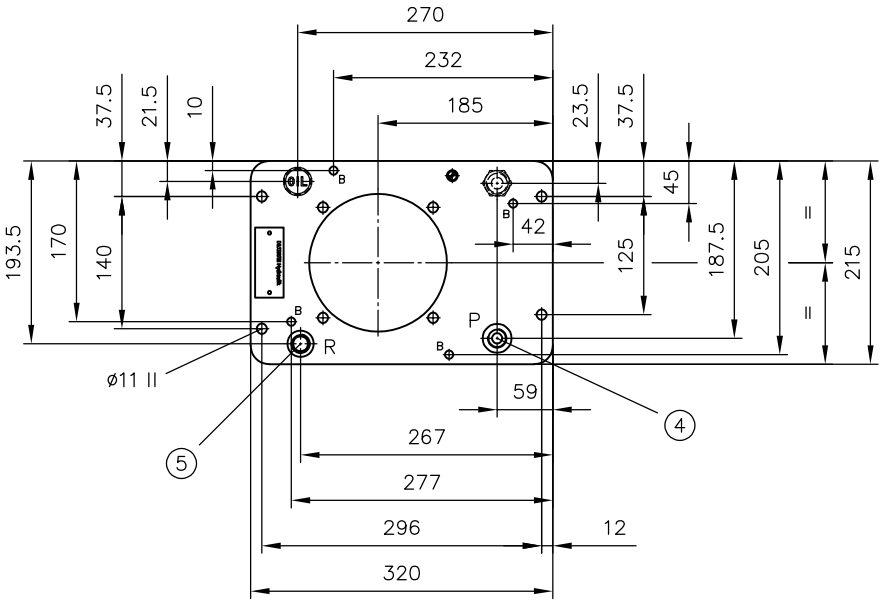




1 Seals
2 Oil drain screw G 3/4
3 Rivet nut

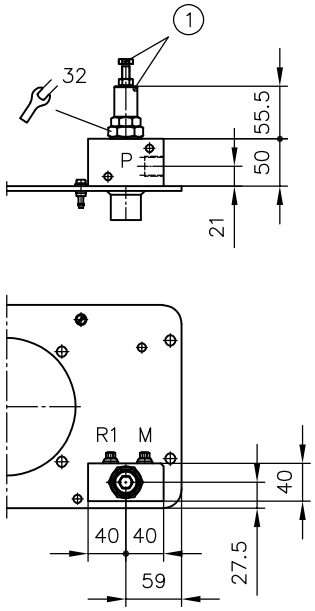
Coding	L	L1	B	H	a	a1	b	b1	c	e	e1	f	g	h	l	l1	t
B 50	674	600	420	395	50	35	390	395	34	100	70	20	M6	29	644	575	2
B 75	660	600	420	470	50	35	390	395	52	100	70	20	M6	26	630	575	2
B 100	710	650	500	526	45	40	470	475	34	140	140	20	M6	29	680	625	2





1 Oil filler and air filter with oil dipstick
2 Bleeder
3 If desired (specify in plain text when ordering):
2nd return line port G 1/2 (h=26) or suction port G 1/2 (h=38) for hand pump
4 Pressure connection G 1/2
5 Return connection G 1/2
B Fastening hole for cylinder screw M8x30 DIN 912

with pressure-limiting valve

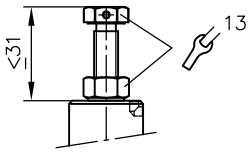


1 Sealing option

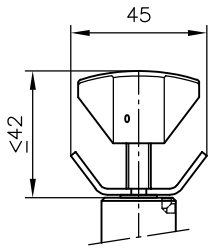
	Connections (ISO 228-1)
P	G 1/2
R1, M	G 1/8

Adjustment

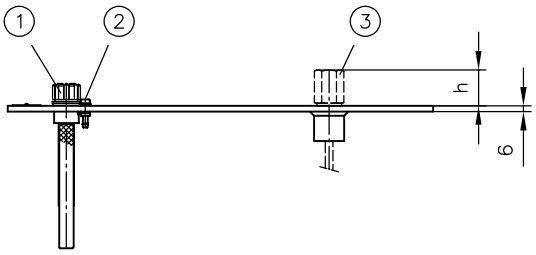
fixed

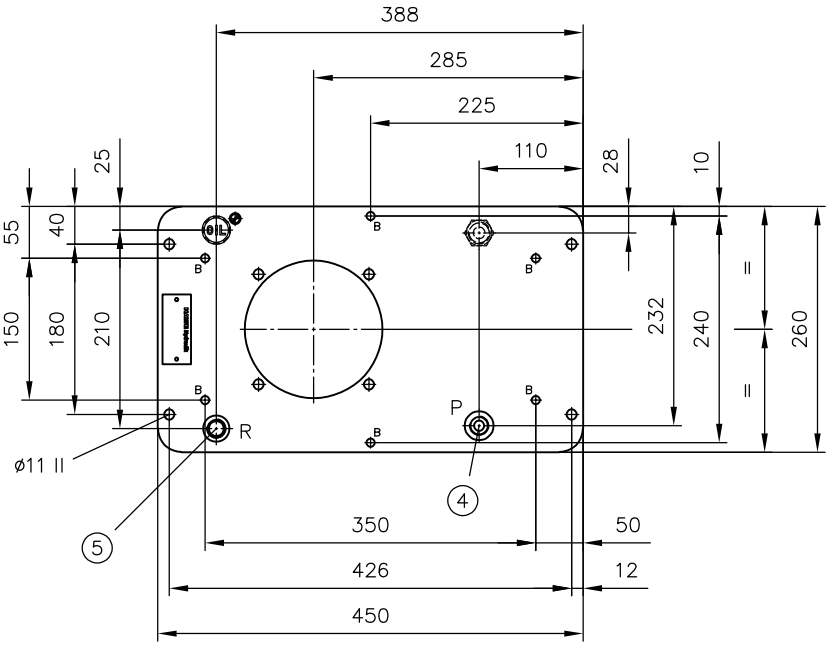


Manually adjustable



D 13.1
D 13.2
D 20





1 Oil filler and air filter with oil dipstick
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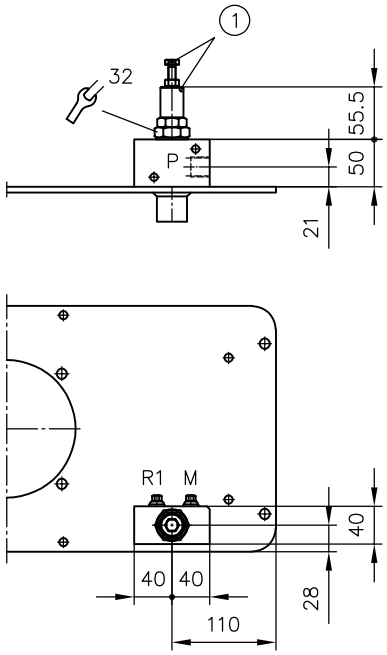
4 Pressure connection G 1/2
5 Return connection G 1/2
B Fastening hole for cylinder screw M8x30 DIN 912

with pressure-limiting valve

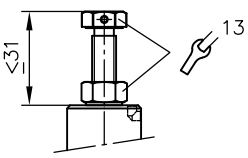


1 Sealing option

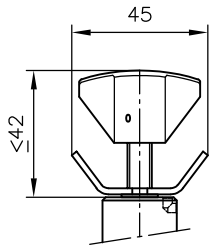
	Connections (ISO 228-1)
P	G 1/2
R1, M	G 1/8

Adjustment

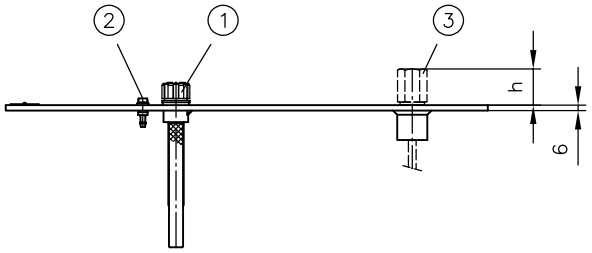
fixed

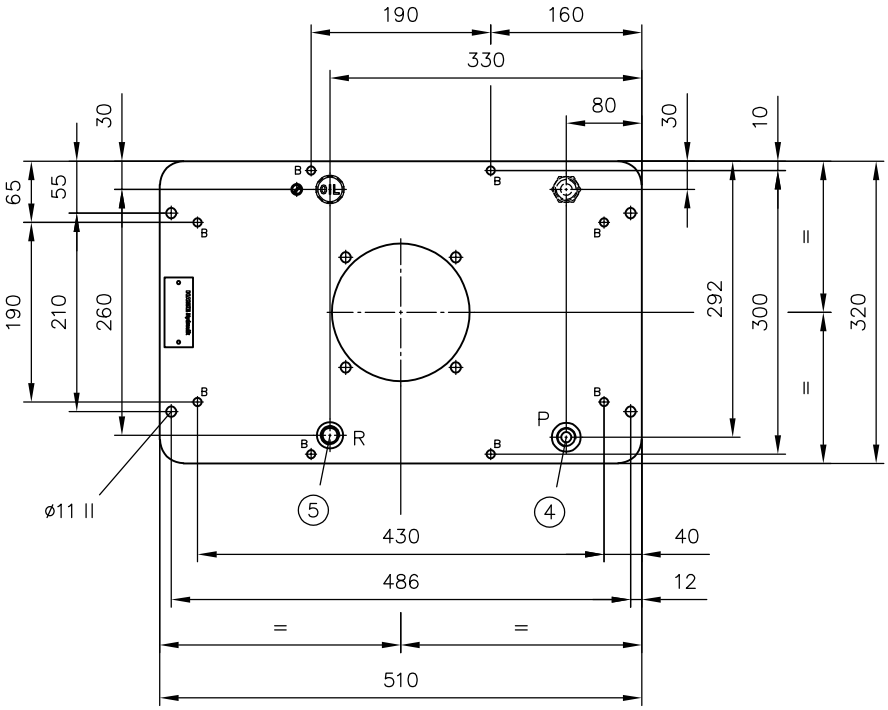


adjustable

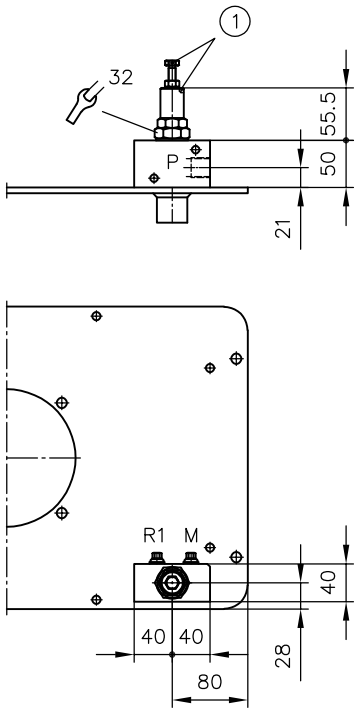


D 30
D 40





with pressure-limiting valve



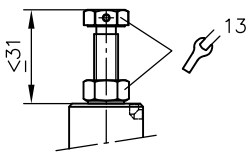
1 Oil filler and air filter with oil dipstick
2 Bleeder
3 If desired (specify in plain text when ordering):
2nd return line port G 1/2 (h=26) or suction port G 1/2 (h=38) for hand pump
4 Pressure connection G 1/2
5 Return connection G 1/2
B Fastening hole for cylinder screw M8x30 DIN 912

1 Sealing option

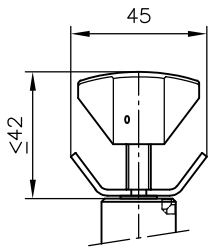
	Connections (ISO 228-1)
P	G 1/2
R1, M	G 1/8

Adjustment

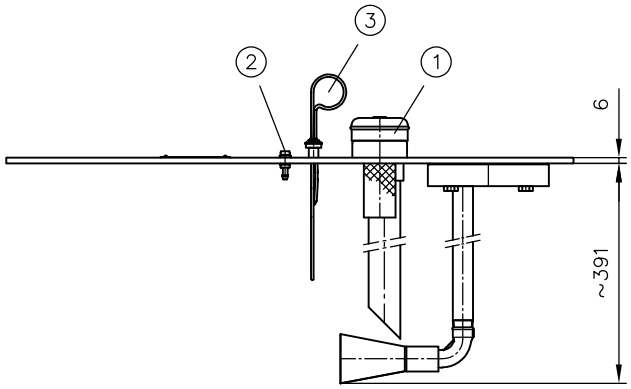
fixed

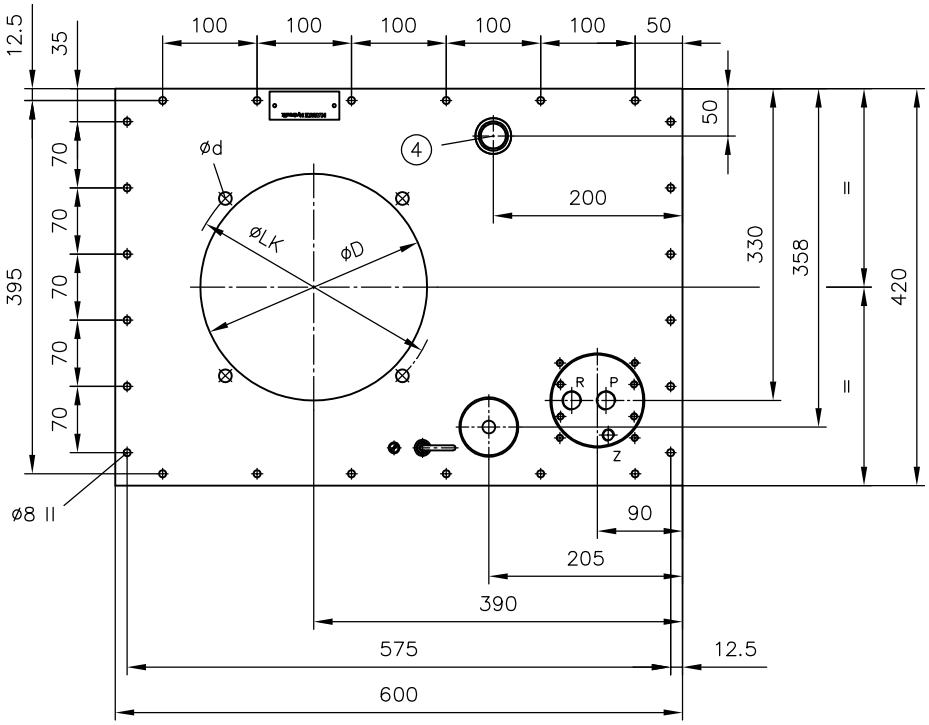


adjustable



D 50.1
D 50.2

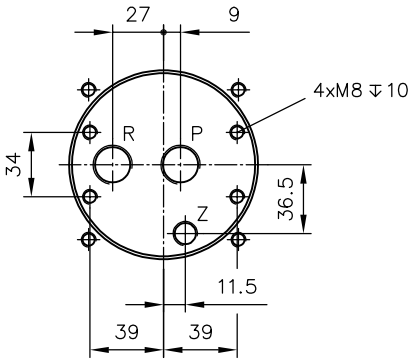




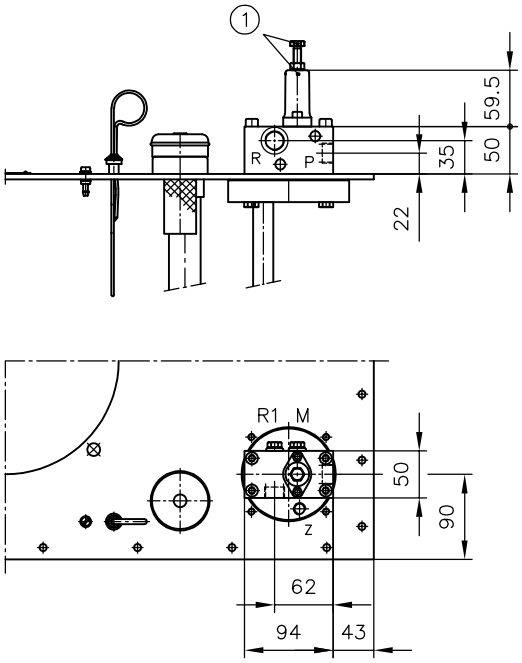
1 Oil filler and air filter
2 Bleeder
3 Oil dipstick
4 2nd Return port G 1

Drive power (kW)	∅d	∅D	∅LG
0.35–4	12	150	165
5.5–22	14	240	265

Mounting flange



with pressure-limiting valve

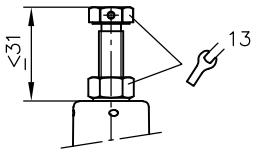


1 Sealing option

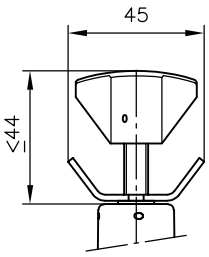
	Connections (ISO 228-1)
P, R	G 1/2
R1, M, Z	G 1/4

Adjustment

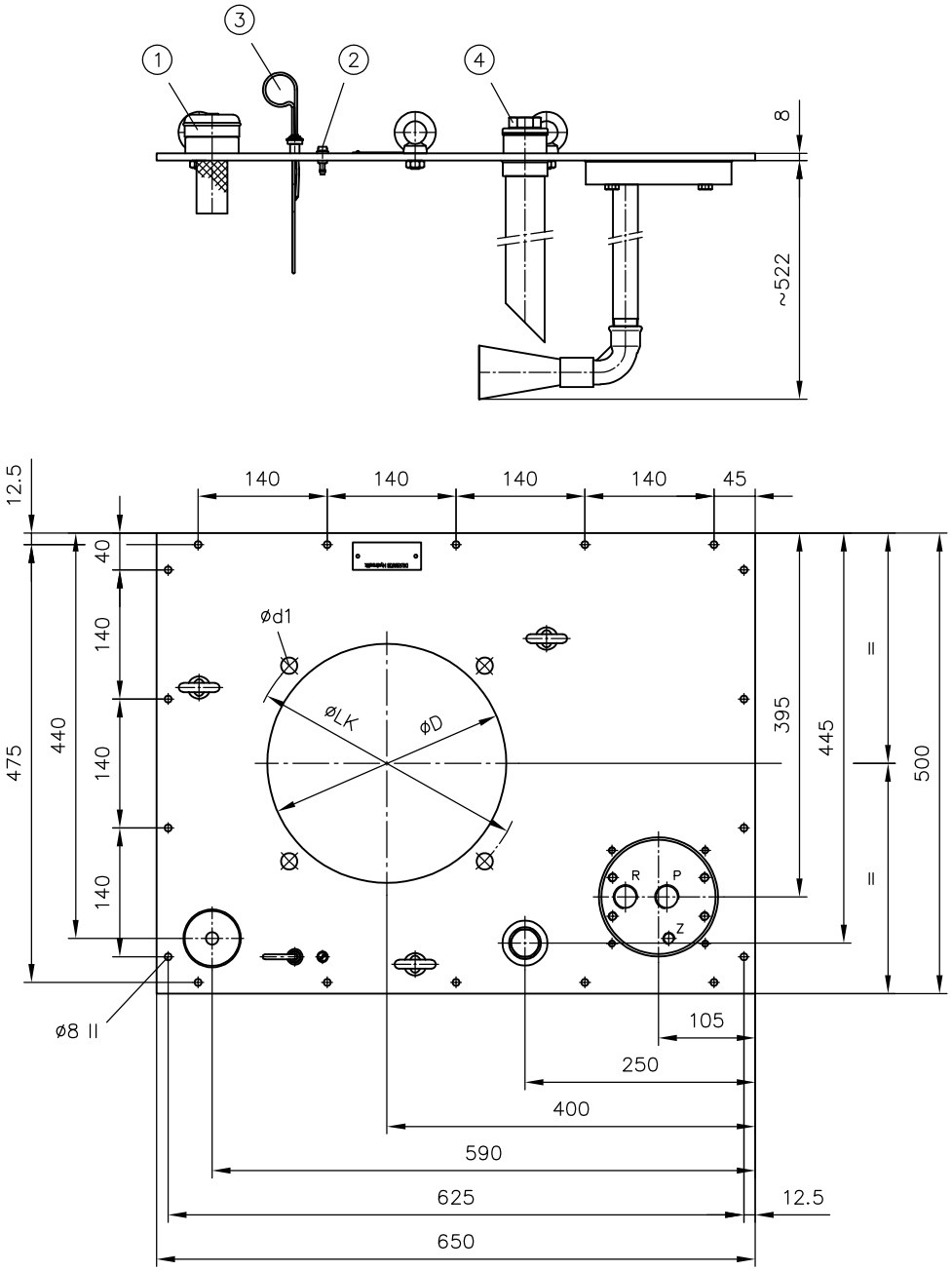
fixed



adjustable



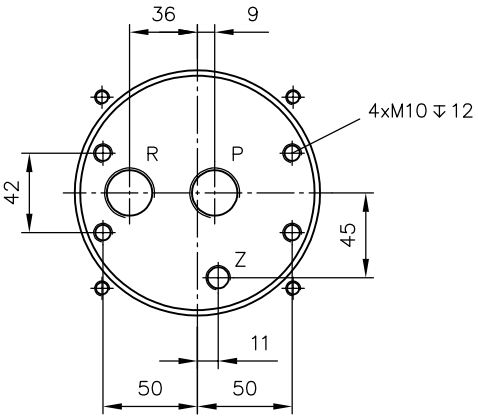
D 100.1



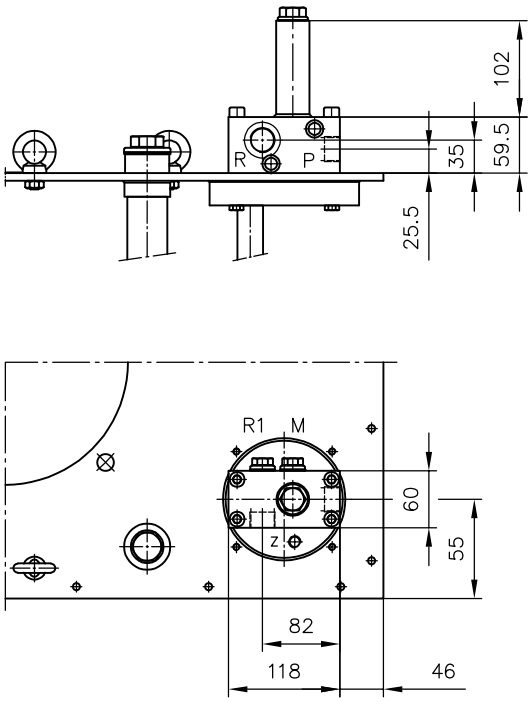
1 Oil filler and air filter
2 Bleeder
3 Oil dipstick
4 2nd Return port G 1 1/4

Drive power (kW)	∅d1	∅D	∅LK
0.55–4	12	150	165
5.5–22	18	260	300

Mounting flange



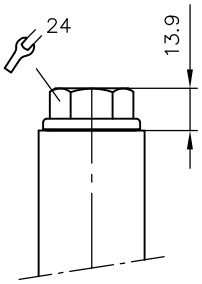
with pressure-limiting valve



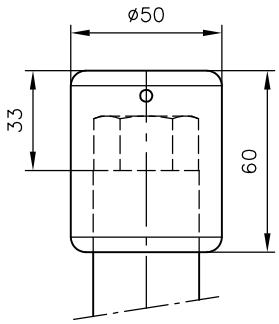
	Connections (ISO 228-1)
P, R	G 3/4
Z	G 1/4
R1, M	G 1/2

Adjustment

fixed



adjustable

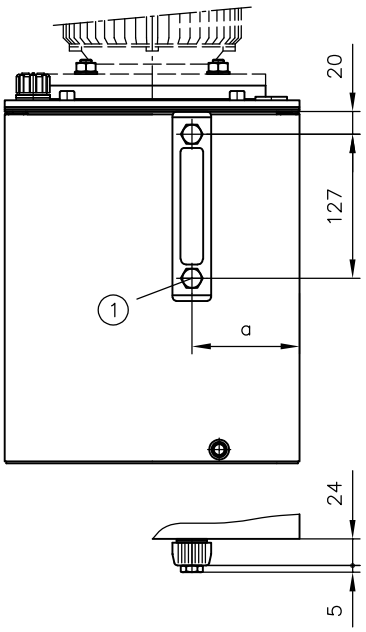


4.3.2 Additional options for tanks

Fluid level gauge

Tank size

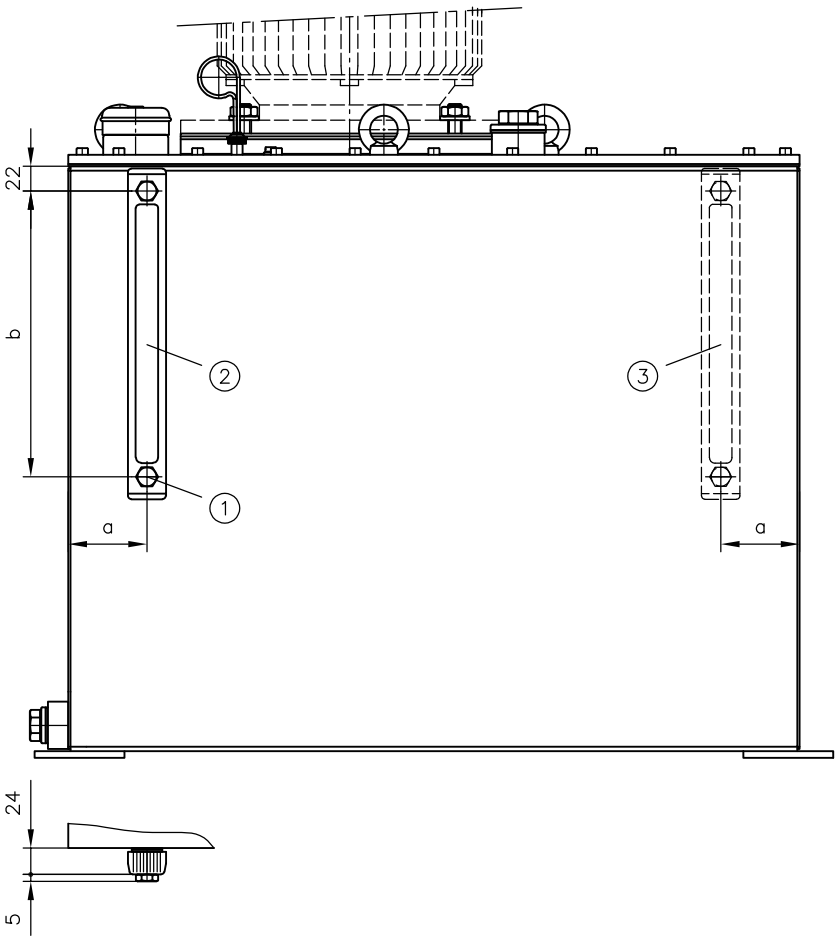
B 6 to B 40



1 Hole ∅11 in tank
2 Position for coding K
3 Position for coding K1

Coding	a	b
B 6	85	--
B 13 to B 30	95	--
B 40	155	--
B 50, B 75	70	127
B 100	70	254

B 50 to B 100

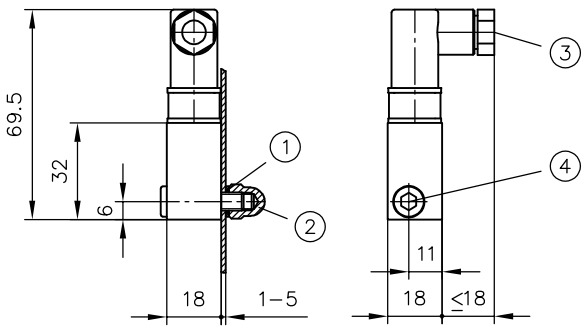


For single order:

STAUFF fluid level gauge

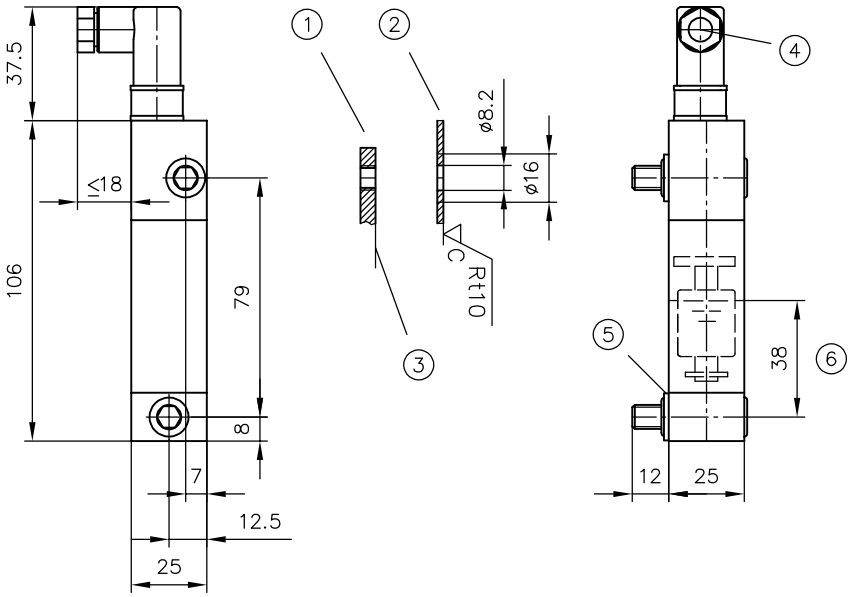
- SNA 127-B-S-0-10 for B 6 to B 75
- SNA 254-B-S-0-10 for B 100 to B 400

Temperature switch



1 USIT ring 6.7x10x1 NBR 90 Sh
2 Acorn nut DIN 1587-M6-6
3 Cable fitting
4 Cylinder screw DIN 6912 M6x25-8.8-A2K

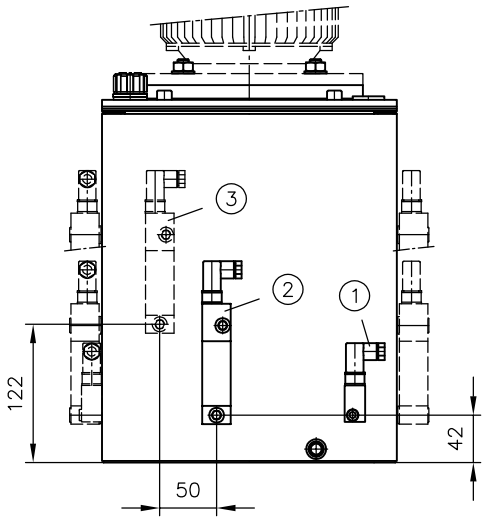
Level switch

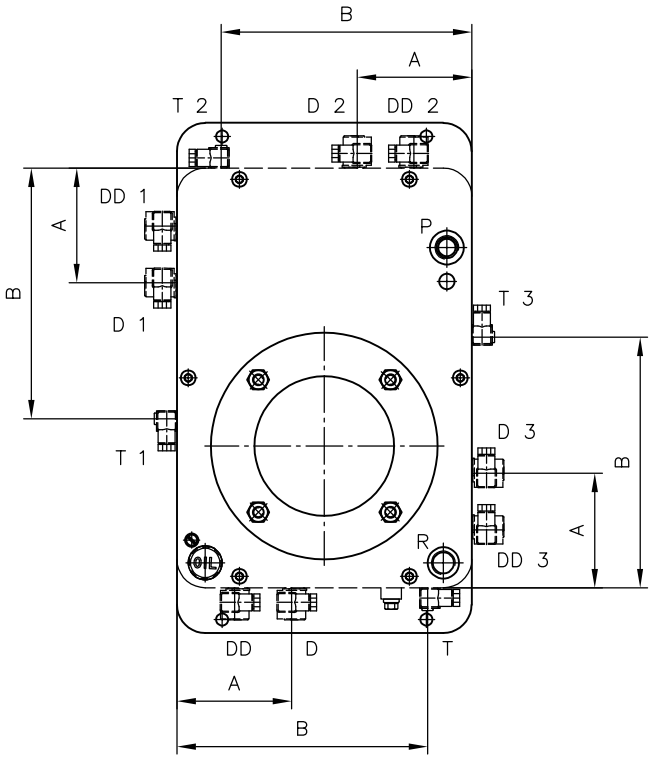


1 Yoke
2 Tank wall
3 LOCTITE 326
4 Cable fitting
5 - Sealing ring A12x15.5x1.5 DIN 7603-ST
- O-ring 8x2.4 NBR 90 Sh
- USIT ring 8.7x13x1 NBR 90 Sh
6 Switching level

4.3.2.1 Installation position

B 6 to B 40

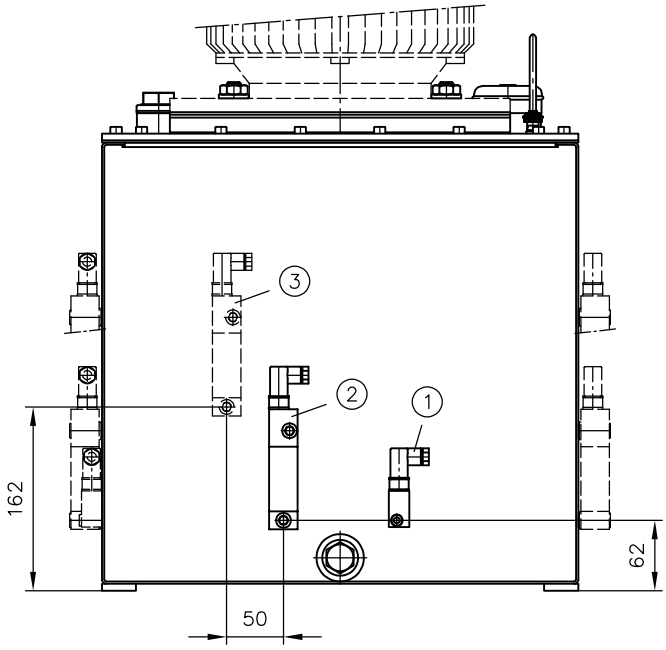


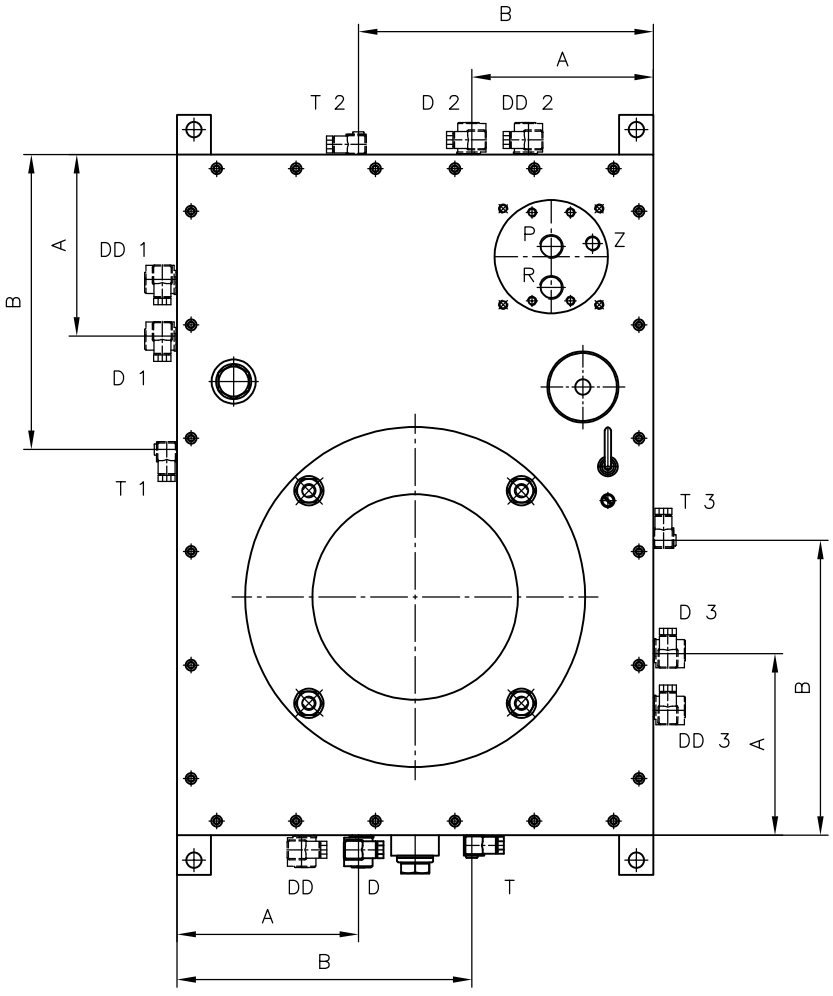


1 Temperature switch T
2 Level switch D
3 Level switch DD

Coding	A	B
B 6	80	110
B 13, B 20	100	220
B 30	100	130
B 40	160	190

B 50 to B 100



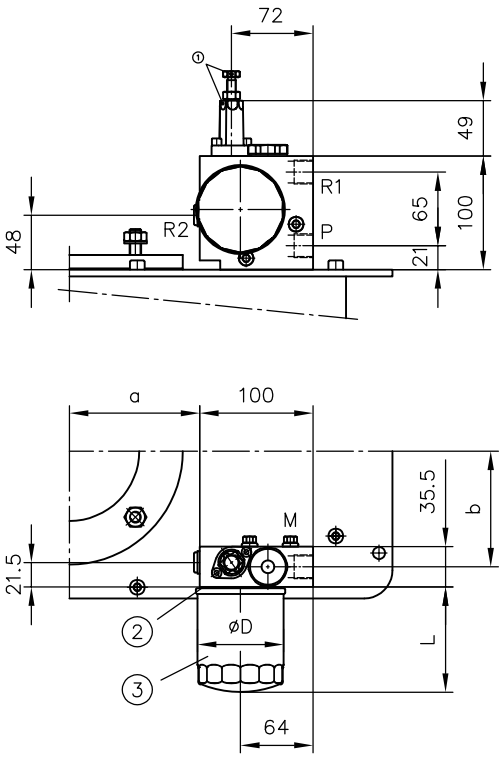


1 Temperature switch T
2 Level switch D
3 Level switch DD

Coding	A	B
B 50, B 75	160	260
B 100	160	340

4.3.3 Connection block

AF 0/.. to **FF 3/..**



1 Sealing option
2 Lightly oil seal when changing filter
3 Return line filter F0 to F31

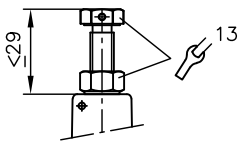
Tank and cover plate sizes	a	b
B 6, D 6	66	80
B 13, D 13 B 20, D 20	115	102
B 30, D 30 B 40, D 40	115	133

Filter Coding	L	∅D
F0	59	78
F1	93	78
F2	123	78
F3	144	93
F31	144	93

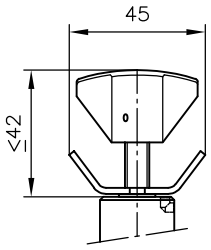
	Connections (ISO 228-1)
P, R1	G 1/2
R2	G 1/4
M	G 1/8

Adjustment

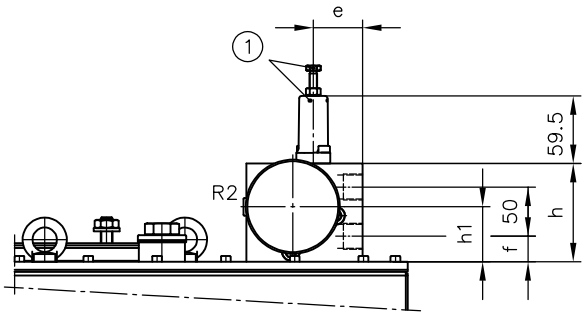
fixed

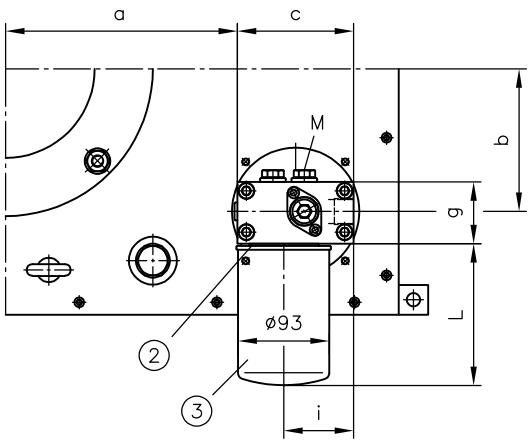


Manually adjustable



AF 4/.. to **BF 5/..**





1 Sealing option
2 Lightly oil seal when changing filter
3 Return line filter F4 and F5

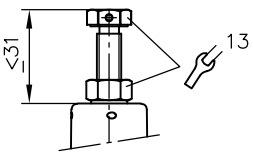
Tank and cover plate sizes	a	b	c	e	f	g	h	h1	i
B 50, D 50 B 75	247	120	100	38	22	50	90	54	64
B 100, D 100	236	154	118	50	26	63	100	56	71

	Connections (ISO 228-1)		
	P, R1	R2	M
B 50, D 50 B 75	G 1/2	G 1/4	G 1/4
B 100, D 100	G 3/4	G 1/4	G 1/2

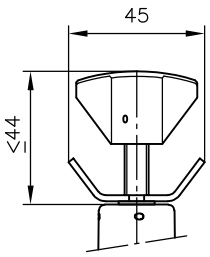
Filter Coding	L
F4	144
F5	212

Adjustment

fixed



Manually adjustable



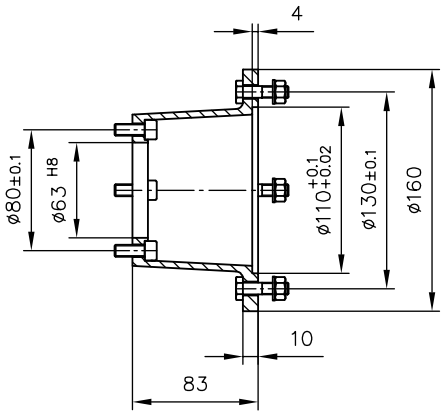
4.4 Intermediate flanges and bell housings

Intermediate flanges

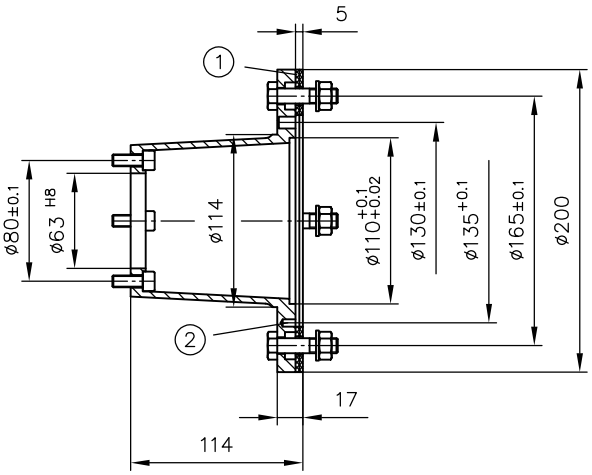
For motor pumps.
The necessary screws, nuts and washers are included in the scope of delivery.

Coding	Motor DIN size
F 31	71
F 41	80
F 42	90S (L)
F 51	100 L
F 52	112 M
F 61	132 S (M)
F 71	160 M (L)
F 73	180 M (L)
F 81	200 L

F 31

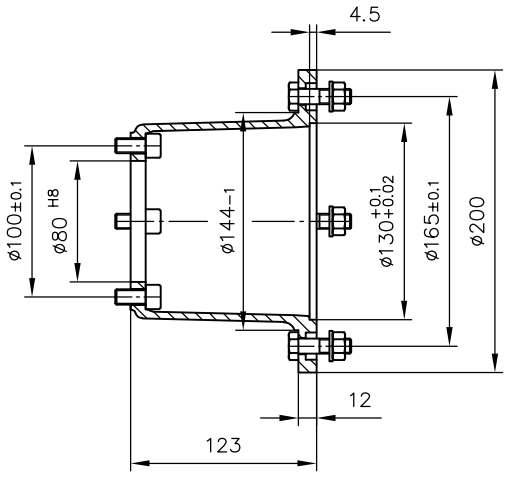


F 41

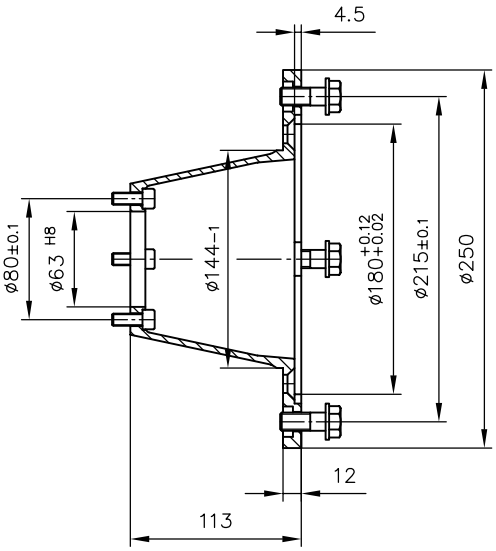


1 Spacers
2 4 pins, ∅5x12 DIN 1481, drawn at a 45° angle

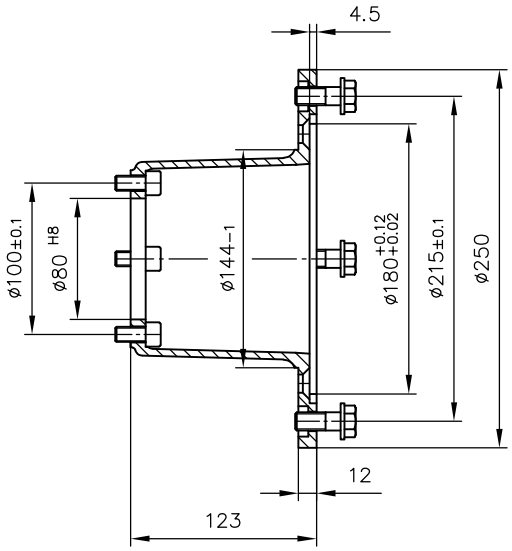
F 42



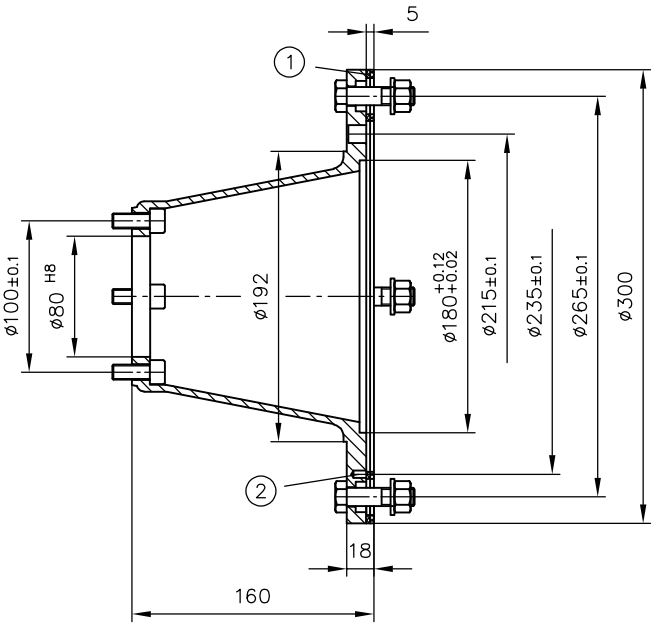
F 51



F 52



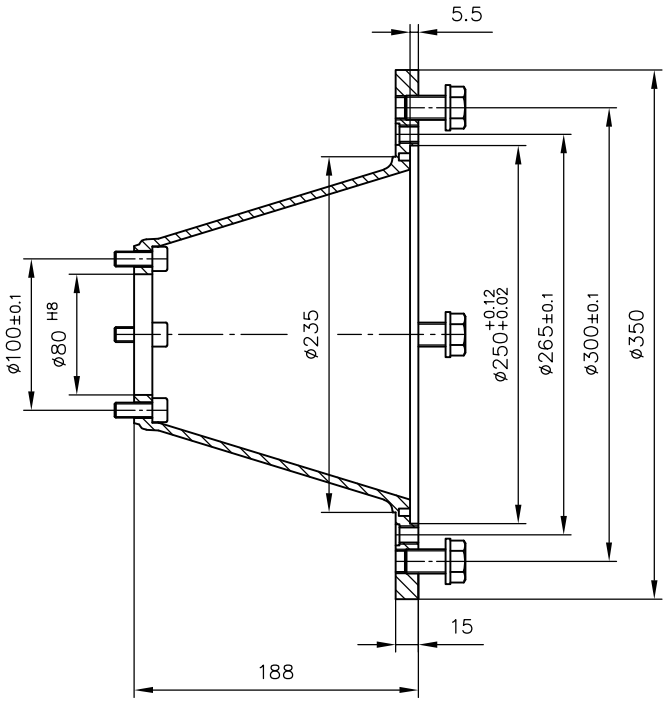
F 61



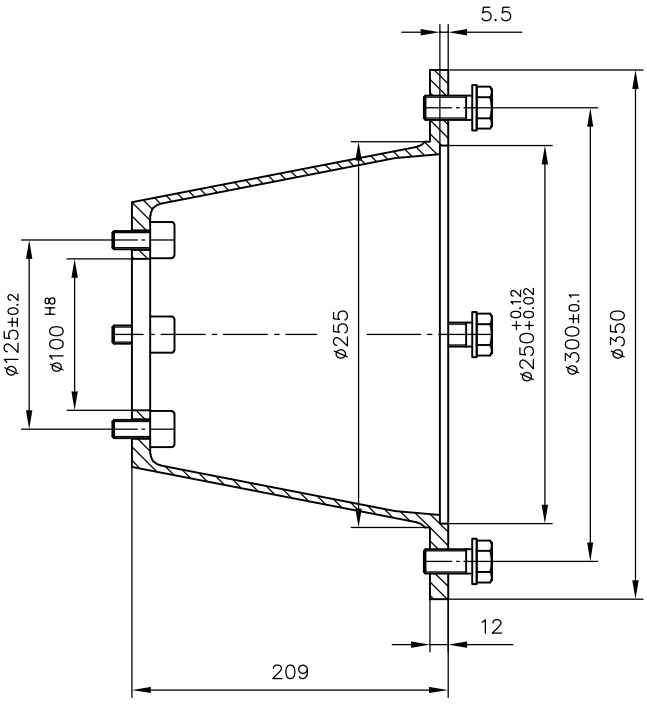
1 Spacers

2 4 pins, ∅5x12 DIN 1481, drawn at a 22.5° angle

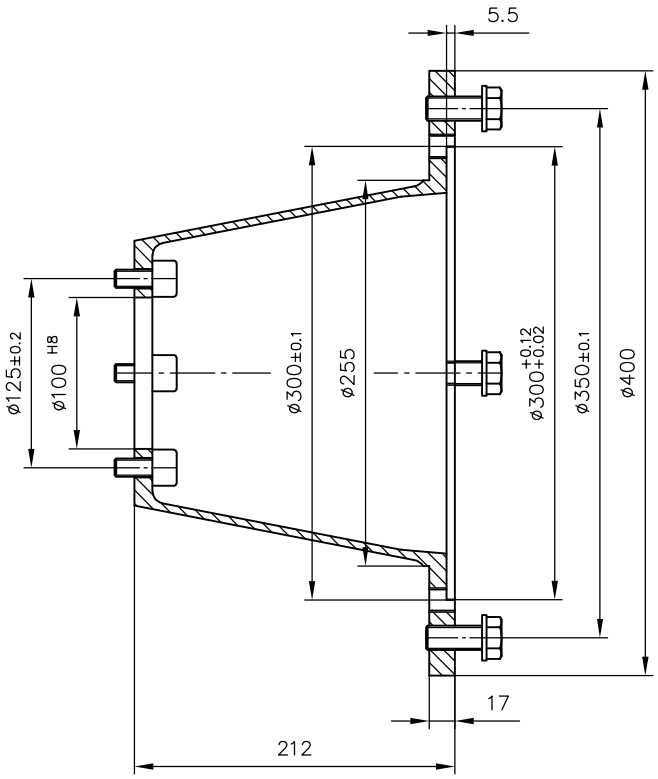
F 71


5.5
ø100±0.1
ø80 H8
ø235
ø250+0.12 +0.02
ø265±0.1
ø300±0.1
ø350
15
188

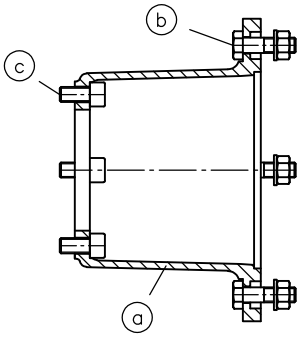
F 73


5.5
ø125±0.2
ø100 H8
ø255
ø250+0.12 +0.02
ø300±0.1
ø350
12
209

F 81


5.5
ø125±0.2
ø100 H8
ø300±0.1
ø255
ø300+0.12 +0.02
ø350±0.1
ø400
17
212

Individual components for flange



Coding	a (flange)	b (screw DIN 931 with disc DIN 125)	c (screw DIN 6912)
F 31	6020 102	M8x30 [1]	M8x20
F 41	6020 101	M10x40 [1]	M8x20
F 42	6020 105	M10x35 [1]	M10x20
F 51	6020 011	M12x30	M8x20
F 52	6020 106	M12x30	M10x20
F 61	6020 107	M12x45 [1]	M10x25
F 71	6020 108	M16x30	M10x25
F 73	6020 109	M16x35	M12x25
F 81	6020 110	M16x40	M12x25

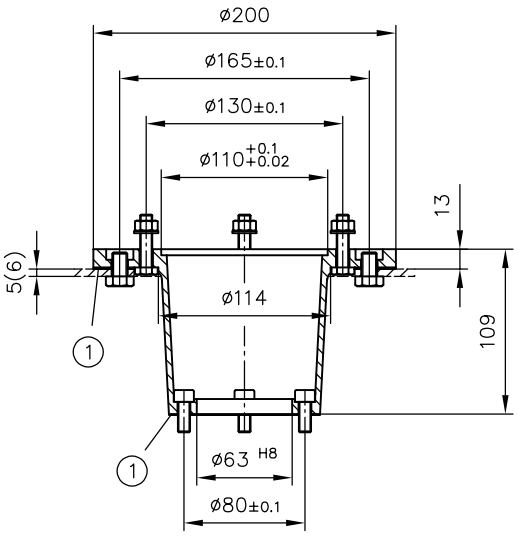
1 with DIN 934 nut

Bell housings

For hydraulic power pack and cover plate version.
The necessary screws, nuts and washers are included in the scope of delivery.

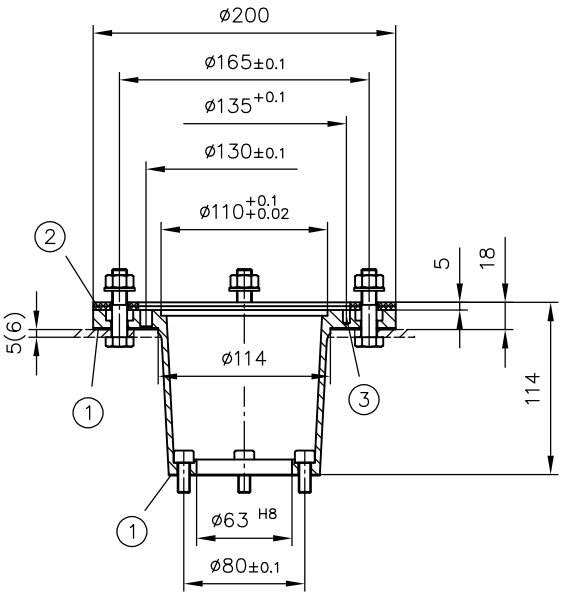
Coding	Motor DIN size
L 32	71
L 41	80 90 S(L)
L 42	
L 51	100 L 112 M
L 52	
L 53	
L 61	132 S(M)
L 70	
L 71	160 M(L) 180 M(L)
L 72	
L 73	
L 81	200 L

L 32



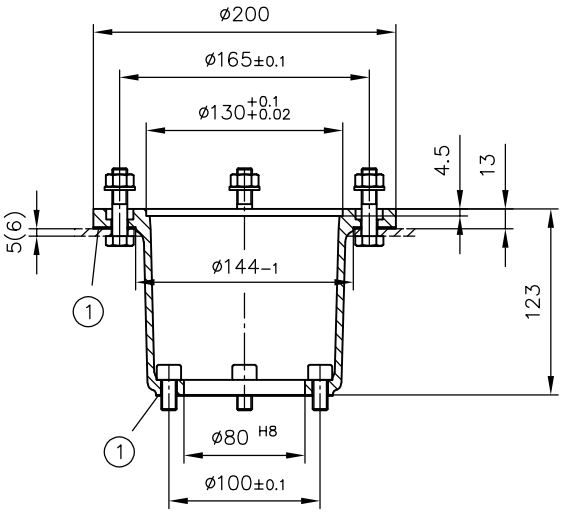
1 Abil seal

L 41



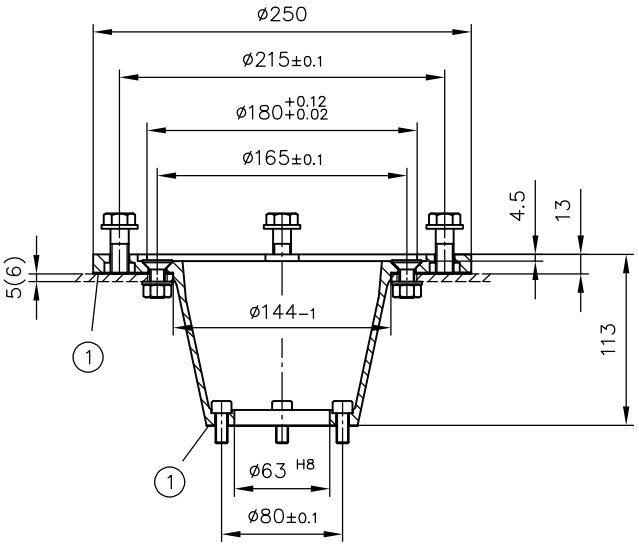
1 Abil seal
2 Spacers
3 4 pins, ∅5x12 DIN 1481, drawn at a 45° angle

L 42



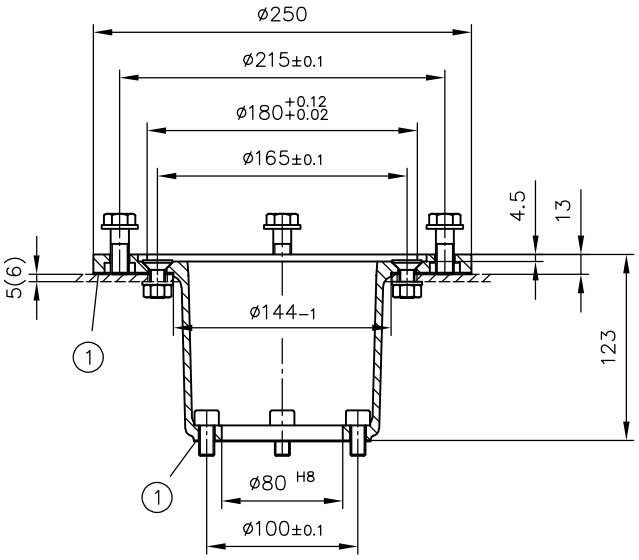
1 Abil seal

L 51



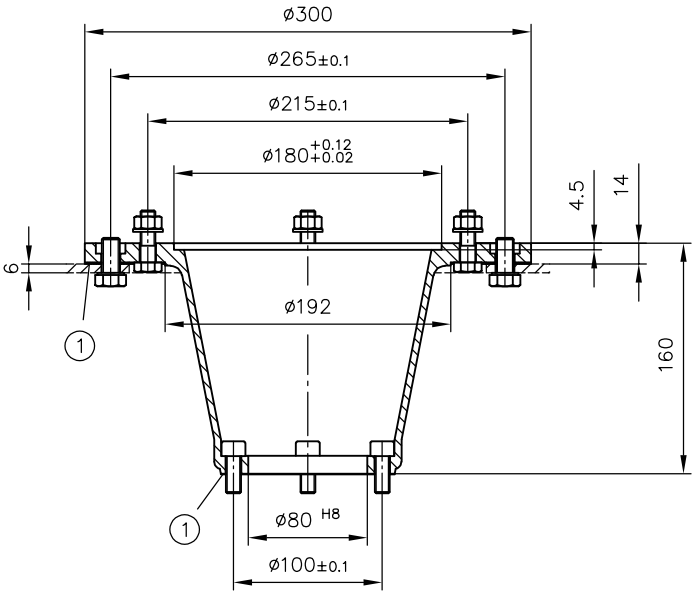
1 Abil seal

L 52



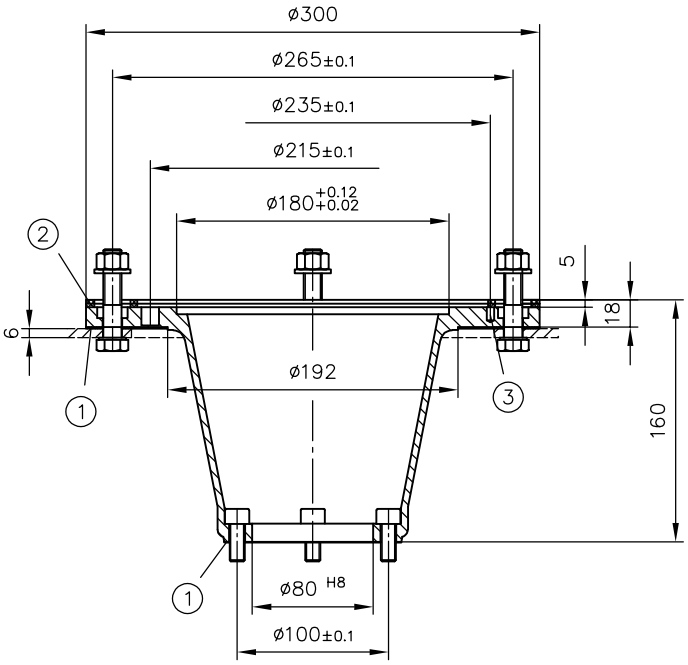
1 Abil seal

L 53



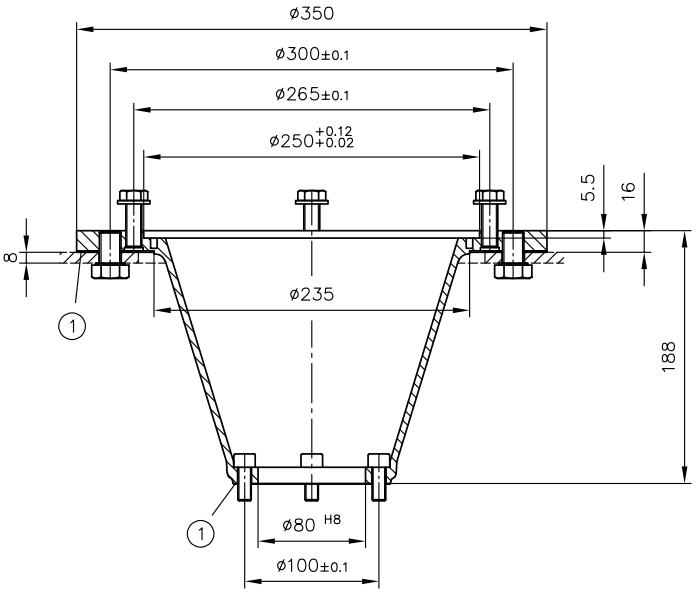
1 Abil seal

L 61



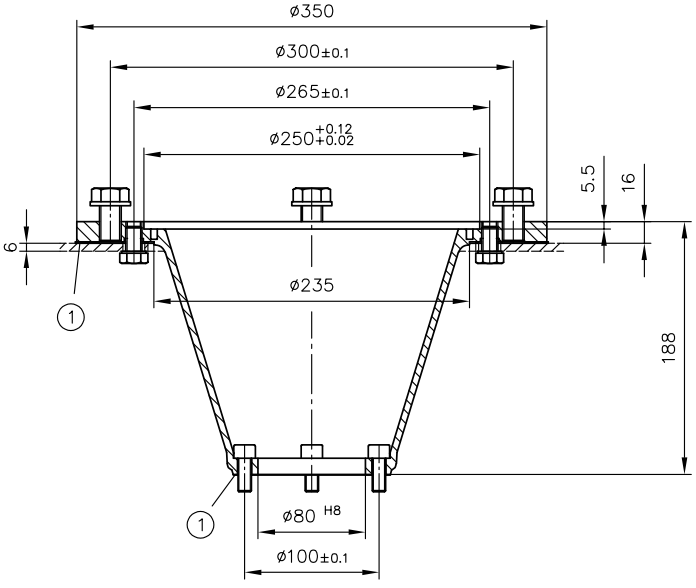
1 Abil seal
2 Spacers
3 4 pins, ∅5x12 DIN 1481, drawn at a 45° angle

L 70



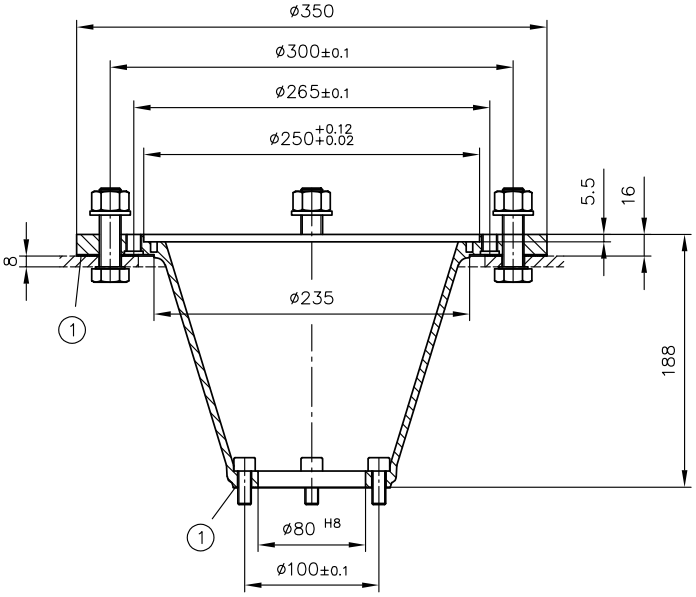
1 Abil seal

L 71



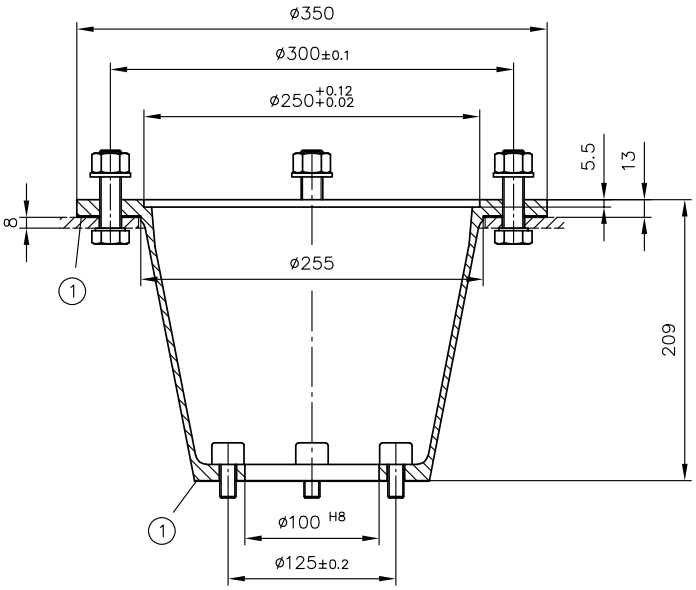
1 Abil seal

L 72



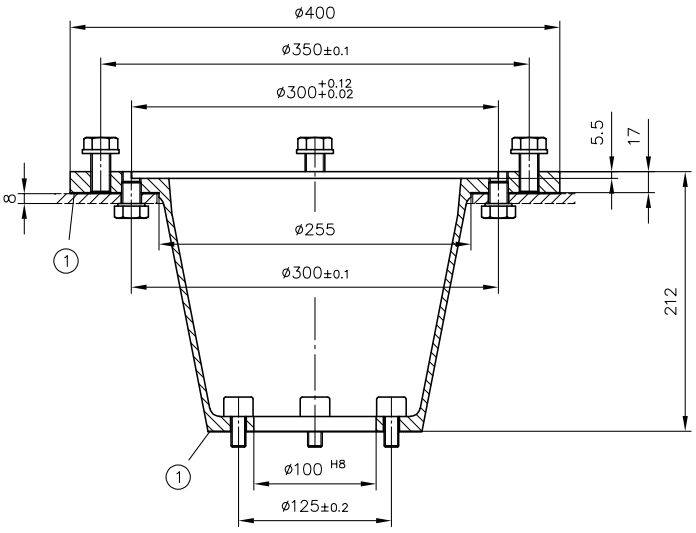
1 Abil seal

L 73



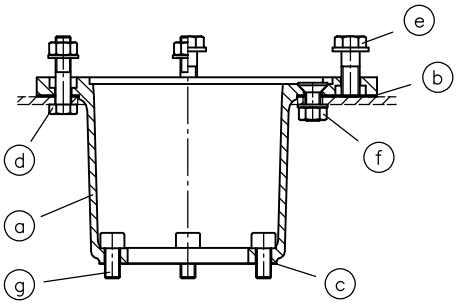
1 Abil seal

L 81



1 Abil seal

Individual components for bell housing



Coding	a (Bell housing)	b (Abil seal)	c (Abil seal)	d (Screw DIN 933)	e (Screw DIN 931)	f (Screw DIN 7991)	g (Screw DIN 6912)
L 32	6020 101	6020 066	6020 062	M10x16	6020 078 [1]	-	M8x20
L 41	6020 101	6020 066	6020 062	M10x45 [1]	-	-	M8x20
L 42	6020 105	6020 066	6020 063	M10x45 [1]	-	-	M10x20
L 51	6020 011	6020 067	6020 062	-	M12x25 [3]	M10x25 [1]	M8x20
L 52	6020 106	6020 067	6020 063	-	M12x25 [3]	M10x25 [1]	M10x20
L 53	6020 107	6020 069	6020 063	M12x25 [3]	-	6020 061	M10x25
L 61	6020 107	6020 069	6020 063	M13x 60 [2]	-	-	M10x25
L 70	6020 108	6020 071	6020 063	M16x25 [3]	M12x35 [4]	-	M10x25
L 71	6020 108	2652 011	6020 063	M12x20 [3]	M16x35 [3]	-	M10x25
L 72	6020 108	6020 071	6020 063	M16x60 [2]	-	-	M10x25
L 73	6020 109	6020 071	6020 064	M16x60 [2]	-	-	M12x25
L 81	6020 110	6020 072	6020 064	M16x20 [3]	M16x35 [3]	-	M12x25

1 with DIN 934 nut and DIN 125 disc

2 with DIN 934 nut, DIN 125 disc and DIN 7603 copper sealing ring

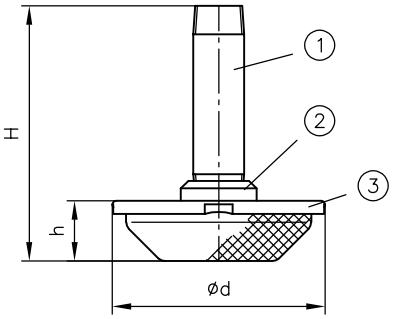
3 with DIN 7603 copper sealing ring

4 with DIN 125 disc

4.5 Suction parts

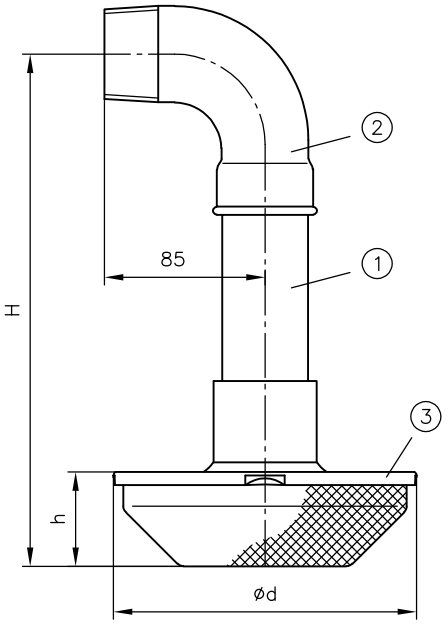
Suction strainer: Steel screen, 30 meshes/inch. Wire thickness 0.3 mm, with internal support structure.

S 11 - S 44



1 Suction pipe
2 DIN 2986 pipe sleeve only for S 22 to S 25 (R 3/4") and S 42, S 43 and S 44 (R1 1/4")
3 Suction strainer

S 51, S 52, S 54



1 Suction pipe
2 Elbow 1a R1 1/2"
3 Suction strainer

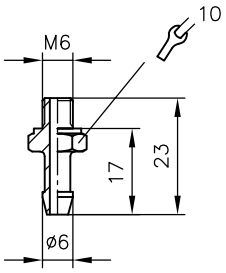
Coding	Suction strainer order no.	h1	h2	∅ d	Suction pipe DIN 2982
S 11	6020 500	51	30	113	R1/2"x30
S 12		141			R1/2"x120
S 13		201			R1/2"x180
S 14		271			R1/2"x250
S 21	6020 600	45			-
S 22		135			R3/4"x80
S 23		205			R3/4"x150
S 24		355			R3/4"x300
S 25		485			R3/4"x430
S 31	6020 700	68			R1"x40
S 32		148			R1"x120
S 33		208			R1"x180
S 34		328			R1"x300
S 35		278			R1"x250
S 36		388			R1"x360
S 41	6020 800	64	52	133	-
S 42		120			R1 1/4"x40
S 43		230			R1 1/4"x150
S 44		380			R1 1/4"x300

4.6 Venting parts

Description	L (mm)	Order no.
Screw-in connection nipple	--	6020 070
Press-fit connection nipple	--	6020 307
Hose (NBR) in various lengths	220	6020 077a
	260	6020 077b
	310	6020 077c
	420	6020 077d
	500	6020 077e

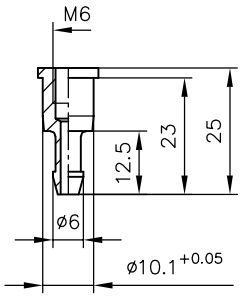
Screw-in connection nipple

Order no. 6020 070

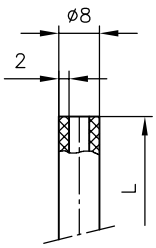


Press-fit connection nipple

Order no. 6020 307

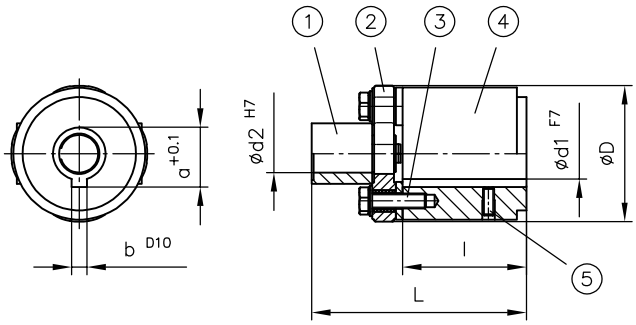


Hose (NBR)

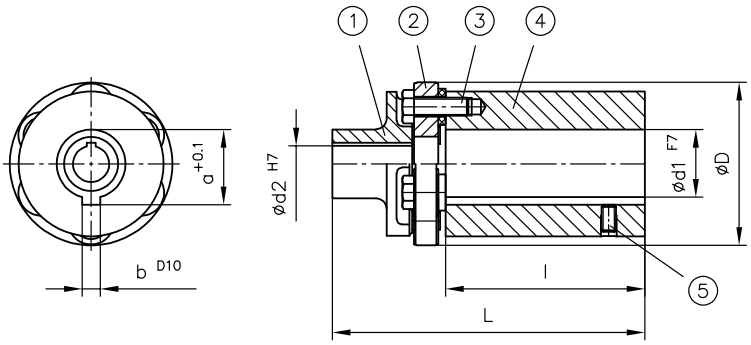


4.7 Couplings

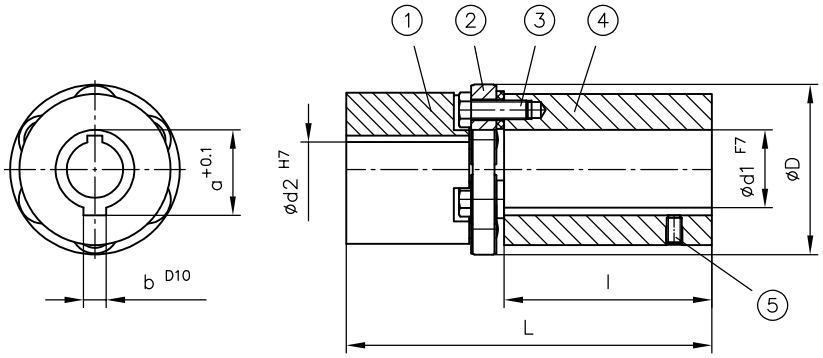
K 31 - K 53



K 61 - K 72, K 74



K 73, K 75, K 81



1 Driver (pump side)
2 Jurid fabric disc
3 Hex bolts
4 Coupling part (motor side)
5 Grub screw

Coding	Motor DIN size	∅d1	∅d2	∅D	a	b	L	l	Grub screw	Fabric disc
K 31	71	14	15	76	17.2	5	67	30	M5x15	Order no. 6020 084 2 screws M8x30
K 32		14	15	76	17.2	5	93	56		
K 41	80	19	15	76	21.7	6	97	60		
K 42		19	20	76	21.7	6	107	60		
K 43	90 S 90L	24	15	76	27.1	8	97	60	M6x15	2 discs ∅8.4 DIN 125 2 discs no. 6020 015
K 44		24	20	76	27.1	8	107	60		
K 51	100 L 112 M	28	15	76	31.1	8	97	60		
K 52		28	20	76	31.1	8	107	60		
K 53		28	20	76	31.1	8	139	92		
K 61	132 S 132 M	38	20	91	41.5	10	142	80	M8x15	Jurid GCZ 57s 3 screws M10x30 3 discs no. 6020 016
K 62		38	25	91	41.5	10	142	80		
K 63		38	20	91	41.5	10	172	80		
K 70		38	25	91	41.5	10	172	110		
K 71	160 M 160 L	42	20	91	45.3	12	172	110		
K 72		42	25	91	45.3	12	172	110		
K 73		42	30	91	45.3	12	193	110		
K 74	180 M 180 L	48	25	91	51.7	14	172	110		
K 75		48	30	91	51.7	14	193	110		
K 81	200 L	55	30	100	59	16	196	110	M8x15	Jurid GD 62s 3 screws M10x35

5 Installation, operation and maintenance information

NOTICE

Available for this product: assembly instructions with notes on

- Intended use,
- Operating and maintenance,
- Assembly information

Assembly instructions for hydraulic pump/hydraulic power pack type R, RG: B 6010 H

6 Other information

6.1 Accessories for motor pumps and hydraulic power packs

The following accessories are available for motor pumps and hydraulic power packs:

- Standard 3-phase motors up to 7.5 kW, see Chapter 4.1, "Motor"
- Oil tank and cover plates, see Chapter 2.3.1, "Tank and cover plate version"
- Intermediate flanges, see Chapter 4.4 Intermediate flanges
- Bell housings, see Chapter 4.4 Bell housings
- Suction parts, see Chapter 4.5, "Suction parts"
- Venting parts, see Chapter 4.6, "Venting parts"
- Couplings, see Chapter 4.7, "Couplings"

For components alone, see spare parts lists E 6020 M for motor pumps and E 6020 V/1 for hydraulic power packs.

6.2 Combination options

Allocation of flange (coding **F..**), bell housing (coding **L..**), coupling (coding **K..**) and suction parts (coding **S..**) to the standard pump/motor/tank combinations.

6.2.1 Accessory for motor pump

Intermediate flanges (F..) and couplings (K..) that can be combined

Drive power (kW)	Motor DIN size	Assembly combinable as standard as per D 6010					
		7631	6010	6011	6012	6014	6016
0.25 0.37	71	F 31, K 31	F 31, K 31				
0.55 0.75	80	F 41, K 41	F 41, K 41	F 42, K 42			
1.1 1.5	90 S (L)	F 41, K 43	F 41, K 43	F 42, K 44			
2.2 3	100 L		F 51, K 51	F 52, K 52	F 52, K 52		
4	112 M		F 51, K 51	F 52, K 52	F 52, K 52		
5.5 7.5 (9)	132 S (M)			FN 61, KN 61 [1]	FN 61, KN 61 [1]	FN 61, KN 62 [1]	
11 15	160 M (L)				F 71, KN 71	F 71, KN 72	F 73, KN 73
18.5 22	180 M (L)					FN 71, KN 74 [2]	F 73, KN 75
30	200 L						F 81, K 81

1 As per SK 6020-KN61

2 As per SK 6020-KN74

INFORMATION
HAWE only offers motors up to 7.5 kW. Couplings and flanges suitable for up to 30 kW are available.

6.2.2 Accessory for hydraulic power pack

Combinable bell housings (L..), couplings (K..) and suction parts (S..)

Drive power (kW)	Motor DIN size	Tank and cover plate sizes													
		B 6, D 6			B 13, D 13.1			B 20, D 13.2 (20)				B 30 (40), D 30 (40)			
		Assembly combinable as standard as per D 6010													
		7631	6010	6011	7631	6010	6011	7631	6010	6011	6012	7631	6010	6011	6012
0.25 0.37	71	L 32 K 35 S 319	L 32 K 32 S 11		L 32 K 32 S 319	L 32 K 32 S 11		L 32 K 32 S 320	L 32 K 32 S 12			L 32 K 32 S 320	L 32 K 32 S 12		
0.55 0.75	80	L 41 K 41 S 319	L 41 K 41 S 11	L 42 K 42 S 21	L 41 K 41 S 319	L 41 K 41 S 11	L 42 K 42 S 21	L 41 K 41 S 320	L 41 K 41 S 12	L 42 K 42 S 22		L 41 K 41 S 320	L 41 K 41 S 12	L 42 K 42 S 22	
1.1 1.5	90 S (M)	L 41 K 43 S 319	L 41 K 43 S 11	K 42 K 44 S 21	L 41 K 43 S 319	L 41 K 43 S 11	L 42 K 44 S 21	L 41 K 43 S 320	L 41 K 43 S 12	L 42 K 44 S 22		L 41 K 43 S 320	L 41 K 43 S 12	L 42 K 44 S 22	
2.2 3	100 L					L 51 K 51 S 11	L 52 K 52 S 21		L 51 K 51 S 12	L 52 K 52 S 22	L 52 K 52 S 31		L 51 K 51 S 12	L 52 K 52 S 22	L 52 K 52 S 31
4	112 M														

Drive power (kW)	Motor DIN size	Tank and cover plate sizes												
		B 50, D 50.1				B 75, D 50.2					B 100, D 100.1			
		Assembly combinable as standard as per D 6010												
		7631	6010	6011	6012	7631	6010	6011	6012	6014	6011	6012	6014	6016
0.25 0.37	71	L 32 K 32 S 13	L 32 K 32 S 13			L 32 K 32 S 14	L 32 K 32 S 14							
0.55 0.75	80	L 41 K 41 S 13	L 41 K 41 S 13	L 42 K 42 S 22		L 41 K 41 S 14	L 41 K 41 S 14	L 42 K 42 S 23			L 42 K 42 S 24			
1.1 1.5	90 S 90 M	L 41 K 43 S 13	L 41 K 43 S 13	L 42 K 44 S 22		L 41 K 43 S 14	L 41 K 43 S 14	L 42 K 44 S 23			L 42 K 44 S 24			
2.2 3 4	100 L 112 M		L 51 K 51 S 13	L 53 K 53 S 22	L 53 K 53 S 31		L 51 K 51 S 14	L 53 K 53 S 23	L 53 K 53 S 32		L 53 K 53 S 24	L 52 K 52 S 35		
5.5 7.5	132 S 132 M			LN 61 [1] KN 61 S 22	LN 61 [1] KN 61 S 31			LN 61 [1] KN 61 S 23	LN 61 [1] KN 61 S 32	LN 61 [1] KN 62 S 41		L 70 KN 63 S 33	L 70 KN 70 S 42	

[1] As per SK 6020-KN61

INFORMATION

HAWE only offers motors up to 7.5 kW. Couplings and flanges suitable for up to 30 kW are available.

References

Additional versions

- Radial piston pump type R and RG: D 6010
- Radial piston pump type R and RG with several pressure connections: D 6010 D
- Radial piston pump type R and RG with one main pressure connection and one or two ancillary pressure connections: D 6010 S
- Hydraulic power pack type R and RG: D 6010 DB

D 6010 H 04-2026-1.1

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