Oscillating Pumps are self-priming, corrosion resistant, have no dynamic seals and are constructed from FDA accepted materials.

Typical applications include film and microfilm processors; litho and graphic arts plate processors; detergent dispensing, chemical mixing, medical, scientific and laboratory equipment.

Oscillating pumps are intended for replenishing, transfer and circulating installations.

Features:
- Corrosion resistant
- Dry run capability
- Hydraulically efficient
- Quiet operation
- No shaft seals
- Flexible mounting and body discharge positions
- Low current draw and heat rise
- NSF certified models available

Contents ................................................. Pages
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Oscillating Pumps Overview

Oscillating Pump Operation
An elastomeric impeller extends through a spring and armature and into an electric coil. A diode in the circuit feeds impulses to the electrical coil 60 times per second. Each pulse draws the armature and impeller forward against the spring, causing the impeller to pump a volume of liquid out through the outlet port. The spring then returns the armature and impeller to their starting position, drawing liquid through the inlet. A valve in the impeller prevents backflow of liquid.

Typical OEM applications include film processors, Laser and x-ray cooling systems, medical, scientific, laboratory and silver recovery equipment.

Pump Specifications
Flow Rates: Generally range from 0.2 to 0.8 gpm – refer to performance curve. Actual flow may be higher and may vary from pump to pump. Due to this inherent characteristic, these pumps are not normally intended for metering.

Discharge Head: To 8.3 feet (on standard models)
Self-Priming: To 48 inches (on standard models)
Fluid Temperature: To 104°F (40°C)
Weight: Approximately 1 lb.
Motors: 115v, 230v 50/60 Hz - requires a diode (included with listed models).
Agency Approvals: Most models listed in charts provided herein bear the UL Recognized Component Mark for the United States and Canada (except 14925 Series “Lab” models). Most models also have FDA listed wetted materials of construction for use in food consumable applications. NSF materials are also available. Please consult factory for details on specific models.
Wetted Materials: EPT/EPDM, FKM, Butyl, and Glass-Reinforced Polypropylene,

Contact GRI for questions regarding chemical compatibility.
To modify the priming or performance characteristics of the pump, two valve options are available: poppet valve or 2-piece valve. The poppet valve provides the best priming capability and more positively prevents backflow through the pump. The 2-piece valve should be used when flow is required.

**Note:** Valves are utilized on the discharge side of the pump. However, to more closely meet a customer’s specifications, valves can be used on both the inlet and outlet side.

### Valve Styles

- **Poppet Valve**
- **2-Piece Valve**

### Tubing Connectors

Tubing connectors are made from chemically-resistant, glass-reinforced polypropylene. Currently, 10 sizes and styles are available in any inlet/outlet combination. Required tubing size is listed with corresponding photo.
Coils, Leads & Terminals

Generally, electrical coils are available in 115V or 220V and 60 Hz. However, pumps have been supplied with 115V or 220V, 50 Hz coils, and with 12, 24, and 48 volt AC coils. In addition, coils can be constructed with different power capabilities to more effectively meet customer’s duty cycle needs.

Leads can be up to 6 feet long with any termination. Most common are 6 inch leads with 1⁄4 inch male spade terminals.

Mounting Options

The oscillating pump can be provided with three mounting styles. The rubber mount design is more compact and less expensive; however, flow rate, priming capability and discharge head are lower than the spring mounted pumps. The spring mounted model is more efficient and transmits less vibration to the mounting structure.
### Specifications

#### Flow Rates

0.2 to 0.8 gpm. Refer to performance curve. Actual flow may be higher and may vary from pump to pump. Due to this inherent characteristic, these pumps are not normally intended for metering.

#### Discharge Head

To 8.3 feet (on standard models).

#### Self-priming

To 48 inches (on standard models).

#### Fluid Temp. Max

104°F (40°C)

#### Weight

Approx. 1 lb

### Materials in contact with solution / OEM options

- Connectors: Glass-Reinforced Polypropylene.
- Impeller: EPT, FKM, Butyl
- Discharge Check Valve: EPT, FKM, Butyl

- Refer to the Chemical Resistance Section to help determine compatibility. (Use only elastomers with “A” rating for standard oscillating pumps.)
- For aggressive-chemistry applications, contact GRI for special Glass-Ball Center Valve Oscillating Pumps (U.S. Patent 5,567,131).

### Motor specifications / OEM options

#### Motor Specs

- 115V, 230V50/60 Hz
- Requires diode

### Features

- Self-priming: No dynamic seals
- Compact: Lightweight
- Economical: Can operate continuously
- Moisture & corrosion resistant coil
- Outlet valve styles: Poppet - prevents backflow thru pump
- Outlet valve styles: 2-Piece - allows higher flow; no backflow prevention
- Leaf Spring - extremely quiet

---

**Dimensions in Inches (Dimensions in Millimeters)**

<table>
<thead>
<tr>
<th>Measurement</th>
<th>Inches</th>
<th>Millimeters</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.01</td>
<td>178.05</td>
<td>178.05</td>
</tr>
<tr>
<td>5.20</td>
<td>132.08</td>
<td>132.08</td>
</tr>
<tr>
<td>1.82</td>
<td>46.23</td>
<td>46.23</td>
</tr>
<tr>
<td>2.38</td>
<td>57.90</td>
<td>57.90</td>
</tr>
<tr>
<td>1.62</td>
<td>41.15</td>
<td>41.15</td>
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<tr>
<td>0.81</td>
<td>20.57</td>
<td>20.57</td>
</tr>
<tr>
<td>0.203</td>
<td>5.16</td>
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<tr>
<td>0.25</td>
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<td>6.35</td>
</tr>
<tr>
<td>1.88</td>
<td>47.78</td>
<td>47.78</td>
</tr>
</tbody>
</table>

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**14825 Series Oscillating Pump**
### Specifications

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Flow Rates</strong></td>
<td>0.2 to 0.8 gpm. Refer to performance curve. Actual flow may be higher and may vary from pump to pump. Due to this inherent characteristic, these pumps are not normally intended for metering.</td>
</tr>
<tr>
<td><strong>Discharge Head</strong></td>
<td>To 8.3 feet (on standard models).</td>
</tr>
<tr>
<td><strong>Self-priming</strong></td>
<td>To 48 inches (on standard models).</td>
</tr>
<tr>
<td><strong>Fluid Temp. Max</strong></td>
<td>104°F (40°C)</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>Approx. 1 lb</td>
</tr>
<tr>
<td><strong>Materials in contact with solution / OEM options</strong></td>
<td>Connectors: Glass-Reinforced Polypropylene.</td>
</tr>
<tr>
<td></td>
<td>Impeller: EPT, FKM, Butyl</td>
</tr>
<tr>
<td></td>
<td>Discharge Check Valve: EPT, FKM, Butyl</td>
</tr>
</tbody>
</table>

- Refer to the Chemical Resistance Section to help determine compatibility. (Use only elastomers with “A” rating for standard oscillating pumps.)
- For aggressive-chemistry applications, contact GRI for special Glass-Ball Center Valve Oscillating Pumps (U.S. Patent 5,567,131).

### Motor specifications / OEM options

<table>
<thead>
<tr>
<th>Motor Specs</th>
<th>115V, 230V 50/60 Hz</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Requires diode</td>
</tr>
</tbody>
</table>

### Features

- No dynamic seals
- Lightweight
- Can operate continuously
- Outlet valve styles: Poppet - prevents backflow thru pump
- Outlet valve styles: 2-Piece - allows higher flow; no backflow prevention
- Spring styles: Coil Spring - higher flow & efficiency, greater priming ability

---

Dimensions in Inches (Dimensions in Millimeters)
Specifications

Flow Rates
0.2 to 0.8 gpm. Refer to performance curve. Actual flow may be higher and may vary from pump to pump. Due to this inherent characteristic, these pumps are not normally intended for metering.

Discharge Head
To 8.3 feet (on standard models).

Self-priming
To 48 inches (on standard models).

Fluid Temp. Max
104°F (40°C)

Weight
Approx. 1 lb

Materials in contact with solution / OEM options

Connectors
Glass-Reinforced Polypropylene.

Impeller
EPT, FKM, Butyl

Discharge Check Valve
EPT, FKM, Butyl

- Refer to the Chemical Resistance Section to help determine compatibility. (Use only elastomers with “A” rating for standard oscillating pumps.)
- For aggressive-chemistry applications, contact GRI for special Glass-Ball Center Valve Oscillating Pumps (U.S. Patent 5,567,131).

Motor specifications / OEM options

Motor Specs
- 115V, 230V50/60 Hz
- Requires diode

Features
Self-priming
No dynamic seals

Compact
Lightweight

Economical
Can operate continuously

Moisture & corrosion resistant coil
Outlet valve styles: Poppet - prevents backflow thru pump

Outlet valve styles: 2-Piece - allows higher flow; no backflow prevention
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