

PISTON PUMPS

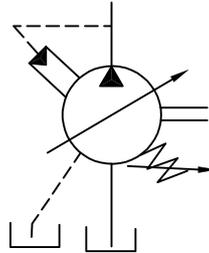
SERIES HY-PVB/HY-PVQ



- Wide range of controls
- Standard ISO and SAE mounting and porting
- Nominal pressure: 210 bar
- Low noise and high efficiency
- Very suitable for industrial application
- Totally interchangeable to Vickers pumps PVQ and PVB series and Denison pumps PV series

VARIABLE DISPLACEMENT PUMPS

HY-PVB5/45

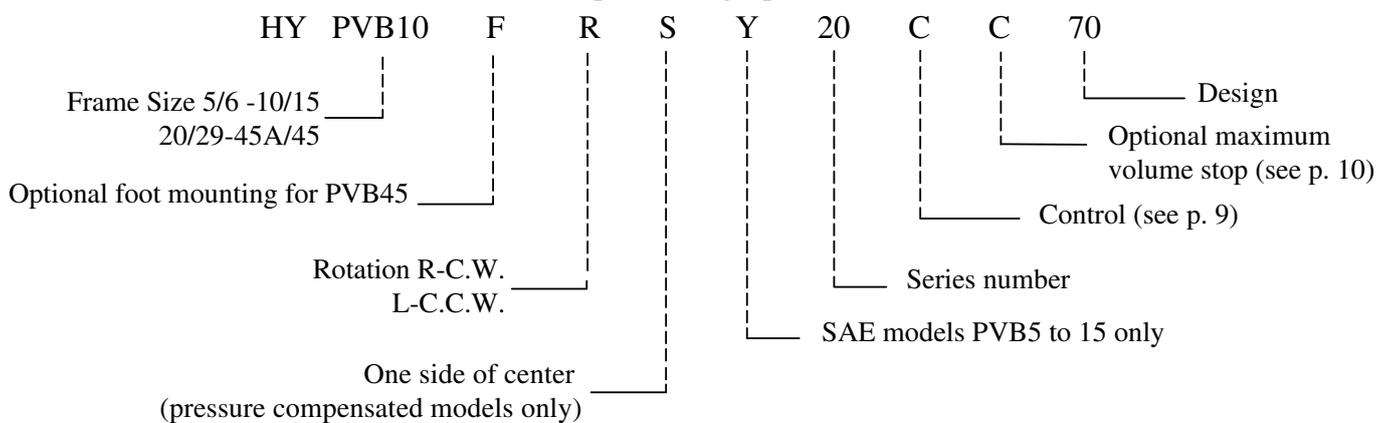


HY piston pumps are inline, variable volume units available in 4 frame sizes and 8 displacements. The wide variety of controls and overall efficiency make them ideal for the most demanding industrial applications.

FEATURES

- ECONOMICAL**
 PVB series combine quality performance with low overall cost.
- QUIET**
 Noise levels are below the industry standards.
- EFFICIENT**
 High volumetric and overall efficiency for industrial applications.
- CONTROLS**
 Variety of manual and compensating controls provide fast stable control of units.
- MOUNTING**
 Mountings, shafts and port sizes are SAE standard. Metric units available on request.

◆ Piston Pump Ordering Specifications



WARNING

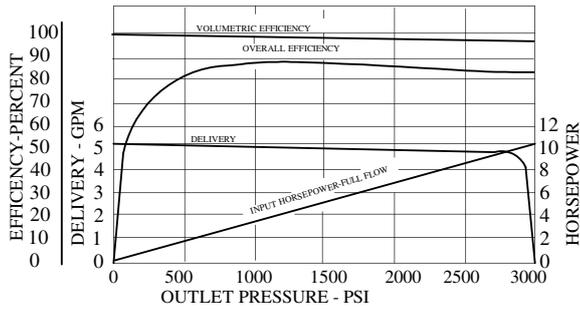
Before starting fill pump case with system fluid through uppermost drain port. Housing must be kept full at all times to provide internal lubrication.

VARIABLE DISPLACEMENT PUMPS

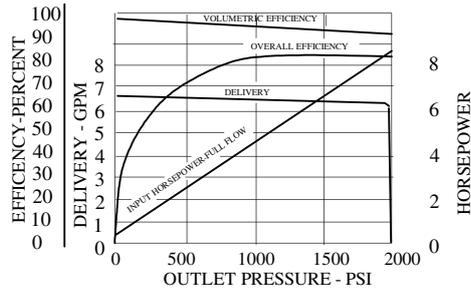
HY-PVB5/45

PERFORMANCE CURVES

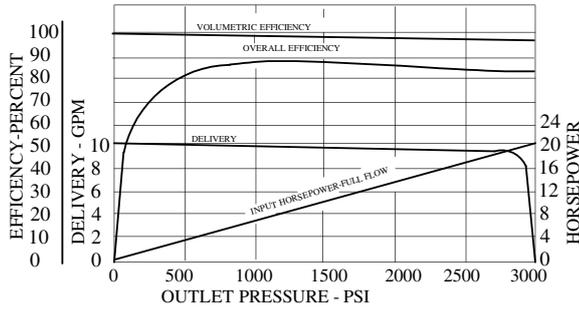
MODEL PVB5
 BASED ON OIL TEMPERATURE OF 120° F
 (100 SUS)
 1800 RPM INPUT-ATMOSPHERIC INLET



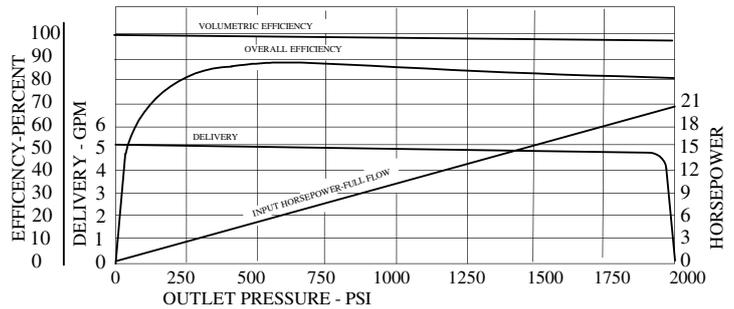
MODEL PVB6
 BASED ON OIL TEMPERATURE OF 120° F
 (100 SUS)
 1800 RPM INPUT-ATMOSPHERIC INLET



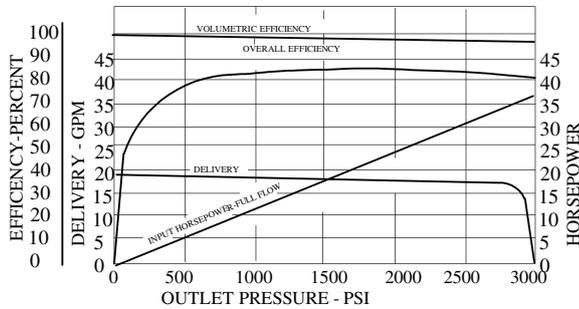
MODEL PVB10
 BASED ON OIL TEMPERATURE OF 120° F
 (100 SUS)
 1800 RPM INPUT-ATMOSPHERIC INLET



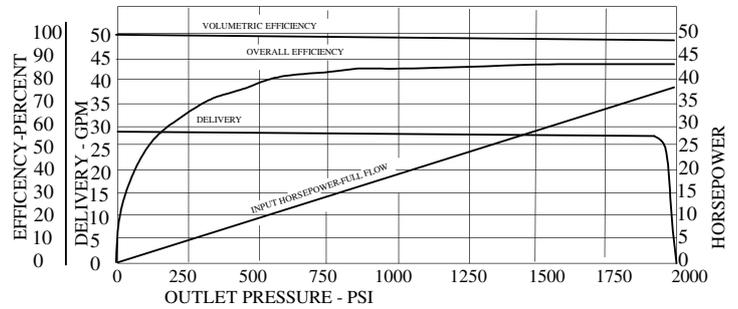
MODEL PVB15
 BASED ON OIL TEMPERATURE OF 120° F
 (100 SUS)
 1800 RPM INPUT-ATMOSPHERIC INLET



MODEL PVB20
 BASED ON OIL TEMPERATURE OF 120° F
 (100 SUS)
 1800 RPM INPUT-ATMOSPHERIC INLET



MODEL PVB29
 BASED ON OIL TEMPERATURE OF 120° F
 (100 SUS)
 1800 RPM INPUT-ATMOSPHERIC INLET



VARIABLE DISPLACEMENT PUMPS

HY-PVB5/45

APPLICATION GUIDELINES

SHAFT ALIGNMENT

PVB units are designed for "inline drive" with a flexible coupling. Side loading the shaft is not recommended .

FILL PUMP CASING

Before starting, fill case with system fluid through upper most drain port. Pipework must be installed in such a way as to ensure that the case is always full of oil during operation.

Note: -Max. case pressure 5 PSI.

STARTING

During initial starting it may be necessary to bleed air from pump outlet. HY air bleed valve ABT 02S is available for this purpose.

SYSTEM RELIEF VALVE

Although PVB series pumps have compensator controls, a system relief valve is recommended for safety considerations.

TECHNICAL DATA

Values based on using anti-wear type petroleum oil 150 SUS at 100° F and 0 PSI inlet pressure

MODEL	DISPL. N ³ /R	DELIVERY (GPM) AT		MAX. SPEED RPM		MAX. PRESSURE PSI		WGT. LBS.
		1800 RPM	MAX. RPM	Anti-wear oil	HWBF	Anti-wear oil	HWBF	
HYPVB5	.643	5	10	3600	1800	3000	1000	16
HYPVB6	.843	6.5	11.4	3200		2000		16
HYPVB10	1.29	10	18	3200		3000		30
HYPVB15	2.01	15	26.2	3000		2000		30
HYPVB20	2.61	20	26	2400		3000		57
HYPVB29	3.76	29	38	2400		2000		57
HYPVB45	5.76	45	55	2200		3000		210

SOUND LEVEL PER ISO 4412

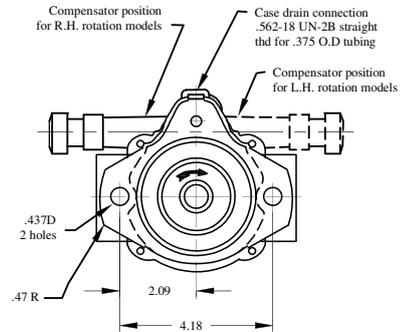
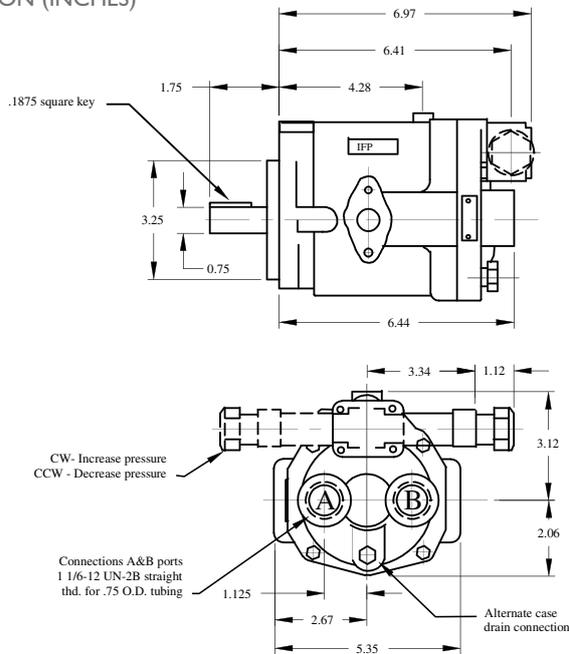
MODEL	REV r/min	OUTLET PSI	NOISE dB(A)	
			CUT-OFF	FULL DISPL.
HYPVB5/6	1200	1000	56	59
		2000	59	61
		3000	62	
	1800	1000	57	62
		2000	62	63
		3000	64	
HYPVB10/15	1200	1000	57	57
		2000	62	62
		3000	64	
	1800	1000	62	62
		2000	65	69
		3000	68	
HYPVB20/29	1200	1000	58	77
		2000	62	77
		3000	65	
	1800	1000	63	64
		2000	68	69
		3000	71	

VARIABLE DISPLACEMENT PUMPS

HY-PVB5/6

INSTALLATION DIMENSIONS

DIMENSION (INCHES)



Rotation	Oil port	
	Inlet	Outlet
R.H	A	B
L.H	B	A

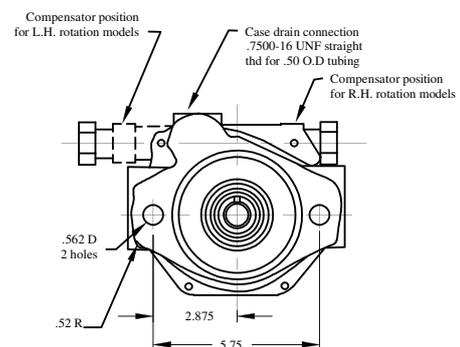
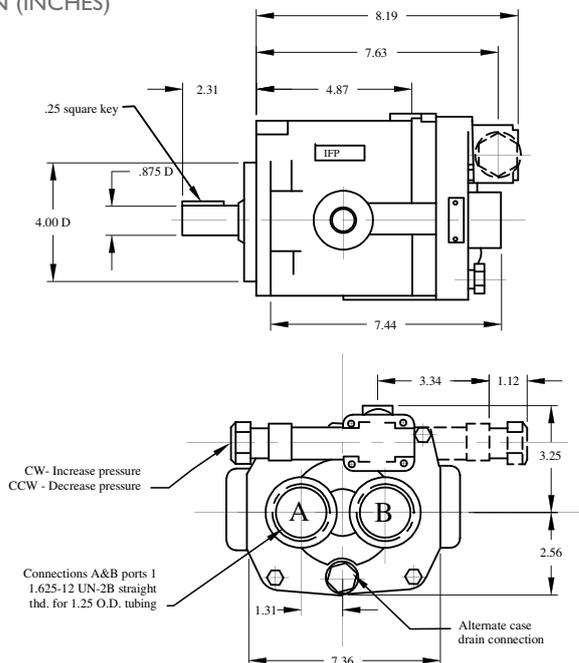
Bracket mount available
Part NBR- HY-A

VARIABLE DISPLACEMENT PUMPS

HY-PVB10/15

INSTALLATION DIMENSIONS

DIMENSION (INCHES)



Rotation	Oil port	
	Inlet	Outlet
R.H	A	B
L.H	B	A

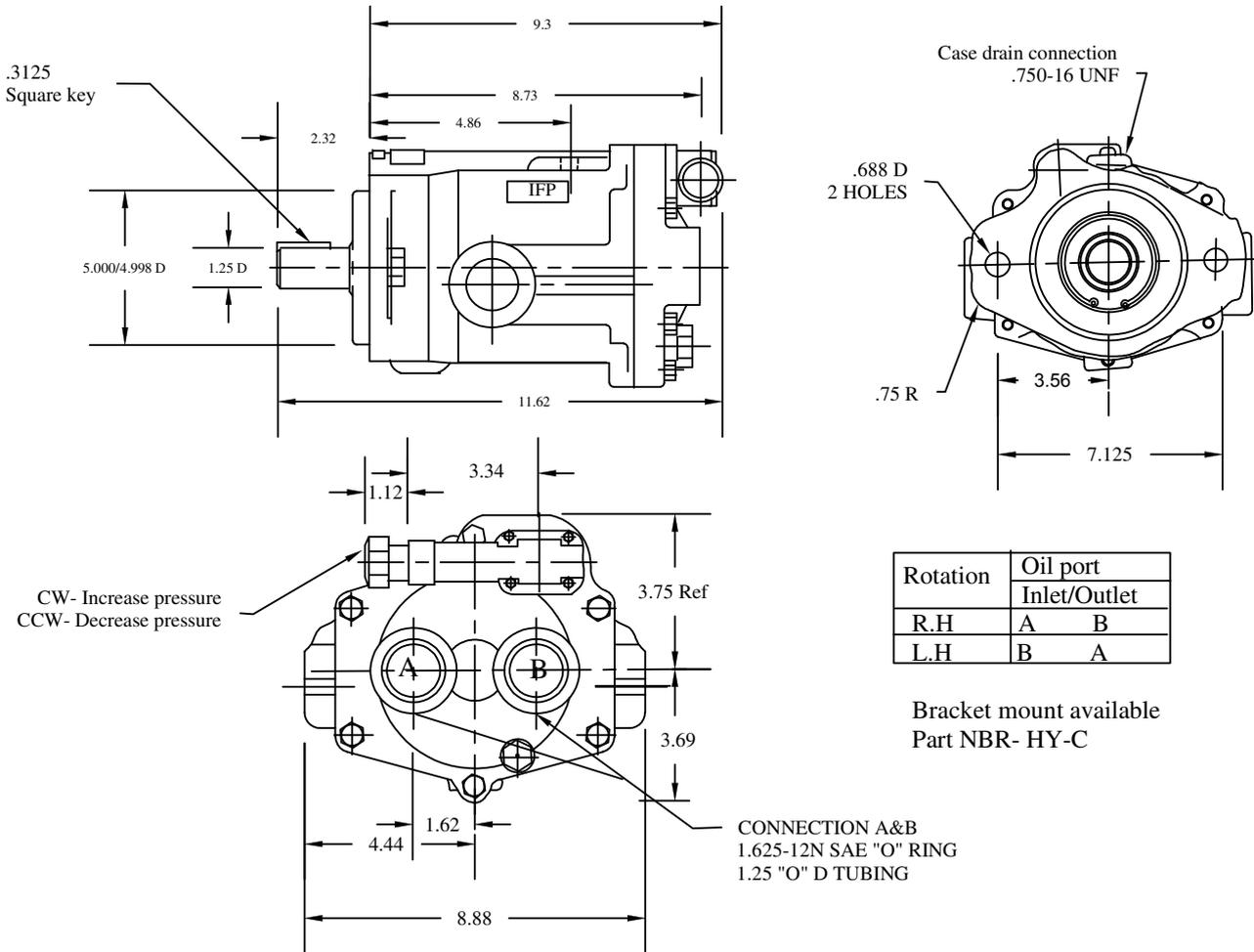
Bracket mount available
Part NBR- HY-B

VARIABLE DISPLACEMENT PUMPS

HY-PVB20/29

INSTALLATION DIMENSIONS

DIMENSION (INCHES)

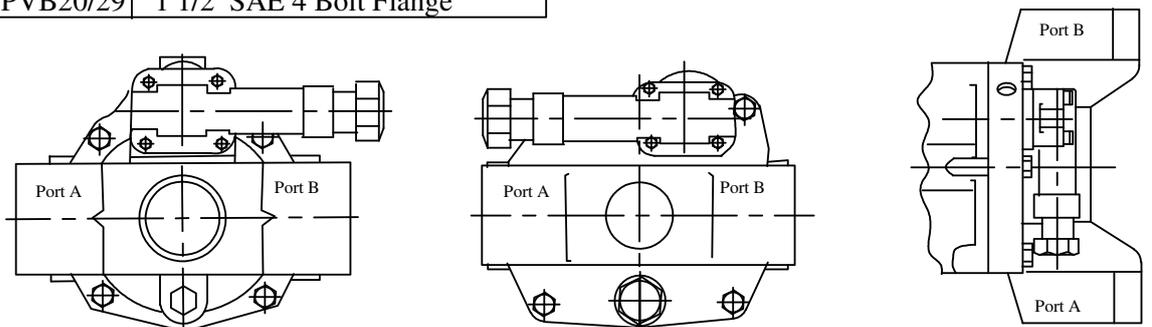


Rotation	Oil port	Inlet/Outlet
R.H	A	B
L.H	B	A

Bracket mount available
Part NBR- HY-C

SIDE PORT OPTION

	Connection A & B
HYPVB5/6	1" O.D Tubing /1.312-12UNF
HYPVB10/15	1 1/4 O.D Tubing/1.625-16UNF
HYPVB20/29	1 1/2 SAE 4 Bolt Flange



HY-PVB5/6

HY-PVB10/15

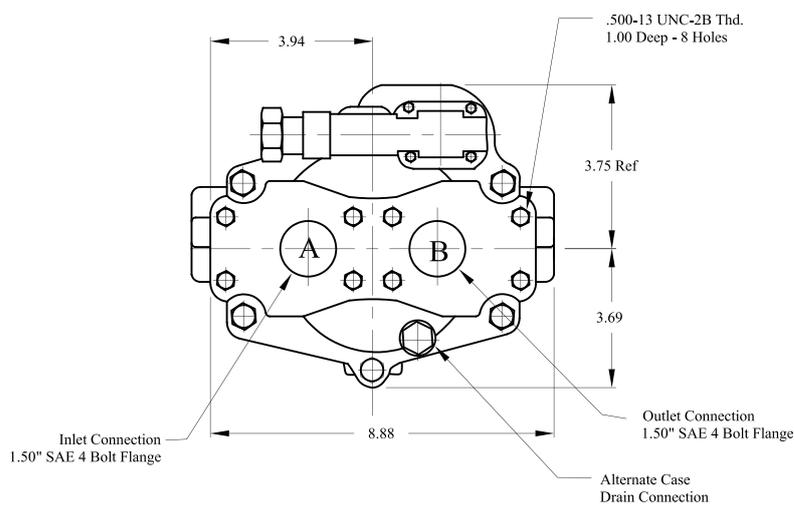
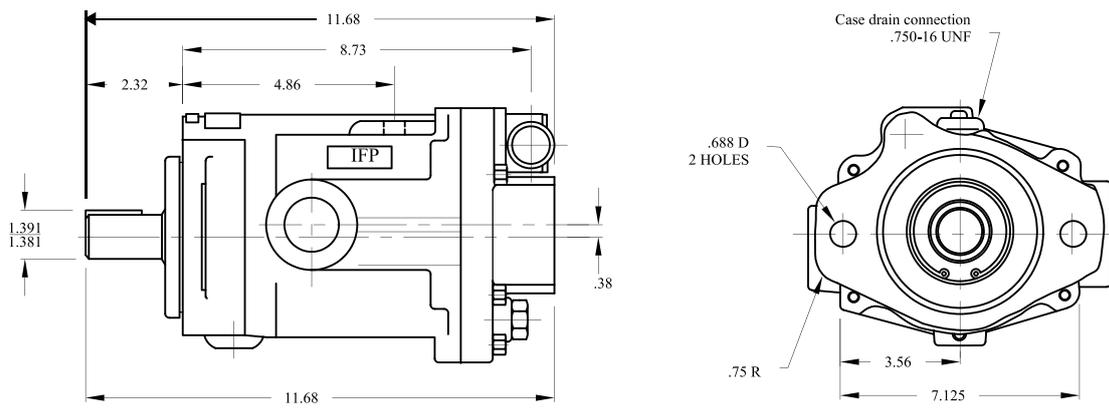
HY PVB20/29

VARIABLE DISPLACEMENT PUMPS

HY-PVB45A

INSTALLATION INFORMATION

DIMENSION (INCHES)



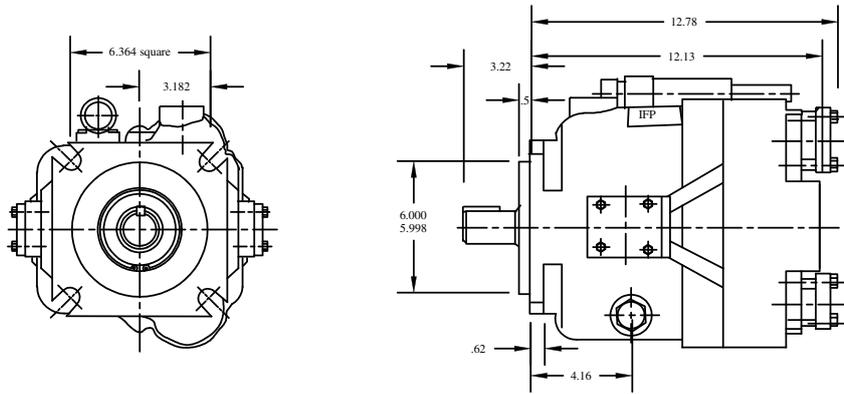
Bracket mount available
Part NBR- HY -C

VARIABLE DISPLACEMENT PUMPS

HY-PVB45

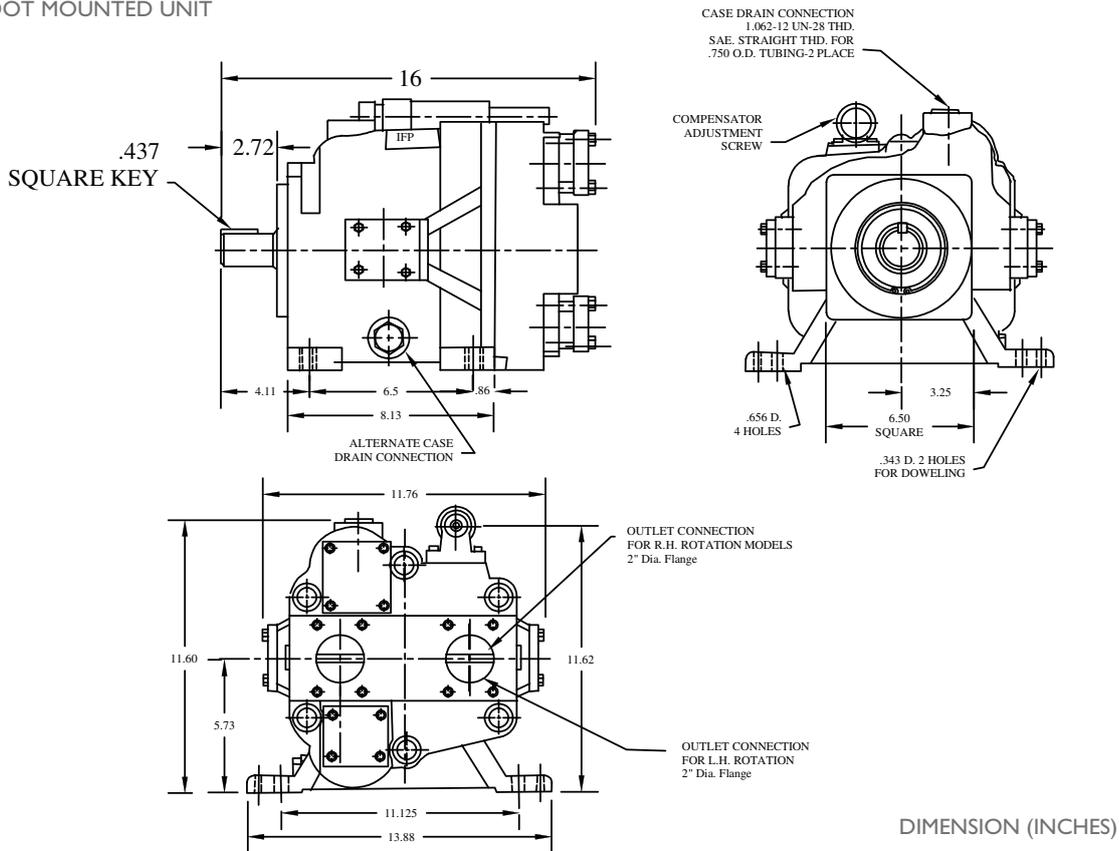
INSTALLATION DIMENSIONS

FLANGE MOUNTED UNIT



DIMENSION (INCHES)

FOOT MOUNTED UNIT

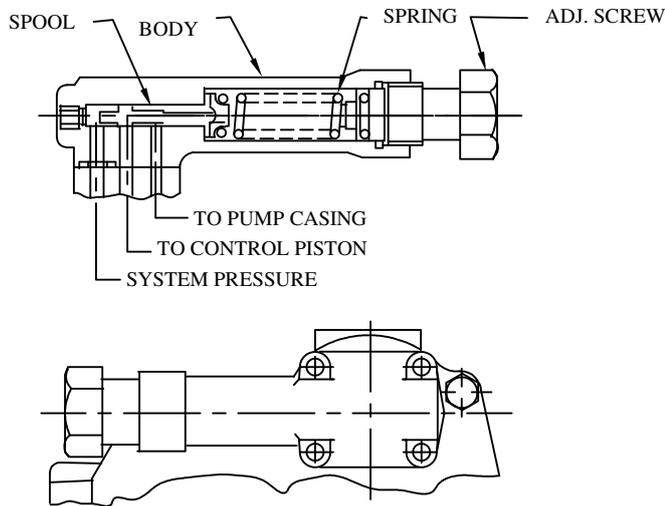


DIMENSION (INCHES)

VARIABLE DISPLACEMENT PUMPS

HY-PVB5/45

OPTIONAL CONTROLS

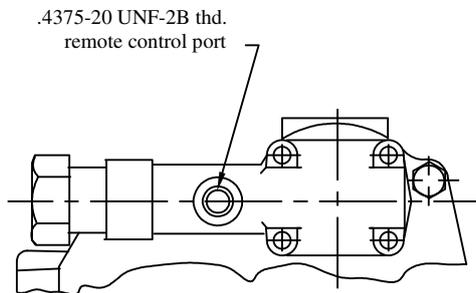


CONTROL "CM"(942159N)

CONTROL "C" (942158N)

- Pressure compensator-
- "C" control maintains pump volume requirements of the system until a preselected operating pressure is reached. Pump displacement is then reduced to zero
- "CM" range 250 - 1500 PSI
- "C" range 250 - 3000 PSI

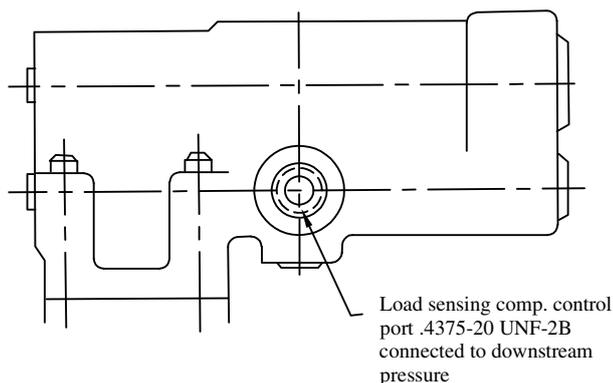
Available in frame sizes HYPVB5 to HYPVB45



CONTROL "CG"(942480N)

- Remote pressure compensator-
- "CG" control operates same as "C" control except pressure setting can be adjusted using a remote relief valve (HY-C175-*-70) connected to the remote control port.

Available in frame sizes HYPVB5 to HYPVB29



CONTROL "CVP"(924069N)

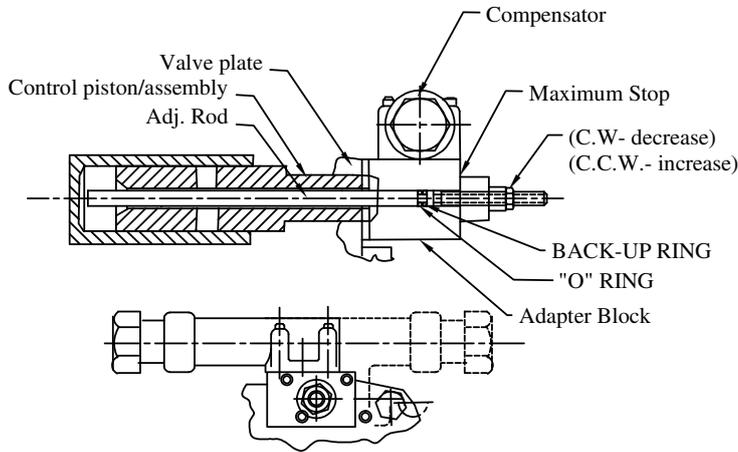
- Load sensing/pressure limiter-
- "CVP" compensator provides load sensing control to automatically adjust pump flow in response to a remote pressure signal. A compensator control is also incorporated to limit maximum working pressure.

Available in frame sizes HYPVB5 to HYPVB29

VARIABLE DISPLACEMENT PUMPS

HY-PVB5/45

OPTIONAL CONTROLS

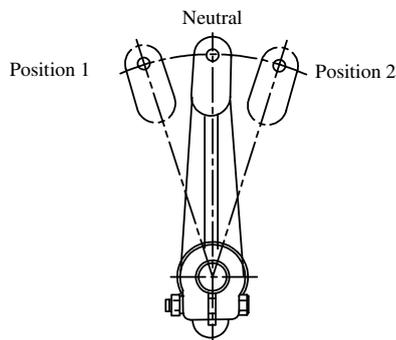


Available in frame size HYPVB5 to HYPVB29

CONTROL "C"

● **Maximum volume stop incorporates the "C" compensator with an adjustable volume stop. The maximum pump delivery is externally adjusted.**

MODEL	Max stop S/A No.	Adj. Rod	Adapter block
HYPVB5 /6 L.H -**	942188N	354573N	354578N
HYPVB5 /6 R.H -**	942189N	354573N	354579N
HYPVB10/15 L.H -**	942190N	354574N	354579N
HYPVB10/15 R.H -**	942191N	354574N	354578N
HYPVB20/29 L.H -**	942192N	354575N	354578N
HYPVB20/29 R.H -**	942192N	354575N	354578N

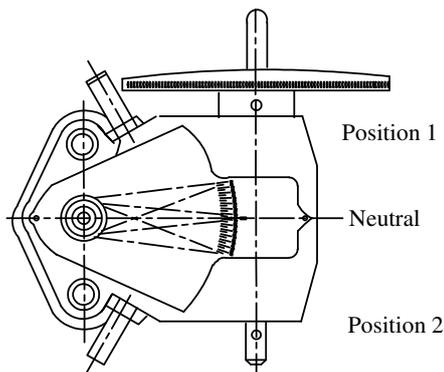


Available in frame size HYPVB5 to HYPVB15

CONTROL "M"

-Level control-
● **"M" control provides manual adjustment of pump flow. Level must be secured in position to maintain prespected flow.**

Rotation	Level Position	Outlet Port
R.H	1	A
R.H	2	B
L.H	1	B
L.H	2	A



Available in frame size HYPVB5 to HYPVB15

CONTROL "H"

-Handwheel control-
● **Turning handwheel provides over-center control of pump output flow.**

Shaft Rotation	Pointer Position	Outlet Port
R.H	1	A
R.H	2	B
L.H	1	B
L.H	2	A

RANGE OF PRODUCTS



SINGLE • DOUBLE • THRU-DRIVE VANE PUMPS



VARIABLE DISPLACEMENT PUMP H(S)P-10V



DIRECTIONAL CONTROL VALVE



HYDRAULIC CYLINDERS

hydraut

[hydraut.com](https://www.hydraut.com)