DESCRIPTION

The MK 200/300 series pumps are designed to complete the existing MG 200 series with improved performance in terms of flow rate, pressure, capability to handle high viscosity fluids and a wider offer of materials to suit most applications, from the food to the industrial and chemical markets.

The housing of the pump and the internal metal parts are AISI 316L. In/Out ports have 1/4” NPT female threads. The gears are available in PTFE or PEEK™. The driving magnet is rare earth type, capable of driving the pump at high pressure.

The quality of the materials of the assembled components allows handling of fluids with temperatures up to 120°C (248°F).

The motor with adaptor and drive magnet is heavy duty, providing a reliable and noiseless operation in a compact size package. 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.

SPECIFICATIONS

Pump Housing Material: 316 SS
Gears & Bushing Material: PEEK/PTFE
Connections: 1/4” NPT
Flow Range: Three pump sizes- MK 309, MK 313, MK 317 (9 mm, 13 mm or 17 mm gears), see flow charts

DIMENSIONS (MM)

TYPICAL APPLICATIONS

- Medical and surgical equipment
- Hemodialysis apparatus
- Exhaust fumes treatment
- Ink-jet printing systems
- Laser apparatus
- Water purification and ultra-filtration

Temperature ranges:
- PTFE: -45°C (-49°F) / + 50°C (+122°F)
- PEEK: -45°C (-49°F) / + 120°C (+248°F)

Max system pressure: 20 bar (290 psi)
Pump/Motor weight: 2 Kg (4.4 lbs)
NSF listed pumps are available for potable water.

Table 1: Drive, Adapter & Motor Assembly

<table>
<thead>
<tr>
<th>Description</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drive Magnet for 5 mm Drive</td>
<td>MKA05S</td>
</tr>
<tr>
<td>Motor adapter</td>
<td>MKBS48S</td>
</tr>
<tr>
<td>12 or 24 VDC Motor</td>
<td>Table 1</td>
</tr>
</tbody>
</table>

Clark Solutions • 10 Brent Drive • Hudson, MA 01749 • Tel. 978 / 568 3400 • Fax 978 / 568 0060
FLOW CURVES

ORDERING INFORMATION
1) Order Drive, Adaptor & Motor Assembly from Table 1
   EXAMPLE: MKCS11S
2) Order Pump From Table 2 Below
   EXAMPLE: MK309X170PV

Table 2- Pump Part Number ABCDEFG

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Pump Series</td>
<td>Gear Width</td>
<td>Housing Material</td>
<td>Gear Material</td>
<td>Relief Valve</td>
<td>Connections</td>
<td>Static Seal Material</td>
</tr>
<tr>
<td>MK2 = PTFE Flat Seals</td>
<td>09= 9mm  13= 13mm  17= 17mm</td>
<td>X= AISI 316  17= 1/4&quot; NPT</td>
<td>T= PTFE  P= PEEK™</td>
<td>0= without 1= with</td>
<td>MK2 ordered</td>
<td>S= Silicon  N= NBR  T= PTFE  V= Viton</td>
</tr>
<tr>
<td>MK3 = O-ring Seal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

*Each pump has three seals, two for the pump body and one for the magnet cup. Model type MK2 has all PTFE flat seals. Model MK3 is offered with a choice of o-ring seal material. Note that the material chosen in the order matrix is used for all three seal locations. If a relief valve is ordered the seal for the relief valve is always PTFE.