



STAINLESS STEEL SUBMERSIBLE SEWAGE PUMP

Instruction Manual

XSP



Cutting Blade

Congratulations on your purchase of a LEO Submersible Sewage Pump



It is important that you read, fully understand and observe the following safety precautions and warnings. Careless or improper use of the machine may cause serious or fatal injury. The user is responsible for any accidents involving other people or other people's property.



This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.

Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.

Attention!

If the appliance or the supply cord is damaged, it must be repaired by manufacturer, its service agent or qualified person-



Do not dispose of electrical appliances as unsorted municipal waste, use separate collection facilities.

Contact your local government for information regarding the collection systems available.

Function and feature:

XSP series are the advanced and perfect sewage drainages at present time. Compared with traditional sewage submersible pumps, the XSP-series is re-designed the passage of flow and enjoys wider high efficiency areas, can be used whole head without over-loading, and can safely run under large flow rate with high efficiency; anti-clogging impeller with big passage designed can transfer sewage with big suspend solid and long fiber; adopted vortex suction structure and particular casting technique, so with better draining and anti-corrosiveness performance; widely used for transferring sewage in hotels, cloaca, construction industry, agriculture, family houses, etc. It can be automatically turned on and off, if it is assembled with float switch. Submersible pump with cutter is an ideal machine for draining sewage.

A high-speed rotating cutter is assembled at the inlet hole of the pump, make it easy to cut off long-fiber and firm sundries contained in the sewage, to avoid the impeller get blocked by the entanglement. It is suitable for draining sewage in sanitation, factory, mine and family. The thermal protector inside the pump can automatically shut down the pump when overheating and overload, to guarantee safe and reliable operation under hard condition.

Condition of usage and specifications

1. Maximum operating depth 5m below water level;
2. Continuous duty when fluid temperature under +40°C;
3. Value of PH in fluid 4~ 10;
4. Maximum kinematic viscosity: $7 \times 10^{-7} \sim 23 \times 10^{-6} \text{m}^2/\text{s}$;
5. Maximum density: $1.2 \times 10^3 \text{kg/m}^3$.

Type	XSP9-7.5/0.25I	XSP12-8.5/0.45I	XSP18-12/0.75I	XSP18-12/1.3ID
Power	250 W / 0,33 HP	450 W / 0,6 HP	750 W / 1,0 HP	1300 W / 1,75 HP
Outlet diameter	1.25"	2"	2"	2"
Q. max	9 m ³ /h	12 m ³ /h	18 m ³ /h	18 m ³ /h
H. max	7.5 m	8.5 m	12 m	12 m
Max. immersion depth	5 m	5 m	5 m	5 m
Gross weight	10 kg	18.2 kg	20.2 kg	22,8 kg
Package	185x180x380mm	495x263x222mm	540x265x195mm	570x310x245mm

Installation and remark

1. Before installation, must carefully check whether there are some parts damaged during Transport and stock. For example, whether the cable and plug are in good condition, and the insulated resistance is above 0.5M Ω , otherwise must check the fault.
 2. Check whether the power supply is conformed to the stipulation of nameplate before installation. Pump must connect with earth to keep safe.
 3. Before installation, must check whether the cable and plug is fracked, scratched, broken, etc. If they are faulty, must consult dealer or technician qualified to replace them.
 4. Using iron thread or hoop to make the outlet and discharge pipe tight, and then tie a rope on the handle as sling so as to move the pump up and down.
 5. Impacting and pressing the cable is absolutely prohibited. Cable cannot be used for sling. Don't discretionarily drag the cable while the pump is running, to avoid creepage.
 6. The power supply connected with the pump must be assembled with Electricity-leaking circuit breaker, and the voltage must be controlled within $\pm 15\%$ of the rated to avoid destroying the motor.
- Don't touch and move the pump before cut-off the power to keep safe. Be sure that the connection part between plug and cable is far from the water.
7. Be sure that the plug and cable are far from the heat, oil and the sharp.

Maintenance

1. Often check cable and duly replace the cable if it is found with fault of fractured, broken etc.
2. After running 2000hrs, please maintenance the pump as per the following steps:
 - Disassemble pump: carefully check the spare parts easily worn, for example bearing, mechanical seal, oil seal, "O-ring", impeller etc. And duly replace the spare parts damaged.
 - Chang oil: take the charge plug of oil chamber out, and inject 10# oil to 70%-80% of the capacity of chamber (edible earthnut oil is available if no 10# oil).
 - Air testing: After maintenance, the pump must be tested by air. Inject high-pressure air into the pump and keep the pressure at 0.2Mpa, it proved to be reliable if no leakage within 5 Minutes.
 - Don't submerge the pump into the water if it isn't started for a long time. Must take the pump out of the water and clean it and then make anti-rust processing

Troubleshooting

Symptom	Cause	Corrective action
Pump does not start	<ol style="list-style-type: none"> 1. Too low voltage 2. Impeller blocked 3. Stator winding burn up 4. Capacitor damaged 5. Absent phase (3 phase) 6. Too large resistance of cable. 	<ol style="list-style-type: none"> 1. Adjust voltage to $\pm 15\%$ of the rated 2. Remove obstacles 3. Repair 4. Replace capacitor 5. Check switch and cable connection etc.; 6. Use the proper cable (Item 3 and 4 must be operated under the guidance of dealer or technician qualified.)
Pump delivers reduced water	<ol style="list-style-type: none"> 1. High delivery head 2. Filter mesh clogged 3. Impeller worn off 4. Too shallow submersible depth 5. Wrong rotation (3 phase). 	<ol style="list-style-type: none"> 1. Lower the head 2. Glean the filter mesh 3. Replace impeller 4. Adjust the submersible depth above 0.5m 5. Inverse two phase.
Pump stops suddenly	<ol style="list-style-type: none"> 1. Switch cut off or blowout 2. Impeller blocked 3. Stator winding burn up. 	<ol style="list-style-type: none"> 1. Check power supply, replace fuse 2. Shut off power, clean obstacles 3. Repair (must consult the dealer and technician qualified).