

### User Benefits

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- High efficiency
- Low energy consumption
- Robust construction
- Smooth flow
- Reversible operation
- Ability to pump abrasive media
- Ability to pump large solids
- Cost effective easy maintenance

# Series A & G

## Rotary Lobe Pumps for custom engineered solutions

SSP brand Series A and Series G rotary lobe pumps, from Alfa Laval Pumps Limited, are designed for high volume fluid transfer duties and are among the world's largest pumps of this type. Both series are engineered to order, customized to suit application requirements throughout Chemical, Food, Pharmaceutical and Waste Water Treatment processes.

From initial inquiry, the specification of the pump will be engineered to ensure the most appropriate pump is provided to meet application requirements.

Series A pumps, manufactured from stainless steel, can handle from low to high viscosity pumped media. Ideal for delicate media and where organic solids in suspension, creams, froths, gels, emulsions and mixtures are to be pumped.

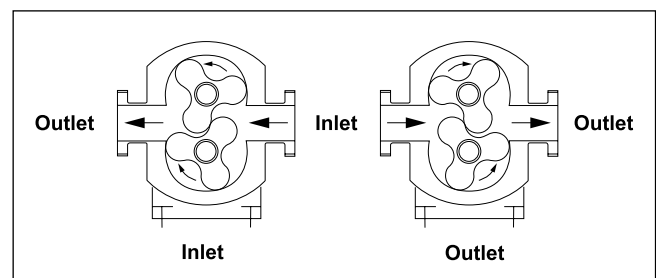
Series G pumps, manufactured from ductile iron, operate within general industrial and waste water treatment processes providing a good

tolerance of suspended solids including fibrous matter. Series G pumps have proven ability in handling a full range of sludge thickness with rag and grit included.

### Operation

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The positive displacement of both Series A and Series G pumps is provided by non-contacting, counter rotating tri-lobe rotors within a fully swept pump chamber. All Series A and Series G pumps are capable of bi-rotational flow without modification.



## Performance

Both Series A and Series G pump ranges have five pump head displacements ranging from 145 gallons/100 revs to 600 gallons/100 revs.

- Flow rates up to 3000 gpm
- Differential pressures up to 145 psi
- Port sizes from 6" to 12" diameter

**High Volumetric Efficiency** - Both Series A and Series G pumps offer high efficiency transfer of low, medium and high viscosity pumped media. This important aspect of performance is achieved by maintaining high accuracy and repeatability of component part manufacture, thereby maximizing shaft rigidity and minimizing the effects of thermal expansion within the pump gearbox. This combination allows the optimum pump head geometry to be achieved which, in turn, maximizes volumetric efficiency.

## Basic Design

**Pumphead** – All metallic pumped media wetted components are manufactured in 316 type stainless steel for Series A and ductile iron for Series G. The Series A in standard specification has stainless steel tri-lobe rotors available in three temperature ratings, allowing the pump to be operated at maximum temperatures of 158°F, 266°F and 392°F for both process and CIP. The Series G in standard specification has tri-lobe rotors manufactured from ductile iron (for non- sludge applications) or a metal insert covered with either NBR (which can be fitted with metal back plates for high fibre duties) or urethane, both giving long term wear resistance.

**Shafts** - Series A pumps, manufactured from 316 type stainless steel.  
- Series G pumps, manufactured from medium carbon steel.

**Gearbox** – Both Series A and Series G pumps have a robust cast iron gearbox, which provides maximum shaft rigidity. Heavy duty taper roller bearing arrangements provide maximum support for both drive and auxiliary shafts.

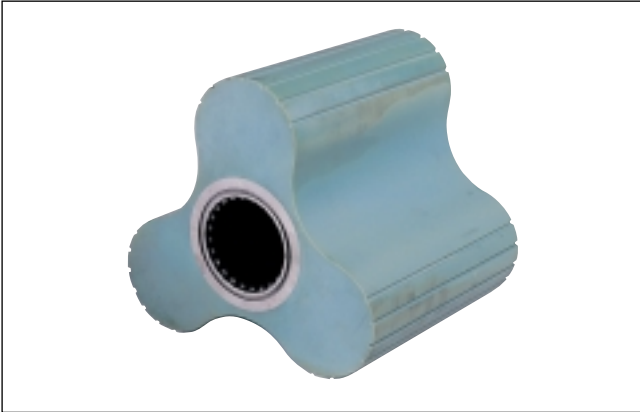
Pump Model	Inlet and Outlet Connection Size	Displacement US gal/100 revs	Differential Pressure	Maximum Speed rev/min	Weight Bare Shaft Pump
	inches		psi		lb
A7-0550-H07	6.00	145.31	100*	750	677
A8-0745-H10	6.00	196.83	145	650	1300
A8-1149-H03	8.00	303.46	50*	650	1545
A9-1507-H10	10.00	398.23	145	500	3003
A9-2270-H10	12.00	599.73	145	500	3110
G7-0550-H07	6.00	145.31	100*	750	677
G8-0745-H10	6.00	196.83	145	650	1300
G8-1149-H03	8.00	303.46	50*	650	1545
G9-1507-H10	10.00	398.23	145	500	3003
G9-2270-H10	12.00	599.73	145	500	3110

\* Higher pressures attainable - please refer to GPM Pumps Inc.

# Series A

## Specification Options

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### Wear plates

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Series G pump casings may be supplied fitted with hardened, replaceable wear plates (standard on sludge pumps). The wear plates can be replaced with minimal pump dismantling and without removal of pump from service.

### Pumped media seals

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The optimum primary seal can be chosen to match the pumped media and duty conditions. Single or double mechanical seals include flushed or aseptic variants. For arduous duties hard faced seal materials such as tungsten carbide or silicon carbide can be used. A wide variety of commercially available mechanical seal options including single and double cartridge seals are available for sludge and other difficult applications.

Packed glands offer a simple, low cost, and easy to maintain controlled leakage sealing arrangement.

Pumped media wetted elastomers are EPDM, NBR, FPM all FDA conforming or PTFE for chemical applications.

### Connections

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Pump casings are supplied with integral cast flanged inlet and outlet connections to all major standards including ASA/ANSI150, BS4504/DIN2533, BS10E and more.

### Rotor materials

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For increased abrasion resistance pumps may be supplied with NBR covered (models A7-0550-H07, A8-0745-H10, G7-0550-H07 and G8-0745-H10 only) or urethane rotors (Series G only). The urethane rotors can be supplied slotted, providing grit channels to improve rotor life.

### Surface finish and coatings

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For abrasive applications the pumphead and rotors may be supplied with a tungsten carbide coating or other surface hardening treatment to increase wear resistance.

### Increased pressure rating

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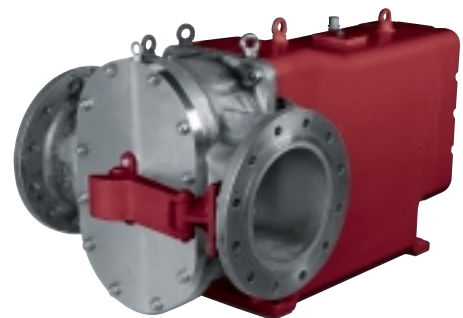
Alternative higher strength shaft materials will enhance pressure ratings.

- 145 psi for pump models A7-0550-H07 and G7-0550-H07
- 100 psi for pump models A8-1149-H03 and G8-1149-H03

### Motorized pump units

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Pumps may be supplied fully motorized with fixed or variable speed drives including appropriate control systems if required, mounted on either mild steel or stainless steel baseplates. In addition to electric motor drives, hydraulic, pneumatic, diesel or gasoline powered prime movers can be fitted.



# A & G

