

Technical Information

Performance Information

Series PVP 41/48 Pressure Compensated, Variable Volume, Piston Pumps

Features

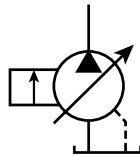
- High Strength Cast-Iron Housing for Reliability and Quiet Operation
- Optional Inlet/Outlet Locations for Ease of Installation
- Replaceable Bronze Port Plate
- Replaceable Piston Slipper Plate
- Thru-Shaft Capability SAE AA, A or B Pilots
- Low Noise Levels
- Fast Response Times

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)

Case Drain Port: .34 bar (5 PSI) Max. above
Inlet Port .34 bar (10 PSI)
Maximum

Speed Ratings: 600 to 2800 RPM — PVP41
600 to 2400 RPM — PVP48

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

Housing Material: Cast-Iron

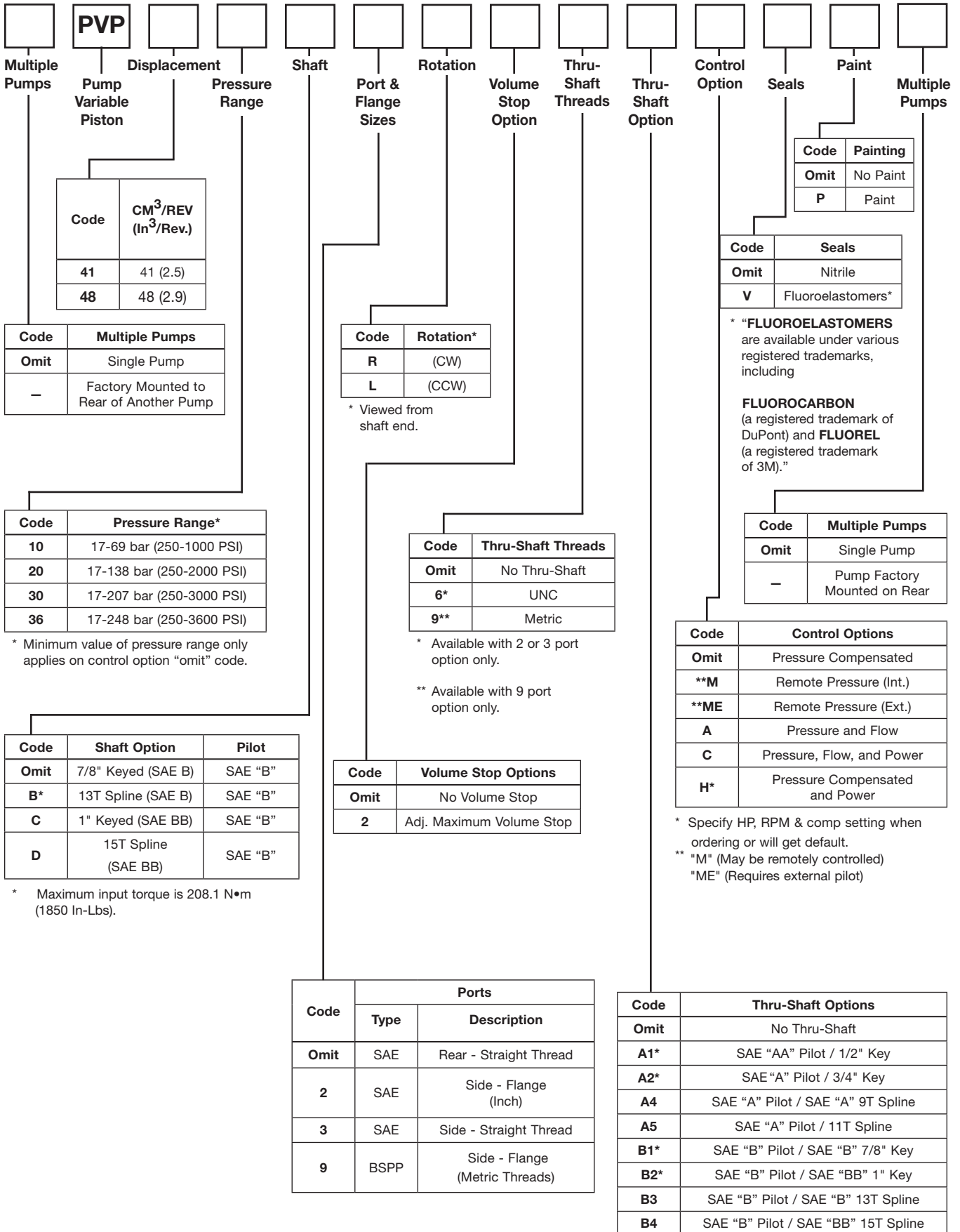
Filtration: ISO 16/13 Recommended
ISO 18/15 Maximum

Mounting: SAE "B"
Flange Mount

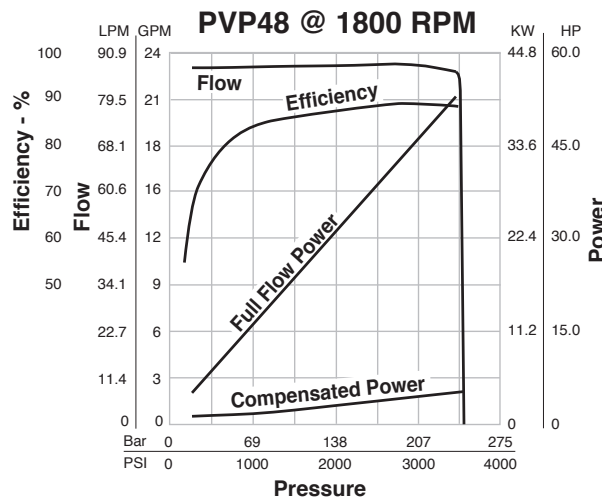
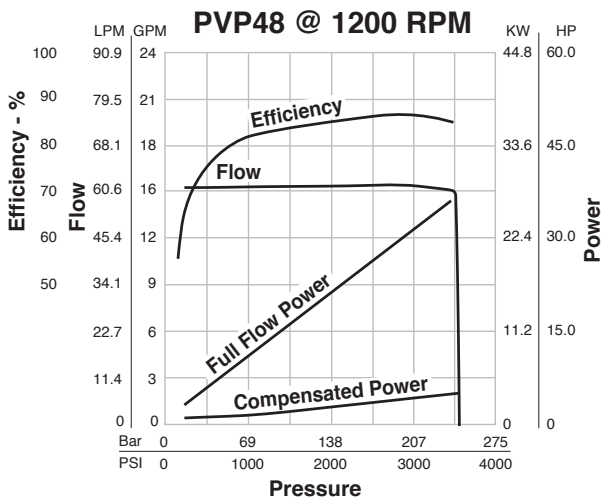
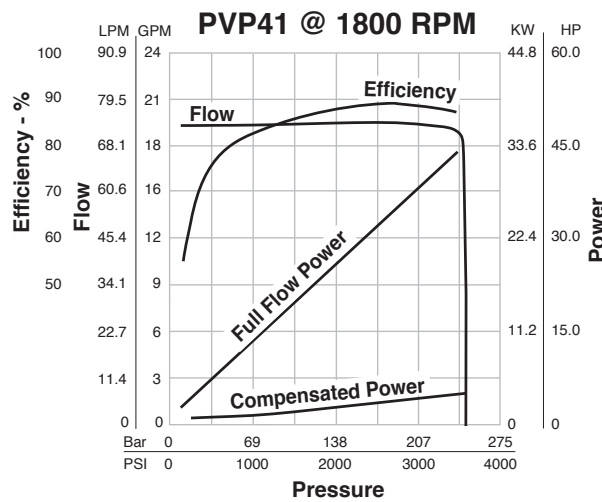
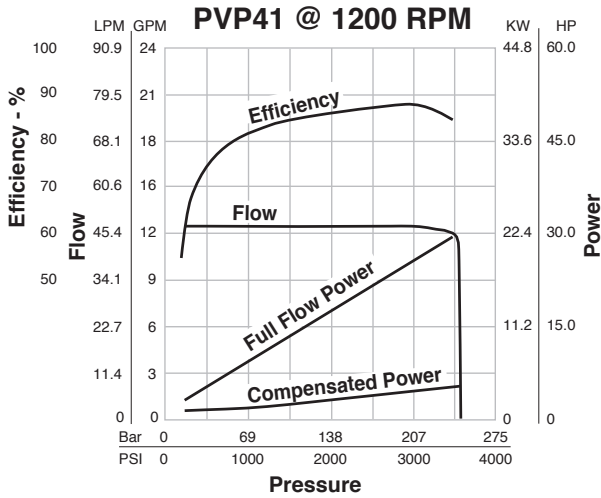
Installation Data: See page 42 of this catalog for specific recommendations pertaining to system cleanliness, fluids, start-up, inlet conditions, shaft alignment, drain line restrictions and other important factors relative to the proper installation and use of these pumps.

Quick Reference Data Chart

| Pump Model | Displacement cc/rev (In ³ /rev) | Pump Delivery @ 7 bar (100 PSI) in LPM (GPM) | | Input Power At 1800 RPM, Max. Displacement & 248 bar (3600 PSI) |
|------------|--|--|-------------|--|
| | | 1200 RPM | 1800 RPM | |
| PVP41 | 41.0 (2.5) | 49.2 (13.0) | 73.8 (19.5) | 33.2 kw (44.5 hp) |
| PVP48 | 48.0 (2.9) | 57.6 (15.2) | 86.4 (22.8) | 40.3 kw (54.0 hp) |



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



NOTE: The efficiencies and data in the graph are good only for pumps running at 1200 or 1800 RPM and stroked to maximum. To calculate approximate horsepower for the other conditions, use the following formula:

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

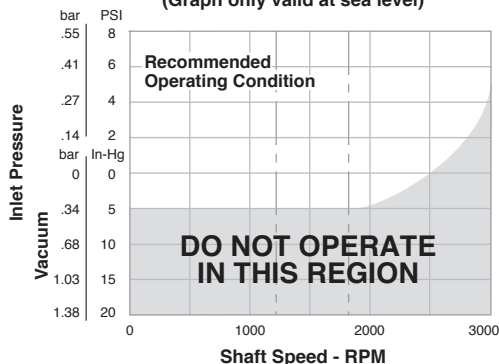
Q = Actual Output Flow in GPM

PSI = Pressure At Pump Outlet

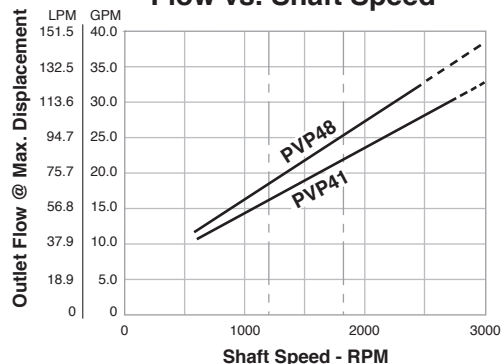
CHp = Input Horsepower @ Full compensation @ 1800 RPM (from graph read at operating pressure)

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

WHERE: **PVP 41/48**
Inlet Characteristics at Full Displacement
 (Graph only valid at sea level)

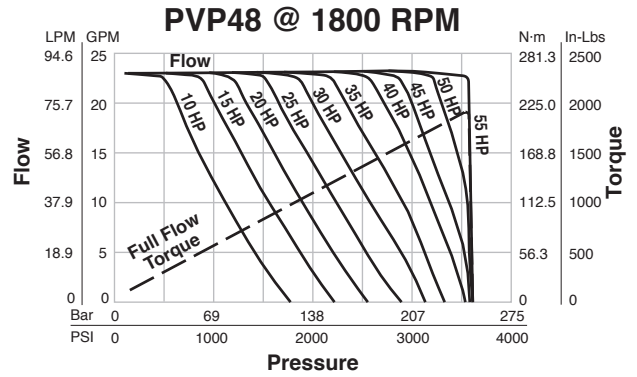
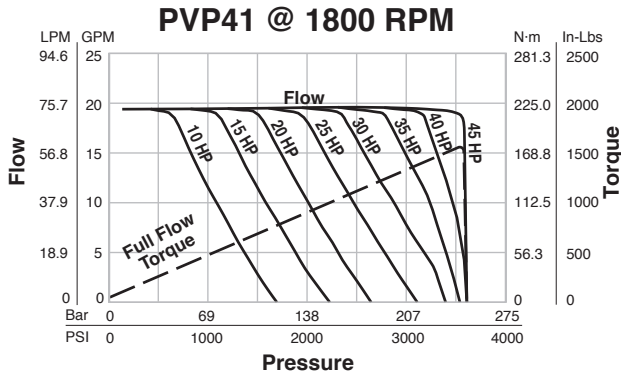


PVP 41/48
Flow vs. Shaft Speed



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

Power Control



Response Times

