

# High Pressure Double Vane Pump

## HT6ECM/ HT6ECP Series

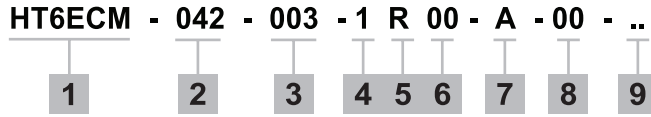
### Specification

#### HT6ECM, HT6ECP 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)			
042	132.3 (8.07)	240 (3500)	206 (3000)	003	10.8 (0.66)	275 (4000)	240 (3500)	400	2200	54.2 (118.8)
045	142.4 (8.70)			005	17.2 (1.05)					
050	158.5 (9.67)			006	21.3 (1.30)					
052	164.8 (10.00)			008	26.4 (1.61)					
062	196.7 (12.00)			010	34.1 (2.08)					
066	213.3 (13.00)			012	37.1 (2.26)					
072	227.1 (13.86)			014	46.0 (2.81)					
				017	58.3 (3.56)					
		020	63.8 (3.89)							
		022	70.3 (4.29)							
		025	79.3 (4.84)							
		028	88.8 (5.42)	206 (3000)	160 (2300)					
		031	100.0 (6.10)							

# High Pressure Double Vane Pump HT6ECM/ HT6ECP Series

## Ordering Code : Double Pump



**1. Model :**

- Mobile 1 Shaft seals (M) - HT6ECM
- Mobile 2 Shaft seals (P) - HT6ECP
- SAE C 2 bolts mounting flange J744

**5. Direction of rotation (Viewed from shaft end)**

- R - Turn right
- L - Turn left

**2. Displacement**

- Volumetric displacement cm<sup>3</sup>/rec (in<sup>3</sup>/rev)
- 042 - 132.3 (8.07)
  - 045 - 142.4 (8.70)
  - 050 - 158.5 (9.67)
  - 052 - 164.8 (10.00)
  - 062 - 196.7 (12.00)
  - 066 - 213.3 (13.00)
  - 072 - 227.1 (13.86)

**6. Porting combination (see page Porting Diagrams)**  
00 - standard

**7. Design letter**

**8. Port Connection (4 bolts SAE flange J518C)**

- 00 - UNC Port Connection
- M0 - Metric Port Connection

Code		4 bolt SAE flanges		
UNC	Metric	P1	P2	S
00	0M	1½"	1"	3½"
01	M0	1½"	¾"	3½"

**3. Displacement P2**

- Volumetric displacement cm<sup>3</sup>/rev (in<sup>3</sup>/rev)
- 003 - 10.8 (0.66)
  - 005 - 17.2 (1.05)
  - 006 - 21.3 (1.30)
  - 008 - 26.4 (1.61)
  - 010 - 34.1 (2.08)
  - 012 - 37.1 (2.26)
  - 014 - 46.0 (2.81)
  - 017 - 58.3 (3.56)
  - 020 - 63.8 (3.89)
  - 022 - 70.3 (4.29)
  - 025 - 79.3 (4.84)
  - 028 - 88.8 (5.42)
  - 031 - 100.0 (6.10)

**9. Modifications**

**4. Type of shaft**

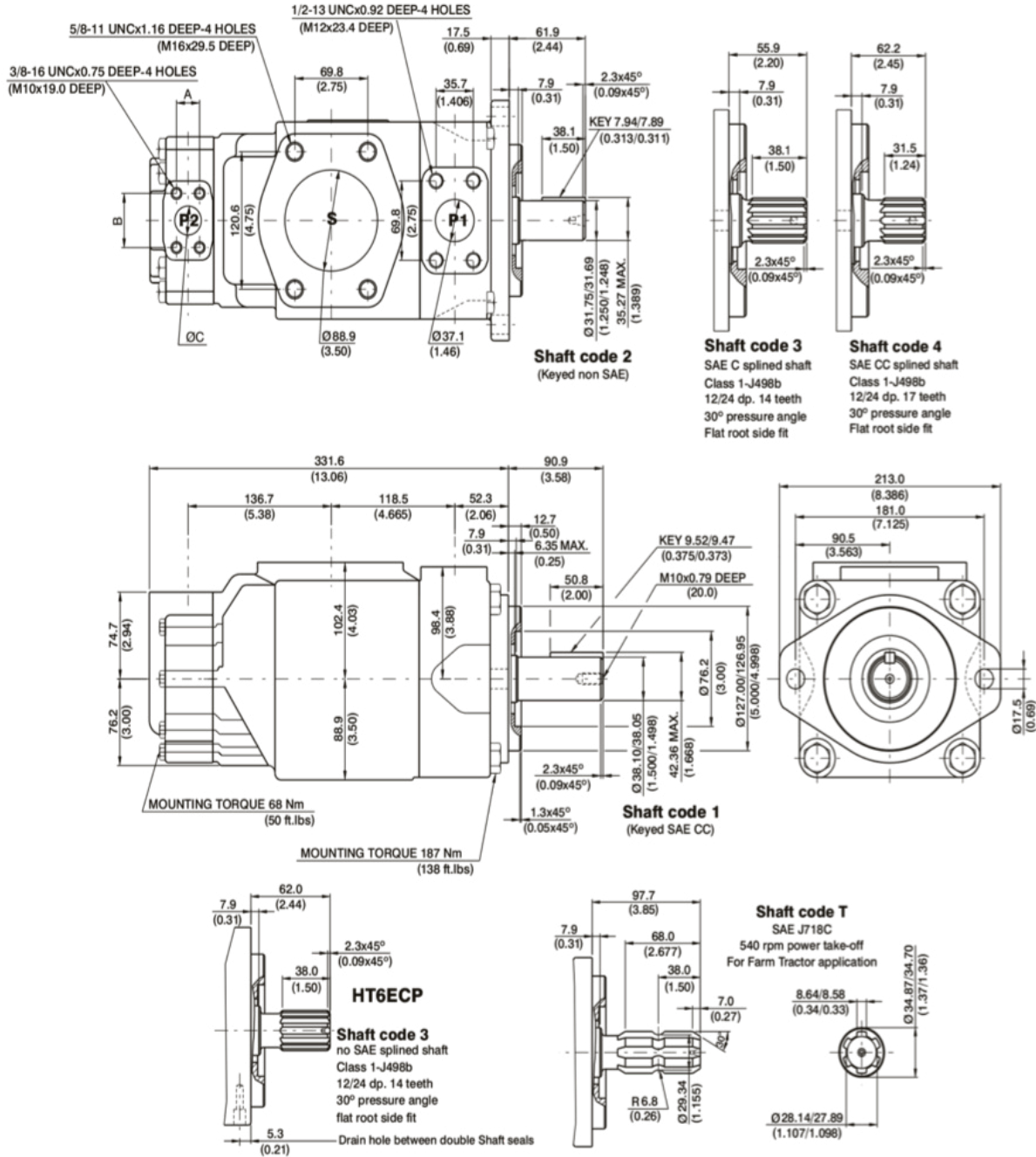
- HT6ECM
- 1 - SAE CC Keyed Shaft
  - 2 - non SAE Keyed Shaft
  - 3 - SAE C Splined Shaft
  - 4 - SAE CC Splined Shaft
  - T - SAE J718c Splined Shaft

- HT6ECP
- 3 - non SAE Splined Shaft

# High Pressure Double Vane Pump HT6ECM/ HT6ECP Series

## Installation Dimension mm (inch)

### HT6ECM, HT6ECP



Cover End Outlet Port Size	A	B	C
1"	26.2 (1.03)	52.4 (2.06)	25.4 (1.00)
3/4"	22.4 (0.88)	47.7 (1.88)	19.0 (0.75)

Shaft torque limits [ml/rev x bar (in <sup>3</sup> /rev x psi)]	
Shaft	Vp x p max. (P1+P2)
1	72306 (64044)
2	34590 (30638)
3	61200 (54207)
4	76376 (67582)
T	70400 (63256)

# High Pressure Double Vane Pump HT6ECM/ HT6ECP Series

## Performance Characteristics

### HT6ECM, HT6ECP

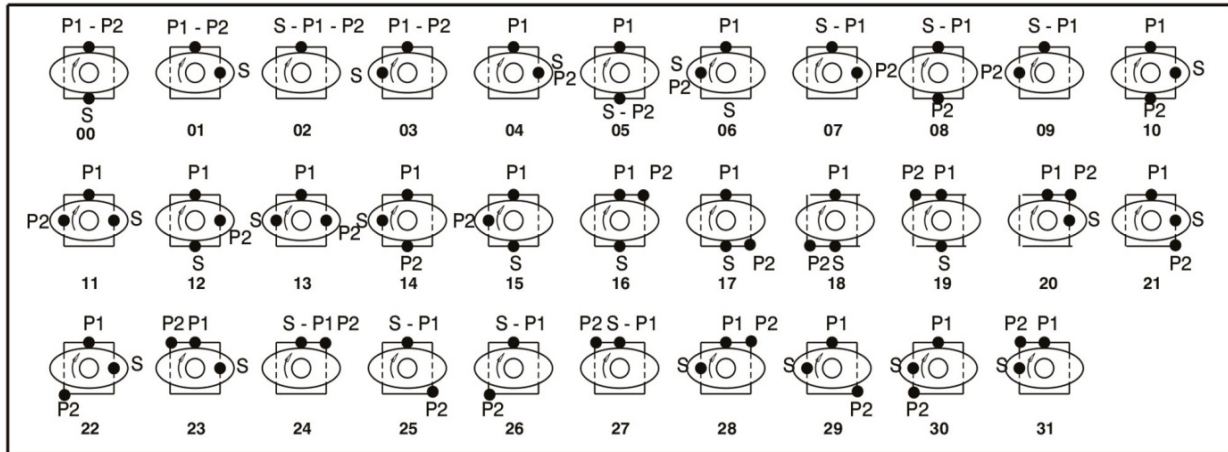
#### OPERATING CHARACTERISTICS - TYPICAL [115 SUS]

Pressure port	Series	Volumetric Displacement	Flow Q (GPM) & n = 1800 RPM			Input power P (HP) & n = 1800 RPM		
			p = 0 PSI	p = 2000 PSI	p = 3500 PSI	p = 0 PSI	p = 2000 PSI	p = 3500 PSI
P1	042	8.07 in <sup>3</sup> /rev	62.92	60.37	58.52	8.09	78.44	133.80
	045	8.70 in <sup>3</sup> /rev	67.72	65.17	63.32	6.87	82.09	141.51
	050	9.67 in <sup>3</sup> /rev	75.38	72.83	70.98	7.32	91.02	157.15
	052	10.00 in <sup>3</sup> /rev	78.37	75.82	73.97	7.49	94.52	163.27
	062	12.00 in <sup>3</sup> /rev	93.54	90.99	89.14	8.38	112.22	194.25
	066	13.00 in <sup>3</sup> /rev	101.44	98.89	97.04	8.84	121.43	210.37
	072	13.86 in <sup>3</sup> /rev	108.00	105.45	103.60	9.22	129.09	223.77
P2	003	0.66 in <sup>3</sup> /rev	5.14	3.61	-	2.11	8.45	-
	005	1.05 in <sup>3</sup> /rev	8.18	6.65	5.56	2.29	12.00	19.59
	006	1.30 in <sup>3</sup> /rev	10.13	8.60	7.51	2.40	14.28	23.57
	008	1.61 in <sup>3</sup> /rev	12.55	11.02	9.93	2.54	17.11	28.53
	010	2.08 in <sup>3</sup> /rev	16.22	14.69	13.60	2.76	21.38	36.00
	012	2.26 in <sup>3</sup> /rev	17.64	16.11	15.02	2.84	23.05	38.92
	014	2.81 in <sup>3</sup> /rev	21.88	20.35	19.26	3.09	27.99	47.56
	017	3.56 in <sup>3</sup> /rev	27.73	26.20	25.11	3.43	34.81	59.51
	020	3.89 in <sup>3</sup> /rev	30.34	28.81	27.42	3.58	37.86	64.85
	022	4.29 in <sup>3</sup> /rev	33.43	31.90	30.81	3.76	41.47	71.16
	025	4.84 in <sup>3</sup> /rev	37.71	36.18	35.09	4.01	46.46	79.90
	028	5.42 in <sup>3</sup> /rev	42.23	40.70	39.94 <sup>1)</sup>	4.27	51.74	76.73 <sup>1)</sup>
	031	6.10 in <sup>3</sup> /rev	47.56	46.03	45.27 <sup>1)</sup>	4.58	57.95	86.06 <sup>1)</sup>

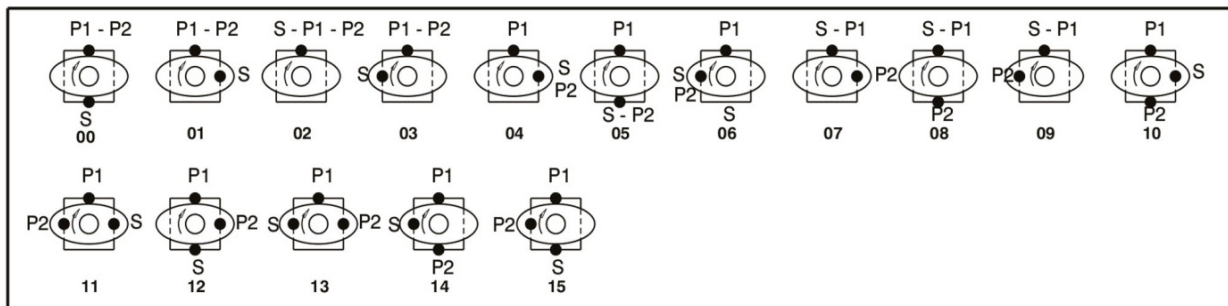
1) 028 - 031 = 3000 PSI Max. int.  
 - Not to use because internal leakage greater than 50% theoretical flow.  
 - Port connection can be furnished with metric threads.

# 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