# Magnet drive gear pump-motor units FG200/FG300 series

The Fluid-o-Tech® FG series combines a 24V brushless DC drive motor in a rotor-less configuration with a high precision mag drive MG or PG series gear pump to deliver a high system capable of handling fluids in the most demanding applications. The service life of the unit, due to fewer moving parts and to the excellent balance of the system, is greatly extended compared to the traditional pump-motor units.
The integration of the pump, motor and variable speed controller provides an electromagnetically coupled, leak free unit with a high degree of versatility. The extreme accuracy of the design and of the finishing allows the unit to deliver a smooth and pulsation free flow in all conditions. A range of materials is available for a wide array of fluids.



## MAIN APPLICATIONS

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

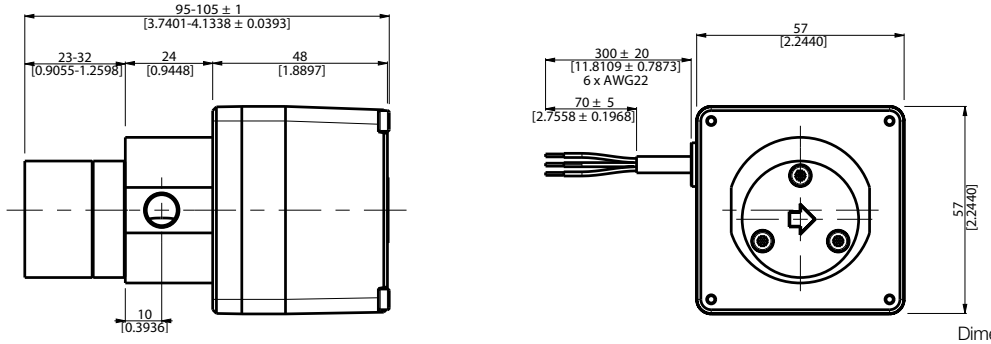
## TECHNICAL INFORMATION

| | | | |
|---|---|---|---|
| Pump housing material | AISI 316L or PPS | Motor type | 24 V BLDC |
| Gears and bushing material | Peek/PTFE | Speed range | from 300 to 5000 rpm |
| Ports | 1/8" GAS or NPT | Max output power | 50 W |
| Max static pressure | 20 bar/290 psi | Motor IP protection | IP 52 |
| Max vacuum | 724 mmHg/28.5 inHg | Insulation class | F |
| Wet lift with water* | ~ 8 m/26.2 ft | Unit weight | AISI 316L 910g/2lb - PPS 550g/1.2lb |

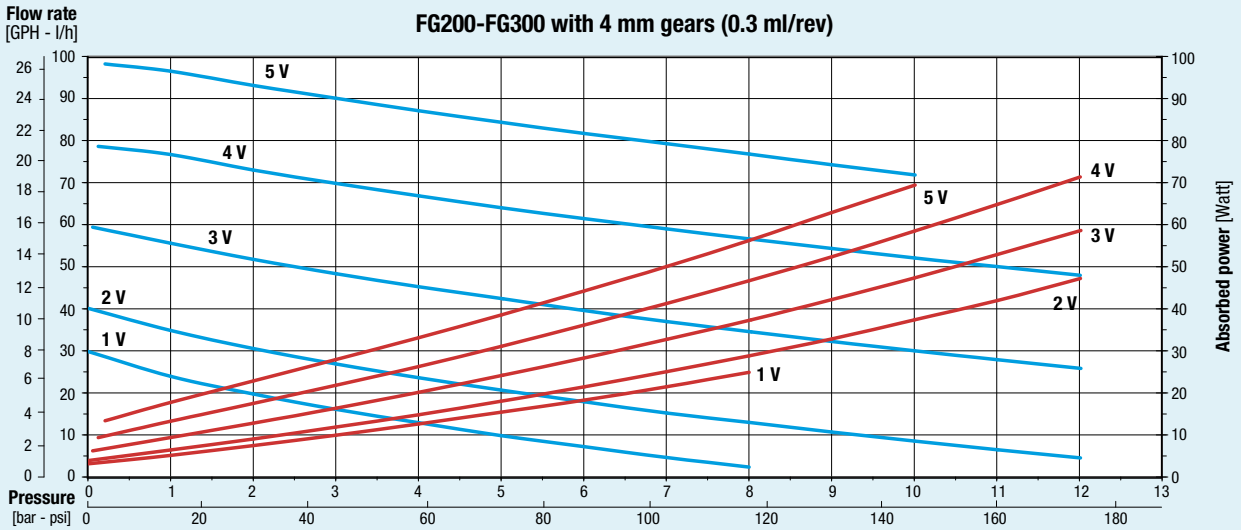
* Priming ability varies with operating conditions and fluid characteristics

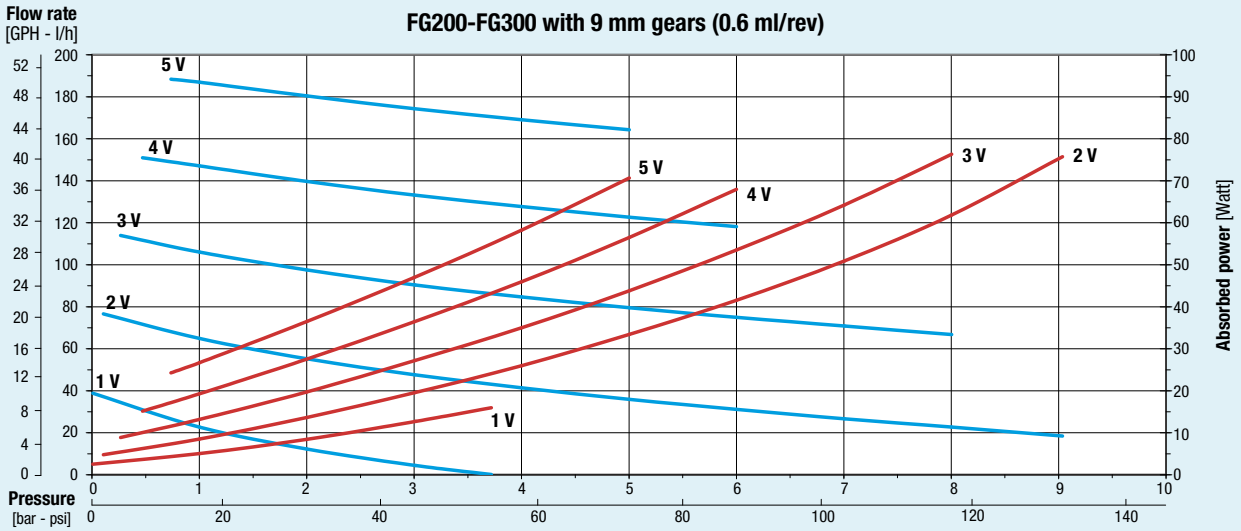
## OPERATING RANGE

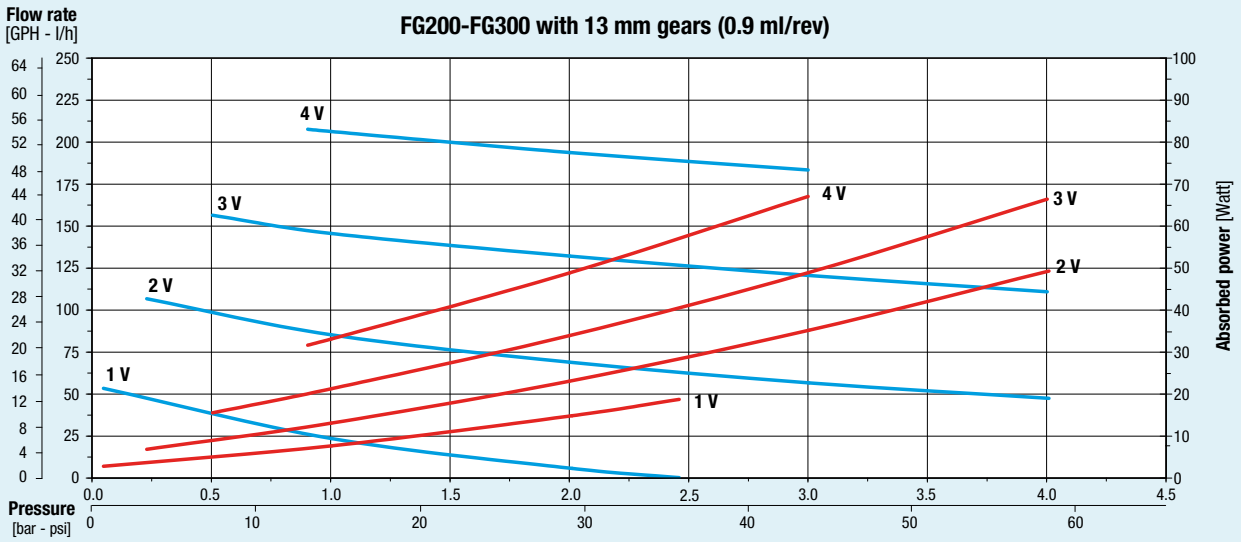
| | | | |
|---|---|---|---|
| Max ambient temperature | 40 °C/104 F | 70 °C/150 F | 40 °C/104 F |
| Fluid temperature | 95 °C/203 F | 55 °C/131 F | 40 °C/104 F |
| Max torque | 30 mNm/4.2 in-oz at 5000 rpm | 70 mNm/9.9 in-oz at 3500 rpm | 100 mNm/14.1 in-oz at 3500 rpm |
| Min ambient temperature | 5°C/41 F | | |




Dimensions in mm [inches]




Note: Characteristics with water at 20 °C (68 F) and without relief valve. Fluids different from water must be validated by the Customer. Temperature requirements different from ambient temperature must be mentioned on the order. Different materials are available upon request. Use a filter before the pump inlet no larger than 10 micron

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**
2nd Floor, 4-3-8, Espoir Todoroki,
Todoroki, Setagaya, Tokyo 158-0082
Tel. +81 (0) (3) 6432 1812
Fax +81 (0) (3) 6432 1813
erkkato@fluidotech.jp

**Fluid-o-Tech Asia (Shanghai) Co., Ltd.**
2/F, Factory building 6 (1), No. 258, Zhijiang Road,
Fengxian District, Shanghai City, Z.P.: 201499 China
Tel. +86 (021) 67100 838
Fax +86 (021) 67100 605
info@fluidotech-asia.com

# Magnet drive gear pump-motor units FG400 series

The FG400 series magnet drive gear pump-motor units are designed for heavy duty applications where reliability in harsh environments is key. The combination of the magnet drive with the use of ceramic for the internal components makes of the FG400 series an exceptionally robust pump capable of handling a wide range of liquids with a high degree of safety.

The Fluid-o-Tech® FG series combines a 24V brushless DC drive motor in a rotor-less configuration with a high precision mag drive MG series gear pump to deliver a system capable of handling fluids in the most demanding applications.

The service life of the unit, due to fewer moving parts and to the excellent balance of the system, is greatly extended compared to the traditional pump-motor units.

The integration of the pump, motor and variable speed controller provides an electromagnetically coupled, leak free unit with a high degree of versatility. The extreme accuracy of the design and of the finishing allows the unit to deliver a smooth and pulsation free flow in all conditions. A range of materials is available for a wide array of fluids.



## MAIN APPLICATIONS

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- Hemodialysis apparatus
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## TECHNICAL INFORMATION

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| Pump housing material | AISI 316L | Motor type | 24 V BLDC |
| Gears and bushing material | Peek/PTFE™ | Speed range | from 300 to 5000 rpm |
| Ports | 1/8" GAS or NPT | Max output power | 50 W |
| Max static pressure | 20 bar/290 psi | Motor IP protection | IP 52 |
| Max vacuum | 724 mmHg/28.5 inHg | Insulation class | F |
| Wet lift with water* | ~ 8 m/26.2 ft | Unit weight | 810 g (1.8 lb) |

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## OPERATING RANGE

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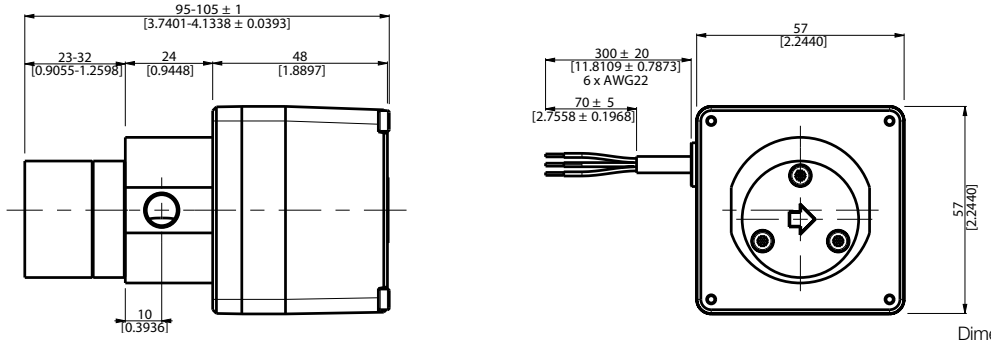
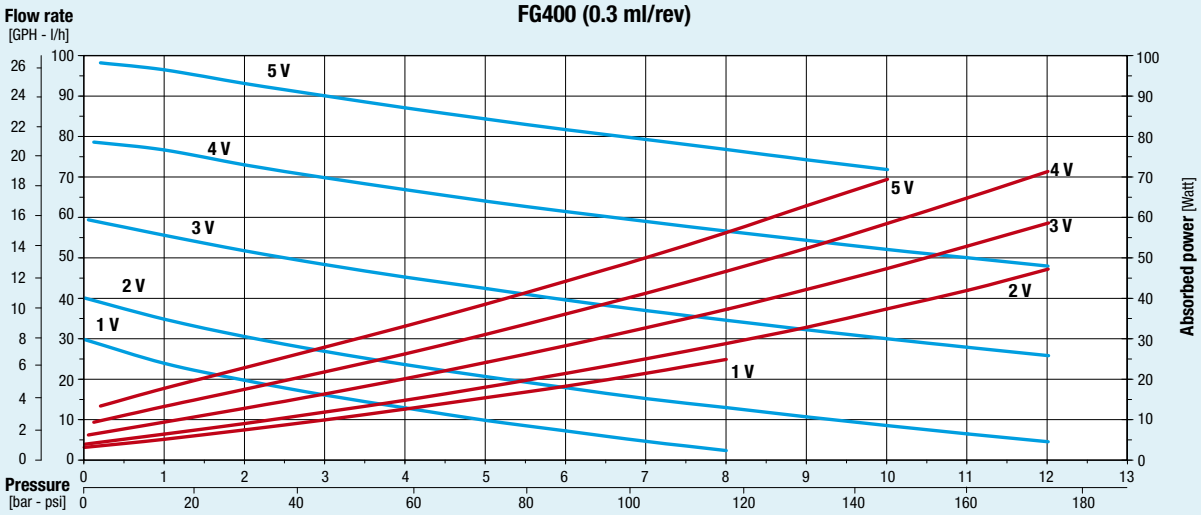
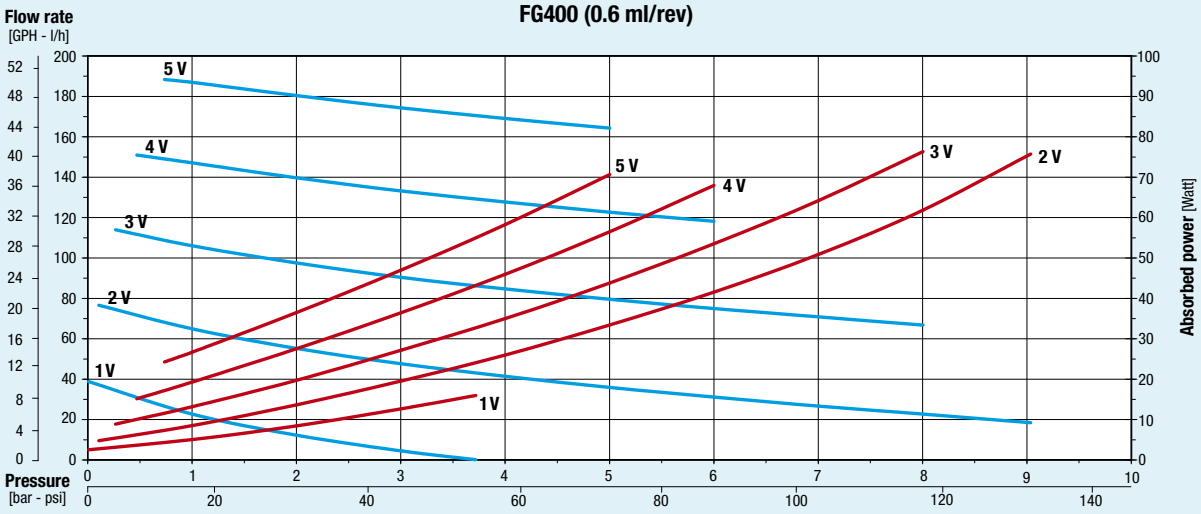
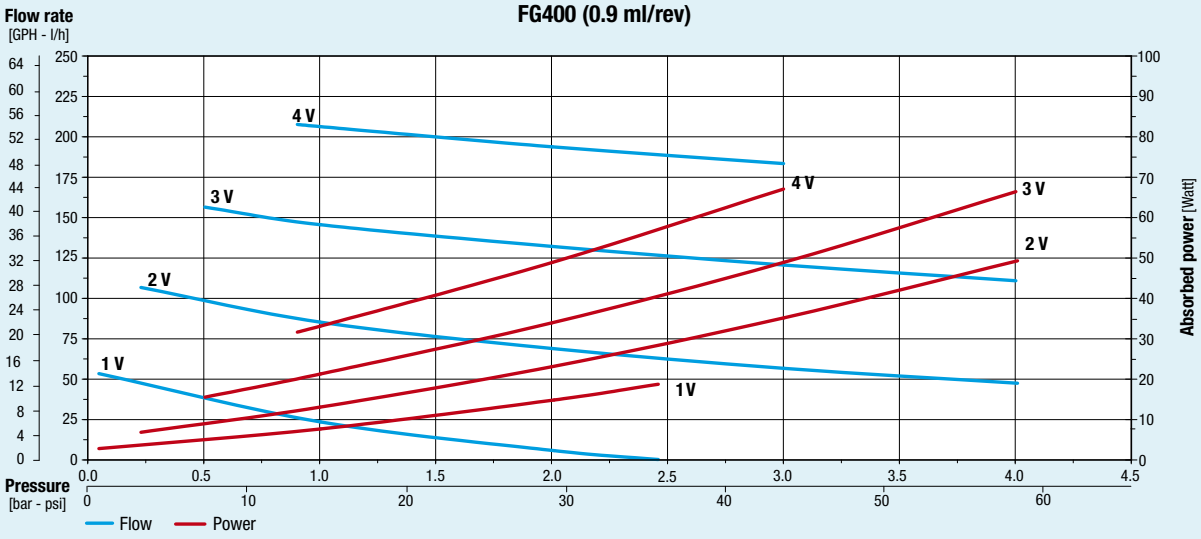



Dimensions in mm [inches]

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