MAP™

Innovative Engineering for Cleanrooms...

ISO 9001:2015 CERTIFIED ORGANISATION

MAP FILTERS (INDIA) PVT. LTD.

MANUFACTURER

OF

AIR FILTERS & CLEANROOM EQUIPMENTS

PRE FILTER

PRE FILTERS are the first stage filtration installed in the AHU to prevent dust particle to pass through air. It has other applications in equipment like Laminar Air flows, Dispensing Booths & other air particle control system. Suitable for use as filter grade G1 to G4 of EN779 and MERV 1 to 7 of ASHRAE 52.

We manufacture top class PRE FILTERS of standard & customized sizes.

TECHNICAL PARAMETERS	
Efficiency	95% for 5 micron, 90% for 10 micron, 90% for 20 micron
Type	Box Type / Flange Type
Casing MOC	Aluminum Extruded Profile / GI / SS 304 / SS 316
Media	Synthetic Media with HDPE Net, Non-Woven Type
Working Pressure	Initial Pressure Drop – 4 mm of WC Final Pressure Drop – 10mm of WC
Support Rod	5mm Solid Al Rod
Sealant	Polyurethane
Washable	Yes
Gasket MOC	Neoprene or Silicon
Option	Refill Type – manufactured as per customer requirement

STANDARD SIZES	
305 x 305 x 25 / 50 / 150mm	760 x 610 x 25 / 50 / 150mm
450 x 450 x 25 / 50 / 150mm	915 x 610 x 25 / 50 / 150mm
610 x 305 x 25 / 50 / 150mm	1220 x 610 x 25 / 50 / 150mm
610 x 610 x 25 / 50 / 150mm	1220 x 915 x 25 / 50 / 150mm

* 5mm thick gasket on all side

Applications

- Pharmaceutical Industry
- Chemical Research Laboratory
- Electronic Industry
- Semi-Conductor Production
- Food Processing Industry

FINE FILTER

FINE FILTERS or MICROVEE FILTERS are filters installed in the AHU to prevent dust particle to pass through air. Suitable for use as filter grade F5 to F9 of EN779 and MERV 8 to 15 of ASHRAE 52.

We manufacture top class FINE FILTERS of standard & customized sizes.

TECHNICAL PARAMETERS	
Efficiency	97% for 3 micron, 97% for 5 micron
Type	Box Type / Flange Type
Casing MOC	Aluminum Extruded Profile / GI / SS 304 / SS 316
Media	Synthetic Media with HDPE Net, Non-Woven Net
Working Pressure	Initial Pressure Drop – 3 mm of WC Final Pressure Drop – 18mm of WC
Support Rod	5mm Solid Al Rod
Sealant	Polyurethane
Washable	Yes
Gasket MOC	Neoprene or Silicon

STANDARD SIZES	
305 x 305 x 25 / 50 / 150mm	915 x 760 x 25 / 50 / 150mm
610 x 305 x 25 / 50 / 150mm	915 x 915 x 25 / 50 / 150mm
610 x 610 x 25 / 50 / 150mm	1220 x 610 x 25 / 50 / 150mm
915 x 610 x 25 / 50 / 150mm	1220 x 915 x 25 / 50 / 150mm

* 5mm thick gasket on all side

Applications

- Pharmaceutical Industry
- Chemical Research Laboratory
- Electronic Industry
- Semi-Conductor Production
- Food Processing Industry

HEPA FILTER

HEPA stands for High Efficiency Particulate Absorber. To qualify for a filter to be HEPA it must remove 99.97% of particle size greater than or equal to 0.3 micron. Suitable for use as filter grades H13 and H14 of EN1822 and ISO Class 5 operation as per ISO 14644.

We manufacture top class HEPA FILTERS of standard & customized sizes.

STANDARD SIZES	
305 x 305 x 50 / 150 / 300mm	915 x 760 x 50 / 150 / 300mm
610 x 305 x 50 / 150 /300mm	915 x 915 x 50 / 150 / 300mm
610 x 610 x 50 / 150 /300mm	1220 x 610 x 50 / 150 / 300mm
760 x 610 x 50 / 150 /300mm	1220 x 915 x 50 / 150 / 300mm

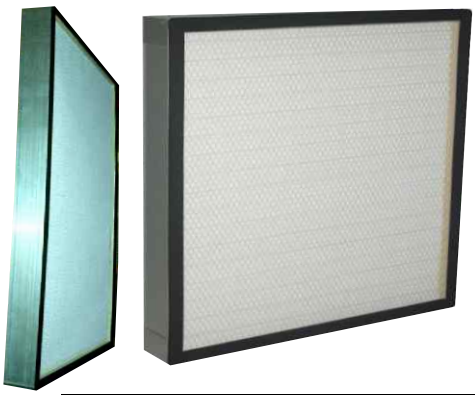
* 5mm thick gasket on all side

TECHNICAL PARAMETERS	
Efficiency	99.997% for 3 micron
Type	Box Type / Flange Type
Casing MOC	Aluminum Extruded Profile / GI / SS 304
Media	Micro Glass Fibre Paper (Make: Hollingsworth & Vose, USA)
Working Pressure	Initial Pressure Drop – 25mm of WC Final Pressure Drop – 50 to 70mm of WC
Support Rod	5mm Solid Al Rod
Operating Temperature	Ambient
Sealant	Epoxy or Polyurethane resin
Separator	Micro Glass Paper Ribbon
Washable	No
Gasket MOC	Neoprene or Silicon

Applications

- Pharmaceutical Industry
- Chemical Research Laboratory
- Electronic Industry
- Semi-Conductor Production
- Food Processing Industry

MINIPLEAT HEPA FILTER



HEPA stands for High Efficiency Particulate Absorber. To qualify for a filter to be HEPA it must remove 99.97% of particle size greater than or equal to 0.3 micron. Suitable for use as filter grades H13 and H14 of EN1822 and ISO Class 5 operation as per ISO 14644.

We manufacture top class MINIPLEAT HEPA FILTERS of standard & customized sizes.

STANDARD SIZES	
610 x 610 x 75mm	910 x 760 x 75mm
610 x 610 x 75mm	1220 x 610 x 75mm
760 x 610 x 75mm	1220 x 760 x 75mm
910 x 610 x 75mm	1220 x 915 x 75mm

* 5mm thick gasket on all side

TECHNICAL PARAMETERS	
Efficiency	99.997% for 3 micron
Type	Box Type / Flange Type
Casing MOC	Aluminum Extruded Profile / Anodized / SS 304 / SS 316
Media	Micro Glass Fibre Paper (Make: Hollingsworth & Vose, USA)
Working Pressure	Initial Pressure Drop – 25mm of WC Final Pressure Drop – 40mm of WC
Support Rod	5mm Solid Al Rod
Operating Temperature	Ambient
Sealant	Epoxy or Polyurethane resin
Separator	Micro Glass Paper Ribbon
Washable	No
Gasket MOC	Neoprene
Option	High Temperature Filters with Temp rating up to 250° C can be manufactured on customer requirement

Applications

- Pharmaceutical Industry
- Chemical Research Laboratory
- Electronic Industry
- Semi-Conductor Production
- Food Processing Industry

STATIC PASS BOX

Static pass box , fabricated with 304 / 316 grades or combinations stainless steel and high quality components and are capable of eradicating pollutants completely from the air. With UV light along with hour meter, Fluorescent light, buzzer indicator to know the material is kept inside and indicating lamp, these static pass boxes provide excellent working performance in the clean room unit.

Applications

- Pharmaceutical Industry
- Chemical Research Laboratory
- Electronic Industry
- Semi-Conductor Production
- Food Processing Industry

TECHNICAL PARAMETERS	
Construction	Stainless Steel 304 / 316 / 316L or combination
Door	Solid door w/ mechanical or electrical interlocked
Window	Tempered Glass
Accessories	Hour meter
Electricals	Hour Meter, Fluorescent light, UV light, Electromagnet for door interlocking, Buzzer and Indicator lamps
Window	Tempered Glass
UV Lamp	Yes
Power Supply	220 / 230 Volts Single Phase 50Hz
Certifications	ISO

DYNAMIC PASS BOX

Dynamic Pass Box equipment are made of high grades stainless steel (304 / 316 / 316 L) with international quality standard components including mechanically or electrically interlocked doors and UV light.

TECHNICAL PARAMETERS	
Construction	Stainless Steel 304 / 316 / 316L or in combinations
Door	Solid door w/ mechanical or electrical interlocked
Window	Tempered/Toughen Glass
UV Lamp	Yes
HEPA Filter	Yes
Suction Filter	Stainless Steel, 95% down to 5 µ Efficiency (EU-4 Rating.)
Supply Filter	Aluminum, 99.999% down to 0.3 µ (EU-14 Rating.)
Blower	Dynamically balanced Motor-blower with suspension arrangement
Air Velocity	0.45 ±0.05 mps
Noise	<78 dB
Power Supply	220 / 230 Volts Single Phase 50Hz
Accessories	Hour meter, Magnehelic / Minihelic Pressure Gauge
Electricals	Hour Meter, Fluorescent light, UV light, Electromagnet for door interlocking, Buzzer and Indicator lamps, ON/OFF Switch for blower
DOP Test Port	Yes
Cleanliness	ISO Class 5 (ISO 14644-1:1999 (E))
Certifications	ISO

Applications

- Pharmaceutical Industry
- Chemical Research Laboratory
- Electronic Industry
- Semi-Conductor Production
- Food Processing Industry

DISPENSING BOOTH

Dispensing Booth is a kind of partial purifying equipment for •lling, re•lling, weighing & sampling of raw material and compounds. It is provided with HEPA •lter, which prevents the airborne dusts by down draught technique. The unit eliminates powder contamination to protect the operator and surrounding environment.

Also called Sampling Booth & Weighing Booth.

TECHNICAL PARAMETERS	
CLEAN LEVEL	ISO 5 (CLASS 100), CLASS A
HEPA FILTERS	99.999% efficiency at 0.3 μm
AIR VOLUME	Supply air volume ≤7500m3/h, Exhaust air volume ≤2250m3/h; adjustable
MOC	Fully Stainless Steel 304 Grade or 316 (customized)
AIR VELOCITY	0.35~0.65 m/s, adjustable
PRESSURE GAUGE	3 Nos
NOISE	≤ 70 dB
UV LAMP	30W / 40W / 30W*2 (OPTIONAL)
ILLUMINATING LAMP	14W*4
POWER SUPPLY	230 VAC ±10%, 50/60 Hz
SOCKETS	2 Nos
CUSTOMIZED DESIGNS FOR CLEAN LEVEL, SIZE OR MATERIAL IS AVAILABLE	

Features

- Bespoke / Customized designs as per site requirements & user specification
- Uniquely designed air duct effectively controls noise level
- Smooth transition of wall & ground eliminates dust accumulation & blind angles
- Differential pressure gauges for real time monitoring of filters
- Automatic changeable frequency systems monitors the air velocity to ensure its stability in the work area (in select models only)
- Uniform flow design protects the operator & prevents environmental pollution and cross contamination of products
- Fresh air Filters, Medium Efficiency filters & HEPA filters ensure clean air with less particulates
- Anti Static dust proof PVC curtains

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 matter before entering the clean area. These units helps to remove dust effectively and maintains the normal working status.

TECHNICAL PARAMETERS	
Construction	MS Powder Coated / SS 304 / SS 316 or combination of both
Filtration	1st Stage - Fine Filter with efficiency of 95% down to 5 micron 2nd Stage – HEPA Filter with efficiency of 99.999% down to 0.3 micron
Motor Blower	Dynamically balanced with suitable ratings & suspension arrangement
Doors & Door Interlocking	MS Powder Coated or SS 304 make sandwiched doors with toughened glass view panel. Electromagnetic Interlocking system ensure that both doors cannot be opened at same time.
Nozzle	SS 304 / Aluminum Anodized
Electrical Accessories	LED Lights 5/15 Amp switch socket ON/OFF Switch
Air Quality	ISO Class 5 (ISO 14644-1:1999)
Velocity	0.45 +/- 0.05 mps
Air Flow Direction	Vertical & Horizontal
Noise	Less than 67dB

Applications

- Pharmaceutical Industry
- Chemical Research Laboratory
- Electronic Industry
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- Food Processing Industry

LAMINAR WORK STATIONS

Laminar Air Flow work stations are designed for creation of a bacterial dust free air space .The work area is continuously supplied with positive pressure HEPA filtered Vertical / Horizontal airflow & prevents contamination from operator and environment to work area. Airflow work stations are used for work with low risk substances & material.

We manufacture top class VERTICAL/HORIZONTAL LAMINAR FLOW UNIT of standard & customized sizes.

TECHNICAL PARAMETERS	
Construction	SS 304 / SS 316 or combination of both
Filtration	1st Stage - Fine Filter with efficiency of 95% down to 5 micron 2nd Stage – HEPA Filter with efficiency of 99.999% down to 0.3 micron
Motor Blower	Dynamically balanced with suitable ratings & suspension arrangement
Electrical Accessories	LED Lights 5/15 Amp switch socket ON/OFF Switch
Air Quality	ISO Class 5 (ISO 14644-1:1999)
Velocity	0.45 +/- 0.05 mps
Air Flow Direction	Vertical or Horizontal
Noise	Less than 67dB
Optional Features	- Front Door (Hinged or Pneumatic Cylinder) - SS Perforated Grills for HEPA - Audio Visual Alarm for HEPA Filter condition - UV Light with hour Meter

Applications

- Pharmaceutical Industry
- Chemical Research Laboratory
- Electronic Industry
- Semi-Conductor Production
- Food Processing Industry

CEILING SUSPENDED LAMINAR

Ceiling Suspended Laminar Air Flow work stations are designed for creation of continuous supply of positive pressure HEPA filtered air, thus creating a dust free clean air.

Best for aseptic filling areas.

We manufacture top class CEILING SUSPENDED LAMINAR FLOW UNIT of standard & customized sizes.

TECHNICAL PARAMETERS	
Construction	SS 304 / SS 316 or combination of both
Air Quality	Class 100
Filtration	Pre Filter with efficiency of 95% down to 5 micron HEPA Filter with efficiency of 99.997% down to 0.3 micron Main Filter - Minipleat HEPA
Motor Blower	Dynamically balanced with suitable ratings & suspension arrangement
Lighting	>500 Lux
Velocity	0.45 +/- 0.05 mps
Air Flow Direction	Vertical
Noise	Less than 67dB +/-2
Size (Interior)	- 4' x 2' - 6' x 2'
PVC Curtains	Curtains suitable length will be provided
Optional	- Internal Auxillary Sockets - Gas Cocks

Applications

- Pharmaceutical Industry
- Chemical Research Laboratory
- Electronic Industry
- Semi-Conductor Production
- Food Processing Industry

REVERSE LAMINAR UINIT

The main principal in the RLAF is "A negative pressure inside the booth prevents the escape of fine powder from the work area towards the external environment. Downward airflow provides full protection to operator and product". The air flow in the RLAF system should be re-circulated.

We manufacture top class REVERSE LAMINAR FLOW UNIT of standard & customized sizes.

TECHNICAL PARAMETERS	
Construction	SS 304 / SS 316 or combination of both
Air Quality	Class 100
Filtration	Pre Filter with efficiency of 95% down to 5 micron HEPA Filter with efficiency of 99.997% down to 0.3 micron Main Filter - Minipleat HEPA
Motor Blower	Dynamically balanced with suitable ratings & suspension arrangement
Lighting	>500 Lux
Velocity	0.45 +/- 0.05 mps
Air Flow Direction	Vertical
Noise	Less than 67dB +/-2
Size (Interior)	- 4' x 2' - 6' x 2'
PVC Curtains	Curtains suitable length will be provided
Optional	- Internal Auxillary Sockets - Gas Cocks

Applications

- Pharmaceutical Industry
- Chemical Research Laboratory
- Electronic Industry
- Semi-Conductor Production
- Food Processing Industry

GARMENT CABINET(UV)

Garment Cubicles with HEPA Filters are used for storing sterile aprons, garment & other accessories. The unit prevents contaminations from outside dust particles and air borne bacteria. The inside of the cubicle is flushed with fresh air supplied from HEPA filter which is re-circulated.

We manufacture top class STATIC & DYNAMIC GARMENT CABINET of standard & customized sizes.

TECHNICAL PARAMETERS	
Construction	MS Powder Coated / SS 304 / SS 316 or combination of both
Filtration	1st Stage - Fine Filter with efficiency of 95% down to 5 micron 2nd Stage – HEPA Filter with efficiency of 99.999% down to 0.3 micron
Motor Blower	Dynamically balanced with suitable ratings & suspension arrangement
Doors	Single or Double Sandwiched Door (as per size & user requirement) Fitted with Flag type hinges SS Handles
Electrical Accessories	LED Lights 5/15 Amp switch socket ON/OFF Switch
Air Quality	ISO Class 5 (ISO 14644-1:1999)
Velocity	0.45 +/- 0.05 mps
Air Flow Direction	Vertical or Horizontal
Noise	Less than 67dB
DOP / PAO Port	Optional
Optional Features	- Audio Visual Alarm for HEPA Filter condition - UV Light with hour Meter

Applications

- Pharmaceutical Industry
- Chemical Research Laboratory
- Electronic Industry
- Semi-Conductor Production
- Food Processing Industry

BIO-SAFETY CABINET

Bio-Safety cabinets, also known as biological safety cabinets, are enclosed, ventilated laboratory workspace areas designed to protect the user and surrounding environment from pathogens. All exhaust air is HEPA filtered to remove hazardous agents such as viruses and bacteria. Bio-safety cabinets are used in many laboratories including clinical and research labs.

We manufacture top class BIO SAFETY CABINET of standard & customized sizes.

CLASSIFICATION	
CLASS – I	protection for the user and surrounding environment, but no protection for the sample being tested
CLASS – II	protection for the user, environment and sample
	Type A1/A2 – re-circulate air back into the laboratory. A1 & A2 are similar but differentiated by the minimum average inflow velocity (FPM).
	Type B1/B2 – B1 re-circulates a percentage of air into laboratory. B2 cabinets are entirely hard ducted.
CLASS – III	also known as glove boxes, provides maximum protection; the enclosure is gas-tight, and all materials enter and leave through a dunk tank or double-door autoclave

- Choice of cabinet depends on level of protection needed for the laboratory worker and the sample of interest.

TECHNICAL PARAMETERS	
Construction	SS 304 / SS 316 or combination of both
Filtration	1st Stage - Pre Filter with efficiency of 85% down to 10 micron 2nd Stage – HEPA Filter with efficiency of 99.999% down to 0.3 micron at supply/exhaust position return air filter 3rd Stage – Fine Filter with efficiency of 95% down to 5 micron
Motor Blower	Dynamically balanced with suitable ratings & suspension arrangement
Electrical Accessories	LED Lights 5/15 Amp switch socket ON/OFF Switch Digital Pressure Gauge
Air Quality	ISO Class 5 (ISO 14644-1:1999)
Velocity	0.45 +/- 0.05 mps
Air Flow Direction	Vertical re-circulatory
Noise	Less than 67dB
Optional Features	Audio Visual alarm indicating HEPA filter condition Flame proof Fittings

AIR HANDLING UNIT

An air handler, or air handling unit, is a device used to condition and circulate air as part of a heating, ventilating, and air-conditioning (HVAC) system. An air handler is usually a large metal box containing a blower, heating or cooling elements filter racks or chambers, sound attenuators, and dampers. Air handlers usually connect to a duct work ventilation system that distributes the conditioned air through the building and returns it to the AHU.

We manufacture top class AIR HANDLING UNIT (AHU) of standard & customized sizes.

TECHNICAL PARAMETERS	
MOC	Pre Coated GI, Aluminum or Stainless Steel
Panel Thickness	PUF – 25mm, 45mm, 60mm
Framework	Extruded Hollow Aluminum Profile Thermal & Non Thermal Break
Capacity	500 CMH to 200,000 CMH
Pressure	25mm WG to 200mm WG
Provisions	- Mixing Chamber - Prefilter Section - DX or CHW coil Section - SS Drain Tray - Hot Water Coil or Heaters - Fan Section - Fine Filter Section - HEPA Filter Section

Applications

- Pharmaceutical Industry
- Chemical Research Laboratory
- Electronic Industry
- Semi-Conductor Production
- Food Processing Industry

AIR WASHER UNIT

Air Washer System with cellulose paper pads, cross sectional, specially treated fluid media capable of absorbing and retaining water to provide the maximum cooling efficiencies. The cooling pad is cross-corrugated to maximize the mixing of air and water and eliminate water carryover.

We manufacture top class AIR WASHER UNIT (AWU) of standard & customized sizes.

TECHNICAL PARAMETERS	
MOC	Pre Coated GI, Aluminum or Stainless Steel, Compactness and rigid construction.
Panel Thickness	PUF – 25mm, 45mm, 60mm
Framework	Extruded Hollow Aluminum Profile Thermal & Non Thermal Break
Capacity	500 CMH to 200,000 CMH
Pressure	25mm WG to 200mm WG
Provisions	- Mixing Chamber - Prefilter Section - Evaporative Cooling Pad Section - Eliminator Section - Drainage & Motor Section - Blower & Motor Section

Applications

- Pharmaceutical Plants
- Residential Buildings
- Schools & Institutes
- Auditoriums Banquet Halls
- Poultry Farms
- Shopping Plazas
- Food Processing Units
- Factories - (Production Areas, Canteens and Plastic Industries etc.)

OUR OTHER PRODUCTS

HEPA Terminal Box

Supply / Return Air Diffuser

Return Air Riser

Volume Control Damper (V.C.D)

Supply / Return Air Grille

Dehumidifier Unit

Mobile LAF Unit

CLEANROOM TURNKEY SOLUTION

Modular Cleanroom
Wall /False Ceiling Panels, Doors & Windows

Modular Cleanroom
Epoxy Coving & Flooring

Modular Cleanroom
HVAC / Ducting

Modular Cleanroom
Validation & Maintenance

ABOUT US

MAP Filters (India) Pvt. Ltd. is a global Engineering and Manufacturing company specializing in innovative turnkey solutions for **Pharmaceutical, Biotechnology and Healthcare/Hospitals segments**. With over two decades of experience. We have grown into one of the leading engineering and construction partners for pharmaceutical and allied industries.

Over the years we have diversified from designing and construction of Cleanrooms and controlled environments for Pharmaceutical & Biotech companies, into a complete, turnkey solution provider. Today our capabilities include **in-house design, engineering, construction and manufacturing** for critical and vital elements that go into setting up of a speciality manufacturing facility.

We are one of the companies internationally to have our own manufacturing of **Cleanroom Equipments and Air Filters**. Our premises is about 6000 sq.ft. Big placed in the vicinity of Mumbai, one of the biggest industrial belts of Maharashtra.

OUR VALUABLE CLIENTS

FDC

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Caring for life

ALKEM

ipca
A dose of life

Glenmark
A new way for a new world

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