MD Series Hydraulic Motors are designed for high power and high speed applications. Most of the Wagon Tippler, Slew drive are driven by MD Series motors. In addition, these motors are most suited for use in Feeder Breaker, Ball Mills and Bowl Mills. Optionally, a brake can be fitted in the front end of the motor.

The motor displacements available range from 12 lit/rev. to 15 lit/rev. They aim to provide a wide variety of precise hydraulic motor and pump combinations. These motors can take heavy shock loads due to the incorporation of a robust front bearing arrangement.

**Options**
- Customized shaft
- Integral multi plate disc brake
- High speed versions
- Double shaft
- Super low noise
- Corrosion resistant material
- Through hole shaft of various sizes
- Custom finish
- Deep water submersible
- Non magnetic material
- Dual displacement

**Features**
- Long life
- High mechanical efficiency
- Constant torque output
- Smooth low speed performance<1rpm
- Resistance to thermal shock
- Double shaft sealing
- Shrink disc coupling
- Shaft or flange mounting
- Shock resistance
- Low noise

**SPECIFICATION**

<table>
<thead>
<tr>
<th>MOTOR FRAME SIZE</th>
<th>DISP(*)</th>
<th>TORQUE (THEORETICAL)</th>
<th>TORQUE MAX</th>
<th>SPEED RATED</th>
<th>SPEED MAX**</th>
<th>PRESSURE RATED</th>
</tr>
</thead>
<tbody>
<tr>
<td>METRIC</td>
<td>CM/REV</td>
<td>NM/BAR</td>
<td>NM</td>
<td>RPM</td>
<td>RPM</td>
<td>BAR</td>
</tr>
<tr>
<td>HM 12</td>
<td>12760</td>
<td>200</td>
<td>66000</td>
<td>75</td>
<td>100</td>
<td>345</td>
</tr>
<tr>
<td>HM 13.5</td>
<td>13540</td>
<td>215</td>
<td>70950</td>
<td>75</td>
<td>110</td>
<td>345</td>
</tr>
<tr>
<td>HM 15</td>
<td>15160</td>
<td>241</td>
<td>79530</td>
<td>70</td>
<td>100</td>
<td>345</td>
</tr>
</tbody>
</table>

**High speed version upon request.**
*Any other displacement upon request.*
MD series
Motors with shrink disc coupling

Hollow shaft motors with female splines
Hollow shaft motors with female splines

<table>
<thead>
<tr>
<th>Motor Type</th>
<th>A(MM)</th>
<th>B(MM)</th>
<th>C(MM)</th>
<th>D(MM)</th>
<th>E(MM)</th>
<th>F(MM)</th>
<th>Weight (Kg)</th>
<th>Main Connc (A1,A2,C1,C2)</th>
<th>Drain Connc (D1,D2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HM 12.0</td>
<td>650</td>
<td>933</td>
<td>N150x5x30x28x9H</td>
<td>260</td>
<td>520</td>
<td>893</td>
<td>627</td>
<td>SAE 1 ¼”</td>
<td>BSP ¾”</td>
</tr>
<tr>
<td>HM 13.5</td>
<td>650</td>
<td>933</td>
<td>N150x5x30x28x9H</td>
<td>260</td>
<td>520</td>
<td>893</td>
<td>653</td>
<td>SAE 1 ¼”</td>
<td>BSP ¾”</td>
</tr>
<tr>
<td>HM 15.0</td>
<td>650</td>
<td>990</td>
<td>N200x5x30x38x9H</td>
<td>305</td>
<td>520</td>
<td>950</td>
<td>681</td>
<td>SAE 1 ¼”</td>
<td>BSP ¾”</td>
</tr>
</tbody>
</table>

Brake (Static / Parking)

<table>
<thead>
<tr>
<th>Motor Type</th>
<th>A(MM)</th>
<th>B(MM)</th>
<th>C(MM)</th>
<th>D(MM)</th>
<th>Break Release Pressure</th>
<th>Break Torque NM max</th>
</tr>
</thead>
<tbody>
<tr>
<td>HM 12-15</td>
<td>480</td>
<td>195</td>
<td>62</td>
<td>260</td>
<td>20-30 Bar</td>
<td>60,000</td>
</tr>
</tbody>
</table>

* Technical Dimensions are subject to change without prior notice
# Application for High Torque Gearless Hydraulic System

## Industries

**Pulp & Paper Industry**
- waste paper handling
- cooking process
- washing and bleaching

**Rubber & Plastics**
- winch drives
- steering
- dredgers
- crawlers
- drive barges

**Mining**
- kiln drivers
- driers
- chemical
- evaporators
- mixers
- reactors
- dryers

**Power**
- conveyor
- reclaimer
- stacker
- bogie drives
- unloaders

**Marine**
- moulding machines
- process machines
- belt process
- screw drives

**Cement**
- mill drives
- pressure feeders
- cane carriers
- cane unloaders

**Sugar**
- ball mills
- bowl mills
- feeder conveyors
- ash handling
- feeding gates
- conveyors

**Material Handling**
- conveyors
- wagon tipplers
- side arm charges
- paddle feeders
- apron feeders
- stacker reclaimers
- crushers
- HM-Series Motor
- LD
- MD
- MD-S
- Series Motor
- 820
- HD
- A-No Brake
- B-Wirh Brake
- Motor size / displacement (Reference)
- A-SAE Ports with Metric
- B-Other
- A-Standard Seals
- B-Vitron Seals
- C-Other/Custom
- 1-Female Splined Front Shaft
- 2-Shaft with Shrink Disc
- 3-Male Splined Front Shaft
- A-Single Displacement
- B-Dual Displacement
- 0-Standard
- 1-Rear Shaft Extension

**Speed Encoder**
- 0-No Encoder
- 1-Speed Encoder 0-20- rpm
- 2-Speed Encoder 0-100- rpm
- 3-Speed Encoder 0-150- rpm

**Torque Arm**
- 0-No Torque Arm
- 1-Standard Arm
- 2-Torque Arm Special

Code for other custom features. Consult Mascot for assignment of code.