DP

**VTXBB 1 - B09 - B11 - 1 R 00 - D 1 02 ***

**Series**

**Mounting**

1 - SAE A

2 - SAE B

**Camring for "P1" & "P2"**

Volumetric displacement $cm^3$ /rev ($in^3$ /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

P1 P2

**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)

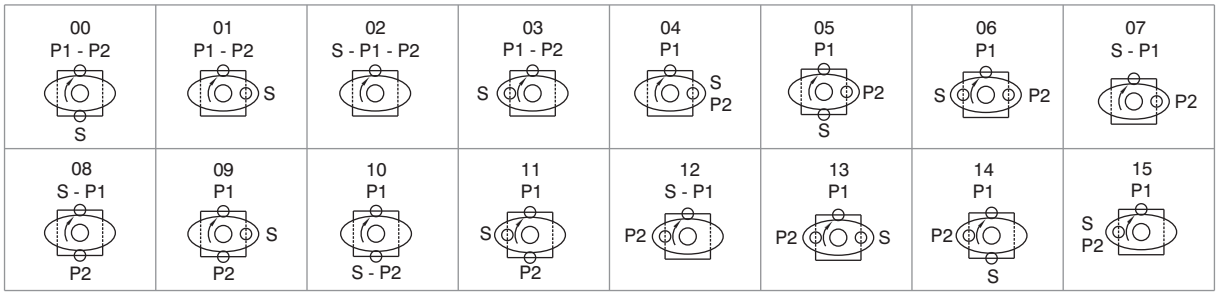
4 - S4 (for fire resistant fluids)

5 - S5 (for mineral oil and fire resistant fluids)

**Design letter**

**Porting combination**

00 - standard




**S: Suction port P1 & P2 : Pressure ports**

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

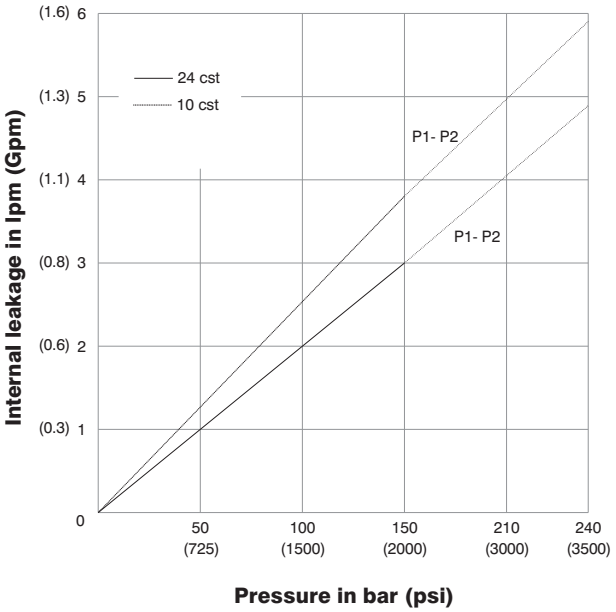
| Pressure port | Series | Volumetric Displacement Vp | | Flow q & n = 1500 rpm | | | | | | Input power p & n = 1500 rpm | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | p = 0 bar (0 psi) | | p = 140 bar (2000 psi) | | p = 210 bar (3000 psi) | | p = 7 bar (100 psi)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

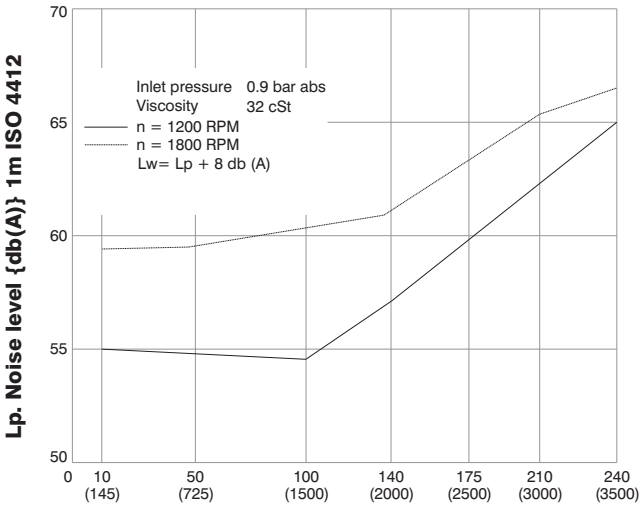
** B14= 175 bar(2500 psi) Max.Int

## INTERNAL LEAKAGE (TYPICAL)



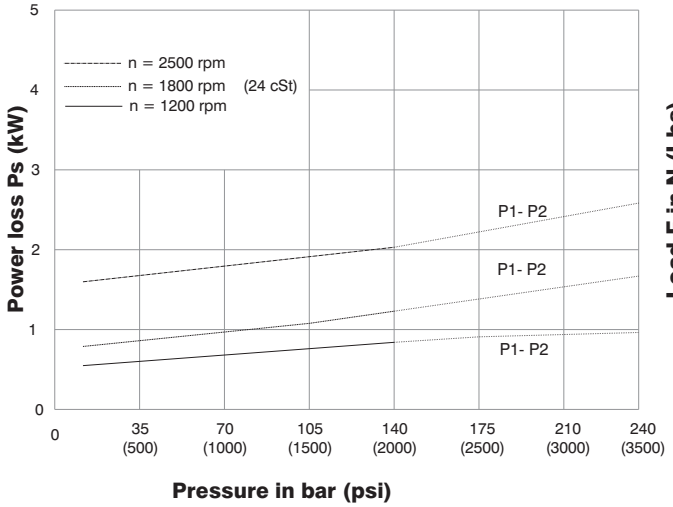

Do not operate pump more than 5 seconds at any speed or viscosity if internal leakage is more than 50 of theoretical flow.
Total leakage is the sum of each section loss at its operating conditions.

## NOISE LEVEL ( TYPICAL )
## VTXBB- B10-B09



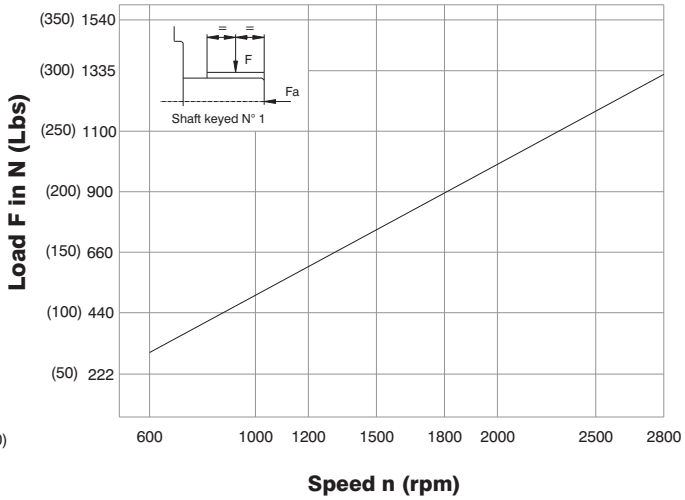

Double pump noise level is given with each section discharging at the pressure noted on the curve.

## HYDROMECHANICAL POWER LOSS (TYPICAL)

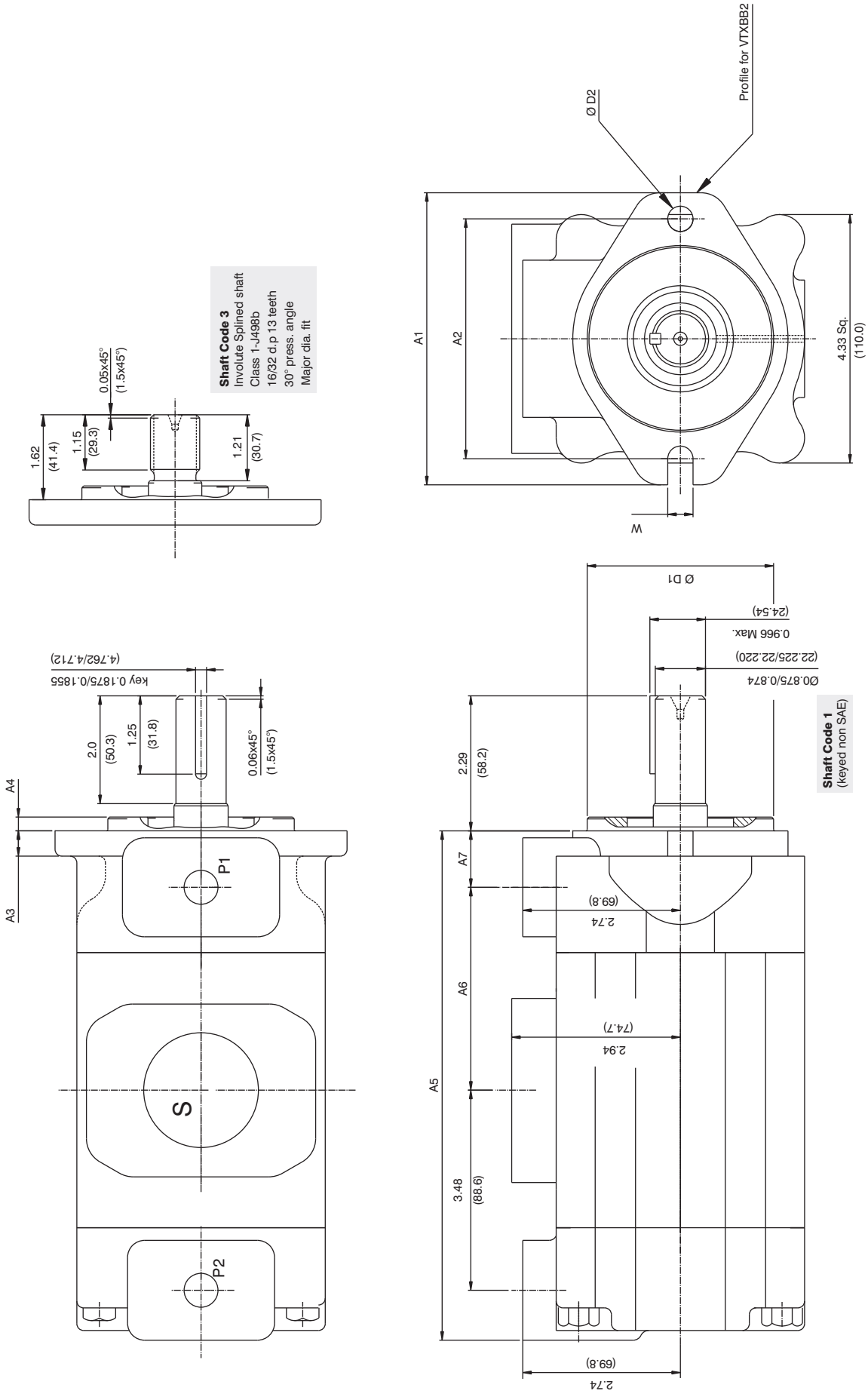



Total hydromechanical power loss is the sum of each section at its operating conditions.

## PERMISSIBLE RADIAL LOAD



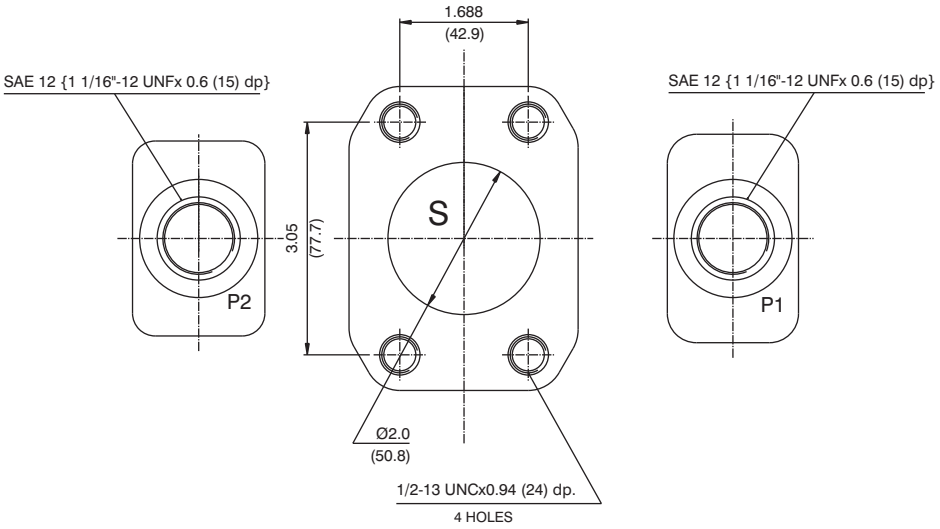

Maximum permissible axial load Fa = 800N (180 lbs)




## DIMENSIONS

| MODEL | A1 | | A2 | | A3 | | A4 | | A5 | | A6 | | A7 | | ØD1 | | W | | ØD2 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | inches | mm | inches | mm | inches | mm | inches | mm | inches | mm | inches | mm | inches | mm | inches | mm | inches | mm | inches | mm |
| VTXBB1 | 5.11 | 130 | 4.18 | 106.2 | 0.44 | 11.2 | 0.24 | 6.1 | 8.85 | 225 | 3.53 | 89.9 | 0.98 | 25 | 3.25/3.24 | 82.55/82.50 | 0.44 | 11.2 | -- | -- |
| VTXBB2 | 6.87 | 174.5 | 5.74 | 146 | 0.5 | 12.7 | 0.37 | 9.4 | | | 3.36 | 85.4 | 1.22 | 31 | 4.00/3.99 | 101.60/101.55 | -- | -- | 0.56 | 14.3 |

### Port Connection : 00

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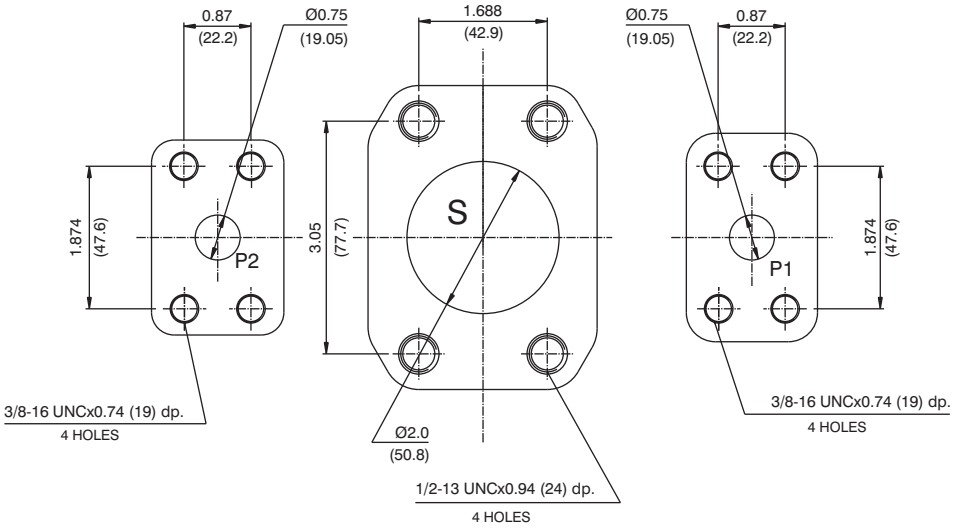
### Port Connection : 01

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### Port Connection : M0