High Performance Double Vane Pump 3520 HV/HVQ Series

Specifications :

3520 HV Series

Model	Cartridge Position	Delivery at 1200 r/min & 7 bar (100 psi) USgpm	Displacement cm³/r (in³/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)
3520HV	Shaft End	21	68.3 (4.18)	1800	172 (2500)	106.3 (28.1)	33.9 (45.5)	31.2 (68.6)
		25	81.0 (4.94)			124.9 (33.0)	45.5 (61.0)	
		30	97.0 (5.91)			154.4 (40.8)	54.5 (73.0)	
		32	100.9 (6.15)			167.0 (44.0)	56.7 (76.0)	
		35	112.0 (6.83)			181.7 (48.0)	61.5 (82.4)	
		38	121.0 (7.37)			193.8 (51.2)	65.9 (88.3)	
	Cover End	2	7.0 (0.42)		206 (3000)	11.3 (3.00)	5.2 (7.0)	
		5	18.0 (1.10)			28.4 (7.5)	11.2 (15.0)	
		8	27.0 (1.67)			45.4 (12.0)	17.0 (22.8)	
		9	30.2 (1.84)			51.0 (13.5)	18.7 (25.1)	
		11	36.0 (2.22)			56.8 (15.0)	22.6 (30.3)	
		12	40.0 (2.47)		158 (2300)	62.1 (16.4)	25.1 (33.7)	
		14	45.0 (2.78)		138 (2000)	69.6 (18.4)	28.3 (37.9)	

3520 HVQ Series

Model	Cartridge Position	Delivery at 1200 r/min & 7 bar (100 psi) USgpm	Displacement cm³/r (in³/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)
3520HVQ & 3620HVQ	Shaft End	21	68.3 (4.18)	2500	206 (3000)	143.8 (38.0)	55.0 (73.9)	31.2 (68.6)
		25	81.0 (4.94)			145.7 (38.5)	66.4 (89.0)	
		30	97.0 (5.91)			177.9 (47.0)	77.6 (104.0)	
		32	100.9 (6.15)			199.0 (52.6)	80.5 (109.5)	
		35	112.0 (6.83)			208.2 (55.0)	89.5 (120.0)	
		38	121.0 (7.37)			223.3 (59.0)	97.0 (130.0)	
	Cover End	2	7.0 (0.42)		206 (3000)	15.0 (4.0)	6.1 (8.2)	
		5	18.0 (1.10)			37.9 (10.0)	16.4 (22.0)	
		8	27.0 (1.67)			60.6 (16.0)	24.2 (32.5)	
		9	30.2 (1.84)			67.8 (17.9)	27.5 (36.8)	
		11	36.0 (2.22)			69.5 (18.35)	31.4 (42.05)	
		12	40.0 (2.47)		158 (2300)	88.9 (23.5)	26.1 (35.0)	
		14	45.0 (2.78)		138 (2000)	104.1 (27.5)	26.9 (36.0)	

High Performance Double Vane Pump 3520 HV/HVQ Series

Ordering Code : Double Pump

3520	HVQ	-	30	A	11	-	1	C	B	20	L
1	2		3	4	5		6	7	8	9	10

1. Model :
   - 3520 - Standard Bearing
   - 3620 - Heavy Duty Bearing
     SAE C 2 bolts mounting flange J744

2. Series
   - HV - Industrial
   - HVQ - Mobile

3. Displacement P1
   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)

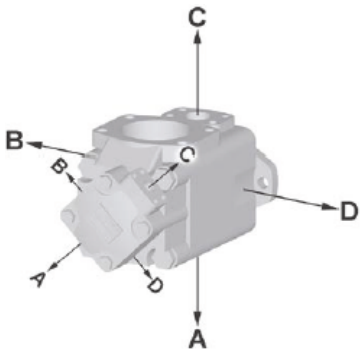
4. Port Connection (4 bolts SAE flange J518C)
   - A - UNC Port Connection
   - AM - Metric Port Connection

5. Displacement P2
   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)

6. Type of shaft
   - 1 - Straight Keyed Shaft
   - 11 - Splined Shaft
   - 86 - Heavy Duty Straight Keyed Shaft

7. 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

8. 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



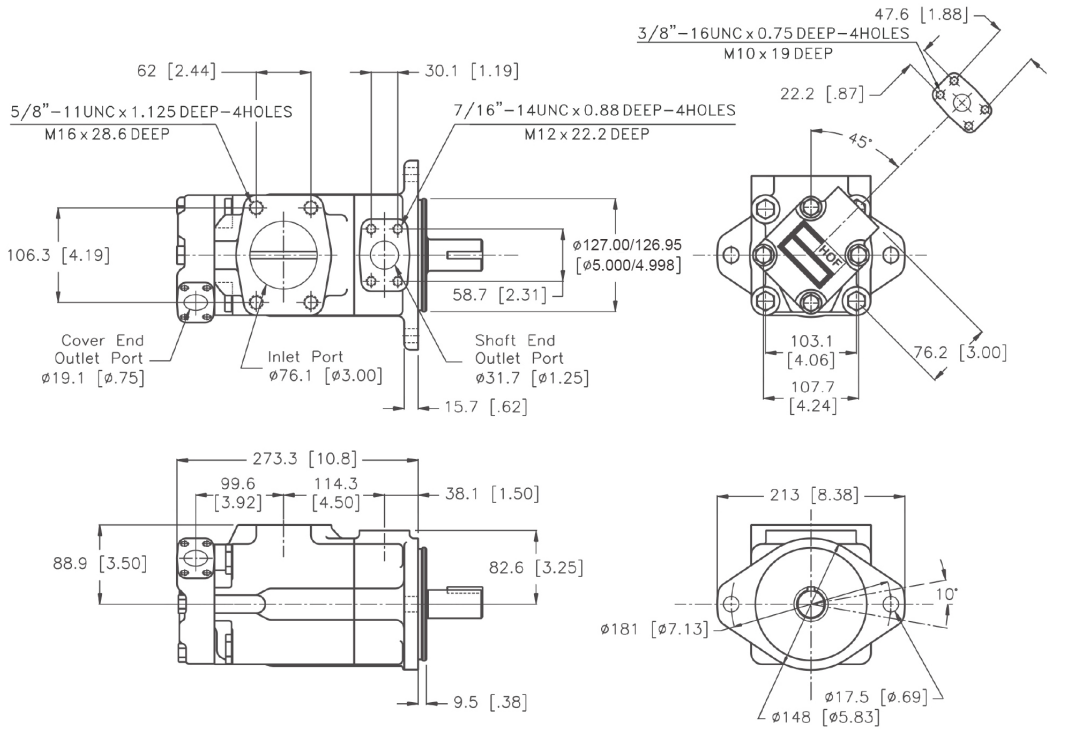
9. Design
   Subject to change. Installation dimension remain the same for designs - 20 through -29

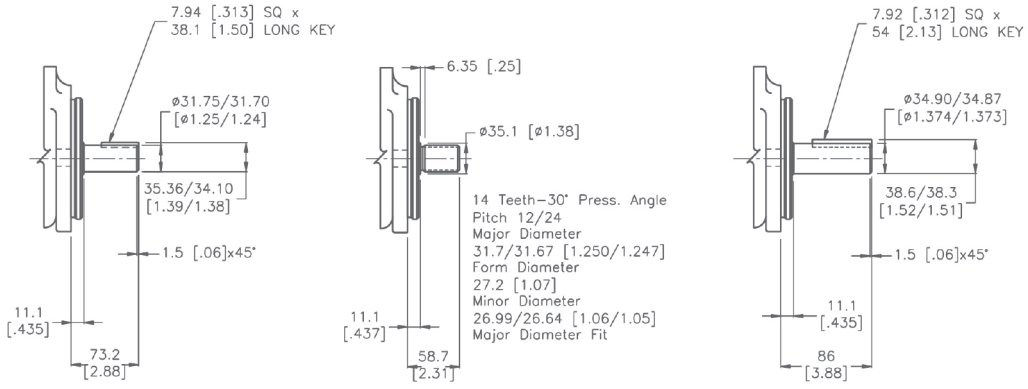
10. Shaft Rotation (viewed from shaft end)
    - R - Turn right
    - L - Turn left

High Performance Double Vane Pump 3520 HV/HVQ Series

Installation Dimension mm (inch)

Double Pump 3520HV/HVQ





Shaft 1
Keyed Shaft

Shaft 11
Splined Shaft

Shaft 86
Heavy Duty Keyed Shaft

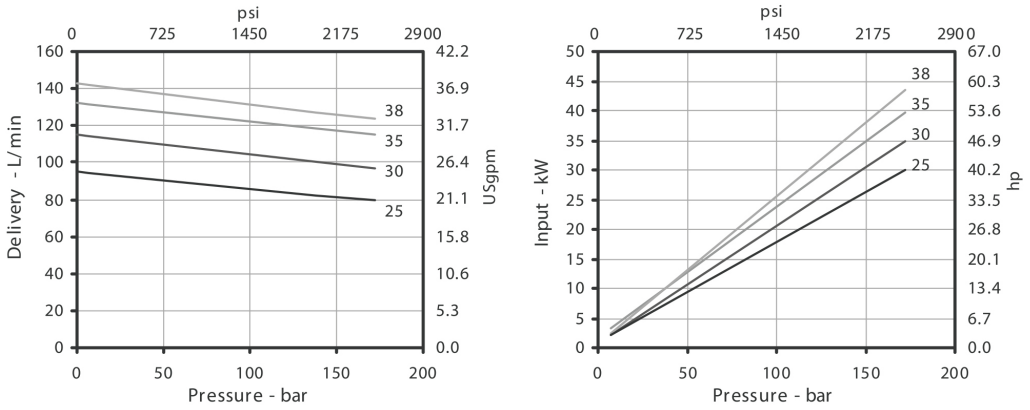
High Performance Double Vane Pump 3520 HV/HVQ Series

Performance Characteristics

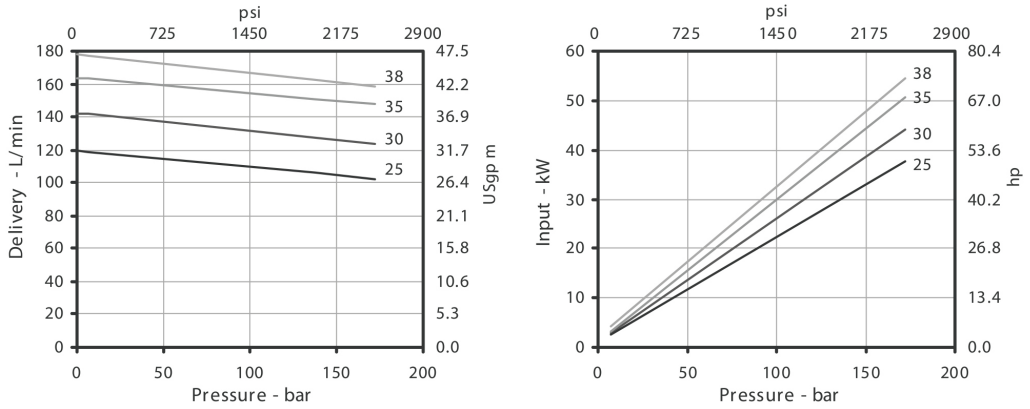
35HV, Shaft End of 35HV

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

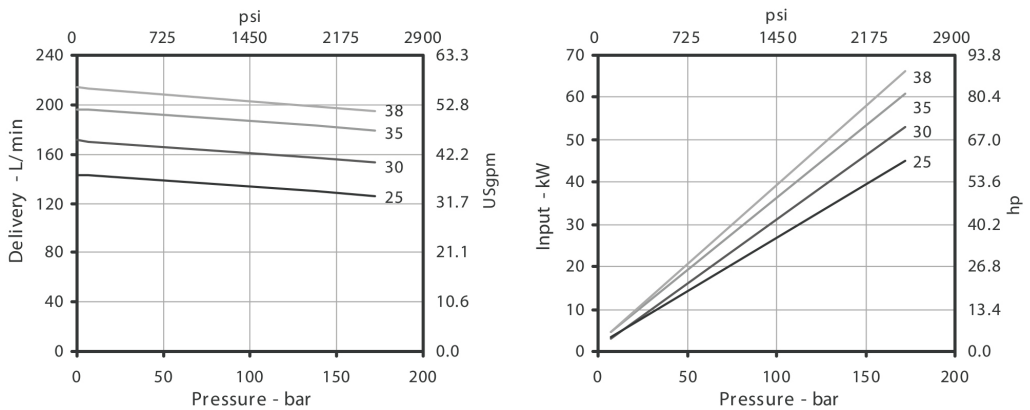
At 1200 rpm



At 1500 rpm



At 1800 rpm

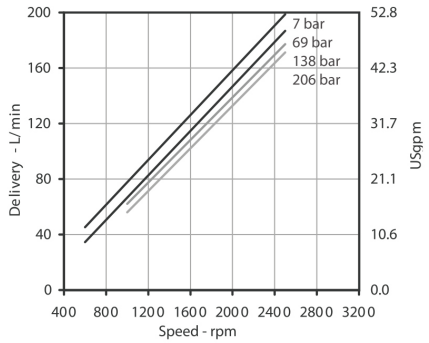


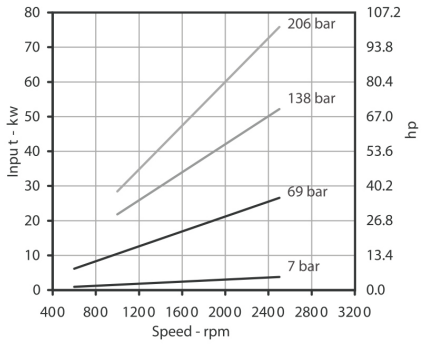
High Performance Double Vane Pump 3520 HV/HVQ Series

35HVQ, Shaft End of 35HVQ

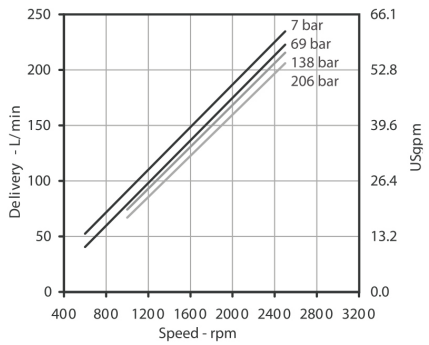
Based on SAE 10W Fluid at 82°C (180°F) and pump inlet at 0 PSIG (14.7 PSIA)

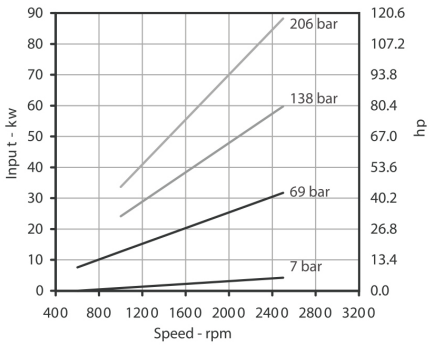
Size 25



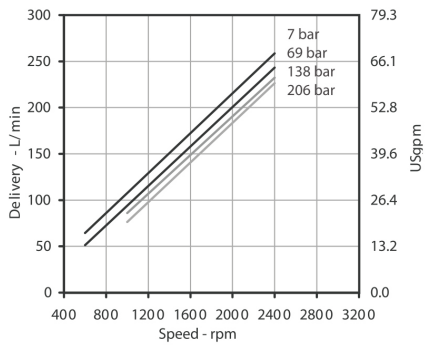


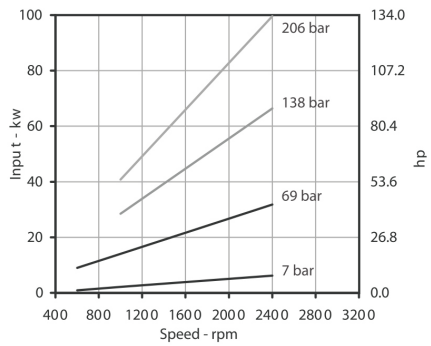
Size 30



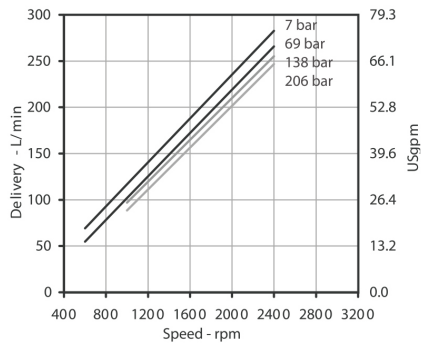


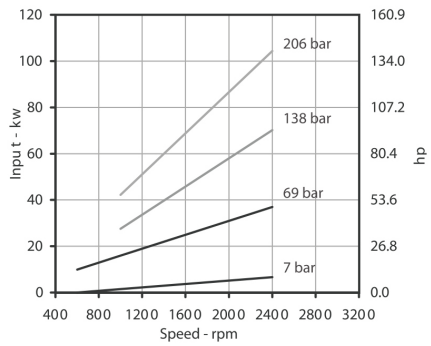
Size 35





Size 38





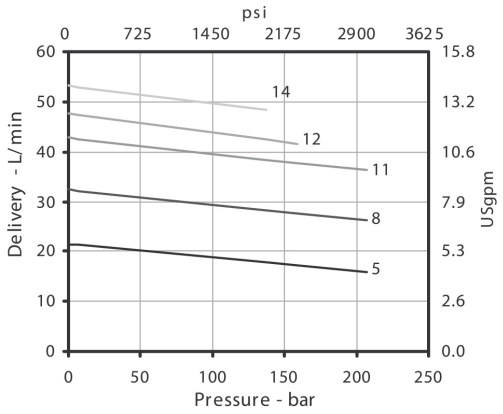
For the Cover End Cartridge, the speed could not exceed the maximum speed of the shaft End Cartridge

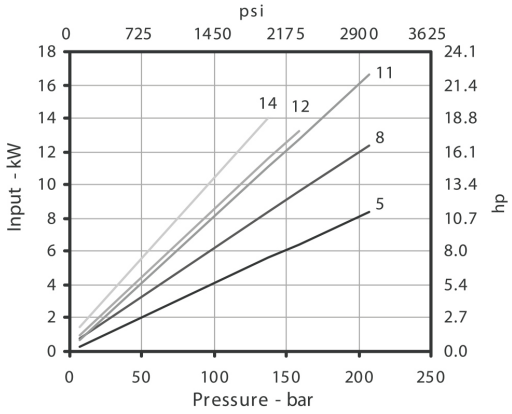
High Performance Double Vane Pump 3520 HV/HVQ Series

20HV, Cover End of 20HV

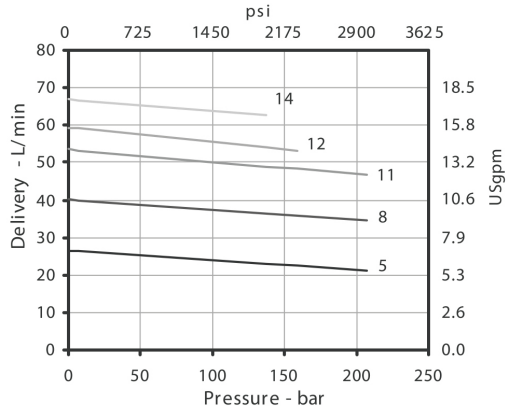
Based on SAE 10W Fluid at 50°C (120°F) and pump inlet at 0 PSIG (14.7 PSIA)

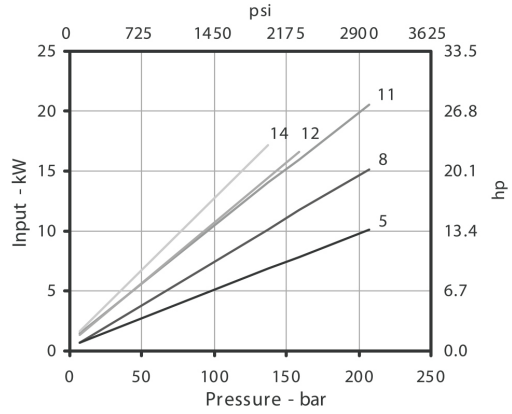
At 1200 rpm



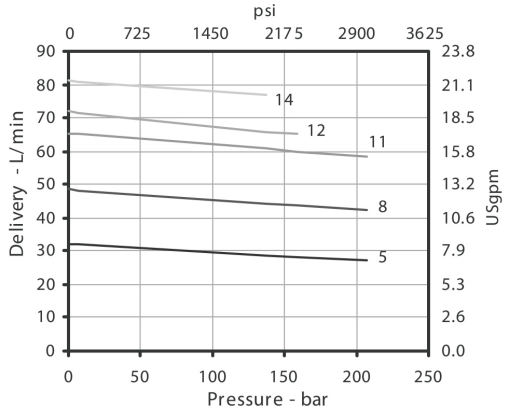


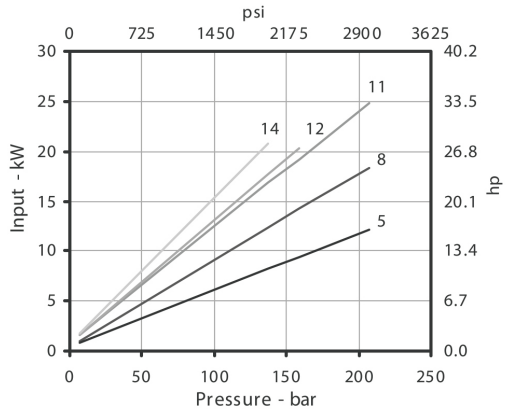
At 1500 rpm





At 1800 rpm

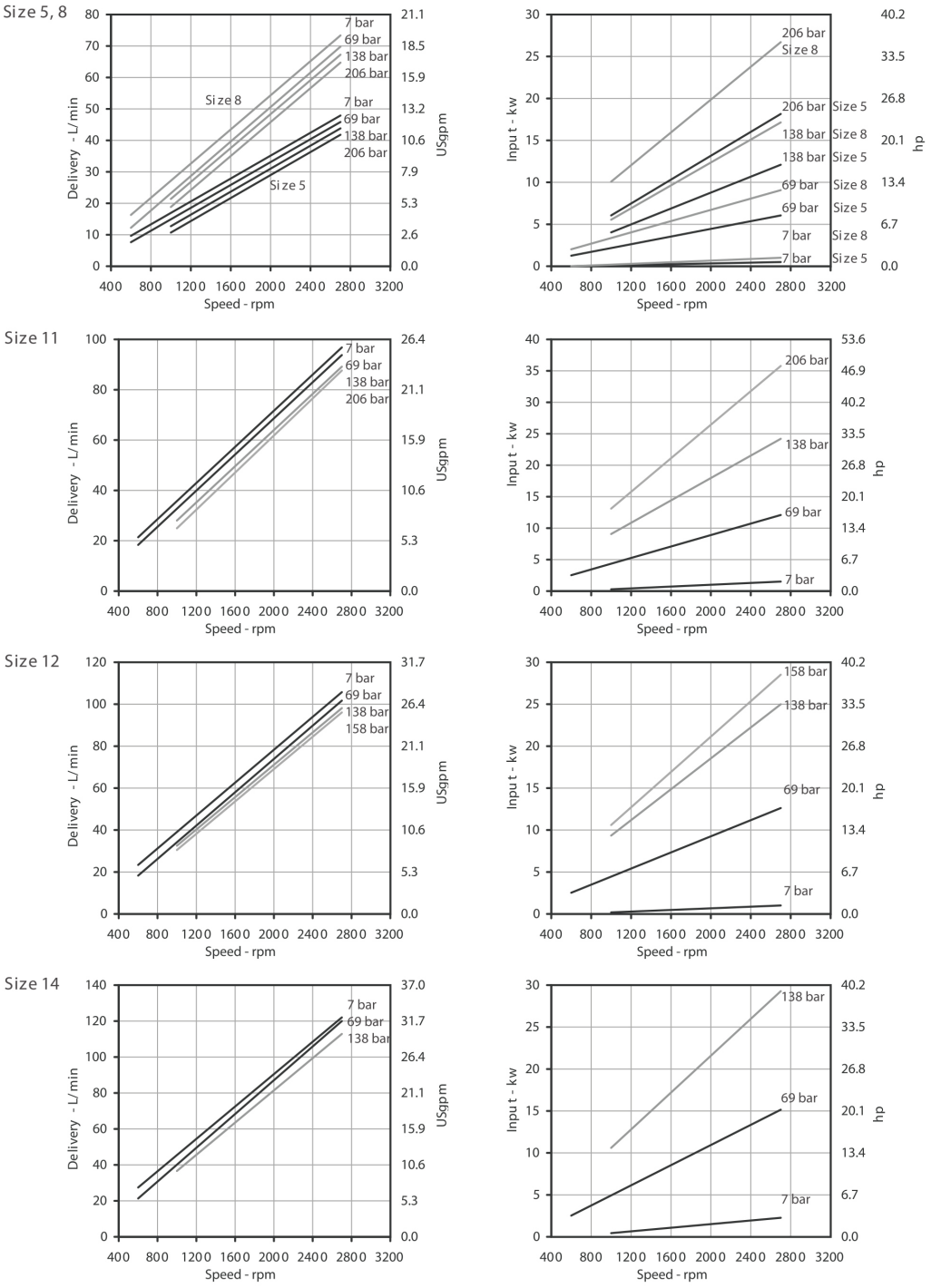




High Performance Double Vane Pump 3520 HV/HVQ Series

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