

HARTMANN

CONTROLS INC.

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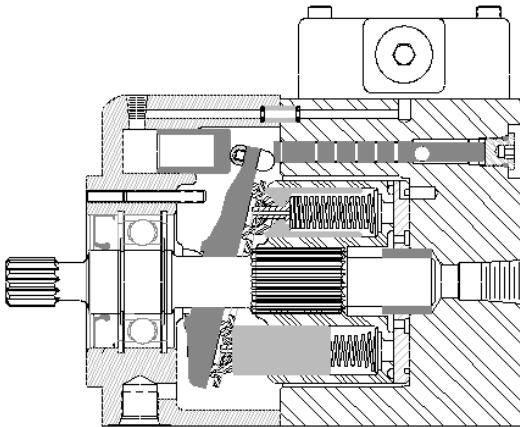
E mail pumps@hartmanncontrols.com URL: <http://www.hartmanncontrols.com>

PVXFRAME0

PVX110-126SERIES

(10 thru 26 cm³ /rev) (0.6 - 1.58 in.³/rev)

VARIABLE DISPLACEMENT PUMP
AXIAL PISTON, WASH PLATE DESIGN

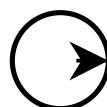


Features:

- Available with standard SAE 'A' 2-bolt mount.
- Multiple porting arrangement options.
- Multiple control options.
- Shaft speed up to 3300 rpm @ atmospheric pressure.
- Compact design (6.5 in X 6.0 in X 6.3 in) and service friendly.
- Quiet operation.
- Viton seals.
- Extensive use of bronze.

This versatile PVX pump is designed for operation in both industrial and mobile applications. With continuous operating pressures ranging from 150 to 3500 psi, and shaft speeds up to 3300 rpm at atmospheric inlet conditions, this rugged PVX pump is designed for a long and dependable service.

Check out our 3 years warranty policy!



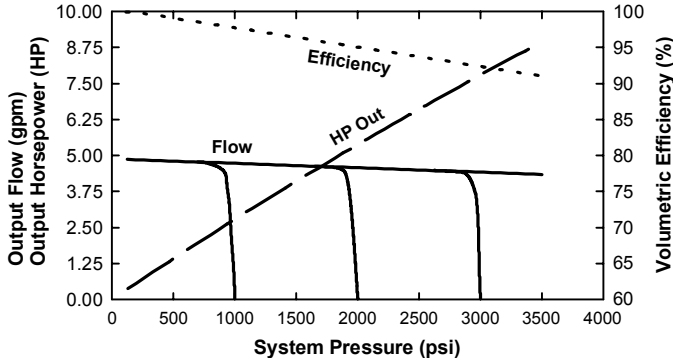
Pumps & Motors with a *hart* of gold

TM

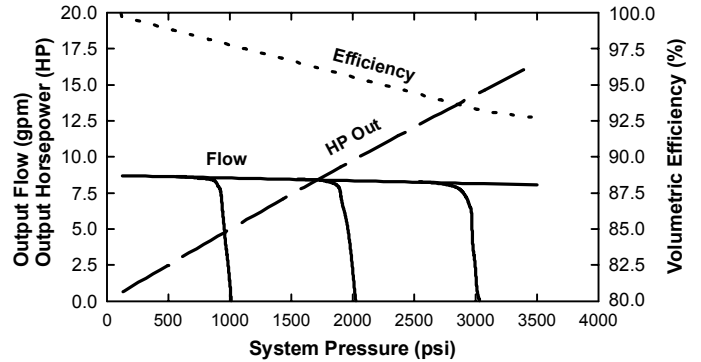


PVX FRAME O PERFORMANCE CURVES

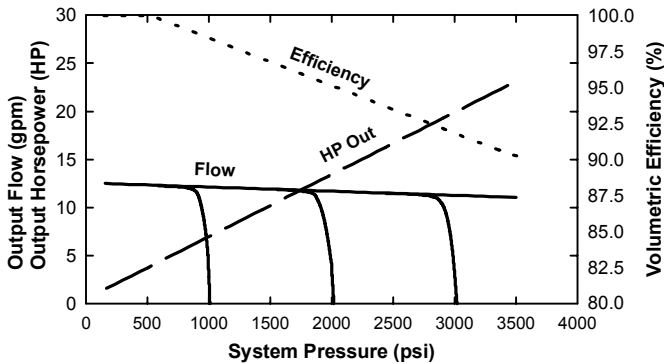
PVX110 Pump Performance @1800 rpm
Using ISO 32 Oil @115°F



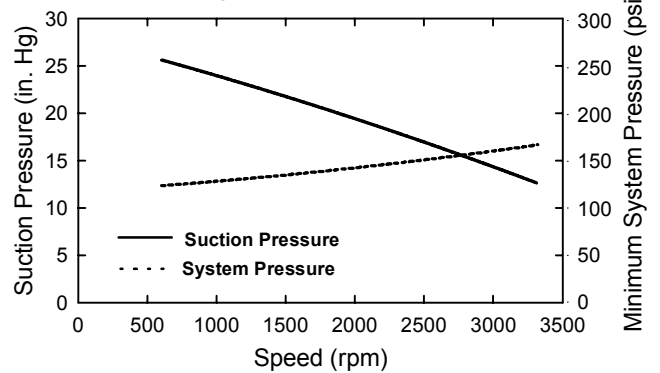
PVX118 Pump Performance @1800 rpm
Using ISO 32 Oil @115°F



PVX126 Pump Performance @1800 rpm
Using ISO 32 Oil @115°F



PVX 110-126 Pump Inlet Conditions
Using ISO 32 Oil @115°F



Operating Viscosities:

For petroleum-based fluids the optimal level is 150 SUS. For continuous operations, the level should range from 60 to 5000 SUS.

Filtration:

A minimum of 10 micron (abs.) filtration is required. A return line filter is preferred. Bypass filtration and suction filters/strainers are not recommended. Fluid cleanliness should conform to ISO 16/13 level.

Inlet Conditions and Piping:

The maximum temperature at the inlet should be 140° F. For higher levels consult factory. Inlet pipe, hose or tubing must be sized properly to limit resistance to < 6 in. Hg (3 psi). Suction hose, if used, must be wire reinforced to prevent its collapse. All connections must be air-tight.

Case Drain:

Two case-drain ports are provided on all models. The case-drain line must be properly sized to limit port back-pressure to < 25 psi.

Tandem Pumps:

All side-ported models can be modified to tandem pumps. Consult factory for details.

Pump approximate weight: 32 lbs.



PVX FRAME O PUMP SPECIFICATIONS

| PVX | RATED PRESSURE | PEAK PRESSURE | MINIMUM PRESSURE |
|-----|---|---|---------------------------------------|
| 110 | 3500 lb/in² (241 bar) | 4000 lb/in² (276 bar) | 150 lb/in² (10 bar) |
| 118 | 3500 lb/in² (241 bar) | 4000 lb/in² (276 bar) | 150 lb/in² (10 bar) |
| 126 | 3250 lb/in² (224 bar) | 3750 lb/in² (259 bar) | 150 lb/in² (10 bar) |

| PVX | DISPLACEMENT | THEORETICAL FLOW @ 1800 rpm | MAXIMUM SPEED @ ATM. PRESSURE | MINIMUM SPEED |
|-----|---|----------------------------------|-------------------------------|----------------|
| 110 | 0.6 in³/rev (10 cm ³ /rev) | 4.8 gal/min (18.0 l/min) | 3300 rpm | 600 rpm |
| 118 | 1.1 in³/rev (18 cm ³ /rev) | 8.6 gal/min (32.6 l/min) | 3300 rpm | 600 rpm |
| 126 | 1.6 in³/rev (26 cm ³ /rev) | 12.3 gal/min (46.6 l/min) | 3300 rpm | 600 rpm |

| PVX | INPUT TORQUE @ RATED PRESSURE |
|-----|-------------------------------|
| 110 | 340 in-lb (38.0 N-m) |
| 118 | 612 in-lb (69.0 N-m) |
| 126 | 821 in-lb (93.0 N-m) |

| SHAFT SIZE | RECOMMENDED TORQUE LIMIT |
|---------------|------------------------------|
| SAE A | 494 in-lb (56.0 N-m) |
| SAE AB | 971 in-lb (110.0 N-m) |

◆ Input shaft torque should not exceed the total of front-pump torque and the added torque requirements of its rear-mounted units. To calculate input torque at conditions other than rated, use:

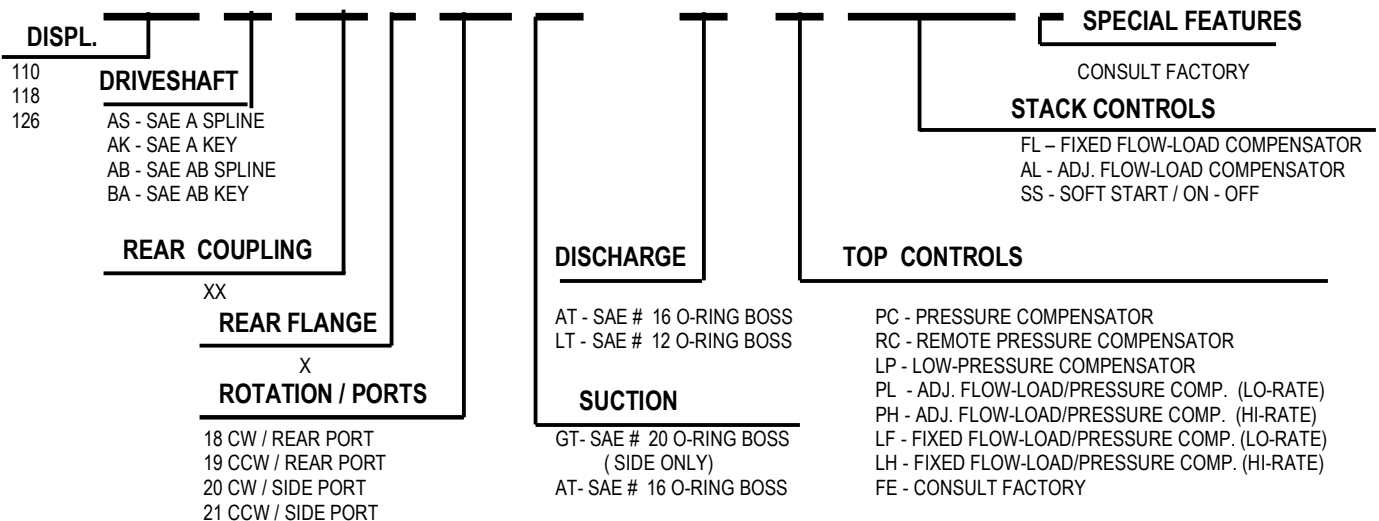
$$T_A = T_R \cdot (P_A / P_R) \cdot (Q_A / Q_R)$$

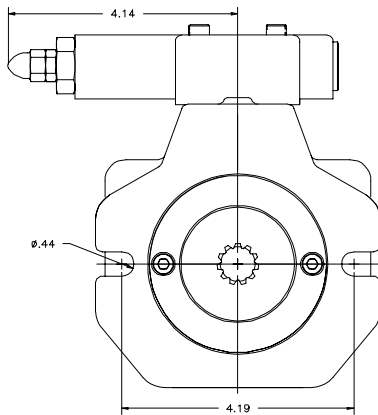
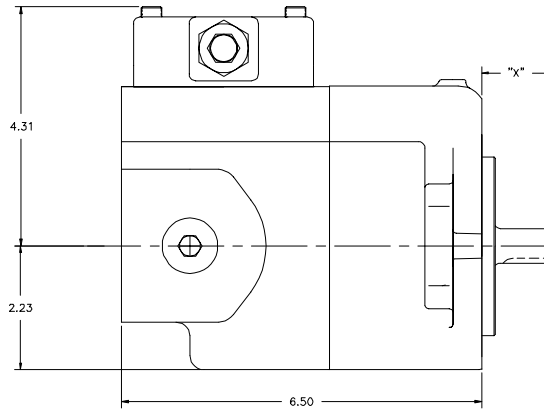
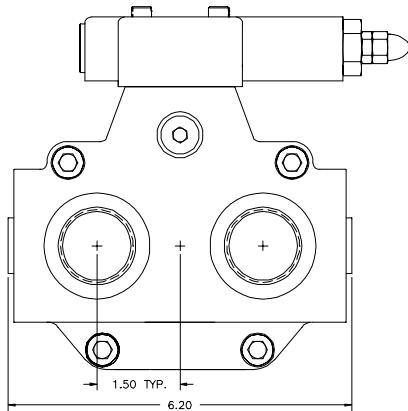
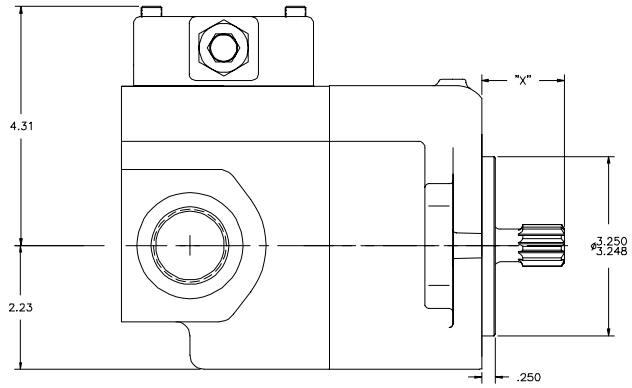
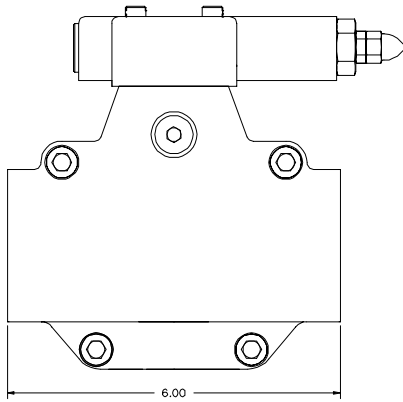
Where:

T_A=Actual torque, P_A=Actual maximum pressure, Q_A=Actual flow, T_R=Rated torque, P_R=Rated working pressure, Q_R=Rated flow

SELECTOR SYSTEM CHART

PVX





DRIVESHAFT OPTIONS

| SAE SHAFT | DESCRIPTION | "X" |
|------------|----------------------------|------|
| A KEYED | .625 ϕ , 5/32 SQ. KEY | 1.25 |
| A SPLINE | 9 T, 16/32 DP | 1.25 |
| A-B KEYED | .750 ϕ , 3/16 SQ. KEY | 1.25 |
| A-B SPLINE | 11 T, 16/32 DP | 1.49 |

HARTMANN WARRANTY

Best in the business

All oil based fluid power products sold by Hartmann Controls, Inc. are warranted only to purchasers for resale or for the use in business or original equipment manufacture, against defects in workmanship of materials under normal use and service (rental use excluded), if notice of said defect is received by Hartmann at the factory within 36 MONTHS after installation or 42 MONTHS from the date of shipment from the factory, whichever first occurs. Any product which is determined to be defective in workmanship or materials and returned to the Hartmann factory, shipping costs prepaid, will be repaired or replaced, at Hartmann's option. The cost of such repair or replacement shall be the exclusive remedy for any breach of any warranty, and Hartmann shall not be liable to nay person for consequential damages for injury or commercial loss resulting from any breach of warranty. Hartmann makes no other warranty, express or implied, including warranty for a particular purpose, or arising from course of dealing or usage of trade. No person including any dealer or representative of Hartmann is authorized to make any representation or warranty concerning the obligations contained in this warranty. Since no Hartmann fluid power products sales are made by Hartmann to consumers as defined in the Federal Consumer Products Warranties (Magnuson-Moss) Law, Hartmann makes no warranties to those defined as consumers in said Law.

*Supersedes warranties issued prior to September 1, 1996.

Hartmann = Reliability