

Displacement from 0.8 to 11.8 ccm
Pressure up to 280 bar
Speed from 500 to 5000 RPM

GEAR PUMPS
P23

TABLE OF CONTENTS

DESCRIPTION 2

BASIC PARTS 2

PARAMETER TABLE 3

FORMULAS USED FOR CALCULATION 4

PUMP EFFICIENCIES 4

WORKING LIQUID 5

PRESSURE LOAD 5

DIRECTION OF ROTATION 6

REVERSIBLE DESIGN 6

P23 FLOW RATE AND POWER CURVES 7

ORDER KEY – SINGLE VERSION 11

ORDER KEY – MULTIPLE VERSION 12

COMBINATION OF FLANGES AND SHAFTS 13

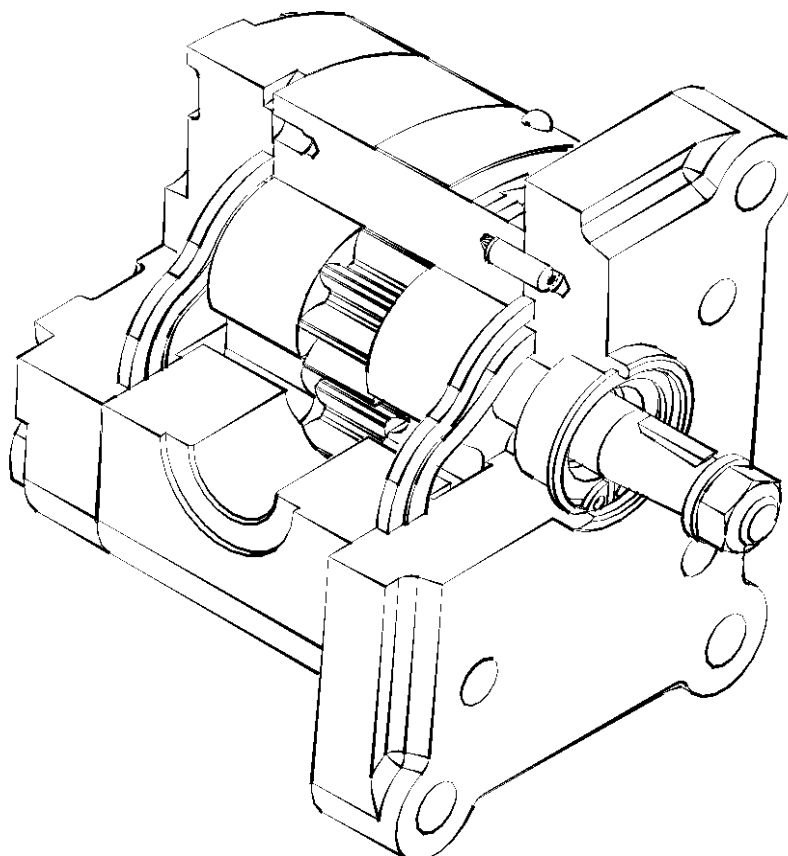
FLANGE DESIGN 14

DRIVE SHAFTS 15

COMBINATION OF LIQUID INLETS AND OUTLETS 17

CATALOGUE SHEETS OF P23 SERIES BASIC DESIGN 18

NOTES: 34



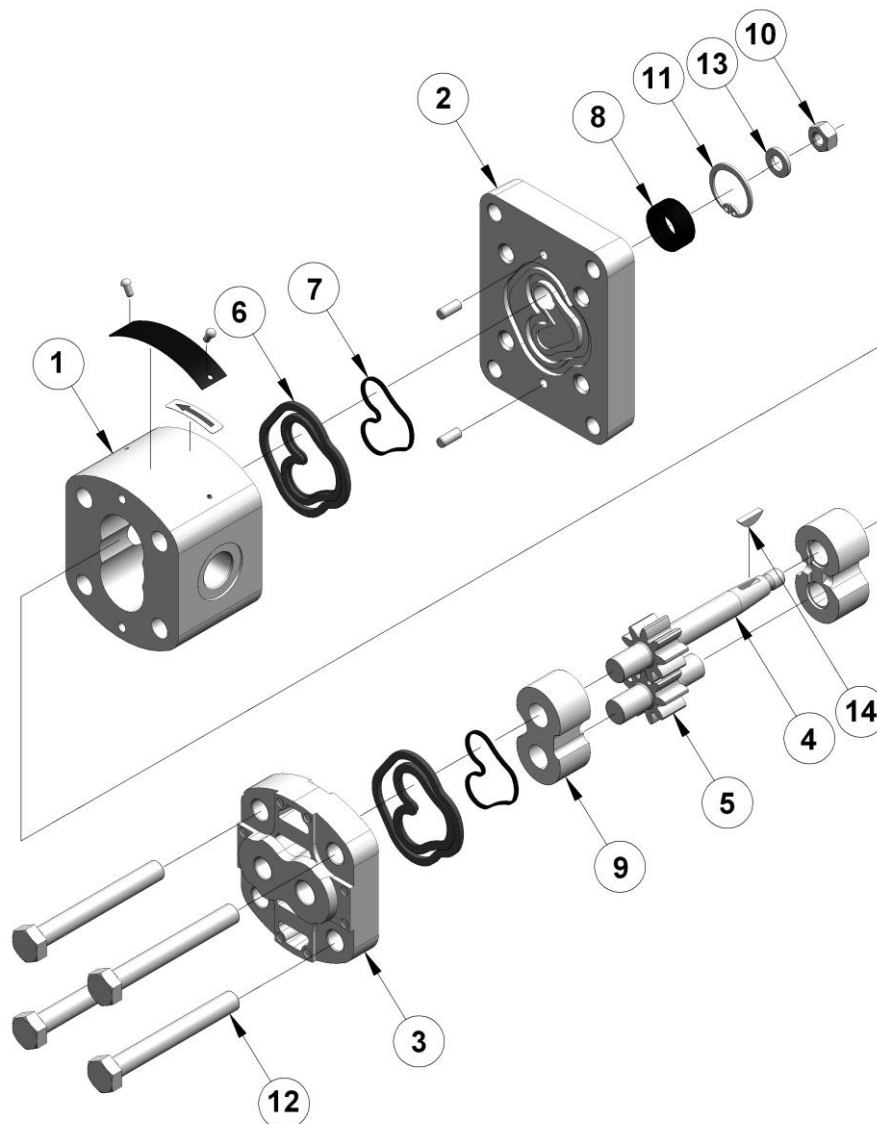
DESCRIPTION

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 efficiency in the entire range of speed have been improved. As for their dimensions, P23 pumps are fully interchangeable with P and P2 pumps.

BASIC PARTS



- | | |
|-----------------------------|----------------------|
| 1. Body | 8. Shaft seal |
| 2. Flange | 9. Bearing sleeves |
| 3. Cover | 10. Nut |
| 4. Driving gear | 11. Safety ring |
| 5. Driven gear | 12. Connection bolts |
| 6. Balancing sealing | 13. Spring washer |
| 7. Sealing protective plate | 14. Woodruff key |

PARAMETER TABLE

Nominal Size Parameters		Sym.	Unit	P23 0.8	P23 1.2	P23 1.6	P23 2.1	P23 2.5	P23 3.3	P23 3.6
Actual displacement		V_g	[cm ³ /rev]	0.855	1.257	1.686	2.086	2.514	3.316	3.611
Rotation speed	nominal	n_n	[min ⁻¹]	1500						
	minimum	n_{min}	[min ⁻¹]	800		600		500		
	maximum	n_{max}	[min ⁻¹]	5000		4500		4000		
Pressure at inlet *	minimum	p_{1min}	[bar]	-0.3						
	maximum	p_{1max}	[bar]	0.5						
Pressure at outlet **	max. continuous	p_{2n}	[bar]	280						260
	maximum	p_{2max}	[bar]	300						280
	peak	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]	3.92	5.88	7.06	9.26	9.80	12.94	14.11
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
Maximum 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		Sym.	Unit	P23 4.4	P23 4.8	P23 5.8	P23 6.2	P23 7.9	P23 11.8
Actual displacement		V_g	[cm ³ /rev]	4.386	4.787	5.804	6.205	7.890	11.795
Rotation speed	nominal	n_n	[min ⁻¹]	1500					
	minimum	n_{min}	[min ⁻¹]	500					
	maximum	n_{max}	[min ⁻¹]	4000	3800		3500	3000	1800
Pressure at inlet *	minimum	p_{1min}	[bar]	-0.30					
	maximum	p_{1max}	[bar]	0.50					
Pressure at outlet **	max. continuous	p_{2n}	[bar]	250	230	200	180	160	100
	maximum	p_{2max}	[bar]	270	250	220	200	180	150
	peak	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]	17.25	17.88	21.60	21.27	23.23	20.82
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
Maximum 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		Sym.	Unit	P23 1.0	P23 2.3	P23 2.65	P23 6.4	P23 7.0	P23 10.0
Actual displacement		V_g	[cm ³ /rev]	1.016	2.301	2.674	6.419	7.007	10.003
Rotation speed	nominal	n_n	[min ⁻¹]	1500					
	minimum	n_{min}	[min ⁻¹]	800	500				
	maximum	n_{max}	[min ⁻¹]	5000	4500		3500	3000	1800
Pressure at inlet *	minimum	p_{1min}	[bar]	-0.30					
	maximum	p_{1max}	[bar]	0.50					
Pressure at outlet **	max. continuous	p_{2n}	[bar]	280			180	170	100
	maximum	p_{2max}	[bar]	300			200	190	150
	peak	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]	4.90	10.14	11.69	21.95	20.58	17.64
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
Maximum 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

* Inlet pressure in the reversible design can be up to $p_1 = p_{2n} - 70$ bar max. External drainage must be used in case of the reversible design.

** Outlet pressure in the reversible design is **10% lower** than shown in the table (depending on operating conditions - it is necessary to consult with the manufacturer).

FORMULAS USED FOR CALCULATION

Flow rate

$$Q = \frac{V_g \cdot n}{1000} \cdot \eta_v \quad [\text{dm}^3 \text{ min}^{-1}]$$

V_g	[cm ³]	pump displacement
n	[min ⁻¹]	rotation speed
η_v	[-]	volumetric efficiency

Displacement

$$V_g = \frac{Q \cdot 1000}{n \cdot \eta_v} \quad [\text{cm}^3]$$

Torque

$$M_k = \frac{V_g \cdot p}{20 \cdot \pi \cdot \eta_m} \quad [\text{Nm}]$$

p	[bar]	required pressure at outlet
η_m	[-]	mechanical efficiency

Input power

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

η_t	[-]	total efficiency
----------	-----	------------------

PUMP EFFICIENCIES

Volumetric efficiency η_v

It determines the amount of flow losses. Its value is $\eta_v = 0.92 \div 0.98$ (depending on rotation speed, viscosity of working liquid and outlet pressure). It can be expressed as follows:

$$\eta_v = \frac{Q_{act.}}{Q_{theor.}} \quad [-]$$

$Q_{act.}$	[dm ³ min ⁻¹]	actual flow rate
$Q_{theor.}$	[dm ³ min ⁻¹]	theoretical flow rate

Mechanical efficiency η_m

It determines mechanical losses. Its value is about $\eta_m = 0.85$. It can be expressed as follows:

$$\eta_m = \frac{M_{theor.}}{M_{act.}} \quad [-]$$

$M_{act.}$	[Nm]	actual torque
$M_{theor.}$	[Nm]	theoretical torque

Total efficiency η_t

It is defined as product of η_v and η_m and determines difference between theoretical and actual required input power:

$$\eta_t = \eta_v \cdot \eta_m = \frac{P_{theor.}}{P_{act.}} \quad [-]$$

$P_{act.}$	[kW]	actual input power
$P_{theor.}$	[kW]	theoretical input power

WORKING LIQUID

- Mineral oils for hydraulic drives
- Hydraulic liquids based on plant oils suitable for hydraulic drives

Liquid temperature

$$t = -20 \div +80 \text{ [}^\circ\text{C]} \quad \text{when used with FKM (Viton) seal up to } 120 \text{ [}^\circ\text{C]}$$

Cinematic viscosity

Recommended (during continuous operation): $v = 20 \div 80 \cdot 10^{-6} \text{ [m}^2 \cdot \text{s}^{-1}\text{]}$

Maximum (cold starting, at viscosity >1000 , operating pressure <10 bar is permissible, speed $<1500 \cdot \text{min}^{-1}$): $v = 1200 \cdot 10^{-6} \text{ [m}^2 \cdot \text{s}^{-1}\text{]}$

Minimum (operating mode at $10 \cdot 10^{-6}$ up to $20 \cdot 10^{-6}$ should be consulted with manufacturer): $v = 10 \cdot 10^{-6} \text{ [m}^2 \cdot \text{s}^{-1}\text{]}$

Filtration coefficient β_α

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

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

Liquid contamination class according to ISO 4406

$$21/18/15 \quad \text{(for pressure } p_2 < 200 \text{ bar)}$$

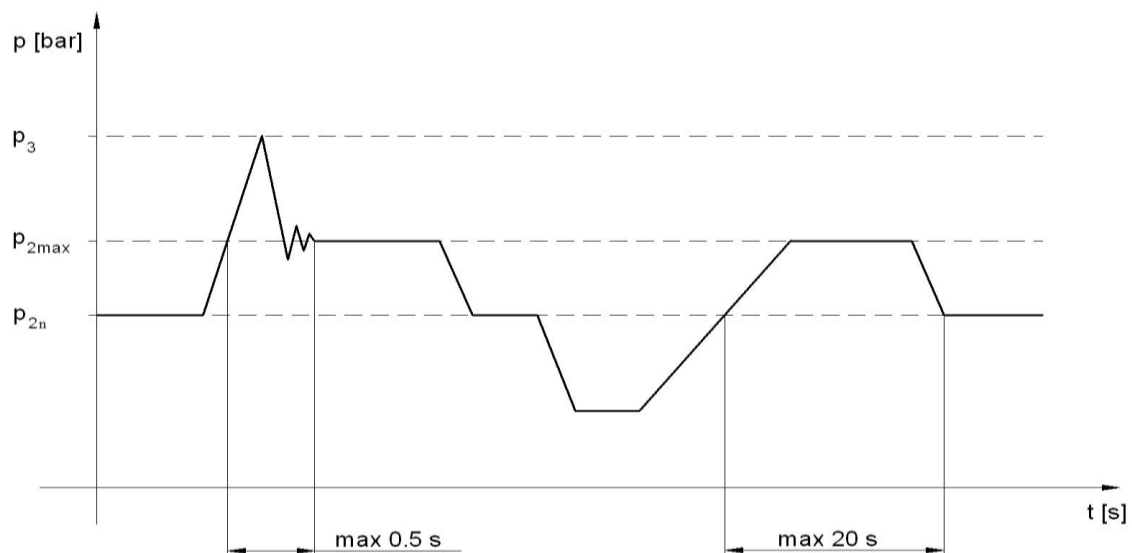
$$20/17/14 \quad \text{(for pressure } p_2 > 200 \text{ bar)}$$

Liquid contamination class according to NAS 1638

$$10 \quad \text{(for pressure } p_2 < 200 \text{ bar)}$$

$$8 \quad \text{(for pressure } p_2 > 200 \text{ bar)}$$

PRESSURE LOAD



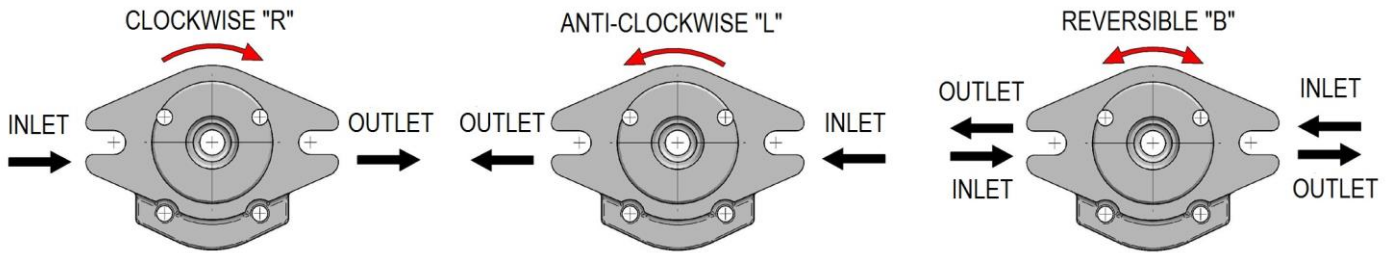
p_{2n} max. contin. pressure max. working pressure, at which the pump can be operated without time limitation.

p_{2max} max. pressure maximum pressure permissible for a short time, max. 20s.

p_3 peak pressure short-time pressure (fractions of a second) arising in case of a sudden change of the operating mode; any excess of this pressure during operation is impermissible.

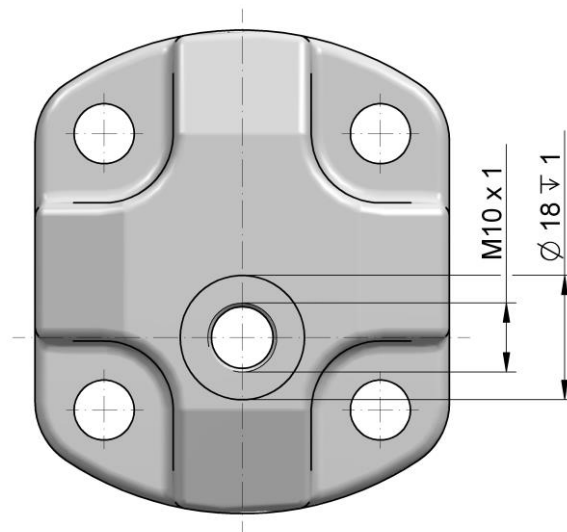
DIRECTION OF ROTATION

Determine direction of rotation by looking at the drive shaft. The pump can only be used in the specified direction of rotation.

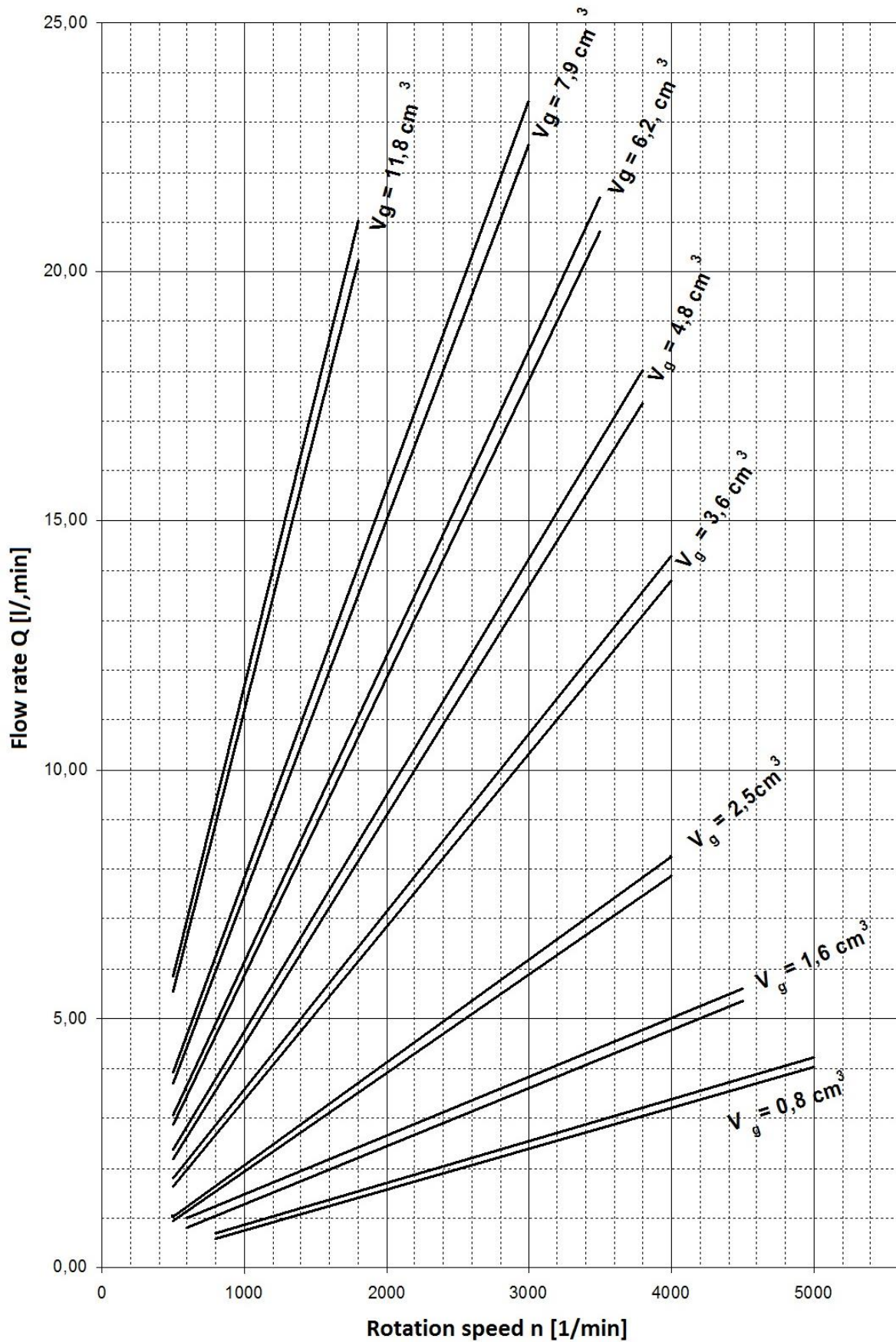


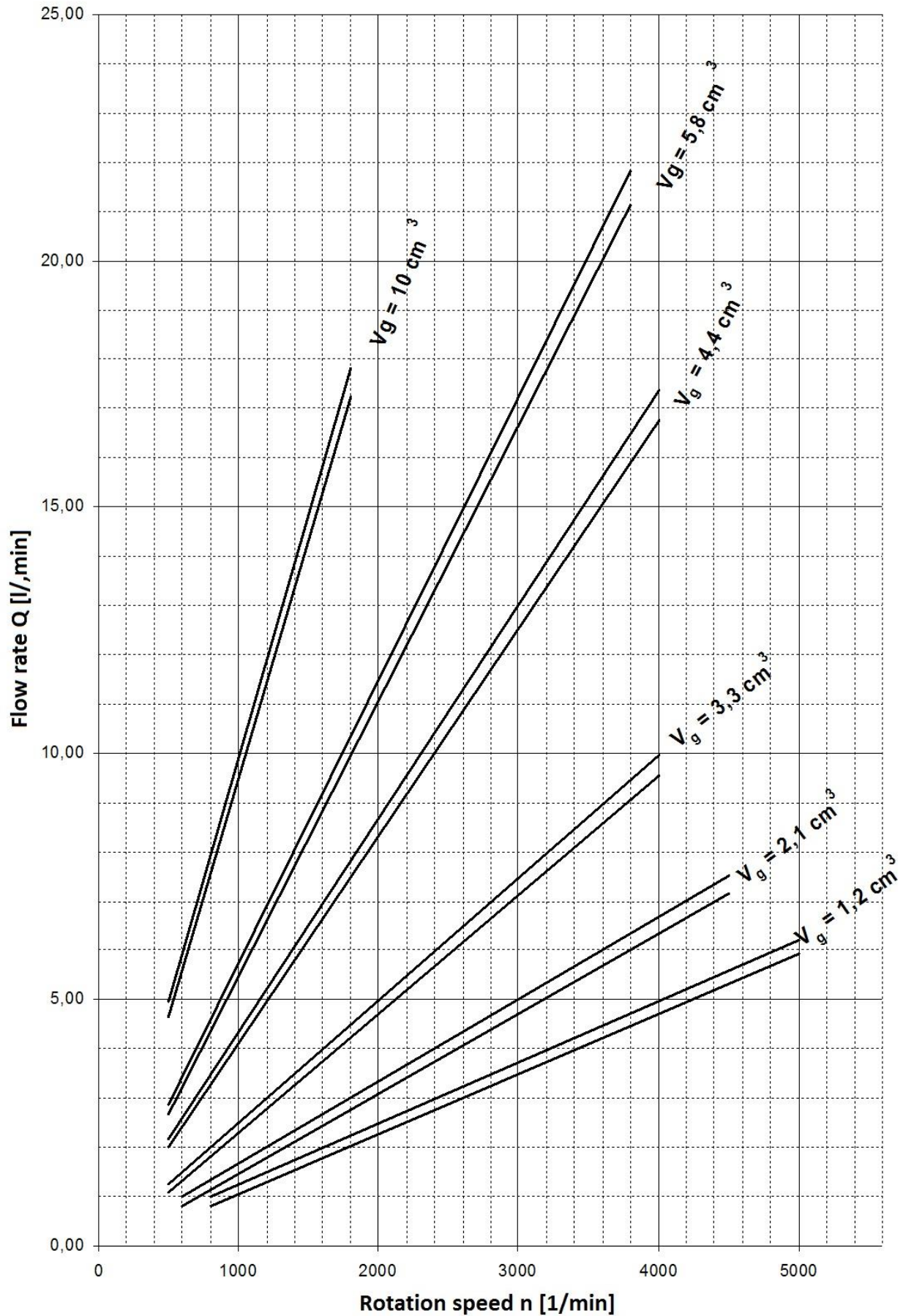
REVERSIBLE DESIGN

The pumps with the possibility of bidirectional rotation have a different internal arrangement requiring drainage. Two types of drain are used - internal and external. The internal drainage is always interconnected with the outlet by means of valves. The external drainage is solved by an orifice located in the cover opposite the driven gear (see. picture below).

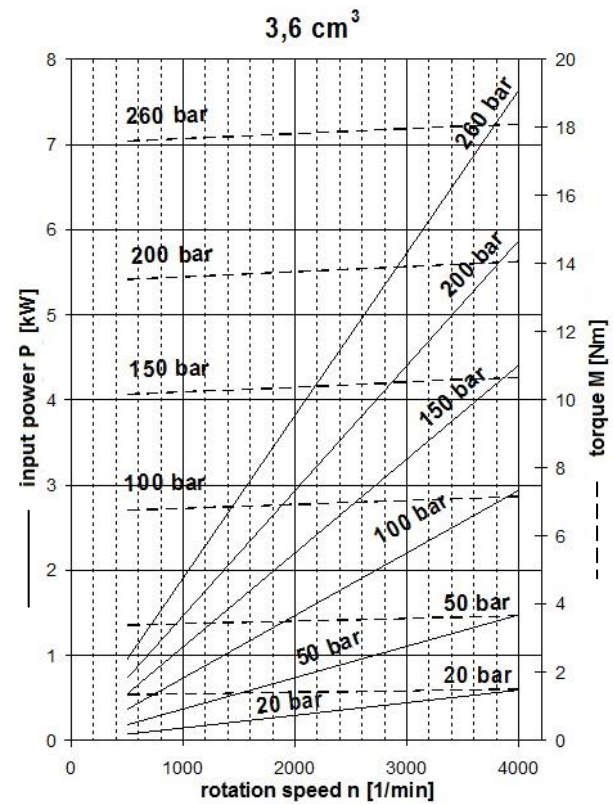
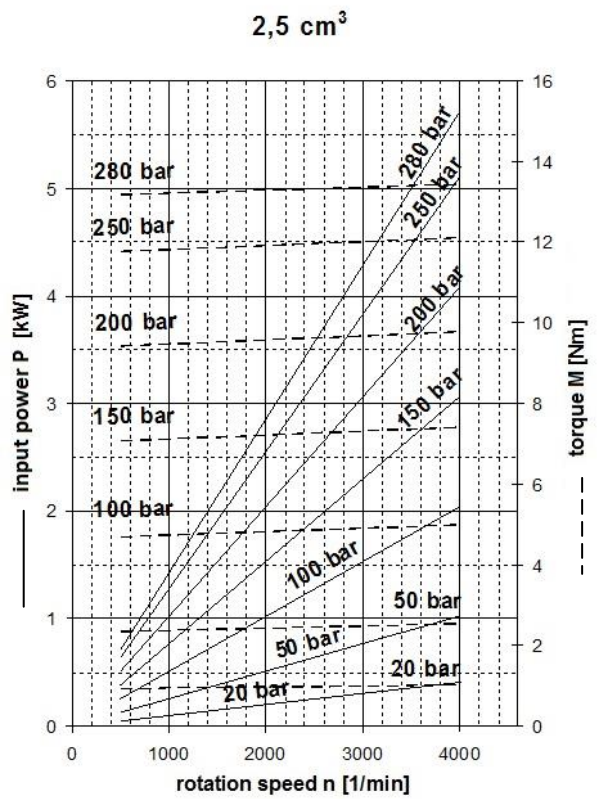
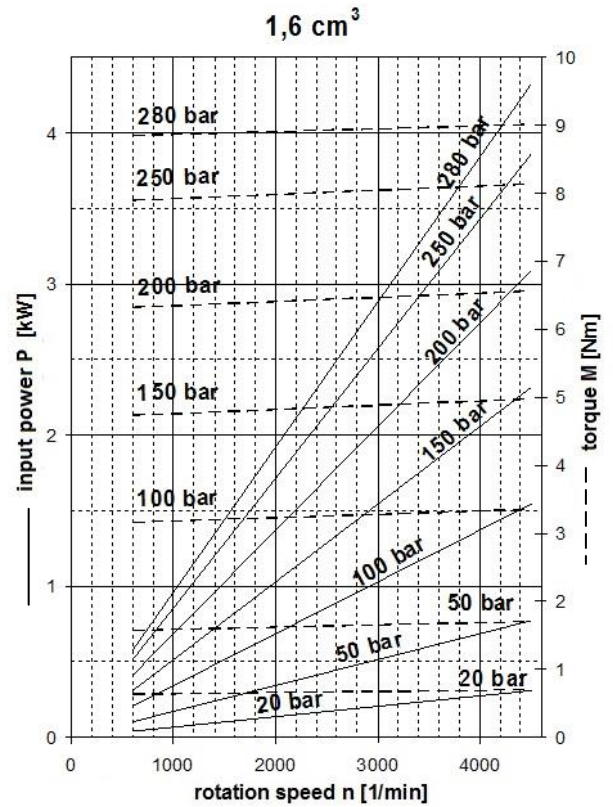
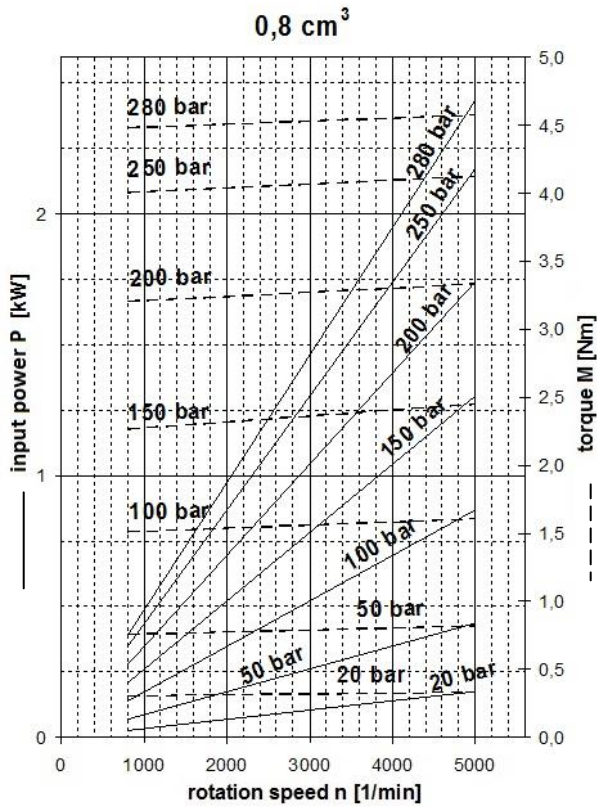


P23 FLOW RATE AND POWER CURVES

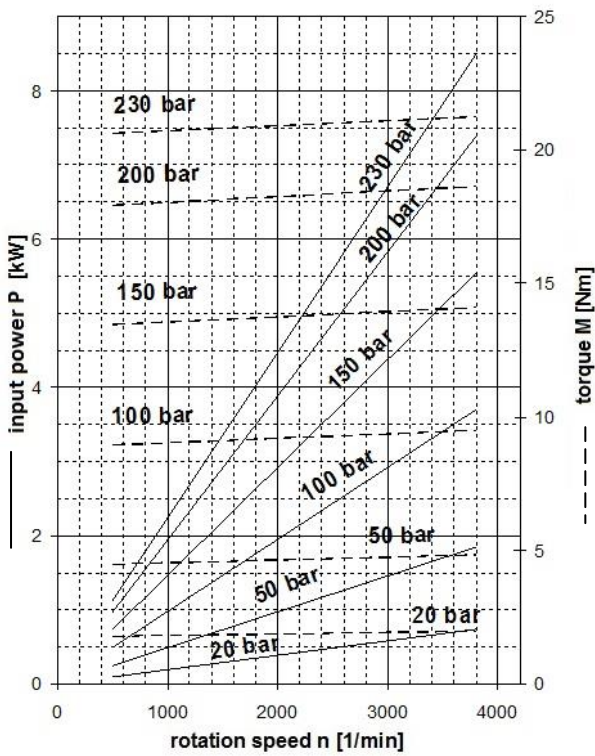




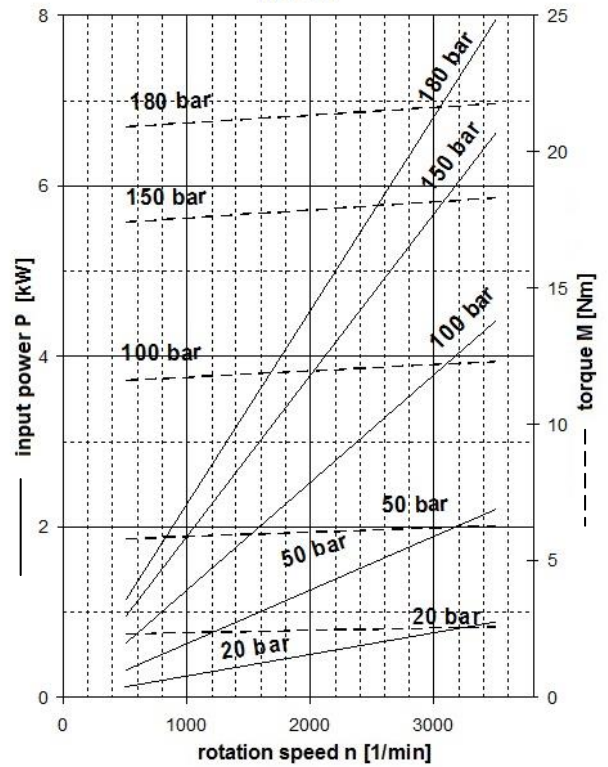
Above curves apply to ISO Vg 46 oil at temperature $t = 45^\circ\text{C}$.



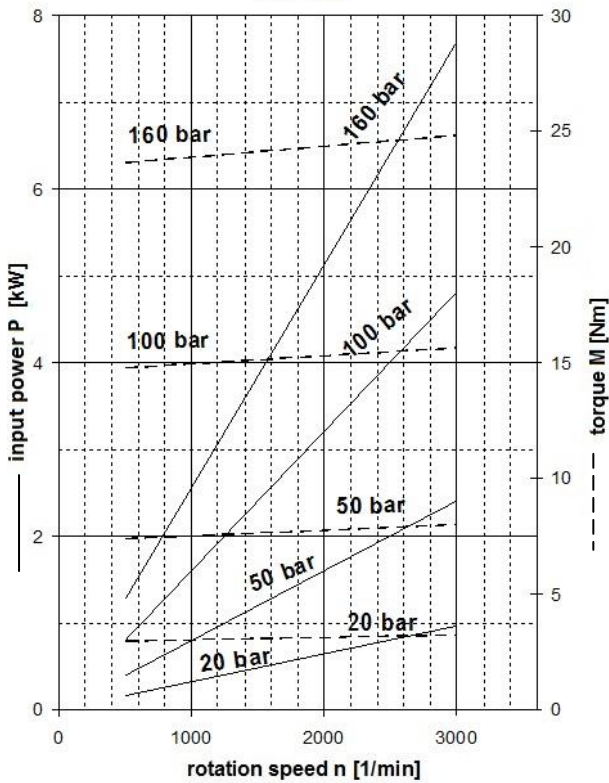
4,8 cm³



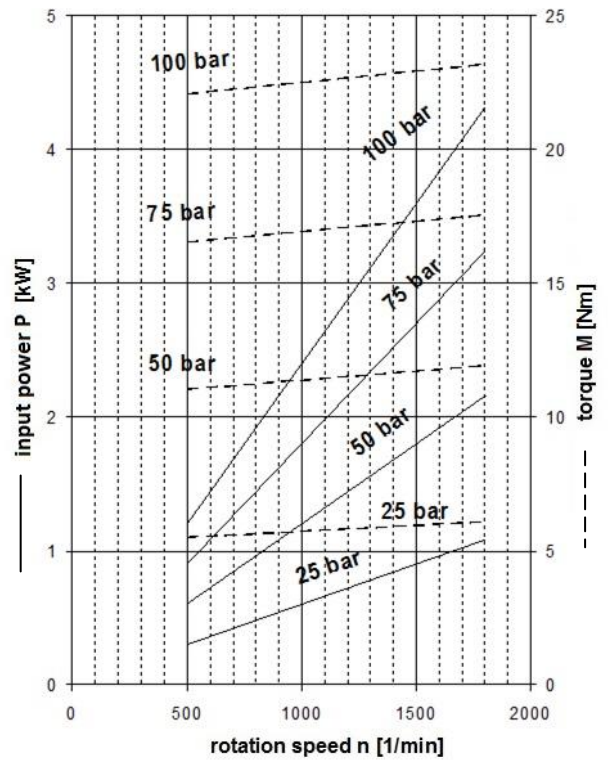
6,2 cm³



7,9 cm³



11,8 cm³



ORDER KEY – SINGLE VERSION

P23 - 3,3 R - S01 D01 - 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 displacement on request

Code	Direction of rotation
R	Clockwise
L	Anti-clockwise
B	Bi-directional

Code	Type
P23	P23 series pump

Code	Flange design
R02	Rectangular flange, centre ring Ø 25,4 Spacing screw 52,4x71,9
S01	SAE A - A
A03	Flange with through bolts centre ring Ø 32 with O-ring (deep center ring 7)
A04	Flange with through bolts centre ring Ø 32 s O-ring (deep center ring 8)
A05	Flange with through bolts centre ring Ø 32 s O-ring (narrow desing)
A06	Flange with through bolts centre ring Ø 32 (narrow desing)
Z	Special design

Code	Location of inlets and outlets
S	Side (in body)
R	Axial (in cover)
F	Axial (in flange)
A	Axial (inlet in cover, outlet in flange)
C	Combination (inlet in body outlet in flange)
D	Combination (inlet in cover outlet in body)

Code	Drive shaft design
C02	Traper 1:8 Key 2,5x3,7
C03	Traper 1:8 Key 2,4x5 Ø13
C04	Traper 1:5 Key 2x2,6-D7
K03	Cross coupling
K04	Cross coupling
V02	Cylindric Key 3h9x3x22
V03	Cylindric Key 3,2x3,2x19,4
V04	Cylindric Key 3m6x14
V05	Cylindric Key 3h9x3x10
D01	Involute spline
Z	Special design

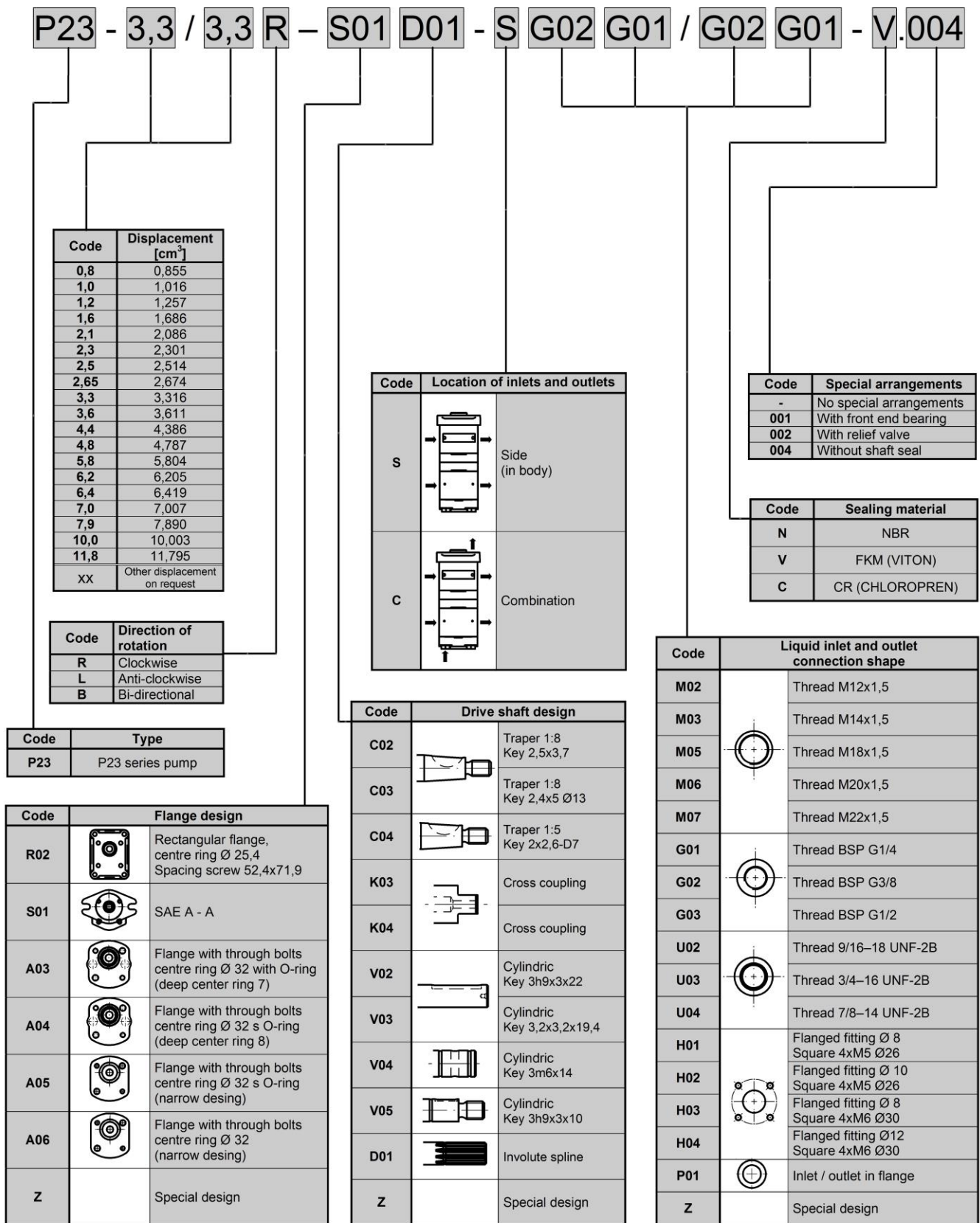
Code	Special arrangements
-	No special arrangements
001	With front end bearing
002	With relief valve
004	Without shaft seal

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

Code	Liquid inlet and outlet connection shape
M02	Thread M12x1,5
M03	Thread M14x1,5
M05	Thread M18x1,5
M06	Thread M20x1,5
M07	Thread M22x1,5
G01	Thread BSP G1/4
G02	Thread BSP G3/8
G03	Thread BSP G1/2
U02	Thread 9/16-18 UNF-2B
U03	Thread 3/4-16 UNF-2B
U04	Thread 7/8-14 UNF-2B
H01	Flanged fitting Ø 8 Square 4xM5 Ø26
H02	Flanged fitting Ø 10 Square 4xM5 Ø26
H03	Flanged fitting Ø 8 Square 4xM6 Ø30
H04	Flanged fitting Ø12 Square 4xM6 Ø30
P01	Inlet / outlet in flange
Z	Special design

An example of designation for the P23 anti-clockwise pump with displacement of 4.4 cm³/rev, SAE A-A flange, trapper 1:8 with key 2.5x3.7, BSP side inlets and standard NBR seal without special arrangements:
P23-4.4L-S01C02-SG03G01-N

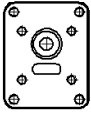
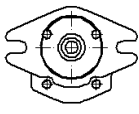
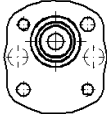
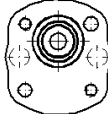
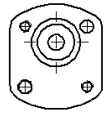
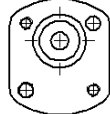



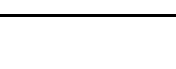
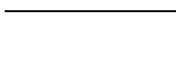


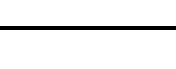


ORDER KEY – MULTIPLE VERSION



An example of designation for the P23 two-section clockwise pump with displacements of 4.4 and 3.3 cm³, rectangular flange, centre ring Ø25.4, Trapper 1:8 with key 2.4x5 Ø13, one common input and to outputs with metric threads, FKM sealing without special arrangements:

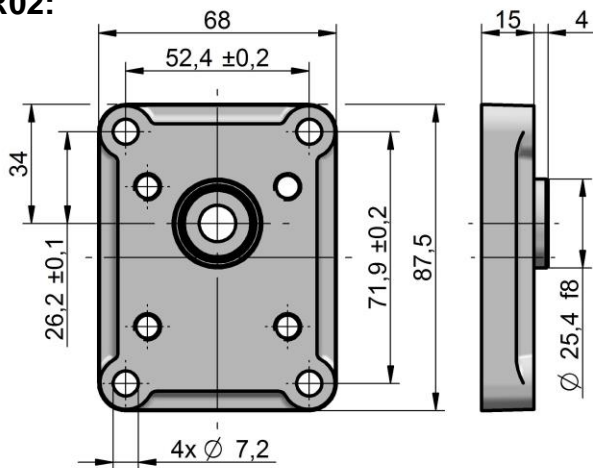
P23-4.4/3.3R-R02C03-SM05M05/NM05-V

COMBINATION OF FLANGES AND SHAFTS

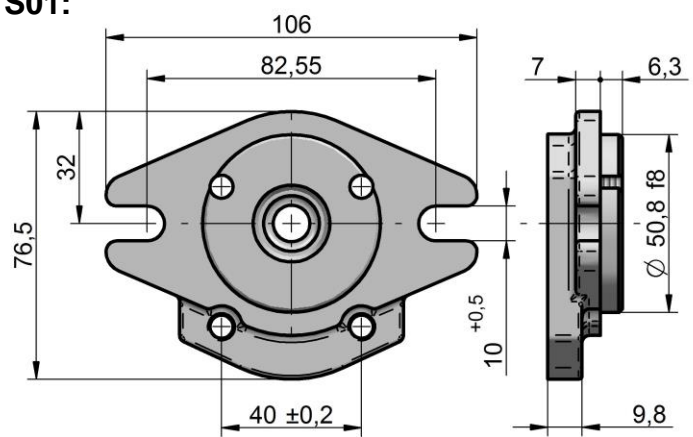
DRIVE SHAFTS		FLANGES DESIGN					
		R02	S01	A03	A04	A05	A06
							
C02		●		●			
C03		●		●	●		
C04		●		●			
K03				●		●	●
K04		○			●	●	●
V02		○	●				
V03			●				
V04				●			
V05		●					
D01				●			
		● - SUGGESTED ○ - POSSIBLE					

FLANGES DESIGN

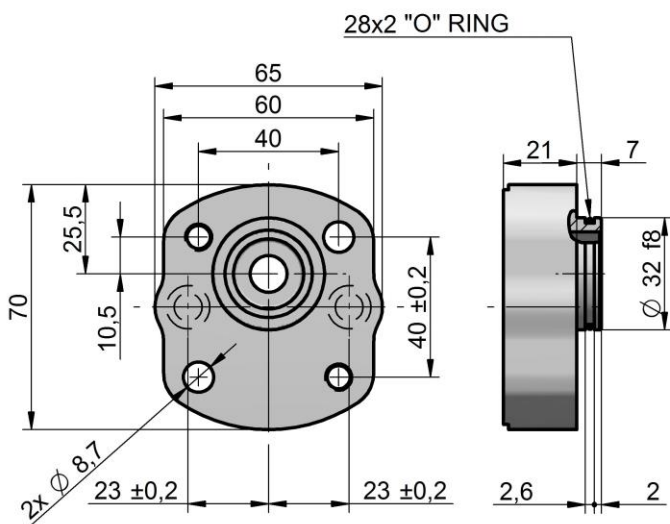
R02:



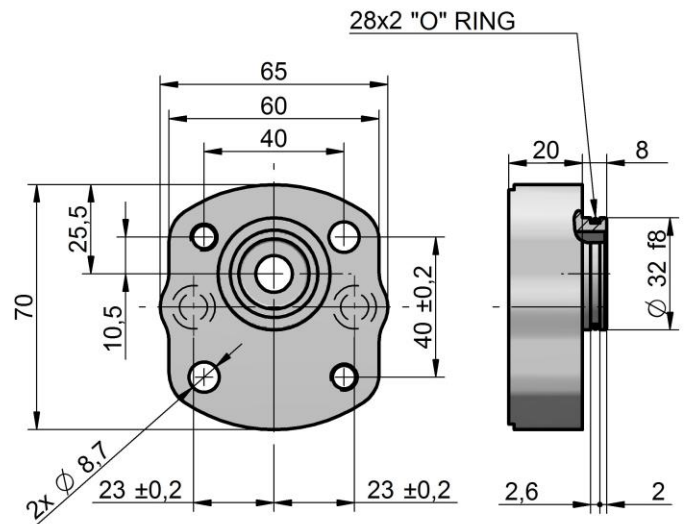
S01:



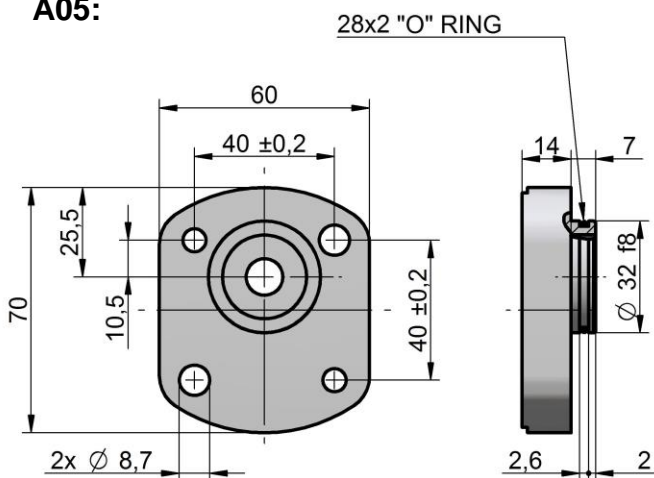
A03:



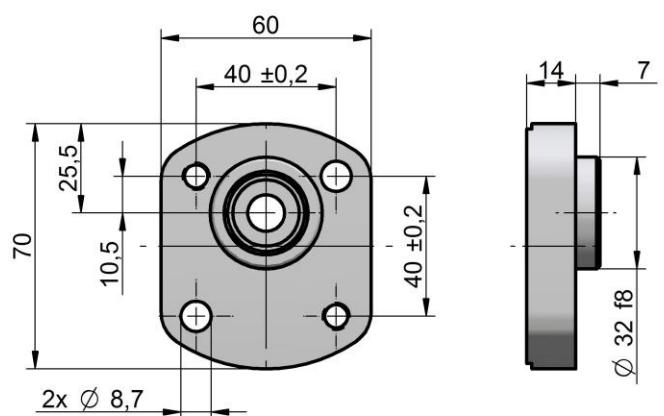
A04:



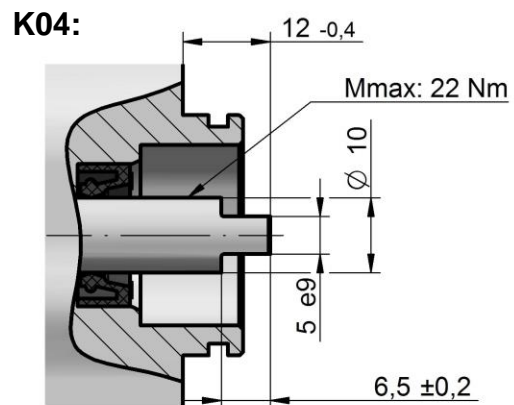
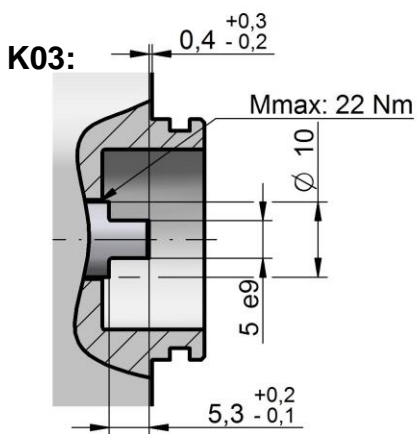
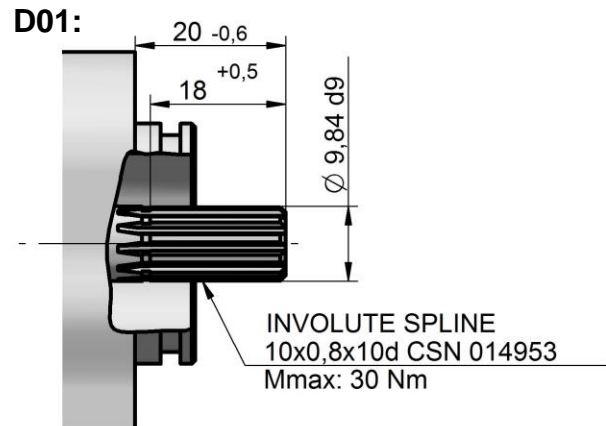
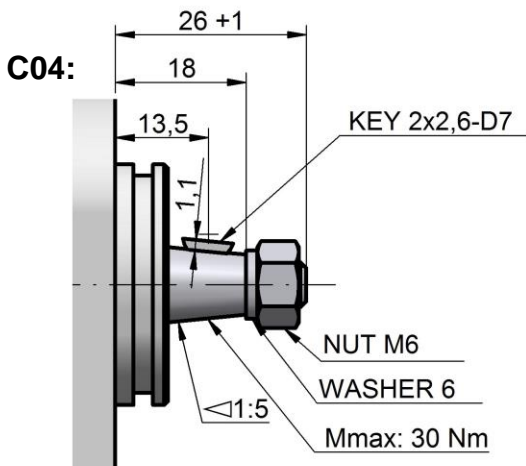
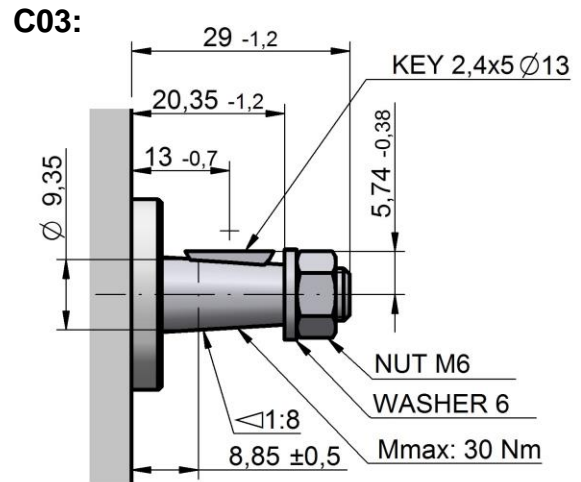
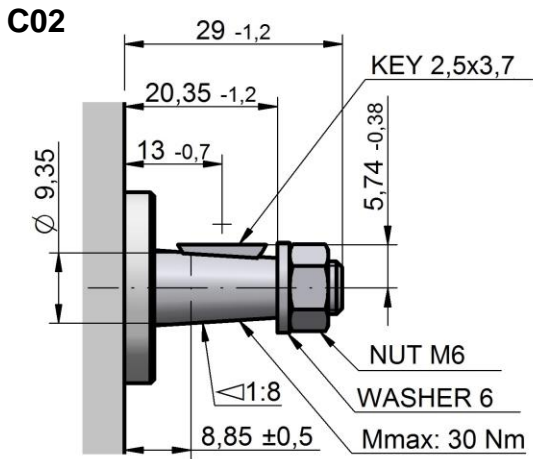
A05:



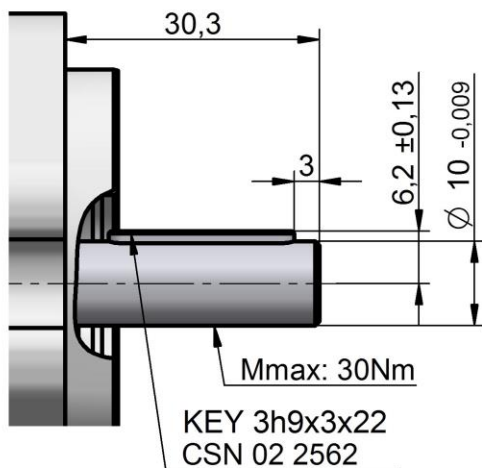
A06:



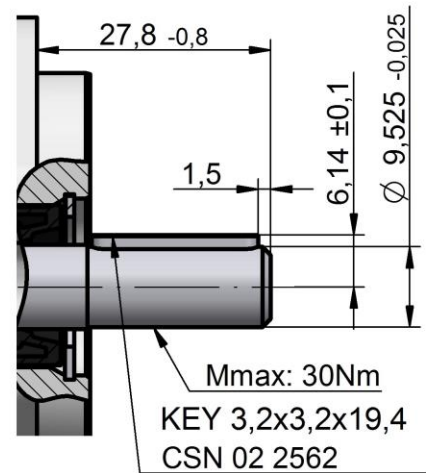
DRIVE SHAFTS



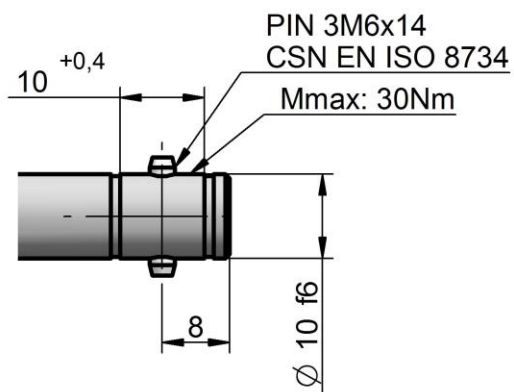
V02:



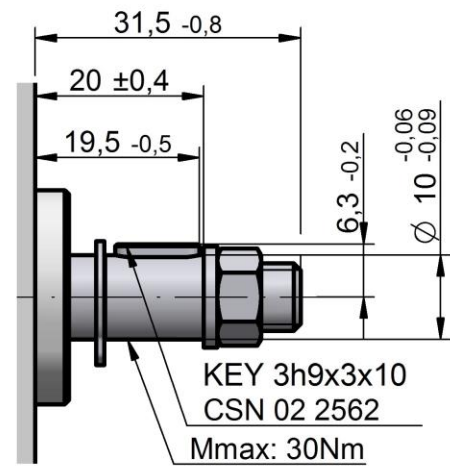
V03:



V04:

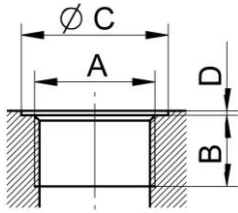


V05:



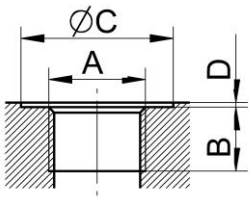
COMBINATION OF LIQUID INLETS AND OUTLETS

Metric thread according to ISO 6149



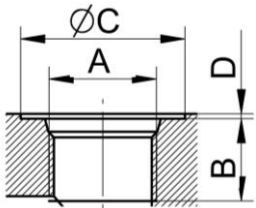
Displacement [cm ³]	Code	Inlet				Code	Outlet			
		A	B	C	D		A	B	C	D
all	M03	M 14x1.5	13	26	1	M02	M 12x1.5	12	20	1
0.8 - 3.3						M03	M 14x1.5	13	26	
all	M04	M 16x1.5	14	22						
all	M05	M 18x1.5	13	30						
all	M06	M 20x1.5	14	26						
3.3 - 11.8	M07	M 22x1.5	13	35						
M02 – M05										

BSPP pipe thread according to 228-1



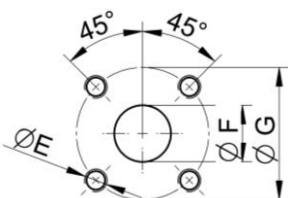
Displacement [cm ³]	Code	Inlet				Code	Outlet			
		A	B	C	D		A	B	C	D
all	G02	G 3/8	13	24	1	G01	G 1/4	13	26	1
				24		G02	G 3/8		24	
				34		G03	G 1/2		34	

UNF thread according SAE



Displacement [cm ³]	Code	Inlet				Code	Outlet			
		A	B	C	D		A	B	C	D
all	U03	3/4-16 UNF	13	24.6	1	U02	9/16 - 18 UNF	13	24.6	1
				34		U03	3/4-16 UNF		30	

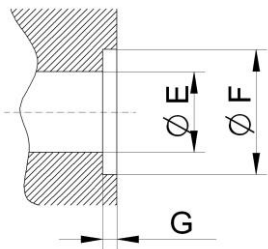
Flanged fittings according to DIN 8901/8902



Displacement [cm ³]	Code	Inlet			Code	Outlet		
		E	F	G		E	F	G
all	H01	M5, depth 12	8	26	H01	M5, depth 12	8	26
	H02		10		H02		10	
	H03	M6, depth 12	8	30	H03	M6, depth 12	8	30
	H04		12		H04		12	

NOTE: All inlets and outlets can be combination

Inlet / Outlet in flange

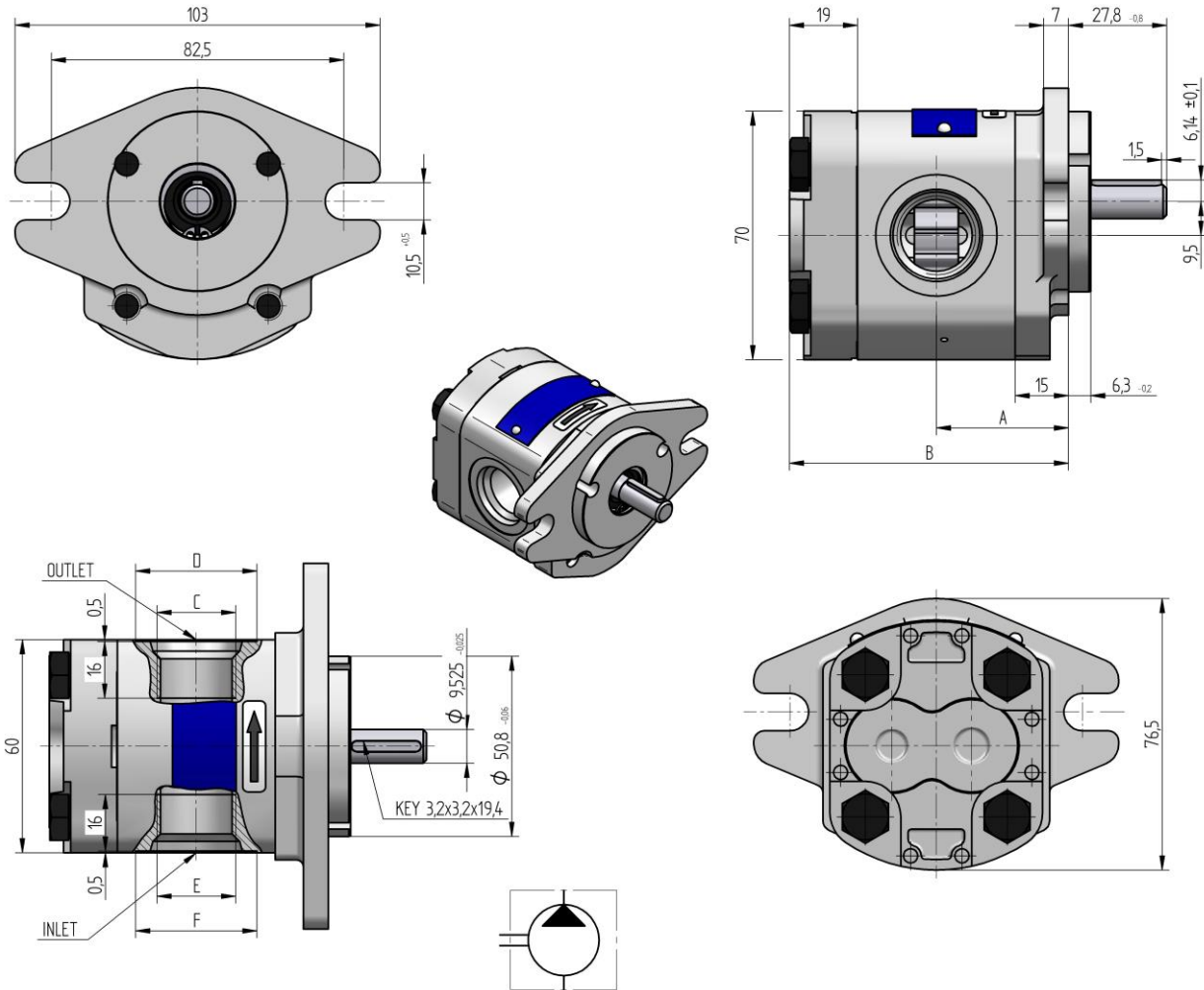


Code	E	F	G
P01	8	12.4	1.4

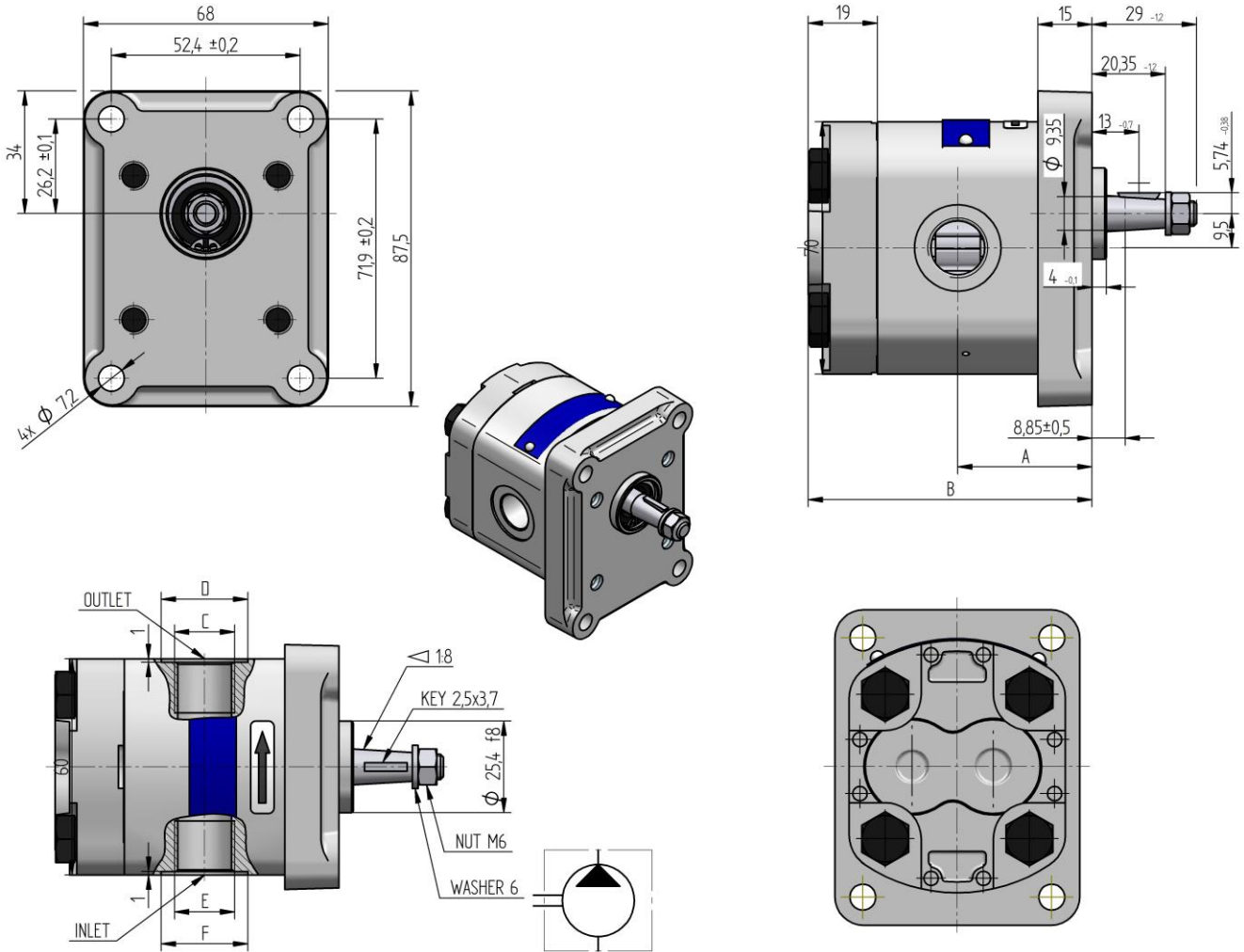
Drains:

Displacement [cm ³]	Code	Outlet			
		A	B	C	D
all	M01	M10x1	8	15	1

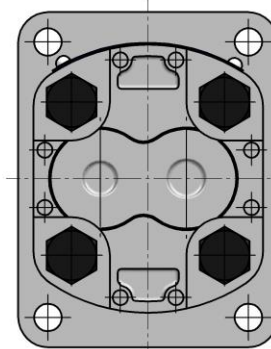
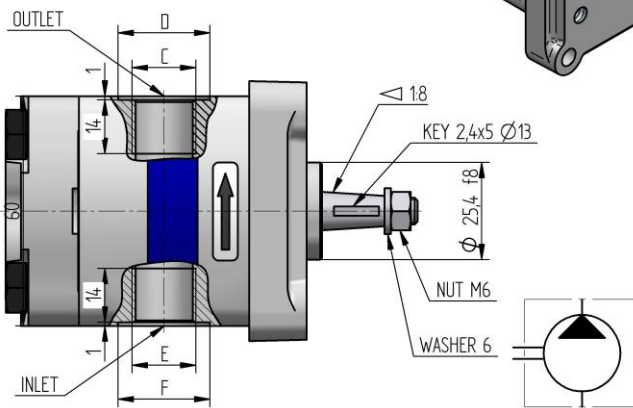
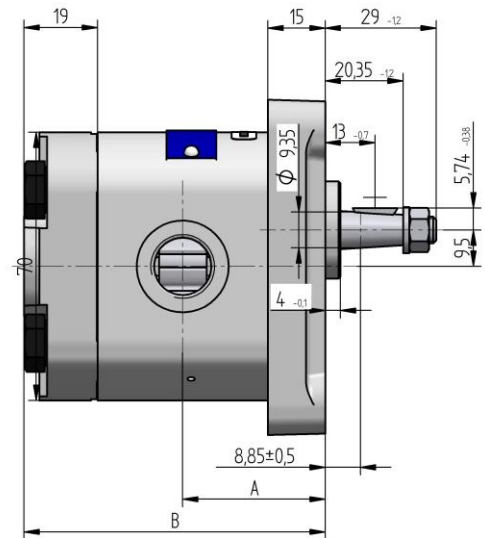
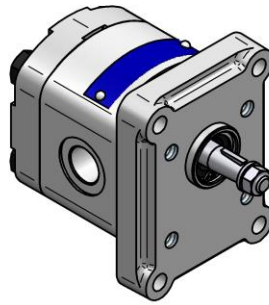
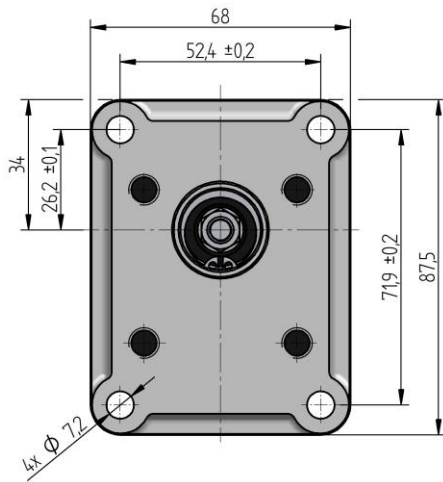
CATALOGUE SHEETS OF P23 SERIES BASIC DESIGN



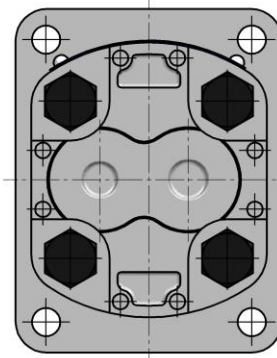
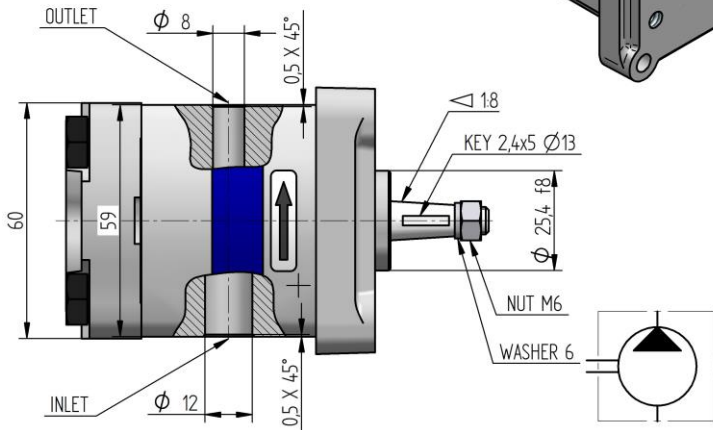
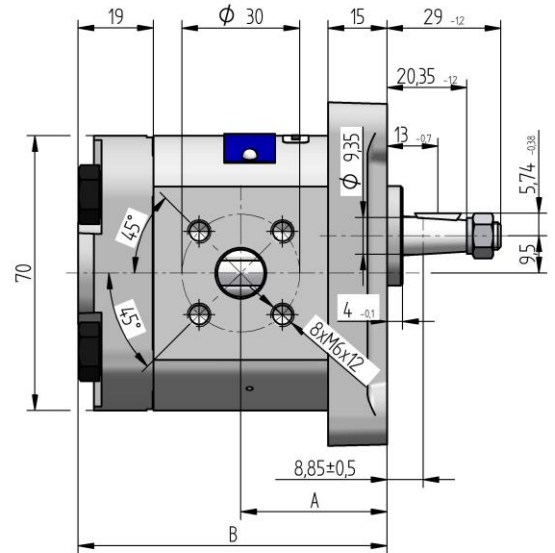
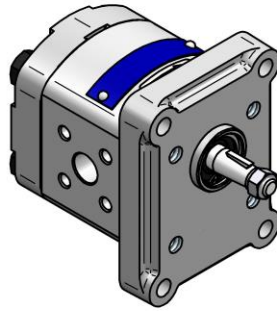
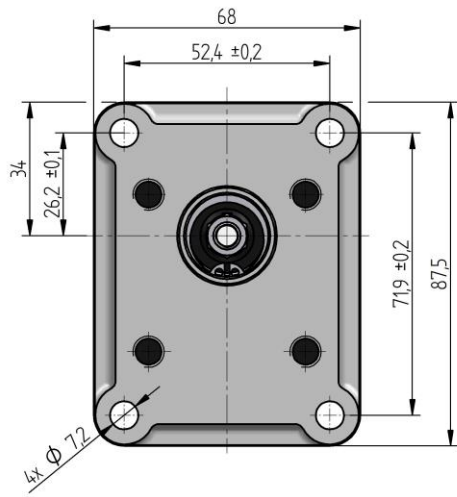
P23-7,9R- S01V03-SU04U04-N	187 9005	R	7,9	160	500	3 000	45,8	95,6	7/8-14 UNF-2B	Ø 34,2	7/8-14 UNF-2B	Ø 34,2	
P23-7,9L- S01V03-SU04U04-N		L											
P23-6,2R- S01V03-SU04U04-N	187 9974	R	6,2	180	500	3 500	42,6	89,3	7/8-14 UNF-2B	Ø 34,2	7/8-14 UNF-2B	Ø 34,2	
P23-6,2L- S01V03-SU04U04-N		L											
P23-5,8R- S01V03-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- S01V03-SU04U04-N		L											
P23-4,8R- S01V03-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- S01V03-SU04U04-N		L											
P23-4,4R- S01V03-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- S01V03-SU04U04-N		L											
P23-3,6R- S01V03-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- S01V03-SU04U04-N		L											
P23-3,3R- S01V03-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- S01V03-SU04U04-N		L											
P23-2,5R- S01V03-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- S01V03-SU03U03-N		L											
P23-2,1R- S01V03-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- S01V03-SU03U03-N		L											
P23-1,6R- S01V03-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- S01V03-SU03U03-N		L											
P23-1,2R- S01V03-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- S01V03-SU03U03-N		L											
P23-0,8R- S01V03-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- S01V03-SU03U03-N		L											
ORDER KEY	PURCH CODE	DIR. OF ROT.	DISPLACEMENT [cm ³ /1]	NOM. PRES. [bar]	MIN. SPEED [min ⁻¹]	MAX. SPEED [min ⁻¹]	A	B	DIMENSIONS [mm]				F



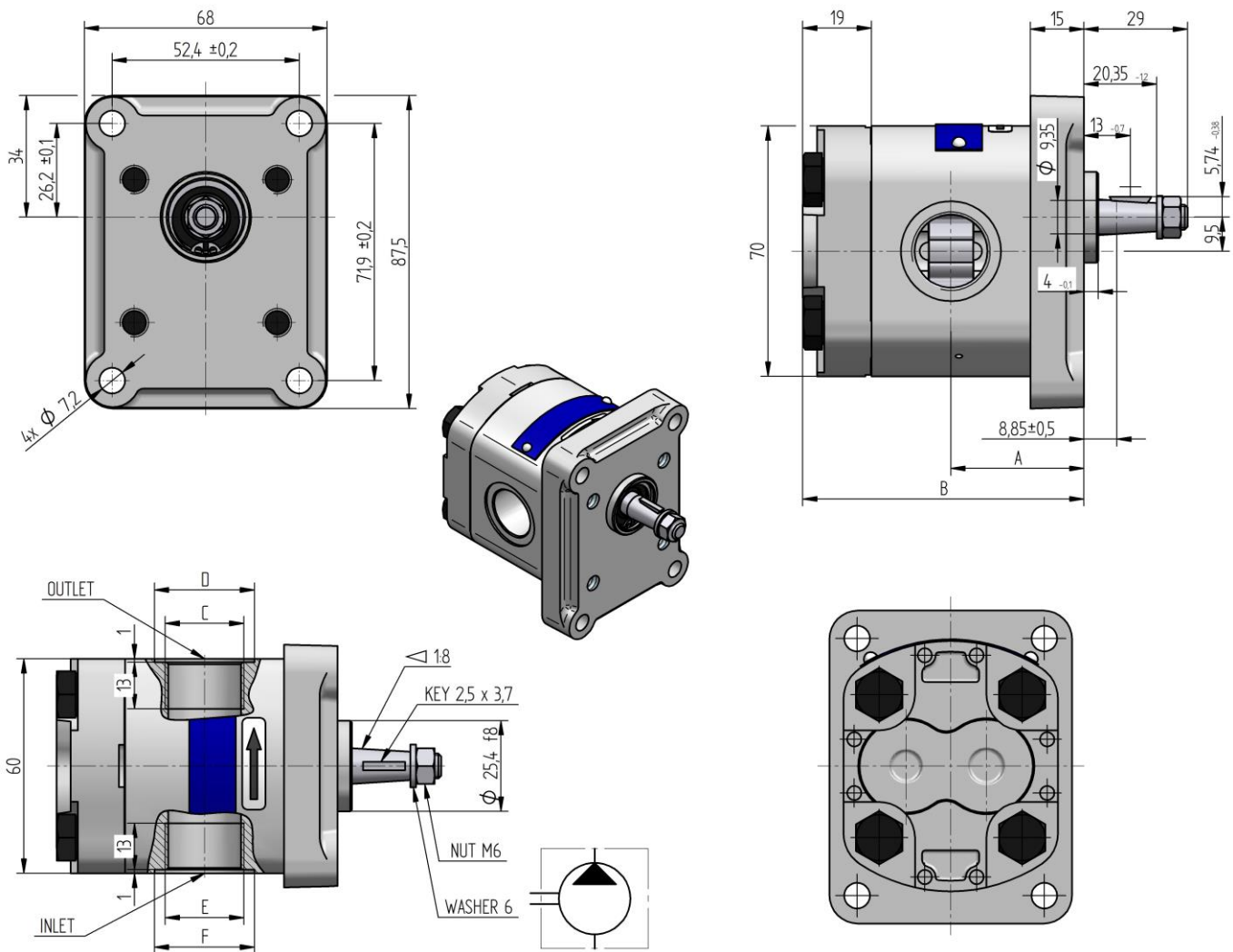
P23-7,9R- R02C02-SG02G02-N	187 9987	R	7,9	160	500	3 000	45,8	95,6	G 3/8	Ø 24	G 3/8	Ø 24
P23-7,9L- R02C02-SG02G02-N		L										
P23-6,2R- R02C02-SG02G02-N	187 9804	R	6,2	180	500	3 500	42,6	89,3	G 3/8	Ø 24	G 3/8	Ø 24
P23-6,2L- R02C02-SG02G02-N		L										
P23-5,8R- R02C02-SG02G02-N	187 9986	R	5,8	200	500	3 500	41,9	87,8	G 3/8	Ø 24	G 3/8	Ø 24
P23-5,8L- R02C02-SG02G02-N		L										
P23-4,8R- R02C02-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- R02C02-SG02G02-N		L										
P23-4,4R- R02C02-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- R02C02-SG02G02-N		L										
P23-3,6R- R02C02-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- R02C02-SG02G02-N	187 9018	L										
P23-3,3R- R02C02-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- R02C02-SG02G02-N		L										
P23-2,5R- R02C02-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- R02C02-SG02G02-N		L										
P23-2,1R- R02C02-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- R02C02-SG02G02-N		L										
P23-1,6R- R02C02-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- R02C02-SG02G02-N		L										
P23-1,2R- R02C02-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- R02C02-SG02G02-N		L										
P23-0,8R- R02C02-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- R02C02-SG02G02-N		L										
ORDER KEY	PURCH CODE	DIR. OF ROT.	DISPLACEMENT [cm ³ /1]	NOM. PRES. [bar]	MIN.	MAX.	SPEED [min ⁻¹]		DIMENSIONS [mm]			
					A	B	C	D	E	F		



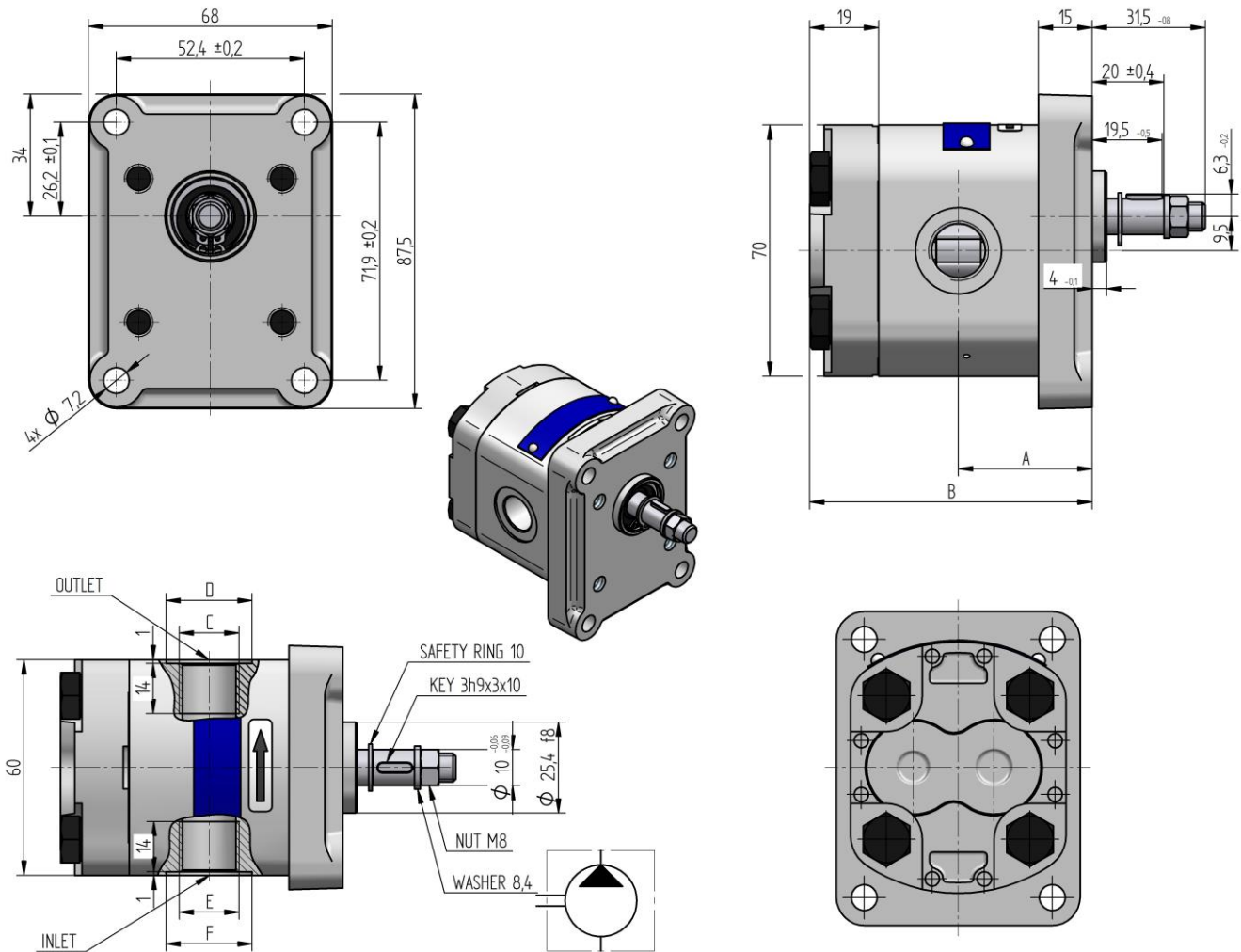
P23-7,9R- R02C03-SG02G02-N		R	7,9	160	500	3 000	45,8	95,6	G 3/8	Ø 24	G 3/8	Ø 24
P23-7,9L- R02C03-SG02G02-N		L										
P23-6,2R- R02C03-SG02G02-N	187 9959	R	6,2	180	500	3 500	42,6	89,3	G 3/8	Ø 24	G 3/8	Ø 24
P23-6,2L- R02C03-SG02G02-N	187 9720	L										
P23-5,8R- R02C03-SG02G02-N	187 9206	R	5,8	200	500	3 500	41,9	87,8	G 3/8	Ø 24	G 3/8	Ø 24
P23-5,8L- R02C03-SG02G02-N		L										
P23-4,8R- R02C03-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- R02C03-SG02G02-N	187 9723	L										
P23-4,4R- R02C03-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- R02C03-SG02G02-N		L										
P23-3,6R- R02C03-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- R02C03-SG02G02-N		L										
P23-3,3R- R02C03-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- R02C03-SG02G02-N	187 9709	L										
P23-2,5R- R02C03-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- R02C03-SG02G02-N	187 9990	L										
P23-2,1R- R02C03-SG02G02-N	187 9204	R	2,1	280	600	4 500	34,9	73,9	G 3/8	Ø 24	G 3/8	Ø 24
P23-2,1L- R02C03-SG02G02-N		L										
P23-1,6R- R02C03-SG02G02-N	187 9711	R	1,6	280	600	5 000	34,1	72,3	G 3/8	Ø 24	G 3/8	Ø 24
P23-1,6L- R02C03-SG02G02-N		L										
P23-1,2R- R02C03-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- R02C03-SG02G02-N	187 9710	L										
P23-0,8R- R02C03-SG02G02-N	187 9203	R	0,8	280	800	5 000	32,6	69,3	G 3/8	Ø 24	G 3/8	Ø 24
P23-0,8L- R02C03-SG02G02-N		L										
ORDER KEY	PURCH CODE	DIR. OF ROT.	DISPLACEMENT [cm ³ /1]	NOM. PRES. [bar]	MIN. SPEED [min ⁻¹]	MAX. SPEED [min ⁻¹]	A	B	DIMENSIONS [mm]			



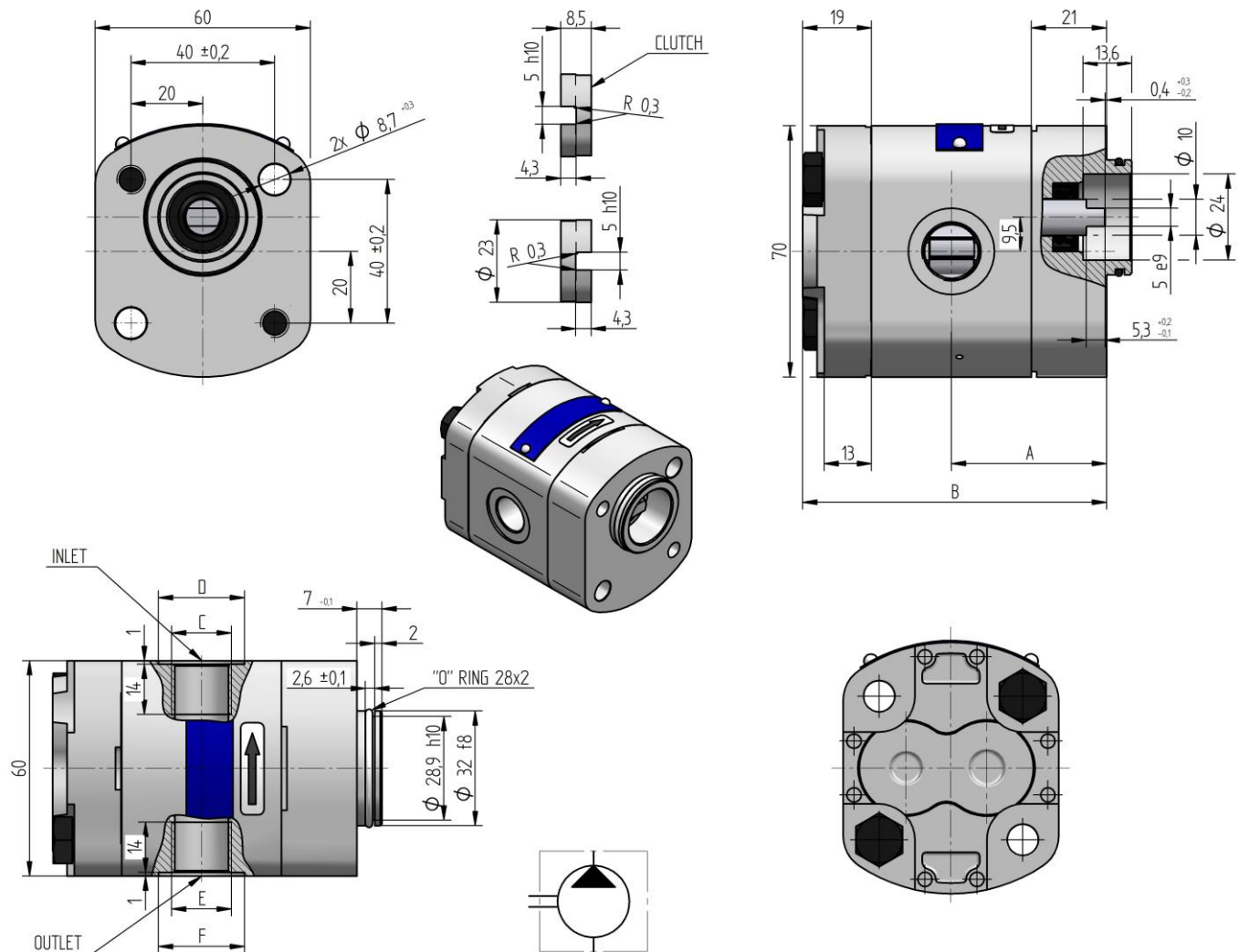
ORDER KEY	PURCH CODE	DIR. OF ROT.	DISPLACEMENT [cm ³ /1]	NOM. PRES. [bar]	MIN. SPEED [min ⁻¹]	MAX. SPEED [min ⁻¹]	A	B	C	D	E	F
P23-7,9R- R02C03-SH04H03-N	187 9946	R	7,9	160	500	3 000	45,8	95,6				
P23-7,9L- R02C03-SH04H03-N	187 9948	L	7,9	160	500	3 000	45,8	95,6				
P23-6,2R- R02C03-SH04H03-N	187 9980	R	6,2	180	500	3 500	42,6	89,3				
P23-6,2L- R02C03-SH04H03-N	187 9963	L	6,2	180	500	3 500	42,6	89,3				
P23-5,8R- R02C03-SH04H03-N	187 9971	R	5,8	200	500	3 500	41,9	87,8				
P23-5,8L- R02C03-SH04H03-N	187 9973	L	5,8	200	500	3 500	41,9	87,8				
P23-4,8R- R02C03-SH04H03-N	187 9958	R	4,8	230	500	3 800	40,0	84,0				
P23-4,8L- R02C03-SH04H03-N	187 9947	L	4,8	230	500	3 800	40,0	84,0				
P23-4,4R- R02C03-SH04H03-N	187 9941	R	4,4	250	500	4 000	39,2	82,5				
P23-4,4L- R02C03-SH04H03-N	187 9962	L	4,4	250	500	4 000	39,2	82,5				
P23-3,6R- R02C03-SH04H03-N	187 9945	R	3,6	260	500	4 000	37,8	79,6				
P23-3,6L- R02C03-SH04H03-N	187 9972	L	3,6	260	500	4 000	37,8	79,6				
P23-3,3R- R02C03-SH04H03-N	187 9957	R	3,3	280	500	4 000	37,2	78,5				
P23-3,3L- R02C03-SH04H03-N	187 9981	L	3,3	280	500	4 000	37,2	78,5				
P23-2,5R- R02C03-SH04H03-N	187 9940	R	2,5	280	500	4 500	35,7	75,5				
P23-2,5L- R02C03-SH04H03-N	187 9961	L	2,5	280	500	4 500	35,7	75,5				
P23-2,1R- R02C03-SH04H03-N	187 9970	R	2,1	280	600	4 500	34,9	73,9				
P23-2,1L- R02C03-SH04H03-N	187 9728	L	2,1	280	600	4 500	34,9	73,9				
P23-1,6R- R02C03-SH04H03-N	187 9969	R	1,6	280	600	5 000	34,1	72,3				
P23-1,6L- R02C03-SH04H03-N	187 9762	L	1,6	280	600	5 000	34,1	72,3				
P23-1,2R- R02C03-SH04H03-N	187 9979	R	1,2	280	600	5 000	33,4	70,8				
P23-1,2L- R02C03-SH04H03-N		L	1,2	280	600	5 000	33,4	70,8				
P23-0,8R- R02C03-SH04H03-N		R	0,8	280	800	5 000	32,6	69,3				
P23-0,8L- R02C03-SH04H03-N		L	0,8	280	800	5 000	32,6	69,3				



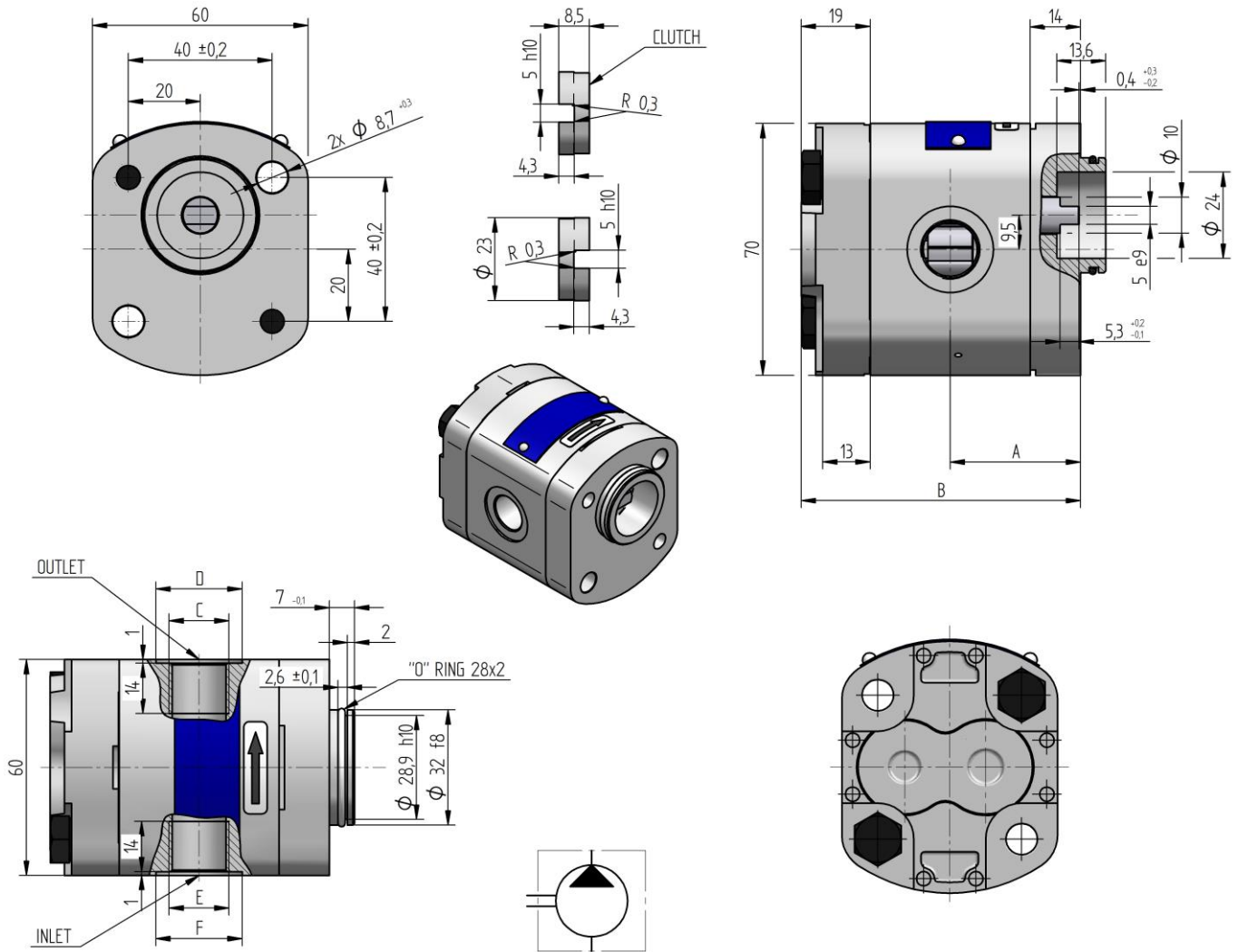
P23-7,9R- R02C02-SM07M07-N	187 9851	R	7,9	160	500	3 000	45,8	95,6	M22x1,5	Ø 28	M22x1,5	Ø 28	
P23-7,9L- R02C02-SM07M07-N	187 9862	L											
P23-6,2R- R02C02-SM07M07-N	187 9839	R	6,2	180	500	3 500	42,6	89,3	M22x1,5	Ø 28	M22x1,5	Ø 28	
P23-6,2L- R02C02-SM07M07-N	187 9840	L											
P23-5,8R- R02C02-SM07M05-N	187 9850	R	5,8	200	500	3 500	41,9	87,8	M18x1,5	Ø 24	M22x1,5	Ø 28	
P23-5,8L- R02C02-SM07M05-N	187 9861	L											
P23-4,8R- R02C02-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- R02C02-SM05M05-N	187 9860	L											
P23-4,4R- R02C02-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- R02C02-SM05M05-N	187 9859	L											
P23-3,6R- R02C02-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- R02C02-SM05M05-N	187 9858	L											
P23-3,3R- R02C02-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- R02C02-SM05M05-N	187 9857	L											
P23-2,5R- R02C02-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- R02C02-SM05M05-N	187 9856	L											
P23-2,1R- R02C02-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- R02C02-SM05M05-N	187 9855	L											
P23-1,6R- R02C02-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- R02C02-SM03M03-N	187 9854	L											
P23-1,2R- R02C02-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- R02C02-SM03M03-N	187 9853	L											
P23-0,8R- R02C02-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- R02C02-SM03M03-N	187 9852	L											
ORDER KEY	PURCH CODE	DIR. OF ROT.	DISPLACEMENT [cm ³ /l]	NOM. PRES. [bar]	MIN. SPEED [min ⁻¹]	MAX. SPEED [min ⁻¹]	A	B	DIMENSIONS [mm]				F



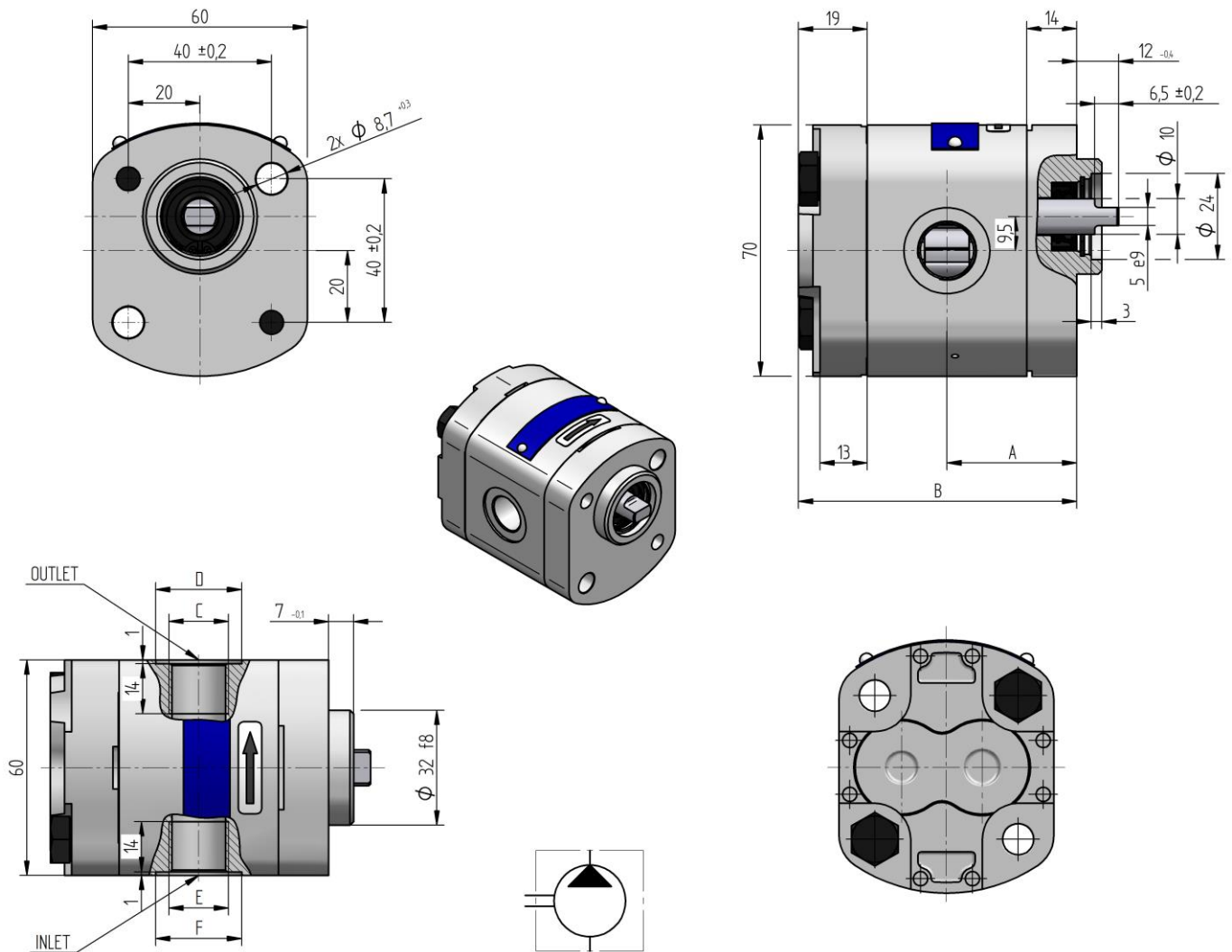
P23-7,9R- R02V05-SG02G02-N	187 9838	R	7,9	160	500	3 000	45,8	95,6	G 3/8	Ø 24	G 3/8	Ø 24	
P23-7,9L- R02V05-SG02G02-N		L											
P23-6,2R- R02V05-SG02G02-N	187 9837	R	6,2	180	500	3 500	42,6	89,3	G 3/8	Ø 24	G 3/8	Ø 24	
P23-6,2L- R02V05-SG02G02-N		L											
P23-5,8R- R02V05-SG02G02-N	187 9836	R	5,8	200	500	3 500	41,9	87,8	G 3/8	Ø 24	G 3/8	Ø 24	
P23-5,8L- R02V05-SG02G02-N		L											
P23-4,8R- R02V05-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- R02V05-SG02G02-N		L											
P23-4,4R- R02V05-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- R02V05-SG02G02-N		L											
P23-3,6R- R02V05-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- R02V05-SG02G02-N		L											
P23-3,3R- R02V05-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- R02V05-SG02G02-N		L											
P23-2,5R- R02V05-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- R02V05-SG02G02-N		L											
P23-2,1R- R02V05-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- R02V05-SG02G02-N		L											
P23-1,6R- R02V05-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- R02V05-SG02G02-N		L											
P23-1,2R- R02V05-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- R02V05-SG02G02-N		L											
P23-0,8R- R02V05-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- R02V05-SG02G02-N		L											
ORDER KEY	PURCH CODE	DIR. OF ROT.	DISPLACEMENT [cm ³ /1]	NOM. PRES. [bar]	MIN.	MAX.	SPEED [min ⁻¹]		A	B	DIMENSIONS [mm]		



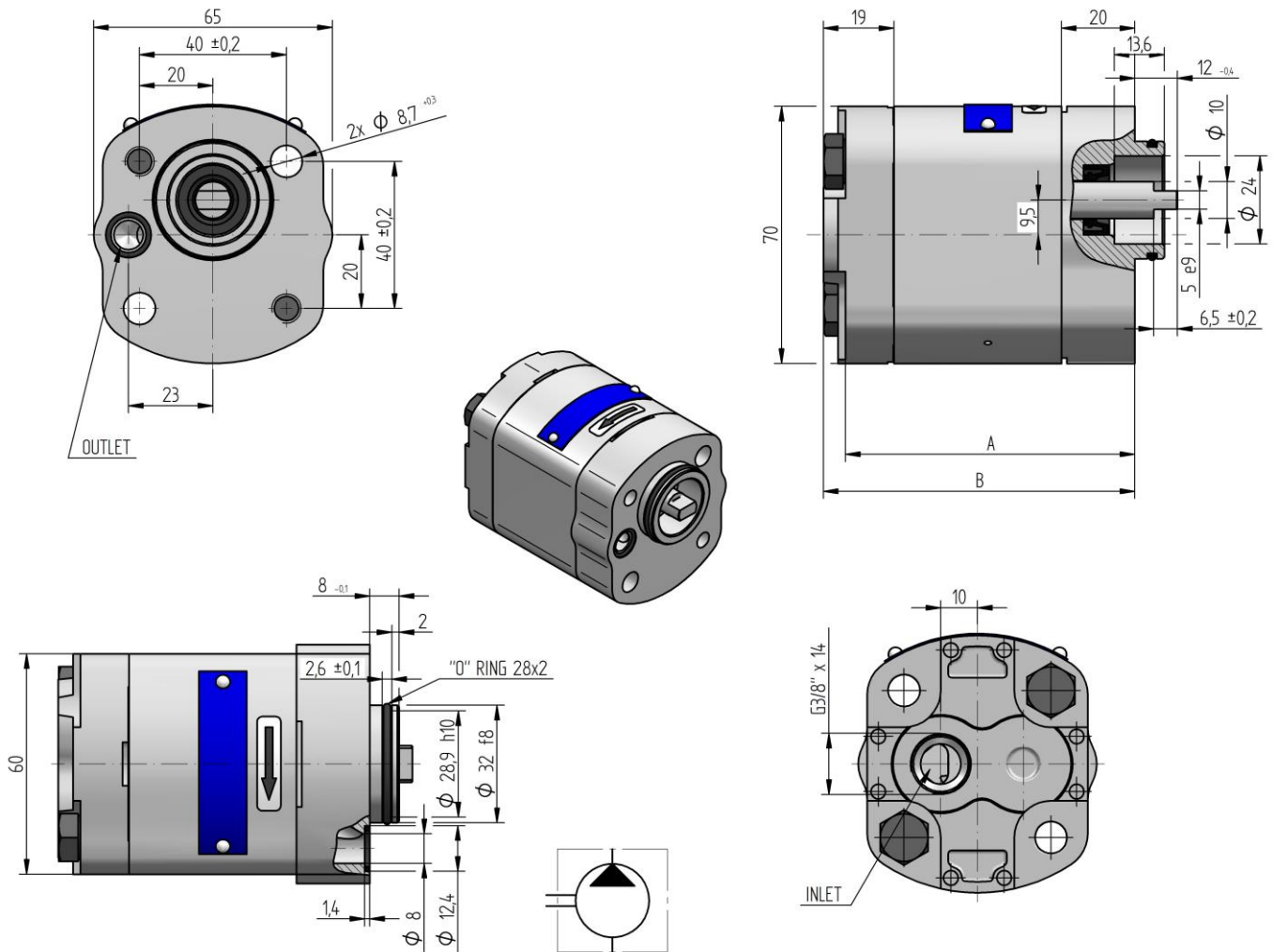
P23-7,9R- A03K03-SG02G02-N	187 9955	R	7,9	160	500	3 000	51,8	101,6	G 3/8	Ø 24	G 3/8	Ø 24
P23-7,9L- A03K03-SG02G02-N		L										
P23-6,2R- A03K03-SG02G02-N	187 9733	R	6,2	180	500	3 500	48,6	95,3	G 3/8	Ø 24	G 3/8	Ø 24
P23-6,2L- A03K03-SG02G02-N		L										
P23-5,8R- A03K03-SG02G02-N	187 9004	R	5,8	200	500	3 500	47,9	93,8	G 3/8	Ø 24	G 3/8	Ø 24
P23-5,8L- A03K03-SG02G02-N		L										
P23-4,8R- A03K03-SG02G02-N	187 9732	R	4,8	230	500	3 800	46,0	90,0	G 3/8	Ø 24	G 3/8	Ø 24
P23-4,8L- A03K03-SG02G02-N		L										
P23-4,4R- A03K03-SG02G02-N	187 9412	R	4,4	250	500	4 000	45,2	88,5	G 3/8	Ø 24	G 3/8	Ø 24
P23-4,4L- A03K03-SG02G02-N		L										
P23-3,6R- A03K03-SG02G02-N	187 9735	R	3,6	260	500	4 000	43,8	85,6	G 3/8	Ø 24	G 3/8	Ø 24
P23-3,6L- A03K03-SG02G02-N		L										
P23-3,3R- A03K03-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- A03K03-SG02G02-N		L										
P23-2,5R- A03K03-SG02G02-N	187 9751	R	2,5	280	500	4 500	41,7	81,5	G 3/8	Ø 24	G 3/8	Ø 24
P23-2,5L- A03K03-SG02G02-N		L										
P23-2,1R- A03K03-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- A03K03-SG02G02-N	187 9966	L										
P23-1,6R- A03K03-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- A03K03-SG02G02-N		L										
P23-1,2R- A03K03-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- A03K03-SG02G02-N		L										
P23-0,8R- A03K03-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- A03K03-SG02G02-N		L										
ORDER KEY	PURCH CODE	DIR. OF ROT.	DISPLACEMENT [cm ³ /1]	NOM. PRES. [bar]	MIN. SPEED [min ⁻¹]	MAX. SPEED [min ⁻¹]	A	B	DIMENSIONS [mm]			



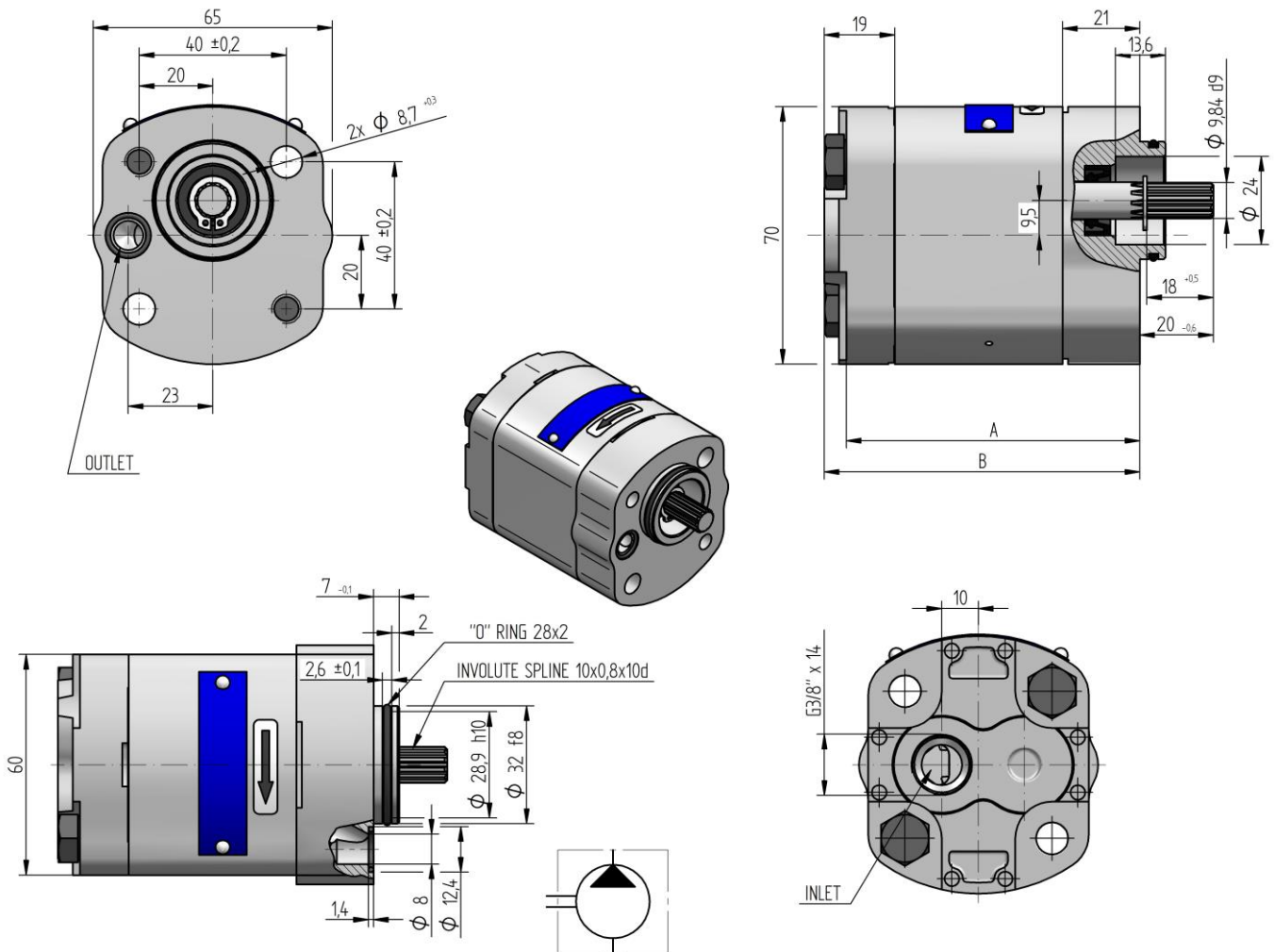
P23-7,9R- A05K03-SG02G02-N.004	187 9800	R	7,9	160	500	3 000	44,8	94,6	G 3/8	Ø 24	G 3/8	Ø 24
P23-7,9L- A05K03-SG02G02-N.004		L										
P23-6,2R- A05K03-SG02G02-N.004	187 9801	R	6,2	180	500	3 500	41,6	88,3	G 3/8	Ø 24	G 3/8	Ø 24
P23-6,2L- A05K03-SG02G02-N.004		L										
P23-5,8R- A05K03-SG02G02-N.004	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- A05K03-SG02G02-N.004		L										
P23-4,8R- A05K03-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- A05K03-SG02G02-N.004		L										
P23-4,4R- A05K03-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- A05K03-SG02G02-N.004	187 9820	L										
P23-3,6R- A05K03-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- A05K03-SG02G02-N.004		L										
P23-3,3R- A05K03-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- A05K03-SG02G02-N.004		L										
P23-2,5R- A05K03-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- A05K03-SG02G02-N.004	187 9819	L										
P23-2,1R- A05K03-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- A05K03-SG02G02-N.004	187 9956	L										
P23-1,6R- A05K03-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- A05K03-SG02G02-N.004		L										
P23-1,2R- A05K03-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- A05K03-SG02G02-N.004		L										
P23-0,8R- A05K03-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- A05K03-SG02G02-N.004		L										
ORDER KEY	PURCH CODE	DIR. OF ROT.	DISPLACEMENT [cm ³ /1]	NOM. PRES. [bar]	MIN. SPEED [min ⁻¹]	MAX. SPEED [min ⁻¹]	A	B	DIMENSIONS [mm]			



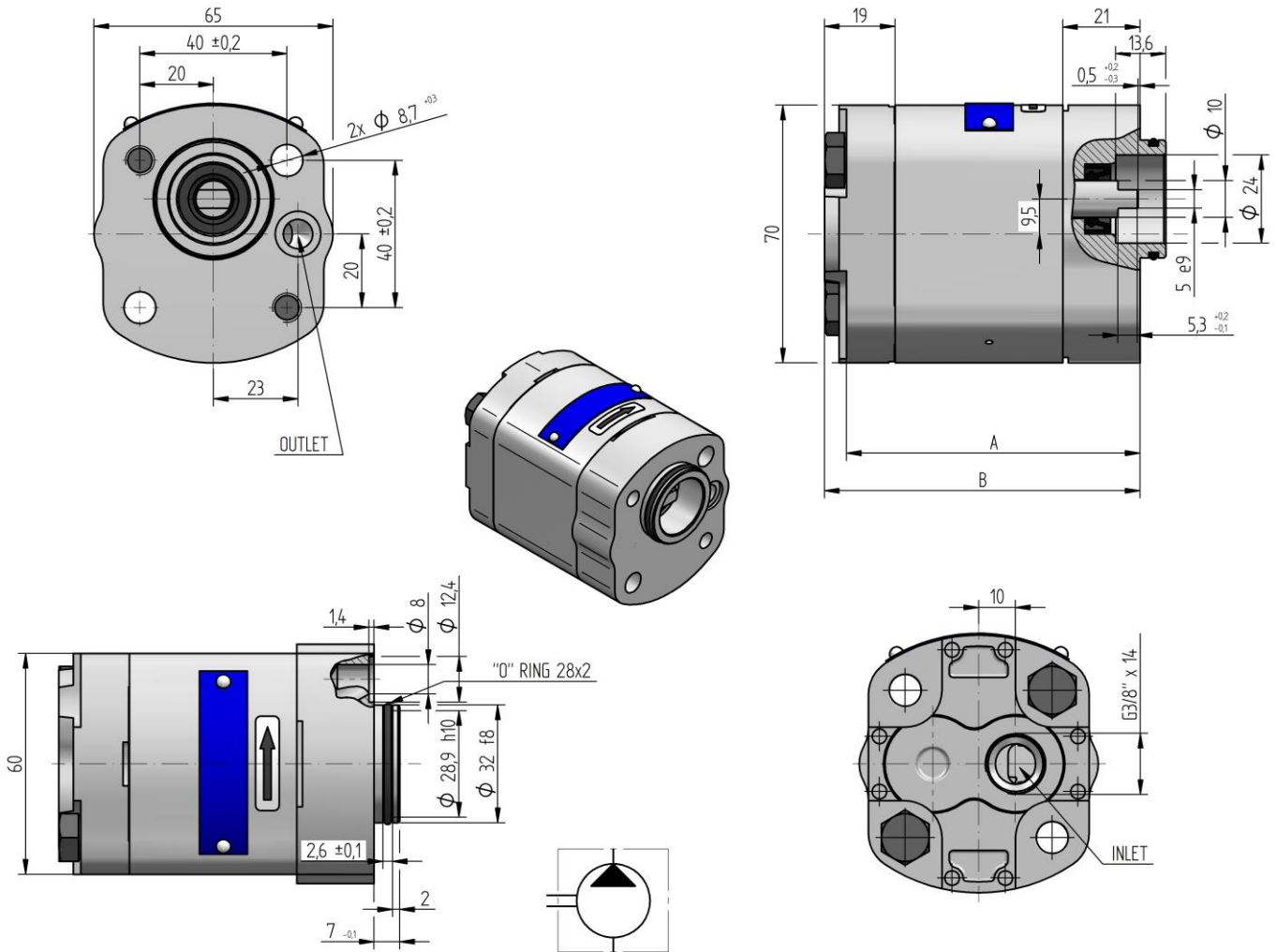
P23-7,9R- A06K04-SG02G02-N		R	7,9	160	500	3 000	44,8	94,6	G 3/8	Ø 24	G 3/8	Ø 24
P23-7,9L- A06K04-SG02G02-N		L	7,9	160	500	3 000	44,8	94,6	G 3/8	Ø 24	G 3/8	Ø 24
P23-6,2R- A06K04-SG02G02-N		R	6,2	180	500	3 500	41,6	88,3	G 3/8	Ø 24	G 3/8	Ø 24
P23-6,2L- A06K04-SG02G02-N		L	6,2	180	500	3 500	41,6	88,3	G 3/8	Ø 24	G 3/8	Ø 24
P23-5,8R- A06K04-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- A06K04-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- A06K04-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- A06K04-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- A06K04-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- A06K04-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- A06K04-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- A06K04-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- A06K04-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- A06K04-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- A06K04-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- A06K04-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- A06K04-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- A06K04-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- A06K04-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- A06K04-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- A06K04-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- A06K04-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- A06K04-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- A06K04-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	DIR. OF ROT.	DISPLACEMENT [cm ³ /1]	NOM. PRES. [bar]	MIN. SPEED [min ⁻¹]	MAX. SPEED [min ⁻¹]	A	B	DIMENSIONS [mm]			



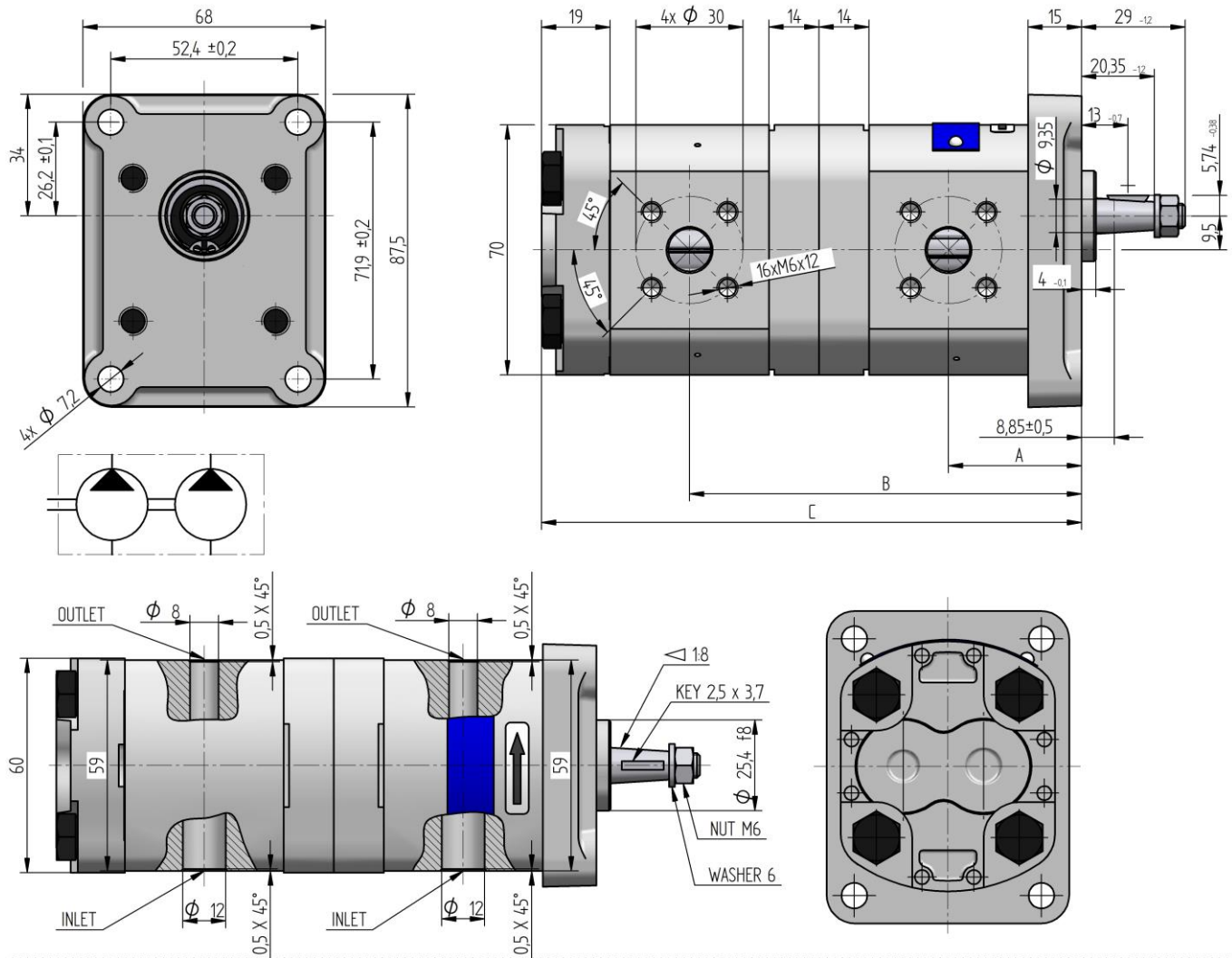
P23-7,9L- A04K04-AG02P01-N	187 9905	R L	7,9	160	500	3 000	94,6	100,6			
P23-6,2L- A04K04-AG02P01-N	187 9989	R L	6,2	180	500	3 500	88,3	94,3			
P23-5,8L- A04K04-AG02P01-N	187 9904	R L	5,8	200	500	3 500	86,8	92,8			
P23-4,8L- A04K04-AG02P01-N	187 9976	R L	4,8	230	500	3 800	83,0	89,0			
P23-4,4L- A04K04-AG02P01-N	187 9977	R L	4,4	250	500	4 000	81,5	87,5			
P23-3,6L- A04K04-AG02P01-N	187 9921	R L	3,6	260	500	4 000	78,6	84,6			
P23-3,3L- A04K04-AG02P01-N	187 9920	R L	3,3	280	500	4 000	77,5	83,5			
P23-2,5L- A04K04-AG02P01-N	187 9919	R L	2,5	280	500	4 500	74,5	80,5			
P23-2,1L- A04K04-AG02P01-N	187 9975	R L	2,1	280	600	4 500	72,9	78,9			
P23-1,6L- A04K04-AG02P01-N	187 9918	R L	1,6	280	600	5 000	71,3	77,3			
P23-1,2L- A04K04-AG02P01-N	187 9953	R L	1,2	280	600	5 000	69,8	75,8			
P23-0,8L- A04K04-AG02P01-N	187 9952	R L	0,8	280	800	5 000	68,3	74,3			
ORDER KEY	PURCH CODE	DIR. OF ROT.	DISPLACEMENT [cm ³ /1]	NOM. PRES. [bar]	MIN. SPEED [min ⁻¹]	MAX. SPEED [min ⁻¹]	A	B	C	D	E
							DIMENSIONS [mm]				



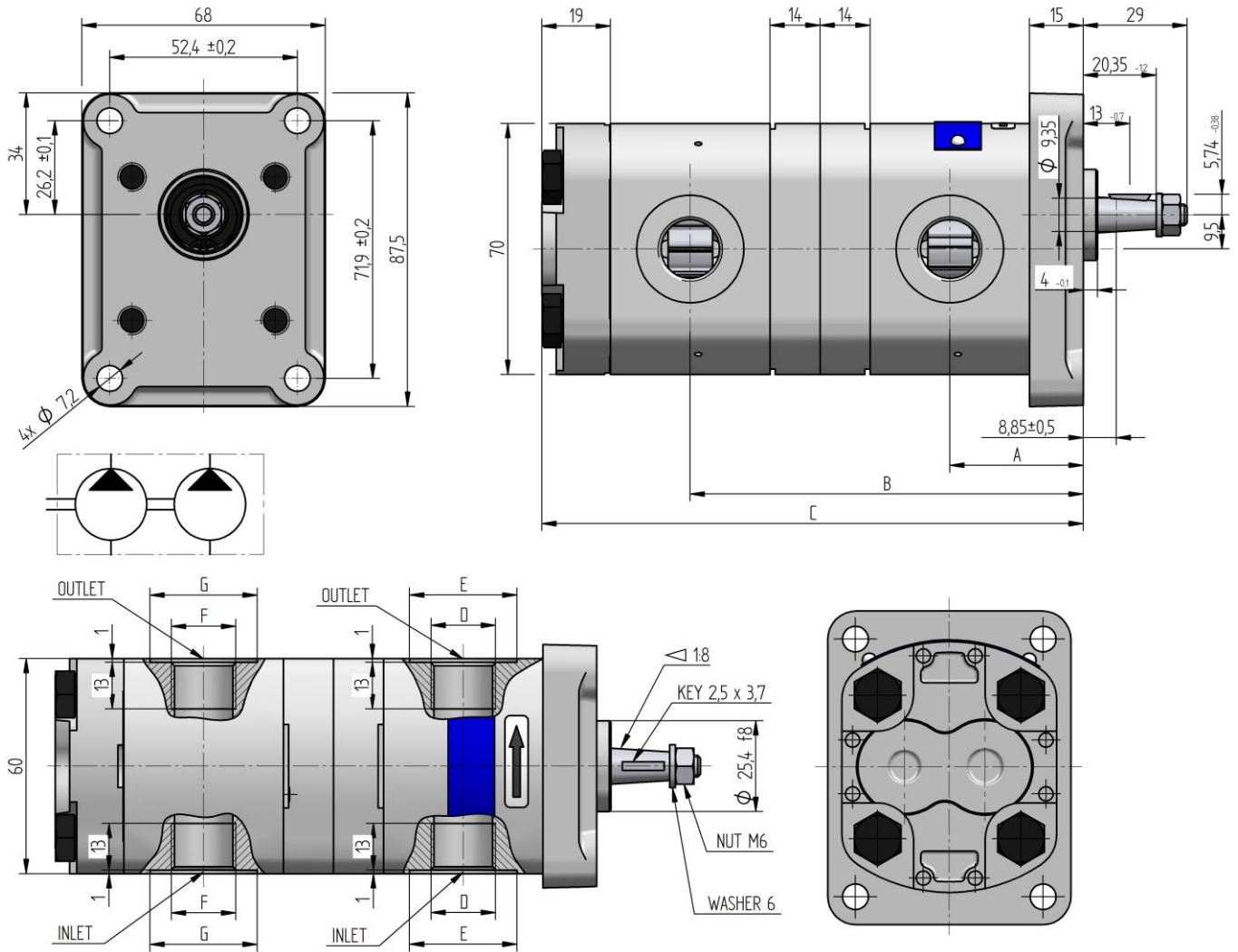
ORDER KEY	PURCH CODE	DIR. OF ROT.	DISPLA- CEMENT [cm ³ /1]	NOM. PRES. [bar]	MIN. SPEED [min ⁻¹]	MAX. SPEED [min ⁻¹]	A	B	C	D	E
P23-7,9L- A03D01-AG02P01-N	187 9917	R L	7,9	160	500	3 000	95,6	101,6			
P23-6,2L- A03D01-AG02P01-N	187 9916	R L	6,2	180	500	3 500	89,3	95,3			
P23-5,8L- A03D01-AG02P01-N	187 9915	R L	5,8	200	500	3 500	87,8	93,8			
P23-4,8L- A03D01-AG02P01-N	187 9914	R L	4,8	230	500	3 800	84,0	90,0			
P23-4,4L- A03D01-AG02P01-N	187 9913	R L	4,4	250	500	4 000	82,5	88,5			
P23-3,6L- A03D01-AG02P01-N	187 9912	R L	3,6	260	500	4 000	79,6	85,6			
P23-3,3L- A03D01-AG02P01-N	187 9911	R L	3,3	280	500	4 000	78,5	84,5			
P23-2,5L- A03D01-AG02P01-N	187 9910	R L	2,5	280	500	4 500	75,5	81,5			
P23-2,1L- A03D01-AG02P01-N	187 9909	R L	2,1	280	600	4 500	73,9	79,9			
P23-1,6L- A03D01-AG02P01-N	187 9908	R L	1,6	280	600	5 000	72,3	78,3			
P23-1,2L- A03D01-AG02P01-N	187 9907	R L	1,2	280	600	5 000	70,8	76,8			
P23-0,8L- A03D01-AG02P01-N	187 9906	R L	0,8	280	800	5 000	69,3	75,3			



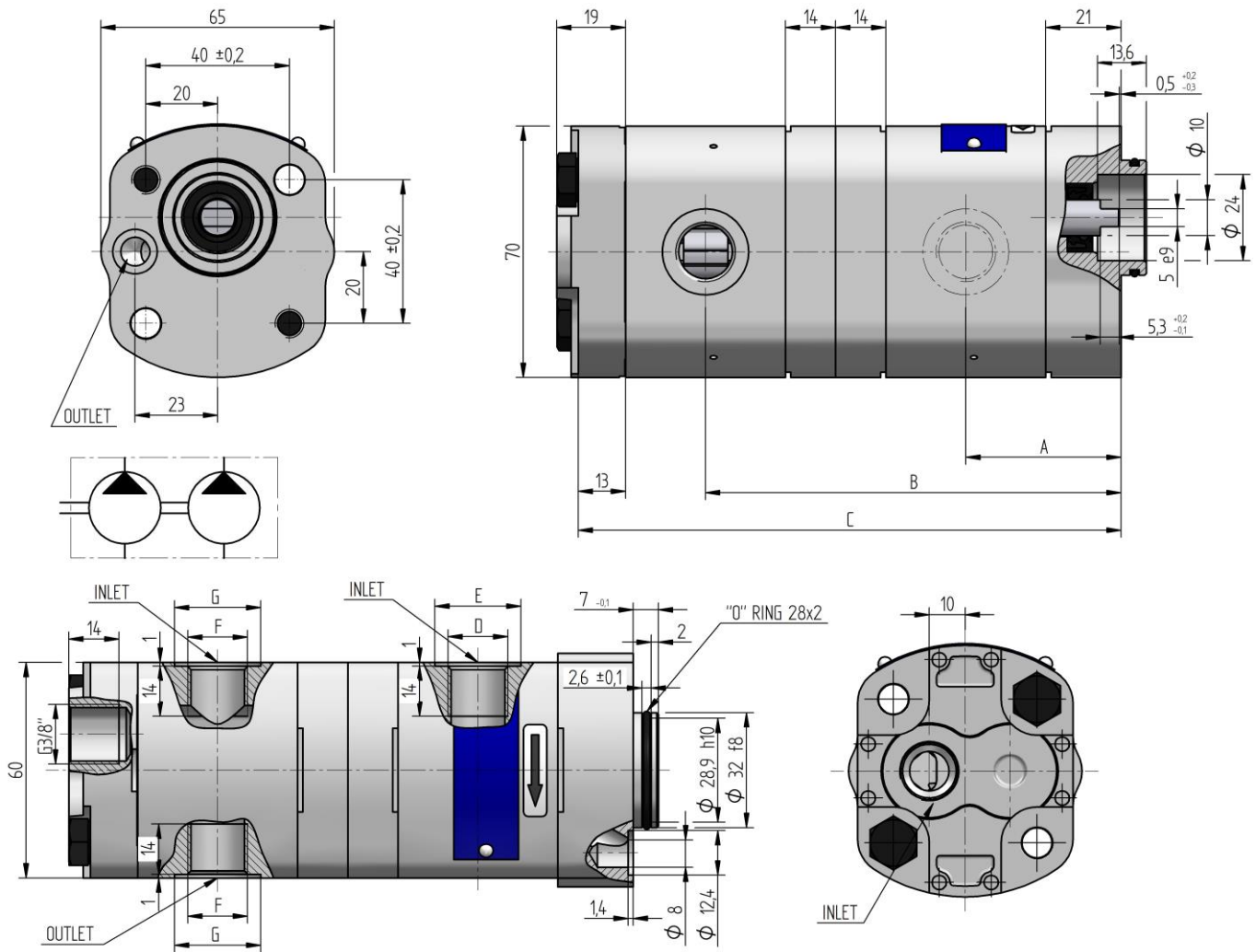
P23-7,9R- A03K03-AG02P01-N	187 9895	R	7,9	160	500	3 000	95,6	101,6					
		L											
P23-6,2R- A03K03-AG02P01-N	187 9898	R	6,2	180	500	3 500	89,3	95,3					
		L											
P23-5,8R- A03K03-AG02P01-N	187 9894	R	5,8	200	500	3 500	87,8	93,8					
		L											
P23-4,8R- A03K03-AG02P01-N	187 9900	R	4,8	230	500	3 800	84,0	90,0					
		L											
P23-4,4R- A03K03-AG02P01-N	187 9902	R	4,4	250	500	4 000	82,5	88,5					
		L											
P23-3,6R- A03K03-AG02P01-N	187 9901	R	3,6	260	500	4 000	79,6	85,6					
		L											
P23-3,3R- A03K03-AG02P01-N	187 9882	R	3,3	280	500	4 000	78,5	84,5					
		L											
P23-2,5R- A03K03-AG02P01-N	187 9897	R	2,5	280	500	4 500	75,5	81,5					
		L											
P23-2,1R- A03K03-AG02P01-N	187 9896	R	2,1	280	600	4 500	73,9	79,9					
		L											
P23-1,6R- A03K03-AG02P01-N	187 9998	R	1,6	280	600	5 000	72,3	78,3					
		L											
P23-1,2R- A03K03-AG02P01-N	187 9997	R	1,2	280	600	5 000	70,8	76,8					
		L											
P23-0,8R- A03K03-AG02P01-N	187 9996	R	0,8	280	800	5 000	69,3	75,3					
		L											
ORDER KEY	PURCH CODE	DIR. OF ROT.	DISPLACEMENT [cm ³ /1]	NOM. PRES. [bar]	MIN.	MAX.	SPEED [min ⁻¹]	A	B	C	D	E	DIMENSIONS [mm]



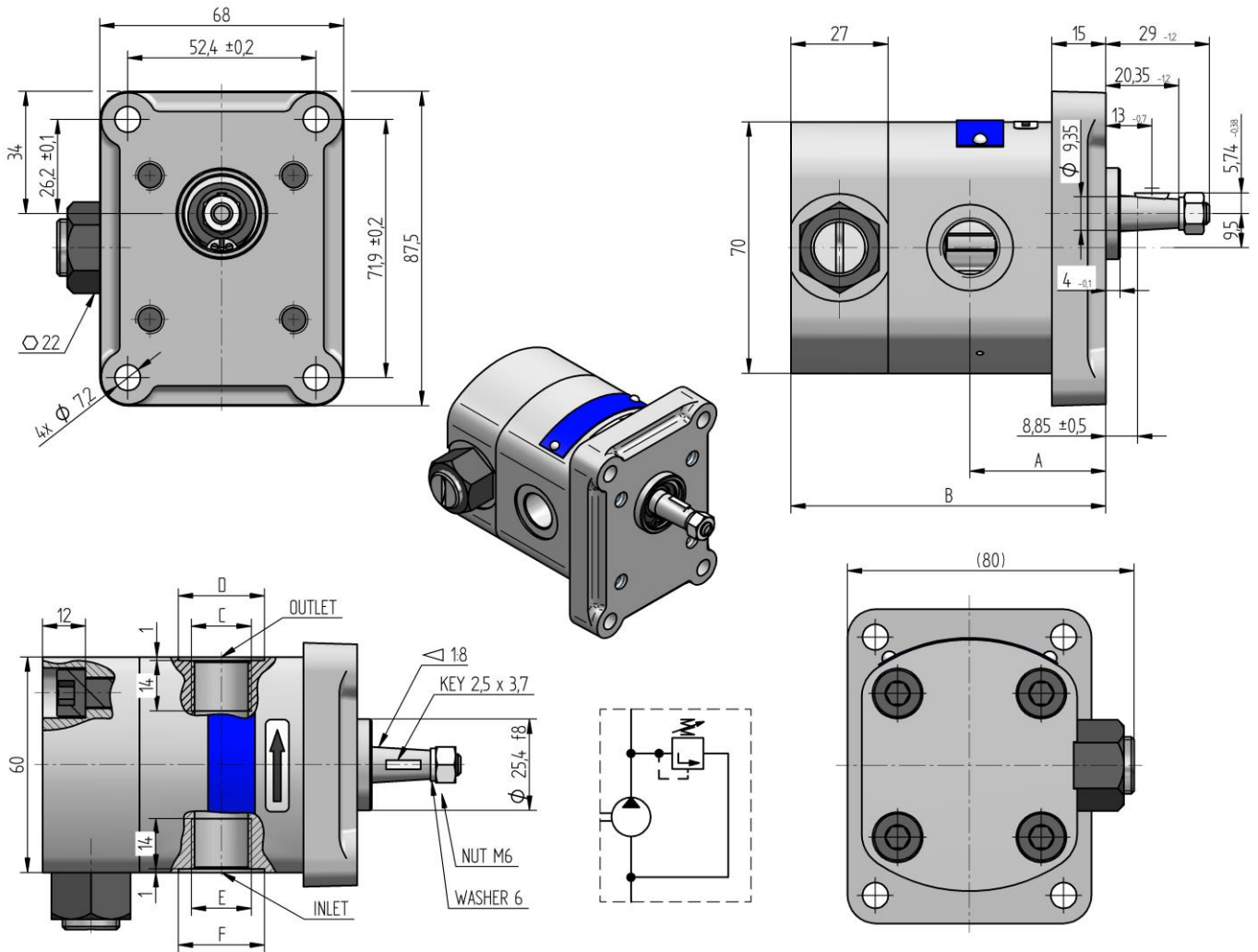
ORDER KEY	PURCH CODE	DIR. OF ROT.	DISPLACEMENT [cm ³ /1]	NOM. PRES. [bar]	MIN. SPEED [min ⁻¹]	MAX. SPEED [min ⁻¹]	A	B	C	D	E	F
P23-6,2/2,5R- R02C02-SH04H03/H04H03-N		R	6,2/2,5	180/280	500	3 500	42,6	119,0	158,8			
		L										
P23-4,8/2,5R- R02C02-SH04H03/H04H03-N	187 9888	R	4,8/2,5	230/250	500	3 800	40,0	113,7	153,5			
		L										
P23-3,6/3,6R- R02C02-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- R02C02-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- R02C02-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- R02C02-SH04H03/H04H03-N		R	1,2/0,8	280/280	600	5 000	33,4	97,4	134,1			
		L										



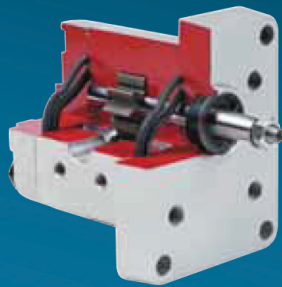
ORDER KEY	PURCH. CODE	DIR. OF ROT.	DISPLACEMENT [cm ³ /1]	NOM. PRES. [bar]	MIN. SPEED [min ⁻¹]	MAX. SPEED [min ⁻¹]	A	B	C	DIMENSIONS [mm]				
P23-6,2/2,5R- R02C02-SM07M07/M05M05-N		R L	6,2/2,5	180/280	500	3 500	42,6	119,0	158,8	M22x1,5	Ø 28	M18x1,5	Ø 24	
P23-4,8/2,5R- R02C02-SM05M05/M05M05-N		R L	4,8/2,5	230/250	500	3 800	40,0	113,7	153,5	M18x1,5	Ø 24	M18x1,5	Ø 24	
P23-3,6/3,6R- R02C02-SM05M05/M05M05-N	187 9864	R L	3,6/3,6	200/260	500	4 000	37,8	111,4	153,2	M18x1,5	Ø 24	M18x1,5	Ø 24	
P23-3,6/2,5R- R02C02-SM05M05/M05M05-N		R L	3,6/2,5	260/280	500	4 000	37,8	109,3	149,1	M18x1,5	Ø 24	M18x1,5	Ø 24	
P23-2,5/2,5R- R02C02-SM05M05/M05M05-N		R L	2,5/2,5	280/280	500	4 500	35,7	105,2	145,0	M18x1,5	Ø 24	M18x1,5	Ø 24	
P23-1,2/0,8R- R02C02-SM03M03/M03M03-N		R L	1,2/0,8	280/280	600	5 000	33,4	97,4	134,1	M14x1,5	Ø 20	M14x1,5	Ø 20	



ORDER KEY	PURCH. CODE	DIR. OF ROT.	DISPLACEMENT [cm ³ /1]	NOM. PRES. [bar]	MIN. SPEED [min ⁻¹]	MAX. SPEED [min ⁻¹]	A	B	C	DIMENSIONS [mm]			
P23-7,9/2,5L- A03K03-CG02P01/G02G02G02-N	187 9702	L	7,9/2,5	160/280	500	3 000	51,8	131,4	165,1	G 3/8	Ø 24	G 3/8	Ø 24
P23-7,9/1,2L- A03K03-CG02P01/G02G02G02-N		R	7,9/1,2	160/280	500	3 000	51,8	129,0	160,4	G 3/8	Ø 24	G 3/8	Ø 24
P23-6,2/1,6L- A03K03-CG02P01/G02G02G02-N	187 9923	L	6,2/1,6	180/280	500	3 500	48,6	123,4	155,6	G 3/8	Ø 24	G 3/8	Ø 24
P23-3,3/4,4L- A03K03-CG02P01/G02G02G02-N		R	3,3/4,4	280/250	500	4 000	43,2	117,7	155,0	G 3/8	Ø 24	G 3/8	Ø 24
P23-2,5/4,8L- A03K03-CG02P01/G02G02G02-N		L	2,5/4,8	280/230	500	3 800	41,7	115,5	153,5	G 3/8	Ø 24	G 3/8	Ø 24
P23-2,5/4,4L- A03K03-CG02P01/G02G02G02-N		R	2,5/4,4	280/250	500	4 000	41,7	114,7	152,0	G 3/8	Ø 24	G 3/8	Ø 24
P23-1,6/6,2L- A03K03-CG02P01/G02G02G02-N		L	1,6/6,2	280/180	500	3 500	40,1	115,0	155,6	G 3/8	Ø 24	G 3/8	Ø 24
P23-1,6/5,8L- A03K03-CG02P01/G02G02G02-N		R	1,6/5,8	280/200	500	3 500	40,1	114,2	154,1	G 3/8	Ø 24	G 3/8	Ø 24
P23-1,6/4,8L- A03K03-CG02P01/G02G02G02-N	187 9922	L	1,6/4,8	280/230	500	3 800	40,1	112,3	150,3	G 3/8	Ø 24	G 3/8	Ø 24



P23-7,9R- R02C02-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- R02C02-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- R02C02-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- R02C02-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- R02C02-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- R02C02-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- R02C02-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- R02C02-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- R02C02-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- R02C02-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- R02C02-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- R02C02-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	DIR. OF ROT.	DISPLACEMENT [cm ³ /1]	NOM. PRES. [bar]	MIN. SPEED [min ⁻¹]	MAX. SPEED [min ⁻¹]	A	B	DIMENSIONS [mm]			



jihostroj
AERO TECHNOLOGY & HYDRAULICS

JIHOSTROJ a.s.
Budějovická 148
CZ 382 32 Velešín
Czech Republic
tel.: +420 380 340 511
fax: +420 380 340 612
e-mail: mailbox@jihostroj.cz
http: //www.jihostroj.com

GPS 48°49'51.748" N 14°27'40.770" E

