

### FEATURES

**Design:** Capable of grinding municipal, commercial and industrial sewage.

**Cutter System:** Designed to reduce sewage to a fine slurry.

**Impeller:** Cast iron, semi-open, non-overloading multi-vane design with pump-out vanes for mechanical seal protection.

**Casing:** Cast iron, volute type for high efficiency. Adaptable for slide rail system.

**Paint:** Two coat paint system for superior surface protection.

**Float Leakage Sensor (FLS):** a small internal float switch is used to detect the presence of water in the stator chamber. Standard on all models.

**Leakage Sensor Detector Circuit:** The FLS, when activated, will cause the patented 24 volt MiniCAS monitoring relay to signal an alarm and, if desired, stop the pump. The MiniCAS 24 volt relay can be ordered separately for installation in a control panel by a UL or CSA certified panel shop or as a built-in option in our control panel.



# 1GA(X) & 2GA(X)

1½" AND 2" DISCHARGE SUBMERSIBLE GRINDER PUMPS

### APPLICATIONS

High head and pressure sewage systems for:

- Municipal
- Commercial
- Industrial

### PUMP SPECIFICATIONS

#### 1GA:

- Discharge Size: 1½"
- Maximum Capacity: 92 GPM.
- Maximum Total Head: 117' TDH.

#### 2GA:

- Discharge Size: 2"
- Maximum Capacity: 198 GPM.
- Maximum Total Head: 178' TDH.
- Maximum temperature rating: 104° F (40° C) continuous duty
- Tandem mechanical seals: see Application Data for details.
- Fasteners: 300 series stainless steel.
- Rotating cutter: chrome alloyed cast iron.
- Cutter ring: hardened 316L stainless steel.
- Cast iron parts are ASTM A-48, Class 35B.

### MOTOR SPECIFICATIONS

- Air-filled design
- NEMA type B
- Class F insulation
- 60 Hertz
- Shaft: 431 series stainless steel, taper collet design.
- Ball bearings: oversized, pre-greased upper and lower ball bearings.
- Power cord: 30 feet standard, single jacket, 7 conductor combination power and control cable. Optional 100 foot lead is available.

### CONTROLS

- **SINGLE PHASE UNITS** require capacitors. See panels BCP1PGP for Standard Construction. See panels BCP1PC1P for Explosion Proof.
- **THREE PHASE UNITS** can use standard panel selections with option added for minicas device (i.e. options O, simplex and P, duplex).

### Single Phase:

- 2 HP with 1.5 service factor @ 3500 RPM
- 3 HP with 1.8 service factor @ 3450 RPM
- 5 HP with 1.88 service factor @ 3430 RPM
- 230 Volts

**Notice:** Single phase pumps require a capacitor pack and start relay for proper operation.

### Three Phase:

- 3 HP with 1.33 service factor @ 3450 RPM
- 5 HP with 1.2 service factor @ 3450 RPM
- 7.5 HP with 1.47 service factor @ 3475 RPM
- 200, 230, 460 and 575 Volts

### MOTOR FEATURES

- Air-filled, NEMA type B squirrel cage induction motor
- Class F, 311° F (155° C) insulated stator winding
- Designed for a maximum of 15 evenly spaced starts per hour.
- Built-in thermal sensors provide an over temperature signal to the Mini CAS (Control and Status) monitoring relay mounted in the control panel. The Mini CAS can be ordered separately or ordered as an option in our control panel.
- Common pump motor shaft and compact seal design permit short overhang minimizing shaft deflection.
- Motor casings have integral cooling ribs for maximum heat dissipation.
- Shaft mounting is a robust maintenance free design featuring pre-greased ball bearings.
- The junction chamber is completely sealed off from the surrounding liquid and incorporates a separate gland assembly with a strain relief clamp.
- Also available in optional Explosion Proof construction. Explosion Proof motor listed Class 1, Division 1, Groups C and D.

### MODEL INFORMATION

Order Number	HP	Phase	Volts	RPM	Discharge Size	Impeller Code	Max. Amps	Service Factor	Start Amps	Locked Rotor Amps	Power Cable Size	Pump Wt. (Lbs.)		
1GA71G1HD	2	1	230	3450	1½"	H	13.0	1.5	74.0	52.0	14/7	117		
1GA71G1LD						L								
1GA81H1GD	3				G	22.0	1.8	120.0	100.0	12/7	172			
2GA81H1KD												K		
2GA31J1FD	5			F	38.0	1.88	134.0	170.0	8/4 & 10/3*	241				
2GA31J1JD											J			
1GA71H2CD	3	3	200	3450	1½"	C	12.0	1.33	63.0	62.0	14/7	117		
1GA71H3CD			230				10.0		60.0	54.0				
1GA71H4CD			460				5.0		30.0	27.0				
1GA71H5CD			575				4.0		20.0	22.0				
1GA81J2BD	5		200			3450	1½"	B	17.0	1.2	133.0	79.0	12/7	172
1GA81J3BD			230						15.0		144.0	75.0		
1GA81J4BD			460						7.6		77.0	41.0		
1GA81J5BD			575					6.0	53.0		30.0			
2GA81J2ED			200		17.0			133.0	79.0					
2GA81J3ED			230		15.0			144.0	75.0					
2GA81J4ED	460		7.6		77.0	41.0								
2GA81J5ED	575		6.0		53.0	30.0								
2GA31K2AD	7½	3	200	3475	2"	A	30.0	1.47	258.0	189.0	8/4 & 10/3*	241		
2GA31K3AD			230				26.0		229.0	164.0				
2GA31K4AD			460				13.0		113.0	82.0				
2GA31K5AD			575				11.0		84.0	66.0				
2GA31K2DD			200			30.0	258.0		189.0					
2GA31K3DD			230			26.0	229.0		164.0					
2GA31K4DD			460			13.0	113.0		82.0					
2GA31K5DD			575			11.0	84.0		66.0					

\* Single cable

## NOMENCLATURE

### 1st, 2nd and 3rd Characters - Discharge Size and Type

1GA = 1½" discharge, grinder, dual seal  
2GA = 2" discharge, grinder, dual seal

### 4th Character - Mechanical Seals

3 = tungsten carbide/tungsten carbide lower, carbon/  
ceramic upper  
7 = ceramic/ceramic lower, carbon/ceramic  
upper  
8 = tungsten carbide/ceramic lower, carbon/  
ceramic upper

### 5th Character - Cycle/RPM

1 = 60 Hz/3500 RPM

### 6th Character - Horsepower

G = 2 HP  
H = 3 HP  
J = 5 HP  
K = 7½ HP

### 7th Character - Phase and Voltage

1 = single phase, 230 volt  
2 = three phase, 200 volt  
3 = three phase, 230 volt  
4 = three phase, 460 volt  
5 = three phase, 575 volt

### 8th Character - Performance Curve

A = 7.5 HP / 3Ø / 2GA  
B = 5 HP / 3Ø / 1GA  
C = 3 HP / 3Ø / 1GA  
D = 7.5 HP / 3Ø / 2GA  
E = 5 HP / 3Ø / 2GA  
F = 5 HP / 1Ø / 2GA  
G = 3 HP / 1Ø / 1GA  
H = 2 HP / 1Ø / 1GA  
J = 5 HP / 1Ø / 2GA  
K = 3 HP / 1Ø / 2GA  
L = 2 HP / 1Ø / 1GA

Impeller trims not available.

### 9th Character - Cord Length

D = 30' (standard)  
J = 100'

### 10th Character - Explosion Proof Option

X = Explosion Proof



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