# **DW-B100L**

# **User Manual**



Please read operating manual before installation and operation.

# **Drawell International Technology Limited**

# Chongqing Drawell Instrument CO,.Ltd

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The factory is an enterprise mainly engaged in the manufacture of medical equipment. The vertical steam sterilizer is new product it designed on the basis of improving the same kind of product both at home and abroad.

#### **Technical data**

1. Valid volume:	100 L ( $\Phi$ 360 $ imes$ 622mm );
2. Working pressure:	0.165MPa ;
3. Working temperature:	129°C;

4. Heat average:

≤±1℃;

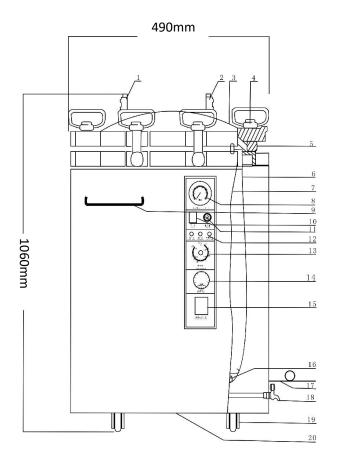
5. Timer: 1 – 80 min;

6. Pressure-temperature controller:  $115 - 129^{\circ}$ C, 0.145 - 0.165MPa;

7. Power: 4KW/ AC220V, 50Hz;

#### Sketch diagram

- 1. Safety valve
- 2. Put vapor valve
- 3. Lid of container
- 4. Tightening bolt
- 5. Sealing washer
- 6. Container
- 7. Sterilization pail
- 8. Pressure gauge
- 9. Hold hands
- 10. Power switch
- 11. Buzzer
- 12.Indicator
- 13. Drain cock
- 14.Timer
- 15. Overload earth leakage protection
- 16. The liquid machine
- 17.discharge valve
- 17. Drain cock
- 18. Universal wheel
- 19. Housing



### Uses

The sterilizer is a piece of equipment that quick and reliable sterilization with saturated steam. It is used in medical, sanitary, scientific research, agricultural units, etc. to sterilize medical equipment, dressing, glass utensils, solution culture medium, etc. It can also be used as meal steaming equipment in highland and to make quality drinking water in enterprises and institutions. It can be used as a high-temperature steam source maker as well.

### **Structure characteristics**

- The sterilizer features novel shape, small size, large sterilization volume and quick temperature rise and saves electricity by more than 25% compared with the other products of the same kind.
- The main body is made of good quality stainless steel, which features acid, alkali and corrosion resistance, strong mechanical performance, easy maintenance, etc.
- Two safety valves are fitted on the sterilizer, When the pressure of the steam reaches 0.16-0.165MPa, they can automatically release extra high pressure, The sterilizer has double safety function and so it has more reliable safety.
- The sterilizer is equipment with a sterilization timer, When the time length of sterilization reaches the preset value, the timer will automatically turn off the heating power . Buzz will be given and the indicator will light up to tell you that the sterilization is finished.
- The sterilizer is equipment with an overload earth leakage protection, Which will automatically cut off the power for safety when leakage or super high voltage occurs on the line.
- The bottom is the sterilizer is equipped with four universal wheel, help you to move to other places.

## Usage

#### • Adding water

take out of the chamber, fill water into the container, when the water level is more than water level regulator 2mm-3mm, then it can be used. If the water exceed the exhausting steam hole, the water will be exhausted from the bottom hole. If the water level less than the water regulator, the controller refuse to work, and alarm of lack of water.

#### • Piling

Put the sterilization pail into the container and then put the classified and bound objects to be sterilized into the sterilization pail, Space should be left between the packs for steam to go through to guarantee the quality of sterilization.

#### • Sealing of the sterilizer

Gently close the container, make the six tightening bolts perpendicular and gently tighten them one by one. Then tighten them with a spanner pair by pair (two corresponding bolts being a pair) to make the container and its cover fit closely so that there will be no steam leakage.

#### • Heating

Plug in the power, switch the two safety valve levers to the steam let – out position and then turn on the overload earth leakage protection or open the discharge valve.

- turn on the power switch and the power indicator will light up. When relatively violent steam blows out of the safety valves. Close the Steam-release valve and discharge valve.. While the heating goes on, the hand of the pressure gauge will show the pressure of the steam in the container. When the pressure of the steam reaches the rated working pressure, the safety valves will automatically release super pressure steam so as to maintain pressure.
- when steam pressure grow up to the rated working pressure, switch on the safety valve will release exceed steam automatically, switch on the second valve or discharge valve when sterilized process finished.

#### • Cooling

When finishing sterilizing, turn off power first, and then open the vapor valve and the lid when the reading of pressure gauge turns back to zero after cooling. Be cautious to not open valve to venting or open the lid as soon as finishing satirizing, to avoid seething lotion overflowing which may cause accident.

### Points for attention in use and maintenance

- Use of the sterilizer must operate according to the contents of this operating instruction manual to avoid accidents.
- Make sure that there is enough water in the container. If the water level is too high .the dressing will be too wet and electric power will the be wasted. If the water level is too low, the electric-heated coil will be damaged. So if sterilization needs to continue, enough water must added.
- When the sterilizer begins beating, the two safety valve levers must be at the

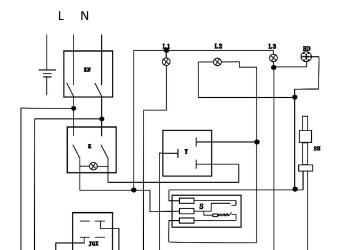
steam let – out position so as to let the cold air in the container escape, otherwise no good sterilization effect will be achieved.

- After each time of sterilization is finished, the timing switch must be turned off.
- ♦ For solution sterilization, the solution should be put in high temperature resistant glass bottles to 3/4 of their volume .Plug the bottle with gauze. Never use any hermetic bottle stopper. Place the solution bottle in a vessel that can hold the amount of solution to avoid damage to other articles to other articles in case the solution bottle cracks during the sterilization process.
- ♦ After sterilization is finished: If the sterilized object is a solid article, the two safety value levels can be switched to steam let-out position and when of the pressure gauge return to "0" position, the cover of the container can be opened ,If the sterilized object is a solution or culture medium, never let out steam immediately. You should first turn off the power and wait till the hand of the pressure gauge return to "0" before opening the cover of the container.
- ♦ After sterilization every day, drain the water from the sterilizer while it is hot and clean the water stain in the container to improve the quality of sterilization, save energy and prolong the service life. If there is much water stain that cannot be cleaned, the solution made up of 10Kg of water. 1kg of caustic soda and 0.25kg of kerosene can be used. Put the solution into the container and let it soak for about 10 hours. Then clean the water and finally rinse with clean water.

Replace the sealing washer in time as it will age after a long time of use and affect the sealing effect.

The pressure gauge should be tested at least once a year. If the hand of the gauge cannot return to "0" position, it should be professionally repaired or replaced, otherwise the sterilization effect and safety will be affected.

### Model DW-B100L Sterilizer's circuit diagram



#### **Electrical Diagram**

Number	Code name	Name	Amount	Model / Standard
1	J	Relay	1	JQX-2C AC220V, 20A
2	SH	Low level	1	
3	к	Timer-switch	1	
4	F	Buzzer	1	AC220V
5	L1~L3	Pilot	3	
6	KN	Circuit breaker	1	20A/AC220V
7	S	Timer	1	DS80/2.5A Normal open
8	Y	Pressure controller	1	AC220V,5A
9	R	Heating element	1	AC220V/ 4.0KW

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