

ISOCHEM®

Model GMC1

Model GMC1 Low Flow Magnetically Driven Sealless Gear Pump

Pulsafeeder's Isochem® Model **GMC1** is a compact magnetically driven sealless gear pump designed for safely handling highly corrosive, hazardous, explosive, or toxic chemicals and industrial applications. The Model **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, meantime between failures is maximized while maintenance and operation costs are minimized!

Materials of Construction:

- 316SS
- Hastelloy C
- Titanium
- Ryton®
- Carbon
 - TFE
 - PEEK



Hydraulic Characteristics:

- Pulseless Flow Rates to 0.75 gpm (0.17 m³/hr)
- Pressures to 100 psig (697 kPa)
- Maximum Allowable Working Pressure of 300 psig (2091 kPa)
- Temperature Range from -100°F (-73°C) to 450°F (232°C)
- Viscosities as high as 1000 centipoise
- Maximum Speeds of 3450 rpm

Product Features:

- Samarium Cobalt Coaxial Synchronous Magnets
- Carbon Reinforced Ryton® Encapsulated Inner Magnet Assembly
- Integral Gear and Shaft Assemblies
- Integral Bearing and Wear Plate Assemblies
- Internal Pressurized Lubrication System
- Inline Discharge and Suction Connections
- No Shaft Keys or Retaining Rings
- Only **Eleven** Wet End Parts!!!

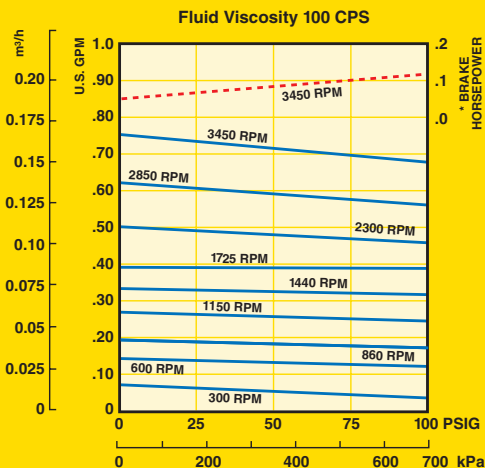
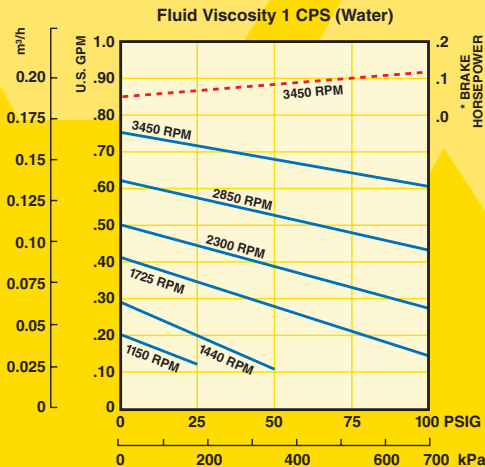
Applications:

Polymer feed – low flow, high viscosity
Laboratory Transfer Applications
Paper Mills – dyes, inks, bleaching
Empty Totes – Solvents, Water
System pH Control Applications
Chemical Metering Applications
Water Disinfection Systems
Constant Pressure Lubrication Systems
Hydrocarbon Metering Applications
Metering Accuracy and Pulseless Flow
Suction Lifts
Dye Injection Systems
Circuit Board Cleansing and Cooling
Cooling Recirculation Systems

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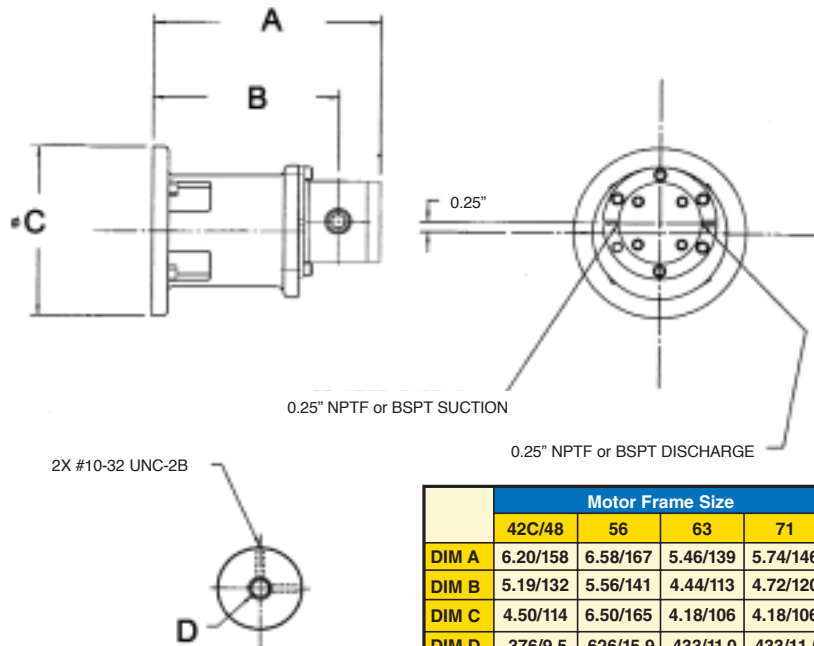
Variable Speed Performance Curves



General Specifications

Port Size and Type	1/4" FNPT or BSPT
Direction of Rotation	Bi-directional
Theoretical Displacement	0.03 gal / 100 rev. (1.1 cc / rev.)
Maximum Differential Pressure	100 psig (697 kPa)
Maximum Allowable Working Pressure	300 psig (2091 kPa)
Maximum Speed	3450 rpm
Maximum Capacity at 0 psig	0.75 gpm (0.17 m³/hr.)
Maximum Viscosity	1000 cps
Maximum Process Fluid Temperature	450° F (232° C)
Minimum Process Fluid Temperature	-100° F (-73° C)
Fluid pH Range	0-14
Gear Type	Compact Spur Gear Design
Bearing Type	Sleeve Bearing Integral Wear Plate
Magnetic Torque Rating	15 in-lbs. (1.7 N-m)
Motor Frame Sizes - NEMA	42C, 48C, or 56C
Motor Frame Sizes - IEC	63 or 71 B14 Flange
Pump Housing Materials of Construction	316SS, Hastelloy-C, or Titanium
Gear Materials of Construction	Ryton, PEEK, 316SS, Hastelloy-C or Titanium
Wear Plate Materials of Construction	Carbon Filled Ryton, GFTFE, Carbon, PEEK
Can Materials of Construction	316SS, Hastelloy-C, or Titanium
Inner Magnet Materials of Construction	Samarium Cobalt
Outer Magnet Materials of Construction	Neodymium Iron Boron
O-ring Seal Materials	PTFE
Approximate Weight	7 lbs. (3.2 kg) less motor

Dimensional Print



	Motor Frame Size			
	42C/48	56	63	71
DIM A	6.20/158	6.58/167	5.46/139	5.74/146
DIM B	5.19/132	5.56/141	4.44/113	4.72/120
DIM C	4.50/114	6.50/165	4.18/106	4.18/106
DIM D	.376/9.5	.626/15.9	.433/11.0	.433/11.0

(ALL DIMENSIONS ARE IN INCHES/MM)



PULSAFEEDER®

A Unit of IDEX Corporation

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