

Series VB, with integrated overflow valve

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Technical selection chart; scale drawings

Direction of rotation **I** = indirect – counterclockwise
D = direct – clockwise

The direction of rotation can only be changed in the factory.
 Therefore, specify the desired direction of rotation as viewed from the pump shaft as per dimension sheet when ordering.



VB series

hp-Internal gear pumps to 40 bar (direction of rotation I = indirect – counterclockwise)

hp-Internal gear pump Series VB Sizes:	Viscosity: 6 mm ² sec ⁻¹ at 20°C								Gear rotor size Ø	Shaft Ø	Threaded connection* pipe thread DIN ISO 228	Manometer connection* pipe thread DIN ISO 228	max. permitted pump speed (RPM) at I/D	Net weight (kg) at I/D
	n = 1400 RPM Discharge l/h				n = 2800 RPM Discharge l/h									
	at 9 bar	at 30 bar	at 40 bar	Item No. I	at 9 bar	at 30 bar	at 40 bar	Item No. I						
VB P	45	30	20	011/0007	90	60	50	013/0007	25	12	3/8"	1/4"	3500	2.5
VB M	80	60	50	011/0008	160	130	120	013/0008	25	12	3/8"	1/4"	3500	2.5
VB G	120	100	80	011/0009	240	200	190	013/0009	25	12	3/8"	1/4"	3500	2.5
VB F	160	140	120	011/0010	320	270	260	013/0010	25	12	3/8"	1/4"	3500	2.5
VBG PP	150	100	80	011/0055	300	240	210	013/0030	38	12	1/2"	1/4"	3500	3.3
VBG PZ	200	160	140	011/0056	400	310	280	013/0056	38	12	1/2"	1/4"	3500	3.3
VBG P	300	240	200	011/0022	600	520	480	013/0021	38	12	1/2"	1/4"	3500	3.3
VBG MZ	–	–	–	–	850	750	700	013/0070	38	12	1/2"	1/4"	3500	3.3
VBG M	450	390	360	011/0023	900	850	730	013/0022	38	12	1/2"	1/4"	3500	3.3
VBG GZ	–	–	–	–	1100	1000	870	013/0065	38	12	1/2"	1/4"	3500	3.3
VBG G	600	540	480	011/0024	1200	1080	960	013/0032	38	12	1/2"	1/4"	2800	3.3
VBH P	1000	700	600	011/0034	–	–	–	–	56	18	3/4"	1/4"	1700	7.3
VBH M	1500	1200	1000	011/0035	–	–	–	–	56	18	3/4"	1/4"	1700	7.3
VBH G	2000	1700	1400	011/0036	–	–	–	–	56	18	3/4"	1/4"	1700	7.3
VBHG P	3000	2200	2000	011/0046	–	–	–	–	75	22	1"	1/4"	1700	18.6
VBHG PZ	3700	3000	2700	011/0085	–	–	–	–	75	22	1"	1/4"	1700	18.6
VBHG M	4500	3600	3200	011/0047	–	–	–	–	75	22	1"	1/4"	1700	18.6
VBHG G	6000	4800	–	011/0048	–	–	–	–	75	22	1"	1/4"	1700	18.6
VBHG F	6700	5800	–	011/0086	–	–	–	–	75	22	1" ¹⁾	1/4"	1700	18.6

hp-Internal gear pumps to 40 bar (direction of rotation D = direct – clockwise)

hp-Internal gear pump Series VB Sizes:	Viscosity: 6 mm ² sec ⁻¹ at 20°C								Gear rotor size Ø	Shaft Ø	Threaded connection* pipe thread DIN ISO 228	Manometer connection* pipe thread DIN ISO 228	Heating power H1 in Watt 230 V, 50 Hz	Breakaway torque of the pump (Nm)
	n = 1400 RPM Discharge l/h				n = 2800 RPM Discharge l/h									
	at 9 bar	at 30 bar	at 40 bar	Item No. D	at 9 bar	at 30 bar	at 40 bar	Item No. D						
VB P	45	30	20	012/0007	90	60	50	014/0007	25	12	3/8"	1/4"	100	1.2
VB M	80	60	50	012/0008	160	130	120	014/0008	25	12	3/8"	1/4"	100	1.2
VB G	120	100	80	012/0009	240	200	190	014/0009	25	12	3/8"	1/4"	100	1.2
VB F	160	140	120	012/0010	320	270	260	014/0010	25	12	3/8"	1/4"	100	1.2
VBG PP	150	100	80	012/0055	300	240	210	014/0030	38	12	1/2"	1/4"	100	1.6
VBG PZ	200	160	140	012/0056	400	310	280	014/0056	38	12	1/2"	1/4"	100	1.6
VBG P	300	240	200	012/0022	600	520	480	014/0021	38	12	1/2"	1/4"	100	1.6
VBG MZ	–	–	–	–	850	750	700	014/0070	38	12	1/2"	1/4"	100	1.6
VBG M	450	390	360	012/0023	900	850	730	014/0022	38	12	1/2"	1/4"	100	1.6
VBG GZ	–	–	–	–	1100	1000	870	014/0065	38	12	1/2"	1/4"	100	1.6
VBG G	600	540	480	012/0024	1200	1080	960	014/0032	38	12	1/2"	1/4"	100	1.6
VBH P	1000	700	600	012/0034	–	–	–	–	56	18	3/4"	1/4"	160	3.2
VBH M	1500	1200	1000	012/0035	–	–	–	–	56	18	3/4"	1/4"	160	3.2
VBH G	2000	1700	1400	012/0036	–	–	–	–	56	18	3/4"	1/4"	160	3.2
VBHG P	3000	2200	2000	012/0046	–	–	–	–	75	22	1"	1/4"	280	4.6
VBHG PZ	3700	3000	2700	012/0085	–	–	–	–	75	22	1"	1/4"	280	4.6
VBHG M	4500	3600	3200	012/0047	–	–	–	–	75	22	1"	1/4"	280	4.6
VBHG G	6000	4800	–	012/0048	–	–	–	–	75	22	1"	1/4"	280	4.6
VBHG F	6700	5800	–	012/0086	–	–	–	–	75	22	1" ¹⁾	1/4"	280	4.6

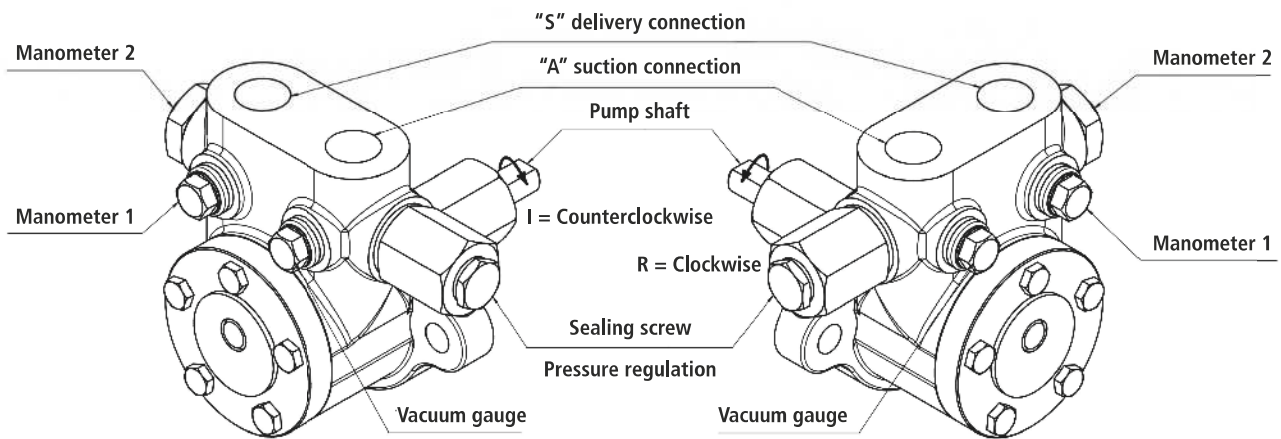
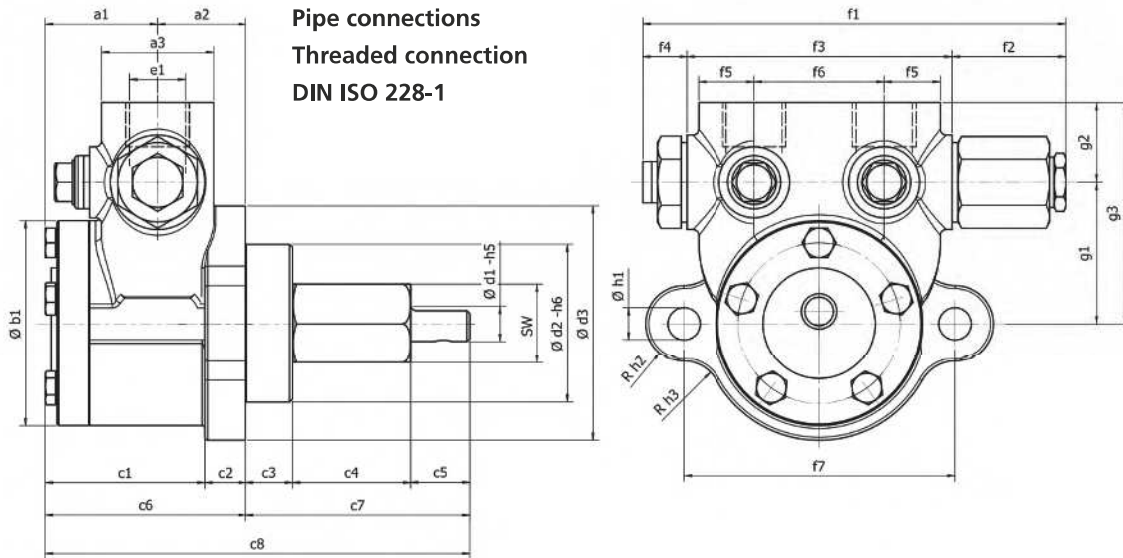
* To ensure the pump is working properly, the pipes must be scaled according to the principles of fluid dynamics by calculation of line according to the local requirements.
 The pump or device connection gives no indication of the relevant size of the pipe.

¹⁾ Suction connection at the side is 1 1/2", see VBR dimension sheet page 11.

Pumps and Valves
 Motor pump groups
 Units for single-pipe installation
 Feed pumps and Pressure aggregates
 Oil burner pressure aggregates
 Filters
 Pump controls
 Accessories and Spare parts
 Nozzles
 Special units and Application
 General

Scale drawings for Series VB

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Manometer 1 – Connections G 1/4"

Gear rotor size Ø	Discharge l/h		a1	a2	a3	b1	c1	c2	c3	c4	c5	c6	c7
	1400 RPM	2800 RPM											
25	45 - 160	90 - 320	35.5	20	33	51	41.5	14	16	40	20	55.5	76
38	150 - 600	300 - 1200	39.5	30	38	70	55.5	14	16	40	20	69.5	76
56	1000 - 2000	–	48.5	38	45	96	71.5	15	18	79	27	86.5	124
75	3000 - 6700	–	62.5	85	70	115	129.5	18	25	65	37	147.5	127

Gear rotor size Ø	Discharge l/h		c8	d1	sw	e	d2	d3	e1	f1	f2	f3	f4
	1400 RPM	2800 RPM											
25	45 - 160	90 - 320	131.5	12	27	31.2	54	80	G 3/8"	144	38.5	90	15
38	150 - 600	300 - 1200	145.5	12	27	31.2	54	80	G 1/2"	144	38.5	90	15
56	1000 - 2000	–	210.5	18	46	53.1	60	100	G 3/4"	167.5	35	118	15
75	3000 - 6700	–	274.5	22	55	63.5	80	120	G 1"	200	28	150	21.5

Gear rotor size Ø	Discharge l/h		f5	f6	f7	f8	g1	g2	g3	h1	h2	h3	
	1400 RPM	2800 RPM											
25	45 - 160	90 - 320	26	38	92	140	40	27	67	11	13	13	–
38	150 - 600	300 - 1200	23	44	92	140	48	27	75	11	13	13	–
56	1000 - 2000	–	25.5	67	120	171	55	35	90	13	13	25	–
75	3000 - 6700	–	35	80	150	218	80	40	120	14.5	15	–	–