

GEAR PUMPS

STANDARD PROGRAMME AND CUSTOM-MADE DEVICES

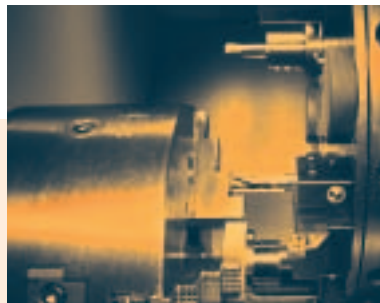
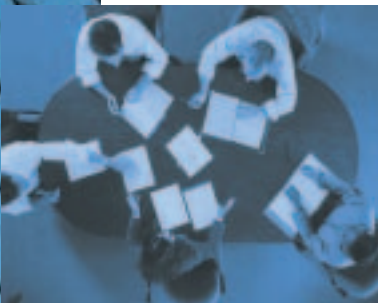


PUTZIN
Maschinenbau GmbH



A High-Performance Programme: The Suitable Solution For Every Requirement

A good gear pump must have a long service life and must be permanently reliable, exact and economic. During the production process, we set particularly great store by these fundamental quality characteristics. Since our company was founded in 1958, the development and manufacture of gear pumps and gear-pump units have been one of our special fields. Partners from many different sectors appreciate our high-performance programme which offers a suitable solution for almost every requirement. In special cases, we collaborate with our customers in order to search for the correct variation and manufacture special models absolutely individually according to the requirement profile in each case. Because our partners can expect comprehensive assistance from us.



With PUTZIN gear pumps and units, it is possible to operate at very high pressures – if necessary, up to 100 bar. This represents one specific strength of our programme. The individual parts are manufactured on state-of-the-art machinery with the maximum possible precision. As a result of their specialist skill and know-how, experienced employees guarantee perfect processing within the framework of DIN EN ISO 9002. In order to satisfy our demand for the highest possible quality and economic efficiency, every pump is also subjected to a detailed functional test after completion. Our customers can thus play safe. Because of our manufacturing



capacity, we are in a position not only to react flexibly to short-term customer wishes but also to process large batch quantities on schedule. Longstanding experience in the field of gear-pump construction and consistent attention to the “Quality-Deadline-Costs” triangle have helped us to build up and maintain many business relationships based on trust. Our partners can

rely on our offering them solutions manufactured with the highest possible quality and precision – not only in the case of gear pumps but also in other manufacturing sectors.



PUTZIN
Maschinenbau GmbH



1



2



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4



Fields of application of Putzin-Pumps:

- 1 Forming presses
- 2 Machine tools
- 3 Printing machines
- 4 Escalators

Overview of pumps

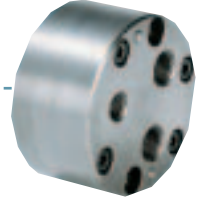
Gear Pump Type PR 1

Page 6



Gear Pump Type PR 2

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P R M H Gear Pump Aggregate

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P R M V Gear Pump Aggregate

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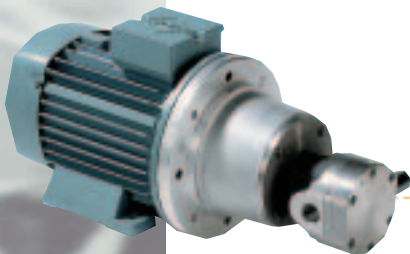
Gear Pump Type B

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Gear Pump Type F

Page 13



B M H Gear Pump Aggregate

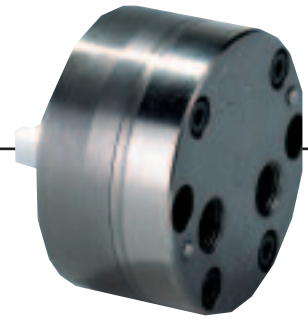
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Accessories/valves

Page 16



Gear Pump Type PR 1

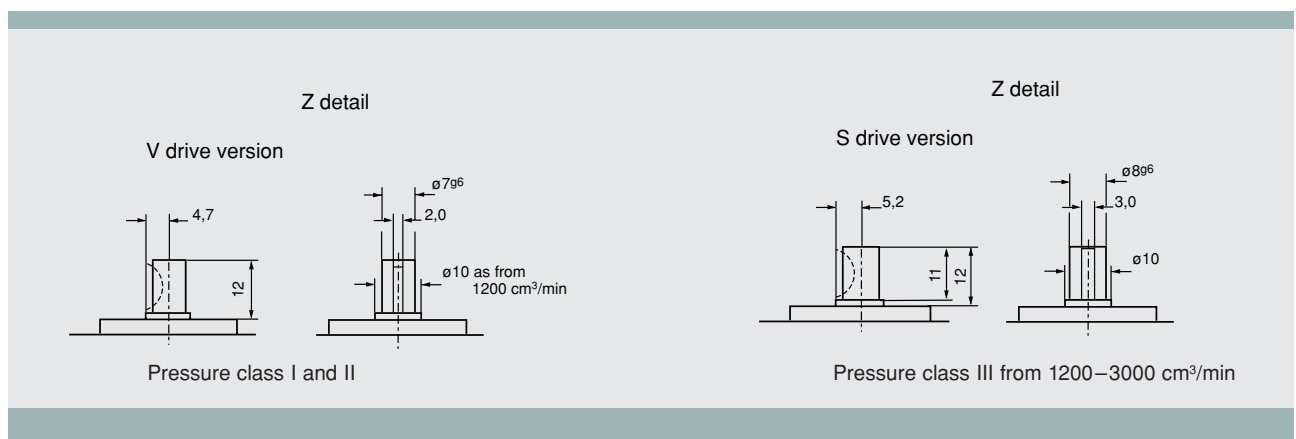
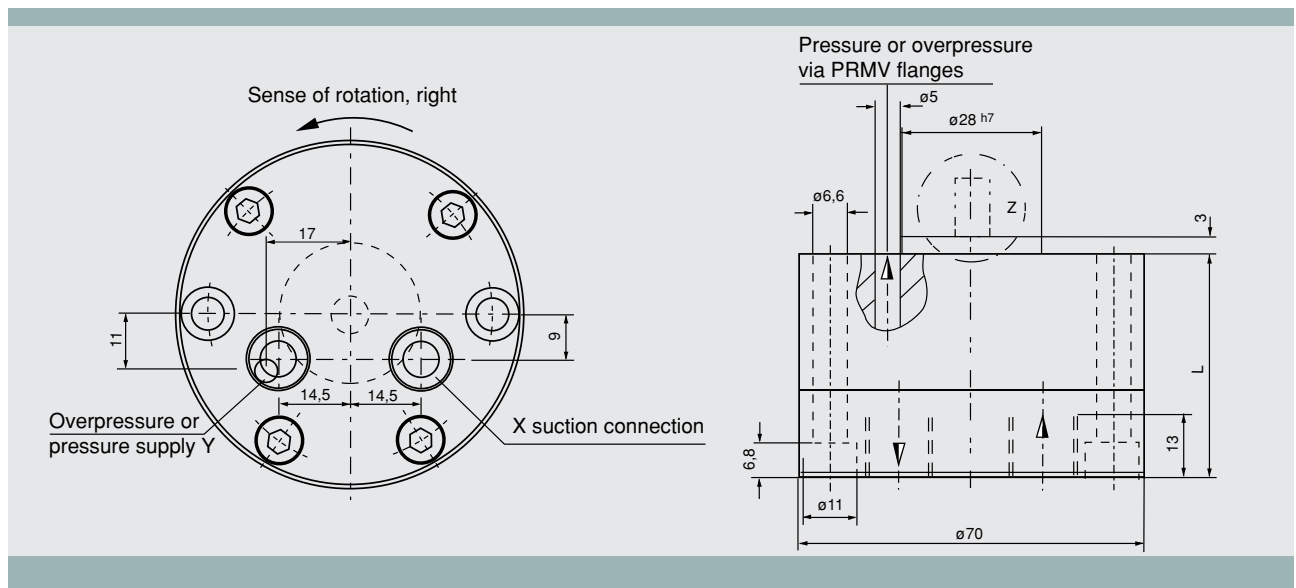


Technical details:

- Housing and cover: GG 25 material
- Gearwheels hardened and polished
- Pressure class I up to 35 bar
- Pressure class II up to 60 bar
- Pressure class III up to 100 bar

Gear pump order example

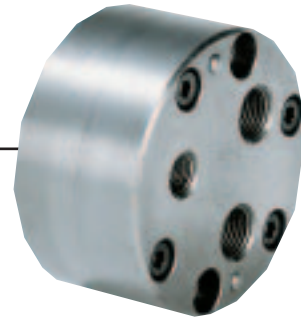
PR1 - 500 / Pressure class I



Dimensions

Type PR 1 -	-60	-120	-180	-250	-375	-500	-750	-1000	-1200	-1500	-2000	-2500	-3000
Pump delivery for 1400 min ⁻¹ in cm ³ /min	60	120	180	250	375	500	750	1000	1200	1500	2000	2500	3000
Measure L	37	37	37	37	38,5	40	45	45	47	47	47	47	50,5
X suction connection	G1/4	G1/4	G1/4	G1/4	G1/4	G1/4	G1/4	G1/4	G3/8	G3/8	G3/8	G3/8	G3/8
Y pressure supply							M 10 x 1						

Gear Pump Type PR 2

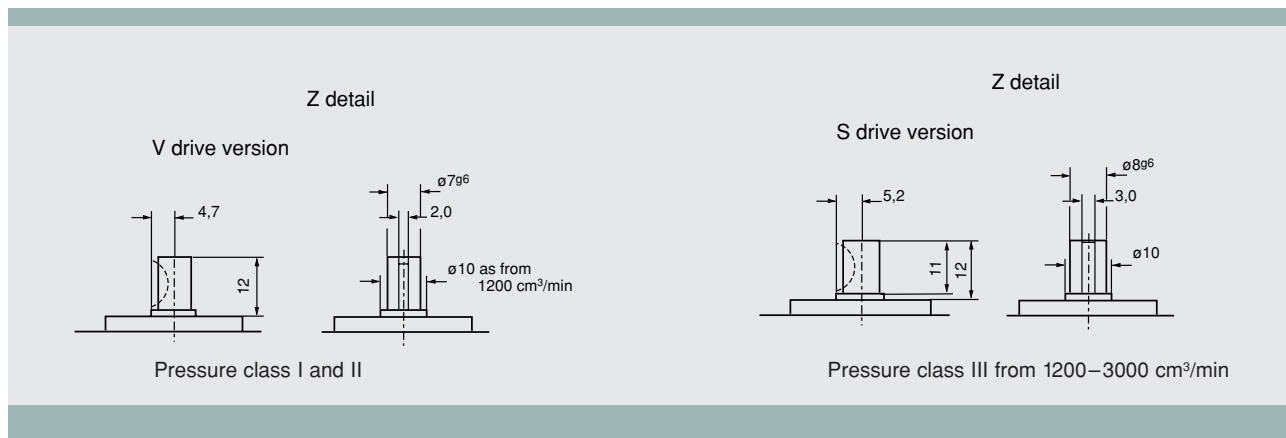
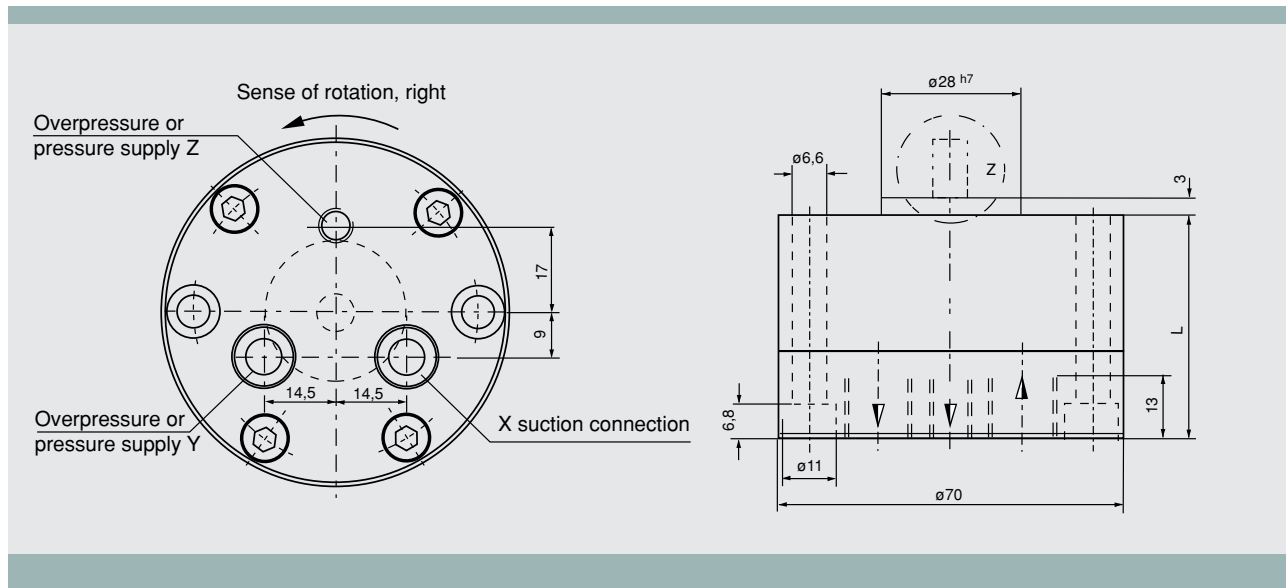


Technical details:

- Housing and cover: GG 25 material
- Gearwheels hardened and polished
- Pressure class I up to 35 bar
- Pressure class II up to 60 bar
- Pressure class III up to 100 bar

Gear pump order example

PR2 - 1000 / Pressure class II



Dimensions

Type PR 2 -	-60	-120	-180	-250	-375	-500	-750	-1000	-1200	-1500	-2000	-2500	-3000
Pump delivery for 1400 min ⁻¹ in cm ³ /min	60	120	180	250	375	500	750	1000	1200	1500	2000	2500	3000
Measure L	37	37	37	37	38,5	40	45	45	47	47	47	47	50,5
X suction connection	G1/4	G1/4	G1/4	G1/4	G1/4	G1/4	G1/4	G1/4	G3/8	G3/8	G3/8	G3/8	G3/8
Y pressure supply							G 1/4						
Z pressure supply							M 10 x 1						

P R M H Gear Pump Aggregate

Technical details:

Three-phase current, standard motor

Version: IMB 34 K structural shape;

1400 min⁻¹; 400 V; 50 Hz

Special voltages on demand

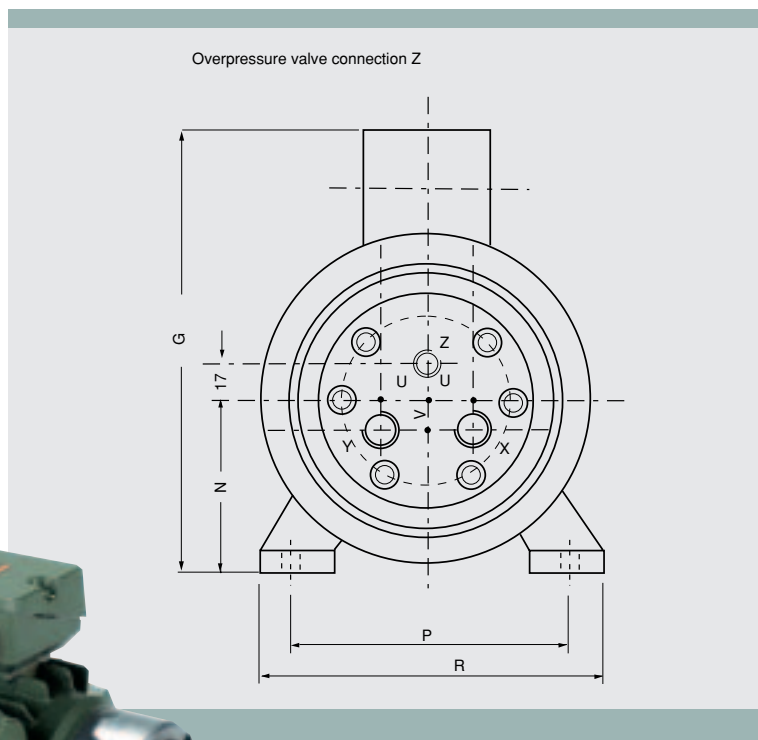
Pump delivery in cm³ for n = 1400 min⁻¹

and oil viscosity 50–700 c ST

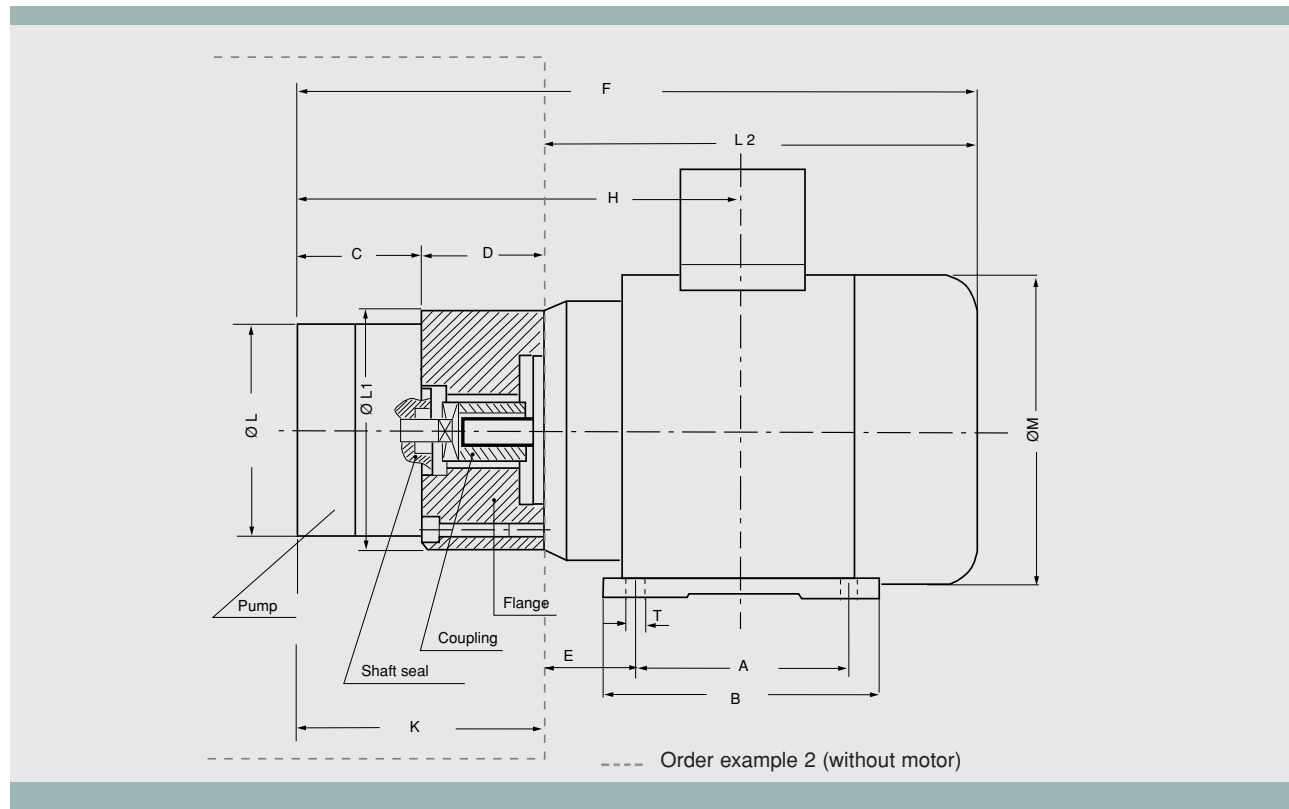
Pressure class I up to 35 bar

Pressure class II up to 60 bar

Pressure class III up to 100 bar



Order example 1



Subject to changes without prior notice

Technical data

Designation	Pump delivery in cm ³ /min for 1400 min ⁻¹	Motor power in Watt for pressure class			Suction connection X	Pressure supply Y	Overpressure valve connection Z
		I	II	III			
PRMH - 60	60	180	180	250	G 1/4	G1/4	M 10 x 1
PRMH - 120	120						
PRMH - 180	180						
PRMH - 250	250						
PRMH - 375	375						
PRMH - 500	500						
PRMH - 750	750	250	250	370	G 1/4	G 1/4	M 10 x 1
PRMH - 1000	1000						
PRMH - 1200	1200	370	550	x	G 3/8	G 1/4	M 10 x 1
PRMH - 1500	1500						
PRMH - 2000	2000						
PRMH - 2500	2500	550	x	x	G 3/8	G1/4	M 10 x 1
PRMH - 3000	3000						

x = on demand

Dimensions

Designation	Pressure class	A	B	C	D	E	F	G	H	K	L	L1	M	N	P	R	T	U	V	L2
PRMH - 60 up to PRMH - 250	I + II	80	100	37	42,5	40	236	161	137	79,5	70	90	109	63	100	128	8	14,5	9	156
PRMH - 60 up to PRMH - 250	III	90	116	37	52,5	45	266	175	151	89,5	70	102	124	71	112	138	8	14,5	9	176
PRMH - 375	I + II	80	100	38,5	42,5	40	237,5	161	138,5	81	70	90	109	63	100	128	8	14,5	9	156
PRMH - 375	III	90	116	38,5	52,5	45	267	175	152	91	70	102	124	71	112	138	8	14,5	9	176
PRMH - 500	I + II	80	100	40	42,5	40	239	161	140	82,5	70	90	109	63	100	128	8	14,5	9	156
PRMH - 500	III	90	116	40	52,5	45	269	175	154	92,5	70	102	124	71	112	138	8	14,5	9	176
PRMH - 750 up to PRMH - 1000	I + II	90	116	45	52,5	45	274	175	159	97,5	70	102	124	71	112	138	8	14,5	9	176
PRMH - 750 up to PRMH - 1000	III	90	116	45	52,5	45	274	175	159	97,5	70	102	124	71	112	138	8	14,5	9	176
PRMH - 1200 up to PRMH - 2000	I	90	116	47	52,5	45	276	175	161	99,5	70	102	124	71	112	138	8	14,5	9	176
PRMH - 1200 up to PRMH - 2000	II	90	116	47	52,5	45	309	182	167	99,5	70	102	139	71	112	135	10	14,5	9	209
PRMH - 2500	I	90	116	47	52,5	45	309	182	167	99,5	70	102	139	71	112	135	10	14,5	9	209
PRMH - 3000	I	90	116	50,5	52,5	45	312	182	170	103	70	102	139	71	112	135	10	14,5	9	209

Order example 1 Gear pump aggregate

PR	M	H	750 / I
Pump	Motor	Aluminium flange and coupling	Pump delivery in cm ³ /min Pressure class

Order example 2 Gear pump including aluminium flange and coupling (without motor)

PR	-	H	500 / I
Pump		Aluminium flange and coupling	Pump delivery in cm ³ /min Pressure class

Subject to changes without prior notice

P R M V Gear Pump Aggregate

Technical details:

Three-phase current, standard motor

Version: IMB 14 K structural shape;

1400 min⁻¹; 400 V; 50 Hz

Special voltages on demand

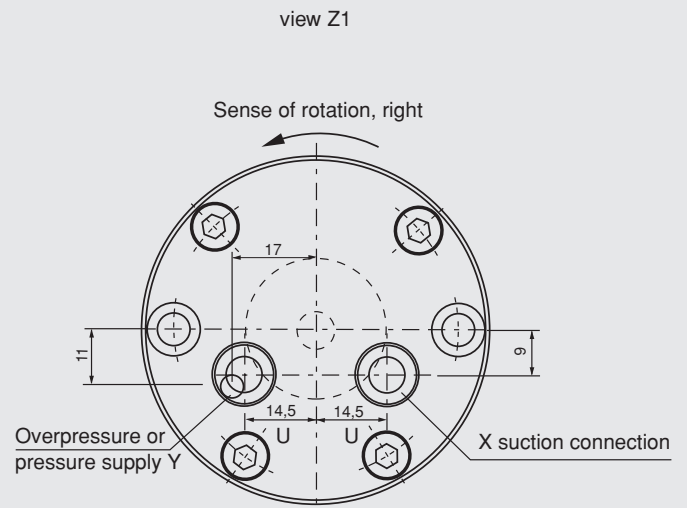
Pump delivery in cm³ for n = 1400 min⁻¹

and oil viscosity 50–700 c ST

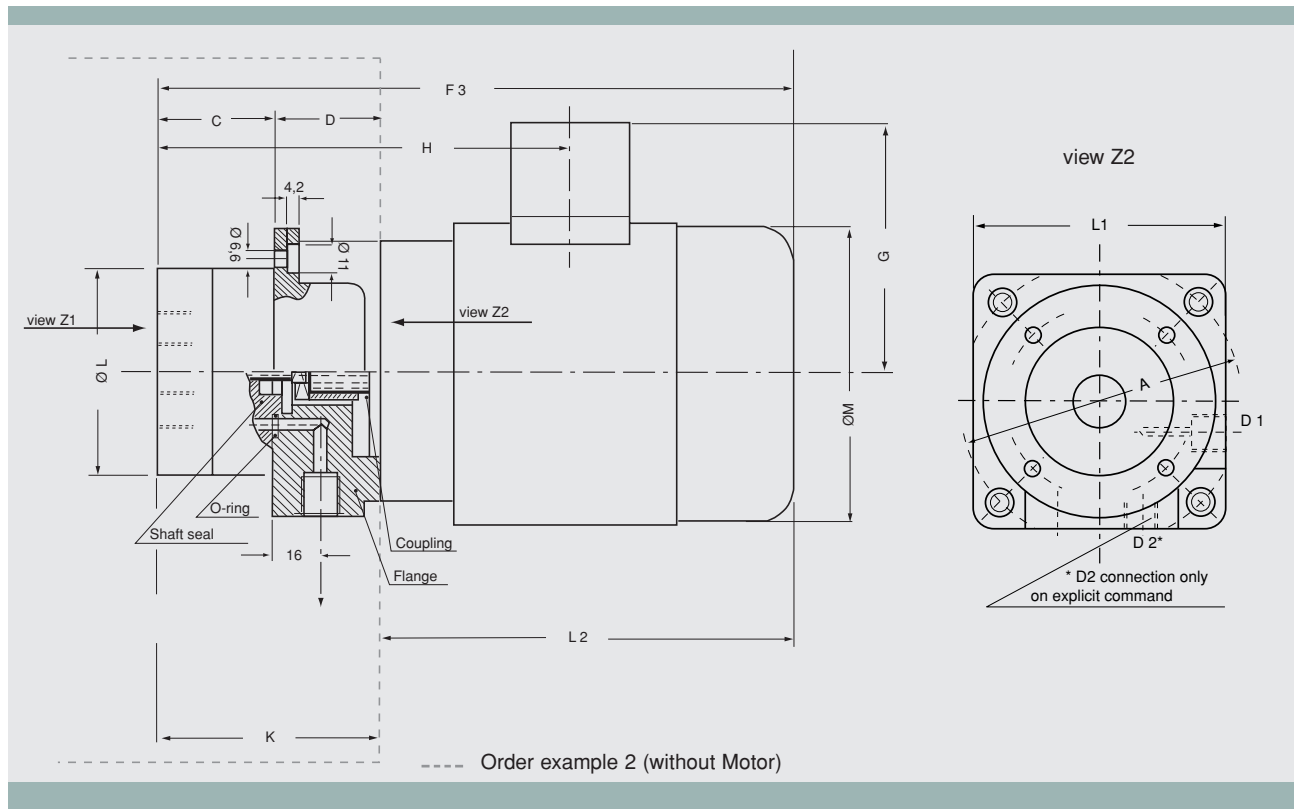
Pressure class I up to 35 bar

Pressure class II up to 60 bar

Pressure class III up to 100 bar



Order example 1



Subject to changes without prior notice

Technical data

Designation	Pump delivery in cm ³ /min for 1400 min ⁻¹	Motor power in Watt for pressure class			Suction connection X	Pressure supply Y
		I	II	III		
PRMV - 60	60	180	180	250	G 1/4	M 10 x 1
PRMV - 120	120					
PRMV - 180	180					
PRMV - 250	250					
PRMV - 375	375					
PRMV - 500	500	250	250	370	G 1/4	M 10 x 1
PRMV - 750	750					
PRMV - 1000	1000	370	550	x	G 3/8	M 10 x 1
PRMV - 1200	1200					
PRMV - 1500	1500					
PRMV - 2000	2000	550	x	x	G 3/8	M 10 x 1
PRMV - 2500	2500					
PRMV - 3000	3000					

x = on demand

Dimensions

Designation	Pressure class	A	C	D	F	G	H	K	L	L1	M	L2	U	D1	D2*
PRMV - 60 up to PRMV - 250	I + II	110	37	42,5	235,5	106,5	137	79,5	70	100	109	156	14,5	G 1/4	G 1/4
PRMV - 60 up to PRMV - 250	III	138	37	52,5	265,5	113	151	89,5	70	120	124	176	14,5	G 1/4	G 1/4
PRMV - 375	I + II	110	38,5	42,5	237	106,5	138,5	81	70	100	109	156	14,5	G 1/4	G 1/4
PRMV - 375	III	138	38,5	52,5	267	113	152	91	70	120	124	176	14,5	G 1/4	G 1/4
PRMV - 500	I + II	110	40	42,5	238,5	106,5	140	82,5	70	100	109	156	14,5	G 1/4	G 1/4
PRMV - 500	III	138	40	52,5	268,5	113	154	92,5	70	120	124	176	14,5	G 1/4	G 1/4
PRMV - 750 up to PRMV - 1000	I + II	138	45	52,5	273,5	113	159	97,5	70	120	124	176	14,5	G 1/4	G 1/4
PRMV - 750 up to PRMV - 1000	III	138	45	52,5	273,5	113	159	97,5	70	120	124	176	14,5	G 1/4	G 1/4
PRMV - 1200 up to PRMV - 2000	I	138	47	52,5	275,5	113	161	99,5	70	120	124	176	14,5	G 1/4	G 1/4
PRMV - 1200 up to PRMV - 2000	II	138	47	52,5	308,5	112,5	167	99,5	70	120	139	209	14,5	G 1/4	G 1/4
PRMV - 2500	I	138	47	52,5	308,5	112,5	167	99,5	70	120	139	209	14,5	G 1/4	G 1/4
PRMV - 3000	I	138	50,5	52,5	312	112,5	170	103	70	120	139	209	14,5	G 1/4	G 1/4

* = D2 connection only on explicit command

Order example 1 Gear pump aggregate

PR	M	V	750 / III
Pump	Motor	Cast flange and coupling	Pump delivery in cm ³ /min Pressure class

Order example 2 Gear pump including cast flange and coupling (without motor)

PR	-	V	500 / I
Pump		Cast flange and coupling	Pump delivery in cm ³ /min Pressure class

Subject to changes without prior notice

Gear pump type B



Gear pump order example

B1 - 03 / Version B (10 bar)

Technical details:

Housing and cover: GG 20 material

Gearwheels hardened and polished

Maximum pressure 35 bar

Version A:

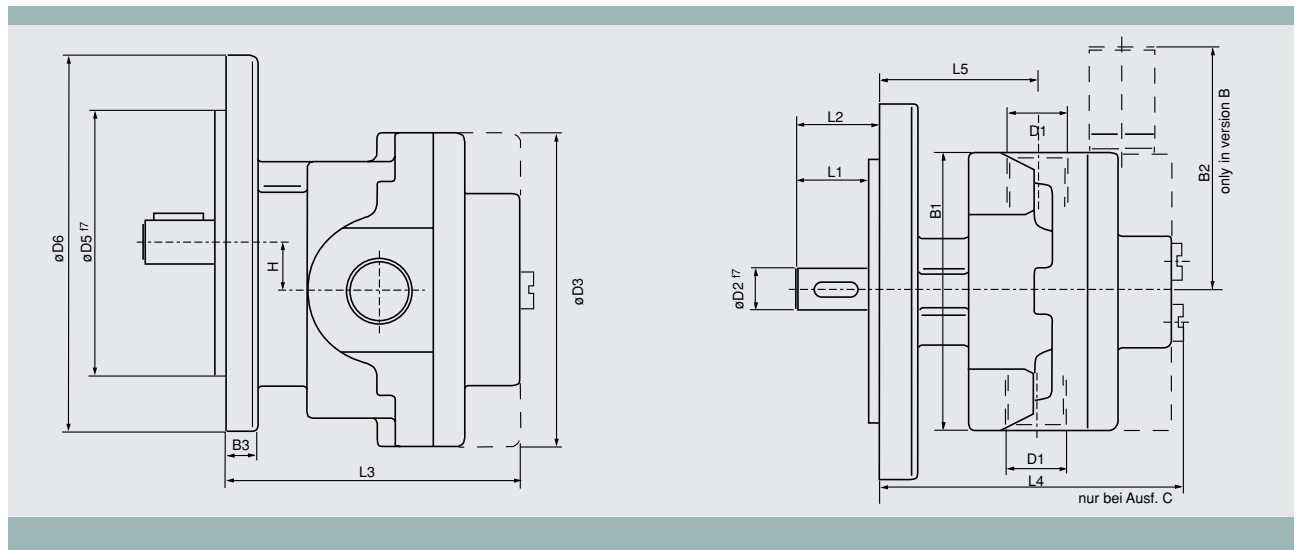
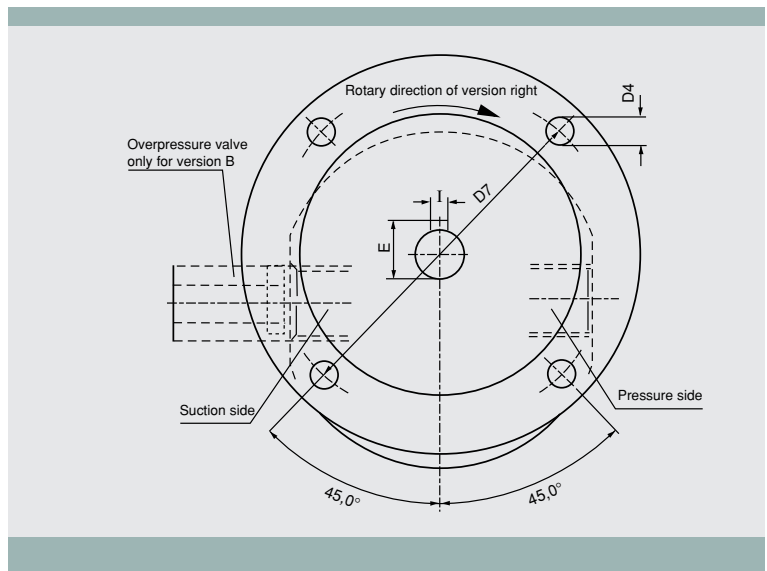
Rotary and delivery direction on the drive shaft stump, from the right side

Version B:

Like version A, but with incorporated overpressure valve. (Please indicate the adjustment of the overpressure valve on the command)

Version C:

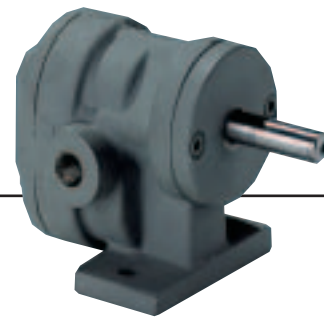
This version ist for "alternating" rotary direction with constant delivery direction.



Dimensions

Type	Delivery volume for 1400 min ⁻¹	D1	D2	D3	D4	D5	D6	D7	L1	L2	L3	L4	L5	B1	B2	B3	I	E	H
B1 - 03	3 L/min	G1/4"	10	62	5,5	50	70	60	15	17	65	70	32	56	58	7	3	11,3	9
B2 - 06	6 L/min	G3/8"	12	82	7	70	100	84	20	23	85	90	44	76	73	9	4	13,6	13
B2 - 09	9 L/min	G3/8"	12	82	7	70	100	84	20	23	85	90	44	76	73	9	4	13,6	13
B3 - 13	13 L/min	G1/2"	14	98	7	90	120	100	21	24	100	105	55	90	85	10	5	16,1	15
B3 - 17	17 L/min	G1/2"	14	98	7	90	120	100	21	24	100	105	55	90	85	10	5	16,1	15
B4 - 22	22 L/min	G3/4"	16	114	9	100	140	120	34	38	120	125	58	106	100	10	5	18,1	19
B4 - 27	27 L/min	G3/4"	16	114	9	100	140	120	34	38	120	125	58	106	100	10	5	18,1	19

Gear pump type F



Gear pump order example

F2 - 09 / Version A

Technical details:

Housing and cover: GG 20 material

Gearwheels hardened and polished

Maximum pressure 35 bar

Version A:

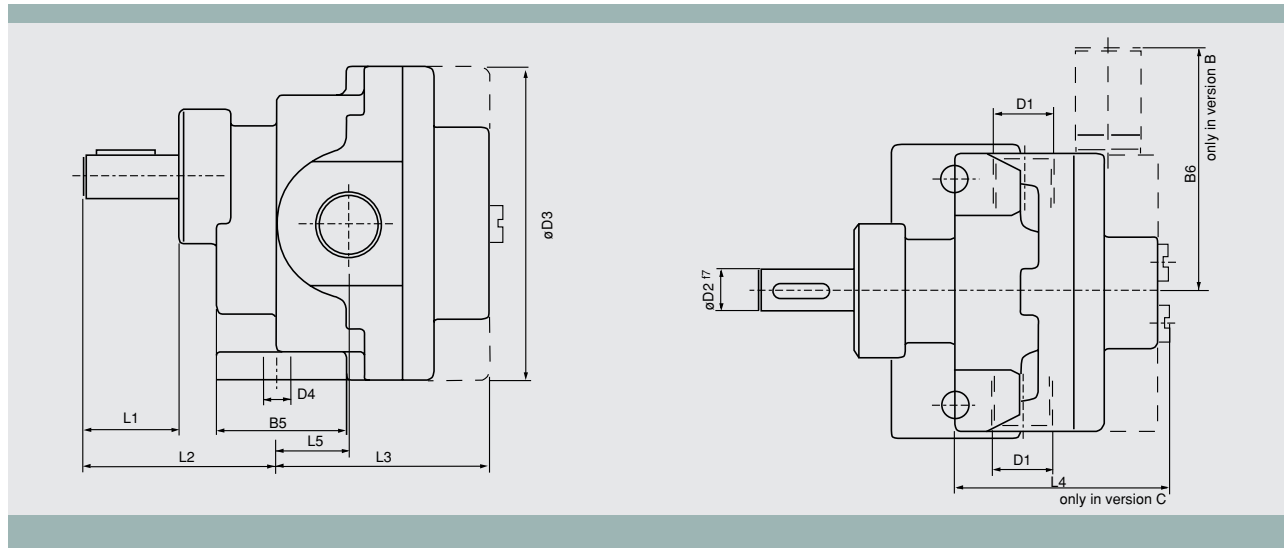
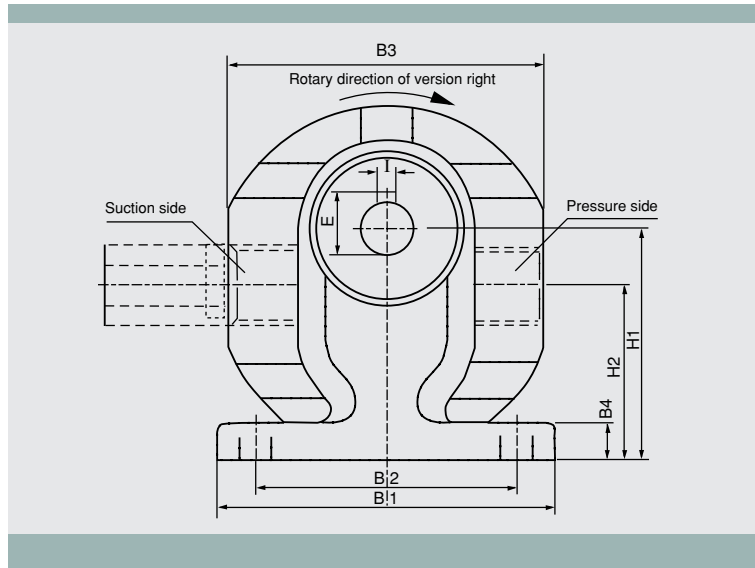
Rotary and delivery direction on the drive shaft stump, from the right side

Version B:

Like version A, but with incorporated overpressure valve. (Please indicate the adjustment of the overpressure valve on the command)

Version C:

This version ist for "alternating" rotary direction with constant delivery direction.



Dimensions

Type	Delivery volume for 1400 min ⁻¹	D1	D2	D3	D4	L1	L2	L3	L4	L5	B1	B2	B3	B4	B5	B6	H1	H2	I	E
F1 - 03	3 L/min	G1/4"	10	61	6	25	44	48	52	15	64	48	56	8	24	58	40	31	3	11,3
F2 - 06	6 L/min	G3/8"	12	82	9,5	30	57	58	67	19	82	60	76	10	35	73	54	42	4	13,6
F2 - 09	9 L/min	G3/8"	12	82	9,5	30	57	58	67	19	82	60	76	10	35	73	54	42	4	13,6
F3 - 13	13 L/min	G1/2"	14	98	9,5	32	67	68	79	22	96	74	90	10	44	85	65	50	5	16,1
F3 - 17	17 L/min	G1/2"	14	98	9,5	32	67	68	79	22	96	74	90	10	44	85	65	50	5	16,1
F4 - 22	22 L/min	G3/4"	16	114	11,5	34	71	78	92	25	110	84	106	11	50	100	77	58	5	18,1
F4 - 27	27 L/min	G3/4"	16	114	11,5	34	71	78	92	25	110	84	106	11	50	100	77	58	5	18,1

B M H Gear Pump Aggregate

Technical details:

Three-phase current, standard motor

Version: IMB 35 structural shape;

1400 min⁻¹; 400 V; 50 Hz

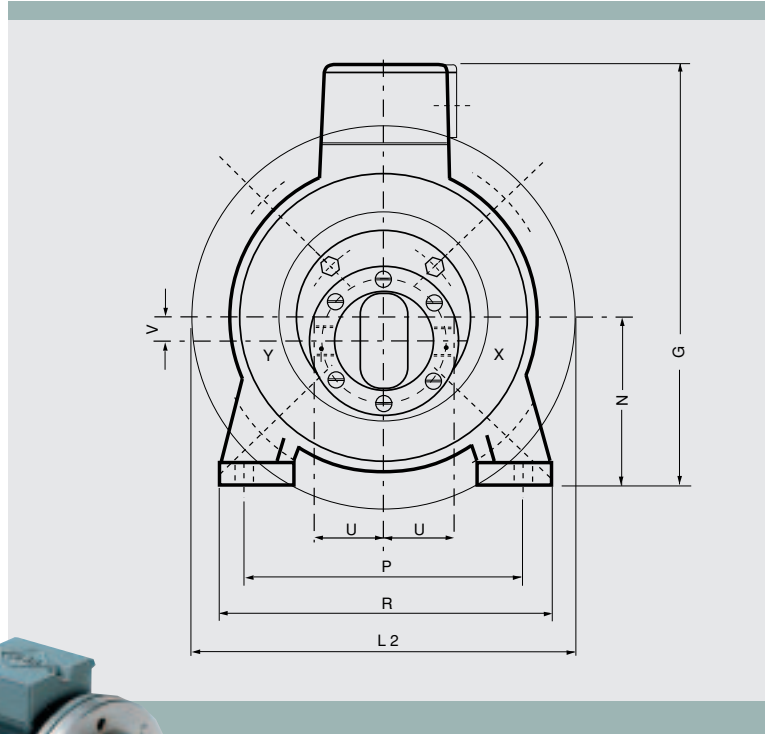
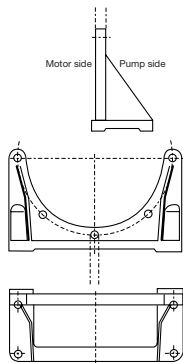
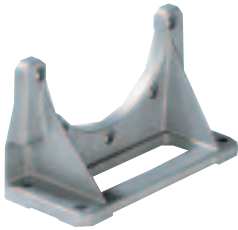
Special voltages on demand

Pump delivery in Liter/min

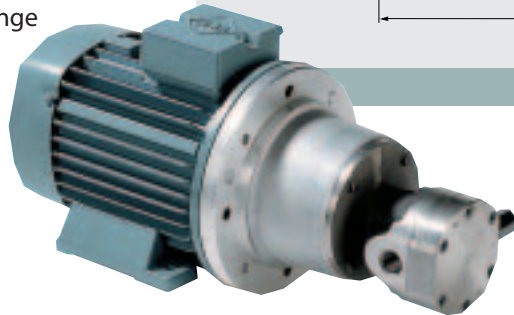
at n = 1400 min⁻¹ and

oil viscosity 50 – 700 c ST

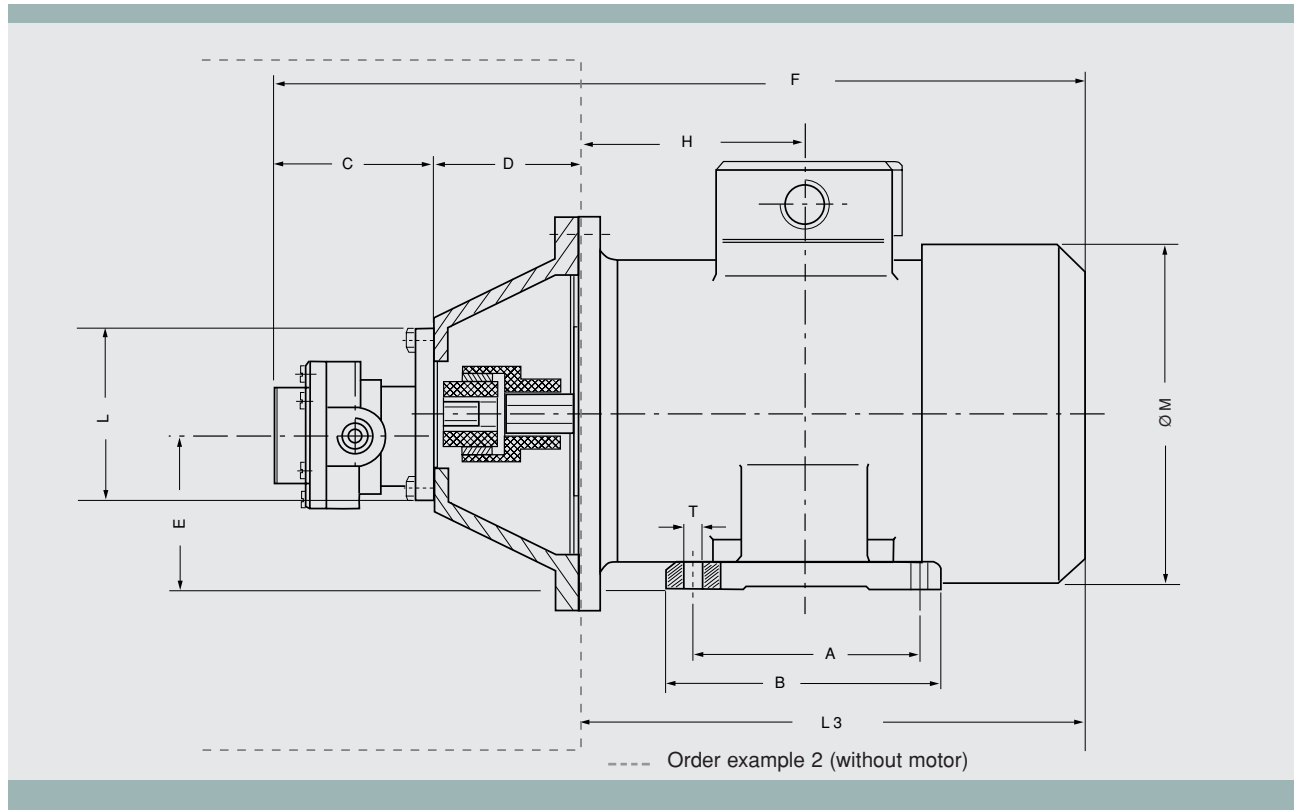
Maximum pressure 35 bar



also available with bottom flange



Order example 1



Subject to changes without prior notice

Technical data

Designation	Delivery capacity in liters/min	Motor power in KWatt	Suction connection X	Pressure supply Y
B1 MH - 03	3	0,37	G 1/4	G1/4
B2 MH - 06	6	0,55	G 3/8	G3/8
B2 MH - 09	9	0,75	G 3/8	G3/8
B3 MH - 13	13	1,1	G 1/2	G1/2
B3 MH - 17	17	1,5	G 1/2	G1/2
B4 MH - 22	22	1,5	G 3/4	G3/4
B4 MH - 27	27	2,2	G 3/4	G3/4

Dimensions

Designation	A	B	C	D	E	F	G	H	L1	L2	L3	M	N	P	R	T	U	V
B1 MH - 03	90	116	65	80	62	321	175	61	70	160	176	124	71	112	138	8	28	9
B2 MH - 06	100	125	85	100	67	394	192	67	100	200	209	139	80	125	168	10	38	13
B2 MH - 09	100	125	85	100	67	394	192	67	100	200	209	139	80	125	168	10	38	13
B3 MH - 13	100	130	100	100	75	426	210	70	120	200	226	157	90	140	178	10	45	15
B3 MH - 17	125	155	100	100	75	448	210	70	120	200	248	157	90	140	178	10	45	15
B4 MH - 22	125	155	120	124	71	492	210	70	140	200	248	157	90	140	178	10	53	19
B4 MH - 27	140	175	120	135	81	527	227	75	140	250	272	177	100	160	192	12	53	19

Order example 1 Gear pump aggregate

B2	M	H	09	/	A
Pump	Motor	Flange and coupling	Pump delivery in L/min		Version see gear pump type B (Page 12)

Order example 2 Gear pump including intermediate flange and coupling (without motor)

B3	-	H	13	/	B(10bar)
Pump		Flange and coupling	Pump delivery in L/min		Version see gear pump type B (Page 12)

Accessories/valves

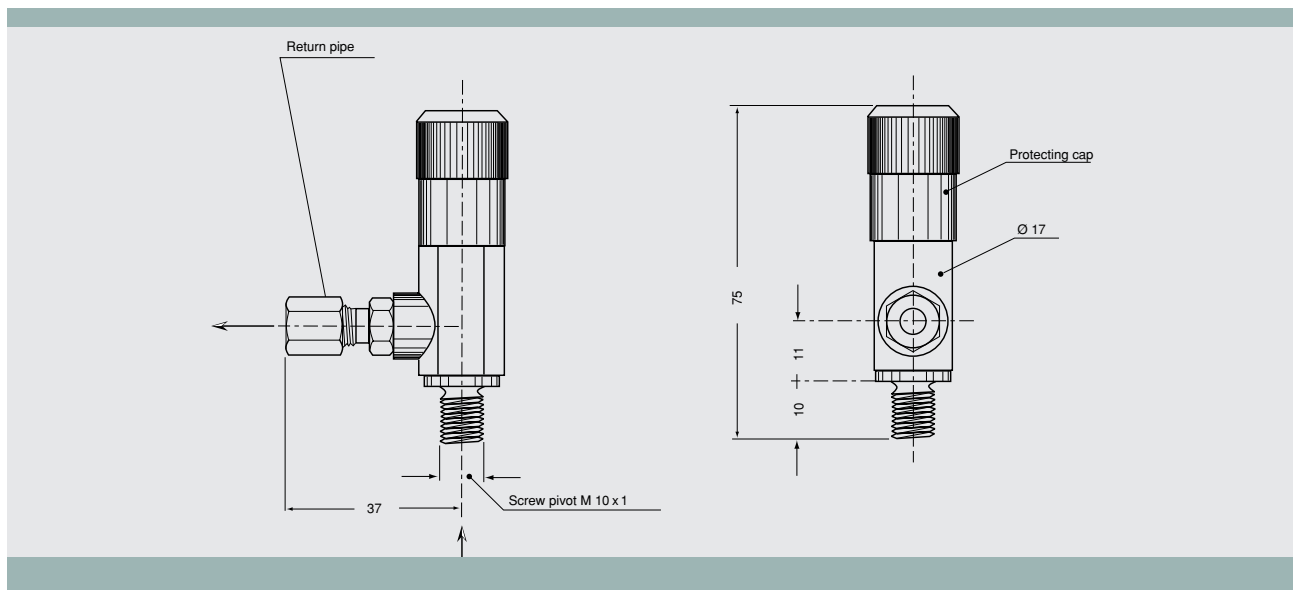
Overpressure valve in corner style, type 307/E:

Overpressure valve adjustable up to 100 bar

For gear pumps of the types PR 1 and PR 2

Return pipe solderless for 6 mm pipe

Adjusted and identified according to the customer's need



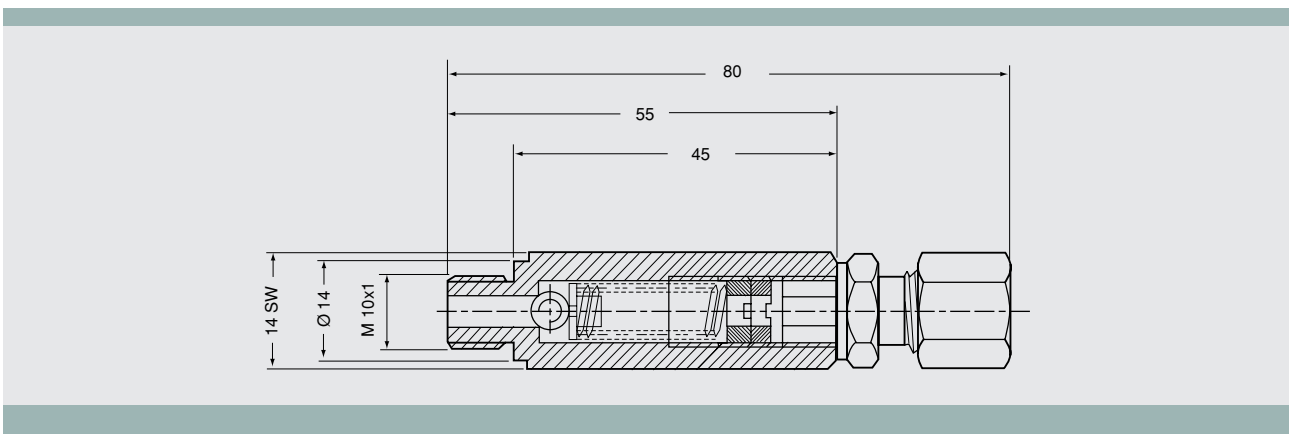
Straight-type overpressure valve, type 316:

Overpressure valve adjustable up to 100 bar

For gear pumps of the types PR 1 and PR 2

Return pipe solderless for 6 mm pipe

Adjusted and identified according to the customer's need



Subject to changes without prior notice