

BIOSAFETY CABINET CLASS II, TYPE B2



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ABOUT THE COMPANY

iGene Labserve Pvt. Ltd. is gaining recognition by offering resilient, innovative solutions in laboratory instrumentation across healthcare, genomics, drug discovery, biopharma, and food & beverage sectors. We strive to enhance lab efficacy and reduce challenges through advanced technologies and a diverse product portfolio tailored to our customers' needs.

INTRODUCTION

The Biosafety Cabinet (BSC) Class II, Type B2, is a specialized safety device designed to provide maximum protection for personnel, product, and the environment from hazardous contaminants. This fully exhausted cabinet ensures that 100% of the air is vented out of the laboratory through a dedicated exhaust system.

CONSTRUCTION

Our biosafety cabinets are ergonomically designed for durability and longevity, utilizing only thick metal sheets and pipes to deliver one of the finest and safest products available today. The main body is constructed from electro-galvanized steel, coated with an antimicrobial epoxy polyester powder finish, ensuring exceptional protection and longevity, with a minimum thickness of 18 gauge. The work zone is crafted from a seamless piece of 18-gauge stainless steel (Type 304) with curved corners for easy cleaning and a raised armrest for added comfort. For optimal performance, the cabinet should be installed in a dust-free area compliant with ISO Class 5 standards.

FEATURES (NSF MODEL)

- **Motorized Front Window:** Ensures easy and smooth operation, allowing convenient access to the working area.
- **7-inch Touchscreen Display:** The large, colourful touch display facilitates intuitive control, offering real-time monitoring of safety parameters, dynamic airflow patterns, and clear audio-visual fault alarms.
- **Power-Off Memory Function:** Automatically restores the cabinet's previous operational state upon power resumption, with visual prompts and alarms for safety assurance.
- **Integrated Operation Area Design:** Simplifies disassembly and cleaning, ensuring effortless maintenance of the workspace.
- **Interlocking Safety Function:** UV lamp interlocks with the front window, fan, and other components, ensuring the safe operation of all functions and preventing accidental exposure.
- **Appointment Timing Feature:** Allows for automated scheduling of the safety cabinet's start-up, shut-down, and operation of UV lamps, fans, and power sockets.
- **Front Window Safety Trigger:** Automatically activates the UV sterilization function when the front window is closed, ensuring thorough disinfection.
- **Ergonomic Hand Resting Surface:** The one-piece design offers a larger contact area for the arm, providing enhanced comfort during prolonged use.
- **Automated Controls:** UV light, blower, and LED lighting are controlled automatically based on sash movement for ease of use.
- **External Socket Control:** Enables hands-free operation inside the chamber, maintaining a contamination-free environment.
- **Warm-Up Timer:** Offers a delay function for LED activation, ensuring clean internal air circulation before opening the sash to a safe working level.
- **Laminated Toughened Glass Window:** The front window is motorized with dual 6 mm thick layers of toughened glass, providing anti-UV protection for user safety.
- **Safety Alarms:** Equipped with alerts for abnormal airflow velocity, filter replacement needs, and unsafe front window height, ensuring maximum operator protection at all times.

TECHNICAL SPECIFICATIONS (NSF model)

Category	IG-CIIB242G
External Size (W*D*H)	1383*775*2250 mm
Internal Size (W*D*H)	1210*600*660 mm
Tested Opening	Safety height 10"
Max Opening	470 mm
Airflow Volume (Exhaust)	100%: 1320 m ³ /h (776 cfm)
Front Window	Motorized;Two-layer laminated toughened glass ≤6mm, Anti-UV
Filter	ULPA,99.9995% efficiency at 0.12μm (O2), filter life indicator
Filter Guard Type	Aluminum alloy frame
Noise	NSF 49 ≤60 dB
Illumination	≥1000 Lux
Socket	2, Total consumption ≤500W
Display	Touch screen
Tap	Water tap*1, Gas tap*1
Power Supply	AC220V,50/ 60Hz
Consumption	400W
Alarm	Abnormal airflow velocity; Filter replacement; Front window at unsafe height
Blower	One ECM motor, 230V AC; Speed adjustable, high efficiency and low power consumption
Material	Working area: 304 stainless steel Frame,Decorative Plate: cold-rolled steel with anti-bacteria powder coating
UV Lamp	30W
Germicidal UV Lamp	Emission of 253.7 nanometers for most efficient decontamination
Certification	NSF 49
Illuminating Lamp	LED lamp, 20W*2
Standard Accessory	LED lamp*2, UV lamp*2, Base stand, SS water tap*1, Gas tap*1, Drain valve, Waterproof socket*2
Optional Accessory	Armrest, Airflow tester, Formalin fumigation sterilizer, Infrared sterilizer, exhaust duct
Package Size (W*D*H)	1540*1080*1900 mm
Gross Weight	340 kg

FEATURES (STANDARD MODEL)

- **Motorized/Manual Front Window:** Adjustable front window made from two-layer laminated toughened glass with UV protection.
- **Capacitive Touch Display/LCD:** Real-time monitoring, fault alarms, and display of various values.
- **Adjustable Airflow:** EBM (AC) blower with automatic wind speed adjustment.
- **Power-Off Memory:** Automatically restores settings post power-off, with visual and alarm prompts.
- **Ergonomic Design:** Integrated operation area for easier disassembly and cleaning, with customizable base height.
- **Safety Interlocks:** UV lamp interlocks with front window and fan to ensure safety during operation.
- **Pre-set Timers:** Schedule automatic startup/shutdown, control UV lamps, fans, and sockets.
- **Comfortable Hand Resting Surface:** Large contact area for comfort during operation.

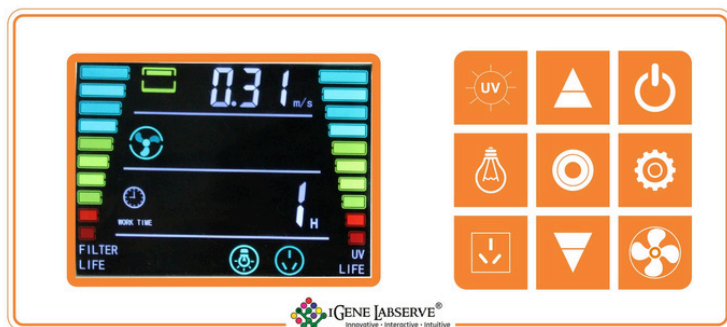
STANDARD ACCESSORIES

Our Biosafety Cabinets come equipped with fluorescent lights positioned outside the working zone and UV lamps installed inside the working area, ensuring the operator is never exposed to direct UV light. A microprocessor-controlled system ensures that the UV lamps activate only when the door is fully closed. Auto sensors engage the blower immediately after the door is opened.

For added convenience, users can set a warm-up time, so the fluorescent light activates only after a set time following door opening, all controlled by the microprocessor. Electrical sockets are installed to power instruments within the working area, and optional service fixtures for air, gas, vacuum, and water are available upon request. The cabinet also includes an adjustable UV timer and a UV hour meter for precise control and monitoring of UV usage.

AIR CIRCULATION OF CLASS II B2

To effectively minimize the spread of airborne bacterial and viral organisms, the use of high-efficiency filters is essential. Our Class II B2 Biosafety Cabinets are equipped with HEPA filters that provide 99.999% efficiency for particle sizes ranging between 0.1 to 0.3 microns, ensuring maximum air purification. Additionally, the HEPA exhaust filter delivers 99.999% efficiency at 0.3 microns, maintaining a contaminant-free environment.



TECHNICAL SPECIFICATIONS

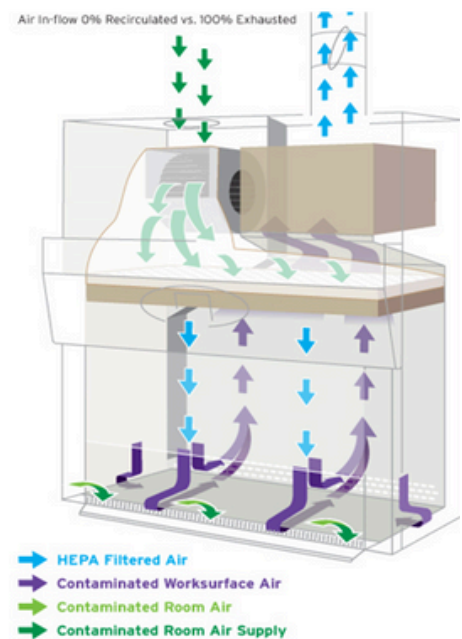
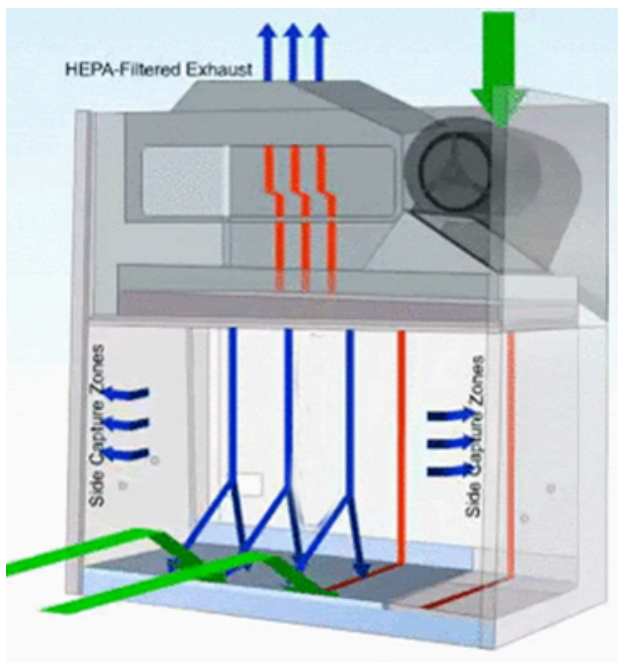
(Standard model)

Sizes Available	2ft, 3ft, 4ft, 5ft and 6ft
Construction	Electro-galvanized steel with epoxy polyester (antimicrobial Powder-coated finish), at least 18 gauge thick.
Work top	Stainless steel Type 304, at least 18 gauge thick
Construction	Double walled
Controller	Digital Microprocessor Control System for Operating Fluorescent, UV Light & Blower
Air filtration	HEPA filter 99.999% for particule size between 0.1 to 0.3u and HEPA exhaust filter 99.999% at 0.3u.
Switches and indicators	Microprocessor controlled switches for UV, Blower Motor, LED/FL Lamp with inbuilt pressure gauge and UV timer
Air recirculation	Does not recirculate but 100% air exhaust
Average Airflow Velocity	105 feet per min
Fumigation	In-built fumigation port (Optional)
Noise level	Less than 60 dB
Electrical protection	MCB & Fitting with earthing protection
Standard Fittings	<ul style="list-style-type: none"> · UV germicidal lamp to cover the entire worksurface. · Mounted on a stand with levelling feet. · Inbuilt pressure gauge. · Fluorescent lamp /LED Lamp.
Optional	Digital display on pressure on HEPA. Sash Height Alarm on display. Movable stand. Virus Burnout unit. Service valves for gas and water. Arm Elbow rest. Digital display of real time inflow / down flow air velocities. Drain pan on work bench. Movable stand (wheels). Foot rest. Calibration certificates. HMI Controller. Customization available We are OEM

STANDARD SIZE/ DIMENSION

Model No.	Dimension(ft)	Dimension(mm)
IG-CIIB2222	2 x 2 x 2 ft	610 x 610 x 610 mm
IG-CIIB2322	3 x 2 x 2 ft	914 x 610 x 610 mm
IG-CIIB2422	4 x 2 x 2 ft	1219 x 610 x 610 mm
IG-CIIB2522	5 x 2 x 2 ft	1524 x 610 x 610 mm
IG-CIIB2622	6 x 2 x 2 ft	1829 x 610 x 610 mm

AIRFLOW DIAGRAM OF CLASS II B2





iGENE LABSERVE®
Innovative • Interactive • Intuitive



CONNECT WITH US.

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