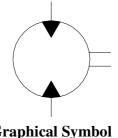


# YMM SERIES HYDRAULIC MOTOR

YMM series motors are small volume, economical type, which is designed with shaft distribution flow, which adapt the Gerotor gear set design and provide compact volume, high power and low weight.

### Characteristic Features:

- Advanced manufacturing devices for the Gerotor gear set, which provide small volume, high efficiency and long life.
- Shaft seal can bear high pressure of motor of which can be used in parallel or in series.
- Advanced construction design, high power and low weight.



### **Graphical Symbol**

## **SPECIFICATIONS:**

| Туре                     |            | YMM<br>8 | YMM<br>12.5 | YMM<br>20 | YMM<br>32 |
|--------------------------|------------|----------|-------------|-----------|-----------|
| Geometric Displacement   | (cm³/rev.) | 8.2      | 12.9        | 19.9      | 31.6      |
|                          | Cont.      | 1950     | 1550        | 1000      | 630       |
| Max. Speed (rpm)         | Int.       | 2450     | 1940        | 1250      | 800       |
|                          | Cont.      | 11       | 16          | 25        | 40        |
| Max. Torque (Nm)         | Int.       | 15       | 23          | 35        | 57        |
|                          | Peak       | 21       | 33          | 51        | 64        |
| Mary Ordered (LW)        | Cont.      | 1.8      | 2.4         | 2.4       | 2.4       |
| Max. Output (kW)         | Int.       | 2.6      | 3.2         | 3.2       | 3.2       |
|                          | Cont.      | 10       | 10          | 10        | 10        |
| Max. Pressure Drop (MPa) | Int.       | 14       | 14          | 14        | 14        |
| (IVII a)                 | Peak       | 20       | 20          | 20        | 16        |
| M. El. (L.C.)            | Cont.      | 16       | 20          | 20        | 20        |
| Max. Flow (L/min.)       | Int.       | 20       | 25          | 25        | 25        |
| Weight (kg)              | •          | 1.9      | 2.0         | 2.1       | 2.2       |

| Туре     |       |       | Max. Inlet Pressure |  |  |
|----------|-------|-------|---------------------|--|--|
| YMM 8-32 | (MPa) | Cont. | 17.5                |  |  |
|          | , ,   | Int.  | 22.5                |  |  |

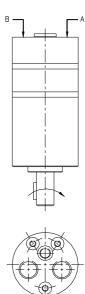


- \* Continuous pressure : Max. value of operating motor continuously.
- \* Intermittent pressure : Max. value of operating motor in 6 seconds per minute.
- \* Peak pressure : Max. value of operating motor in 0.6 second per minute.

## **MODEL NUMBER DESIGNATION:**

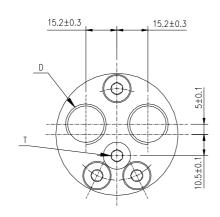
| YMM                          | -8                    | -F1  | -K1   | -A               |                          | -R  | -00                    | -00                    | -10     |
|------------------------------|-----------------------|--|---|------------------|--------------------------|---|------------------------|------------------------|---------|
| Model<br>Number Displacement | Dianlagament          | Type of  | Type of                                     | Port Sizes       |                          | Rotation<br>Direction   | Doint                  | Special                | Design* |
|                              | Flange<br>Mounting    | Shaft  | Main<br>Ports<br>(A&B)                      | Drain<br>Port    | As viewed from shaft end | Paint   | Features               | Number                 |         |
| YMM                          | 8<br>12.5<br>20<br>32 | F1:<br>3-M6 Circle-<br>flange, spigot<br>Ø31.5x5 | K1:<br>Shaft Ø16,<br>parallel key<br>5x5x16 | End Port<br>G3/8 | G1/8                     | R: Clockwise when port "A" is pressurized  L: Counter- clockwise when port "B" is pressurized | <b>00:</b><br>No paint | <b>00:</b><br>Standard | 10      |

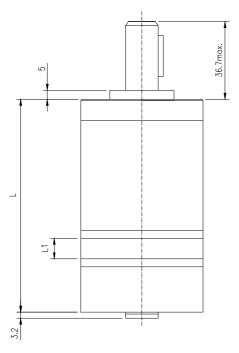
\* Design numbers subject to change but installation dimensions remain as shown.

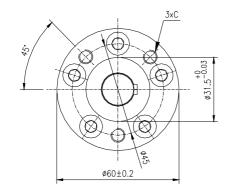




# MOUNTING DETAILS:







# DIMENSIONS IN MILLIMETRES

|         | M Flange |      |  |  |  |  |  |
|---------|----------|------|--|--|--|--|--|
| Model   | L        | L1   |  |  |  |  |  |
| BMM8    | 104      | 3.5  |  |  |  |  |  |
| BMM12.5 | 106      | 5.5  |  |  |  |  |  |
| BMM20   | 109      | 8.5  |  |  |  |  |  |
| BMM32   | 114      | 13.5 |  |  |  |  |  |

|                  | M Flange  |
|------------------|-----------|
| Code<br>Mounting | 1E(Depth) |
| С                | 3-M6 (10) |
| D                | G3/8 (12) |
| Ţ                | G1/8 (8)  |



# **PERFORMANCE DATA:**

#### YMM8 (8.2 cm<sup>3</sup>/rev.)

|                 | PRE   | SSUF | RE (MPa)  |                    |                    | Max.int    |            |            |  |  |  |  |  |  |  |          |          |          |           |           |
|-----------------|-------|------|-----------|--------------------|--------------------|------------|------------|------------|--|--|--|--|--|--|--|----------|----------|----------|-----------|-----------|
|                 | 3.5 5 |      |           |                    | 7                  | 10         | 12         | 14         |  |  |  |  |  |  |  |          |          |          |           |           |
|                 |       |      |           |                    |                    |            |            |            |  |  |  |  |  |  |  |          |          |          |           |           |
|                 | 2     |      | 3<br>228  | 5<br>218           | 8<br>206           | 10<br>156  | 12<br>111  | 14<br>58   |  |  |  |  |  |  |  |          |          |          |           |           |
|                 | 4     |      |           |                    |                    |            |            |            |  |  |  |  |  |  |  | 3<br>474 | 5<br>471 | 7<br>463 | 11<br>426 | 13<br>391 |
| Flow (L/min)    | 8     |      | 3<br>953  | 5<br>946           | 7<br>926           | 11<br>884  | 13<br>855  | 15<br>816  |  |  |  |  |  |  |  |          |          |          |           |           |
| Flow            | 12    |      | 2<br>1444 | 5<br>1 <b>4</b> 26 | 7<br>1 <b>4</b> 02 | 10<br>1360 | 13<br>1324 | 15<br>1288 |  |  |  |  |  |  |  |          |          |          |           |           |
| Wax,cont        | 15    |      |           | 4<br>1912          | 7<br>1900          | 10<br>1861 | 12<br>1833 | 14<br>1780 |  |  |  |  |  |  |  |          |          |          |           |           |
| <b>M</b> ax,int | 20    |      |           | 0<br>2432          | 6<br>2395          | 10<br>2350 | 11<br>2328 | 14<br>2281 |  |  |  |  |  |  |  |          |          |          |           |           |

# YMM12.5 (12.9 cm<sup>3</sup>/rev)

|              | PRE | SSUF | RE (MPa)  |           |            | Max.int    |            |            |
|--------------|-----|------|-----------|-----------|------------|------------|------------|------------|
|              |     |      | 3.5       | 5         | 7          | 10         | 12         | 14         |
|              |     | 1    |           |           |            |            |            |            |
|              | 2   |      | 6<br>140  | 8<br>136  | 11<br>119  | 16<br>68   | 19<br>35   |            |
| Flow (L/min) | 4   |      | 6<br>296  | 8<br>289  | 12<br>274  | 17<br>229  | 19<br>200  | 23<br>145  |
|              | 8   |      | 5<br>605  | 8<br>596  | 12<br>583  | 17<br>543  | 20<br>514  | 24<br>469  |
|              | 12  |      | 5<br>912  | 8<br>905  | 11<br>895  | 16<br>859  | 20<br>834  | 24<br>784  |
| Flov         | 15  |      | 5<br>1152 | 7<br>1144 | 11<br>1136 | 16<br>1102 | 19<br>1078 | 23<br>1036 |
| Max.cont     | 20  |      | 3<br>1542 | 7<br>1532 | 10<br>1521 | 15<br>1500 | 19<br>1482 | 22<br>1437 |
| Max.int      | 25  |      | 2<br>1910 | 6<br>1891 | 9<br>1878  | 14<br>1848 | 18<br>1828 | 22<br>1788 |

## YMM20 (19.9 cm<sup>3</sup>/rev)

|              | PRE | SSUF | RE (MPa) |           | Max.cont  |           |           |           |           |
|--------------|-----|------|----------|-----------|-----------|-----------|-----------|-----------|-----------|
|              |     |      | 2        | 3.5       | 5         | 7         | 10        | 12        | 14        |
|              |     |      |          |           |           |           |           |           |           |
|              | 2   |      | 7<br>61  | 15<br>57  | 21<br>52  | 28<br>47  | 40<br>16  |           |           |
| (nin         | 4   |      | 7<br>126 | 15<br>121 | 21<br>114 | 29<br>106 | 41<br>82  | 48<br>67  | 57<br>49  |
| Flow (L/min) | 8   |      | 7<br>250 | 15<br>244 | 21<br>239 | 29<br>231 | 41<br>207 | 49<br>194 | 58<br>167 |
| Н            | 12  |      | 6<br>378 | 13<br>374 | 20<br>369 | 28<br>362 | 40<br>338 | 48<br>322 | 58<br>297 |
|              | 15  |      | 4<br>476 | 12<br>472 | 18<br>468 | 27<br>462 | 39<br>441 | 47<br>429 | 57<br>406 |
| Max,cont     | 20  |      | 3<br>633 | 10<br>630 | 17<br>627 | 25<br>619 | 37<br>601 | 46<br>585 | 55<br>566 |
| Max.int      | 25  |      | 1<br>791 | 8<br>789  | 15<br>787 | 23<br>783 | 35<br>766 | 43<br>753 | 52<br>732 |

## YMM32 (31.6 cm<sup>3</sup>/rev)

|              | PRE | SSUF | RE (MPa) |           |           | Max.int    |            |            |            |
|--------------|-----|------|----------|-----------|-----------|------------|------------|------------|------------|
|              |     |      | 1.7      | 3.5       | 5         | 7          | 10         | 12         | 14         |
|              |     |      |          |           |           |            |            |            |            |
| Flow (L/min) | 2   |      | 3<br>99  | 9<br>96   | 14<br>89  | 19<br>74   | 26<br>42   | 30<br>21   |            |
|              | 4   |      | 4<br>197 | 9<br>191  | 14<br>182 | 19<br>178  | 26<br>134  | 31<br>112  | 36<br>74   |
|              | 8   |      | 4<br>398 | 9<br>395  | 13<br>391 | 19<br>377  | 27<br>340  | 31<br>319  | 36<br>288  |
|              | 12  |      | 3<br>596 | 8<br>594  | 13<br>588 | 18<br>579  | 26<br>545  | 31<br>523  | 37<br>493  |
|              | 15  |      | 3<br>745 | 8<br>741  | 12<br>738 | 17<br>728  | 25<br>695  | 30<br>684  | 36<br>660  |
| Max.cont     | 20  |      | 1<br>998 | 6<br>995  | 11<br>991 | 19<br>985  | 24<br>962  | 29<br>916  | 35<br>885  |
| Max.int      | 25  |      |          | 4<br>1247 | 9<br>1245 | 14<br>1242 | 23<br>1189 | 28<br>1180 | 33<br>1176 |