

PVG PUMPS







PVG Pump Features

- Cylinder Barrel, Swashblock and Tailshaft are Supported by Hydrodynamic Bearings
 - Allows operation special fluids
 - Provides for an Infinite Bearing Life
 - Provides a compact design



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PVG Pump Features

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• Large Sealed Outboard Shaft Bearing

- Enables easy maintenance of shaft, bearing, and shaft seal.
- Allows for quick conversions, ie; keyed to splined
- Allows for operation on special fluids
- Capable of being belt driven



Pre-lubricated, oversize outboard driveshaft bearing



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PVG Pump Features

- Pressure Lubricated Swashblock
 - More consistent control response (low hysteresis).
 - Allows for operation on special and low viscosity fluids.
 - Provides constant lubrication to swashblock bearings for high pressure, high cycle applications

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- Steel Piston Shoes with specially treated faces
 - Increased fluid retention
 - High pressure operation with longer life
 - High degree of contamination resistance
 - ISO Classification 21/19/16
 - Allows for operation on special fluids







- Hard on Hard Running Surfaces
 - All running surfaces hardened to a Rockwell "C" of 60 65
 - Provides greater contamination resistance because surfaces are file hard
 - Provides longer life
 - Allows operation on special fluids



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Hardened Cylinder & Valve Plate

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Quiet Valve Plate Design (Standard) -80 - 85 dBA (depending on pump size, rpm, and pressure)







- 3 Valve Plate Styles
 - Rear Ported
 - Side Ported (top and bottom) non thru shaft
 - Side Ported (top and bottom) thru shaft

Close Coupled Dual Pump Mounting

- B frame to "AA", or "A", or "B"
- C frame to "AA", "A", "B", or "C"







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Special Polymerous Saddle Bearings

 Allows operation on special fluids
 Permits constant control reaction
 Eliminates troublesome trunion bearing and covers

-Provides long life













PVG Pumps

Currently 5 Displacements

- 048 ml/rev (2.93 in³)
- 065 ml/rev (3.94 in³)
- 075 ml/rev (4.60 in³)
- 100 ml/rev (6.00 in³)
- 130 ml/rev (7.94 in³)
- 2 Frame Sizes
 - SAE "B" and "C"
 - B Frame has a combination 2 or 4 bolt mount
 - C Frame only available with 2 bolt mount





PVG Pumps

- Continuous Operating Pressures
 - from 3,750 to 5000 psi, (depending on displacement)
- Operating Speeds
 - from 600 to 2,700 rpm (depending on displacement)





PVG SPECIFICATIONS

Unit Size	Theoretical Maximum Displacement in ³ /rev (ml/rev)	Rated Continuous Pressure	Maximum Pressure	Maximum Speed	
48	2.93 in ³ /rev (48,0 ml/rev)	5000	5800	2700	5/
65	3.97 in ³ /rev (65 ml/rev)	5000	5800	2700	1
75	4.60 in ³ /rev (75,4 ml/rev)	3750	4250	2700	
100	6.00 in ³ /rev (98,3 ml/rev)	5000	5800	2400	
130	7.94 in ³ /rev (130,2 ml/rev	3750	4250	2400	

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- SAE "Keyed" or "Splined Shafts"
 - S = Splined "B-B" or "C-C"
 - K = Splined "B" or "C"
 - Y = Long Keyed
 - Z = Short Keyed





PVG-048



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PVG 065 Performance Curves

PVG-065



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PVG 100 Performance Curves

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PVG-100





PVG 130 Performance Curves

PVG-130



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PVG 048 Noise Curves



PVG048 NOISE @ 3 ft



Fluid Power



PVG 065 Noise Curves

PVG065 NOISE @ 3 ft







PVG 075 Noise Curves



PVG075 NOISE @ 3 ft







PVG 100 Noise Curves



PVG100 NOISE @ 3 ft







PVG 130 Noise Curves

PVG130 NOISE @ 3 ft







PVG 048 Inlet Curves



PVG-048 SUCTION TEST



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PVG 065 Inlet Curves



PVG-065 SUCTION TEST



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PVG 075 Inlet Curves

PVG-075 SUCTION TEST







PVG 100 Inlet Curves

PVG-100 SUCTION TEST







PVG 130 Inlet Curves

PVG-130 SUCTION TEST



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PVG Controls

• 4-way Parallel Style Compensator

- Very fast compensator response. 45-55 milliseconds
- The control is ported to enable tailoring of the control response to the system





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PVG Controls

- A Variety of Controls to choose from
 P-1NN Single Pressure Compensator
 - P-2NN Two Pressure Compensator
 - P-A** N.O. Proportional Pressure
 - P-B** N.C. Proportional Pressure
 - P-C** Single Pressure w/ N.O. Soft Start







- "P" Controls cont.
 - Optional "P" Control Modifiers
 - /F Load Sensing
 - /G Horsepower Limiting w/ Load Sensing
 - /H Horsepower Limiting







- V-S Electronic Servo Control
 - Select Servo Valve
 - 25 Liter Servo Valve
 - * requires a separate pilot source
- V-M Electronic Servo Proportional Control
 - Moog Servo Proportional Valve
- LVDT Pump Feedback
 - Feeds back pump position





PVG Viscosity & Temperature Specifications



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PVG Case Specifications	048	065	075	100	130				
Maximum Pressure (psi)									
Standard Shaft Seal	25	25	25	25	25				
High Pressure Shaft seal	50	50	50	50	50				
Minimum Case Drain Size	1	1	1	1	1				
(tubing diameter in inches)	1	1	1	1	1				
Case pressure & inlet differentials take priority and must be followed per the case									
differential curves									

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MAXIMUM CASE/INLET PRESSURE DIFFERENTIAL





Thank you for buying Oilgear Products



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