

Internal or External Start Components Single or 3 Phase



The vortex impeller design of the grinder pump provides non-overloading performance and prevents clogging.

The **CPG2-2(S)** pump produces capacities up to 44 gpm with heads up to 103 feet.

The **CPG2-2(H)** pump produces capacities up to 42 gpm with heads up to 133 feet.

The pump can easily handle waste from:

- Residential/Commercial Developments
- Wastewater Transfer
- Hospitals, Motels, Apartments
- Schools, Universities
- Churches
- Campgrounds
- Office Complexes

Some of the other pump features:

- Single or 3 Phase
 - 2 HP @ 230 V 1-Phase @ 15 AMPS
 - 2 HP @ 230 V 3-Phase @ 9 AMPS
 - 2 HP @ 460 V 3-Phase @ 4.5 AMPS
- 150 Degrees F. (Intermittent)
- 30' Cord
- Start component
 - Internal (no control panel required)
 - External (must use start kit or components in control panel)

How to Order

CPG 2 - 2 1 S I

SERIES

2HP Grinder

VOLTAGE

2 - 208/230 VAC

4 - 460 VAC (3-Phase)

PHASE

1 - Single Phase Motor

3 - 3 Phase Motor

HEAD

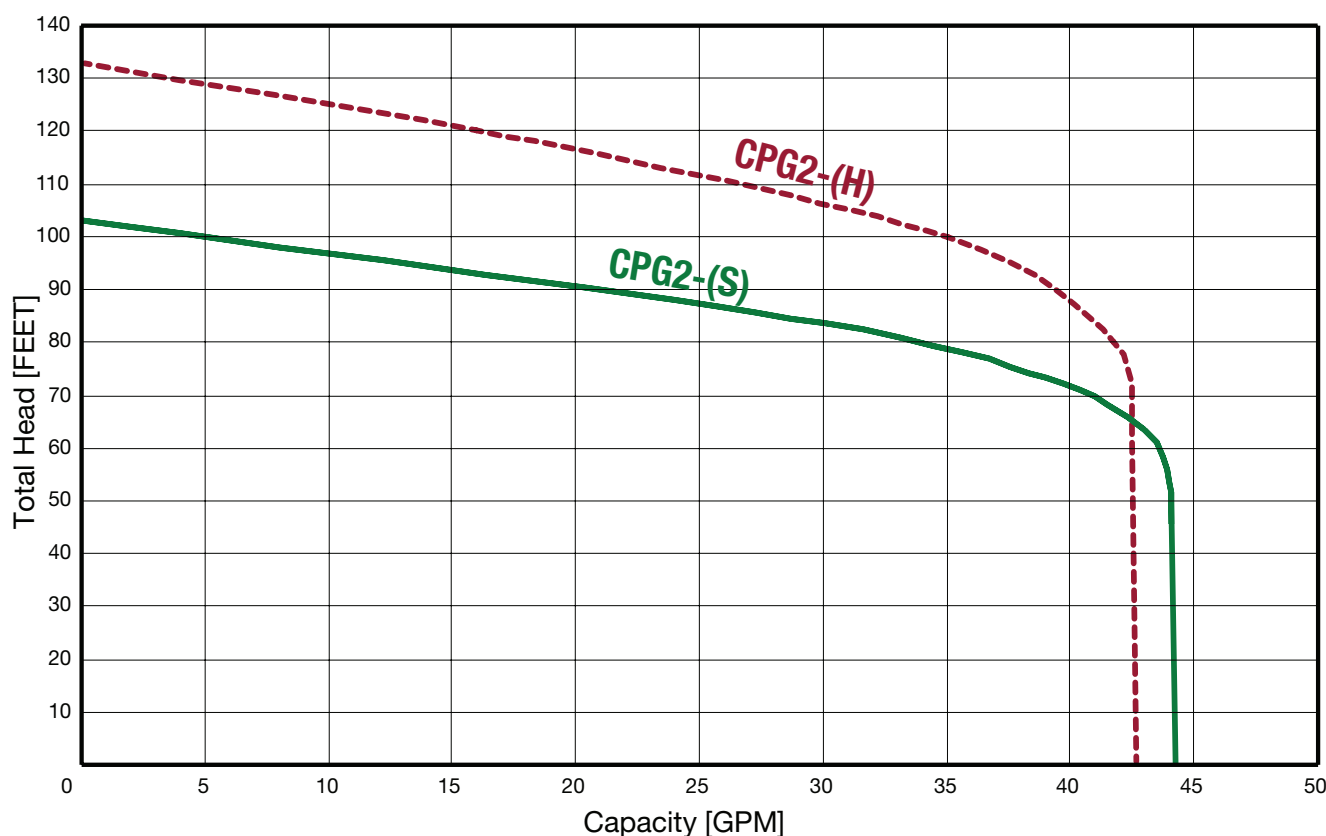
S - Standard Head (103 Feet)

H - High Head (133 Feet)

START COMPONENTS

I - Internal Start Components

E - External Start Components



1. Sealed Entrance-Replaceable Power Cord

Easy to replace, prevents water from entering the motor housing through a cut power cord. Warranty is not voided if plug is cut off.

2. Internal or External Start Kit

Internal Start / Run capacitor in the motor. External Start / Run capacitor design for capacitors in the control panel.

3. Pump Design

The centrifugal submersible grinder pump is capable of reducing all material found in normal residential and light industrial sewage containing small quantities of plastic, disposable diapers, sanitary napkins, rubber, food particles and other non-abrasive solids into a finely ground slurry. Heavy duty ASTM A48, Class 30 cast iron components.

4. Strong Motor

Non-overloading high torque for powerful and reliable pump operation. The rotor and stator assembly is of the standard frame design. The motor windings shall be of Class B insulation and operate in a sealed environment containing clean dielectric oil, making it capable of operating in a totally, partially or non-submerged condition for extended periods of time without damage due to the heat being generated.

5. 2-Bearing Support

Pump shall utilize a 2-Bearing design operating in an oil bath atmosphere, consisting of an upper single row, an intermediate single row, ball bearing for thrust loads and a lower bronze sleeve bearing for radial loads to prevent shaft deflection. Long 50,000-hour B-10 bearing life.

6. Tandem Double Mechanical Seal Protection

Each shaft seal prevents leakage between the pump and motor. The upper seal is constructed of a carbon rotating face and ceramic stationary face, 300 series stainless steel hardware, and all elastomer parts to be Buna-N. The lower seal is silicon carbide rotating face and stationary face, 300 series stainless steel hardware, and all elastomer parts to be Viton.

7. Non-Overloading Hydraulic Design

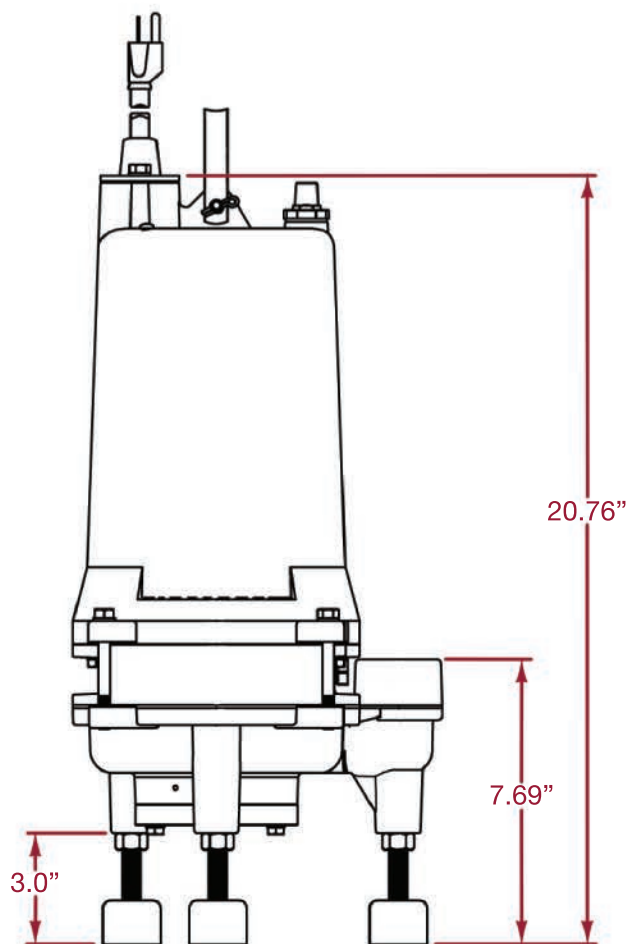
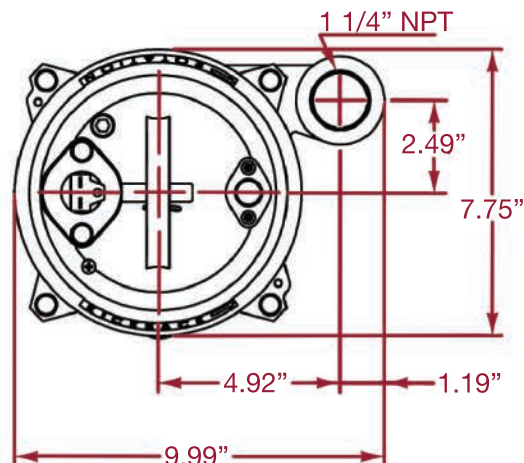
The recessed centrifugal impeller allows 100% performance curve operation from shut-off to maximum flow without damage to the pump or system. The recessed vortex impeller is out of the passageway of fluid flow, eliminating concerns of blockage or wear. The impeller shall be capable of being trimmed to meet specific performance characteristics.

8. Proven Grinder Assembly

The shredding ring and radial cutter shall be constructed of 440C stainless steel hardened to a minimum Rockwell C55 and shall be finish for a fine cutting edge. The grinding mechanism shall be constructed to eliminate clogging and jamming under starting and all normal conditions and capable of passing stringy type solids through the pump without roping or winding the material.

9. Accessories Included

Stainless steel lifting handle and anti-vibration rubber mounting feet are included with the pump.



Internal Start Components



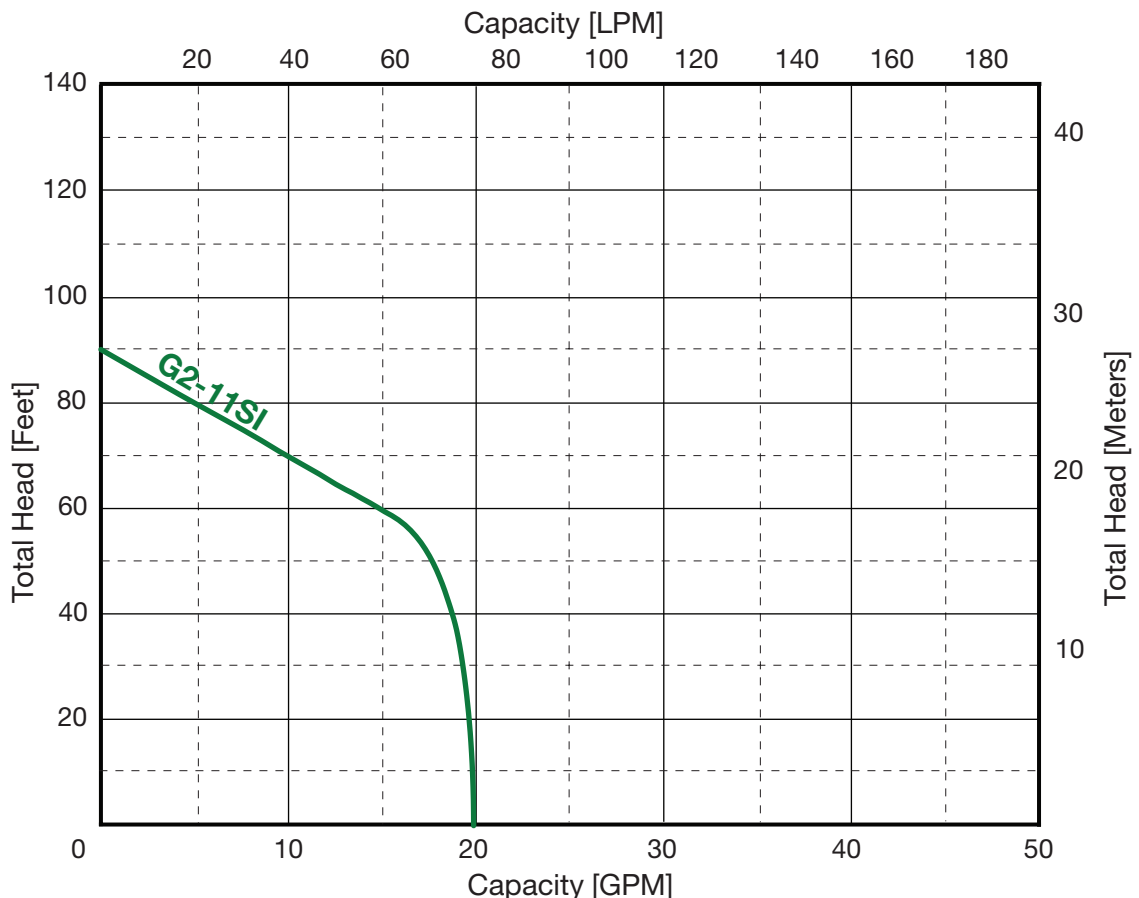
The MDI grinder pumps easily handle residential, light commercial or industrial sanitary waste, reducing it to fine slurry. The **G2-11SI Series** pump is designed for use in pressure sewer applications or any piping network.

The recessed vortex impeller design of the **G2-11SI Series** grinder pump provides trouble free, non-overloading operation over the entire performance curve. The **G2-11SI Series** pump produces capacities up to 43 gpm with heads up to 130 feet.

The modular design provides quick access to the internal start capacitor kit. Hardened stainless steel grinder assembly and many quality features.

Some of the other **G2-11SI Series** pump features:

- Strong, 2 HP, 115 V motor @ 19.5 AMPS
- **Internal start component** (no control box required)
- Potted cord cap assembly
- Dual silicon carbide shaft seals
- 3 Bearings
- Pressed in motor
- 29.5 x 8.25 x 10.75 with 1.25" NPT Removable Discharge Flange



1. Triple Sealed Cable Entrance

Stainless steel strain relief cord grip with compression grommet protects outer cord jacket. Epoxy filled inner cord cap with individually soldered wires provide anti-wicking moisture protection to the motor even if power cable is cut or damaged.

2. Internal Start Kit

Start / Run capacitor with relay securely positioned in dry compartment. Rubber compression grommet for wire leads to motor prevents oil from entering chamber. 4 bolts quickly removes cord cap for easy servicing.

3. Modular Pump Design

Commonality of parts across the pump product line minimizes the amount of parts required for servicing. Heavy duty ASTM A48, Class 30 cast iron components.

4. Strong Motor

High torque for powerful and reliable pump operation. Pressed stator securely holds motor and efficiently transfers heat. Class F insulation with overload protection in oil filled chamber for cool operation and long motor life.

5. 3-Bearing Support

Motor / Pump shaft securely held with upper and lower ball bearing plus addition sleeve bearing in lower seal chamber. Long 50,000 hour B-10 bearing life.

6. Double Mechanical Seal Protection

Dual silicon carbide mechanical shaft seals provide twice the moisture protection for the motor. Dual seals are housed in a secondary oil filled seal chamber. Tougher silicon carbide seals better handles sand, grit and abrasive materials.

7. Non-Overloading Hydraulic Design

The recessed centrifugal impeller allows 100% performance curve operation from shut-off to maximum flow without damage to the pump or system. The recessed vortex impeller is out of the passageway of fluid flow, eliminating concerns of blockage or wear.

8. Proven Grinder Assembly

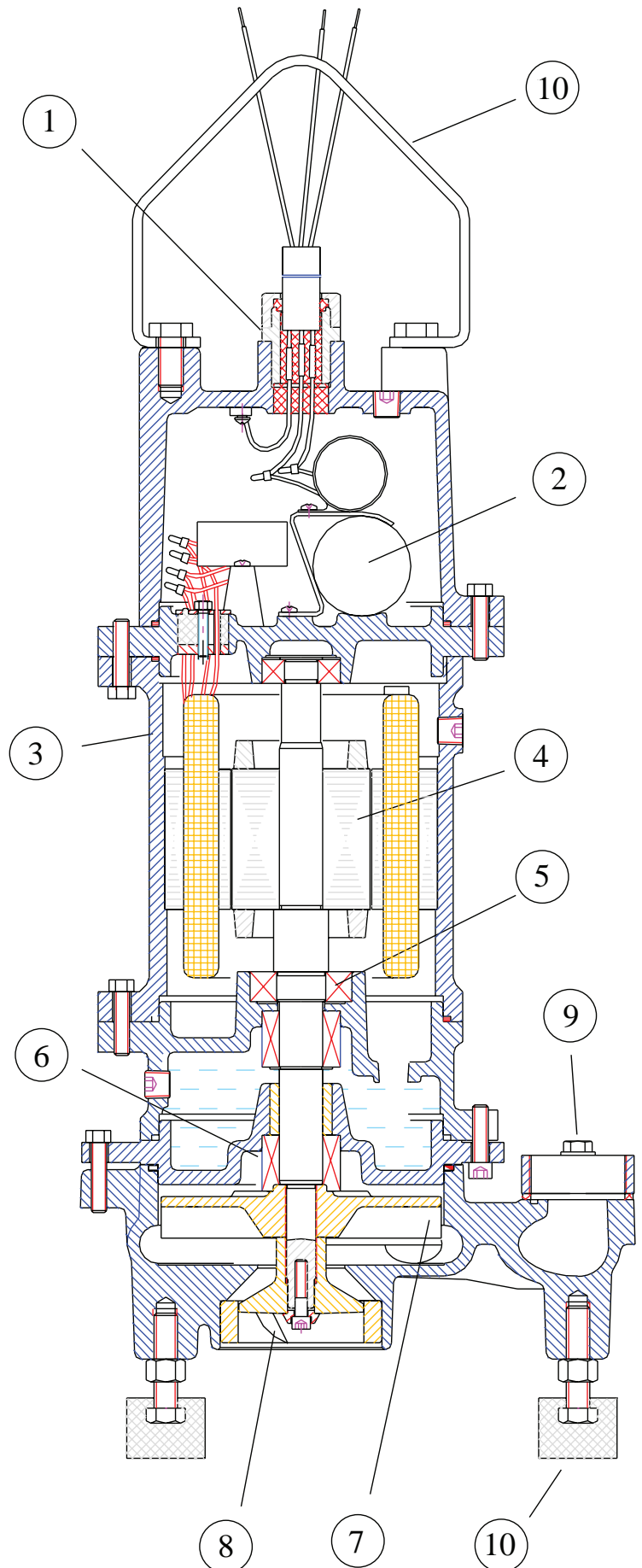
Hardened (Rockwell 56-60) stainless steel grinder assembly has 30+ years proven field experience. The reversible grinder ring and grinder impeller effectively reduces solids into a fine slurry, easily passable in a piping system without concerns of clogging. Highly efficient 7,400 cuts per second.

9. Easy Piping Connection

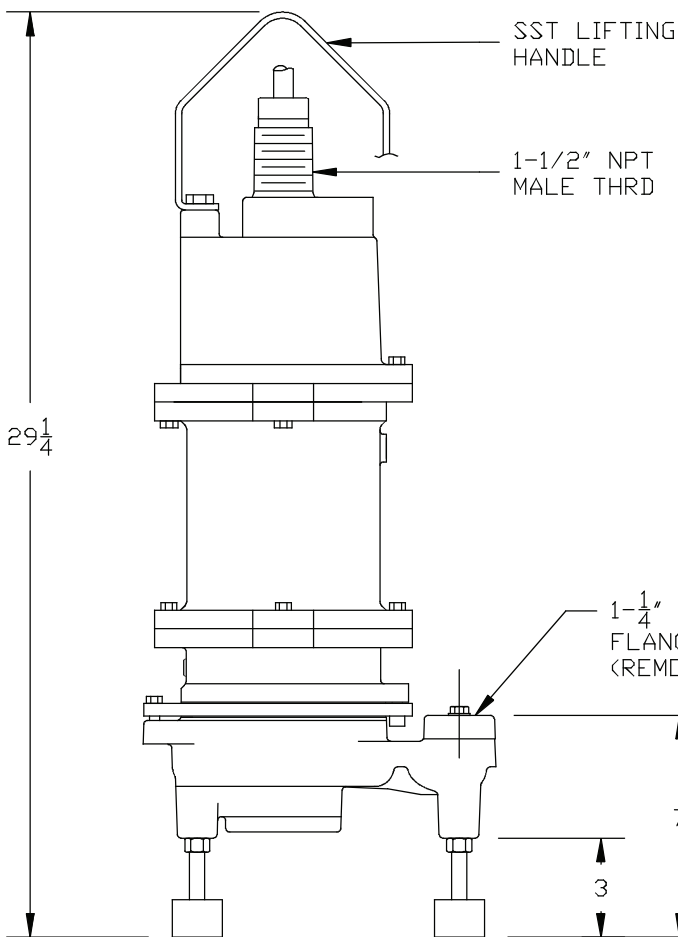
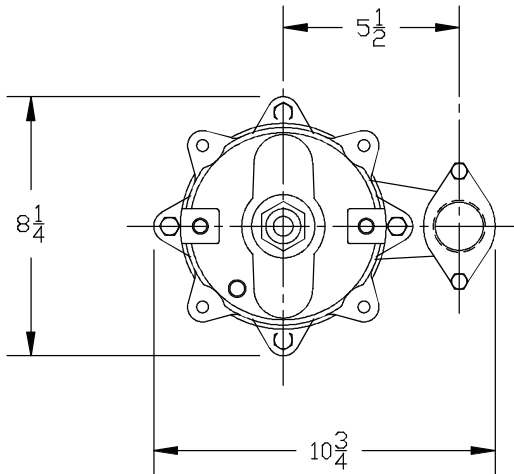
Removable 1-1/4" NPT connection flange for simple and easy connection to discharge piping.

10. Accessories Included

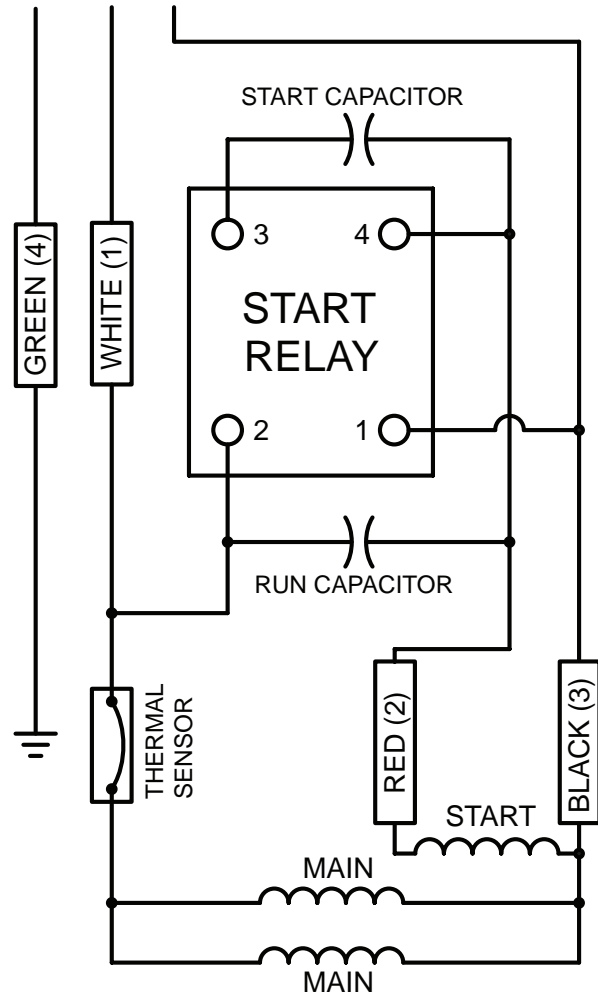
Stainless steel lifting handle and anti-vibration rubber mounting feet are included with the pump.



Rev.	Description	Date	By	E-Ch#



115 VAC



WHITE (1) TO BLACK (3) 1.2 Ohms



Mercury Displacement Industries, Inc.

Ph (269) 663-8574; Fax (269) 663-2924; www.mdius.com
P.O. Box 710; 25028 US 12 East, Edwardsburg, MI 49112

Title: G2 GRINDER PUMP OUTLINE

Scale: NONE

Date: 03-23-17

Iss. by: J.J.S.

Checked By: --

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Tolerances Unless Otherwise Specified
.XXX = ±.005 .XX = ±.020 ANGLE = ±1°

Dwg. No. G2 SERIES



The MDI grinder pumps easily handle residential, light commercial or industrial sanitary waste, reducing it to fine slurry. The **G2-21** pump is designed for use in pressure sewer applications or any piping network.

The recessed vortex impeller design of this grinder pump provides trouble free, non-overloading operation over the entire performance curve. The **G2-21** grinder pump retrofits into many existing competitor pump installations. The **G2-21** pump operates with the same control panel and installation piping / rail system.

- Interchangeable into competitor installations
- Internal or External Start Kits
- Dual mechanical seals (silicon carbide)
- Class H motor, internal overload protection
- 3 Bearing shaft support
- Internal moisture detection
- Strong 2 HP motor
 - Single Phase
 - 208 V @ 20.8 AMPS
 - 230/240 V @ 15.5 AMPS
 - 3-Phase
 - 208 V @ 9.5 AMPS
 - 230 V @ 8.5 AMPS
 - 460 V @ 4.5 AMPS

Optional "Axial Slicer"

Just add -SL to the end of the part number



Standard "Radial" Cutter



How to Order

G 2 - 2 1 S I - SL

SERIES

2HP Grinder

VOLTAGE

1 - 115 VAC

2 - 208/230 VAC

4 - 460 VAC (3-Phase)

PHASE

1 - Single Phase Motor

3 - 3 Phase Motor

HEAD

S - Standard Head (103 Feet)

F - High Flow (68 GPM)

H - High Head (133 Feet)

START COMPONENTS

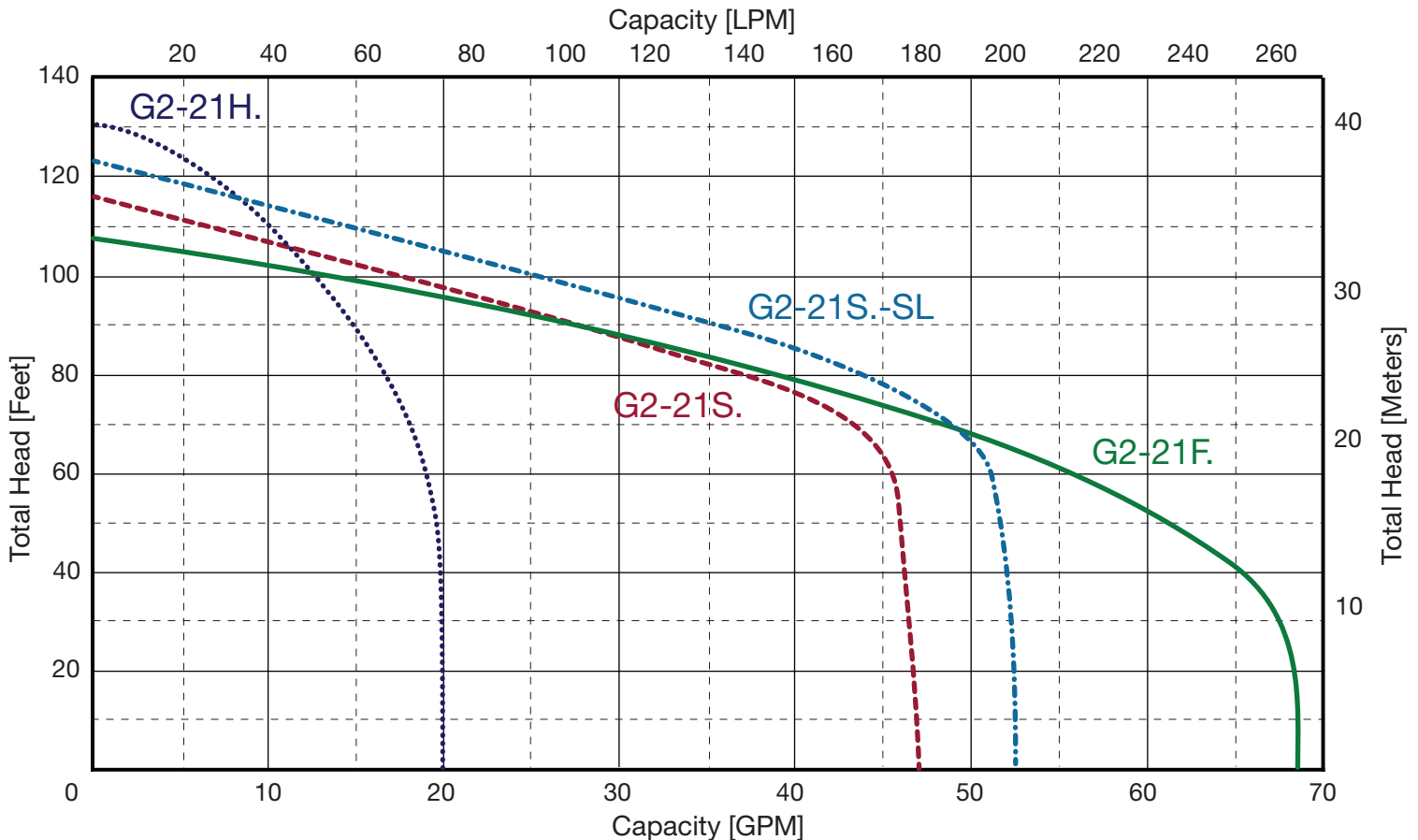
I - Internal Start Components

E - External Start Components

SLICER / CUTTER

(BLANK) - Standard Radial Cutter

SL - Axial Slicer



1. Triple Sealed Cable Entrance

Stainless steel strain relief cord grip with compression grommet protects outer cord jacket. Epoxy filled inner cord cap with individually soldered wires provide anti-wicking moisture protection to the motor even if power cable is cut or damaged.

2. Modular Pump Design

Commonality of parts across the pump product line minimizes the amount of parts required for servicing. Heavy duty ASTM A48, Class 30 cast iron components.

3. Strong Motor

High torque for powerful (208/230/460 V) and reliable pump operation. Pressed stator securely holds motor and efficiently transfers heat. Class F insulation with overload protection in oil filled chamber for cool operation and long motor life.

4. 3-Bearing Support

Motor / Pump shaft securely held with upper and lower ball bearing plus addition sleeve bearing in lower seal chamber. Long 50,000 hour B-10 bearing life.

5. Double Mechanical Seal Protection

Dual silicon carbide mechanical shaft seals provide twice the moisture protection for the motor. Dual seals are housed in a secondary oil filled seal chamber. Tougher silicon carbide seals better handles sand, grit and abrasive materials.

6. Moisture Detection

Seal leak probe signals alarm in control panel for scheduled maintenance.

7. Non-Overloading Hydraulic Design

The recessed centrifugal impeller allows 100% performance curve operation from shut-off to maximum flow without damage to the pump or system. The recessed vortex impeller is out of the passageway of fluid flow, eliminating concerns of blockage or wear.

8. Proven Grinder Assembly

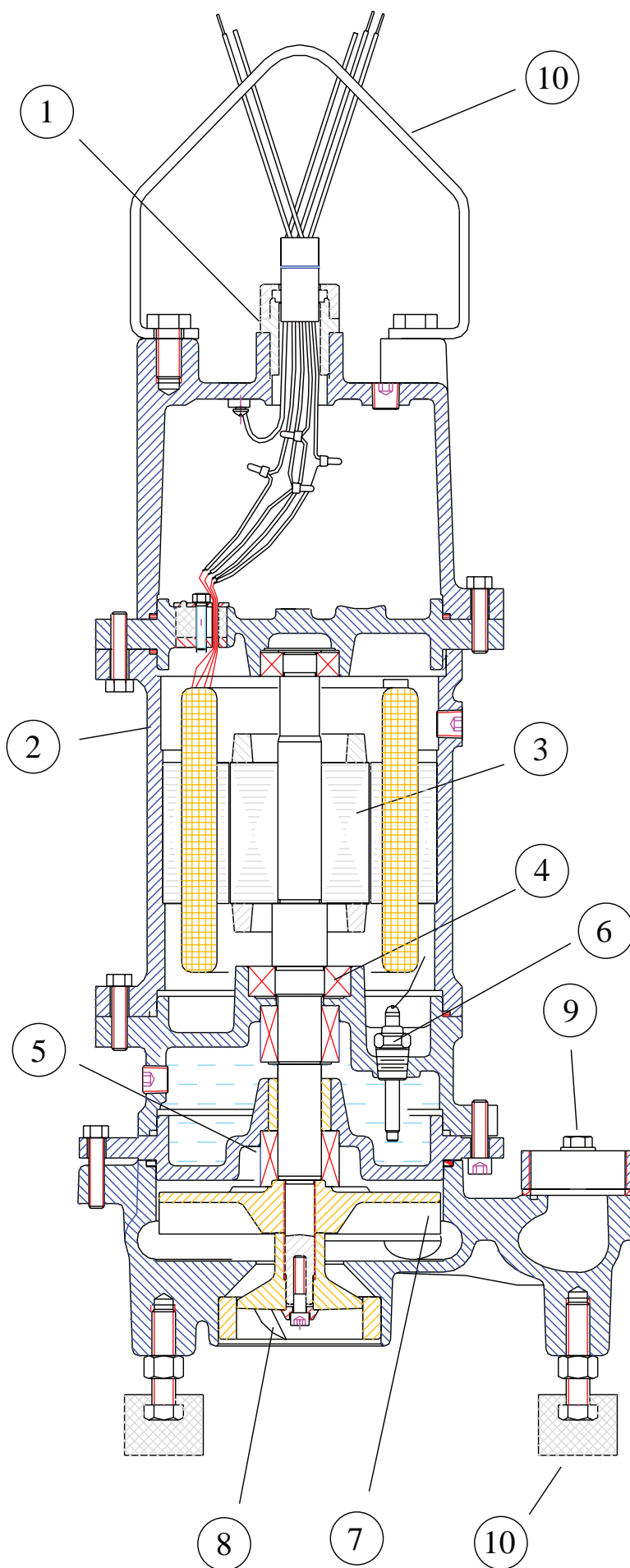
Hardened (Rockwell 56-60) stainless steel grinder assembly has 30+ years proven field experience. The reversible grinder ring and grinder impeller effectively reduces solids into a fine slurry, easily passable in a piping system without concerns of clogging. Highly efficient 16,600 (G2-21H, 7,400) [24,000 G2-21F.] cuts per second.

9. Easy Piping Connection

Removable 1-1/4" NPT connection flange for simple and easy connection to discharge piping.

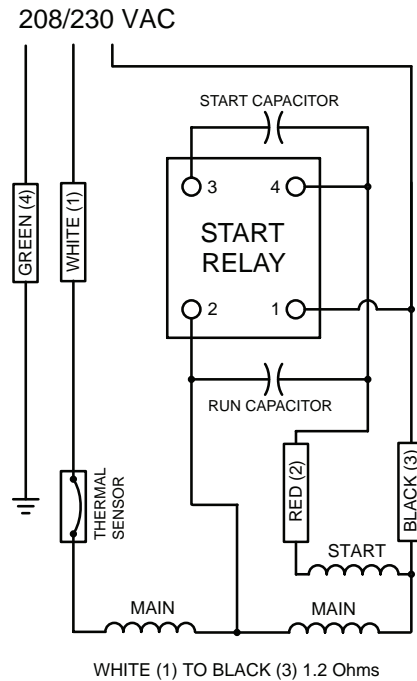
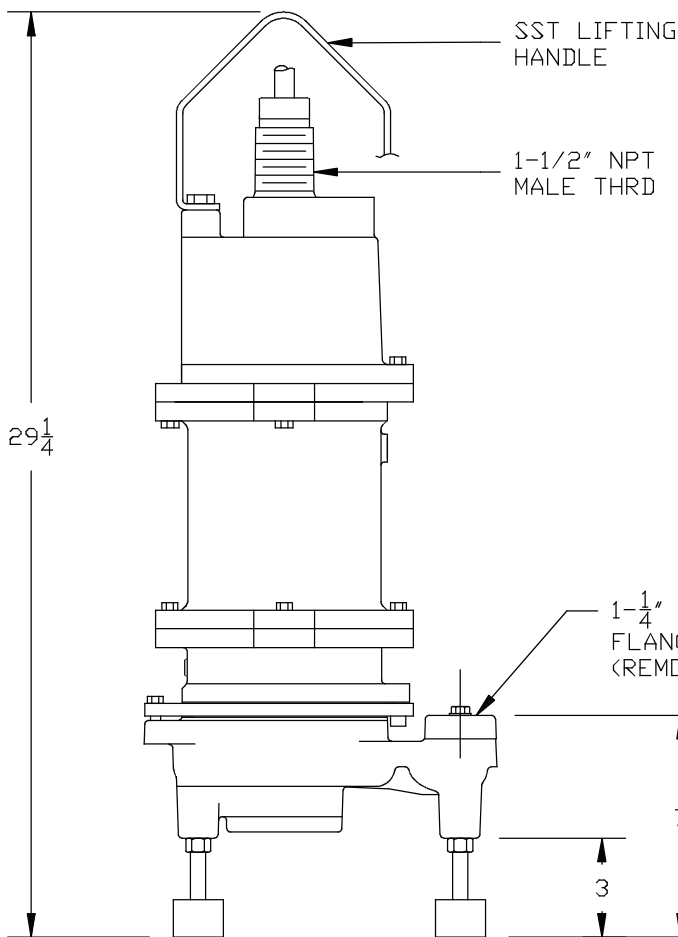
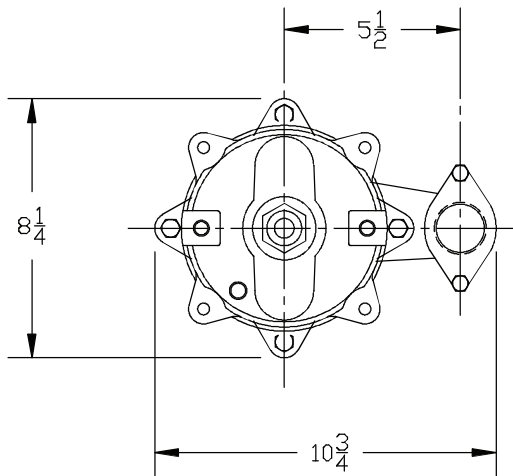
10. Accessories Included

Stainless steel lifting handle and anti-vibration rubber mounting feet are included with the pump.

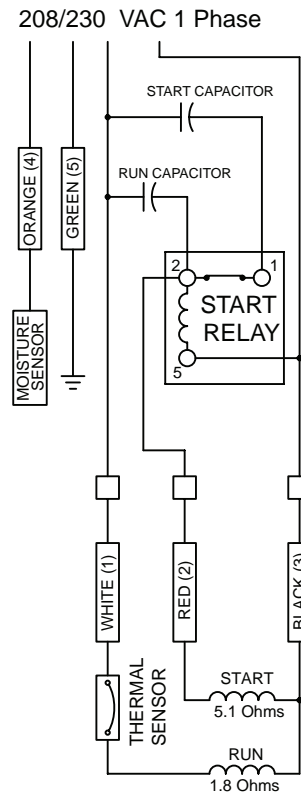


Rev.	Description	Date	By	E-Ch#

INTERNAL START COMONENTS (G2-21.I)



EXTERNAL START COMONENTS (G2-21.E)



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