

**VT6CR \* - 022 - 1 R 00 - A 1 0 - A 1 \***

**Series**

**Y** - Metric port connection, Omit for UNC

**Cam ring for**

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

*003/B03/Y03 = 10.8 (0.66)	015/B15/Y15 = 50.5 (3.08)
005/B05/Y05 = 17.2 (1.05)	017/B17/Y17 = 58.3 (3.56)
006/B06/Y06 = 21.3 (1.30)	020/B20/Y20 = 63.8 (3.89)
008/B08/Y08 = 26.4 (1.61)	022/B22/Y22 = 70.3 (4.29)
010/B10/Y10 = 34.1 (2.08)	025/B25/Y25 = 79.3 (4.84)
012/B12/Y12 = 37.1 (2.26)	028/B28/Y28 = 88.8 (5.42)
014/B14/Y14 = 46.0 (2.81)	031/B31/Y31 = 100.0 (6.10)

\*'0' - Uni - directional 'B' - Bi - directional 'Y' - Bi - directional for cold start

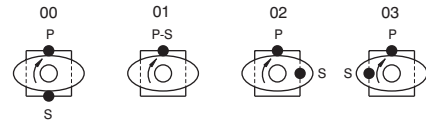
**Type of Shaft**

- 1 - Keyed (SAE BB)
- 2 - Keyed (no SAE)
- 3 - Splined (SAE B)
- 4 - Splined (SAE BB)
- 5 - Keyed (no SAE)

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

- R - Clockwise
- L - Counter - clockwise

**Porting combination**



**Modifications**

**Seal class**

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

**Design letter**

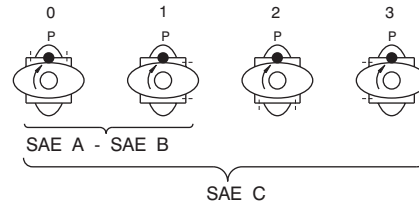
**Porting adapter**

**Coupling**

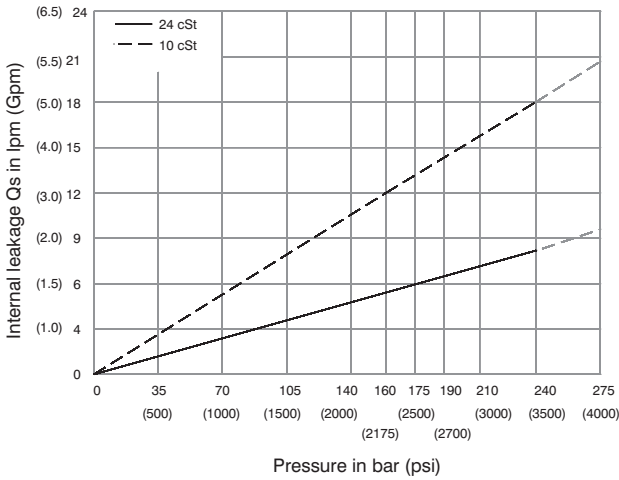
- 1 - SAE A
- 2 - SAE B
- 3 - SAE BB
- 4 - SAE C
- 5 - SAE J498b
- 16/32-11 teeth

**Adapter**

- 0 - None
- A - SAE A
- B - SAE B
- C - SAE C

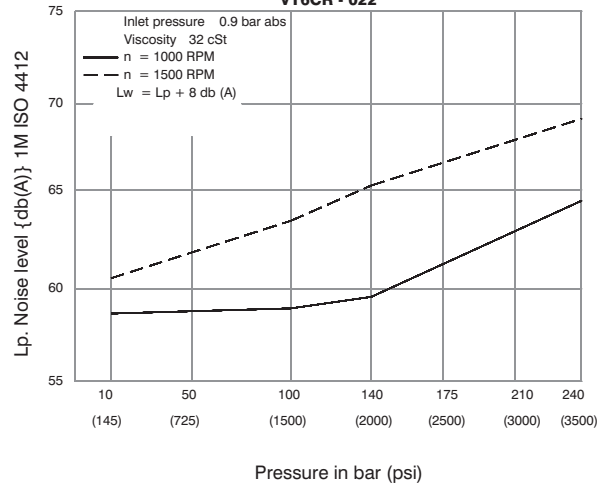


**INTERNAL LEAKAGE (TYPICAL)**

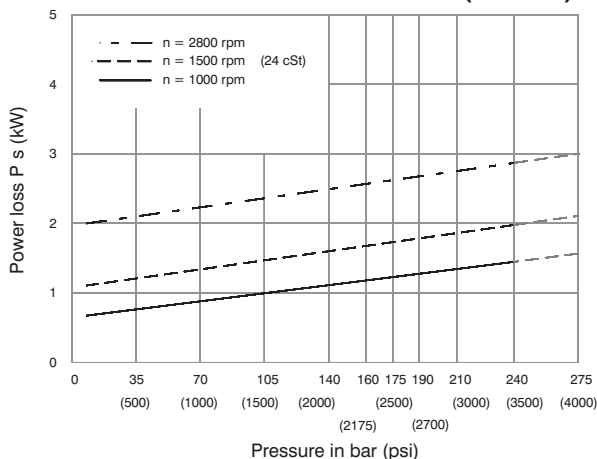


Do not operate pump more than 5 seconds at any speed or viscosity if internal leakage is more than 50% of theoretical flow.

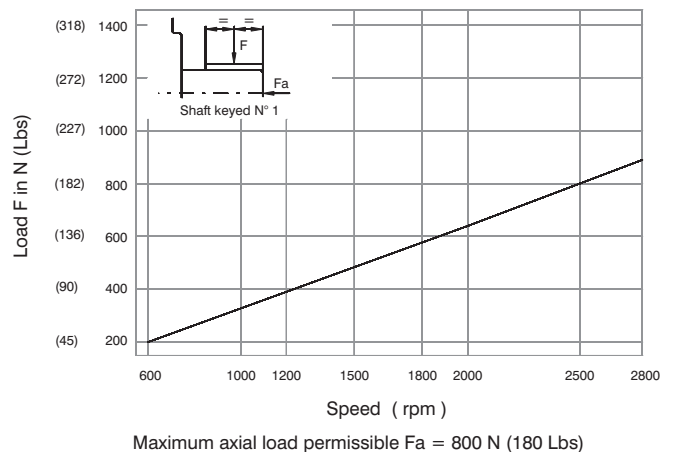
**NOISE LEVEL (TYPICAL)**



**HYDROMECHANICAL POWER LOSS (TYPICAL)**

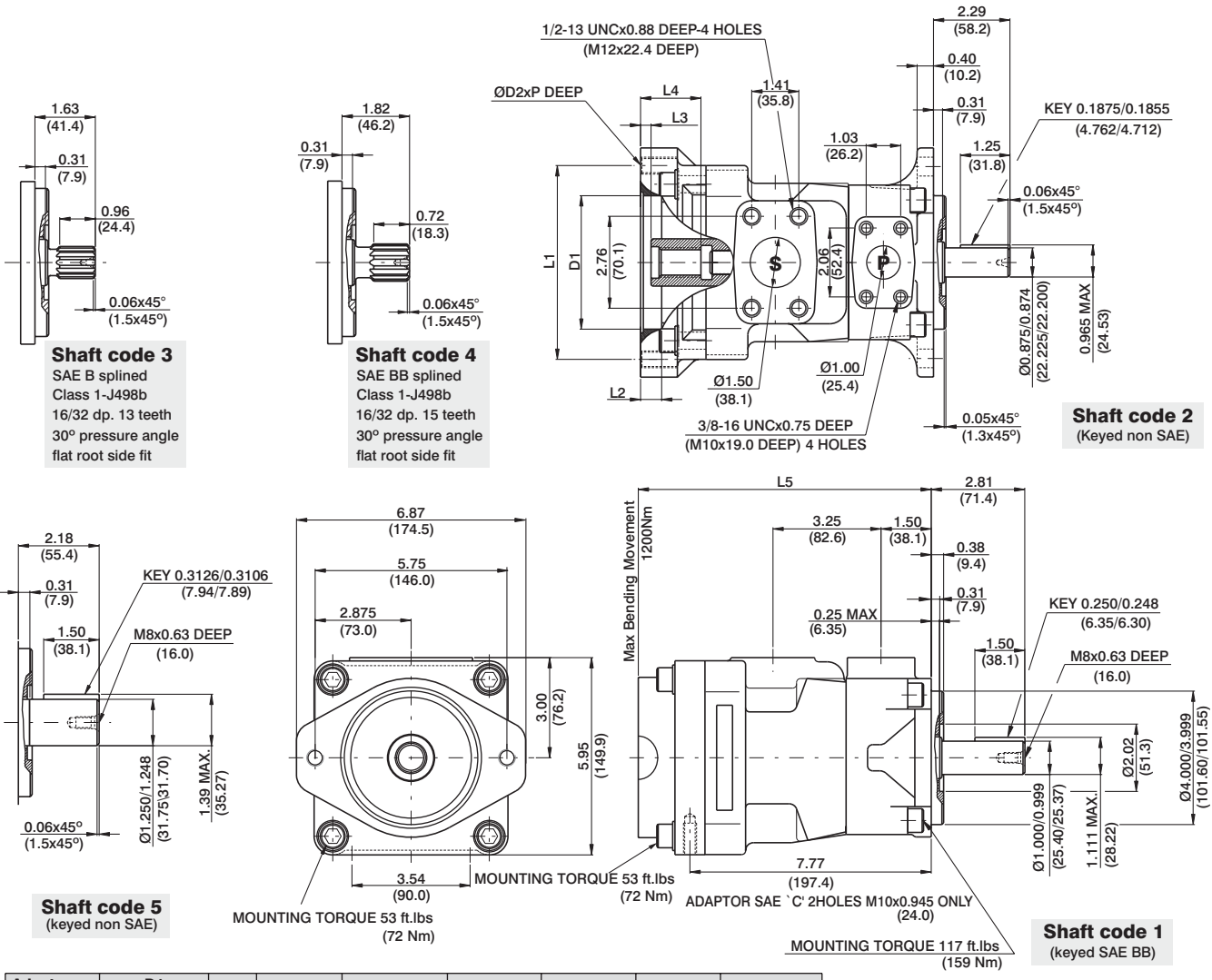


**PERMISSIBLE RADIAL LOAD**



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





Adaptor	D1	D2	P	L1	L2	L3	L4	L5
SAE "A"	3.25 (82.60)	M10	0.94 (24)	4.19 (106.4)	0.43 (11)	0.31 (7.9)	1.26 (32)	8.23 (209)
SAE "B"	4.00 (101.65)	M12	1.10 (28)	5.75 (146.0)	0.63 (16)	0.31 (7.9)	1.81 (46)	8.78 (223)
SAE "C"	5.00 (127.10)	M16	-	7.12 (181.0)	0.63 (16)	0.31 (7.9)	2.20 (56)	9.17 (233)

Adaptor	SAE "A"			SAE "B"		SAE "C"
Coupling drive	SAE A	SAE (11teeth)	SAE B	SAE B	SAE BB	SAE C
Number of teeth	9	11	13	13	15	14
Pitch	16/32	16/32	16/32	16/32	16/32	12/24
Pressure angle	30°	30°	30°	30°	30°	30°
Major dia. (min)	0.625 (15.875)	0.750 (19.05)	0.875 (22.225)	0.875 (22.225)	1.00 (25.40)	1.250 (31.75)
Minor dia. (min)	0.500 (12.70)	0.630 (16.00)	0.753 (19.125)	0.753 (19.125)	0.877 (22.275)	1.086 (27.585)

Shaft torque limits in <sup>3</sup> /rev x psi (ml/rev x bar)			
Shaft	V x P max.	Coupling drive	V x P max.
1	18972 (21420)	SAE"A"	9743 (11000)
2	12666 (14300)	SAE"B"	18246 (20600)
3	18246 (20600)	SAE"BB"	19530 (22050)
4	28937 (32670)	SAE"C"	19530 (22050)
5	30274 (34180)	SAE"11teeth"	14039 (15850)

## OPERATING CHARACTERISTICS - TYPICAL (24 cST)

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 = 240 bar (3500 psi)		p = 7 bar (100 psi)		p = 140 bar (2000 psi)		p = 240 bar (3500 psi)			
		in <sup>3</sup> /rev	cm <sup>3</sup> /rev	gpm	lpm	gpm	lpm	gpm	lpm	hp	kw	hp	kw	hp	kw
VT6CR	003	0.66	10.8	4.29	16.2	2.96	11.2	2.04	7.7	1.74	1.3	7.11	5.3	11.26	8.4
	005	1.05	17.2	6.83	25.8	5.50	20.8	4.57	17.3	1.88	1.4	10.06	7.5	16.36	12.2
	006	1.30	21.3	8.44	31.9	7.11	26.9	6.19	23.4	2.01	1.5	11.94	8.9	19.71	14.7
	008	1.61	26.4	10.48	39.6	9.15	34.6	8.22	31.1	2.15	1.6	14.35	10.7	22.93	17.7
	010	2.08	34.1	13.52	51.1	12.19	46.1	11.26	42.6	2.28	1.7	18.64	13.4	29.90	22.3
	012	2.26	37.1	14.71	55.6	13.36	50.6	12.46	47.1	2.28	1.7	19.31	14.4	32.32	24.1
	014	2.81	46.0	18.25	69.0	16.93	64.0	16.00	60.5	2.55	1.9	23.60	17.6	39.56	29.5
	015	3.08	50.5	20.00	75.6	18.73	73.2	19.02	67.5	2.68	2.0	25.61	19.1	42.91	32.0
	017	3.56	58.3	23.12	87.4	21.79	82.4	20.87	78.9	2.82	2.1	29.37	21.9	49.48	36.9
	020	3.89	63.8	25.32	95.7	23.99	90.7	23.07	87.2	2.95	2.2	31.92	23.8	53.91	40.2
	022	4.29	70.3	27.88	105.4	26.56	100.4	25.63	96.9	3.08	2.3	35.00	26.1	59.14	44.1
	025 <sup>1)</sup>	4.84	79.3	31.46	118.9	30.13	113.9	29.21	110.4	3.35	2.5	39.16	29.2	66.38	49.5
	028 <sup>1)</sup>	5.42	88.8	35.24	133.2	33.92	128.2	33.28 <sup>2)</sup>	125.8 <sup>2)</sup>	3.75	2.8	43.85	32.7	65.04 <sup>2)</sup>	48.5 <sup>2)</sup>
031 <sup>1)</sup>	6.10	100.0	39.68	150.0	38.35	145.0	37.72 <sup>2)</sup>	142.6 <sup>2)</sup>	3.75	2.8	48.95	36.5	72.95 <sup>2)</sup>	54.4 <sup>2)</sup>	

1) 025-028-031 = 2500 RPM. max.

2) 028-031 = 210 bar (3000 psi) max. int.