

SN GLOBAL TECHNOLOGIES

CLEAN ROOM EQUIPMENT AND MATERIAL HANDLING SYSTEM

COMPANY PROFILE



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CLEAN ROOM EQUIPMENT AND MATERIAL HANDLING SYSTEM

➤ **SN Global Technologies** company is renowned in design, manufacturers and installation of an extensive range of **Clean Room Solutions , Clean Room Furniture** and wide range of Pharma industry equipment which includes Static Pass Box, Ventilated Pass Box, Dynamic Pass Box, Vertical Laminar Air Flow Cabinets, Stand Mounted Vertical Laminar Air Flow, Horizontal Laminar Air Flow, Mobile Laminar Air Flow, Garment Storage Cabinet, Mobile Trolley, Reverse Laminar Air Flow / Powder Dispensing Booths, Bio-Safety Cabinet, Air Shower, and many more....

➤ Due to our huge proficiency, deep knowledge of this business sphere and the presence of immensely talented personnel in our team, we have been proficient to provide to our customers highly reliable products at budget-friendly rates within the given span of time. To acquire supreme level of customer fulfillment and satisfaction, our products are altered as per the variations and desires of our respected clients. Some other important reasons behind the success of our firm comprise:

- ✓ Reliable products
- ✓ Timely completion
- ✓ Complete client satisfaction
- ✓ Fair business strategies
- ✓ Competitive pricing
- ✓ Flexible payment modes

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❖ *Static Pass Box / Mechanical Pass Box*

❖ *Dynamic Pass Box*

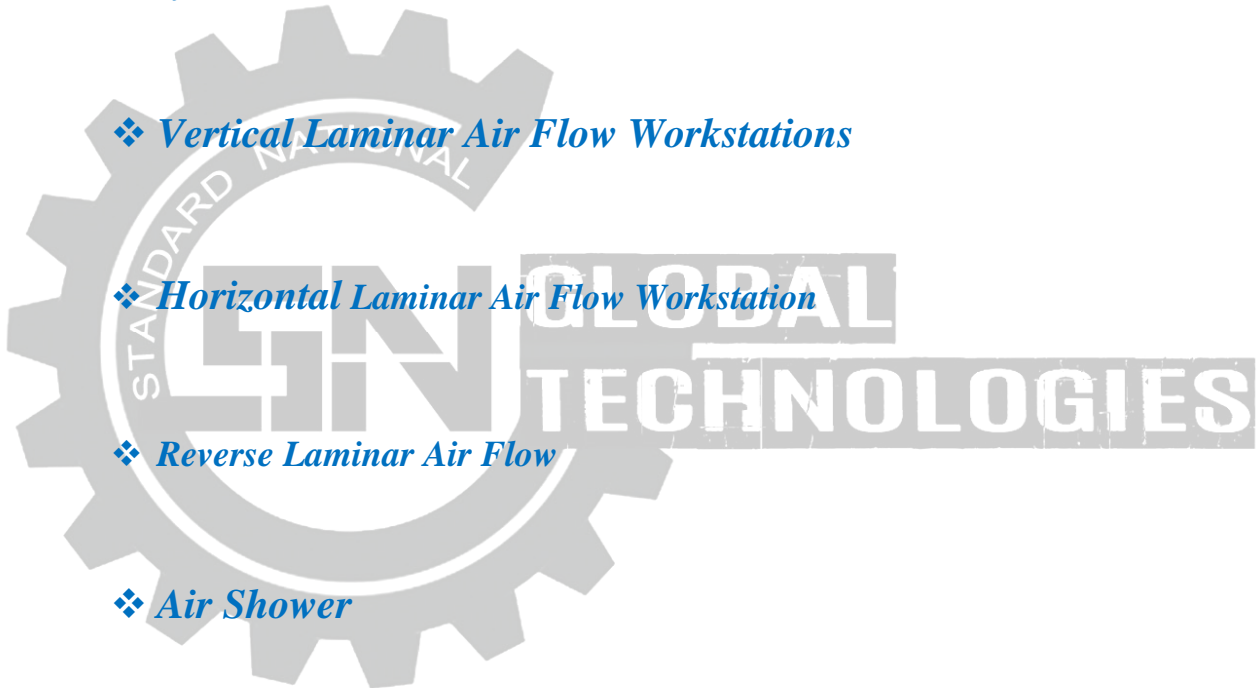
❖ *Vertical Laminar Air Flow Workstations*

❖ *Horizontal Laminar Air Flow Workstation*

❖ *Reverse Laminar Air Flow*

❖ *Air Shower*

❖ *Bio-Safety Cabinet*



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STATIC PASS BOX / MECHANICAL PASS BOX



Static Pass Box I Ventilated Pass Box is widely used for transferring the material from and into the clean room, without contaminating the air of clean room & without having to open room door. These clean room pass boxes can be installed on the wall between the clean and other room.

Static Pass Boxes has a variety of standard dimensions also and can be custom engineered to any size. Pass Boxes are available in powder coated Mild Steel, SS 304/ 316/ 316L.

TECHNICAL SPECIFICATION

Door	SS 304 double walled door construction with flush glass view panels with SS Handles and SS hinges.
Interlocking	Electro-Magnetic Interlocking type door arrangement to ensure that only one side door can be opened at any given time.
Door Indications	Indicators on either side for door open condition.
Door Release	Door Release Switch on either side

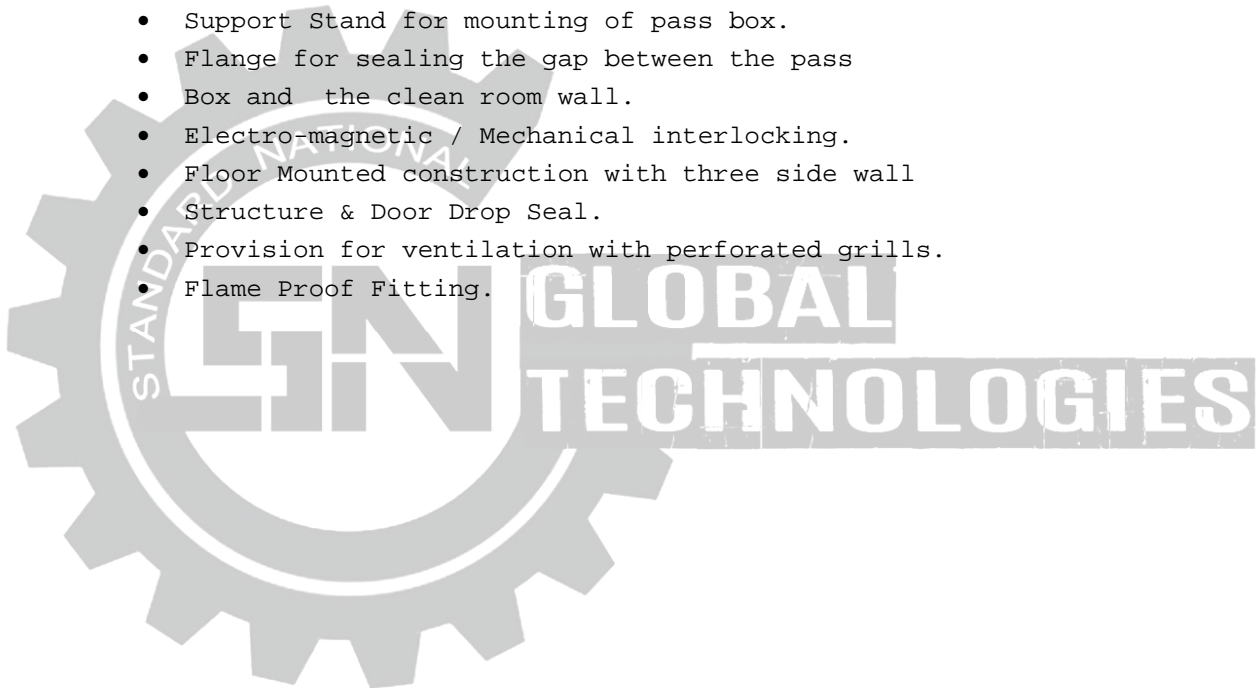
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SS Coving	Internal coving for easy cleaning
Power Supply	230V AC 1-Ø50HZ / 415V AC 3- Ø50HZ

Optional Accessories

- U.V Light with Hour Meter used for bacteria/ virus
- Killing& interlocking arrangement to put off UV Light
- If either Side door opens.
- Support Stand for mounting of pass box.
- Flange for sealing the gap between the pass
- Box and the clean room wall.
- Electro-magnetic / Mechanical interlocking.
- Floor Mounted construction with three side wall
- Structure & Door Drop Seal.
- Provision for ventilation with perforated grills.
- Flame Proof Fitting.



DYNAMIC PASS BOX



Dynamic Pass Box is designed to allow material transfer through controlled environment and minimize material movement to avoid cross contamination between different classified areas.

This is essentially installed to minimize movement of personnel for transfer of material into and

from the clean room. It aids to achieve desired classification, maintain integrity of products, process & control in gress of particulate contaminants into clean room & between different classified areas

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TECHNICAL SPECIFICATIONS	
HEPA Filter	Imported Mini pleat HEPA filter with hot melt technology, which conforms to EU-14 Grade at supply position with an efficiency rating better than 99.999% for 0.30 μ .
Pre-filter	Pre- filters are made from Non-woven synthetic with HDPE mesh; conforms to EU-06 Grade, with an efficiency rating better than 95% down to 5 μ .
Motor Blower assembly	Motor Blower designed of statically and dynamically balanced for supply of sufficient capacity and static pressure to take care of airflow requirement for entire life of HEPA.
Pressure Gauge	Dwyer Make Magnetic Gauge (0-25mm: 1 Nos.)to monitor pressure drop across HEPA.
Door	SS 304 double walled door construction with flush glass view panels with SS handles and SS hinges.
Interlocking	Electro-Magnetic type door arrangement to ensure that only one side can be opened at any given time.
Door Indication	Indicators on either side for door open condition.
Door release	Door Release Switch on either side
SS Coving	Internal covings for easy cleaning
ON/OFF Switches	SS ON/OFF Switches for motor & lights
Switch socket	6/15 Amp single-phase switch socket use for external equipment
DOP Port	DOP test port at upstream of HEPA filter integrity test. (With PAO Solution)
Vibration Level	Minimum

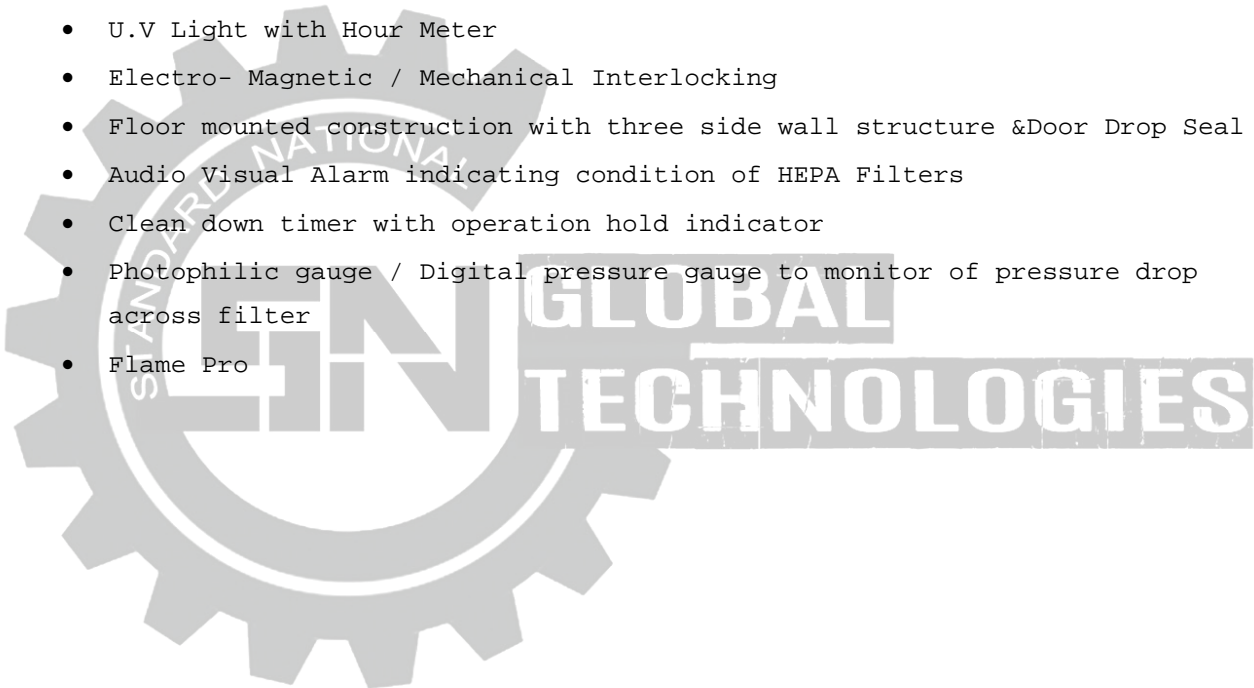
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Electrical Supply	230 AC 1- Ø 50 HZ / 415V AC 3-Ø 50HZ
Noise Level	Less than 67 dB on scale 'A' when ambient is greater than 55 dB on scale 'A'

Optional Accessories

- U.V Light with Hour Meter
- Electro- Magnetic / Mechanical Interlocking
- Floor mounted construction with three side wall structure & Door Drop Seal
- Audio Visual Alarm indicating condition of HEPA Filters
- Clean down timer with operation hold indicator
- Photophilic gauge / Digital pressure gauge to monitor of pressure drop across filter
- Flame Pro



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VERTICAL LAMINAR AIR FLOW

Vertical Laminar Air Flow unit is designed specifically for product protection. The Cabinet is a clean bench which provides ultra clean sterile HEPA filtered class 100 air in an isolated area for operations requiring a particulate-free environment where the highly sensitive process activities are carried-out.



The VLAFF unit draws air in through the top of the unit through pre-filter, through a plenum and vertically down over the work

surface and past the lap of the operator. It has the advantage of not pushing air into the operator as in horizontal laminar flow cabinet. The LAF cabinets are used for work with low-risk substances and materials, when protection of working item requires a sterile working zone.

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SUPPLY FILTER	TECHNICAL SPECIFICATION
Supply Filter	Imported Minipleat HEPA filter with hot melt technology, which conforms to EU-14 Grade at supply position with an efficiency rating better than 99.999% for 0.30 μ .
Pre-filter	Pre- filters are made from Non-woven Synthetic with HDPE mesh; conforms to EU-4 Grade, with an efficiency rating better than 95% down to 5 μ .
Motor blower assembly	Motor Blower designed of statically and dynamically balanced for supply of sufficient capacity and static pressure to take care of airflow requirement for entire life of HEPA.
Pressure Gauge	Dwyer Make Magnetic Gauge (0-25mm: 1 Nos.)to monitor pressure drop across HEPA.
Lighting	Fluorescent Light (250 Lux) at work surface
Switches	SS ON/OFF Switches for motor & lights
Switch socket	6/15 Amp single-phase switch socket use for external equipment
Control panel	Electrical Control Panel mounted in unit
Work table	SS work table with due reinforcement
DOP Port	DOP test port at upstream of HEPA filter integrity test. (With PAO Solution)
Side Panel	Glass side Panel screens for maximum visibility
Electrical Supply	230 AC 1- \emptyset 50 hz / 415V AC 3- \emptyset 50HZ
Noise /Vibration Level	Less than 67 dB on scale 'A' when Ambient is not greater than 55 dB on Scale 'A'/Minimum

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Air Flow	Vertical down 0.45+-0.05mps/90(fpm)
Air Cleanliness	ISO Class 5 (ISO14644-1:1999(E)/Class 100 (U.S.FED STD 209 E)

Optional Accessories

- Anti-Static PVC Strip Curtains
- Suspension rod option available in MS and SS
- U.V. Light with hour meter
- SS 304 Cock for Gas and Air
- Foldable polycarbonate front hinged door
- Audio visual alarm indicating condition of HEPA filters
- Clean down timer with operation hold indicator
- VFD based control systems
- Photophilic gauge / Digital pressure gauge to monitor of pressure drop across filter.
- Sodium Vapor lamps
- Flam Proof fitting



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HORIZONTAL LAMINAR AIR FLOW



**Horizontal
Laminar Air
Flow
Workstation** is designed specifically for highest product protection by providing ISO Class 5 particle free work area for handling critical process. The main HEPA filter is situated immediately behind the working area; clean air is then blow across the work surface towards the operator. The work area is continuously supplied with positive

pressure HEPA filtered horizontal air flow. It prevents contamination from operator and environment to work area. The laminar flow prevents cross contamination between the items handled in the working space. Units are suitable for the handling of non-hazardous products, sensible to dust and /or to contamination wherever operator protection is not required.

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TECHNICAL SPECIFICATIONS

Supply Filter	Imported Minipleat HEPA filter with hot melt technology, which conforms to EU-14 Grade at supply position with an efficiency rating better than 99.999% for 0.30 μ .
Pre-filter	Pre- filters are made from Non-woven synthetic with HDPE mesh; conforms to EU-4 Grade, with an efficiency rating better than 95% down to 5 μ .
Motor blower assembly	Motor blower designed of statically and dynamically balanced for supply of sufficient capacity and static pressure to take care of airflow requirement for entire life of HEPA.
Pressure Gauge	Dwyer Make Magnetic Gauge (0-25mm: 1 Nos.)to monitor pressure drop across HEPA.
Lighting	Fluorescent Light with milky white diffuser (250 Lux) at work surface
Switches	SS ON/OFF Switches for motor & lights
Switch socket	6/15 Amp single-phase switch socket use for external equipment
Work Table	SS work table with due reinforcement
Side Panel	Glass side Panel screens for maximum visibility
DOP Port	DOP test port at upstream of HEPA filter integrity test. (With PAO Solution)
Electrical Supply	230V AC 1- \emptyset 50 HZ / 415V AC 3- \emptyset 50HZ

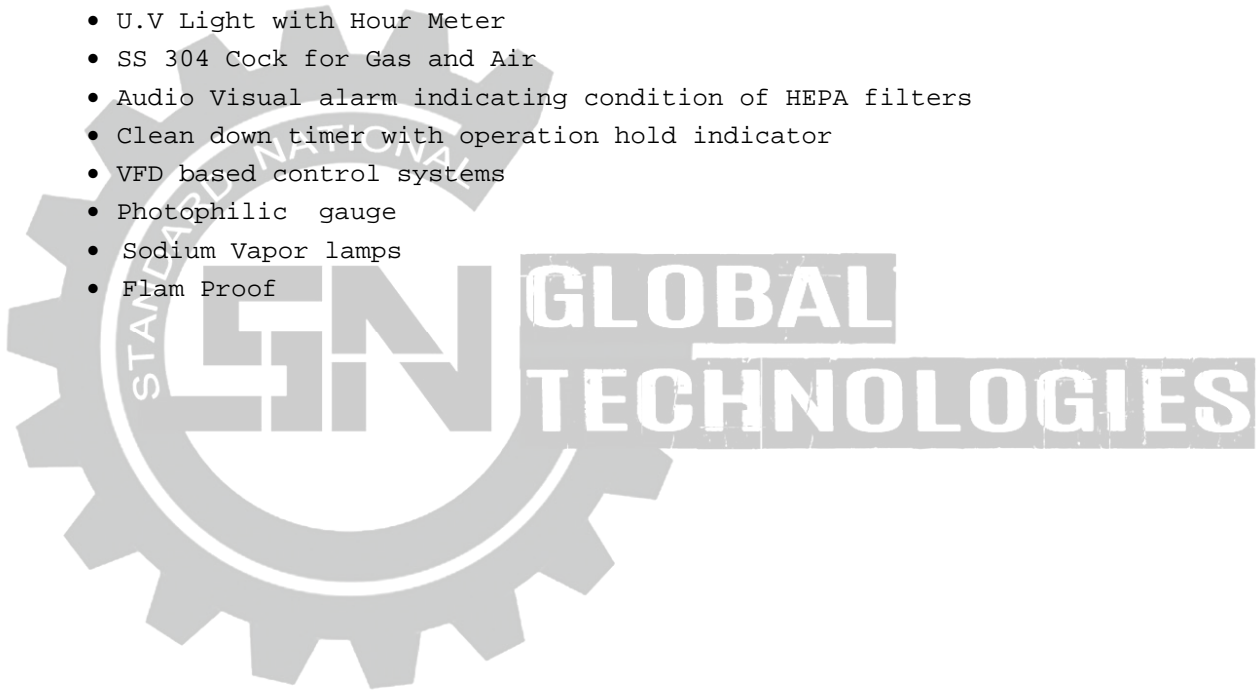
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Noise/ Vibration Level	Less than 67 dB on scale 'A' when Ambient is not greater than 55 dB on Scale 'A'/Minimum
Air Flow	Horizontal 0.45+-0.05mps/90(fpm)

Optional Accessories

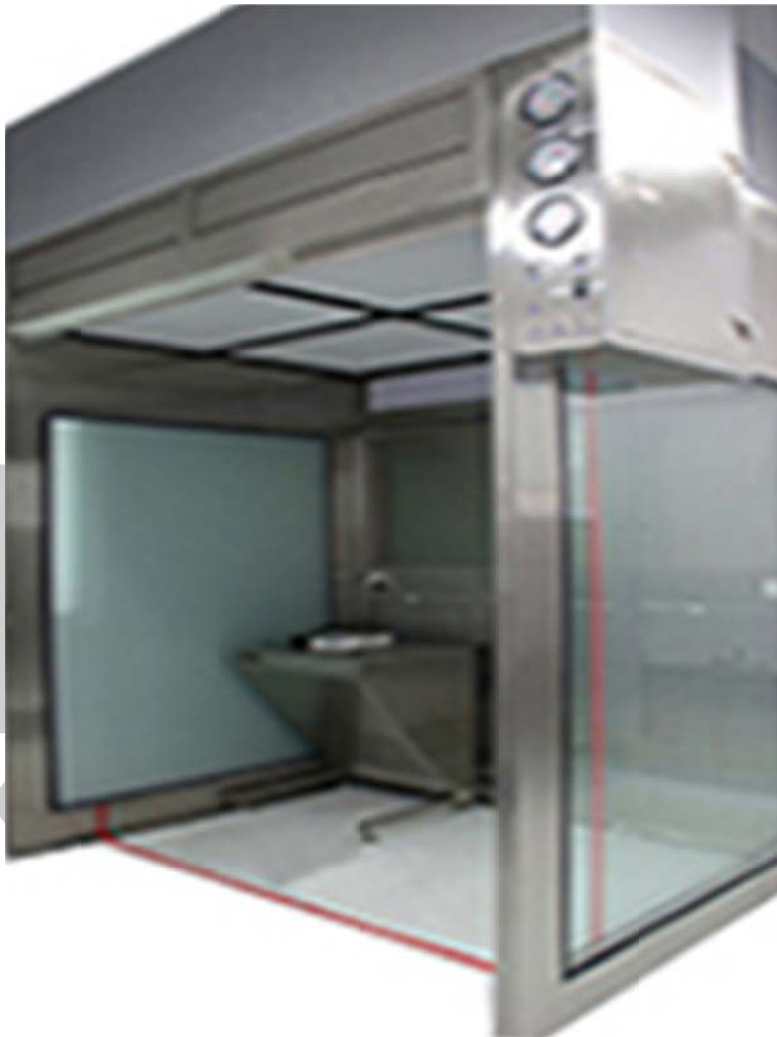
- U.V Light with Hour Meter
- SS 304 Cock for Gas and Air
- Audio Visual alarm indicating condition of HEPA filters
- Clean down timer with operation hold indicator
- VFD based control systems
- Photophilic gauge
- Sodium Vapor lamps
- Flam Proof



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REVERSE LAMINAR AIR FLOW



Reverse Laminar Air Flow is designed to provide Class 100 working environment at rest with built in scavenging system to ensure product, operator as well as surrounding environment protection. The RLAF bench finds Major application in sampling and dispensing units. Ideally used for mixed airflow stream to control the hazardous

mission of dust powder during dispensing or sampling process. This ensures to draw powder aerosols away from the operator and the operating environment protecting products and providing safe working condition for personnel.

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The system operates on a recirculatory airflow principle providing containment by air movement. The prefilters at the base of the rear wall capture the airborne contaminants generated. Intake velocity at prefilters ensuring increased scavenging effect. A small percentage of air is discharge from the hood through the bleed exhaust HEPA filter to maintain the working space under negative pressure.

TECHNICAL SPECIFICATIONS

Supply Filter	Imported Minipleat HEPA filter with hot melt technology, which conforms to EU-14 Grade at supply position with an efficiency rating better than 99.999% for 0.30 μ .
Exhaust HEPA filter	Imported Minipleat HEPA filter with hot melt technology, which conforms to EU-14 Grade at supply position with an efficiency rating better than 99.999% for 0.30 μ .
Intermediate Filter	Intermediate filters are made from Non-woven synthetic with HDPE mesh; conforms to EU-7 Grade, with an efficiency rating better than 95% down to 10 μ .
Motor blower assembly	Motor Blower designed of statically and dynamically balanced for supply of sufficient capacity and static pressure to take care of airflow requirement for entire life of HEPA.
Differential Pressure Gauge	Dwyer Make Magnehelic Gauge (0-25mm: 2 Nos.) to monitor pressure drop across HEPA & Intermediate filter and (0-10 mm: 2 No.) across prefilter.
Lighting	Fluorescent Light (250 Lux) at work surface.

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Switches	SS ON/OFF Switches for motor & lights
Switch socket	6/15 Amp single-phase switch socket use for external equipment
Control Panel	Electrical control panel mounted on the side panel of the unit.
DOP Port	DOP test port at upstream of HEPA filter integrity test. (With PAO Solution)
Side Panel	SS 304 Double walled side panels.
Electrical supply	230V AC 1- Ø 50 HZ / 415V AC 3-Ø 50HZ
Noise/Vibration Level	Less than 67 dB on Scale 'A' when Ambient is greater than 55 dB on Scale 'A'/Minimum

Optional Accessories

- Anti-static PVC strip overlapping curtains
- Audio Visual Alarm indicating condition of HEPA filters
- Clean down timer with operation hold indicator
- VFD based control systems
- Photophilic gauge / Digital pressure gauge to monitor of pressure drop across filter
- Sodium Vapor lamps
- Flame Proof fitting

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AIR SHOWER



Air Shower is designed to supply Class 100 HEPA filtered air at high velocity it helps remove particulate matter from the personnel entering into the clean room. Air shower works as partial clean equipment installed at the partition between the clean room and non-clean rooms to shower the personnel or matters before entering the clean area. This unit helps to remove dust effectively and maintains the normal

working status.

MODE L	WORKING AREA (MM)	SUITABLE PERSON	NO OF NOZZLE & DIMETER	VELOCITY AIR CLEANLINESS
HPAS-001	800x750x1920	1 Person with One side	6 nos nozzle one side and nozzle dia 38mm	18 ~25mps ISO Class 5 (ISO 1466-1:1999 (E))/ Class100 (U.S FED STD 209 E)
HPAS-002	800x950x1920	blowing 1 Person with two sides	12 nos nozzle two sides and nozzle dia 38mm	

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HPAS-003	800x1150x19 20	blowing 1-2 Persons with two sides blowing	16 nos nozzle dia 38mm		
HPAS-004	1500x1550x1 920	2-3 Persons with two sides blowing	18 nos nozzle Two side and nozzle dia 38mm		

TECHNICAL SPECIFICATIONS

Supply Filter	Imported Minipleat HEPA filter with hot melt technology, which conforms to EU-14 Grade at supply position with an efficiency rating better than 99.999% for 0.30µ.
Pre-filter	Pre-filter are made from Non-woven synthetic with HDPE mesh; conforms to EU-06 Grade, with an efficiency rating better than 95% down to 5µ.
Motor Blower assembly	Motor Blower designed of statically and dynamically balanced for supply of sufficient capacity and static pressure to take care of airflow requirement for entire life of HEPA.
Pressure Gauge	Dwyer Make Magnehelic Gauge (0-25mm: 2 Nos.) to monitor pressure drop across HEPA.
Lighting	Fluorescent Light (250 Lux) at work surface.
ON/OFF Switches	SS ON/OFF Switches for motor & lights
Switch socket	6/15 Amp single-phase switch socket use for external equipment
Control System	Interlocking System to ensure that both the doors

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	cannot open at the same time & to ensure that both the door stay locked during the time of air flow
Time setting for Air shower	Time Setting for Air shower operation time (settable for 30 seconds to 5 minutes)
Emergency Operation	Emergency Stop will be provided
Door Opening	Straight entry Straight exit and 90 degree door opening
Operation mode	Automatic as well as manual mode
DOP Port	DOP test port at upstream of HEPA filter integrity test. (With PAO Solution)
Door	SS 304 doors with double walled flush glass view panels and door closer
Electrical Supply	230V AC 1- Ø 50 HZ / 415V AC 3-Ø 50HZ
Noise/Vibration Level	Less than 67 dB on Scale 'A' when Ambient is greater than 55 dB on Scale 'A'/Minimum

Optional Accessories

- Audio Visual Alarm indicating condition of HEPA filters
- Clean down timer with operation hold indicator
- VFD based control systems
- Photophilic gauge / Digital pressure gauge to monitor of pressure drop across filter
- Sodium Vapor lamps
- Flame Proof fittig.

BIO-SAFETY CABINET



Bio Safety Cabinet is designed to provide both a clean work environment and protection to operators who work with biological hazards. It has vertical laminar airflow to create a barrier to airborne Particles and microorganisms. High Efficiency Particulate Air (HEPA) filters are used to provide clean air in the work area as well as to the environment through exhaust with the HEPA filters. The air in the cabinet is re-circulated over the work area through the HEPA filter, it is a contaminant-free environmental protection

Bio Safety Cabinet range includes a variety of containment products to suit laboratory applications within the academic, pharmaceutical biotech, healthcare, R&D and industrial sectors. The bio safety cabinets are classified into three categories Class I, Class II, or Class III provides a range of

solutions for the containment of category.

Class II : The Class II vertical laminar-flow biological cabinet is an open-front, ventilated cabinet. This cabinet provides a HEPA-filtered circulated mass airflow within the workspace. The exhaust air from the cabinet is also filtered by HEPA Filter. Thus, Class II bio safety cabinet provides protection to product as well as to human beings and environment. While HEPA Filters are effective for trapping particulates and infectious agents, it is suitable for the containment of bio hazardous material thereby providing sterile environment for cell culture. Class II cabinet is most versatile and economical model.

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Supply Filter	Imported Minipleat HEPA filter with hot melt technology, which conforms to EU-14 Grade at supply position with an efficiency rating better than 99.999% for 0.30 μ .
Exhaust HEPA Filter	Imported Minipleat HEPA filter with hot melt technology, which conforms to EU-14 Grade at supply position with an efficiency rating better than 99.999% for 0.30 μ .
Pre-filter	Pre-filter are made from Non-woven synthetic with HDPE mesh; conforms to EU-06 Grade, with an efficiency rating better than 95% down to 5 μ .
Motor Blower assembly	Motor Blower designed of statically and dynamically balanced for supply of sufficient capacity and static pressure to take care of airflow requirement for entire life of HEPA.
Differential Pressure Gauge	Dwyer Make Magnehelic Gauge (0-25mm: 2 Nos.) to monitor pressure drop across HEPA & work area with respect to ambient.
Lighting	Fluorescent Light (250 Lux) at work surface.
Switches	SS ON/OFF Switches for motor & lights
SS 304 work table	SS 304 work table perforations at front & back which can be removed occasionally for cleaning purpose
Front Door	1-piece fully open able sliding toughened glass with counterweight arrangement
Door Opening Alarm	Alarm triggers in case front door is raised more than 8'' (i.e. safe clear door during operation)
Exhaust Duct	SS 304 1 ft long elbow duct for exhaust

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Side Panels	Double walled flushed Glass Side Panels.
Electrical Supply	230V AC 1- Ø 50 HZ / 415V AC 3-Ø 50HZ
Noise/Vibration Level	Less than 67 dB on Scale 'A' when Ambient is greater than 55 dB on Scale 'A'/Minimum
Air Flow	Vertical- Re circulatory ,0.45+-0.05mps/90 (fpm)

Optional Accessories

- SS 304 Cock For Gas and Air
- Foldable polycarbonate front door
- Audio Visual Alarm
- Clean down timer with operation hold indicator
- Photophilic gauge
- Sodium vapor lamps
- Flame Proof fitting
- Safe change Bag in/Bag out arrangement for filter
- Front door with gloves and glove port arrangement
- Transfer hatch for material movement
- PLC based control system