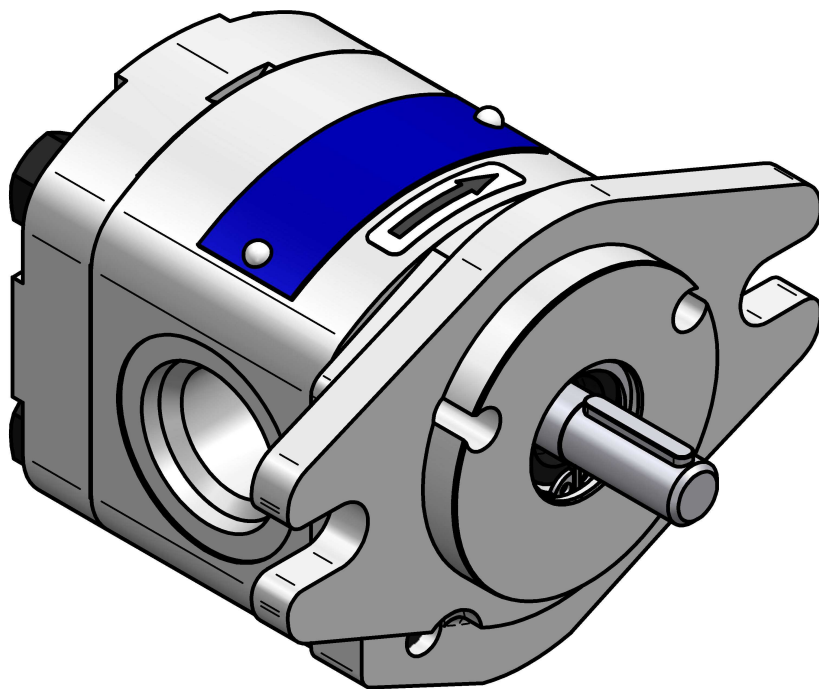


BASIC DESCRIPTION

P23 line pumps are designed for advanced hydraulic systems with lower capacity (approximately up to 10 kW) with high operational reliability and long service life. They have been produced in both one-way and reversible version with internal or external drainage. A wide variety of designs with diverse drives, connecting flanges, fluid inlets and outlets enable the pumps to be used in hydraulic systems of both fixed and mobile machines and equipment. They are available in a special version modified for small hydraulic aggregates, too. Types of connections and flanges as well as the other connecting dimensions correspond to all worldwide standards.

P23 line pumps are also available as multiple versions (2 sections, 3 sections, etc.) with separate inlets of working fluid into individual sections or with one common inlet. Individual sections can be sealed from each other.

The pumps are made of high-quality aluminum alloys with steel gear-wheels and they are equipped with hydraulic axial play compensation of new generation. Compared with the previous versions P and P2, the pressure and noise parameters as well as the effectivity in the entire range of speed have been improved. As for their dimensions, P23 pumps are fully interchangeable with P and P2 pumps.



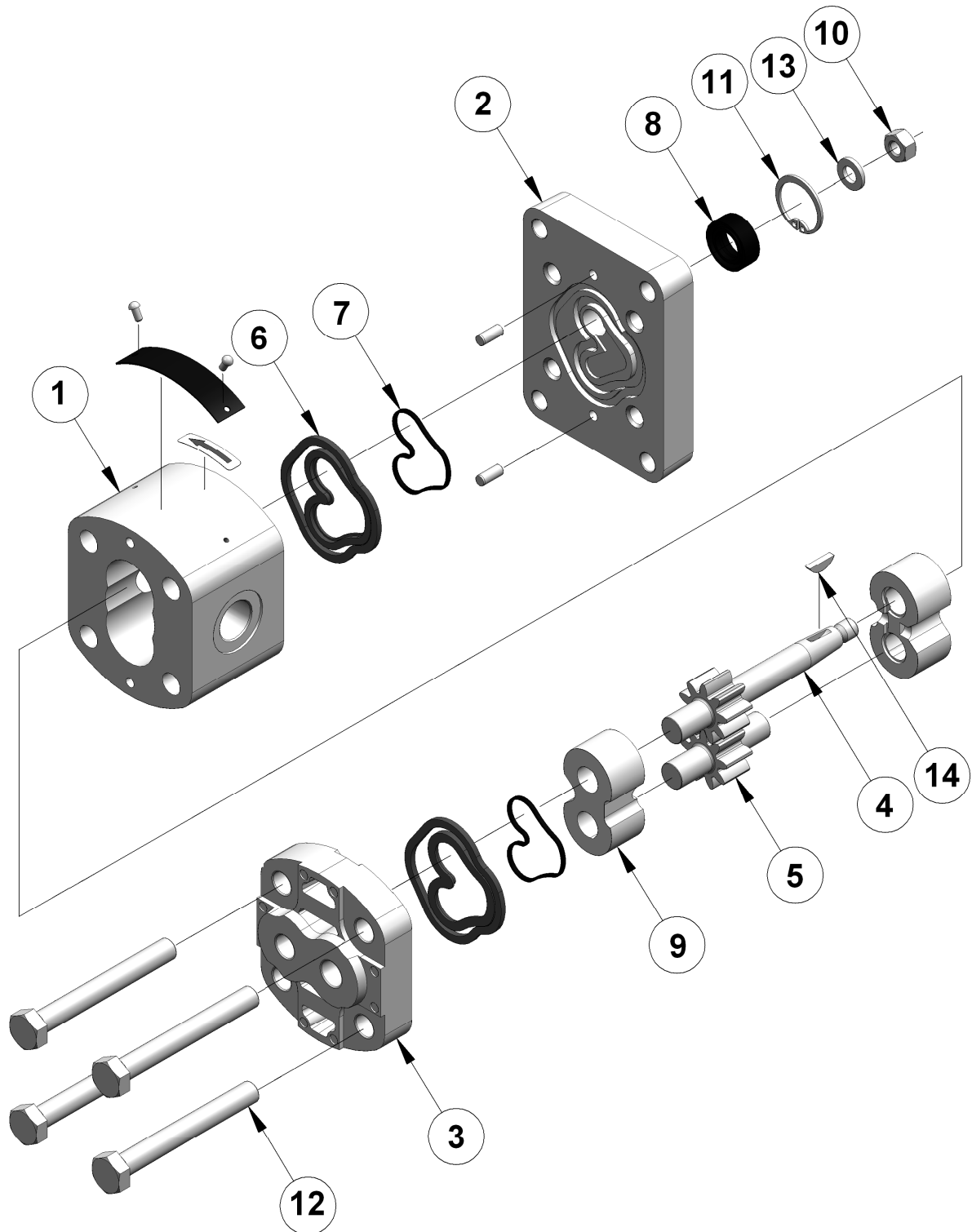
PARAMETER TABLE

Nominal Size Parameters		Symb.	Unit	P23-0,8	P23-1,2	P23-1,6	P23-2,1	P23-2,5	P23-3,3	P23-3,6
Nominal displacement		V_g	[cm ³]	0,8	1,2	1,6	2,1	2,5	3,3	3,6
Rotation speed	nominal	n_n	[min ⁻¹]	1500						
	min.	n_{min}	[min ⁻¹]	800		600		500		
	max.	n_{max}	[min ⁻¹]	5000		4500		4000		
Pressure at the inlet port	min.	p_{1min}	[bar]	-0,3						
	max.	p_{1max}	[bar]	0,5						
Pressure at the outlet port	max. continuous pressure	p_{2n}	[bar]	280						260
	max. pressure	p_{2max}	[bar]	300						280
	peak pressure	p_3	[bar]	310						290
Nominal flow rate (min.) at n_n and p_{2n}		Q_n	[dm ³ .min ⁻¹]	1,07	1,6	2,13	2,71	3,35	4,54	4,98
Maximum flow rate at n_{max} and p_{2max}		Q_{max}	[dm ³ .min ⁻¹]	4,23	6,22	8,34	9,29	11,2	14,3	17,37
Nominal input power (max.) at n_n and p_{2n}		P_n	[kW]	0,7	1,04	1,39	1,72	2,07	2,97	3,35
Max. input power at n_{max} and p_{2max}		P_{max}	[kW]	2,51	3,7	4,96	5,52	6,65	7,8	7,93
Weight		m	[kg]	0,82	0,84	0,85	0,87	0,89	0,92	0,93

Nominal Size Parameters		Symb.	Unit	P23-4,4	P23-4,8	P23-5,8	P23-6,2	P23-7,9	P23-11,8
Nominal displacement		V_g	[cm ³]	4,4	4,8	5,8	6,2	7,9	11,8
Rotation speed	nominal	n_n	[min ⁻¹]	1500					
	min.	n_{min}	[min ⁻¹]	500					
	max.	n_{max}	[min ⁻¹]	4000	3800		3500	3000	1800
Pressure at the inlet port	min.	p_{1min}	[bar]	-0,30					
	max.	p_{1max}	[bar]	0,50					
Pressure at the outlet port	max. continuous pressure	p_{2n}	[bar]	250	230	200	180	160	100
	max. pressure	p_{2max}	[bar]	270	250	220	200	180	150
	peak pressure	p_3	[bar]	280	260	230	210	190	160
Nominal flow rate (min.) at n_n and p_{2n}		Q_n	[dm ³ .min ⁻¹]	6,06	6,61	8,00	8,56	10,90	16,30
Maximum flow rate at n_{max} and p_{2max}		Q_{max}	[dm ³ .min ⁻¹]	17,38	18,01	21,83	21,50	23,43	21,02
Nominal input power (max.) at n_n and p_{2n}		P_n	[kW]	3,23	3,24	3,41	3,29	3,71	3,47
Max. input power at n_{max} and p_{2max}		P_{max}	[kW]	9,29	8,29	9,51	8,52	8,35	2,64
Weight		m	[kg]	0,96	0,98	1,02	1,04	1,10	1,25

Nominal Size Parameters		Symb.	Unit	P23-1,0	P23-2,3	P23-2,65	P23-6,4	P23-7,0	P23-10,0
Nominal displacement		V_g	[cm ³]	1,0	2,3	2,65	6,4	7,0	10,0
Rotation speed	nominal	n_n	[min ⁻¹]	1500					
	min.	n_{min}	[min ⁻¹]	800	500				
	max.	n_{max}	[min ⁻¹]	5000	4500		3500	3000	1800
Pressure at the inlet port	min.	p_{1min}	[bar]	-0,30					
	max.	p_{1max}	[bar]	0,50					
Pressure at the outlet port	max. continuous pressure	p_{2n}	[bar]	280			180	170	100
	max. pressure	p_{2max}	[bar]	300			200	190	150
	peak pressure	p_3	[bar]	310			210	200	160
Nominal flow rate (min.) at n_n and p_{2n}		Q_n	[dm ³ .min ⁻¹]	1,28	3,12	3,62	8,85	9,65	13,90
Maximum flow rate at n_{max} and p_{2max}		Q_{max}	[dm ³ .min ⁻¹]	5,03	10,25	11,9	22,24	20,81	17,83
Nominal input power (max.) at n_n and p_{2n}		P_n	[kW]	0,84	1,89	2,20	3,40	3,50	2,94
Max. input power at n_{max} and p_{2max}		P_{max}	[kW]	2,99	6,09	7,08	8,81	7,83	5,30
Weight		m	[kg]	0,83	0,88	0,90	1,05	1,08	1,20

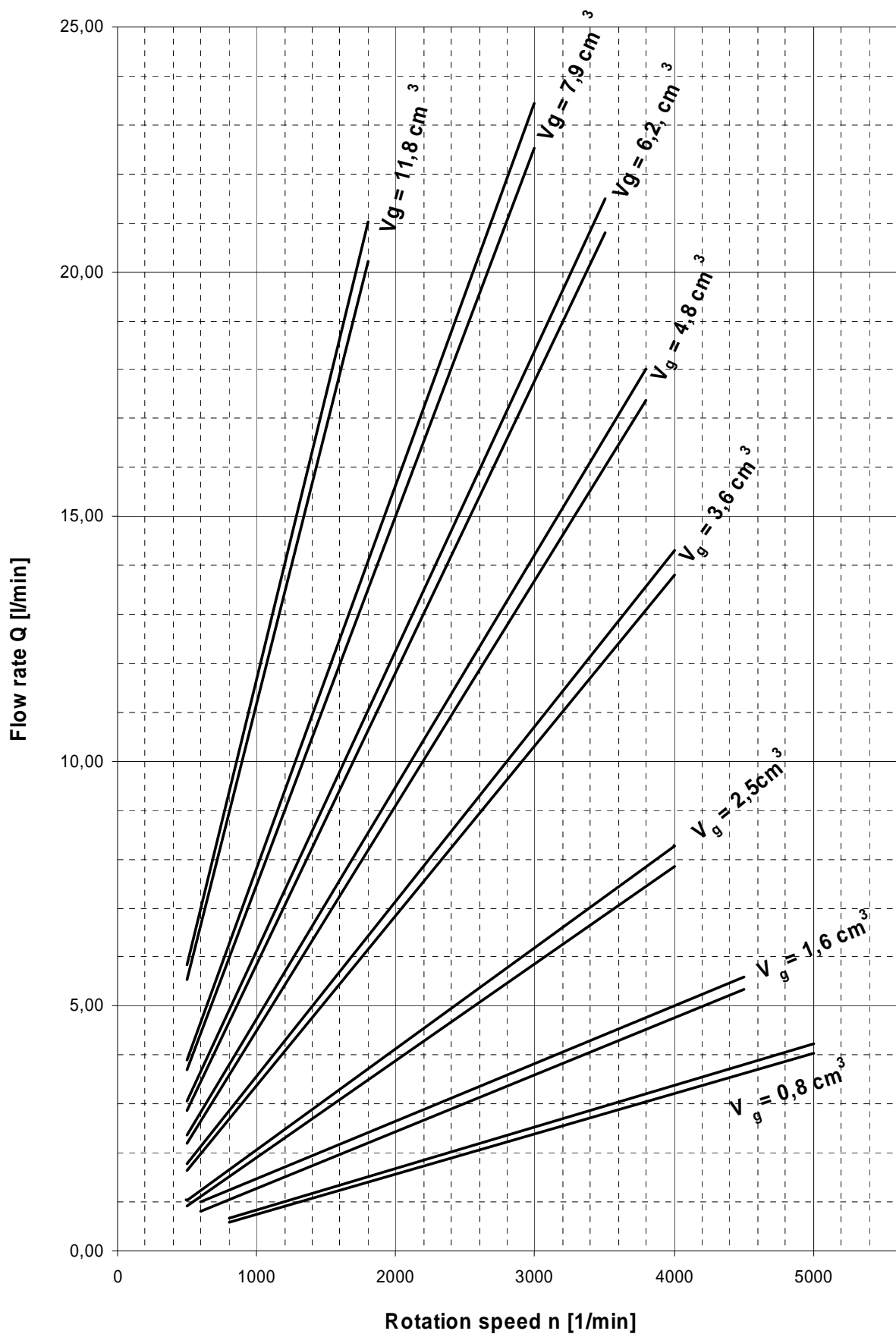
BASIC PARTS



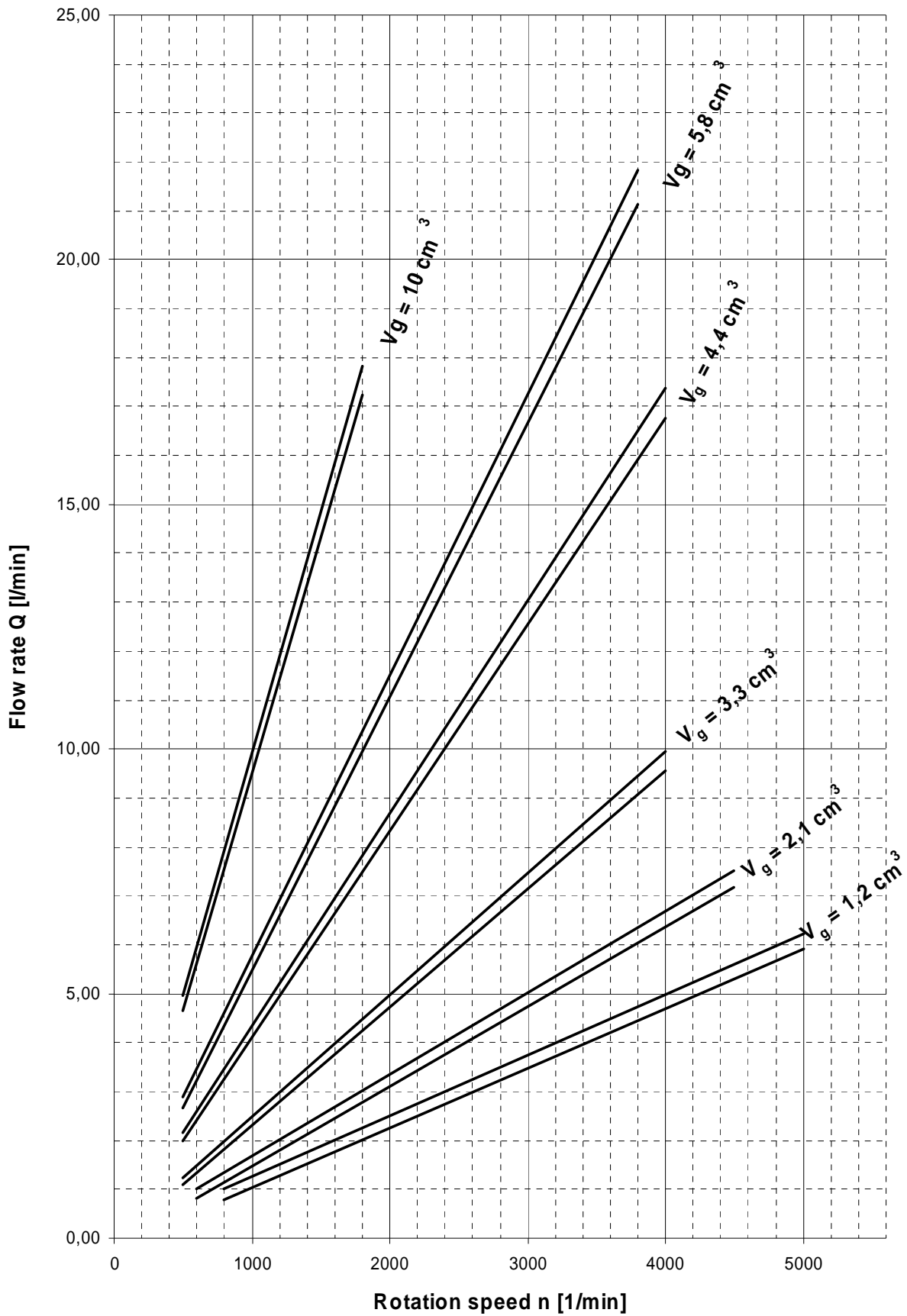
- 1. Body
- 2. Flange
- 3. Cover
- 4. Driving gear
- 5. Driven gear
- 6. Thrust pressure seal
- 7. Sealing protective plate

- 8. Shaft seal
- 9. Bearing
- 10. Nut
- 11. Safety ring
- 12. Connection bolts
- 13. Spring washer
- 14. Woodruff key

FLOW RATE AND INPUT POWER CURVES

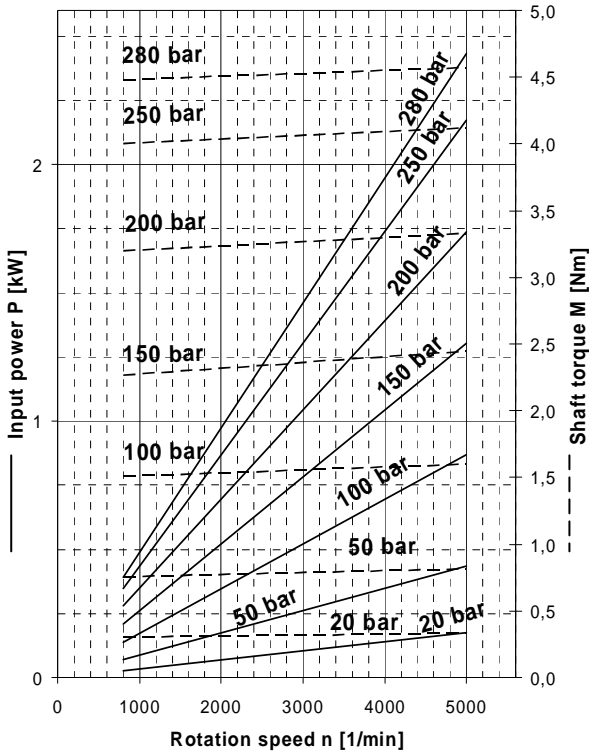


The curves above are valid for the ISO Vg 46 oil at temperature $t = 45^\circ\text{C}$.

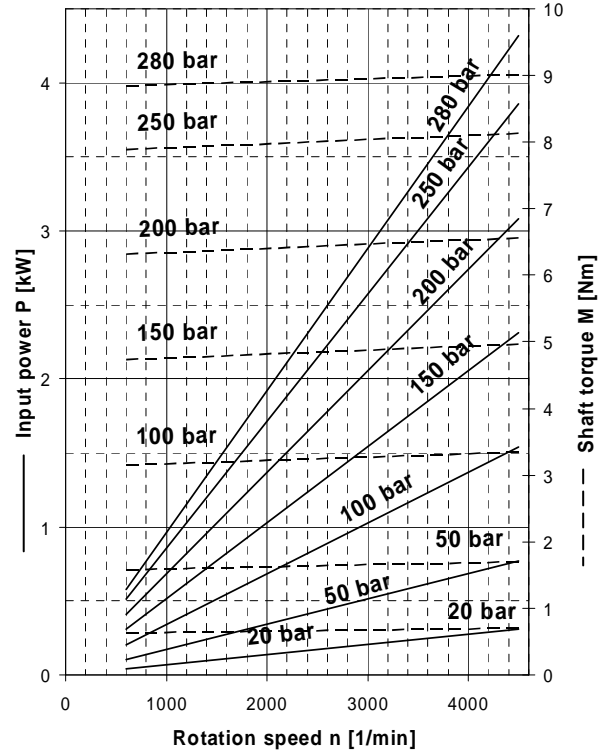


The curves above are valid for the ISO Vg 46 oil at temperature $t = 45^\circ\text{C}$.

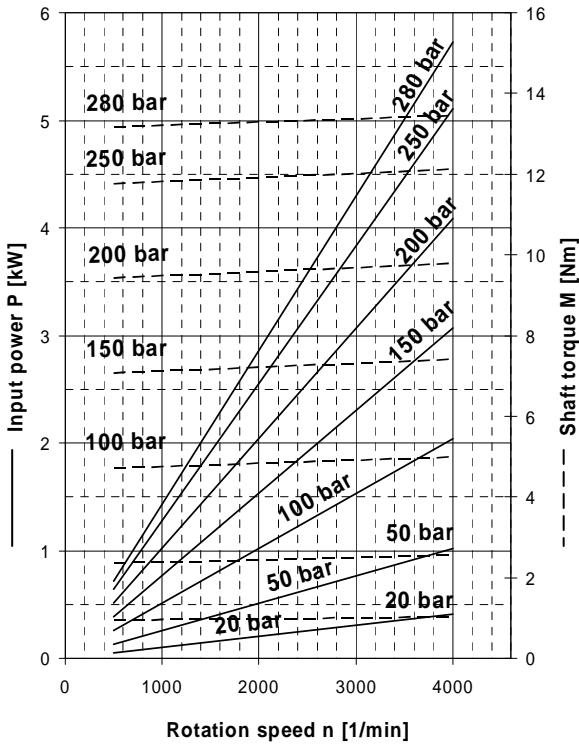
0,8 cm³



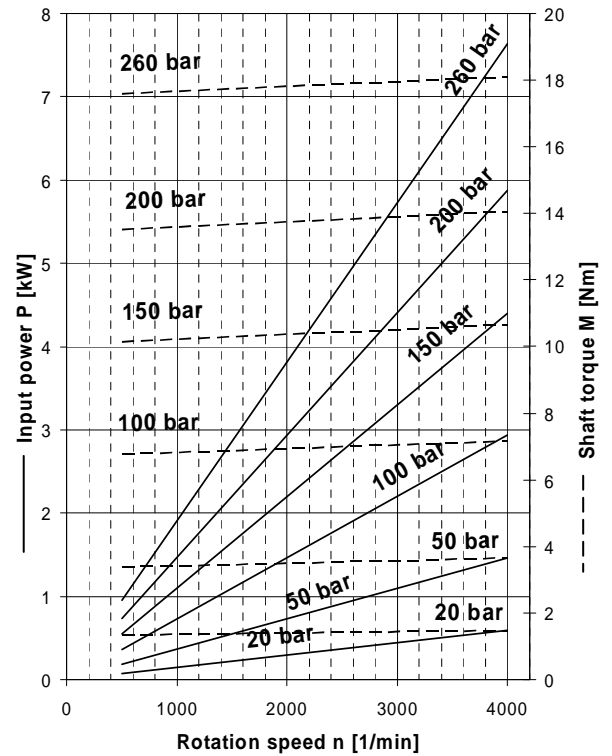
1,6 cm³



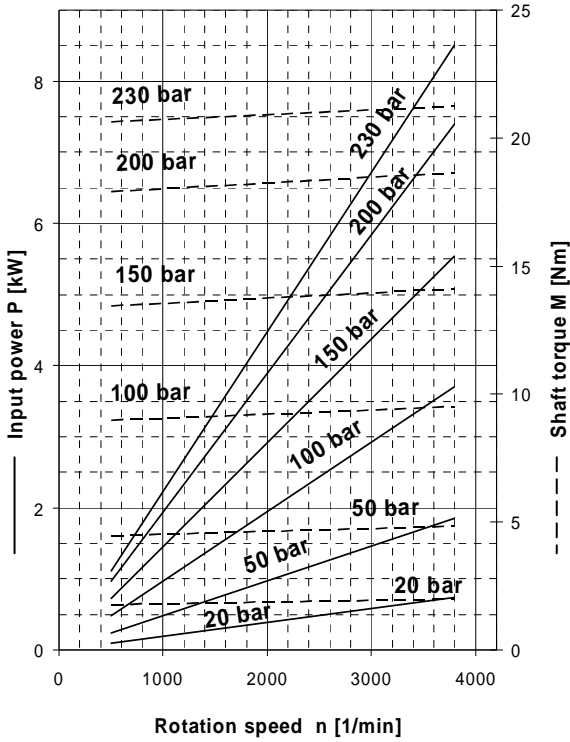
2,5 cm³



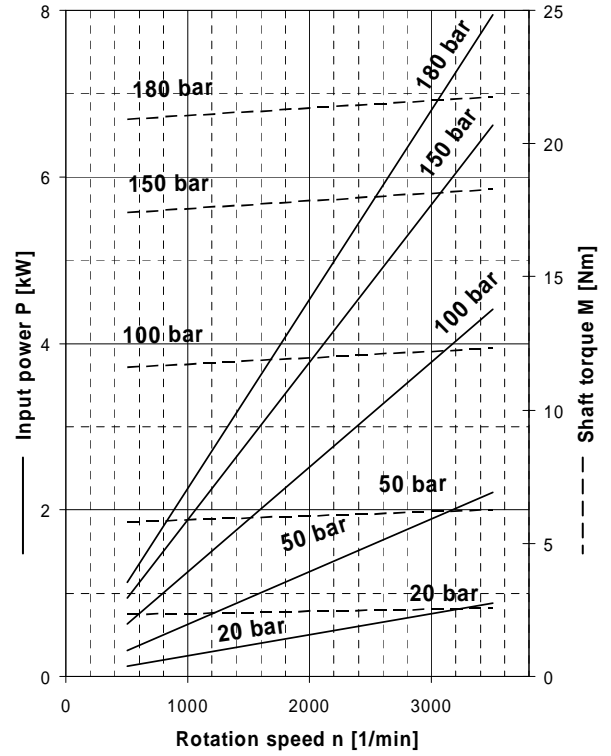
3,6 cm³



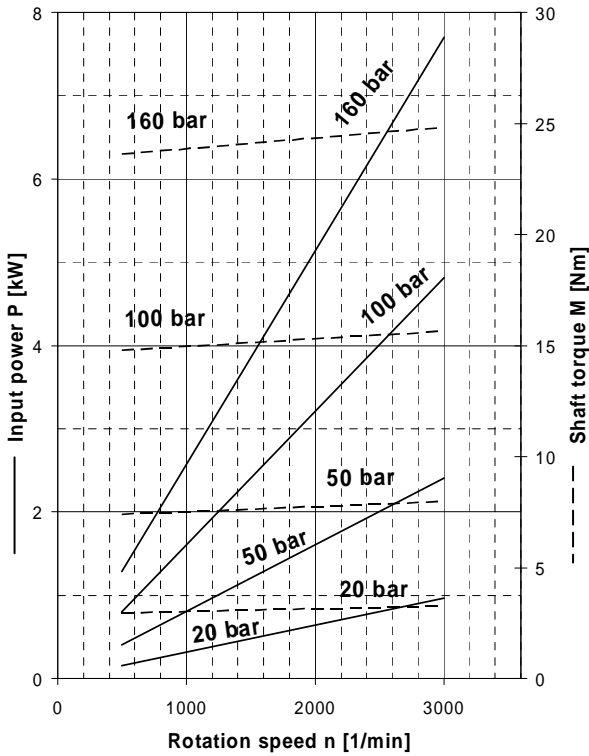
4,8 cm³



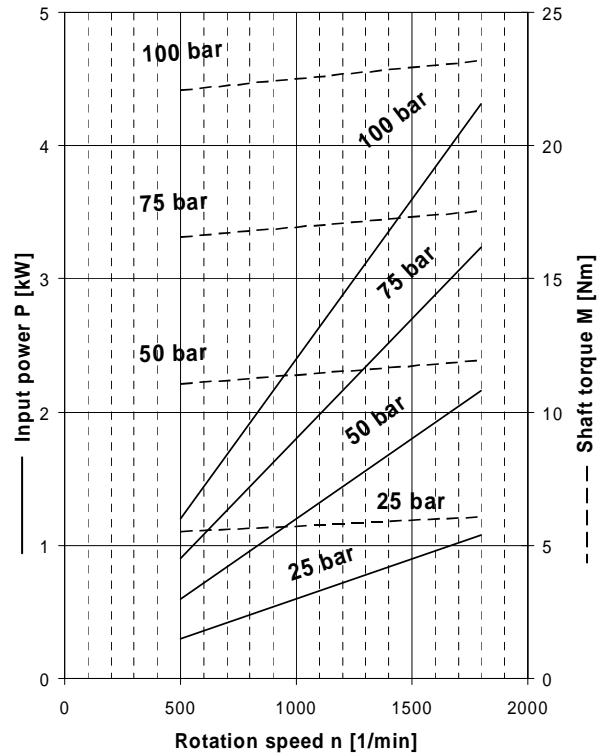
6,2 cm³



7,9 cm³



11,8 cm³



CALCULATION FORMULAS

Flow rate $Q = \frac{V_g \cdot n}{1000} \cdot \eta_v$ [dm³.min⁻¹]

V_g [cm³] geometric pump volume
 n [min⁻¹] rotation speed
 η_v [-] volumetric efficiency

Displacement $V_g = \frac{Q \cdot 1000}{n \cdot \eta_v}$ [cm³]

Shaft torque $M_k = \frac{V_g \cdot p}{20 \cdot \pi \cdot \eta_m}$ [N.m]

p [bar] required pressure at the outlet port
 η_m [-] mechanic efficiency

Input power $P = \frac{V_g \cdot n \cdot p}{600 \cdot 1000 \cdot \eta_t}$ [kW]

η_t [-] total efficiency

PUMP EFFICIENCY

Volumetric efficiency η_v

Volumetric efficiency determines the amount of flow losses. Its value varies: $\eta_v = 0,92 \div 0,98$ (depending on the speed and the pressure at the pressure port). Volumetric efficiency can be expressed as follows:

$$\eta_v = \frac{Q_{skut}}{Q_{teor}} \quad [-]$$

Q_{skut} [dm³.min⁻¹] actual flow rate
 Q_{teor} [dm³.min⁻¹] theoretical flow rate

Mechanical efficiency η_m

Mechanical efficiency determines the hydraulic-mechanical losses. Its value varies at about $\eta_m = 0,85$. Mechanical efficiency can be expressed as follows:

$$\eta_m = \frac{M_{teor}}{M_{skut}} \quad [-]$$

M_{skut} [N.m] actual shaft torque
 M_{teor} [N.m] theoretical shaft torque

Total efficiency η_t

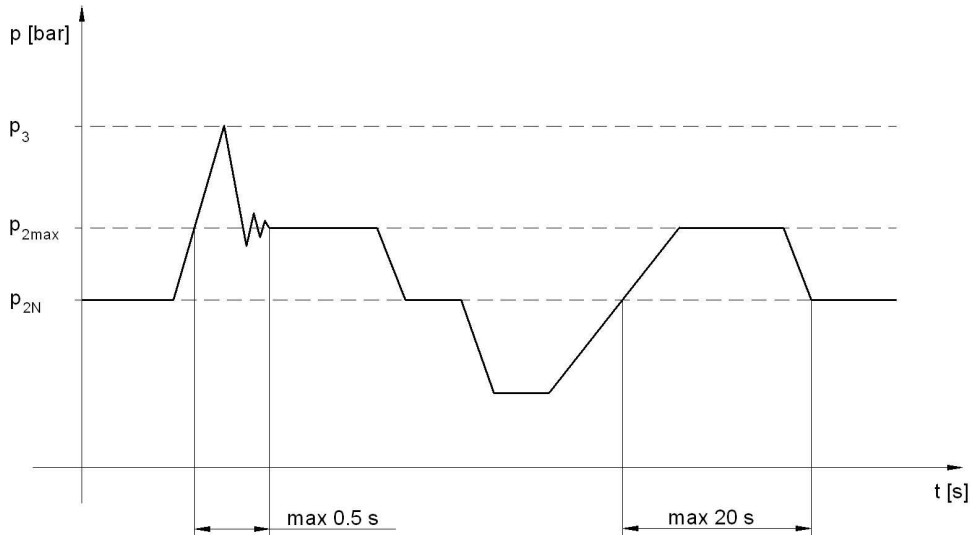
Total efficiency is defined as the arithmetic product of η_v and η_m and expresses the difference between the theoretical and the required actual input power:

$$\eta_t = \eta_v \cdot \eta_m = \frac{P_{teor}}{P_{skut}} \quad [-]$$

P_{skut} [kW] actual input power
 P_{teor} [kW] theoretical input power

PRESSURE LOAD

p_{2N}	max. continuous pressure	maximum working pressure at which the pump can be operated without time-limitation
p_{2max}	maximum pressure	maximum short-term (max. 20s) allowable pressure
p₃	peak pressure	short-term pressure (split second) arising in case of a sudden change of the operating mode; any excess of this pressure during operation is inadmissible.



WORKING LIQUID

- Mineral oils for hydraulic drives
- Hydraulic liquids based on vegetable oils, suitable for hydrostatic drives

Liquid temperature

$t = -20 \div +80$ [°C] when used with a FKM seal (Viton) up to 120 [°C]

Cinematic viscosity

during continuous operation: $v = 20 \div 80$ [mm² · s⁻¹]
 max.: $v = 1200$ [mm² · s⁻¹]
 min.: $v = 10$ [mm² · s⁻¹]

Filtration coefficient β_α

$\beta_{25} 75 \geq$ (for pressure $p_2 < 200$ bar)
 $\beta_{10} 75 \geq$ (for pressure $p_2 > 200$ bar)

Contamination class ISO 4406

19/16 (for pressure $p_2 < 200$ bar)
 17/14 (for pressure $p_2 > 200$ bar)

Contamination class NAS 1638

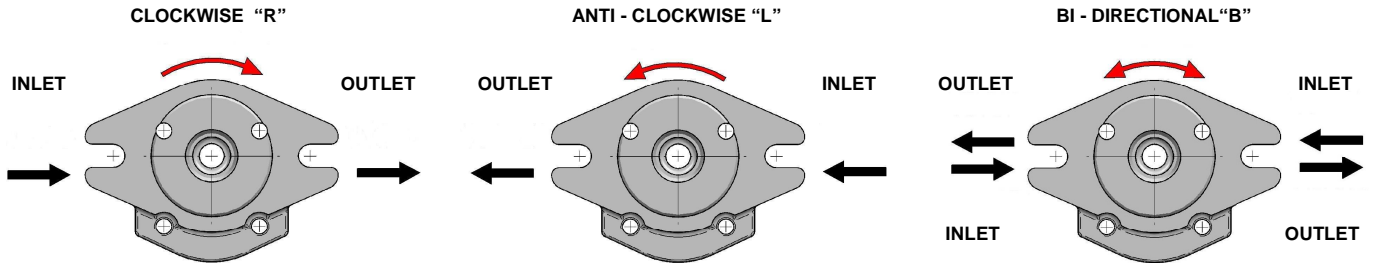
10 (for pressure $p_2 < 200$ bar)
 8 (for pressure $p_2 > 200$ bar)

Next requirements

All the elements affecting the technical parameters are given in the relevant technical conditions and test regulations.

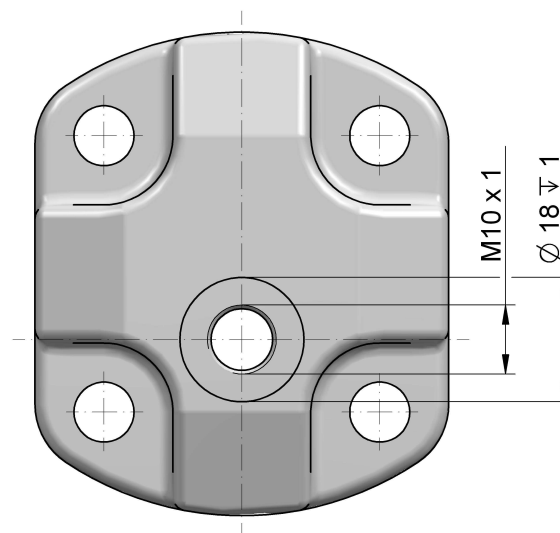
DIRECTION OF ROTATION

When determining the direction of rotation, always look at the drive shaft. The pump is allowed to be operated in the defined direction of rotation only.



BI-DIRECTIONAL VERSION

Pumps, which can optionally rotate clockwise or anti-clockwise, have a different internal arrangement requiring drainage. There are two types of drainage - internal drainage and external drainage. The internal drainage is always connected with the discharge port by means of valves. The external drainage is solved by means of an orifice located in the cover opposite the driven gear (see image below).









ORDER KEY – SIMPLE VERSION







P23 - 3,3 R - S1 D1 - S G02 G01 - V . 004

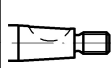

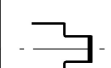
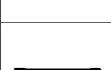


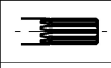
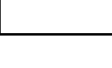
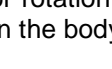
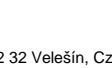
Code	Displacement [cm ³]
0,8	0,855
1,0	1,016
1,2	1,257
1,6	1,686
2,1	2,086
2,3	2,301
2,5	2,514
2,65	2,674
3,3	3,316
3,6	3,611
4,4	4,386
4,8	4,787
5,8	5,804
6,2	6,205
6,4	6,419
7,0	7,007
7,9	7,890
10,0	10,003
11,8	11,795
XX	Other displacements on request

Code	Rotation
R	Clockwise rotation
L	Anti-clockwise rotation
B	Bi-directional rotation

Code	Type
P23	P23 Series Gear Pump






Code	Flange design	
R1		Rectangular flange, centre ring Ø 25,4
S1		SAE A
A1		Flange with trough-bolts, centre ring Ø 32 (depth 7) with O-ring
A2		Flange with trough-bolts, centre ring Ø 32 (depth 8) with O-ring
A3		Thin flange with trough-bolts, centre ring Ø 32 with O-ring
A4		Thin flange with trough-bolts, centre ring Ø 32
Z		Special design

Code	Location of suction and pressure port	
S		Side (in the body)
R		Rear (in the cover)
F		Front (in the Flange)
A		Axial
C		Combination
D		Combination

Code	Drive shaft design	
C1		Taper 1:8 Woodruff key 2,5x3,7
C2		Taper 1:8 Woodruff key 2,4x5 Ø13
C3		Taper 1:5 Woodruff key 2x2
K1		Cross coupling
K2		Cross coupling
V1		Cylindric Square key 3h9x3x22
V2		Cylindric Square key 3,2x3,2x19,4
V3		Cylindric Pin 3M6x14
V4		Cylindric Square key 3h9x3x10
D1		Spline
Z		Special design

Code	Special arrangements
-	No special arrangements
001	With front end bearing
002	With relief valve
004	Without shaft seal

Code	Sealing material
N	NBR
V	FKM (VITON)
C	CR (CHLOROPRENE)

Code	Design of suction and pressure port	
M01		Thread M 10x1
M02		Thread M 12x1,5
M03		Thread M 14x1,5
M04		Thread M 16x1,5
M05		Thread M 18x1,5
M06		Thread M 20x1,5
M07		Thread M 22x1,5
G01		Thread BSP G 1/4
G02		Thread BSP G 3/8
G03		Thread BSP G 1/2
U02		Thread 9/16–18 UNF
U03		Thread 3/4–16 UNF
U04		Thread 7/8–14 UNF
H01		Flanged fitting Ø8 Square 4xM5 Ø26
H02		Flanged fitting Ø10 Square 4xM5 Ø26
H03		Flanged fitting Ø8 Square 4xM6 Ø30
H04		Flanged fitting Ø12 Square 4xM6 Ø30
P01		Inlet / Outlet in the Flange
N		Without suction port
Z		Special design

Example: Description of a P23 pump: Direction of rotation: anti-clockwise; geometric volume 4,4cm³; SAE A flange; taper 1:8 woodruff key 2,5x3,7; BSP inlet orifices in the body; and NBR standard sealing, no special arrangement:
P23-4,4L-S1C1-SG03G03-N







ORDER KEY – MULTIPLE VERSION

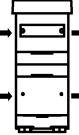
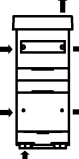
P23 - 3,3 / 3,3 R - S1 D1 - S G02 G01 / G02 G01 - V.004

Code	Displacement [cm ³] 1 st section / 2 nd section / 3 rd section
0,8	0,855
1,0	1,016
1,2	1,257
1,6	1,686
2,1	2,086
2,3	2,301
2,5	2,514
2,65	2,674
3,3	3,316
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6,2	6,205
6,4	6,419
7,0	7,007
7,9	7,890
10,0	10,003
11,8	11,795
XX	Other displacements on request

Code	Rotation
R	Clockwise rotation
L	Anti-clockwise rotation
B	Bi-directional rotation











Code	Type
P23	P23 Series Gear Pump






Code	Flange design
R1	 Rectangular flange, centre ring Ø 25,4
S1	 SAE A
A1	 Flange with trough-bolts, centre ring Ø 32 (depth 7) with O-ring
A2	 Flange with trough-bolts, centre ring Ø 32 (depth 8) with O-ring
A3	 Thin flange with trough-bolts, centre ring Ø 32 with O-ring
A4	 Thin flange with trough-bolts, centre ring Ø 32
Z	Special design

Code	Location of suction and pressure port
S	 Side (in the body)
C	 Combination

Code	Special arrangements
-	No special arrangements
001	With front end bearing
002	With relief valve
004	Without shaft seal

Code	Sealing material
N	NBR
V	FKM (VITON)
C	CR (CHLOROPRENE)

Code	Drive shaft design
C1	 Taper 1:8 Woodruff key 2,5x3,7
C2	 Taper 1:8 Woodruff key 2,4x5 Ø13
C3	 Taper 1:5 Woodruff key 2x2
K1	 Cross coupling
K2	 Cross coupling
V1	 Cylindric Square key 3h9x3x22
V2	 Cylindric Square key 3,2x3,2x19,4
V3	 Cylindric Pin 3M6x14
V4	 Cylindric Square key 3h9x3x10
D1	 Spline
Z	Special design

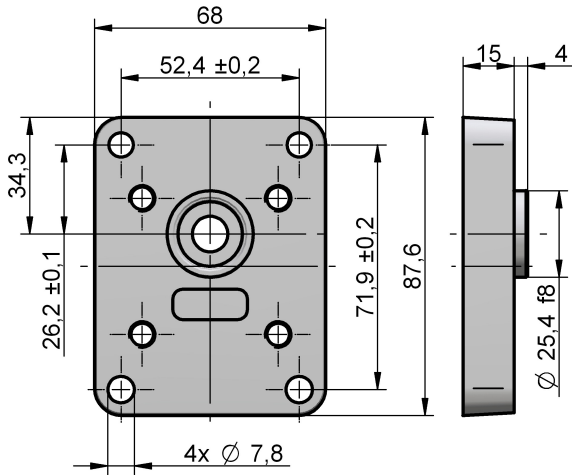
Code	Design of suction and pressure port 1 st section / 2 nd section / 3 rd section
M01	Thread M 10x1
M02	Thread M 12x1,5
M03	Thread M 14x1,5
M04	 Thread M 16x1,5
M05	Thread M 18x1,5
M06	Thread M 20x1,5
M07	Thread M 22x1,5
G01	Thread BSP G 1/4
G02	 Thread BSP G 3/8
G03	Thread BSP G 1/2
U02	Thread 9/16–18 UNF
U03	 Thread 3/4–16 UNF
U04	Thread 7/8–14 UNF
H01	Flanged fitting Ø8 Square 4xM5 Ø26
H02	 Flanged fitting Ø10 Square 4xM5 Ø26
H03	Flanged fitting Ø8 Square 4xM6 Ø30
H04	Flanged fitting Ø12 Square 4xM6 Ø30
P01	 Inlet / Outlet in the Flange
N	Without suction port
Z	Special design

Example: Description of a P23 pump: Direction of rotation: clockwise; two sections with geometric volumes 4,4 and 3,3 cm³; rectangular flange with center ring Ø 25,4; taper 1:8 woodruff key 2,4x5; common inlet port, and two outlet ports with metric thread and FKM sealing; no special arrangement: **P23-4,4/3,3R-R1C2-SM05M05/NM05-V**

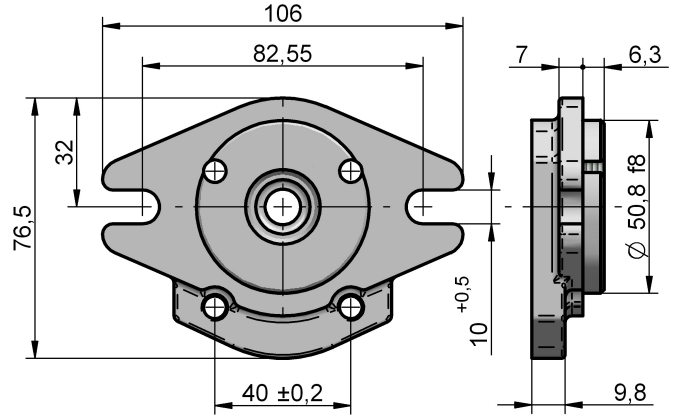
DESIGN OF FLANGES, DRIVE SHAFTS AND INLET PORTS

Flanges

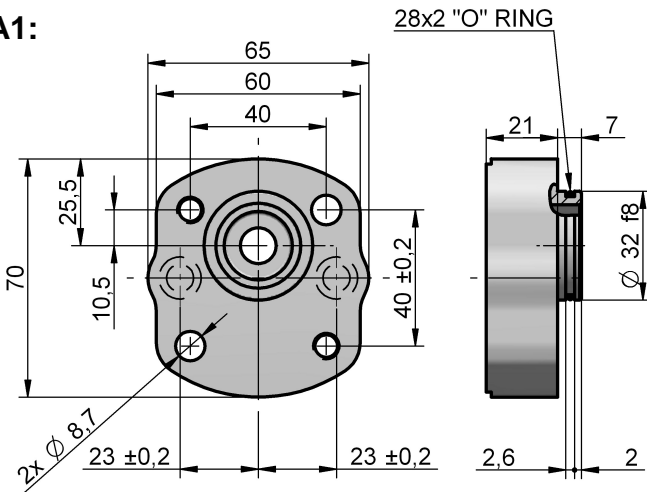
R1:



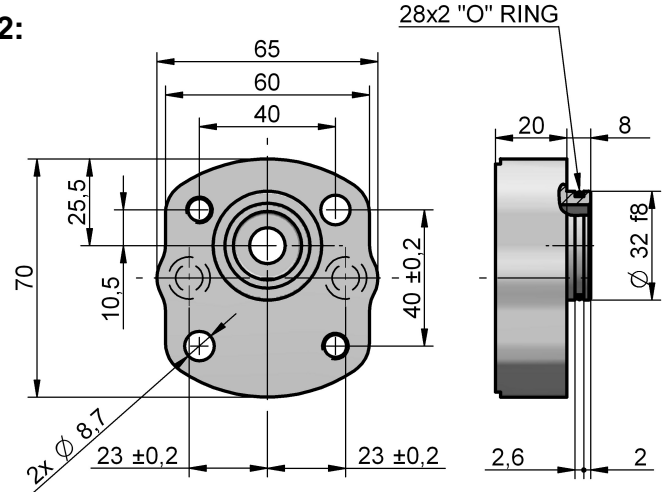
S1:



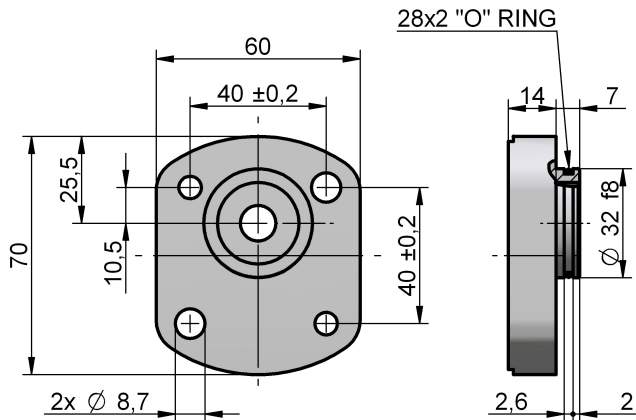
A1:



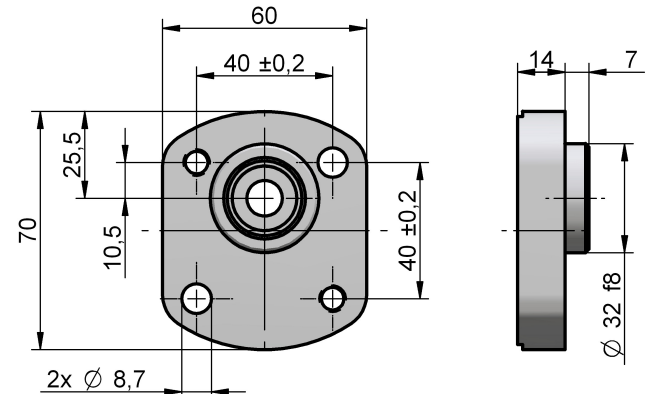
A2:



A3:

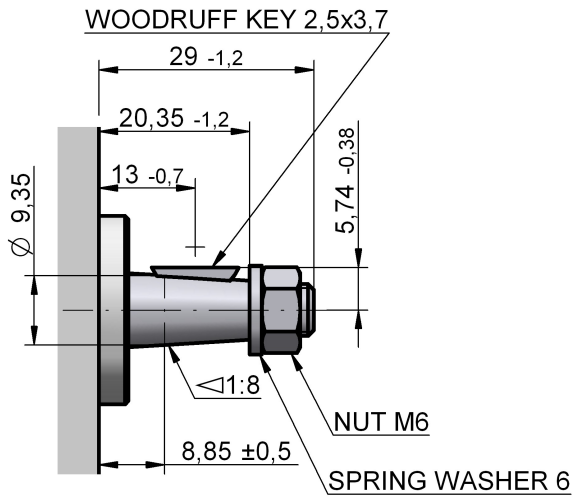


A4:

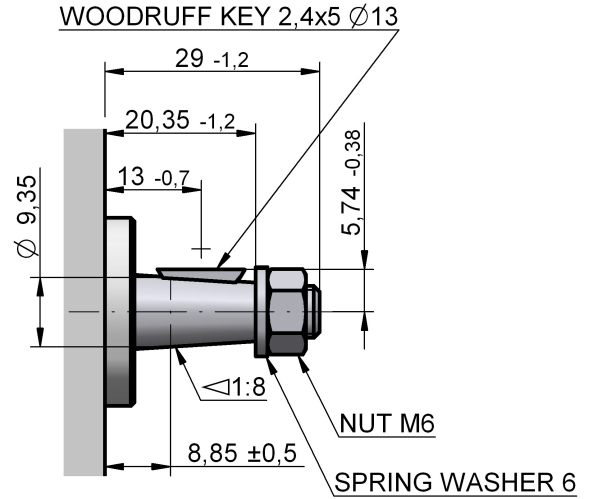


Drive shafts

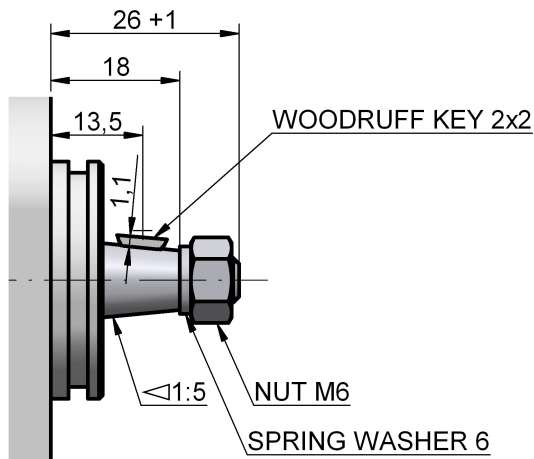
C1:



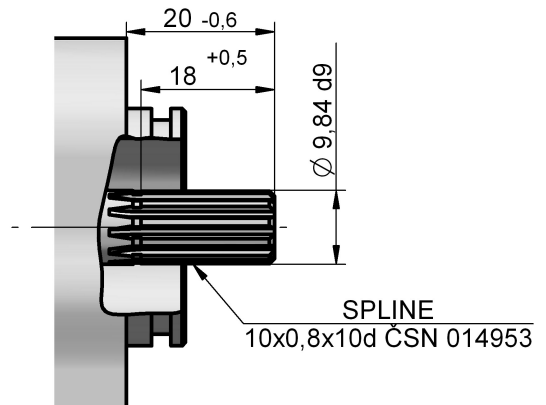
C2:



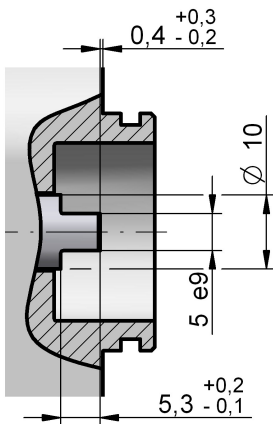
C3:



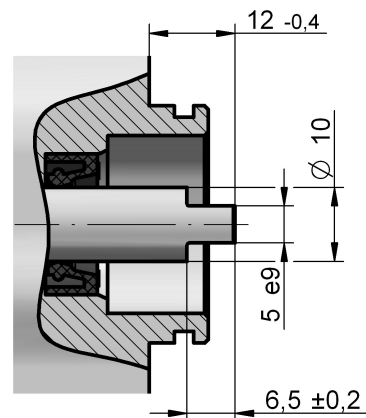
D1:



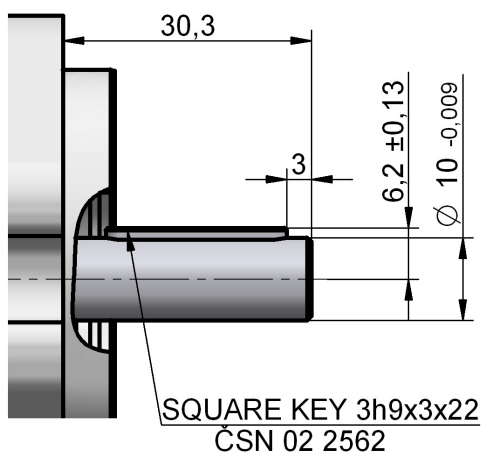
K1:



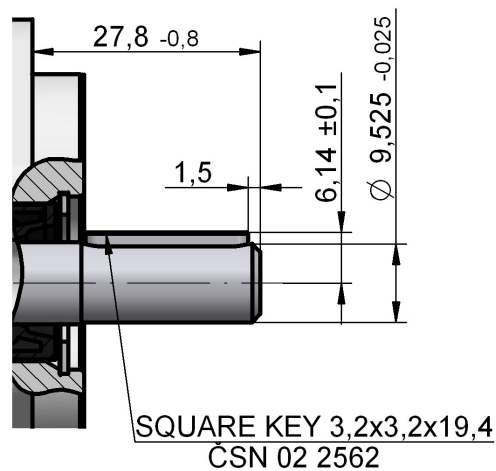
K2:



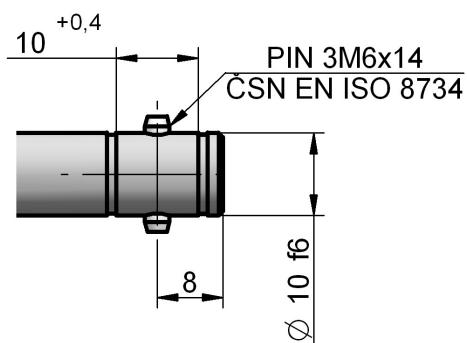
V1:



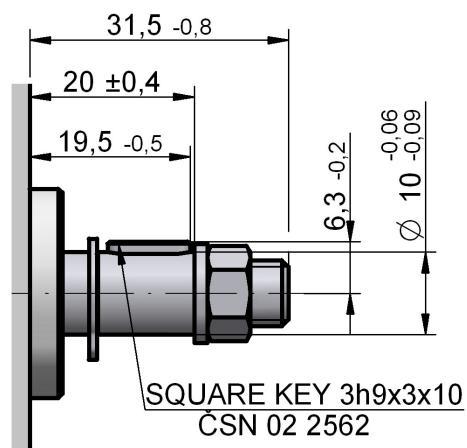
V2:



V3:

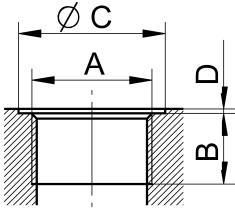


V4:



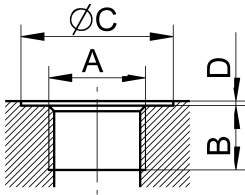
INLET AND OUTLET PORTS

Metric thread ISO 6149



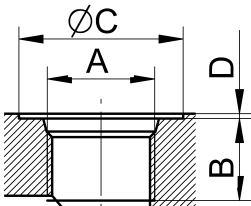
Code	A	B	C	D
M01	M 10x1	8	15	1
M02	M 12x1,5	12	20	1
M03	M 14x1,5	13	26	1
M04	M 16x1,5	14	22	1
M05	M 18x1,5	13	30	1
M06	M 20x1,5	14	26	1
M07	M 22x1,5	13	35	1

BSP pipe thread ISO 228 - 1



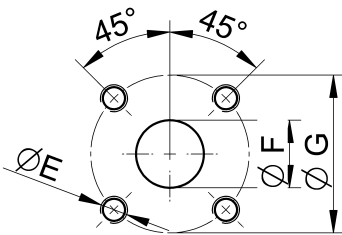
Code	A	B	C	D
G01	G 1/4	13	26	1
G02	G 3/8	13	24	1
G03	G 1/2	13	34	1

UNF thread SAE



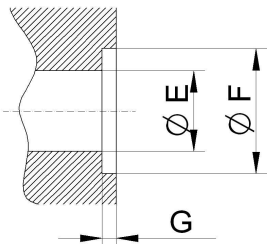
Code	A	B	C	D
U02	9/16 – 18 UNF	13	24,6	1
U03	3/4 – 16 UNF	13	30	1
U04	7/8 – 14 UNF	16	34	1

Flanged fittings DIN 8901/8902

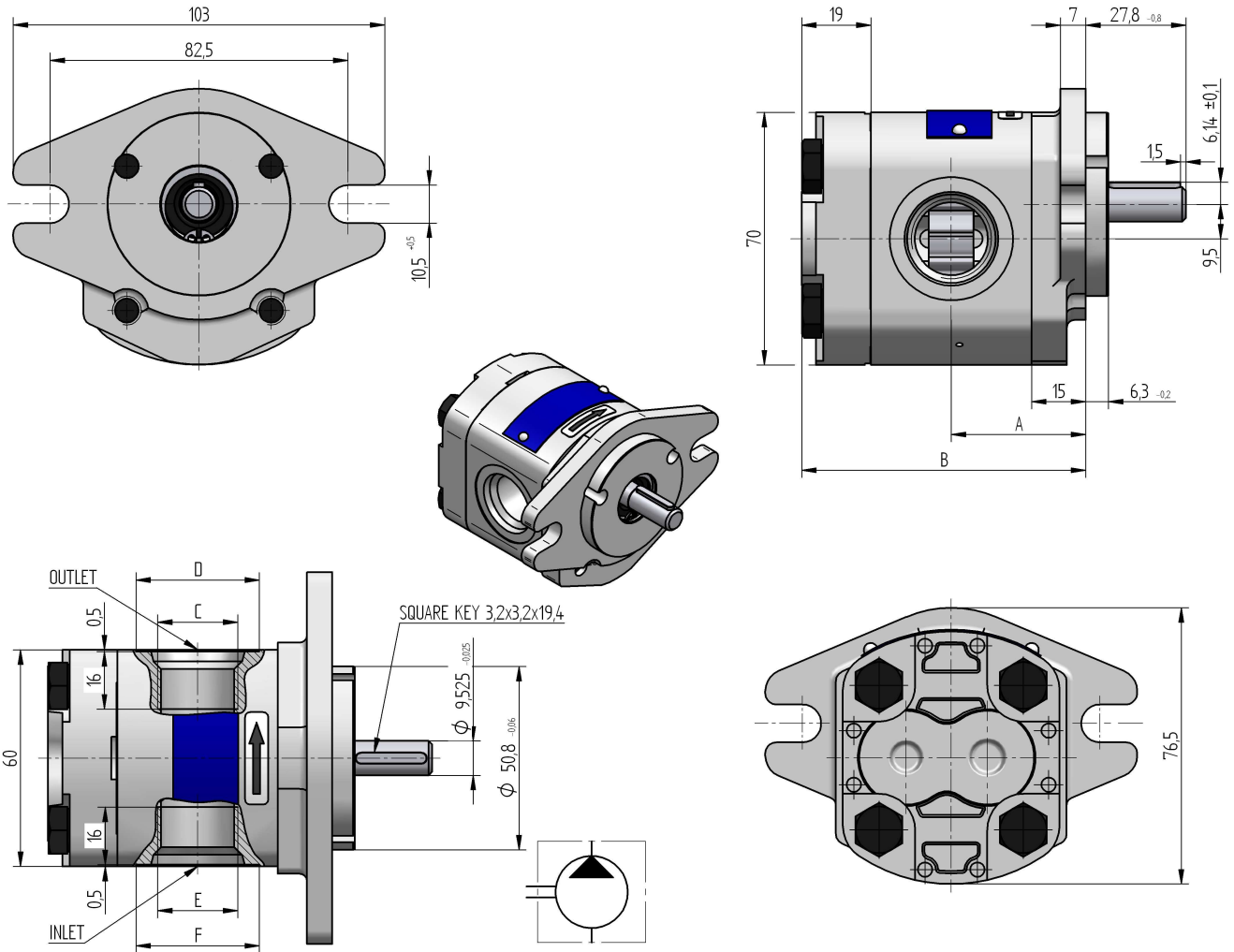


Code	E	F	G
H01	M5, Depth 12	8	26
H02	M5, Depth 12	10	26
H03	M6, Depth 12	8	30
H04	M6, Depth 12	12	30

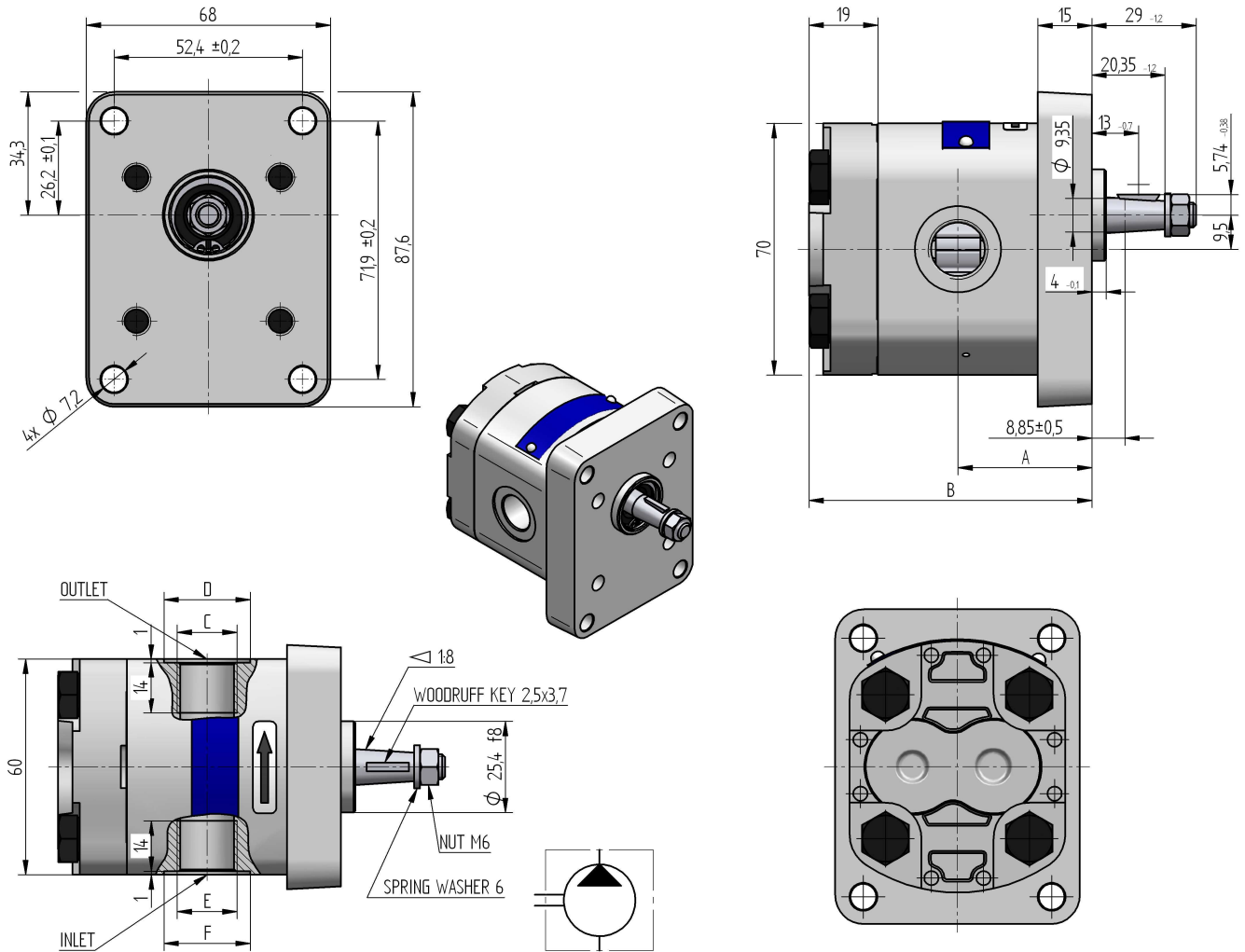
Inlet / Outlet in the Flange



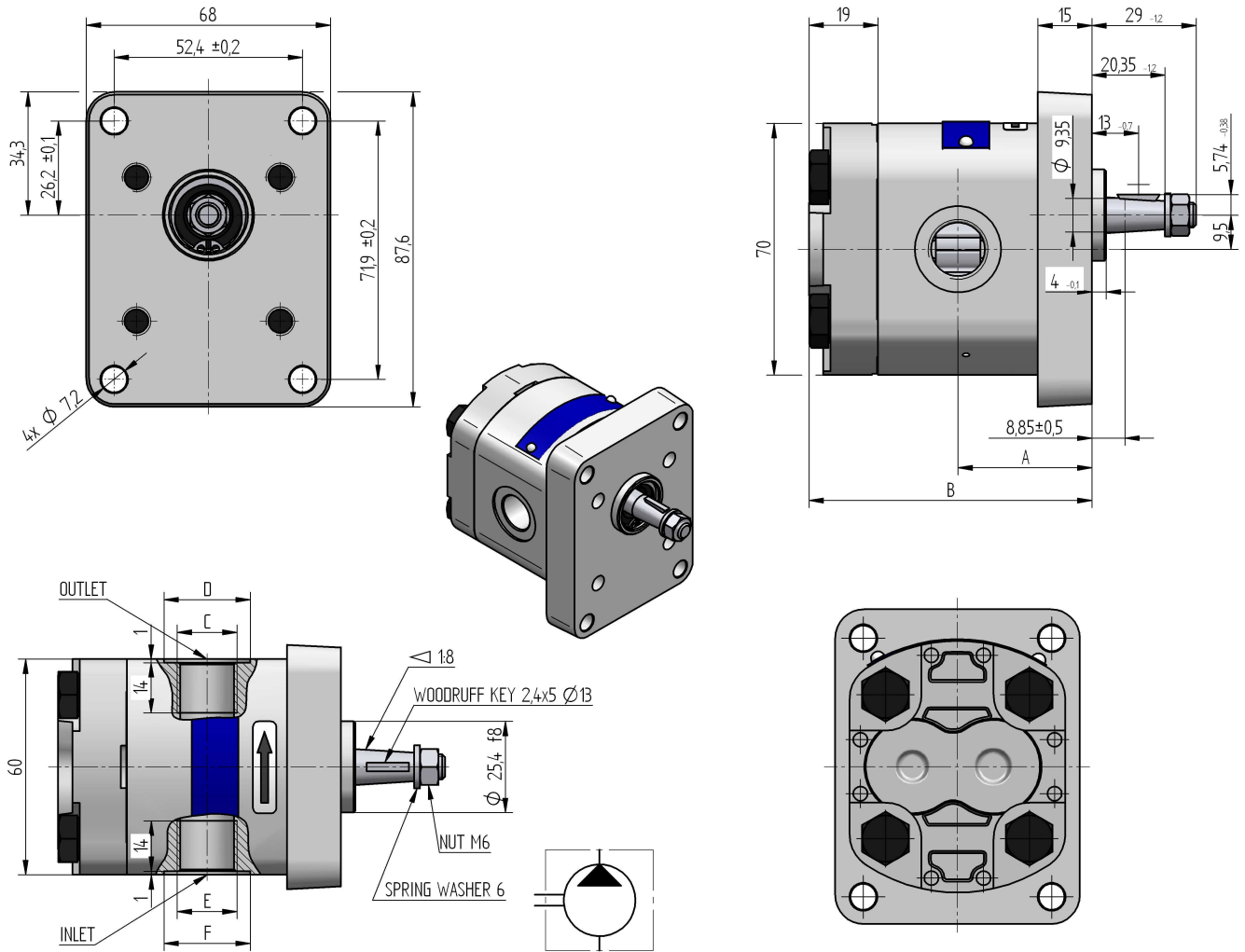
Code	E	F	G
P01	8	12,4	1,4



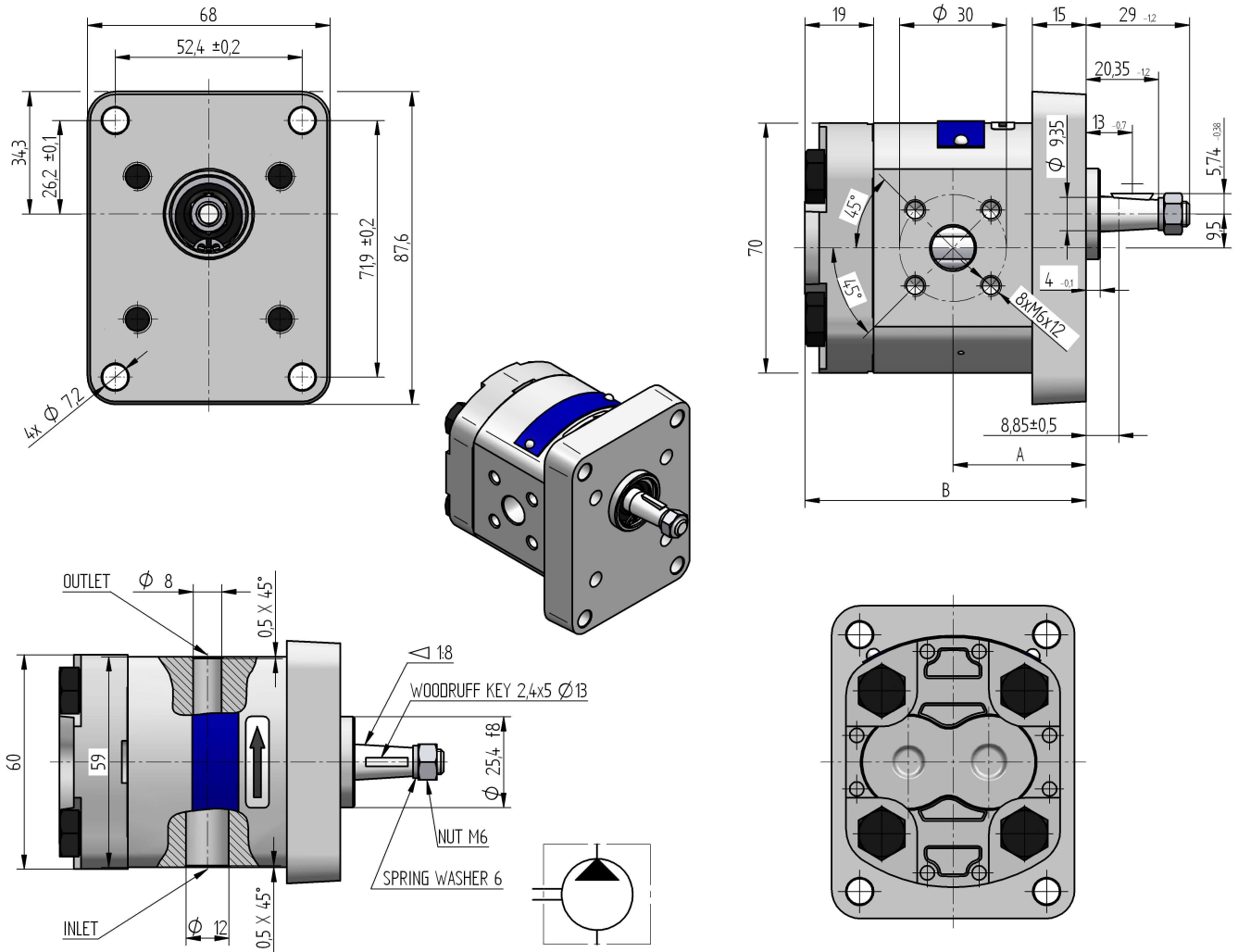
P23-7,9R-S1V2-SU04U04-N	187 9005	R	7,9	160	500	3 000	45,8	95,6	7/8-14 UNF-2B	Ø 34,2	7/8-14 UNF-2B	Ø 34,2
P23-7,9L-S1V2-SU04U04-N		L										
P23-6,2R-S1V2-SU04U04-N	187 9974	R	6,2	180	500	3 500	42,6	89,3	7/8-14 UNF-2B	Ø 34,2	7/8-14 UNF-2B	Ø 34,2
P23-6,2L-S1V2-SU04U04-N		L										
P23-5,8R-S1V2-SU04U04-N		R	5,8	200	500	3 500	41,9	87,8	7/8-14 UNF-2B	Ø 34,2	7/8-14 UNF-2B	Ø 34,2
P23-5,8L-S1V2-SU04U04-N		L										
P23-4,8R-S1V2-SU04U04-N	187 9880	R	4,8	230	500	3 800	40,0	84,0	7/8-14 UNF-2B	Ø 34,2	7/8-14 UNF-2B	Ø 34,2
P23-4,8L-S1V2-SU04U04-N		L										
P23-4,4R-S1V2-SU04U04-N	187 9879	R	4,4	250	500	4 000	39,2	82,5	7/8-14 UNF-2B	Ø 34,2	7/8-14 UNF-2B	Ø 34,2
P23-4,4L-S1V2-SU04U04-N		L										
P23-3,6R-S1V2-SU04U04-N	187 9878	R	3,6	260	500	4 000	37,8	79,6	7/8-14 UNF-2B	Ø 34,2	7/8-14 UNF-2B	Ø 34,2
P23-3,6L-S1V2-SU04U04-N		L										
P23-3,3R-S1V2-SU04U04-N	187 9877	R	3,3	280	500	4 000	37,2	78,5	7/8-14 UNF-2B	Ø 34,2	7/8-14 UNF-2B	Ø 34,2
P23-3,3L-S1V2-SU04U04-N		L										
P23-2,5R-S1V2-SU03U03-N	187 9876	R	2,5	280	500	4 500	35,7	75,5	3/4-16 UNF-2B	Ø 30,2	3/4-16 UNF-2B	Ø 30,2
P23-2,5L-S1V2-SU03U03-N		L										
P23-2,1R-S1V2-SU03U03-N	187 9875	R	2,1	280	600	4 500	34,9	73,9	3/4-16 UNF-2B	Ø 30,2	3/4-16 UNF-2B	Ø 30,2
P23-2,1L-S1V2-SU03U03-N		L										
P23-1,6R-S1V2-SU03U03-N	187 9874	R	1,6	280	600	5 000	34,1	72,3	3/4-16 UNF-2B	Ø 30,2	3/4-16 UNF-2B	Ø 30,2
P23-1,6L-S1V2-SU03U03-N		L										
P23-1,2R-S1V2-SU03U03-N	187 9873	R	1,2	280	600	5 000	33,4	70,8	3/4-16 UNF-2B	Ø 30,2	3/4-16 UNF-2B	Ø 30,2
P23-1,2L-S1V2-SU03U03-N		L										
P23-0,8R-S1V2-SU03U03-N	187 9872	R	0,8	280	800	5 000	32,6	69,3	3/4-16 UNF-2B	Ø 30,2	3/4-16 UNF-2B	Ø 30,2
P23-0,8L-S1V2-SU03U03-N		L										
ORDER KEY	PURCH. CODE	DIRECT. OF ROT.	DISPLACEMENT [cm ³ /1]	CONT. PRESS. [bar]	MIN. SPEED [min ⁻¹]	MAX. SPEED [min ⁻¹]	A	B	DIMENSION [mm]			
									C	D	E	F



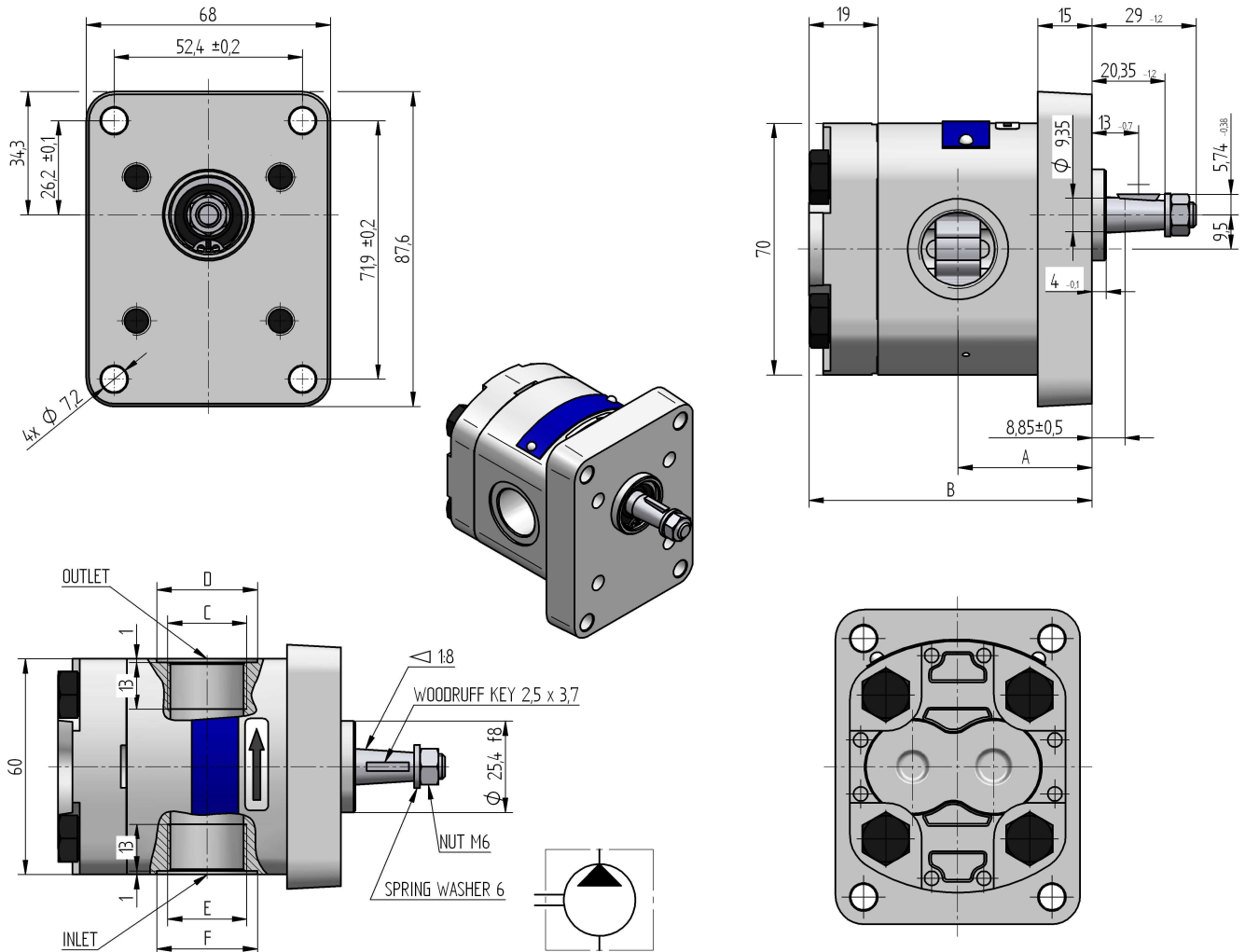
P23-7,9R-R1C1-SG02G02-N	187 9987	R	7,9	160	500	3 000	45,8	95,6	G 3/8	Ø 24	G 3/8	Ø 24
P23-7,9L-R1C1-SG02G02-N		L										
P23-6,2R-R1C1-SG02G02-N	187 9804	R	6,2	180	500	3 500	42,6	89,3	G 3/8	Ø 24	G 3/8	Ø 24
P23-6,2L-R1C1-SG02G02-N		L										
P23-5,8R-R1C1-SG02G02-N	187 9986	R	5,8	200	500	3 500	41,9	87,8	G 3/8	Ø 24	G 3/8	Ø 24
P23-5,8L-R1C1-SG02G02-N		L										
P23-4,8R-R1C1-SG02G02-N	187 9985	R	4,8	230	500	3 800	40,0	84,0	G 3/8	Ø 24	G 3/8	Ø 24
P23-4,8L-R1C1-SG02G02-N		L										
P23-4,4R-R1C1-SG02G02-N	187 9954	R	4,4	250	500	4 000	39,2	82,5	G 3/8	Ø 24	G 3/8	Ø 24
P23-4,4L-R1C1-SG02G02-N		L										
P23-3,6R-R1C1-SG02G02-N	187 9951	R	3,6	260	500	4 000	37,8	79,6	G 3/8	Ø 24	G 3/8	Ø 24
P23-3,6L-R1C1-SG02G02-N	187 9018	L										
P23-3,3R-R1C1-SG02G02-N	187 9984	R	3,3	280	500	4 000	37,2	78,5	G 3/8	Ø 24	G 3/8	Ø 24
P23-3,3L-R1C1-SG02G02-N		L										
P23-2,5R-R1C1-SG02G02-N	187 9950	R	2,5	280	500	4 500	35,7	75,5	G 3/8	Ø 24	G 3/8	Ø 24
P23-2,5L-R1C1-SG02G02-N		L										
P23-2,1R-R1C1-SG02G02-N	187 9983	R	2,1	280	600	4 500	34,9	73,9	G 3/8	Ø 24	G 3/8	Ø 24
P23-2,1L-R1C1-SG02G02-N		L										
P23-1,6R-R1C1-SG02G02-N	187 9890	R	1,6	280	600	5 000	34,1	72,3	G 3/8	Ø 24	G 3/8	Ø 24
P23-1,6L-R1C1-SG02G02-N		L										
P23-1,2R-R1C1-SG02G02-N	187 9903	R	1,2	280	600	5 000	33,4	70,8	G 3/8	Ø 24	G 3/8	Ø 24
P23-1,2L-R1C1-SG02G02-N		L										
P23-0,8R-R1C1-SG02G02-N	187 9982	R	0,8	280	800	5 000	32,6	69,3	G 3/8	Ø 24	G 3/8	Ø 24
P23-0,8L-R1C1-SG02G02-N		L										
ORDER KEY	PURCH. CODE	DIRECT. OF ROT.	DISPLACEMENT [cm ³ /1]	CONT. PRESS. [bar]	MIN. SPEED [min ⁻¹]	MAX. SPEED [min ⁻¹]	A	B	DIMENSION [mm]			



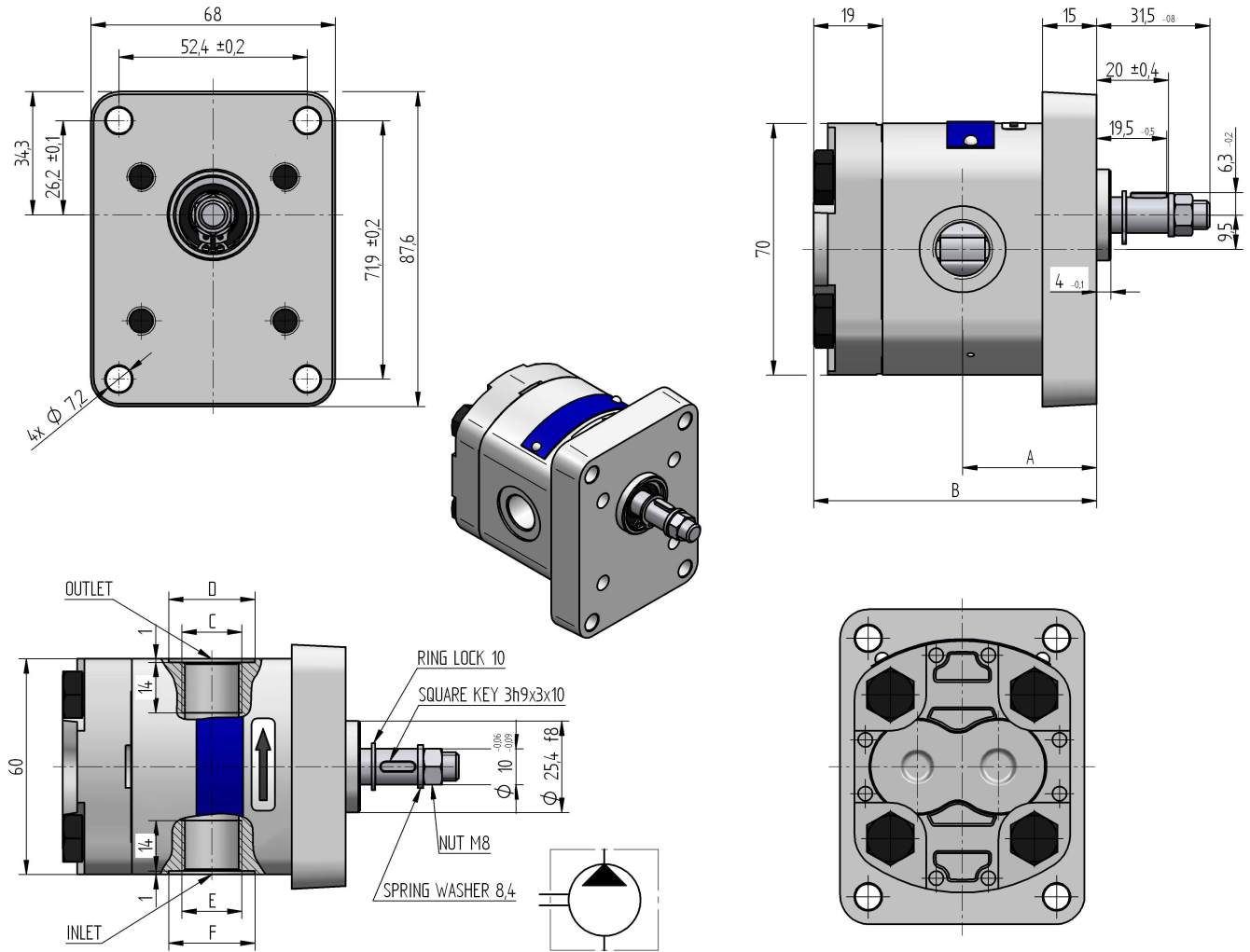
P23-7,9R-R1C2-SG02G02-N		R	7,9	160	500	3 000	45,8	95,6	G 3/8	Ø 24	G 3/8	Ø 24
P23-7,9L-R1C2-SG02G02-N		L	7,9	160	500	3 000	45,8	95,6	G 3/8	Ø 24	G 3/8	Ø 24
P23-6,2R-R1C2-SG02G02-N	187 9959	R	6,2	180	500	3 500	42,6	89,3	G 3/8	Ø 24	G 3/8	Ø 24
P23-6,2L-R1C2-SG02G02-N		L	6,2	180	500	3 500	42,6	89,3	G 3/8	Ø 24	G 3/8	Ø 24
P23-5,8R-R1C2-SG02G02-N		R	5,8	200	500	3 500	41,9	87,8	G 3/8	Ø 24	G 3/8	Ø 24
P23-5,8L-R1C2-SG02G02-N		L	5,8	200	500	3 500	41,9	87,8	G 3/8	Ø 24	G 3/8	Ø 24
P23-4,8R-R1C2-SG02G02-N	187 9978	R	4,8	230	500	3 800	40,0	84,0	G 3/8	Ø 24	G 3/8	Ø 24
P23-4,8L-R1C2-SG02G02-N		L	4,8	230	500	3 800	40,0	84,0	G 3/8	Ø 24	G 3/8	Ø 24
P23-4,4R-R1C2-SG02G02-N	187 9993	R	4,4	250	500	4 000	39,2	82,5	G 3/8	Ø 24	G 3/8	Ø 24
P23-4,4L-R1C2-SG02G02-N		L	4,4	250	500	4 000	39,2	82,5	G 3/8	Ø 24	G 3/8	Ø 24
P23-3,6R-R1C2-SG02G02-N		R	3,6	260	500	4 000	37,8	79,6	G 3/8	Ø 24	G 3/8	Ø 24
P23-3,6L-R1C2-SG02G02-N		L	3,6	260	500	4 000	37,8	79,6	G 3/8	Ø 24	G 3/8	Ø 24
P23-3,3R-R1C2-SG02G02-N	187 9939	R	3,3	280	500	4 000	37,2	78,5	G 3/8	Ø 24	G 3/8	Ø 24
P23-3,3L-R1C2-SG02G02-N		L	3,3	280	500	4 000	37,2	78,5	G 3/8	Ø 24	G 3/8	Ø 24
P23-2,5R-R1C2-SG02G02-N	187 9968	R	2,5	280	500	4 500	35,7	75,5	G 3/8	Ø 24	G 3/8	Ø 24
P23-2,5L-R1C2-SG02G02-N	187 9990	L	2,5	280	500	4 500	35,7	75,5	G 3/8	Ø 24	G 3/8	Ø 24
P23-2,1R-R1C2-SG02G02-N		R	2,1	280	600	4 500	34,9	73,9	G 3/8	Ø 24	G 3/8	Ø 24
P23-2,1L-R1C2-SG02G02-N		L	2,1	280	600	4 500	34,9	73,9	G 3/8	Ø 24	G 3/8	Ø 24
P23-1,6R-R1C2-SG02G02-N		R	1,6	280	600	5 000	34,1	72,3	G 3/8	Ø 24	G 3/8	Ø 24
P23-1,6L-R1C2-SG02G02-N		L	1,6	280	600	5 000	34,1	72,3	G 3/8	Ø 24	G 3/8	Ø 24
P23-1,2R-R1C2-SG02G02-N	187 9938	R	1,2	280	600	5 000	33,4	70,8	G 3/8	Ø 24	G 3/8	Ø 24
P23-1,2L-R1C2-SG02G02-N		L	1,2	280	600	5 000	33,4	70,8	G 3/8	Ø 24	G 3/8	Ø 24
P23-0,8R-R1C2-SG02G02-N		R	0,8	280	800	5 000	32,6	69,3	G 3/8	Ø 24	G 3/8	Ø 24
P23-0,8L-R1C2-SG02G02-N		L	0,8	280	800	5 000	32,6	69,3	G 3/8	Ø 24	G 3/8	Ø 24
ORDER KEY	PURCH. CODE	DIRECT. OF ROT.	DISPLACEMENT [cm ³ /1]	CONT. PRESS. [bar]	MIN. SPEED [min ⁻¹]	MAX. SPEED [min ⁻¹]	A	B	DIMENSION [mm]			
									C	D	E	F



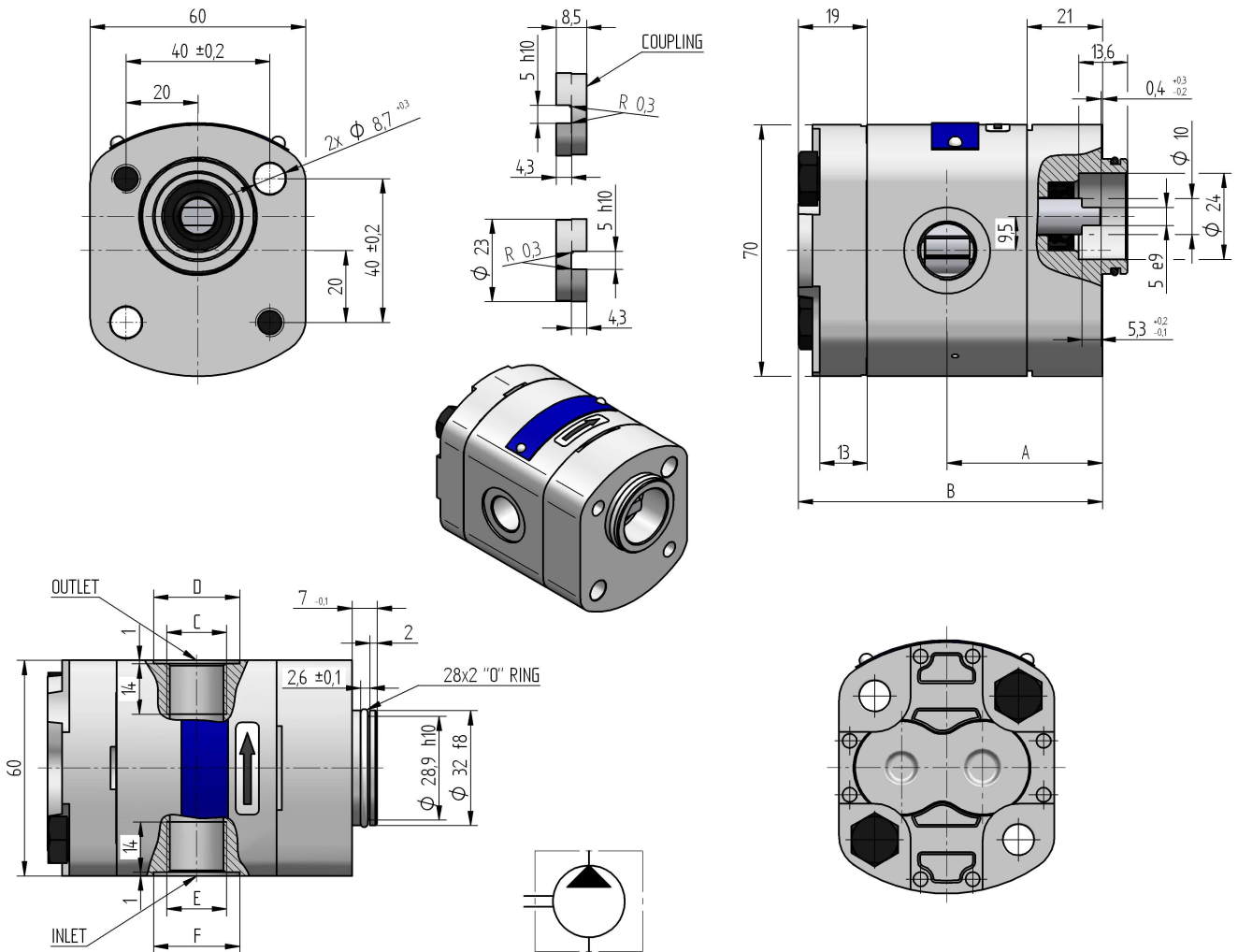
P23-7,9R-R1C2-SH04H03-N	187 9946	R	7,9	160	500	3 000	45,8	95,6					
P23-7,9L-R1C2-SH04H03-N	187 9948	L	7,9	160	500	3 000	45,8	95,6					
P23-6,2R-R1C2-SH04H03-N	187 9980	R	6,2	180	500	3 500	42,6	89,3					
P23-6,2L-R1C2-SH04H03-N	187 9963	L	6,2	180	500	3 500	42,6	89,3					
P23-5,8R-R1C2-SH04H03-N	187 9971	R	5,8	200	500	3 500	41,9	87,8					
P23-5,8L-R1C2-SH04H03-N	187 9973	L	5,8	200	500	3 500	41,9	87,8					
P23-4,8R-R1C2-SH04H03-N	187 9958	R	4,8	230	500	3 800	40,0	84,0					
P23-4,8L-R1C2-SH04H03-N	187 9947	L	4,8	230	500	3 800	40,0	84,0					
P23-4,4R-R1C2-SH04H03-N	187 9941	R	4,4	250	500	4 000	39,2	82,5					
P23-4,4L-R1C2-SH04H03-N	187 9962	L	4,4	250	500	4 000	39,2	82,5					
P23-3,6R-R1C2-SH04H03-N	187 9945	R	3,6	260	500	4 000	37,8	79,6					
P23-3,6L-R1C2-SH04H03-N	187 9972	L	3,6	260	500	4 000	37,8	79,6					
P23-3,3R-R1C2-SH04H03-N	187 9957	R	3,3	280	500	4 000	37,2	78,5					
P23-3,3L-R1C2-SH04H03-N	187 9981	L	3,3	280	500	4 000	37,2	78,5					
P23-2,5R-R1C2-SH04H03-N	187 9940	R	2,5	280	500	4 500	35,7	75,5					
P23-2,5L-R1C2-SH04H03-N	187 9961	L	2,5	280	500	4 500	35,7	75,5					
P23-2,1R-R1C2-SH04H03-N	187 9970	R	2,1	280	600	4 500	34,9	73,9					
P23-2,1L-R1C2-SH04H03-N		L	2,1	280	600	4 500	34,9	73,9					
P23-1,6R-R1C2-SH04H03-N	187 9969	R	1,6	280	600	5 000	34,1	72,3					
P23-1,6L-R1C2-SH04H03-N		L	1,6	280	600	5 000	34,1	72,3					
P23-1,2R-R1C2-SH04H03-N	187 9979	R	1,2	280	600	5 000	33,4	70,8					
P23-1,2L-R1C2-SH04H03-N		L	1,2	280	600	5 000	33,4	70,8					
P23-0,8R-R1C2-SH04H03-N		R	0,8	280	800	5 000	32,6	69,3					
P23-0,8L-R1C2-SH04H03-N		L	0,8	280	800	5 000	32,6	69,3					
ORDER KEY	PURCH. CODE	DIRECT. OF ROT.	DISPLACEMENT [cm ³ /1]	CONT. PRESS. [bar]	MIN. SPEED [min ⁻¹]	MAX. SPEED [min ⁻¹]	A	B	DIMENSION [mm]				F



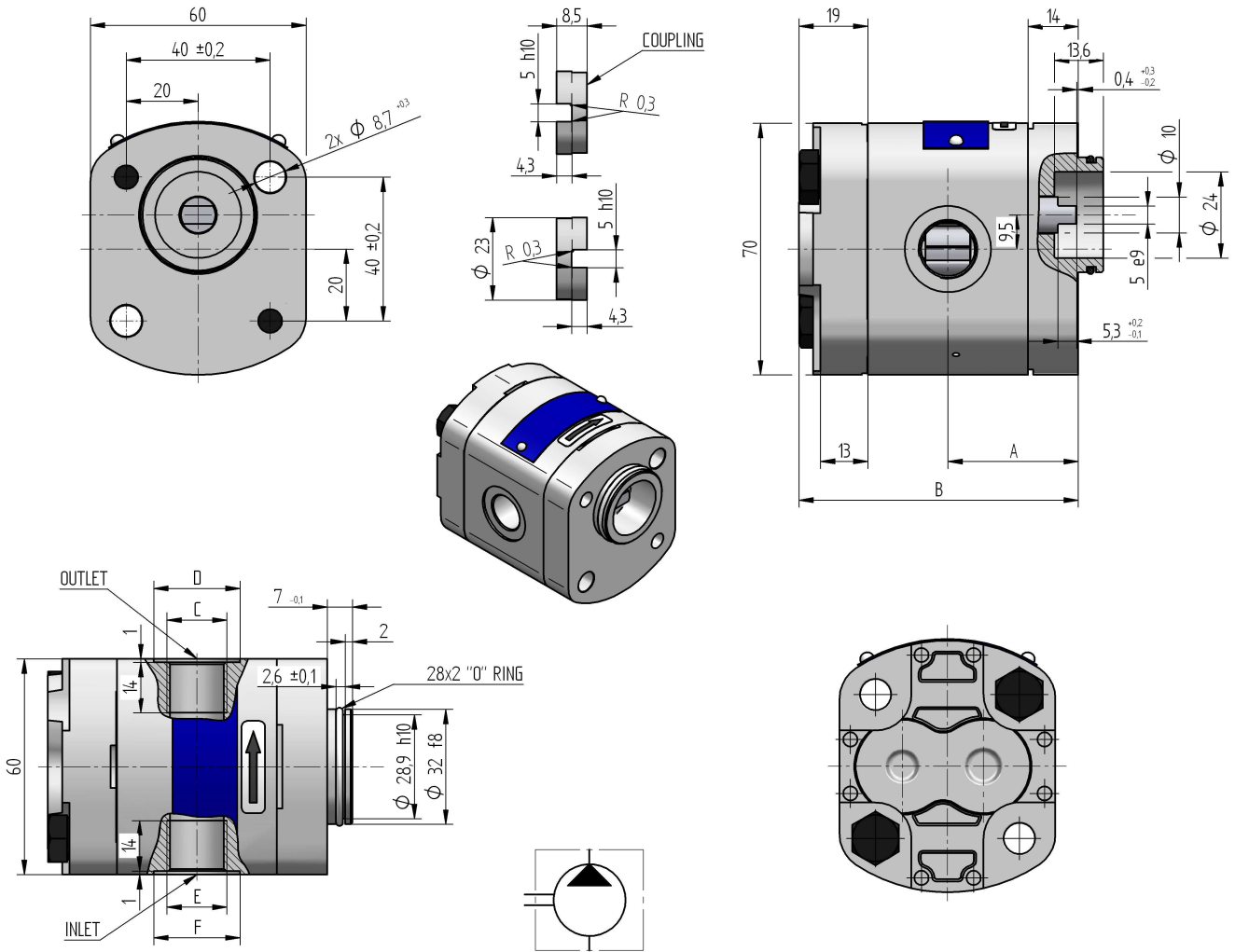
P23-7,9R-R1C1-SM07M07-N	187 9851	R	7,9	160	500	3 000	45,8	95,6	M22x1,5	Ø 28	M22x1,5	Ø 28
P23-7,9L-R1C1-SM07M07-N	187 9862	L	7,9	160	500	3 000	45,8	95,6	M22x1,5	Ø 28	M22x1,5	Ø 28
P23-6,2R-R1C1-SM07M07-N	187 9839	R	6,2	180	500	3 500	42,6	89,3	M22x1,5	Ø 28	M22x1,5	Ø 28
P23-6,2L-R1C1-SM07M07-N	187 9840	L	6,2	180	500	3 500	42,6	89,3	M22x1,5	Ø 28	M22x1,5	Ø 28
P23-5,8R-R1C1-SM05M07-N	187 9850	R	5,8	200	500	3 500	41,9	87,8	M18x1,5	Ø 24	M22x1,5	Ø 28
P23-5,8L-R1C1-SM05M07-N	187 9861	L	5,8	200	500	3 500	41,9	87,8	M18x1,5	Ø 24	M22x1,5	Ø 28
P23-4,8R-R1C1-SM05M05-N	187 9849	R	4,8	230	500	3 800	40,0	84,0	M18x1,5	Ø 24	M18x1,5	Ø 24
P23-4,8L-R1C1-SM05M05-N	187 9860	L	4,8	230	500	3 800	40,0	84,0	M18x1,5	Ø 24	M18x1,5	Ø 24
P23-4,4R-R1C1-SM05M05-N	187 9848	R	4,4	250	500	4 000	39,2	82,5	M18x1,5	Ø 24	M18x1,5	Ø 24
P23-4,4L-R1C1-SM05M05-N	187 9859	L	4,4	250	500	4 000	39,2	82,5	M18x1,5	Ø 24	M18x1,5	Ø 24
P23-3,6R-R1C1-SM05M05-N	187 9847	R	3,6	260	500	4 000	37,8	79,6	M18x1,5	Ø 24	M18x1,5	Ø 24
P23-3,6L-R1C1-SM05M05-N	187 9858	L	3,6	260	500	4 000	37,8	79,6	M18x1,5	Ø 24	M18x1,5	Ø 24
P23-3,3R-R1C1-SM05M05-N	187 9846	R	3,3	280	500	4 000	37,2	78,5	M18x1,5	Ø 24	M18x1,5	Ø 24
P23-3,3L-R1C1-SM05M05-N	187 9857	L	3,3	280	500	4 000	37,2	78,5	M18x1,5	Ø 24	M18x1,5	Ø 24
P23-2,5R-R1C1-SM05M05-N	187 9845	R	2,5	280	500	4 500	35,7	75,5	M18x1,5	Ø 24	M18x1,5	Ø 24
P23-2,5L-R1C1-SM05M05-N	187 9856	L	2,5	280	500	4 500	35,7	75,5	M18x1,5	Ø 24	M18x1,5	Ø 24
P23-2,1R-R1C1-SM05M05-N	187 9844	R	2,1	280	600	4 500	34,9	73,9	M18x1,5	Ø 24	M18x1,5	Ø 24
P23-2,1L-R1C1-SM05M05-N	187 9855	L	2,1	280	600	4 500	34,9	73,9	M18x1,5	Ø 24	M18x1,5	Ø 24
P23-1,6R-R1C1-SM03M03-N	187 9843	R	1,6	280	600	5 000	34,1	72,3	M14x1,5	Ø 20	M14x1,5	Ø 20
P23-1,6L-R1C1-SM03M03-N	187 9854	L	1,6	280	600	5 000	34,1	72,3	M14x1,5	Ø 20	M14x1,5	Ø 20
P23-1,2R-R1C1-SM03M03-N	187 9842	R	1,2	280	600	5 000	33,4	70,8	M14x1,5	Ø 20	M14x1,5	Ø 20
P23-1,2L-R1C1-SM03M03-N	187 9853	L	1,2	280	600	5 000	33,4	70,8	M14x1,5	Ø 20	M14x1,5	Ø 20
P23-0,8R-R1C1-SM03M03-N	187 9841	R	0,8	280	800	5 000	32,6	69,3	M14x1,5	Ø 20	M14x1,5	Ø 20
P23-0,8L-R1C1-SM03M03-N	187 9852	L	0,8	280	800	5 000	32,6	69,3	M14x1,5	Ø 20	M14x1,5	Ø 20
ORDER KEY	PURCH. CODE	DIRECT. OF ROT.	DISPLACEMENT [cm ³ /1]	CONT. PRESS. [bar]	MIN. SPEED [min ⁻¹]	MAX. SPEED [min ⁻¹]	A	B	DIMENSION [mm]		E	F



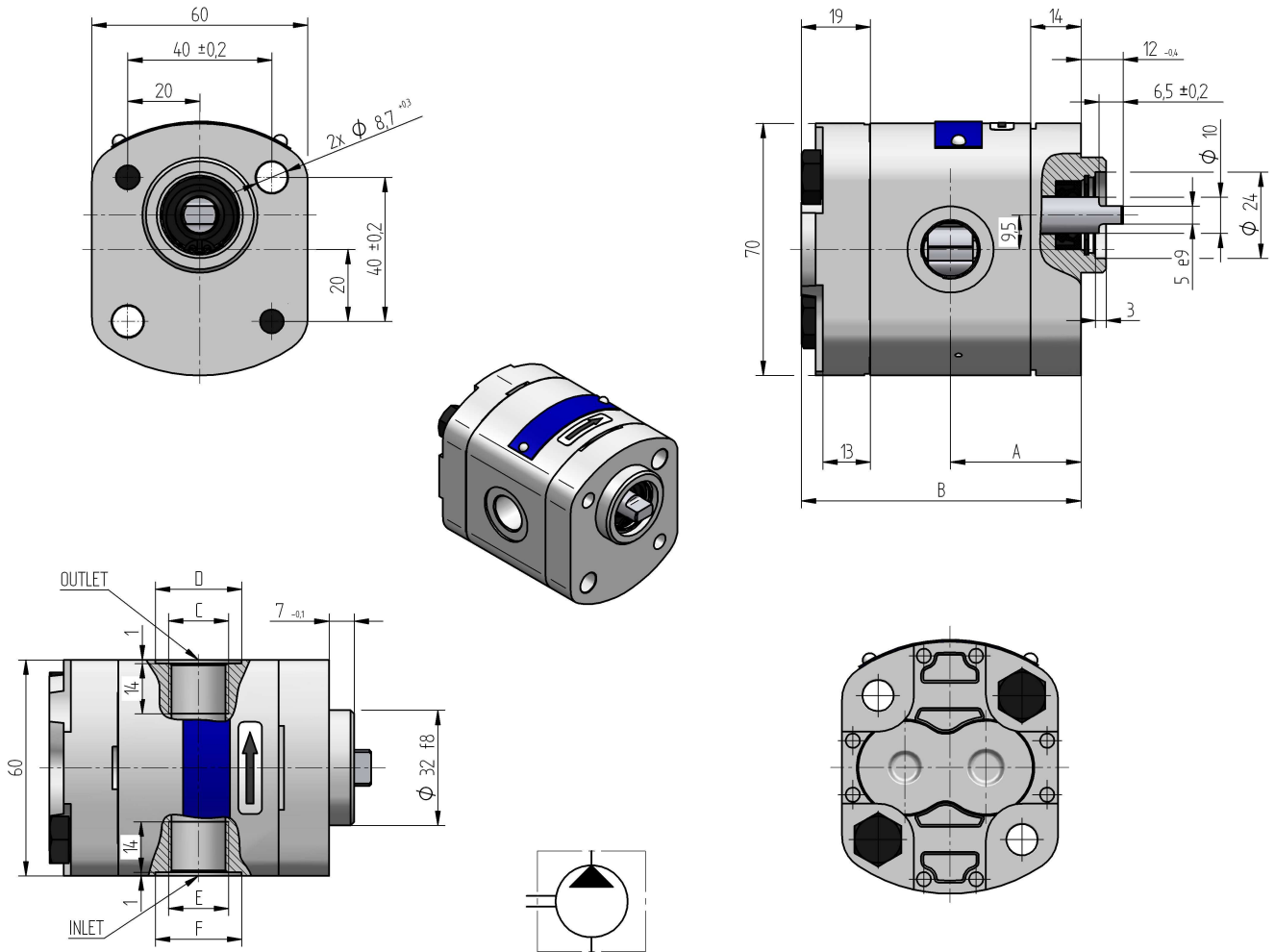
P23-7,9R-R1V4-SG02G02-N	187 9838	R	7,9	160	500	3 000	45,8	95,6	G 3/8	Ø 24	G 3/8	Ø 24
P23-7,9L-R1V4-SG02G02-N		L										
P23-6,2R-R1V4-SG02G02-N	187 9837	R	6,2	180	500	3 500	42,6	89,3	G 3/8	Ø 24	G 3/8	Ø 24
P23-6,2L-R1V4-SG02G02-N		L										
P23-5,8R-R1V4-SG02G02-N	187 9836	R	5,8	200	500	3 500	41,9	87,8	G 3/8	Ø 24	G 3/8	Ø 24
P23-5,8L-R1V4-SG02G02-N		L										
P23-4,8R-R1V4-SG02G02-N	187 9835	R	4,8	230	500	3 800	40,0	84,0	G 3/8	Ø 24	G 3/8	Ø 24
P23-4,8L-R1V4-SG02G02-N		L										
P23-4,4R-R1V4-SG02G02-N	187 9834	R	4,4	250	500	4 000	39,2	82,5	G 3/8	Ø 24	G 3/8	Ø 24
P23-4,4L-R1V4-SG02G02-N		L										
P23-3,6R-R1V4-SG02G02-N	187 9833	R	3,6	260	500	4 000	37,8	79,6	G 3/8	Ø 24	G 3/8	Ø 24
P23-3,6L-R1V4-SG02G02-N		L										
P23-3,3R-R1V4-SG02G02-N	187 9832	R	3,3	280	500	4 000	37,2	78,5	G 3/8	Ø 24	G 3/8	Ø 24
P23-3,3L-R1V4-SG02G02-N		L										
P23-2,5R-R1V4-SG02G02-N	187 9831	R	2,5	280	500	4 500	35,7	75,5	G 3/8	Ø 24	G 3/8	Ø 24
P23-2,5L-R1V4-SG02G02-N		L										
P23-2,1R-R1V4-SG02G02-N	187 9830	R	2,1	280	600	4 500	34,9	73,9	G 3/8	Ø 24	G 3/8	Ø 24
P23-2,1L-R1V4-SG02G02-N		L										
P23-1,6R-R1V4-SG02G02-N	187 9829	R	1,6	280	600	5 000	34,1	72,3	G 3/8	Ø 24	G 3/8	Ø 24
P23-1,6L-R1V4-SG02G02-N		L										
P23-1,2R-R1V4-SG02G02-N	187 9828	R	1,2	280	600	5 000	33,4	70,8	G 3/8	Ø 24	G 3/8	Ø 24
P23-1,2L-R1V4-SG02G02-N		L										
P23-0,8R-R1V4-SG02G02-N	187 9827	R	0,8	280	800	5 000	32,6	69,3	G 3/8	Ø 24	G 3/8	Ø 24
P23-0,8L-R1V4-SG02G02-N		L										
ORDER KEY	PURCH. CODE	DIRECT. OF ROT.	DISPLACEMENT [cm ³ /1]	CONT. PRESS. [bar]	MIN. SPEED [min ⁻¹]	MAX. SPEED [min ⁻¹]	A	B	DIMENSION [mm]			



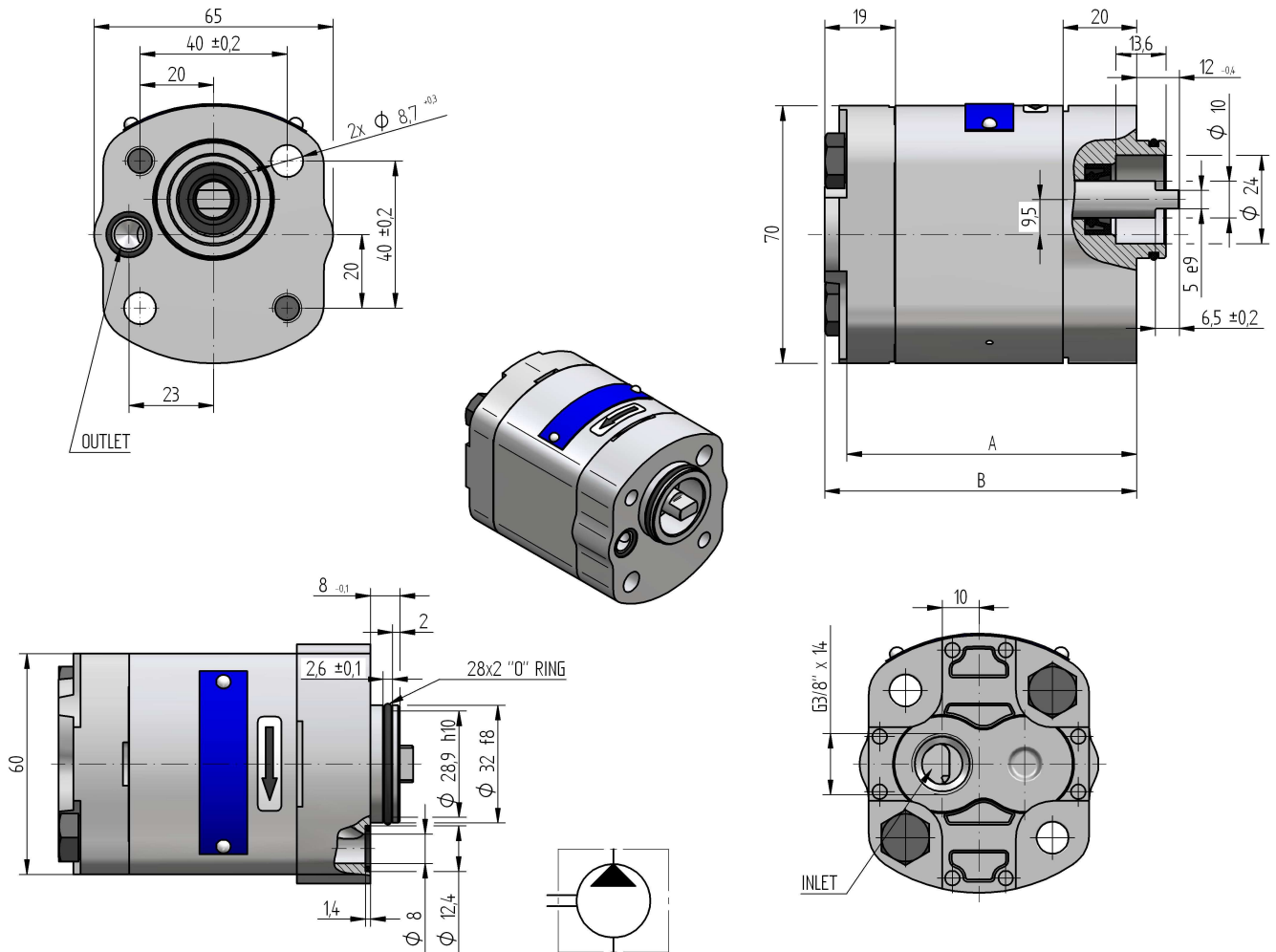
P23-7,9R-A1K1-SG02G02-N	187 9955	R	7,9	160	500	3 000	51,8	101,6	G 3/8	Ø 24	G 3/8	Ø 24
P23-7,9L-A1K1-SG02G02-N		L	7,9	160	500	3 000	51,8	101,6	G 3/8	Ø 24	G 3/8	Ø 24
P23-6,2R-A1K1-SG02G02-N		R	6,2	180	500	3 500	48,6	95,3	G 3/8	Ø 24	G 3/8	Ø 24
P23-6,2L-A1K1-SG02G02-N		L	6,2	180	500	3 500	48,6	95,3	G 3/8	Ø 24	G 3/8	Ø 24
P23-5,8R-A1K1-SG02G02-N	187 9004	R	5,8	200	500	3 500	47,9	93,8	G 3/8	Ø 24	G 3/8	Ø 24
P23-5,8L-A1K1-SG02G02-N		L	5,8	200	500	3 500	47,9	93,8	G 3/8	Ø 24	G 3/8	Ø 24
P23-4,8R-A1K1-SG02G02-N		R	4,8	230	500	3 800	46,0	90,0	G 3/8	Ø 24	G 3/8	Ø 24
P23-4,8L-A1K1-SG02G02-N		L	4,8	230	500	3 800	46,0	90,0	G 3/8	Ø 24	G 3/8	Ø 24
P23-4,4R-A1K1-SG02G02-N		R	4,4	250	500	4 000	45,2	88,5	G 3/8	Ø 24	G 3/8	Ø 24
P23-4,4L-A1K1-SG02G02-N		L	4,4	250	500	4 000	45,2	88,5	G 3/8	Ø 24	G 3/8	Ø 24
P23-3,6R-A1K1-SG02G02-N		R	3,6	260	500	4 000	43,8	85,6	G 3/8	Ø 24	G 3/8	Ø 24
P23-3,6L-A1K1-SG02G02-N		L	3,6	260	500	4 000	43,8	85,6	G 3/8	Ø 24	G 3/8	Ø 24
P23-3,3R-A1K1-SG02G02-N	187 9724	R	3,3	280	500	4 000	43,2	84,5	G 3/8	Ø 24	G 3/8	Ø 24
P23-3,3L-A1K1-SG02G02-N		L	3,3	280	500	4 000	43,2	84,5	G 3/8	Ø 24	G 3/8	Ø 24
P23-2,5R-A1K1-SG02G02-N		R	2,5	280	500	4 500	41,7	81,5	G 3/8	Ø 24	G 3/8	Ø 24
P23-2,5L-A1K1-SG02G02-N		L	2,5	280	500	4 500	41,7	81,5	G 3/8	Ø 24	G 3/8	Ø 24
P23-2,1R-A1K1-SG02G02-N	187 9991	R	2,1	280	600	4 500	40,9	79,9	G 3/8	Ø 24	G 3/8	Ø 24
P23-2,1L-A1K1-SG02G02-N	187 9966	L	2,1	280	600	4 500	40,9	79,9	G 3/8	Ø 24	G 3/8	Ø 24
P23-1,6R-A1K1-SG02G02-N		R	1,6	280	600	5 000	40,1	78,3	G 3/8	Ø 24	G 3/8	Ø 24
P23-1,6L-A1K1-SG02G02-N		L	1,6	280	600	5 000	40,1	78,3	G 3/8	Ø 24	G 3/8	Ø 24
P23-1,2R-A1K1-SG02G02-N		R	1,2	280	600	5 000	39,4	76,8	G 3/8	Ø 24	G 3/8	Ø 24
P23-1,2L-A1K1-SG02G02-N		L	1,2	280	600	5 000	39,4	76,8	G 3/8	Ø 24	G 3/8	Ø 24
P23-0,8R-A1K1-SG02G02-N		R	0,8	280	800	5 000	38,6	75,3	G 3/8	Ø 24	G 3/8	Ø 24
P23-0,8L-A1K1-SG02G02-N		L	0,8	280	800	5 000	38,6	75,3	G 3/8	Ø 24	G 3/8	Ø 24
ORDER KEY	PURCH. CODE	DIRECT. OF ROT.	DISPLACEMENT [cm ³ /1]	CONT. PRESS. [bar]	MIN. SPEED [min ⁻¹]	MAX. SPEED [min ⁻¹]	A	B	DIMENSION [mm]			



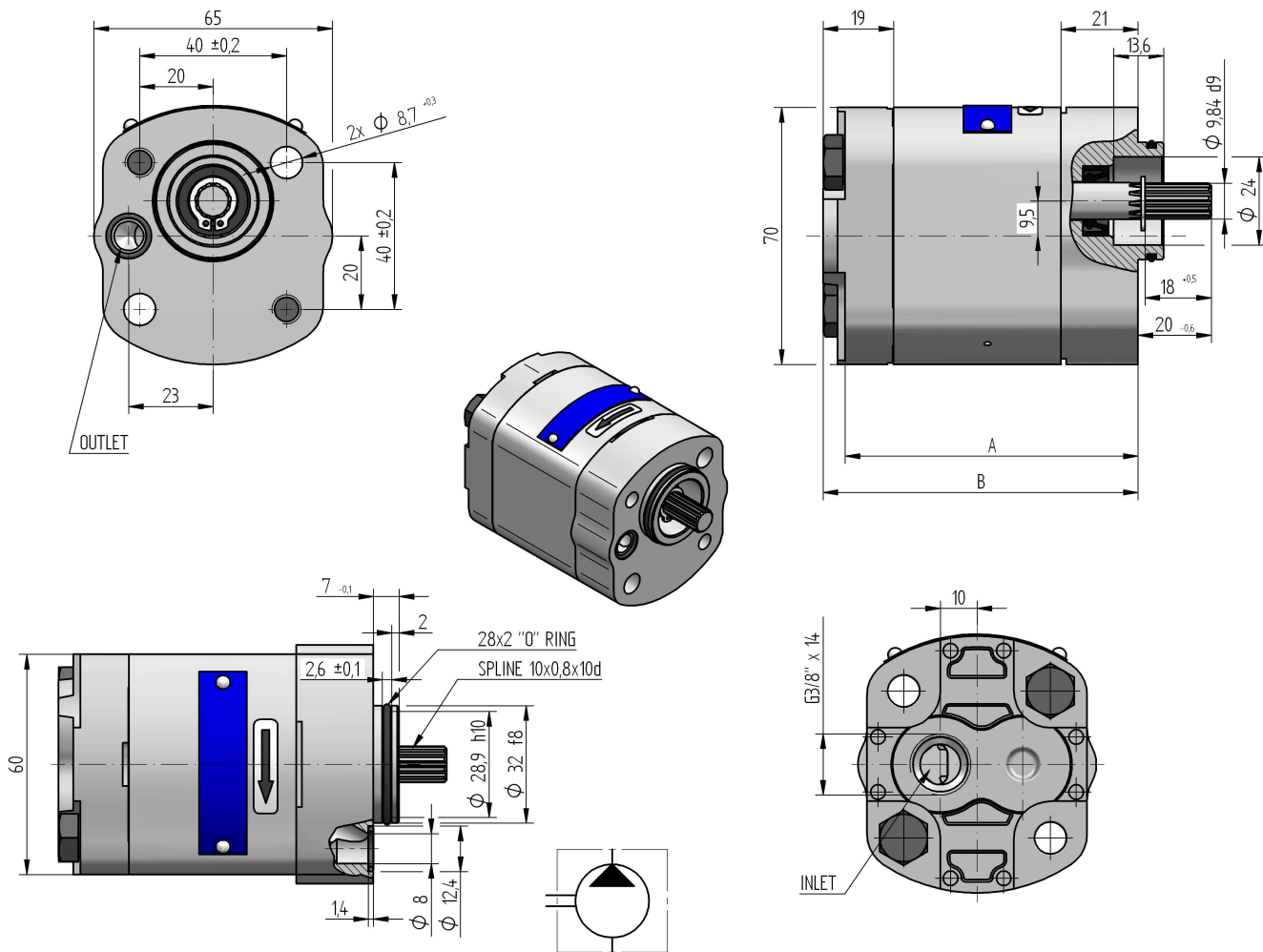
P23-7,9R-A3K1-SG02G02-N.004	187 9800	R	7,9	160	500	3 000	44,8	94,6	G 3/8	Ø 24	G 3/8	Ø 24
P23-7,9L-A3K1-SG02G02-N.004		L										
P23-6,2R-A3K1-SG02G02-N.004	187 9801	R	6,2	180	500	3 500	41,6	88,3	G 3/8	Ø 24	G 3/8	Ø 24
P23-6,2L-A3K1-SG02G02-N.004		L										
P23-5,8R-A3K1-SG02G02-N.004	187 9826	R	5,8	200	500	3 500	40,9	86,8	G 3/8	Ø 24	G 3/8	Ø 24
P23-5,8L-A3K1-SG02G02-N.004		L										
P23-4,8R-A3K1-SG02G02-N.004	187 9818	R	4,8	230	500	3 800	39,0	83,0	G 3/8	Ø 24	G 3/8	Ø 24
P23-4,8L-A3K1-SG02G02-N.004		L										
P23-4,4R-A3K1-SG02G02-N.004	187 9817	R	4,4	250	500	4 000	38,2	81,5	G 3/8	Ø 24	G 3/8	Ø 24
P23-4,4L-A3K1-SG02G02-N.004	187 9956	L										
P23-3,6R-A3K1-SG02G02-N.004	187 9816	R	3,6	260	500	4 000	36,8	78,6	G 3/8	Ø 24	G 3/8	Ø 24
P23-3,6L-A3K1-SG02G02-N.004		L										
P23-3,3R-A3K1-SG02G02-N.004	187 9815	R	3,3	280	500	4 000	36,2	77,5	G 3/8	Ø 24	G 3/8	Ø 24
P23-3,3L-A3K1-SG02G02-N.004		L										
P23-2,5R-A3K1-SG02G02-N.004	187 9814	R	2,5	280	500	4 500	34,7	74,5	G 3/8	Ø 24	G 3/8	Ø 24
P23-2,5L-A3K1-SG02G02-N.004	187 9819	L										
P23-2,1R-A3K1-SG02G02-N.004	187 9813	R	2,1	280	600	4 500	33,9	72,9	G 3/8	Ø 24	G 3/8	Ø 24
P23-2,1L-A3K1-SG02G02-N.004	187 9820	L										
P23-1,6R-A3K1-SG02G02-N.004	187 9812	R	1,6	280	600	5 000	33,1	71,3	G 3/8	Ø 24	G 3/8	Ø 24
P23-1,6L-A3K1-SG02G02-N.004		L										
P23-1,2R-A3K1-SG02G02-N.004	187 9825	R	1,2	280	600	5 000	32,4	69,8	G 3/8	Ø 24	G 3/8	Ø 24
P23-1,2L-A3K1-SG02G02-N.004		L										
P23-0,8R-A3K1-SG02G02-N.004	187 9824	R	0,8	280	800	5 000	31,6	68,3	G 3/8	Ø 24	G 3/8	Ø 24
P23-0,8L-A3K1-SG02G02-N.004		L										
ORDER KEY	PURCH. CODE	DIRECT. OF ROT.	DISPLACEMENT [cm ³ /1]	CONT. PRESS. [bar]	MIN. SPEED [min ⁻¹]	MAX. SPEED [min ⁻¹]	A	B	DIMENSION [mm]			



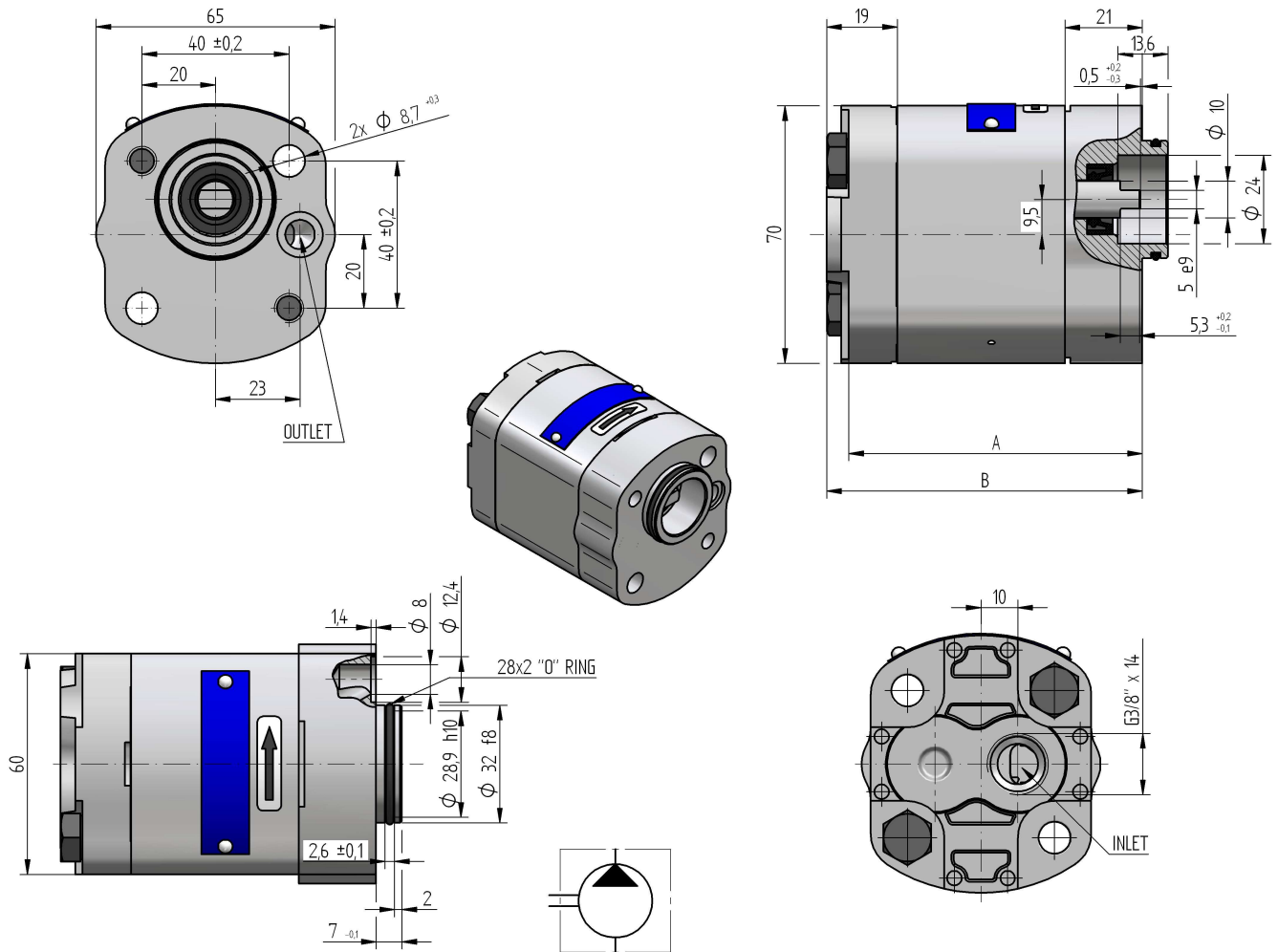
P23-7,9R-A4K2-SG02G02-N		R	7,9	160	500	3 000	44,8	94,6	G 3/8	Ø 24	G 3/8	Ø 24
P23-7,9L-A4K2-SG02G02-N		L	7,9	160	500	3 000	44,8	94,6	G 3/8	Ø 24	G 3/8	Ø 24
P23-6,2R-A4K2-SG02G02-N		R	6,2	180	500	3 500	41,6	88,3	G 3/8	Ø 24	G 3/8	Ø 24
P23-6,2L-A4K2-SG02G02-N		L	6,2	180	500	3 500	41,6	88,3	G 3/8	Ø 24	G 3/8	Ø 24
P23-5,8R-A4K2-SG02G02-N		R	5,8	200	500	3 500	40,9	86,8	G 3/8	Ø 24	G 3/8	Ø 24
P23-5,8L-A4K2-SG02G02-N		L	5,8	200	500	3 500	40,9	86,8	G 3/8	Ø 24	G 3/8	Ø 24
P23-4,8R-A4K2-SG02G02-N		R	4,8	230	500	3 800	39,0	83,0	G 3/8	Ø 24	G 3/8	Ø 24
P23-4,8L-A4K2-SG02G02-N		L	4,8	230	500	3 800	39,0	83,0	G 3/8	Ø 24	G 3/8	Ø 24
P23-4,4R-A4K2-SG02G02-N	187 9944	R	4,4	250	500	4 000	38,2	81,5	G 3/8	Ø 24	G 3/8	Ø 24
P23-4,4L-A4K2-SG02G02-N		L	4,4	250	500	4 000	38,2	81,5	G 3/8	Ø 24	G 3/8	Ø 24
P23-3,6R-A4K2-SG02G02-N		R	3,6	260	500	4 000	36,8	78,6	G 3/8	Ø 24	G 3/8	Ø 24
P23-3,6L-A4K2-SG02G02-N		L	3,6	260	500	4 000	36,8	78,6	G 3/8	Ø 24	G 3/8	Ø 24
P23-3,3R-A4K2-SG02G02-N		R	3,3	280	500	4 000	36,2	77,5	G 3/8	Ø 24	G 3/8	Ø 24
P23-3,3L-A4K2-SG02G02-N		L	3,3	280	500	4 000	36,2	77,5	G 3/8	Ø 24	G 3/8	Ø 24
P23-2,5R-A4K2-SG02G02-N	187 9943	R	2,5	280	500	4 500	34,7	74,5	G 3/8	Ø 24	G 3/8	Ø 24
P23-2,5L-A4K2-SG02G02-N		L	2,5	280	500	4 500	34,7	74,5	G 3/8	Ø 24	G 3/8	Ø 24
P23-2,1R-A4K2-SG02G02-N	187 9942	R	2,1	280	600	4 500	33,9	72,9	G 3/8	Ø 24	G 3/8	Ø 24
P23-2,1L-A4K2-SG02G02-N		L	2,1	280	600	4 500	33,9	72,9	G 3/8	Ø 24	G 3/8	Ø 24
P23-1,6R-A4K2-SG02G02-N		R	1,6	280	600	5 000	33,1	71,3	G 3/8	Ø 24	G 3/8	Ø 24
P23-1,6L-A4K2-SG02G02-N		L	1,6	280	600	5 000	33,1	71,3	G 3/8	Ø 24	G 3/8	Ø 24
P23-1,2R-A4K2-SG02G02-N		R	1,2	280	600	5 000	32,4	69,8	G 3/8	Ø 24	G 3/8	Ø 24
P23-1,2L-A4K2-SG02G02-N		L	1,2	280	600	5 000	32,4	69,8	G 3/8	Ø 24	G 3/8	Ø 24
P23-0,8R-A4K2-SG02G02-N		R	0,8	280	800	5 000	31,6	68,3	G 3/8	Ø 24	G 3/8	Ø 24
P23-0,8L-A4K2-SG02G02-N		L	0,8	280	800	5 000	31,6	68,3	G 3/8	Ø 24	G 3/8	Ø 24
ORDER KEY	PURCH. CODE	DIRECT. OF ROT.	DISPLACEMENT [cm ³ /1]	CONT. PRESS. [bar]	MIN. SPEED [min ⁻¹]	MAX. SPEED [min ⁻¹]	A	B	DIMENSION [mm]			
									C	D	E	F



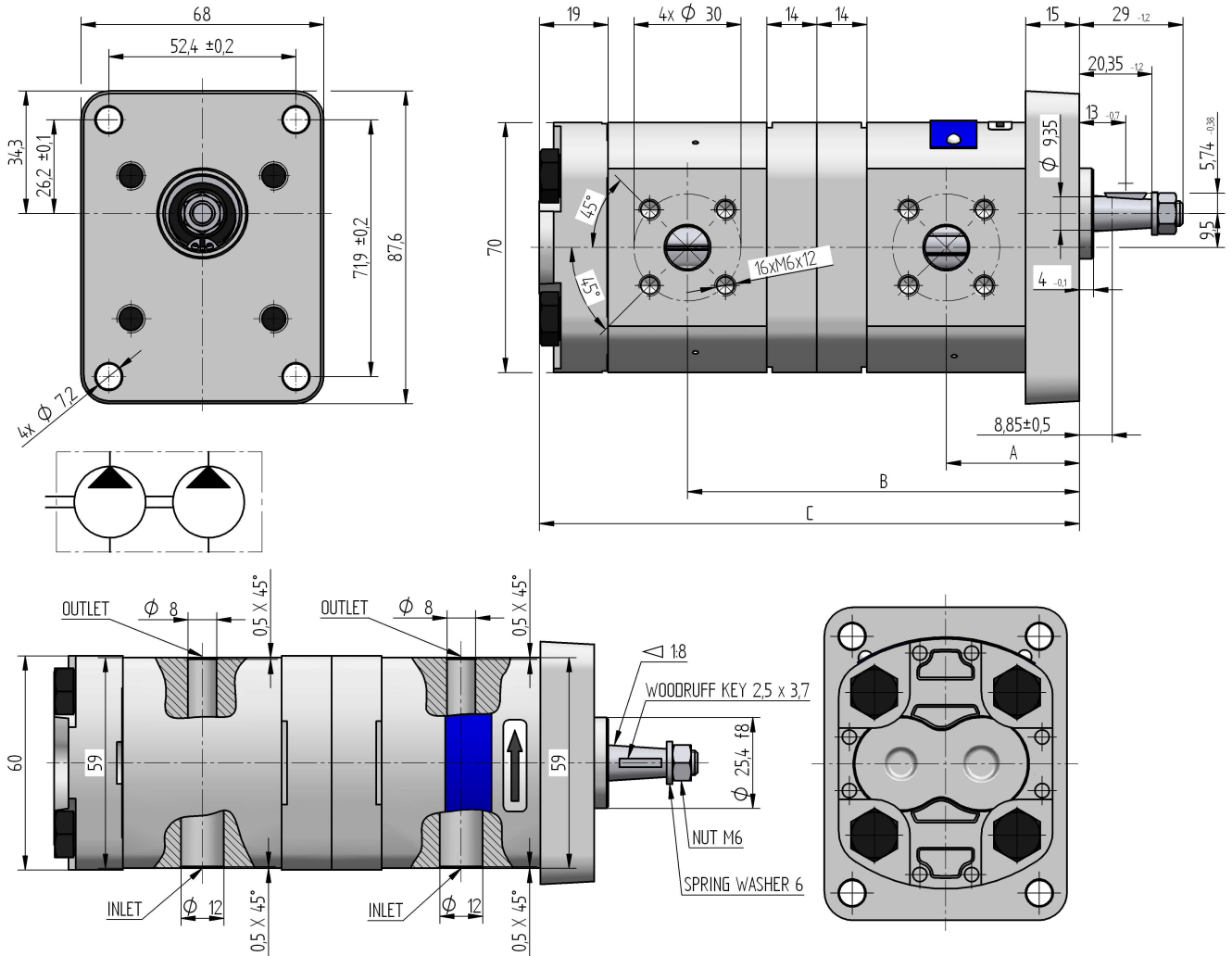
P23-7,9L-A2K2-AG02P01-N	187 9905	R L	7,9	160	500	3 000	94,6	100,6								
P23-6,2L-A2K2-AG02P01-N	187 9989	R L	6,2	180	500	3 500	88,3	94,3								
P23-5,8L-A2K2-AG02P01-N	187 9904	R L	5,8	200	500	3 500	86,8	92,8								
P23-4,8L-A2K2-AG02P01-N	187 9976	R L	4,8	230	500	3 800	83,0	89,0								
P23-4,4L-A2K2-AG02P01-N	187 9977	R L	4,4	250	500	4 000	81,5	87,5								
P23-3,6L-A2K2-AG02P01-N	187 9921	R L	3,6	260	500	4 000	78,6	84,6								
P23-3,3L-A2K2-AG02P01-N	187 9920	R L	3,3	280	500	4 000	77,5	83,5								
P23-2,5L-A2K2-AG02P01-N	187 9919	R L	2,5	280	500	4 500	74,5	80,5								
P23-2,1L-A2K2-AG02P01-N	187 9975	R L	2,1	280	600	4 500	72,9	78,9								
P23-1,6L-A2K2-AG02P01-N	187 9918	R L	1,6	280	600	5 000	71,3	77,3								
P23-1,2L-A2K2-AG02P01-N	187 9953	R L	1,2	280	600	5 000	69,8	75,8								
P23-0,8L-A2K2-AG02P01-N	187 9952	R L	0,8	280	800	5 000	68,3	74,3								
ORDER KEY	PURCH. CODE	DIRECT. OF ROT.	DISPLACEMENT [cm ³ /1]	CONT. PRESS. [bar]	MIN. SPEED [min ⁻¹]	MAX. SPEED [min ⁻¹]	A	B	DIMENSION [mm]				C	D	E	F



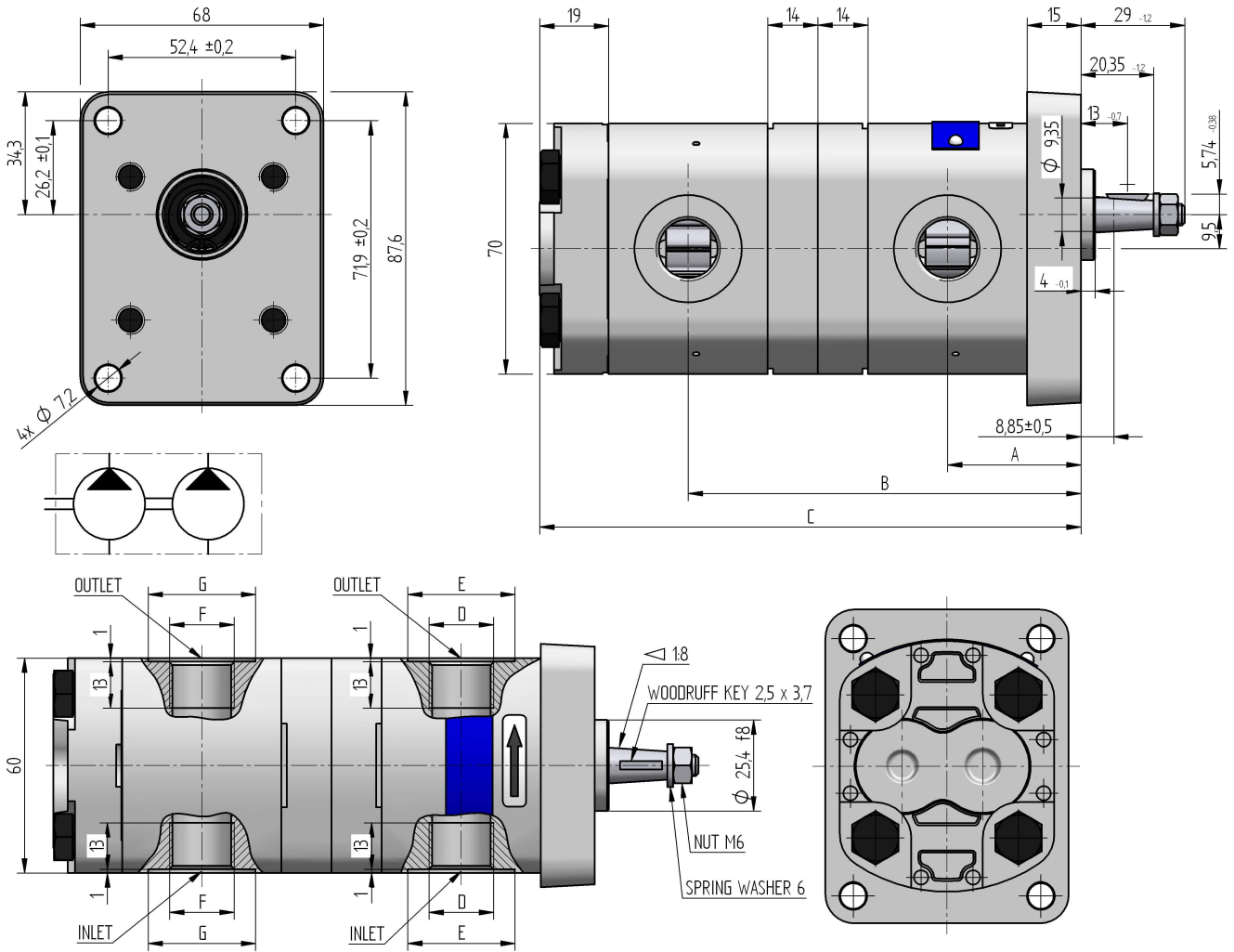
P23-7,9L-A1D1-AG02P01-N	187 9917	R	7,9	160	500	3 000	95,6	101,6					
P23-6,2L-A1D1-AG02P01-N	187 9916	R	6,2	180	500	3 500	89,3	95,3					
P23-5,8L-A1D1-AG02P01-N	187 9915	R	5,8	200	500	3 500	87,8	93,8					
P23-4,8L-A1D1-AG02P01-N	187 9914	R	4,8	230	500	3 800	84,0	90,0					
P23-4,4L-A1D1-AG02P01-N	187 9913	R	4,4	250	500	4 000	82,5	88,5					
P23-3,6L-A1D1-AG02P01-N	187 9912	R	3,6	260	500	4 000	79,6	85,6					
P23-3,3L-A1D1-AG02P01-N	187 9911	R	3,3	280	500	4 000	78,5	84,5					
P23-2,5L-A1D1-AG02P01-N	187 9910	R	2,5	280	500	4 500	75,5	81,5					
P23-2,1L-A1D1-AG02P01-N	187 9909	R	2,1	280	600	4 500	73,9	79,9					
P23-1,6L-A1D1-AG02P01-N	187 9908	R	1,6	280	600	5 000	72,3	78,3					
P23-1,2L-A1D1-AG02P01-N	187 9907	R	1,2	280	600	5 000	70,8	76,8					
P23-0,8L-A1D1-AG02P01-N	187 9906	R	0,8	280	800	5 000	69,3	75,3					
ORDER KEY	PURCH. CODE	DIRECT. OF ROT.	DISPLACEMENT [cm ³ /1]	CONT. PRESS. [bar]	MIN. SPEED [min ⁻¹]	MAX. SPEED [min ⁻¹]	A	B	C	D	E	F	
							DIMENSION [mm]						



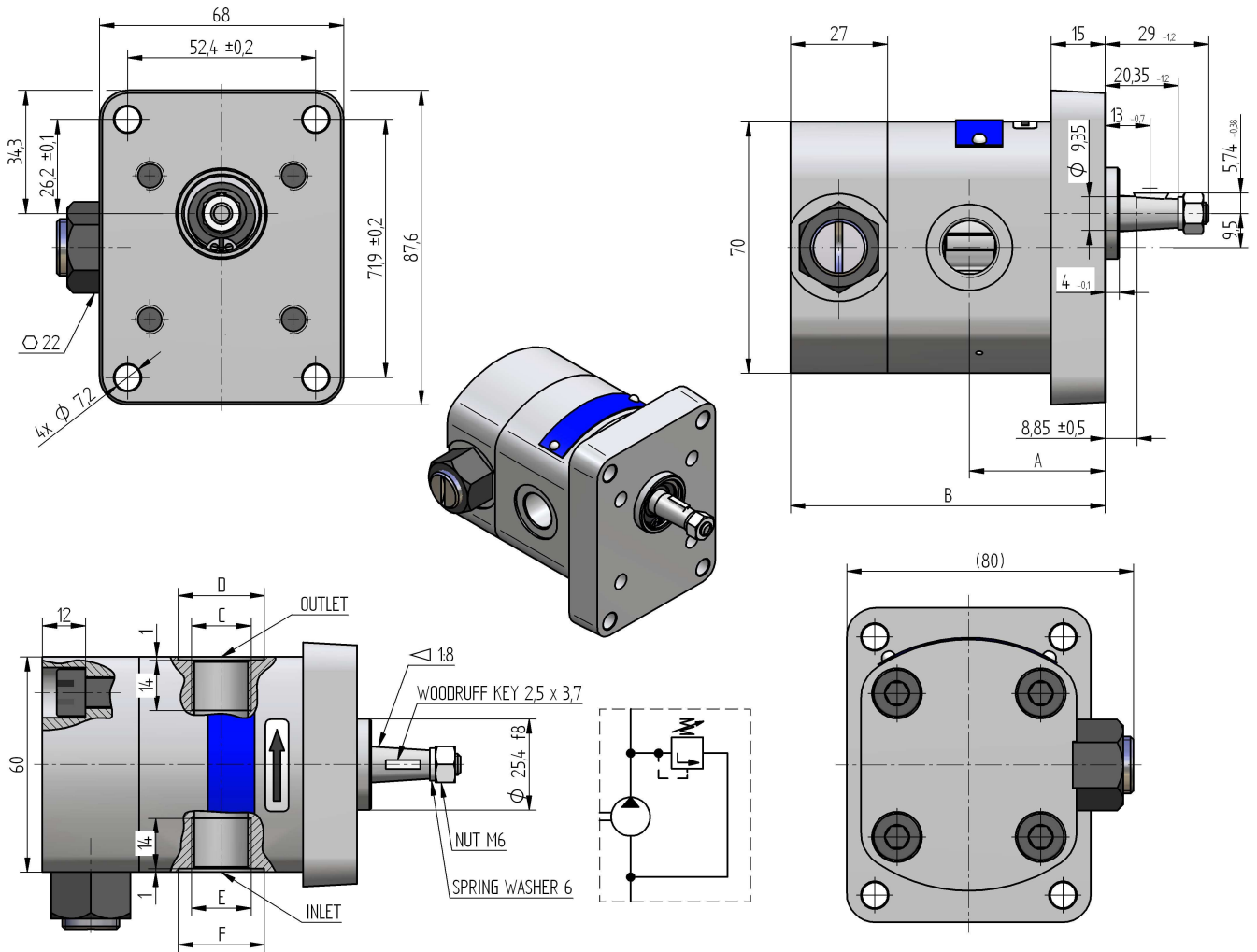
P23-7,9R-A1K1-AG02P01-N	187 9895	R	7,9	160	500	3 000	95,6	101,6					
		L											
P23-6,2R-A1K1-AG02P01-N	187 9898	R	6,2	180	500	3 500	89,3	95,3					
		L											
P23-5,8R-A1K1-AG02P01-N	187 9894	R	5,8	200	500	3 500	87,8	93,8					
		L											
P23-4,8R-A1K1-AG02P01-N	187 9900	R	4,8	230	500	3 800	84,0	90,0					
		L											
P23-4,4R-A1K1-AG02P01-N	187 9902	R	4,4	250	500	4 000	82,5	88,5					
		L											
P23-3,6R-A1K1-AG02P01-N	187 9901	R	3,6	260	500	4 000	79,6	85,6					
		L											
P23-3,3R-A1K1-AG02P01-N	187 9882	R	3,3	280	500	4 000	78,5	84,5					
		L											
P23-2,5R-A1K1-AG02P01-N	187 9897	R	2,5	280	500	4 500	75,5	81,5					
		L											
P23-2,1R-A1K1-AG02P01-N	187 9896	R	2,1	280	600	4 500	73,9	79,9					
		L											
P23-1,6R-A1K1-AG02P01-N	187 9998	R	1,6	280	600	5 000	72,3	78,3					
		L											
P23-1,2R-A1K1-AG02P01-N	187 9997	R	1,2	280	600	5 000	70,8	76,8					
		L											
P23-0,8R-A1K1-AG02P01-N	187 9996	R	0,8	280	800	5 000	69,3	75,3					
		L											
ORDER KEY	PURCH. CODE	DIRECT. OF ROT.	DISPLACEMENT [cm ³ /1]	CONT. PRESS. [bar]	MIN. SPEED [min ⁻¹]	MAX. SPEED [min ⁻¹]	A	B	DIMENSION [mm]				F



ORDER KEY	PURCH. CODE	DIRECT. OF ROT.	DISPLACEMENT [cm ³ /1]	CONT. PRESS. [bar]	MIN. SPEED [min ⁻¹]	MAX. SPEED [min ⁻¹]	A	B	C	DIMENSION [mm]			
										D	E	F	G
		R											
		L											
		R											
		L											
		R											
		L											
		R											
		L											
		R											
		L											
P23-6,2/2,5R-R1C1-SH04H03/H04H03-N		R	6,2/2,5	180/280	500	3 500	42,6	119,0	158,8				
		L											
P23-4,8/2,5R-R1C1-SH04H03/H04H03-N	187 9888	R	4,8/2,5	230/250	500	3 800	40,0	113,7	153,5				
		L											
P23-3,6/3,6R-R1C1-SH04H03/H04H03-N	187 9866	R	3,6/3,6	200/260	500	4 000	37,8	111,4	153,2				
		L											
P23-3,6/2,5R-R1C1-SH04H03/H04H03-N	187 9865	R	3,6/2,5	260/280	500	4 000	37,8	109,3	149,1				
		L											
P23-2,5/2,5R-R1C1-SH04H03/H04H03-N		R	2,5/2,5	280/280	500	4 500	35,7	105,2	145,0				
		L											
P23-1,2/0,8R-R1C1-SH04H03/H04H03-N		R	1,2/0,8	280/280	600	5 000	33,4	97,4	134,1				
		L											



ORDER KEY	PURCH. CODE	DIRECT. OF ROT.	DISPLACEMENT [cm ³ /1]	CONT. PRESS. [bar]	MIN. SPEED [min ⁻¹]	MAX. SPEED [min ⁻¹]	A	B	C	DIMENSION [mm]			
										D	E	F	G
		R											
		L											
		R											
		L											
		R											
		L											
		R											
		L											
		R											
		L											
		R											
		L											
P23-6,2/2,5R-R1C1-SM07M07/M05M05-N		R	6,2/2,5	180/280	500	3 500	42,6	119,0	158,8	M22x1,5	Ø 28	M18x1,5	Ø 24
		L											
P23-4,8/2,5R-R1C1-SM05M05/M05M05-N		R	4,8/2,5	230/250	500	3 800	40,0	113,7	153,5	M18x1,5	Ø 24	M18x1,5	Ø 24
		L											
P23-3,6/3,6R-R1C1-SM05M05/M05M05-N	187 9864	R	3,6/3,6	200/260	500	4 000	37,8	111,4	153,2	M18x1,5	Ø 24	M18x1,5	Ø 24
		L											
P23-3,6/2,5R-R1C1-SM05M05/M05M05-N		R	3,6/2,5	260/280	500	4 000	37,8	109,3	149,1	M18x1,5	Ø 24	M18x1,5	Ø 24
		L											
P23-2,5/2,5R-R1C1-SM05M05/M05M05-N		R	2,5/2,5	280/280	500	4 500	35,7	105,2	145,0	M18x1,5	Ø 24	M18x1,5	Ø 24
		L											
P23-1,2/0,8R-R1C1-SM03M03/M03M03-N		R	1,2/0,8	280/280	600	5 000	33,4	97,4	134,1	M14x1,5	Ø 20	M14x1,5	Ø 20
		L											



P23-7,9R-R1C1-SG02G02-N.002		R	7,9		500	3 000	45,8	103,6	G 3/8"	Ø 24	G 3/8"	Ø 24
		L										
P23-6,2R-R1C1-SG02G02-N.002		R	6,2		500	3 500	42,6	97,3	G 3/8"	Ø 24	G 3/8"	Ø 24
		L										
P23-5,8R-R1C1-SG02G02-N.002		R	5,8		500	3 500	41,9	95,8	G 3/8"	Ø 24	G 3/8"	Ø 24
		L										
P23-4,8R-R1C1-SG02G02-N.002		R	4,8		500	3 800	40,0	92,0	G 3/8"	Ø 24	G 3/8"	Ø 24
		L										
P23-4,4R-R1C1-SG02G02-N.002		R	4,4		500	4 000	39,2	90,5	G 3/8"	Ø 24	G 3/8"	Ø 24
		L										
P23-3,6R-R1C1-SG02G02-N.002	187 9002	R	3,6	60 ± 5	500	4 000	37,8	87,6	G 3/8"	Ø 24	G 3/8"	Ø 24
		L										
P23-3,3R-R1C1-SG02G02-N.002		R	3,3		500	4 000	37,2	86,5	G 3/8"	Ø 24	G 3/8"	Ø 24
		L										
P23-2,5R-R1C1-SG02G02-N.002		R	2,5		500	4 500	35,7	83,5	G 3/8"	Ø 24	G 3/8"	Ø 24
		L										
P23-2,1R-R1C1-SG02G02-N.002		R	2,1		600	4 500	34,9	81,9	G 3/8"	Ø 24	G 3/8"	Ø 24
		L										
P23-1,6R-R1C1-SG02G02-N.002		R	1,6		600	5 000	34,1	80,3	G 3/8"	Ø 24	G 3/8"	Ø 24
		L										
P23-1,2R-R1C1-SG02G02-N.002		R	1,2		600	5 000	33,4	78,8	G 3/8"	Ø 24	G 3/8"	Ø 24
		L										
P23-0,8R-R1C1-SG02G02-N.002		R	0,8		800	5 000	32,6	77,3	G 3/8"	Ø 24	G 3/8"	Ø 24
		L										
ORDER KEY	PURCH. CODE	DIRECT. OF ROT.	DISPLACEMENT [cm ³ /1]	CONT. PRESS. [bar]	MIN. SPEED [min ⁻¹]	MAX. SPEED [min ⁻¹]	A	B	DIMENSION [mm]			
									C	D	E	F

