

DZS-0. 008-0. 4 ELECTRIC STEAM BOILER

INSTRUCTION MANUAL

Reading the manual carefully before operating

Shanghai Weishi Machinery Co., Ltd

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I. Functions:

DQL series electric steam boilers are mini boilers that can automatic and consistently generate saturation steam. They can provide the dry steam that is necessary for the steam irons and steam pressing machines of the garment industry as well as offering the steam source for hospitals, restaurants, and sauna industries.

II, Characteristics:

- 1. Compact structure, beautiful appearance, small volume, light weight, flexible in movement, and easy installation.
- 2. High degree of automation. They can automatic heat and provide steam.
- 3. Quick in pressure rising, the time needed for attaining a certain steam pressure from the cold status is less than 15 minutes.
- 4. Slight fluctuation of the steam pressure, the pressure drop is less than 0.05Mpa when the water being added into the boiler during the operation. Short time of water-adding, it takes the pump less than 12 seconds to add the water.
- 5. There is a steam/water separation clapboard in the water tank, which guarantees dry steam generation, and it can improve the pressing quality.
- 6. Imported electrothermal, electronic components and pump, special made one-way valve are adopted which guarantee a long-life operation.

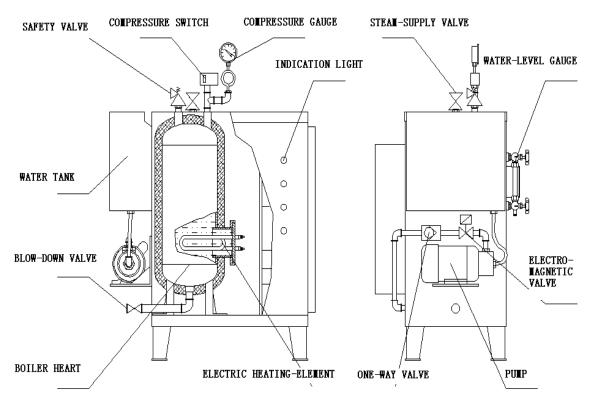
III 、Specifications:

Model No.	DQL-6	DQL-9	DQL-18	DQL-36	DQL-72
Steam generation:	8	12	23	50	96
kg/h					
Working pressure:	0.4	0.4	0.4	0.4	0.7
Mpa					
Water tank volume:	15	16	32	39	50
L					
Power: kw	6	9	18	18	72
	1P/220V				
Voltage:	or	3P/380V	3P/380V	3P/380V	3P/380V
	3P/380V				
Temperature rising:	25 minutes				
<					
Type of water	Auto	Auto	Auto	Auto	Auto
adding:					
Dimension: (cm)	56*64*88	56*64*92	60*80*110	65*82*138	82*55*138

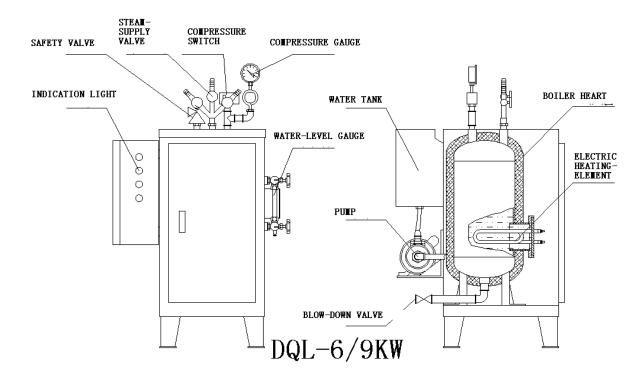
IV. Main structure and working principle:

DQL series electric steam boilers are composed by water tank, frame, pipe-line valves and gauges, electric control system. Electric steam boiler uses an auto control system to control the water adding volume, heating time and steam pressure. During the operation, the pump provides water to the boiler, water-level controlling board dominates the water

supplying volume of the pump, steam pressure is controlled and regulated by pressure controller. During the process of steam discharging, the water level descending corresponding in the boiler, when the water descends to a certain level, the pump will automatically supply water for the boiler.



DQL-18/36 KW



V. Installation

- 1. The boiler must be grounded in the flat and solid foundation, keep horizontal.
- 2. DQL-6 can be connected by 220V/1-phase or 380v/3-phase electricity. DQL-9, DQL-18 and DQL-36 use 380V/3-phase electricity. Customers must select the correct electricity in accordance with different models, and the boiler must be connected by a ground wire.
- 3. The ambient of the boiler shall have sufficient vacant space.
- 4. Customers shall install the water-inlet pipe with the water tank, blow-down pipe with blow-down valve.

VI. Operation

- 1. Procedure of starting:
- (1). Connect the water tank with the water, the floating ball device of the water tank will automatic control the water level. Attention, during the operation, please don't cut off the water supply.
- (2). Close the dirty discharging valve of the boiler. When the water is full, connect the power and turn on the power switch. The boiler water inlet lamp will turn on (Green lamp). The pump begins to supply water. The water level in the tank will descend quickly. If the water level doesn't descend, it means the pump doesn't supply water. You shall check the motor to see if it is running reverse and you shall see if there is air in the pump. The water

inlet lamp will turn off quickly, and the heating lamp will turn on (red lamp). The electric heating elements begin to heat, and you should close the steam supplying valve first. When the steam pressure in the boiler reaches to the rated working pressure, the heating lamp power off, and the heating elements stop heating. You can open the steam supplying valve to provide steam.

- 2. Method of steam output
- (1). Direct output. Connect the iron with the boiler through a hose and control the steam output by the steam supplying ball valve. Simultaneously when you open the steam valve, the steam pressure will go down quickly, it is a normal phenomenon. After a while, the steam pressure will go up. If the steam consumption of the iron exceeds the steam generated by the boiler, the steam pressure will decline.
 - (2). Using a special connector to control the steam output of the electric steam iron.
 - 3. Procedure of stopping the boiler
 - (1). Switch off the power
 - (2). Open the steam valve of the iron and boiler to exhaust the steam
- (3). When the pressure is less than 0.05Mpa, open the dirty discharging valve slowly to completely exhaust the water in the tank. Attention, when the machine is just stopped, don't exhaust the hot water in the tank immediately. Please exhaust some of the hot water, then add some cold water to reduce the temperature of the tank to exclude the possibility of damage of heating tubes. Because shrinkage of the air in boiler heart possibly makes the single-way valve open, water will go into boiler heart. Please keep the blow-down valve open to prevent the water from flowing into boil heart.
- 4. Never operate the boiler when there is no water in the tank. Check the water level frequently. The pressure of the outer water source shall not be too high, otherwise it will cause the overflow of the water from the water tank.
- 5. Customers shall choose the suitable steam boiler in accordance with their actual steam consumption. Otherwise, it may cause the wastage by using a big boiler while consuming little steam or providing deficient steam pressure by using a small boiler.
- 6. We suggest you that you had better use softened water or distilled water, or equip with a water softer in the inlet of the water tank to prolong the using life of the boiler.

VII、Maintenance

- 1. If the machine being stopped for over 10 hours, you shall completely exhaust the water remained in water tank by opening the dirty discharging valve. But when the pressure in the boiler is too high, please don't open the dirty discharging valve to avoid any danger.
 - 2. Please exhaust water from tank if keeping machine stop for long time.
 - 3. After being operated for three months, the heating element, water level detection rods

and the scale in the bottom of the boiler must be cleaned to guarantee the normal operation of the boiler. If there is much scale in the water level detection rods, you can use an abrasive cloth to remove the scale. Because the length of the three water detection rods is different, during the dismantling, pay attention to the wires connection. If the wires were connected wrongly, it will cause fault.

4. Clean the sieve mesh of the water inlet tube periodically.

VIII、Fault diagnosis

Phenomenon of fault	Possible reason(s)	Remedy	
When starting the machine,	1. The outer power hasn't	Check the outer power.	
the power lamp is not on and	been connected.	_	
the boiler doesn't work	2. The wire connecting the	Make sure that the plug or	
	plug is loose or the plug	wire is good.	
	can't function properly.		
	3. Fuse burn out	Chang the fuse.	
When starting the machine,	1. Bad contact of pump wire.	1. Check the wire of the	
the water adding lamp is on,	2. The pump malfunctions	pump	
but the pump doesn't work	3. Alternating current	2. Repair the pump	
	contactor (JZ1)	3. Check the alternating	
	malfunctions	current contactor (JZ1)	
When starting the machine,	1. Bad contact of level	1. Check the level controlling	
the water adding lamp is not	controlling panel	panel or the wire of level	
on and the pump doesn't	2. The water level detection	controlling panel	
work	rod is short circuit.	2. Check the insulator and	
		wire of the water level	
		detection rod.	
After starting the machine,	1. The level controlling panel	1. Check the wire of the level	
the pump is continuously	malfunctions detection rod and cl		
working, it can't be shifted to	2. Alternating current	rod.	
heating status	contactor doesn't work	2. Change the level	
	3. Pressure relay	controlling panel.	
	malfunctions	3. Check the pressure	
		controller.	
		4. Discharge the air in the	
		pump and re-start the	
		machine	
After being heated, the	1. Open the steam output	Check the pipe-line or	
pressure gauge shows no	valve and if there is steam	change pressure gauge, check	
pressure	being discharged out, it	water level controlling panel,	
	indicates that the pressure	heating tubes, pressure	
	gauge is damaged or the	controller and alternating	
	pipe of the pressure	current contactor (JZ).	
	gauge has been blocked		

	2. Open the steam output		
	valve and if there is no		
	steam being discharged		
	out, and if the heating		
	lamp is not on,		
Steam pressure can't reach to	The precision of the pressure		
the rated pressure.	controller declines or the		
	setting of pressure is	Change the pressure	
	incorrect	controller	
Steam pressure exceeds the	Pressure controller	Regulate the pressure	
rated pressure.	malfunctions or the setting of		
	pressure is incorrect		
The pipe-line leaks steam	The connections of the	Tightly connect the pipe-line	
	pipe-line have not been	or change the connectors.	
	tightly connected, or there are		
	cracks in the pipe-line		
	connectors		
The pump has abnormal	1. The paddle of the pump	Dismantle the pump and	
noise	has been damaged	check	
	2. The bearings of the motor		
	of the pump have been		
	worn-out or damaged		
There is steam leaking out	There is dirty in the	Exhaust the steam, and	
when the generator rises the	non-return valve or the	turn on the power switch to	
pressure.	non-return valve	supply the water, clean the	
	malfunctions.	sundries in the valve. If this	
		can't have any effect, the	
		one-way valve and seal ring	
		shall be changed.	

PACKING LIST

Item No.	Name of commodity	Quantity	
1	DQL series electric steam boiler	1 No.	
2	Operation manual	1 piece	
3	Certificate of quality	1 piece	
4			
5			

SPARE PARTS LIST

Item No.	Name of commodities	Quantity	
	DZS-0.008-0.4	1	

Inspector: Packer: Packing date:

CERTIFICATE OF QUALITY 质量证明

	Model N	No. <u>DZS</u> -	<u>0.008-0.4</u>		
	产品型	号			
	Name_				
	产品名	称			
	Serial N	lo			
	产品序	号			
This mach			fully inspec 金合格并准	eted and is all 予出售	owed to sell
Inspecto	or:	Dean:		Principa	l:
检验员:		乗检科负责	\:	厂长: _	
	Date:	Year	Month	Day	
	检验日期:	年	月	日	