

Trouble	Cause	Suggestion
The pump failed to start(It may cause minor noisy sound)	Power failure	Contacts power company
	Damaged fuse	Fuse replacement
	Damaged power cable	Repair
	Damaged motor	Repair
	Damaged overload protector	Repair
	Damaged bearing	Repair
	Poor power connection	Checks power supply connection point
	Voltage drops	Uses a regulator to stabilize power source
	Generator capacity is insufficient	Replaces it with higher capacity
	Jammed impeller	Removal and clean the impeller
Pump running for a while and then stopped	Jammed impeller	Removal and clean the impeller
	Voltage drops	Uses a regulator to stabilize power source
	Reverse running	Switches it to correct phase
	Voltage fluctuation	Adjusts power supply
	Generator capacity is insufficient	Replaces it with higher capacity
	High viscosity liquid	Consults the supplier
	Pump with 50hz specification is operated at 60hz	Replaces pump to correct type
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	Strainer is clogged with mud which cause dry running	Removes the obstacle
	Too much sediments	Adjusts pump installation position
Pump is not pumping water	Worn impeller	Replaces impeller
	The head is not correct	Reduces the number of elbows in pipeline.
	Clogged strainer	Exhausts it through pipeline
	Pump with 60hz specification is operated at 50hz	Replaces pump to correct type
	Air exists	Exhausts it through pipeline
	Reverse running	Switches it to correct phase
Pump generates noise or abnormal vibration	Damaged bearing	Repairs it
	Worn impeller	Replaces impeller
	Reverse running	Switches it to correct phase
	Air enters pipeline during operation	Exhausts it through pipeline
Electrical shock occurs	Ineffective Insulation	Checks circuit breaker



EVERGUSH®

**INSTRUCTION MANUAL
for Submersible Pumps**



EXL series

Submersible Axial Flow Pump

Thank you for selecting our products

The equipment should not be used for applications other than information listed in the manual. Failure to take notice of precautions may lead to probable damage, personal injury and other accidents. In the event of probable damages and hazards, the manufacturer will not be assumed to any liability.

After reading the manual, it is recommended to preserve the manual for future use so that the information listed will be easily accessible while the equipment is operating.

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Identification



WARNING-Potential hazardous which could result death or serious injury.



CAUTION-Potential hazardous which could result pump damaged or minor injury.

NOTE--Important information is emphasized.

Product Inspection

1. Handle with care. Confirms if the received items are packed in perfect condition and against the packing lists.
2. Check the data on the nameplate to be sure that the pump is the product you exactly ordered.

NOTE If the pump is damaged during transportation; please contact your supplier immediately.

Application Instruction

Beware of the conditions that the pump is on operation.



CAUTION-The pump is suitable for pumping water or liquid with little suspensions. For consideration in safety, the pump is prohibited to apply in flammable, toxic, corrosive, abrasive, crystallizing, polymerizing and high viscosity liquid.

NOTE To use the pump for particular solution, such as sea water, industry wastewater...etc, be advised to consult your supplier.

Safety Instruction

Before operation, read the instructions and follow safety rules as below.



WARNING-Be sure to install the pump properly before operation and install the circuit breaker and overload protector to prevent the motor from burning out. Failure to follow the precautions may lead to hazards if current leakage or electric shock occur.

1. The supply voltage should be within +5% of the rated voltage.
2. The pump should be submerged in water in order to cool the motor. Liquid temperature should be kept between 0~40 C.
3. Never attempt to replace the built-in protective devices.



CAUTION-Do not extend the length of power cable without consulting your supplier. The insulation resistance could be reduced significantly and cause electric shock. If the power cable is extended, do not immerse the splice in water.

4. DO NOT use the pump for application of food or drinking water.
5. DO NOT use the pump in an explosive or flammable environment to pump liquid.

Installation

Before installation, check your local electrical and plumbing codes. Those regulations provide further information for your safety.

1. Be sure the power cable is not twist together during installation.
2. Carry the pump with pump handle. (Do not pull the cable)



WARNING-Always lift the pump by lifting handle, do not move or lift the pump by pulling the cable, which may cause electrical shock, current leakage.

3. Be sure the size of the discharge is suitable to pipe size and pumping direction is correct during installation.
4. Install the pump at a location which has the least turbulence.
5. DO NOT allow the end of discharge piping submerge in water. It may cause water to backflow back to the pump which may stop operation.
6. Due to manual type of pumps do not have built in float switch, to be sure the pump is operating in water and maintain water level is higher than pump body. Or self-install float switch to remain water cooling effects is necessary.

Electrical Connections

All wiring, electrical connections, and system ground wire must comply with any local codes and ordinances and perform correctly by a qualified electrician.

1. Be sure to install a ground wire to the pump before operation and install the circuit breaker and overload protector to prevent the motor from burning out. Failure to follow the precaution may lead to hazards if current leakage or electric shock occurs.

2. Make sure that the supply voltage should be within +5% of the rated voltage.
3. The pump must rotate in a clockwise direction(While looking down, not looking up) and never operate in reverse. If the pump runs in reverse during pre-installation (for three phase motor), change two of the three phases to achieve correct rotation is necessary.



CAUTION-Keeps hands out of the impeller while checking the direction of rotation.

4. DO NOT use damaged cable or power plug.

NOTE Be aware of type of the power plugs are respectively applicable for various countries or regions.

Operation



WARNING-DO NOT operate pump while anybody is in water, electric shock could occur during electric leakage.

1. Be sure the pump is operating in water and maintain water level is higher than pump body.
2. If the overload protector has tripped, the pump will stop and restart automatically when it has cooled down.

Maintenance

1. SHUT OFF the power before maintenance.
2. When pump is not in use, it should be cleaned & lubricated all movements and store in a dry, high or locked up place, out of reach of children and wet.
3. The normal user is not allowed to disassemble the pump to do any repair/service works without any knowledge/training about the pump and relevant safety. Only qualified person with proper tools and knowledge should attempt service the pump.