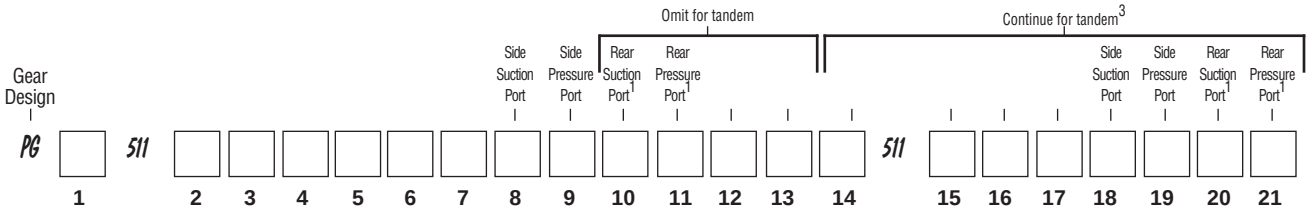
PGP/PGM 511 How to Specify



1 Pump/Motor

P	***Pump***
M	***Motor***

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	—	Standard Motor w. one ACC + restrictor

***** Only for displacement codes 0060 to 0280

3,16 Displacement

0060	6.0 ccm (0.37 cir)
0070	***7.0 ccm (0.43 cir)***
0080	8.0 ccm (0.49 cir)
0100	***10.0 ccm (0.61 cir)***
0110	***11.0 ccm (0.67 cir)***
0140	***14.0 ccm (0.85 cir)***
0160	16.0 ccm (0.98 cir)
0180	***18.0 ccm (1.10 cir)***
0190	19.0 ccm (1.16 cir)
0210	***21.0 ccm (1.28 cir)***
0230	23.0 ccm (1.40 cir)
0270	27.0 ccm (1.65 cir)
0280	***28.0 ccm (1.71 cir)***
0310	31.0 ccm (1.89 cir)

4 Rotation

C	***Clockwise***
A	***Counter clockwise***
B	***Bi-directional motors only***

5 Shaft

A1	***9T, 16/32 Pitch, 32L, SAE "A" spline***
B1	10T, 16/32 Pitch, 32L spline
B2	10T, 16/32 Pitch, 38.2L spline
C1	11T, 16/32 Pitch, 38.2L, SAE 19-4 spline
C2	11T, 16/32 Pitch, 32.2L, SAE 19-4 spline
K1	***Ø15.88, 4.0 Key, no thread, 32L, SAE "A", parallel***
K4	Ø15.88, 4.0 Key, no thread, 58.7L, parallel
L1	Ø17.46, 4.8 Key, 7/16" UNF ext., 44.7L, parallel
L6	Ø19.05, 4.8 Key, no thread, 32L, parallel

6 Shaft End Covers

D4	72.0x100.0 - Ø80 rectangular
H2	***106.4 - Ø82.55 SAE "A" 2bolt flange***
H3	146.1 - Ø101.6 SAE "B" 2bolt flange
Q2	60.0x60.0 - Ø50.0 w. shaft seal, O' 'thrubolt flange
Q4	60.0x60.0 - Ø50.0 w. shaft seal, O',thrubolt flange
J5	H2 with slots, spec 2bolt
L2	106.4 - Ø82.55 SAE "A" 2bolt, w. OBB + cont. drive shaft

7,17 Shaft Seal

X	No seal
N	***NBR***
V	FPM, FKM
M	Double NBR
W	Double FPM

8,9,10,11,18,19,20,21 Port Options

B1	No ports
D2	9/16" - 18 UNF thread
D3	3/4" - 16 UNF thread
D4	***7/8" - 14 UNF thread***
D5	***1 1/16" - 12UN thread***
D6[1]	***1 5/16" - 12 UN thread***
D7[2]	1 5/8" - 12 UN thread
D8[2]	1 7/8" - 12 UN thread

[1]Not usable for rear ports.
[2]Inlet port only. For 19cc and larger.

12 Motor Drain Option[2]

B1	No drain
C	***9/16-18 UNF thread***

13 Drain Position[2]

2	Drain on bottom
3	Drain on top
4	***Rear drain***
5	Drain right view on drive shaft
6	Drain left view on drive shaft

14 Section Connection

S	Separate inlets
C	Common inlets

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.

Please note the bold, italicized items reflect Parker preferred product options.

Parker Hannifin Corporation
Gear Pump Division
Kings Mountain, North Carolina USA

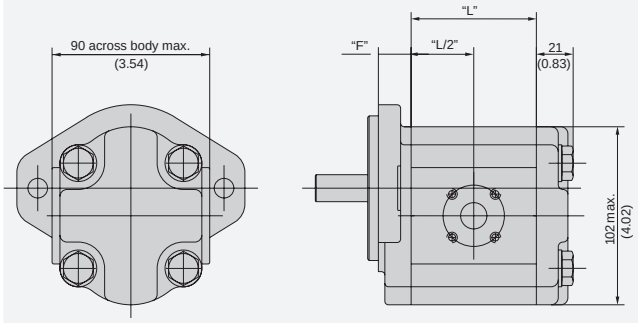
PGP/PGM 511 Specifications

Description	Code	0060	*0070*	0080	*0100*	*0110*	*0140*	0160	*0180*	0190	*0210*	0230	0270	*0280*	0310
Displacements	cm^3/rev in^3/rev	6 0.37	***7*** ***0.43***	8 0.49	***10*** ***0.61***	***11*** ***0.67***	***14*** ***0.85***	16 0.98	***18*** ***1.10***	19 1.16	***21*** ***1.28***	23 1.40	27 1.65	***28*** ***1.71***	31 1.89
Continuous Pressure	bar psi	250 3625	***250*** ***3625***	250 3625	***250*** ***3625***	***250*** ***3625***	***250*** ***3625***	250 3625	***250*** ***3625***	250 3625	***235*** ***3410***	225 3265	190 2755	***185*** ***2685***	165 2395
Intermittent Pressure	bar psi	275 3988	***275*** ***3988***	275 3988	***275*** ***3988***	***275*** ***3988***	***275*** ***3988***	275 3988	***260*** ***3770***	260 3770	***240*** ***3480***	235 3408	200 2900	***190*** ***2755***	170 2465
Minimum Speed @ Max. Outlet Pressure	rpm	500	***500***	500	***500***	***500***	***500***	500	***500***	500	***500***	500	500	***500***	500
Maximum Speed @ 0 Inlet & Max. Outlet Pressure	rpm	4000	***4000***	4000	***3600***	***3600***	***3300***	3000	***3000***	3000	***2800***	2800	2400	***2300***	2300
Pump Input Power @ Max. Pressure and 1500 rpm	kW HP	4.5 6.03	***5.25*** ***7.04***	6 8.05	***7.5*** ***10.06***	***8.3*** ***11.1***	***10.5*** ***14.0***	12 16.0	***13.5*** ***18.1***	14.3 19.1	***14.4*** ***19.3***	14.7 19.7	14.9 19.9	***15.8*** ***21.1***	16.7 22.4
Dimension "L"	mm in	51.8 2.04	***53.3*** ***2.10***	54.9 2.16	***57.9*** ***2.28***	***59.4*** ***2.34***	***64*** ***2.52***	67 2.64	***70.1*** ***2.76***	71.6 2.82	***76.6*** ***3.02***	77.6 3.06	83.7 3.30	***84.2*** ***3.31***	89.8 3.54
Approximate Weight [1]	kg LB	3.5 7.70	***3.5*** ***7.70***	3.6 7.90	***3.6*** ***7.90***	***3.7*** ***8.10***	***3.8*** ***8.40***	3.9 8.60	***4.0*** ***8.80***	4.0 8.80	***4.1*** ***9.00***	4.2 9.20	4.3 9.50	***4.4*** ***9.70***	4.5 9.9

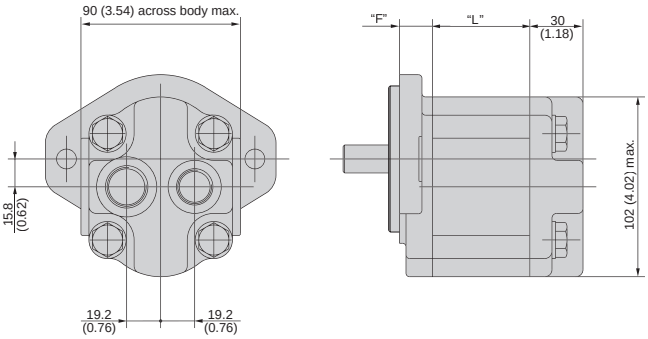
[1] Single pump with Shaft End Cover Q1 and non ported Port End Cover.

PGP/PGM 511 Dimensions

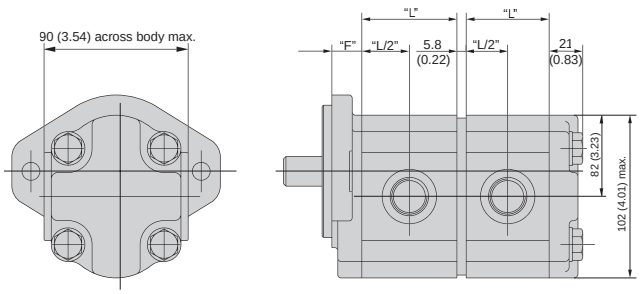
Single Unit PGP/PGM 511



Single Unit PGP/PGM 511 with rear ports



Tandem Unit PGP/PGM 511



NOTE:
Dimension "F" see shaft end covers on page 15
Dimension "L" see table above

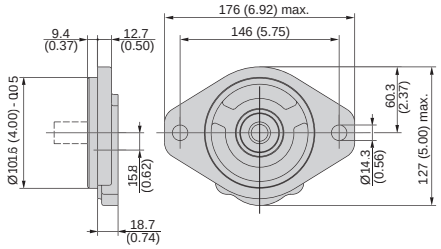
Notes: 1. Dimensions are in millimeters (inches).
2. Dimensions are nominal except where noted.
3. Subscript and/or superscript numbers are tolerances.

Please note the bold, italicized items reflect Parker preferred product options.

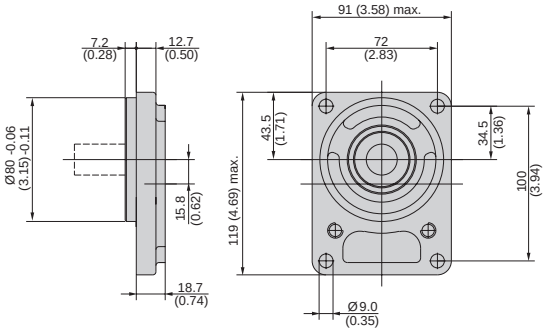
Parker Hannifin Corporation
Gear Pump Division
Kings Mountain, North Carolina USA

PGP/PGM 511 Shaft End Covers

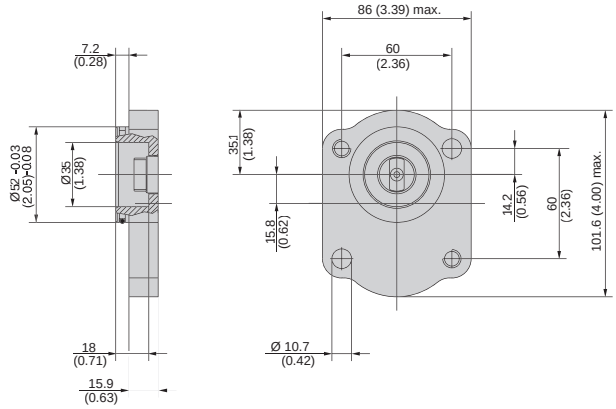
Code H3



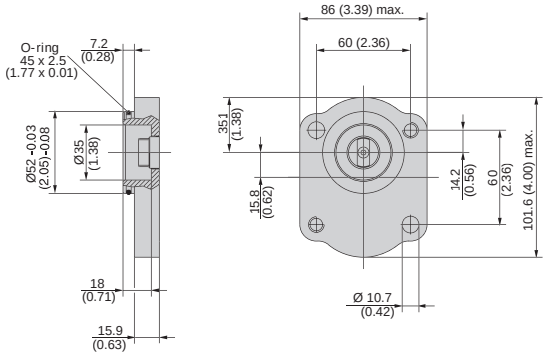
Code D4



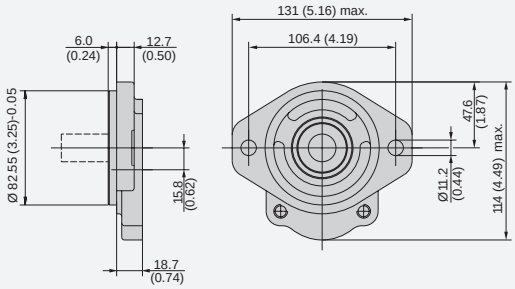
Code Q2



Code Q4



Code H2



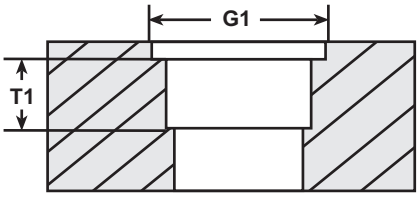
Notes: 1. Dimensions are in millimeters (inches).
2. Dimensions are nominal except where noted.
3. Subscript and/or superscript numbers are tolerances.

Please note the bold, italicized items reflect Parker preferred product options.

Parker Hannifin Corporation
Gear Pump Division
Kings Mountain, North Carolina USA

PGP/PGM 511 Porting

Code D
SAE straight thread
See table at right for specific port dimensions.



Code	G1 Thread	T1 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

Please note the bold, italicized items reflect Parker preferred product options.

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

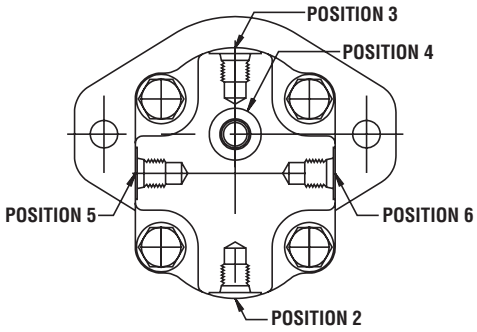
PGP/PGM 511 - Shaft Load Capacity

Code	Description	Style	Torque Rating
A1	***9T, 16/32 Pitch, 32L, SAE "A"***	***Spline***	***86Nm/759in-lb***
C1	11T, 16/32 Pitch, 38.2L, SAE 19-4	Spline	184Nm/1625in-lb
C2	11T, 16/32 Pitch, 32.2L, SAE 19-4	Spline	184Nm/1625in-lb
K1	***Ø 15.88 4.0 Key, no thread, 32L, SAE "A"***	***Parallel***	***75Nm/662in-lb***
K4	Ø 15.88, 3.95 Key, no thread, 58.7L	Parallel	75Nm/662in-lb
L1	Ø 17.46, 4.8 Key, 7/16UNF ext., 44.2L	Parallel	112Nm/989in-lb
L6	Ø 19.05, 4.8 Key, no thread, 32L, SAE 19-1	Parallel	145Nm/1280in-lb
	Tandem pump Connecting Shaft	Spline	110Nm/971in-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.

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

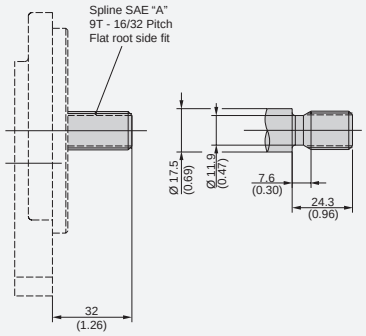
PGP/PGM 511 Drain Positions



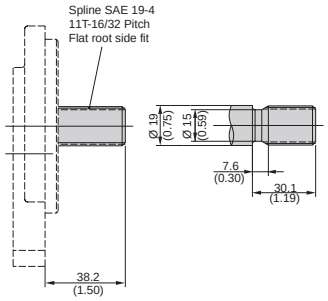
Please note the bold, italicized items reflect Parker preferred product options.

PGP/PGM 511 Drive Shaft

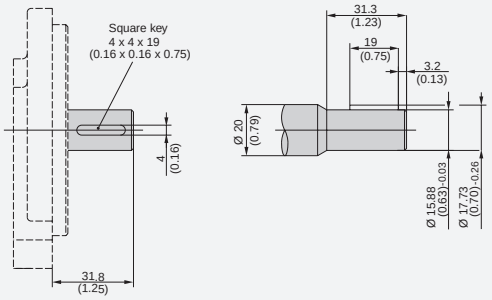
Code A1



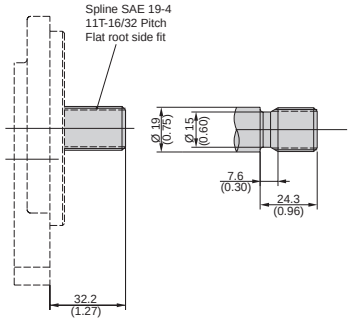
Code C1



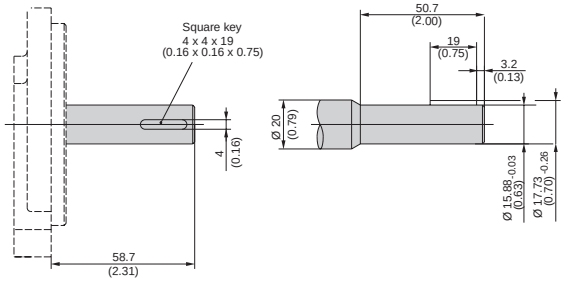
Code K1



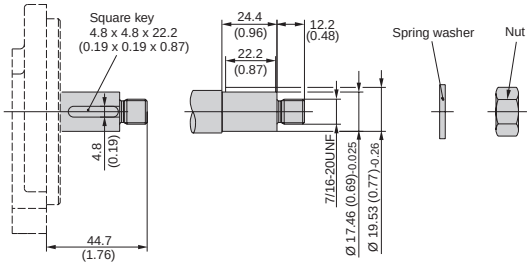
Code C2



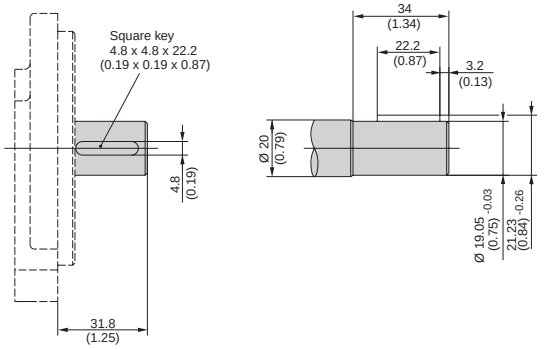
Code K4



Code L1



Code L6



Please note the bold, italicized items reflect Parker preferred product options.

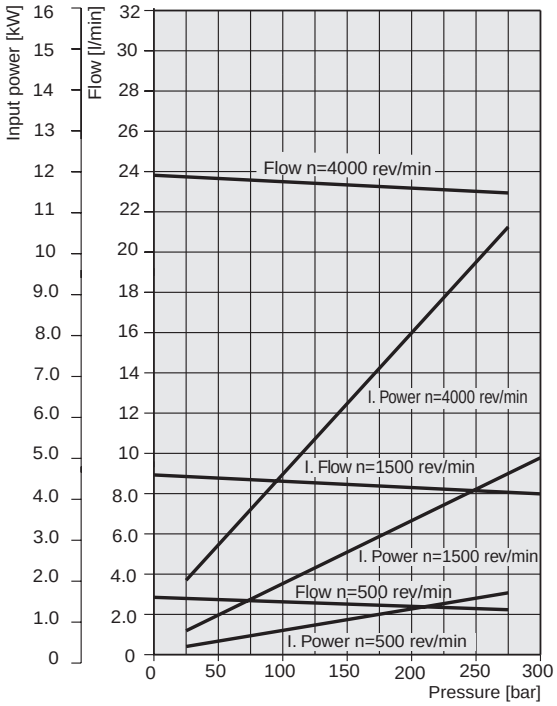
Notes: 1. Dimensions are in millimeters (inches).
2. Dimensions are nominal except where noted.
3. Subscript and/or superscript numbers are tolerances.

Parker Hannifin Corporation
Gear Pump Division
Kings Mountain, North Carolina USA

PGP511 - 6.0 CC

Fluid Temperature = 45± 2°C
Viscosity = 36mm^2/s

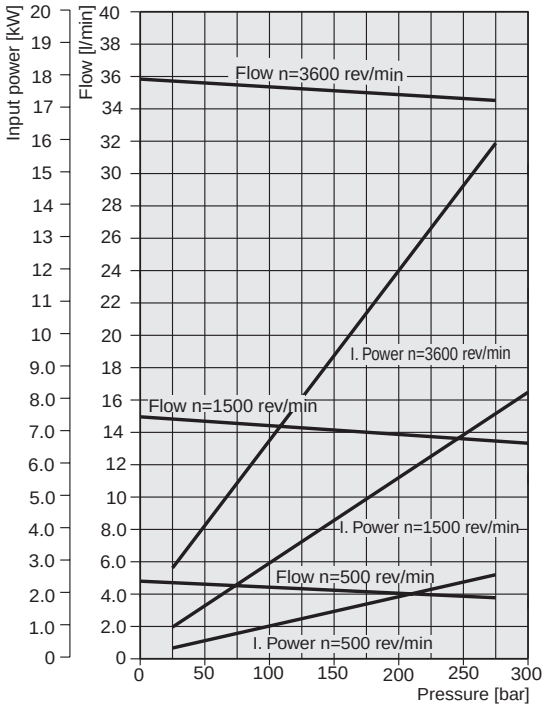
Inlet Pressure = 0.9 + 0.1 bar absolute



PGP511 - 10.0 CC

Fluid Temperature = 45± 2°C
Viscosity = 36mm^2/s

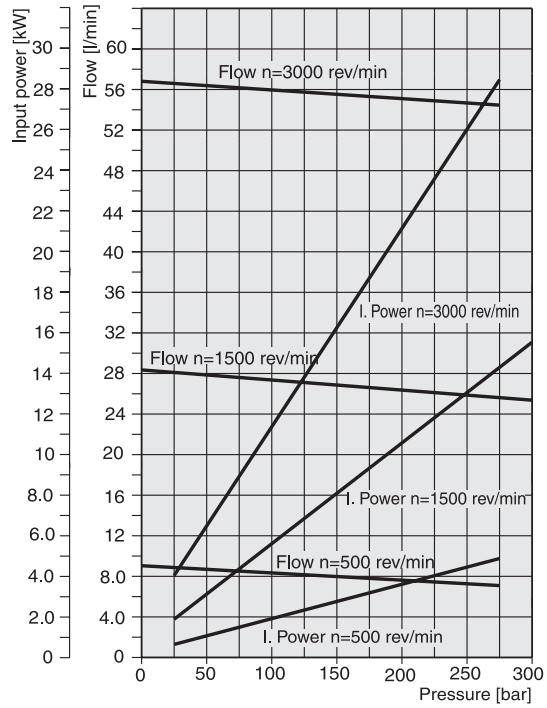
Inlet Pressure = 0.9 + 0.1 bar absolute



PGP511 - 19.0 CC

Fluid Temperature = 45± 2°C
Viscosity = 36mm^2/s

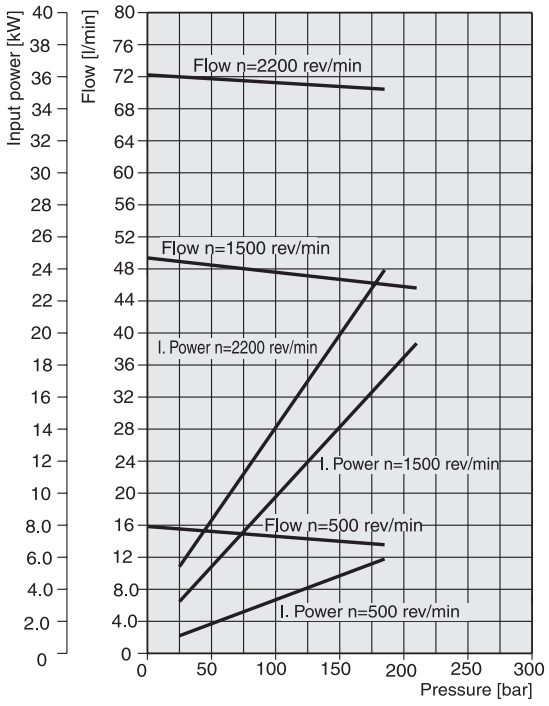
Inlet Pressure = 0.9 + 0.1 bar absolute



PGP511 - 33.0 CC

Fluid Temperature = 45± 2°C
Viscosity = 36mm^2/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.

Parker Hannifin Corporation
Gear Pump Division
Kings Mountain, North Carolina USA