

Technical Information

Performance Information

Series PVP 23/33 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 and B Pilots Offered
- Low Noise Levels
- Fast Response Times

Controls

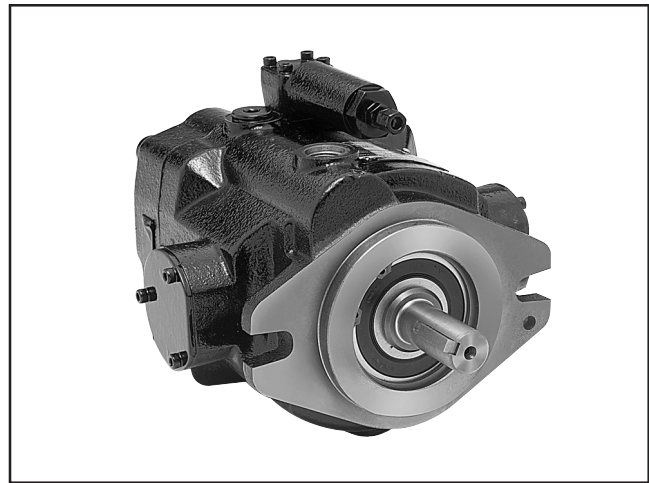
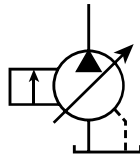
- Pressure Compensation
- Remote Pressure Compensation
- Load Sensing
- Torque (Power) Limiting
- Adjustable Maximum Volume Stop

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)

Speed Ratings: 600 to 3000 RPM

Operating Temperature Range:

Housing Material: Cast-Iron

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

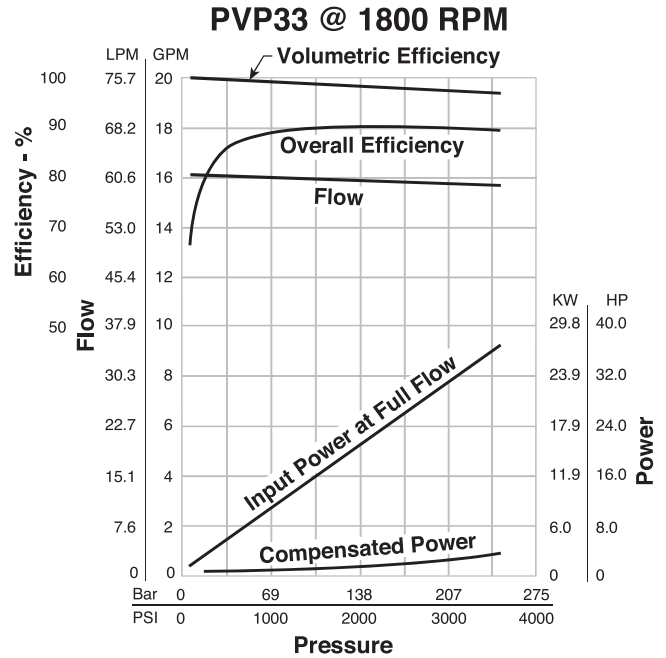
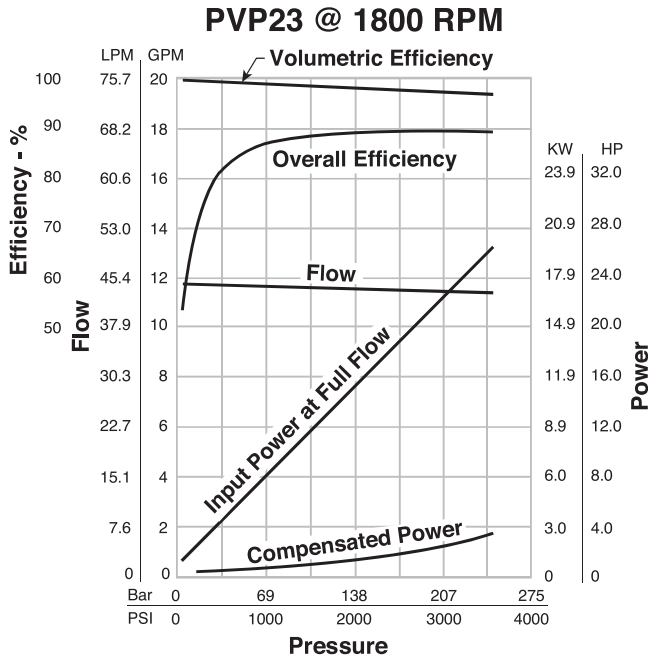
Mounting: SAE "B"
Flange Mount

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 @ 21 bar (300 PSI) in LPM (GPM)		Input Power At 1800 RPM, Max. Displacement & 248 bar (3600 PSI)
		1200 RPM	1800 RPM	
PVP23	23.0 (1.4)	28.0 (7.4)	42.0 (11.1)	19.7 kw (26.5 hp)
PVP33	33.0 (2.0)	39.4 (10.4)	59.0 (15.6)	27.2 kw (36.5 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 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.

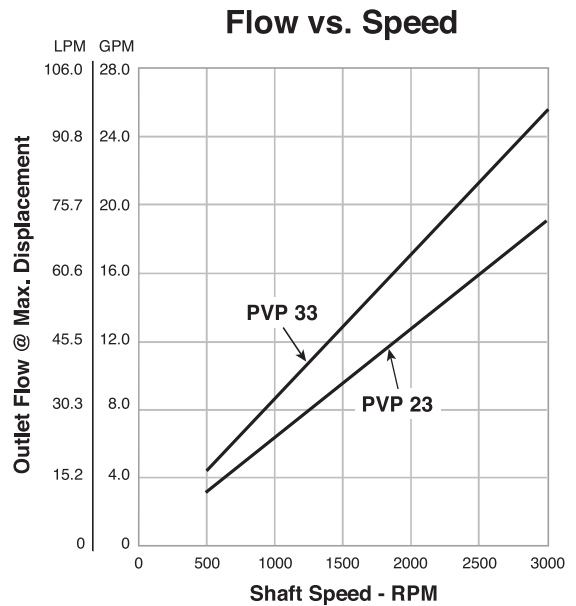
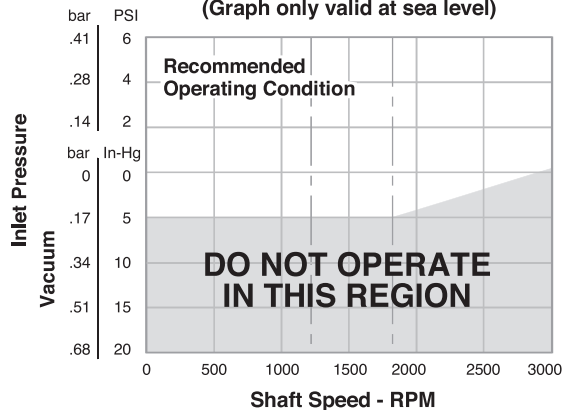
WHERE:

Q = Actual Output Flow in GPM

PSI = Pressure At Pump Outlet

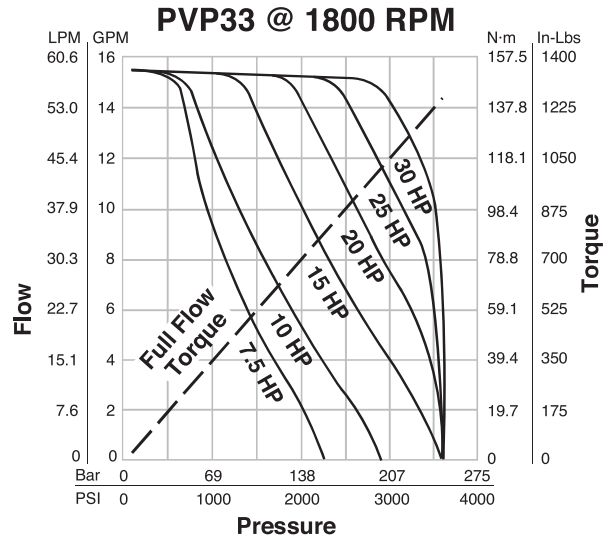
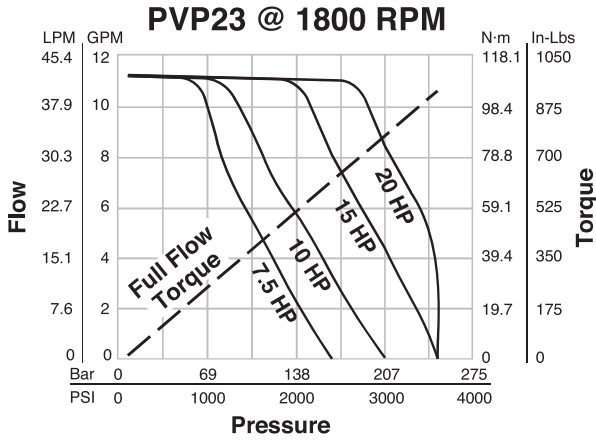
CHp = Input Horsepower @ Full Compensation @ 1800 RPM (from graph read at operating pressure)

PVP 23/33 Inlet Characteristics at Full Displacement
(Graph only valid at sea level)



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

Power Control



Response Times

