



**Ultrafil Air Systems (I) Pvt. Ltd.**  
*First in clean air...*

## Clean Room Equipments

- **Laminar Air Flow Unit**
  - Horizontal Type**
  - Vertical Type**
  - Ceiling Suspended Type**
- **Bio-Safety Cabinet**
- **Pass Box (Static/Dynamic)**
- **Dispensing Booth**
- **Sampling Booth**
- **Air Showers**
- **Air Curtains**
- **Garment Cubicles**
- **Water Fogger**
- **Aerosol Generator**
- **Air Purifier**
- **Filter Cleaning / Washing System**



## Our Mission & Vision

### Vision

Pioneers in providing sustainable and customized solutions in all types of Air filters, Clean Room Equipment's and relevant products which are more customer centric.

### Mission

To provide superior customized solutions with minimal TAT to our esteemed clientele.

### About us :

Ultrafil was established in the year 2006 as a manufacturing unit at Hyderabad, Telangana (India). Our strict adherence to stringent quality management system & clients' preferences have enabled us to establish ourselves as the most reputed manufacturers of Clean Room Air Filters. We are highly applauded among our clients for our Precision Filters, reasonable rates & on time deliveries of consignments. There are wide ranges of Clean Room Filters offered by us.

Ultrafil is equipped with a whole new generation of Managers & Technicians highly trained to deliver turnkey solutions for different applications conforming to all the guidelines.

The Infrastructure is packed with a state of art manufacturing facility equipped with modern automated machines which are always ready for engineering challenges of the ever changing stringent standards.

Ultrafil with its skilled engineering team offers viable & integrated turnkey solutions to suit the desired requirement of the projects, Ultrafil understands the value & purpose of your capital investments & stand apart with its value added approach & customized solutions it offers as per the requirement.

Ultrafil is growing steadily each year & expanding across different verticals far & wide. The zeal to deliver on time giving utmost importance to quality, safety & environmental & compliance policy. Ultrafil stands firm on its commitment to deliver impeccable project execution time. Maintaining undeviating quality standards has won repeated orders from its esteemed clients.

Ultrafil thanks all its clients for keeping their faith in us.

### CORE STRENGTH:

- PHARMACEUTICAL
- DETAILED ENGINEERING

- CUSTOMER FOCUS
- WORK EFFICIENCY

## LAMINAR AIR FLOW (VERTICAL/HORIZONTAL/CEILING SUSPENDED)

Laminar air flows can maintain a working area devoid of contaminants. Many medical and Research laboratories require sterile working environments providing ISO Class – 5, in order to carry out Specialized work. Laminar Flow Cabinets can provide the solution.

**Filtration Process :** The filtration system comprises of a pre-filter and a HEPA filter. The Laminar Flow Cabinet is enclosed on the sides and constant positive air pressure is maintained to prevent the intrusion of contaminated room air.

### TECHNICAL SPECIFICATIONS

DESCRIPTION	SPECIFICATIONS
<b>Cleanliness</b>	Class 100, ISO - 5
<b>Working Area</b>	610x610x610MM 915x610x610MM 1220x610x610MM 1830x610x610MM
<b>Air Velocity</b>	0.45 mps ±0.05
<b>HEPA Filter EU-14</b>	99.995 % efficiency for particles >0.3 m
<b>Pre-Filter EU5</b>	95 % efficiency for particles >5 m.
<b>Cabinet</b>	GI Powder Coated/Stainless Steel SS 304 / 316
<b>Door Type</b>	Flip Model/ Single piece fully open-able sliding with counter weight arrangement
<b>Airflow</b>	Vertical/Horizontal
<b>Motor-Blower</b>	Motor-Blower are Statically & Dynamically balanced with suitable suspension to reduce noise level
<b>Light</b>	CFL/LED Tube - High intensity, low wattage > 300 lux
<b>Noise Level</b>	65 dB ± 5
<b>Standard Accessories</b>	power socket (5A) in working area
<b>Power Supply</b>	230 V AC, 1-Ø, 50 Hz.
<b>Pressure Gauge</b>	Magnahelic Gauge for differential pressure indication across the HEPA filter
<b>Optional Accessories</b>	Microprocessor LCD Controller Digital display for air flow rate Stainless steel perforated Grill for HEPA filter U. V. Light with hour meter / CFL (LED) Light Air/gas cock Castor wheels for cabinet support stand Additional 5/15 Amp sockets in the working area

### ULTRAFIL MAKE



**VERTICAL LAMINAR AIR FLOW**



**HORIZONTAL LAMINAR AIR FLOW**



**CEILING SUSPENDED LAMINAR AIR FLOW**

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## ULTRAFIL MAKE BIO-SAFETY CABINET (CLASS I & CLASS II)

**Biological safety cabinets or (BSC) are an enclosed, ventilated hood or workspace that allow for the safe handling of pathogens, contaminants or other potentially hazardous materials.**

The primary purpose of a BIOSAFETY CABINET is to protect the operator and the surrounding environment from biological contaminants and other hazardous materials. These cabinets are designed to provide various levels of protection. The proper class and type must be selected to match the need for the specific application and level of bio-containment required.

ULTRAFIL make BIO-SAFETY CABINETS in a wide varieties to meet diverse application in the life science, clinical, pharmaceutical and industrial laboratories.

### TECHNICAL SPECIFICATIONS

DESCRIPTION	SPECIFICATIONS
<b>Cleanliness</b>	Class 100, ISO - 5
<b>Working Area</b>	915x610x610MM 1220x610x610MM 1830x610x610MM
<b>Air Velocity</b>	0.45 mps ±0.05
<b>HEPA Filter</b>	EU-14 99.995 % efficiency for particles > 0.3 mm
<b>Pre-Filter</b>	EU-5 95 %efficiency for particles > 5 μm
<b>Cabinet</b>	GI Powder Coated/Stainless Steel SS 304 / 316
<b>Work Table</b>	304 Stainless Steel /optional 316 grade
<b>Door Type</b>	Flip Model/ Single piece fully open-able sliding with counter weight arrangement
<b>Airflow</b>	Vertical
<b>Motor-Blower</b>	Motor-Blower are Statically & Dynamically balanced with suitable suspension to reduce noise level
<b>Light</b>	CFL/LED Tube - High intensity, low wattage > 300 lux
<b>Noise Level</b>	65 dB ± 5
<b>Standard Accessories</b>	power socket (5A) in working area
<b>Power Supply</b>	230 V AC, 1-Ø, 50 Hz / 415V AC, 3-Ø, 50 Hz
<b>Pressure Gauge</b>	Magnahelic Gauge for differential pressure indication across the HEPA filter
<b>Optional Accessories</b>	microprocessor LCD Controller Digital display for air flow rate Stainless steel perforated Grill for HEPA filter U. V. Light with hour meter Electronic Filter choke alarm Spare HEPA Filters Auto switch on/off for U.V. light Air/gas cock Sink with drainpipe Virus burner Castor wheels for cabinet support stand Additional 5/15 Amp sockets in the working area



### BIO SAFETY CABINET

#### What is the difference between Class I & II BIO SAFETY CABINETS?

- Class I provides protection for the user and surrounding environment, but no protection for the product being manipulated.
- Class II provides protection for the user, environment and product, and is divided into four types: A1, A2, B1 and B2.

For Type A1 and A2 Class II biological safety cabinets (A2 has a higher air velocity for greater protection), 70% of the airflow is re-circulated within the cabinet while 30% of the air is exhausted (usually through the top).

For Type B1 and B2 Class II Biological Safety Cabinets, more air is exhausted out of the cabinet (70% for B1, 100% for B2).

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## ULTRAFIL MAKE DYNAMIC & STATIC PASS BOX.

**Pass box is used to transfer the material from lower cleanliness area to higher cleanliness area or vice-versa in classified area.**



**DYNAMIC PASS BOX**

It is designed to allow material transfer through controlled environment without much personal movement. Fresh air is blown to sweep away the particulate load if present on surface of the material while being transferred from low classified area to highly classified area.



**STATIC PASS BOX**

It is used to minimize man / material movement and to avoid cross contamination between classified areas to achieve desired classification & to maintain integrity of products and process.

### TECHNICAL SPECIFICATIONS

PRODUCT	Dynamic Pass Box	Static Pass Box
<b>MOC</b>	GI powder Coated, SS 304 / SS 316 or combination of both	GI powder coated, SS 304 / SS 316 or combination of both
<b>CLEANLINESS</b>	Class – 100, ISO - 5	----NA----
<b>INTERNAL AREA</b>	610x610x610 MM 760x760x760 MM 915x915x915 MM	457x457x457 MM 610x610x610 MM 760x760x760 MM 915x915x915 MM
<b>PRE-FILTER</b>	EU-5 95 % down to 5 micron	----NA----
<b>HEPA FILTER</b>	EU-14 99.995% down to 0.3 micron	----NA----
<b>MOTOR BLOWER</b>	Motor-Blower are Statically & Dynamically balanced with suitable suspension to reduce noise level	Motor-Blower are Statically & Dynamically balanced with suitable suspension to reduce noise level
<b>NOISE LEVEL</b>	65 dBA ±5	----NA----
<b>AIR FLOW</b>	Vertical – Re-Circulatory	----NA----
<b>AIR VELOCITY</b>	0.45 mps ±0.05	----NA----
<b>PRESSURE GAUGE</b>	Magnahelic Gauge for differential pressure indication across the HEPA filter	----NA----
<b>DOOR</b>	Doors equipped with double walled flush glass view panels	Doors equipped with double walled flush glass view panels
<b>GLASS</b>	Tempered Glass / polycarbonate/ Acrylic	Tempered Glass / polycarbonate/ Acrylic
<b>LIGHT</b>	CFL/LED	CFL/LED
<b>ACCESSORIES</b>	ON/OFF Switch for motor, SS Handles and SS hinges	SS Handles and SS hinges
<b>FEATURES</b>	Electromagnet door interlocking with LED Display, Go/wait indicators on both sides	Electromagnet door interlocking with LED Display, Go/wait indicators on both sides
<b>POWER SUPPLY</b>	230 V AC, 1 – Ø, 50 HZ	230 V AC, 1 – Ø, 50 HZ
<b>OPTIONAL ACCESSORIES</b>	Internal Coving for easy cleaning UV light with hour meter with interlocking facility puts off the UV light when the door is opened. Support stand to mount the pass box Buzzer and Indicator lamps	Internal Coving for easy cleaning UV light with hour meter with interlocking facility puts off the UV light when the door is opened. Support stand to mount the pass box

## ULTRAFIL MAKE DISPENSING BOOTH / SAMPLING BOOTH

**Dispensing & Sampling Booths** are designed to give mixed air flow stream for product, operator and environmental protection and used to control the hazardous emissions of dust powder during powder dispensing/sampling process.

### ULTRAFIL Make Dispensing/Sampling Booth

It provides a safe, HEPA Filtered environment, for the dispensing of hazardous drug powders. The air forced downwards is extracted at low level into the booth's filtration system where dust particles are contained at each level of filtration prior to being re-circulated back into the booths' air stream. When the Booths is operating under normal conditions air is pulled through the main working chamber to exhaust grills, normally situated in the rear of the Booths, suppressing air-borne dust away from the operators breathing

### TECHNICAL SPECIFICATIONS

DESCRIPTION	SPECIFICATIONS
<b>PRODUCT</b>	DISPENSING BOOTH
<b>MOC</b>	GI powder Coated, SS 304 / SS 316
<b>CLEANLINESS</b>	Class – 100, ISO - 5
<b>INTERNAL AREA</b>	915x1220x1980 MM , 1220x1220x1980 MM , 1830x1220 x1980 MM
<b>FILTRATION</b>	Three Stage Filtration
<b>PRE-FILTER</b>	EU-4 90% down to 10 micron
<b>INTERMEDIATE FILTER</b>	EU-5 95% down to 5 micron
<b>HEPA FILTER</b>	EU-14 99.995% down to 0.3 micron
<b>MOTOR BLOWER</b>	Motor-Blower are Statically & Dynamically balanced with suitable suspension to reduce noise level
<b>NOISE LEVEL</b>	65 dBA ±5
<b>AIR FLOW</b>	Vertical – Re-Circulatory
<b>AIR VELOCITY</b>	0.45 mps ±0.05
<b>PRESSURE GAUGE</b>	Magnahelic Gauge for differential pressure indication across the HEPA filter
<b>LIGHT</b>	CFL/LED
<b>ACCESSORIES</b>	ON/OFF Switch for motor, 5/15 amps switch socket for external equipment.
<b>POWER SUPPLY</b>	230 V AC, 1 – Ø, 50 HZ / 415V AC, 3-Ø, 50 Hz
<b>OPTIONAL ACCESSORIES</b>	Internal Coving for easy cleaning SS-Perforated Platform for keeping Weighing Scale (Fix /Moveable) Filter chocking alarms FLP Electrical Goods for Explosion



**DISPENSING BOOTH**



**SAMPLING BOOTH**

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## ULTRAFIL MAKE STORAGE CABINET / GARMENT CUBICLE

**ULTRAFIL Make Garment Cubicle provides sterility to your aprons and specially designed to prevent the deposit of dust and other particles on clean room garments when not in use. The unit provides a continuous wash of class 100 air over the garments.**

During operation, room air is drawn through the top of the cabinet via a non-washable polyurethane pre-filter with 85% arrestance, trapping larger particles and increasing the life of the main filter. The air is then forced evenly through the HEPA filter with >99.995% efficiency, resulting in a unidirectional stream of clean air projected vertically over the internal work zone. All airborne contaminants are flushed and diluted, resulting in a particulate-free work environment. The purified air then leaves the storage area across the entire open front of the cabinet. A nominal filter face velocity of 0.45 m/s (90 fpm) ensures that there is a sufficient number of air changes within the enclosed area of the cabinet in order to maintain cleanliness.

### TECHNICAL SPECIFICATIONS

DESCRIPTION	SPECIFICATIONS
<b>PRODUCT</b>	Garment Cubicle
<b>MOC</b>	Class – 100, ISO - 5
<b>CLEANLINESS</b>	GI powder Coated/ SS 304 / SS 316
<b>FILTRATION</b>	Two stage filtration
<b>PRE-FILTER</b>	95% down to 5 micron
<b>HEPA FILTER</b>	99.995% down to 0.3 micron
<b>MOTOR BLOWER</b>	Motor-Blower are Statically & Dynamically balanced with suitable suspension to reduce noise level
<b>NOISE LEVEL</b>	65 dBA ±5
<b>AIR FLOW</b>	Vertical/Horizontal
<b>AIR VELOCITY</b>	0.45 mps ±0.05
<b>PRESSURE GAUGE</b>	Magnahelic Gauge for differential pressure indication across the HEPA filter
<b>LIGHT</b>	CFL/LED Tube
<b>ACCESSORIES</b>	ON/OFF Switch for motor
<b>POWER SUPPLY</b>	230 V AC, 1 – Ø, 50 HZ
<b>OPTIONAL ACCESSORIES</b>	Internal Coving



**STORAGE CABINET**



**GARMENT CUBICLE**

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## ULTRAFIL MAKE AIR SHOWER

Air Showers are prefabricated enclosures to be used for removing surface particles from person prior to entering a Cleanroom work area. The air shower is a high velocity, low pressure type system, providing a normal entrance to and exit from a contamination controlled area. While the workmanship and materials are of a professional quality, the air showers are ultimately engineered to incorporate an aesthetically pleasing design to fit the general atmosphere of the clean room specifications room specifications.

**ULTRAFIL MAKE AIR SHOWER** are designed in various configurations such as Entry exit type, one way entry and two way exit type. If you are ensure which air shower de-sign is workable, our technical team will visits your premise and suggests you appropriate design structure.

Customized units are also available as per client request

### TECHNICAL SPECIFICATIONS

DESCRIPTION	SPECIFICATIONS
<b>PRODUCT</b>	Air Shower
<b>MOC</b>	GI powder Coated, SS 304, SS 316
<b>CLEANLINESS</b>	Class – 100, ISO - 5
<b>PRE-FILTER</b>	95% down to 5 micron
<b>HEPA FILTER</b>	EU-14 99.995% down to 0.3 micron
<b>MOTOR BLOWER</b>	Motor-Blower are Statically & Dynamically balanced with suitable suspension to reduce noise level
<b>NOISE LEVEL</b>	65 dBA ±5
<b>ENTRY</b>	Straight entry – Straight exit
<b>AIR VELOCITY</b>	25 mps ± 5
<b>PRESSURE GAUGE</b>	Magnahelic Gauge for differential pressure indication across the HEPA filter
<b>DOOR GLASS</b>	Tempered Glass / polycarbonate/ Acrylic
<b>TIMER</b>	Setting of Air shower operation time (adjustable time from 30 sec to 5 min)
<b>LIGHT</b>	CFL/LED
<b>ACCESSORIES</b>	ON/OFF Switches, Emergency STOP
<b>FEATURES</b>	Electromagnet door interlocking with LED Display, Go/wait indicators on both sides Automatic as well as Manual Mode
<b>POWER SUPPLY</b>	415V AC, 3-Ø, 50 Hz
<b>STANDARDS FITTINGS</b>	-Fluorescent light - Pre-filter (washable) - HEPA filter - Nozzle (Fixed or Adjustable) - Emergency stop buttons (both sides) - Blower motor assembly - Door bell - Door closers - Door handles - Internal Coving for easy cleaning



### ULTRAFIL MAKE AIR SHOWERS Available in 3 Basic Designs.

**One side flow:** The unit allows one-way operation, with the clean side door locked and the grey side door unlocked at the idle state. This mode of operation helps in controlling the flow of traffic in and out of the clean room for maintaining maximum sterility in the working area.

**Two side flow:** The unit allows both side flows, allowing the air showers to be activated in both the directions. The user can exit through the clean room door or the grey side door, without compromising the sanctity of the clean air environment.

**Tower flow:** The flow is from the upper roof of the shower.

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## ULTRAFIL MAKE WATER FOGGER

The Water Fogger is used in clean rooms and Pharmaceuticals for airflow analysis. This is small & easy to use, fogger will introduce you to the benefits of using pure water to create a visual fog to describe airflow visualization of air turbulence and patterns in controlled contamination areas.

### TECHNICAL SPECIFICATIONS

DESCRIPTION	SPECIFICATIONS
<b>PRODUCT</b>	Stainless steel SS304
<b>MOC</b>	GI powder Coated, SS 304, SS 316
<b>Type of room</b>	Cleanroom, Sterile room, ISO suite, Medical room
<b>Fog duration</b>	Upto 60 minutes
<b>Dimension</b>	310mm X 310mm X 250mm (Approx)
<b>Spray Quantity</b>	5 Liters/h
<b>Tank capacity</b>	4.5 liters
<b>Net Weight</b>	~10.5 Kg without water
<b>Gross Weight</b>	~14 Kg
<b>Wattage</b>	250 W
<b>External Power Supply</b>	230V AC, 1-Ø, 50 Hz



### WATER FOGGER

Cleanroom laminar air flow testing.  
Laminar air flow workstation testing.  
Airflow balance testing.

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## ULTRAFIL MAKE AEROSOL GENERATORS (ELECTRICAL / PNEUMATIC)

ULTRAFIL Make Aerosol (DOP/PAO) generator for producing a test aerosol with defined characteristics especially for qualitative tests of filters for suspended matter (HEPA and ULPA filters), function test at laminar flow boxes and acceptance measurement in clean rooms.

It produces aerosols with known properties .The generated polydisperse aerosols are mainly in the size range 0.2 to 0.5 mm with a very high permanence of the particle size distribution and a defined and high particle number concentration.

Customized sizes are available on request which is suitable to application areas.

**CONTACT US FOR MORE TECHNICAL DETAILS.....**



## ULTRAFIL MAKE AIR CURTAIN

An Air Curtain is also referred as an invisible door made of fast flowing air. It's a machine which blows controlled flow air at medium / high speed to create an air seal. This flow of air prevents outside hot / cold air, humidity , insects, dust, bad odours. Dirt, smoke etc. from entering into the premises

**ULTRAFIL Make Air Curtains** is developed as horizontal fixtures and is mounted on the ceiling which ensures space optimization.

This feature enables them to be used as air screens where there is very small room between the doors and ceiling. Our air showers can be flush mounted or concealed in false ceiling or suspended by means of metal rods or ropes. Available sizes 2FT, 3FT,4FT, and 6FT



AIR CURTAIN

## AIR PURIFIER POSITIVE / PRESSURE UNIT / FAN FILTER UNIT

An AIR PURIFIRE or AIR CLEANER is a device which removes dust particles from the air in a room. ULTRAFIL Make Air purifiers that draw air through fabric filters are among those that do the best job of removing dust and smoke from the air . Air purifiers by use the revolutionary Fine HEPA Air. Purification technology to make your indoor air pollutant free.

### TECHNICAL SPECIFICATIONS

DESCRIPTION	SPECIFICATIONS
<b>Products</b>	ULTRAFIL AIR PURIFIER
<b>Clean Air Delivery Rate</b>	310m <sup>3</sup> /h / 370m <sup>3</sup> /h / 430m <sup>3</sup> /h / 610m <sup>3</sup> /h / 710m <sup>3</sup> /h
<b>Filtration</b>	TWO / Three Stage Filtration process (Requirement)
<b>Pre-Filter EU - 4</b>	90 % down to 10 micron (Applicable for 2+3 Stage)
<b>Hepa Filter grade filter 0.3 micron</b>	Hepa filter of high efficiency 0.3 micron.
<b>Active Carbon Filter</b>	Adsorbs odour and chemicals preferentially to moisture ( Application 3 stage)
<b>Noise Level</b>	<70 dBA + - 5
<b>Display</b>	Touch Key button, Air Quality light
<b>Features</b>	Speed Control Timer
<b>Power Supply</b>	230V AC, 1-Ø, 50 Hz



AIR PURIFIER POSITIVE

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## ULTRAFIL MAKE PRE / FINE FILTER WASHING MACHINE

ULTRAFIL AIR SYSTEMS offers two types of Filter washing machines.

### 1) Rotary Type:

The Rotary cleaning machine range of compact washing machines has been developed to provide fast and efficient cleaning of Filters.

Filters are loaded into an easily removable stainless steel basket, which is rotated by a motor and gear box at constant speed, whilst the stainless steel spray bars deliver a pressure spray of heated water and alkaline solution.

### 2) Conveyor Type :

The conveyor filter cleaning machine range of compact washing machines has been developed to provide fast and efficient cleaning of filters.

The cleaning cycle starts once the button is pressed. The filter is automatically transferred through chain conveyor inside the washing chamber once doors are closed then wash pump starts. Pressurized hot aqueous cleaning solution is sprayed all over the Filter from specifically positioned spray nozzle. After washing is over, the filter trolley comes out of washing chamber and gets automatically transferred to the cold (compressed) air blow chamber. In this chamber compressed air is sprayed over the filters for drying the filter.

After air blow is over, the trolley along with filter comes outside the chamber (70% filter dry) and then if required operator will manually blow air on the filter by air gun so as to dry the filter completely.

This cycle gets repeated for the next set of filters automatically.



**Rotary Type**



**Conveyor Type**

## OUR MAJOR CLIENTS.....



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