**TECHNICAL BROCHURE** 

**BRETRO R2** 



# RGS2012E1S / RGS2012E1E



## Goulds Water Technology

### Wastewater

#### 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<sup>1</sup>/<sub>4</sub>" 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

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= A 1<sup>1</sup>/4" 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**

Order Number	Operation	Power Cord	
RGS2012E1S/E1E	Manual	6' with Bare Leads	

#### **MOTOR DATA**

НР	Volts	Phase	RPM	Maximum	LRA	Full Load	Resis	tance	Power Cable	Fuse/
пг	voits	Fnase	<b>KPIVI</b>	Amps	LNA	Motor Efficiency	Start	Line-Line	Fower Cable	Circuit Breaker
2	208/230	1	3450	15	59	70	2.47	0.6	14/3	30

#### **APPLICATION DATA**

Minimum Casina Thislands	5/ 11
Minimum Casing Thickness	5/16"
Casing Corrosion Allowance	1⁄8"
Maximum Working Pressure	50 PSI
Maximum Submergence	50 feet
Minimum Submergence	Fully submerged for continuous operation
Winimum Submergence	12" below top of motor for intermittent operation
Maximum Environmental	40°C (104°F) continuous operation
Temperature	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

#### **CUTTER ASSEMBLY**







#### **CONSTRUCTION DETAILS**

	14/3 STOW, single phase with	
	bare leads	
Power Cable - type	14/3 STOW, with 230 V NEMA three	
	prong grounding plug	
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	
Motor Design	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	.88 gallons	
Junction Box	Fiberglass	
	· ile origitated	
Piping	Stainless Steel	
Piping Candy Cane		



Item No.	Major Components	Standard	Extreme
1	RGS2010 Grinder E1	RGS2012E1	
2	Junction Box with Electrical Adaptor 9K600 9K60		9K601
3	Check / Anti-Siphon Valve	A9-12BAS	
4	Signal Master FS	A2N03	
5	Pump Master Plus FS	A2E03	
6	6 Electrical Adapter Cord only 9K		9K643



All dimensions  $\pm$  1/8 tolerance unless noted.





Xylem Inc. 2881 East Bayard Street Ext., Suite A Seneca Falls, NY 13148 Phone: (866) 325-4210 Fax: (888) 322-5877 www.gouldswatertechnology.com

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