



BIO SAFETY CABINET 3004 (2)



Features

A front access opening with careful maintained inward air flow.

HEPA-filtered, vertical, unidirectional airflow within the work area.

HEPA-filtered exhaust air to the room or exhaust to a facility exhaust system.

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.

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30 % air exhaust

70 % air recirculation

HEPA-filtered exhaust air in Type 2 cabinet may be recirculated into the room or exhausted to the outdoors through a canopy exhaust connection.

HEPA-filtered downflow air is a portion of mixed downflow and inflow air from a common plenum

Negative Pressure air surrounding all biological contaminated ducts and plenums.

Negative pressure surrounds the work area with double wall plenums for protection.

Air drawn through pre-filter is made to pass through highly effective HEPA (High Efficiency Particular Air) filters having efficiency rating as high as 99.99% with cold DOP and 99.97% with hot DOP, thus retaining all air-borne particles of size 0.3 micron and large. The highly efficient HEPA filter maintains the optimum cleanliness and purity. Being equipped with the prefilter, it can extend the life of HEPA filter.

Aerodynamic airflow grills maintain safety and prevents blockage.

U.V and fluorescent interlock available

Ergonomic armest of stainless steel (SS 304/316) and comfortable 10 degrees sloped front window for comfortable head and elbow rest position, thus reducing fatigue

Sash is counterbalanced for smooth and light weight operation with standard opening of 200mm ±10 mm for easier access to work zone and enhanced user safety.

Working Table

(1) Exterior Part: Front Perforated portion

Rear part madeup of SS 304/316 grade as per ls 6911:1992 chemical composition with size: 1.6 mm wide.

(2) Interior Part:

Size 1.6 mm thick removable and cleanable



Type 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, it is acceptable to use an 2 cabinet with a small amount of chemicals when the cabinet is exhausted to the outdoor (Option) for removal of gases.

Class - II	Protection From Particulates	From Vapors and Gases		
Type 2	Personnel, Work Area (Product) and Environment	If exhauste personnel, the work area and the environment.		

UPPER & FRONT COVER

Removable upper and front cover simplifies filter, blower and front control panel replacements and maintenance easier.

Separate electronics speed regulater for motor blower assembly

MATERIAL OF CONSTRUCTION

Internal Working Chamber is made up of Stainless Steel (SS-304).

External Cabinet is fabricated of Cold Rolled Steel MS Duly powder Coated, resistant to chemical and durable

FRONT WINDOW/SASH

Front Sash consists of a thick plexi-glass or toughened transparent glass (Option) for a clear inside view. In addition it serves optimum resistance and protection from harmful UV rays, protection user from exposure to harmful Ultraviolet radiation.

DRAIN TROUGH WITH VALVE

The trough at base is easy to clean and for offloading liquid spillage if any.

DECONTAMINATION BY UV LAMP

UV Lamp to produce UV rays of 253.7 nanometers and fluorescent lamp are interlocked with electronic ballast and motor blower are turned off/on as and when front sash is closed/opened. UV lamps functions through a timer (Option) to control the decontamination cycle and maximize UV lamp life. The UV lamp shuts off once the desired set time of decontamination is over and switches the fluorescent lamp to ON position.

Lighting system starts instantly without flickering.



SPLASH PROOF ELECTRIC SUPPLY SOCKET

Splash proof sockets is provided for optimum convenience of using small electrical devices inside the cabinet

FRONT AIRFLOW INTAKE GRID

Aerodynamically designed front airflow intake grid eliminates potential turbulence and contamination.

FLOOR STAND AND CASTOR WHEELS

Floor Stand is made up of heavy duty tubular pipe duly powder coated and fitted with durable castor wheels for rotation and total brake system on front wheels.

TECHNICAL SPECIFICATIONS

MODEL	3002 (2)	3003 (2)	3004(2)	3005(2)	3006(2)
Internal Dimensions (WxDxH)mm	600x600x600	900x600x600	1200x600x600	1500x600x600	1780x600x600
MOC	Internal Working Chamber: Stainless steel (SS-304) Exterior Cabinet: Cold Rolled Steel Duly Powder Coated or Stainless Steel (SS-304)				
Pre - Filter	Mounted on aluminium frame, of rating 20 microns				
Supply / Main Filter	HEPA(Efficiency 99.97% @0.3 microns to meet air quality ISO Class 4 equivalent to US FED STD 209 E, class 10)				
Exhaust Filter	HEPA(Efficiency 99.97% @0.3 microns to meet air quality ISO Class 4 equivalent to US FED STD 209 E, class 10)				
Power Supply	AC 220 V+10%	6/50 Hz (Standar	d),Single face		
Exhaust Connector (Option)	To exhaust potentially contaminated air outside the room				
Exhaust Tunnel / Duct (?=200 mm) (Option)	Available on per running feet basis				
Work surface height	600mm				
illumination	5000k				
Efficiency of filters	Pre-filters 10/20 micron, washable and reusable				
Average air flow	90±20fpm				
Noise	55.5db				
controll panel	Stand by				



Sr. No.	OPTION	
a)	ULPA Filter in lieu of HEPA filter .	
b)	Front door made of Toughned Glass (Temepred) in lieu of plexi glass	
c)	Magnehelic Pressure Differential Gauge (To track filter pressure in lieu of static pressure manometer)	
d)	Electronic filter choke alarm (Differential Pressure Monitor)	
e)	Microprocessor Controller with door position alarm 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 the user that the bench is ready for use.	
f)	Gas Burner	
g)	Virus Burn Out	
h)	Heavy Duty exhaust system	
i)	Glove ports with gloves	
j)	Exhaust ducting per running feet	
k)	Digital down flow velocity indicator	

>> Regulatory compliances



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