

Operating Instruction 使用说明书

SMART ELECTRIC STEAM IRONING MACHINE DLA-4KW

Before operating this oven,
Please read these instructions completely.
使用前，请认真参阅本说明书。

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Summary

Electric heating steam generator is a kind of portable electric heating steam generator specially used for steam iron. It is a small new ironing equipment developed by our company with the latest scientific and technological achievements such as new technology, new process, new materials, new components, etc. It uses single-phase 220V power supply as heating energy to provide the motive power for the full-automatic steam generator, so that the steam generator produces steam with a pressure of 0.4MPa, which is delivered to the full steam iron for textile and clothing ironing.

The furnace tank of this machine is made of S304 stainless steel. It is durable and has the characteristics of stable air pressure, steam drying, etc.

The top of the steam generator is equipped with a vent valve switch. By using the handle on the vent valve, you can control the opening or closing of the steam to control whether the iron is heated by steam and steam jet ironing, so as to obtain the best ironing effect. Therefore, it is an ideal steam supply equipment or ironing equipment, which is suitable for the vast number of clothing production enterprises and hotels, families, self-employed service providers to use energy-saving, efficient, environmental protection and safety equipment.

Because the electric heating steam generator has the function of full-automatic regulation, the steam pressure and evaporation, water level control and feed water supply have the function of automatic control and interlock protection, which can ensure that the steam generator can operate automatically and continuously. The machine is equipped with over temperature protection device to prevent dry burning, which can automatically cut off the power supply of the heating pipe in case of over temperature. At the same time, it is also

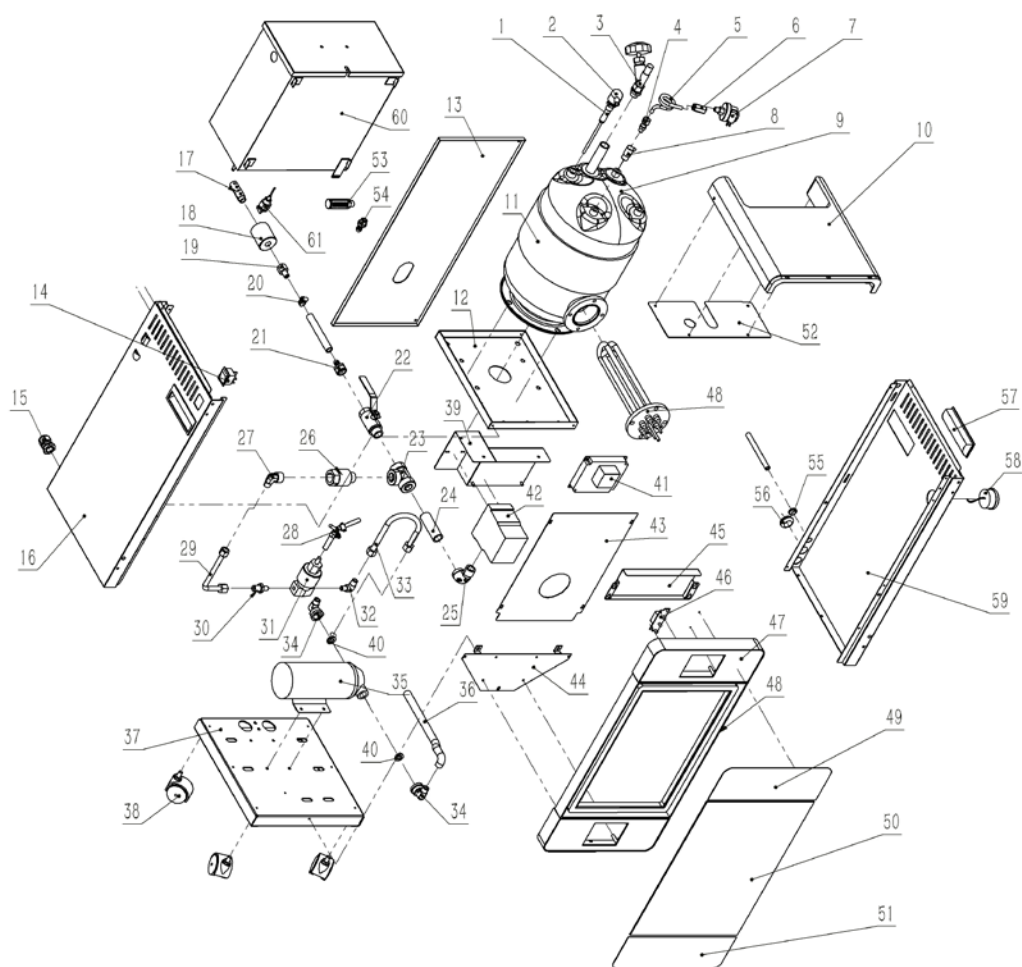
equipped with spring type safety valve, which can prevent the failure due to accidental overpressure and ensure the safety of equipment and personnel. When the water is added abnormally, the water pump can automatically shut down and give an audible and visual alarm at the same time.

Main technical parameters

Model of steam generator	DLA-4KW
Heating electric power	4kW
Rated working pressure	0.4MPa (4bar)
Rated steam production	5.2kg/h
Rated steam temperature	151°C
Power Supply	Single-phase220V

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Blasting drawing



序号	名称	数量
1	probe	1
2	Probe sheath	1
3	Exhaust valve	1
4	JKY-2-1/8 Steam pipe connection	1
5	Pressure controller copper tube	1
6	G1/8 14X24 Pressure gauge connector	1
7	Pressure controller	1
8	Safety valve	1
9	Furnace bladder	1
10	Cover	1
11	Oven insulation cotton	1
12	Furnace installation plate	1
13	Rear plate	1
14	Rocker switch	1

15	Thread buckle	1
16	Left side plate	1
17	Sewage pipe	1
18	Drain hood	1
19	2 points internal thread easy joint	1
20	Hoop hoop ($\Phi 8$, $\Phi 9.5$, 14-16mm, 13-19mm)	8
21	4 plug 10 external thread easy joint	1
22	4-point internal and external screw ball valve	1
23	4 points and three links.	1
24	4 points galvanized internal connection	1
25	4-point internal and external screw elbow	1
26	4-point internal and external screw check valve	1
27	4 points x 2 points elbow	1
28	Copper tee easy joint	1
29	2 steam hose L=170	1
30	2 points copper internal connection	1
31	Water inlet solenoid valve (two position three-way)	1
32	2 external screw elbow	2
33	2 steam hose L=240	1
34	4x2 copper elbow	2
35	Large water pump	1
36	Inlet hose	1
37	floor	1
38	Universal wheel	1
39	Contacto shield	1
40	Washer $\Phi 19$	2
41	Main circuit board	1
42	AC contactor 2501	1
43	Front door baffle	1
44	Lower panel fixing plate	1
45	Roof shield	1
46	Display panel	1
47	operation panel	2
48	door	1
49	Upper panel	1
50	Door glass	1
51	Lower panel	1
52	Top cover plate	1
53	Water inlet filter	1

54	2 socket 8 internal thread easy joint	1
55	φ10 Protection coil	1
56	φ18 Protection coil	1
57	Plastic handle	2
58	Pressure gauge	1
59	Right side plate	1
60	Water tank	1
61	Probe for water tank	1

Operation instructions

1、 Connect the main engine and the iron, connect and lock the steam pipe and the iron drain pipe with the iron; connect and lock the other end of the steam pipe of the iron with the air outlet valve of the boiler; put the other end of the iron drain pipe in the self-contained water tank.

2、 The user shall add a bucket as the water source before use. Submerge the water inlet hose and filter of the steam generator below the water surface, close to the bottom of the drum, and put the Yellow exhaust gas pipe into the same drum for its water supply. The blue blowdown pipe shall be placed in another blowdown drum and shall not be placed together with the water inlet pipe.

The softened water should be used as the feed water of the steam generator, so as to prevent the internal settlement of dirt and foam and lead the steam to carry water.

3、 Insert the power cord and plug into the single-phase 220V power socket. The capacity of socket and line must be greater than or equal to 16a, and safety grounding wire must be provided.

4、 First, close the blowdown valve, turn on the power switch AK at the rear of the machine, and the built-in indicator light of the switch will be on, indicating that the power supply has been connected normally. At this time, the water pump m starts to work, the Yellow pipe drains for the first 3 seconds, the water inlet solenoid valve is powered on after 3 seconds, the water pump supplies water to the steam generator, and the "add water" light is on. When the water level rises to

the set height, the water pump will automatically stop working, and the water adding time of the water pump is generally 90-120 seconds. With the heating line of the electric heating tube eh connected, the heating "heating" indicator lights up, indicating that heating is in progress. The water in the steam generator is heated until the steam pressure reaches the preset pressure, and then the steam supply can be started. The heating time of 0-4bar is generally 8-10 minutes.

5、 Turn on the ball valve switch on the top of the machine, supply steam to the iron, iron, and it will work.

6、 During operation, the water level and air pressure will be automatically controlled within the allowable fluctuation range, and the steam will be supplied continuously and normally. When the air pressure reaches the set upper limit, the heating will be stopped automatically, and the "heating" indicator light will be off; when the steam pressure drops to the set lower limit, the pressure controller PK will automatically turn on the contactor km, so that the electric heating pipe eh will be electrified and heated, and the heating "heating" indicator light will be on, and the steam will continue to be generated and the pressure will be increased, which will be kept within the allowable fluctuation range. Generally, the pressure difference is set between 0.2bar.

7、 During the working process, when the water pump adds water for more than 15 seconds, the machine will stop for 1 second, and then continue to connect. At this time, the water inlet solenoid valve will be closed for 3 seconds, and the Yellow exhaust pipe will give water for 3 seconds, and then the solenoid valve will be opened. If the water does not enter, this action will be repeated. After more than 3 minutes, the machine will appear an alarm sound and the alarm light and the water adding light will flash alternately.

Water level controller and E1 water level probe are used for automatic control of water level to ensure the normal fluctuation of water level between the height of E1 probe. The control circuit of water supply and electric heating device also has interlocking function to ensure the safety of operation process.

8、 This machine has a water tank water shortage protection device. When the

water tank is short of water, the Yellow fault light will be on for a long time, and the water pump will stop working.

9、 When the steam pressure rises abnormally, the spring safety valve will open automatically to discharge steam to prevent overpressure and ensure safety. This is a dual security function.

10、 At the end of the work, turn off the power switch AK, and the built-in indicator light goes out, then the steam generator stops working immediately, and the heating and feed water are all stopped. When the pressure drops to 1.5bar, open the blowdown valve until the blowdown is over. The drain pipe must be discharged to a safe place! When the steam pressure is gradually reduced to zero, the monitoring can be stopped.

Matters needing attention

1、 The power socket shall match the plug and be equipped with safety grounding wire to prevent electric shock.

2、 In use, the heat dissipation windows on both sides shall not be blocked to facilitate heat dissipation; at the same time, water dampness and damp shall be prevented to ensure the normal working environment conditions of various internal control components.

3、 During the use, the water supply to the bucket shall be supplemented in time to prevent the water supply interruption from overheating the water pump. The height of the bucket should be close to the generator (the height difference is less than 2m) or slightly higher. In case of water shortage, immediately turn off the power supply, add water again and check whether the water pump can work normally.

4、 Softened water should be used as water supply! In normal operation, the solenoid valve of water inlet for each pump operation will delay for 3 seconds, and the bypass pipe of the self-priming valve will flow back to the water tank. The blowdown pipe must be placed in the blowdown capacity. Pay attention to safety

and avoid personal injury during sewage discharge.

5、 At the end of each day's work, the rear blowdown valve must be opened to drain the water and dirt inside the steam generator.

6、 Dismantle the probe and electric heating pipe, regularly clean the scale on the heating pipe, probe and furnace bottom plate, and the cleaning time shall be reasonably adjusted according to the water quality of the user, ranging from 1-2 months to ensure the normal and stable operation of the machine.

7、 When maintenance or adjustment is needed, it is proper to ask professional maintenance personnel to operate.

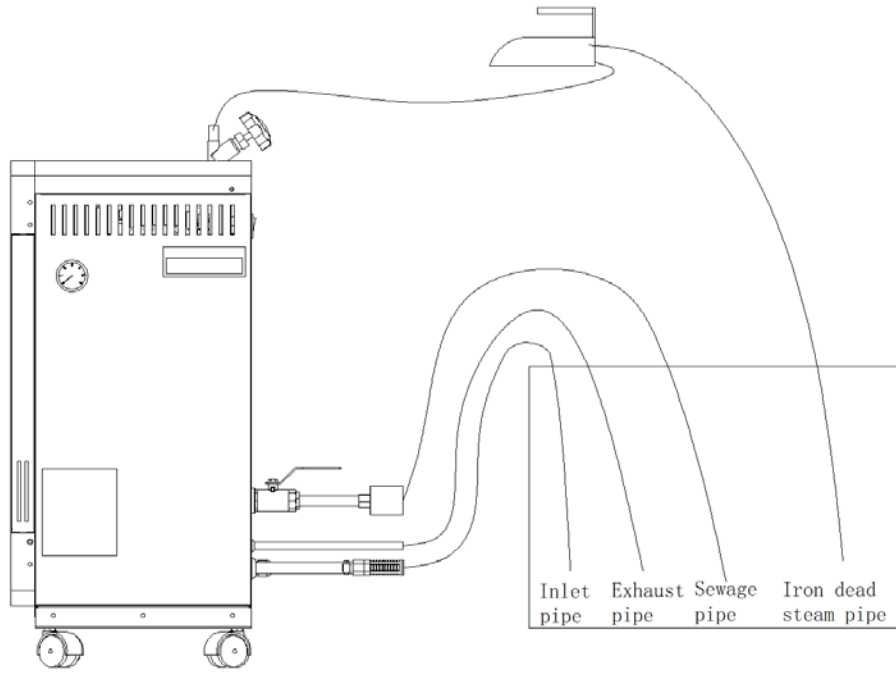
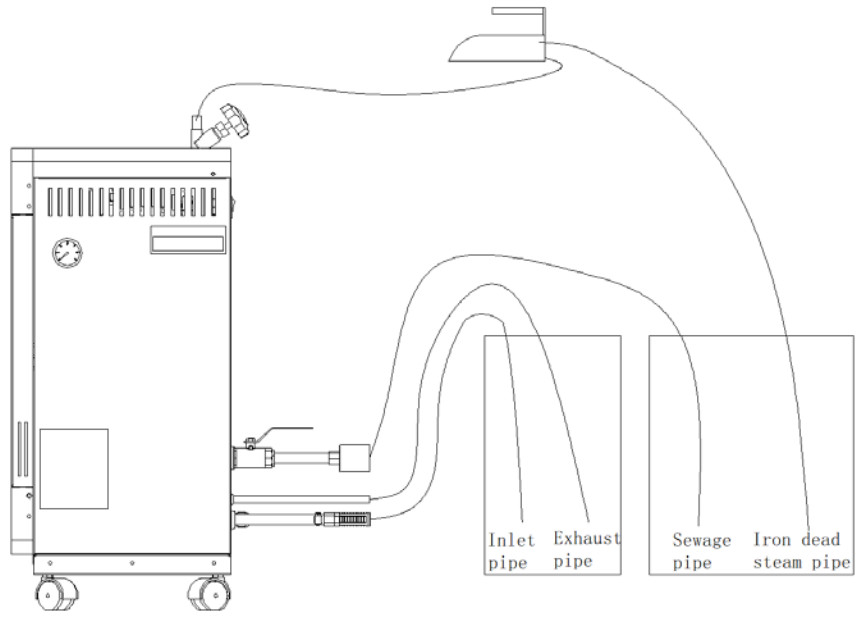
8、 Before the machine works, make sure that the water inlet pipe, the blowdown pipe and the vent pipe are placed in the water inlet bucket, and the blowdown pipe is placed in a separate water tank; when the boiler tank is filled with water, the water from the Yellow drain pipe is normal.

Note: iron exhaust cannot return to the water inlet bucket.

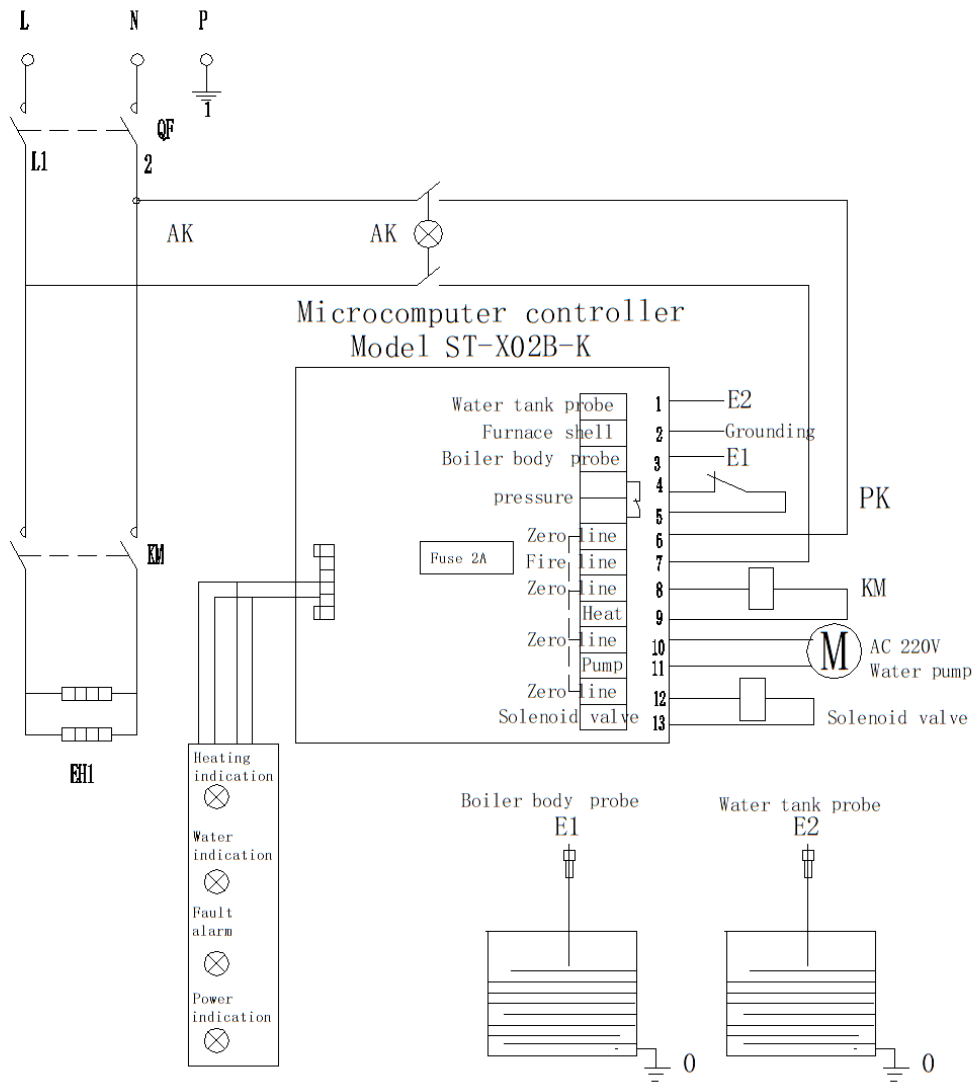
9、 The machine must be drained once after 4 hours.

10、 The water level probe shall be cleaned once a month.

11、 After work, turn off the power switch.



Electrical schematic diagram



Serial number	Code	Name	Model	Number	Remarks
1	KM	AC contactor	CJX2-2501 220V	1	
2	YK		ST-X02B-K	1	
3	AK	Rocker switch	KD211	1	220V
4	M	Water pump	ST-01B	1	AC220V
5	PK	Pressure controller	0.4Mpa	1	G1/8
6	EH	Electric heating tube	4Kw 220V	1	Ø90
7	E1	probe	M14*1.5	1	L=160
8	DV	Solenoid valve	YL-06 AC220V	1	Two digit three links

Common faults and troubleshooting

Fault phenomenon	Cause of failure	Elimination method
After power on Indicator light is not on	<ol style="list-style-type: none"> Poor contact of power supply Indicator light failure 	<ol style="list-style-type: none"> Reconnect and tighten replace
The water level has been reduced to the lowest level and the pump is still not working	<ol style="list-style-type: none"> Short circuit of water level probe (electrode rod) Poor wire contact Pump failure Controller bad 	<ol style="list-style-type: none"> Repair or replace Re loading Repair or replace accessories Replace the controller
The feed water pump is running, but the alarm occurs when the water cannot enter.	<ol style="list-style-type: none"> Water tank without water Blocked pipeline and connector Solenoid valve is not energized or blocked Air in water pump suction pipe 	<ol style="list-style-type: none"> Check water level of water tank Clean or replace Repair or replace Check pipes and joints
Keep adding water, the furnace tank is full of water	<ol style="list-style-type: none"> Water level probe (electrode rod) short circuit or too much scale 	<ol style="list-style-type: none"> Replace or clean
Pressure does not rise, heating light is on	<ol style="list-style-type: none"> The electric heating pipe is damaged. The contactor is damaged. 	<ol style="list-style-type: none"> Repair or replace Repair or replace
Pressure does not rise, heating lamp does not light up	<ol style="list-style-type: none"> Pressure controller failure Controller failure 	<ol style="list-style-type: none"> Repair or replace Repair or replace
Slow pressure rise	<ol style="list-style-type: none"> Excessive use Air leakage of pipeline steam trap Local damage or excessive scaling of electric heating pipe 	<ol style="list-style-type: none"> Reduce steam consumption Repair or replace Repair or replace
Safety valve continuously exhausts steam	<ol style="list-style-type: none"> Boiler working pressure too high Relief valve discharge pressure too low Other faults of safety valve 	<ol style="list-style-type: none"> Readjust the pressure controller Readjustment replace

The pressure rises rapidly after heating, and returns immediately after opening	The boiler body is full of water and the steam space is too small	Open the drain valve to drain water to the normal water level and restart
Abnormal indication of pressure gauge	1、 The needle is loose 2、 Other faults of pressure gauge	1、 Replace the new meter or repair it and verify it. 2、 Replace the new meter or repair it and verify it.
No sewage	Boiler bottom blocked	Clean up the sundries and scale in the boiler
Blowdown valve leaking, unable to close	1、 Foreign matters in the valve are stuck 2、 The disc seal is poor.	1、 Inspection and cleaning 2、 Check and replace
Electrical equipment continuously vibrates or vibrates, unstable operation	1、 The voltage is too low 2、 Poor contact of wires	1、 Adjust the voltage 2、 fastening
Fault alarm	Water shortage and over temperature in the furnace	1. Check the probe for a short circuit 2. Water quality problem