

Pump & Motor Division

Gear Pumps and Motors





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Table of Contents

Cast Iron Pumps	
PGP600 Series	1
Commercial PGP300 Series	2
PGP130 Series	3
P16 Series (Iron Body / Aluminum Covers)	
Commercial Roller Bearing Series (PGP020, 031, 051, 076)	
Commercial Dump Pumps (C, SG, G Series)	6-8
Aluminum Pumps	
PGP500 Series	9
PGP500H Series – "Silent Pump"	10
D / H / HD Series	11
PGG Gerotor Series	12
Cast Iron Motors	
PGM600 Series	
PGM600 Series	14
PGM600 Series	14
PGM600 Series	14 15
PGM600 Series Commercial PGM300 Series Commercial Roller Bearing Series (PGM020, 031, 051, 076) Aluminum Motors PGM500 Series MGG Gerotor Series Legacy Problem Solvers / Specialty Products	

NOTE: The PGP300 Series pump is the most common product our customers first consider when unsure of what pump is needed.

IMPORTANT: This publication provides general information about our products. Information about our products can also be found on www.parker.com/pmd.



PGP600 Series

- Two-piece, interlocking body construction for high efficiency and high pressure
- · All cast iron body for durability
- · Journal bushings for long life
- · Pressure balanced thrust plates for high efficiency
- · Multiple sections available



Parker's PGP600 Series fixed displacement gear pump offers high efficiency, high performance and high power density due to its interlocking two-piece cast iron construction.

Applications – Skid Steer Loaders, Combines, Harvesters, Grapples, and other high duty applications **Markets** – Agriculture, Construction, Forestry, Material Handling, Turf, Mining, Oil & Gas

PGP610 Frame Size	0070	0100	0140	0160	0180	0210	0230	0260	0280	0320
Displacement – cm³/rev	7	10	14	16	18	21	23	26	28	32
(in³/rev)	(0.43)	(0.61)	(0.85)	(0.98)	(1.10)	(1.28)	(1.40)	(1.59)	(1.71)	(1.95)
Max continuous pressure – bar	275	275	275	275	265	245	235	215	200	175
(psi)	(3,989)	(3,989)	(3,989)	(3,989)	(3,843)	(3,553)	(3,408)	(3,118)	(2,901)	(2,538)
Max Speed – RPM	3,300	3,300	3,300	3,300	3,300	3,300	3,300	3,300	3,300	3,300
Approximate Weight – Lbs.	13.1	13.6	14.4	14.9	15.0	15.6	15.9	16.2	16.5	17.6
[kg]	[5.9]	[6.2]	[6.5]	[6.8]	[6.8]	[7.1]	[7.2]	[7.3]	[7.5]	[8.0]

PGP620 Frame Size	0190	0230	0260	0290	0330	0370	0410	0440	0500
Displacement – cm³/rev	19	23	26	29	33	37	41	44	50
(in³/rev)	(1.16)	(1.40)	(1.59)	(1.77)	(2.01)	(2.26)	(2.50)	(2.68)	(3.05)
Max continuous pressure – bar (psi)	275	275	275	275	275	250	220	210	210
	(3,989)	(3,989)	(3,989)	(3,989)	(3,989)	(3,626)	(3,191)	(3,046)	(3,046)
Max Speed – RPM	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000
Approximate Weight – Lbs.	26.7	26.9	27.1	27.8	28.0	28.4	28.7	28.9	29.3
[kg]	[12.1]	[12.2]	[12.3]	[12.6]	[12.7]	[12.9]	[13.0]	[13.1]	[13.3]

PGP640 Frame Size	0300	0350	0450	0550	0650	0750	0800
Displacement – cm³/rev	30	35	45	55	65	75	80
(in ³ /rev)	(1.83)	(2.14)	(2.75)	(3.36)	(3.97)	(4.58)	(4.88)
Max continuous pressure – bar	275	275	275	275	275	235	215
(psi)	(3,989)	(3,989)	(3,989)	(3,989)	(3,989)	(3408)	(3,118)
Max Speed – RPM	3,000	3,000	3,000	3,000	3,000	3,000	3,000
Approximate Weight – Lbs.	42.2	45.4	46.7	48.5	49.8	51.4	53.0
[kg]	[19.1]	[20.6]	[21.2]	[22.0]	[22.6]	[23.3]	[24.0]



Commercial PGP300 Series

- Three-piece cast iron construction for assembly flexibility
- · Balanced thrust plates optimize pump efficiency
- · Largest journal bearings available for high pressure and long life
- · Multiple sections available



Parker's Commercial Brand PGP300 Series fixed displacement gear pumps offer high pressure durability due to their cast iron construction, making them ideal for high duty cycle mobile applications for the Construction, Forestry, and Oil & Gas markets. The most comprehensive gear pump with flexibility of options in the market place.

Applications – Tire Trucks, Salt and Sand Spreaders, Aerial Lift, Low Boy Trailers, Live (Moving) Floor Truck, Roll Off Trailers

Markets - Construction, Forestry, Material Handling, Agriculture, Mining, Oil & Gas

PGP315 Frame Size	03	05	06	07	08	10	11	12	13	15	16	17	18	20
Displacement – cm³/rev (in³/rev)	7.6 (0.47)	10.2 (0.62)	12.7 (0.78)	15.2 (0.93)	17.8 (1.09)	20.3 (1.24)	22.9 (1.40)	25.4 (1.55)	27.9 (1.71)	30.5 (1.86)	33.0 (2.02)	35.6 (2.17)	38.1 (2.33)	40.6 (2.48)
Max continuous pressure – bar (psi)	241 (3,500)	228 (3,300)	214 (3,100)	200 (2,900)	186 (2,700)	172 (2,500)								
Max Speed – RPM	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000
Approximate Weight – Lbs. [kg]	15.5 [7.0]	16.0 [7.2]	16.5 [7.5]	17 [7.7]	17.5 [7.9]	18 [8.2]	18.5 [8.4]	19 [8.6]	19.5 [8.8]	20 [9.1]	20.5 [9.3]	21 [9.5]	21.5 [9.7]	22 [10.0]

PGP330 Frame Size	05	07	10	12	15	17	20
Displacement – cm³/rev	16.1	24.2	32.3	40.4	48.4	56.5	64.6
(in³/rev)	(0.99)	(1.48)	(1.97)	(2.46)	(2.96)	(3.45)	(3.94)
Max continuous pressure – bar (psi)	241	241	241	241	241	224	207
	(3,500)	(3,500)	(3,500)	(3,500)	(3,500)	(3,250)	(3,000)
Max Speed – RPM	3,000	3,000	3,000	3,000	3,000	3,000	3,000
Approximate Weight – Lbs. [kg]	33.6	34.8	36	37.3	38.5	40	41.3
	[15.2]	[15.8]	[16.3]	[16.9]	[17.5]	[18.1]	[18.7]

PGP350 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	241	241	241	241	241	224	207	190	172
(psi)	(3,500)	(3,500)	(3,500)	(3,500)	(3,500)	(3,250)	(3,000)	(2,750)	(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.	48	49.5	51	52.5	54.0	55.5	57.0	58.5	60.0
[kg]	[21.8]	[22.4]	[23.1]	[23.8]	[24.5]	[25.2]	[25.9]	[26.5]	[27.2]

PGP365 Frame Size	07	10	12	15	17	20	22	25
Displacement – cm³/rev	44.3	59.0	73.8	88.5	103.3	118.0	132.8	147.5
(in³/rev)	(2.70)	(3.60)	(4.50)	(5.40)	(6.30)	(7.20)	(8.10)	(9.00)
Max continuous pressure – bar	241	241	241	241	241	241	224	207
(psi)	(3,500)	(3,500)	(3,500)	(3,500)	(3,500)	(3,500)	(3,250)	(3,000)
Max Speed – RPM	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400
Approximate Weight – Lbs. [kg]	53.5 [24.3]	56 [25.4]	58.5 [26.5]	61.0 [27.7]	63.5 [28.8]	66.0 [30]	68.5 [31.1]	71.0 [32.2]



PGP130 Series

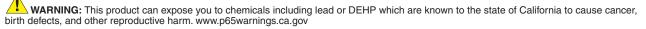
- Three-piece cast iron construction
- Bushing style balanced pressure plate design
- Compact design for reduced space claim
- · Multiple sections available



Parker's PGP130 Series Ultra Compact fixed displacement gear pumps offer high power density due to their compact, cast iron construction, making them ideal for mobile applications for the Mini-construction, Forestry, and Truck markets.

Applications – Skid Steer Loaders, Tire Trucks, Salt and Sand Spreaders, Aerial Lifts **Markets** – Mini-construction, Forestry, Material Handling, Agriculture, Truck

PGP130 Frame Size	7	10	13	17	19	23	27	29	32	36	38	41	44	51
Displacement – cm³/rev	7.21	9.71	12.85	17.31	19.41	22.95	27.54	29.64	32.66	36.72	38.82	41.84	44.99	52.07
(in³/rev)	(0.44)	(0.59)	(0.78)	(1.06)	(1.18)	(1.40)	(1.68)	(1.81)	(1.99)	(2.24)	(2.37)	(2.55)	(2.75)	(3.18)
Max continuous pressure – bar	275	275	275	275	275	275	275	275	275	240	230	210	190	170
(psi)	(3,988)	(3,988)	(3,988)	(3,988)	(3,988)	(3,988)	(3,988)	(3,988)	(3,988)	(3,480)	(3,335)	(3,045)	(2,755)	(2,465)
Max Speed – RPM	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	2,750	2,750	2,600	2,500	2,000
Approximate Weight – Lbs.	19.2	19.4	19.8	20.3	20.7	21.6	22.3	22.5	22.9	23.4	23.6	24.0	24.5	25.1
[kg]	[8.7]	[8.8]	[9.0]	[9.2]	[9.4]	[9.8]	[10.1]	[10.2]	[10.4]	[10.6]	[10.7]	[10.9]	[11.1]	[11.4]





P16 Series (Iron Body / Aluminum Covers)

- Three-piece construction
- · Cast iron pumping sections for durability
- Aluminum cover plate and flange for excellent power to weight ratio
- · Journal bearings for long life
- Pressure balanced plates for greater efficiency



Parker's P16 fixed displacement gear pump offers a combination of high performance and light weight due to combining a rugged cast iron pumping section with aluminum flange and port end covers. This construction makes the P16 an ideal selection for the Mobile and Truck markets. It's available as a single or tandem pump with options for priority flow or relief valves. A clutch pump option is also available.

Applications – Power steering pumps – priority valves available, Dump Beds, Salt and Sand Spreaders, Aerial Lifts, Low Boy Trailers

Markets - Vocational & Municipal, Construction, Material Handling

P16 Frame Size	45	65	85	100	115	150	180	200
Displacement – cm³/rev	14.388	20.812	27.252	32.184	36.723	48.080	57.535	63.942
(in³/rev)	(0.878)	(1.270)	(1.663)	(1.964)	(2.241)	(2.934)	(3.511)	(3.902)
Max continuous pressure – bar (psi)	207	207	207	207	207	207	152	138
	(3,000)	(3,000)	(3,000)	(3,000)	(3,000)	(3,000)	(2,200)	(2,000)
Max Speed – RPM	3,600	3,600	3,400	3,300	3,100	2,800	2,500	2,200
Approximate Weight – Lbs.	12	13	14	15	16	17	19	20
[kg]	[5.5]	[5.9]	[6.4]	[6.8]	[7.3]	[7.7]	[8.6]	[9.1]



Commercial Roller Bearing Series (PGP020, 031, 051, 076)

- 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



Parker's Commercial brand roller bearing pump offers high durability & resistance to oil contaminants due to their cast iron, roller bearing construction making them an ideal selection for the Vocational Truck, Winch, and Oil & Gas markets. They are available as single or multi-section pumps.

Applications – Bulk Feeds, Salt and Sand Spreaders, Wreckers, Tire Trucks, Roll Off Trucks, Live (Moving) Floor Trucks, Refuse Trucks, Oil & Gas, Service Trucks

Markets - Vocational Trucks, Mining, Oil & Gas, Construction, Forestry, Material Handling, On-Highway Vehicle

PGP020 Frame Size	05	07	10	12	15	17	20
Displacement – cm³/rev	16.1	24.2	32.3	40.4	48.4	56.5	64.6
(in³/rev) Max continuous pressure – bar (psi)	(0.99) 207 (3,000)	(1.48) 207 (3,000)	(1.97) 207 (3,000)	(2.46) 207 (3,000)	(2.96) 207 (3,000)	(3.45) 172 (2,500)	(3.94) 172 (2,500)
Max Speed – RPM	2,400	2,400	2,400	2,400	2,400	2,400	2,400
Approximate Weight – Lbs. [kg]	26 [12]	27 [12.5]	28 [13]	29 [13]	31 [14]	33 [15]	34 [15.5]
PGP031 Frame Size	05	07	10	12	15	17	20
Displacement – cm ³ /rev (in ³ /rev)	16.1 (0.99)	24.2 (1.48)	32.3 (1.97)	40.4 (2.46)	48.4 (2.96)	56.5 (3.45)	64.6 (3.94)
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Displacement – cm³/rev	16.1	24.2	32.3	40.4	48.4	56.5	64.6
(in³/rev)	(0.99)	(1.48)	(1.97)	(2.46)	(2.96)	(3.45)	(3.94)
Max continuous pressure - bar	207	207	207	207	207	172	172
(psi)	(3,000)	(3,000)	(3,000)	(3,000)	(3,000)	(2,500)	(2,500)
Max Speed – RPM	2,400	2,400	2,400	2,400	2,400	2,400	2,400
Approximate Weight – Lbs.	30	31	33	34	35	36	37
[kg]	[13.5]	[14]	[15]	[15.5]	[16]	[16.5]	[17]
(psi) Max Speed – RPM Approximate Weight – Lbs.	(3,000) 2,400 30	(3,000) 2,400 31	(3,000) 2,400 33	(3,000) 2,400 34	(3,000) 2,400 35	(2,500) 2,400 36	(2,5 2,4 3

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.	34	35.5	37	38.5	40	41.5	43	48.5	50
[kg]	[15.5]	[16]	[17]	[17.5]	[18]	[19]	[19.5]	[22]	[22.5]

PGP076 Frame Size	7	10	12	15	17	20	22	25	27	30
Displacement – cm³/rev	50.4	67.2	84.0	100.8	117.6	134.4	151.2	168.0	184.8	201.6
(in ³ /rev)	(3.08)	(4.10)	(5.13)	(6.15)	(7.18)	(8.20)	(9.23)	(10.25)	(11.28)	(12.30)
Max continuous pressure – bar (psi)	207 (3,000)	207 (3,000)	207 (3,000)	207 (3,000)	207 (3,000)	172 (2,500)	172 (2,500)	172 (2,500)	138 (2,000)	138 (2,000)
Max Speed – RPM	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400
Approximate Weight – Lbs. [kg]	70 [32]	72 [33]	75 [34]	77 [35]	80 [36]	82 [37]	85 [39]	87 [40]	90 [41]	92 [42]



Commercial Dump Pump C Series

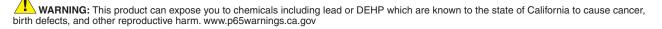
- Original Commercial dump pump design
- Durable high-strength cast iron body for excellent power to weight ratio
- · Cast iron construction for durability
- · Balanced thrust plates minimize friction and leakage
- Roller bearings for durability and resistance to fluid contamination



Parker's Commerical C Series pumps are the most rugged and durable dump pumps available in the market. Comes standard with integrated valve for raising and lowering dump beds, with integral relief valve. C102 for PTO direct mount. C101 for remote mount applications.

Applications – Dump Trucks, Dump Trailers **Markets** – Vocational & Municipal

C101 / C102 Frame Size	25
Displacement – cm³/rev (in³/rev)	104.5 (6.40)
Max continuous pressure – bar (psi)	172 (2,500)
Max Speed – RPM	2,400
Approximate Weight – Lbs. [kg]	71 [32.2]





Commercial Dump Pump SG Series

- 25% greater flow than G102 2" dump pump
- 20% less weight than the C102 2.5" dump pump
- · Large pump valve body flow characteristics
- 4-Bolt B or 4-Bolt DIN flange
- 13T B or 8T DIN shaft
- Pressures to 172 bar (2500 PSI)
- · Manual or air shift option



Parker's Commercial brand SG102 Series dump pump is designed to fit where space is limited, but greater flow is still a necessity. The SG102 dump pump utilizes the valve body of the larger frame size C Series dump pump, providing large dump pump flow characteristics for a faster dump cycle time, yielding greater work cycle efficiency. *Excellent for use on dump trucks with automatic transmissions.*

Applications – Dump Trucks, Dump Trailers **Markets** – Vocational & Municipal

SG102 Frame Size	25
Displacement – cm³/rev (in³/rev)	104.5 (6.38)
Max continuous pressure – bar (psi)	172 (2,500)
Max Speed – RPM	2,400
Approximate Weight – Lbs. [kg]	56 [25.4]



Commercial Dump Pump G Series

- Original Commercial dump pump design
- Durable high-strength cast iron body for excellent power to weight ratio
- · Cast Iron construction for durability
- · Balanced thrust plates minimize friction and leakage
- Roller bearings for durability and resistance to fluid contamination
- · More compact design allowing for easier fitment



Parker's Commercial G Series pumps are the most rugged and durable dump pumps available in the market. Comes standard with integrated valve for raising and lowering dump beds, with integral relief valve. G102 for PTO direct mount. G101 for remote mount applications.

Applications – Dump Trucks, Dump Trailers **Markets** – Vocational & Municipal

G101 / G102 Frame Size	20
Displacement – cm³/rev (in³/rev)	64.6 (3.9)
Max continuous pressure – bar (psi)	172 (2,500)
Max Speed – RPM	2,400
Approximate Weight – Lbs. [kg]	43 [19.5]



PGP500 Series

- Three-piece construction for distribution flexibility
- · Aluminum pumping sections for light weight
- · Journal bushings for long life
- Pressure balanced bushing blocks for high efficiency
- · Multiple sections available
- Available with either aluminum or cast iron mounting flange and rear cover



Parker's PGP500 Series fixed displacement gear pumps offer cost effective, high power density due to their aluminum, bushing block construction, making them ideal in a broad selection of markets such as Material Handling, Agriculture, Turf, as well as a variety of Industrial Applications. They are available as single or multi-section pumps.

Applications – Power steering pumps – priority valves available, Hydraulic Power Unit, Aerial Lift, Transfer pump **Markets** – Vocational & Municipal, Agriculture, Construction, Forestry, Material Handling, Turf

PGP505 Frame Size	0020	0030	0040	0050	0060	0070	0080	0090	0100	0110	0120
Displacement – cm³/rev	2	3	4	5	6	7	8	9	10	11	12
(in³/rev)	(0.12)	(0.18)	(0.24)	(0.31)	(0.37)	(0.43)	(0.49)	(0.55)	(0.61)	(0.67)	(0.73)
Max continuous pressure – bar	275	275	275	275	275	275	275	250	250	250	220
(psi)	(3,988)	(3,988)	(3,988)	(3,988)	(3,988)	(3,988)	(3,988)	(3,625)	(3,625)	(3,625)	(3,190)
Max Speed – RPM	4,000	4,000	4,000	4,000	3,600	3,300	3,000	2,900	2,800	2,400	2,400
Approximate Weight – Lbs.	3.80	4.91	5.02	5.13	5.26	5.37	5.48	5.59	5.70	5.81	5.92
[kg]	[1.72]	[2.22]	[2.27]	[2.32]	[2.38]	[2.43]	[2.48]	[2.53]	[2.58]	[2.63]	[2.68]

PGP511 Frame Size	0060	0070	0800	0100	0110	0140	0160	0180	0190	0210	0230	0270	0280	0310
Displacement – cm³/rev	6	7	8	10	11	14	16	18	19	21	23	27	28	31
(in ³ /rev)	(0.37)	(0.43)	(0.49)	(0.61)	(0.67)	(0.85)	(0.98)	(1.10)	(1.16)	(1.28)	(1.40)	(1.65)	(1.71)	(1.89)
Max continuous pressure – bar	250	250	250	250	250	250	250	250	250	235	225	190	185	165
(psi)	(3,625)	(3,625)	(3,625)	(3,625)	(3,625)	(3,625)	(3,625)	(3,625)	(3,625)	(3,410)	(3,265)	(2,755)	(2,685)	(2,395)
Max Speed – RPM	4,000	4,000	4,000	3,600	3,600	3,300	3,000	3,000	3,000	2,800	2,800	2,400	2,300	2,300
Approximate Weight – Lbs.	7.70	7.70	7.90	7.90	8.10	8.40	8.60	8.80	8.80	9.00	9.20	9.50	9.70	9.90
[kg]	[3.5]	[3.5]	[3.6]	[3.6]	[3.7]	[3.8]	[3.9]	[4.0]	[4.0]	[4.1]	[4.2]	[4.3]	[4.4]	[4.5]

PGP517 Frame Size	0140	0160	0190	0230	0250	0280	0330	0360	0380	0440	0520	0700
Displacement – cm³/rev	14	16	19	23	25	28	33	36	38	44	52	70
(in ³ /rev)	(0.85)	(0.98)	(1.16)	(1.40)	(1.53)	(1.71)	(2.01)	(2.20)	(2.32)	(2.68)	(3.17)	(4.27)
Max continuous pressure – bar	250	250	250	250	250	250	250	250	250	220	200	158
(psi)	(3,625)	(3,625)	(3,625)	(3,625)	(3,625)	(3,625)	(3,625)	(3,625)	(3,625)	(3,190)	(2,900)	(2,300)
Max Speed – RPM	3,400	3,400	3,300	3,300	3,100	3,400	3,100	3,000	3,000	2,800	2,600	2,300
Approximate Weight – Lbs.	17.50	17.64	17.90	18.28	18.50	18.70	19.18	19.46	19.6	20.19	20.92	22.58
[kg]	[7.92]	[8.0]	[8.12]	[8.29]	[8.37]	[8.50]	[8.70]	[8.83]	[8.91]	[9.16]	[9.49]	[10.24]



PGP500H Series - "Silent Pump"

- · Low noise emissions, minimized pulsation
- · High efficiency
- High power density
- Ideal for electric/hybrid vehicles



Parker's PGP500H Series pumps are specifically designed to reduce noise and pulsations from the hydraulic system and offer high pressure performance in a wide range of displacements (from 4.2 cc/rev to 200.4 cc/rev). Perfect for all stationary industrial indoor applications, and for any mobile application sensitive to noise such as electric and hybrid vehicles. The special pressure balancing assures maximum efficiency under all operation conditions.

Applications – Power steering pumps – priority valves available, Hydraulic Power Unit, Aerial Lift, Transfer pump, Lube pump

Markets - Vocational & Municipal, Agriculture, Construction, Forestry, Material Handling, Turf

PGP505H Frame Size	0042	0064	0083	0102	0129
Displacement – cm³/rev (in³/rev)	4.20 (0.26)	6.40 (0.39)	8.30 (0.51)	10.20 (0.62)	12.90 (0.79)
Max continuous pressure – bar (psi)	220 (3,191)	210 (3,046)	190 (2,756)	150 (2,176)	130 (1,885)
Max Speed – RPM	3,000	3,000	3,000	3,000	3,000
Approximate Weight – Lbs. [kg]	4.4 [2]	4.4 [2]	4.4 [2]	4.4 [2]	4.4 [2]

PGP511H Frame Size	0101	0126	0159	0179	0200	0221	0252	0283
Displacement – cm³/rev (in³/rev)	10.10 (0.62)	12.60 (0.77)	15.90 (0.97)	17.90 (1.09)	20.00 (1.22)	22.10 (1.35)	25.20 (1.54)	28.30 (1.73)
Max continuous pressure – bar (psi)	250 (3,626)	250 (3,626)	250 (3,626)	225 (3,408)	215 (3,118)	200 (2,901)	190 (2,756)	175 (2,538)
Max Speed – RPM	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000
Approximate Weight – Lbs. [kg]	11 [5]	11 [5]	13 [16]	13 [16]	13 [16]	13 [16]	13 [16]	13 [16]

PGP517H Frame Size	0280	0322	0363	0405	0455	0503
Displacement – cm³/rev (in³/rev)	28.00 (1.71)	32.20 (1.96)	36.30 (2.22)	40.50 (2.47)	45.50 (2.78)	50.30 (3.07)
Max continuous pressure – bar (psi)	240 (3,481)	230 (3,336)	215 (3,118)	200 (2,901)	190 (2,756)	180 (2,611)
Max Speed – RPM	3,000	3,000	3,000	3,000	2,500	2,500
Approximate Weight – Lbs. [kg]	22 [10]	22 [10]	22 [10]	22 [10]	22 [10]	22 [10]

PGP523H Frame Size	0505	0635	0750	0909
Displacement – cm³/rev (in³/rev)	50.50 (3.08)	63.50 (3.88)	75.00 (4.58)	90.90 (5.55)
Max continuous pressure – bar (psi)	240 (3,481)	200 (2,901)	170 (2,466)	140 (2,031)
Max Speed – RPM	3,000	2,500	2,200	2,000
Approximate Weight – Lbs. [kg]	33 [15]	33 [15]	33 [15]	33 [15]

PGP529H Frame Size	0941	1014	1255	1509	1750	2004
Displacement - cm³/rev (in³/rev)	94.10 (5.74)	101.40 (6.19)	125.50 (7.66)	150.90 (9.21)	175.00 (10.68)	200.40 (12.23)
Max continuous pressure – bar (psi)	150 (2,176)	140 (2,031)	130 (1,885)	110 (1,595)	100 (1,450)	90 (1,305)
Max Speed – RPM	1,800	1,800	1,800	1,800	1,800	1,800
Approximate Weight – Lbs. [kg]	66 [30]	66 [30]	66 [30]	66 [30]	66 [30]	66 [30]



D / H / HD Series

- Three-piece construction
- · All aluminum body for light weight & corrosion resistance
- · Journal bushings for long life
- Pressure balanced thrust plates for high efficiency
- Multiple sections available (HD series only)
- D series also available with a 2, 4, & 6-quart tank kit. Tank kit may also be ordered separately.



Parker's D / H / HD Series fixed displacement gear pump is an all aluminum body pump. It's an ideal selection for mid-pressure range applications where light weight, corrosion resistance & efficient performance are important.

Applications – Hydraulic Power Units, Filter Carts, Transfer & Lube Pumps **Markets** – Agriculture

D Series Frame Size	05	07	09	11	14	17	22	27
Displacement – cm³/rev	1.87	2.76	3.45	4.29	5.38	6.62	8.55	10.5
(in³/rev)	(0.114)	(0.168)	(0.210)	(0.262)	(0.329)	(0.404)	(0.522)	(0.641)
Max continuous pressure – bar (psi)	172	172	172	172	172	172	172	138
	(2,500)	(2,500)	(2,500)	(2,500)	(2,500)	(2,500)	(2,500)	(2,000)
Max Speed – RPM	4,000	4,000	4,000	4,000	4,000	4,000	4,000	3,000
Approximate Weight – Lbs. [kg]	2.0	2.1	2.2	2.4	2.5	2.7	2.8	3.0
	[0.9]	[0.95]	[1.0]	[1.1]	[1.1]	[1.2]	[1.3]	[1.4]

H Series Frame Size	25	31	39	49	62	77	90
Displacement – cm³/rev	9.88	12.35	15.44	19.3	24.14	30.18	36.5
(in³/rev)	(0.603)	(0.754)	(0.942)	(1.178)	(1.473)	(1.842)	(2.227)
Max continuous pressure – bar (psi)	172	172	172	172	172	138	103
	(2,500)	(2,500)	(2,500)	(2,500)	(2,500)	(2,000)	(1,500)
Max Speed – RPM	4,000	4,000	4,000	4,000	3,600	3,600	3,600
Approximate Weight – Lbs. [kg]	5.0	5.3	5.6	5.9	6.3	6.6	7.0
	[2.3]	[2.4]	[2.5]	[2.7]	[2.9]	[3.0]	[3.2]

HD Series Frame Size	H25	H31	H39	H49	H62	H77
Displacement – cm³/rev	9.88	12.35	15.44	19.3	24.14	30.18
(in³/rev)	(0.603)	(0.754)	(0.942)	(1.178)	(1.473)	(1.842)
Max continuous pressure – bar (psi)	172	172	172	172	172	138
	(2,500)	(2,500)	(2,500)	(2,500)	(2,500)	(2,000)
Max Speed – RPM	4,000	4,000	4,000	4,000	3,600	3,600
Approximate Weight – Lbs. [kg]	5.0	5.3	5.6	5.9	6.3	6.6
	[2.3]	[2.4]	[2.5]	[2.7]	[2.9]	[3.0]



PGG Gerotor Series

- · All aluminum construction for light weight
- Fixed clearance gear section for high mechanical efficiency

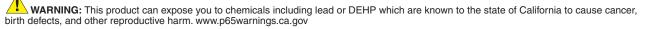


Parker's PGG Gerotor Pump Series is a compact, corrosion resistance pump due to it's light weight aluminum body. It is available as a standard pump, or a pump with a primary circuit relief valve.

Applications – Power steering pumps – priority valves available, Brake pump, Hydraulic power unit, Filter cart pump, Transfer pump, Lube pump

Markets - Agriculture, Mini Construction, Forestry, Material Handling, Turf, Vocational & Municipal

PGG Frame Size	0010	0016	0020	0025	0030
Displacement – cm³/rev	3.57	6.10	7.38	9.50	11.47
(in³/rev) Max continuous pressure – bar	(0.218) 138	(0.372) 138	(0.450) 138	(0.580) 138	(0.700) 103.5
(psi)	(2,000)	(2,000)	(2,000)	(2,000)	(1,500)
Max Speed – RPM	3,500	3,500	3,500	3,500	3,000
Approximate Weight – Lbs. [kg]	2.8 [1.25]	3.0 [1.36]	3.1 [1.41]	3.3 [1.50]	3.5 [1.59]





Cast Iron Motors

PGM600 Series

- Two-piece, interlocking body construction for high efficiency and high pressure
- · All cast iron body for durability
- · Journal bushings for long life
- · Pressure balanced thrust plates for high efficiency
- · Multiple sections available



Parker's PGM600 Series fixed displacement gear motor offers high efficiency, high performance and high power density due to its interlocking two-piece cast iron construction.

Applications – Fan drive, Excavators, Plow motors, Harvester motors, Sprayer motors, Pump drive **Markets** – Agriculture, Construction, Forestry, Material Handling, Turf, Mining, Oil & Gas

PGM610 Frame Size	0070	0100	0140	0160	0180	0210	0230	0260	0280	0320
Displacement – cm³/rev (in³/rev)	7	10	14	16	18	21	23	26	28	32
	(0.43)	(0.61)	(0.85)	(0.98)	(1.10)	(1.28)	(1.40)	(1.59)	(1.71)	(1.95)
Max continuous pressure – bar (psi)	275	275	275	275	265	245	235	215	200	175
	(3,989)	(3,989)	(3,989)	(3,989)	(3,843)	(3,553)	(3,408)	(3,118)	(2,901)	(2,538)
Max Speed – RPM	3,300	3,300	3,300	3,300	3,300	3,300	3,300	3,300	3,300	3,300
Approximate Weight – Lbs.	13.1	13.6	14.4	14.9	15.0	15.6	15.9	16.2	16.5	17.6
[kg]	[5.9]	[6.2]	[6.5]	[6.8]	[6.8]	[7.1]	[7.2]	[7.3]	[7.5]	[8.0]

PGM620 Frame Size	0190	0230	0260	0290	0330	0370	0410	0440	0500
Displacement – cm³/rev	19	23	26	29	33	37	41	44	50
(in³/rev)	(1.16)	(1.40)	(1.59)	(1.77)	(2.01)	(2.26)	(2.50)	(2.68)	(3.05)
Max continuous pressure – bar	275	275	275	275	275	250	220	210	210
(psi)	(3,989)	(3,989)	(3,989)	(3,989)	(3,989)	(3,626)	(3,191)	(3,046)	(3,046)
Max Speed – RPM	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000
Approximate Weight – Lbs.	26.7	26.9	27.1	27.8	28.0	28.4	28.7	28.9	29.3
[kg]	[12.1]	[12.2]	[12.3]	[12.6]	[12.7]	[12.9]	[13.0]	[13.1]	[13.3]

(1) PGM620R Frame Size	0190	0230	0260	0290	0330	0370
Displacement – cm³/rev	19	23	26	29	33	37
(in ³ /rev)	(1.16)	(1.40)	(1.59)	(1.77)	(2.01)	(2.26)
Max continuous pressure – bar	275	275	275	275	275	250
(psi)	(3,989)	(3,989)	(3,989)	(3,989)	(3,989)	(3,626)
Max Speed – RPM	4,000	4,000	4,000	4,000	4,000	4,000
Approximate Weight – Lbs.	34.7	34.9	35.1	35.8	36.0	36.4
[kg]	[15.7]	[15.8]	[15.9]	[16.2]	[16.3]	[16.5]

PGM640 Frame Size	0300	0350	0450	0550	0650	0750	0800
Displacement – cm³/rev	30	35	45	55	65	75	80
(in³/rev)	(1.83)	(2.14)	(2.75)	(3.36)	(3.97)	(4.58)	(4.88)
Max continuous pressure – bar (psi)	275	275	275	275	275	235	215
	(3,989)	(3,989)	(3,989)	(3,989)	(3,989)	(3,408)	(3,118)
Max Speed – RPM	3,000	3,000	3,000	3,000	3,000	3,000	3,000
Approximate Weight – Lbs. [kg]	42.2	45.4	46.7	48.5	49.8	51.4	53.0
	[19.1]	[20.6]	[21.2]	[22.0]	[22.6]	[23.3]	[24.0]

⁽¹⁾ The PGM620R specific for reversing fan applications



Commercial PGM300 Series

- Three-piece cast iron construction for assembly flexibility
- Balanced thrust plates optimize pump
- Largest journal bearings available for high pressure efficiency and long life
- Multiple sections available



Parker's PGM300 Series fixed displacement gear motors offer high pressure durability due to their cast iron construction, making them ideal for high duty cycle mobile applications for the Construction, Forestry, and Oil & Gas markets. The most comprehensive gear motor with flexibility of options in the market place.

Applications – Tire Trucks, Salt and Sand Spreaders, Aerial Lifts, Low Boy Trailers, Live (Moving) Floor Trucks, Roll Off Trailers

Markets - Construction, Forestry, Material Handling, Agriculture, Mining, Oil & Gas

PGM315 Frame Size	03	05	06	07	08	10	11	12	13	15	16	17	18	20
Displacement – cm³/rev	7.6	10.2	12.7	15.2	17.8	20.3	22.9	25.4	27.9	30.5	33.0	35.6	38.1	40.6
(in³/rev)	(0.47)	(0.62)	(0.78)	(0.93)	(1.09)	(1.24)	(1.40)	(1.55)	(1.71)	(1.86)	(2.02)	(2.17)	(2.33)	(2.48)
Max continuous pressure – bar	241	241	241	241	241	241	241	241	241	228	214	200	186	172
(psi)	(3,500)	(3,500)	(3,500)	(3,500)	(3,500)	(3,500)	(3,500)	(3,500)	(3,500)	(3,300)	(3,100)	(2,900)	(2,700)	(2,500)
Max Speed – RPM	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000
Approximate Weight – Lbs.	15.5	16.0	16.5	17	17.5	18	18.5	19	19.5	20	20.5	21	21.5	22
[kg]	[7.0]	[7.2]	[7.5]	[7.7]	[7.9]	[8.2]	[8.4]	[8.6]	[8.8]	[9.1]	[9.3]	[9.5]	[9.7]	[10.0]

PGM330 Frame Size	05	07	10	12	15	17	20
Displacement – cm³/rev	16.1	24.2	32.3	40.4	48.4	56.5	64.6
(in³/rev)	(0.99)	(1.48)	(1.97)	(2.46)	(2.96)	(3.45)	(3.94)
Max continuous pressure – bar (psi)	241	241	241	241	241	224	207
	(3,500)	(3,500)	(3,500)	(3,500)	(3,500)	(3,250)	(3,000)
Max Speed – RPM	3,000	3,000	3,000	3,000	3,000	3,000	3,000
Approximate Weight – Lbs. [kg]	33.6	34.8	36	37.3	38.5	40.0	41.3
	[15.2]	[15.8]	[16.3]	[16.9]	[17.5]	[18.1]	[18.7]

PGM350 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)	241	241	241	241	241	224	207	190	172
	(3,500)	(3,500)	(3,500)	(3,500)	(3,500)	(3,250)	(3,000)	(2,750)	(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]	48	49.5	51	52.5	54.0	55.5	57.0	58.5	60.0
	[21.8]	[22.4]	[23.1]	[23.8]	[24.5]	[25.2]	[25.9]	[26.5]	[27.2]

PGM365 Frame Size	07	10	12	15	17	20	22	25
Displacement – cm³/rev	44.3	59.0	73.8	88.5	103.3	118.0	132.8	147.5
(in³/rev)	(2.70)	(3.60)	(4.50)	(5.40)	(6.30)	(7.20)	(8.10)	(9.00)
Max continuous pressure – bar (psi)	241	241	241	241	241	241	224	207
	(3,500)	(3,500)	(3,500)	(3,500)	(3,500)	(3,500)	(3,250)	(3,000)
Max Speed – RPM	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400
Approximate Weight – Lbs.	53.5	56	58.5	61.0	63.5	66.0	68.5	71.0
[kg]	[24.3]	[25.4]	[26.5]	[27.7]	[28.8]	[30]	[31.1]	[32.2]



Commercial Roller Bearing Series (PGM020, 031, 051, 076)

- Original Commercial dump motor design
- · Three-piece cast iron construction for assembly flexibility
- · Balanced thrust plates optimize motor efficiency
- Roller bearings for durability and resistance to fluid contamination
- · Multiple sections available



Parker's Commercial brand roller bearing motor offers high durability & resistance to oil contamination due to their cast iron, roller bearing construction making them an ideal selection for the Vocational Truck, Winch and Oil & Gas markets. They are available as single, two-speed, or winch motors.

Applications – Bulk Feeds, Salt and Sand Spreaders, Wreckers, Roll Off Trucks, Live (Moving) Floor Trucks, Oil & Gas

Markets - Vocational Trucks, Mining, Oil & Gas, Construction, Forestry, Material Handling

PGM020 Frame Size	05	07	10	12	15	17	20
Displacement – cm³/rev	16.1	24.2	32.3	40.4	48.4	56.5	64.6
(in³/rev)	(0.99)	(1.48)	(1.97)	(2.46)	(2.96)	(3.45)	(3.94)
Max continuous pressure – bar (psi)	207	207	207	207	207	172	172
	(3,000)	(3,000)	(3,000)	(3,000)	(3,000)	(2,500)	(2,500)
Max Speed – RPM	2,400	2,400	2,400	2,400	2,400	2,400	2,400
Approximate Weight – Lbs.	26	27	28	29	31	33	34
[kg]	[12]	[12.5]	[13]	[13]	[14]	[15]	[15.5]

PGM031 Frame Size	05	07	10	12	15	17	20
Displacement – cm ³ /rev (in ³ /rev)	16.1	24.2	32.3	40.4	48.4	56.5	64.6
	(0.99)	(1.48)	(1.97)	(2.46)	(2.96)	(3.45)	(3.94)
Max continuous pressure – bar (psi)	207	207	207	207	207	172	172
	(3,000)	(3,000)	(3,000)	(3,000)	(3,000)	(2,500)	(2,500)
Max Speed – RPM	2,400	2,400	2,400	2,400	2,400	2,400	2,400
Approximate Weight – Lbs. [kg]	30	31	33	34	35	36	37
	[13.5]	[14]	[15]	[15.5]	[16]	[16.5]	[17.0]

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
(in ³ /rev)	(1.28)	(1.91)	(2.55)	(3.19)	(3.83)	(4.46)	(5.10)	(5.74)	(6.38)
Max continuous pressure – bar	207	207	207	207	207	207	172	172	172
(psi)	(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.	34	35.5	37	38.5	40	41.5	43	48.5	50
[kg]	[15.5]	[16.0]	[17.0]	[17.5]	[18]	[19]	[19.5]	[22]	[22.5]

PGM076 Frame Size	7	10	12	15	17	20	22	25	27	30
Displacement – cm³/rev (in³/rev)	50.4	67.2	84.0	100.8	117.6	134.4	151.2	168.0	184.8	201.6
	(3.08)	(4.10)	(5.13)	(6.15)	(7.18)	(8.20)	(9.23)	(10.25)	(11.28)	(12.30)
Max continuous pressure – bar (psi)	207	207	207	207	207	172	172	172	138	138
	(3,000)	(3,000)	(3,000)	(3,000)	(3,000)	(2,500)	(2,500)	(2,500)	(2,000)	(2,000)
Max Speed – RPM	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400
Approximate Weight – Lbs. [kg]	70	72	75	77	80	82	85	87	90	92
	[32]	[33]	[34]	[35]	[36]	[37]	[39]	[40]	[41]	[42]



Aluminum Motors

PGM500 Series

- · Three-piece construction for distribution flexibility
- · Aluminum pumping sections for light weight
- · Journal bushings for long life
- Pressure balanced bushing blocks for high efficiency
- Available with either aluminum or cast iron mounting flange and rear cover



Parker's PGM500 Series fixed displacement gear motors offer cost effective, high power density due to their aluminum, bushing block construction, making them ideal in a broad selection of markets such as Material Handling, Agriculture, Turf, as well as a variety of industrial applications. They are available as single or multi-section motors.

Applications – Turf Deck motors, Winch, Fan Drive motors, Pump Drive, Saw motors, Outdoor Power Equipment **Markets** – Vocational & Municipal, Agriculture, Construction, Forestry, Material Handling, Turf

PGM505 Frame Size	0020	0030	0040	0050	0060	0070	0800	0090	0100	0110	0120
Displacement – cm³/rev	2	3	4	5	6	7	8	9	10	11	12
(in ³ /rev)	(0.12)	(0.18)	(0.24)	(0.31)	(0.37)	(0.43)	(0.49)	(0.55)	(0.61)	(0.67)	(0.73)
Max continuous pressure – bar	275	275	275	275	275	275	275	250	250	250	220
(psi)	(3,988)	(3,988)	(3,988)	(3,988)	(3,988)	(3,988)	(3,988)	(3,625)	(3,625)	(3,625)	(3,190)
Max Speed – RPM	4,000	4,000	4,000	4,000	3,600	3,300	3,000	2,900	2,800	2,400	2,400
Approximate Weight – Lbs.	3.80	4.91	5.02	5.13	5.26	5.37	5.48	5.59	5.70	5.81	5.92
[kg]	[1.72]	[2.22]	[2.27]	[2.32]	[2.38]	[2.43]	[2.48]	[2.53]	[2.58]	[2.63]	[2.68]

PGM511 Frame Size	0060	0070	0080	0100	0110	0140	0160	0180	0190	0210	0230	0270	0280	0310
Displacement – cm³/rev	6	7	8	10	11	14	16	18	19	21	23	27	28	31
(in³/rev)	(0.37)	(0.43)	(0.49)	(0.61)	(0.67)	(0.85)	(0.98)	(1.10)	(1.16)	(1.28)	(1.40)	(1.65)	(1.71)	(1.89)
Max continuous pressure – bar	250	250	250	250	250	250	250	250	250	235	225	190	185	165
(psi)	(3,625)	(3,625)	(3,625)	(3,625)	(3,625)	(3,625)	(3,625)	(3,625)	(3,625)	(3,410)	(3,265)	(2,755)	(2,685)	(2,395)
Max Speed – RPM	4,000	4,000	4,000	3,600	3,600	3,300	3,000	3,000	3,000	2,800	2,800	2,400	2,300	2,300
Approximate Weight – Lbs.	7.70	7.70	7.90	7.90	8.10	8.40	8.60	8.80	8.80	9.00	9.20	9.50	9.70	9.90
[kg]	[3.5]	[3.5]	[3.6]	[3.6]	[3.7]	[3.8]	[3.9]	[4.0]	[4.0]	[4.1]	[4.2]	[4.3]	[4.4]	[4.5]

PGM517 Frame Size	0140	0160	0190	0230	0250	0280	0330	0360	0380	0440	0520	0700
Displacement – cm³/rev	14	16	19	23	25	28	33	36	38	44	52	70
(in³/rev)	(0.85)	(0.98)	(1.16)	(1.40)	(1.53)	(1.71)	(2.01)	(2.20)	(2.32)	(2.68)	(3.17)	(4.27)
Max continuous pressure - bar	250	250	250	250	250	250	250	250	250	220	200	158
(psi)	(3,625)	(3,625)	(3,625)	(3,625)	(3,625)	(3,625)	(3,625)	(3,625)	(3,625)	(3,190)	(2,900)	(2,300)
Max Speed – RPM	3,400	3,400	3,300	3,300	3,100	3,400	3,100	3,000	3,000	2,800	2,600	2,300
Approximate Weight – Lbs.	17.50	17.64	17.90	18.28	18.50	18.70	19.18	19.46	19.6	20.19	20.92	22.58
[kg]	[7.92]	[8.0]	[8.12]	[8.29]	[8.37]	[8.50]	[8.70]	[8.83]	[8.91]	[9.16]	[9.49]	[10.24]



Aluminum Motors

MGG Gerotor Series

- · All aluminum construction for light weight
- Fixed clearance gear section for high mechanical efficiency



Parker's MGG Gerotor Motor Series is a compact, corrosion resistance motor due to it's light weight aluminum body.

Applications – Power steering motors – priority valves available, Saw motors, Fan Drive motors, Sprayer motors, Screed vibration motors

Markets - Agriculture, Mini Construction, Forestry, Material Handling, Turf, Vocational & Municipal

MGG Frame Size	0010	0016	0020	0025	0030
Displacement – cm³/rev (in³/rev)	3.57	6.10	7.38	9.50	11.47
	(0.218)	(0.372)	(0.450)	(0.580)	(0.700)
Max continuous pressure – bar (psi)	138	138	138	138	103.5
	(2,000)	(2,000)	(2,000)	(2,000)	(1,500)
Max Speed – RPM	5,000	5,000	5,000	5,000	5,000
Approximate Weight – Lbs. [kg]	2.8	3.0	3.1	3.3	3.5
	[1.25]	[1.36]	[1.41]	[1.50]	[1.59]



700 Series - Heavy Duty, High Flow (Legacy Gresen Brand 20, 25, FL7, HP8 Series)

- · Options available for either Aluminum or Cast Iron Body Construction
- · Serviceable journal bushings for long service life
- Engineered pressure balanced thrust plates & balance seal materials for high efficiency & longer seal life
- Durable in applications with a vacuum inlet condition; (>-5inHg)
- Multiple sections in multiple displacements available



Parker's 700 Series fixed displacement gear pumps offer the highest flow & horsepower available in the most rugged applications.

Applications - Implement, Hoist, Steering, Brake cooling, Brake charge, Transmission Lube pump, Transfer pump Markets - Mining, Oil & Gas, Construction and other demanding mobile applications

20 Frame Size	-150	-200	-250	-300	-350	-400	-450
Displacement – cm ³ /rev	49.5	66.2	82.9	99.1	115.9	132.4	149.1
(in ³ /rev)	(3.02)	(4.04)	(5.06)	(6.05)	(7.07)	(8.08)	(9.1)
Max continuous pressure – bar (psi)	172	172	172	172	172	172	172
	(2,500)	(2,500)	(2,500)	(2,500)	(2,500)	(2,500)	(2,500)
Max Speed – RPM	2,500	2,500	2,500	2,500	2,500	2,500	2,500
Approximate Weight – Lbs. [kg]	19	20	21	22	23	24	25
	[8.62]	[9.07]	[9.53]	[9.98]	[10.4]	[10.9]	[11.3]

25 Frame Size	-300	-350	-400	-450	-500	-550	-660	-770	-950
Displacement – cm³/rev	99.1	115.9	132.4	149.1	164.7	181.22	219.9	254.4	315
(in³/rev)	(6.05)	(7.07)	(8.08)	(9.10)	(10.05)	(11.06)	(13.42)	(15.50)	(19.22)
Max continuous pressure – bar (psi)	207	207	207	207	172	172	172*	172*	172*
	(3,000)	(3,000)	(3,000)	(3,000)	(2,500)	(2,500)	(2,500*)	(2,500*)	(2,500*)
Max Speed – RPM	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500
Approximate Weight – Lbs.	41	42	43	44	45	45	46	48	49
[kg]	[18.60]	[19.05]	[19.50]	[19.96]	[20.41]	[20.41]	[20.87]	[21.77]	[22.23]

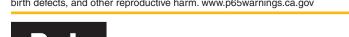
^{*}Consult Factory. Cast iron (FP) housings available in some frame sizes & displacements for higher pressures & efficiencies at elevated oil temperatures Approximate weights provided for 20 & 25 frame sizes are for Aluminum versions

FL7 / HP8 Frame Size

For these high horsepower product series with capabilities of up to 4500 psi and 270 cm3/rev per pumping section, consult factory.

WARNING: This product can expose you to chemicals including lead or DEHP which are known to the state of California to cause cancer,

Parker Hannifin Corporation | Pump & Motor Division | Kings Mountain, NC





18

PARKER-HANNIFIN CORPORATION OFFER OF SALE

- 1. <u>Definitions</u>. As used herein, the following terms have the meanings indicated.
- "Buyer" means any customer receiving a Quote for Products.
- "Buyer's Property" means any tools, patterns, plans, drawings, designs, specifications materials, equipment, or information furnished by Buyer, or which are or become Buyer's property.
- "Confidential Information" means any technical, commercial, or other proprietary information of Seller, including, without limitation, pricing, technical drawings or prints and/or part lists, which has been or will be disclosed, delivered, or made available, whether directly or indirectly, to Buyer.
- "Goods" means any tangible part, system or component to be supplied by Seller
- "Intellectual Property Rights" means any patents, trademarks, copyrights, trade dress, trade secrets or similar rights.
- "Products" means the Goods, Services and/or Software as described in a Quote.
- "Quote" means the offer or proposal made by Seller to Buyer for the supply of Products.
- "Seller" means Parker-Hannifin Corporation, including all divisions, subsidiaries and businesses selling Products under these Terms.
- "Seller's IP" means patents, trademarks, copyrights, or other intellectual property rights relating to the Products, including without limitation, names, designs, images, drawings, models, software, templates, information, any improvements or creations or other intellectual property developed prior to or during the relationship contemplated herein.
- "Services" means any services to be provided by Seller.
- "Software" means any software related to the Goods, whether embedded or separately downloaded.
- "Special Tooling" means equipment acquired by Seller or otherwise owned by Seller necessary to manufacture Goods, including but not limited to tools, jigs, and fixtures.
- "Terms" means the terms and conditions of this Offer of Sale.
- 2. Terms. All sales of Products by Seller will be governed by, and are expressly conditioned upon Buyer's assent to, these Terms. These Terms are incorporated into any Quote provided by Seller to Buyer. Buyer's order for any Products whether communicated to Seller verbally, in writing, by electronic data interface or other electronic commerce, shall constitute acceptance of these Terms. Seller objects to any contrary or additional terms or conditions of Buyer. Reference in Seller's order acknowledgement to Buyer's purchase order or purchase order number shall in no way constitute an acceptance of any of Buyer's terms or conditions of purchase. Any Quote made by Seller to Buyer shall be considered a firm and definite offer and shall not be deemed to be otherwise despite any language on the face of the Quote. Seller reserves all rights to accept or reject any purported acceptance by Buyer to Seller's Quote if such purported acceptance attempts to vary the terms of the Quote. If Seller ships Products after Buyer issues an acceptance to the Quote, any additional or different terms proposed by Buyer will not become part of the parties' business relationship unless agreed to in a writing that is signed by an authorized representative of Seller, excluding email correspondence. If the transaction proceeds without such agreement on the part of Seller, the business relationship will be governed solely by these Terms and the specific terms in Seller's Quote.
- 3. Price; Payment. The Products set forth in the Quote are offered for sale at the prices indicated in the Quote. Unless otherwise specifically stated in the Quote, prices are valid for thirty (30) days and do not include any sales, use, or other taxes or duties. Seller reserves the right to modify prices for any reason and at any time by giving ten (10) days prior written notice. Unless otherwise specified by Seller, all prices are F.C.A. Seller's facility (INCOTERMS 2020). All sales are contingent upon credit approval and full payment for all purchases is due thirty (30) days from the date of invoice (or such date as may be specified in the Quote). Under any circumstances, Buyer may not withhold or suspend payment of any amounts due and payable as a deduction, set-off or recoupment of any amount, claim or dispute with Seller. Unpaid invoices beyond the specified payment date incur interest at the rate of 1.5% per month or the maximum allowable rate under applicable law. Seller reserves the right to require advance payment or provision of securities for first and subsequent deliveries if there is any doubt, in Seller's sole determination, regarding the Buyer's creditworthiness or for other business reasons. If the requested advance payment or securities are not provided to Seller's satisfaction, Seller reserves the right to suspend performance or reject the purchase order, in whole or in part, without prejudice to Seller's other rights or remedies, including the right to full compensation. Seller may revoke or shorten any payment periods previously granted in Seller's sole determination. The rights and remedies herein reserved to Seller are cumulative and in

- addition to any other or further rights and remedies available at law or in equity. No waiver by Seller of any breach by Buyer of any provision of these terms will constitute a waiver by Seller of any other breach of such provision.
- 4. Shipment; Delivery; Title and Risk of Loss. All delivery dates are approximate, and Seller is not responsible for damages or additional costs resulting from any delay. All deliveries are subject to our ability to procure materials from our suppliers. Regardless of the manner of shipment, delivery occurs and title and risk of loss or damage pass to Buyer, upon placement of the Products with the carrier at Seller's facility. Unless otherwise agreed prior to shipment and for domestic delivery locations only, Seller will select and arrange, at Buyer's sole expense, the carrier and means of delivery. When Seller selects and arranges the carrier and means of delivery, freight and insurance costs for shipment to the designated delivery location will be prepaid by Seller and added as a separate line item to the invoice. Buyer shall be responsible for any additional shipping charges incurred by Seller due to Buyer's acts or omissions. Buyer shall not return or repackage any Products without the prior written authorization from Seller, and any return shall be at the sole cost and expense of Buyer.
- 5. Warranty. The warranty for the Products is as follows:
- (i) Goods are warranted against defects in material or workmanship for a period of twelve (12) months from the date of delivery or 2,000 hours of use. whichever occurs first; (ii) Services shall be performed in accordance with generally accepted practices and using the degree of care and skill that is ordinarily exercised and customary in the field to which the Services pertain and are warranted for a period of six (6) months from the date of completion of the Services; and (iii) Software is only warranted to perform in accordance with applicable specifications provided by Seller to Buyer for ninety (90) days from the date of delivery or, when downloaded by a Buyer or end-user, from the date of the initial download. All prices are based upon the exclusive limited warranty stated above, and upon the following disclaimer: EXEMPTION CONDITIONS, CLAUSE: DISCLAIMER OF WARRANTY, REPRESENTATIONS: THIS WARRANTY IS THE SOLE AND ENTIRE WARRANTY, CONDITION, AND REPRESENTATION, PERTAINING TO PRODUCTS. SELLER DISCLAIMS ALL OTHER WARRANTIES, AND REPRESENTATIONS, WHETHER STATUTORY, CONDITIONS, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THOSE RELATING TO DESIGN, NONINFRINGEMENT, MERCHANTABILITY, AND FITNESS FOR A PARTICULAR PURPOSE. SELLER DOES NOT WARRANT THAT THE SOFTWARE IS ERROR-FREE OR FAULT-TOLERANT, OR THAT BUYER'S USE THEREOF WILL BE SECURE OR UNINTERRUPTED. UNLESS OTHERWISE AUTHORIZED IN WRITING BY SELLER, THE SOFTWARE SHALL NOT BE USED IN CONNECTION WITH HAZARDOUS OR HIGH-RISK ACTIVITIES OR ENVIRONMENTS. EXCEPT AS EXPRESSLY STATED HEREIN, ALL PRODUCTS ARE PROVIDED "AS
- **6.** <u>Claims</u>; <u>Commencement of Actions</u>. Buyer shall promptly inspect all Products upon receipt. No claims for shortages will be allowed unless reported to Seller within ten (10) days of delivery. Buyer shall notify Seller of any alleged breach of warranty within thirty (30) days after the date the nonconformance is or should have been discovered by Buyer. Any claim or action against Seller based upon breach of contract or any other theory, including tort, negligence, or otherwise must be commenced within twelve (12) months from the date of the alleged breach or other alleged event, without regard to the date of discovery.
- 7. <u>LIMITATION OF LIABILITY</u>. IN THE EVENT OF A BREACH OF WARRANTY, SELLER WILL, AT ITS OPTION, REPAIR OR REPLACE THE NON-CONFORMING PRODUCTS, RE-PERFORM THE SERVICES, OR REFUND THE PURCHASE PRICE PAID WITHIN A REASONABLE PERIOD OF TIME. IN NO EVENT IS SELLER LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES INCLUDING ANY LOSS OF REVENUE OR PROFITS, WHETHER BASED IN CONTRACT, TORT OR OTHER LEGAL THEORY. IN NO EVENT SHALL SELLER'S LIABILITY UNDER ANY CLAIM MADE BY BUYER EXCEED THE PURCHASE PRICE PAID FOR THE PRODUCTS.
- **8.** <u>Confidential Information</u>. Buyer acknowledges and agrees that Confidential Information has been and will be received in confidence and will remain the property of Seller. Buyer further agrees that it will not use Seller's Confidential Information for any purpose other than for the benefit of Seller and shall return all such Confidential Information to Seller within thirty (30) days upon request.
- **9.** Loss to Buyer's Property. Buyer's Property will be considered obsolete and may be destroyed by Seller after two (2) consecutive years have elapsed without Buyer ordering the Products manufactured using Buyer's Property.

Property while it is in Seller's possession or control.

- 10. Special Tooling. Seller may impose a tooling charge for any Special Tooling. Special Tooling shall be and remain Seller's property. In no event will Buyer acquire any interest in the Special Tooling, even if such Special Tooling has been specially converted or adapted for manufacture of Goods for Buyer and notwithstanding any charges paid by Buyer. Unless otherwise agreed, Seller has the right to alter, discard or otherwise dispose of any Special Tooling or other property owned by Seller in its sole determination at any time.
- 11. Security Interest. To secure payment of all sums due from Buyer, Seller retains a security interest in all Products delivered to Buyer and, Buyer's acceptance of these Terms is deemed to be a Security Agreement under the Uniform Commercial Code. Buyer authorizes Seller as its attorney to execute and file on Buyer's behalf all documents Seller deems necessary to perfect Seller's security interest.
- 12. User Responsibility. Buyer, through its own analysis and testing, is solely responsible for making the final selection of the Products and assuring that all performance, endurance, maintenance, safety and warning requirements of the application of the Products are met. Buver must analyze all aspects of the application and follow applicable industry standards, specifications, and any technical information provided with the Quote or the Products, such as Seller's instructions, guides and specifications. If Seller provides options of or for Products based upon data or specifications provided by Buyer, Buyer is responsible for determining that such data and specifications are suitable and sufficient for all applications and reasonably foreseeable uses of the Products. In the event Buyer is not the end-user of the Products, Buyer will ensure such end-user complies with this paragraph.
- 13. Use of Products, Indemnity by Buyer. Buyer shall comply with all instructions, guides and specifications provided by Seller with the Quote or the Products. If Buyer uses or resells the Products in any way prohibited by Seller's instructions, guides or specifications, or Buyer otherwise fails to comply with Seller's instructions, guides and specifications, Buyer acknowledges that any such use, resale, or non-compliance is at Buyer's sole risk. Further, Buyer shall indemnify, defend, and hold Seller harmless from any losses, claims, liabilities, damages, lawsuits, judgments and costs (including attorney fees and defense costs), whether for personal injury, property damage, intellectual property infringement or any other claim, arising out of or in connection with: (a) improper selection, design, specification, application, or any misuse of Products; (b) any act or omission, negligent or otherwise, of Buyer; (c) Seller's use of Buyer's Property; (d) damage to the Products from an external cause, repair or attempted repair by anyone other than Seller, failure to follow instructions, guides and specifications provided by Seller, use with goods not provided by Seller, or opening, modifying, deconstructing, tampering with or repackaging the Products; or (e) Buyer's failure to comply with these Terms, including any legal or administrative proceedings, collection efforts, or other actions arising from or relating to such failure to comply. Seller shall not indemnify Buyer under any circumstance except as otherwise provided in these Terms.
- 14. Cancellations and Changes. Buyer may not cancel or modify, including but not limited to movement of delivery dates for the Products, any order for any reason except with Seller's written consent and upon terms that will indemnify, defend and hold Seller harmless against all direct, incidental and consequential loss or damage and any additional expense. Seller, at any time, may change features, specifications, designs and availability of Products.
- 15. Assignment. Buyer may not assign its rights or obligations without the prior written consent of Seller.
- 16. Force Majeure. Seller is not liable for delay or failure to perform any of its obligations by reason of any events or circumstances beyond its reasonable control. Such circumstances include without limitation: accidents, labor disputes or stoppages, government acts or orders, acts of nature, pandemics, epidemics, other widespread illness, or public health emergency, cyber related disruptions, cyber-attacks, ransomware sabotage, delays or failures in delivery from carriers or suppliers, shortages of materials, sudden increases in the price of raw material or components, shutdowns or slowdowns affecting the supply of raw materials or components, or the transportation thereof, oil shortages or oil price increases, energy crisis, energy or fuel interruption, war (whether declared or not) or the serious threat of same, riots, rebellions, acts of terrorism, embargoes, fire or any reason whether similar to the foregoing or otherwise. Seller will resume performance as soon as practicable after the event of force majeure has been removed. All delivery dates affected by an event of force majeure shall be tolled for the duration of such event of force maieure and rescheduled for mutually agreed dates as soon as practicable after the event of force majeure ceases to exist. The right to allocate capacity is in the Seller's sole discretion. An event of force majeure shall not include

- Also, Seller shall not be responsible for any loss or damage to Buyer's financial distress, insolvency, bankruptcy, or other similar conditions affecting one of the parties, affiliates and/or subcontractors. An event of force majeure in the meaning of these Terms means any circumstances beyond Seller's control that permanently or temporarily hinders performance, even where that circumstance was already foreseen. Buyer shall not be entitled to cancel any orders following its claim of an event of force majeure.
 - 17. Waiver and Severability. Failure to enforce any provision of these Terms will not invalidate that provision; nor will any such failure prejudice either party's right to enforce that provision in the future. Invalidation of any provision of these Terms shall not invalidate any other provision herein and, the remaining provisions will remain in full force and effect.
 - 18. Duration. Unless otherwise stated in the Quote, any agreement governed by or arising from these Terms shall: (a) be for an initial duration of one (1) year: and (b) shall automatically renew for successive one-year terms unless terminated by Buyer with at least 180-days written notice to Seller or if Seller terminates the agreement pursuant to Section 19 of these Terms.
 - 19. Termination. Seller may, without liability to Buyer, terminate any agreement governed by or arising from these Terms for any reason and at any time by giving Buyer thirty (30) days prior written notice. Seller may immediately terminate, in writing, if Buyer: (a) breaches any provision of these Terms, (b) becomes or is deemed insolvent, (c) appoints or has appointed a trustee, receiver or custodian for all or any part of Buyer's property,(d) files a petition for relief in bankruptcy on its own behalf, or one is filed against Buyer by a third party, (e) makes an assignment for the benefit of creditors; or (f) dissolves its business or liquidates all or a majority of its assets.
 - 20. Ownership of Rights. Buyer agrees that (a) Seller (and/or its affiliates) owns or is the valid licensee of Seller's IP and (b) the furnishing of information, related documents or other materials by Seller to Buyer does not grant or transfer any ownership interest or license in or to Seller's IP to Buyer, unless expressly agreed in writing. Without limiting the foregoing, Seller retains ownership of all Software supplied to Buyer. In no event shall Buyer obtain any greater right in and to the Software than a right in a license limited to the use thereof and subject to compliance with any other terms provided with the Software. Buyer further agrees that it will not, directly or through intermediaries, reverse engineer, decompile, or disassemble any Software (including firmware) comprising or contained within a Product, except and only to the extent that such activity may be expressly permitted, either by applicable law or, in the case of open source software, the applicable open source license.
 - 21. Indemnity for Infringement of Intellectual Property Rights. Seller is not liable for infringement of any Intellectual Property Rights except as provided in this Section. Seller will defend at its expense and will pay the cost of any settlement or damages awarded in an action brought against Buyer based on a third-party claim that one or more of the Products infringes the Intellectual Property Rights of a third party in the country of delivery of the Products by Seller to Buyer. Seller's obligation to defend and indemnify Buyer is contingent on Buyer notifying Seller within ten (10) days after Buyer becomes aware of any such claim, and Seller having sole control over the defense of the claim including all negotiations for settlement or compromise. If one or more Products is subject to such a claim, Seller may, at its sole expense and option, procure for Buyer the right to continue using the Products, replace or modify the Products to render them non-infringing, or offer to accept return of the Products and refund the purchase price less a reasonable allowance for depreciation. Seller has no obligation or liability for any claim of infringement: (i) arising from information provided by Buyer (including Seller's use of Buyer's Property); or (ii) directed to any Products for which the designs are specified in whole or part by Buyer; or (iii) resulting from the modification, combination or use in a system of any Products. The foregoing provisions of this Section constitute Seller's sole and exclusive liability and Buyer's sole and exclusive remedy for claims of infringement of Intellectual Property Rights.
 - 22. Governing Law. These Terms, the terms of any Quote, and the sale and delivery of all Products are deemed to have taken place in, and shall be governed and construed in accordance with, the laws of the State of Ohio, as applicable to contracts executed and wholly performed therein and without regard to conflicts of laws principles. Buyer irrevocably agrees and consents to the exclusive jurisdiction and venue of the courts of Cuyahoga County, Ohio with respect to any dispute, controversy or claim arising out of or relating to the sale and delivery of the Products.
 - 23. Entire Agreement. These Terms, along with the terms set forth in the Quote, forms the entire agreement between the Buyer and Seller and constitutes the final, complete and exclusive expression of the terms of sale and purchase. In the event of a conflict between any term set forth in the Quote and these Terms, the terms set forth in the Quote shall prevail. All prior or contemporaneous written or oral agreements or negotiations with

respect to the subject matter shall have no effect. No modification to these Terms will be binding on Seller unless agreed to in a writing that is signed by an authorized representative of Seller, excluding email correspondence, 'clickwrap' or other purported electronic assent to different or additional terms. Sections 2-25 of these Terms shall survive termination or cancellation of any agreement governed by or arising from these Terms.

- 24. No 'Wrap' Agreements/No Authority to Bind. Seller's clicking any buttons or any similar action, such as clicking "I Agree" or "Confirm," to utilize Buyer's software or webpage for the placement of orders, is NOT an agreement to Buyer's Terms and Conditions. NO EMPLOYEE, AGENT OR REPRESENTATIVE OF SELLER HAS THE AUTHORITY TO BIND SELLER BY THE ACT OF CLICKING ANY BUTTON OR SIMILAR ACTION ON BUYER'S WEBSITE OR PORTAL.
- 25. Compliance with Laws. Buyer agrees to comply with all applicable laws, regulations, and industry and professional standards, including those of the United States of America, and the country or countries in which Buyer may operate, including without limitation the U.S. Foreign Corrupt Practices Act ("FCPA"), the U.S. Anti-Kickback Act ("Anti-Kickback Act"), U.S. and E.U. export control and sanctions laws ("Export Laws"), the U.S. Food Drug and Cosmetic Act ("FDCA"), and the rules and regulations promulgated by the U.S. Food and Drug Administration ("FDA"), each as currently amended. Buyer agrees to indemnify, defend, and hold harmless Seller from the consequences of any violation of such laws, regulations and standards by Buyer, its employees or agents. Buyer represents that it is familiar with all applicable provisions of the FCPA, the Anti-Kickback Act, Export Laws, the FDCA and the FDA and certifies that Buver will adhere to the requirements thereof and not take any action that would make Seller violate such requirements. Buyer represents and agrees that Buyer will not make any payment or give anything of value, directly or indirectly, to any governmental official, foreign political party or official thereof, candidate for foreign political office, or commercial entity or person, for any improper purpose, including the purpose of influencing such person to purchase Products or otherwise benefit the business of Seller. Buyer further represents and agrees that it will not receive, use, service, transfer or ship any Products from Seller in a manner or for a purpose that violates Export Laws or would cause Seller to be in violation of Export Laws. Buyer agrees to promptly and reliably provide Seller all requested information or documents, including end-user statements and other written assurances, concerning Buyer's ongoing compliance with Export Law.





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