AGS Series
AXIAL GRINDER PUMPS
## 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
- Total heads: to 120’ 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

**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

### Motor:
- 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.

### MODEL INFORMATION

<table>
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<tr>
<th>Order Number</th>
<th>HP</th>
<th>Phase</th>
<th>Volts</th>
<th>RPM</th>
<th>Operation</th>
<th>Maximum Amps</th>
<th>Discharge Size</th>
<th>Impeller Diameter</th>
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* Use piggyback float for automatic operation
**MOTOR DATA**

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<th>Maximum Amps</th>
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<th>Fuse/Circuit Breaker</th>
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**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

\[ \frac{3}{16}\text{"} \]

Casing Corrosion Allowance

\[ \frac{1}{4}\text{"} \]

Maximum Working Pressure

50 psi

Maximum Submergence

50 feet

Minimum Submergence

Fully submerged for continuous operation

6 " below top of motor for intermittent operation

Maximum Environmental Temperature

40ºC (104ºF) continuous operation

60ºC (140ºF) 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 PANEL OPTIONS

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<th>Pump Order Number</th>
<th>K-Series</th>
<th>Boulay Series</th>
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<td>KS19020WF</td>
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CONSTRUCTION DETAILS

Power Cable – type

14/3 SJTOW with NEMA Plug

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

STANDARD PARTS

Ball Bearing - upper

Single row ball - SKF 6203-22

Ball Bearing - lower

Single row ball - SKF 6204-22

Mechanical Seal

Silicon carbide/silicon carbide; Type 16

O-Ring – motor cover

BUNA-N, AS 568A-166

K-SERIES

- NEMA 4X dead front outdoor rated enclosure
- 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

BOULAY 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 R11" for additional information on simplex models
- See brochure "BCP4 R14" for additional information on duplex models

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