



Hydraulic Single Vane Pumps HV & HVQ Series

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



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Signed on behalf of BVCH SAS UK Branch

Certification Body Address: 5th Floor, 66 Prescot 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



High Performance Single Vane Pump

20 HV/HVQ Series

Specifications :

20 HV Series

Model	Delivery at 1200 r/min & 7 bar (100 psi)	Displacement cm ³ /r (in ³ /r)	Maximum Speed rpm	Maximum Pressure bar (psi)	Typical Delivery at max speed & pressure L/min (USgpm)	Typical Input Power at max speed & pressure kW (hp)	Weight kg (lb)
	USgpm						
20HV	2	7.0 (0.42)	1800	206 (3000)	11.3 (3.0)	5.2 (7.0)	12.5 (27.5)
	5	18 (1.10)			28.4 (7.5)	11.2 (15.0)	
	8	27 (1.67)			45.4 (12.0)	17.0 (22.8)	
	9	30.2 (1.84)			51.0 (13.5)	18.7 (25.1)	
	11	36 (2.22)		56.8 (15.0)	22.6 (30.3)		
	12	40 (2.47)		158 (2300)	60.9 (16.1)	19.3 (25.83)	
	14	45 (2.78)		138 (2000)	71.3 (18.85)	18.9 (25.28)	

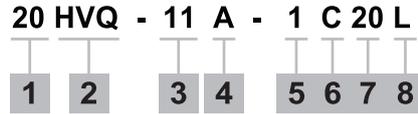
20 HVQ Series

Model	Delivery at 1200 r/min & 7 bar (100 psi)	Displacement cm ³ /r (in ³ /r)	Maximum Speed rpm	Maximum Pressure bar (psi)	Typical Delivery at max speed & pressure L/min (USgpm)	Typical Input Power at max speed & pressure kW (hp)	Weight kg (lb)
	USgpm						
20HVQ	2	7.0 (0.42)	2700	206 (3000)	15.9 (4.2)	7.3 (9.8)	12.5 (27.5)
	5	18 (1.10)			41.6 (11.0)	17.9 (24.0)	
	8	27 (1.67)			64.3 (17.0)	26.1 (35.0)	
	9	30.2 (1.84)			71.5 (18.9)	32.9 (44.1)	
	11	36 (2.22)			87.1 (23.0)	35.4 (47.5)	
	12	39 (2.41)		158 (2300)	96.5 (25.5)	28.3 (38.0)	
	14	45 (2.80)		138 (2300)	113.6 (30.9)	29.1 (39.0)	

High Performance Single Vane Pump

20 HV/HVQ Series

Ordering Code : Single Pump



1. Model :

- 20 - Standard Bearing
- 21 - Heavy Duty Bearing
- SAE B 2 bolts mounting flange J744

2. Series

- HV - Industrial
- HVQ - Mobile

3. Displacement

Volumetric displacement cm³/rev (in³/rev)

- 02 - 7.0 (0.43)
- 05 - 18.0 (1.10)
- 08 - 27.3 (1.67)
- 09 - 30.3 (1.85)
- 11 - 36.3 (2.22)
- 12 - 40.4 (2.47)
- 14 - 45.5 (2.78)

4. Port Connection (4 bolts SAE flange J518C)

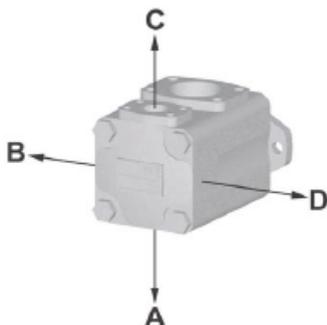
- A - UNC Port Connection
- AM - Metric Port Connection

5. Type of shaft

- 1 - Straight Keyed Shaft
- 151 - Splined Shaft

6. Outlet Port Position (Viewed from cover end)

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



7. Design

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

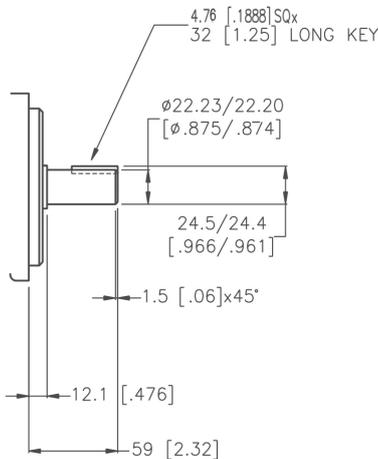
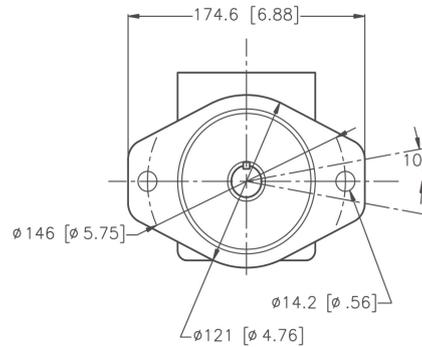
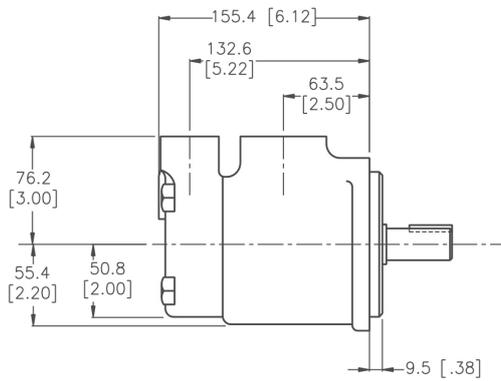
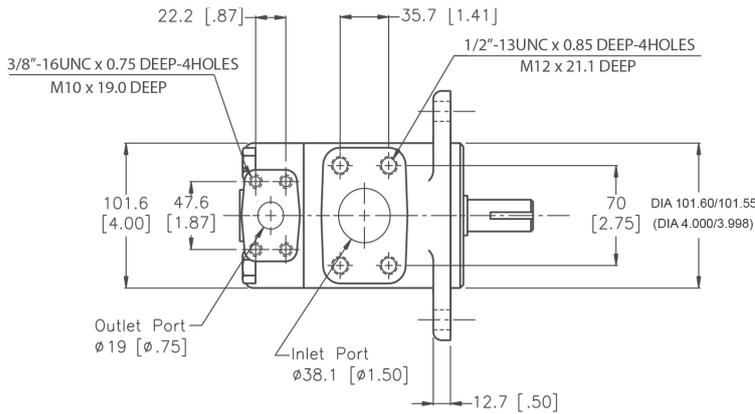
8. Shaft Rotation (viewed from shaft end)

- R - Turn right
- L - Turn left

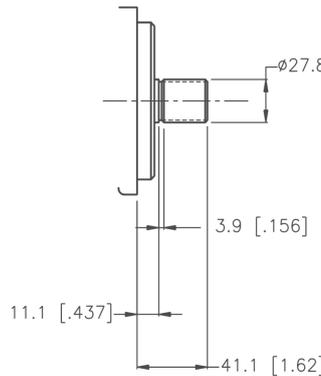
High Performance Single Vane Pump 20 HV/HVQ Series

Installation Dimension mm (inch)

Single Pump 20HV/HVQ



Shaft 1
Keyed Shaft



Shaft 151
Splined Shaft

13 Teeth - 30° Press. Angle
Pitch 16/32
Major Diameter 22.17/22.15 [.873/.872]
Form Diameter 19.03 [.749]
Minor Diameter 18.63/18.35 [.734/.723]
Major Diameter Fit

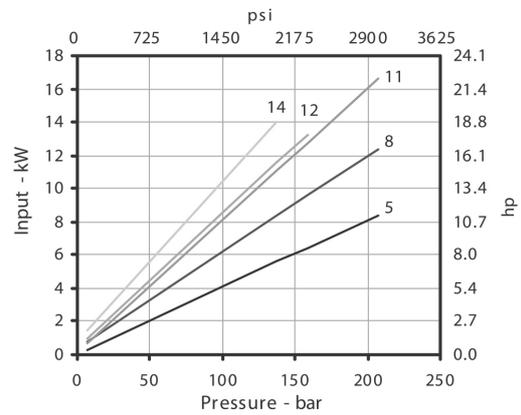
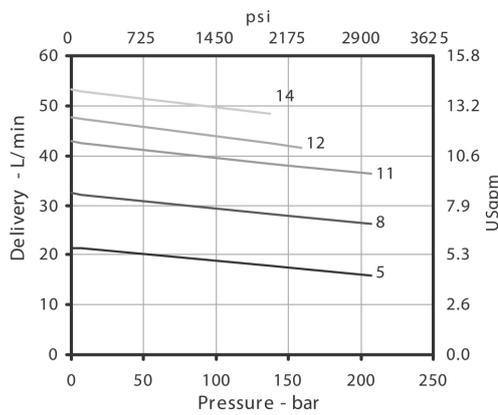
High Performance Single Vane Pump 20 HV/HVQ Series

Performance Characteristics

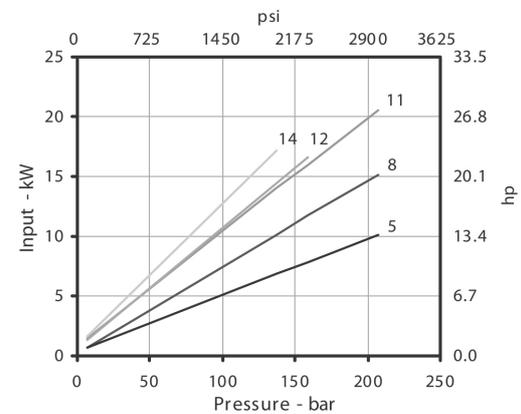
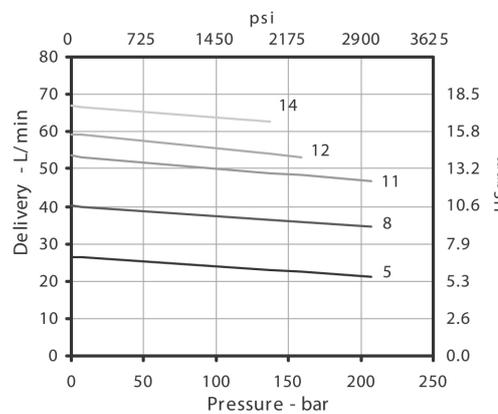
20HV, Cover End of 20HV

Based on SAE 10W Fluid at 50°C (120°F) and pump inlet at 0 PSIG (14.7 PSIA)

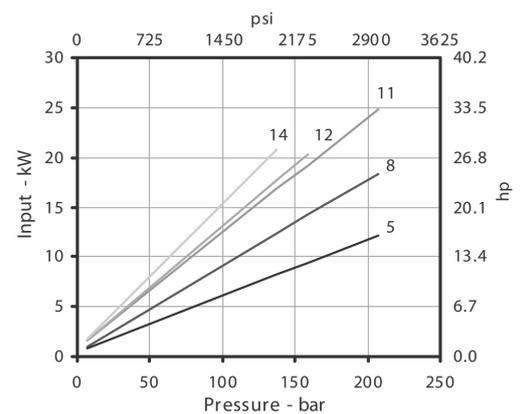
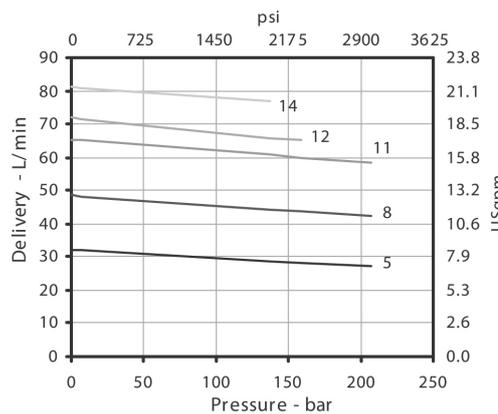
At 1200 rpm



At 1500 rpm



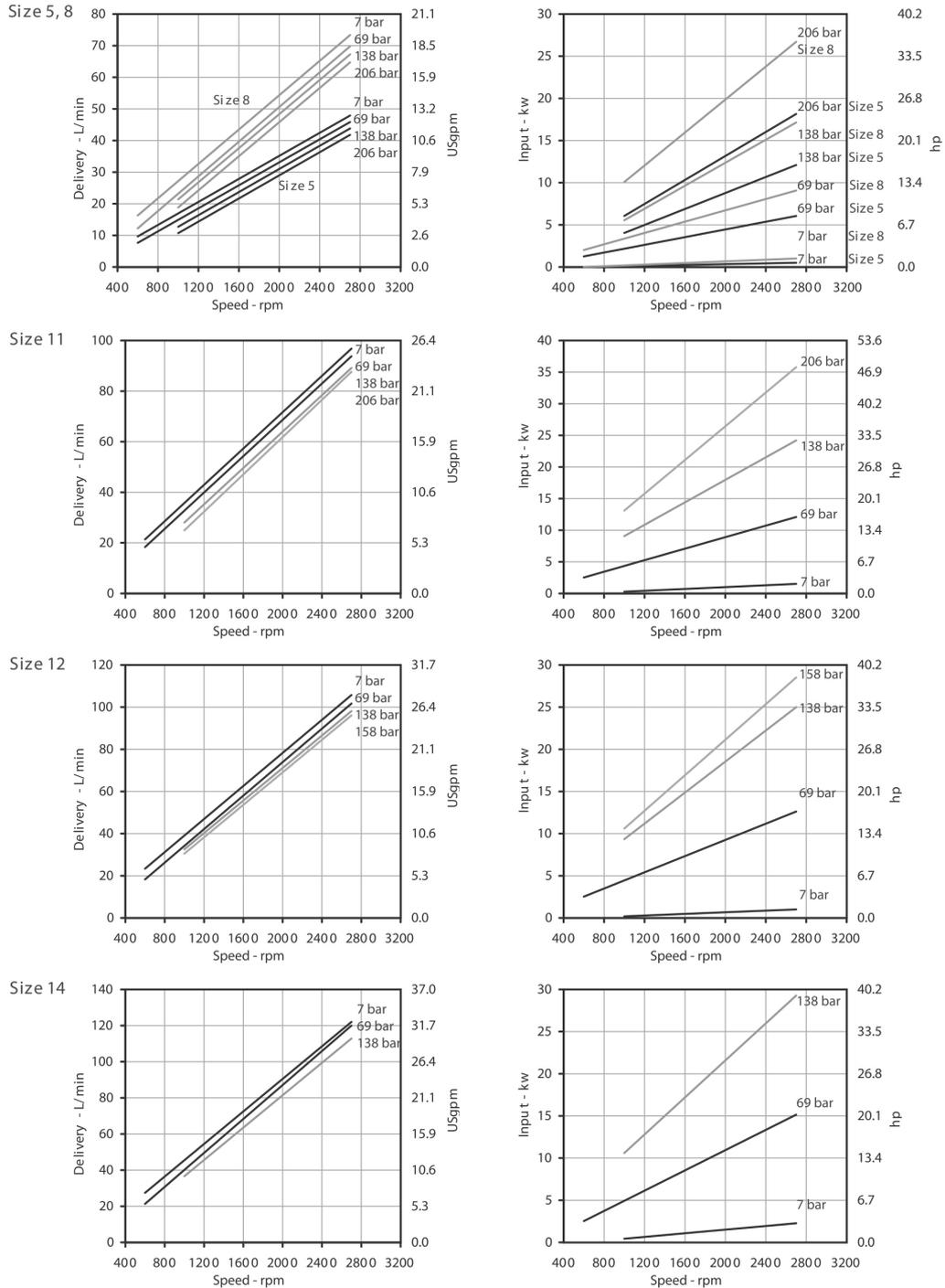
At 1800 rpm



High Performance Single Vane Pump 20 HV/HVQ Series

20HVQ, Cover End of 20HVQ

Based on SAE 10W Fluid at 82°C (180°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

High Performance Single Vane Pump

25 HV/HVQ Series

Specifications :

25 HV Series

Model	Delivery at 1200 r/min & 7 bar (100 psi)	Displacement	Maximum Speed	Maximum Pressure	Typical Delivery at max speed & pressure	Typical Input Power at max speed & pressure	Weight
	USgpm						
25HV	12	39 (2.47)	1800	172 (2500)	62.1 (16.4)	22.9 (30.8)	14.8 (32.5)
	14	45 (2.78)			69.6 (18.4)	25.7 (34.5)	
	17	55 (3.39)			86.3 (22.8)	29.8 (40.0)	
	19	60.8 (3.72)			96.1 (25.4)	32.5 (43.5)	
	21	67 (4.13)			106.0 (28.0)	34.0 (45.6)	

25 HVQ Series

Model	Delivery at 1200 r/min & 7 bar (100 psi)	Displacement	Maximum Speed	Maximum Pressure	Typical Delivery at max speed & pressure	Typical Input Power at max speed & pressure	Weight
	USgpm						
25HVQ 26HVQ	12	40 (2.45)	2700	206 (3000)	87.1 (23.0)	41.0 (55.0)	14.8 (32.5)
	14	45 (2.77)			102.2 (27.0)	46.6 (62.5)	
	17	55 (3.37)	2500		117.3 (31.0)	51.8 (69.5)	
	19	60.8 (3.72)			133.5 (34.5)	53.0 (71.0)	
	21	67 (4.12)			143.8 (38.0)	61.9 (83.0)	

High Performance Single Vane Pump

25 HV/HVQ Series

Ordering Code : Single Pump

25 HVQ - 17 A - 1 C 20 L

1	2	3	4	5	6	7	8
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1. Model :

- 25 - Standard Bearing
- 26 - Heavy Duty Bearing
- SAE B 2 bolts mounting flange J744

2. Series

- HV - Industrial (Except 26)
- HVQ - Mobile

3. Displacement

Volumetric displacement cm³/rev (in³/rev)

- 12 - 39.0 (2.47)
- 14 - 45.0 (2.78)
- 17 - 55.3 (3.39)
- 19 - 60.8 (3.72)
- 21 - 67.0 (4.13)

4. Port Connection (4 bolts SAE flange J518C)

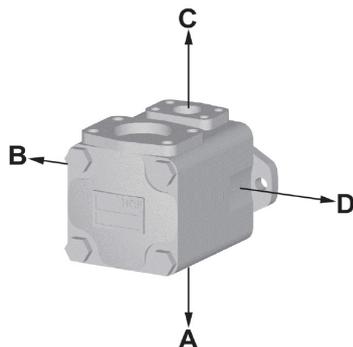
- A - UNC Port Connection
- AM - Metric Port Connection

5. Type of shaft

- 1 - Straight Keyed Shaft
- 11 - Splined Shaft
- 86 - Heavy Duty Straight Keyed Shaft

6. Outlet Port Position (Viewed from cover end)

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



7. Design

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

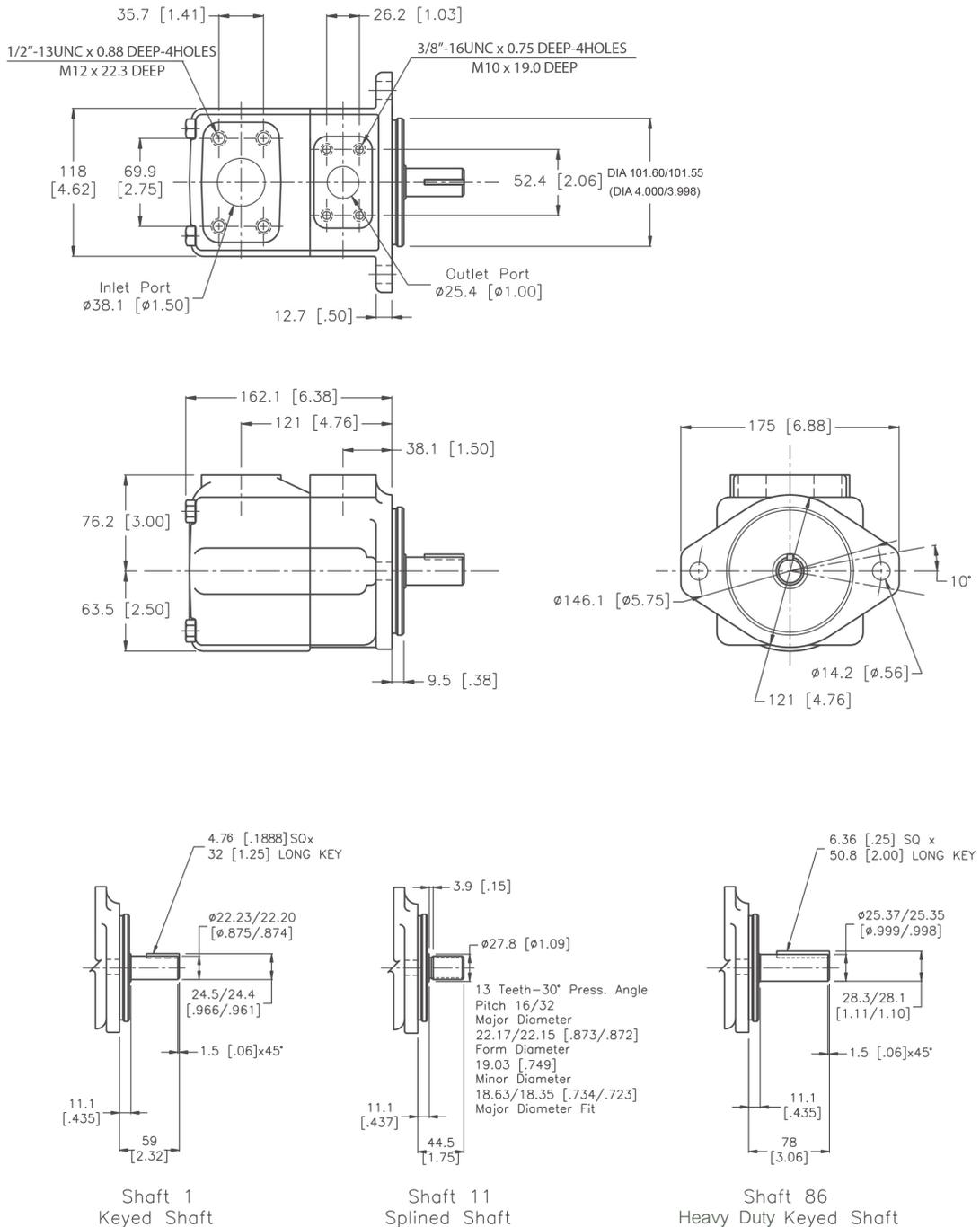
8. Shaft Rotation (viewed from shaft end)

- R - Turn right
- L - Turn left

High Performance Single Vane Pump 25 HV/HVQ Series

Installation Dimension mm (inch)

Single Pump 25HV/HVQ



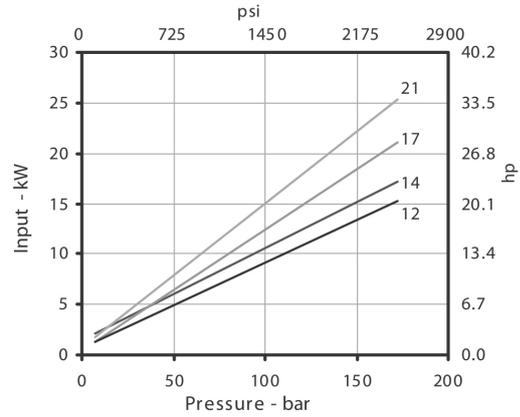
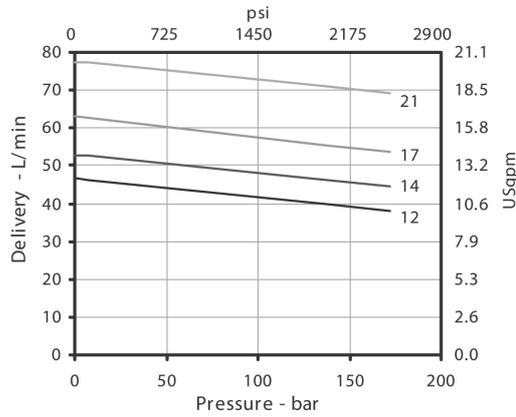
High Performance Single Vane Pump 25 HV/HVQ Series

Performance Characteristics

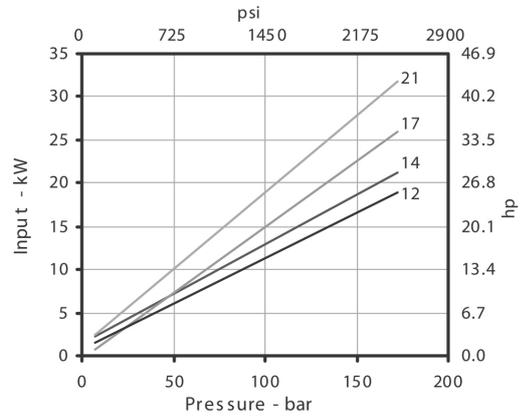
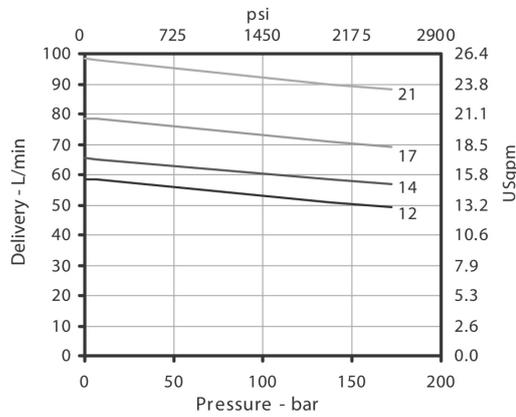
25HV, Shaft End of 25HV, Cover End of 25HV

Based on SAE 10W Fluid at 50°C (120°F) and pump inlet at 0 PSIG (14.7 PSIA)

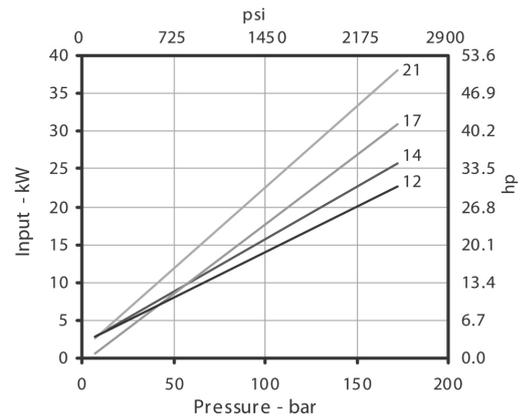
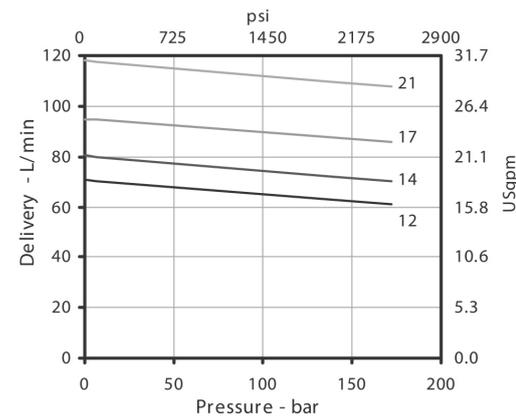
At 1200 rpm



At 1500 rpm



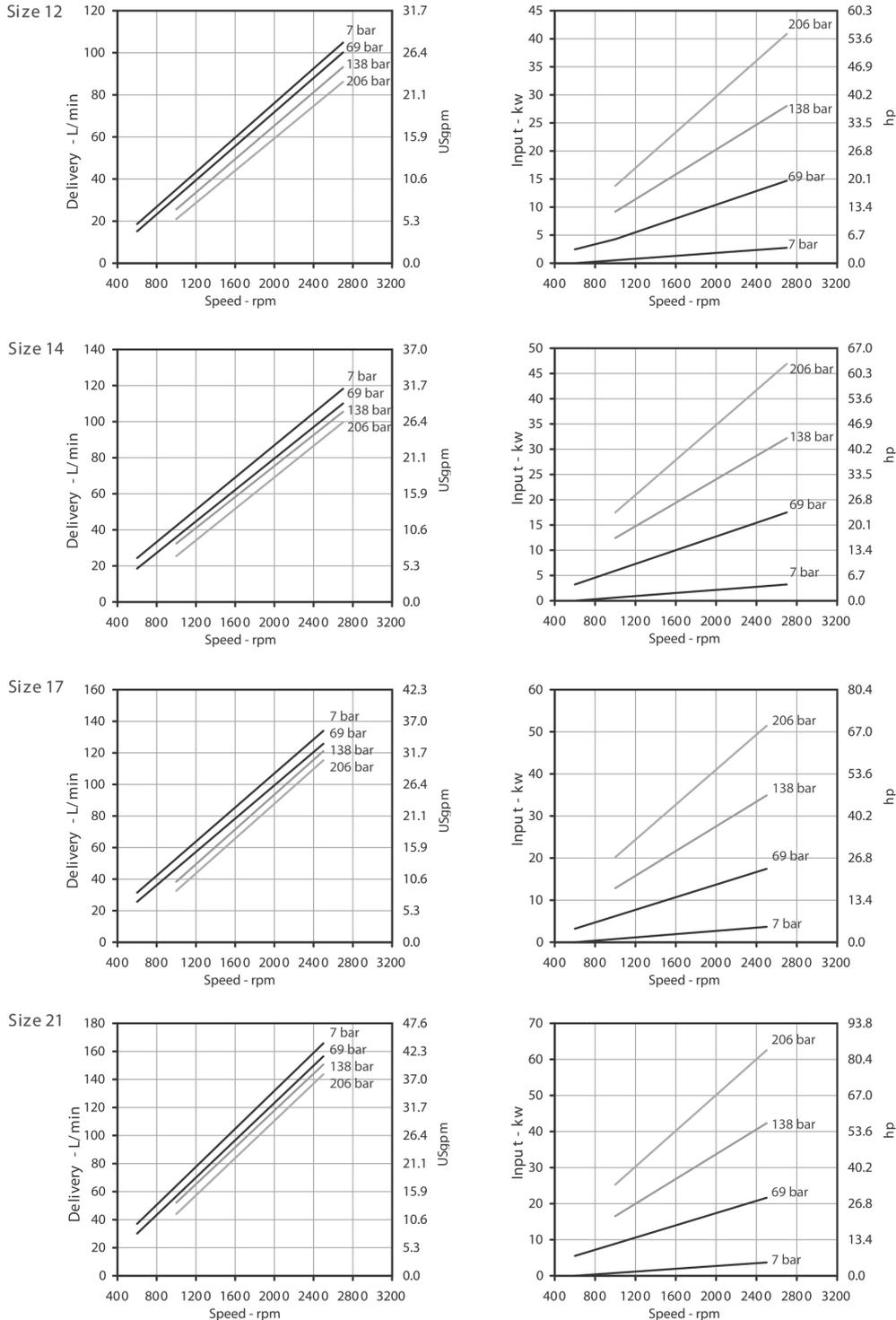
At 1800 rpm



High Performance Single Vane Pump 25 HV/HVQ Series

25HVQ, Shaft End of 25HVQ, Cover End of 25HVQ

Based on SAE 10W Fluid at 50°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

High Performance Single Vane Pump

35 HV/HVQ Series

Specifications :

35 HV Series

Model	Delivery at 1200 r/min & 7 bar (100 psi)	Displacement	Maximum Speed	Maximum Pressure	Typical Delivery at max speed & pressure	Typical Input Power at max speed & pressure	Weight
	USgpm						
35HV	21	68.3 (4.18)	1800	172 (2500)	106.3 (28.1)	34.0 (45.5)	24.0 (52.8)
	25	81 (4.94)			124.9 (33.0)	45.5 (61.0)	
	30	97 (5.91)			154.4 (40.8)	54.5 (73.0)	
	32	100.9 (6.15)			167.0 (44.0)	56.7 (76.0)	
	35	112 (6.83)			181.7 (48.0)	61.5 (82.4)	
	38	121 (7.37)			193.8 (51.2)	65.9 (88.3)	

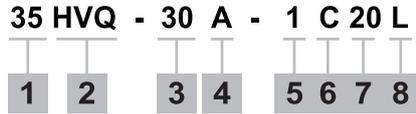
35 HVQ Series

Model	Delivery at 1200 r/min & 7 bar (100 psi)	Displacement	Maximum Speed	Maximum Pressure	Typical Delivery at max speed & pressure	Typical Input Power at max speed & pressure	Weight
	USgpm						
35HVQ 36HVQ	21	68.3 (4.18)	2500	206 (3000)	143.8 (38.0)	55.0 (73.9)	24.0 (52.8)
	25	81 (4.98)			170.3 (45.0)	75.3 (101.0)	
	30	97 (5.96)			208.2 (55.0)	87.7 (117.5)	
	32	100.9 (6.15)	2400		218.0 (57.6)	91.2 (122.3)	
	35	112 (6.88)			227.1 (60.0)	98.5 (132.0)	
	38	121 (7.42)			246.0 (65.0)	104.4 (140.0)	

High Performance Single Vane Pump

35 HV/HVQ Series

Ordering Code : Single Pump



1. Model :

- 35 - Standard Bearing
- 36 - Heavy Duty Bearing
SAE C 2 bolts mounting flange J744

2. Series

- HV - Industrial (Except 36)
- HVQ - Mobile

3. Displacement

Volumetric displacement cm³/rev (in³/rev)

- 21 - 68.3 (4.18)
- 25 - 81.0 (4.94)
- 30 - 97.0 (5.91)
- 32 - 100.9 (6.15)
- 35 - 112.0 (6.83)
- 38 - 121.0 (7.37)

4. Port Connection (4 bolts SAE flange J518C)

- A - UNC Port Connection
- AM - Metric Port Connection

5. Type of shaft

- 1 - Straight Keyed Shaft
- 11 - Splined Shaft
- 86 - Heavy Duty Straight Keyed Shaft

6. Outlet Port Position (Viewed from cover end)

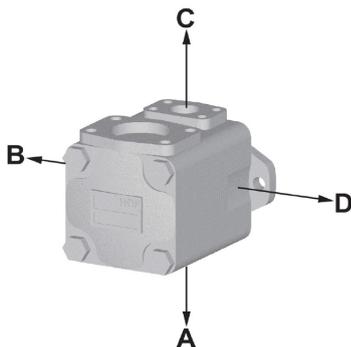
- A - Opposite inlet
- B - 90° CCW from inlet
- C - Inline with inlet
- D - 90° CW from inlet

7. Design

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

8. Shaft Rotation (viewed from shaft end)

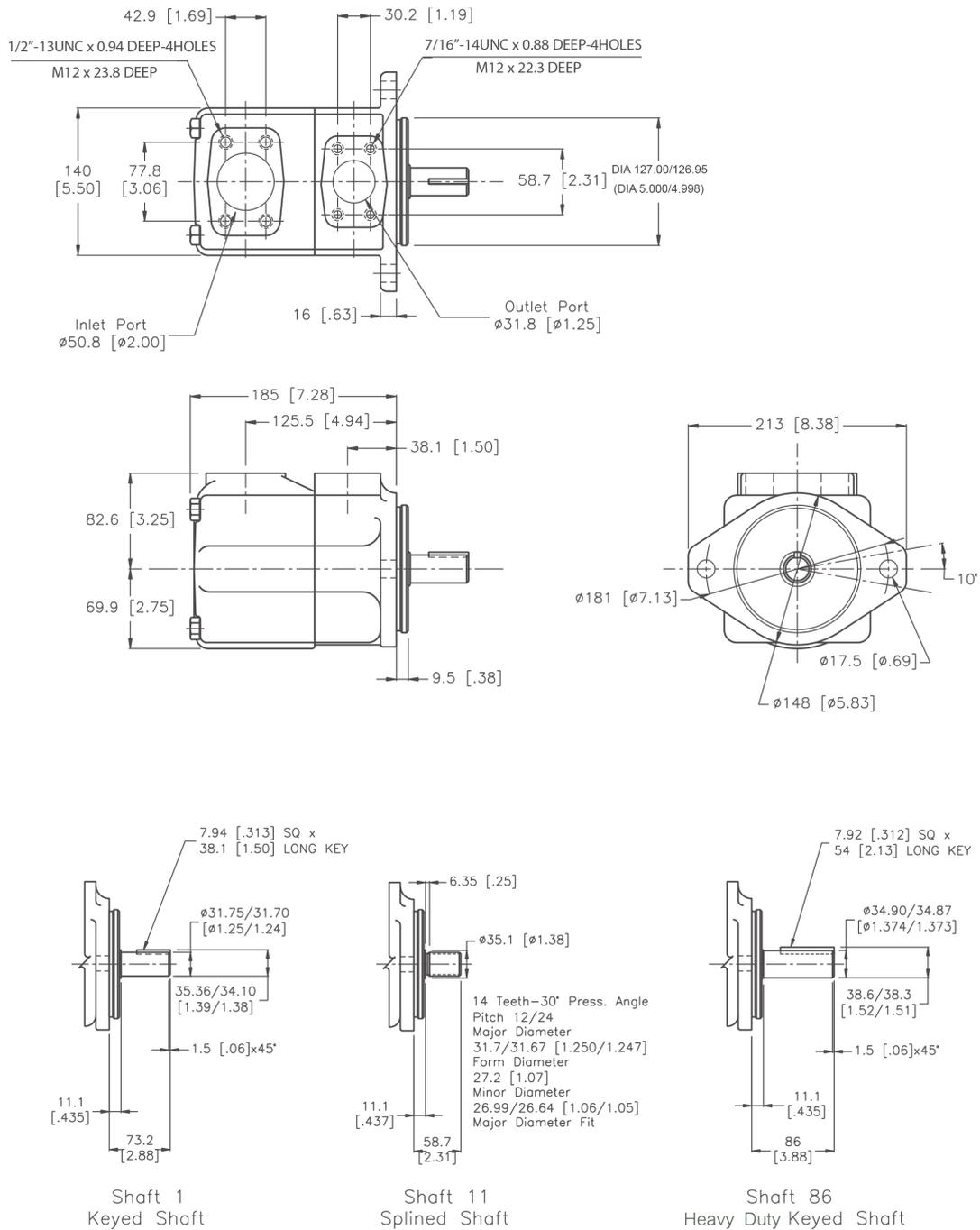
- R - Turn right
- L - Turn left



High Performance Single Vane Pump 35 HV/HVQ Series

Installation Dimension mm (inch)

Single Pump 35HV/HVQ



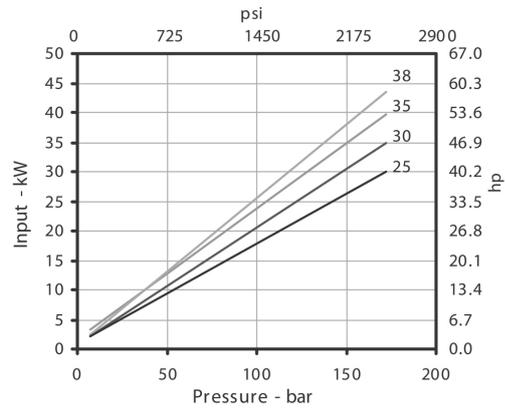
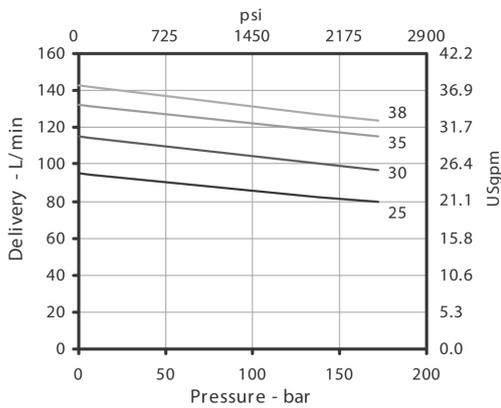
High Performance Single Vane Pump 35 HV/HVQ Series

Performance Characteristics

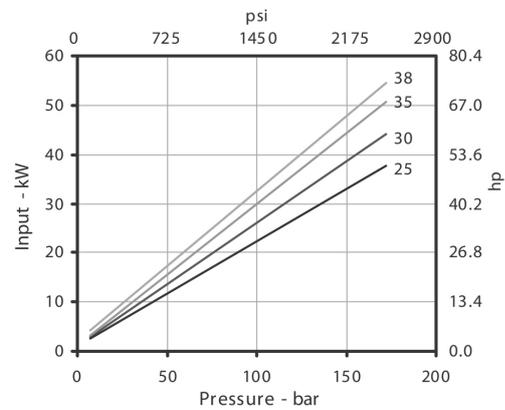
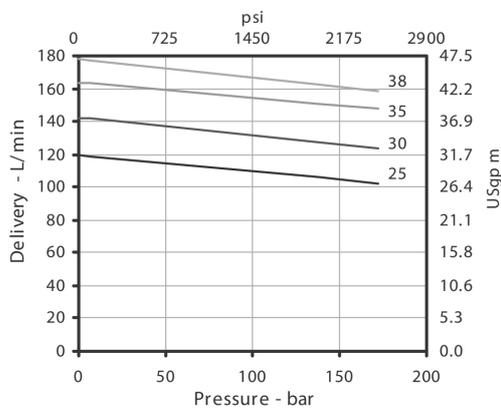
35HV, Shaft End of 35HV, Cover End of 35HV

Based on SAE 10W Fluid at 50°C (120°F) and pump inlet at 0 PSIG (14.7 PSIA)

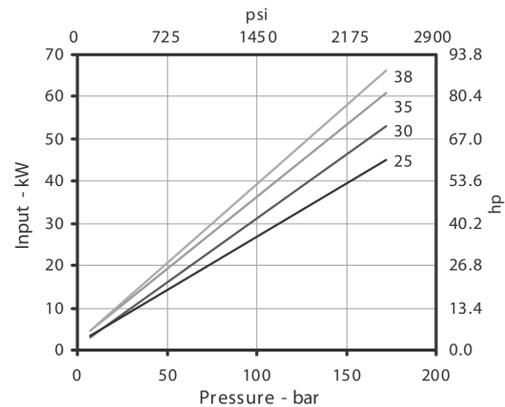
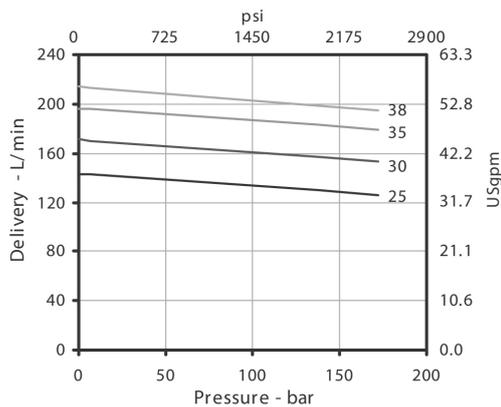
At 1200 rpm



At 1500 rpm



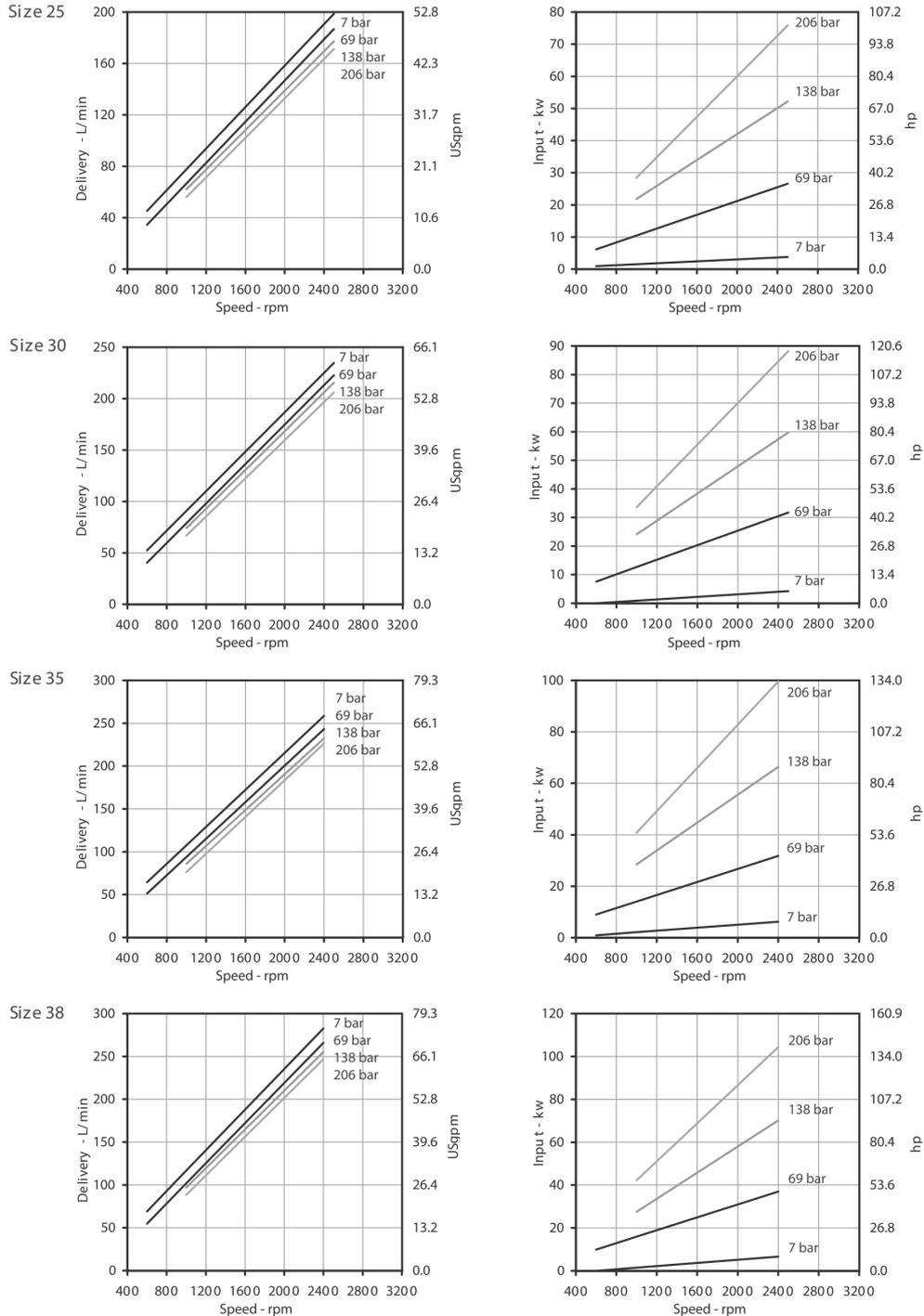
At 1800 rpm



High Performance Single Vane Pump 35 HV/HVQ Series

35HVQ, Shaft End of 35HVQ, Cover End of 35HVQ

Based on SAE 10W Fluid at 82°C (180°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

High Performance Single Vane Pump

45 HV/HVQ Series

Specifications :

45 HV Series

Model	Delivery at 1200 r/min & 7 bar (100 psi)	Displacement	Maximum Speed	Maximum Pressure	Typical Delivery at max speed & pressure	Typical Input Power at max speed & pressure	Weight
	USgpm						
45HV	35	110.4 (6.73)	1800	172 (2500)	179.0 (47.2)	60.0 (80.4)	35.2 (77.4)
	38	119.8 (7.32)			194.0 (51.3)	65.1 (87.3)	
	42	138.0 (8.41)			208.2 (55.0)	75.3 (101.0)	
	47	151.4 (9.26)			244.1 (64.5)	82.5 (110.6)	
	50	162.0 (9.85)			253.6 (67.0)	87.3 (117.0)	
	52	164.0 (10.0)			266.0 (70.0)	89.1 (119.5)	
	57	183.6 (11.23)			295.0 (77.8)	94.0 (126.0)	
	60	193.0 (11.75)			310.4 (82.0)	103.7 (139.0)	
	62	196.0 (11.94)			317.0 (83.7)	106.5 (142.8)	
	64	202.0 (12.33)			327.0 (86.4)	109.7 (147.1)	
	66	208.0 (12.7)			337.0 (89.0)	113.0 (151.5)	

High Performance Single Vane Pump

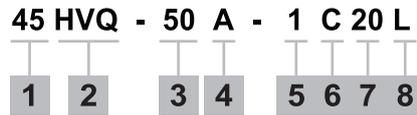
45 HV/HVQ Series

45 HVQ Series

Model	Delivery at 1200 r/min & 7 bar (100 psi)	Displacement cm ³ /r (in ³ /r)	Maximum Speed rpm	Maximum Pressure bar (psi)	Typical Delivery at max speed & pressure L/min (USgpm)	Typical Input Power at max speed & pressure kW (hp)	Weight kg (lb)
	USgpm						
45HVQ	35	110.4 (6.73)	2200	172 (2500)	219.0 (57.7)	73.3 (98.3)	35.2 (77.4)
	38	119.8 (7.32)			237.0 (62.7)	79.5 (106.7)	
	42	138.0 (8.41)			251.7 (66.5)	91.4 (122.5)	
	47	151.4 (9.26)			280.8 (74.2)	95.0 (127.3)	
	50	162.0 (9.85)			299.0 (79.0)	105.2 (141.0)	
	52	164.0 (10.0)			325.0 (85.7)	106.6 (143.0)	
	57	183.6 (11.23)			342.5 (90.5)	109.3 (146.6)	
	60	193.0 (11.75)			363.4 (96.0)	126.8 (170.0)	
	62	196.0 (11.94)			387.0 (102.3)	128.8 (172.7)	
	64	202.0 (12.33)			400.0 (105.7)	132.7 (178.0)	
	66	208.0 (12.7)			412.0 (109.0)	136.6 (183.2)	

High Performance Single Vane Pump 45 HV/HVQ Series

Ordering Code : Single Pump



1. Model :

45 - Standard Bearing SAE C 2 bolts mounting flange J744

2. Series

HV - Industrial
HVQ - Mobile

3. Displacement

Volumetric displacement cm³/rev (in³/rev)

- 35 - 110.4 (6.73)
- 38 - 119.8 (7.32)
- 42 - 138.0 (8.41)
- 47 - 151.4 (9.26)
- 50 - 162.0 (9.85)
- 52 - 164.0 (10.0)
- 57 - 183.6 (11.23)
- 60 - 193.0 (11.75)
- 62 - 196.0 (11.94)
- 64 - 202.0 (12.33)
- 66 - 208.0 (12.7)

4. Port Connection (4 bolts SAE flange J518C)

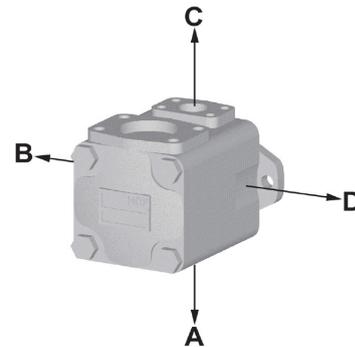
A - UNC Port Connection
AM - Metric Port Connection

5. Type of shaft

1 - Straight Keyed Shaft
11 - Splined Shaft
86 - Heavy Duty Straight Keyed Shaft

6. Outlet Port Position (Viewed from cover end)

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



7. Design

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

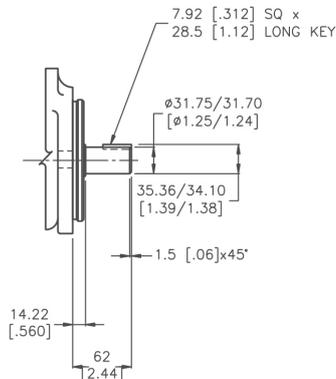
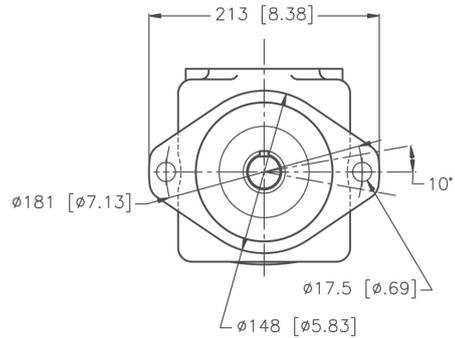
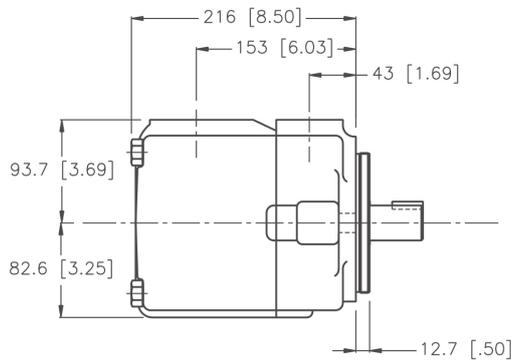
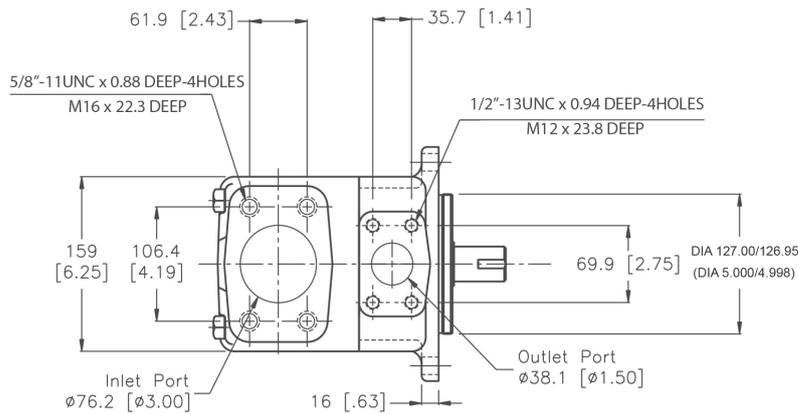
8. Shaft Rotation (viewed from shaft end)

R - Turn right
L - Turn left

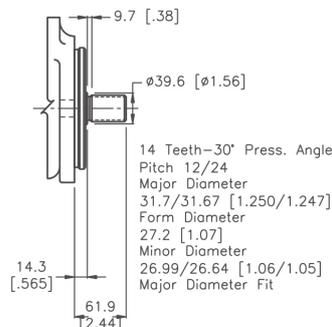
High Performance Single Vane Pump 45 HV/HVQ Series

Installation Dimension mm (inch)

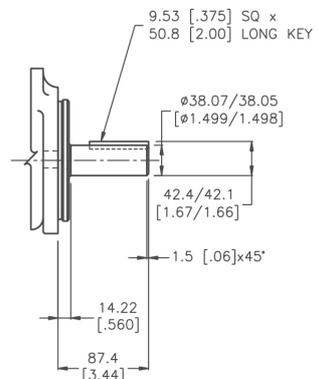
Single Pump 45HV/HVQ



Shaft 1
Keyed Shaft



Shaft 11
Splined Shaft



Shaft 86
Heavy Duty Keyed Shaft

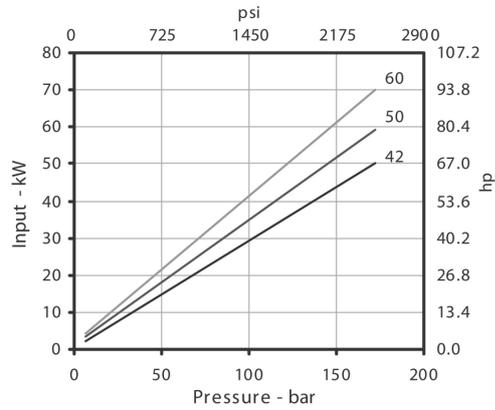
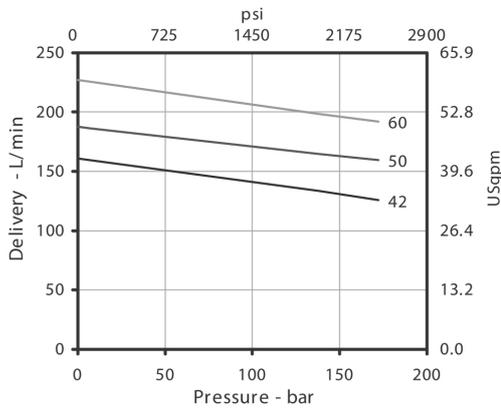
High Performance Single Vane Pump 45 HV/HVQ Series

Performance Characteristics

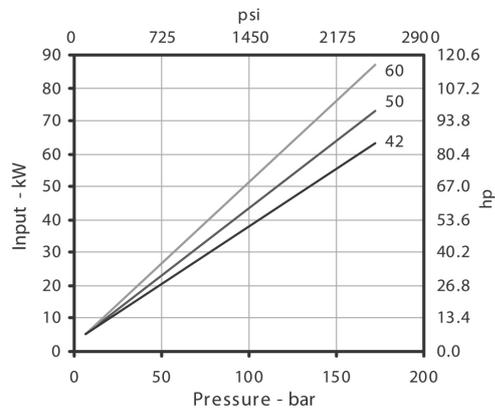
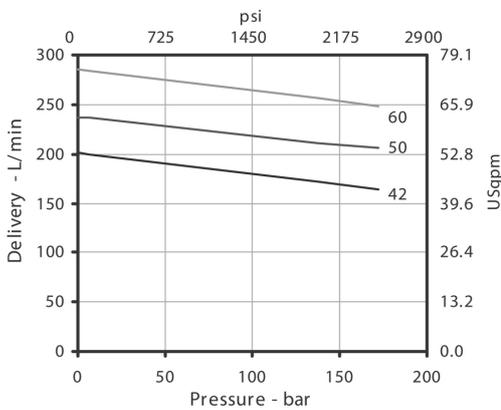
45HV, Shaft End of 45HV

Based on SAE 10W Fluid at 50°C (120°F) and pump inlet at 0 PSIG (14.7 PSIA)

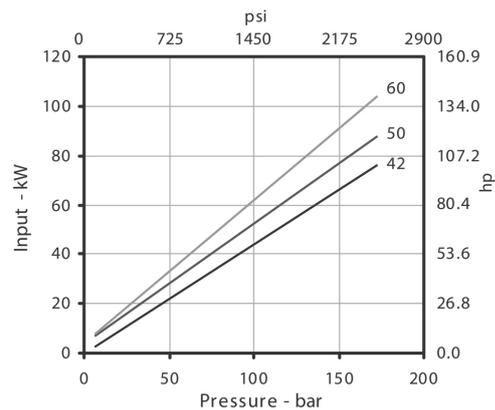
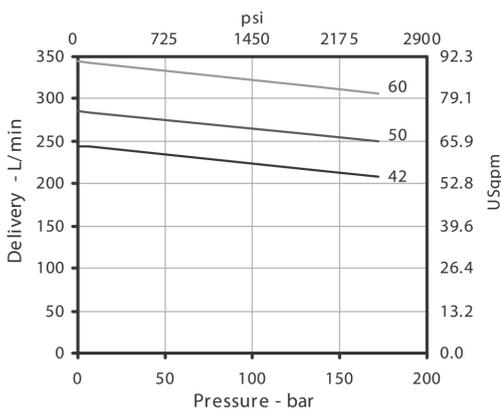
At 1200 rpm



At 1500 rpm



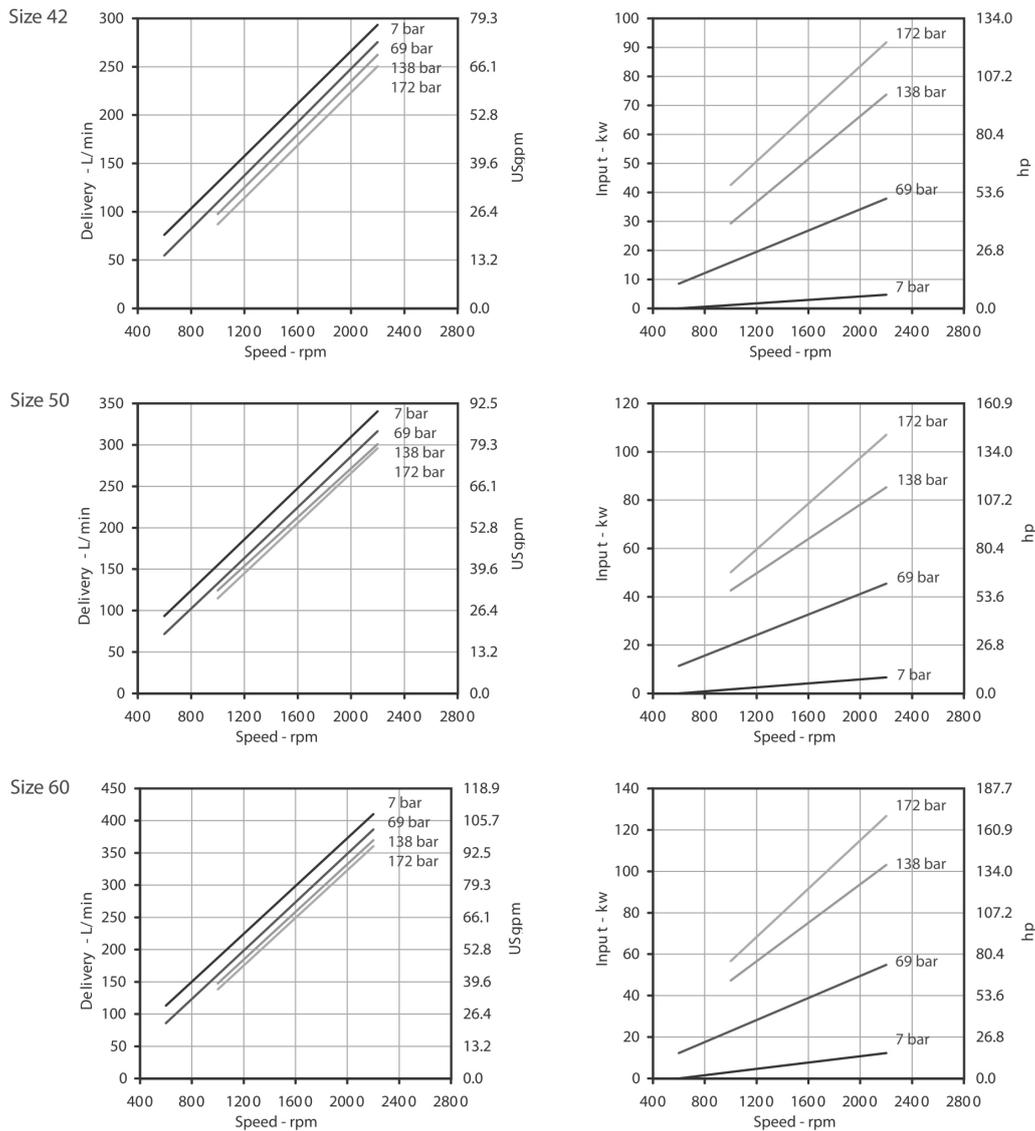
At 1800 rpm



High Performance Single Vane Pump 45 HV/HVQ Series

45HVQ, Shaft End of 45HVQ

Based on SAE 10W Fluid at 50°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

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