

HPVR-6 AXIAL PISTON PUMPS



The HPVR series of inline axial piston variable displacement pumps, are available in five displacements and three compact frame sizes.

These pumps feature medium-high working pressure capabilities that will meet most applications.

The output flow and pressure is controlled by a variety of control options, and can easily work in conjunction with external control components making them the perfect choice for almost any application.

The HPVR series pumps are available in both SAE and ISO mounting 2 bolt patterns. Porting is available in rear and side locations as well as thru-drive configurations.

TYPICAL PERFORMANCE SPECIFICATIONS			
VOLUMETRIC DISPLACEMENT		cu. In./rev.	0.88
		ml/rev.	14.4
PUMP DELIVERY @ 1750 RPM	Theoretical	GPM	6.67
		LPM	25.2
OPERATING PRESSURES	Intermittent*	PSI	4000
		BAR	276
	Continuous	PSI	3500
		BAR	241
Minimum**	PSI	200	
	BAR	14	
OPERATING SPEEDS		Maximum RPM	3000
		Rated RPM	1750
		Minimum RPM	500
INPUT POWER @ 1750 RPM (Rated Flow and Pressure)		HP	15
		Kw	11
CASE DRAIN FLOW @ Deadhead & Rated Pressure		GPM	0.3
		LPM	1.1
MOUNTING FLANGE		SAE Type	A 2 Bolt
	DRIVE SHAFT	Keyed Shaft SAE J744 A	0.75
			.8125
Spline Shaft SAE B		13 TOOTH	
SHIPPING WEIGHTS	REAR PORTS	lbs	27
		kg	12.4
	SIDE PORTS	lbs	35
		kg	15.9

* This pressure should not exceed 10% of the duty cycle and not exceed 6 consecutive seconds.

** Pumps operating at less than 150 PSI (10 Bar) may overheat and shorten pump life.

CASE AND INLET PORT SPECIFICATIONS

SPEED rpm	Minimum Inlet Pressure					Maximum Case Pressure		
	psi	Pressure Gauge			Absolute Pressure		psi	bar
	bar	in.-Hg	mm-Hg	psi	bar			
1800	-3	-0.21	-6.12	-155.46	11.7	0.81	10	0.69
2050	-3	-0.21	-6.12	-155.46	11.7	0.81	7	0.48
2100	-3	-0.21	-6.12	-155.46	11.7	0.81	5	0.34
2750	-2.53	-0.17	-4.79	-121.67	12.35	0.8	5	0.34
2900	-0.96	-0.07	-1.97	-49.94	13.74	0.9	5	0.34
3000	0.00	0.00	0.00	0.00	14.7	1.01	5	0.34

PRESSURE AND VOLUME ADJUSTMENT SENSITIVITY

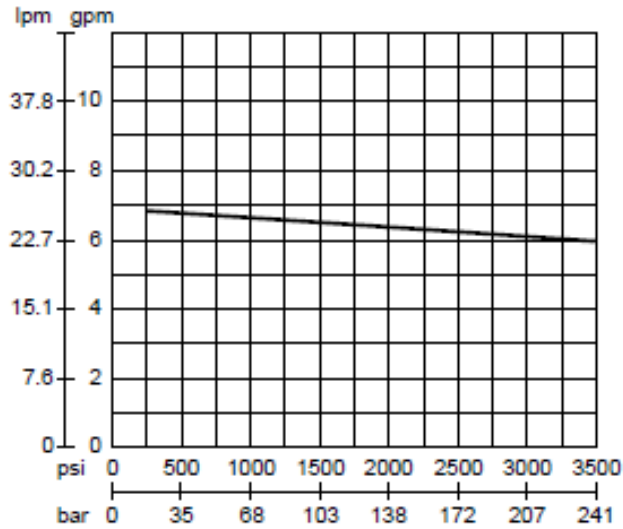
Pressure Adjustment	Pressure Change / Turn	650 PSI	44.8 Bar
Volume Adjustment	Flow Change / Turn	0.7 GPM	2.6 LPM
	Maximum Torque	28 in.-lbs	3.2 Nm



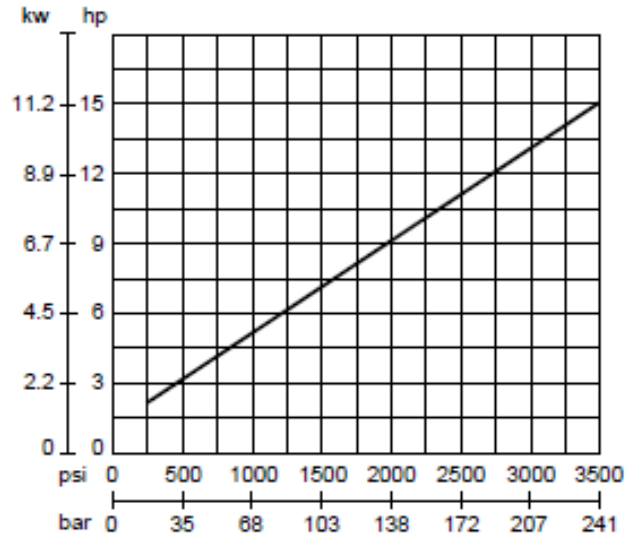
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The data below is typical performance at 1750 rpm.

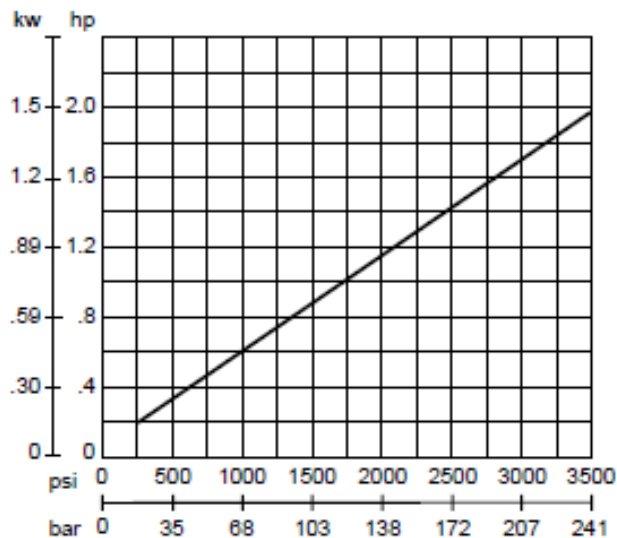
FLOW VS PRESSURE



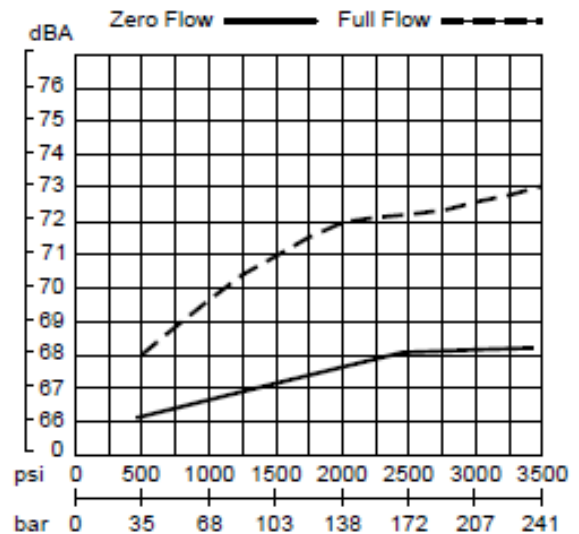
INPUT POWER @ FULL FLOW



INPUT POWER @ ZERO FLOW

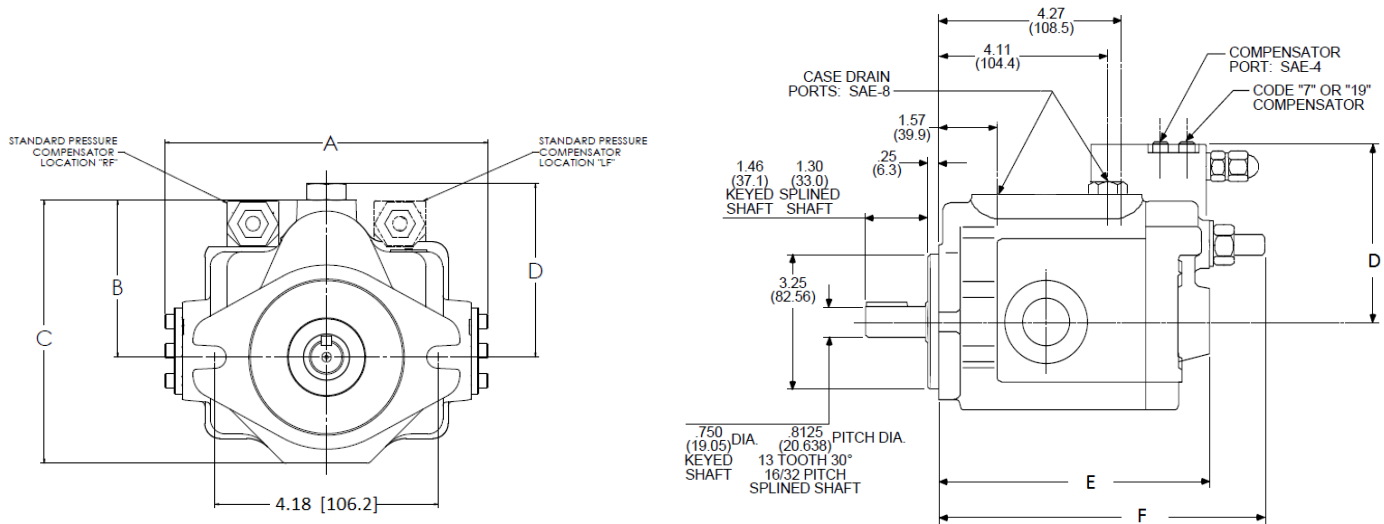


NOISE LEVEL

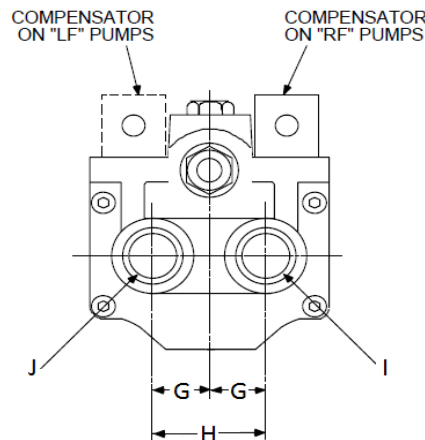


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Rear Port Dimension Data



Dimensional Reference Data	Inch (mm)
A	6.29 (159.8)
B	3.09 (78.49)
C	5.53 (140.5)
D (STD Pressure Compensator)	3.38 (85.85)
D (Code 7 Remote & Code 19 Load Sense)	4.56 (115.8)
D (Code 26 Torque Limit)	9.97 (253.2)
E	6.92 (175.8)
F	8.59 (218.2)

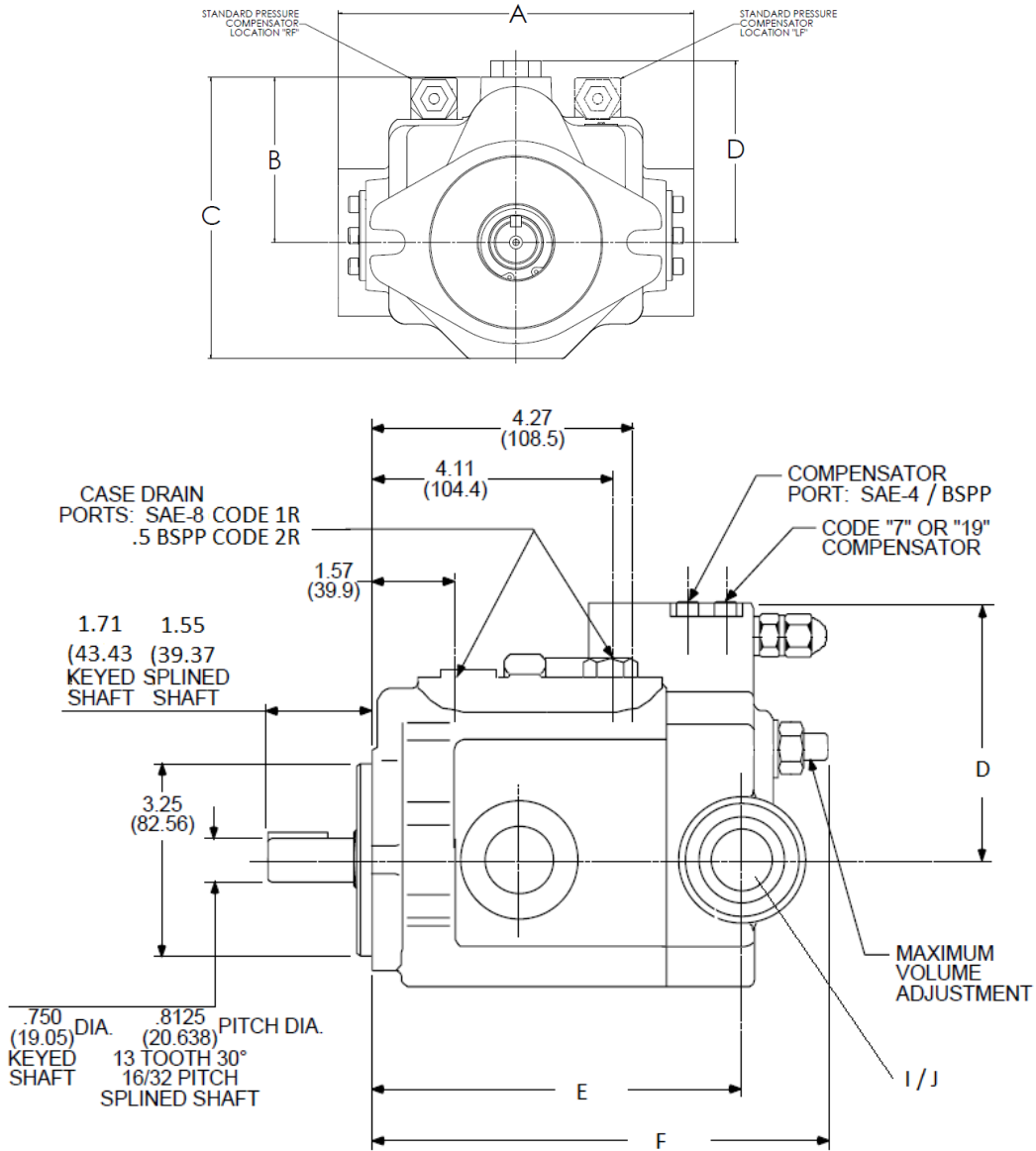


Dimensional Reference Data	Inch (mm)
G	1.125 (28.56)
H	2.25 (57.15)
I/J Code 1R - Rear SAE Porting	SAE-12
I/J Code 2R- Rear BSPP Porting	3/4 BSPP



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Side Port Dimension Data



Dimensional Reference Data	Inch (mm)
A	6.52 (165.6)
B	3.09 (78.49)
C	5.53 (140.5)
D (STD Pressure Compensator)	3.38 (85.85)
D (Code 7 Remote & Code 19 Load Sense)	4.56 (115.8)
D (Code 26 Torque Limit)	9.97 (253.2)
E	6.52 (165.6)
F	8.24 (209.3)
I/J Code 1S - Side SAE Porting	SAE-12
I/J Code 2s- Side BSPP Porting	3/4 BSPP

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SIZE			
CODE	FLOW AT 1750 RPM	MAXIMUM PRESSURE	DISPLACEMENT
6B35	6 GPM	3500 PSI	in ³ /rev 0.88
			cm ³ /rev 14.4

ROTATION	
CODE	DESCRIPTION
RF	CW ROTATION (STD)
LF	CCW ROTATION

SEALS	
CODE	DESCRIPTION
O	BUNA-N (STD)
P	VITON

PORT OPTIONS	
CODE	DESCRIPTION
1R	SAE A 2 BOLT MOUNTING FLANGE (STD) SAE O-RING THREAD CASE DRAIN REAR SAE O-RING THREAD PORTS
2R	SAE A 2 BOLT MOUNTING FLANGE BRITISH STD PIPE (BSPP) THREAD CASE DRAIN REAR BSPP THREAD PORTS
1S	SAE A 2 BOLT MOUNTING FLANGE SAE O-RING THREAD CASE DRAIN SIDE SAE O-RING THREAD SIDE PORTS
2S	SAE A 2 BOLT MOUNTING FLANGE BRITISH STD PIPE (BSPP) THREAD CASE DRAIN SIDE BSPP THREAD PORTS

CONTROL OPTIONS	
CODE	DESCRIPTION
OMIT	PRESSURE COMPENSATOR (STD)
7	REMOTE COMPENSATOR
19	LOAD SENSING COMPENSATOR
26	H.P. LIMITING

TANDEM	
CODE	DESCRIPTION
OMIT	NO TANDEM OPTION (STD)

SHAFT	
CODE	DESCRIPTION
OMIT	STRAIGHT KEY (STD) SAE J744 A .750 inch SHAFT
12	FRONT MALE SPLINE SAE B: 13 TOOTH 12/24 Pitch