



**Attention: Before operating BSC II Class Biohazard Safety Cabinet, user must read this operating manual carefully please! Keeping the manual for reference.**

## **BSC II Class Biohazard Safety Cabinet**

Executing standard: JG 170-2005

# **OPERATING MANUAL**

ISO9001: 2000 CERTIFIED

**SUZHOU CLEANING TECH. RESEARCH INSTITUTE  
BAISHEN TECHNOLOGY (SUZHOU) CO., LTD.**

**Welcome to use BSC II Class Biohazard Safety Cabinet, thank you warmly entering into our company's consumer team!**

First of all, Welcome to use BSC II class type biohazard safety cabinet, thank you warmly entering into our company's consumer team!

Before operating BSC II class type biohazard safety cabinet ,user must read this operating manual carefully, please.

BSC II class type biohazard safety cabinet is a kind of air cleaning equipment which supplies part no dust and no bacteria operating environment, it is designed to prevent escape of pathogens into the workers ' environment and bar contaminants from the research work zone, it provides protection for the operator and the environment from biological hazards. Polluted air in operating area is exhausted via special filter duct. It is a kind of safe special clean workbench for microorganism, the device is used in hospitals, laboratories, pharmaceuticals and offers great effects on improving technical conditions and protecting operator' health

## **1. Product Feature**

1.1 Adopt negative pressure flue to form air screen between operating area and outer environment,

1.2 Operating area Adopts stainless steel plate for fabrication, the body is made of high grade cold rolling galvanize steel (SECC), after bending, use Japan advanced riveting craft, surface bake lacquer to make its more beautiful and durable.

1.3 The membrane touch control panel, easy to operating.

1.4 Durable and easy to clean stainless steel worktop and removable trays.

Transparent working sides increase operator comfort and visibility

1.5 negative pressure flue makes operating area and outer environment form air screen.

1.6 Adopt float valve style low vibration levels design, the noise level is less than the regulate value of "Country environmental protection standard ".

## **2. Operating Environment**

2.1 range of temperature : $25 \pm 15$  °C

2.2 relative humidity :85% (25 °C)RH

2.3 atmospheric pressure:85-105kPa

2.4 cleanliness of operating environment :  $\leq 100000$  class

2.5 Uses Power supply: operating voltage  $220 \pm 11V$ ,  $50Hz \pm 1Hz$

### 3. Technical Characteristic:

model Parameter	BSC-970 II A <sub>2</sub>	BSC-1360 II A <sub>2</sub>
Cleanliness	100 class @ $\geq 0.5 \mu m$ (FS 209E)	
Colony number	$\leq 0.5$ / culture container ( $\Phi$ 90mm )	
Average wind speed (m/s)	0.25~0.45	
Intake port wind speed(m/s)	0.5	
Air tightness (m/s)	$\leq 10^{-6}m/s$ (Under 500Pa)	
Noise level dB (A)	$\leq 62$	
Vibration / half peak( $\mu m$ )	$\leq 5$	
Illumination(LUX)	$\geq 650$	
Power supply	AC, single-phase 220V/50Hz or 110V/50 Hz/60 Hz	
Input(VA)	600	
Weight (kg)	200	300
Operating zone dimension (L × W× H)(mm)	970×600×600	1360×600×680
Overall dimension (L × W× H) (mm)	1100×800×2050	1500×805×2250
Blowing HEPA specification and quantity (mm)	930×530×①	1340×530×①
Exhausting HEPA specification and quantity	570×480×①	700×485×①
Daylight lamp specification and quantity	30W×②	40W×②
Ultraviolet lamp specification and quantity	30W×①	40W×①
Person capacity	Single	double

Annotate: thick of falter can be selected 50 or 69mm.

### 4. Notice Before Operating:

#### A. Preparative work

4.A.1 Keep your laboratory meticulously clean. Minimize storage of boxes and

supplies, particularly near the biological safety cabinet (BSC).

4.A.2 Wash your hands thoroughly before and after working in the BSC. Wear a clean lab coat and gloves while working in a BSC to protect yourself and to reduce contamination of research materials.

4.A.3 The effectiveness of the BSC is a function of directional airflow (inward and downward) through a high efficiency particulate air filter (HEPA). Anything that disrupts the airflow pattern reduces the cabinet's effectiveness.

4.A.4 Understand how the cabinet works and plan your work carefully. Protect yourself, your research and your coworkers by using the BSC properly.

4.A.5 Turn on the BSC and wipe the work surface clean with 70% ethanol. Wipe off each item you need for your procedures and place them inside of the cabinet. Allow the cabinet to run for at least five minutes before beginning your work.

4.A.6 Do not place objects over the front air intake grille, and never block the rear exhaust grille.

4.A.7 Perform all work at least six inches back from the front air intake grille.

4.A.8 Arrange materials to segregate contaminated items from clean ones. Minimize movement of contaminated items over clean items. Remember to always "work from clean to dirty".

4.A.9 Put on a clean lab coat, wash hands thoroughly and use clean, latex gloves.

***B. Follow good microbiological techniques:***

4.B.1 Hold open tubes and bottles as horizontal as possible.

4.B.2 Use mechanical pipette devices. **Never pipette by mouth!**

4.B.3 Use horizontal pipette discard pans containing the appropriate disinfectant inside the BSC. Do not use vertical pipette discard canisters on the floor outside of the cabinet.

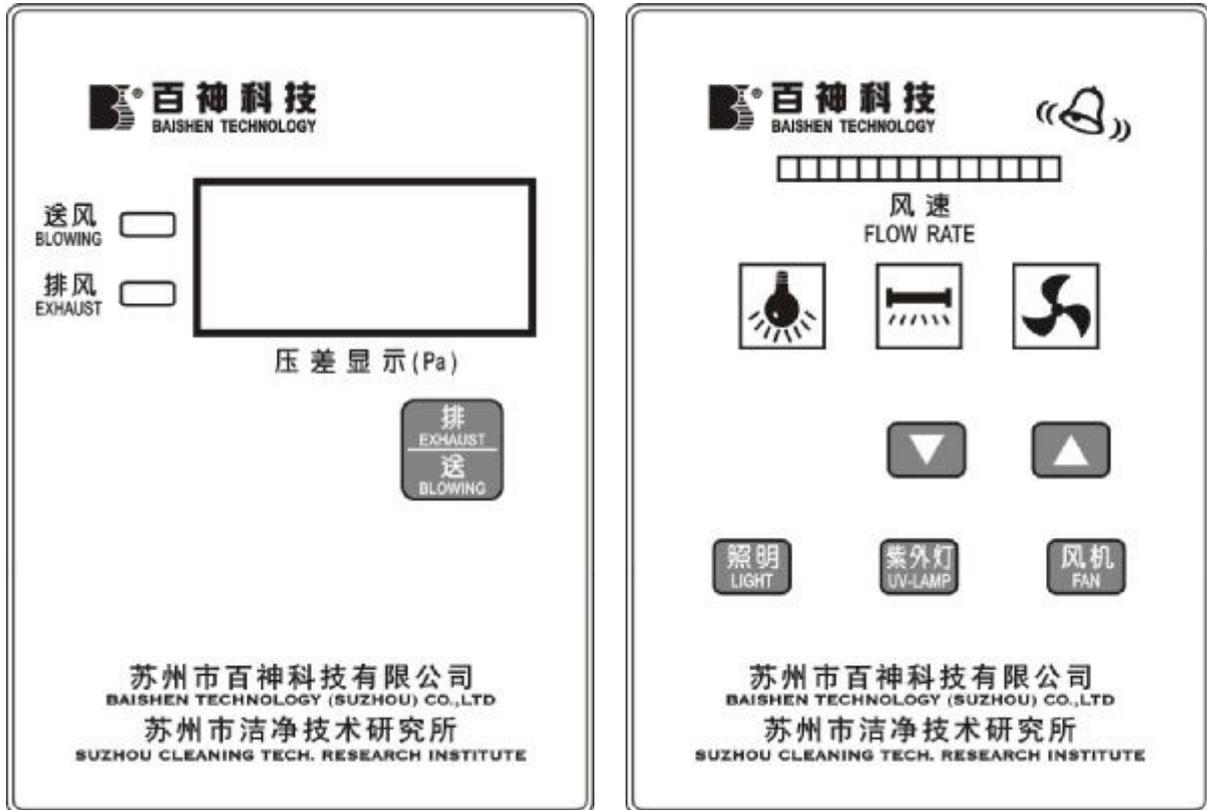
4.B.4 It is not necessary to flame items. This can create turbulence in airflow and will compromise sterility. Heat buildup may also damage the filters.

4.B.5 If you need to remove items from the BSC or introduce new items, move your arms slowly in and out of the cabinet in a manner that will minimize the disruption of airflow.

4.B.6 If you use a piece of equipment that creates air turbulence inside the BSC (such as a centrifuge, blender), place the equipment in the back 1/3 of the cabinet, and stop other work while the equipment is operating.

4.B.7 Clean up spills immediately. If possible, wait 3-5 minutes before resuming work.

## 5. Usage



5.1 Turn on the power supply: insert the power cord plug into the socket of the equipment rear, insert another end to the power socket, open the switch with the key, the screen of differential pressure turns to red, indicate the power is on.

5.2 Move the sliding sash window: when height of the window is greater than 200m limit, the alarm start, at this time , operator should pull the window down till indicator light goes out .

5.3 Press “fan” button on the control panel, the blowing and exhausting fan start, display differential pressure of he blowing and exhausting filters on the screen,

5.4 Press the ultraviolet lamp button, ultra-violet lamp opens and starts sterilizing, close the ultra-violet lamp after 30 minutes.

- ① Press ” light” button, the daylight lamp is bright.
- ② Can use the socket in the cabinet,
- ③ Start operating after completing the 1 —6 items

## 6. Air Exhaust And Total Air Quantity

Air quantity of the system: 1600m<sup>3</sup>/h, the cycle air proportion equals 65% system air

quantity

## **7. Notice**

7.1 Remove all materials and wipe all interior surfaces with 70% alcohol when your work is finished.

7.2 Let the cabinet run for 10 minutes before turning it off.

7.3 Examine the tray under the work surface, and clean and disinfect it as necessary.

7.4 Remove lab coat and gloves, and be sure to wash your hand before leaving the lab.

7.5 BSC 's have gauge to indicate pressure differential across the supply filters

7.6 Don 't place anything over the front intake or rear exhaust grill in unit having a solid work surface.

7.7 BSC should not be overloaded

7.8 Everything needed for the complete procedure should be placed in the BSC before starting, so that nothing passes in or out through the air barrier until the procedure is completed.

7.9 Minimize room activity can create disruptive air currents.

7.10 The ideal location for a BSC is in a quiet end of the laboratory.

7.11 After all materials have been placed in the BSC, wait 2-3 minutes before beginning work.

7.12 Have sufficient time for the cabinet air to purge airborne contamination from the work area.

7.13 Pull out the power plug from the socket, when maintenance.

## **8. After service**

The cabinet warranties in a year, lifetime maintenance, if trouble occurs after a year, visiting for serving will be offered by the manufacturer, if needing replacing spare parts and charge the cost fee. (available in mainland)

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2004 Printed in Suzhou