

# High Pressure Double Vane Pump HT7DD/ HT7DDS Series

## Specification

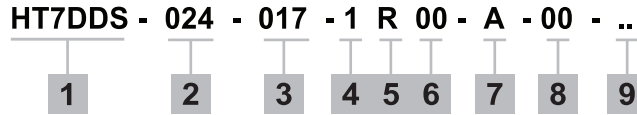
### HT7DD, HT7DDS for Double pump

Shaft End Pump				Cover End Pump				Min. speed rpm	Max. speed rpm	Weight kg (lb)
Size	Displacement cm <sup>3</sup> /r 1(in <sup>3</sup> /r)	Max. Intermittent Pressure bar (psi)	Max. Continuous Pressure bar (psi)	Size	Displacement cm <sup>3</sup> /r 1(in <sup>3</sup> /r)	Max. Intermittent Pressure bar (psi)	Max. Continuous Pressure bar (psi)			
014	47.6 (2.90)	300 (4350)	250 (3600)	014	47.6 (2.90)	300 (4350)	250 (3600)	600	2200	56.0 (123.4)
017	58.2 (3.55)			017	58.2 (3.55)					
020	66.0 (4.03)			020	66.0 (4.03)					
022	70.0 (4.27)			022	70.0 (4.27)					
024	79.5 (4.85)			024	79.5 (4.85)					
028	89.7 (5.47)			028	89.7 (5.47)					
031	98.3 (6.00)			031	98.3 (6.00)					
035	111.0 (6.77)	280 (4060)		035	111.0 (6.77)	280 (4060)				
038	120.3 (7.34)			038	120.3 (7.34)					
042	136.0 (8.30)	260 (3770)	230 (3400)	042	136.0 (8.30)	260 (3770)	230 (3400)			
045	145.7 (8.89)	240 (3500)	210 (3000)	045	145.7 (8.89)	240 (3500)	210 (3000)			
050	158.0 (9.64)	210 (3000)	160 (2300)	050	158.0 (9.64)	210 (3000)	160 (2300)			

# High Pressure Double Vane Pump

## HT7DD/ HT7DDS Series

### Ordering Code : Double Pump



1. Series :

- Industrial - HT7DD ISO 6 bolts 3019-2 mounting flange 125 B4 HW
- HT7DDS SAE C 6 bolts mounting flange J744c

2. Displacement P1

Volumetric displacement cm<sup>3</sup>/rev (in<sup>3</sup>/rev)

- 014 - 47.6 (2.90)
- 017 - 58.2 (3.55)
- 020 - 66.0 (4.03)
- 022 - 70.0 (4.27)
- 024 - 79.5 (4.85)
- 028 - 89.7 (5.47)
- 031 - 98.3 (6.00)
- 035 - 111.0 (6.77)
- 038 - 120.3 (7.34)
- 042 - 136.0 (8.30)
- 045 - 145.7 (8.89)
- 050 - 158.0 (9.64)

3. Displacement P2

Volumetric displacement cm<sup>3</sup>/rev (in<sup>3</sup>/rev)

- 014 - 47.6 (2.90)
- 017 - 58.2 (3.55)
- 020 - 66.0 (4.03)
- 022 - 70.0 (4.27)
- 024 - 79.5 (4.85)
- 028 - 89.7 (5.47)
- 031 - 98.3 (6.00)
- 035 - 111.0 (6.77)
- 038 - 120.3 (7.34)
- 042 - 136.0 (8.30)
- 045 - 145.7 (8.89)
- 050 - 158.0 (9.64)

4. Type of shaft

- HT7DD, HT7DDS
- 5 - ISO 3019-2-G32M Keyed Shaft
  
- HT7DDS
- 1 - SAE C Keyed Shaft
- 2 - SAE CC Keyed Shaft
- 3 - SAE C Splined Shaft
- 4 - SAE BB Splined Shaft

5. Direction of rotation (view on shaft end)

- R - Turn right
- L - Turn left

6. Porting combination (see page Porting Diagrams)

- 00 - standard

7. Design letter

8. Port Connection (4 bolts SAE flange J518C)

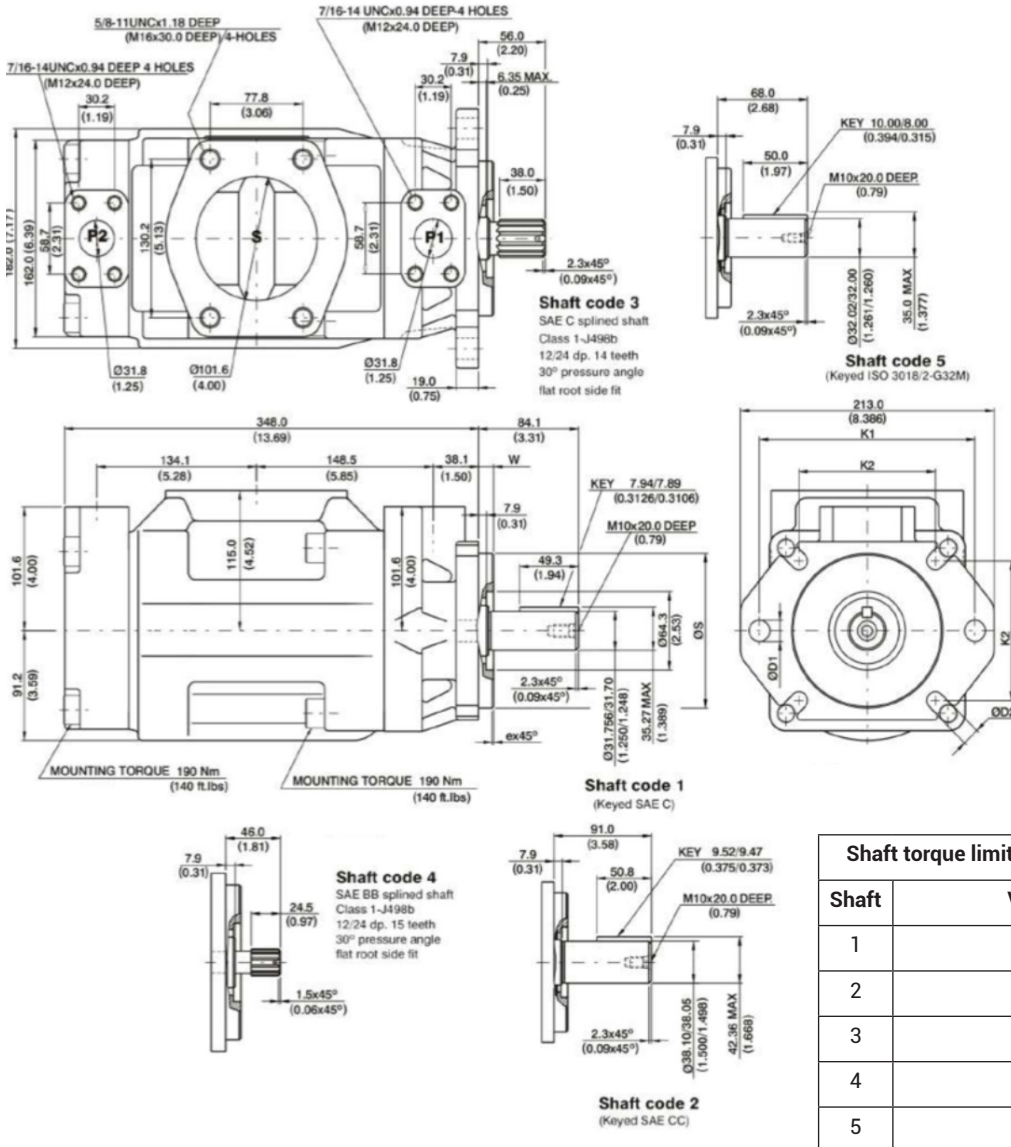
- 00 - UNC Port Connection (Except HT7DD)
- M0 - Metric Port Connection

9. Modifications

# High Pressure Double Vane Pump HT7DD/ HT7DDS Series

## Installation Dimension mm (inch)

### HT7DD, HT7DDS



Alternate mounting flange								
Model	ØS		ex 45°	W	K1	ØD1	K2	ØD2
	MAX.	MIN.						
HT7DD	125.00 (4.921)	124.94 (4.919)	2.0 (0.079)	9.5 (0.374)	180.0 (7.087)	18.0 (0.709)	113.1 (4.454)	13.9 (0.551)
HT7DDS	127.00 (5.00)	126.94 (4.998)	1.5 (0.059)	12.7 (0.50)	181.0 (7.126)	17.5 (0.689)	114.5 (4.508)	14.3 (0.563)

# High Pressure Double Vane Pump HT7DD/ HT7DDS Series

## Performance Characteristics

### HT7DD, HT7DDS

#### OPERATING CHARACTERISTICS - TYPICAL [115 SUS]

Pressure port	Series	Volumetric Displacement Vp cm <sup>3</sup> /rev (in <sup>3</sup> /rev)	Speed n [R.P.M]	Flow Q [LPM (GPM)]			Input power P [KW (HP)]		
				p = 0 bar (0 PSI)	p = 140 bar (2000 PSI)	p = 250 bar (3630 PSI)	p = 7 bar (100 PSI)	p = 140 bar (2000 PSI)	p = 250 bar (3630 PSI)
P1 & P2	014	43.9 (2.68)	1800	79.1 (20.92)	72.5 (19.18)	67.3 (17.81)	2.6 (3.46)	20.7 (27.77)	35.0 (47.03)
	017	55.0 (3.36)		98.8 (26.16)	92.3 (24.41)	87.0 (23.04)	2.8 (3.77)	25.3 (33.88)	43.0 (57.71)
	020	66.0 (4.03)		118.6 (31.39)	112.0 (29.64)	106.8 (28.27)	3.0 (4.07)	29.8 (39.98)	50.9 (68.39)
	022	70.3 (4.29)		126.4 (33.43)	119.8 (31.69)	104.6 (30.32)	3.1 (4.19)	31.6 (42.37)	54.0 (72.57)
	024	81.1 (4.95)		145.8 (38.57)	139.2 (36.82)	134.0 (35.35)	3.4 (4.49)	36.1 (48.36)	61.9 (83.06)
	028	89.9 (5.49)		161.8 (42.80)	155.2 (41.06)	150.0 (39.69)	3.5 (4.74)	39.7 (53.30)	68.3 (91.70)
	031	99.1 (6.05)		178.3 (47.18)	171.7 (45.43)	166.5 (44.06)	3.7 (4.99)	43.6 (58.41)	75.0 (100.63)
	035	113.4 (6.92)		203.9 (53.93)	197.2 (52.18)	192.0 (50.81)	4.0 (5.39)	49.4 (66.29)	85.3 (114.42)
	038	120.6 (7.36)		216.8 (57.35)	210.2 (55.61)	204.9 (54.24)	4.2 (5.59)	52.4 (70.28)	90.5 (121.42)
	042	137.5 (8.39)		247.2 (65.39)	240.6 (63.65)	235.4 (62.28)	4.5 (6.05)	59.4 (79.66)	102.7 (137.83)
	045	145.7 (8.89)		262.0 (69.29)	253.6 (67.11)	246.8 (65.31)	5.0 (6.74)	62.4 (83.75)	108.7 (145.79)
	050	157.9 (9.64)		284.0 (75.14)	275.8 (72.96)	271.3 (71.78)	5.3 (7.08)	67.5 (90.58)	100.3 (134.50)

1) 035 - 038 = 280 bar (4060 PSI) Max. int.

2) 042 = 260 bar (3770 PSI) Max. int.

3) 045 = 240 bar (3500 PSI) Max. int.

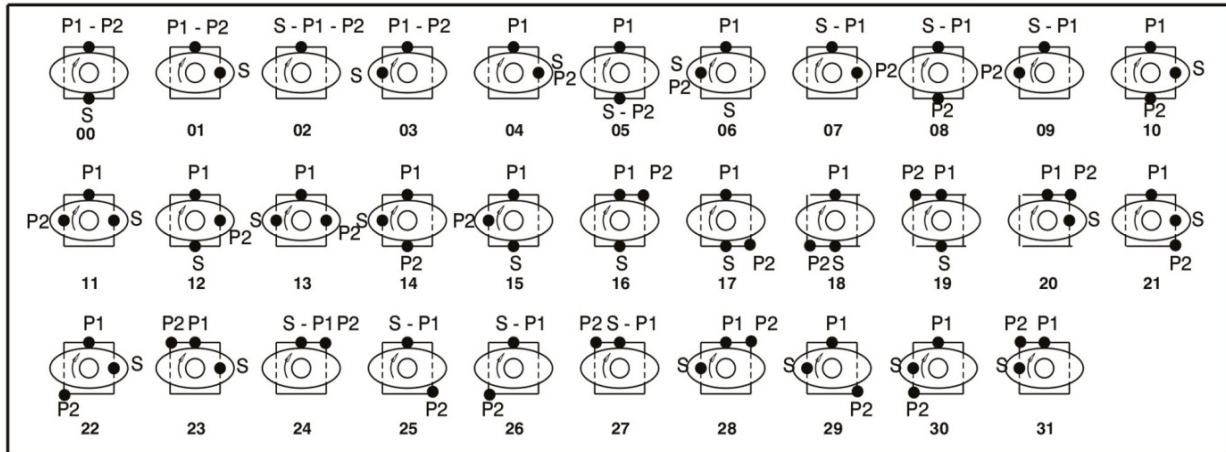
4) 050 = 210 bar (3000 PSI) Max. int.

- Not to use because internal leakage greater than 50% theoretical flow.

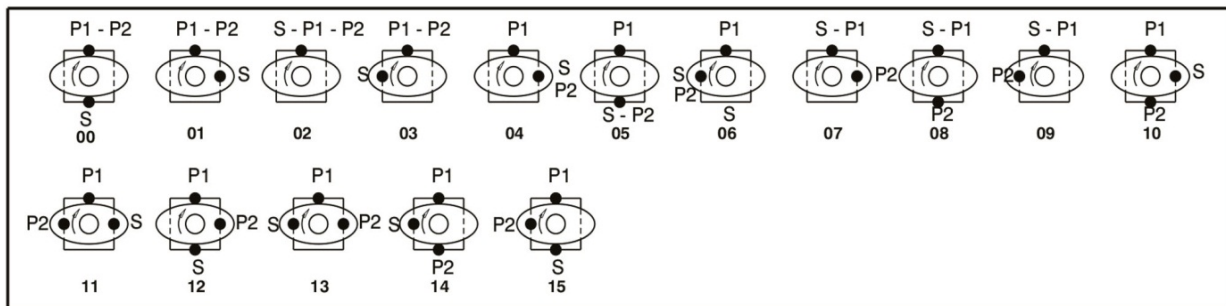
- Port connection can be furnished with metric threads.

# High Pressure Double Vane Pump HT6/HT67/HT7 Series - Porting Diagram

## Porting Diagrams



HT6CC/HT6CCM/HT6CCP/HT6CCW/HT6CCMW, HT6DCM/HT6DCP/HT6DCMW, HT6ECM/HT6ECP  
HT7BB/HT7BBS, HT7DB/HT7DBS, HT7EB/HT7EBS  
HT67CB/HT67CBW, HT67DC/HT67DCW, HT67EC



HT6EDM/HT6EDP  
HT7DD/HT7DDS, HT7ED/HT7EDS, HT7EE/HT7EES