A Revolutionary Innovation in Chemical Pump Technology...

The Liquiflo POLY-GUARD™
Polymer-Lined Stainless Steel Gear Pump

...The Ultimate Solution for Pumping Corrosive Chemicals

Combines the chemical resistance of Fluoro-Polymers with the strength of Stainless Steel
LIQUIFLO CHEMICAL PROCESSING PUMPS

POLYMER-LINED STAINLESS STEEL GEAR PUMP

Description: THE TOUGHEST COMBINATION...

Liquiflo has long recognized the need for a Plastic Rotary Positive Displacement Pump for the chemical industry. While engineered plastics offered unsurpassed chemical resistance to virtually any fluid, they severely lacked the mechanical strength, integrity and safety of high-alloy metals. Therefore, the challenge was to use a combination of metal and plastic to produce a highly corrosion resistant pump that was safe to use in industrial applications. We chose a Fluoro-Polymer for its superior chemical resistance, and Stainless Steel for its strength and corrosion resistance (giving the pump one more layer of protection). Liquiflo perfected a specialized molding and machining technique for mechanically bonding, stabilizing and machining the plastic to exacting tolerances required to make a positive displacement pump.

The ultimate outcome was the Poly-Guard™, which combines the chemical resistance of a Fluoro-Polymer with the strength of Stainless Steel.

Typical Uses & Applications

The Poly-Guard™ is an excellent choice for inorganic acids, bases and salts. The Poly-Guard™, with its tough Stainless Steel exterior and chemically resistant Fluoro-Polymer interior, offers the ultimate solution for your most difficult chemical applications. These pumps are durable, safe and corrosion resistant, and unlike fiber-reinforced plastic pumps, they can also be used in high purity services where contamination from process system components must be avoided.

Typical Chemicals

- Hydrochloric Acid
- Ferric Chloride
- Sulfuric Acid
- Hydrofluoric Acid
- Sodium Hypochlorite
- Nitric Acid
- Sodium Hydroxide
- Chromic Acid
- Fluorosilicic Acid
- Hydrogen Bromide
- Bromine

Markets

- Chemical
- Water Treatment
- Pharmaceutical
- Pulp & Paper
- Electronics
- Food & beverage
- High Purity Service
- ...etc.

Metering

Gear pumps, due to their nearly pulseless flow, are preferred in many metering applications. When used with a VFD in a PID-controlled feedback loop, the pump can deliver exceptionally accurate flow. The input signal can be based on many different parameters – pH and flow being two of the most common.

Advantages

- The Poly-Guard™ offers both internal and external protection against corrosive fluids and harsh environments
- Strong Stainless Steel body handles pipe stresses and typical treatments found in industrial environments
- Fluoro-Polymer-lined for ultimate protection against any corrosive liquids, such as Acids, Caustics, Inorganic Salts and others
- A variety of non-metallic materials for internal components such as PEEK, Kynar (PVDF), Teflon, Silicon Carbide and TTZ, were chosen for exceptional wear resistance and chemical compatibility, allowing pump to be optimized for the intended service
- Ideal for high purity services (All wetted parts are non-metallic)
- Sealless Mag-Drive configuration prevents leakage
- Rotary Gear Pump design deliverer a smooth, pulseless flow which is desirable for both metering and transfer applications
- Close-Coupled configuration simplifies installation and maintains perfect alignment of pump and motor
- Product is extremely simple in design and easy to maintain and repair
- Available in 7 sizes to match your flow requirements up to 15 GPM (57 LPM)
The Poly-Guard™ Series pumps offer a durably constructed outer Stainless Steel body with a heavily layered Fluoro-Polymer (PFA) internal lining. This highly chemically resistant PFA lining is mechanically attached and bonded to the internal stainless steel surfaces using a specialized molding process, effectively isolating the fluid being pumped from any metal surfaces. Fluoro-Polymer exhibit the highest corrosion resistance of any plastics. This combination of stainless steel on the outside and Fluoro-Polymer on the inside gives the Poly-Guard™ the full strength and integrity of a metal pump with the ultimate corrosion resistance of a Fluoro-Polymer.

(Polymer lining is shown in gold)

Case History
A water supply authority was required to fluoridate the water system for a large metropolitan area. The method chosen was metered injection of concentrated Hydrofluorosilicic Acid into the water supply. Any process interruption or fluid leakage would be unacceptable. Originally, diaphragm metering pumps were specified, however they were found to be unsatisfactory due to leakage as a result of diaphragm failure. They then chose a gear pump with an Alloy-C body; however, the Alloy-C was severely attacked by the acid resulting in fluid leakage within a month. Liquiflo was then approached to help them find a solution. Liquiflo recognized that an all metal pump was not acceptable from a corrosion standpoint. It was also known that glass and carbon were incompatible with this highly corrosive acid. This eliminated the option of using an all plastic pump that used carbon or glass fiber reinforcement. The solution was the Poly-Guard™ pump with PFA lining, Stainless Steel body, unfilled PVDF gears, and Silicon Carbide wear plates, bearings and shafts. These pumps have now been in service in excess of 18 months with zero down time due to fluid leakage or degraded performance.
# GENERAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>SPECIFICATION</th>
<th>Units</th>
<th>P1</th>
<th>P2</th>
<th>P3</th>
<th>P4</th>
<th>P5</th>
<th>P6</th>
<th>P7</th>
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</thead>
<tbody>
<tr>
<td>Port Size &amp; Type*</td>
<td>ANSI 150#</td>
<td>/DIN PN16</td>
<td>3/4</td>
<td>3/4</td>
<td>3/4</td>
<td>1 1/2</td>
<td>1 1/2</td>
<td>1 1/2</td>
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<td>Theoretical Displacement 1</td>
<td>gal/rev</td>
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<td>.00313</td>
<td>.00138</td>
<td>.00193</td>
<td>.00289</td>
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<td>1750</td>
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<tr>
<td>Max Flow Rate 1</td>
<td>GPM</td>
<td>1.4</td>
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<td>PSI/bar</td>
<td>275</td>
<td>275</td>
<td>275</td>
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<tr>
<td>Max Allowable Pressure 2</td>
<td>PSI/bar</td>
<td>275</td>
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<td>275</td>
<td>275</td>
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<td>Max Temperature</td>
<td>°F/°C</td>
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<td>200</td>
<td>200</td>
<td>200</td>
<td>200</td>
<td>200</td>
<td>200</td>
</tr>
<tr>
<td>NPSHR @ Max Speed</td>
<td>ft/m</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>5.2</td>
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<td>4</td>
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<tr>
<td>Suction Lift (Dry)</td>
<td>ft/m</td>
<td>1.5</td>
<td>2</td>
<td>4</td>
<td>6</td>
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<td>42</td>
<td>42</td>
<td>42</td>
<td>63</td>
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</table>

* Raised Face (RF) Flanges
1 Based on Maximum Speed and zero Differential Pressure.
2 Based on pressure rating of Flanges at ambient temperature.

# MATERIALS AVAILABLE

<table>
<thead>
<tr>
<th>BODY</th>
<th>GEARS</th>
<th>WEAR PLATES</th>
<th>BEARINGS</th>
<th>SHAFTS</th>
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<tbody>
<tr>
<td>SS-PFA Plastic-Lined</td>
<td>PEEK</td>
<td>Silicon Carbide 1</td>
<td>Silicon Carbide 1</td>
<td>Silicon Carbide 1</td>
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<tr>
<td></td>
<td>Kynar</td>
<td>Carbon-60 Teflon</td>
<td>Carbon-60 Teflon</td>
<td>Ceramic Zirconia 2</td>
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<tr>
<td></td>
<td>Ryton</td>
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1 Self-sintered SiC
2 Transformation Toughened Zirconia (TTZ)
**MAG-DRIVE, CLOSE-COUPL ED**

**PERFORMANCE CURVES**

1 CPS Fluid (Water)

<table>
<thead>
<tr>
<th>POWER (BHP)</th>
<th>FLOW (GPM)</th>
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<tbody>
<tr>
<td>0.30</td>
<td>0</td>
</tr>
<tr>
<td>0.25</td>
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</tr>
<tr>
<td>0.20</td>
<td>0</td>
</tr>
<tr>
<td>0.15</td>
<td>0</td>
</tr>
<tr>
<td>0.10</td>
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</tr>
<tr>
<td>0.05</td>
<td>0</td>
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<tr>
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<table>
<thead>
<tr>
<th>DIFFERENTIAL PRESSURE (PSI)</th>
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<tbody>
<tr>
<td>0.20</td>
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<tr>
<td>0.15</td>
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<tr>
<td>0.10</td>
</tr>
<tr>
<td>0.05</td>
</tr>
<tr>
<td>0.00</td>
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</tbody>
</table>

100 CPS Fluid (Oil)

<table>
<thead>
<tr>
<th>POWER (BHP)</th>
<th>FLOW (GPM)</th>
</tr>
</thead>
<tbody>
<tr>
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<td>0</td>
</tr>
<tr>
<td>0.25</td>
<td>0</td>
</tr>
<tr>
<td>0.20</td>
<td>0</td>
</tr>
<tr>
<td>0.15</td>
<td>0</td>
</tr>
<tr>
<td>0.10</td>
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<tr>
<td>0.05</td>
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<tr>
<td>0</td>
<td>0</td>
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</table>

<table>
<thead>
<tr>
<th>DIFFERENTIAL PRESSURE (PSI)</th>
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<tbody>
<tr>
<td>0.20</td>
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<tr>
<td>0.15</td>
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<tr>
<td>0.10</td>
</tr>
<tr>
<td>0.05</td>
</tr>
<tr>
<td>0.00</td>
</tr>
</tbody>
</table>

**P1: Mag-Drive, Close-Coupled**

Dimensional Data: inches [mm]

- DIA THRU: 0.41 (10.4)
- 3.50 (88.9)
- 5.94 (151)
- 3.07 (78.0)

**SPECIFICATIONS**

- **Port Size & Type**: ANSI 3/4" 150# RF Flanges
- **Theoretical Displacement**: 0.00828 gal/rev (.00313 L/rev)
- **Max Speed**: 1750 RPM
- **Max Flow Rate**: 1.4 QPM (5.5 LPM)
- **Max Differential Pressure**: 100 PSI (7 bar)
- **Max Allowable Pressure**: 275 PSIG (19 barg)
- **Max Temperature**: 200°F (93°C)
- **NPSHR @ Max Speed**: 2 ft (0.6 m)
- **Suction Lift (Dry)**: 1.5 ft (0.45 m)
- **Gear Type**: Spur, External
- **Bearing Type**: Sleeve / Journal
- **Motor Frame Sizes**: NEMA 56C, 143TC, 145TC
- **IEC**: 71, 80, 90 – B5 Flange
- **Weight, less motor (approx.)**: 42 lbs (19 kg)

1 Based on Maximum Speed and zero Differential Pressure.
2 Based on pressure rating of Flanges at ambient temperature.
## PERFORMANCE CURVES

### 1 CPS Fluid (Water)

<table>
<thead>
<tr>
<th>Flow (GPM)</th>
<th>Power (BHP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.05</td>
<td>0</td>
</tr>
<tr>
<td>0.10</td>
<td>0.05</td>
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<tr>
<td>0.15</td>
<td>0.10</td>
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<tr>
<td>0.20</td>
<td>0.15</td>
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<tr>
<td>0.25</td>
<td>0.20</td>
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<tr>
<td>0.30</td>
<td>0.25</td>
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<tr>
<td>0.35</td>
<td>0.30</td>
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<tr>
<td>0.40</td>
<td>0.35</td>
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<tr>
<td>0.45</td>
<td>0.40</td>
</tr>
</tbody>
</table>

### 100 CPS Fluid (Oil)

<table>
<thead>
<tr>
<th>Flow (GPM)</th>
<th>Power (BHP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.05</td>
<td>0</td>
</tr>
<tr>
<td>0.10</td>
<td>0.05</td>
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<tr>
<td>0.15</td>
<td>0.10</td>
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<tr>
<td>0.20</td>
<td>0.15</td>
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<td>0.25</td>
<td>0.20</td>
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<tr>
<td>0.30</td>
<td>0.25</td>
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<tr>
<td>0.35</td>
<td>0.30</td>
</tr>
<tr>
<td>0.40</td>
<td>0.35</td>
</tr>
<tr>
<td>0.45</td>
<td>0.40</td>
</tr>
</tbody>
</table>

### P2: Mag-Drive, Close-Coupled

Dimensional Data: inches [mm]

- Diameter: 0.41 (10.4) DIA THRU
- Diameter: 3.50 (88.9) 3.50 (78.0)
- Diameter: 5.94 (151)
- Diameter: 4.00 (102)
- Diameter: 4.50 (114)
- Diameter: 7.25 (184)
- Diameter: 8.00 (203)

- Diameter: 3.45 ANSI 150W or DIN20 PN16 RF FLANGES
- Diameter: 5.00 (127)
- Diameter: 5.60 (145)

### Technical Specifications

- Port Size & Type: ANSI 3/4" RF Flanges
- Port Size & Type: DIN 20 mm PN16 RF Flanges
- Theoretical Displacement: 0.0138 gal/rev (.00522 L/rev)
- Max Speed: 1750 RPM
- Max Flow Rate: 2.4 GPM (9.1 LPM)
- Max Differential Pressure: 100 PSI (7 bar)
- Max Allowable Pressure: 275 PSIG (19 barg)
- Max Temperature: 200°F (93°C)
- NPSHR @ Max Speed: 2 ft (0.6 m)
- Suction Lift (Dry): 2 ft (0.6 m)
- Gear Type: Spur, External
- Bearing Type: Sleeve / Journal
- Motor Frame Sizes: NEMA 56C, 143TC, 145TC
- IEC: 71, 80, 90 – B5 Flange
- Weight, less motor (approx.): 42 lbs (19 kg)

1 Based on Maximum Speed and zero Differential Pressure.
2 Based on pressure rating of Flanges at ambient temperature.

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**Chemical Processing Pumps**

**MAG-DRIVE, CLOSE-COUPLED**
MAG-DRIVE, CLOSE-COUPLLED

P3: Mag-Drive, Close-Coupled

**PERFORMANCE CURVES**

<table>
<thead>
<tr>
<th>Differential Pressure (PSI)</th>
<th>Flow (GPM)</th>
<th>Power (BHP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1750</td>
<td>4.0</td>
<td>0.6</td>
</tr>
<tr>
<td>1450</td>
<td>3.5</td>
<td>0.5</td>
</tr>
<tr>
<td>1150</td>
<td>3.0</td>
<td>0.4</td>
</tr>
<tr>
<td>900</td>
<td>2.5</td>
<td>0.3</td>
</tr>
<tr>
<td>600</td>
<td>2.0</td>
<td>0.2</td>
</tr>
<tr>
<td>300</td>
<td>1.5</td>
<td>0.1</td>
</tr>
<tr>
<td>0</td>
<td>1.0</td>
<td>0.0</td>
</tr>
<tr>
<td>0</td>
<td>0.5</td>
<td>–</td>
</tr>
<tr>
<td>0</td>
<td>0.0</td>
<td>–</td>
</tr>
</tbody>
</table>

**DIMENSIONAL DATA: INCHES [MM]**

- **Port Size & Type:** ANSI 3/4” 150# RF Flanges
- **DIN 20 mm PN16 RF Flanges**

**Theoretical Displacement:**
- 0.0193 gal/rev (0.00731 L/rev)

**Max Speed:**
- 1750 RPM

**Max Flow Rate:**
- **3.4 GPM (12.8 LPM)**

**Max Differential Pressure:**
- 100 PSI (7 bar)

**Max Allowable Pressure:**
- 275 PSIG (19 barg)

**Max Temperature:**
- 200°F (93°C)

**NPSHR @ Max Speed:**
- 2 ft (0.6 m)

**Suction Lift (Dry):**
- 4 ft (1.2 m)

**Gear Type:**
- Spur, External

**Bearing Type:**
- Sleeve / Journal

**Motor Frame Sizes:**
- NEMA 56C, 143TC, 145TC

**IEC 71, 80, 90 – B5 Flange**

**Weight, less motor (approx.):**
- 42 lbs (19 kg)

---

1 Based on Maximum Speed and zero Differential Pressure.
2 Based on pressure rating of Flanges at ambient temperature.
**PolyGuard™ SERIES**

**POLYMER-LINED STAINLESS STEEL GEAR PUMP**

**MODEL P4**

**MAG-DRIVE, CLOSE-COUPLED**

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### PERFORMANCE CURVES

**1 CPS Fluid (Water)**

- **Flow (GPM)** vs **Differential Pressure (PSI)**
- **Power (BHP)** vs **Flow (GPM)**

**100 CPS Fluid (Oil)**

- **Flow (GPM)** vs **Differential Pressure (PSI)**
- **Power (BHP)** vs **Flow (GPM)**

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**P4: Mag-Drive, Close-Coupled**

**Dimensional Data:** inches [mm]

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**Technical Specifications**

- **Port Size & Type**
  - ANSI 3/4" 150# RF Flanges
  - DIN 20 mm PN16 RF Flanges
- **Theoretical Displacement**
  - 0.00289 gal/rev (.01094 L/rev)
- **Max Speed**
  - 1750 RPM
- **Max Flow Rate**
  - 5.0 GPM (19.1 LPM)
- **Max Differential Pressure**
  - 100 PSI (7 bar)
- **Max Allowable Pressure**
  - 275 PSIG (19 barg)
- **Max Temperature**
  - 200°F (93°C)
- **NPSHR @ Max Speed**
  - 3 ft (0.9 m)
- **Suction Lift (Dry)**
  - 6 ft (1.8 m)
- **Gear Type**
  - Spur, External
- **Bearing Type**
  - Sleeve / Journal
- **Motor Frame Sizes**
  - NEMA 56C, 143TC, 145TC
  - IEC 71, 80, 90 – B5 Flange
- **Weight, less motor (approx.)**
  - 42 lbs (19 kg)

---

1 Based on Maximum Speed and zero Differential Pressure.
2 Based on pressure rating of Flanges at ambient temperature.
**Poly-Guard SERIES**

**POLYMER-LINED STAINLESS STEEL GEAR PUMP**

**P5**

MAG-DRIVE, CLOSE-COUPLED

---

**PERFORMANCE CURVES**

**1 CPS Fluid (Water)**

- Power (BHP) vs. Flow (GPM) vs. Differential Pressure (PSI)
- 0 to 300 GPM
- 0 to 1750 PSI

**100 CPS Fluid (Oil)**

- Power (BHP) vs. Flow (GPM) vs. Differential Pressure (PSI)
- 0 to 300 GPM
- 0 to 1750 PSI

---

**P5: Mag-Drive, Close-Coupled**

**Dimensional Data:** Inches [mm]

- **DIA. THRU:** 0.41 (10.4)
- **3.50 (88.9)**
- **4.33 (110)**
- **5.04 (127)**
- **7.25 (184)**
- **11/2’’ ANSI 150# or DIN11 PN16 RF FLANGES**

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**Chemical Processing Pumps**

**Port Size & Type**

- ANSI: 1” 1/2’’ 150# RF Flanges
- DIN: 40 mm PN16 RF Flanges

**Theoretical Displacement**

- 1.0491 gal/rev (.01858 L/rev)

**Max Speed**

- 1750 RPM

**Max Flow Rate**

- 8.6 GPM (32.5 LPM)

**Max Differential Pressure**

- 100 PSI (7 bar)

**Max Allowable Pressure**

- 275 PSIG (19 barg)

**Max Temperature**

- 200°F (93°C)

**NPSHR @ Max Speed**

- 5.2 ft (1.6 m)

**Suction Lift (Dry)**

- 6 ft (1.8 m)

**Gear Type**

- Spur, External

**Bearing Type**

- Sleeve / Journal

**Motor Frame Sizes**

- NEMA: 56C, 143TC, 182TC, 184TC
- IEC: 71, 80, 90, 100, 112 – B5 Flange

**Weight, less motor (approx.)**

- 63 lbs (29 kg)

---

1 Based on Maximum Speed and zero Differential Pressure.
2 Based on pressure rating of Flanges at ambient temperature.
### PERFORMANCE CURVES

#### 1 CPS Fluid (Water)

- **Flow (GPM)** vs. **Differential Pressure (PSI)**
- **Flow (GPM)** vs. **Power (BHP)**

#### 100 CPS Fluid (Oil)

- **Flow (GPM)** vs. **Differential Pressure (PSI)**
- **Flow (GPM)** vs. **Power (BHP)**

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**P6: Mag-Drive, Close-Coupled**

Dimensional Data: Inches [mm]

- **DIA. THRU**: 0.41 (10.4)
- **3.50 (88.9)
- **4.33 (110)
- **4.75 (121)
- **7.25 (184)
- **1.50 (38.1)
- **5.00 (127)
- **6.50 (165)

---

**Specifications**

- **Port Size & Type**: ANSI 11/2" 150# RF Flanges
- **Theoretical Displacement**: 0.0675 gal/rev (.02555 L/rev)
- **Max Speed**: 1750 RPM
- **Max Flow Rate**: 11.8 GPM (44.7 LPM)
- **Max Differential Pressure**: 100 PSI (7 bar)
- **Max Allowable Pressure**: 275 PSIG (19 barg)
- **Max Temperature**: 200°F (93°C)
- **NPSHR @ Max Speed**: 5.2 ft (1.6 m)
- **Suction Lift (Dry)**: 7 ft (2.1 m)
- **Gear Type**: Spur, External
- **Bearing Type**: Sleeve / journal
- **Motor Frame Sizes**: NEMA 56C, 143TC, 145TC, 182TC, 184TC
- **IEC**: 71, 80, 90, 100, 112 – B5 Flange
- **Weight, less motor (approx.)**: 63 lbs (29 kg)

---

1 Based on Maximum Speed and zero Differential Pressure.
2 Based on pressure rating of Flanges at ambient temperature.
**Poly-Guard SERIES**

**POLYMER-LINED STAINLESS STEEL GEAR PUMP**

**MODEL P7**

MAG-DRIVE, CLOSE-COUPLED

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**Performance Curves**

### 1 CPS Fluid (Water)

<table>
<thead>
<tr>
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<th>60</th>
<th>80</th>
<th>100</th>
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<td>4</td>
<td>4</td>
<td>8</td>
<td>12</td>
<td>16</td>
<td>20</td>
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</table>

### 100 CPS Fluid (Oil)

<table>
<thead>
<tr>
<th>Flow (GPM)</th>
<th>20</th>
<th>40</th>
<th>60</th>
<th>80</th>
<th>100</th>
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<td>2</td>
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<td>4</td>
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<td>8</td>
<td>10</td>
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<td>4</td>
<td>4</td>
<td>8</td>
<td>12</td>
<td>16</td>
<td>20</td>
</tr>
</tbody>
</table>

---

**P7: Mag-Drive, Close-Coupled**

Dimensional Data: inches [mm]

---

1 Based on Maximum Speed and zero Differential Pressure.
2 Based on pressure rating of ANSI 150# Flanges at ambient temperature.
# PUMP MODEL CODING

**EXAMPLE:**
P3LPPBB100BVU, designates a Model P3 Pump with the following mat’l selection.

<table>
<thead>
<tr>
<th>Pos.</th>
<th>Description</th>
<th>Selection</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Pump Model</td>
<td>P3</td>
</tr>
<tr>
<td>2</td>
<td>Body Mat’l</td>
<td>SS/PFA &amp; ANSI Flanges</td>
</tr>
<tr>
<td>3</td>
<td>Drive Gear Mat’l</td>
<td>PEEK</td>
</tr>
<tr>
<td>4</td>
<td>Idler Gear Mat’l</td>
<td>Silicon Carbide</td>
</tr>
<tr>
<td>5</td>
<td>Wear Plate Mat’l</td>
<td>Silicon Carbide</td>
</tr>
<tr>
<td>6</td>
<td>Bearing Mat’l</td>
<td>0.875” (143/145TC)</td>
</tr>
<tr>
<td>7</td>
<td>Motor Frame Size</td>
<td>12 Position</td>
</tr>
<tr>
<td>8</td>
<td>Containment Can</td>
<td>Viton</td>
</tr>
<tr>
<td>9</td>
<td>Bearing Flush</td>
<td>None</td>
</tr>
<tr>
<td>10</td>
<td>Shafts</td>
<td>Silicon Carbide</td>
</tr>
<tr>
<td>11</td>
<td>O-Rings</td>
<td>MCU</td>
</tr>
<tr>
<td>12</td>
<td>Mag Coupling</td>
<td>Viton</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Position</th>
<th>Model No.</th>
<th>P3</th>
<th>L</th>
<th>P</th>
<th>P</th>
<th>B</th>
<th>B</th>
<th>1</th>
<th>0</th>
<th>0</th>
<th>B</th>
<th>V</th>
<th>U</th>
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<tbody>
<tr>
<td>Position</td>
<td>Model</td>
<td>P1</td>
<td>P2</td>
<td>P3</td>
<td>P4</td>
<td>P5</td>
<td>P6</td>
<td>P7</td>
<td></td>
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</tr>
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<td>1 Pump Model</td>
<td>1</td>
<td>SS/PFA Lined &amp; ANSI Flanges</td>
<td>E</td>
<td>SS/PFA Lined &amp; DIN Flanges</td>
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</tr>
<tr>
<td>2 Body Material &amp; Port Type</td>
<td>2</td>
<td>3 = Teflon</td>
<td>8 = Ryton</td>
<td>P = PEEK</td>
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</tr>
<tr>
<td>3 Drive Gear</td>
<td>3</td>
<td>3 = Teflon</td>
<td>8 = Ryton</td>
<td>P = PEEK</td>
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</tr>
<tr>
<td>4 Idler Gear</td>
<td>4</td>
<td>3 = Teflon</td>
<td>8 = Ryton</td>
<td>P = PEEK</td>
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</tr>
<tr>
<td>5 Wear Plates</td>
<td>5</td>
<td>3 = Teflon</td>
<td>8 = Ryton</td>
<td>P = PEEK</td>
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</tr>
<tr>
<td>6 Bearing Mat’l</td>
<td>6</td>
<td>3 = Teflon</td>
<td>8 = Ryton</td>
<td>P = PEEK</td>
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</tr>
<tr>
<td>7 Motor Frame Size</td>
<td>7</td>
<td>0 = 0.625” (NEMA 66C)</td>
<td>1 = 0.875” (NEMA 143/145TC)</td>
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</tr>
<tr>
<td>8 Containment Can</td>
<td>8</td>
<td>0 = Standard Housings (without Bearing Flush)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>9 Bearing Flush</td>
<td>9</td>
<td>0 = Standard Housings (without Bearing Flush)</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>10 Shafts</td>
<td>10</td>
<td>0 = Standard Housings (without Bearing Flush)</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>11 O-Rings</td>
<td>11</td>
<td>0 = Standard Housings (without Bearing Flush)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>12 Magnetic Coupling</td>
<td>12</td>
<td>0 = Standard Housings (without Bearing Flush)</td>
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</tr>
</tbody>
</table>

**Flanges available:** ANSI & DIN

**CONNECTION SIZES**

- ANSI 150#
  - P1 – P4: 3/4
  - P5 – P7: 1 1/2
- DIN PN16
  - P1 – P4: 20
  - P5 – P7: 40

For over 35 years, Liquiflo pumps have handled thousands of difficult chemicals.