BSC-1100IIA2-X

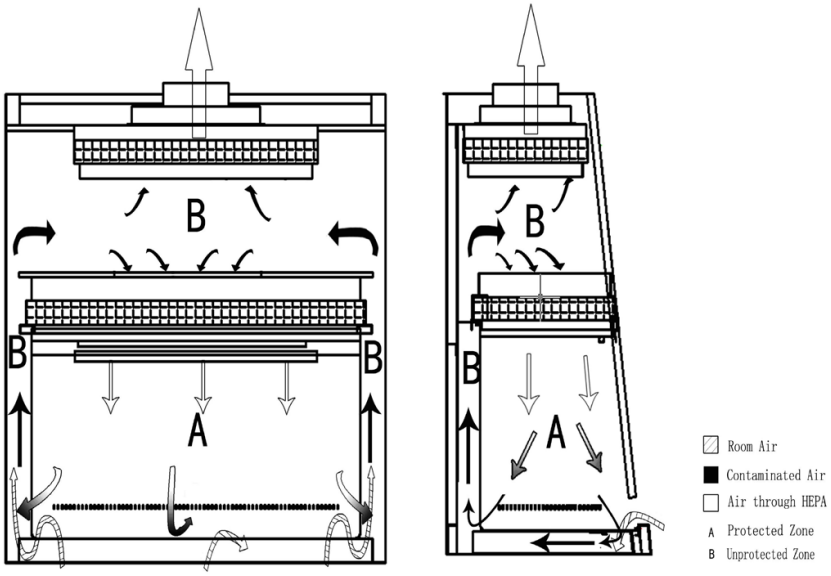
Introduction

BSC-1100IIA2-X:

Function and Operating Principle

The Class II Biological Safety Cabinet is designed with inward air flow at a velocity to protect personnel, HEPA-filtered vertical laminar airflow for product protection, and HEPA-filtered exhausted air for environmental protection.

BSC-1100IIA2-X is designed to meet the operating principles:



BSC-1100IIA2-X is designed to meet the performance criteria:

1.US Standard ANSI/NSF 49:2002
2.European Standard EN13469:2000
3.Chinese Standard YY0569-2005

Airflow System:

30% air recirculation
70% air exhaust
Maintain a minimum average inflow velocity is 0.65 m/s and average downflow velocity is 0.37 m/s

Configuration

Front panel. It’s made of toughened glass, which can not be caused negative effect by cleanliness and sterilization. Thickness of front panel is no less than 5mm. The structure of front panel avoids danger to operator when suspended system cannot work correctly. Audible and visual alarm are activated when the window exceeds height range of 200mm ±5mm.

UV light. UV interlock provides additional safety by prohibiting UV light operation unless the front window is fully closed.

Remote control. The operator need not to contact the biological safety cabinet directly, it’s favorable for preventing cross contamination. It also makes the control operation much easier and convenient. (See Figure 3)

Base stand and footrest. Burliness, simple design, no uncovered screw thread. Both of them can adjust the horizontality and stability of cabinets. Space between cabinet and floor makes cleaning easier.

Collecting Tank. The capacity of the collecting tank is no less than 4000ml, which is used to collect the spatters of work area and there is no obvious leak and pervasion within one hour. One drain valve under collecting tank and it is convenient for cleanliness.

Foot Switch. Within the range of the activity, we could use foot switch to adjust the height of the front panel.

VFD Control Panel. (See Figure 4)

Power Switch.

Power Socket.

Air Grill. Air will be drawn into the cabinet through the air grill.

Water tight socket. Two single water tight sockets are provided on the sidewall for small devices or equipment used within the cabinet.

The filter replacement and blower maintenance can be finished on the front of the cabinet

Figure 3

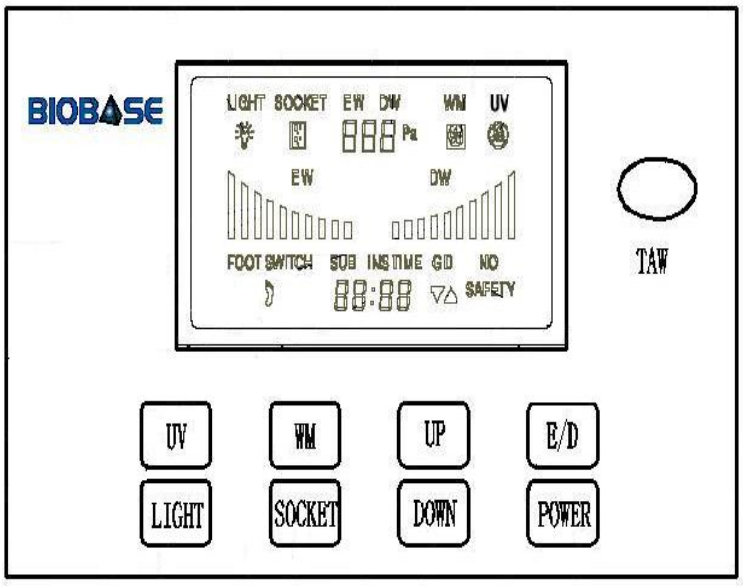


Figure 4

Safety Features

●Cabinet Leak Test. Biobase cabinets have to pass pressure decay test as defined in the European Standard 2469:2000, US Stand ANSI/NSF 49:2002 and Chinese Standard YY0569-2005

●KI-Discus Containment Test. Biobase cabinets are tested using the KI-Discus method according to European Standard EN12469:2000 and Chinese Standard YY0569-2005 for containment and operator safety at the manufacturing site.

●Filter Leak Test. Biobase cabinet are tested using an aerosol photometer according to European Standard 2469:2000, US Stand ANSI/NSF 49:2002 and Chinese Standard YY0569-2005. This test determines the integrity of down-flow and exhaust filters, filter housings and filter mounting frames.

●Automatic self-filtering cycle at start-up requires a fixed period of warm-up period during which the cabinet work zone is purged of contaminants before use

●Intrinsically-safe negative pressure design

●The motor/blower system is able to compensate automatically to maintain the down-flow air at the speed of 0.37±0.015 without interruption to guarantee the safe performance.

●Interlocked UV light only operates when blower and fluorescent light are off and sash is closed.

●Front window glass is toughened glass (standard) or non-reflecting multi-layer safety glass (optional),which provides enhanced UV protection for operators

●Audible and visual alarms prompt the operator in case of any unsafe condition.

Performance Features

●HEPA Filter 99.999% efficient (0.3 microns). HEPA filter is constructed of pleated borosilicate glass fibers.

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●Filter Life Indicator. The pressure value is displayed on the control panel to show the life utility of the main filter and exhaust filter

●A microprocessor control system, together with LED display makes it clear for all control and safety functions, Intelligent diagnostics of problems.

●True airflow velocity (both down-flow and inflow) sensing technology, with temperature compensation for improved sensor accuracy. The velocity value continuous digital display on the front LED for constant monitoring.

●UV timer function to control the decontamination cycle and maximize lamp life.

●Easy to decontaminate and disinfect. The working chamber of the safety cabinet is easy to be cleaned and disinfected. The stainless steel counter surface can be took out for autoclaving

●Weight-balanced Front Window

Ergonomic Features

● 10 degree sloped front enhanced mobility and depth of reach into the work area, also provides maximum protection.

● Control panel is sloped downwards to provide the operator (in a setting position) a better view of and an easier access to the controls.

● Inclined, Sliding sash

Products Features

● Advanced Microprocessor Control System. The control system measures the air flow pressure accurately and balances the air velocity strictly for entire working chamber. An unique advanced here is that a strip bar on the LED control panel works as an indicator of the life utility of the main filter and exhaust filter, which reminds the user to replace the HEPA filters on time so as to provide special protection for operators.

● Intelligent Filter Compensation System. The vertical airflow will be automatically supplied at the speed of 0.37m/s±0.015m/s without interruption. When filter block occurs, the fan motor will increase its speed to ensure constant vertical air flow to guarantee the safe performance.

● HEPA Filter. 99.999% efficient (0.3 microns) .It's constructed of pleated borosilicate glass fibers.

● The motor drive front window can be moved smoothly and exactly to desirable position, and it can be completely closed when not use, providing a physical barrier

● Easy to Decontaminate and Disinfect. The working chamber of the safety cabinet is easy to be cleaned and disinfected. The stainless steel counter surface can be taken for autoclaving. UV light can only be turned on when the front window is closed completely and the fluorescent lamp is turned off. It avoids the potential hazard to operator from UV light.

Technical Parameters

External Size (mm):1100*850*2200
Internal Size (mm):970*600*660
Main Filter: HEPA (one piece)
Filtration Performance: 99.999% (0.3 microns)
Exhaust filter: HEPA filter
Filtration Performance: 99.999% (0.3 microns)
Inflow Velocity: 0.65m/s±0.015m/s
Down Flow Velocity: 0.37m/s±0.015m/s
Air Circulation: 30%
Exhaust Air: 70%
Control System: Microprocessor

Front Panel: Multi-layer doubling toughened glass
Lighting: 800Lux ~ 1100Lux
Noise: <65dB
Clean Level: Class 100
Rated Voltage: 110V~240V/50Hz~60Hz (OPTIONAL)
Power: 800W
Collecting: >4000ml. Fitted with draining valve
Vibration: the net displace is no more than 5rms, when the frequency is from10Hz to 10Hz
Material: Type 304 stainless steel for working zone interior
Stability: the core part can stand 23kg pressure without permanent distortion
Biosafety: Personnel safety: Hammer blow samples<10CFU/time Slit Samples<5CFU/time
Product safety: the microorganism germ falls<5CFU/time
Cross infection safety: the microorganism germ falls<2CGU/time

Note:
1. BSC is short for Biological Safety Cabinet
2.1100/1300/1500/1800 indicates the cabinet width
3. X refers to the front panel slope with 10 degree.