Series GAF
MAGNETIC DRIVE GEAR PUMP
EAGLEDRIVE™

When you need a high-differential pressure, low-flow pump that delivers high performance in a small package, Series GAF is an excellent option. Series GAF gear pumps provide precise, pulseless flow, and features Micropump’s suction shoe design. The suction shoe self-compensates for wear, ensuring near zero slip and long pump life. This pump, standard with an electromagnetic EagleDrive™, provides a highly efficient, compact pumping package that easily integrates into your design.

PERFORMANCE SUMMARY

MAX RATED DIFFERENTIAL PRESSURE
17.2 Bar (250 psi)

MAX FLOW RATE (5500 rpm)
506 mL/min (0.134 US gpm)

MAX RATED SYSTEM PRESSURE
21 Bar (300 psi)

TEMPERATURE RANGE
-40 to 120°C (-40 to 248°F)

VISCOSITY RANGE
0.5 to 1500 cps

HIGH PERFORMANCE OPERATION
- High Differential Pressure – advanced design and materials support differential pressures up to 17 bar (250psi).
- Positive displacement, precision gears for smooth pulseless fluid delivery
- Suction shoe style pumps for improved efficiencies when pumping at higher pressures
- Electromagnetic drive, with low inertia and high torque, for fast response times
- Automotive grade electrical components for high temperature operation (up to 120°C) and durability

LONG LIFE
- Precisely designed and manufactured gears stand the test of rugged duty
- Chemically resistant construction materials stand up to chemically aggressive fluids.
- Electromagnetic drive means fewer moving parts
- Series GA pumps are easy to service using a Micropump service kit and simple hand tools.

EASY DESIGN INTEGRATION
- Series GA pump and EagleDrive provides a compact package, enabling easy integration into system designs
- Supports wide range of power supply voltages (10-38V)
- Error signals for easy error detection and diagnosis

FLUID PATH INTEGRITY
- The magnetic drive eliminates dynamic shaft seals, keeping the fluid in and contaminants out.
### WETTED MATERIALS

**BASE MATERIAL**
- 316 stainless steel

**GEARS**
- PEEK

**STATIC SEALS**
- EPDM

### MAGNETS

**DRIVEN**
- Rare earth

**DRIVING**
- Electromagnet

### PUMP CONSTRUCTION

- Magnetic drive gear pump
- Suction shoe style
- Spur gears
- Stationary shafts
- O-ring seal

### DRIVE SPECIFICATIONS FOR EAGLEDRIIVE™ DEMSE

**SPEED**
- 1000 to 8000 rpm (36V)
- 500 to 5500 rpm (24V)
- 250 to 2650 rpm (12V)

**SPEED AT RATED TORQUE**
- 3750 rpm @ 10 oz-in (24V)

**CURRENT AT RATED TORQUE**
- 2A @ 10 oz-in (24V)

**POWER SUPPLY**
- 10V to 38V DC

**TEMPERATURE RANGE**
- -40 to 120 °C (-40 to 248 °F)

### PUMP PERFORMANCE

**FLOW RATE NOMINAL:** 190 mL/min (@ 8.6 Bar, 3V)

**FLOW RATE MAX:** 506 mL/min (@ 0 Bar, 5V)

**DISPLACEMENT:** 0.092 mL/rev (0.02 gal/1000 rev)

### DIMENSIONS

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2x 1/8-27 NPT PORTS

[77.7] 3.06
[90.2] 3.55
[44.1] 1.74

[77.5] 3.05
[55.0] 2.17

[45.8] 1.80
[68.0] 2.68

[5.0] .20
[5.0] .20
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*Units: mm(in). Nominal dimensions shown*