

## VT67BB W - B10 - B10 -1 R 00 - A 1 - M1 -

**Series** - SAE B 2 bolts  
Mounting flange J744c

**Use for severe duty shaft only**

**Cam ring for "P1" and "P2"**

Volumetric displacement  $\text{cm}^3/\text{rev}$  ( $\text{in}^3/\text{rev}$ )

B02 = 5.7 (0.35)	B09 = 28.0 (1.71)
B03 = 9.8 (0.60)	B10 = 31.8 (1.94)
B04 = 12.8 (0.78)	B11 = 34.9 (2.13)
B05 = 15.9 (0.97)	B12 = 40.9 (2.50)
B06 = 19.8 (1.21)	B14 = 45.1 (2.75)
B07 = 22.5 (1.37)	B15 = 50.0 (3.05)
B08 = 24.9 (1.52)	

**Type of shaft**

- 1 - keyed (no SAE)
- 3 - splined (SAE BB)
- 5 - splined (SAE B)

**Type of shaft- W version**

- 2 - keyed (SAE BB)

**Modifications**

**Mounting W/connection variables**

- 11 = 4 bolts SAE flanges (J518c) UNC thread
- M1 = 4 bolts SAE flanges (J518c) Metric thread

**Seal class**

- 1 - S1 (for mineral oil)
- 4 - S4 (for fire resistant fluids)
- 5 - S5 (for mineral oil and fire resistant fluids)

**Design letter**

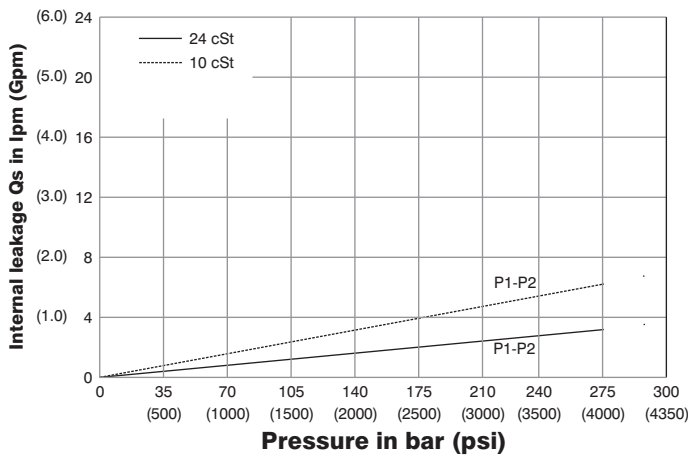
**Porting combination (see page BM-1-5)**

- 00 - standard

**Direction of rotation (view on shaft end)**

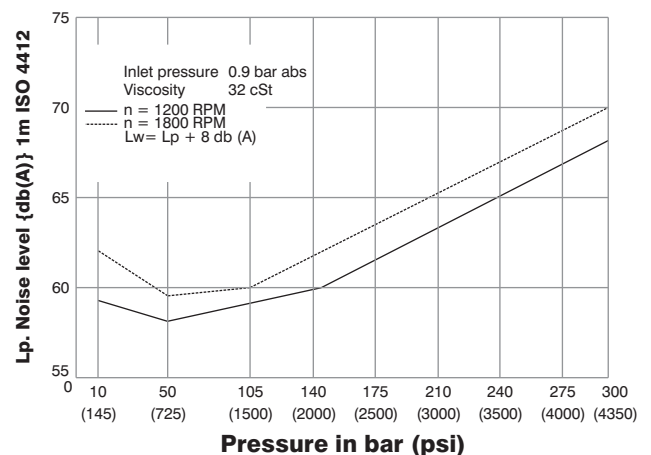
- R - clockwise
- L - counter-clockwise

### INTERNAL LEAKAGE ( TYPICAL )



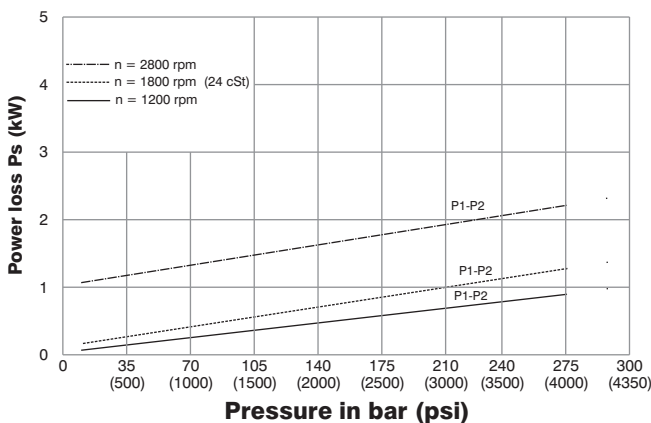
Do not operate pump more than 5 seconds at any speed or viscosity if internal leakage is more than 50 of theoretical flow.  
Total leakage is the sum of each section loss at its operating conditions.

### NOISE LEVEL ( TYPICAL ) VT67BB- B10-B03



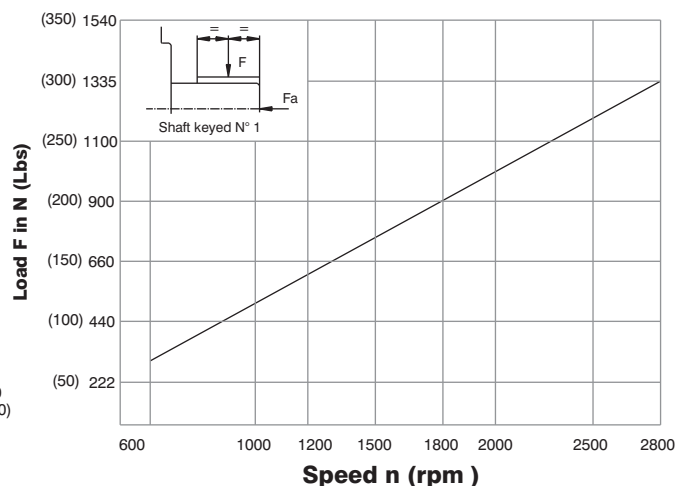
Double pump noise level is given with each section discharging at the pressure noted on the curve.

### HYDROMECHANICAL POWER LOSS ( TYPICAL )



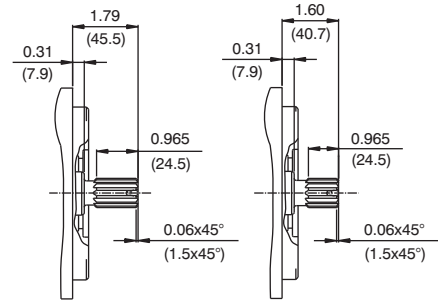
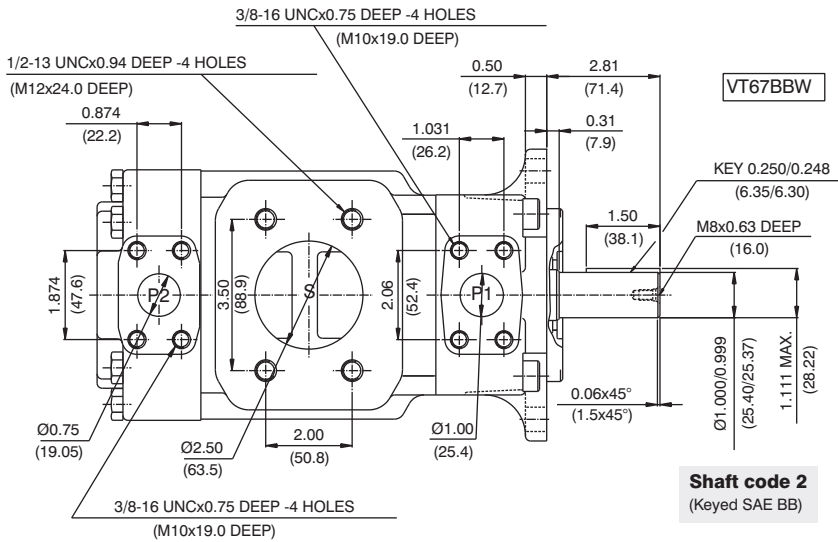
Total hydromechanical power loss is the sum of each section at its operating conditions.

### PERMISSIBLE RADIAL LOAD



Maximum permissible axial load  $F_a = 800\text{N}$  (180 lbs)

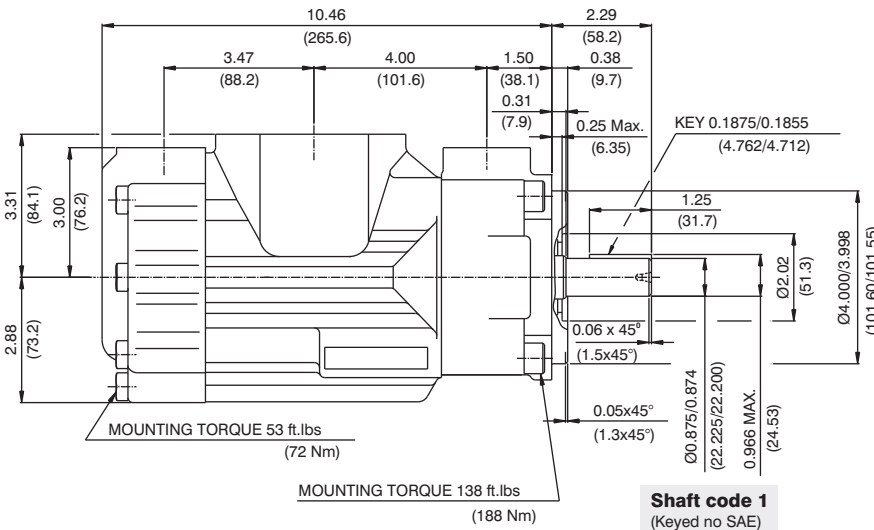
# HIGH PERFORMANCE VANE PUMP VT67BB



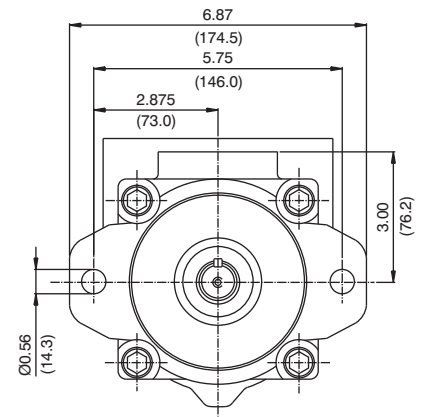
**Shaft code 3**  
SAE BB splined shaft  
Class 1-J498b  
16/32 dp. 15 teeth  
30° pressure angle  
Flat root side fit

**Shaft code 5**  
SAE B splined shaft  
Class 1-J498b  
16/32 dp. 13 teeth  
30° pressure angle  
Flat root side fit

**Shaft code 2**  
(Keyed SAE BB)



**Shaft code 1**  
(Keyed no SAE)



Shaft torque limits in <sup>3</sup> /rev x psi (ml/rev x bar)	
Shaft	Vp x p max. (P1+P2)
1	12666 (14300)
2	18972 (21420)
3	28937 (32670)
5	18246 (20600)

Pressure port	Series	Volumetric Displacement Vp		Flow q & n = 1800 rpm						Input power p & n = 1800 rpm					
				p = 0 bar (0 psi)		p = 140 bar (2000 psi)		p = 300 bar (4350 psi)		p = 7 bar (100 psi)		p = 140 bar (2000 psi)		p = 300 bar (4350 psi)	
		in <sup>3</sup> /rev	cm <sup>3</sup> /rev	gpm	lpm	gpm	lpm	gpm	lpm	hp	kw	hp	kw	hp	kw
P1 & P2	B02	0.35	5.7	2.76	10.4	2.33	8.8	1.80	6.8	0.74	0.55	4.02	2.99	8.10	6.40
	B03	0.60	9.8	4.66	17.6	4.23	15.9	3.70	14.0	0.85	0.63	6.24	4.65	12.93	10.25
	B04	0.78	12.8	6.09	23.0	5.66	21.4	5.13	19.4	0.94	0.70	7.90	5.89	16.55	13.13
	B05	0.97	15.9	7.56	28.6	7.13	26.9	6.60	25.0	1.02	0.76	9.62	7.17	20.29	16.12
	B06	1.21	19.8	9.42	35.6	8.99	33.9	8.46	32.0	1.13	0.84	11.79	8.79	25.00	19.88
	B07	1.37	22.5	10.70	40.4	10.27	38.8	9.74	36.8	1.20	0.89	13.29	9.91	28.26	22.47
	B08	1.52	24.9	11.84	44.7	11.41	43.1	10.88	41.1	1.27	0.94	14.62	10.90	31.15	24.78
	B09	1.71	28.0	13.31	50.3	12.87	48.6	12.35	47.0	1.36	1.01	16.35	12.19	34.92	27.77
	B10	1.94	31.8	15.12	57.2	14.69	55.5	14.16	53.5	1.46	1.11	18.45	13.75	39.48	31.42
	B11 <sup>1)</sup>	2.13	34.9	16.64	62.9	16.19	61.2	15.68	59.3	1.55	1.15	20.17	15.04	43.22	32.22
	B12 <sup>1)</sup>	2.50	40.9	19.50	73.7	19.07	72.1	18.54	70.1	1.72	1.28	23.55	17.56	50.58	37.71
	B14 <sup>1)</sup>	2.75	45.1	21.40	80.8	20.95	79.2	20.44	77.0	1.83	1.36	25.80	19.23	55.48	41.37
B15 <sup>1)</sup>	3.05	50.0	23.78	89.8	23.35	88.3	22.88	86.5	1.97	1.47	28.55	21.28	57.35	42.7	

1) B11-B12-B14 = 300 bar (4350 psi) & B15 = 280 bar (4060 psi) max. int. And Max. Speed = 3000 rpm