

VTXBB 1 - B09 - B11 - 1 R 00 - D 1 00 \*

Series

Mounting

- 1 - SAE A
- 2 - SAE B

Camring for "P1" & "P2"

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

- B02 = 5.8 (0.35)
- B03 = 9.8 (0.59)
- B04 = 12.8 (0.78)
- B05 = 15.9 (0.97)
- B06 = 19.8 (1.21)
- B07 = 22.5 (1.37)
- B08 = 24.9 (1.52)
- B09 = 28.0 (1.71)
- B10 = 31.8 (1.94)
- B11 = 34.9 (2.13)
- B12 = 41.0 (2.50)
- B14 = 45.0 (2.75)

Type of Shaft

- 1 - Keyed (Non SAE)
- 3 - Splined

Direction of rotation (view on shaft end)

- R - clockwise
- L - counter-clockwise

Modifications

Port connections

CODE	S	P1 & P2
00	2" SAE 4 bolt (UNC)	SAE 12 1 1/16" 12 UNF-2B
01		3/4" SAE 4 bolt (UNC)
M0	2" SAE 4 bolt (METRIC)	3/4" SAE 4 bolt (METRIC)

Seal class

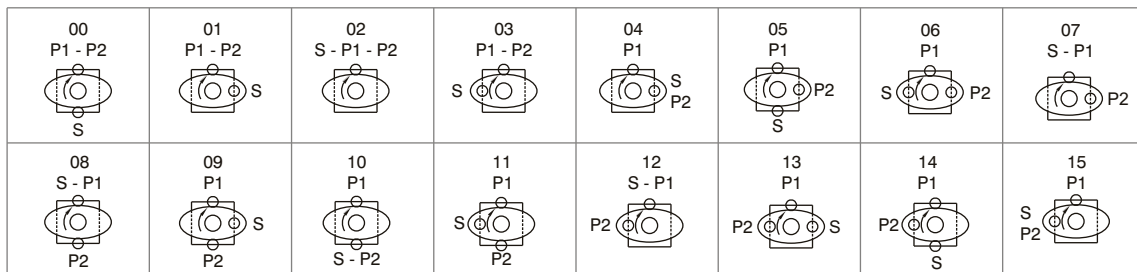
- 1 - S1 (for mineral oil)
- 4 - S4 (for fire resistant fluids)
- 5 - S5 (for mineral oil and fire resistant fluids)

Design letter

Porting combination

00 - standard

VP  
DP



S: Suction port P1 & P2 : Pressure ports

## OPERATING CHARACTERISTICS - TYPICAL (24 cST) (Input power p (KW) for one cartridge only)

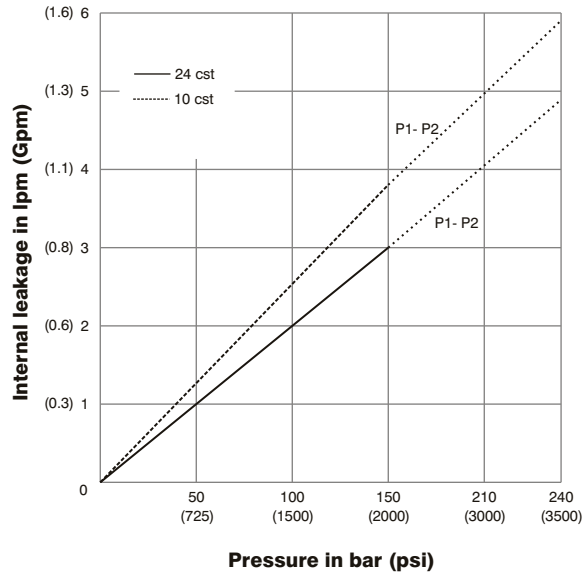
Pressure port	Series	Volumetric Displacement Vp		Flow q & n = 1500 rpm						Input power p & n = 1500 rpm					
				p = 0 bar (0 psi)		p = 140 bar (2000 psi)		p = 210 bar (3000 psi)		p = 7 bar (100 psi)		p = 140 bar (2000 psi)		p = 210 bar (3000 psi)	
		in <sup>3</sup> /rev	cm <sup>3</sup> /rev	gpm	lpm	gpm	lpm	gpm	lpm	hp	kw	hp	kw	hp	kw
P1 & P2	B02	0.35	5.8	2.30	8.7	1.4	5.9	--	--	0.53	0.4	2.81	2.1	--	--
	B03	0.59	9.8	3.88	14.7	2.9	11.9	2.7	10.5	0.67	0.5	3.62	2.7	--	--
	B04	0.78	12.8	5.08	19.2	4.33	16.4	3.97	15.0	0.93	0.7	5.23	3.9	10.06	7.5
	B05	0.97	15.9	6.31	23.8	5.55	21.0	5.18	19.6	1.00	0.75	6.64	4.9	11.2	8.3
	B06	1.21	19.8	7.85	29.7	7.12	26.9	6.66	25.2	1.07	0.8	8.05	6.0	12.34	9.2
	B07	1.37	22.5	8.92	33.7	8.17	30.9	7.80	29.5	1.20	0.9	9.05	6.7	14.02	10.4
	B08	1.52	24.9	9.89	37.4	9.15	34.6	8.78	33.2	1.34	1.0	10.05	7.5	15.69	11.7
	B09	1.71	28.0	11.11	42.0	10.37	39.2	10.00	37.8	1.47	1.1	11.94	8.9	23.60	17.6
	B10	1.94	31.8	12.61	47.7	11.87	44.9	11.51	43.5	1.6	1.2	13.0	9.7	26.0	19.6
	B11	2.13	34.9	13.85	52.3	13.09	49.5	12.72	48.1	1.7	1.3	14.0	10.5	28.0	21.0
	B12	2.50	41.0	16.27	61.5	15.53	58.7	*	*	1.8	1.4	15.02	11.2	*	*
	B14	2.75	45.0	17.86	67.5	17.12	64.7	**	**	2.1	1.6	15.42	11.5	**	**

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

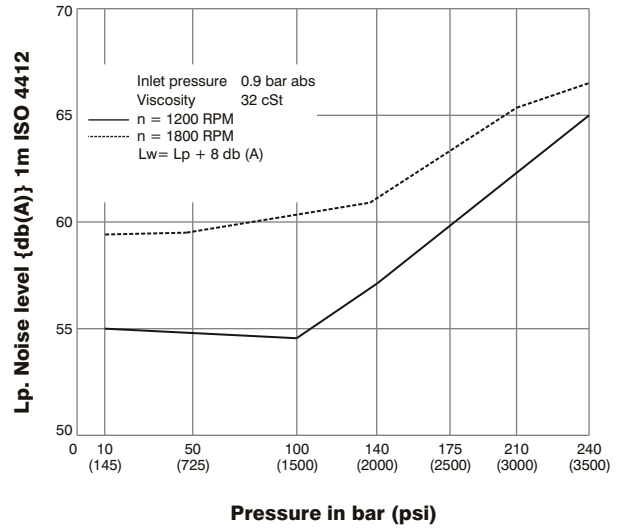
\* B12= 210 bar(3000 psi) Max.Int

\*\* B14= 175 bar(2500 psi) Max.Int

### INTERNAL LEAKAGE (TYPICAL)



### NOISE LEVEL ( TYPICAL ) VTXBB- B10-B09

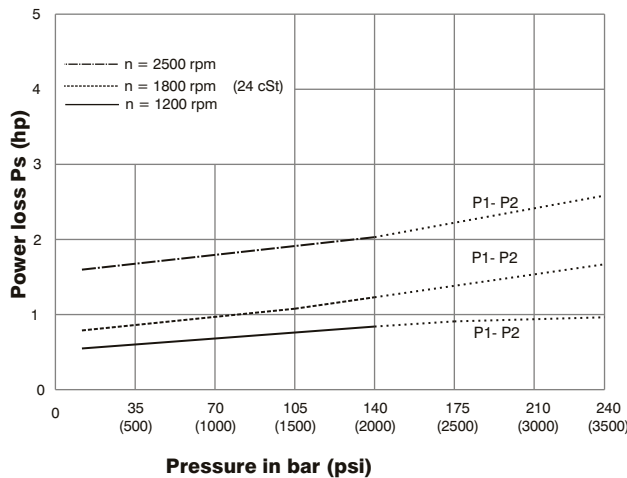


Do not operate pump more than 5 seconds at any speed or viscosity if internal leakage is more than 5% of theoretical flow. Total leakage is the sum of each section loss at its operating conditions.

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

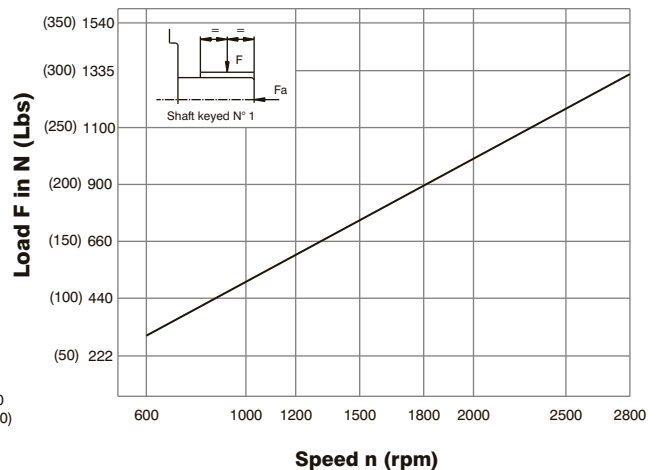
VP  
DP

### HYDROMECHANICAL POWER LOSS (TYPICAL)



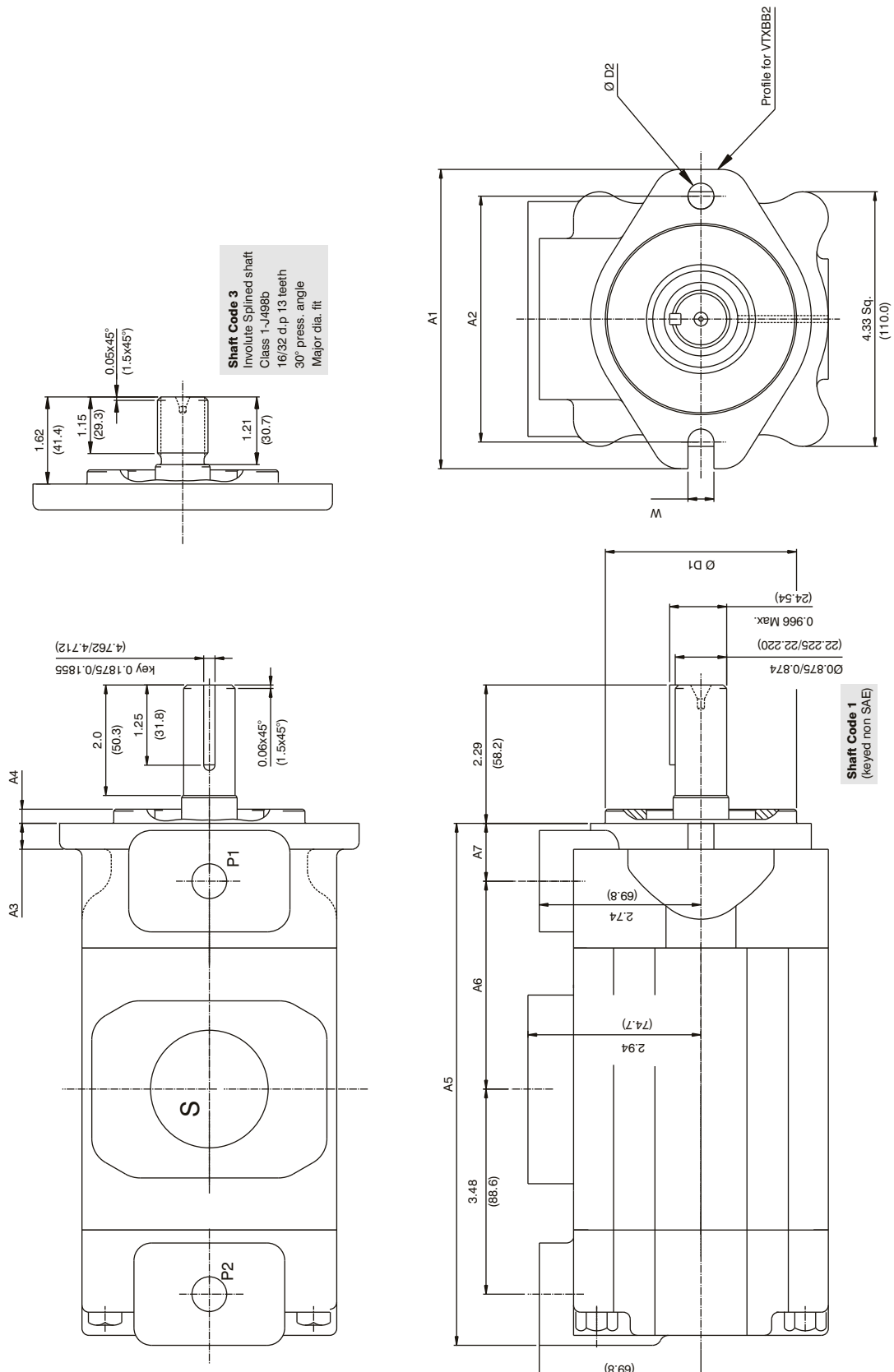
Total hydromechanical power loss is the sum of each section at its operating conditions.

### PERMISSIBLE RADIAL LOAD



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

VP  
DP

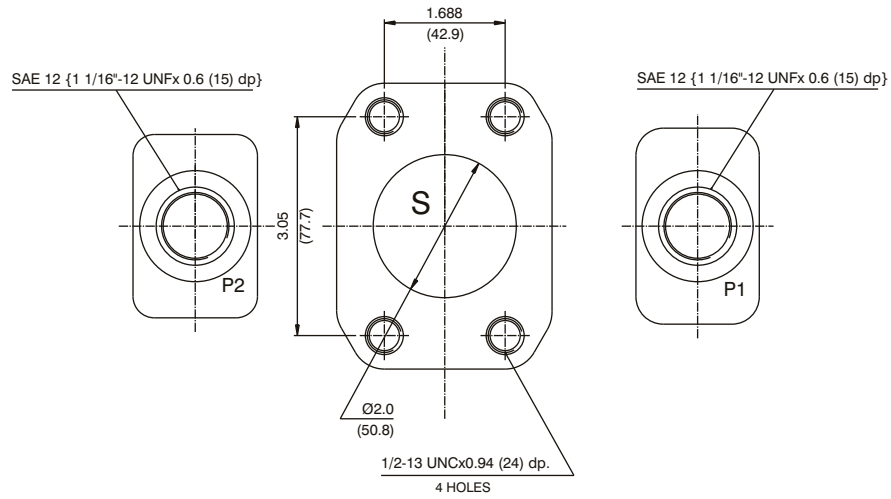


**Shaft Code 3**  
Involute Splined shaft  
Class 1-J498b  
16/32 d.p 13 teeth  
30° press. angle  
Major dia. fit

**Shaft Code 1**  
(keyed non SAE)

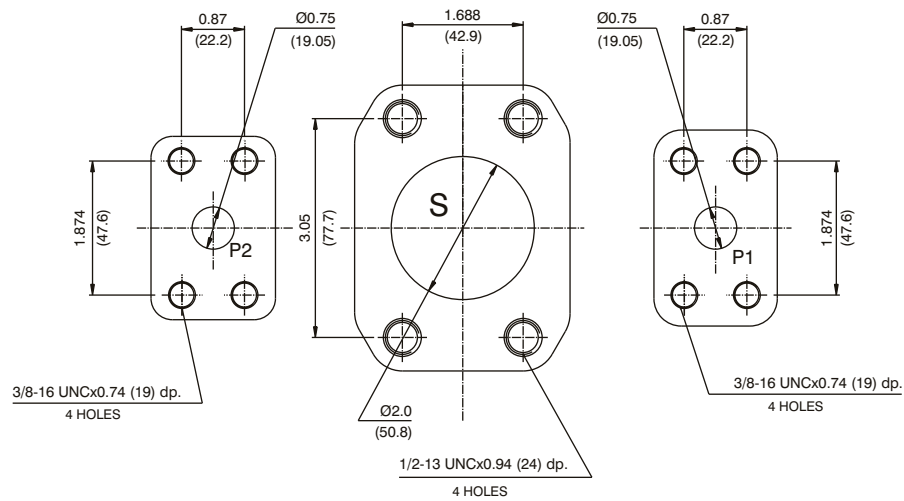
MODEL	DIMENSIONS							ØD1	W	ØD2										
	A1	A2	A3	A4	A5	A6	A7													
VTXBB1	inches 5.11	inches 4.18	inches 106.2	inches 11.2	inches 0.44	inches 11.2	inches 0.24	inches 6.1	inches 8.85	inches 225	inches 3.53	inches 89.9	inches 0.98	inches 25	inches 3.25	inches 82.50	inches 0.44	inches 11.2	inches --	
VTXBB2	inches 6.87	inches 5.74	inches 146	inches 12.7	inches 0.5	inches 12.7	inches 0.37	inches 9.4	inches 9.4	inches 8.85	inches 225	inches 3.36	inches 85.4	inches 1.22	inches 31	inches 4.00	inches 101.60	inches 101.55	inches 0.56	inches 14.3

## Port Connection : 00



VP  
DP

## Port Connection : 01



## Port Connection : M0

