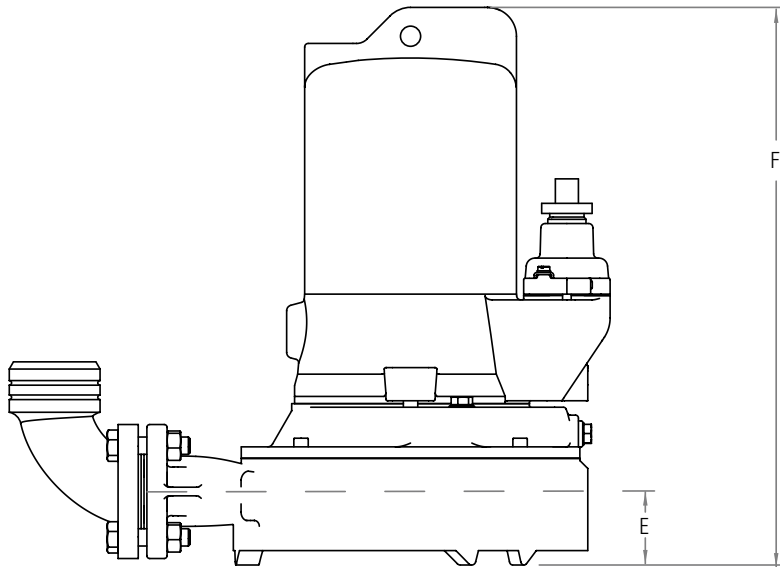
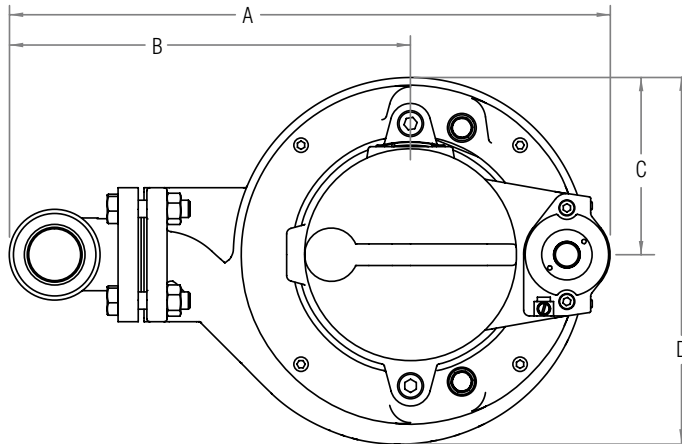


The curve reflects maximum performance characteristics without exceeding full load (Nameplate) horsepower. Operation is recommended near the Best Efficiency Point. Operating at the outer limits of the curve is not recommended. Performance curves are based on actual tests with clear water at 70° F. and 1280 feet site elevation.

Conditions of Service:  
 GPM: \_\_\_\_\_ TDH: \_\_\_\_\_

**G3D Series Performance Data**  
 Discharge: 1-1/4" Solids: 1/4"

Wholesale Products Page: **JP10076SSD-1**  
 Section: **Performance Data**  
 Dated: **January, 2011**



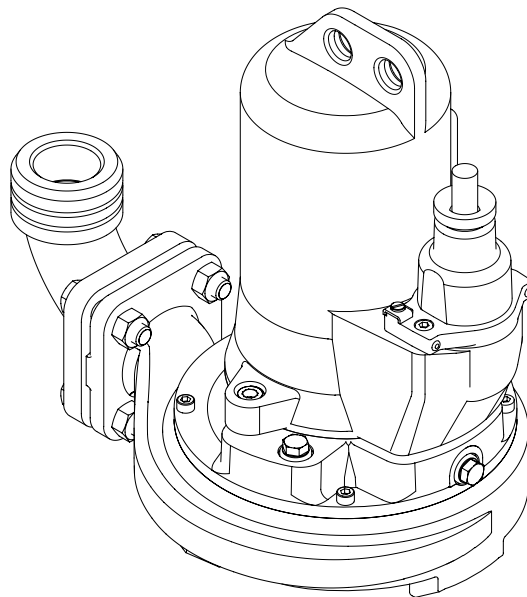
Model	A		B		C		D		E		F		Weight								
	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	kg	lb							
G3D-01	434	17.09	247	9.72	123	4.84	254.5	10.02	141	5.55	437	17.2	44.9	99							
G3D-21																					
G3D-03	417	16.42																387	15.24	43.1	95
G3D-23																					
G3D-43																					

Component dimensions may vary  $\pm 1/8$  inch. Dimensional data not for construction purposes unless certified. Dimensions and weights are approximate. We reserve the right to make revisions to our product (s) and the product (s) specifications without notice.

**G3D Series Dimensional Data**  
 Discharge: 1-1/4" Solids: 1/4"

## MODEL: G3D Series Grinder Pumps

Model	Units	G3D-01	G3D-03	G3D-21	G3D-23	G3D-43
Motor type		E 90-2/150 A	D 90-2/110 CR	E 90-2/150 A	D 90-2/110 CT	D 90-2/110 CS
Frequency	Hz	60				
Voltage / tolerance	V	1 $\phi$ ~200V $\pm$ 10%	3 $\phi$ ~200V $\pm$ 10%	1 $\phi$ ~230V $\pm$ 10%	3 $\phi$ ~230V $\pm$ 10%	3 $\phi$ ~460V $\pm$ 10%
F.L.A.	A	20.3	12.3	18.7	11	6.3
R.P.M.	1/min	3540	3450	3540	3450	3470
cos phi		0.98	0.87	0.93	0.87	0.74
cos phi-start		0.78	0.69	0.75	0.69	
Maximum ON/OFF cycles per hour	1/h	60				
Start Amp. (at H=3 ft and rated voltage)		78	85	90	64	43
ISO-class		F				
Enclosure		IP 68				
Winding protection / control unit required		150° C Therm. / Yes				
Ext. motor protection required		Yes				
Winding resistance	Ohm	1.4	1.3	1.4	1.5	1.3
Service Factor		1	1.37	1	1.37	
Standard Cable		25 ft SOOW 12/6 AWG 12				



### G3D Series Electrical Data

Discharge: 1-1/4" Solids: 1/4"

Wholesale Products Page: **JP10076SSD-3**

Section: **Electrical Data**

Dated: **January, 2011**



## MODEL: G3D Series Grinder Pumps

	Units	G3D-01	G3D-03	G3D-21	G3D-23	G3D-43
Max. head	ft	115	112	115	112	
Max. flow rate	GPM	66				
Torque LRT/FLT/POT	lb/ft	3 / 5.2 / 14.8	18.4 / 6.4 / 19.5	3.1 / 5.9 / 17	18.4 / 6.4 / 19.5	21 / 7.4 / 22.5
Bearing n.d.e.		6204 2Z ball bearing				
Bearing d.e.		3205 2rhg. angular contact ball bearing				
O-rings		NBR 70 DIN 3771				
Shaft seal motor side	mm	2 x 25 x 38 x 7 lip seal				
Shaft seal medium side	mm	25 x 24 SiC mech. seal				
Volute type / material		M / GG-25 cast iron				
Discharge connection		Thread 1 1/4" NPT				
Cutter Plate Inlets x diameter	in	8 x Ø .315				
Impeller type / material		open radial / GG-25 cast iron				
Impeller diameter	in	Ø 5.787				
Vane qty / height	in	5 / 0.236				
Free passage	in	0.276				
Total inertia	lb ft <sup>2</sup>	0.166	0.154	0.166	0.154	
Weight with standard cable	lbs	99	95	99	95	
Oil chamber qty / oil grade	in <sup>3</sup>	45.8 / SAE 5W-15W (ISO 22-44) Mineral oil				
Materials of construction						
Coating		2K Epoxy, 80 µm, black				
Motor casing		GG-20 cast iron				
Bearing chamber		GG-25 cast iron				
Pump shaft		C 45 K covered				
Cutter		440, 57 HRC SS				
Cutter plate						

### G3D Series Technical Data

Discharge: 1-1/4" Solids: 1/4"

Wholesale Products Page: **JP10076SSD-4**

Section: **Technical Data**

Dated: **January, 2011**



## MODEL: G3D Series Grinder Pumps

### 1.01 General

Contractor shall furnish all labor, materials, equipment and incidentals required to provide (Qty.) submersible centrifugal grinder sewage pump(s) as specified herein. The pump models covered in this specification are the G3D Series pumps. The pump furnished for this application shall be MODEL \_\_\_\_\_ as manufactured by Jung Pumpen of Delavan, Wisconsin (800-642-5930).

### 2.01 Design Conditions

Each pump shall be rated \_\_\_\_\_ H.P., \_\_\_\_\_ volts, \_\_\_\_\_ phase, \_\_\_\_\_ hertz and operate at \_\_\_\_\_ RPM. The pump shall deliver \_\_\_\_\_ U.S. GPM/LPS at \_\_\_\_\_ feet/meters TDH., and pass a \_\_\_\_\_ inch solid. The reserve service factor shall be a minimum of \_\_\_\_\_. The specification submitted for approval shall state, in addition to flow and head capacity performance, solid handling capability, amp rating, and design impeller diameter.

### 3.01 Construction

Each pump shall be of the sealed submersible type, incorporating features normally found in pumps furnished for the heavy duty industrial or municipal markets.

These features include:

- 3.02 The castings shall be constructed of epoxy coated cast iron.
- 3.03 The seal housing for the pump is cast iron.
- 3.04 The pump inlet shall be open and clear, without screening to provide access for sewage and solids.
- 3.05 All external mating parts shall be machined and Buna N, O-Ring sealed.
- 3.06 All fasteners exposed to the pumped liquid shall be 300 series stainless steel.  
As an optional feature include \_\_\_\_\_ seal leak probes in the seal chamber.

### 4.01 Electrical Power Cord

All power cords shall be SO-type water resistant UL or CSA approved, with double insulation, and sized as a function of Full Amp. draw.

### 5.01 Motor

The stator, rotor and bearings shall be mounted in a sealed submersible type housing. Single phase motors shall be split phase or capacitor start with centrifugal switch. Three phase motors shall be Polyphase. Full Load and Locked Rotor Amps. as well as Start and Run winding resistance shall be tabulated for each pump.

### 6.01 Bearings, Shaft And Mechanical Seal

An upper radial ball bearing and a lower double row angular contact ball bearing shall be required. The motor shaft shall be stainless steel and sealed from the pumped liquid with a silicone carbide mechanical seal and two lip seals.

### 7.01 Impeller

The impeller shall be a high capacity five vane design with pump out vanes on the back side. These vanes wash out grit and stringy material that will damage the shaft and mechanical seal.

#### G3D Series Specification Data

Discharge: 1-1/4" Solids: 1/4"

Wholesale Products Page: **JP10076SSD-5**

Section: **Specification Data**

Dated: **January, 2011**

## 8.01 Control

All single phase pumps should be capable of automatic operation.

- 8.02 **Pressure Switch** - The Single Phase pumps are furnished with a pressure diaphragm switch that features a piggy-back plug that allows the pump to be operated manually without removal from the sump.
- 8.03 **Float Switch** - The Single Phase pump is supplied with a tilt-sensitive wide-angle float switch is sealed in a non-corrosive PVC enclosure. The unit is UL listed for water and sewage and CSA certified. The float switch shall also be fitted with a piggy-back plug that allows the pump to be operated manually without removal from the sump.
- 8.04 **Manual Control** - The Single Phase pumps are not supplied with any type of automatic control. A super or double wide angle piggy-back float switch can be supplied and fitted to these pumps.

## 9.01 Cutter Mechanism

The cutter and cutter plate shall consist of 440 stainless steel with a Rockwell C hardness of 55-60. The cutter plate shall have 8 oval holes that allow for the slurry to flow into the pump. The cutter shall have 3 blades designed to closely pass over the holes in the cutter plate to cut up the material into a fine slurry. The design shall not be considered equal to ring or radial cutters.

## 10.01 Painting

All cast iron parts shall be painted before assembly with a black high solids epoxy mastic and applied in one coat with a minimum thickness of 8 mils.

## 11.01 Serviceability

Components required for the repair of the pump shall be readily available within 24 hours. Components such as mechanical seals and bearings shall not be of a proprietary design and be available from local industrial supply houses. Special tools shall not be required to service the pump. A network of service stations shall be available nationwide in those cases where service requirements are beyond the scope of in-house service mechanics.

## 12.0 Support

Optional support legs are available, enabling pump to be a freestanding unit. The legs will be high enough to allow passage of solid matter below the housing.

## 13.01 Testing

All pumps shall be individually tested to include the following:

- 13.02 The pump and power cord shall be visually inspected for imperfections, cuts or nicks.
- 13.03 The pump shall have a ground continuity check and the motor chamber shall be Hi-potted to test for moisture content and/or insulation defects.
- 13.04 The motor and volute housing shall be pressurized and a 10 second air leak decay test run.
- 13.05 Oil is added by the tester and the pump is run. Voltage and current are monitored visually and electronically while the tester listens for any noise or malfunction.

## 14.01 Warranty

Standard warranty shall be 12 months from date of installation or 18 months from date of manufacture. Warranty repairs shall be provided by an authorized service station.