



CASSIA

LAMINAR AIRFLOW BENCHES

Available in SS 304, SS 316, PU Coated GI, Melamine Laminated Wood materials.

Horizontal / Vertical Laminar Airflow Benches allows operation in a sterile and particle free conditions. Due to continuous flushing of the working area by unidirectional and HEPA filtered airflow, the equipment assures a full product protection.

Special Features

International standard MINIPLEAT HEPA filters, high efficient & washable primary filters, Magnahelic gauges for accurate DP reading, spring suspended DIDW blower assembly for high performance at low sound level, SS working surface with curved front for convenient working.

Cleanliness Level	Class 100
Particle Retention	0.3μ & above
Air Velocity	90 FPM ±20
Noise Level	65 decibels +5

Working Size	2 x 2 x 2	3 x 2 x 2	4 x 2 x 2	6 x 2 x 2
Horizontal	CAH 0600	CAH 0900	CAH 1200	CAH 1800
Vertical	CAV 0600	DAV 0900	CAV 1200	CAV 1800

WORKSTATIONS / TENTS

Available in SS 304, SS 316, PU Coated GI, Melamine Laminated Wood materials.

These pre-fabricated Vertical Flow Laminar Air Modules are available in different sizes to suit wide range of industrial applications which demands very hygienic and clean environment for any specific process activity.

Provides CLASS 100 or CLASS 1000 isolated environment for any specific locations viz; production machinery, filling line, packing, sealing in pharmaceutical, micro-electronics, food processing, space application etc.

Features

- Provided with rigid/ flexible clear side screens.
- Can be designed to any size to suit site requirement
- Available in self standing or ceiling suspended types.

FUME EXHAUST HOODS

Available in FRP-GP construction with epoxy coated finish, GI construction with PU coated finish, PP construction, Wood melamine and Stainless Steel.

Cleanair Fume exhaust hoods used to drive-out hazardous chemical fumes, odors and gases generated during the laboratory process work. Cleanair Fume hoods are available in ducted or ductless types.

Special Features

- Work surface made of polished granite or glazed ceramic tiles
- Counter balanced front sash with toughed glass view panels
- Available with wide range of accessories such as sink, water, inlet & outlet, gas/air/vacuum pet cocks, power points, optional FLP fittings, under bench cup-board etc.

Model No.	Size (ft.)	Overall Dimensions (mm)		
		L	D	H
CAF 0900	3 x 2 x 2	1000	700	2100
CAF 1200	4 x 2 x 2	1300	700	2100
CAF 1503	5 x 3 x 3	1600	950	2400
CAF 1803	6 x 3 x 3	1900	950	2400



Cassia Siamia



BIOSAFETY CABINETS

Available in SS 304, SS 316, PU Coated GI

Designed to protect PRODUCT / PROCESS / PERSONNEL / ENVIRONMENT from contamination created while working with hazardous materials

Cleanliness Level GLASS 5 as per ISO 14644-1

Particle Retention 0.3 μ & above

Special Features

- Double skin PU coated GI/SS 304 construction
- Corners are coving finished
- Removable working table
- Waste liquid collection tray
- UV resistant PC front door
- UV on/off integrated with door close/open
- Hour meter for Ultra violet Lamp
- Microprocessor controller to control and display of all operation with remote control operation.

Class I

Recommended for Personnel & Environmental protection only

It's a totally enclosed, ventilated unit of airtight construction. The front panel can be opened, allowing room air to enter the cabinet, sweep the inner surfaces and exhaust-out through the duct. A front sash with glove ports may be installed. The exhaust air is passed through HEPA filter before released in to the atmosphere. The cabinet unit is maintained under negative pressure.

Air Balancing : Total exhaust cabinet with incineration

Class II - Type B

Recommended for Product & Personnel protection

Class II - Type cabinets differs in the proportion of air exhausted and re-circulated within the cabinet; velocity of airflow to the work zone creates an ultra-clean environment for product protection.

Class II - Type B Biohazard Safety Cabinets are not recommended for use with gases or vapors. A primary application is for sterile packaging. Care is required while decontaminating the cabinet.

Air Balancing : 100% re-circulation

Class II - Type B1

Recommended for Product, Personnel & Environmental protection

In Class II - Type B1 Cabinets 30% of air re-circulated within the cabinet and the remainder exhausted out through air incinerator for environmental protection. Velocity of airflow to the work zone creates an ultra-clean environment for product protection.

Maintains a minimum measured average inflow velocity of 75 fpm through the work area access opening. The face velocity at the access opening varies between 80 fpm and 100 fpm. Have HEPA filtered down flow air from a common plenum.

Air Balancing : 30% re-circulation and 70% exhaust.

Class II - Type B2

Recommended for Product, Personnel & Environmental Protection

Class II - Type B2 Bio Safety cabinets are referred to as 'total exhaust' cabinets because the 100% contaminated air is exhausted to the atmosphere after HEPA filtrations without re-circulating in the cabinet.

Air Balancing : 0% re-circulation & 100% exhaust



Class II - Type A/B3

Recommended for Product, Personnel & Environmental Protection

Maintain a minimum measured average inflow velocity of 75 fpm through the work area access opening. The access opening minimum face velocity varies between 80 fpm and 100 fpm depending on cabinet sash opening. Have HEPA filtered down flow air from a common plenum.

Air Balancing : 70% re-circulation and 30% exhaust

Class III

Recommended for Personnel and Environment Protection

These cabinets are totally enclosed ventilated unit of airtight construction. Operations conducted through glove-ports. The cabinet unit is maintained under negative pressure. Supply air is drawn through HEPA filters. The exhaust air is treated by HEPA and incinerations. This type of cabinet systems provides the means to control air borne particulate contaminants including micro organisms determined to be potentially harmful to personnel and the environment.

Air Balancing : 100% Exhaust with incinerations

Type	Face Velocity (FPM)	Airflow Pattern	Radio nuclides/ Toxic Chemicals	Bio-Safety Level(s)	Product Protection
Class I Open Front	75	In at front : rear and top through HEPA filter	No	2,3	No
Class II Type A	75	70% re-circulated through HEPA: 30% exhaust through HEPA	No	2,3	Yes
Class II Type B1	100	30% re-circulated through HEPA 70% exhaust via HEPA and hard ducted	Yes (Low levels) Volatility	2,3	Yes
Class II Type B2	100	No re-circulation: 100% exhaust via HEPA and hard ducted	Yes	2,3	Yes
Class II Type B3	100	Same as Class II Type A, but plenum under negative to room and exhaust air is ducted	Yes	2,3	Yes
Class III	NA	Supply air inlets and exhaust through 2 HEPA filter.	Yes	3,4	Yes

AIR SHOWERS

Available in SS 304, SS 316, PU Coated GI, Melamine Laminated Wood materials

Sizes available to suit various site conditions with direct or diagonal entry/exit

Air showers are installed to avoid contamination through personnel entry in to a cleanroom. Air Showers employ concentrated airflows to lift off contamination such as lint, dirt, dust etc., while and individual walks through chamber. The high velocity air from jet nozzles ensures efficient scrubbing action necessary to remove particulate matter. Contaminated air then flows through sidewalls of the air shower and flows through pre filter and final HEPA filters.

STERILE GARMENT CABINETS

Available in SS 304, SS 316, PU Coated GI

To store sterile garments used in the controlled environments. These cabinets provide CLASS 100 clean storage space with UV disinfectant and warming by IR lamps. Air balancing; 90% recirculating and 10% exhaust

Cleanliness Level	CLASS 100
Particle Retention	0.3 μ & above
Air Velocity	90 FPM \pm 20
Noise Level	65 decibels \pm 5



POWDER CONTAINMENT BOOTHS

Available in SS 304, SS 316, PU Coated GI

Powder containment booths are used to control the hazardous emissions of powders, dust or vapors during powder dispensing product sampling, or bag dispensing, etc., without risk to the operator or environment. The downdraught prevents airborne dusts caused by weighing and dispensing operations rising into the operator's breathing zone. 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.

Air Balancing	90% Re circulation and 10% exhaust
Cleanliness	Class 5 of ISO 14644-1
Particle Retention	0.3µ & above
Noise Level	65 decibel on 'A' scale +5
Velocity	90 feet / minute +20
Differential pressure	By Magnehelic Gauge 0-25mm
Illumination	By Florescent Tubes with Diffusers
Power Supply	230V single phase, 50Hz

PASS THROUGH BOXES

Available in SS 304, SS 316 PU Coated GI

Cleanair Pass through box is designed to minimize traffic and contamination entry into the clean room, Enable movement of materials to and from Cleanroom. Acts as an air lock device to prevent cross contamination between two adjacent environments.

Available in Static & Dynamic versions to suit site requirement.

Features includes; Double skin constructions with mechanical or electromagnetic interlocking of doors, stainless steel platform, doors with view panels.

Sizes Available

18" x 18" x 18"

24" x 24" x 24"

36" x 36" x 24"

48" x 48" x 24"

Custom sizes to suit the site requirement

PRESSURE MODULES / FAN FILTER UNITS

Available in SS 304, PU Coated GI

Provides HEPA filtered airflow to create positive pressure within smaller enclosures. Ambient air is filtered up to 5 micron level through primary filters and the HEPA filter removes particles of 0.3 micron and larger. Available in 500 & 1000 CFM capacities in window mounted / ceiling mounted or self standing models



CASSIA

ACCESSORIES

Mini pleat HEPA filters
Deep pleat HEPA filters
Primary Filters
Magnehelic gauges
Minihelic gauges
Manometers
Motors & Blowers
UV & IR Lamps
Acrylic / PC front doors

VALIDATION & TESTING

We provide...

Filter Integrity test
Particle count test
Velocity test
pressure balancing
Light Intensity
Noise Level

For your...

Laminar airflow benches
Bio safety Cabinets
Powder containment booths
Cleanroom etc

Using...

Calibrated Instruments with traceability.

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