

General Information for HP Series

■ Available in various configurations:

- HP7 – Single Section
- THP7 – Tandem, 2-Place

- HP8 – Single Section
- THP8 – Tandem, 2-Place

■ Construction:

- Aluminum body and flange for excellent power to weight ratio
- Journal bearings for long life and good over-hung load capability
- Buna-N Seals are standards for petroleum and glycol based fluids. “VitonE®” seals are optional.
- Pressure balanced plates for greater efficiency
- Aluminum construction for the best power to weight ratio
- Journal bearings for long life and good over-hung load capability
- Buna-N Seals are standard for petroleum and glycol based fluids. “Viton®E” seals are optional.
- Pressure-balanced plates for greater efficiency

■ HP7 - THP7 Features:

- Displacements to 10.74 C.I.R.
- Pressures to 4000 PSI

■ HP8 - THP8 Features:

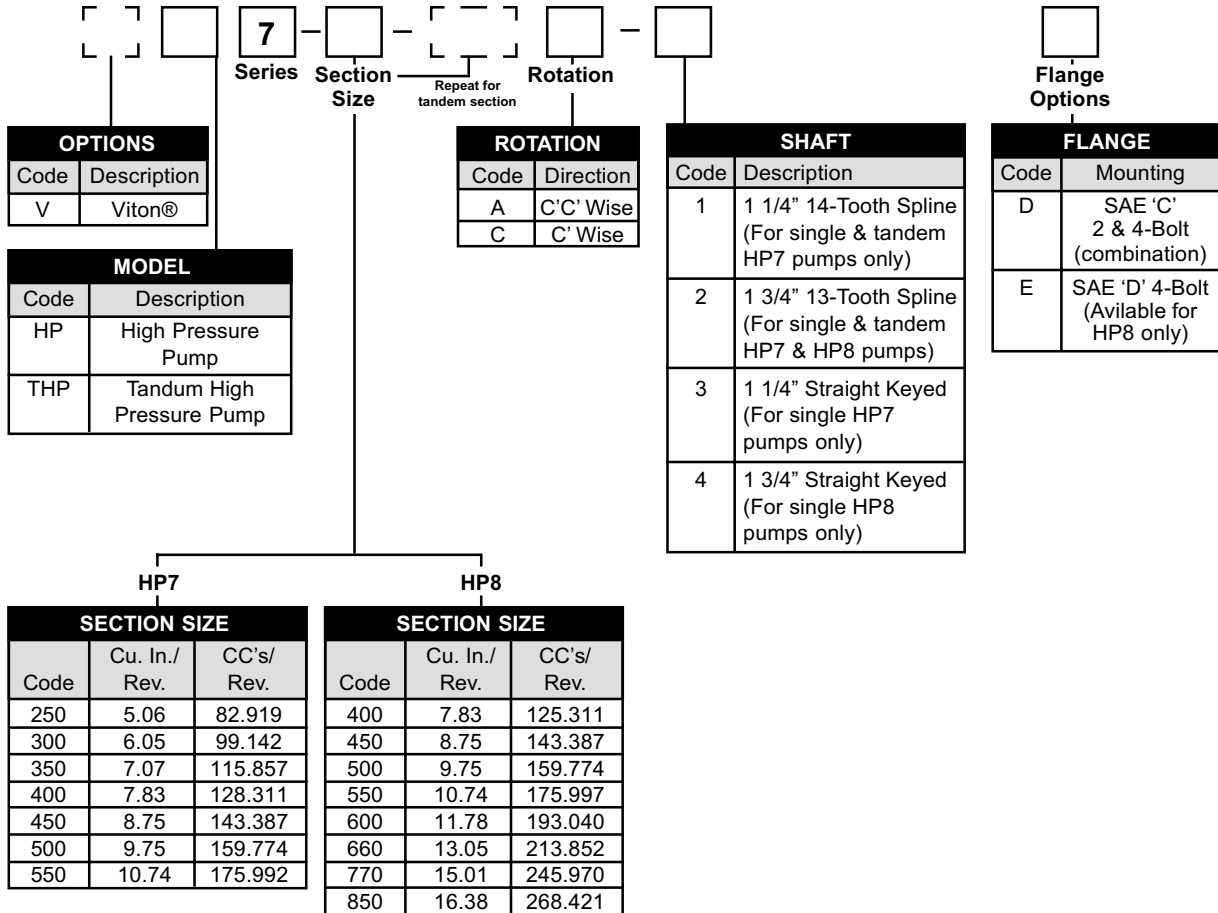
- Displacements to 116.38 C.I.R.
- Pressures to 4000 PSI



How to Order HP Series:

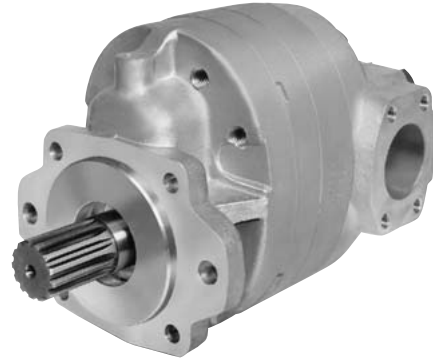
Select the desired symbol (in the correct position) to construct a model code.

Assembly Example:



**Specifications
 for HP7-THP7 Series**

Description..... Gear Pumps
 Flow Range To 116 GPM Per Section (440.01 LTR.)
 Displacements To 10.74 C.I.R. Per Section (176.00 CC's/REV.)
 Maximum Pressure to 4000 PSI (276 BAR)
 Maximum Speed to 2500 RPM
 Rotation A or C
 Bearings..... Journal
 Construction Aluminum



Performance Data Per Section

Pump Model	Section Size	Displacement/Revolution (Theoretical)					Maximum Pressure		Maximum Speed
		US Gallons	Cubic Inches	Liters	Cubic Centimeters	Imperial Gallons	PSI	BAR	RPM
HP7	250	.0219	5.06	.0829	82.919	.0182	4000	276	2500
HP7	300	.0262	6.05	.0991	99.142	.0218	4000	276	2500
HP7	350	.0306	7.07	.1159	115.857	.0255	4000	276	2500
HP7	400	.0339	7.83	.1283	128.311	.0282	4000	276	2500
HP7	450	.0379	8.75	.1434	143.387	.0316	3700	255	2500
HP7	500	.0422	9.75	.1598	159.774	.0351	3300	228	2500
HP7	550	.0465	10.74	.1760	175.997	.0387	3000	207	2500

All data based on SAE 10W oil at 150°F. Available with Viton® seals



CAUTION: "Inlet vacuum" should not exceed 5" Hg at normal operating speed and temperature. Operation of pumps in excess of 5" Hg requires factory approval.

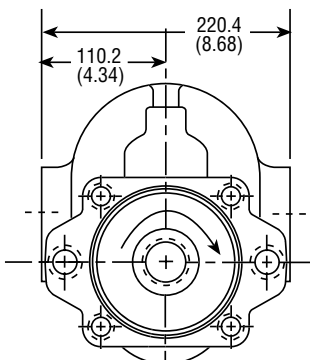
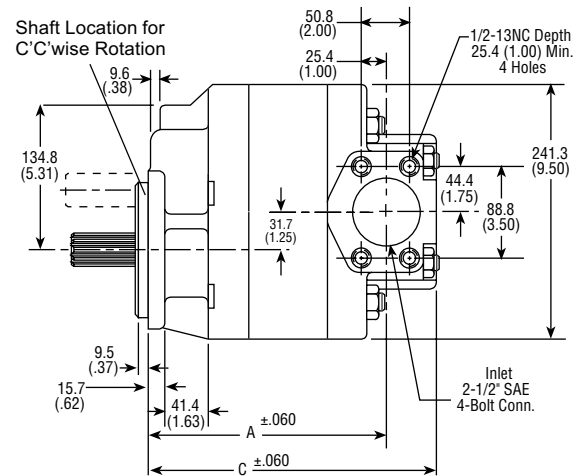
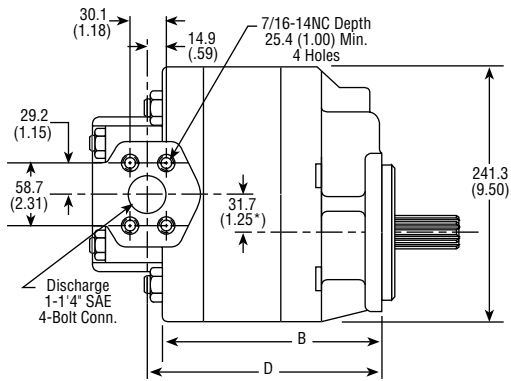
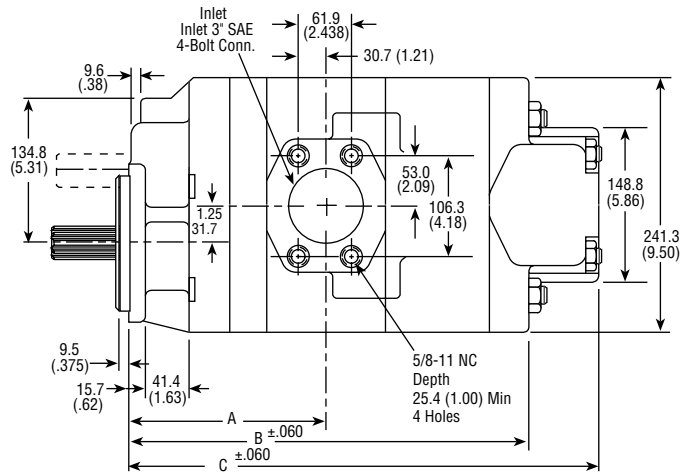
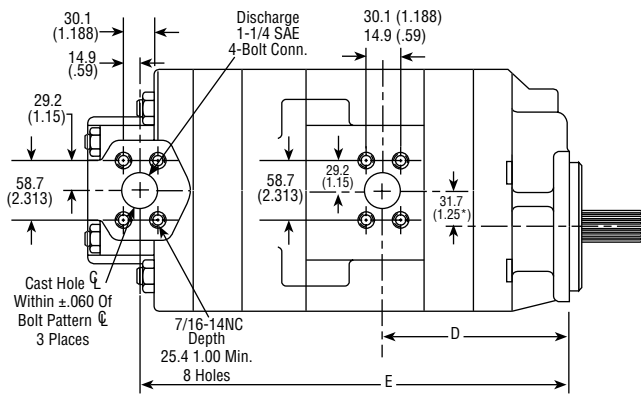
Dimensional Data

Mounting Dimensions				
Size	A	B	C	D
HP7-250 A & C	184.4 (7.26)	197.1 (7.76)	249.4 (9.82)	197.1 (7.76)
HP7-300 A & C	190.2 (7.49)	202.9 (7.99)	255.2 (10.05)	202.9 (7.99)
HP7-350 A & C	195.8 (7.71)	208.5 (8.21)	260.8 (10.27)	208.5 (8.21)
HP7-400 A & C	200.4 (7.89)	213.1 (8.39)	265.4 (10.45)	213.1 (8.39)
HP7-450 A & C	205.7 (8.10)	218.4 (8.60)	270.7 (10.66)	218.4 (8.60)
HP7-500 A & C	211.3 (8.32)	224.0 (8.82)	276.3 (10.88)	224.0 (8.82)
HP7-550 A & C	216.9 (8.54)	229.6 (9.04)	281.9 (11.10)	229.6 (9.04)

Dimensional Data

Inch equivalents for millimeter dimensions are shown in (**).

SAE 4-Bolt connectors are available. See Accessory Section only



SHOWN FOR CLOCKWISE ROTATION

Dimensional Data

SAE 4-Bolt Connector Ports					
Combinations Avail.	A	B	C	D	E
THP7-250 - 250 A & C	206.7 (8.14)	432.3 (17.02)	497.3 (19.58)	187.4 (7.38)	445.0 (17.52)
THP7-300 - 250 A & C	212.3 (8.36)	437.8 (17.24)	502.9 (19.80)	193.0 (7.60)	450.5 (17.74)
THP7-300 - 300 A & C	212.3 (8.36)	443.4 (17.46)	508.5 (20.02)	193.0 (7.60)	456.1 (17.96)
THP7-350 - 250 A & C	212.3 (8.58)	443.4 (17.46)	508.5 (20.02)	198.6 (7.82)	456.1 (17.96)
THP7-350 - 300 A & C	212.3 (8.58)	449.0 (17.68)	514.0 (20.24)	198.6 (7.82)	461.7 (18.18)
THP7-350 - 350 A & C	121.3 (8.58)	454.6 (17.90)	519.6 (20.46)	198.6 (7.82)	467.3 (18.40)
THP7-400 - 250 A & C	222.5 (8.76)	448.0 (17.64)	513.0 (20.20)	203.2 (8.00)	460.7 (18.14)
THP7-400 - 300 A & C	222.5 (8.76)	453.6 (17.86)	518.6 (20.42)	203.2 (8.00)	466.3 (18.36)
THP7-400 - 350 A & C	222.5 (8.76)	459.2 (18.08)	524.2 (20.64)	203.2 (8.00)	471.9 (18.58)
THP7-400 - 400 A & C	222.5 (8.76)	463.8 (18.26)	528.8 (20.82)	203.2 (8.00)	476.5 (18.76)
THP7-450 - 250 A & C	227.8 (8.97)	453.6 (17.86)	518.6 (20.42)	208.5 (8.21)	466.3 (18.36)
THP7-450 - 300 A & C	227.8 (8.97)	454.2 (18.08)	524.2 (20.64)	208.5 (8.21)	471.9 (18.58)
THP7-450 - 350 A & C	227.8 (8.97)	464.8 (18.30)	529.8 (20.86)	208.5 (8.21)	477.5 (18.80)
THP7-450 - 400 A & C	227.8 (8.97)	469.1 (18.47)	534.1 (21.03)	208.5 (8.21)	481.8 (18.97)
THP7-450 - 450 A & C	227.8 (8.97)	474.4 (18.68)	539.4 (21.24)	208.5 (8.21)	487.1 (19.18)
THP7-500 - 250 A & C	233.6 (9.20)	459.2 (18.08)	524.2 (20.64)	214.3 (8.44)	471.9 (18.58)
THP7-500 - 300 A & C	233.6 (9.20)	464.8 (18.30)	529.8 (20.86)	214.3 (8.44)	477.5 (18.80)
THP7-500 - 350 A & C	233.6 (9.20)	470.4 (18.52)	535.4 (21.08)	214.3 (8.44)	483.1 (19.02)
THP7-500 - 400 A & C	233.6 (9.20)	474.9 (18.70)	540.0 (21.26)	214.3 (8.44)	487.6 (19.20)
THP7-500 - 450 A & C	233.6 (9.20)	480.5 (18.92)	545.5 (21.48)	214.3 (8.44)	493.2 (19.42)
THP7-500 - 500 A & C	233.6 (9.20)	486.1 (19.14)	551.1 (21.70)	214.3 (8.44)	498.8 (19.64)
THP7-550 - 250 A & C	239.2 (9.42)	464.8 (18.30)	529.8 (20.86)	219.9 (8.66)	477.5 (18.80)
THP7-550 - 300 A & C	239.2 (9.42)	470.4 (18.52)	535.4 (21.08)	219.9 (8.66)	483.1 (19.02)
THP7-550 - 350 A & C	239.2 (9.42)	475.9 (18.74)	541.0 (21.30)	219.9 (8.66)	488.6 (19.24)
THP7-550 - 400 A & C	239.2 (9.42)	480.5 (18.92)	545.5 (21.48)	219.9 (8.66)	493.2 (19.42)
THP7-550 - 450 A & C	239.2 (9.42)	486.1 (19.14)	551.1 (21.70)	219.9 (8.66)	498.8 (19.64)
THP7-550 - 500 A & C	239.2 (9.42)	491.7 (19.36)	556.2 (21.92)	219.9 (8.66)	504.4 (19.86)
THP7-550 - 550 A & C	239.2 (9.42)	497.3 (19.58)	562.3 (22.14)	219.9 (8.66)	510.0 (20.08)

**Specifications
for HP8-THP8 Series**

Description Gear Pumps
Flow Range To 177 GPM Per Section (670.0 LTR.)
Displacements To 16.38 C.I.R. Per Section (268.42 CC's/REV.)
Maximum Pressure to 4000 PSI (276 BAR)
Maximum Speed to 2500 RPM
Rotation A or C
Bearings Journal
Construction Aluminum



Performance Data Per Section

Pump Model	Section Size	Displacement/Revolution (Theoretical)					Maximum Pressure		Maximum Speed* RPM
		US Gallons	Cubic Inches	Liters	Cubic Centimeters	Imperial Gallons	PSI	BAR	
HP8	400	.0339	7.83	.1283	128.311	.028	4000	276	2500
HP8	450	.0379	8.75	.1434	143.387	.032	4000	276	2500
HP8	500	.0422	9.75	.1598	159.774	.035	4000	276	2500
HP8	550	.0465	10.74	.1760	175.997	.039	4000	276	2500
HP8	600	.0510	11.78	.1930	193.040	.042	4000	276	2500
HP8	660	.0565	13.05	.2138	213.852	.047	3600	248	2500
HP8	770	.0650	15.01	.2460	245.970	.054	3300	228	2500
HP8	850	.0709	16.38	.2683	268.421	.059	3000	207	2500

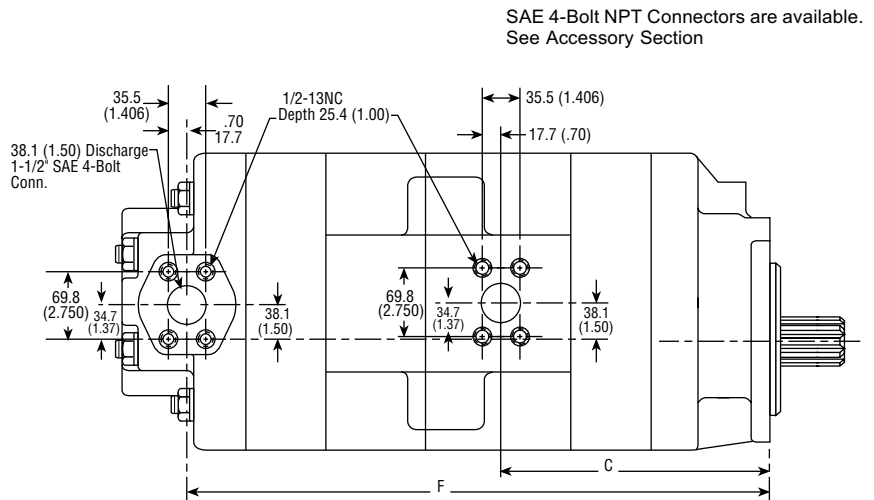
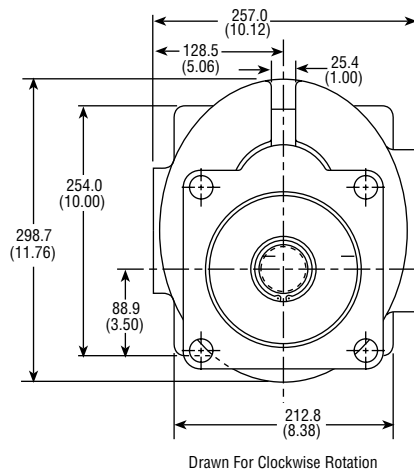
All data based on SAE 10W oil at 150°F. Available with Viton® seals.
Note: Pressurized suction required: Speeds to 2000 RPM require 0 PSI minimum.
*Speeds above 2000 RPM require the suction to be pressurized to 5 PSI minimum.



CAUTION: "Inlet vacuum" should not exceed 5" Hg at normal operating speed and temperature. Operation of pumps in excess of 5" Hg requires factory approval.

Dimensional Data

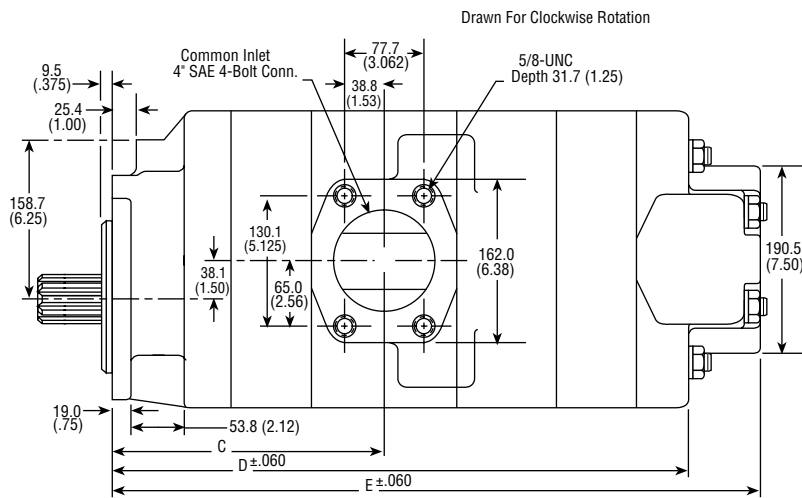
Inch equivalents for millimeter dimensions are shown in (**).



SAE 4-Bolt NPT Connectors are available. See Accessory Section

Dimensional Data

SAE 4-Bolt Connector Ports				
Combinations Avail.	C	D	E	F
THP8-400 - 400 A & C	250.6 (9.87)	532.8 (20.98)	606.0 (23.86)	544.0 (21.42)
THP8-450 - 400 A & C	254.7 (10.03)	536.9 (21.14)	610.1 (24.02)	548.1 (21.58)
THP8-450 - 450 A & C	254.7 (10.03)	541.0 (21.30)	614.1 (24.18)	552.1 (21.74)
THP8-500 - 400 A & C	259.9 (10.20)	541.2 (21.31)	614.4 (24.19)	552.4 (21.75)
THP8-500 - 450 A & C	259.9 (10.20)	545.3 (21.47)	618.4 (24.35)	556.5 (21.91)
THP8-500 - 500 A & C	259.9 (10.20)	549.6 (21.64)	622.8 (24.52)	560.8 (22.08)
THP8-550 - 400 A & C	263.3 (10.37)	545.5 (21.48)	618.7 (24.36)	556.7 (21.92)
THP8-550 - 450 A & C	263.3 (10.37)	549.6 (21.64)	622.8 (24.52)	560.8 (22.08)
THP8-550 - 500 A & C	263.3 (10.37)	553.9 (21.81)	627.1 (24.69)	565.1 (22.25)
THP8-550 - 550 A & C	263.3 (10.37)	558.2 (21.98)	631.4 (24.86)	569.4 (22.42)
THP8-600 - 400 A & C	267.9 (10.55)	550.1 (21.66)	623.3 (24.54)	561.3 (22.10)
THP8-600 - 450 A & C	267.9 (10.55)	554.2 (21.82)	627.3 (24.70)	565.4 (22.26)
THP8-600 - 500 A & C	267.9 (10.55)	558.5 (21.99)	631.6 (24.87)	569.7 (22.43)
THP8-600 - 550 A & C	267.9 (10.55)	562.8 (22.16)	636.0 (25.04)	574.0 (22.60)
THP8-600 - 600 A & C	267.9 (10.55)	567.4 (22.34)	649.5 (25.22)	578.6 (22.78)
THP8-660 - 400 A & C	273.5 (10.77)	555.7 (21.88)	628.9 (24.76)	566.9 (22.32)
THP8-660 - 450 A & C	273.5 (10.77)	559.8 (22.04)	632.9 (24.92)	570.9 (22.48)
THP8-660 - 500 A & C	273.5 (10.77)	564.1 (22.21)	637.2 (25.09)	575.3 (22.65)
THP8-660 - 550 A & C	273.5 (10.77)	568.4 (22.38)	641.6 (25.26)	579.6 (22.82)
THP8-660 - 600 A & C	273.5 (10.77)	573.0 (22.56)	646.1 (25.44)	584.2 (23.00)
THP8-660 - 660 A & C	273.5 (10.77)	578.6 (22.78)	651.7 (25.66)	589.7 (23.22)
THP8-770 - 400 A & C	282.4 (11.12)	564.6 (22.23)	637.7 (25.11)	575.8 (22.67)
THP8-770 - 450 A & C	282.4 (11.12)	568.7 (22.39)	641.8 (25.27)	579.8 (22.83)
THP8-770 - 500 A & C	282.4 (11.12)	573.0 (22.56)	646.1 (25.44)	584.2 (23.00)
THP8-770 - 550 A & C	282.4 (11.12)	577.3 (22.73)	650.4 (25.61)	588.5 (23.17)
THP8-770 - 600 A & C	282.4 (11.12)	581.9 (22.91)	655.0 (25.79)	593.0 (23.35)
THP8-770 - 660 A & C	282.4 (11.12)	587.5 (23.13)	660.6 (26.01)	598.6 (23.57)
THP8-770 - 770 A & C	282.4 (11.12)	596.3 (23.48)	669.5 (26.36)	607.5 (23.92)
THP8-850 - 400 A & C	288.5 (11.36)	570.7 (22.47)	643.8 (25.35)	581.9 (22.91)
THP8-850 - 450 A & C	288.5 (11.36)	574.8 (22.63)	647.9 (25.51)	585.9 (23.07)
THP8-850 - 500 A & C	288.5 (11.36)	579.1 (22.80)	652.2 (25.68)	590.2 (23.24)
THP8-850 - 550 A & C	288.5 (11.36)	583.4 (22.97)	656.5 (25.85)	594.6 (23.41)
THP8-850 - 600 A & C	288.5 (11.36)	588.0 (23.15)	661.1 (26.03)	599.1 (23.59)
THP8-850 - 660 A & C	288.5 (11.36)	593.5 (23.37)	666.7 (26.25)	604.7 (23.81)
THP8-850 - 770 A & C	288.5 (11.36)	602.4 (23.72)	675.6 (26.60)	613.6 (24.16)
THP8-850 - 850 A & C	288.5 (11.36)	608.5 (23.96)	681.7 (26.84)	619.7 (24.40)



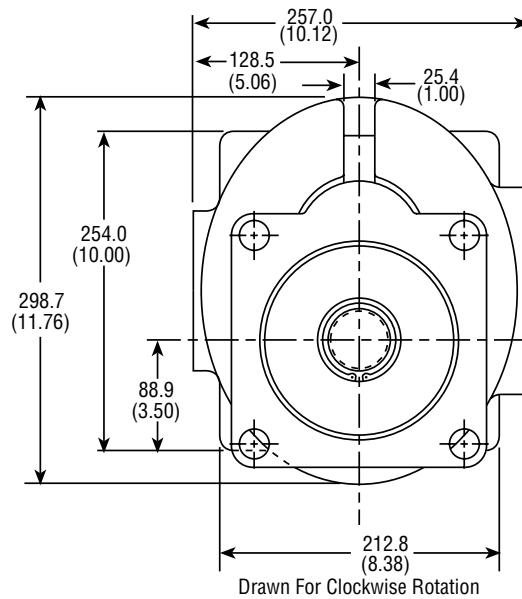
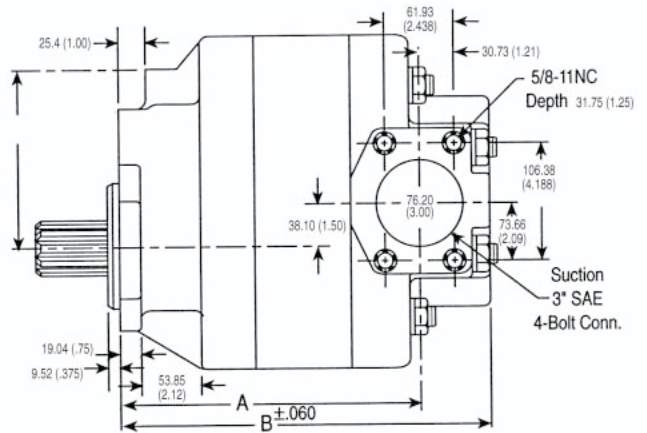
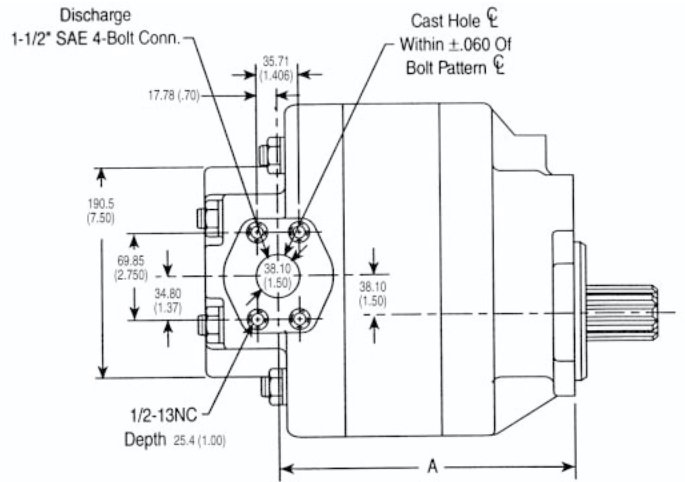
Inch equivalents for millimeter dimensions are shown in (**).

SAE 4-Bolt NPT Connectors are available. See Accessory Section

Dimensional Data

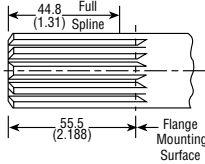
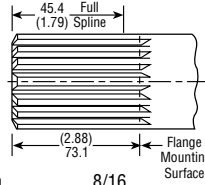
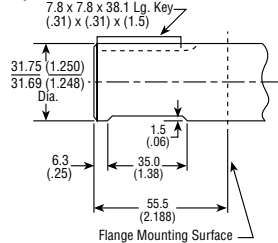
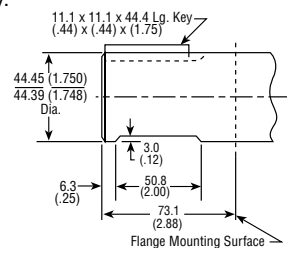
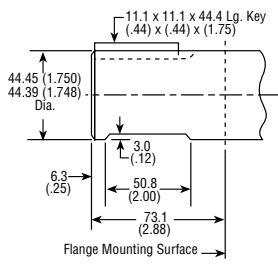
SAE 4-Bolt Connector Ports		
Combinations Avail.	A	B
HP8-400	239.52 (9.43)	301.5 (11.87)
HP8-450	243.59 (9.59)	305.56 (12.03)
HP8-500	247.9 (9.76)	309.88 (12.20)
HP8-550	252.22 (9.93)	314.20 (12.37)
HP8-600	256.79 (10.11)	318.77 (12.55)
HP8-660	262.38 (10.33)	324.36 (12.77)
HP8-770	271.27 (10.68)	333.25 (13.12)
HP8-850	277.37 (10.92)	339.34 (13.36)

Inch equivalents for millimeter dimensions are shown in (**).

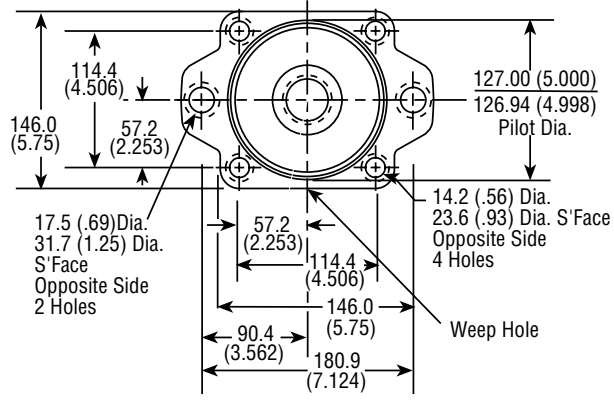
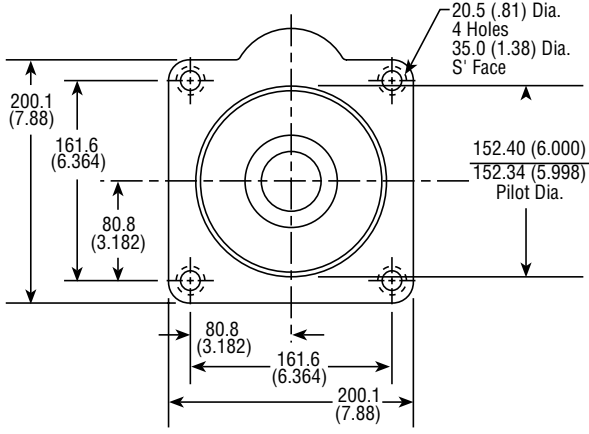


Shafts Available for HP Series

Inch equivalents for millimeter dimensions are shown in (**).

<p>1 1-1/4" 14 Tooth Spline Flat Root Side Fit Torque Limit 655 Lb. Ft. (888.0 Nm) Available for all Single section HP7 and Tandem THP7 sizes only.</p>  <p>Spline Data Diametral Pitch 12/24 Pressure Angle 30° No. Of Teeth 14</p>	<p>2 1-3/4" 13 Tooth Spline Flat Root Side Fit Torque Limit 1800 Lb. Ft. (2440.4 Nm) Available for all Single section HP7, HP8 and Tandem THP7 and THP8 sizes</p>  <p>Spline Data Diametral Pitch 8/16 Pressure Angle 30° No. Of Teeth 13</p>	<p>3 1-1/4" Straight Shaft for SINGLE Units Only Flat Root Side Fit Torque Limit 655 Lb. Ft. (880.0 Nm) Available for all Single section HP7 sizes only.</p> 
<p>3 1-3/4" Straight Shaft for TANDEM Units Only Flat Root Side Fit Torque Limit 1800 Lb. Ft. (2440.4 Nm) Available for all Tandem THP7 sizes only.</p> 	<p>4 1-3/4" Straight Shaft Torque Limit 1800 Lbs. Ft. (2440.4 Nm) Available for all Single section HP8 sizes only.</p> 	

Mounting Flanges Available for HP Series

<p>D SAE 'C' 2- & 4 Bolt - HP7 & HP8</p> 	<p>E SAE 'D' 4-Bolt - HP8 Only</p> 
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