

**Model No.**     **T7DDB or T7DDBS - 050 - B22 - B12 - 1 R 00 - A 1 - M0 - ..**

**T7DDB series** - ISO 6 bolts 3019-2  
Mounting flange 125-A2-HW or 125-B4-HW

**P1    P2    P3**

**T7DDBS series** - SAE C 6 bolts  
J744 mounting flange

**Displacement for "P1" & "P2"**

Volumetric displacement (ml/rev)

B14 = 44,0    B31 = 99,2  
B17 = 55,0    B35 = 113,4  
B20 = 66,0    B38 = 120,6  
B22 = 70,3    B42 = 137,5  
B24 = 81,1    045 = 145,7  
B28 = 90,0    050 = 158,0

**Displacement for "P3"**

Volumetric displacement (ml/rev)

B02 = 5,8    B09 = 28,0  
B03 = 9,8    B10 = 31,8  
B04 = 12,8    B11 = 35,0  
B05 = 15,9    B12 = 41,0  
B06 = 19,8    B14 = 45,0  
B07 = 22,5    B15 = 50,0  
B08 = 24,9

**Type of shaft T7DDBS**

1 = keyed (SAE C)  
2 = keyed (SAE CC)  
3 = splined 12/24 (SAE C) (14 teeth)  
4 = splined 12/24 (SAE CC) (17 teeth)

**Type of shaft T7DDB & T7DDBS**

5 = keyed (ISO 3019/2 - G38M)

**Modifications**

**Mounting w/connection variables**

4 bolts SAE flange J518

| P1 & P2 = 1.1/4" - S = 4" |               |            |
|---------------------------|---------------|------------|
|                           | Metric thread | UNC thread |
| T7DDB-P3 = 1"             | M0            |            |
| T7DDB-P3 = 3/4"           | M1            |            |
| T7DDBS-P3 = 1"            | M0            | 00         |
| T7DDBS-P3 = 3/4"          | M1            | 01         |

**Seal class**

1 = S1 BUNA N - 0,7 bar max. (for mineral oil)  
4 = S4 EPDM - 7 bar max. (for fire resistant fluids)  
5 = S5 VITON® - 7 bar max. (for mineral oil and fire resistant fluids)

**Design letter**

**Porting combination (see pages 72 - 73)**

00 = standard

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

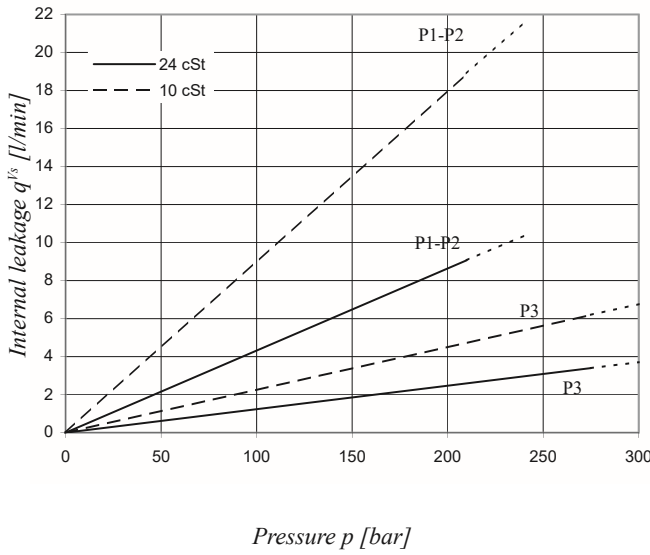
R = Clockwise  
L = Counter-clockwise

**OPERATING CHARACTERISTICS - TYPICAL [24 cSt]**

| Pressure port | Series | Vi Volumetric displacement | Flow q <sub>v</sub> [l/min] & n = 1500 RPM |             |                     | Input power P [kW] & n = 1500 RPM |             |                    |
|---------------|--------|----------------------------|--|-------------|---------------------|-----------------------------------|-------------|--------------------|
|               |        |                            | p = 0 bar                                  | p = 140 bar | p = 250 bar         | p = 7 bar                         | p = 140 bar | p = 250 bar        |
| P1 & P2       | B14    | 44,0 ml/rev                | 66,0                                       | 59,4        | 54,2                | 1,5                               | 16,6        | 29,0               |
|               | B17    | 55,0 ml/rev                | 82,5                                       | 75,9        | 70,7                | 1,7                               | 20,4        | 35,8               |
|               | B20    | 66,0 ml/rev                | 99,0                                       | 92,4        | 87,2                | 1,9                               | 24,3        | 42,7               |
|               | B22    | 70,3 ml/rev                | 105,5                                      | 98,8        | 93,7                | 2,0                               | 25,8        | 45,4               |
|               | B24    | 81,1 ml/rev                | 121,7                                      | 115,0       | 109,9               | 2,2                               | 29,5        | 52,1               |
|               | B28    | 90,0 ml/rev                | 135,0                                      | 128,4       | 123,2               | 2,3                               | 32,7        | 57,7               |
|               | B31    | 99,2 ml/rev                | 148,8                                      | 142,2       | 137,0               | 2,5                               | 35,9        | 63,5               |
|               | B35    | 113,4 ml/rev               | 170,1                                      | 163,5       | 158,3               | 2,7                               | 40,8        | 72,3               |
|               | B38    | 120,6 ml/rev               | 180,9                                      | 174,3       | 169,1               | 2,9                               | 43,4        | 76,8               |
|               | B42    | 137,5 ml/rev               | 206,3                                      | 199,6       | 194,5               | 3,2                               | 49,3        | 87,4               |
|               | 045    | 145,7 ml/rev               | 218,6                                      | 209,2       | 202,6 <sup>1)</sup> | 4,1                               | 52,8        | 89,5 <sup>1)</sup> |
|               | 050    | 158,0 ml/rev               | 237,0                                      | 227,7       | 223,0 <sup>2)</sup> | 4,4                               | 57,1        | 85,0 <sup>2)</sup> |
|               |        |                            | p = 0 bar                                  | p = 140 bar | p = 300 bar         | p = 7 bar                         | p = 140 bar | p = 300 bar        |
| P3            | B02    | 5,8 ml/rev                 | 8,7  | 7,0         | 5,1                 | 0,5                               | 2,6         | 5,1                |
|               | B03    | 9,8 ml/rev                 | 14,7                                       | 13,0        | 11,1                | 0,6                               | 4,0         | 8,1                |
|               | B04    | 12,8 ml/rev                | 19,2                                       | 17,5        | 15,6                | 0,6                               | 5,0         | 10,4               |
|               | B05    | 15,9 ml/rev                | 23,9                                       | 22,2        | 20,2                | 0,7                               | 6,1         | 12,7               |
|               | B06    | 19,8 ml/rev                | 29,7                                       | 28,0        | 26,1                | 0,7                               | 7,5         | 15,6               |
|               | B07    | 22,5 ml/rev                | 33,7                                       | 32,0        | 30,2                | 0,8                               | 8,5         | 17,6               |
|               | B08    | 24,9 ml/rev                | 37,4                                       | 35,7        | 33,7                | 0,8                               | 9,3         | 19,5               |
|               | B09    | 28,0 ml/rev                | 42,0                                       | 40,3        | 38,4                | 0,9                               | 10,4        | 21,8               |
|               | B10    | 31,8 ml/rev                | 47,7                                       | 46,0        | 44,1                | 0,9                               | 11,7        | 26,2               |
|               | B11    | 35,0 ml/rev                | 52,5                                       | 50,8        | 48,9                | 1,0                               | 12,8        | 27,0               |
|               | B12    | 41,0 ml/rev                | 61,5                                       | 59,8        | 57,9                | 1,1                               | 14,9        | 31,5               |
|               | B14    | 45,0 ml/rev                | 67,5                                       | 65,8        | 63,9                | 1,2                               | 16,3        | 34,5               |
|               | B15    | 50,0 ml/rev                | 75,0                                       | 73,3        | 71,6 <sup>3)</sup>  | 1,3                               | 18,1        | 35,7 <sup>3)</sup> |

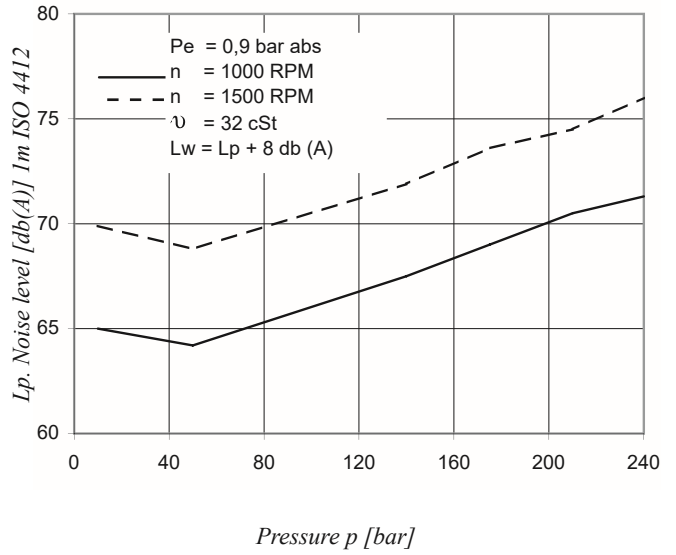
<sup>1)</sup> 045 = 240 bar max. int.    <sup>2)</sup> 050 = 210 bar max. int.    <sup>3)</sup> B15 = 280 bar max. int.

**INTERNAL LEAKAGE (TYPICAL)**



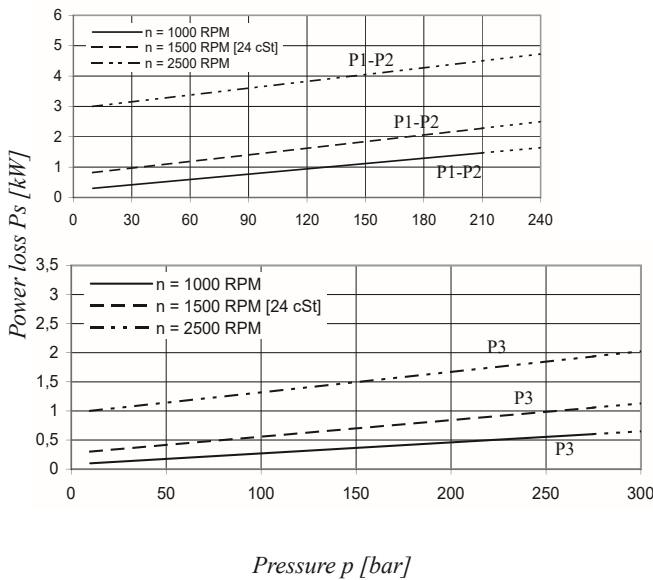
Do not operate pump more than 5 seconds at any speed or viscosity if internal leakage is higher than 50% of theoretical flow. Total leakage is the sum of each section loss under its respective operating conditions.

**NOISE LEVEL (TYPICAL) - T7DDB - B31 - B10**



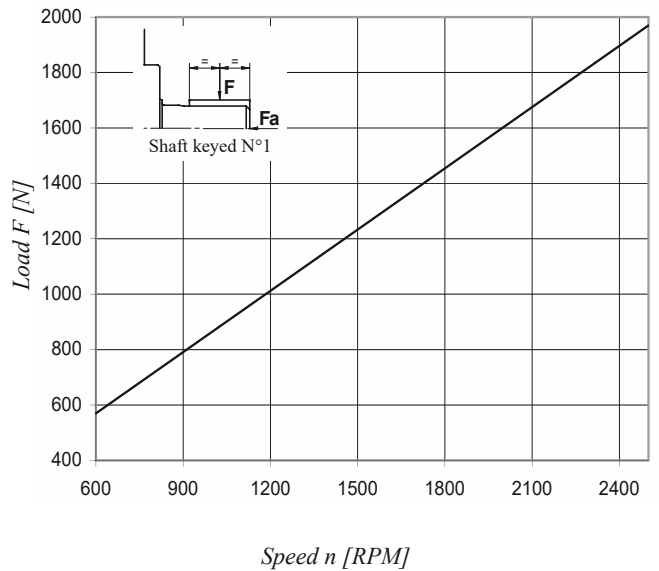
Triple pump noise level is given with all stages discharging at the pressure value indicated on the curve.

**POWER LOSS HYDROMECHANICAL (TYPICAL)**

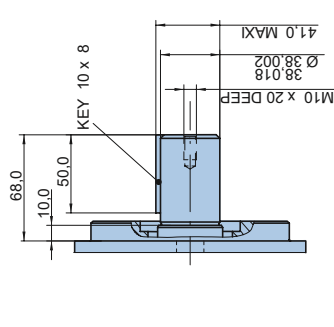
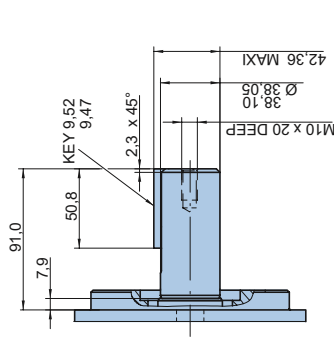
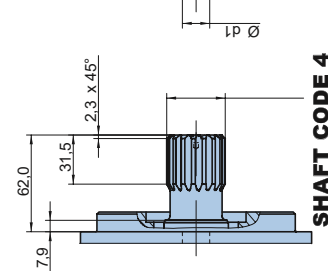
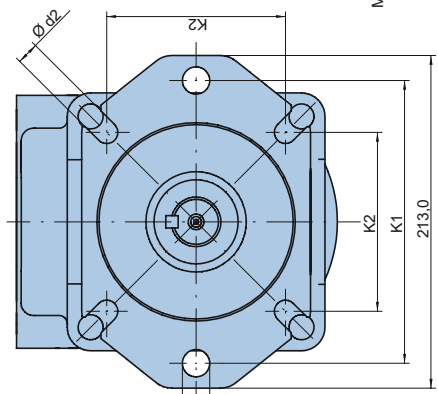
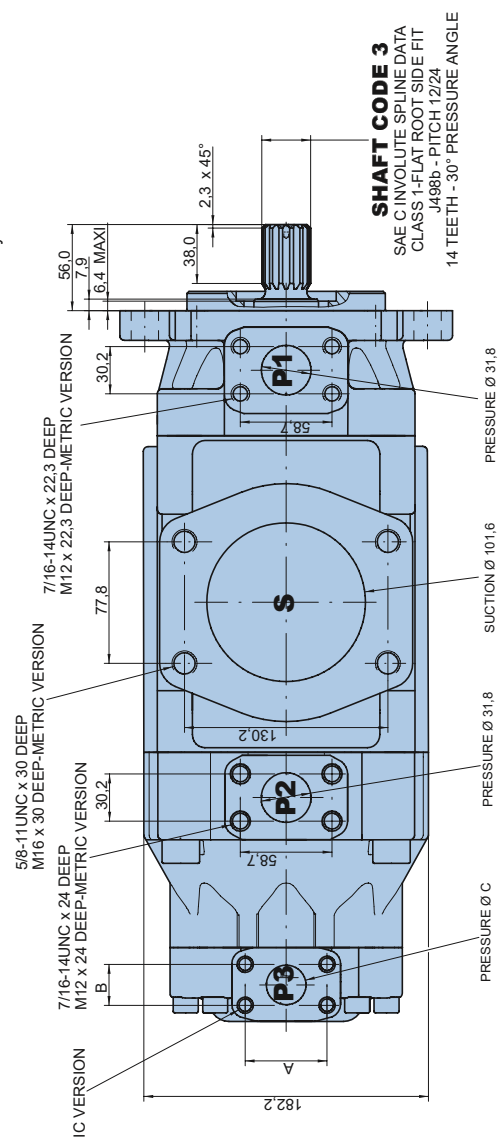
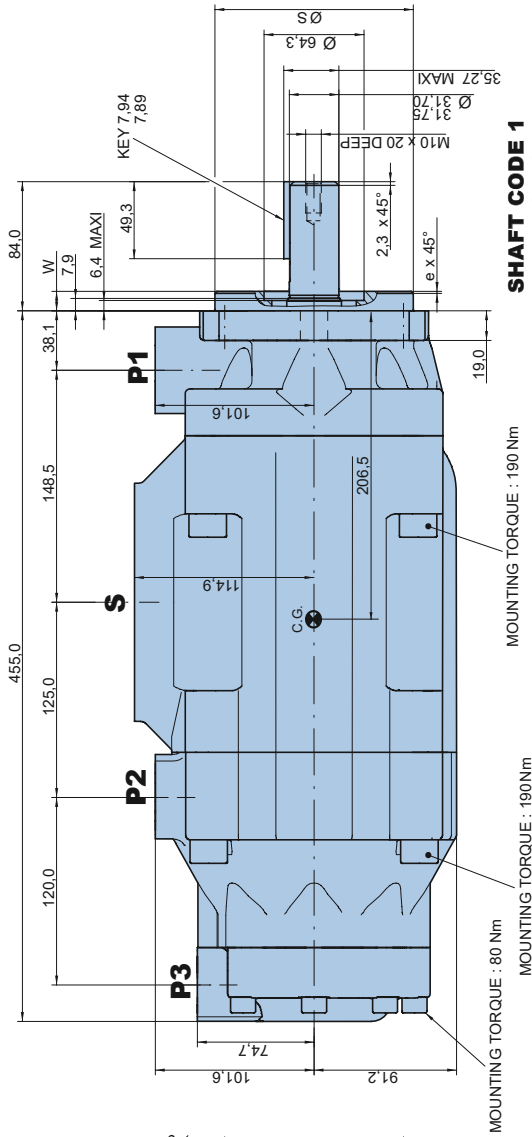


Total hydromechanical power loss is the sum of each section loss under its respective operating conditions.

**PERMISSIBLE RADIAL LOAD**



Maximum permissible axial load  $F_a = 1200\text{ N}$



| Alternate connect. variables |         |
|------------------------------|---------|
| 00 & M0                      | 01 & M1 |
| A                            | 52,4    |
| B                            | 26,2    |
| C                            | 25,4    |
|                              | 47,6    |
|                              | 22,2    |
|                              | 19,0    |

| Alternate mounting flange |         |         |         |      |       |      |        |        |
|---------------------------|---------|---------|---------|------|-------|------|--------|--------|
| Series                    | Dia S   |         | e x 45° | W    | K1    | K2   | Dia d1 | Dia d2 |
|                           | Max.    | Min.    |         |      |       |      |        |        |
| T7DDB                     | 125,000 | 124,937 | 2,0     | 9,5  | 180,0 | 18,0 | 113,14 | 14,0   |
| T7DDBS                    | 127,000 | 126,950 | 1,5     | 12,7 | 181,0 | 17,5 | 114,50 | 14,3   |

| Shaft torque limits [ml/rev. x bar] |                          |                                |
|-------------------------------------|--------------------------|--------------------------------|
| Shaft                               | V1 x p max. P1 + P2 + P3 | Shaft V1 x p max. P1 + P2 + P3 |
| 1                                   | 43240                    | 66500                          |
| 2                                   | 72306                    | 53100                          |
| 3                                   | 61200                    |                                |

