Isochem® GMC1

MAGNETICALLY DRIVEN SEALLESS GEAR PUMP



Pulsafeeder's Isochem® GMC1 Series is a compact magnetically driven sealless gear pump designed for safely handling highly corrosive, hazardous, explosive, or toxic chemicals and industrial applications. The GMC1 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 0.8 gpm (2.8 lpm)
- Pressures up to 300 psi (20.7 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 1000 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

- 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
- **Gears:** 316, Alloy C, Alloy 20, Ryton®, PEEK
- **Bearings and Wear Plates:** Carbon, Ryton®
- **Containment Can:** 316SS
- **Magnets:** Samarium Cobalt
- **O-Ring Seal:** PTFE

Aftermarket & Accessory Offerings

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



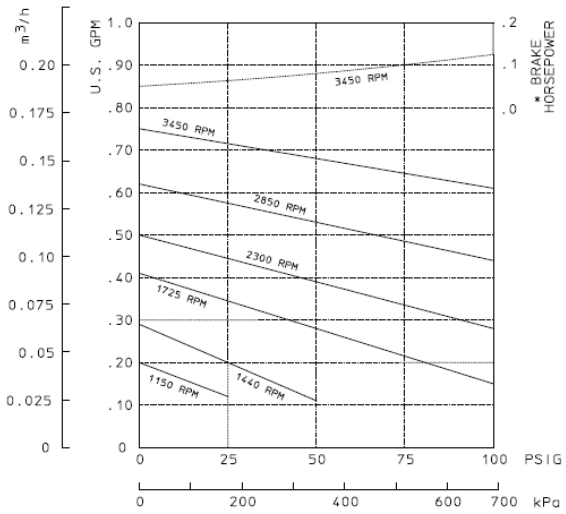
PULSAFEEDER® ENGINEERED PRODUCTS

Isochem® GMC1

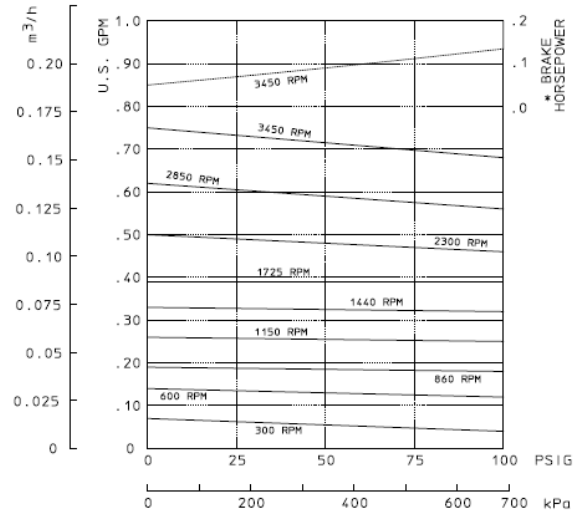
GENERAL SPECIFICATIONS

Curves shown represent Maximum Differential Pressure[1,3]. For viscosities greater than 100 cPs, contact your Pulsafeeder representative.

GMC1 ISOCHEM PUMP
1/4" PORTS
FLUID VISCOSITY 1 CPS



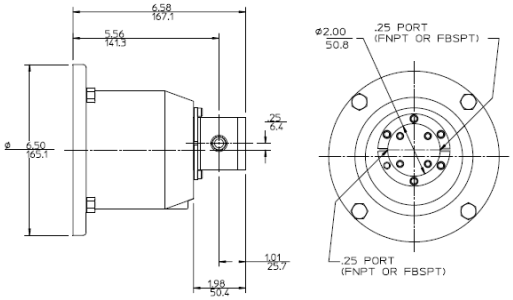
GMC1 ISOCHEM PUMP
1/4" PORTS
FLUID VISCOSITY 100 CPS



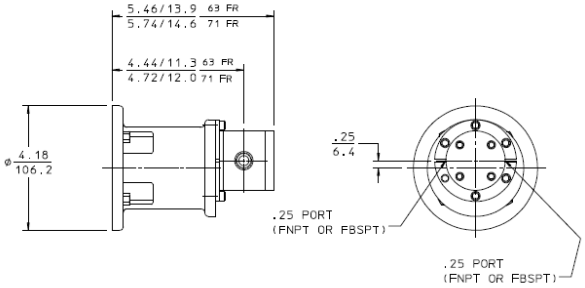
Port Size and Type	¼" FNPT or BSPT
Direction of Rotation	Bi-directional
Theoretical Displacement	0.03 gal/100 rev. (1.1 cc/rev)
Maximum Differential Pressure (MDP)[1,3]	100 psi (6.9 bar)
Max. Allowable Working Pressure (MAWP)[2,3]	300 psig (20.7 barg)
Maximum Speed	1750 rpm
Maximum Capacity at 0 psig	0.8 gpm (2.8 lpm)
Maximum Viscosity	1000 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	15 in-lbs.
Motor Frame Sizes – NEMA	56C
Motor Frame Sizes – IEC	63, 71 B3 / B14 Flange
Weight, Less Motor	7 lbs. (14.7 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

GMC1 for 56C motors. Reference only



GMC1 for IEC 63 and 71 motor. Reference Only



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