

High Pressure Double Vane Pump

HT7BB/HT7BBS Series

Specification

HT7BB, HT7BBS 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)
002	5.8 (0.35)	320 (4640)	290 (4200)	002	5.8 (0.35)	320 (4640)	290 (4200)	600	2200	32.6 (71.87)
003	9.8 (0.59)			003	9.8 (0.59)					
004	12.8 (0.78)			004	12.8 (0.78)					
005	15.9 (0.97)			005	15.9 (0.97)					
006	19.8 (1.20)			006	19.8 (1.20)					
007	22.5 (1.37)			007	22.5 (1.37)					
008	24.9 (1.51)			008	24.9 (1.51)					
009	26.0 (1.70)			009	26.0 (1.70)					
010	31.8 (1.94)			010	31.8 (1.94)					
011	35.0 (2.13)			011	35.0 (2.13)					
012	41.0 (2.50)			012	41.0 (2.50)					
014	45.0 (2.74)			014	45.0 (2.74)					
015	50.0 (3.05)	280 (4060)	240 (3500)	015	50.0 (3.05)	280 (4060)	240 (3500)			

High Pressure Double Vane Pump

HT7BB/HT7BBS Series

Ordering Code : Double Pump

HT7BBS - 010 - 002 - 1 R 00 - A - 00 - ..

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1. Model :

- Industrial - HT7BB ISO 2 bolts 3019-2 mounting flange 100 A2 HW
- HT7BBS SAE B 2 bolts mounting flange J744

2. Displacement P1

Volumetric displacement cm³/rec (in³/rev)

- 002 - 5.8 (0.35)
 003 - 9.8 (0.60)
 004 - 12.8 (0.78)
 005 - 15.9 (0.97)
 006 - 19.8 (1.20)
 007 - 22.5 (1.37)
 008 - 24.9 (1.51)
 009 - 28.0 (1.70)
 010 - 31.8 (1.92)
 011 - 35.0 (2.14)
 012 - 41.0 (2.47)
 014 - 45.0 (2.70)
 015 - 50.0 (3.01)

3. Displacement P2

Volumetric displacement cm³/rec (in³/rev)

- 002 - 5.8 (0.35)
 003 - 9.8 (0.60)
 004 - 12.8 (0.78)
 005 - 15.9 (0.97)
 006 - 19.8 (1.20)
 007 - 22.5 (1.37)
 008 - 24.9 (1.51)
 009 - 28.0 (1.70)
 010 - 31.8 (1.92)
 011 - 35.0 (2.14)
 012 - 41.0 (2.47)
 014 - 45.0 (2.70)
 015 - 50.0 (3.01)

4. Type of shaft

- HT7BB, HT7BBS
 5 - ISO R775-G38M Keyed Shaft

HT7BBS

- 1 - non SAE Keyed Shaft
 2 - SAE BB Keyed Shaft
 3 - SAE B Splined Shaft
 4 - SAE BB Splined Shaft

5. Direction of rotation (Viewed from 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 HT7BB)
 M0 - Metric Port Connection

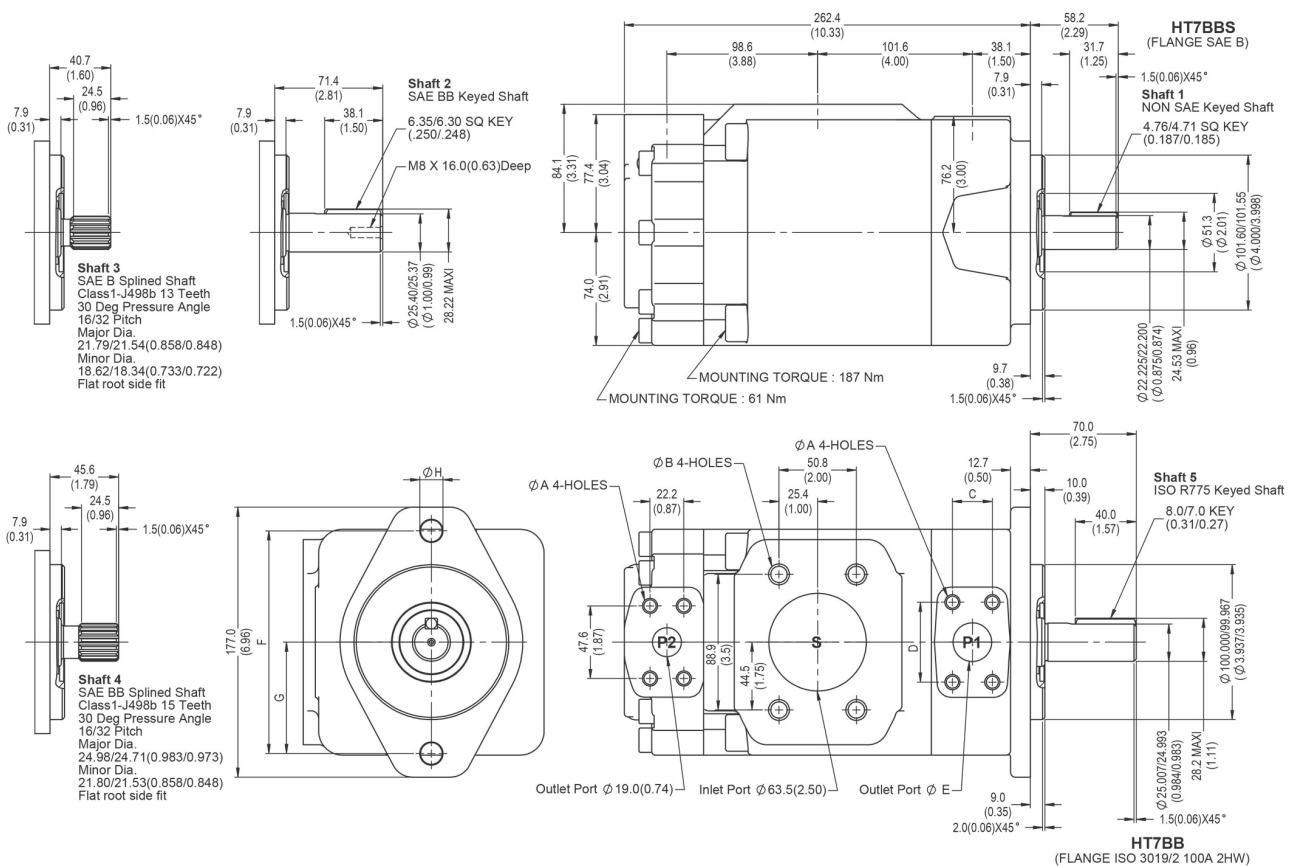
Code		4 bolt SAE flanges		
UNC	Metric	P1	P2	S
00	M0	1"	3/4"	2½"
01	M1	3/4"	3/4"	2½"

9. Modifications

High Pressure Double Vane Pump HT7BB/HT7BBS Series

Installation Dimension mm (inch)

HT7BB, HT7BBS



Model	HT7BB		HT7BBS	
Code	M0	M1	00	01
ØA	M10 x19.0 DEEP		3/8"-16 UNC x 19.0 DEEP	
ØB	M12 x 22.4 DEEP		1/2" -13 UNC x 22.4 DEEP	
C	26.2	22.25	26.2	22.25
D	52.4	47.65	52.4	47.65
ØE	25.4	19.1	25.4	19.1
F	140.0		146.0	
G	70.0		73.0	
ØH	14.0		14.3	

Shaft torque limits [ml/rev. x bar]	
Shaft	Vi x p max.
1	14300
2	21420
3	20600
4	32670
5	25300

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Performance Characteristics

HT7BB, HT7BBS

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	002	0.35 in ³ /rev	2.29	1.84	1.26	0.67	3.48	7.23
	003	0.59 in ³ /rev	3.88	3.43	2.85	0.80	5.36	11.52
	004	0.78 in ³ /rev	5.07	4.62	4.04	0.80	6.70	14.74
	005	0.97 in ³ /rev	6.31	5.86	5.28	0.93	8.17	18.09
	006	1.20 in ³ /rev	7.84	7.39	6.81	0.93	10.05	22.25
	007	1.37 in ³ /rev	8.90	8.45	7.89	1.07	11.39	25.20
	008	1.51 in ³ /rev	9.88	9.43	8.84	1.07	12.46	27.74
	009	1.70 in ³ /rev	11.09	10.56	10.06	1.20	13.94	31.09
	010	1.94 in ³ /rev	12.60	12.15	11.57	1.20	15.68	35.12
	011	2.13 in ³ /rev	13.86	13.41	12.91 ¹⁾	1.34	17.15	36.19 ¹⁾
	012	2.50 in ³ /rev	16.24	15.79	15.29 ¹⁾	1.47	19.97	42.22 ¹⁾
	014	2.74 in ³ /rev	17.83	17.38	16.88 ¹⁾	1.60	21.84	46.24 ¹⁾
	015	3.05 in ³ /rev	19.81	19.36	18.91 ²⁾	1.74	24.26	47.85 ²⁾
P2	002	0.35 in ³ /rev	2.29	1.84	1.26	0.67	3.48	7.23
	003	0.59 in ³ /rev	3.88	3.43	2.85	0.80	5.36	11.52
	004	0.78 in ³ /rev	5.07	4.62	4.04	0.80	6.70	14.74
	005	0.97 in ³ /rev	6.31	5.86	5.28	0.93	8.17	18.09
	006	1.20 in ³ /rev	7.84	7.39	6.81	0.93	10.05	22.25
	007	1.37 in ³ /rev	8.90	8.45	7.89	1.07	11.39	25.20
	008	1.51 in ³ /rev	9.88	9.43	8.84	1.07	12.46	27.74
	009	1.70 in ³ /rev	11.09	10.56	10.06	1.20	13.94	31.09
	010	1.94 in ³ /rev	12.60	12.15	11.57	1.20	15.68	35.12
	011	2.13 in ³ /rev	13.86	13.41	12.91 ¹⁾	1.34	17.15	36.19 ¹⁾
	012	2.50 in ³ /rev	16.24	15.79	15.29 ¹⁾	1.47	19.97	42.22 ¹⁾
	014	2.74 in ³ /rev	17.83	17.38	16.88 ¹⁾	1.60	21.84	46.24 ¹⁾
	015	3.05 in ³ /rev	19.81	19.36	18.91 ²⁾	1.74	24.26	47.85 ²⁾

1) 011 - 012 - 014 = 4350 PSI max. int. 2) 015 = 4000 PSI Max. int.
 - Not to use because internal leakage greater than 50% theoretical flow.
 - Port connection can be furnished with metric threads.