



## LABORATORY VERTICAL AUTOCLAVE BFH1E4

# LABORATORY VERTICAL AUTOCLAVE BFH1E4

## HIGH-PRESSURE STEAM AUTOCLAVE



### Safety interlocking devices:

The 'Eight-Column Equal Distribution' safety interlocking device complies with the Pressure Vessel Safety Technical Supervision Regulations, ensuring safe operation.

### Chamber lid inspection system:

The system automatically checks the locking status of the chamber lid. If the lid is not properly locked, the sterilizer cannot start operating.

### Over-pressure relief and alarm function:

When the pressure exceeds 0.3 MPa, the safety valve automatically releases steam to protect the equipment. The drainage valve allows the discharge of condensate from the chamber, preventing scale buildup.

### Low water level alarm:

## SPECIFICATIONS

Model	BFH1E4
Capacity (L)	90
Dimensions (Lx WxH)mm	664x660x994.5
Sterilization Chamber Dimensions(Diameter x Height)mm	Φ400x730
Rated Power (W)	3400
Stainless Steel Baskets	Φ370x200&Φ370x400
Working Voltage	AC 220±10% 50Hz
Temperature Display Accuracy	0.1℃
Operating Environment	5℃-40℃, relative humidity10%~85%
Sterilization Chamber Material	stainless steel
Sterilization Working Temperature	105℃~143℃
Sterilization Time Pre-set Range	1Min~9999mins
Melting Temperature Pre-set Range	60℃~100℃
Melting Time Pre-set Range	1Min~9999mins
Insulation Temperature Pre-set Range	45℃~60℃
Insulation Time Pre-set Range	1Min~9999mins
Door Opening Temperature Pre-set Range	The solid, agar, and waste modes are from 40℃ to 99℃, while the liquid mode is from 40℃ to 80℃
Clock Function Timer Pre-set Range	The operating time can be set (year, month, day, hour, minute), and it allows querying of the current time, total sterilization cycles, as well as fault occurrence times and error codes.
Pressure Gauge Display Range	0~0.6Mpa
Pressure	The chamber design pressure is 0.35 MPa. Each unit comes with a corresponding product quality certificate and an original certificate issued by the special equipment manufacturing supervision and inspection department.
Pressure Safety Protection	Two independent pipelines for measurement and control, with dual mechanical and electronic pressure protection.
Exhaust Control and Water Tank	Fully automatic internal exhaust (exhaust temperature settings are detailed in the manual), with a built-in large-capacity steam condensate collection bottle and water tank.
Cover Opening Method and Interlocking Device	Unique eight-column interlocking device, flip-style switch cover, touch-type handle.

Controller and MemoryStorage Function	Uses a microcomputer intelligent control system. It has 6 default operating modes, 82 customizable modes, and 88 memory storage programs.
Safety Devices	Door lock interlock device; cover closure check; dry burn protection; water level sensor monitoring; electronicoverpressure protection; mechanical safety valve; overtemperature and heating protection; overcurrent, short circuit protection; leakage protection; cooling lock; burn injury safety protection; automatic fault detection system.
Accessories	Condensate collection bottle, water separation plate, drainage hose, stainless steel basket.
Optional Accessories	Printer, cooling fan, item temperature sensor, USB output.
Alt Name	Standard Type



## ACCESSORIES FOR PURCHASE

No	Name	Description
1	Needle Printer	Capable of printing temperature, time, FO value, and other data.
2	Sample Temperature Probe	Mobile temperature probe to detect temperatures at different parts of the cavity.
3	3Q Validation Adapter	Provides temperature and pressure testing interfaces for easy verification.



1



2



3

## FEATURES

**Safety interlocking devices:**

The 'Eight-Column Equal Distribution' safety interlocking device complies with the Pressure Vessel Safety Technical Supervision Regulations, ensuring safe operation.

**Chamber lid inspection system:**

The system automatically checks the locking status of the chamber lid. If the lid is not properly locked, the sterilizer cannot start operating.

**Over-pressure relief and alarm function:**

When the pressure exceeds 0.3 MPa, the safety valve automatically releases steam to protect the equipment. The drainage valve allows the discharge of condensate from the chamber, preventing scale buildup.

**Low water level alarm:**

Automatic water cutoff to prevent dry burning, ensuring safe operation of the equipment.

#### Safe operation:

Equipped with a door safety system (cooling lock) and chamber pressure monitoring system, ensuring that the chamber pressure and temperature are at safe levels before opening the door.

#### Automatic fault direct system:

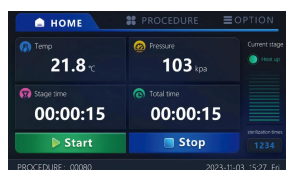
When a fault occurs, an alarm box pops up on the screen, accompanied by a buzzer alert.

#### Over-temperature and heating protection:

With PID control function, the system automatically adjusts heating parameters to prevent temperature surges. If the temperature exceeds the set value by 3°C heating will automatically stop, and a buzzer alarm will be triggered.

#### Electrical protection:

Equipped with a high-sensitivity electrical protection system, effectively providing protection against electric alarm leakage, overcurrent, and short circuits.



#### Easy operation:

One-touch operation simplifies the process, reducing complexity and enhancing user convenience.

#### Intelligent Control:

PLC control is used for managing the heating and timing processes in the sterilization program. The industrial HMI interface, combined with a high-definition LCD touchscreen, dynamically displays the equipment's operating status.

#### Scheduled start function:

The sterilizer can be set to start at a specific time, allowing for automatic activation according to the preset schedule.

#### Data recording and transition:

The device can connect to a USB drive or an optional printer to transmit and store sterilization process records in real-time, making it easy to record and trace data.

#### Drying function:

After sterilization, the system can automatically perform a drying process, making it quick and convenient (available only for models with automatic drying).

#### Built-in sterilization programs:

Pre-set programs effectively target solid sterilization, liquid sterilization, insulation, agar melting and insulation, and waste sterilization. It also features a customizable mode, allowing users to set sterilization parameters according to their specific needs.

#### Wastewater collection:

The built-in wastewater collection tank facilitates wastewater treatment.



#### Flexible exhaust methods:



After sterilization is complete, you can choose from ten different exhaust speeds to accelerate the cooling process, prevent overheating, and ensure true internal exhaust without pollution.

Superior Material Quality:



The pot body and shell are made of high-quality stainless steel SUS304 material, which is characterized by acid resistance, alkali resistance, and corrosion resistance.

Verifiable:



Provides temperature and pressure testing interfaces for easy verification. Conducts 1Q/0Q/PQ and other validations.

Good Sealing Performance:



The radial self-expanding silicone rubber sealing ring automatically vents cold air, ensuring the sterilization effect.



**Biolab Scientific Ltd.**

Trillium Executive Center, East Tower, 675 Cochrane Dr, Markham, Ontario L3R 0B8, Canada

Email: [info@biolabscientific.com](mailto:info@biolabscientific.com) | Website: [www.biolabscientific.com](http://www.biolabscientific.com)