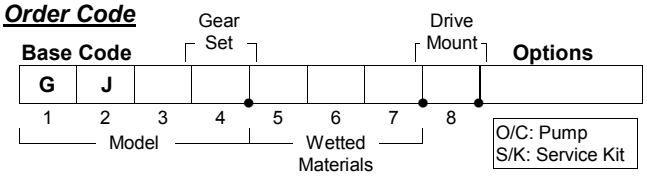
MICROPUMP
A UNIT OF IDEX CORPORATION

# Series Overview

# Series GJ

## Order Code




**Pump Construction**
Magnetic Drive Gear Pump
Cavity Style
Two Helical, Shafted Gears/DP24
Sleeve Bushings/Gasket Seals (2)
PTFE Bevel or O-Ring Seal (1)
PPS Driven Magnet

## Base Code

*Select a code character for each numbered position to configure the product.*

| | Code | Product Type | Specifications | | | Notes |
|---|---|---|---|---|---|---|
| 1 | | **Product Type** | | | | |
| | G | Gear Pump | | | | |
| 2 | | **Product Series** | *Max System Pressure (MAWP)* | *Ports* | | |
| | J | Series GJ | 21 Bar (300 psi) | 1/8-27 (F) NPT Side Ports | | |
| 3 | | **Modifier** | | | | |
| | - | Standard Design | | | | |
| 4 | | **Gear Set (Width/NºGears/Pitch)** | *Displacement* | *Max Differential Pressure* | *Driven Magnet (Standard)* | |
| | N21 | 0.175/2/24 | 0.316 ml/rev (0.08 gal/1000*rev) | 5.6 Bar (80 psi) | Ferrite | 1 |
| | N23 | 0.350/2/24 | 0.64 ml/rev (0.17 gal/1000*rev) | 5.6 Bar (80 psi) | Ferrite | |
| | N25 | 0.500/2/24 | 0.91 ml/rev (0.24 gal/1000*rev) | 5.6 Bar (80 psi) | Ferrite | |
| | N27 | 0.700/2/24 | 1.23 ml/rev (0.32 gal/1000*rev) | 5.6 Bar (80 psi) | Ferrite | 8 |
| 5 | | **Gear Material** | | *Max Differential Pressure* | *Temp Range* | |
| | F | PTFE | | 3.5 Bar (50 psi) | -46/99°C (-50/210°F) | 2 |
| | P | PPS (carbon fiber/ptfe) | | 5.2 Bar (75 psi) | -46/121°C (-50/250°F) | |
| | J | PEEK (carbon fiber/ptfe) | | 5.6 Bar (80 psi) | -46/121°C (-50/250°F) | |
| 6 | | **Static Seals** | | | *Temp Range* | |
| | F1 | PTFE Gasket (.004) 5369 | | | -46/54°C (-50/130°F) | 3 |
| | F2 | PTFE Gasket (.005) 3613 | | | 43/77°C (110/170°F) | 4 |
| | F3 | PTFE Gasket (.006) 4188 | | | 71/99°C (160/210°F) | 5 |
| | F11 | PTFE Gaskets/Viton O-Ring | | | -29/121°C (-20/250°F) | |
| | F12 | PTFE Gaskets/EP O-Ring | | | -46/121°C (-50/250°F) | |
| | F15 | PTFE Gaskets/TEV O-Ring | | | -29/121°C (-20/250°F) | |
| 7 | | **Base Materials** | | | | |
| | S | SS316 | | | | |
| | D | Alloy 20 | | | | |
| | T | Titanium | | | | |
| | C | Hast C-276® | | | | |
| 8 | | **Drive Mount** | *Max System Pressure (MAWP)* | | *Weight (Pumphead)* | |
| | A | MP Housing | 21 Bar (300 psi) | | 0.34 kg (0.75 lbs) | |
| | B | MP Plate | 21 Bar (300 psi) | | 0.34 kg (0.75 lbs) | |
| | M | I-Drive™ IMS | 21 Bar(300 psi) SS316 | | 0.45 kg (1.0 lbs) | |
| | J | I-Drive™ IEG | 21 Bar(300 psi) SS316 | | 0.45 kg (1.0 lbs) | |
| | E | NEMA 56C/143/145TC | 21 Bar (300 psi) | | 1.2 kg (2.6 lbs) | |
| | 2-6 | IEC 56-B14 to 71-B14 | 21 Bar (300 psi) | | 1.2 kg (2.6 lbs) | |

MICROPUMP
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# Series Overview

# Series GJ

## Order Code

| Base Code | | Gear Set | | | | Drive Mount | Options |
|---|---|---|---|---|---|---|---|
| G | J | | | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

Model: 1–2 | Wetted Materials: 6–7

O/C: Pump
S/K: Service Kit

**Pump Construction**
Magnetic Drive Gear Pump
Cavity Style
Two Helical, Shafted Gears/DP24
Sleeve Bushings/Gasket Seals (2)
PTFE Bevel or O-Ring Seal (1)
PPS Driven Magnet

## Options

*Add Option codes after the Base Code to modify features or enhance the product.*

| | | | | |
|---|---|---|---|---|
| | **Bypass (PC11)** | *Optional Internal Bypass* | | |
| **B1** | Internal Bypass (SS316) | Preset to 3 Bar | | 6 |
| | **Driven Magnet (PC12)** | | | |
| **M1** | SmCo Driven Segments) | | | |
| **M3** | NdFeB Driven (Ring) | | | |
| | **Driving Magnet (PC13)** | | | |
| **N3** | NdFeB Driving (Ring) | | | 7 |
| | **Ports/Fittings (PC17)** | *Ports* | *Ports* | |
| **P2** | 1/8-27 BSPP Ports | 1/8-27 BSPP (F) Side Ports | | |
| **P4** | 1/4-18 NPT Ports | 1/4-18 NPT (F) Side Ports | | |
| **P31** | 1/4-19 BSPP Ports | 1/4-19 BSPP (F) Side Ports | | |
| | **Port Orientation (PC18)** | | | |
| Q1 | Deck Ports | | | |

Notes

1. N21 gear set ordered in PTFE gear material, order only F2 or F3 static seal
2. PTFE gear material ordered in N21 gear set, order only F2 or F3 static seal
3. Do not order F1 seals if ordering N21 gear set in PTFE gear material, Temperature limit listed only apply to PTFE gear material products
4. Temperature limit listed only apply to PTFE gear material products
5. Temperature limit listed only apply to PTFE gear material products
6. Only available in 316SS/PTFE materials
7. Available only with industrial IEC or NEMA drive mounts
8. N27 gear set only offered in PEEK and PPS gear materials

***Order Code***

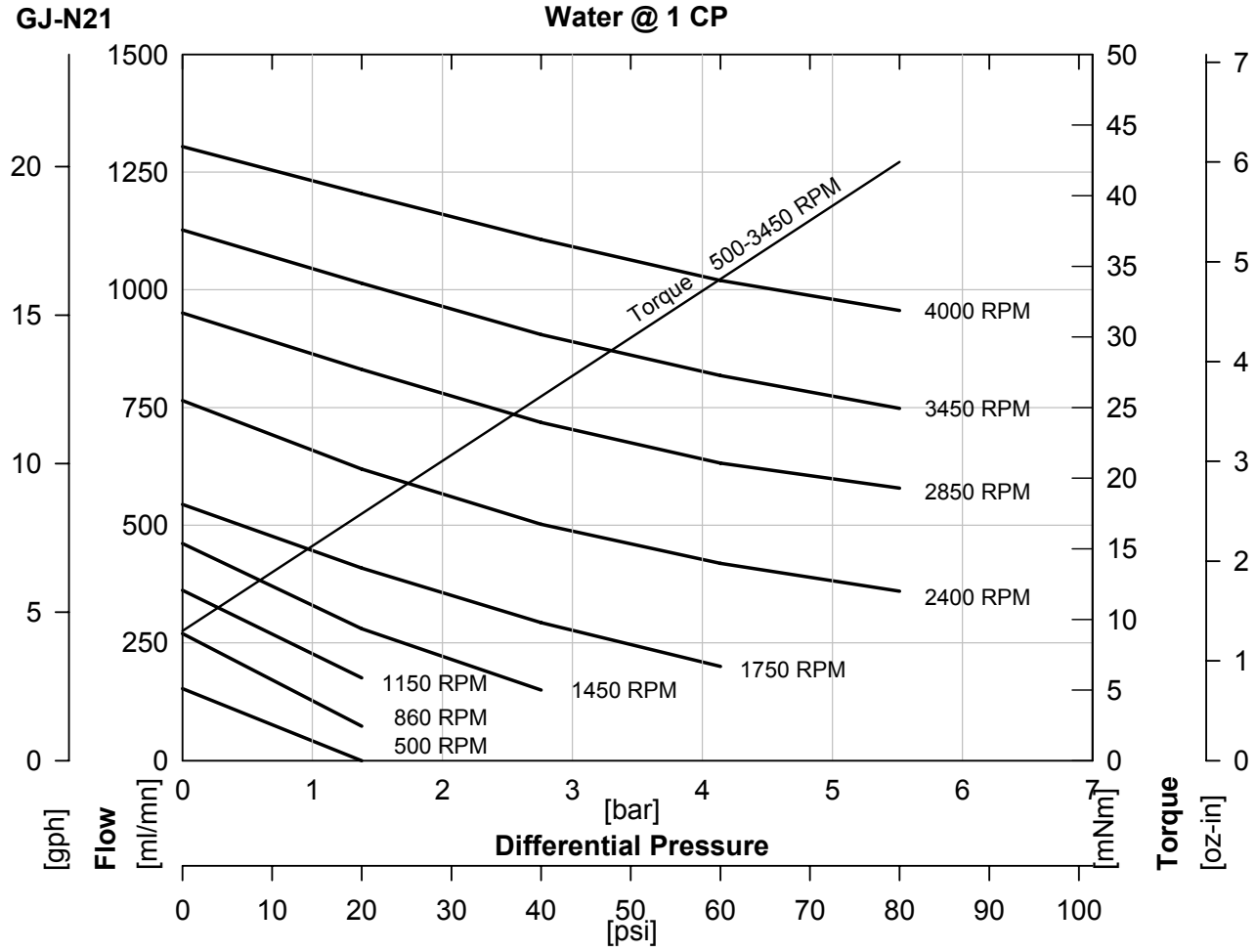
| Base Code | | | Gear Set | | | | Drive Mount | Options |
|---|---|---|---|---|---|---|---|---|
| G | J | - | N21 | | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |

Model: 1–3 | Wetted Materials: 4–7

O/C: Pump
S/K: Service Kit

**Pump Construction**
Magnetic Drive Gear Pump
Cavity Style
Two Helical, Shafted Gears/DP24
Sleeve Bushings/Gasket Seals (2)
PTFE Bevel or O-Ring Seal (1)
PPS Driven Magnet

## Performance



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***Order Code***

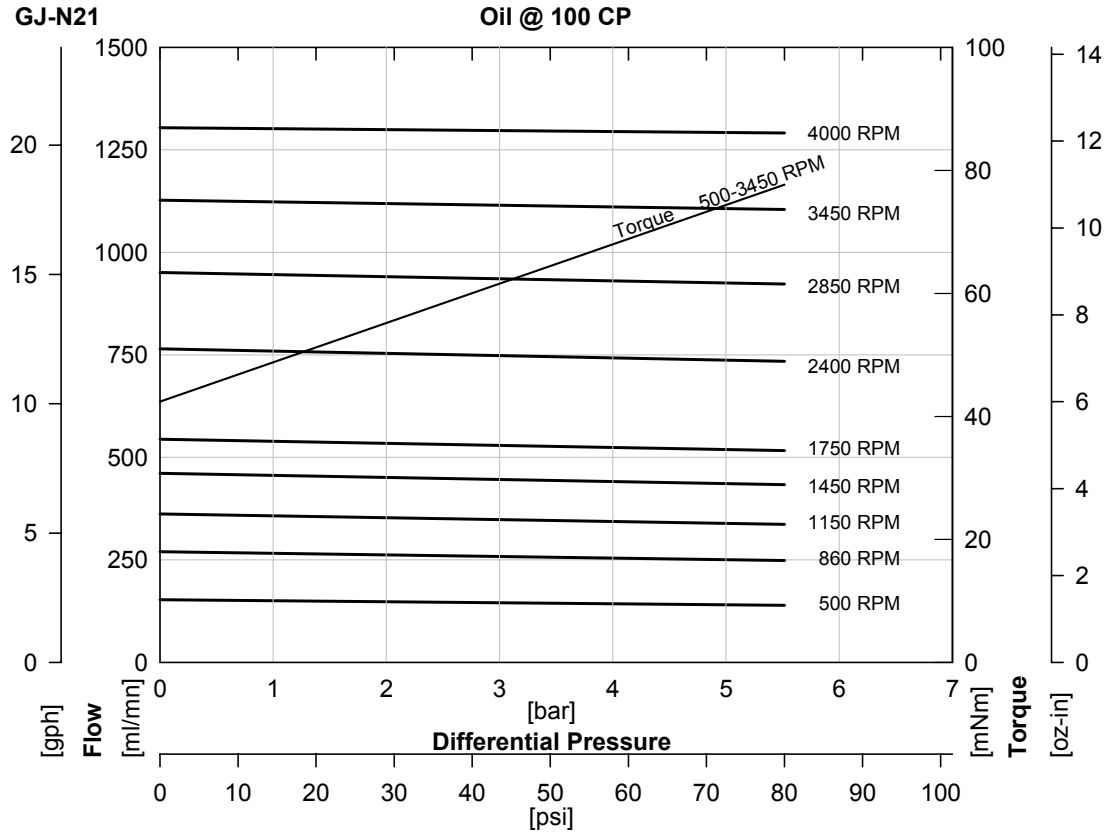
| Base Code | | | Gear Set | | | | Drive Mount | Options |
|---|---|---|---|---|---|---|---|---|
| G | J | - | N21 | | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |

Model | Wetted Materials

O/C: Pump
S/K: Service Kit

**Pump Construction**
Magnetic Drive Gear Pump
Cavity Style
Two Helical, Shafted Gears/DP24
Sleeve Bushings/Gasket Seals (2)
PTFE Bevel or O-Ring Seal (1)
PPS Driven Magnet

## Performance-High Viscosity




Watts=Torque [mNm] x Speed [RPM] / 9555

HP=Torque [oz-in] x Speed [RPM] / 1.008 x 10^6

To calculate torque, multiply correction factor by torque from viscosity curve above.

| Torque Correction Factors: For Higher Viscosity Liquids | | | | |
|---|---|---|---|---|
| | Viscosity [cp] | 1 | 100 | 1500 |
| | Max Speed [RPM] | 10000 | 3450 | 860 |
| [Bar] | [psi] | | | |
| 0.3 | 5 | 0.2 | 1 | 2.3 |
| 1.4 | 20 | 0.3 | 1 | 2.1 |
| 2.8 | 40 | 0.4 | 1 | 1.9 |
| 4.1 | 60 | 0.5 | 1 | 1.8 |
| 5.5 | 80 | 0.5 | 1 | 1.6 |

| Magnet Decouple Torque | | | |
|---|---|---|---|
| Driven Magnet | Driving Hub | Torque [mNm] | Torque [oz.in] |
| Ferrite | Ferrite* | 113 | 16 |
| Ferrite | Ferrite** | 134 | 19 |
| Ferrite | SmCo | 254 | 36 |
| SmCo | SmCo | 636 | 90 |
| Ferrite | NdFeB | 304 | 43 |
| SmCo | NdFeB | 932 | 132 |

*-Indicates performance limit with standard A or B mount coupling

**-Indicates performance limit with IEC or NEMA industrial mount coupling

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***Order Code***

| Base Code | | | Gear Set | | | | Drive Mount | Options |
|---|---|---|---|---|---|---|---|---|
| G | J | - | N21 | | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |

Model: 1–3 | Wetted Materials: 4–7 | O/C: Pump, S/K: Service Kit

**Pump Construction**
Magnetic Drive Gear Pump
Cavity Style
Two Helical, Shafted Gears/DP24
Sleeve Bushings/Gasket Seals (2)
PTFE Bevel or O-Ring Seal (1)
PPS Driven Magnet

## Specifications

| | | SI | US |
|---|---|---|---|
| Displacement | | 0.316 ml/rev | 0.08 gal/1000*rev |
| Max Flow (4 Pole Speed) | | 460 ml/mn 1450 RPM (50Hz) | 8.9 gal/hr 1750 RPM (60Hz) |
| Max Flow (2 Pole Speed) | | 910 ml/mn 2850 RPM (50Hz) | 18 gal/hr 3450 RPM (60Hz) |
| Max Differential Pressure | 1 | 5.6 Bar | 80 psi |
| Max System Pressure (MAWP) | | 21 Bar | 300 psi |
| 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 1500 cp | 0.2 to 1500 cp |
| Max Speed | | 10,000 RPM | 10,000 RPM |
| Rotation (Facing Motor Shaft) | | CW | CW |
| Weight (Pumphead) | | 0.45 kg | 1.0 lbs |
| Dimensions (LxWxH) | | See Drawing | See Drawing |
| Ports | | 1/8-27 (F) NPT Side Ports | 1/8-27 (F) NPT Side Ports |
| Driven Magnet (Standard) | | Ferrite | Ferrite |
| Optional Internal Bypass | | Preset to 3 Bar (G drive to 5.4 bar) | Preset to 45 psi (G drive to 80 psi) |

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.

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***Order Code***

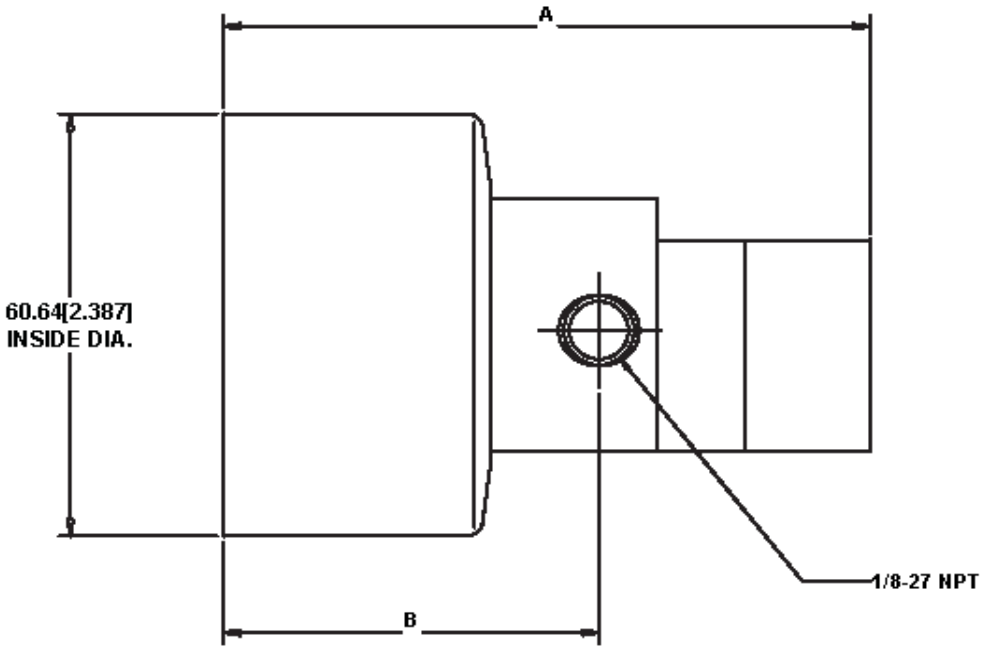
| Base Code | | | Gear Set | | | | Drive Mount | Options |
|---|---|---|---|---|---|---|---|---|
| G | J | - | N21 | | | | A | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |

Model: 1–3 | Wetted Materials: 4–7

O/C: Pump
S/K: Service Kit

**Pump Construction**
Magnetic Drive Gear Pump
Cavity Style
Two Helical, Shafted Gears/DP24
Sleeve Bushings/Gasket Seals (2)
PTFE Bevel or O-Ring Seal (1)
PPS Driven Magnet

## Dimensions




| GEAR SET | A (MAX) mm [in] | B mm [in] |
|---|---|---|
| N21 | 86.0 [3.39] | 54.6 [2.15] |
| N23 | 90.4 [3.56] | 54.6 [2.15] |
| N25 | 94.4 [3.72] | 54.6 [2.15] |
| N27 | 99.2 [3.91] | 54.6 [2.15] |

NOTES:
1. ALL DIMENSIONS ARE NOMINAL.



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***Order Code***

| Base Code | | | Gear Set | | | | Drive Mount | Options |
|---|---|---|---|---|---|---|---|---|
| G | J | - | N21 | | | | E | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |

Model: 1–3 · Wetted Materials: 4–7

O/C: Pump
S/K: Service Kit

**Pump Construction**
Magnetic Drive Gear Pump
Cavity Style
Two Helical, Shafted Gears/DP24
Sleeve Bushings/Gasket Seals (2)
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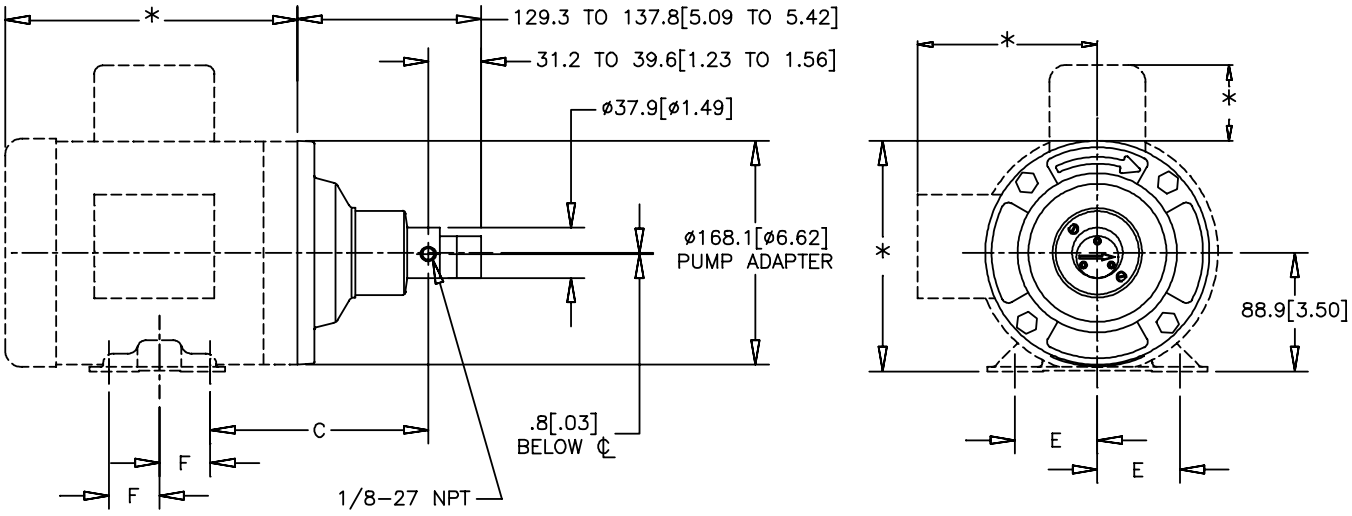


| MOUNT | C mm [in] | E mm [in] | F mm [in] |
|---|---|---|---|
| E NEMA 56C | 163.4 [6.43] | 61.9 [2.44] | 38.1 [1.50] |
| K NEMA 143TC | 158.5 [6.24] | 69.9 [2.75] | 50.8 [2.00] |
| K NEMA 145TC | 158.5 [6.24] | 69.9 [2.75] | 63.5 [2.50] |

NOTES:

1. *THESE DIMENSIONS WILL VARY BASED ON MOTOR SELECTION.
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***Order Code***

| Base Code | | | Gear Set | | | | Drive Mount | Options |
|---|---|---|---|---|---|---|---|---|
| G | J | - | N21 | | | | 6 | |
| 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/DP24
Sleeve Bushings/Gasket Seals (2)
PTFE Bevel or O-Ring Seal (1)
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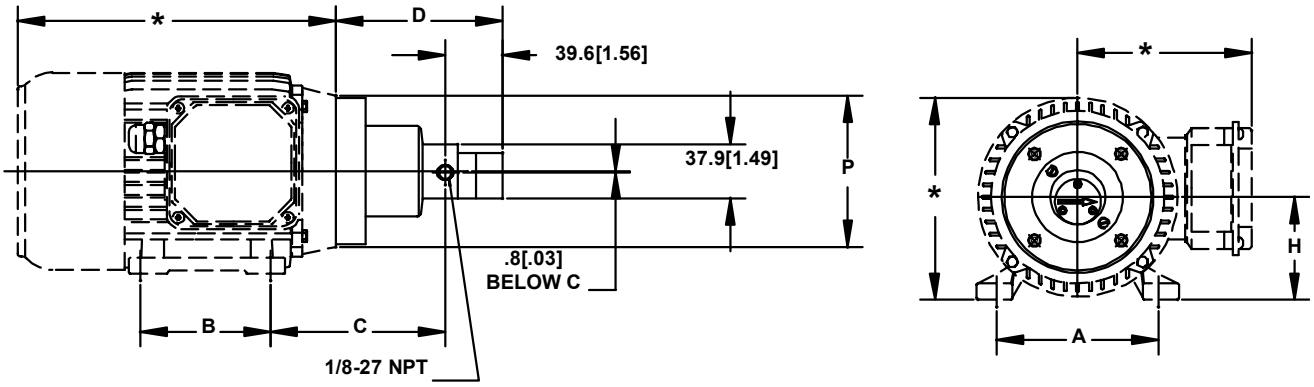
## Dimensions




| MOUNT | A mm [in] | B mm [in] | C mm [in] | D mm [in] | H mm [in] | P mm [in] |
|---|---|---|---|---|---|---|
| 2 IEC56B14B3 | 90 [3.54] | 71 [2.80] | 99.2 [3.90] | 94.5 [3.72] TO 102.8 [4.05] | 56 [2.20] | 80 [3.15] |
| 4 IEC63B14B3 | 100 [3.94] | 80 [3.15] | 108.8 [4.28] | 100.1 [3.94] TO 108.5 [4.27] | 63 [2.48] | 90 [3.54] |
| 6 IEC71B14B3 | 112 [4.41] | 90 [3.54] | 120.8 [4.76] | 107.1 [4.22] TO 115.5 [4.55] | 71 [2.80] | 105 [4.13] |

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**2. ALL DIMENSIONSARE NOMINAL.**


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# Technical Data

# Series GJ

**Order Code**

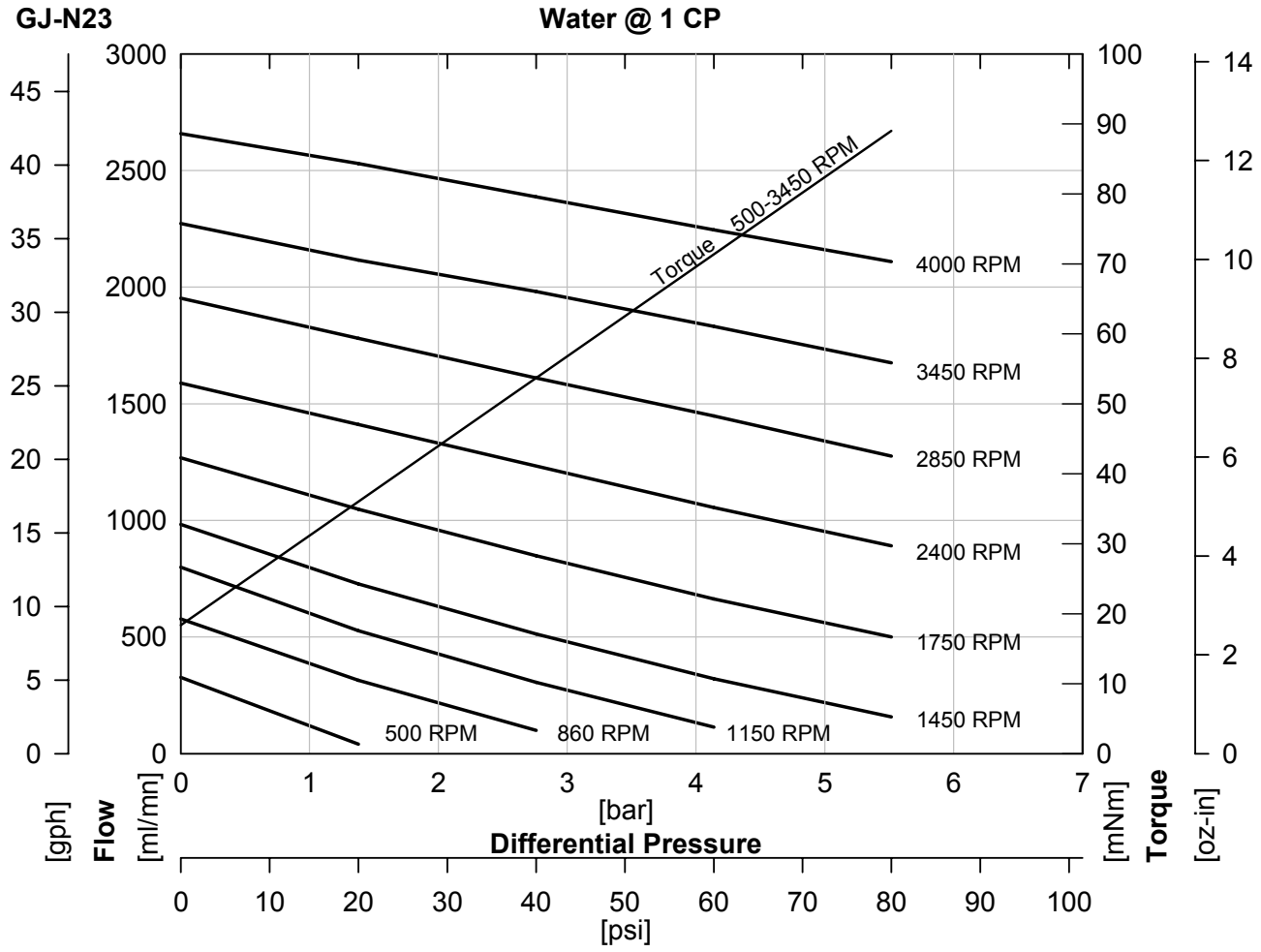
| Base Code | | | Gear Set | | | Drive Mount | Options |
|---|---|---|---|---|---|---|---|
| G | J | - | N23 | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

Model: 1–3 | Wetted Materials: 4–7 | 8: O/C: Pump, S/K: Service Kit

**Pump Construction**

Magnetic Drive Gear Pump
Cavity Style
Two Helical, Shafted Gears/DP24
Sleeve Bushings/Gasket Seals (2)
PTFE Bevel or O-Ring Seal (1)
PPS Driven Magnet

## Performance

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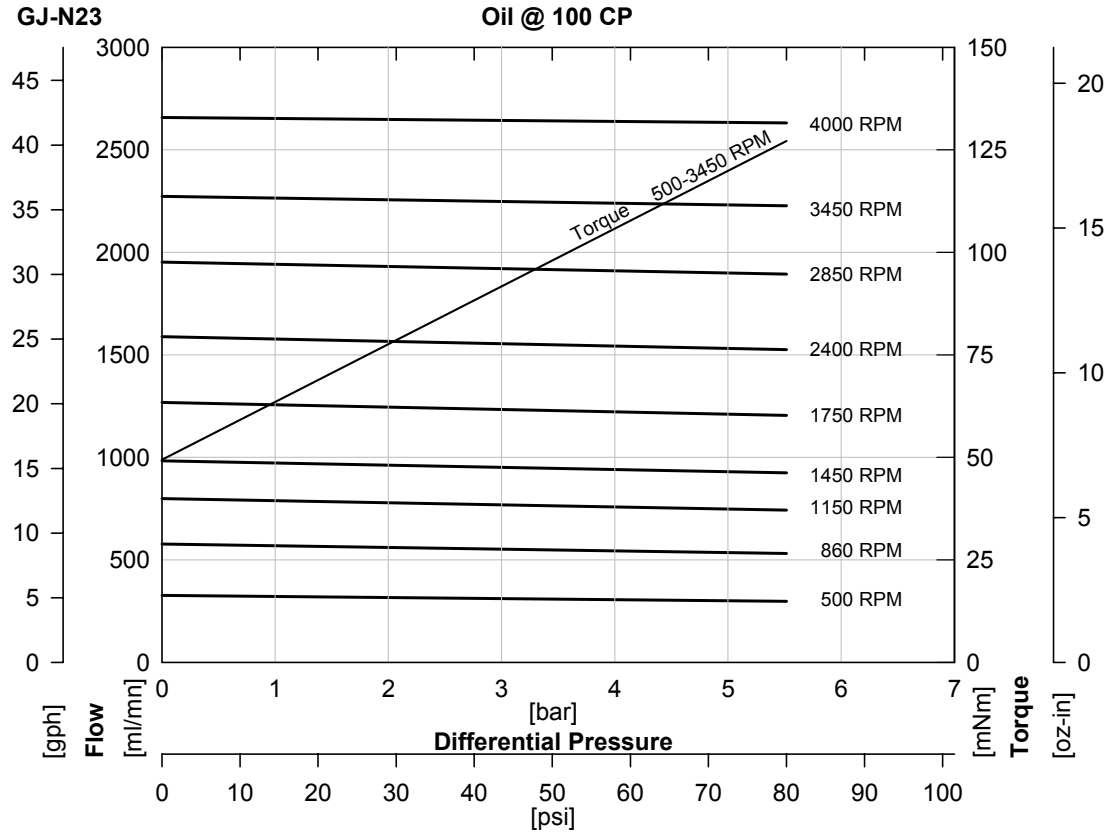
***Order Code***

| Base Code | | | Gear Set | | | | Drive Mount | Options |
|---|---|---|---|---|---|---|---|---|
| G | J | - | N23 | | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |

Model: 1–3 | Wetted Materials: 4–7 | O/C: Pump, S/K: Service Kit

**Pump Construction**
Magnetic Drive Gear Pump
Cavity Style
Two Helical, Shafted Gears/DP24
Sleeve Bushings/Gasket Seals (2)
PTFE Bevel or O-Ring Seal (1)
PPS Driven Magnet

## Performance-High Viscosity




Watts = Torque [mNm] x Speed [RPM] / 9555

HP = Torque [oz-in] x Speed [RPM] / 1.008 x 10^6

To calculate torque, multiply correction factor by torque from viscosity curve above.

| Torque Correction Factors: For Higher Viscosity Liquids | | | | |
|---|---|---|---|---|
| Viscosity [cp] | | 1 | 100 | 1500 |
| Max Speed [RPM] | | 10000 | 3450 | 500 |
| [Bar] | [psi] | | | |
| 0.3 | 5 | 0.4 | 1 | 1.7 |
| 1.4 | 20 | 0.5 | 1 | 1.5 |
| 2.8 | 40 | 0.6 | 1 | 1.4 |
| 4.1 | 60 | 0.7 | 1 | 1.3 |
| 5.5 | 80 | 0.7 | 1 | 1.3 |

| Magnet Decouple Torque | | | |
|---|---|---|---|
| Driven Magnet | Driving Hub | Torque [mNm] | Torque [oz.in] |
| Ferrite | Ferrite* | 113 | 16 |
| Ferrite | Ferrite** | 134 | 19 |
| Ferrite | SmCo | 254 | 36 |
| SmCo | SmCo | 636 | 90 |
| Ferrite | NdFeB | 304 | 43 |
| SmCo | NdFeB | 932 | 132 |

*-Indicates performance limit with standard A or B mount coupling

**-Indicates performance limit with IEC or NEMA industrial mount coupling

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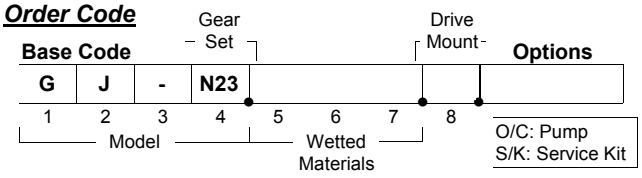


**Pump Construction**
Magnetic Drive Gear Pump
Cavity Style
Two Helical, Shafted Gears/DP24
Sleeve Bushings/Gasket Seals (2)
PTFE Bevel or O-Ring Seal (1)
PPS Driven Magnet

## Specifications

| | SI | US |
|---|---|---|
| Displacement | 0.64 ml/rev | 0.17 gal/1000*rev |
| Max Flow (4 Pole Speed) | 930 ml/mn 1450 RPM (50Hz) | 18 gal/hr 1750 RPM (60Hz) |
| Max Flow (2 Pole Speed) | 1830 ml/mn 2850 RPM (50Hz) | 36 gal/hr 3450 RPM (60Hz) |
| Max Differential Pressure [1] | 5.6 Bar | 80 psi |
| Max System Pressure (MAWP) | 21 Bar | 300 psi |
| 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 1500 cp | 0.2 to 1500 cp |
| Max Speed | 10,000 RPM | 10,000 RPM |
| Rotation (Facing Motor Shaft) | CW | CW |
| Weight (Pumphead) | 0.45 kg | 1.0 lbs |
| Dimensions (LxWxH) | See Drawing | See Drawing |
| Ports | 1/8-27 (F) NPT Side Ports | 1/8-27 (F) NPT Side Ports |
| Driven Magnet (Standard) | Ferrite | Ferrite |
| Optional Internal Bypass | Preset to 3 Bar (G drive to 5.4 bar) | Preset to 45 psi (G drive to 80 psi) |

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.

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***Order Code***

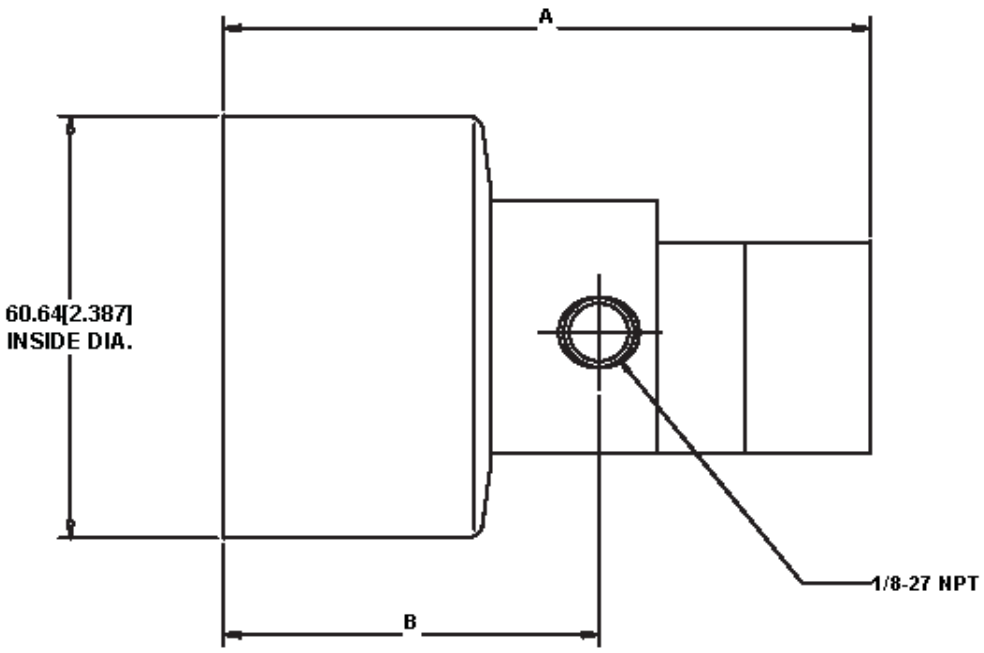
| Base Code | | | Gear Set | | | | Drive Mount | Options |
|---|---|---|---|---|---|---|---|---|
| G | J | - | N23 | | | | A | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |

Model: 1–3 | Wetted Materials: 4–7

O/C: Pump
S/K: Service Kit

**Pump Construction**
Magnetic Drive Gear Pump
Cavity Style
Two Helical, Shafted Gears/DP24
Sleeve Bushings/Gasket Seals (2)
PTFE Bevel or O-Ring Seal (1)
PPS Driven Magnet

## Dimensions




| GEAR SET | A (MAX) mm [in] | B mm [in] |
|---|---|---|
| N21 | 86.0 [3.39] | 54.6 [2.15] |
| N23 | 90.4 [3.56] | 54.6 [2.15] |
| N25 | 94.4 [3.72] | 54.6 [2.15] |
| N27 | 99.2 [3.91] | 54.6 [2.15] |

NOTES:
1. ALL DIMENSIONS ARE NOMINAL.



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***Order Code***

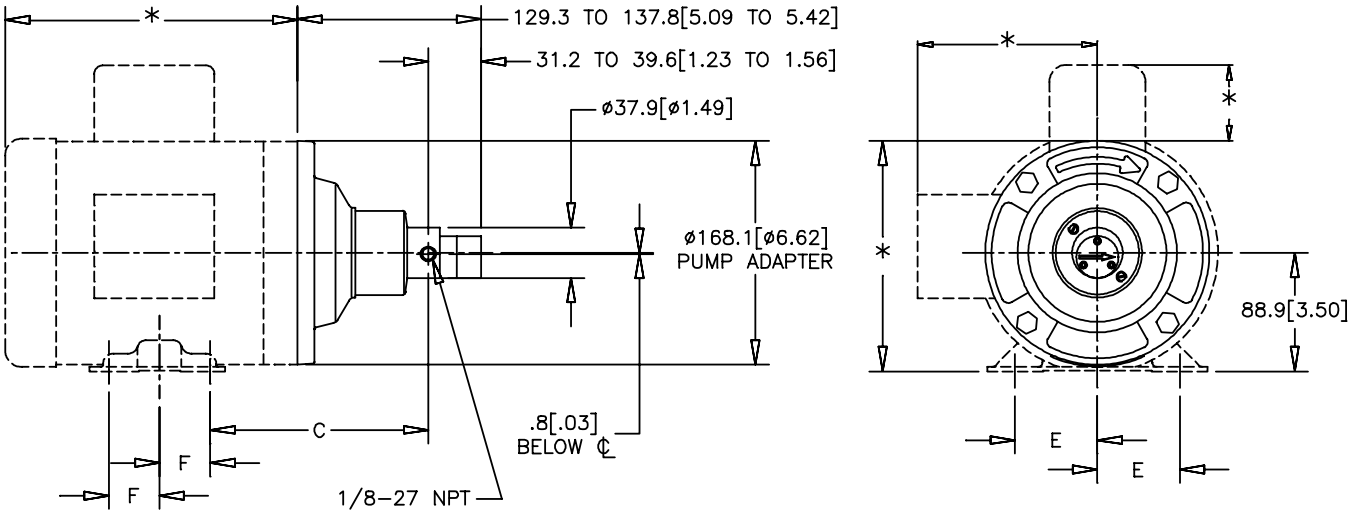
| Base Code | | | Gear Set | | | | Drive Mount | Options |
|---|---|---|---|---|---|---|---|---|
| G | J | - | N23 | | | | E | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |

Model: 1–3 · Wetted Materials: 4–7

O/C: Pump
S/K: Service Kit

**Pump Construction**
Magnetic Drive Gear Pump
Cavity Style
Two Helical, Shafted Gears/DP24
Sleeve Bushings/Gasket Seals (2)
PTFE Bevel or O-Ring Seal (1)
PPS Driven Magnet

## Dimensions




| MOUNT | C mm [in] | E mm [in] | F mm [in] |
|---|---|---|---|
| E NEMA 56C | 163.4 [6.43] | 61.9 [2.44] | 38.1 [1.50] |
| K NEMA 143TC | 158.5 [6.24] | 69.9 [2.75] | 50.8 [2.00] |
| K NEMA 145TC | 158.5 [6.24] | 69.9 [2.75] | 63.5 [2.50] |

NOTES:

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***Order Code***

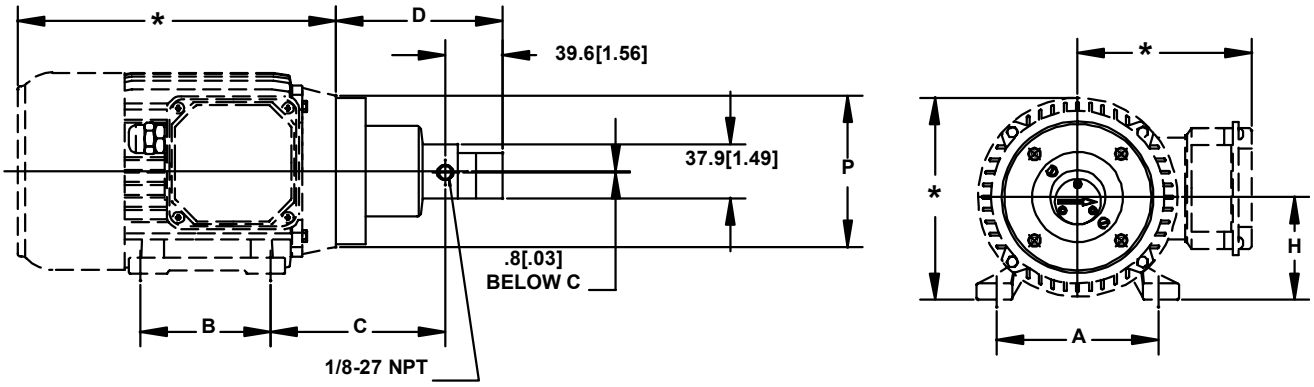
| Base Code | | | Gear Set | | | | Drive Mount | Options |
|---|---|---|---|---|---|---|---|---|
| G | J | - | N23 | | | | 6 | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |

Model — Wetted Materials

O/C: Pump
S/K: Service Kit

**Pump Construction**
Magnetic Drive Gear Pump
Cavity Style
Two Helical, Shafted Gears/DP24
Sleeve Bushings/Gasket Seals (2)
PTFE Bevel or O-Ring Seal (1)
PPS Driven Magnet

## Dimensions




| MOUNT | A mm [in] | B mm [in] | C mm [in] | D mm [in] | H mm [in] | P mm [in] |
|---|---|---|---|---|---|---|
| 2 IEC56B14B3 | 90 [3.54] | 71 [2.80] | 99.2 [3.90] | 94.5 [3.72] TO 102.8 [4.05] | 56 [2.20] | 80 [3.15] |
| 4 IEC63B14B3 | 100 [3.94] | 80 [3.15] | 108.8 [4.28] | 100.1 [3.94] TO 108.5 [4.27] | 63 [2.48] | 90 [3.54] |
| 6 IEC71B14B3 | 112 [4.41] | 90 [3.54] | 120.8 [4.76] | 107.1 [4.22] TO 115.5 [4.55] | 71 [2.80] | 105 [4.13] |

**NOTES:**

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# Technical Data

# Series GJ

**Order Code**

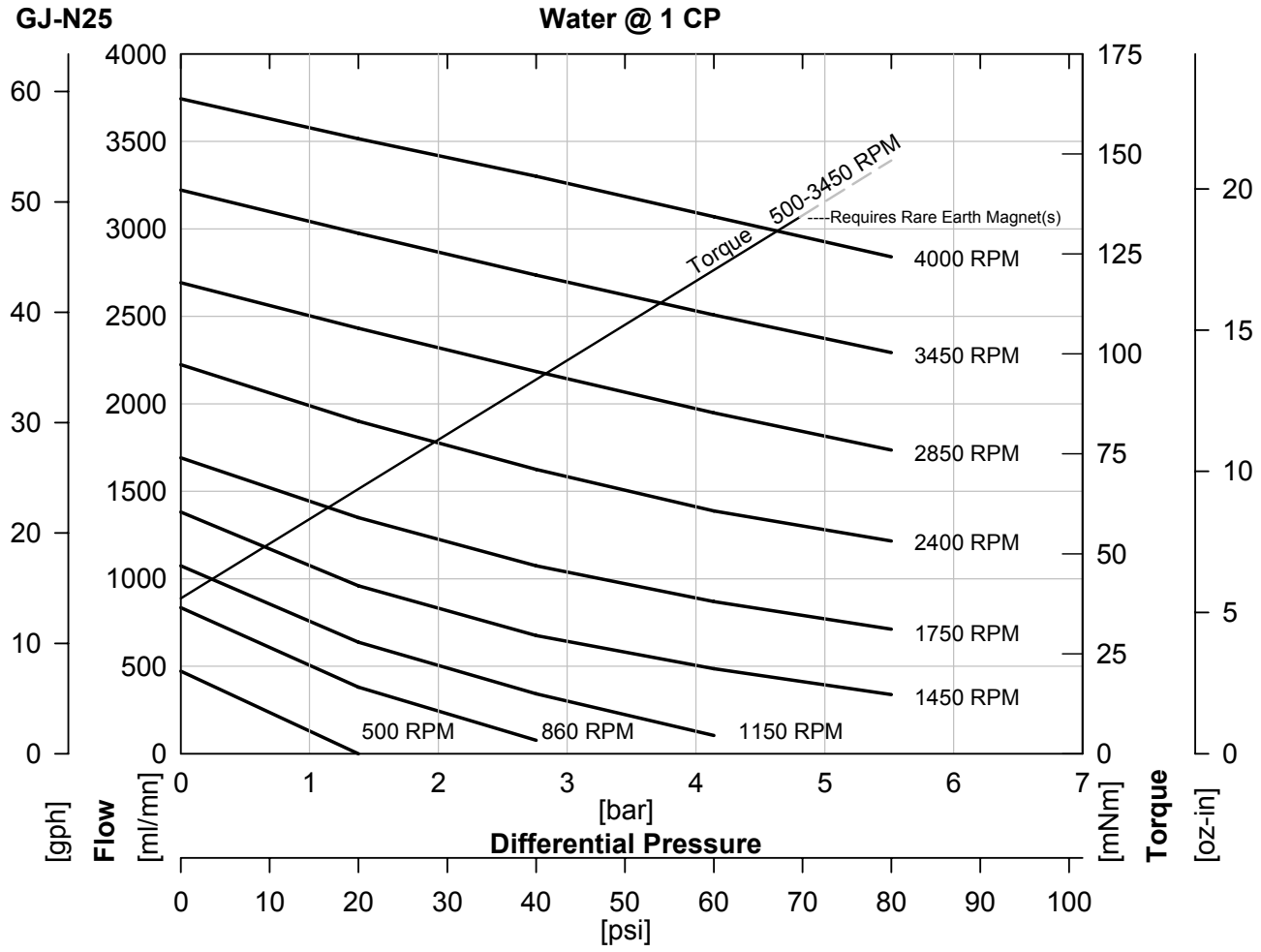
| Base Code | | | Gear Set | | | Drive Mount | Options |
|---|---|---|---|---|---|---|---|
| G | J | - | N25 | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

Model | Wetted Materials

O/C: Pump
S/K: Service Kit

**Pump Construction**
Magnetic Drive Gear Pump
Cavity Style
Two Helical, Shafted Gears/DP24
Sleeve Bushings/Gasket Seals (2)
PTFE Bevel or O-Ring Seal (1)
PPS Driven Magnet

## Performance

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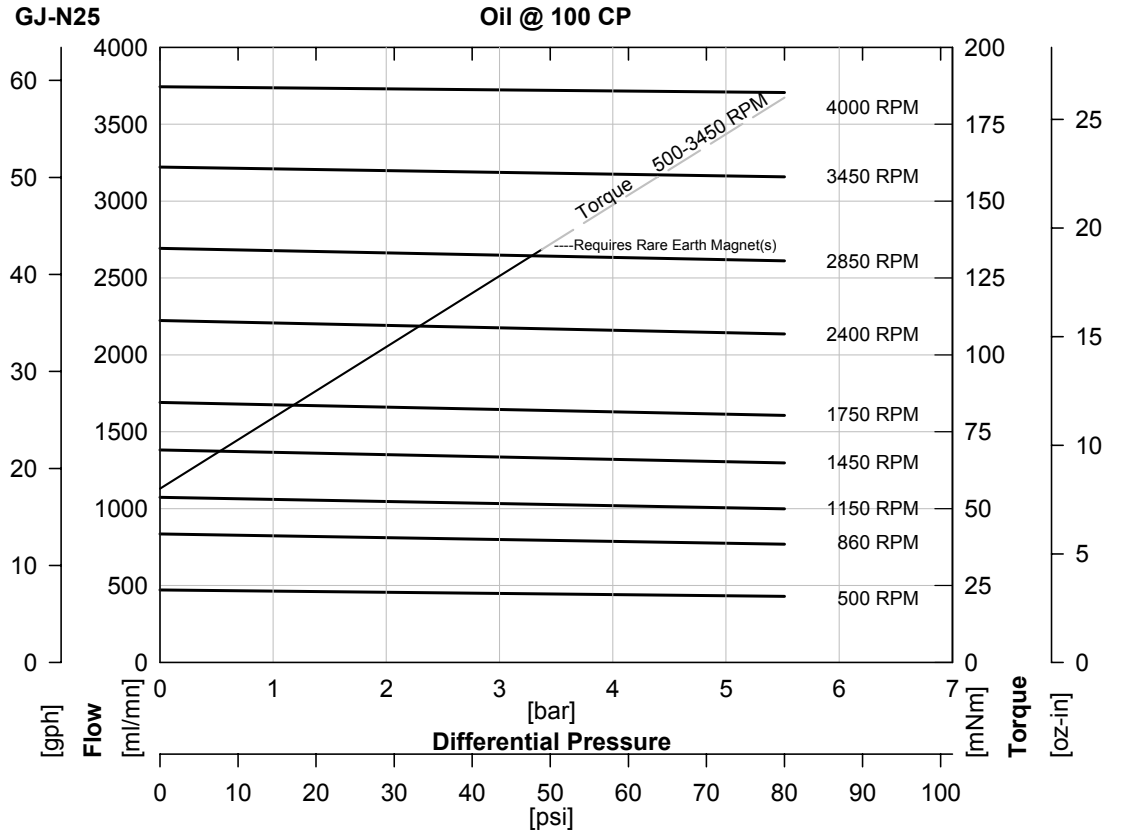
***Order Code***

| Base Code | | | Gear Set | | | | Drive Mount | Options |
|---|---|---|---|---|---|---|---|---|
| G | J | - | N25 | | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |

Model: 1–3 | Wetted Materials: 4–7 | O/C: Pump, S/K: Service Kit

**Pump Construction**
Magnetic Drive Gear Pump
Cavity Style
Two Helical, Shafted Gears/DP24
Sleeve Bushings/Gasket Seals (2)
PTFE Bevel or O-Ring Seal (1)
PPS Driven Magnet

## Performance-High Viscosity




Watts = Torque [mNm] x Speed [RPM] / 9555

HP = Torque [oz-in] x Speed [RPM] / 1.008 x 10^6

To calculate torque, multiply correction factor by torque from viscosity curve above.

| Torque Correction Factors: For Higher Viscosity Liquids | | | | |
|---|---|---|---|---|
| | Viscosity [cp] | 1 | 100 | 1500 |
| | Max Speed [RPM] | 10000 | 3450 | 300 |
| [Bar] | [psi] | | | |
| 0.3 | 5 | 0.7 | 1 | 1.3 |
| 1.4 | 20 | 0.7 | 1 | 1.2 |
| 2.8 | 40 | 0.8 | 1 | 1.1 |
| 4.1 | 60 | 0.8 | 1 | 1.1 |
| 5.5 | 80 | 0.8 | 1 | 1.1 |

| Magnet Decouple Torque | | | |
|---|---|---|---|
| Driven Magnet | Driving Hub | Torque [mNm] | Torque [oz.in] |
| Ferrite | Ferrite* | 113 | 16 |
| Ferrite | Ferrite** | 134 | 19 |
| Ferrite | SmCo | 254 | 36 |
| SmCo | SmCo | 636 | 90 |
| Ferrite | NdFeB | 304 | 43 |
| SmCo | NdFeB | 932 | 132 |

*-Indicates performance limit with standard A or B mount coupling

**-Indicates performance limit with IEC or NEMA industrial mount coupling

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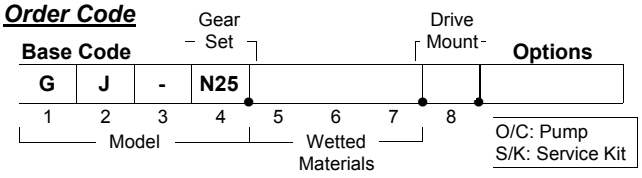
***Order Code***




**Pump Construction**
Magnetic Drive Gear Pump
Cavity Style
Two Helical, Shafted Gears/DP24
Sleeve Bushings/Gasket Seals (2)
PTFE Bevel or O-Ring Seal (1)
PPS Driven Magnet

## Specifications

| | | SI | US |
|---|---|---|---|
| Displacement | | 0.91 ml/rev | 0.24 gal/1000*rev |
| Max Flow (4 Pole Speed) | | 1320 ml/mn 1450 RPM (50Hz) | 26 gal/hr 1750 RPM (60Hz) |
| Max Flow (2 Pole Speed) | | 2600 ml/mn 2850 RPM (50Hz) | 50 gal/hr 3450 RPM (60Hz) |
| Max Differential Pressure | 1 | 5.6 Bar | 80 psi |
| Max System Pressure (MAWP) | | 21 Bar | 300 psi |
| 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 1500 cp | 0.2 to 1500 cp |
| Max Speed | | 10,000 RPM | 10,000 RPM |
| Rotation (Facing Motor Shaft) | | CW | CW |
| Weight (Pumphead) | | 0.45 kg | 1.0 lbs |
| Dimensions (LxWxH) | | See Drawing | See Drawing |
| Ports | | 1/8-27 (F) NPT Side Ports | 1/8-27 (F) NPT Side Ports |
| Driven Magnet (Standard) | | Ferrite | Ferrite |
| Optional Internal Bypass | | Preset to 3 Bar (G drive to 5.4 bar) | Preset to 45 psi (G drive to 80 psi) |

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.



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***Order Code***

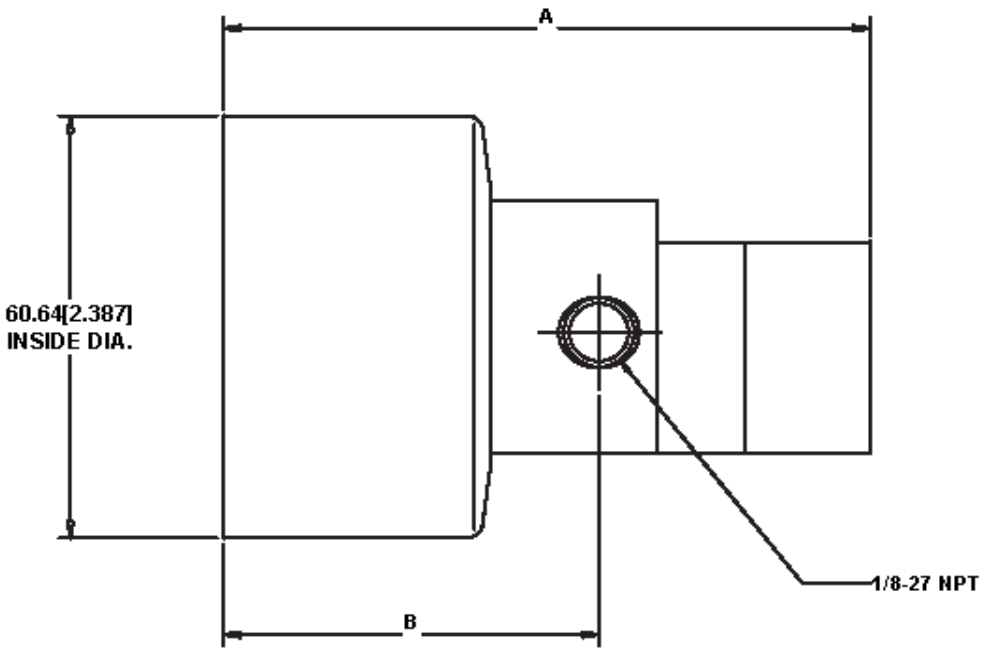
| Base Code | | | Gear Set | | | | Drive Mount | Options |
|---|---|---|---|---|---|---|---|---|
| G | J | - | N25 | | | | A | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |

Model: 1–3 | Wetted Materials: 5–7

O/C: Pump
S/K: Service Kit

**Pump Construction**
Magnetic Drive Gear Pump
Cavity Style
Two Helical, Shafted Gears/DP24
Sleeve Bushings/Gasket Seals (2)
PTFE Bevel or O-Ring Seal (1)
PPS Driven Magnet

## Dimensions




| GEAR SET | A (MAX) mm [in] | B mm [in] |
|---|---|---|
| N21 | 86.0 [3.39] | 54.6 [2.15] |
| N23 | 90.4 [3.56] | 54.6 [2.15] |
| N25 | 94.4 [3.72] | 54.6 [2.15] |
| N27 | 99.2 [3.91] | 54.6 [2.15] |

NOTES:
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***Order Code***

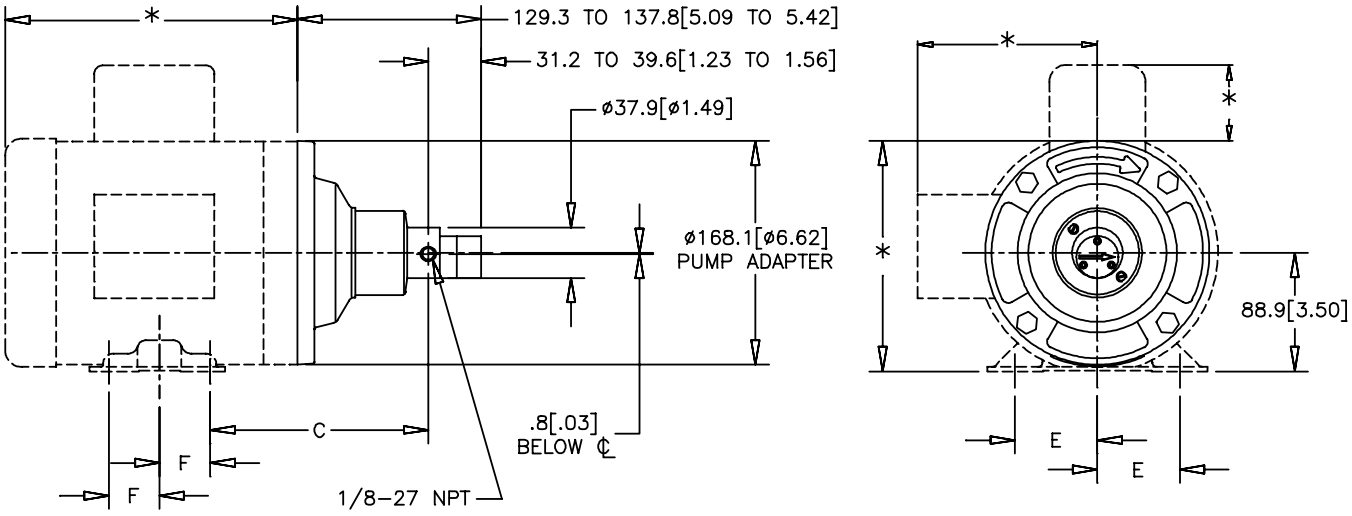
| Base Code | | | Gear Set | | | | Drive Mount | Options |
|---|---|---|---|---|---|---|---|---|
| G | J | - | N25 | | | | E | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |

Model: 1–3 · Wetted Materials: 4–7

O/C: Pump
S/K: Service Kit

**Pump Construction**
Magnetic Drive Gear Pump
Cavity Style
Two Helical, Shafted Gears/DP24
Sleeve Bushings/Gasket Seals (2)
PTFE Bevel or O-Ring Seal (1)
PPS Driven Magnet

## Dimensions




| MOUNT | C mm [in] | E mm [in] | F mm [in] |
|---|---|---|---|
| E NEMA 56C | 163.4 [6.43] | 61.9 [2.44] | 38.1 [1.50] |
| K NEMA 143TC | 158.5 [6.24] | 69.9 [2.75] | 50.8 [2.00] |
| K NEMA 145TC | 158.5 [6.24] | 69.9 [2.75] | 63.5 [2.50] |

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# Technical Data

# Series GJ

**Order Code**

| Base Code | | | Gear Set | | | | Drive Mount | Options |
|---|---|---|---|---|---|---|---|---|
| G | J | - | N25 | | | | 6 | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |

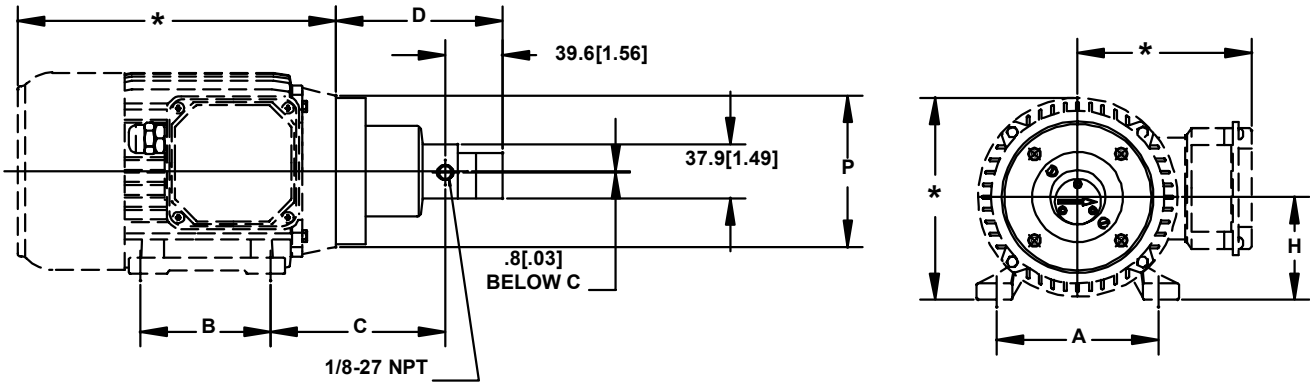
Model | Wetted Materials

O/C: Pump
S/K: Service Kit

**Pump Construction**

Magnetic Drive Gear Pump
Cavity Style
Two Helical, Shafted Gears/DP24
Sleeve Bushings/Gasket Seals (2)
PTFE Bevel or O-Ring Seal (1)
PPS Driven Magnet

## Dimensions




| MOUNT | A mm [in] | B mm [in] | C mm [in] | D mm [in] | H mm [in] | P mm [in] |
|---|---|---|---|---|---|---|
| 2 IEC56B14B3 | 90 [3.54] | 71 [2.80] | 99.2 [3.90] | 94.5 [3.72] TO 102.8 [4.05] | 56 [2.20] | 80 [3.15] |
| 4 IEC63B14B3 | 100 [3.94] | 80 [3.15] | 108.8 [4.28] | 100.1 [3.94] TO 108.5 [4.27] | 63 [2.48] | 90 [3.54] |
| 6 IEC71B14B3 | 112 [4.41] | 90 [3.54] | 120.8 [4.76] | 107.1 [4.22] TO 115.5 [4.55] | 71 [2.80] | 105 [4.13] |

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# Technical Data

# Series GJ

**Order Code**

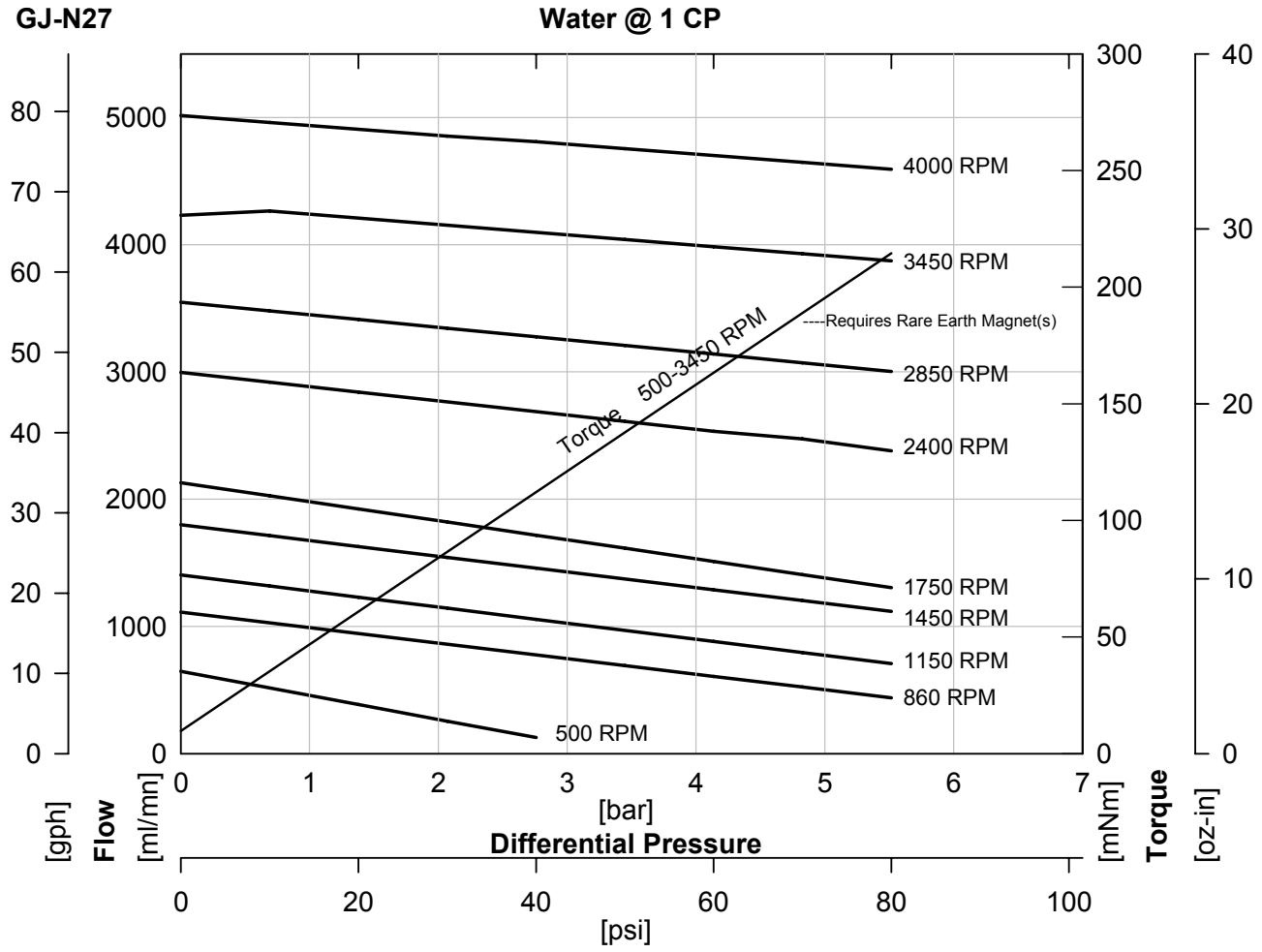
| Base Code | | | Gear Set | | | Drive Mount | Options |
|---|---|---|---|---|---|---|---|
| G | J | - | N27 | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

Model | Wetted Materials

O/C: Pump
S/K: Service Kit

**Pump Construction**
Magnetic Drive Gear Pump
Cavity Style
Two Helical, Shafted Gears/DP24
Sleeve Bushings/Gasket Seals (2)
PTFE Bevel or O-Ring Seal (1)
PPS Driven Magnet

## Performance

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***Order Code***

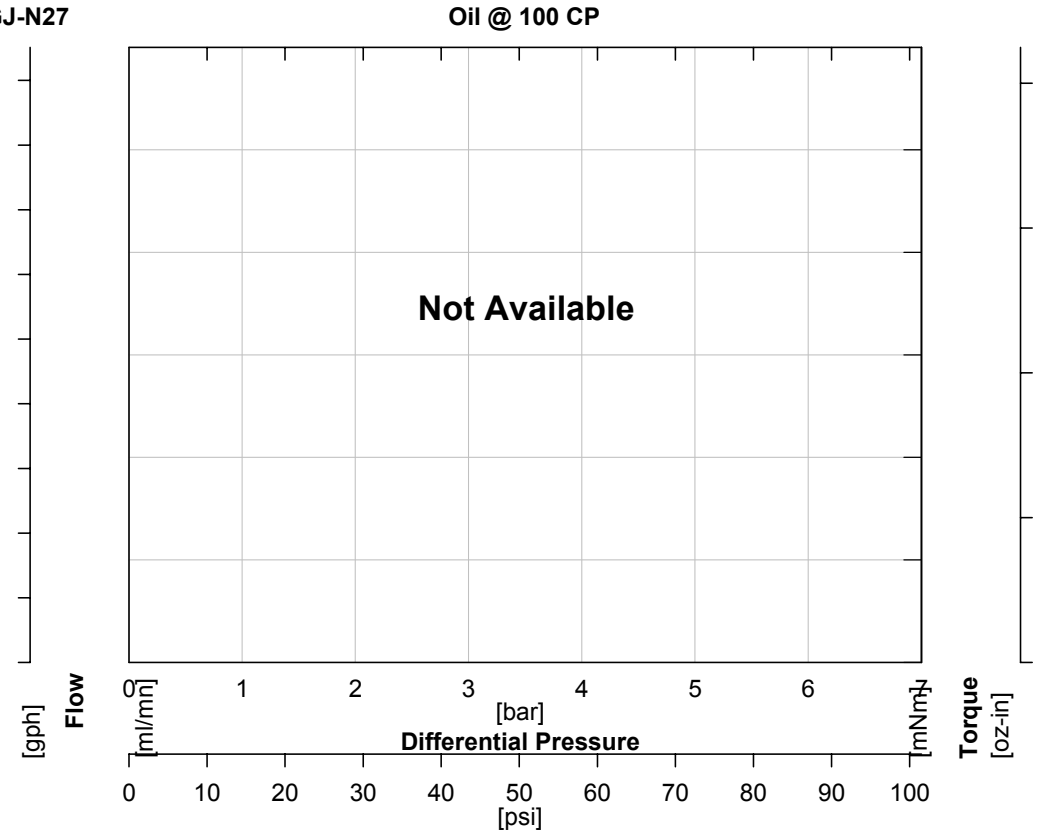
| Base Code | | | Gear Set | | | | Drive Mount | Options |
|---|---|---|---|---|---|---|---|---|
| G | J | - | N27 | | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |

Model: 1–3 | Wetted Materials: 4–7

O/C: Pump
S/K: Service Kit

**Pump Construction**
Magnetic Drive Gear Pump
Cavity Style
Two Helical, Shafted Gears/DP24
Sleeve Bushings/Gasket Seals (2)
PTFE Bevel or O-Ring Seal (1)
PPS Driven Magnet

## Performance-High Viscosity




$$\text{Watts} = \frac{\text{Torque [mNm]} \times \text{Speed [RPM]}}{9555}$$

$$\text{HP} = \frac{\text{Torque [oz-in]} \times \text{Speed [RPM]}}{1.008 \times 10^{6}}$$

To calculate torque, multiply correction factor by torque from viscosity curve above.

| Torque Correction Factors: For Higher Viscosity Liquids | | | | |
|---|---|---|---|---|
| | Viscosity [cp] | 1 | 100 | 1500 |
| | Max Speed [RPM] | 10000 | 3450 | 200 |
| [Bar] | [psi] | | | |
| 0.3 | 5 | 0.4 | 1 | 1.1 |
| 1.4 | 20 | 0.6 | 1 | 1.1 |
| 2.8 | 40 | 0.8 | 1 | 1.1 |
| 4.1 | 60 | 0.8 | 1 | 1.1 |
| 5.5 | 80 | 0.9 | 1 | 1.1 |
| 6.2 | 90 | 0.9 | 1 | 1.1 |

| Magnet Decouple Torque | | | |
|---|---|---|---|
| Driven Magnet | Driving Hub | Torque [mNm] | Torque [oz.in] |
| Ferrite | Ferrite | 134 | 19 |
| Ferrite | NdFeB | 304 | 43 |
| NdFeB | Ferrite | 290 | 41 |
| NdFeB | NdFeB | 636 | 90 |

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***Order Code***

| Base Code | | | Gear Set | | | | Drive Mount | Options |
|---|---|---|---|---|---|---|---|---|
| G | J | - | N27 | | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |

Model: 1–3 | Wetted Materials: 4–7

O/C: Pump
S/K: Service Kit

**Pump Construction**
Magnetic Drive Gear Pump
Cavity Style
Two Helical, Shafted Gears/DP24
Sleeve Bushings/Gasket Seals (2)
PTFE Bevel or O-Ring Seal (1)
PPS Driven Magnet

## Specifications

| | SI | US |
|---|---|---|
| Displacement | 1.23 ml/rev | 0.32 gal/1000*rev |
| Max Flow (4 Pole Speed) | 1630 ml/mn 1450 RPM (50Hz) | 32 gal/hr 1750 RPM (60Hz) |
| Max Flow (2 Pole Speed) | 3250 ml/mn 2850 RPM (50Hz) | 1.0 gal/mn 3450 RPM (60Hz) |
| Max Differential Pressure | 8.7 Bar | 125 psi |
| Max System Pressure (MAWP) | 21 Bar | 300 psi |
| NIPR (Absolute) | 180 mBar | 2.5 psia |
| Wet Lift (Typical) | 51 cm.H2O (1450 RPM) | 24 in.H2O (1750 RPM) |
| Temp Range | See Gear Material | See Gear Material |
| Viscosity Range [4] | 0.2 to 1500 cp | 0.2 to 1500 cp |
| Max Speed | 10,000 RPM | 10,000 RPM |
| Rotation (Facing Motor Shaft) | CW | CW |
| Weight (Pumphead) | 0.45 kg | 1.0 lbs |
| Dimensions (LxWxH) | See Drawing | See Drawing |
| Ports | 1/8-27 (F) NPT Side Ports | 1/8-27 (F) NPT Side Ports |
| Driven Magnet (Standard) | Neodymium (NdFeB) | Neodymium (NdFeB) |
| Optional Internal Bypass | Yes | Yes |

Notes
4 See Performance-High Viscosity for viscosity limits.



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***Order Code***

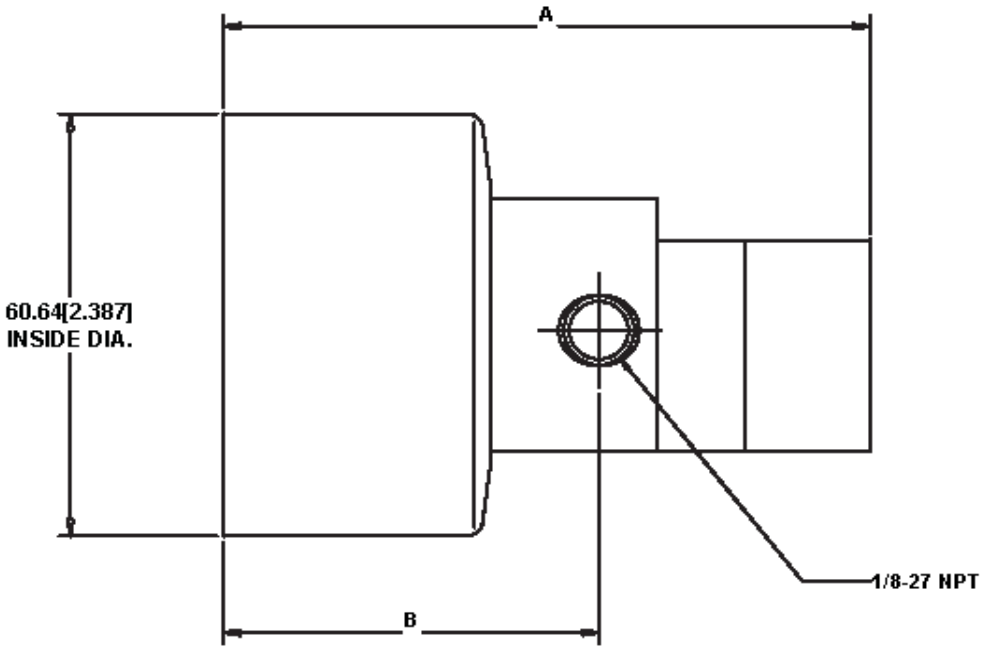
| Base Code | | | Gear Set | | | | Drive Mount | Options |
|---|---|---|---|---|---|---|---|---|
| G | J | - | N27 | | | | A | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |

Model: 1–3 | Wetted Materials: 4–7

O/C: Pump
S/K: Service Kit

**Pump Construction**
Magnetic Drive Gear Pump
Cavity Style
Two Helical, Shafted Gears/DP24
Sleeve Bushings/Gasket Seals (2)
PTFE Bevel or O-Ring Seal (1)
PPS Driven Magnet

## Dimensions




| GEAR SET | A (MAX) mm [in] | B mm [in] |
|---|---|---|
| N21 | 86.0 [3.39] | 54.6 [2.15] |
| N23 | 90.4 [3.56] | 54.6 [2.15] |
| N25 | 94.4 [3.72] | 54.6 [2.15] |
| N27 | 99.2 [3.91] | 54.6 [2.15] |

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***Order Code***

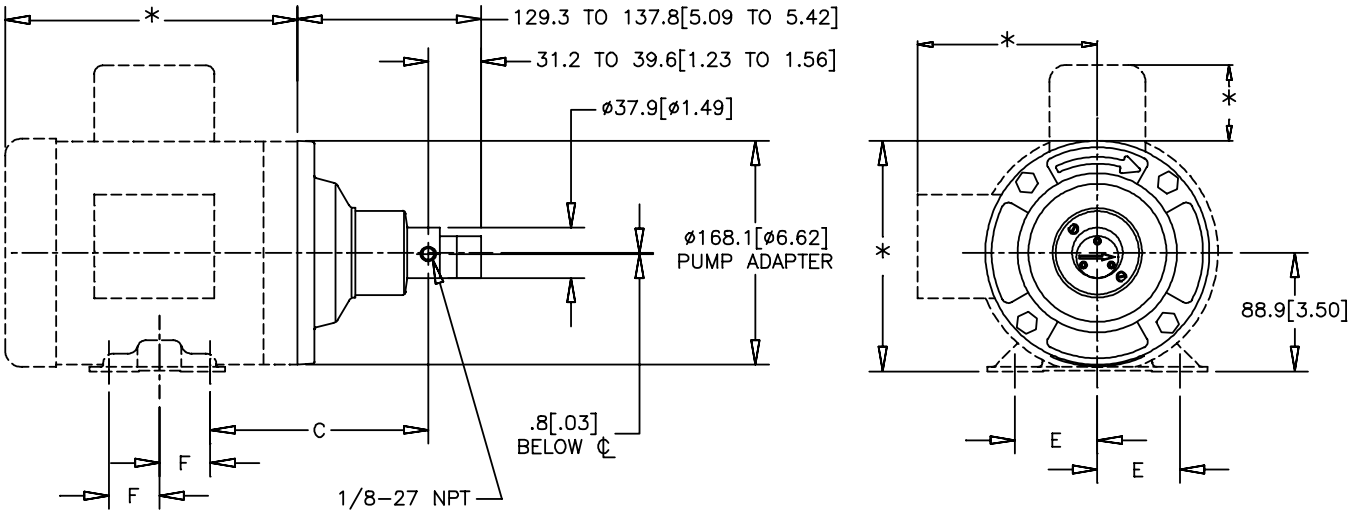
| Base Code | | | Gear Set | | | | Drive Mount | Options |
|---|---|---|---|---|---|---|---|---|
| G | J | - | N27 | | | | E | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |

Model: 1–3 · Wetted Materials: 4–7

O/C: Pump
S/K: Service Kit

**Pump Construction**
Magnetic Drive Gear Pump
Cavity Style
Two Helical, Shafted Gears/DP24
Sleeve Bushings/Gasket Seals (2)
PTFE Bevel or O-Ring Seal (1)
PPS Driven Magnet

## Dimensions




| MOUNT | C mm [in] | E mm [in] | F mm [in] |
|---|---|---|---|
| E NEMA 56C | 163.4 [6.43] | 61.9 [2.44] | 38.1 [1.50] |
| K NEMA 143TC | 158.5 [6.24] | 69.9 [2.75] | 50.8 [2.00] |
| K NEMA 145TC | 158.5 [6.24] | 69.9 [2.75] | 63.5 [2.50] |

NOTES:

1. *THESE DIMENSIONS WILL VARY BASED ON MOTOR SELECTION.
2. ALL DIMENSIONS ARE NOMINAL.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# Technical Data

# Series GJ

**Order Code**

| Base Code | | | Gear Set | | | | Drive Mount | Options |
|---|---|---|---|---|---|---|---|---|
| G | J | - | N27 | | | | 6 | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |

Model — Wetted Materials

O/C: Pump
S/K: Service Kit

**Pump Construction**

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Cavity Style
Two Helical, Shafted Gears/DP24
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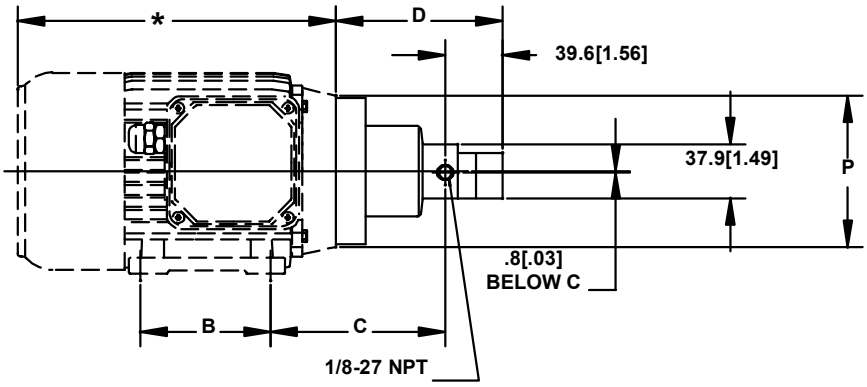
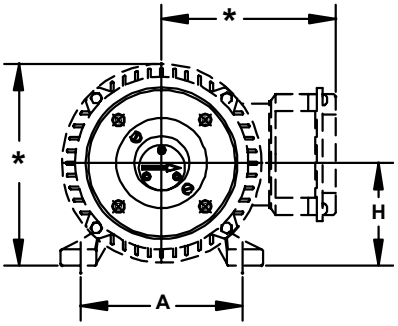
## Dimensions




| MOUNT | A mm [in] | B mm [in] | C mm [in] | D mm [in] | H mm [in] | P mm [in] |
|---|---|---|---|---|---|---|
| 2 IEC56B14B3 | 90 [3.54] | 71 [2.80] | 99.2 [3.90] | 94.5 [3.72] TO 102.8 [4.05] | 56 [2.20] | 80 [3.15] |
| 4 IEC63B14B3 | 100 [3.94] | 80 [3.15] | 108.8 [4.28] | 100.1 [3.94] TO 108.5 [4.27] | 63 [2.48] | 90 [3.54] |
| 6 IEC71B14B3 | 112 [4.41] | 90 [3.54] | 120.8 [4.76] | 107.1 [4.22] TO 115.5 [4.55] | 71 [2.80] | 105 [4.13] |

**NOTES:**

**1. *THESE DIMENSIONS WIL VARY BASED ON MOTOR SELECTION.**
**2. ALL DIMENSIONSARE NOMINAL.**



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