

MAC Horizontal Laminar Flow CAT No. MSW- 161



USE

It is used for various works that require maintenance of the cleanliness and purity like plant tissue culture, examination and experimentation of precision electronics parts, medical sciences, pharmacy, agriculture sector etc.

Laminar air flow systems are used in various applications such as life science research, mushroom cultivation, microbiology, IVF, IUI and histopathology / pathology lab, plant tissue and cell culture and pharmaceutical and electronics industry and many more.

Product Details

About Equipment

- ✚ Designed so as to meet the requirements of US Federal Standard 209 B (BS 5295) providing particle free air to meet class 100 conditions.
- ✚ Cabinets is fabricated of wooden board laminated with sunmica OR cold rolled steel duly powder coated OR electro galvanized steel OR stainless steel (SS-304grade) (as ordered). Working table is made of Stainless-Steel Sheet (SS-304 grade). Side panels and front doors are made out of thick transparent plexi glass.
- ✚ 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 larger. Heavy Duty Motor operates with minimum noise level. Working area is illuminated by fluorescent lighting fitted to the unit. Supplied complete with S.S. Satin finish Table Top, Transparent front door, Static Pressure Manometer, Built in U.V. Germicidal light and Cock for gas, air or vacuum line, HEPA filters and pre-filter. The highly efficient HEPA filter maintains the optimum cleanliness and purity. The prefilter fitted extends the life of HEPA filter drastically. Silent Vibration-Free Blower ensures noiseless operation and anti-vibration construction provides efficient working environment. Interlocking of U.V. Germicidal Tube & Fluorescent Light with auto switch off/on Mode for blower when the door is closed/open.
- ✚ All units with MOC: Wooden/CRC/EGS/Stainless Steel are mounted on a heavy duty mild steel stand duly powder coated.
To work on 220/230 volts A.C. supply.

CONTROL & AUTOMATION

- Equipped with Microprocessor controller having alphanumeric display and soft touch controls. Controller indicates input, status, alarm function and control for blower, lights outlet and UV.
- Continuous monitoring through bright easy to read LCD panel
- Password Protection for authorized operation.
- Real time Clock
- UV timer showing used time and balance available life in hours.
- Total HEPA Filter time showing used time and balance available life in hours.
- HEPA filter choke alarm after HEPA filter life is over.
- UV light/Door/Fluorescent Light Inter Lock, i.e. UV switches ON only When door is closed, and automatically switches OFF fluorescent lights.
- If UV light is on & the operator tries to open the door, it raises audio visual alarm.
- Built-in RFI and electrical noise filters eliminate interference with adjacent instrument

PARTS OF LAMINAR AIR FLOW CHAMBER

Blower

Blower assembly draws room air through pre filter and throws towards HEPA filter

Pre Filter

It is primary air filter which filters room air initially and forward towards HEPA filter. Usually, pre filter keeps out particles 5 microns or higher.

HEPA Filter

This is final filter. Air filtered through pre filter is forwarded towards HEPA filter. HEPA filter offers 99.99% efficiency for 0.3 micron particulates.

Pressure gauge

Magnehelic gauge is used to monitor differential pressure across HEP filter with respect to ambient

Work bench

It is made of stainless steel. Samples / products are put on it for work.

Sash

Sash is sliding front door. User can slide it manually and adjust the opening height as needed.

Light

Light is fitted to provide proper illumination under the working area.

Service fixtures

Main chamber is fitted with electrical socket, air and gas cock.

Germicidal UV lamp

UV lamp is an added option which is used to sterilize working area prior use. It is advised no contact to made in chamber during this time. We are ISO and CE certified laminar air flow manufacturers and suppliers in India. Our company designs both types of horizontal and vertical laminar flow benches for laboratory uses that meet **ISO 14644-1 class 5 (class 100)** standards. These units are ruggedly constructed for years of worry free operation and made with stainless steel sheet (304 / 316) or powder coated mild steel or GI sheets.

Air-Filtration

The efficiency of a Laminar Air Flow workstation depends upon the quality of pre filters and HEPA filters. In our LAF, the Air filtration system is created to work efficiently even in critical environment. Pre filter that we use are box type pleated having efficiency 95% down to 5 micron and made of HDPE + Non-woven + HDPE mesh media and fitted in aluminum case. The HEPA filters are of high quality having efficiency 99.99 % down to 0.3 micron and fitted in aluminum anodized case. The blower assembly has ¼ HP; 1400 RPM branded motor and has aluminum anodized impellers.

Work-Area

The working area is carefully designed for comfortable working and easy cleaning. The workbench is made of stainless steel. Standard fittings are air / gas cock and electrical outlet. For illumination, we use fluorescent lamps. Front side of working area is covered by manual sliding door (sash), which is made of transparent acrylic plastic.

PRECAUTIONS:

- Keep the instrument dust free.
- Keep the front door open while motor is on.
- Be cautious while using UV lamp.
- Requires hood repositioning to gain rear access for filter changes and servicing.
- Objects can obstruct the flow and contaminate anything downstream.
- Operators could suffer from fume or powder contaminants blowing at them if they don't use the sash correctly