RGS2012E1S / RGS2012E1E
RETROFIT
FEATURES
Design: Retrofitable with all major competitors. Capable of grinding domestic sewage in individual residential applications.

Cutter System: Anti-roping design. Two blade rotary cutter is threaded to shaft. Stationary cutter ring is reversible for extended service.

Impeller: Silicon bronze, semi-open, non-overloading two-vane design with pump-out vanes for mechanical seal protection. Balanced for smooth operation.

Casing: Cast iron, volute type for high efficiency. Adaptable for guide rail system.

Motor: Fully submerged in oil-filled chamber. High grade turbine oil surrounds motor for more efficient heat dissipation, permanent lubrication of bearings and mechanical seal, and protection against outside environment.

Motor Shaft: 300 series stainless steel, short overhang for minimum shaft deflection.

Designed for Continuous Operation: Pump ratings are within the motor manufacturer’s recommended working limits, can be operated continuously without damage when fully submerged.

Junction Box Included: All electrical conditions internally wired at factory.

Retrofit Adapter: Electrical connection pin plug included.

Bearings: Upper and lower ball bearings for precision positioning of parts and to carry all radial and thrust loads.

Mechanical Seal: Hardfaced Silicon carbide for longer life, stainless steel metal parts, BUNA-N elastomers.

Power Cable: Severe duty rated, oil and water resistant.

Piping: Stainless piping
Check valve included
Floats for on/off and alarm included
Piping and candy cane discharge pipe in stainless steel included.

AGENCY LISTINGS

Tested to UL 778 and CSA 22.2 108 Standards
By Canadian Standards Association
File #LR38549

Underwriters Laboratories

APPLICATIONS
Designed for high head residential sewage applications with drop-in core style.

SPECIFICATIONS

Pump:
- Capacities: to 41 GPM
- Total heads: to 95' TDH
- Discharge: 1 1/4" NPT
- Temperature: 104°F (40°C) maximum continuous, 140°F (60°C) maximum intermittent
- Single mechanical seal: silicon carbide rotary/silicon carbide stationary, 300 series stainless steel metal parts, BUNA-N elastomers
- Fasteners: 300 series stainless steel
- Rotating cutter and cutter ring: 440 C hardened stainless steel

Motor:
- Single phase: 2 HP, 60 Hz, 3450 RPM, 208/230 V, capacitor start with on winding thermal protector. No external capacitor kits required.
- Class F insulation
- Shaft: 300 series stainless steel threaded design
- Bearings: ball bearings upper and lower

Power Cord:
- Use for connections with standard or extreme versions
- Standard length 6’, 14/3 STOW
- All electrical connections made at factory in junction box
= A 1¼" minimum discharge pipe requires a minimum flow of 10 gpm to maintain a 2 ft/sec. scouring velocity. Flows less than 10 gpm will allow solids to settle in the pipe.

MODEL INFORMATION

<table>
<thead>
<tr>
<th>Order Number</th>
<th>Operation</th>
<th>Power Cord</th>
</tr>
</thead>
<tbody>
<tr>
<td>RGS2012E1S/E1E</td>
<td>Manual</td>
<td>6‘ with Bare Leads</td>
</tr>
</tbody>
</table>

MOTOR DATA

<table>
<thead>
<tr>
<th>HP</th>
<th>Volts</th>
<th>Phase</th>
<th>RPM</th>
<th>Maximum</th>
<th>LRA</th>
<th>Full Load Motor Efficiency</th>
<th>Resistance</th>
<th>Power Cable</th>
<th>Fuse/Circuit Breaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>208/230</td>
<td>1</td>
<td>3450</td>
<td>15</td>
<td>59</td>
<td>70</td>
<td>2.47</td>
<td>14/3</td>
<td>30</td>
</tr>
</tbody>
</table>
CONSTRUCTION DETAILS

<table>
<thead>
<tr>
<th>Item</th>
<th>Standard</th>
<th>Extreme</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 RGS2010 Grinder E1</td>
<td>RGS2012E1</td>
<td></td>
</tr>
<tr>
<td>2 Junction Box with</td>
<td>9K600</td>
<td>9K601</td>
</tr>
<tr>
<td>Electrical Adaptor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Check / Anti-Siphon</td>
<td>A9-12BAS</td>
<td></td>
</tr>
<tr>
<td>Valve</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Signal Master FS</td>
<td>A2N03</td>
<td></td>
</tr>
<tr>
<td>5 Pump Master Plus FS</td>
<td>A2E03</td>
<td></td>
</tr>
<tr>
<td>6 Electrical Adapter</td>
<td>9K642</td>
<td>9K643</td>
</tr>
<tr>
<td>Cord only</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

All dimensions ± 1/8 tolerance unless noted.

APPLICATION DATA

<table>
<thead>
<tr>
<th>Minimum Casing Thickness</th>
<th>5/16&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Casing Corrosion Allowance</td>
<td>1/4&quot;</td>
</tr>
<tr>
<td>Maximum Working Pressure</td>
<td>50 PSI</td>
</tr>
<tr>
<td>Maximum Submergence</td>
<td>50 feet</td>
</tr>
<tr>
<td>Minimum Submergence</td>
<td></td>
</tr>
<tr>
<td>Fully submerged for continuous operation</td>
<td></td>
</tr>
<tr>
<td>12&quot; below top of motor for intermittent operation</td>
<td></td>
</tr>
<tr>
<td>Maximum Environmental Temperature</td>
<td>40°C (104°F) continuous operation</td>
</tr>
<tr>
<td></td>
<td>60°C (140°F) intermittent operation</td>
</tr>
<tr>
<td>Maximum Number of Evenly Distributed Starts per hour</td>
<td>10</td>
</tr>
<tr>
<td>Bearings</td>
<td>B-10 life of 30,000 hours min.</td>
</tr>
<tr>
<td>1¼&quot; Minimum Discharge Pipe Diameter</td>
<td>Requires a minimum flow of 10 gpm to maintain a 2 ft./sec. scouring velocity</td>
</tr>
</tbody>
</table>

CUTTER ASSEMBLY

2-Blade Rotating Cutter

Reversible Cutter Ring

STANDARD PARTS

Minimum Casing Thickness
- 5/16"

Casing Corrosion Allowance
- 1/4"

Maximum Working Pressure
- 50 PSI

Maximum Submergence
- 50 feet

Minimum Submergence
- Fully submerged for continuous operation
- 12" below top of motor for intermittent operation

Maximum Environmental Temperature
- 40°C (104°F) continuous operation
- 60°C (140°F) intermittent operation

Maximum Number of Evenly Distributed Starts per hour
- 10

Bearings
- B-10 life of 30,000 hours min.

1¼" Minimum Discharge Pipe Diameter
- Requires a minimum flow of 10 gpm to maintain a 2 ft./sec. scouring velocity

Motor Cover
- Gray cast iron - ASTM A48, Class 30

Bearing Housing
- Gray cast iron - ASTM A48, Class 30

Seal Housing
- Gray cast iron - ASTM A48, Class 30

Casing
- Gray cast iron - ASTM A48, Class 30

Impeller
- Cast silicon bronze - ASTM B584 C87600

Motor Shaft
- AISI 300 series stainless steel

Motor Design
- NEMA 48 frame, oil filled with Class F insulation

Motor Overload Protection
- On winding thermal protector - auto reset

External Hardware
- 300 series stainless steel

Impeller Type
- Semi-opened with pump out vanes on back shroud

Cutter
- Two blades; type 440C hardened stainless steel

Oil Capacity - motor chamber
- 0.88 gallons

Junction Box
- Fiberglass

Piping
- Stainless Steel

Candy Cane
- Stainless Steel

Check Valve
- Epoxy Coated Cast Iron

APPLICATION DATA

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