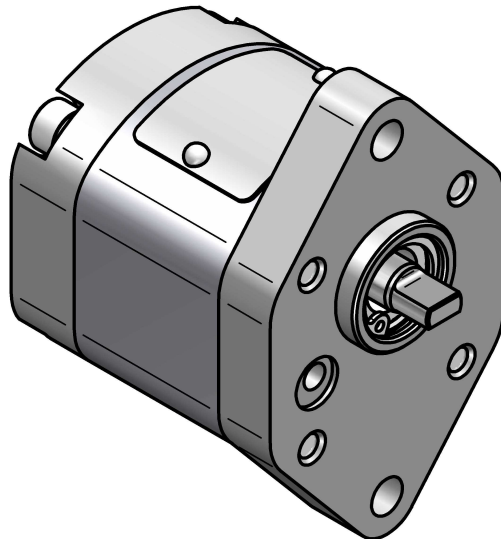


BASIC DESCRIPTION

X line pumps are designed to be used in low-performance hydraulic systems (up to 0.74 kW). They are available as a one-way as well as reversible version.

A wide variety of designs with diverse drives, connecting flanges, fluid inlets and outlets enables the pumps to be used in hydraulic systems of both fixed and mobile machines and equipment with small dimensions. The connections and flanges comply with worldwide standards.

The X line with a wide range of applicable revolutions of $600 - 8000 \text{ min}^{-1}$ affords connection with high-revolutions motors. Both the pumps and motors are characterized by very favorable efficiency values within the entire speed and pressure range.

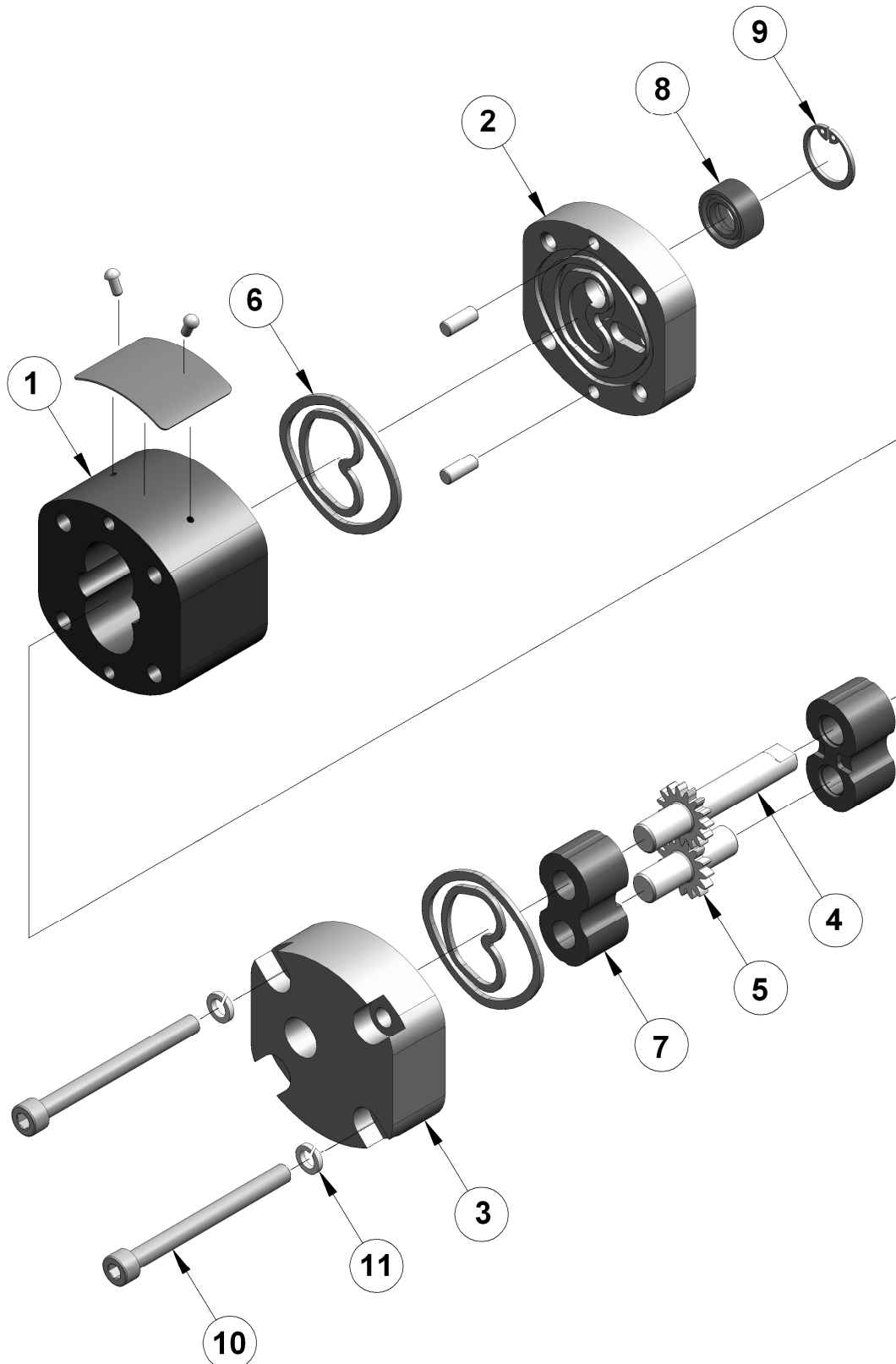


PARAMETER TABLE

Nominal Size Parameters		Symb.	Unit	X-0,18	X-0,25	X-0,32	X-0,36	X-0,40	X-0,50	X-0,63	X-0,70
Nominal displacement		V_g	[cm ³]	0,18	0,25	0,32	0,36	0,40	0,50	0,63	0,70
Rotation speed	nominal	n_n	[min ⁻¹]	1500							
	min.	n_{min}	[min ⁻¹]	1000							
	max.	n_{max}	[min ⁻¹]	8000	7000			6000			
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]	200	230			220			
	max. pressure	p_{2max}	[bar]	250							240
	peak pressure	p_3	[bar]	260							250
Nominal flow rate (min.) at n_n and p_{2n}		Q_n	[dm ³ .min ⁻¹]	0,19	0,30	0,40	0,44	0,50	0,65	0,85	0,95
Maximum flow rate at n_{max} and p_{2max}		Q_{max}	[dm ³ .min ⁻¹]	1,39	1,77	2,27	2,50	2,83	2,98	3,74	4,22
Nominal input power (max.) at n_n and p_{2n}		P_n	[kW]	0,10	0,17	0,22	0,24	0,28	0,34	0,41	0,46
Max. input power at n_{max} and p_{2max}		P_{max}	[kW]	0,69	0,88	1,12	1,24	1,40	1,4	1,78	2,01
Weight		m	[kg]	0,37	0,38	0,38	0,38	0,39	0,39	0,40	0,40

Nominal Size Parameters		Symb.	Unit	X-0,80	X-1,00	X-1,25	X-1,50	X-2,00	X-2,50	X-3,20	
Nominal displacement		V_g	[cm ³]	0,80	1,00	1,25	1,50	2,00	2,50	3,20	
Rotation speed	nominal	n_n	[min ⁻¹]	1500							
	min.	n_{min}	[min ⁻¹]	1000	800			600	500		
	max.	n_{max}	[min ⁻¹]	6000	5000	4000	3000	2800	2500	1800	
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]	220	200		160	120	90	60	
	max. pressure	p_{2max}	[bar]	240	220			180	150	100	70
	peak pressure	p_3	[bar]	250	230			190	160	110	80
Nominal flow rate (min.) at n_n and p_{2n}		Q_n	[dm ³ .min ⁻¹]	1,05	1,35	1,70	2,00	2,70	3,40	4,45	
Maximum flow rate at n_{max} and p_{2max}		Q_{max}	[dm ³ .min ⁻¹]	4,78	4,95	4,98	4,50	5,56	6,20	5,69	
Nominal input power (max.) at n_n and p_{2n}		P_n	[kW]	0,52	0,59	0,74	0,71	0,71	0,66	0,56	
Max. input power at n_{max} and p_{2max}		P_{max}	[kW]	2,27	2,16	2,17	1,60	1,65	1,23	0,79	
Weight		m	[kg]	0,40	0,41	0,41	0,43	0,45	0,48	0,53	

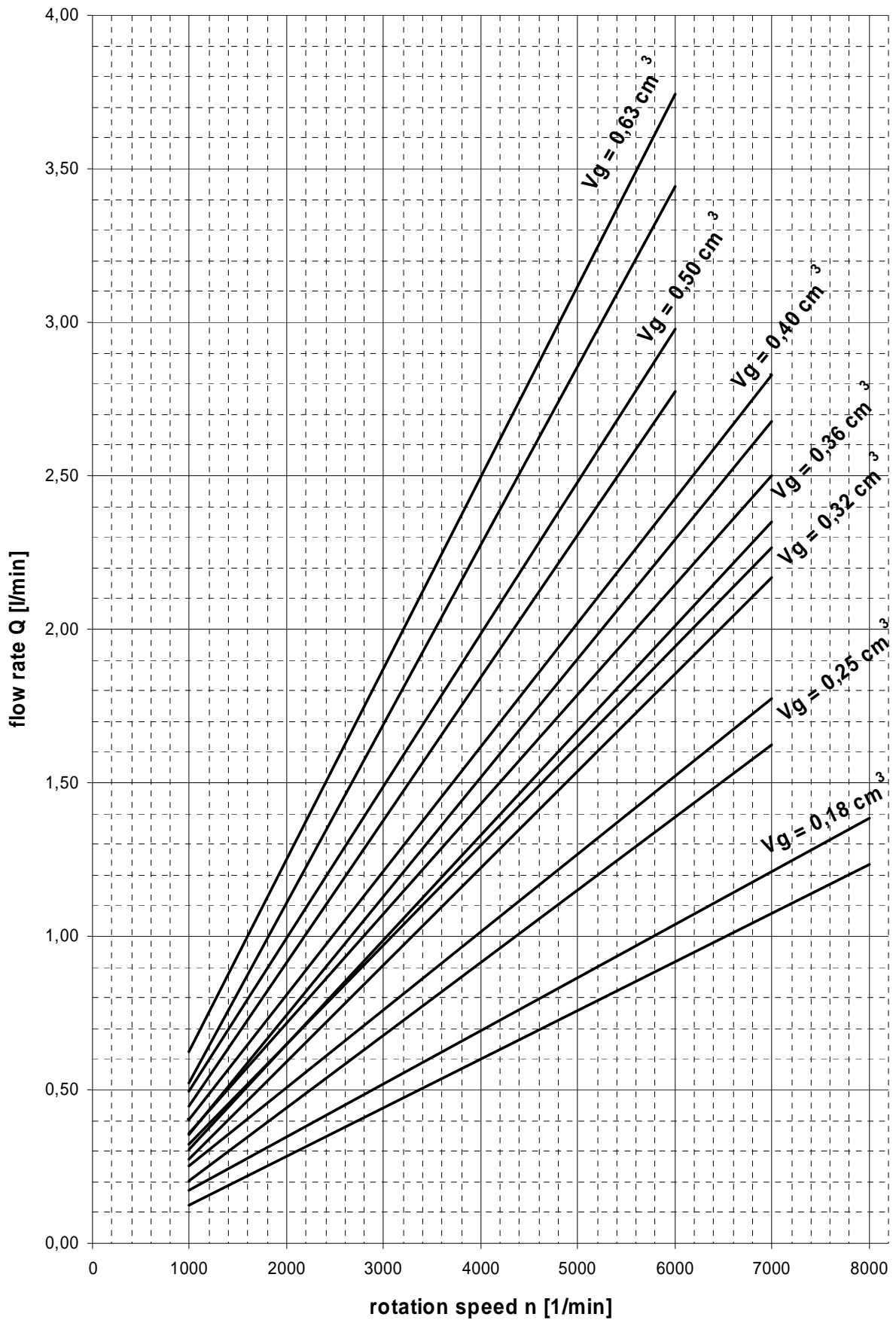
BASIC PARTS



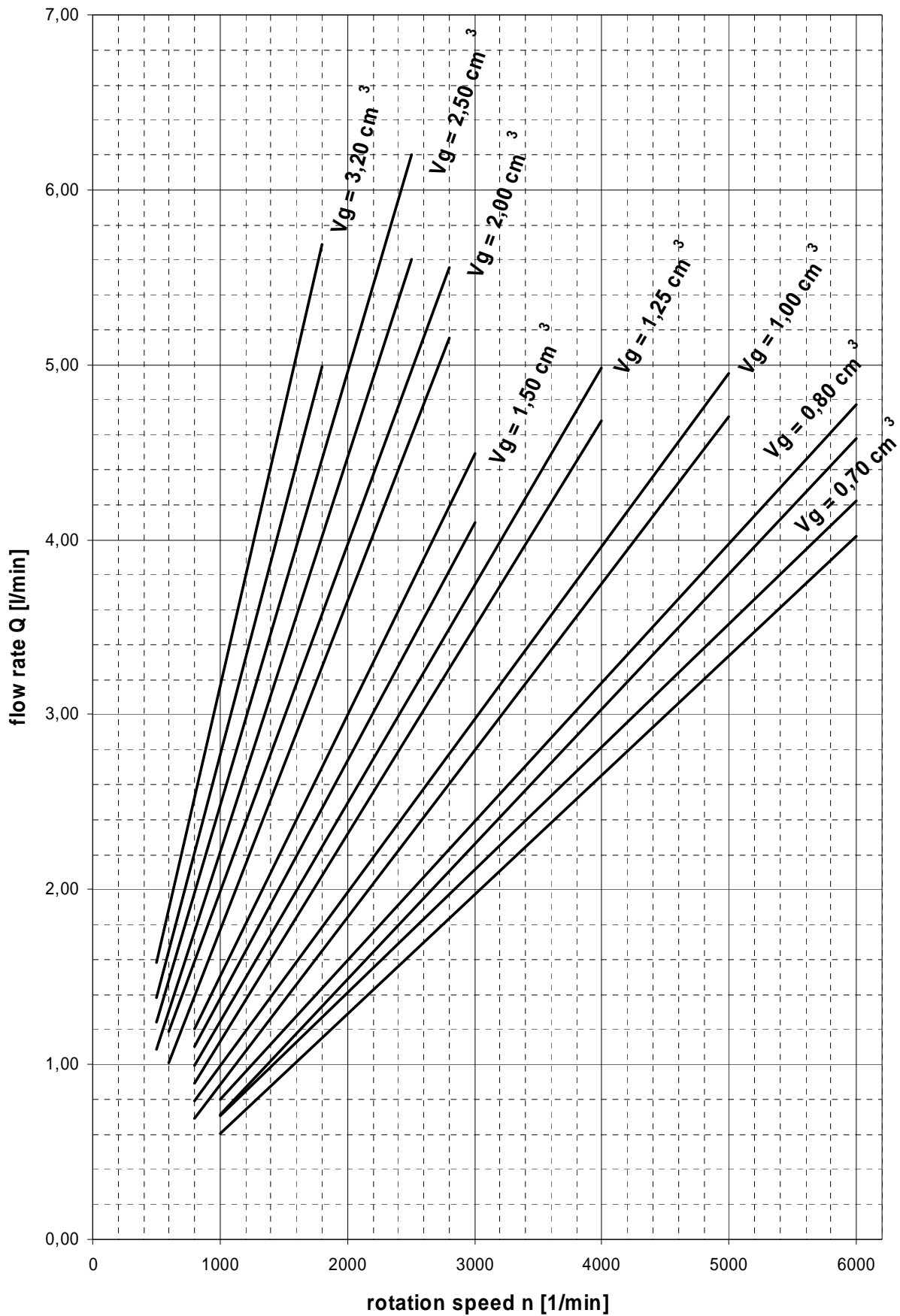
1. Body
2. Flange
3. Cover
4. Driving gear
5. Driven gear
6. Thrust pressure seal

7. Bearing
8. Shaft seal
9. Safety ring
10. Connection bolts
11. Spring washer

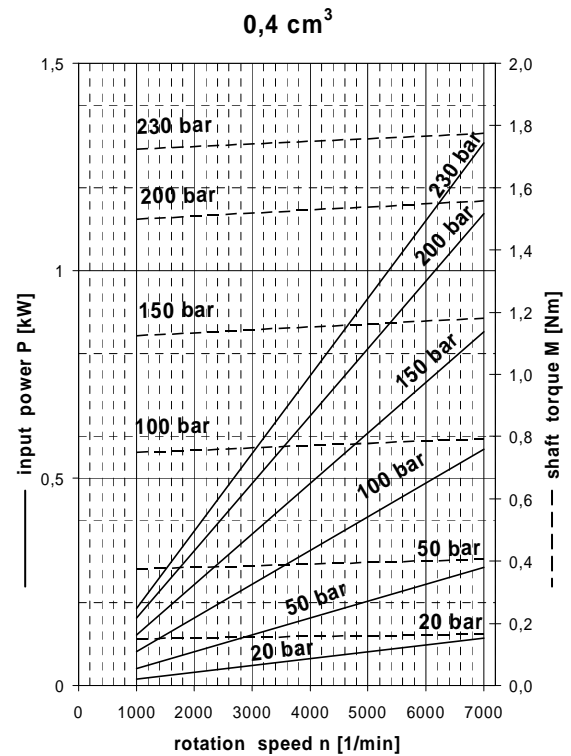
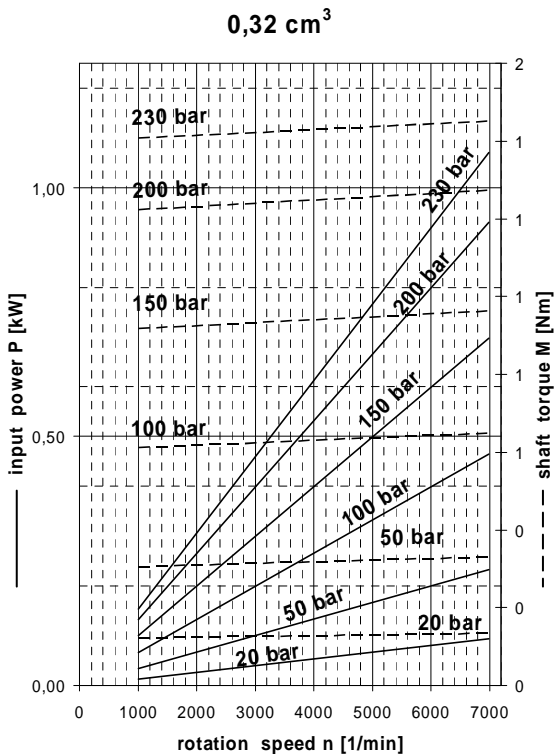
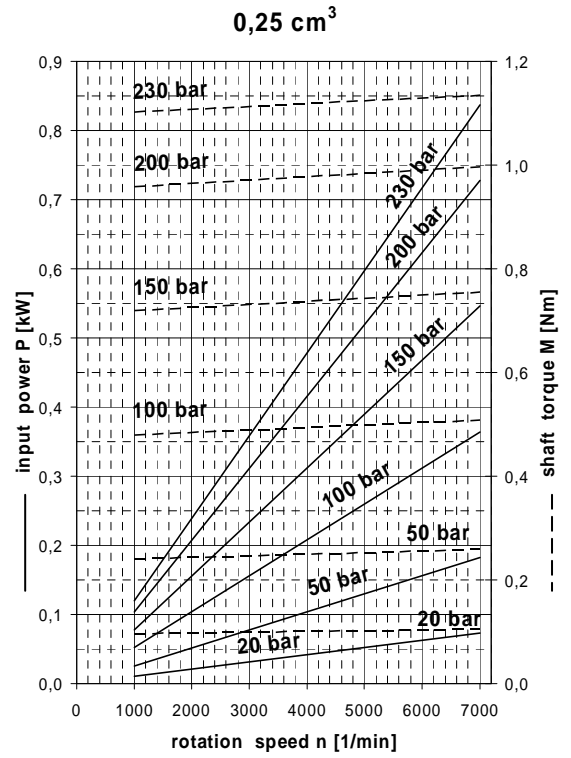
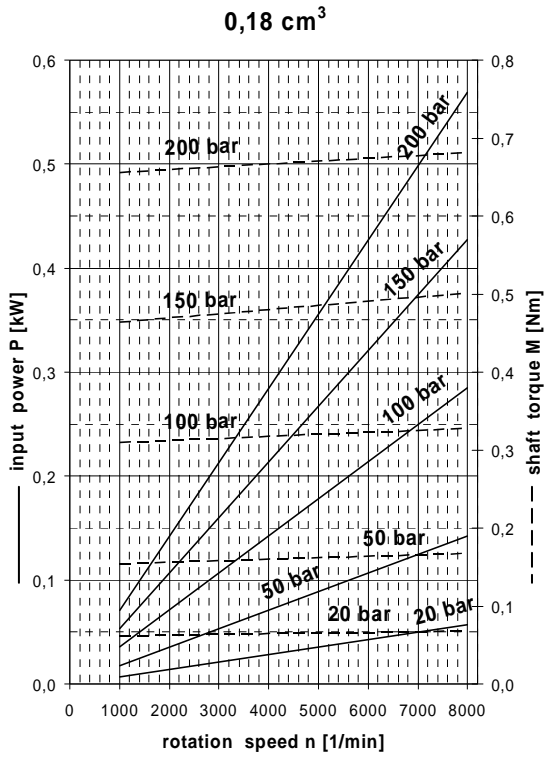
FLOW RATE AND INPUT POWER CURVES

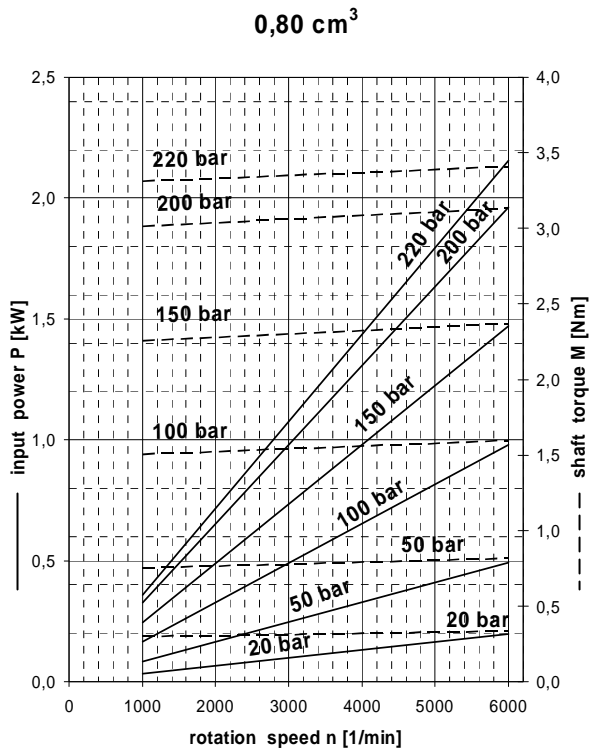
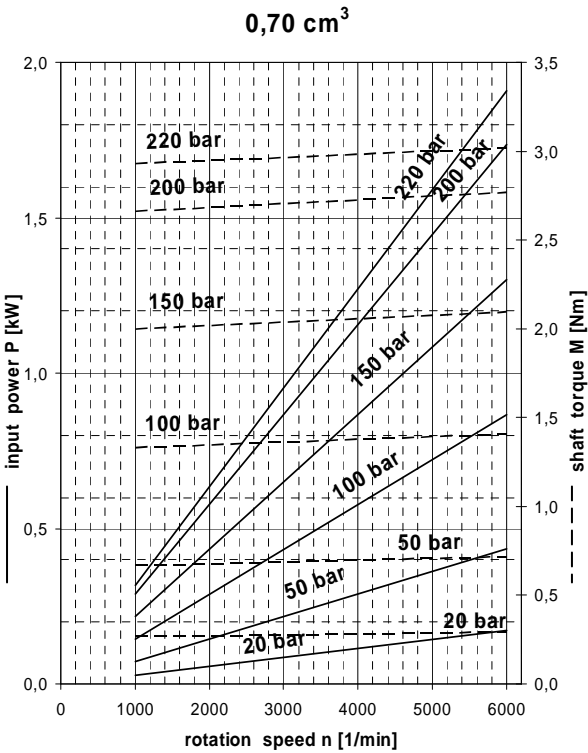
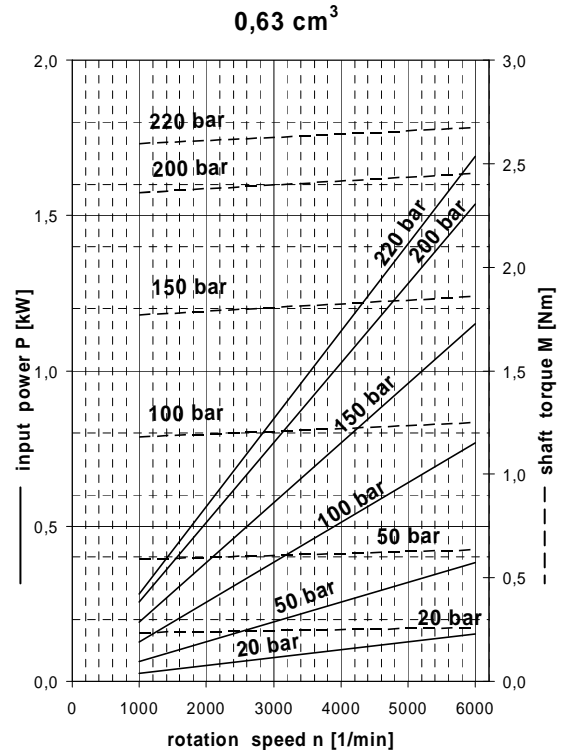
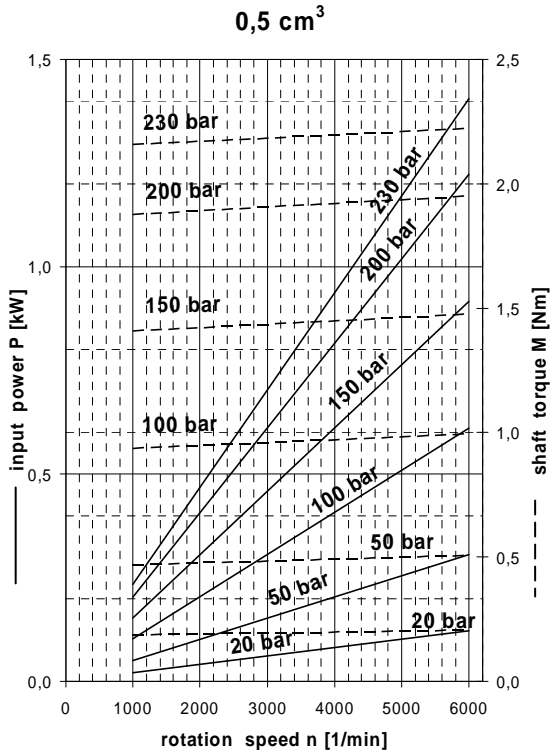


The curves above are valid for the ISO Vg 46 oil at temperature $t = 45^\circ\text{C}$.

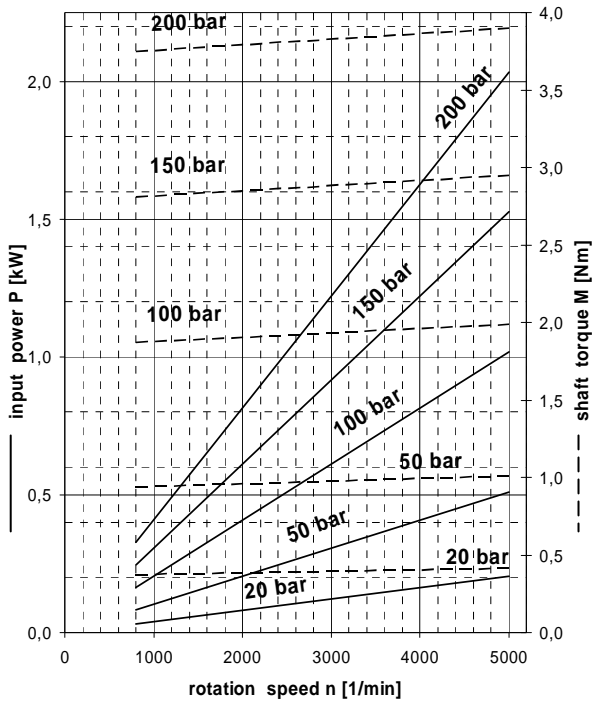


The curves above are valid for the ISO Vg 46 oil at temperature $t = 45^\circ\text{C}$.

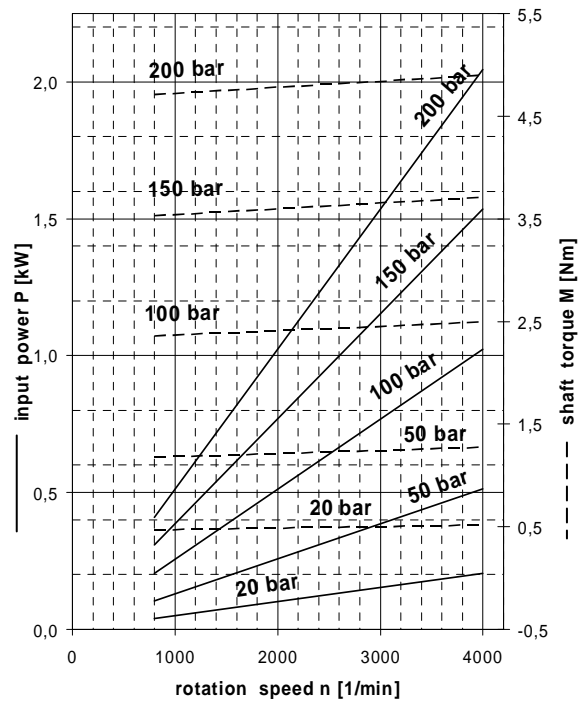




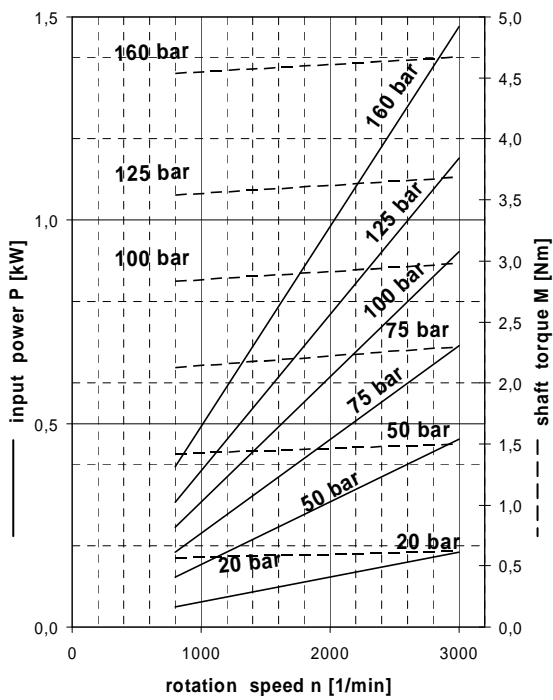
1,00 cm³



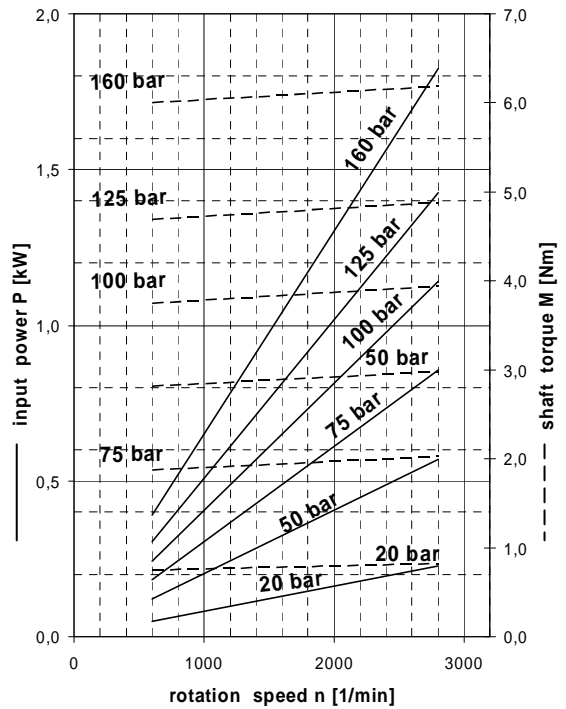
1,25 cm³



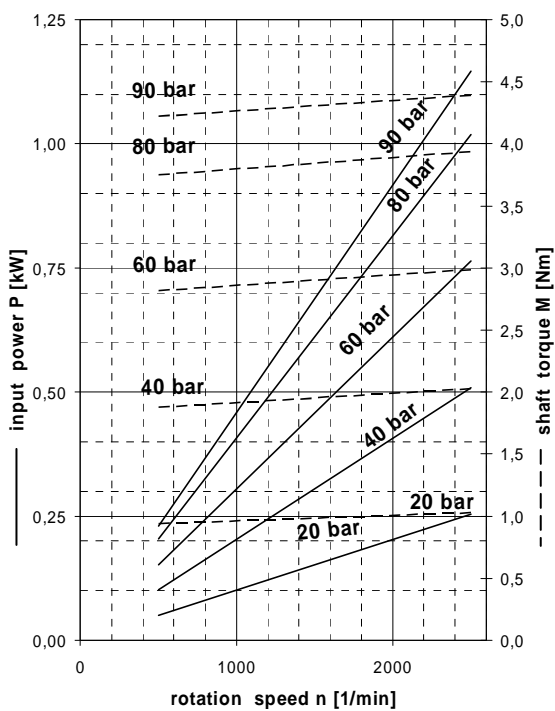
1,50 cm³



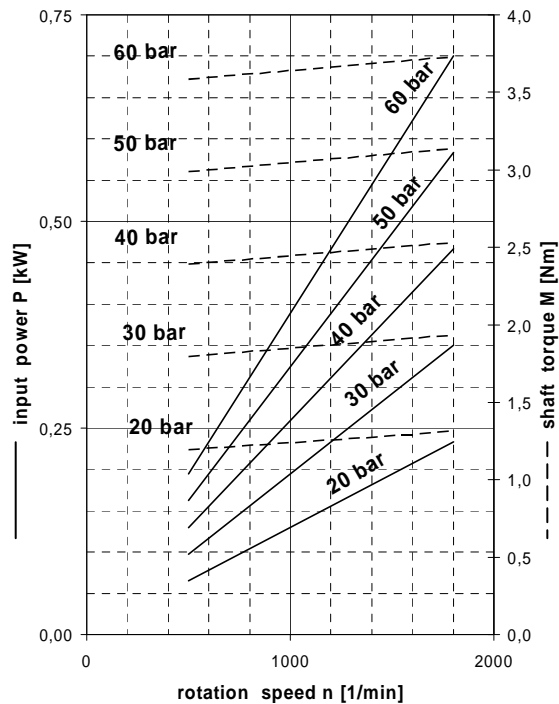
2,00 cm³



2,50 cm³



3,20 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

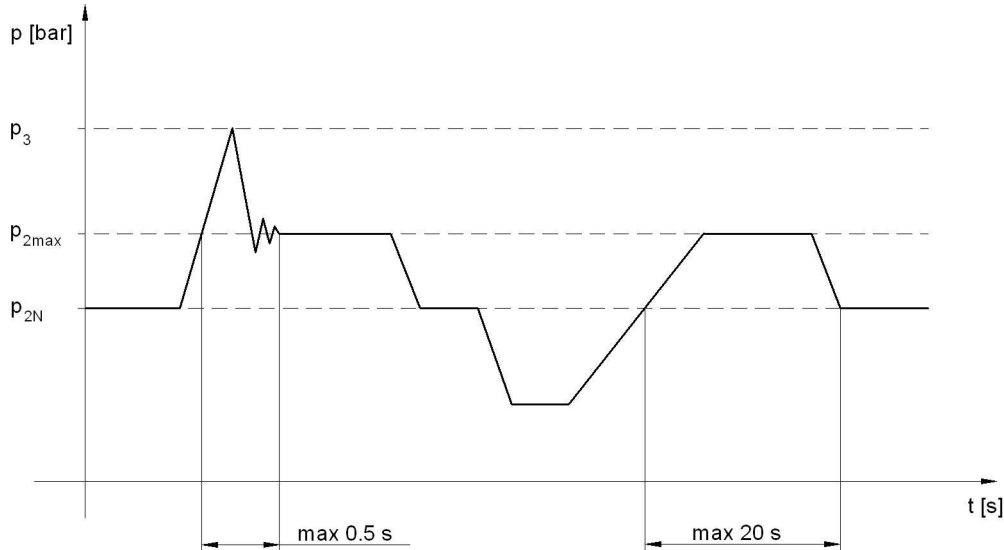
Total efficiency is defined as the arithmetic product of η_v and η_m and expresses the difference between the theoretical and the required actual input power:

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

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

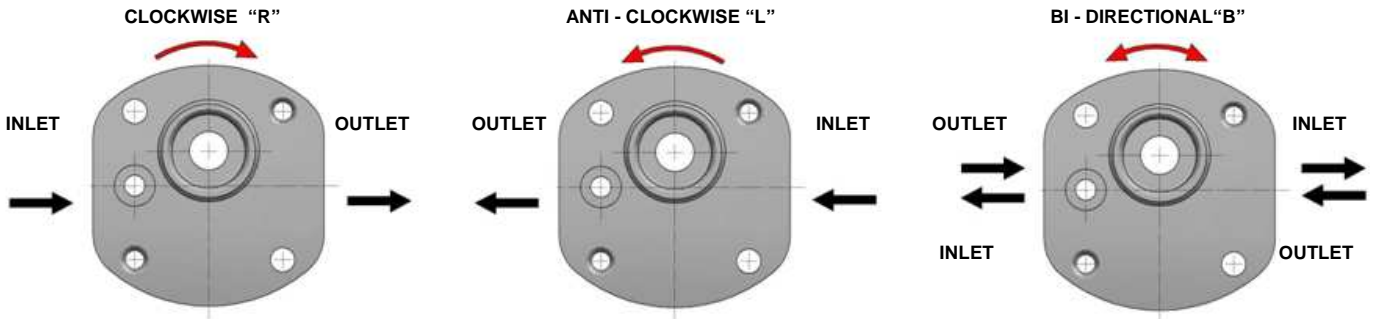
10 (for pressure $p_2 < 200$ bar)
 8 (for pressure $p_2 > 200$ bar)

Next requirements

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

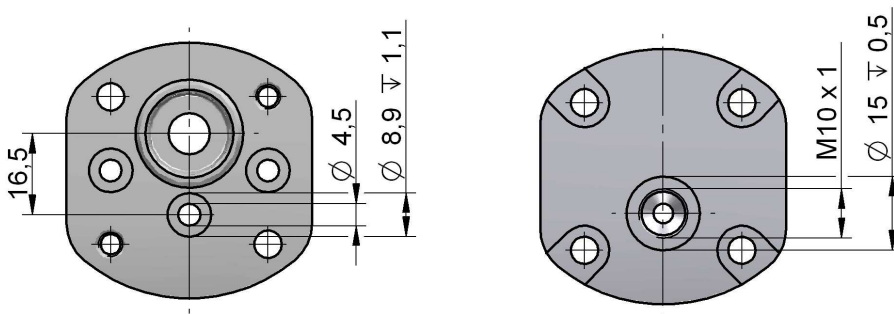
DIRECTION OF ROTATION

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. The external drainage is solved by means of an orifice located in the cover or the flange opposite the driven gear (see image below).



ORDER KEY

X - 1,00 R - A1 C1 - S G01 / G01 - N . 004

Code	Displacement [cm ³]
0,18	0,175
0,25	0,256
0,32	0,327
0,36	0,361
0,40	0,408
0,50	0,501
0,63	0,630
0,70	0,711
0,80	0,804
1,00	1,001
1,25	1,258
1,50	1,514
2,00	2,004
2,50	2,505
3,20	3,192
XX	Other displacements on request

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

Code	Type
X	X Series Gear Pump

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

Code	Special arrangements
-	No special arrangements
001	With front end bearing
004	Without shaft seal
005	drainage in the flange

Code	Sealing material	
N		NBR

Code	Flange design	
R1		Flange with two bolts M6 centre ring Ø 22
A1		Flange with two bolts M5 centre ring Ø 22 spacing 32x32
B1		Flange with two bolts M5 centre ring Ø 22 spacing 30x32
Z		Special design

Code	Drive shaft design	
C1		Taper 1:8 Woodruff key 2x2,6
C2		Cylindric Woodruff key 2x2,6
K1		Cross coupling
K2		Cross coupling
Z		Special design

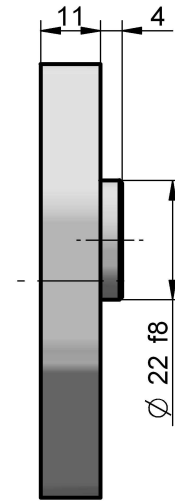
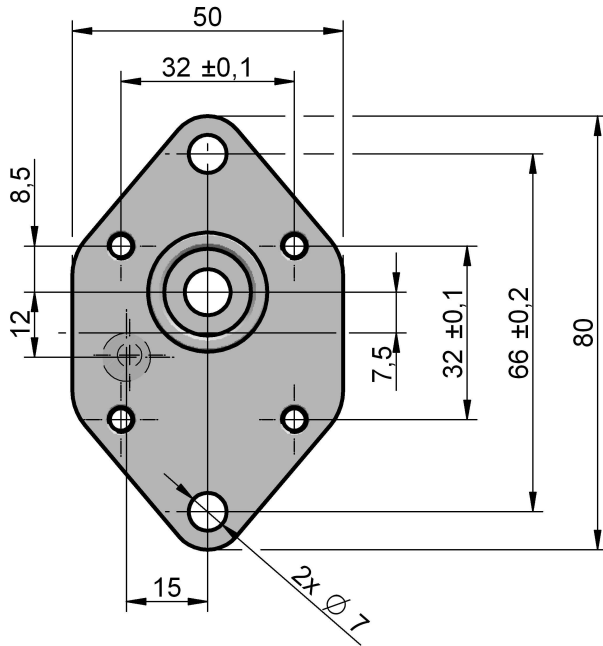
Code	Design of suction and pressure port	
D01		Inlet / Outlet in the Flange
D02		Inlet / Outlet in the Flange
P01		Inlet / Outlet in the cover
M01		Thread M 10x1
G01		Thread BSP G 1/4
G02		Thread BSP G 3/8
Z		Special design

Example: Description of a X pump: Direction of rotation clockwise; geometric volume 1,00cm³; A1 flange; taper 1:8 woodruff key 2x2,6; BSP inlet orifices in the body; without shaft seal, no special arrangement:
X-1,00R-A1C1-SG01/G01-N.004

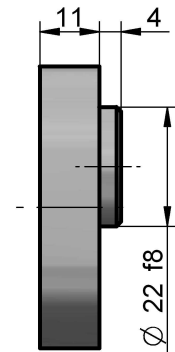
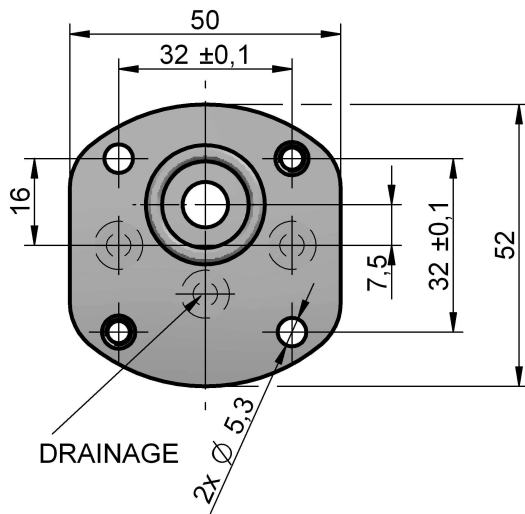
DESIGN OF FLANGES, DRIVE SHAFTS AND INLET PORTS

Flanges

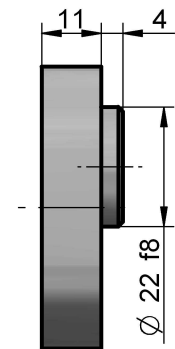
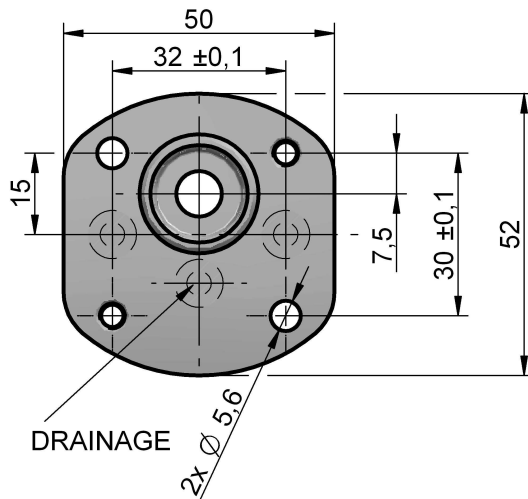
R1:



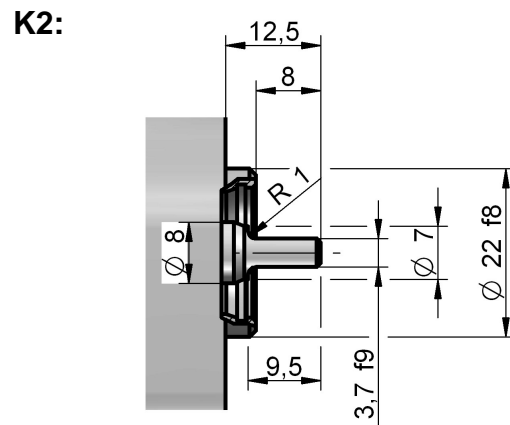
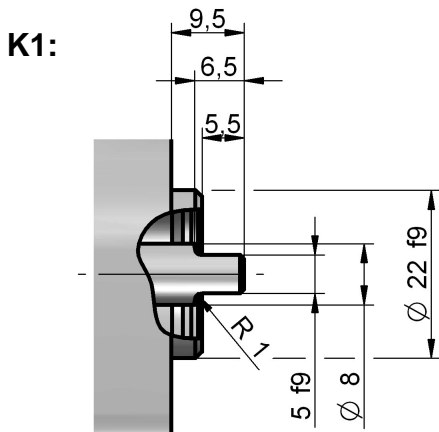
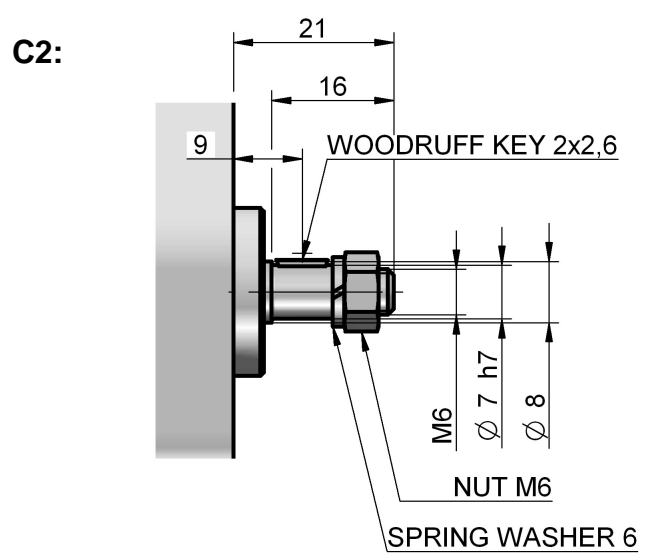
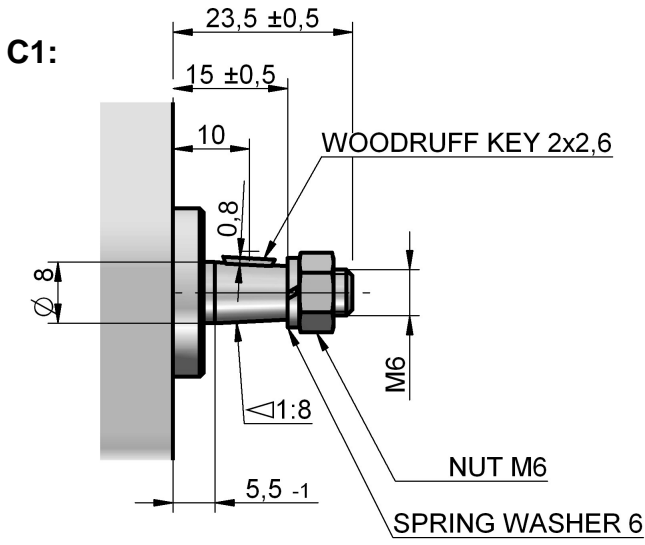
A1:



B1:

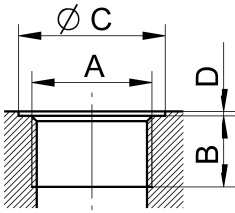


Drive shafts



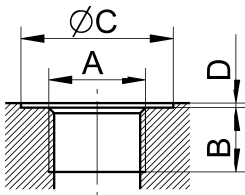
INLET AND OUTLET PORTS

Metric thread ISO 6149



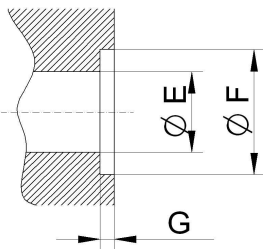
Code	A	B	C	D
M01	M 10x1	8	15	1

BSP pipe thread ISO 228 - 1



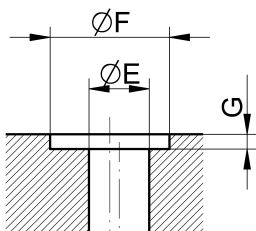
Code	A	B	C	D
G01	G 1/4	13	26	1
G02	G 3/8	13	24	1

Inlet / Outlet in the Flange

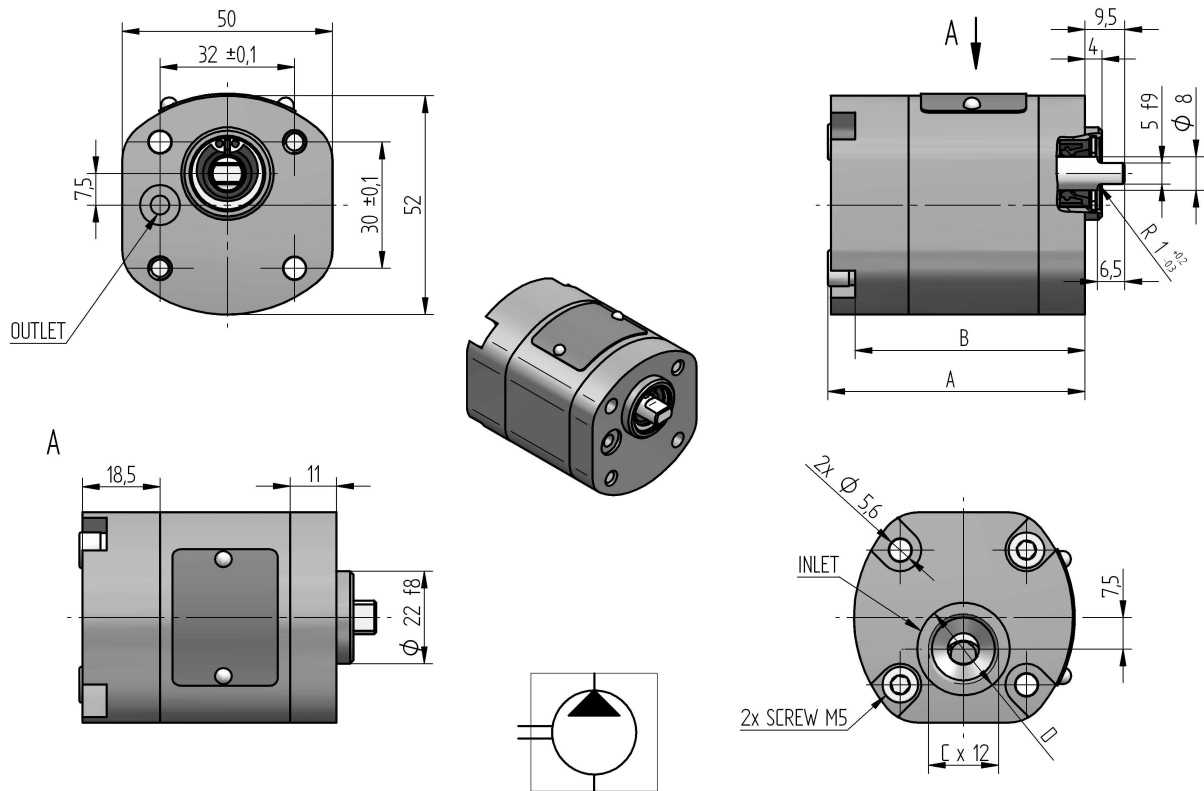


Code	E	F	G
D01	4.5	8.9	1,1
D02	4.5	9.5	1,3

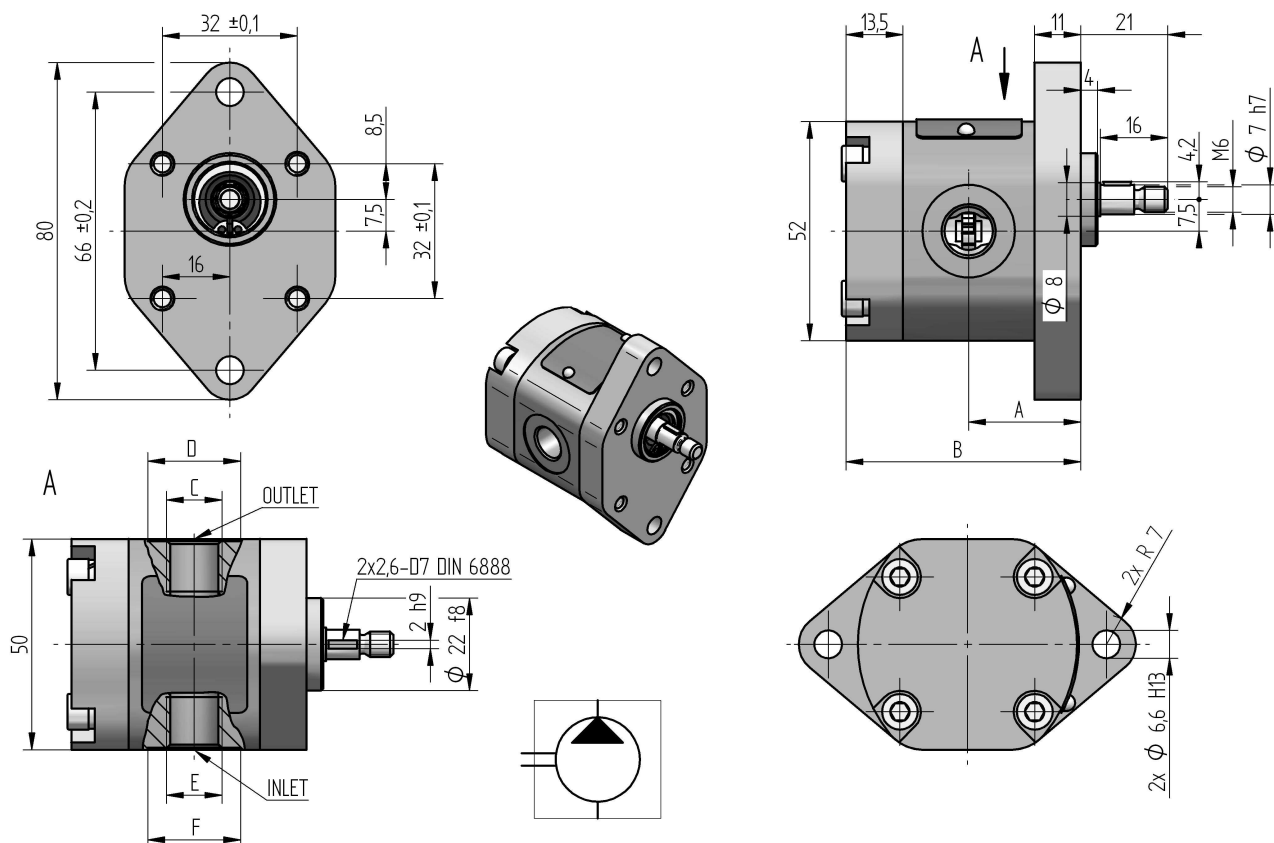
Inlet / Outlet in the Flange



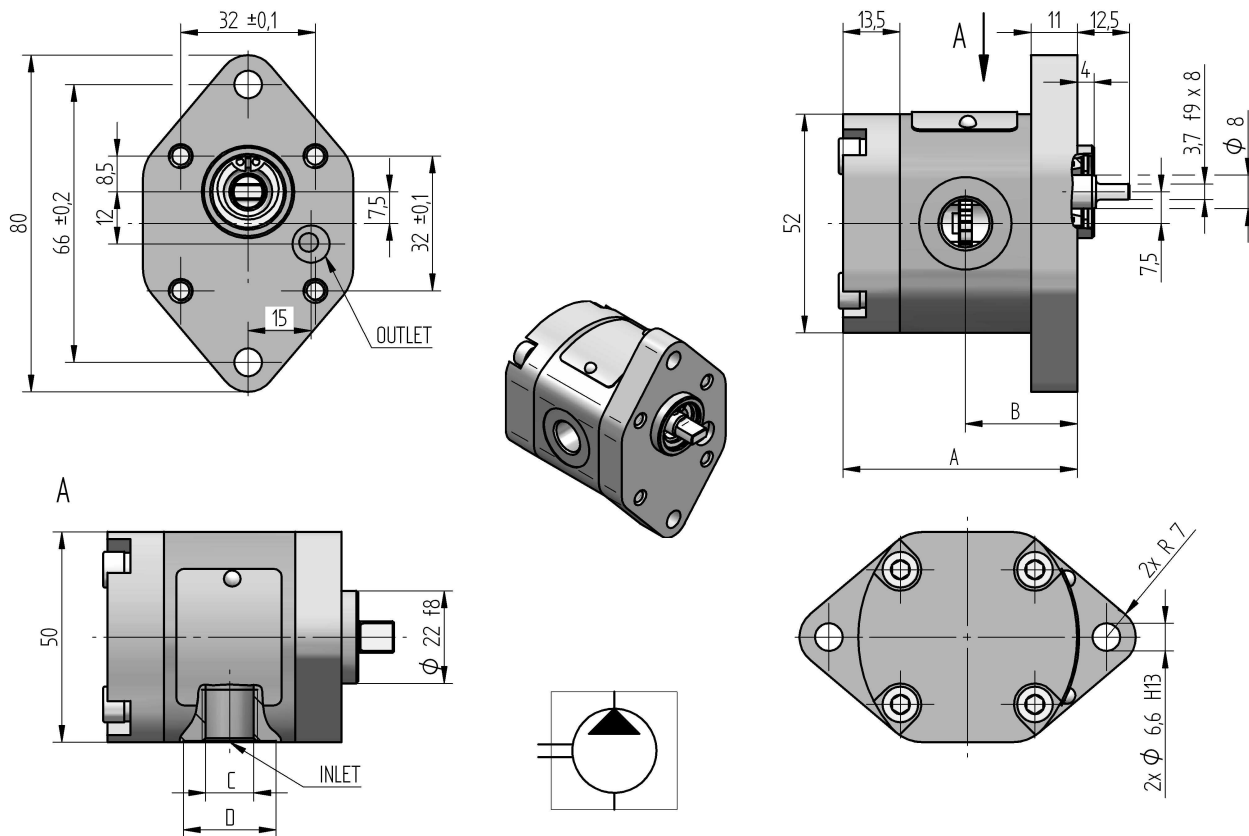
Code	E	F	G
P01	4.5	8.9	1,1



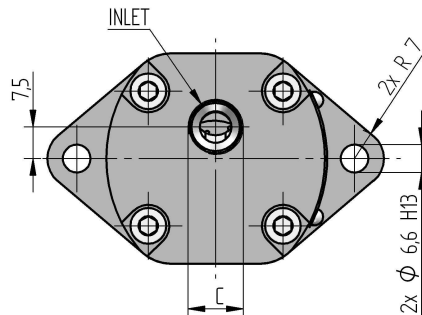
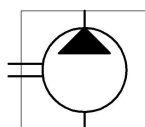
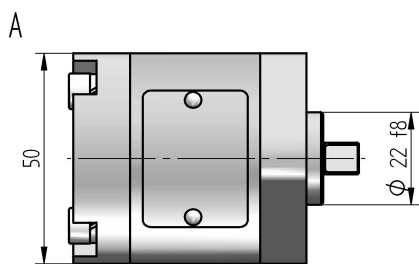
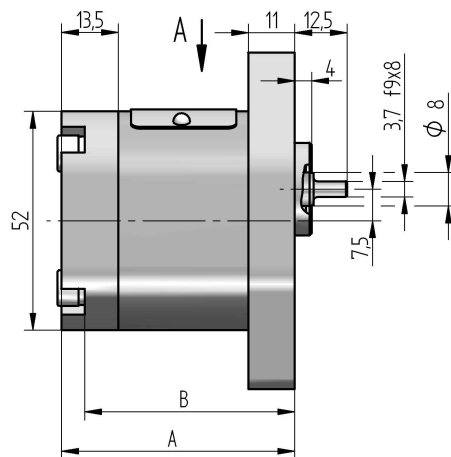
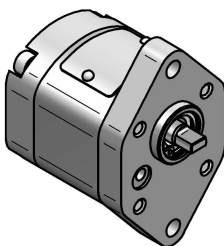
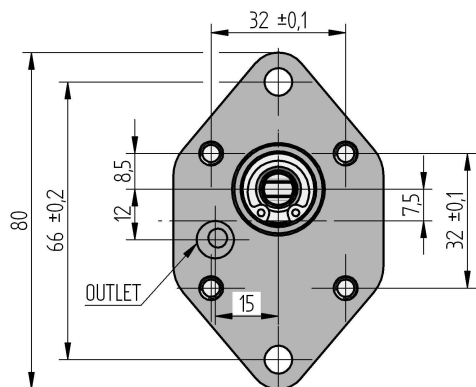
X-3,20R-B1K1-AG02/D02-N		R	3,2	60	500	1 800	85,7	79,2	G3/8	Ø 22		
X-3,20L-B1K1-AG02/D02-N		L										
X-2,50R-B1K1-AG02/D02-N		R	2,5	90	500	2 500	79,8	73,3	G3/8	Ø 22		
X-2,50L-B1K1-AG02/D02-N		L										
X-2,00R-B1K1-AG02/D02-N		R	2	120	600	2 800	75,5	69	G3/8	Ø 22		
X-2,00L-B1K1-AG02/D02-N		L										
X-1,50R-B1K1-AG02/D02-N		R	1,5	160	800	3 000	71,3	64,8	G3/8	Ø 22		
X-1,50L-B1K1-AG02/D02-N		L										
X-1,25R-B1K1-AG02/D02-N		R	1,25	200	800	4 000	69,1	62,6	G3/8	Ø 22		
X-1,25L-B1K1-AG02/D02-N		L										
X-1,00R-B1K1-AG02/D02-N		R	1	200	800	5 000	66,9	60,4	G3/8	Ø 22		
X-1,00L-B1K1-AG02/D02-N		L										
X-0,80R-B1K1-AG02/D02-N		R	0,8	220	1 000	6 000	65,2	58,7	G3/8	Ø 22		
X-0,80L-B1K1-AG02/D02-N	180 9946	L										
X-0,70R-B1K1-AG02/D02-N		R	0,7	220	1 000	6 000	64,4	57,9	G3/8	Ø 22		
X-0,70L-B1K1-AG02/D02-N		L										
X-0,63R-B1K1-AG02/D02-N		R	0,63	220	1 000	6 000	63,7	57,2	G3/8	Ø 22		
X-0,63L-B1K1-AG02/D02-N		L										
X-0,50R-B1K1-AG02/D02-N		R	0,5	230	1 000	6 000	62,6	56,1	G3/8	Ø 22		
X-0,50L-B1K1-AG02/D02-N	180 9947	L										
X-0,40R-B1K1-AG02/D02-N		R	0,4	230	1 000	7 000	61,8	55,3	G3/8	Ø 22		
X-0,40L-B1K1-AG02/D02-N		L										
X-0,36R-B1K1-AG02/D02-N		R	0,36	230	1 000	7 000	61,4	54,9	G3/8	Ø 22		
X-0,36L-B1K1-AG02/D02-N		L										
X-0,32R-B1K1-AG02/D02-N		R	0,32	230	1 000	7 000	61,1	54,6	G3/8	Ø 22		
X-0,32L-B1K1-AG02/D02-N	180 9954	L										
X-0,25R-B1K1-AG02/D02-N		R	0,25	230	1 000	7 000	60,5	54	G3/8	Ø 22		
X-0,25L-B1K1-AG02/D02-N	180 9956	L										
X-0,18R-B1K1-AG02/D02-N		R	0,18	200	1 000	8 000	59,8	53,3	G3/8	Ø 22		
X-0,18L-B1K1-AG02/D02-N	180 9953	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	D	E	F
DIMENSION [mm]												



X-3,20R-R1C2-SG01/G01-N		R	3,2	60	500	1 800	85,7	79,2	G1/4	Ø 22	G1/4	Ø 22
X-3,20L-R1C2-SG01/G01-N		L										
X-2,50R-R1C2-SG01/G01-N		R	2,5	90	500	2 500	79,8	73,3	G1/4	Ø 22	G1/4	Ø 22
X-2,50L-R1C2-SG01/G01-N		L										
X-2,00R-R1C2-SG01/G01-N		R	2	120	600	2 800	75,5	69	G1/4	Ø 22	G1/4	Ø 22
X-2,00L-R1C2-SG01/G01-N		L										
X-1,50R-R1C2-SG01/G01-N		R	1,5	160	800	3 000	71,3	64,8	G1/4	Ø 22	G1/4	Ø 22
X-1,50L-R1C2-SG01/G01-N		L										
X-1,25R-R1C2-SG01/G01-N	180 9952	R	1,25	200	800	4 000	69,1	62,6	G1/4	Ø 22	G1/4	Ø 22
X-1,25L-R1C2-SG01/G01-N	180 9961	L										
X-1,00R-R1C2-SG01/G01-N		R	1	200	800	5 000	66,9	60,4	G1/4	Ø 22	G1/4	Ø 22
X-1,00L-R1C2-SG01/G01-N		L										
X-0,80R-R1C2-SG01/G01-N	180 9951	R	0,8	220	1 000	6 000	65,2	58,7	G1/4	Ø 22	G1/4	Ø 22
X-0,80L-R1C2-SG01/G01-N	180 9960	L										
X-0,70R-R1C2-SG01/G01-N		R	0,7	220	1 000	6 000	64,4	57,9	G1/4	Ø 22	G1/4	Ø 22
X-0,70L-R1C2-SG01/G01-N		L										
X-0,63R-R1C2-SG01/G01-N		R	0,63	220	1 000	6 000	63,7	57,2	G1/4	Ø 22	G1/4	Ø 22
X-0,63L-R1C2-SG01/G01-N		L										
X-0,50R-R1C2-SG01/G01-N		R	0,5	230	1 000	6 000	62,6	56,1	G1/4	Ø 22	G1/4	Ø 22
X-0,50L-R1C2-SG01/G01-N		L										
X-0,40R-R1C2-SG01/G01-N		R	0,4	230	1 000	7 000	61,8	55,3	G1/4	Ø 22	G1/4	Ø 22
X-0,40L-R1C2-SG01/G01-N		L										
X-0,36R-R1C2-SG01/G01-N		R	0,36	230	1 000	7 000	61,4	54,9	G1/4	Ø 22	G1/4	Ø 22
X-0,36L-R1C2-SG01/G01-N		L										
X-0,32R-R1C2-SG01/G01-N		R	0,32	230	1 000	7 000	61,1	54,6	G1/4	Ø 22	G1/4	Ø 22
X-0,32L-R1C2-SG01/G01-N	180 9964	L										
X-0,25R-R1C2-SG01/G01-N		R	0,25	230	1 000	7 000	60,5	54	G1/4	Ø 22	G1/4	Ø 22
X-0,25L-R1C2-SG01/G01-N	180 9963	L										
X-0,18R-R1C2-SG01/G01-N		R	0,18	200	1 000	8 000	59,8	53,3	G1/4	Ø 22	G1/4	Ø 22
X-0,18L-R1C2-SG01/G01-N		L										
ORDER KEY	PURCH. CODE	DIRECT. OF ROT.	DISPLACEMENT [cm ³ /l]	CONT. PRESS. [bar]	MIN. SPEED [min ⁻¹]	MAX. SPEED [min ⁻¹]	A	B	DIMENSION [mm]			



X-3,20R-R1K2-CG01/P01-N		R	3,2	60	500	1 800	85,7	79,2	G1/4	Ø 22		
X-3,20L-R1K2-CG01/P01-N		L										
X-2,50R-R1K2-CG01/P01-N		R	2,5	90	500	2 500	79,8	73,3	G1/4	Ø 22		
X-2,50L-R1K2-CG01/P01-N		L										
X-2,00R-R1K2-CG01/P01-N		R	2	120	600	2 800	75,5	69	G1/4	Ø 22		
X-2,00L-R1K2-CG01/P01-N		L										
X-1,50R-R1K2-CG01/P01-N		R	1,5	160	800	3 000	71,3	64,8	G1/4	Ø 22		
X-1,50L-R1K2-CG01/P01-N		L										
X-1,25R-R1K2-CG01/P01-N		R	1,25	200	800	4 000	69,1	62,6	G1/4	Ø 22		
X-1,25L-R1K2-CG01/P01-N		L										
X-1,00R-R1K2-CG01/P01-N		R	1	200	800	5 000	66,9	60,4	G1/4	Ø 22		
X-1,00L-R1K2-CG01/P01-N		L										
X-0,80R-R1K2-CG01/P01-N	180 9950	R	0,8	220	1 000	6 000	65,2	58,7	G1/4	Ø 22		
X-0,80L-R1K2-CG01/P01-N		L										
X-0,70R-R1K2-CG01/P01-N		R	0,7	220	1 000	6 000	64,4	57,9	G1/4	Ø 22		
X-0,70L-R1K2-CG01/P01-N		L										
X-0,63R-R1K2-CG01/P01-N		R	0,63	220	1 000	6 000	63,7	57,2	G1/4	Ø 22		
X-0,63L-R1K2-CG01/P01-N		L										
X-0,50R-R1K2-CG01/P01-N		R	0,5	230	1 000	6 000	62,6	56,1	G1/4	Ø 22		
X-0,50L-R1K2-CG01/P01-N		L										
X-0,40R-R1K2-CG01/P01-N		R	0,4	230	1 000	7 000	61,8	55,3	G1/4	Ø 22		
X-0,40L-R1K2-CG01/P01-N		L										
X-0,36R-R1K2-CG01/P01-N		R	0,36	230	1 000	7 000	61,4	54,9	G1/4	Ø 22		
X-0,36L-R1K2-CG01/P01-N		L										
X-0,32R-R1K2-CG01/P01-N	180 9949	R	0,32	230	1 000	7 000	61,1	54,6	G1/4	Ø 22		
X-0,32L-R1K2-CG01/P01-N		L										
X-0,25R-R1K2-CG01/P01-N		R	0,25	230	1 000	7 000	60,5	54	G1/4	Ø 22		
X-0,25L-R1K2-CG01/P01-N		L										
X-0,18R-R1K2-CG01/P01-N		R	0,18	200	1 000	8 000	59,8	53,3	G1/4	Ø 22		
X-0,18L-R1K2-CG01/P01-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	C	D	E	F
DIMENSION [mm]												



X-3,20R-R1K2-AG01/P01-N		R	3,2	60	500	1 800	80,1	79,5	G1/4				
X-3,20L-R1K2-AG01/P01-N		L											
X-2,50R-R1K2-AG01/P01-N		R	2,5	90	500	2 500	74,2	73,6	G1/4				
X-2,50L-R1K2-AG01/P01-N		L											
X-2,00R-R1K2-AG01/P01-N		R	2	120	600	2 800	69,9	69,3	G1/4				
X-2,00L-R1K2-AG01/P01-N		L											
X-1,50R-R1K2-AG01/P01-N		R	1,5	160	800	3 000	65,7	65,1	G1/4				
X-1,50L-R1K2-AG01/P01-N	180 9793	L											
X-1,25R-R1K2-AG01/P01-N	180 9910	R	1,25	200	800	4 000	63,5	62,9	G1/4				
X-1,25L-R1K2-AG01/P01-N	180 9798	L											
X-1,00R-R1K2-AG01/P01-N		R	1	200	800	5 000	61,3	60,7	G1/4				
X-1,00L-R1K2-AG01/P01-N	180 9794	L											
X-0,80R-R1K2-AG01/P01-N	180 9909	R	0,8	220	1 000	6 000	59,6	59	G1/4				
X-0,80L-R1K2-AG01/P01-N	180 9797	L											
X-0,70R-R1K2-AG01/P01-N		R	0,7	220	1 000	6 000	58,8	58,2	G1/4				
X-0,70L-R1K2-AG01/P01-N		L											
X-0,63R-R1K2-AG01/P01-N		R	0,63	220	1 000	6 000	58,1	57,5	G1/4				
X-0,63L-R1K2-AG01/P01-N	180 9799	L											
X-0,50R-R1K2-AG01/P01-N		R	0,5	230	1 000	6 000	57	56,4	G1/4				
X-0,50L-R1K2-AG01/P01-N	180 9796	L											
X-0,40R-R1K2-AG01/P01-N		R	0,4	230	1 000	7 000	56,2	55,6	G1/4				
X-0,40L-R1K2-AG01/P01-N	180 9795	L											
X-0,36R-R1K2-AG01/P01-N		R	0,36	230	1 000	7 000	55,8	55,2	G1/4				
X-0,36L-R1K2-AG01/P01-N		L											
X-0,32R-R1K2-AG01/P01-N		R	0,32	230	1 000	7 000	55,5	54,9	G1/4				
X-0,32L-R1K2-AG01/P01-N	180 9792	L											
X-0,25R-R1K2-AG01/P01-N		R	0,25	230	1 000	7 000	54,9	54,3	G1/4				
X-0,25L-R1K2-AG01/P01-N		L											
X-0,18R-R1K2-AG01/P01-N		R	0,18	200	1 000	8 000	54,2	53,6	G1/4				
X-0,18L-R1K2-AG01/P01-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]				F

