Roller Bearing Series Gear Pumps & Motors

- Original Commerical pump design
- Three-piece cast iron construction for assembly flexibility
- Durable high-strength cast iron body for excellent power to weight ratio
- Balanced thrust plates optimize pump efficiency
- Roller bearings for durability and resistance to fluid contamination
- Multiple sections available



Product Features	Description
Pump Type	Cast iron, Fixed
Mounting	SAE, DIN
Ports	SAE, NPT, Split Flange, NPT
Shaft Style	SAE, DIN
Pump Speed	900 to 2400 RPM
Motor Speed	800 to 2000 RPM
Maximum Displ.	6.4 in ³ /rev
Maximum Operating Pressure	3000 PSI

Product Features	Description
Fluids	Standard Hydraulic Fluid, Phosphate Ester
Fluid Temperature	Range of Operating Temperature -20 to 80°C (0 to 180°F)
Fluid Viscosity	50-7500 SUS
Direction of Rotation (looking at the driveshaft)	Clockwise, Counter Clockwise, Bi-Rotational

NOTE: Different types of pump options are available in terms of shaft, mounting and port type. Please contact Parker.



PGP/PGM051 Specifications

PGP051 Frame Size	05	07	10	12	15	17	20	22	25
Displacement – cm³/rev	20.9	31.3	41.8	52.2	62.7	73.1	83.6	94.0	104.5
(in³/rev)	(1.28)	(1.91)	(2.55)	(3.19)	(3.83)	(4.46)	(5.10)	(5.74)	(6.38)
Max continuous pressure – bar (PSI)	207	207	207	207	207	207	172	172	172
	(3,000)	(3,000)	(3,000)	(3,000)	(3,000)	(3,000)	(2,500)	(2,500)	(2,500)
Max Speed – RPM	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400
Approximate Weight – Lbs. [kg]	34	35.5	37	38.5	40	41.5	43	48.5	50
	[15.5]	[16]	[17]	[17.5]	[18]	[19]	[19.5]	[22]	[22.5]

PGM051 Frame Size	05	07	10	12	15	17	20	22	25
Displacement – cm³/rev	20.90	31.30	41.80	52.20	62.70	73.10	83.60	94.00	104.50
(in³/rev)	(1.28)	(1.91)	(2.55)	(3.19)	(3.83)	(4.46)	(5.10)	(5.74)	(6.38)
Max continuous pressure – bar (PSI)	207 (3,000)	207 (3,000)	207 (3,000)	207 (3,000)	207 (3,000)	207 (3,000)	172 (2,500)	172 (2,500)	172 (2,500)
Max Speed – RPM	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
Approximate Weight – Lbs. [kg]	34 [15.5]	35.5 [16.0]	37 [17.0]	38.5 [17.5]	40 [18]	41.5 [19]	43 [19.5]	48.5 [22]	50 [22.5]

PGP/PGM051 Dimensions

NOTES

- Dimension will vary with shaft type
- Dimension + gear width
- Dimension is for Type 1 SEC. Type 2: subtract 1.00" (25.4 mm)
- Dimension + total gear width
- 5. 6.
- Dimension + total gear width

 Dimension will vary with port type. Subtract 0.25" (6.4 mm) for S.F. ports.

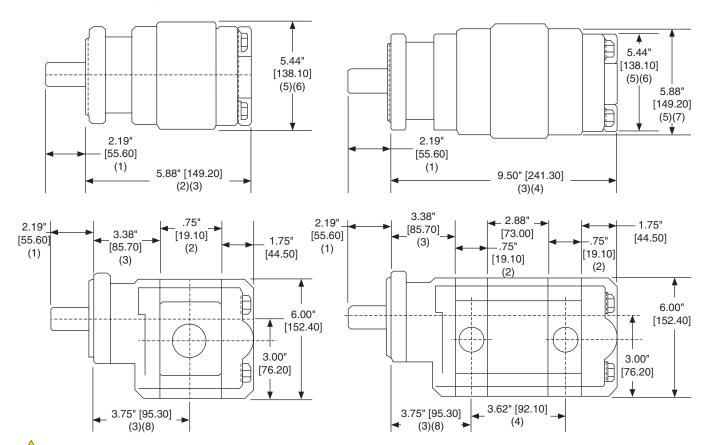
 For 2.25" and 2.50" gear width, dimension is 6.75" (171.5 mm).

 Dimension is for wide B-C. Narrow B-C dimensions: 5.00" (127 mm)

 Dimension + ½ front section gear width

Single Units

Multiple Units





Roller Bearing Series Gear Pumps & Motors

PGP051

Flow data at 2500 PSI (172 bar) unless noted

Speed	Gear Width Output (gpm/lpm)									
RPM	1"	1 1/4"	1 ½"	1 3/4"	2"	2 1/4"	2 ½"			
900	8.5	10.5	13	15	17.5	20	22			
900	32	39.5	49	57	66	75.5	83.5			
1200	12	15	18	21	24	27	30			
1200	45.5	57	68	79.5	91	102	114			
1500	15	19	23	27	31	35	39			
1500	57	72	87	102	117	132	148			
1000	18	23	27.5	32.5	37.5	42	47			
1800	68	87	104	123	142	159	178			
2100	21.5	27	32.5	38.5	44	49.5	55			
2100	81.5	102	123	146	167	187	208			
2400	25	31	37	44	51	57	63.5			
2400	94.5	117	140	167	193	216	240			

^{*}Flow data at 2000 PSI (138 bar) rated pressure.

PGP051

Input power at 2500 PSI (172 bar) unless noted

Speed		Gear Width Inches (HP/Kw)								
RPM	1"	1 1/4"	1 ½"	1 3/4"	2"	2 1/4"	2 ½"			
900 19 14	22	26	30	34	38	42				
	14	17	20	23	26	29	32			
1200	25	30	34	40	45	51	56			
1200	18	22	26	30	34	38	42			
1500	31	37	43	50	56	63	69			
1500	23	27	32	37	42	47	51			
1800	36	44	51	59	67	75	82			
1000	27	33	38	44	50	56	61			
2100	42	51	60	69	78	87	96			
2100	31	38	44	51	58	65	72			
0.400	47	57	68	79	89	99	110			
2400	35	43	51	59	66	74	82			

^{*}Input power at 2000 PSI (138 bar)

PGM051

Motor performance data at 2500 PSI (172 bar) unless noted.

	1" Gear			1 ½" Gear			2" Gear			2½" Gear		
Speed RPM	Out	put	Input	Out	put	Input	Out	put	Input	Out	put	Input
	Torque	Power	Flow	Torque	Power	Flow	Torque	Power	Flow	Torque	Power	Flow
800	825	10.5	10.5	1310	16.5	15.5	1810	23	21	2330	29.5	26
000	93	8	39.5	148	12.5	58.5	204.5	17	79.5	263.5	22	98.5
1200	850	16	15.5	1340	25.5	22.5	1830	35	30.5	2340	44.5	37.5
1200	96	12	58.5	151.5	19	85	207	26	115	264.5	33	142
1600	830	21	20	1330	34	30	1805	46	40	2300	58.5	49.5
1000	94	15.5	75.5	150.5	25.5	114	204	34.5	151	260	43.5	187
2000	800	25.5	25	1290	41	37	1770	56	49	2250	71.5	61.5
2000	90.5	19	94.5	146	30.5	140	200	42	185	254	53.5	233

U.S./Metric

Torque: In.-lbs.

Flow: GPM

Power: HP kW

*Motor performance data at 2000 PSI (138 bar).



PGP/PGM051 Gear Housing

No Porting ≤ 3000 PSI

Order	Order Code Port Size		Gear Width Availability				
CW	ccw	In	Out	10	12	15	17
AB	AB	None	None	Х	Х	Х	Х

CW = Clockwise CCW = Counter Clockwise

No Porting ≤ 2500 PSI

Order Code		Port	Size	Gear Width Availability			
cw	ccw	In Out		20	22	25	
АВ	AB	None	None	Х	Х	Х	



ODT Tube Porting ≤ 3000 PSI

			e Porting Size					
CW	ccw	In	Out	10	12	15	17	
EC	ED	3/4"*	-	X*	X*		Х	
ED	EC	-	3/4"				X	
EF	EF	3/4"	3/4"			2500	X	
EJ	EG	1"*	3/4"				X*	
EK	EH	1-1/4"*	3/4"			2500*	X	
AC	AD	1"*	-	X*	X*	X*	X*	
AA	AO	1-1/4"*	-			X*	X*	

^{*} Ports designated by an asterisk * are for use as the low-pressure inlet port only.

ODT Tube Porting ≤ 2500 PSI

Order	Order Code		e Porting Size	Gear Width Availability			
CW	ccw	In	Out	20	22	25	
AC	AD	1"*	-	Х			
AD	AC	-	1"	X			
AF	AF	1"	1"	X	X	X	
AJ	AG	1-1/4"*	1"	X*			
AK	AH	1-1/2"*	1"	X*		X	
AA	AO	1-1/4"*	-		X	X	
AO	AA	-	1-1/4"		X	X	
AL	AL	1-1/4"	1-1/4"		X	X	
AP	AM	1-1/2"*	1-1/4"		X	Х	
AE	AU	1-1/2"*	-	X*	X	Х	
AU	AE	-	1-1/2"			Х	
AR	AR	1-1/2"	1-1/2"			X	

^{*} Ports designated by an asterisk * are for use as the low-pressure inlet port only.

NOTES

- 1. Shaded cells are acceptable for motor codes.
- 2. X means both codes are available.
- 3. 2500 indicates maximum pressure rating on port.
- 4. CW = Clockwise; CWW = Counter Clockwise.



Split Flange Porting ≤ 3000 PSI

Order	Code		ge Porting Size		Gear Width Availability				
CW	ccw	In	Out	10	12	15	17		
UC	UD	3/4"	-	2500	X				
UD	UC	-	3/4"	2500	X				
UF	UF	3/4"	3/4"	2500	X	X			
UJ	UG	1"*	3/4"	2500*	X*	X*			
UK	UH	1-1/4"*	3/4"		X*	X*	X*		
OC	OD	1"*	-		X*	2500	X		
OD	ОС	-	1"			2500	X		
OF	OF	1"	1"			2500	X		
OJ	OG	1-1/4"*	1"			2500*	X*		
OK	ОН	1-1/2"*	1"			2500*	X*		
OA	ОВ	1-1/4"*	-		X*	X*			
OE	OU	1-1/2"*	-			X*	X*		

^{*} Ports designated by an asterisk * are for use as the low-pressure inlet port only.

Split Flange Porting ≤ 2500 PSI

Order Code		•	ge Porting Size	Gear Width Availability			
CW	ccw	In	Out	20	22	25	
ОС	OD	1"*	-	Х			
OD	ОС	-	1"	X			
OF	OF	1"	1"	X	X	X	
OJ	OG	1-1/4"*	1"	X*			
OK	ОН	1-1/2"*	1"	X*	X	X	
OL	OL	1-1/4"	1-1/4"	X	Х	X	
OP	OM	1-1/2"*	1-1/4"	X*	X	X	
OE	OU	1-1/2"*	-	X*			
OR	OR	1-1/2"	1-1/2"		X	X	
XB	ZB	2"*	-	X*			
OQ	ON	2"*	1-1/4"	X*	X*	X*	
OV	os	2"*	1-1/2"		X*	X*	

^{*} Ports designated by an asterisk * are for use as the low-pressure inlet port only.

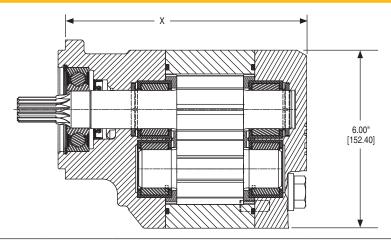
NOTES

- 1. Shaded cells are acceptable for motor codes.
- 2. X means both codes are available.
- 3. 2500 indicates maximum pressure rating on port.
- 4. CW = Clockwise; CWW = Counter Clockwise.



PGP/PGM051 Shaft End Covers

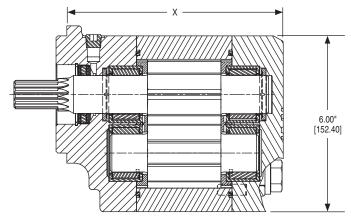
Roller Bearing Series Gear Pumps & Motors



X DIMENSION – Type 1										
SEC CODE	05	07	10	12	15	17	20	22	25	
00	6.62"	6.87"	7.12"	7.37"	7.62"	7.87"	8.12"	8.37"	8.62"	
	[168.15]	[174.50]	[180.85]	[187.20]	[193.55]	[199.90]	[206.25]	[212.60]	[218.95]	
42	6.38"	6.63"	6.88"	7.13"	7.38"	7.63"	7.88"	8.13"	8.38"	
	[162.05]	[168.40]	[174.75]	[181.10]	[187.45]	[193.80]	[200.15]	[206.50]	[212.85]	
78	6.38"	6.63"	6.88"	7.13"	7.38"	7.63"	7.88"	8.13"	8.38"	
	[162.05]	[168.40]	[174.75]	[181.10]	[187.45]	[193.80]	[200.15]	[206.50]	[212.85]	
97	6.38"	6.63"	6.88"	7.13"	7.38"	7.63"	7.88"	8.13"	8.38"	
	[162.05]	[168.40]	[174.75]	[181.10]	[187.45]	[193.80]	[200.15]	[206.50]	[212.85]	
98	6.38"	6.63"	6.88"	7.13"	7.38"	7.63"	7.88"	8.13"	8.38"	
	[162.05]	[168.40]	[174.75]	[181.10]	[187.45]	[193.80]	[200.15]	[206.50]	[212.85]	



Roller Bearing Series Gear Pumps & Motors



X DIMENSION – Type 2 (Standard PEC)									
SEC CODE	05	07	10	12	15	17	20	22	25
46	5.38"	5.63"	5.88"	6.13"	6.38"	6.63"	6.88"	7.13"	7.38"
	[136.65]	[143.00]	[149.35]	[155.70]	[162.05]	[168.40]	[174.75]	[181.10]	[187.45]
96	5.38"	5.63"	5.88"	6.13"	6.38"	6.63"	6.88"	7.13"	7.38"
	[136.65]	[143.00]	[149.35]	[155.70]	[162.05]	[168.40]	[174.75]	[181.10]	[187.45]
99	5.38"	5.63"	5.88"	6.13"	6.38"	6.63"	6.88"	7.13"	7.38"
	[136.65]	[143.00]	[149.35]	[155.70]	[162.05]	[168.40]	[174.75]	[181.10]	[187.45]

X DIMENSION – Type 2 (Large PEC)										
SEC CODE	12	15	17	20	22	25				
46	6.76"	7.01"	7.26"	7.51"	7.76"	8.01"				
	[171.70]	[178.05]	[184.40]	[190.75]	[197.10]	[203.45]				
96	6.76"	7.01"	7.26"	7.51"	7.76"	8.01"				
	[171.70]	[178.05]	[184.40]	[190.75]	[197.10]	[203.45]				
99	6.76"	7.01"	7.26"	7.51"	7.76"	8.01"				
	[171.70]	[178.05]	[184.40]	[190.75]	[197.10]	[203.45]				



PGP/PGM051 Shaft End Covers (cont.)

