

VT6CC \* W - B22 - B08 - 1 R 00 - D 1 - 00 \*

**Series**

- M = Mobile
- P = Mobile with double shaft seal

Use for severe duty shaft only

**Cam ring for "P1" & "P2"**

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

*B03/R03 = 10.8 (0.66)	B15/R15 = 50.5 (3.08)
B05/R05 = 17.2 (1.05)	B17/R17 = 58.3 (3.56)
B06/R06 = 21.3 (1.30)	B20/R20 = 63.8 (3.89)
B08/R08 = 26.4 (1.61)	B22/R22 = 70.3 (4.29)
B10/R10 = 34.1 (2.08)	B25/R25 = 79.3 (4.84)
B12/R12 = 37.1 (2.26)	B28/R28 = 88.8 (5.42)
B14/R14 = 46.0 (2.81)	B31/R31 = 100.0 (6.10)

\*B' - for Mobile 'R' - for Mobile - spring assisted

**Type of shaft**

M version	MW version	P version
1 - keyed (no SAE)	2 - keyed (SAE BB)	3 - splined (no SAE)
3 - splined (SAE BB)	R - keyed special	4 - splined (SAE BB)
5 - splined (SAE B)	X - keyed special	6 - splined (no SAE)
	W - keyed special	
	V - keyed special	
	T - splined (SAE J718c)	
	S - splined (DIN5462)	
	Q - splined (SAE C)	

**Modifications**

**Mounting W/connection variables**

		P1=1"-S=3"		P1=1"-S=2 1/2"(2)	
P2		1"	3/4"(1)	1"	3/4"(1)
code	Unc	00	01	10	11
	Metric	0M	W0	1M	W1

- 1) for 46 ml/rev max.
  - 2) for 126 ml/rev max.
- The large cartridge must be always mounted in the front.

**Seal class**

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

**Design letter**

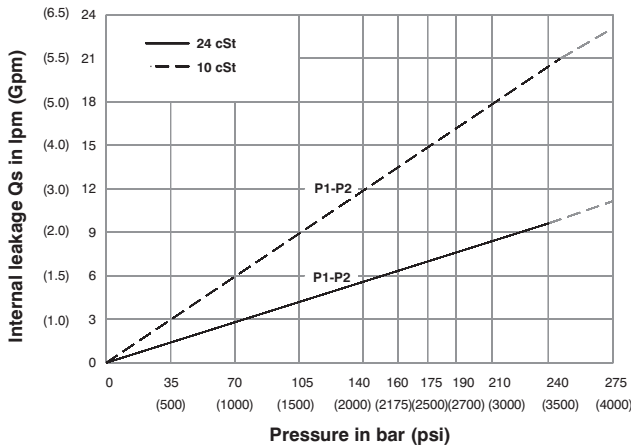
**Porting combination (see page BM-1-5)**

00 - standard

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

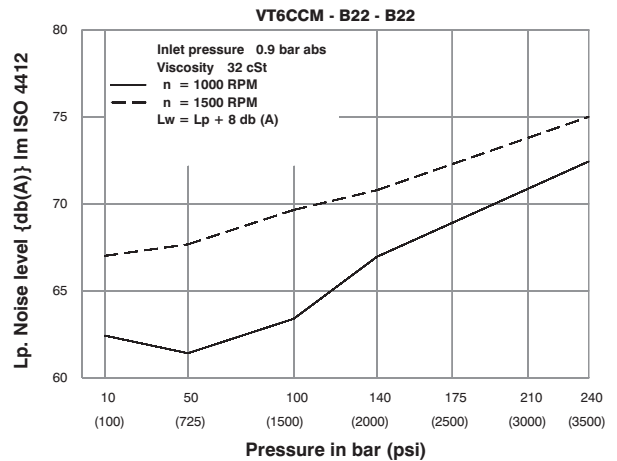
- R - clockwise
- L - counter-clockwise

**INTERNAL LEAKAGE (TYPICAL)**



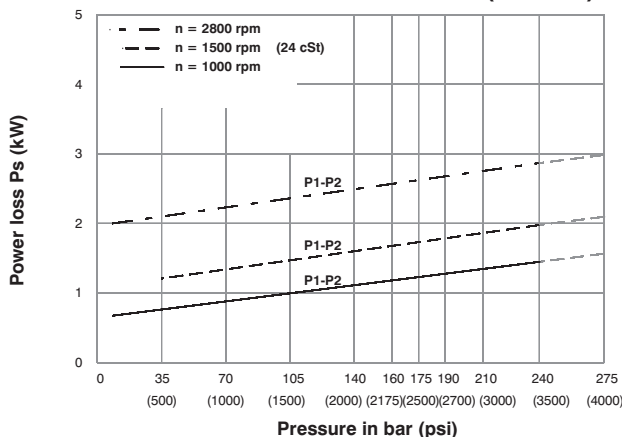
Do not operate pump more than 5 seconds at any speed or viscosity if internal leakage is more than 50% of theoretical flow. Total leakage is the sum of each section loss at its operating conditions.

**NOISE LEVEL (TYPICAL)**



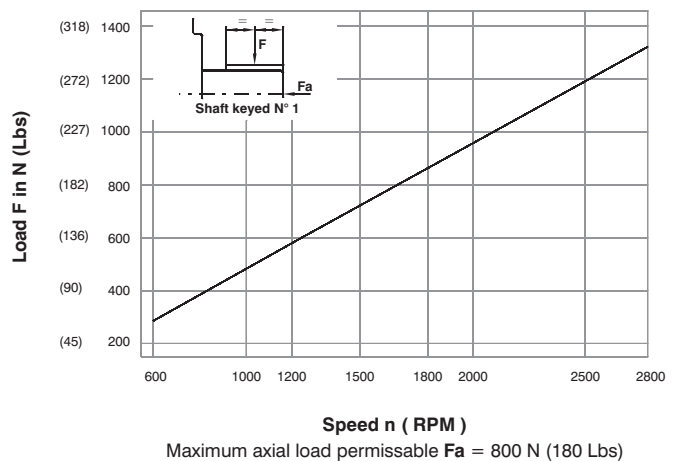
Double pump noise level is given with each section discharging at the pressure noted on the curve.

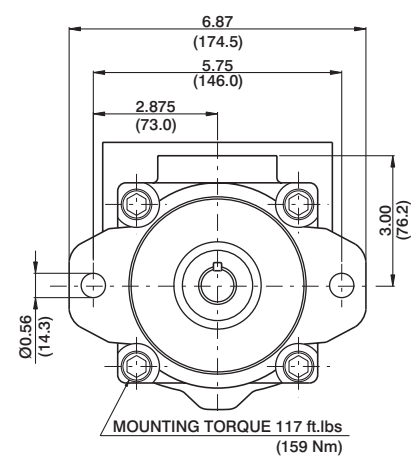
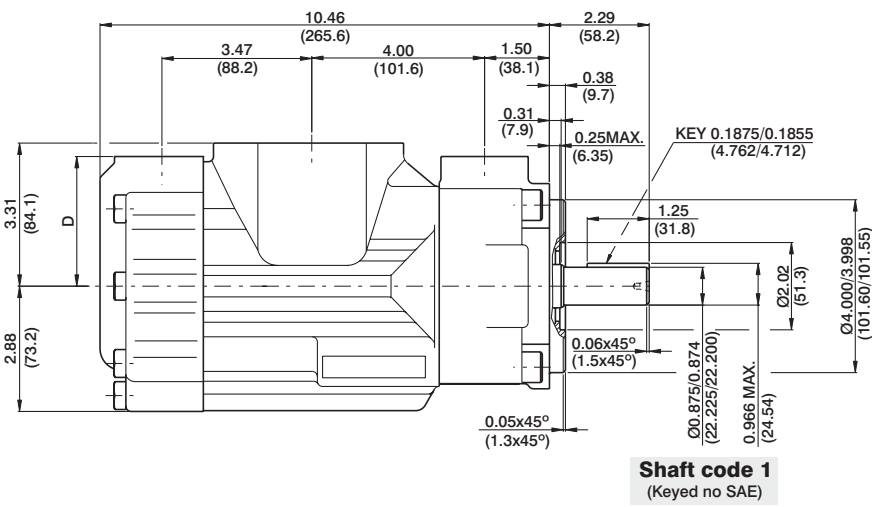
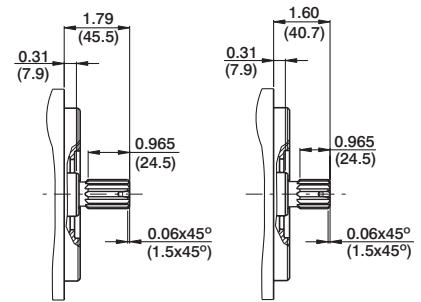
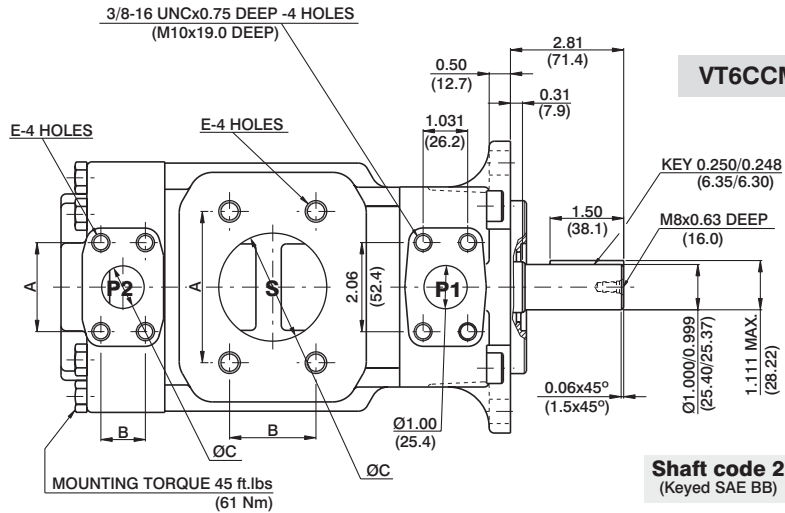
**HYDROMECHANICAL POWER LOSS (TYPICAL)**



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

**PERMISSIBLE RADIAL LOAD**





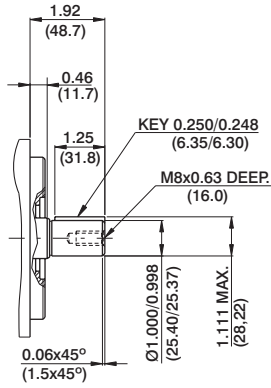
PORT	A	B	C	D	E
S	4.19 (106.4)	2.44 (61.9)	3.00 (76.2)		5/8-11UNCx1.12 DEEP (M16 x 28.4 DEEP)
S	3.50 (88.9)	2.00 (50.8)	2.50 (63.5)		1/2-13UNCx0.94 DEEP (M12 x 24.0 DEEP)
P2	1.874 (47.6)	0.874 (22.2)	0.75 (19.0)	3.00 (76.2)	3/8-16UNCx0.75 DEEP (M10x19.0 DEEP)
P2	2.06 (52.4)	1.03 (26.2)	1.00 (25.4)	2.94 (74.7)	

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)

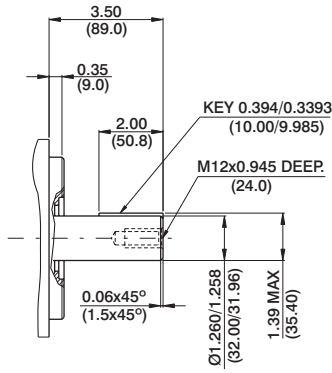
## OPERATING CHARACTERISTICS - TYPICAL (24 cST) (Input power p (KW) for one cartridge only)

Pressure port	Series	Volumetric Displacement Vp		Flow q & n = 1500 rpm						Input power p & n = 1500 rpm					
		in <sup>3</sup> /rev	cm <sup>3</sup> /rev	p = 0 bar (0 psi)		p = 140 bar (2000 psi)		p = 240 bar (3500 psi)		p = 7 bar (100 psi)		p = 140 bar (2000 psi)		p = 240 bar (3500 psi)	
				gpm	lpm	gpm	lpm	gpm	lpm	hp	kw	hp	kw	hp	kw
P1 & P2	B03	0.66	10.8	4.29	16.2	2.83	10.7	--	--	1.74	1.3	7.11	5.3	--	--
	B05	1.05	17.2	6.83	25.8	5.37	20.3	4.17	15.8	1.88	1.4	10.06	7.5	16.36	12.2
	B06	1.30	21.3	8.44	31.9	7.01	26.5	5.82	22.0	2.01	1.5	11.94	8.9	19.71	14.7
	B08	1.61	26.4	10.48	39.6	9.02	34.1	7.83	29.6	2.15	1.6	14.35	10.7	22.93	17.7
	B10	2.08	34.1	13.52	51.1	12.08	45.7	10.89	41.2	2.28	1.7	18.64	13.4	29.90	22.3
	B12	2.26	37.1	14.71	55.6	13.28	50.2	12.08	45.7	2.28	1.7	19.31	14.4	32.32	24.1
	B14	2.81	46.0	18.25	69.0	16.79	63.5	15.60	59.0	2.55	1.9	23.60	17.6	39.56	29.5
	B15	3.08	50.5	20.00	75.6	18.62	70.4	17.46	66.0	2.68	2.0	25.61	19.1	42.91	32.0
	B17	3.56	58.3	23.12	87.4	21.69	82.0	20.50	77.5	2.82	2.1	29.37	21.9	49.48	36.9
	B20	3.89	63.8	25.32	95.7	23.86	90.2	22.67	85.7	2.95	2.2	31.92	23.8	53.91	40.2
	B22	4.29	70.3	27.88	105.4	26.45	100.0	25.26	95.5	3.08	2.3	35.00	26.1	59.14	44.1
	B25 <sup>1)</sup>	4.84	79.3	31.46	118.9	30.02	113.5	28.83	109.0	3.35	2.5	39.16	29.2	66.38	49.5
	B28 <sup>1)</sup>	5.42	88.8	35.24	133.2	33.78	127.7	32.93 <sup>2)</sup>	124.5 <sup>2)</sup>	3.75	2.8	43.85	32.7	65.04 <sup>2)</sup>	48.5 <sup>2)</sup>
	B31 <sup>1)</sup>	6.10	100.0	39.68	150.0	38.22	144.5	37.38 <sup>2)</sup>	141.3 <sup>2)</sup>	3.75	2.8	48.95	36.5	72.95 <sup>2)</sup>	54.4 <sup>2)</sup>

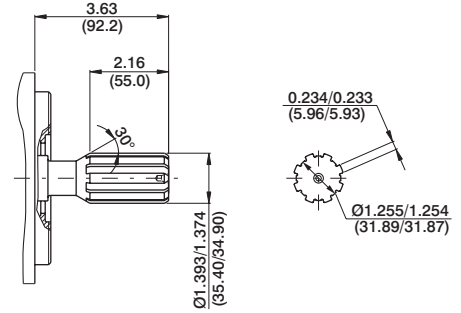
1) B25-B28-B31 = 2500 R.P.M. max.      2) B28-B31 = 210 bar (3000 psi) max. int.      -- Not to use because internal leakage greater than 50% theoretical flow.



**Shaft code R**

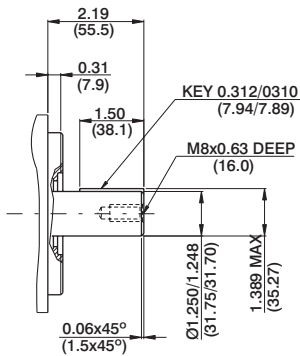


**Shaft code V**

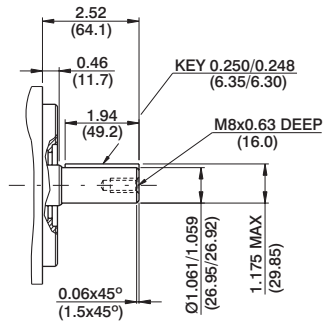


**Shaft code S**

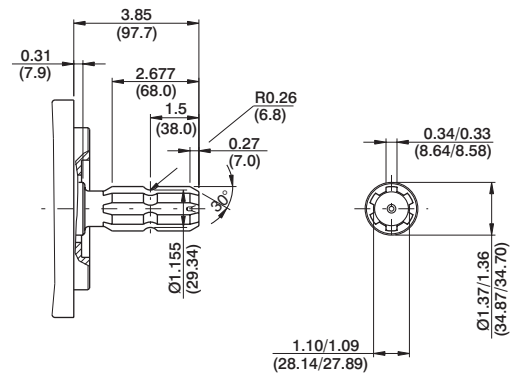
DIN 5462  
B8x32x36



**Shaft code W**

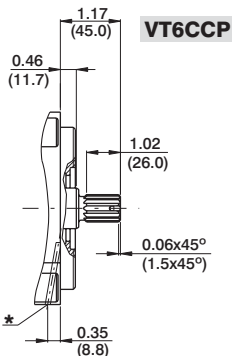


**Shaft code X**

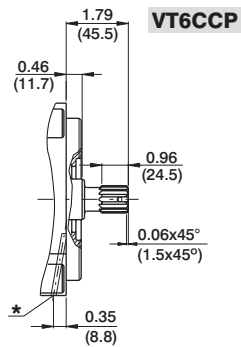


**Shaft code T**

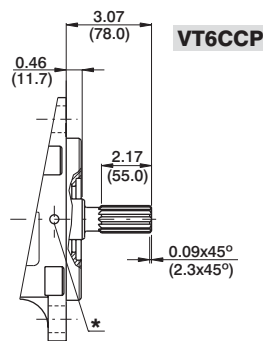
SAE J718C  
540 rpm power take-off  
For Farm Tractor application



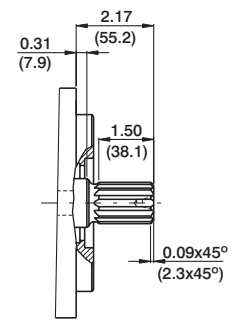
**Shaft code 3**  
no SAE splined shaft  
Class 1-J498b  
16/32 dp. 13 teeth  
30° pressure angle  
Flat root side fit



**Shaft code 4**  
SAE BB splined shaft  
Class 1-J498b  
16/32 dp. 15 teeth  
30° pressure angle  
Flat root side fit



**Shaft code 6**  
non SAE splined shaft  
Class 1-J498b  
12/24 dp. 14 teeth  
30° pressure angle  
Flat root side fit



**Shaft code Q**  
SAE C splined shaft  
Class 1-J498b  
12/24 Dp. 14 Teeth  
30° Pressure angle  
Flat root side fit

\*Drain hole between double Shaft seals

Shaft torque limits in <sup>3</sup> /rev x psi (ml/rev x bar)		
	Shaft	Vp x p max. (P1+P2)
VT6CCMW	R	16032 (18100)
	V	28937 (32670)
	W	28937 (32670)
	X	22500 (25400)

Shaft torque limits in <sup>3</sup> /rev x psi (ml/rev x bar)		
	Shaft	Vp x p max. (P1+P2)
VT6CCP	3	18246 (20600)
	4	28937 (32670)
	6	28937 (32670)