

Power Steering Vane Pump

Catalogue 2025



BUREAU
VERITAS

Bureau Veritas Certification

FLO-TECH ENGINEERING CO., LTD.

47 SOI SUKSAWAD 14/18 JOMTONG, JOMTONG, BANGKOK 10150 THAILAND

Bureau Veritas Certification Holding SAS - UK Branch certifies that the Management System of the above organisation has been audited and found to be in accordance with the requirements of the management system standards detailed below

ISO 9001:2015

Scope of certification

**DESIGN & DEVELOP, PRODUCTION AND TRADING OF HYDRAULIC PUMP,
HYDRAULIC MOTOR, HYDRAULIC VALVE, PNEUMATIC VALVE,
POWER UNIT AND HYDRAULIC ACCESSORIES**

Original cycle start date:	17 March 2009
Expiry date of previous cycle:	NA
Certification / Recertification Audit date:	NA
Certification / Recertification cycle start date:	16 March 2024
Subject to the continued satisfactory operation of the organisation's Management System, this certificate expires on:	16 March 2027

Certificate No.: TH022197

Version: 1

Issue date: 16 March 2024



0008

Signed on behalf of BVCH SAS UK Branch

Certification Body Address: 5th Floor, 66 Prescott Street, London, E1 8HG, United Kingdom

Local Office: Bureau Veritas Certification (Thailand) Ltd. 16th Floor, Bangkok Tower, 2170 New Petchburi Road, Bangkapi, Huaykwang, Bangkok 10310, Thailand

Further clarifications regarding the scope and validity of this certificate, and the applicability of the management system requirements, please call: 66 2 670 4800



HOF Hydraulic Solutions Warranty Policy

Warranty

Flowlution Co.,Ltd, sole distributor of "HOF Hydraulic Solutions", Warrants all of its products to be free from defects in material and workmanship under normal operating conditions and proper application in accordance with the specifications for operation as described by the manufacturer for the period of twelve (12) months in service.

Limitations on Warranty

This Warranty is expressly in lieu of any other warranties expressed or implied. Buyer's sole and exclusive remedy under this Warranty shall be limited to the repair, replacement or exchange of warranted products at our option, F.O.B. our factory, or designated service center.

No special, incidental, consequential or other damage shall be recoverable. Flowlution Co.,Ltd shall not be liable for consequential damages or contingent liabilities including, but not limited to, loss of life, personal injury, loss of crops, loss due to fire or water damage, loss of business or business income, down time costs and trade or other commercial loss arising out of the failure of the product. Flowlution Co.,Ltd will in no event be liable for any sum in excess of the price received by it for the product for which liability is claimed or asserted.

No product shall be returned without prior authorization from Flowlution Co.,Ltd. Buyers and their agents shall prepay all transportation charges for the return of such products to Flowlution Co.,Ltd's factory or designated service center. There will be no acceptance of any charges for labor and/or parts incidental to the removal or remounting of product repaired or replaced under this Warranty.

The above Warranty does not cover conditions over which Flowlution Co.,Ltd has no control, including, without limitation, contamination, pressures in excess of recommended maximum, products damaged or subject to accident abuse or misuse after shipment from our factory, products altered or repaired by anyone other than Flowlution Co.,Ltd personnel, authorized Flowlution Co.,Ltd factory personnel or persons so designated in writing by Flowlution Co.,Ltd prior to commencement of said work.

A return goods authorization number must be obtained from Flowlution Co.,Ltd or Flowlution Co.,Ltd's authorized Service center, or Flowlution Co.,Ltd's authorized agent prior to any products being returned for Warranty.

For more details please contact info@flowlution.com or contact@hofhydraulic.com



Single Vane Pump

HV10 Series

Specifications

Model	Ring Size Delivery at 1200 r/min & 7 bar (100 psi) USgpm	Geometric Displacement cm ³ /r (in ³ /r)	Delivery at 1500 r/min & 7 bar (100 psi) L/min (USgpm)	Max. Intermittent Pressure bar (psi)	Max. Continuous Pressure bar (psi)	Max. Speed rpm	Min. Speed rpm	Weight kg (lb)
HV 10	1	3.3 (0.20)	4.70 (1.25)	175 (2500)	160 (2250)	4800	650	5.4 - 5.8 (11.88 - 12.76)
	2	6.6 (0.40)	9.40 (2.50)			4500		
	3	9.8 (0.60)	14.20 (3.75)			4000		
	4	13.1 (0.80)	18.90 (5.00)			3400		
	5	16.4 (1.00)	23.60 (6.25)	3200				
	6	19.5 (1.19)	28.40 (7.50)	150 (2200)	140 (2000)	3000		
	7	22.8 (1.39)	33.10 (8.75)	140 (2000)	140 (2000)	2800		

* A transient (peak) pressure 10% over the continuous pressure rating for 0.5 seconds or less duration is allowed.

Single Vane Pump

HV10 Series

Ordering Code : Single Pump

HV10 - 1 S 4 S - 1 C - 20 - L
 1 2 3 4 5 6 7 8 9

1. Model :

HV10 - Standard Cover
SAE A 2 bolts mounting flange J744

2. Mounting

1 - Bolt Flange

3. Inlet Port Connection

S - 1" 5/16 - 12 UN(SAE#16)
P - 1" NPT
B - 1" BSP

4. Displacement (at 1200 rpm)

Volumetric displacement cm³/rev (in³/rev)

1 - 3.3 (0.20)
2 - 6.6 (0.40)
3 - 9.8 (0.60)
4 - 13.1 (0.80)
5 - 16.4 (1.00)
6 - 19.5 (1.19)
7 - 22.8 (1.39)

5. Outlet Port Connection

S - 3/4" - 16 UNF(SAE#8)
P - 1/2" NPT
B - 1/2" BSP

6. Type of shaft

1 - Straight Keyed Shaft
3 - Threaded with woodruff Keyed Shaft
11 - Splined Shaft
12 - Splined Shaft
38 - Splined Shaft

7. Outlet Port Position (Viewed from cover end)

A - Opposite inlet
B - 90° CCW from inlet
C - Inline with inlet
D - 90° CW from inlet

8. Design

Subject to change. Installation dimension remain the same for designs - 20 through -29

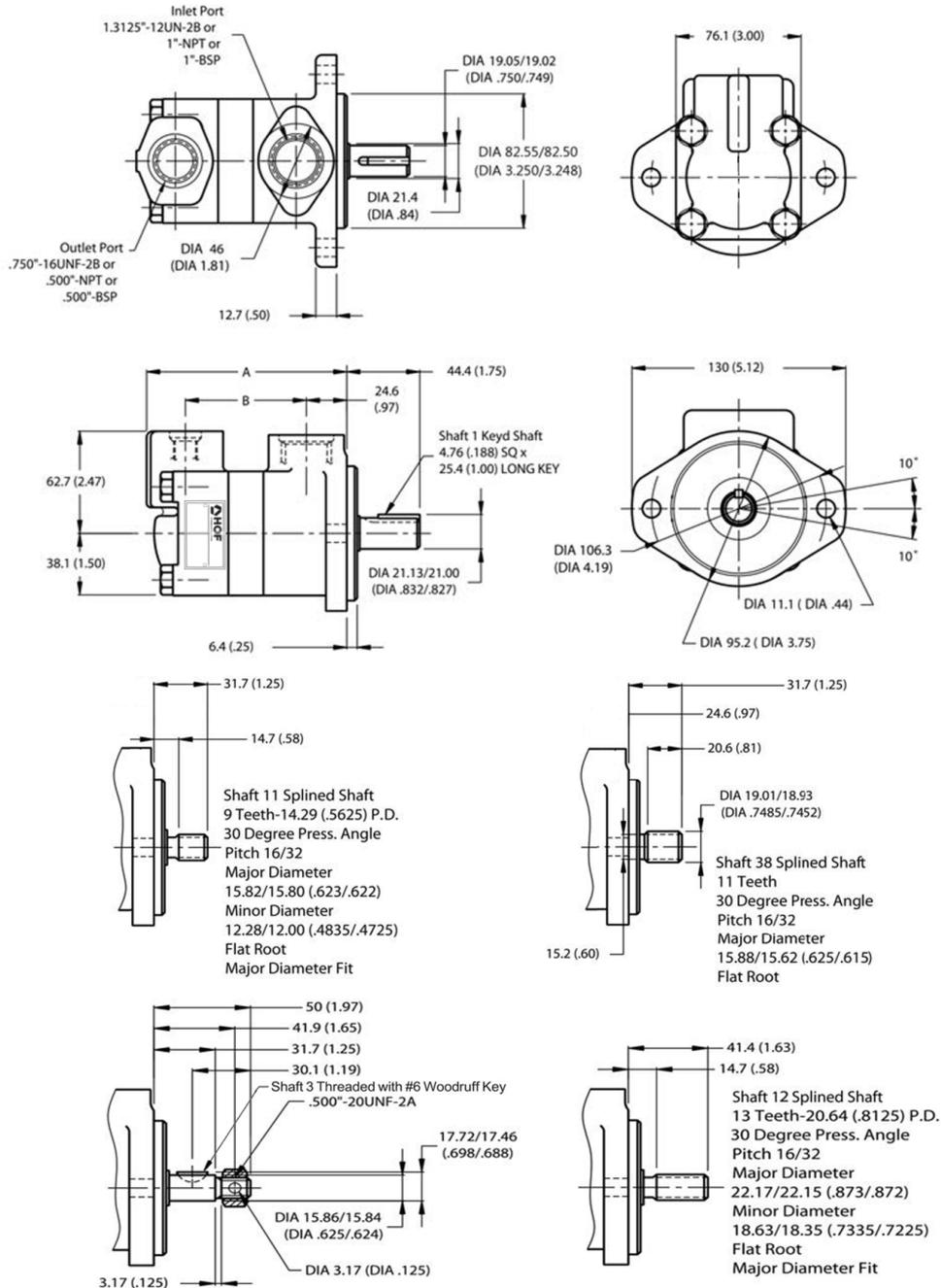
9. Shaft Rotation (viewed from shaft end)

R - Turn right
L - Turn left

Single Vane Pump HV10 Series

Installation Dimension mm (inch)

HV10



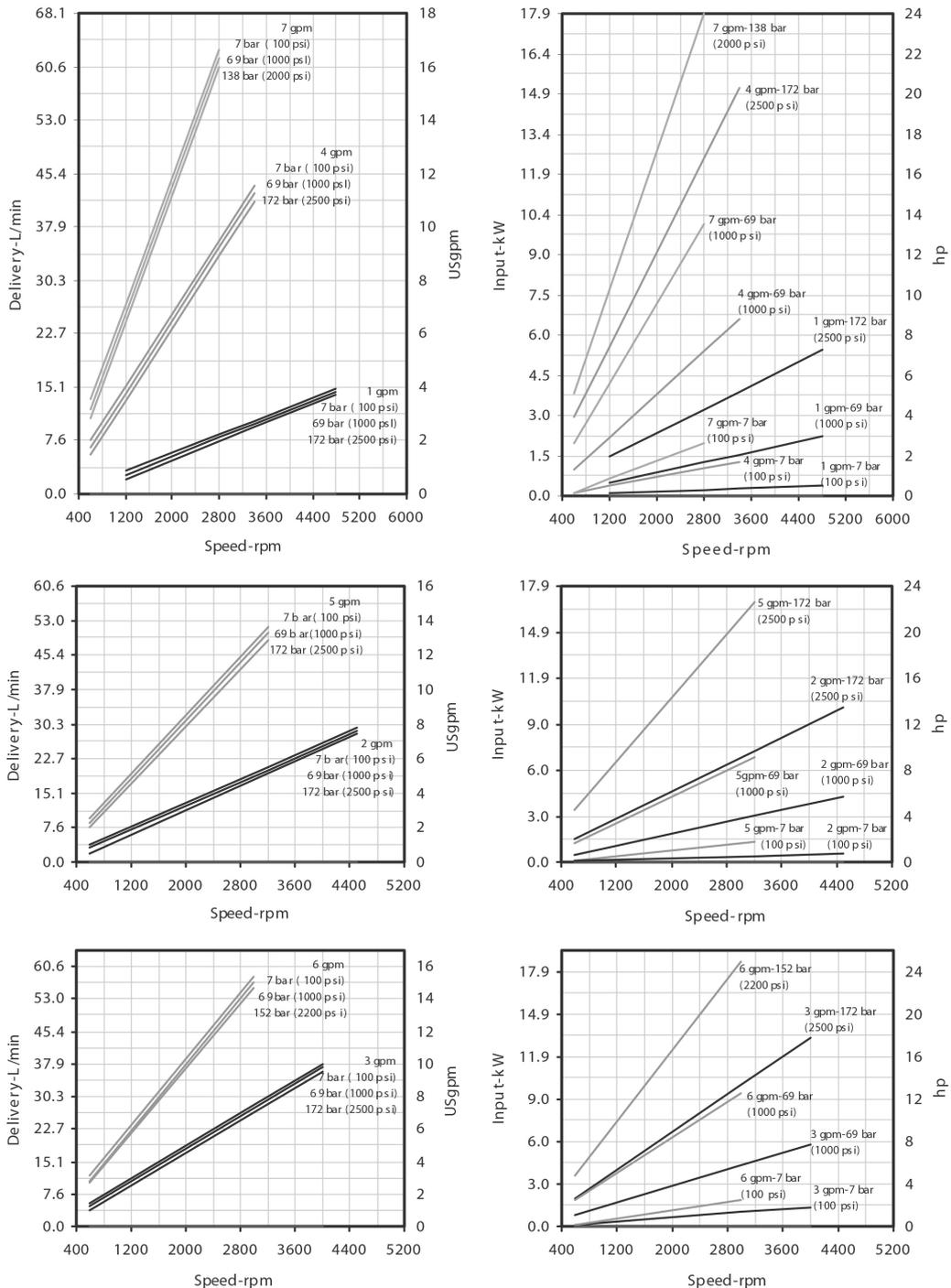
Delivery @ 1200 rpm & 7 bar (100psi)	Dimension	
	A	B
1, 2, 3	115.6 (4.55)	67.3 (2.65)
4, 5	121.9 (4.80)	73.7 (2.90)
6, 7	127.0 (5.00)	78.7 (3.10)

Single Vane Pump HV10 Series

Performance Characteristics

HV10, Cover End of HV2010

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 HV10F/HV10P Series

Specifications

Model	Ring Size Delivery at 1200 r/min & 7 bar (100 psi) USgpm	Geometric Displacement cm ³ /r (in ³ /r)	Delivery at 1500 r/min & 7 bar (100 psi) L/min (USgpm)	Max. Intermittent Pressure bar (psi)	Max. Continuous Pressure bar (psi)	Max. Speed rpm	Min. Speed rpm	Weight kg (lb)
HV 10 F HV 10 P	1	3.3 (0.20)	4.70 (1.25)	175 (2500)	160 (2250)	4800	650	6.00 - 6.70 (13.2 - 14.74)
	2	6.6 (0.40)	9.40 (2.50)			4500		
	3	9.8 (0.60)	14.20 (3.75)			4000		
	4	13.1 (0.80)	18.90 (5.00)	3400				
	5	16.4 (1.00)	23.60 (6.25)	3200				
	6	19.5 (1.19)	28.40 (7.50)	150 (2200)	140 (2000)	3000		
	7	22.8 (1.39)	33.10 (8.75)	140 (2000)	140 (2000)	2800		

* A transient (peak) pressure 10% over the continuous pressure rating for 0.5 seconds or less duration is allowed.

Single Vane Pump

HV10F/HV10P Series

Ordering Code : Single Pump HV10F

HV10F - 1 S 4 P - 1 C 8 - H 20 - L

1
2
3
4
5
6
7
8
9
10
11

1. Model :

HV10F - Flow Control Cover
SAE A 2 bolts mounting flange J744

2. Mounting

1 - Bolt Flange

3. Inlet Port Connection

S - 1" 5/16 - 12 UN(SAE#16)
P - 1" NPT
B - 1" BSP

4. Displacement (at 1200 rpm)

Volumetric displacement cm³/rev (in³/rev)

1 - 3.3 (0.20)
2 - 6.6 (0.40)
3 - 9.8 (0.60)
4 - 13.1 (0.80)
5 - 16.4 (1.00)
6 - 19.5 (1.19)
7 - 22.8 (1.39)

5. Outlet Port Connection

HV10F
P - 3/4" - 16 UNF(SAE#8) for outlet and
1/2" NPT for tank port
T - 3/4" - 16 UNF(SAE#8) for outlet and tank port

6. Type of shaft

1 - Straight Keyed Shaft
3 - Threaded with woodruff Keyed Shaft
11 - Splined Shaft
12 - Splined Shaft
38 - Splined Shaft

7. Outlet Port Position (Viewed from cover end)

A - Opposite inlet
B - 90° CCW from inlet
C - Inline with inlet
D - 90° CW from inlet

8. Flow rate Setting L/min (USgpm)

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)

9. Pressure Setting bar (psi)

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)

10. Design

Subject to change. Installation dimension remain the same for designs - 20 through -29

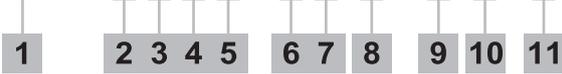
11. Shaft Rotation (viewed from shaft end)

R - Turn right
L - Turn left

Single Vane Pump

HV10F/HV10P Series

Ordering Code : Single Pump HV10P

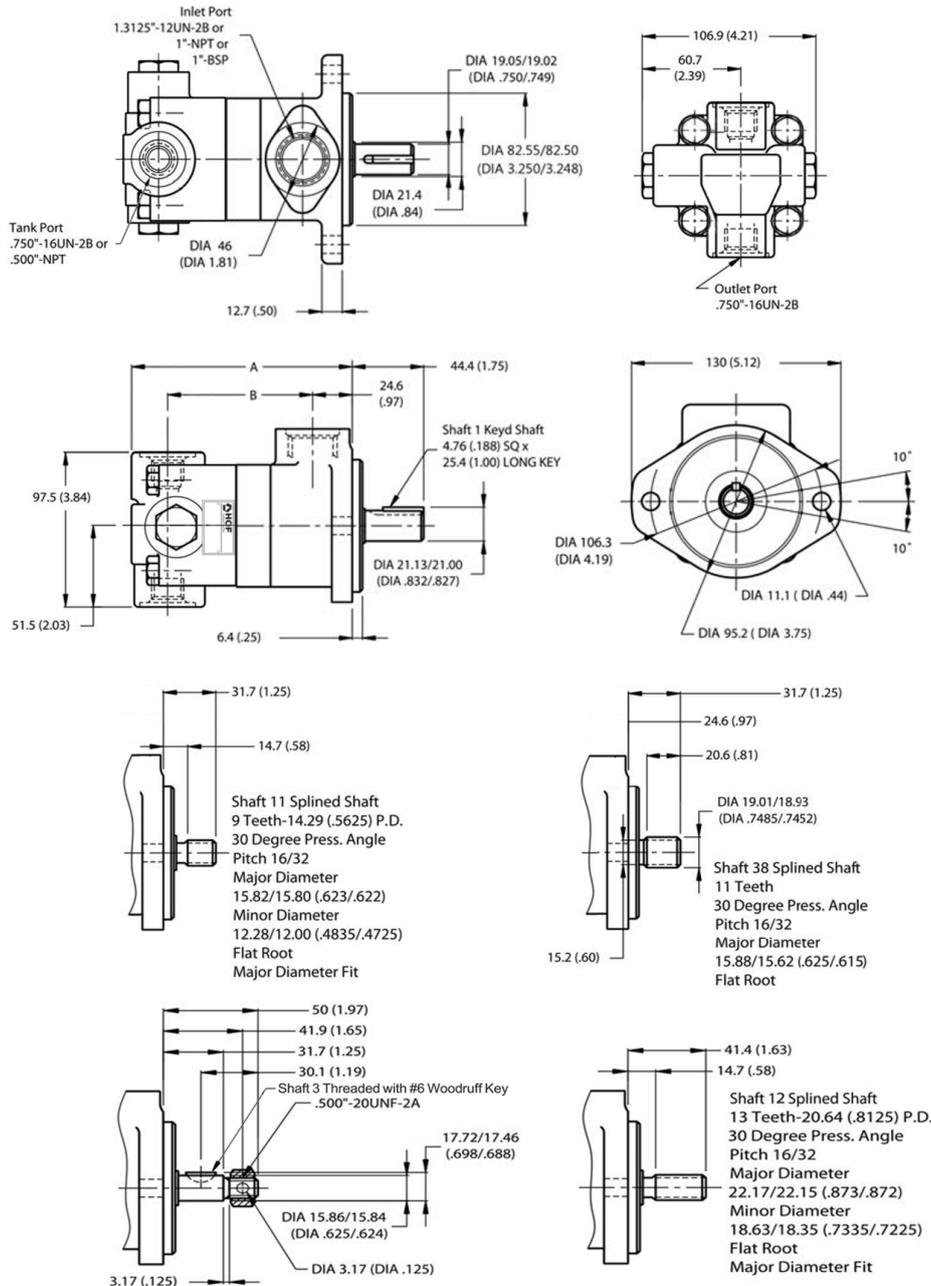
HV10P - 1 S 4 K - 1 C 8 - H 20 - L


- | | |
|--|---|
| <p>1. Model :
HV10P - 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" 5/16 - 12 UN(SAE#16)
P - 1" NPT
B - 1" BSP</p> <p>4. Displacement (at 1200 rpm)
Volumetric displacement cm³/rev (in³/rev)
1 - 3.3 (0.20)
2 - 6.6 (0.40)
3 - 9.8 (0.60)
4 - 13.1 (0.80)
5 - 16.4 (1.00)
6 - 19.5 (1.19)
7 - 22.8 (1.39)</p> <p>5. Outlet Port Connection
K - 9/16" - 18 UNF for primary outlet and tank port and 3/4" - 16 UNF(SAE#8) for secondary outlet</p> <p>6. Type of shaft
1 - Straight Keyed Shaft
3 - Threaded with woodruff Keyed Shaft
11 - Splined Shaft
12 - Splined Shaft
38 - Splined Shaft</p> | <p>7. Outlet Port Position (Viewed from cover end)
A - Opposite inlet
B - 90° CCW from inlet
C - Inline with inlet
D - 90° CW from inlet</p> <p>8. Flow rate Setting L/min (USgpm)
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> <p>9. Pressure Setting bar (psi)
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> <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)
R - Turn right
L - Turn left</p> |
|--|---|

Single Vane Pump HV10F/HV10P Series

Installation Dimension mm (inch)

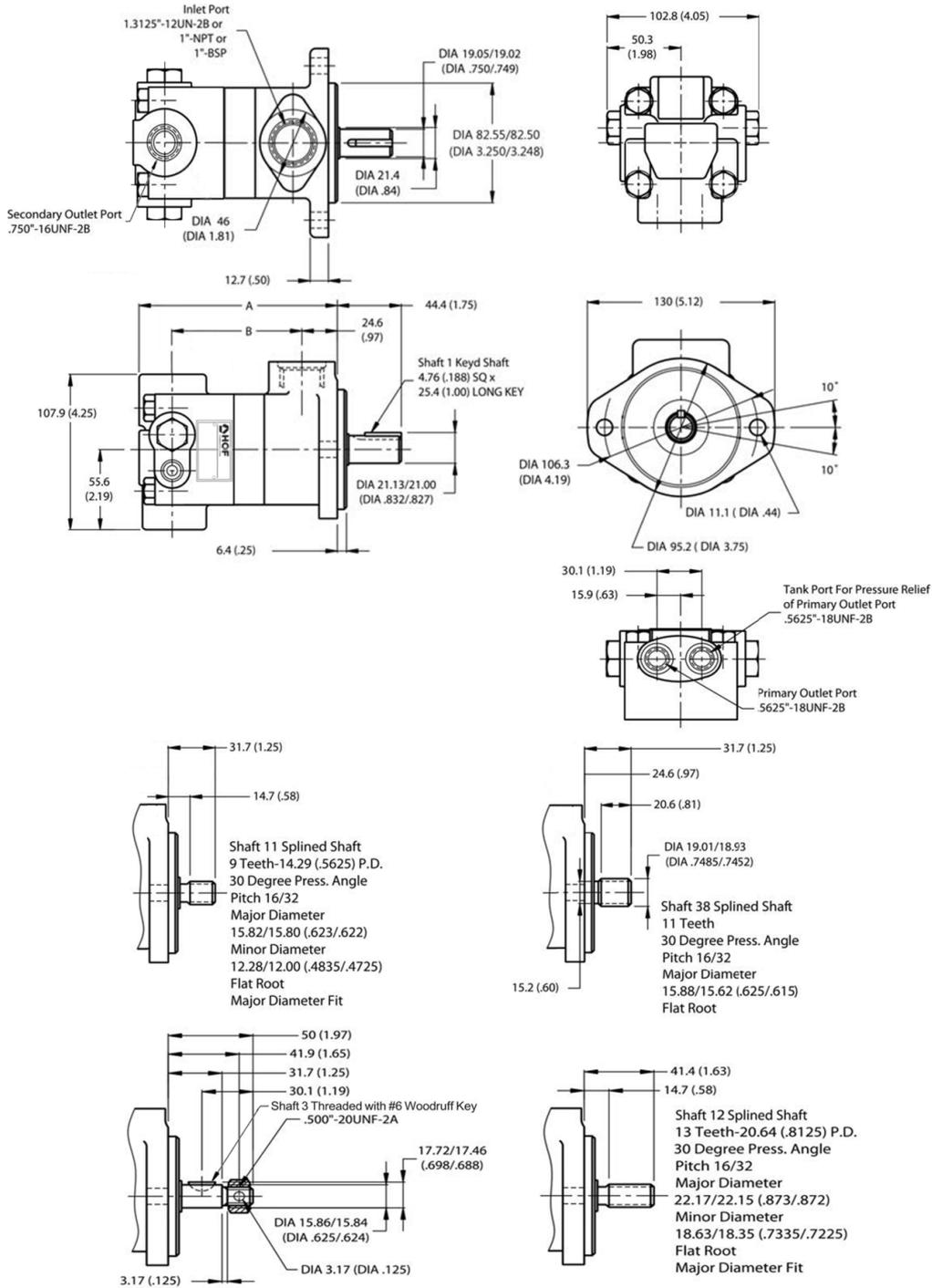
HV10F



Delivery @ 1200 rpm & 7 bar (100psi)	Dimension	
	A	B
1, 2, 3	128.8 (5.07)	84.8 (3.34)
4, 5	135.1 (5.32)	91.2 (3.59)
6, 7	140.2 (5.52)	96.3 (3.79)

Single Vane Pump HV10F/HV10P Series

HV10P



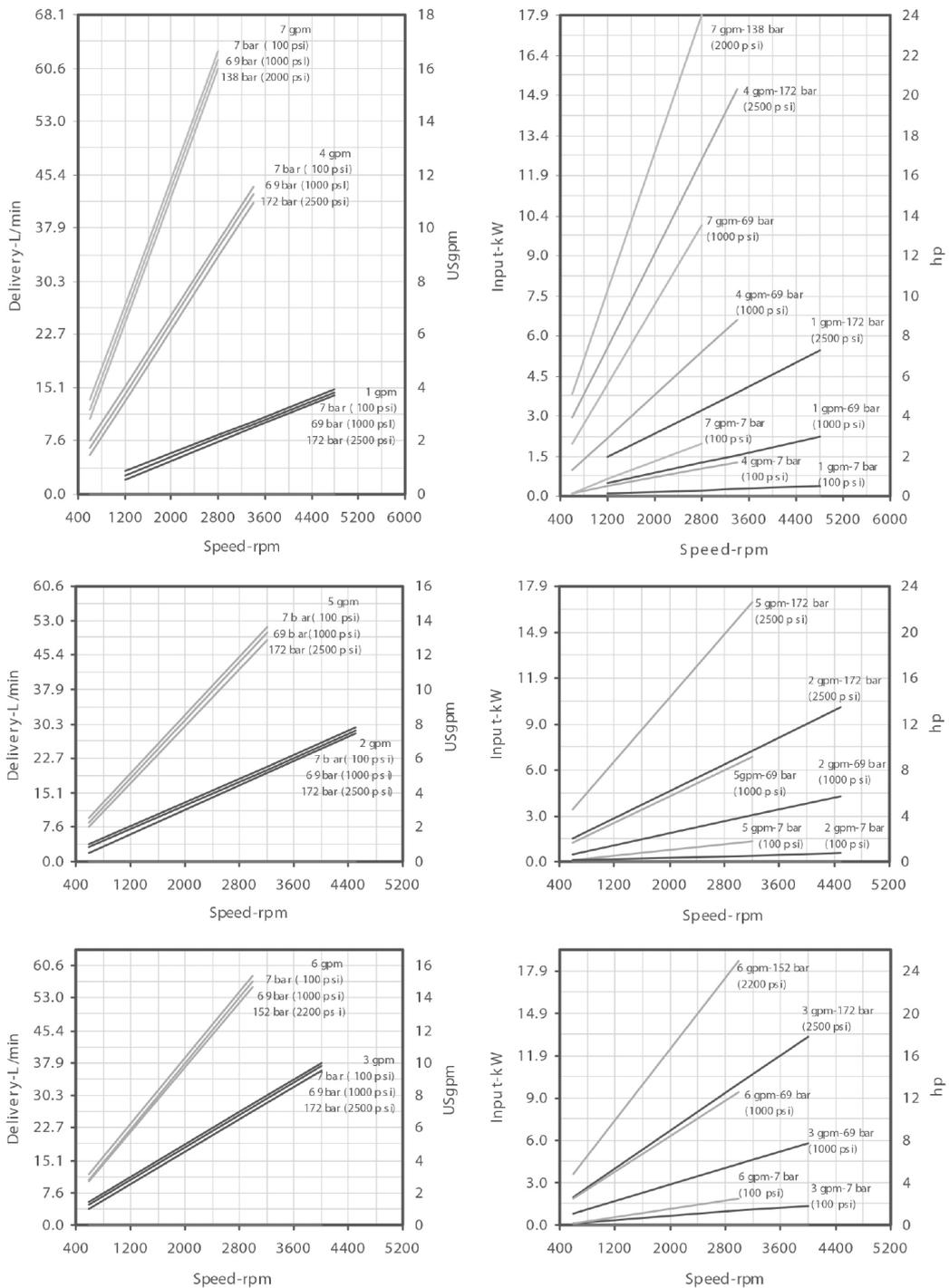
Delivery @ 1200 rpm & 7 bar (100psi)	Dimension	
	A	B
1, 2, 3	130.0 (5.12)	84.8 (3.34)
4, 5	136.4 (5.37)	91.2 (3.59)
6, 7	141.5 (5.57)	96.3 (3.79)

Single Vane Pump HV10F/HV10P Series

Performance Characteristics

HV10, Cover End of HV2010

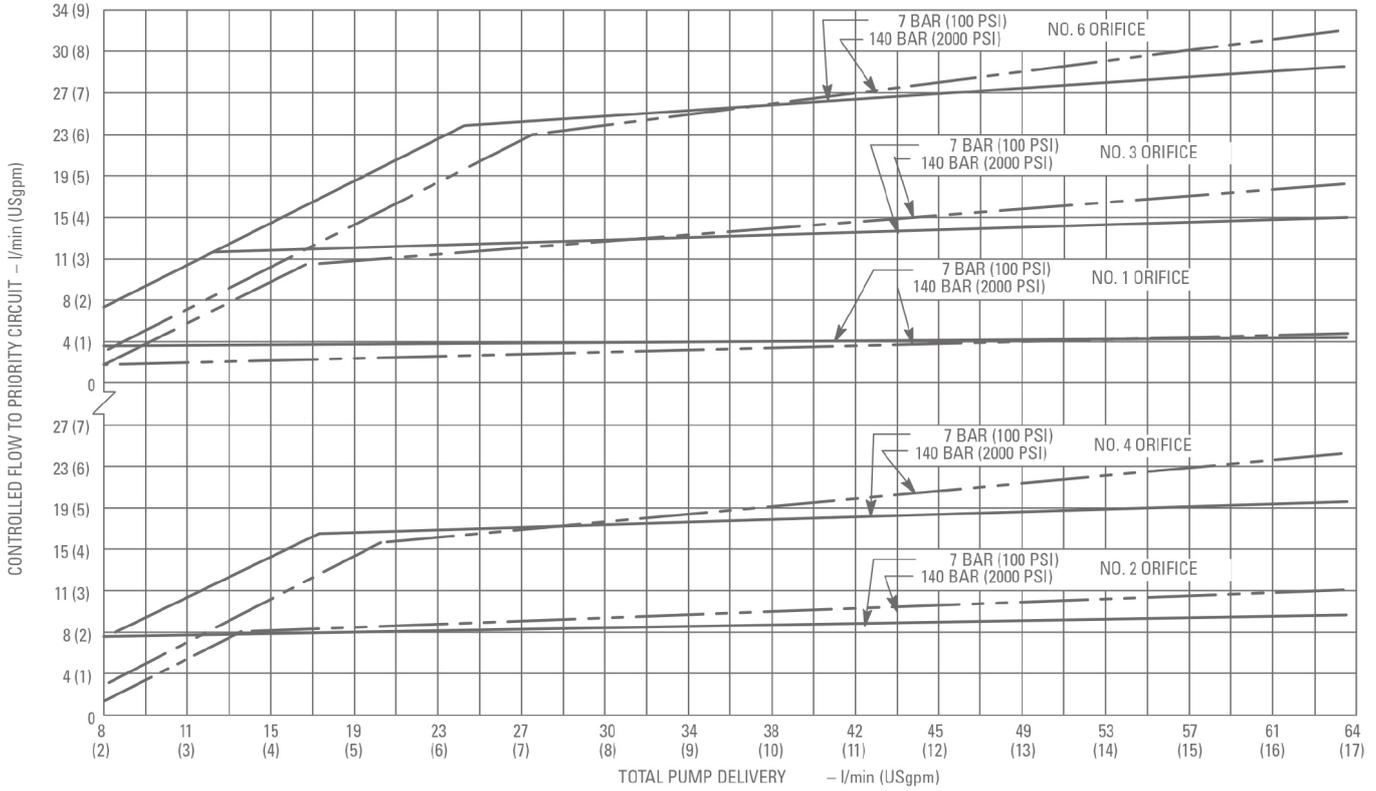
Based on viscosity 32 cSt (150 SSU) oil at 49°C (120°F) and pump inlet at 0 PSIG (14.7 PSIA)



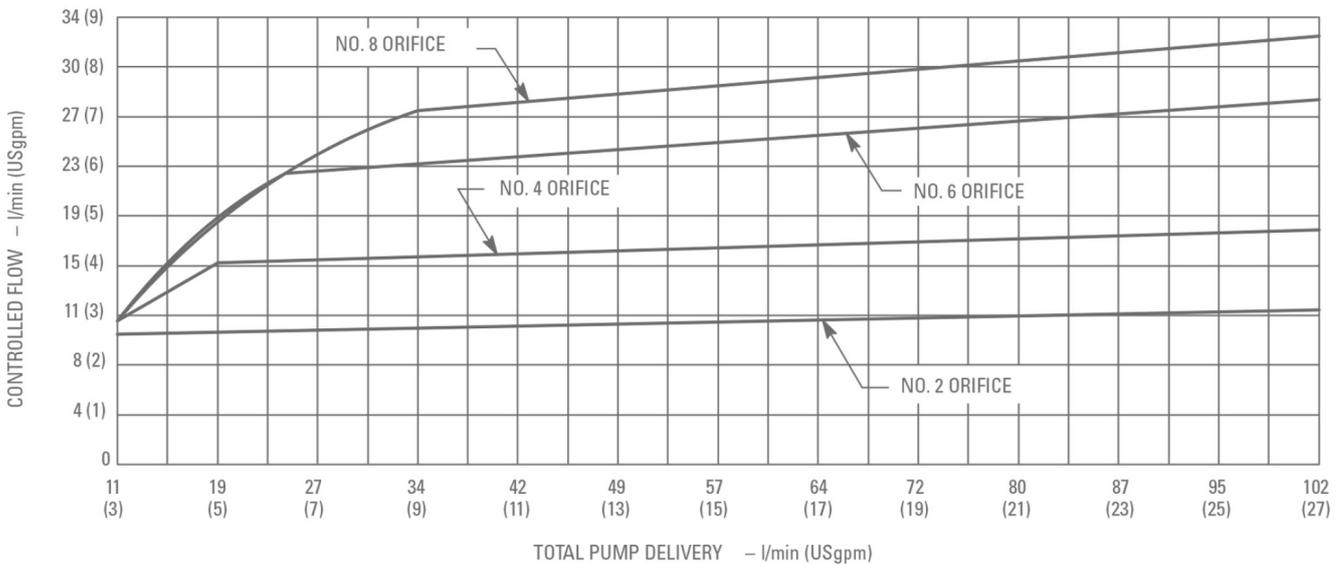
For the Cover End cartridge, the speed could not exceed the maximum speed of the shaft End Cartridge.

Single Vane Pump HV10F/HV10P Series

Priority Valve : HV10P



Flow control : HV10F



Single Vane Pump

HV20 Series

Specifications

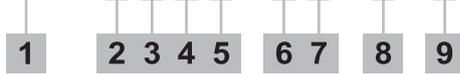
Model	Ring Size Delivery at 1200 r/min & 7 bar (100 psi) USgpm	Geometric Displacement cm ³ /r (in ³ /r)	Delivery at 1500 r/min & 7 bar (100 psi) L/min (USgpm)	Max. Intermittent Pressure bar (psi)	Max. Continuous Pressure bar (psi)	Max. Speed rpm	Min. Speed rpm	Weight kg (lb)
HV 20	5	16.4 (1.00)	23.60 (6.25)	175 (2500)	160 (2250)	3400	650	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				
	12	39.0 (2.38)	56.77 (15.00)	150 (2200)	140 (2000)	2400		
	13	42.4 (2.59)	61.50 (16.25)			2400		

* A transient (peak) pressure 10% over the continuous pressure rating for 0.5 seconds or less duration is allowed.

Single Vane Pump

HV20 Series

Ordering Code : Single Pump

HV20 - 1 S 9 S - 1 C - 20 - L


1. Model :

HV20 - Standard Cover
SAE A 2 bolts mounting flange J744

2. Mounting

1 - Bolt Flange

3. Inlet Port Connection

S - 1" 5/8 - 12 UN(SAE#20)
P - 1" 1/4 NPT
B - 1" 1/4 BSP

4. Displacement (at 1200 rpm)

Volumetric displacement cm³/rev (in³/rev)

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)

5. Outlet Port Connection

S - 1" 1/16 - 12 UN(SAE#12)
P - 3/4" NPT
B - 3/4" BSP

6. Type of shaft

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

7. Outlet Port Position (Viewed from cover end)

A - Opposite inlet
B - 90° CCW from inlet
C - Inline with inlet
D - 90° CW from inlet

8. Design

Subject to change. Installation dimension remain the same for designs - 20 through -29

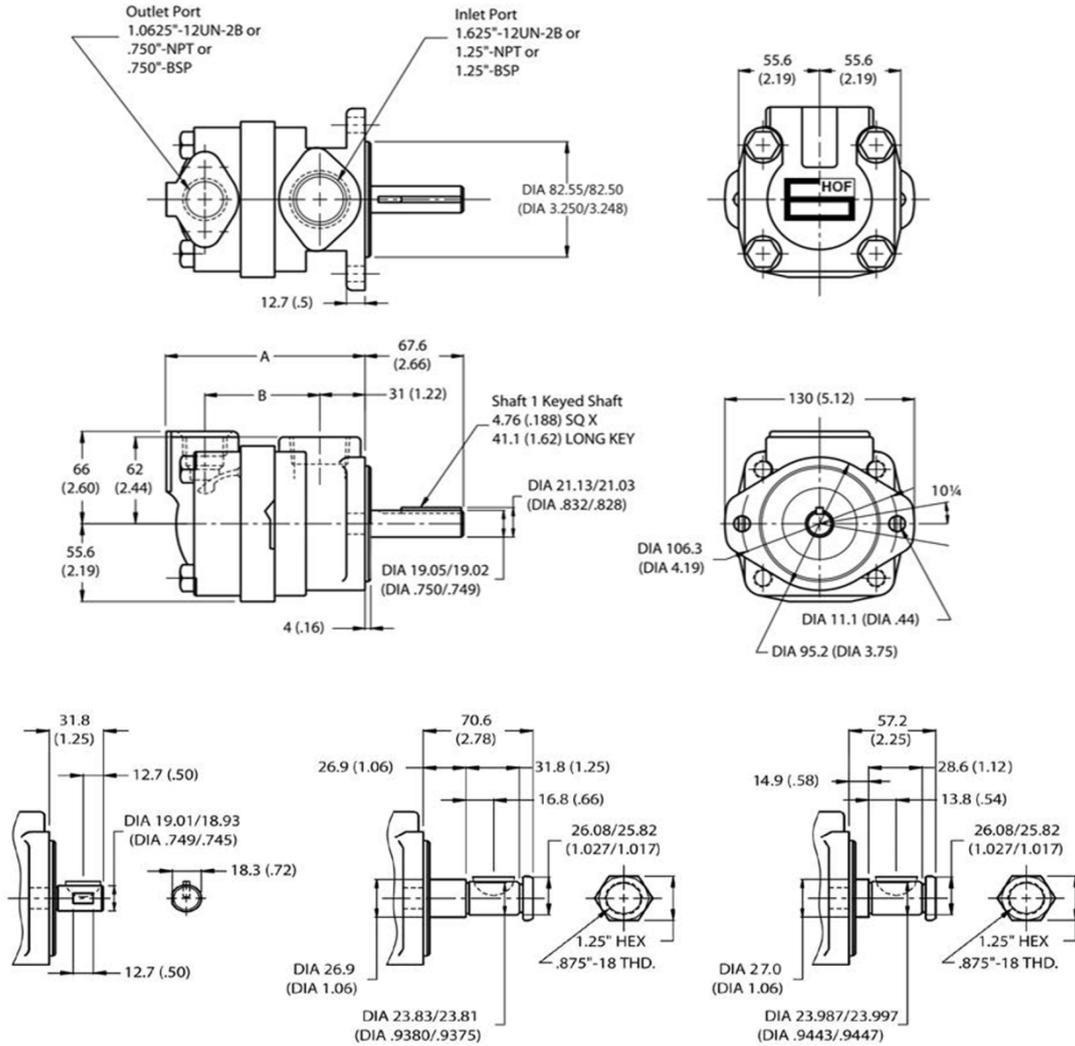
9. Shaft Rotation (viewed from shaft end)

R - Turn right
L - Turn left

Single Vane Pump HV20 Series

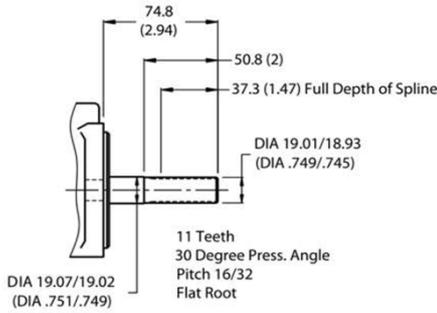
Installation Dimension mm (inch)

HV20

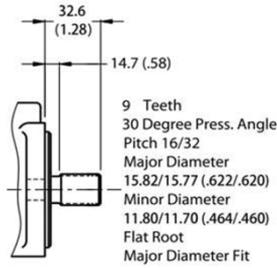


Shaft 6 Straight Stub Keyed Shaft Shaft 3 Threaded with #6 Woodruff Key Shaft 123 Threaded with #13 Woodruff Key

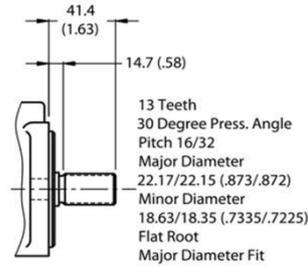
Single Vane Pump HV20 Series



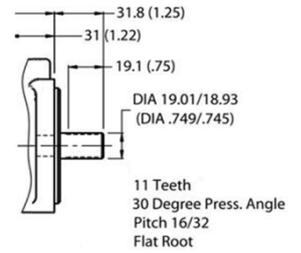
Shaft 11 Splined Shaft 11 Teeth



Shaft 62 Splined Shaft 9 Teeth



Shaft 15 Splined Shaft 13 Teeth



Shaft 38 Splined Shaft 11 Teeth

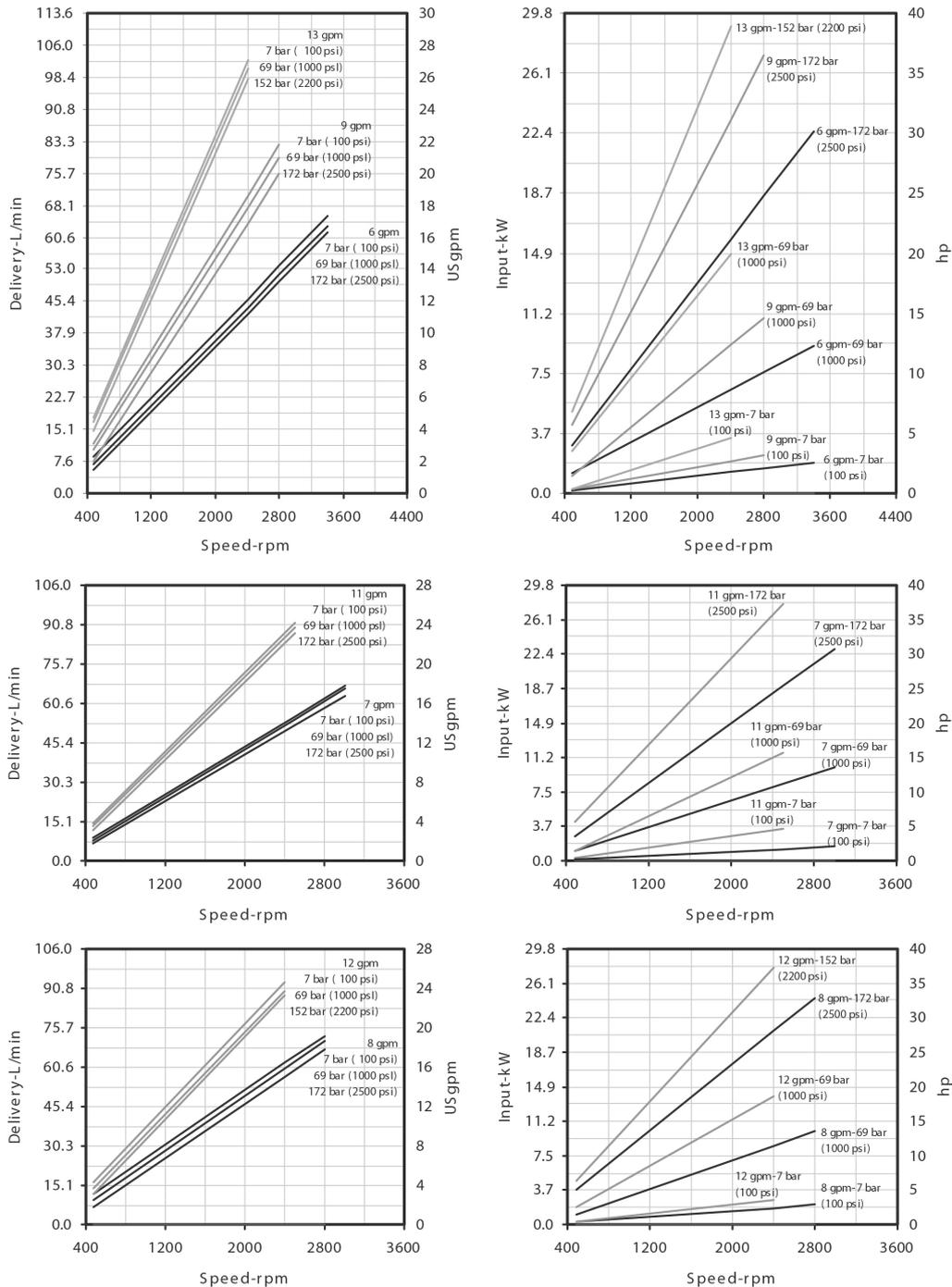
Delivery @ 1200 rpm & 7 bar (100psi)	Dimension	
	A	B
5, 6	125.2 (4.93)	71.1 (2.80)
7, 8, 9	131.6 (5.18)	77.5 (3.05)
10, 11	136.7 (5.38)	82.6 (3.25)
12, 13	140.2 (5.52)	86.1 (3.39)

Single Vane Pump HV20 Series

Performance Characteristics

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

Specifications

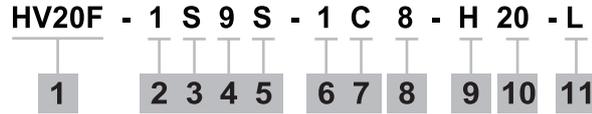
Model	Ring Size Delivery at 1200 r/min & 7 bar (100 psi) USgpm	Geometric Displacement cm ³ /r (in ³ /r)	Delivery at 1500 r/min & 7 bar (100 psi) L/min (USgpm)	Max. Intermittent Pressure bar (psi)	Max. Continuous Pressure bar (psi)	Max. Speed rpm	Min. Speed rpm	Weight kg (lb)
HV 20 F NF & HV 20 P	5	16.4 (1.00)	23.60 (6.25)	175 (2500)	160 (2250)	3400	650	9.30 - 10.60 (20.46 - 23.32)
	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				
	12	39.0 (2.38)	56.77 (15.00)	150 (2200)	140 (2000)	2400		
	13	42.4 (2.59)	61.50 (16.25)	2400				

* A transient (peak) pressure 10% over the continuous pressure rating for 0.5 seconds or less duration is allowed.

Single Vane Pump

HV20F NF/HV20P Series

Ordering Code : Single Pump HV20F NF



1. Model :

- HV20F - Flow Control Cover
- HV20NF - Flow Control Cover & Internal Drain
SAE A 2 bolts mounting flange J744

2. Mounting

- 1 - Bolt Flange

3. Inlet Port Connection

- S - 1" 5/8 - 12 UN(SAE#20)
- P - 1" 1/4 NPT
- B - 1" 1/4 BSP

4. Displacement (at 1200 rpm)

Volumetric displacement cm³/rev (in³/rev)

- 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)

5. Outlet Port Connection

- HV20F
 - S - 3/4" - 16 UNF (SAE#8) for outlet and
1" 1/16 - 12 UN(SAE#12) for tank port
 - P - 3/4" - 16 UNF(SAE#8) for outlet and
1/2" NPT for tank port
 - T - 3/4" - 16 UNF(SAE#8) for outlet and tank port
- HV20NF
 - S - 3/4" - 16 UNF(SAE#8) for outlet

6. Type of shaft

- 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

7. Outlet Port Position (Viewed from cover end)

- A - Opposite inlet
- B - 90° CCW from inlet
- C - Inline with inlet
- D - 90° CW from inlet

8. Flow rate Setting L/min (USgpm)

- 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)

9. Pressure Setting bar (psi)

- 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)

10. Design

Subject to change. Installation dimension remain the same for designs - 20 through -29

11. Shaft Rotation (viewed from shaft end)

- R - Turn right
- L - Turn left

Single Vane Pump

HV20F NF/HV20P Series

Ordering Code : Single Pump HV20P

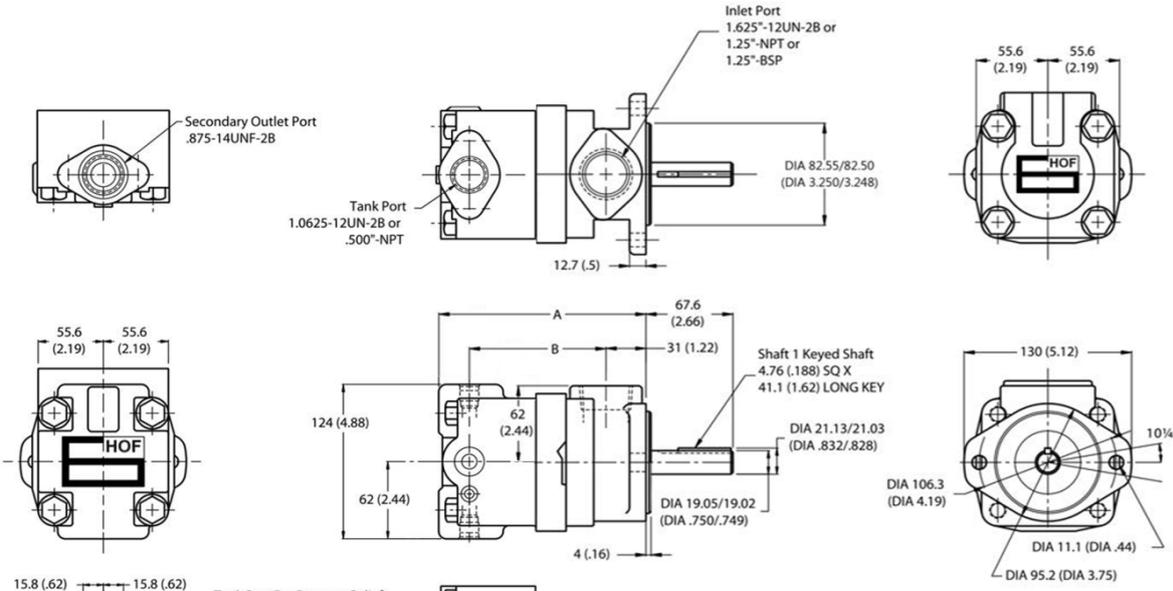
HV20P - 1 S 9 T - 1 C 8 - H 20 - L
 1 2 3 4 5 6 7 8 9 10 11

- | | |
|--|--|
| <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 |
|--|--|

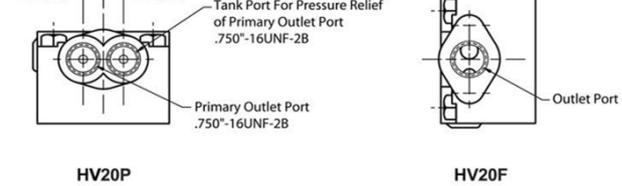
Single Vane Pump HV20F NF/HV20P Series

Installation Dimension mm (inch)

Single Pump HV20F and HV20P

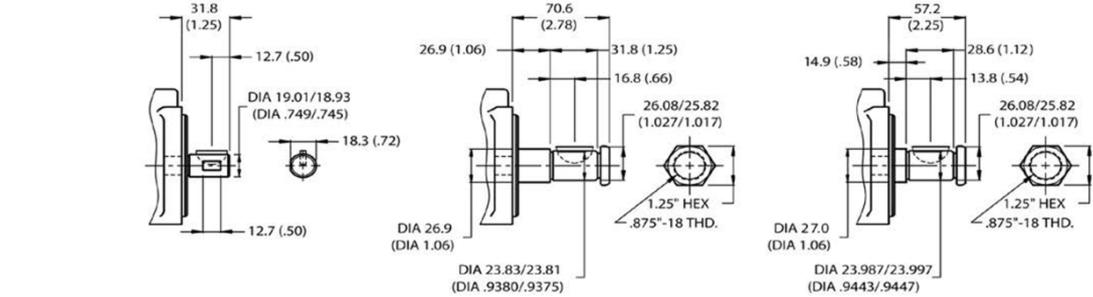


Delivery @ 1200 rpm & 7 bar (100psi)	Dimension	
	A	B
5, 6	149.6 (5.89)	94.7 (3.73)
7, 8, 9	156.0 (6.14)	101.1 (3.98)
10, 11	161.0 (6.34)	105.9 (4.17)
12, 13	164.3 (6.47)	109.5 (4.31)



HV20P

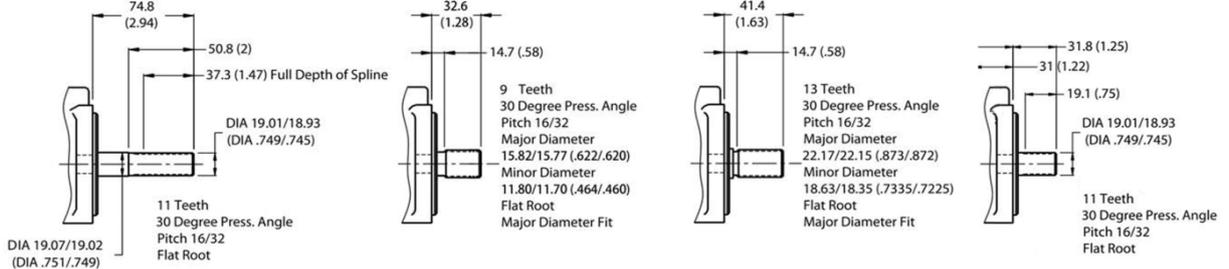
HV20F



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

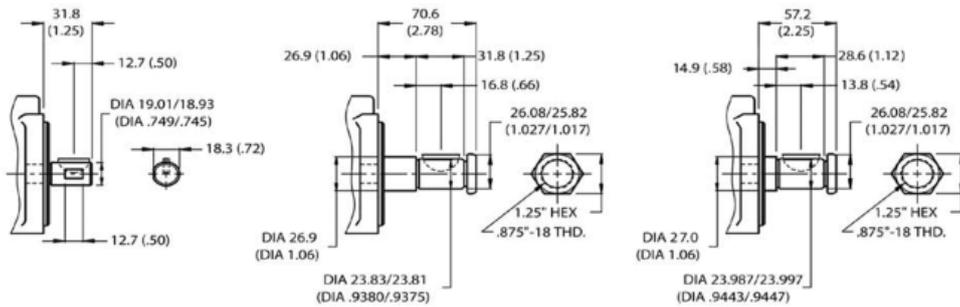
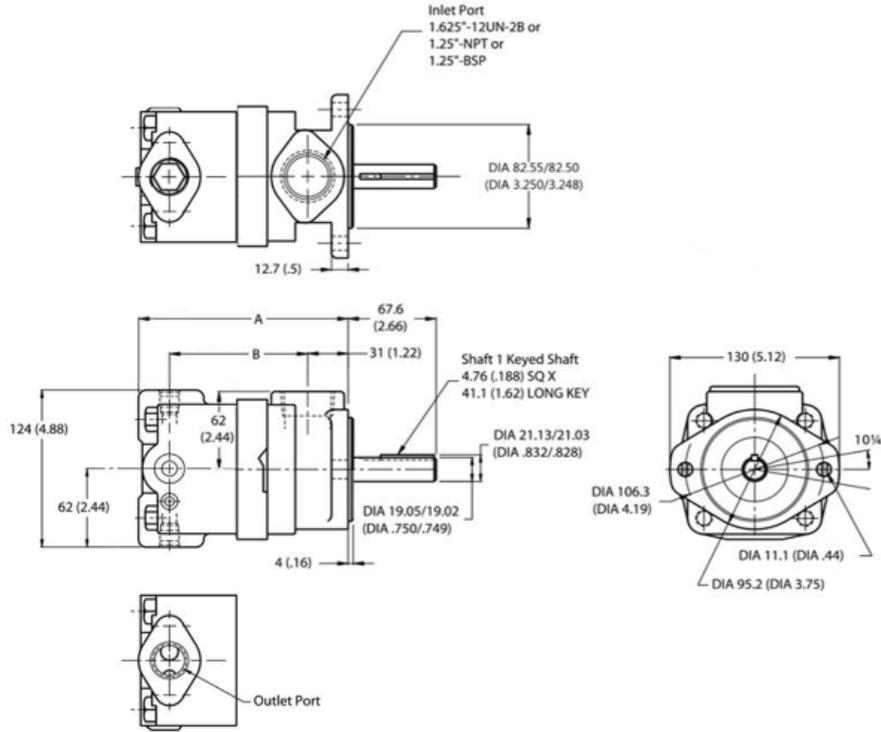
Shaft 62 Splined Shaft 9 Teeth

Shaft 15 Splined Shaft 13 Teeth

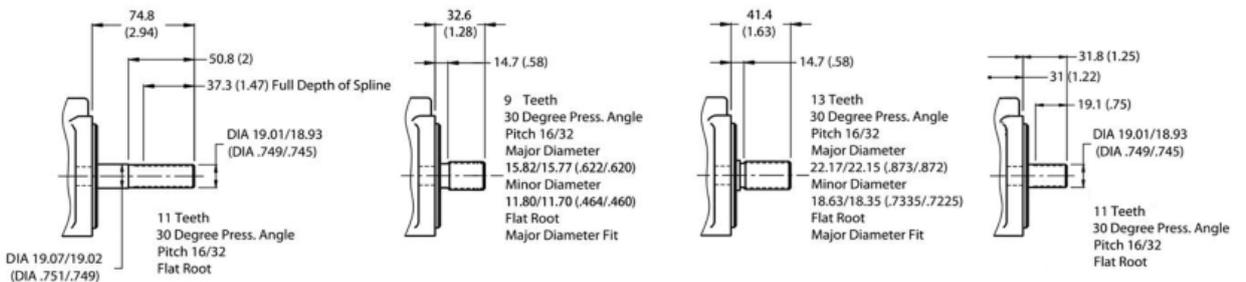
Shaft 38 Splined Shaft 11 Teeth

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

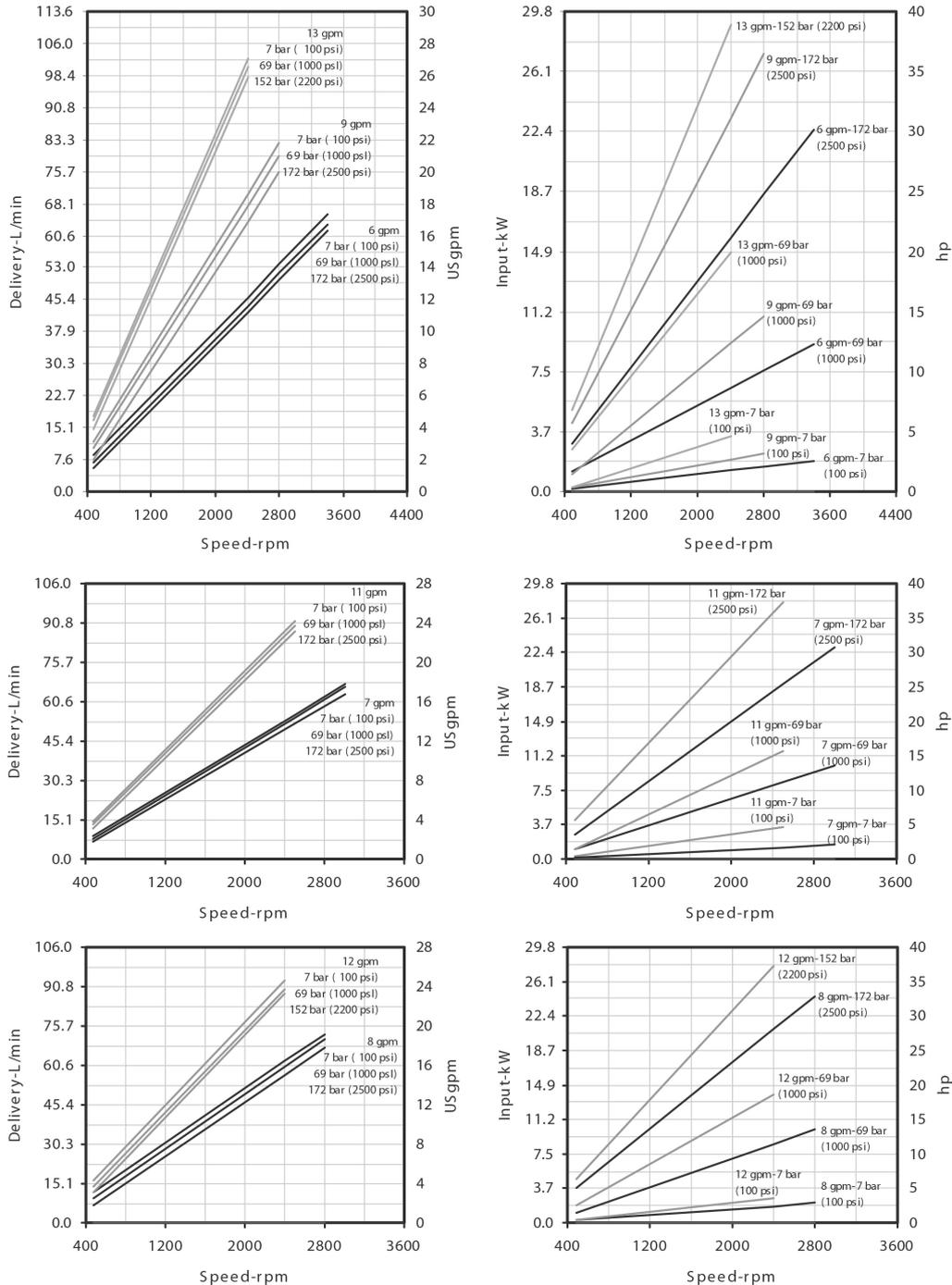


Shaft 11 Splined Shaft 11 Teeth Shaft 62 Splined Shaft 9 Teeth Shaft 15 Splined Shaft 13 Teeth Shaft 38 Splined Shaft 11 Teeth

Single Vane Pump HV20F NF/HV20P Series

HV20, Shaft End of HV20, Cover End of HV2020

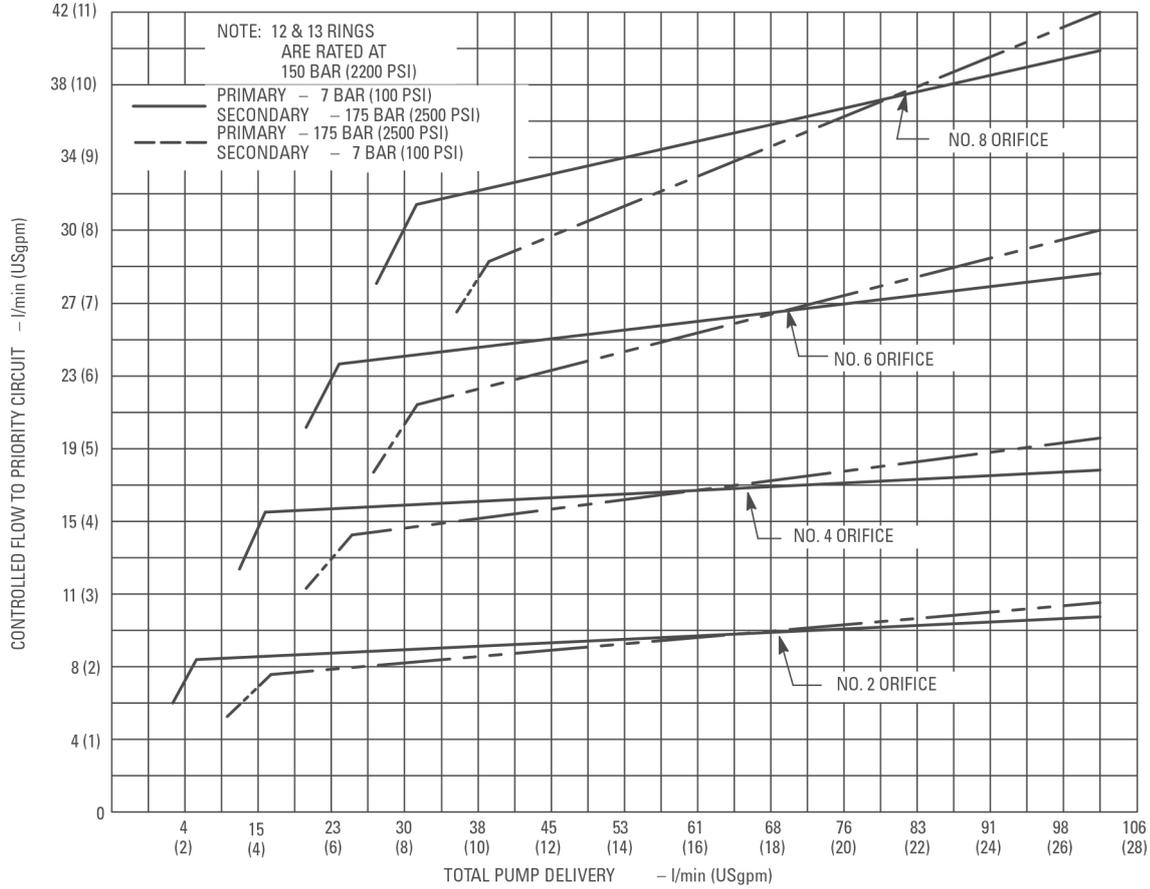
Based on viscosity 32 cSt (150 SSU) oil at 49°C (120°F) and pump inlet at 0 PSIG (14.7 PSIA)



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

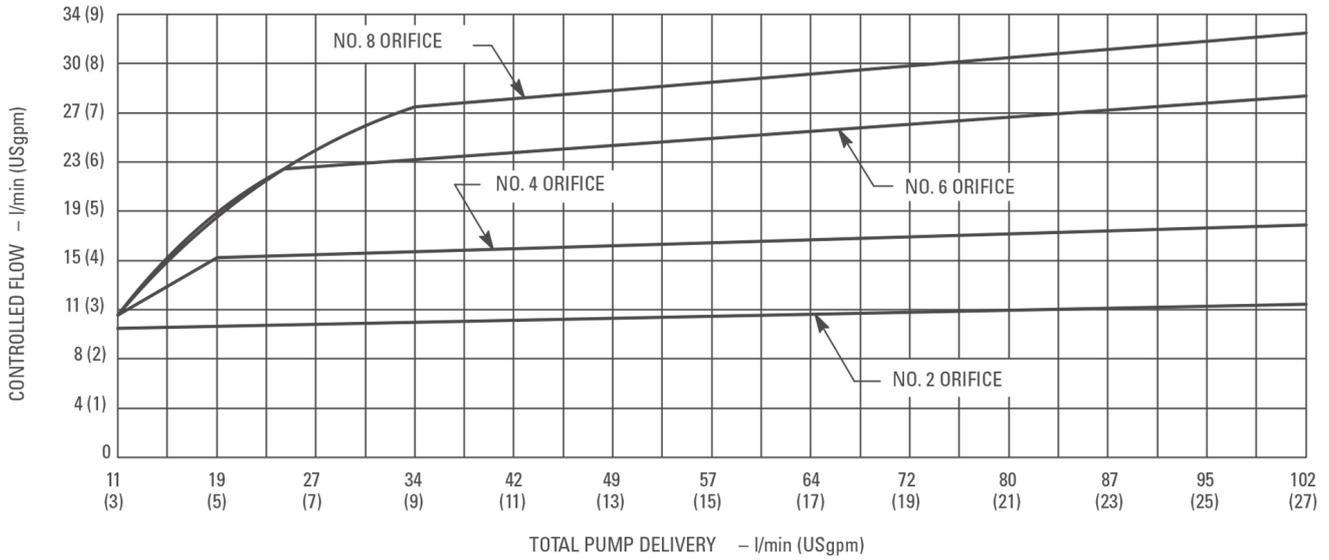
Single Vane Pump HV20F NF/HV20P Series

Priority Valve : HV20P



Single Vane Pump HV20F NF/HV20P Series

Flow control : HV20F NF



Power Steering Vane Pump HVTM42 Series

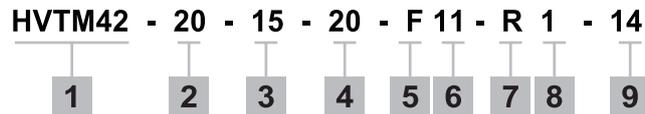
Specifications :

Model	Ring Size Delivery at 1200 r/min & 7 bar (100 psi) USgpm	Geometric Displacement cm ³ /r (in ³ /r)	Maximum Speed			Maximum Pressure bar (psi)	Weight kg (lb)
			at 7 bar (100 psi) rpm	at 100 bar (1500 psi) rpm	at 140 bar (2000 psi) rpm		
HVTM42	1	3.4 (0.21)	7000	5000	4250	140 (2000)	7.2 (15.8)
	1.5	5.0 (0.31)		4500	4000		
	2	6.2 (0.38)		4200	3800		
	4	12.9 (0.79)		2800	2800		
	5	15.7 (0.96)	6000	2500	2300		
	6	19.3 (1.18)	5000	2500	2000		

Power Steering Vane Pump

HVTM42 Series

Ordering Code



1. Model : HVTM42

2. Delivery (USgpm at 1200rpm & 7 bar)

- 10 - 1.0 USgpm
- 15 - 1.5 USgpm
- 20 - 2.0 USgpm
- 40 - 4.0 USgpm
- 50 - 5.0 USgpm
- 60 - 6.0 USgpm

3. Controlled Flow (at 1500rpm & 7 bar)

USgpm (L/min)

- 15 - 1.5 (6.0)
- 20 - 2.0 (8.0)
- 25 - 2.5 (9.5)
- 30 - 3.0 (11.0)
- 35 - 3.5 (13.0)
- 40 - 4.0 (15.0)
- 45 - 4.5 (17.0)
- 50 - 5.0 (19.0)
- 55 - 5.5 (21.0)
- 60 - 6.0 (23.0)
- 65 - 6.5 (25.0)
- 70 - 7.0 (26.5)
- 75 - 7.5 (28.0)

4. Relief Valve Setting psi (bar)

- 05 - 500 (35)
- 07 - 750 (52)
- 10 - 1000 (70)
- 12 - 1250 (86)
- 15 - 1500 (100)
- 17 - 1750 (120)
- 20 - 2000 (140)

5. Filter for tank

- NF - Standard baffle without filter
- F - With filter

6. Tank or Manifold

- NO - Without Tank
- 11 - With 115 cu.in.(1884 cc.) Tank
- 07 - With 70 cu.in.(1147 cc.) Tank
- MA - Manifold without bypass tube
- MB - Manifold with bypass tube
- ME - Cast iron manifold with no bypass tube
- MF - Cast iron manifold with bypass tube

7. Shaft Rotation (Viewed from shaft end)

- R - Turn right
- L - Turn left

8. Shaft

- 1 - Threaded with woodruff Keyed Shaft

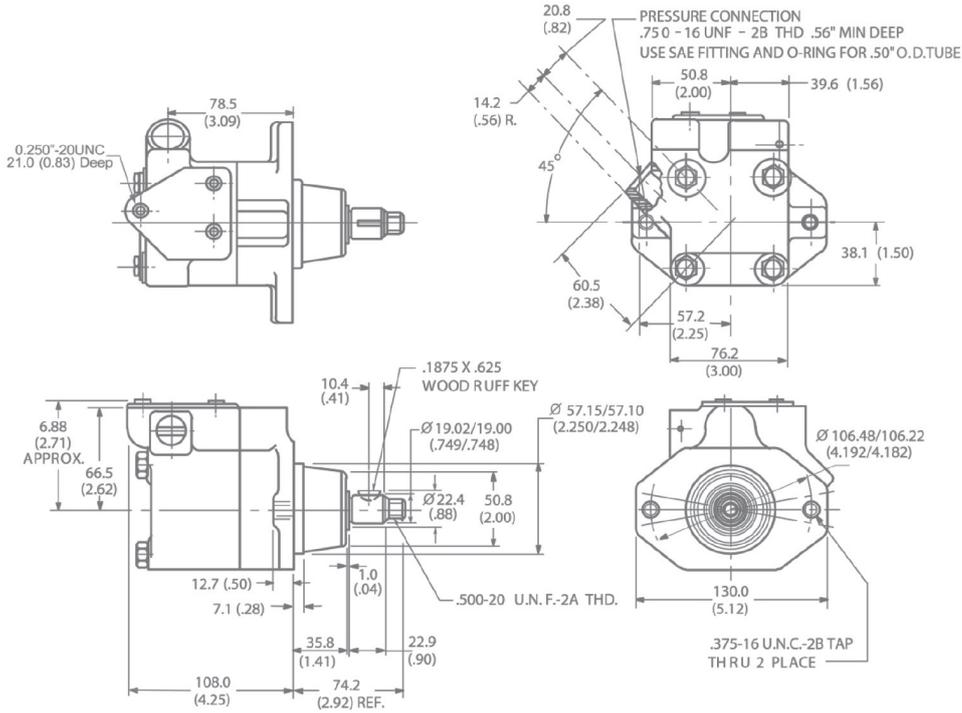
9. Design

Subject to change installation dimensions remain the same for design -10 through -19

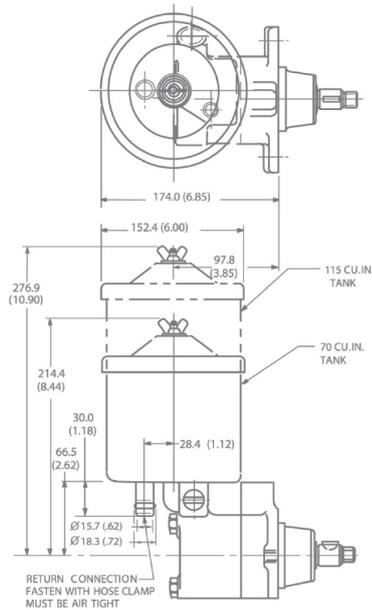
Power Steering Vane Pump HVTM42 Series

Installation Dimension mm (inch)

HVTM42 without reservoir or manifold

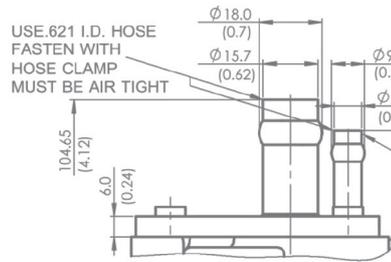
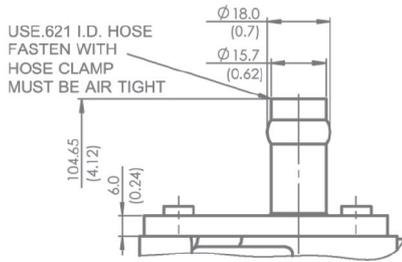


HVTM42 Tank Dimensions

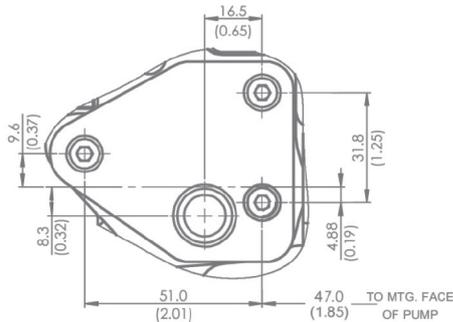


Power Steering Vane Pump HVTM42 Series

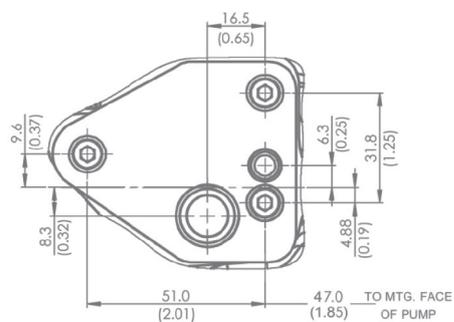
Manifold options for HVTM42



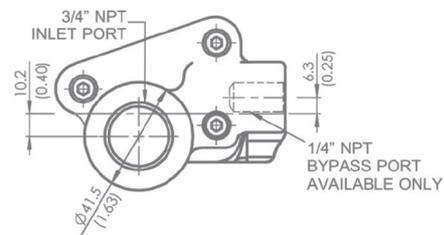
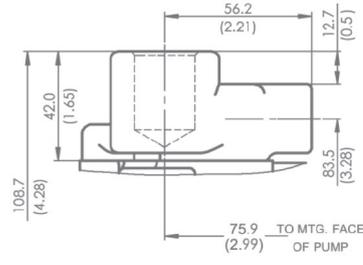
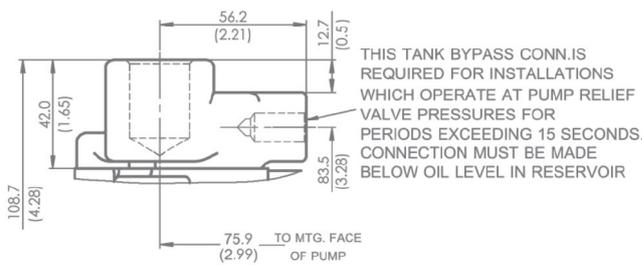
THIS TANK BYPASS CONN.IS
REQUIRED FOR INSTALLATIONS
WHICH OPERATE AT PUMP RELIEF
VALVE PRESSURES FOR
PERIODS EXCEEDING 15 SECONDS.
CONNECTION MUST BE MADE
BELOW OIL LEVEL IN RESERVOIR



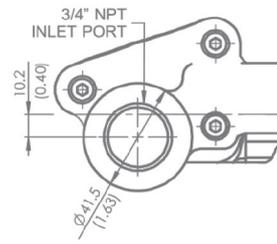
MA Manifold



MB Manifold



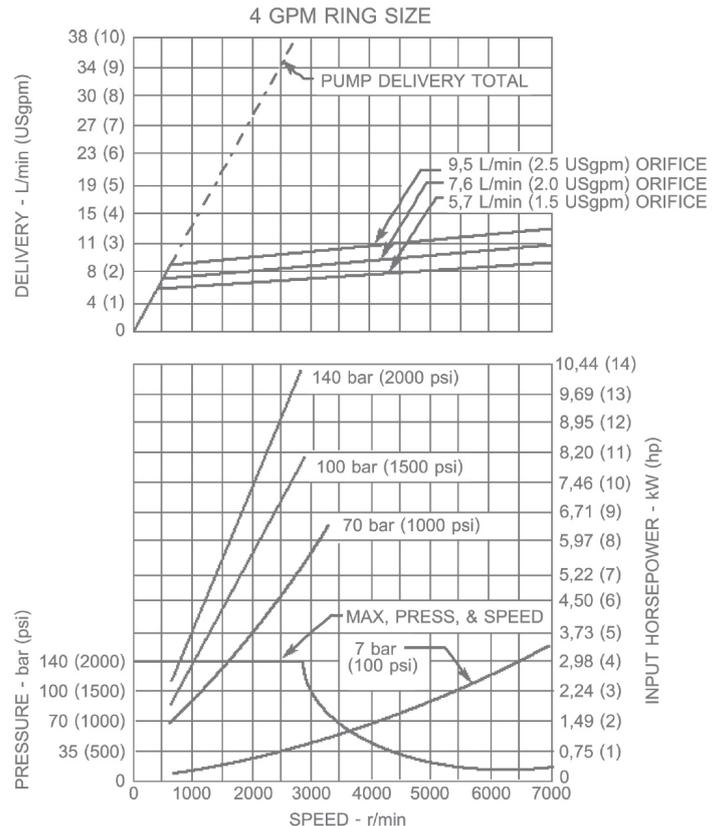
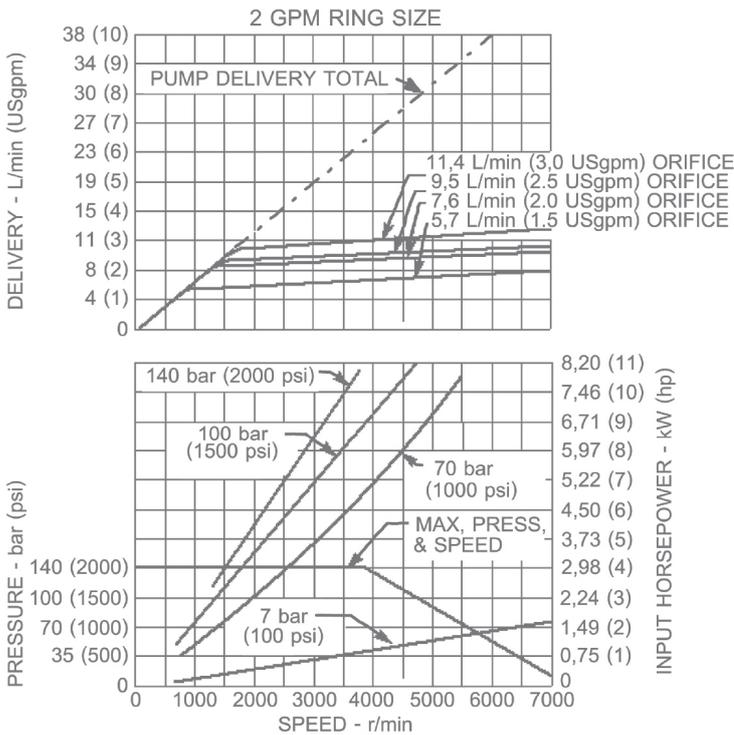
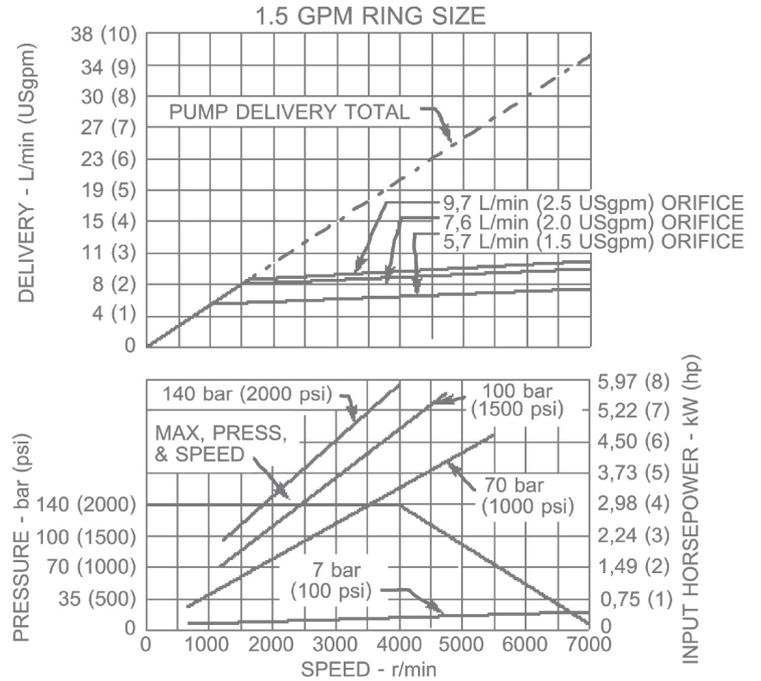
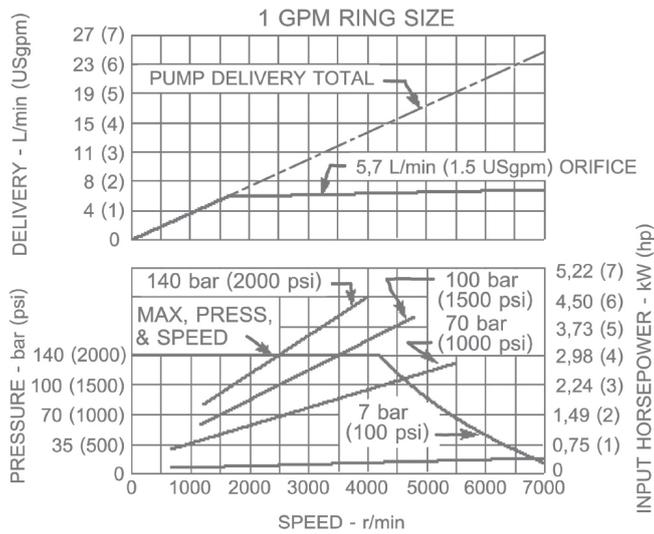
MF Manifold



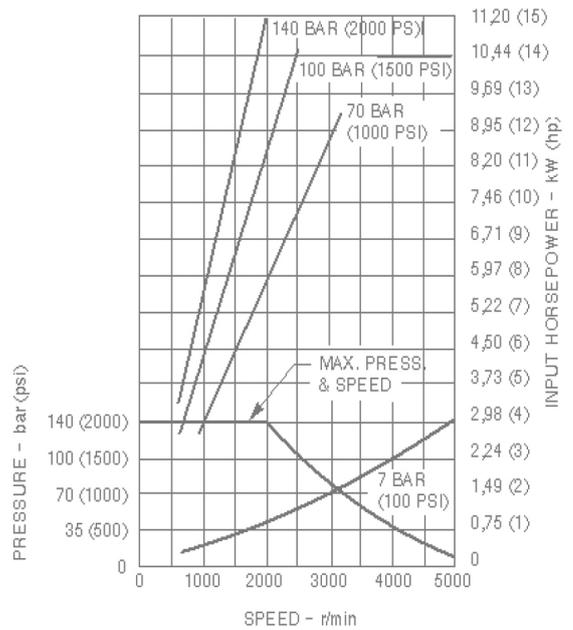
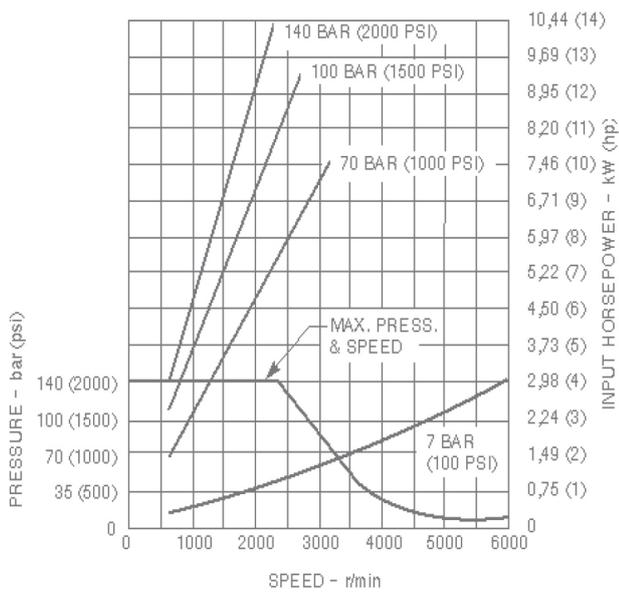
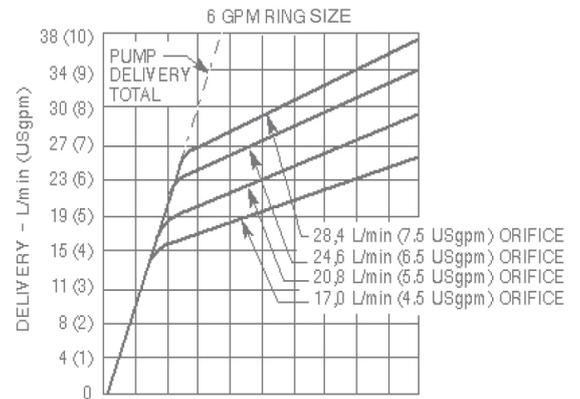
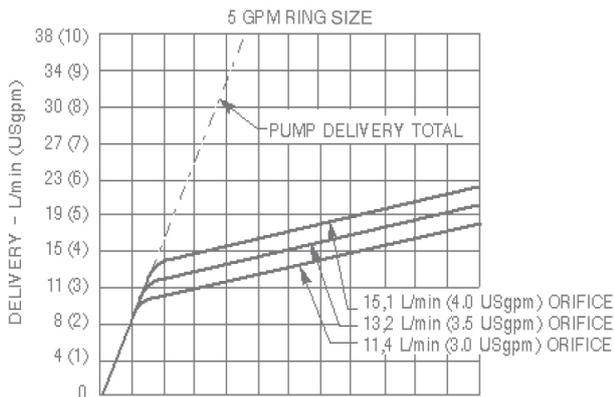
ME Manifold

Power Steering Vane Pump HVTM42 Series

Performance Characteristics



Power Steering Vane Pump HVTM42 Series



HOF Hydraulic represented by

Flowlution Co.,Ltd.

26/48 Moo4 Suksavadh Road, Jomthong, 10150 Bangkok, Thailand
Tel: +662 877 3223 Fax: +662 877 3373 info@flowlution.com

HOF Corindus Co.,Ltd. (Thailand only)

891 Rama3 Road, Bangpongpan, Yannawa, 10120 Bangkok
Tel: 02 284 1100 Fax: 02 683 4414 info@hofcorindus.co.th
www.hofcorindus.co.th