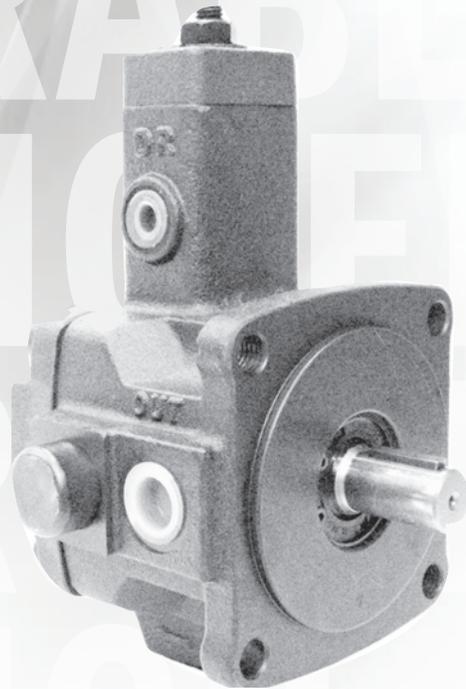




CONTINENTAL HYDRAULICS

# PVER VANE PUMPS



PVER VANE PUMPS

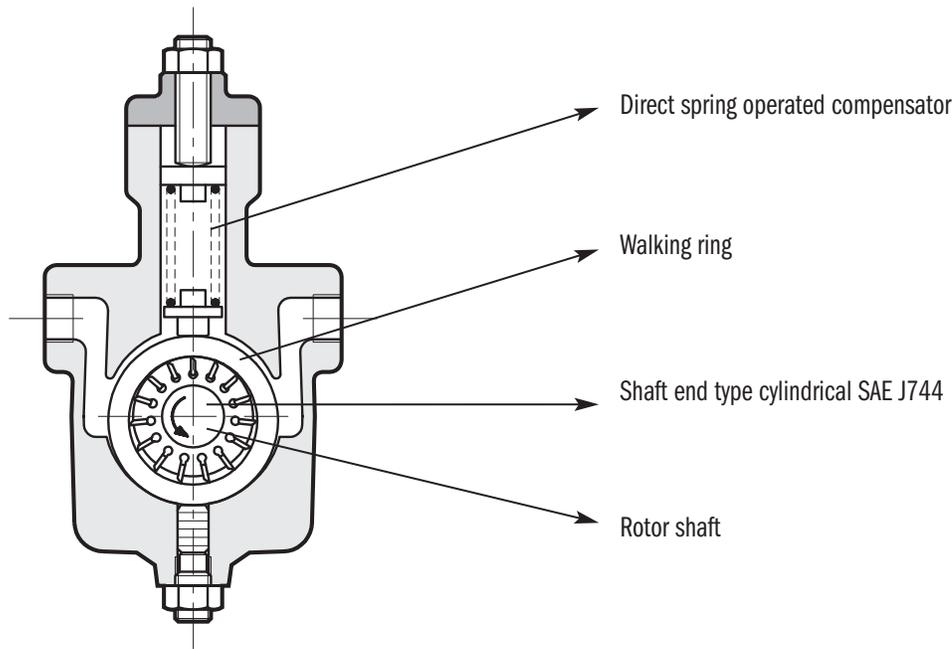
# POWERFUL

## PVER PUMPS

### FEATURES AND BENEFITS

The PVER series vane pumps are variable displacement vane pumps with direct spring pressure regulation.

- The pressure regulator adjustable load spring keeps the pump group cam ring in eccentric position. When the outlet pressure equals the pressure corresponding to the spring setting, the cam ring is moved so to reduce the displacement, adjusting the flow rate to the values required by the system. In zero flow demand conditions, the pump delivers oil only to compensate for any system leakage, keeping the circuit pressure constant.
- Available in four displacement from .403 to 1.35 in<sup>3</sup>/rev (6,6 to 22,2 cm<sup>3</sup>/rev) and with pressure up to 1.000 PSI (70 bar).
- This pump series incorporates Pressure Balanced Thrust Plates that improve and maintain the volumetric efficiency throughout the pressure range.



### INSTALLATION

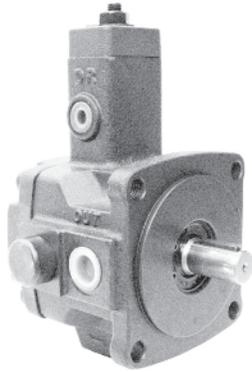
- The PVER pumps can be installed with the axis oriented in any position.
- The suction line must be suitably sized to facilitate the flow of oil. Bends and restrictions or an excessive line length can impair correct operation of the pump.
- The drainage port must be connected directly to the tank by a line separate from other discharges, located far from the suction line and lengthened to below the minimum oil level so as to avoid formation of foam.
- The pump start up, especially at a cold temperature, should occur with the pump unloading.
- The pumps are normally positioned directly above the oil tank. Flooded suction port installation of the pumps is advisable in the case of circuits with high flow rates and pressures.
- The motor-pump connection must be carried out directly with a flexible coupling. Couplings that generate axial or radial loads on the pump shaft are not allowed.

PUMP	NOISE LEVEL [dB] (A)	
	null displacement	full displacement
<b>PVER-3B</b>	61	63
<b>PVER-5B</b>	62	65
<b>PVER-7B</b>	64	68
<b>PVER-10B</b>	64	70

The noise pressure levels were measured in a semi-anechoic room, at an axial distance of 1 m from the pump. The values shown must be reduced by 5 dB(A) if they are to be considered in a completely anechoic room.

# PVER PUMPS

## VANE PUMPS



### DESCRIPTION

The PVER pumps are variable displacement vane pumps with direct pressure regulator governor spring for fast on/off response. The pump group is complete with hydrostatic axial compensation distribution plates that improve the volumetric efficiency and reduce wear of the components.

The pressure regulator adjustable load spring keeps the pump group cam ring in eccentric position.

When the delivery pressure equals the pressure corresponding to the spring setting, the cam ring is moved so to reduce the displacement, adjusting the flow rate to the values required by the system.

In zero flow demand conditions, the pump delivers oil only to compensate any possible leakage, keeping the circuit pressure constant.

The PVER pumps are available in four sizes with maximum displacement from 0.4 to 1.35 cu in/rev and with pressure regulator max setting values up to 500 PSI and 1000 PSI (standard).

### TYPICAL PERFORMANCE SPECIFICATIONS

PUMP SIZE		PVER-3B	PVER-5B	PVER-7B	PVER-10B
MAXIMUM DISPLACEMENT	in <sup>3</sup> /rev	0.403	0.68	1.01	1.35
	(cc <sup>3</sup> /rev)	6.6	11.1	16.6	22.2
FLOW AT 1800 RPM	GPM	3.2	5.3	7.9	10.6
	(lpm)	12	20	30	40
OPERATING PRESSURE	PSI / bar	1000 PSI / 70 bar			
OPERATING SPEED	RPM	800 min to 1800 max			
ROTATION DIRECTION		Clockwise (as viewed from shaft side)			
PORT SIZE AND TYPE		BSPP (parallel) threading fittings			
MOUNTING FLANGE		SAE-A flange J744 - 2 holes		4HNA rectangular flange - 4 holes	
WEIGHT	LBS	11	13.2	20	20
	(kg)	5	6	9	9
AMBIENT TEMPERATURE RANGE	°F (°C)	-4 to 120 (-20 to +50)			
FLUID TEMPERATURE RANGE	°F (°C)	+14 to 160 (-10 to +70)			
FLUID CLEANLINESS		ISO 18/16/13 is recommended			
REC. OPERATING VISCOSITIES	SUS (cSt)	120 to 234 (20 to 50)			

# IDENTIFICATION CODE

**PVER - [ ] B [ ] - [ ] - [ ] - [ ] - [ ]** ————— DESIGN LETTER

FLOW RATE @ 1800 RPM	
CODE	DESCRIPTION
<b>3</b>	3.2 gpm
	12 lpm
<b>5</b>	5.3 gpm
	20 lpm
<b>7</b>	7.9 gpm
	30 lpm
<b>10</b>	10.6 gpm
	40 lpm

PRESSURE RANGE	
CODE	DESCRIPTION
<b>05</b>	220 to 500 PSI
	15 to 35 bar
<b>10</b>	725 to 1000 PSI
	50 to 70 bar

ROTATION	
CODE	DESCRIPTION
<b>RF</b>	CLOCKWISE ROTATION

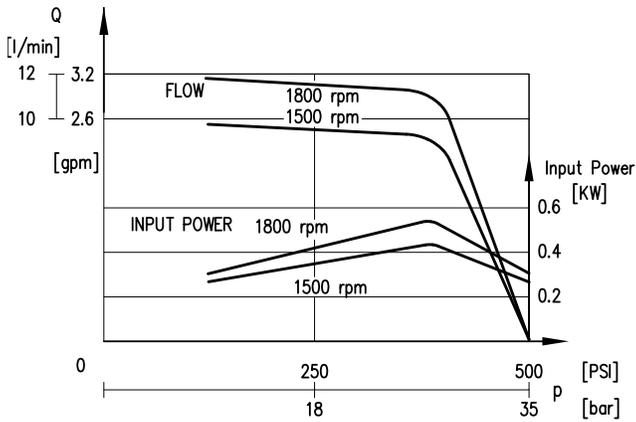
SEALS	
CODE	DESCRIPTION
<b>0</b>	BUNA-N

PORTS	
CODE	DESCRIPTION
<b>1N</b>	BSPP (British Standard Pipe Parallel) threading hydraulic connection

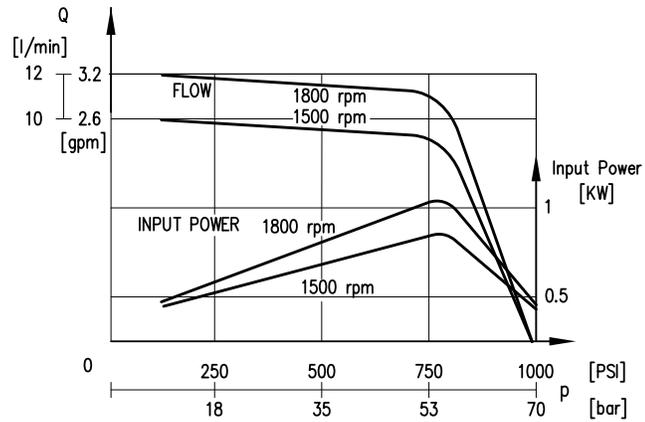
TYPICAL ORDERING CODE:  
**PVER-10B10-RF-0-1N-B**

# PERFORMANCE CURVES FLOW vs PRESSURE

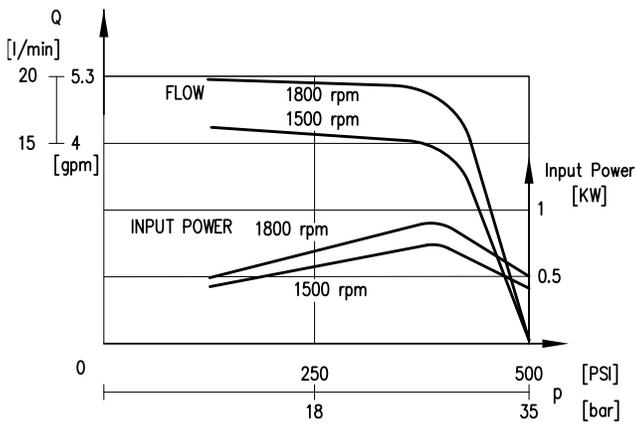
**PVER-3B05**



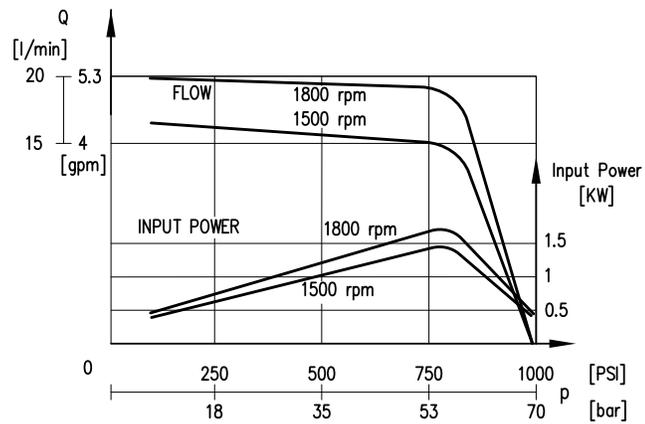
**PVER-3B10**



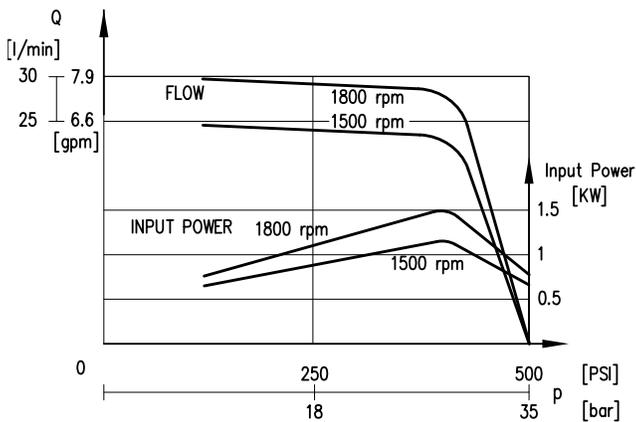
**PVER-5B05**



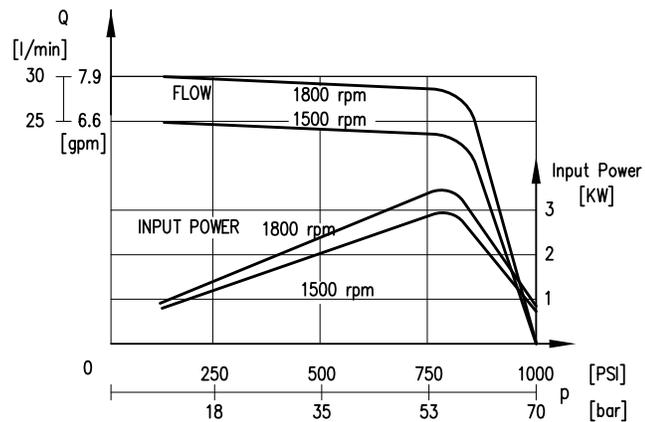
**PVER-5B10**



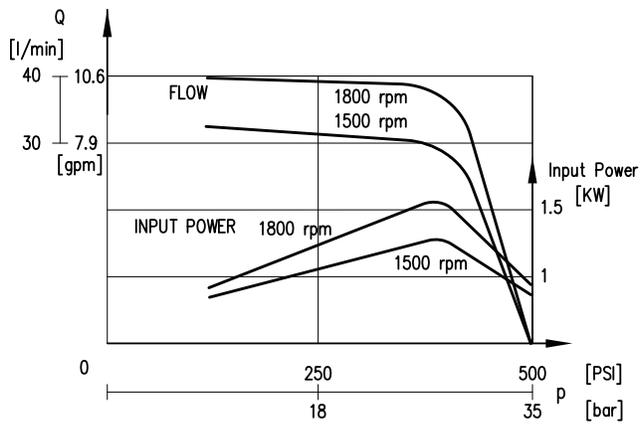
**PVER-7B05**



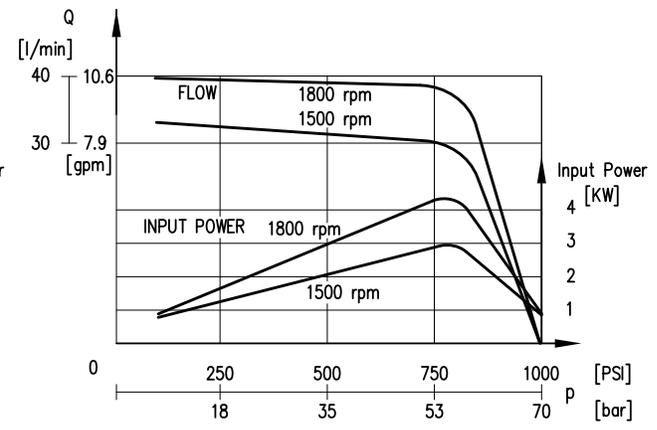
**PVER-7B10**



**PVER-10B05**

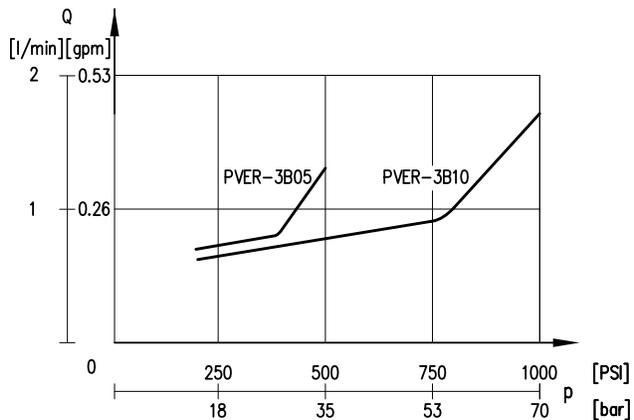


**PVER-10B10**

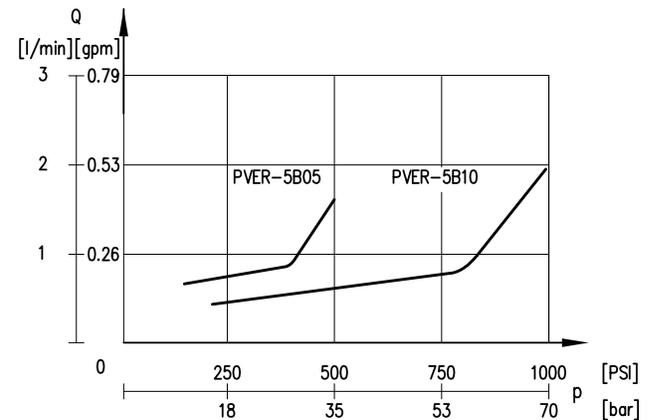


**PERFORMANCE CURVES DRAIN FLOW RATE**

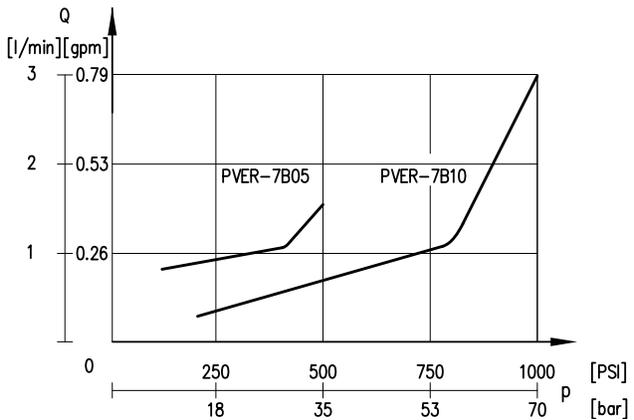
**PVER-3B**



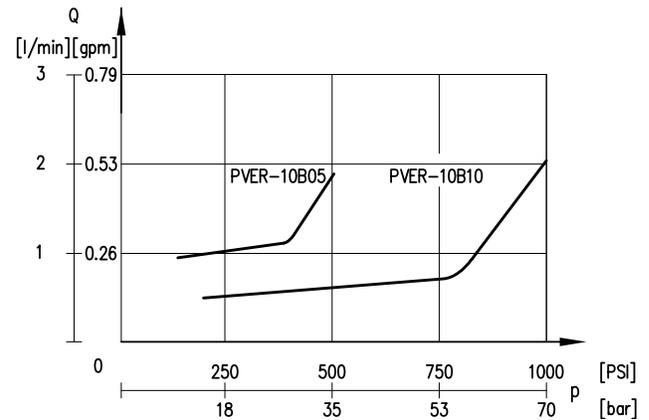
**PVER-5B**



**PVER-7B**



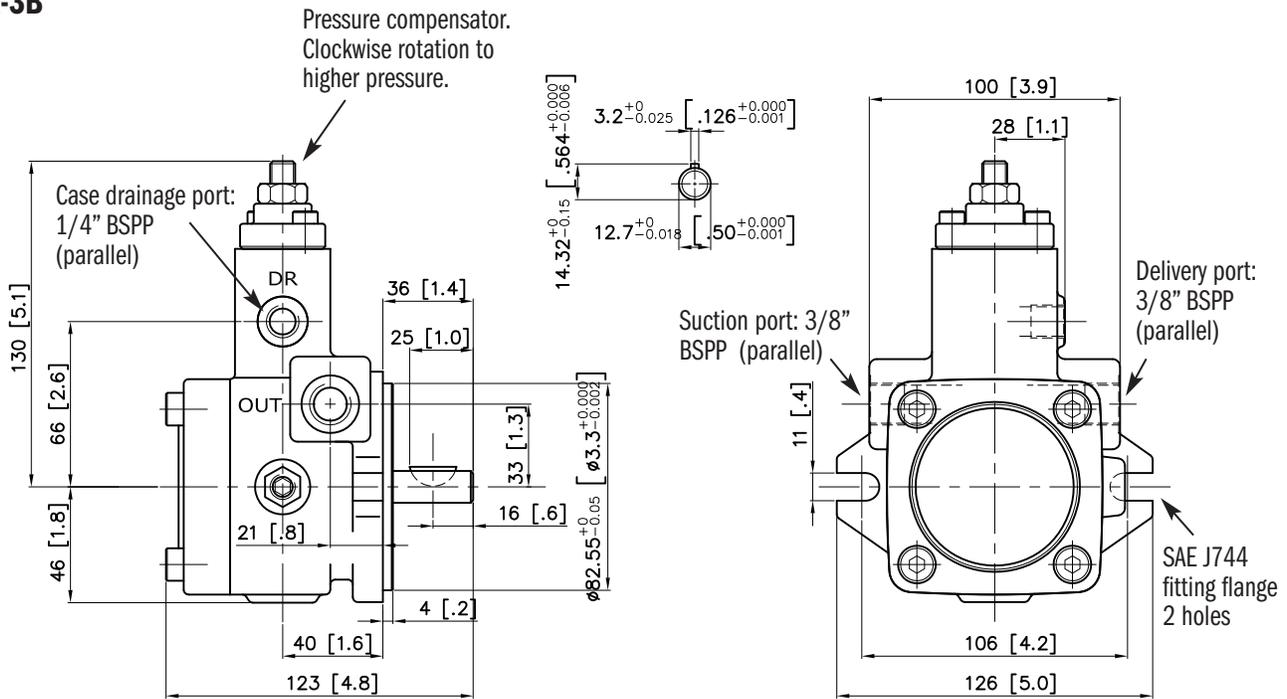
**PVER-10B**



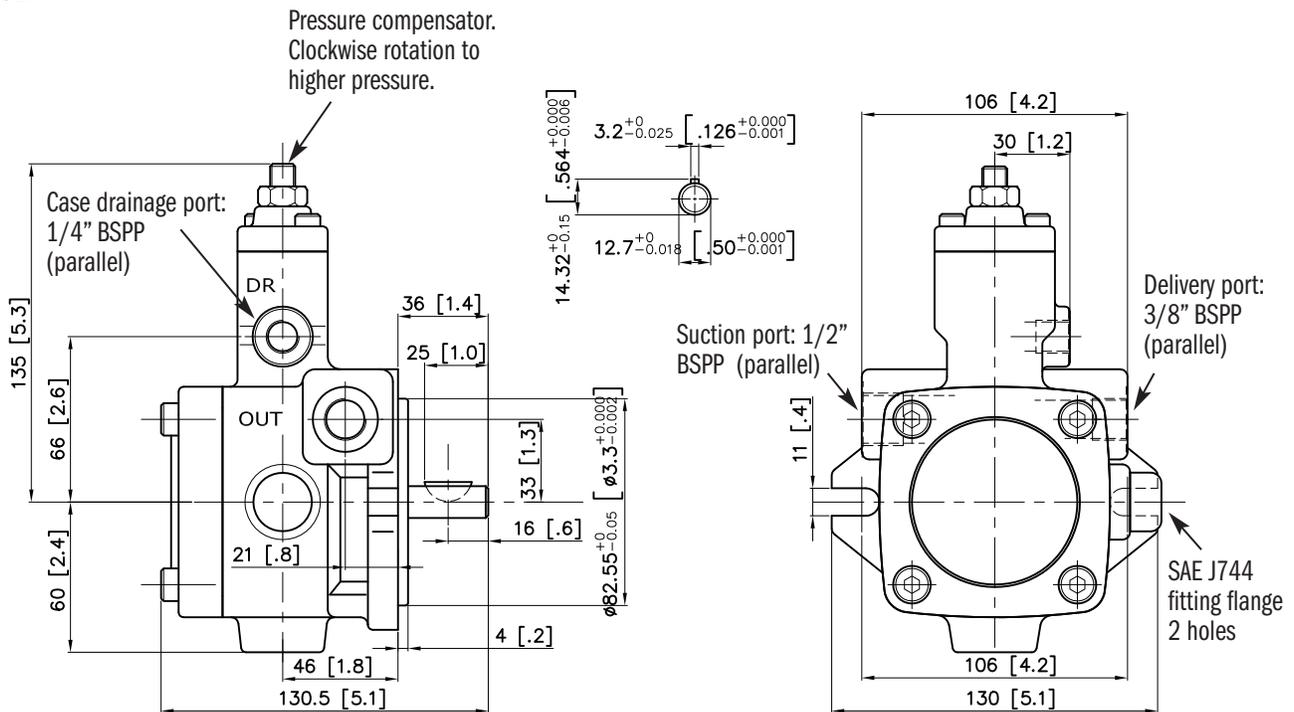
# OVERALL AND MOUNTING DIMENSIONS

Dimensions in mm [IN]

## PVER-3B



## PVER-5B

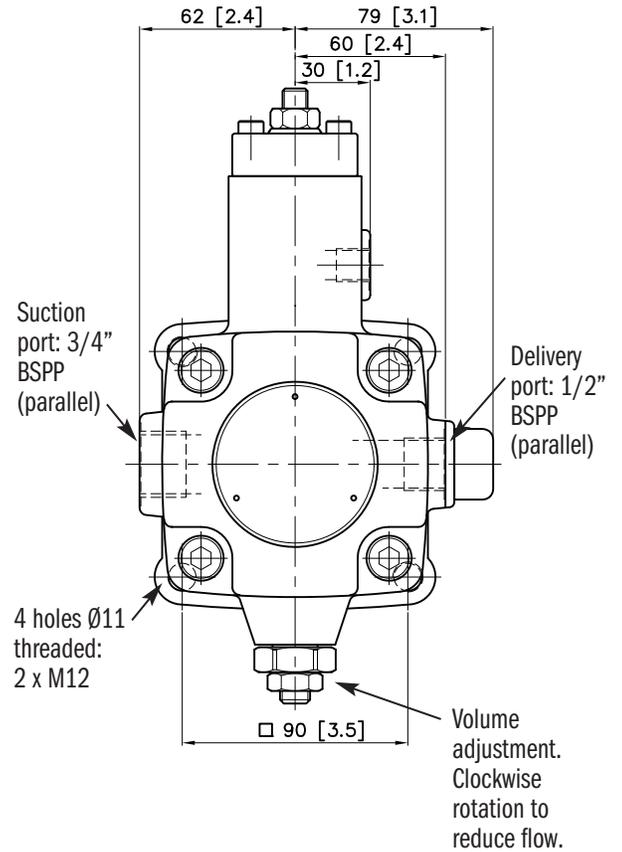
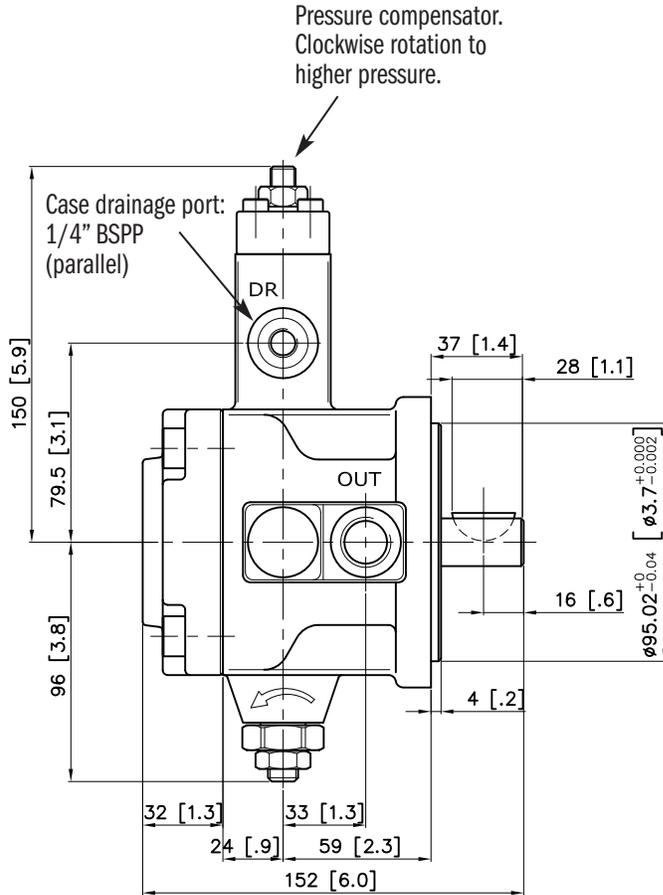


PVER VANE PUMPS

# OVERALL AND MOUNTING DIMENSIONS

Dimensions in mm [IN]

## PVER-7B, 10B





POWERFUL  
CURATE  
OVATIVE  
PRECISE  
URABLE  
EFFICIENT  
ERCATTLE

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