

How to Specify

Gear Design	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	Omit for tandem				Continue for tandem ³				(15)	(16)	(17)	(18)	(19)	(20)	(21)
									Side Suction Port	Side Pressure Port	Rear Suction Port ¹	Rear Pressure Port ¹	Motor Drain Port	Motor Drain Position	Side Suction Port	Side Pressure Port							
PG		517														517							

Box 1 Pump/Motor	
P	Pump
M	Motor

Boxes 2,15 Unit		
	Pump	Motor
A	Single unit	Standard Motor w/o checks
B	Multiple unit	Standard Motor w/ two checks
C	—	Standard Motor w/one anti cavitation check (ACC)
D	—	Motor w/check valve and restrictor

Boxes 3,16 Displacement	
0140	14 ccm (0.85 cir)
0160	16 ccm (0.98 cir)
0190	19 ccm (1.16 cir)
0230	23 ccm (1.40 cir)
0250	25 ccm (1.53 cir)
0280	28 ccm (1.71 cir)
0330	33 ccm (2.01 cir)
0360	36 ccm (2.20 cir)
0380	38 ccm (2.32 cir)
0440	44 ccm (2.68 cir)
0520	52 ccm (3.17 cir)

Box 4 Rotation	
C	Clockwise
A	Counter clockwise
B	Bi-directional motors only

Box 5 Shaft	
D1	13T, 16/32 Pitch, 41.2L, SAE "B" spline
E1	15T, 16/32 Pitch, 46L, SAE "B-B" spline
M1	Ø22.2, 6.3 Key, no thread, 41.2L, SAE "B", parallel
M2	Ø25.4, 6.3 Key, no thread, 46L, SAE "B-B", parallel

Box 6 Shaft End Covers	
H2	106.4 - Ø82.55 SAE "A" 2bolt flange
H3	146.1 - Ø101.6 SAE "B" 2bolt flange

Boxes 7,17 Shaft Seal	
X	No seal
N	NBR
V	FPM, FKM

NOTES:

- 1 Only coded for the last section.
- 2 Only for motors
- 3 For further "B" triple unit repeat displacement, shaft seal between sections, side suction port, side pressure port, rear suction port, rear pressure port.
- 4 Dimensions are in millimeters except where noted.

Boxes 8,9,10,11,18,19,20,21 Port Options	
B1	No ports
D3	3/4" - 16 UNF thread
D4	7/8" - 14 UNF thread
D5	1 1/16" - 12UN thread
D6	1 5/16" - 12 UN thread
D7*	1 5/8" - 12 UN thread
D8*	1 7/8" - 12 UN thread
*Not usable for rear ports	

Box 12 Motor Drain Option ²	
B1	No drain
C	9/16-18 UNF thread
P	M12x1.5 metric thread

Box 13 Drain Position ²	
2	Drain on bottom
3	Drain on top
4	Rear drain

Box 14 Section Connection	
S	Separate inlets
C	Common inlets

Please note all of the bold, italicized items on this page reflect Parker preferred product options.

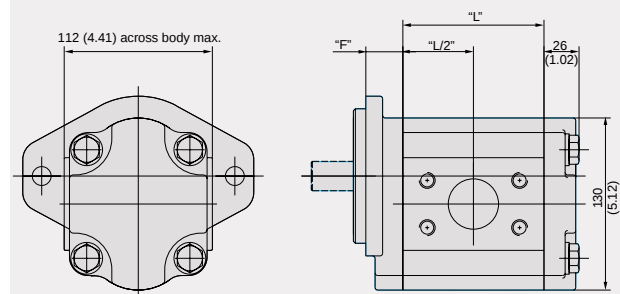
Specifications

Description	Code	0140	0160	0190	0230	0250	0280	0330	0360	0380	0440	0520
Displacements	cm ³ /rev in ³ /rev	14 0.85	16 0.98	19 1.16	23 1.40	25 1.53	28 1.71	33 2.01	36 2.20	38 2.32	44 2.68	52 3.17
Continuous Pressure	bar psi	250 3625	250 3625	250 3625	250 3625	250 3625	250 3625	250 3625	250 3625	250 3625	220 3190	200 2900
Intermittent Pressure	bar psi	275 3988	275 3988	275 3988	275 3988	275 3988	275 3988	275 3988	275 3988	255 3698	240 3500	215 3118
Minimum Speed @Max. Outlet Pressure	rpm	500	500	500	500	500	500	500	500	500	500	500
Maximum Speed @ 0 Inlet & Max. Outlet Pressure	rpm	3400	3400	3300	3300	3100	3100	3100	3000	3000	2800	2600
Pump Input Power @ Max. Pressure and 1500 rpm	kW HP	9.6 12.87	11 14.75	13.1 17.57	15.8 21.19	17.2 23.07	19.3 25.88	22.7 30.44	24.6 32.99	26.1 35.00	27 36.21	28.6 38.35
Dimension "L"	mm in	68.3 2.69	70.3 2.77	73.3 2.89	77.4 3.05	79.4 3.13	82.4 3.24	87.5 3.44	90.5 3.56	92.5 3.64	98.6 3.88	106.7 4.20
Approximate Weight *	kg LB	7.92 17.50	8 17.68	8.12 17.95	8.29 18.32	8.37 18.50	8.5 18.79	8.7 19.23	8.83 19.51	8.91 19.69	9.16 20.24	9.49 20.97

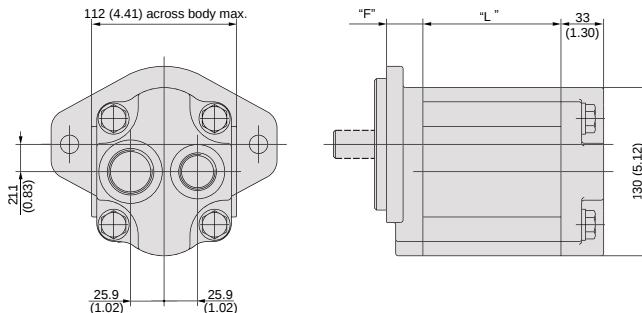
*Single pump with Shaft End Cover H3 and non ported Port End Cover.

Dimensions

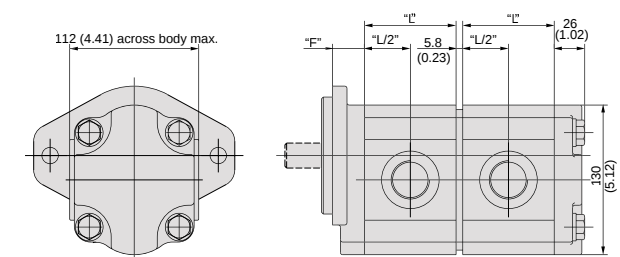
Single Unit



Single Unit with rear ports



Tandem Unit



NOTE:

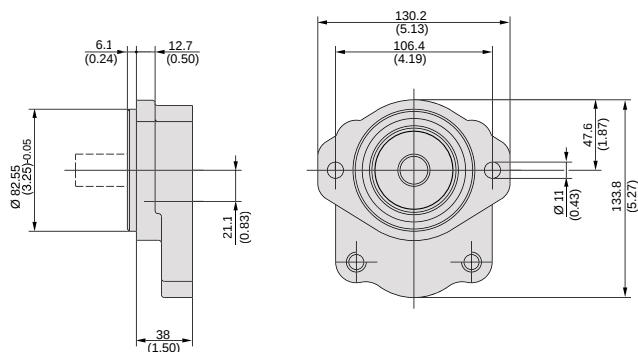
Dimension "F" see shaft end covers on page 22
Dimension "L" see table above

- Notes: 1. Dimensions are in millimeters (inches).
2. Dimensions are nominal except where noted.
3. Subscript and/or superscript numbers are tolerances.

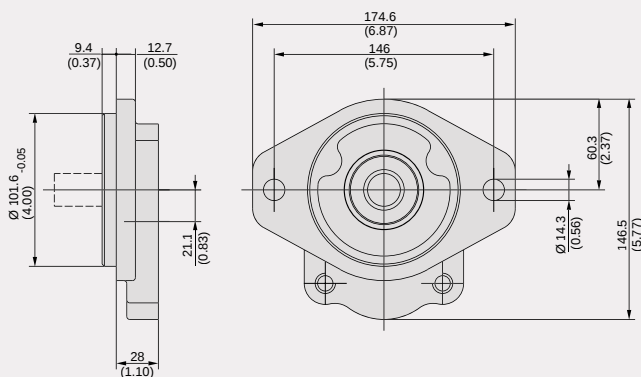
Please note all of the bold, italicized items on this page reflect Parker preferred product options.

Shaft End Covers

Code H2/L2



Code H3

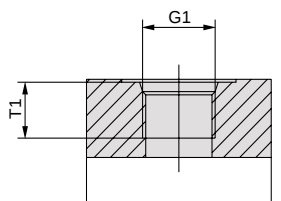


Porting

Code D

SAE straight thread

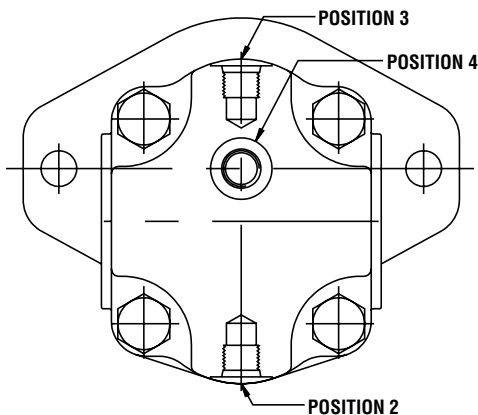
See table below for specific port dimensions.



Code	G1	T1
Thread	Dimensions	
D2	9/16"-18 UNF	12.7
D3	3/4"-16 UNF	14.3
D4	7/8"-14 UNF	16.7
D5	1 1/16"-12 UN	19.0
D6	1 5/16"-12 UN	19.0
D7	1 5/8"-12 UN	19.0
D8	1 7/8"-12 UN	19.0

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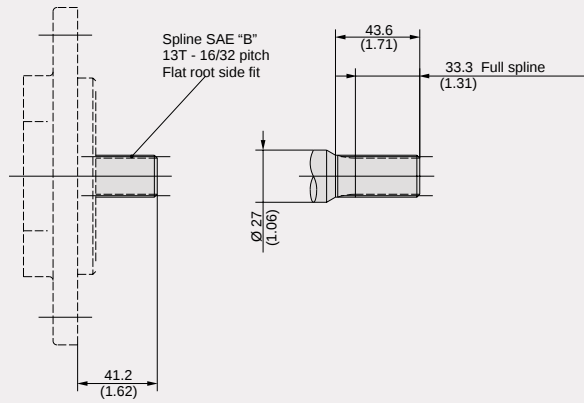
Drain Positions



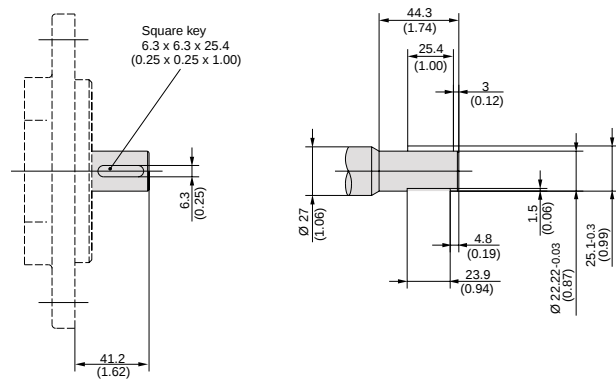
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Drive Shaft

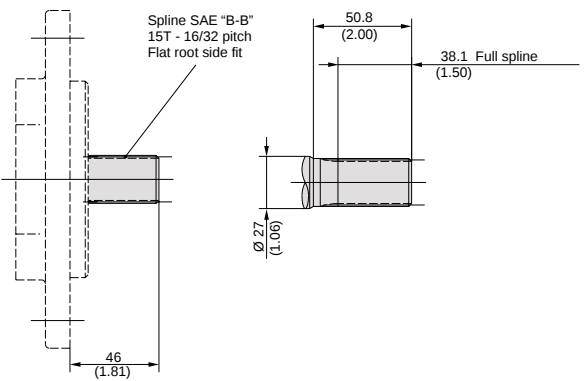
Code D1



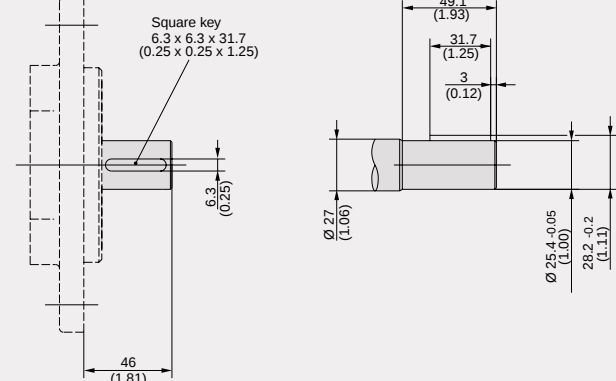
Code M1



Code E1



Code M2



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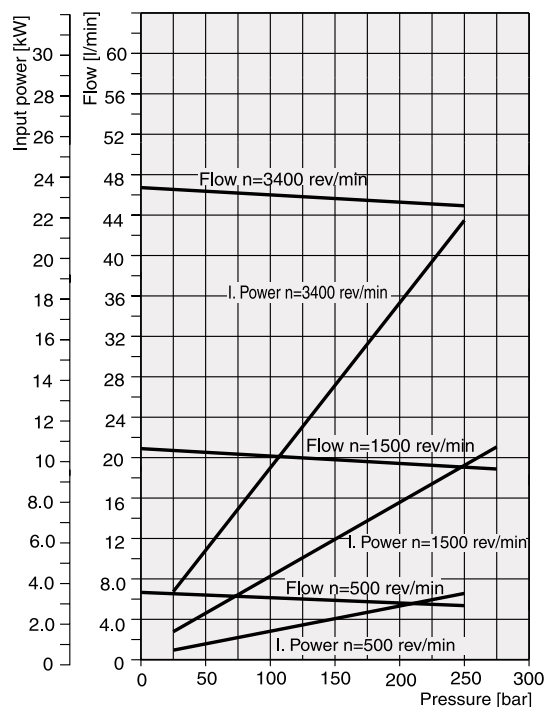
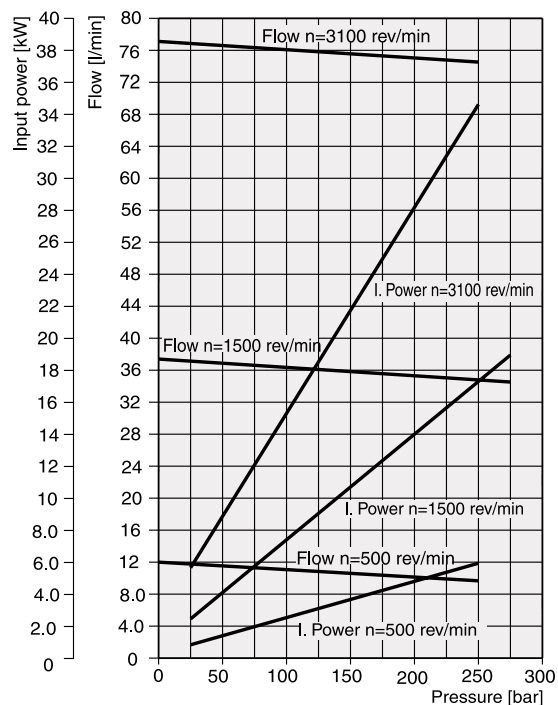
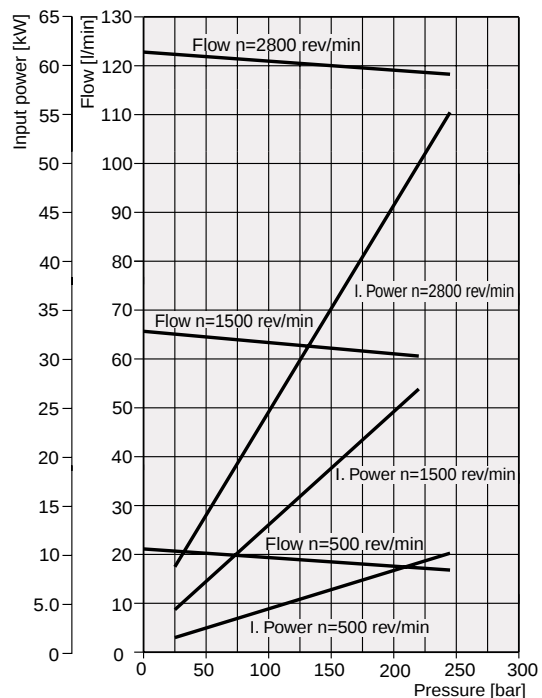
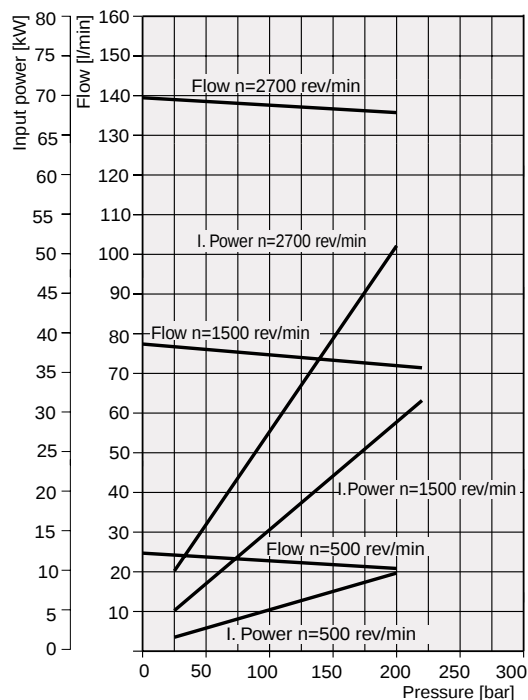
Shaft Load Capacity

Code	Description	Style	Torque Rating
D1	13T, 16/32 Pitch, 41.2L, SAE "B"	Spline	345Nm/3046in-lb
E1	15T, 16/32 Pitch, 46L, SAE "B-B"	Spline	530Nm/4680in-lb
M1	Ø 22.2, 6.3 Key, no thread, 41.2L, SAE "B"	Parallel	251Nm/2216in-lb
M2	Ø 25.4, 6.3 Key, no thread, 46L, SAE "B-B"	Parallel	395Nm/3488in-lb
	Tandem pump Connecting Shaft	Spline	228Nm/2013in-lb

When applying a multiple section pump, the maximum drive shaft load is determined by adding the torque values for each pumping section that will be simultaneously loaded.

$$\text{Torque [in-lb]} = \frac{\text{Displacement [in}^3\text{/rev]} \times \text{Pressure [psi]}}{5.72} \quad \text{Torque [Nm]} = \frac{\text{Displacement [cc/rev]} \times \text{Pressure [bar]}}{57.2}$$

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PGP517 Performance Curves**14.0 CC**Fluid Temperature = $45 \pm 2^\circ\text{C}$ Viscosity = $36\text{mm}^2/\text{s}$ Inlet Pressure = $0.9 + 0.1$ bar absolute**25.0 CC**Fluid Temperature = $45 \pm 2^\circ\text{C}$ Viscosity = $36\text{mm}^2/\text{s}$ Inlet Pressure = $0.9 + 0.1$ bar absolute**44.0 CC**Fluid Temperature = $45 \pm 2^\circ\text{C}$ Viscosity = $36\text{mm}^2/\text{s}$ Inlet Pressure = $0.9 + 0.1$ bar absolute**52.0 CC**Fluid Temperature = $45 \pm 2^\circ\text{C}$ Viscosity = $36\text{mm}^2/\text{s}$ Inlet Pressure = $0.9 + 0.1$ bar absolute

Performance data shown is based upon a series of laboratory tests and is not representative of any one unit.