

Spire Automation & Innovation, India.

Inspiring Generations...

BIOLOGICAL SAFTEY CABINET

We design, manufacture and supply Class 2 Biosafety Cabinets Type A2 & Class 2 Biosafety Cabinets Type B2 for laboratory and research applications.

These **Type A2 Class II Biological Safety Cabinets** have an open front design provided with negative pressure generation module. Type A2 cabinets are typically used for biosafety levels 1 through 3 and are suitable for work with chemicals, as long as vapors are not hazardous and will not interfere with the work when recirculated. Cabinets protect from contamination of the works, experiment or process from outside contaminants.

The ergonomic internal design, the airflow aerodynamics, microprocessor based controls, the built-in safety devices and the advanced level of construction, ensure the highest performances at the most stringent safety levels, as specified by International standards. These systems combine a multitude of design, construction and technological considerations to provide optimum operator, product and environmental protection. Stainless steel construction and simple design make it easy to clean after use. The powder coating finish prevents

microbial / bacterial growth on the exterior and delivers a sleek and graceful appearance



SALIENT FEATURES:

- A front access opening with careful maintained inward air flow.
 An internal blower draws sufficient room air through the front gill to maintain a mimimum calculated or measured average lfpm at the face opening of the cabinet.
- The contaminated air is drawn by the blower through the plenum of the cabinet, where approximately 70% of the air is recirculated through the HEPA filter back to the work area 30% of the air is exhausted from a common plenum at top through a HEPA FILTER.
- HEPA-filtered exhaust air in Type A2 cabinet may be recirculated into the room or exhausted to the outdoors through a canopy exhaust connection
- HEPA filters having efficiency rating as high as 99.99% with cold DOP & 99.97% with hot DOP thus retaining all air-borne particles of size 0.3 micron and larger
- Negative pressure surrounds the work area and maintains inward air flow in chamber.
- Aerodynamics air flow grills maintains safety and prevents blockage.
- High efficiency pre filter use increases life of HEPA filter
- Unit has UV germicidal light for sterilization and floruscent lamp for illumination.
- Personnel protection from harmful agents used inside the biosafety cabinet.
- Product protection to avoid contamination of the works, experiment or process from outside contaminants.
- Environmental protection from contamination of the works, experiment or process from outside contaminants.
- Machine is fitted with lockable castor wheels for ease of movement.

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SPECIFICATIONS:

Model	SAII-BSC-2	SAII-BSC-3	SAII-BSC-4	SAII-BSC-6
Main Filter	HEPA Filter (99.97% efficient at 0.3 micron particulates to meet air quality ISO Class 4 equivalent to US FED STD 209 E, class 10)			
Pre-filter	High-efficiency washable pre filter of rating 20 micron			
Illumination	Fluorescent Lamp 40W (greater than 800 LUX as per guidelines laid in US federal standard)			
Sterilizing	UV Germicidal Tube of 254 nm wavelength			
Front Door	Sliding type safety Door made of plexi glass (Polycarbonate Door Optional)			
Utility	Gas/Air cock and Multipoint 15/5 Amp. electric socket			
Manometer	Static pressure analogue type			
Input supply	AC 230V, 50/60Hz			
MOC (Cabinet)	Cold Rolled Steel Powder Coated (Optional Stainless Steel SS-304)			
Work Table	Stainless Steel 304 grade			
Internal Work zone Dimension (LxDxH mm)	600 x 600 x 600	900 x 600 x 600	1200 x 600 x 600	1800 x 600 x 600
Size of HEPA Filter (LxDxH mm)	600 x 600 x 150	900 x 600 x 150	1200 x 600 x 150	900 x 600 x 150
No. of HEPA Filter	1	1	1	2

OPTIONAL:

- a. Front door made of transparent Polycarbonate Sheet in lieu of plexi glass to cost extra.
- b. Magnehelic pressure differential gauge (to track filter pressure in lieu of static pressure manometer).
- c. Electronic filter choke alarm (Differential pressure monitor).
- d. Interlocking of U.V. germicidal tube & fluorescent light with auto switch off/on mode for motor blower when the door is closed /open.
- e. Microprocessor LCD controller with auto switch off mode for motor blower when door is closed. Digital buzzer timer sounds an audio alarm on completion of sterilizing time of the chamber and the switches off U.V. germicidal tune and automatically switches ON the fluorescent light, alerting user that the bench is ready for use.
- f. Hour meter totalizer for U.V. light.
- g. Gas burner.
- h. Exhaust ducting per running feet.
- i. Virus burn out.
- j. Heavy duty exhaust system.
- k. Digital manometer

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