

Poly-Guard® Series Gear Pump Specifications (Mag-Drive)

Pump Model		P1	P2	P3	P4	P5	P6	P7	P8	P9	Units
Port Size & Type ¹	ANSI 150# RFF	3/4				1-1/2					in
	DIN PN16 RFF	20				40					mm
Materials	Body	303 Stainless Steel, PFA Plastic-Lined									-
	Containment Can	304L Stainless Steel, PTFE-Lined (Standard) ⁷									
	Pedestal	Cast Iron, Epoxy-Painted									
	Gears	PEEK (Bearing Grade) or Kynar (FDA Grade; pure PVDF)									
	Keys	Matches material of Gears (see above)									
	Wear Plates & Bearings	Carbon (Graphitar 114 or equivalent) or Silicon Carbide (pure, self-sintered)									
	Shafts	Silicon Carbide (pure, self-sintered)									
	O-Rings ⁸	EPDM, Viton (Type A) or Kalrez (Grade 4079) ⁹									
	Inner Magnet	Samarium Cobalt, Carbon Steel, PFA Plastic-Lined									
	Outer Magnet	Samarium Cobalt, Carbon Steel, Epoxy-Painted									
Magnetic Coupling Max Torque @ 72°F	MCU	75				-					in-lb
	MCB	-				125					in-lb
Max Speed		1750	1750	1750	1750	1750	1750	1750	1750	1750	RPM
Mean Flow Rates @ Differential Pressure ²	0 PSI	1.4	2.3	3.1	4.9	8.5	11.3	14.2	18.8	25.0	GPM
		5.3	8.7	11.7	18.5	32.1	42.9	53.8	71.0	94.6	LPM
	50 PSI	0.94	1.8	2.6	4.2	7.9	10.6	13.4	17.8	23.8	GPM
		3.5	6.8	9.7	15.7	29.8	40.1	50.6	67.2	90.0	LPM
	100 PSI	0.61	1.4	2.2	3.7	7.4	10.0	12.7	17.0	23.1 *	GPM
		2.3	5.4	8.3	13.9	28.0	37.8	48.1	64.2	87.6 *	LPM
Max Differential Pressure		100	100	100	100	100	100	100	100	80	PSI
		6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	5.5	bar
Max Allowable Pressure ³		275	275	275	275	275	275	275	275	275	PSI (g)
		19	19	19	19	19	19	19	19	19	bar (g)
Max Temperature ⁴		200	200	200	200	200	200	200	200	200	°F
		93	93	93	93	93	93	93	93	93	°C
Min Temperature		32	32	32	32	32	32	32	32	32	°F
		0	0	0	0	0	0	0	0	0	°C
NPSHR @ Max Speed		2	2	2	3	5.2	5.2	4	3	3	ft (a)
		0.6	0.6	0.6	0.9	1.6	1.6	1.2	0.9	0.9	m (a)
Suction Lift (dry) ⁵		1	1	2	3	3	3.5	3.5	5	6	ft
		0.3	0.3	0.6	0.9	0.9	1.1	1.1	1.5	1.8	m
Weight ⁶		42	42	42	42	63	63	63	70	70	lb
		19	19	19	19	29	29	29	32	32	kg

RFF = Raised Face Flanges

NPSHR = Net Positive Suction Head Required

* Specified @ 80 PSI (5.5 bar).

FOOTNOTES:

- Current P-Series pumps have Universal ANSI/DIN Flanges (**Code U**). P-Series pumps manufactured in or before May 2021 may have distinct ANSI (**Code L**) or DIN (**Code E**) Flanges. (See P-Series Model Coding, Position 2.)
- Based on average test data with water at room temperature and maximum pump speed of 1750 RPM.
- Based on pressure rating of Flanges at ambient temperature. Above 100°F to 200°F, derate pressure by 0.35 PSI/°F.
- Pump may require trimmed gears depending on the material and temperature. Consult factory.
- Dry Suction Lift is specified at Maximum Speed with PEEK Gears and Carbon Bearings. For other materials, priming of the suction line is required to prevent wear and possible damage to internal components.
- Approximate weight of pump, excluding motor.
- Obsolete Alloy-C/PFA-Lined Containment Can is available only for Replacement Cartridges in existing pumps.
- Includes Retaining Rings for Gears and Inner Magnet.
- Kalrez Grade 1050LF or Chemraz 555 is optional for special applications.