Features and Handling

High speed and high-pressure motors ranging from 43.9 to 193.2 cm^3 / r with 172 bar of maximum pressure and 9 torques rating choices.The internal inlet chambers are equally and diametrically opposed resulting in balanced in radial loads.
Thus, the motors are hydraulically balanced which reduced wear and heat from friction.

These motors provide 90% efficiency due to dual pressure plates, which produced low internal leakage. Motors are bi-rotational, simply reversed by reversing in flow direction.

25 HM 65 A - 11 C

1 2 3 4 5 6

1 Model Series
25HM, 35HM, 45HM

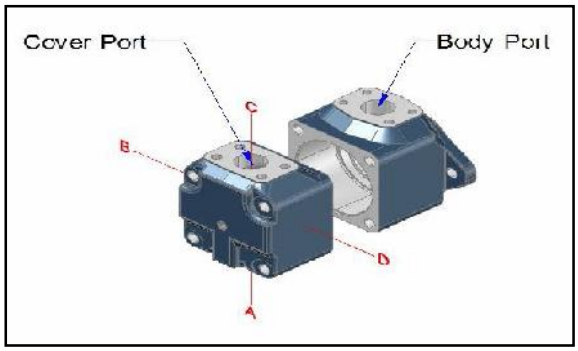
2 Vane Type Motor (Externally drained)

3 Ring size-Nominal torque Rating
(lb.in./100psi)
25HM - 30, 42, 55, 65
35HM - 80, 95, 115
45HM - 130, 155, 185

4 Mounting Flange and Port Connections
A - SAE type 2 - bolt mounting Flange and
SAE 4- bolt flange connections

5 Shaft
1 - Straight keyed
11 - Splined

6 Cover Port positions
(Viewed from cover end)
A - Opposite body port
B - 90° CCW body port
C - Inline with body port
D - 90° CW from body port



Specifications — Vane Motor HM Series

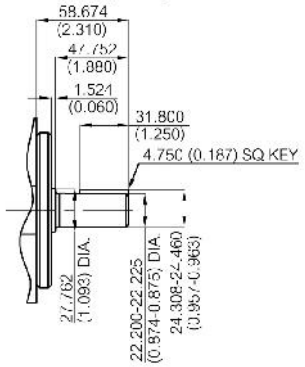
Model Series	Torque Nm/6, 9bar (lb in/100 psi)	Displacement cm^3/r (in^3/r)	Flow input/ requried @ 1200 r/min L/min (USgpm)	Maximum speeds & pressures	Approx Weight kg (lb)
25HM	3.3 (30)	29.0 (1.77)	34.8 (9.19)	3600 r/min @ 34 bar (500 psi) 1) 4000 r/min @ 34 bar (500 psi) 2)	18 (40)
	4.7 (42)	43.9 (2.68)	52.6 (13.9)		
	6.2 (55)	57.7 (3.52)	69.3 (18.3)		
	7.3 (65)	68.7 (4.19)	82.5 (21.8)		
35HM	9.0 (80)	83.6 (5.10)	100.3 (26.5)		29 (64)
	10.7 (95)	100.3 (6.12)	120.4 (31.8)		
	13.0 (115)	121.9 (7.44)	146.1 (38.6)		
45HM	14.7 (130)	138.0 (8.42)	165.4 (43.7)	2400 r/min @ 155 bar (2250 psi) 1) 3000 r/min @ 172 bar (2500 psi) 2)	39 (85)
	17.5 (155)	163.2 (9.96)	195.7 (51.7)		
	20.9 (185)	193.2 (11.79)	232.0 (61.3)		

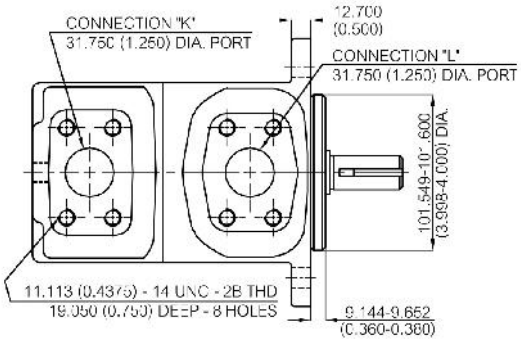
1) Continuous Operation

2) Intermittent Operation

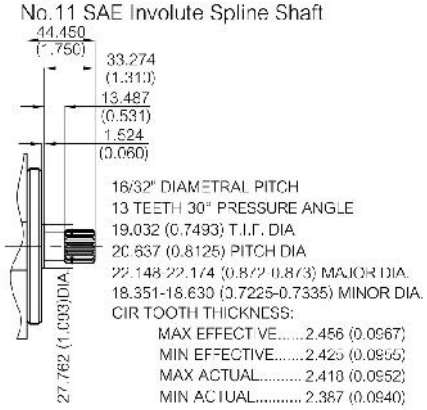
25HM

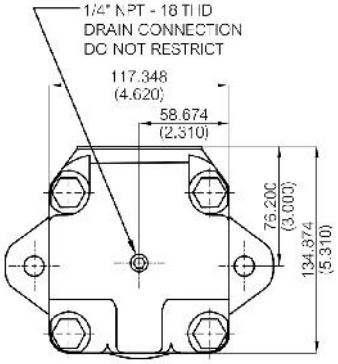
25HM Series
No.1 Straight-keyed Shaft

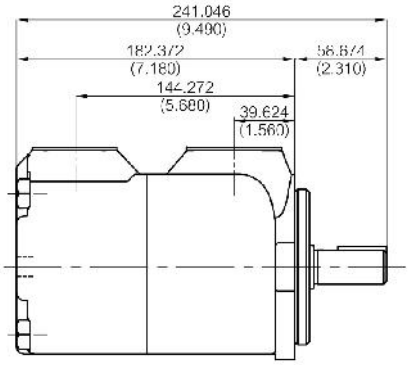


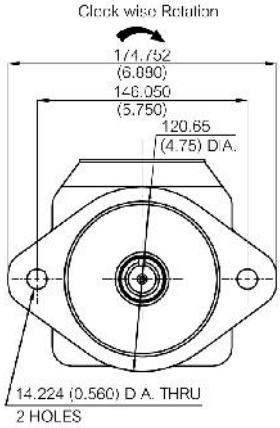


25HM Series
No.11 SAE Involute Spline Shaft



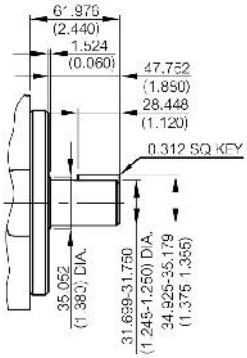


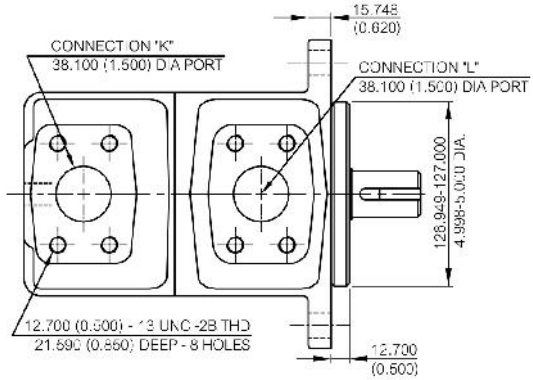




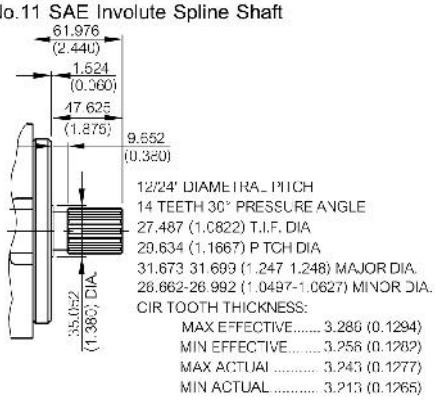
35HM

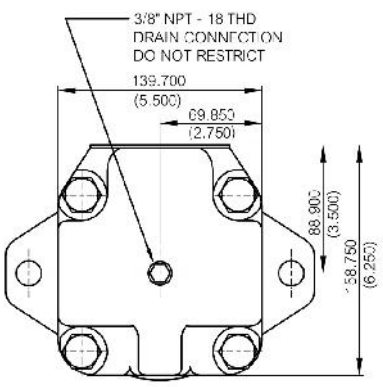
35HM Series
No.1 Straight - keyed Shaft

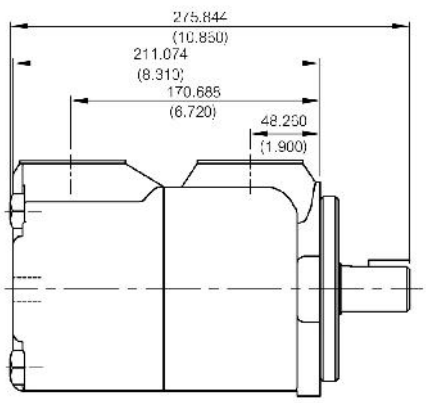


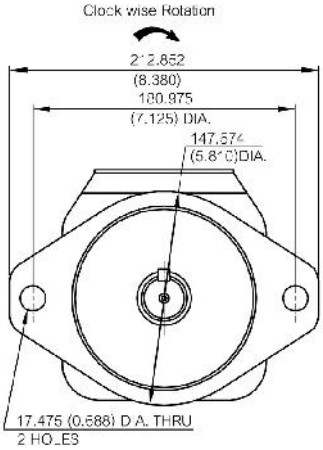


35HM Series
No.11 SAE Involute Spline Shaft

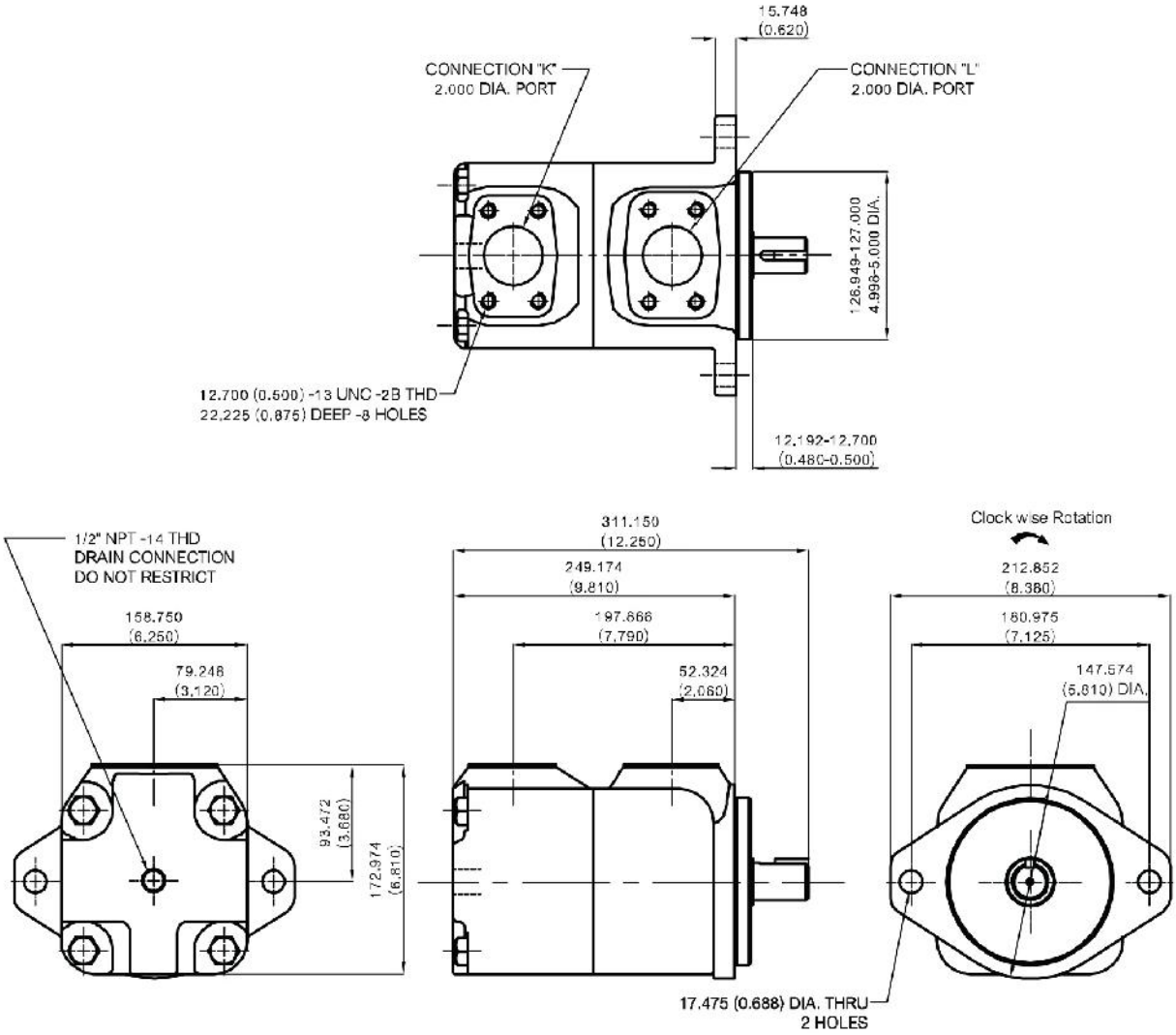




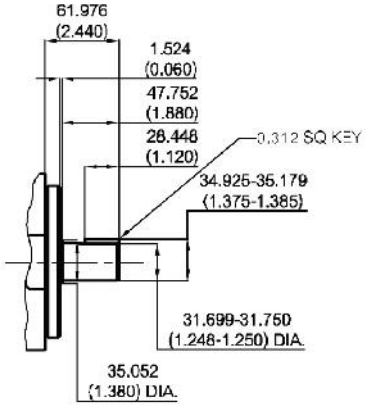




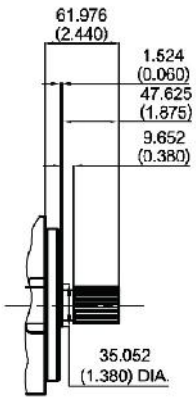
45HM



45M Series
No.1 Straight-keyed Shaft

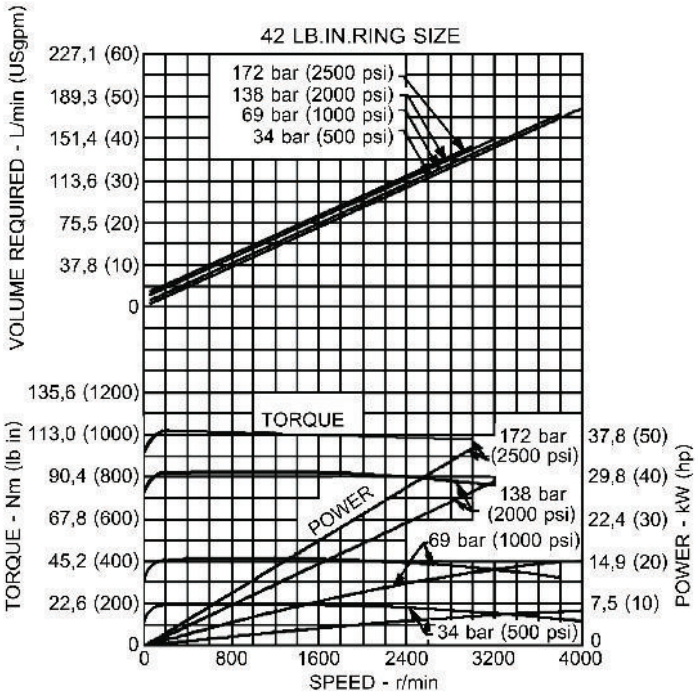


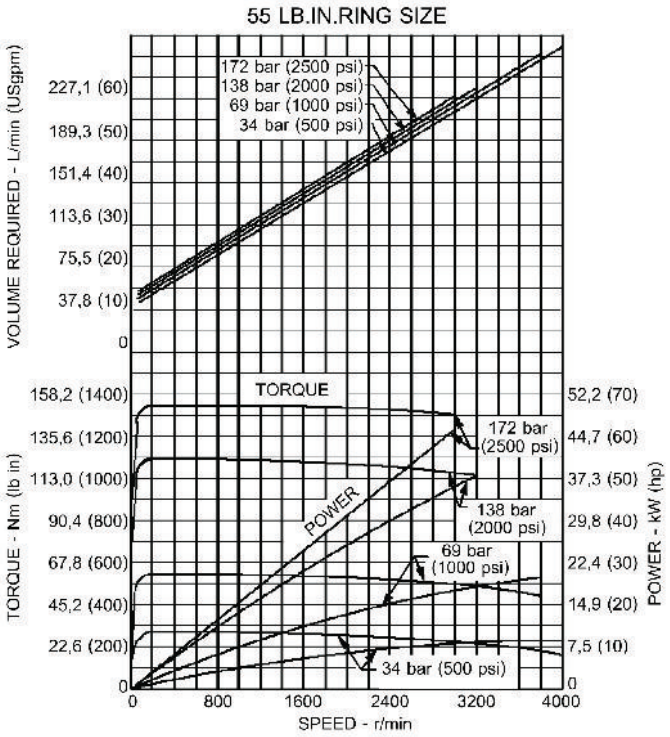
45M Series
No.11 SAE Involute Spline Shaft

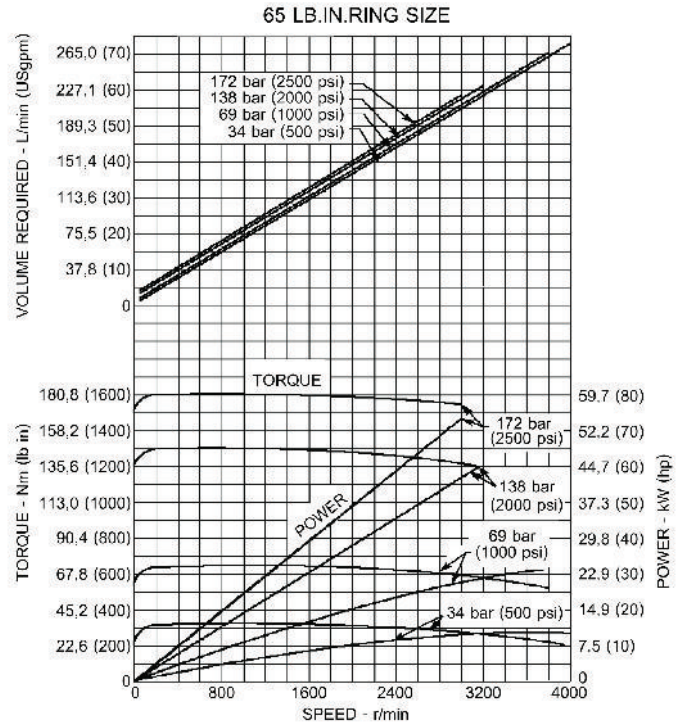


12/24" DIAMETRAL PITCH
14 TEETH 30° PRESSURE ANGLE
27.487 (1.0822) T.I.F. DIA
29.634 (1.1667) PITCH DIA
31.673-31.699 (1.247-1.248) MAJOR DIA.
26.662-26.992 (1.0497-1.0627) MINOR DIA.
CIR TOOTH THICKNESS:
MAX EFFECTIVE.....3.286 (0.1294)
MIN EFFECTIVE.....3.256 (0.1282)
MAX ACTUAL.....3.243 (0.1277)
MIN ACTUAL.....3.213 (0.1265)

Based on SAE 10W, temperature 49 °C (120 °F), viscosity 32 cSt (150 SUS)
Starting torque is 65% (minimum) of 400 r/min torque



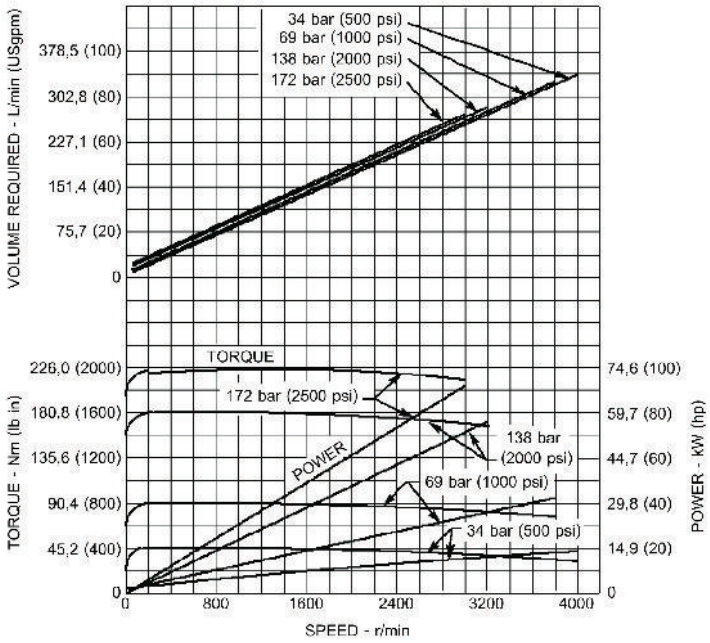




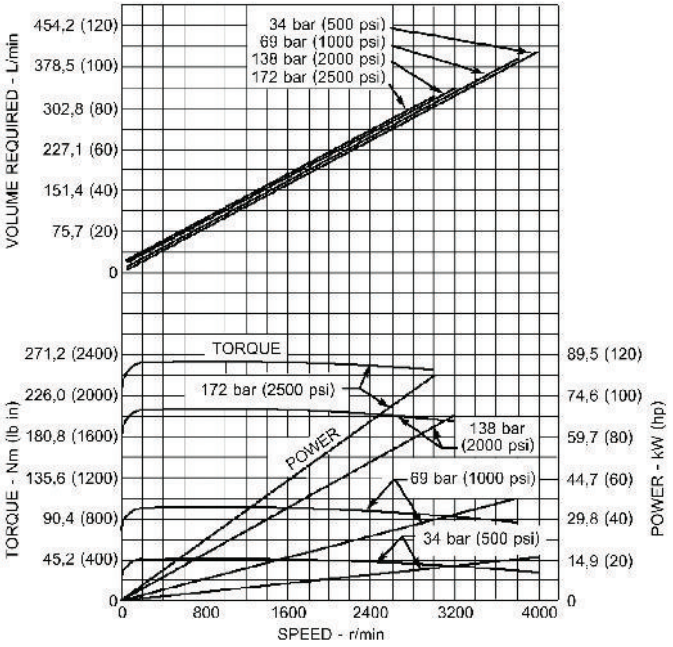
Based on SAE 10W, temperature 49 °C (120 °F), viscosity 32 cSt (150 SUS)

Starting torque is 65% (minimum) of 400 r/min torque

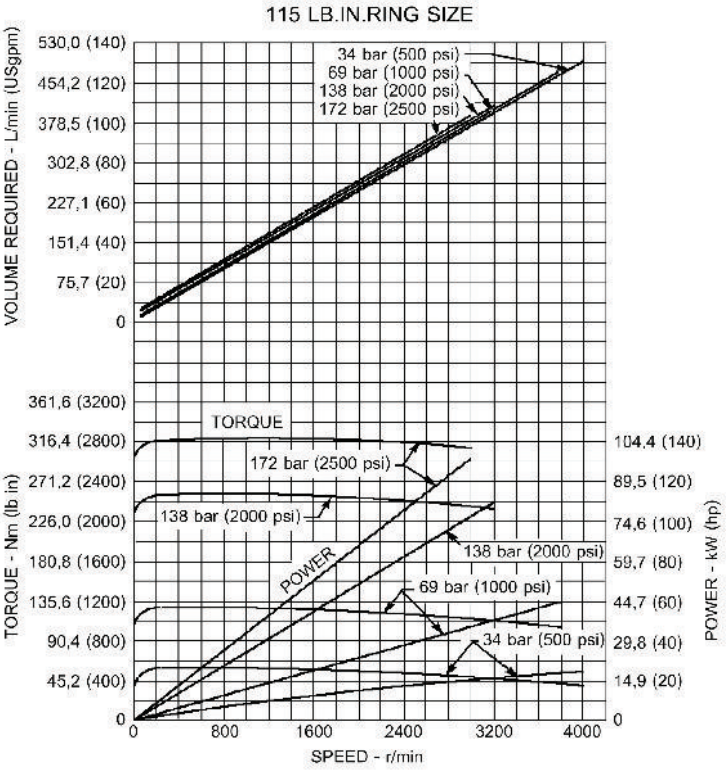
80 LB.IN.RING SIZE



95 LB.IN.RING SIZE

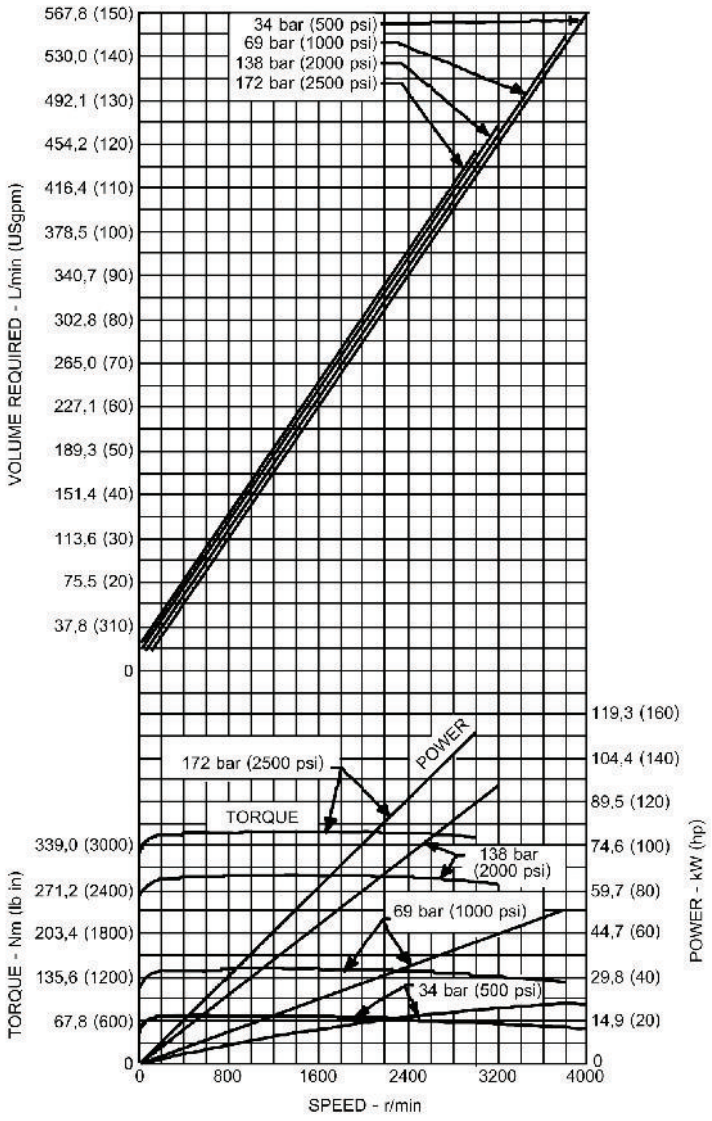


115 LB.IN.RING SIZE

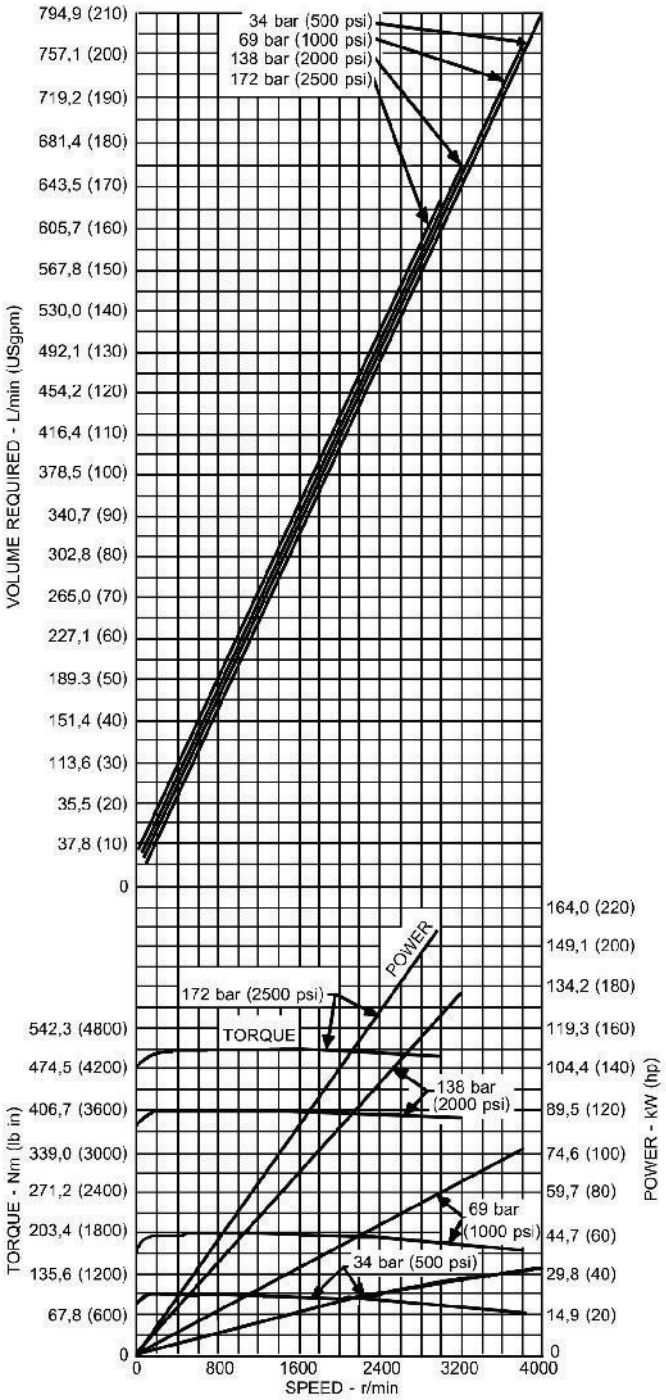


Based on SAE 10W, temperature 49°C (120 °F), viscosity 32 cSt (150 SUS)
Starting torque is 65% (minimum) of 400 r/min torque

130 LB.IN.RING SIZE



155 LB.IN.RING SIZE



Based on SAE 10W, temperature 49 °C (120 °F), viscosity 32 cSt (150 SUS)
Starting torque is 65% (minimum) of 400 r/min torque