

Series GM

Magnetic Drive Gear Pump

MICROPUMP®

Micropump® Series GM pumps deliver exceptional pumping performance for any high-precision application. These magnetically driven gear pumps feature a cavity style design with benefits such as chemical resistance, smooth, pulseless delivery, and high-system pressure capability. Available in standard and custom configurations, Series GM pumps keep your operations flowing smoothly.

Cavity Style Pumps

Cavity style pumps are excellent for wide-ranging inlet and outlet operating conditions, and allow for intermittently pumping in reverse.

Small Size

The miniature package size of the Series GM is easily incorporated into the design of many systems.

Leak-Free

The magnetic drive and static o-ring seal(s) keep the fluid securely inside the pump and potential contaminants out.

Smooth Pulseless Delivery

Positive displacement, precision gears provide consistent fluid delivery in continuous processes.

Chemically Resistant

Series GM has a long-life in aggressive environments.

Easy to Service

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

High System Pressure Capability

Optional version of the Series GM are designed to withstand system pressures up to 1,000 psi (69 bar).



Wide Range of Options and Configurations

Micropump's designs offer the flexibility to customize products to meet your more challenging requirements including:

- ▶ Multiple gear, body, and o-ring materials
- ▶ High-torque magnets
- ▶ Special bushing materials
- ▶ NEMA and IEC drive mounts

Innovative Designs

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

Enhanced Efficiency

As part of the IDEX Health & Science Group, Micropump now offers fully-integrated liquid subassemblies, gas management systems, and precision components. Products include pumps, valves, manifolds, tubing, fittings, degassing/debubbling systems, air compressors, vacuum generators, and HPLC columns. Additional services are custom fluidic engineering and development, contract manufacturing, extrusion, molding, machining, and diffusion bonding.



Precision Engineered Fluidics™

Performance Summary

Flow Rate at 1,750 rpm

- ▶ 21,350 mL/min (5.6 gpm)

Displacement

- ▶ Gear Set G25
- ▶ mL/rev 12.2

Maximum Rated Differential Pressure

- ▶ 125 psi (8.7 bar)

Maximum Rated System Pressure

- ▶ 1,000 psi (69 bar)

Temperature Range

- ▶ -46–121 °C (-50–250 °F)

Viscosity Range

- ▶ 0.2–2,500 cps

Maximum Speed

- ▶ 1,750 rpm

Pump Construction

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

Wetted materials

Base material

- ▶ 316 stainless steel

Gears

- ▶ PEEK™

Static seals

- ▶ Viton®

Magnets

Driven and driving

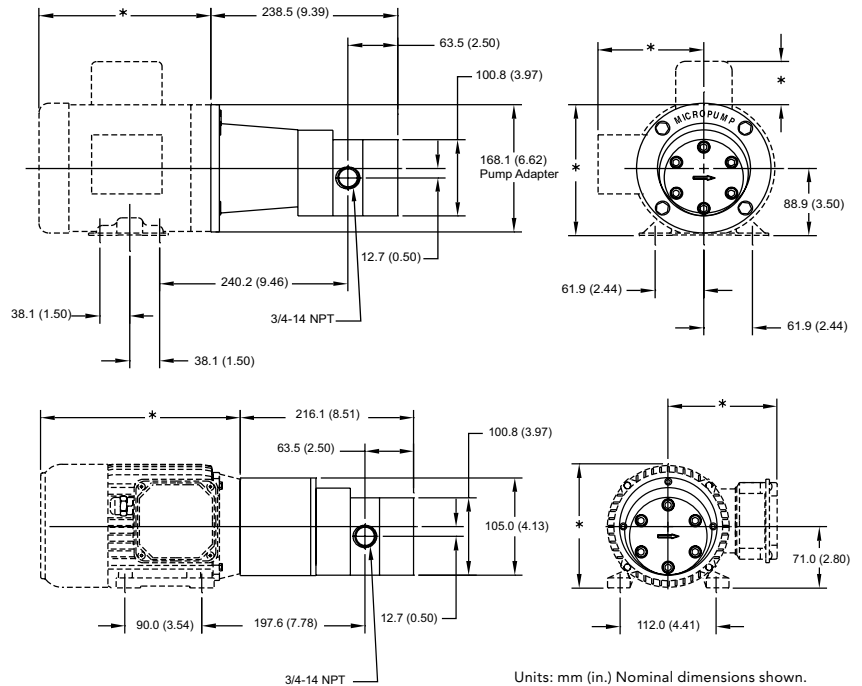
- ▶ Rare earth

Product Enhancements

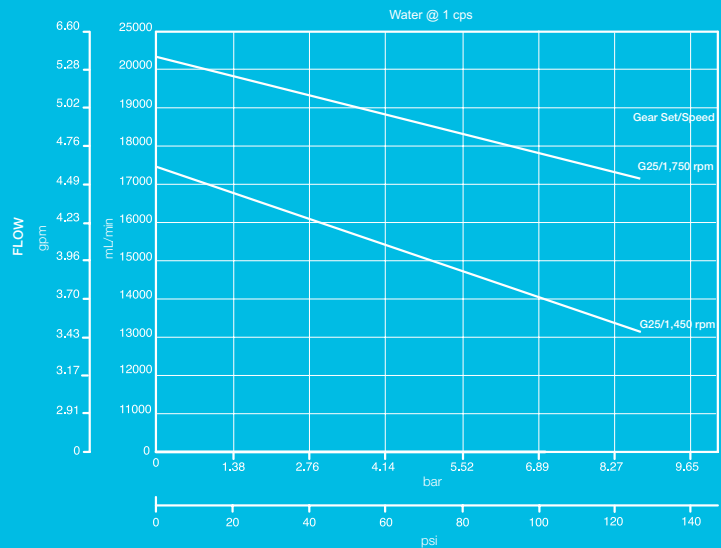
- ▶ High-system pressure

Dimensions

NEMA 56C Mount



Pump Performance



ACTUAL PERFORMANCE MAY VARY.

Specifications are subject to change without notice.

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Revised on 06/11/2008



<p>Order Code</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">Base Code</td> <td style="width: 15%; text-align: center;">Gear Set</td> <td style="width: 15%; text-align: center;">Drive Mount</td> <td style="width: 15%;"></td> <td style="width: 15%;">Options</td> </tr> <tr> <td style="text-align: center;"> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%; text-align: center;">G</td> <td style="width: 20%; text-align: center;">M</td> <td style="width: 20%; text-align: center;">-</td> <td style="width: 20%; text-align: center;">G25</td> <td style="width: 20%;"></td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td style="text-align: center;">5</td> </tr> </table> </td> <td style="text-align: center;"> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%; text-align: center;">5</td> <td style="width: 20%; text-align: center;">6</td> <td style="width: 20%; text-align: center;">7</td> <td style="width: 20%; text-align: center;">8</td> <td style="width: 20%;"></td> </tr> </table> </td> <td style="text-align: center;"> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;"></td> <td style="width: 50%;"></td> </tr> <tr> <td style="width: 50%;"></td> <td style="width: 50%;"></td> </tr> </table> </td> </tr> <tr> <td style="text-align: center;">Model</td> <td style="text-align: center;">Wetted Materials</td> <td colspan="3"></td> </tr> </table>	Base Code	Gear Set	Drive Mount		Options	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%; text-align: center;">G</td> <td style="width: 20%; text-align: center;">M</td> <td style="width: 20%; text-align: center;">-</td> <td style="width: 20%; text-align: center;">G25</td> <td style="width: 20%;"></td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td style="text-align: center;">5</td> </tr> </table>	G	M	-	G25		1	2	3	4	5	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%; text-align: center;">5</td> <td style="width: 20%; text-align: center;">6</td> <td style="width: 20%; text-align: center;">7</td> <td style="width: 20%; text-align: center;">8</td> <td style="width: 20%;"></td> </tr> </table>	5	6	7	8		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;"></td> <td style="width: 50%;"></td> </tr> <tr> <td style="width: 50%;"></td> <td style="width: 50%;"></td> </tr> </table>					Model	Wetted Materials				<p>Pump Construction</p> <p>Magnetic Drive Gear Pump Cavity Style Two Helical, Shafted Gears/DP10 Sleeve Bushings O-Ring Seals (Qty 3) Rare Earth Magnets</p>
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Specifications


	SI	US
Displacement	12.2 ml/rev	3.2 gal/1000*rev
Max Flow (4 Pole Speed)	17.7 L/mn 1450 RPM (50Hz)	5.7 gal/mn 1750 RPM (60Hz)
Max Flow (2 Pole Speed)	34.8 L/mn 2850 RPM (50Hz)	11.2 gal/mn 3450 RPM (60Hz)
Max Differential Pressure	1 8.7 Bar	125 psi
Max System Pressure (MAWP)	See Drive Mount	See Drive Mount
NIPR (Absolute)	180 mBar	2.5 psia
Wet Lift (Typical)	2 51 cm.H2O (1450 RPM)	24 in.H2O (1750 RPM)
Temp Range	3 See Gear Material	See Gear Material
Viscosity Range	4 0.2 to 2500 cp	0.2 to 2500 cp
Max Speed	1,750 RPM	1,750 RPM
Rotation (Facing Motor Shaft)	CW	CW
Weight (Pumphead)	10.9 kg	24.0 lbs
Dimensions (LxWxH)	See Drawing	See Drawing
Ports	3/4-14 (F) NPT Side Ports	3/4-14 (F) NPT Side Ports
Driven Magnet (Standard)		
Optional Internal Bypass	No	No

Notes

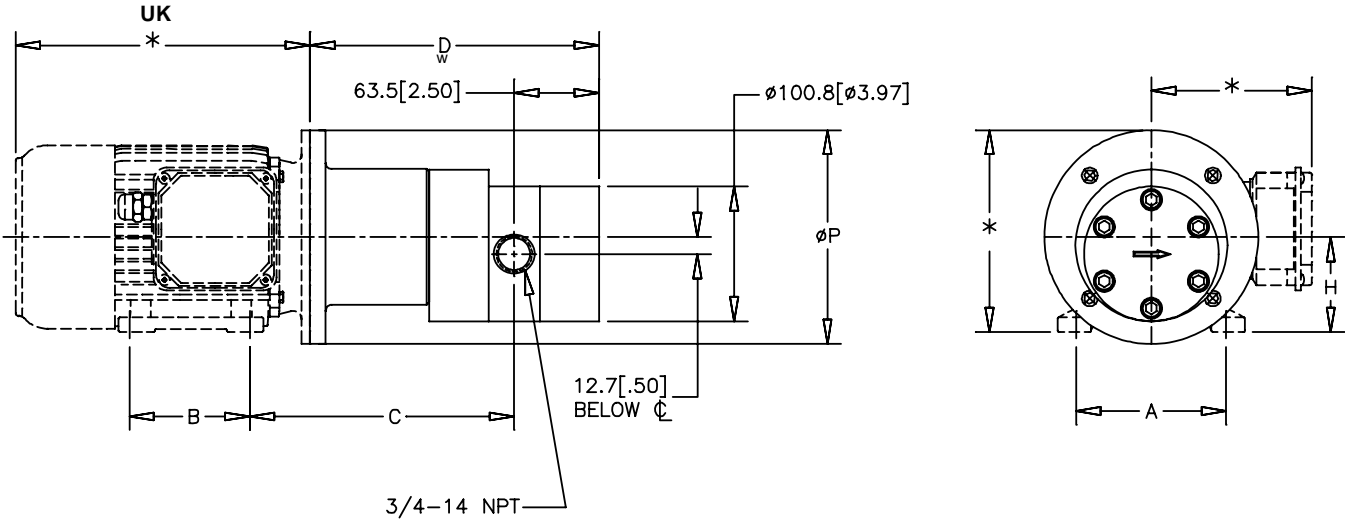
- 1 See Product Options. Max pressure depends on gear material.
- 2 Priming ability varies with operating conditions.
- 3 See Product Options for specific temp limits.
- 4 See Performance-High Viscosity for viscosity limits.

Order Code				Pump Construction			
Base Code		Gear Set		Drive Mount		Options	
G	M	-	G25			7	
1	2	3	4	5	6	7	8
Model			Wetted Materials			O/C: Pump S/K: Service Kit	

Pump Construction
 Magnetic Drive Gear Pump
 Cavity Style
 Two Helical, Shafted Gears/DP10
 Sleeve Bushings
 O-Ring Seals (Qty 3)
 Rare Earth Magnets



Dimensions



MOUNT	A mm [in]	B mm [in]	C mm [in]	D mm [in]	H mm [in]	P mm [in]
7 IEC80B5B3	125 [4.92]	100 [3.94]	212.5 [8.37]	226.0 [8.90]	80 [3.15]	200 [7.87]

NOTES:

- *THESE DIMENSIONS WILL VARY BASED ON MOTOR SELECTION.
- ALL DIMENSIONS ARE NOMINAL.

