The MG series magnet drive gear pumps are compact precision performance pumps for high technology applications. The magnet drive principle provides a totally sealed pump chamber capable of handling a wide range of corrosive liquids with a high degree of safety. The housing of the pump and the internal metal parts are in AISI 316L stainless steel and the gears are available in Peek™, Ceramic Peek™ or PTFE™.

In operation the MG series pumps are noiseless, pulsation-free and able to handle relatively high temperature fluids with low coefficient of expansion. The principle of the magnetic drive comprises an inner magnet embodied in the pump and connected to the driving gear, and an outer magnet connected to the motor shaft. The pole-to-pole alignment of the two magnets provides the driving motion to the pump. Decoupling will occur when the pump load exceeds the maximum coupling torque provided by the alignment of the two magnets.

Available upon request:
- Built-in relief valve
- Rare earths driven magnet

**TECHNICAL INFORMATION**

<table>
<thead>
<tr>
<th>Pump housing material</th>
<th>Stainless steel</th>
<th>Max static pressure</th>
<th>20 bar/290 psi</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gears and bushing materials</td>
<td>Peek™/Ceramic Peek™/PTFE™</td>
<td>Temperature range</td>
<td></td>
</tr>
<tr>
<td>Ports</td>
<td>1/8&quot; GAS or NPT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pump weight (MG209)</td>
<td>380 g (0.7 lb)</td>
<td>Temperature range</td>
<td></td>
</tr>
<tr>
<td>Speed limit</td>
<td>5,000 rpm</td>
<td>Temperature range</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Max vacuum</td>
<td>724 mmHg/28.5 inHg</td>
</tr>
</tbody>
</table>

* Wet lift with water ~ 8m/26.7 ft

* Priming ability varies with operating conditions and fluid characteristics

**MAIN APPLICATIONS**

- Medical and surgical equipment
- Hemodialysis apparatus
- Laser apparatus
- Lubrication
- Ink-Jet printing systems
- Cooling systems
- Laboratory instrumentation
- Water treatment
- Sampling
- Food processing equipment

**Dimensions in mm/Inches**

- Ø 56 (Ø 2.2 in)
- Ø 51 (Ø 2.01 in)
- 65.5-80.5 (2.58-3.17 in)
- Ø 44.5 (Ø 1.75 in)

[Visit website for more information](www.fluidotech.com)
Note: Characteristics with water at 20 °C (68 °F) and without relief valve.

Operating range with rare earth driving magnet.

A = 1 cSt  B = 20 cSt  C = 75 cSt  D = 180 cSt  E = 210 cSt

Temperature requirements different from ambient temperature must be mentioned on the order. Different materials available upon request.
Operating range with rare earth driving magnet

A = 1 cSt  B = 20 cSt  C = 75 cSt  D = 180 cSt  E = 210 cSt

Note: Characteristics with water at 20 °C (68 °F) and without relief valve. Use filter before pump inlet not larger than 10 micron.

Temperature requirements different from ambient temperature must be mentioned on the order. Different materials available upon request.
### MODEL NUMBER MATRIX

<table>
<thead>
<tr>
<th>Position</th>
<th>Description</th>
<th>Code</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Driven magnet</td>
<td>MG</td>
<td>=</td>
</tr>
<tr>
<td>2</td>
<td>Pump series</td>
<td>2</td>
<td>=</td>
</tr>
<tr>
<td>3</td>
<td>Gear width in mm (Nominal displacement)</td>
<td>04</td>
<td>=</td>
</tr>
<tr>
<td></td>
<td></td>
<td>09</td>
<td>=</td>
</tr>
<tr>
<td></td>
<td></td>
<td>13</td>
<td>=</td>
</tr>
<tr>
<td></td>
<td></td>
<td>17</td>
<td>=</td>
</tr>
<tr>
<td>4</td>
<td>Housing material</td>
<td>X</td>
<td>=</td>
</tr>
<tr>
<td>5</td>
<td>Type of connections</td>
<td>Y</td>
<td>=</td>
</tr>
<tr>
<td>6</td>
<td>Relief valve</td>
<td>D</td>
<td>=</td>
</tr>
<tr>
<td>7</td>
<td>Gear material</td>
<td>1</td>
<td>=</td>
</tr>
<tr>
<td>8</td>
<td>Static seal material</td>
<td>0</td>
<td>=</td>
</tr>
</tbody>
</table>

*Other materials available upon request.*

**CODE**
- **MG** = ferrite
- **MS** = rare earths
- **2** = PTFE™ flat seal
- **4** = ceramic chamber
- **04** = 4 mm (0.3 ml/rev)
- **09** = 9 mm (0.6 ml/rev)
- **13** = 13 mm (0.9 ml/rev)
- **17** = 17 mm (1.2 ml/rev)
- **X** = AISI 316L
- **S** = SAF 2205
- **Y** = AISI 303
- **D** = 1/8” NPT
- **G** = 1/8” GAS
- **0** = without
- **1** = with
- **P** = Peek™
- **T** = PTFE™
- **G** = Ceramic Peek™

Fluid-o-Tech reserves the right to alter the specifications indicated in this catalogue at any time and without prior notice.