



"Radial" Cutter
(STANDARD)

KG2-115

Centrifugal Grinder Series

CENTRIFUGAL GRINDER SERIES INTERNAL START COMPONENTS MOUNTED INSIDE PUMP

**RELIABLE Recessed Impeller Pump
Includes Internal Capacitor Kit
No Control Panel Required**

115 Volt Recessed Impeller Pump
for the Low Pressure Sewer Industry!

PERFORMANCE

- Up to 20 GPM
- Up to 90 Feet Shutoff

SILICON CARBIDE DUAL SEALS

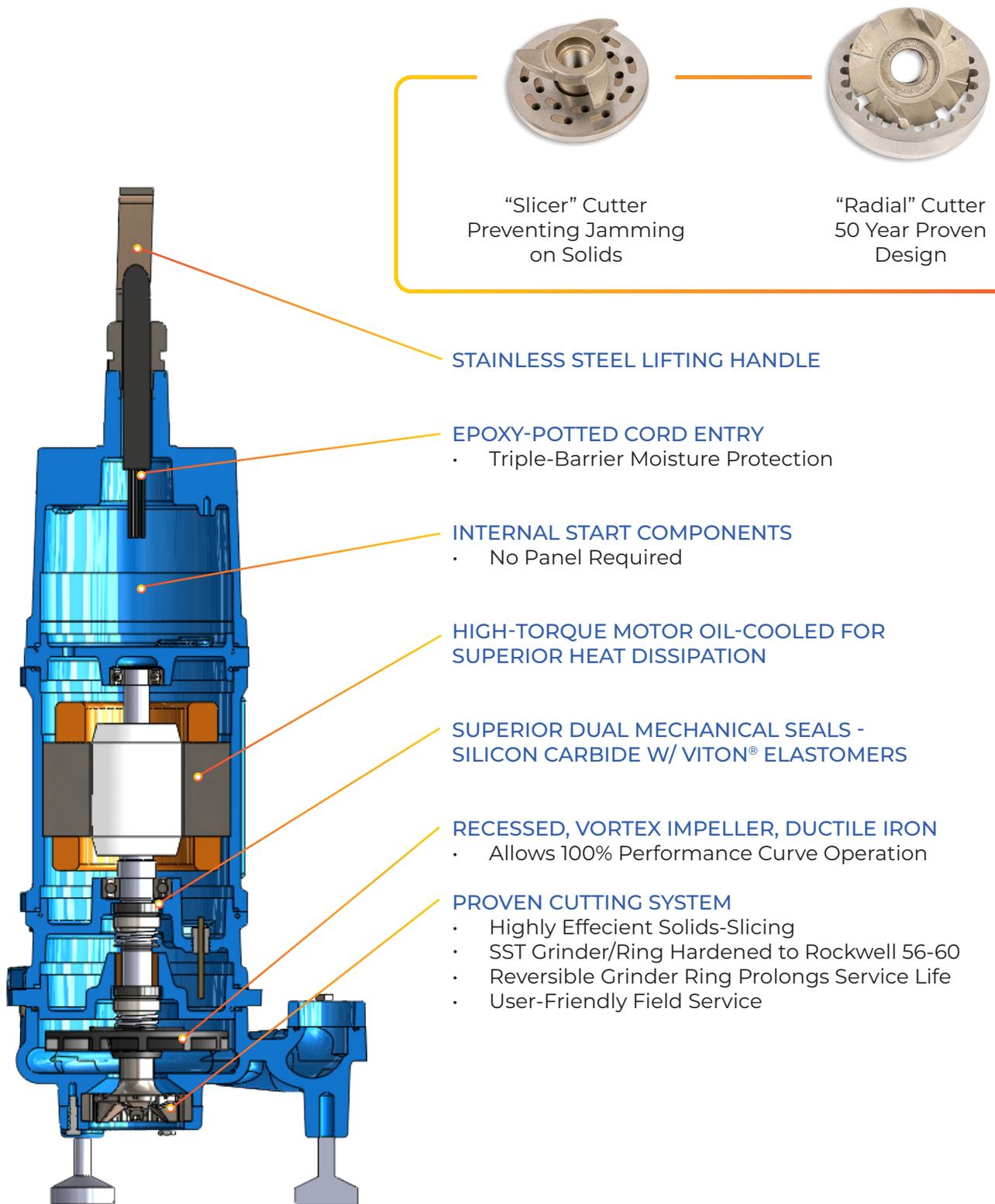
- Viton® Elastomers

NO CONTROL PANEL REQUIRED

- Internal Start Kit
- 115V Power Cord Plug

BEST MOTOR DESIGN

- Motor Pressed into Housing for Superior Heat Transfer
- Long Bearing & Seal Life

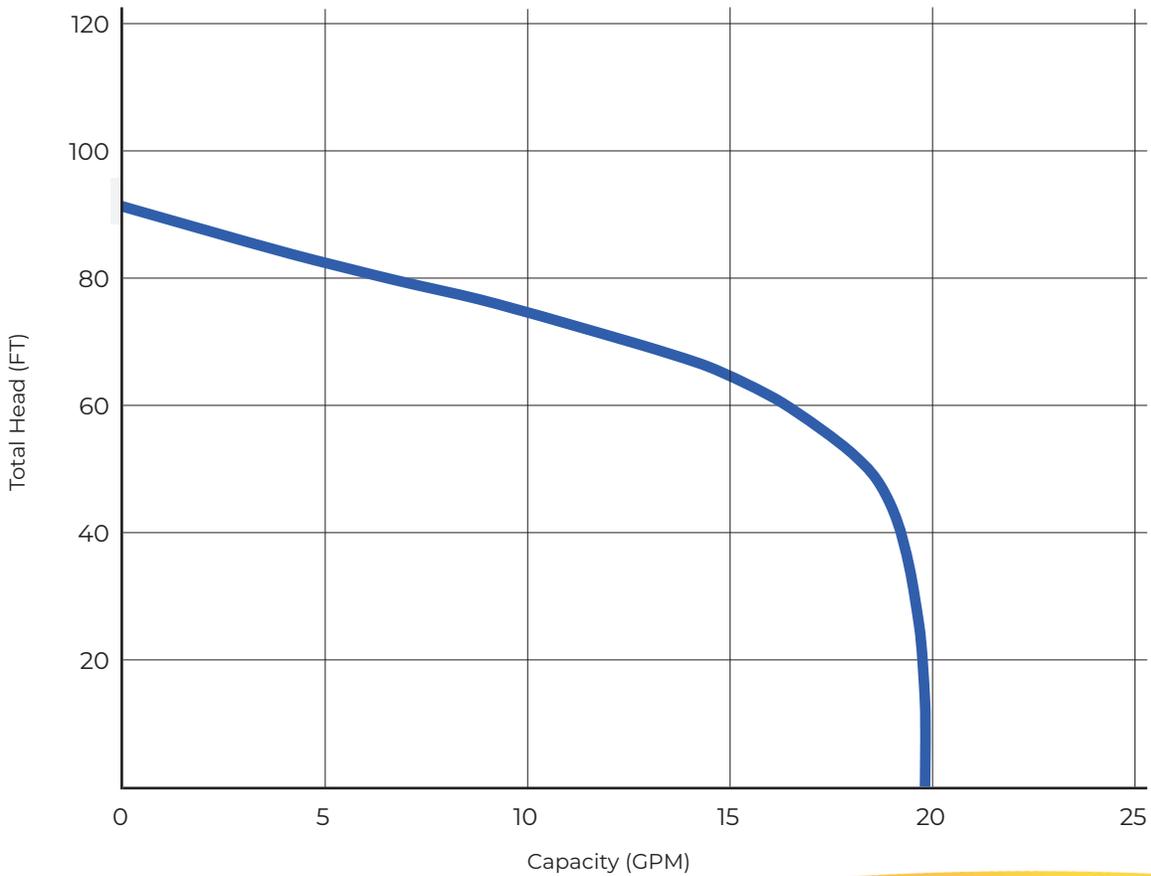


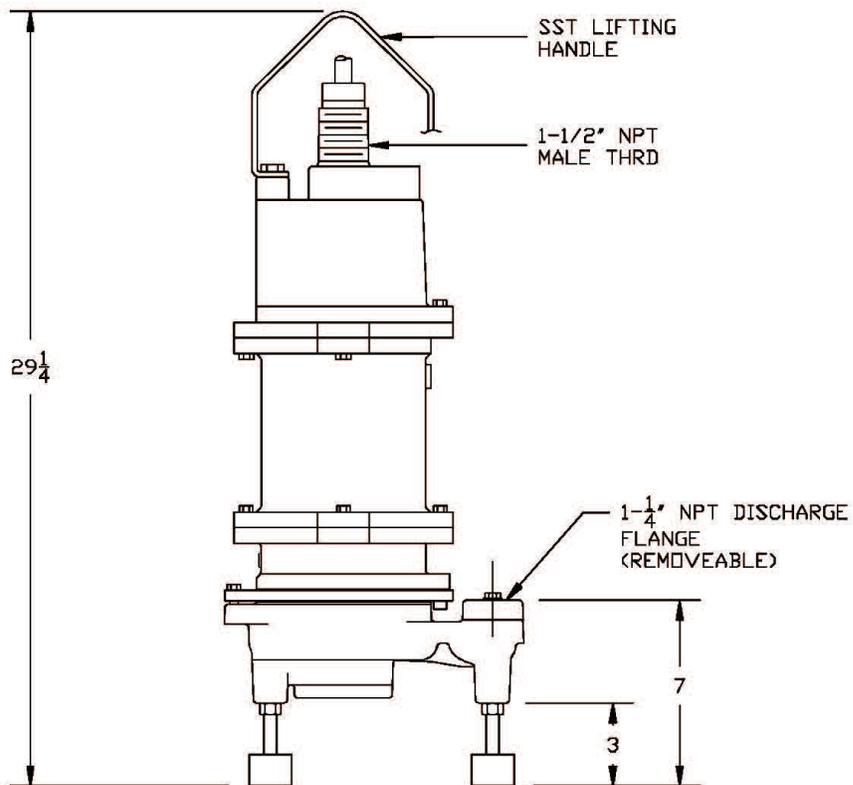
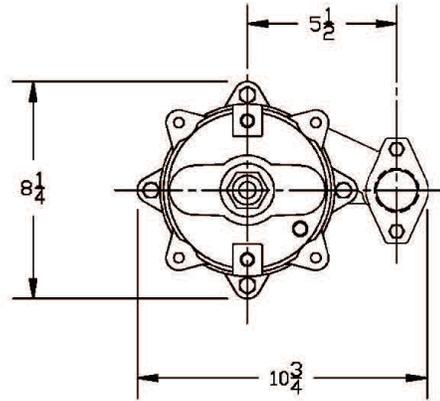


2HP SUBMERSIBLE GRINDER PUMP

GENERAL		MOTOR DATA	
Pump Model	KG2-115	HP / Power Supply	2HP / 1 ϕ , 60 Hz
		Full Load Amps 115V	19.5 Amps
PUMP DATA			
Date	09/2022		
Discharge Flange	1-1/4" NPT, Horizontal or Vertical		
Grinder Construction	Stainless Steel		
Grinder Hardness	58 - 60 Rockwell		
Impeller Type	Recessed	Insulation Class	F Class
SINGLE PHASE	START KIT SK-1E includes: Start & Run Capacitors, Relay, and Mounting Hardware	Start Capacitor	200 ufd, 250 VAC
		Run Capacitor	70 ufd, 370 VAC

PERFORMANCE CURVE







PHYSICAL DATA	
Discharge Size	1-1/4" NPT or 2-Bolt Flange Vertical
Impeller Type	Balanced, Recessed Vortex
Power/Control Cable Length	30' Standard
Paint	Blue, Powder Coat Paint Finish

MOTOR CONSTRUCTION	
Motor Type	Enclosed Submersible Oil Filled
NEMA Insulation Code	Class F
Service Factor	1.0
Motor Protection	Thermal Sensors Embedded in the Windings
Maximum Stator Temperature	266°F (130°C)
Power Cord	12-3 SOOW - 600V, 90° C
Std. Third Party Approval	N/A

MATERIALS OF CONSTRUCTION	
Cord Entry	Cast Iron, ASTM A48, Class 35
Motor Housing	Cast Iron, ASTM A48, Class 35
Bearing Housing	Cast Iron, ASTM A48, Class 35
Volute	Cast Iron, ASTM A48, Class 35
Impeller	Ductile Iron, ASTM A536, Grade 65-45-12
Shaft	ANSI 400 Stainless Steel
Rotating "Radial" Cutter	440 SST Hardened 58-60 Rockwell C
Stationary "Radial" Cutter	440 SST Hardened 58-60 Rockwell C
Inboard Mechanical Seal	Silicon Carbide / Silicon Carbide, Viton® Elastomers
Outboard Mechanical Seal	Silicon Carbide / Silicon Carbide, Viton® Elastomers
Fasteners	304 Stainless Steel
O-Rings	Fluorocarbon
Upper Bearing	Conrad Style Single Row Deep Groove Ball Bearing 100,000 Hours, L-10
Lower Bearing	Conrad Style Single Row Deep Groove Ball Bearing 100,000 Hours, L-10
Sleeve Bearing	Bronze, Sintered

THERMAL DATA	
Maximum Liquid	140° F (60° C)
Maximum Stator	266° F (130° C)
Heat Sensor	Open: 275° F (135° C) Max. / 257° F (125° C) Min.
	Closed: 205° F (96° C) Max. / 154° F (68° C) Min.
Oil Flash Point	390° F (199° C)

ELECTRICAL DATA				
RPM	3450			
Electrical Ratings	Heat Sensor	24VDC, 5AMPS	115VAC, 5AMPS	230VAC, 5AMPS
	Seal Fail	300VAC 5mAMPS		
Voltage Tolerance	± 10%			
Internal Start Kit	Start Capacitor = 200 ufd, 125 VAC			
	Run Capacitor = 70 ufd, 250 VAC			

MODEL	HP	VOLTS	PHASE	NEC CODE	SERVICE FACTOR	FULL LOAD AMPS	START AMPS	FULL LOAD KW	FULL LOAD KVA
KG2-115	2	115	1	G	1.0	19.5	48.0	1.84	2.30

2 HP GRINDER PUMPS

MODEL NO. KG2-115

PUMP MODEL – Pump shall be of the centrifugal type, KG2-115, with an integrally built-in grinder unit and submersible type motor. The grinder unit shall be capable of macerating all material in normal domestic and commercial sewage, including reasonable amounts of foreign objects such as sanitary napkins, disposable diapers, thin rubber, small wood, plastic and the like to a fine slurry that will easily pass through the pump and 1-1/4" NPT discharge.

OPERATING CONDITIONS – The pump shall have a capacity of ____GPM at a total head of ____Feet, and shall use a motor rated at 2 HP and 3450 RPM.

CONSTRUCTION – Both grinder impellers and shredding ring shall be of 440C stainless steel hardened to 56-60 Rockwell C. The grinder assembly shall consist of a grinder impeller and shredding ring mounted directly below the volute passage. The grinder impeller is threaded to a stainless steel shaft, locked with a screw and washer. The shredding ring shall be pressed into the cast iron volute for easy removal. All grinding of solids shall be from the action of the grinder impeller against the shredding ring. There shall be 7,400 cuts / second.

PUMP IMPELLER – Ductile iron and threaded on a stainless steel shaft. The impeller shall be of the recessed vortex type to provide an unobstructed passage through the volute for the ground solids.

SEALS – The motor shall be protected by a dual mechanical seal construction mounted in tandem. The dual mechanical seal face shall be silicon and carbide, lapped to a flatness of one light band.

MOTOR – The pump shall be of the submersible type, rated 2 HP, 3450 RPM. The motor shall be for 60 HZ, 115 volt, single-phase operation. Single-phase motors shall be capacitor start, capacitor run type for high starting torque. Run capacitor ratings shall not exceed 300 volts. Major operating temperature must not exceed Class B ratings.

The stator winding shall be of the open type with Class F insulations. The stator shall be pressed into the cast iron motor housing. Winding housing shall be filled with clean, high dielectric oil that lubricates bearings and seals, transferring heat from windings and rotor to the outer cast housing. Air-filled motors, which do not have the superior heat dissipating capabilities of oil-filled motors, shall not be considered equal.

The motor shall have two heavy-duty ball bearings and one sleeve bearing to support the pump shaft, taking radial and thrust loadings. Ball bearings shall be designed for a minimum 50,000 hours B-10 life. The stator shall be pressed into the motor housing. The common motor pump and grinder shaft shall be of 416 SST, threaded to take the pump and grinder impeller.

Single-phase motors shall have automatic reset overload protection attached to the top end of the motor windings to stop the motor if the motor winding temperature reaches 130 degrees C. The high temperature shut-off will cause the pump to cease operation, should a control failure cause the pump to run in a dry wet well. The overload shall automatically reset when the motor cools to a safe operating temperature.