Magnetic Drive

Product Catalog

- For use with Mildly-Corrosive, Semi-Corrosive, and Highly-Corrosive Liquids
For Chemical Plating

“Electroplating circuit boards involves high heat and the circulation of incredibly caustic chemicals like acids and cyanide. My Little Giant magnetic drive pump handles it all without a problem and has remained trouble-free for years now.”

For Hydroponic Gardening

“Pesticides, fungicides, fertilizers … my Little Giant magnetic drive pump is exposed to these chemicals 24/7, but so far no problem. Without a seal, there’s nothing to fail and virtually no maintenance.”

For Aquariums

“I’ve used the same Little Giant magnetic drive pump to recirculate and aerate the water in my salt water and fresh water tanks for years. It takes the prolonged exposure to the salt and the tank-cleaning chemicals, plus it’s incredibly quiet.”

See your distributor for more information, or email Franklin Electric at export@LittleGiantPump.com.
Magnetic Drive Product Catalog

- For use with Mildly-Corrosive, Semi-Corrosive, and Highly-Corrosive Liquids

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Noryl® is a registered trademark of General Electric Company.
Little Giant Magnet Driven Pumps feature a leak-proof design that allows the pump to be used in a variety of applications where continuous and reliable operation is desired and when pumping corrosive liquids is necessary. Four series of pumps are offered: the MD, the MD-SC, MD-HC and MD-CK. The four groups offer increasing product features and chemical resistance. Little Giant MD pumps are in wide use in over 40 countries operating in applications ranging from circulating photographic solutions in film processing machines to moving harsh chemicals in electroplating equipment. The pumps are also found in OEM filtration equipment pumping de-ionized water and in many other fluid transfer processes.

No leakage

The magnetically coupled pump system replaces the shaft seal found in conventional pumps. The use of chemically resistant polymers for the materials of construction permits highly corrosive liquids to be pumped without causing corrosion to the pumping chamber. Advanced materials used in the MD-HC and MD-CK Series offer the highest level of chemical resistance and provide excellent temperature and strength properties.

Operating principle

A pair of magnets, which form part of the impeller and motor shaft, drives the centrifugal pump. The magnet housing separates the pump chamber and motor shaft. This seal-less pump design eliminates conventional mechanical shaft seals because the motor shaft magnetically drives the impeller magnet by transmitting torque through the magnet housing. The combined coupling torque of the drive magnet and impeller magnet provides sufficient power to move a wide range of liquids including high-density liquids.

A variety of models from 11 L/min to 183 L/min

Little Giant MD Pumps can be selected for almost every application because there are over thirty different models available. The pumps are grouped in four product ranges from the 1-AA-MD with the lowest flow rate to the TE-7-MD-CK with the highest flow rate. Special purpose, high capacity models as well as economical models offer a wide selection. High-density acids such as concentrated sulfuric acid can be pumped by the larger models without over-load by changing impeller sizes. Each pump assembly consists of only a few parts. Therefore maintenance, disassembly and inspection are very easy to perform.

Pump selection guide

Several factors are involved in the proper selection of a magnetic drive pump. Caution should be exercised in matching the wetted pump parts to the chemicals and concentrations in the solution to be pumped. For the chemical resistance of the wetted pump parts, refer to Little Giant Pump Company Chemical Resistance Chart (Form #995516).

Factors that must be taken into consideration in choosing a pump

- Pump Characteristics: Capacity (liters per minute or hour), discharge lift (in meters), suction lift (if any), outlet pressure (bar or Kg/cm²), inlet and outlet pipe size and horizontal pipe length and any noise limitations.

- Fluid characteristics: Chemical composition, temperature and solids content in suspension (nature, size and abrasive quality) and density or approximate concentration percentage (weight per liter) and viscosity at the liquid’s normal pumping temperature.

- Other characteristics: Motor electrical requirements (Volts, Hertz, Phase), space limitations and normal ambient air temperature of the area in which the pump and motor will be installed.
Magnetic Drive Pumps

Features:

- Leakproof, seal-less magnetic drive
- No maintenance due to seal wear
- No seal friction to reduce motor horsepower
- Only chemical resistant materials are in contact with fluids
- Dynamically balanced drive magnet for long motor bearing life
- Magnetic coupling design acts as a clutch to eliminate motor burnout and overloading under adverse conditions
- Pumping heads are easily rotated, cleaned or serviced with no special tool requirements
- Spindle shaft is supported at both ends to prevent impeller damage during start-up and stop of pump
- Magnet housing acts as an insulator to prevent motor heat from being transferred to the fluid being pumped
- Wide selections of materials for the pump wetted components to provide the best chemical resistance
- All threaded intake and discharge ports are USA (American) standard taper pipe threads (NPT). Teflon® tape is provided with Ryton® pumping head models.
- The MD-HC Series models have “run-dry” capability
- All motors feature thermal overload protection
- All motors are rated for continuous duty

Four series with increasing chemical resistance

**MD Series**
Designed for pumping mild solutions such as those found in film processing and most neutral chemicals with temperatures up to 66°C. Materials of construction include glass-filled polypropylene, titanium, nitrile and a barium-ferrite magnet.

**MD-SC Series**
Designed to pump mild to strong acids found in electroplating applications with temperatures up to 66°C. Materials of construction include glass-filled polypropylene, ceramic and nitrile.

**MD-HC Series**
Designed to pump strong acids and alkaline solutions including sulfuric, nitric and hydrochloric acid with temperatures up to 93°C. In addition, the HC series offers “Run Dry” protection. Materials of construction include glass-filled polyphenylene sulfide (Ryton®), ceramic, Viton® and pure carbon.

**MD-CK Series**
Designed to pump highly corrosive acids and halogenated hydrocarbons such as hydrofluoric acid and ultrapure water solutions. Maximum fluid temperature is 93°C. Materials of construction include carbon-filled PVDF, ceramic, Viton® and carbon Teflon®.

Little Giant’s comprehensive line of magnetic drive pumps is designed for circulation of acids, alkalis, solvents, brine, plating solutions, sterile solutions, and other special fluids, for use in environments such as hospitals, chemical companies, photo labs, dry cleaning plants, car washes, machine shops, laboratories, manufacturing plants, print shops and wineries.

NOTE: Consult your local distributor or Franklin Electric about applications with ambient temperatures, specific gravities and viscosities beyond the ranges shown for pumps in this catalog.
MD Series Pumps

1-AA-MD SERIES
1/200 HP
Non-Submersible, In-line Use

Applications
- Circulation of mildly corrosive acids, alkalis, solvents, brine, plating solutions, sterile solutions, and other mildly corrosive chemicals and solutions that are compatible with the pump’s material of construction

Features
- Impeller magnet is uncoated, permanent high quality ceramic/barium ferrite
- Most models have a titanium shaft and thrust washer for excellent wear and corrosion resistance
- 1/200 HP open motor

Series Specifications
RPM: 2900/3000
Capacity: 9 LPM
Shut Off: 1.3 m
Liquid Temperature: 66°C
Discharge: 1/2" OD (12.7 mm)

Model Characteristics
<table>
<thead>
<tr>
<th>Item #</th>
<th>Model</th>
<th>Volts</th>
<th>Hertz</th>
<th>Amps</th>
<th>Watts</th>
<th>Lead Wires</th>
<th>List/Cert</th>
</tr>
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<tbody>
<tr>
<td>588002</td>
<td>1-AA-MD</td>
<td>230</td>
<td>50/60</td>
<td>0.14</td>
<td>15</td>
<td>0.9 m (w/o plug)</td>
<td>UR</td>
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</table>

Performance Curves 1-AA-MD 230V, 50/60Hz

1-MD SERIES
1/70 HP
Non-Submersible, In-line Use

Applications
- Circulation of mildly corrosive acids, alkalis, solvents, brine, plating solutions, sterile solutions, and other mildly corrosive chemicals and solutions that are compatible with the pump’s material of construction

Features
- Impeller magnet is uncoated, permanent high quality ceramic/barium ferrite
- Most models have a titanium shaft and thrust washer for excellent wear and corrosion resistance
- 1/70 HP open FC motor

Series Specifications
RPM: 2700/3000
Capacity: 13.2 LPM
Shut Off: 2.3 m
Liquid Temperature: 66°C
Discharge: 1/2" OD (12.7 mm)

Model Characteristics
<table>
<thead>
<tr>
<th>Item #</th>
<th>Model</th>
<th>Volts</th>
<th>Hertz</th>
<th>Amps</th>
<th>Watts</th>
<th>Lead Wires</th>
<th>Cord</th>
<th>List/Cert</th>
</tr>
</thead>
<tbody>
<tr>
<td>589012</td>
<td>1-MD</td>
<td>230</td>
<td>50/60</td>
<td>0.66</td>
<td>90</td>
<td>1.8 m (w/o plug)</td>
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</tbody>
</table>

Performance Curves 1-MD 230V, 50/60Hz
MD Series Pumps

**2-MD SERIES**

**1/30 HP**

Non-Submersible, In-line Use

### Applications
- Circulation of mildly corrosive acids, alkalis, solvents, brine, plating solutions, sterile solutions, and other mildly corrosive chemicals and solutions that are compatible with the pump’s material of construction

### Features
- Impeller magnet is uncoated, permanent high quality ceramic/barium ferrite
- Most models have a titanium shaft and thrust washer for excellent wear and corrosion resistance
- 1/30 HP open FC motor
- Glass-filled polypropylene magnet housing and volute
- 1.1 specific gravity
- Nitrile O-ring
- Titanium thrust washers and shaft

### Series Specifications
- **RPM:** 2700/3000
- **Capacity:** 28 LPM
- **Shut Off:** 3.2 m
- **Liquid Temperature:** 66°C
- **Discharge:** 1/2” MNPT (12.7 mm)
- **Intake:** 1/2” FNPT (12.7 mm)
- **Impeller:** Glass-filled polypropylene & Ceramagnet “A” (Barium Ferrite)
- **Electrical:** 230V, 50/60Hz

### Model Characteristics

<table>
<thead>
<tr>
<th>Item #</th>
<th>Model</th>
<th>Volts</th>
<th>Hertz</th>
<th>Amps</th>
<th>Watts</th>
<th>Cord List/Cert.</th>
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<tbody>
<tr>
<td>580012</td>
<td>2-MD</td>
<td>230</td>
<td>50/60</td>
<td>0.65</td>
<td>105</td>
<td>1.8 m (w/o plug)</td>
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<tr>
<td>580038</td>
<td>2-MD</td>
<td>230</td>
<td>50/60</td>
<td>0.65</td>
<td>105</td>
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</table>

### Performance Curves

**2-MD 230V, 50/60Hz**

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**TE-3-MD SERIES**

**1/20 HP**

Non-Submersible, In-line Use

### Applications
- Circulation of mildly corrosive acids, alkalis, solvents, brine, plating solutions, sterile solutions, and other mildly corrosive chemicals and solutions that are compatible with the pump’s material of construction

### Features
- Impeller magnet is uncoated, permanent high quality ceramic/barium ferrite
- Most models have a titanium shaft and thrust washer for excellent wear and corrosion resistance
- 1/20 HP TEFC motor
- Glass-filled polypropylene magnet housing and volute
- 1.1 specific gravity
- Nitrile O-ring
- Titanium thrust washers and shaft

### Series Specifications
- **RPM:** 2750/3200
- **Capacity:** 31 LPM
- **Shut Off:** 3.5 m
- **Liquid Temperature:** 66°C
- **Discharge:** 1/2” MNPT (12.7 mm)
- **Intake:** 1/2” FNPT (12.7 mm)
- **Impeller:** Glass-filled polypropylene & Ceramagnet “A” (Barium Ferrite)
- **Electrical:** 230V, 50/60Hz

### Model Characteristics

<table>
<thead>
<tr>
<th>Item #</th>
<th>Model</th>
<th>Volts</th>
<th>Hertz</th>
<th>Amps</th>
<th>Watts</th>
<th>Cord List/Cert.</th>
</tr>
</thead>
<tbody>
<tr>
<td>581012</td>
<td>TE-3-MD</td>
<td>230</td>
<td>50/60</td>
<td>1.10</td>
<td>135</td>
<td>1.8 m (w/o plug)</td>
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</tbody>
</table>

### Performance Curves

**TE-3-MD 230V, 50/60Hz**

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MD Series Pumps

5-MD SERIES
1/8 HP
Non-Submersible, In-line Use

Applications

- Circulation of mildly corrosive acids, alkalis, solvents, brine, plating solutions, sterile solutions, and other mildly corrosive chemicals and solutions that are compatible with the pump’s material of construction

Features

- Impeller magnet is uncoated, permanent high quality ceramic/barium ferrite
- Most models have a titanium shaft and thrust washer for excellent wear and corrosion resistance
- 1/8 HP PSC open FC motor
- Glass-filled polypropylene magnet housing and volute
- 1.1 specific gravity
- Nitrile O-ring
- Titanium thrust washers and shaft
- Impeller: Glass-filled polypropylene & Ceramic magnet “A” (Barium Ferrite)
- Electrical: 230V, 50/60Hz

Series Specifications

RPM: 2400/2500
Capacity: 52 LPM
Shut Off: 6.8 m
Liquid Temperature: 66°C
Discharge: 1/2” MNPT (12.7 mm)
Intake: 1/2” FNPT (12.7 mm)

Model Characteristics

<table>
<thead>
<tr>
<th>Item #</th>
<th>Model</th>
<th>Volts</th>
<th>Hertz</th>
<th>Amps</th>
<th>Watts</th>
<th>Cord</th>
<th>List/Cert</th>
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</thead>
<tbody>
<tr>
<td>583012</td>
<td>5-MD</td>
<td>230</td>
<td>50/60</td>
<td>0.90</td>
<td>185</td>
<td>1.8 m (w/o plug)</td>
<td>UR/CSA</td>
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</table>

Performance Curves 5-MD 230V, 50/60Hz

Capacity - Gallons per Minute

Total Head in Meters

0 3 6 9 12 15

Total Head in Feet

0 10 20 30 40 50 60

Capacity - Liters per Minute

230 volt, 50Hz
230 volt, 60Hz
MD Series Pumps

**1.5-MDI-SC SERIES**

**1/35 HP**

Non-Submersible, In-line Use

### Applications
- Circulation of moderately corrosive acids, alkalis, solvents, brine, plating solutions, sterile solutions, and other moderately corrosive chemicals and solutions that are compatible with the pump’s material of construction

### Features
- Ceramic shaft and thrust washers are 99.5% pure alumina for excellent wear and trouble-free service
- 1/35 HP open FC motor
- Glass-filled polypropylene magnet housing and volute
- 1.1 specific gravity
- Viton® O-ring

### Series Specifications
- **RPM:** 3100
- **Capacity:** 19 LPM
- **Shut Off:** 2.7 m
- **Liquid Temperature:** 66°C
- **Discharge:** 1/4” MNPT (6 mm)

### Model Characteristics

<table>
<thead>
<tr>
<th>Item #</th>
<th>Model</th>
<th>Volts</th>
<th>Hertz</th>
<th>Amps</th>
<th>Watts</th>
<th>Cord</th>
<th>List/Cert.</th>
</tr>
</thead>
<tbody>
<tr>
<td>589211</td>
<td>1.5-MDI-SC</td>
<td>230</td>
<td>50/60</td>
<td>0.70</td>
<td>95</td>
<td>1.8 m (w/o plug)</td>
<td>UR/C-CSA</td>
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</tbody>
</table>

### Performance Curves

**1.5-MDI-SC**

230V, 50/60Hz

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PE-1.5-MDI-SC Series

**1/35 HP**

Submersible Use Only

### Applications
- Circulation of moderately corrosive acids, alkalis, solvents, brine, plating solutions, sterile solutions, and other moderately corrosive chemicals and solutions that are compatible with the pump’s material of construction

### Features
- Ceramic shaft and thrust washers are 99.5% pure alumina for excellent wear and trouble-free service
- 1/35 HP encapsulated motor
- Glass-filled polypropylene magnet housing and volute
- 1.1 specific gravity
- Nitrile O-ring
- Polyester motor case
- Stainless steel screws
- Polyethylene intake screen

### Series Specifications
- **RPM:** 3000
- **Capacity:** 19 LPM
- **Shut Off:** 2.9 m
- **Liquid Temperature:** 25°C
- **Discharge:** 1/4” MNPT (6 mm)

### Model Characteristics

<table>
<thead>
<tr>
<th>Item #</th>
<th>Model</th>
<th>Volts</th>
<th>Hertz</th>
<th>Amps</th>
<th>Watts</th>
<th>Cord</th>
<th>List/Cert.</th>
</tr>
</thead>
<tbody>
<tr>
<td>589237</td>
<td>PE-1.5-MDI-SC</td>
<td>230</td>
<td>50</td>
<td>0.43</td>
<td>50</td>
<td>1.8 m (3-prong plug)</td>
<td>CE</td>
</tr>
</tbody>
</table>

### Performance Curves

**PE-1.5-MDI-SC**

230V, 50Hz
MD-SC Series Pumps

### 2-MD-SC SERIES
1/30 HP
Non-Submersible, In-line Use

**Applications**
- Circulation of moderately corrosive acids, alkalis, solvents, brine, plating solutions, sterile solutions, and other moderately corrosive chemicals and solutions that are compatible with the pump's material of construction

**Features**
- Volute, magnet housing and impeller are glass-filled polypropylene for excellent chemical resistance
- Encapsulated glass-filled polypropylene permanent impeller magnet
- Ceramic shaft and thrust washers are 99.5% pure alumina for excellent wear and trouble-free service

**Series Specifications**
- RPM: 2700/3000
- Capacity: 28 LPM
- Shut Off: 3.2 m
- Liquid Temperature: 66°C
- Discharge: 1/2” MNPT (12.7 mm)

**Model Characteristics**
<table>
<thead>
<tr>
<th>Item #</th>
<th>Model</th>
<th>Volts</th>
<th>Hertz</th>
<th>Amps</th>
<th>Watts</th>
<th>Cord List/Cert.</th>
</tr>
</thead>
<tbody>
<tr>
<td>580513</td>
<td>2-MD-SC</td>
<td>230</td>
<td>50/60</td>
<td>0.65</td>
<td>105</td>
<td>1.8 m (w/o plug)</td>
</tr>
<tr>
<td>580514</td>
<td>2-MD-SC</td>
<td>230</td>
<td>50/60</td>
<td>0.65</td>
<td>105</td>
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</tr>
</tbody>
</table>

**Performance Curves**
- 2-MD-SC 230V, 50/60Hz

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### 3-MD-SC SERIES
1/12 HP
Non-Submersible, In-line Use

**Applications**
- Circulation of moderately corrosive acids, alkalis, solvents, brine, plating solutions, sterile solutions, and other moderately corrosive chemicals and solutions that are compatible with the pump's material of construction

**Features**
- Volute, magnet housing and impeller are glass-filled polypropylene for excellent chemical resistance
- Encapsulated glass-filled polypropylene permanent impeller magnet
- Ceramic shaft and thrust washers are 99.5% pure alumina for excellent wear and trouble-free service

**Series Specifications**
- RPM: 3000
- Capacity: 39 LPM
- Shut Off: 4.6 m
- Liquid Temperature: 66°C
- Discharge: 1/2” MNPT (12.7 mm)

**Model Characteristics**
<table>
<thead>
<tr>
<th>Item #</th>
<th>Model</th>
<th>Volts</th>
<th>Hertz</th>
<th>Amps</th>
<th>Watts</th>
<th>Cord List/Cert.</th>
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</thead>
<tbody>
<tr>
<td>581576</td>
<td>3-MD-SC</td>
<td>230</td>
<td>50</td>
<td>0.82</td>
<td>120</td>
<td>1.8 m (w/o plug)</td>
</tr>
</tbody>
</table>

**Performance Curves**
- 3-MD-SC 230V, 50Hz

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MD-SC Series Pumps

**TE-3-MD-SC SERIES**

1/20 HP
Non-Submersible, In-line Use

### Applications
- Circulation of moderately corrosive acids, alkalis, solvents, brine, plating solutions, sterile solutions, and other moderately corrosive chemicals and solutions that are compatible with the pump’s material of construction

### Features
- Volute, magnet housing and impeller are glass-filled polypropylene for excellent chemical resistance
- Encapsulated glass-filled polypropylene permanent impeller magnet
- Ceramic shaft and thrust washers are 99.5% pure alumina for excellent wear and trouble-free service
- 1/20 HP TEFC PSC motor
- 1.1 specific gravity
- Nitrile O-ring

### Series Specifications
- RPM: 2750/3000
- Capacity: 33 LPM
- Shut Off: 3.5 m
- Liquid Temperature: 66°C
- Discharge: 1/2” MNPT (12.7 mm)

### Model Characteristics
<table>
<thead>
<tr>
<th>Item #</th>
<th>Model</th>
<th>Volts</th>
<th>Hertz</th>
<th>Amps</th>
<th>Watts</th>
<th>Cord</th>
<th>List/Cert</th>
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<tbody>
<tr>
<td>581538</td>
<td>TE-3-MD-SC</td>
<td>230</td>
<td>50/60</td>
<td>0.89</td>
<td>120</td>
<td>1.8 m (w/o plug)</td>
<td>CE</td>
</tr>
</tbody>
</table>

### Performance Curves
- TE-3-MD-SC 230V, 50/60Hz

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**3-MDQX-SC SERIES**

1/15 HP
Non-Submersible, In-line Use

### Applications
- Pump designed specifically for aquarium filtration applications, either in fresh water or salt water

### Features
- Volute, magnet housing and impeller are glass-filled polypropylene for excellent chemical resistance
- Encapsulated glass-filled polypropylene permanent impeller magnet
- Ceramic shaft and thrust washers are 99.5% pure alumina for excellent wear and trouble-free service
- 1/15 HP TEPC motor
- 1.1 specific gravity
- Nitrile O-ring

### Series Specifications
- RPM: 3200
- Capacity: 58 LPM
- Shut Off: 2.9 m
- Liquid Temperature: 66°C
- Discharge: 1” MNPT (25.4 mm)

### Model Characteristics
<table>
<thead>
<tr>
<th>Item #</th>
<th>Model</th>
<th>Volts</th>
<th>Hertz</th>
<th>Amps</th>
<th>Watts</th>
<th>Cord</th>
<th>List/Cert</th>
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<tbody>
<tr>
<td>581538</td>
<td>3-MDQX-SC</td>
<td>230</td>
<td>50</td>
<td>0.31</td>
<td>70</td>
<td>1.8 m (3-prong plug)</td>
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</tr>
</tbody>
</table>

### Performance Curves
- 3-MDQX-SC 230V, 50Hz

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**Series Specifications**

<table>
<thead>
<tr>
<th>RPM: 2750/3000</th>
<th>Intake: 1” FNPT (25.4 mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity: 33 LPM</td>
<td>Impeller: Glass-filled polypropylene</td>
</tr>
<tr>
<td>Shut Off: 3.5 m</td>
<td>Electrical: 230V, 50/60Hz</td>
</tr>
<tr>
<td>Liquid Temperature: 66°C</td>
<td>Discharge: 1/2” MNPT (12.7 mm)</td>
</tr>
</tbody>
</table>

**Model Characteristics**

<table>
<thead>
<tr>
<th>Item #</th>
<th>Model</th>
<th>Volts</th>
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<th>Cord</th>
<th>List/Cert</th>
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<tbody>
<tr>
<td>581538</td>
<td>TE-3-MD-SC</td>
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<td>50/60</td>
<td>0.89</td>
<td>120</td>
<td>1.8 m (w/o plug)</td>
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**Performance Curves**

- TE-3-MD-SC 230V, 50/60Hz

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**Series Specifications**

<table>
<thead>
<tr>
<th>RPM: 3200</th>
<th>Intake: 1” FNPT (25.4 mm)</th>
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<tbody>
<tr>
<td>Capacity: 58 LPM</td>
<td>Impeller: Glass-filled polypropylene</td>
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<tr>
<td>Shut Off: 2.9 m</td>
<td>Electrical: 230V, 50Hz</td>
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<tr>
<td>Liquid Temperature: 66°C</td>
<td>Discharge: 1” MNPT (25.4 mm)</td>
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**Model Characteristics**

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<tr>
<th>Item #</th>
<th>Model</th>
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<tbody>
<tr>
<td>581538</td>
<td>3-MDQX-SC</td>
<td>230</td>
<td>50</td>
<td>0.31</td>
<td>70</td>
<td>1.8 m (3-prong plug)</td>
<td>–</td>
</tr>
</tbody>
</table>

**Performance Curves**

- 3-MDQX-SC 230V, 50Hz
MD-SC Series Pumps

TE-4-MD-SC SERIES
1/10 HP
Non-Submersible, In-line Use

Applications
- Circulation of moderately corrosive acids, alkalis, solvents, brine, plating solutions, sterile solutions, and other moderately corrosive chemicals and solutions that are compatible with the pump’s material of construction

Features
- Volute, magnet housing and impeller are glass-filled polypropylene for excellent chemical resistance
- Encapsulated glass-filled polypropylene permanent impeller magnet
- Ceramic shaft and thrust washers are 99.5% pure alumina for excellent wear and trouble-free service

Series Specifications
- RPM: 2750/3000
- Capacity: 49 LPM
- Shut Off: 4.9 m
- Liquid Temperature: 66°C
- Discharge: 1/2” MNPT (12.7 mm)

Model Characteristics

<table>
<thead>
<tr>
<th>Item #</th>
<th>Model</th>
<th>Volts</th>
<th>Hertz</th>
<th>Amps</th>
<th>Watts</th>
<th>Cord</th>
<th>List/Cert</th>
</tr>
</thead>
<tbody>
<tr>
<td>582514</td>
<td>TE-4-MD-SC</td>
<td>230</td>
<td>50/60</td>
<td>0.50</td>
<td>120</td>
<td>1.8 m (w/o plug)</td>
<td>UR/C-CSA</td>
</tr>
<tr>
<td>582538</td>
<td>TE-4-MD-SC</td>
<td>230</td>
<td>50/60</td>
<td>0.50</td>
<td>120</td>
<td>1.8 m (w/o plug)</td>
<td>CE</td>
</tr>
</tbody>
</table>

Performance Curves
 TE-4-MD-SC 230V, 50/60Hz

---

TE-4-MDX-SC SERIES
1/10 HP
Non-Submersible, In-line Use

Applications
- Circulation of moderately corrosive acids, alkalis, solvents, brine, plating solutions, sterile solutions, and other moderately corrosive chemicals and solutions that are compatible with the pump’s material of construction

Features
- Volute, magnet housing and impeller are glass-filled polypropylene for excellent chemical resistance
- Encapsulated glass-filled polypropylene permanent impeller magnet
- Ceramic shaft and thrust washers are 99.5% pure alumina for excellent wear and trouble-free service

Series Specifications
- RPM: 2750/3000
- Capacity: 75.7 LPM
- Shut Off: 3.7 m
- Liquid Temperature: 66°C
- Discharge: 1” MNPT (25.4 mm)

Model Characteristics

<table>
<thead>
<tr>
<th>Item #</th>
<th>Model</th>
<th>Volts</th>
<th>Hertz</th>
<th>Amps</th>
<th>Watts</th>
<th>Cord</th>
<th>List/Cert</th>
</tr>
</thead>
<tbody>
<tr>
<td>582515</td>
<td>TE-4-MDX-SC</td>
<td>230</td>
<td>50/60</td>
<td>0.50</td>
<td>120</td>
<td>1.8 m (w/o plug)</td>
<td>UR/C-CSA</td>
</tr>
</tbody>
</table>

Performance Curves
 TE-4-MDX-SC 230V, 50/60Hz
5-MD-SC SERIES
1/8 HP
Non-Submersible, In-line Use

Features
- Volute, magnet housing and impeller are glass-filled polypropylene for excellent chemical resistance
- Encapsulated glass-filled polypropylene permanent impeller magnet
- Ceramic shaft and thrust washers are 99.5% pure alumina for excellent wear and trouble-free service
- 1/8 HP open FC PSC motor
- 1.1 specific gravity
- Nitrile O-ring

Series Specifications
RPM: 2400/2500
Capacity: 60 LPM
Shut Off: 5.9 m
Liquid Temperature: 66°C
Discharge: 1/2” MNPT (12.7 mm)

Model Characteristics
<table>
<thead>
<tr>
<th>Item #</th>
<th>Model</th>
<th>Volts</th>
<th>Hertz</th>
<th>Amps</th>
<th>Watts</th>
<th>Cord</th>
<th>List/Cert.</th>
</tr>
</thead>
<tbody>
<tr>
<td>583513</td>
<td>5-MD-SC</td>
<td>230</td>
<td>50/60</td>
<td>1.00</td>
<td>200</td>
<td>1.8 m (w/o plug)</td>
<td>U/V/C-SA</td>
</tr>
</tbody>
</table>

Performance Curves
5-MD-SC 230V, 50/60Hz

Applications
- Circulation of moderately corrosive acids, alkalis, solvents, brine, plating solutions, and other moderately corrosive and solutions that are compatible with the pump’s material of construction

TE-5-MD-SC SERIES
1/8 HP
Non-Submersible, In-line Use

Features
- Volute, magnet housing and impeller are glass-filled polypropylene for excellent chemical resistance
- Encapsulated glass-filled polypropylene permanent impeller magnet
- Ceramic shaft and thrust washers are 99.5% pure alumina for excellent wear and trouble-free service
- 1/8 HP TEFC PSC motor
- 1.1 specific gravity
- Nitrile O-ring

Series Specifications
RPM: 2850/3450
Capacity: 61 LPM
Shut Off: 6.2 m
Liquid Temperature: 66°C
Discharge: 1/2” MNPT (12.7 mm)

Model Characteristics
<table>
<thead>
<tr>
<th>Item #</th>
<th>Model</th>
<th>Volts</th>
<th>Hertz</th>
<th>Amps</th>
<th>Watts</th>
<th>Cord</th>
<th>List/Cert.</th>
</tr>
</thead>
<tbody>
<tr>
<td>584538</td>
<td>TE-5-MD-SC</td>
<td>230</td>
<td>50/60</td>
<td>1.3</td>
<td>220</td>
<td>1.8 m (3-prong plug)</td>
<td>Cord not installed</td>
</tr>
</tbody>
</table>

Performance Curves
TE-5-MD-SC 230V, 50/60Hz

Applications
- Circulation of moderately corrosive acids, alkalis, solvents, brine, plating solutions, and other moderately corrosive and solutions that are compatible with the pump’s material of construction
MD-SC Series Pumps

**TE-5.5-MD-SC SERIES**

**1/3 HP**

Non-Submersible, In-line Use

**Applications**
- Circulation of moderately corrosive acids, alkalis, solvents, brine, plating solutions, sterile solutions, and other moderately corrosive chemicals and solutions that are compatible with the pump’s material of construction

**Features**
- Volute, magnet housing and impeller are glass-filled polypropylene for excellent chemical resistance
- Encapsulated glass-filled polypropylene permanent impeller magnet
- Ceramic shaft and thrust washers are 99.5% pure alumina for excellent wear and trouble-free service

**Series Specifications**

<table>
<thead>
<tr>
<th>RPM</th>
<th>2850/3450</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity</td>
<td>102 LPM</td>
</tr>
<tr>
<td>Shut Off</td>
<td>8.8 m</td>
</tr>
<tr>
<td>Liquid Temperature</td>
<td>66°C</td>
</tr>
<tr>
<td>Discharge</td>
<td>3/4” MNPT (19 mm)</td>
</tr>
</tbody>
</table>

**Model Characteristics**

<table>
<thead>
<tr>
<th>Item #</th>
<th>Model</th>
<th>Volts</th>
<th>Hertz</th>
<th>Amps</th>
<th>Watts</th>
<th>Cord</th>
<th>List/Cert.</th>
</tr>
</thead>
<tbody>
<tr>
<td>585504</td>
<td>TE-5.5-MD-SC</td>
<td>230</td>
<td>50/60</td>
<td>2.8</td>
<td>340</td>
<td>Not included</td>
<td>UV/C-CSA</td>
</tr>
</tbody>
</table>

**Performance Curves**

Note: Although no pump should be operated dry, the TE-5.5-MD-SC models have a run-dry capability of up to eight hours without damage.

---

**TE-5.5-MDQ-SC SERIES**

**1/2 HP**

Non-Submersible, In-line Use

**Applications**
- Pump designed specifically for aquarium filtration applications, either in fresh water or salt water

**Features**
- Volute, magnet housing and impeller are glass-filled polypropylene for excellent chemical resistance
- Encapsulated glass-filled polypropylene permanent impeller magnet
- Ceramic shaft and thrust washers are 99.5% pure alumina for excellent wear and trouble-free service

**Series Specifications**

<table>
<thead>
<tr>
<th>RPM</th>
<th>2850/3450</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity</td>
<td>109 LPM</td>
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<tr>
<td>Shut Off</td>
<td>9.1 m</td>
</tr>
<tr>
<td>Liquid Temperature</td>
<td>66°C</td>
</tr>
<tr>
<td>Discharge</td>
<td>3/4” MNPT (19 mm)</td>
</tr>
</tbody>
</table>

**Model Characteristics**

<table>
<thead>
<tr>
<th>Item #</th>
<th>Model</th>
<th>Volts</th>
<th>Hertz</th>
<th>Amps</th>
<th>Watts</th>
<th>Cord</th>
<th>List/Cert.</th>
</tr>
</thead>
<tbody>
<tr>
<td>585514</td>
<td>TE-5.5-MDQ-SC</td>
<td>230</td>
<td>50/60</td>
<td>2.2</td>
<td>300</td>
<td>Not included</td>
<td>UL/CSA</td>
</tr>
</tbody>
</table>

**Performance Curves**

Note: Although no pump should be operated dry, the TE-5.5-MDQ-SC models have a run-dry capability of up to eight hours without damage.
MD Series Pumps

**TE-6-MD-SC SERIES**

*1/2 HP*

Non-Submersible, In-line Use

**Applications**
- Circulation of moderately corrosive acids, alkalis, solvents, brine, plating solutions, sterile solutions, and other moderately corrosive chemicals and solutions that are compatible with the pump’s material of construction

**Features**
- Volute, magnet housing and impeller are glass-filled polypropylene for excellent chemical resistance
- Encapsulated glass-filled polypropylene permanent impeller magnet
- Ceramic shaft and thrust washers are 99.5% pure alumina for excellent wear and trouble-free service

**Series Specifications**

<table>
<thead>
<tr>
<th>Item #</th>
<th>Model</th>
<th>Volts</th>
<th>Hertz</th>
<th>Amps</th>
<th>Watts</th>
<th>Cord</th>
<th>List/Cert.</th>
</tr>
</thead>
<tbody>
<tr>
<td>586504</td>
<td>TE-6-MD-SC</td>
<td>230</td>
<td>50/60</td>
<td>11.6</td>
<td>640</td>
<td>Not included</td>
<td>UR/C-CSA</td>
</tr>
<tr>
<td>586538</td>
<td>TE-6-MD-SC</td>
<td>230</td>
<td>50/60</td>
<td>5.8</td>
<td>640</td>
<td>Not included</td>
<td>CE</td>
</tr>
</tbody>
</table>

NOTE: Although no pump should be operated dry, the TE-6-MD-SC models have a run-dry capability of up to eight hours without damage.

**Performance Curves**

- **TE-6-MD-SC**
- 230V, 50/60Hz

![Performance Curves](image)

**TE-7-MD-SC SERIES**

*3/4 HP*

Non-Submersible, In-line Use

**Applications**
- Circulation of moderately corrosive acids, alkalis, solvents, brine, plating solutions, sterile solutions, and other moderately corrosive chemicals and solutions that are compatible with the pump’s material of construction

**Features**
- Volute, magnet housing and impeller are glass-filled polypropylene for excellent chemical resistance
- Encapsulated glass-filled polypropylene permanent impeller magnet
- Ceramic shaft and thrust washers are 99.5% pure alumina for excellent wear and trouble-free service

**Series Specifications**

<table>
<thead>
<tr>
<th>Item #</th>
<th>Model</th>
<th>Volts</th>
<th>Hertz</th>
<th>Amps</th>
<th>Watts</th>
<th>Cord</th>
<th>List/Cert.</th>
</tr>
</thead>
<tbody>
<tr>
<td>587400</td>
<td>TE-7-MD-SC</td>
<td>230</td>
<td>50/60</td>
<td>5.2</td>
<td>700</td>
<td>Not included</td>
<td>UR/C-CSA</td>
</tr>
<tr>
<td>587438</td>
<td>TE-7-MD-SC</td>
<td>230</td>
<td>50/60</td>
<td>3.8</td>
<td>450</td>
<td>Not included</td>
<td>CE</td>
</tr>
</tbody>
</table>

NOTE: Although no pump should be operated dry, the TE-7-MD-SC models have a run-dry capability of up to eight hours without damage.

**Performance Curves**

- **TE-7-MD-SC**
- 230V, 50/60Hz

![Performance Curves](image)
MD-HC Series Pumps

2-MD-HC Series
1/30 HP
Non-Submersible, In-line Use

Applications
- Circulation of highly corrosive acids, alkalis, solvents, brine, plating solutions, sterile solutions, and other highly corrosive chemicals and solutions that are compatible with the pump’s material of construction.

Features
- Run dry capability for up to eight hours without apparent damage.
- Volute, magnet housing and impeller are glass-filled Ryton® (PPS) for excellent chemical resistance.
- Self-lubricating carbon impeller bushing is impervious to fluids and long-lived in abrasive solutions.
- Encapsulated glass-filled Ryton® permanent impeller magnet.

Series Specifications
- RPM: 2700/3000
- Capacity: 28 LPM
- Shut Off: 3.2 m
- Liquid Temperature: 93.3°C
- Discharge: 1/2” MNPT (12.7 mm)

Model Characteristics

<table>
<thead>
<tr>
<th>Item #</th>
<th>Model</th>
<th>Volts</th>
<th>Hertz</th>
<th>Amps</th>
<th>Watts</th>
<th>Cord</th>
<th>List/Cert.</th>
</tr>
</thead>
<tbody>
<tr>
<td>580613</td>
<td>2-MD-HC</td>
<td>230</td>
<td>50/60</td>
<td>0.65</td>
<td>105</td>
<td>1.8 m</td>
<td>UR/C-CSA</td>
</tr>
<tr>
<td>580614</td>
<td>2-MD-HC</td>
<td>230</td>
<td>50/60</td>
<td>0.65</td>
<td>105</td>
<td>1.8 m (w/o plug)</td>
<td>CE</td>
</tr>
</tbody>
</table>

NOTE: Although no pump should be operated dry, the 2-MD-HC models with carbon bushing and ceramic shaft have a run-dry capability of up to eight hours without damage.

Performance Curves

TE-3-MD-HC Series
1/20 HP
Non-Submersible, In-line Use

Applications
- Circulation of highly corrosive acids, alkalis, solvents, brine, plating solutions, sterile solutions, and other highly corrosive chemicals and solutions that are compatible with the pump’s material of construction.

Features
- Run dry capability for up to eight hours without apparent damage.
- Volute, magnet housing and impeller are glass-filled Ryton® (PPS) for excellent chemical resistance.
- Self-lubricating carbon impeller bushing is impervious to fluids and long-lived in abrasive solutions.
- Encapsulated glass-filled Ryton® permanent impeller magnet.

Series Specifications
- RPM: 2750/3200
- Capacity: 35 LPM
- Shut Off: 3.5 m
- Liquid Temperature: 93.3°C
- Discharge: 1/2” MNPT (12.7 mm)

Model Characteristics

<table>
<thead>
<tr>
<th>Item #</th>
<th>Model</th>
<th>Volts</th>
<th>Hertz</th>
<th>Amps</th>
<th>Watts</th>
<th>Cord</th>
<th>List/Cert.</th>
</tr>
</thead>
<tbody>
<tr>
<td>581614</td>
<td>TE-3-MD-HC</td>
<td>230</td>
<td>50/60</td>
<td>1.10</td>
<td>135</td>
<td>1.8 m</td>
<td>UR/C-CSA</td>
</tr>
<tr>
<td>581638</td>
<td>TE-3-MD-HC</td>
<td>230</td>
<td>50/60</td>
<td>0.89</td>
<td>120</td>
<td>1.8 m (w/o plug)</td>
<td>CE</td>
</tr>
</tbody>
</table>

NOTE: Although no pump should be operated dry, the TE-3-MD-HC models with carbon bushing and ceramic shaft have a run-dry capability of up to eight hours without damage.

Performance Curves
MD Series Pumps

TE-4-MD-HC SERIES
1/10 HP
Non-Submersible, In-line Use

Applications
- Circulation of highly corrosive acids, alkalies, solvents, brine, plating solutions, sterile solutions, and other highly corrosive chemicals and solutions that are compatible with the pump's material of construction

Features
- Run dry capability for up to eight hours without apparent damage
- Volute, magnet housing and impeller are glass-filled Ryton® (PPS) for excellent chemical resistance
- Self-lubricating carbon impeller bushing is impervious to fluids and long-lived in abrasive solutions
- Encapsulated glass-filled Ryton® permanent impeller magnet

Series Specifications
- RPM: 2750/3000
- Capacity: 49 LPM
- Shut Off: 4.9 m
- Liquid Temperature: 93.3°C
- Discharge: 1/2" MNPT (12.7 mm)

Model Characteristics

<table>
<thead>
<tr>
<th>Item #</th>
<th>Model</th>
<th>Volts</th>
<th>Hertz</th>
<th>Amps</th>
<th>Watts</th>
<th>Cord List/Cert.</th>
</tr>
</thead>
<tbody>
<tr>
<td>582614</td>
<td>TE-4-MD-HC</td>
<td>230</td>
<td>50/60</td>
<td>0.50</td>
<td>120</td>
<td>1.8 m (w/o plug) UR/C-CSA</td>
</tr>
<tr>
<td>582638</td>
<td>TE-4-MD-HC</td>
<td>230</td>
<td>50/60</td>
<td>0.50</td>
<td>120</td>
<td>1.8 m (w/o plug) CE</td>
</tr>
</tbody>
</table>

NOTE: Although no pump should be operated dry, the TE-4-MD-HC models with carbon bushing and ceramic shaft have a run-dry capability of up to eight hours without damage.

Performance Curves

Capacity - Gallons per Minute

Performance Curves

Capacity - Gallons per Minute

5-MD-HC SERIES
1/8 HP
Non-Submersible, In-line Use

Applications
- Circulation of highly corrosive acids, alkalies, solvents, brine, plating solutions, sterile solutions, and other highly corrosive chemicals and solutions that are compatible with the pump's material of construction

Features
- Run dry capability for up to eight hours without apparent damage
- Volute, magnet housing and impeller are glass-filled Ryton® (PPS) for excellent chemical resistance
- Self-lubricating carbon impeller bushing is impervious to fluids and long-lived in abrasive solutions
- Encapsulated glass-filled Ryton® permanent impeller magnet

Series Specifications
- RPM: 2500/3000
- Capacity: 60 LPM
- Shut Off: 5.9 m
- Liquid Temperature: 93.3°C
- Discharge: 1/2" MNPT (12.7 mm)

Model Characteristics

<table>
<thead>
<tr>
<th>Item #</th>
<th>Model</th>
<th>Volts</th>
<th>Hertz</th>
<th>Amps</th>
<th>Watts</th>
<th>Cord List/Cert.</th>
</tr>
</thead>
<tbody>
<tr>
<td>583613</td>
<td>5-MD-HC</td>
<td>230</td>
<td>50/60</td>
<td>0.9</td>
<td>194</td>
<td>1.8 m (w/o plug) UR/C-CSA</td>
</tr>
</tbody>
</table>

NOTE: Although no pump should be operated dry, the 5-MD-HC models with carbon bushing and ceramic shaft have a run-dry capability of up to eight hours without damage.

Performance Curves

Capacity - Gallons per Minute

Performance Curves

Capacity - Gallons per Minute
### TE-5-MD-HC Series

**1/8 HP**  
**Non-Submersible, In-line Use**

#### Applications
- Circulation of highly corrosive acids, alkalis, solvents, brine, plating solutions, sterile solutions, and other highly corrosive chemicals and solutions that are compatible with the pump’s material of construction

#### Features
- Run dry capability for up to eight hours without apparent damage
- Volute, magnet housing and impeller are glass-filled Ryton® (PPS) for excellent chemical resistance
- Self-lubricating carbon impeller bushing is impervious to fluids and long-lived in abrasive solutions
- Encapsulated glass-filled Ryton® permanent impeller magnet
- Ceramic shaft and thrust washers are 99.5% pure alumina for excellent wear and trouble-free service with harsh solutions

#### Series Specifications
- **RPM**: 2850/3450
- **Capacity**: 61 LPM
- **Shut Off**: 6.2 m
- **Liquid Temperature**: 93.3°C
- **Discharge**: 1/2” MNPT (12.7 mm)

#### Model Characteristics

<table>
<thead>
<tr>
<th>Item #</th>
<th>Model</th>
<th>Volts</th>
<th>Hertz</th>
<th>Amps</th>
<th>Watts</th>
<th>Cord</th>
<th>List/Cert.</th>
</tr>
</thead>
<tbody>
<tr>
<td>584604</td>
<td>TE-5-MD-HC</td>
<td>230</td>
<td>50/60</td>
<td>1</td>
<td>220</td>
<td>1.8 m (3-prong plug) Cord not installed</td>
<td>UR/C-CSA</td>
</tr>
<tr>
<td>584638</td>
<td>TE-5-MD-HC</td>
<td>230</td>
<td>50/60</td>
<td>1</td>
<td>220</td>
<td>1.8 m (3-prong plug) Cord not installed</td>
<td>CE</td>
</tr>
</tbody>
</table>

**NOTE:** Although no pump should be operated dry, the TE-5-MD-HC model with carbon bushing and ceramic shaft has a run-dry capability of up to eight hours without damage.

#### Performance Curves

![Performance Curve](image_url)

**TE-5-MD-HC**  
230V, 50/60Hz

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### TE-5.5-MD-HC Series

**1/3 HP**  
**Non-Submersible, In-line Use**

#### Applications
- Circulation of highly corrosive acids, alkalis, solvents, brine, plating solutions, sterile solutions, and other highly corrosive chemicals and solutions that are compatible with the pump’s material of construction

#### Features
- Run dry capability for up to eight hours without apparent damage
- Volute, magnet housing and impeller are glass-filled Ryton® (PPS) for excellent chemical resistance
- Self-lubricating carbon impeller bushing is impervious to fluids and long-lived in abrasive solutions
- Encapsulated glass-filled Ryton® permanent impeller magnet
- Ceramic shaft and thrust washers are 99.5% pure alumina for excellent wear and trouble-free service with harsh solutions
- 1/3 HP TEFC motor
- Glass-filled polyphenylene sulfide (e.g. Ryton®) volute and backplate
- 1.1 specific gravity
- Viton® O-ring

#### Series Specifications
- **RPM**: 2850/3450
- **Capacity**: 102 LPM
- **Shut Off**: 8.8 m
- **Liquid Temperature**: 82.2°C
- **Discharge**: 3/4” MNPT (19 mm)

#### Model Characteristics

<table>
<thead>
<tr>
<th>Item #</th>
<th>Model</th>
<th>Volts</th>
<th>Hertz</th>
<th>Amps</th>
<th>Watts</th>
<th>Cord</th>
<th>List/Cert.</th>
</tr>
</thead>
<tbody>
<tr>
<td>585604</td>
<td>TE-5.5-MD-HC</td>
<td>230</td>
<td>50/60</td>
<td>2.8</td>
<td>340</td>
<td>Not included</td>
<td>UR/C-CSA</td>
</tr>
<tr>
<td>585638</td>
<td>TE-5.5-MD-HC</td>
<td>230</td>
<td>50/60</td>
<td>2.8</td>
<td>340</td>
<td>Not included</td>
<td>CE</td>
</tr>
</tbody>
</table>

**NOTE:** Although no pump should be operated dry, the TE-5.5-MD-HC model with carbon bushing and ceramic shaft has a run-dry capability of up to eight hours without damage.

#### Performance Curves

![Performance Curve](image_url)

**TE-5.5-MD-HC**  
230V, 50/60Hz
MD-HC Series Pumps

TE-6-MD-HC SERIES
1/2 HP
Non-Submersible, In-line Use

Applications
- Circulation of highly corrosive acids, alkalis, solvents, brine, plating solutions, sterile solutions, and other highly corrosive chemicals and solutions that are compatible with the pump’s material of construction

Features
- Run dry capability for up to eight hours without apparent damage
- Volute, magnet housing and impeller are glass-filled Ryton® (PPS) for excellent chemical resistance
- Self-lubricating carbon impeller bushing is impervious to fluids and long-lived in abrasive solutions
- Encapsulated glass-filled Ryton® permanent impeller magnet
- Ceramic shaft and thrust washers are 99.5% pure alumina for excellent wear and trouble-free service with harsh solutions
- 1/2 HP TEFC split phase motor
- Glass-filled polyphenylene sulfide (e.g. Ryton®) volute and backplate
- 1.1 specific gravity
- Viton® O-ring

Series Specifications
RPM: 2850/3450
Capacity: 125 LPM
Shut Off: 10.7 m
Liquid Temperature: 82.2°C
Discharge: 3/4" MNPT (19 mm)

Intake: 1" FNPT (25.4 mm)
Impeller: Glass-filled polyphenylene sulfide (e.g. Ryton®) with carbon bushing
Electrical: 230V, 50/60Hz

Model Characteristics
<table>
<thead>
<tr>
<th>Item #</th>
<th>Model</th>
<th>Volts</th>
<th>Hertz</th>
<th>Amps</th>
<th>Watts</th>
<th>Cord</th>
<th>List/Cert.</th>
</tr>
</thead>
<tbody>
<tr>
<td>586604</td>
<td>TE-6-MD-HC</td>
<td>230</td>
<td>50/60</td>
<td>5.8</td>
<td>640</td>
<td>Not included</td>
<td>UR/C-CSA</td>
</tr>
<tr>
<td>586638</td>
<td>TE-6-MD-HC</td>
<td>230</td>
<td>50/60</td>
<td>5.8</td>
<td>640</td>
<td>Not included</td>
<td>CE</td>
</tr>
</tbody>
</table>

NOTE: Although no pump should be operated dry, the TE-6-MD-HC model with carbon bushing and ceramic shaft has a run-dry capability of up to eight hours without damage.

Performance Curves TE-6-MD-HC 230V, 50/60Hz

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TE-7-MD-HC SERIES
3/4 HP
Non-Submersible, In-line Use

Applications
- Circulation of highly corrosive acids, alkalis, solvents, brine, plating solutions, sterile solutions, and other highly corrosive chemicals and solutions that are compatible with the pump’s material of construction

Features
- Run dry capability for up to eight hours without apparent damage
- Volute, magnet housing and impeller are glass-filled Ryton® (PPS) for excellent chemical resistance
- Self-lubricating carbon impeller bushing is impervious to fluids and long-lived in abrasive solutions
- Encapsulated glass-filled Ryton® permanent impeller magnet
- Ceramic shaft and thrust washers are 99.5% pure alumina for excellent wear and trouble-free service with harsh solutions
- 3/4 HP TEFC PSC motor
- Glass-filled polyphenylene sulfide (e.g. Ryton®) volute and backplate
- 1.1 specific gravity
- Viton® O-ring

Series Specifications
RPM: 2850/3450
Capacity: 159 LPM
Shut Off: 12.3 m
Liquid Temperature: 93.3°C
Discharge: 1" MNPT (25.4 mm)

Intake: 1-1/2" FNPT (38 mm)
Impeller: Glass-filled polyphenylene sulfide (e.g. Ryton®) with carbon bushing
Electrical: 230V, 50/60Hz

Model Characteristics
<table>
<thead>
<tr>
<th>Item #</th>
<th>Model</th>
<th>Volts</th>
<th>Hertz</th>
<th>Amps</th>
<th>Watts</th>
<th>Cord</th>
<th>List/Cert.</th>
</tr>
</thead>
<tbody>
<tr>
<td>587010</td>
<td>TE-7-MD-HC</td>
<td>230</td>
<td>50/60</td>
<td>5.2</td>
<td>700</td>
<td>Not included</td>
<td>UR/C-CSA</td>
</tr>
<tr>
<td>587039</td>
<td>TE-7-MD-HC</td>
<td>230</td>
<td>50/60</td>
<td>5.2</td>
<td>700</td>
<td>Not included</td>
<td>CE</td>
</tr>
<tr>
<td>587040</td>
<td>TE-7-MD-HC</td>
<td>230/460</td>
<td>50/60</td>
<td>3.0/1.5</td>
<td>700/680</td>
<td>Not included</td>
<td>UR</td>
</tr>
</tbody>
</table>

NOTE: Although no pump should be operated dry, the TE-7-MD-HC models with carbon bushing and ceramic shaft have a run-dry capability of up to eight hours without damage.

Performance Curves TE-7-MD-HC 230V or 460V, 50/60Hz
**Applications**

- Circulation of highly corrosive acids, alkalis, solvents, brine, plating solutions, sterile solutions, and other highly corrosive chemicals and solutions that are compatible with the pump’s material of construction

**Features**

- Volute, magnet housing and impeller are carbon-filled Kynar® (PVDF) for excellent chemical resistance
- Mica-filled Teflon® bushing is long-lived in abrasive solutions
- Encapsulated carbon-filled Kynar® permanent impeller magnet
- Ceramic shaft and thrust washers are 99.5% pure alumina for excellent wear and trouble-free service with harsh solutions
- 1/3 HP TEFC split phase motor
- Carbon-filled Kynar® (PVDF) volute and backplate
- 1.1 specific gravity
- Viton® O-ring

**Series Specifications**

<table>
<thead>
<tr>
<th>RPM</th>
<th>Capacity</th>
<th>Liquid Temperature</th>
<th>Discharge</th>
</tr>
</thead>
<tbody>
<tr>
<td>2850</td>
<td>102 LPM</td>
<td>93.3°C</td>
<td>3/4” MNPT (19 mm)</td>
</tr>
</tbody>
</table>

**Model Characteristics**

<table>
<thead>
<tr>
<th>Item #</th>
<th>Model</th>
<th>Volts</th>
<th>Hertz</th>
<th>Watts</th>
<th>Amps</th>
<th>Cord</th>
<th>List/Cert</th>
</tr>
</thead>
<tbody>
<tr>
<td>585600</td>
<td>TE-5.5-MD-CK</td>
<td>230</td>
<td>50/60</td>
<td>2.8</td>
<td>340</td>
<td>Not included</td>
<td>UR-C-ASA</td>
</tr>
</tbody>
</table>

**Performance Curves**

- TE-5.5-MD-CK 230V, 50/60Hz

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**Applications**

- Circulation of highly corrosive acids, alkalis, solvents, brine, plating solutions, sterile solutions, and other highly corrosive chemicals and solutions that are compatible with the pump’s material of construction

**Features**

- Volute, magnet housing and impeller are carbon-filled Kynar® (PVDF) for excellent chemical resistance
- Self-lubricating carbon-filled Teflon® (Chemloy) impeller bushing is impervious to fluids and long-lived in abrasive solutions
- Encapsulated carbon-filled Kynar® permanent impeller magnet
- Ceramic shaft and thrust washers are 99.5% pure alumina for excellent wear and trouble-free service with harsh solutions
- 1/2 HP TEFC split phase motor
- Carbon-filled Kynar® (PVDF) volute and backplate
- 1.1 specific gravity
- Viton® O-ring

**Series Specifications**

<table>
<thead>
<tr>
<th>RPM</th>
<th>Capacity</th>
<th>Liquid Temperature</th>
<th>Discharge</th>
</tr>
</thead>
<tbody>
<tr>
<td>2850</td>
<td>125 LPM</td>
<td>93.3°C</td>
<td>3/4” MNPT (19 mm)</td>
</tr>
</tbody>
</table>

**Model Characteristics**

<table>
<thead>
<tr>
<th>Item #</th>
<th>Model</th>
<th>Volts</th>
<th>Hertz</th>
<th>Watts</th>
<th>Amps</th>
<th>Cord</th>
<th>List/Cert</th>
</tr>
</thead>
<tbody>
<tr>
<td>586600</td>
<td>TE-6-MD-CK</td>
<td>230</td>
<td>50/60</td>
<td>5.8</td>
<td>640</td>
<td>Not included</td>
<td>UR-C-ASA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Item #</th>
<th>Model</th>
<th>Volts</th>
<th>Hertz</th>
<th>Watts</th>
<th>Amps</th>
<th>Cord</th>
<th>List/Cert</th>
</tr>
</thead>
<tbody>
<tr>
<td>586610</td>
<td>TE-6-MD-CK</td>
<td>230</td>
<td>50/60</td>
<td>5.8</td>
<td>640</td>
<td>Not included</td>
<td>UR-C-ASA</td>
</tr>
</tbody>
</table>

**Performance Curves**

- TE-6-MD-CK 230V, 50/60Hz
TE-MD-CK Series Pumps

TE-7-MD-CK SERIES
3/4 HP
Non-Submersible, In-line Use

Applications
• Circulation of highly corrosive acids, alkalis, solvents, brine, plating solutions, sterile solutions, and other highly corrosive chemicals and solutions that are compatible with the pump's material of construction

Features
• Volute, magnet housing and impeller are carbon-filled Kynar® (PVDF) for excellent chemical resistance
• Self-lubricating carbon-filled Teflon® (Chemloy) impeller bushing is impervious to fluids and long-lived in abrasive solutions
• Encapsulated carbon-filled Kynar® permanent impeller magnet
• Ceramic shaft and thrust washers are 99.5% pure alumina for excellent wear and trouble-free service with harsh solutions
• 3/4 HP TEFC PSC motor
• Carbon-filled Kynar® (PVDF) volute and backplate
• 1.1 specific gravity
• Viton® O-ring

Series Specifications
RPM: 2850/3450
Capacity: 159 LPM
Shut Off: 12.3 m
Liquid Temperature: 93.3°C
Discharge: 1” MNPT (25.4 mm)
Intake: 1-1/2” FNPT (38 mm)

Impeller: Carbon-filled Kynar® (PVDF) w/ Chemloy bushing
Electrical: 230V 50/60Hz
230/460V 50/60Hz (3 phase)

Model Characteristics

<table>
<thead>
<tr>
<th>Item #</th>
<th>Model</th>
<th>Volts</th>
<th>Hertz</th>
<th>Amps</th>
<th>Watts</th>
<th>Cord</th>
<th>List/Cert.</th>
</tr>
</thead>
<tbody>
<tr>
<td>587600</td>
<td>TE-7-MD-CK</td>
<td>230</td>
<td>50/60</td>
<td>5.2</td>
<td>700</td>
<td>Not included</td>
<td>UR/C-CSA</td>
</tr>
<tr>
<td>587603</td>
<td>TE-7-MD-CK</td>
<td>230/460</td>
<td>50/60</td>
<td>3.0/1.5</td>
<td>700/680</td>
<td>Not included</td>
<td>UR</td>
</tr>
</tbody>
</table>

Performance Curves  TE-7-MD-CK  230V, 50/60Hz

[Graph showing performance curves for TE-7-MD-CK 230 volt, 50Hz and 60Hz]
Tubing Adapters for Inlets of MD Pumps

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Description</th>
<th>Pump Inlet Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>599454</td>
<td>1-1/2” MNPT x 3.81 cm OD Barb</td>
<td>1 1/2” FNPT</td>
</tr>
</tbody>
</table>

Material = Polypropylene Temp. Rating = 65˚C.
This adapter allows the use of flexible tubing to be easily connected to the pump inlets with no restriction of flow.

O-Rings

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Type</th>
<th>Size</th>
<th>Uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>924023</td>
<td>Teflon® Encapsulated Viton®</td>
<td>2-040 (7.275 cm ID x 0.178 cm)</td>
<td>Replaces standard O-ring in MD, MD-SC and MD-HC #1 through #5 series pumps.</td>
</tr>
<tr>
<td>924008</td>
<td>Viton®</td>
<td>2-040 (7.275 cm ID x 0.178 cm)</td>
<td>Standard on MD-HC, #2 through #5 series pumps. Can be used on MD and SC #1 through #5 series.</td>
</tr>
<tr>
<td>924019</td>
<td>Teflon®</td>
<td>2-243 (10.437 cm ID x 0.353 cm)</td>
<td>Replaces standard O-ring in TE-5.5, TE-6, and 7-MD, SC and HC pumps.</td>
</tr>
</tbody>
</table>

Example: The diameter of a TE-4-MD-HC impeller is 6.35 cm. To use this pump with a liquid having a 1.4 density, multiply the impeller’s original diameter by .89 to calculate the needed trimmed size (6.35 cm X 0.89 = 5.66 cm).

Theoretical Impeller Diameter Change for Liquids Heavier Than Water

<table>
<thead>
<tr>
<th>Liquid density (specific weight)</th>
<th>1.0</th>
<th>1.1</th>
<th>1.2</th>
<th>1.3</th>
<th>1.4</th>
<th>1.5</th>
<th>1.6</th>
<th>1.7</th>
<th>1.8</th>
<th>1.9</th>
<th>2.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiply original diameter by</td>
<td>1.0</td>
<td>0.97</td>
<td>0.94</td>
<td>0.91</td>
<td>0.89</td>
<td>0.87</td>
<td>0.85</td>
<td>0.83</td>
<td>0.82</td>
<td>0.81</td>
<td>0.79</td>
</tr>
</tbody>
</table>
About Our Company.

In 2006, Franklin Electric Company acquired Little Giant Pump Company to solidify our position as a leading global supplier of water pumping systems for residential and commercial markets. Little Giant® products – sump, sewage, effluent, utility, condensate removal, and submersible industrial pumps – complement and broaden Franklin Electric’s overall water systems offering.

Little Giant Pump Company, now Franklin Electric – offers the industry a well-respected brand of products – Little Giant. Founded on quality, availability, service, innovation and value, Franklin Electric continues to bring the Little Giant brand name advantage through Pumps. People. Partnerships.

Franklin Electric is a global leader in the production and marketing of systems and components for the movement of water and automotive fuels. Recognized as a technical leader in its specialties, Franklin serves customers around the world in residential, commercial, agricultural, industrial, municipal, and fueling applications.

Long recognized as the world’s largest manufacturer of submersible electric motors, Franklin Electric has been able to leverage its expertise in motor applications to grow and serve several different markets. The principal application for Franklin products is water well pumping systems, where the company offers pumps, motors, drives, and controls. In addition, Franklin Electric produces a vast array of products for fueling systems and the water transfer market.

With 3,500 employees worldwide, Franklin Electric is a global manufacturer with over 25 manufacturing and distribution facilities located in the United States, Germany, Czech Republic, Italy, Mexico, Canada, Australia, Brazil, South Africa, China, and Japan.

Little Giant products are produced to the following ISO standards:
Quality – 9001:2000
Environmental – 14001: 2004