Product information presented here reflects conditions at time of publication. Consult factory regarding discrepancies or inconsistencies.



ZT0422\_Ea 0621 Supersedes NEW

### **MODEL 2833**

# PRODUCT FEATURES 3 HP Grinder Pumps - Dual Seal



### **APPLICATIONS**

- · Low pressure sewer systems
- High head sewage systems
- Domestic, commercial, wastewater and sewage

### **MATERIAL FEATURES**

#### PUMP:

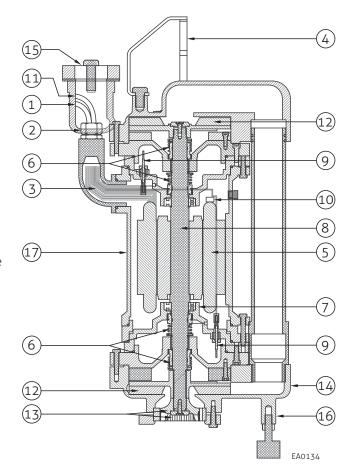
- Hardened 440 stainless steel (Rockwell 55-60) shredding ring and cutter
- 2" NPT discharge
- Both ends of the pump are protected by tandem carbon / ceramic and silicon carbide mechanical seal
- Thermal sensor is mounted directly on the windings in the three phase models for maximum temperature sensing (requires circuit in control panel to function)
- Moisture probes for leak detection (requires circuit in control panel to function)
- Cast iron ASTM A48 Class 30
- · Attaching hardware 304 stainless steel
- The cord seal is epoxy-potted for superior moisture resistance and anti-wicking
- Ductile iron impeller for superior quality and long life
- Optional: ☐ Trimmed impeller

#### MOTOR:

- 3 HP, 3450 RPM
- 3 Phase 380 Volt
- Stator Class F insulation and lead wires Nema B design
- · Oil-filled motor for better cooling and lubrication
- · Moisture probe for leak detection
- · Housing cast iron
- Power and sensor cable length 30' (9 m)
- Ball bearings upper and lower high carbon chromium steel

### **FEATURES**

- 1. 30' (9 m) power cord.
- 2. Heavy-duty cord connections.
- 3. The cord seal is epoxy-potted for superior moisture resistance and anti-wicking.
- 4. Stainless steel lifting bail.
- 5. Oil-filled motor housing ensures uniform heat distribution, lubricates bearings, and conducts heat for cooler running.
- 6. Tandem seals. Carbon/rotating, ceramic/stationary upper, silicon carbide/silicon carbide lower, Buna-N elastomers.
- 7. Upper and lower high carbon chromium steel ball bearings.
- 8. Stainless steel shaft and hardware resist corrosion.



- 9. Moisture probes with upper and lower probes protect the motor from liquid entry.
- 10. Thermal sensor protection.
- 11. 30' (9 m) power and sensor cable.
- 12. Ductile Iron impeller design, fully balanced with integral pump-out vane to clear debris.
- 13. Stainless steel shredding ring and cutter hardened to Rockwell 55-60.
- 14. Concentric pump housing with centerline discharge reduces radial loading for longer bearing and shaft seal life.
- 15. 2" NPT vertical discharge.
- 16. Cast iron support legs enabe the pump to be free-standing.
- 17. Cast iron ASTM A48 Class 30 strength.

# **MODEL 2833**

# TECHNICAL DATA

# 3 HP Grinder Pumps - Dual Seal

| MODELS:                     | □ 2833          |  |
|-----------------------------|-----------------|--|
| PUMP NAME PLATE HORSEPOWER: | 3               |  |
| MAXIMUM KW INPUT:           | 9.5             |  |
| STANDARD IMPELLER DIAMETER: | 5.354" (136 mm) |  |
| DISCHARGE SIZE:             | 2" NPT          |  |

| IMPELLER TYPE:   | SEMI-OPEN                              | TANDEM SEALS:                   | STANDARD        |
|------------------|--|---------------------------------|-----------------|
| CUTTER & PLATE:  | 440 C SS HARDENED TO ROCKWELL<br>55-60 | MOTOR DESIGN LETTER:            | NEMA B          |
| PUMP NET WEIGHT: | 213 lbs. (97 kg)                       | POWER CORD LENGTH: ft (m)       | □ 50′           |
|                  |  | (30' [9 m] STANDARD)            | (15.2 m)        |
| O RINGS:         | BUNA-N                                 | POWER CORD:                     | 14 GAUGE STOW   |
| MOTOR SHAFT:     | SS410                                  | STATOR & LEAD WIRES INSULATION: | CLASS F         |
| RPM:             | 3450                                   | MAXIMUM STATOR TEMPERATURE:     | 311 °F (155 °C) |
| MOTOR TYPE:      | SUBMERSIBLE                            |                                 |                 |

| SHAFT SEAL CONSTRUCTION:  | STANDARD  | CARBON/CERAMIC UPPER                    |  |
|---------------------------|---|---|--|
|                           |   | SILICON CARBIDE/SILICON CARBIDE LOWER   |  |
|                           | OPTIONAL UPPER  |   |  |
|                           |   | ☐ SILICON CARBIDE/SILICON CARBIDE       |  |
|                           | OPTIONAL LOWER  | R                                       |  |
|                           |   | ☐ SILICON CARBIDE/SILICON CARBIDE       |  |
| STANDARD SENSING DEVICES* | MOTOR THERMAL SHUTOFF   | THERMAL CUT-OUT                         |  |
|                           | MOISTURE DETECTION  | MOISTURE SENSING PROBES                 |  |
| IMPELLER MATERIAL         | 2833  | STANDARD DUCTILE IRON                   |  |
| IMPELLER TRIM: □ OPTIONAL |   | DESIGN POINT: GPM @' TDH, IMPELLER DIA" |  |
| MAXIMUM WATER TEMPERATU   | <b>AXIMUM WATER TEMPERATURE:</b> 104 °F (40 °C) Continuous, 140 °F (60 °C) Intermit |   |  |

<sup>\*</sup>Requires a circuit in control panel to function.

| MODEL | НР | □ 380V/3PH |     |
|-------|----|------------|-----|
|       |    | FLA        | LRA |
| 2833  | 3  | 15         | 46  |

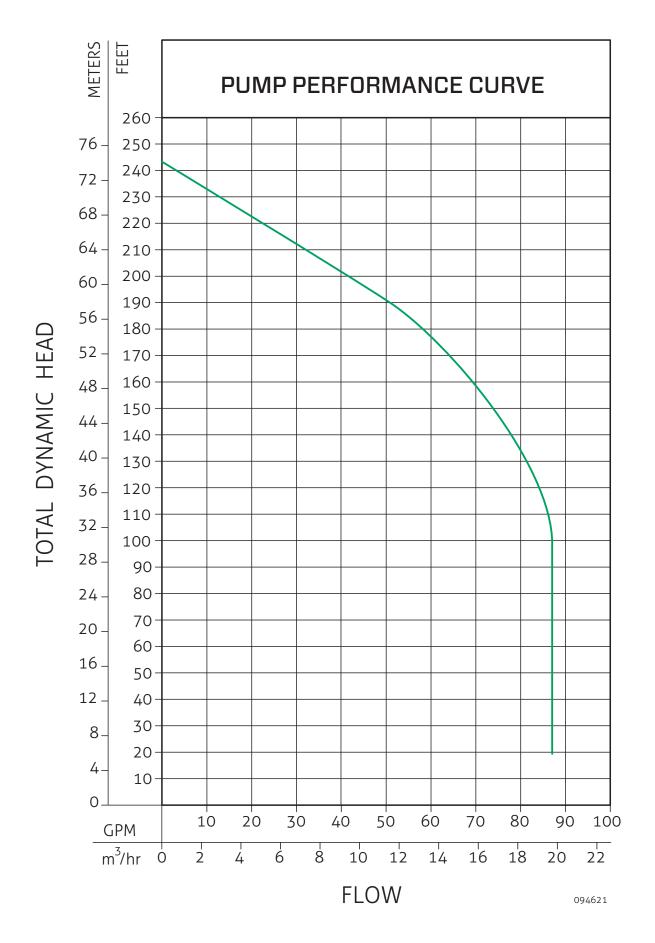
### **RESERVE POWERED DESIGN**

For unusual conditions a reserve safety factor is engineered into the design of every Zoeller\* pump.

## **MODEL 2833**

# PERFORMANCE CURVE

# 3 HP Grinder Pumps - Dual Seal



# **MODEL 2833**

# **DIMENSIONAL DRAWING**

# 3 HP Grinder Pumps - Dual Seal

