

Single Vane Pump

HV20F NF/HV20P Series

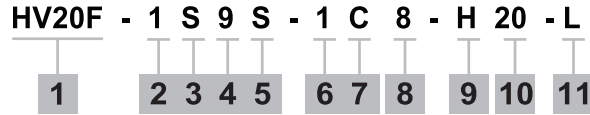
Specifications

Model	Ring Size Delivery at 1200 r/min & 7 bar (100 psi)	Geometric Displacement	Delivery at 1500 r/min & 7 bar (100 psi)	Maximum Pressure	Maximum Speed	Minimum Speed	Weight
	USgpm	cm ³ /r (in ³ /r)	L/min (USgpm)	bar (psi)	rpm	rpm	kg (lb)
HV 20 F NF & HV 20 P	5	16.4 (1.00)	23.60 (6.25)	172 (2500)	3400	650	HV20 7.50 - 8.50 (16.50 - 18.70)
	6	19.5 (1.19)	28.39 (7.50)		3400		
	7	22.8 (1.39)	33.11 (8.75)		3000		
	8	26.5 (1.62)	37.85 (10.00)		2800		
	9	29.7 (1.81)	42.57 (11.25)		2800		
	10	34.1 (2.08)	47.30 (12.51)		2500		
	11	36.4 (2.22)	52.04 (13.75)	2500	HV20F, HV20P 9.30 - 10.60 (20.46 - 23.32)		
	12	39.0 (2.38)	56.77 (15.00)	2400			
	13	42.4 (2.59)	61.50 (16.25)	152 (2200)			2400

Single Vane Pump

HV20F NF/HV20P Series

Ordering Code : Single Pump HV20F NF

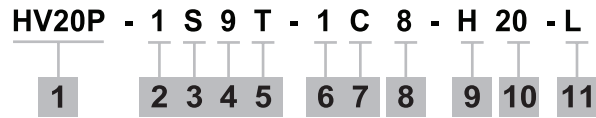


- | | |
|--|---|
| <p>1. Model :</p> <p>HV20F - Flow Control Cover</p> <p>HV20NF - Flow Control Cover & Internal Drain
SAE A 2 bolts mounting flange J744</p> <p>2. Mounting</p> <p>1 - Bolt Flange</p> <p>3. Inlet Port Connection</p> <p>S - 1" 5/8 - 12 UN(SAE#20)</p> <p>P - 1" NPT</p> <p>B - 1" BSP</p> <p>4. Displacement (at 1200 rpm)</p> <p>Volumetric displacement cm³/rev (in³/rev)</p> <p>5 - 16.4 (1.00)</p> <p>6 - 19.5 (1.19)</p> <p>7 - 22.8 (1.39)</p> <p>8 - 26.5 (1.62)</p> <p>9 - 29.7 (1.81)</p> <p>10 - 34.1 (2.08)</p> <p>11 - 36.4 (2.22)</p> <p>12 - 39.0 (2.38)</p> <p>13 - 42.4 (2.59)</p> <p>5. Outlet Port Connection</p> <p>HV20F</p> <p>S - 3/4" - 16 UNF (SAE#8) for outlet and
1" 1/16 - 12 UN(SAE#12) for tank port</p> <p>P - 3/4" - 16 UNF(SAE#8) for outlet and
1/2" NPT for tank port</p> <p>T - 3/4" - 16 UNF(SAE#8) for outlet and tank port</p> <p>HV20NF</p> <p>S - 3/4" - 16 UNF(SAE#8) for outlet</p> <p>6. Type of shaft</p> <p>1 - Straight Keyed Shaft</p> <p>3 - Threaded with woodruff Keyed Shaft</p> <p>6 - Woodruff Keyed stub Shaft</p> <p>11 - Splined Shaft</p> <p>15 - Splined Shaft</p> <p>38 - Splined Shaft</p> <p>62 - Splined Shaft</p> <p>123 - Threaded with woodruff Keyed Shaft</p> | <p>7. Outlet Port Position (Viewed from cover end)</p> <p>A - Opposite inlet</p> <p>B - 90° CCW from inlet</p> <p>C - Inline with inlet</p> <p>D - 90° CW from inlet</p> <p>8. Flow rate Setting L/min (USgpm)</p> <p>2 - 7.6 (2)</p> <p>3 - 11.4 (3)</p> <p>4 - 15.2 (4)</p> <p>5 - 19.0 (5)</p> <p>6 - 22.7 (6)</p> <p>7 - 26.5 (7)</p> <p>8 - 30.3 (8)</p> <p>9. Pressure Setting bar (psi)</p> <p>A - 17 (250)</p> <p>B - 34 (500)</p> <p>C - 52 (750)</p> <p>D - 69 (1000)</p> <p>E - 86 (1250)</p> <p>F - 103 (1500)</p> <p>G - 121 (1750)</p> <p>H - 138 (2000)</p> <p>J - 150 (2250)</p> <p>K - 172 (2500)</p> <p>10. Design</p> <p>Subject to change. Installation dimension remain the same for designs - 20 through -29</p> <p>11. Shaft Rotation (viewed from shaft end)</p> <p>R - Turn right</p> <p>L - Turn left</p> |
|--|---|

Single Vane Pump

HV20F NF/HV20P Series

Ordering Code : Single Pump HV20P

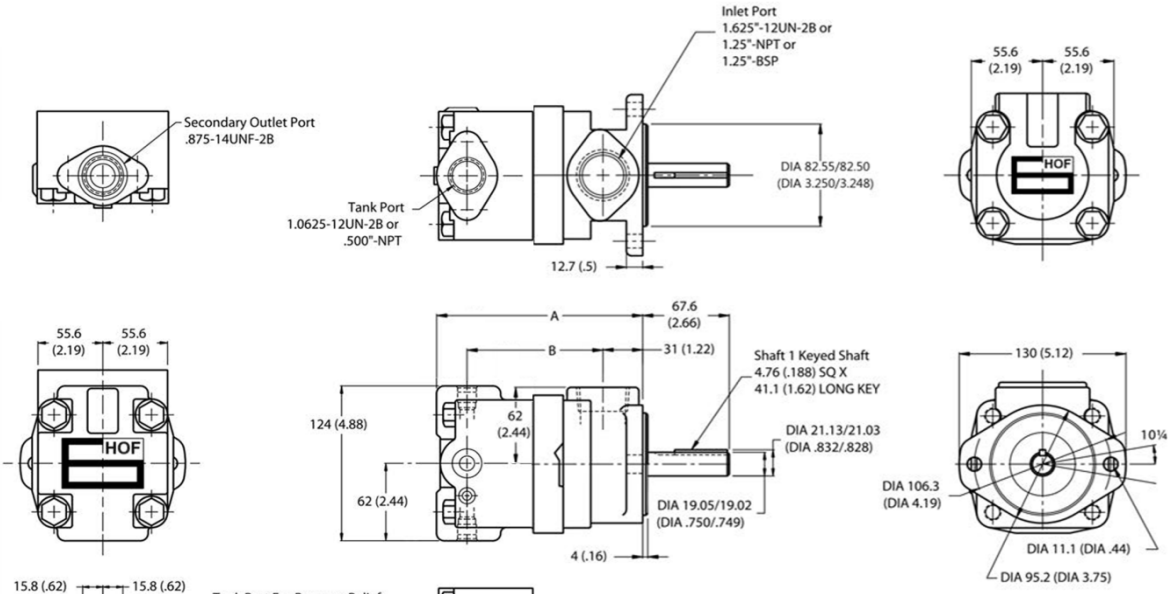


- | | |
|--|--|
| <p>1. Model :
HV20P - Priority Valve Cover
SAE A 2 bolts mounting flange J744</p> <p>2. Mounting
1 - Bolt Flange</p> <p>3. Inlet Port Connection
S - 1" 5/8 - 12 UN(SAE#20)
P - 1" 1/4 NPT
B - 1" 1/4 BSP</p> <p>4. Displacement (at 1200 rpm)
Volumetric displacement cm³/rev (in³/rev)</p> <ul style="list-style-type: none"> 5 - 16.4 (1.00) 6 - 19.5 (1.19) 7 - 22.8 (1.39) 8 - 26.5 (1.62) 9 - 29.7 (1.81) 10 - 34.1 (2.08) 11 - 36.4 (2.22) 12 - 39.0 (2.38) 13 - 42.4 (2.59) <p>5. Outlet Port Connection
T - 3/4" - 16 UNF (SAE#8) for primary outlet and tank port and 7/8" - 14 UN(SAE#10) for secondary outlet</p> <p>6. Type of shaft</p> <ul style="list-style-type: none"> 1 - Straight Keyed Shaft 3 - Threaded with woodruff Keyed Shaft 6 - Woodruff Keyed stub Shaft 11 - Splined Shaft 15 - Splined Shaft 38 - Splined Shaft 62 - Splined Shaft 123 - Threaded with woodruff Keyed Shaft | <p>7. Outlet Port Position (Viewed from cover end)</p> <ul style="list-style-type: none"> A - Opposite inlet B - 90° CCW from inlet C - Inline with inlet D - 90° CW from inlet <p>8. Flow rate Setting L/min (USgpm)</p> <ul style="list-style-type: none"> 2 - 7.6 (2) 3 - 11.4 (3) 4 - 15.2 (4) 5 - 19.0 (5) 6 - 22.7 (6) 7 - 26.5 (7) 8 - 30.3 (8) <p>9. Pressure Setting bar (psi)</p> <ul style="list-style-type: none"> A - 17 (250) B - 34 (500) C - 52 (750) D - 69 (1000) E - 86 (1250) F - 103 (1500) G - 121 (1750) H - 138 (2000) J - 150 (2250) K - 172 (2500) <p>10. Design
Subject to change. Installation dimension remain the same for designs - 20 through -29</p> <p>11. Shaft Rotation (viewed from shaft end)</p> <ul style="list-style-type: none"> R - Turn right L - Turn left |
|--|--|

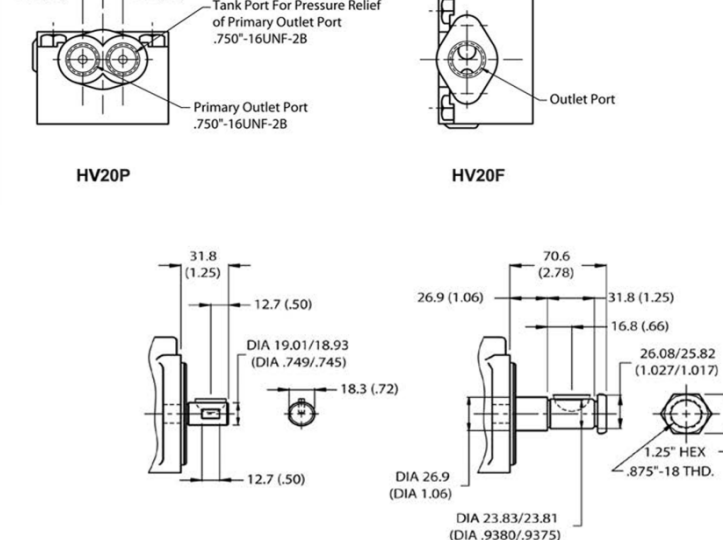
Single Vane Pump HV20F NF/HV20P Series

Installation Dimension mm (inch)

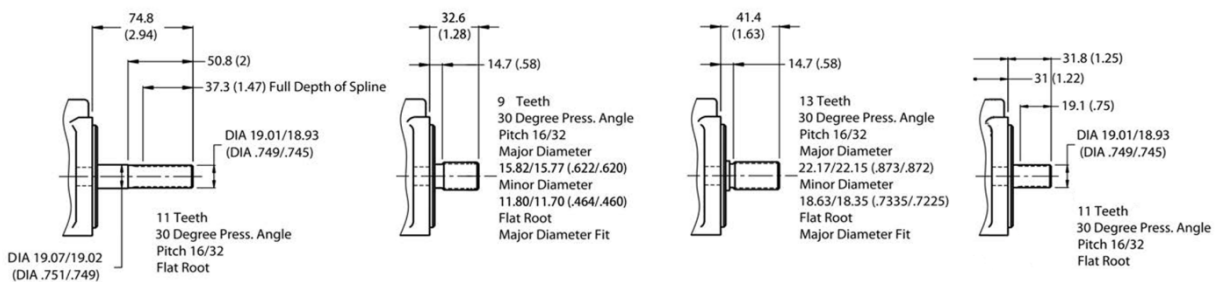
Single Pump HV20F and HV20P



Delivery @ 1200 rpm & 7 bar (100psi)	Dimension	
	A	B
5, 6	149.6 (5.89)	94.7 (3.73)
7, 8, 9	156.0 (6.14)	101.1 (3.98)
10, 11	161.0 (6.34)	105.9 (4.17)
12, 13	164.3 (6.47)	109.5 (4.31)



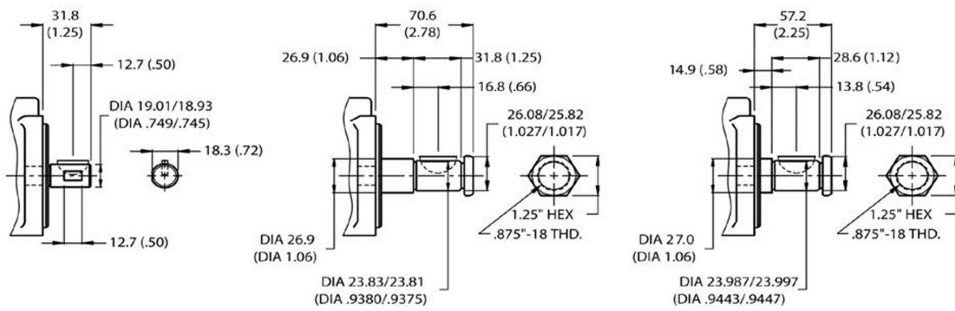
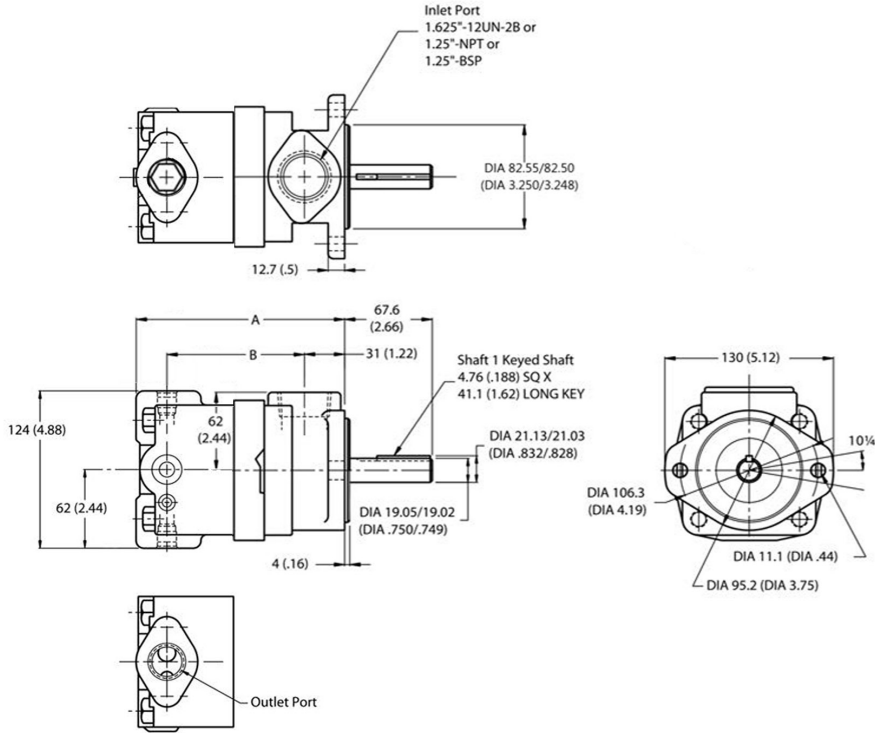
Shaft 6 Straight Stub Keyed Shaft Shaft 3 Threaded with #6 Woodruff Key Shaft 123 Threaded with #13 Woodruff Key



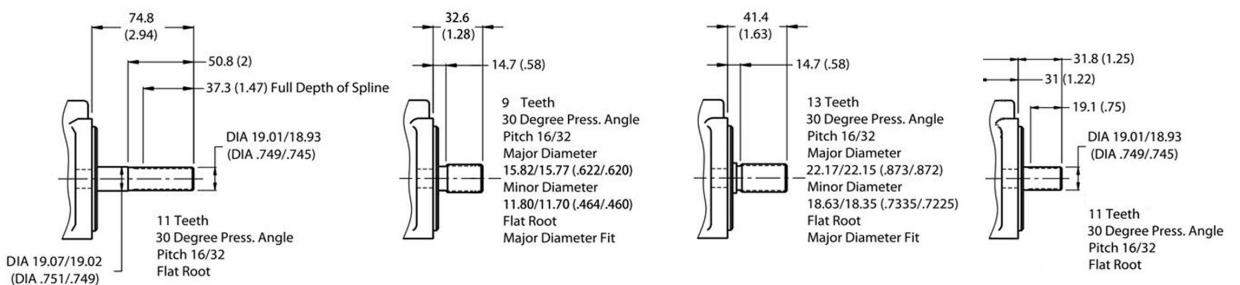
Shaft 11 Splined Shaft 11 Teeth Shaft 62 Splined Shaft 9 Teeth Shaft 15 Splined Shaft 13 Teeth Shaft 38 Splined Shaft 11 Teeth

Single Vane Pump HV20F NF/HV20P Series

Single Pump HV20NF



Shaft 6 Straight Stub Keyed Shaft Shaft 3 Threaded with #6 Woodruff Key Shaft 123 Threaded with #13 Woodruff Key

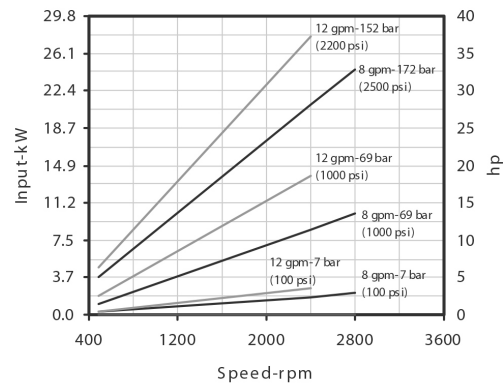
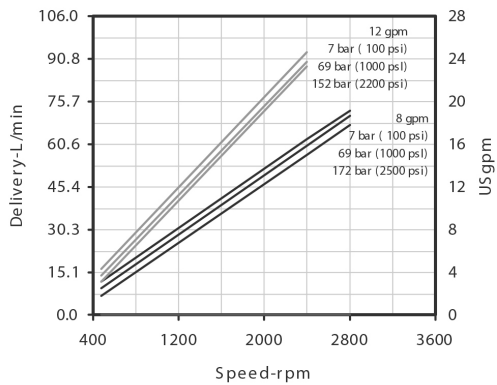
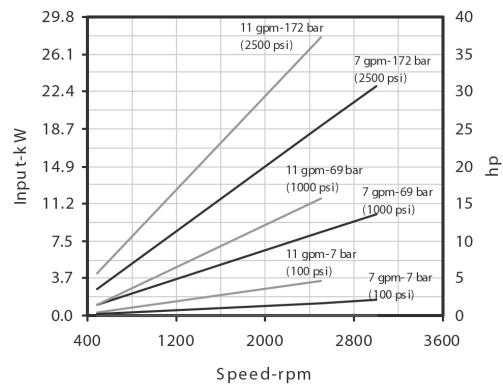
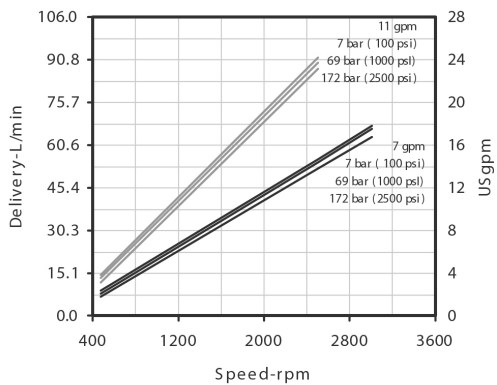
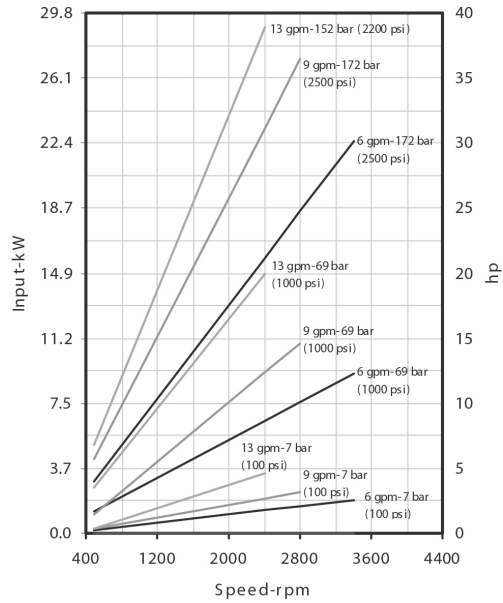
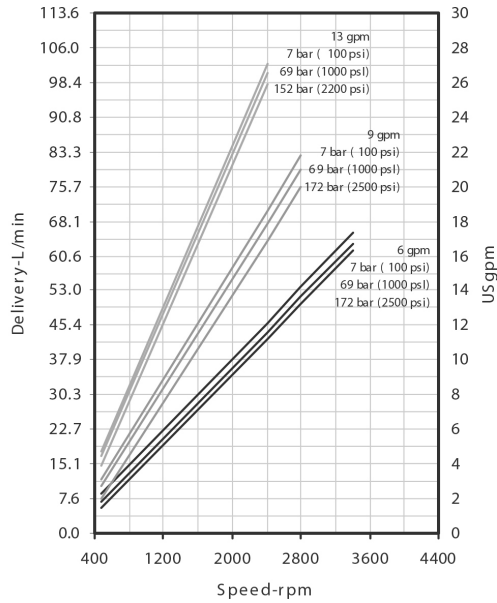


Shaft 11 Splined Shaft 11 Teeth Shaft 62 Splined Shaft 9 Teeth Shaft 15 Splined Shaft 13 Teeth Shaft 38 Splined Shaft 11 Teeth

Single Vane Pump HV20F NF/HV20P Series

HV20, Shaft End of HV20, Cover End of HV2020

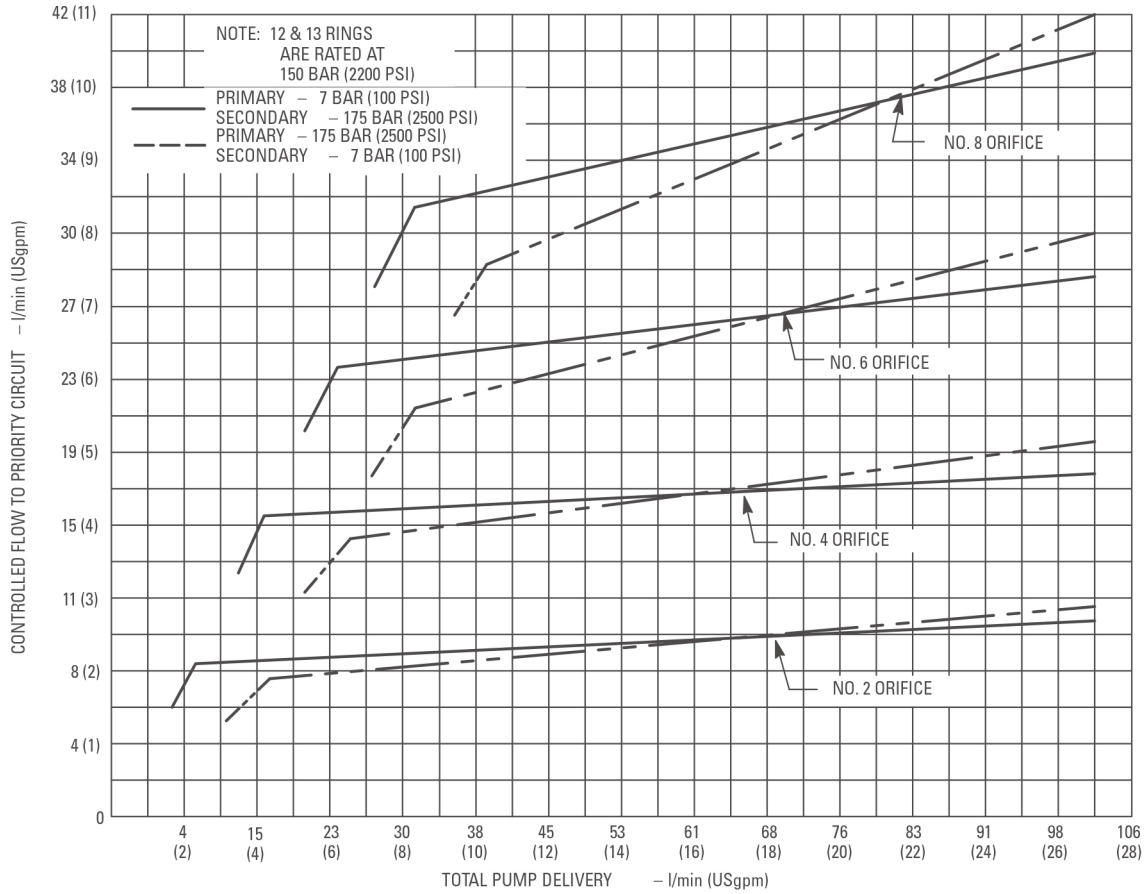
Based on viscosity 32 cSt (150 SSU) oil at 49°C (120°F) and pump inlet at 0 PSIG (14.7 PSIA)



For the Cover End cartridge, the speed could not exceed the maximum speed of the shaft End Cartridge.

Single Vane Pump HV20F NF/HV20P Series

Priority Valve : HV20P



Single Vane Pump HV20F NF/HV20P Series

Flow control : HV20F NF

