

**Series** VT6CM \* - B22 - 1 R 00 - C 1 \*

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

**Cam ring**

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

|                         |                        |
|-------------------------|------------------------|
| * 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**

1 - keyed (SAE B)  
2 - keyed (no SAE)  
3 - splined (SAE B)  
4 - splined (SAE BB)

## Modifications

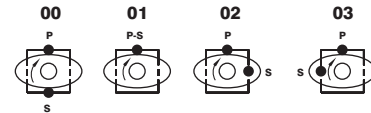
### Seal class

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

## Design letter

### Porting combination

00 - standard



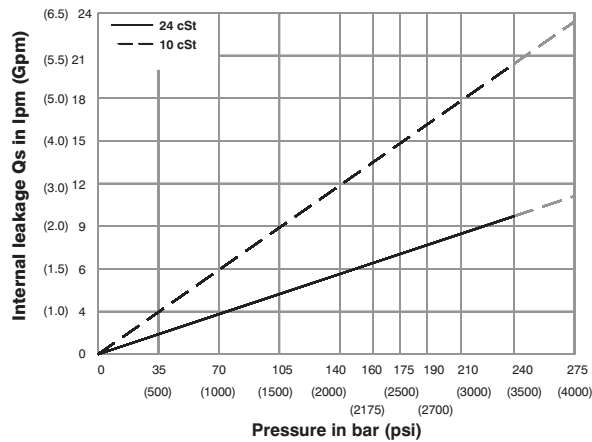
S - Suction port P - Pressure port

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

- R - clockwise
- L - counter-clockwise

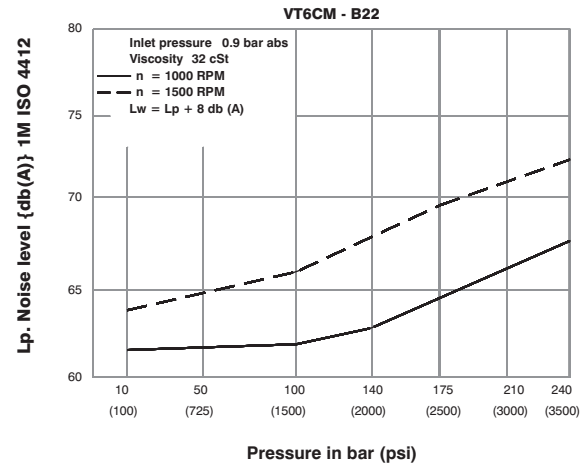
VP  
SP

## INTERNAL LEAKAGE (TYPICAL)

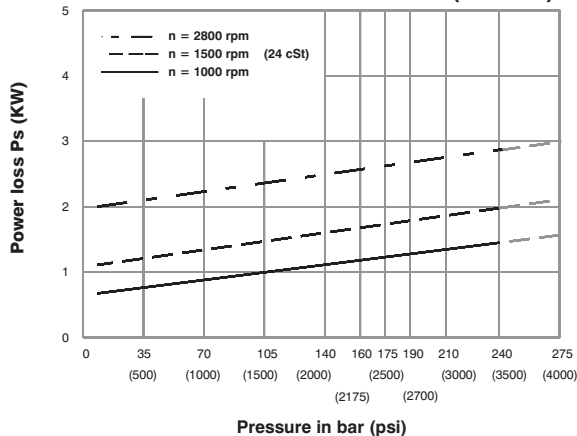


Do not operate pump more than 5 seconds at any speed or viscosity if internal leakage is more than 50% of theoretical flow.

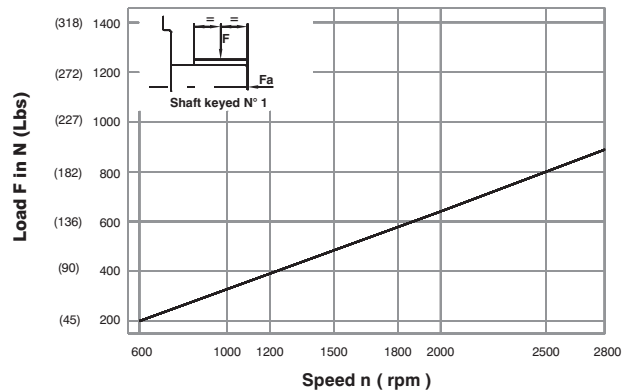
## NOISE LEVEL (TYPICAL)



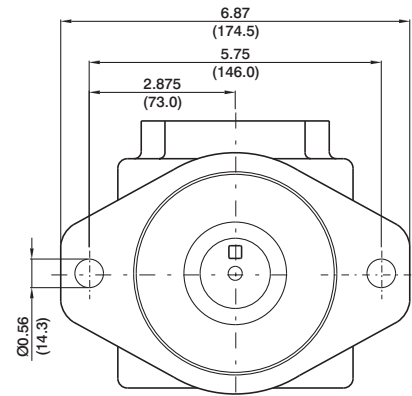
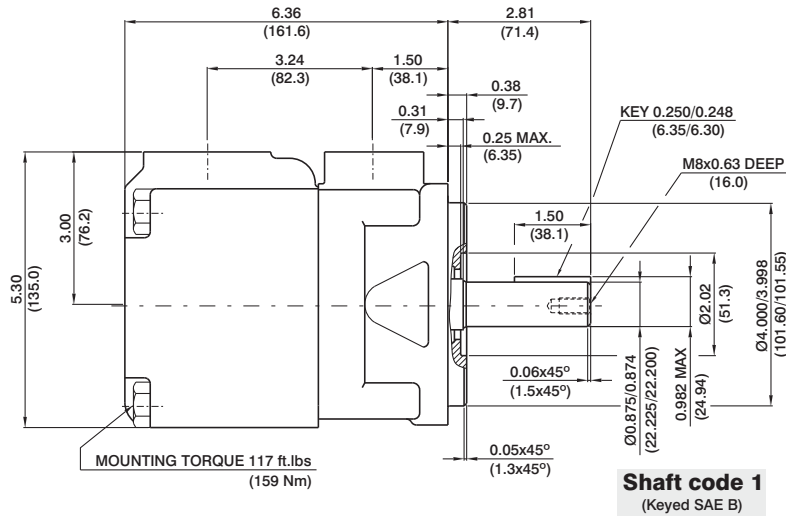
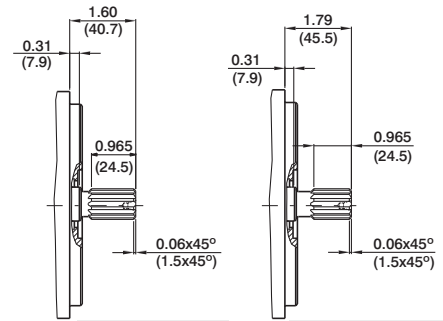
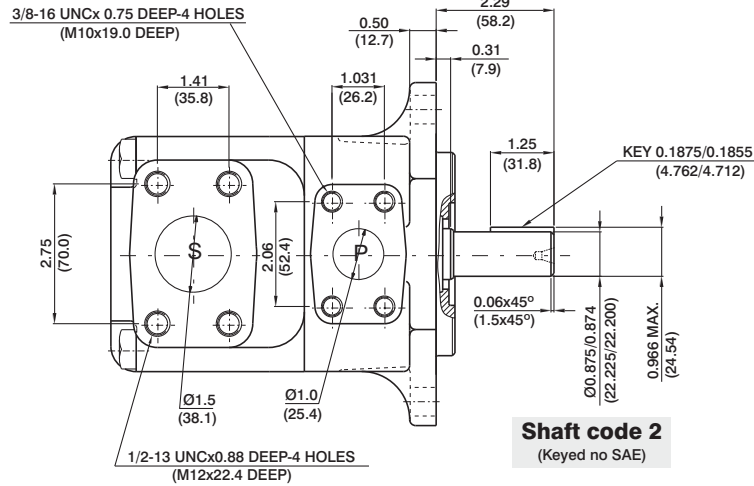
## HYDROMECHANICAL POWER LOSS (TYPICAL)



## PERMISSIBLE RADIAL LOAD



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



| Shaft torque limits in <sup>3</sup> /rev x psi (ml/rev x bar) |               |
|---------------------------------------------------------------|---------------|
| Shaft                                                         | Vp x p max.   |
| 1                                                             | 14473 (16500) |
| 2                                                             | 12666 (14300) |
| 3                                                             | 18246 (20600) |
| 4                                                             | 19309 (21821) |

## 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   |
| VT6CM         | 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>1,2)</sup> | 5.42                       | 88.8                 | 35.24                 | 133.2 | 33.78                  | 127.7 | 32.93                  | 124.5 | 3.75                         | 2.8 | 43.85                  | 32.7 | 65.04                  | 48.5 |
|               | B31 <sup>1,2)</sup> | 6.10                       | 100.0                | 39.68                 | 150.0 | 38.22                  | 144.5 | 37.38                  | 141.3 | 3.75                         | 2.8 | 48.95                  | 36.5 | 72.95                  | 54.4 |

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.