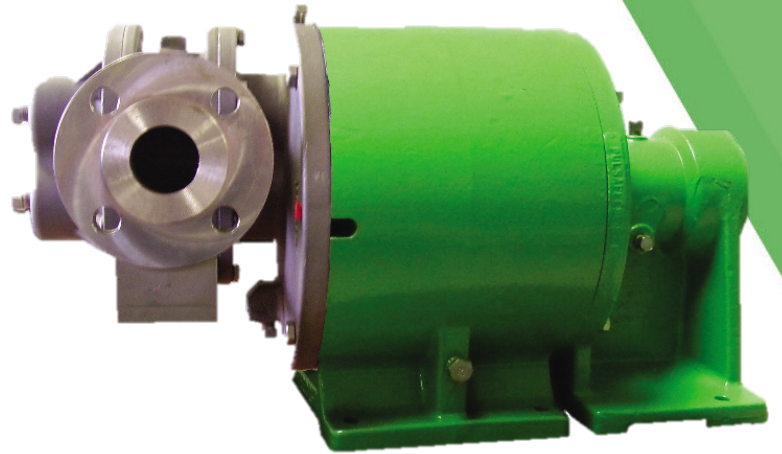


# Isochem<sup>®</sup> GM12

## MAGNETICALLY DRIVEN SEALLESS GEAR PUMP

Pulsafeeder's Isochem<sup>®</sup> GM12 Series is a compact magnetically driven sealless gear pump designed for safely handling highly corrosive, hazardous, explosive, or toxic chemicals and industrial applications. The GM12 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!



Configurations available certified to UL 1389:2019 Ed 1, "Plant Oil Extraction Equipment for Installation and Use in Ordinary (Unclassified) Locations and Hazardous (Classified) Locations"

### Operating Benefits

- Flows up to 28.0 gpm (106 lpm)
- Pressures up to 200 psi (6.9 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

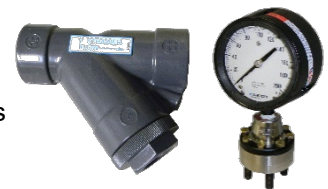
- Samarium cobalt (standard) coaxial synchronous magnets
- High torque magnetic coupling minimizes possibility of decoupling
- Internal pressurized lubrication system
- Inline discharge and suction connections
- Sealless, leak free operation

### Materials of Construction

- **Pump Housing:** 316 Stainless Steel
- **Gears:** 316, Alloy C, PEEK, Teflon<sup>®</sup>
- **Wear Plates:** Carbon, Teflon<sup>®</sup>, PEEK, Ceramic
- **Bearings:** Glass Filled Teflon<sup>®</sup>, Carbon (Grade P90)
- **Containment Can:** Hastelloy-C
- **Magnets:** Samarium Cobalt
- **O-Ring Seal:** PTFE or 316SS spiral wound PFA encapsulated

### Aftermarket & Accessory Offerings

- KOPkit<sup>®</sup>
- Cal Column
- Strainer
- Pressure Relief Valves
- Back Pressure Valves
- Gauges



# Isochem<sup>®</sup> GM12

## GENERAL SPECIFICATIONS

Curves shown represent Maximum Differential Pressure<sup>1,3</sup>.  
 Contact your Pulsafeeder representative for more information on:  
 ~ Operating up to 150 psi maximum differential pressure  
 ~ Operating at viscosities greater than 100 cPs

Port Size and Type \_\_\_\_\_ 1-1/2" FNPT, BSPT and 150 lb. RF Flange  
 Direction of Rotation \_\_\_\_\_ Bi-directional  
 Theoretical Displacement \_\_\_\_\_ 2.79 gal/100 rev. (106 cc/rev)  
 Maximum Differential Pressure (MDP)<sup>1,3</sup> \_\_\_\_\_ 150 psi (6.9 bar)  
 Max. Allowable Working Pressure (MAWP)<sup>2,3</sup> \_\_\_\_\_ 200 psig (10.3 barg)  
 Maximum Speed \_\_\_\_\_ 1150 rpm  
 Maximum Capacity at 0 psig \_\_\_\_\_ 28.0 gpm (106 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 \_\_\_\_\_ Journal / Sleeve  
 Magnetic Torque Rating \_\_\_\_\_ 558-637 in.-lbs.  
 Motor Frame Sizes – NEMA \_\_\_\_\_ 1.125 inch input shaft  
 Motor Frame Sizes – IEC \_\_\_\_\_ 28 mm input shaft  
 Weight, Less Motor \_\_\_\_\_ 190 lbs. (418 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

Reference dimensional data for GM12 un-mounted is shown below with 1.125-inch input shaft. For dimensional information showing metric input shaft please visit our website

