



**VT6B - B09 - 1 R 00 - D 1 02 \***

**Series**

**Cam ring**

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

- B02 = 6.5 (0.39)
- B03 = 8.8 (0.54)
- B04 = 12.8 (0.78)
- B06 = 20.7 (1.26)
- B08 = 26.1 (1.59)
- B09 = 31.5 (1.92)
- B12 = 39.7 (2.42)

**Type of Shaft**

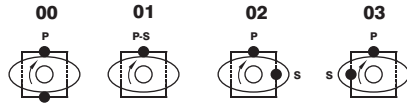
- 1 - Keyed (Non SAE)
- 2 - Keyed
- 3 - Splined (SAE A)
- 4 - Splined (SAE B)
- 5 - Splined SAE (11 teeth)
- 11 - Splined

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

- R - clockwise
- L - counter-clockwise

**Porting combination**

- 00 - standard



**S** - Suction port **P** - Pressure port

**Modifications**

**Port connections**

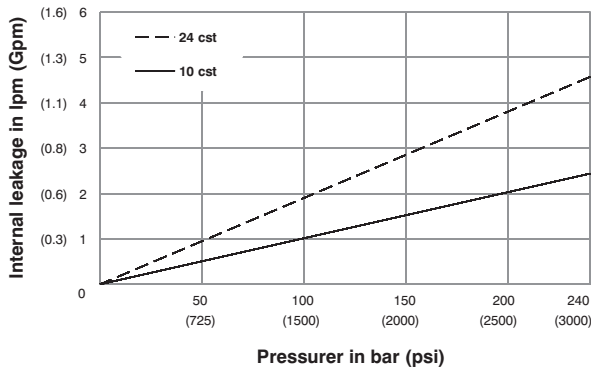
CODE	S	P
00	SAE 20 1" 5/8 12 UNF-2B	SAE 12 1" 1/16 12 UNF-2B
01	1" 1/4 SAE 4 bolt (UNC)	3/4" SAE 4 bolt (UNC)
M0	1" 1/4 SAE 4 bolt (METRIC)	3/4" SAE 4 bolt (METRIC)
02	1" 1/4 BSP	3/4" BSP
03	1" 1/4 NPTF	SAE 12 1" 1/16 12 UNF-2B
0X	1" 1/4 NPTF	3/4" NPTF

**Seal class**

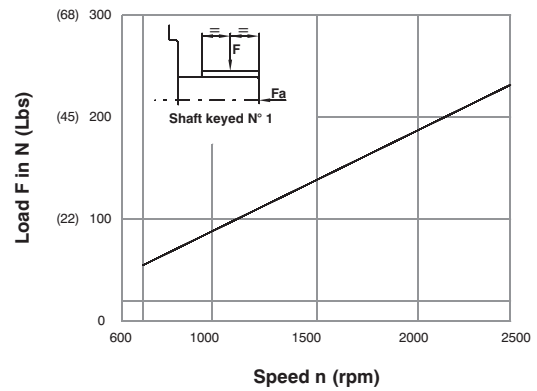
- 1 - S1 (for mineral oil)
- 4 - S4 (for fire resistant fluids)
- 5 - S5 (for mineral oil and fire resistant fluids)

**Design letter**

**INTERNAL LEAKAGE (TYPICAL)**



**PERMISSIBLE RADIAL LOAD**

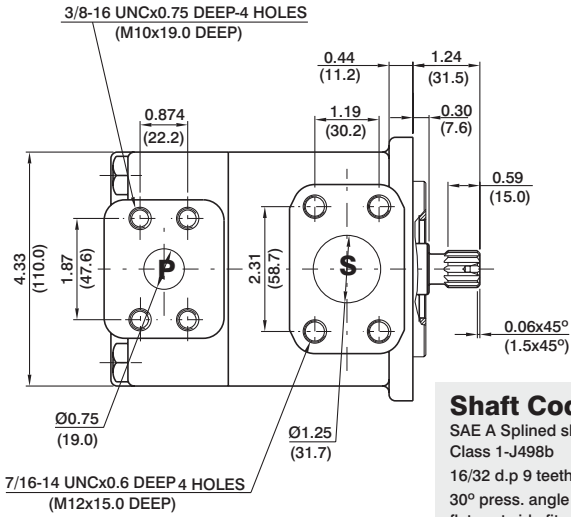


Maximum axial load permissible  $F_a = 500 \text{ N}$  (113 Lbs)

**OPERATING CHARACTERISTICS (24 cSt)**

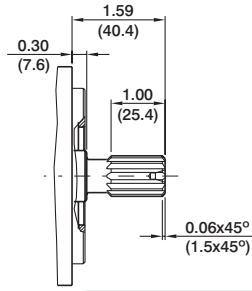
Pressure port	Series	Volumetric Displacement $V_p$		Flow $q$ & $n = 1500 \text{ rpm}$						Input power $p$ & $n = 1500 \text{ rpm}$					
		$\text{in}^3/\text{rev}$	$\text{cm}^3/\text{rev}$	$p = 0 \text{ bar}$ (0 psi)		$p = 100 \text{ bar}$ (1500 psi)		$p = 240 \text{ bar}$ (3000 psi)		$p = 7 \text{ bar}$ (100 psi)		$p = 100 \text{ bar}$ (1500 psi)		$p = 240 \text{ bar}$ (3000 psi)	
		gpm	lpm	gpm	lpm	gpm	lpm	gpm	lpm	hp	kw	hp	kw	hp	kw
VT6B	B02	0.39	6.5	2.64	10.0	2.11	8.0	-	-	0.53	0.4	2.81	2.1	-	-
	B03	0.54	8.8	3.49	13.2	2.96	11.2	2.43	9.2	0.67	0.5	3.62	2.7	7.11	5.3
	B04	0.78	12.8	5.08	19.2	4.55	17.2	4.02	15.2	0.93	0.7	5.23	3.9	10.06	7.5
	B06	1.26	20.7	8.20	31.0	7.67	29.0	7.14	27.0	1.07	0.8	8.05	6.0	12.34	9.2
	B08	1.59	26.1	10.34	39.1	9.78	37.0	9.25	35.0	1.34	1.0	10.05	7.5	15.69	11.7
	B09	1.92	31.5	12.48	47.2	11.93	45.1	11.42	43.2	1.47	1.1	11.94	8.9	23.60	17.6
	B12	2.42	39.7	15.74	59.5	15.18	57.4	14.68	55.5	1.74	1.3	15.02	11.2	29.50	22.0

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



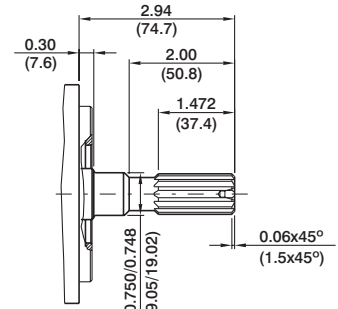
### Shaft Code 3

SAE A Splined shaft  
Class 1-J498b  
16/32 d.p 9 teeth  
30° press. angle  
flat root side fit



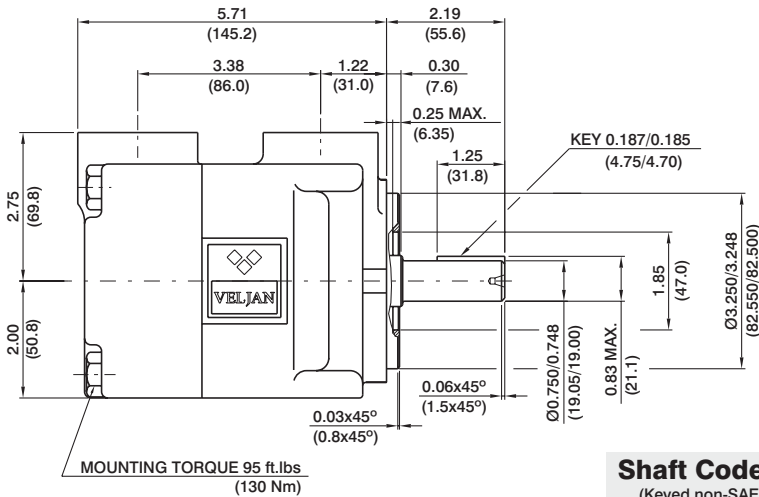
### Shaft Code 4

SAE B Splined shaft  
Class 1-J498b  
16/32 d.p 13 teeth  
30° press. angle  
flat root side fit



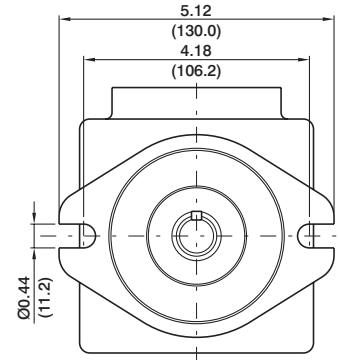
### Shaft Code 11

Splined shaft  
Class 1-J498b  
16/32 d.p 11 teeth  
30° press. angle  
flat root side fit

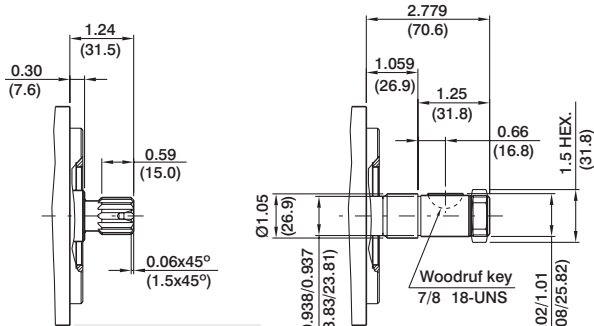


### Shaft Code 1

(Keyed non-SAE)



Shaft torque limits in <sup>3</sup> /revxpsi(ml/revxbar)	
Shaft	Vp x p max.
3	5119 (5780)
4	18246 (20600)



### Shaft Code 5

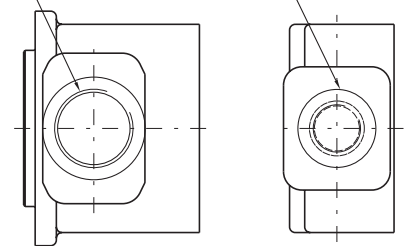
SAE Splined shaft  
Class 1-J498b  
16/32 d.p 11 teeth  
30° press. angle  
flat root side fit

### Shaft Code 2

Woodruff key  
Recommended  
nut Torque  
125 ft.lbs (170 Nm)

SAE 20(1 5/8"-12 UNF)

SAE 12(1 1/16"-12 UNF)



### PORT CONNECTION 00

1 1/4" BSPx1.0 DEEP (25.4)

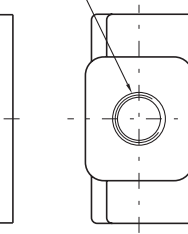
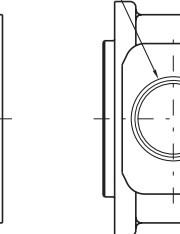
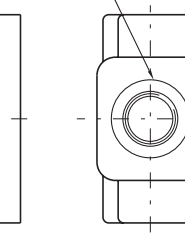
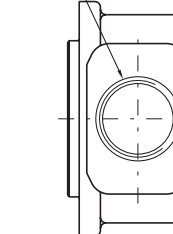
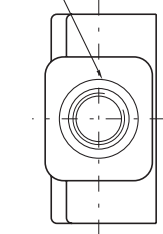
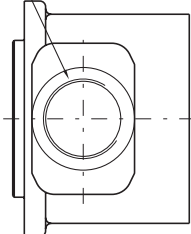
3/4" BSPx0.75 DEEP (19.0)

1 1/4" NPTFx1.0 DEEP (25.4)

SAE 12(1 1/16"-12 UNF)

1 1/4" NPTFx1.0 DEEP (25.4)

3/4" NPTFx0.75 DEEP (19.0)



PORT CONNECTION 02

PORT CONNECTION 03

PORT CONNECTION 0X