# Magnetic Drive Gear Pump

Series 5000 For a pump that can handle your toughest fluid handling needs without taking up too much space, think Micropump's Series 5000. This cavity style gear pump always provides smooth, pulseless delivery and leak-free operation, with a high system pressure version available that can withstand system pressures to 103



#### **Small Size**

The smaller package size of the Series 5000 delivers performance that is usually found only in much larger pumps.

#### Leak-Free

The magnetic drive and O-ring seals keep the fluid securely inside the pump and potential contaminants out.

# **Smooth Pulseless Delivery**

Positive displacement, helical gears provide smooth, accurate fluid delivery that is proportional to motor speed.

# **Chemically Resistant**

An extensive range of wetted material options ensure compatibility with a wide range of chemicals.

### **Easy to Service**

Series 5000 pumps are easy to service using a Micropump service kit and simple hand tools.

## **Wide Range of Options**

Product design offers the flexibility to configure the product to your specific needs. Some options include:

- Three standard gear sizes
- Multiple gear, body, and O-ring materials
- Optional high torque magnets
- Special bushing materials
- NEMA and IEC drive mounts

# Advanced Pump Technology

Micropump uses the latest engineering tools and manufacturing equipment to produce the most advanced pumping solutions available. Products are developed using state-of-the-art CAD, Finite Element Analysis (FEA), and rapid prototyping tools. Precision CMM and CNC manufacturing equipment ensure the highest level of product quality.

### **Proven Reliability**

Over 40 years of experience solving the most difficult pumping problems go into the design and manufacture of every Micropump pump, ensuring the most reliable pumping solution available.

### **OEM Configurations**

Series 5000 pumps can be customized to meet your individual requirements.

# High System Pressure Capability

Optional versions of the Series 5000 are designed to withstand system pressures up to 103 Bar (1500 psi).



#### **Performance Summary**

Flow Rate				
at 1750 rpm				
13.5 L/min	3	3.6 gpm		
Displacement (ml/rev)				
Gear Set	H21	H23	H25	
ml/rev	4.6	6.2	7.7	
Maximum Differential Pressure				
8.7 Bar			125 ps	
Maximum System Pressure				
103 Bar		1	500 ps	
Temperature Range				
-46 to 121° C		-50 to	-50 to 250° F	
Viscosity Rang	e	Maximum	Maximum Speed	
0.2 to 2500 cp	S	3450 rpm		

#### **Pump Construction**

- Magnetic drive gear pump
- · Cavity style
- · Helical, shafted gears
- Sleeve bushings
- O-ring seals

#### **Wetted Materials**

- Base material
  - · 316 stainless steel
  - · Alloy 20
  - · Titanium
  - · Hastelloy C-276®
  - · Hastelloy B-2®
- Gears
  - · Teflon®
  - · PEEK
- Static seals
  - $\cdot \; \text{Viton}^{\text{\tiny{\$}}}$
  - · Ethylene propylene
  - · Buna N
  - Teflon
  - · Kalrez®

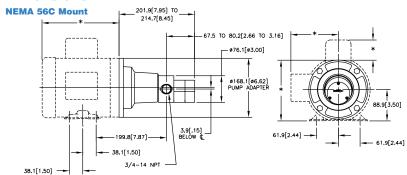
#### **Magnets**

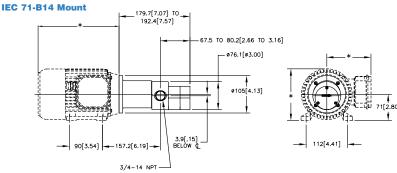
- · Driven and driving
  - · Ferrite
  - · Rare earth

### **Product Enhancements**

- · High system pressure
- Carbon bushings
- Hardened shafts
- ANSI flanges
- 1/2-14 NPT ports

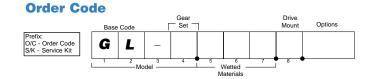
#### **Dimensions**





Units: mm[in]. Nominal dimensions shown.

#### **Pump Performance** Water @ 1 CP 3.5 3.0 10 2.5 Gear Set/Speed H25/1750 RPM 8 2.0 6 1.5 H23/1750 RPM H25/1450 RPM 4 1.0 H21/1750 RPM H23/1450 RPM 0.5 2 H21/1450 RPM 0.0 0 2 3 10 11 [L/mn] [bar] **Differential Pressure** 0 20 40 60 80 100 120 140 [psi]



ACTUAL PERFORMANCE MAY VARY

Specifications are subject to change without notice.

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