



Hydraulic Double Vane Pump HV2010 & HV2020 Series

Catalog 2021

Double Vane Pump

HV2010 Series

Specifications

Model	Cartridge Position	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	Weight
		USgpm	cm³/r (in³/r)	L/min (USgpm)	bar (psi)	rpm	kg (lb)
HV2010	Shaft End	5	16.4 (1.00)	23.60 (6.25)	172 (2500)	3400	15.4 (33.9)
		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)	152 (2200)	2400	
		13	42.4 (2.59)	61.50 (16.25)		2400	
	Cover End	1	3.3 (0.20)	4.70 (1.25)	172 (2500)	3000	
		2	6.6 (0.40)	9.40 (2.50)			
		3	9.8 (0.60)	14.20 (3.75)			
		4	13.1 (0.80)	18.90 (5.00)			
		5	16.4 (1.00)	23.60 (6.25)			
		6	19.5 (1.19)	28.40 (7.50)	152 (2200)		
		7	22.8 (1.39)	33.10 (8.75)	138 (2000)	2800	

Double Vane Pump

HV2010 Series

Ordering Code : Double Pump

HV2010 - 1 F 13 S 7 S - 1 C C - 20 - L

1	2	3	4	5	6	7	8	9	10	11	12
---	---	---	---	---	---	---	---	---	----	----	----

1. Model :

HV2010 - Standard Cover
SAE B 2 bolts mounting flange J744

2. Mounting

1 - Bolt Flange

3. Inlet Port Connection

F - 4-bolt Flange Dia. 1.5"

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. Shaft End Outlet Port Connection

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

6. Displacement P2 (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)

7. Cover End Outlet Port Connection

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

8. Type of shaft

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

9. Shaft End Outlet Port Position (Viewed from cover end)

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

10. Cover End Outlet Port Position (Viewed from cover end)

A - 135° CCW from inlet
B - 45° CCW from inlet
C - 45° CW from inlet
D - 135° CW from inlet

11. Design

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

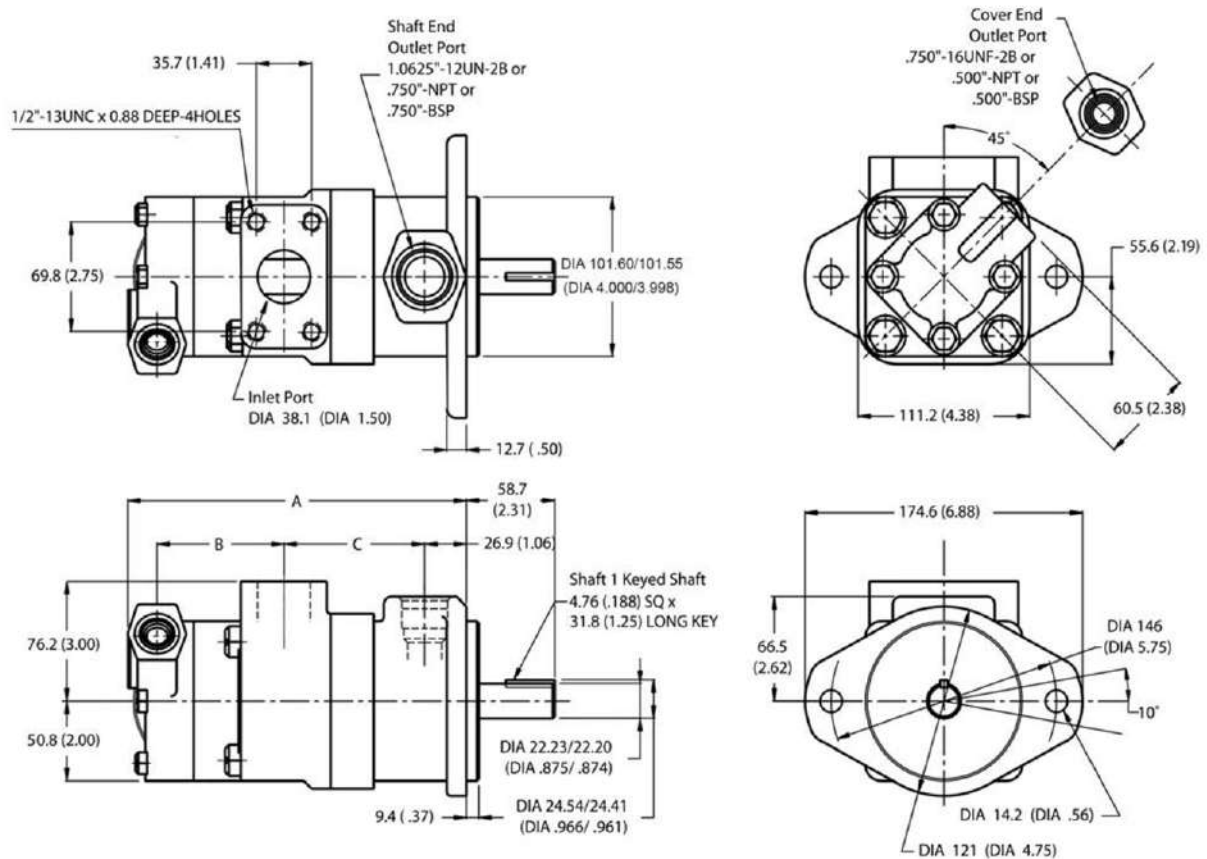
12. Shaft Rotation (viewed from shaft end)

R - Turn right
L - Turn left

Double Vane Pump HV2010 Series

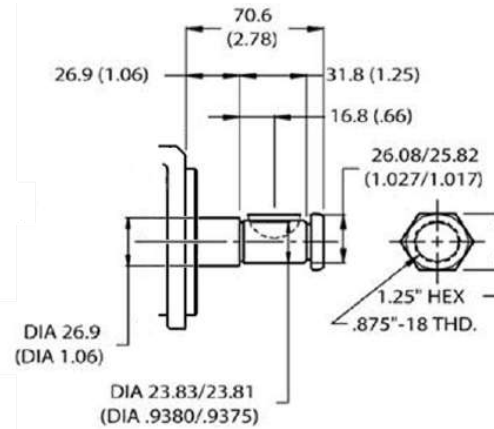
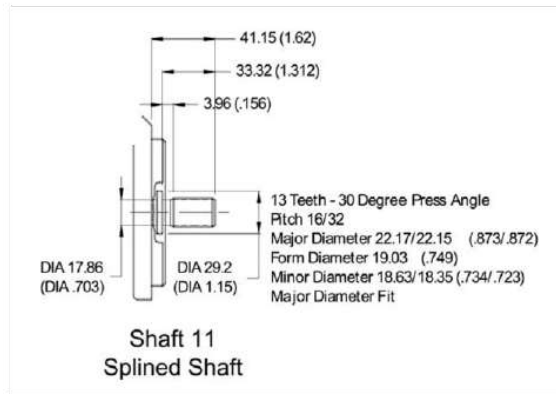
Installation Dimension mm (inch)

Double Pump HV2010



Double Vane Pump

HV2010 Series



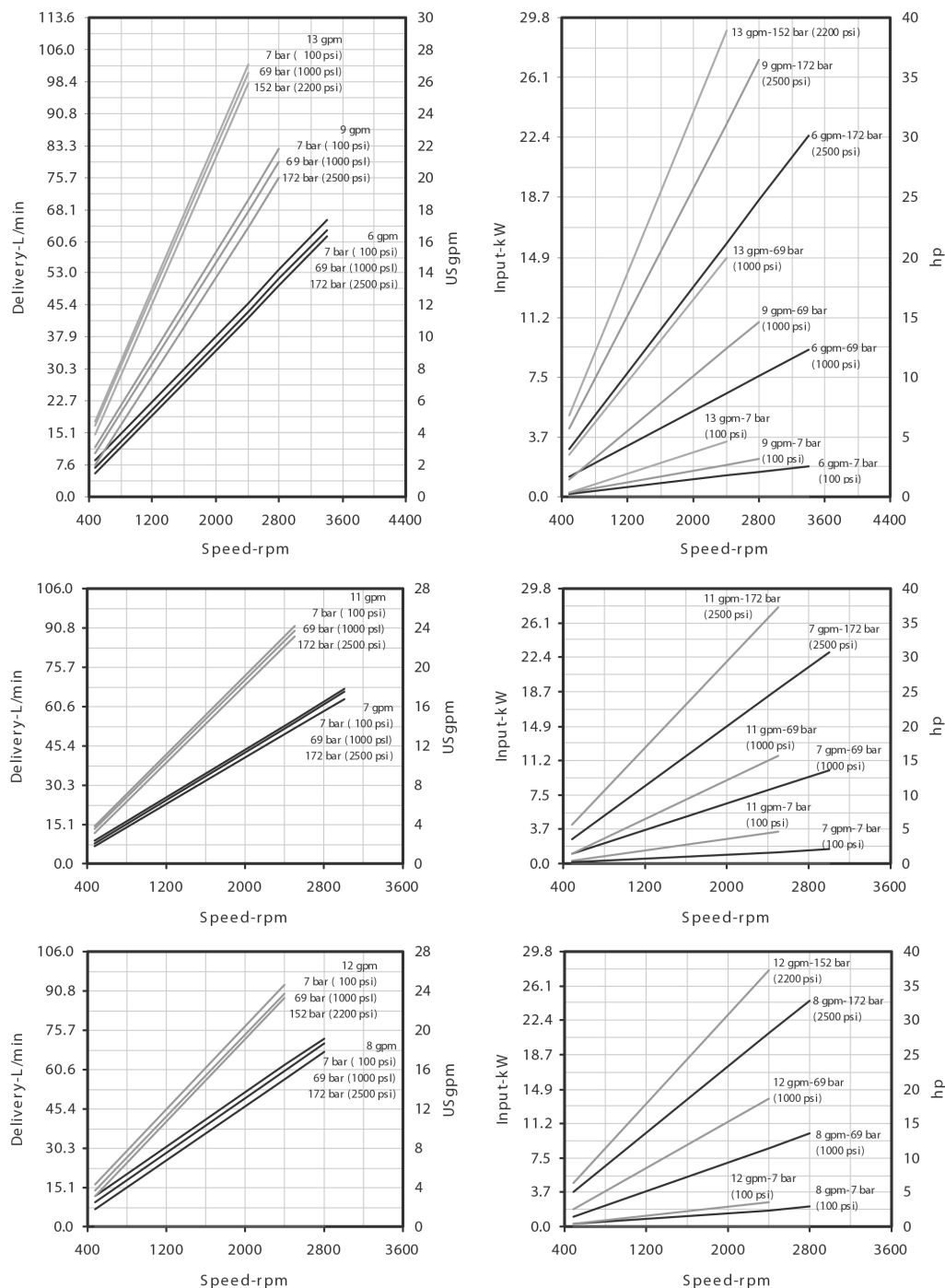
Delivery @ 1200 rpm & 7 bar (100psi)		Dimension		
Shaft End	Cover End	A	B	C
5, 6	1, 2, 3	206.7 (8.14)	75.9 (2.99)	80.0 (3.15)
	4, 5	213.1 (8.39)	82.3 (3.24)	
	6, 7	218.1 (8.59)	87.4 (3.44)	
7, 8, 9	1, 2, 3	213.1 (8.39)	75.9 (2.99)	86.4 (3.40)
	4, 5	219.5 (8.64)	82.3 (3.24)	
	6, 7	224.5 (8.84)	87.4 (3.44)	
10, 11	1, 2, 3	218.2 (8.59)	75.9 (2.99)	91.2 (3.59)
	4, 5	224.5 (8.84)	82.3 (3.24)	
	6, 7	229.6 (9.04)	87.4 (3.44)	
12, 13	1, 2, 3	221.7 (8.73)	75.9 (2.99)	94.7 (3.73)
	4, 5	227.8 (8.97)	82.3 (3.24)	
	6, 7	232.9 (9.17)	87.4 (3.44)	

Double Vane Pump HV2010 Series

Performance Characteristics

HV20, Shaft End of HV20

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

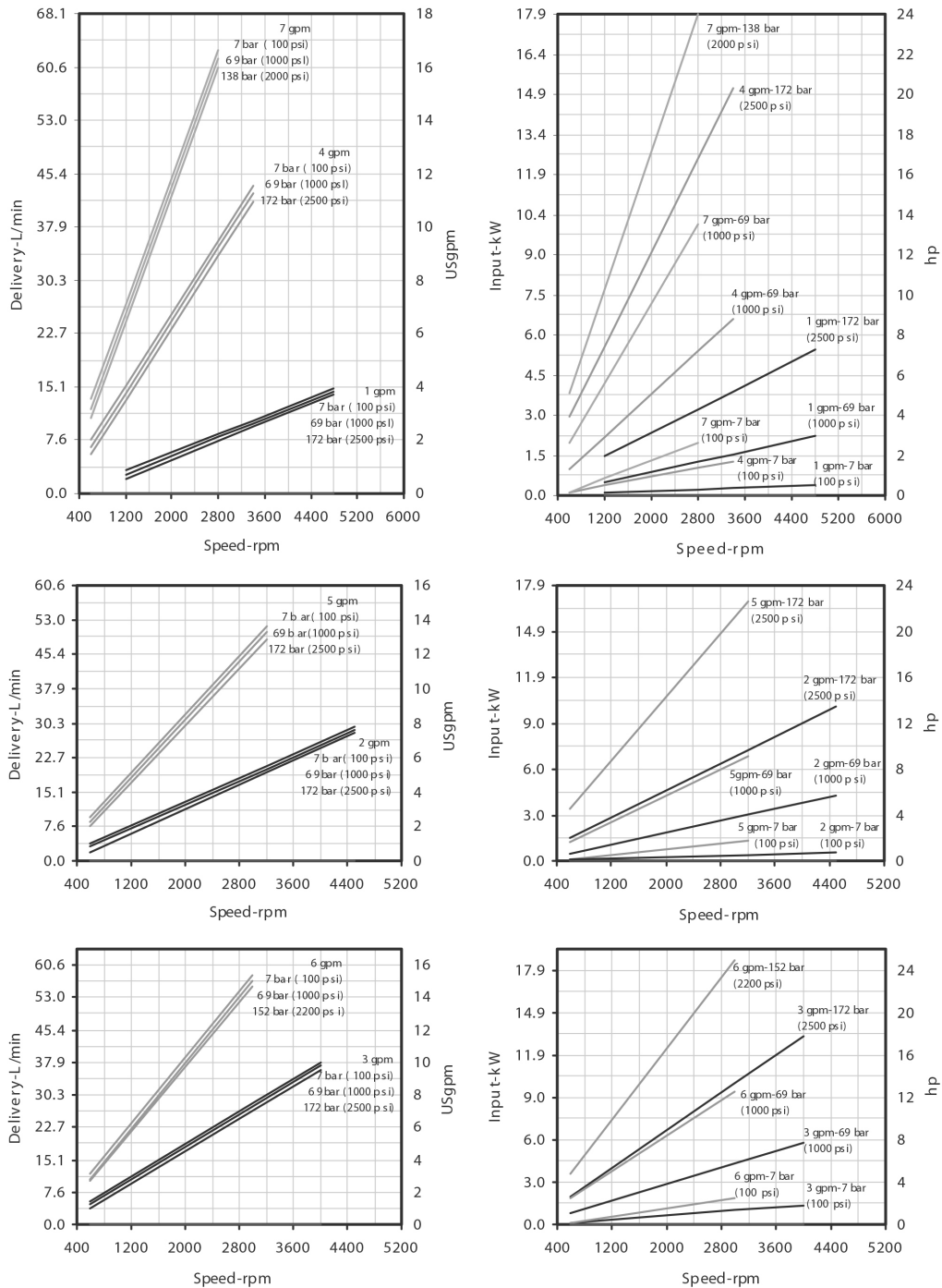


For the Cover End cartridge, the speed could not exceed the maximum speed of the shaft End Cartridge.

Double Vane Pump HV2010 Series

HV10, Cover End of HV10

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.

Double Vane Pump

HV2020 Series

Specifications

Model	Cartridge Position	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	Weight
		USgpm	cm ³ /r (in ³ /r)	L/min (USgpm)	bar (psi)	rpm	kg (lb)
HV2020	Shaft End	5	16.4 (1.00)	23.60 (6.25)	172 (2500)	3400	17.2 (37.8)
		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)	152 (2200)	2400	
		13	42.4 (2.59)	61.50 (16.25)		2400	
	Cover End	5	16.4 (1.00)	23.60 (6.25)	172 (2500)	3000	
		6	19.5 (1.19)	28.39 (7.50)		3000	
		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	

Double Vane Pump

HV2020 Series

Ordering Code : Double Pump

HV2020 - 1 F 13 S 7 S - 1 C C - 20 - L

1	2	3	4	5	6	7	8	9	10	11	12
---	---	---	---	---	---	---	---	---	----	----	----

1. Model :

HV2020 - Standard Cover
SAE B 2 bolts mounting flange J744

2. Mounting

1 - Bolt Flange

3. Inlet Port Connection

F - 4-bolt Flange Dia. 2.0"

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. Shaft End Outlet Port Connection

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

6. Displacement P2 (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)

7. Cover End Outlet Port Connection

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

8. Type of shaft

1 - Straight Keyed Shaft
11 - Splined Shaft

9. Shaft End Outlet Port Position (Viewed from cover end)

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

10. Cover End Outlet Port Position (Viewed from cover end)

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

11. Design

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

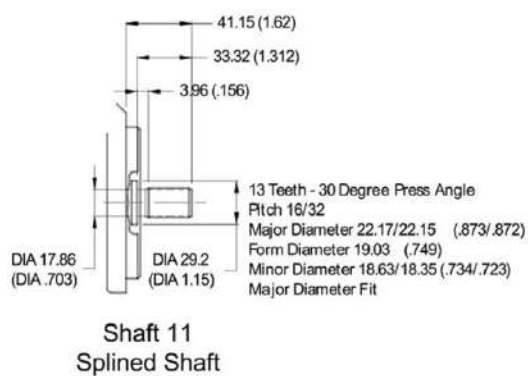
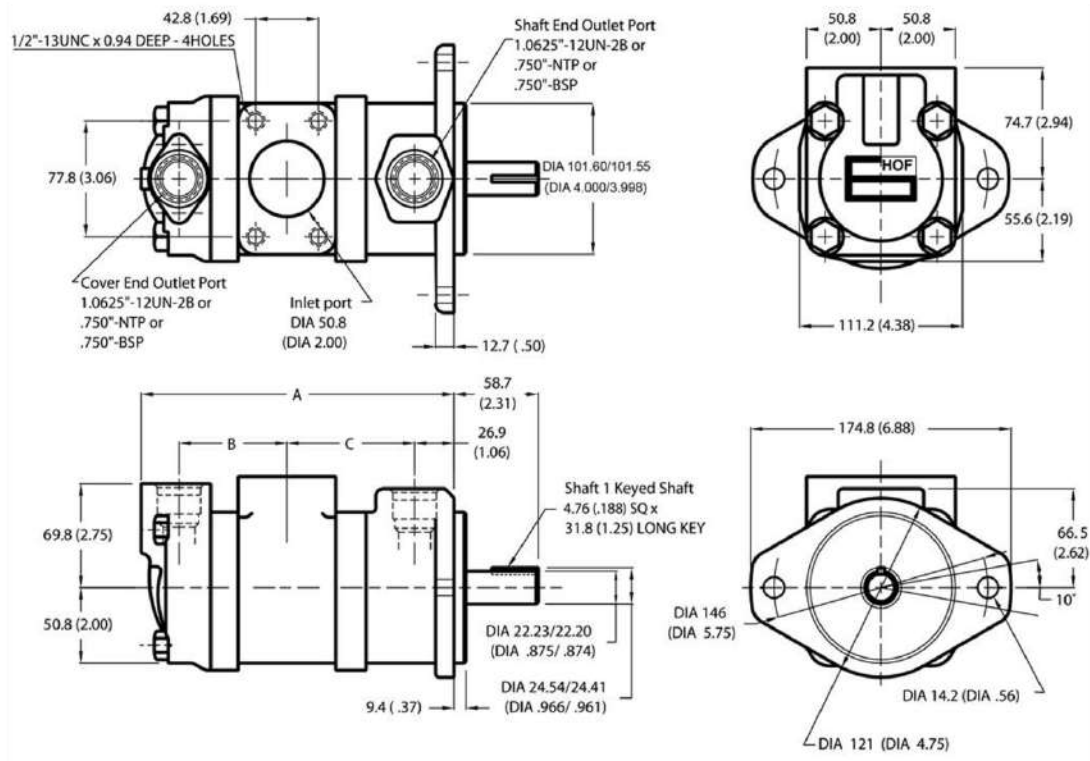
12. Shaft Rotation (viewed from shaft end)

R - Turn right
L - Turn left

Double Vane Pump HV200 Series

Installation Dimension mm (inch)

Double Pump HV200



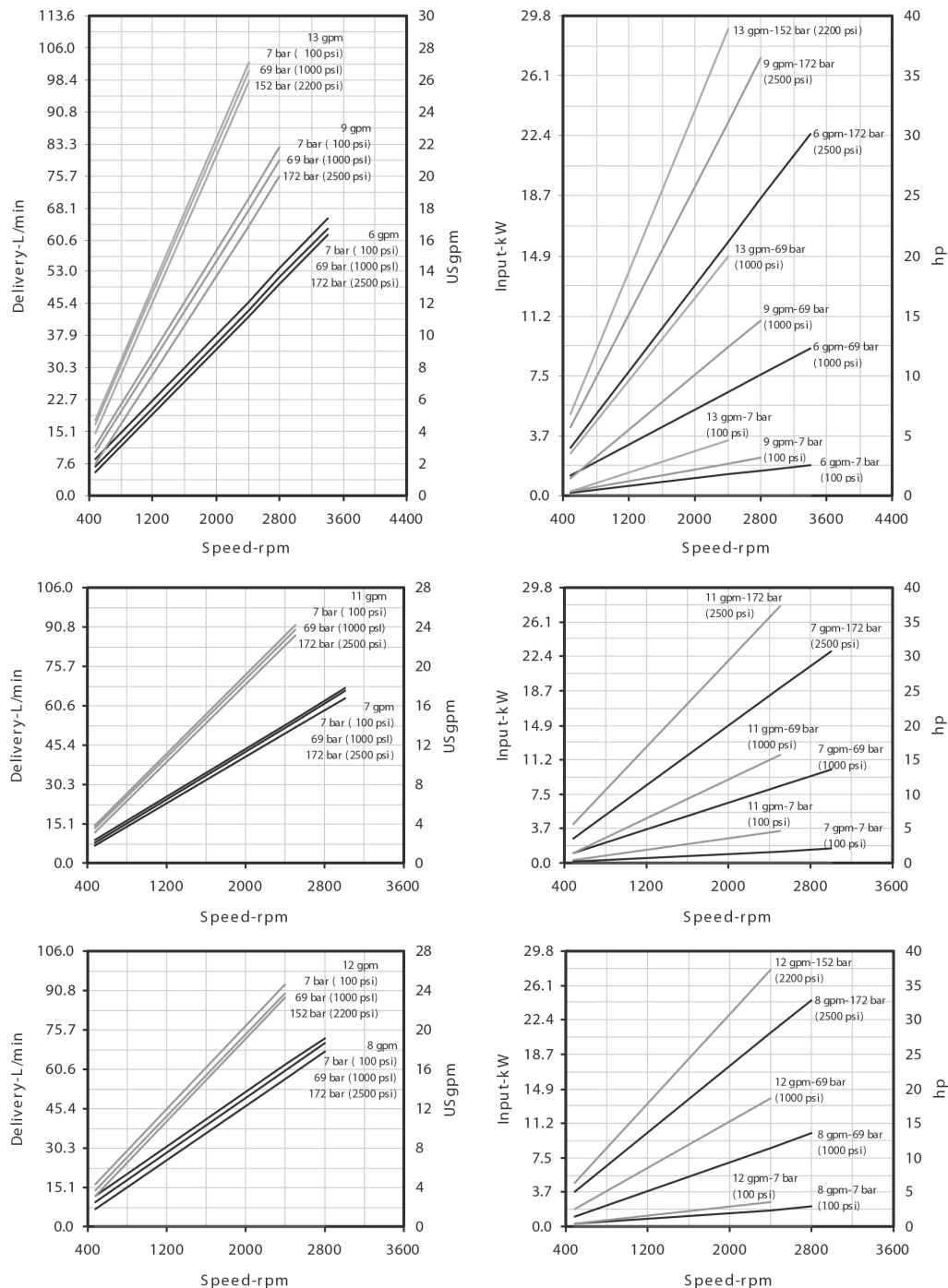
Delivery @ 1200 rpm & 7 bar (100psi)		Dimension		
Shaft End	Cover End	A	B	C
5, 6	5, 6	207.2 (8.16)	73.7 (2.90)	80.7 (3.18)
	7, 8, 9	213.6 (8.41)	80.0 (3.15)	
	10, 11	218.6 (8.61)	85.1 (3.35)	
7, 8, 9	5, 6	213.6 (8.41)	73.7 (2.90)	87.1 (3.43)
	7, 8, 9	220.0 (8.66)	80.0 (3.15)	
	10, 11	225.0 (8.86)	85.1 (3.35)	
10, 11	5, 6	218.7 (8.61)	73.7 (2.90)	92.2 (3.63)
	7, 8, 9	225.0 (8.86)	80.0 (3.15)	
	10, 11	229.9 (9.05)	85.1 (3.35)	
12, 13	5, 6	222.3 (8.75)	73.7 (2.90)	95.5 (3.76)
	7, 8, 9	228.3 (8.99)	80.0 (3.15)	
	10, 11	233.4 (9.19)	85.1 (3.35)	

Double Vane Pump HV200 Series

Performance Characteristics

HV20, Shaft End of HV20, Cover End of HV20

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.

Double Vane Pump

HV2020F NF/HV2020P Series

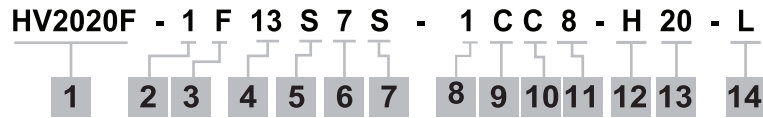
Specifications

Model	Cartridge Position	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	Weight
		USgpm	cm ³ /r (in ³ /r)	L/min (USgpm)	bar (psi)	rpm	kg (lb)
HV2020F NF & HV2020P	Shaft End	5	16.4 (1.00)	23.60 (6.25)	172 (2500)	3400	17.2 (37.8)
		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)	152 (2200)	2400	
		13	42.4 (2.59)	61.50 (16.25)		2400	
	Cover End	5	16.4 (1.00)	23.60 (6.25)	172 (2500)	3000	
		6	19.5 (1.19)	28.39 (7.50)		3000	
		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	

Double Vane Pump

HV2020F NF/HV2020P Series

Ordering Code : Double Pump HV2020F NF

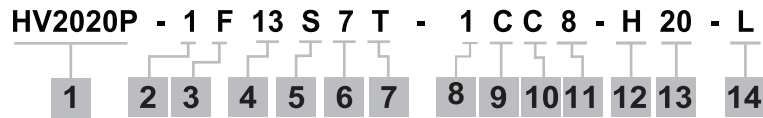


- | | |
|---|---|
| <p>1. Model :</p> <p style="margin-left: 20px;">HV2020F - Flow Control Cover</p> <p style="margin-left: 20px;">HV2020NF - Flow Control Cover & Internal Drain</p> <p style="margin-left: 40px;">SAE B 2 bolts mounting flange J744</p> <p>2. Mounting</p> <p style="margin-left: 20px;">1 - Bolt Flange</p> <p>3. Inlet Port Connection</p> <p style="margin-left: 20px;">F - 4-bolt Flange Dia. 2.0"</p> <p>4. Displacement (at 1200 rpm)</p> <p style="margin-left: 20px;">Volumetric displacement cm³/rev (in³/rev)</p> <p style="margin-left: 40px;">5 - 16.4 (1.00)</p> <p style="margin-left: 40px;">6 - 19.5 (1.19)</p> <p style="margin-left: 40px;">7 - 22.8 (1.39)</p> <p style="margin-left: 40px;">8 - 26.5 (1.62)</p> <p style="margin-left: 40px;">9 - 29.7 (1.81)</p> <p style="margin-left: 40px;">10 - 34.1 (2.08)</p> <p style="margin-left: 40px;">11 - 36.4 (2.22)</p> <p style="margin-left: 40px;">12 - 39.0 (2.38)</p> <p style="margin-left: 40px;">13 - 42.4 (2.59)</p> <p>5. Shaft End Outlet Port Connection</p> <p style="margin-left: 20px;">S - 1" 1/16 - 12 UN(SAE#12)</p> <p style="margin-left: 20px;">P - 3/4" NPT</p> <p style="margin-left: 20px;">B - 3/4" BSP</p> <p>6. Displacement P2 (at 1200 rpm)</p> <p style="margin-left: 20px;">Volumetric displacement cm³/rev (in³/rev)</p> <p style="margin-left: 40px;">5 - 16.4 (1.00)</p> <p style="margin-left: 40px;">6 - 19.5 (1.19)</p> <p style="margin-left: 40px;">7 - 22.8 (1.39)</p> <p style="margin-left: 40px;">8 - 26.5 (1.62)</p> <p style="margin-left: 40px;">9 - 29.7 (1.81)</p> <p style="margin-left: 40px;">10 - 34.1 (2.08)</p> <p style="margin-left: 40px;">11 - 36.4 (2.22)</p> <p>7. Cover End Outlet Port Connection</p> <p style="margin-left: 20px;">HV2020F</p> <p style="margin-left: 40px;">S - 3/4" - 16 UNF (SAE#8) for outlet and 1" 1/16 - 12 UN (SAE#12) for tank port</p> <p style="margin-left: 40px;">P - 3/4" - 16 UNF(SAE#8) for outlet and 1/2" NPT for tank port</p> <p style="margin-left: 40px;">T - 3/4" - 16 UNF(SAE#8) for outlet and tank port</p> <p style="margin-left: 20px;">HV2020NF</p> <p style="margin-left: 40px;">S - 3/4" - 16 UNF (SAE#8) for outlet</p> | <p>8. Type of shaft</p> <p style="margin-left: 20px;">1 - Straight Keyed Shaft</p> <p style="margin-left: 20px;">11 - Splined Shaft</p> <p>9. Shaft End Outlet Port Position (Viewed from cover end)</p> <p style="margin-left: 20px;">A - Opposite inlet</p> <p style="margin-left: 20px;">B - 90° CCW from inlet</p> <p style="margin-left: 20px;">C - Inline with inlet</p> <p style="margin-left: 20px;">D - 90° CW from inlet</p> <p>10. Cover End Outlet Port Position (Viewed from cover end)</p> <p style="margin-left: 20px;">A - Opposite inlet</p> <p style="margin-left: 20px;">B - 90° CCW from inlet</p> <p style="margin-left: 20px;">C - Inline with inlet</p> <p style="margin-left: 20px;">D - 90° CW from inlet</p> <p>11. Flow rate Setting L/min (USgpm)</p> <p style="margin-left: 20px;">2 - 7.6 (2)</p> <p style="margin-left: 20px;">3 - 11.4 (3)</p> <p style="margin-left: 20px;">4 - 15.2 (4)</p> <p style="margin-left: 20px;">5 - 19.0 (5)</p> <p style="margin-left: 20px;">6 - 22.7 (6)</p> <p style="margin-left: 20px;">7 - 26.5 (7)</p> <p style="margin-left: 20px;">8 - 30.3 (8)</p> <p>12. Pressure Setting bar (psi)</p> <p style="margin-left: 20px;">A - 17 (250)</p> <p style="margin-left: 20px;">B - 34 (500)</p> <p style="margin-left: 20px;">C - 52 (750)</p> <p style="margin-left: 20px;">D - 69 (1000)</p> <p style="margin-left: 20px;">E - 86 (1250)</p> <p style="margin-left: 20px;">F - 103 (1500)</p> <p style="margin-left: 20px;">G - 121 (1750)</p> <p style="margin-left: 20px;">H - 138 (2000)</p> <p style="margin-left: 20px;">J - 150 (2250)</p> <p style="margin-left: 20px;">K - 172 (2500)</p> <p>13. Design</p> <p style="margin-left: 20px;">Subject to change. Installation dimension remain the same for designs - 20 through -29</p> <p>14. Shaft Rotation (viewed from shaft end)</p> <p style="margin-left: 20px;">R - Turn right</p> <p style="margin-left: 20px;">L - Turn left</p> |
|---|---|

Double Vane Pump

HV2020F NF/HV2020P Series

Ordering Code : Double Pump HV2020P

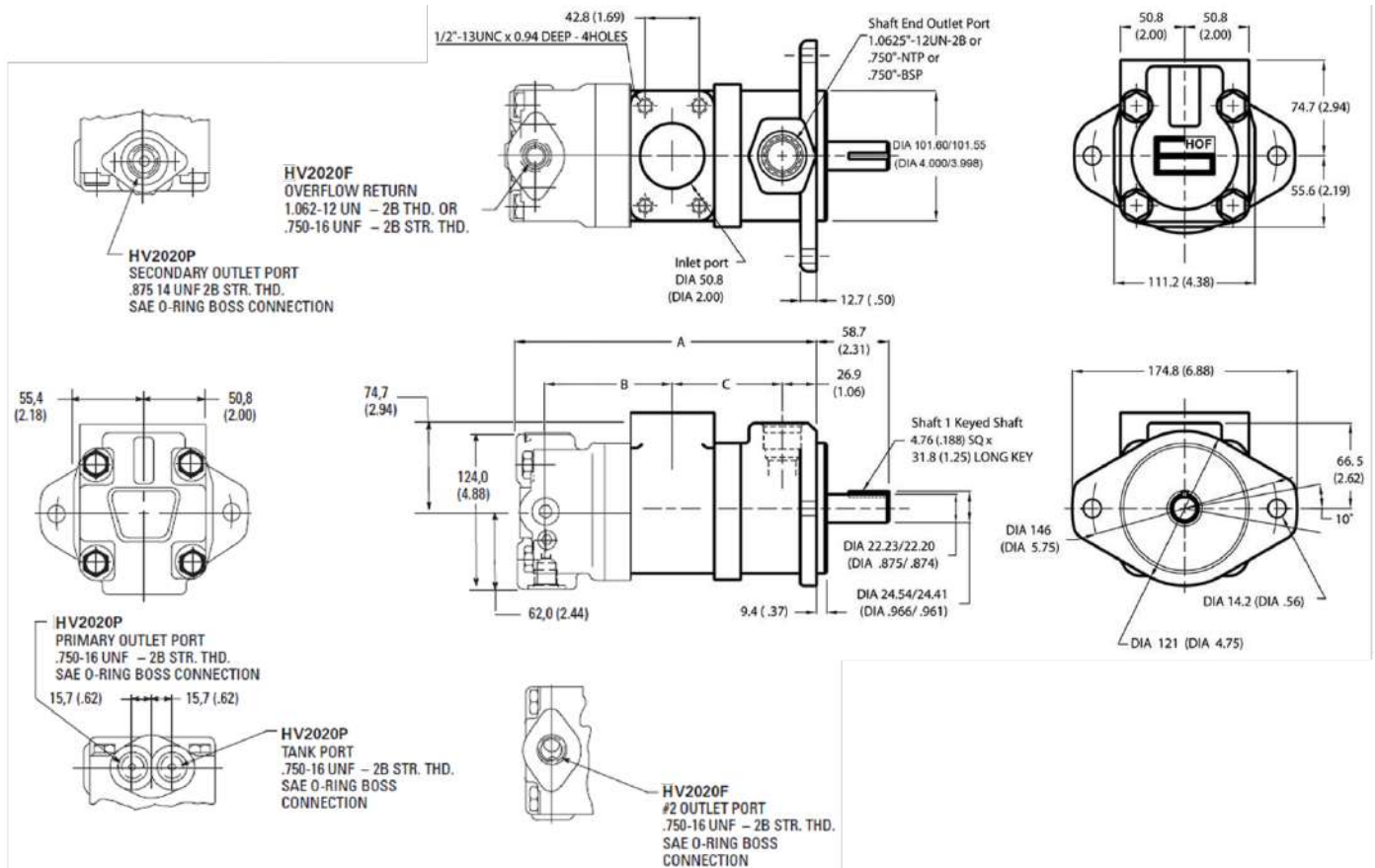


- | | |
|--|--|
| <p>1. Model :
HV2020P - Priority Valve Cover
SAE B 2 bolts mounting flange J744</p> <p>2. Mounting
1 - Bolt Flange</p> <p>3. Inlet Port Connection
F - 4-bolt Flange Dia. 2.0"</p> <p>4. Displacement (at 1200 rpm)
Volumetric displacement cm³/rev (in³/rev)</p> <ul style="list-style-type: 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. Shaft End Outlet Port Connection
S - 1" 1/16 - 12 UN(SAE#12)
P - 3/4" NPT
B - 3/4" BSP</p> <p>6. Displacement P2 (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) <p>7. Cover End 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>8. Type of shaft
1 - Straight Keyed Shaft
11 - Splined Shaft</p> <p>9. Shaft End 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>10. Cover End 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>11. 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>12. 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>13. Design
Subject to change. Installation dimension remain the same for designs - 20 through -29</p> <p>14. Shaft Rotation (viewed from shaft end)
R - Turn right
L - Turn left</p> |
|--|--|

Double Vane Pump HV2020F NF/HV2020P Series

Installation Dimension mm (inch)

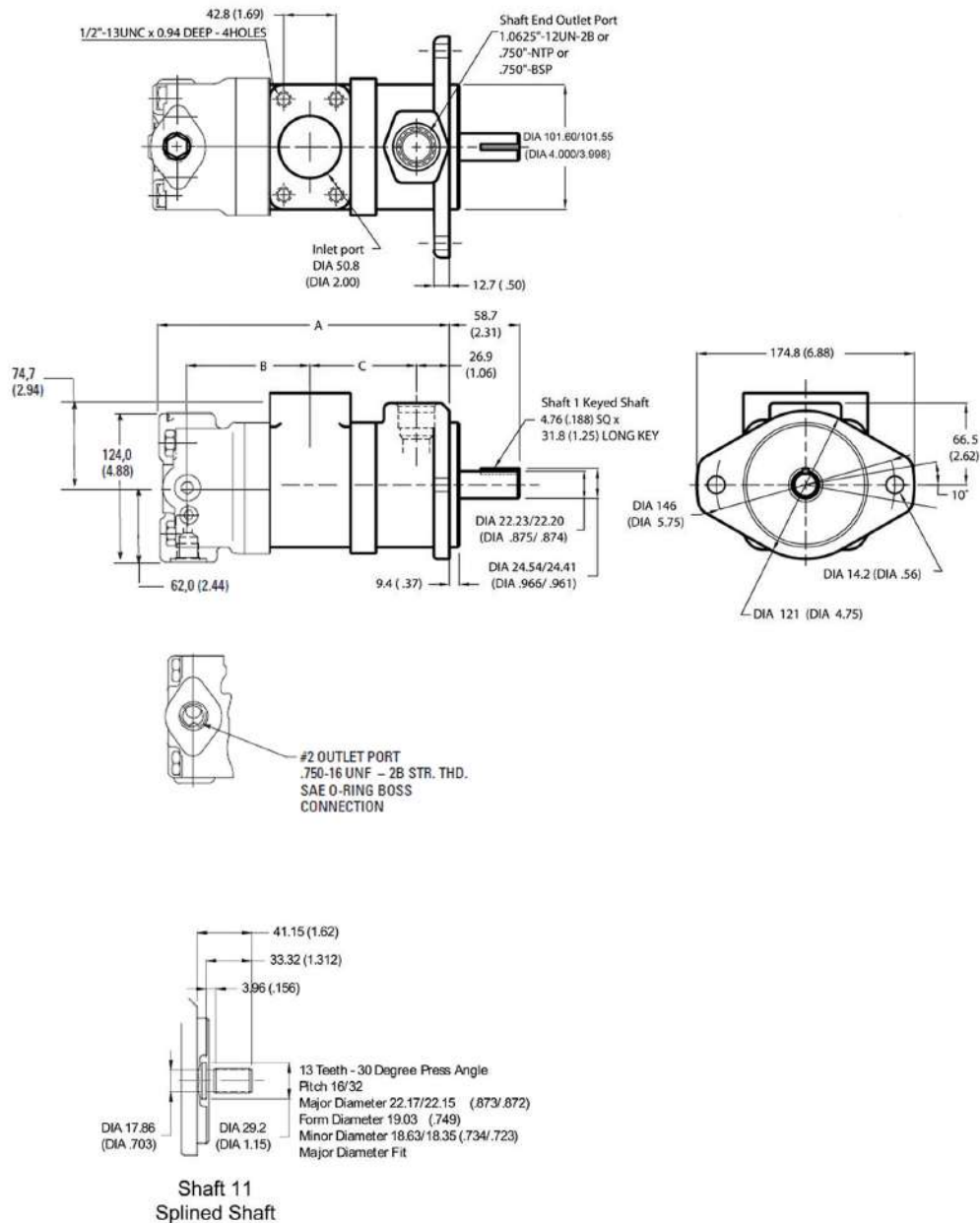
Double Pump HV2020F and HV2020P



Delivery @ 1200 rpm & 7 bar (100psi)		Dimension		
Shaft End	Cover End	A	B	C
5, 6	5, 6	228.6 (9.00)	97.1 (3.82)	80.7 (3.18)
	7, 8, 9	234.9 (9.25)	103.4 (4.07)	
	10, 11	240.0 (9.45)	108.2 (4.26)	
7, 8, 9	5, 6	235.0 (9.25)	97.1 (3.82)	87.1 (3.43)
	7, 8, 9	241.3 (9.50)	103.4 (4.07)	
	10, 11	246.4 (9.70)	108.2 (4.26)	
10, 11	5, 6	240.0 (9.45)	97.1 (3.82)	92.2 (3.63)
	7, 8, 9	246.4 (9.70)	103.4 (4.07)	
	10, 11	251.2 (9.89)	108.2 (4.26)	
12, 13	5, 6	243.6 (9.59)	97.1 (3.82)	95.5 (3.76)
	7, 8, 9	249.7 (9.83)	103.4 (4.07)	
	10, 11	254.8 (10.03)	108.2 (4.26)	

Double Vane Pump HV2020F NF/HV2020P Series

Double Pump HV2020NF



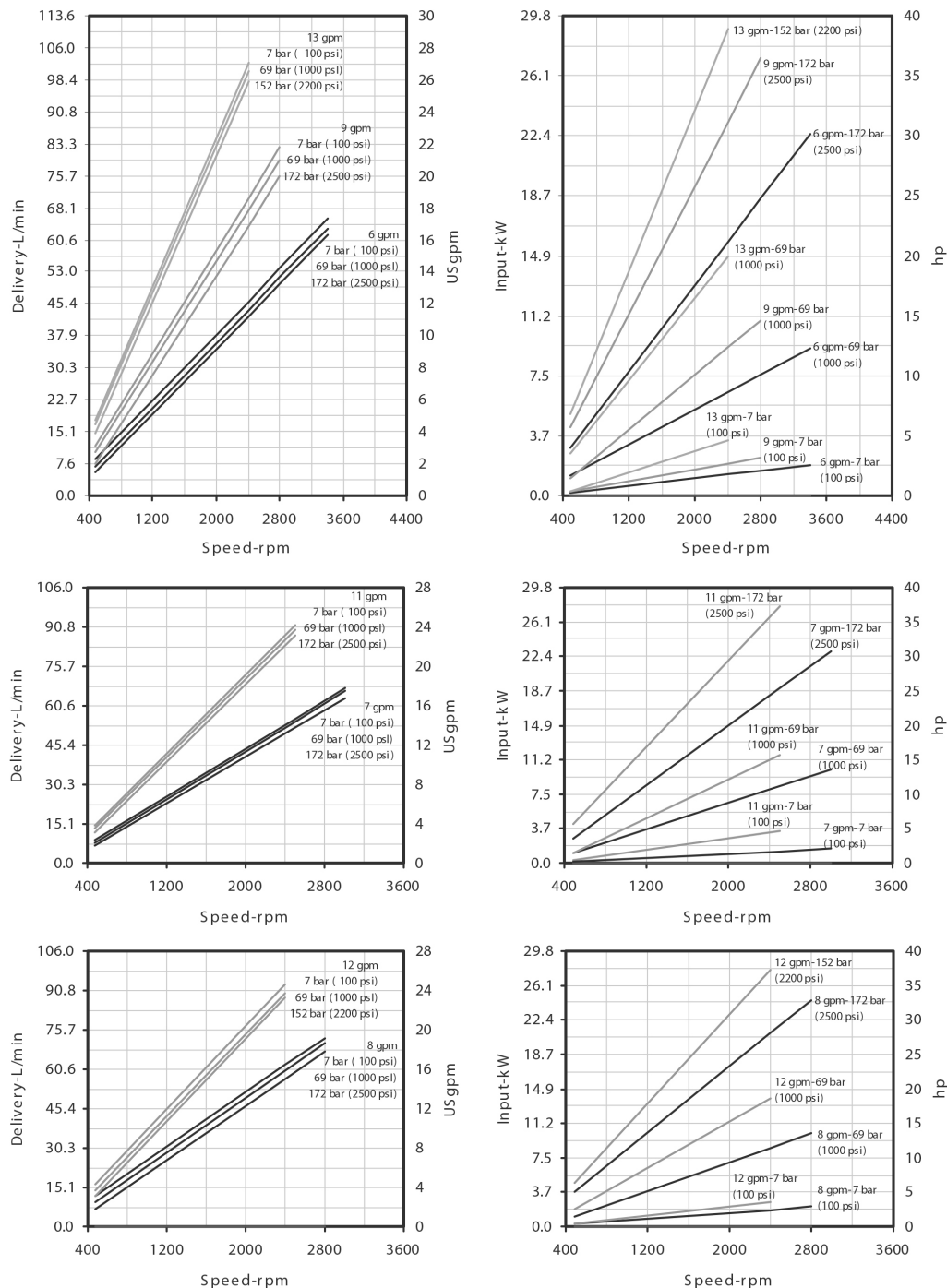
Double Vane Pump

HV2020F NF/HV2020P 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)

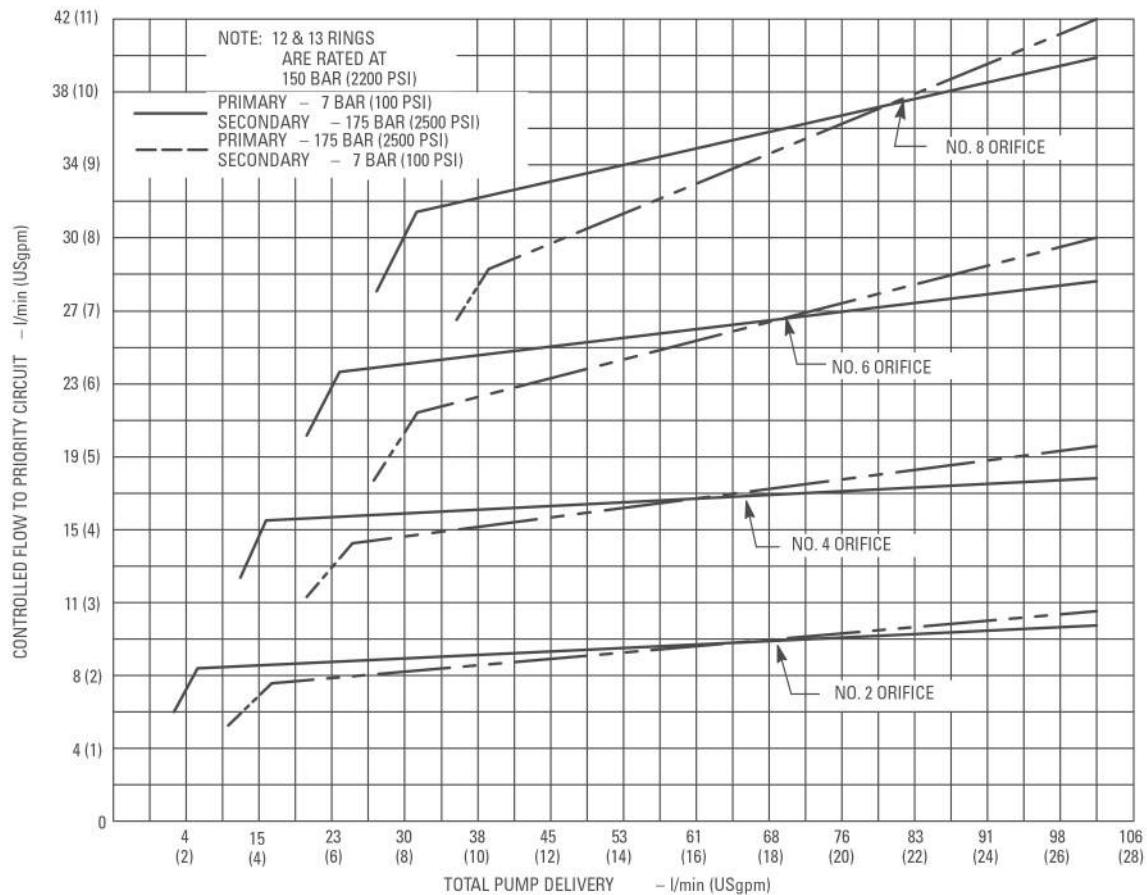


For the Cover End cartridge, the speed could not exceed the maximum speed of the shaft End Cartridge.

Double Vane Pump

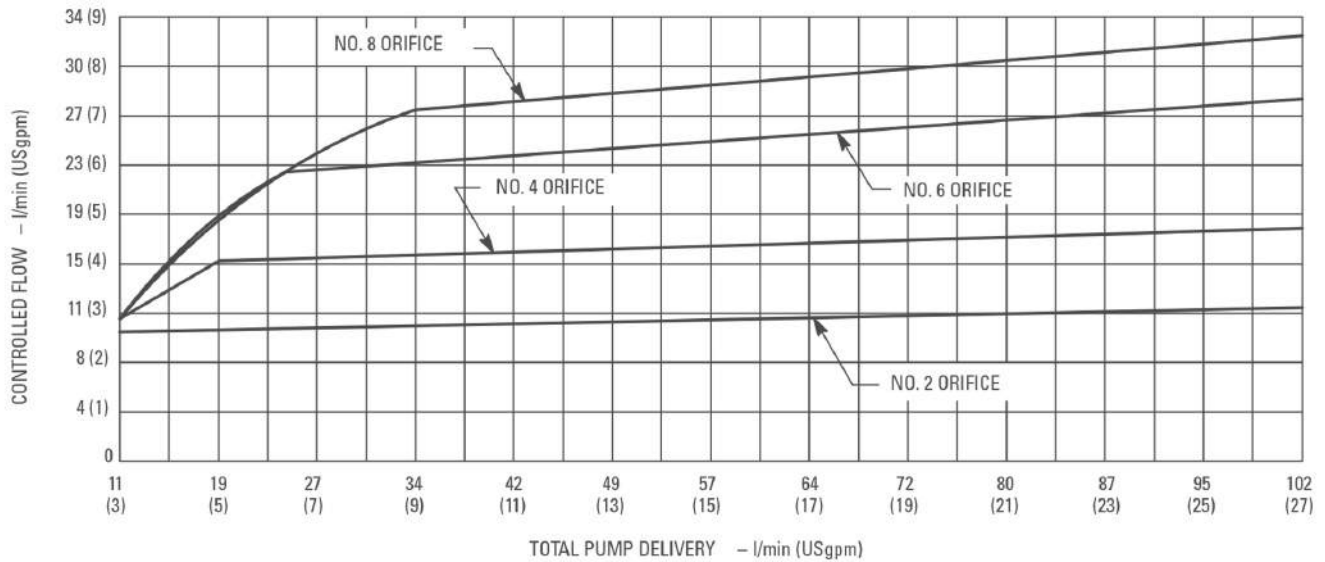
HV2020F NF/HV2020P Series

Priority Valve : HV2020P



Double Vane Pump HV2020F NF/HV2020P Series

Flow control : HV2020F NF



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