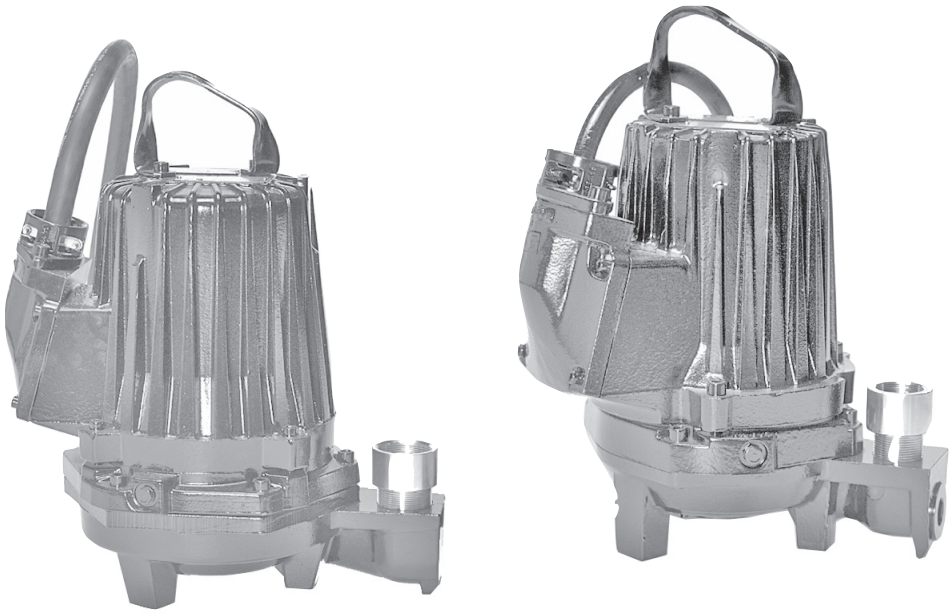
GOULDS WATER TECHNOLOGY
xylem

Technical Brochure
B1GA2GA R11



1GA and 2GA

1½" and 2" discharge submersible grinder pumps

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Description

Xylem's 1GA and 2GA grinder pumps from Goulds Water Technology offer a broad range of performance options across two robust models, making them a versatile solution for demanding environments. Engineered with rotating cutting mechanisms, these pumps efficiently shred incoming waste to prevent clogging and protect the impeller from binding. Designed for durability and efficiency, these grinder pumps are ideal for municipal, commercial, and industrial applications.

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 Mini CAS (Control and Status) 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.

Applications

High head and pressure sewage systems for:

- Municipal
- Commercial
- Industrial

Pump specifications

1GA:

- Discharge size: 1½"
- Maximum capacity: 92 GPM
- Maximum total head: 135' TDH

2GA:

- Discharge size: 2"
- Maximum capacity: 198 GPM
- Maximum total head: 105' TDH
- Maximum fluid temperature rating: 104º F (40º C) continuous duty
- Tandem mechanical seals: see nomenclature page, 4th character
- 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: 50' unshielded SOW power cord. See chart for sizing *(Pumps manufactured before 12.2025 have 30', single jacket 6 conductor combination power and control cable)*

Single-phase:

- 3 HP @ 3450 RPM
- 5.4 HP @ 3450 RPM
- 230 volts

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

Three-phase:

- 4 HP @ 3450 RPM
- 6 HP @ 3450 RPM
- 11 HP @ 3450 RPM (460 Volts only)
- 200, 230 and 460 volts

Motor features

- Air-filled, NEMA type B squirrel cage induction motor
- Class F, 311º F (155º 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 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.

Notice: unshielded cords should not be used with VFDs due to high chance of communication interference

Controls

- **Single-phase units require capacitors.** See panels BCP5.
- **Three-phase units** can use standard panel selections with option added for Mini CAS device for leak detection & high temperature monitoring (add suffix to panel order number. "O" for simplex, "P" for duplex).

Model information

Order number	HP	Phase	Volts	RPM	Discharge size	Impeller code	Max. Amps	Start amps	KVA code	AWG cable size	Pump wt. (lbs/kg)
1GA71G1HD	3	1	230	3450	1½"	H	13.0	74.0	G	14/7	117/53
1GA81H1GD	5.4					G	22.0	120.0	F	10/7	172/78
2GA81H1KD					2"	K					
1GA71H2CD	4	3	200	3450	1½"	C	12.0	63.0		14/7	117/53
1GA71H3CD			230				9.9	63.0	G		
1GA71H4CD			460				4.9	31.0			
1GA81J2BD	6		200			B	16.0	137.0	J	12/7	172/78
1GA81J3BD			230				15.0	112.0			
1GA81J4BD			460				7.5	56.0			
2GA81J2ED			200		2"	E	16.0	136.0			
2GA81J3ED			230				15.0	112.0			
2GA81J4ED			460				7.5	56.0			
2GA31K4DD	11		460	3475		D	13.0	110.0		8/7	241/109

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 = 3 HP, 1Ø
H = 5 HP, 1Ø; 4 HP 3Ø
J = 6 HP 3Ø
K = 11 HP, 3Ø

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

8th character – performance curve

B = 6 HP / 3Ø / 1GA
C = 4.0 HP / 3Ø / 1GA
D = 11 HP / 3Ø / 2GA
E = 6 HP / 3Ø / 2GA
G = 5.4 HP / 1Ø / 1GA
H = 3 HP / 1Ø / 1GA
K = 5.4 HP / 1Ø / 2GA
Impeller trims not available.

9th character – cord length

D = 50' (standard)

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