

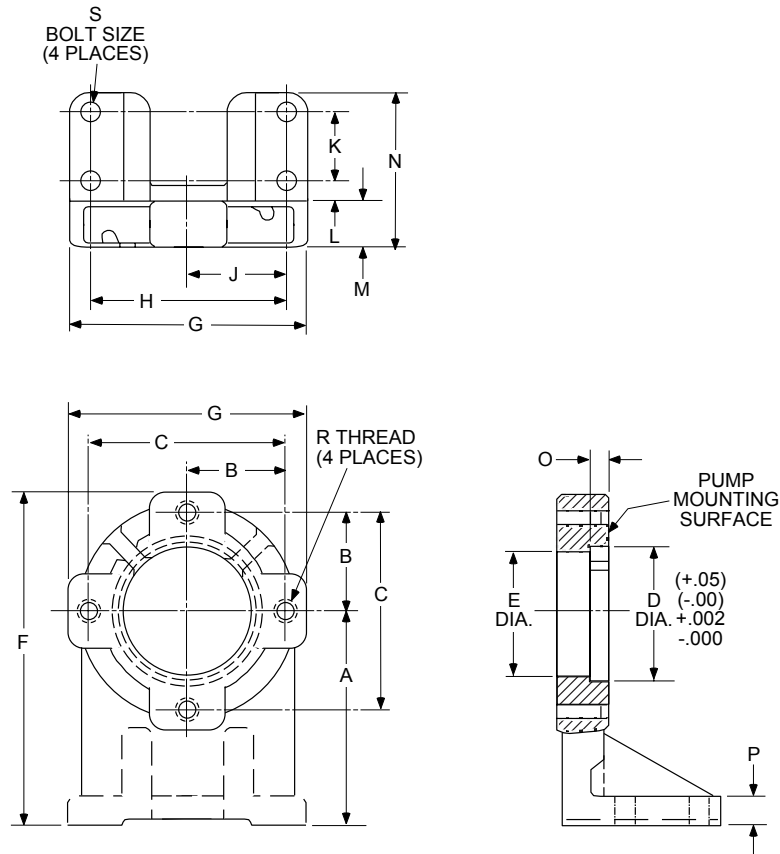
# PVR6, 15 Series



Vane Pumps - Accessories

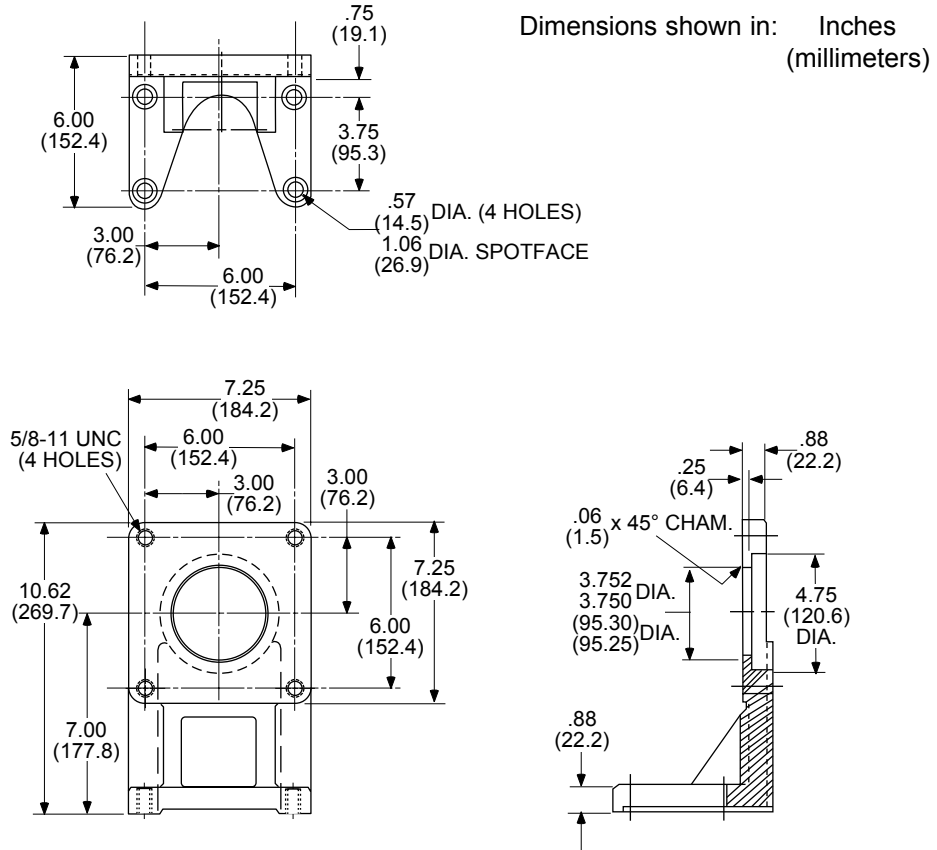
## FPVR FOOT MOUNTING BRACKETS DIMENSIONS

Dimensions shown in: Inches  
(millimeters)



FOOT BRACKET SERIES	SAE FLANGE	DIMENSIONS															R THREAD	S BOLT SIZE
		A	B	C	D	E	F	G	H	J	K	L	M	N	O	P		
FPVR6	A	5.25 (133.4)	2.09 (53.1)	4.19 (106.4)	3.252 (82.6)	3.00 (76.2)	7.81 (198.4)	5.12 (130.0)	3.50 (88.9)	1.75 (44.4)	2.00 (50.8)	.48 (12.2)	1.00 (25.4)	3.98 (101.1)	.31 (7.9)	.81 (20.6)	3/8-16 UNC	3/8 in.
FPVR15	B	6.25 (158.8)	2.87 (73.0)	5.75 (146.1)	4.00 (101.6)	4.25 (108.0)	9.69 (246.1)	6.85 (174.0)	5.75 (146.1)	2.87 (73.0)	2.01 (51.1)	.59 (15.0)	1.26 (32.0)	4.45 (113.0)	.47 (11.9)	.79 (20.1)	1/2-13 UNC	1/2 in.

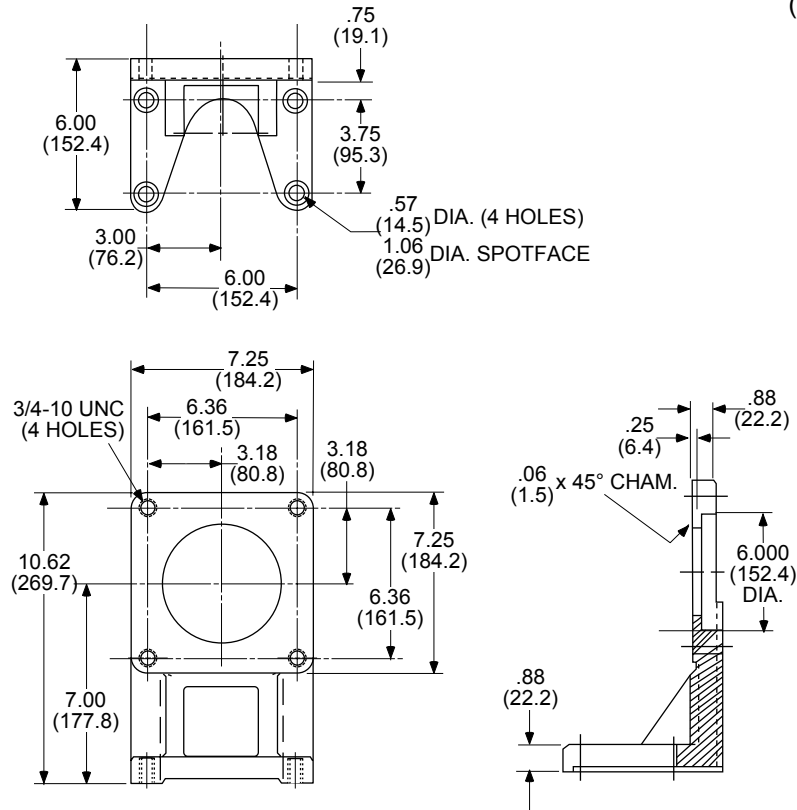
## FPVR50 FOOT MOUNTING BRACKET DIMENSIONS



## FPVR50D FOOT MOUNTING BRACKET DIMENSIONS

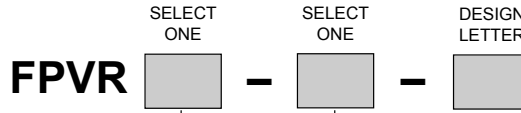
SAE D Mounting

Dimensions shown in: Inches  
(millimeters)



## ORDERING INFORMATION

Foot Mounting Brackets

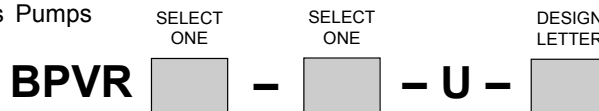


\*NOTE: Foot Bracket Spacers mount pump to 25 H.P. motor, 1800 rpm, 284 T frame.

SIZE		MOTOR SIZE		KIT INCLUDES		WEIGHT
CODE	USED WITH MODEL	CODE	NEMA FRAME SIZE	MOTOR SPACERS (In.)	BRACKET SPACERS (In.)	lbs. / kg
6	PVR6	143	143/145	1.74		10.1 / 4.6
		182	182/183	0.75		8.8 / 4.0
		213	213/215	NONE	NONE	7.9 / 3.6
		254	254/256		1.00	9.8 / 4.4
15	PVR15	254	254/256	NONE	NONE	16.8 / 7.6
		284	284/286		0.75	18.8 / 8.5
		324	324/326		1.75	21.5 / 9.8
1524	PVR15 W/ DUAL VOLUME	254	254/256	1.75	1.75	24.5 / 11.1
		284	284/286	1.00	1.75	23.2 / 10.5
50	PVR50	284	284/286	NONE	NONE	22.8 / 10.3
		324	324/326		1.00	26.7 / 12.1
		364	364/365		2.00	30.6 / 13.9
50D	PVR50 SAE D MOUNTING	254	254/256	0.75		24.5 / 11.1
		284	284/286	NONE	NONE	22.8 / 10.3
		324	324/326		1.00	26.7 / 12.1
		364	364/365		2.00	30.6 / 13.9
5024	PVR50 W/ DUAL VOLUME	254	254/256	3.50	2.75	35.7 / 16.2
		284	284/286	2.75	2.75	33.8 / 15.3
		324	324/326	1.75	2.75	32.7 / 14.8

TYPICAL ORDERING CODE: **FPVR15-284-**

Bolt Kits for Mounting PVR Series Pumps



\*NOTE: Mounts a PVR15 manifold pump to a MPVR15-XX-C-21 manifold.

CODE	USED WITH MODEL	CODE*	BOLT SIZE	QTY. of BOLTS/WASHERS	WEIGHT lbs. / kg
1	PVR6	1	3/8-16 UNC x 1.00	4	.21/.10
6	PVR6	2	3/8-16 UNC x .88	2	.34/.15
15	PVR15 - RF	1	7/16-14 UNC x 1.50	4	.10 .05
	PVR15 - RM	2	1/2-13 UNC x 1.25	2	.22/.10
50	PVR50	2	5/8-11 UNC x 1.75	4	.90/.40
50D	PVR50 SAE D MTG.	3	3/4-10 UNC x 1.75	4	.90/.40

\*NOTE: Code 1 = Pump to Manifold.  
Code 2 = Pump to Foot Bracket, Flange or Front Tandem Pump.  
Code 3 = SAE "D" Flange; Pump to Foot Bracket or Tandem Adaptor.

TYPICAL ORDERING CODE: **BPVR15-1-U-**



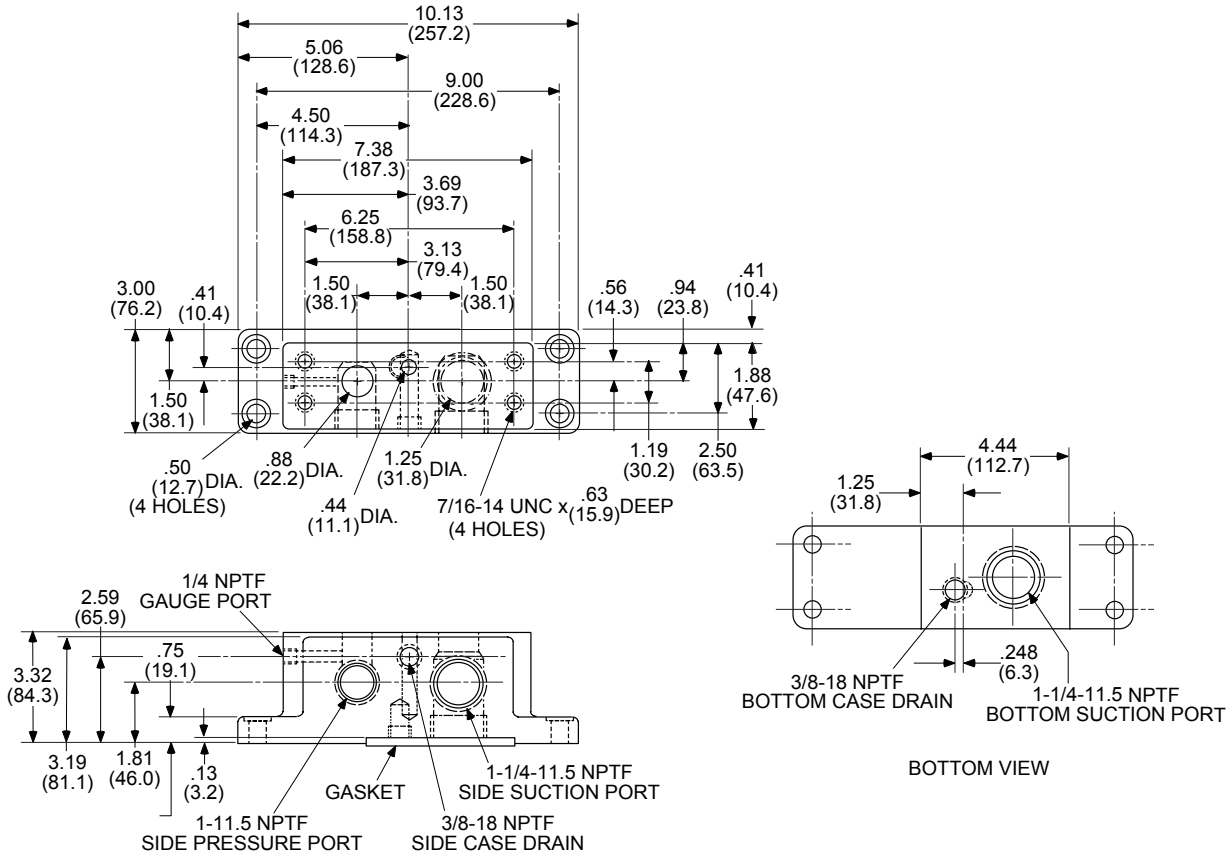
# PVR15 Series



Vane Pumps - Accessories

## MANIFOLD DIMENSIONS for PVR15 Pump - Code RM

Dimensions shown in: Inches  
(millimeters)



## ORDERING INFORMATION

MPVR15 -  - C - 21 -

SELECT ONE      DESIGN LETTER

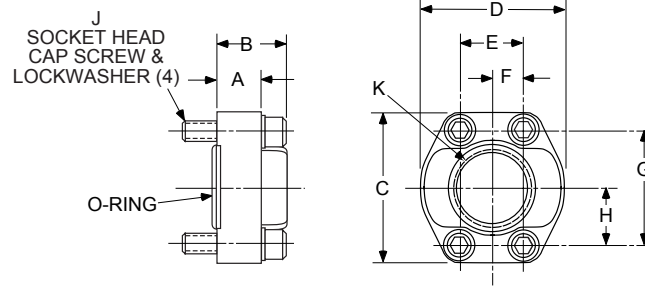
CODE	NEMA MOTOR FRAME	KIT INCLUDES*	WEIGHT lbs. / kg
182	182/184	1.75" MOTOR SPACERS	19.6 / 8.3
213	213/215	1" MOTOR SPACERS	18.4 / 8.3
254	254/256	MANIFOLD ONLY	17.5 / 7.9

\*NOTE: Kit also includes Gasket, and Plugs for gauge, suction and case drain ports.

## STRAIGHT FLANGES DIMENSIONS

Flange Codes 9 through 33

For Pumps Requiring SAE 4-Bolt Threaded Flanges  
(Mounting Bolts and Viton Seals Includes)

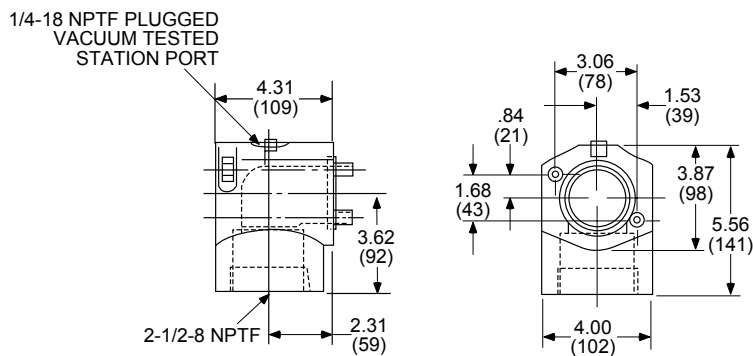


FLANGE SIZE	CODE	DIMENSIONS								Inches (millimeters)	
		A	B	C	D	E	F	G	H	J	K
1 In.	9	.97	1.38	2.75	2.31	1.03	.52	1.03	2.06	3/8-16 UNC x 1.75	1' NPTF
	11	(24.6)	(35.1)	(69.9)	(58.7)	(26.2)	(13.2)	(26.2)	(52.3)		1-5/16-12 UN SAE #16
1-1/2 In.	21	1.09	1.82	3.69	3.25	1.41	.70	1.38	2.75	1/2-13 UNC x 2.00	1-1/4" NPTF
	25	(27.7)	(46.2)	(93.7)	(82.6)	(35.8)	(17.8)	(35.1)	(69.9)		1-1/2" NPTF
	27										1-7/8-12 NC SAE #24
2 In.	33	1.09	1.82	4.00	3.81	1.68	.84	1.53	3.08	1/2-13 UNC x 1-3/4	2" NPTF
		(27.7)	(46.2)	(101.6)	(96.8)	(42.7)	(21.3)	(38.9)	(78.2)		

## 90° SUCTION FLANGE DIMENSIONS

PVR50 Pump - Flange Code 37

Dimensions shown in: Inches (millimeters)



# PVR Series



Vane Pumps - Accessories

## ORDERING INFORMATION

Flanges

SELECT ONE  
**SPVR – [ ] – G**

CODE	SAE 4-BOLT PAD	THREAD SIZE	PUMP USED ON	OUTLET	INLET	WEIGHT lbs. / kg
9	1"	1" NPTF	PVR15	X		1.5 / 0.7
11	1"	1-15/16-12 UN 1" TUBE SIZE SAE #16	PVR15	X		
21	1-1/2"	1-1/4" NPTF	PVR50	X		3.0 / 1.4
25	1-1/2"	1-1/2" NPTF	PVR50	X	X	
27	1-1/2"	1-7/8-12 UN 1-1/2" TUBE SIZE SAE #24	PVR15 PVR50	X	X	
33	2"	2" NPTF	PVR50		X	3.6 / 1.6
37	2"	2-1/2" NPTF 30° ANGLE (PVR50 INLET ONLY)	PVR50-70B		X	13.4 / 6.1

TYPICAL ORDERING CODE: **SPVR-9-G**

## ORDERING INFORMATION

Pump Mechanical Accessories

SELECT ONE      DESIGN LETTER  
**PMA – [ ] – [ ]**

CODE	DESCRIPTION	PUMP MODEL (DESIGN LETTER INDICATED)*						WEIGHT lbs. / kg
		PVR1	PVR6	PVR15 - RF 15 & 20B	PVR15 - RF 30B	PVR15 - RM	PVR50	
6	Volume Screw Assembly	I	A	Standard	Standard	Standard	Standard	0.3 / 0.14
15	Handwheel Pressure Assembly	N/A	N/A	A	A	A	A	0.8 / 0.36
1536	Handwheel Pressure Assembly	H	A	N/A	N/A	N/A	N/A	0.9 / 0.41
1536	Handwheel Volume Assembly	I	A	D	B	Note 1	Note 1	0.9 / 0.41
17	Remote Dual Pressure Control	Note 1	Note 1	C	A	I	I	3.6 / 1.63
24	Remote Dual Volume Control	Note 1	Note 1	A	A	Note 1	Note 1	1.9 / 0.86

\*NOTE: The Design Letter listed is the earliest version that the assembly is physically compatible with all later models.

N/A Not Applicable.

NOTE 1: Not Available. Please consult the factory.

IMPORTANT!

Check the appropriate pump design code with the above chart list before ordering to insure installation compatibility.

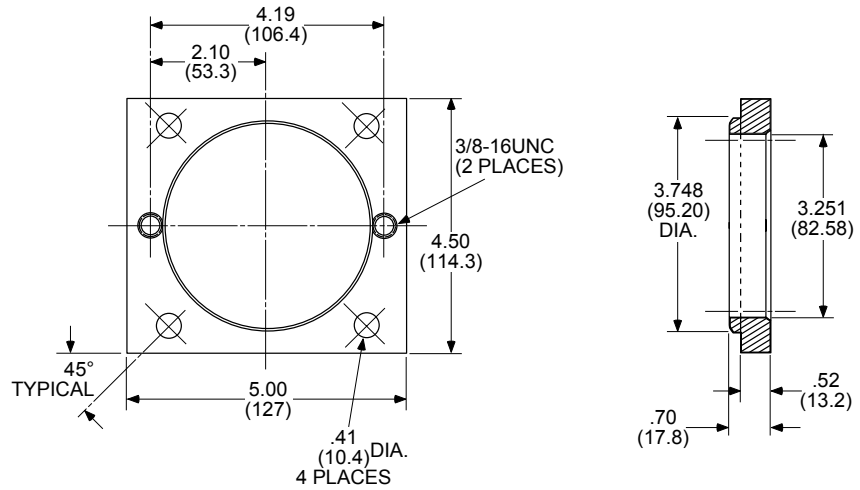
NOTES: (a) Handwheel Accessory Kits contain the handwheel and a spring pin for installation on an existing Adjustment Screw. If a pump has a plug only at the volume adjustment screw location, a Volume Screw Assembly must be ordered separately.  
 (b) For installation dimensions and product references, refer to the appropriate option modification in the PVR Vane Pump Section.

TYPICAL ORDERING CODE: **PMA-17-**

## TRANSITION PLATE

For Mounting a PVR6 SAE 2-Bolt Flange to a PVR1-RF 4-Bolt Flange Pump Existing Mounting Surface.

Dimensions shown in: Inches  
(millimeters)



The Kit Includes:

- 1 - Transition Plate
- 4 - Hex. Hd. Bolts 3/8-16UNC x 1-1/4
- 4 - Lockwashers 3/8
- 1 - 3/16 x 1/8 x 1Llong Step Key

NOTE: PVR6 Pump Bolts are ordered seperately.

## ORDERING INFORMATION

Transition Plate

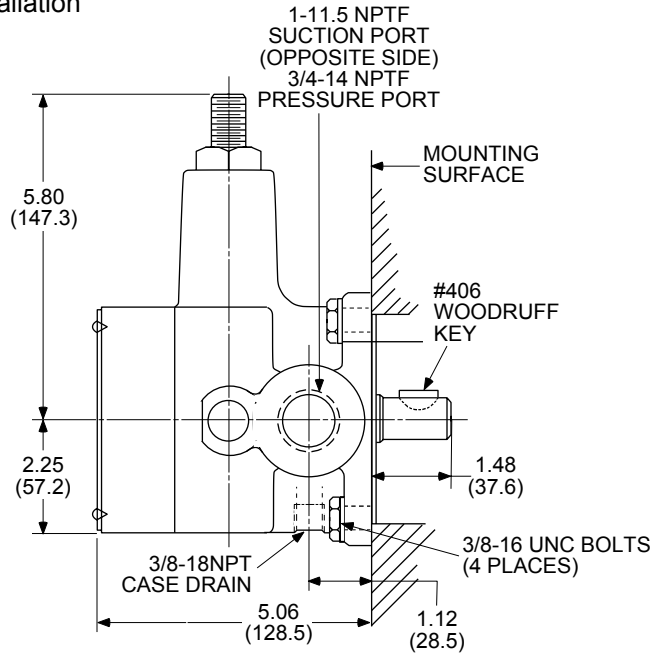
DESIGN LETTER  
TPVR - 6 -

Weight: 1.0 lbs. (0.45 kg)

## TRANSITION PLATE

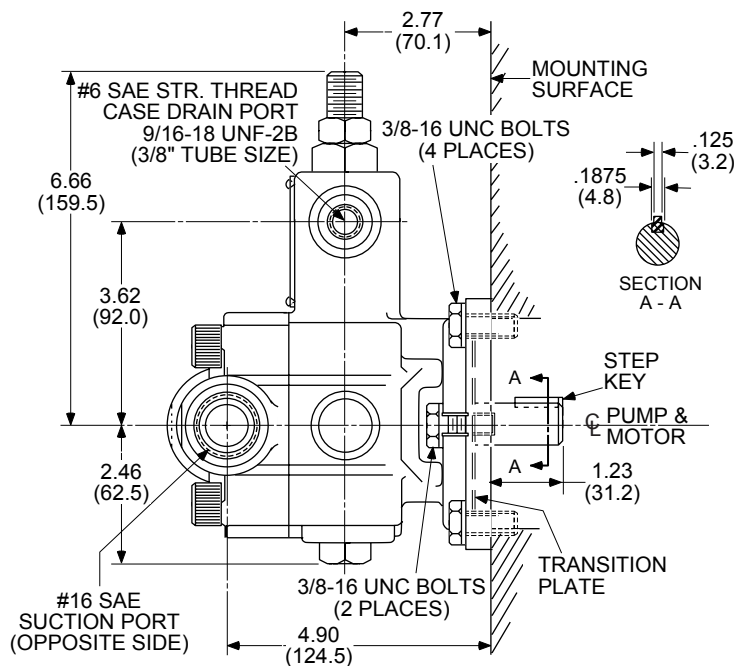
For Mounting a PVR6 SAE 2-Bolt Flange to a PVR1-RF 4-Bolt Flange Pump Existing Mounting Surface.  
Existing PVR1-XXX-RF-X-X Installation

Dimensions shown in: Inches (millimeters)



## TRANSITION PLATE

Existing PVR6-XXX-RF-X-X Installed With a TPVR Transition Plate on an Existing Mounting Surface.



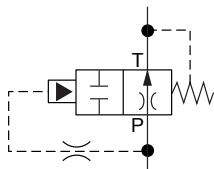
## AIR BLEED VALVE



### DESCRIPTION

The air bleed valve permits easier pump priming and/or start-up under deadhead conditions. This valve is normally open to permit oil and air (if present) to pass from inlet to outlet and directly back to the tank. Pressure in the spool center section is bled via spool clearance to the no-spring end of the spool. As pressure builds, it overcomes the spring, shifts the spool to close the inlet port and allows full pump flow to the circuit.

### VALVE SCHEMATIC

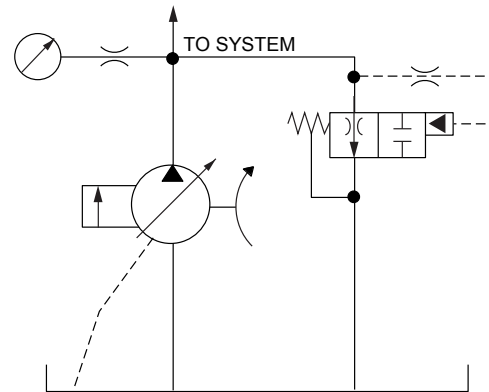


## TYPICAL PERFORMANCE SPECIFICATIONS

MINIMUM FLOW RATE		8 gpm
MINIMUM OPERATING PRESSURE	@ 8 gpm	500 psi
OPERATING PRESSURE	@ 15 gpm	350 psi
	@ 50 gpm	200 psi
MAX. OPERATING PRESSURE		3500 psi
MINIMUM PRESSURE TO HOLD CLOSE		150 psi
TYPICAL CLOSING TIMES	@ 500 psi	30 sec.
	@ 1500 psi	10 sec.
SEALS		VITON

NOTE: Data is based on ISO VG 46 oil at 120° F. (49° C.).

## TYPICAL APPLICATIONS SCHEMATIC



### ELECTRIC MOTOR PRIME MOVER

In this circuit, the valve is used to automatically purge the air in the circuit. It will automatically block flow through it in a short period of time.

### ENGINE PRIME MOVER

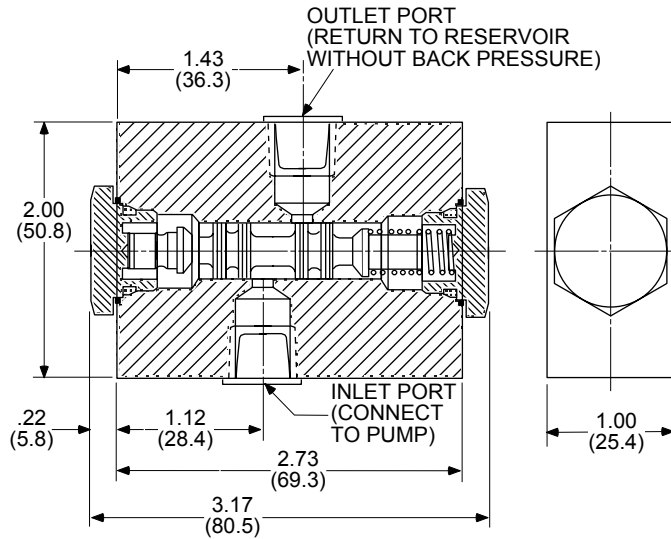
Here the valve passes flow for a short time allowing an internal combustion engine to come up to speed. This would eliminate using a separate open center valve for this purpose.

### NOTE:

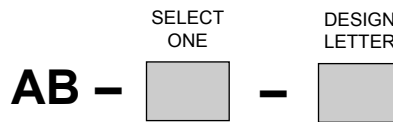
The outlet line should be piped below the oil level to prevent foaming of the oil.

## VALVE DIMENSIONS

Dimensions shown in: Inches  
(millimeters)



## ORDERING INFORMATION



PORTS

CODE	DESCRIPTION
1	1/4" NPTF
2	SAE #6

WEIGHT: 0.6 lbs. / 0.27 kg

TYPICAL ORDERING CODE:

**AB-1-**

## TANDEM PUMP OPTIONS

### BENEFITS

- Permits multiple pump operation without additional mounting flanges and couplings.
- Reduce system costs. Space saver -- one power unit where two or more were necessary. Smaller electric motor.
- Reduce operating costs. More efficient in high-low system than single pressure compensated pump.



PVR50/PVR6 Tandem Mounting Shown

## TANDEM PUMP COMBINATIONS

FRONT PUMP			REAR PUMP WITH OPTION CODE 12							
BASIC CODE	OPTION CODE*	MAXIMUM H.P.**	VANE		PISTON					
			PVR6	PVR15	HPV6	HPV10	HPV15	HPV20	HPV29	
VANE	PVR6	21	8.5		N/A	N/A	N/A	N/A	N/A	N/A
	PVR15-RF	21	8.5		N/A	N/A	N/A	N/A	N/A	N/A
		22	30	N/A		N/A			N/A	N/A
	PVR50	31	30	N/A	N/A		N/A	N/A	N/A	N/A
		21	7.5		N/A	N/A	N/A	N/A	N/A	N/A
		22	20	N/A		N/A			N/A	N/A
		23	43	N/A	N/A	N/A	N/A	N/A		
		31	20	N/A	N/A	N/A		N/A	N/A	N/A

\*NOTE: Option Code 12 is a male spline shaft.  
 Option Code 21 is a SAE A mounting pad.  
 Option Code 22 is a SAE B mounting pad.  
 Option Code 23 is a SAE C mounting pad.  
 Option Code 31 is a SAE A mounting pad with a SAE B spline shaft.

NOTE: See the PVR Vane Pump section for product information and codes.  
 Pump mounting bolts are ordered separately. See the Mounting Accessories section for information and codes.

\*\*NOTE: Maximum horsepower transfer to rear pump at 1750 rpm.