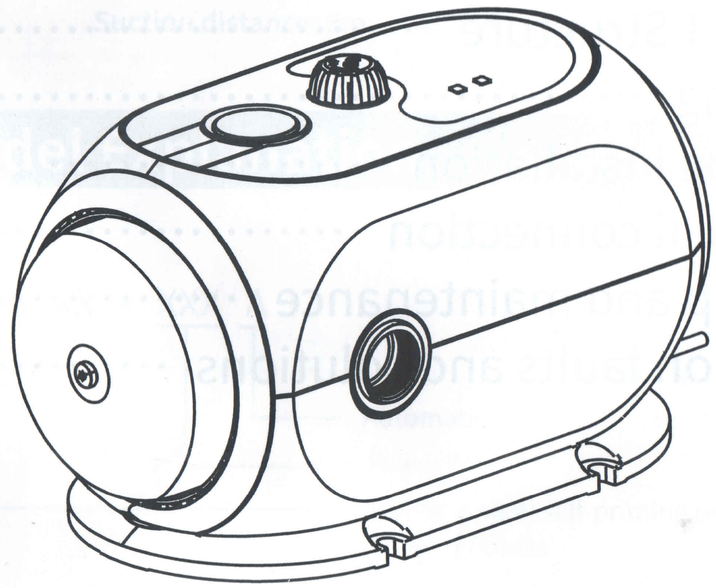
RHEKEN



NSTALLATION INSTRUCTION FOR STAINLESS STEEL SELF-PRIMING PUMP

INDEX

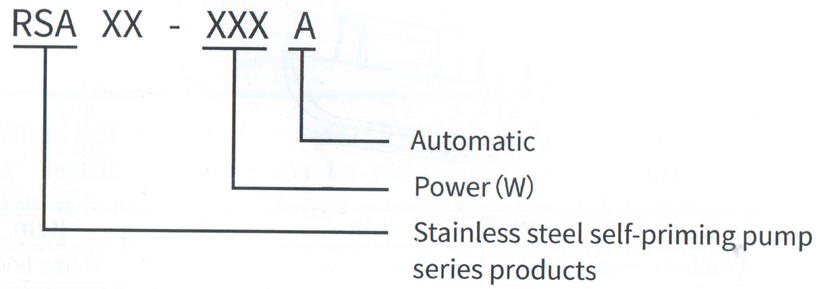
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Product Overview

The RSA series stainless steel self-priming pump is a small water supply system suitable for household pipeline pressurization and also applicable. Water supply to gardens, hotels, and high-rise buildings.

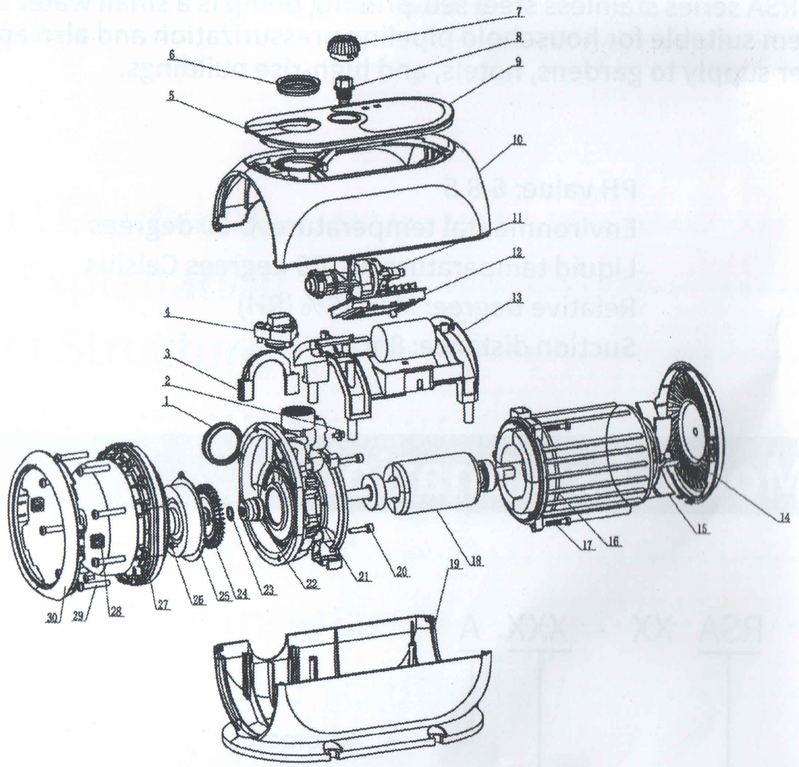
PH value: 6-8.5
Environmental temperature: 0-50 degrees
Liquid temperature: 0-100 degrees Celsius
Relative Degree: Max 85% (RH)
Suction distance: 8m

Model Explanation



Model	Voltage (V/Hz)	Rated Flow (m^3/h)	Rated Head (m)	Max Flow (m^3/h)	Max Head (m)
RSA60-200A	220/50	1.0	12	2.0	25
RSA60-300A		1.0	13.5	2.0	30
RSA60-400A		1.0	15	2.0	35
RSA70-600A		1.5	20	3.0	45
RSA80-800A		1.5	25	3.5	50

Product Structure

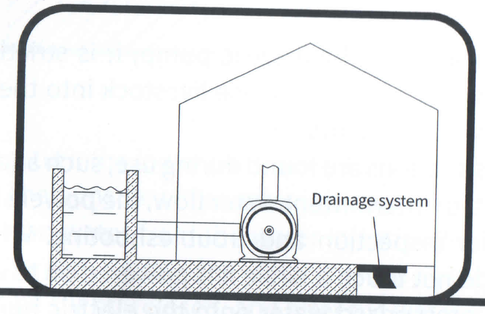


NO.	Item	NO.	Item	NO.	Item
1	Inlet rubber sleeve	11	Pressure sensor	21	Pump body
2	Screw	12	Circuit board	22	Mechanical seal
3	Inlet limit seat	13	Inner cover box	23	Retaining ring
4	Flow switch	14	Shell back cover	24	Impeller
5	Shell top cover	15	Fans	25	Pump cover
6	Outlet rubber sleeve	16	Shell components	26	Screw
7	Knob	17	Screw	27	Gas tank
8	Water injection nut	18	Rotor components	28	Shell limit block
9	Upper cover	19	Base	29	Screw
10	Shell	20	Screw	30	Front cover of shell

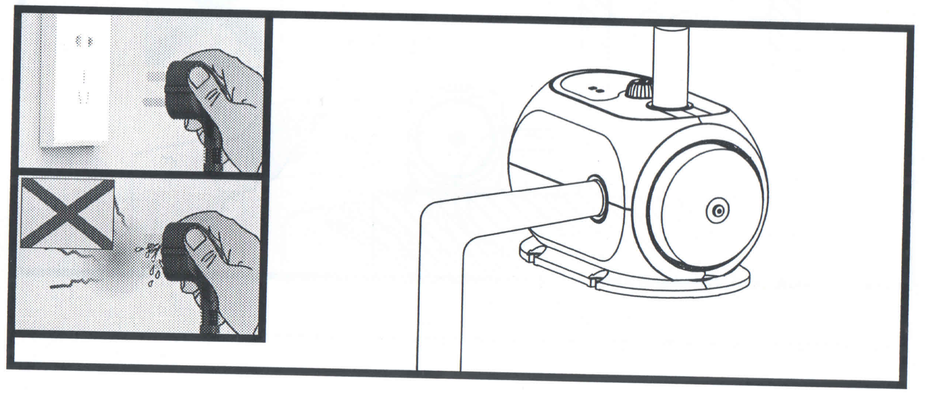
Warning

警告

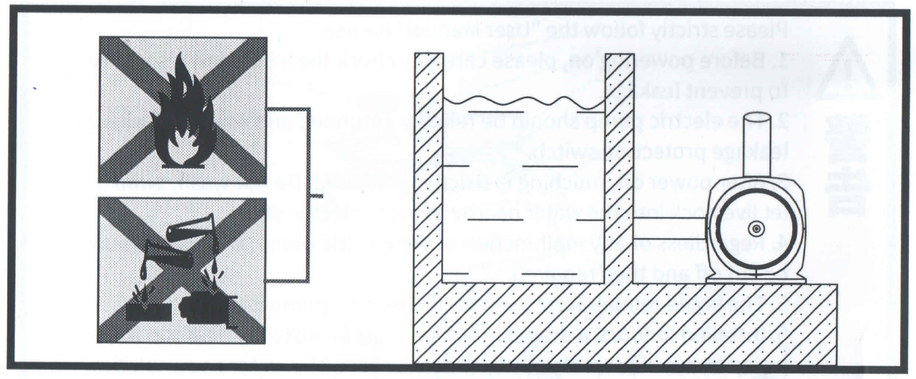
Please strictly follow the "User Manual" for use.
1. Before powering on, please carefully check the insulation resistance to prevent leakage.
2. The electric pump should be reliably grounded and equipped with a leakage protection switch.
3. After power on, touching is strictly prohibited. Do not wash, swim or let livestock into the water nearby to avoid electric shock.
4. Regardless of any malfunction of the electric pump, the power must be cut off and then repaired.
5. The liquid temperature used for the electric pump is 0~100 °C
6. Installed indoors, a drainage system must be installed near the water pump to avoid property safety damage caused by water accumulation due to pump failure.



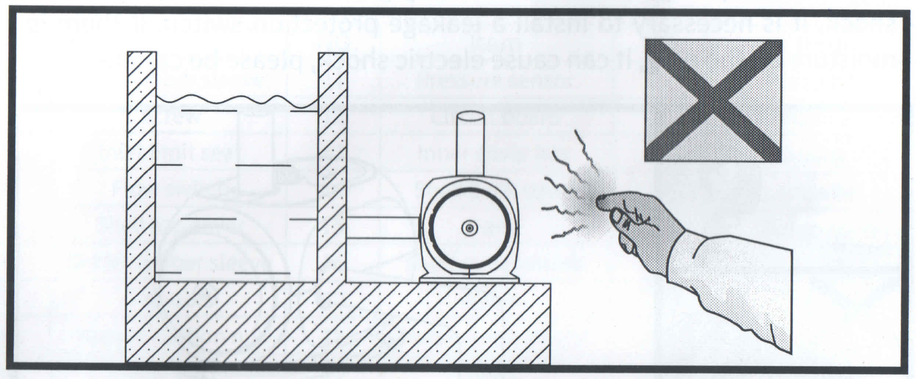
1. When installing and maintaining, the power must be cut off first. The electric pump should be reliably grounded. To prevent electric shock, it is necessary to install a leakage protection switch. If there is moisture on the plug, it can cause electric shock, please be careful.



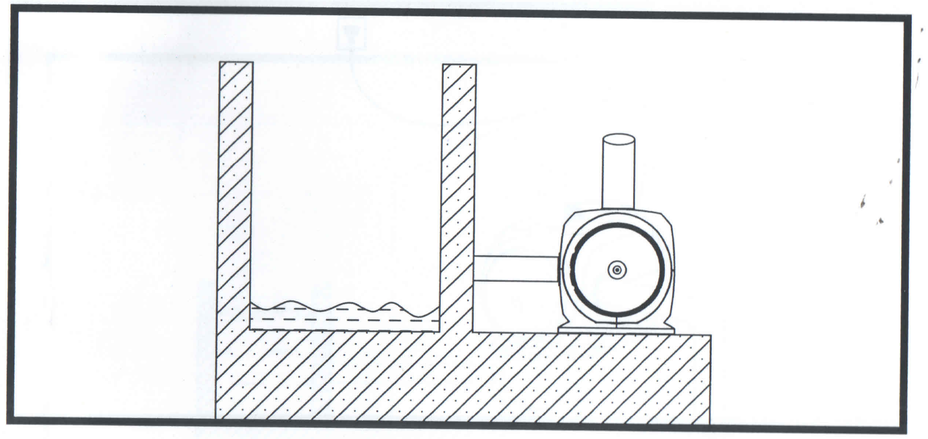
2. Do not use any liquid other than water. When using soluble substances such as benzoic acid, flammable substances such as gasoline, and other flammable and explosive liquids, it can easily cause fires.



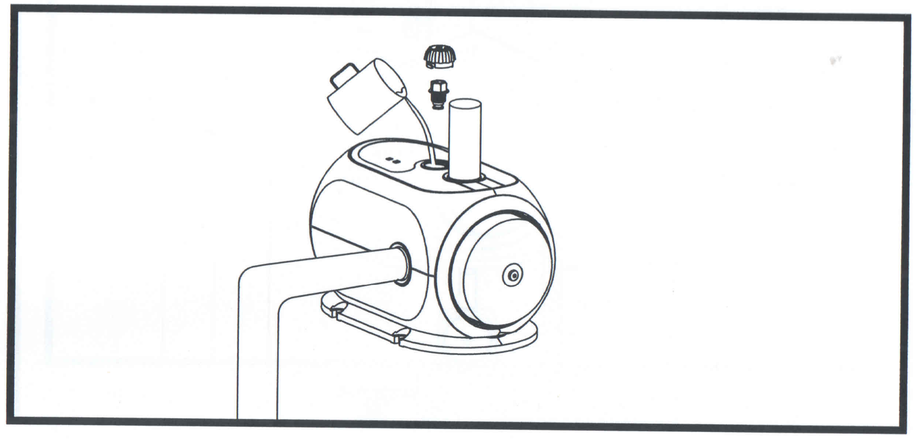
3.During the operation of the electric pump, it is strictly prohibited to touch it. Do not wash, swim or release livestock into the water near the work area to prevent accidents.
If any abnormal situations are found during use, such as abnormal noise, low water output, or intermittent water flow, the power should be immediately cut off for inspection and troubleshooting. When the electric pump is damp, do not touch it while it is powered on to avoid accidents. Avoid splashing pressurized water onto the electric pump and prevent water from submerging the pump.



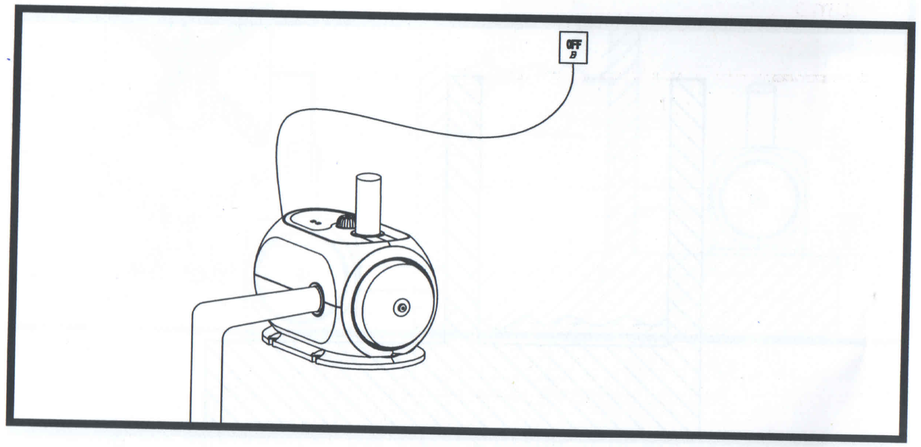
4. Avoid operating the water pump without water, as this will shorten its lifespan. And the motor heats up and is prone to malfunction. Do not expose the water pump to direct sunlight during operation, as it may affect its service life.



5. Before starting, turn the lower fan blades and check if the water pump rotates flexibly; Then unscrew the water injection plug and fill the pump chamber with clean water from the water injection hole. After the air is completely discharged, tighten the water injection plug. When starting, the valve should be slightly closed, and after the water is discharged, the valve should be adjusted to the required flow rate.

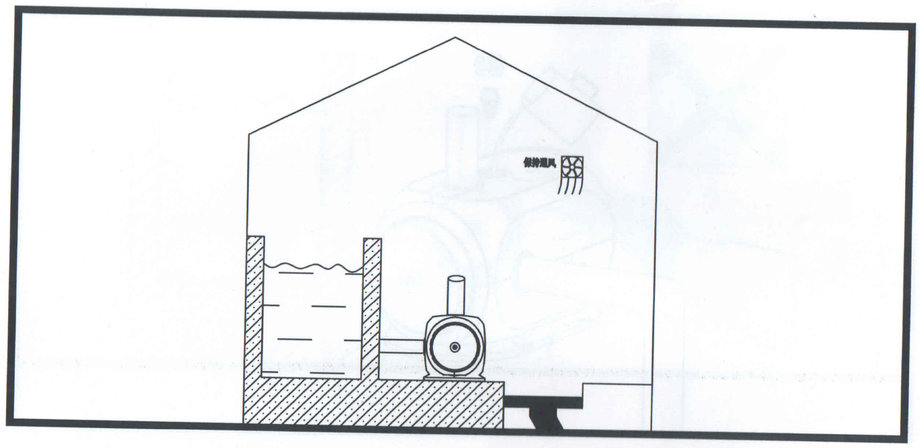


6-1. During installation and maintenance, ensure that the water pump is not accidentally connected. If it is not used for a long time, please close the water pipe valves at the inlet and outlet ends of the water pump and cut off the power supply first.

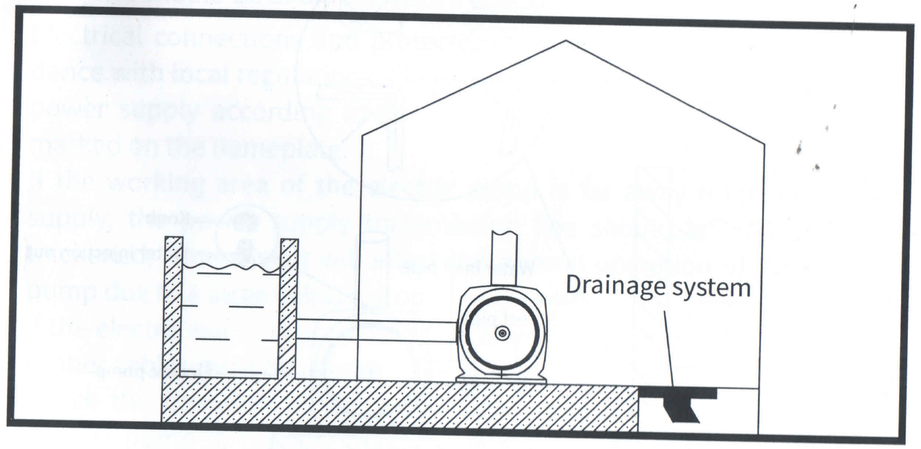


6-2. The reduced body being pumped may be hot and under high pressure. Before moving or disassembling the pump, the valves on both sides must be closed before emptying the liquid inside the pump and pipeline to avoid burns.

6-3. Supply power according to the voltage indicated on the nameplate. If not used for a long time, it should be stored at room temperature in a dry, ventilated, and cool place.

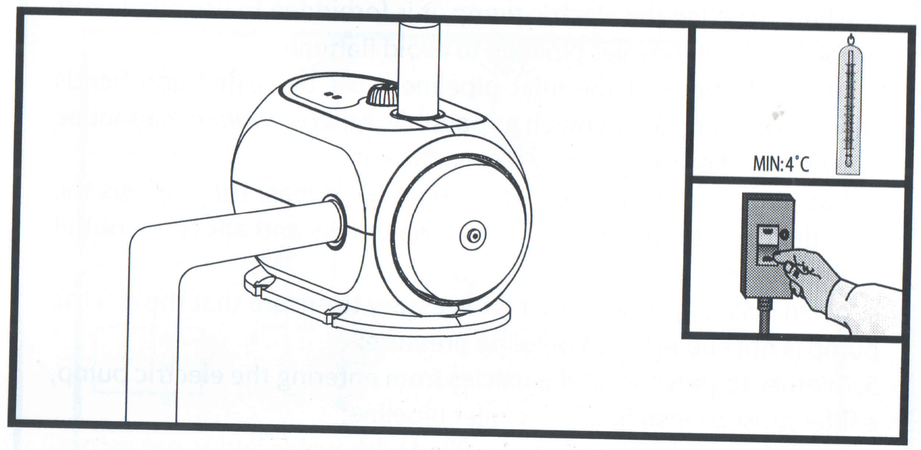


7. Installed indoors, a drainage system must be installed near the water pump. To avoid water accumulation and prevent the electric pump from being submerged in water, which may cause motor burnout or electric shock, our company is not responsible for any failure to install the water pump as required and cause damage to the user's property safety.

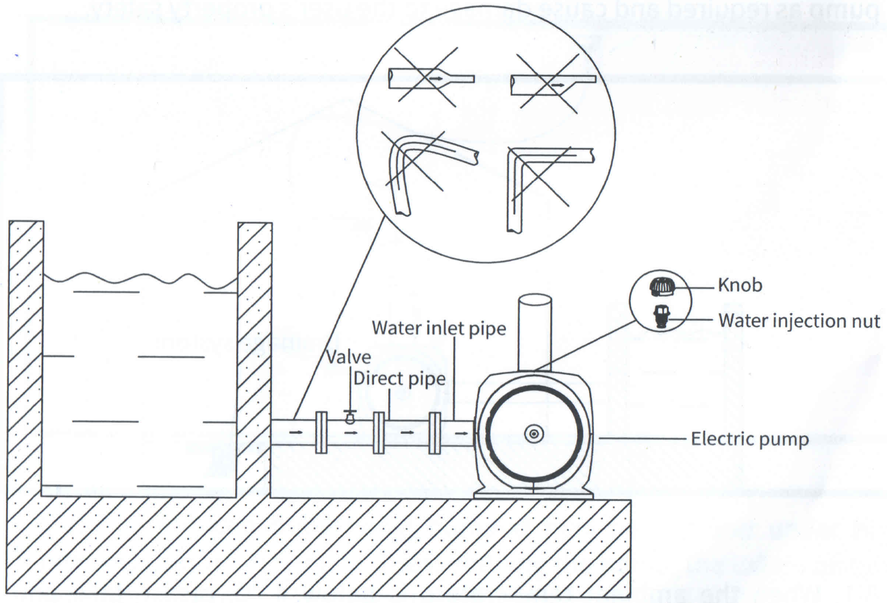


8-1. When the ambient temperature is below 4 °C, please take anti freezing measures to prevent the pump from freezing and cracking.

8-2. Maintain ventilatio



Pipeline installation



Precautions for installation of inlet pipeline:

1. When installing the electric pump, it is forbidden to use overly soft rubber hoses in the inlet pipeline to avoid flattening;
2. All connections of the inlet pipeline must be sealed and bends should be minimized as much as possible, otherwise water cannot be drawn in or the pressure may be insufficient;
3. The diameter of the inlet pipe should be at least the same as the inlet diameter to prevent significant water loss and affect the outlet performance;
4. When installing pipelines, it is necessary to ensure that the electric pump is not subjected to pipeline pressure;
5. In order to prevent solid particles from entering the electric pump, a filter must be installed in the inlet pipeline;
6. The inlet pipeline needs to be filled with water and is not recommended for well water lifting.

Electrical connection

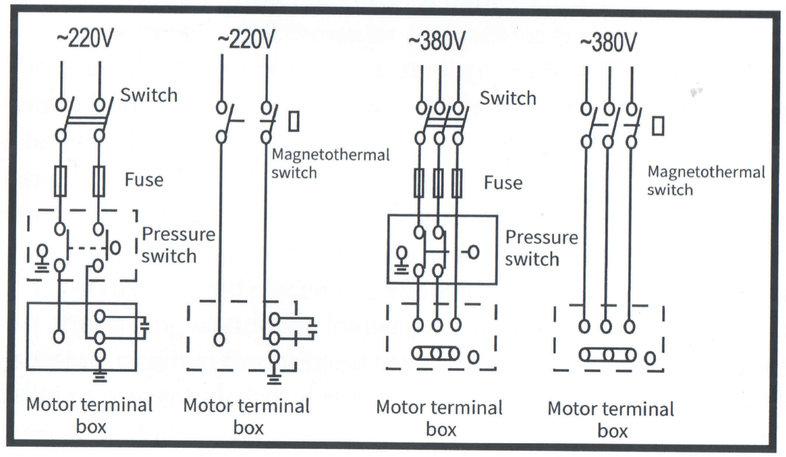
Do not wire the junction box unless the power is turned off.
The electric pump should be reliably grounded to prevent leakage, and should be equipped with a leakage protection switch.

Electrical connections and protection should be carried out in accordance with local regulations. Please ensure that the motor matches the power supply according to the specifications of the working voltage marked on the nameplate.

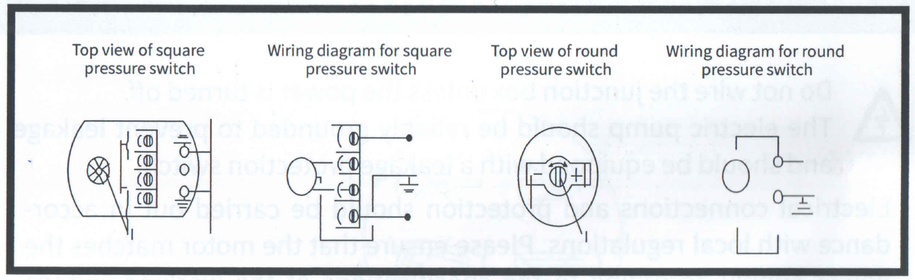
If the working area of the electric pump is far away from the power supply, the power supply transmission line should be appropriately thickened, otherwise it will affect the normal operation of the electric pump due to a large voltage drop.

If the electric pump is used outdoors along a long line, outdoor specific rubber cables must be used.

Check the direction of the motor (three-phase motor). Check if the electric pump is running normally and if the direction of rotation is correct. This can be seen from the fan blade end. Clockwise rotation indicates that the pump is running in the correct direction. If the steering is incorrect, disconnect the power supply and swap the two power supply leads.



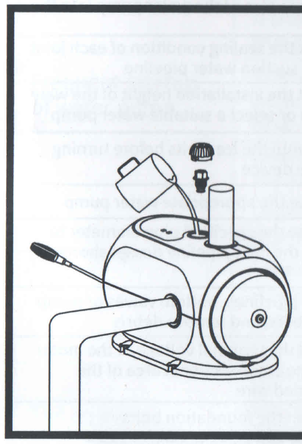
Automatic device



1.During the use of an automatic electric pump, if the faucet is turned off and the pump is still running, the power-off pressure of the pressure switch should be lowered. That is, the variable weight nut should be rotated counterclockwise to obtain a lower turn-on pressure (if it is a circular switch, rotate the screw in the "-" direction).
2.If the water pump is frequently started (sometimes on and sometimes off) with the faucet turned off, the pipeline and bottom valve should be checked for leaks and promptly eliminated.
3. If the faucet is turned on and the pressure switch is turned on and off frequently (frequently started), the pressure switch should be turned off and the pressure should be increased. That is, the variable weight nut should be rotated clockwise to obtain a higher connection pressure (if it is a circular pressure switch, the screw can be rotated in the "+" direction).

Start up and maintenance

Do not start the water pump until the pump chamber is filled with water. Do not touch the electric pump unless the power to the pump has been cut off for at least 5 minutes. Do not remove the pump body unless the water inside the pump chamber has been drained.



Before starting, turn the fan blades to check if the water pump rotates smoothly; Then unscrew the water injection plug and fill the pump chamber with clean water from the water injection hole. After the air is completely discharged, tighten the water injection plug. When starting, the valve should be closed tightly. After the water pump is running normally, adjust the valve to the required flow rate (the nameplate shows the flow rate and head range).

Note:
1. If the water does not drain after starting for more than 5 minutes after watering, turn off the electric pump, refill the water or check for leaks in the inlet pipeline;
2. If there is any risk of frost or freezing damage, please open the drain plug to drain the water from the pump chamber. But when the pump needs to be restarted, the water injection plug must be opened before starting, filled with water, and then tightened before use;
3. If the pump is not used for a long time, the accumulated water inside the pump should be drained, and the pump body, impeller, and bracket should be cleaned, coated with anti rust oil, and placed in a ventilated and dry place for backup;
4. To restart after a long shutdown, follow the instructions in the diagram above;
5. During summer or when the ambient temperature is high, please pay attention to ventilation to prevent electrical components from producing dew, which can cause electrical malfunctions.
6. If the motor is found to be hot or abnormal, please immediately cut off the power and check the fault according to the table below.

Common faults and solutions

Please turn off the power before conducting maintenance on the water pump.

Fault	Reason	Measure
The motor is running, but no water is coming out	The rotation direction of the pump is incorrect	Convert the wiring of two phases of the motor (three-phase motor)
	The water pump is not filled with water	Re inject water into the pump body
	Damaged impeller	Replace the impeller (send it to the repair point for maintenance)
	The water level is lower than the bottom valve	Adjust the inlet pipeline to immerse the bottom valve of the water pump into the water
	Leakage of suction pipe	Check the sealing condition of each joint in the suction water pipeline
	The water level is too low, below the maximum suction stroke of the water pump	Adjust the installation height of the water pump or select a suitable water pump
	Ice formation caused by water accumulation in pipelines or pump chambers	Wait until the ice melts before turning on the device
Insufficient pressure	Incorrect selection of water pump	Choose the appropriate water pump
	The inlet pipe is too long or has too many bends, and the diameter of the inlet pipe is not selected according to regulations	Choose the specified pipe diameter to make the inlet pipeline design shorter
	Foreign objects block the inlet pipeline, filter screen or pump chamber	Clean pipelines, bottom valves or pump chambers, and remove debris
	The motor voltage is too low and the wire is too long	Check the terminal voltage of the motor and the cross-sectional area of the extended wire
Pump vibration	The pump is not fixed on the base	Tighten the foundation bolts
	There are foreign objects in the pipeline or pump chamber	Inspect and clean pipelines and water pumps
	Insufficient stability of the base	Install a more stable base
Motor intermittent operation or stator winding burnt out	The motor has been running at overload for too long	Install valves at the water outlet to reduce water output.
	Impeller stuck or operating at overload for a long time	Remove debris from the pump chamber and ensure that the water pump operates at its rated flow rate as much as possible
	Grounding error or cable damage, electric pump struck by lightning	Find the cause and replace the winding coil
Leakage at the bracket	There are impurities causing wear on the mechanical seal	Clean or replace mechanical seals
Gas tank without pressure or damaged	Pressure loss causes the pressure switch to start and stop continuously 13 times, automatically stopping for 1 hour.	Replace the pressure tank and plug it back in again
The motor cannot start	The reverse water valve is stuck or the flow sensor is damaged	Open the induction nut and clean the solidified material and debris Replace the flow sensor (check valve)
PBC board fault	Poor contact of flow sensor or damage to PBC board	Open the cover box and tighten the signal wire to repair and replace the PBC board
Shutdown during runtime	Pressure loss causes the pressure switch to start and stop continuously 13 times, automatically stopping for 1 hour. If there is no flow at the inlet for 480 seconds, the machine will automatically shut down for one hour	Check for blockages in the water source and inlet pipes

Problem	Solution
The water pump does not start	Circuit board issues
	Power issue. Check for poor contact, voltage below 130V
	Motor issue. Check if the secondary winding is burnt out, if the protector is damaged, or if there is any sweeping
	The impeller is stuck. Check for any debris and remove it.
	Mechanical seal issue. Check and clean the mechanical seal or replace it.
	The capacitor is damaged. Check and replace the capacitor
	The bearing is stuck. Check and replace bearings
Frequent startup of water pump	The water flow rate is too low
	Check if there is any water or air leakage in the pressure tank. If the air pressure is insufficient, please inflate according to the pressure value
	The valve on the inlet pipe of the water pump should be adjusted to achieve basic balance of the inlet and outlet water flow of the water pump.
	Check or replace the pump body for leaks (partition leaks) in the high and low pressure areas.
	Leakage of pipelines or faucets (check whether the water outlet pipeline and faucet are leaking and solve it)
The pump is running normally but cannot pump water	Check the sealing of the water pump and observe whether there is water leakage in the pump body, suction port gasket, outlet gasket, and impeller cover gasket.
	Check if there is any air leakage in the inlet pipe. If there is any, remove the leakage phenomenon
	Insufficient suction range and excessively long suction tube. The installation position should be adjusted to shorten the length of the suction tube
	The motor speed is too low, check if the voltage is normal
	If the impeller is damaged, the water barrier between the suction chamber and the discharge chamber is corroded, the pump head is worn flat, and the gap between the impeller and the pump casing is increased, the impeller and pump casing should be replaced.
Turn off the faucet motor without stopping	The water level is lower than the suction stroke of the pump (lowering the installation height of the pump)
	The pressure in the outlet pipeline is lower than the closing pressure of the switch, and it cannot be guaranteed that the switch will be completely disconnected. (Please ask a professional to lower the pressure value of the pressure switch appropriately: first cut off the power, remove the pressure switch cover, and slowly turn it in the "-" direction with a screwdriver to the appropriate position.)
Motor overheating	The valve body is not perpendicular to the horizontal plane, and the piston is stuck. Correct the verticality
	The internal weight block bolt of the valve body is loose and not sealed. Tighten the weight block bolt
	Check if the valve port and pipe joint are not tightened, and tighten the bottom valve joint