

- **Up to 250 bar continuous operation**  
High strength materials and large journal diameters provide low bearing loads for high pressure operation.
- **High efficiency**  
Pressure balanced bearing blocks assure maximum efficiency under all operating conditions.
- **Low noise**  
13 tooth gear profile and optimized flow metering provide reduced pressure pulsation and exceptionally quiet operation.
- **Application flexibility**  
International mounts and connections, integrated valve capabilities and common inlet multiple pump configurations provide unmatched design and application versatility.
- **Large range of integrated valves**



Product Features	Description
<b>Pump Type</b>	Pressure balanced, aluminum, external gear
<b>Mounting</b>	SAE, rectangular, thru-bolt standard specials on request
<b>Ports</b>	SAE and metric split flanges and others
<b>Shaft Style</b>	SAE splined, keyed, tapered, cylindrical tang drive, specials on request
<b>Maximum Speed</b>	500 - 3400 rpm, see Specifications
<b>Theor. displacement</b>	See Specifications
<b>Drive</b>	Drive direct with flexible coupling is recommended.
<b>Axial / Radial load</b>	Consult with product service for allowable loading.
<b>Inlet pressure</b>	Operating range 0.8 to 2 bar abs. Min. inlet pressure 0.5 bar abs. Short time without load. Maximum suggested inlet flow velocity for pumps: 2.5 mps. Consultation is recommended.
<b>Outlet pressure</b>	See Specifications
<b>Pressure rising rate</b>	Max. 3000 bar/s
<b>Hydraulic fluids</b>	Hydraulic oil HLP, ISO, DIN 51524-2
<b>Fluid viscosity</b>	Range of operating viscosity 8 to 1000 mm <sup>2</sup> /s. Max. permissible operating pressure dependent on viscosity. Viscosity range for cold start 1000 to 2000 mm <sup>2</sup> /s at operating pressure p ≤ 10 bar and speed n ≤ 1500 rpm.

Product Features	Description
<b>Fluid temperature</b>	For NBR seals, range of operating temperature -40° to +80°C. For FKM seals, range of operating temperature -20° to +105°C. Max. permissible operating pressure dependent on fluid temperature. Temperature for cold start -20° to -15°C at speed ≤ 1500 rpm. Max. permissible operating pressure dependent on fluid temperature.
<b>Filtration</b>	According to ISO 4406 Cl. 19/17/13
<b>Direction of rotation (looking at the drive shaft)</b>	Clockwise, counter-clockwise. Attention! Drive pump only in indicated direction of rotation.
<b>Multiple pump assemblies</b>	<ul style="list-style-type: none"> <li>Available in two or three sections, limitations shown in the shaft loading rating table in this catalog.</li> <li>Max. load is determined by adding the torque values for each pumping section that will be simultaneously loaded.</li> </ul>
<b>Separate or common inlet capability</b>	Separate inlet configuration: <ul style="list-style-type: none"> <li>Each gear housing has individual inlet and outlet ports.</li> </ul> Common inlet configuration: <ul style="list-style-type: none"> <li>Two gear sets share a common inlet.</li> </ul>

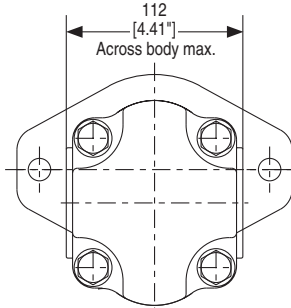


PGP/PGM517 Specifications

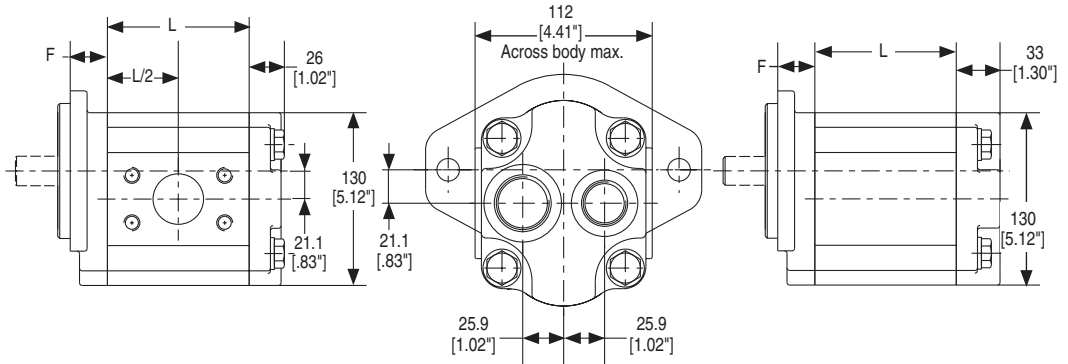
Code		0140	0160	0190	0230	0250	0280	0330	0360	0380	0440	0520	0580	0700
Displacements	cm <sup>3</sup> /rev	14.0	16.0	19.0	23.0	25.0	28.0	33.0	36.0	38.0	44.0	52.0	58.0	70.0
	in <sup>3</sup> /rev	0.85	0.98	1.16	1.40	1.53	1.71	2.01	2.20	2.32	2.69	3.17	3.54	3.05
Continuous Pressure	bar	250	250	250	250	250	250	250	250	250	220	200	180	160
	psi	3625	3625	3625	3625	3625	3625	3625	3625	3625	3190	2900	2610	2320
Intermittent Pressure	bar	275	275	275	275	275	275	275	275	275	240	220	200	180
	psi	3988	3988	3988	3988	3988	3988	3988	3988	3988	3480	3190	2900	2610
Min. Speed @ Max. Outlet Pressure	rpm	500	500	500	500	500	500	500	500	500	500	500	500	500
Max. Speed @ 0 Inlet & Max. Outlet Pressure	rpm	3400	3400	3300	3300	3100	3100	3000	3000	3000	2800	2700	2600	2400
Pump Input Power @ Max. Pressure and 1500 rpm	HP	12.87	14.75	17.57	21.19	23.03	25.88	30.44	33.16	35.00	36.21	38.35	40.23	41.84
	kW	9.6	11.0	13.1	15.8	17.2	19.3	22.7	24.7	26.1	27.0	28.6	30.0	31.2
Dimension L	mm	68.3	70.3	73.3	77.4	79.4	82.4	87.5	90.5	92.5	98.6	106.7	112.8	124.9
	in	2.69"	2.77"	2.89"	3.05"	3.13"	3.24"	3.44"	3.56"	3.64"	3.88"	4.20"	4.44"	4.92"
Approximate Weight	lbs	17.4	17.6	17.9	18.3	18.5	18.7	19.2	19.4	19.6	20.2	20.9	21.5	22.6
	kg	7.9	8.0	8.1	8.3	8.4	8.5	8.7	8.8	8.9	9.2	9.5	9.8	10.2

PGP/PGM517 Dimensions

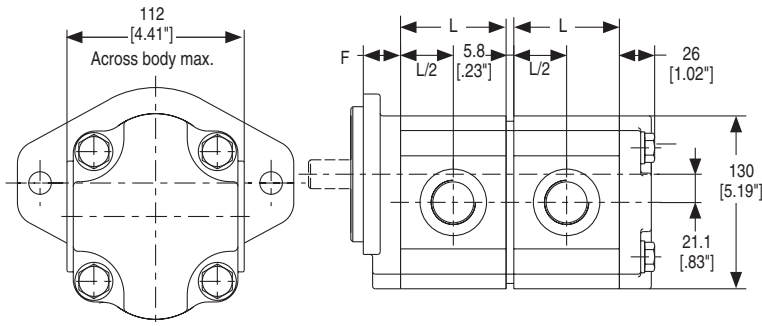
Single Unit



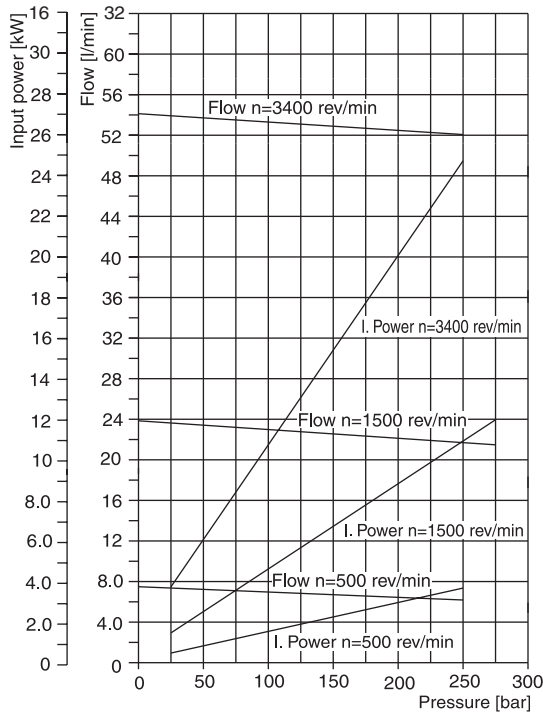
Single Unit with Rear Ports



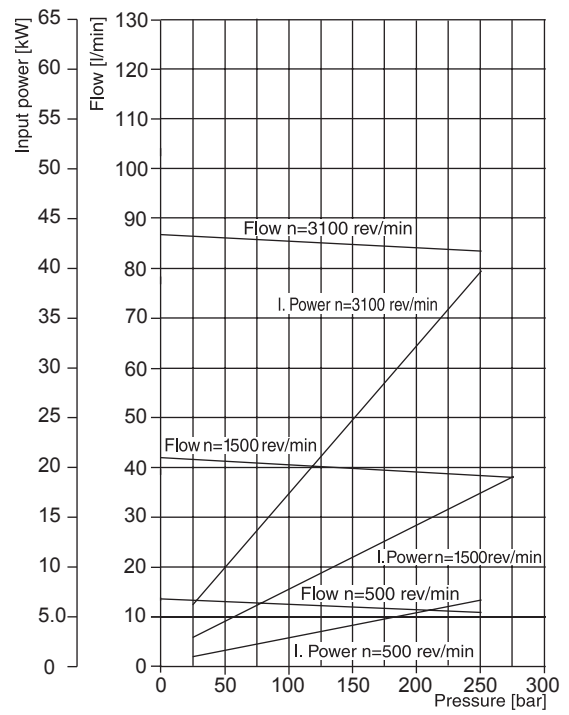
Tandem Unit



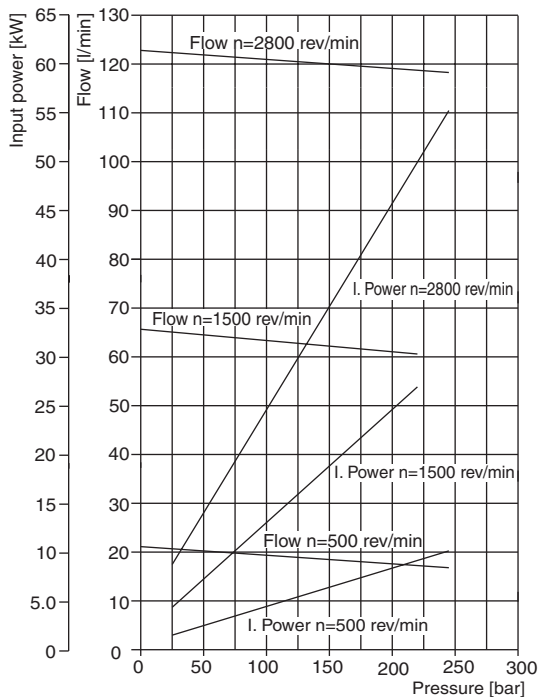
16.0 CC



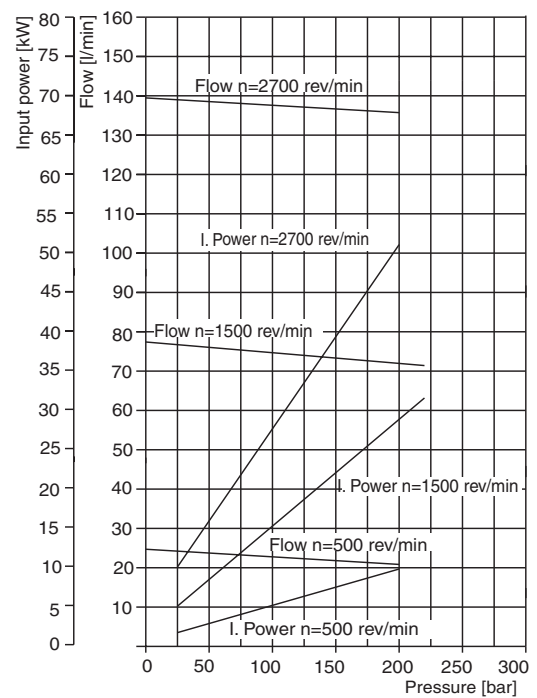
28.0 CC



44.0 CC



52.0 CC

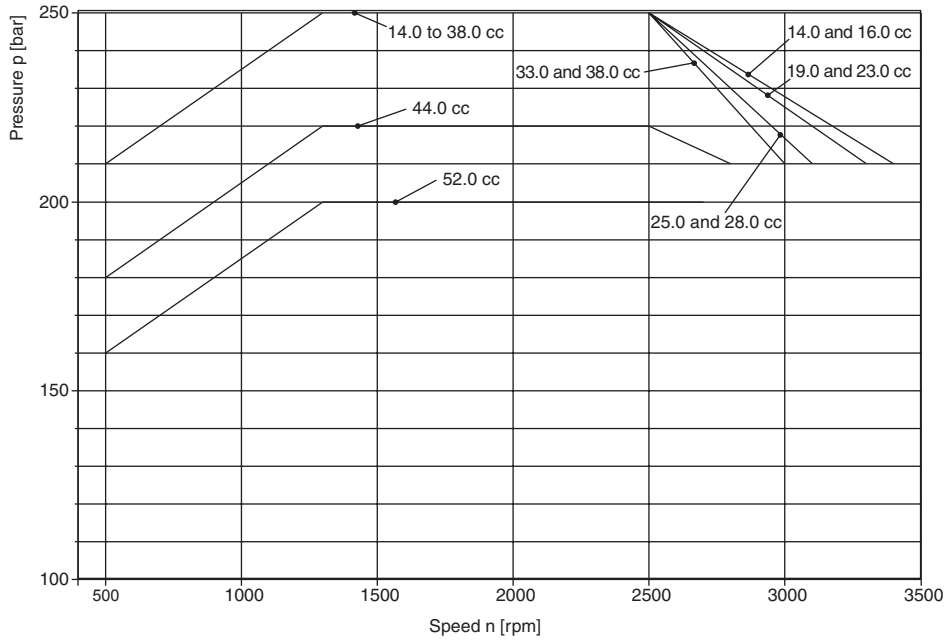


Fluid Temperature = 45 ± 2°C  
 Viscosity = 36 mm<sup>2</sup>/s  
 Inlet Pressure = 0.9 + 0.1 bar absolute

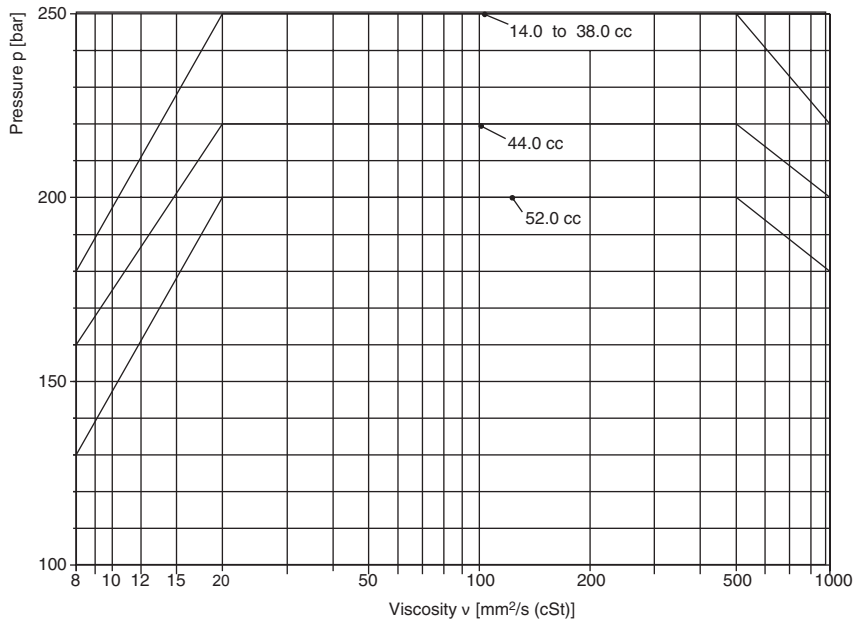
**WARNING:** This product can expose you to chemicals including lead or DEHP which are known to the state of California to cause cancer, birth defects, and other reproductive harm. [www.p65warnings.ca.gov](http://www.p65warnings.ca.gov)



**Pressure depending on speed**



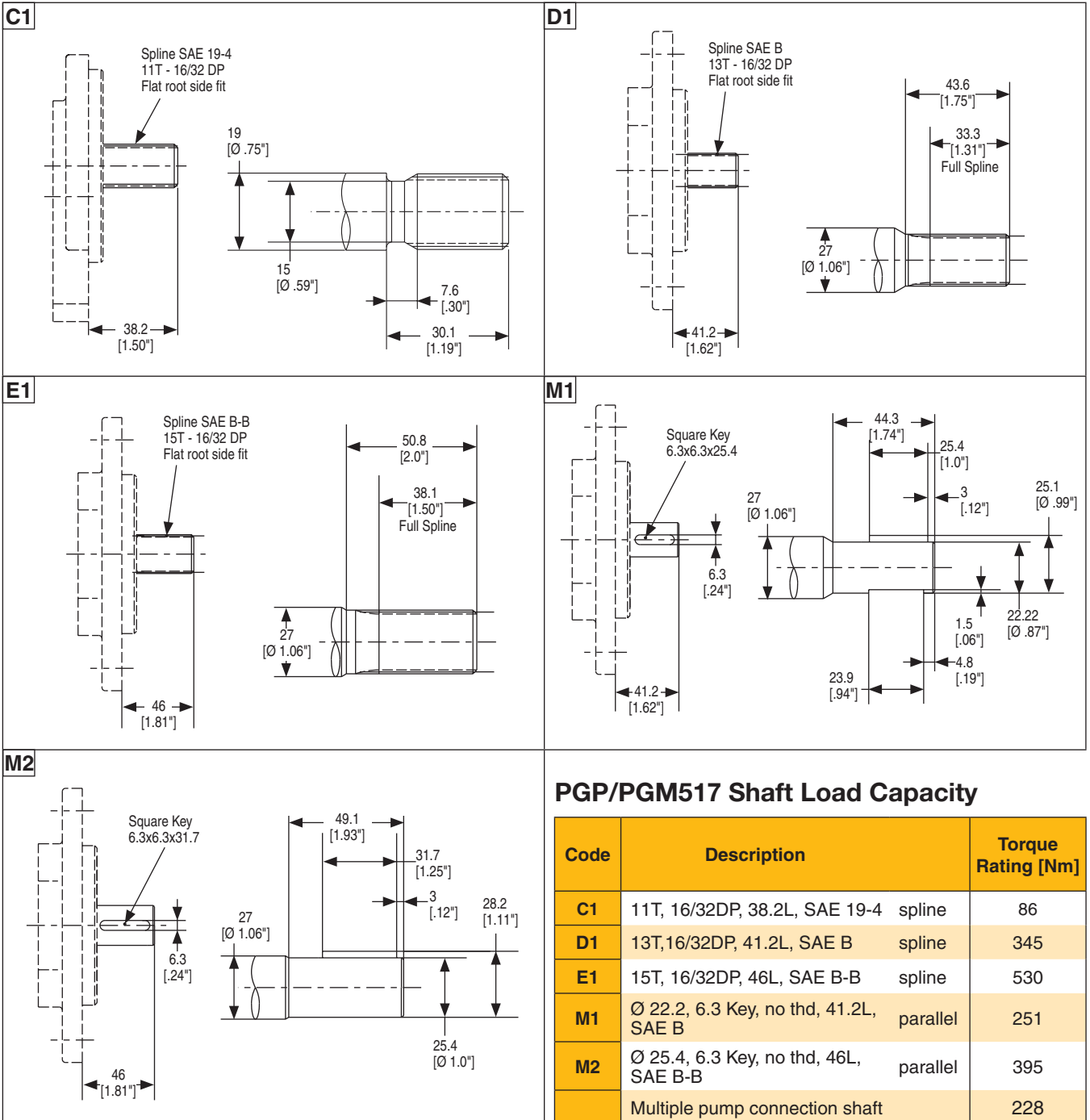
**Pressure depending on viscosity**



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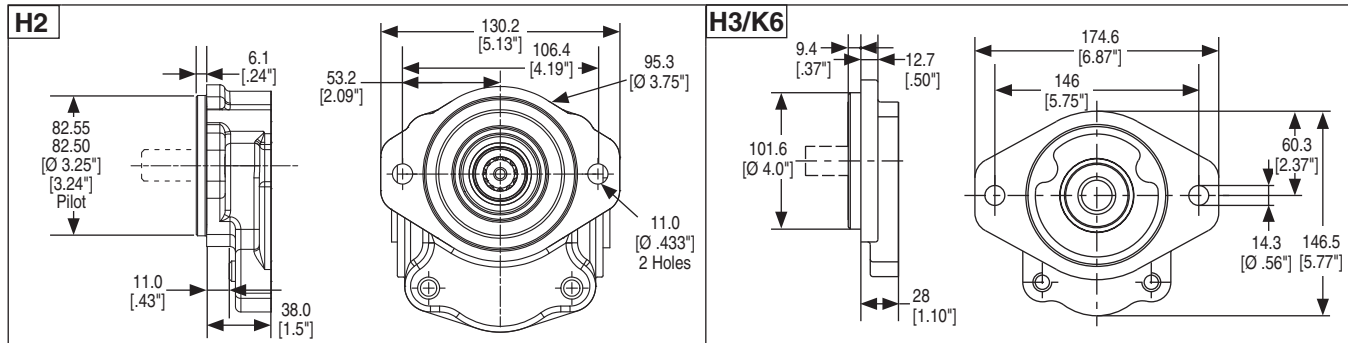
**PGP/PGM517 Drive Shafts**



$$\text{Torque [Nm]} = \frac{\text{Displacement [cm}^3\text{/rev]} \times \text{Pressure [bar]}}{57.2}$$

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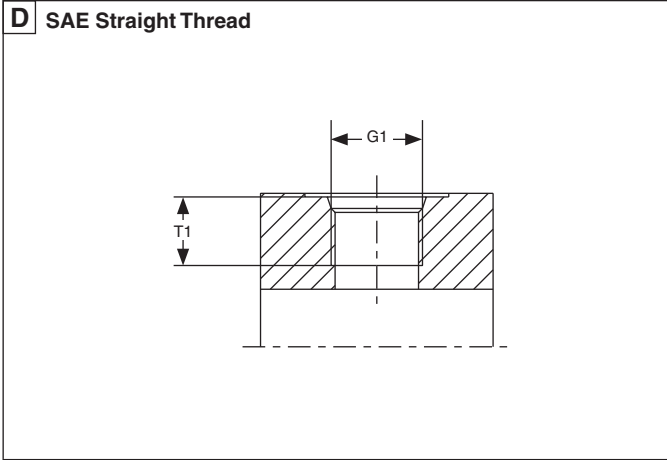


**H2** = Cast Iron  
**H3** = Cast Iron  
**K6** = Aluminum

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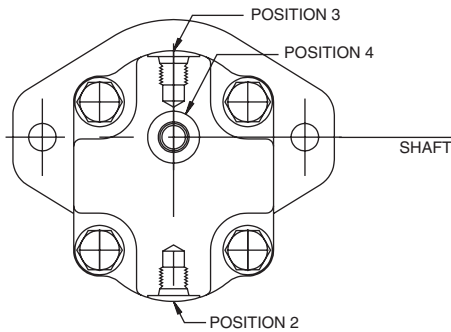


PGP/PGM517 Port Options



Code	SAE J1926-1 Dash Size	Nominal Tube OD	G1	T1
			Thread	Dimensions
D2	#6	3/8"	9/16" - 18 UNF	12.7 [0.50"]
D3	#8	1/2"	3/4" - 16 UNF	14.3 [0.56"]
D4	#10	5/8"	7/8" - 14 UNF	16.7 [0.66"]
D5	#12	3/4"	1-1/16" - 12 UN	19.0 [0.75"]
D6	#16	1"	1-5/16" - 12 UN	19.0 [0.75"]
D7	#20	1-1/4"	1-5/8" - 12 UN	19.0 [0.75"]
D8	#24	1-1/2"	1-7/8" - 12 UN	19.0 [0.75"]

PGP/PGM517 Drain Positions



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PG	1	517	2	3	4	5	6	7	8	8	8 <sup>1)</sup>	8 <sup>1)</sup>	9 <sup>2)</sup>	10 <sup>2)</sup>	12 <sup>5)</sup>	517	2	3	7	8	8	11	3)	4)
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Code	1 – Type
P	Pump
M	Motor

Code	2 – Unit	
	Pump	Motor
A	Single unit	Standard Motor without checks
B	Multiple unit	Standard Motor with two checks
C	—	Standard Motor w/ one anti-cavitation check (ACC)
D	—	Standard Motor w/ one ACC + restrictor
M	Single distributor unit	—

Option C MUST NOT HAVE A DRAIN  
Option D MUST HAVE A DRAIN

3 – Displacement*	
Code	ccm
0140	14
0160	16
0190	19
0230	23
0250	25
0280	28
0330	33
0360	36
0380	38
0440	44
0520	52
0580	58
0700	70

\* Others on request

Code	4 – Rotation
C	Clockwise
A	Counter-clockwise
B	Bi-directional

Code	5 – Shaft
C1	11T, 16/32DP, 38.2L, SAE 19-4 spline
D1	13T, 16/32DP, 41.2L, SAE B spline
E1	15T, 16/32DP, 46L, SAE B-B spline
M1	Ø 22.2, 6.3 Key, no thread, 41.2L, SAE B, parallel
M2	Ø 25.4, 6.3 Key, no thread, 46L, SAE B-B, parallel

Code	6 – Flange	Material
H2	106.4 - Ø 82.55 SAE A 2-Bolt	Cast Iron
H3	146.1 - Ø 101.6 SAE B 2-Bolt	Cast Iron
K6	146.1 - Ø 101.6 SAE B 2-Bolt	Aluminum

Code	7 – Shaft Seal
X	No seal
N	NBR
V	FPM, FKM
M	Double NBR
W	Double FPM

Standard motor seals are rated for max 75 PSI. For special higher pressure shaft seal solutions please contact Parker.

Code	8 – Port Options
B1	No ports
D3	3/4" - 16 UNF thread
D4	7/8" - 14 UNF thread
D5	1-1/16" - 12 UN thread
D6	1-5/16" - 12 UN thread
D7	1-5/8" - 12 UN thread
D8	1-7/8" - 12 UN thread

Code	9 – Motor Drain Option
B1	No drain
A	7/16" - 20 UNF thread
C	9/16" - 18 UNF thread

Code	10 – Drain Port Position
2	Drain on bottom
3	Drain on top
4	Rear drain

Code	11 – Section Connection
S	Separate inlets
C	Common inlets
No code for single unit	

Code	12 – Corrosion Protection
Z	Zinc coated (5)
P	Black primer paint
No code for no protection	

Not all variances of ordering codes can be offered. Please check available part numbers first. For not yet implemented part numbers or special requests please contact Parker Hannifin.

- 1) Only coded for the last section.
- 2) Only for motors.
- 3) For further unit repeat displacement, shaft seal between sections, side suction port, side pressure port, rear suction port, rear pressure port.
- 4) For adding built-in valves enter valve description at the end of the model code. Valve options described
- 5) Rear cover is in cast iron; Zinc coating for rear cover, fasteners, and for mounting flange code H2 and H3.

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<b>PGP</b>	<b>517</b>	<b>A</b>	<b>0230</b>	<b>A</b>	<b>D1</b>	<b>H3</b>	<b>N</b>	<b>D6</b>	<b>D5</b>	<b>B1</b>	<b>B1</b>	<b>Z</b>
<b>PGP</b>	Gear Design / Type		Parker Gear Pump									
<b>517</b>	Series											
<b>A</b>	Unit		Single Unit									
<b>0230</b>	Displacement		23.0 cm <sup>3</sup> /rev.									
<b>A</b>	Rotation Direction		Counter-Clockwise									
<b>D1</b>	Shaft		SAE B Spline 13T, 16/32 DP									
<b>H3</b>	Flange		Mounting Flange SAE 2-Bolt B									
<b>N</b>	Shaft Seal		Shaft Seal NBR									
<b>D6</b>	Side Suction Port		1-5/16" - 12 UN Thread									
<b>D5</b>	Side Pressure Port		1-1/16" - 12 UN Thread									
<b>B1</b>	Rear Suction Port		No Port									
<b>B1</b>	Rear Pressure Port		No Port									
<b>Z</b>	Corrosion Protection		Zinc Coated									



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