



## LABORATORY VERTICAL AUTOCLAVE BDN-113

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## VERTICAL AUTOCLAVE

We have always prioritized safety since its establishment, adhering to the highest industry standards and providing multiple safety guarantees from design, manufacturing, use, application to service.



### Safety:

#### 1. Triple protection for lack of water

The bottom of the sterilization chamber is equipped with three different dry burning protection devices: liquid expansion type, copper temperature sensing type, and electric ion type (water level sensor), to avoid misjudgment caused by a single method.

#### 2. Saturated steam monitoring

The system automatically monitors the purge out of cold air to ensure the pure steam environment

#### 3. Humanized design

The lid and bench corners are covered with insulation to avoid getting scald

#### 4. Auto troubleshooting

## SPECIFICATIONS

| Model                           | BDN-113                                                                                                                                                                                     |
|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Capacity (L)                    | 150                                                                                                                                                                                         |
| Outer dimension (Dia*H)(mm)     | 665x940x1140                                                                                                                                                                                |
| Chamber dimension (Dia*H)(mm) Φ | Φ500x808                                                                                                                                                                                    |
| Rated power (W)                 | 6000                                                                                                                                                                                        |
| Sus304 basket size(pes)         | (Φ480x205)x3                                                                                                                                                                                |
| Working environment             | 3P 380V 10A                                                                                                                                                                                 |
| Temperature display accuracy    | 0.1°C                                                                                                                                                                                       |
| Environment                     | 5°C~40°C, RH < 85%                                                                                                                                                                          |
| Chamber material                | SUS304 (opt. SUS316L)                                                                                                                                                                       |
| Sterilization temp. range       | 105°C~138°C                                                                                                                                                                                 |
| Lid open way                    | One button open / Interlock sensor                                                                                                                                                          |
| Sterilization time              | 1-6000 min                                                                                                                                                                                  |
| Melting temp.                   | 60°C-115°C                                                                                                                                                                                  |
| Melting time                    | 1-6000 min                                                                                                                                                                                  |
| Warming temp.                   | 45°C-79°C                                                                                                                                                                                   |
| Warming time                    | 1-9999 min                                                                                                                                                                                  |
| Exhaust speed control           | Automatic 6-level discharge                                                                                                                                                                 |
| Memory function                 | 60 programs, 999 cycles by USB                                                                                                                                                              |
| Appointment timer range         | 0-15 days                                                                                                                                                                                   |
| Pressure gauge                  | -0.1-0.5 MPa                                                                                                                                                                                |
| Pressure valve set pressure     | 0.29 MPa                                                                                                                                                                                    |
| Cooling lock OPEN temp. range   | 40°C-99°C (solid) / 40°C-80°C (liquid)                                                                                                                                                      |
| Sterilization mode              | Liquid, solid, wrapped instrument, fabric, waste, agar, self-defined                                                                                                                        |
| Controller                      | Inspiration II Smart Controller                                                                                                                                                             |
| Cooling way                     | Fast cooling fan                                                                                                                                                                            |
| Safety device                   | Interlock, double interlock, lid check, dry scorch protection, safety valve, water sensor, over-temp/pressure protection, electrical safety, cooling lock, anti-scald, auto troubleshooting |
| Biosafety function              | Optional 0.2 μm biosafety filter (S models)                                                                                                                                                 |

|                                               |                |
|-----------------------------------------------|----------------|
| 6 level exhaust speed control                 | -              |
| Auto water fill                               | -              |
| Drying                                        | -              |
| Deodorization                                 | Standard       |
| Access permission                             | 5 level        |
| S Biosafety function                          | -              |
| Exhaust air monitor                           | -              |
| Fast cooling fan                              | Standard 2 pcs |
| Sterilization record                          | Standard       |
| USB port                                      | Standard       |
| Micro-printer                                 | Option         |
| Condenser                                     | Standard       |
| SUS316L steel                                 | Option         |
| Pharma package testing program                | Option         |
| Air inlet filter                              | Standard       |
| Display system                                | LCD            |
| Load thermometer(Floating PT100 sensor)       | Option         |
| Printing set(printer+digital pressure sensor) | Option         |
| Auto drainage                                 | Option         |
| APP control/Remote control                    | Option         |
| Steam collecting way                          | Internal       |
| Auto cleaning                                 | -              |
| Packing Dimension                             | -              |
| CBM                                           | -              |
| Net Weight                                    | -              |
| Gross weight                                  | -              |
| Alt Name                                      | DedORIZATION   |

## ACCESSORIES FOR PURCHASE

| No | Name                       | Description                                                                                                                                |
|----|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| 1  | Micro printer              | To print temp. time and FO value<br><br>Printing set:printer+digital pressure sensor:can print temp.and pressure in data and flowchart way |
| 2  | Digital pressure sensor    | Printing set:printer+digital pressure sensor:can print temp.and pressure in data and flowchart way                                         |
| 3  | Load thermometer           | Floating PT100 sensor                                                                                                                      |
| 4  | Tray                       |                                                                                                                                            |
| 5  | Stainless steel bucket     |                                                                                                                                            |
| 6  | IQ/OQ/PQ (3Q)adapter joint |                                                                                                                                            |
| 7  | Adjust foot                |                                                                                                                                            |



1



2



3



4



5



6



7

## FEATURES

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#### 2. Saturated steam monitoring

The system automatically monitors the purge out of cold air to ensure the pure steam environment

#### 3. Humanized design

The lid and bench corners are covered with insulation to avoid getting scald

#### 4. Auto troubleshooting

System will monitor the working status, and will cut the power, send out alarm, and report the error information once any abnormal situation detected

#### 5. Electrical protection

Prevention for overcurrent, short circuit and electricity leakage

#### 6. Cooling LOCK open temperature

Each program can set different lid OPEN temperatures, especially for liquid programs, so as to prevent users from opening the lid and causing burns when the articles are still in a high temperature state.

#### 7. Evenly distributed interlock

Evenly distributed interlock device is safer and more reliable than ordinary interlocking devices

#### 8. Real time monitor

System will monitor the lid locking, pressure and temperature status on a real time basis to guarantee the safe and successful work of the autoclave

#### 9. Double protection for over pressure

Mechanical pressure gauge and electric sensing system, once pressure is abnormal, system will cut power, release the pressure and send out an alarm

#### 10. Safety test function

Regular testing of system security and safety protection measures is possible

#### 11. Temperature monitor

Power cut and alarming sent, if there is temperature is too high or temperature rising is abnormal

#### 12. One button to open

Press slightly to close, one button to open (if not safe inside, can not open)

Note: Requirements for sterilization water: distilled water (conductivity not less than 3 p S/em)

When configured as an S biosafety type, a condenser is standard Spare parts

Note: Baskets can also be customized, as well as melting and warming temperature range

### Intelligent:

#### 1. App control (Option)

Download the APP software on your mobile phone, which can monitor the sterilization process in real-time, Query historical data, alarm information, etc.

#### 2. Program memory storage system

Users can set their own program, and save it in the system.

#### 3. Saturated steam monitoring

The system automatically monitors the purge out of cold air to ensure the pure steam environment

#### 4. Calibration port

Offer temperature and pressure interface, together with the 3Q adapter joints, can insert max 15 sensors one time to do the calibration work.

#### 5. Special software for drug packaging materials (option)

The product meets the 2020 Chinese Pharmacopoeia or EP10.2 standards.

Humanization:

1. Just right depth

Conforming to ergonomics, the chamber depths of 29/54/88/120/150L Chamber are 394/726/733/658/819(mm) making it easy to take and place samples and maintain the instrument

2. Front water tank

Front water tank, easy to plug in and out

Advanced:



Colorful LCD screen

LCD screen with English and Chinese choice, using text, data, and graphical methods to dynamically display various statuses, the sterilization process is clear at a glance.



Data reading and curve conversion

Provide USB interface for easy reading or storage of sterilization data. The sterilization data is converted into curves for case data analysis.



6 level of exhaust speed control

After sterilization, you can choose different exhaust speed, and you can adjust it freely at any time of exhausting



Auto drainage/Auto cleaning (option)

Added with a water pump, press the drainage button

to start drainage, or set it to timed automatic drainage. Automatic cleaning can be set to regular cleaning or cleaning after each sterilization cycle.



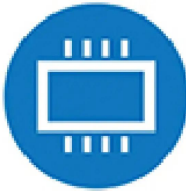
#### 5 level access permission

The operation permissions for instruments are divided into five levels, with each level of user having an independent password and multiple IDs that can be assigned. Each level of user has limited access to certain usage permissions



#### Sterilization record storage

Built in large capacity memory, can store 999 sterilization cycles and can be queried, printed or exported for easy traceability management



#### FO value calculation

FO value is automatic calculated, can print out by micro-printer



#### Condenser(Optional)

Equipped with a professional condenser, the steam generated during the sterilization process is converted into water through the condenser, achieving zero discharge of water vapor/mist.



Slightly press the lid



Interlock sensor



One button to open



Slightly lift up

## MORE INFO

### Air inlet filter

Filtration is higher than 99.99% in particles with a diameter of 0.2  $\mu\text{m}$ .

### Dedorization

A unique odor treatment system that can absorb odors and remove smell generated during the sterilization process, ensuring fresh laboratory air.



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