



电蒸汽锅炉使用说明

Electric Steam Generator Operation and Maintenance



CN BOILER ENGINEERING SOLUTION LLC

Thank you very much for using our company's products. In order to make electric steam generator serve you better, please read this manual carefully before use. Please keep it safe for future reference.

1. Electric Steam Generator Features

- The electric steam generator is produced with reference to the national "Steam Boiler Safety Technical Supervision Regulations" and professional standards and regulations related to boiler manufacturing, and at the same time absorbs the excellent performance of similar products at home and abroad.
- The electric steam generator is equipped with multiple automatic protection devices such as pressure gauge, safety valve, automatic pressure controller, automatic water supply device, and low water level automatic stop heating device.
- The electric steam generator has a complete automatic control system, as long as you turn on the input power, the boiler will immediately enter the fully automatic operation state, which greatly facilitates your use.
- The furnace body of this machine is made of Q235 steel, please refer to the product quality certificate for specific data.
- The size of the electric steam generator machine is small. Its weight is light, so it is convenient to move.

2. Electric Steam Generator Operation Procedure

- ★ If you use 380V power supply, this machine adopts "three-phase four-wire system". (The "zero" line is the "zero" line of the power supply instead of the grounding protection line), otherwise the machine cannot work, and the shell grounding protection line is connected.
- ★ If you use a 220V power supply, you can directly connect the 220V power supply to the power supply of the machine, and connect the grounding protection line of the shell.
- ★ Connect the tap water to the water inlet of the water tank. After the water tank is full, you can start debugging. If there is no tap water, you can directly add water to the water tank.
- ★ Turn on the power switch, and the water pump will automatically work to inject water into the furnace (note: the first use or after the water is stopped midway, the air exhaust screw on the pump body should be opened. The screw should be tightened immediately once the water flows out of the small hole.). When the set water level is reached, the water pump will stop automatically,

and at the same time, the heating indicator light will be on, and the sewage valve will be opened to drain water outward. When the water level reaches a certain level, the water pump will automatically turn on to inject water into the furnace, and when the set water level is reached, it will automatically stop. At this time, the heating indicator light is on, and the heating starts. After checking that the circuit of the control system of the machine is normal, all the valves can be closed for heating.

★ When the air pressure rises to the set value, the heating indicator light goes out, and the vent valve is opened to exhaust. When the air pressure drops below the set value, the heating indicator light turns on, and the heating resumes. After this inspection, the machine can be put into work.

★ After the work is finished, turn off the power, vent the remaining steam, drain the remaining water, keep the furnace body clean, and prolong the service life of the furnace body (Note: If you forget to discharge the residual steam at the end of the work the day before yesterday, the furnace body may be filled with water the next day, at this time, the excess water should be drained, and it can work normally).

★ When you are not going to use it in the near future, please fill the furnace body with water and close all valves to prevent the furnace body from corroding. (Note: Do not use this method in winter to prevent the inner tank and water pump from being damaged by freezing inside the boiler;)

3. Electric Steam Generator Technical Parameter

3-72KW Electric Steam Generator Technical Parameter										
Electric power(KW)	3	6	9	12	18	24	36	48	60	72
Rated Evaporation Capacity/(kg/h)	5	10	13	17	25	32	48	64	86	100
Source voltage(V)	220V/380V			380V						
Steam pressure(Mpa)	0.4/0.7									
Saturated Steam Temperature(°C)	151/172									
Power wire(mm ²)	1.5	2.5	4	6	10	12	16	25	35	50
Heating AC contactor model	1210	2510	3210				4011	5011		

4. Electric Steam Generator Precautions

- When using the steam generator, there must be absolutely reliable grounding protection.
- The factory original parts have been debugged, and must not be adjusted arbitrarily, and other large-value safety valves and other parts must be replaced.
- During the working process, the water tank of steam generator must not be short of water, otherwise water pump idle, and be easily damaged. If you add water when the water tank is lack of water, there is a phenomenon that the water pump can't supply the water for the steam generator. if the water pump cannot supply the water, it means that there is air in the water pump after the water is cut off, you can unscrew the exhaust bolt of the water pump, and add water typically after discharging the air in the water pump.
- After one month of use, the electric heating heat pipe should be disassembled, and the furnace should be cleaned to remove scale (depending on the local water quality), so as to ensure the steam production, the purity of the steam, and prolong the service life.
- Pressure controllers and pressure gauges should be inspected and calibrated by the local standard measurement department every year.
- When repairing and replacing parts, it is necessary to turn off the power and vent the remaining steam, and never work with steam
- When discharging sewage, connect the outlet of the sewage pipe to a safe place to avoid scalding personnel.

5. Electric Steam Generator Troubleshooting

Trouble	Remedy
Power on does not work or heating very slowly	Check whether the power supply is out of phase, Whether the Zero line is connected, Is the voltage too low

<p>The phenomenon of jumping back and forth of the AC contactor during work</p>	<p>Check if the power supply voltage is too low; Check whether the probe wire is in good contact; Is the ground wire on the body loose? Whether the wiring is correct</p>
<p>When the air pressure rises to the set value or falls to the set value, the heating AC contactor jumps back and forth</p>	<p>Unstable contact of pressure controller</p>
<p>Turn on the steam generator for the first time or turn it on again after it is not in use, and find that the green light is on, but the water pump does not work</p>	<p>If the water pump is stuck, stop it immediately, open the rear end cover of the water pump, and rotate the shaft.</p>
<p>The water pump keeps adding water</p>	<p>Check whether the probe circuit screw is in good contact; Clean the dirt on the probe or replace the probe</p>
<p>If the work was normal yesterday, and the water in the furnace is found to be full when the machine is turned on today</p>	<p>It may be that the residual steam was not discharged when the machine was shut down yesterday. After the air pressure cooled down, a negative pressure was formed in the furnace and the water in the water tank was sucked into the furnace by itself. At this time, just open the drain valve and let off the excess water to restart the machine.</p>

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