

Technical brochure BAGSSERIES R7



# AGS series Axial grinder pumps

xylem

## Features

**Design:** Capable of grinding domestic sewage in the modern wastewater stream.

**Cutter system:** Stainless steel, axial lobe-cutter design with 8-hole cutting plate, capable of 4.9 million bites per hour and TDH up to 120 feet.

Impeller: Cast Iron semi open 2 vane impeller.

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

**Motor**: Fully submerged in oil-filled chamber. High grade turbine oil surrounds motor for more efficient heat dissipation, permanent lubrication of bearings and mechanical seal, and protection against outside environment.

Motor shaft: 300 series stainless steel.

**Designed for continuous operation:** Pump ratings are within the motor manufacturer's recommended working limits, can be operated continuously without damage when fully submerged.

## Applications

Designed for residential/light commercial/small office sewage (2" pump replacement and new construction) or anywhere modern wastewater flushables are creating clogging issues.

## Specifications

#### Pump:

- Capacities: to 53 gpm/12 m³/hr
- Total heads: to 120 ft/ 36.6m TDH
- Temperature: Class F insulation 104°F (40°C) maximum continuous, 140°F (60°C) maximum intermittent
- Single mechanical seal: silicon carbide rotary/silicon carbide stationary, 300 series stainless steel metal parts, BUNA-N elastomers
- Fasteners: 300 series stainless steel
- Axial cutter and plate: 440C hardened stainless steel

## Model information

**Bearings:** Upper and lower single row sealed ball bearings for precision positioning of parts and to carry all radial and thrust loads.

**Mechanical seal:** Hardfaced silicon carbide on silicon carbide for longer life, stainless steel metal parts, BUNA-N elastomers.

**Power cable**: Severe duty rated, oil and water resistant. Epoxy seal on motor end provides secondary moisture barrier in case of outer jacket damage and to prevent oil wicking.

**O-ring:** Assures positive sealing against contaminants and oil leakage.

Paint: Electro-coat paint process protects all casting surfaces.

May be used with optional guide rail. See Fittings or Pump Removal Systems.

## Agency listings



Tested to UL 778 and CSA 22.2 108 Standards By Canadian Standards Association

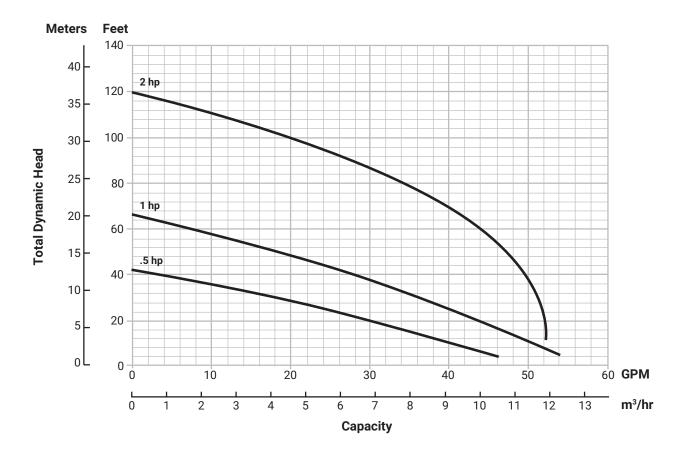
- $\boldsymbol{\cdot}$  Single-phase motor with on winding thermal protector.
- No external capacitor kits required.
- Class F insulation
- Shaft: 300 series stainless steel threaded design
- Bearings: Single row sealed ball bearings, upper and lower
- Power cord with a 115V or 230V NEMA three prong grounding plug. Allows connection to a piggyback float switch. 20 foot long cable. 2HP version has bare leads



Order number	HP	Phase	Volts	RPM	Float switch style	Maximum amps	Discharge size	Impeller diameter	Power cord	Weight Ibs. (kg)																															
AGS0511			115		Manual / no switch	9																																			
AGS0511PB	0.5				Piggyback float switch			3.5"																																	
AGS0512	0.5	5	230		Manual / no switch	4.5		3.5																																	
AGS0512PB	1			230	230	Piggyback float switch	4.5	2"		20' SJTOW with	65 (29.5)																														
AGS1011			1	1 11	1 115	115	115 3500	Manual / no switch	11			NEMA plug	NEMA plug																												
AGS1011PB	1		115	115	115		Piggyback float switch			4.25"																															
AGS1012			000		220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	230	220	220	220	220	220	220	220	220		Manual / no switch	5.5	4.25		l
AGS1012PB		230			Piggyback float switch	5.5	5.5																																		
AGS2012	2		208-230		Manual / no switch	15	1.25"	5.69"	20' STOW with bare leads	96 (43.5)																															

\* part numbers with PB suffix include an A2E series mechanical float switch

## Performance curves

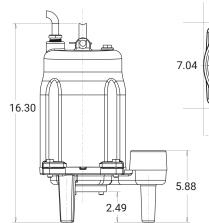


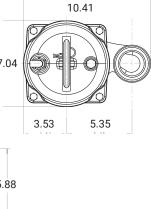
## Motor data

НР	Volts	Phase	RPM	Maximum amps	LRA	Resistance	Power cable	Fuse/circuit breaker
						Line-line	i ower cable	
	115	- 1	3500	9	46	0.6	SJTOW 14/3	15
0.5	230			4.5	25.5	2.6		10
1	115			11	46	0.6		15
	230			5.5	25.5	2.6		10
2	208-230			15	59	1.1	STOW 14/3	30

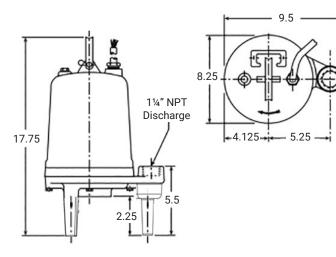
Dimensions (All dimensions are in inches. Do not use for construction purposes.)

#### AGS 0511, 0512 & 1011 (in inches):





#### AGS 2012 (in inches):



## Application data

Minimum casing thickness	<sup>5</sup> / <sub>16</sub> "	
Casing corrosion allowance	1/8"	
Maximum working pressure	50 psi	
Maximum submergence	50 feet	
	Fully submerged for continuous operation	
Minimum submergence	6" below top of motor for intermittent operation	
Maximum environmental	40°C (104°F) continuous operation	
temperature	60°C (140°F) intermittent operation	
Maximum number of evenly distributed starts per hour	10	
Bearings	B-10 life of 30,000 hours min.	
Minimum basin size	Simplex – 24" x 24"	
	Duplex – 36" x 36" fiberglass	
2" Maximum discharge pipe diameter	Requires a minimum flow of 21 gpm to maintain a 2 ft./sec. scouring velocity	

## Standard parts

Pump order number

AGS0511

AGS0512

AGS1011

AGS1012

AGS2012

Ball bearing – upper	Single row ball – SKF 6203-2Z
Ball bearing – lower	Single row ball – SKF 6204-2Z
Mechanical seal	Silicon carbide/silicon carbide; Type 16
O-ring – motor cover	BUNA-N, AS 568A-166

**K**-series

## Standard panel options

Simplex

KS19020WF

KS19020WF

KS19020WF

KS19020WF

KS19020WF

Constru	uction	deta	i	S		
					-	

Dower coble - type	14/3 SJTOW with NEMA Plug			
Power cable – type	14/3 STOW with bare leads for 2HP			
Motor cover	Gray cast iron - ASTM A48, Class 30			
Bearing housing	Gray cast iron - ASTM A48, Class 30			
Seal housing	Gray cast iron - ASTM A48, Class 30			
Casing	Gray cast iron - ASTM A48, Class 30			
Impeller	Gray cast iron - ASTM A48, Class 30			
Motor shaft	AISI 300 series stainless steel			
Motor design	NEMA 48 frame, oil filled with Class F insulation			
Motor overload protection	On winding thermal protector - auto reset			
External hardware	300 series stainless steel			
Impeller type	Semi-opened with pump out vanes on back shroud			
Cutter	Type 440C hardened stainless steel			
Oil capacity – motor chamber	.57 gallons			

## Cutter assembly

Duplex

D10020

D10020

D10020

D10020

D10020



**Boulay series** 

Simplex

S10020

S10020

S10020

S10020

S10020





Note: Boulay series part numbers have additional available features, see below for more

cutter

information.

Note: K-series panel part numbers include floats, to order without float switches, remove the 'WF' suffix. Boulay series panels do not include float switches.



### **K**-series

NEMA 4X dead front outdoor rated enclosure

Duplex

KD19020WF

KD19020WF

KD19020WF

KD19020WF

KD19020WF

- Red LED alarm beacon
- · HOA selector switch
- Field wiring terminal block
- · Single phase models handle 120, 208 and 230V service
- · Three phase models handle 200, 230 and 460V service
- · Requires separate control/alarm power feed
- See brochure "BCPKSDPANELS" for additional information





#### Boulav series

NEMA 4X outdoor rated enclosure

- Red alarm beacon
- HOA selector switch
- Through door pump run light(s)
- · Through door alarm test and horn silence button
- Single phase models handle 120, 208 and 230V service
- Three phase models handle 200, 230, 460 and 575V service
- · Accepts single or dual power feed
- · See brochure "BCP3" for additional information on simplex models
- See brochure "BCP4" for additional information on duplex models



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