

75L Retort Autoclave Machine

Operation Instruction

Before using, please read this manual carefully to know the correct installation and use of it, and make full use of its superior performance.

Thank you for cooperation!

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I: Company Profile

Our company, WINSTON RESOURCES is a high-tech private enterprise that is concerned with technical research and development, engineering design, equipment manufacture and installation. And the reference to the design concept of green, environmental protection and energy saving, we had taken the lead in becoming a high-quality supplier of food, beverage, biological, chemical, pharmaceutical equipment and new energy, optical fibre communication equipment.

Our company congregates lots of domestic professional talents who are good at machinery, engineering, technology, automatic control field. And we continuously improve our core competitiveness through independent research and development technology innovation.

Our company has always been pursuing the values of creating value for customers, creating benefits for the company, creating business for employees, making contributions to society. And adhering to the spirit of putting people first, studying from customers, striving for the survival by high-quality of service, promoting the development of science and technology innovation. Our company has gained the favour and recognition of many well-known Chinese enterprises and recognition by professional design and manufacturing experience, the leading sense of innovation, the business philosophy of good faith, excellent technical team and perfect after-sales service.

As a high-quality supplier of food, beverage, biological, chemical, pharmaceutical equipment and new energy, optical fibre communication equipment, our company will be committed to offering the most suitable equipment of your requirement to you, with our advanced technology and experience

II: Application

This product is widely used in food processing plants, large hotels, restaurants, hotels, guesthouses, restaurants, industrial and mining enterprises, government agencies, colleges and universities canteens. It can cook meat products, soy products, egg products, and other food semi-finished products. At the same time, it also can cook confectionery, cakes, drinks, fruit juices, jams, candied fruits, dairy products and cans, etc. As melting, disinfection, heating, blanching, Cooking, preparation, cooking and concentration purposes. With good appearance, reasonable design, compact structure, easy installation, simple operation, flexible use, safe and reliable, easy maintenance and so on, deeply loved and favored by customers is a good equipment for food processing to improve quality, shorten time and improve working conditions. The majority of users agree that this product can improve product quality, shorten the working hours, improve the working conditions of good food equipment.

III: Equipement Data

1、 Specification and inspection data for manufacture of 75L Autoclave:

Electric heating: 3KW;

2. Design parameter:

Working pressure: $\leq 0.23\text{MPa}$, Working Temperature: $\leq 130^{\circ}\text{C}$;

3、 Total Power & Voltage: 3.5KW/220V/60HZ/8.8A

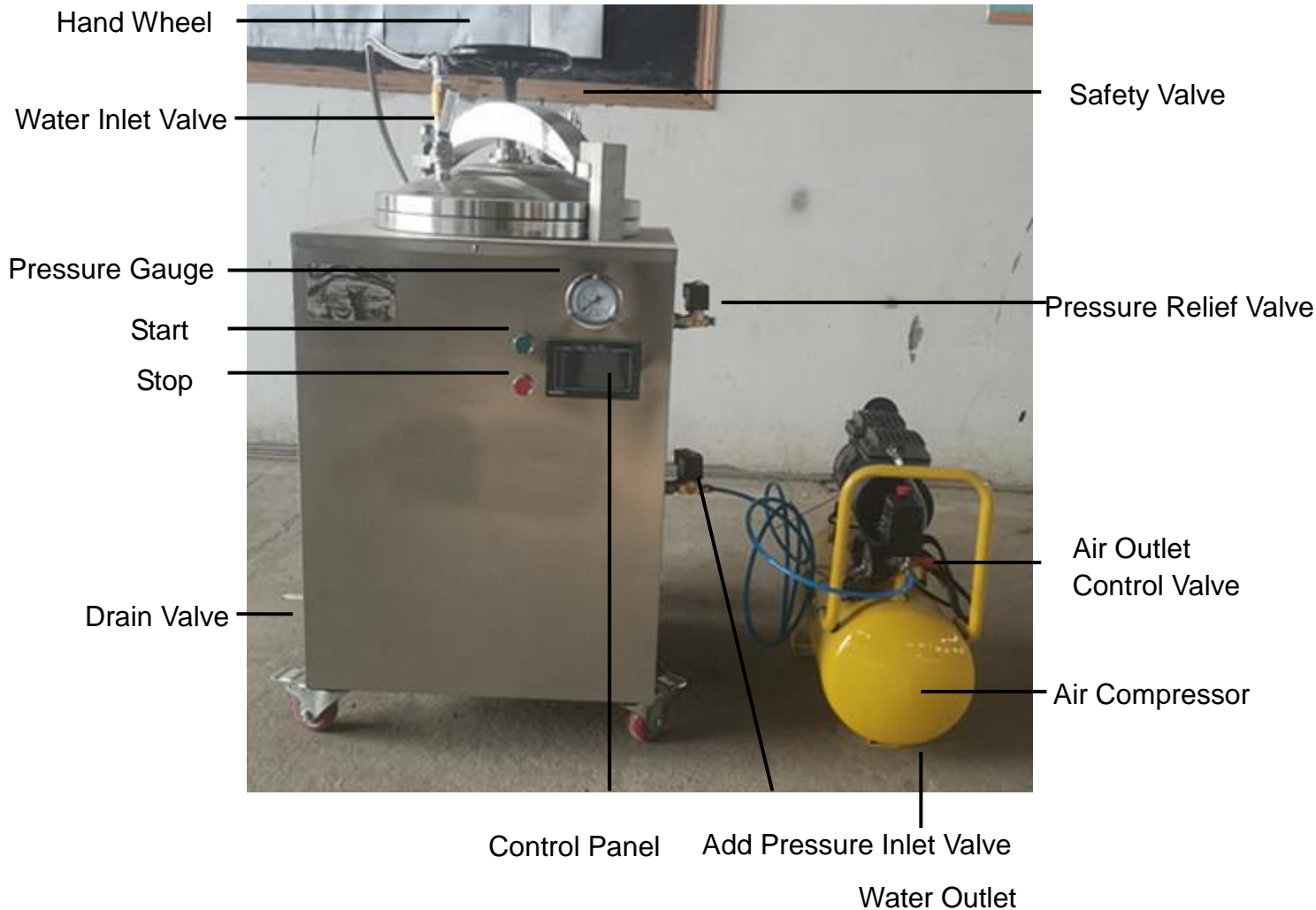
IV: Parameters

1、 The technical parameter of this model

Name	75L Autoclave
Model	W-650-75D
Effective dimension(mm)	Ø400x600
Volume (L)	75
Material name	Water, food
Material properties	Normal
Corrosion allowance	0
Weld joint coefficient (vertical / horizontal)	0.85/0.85
Baskets size (mm)	Ø370×130,4pcs
Heating power	3KW
Water pump power	500W
Voltage	220V/60HZ
Total weight (kg)	About150
Overall dimension(LxWxH)mm	550x550x1100

V: Installation, operation instructions and precautions

5.1 Front View



Note:1. All the air in the tank(Air Compressor) should be discharged every 3-7 days, open the plug of water outlet of the air compressor to discharge all the water in the tank, and then put the plug back for use.

2. Autoclave Drain valve : only open at the complete end of each shift.

5.2 Left Back View:



Connecting Pipe
 (water pump to water inlet valve)

Water Inlet
 (water pump)

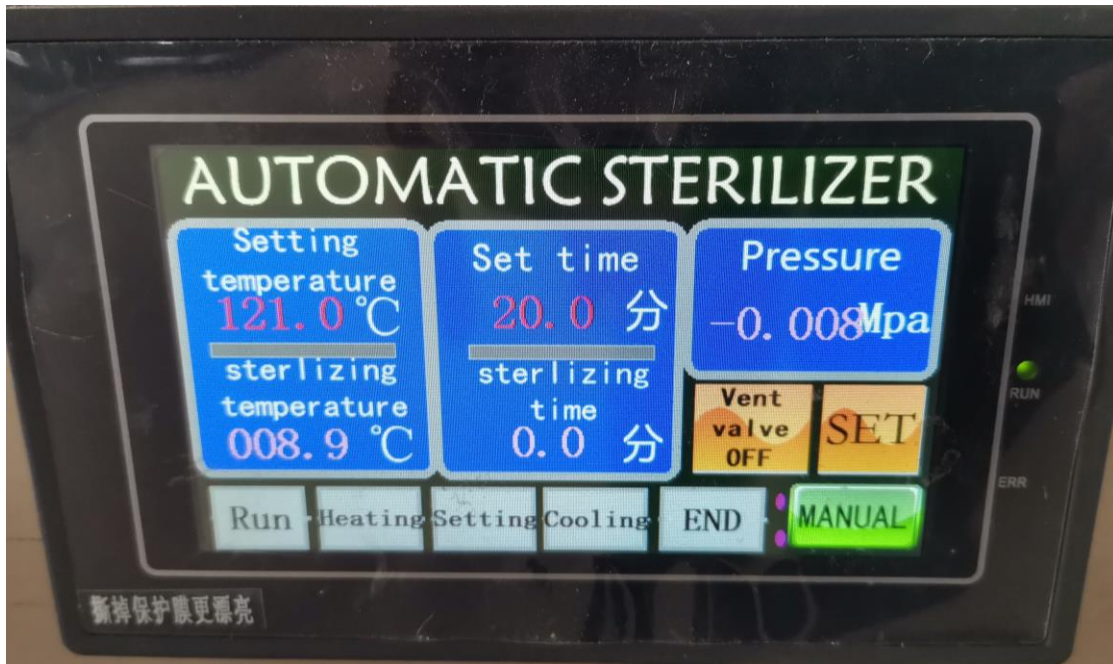
Main Switch
 Press up to open
 Press down to close

Power Wire
 2 fire wires/1 ground wire



- 1: Install according to the picture. The outlet pipe of air compressor is connected with the add pressure(air) inlet valve of the autoclave, and the **air outlet control valve of the air compressor must be opened.**
- 2: Water inlet of water pump can be connected to water tank as an external water supply, the volume of the tank is not less than **2 times volume of the autoclave.** When using the equipment, we must ensure that the water level of the water tank is enough to avoid equipment failure caused by water shortage.
- 3: There will be **high temperature steam discharge** at the outlet of pressure relief valve, and users should pay attention to **high temperature scald**;
- 4: The power supply voltage is 220V, and it is recommended to equip the earth leakage circuit breaker (220V-63A), and connect the ground wire to the equipment before use;

5.3: Control Panel View:



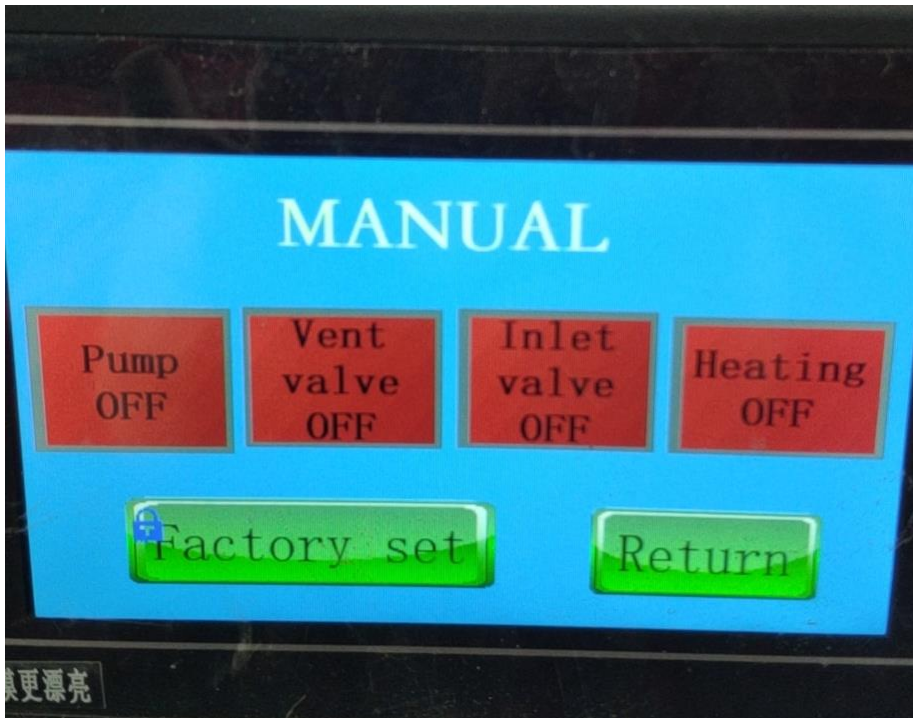
- 1: **Setting Temperature:** Set the temperature to be sterilized;
- 2: **Sterilizing Temperature:** Display the current temperature in the autoclave;
- 3: **Set Time:** Sterilizing time, when the **Setting Temperature** is reached, the timing begins;
- 4: **Sterilizing Time:** Display the current sterilizing time;
- 5: **Pressure:** Display the current pressure in the Autoclave;
- 6: **Vent Valve:** Press to open vent valve, and press it again to close;
- 7: **Set:** Press the button and the next interface will be displayed.
- 8: **Manual:** Press the button and the next interface will be displayed.
- 9: **Run、Heating、Setting(Sterilizing)、Cooling、End:** they are not buttons. In the sterilization process, if the autoclave is heating, then "heating" word will be changed to red, so that users can directly see the running state of the equipment.

5.4: “Set” Interface:



- 1: **High Temperature Difference:** in the process of sterilization, when the actual internal temperature reaches the (**setting temperature**+ this deviation value), it will stop the heating function (recommended 0.2 °C);
- 2: **Low Temperature Difference:** in the process of sterilization, when the actual internal temperature reaches (**setting temperature**- this deviation value), the heating function will start again (recommended 0.2-0.5 °C);
- 3: **MAX Pressure:** in the process of sterilizing and cooling, the maximum pressure can be reached during adding pressure;
- 4: **LOW Pressure:** in the process of sterilizing and cooling, if the internal pressure is lower than this pressure value, it will automatically run “add pressure” (it is recommended that the pressure is lower than the maximum pressure of 0.01MPa);
- 5: **Cooling Temperature:** in the cooling process, if the temperature is lower than the set value (the set value is recommended to be no less than 50 degrees), the equipment will stop cooling, and there will be a buzzing alarm;
- 6: **Vent Pressure:** in the sterilizing process, If the internal pressure exceeds this set value, then the machine will automatically open the pressure relief valve to exhaust;

5.5: “Manual” Interface:



Note: The manual function is mainly to check whether the operation status of each part is correct, it is not used in general work;

- 1: **Pump OFF:** press the button to open, and then press it again to close;
- 2: **Vent Valve OFF:** press to open, then press it again to close;
- 3: **Inlet Valve OFF:** press to open, press it again to close;
- 4: **Heating OFF:** Press to start heating, press it again to close;

VI. Preparation Before Use

- 6.1 When the equipment comes to your company's installation site, you should pay attention to protect the external surface of the equipment, preventing adverse effects after the collision.
- 6.2 Find a good horizontal position, put the equipment well, and perpendicular to the ground, install stably without swinging.
- 6.3 Connect the power wire and ground wire.
- 6.4 Install various fittings interface according to the manual.
- 6.5 Check whether the power terminal of each device is loose, whether the valves & screws of electric rods are loose, If loose, please use a wrench to tighten.
- 6.6 Reset all the switches before the control box is connected to the power supply.
- 6.7 The welding should use stainless steel welding rods 102, 107, 132, 137, other models should not be used.



1: In the process of production, it is strictly prohibited to exceed the design pressure range. The wrong operation may cause personal safety injury.

VII. Operation Flow

1) : Connect the power, check the power supply, turn on the Main Power Switch, and the touch screen will display;

2) : The user sets the sterilization temperature, time and pressure according to the products. The parameter of **121 °C** corresponding to **0.15MPa** is provided here for the user's reference. The sterilization time is set by the user freely.

3) : In the “**Set**” interface, set the parameters of **MAX pressure** and **LOW pressure** according to the set pressure, and the **MAX pressure** corresponds to the **Setting temperature** (sterilizing temperature);

4) : Set the “**set time**”(total sterilizing time) according to the requirements. Please return the touch screen to the initial standby interface state;

1. Time and temperature setting, preparation;

In the standby interface: click "**Setting temperature**" and "**Set time**", you can set it freely.

According to the needs of different sterilization products can be set freely.

Open the manual valve on the lid to 1/3 position.

Determine that the water supply in water tank is sufficient;

2. Open the lid: when opening, turn the hand wheel counterclockwise to make the lid rise more than 2cm, and close the drain valve.

3. Start (green button) : the equipment will start to automatically add water;

4: The equipment will automatically heat up after adding water, worker need to observe whether there is water, and observe if the water level flooded electric heating rods, reach the position of the three support frames, and turn the hand wheel clockwise, but do not completely close so that the air can leak out.

When the display of "**sterilizing temperature**" reaches about 85 degrees, push the lid away, put the product in the sterilization baskets, and then put the baskets into the Autoclave.

5: Clockwise tighten the lid: Don't use too much force, and the sealing ring should not leak.

6: After closing the lid, the autoclave will continue to heat up, and the pressure in the autoclave will start to rise. When the temperature is raised to the "**Setting temperature**", it will automatically sterilize, exhaust and add pressure. And record the sterilization time "**Set Time**", when the sterilization time is reached, the buzzer means the end of sterilization.

7: Automatic cooling after sterilization: cooling process, automatic add water, automatic add pressure. When it drops to the set temperature of 50 °C .

The buzzer alarms. There is no need to do anything.

Then determine the autoclave is at the end of the work, it doesn't add water and other work, wait 10-20 minutes, open the drain valve, the water and air in the autoclave are discharged.

8: Take the baskets out

Before taking the baskets out, click the "**vent valve**" button on the touch screen until the pressure in the autoclave shows 0 MPa and the pressure gauge shows the position of 0 before opening the lid.

9. If the equipment is not used in the way specified by the company, the protection provided by the equipment may be damaged.

10: After use, press the stop button to reset all work.