High Pressure Double Vane Pump HT7ED/ HT7EDS Series

Specification

HT7ED, HT7EDS for Double pump

Shaft End Pump				Cover End Pump				Min. speed	Max. speed	Weight
Size	Displacement cm^3/r 1(in^3/r)	Max. Intermittent Pressure bar (psi)	Max. Continuous Pressure bar (psi)	Size	Displacement cm^3/r 1(in^3/r)	Max. Intermittent Pressure bar (psi)	Max. Continuous Pressure bar (psi)	rpm	rpm	kg (lb)
042	132.3 (8.07)	240 (3500)	206 (3000)	014	47.6 (2.90)	300 (4350)	250 (3600)	600	2200	64.5 (141.9)
045	142.4 (8.70)			017	58.2 (3.55)					
050	158.5 (9.67)			020	66.0 (4.03)					
052	164.8 (10.00)			022	70.0 (4.27)					
054	173.8 (10.60)			024	79.5 (4.85)					
057	180.7 (11.02)			028	89.7 (5.47)					
062	196.7 (12.00)			031	98.3 (6.00)					
066	213.3 (13.00)			035	111.0 (6.77)	280 (4060)				
072	227.1 (13.86)			038	120.3 (7.34)					
085	269.8 (16.40)	90 (1300)	75 (1100)	042	136.0 (8.30)	260 (3770)	235 (3400)			
				045	145.7 (8.89)	240 (3500)	206 (3000)			
				050	158.0 (9.64)	206 (3000)	160 (2300)			

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Ordering Code : Double Pump

HT7EDS	-	042	-	014	-	1	R	00	-	A	-	00	-	..
		1		2		3	4	5	6	7		8		9

1. Model :
   Industrial - HT7ED ISO 2 bolts 3019-2 mounting flange 125 A2 HW

   - HT7EDS SAE C 2 bolts mounting flange J744

2. Displacement
   Volumetric displacement cm³/rec (in³/rev)
   - 042 - 132.3 (8.07)
   - 045 - 142.4 (8.70)
   - 050 - 158.5 (9.67)
   - 052 - 164.8 (10.00)
   - 054 - 173.8 (10.60)
   - 057 - 180.7 (11.02)
   - 062 - 196.7 (12.00)
   - 066 - 213.3 (13.00)
   - 072 - 227.1 (13.86)
   - 085 - 269.8 (16.40)

3. Displacement P2
   Volumetric displacement cm³/rev (in³/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
   HT7ED, HT7EDS
   - 5 - ISO R775-G38M Keyed Shaft

   HT7EDS
   - 1 - SAE CC Keyed Shaft
   - 2 - non SAE Keyed Shaft
   - 3 - SAE C Splined Shaft
   - 4 - SAE CC Splined Shaft

5. Direction of rotation (Viewed from shaft end)
   - R - Turn right
   - L - Turn left

6. Porting combination
   - 00 - standard

7. Design letter

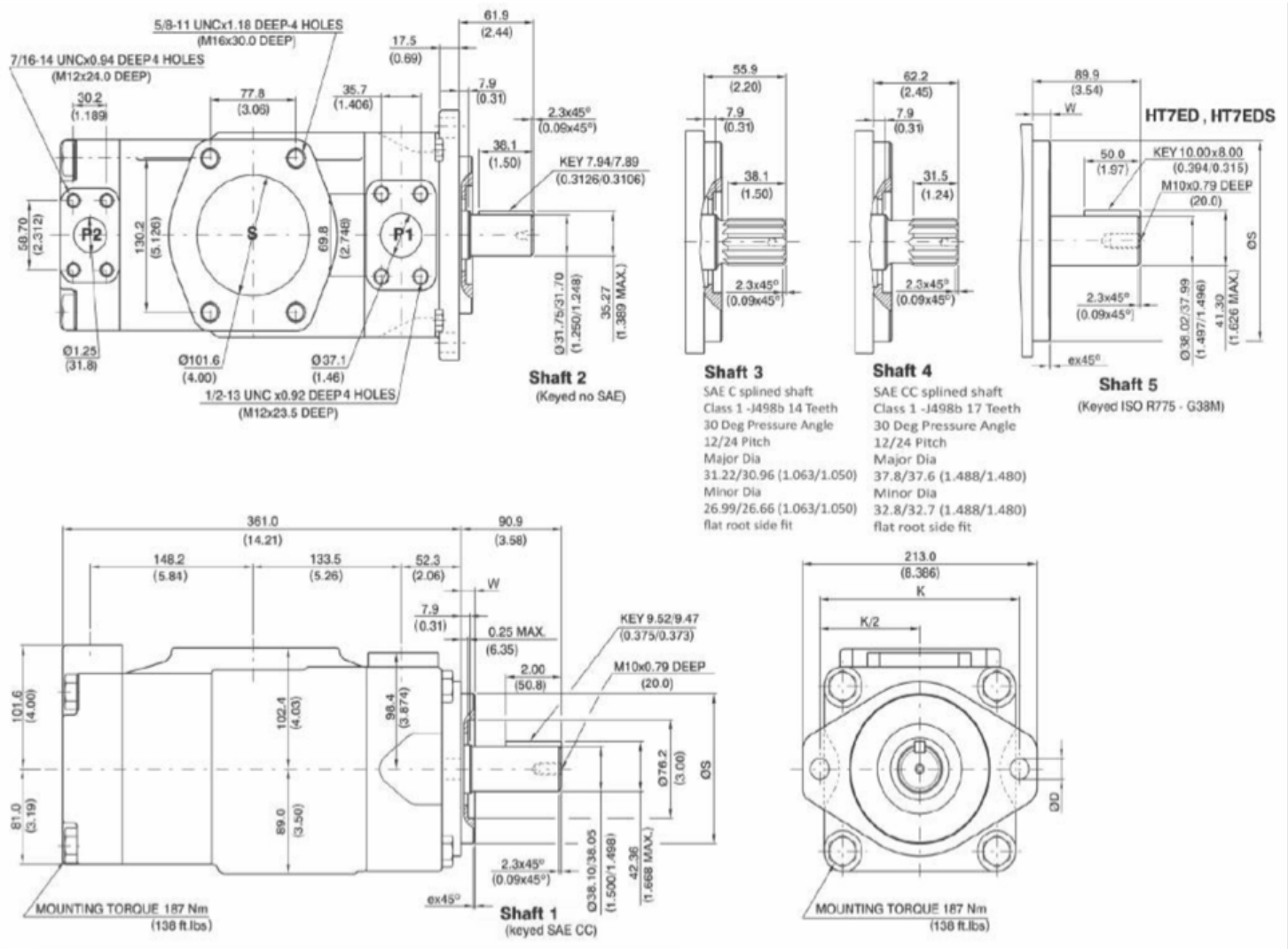
8. Port Connection (4 bolts SAE flange J518C)
   - 00 - UNC Port Connection (Except HT7ED)
   - M0 - Metric Port Connection

9. Modifications
   - Omit - Standard
   - 718 - Surface grinding the flange face for the manifold.

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Installation Dimension mm (inch)

HT7ED, HT7EDS



Alternate mounting flange						
Model	ØS		ex 45°	W	K	ØD
	MAX.	MIN.				
HT7ED	124.99 (4.921)	124.94 (4.919)	2.0 (0.079)	9.49 (0.374)	180.0 (7.087)	18.0 (0.709)
HT7EDS	127.00 (5.00)	126.94 (4.998)	1.3 (0.051)	12.7 (0.50)	181.0 (7.126)	17.5 (0.689)

Shaft torque limits [ml/rev x bar (in³/rev x psi)]	
Shaft	Vp x p max. (P1+P2)
1	72372 (64039)
2	34590 (30638)
3	61200 (54207)
4	68568 (60673)
5	

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Performance Characteristics

HT7ED, HT7EDS

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 in³/rev	62.92	60.37	58.52	8.09	78.44	133.80
	045	8.70 in³/rev	67.72	65.17	63.32	8.37	84.04	143.60
	050	9.67 in³/rev	75.38	72.83	70.98	8.82	92.97	159.24
	052	10.00 in³/rev	78.37	75.82	73.97	8.99	96.47	165.36
	054	10.43 in³/rev	81.27	78.72	76.87	9.17	99.75	177.46
	057	11.18 in³/rev	87.12	84.57	82.72	9.51	106.57	189.84
	062	12.00 in³/rev	93.54	90.99	89.14	9.88	114.17	196.34
	066	13.00 in³/rev	101.44	98.89	97.04	10.34	123.38	212.46
	072	13.86 in³/rev	108.00	105.45	103.60	10.72	131.04	225.86
	085	16.40 in³/rev	127.79	126.13[1)]	-	11.88	101.66[1)]	-
			p = 0 PSI	p = 2000 PSI	p = 3630 PSI	p = 100 PSI	p = 2000 PSI	p = 3630 PSI
P2	014	2.68 in³/rev	20.92	19.18	17.81	3.46	27.77	47.03
	017	3.36 in³/rev	26.16	24.41	23.04	3.77	33.88	57.71
	020	4.03 in³/rev	31.39	29.64	28.27	4.07	39.98	68.39
	022	4.29 in³/rev	33.43	31.69	30.32	4.19	42.37	72.57
	024	4.95 in³/rev	38.57	36.82	35.45	4.49	48.36	83.06
	028	5.49 in³/rev	42.80	41.06	39.69	4.74	53.30	91.07
	031	6.05 in³/rev	47.18	45.43	44.06	4.99	58.41	100.63
	035	6.92 in³/rev	53.93	52.18	50.81	5.39	66.29	114.42
	038	7.36 in³/rev	57.35	55.61	54.24	5.59	70.28	121.42
	042	8.39 in³/rev	65.39	63.65	62.28	6.05	79.66	137.83
	045	8.89 in³/rev	69.29	67.11	65.31	6.74	83.75	145.79
	050	9.64 in³/rev	75.14	72.96	71.78[2)]	7.08	90.58	134.50[2)]

1) 085 = 1300 PSI Max. int. 2) 050 = 3000 PSI Max. int.
- Not to use because internal leakage greater than 50% theoretical flow.
- Port connection can be furnished with metric threads.