

Concept to Execution

... Ideas in action



- ▼ **Consulting**
- ▼ **Project Management**
- ▼ **Clean Room Solutions**



Klean Air Technologies

www.kleanairtech.com



Klean Air Technologies

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Klean Air Technologies is a renowned in design, manufacturers and installation of an extensive range of Clean Room Equipment, Clean Room Furniture, Clean Room material handling equipment, 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, unidirectional air flow, weighing booth extractor and many more. We are establishing a spacious state-of-the-art manufacturing facility in India (Virar - Mumbai) to meet the growing needs.

Klean Air Technologies works most valuable asset and resource are its people. The company has a team of dedicated members of experienced engineers, handling a wide range of operations ranging from production, quality control & assurance, development, marketing, etc. The core team consists of highly motivated and professional with academic degree, exposure to technology and business development. This team is working with single minded commitment to produce highest standard of quality products, their industry expertise and use of modern technology in our manufacturing process has enabled us to both standard and customized range of as per the client's requirements.

Klean Air Technologies is a technology based and knowledge driven enterprise offering best quality with effective price. Our strategy vision to provide new technology with time and suitable needs to generate good products from your Company. Our search for perfection guides us to focus on quality in our entire product range. We ensure to deliver defect free and flawless range of products, which is widely demanded in various Pharmaceutical, Cosmetic, Bio-Technology and Food Industries across the globe.

KLEAN AIR Technologies we believe quality products and prompt services with a sincere approach to provide client solutions is all that is required for business growth. we are availing ISO standards in our work process and we have achieved customer satisfaction and repeated orders from the best pharma's in the industry. Availing these standards in our work process we have achieved customer satisfaction and repeat orders from the best pharma's in the industry. We have been able to expand our business activities and have achieved excellence along with successful accomplishment of our operational goals.

Klean Air

Static Pass Box | Ventilated Pass Box



Static Pass Box | 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 cleanroom pass boxes can be installed on the wall between the clean room and other room.

Our range of static pass boxes is available in various specifications as per the client's requirements.

Static Pass Box | Ventilated Pass Box is with a variety of standard dimensions also our pass boxes can be custom engineered to any size. Static Pass Boxes available in powder coated Mild Steel, SS 304 / 316 / 316L or a combination of both.

Model #	Internal Dim. (mm)	External Dim. (mm)	Power Supply
SPB-18-18-18	450 X 450 X 450	580 X 520 X 650	230V AC 1- Ø 50HZ / 415V AC 3-Ø 50HZ
SPB-24-24-24	610 X 610 X 610	740 X 680 X 810	

Technical Specifications

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
SS Coving	Internal covings for easy cleaning

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

Documentation

All necessary documents will be provided as per the latest prevailing standards.



Klean Air Technologies

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Klean Air Dynamic Pass Box



Dynamic Pass Box is designed to allow material transfer through controlled environment without much personnel movement to minimize man /material movement & 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 & controls ingress of particulate contaminants into clean room & between different classified areas. Our range of Dynamic pass boxes is available in various specifications as per the client's requirements.

Dynamic Pass Box is with a variety of standard dimensions also our pass boxes can be custom engineered to any size. These pass boxes are available in powder coated Mild Steel, SS 304 / 316 / 316L or a combination of both.

Model #	Working Area (mm)	Airflow Velocity (Down flow)	Air Cleanliness	Air Flow
DPB-18-18-18	450 X 450 X 450	0.45±0.05mps/ 90(fpm)	ISO Class 5 (ISO 14644-1:1999 (E)) / Class 100 (U.S. FED STD 209 E)	Vertical Recirculatory
DPB-24-24-24	610 X 610 X 610			

Technical Specifications

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 0.3μ.
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 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 -25 mm: 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 Interlocking type door arrangement to ensure that only one side door 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
Electrical Supply	230V AC 1- Ø 50HZ / 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 • Photohelic guage / Digital pressure gauge to monitor of pressure drop across filter
- Flame Proof Fitting

Klean Air

Vertical Laminar Air flow workstations



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 VLAF unit draws air in through the top of the unit through a 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 face of the operator as in a horizontal laminar flow cabinet. The LAF cabinets are used for work with low-risk substances and materials, when protection of working material from environment is required or work with item requires a sterile working zone.

VLAF unit is with a variety of standard dimensions also our unit can be custom engineered to any size. These units are available in powder coated Mild Steel, SS 304 / 316 / 316L or a combination of both.

Model #	Hepa Filter Area(mm)	Airflow Velocity (Down flow)	Air Cleanliness
CSVLAF-36-24	915 x 610	0.45±0.05mps/ 90(fpm)	ISO Class 5 (ISO14644-1:1999 (E)) / Class100 (U.S. FED STD 209 E)
CSVLAF-48-24	1220 x 610		
SMVLAF-36-24-30	915 x 610		
SMVLAF-48-30-30	1220 x 762		

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 0.3μ.
Pre-filter	Pre-filter are made from Non-Woven Synthetic with HDPE mesh; conforms to EU 4 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 -25 mm: 1 No.) 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 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	230V AC 1- Ø 50HZ / 415V AC 3-Ø 50HZ
Noise Level	Less than 67 dB on Scale 'A' when Ambient is not greater than 55 dB on Scale 'A'
Vibration Level	Minimum
Air Flow	Vertical

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 • Photohelic guage / Digital pressure gauge to monitor of pressure drop across filter. • Sodium Vapor lamp • Flame proof fitting

Klean Air Horizontal Laminar Air Flow Workstation



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 blown 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 laminarity of the flow prevents cross contamination between the items handled in the working space.

These units are suitable for the handling of non-hazardous products, sensible to dust and/or to contamination wherever operator protection is not required.

HLF unit is with a variety of standard dimensions also our cabinet can be custom engineered to any size. These units are available in powder coated Mild Steel, SS 304 / 316 / 316L or a combination of both.

Model #	Working Area (mm)	Airflow Velocity (Down flow)	Air Cleanliness	Air Flow
HLAF-36-24-24	915 x 610 x 610	0.45±0.05mps/ 90(fpm)	ISO Class 5 (ISO 14644-1:1999 (E)) / Class 100 (U.S. FED STD 209 E)	Horizontal
HLAF-48-24-24	1220 x 610 x 610			
HLAF-48-24-30	1220 x 610 x 760			

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 0.3μ.
Pre-filter	Pre-filter are made from Non-Woven Synthetic with HDPE mesh; conforms to EU 6 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 -25 mm: 1 Nos.) to monitor pressure drop across HEPA.
Lighting	Fluorescent Light with milky white diffuser (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
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- Ø 50HZ / 415V AC 3-Ø 50HZ
Noise Level	Less than 67 dB on Scale 'A' when Ambient is not greater than 55 dB on Scale 'A'
Vibration Level	Minimum

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 • Photohelic guage . • Sodium Vapor lamps
- Flame proof fitting

Klean Air Garment Storage Cabinet



Garment Storage Cabinet is designed to provide ISO Class 5 (Class 100) particle free work area for storing sterile packed garments to meet garment storage needs while making a positive contribution to maintaining the cleanliness of your controlled clean room environment.

Clean room garments can accumulate particulate contamination during storage and between laundry washes, which in turn may lead to lower product yields and increased product quality issues. The work area is continuously supplied with positive pressure HEPA filtered re-circulated vertical / horizontal air flow.

Garment Storage Cabinet is with a variety of standard dimensions also our unit can be custom engineered to any size. These units are available in powder coated Mild Steel, SS 304 / 316 / 316L or a combination of both.

Model #	Working Area (mm)	Airflow Velocity (Down flow)	Air Cleanliness	Air Flow
GSC-24-24-24	610 X 610 X 610	0.45±0.05mps/ 90(fpm)	ISO Class 5 (ISO 14644-1:1999 (E)) / Class 100 (U.S. FED STD 209 E)	Vertical / Horizontal Re-circulatory (Based on application)
GSC-24-24-36	610 X 610 X 915			
GSC-36-24-24	915 X 610 X 610			

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 0.3μ.
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 5μ.
Fresh Air Filter	Fresh Air filters are made from Non-Woven Synthetic with HDPE mesh; conforms to EU 4 Grade, with an efficiency rating better than 90% down to 10μ.
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 -25 mm: 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 interlocking arrangement to put-off UV Light if either side door opens.
Shelves	SS 304 hanging arrangement (or) removable type shelves
Temperature control	Heater with thermostat for control of temperature
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
Electrical Supply	230V AC 1- Ø 50HZ / 415V AC 3-Ø 50HZ
Noise Level	Less than 67 dB on Scale 'A' when Ambient is not greater than 55 dB on Scale 'A'

Optional Accessories

- U.V. Light with Hour Meter .
- Electro-Magnetic / Mechanical Interlocking
- Audio Visual Alarm indicating condition of HEPA filters
- Clean down timer with operation hold indicator
- VFD based control systems
- Photohelic guage / Digital pressure gauge to monitor of pressure drop across filter.
- Sodium Vapor lamps
- Flame proof fitting

Klean Air Mobile Trolley



Mobile Trolley is designed for transporting sterile products under ISO Class 5 (Class 100) particle free work area for storing products to meet storage needs while making a positive contribution to maintaining the cleanliness of your controlled cleanroom environment.

The work area is continuously supplied with positive pressure HEPA filtered recirculated vertical / horizontal air flow. Our range of mobile trolley cabinet is available in various specifications as per the client's requirements.

Mobile Trolley is with a variety of standard dimensions also our Mobile Trolley can be custom engineered to any size. These units are available in powder coated Mild Steel, SS 304 / 316 / 316L or a combination of both.

Model #	Working Area (mm)	Airflow Velocity (Down flow)	Air Cleanliness	Air Flow
MT-24-24-24	610 X 610 X 610	0.45±0.05mps/ 90(fpm)	ISO Class 5 (ISO 14644-1:1999 (E)) / Class100 (U.S. FED STD 209 E)	Horizontal Recirculatory
MT-24-24-36	610 X 610 X 915			

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 0.3μ.
Return Air Pre-filter	Return Air Pre-filter are made from Non-Woven Synthetic with HDPE mesh; conforms to EU 6 Grade, with an efficiency rating better than 95% down to 5μ.
Fresh Air Filter	Fresh Air filters are made from Non-Woven Synthetic with HDPE mesh; conforms to EU 4 Grade, with an efficiency rating better than 90% down to 10μ.
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 -25 mm: 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 interlocking arrangement to put-off UV Light if either side door opens.
Shelves	SS 304 hanging arrangement (or) removable type shelves
Temperature Control	Heater with thermostat for control of temperature in cabinet
Battery back-up	Battery back-up with inverter for 30 mins
Castrol Wheels	PU coated lockable castor wheels
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)
Handle	SS 304 Handle for mobility
Electrical Supply	230V AC 1- Ø 50HZ / 415V AC 3-Ø 50HZ
Noise Level	Less than 67 dB on Scale 'A' when Ambient is not greater than 55 dB on Scale 'A'
Vibration Level	Minimum

Optional Accessories

- U.V. Light with Hour Meter • Electro-Magnetic / Mechanical Interlocking • Audio Visual Alarm indicating condition of HEPA filters • Clean down timer with operation hold indicator • VFD based control systems • Photohelic guage / Digital pressure gauge to monitor of pressure drop across filter. • Sodium Vapor Lamps • Flame proof fitting

Klean Air

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 applications in sampling and dispensing units. Ideally used for mixed airflow stream to control the hazardous emission 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 conditions for personnel.

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 discharged from the booth through the bleed exhaust HEPA filter to maintain the working space under negative pressure.

Reverse Laminar Air Flow units are available in various standard dimensions also the cabinet can be custom engineered to suite any size. These units are available in powder coated Mild Steel, SS 304 / 316 / 316L or a combination of both.

Model #	Working Area (mm)	Air Flow Velocity (Down Flow)	Air Cleanliness	Air Flow
RLAF-48-36	1260 X 955 X 2170	0.45 ± 0.05mps / 90(fpm)	ISO Class 5 (ISO 14644-1:1999 (E)) / Class 100 (U.S. FED STD 209 E)	Vertical - Recirculatory
RLAF-48-48	1275 X 1260 X 2170			
RLAF-72-48	1875 X 1875 X 2170			

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 0.3μ.
Exhaust HEPA filter	Imported Minipleat HEPA filter with hot melt technology, which conforms to EU-14 Grade at exhaust position with an efficiency rating better than 99.999% for 0.3μ.
Intermediate Filter	Intermediate filter are made from Non-Woven Synthetic with HDPE mesh; conforms to EU 7 Grade, with an efficiency rating better than 95% down to 3μ.
Pre-filter	Pre-filter are made from Non-Woven Synthetic with HDPE mesh; conforms to EU 4 Grade, with an efficiency rating better than 90% down to 10μ.
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 -25 mm: 2 Nos.) to monitor pressure drop across HEPA & Intermediate filter and (0-10 mm 1 No.) across prefilter.
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 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 50HZ / 415V AC 3-Ø 50HZ
Noise Level	Less than 67 dB on Scale 'A' when Ambient is not greater than 55 dB on Scale 'A'
Vibration Level	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
- Photohelic guage / Digital pressure gauge to monitor of pressure drop across filter.
- Sodium Vapor lamps
- Flame proof fitting

Klean Air 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.

Air shower is available in various standard dimensions also our cabinet can be custom engineered to fit any size. These units are available in powder coated Mild Steel, SS 304 / 316 / 316L or a combination of both.

Model #	Working Area (mm)	Suitable Person	No of Nozzle and Diameter	Velocity	Air Cleanliness
AS-001	800 x 750 x 1920	1 Person with one side blowing	6 nos nozzle one side and nozzle dia 38mm	18~25 mps	ISO Class 5 (ISO 14644-1:1999 (E)) / Class 100 (U.S. FED STD 209 E)
AS-002	800 x 950 x 1920	1 Person with two sides blowing	12 nos nozzle two sides and nozzle dia 38mm		
AS-003	800 x 1150 x 1920	1 - 2 Persons with two sides blowing	16 nos nozzle two side and nozzle dia 38mm		
AS-004	1500 x 1550 x 1920	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 0.3μ.
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 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 -25 mm: 1 No.) 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 cannot open at the same time & to ensure that both the doors 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 50HZ / 415V AC 3-Ø 50HZ
Noise Level	Less than 67 dB on Scale 'A' when Ambient is not greater than 55 dB on Scale 'A'
Vibration Level	Minimum

Optional Accessories

- Audio Visual Alarm indicating condition of HEPA filters • Clean down timer with operation hold indicator
- VFD based control systems • Photohelic gauge / Digital pressure gauge to monitor of pressure drop across filter.
- Flame proof fitting

Klean Air Unidirectional Air Flow



Unidirectional Air Flow Benches offers highest product protection for samples and processes by providing ISO Class 5 particle free work area. Unidirectional Air Flow unit draws air in through the top of the unit through a 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 face of the operator as in a vertical laminar flow cabinet.

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

Unidirectional Air Flow unit is with a variety of standard dimensions also our cabinet can be custom engineered to any size. These units are available in powder coated Mild Steel, SS 304 / 316 / 316L or a combination of both.

Model #	Hepa Filter Area (mm)	Air Flow Velocity (Down Flow)	Air Cleanliness	Air Flow
UDAF-48-36	1220 X 915	0.45 ± 0.05mps / 90(fpm)	ISO Class 5 (ISO 14644-1:1999 (E)) / Class 100 (U.S. FED STD 209 E)	Vertical - Recirculatory
UDAF-48-48	1220 X 1220			

Technical Specifications

Supply filter	Imported Minipleat HEPA filter with hot melt technology, which conforms to EU-14 Grade at exhaust position with an efficiency rating better than 99.999% for 0.3µ.
Pre Filter	Pre-filter are made from Non-Woven Synthetic with HDPE mesh; conforms to EU 6 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.
Differential pressure gauge	Dwyer Make Magnehelic Gauge (0 -25 mm: 2 Nos.) to monitor pressure drop across HEPA filter & work area with respect to ambient.
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 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 Panels	Double skin side panels with glass view panel
Electrical Supply	230V AC 1- Ø 50HZ / 415V AC 3-Ø 50HZ
Noise Level	Less than 67 dB on Scale 'A' when Ambient is not greater than 55 dB on Scale 'A'
Vibration Level	Minimum

Optional Accessories

- Front Anti-Static PVC Curtains
- Audio Visual alarm indicating condition of HEPA Filters
- Clean down timer with operation hold indicator
- VFD based control systems
- Photohelic guage / Digital pressure gauge to monitor of pressure drop across filter.
- Sodium Vapor lamps
- Flame proof fitting

Klean Air Weighing Booth Extractor



Weighing Booth Extractor is designed specifically for powder containment applications, the powder weighing enclosure employs carefully directed inward airflow at the face of the enclosure to hazardous powders or potent pharmaceutical compounds. The aerodynamically designed enclosure reduces airflow turbulence for maximum containment while minimizing the effect that air drafts may have on sensitive weighing balances. The enclosure design exceeds the containment requirements of proven by independent type testing. All exhaust air is HEPA-filtered, removing virtually all particulate matter, before recirculation to the laboratory.

Weighing Booth Extractor unit is with a variety of standard dimensions also our cabinet can be custom engineered to any size. These units are available in powder coated Mild Steel, SS 304 / 316 / 316L or a combination of both.

Model #	Working Area (mm)	Air Flow Velocity (Down Flow)	Air Cleanliness	Air Flow
WBE-48-36	1260 X 955 X 2170	0.45 ± 0.05mps / 90(fpm)	ISO Class 5 (ISO 14644-1:1999 (E)) / Class 100 (U.S. FED STD 209 E)	Vertical - Recirculatory
WBE-48-48	1275 X 1260 X 2170			

Technical Specifications

Exhaust HEPA Filter	Imported Minipleat HEPA filter with hot melt technology, which conforms to EU-14 Grade at exhaust position with an efficiency rating better than 99.999% for 0.3μ.
Pre Filter	Pre-filter are made from Non-Woven Synthetic with HDPE mesh; conforms to EU 6 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.
Differential pressure gauge	Dwyer Make Magnehelic Gauge (0 -25 mm: 2 Nos.) to monitor pressure drop across HEPA filter & work area with respect to ambient.
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	Electrical control panel mounted on the side panel of the unit.
Door	SS 304 double walled door construction with flush glass view panels with door closer, SS handle and SS hinges
Door release	Door release switch is provided from the front of the unit
DOP Port	DOP test port at upstream of HEPA filter integrity test. (With PAO Solution)
Exhaust Duct	SS 304 1 ft long elbow duct for exhaust
Side Panels	SS 304 Double Walled Side Panels.
Electrical Supply	230V AC 1- Ø 50HZ / 415V AC 3-Ø 50HZ
Noise Level	Less than 67 dB on Scale 'A' when Ambient is not greater than 55 dB on Scale 'A'
Vibration Level	Minimum

Optional Accessories

- Audio Visual alarm indicating condition of HEPA filters
- Clean down timer with operation hold indicator
- Photohelic gauge / Digital pressure gauge to monitor of pressure drop across filter.
- SS Perforation table for keeping weighing scale
- Flame proof fitting
- Safe change Bag in / Bag out arrangement for filters
- Double skin side panels with view windows
- Service access from front / Back / Side
- Horizontal internal coving at base

Klean Air Bio-Safety Cabinet



Biological 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 filter. The air in the cabinet is re-circulated over the work area through the HEPA filter, it is a contaminant-free environmental protection

Biological 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 biosafety 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 re 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.

Model #	Working Area (mm)	Air Flow Velocity (Down Flow)	Air Cleanliness	Air Flow
BSC-36-24-24	915 x 610 x 610	0.45 ± 0.05mps / 90(fpm)	ISO Class 5 (ISO 14644-1:1999 (E)) / Class 100 (U.S. FED STD 209 E)	Vertical - Recirculatory
BSC-48-24-24	1220 x 610 x 610			

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 0.3µ.
Exhaust HEPA Filter	Imported Minipleat HEPA filter with hot melt technology, which conforms to EU-14 Grade at exhaust position with an efficiency rating better than 99.999% for 0.3µ.
Pre Filter	Pre-filter are made from Non-Woven Synthetic with HDPE mesh; conforms to EU 6 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.
Differential pressure gauge	Dwyer Make Magnehelic Gauge (0 -25 mm: 2 Nos.) to monitor pressure drop across HEPA filter & work area with respect to ambient.
Lighting	Fluorescent Light (250 Lux) at work surface
ON/OFF Switches	SS ON/OFF Switches for motor & lights
SS 304 work table	SS 304 work table with perforations at front & back which can be removed occasionally for cleaning purpose
Front door	1-piece fully openable 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 opening during operation)
Exhaust Duct	SS 304 1 ft long elbow duct for exhaust
Side Panels	Double walled flushed Glass Side Panels
Electrical Supply	230V AC 1- Ø 50HZ / 415V AC 3-Ø 50HZ
Noise Level	Less than 67 dB on Scale 'A' when Ambient is not greater than 55 dB on Scale 'A'
Vibration Level	Minimum

Optional Accessories

- SS 304 Cock for Gas and Air • Foldable polycarbonate front door • Audio Visual Alarm • Clean down timer with operation hold indicator • VFD based control systems • Photohelic guage. • Sodium vapor lamps
- Flame proof fitting • Safe change Bag in / Bag out arrangement for filte • Front door with gloves and glove port arrangement • Transfer hatch for material movement • PLC based control system

Klean Air

Mobile Laminar Air Flow Unit



Mobile Laminar Air Flow Unit is designed for transporting sterile products under ISO Class 5 (Class 100) particle free work area to ensure product integrity. The work area is continuously supplied with positive pressure HEPA filtered recirculated horizontal / vertical air flow.

Mobile Laminar Air Flow Unit is with a variety of standard dimensions also our cabinet can be custom engineered to any size. Mobile Laminar air flow units are available in powder coated Mild Steel, SS 304 / 316 / 316L or a combination of both.

Model #	Working Area (mm)	Air Flow Velocity (Down Flow)	Air Cleanliness	Air Flow
MLAF-36-30-30	915 x 760 x 760	0.45±0.05 mps / 90(fpm)	ISO Class 5 (ISO 14644-1:1999 (E)) / Class 100 (U.S. FED STD 209 E)	Vertical
MLAF-48-30-30	1220 x 760 x 760			
MLAF-60-30-30	1525 x 760 x 760			
MLAF-72-30-30	1830 x 760 x 760			

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 0.3μ.
Pre-Filter	Pre-Filter are made from Non-Woven Synthetic with HDPE mesh; conforms to EU 6 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 -25 mm: 1 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 Panel	Electrical control panel mounted in the unit.
DOP Port	DOP test port at upstream of HEPA filter integrity test. (With PAO Solution)
Battery back-up	Battery back-up with inverter for 30 mins
Handle	SS 304 Handle for mobility
Castrol Wheel	PU coated lockable castor wheels
Electrical Supply	230V AC 1- Ø 50HZ / 415V AC 3-Ø 50HZ
Noise Level	Less than 67 dB on Scale 'A' when Ambient is not greater than 55 dB on Scale 'A'
Vibration Level	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 • Photoheliguage / Digital pressure gauge to monitor of pressure drop across filter • Sodium Vapor Lamps • Flame Proof Fitting

Klean Air

Our New Range of Products





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