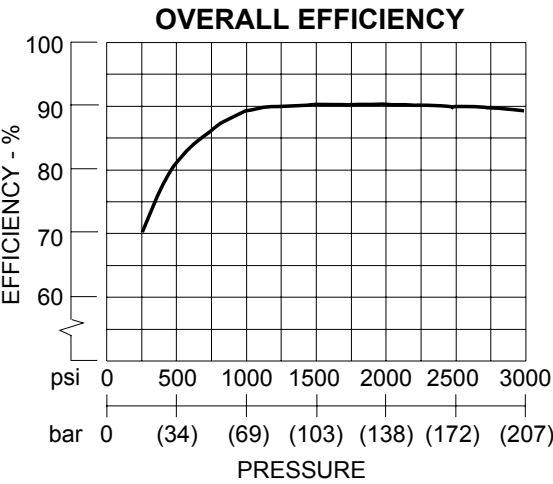
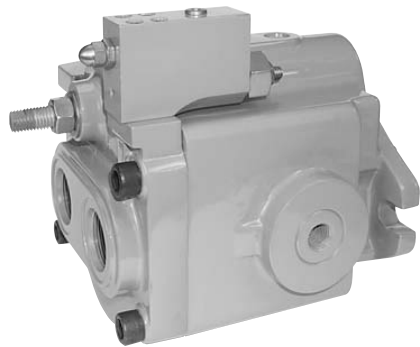


# HPV29 Series



Axial Piston Pumps, Variable Displacement, Pressure Compensated

## VARIABLE DISPLACEMENT PRESSURE COMPENSATED



## TYPICAL PERFORMANCE SPECIFICATIONS

|                                                |              |               |            |
|------------------------------------------------|--------------|---------------|------------|
| VOLUMETRIC<br>DISPLACEMENT                     |              | cu.in. / rev. | 3.78       |
|                                                |              | ml. / rev.    | 61.9       |
| PUMP DELIVERY<br>@ 1750 RPM                    | Theoretical  | gpm           | 28.64      |
|                                                |              | lpm           | 108.25     |
| OPERATING<br>PRESSURES                         | Intermittent | psi           | 3500       |
|                                                |              | bar           | 241        |
|                                                | Continuous   | psi           | 3000       |
|                                                |              | bar           | 207        |
|                                                | Minimum      | psi           | 200        |
|                                                |              | bar           | 14         |
| OPERATING<br>SPEEDS                            | Maximum      | rpm           | see below  |
|                                                | Rated        | rpm           | 1750       |
|                                                | Minimum      | rpm           | 500        |
| POWER INPUT @ (1750 RPM)                       |              | hp            | 64         |
| rated flow & pressure                          |              | kw            | 48         |
| CASE DRAIN FLOW @<br>deadhead & rated pressure |              | gpm           | 1.0        |
|                                                |              | lpm           | 3.8        |
| MOUNTING<br>FLANGE                             | Keyed shaft  | SAE Type      | "C" 2-Bolt |
|                                                | Spline shaft | SAE Type      | "C" 2-Bolt |
| SHIPPING<br>WEIGHT                             | Rear Port    | lbs.          | 86         |
|                                                |              | kg.           | 39.1       |
|                                                | Side Port    | lbs.          | 102        |
|                                                |              | kg.           | 46.3       |
|                                                | Tandem       | lbs.          | 111        |
|                                                |              | kg.           | 50.3       |

NOTES:  
This pressure should comprise 10% or less of the total duty cycle & not exceed 6 consecutive seconds.  
Pumps operating at less than 150 psi may overheat & shorten pump life.

## CASE DRAIN & INLET PORT SPECIFICATIONS

| RPM  | Maximum Case Pressure |      | Maximum Inlet Pressure |     | Minimum Inlet Pressure |                   |
|------|-----------------------|------|------------------------|-----|------------------------|-------------------|
|      | psi                   | bar  | psi                    | bar | vacuum / pressure      | vacuum / pressure |
| 1800 | 10                    | 0.69 | 50                     | 3.4 | 6.12 in-Hg             | 155.5 mm-Hg       |
| 2050 | 7                     | 0.48 | 50                     | 3.4 | 6.12 in-Hg             | 155.5 mm-Hg       |
| 2100 | 5                     | 0.34 | 50                     | 3.4 | 4.99 in-Hg             | 126.7 mm-Hg       |
| 2200 | 5                     | 0.34 | 50                     | 3.4 | 2.55 in-Hg             | 64.8 mm-Hg        |
| 2300 | 5                     | 0.34 | 50                     | 3.4 | 0                      | 0                 |
| 2400 | 5                     | 0.34 | 50                     | 3.4 | 1.31 psi               | .09 bar           |

## PRESSURE & VOLUME ADJUSTMENT SENSITIVITY

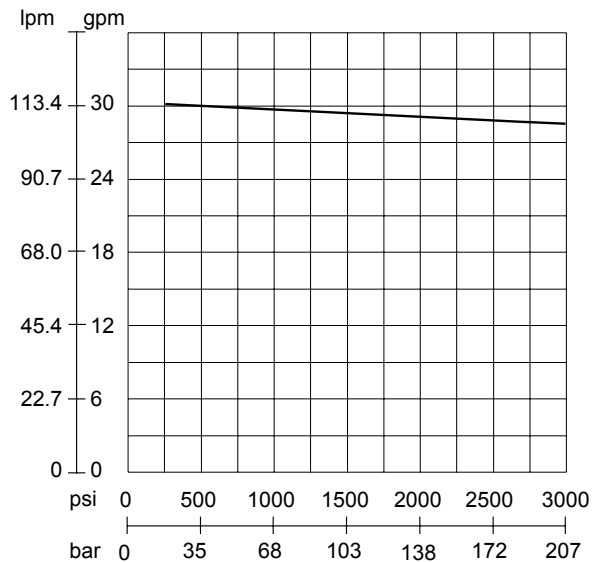
|                     |                          |            |          |
|---------------------|--------------------------|------------|----------|
| Pressure Adjustment | Pressure Change per Turn | 650 psi    | 44.8 bar |
| Volume Adjustment   | Flow Change per Turn     | 2.8 gpm    | 10.6 lpm |
|                     | Maximum Torque           | 45 in-lbs. | 5.1 Nm   |

# HPV29 Series

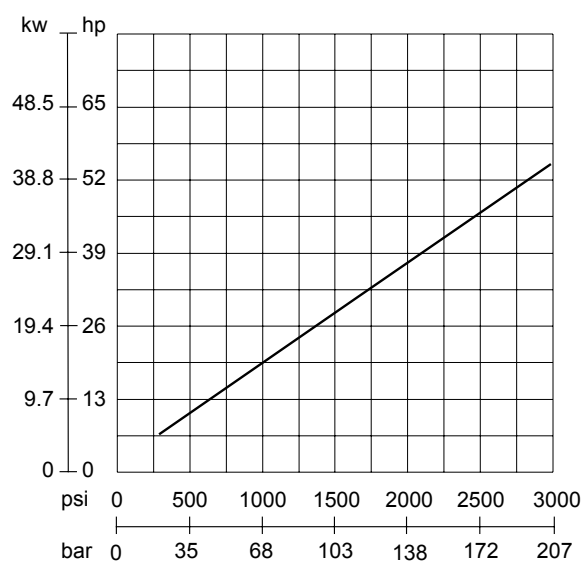


Axial Piston Pumps, Variable Displacement, Pressure Compensated

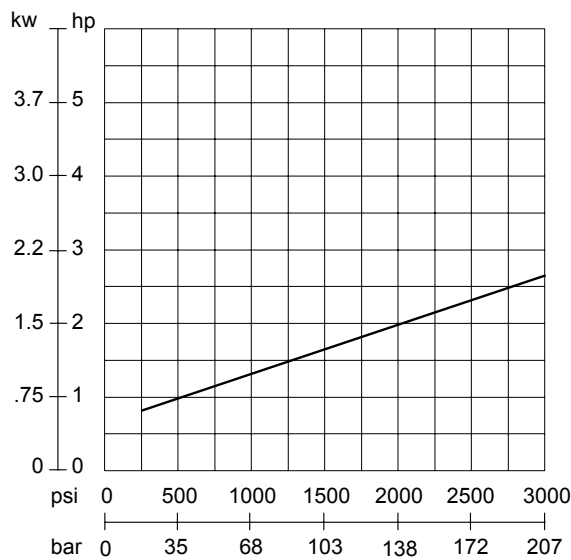
FLOW vs PRESSURE



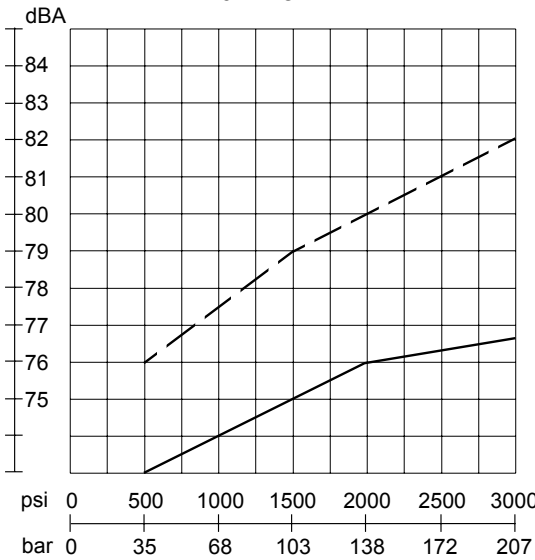
INPUT POWER @ FULL FLOW



INPUT POWER @ ZERO FLOW



NOISE LEVEL  
Zero Flow = ———  
Full Flow = - - - - -



THE ABOVE DATA IS TYPICAL PERFORMANCE AT 1750 RPM.

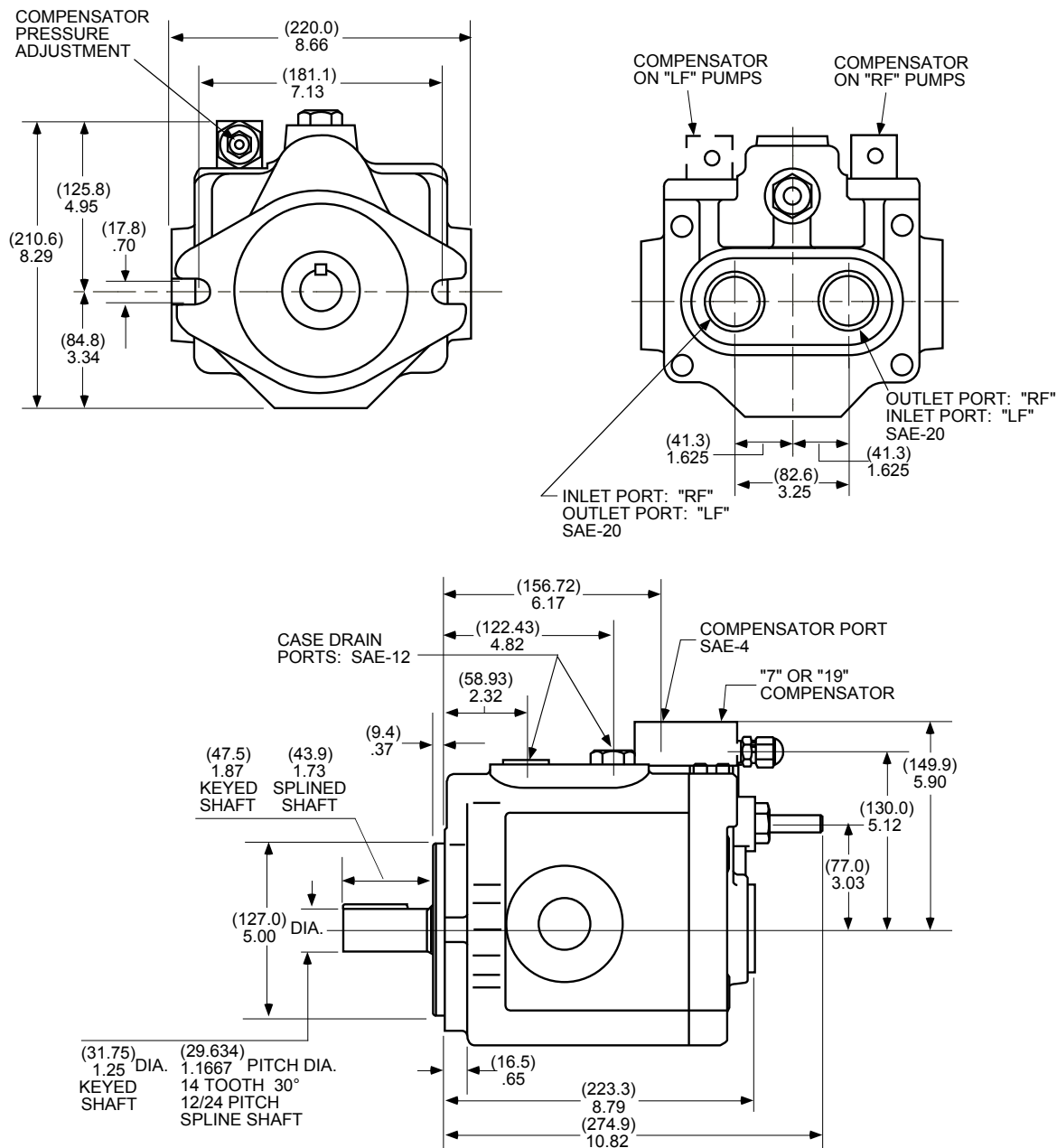
# HPV29 Series



Axial Piston Pumps, Variable Displacement, Pressure Compensated

## INSTALLATION DIMENSIONS -- REAR PORTS

(MILLIMETERS)  
INCHES



NOTE: KEY SIZE = 5/16" x 1.25".

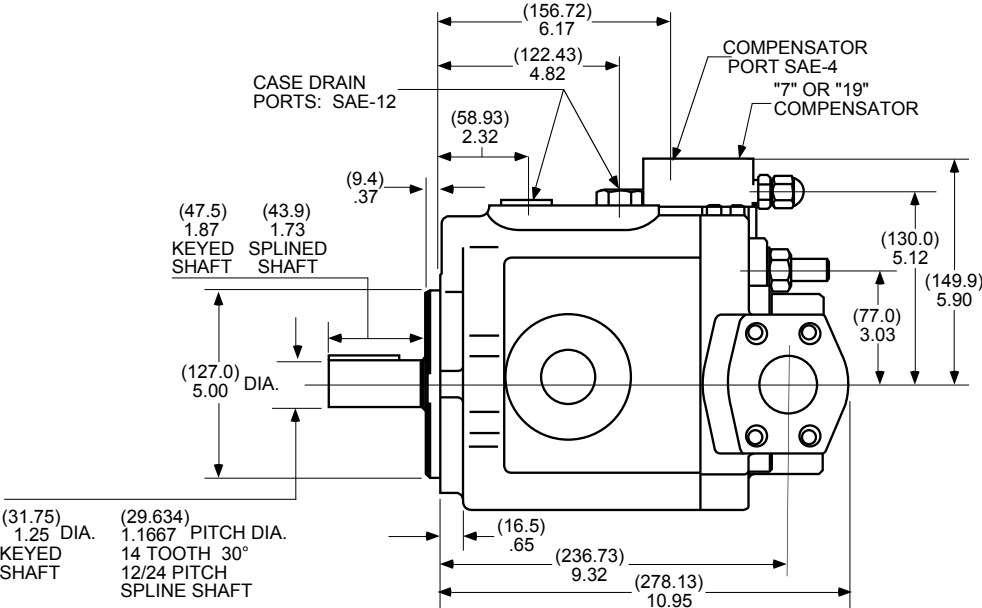
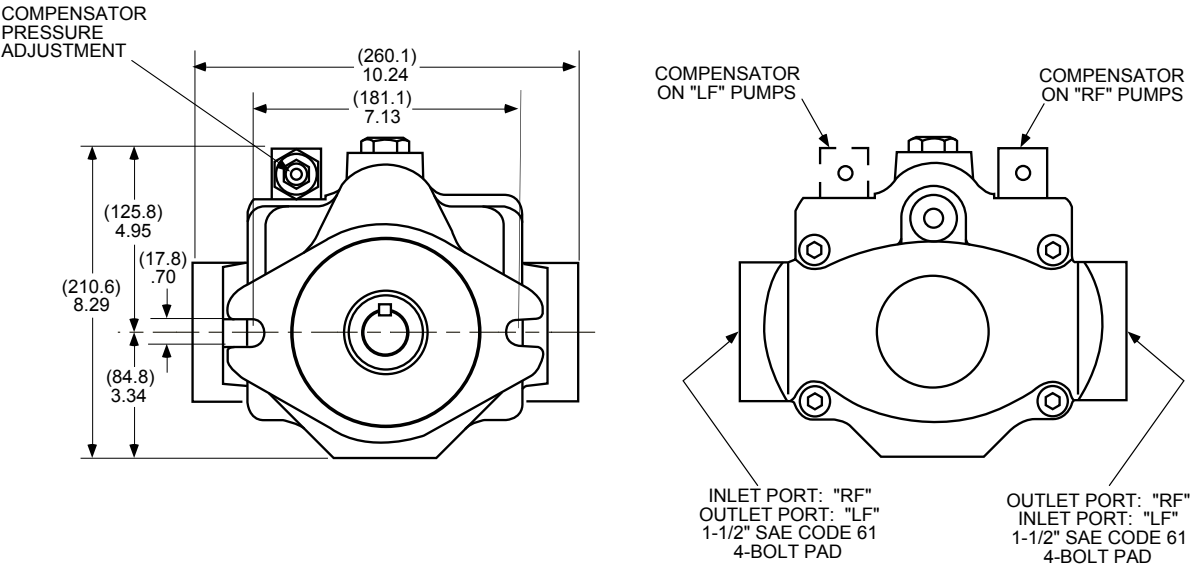
# HPV29 Series



Axial Piston Pumps, Variable Displacement, Pressure Compensated

## INSTALLATION DIMENSIONS -- SIDE PORTS

(MILLIMETERS)  
INCHES



NOTE: KEY SIZE = 5/16" x 1.25".

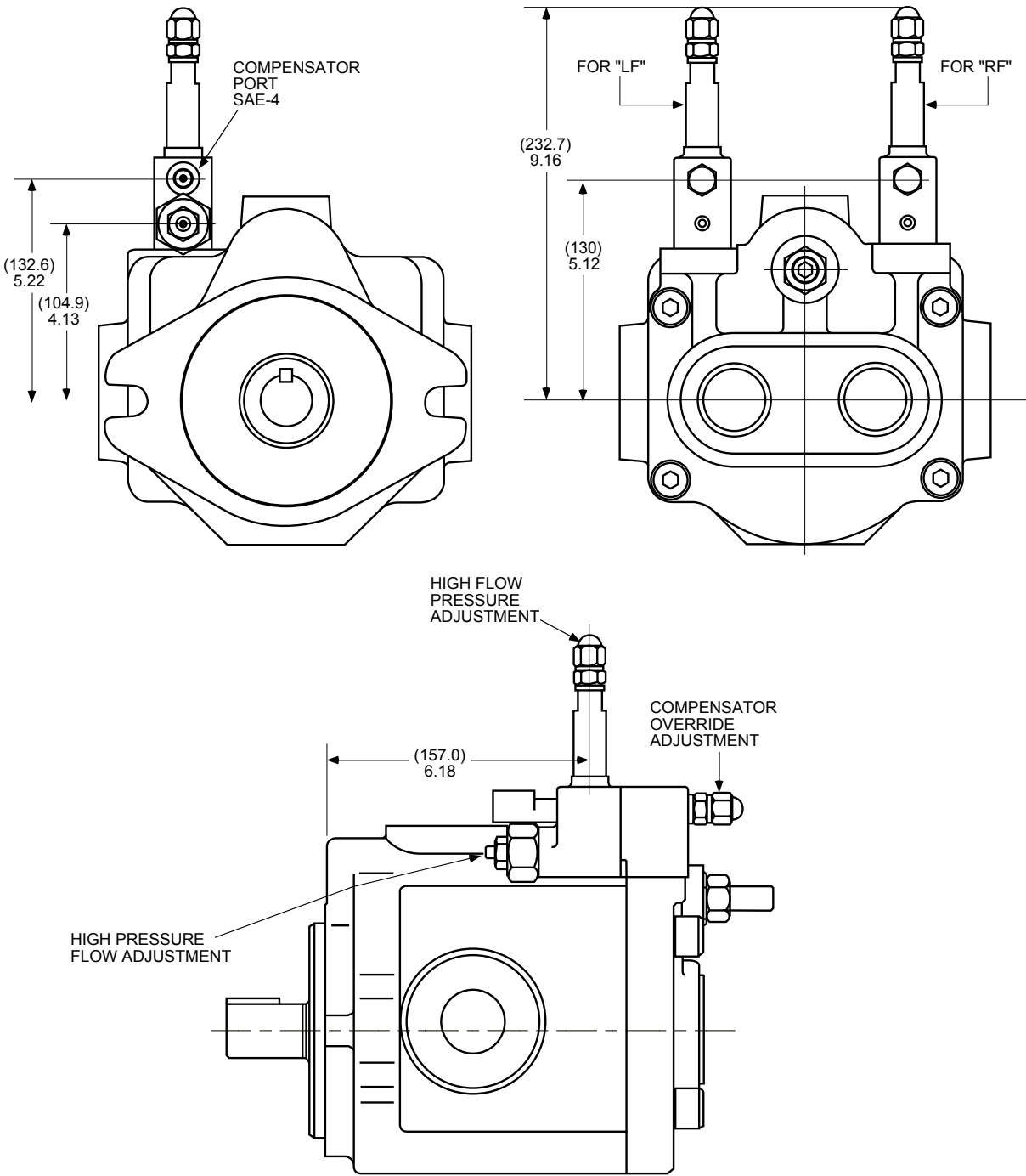
# HPV29 Series



Axial Piston Pumps, Variable Displacement, Pressure Compensated

## HORSEPOWER LIMITING DIMENSIONS

(MILLIMETERS)  
INCHES



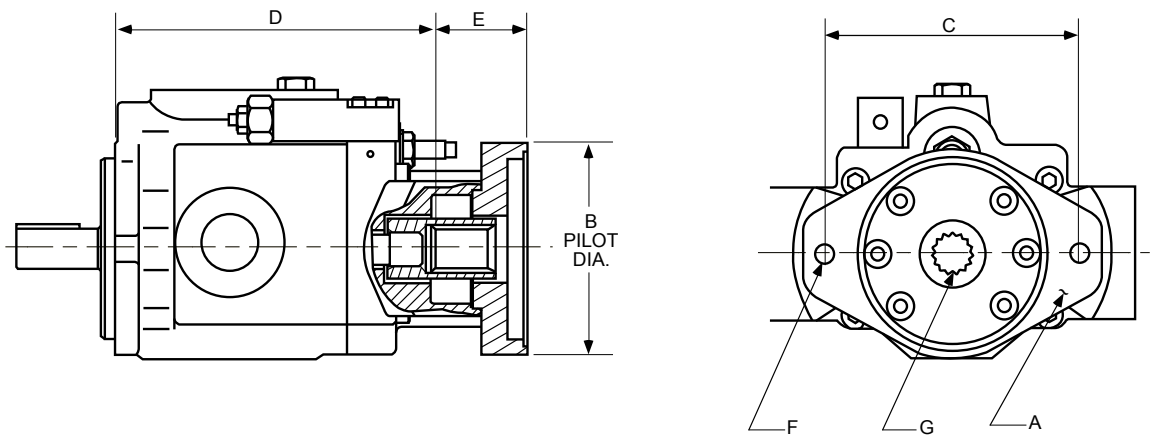
# HPV29 Series



Axial Piston Pumps, Variable Displacement, Pressure Compensated

## CODES 21, 22, 23 & 31 -- TANDEM OPTIONS

(MILLIMETERS)  
INCHES



NOTE: HPV-29 WITH THE CODE "23" OPTION PICTURED ABOVE.  
OTHER OPTIONS WILL APPEAR DIFFERENTLY.

| CODE | SAE 2-BOLT<br>MTG PAD | DIMENSIONS      |                  |                   |                 |            | INTERNAL 30°<br>INVOLUTE SPLINE               | MAX. HP<br>RATING *   | MAX.<br>TORQUE<br>RATING * |
|------|-----------------------|-----------------|------------------|-------------------|-----------------|------------|-----------------------------------------------|-----------------------|----------------------------|
|      |                       | (MILLIMETERS)   | (MILLIMETERS)    | (MILLIMETERS)     | (MILLIMETERS)   | (INCHES)   |                                               |                       |                            |
|      | A                     | B               | C                | D                 | E               | F          | G                                             |                       |                            |
| 21   | "A" FLANGE            | (82.6)<br>3.25  | (106.17)<br>4.18 | (286.0)<br>11.26  | (58.42)<br>2.30 | 3/8-16 UNC | 9 TOOTH<br>16/32 PITCH<br>0.5625" PITCH DIA.  | 8.5 HP<br>@ 1750 RPM  | 306<br>lb. in.             |
| 22   | "B" FLANGE            | (101.7)<br>4.00 | (146.1)<br>5.75  | (290.07)<br>11.42 | (62.48)<br>2.46 | 1/2-13 UNC | 13 TOOTH<br>16/32 PITCH<br>0.8125" PITCH DIA. | 28.1 HP<br>@ 1750 RPM | 1013<br>lb. in.            |
| 23   | "C" FLANGE            | (127.0)<br>5.00 | (181.10)<br>7.13 | (290.07)<br>11.42 | (62.48)<br>2.46 | 5/8-11 UNC | 14 TOOTH<br>12/24 PITCH<br>1.1667" PITCH DIA. | 43.8 HP<br>@ 1750 RPM | 1576<br>lb. in.            |
| 31   | "A-B"<br>FLANGE       | (82.6)<br>3.25  | (106.17)<br>4.18 | (286.0)<br>11.26  | (58.42)<br>2.30 | 3/8-16 UNC | 13 TOOTH<br>16/32 PITCH<br>0.8125 PITCH DIA.  | 28.1 HP<br>@ 1750 RPM | 1013<br>lb. in.            |

\* THIS IS THE MAXIMUM HORSEPOWER OR TORQUE THAT CAN BE  
TRANSMITTED THROUGH THE SHAFT COUPLING TO THE REAR PUMP.

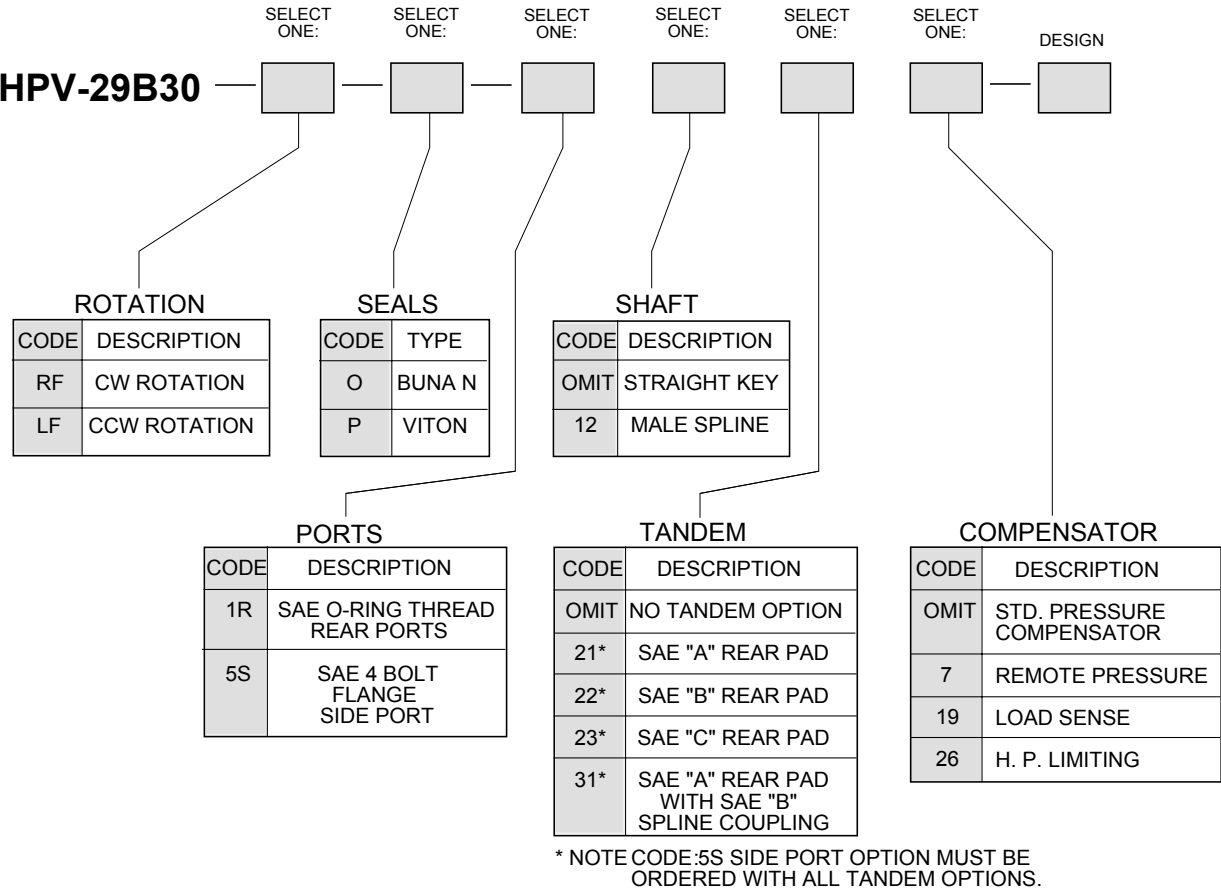
NOTE: CODE 5S SIDE PORT OPTION MUST BE  
ORDERED WITH ALL TANDEM OPTIONS.

# HPV29 Series



Axial Piston Pumps, Variable Displacement, Pressure Compensated

## ORDERING INFORMATION



TYPICAL ORDERING CODE: HPV-29B30-RF-O-1R