

**Technical Information**

**Performance Information**

Series PVP16 Pressure Compensated,  
Variable Volume, Piston Pump

**Features**

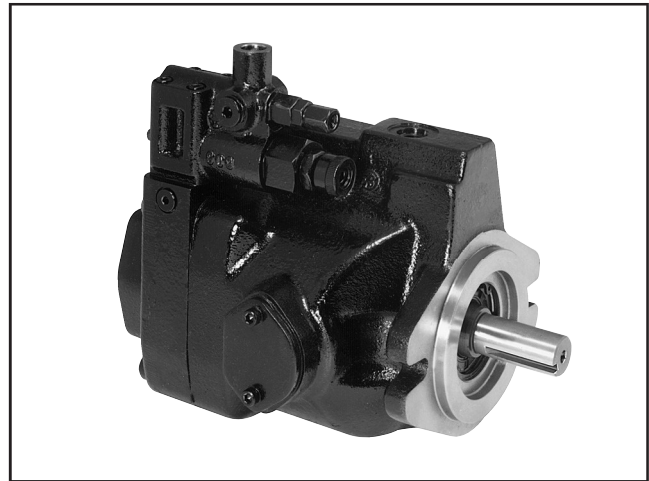
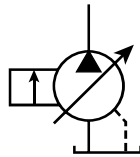
- High Strength Cast-Iron Housing for Reliability and Quiet Operation
- Optional Inlet/Outlet Locations for Ease of Installation
- Replaceable Bronze Port Plate
- Replaceable Piston Slipper Plate
- Thru-Shaft Capability SAE A and AA Pilots Offered
- Low Noise Levels - Promote More Comfortable Operating Environment
- Fast Response Times

**Controls**

- Pressure Compensation
- Remote Pressure Compensation
- Load Sensing
- Torque (Power) Limiting
- Adjustable Maximum Volume Stop

**Schematic Symbol**

(Basic Pump)



**Specifications**

Pressure Ratings

Outlet Port: 248 bar (3600 PSI) Continuous (P1)  
310 bar (4500 PSI) Peak (P3)

Inlet Port: 1.72 bar (25 PSI) Maximum  
.17 bar (5 In. Hg.) Vacuum Minimum  
@ 1800 RPM  
(See inlet chart for other speeds)

Speed Ratings: 600 to 3000 RPM

Operating Temperature Range: - 40°C to 71°C  
(- 40°F to 160°F)

Housing Material: Cast-Iron

Filtration: Maintain SAE Class 4,  
ISO 16/13,  
ISO 18/15 Maximum

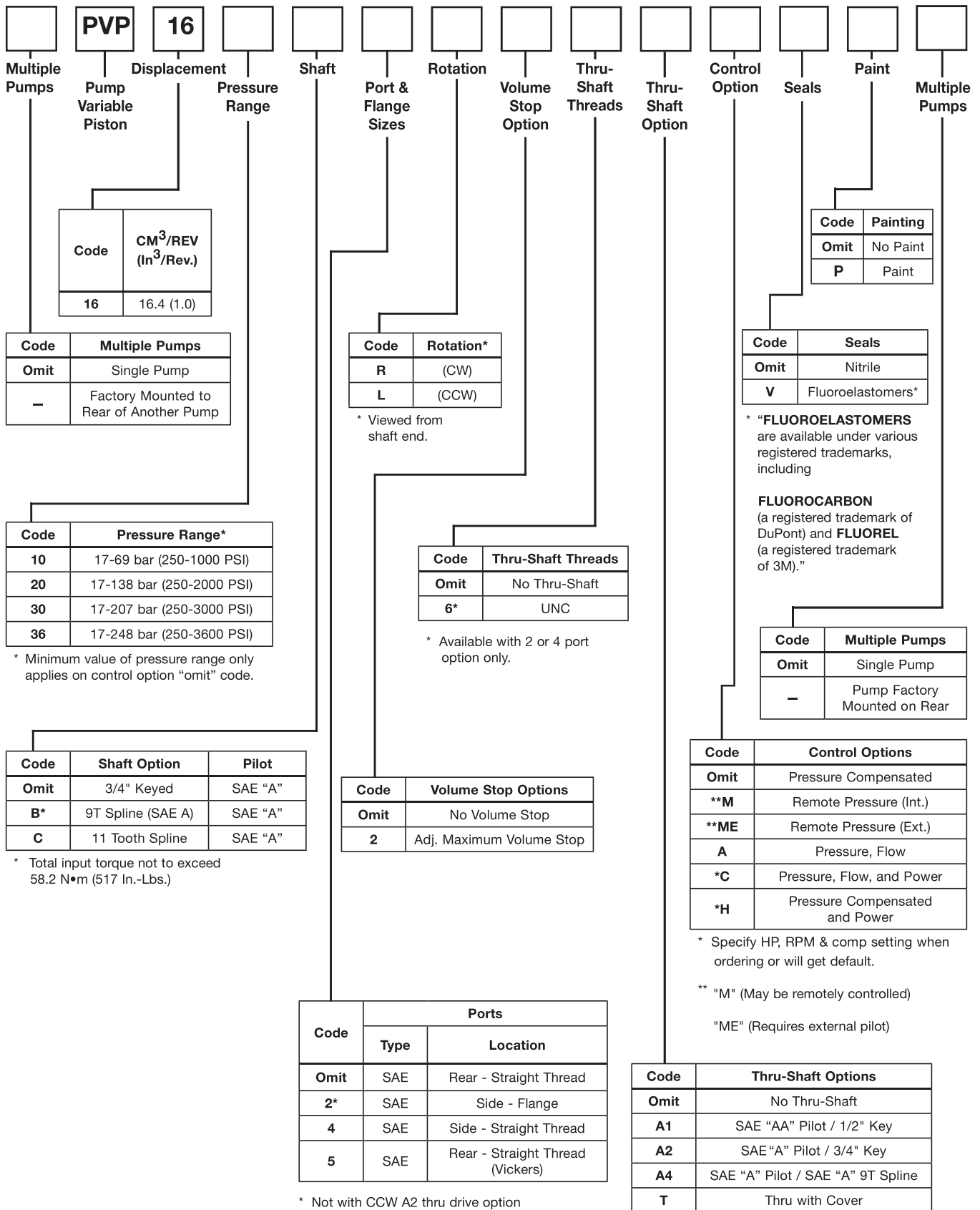
Mounting: SAE "A"  
Flange Mount

Installation Data: See page 42 of this catalog for specific recommendations pertaining to system cleanliness, fluids, start-up, inlet conditions, shaft alignment, drain line restrictions and other important factors relative to the proper installation and use of these pumps.

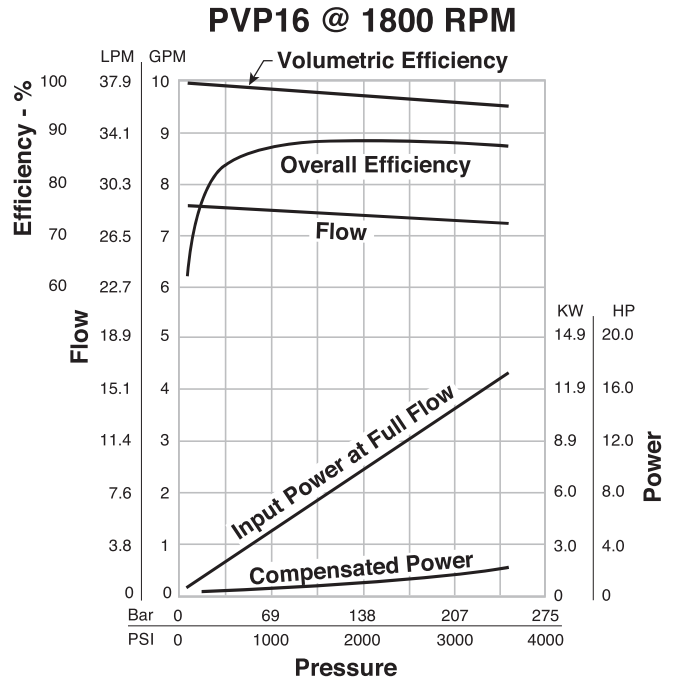
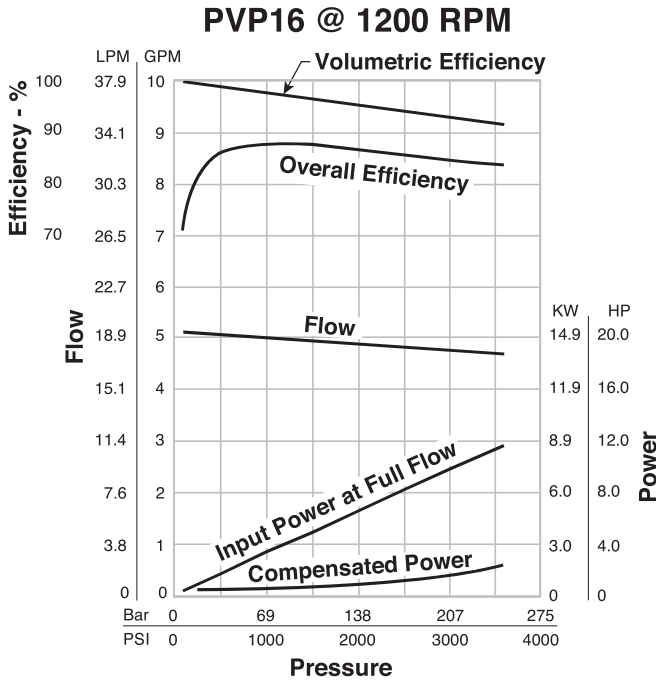
**Quick Reference Data Chart**

Pump Model	Displacement cc/rev (In <sup>3</sup> /rev)	Pump Delivery @ 21 bar (300 PSI) in LPM (GPM)		Input Power At 1800 RPM, Max. Displacement & 248 bar (3600 PSI)
		1200 RPM	1800 RPM	
PVP16	16.4 (1.0)	19.7 (5.2)	29.5 (7.8)	13.1 kw (17.5 hp)

Ordering Information



**Typical Performance Data - Fluid: Standard Hydraulic Oil 100 SSU @ 49°C (120°F)**



**NOTE:** The efficiencies and data in the graph are nominal values and good only for pumps running at 1800 RPM and stroked to maximum. To calculate approximate horsepower for the other conditions, use the following formula:

$$HP = \left[ \frac{Q \times (PSI)}{1714} \right] + (CHp)$$

Actual GPM is directly proportional to drive speed and maximum volume setting. Flow loss, however, is a function of pressure only.

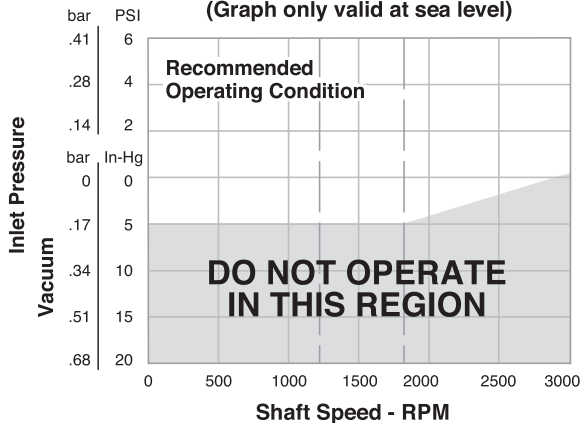
WHERE:

Q = Actual Output Flow in GPM

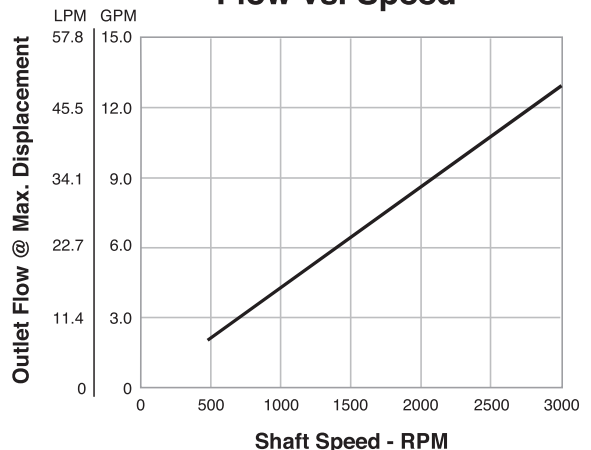
PSI = Pressure At Pump Outlet

CHp = Input Horsepower @ Full Compensation @ 1800 RPM (from graph read at operating pressure)

**PVP16 Inlet Characteristics at Full Displacement**  
 (Graph only valid at sea level)

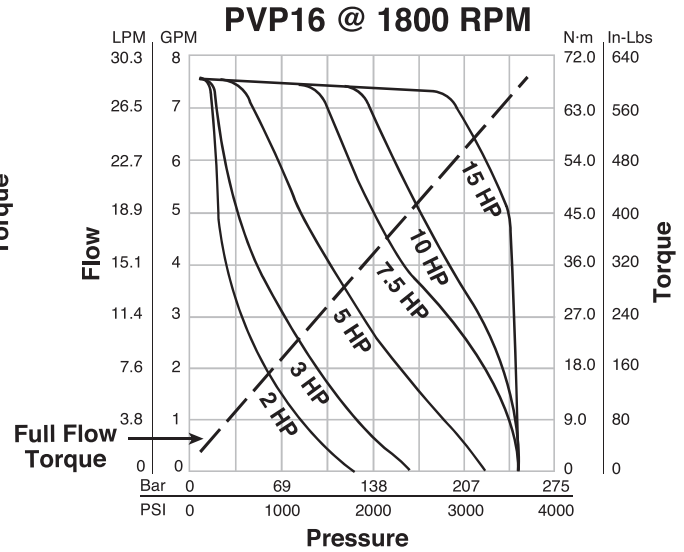
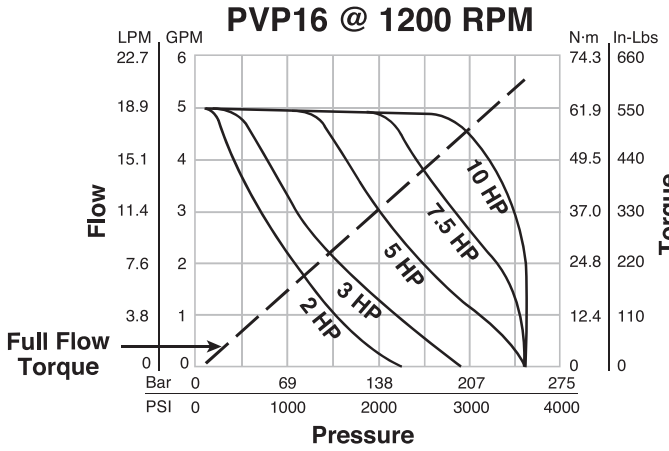


**Flow vs. Speed**

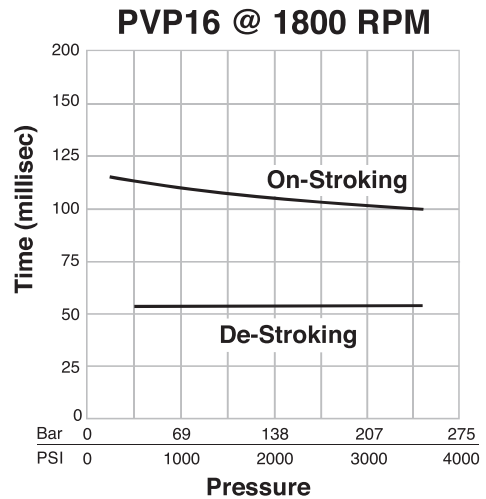
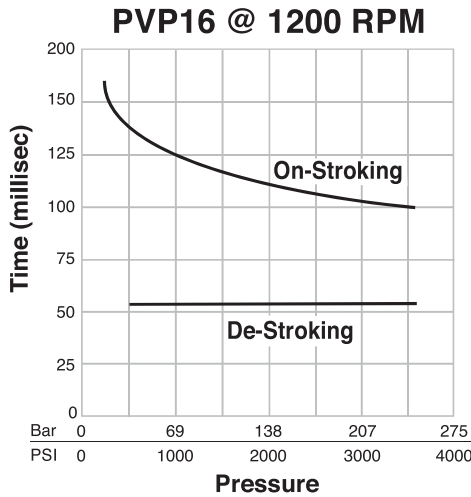


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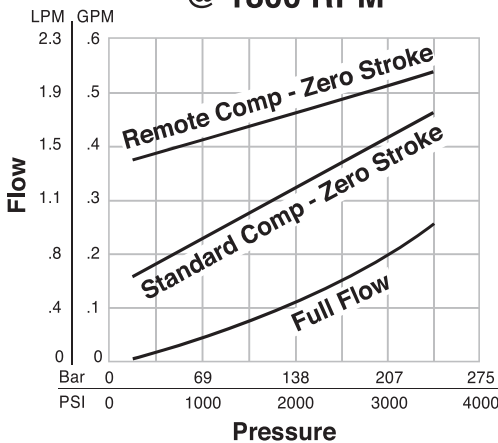
Power Control



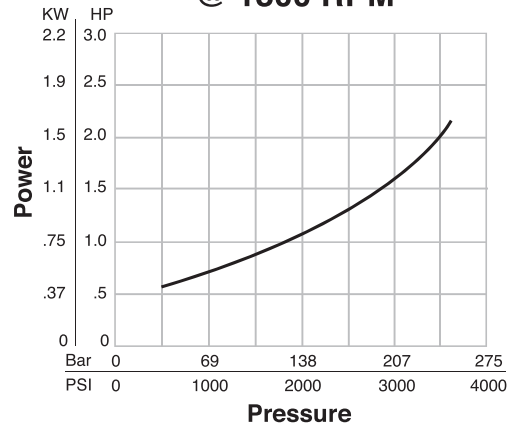
Response Times



PVP16 Approximate Case Drain Flow @ 1800 RPM



PVP16 Compensated Power @ 1800 RPM



**Dimensional Data**

**Rear Ported Pump Dimensions**

\* Inch equivalents for millimeter dimensions are shown in (\*\*).

**NOTE:**

Illustration shows Righthand (CW) rotation pump. Lefthand (CCW) pumps will have inlet and outlet ports reversed with compensator on outlet side.

Pilot Dimensions			
Pilot Option	A	C	D
OMIT	N/A	32.00 (1.26)	173.23 (6.82)
5	38.10 (1.50)	28.44 (1.12)	144.53 (6.44)

