

# Magnet drive gear pumps MG200 series

The MG series magnet drive gear pumps are compact precision performance pumps for high technology applications. The magnet drive principle provides a totally sealed pump chamber capable of handling a wide range of corrosive liquids with a high degree of safety. The housing of the pump and the internal metal parts are in AISI 316L stainless steel and the gears are available in Peek™, Ceramic Peek™ or PTFE™.

In operation the MG series pumps are noiseless, pulsation-free and able to handle relatively high temperature fluids with low coefficient of expansion.

The principle of the magnetic drive comprises an inner magnet embodied in the pump and connected to the driving gear, and an outer magnet connected to the motor shaft.

The pole-to-pole alignment of the two magnets provides the driving motion to the pump. Decoupling will occur when the pump load exceeds the maximum coupling torque provided by the alignment of the two magnets.

#### Available upon request:

- Built-in relief valve
- Rare earths driven magnet



#### MAIN APPLICATIONS

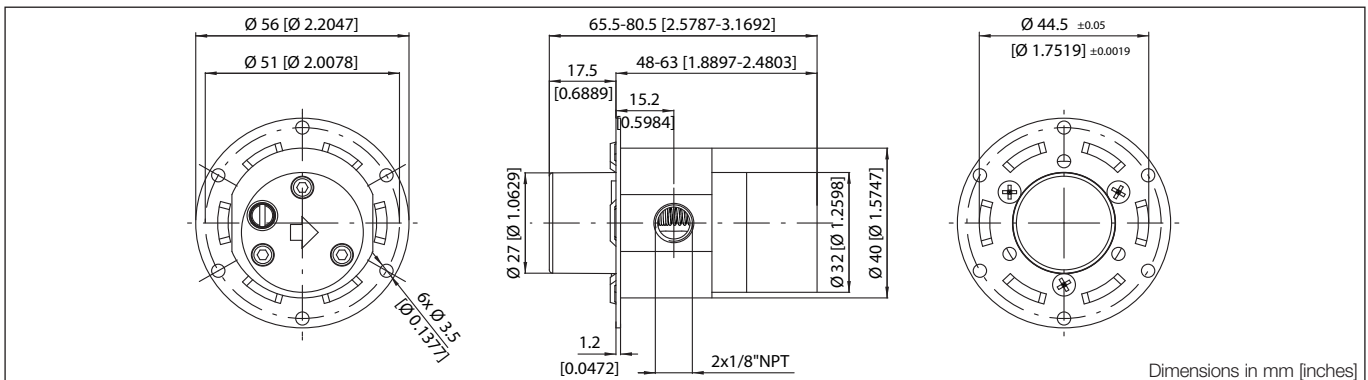
- Medical and surgical equipment
- Hemodialysis apparatus
- Laser apparatus
- Lubrication
- Ink-Jet printing systems
- Cooling systems
- Laboratory instrumentation
- Water treatment
- Sampling
- Food processing equipment

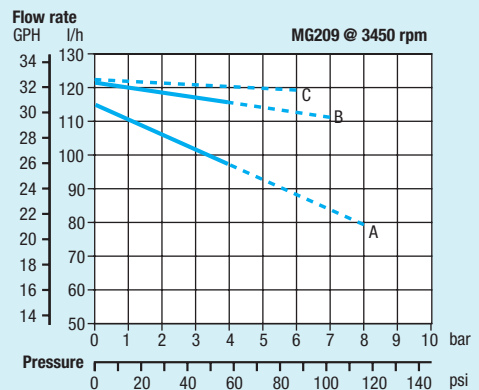
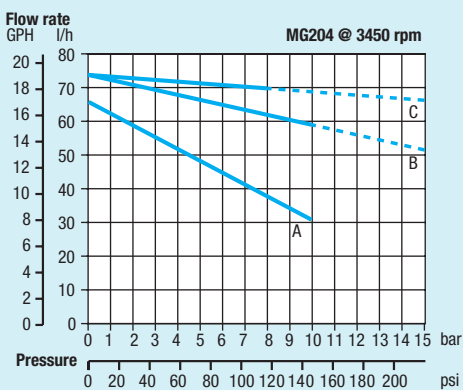
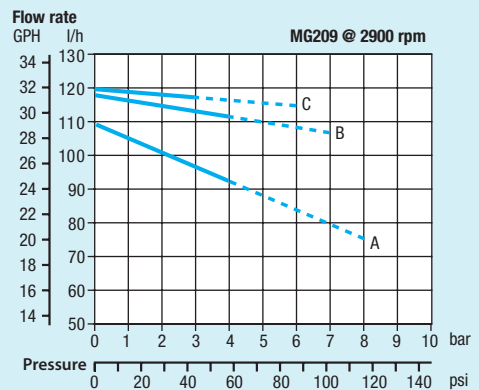
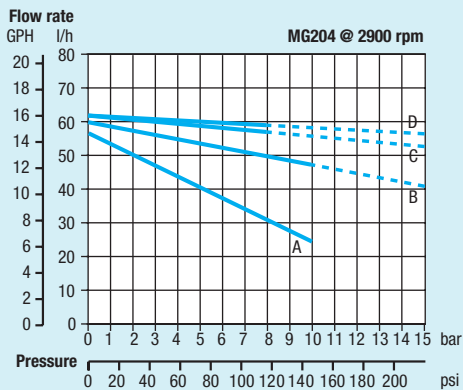
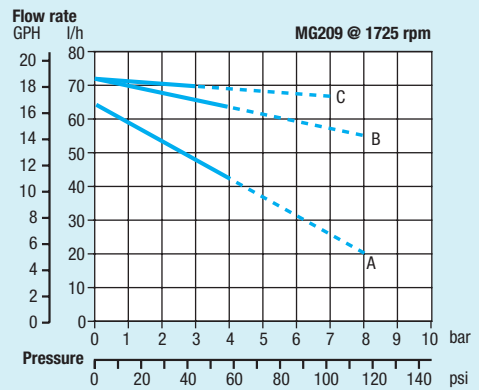
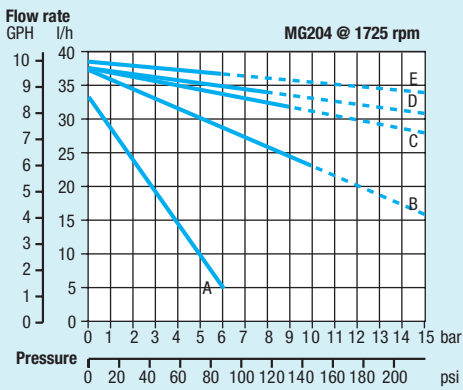
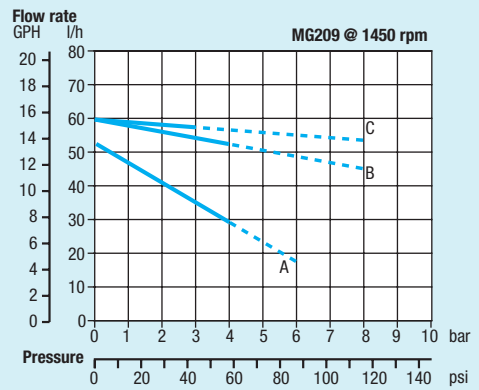
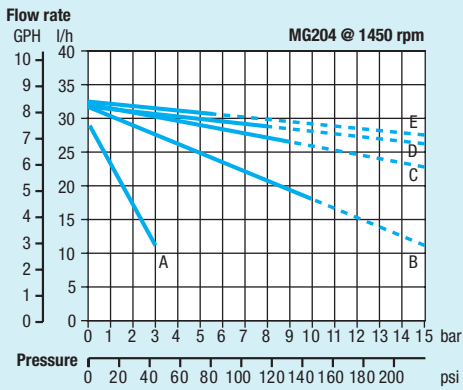


#### TECHNICAL INFORMATION

Pump housing material	Stainless steel	Max static pressure	20 bar/290 psi
Gears and bushing materials	Peek™/Ceramic Peek™/PTFE™	Temperature range	Peek™ -45 to 120 °C/-49 to 248 F
Ports	1/8" GAS or NPT	Temperature range	Ceramic Peek™ -45 to 120 °C/-49 to 248 F
Pump weight (MG209)	380 g (0.8 lb)	Temperature range	PTFE™ -45 to 50 °C/-49 to 122 F
Speed limit	5000 rpm	Max vacuum	724 mmHg/28.5 inHg
*Wet lift with water	~ 8m/26.7 ft		

\* Priming ability varies with operating conditions and fluid characteristics

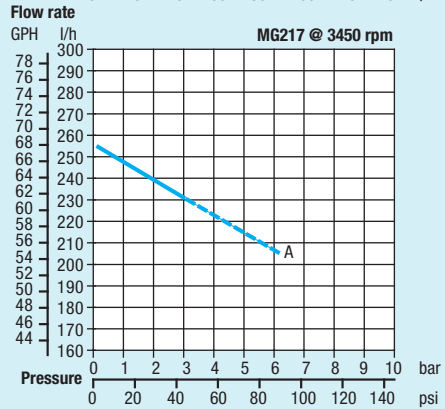
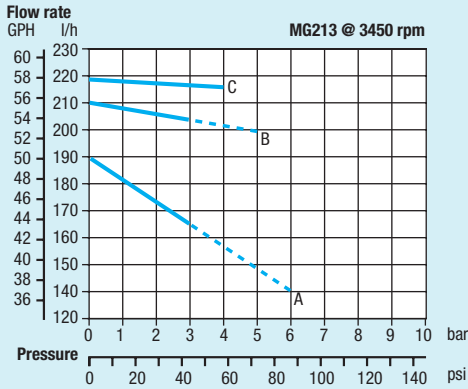
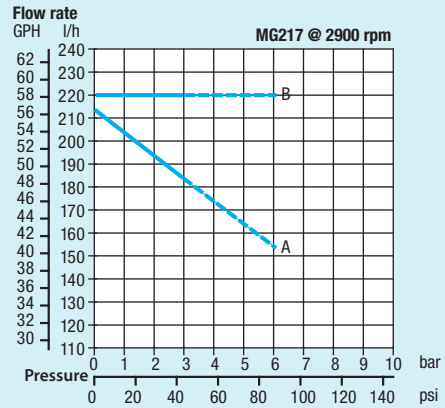
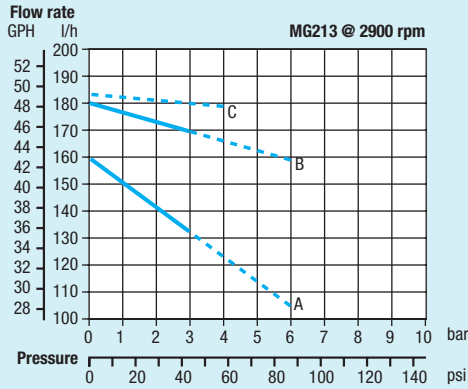
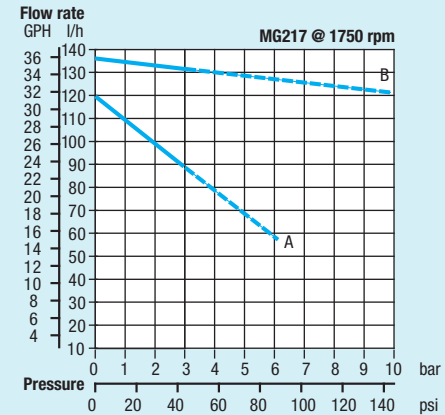
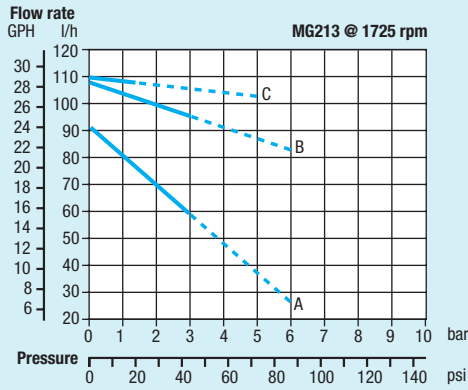
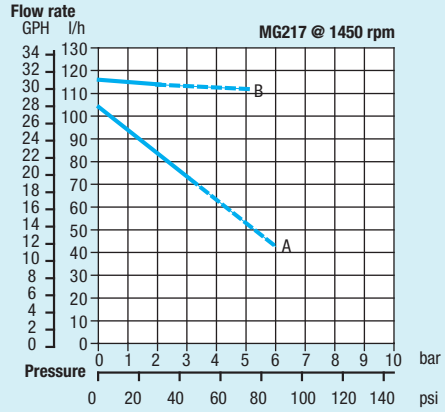
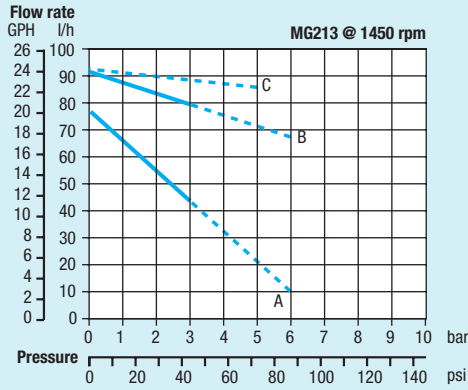




— Operating range with ferrite driving magnet  
 - - - Operating range with rare earth driving magnet

A = 1 cSt B = 20 cSt C = 75 cSt D = 180 cSt E = 210 cSt

Note: Characteristics with water at 20 °C (68 F) and without relief valve. Use filter before pump inlet not larger than 10 micron. Temperature requirements different from ambient temperature must be mentioned on the order. Different materials available upon request.



— Operating range with ferrite driving magnet  
 - - - Operating range with rare earth driving magnet

A = 1 cSt B = 20 cSt C = 75 cSt D = 180 cSt E = 210 cSt

Note: Characteristics with water at 20 °C (68 F) and without relief valve. Use filter before pump inlet not larger than 10 micron. Temperature requirements different from ambient temperature must be mentioned on the order. Different materials available upon request.

### MODEL NUMBER MATRIX

Position	1	2	3	4	5	6	7	8	Customization
Code	<b>MG</b>	<b>2</b>	<b>09</b>	<b>X</b>	<b>D</b>	<b>0</b>	<b>P</b>	<b>T</b>	<b>00000</b>

POS	DESCRIPTION	CODE	POS	DESCRIPTION	CODE
<b>1</b>	Driven magnet	<b>MG</b> = ferrite <b>MS</b> = rare earths	<b>4</b>	Housing material *	<b>X</b> = AISI 316L <b>S</b> = SAF 2205 <b>Y</b> = AISI 303
<b>2</b>	Pump series	<b>2</b> = PTFE™ flat seal	<b>5</b>	Type of connections	<b>D</b> = 1/8" NPT <b>G</b> = 1/8" GAS
<b>3</b>	Gear width in mm (Nominal displacement)	<b>04</b> = 4 mm (0.3 ml/rev)	<b>6</b>	Relief valve	<b>0</b> = without <b>1</b> = with
		<b>09</b> = 9 mm (0.6 ml/rev)	<b>7</b>	Gear material	<b>P</b> = Peek™ <b>T</b> = PTFE™
		<b>13</b> = 13 mm (0.9 ml/rev)			<b>G</b> = Ceramic Peek™
		<b>17</b> = 17 mm (1.2 ml/rev)	<b>8</b>	Static seal material	<b>T</b> = PTFE™

\* Other materials available upon request

Fluid-o-Tech reserves the right to alter the specifications indicated in this catalogue at any time and without prior notice.

**Fluid-o-Tech srl**  
Via Leonardo da Vinci, 40  
20094 Corsico, Milano, Italy  
Tel. +39 02 9995 01  
Fax +39 02 9995 0999  
info@fluidotech.it

**Fluid-o-Tech Int'l Inc.**  
161 Atwater St.,  
06479 Plantsville CT (USA)  
Tel. +1 (860) 276 9270  
Fax +1 (860) 620 0193  
info@fluid-o-tech.com

**Fluid-o-Tech Int'l Inc. Japan**  
201, 4-3-10, Todoroki,  
Setagaya, Tokyo 158-082, Japan  
Tel. +81 (0) (3) 6432 1812  
Fax +81 (0) (3) 6432 1813  
erkkato@fluidotech.jp

**Fluid-o-Tech Asia (Beijing) Co., Ltd**  
Jingwei Industrial Zone,  
Beifang Huairou, Beijing, 101400, PRC  
Tel. +86 (0) (10) 6168 4650  
Fax +86 (0) (10) 6168 4651  
info@fluidotech-asia.com