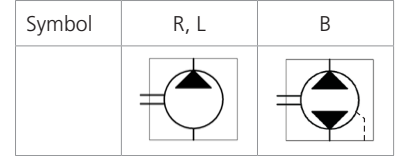


Technical Features



- › Nominal pressure 250 bar, peak pressure 280 bar
- › High quality aluminum alloys pump with axial play compensation
- › Low noise level in whole operating range
- › High operational reliability and long service life
- › High volumetric efficiency up to 96%
- › International standards flanges as per SAE, ISO, DIN, GHOST



Technical Data

Nominal Size Parameters	Symbol	Unit	Displacement											
			20	22	26	33	39	46	50	52	55	63	71	
Actual displacement	V _g	[in ³]	1.22	1.34	1.59	2.01	2.38	2.81	3.05	3.17	3.36	3.84	4.33	
Rotation speed	nominal	n _n	1500											
	minimum	n _{min}	600				500				400			
	maximum	n _{max}	3500			3000				2800		2500		
Pressure at inlet*	minimum	p _{1min}	-0,3 (-4.4 PSI)											
	maximum	p _{1max}	0,5 (7.3 PSI)											
Pressure at outlet**	max. continuous	p _{2n}	[bar]	250			230			220		200		180
		[PSI]	3626			3336			3191		2901		2611	
	maximum	p _{2max}	[bar]	265			250			240		230		200
		[PSI]	3844			3626			3481		3336		2901	
	peak	p ₃	[bar]	280			270			260		250		220
[PSI]	4061			3916			3771		3626		3191			
Weight	m	[kg]												
		[lbs]												

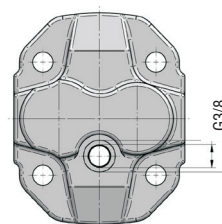
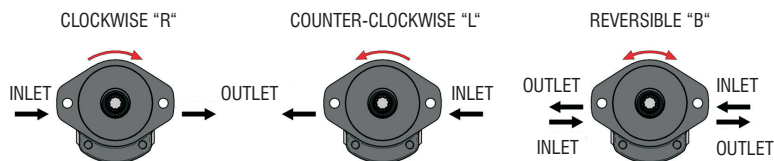
- 1) *Inlet pressure in the reversible design can be up to **p₁ = p_{2n} - 70 bar max.** External drainage must be used in case of the reversible design.
- 2) **Outlet pressure in the reversible design is 10% lower than shown in the table (depending on operating conditions).
- 3) **p_{2n}** maximum continuous pressure - maximum working pressure, at which the pump can be operated without time limitation.
- 4) **p_{2max}** maximum pressure - maximum pressure permissible for a short time, max. 20 s.
- 5) **p₃** 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.

Gear Pump / Size		GF3 - 20 ...71 ccm
Volumetric efficiency	%	89 ÷ 96
Mechanical efficiency	%	85
Fluid temperature range (NBR)	°C (°F)	-20...80 (-4...176)
Fluid temperature range (FPM)	°C (°F)	-20...120 (-4...248)
Viscosity range	mm ² /s (SUS)	20 ...80 (97 ...390), 1200 (5849) for cold start
Hydraulic fluid		Hydraulic oils of power classes (HL, HLP) to DIN 51524
Max. degree of fluid contamination for p ₂ ≤ 200 bar		Class 21/18/15 acc. to ISO 4406
Max. degree of fluid contamination for p ₂ ≥ 200 bar		Class 20/17/14 acc. to ISO 4406

Direction of rotation, reversible design

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

The pumps B codes (bidirectional) have an external drainage with an orifice located in the cover or the flange.



Ordering Code

GP3 L - [] - [] [] [] - [] [] [] - [] - []

Gear pump serie 3											
Light Line											
Displacement	46	50	52	55	63	71					
Direction of rotation											
Counter clockwise							L				
Clockwise							R				
Bi-directional							B				
Flange design								RL			
								RN			
								SC			
Shaft Type									CL		
									CM		
									DN		
									DP		
									VO		
									VP		
										MI	
										MJ	
										ML	
										MM	
										MP	
										GC	
										GD	HI
										GE	HJ
										GF	HK
										UD	HL
										UE	AB
										UH	AC
										UI	AD
										UJ	AE
											KC
											KD
											KE
											KF
											SI
											SJ
											SK
											SL

Shaft seal
No designation standard
004 without shaft seal
009 customized

Seals
NBR
FPM (Viton)
HNBR

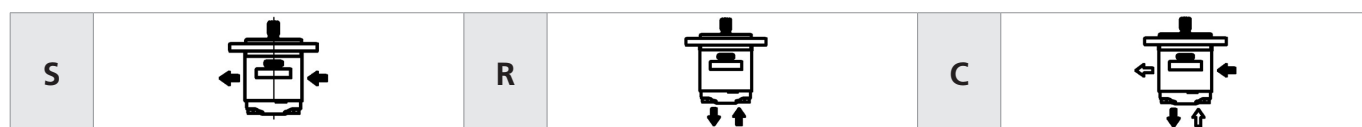
Inlet / Outlet ports

Ports orientation
S
R
C

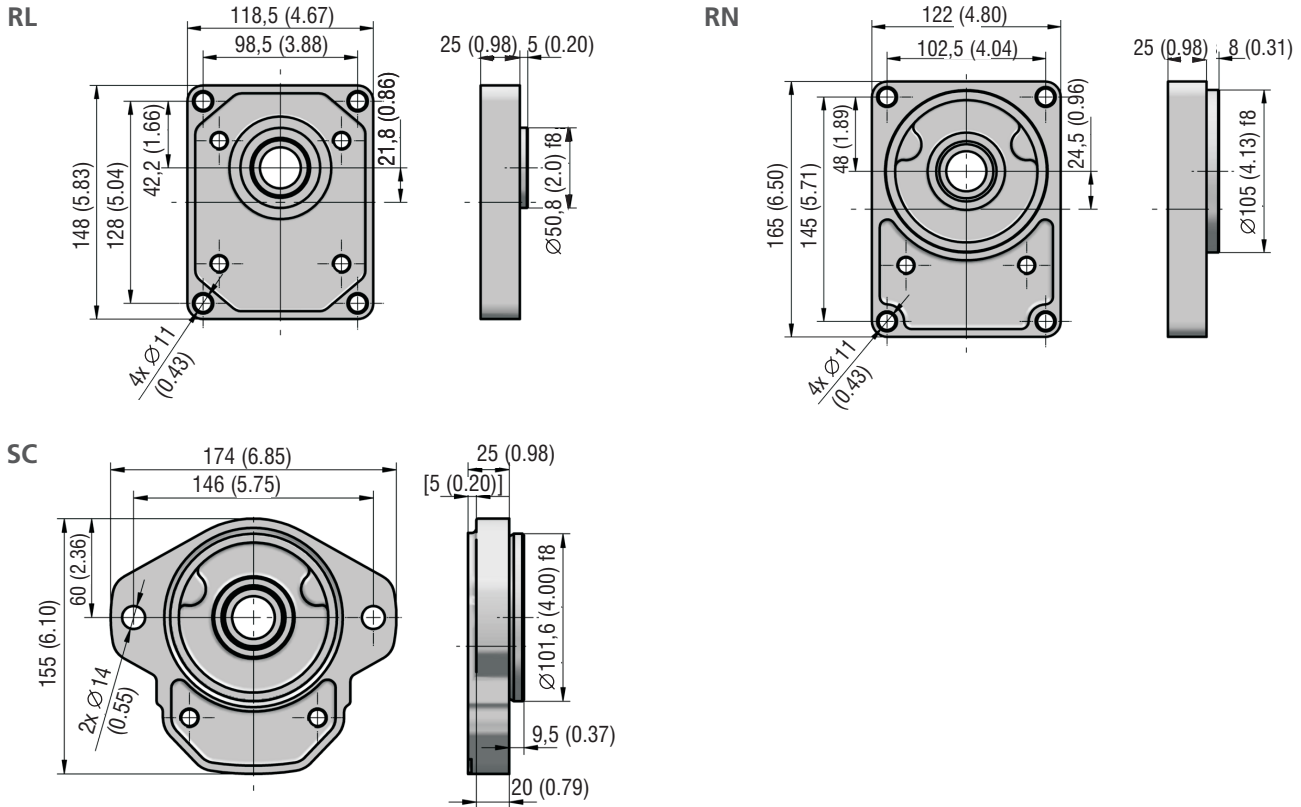
Combination of Flanges and Shafts

Flange Design	RL	RN	SC
Shaft Type			
CL	•		
CM		•	
DN			•
DP			•
VO			•
VP	•		

Port orientation

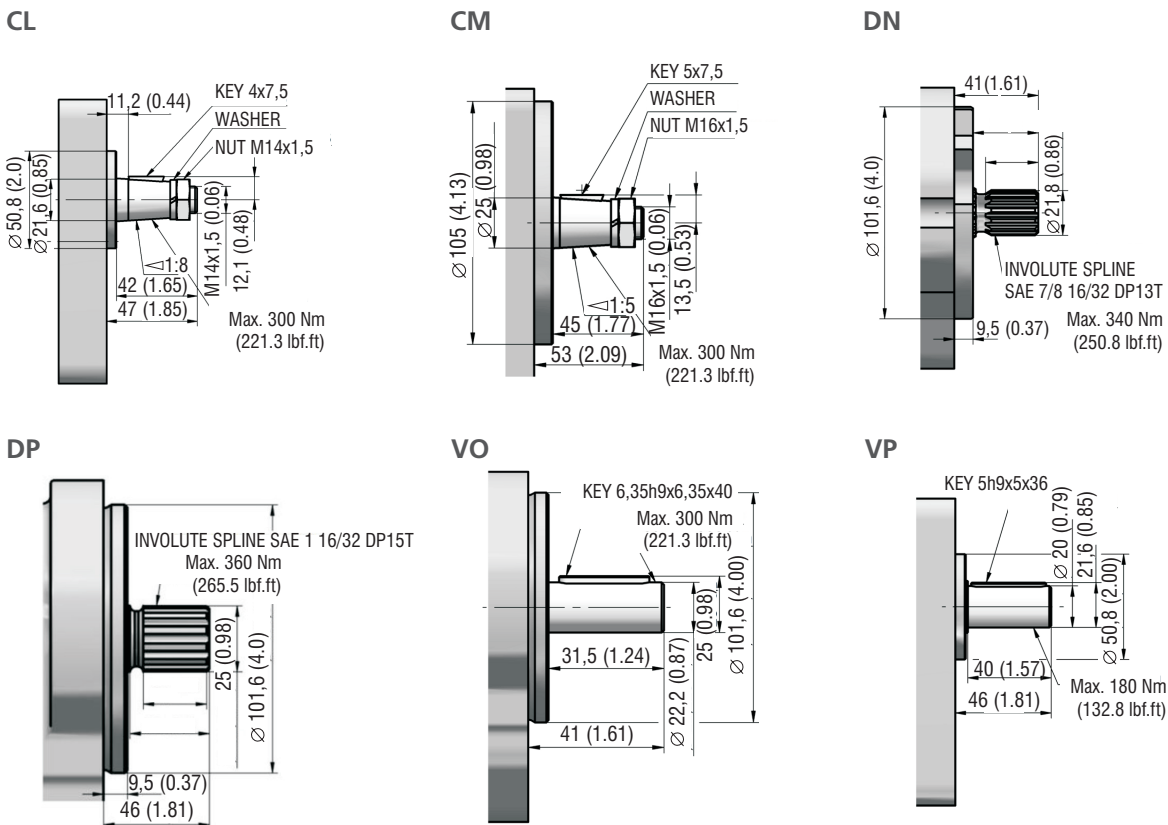


Flange design in millimeters (inches)



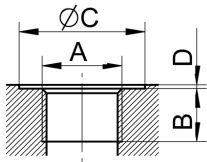
Shaft design in millimeters (inches)

A driving device must not generate an axial or a radial load of the pump shaft, unless this is exclusively permitted for the pump with a front-end bearing.
 Ask producer for the version with front-end bearing.
 Maximal torque for clutch between sections in multiple version is 220 Nm.



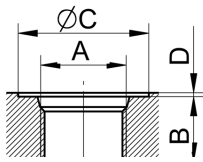
Ports design in millimeters (inches)

BSPP pipe thread according to 228-1



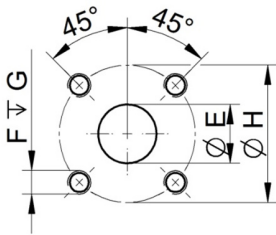
Displacement cm ³ (in ³)	Inlet Code	Dimension				Outlet Code	Dimension			
		A	B	C	D		A	B	C	D
20 - 22 (1.22 - 1.34) including	GD	G 3/4	16 (0.63)	39 (1.54)	1 (0.04)	GD	G 3/4	16 (0.63)	39 (1.54)	1 (0.04)
26 - 39 (1.59 - 2.38) including	GE	G 1	18 (0.71)	45 (1.77)						
46 - 63 (2.81 - 3.84) including	GF	G 1 1/4		57 (2.24)						
71 (4.33)	GH	G 1 1/2	24 (1.46)	60 (3.66)						

UNF thread according to SAE



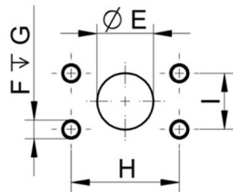
Displacement cm ³ (in ³)	Inlet Code	Dimension				Outlet Code	Dimension			
		A	B	C	D		A	B	C	D
20 - 33 (1.22 - 2.01) including	UH	1-5/16-12UNF	23 (0.91)	49 (1.93)	1 (0.04)	UE	1-1/16-12UNF	19 (0.75)	41 (1.61)	1 (0.04)
39 - 52 (2.38 - 3.17) including	UI	1-5/8-12UNF 2B								
55 - 71 (3.36 - 4.33) including	UJ	1-7/8-12UNF								

Flanged fittings according to DIN 8901/8902



Displacement cm ³ (in ³)	Inlet Code	Dimension				Outlet Code	Dimension			
		E	F	G	H		E	F	G	H
ALL	HK	25 (0.98)	M8	16 (0.63)	55 (2.17)	HJ	18 (0.71)	M8		55 (2.17)

Flanged fittings according to SAE, UNC thread



Displacement cm ³ (in ³)	Inlet Code	Dimension					Outlet Code	Dimension				
		E	F	G	H	I		E	F	G	H	I
20 - 52 (1.22 - 3.17) including	AC	25,4 (1.00)	3/8-16-UNC	22 (0.87)	52,4 (2.06)	26,2 (1.03)	AB	19 (0.75)	3/8-16-UNC	22 (0.87)	47,6 (1.87)	22,2 (0.87)
55 - 71 (3.36 - 4.33) including	AD	30,5 (1.20)	7/16-14-UNC		58,7 (2.31)	30,2 (1.19)	AC	25,4 (1.00)			52,4 (2.06)	26,2 (1.03)

GPP Pumps - basic design in millimeters (inches)

GP3L-*R-RLCL-SG*G*-N

Displacement [cm ³ (in ³)/rev]	A	B	Displacement [cm ³ (in ³)/rev]	A	B
20 (1.22)	63 (2.48)	128 (5.04)	50 (3.05)	77 (3.03)	156 (6.14)
22 (1.34)	64 (2.52)	130 (5.12)	52 (3.17)	78 (3.07)	158 (6.22)
26 (1.59)	65 (2.56)	133(5.24)	55 (3.36)	79 (3.11)	160 (6.30)
33 (2.01)	68 (2.68)	139 (5.47)	63 (3.84)	83 (3.27)	168 (6.61)
39 (2.38)	72 (2.83)	146 (5.75)	71 (4.33)	86 (3.39)	175 (6.89)
46 (2.81)	75 (2.95)	152 (5.98)			

