MAGNETIC DRIVE PUMP

The GJ Series pumps are the smallest, most compact size and offers the lowest displacement of our cavity style family of pumps.

These magnetically driven gear pumps have provided solutions for customers applications for more than 60 years. Our cavity style gear pumps feature no dynamic seals for applications that cannot tolerate leaks.

GJ SERIES
EAGLEDRIVETM

SMALL SIZE
The miniature package size of the GJ Series is easily incorporated into the design of many systems.

DISPLACEMENT OPTIONS
The GJ Series offers the most gear set options, so you can choose the displacement necessary for your application.

REVERSE PUMPING CAPABILITY
Micropump cavity style gear pumps can be designed for applications with the need for intermittent reverse pumping.

LEAK FREE
Micropump’s design utilizes static seals for leak free, contamination free operation.

ELECTROMAGNETIC DRIVE FEATURES

EASY DESIGN INTEGRATION
Supports wide range of power supply voltages (10-38V). Error signals for easy error detection and diagnosis.

HIGH PERFORMANCE
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
Electromagnetic drive means fewer moving parts.
GJ SERIES EAGLEDRIVE™
N21 & N23 DEMSE

GJR-N21 DEMSE

85222 - DEMSE

N21
31.2 mm (1.23 in)

N23
35.8 mm (1.41 in)

DEMSE DRIVE SPECIFICATIONS

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

GJ-N21-DEMSE Performance

POWER SUPPLY Voltage = 24 VDC
Water @ 1cps

FLOW RATE NOMINAL: 600 mL/min (@ 2.8 Bar, 3V)
FLOW RATE MAX: 1760 mL/min (@ 0 Bar, 5V)
DISPLACEMENT: 0.32 mL/rev

GJ-N23-DEMSE Performance

FLOW RATE NOMINAL: 900 mL/min (@ 2.8 Bar, 3V)
FLOW RATE MAX: 3520 mL/min (@ 0 Bar, 5V)
DISPLACEMENT: 0.64 mL/rev
**GJ SERIES EAGLEDRI** 
**E**

**N25 & N27 DEELE**

### DEELE DRIVE SPECIFICATIONS

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

**SPEED (AT RATED TORQUE)**
- 3750 rpm @ 20 oz-in (24V)

**CURRENT (AT RATED TORQUE)**
- 2.9A @ 20 oz-in (24V)

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

**TEMPERATURE RANGE**
- -40 to 120 °C [-40 to 248 °F]

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### PERFORMANCE

**Power Supply Voltage = 24 VDC**

**Water @ 1cps**

<table>
<thead>
<tr>
<th>Speed Control</th>
<th>Flow Rate Nominal</th>
<th>Flow Rate Max</th>
<th>Displacement</th>
</tr>
</thead>
<tbody>
<tr>
<td>5V</td>
<td>1000 mL/min</td>
<td>5005 mL/min</td>
<td>0.91 mL/rev</td>
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<tr>
<td>3V</td>
<td>2700 mL/min</td>
<td>6765 mL/min</td>
<td>1.23 mL/rev</td>
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<tr>
<td>1V</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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**GJ-N25-DEELE Performance**

![Graph showing performance](image)

**GJ-N27-DEELE Performance**

![Graph showing performance](image)
GJ SERIES PERFORMANCE SUMMARY

PUMP PERFORMANCE

DISPLACEMENT
- Gear Set: N21, N23, N25, N27
- mL/rev: 0.316, 0.64, 0.91, 1.23
- US gal/1000 rev: 0.08, 0.17, 0.24, 0.32

MAXIMUM RATED DIFFERENTIAL PRESSURE
- 5.6 Bar | 80 psi

MAXIMUM RATED SYSTEM PRESSURE
- 21 Bar | 300 psi

FLOW RATE AT 4000 RPM
- 4.92 L/min (1.30 US gpm)

VISCOSEITY RANGE
- 0.5 to 1500 cps

MAXIMUM SPEED
- 5500 rpm

PUMP CONSTRUCTION
- Cavity style
- Side Port
- Two helical, shafted gears
- Sleeve bushings
- PTFE bevel or o-ring seal

WETTED MATERIALS

BASE MATERIAL
- 316 stainless steel
- Alloy 20*
- Titanium*
- Hastalloy C-276*

GEARS
- PTFE
- PPS*
- PEEK*

STATIC SEALS
- PTFE
- Viton*
- PTFE / Viton*
- PTFE / EP*

MAGNETS

DRIVEN
- Ferrite
- Rare earth*

DRIVING
- Electromagnetic

*Denotes customization or materials that may require minimum order quantities.