

VT6BB - B09 - B11 - 1 R 00 - A 1 00 \*

Series

Cam ring for "P1" & "P2"

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

- 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

Porting combination

- 00 - standard

Modifications

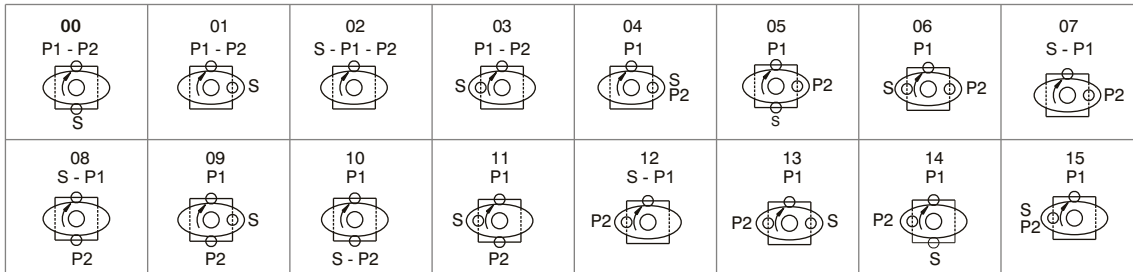
Port connections

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



S - Suction port

P - Pressure port

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

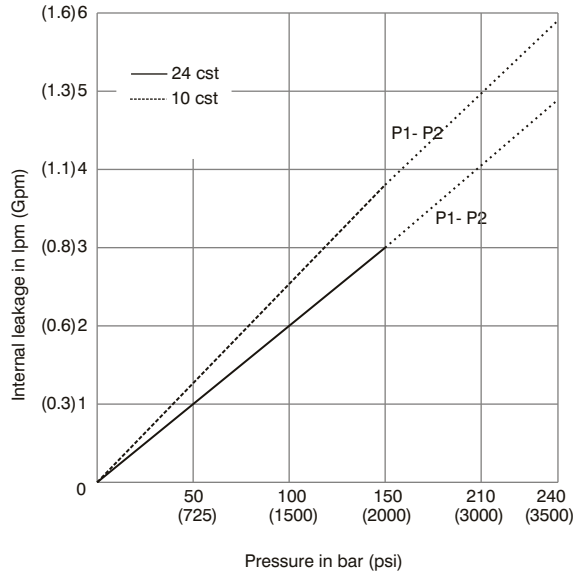
Pressure port	Series	Volumetric Displacement $V_p$		Flow $q$ & $n = 1500 \text{ rpm}$						Input power $p$ & $n = 1500 \text{ rpm}$					
		$\text{in}^3/\text{rev}$	$\text{cm}^3/\text{rev}$	$p = 0 \text{ bar (0 psi)}$		$p = 140 \text{ bar (2000 psi)}$		$p = 210 \text{ bar (3000 psi)}$		$p = 7 \text{ bar (100 psi)}$		$p = 140 \text{ bar (2000 psi)}$		$p = 210 \text{ bar (3000 psi)}$	
				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	--	--	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 = 210bar (3000psi) Max. Int

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

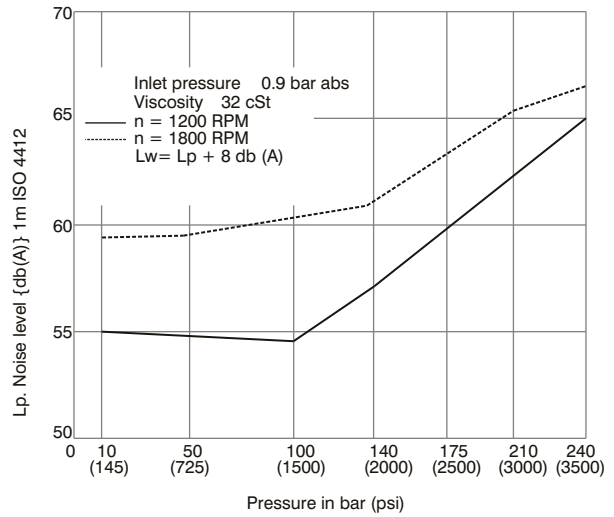
## INTERNAL LEAKAGE (TYPICAL)



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)

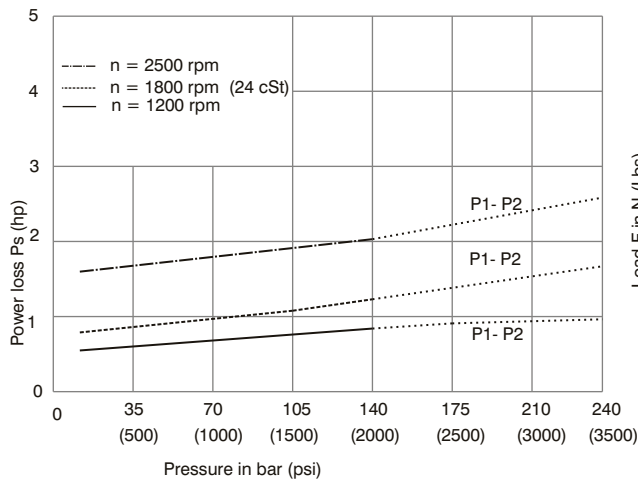
VT6BB- B10-B04



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

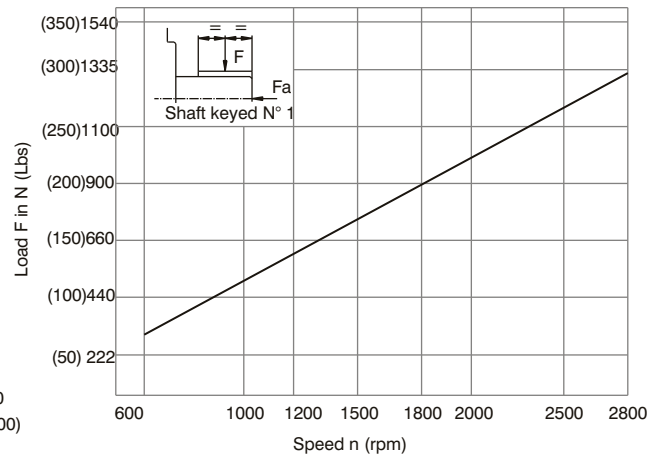


## HYDROMECHANICAL POWER LOSS (TYPICAL)



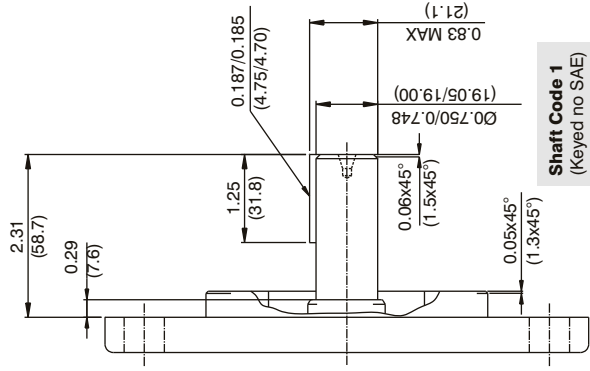
Total hydromechanical power loss is the sum of each section at its operating conditions.

## PERMISSIBLE RADIAL LOAD

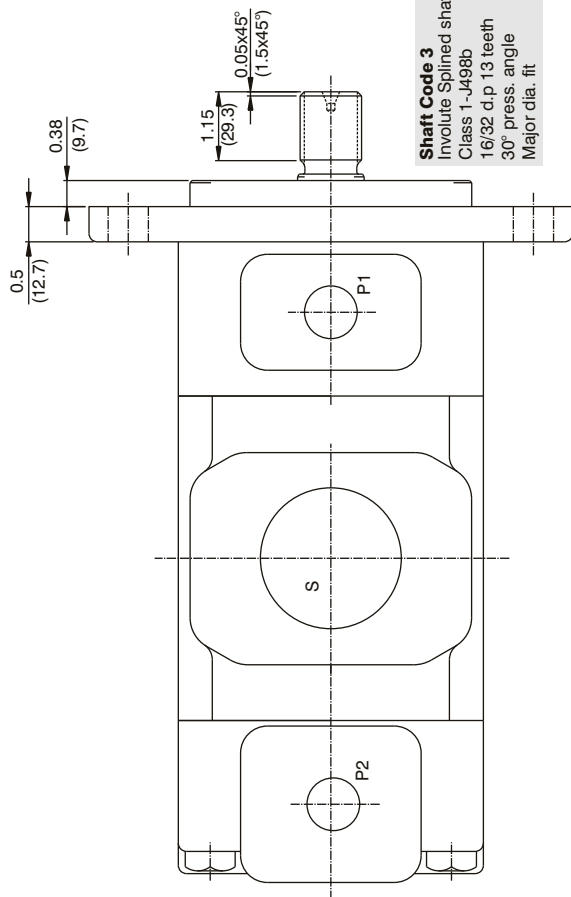
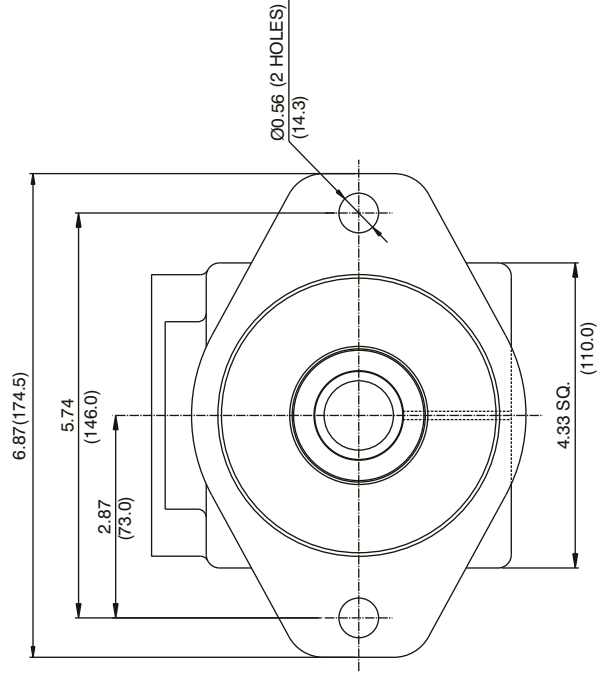


Maximum permissible axial load  $F_a = 800\text{N}$  (180 lbs)

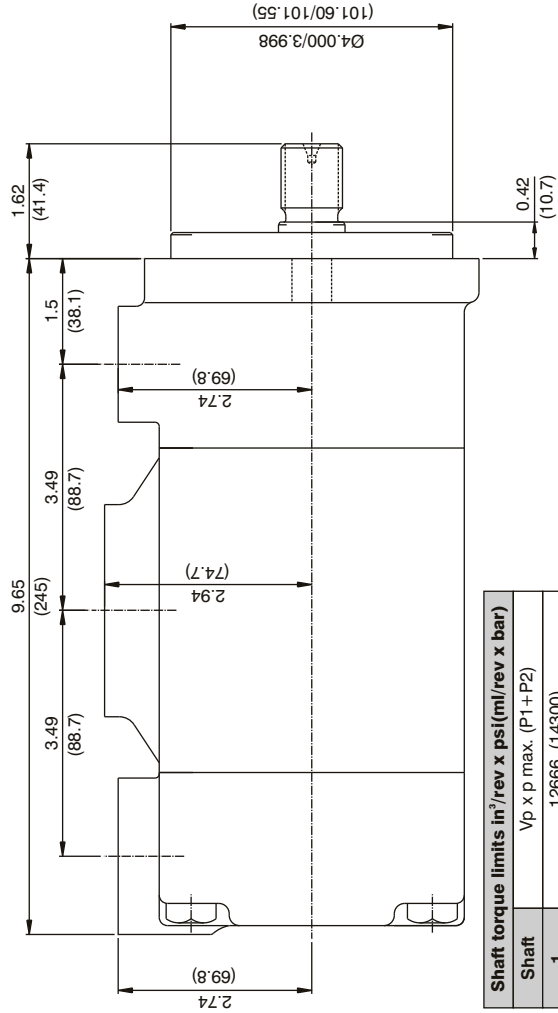
DP



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

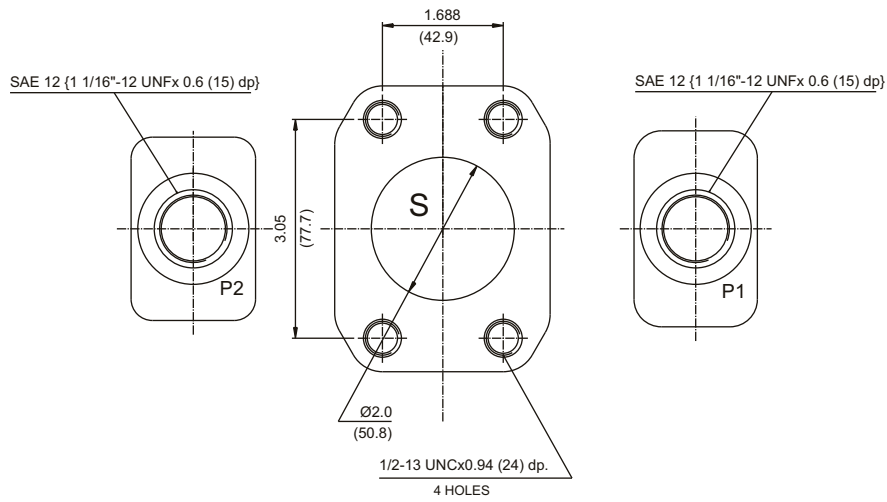


**Shaft Code 3**  
Involute Splined shaft  
Class 1 - J498b  
16/32 d.p 13 teeth  
30° press. angle  
Major dia. fit

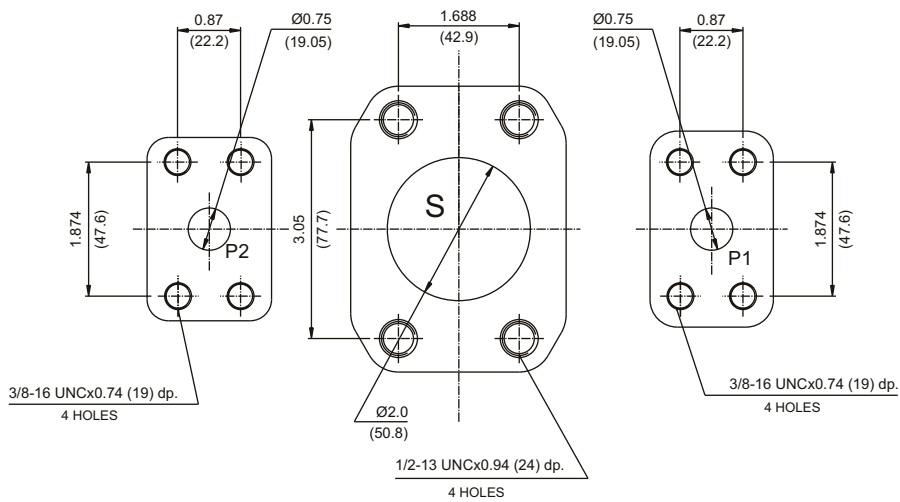


Shaft torque limits in <sup>3</sup> /rev x psi (ml/rev x bar)	
Shaft	Vp x p max. (P1 + P2)
1	12666 (14300)
3	18246 (20602)

## Port Connection : 00



## Port Connection : 01



## Port Connection : M0

