

Isochem[®] GMC4

MAGNETICALLY DRIVEN SEALLESS GEAR PUMP

Pulsafeeder's Isochem[®] GMC4 Series is a compact magnetically driven sealless gear pump designed for safely handling highly corrosive, hazardous, explosive, or toxic chemicals and industrial applications. The GMC4 provides safe leak free service since the magnetic coupling eliminates the need for traditional shaft sealing methods such as mechanical seals and shaft packing which are the primary source of leakage in rotating shaft pumps. Furthermore, expensive seal flushing or lubrication systems are eliminated. Consequently, mean time between failures is maximized while maintenance and operation costs are minimized!



Operating Benefits

- Flows to 3.0 gpm (11.4 lpm)
- Pressures up to 200 psi (13.8 bar)
- Laminar, non-pulsating flow
- Compact, close-coupled foot print eliminates issues related to alignment between pump and motor
- Leak free service minimizes exposure of your personnel to hazardous chemicals
- Ideal for viscosities from less than 1 to 100,000 cPs
- Suitable for vacuum service
- Can be used for metering or transfer of expensive, hazardous and corrosive chemicals over the entire pH range

Key Features

- Neodymium (standard) or Samarium cobalt coaxial synchronous magnets
- High torque magnetic coupling minimizes possibility of decoupling
- Internal pressurized lubrication system
- Inline discharge and suction connections
- Sealless, leak free operation

Materials of Construction

- **Pump Housing:** 316, Alloy 20, Hastelloy-C
- **Gears:** 316, Alloy C, Alloy 20, Teflon[®], PEEK, Carbon
- **Wear Plates:** Carbon, Teflon[®], PEEK, Ceramic
- **Bearings:** Teflon[®], Carbon (Grade 76), Carbon (Grade P90)
- **Containment Can:** Single or Double 316SS, Hastelloy-C
- **Magnets:** Neodymium or Samarium Cobalt
- **O-Ring Seal:** PTFE or 316SS spiral wound PFA encapsulated

Aftermarket & Accessory Offerings

- KOPkit[®]
- Cal Column
- Strainer
- Pressure Relief Valves
- Back Pressure Valves
- Gauges



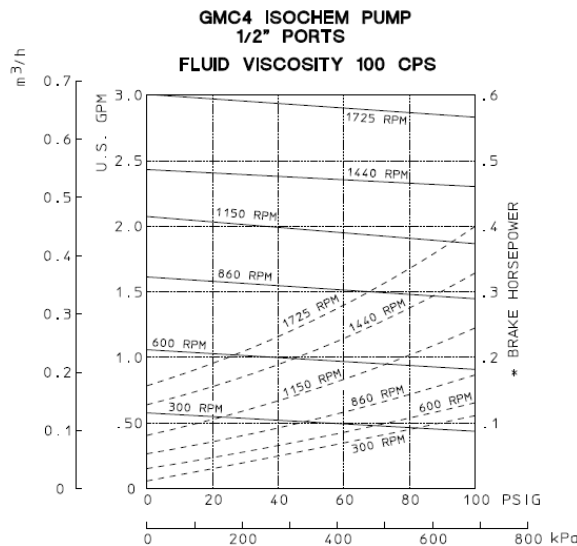
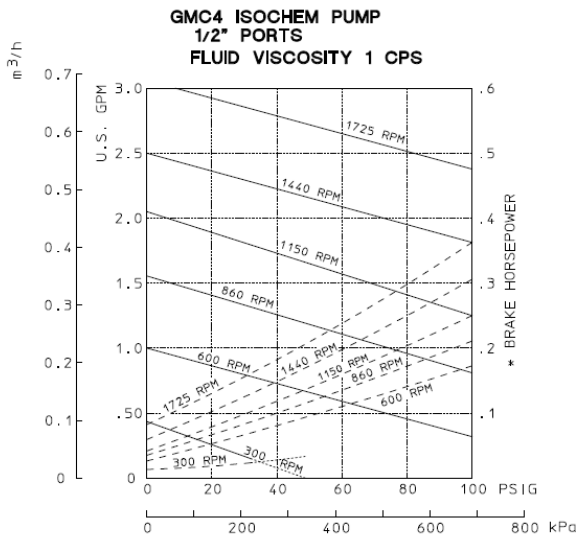
Isochem[®] GMC4

GENERAL SPECIFICATIONS

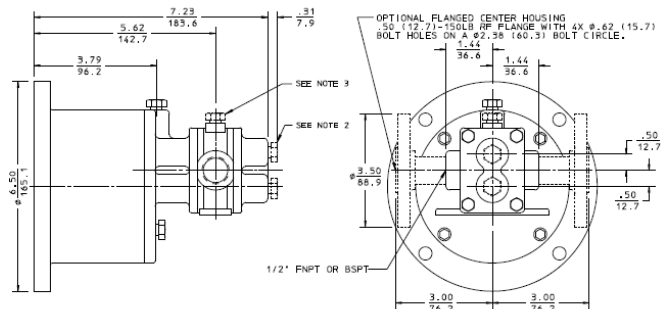
Curves shown represent Maximum Differential Pressure^{1,3}.
 Contact your Pulsafeeder representative for more information on:
 ~ Operating up to 140 psi MDP^{1,3} with optional narrow width gears
 ~ Operating at viscosities greater than 100 cPs

Port Size and Type _____ 1/2" FNPT, BSPT, 150 lb. RF Flange
 Direction of Rotation _____ Bi-directional
 Theoretical Displacement _____ 0.189 gal/100 rev. (7.15 cc/rev)
 Maximum Differential Pressure (MDP)^{1,3} _____ 140 psi (6.9 bar)
 Max. Diff. Pressure (MDP) ^{1,3} Plastic Gears _____ 50 psi (3.4 bar)
 Max. Allowable Working Pressure (MAWP)^{2,3} _____ 200 psig (10.3 barg)
 MAWP^{2,3} Plastic Gears _____ 100 psig (6.9 barg)
 Maximum Speed _____ 1750 rpm
 Maximum Capacity at 0 psig _____ 3.0 gpm (11.4 lpm)
 Maximum Viscosity _____ 100,000 cPs
 Maximum Process Fluid Temperature _____ 450 F (232 C)
 Minimum Process Fluid Temperature _____ -40 F (-40 C)
 Fluid pH Range _____ 0-14
 Gear Type _____ Compact Spur Gear
 Bearing Type _____ Sleeve
 Magnetic Torque Rating _____ 51.5 – 75.6 in.-lbs.
 Motor Frame Sizes – NEMA _____ 56C, 143/45TC
 Motor Frame Sizes – IEC _____ 71, 80 B3 / B14 Flange
 Weight, Less Motor _____ 16 lbs. (35.3 kg)

1. MDP. Maximum differential pressures between inlet (suction) and outlet (discharge) ports
2. MAWP. Maximum allowable continuous outlet (discharge) pressure
3. Operating above MDP will require offsetting inlet (suction) pressure



GMC4 for 56C, 143/45TC motors. Reference only



GMC4 for IEC 71C motor. Consult factory for 80C. Reference Only

