

PVR15 Series

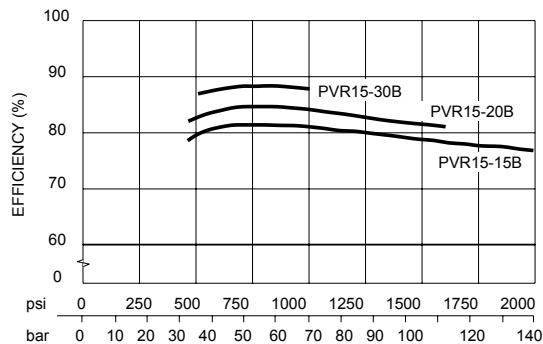


Vane Pumps, Variable Displacement, Pressure Compensated

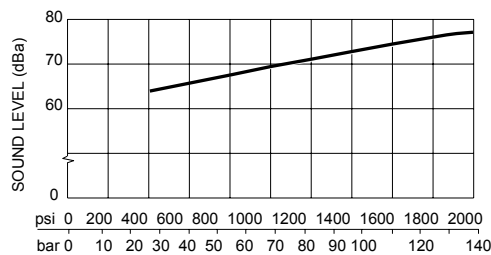


OVERALL EFFICIENCY

1750 rpm at Full Displacement



TYPICAL SOUND LEVEL @ 1750 rpm



TYPICAL PERFORMANCE SPECIFICATIONS

			PUMP SIZE			
			15B	20B	30B	
VOLUMETRIC DISPLACEMENT*		cu. in./rev.	2.4	2.8	4.3	
		ml/rev.	39.3	46	70.5	
PUMP DELIVERY AT 1750 RPM*	91.5 psi	gpm	18.7	21.6	32.0	
	6.3 bar	lpm	70.8	81.8	121.0	
	rated	gpm	15	19	30	
	pressure	lpm	56.8	72	114	
COMPENSATED PRESSURE RANGES	Max.	psi	2000	1500	1000	
		bar	160	103	69	
	Rated	psi	2000	1500	1000	
		bar	138	103	69	
	Min.	psi	400	400	500	
		bar	28	28	35	
OPERATING SPEEDS***	Min. rpm	1400				
	Rated rpm	1750				
	Max. rpm	2400	2400	1800		
POWER INOUT AT RATED FLOW & PRESSURE (1750 rpm)		hp	20	19	20	
		kW	15	14	15	
MAXIMUM POWER INPUT TO DRIVE SHAFT		hp	40			
		kW	30			
SUCTION	PRESSURE	Max.	psi	20	10	
			bar	1.40	0.7	
		Min.	in./Hg	7	7	5
		Specific Gravity < 1	bar	-0.25	-0.25	-0.17
	Min.	in./Hg	5	5	4	
	Specific Gravity > 1	bar	-0.17	-0.17	-0.13	
FLUID VELOCITY	Max.	ft./sec.	5			
		m/sec.	1.5			
CASE DRAIN	NOMINAL FLOW AT FEADHEAD PRESSURE	1000 psi	gpm	0.5	0.5	0.7
		69 bar	lpm	1.9	1.9	2.7
		1500 psi	gpm	0.8		
		103 bar	lpm	3.0		
		2000 psi	gpm	1.2	1.2	≈
		138 bar	lpm	4.5	4.5	≈
	MAXIMUM CASE PRESSURE	psi	10			
		bar	0.7			
WEIGHT		lbs	61			
		kg	27.6			

NOTES:

* Volumetric displacement is measured displacement at 91.5 psi (6.3 bar) and rated rpm. Volumetric displacement varies with both pressure and rpm. Flow rates at any rpm other than the rated rpm may be approximated as follows:

$$Q_2 = Q_1 (N-142)/1667 \text{ where } Q_1 = \text{Flow (gpm) at rated rpm at 91.5 psi (6.3 bar).}$$

$$Q_2 = \text{Flow (gpm) at } N \text{ rpm.}$$

$$N = \text{rpm at which } Q_2 \text{ is to be determined.}$$

** When operating above 1500 psi (103 bar), it is recommended that a direct-acting differential relief valve be used at the pump to relieve pressure spikes and surges.

PVR15-20B - Maximum rpm at full displacement - 2250 rpm. For higher rpms up to 2400 rpm, pump displacement must be reduced to limit flow to 125 gpm (95 lpm) maximum.

PRESSURE and VOLUME ADJUSTMENT SENSITIVITY

		PUMP SIZE	15B	20B	30B
PRESSURE ADJUSTMENT	Press Change/Turn	psi (bar)	230 (16.0)	310 (21.0)	230 (16.0)
	Max. Torque	ft./lbs. (kg/m)	15.0 (2.0)	15.0 (2.0)	9.0 (1.2)
VOLUME ADJUSTMENT	Flow Change/Turn	gpm (lpm)	10.0 (38.0)	10.0 (38.0)	13.0 (49.0)
	Min. Flow Adjust.	gpm (lpm)	2.0 (7.5)	2.0 (7.5)	3.5 (13.0)
	Max. Torque	ft./lbs. (kg/m)	21.0 (3.0)	29.0 (4.0)	21.0 (3.0)

CAUTION: Turning the Maximum Volume Control in too far can force the cam ring over-center, causing damage.

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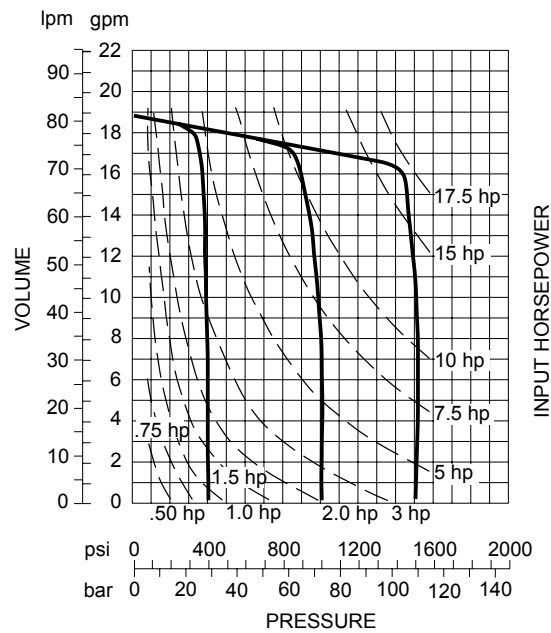


Vane Pumps, Variable Displacement, Pressure Compensated

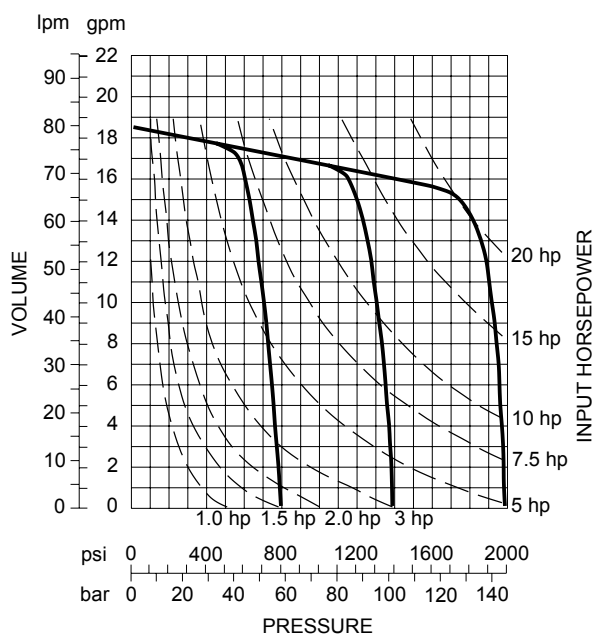
NOTE: Typical performance curves are based on ISO VG46 oil at 120° F. (49° C.). Above 400 SUS (84 CS), add 2% hp/100 SUS.

NOTE: Deadhead horsepower is read from curves at 0 gpm flow and pressure compensator setting psi.

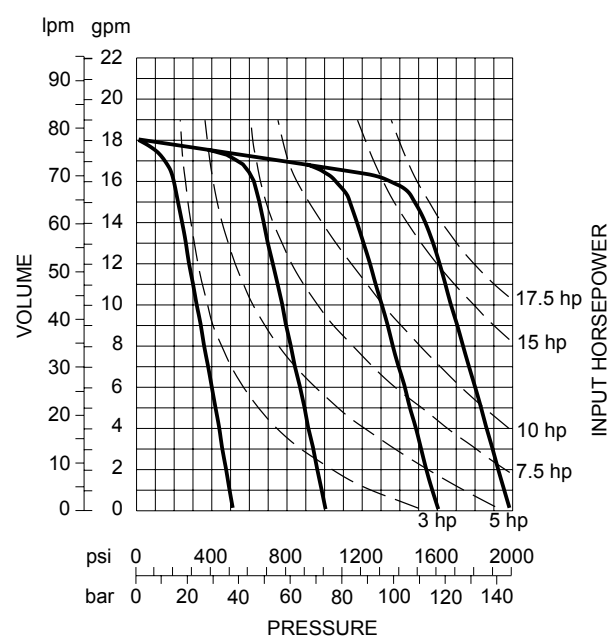
15B15 (at 1750 rpm)



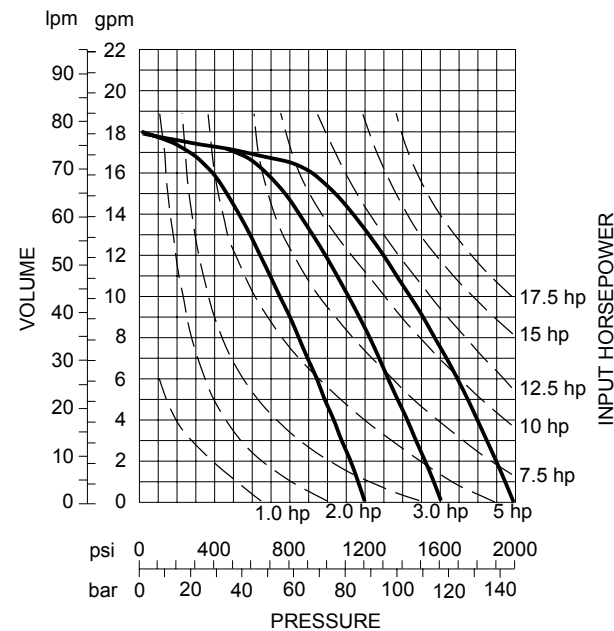
15B20 (at 1750 rpm)



15B3L (at 1750 rpm)



15B5L (at 1750 rpm)



PVR15 Series

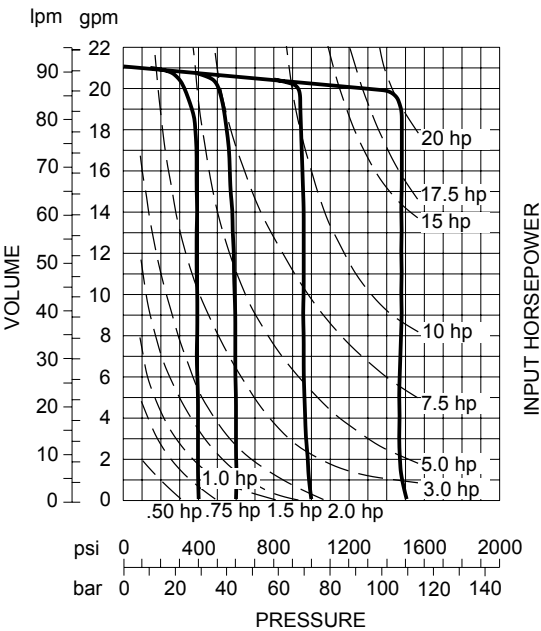


Vane Pumps, Variable Displacement, Pressure Compensated

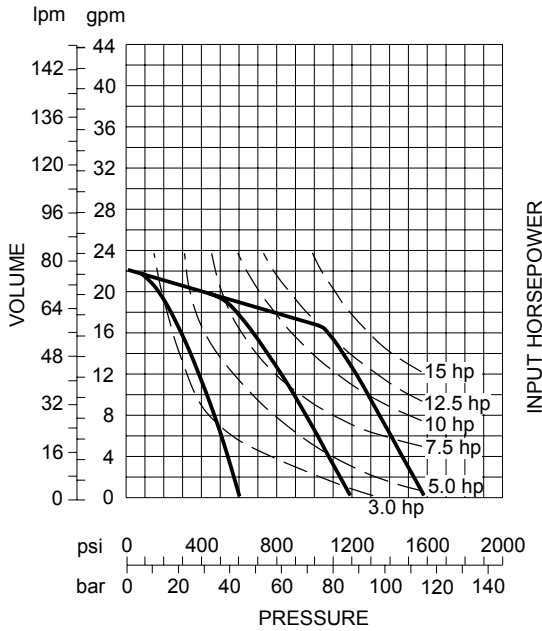
NOTE: Typical performance curves are based on ISO VG46 oil at 120° F. (49° C.). Above 400 SUS (84 CS), add 2% hp/100 SUS.

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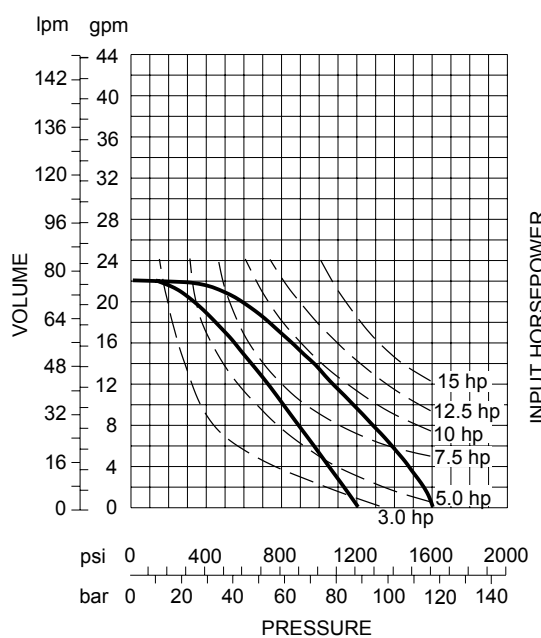
20B15 (at 1750 rpm)



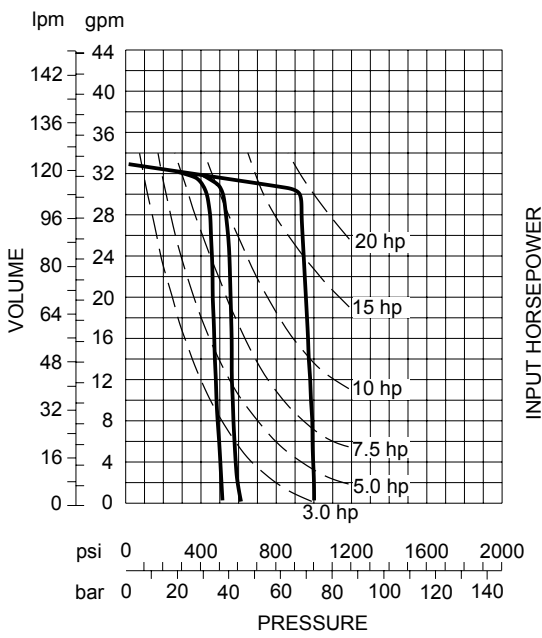
20B3L (at 1750 rpm)



20B4L (at 1750 rpm)



30B10 (at 1750 rpm)



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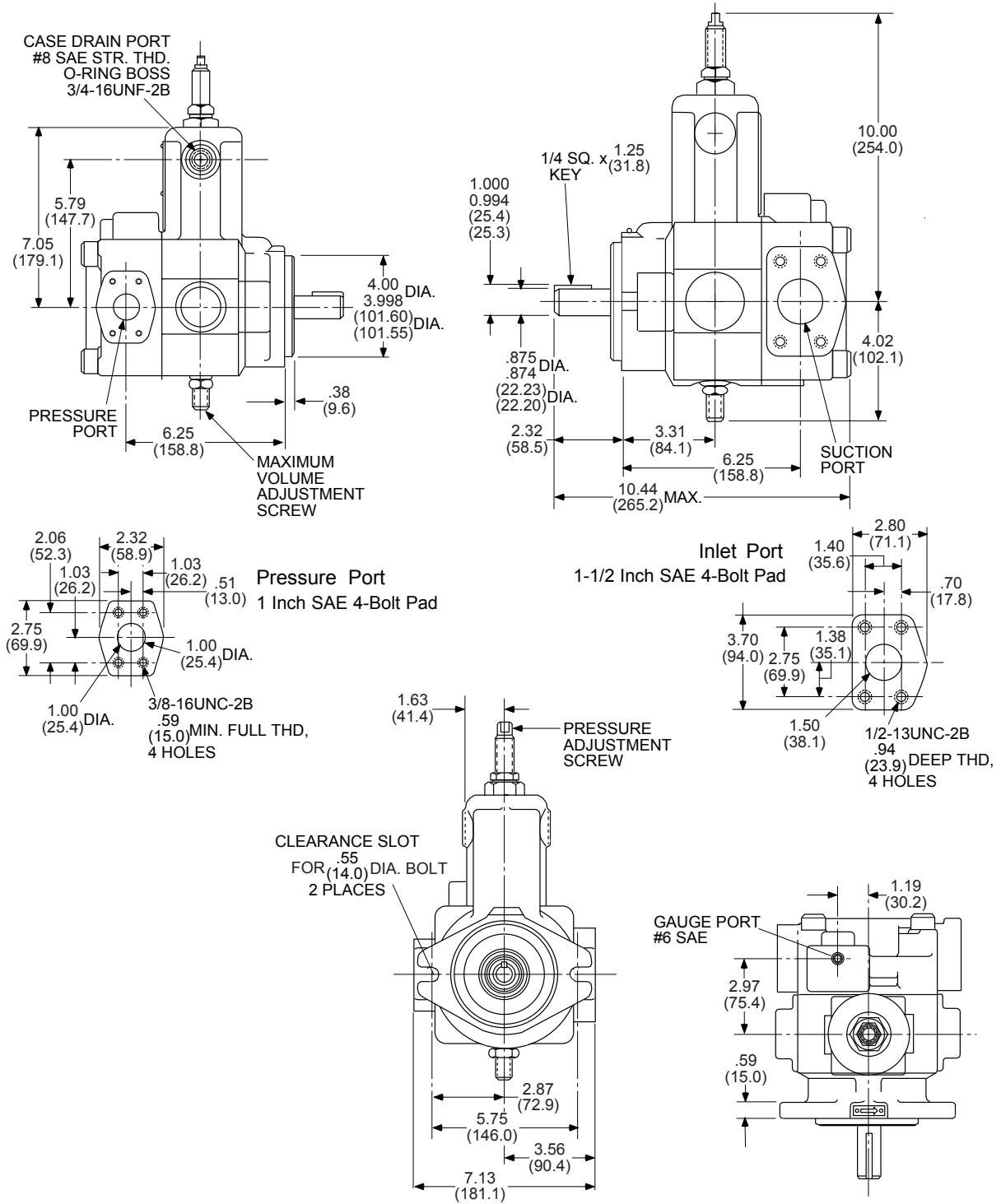


Vane Pumps, Variable Displacement, Pressure Compensated

PUMP DIMENSIONS

Flange Mounted - Code RF

Dimensions shown in: Inches
 (millimeters)



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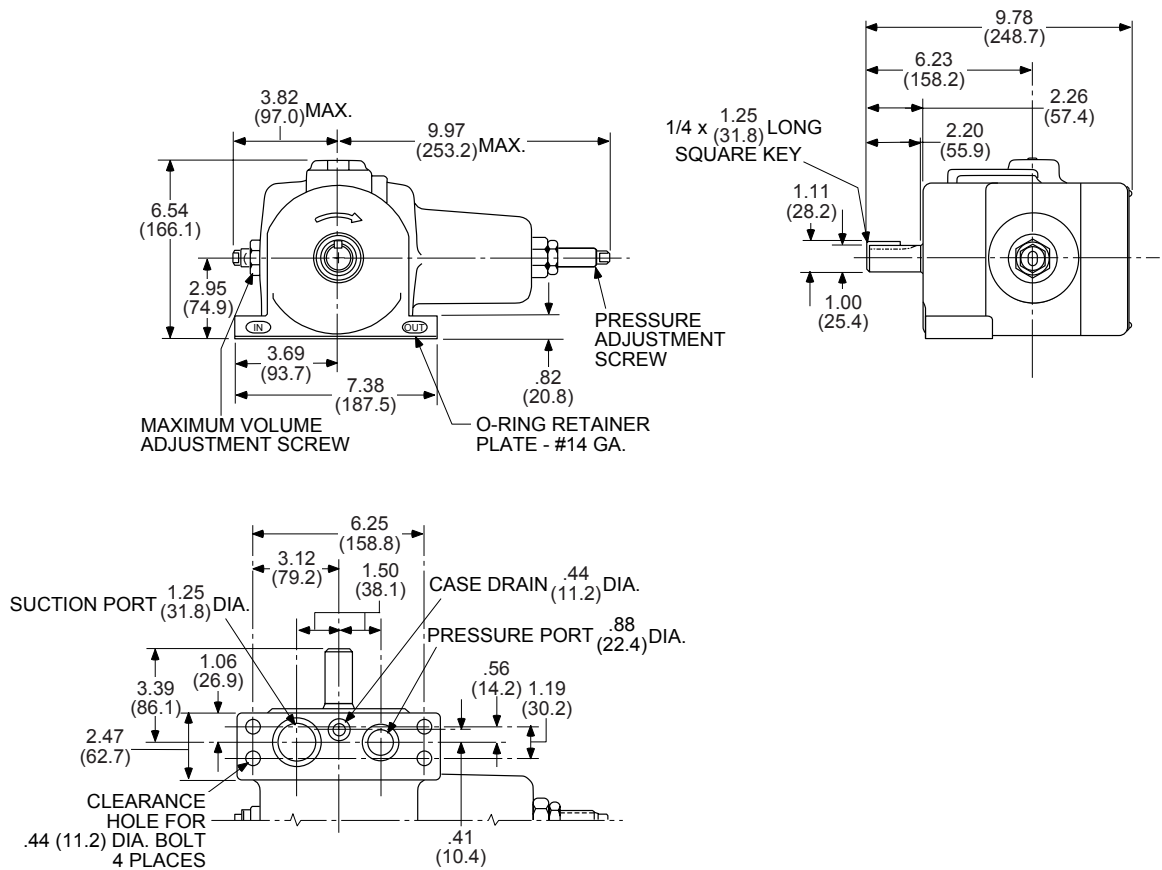


Vane Pumps, Variable Displacement, Pressure Compensated

PUMP DIMENSIONS

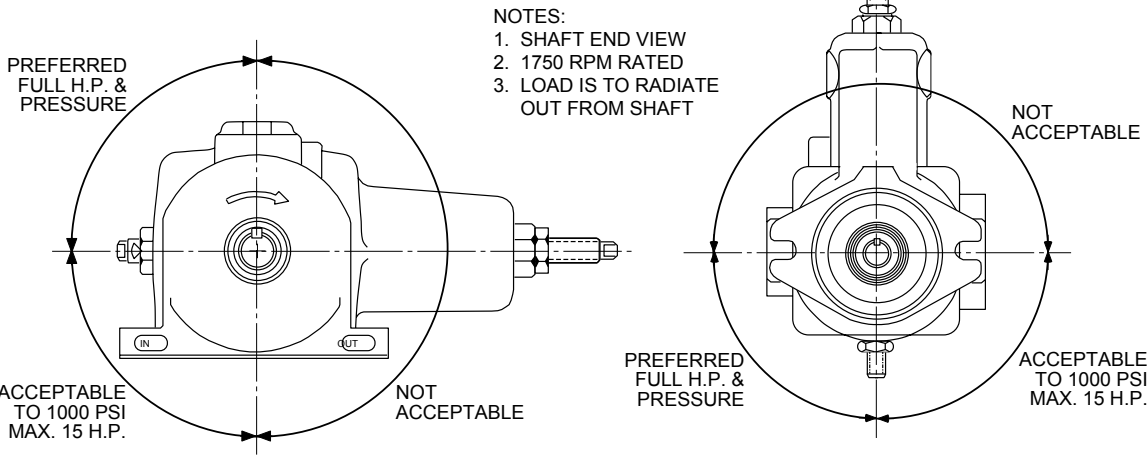
Manifold Mounted - Code RM

Dimensions shown in: Inches
(millimeters)



SIDE LOAD DRIVES

i.e. Belt, Chain, Gear for Flange or Manifold Mounted



PVR15 Series

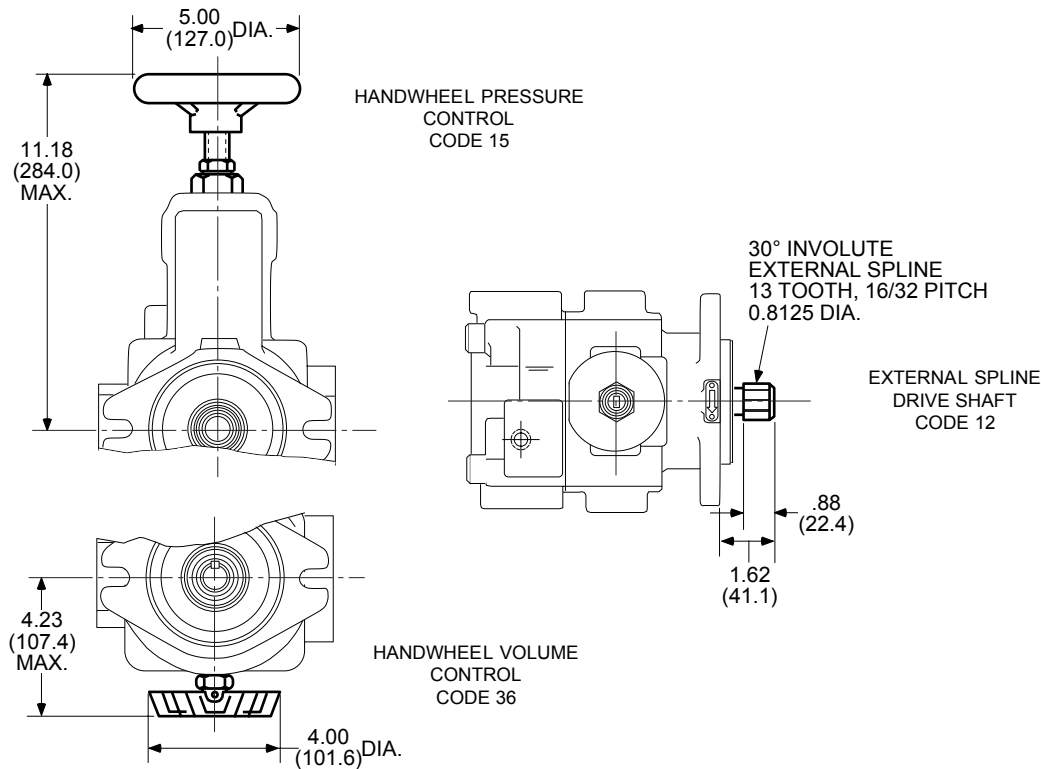


Vane Pumps, Variable Displacement, Pressure Compensated

MECHANICAL OPTIONS

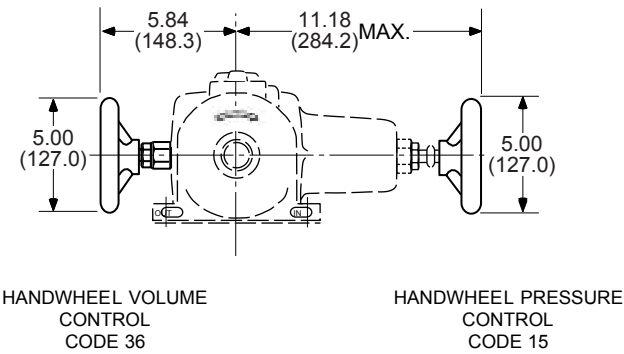
Flange Mounted Pump - Code RF

Dimensions shown in: Inches
 (millimeters)



MECHANICAL OPTIONS

Manifold Mounted Pump - Code RM



PVR15 Series

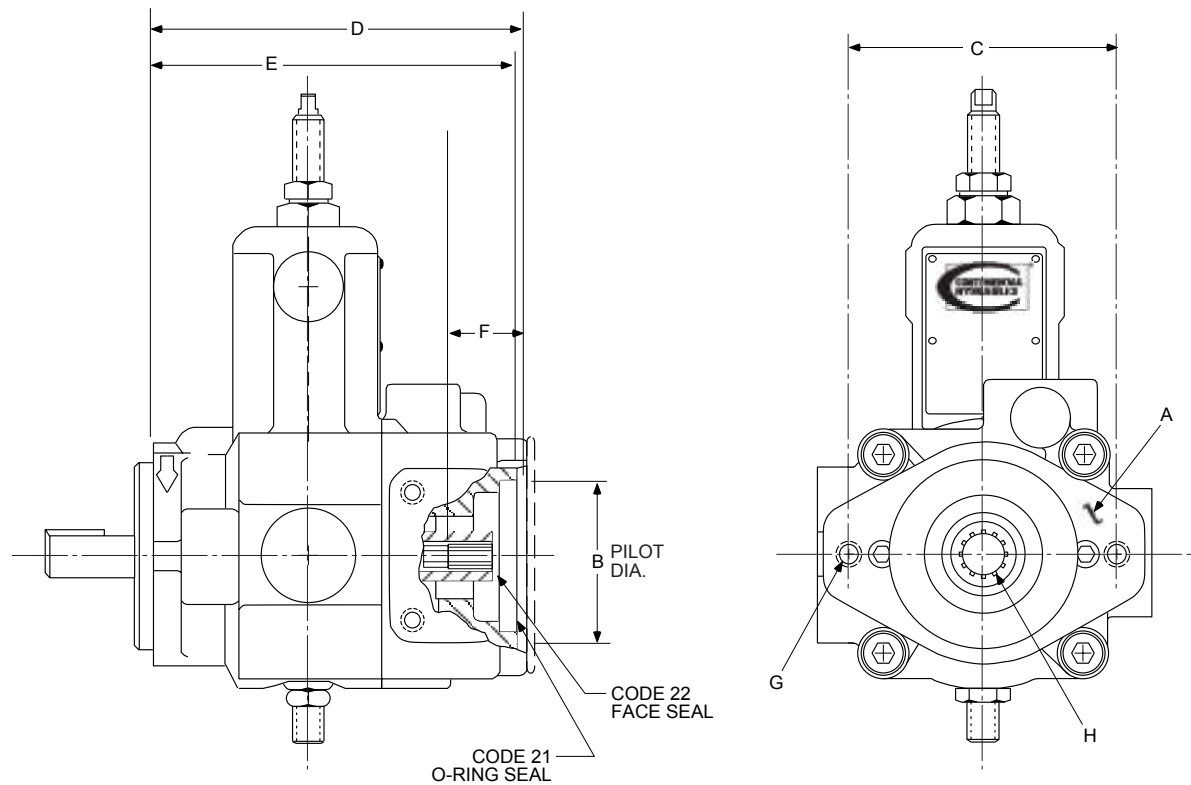


Vane Pumps, Variable Displacement, Pressure Compensated

CODES 21 and 22 - TANDEM OPTIONS

Flange Mounted Pump - Code RF Only

Dual Pump Operation Without Additional Mounting
Flanges and Couplings



CODE	SAE 2-BOLT MOUNTING PAD	DIMENSIONS						30° INVOLUTE INTERNAL SPLINE 16/32 PITCH	MAXIMUM H.P. RATING OF INTERNAL SPLINE*
		B	C	D	E	F	G	H	
21	"A" Flange	3.25 (82.6)	4.18 (106.2)	8.12 (206.2)	7.80 (198.1)	1.27 (32.3)	3/8-16 UNC x .56 (14.3)	9 Tooth 0.5625 Dia.	8.5
22	"B" Flange	4.00 (101.8)	5.75 (146.1)	9.06 (230.1)	9.06 (230.1)	1.79 (45.5)	1/2-13 UNC x 1.00 (25.4)	13 Tooth 0.8125 Dia.	30
31	"A" Flange	3.25 (82.6)	4.18 (106.2)	8.90 (226.1)	8.90 (226.1)	1.63 (41.4)	3/8-16 UNC x .56 (14.3)	13 Tooth 0.8125 Dia.	30

*Rating at 1750 rpm

PVR15 Series



Vane Pumps, Variable Displacement, Pressure Compensated

ORDERING INFORMATION

Flange Mounted - Code RF

SELECT ONE

PVR15 –

SELECT ONE

SELECT ONE

– RF –

SELECT ONE

– 5

SELECT AS REQUIRED

SELECT AS REQUIRED

SELECT AS REQUIRED

DESIGN LETTER

–

SIZE

CODE	FLOW @ 1750 rpm
15B	15 gpm
20B	20 gpm
30B	30 gpm

PRESSURE

CODE	PRESSURE RANGE
15	400 - 1500 psi
20	800 - 2000 psi
3L	500 - 2000 psi
5L	1200 - 2000 psi
15	400 - 1500 psi
3L	600 - 1600 psi
4L	1200 - 1600 psi
10	500 - 1000 psi

SEALS

CODE	TYPE
O	BUNA-N
P	VITON

MECHANICAL OPTIONS

CODE	DESCRIPTION
OMIT	KEYED SHAFT (STANDARD)
12	EXTERNAL SPLINE SHAFT
15	HANDWHEEL PRESSURE CONTROL
16	50 HZ OPERATION
21*	"A" FLANGE TANDEM PUMP MOUNTING
22*	"B" FLANGE TANDEM PUMP MOUNTING
31	"A" - "B" FLANGE TANDEM PUMP MOUNTING (HPV-6)
36	HANDWHEEL VOLUME CONTROL

*NOTE: Consult the factory for a Code 12 pump with:

- Code 21 or 22 on a 30B pump
- Code 22 on all pumps

INTEGRAL OPERATOR

CODE	DESCRIPTION
OMIT	NO OPTIONS

*NOTE: For electrical options, see the PVR Control Options Section later in this catalog.

CONTROL OPTIONS

CODE	DESCRIPTION
OMIT	NO OPTIONS
8	DUAL PRESSURE RATE CONTROL VALVE
9	DUAL VOLUME RATE CONTROL VALVE
17	DUAL PRESSURE REMOTE OPERATED
18	DUAL PRESSURE WITH INTEGRAL OPERATOR
24	DUAL VOLUME WITH INTEGRAL OPERATOR
25	DUAL PRESSURE/ DUAL VOLUME WITH INTEGRAL OPERATOR
2400	DUAL VOLUME REMOTE OPERATED
2500	DUAL PRESSURE/ DUAL VOLUME REMOTE OPERATED

*NOTE: For detail information, see the PVR Control Options Section later in this catalog.

TYPICAL ORDERING CODE:

PVR15-15B15-RF-0-521-F

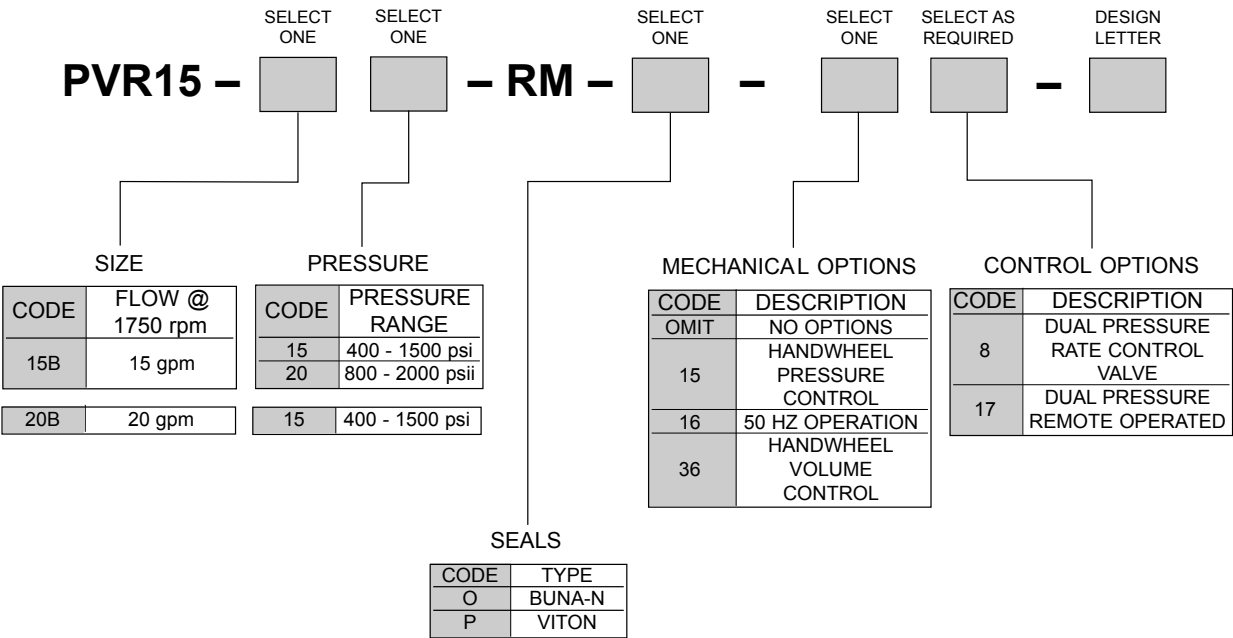
PVR15 Series



Vane Pumps, Variable Displacement, Pressure Compensated

ORDERING INFORMATION

Manifold Mounted - Code RM



TYPICAL ORDERING CODE:
PVR15-15B15-RM-0-17-J