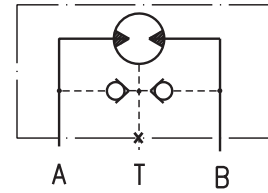
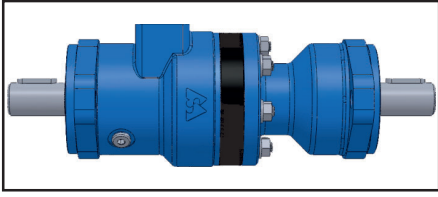


# HYDRAULIC MOTORS with Dual shaft MRB



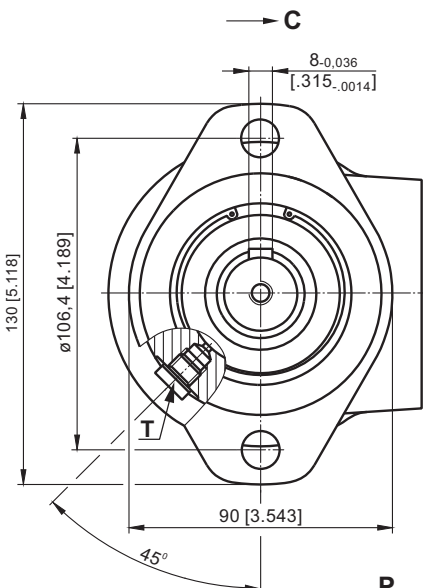
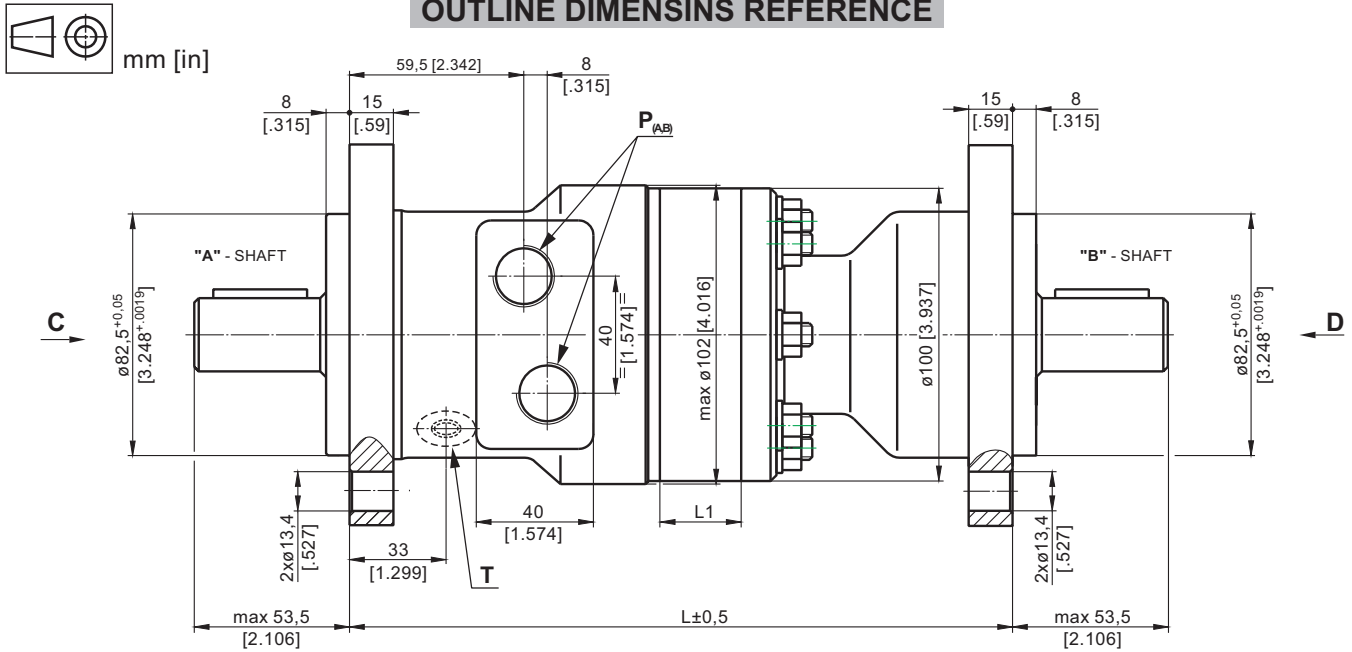
## APPLICATION

- » Conveyors;
- » Feeding mechanism of robots and manipulators;
- » Metal working machines;
- » Textile machines;
- » Agricultural machines;
- » Food industries;
- » Mining machinery etc.

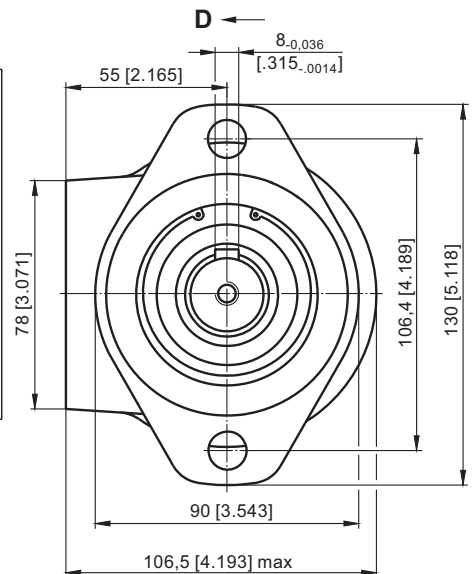
## OPTIONS

- » Model - Spool valve, roll-gerotor;
- » Dual shaft;
- » Oval flange;
- » Side port;
- » Straight shafts;
- » BSPP ports;
- » Other special features.

## OUTLINE DIMENSINS REFERENCE



| Type    | L, mm [in]    | L <sub>1</sub> , mm [in] |
|---------|---------------|--------------------------|
| MRB 50  | 211,7 [ 8.33] | 9,0 [.35]                |
| MRB 80  | 216,7 [ 8.53] | 14,0 [.55]               |
| MRB 100 | 216,1 [ 8.51] | 17,4 [.69]               |
| MRB 125 | 220,5 [ 8.68] | 21,8 [.86]               |
| MRB 160 | 226,5 [ 8.92] | 27,8 [1.09]              |
| MRB 200 | 233,5 [ 9.19] | 34,8 [1.37]              |
| MRB 250 | 242,2 [ 9.54] | 43,5 [1.71]              |
| MRB 315 | 253,5 [ 9.98] | 54,8 [2.16]              |
| MRB 400 | 268,1 [10.56] | 69,4 [2.73]              |



P<sub>(A,B)</sub> : 2xG1/2 - 18 mm [.71 in] depth  
 T : G1/8 - 9 mm [.35 in] depth (plugged)

## SPECIFICATION DATA

| Type   | MRB<br>50 C/C     | MRB<br>80 C/C | MRB<br>100 C/C | MRB<br>125 C/C | MRB<br>160 C/C | MRB<br>200 C/C | MRB<br>250 C/C | MRB<br>315 C/C | MRB<br>400 C/C |
|--|-------------------|---------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| <b>Displacement, cm<sup>3</sup>/rev [in<sup>3</sup>/rev]</b> | 51,5[3.14]        | 80,3[4.9]     | 99,8[6.09]     | 125,7[7.67]    | 159,6[9.74]    | 199,8[12.19]   | 250,1[15.26]   | 315,7[19.26]   | 397 [24.4]     |
| <b>Max. Speed,</b>   | cont. 775         | 750           | 600            | 475            | 375            | 300            | 240            | 190            | 150            |
| <b>RPM</b>   | int.* 970         | 940           | 750            | 600            | 470            | 375            | 300            | 240            | 190            |
| <b>Max. Torque,</b>  | cont. 10 [885]    | 19,5 [1725]   | 24 [2125]      | 30 [2655]      | 30 [2655]      | 30 [2655]      | 30 [2655]      | 30 [2655]      | 30 [2655]      |
| <b>daNm [lb-in]</b>  | int.* 13 [1150]   | 22 [1947]     | 28 [2480]      | 34 [3010]      | 39 [3450]      | 39 [3450]      | 38 [3360]      | 42 [3720]      | 43 [3805]      |
| <b>Max. Torque "A"Shaft,</b>                                 | cont. 8 [710]     | 11,5 [1000]   | 12 [1060]      | 20 [1770]      | 20 [1770]      | 20 [1770]      | 20 [1770]      | 20 [1770]      | 20 [1770]      |
| <b>daNm [lb-in]</b>  | int.* 9,5 [840]   | 13 [1150]     | 14 [1240]      | 23 [2035]      | 23 [2035]      | 23 [2035]      | 23 [2035]      | 23 [2035]      | 23 [2035]      |
| <b>Max. Torque "B"Shaft,</b>                                 | cont. 4 [355]     | 11,5 [1000]   | 12 [1060]      | 20 [1770]      | 20 [1770]      | 20 [1770]      | 20 [1770]      | 20 [1770]      | 20 [1770]      |
| <b>daNm [lb-in]</b>  | int.* 5 [440]     | 13 [1150]     | 14 [1240]      | 23 [2035]      | 23 [2035]      | 23 [2035]      | 23 [2035]      | 23 [2035]      | 23 [2035]      |
| <b>Max. Output,</b>  | cont. 7 [9.5]     | 12,5 [17]     | 13 [1150]      | 12,5 [17]      | 10 [13.4]      | 8 [10.7]       | 6 [8.0]        | 5 [6.7]        | 4 [5.4]        |
| <b>[kW] [HP]</b>   | int.* 8,5 [11.9]  | 15 [20.1]     | 15 [20.1]      | 14,5           | 12,5 [17]      | 10 [13.4]      | 8 [10.7]       | 6,5 [8.7]      | 6 [8.0]        |
| <b>Max. Pressure Drop,</b>                                   | cont. 140 [2030]  | 175 [2540]    | 175 [2540]     | 175 [2540]     | 130 [1885]     | 110 [1600]     | 80 [1160]      | 70 [1020]      | 55 [800]       |
| <b>bar [PSI]</b>   | int.* 175 [2540]  | 200 [2900]    | 200 [2900]     | 200 [2900]     | 175 [2540]     | 140 [2030]     | 110 [1600]     | 100 [1450]     | 80 [1160]      |
| <b>Max. Oil Flow,</b>  | cont. 40 [10.5]   | 60 [15.9]     | 60 [15.9]      | 60 [15.9]      | 60 [15.9]      | 60 [15.9]      | 60 [15.9]      | 60 [15.9]      | 60 [15.9]      |
| <b>lpm [GPM]</b>   | int.* 50 [13.2]   | 75 [18.5]     | 75 [18.5]      | 75 [18.5]      | 75 [18.5]      | 75 [18.5]      | 75 [18.5]      | 75 [18.5]      | 75 [18.5]      |
| <b>Max. Return</b>   | cont. 0 - 100 RPM | 75 [1090]     | 75 [1090]      | 75 [1090]      | 75 [1090]      | 75 [1090]      | 75 [1090]      | 75 [1090]      | 75 [1090]      |
| <b>Pressure without</b>                                      | cont. 100-200 RPM | 50 [730]      | 50 [730]       | 50 [730]       | 50 [730]       | 50 [730]       | 50 [730]       | 50 [730]       | 50 [730]       |
| <b>Drain Line, bar [PSI]</b>                                 | cont. 200-500 RPM | 20 [290]      | 20 [290]       | 20 [290]       | 20 [290]       | 20 [290]       | 20 [290]       | 20 [290]       | 20 [290]       |
|  | int.* 0 - max RPM | 75 [1090]     | 75 [1090]      | 75 [1090]      | 75 [1090]      | 75 [1090]      | 75 [1090]      | 75 [1090]      | 75 [1090]      |

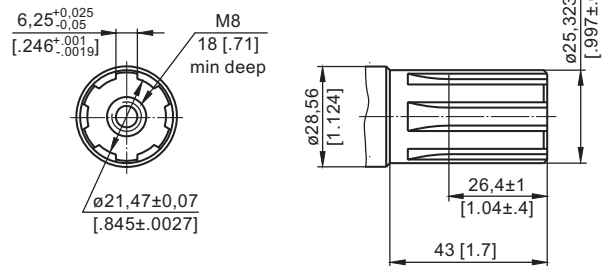
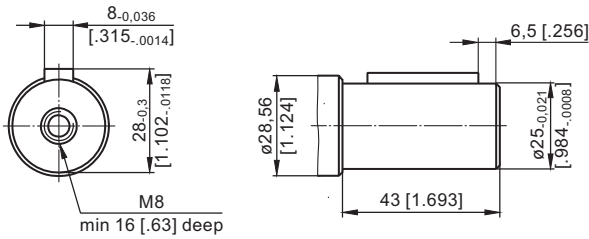
\* Intermittent operation: the permissible values may occur for max. 10% of every minute.

1. Intermittent speed and intermittent pressure must not occur simultaneously.
2. Recommended filtration is per ISO cleanliness code 20/16. A nominal filtration of 25 micron or better.
3. Recommend using a premium quality, anti-wear type mineral based hydraulic oil HLP(DIN51524) or HM ( ISO 6743/4).  
If using synthetic fluids consult the factory for alternative seal materials.
4. Recommended minimum oil viscosity 13 mm<sup>2</sup>/s [70 SUS] at 50°C [122°F].
5. Recommended maximum system operating temperature is 82°C [180°F].
6. To assure optimum motor life fill with fluid prior to loading and run at moderate load and speed for 10-15 minutes.

**SHAFT EXTENSIONS**

**C** -  $\varnothing 25$  straight, Parallel key A8x7x30 DIN 6885  
Max. Torque 34 daNm [3010 lb-in]

**SH** - 1" splined, BS 2059 (SAE 6B)  
Max. Torque 40 daNm [3540 lb-in]

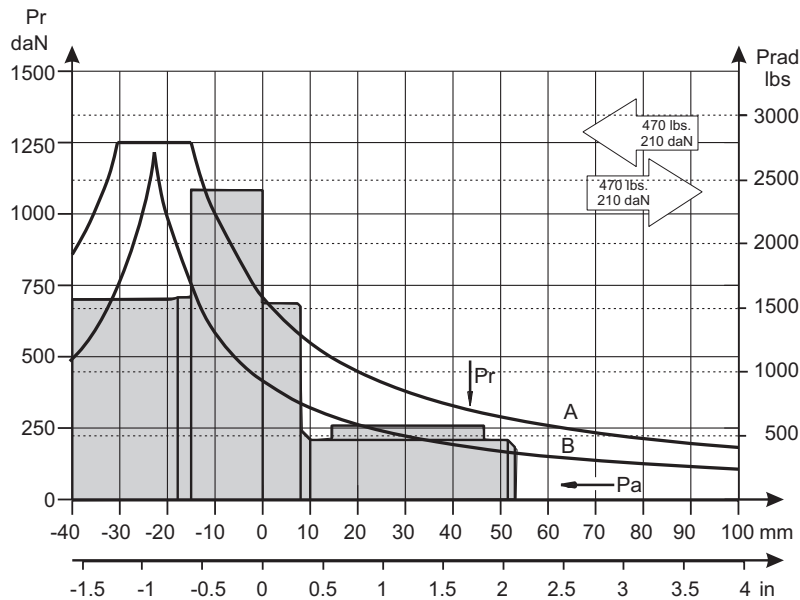


**PERMISSIBLE SHAFT LOADS**

The load diagrams are valid for an average bearings life of 1600 hrs at 200 r.p.m. with mineral base lubricating containing antiwear additives (ref.ISO 281 (3.3) standard).

The "A" curve gives the maximum static load affordable by the bearings.

The "B" curve gives the radial load top limit without axial load of 200 daN.



**ORDER CODE**

|     |   |   |   |   |
|-----|---|---|---|---|
| 1   | 2 | 3 | 4 | 5 |
| MRB |   | / |   |   |

| Pos.1 | Displacement code   |
|-------|---|
| 50    | - 51,5 cm <sup>3</sup> /rev [ 3.14 in <sup>3</sup> /rev]  |
| 80    | - 80,3 cm <sup>3</sup> /rev [ 4.90 in <sup>3</sup> /rev]  |
| 100   | - 99,8 cm <sup>3</sup> /rev [ 6.09 in <sup>3</sup> /rev]  |
| 125   | - 125,7 cm <sup>3</sup> /rev [ 7.67 in <sup>3</sup> /rev] |
| 160   | - 159,6 cm <sup>3</sup> /rev [ 9.74 in <sup>3</sup> /rev] |
| 200   | - 199,8 cm <sup>3</sup> /rev [12.19 in <sup>3</sup> /rev] |
| 250   | - 250,1 cm <sup>3</sup> /rev [15.26 in <sup>3</sup> /rev] |
| 315   | - 315,7 cm <sup>3</sup> /rev [19.26 in <sup>3</sup> /rev] |
| 400   | - 397,0 cm <sup>3</sup> /rev [24.40 in <sup>3</sup> /rev] |

| Pos.2 | "A" Shaft Extensions*                                     |
|-------|---|
| C     | - $\varnothing 25$ straight, Parallel key A8x7x30 DIN6885 |
| SH    | - 1" splined, BS 2059 (SAE 6B)                            |
| Pos.3 | "B" Shaft Extensions*                                     |
| C     | - $\varnothing 25$ straight, Parallel key A8x7x30 DIN6885 |
| SH    | - 1" splined, BS 2059 (SAE 6B)                            |
| Pos.4 | Special Features (see page 120)                           |
| Pos.5 | Design Series   |
| omit  | - Factory specified                                       |

**NOTES:** \* For other shaft extensions please contact with "M+S Hydraulic".  
\*\* Color at customer's request.

The hydraulic motors are manganophosphatized as standard.