

ATLANTIS (INDIA) APPLICATIONS ENGINEERING PVT LTD

Vertical Laminar Flow Systems.



"Cleanair" Series 'V'.

Tech. Know-How C.E.R.E.R.I. (Pilant) Thru N.R.D.C. (Govt. Of India).

Variants :- Wooden/MS Powder- Coded/ Stainless Steel.

The basic elements of our Clean Air System are Pre-filter, Heavy Duty Blower Assembly, HEPA (High Efficiency Particular Air) Filter (Absolute Filter) and the work area. The "CLEANAIR" Laminar Flow Benches which are indispensable in all precision work laboratories utilises the proven Laminar Air Flow Principles U.S. Federal Standard 209 (Class 100), latest version.

Double Filtration:

Fresh Air is drawn through the Pre-Filter and passed through maximum efficiency Absolute HEPA Filter. Clean air moves, vertically down-wards in Laminar Flow, across the work area at a velocity of approx 90 ± 20 ft. per minute. This velocity of clean air makes it virtually impossible for the operator, positioned in front of the work area, to contaminate it. All contamination generated by him such as hair, salt, skin flakes, etc. is blown away by the Clean Air Flow, nor allows the atmospheric contamination to enter the work area.

HEPA Filters:

HEPA Filter is the heart of the CLEAN AIR Flow System. It removes all particles from the air, which are larger than 0.3 micron size. We use HEPA Filters fabricated out of a continuous sheet of fire-retardant, water repellent, micro-fibre-glass filtration media tested for DOP Penetration Tests. While we ensure that these specifications are fully met by the HEPA Filter. This filtration area is about 50 times the face area of the filter, which result in Laminar Flow of Air.

The DOP Test:

The most accurate and demanding test of any filter used today for precision research work was developed by the U.S. Army Chemical Corps. It incorporates a DOP Smoke generator and a forward Light Spectrophotometer. The test determines the filter efficiency by measuring the percentage of 0.3 micron smoke particles.

Technical Data:

- Vertical down wards flow of Ultra Clean Air at 90 ± 20 f pm.
- Open Front.
- Side Panels of both sides laminated ply/
- Efficiency of Ultra Clean Air down to 0.3 micron (DOP) dust particles is 99.97%.
- Conform to Air Cleanliness tests as per Article 5.1 of U.S. Federal Standard 209 (Class 100) latest version.
- Total Height of the Vertical Flow Bench - 7 ft. (Approx.)
- Heavy Duty & continuous use Blower Assembly with 1/4 H.P. Motor(s), 50 Hz I ph to deliver air at 550 CFM (Approx.) 50 mm WG Pressure.

Construction Data:

- **Cabinet:** All ply wood inside painted with synthetic Enamel Paint and outside with white Laminate to match the elegance and decor of your research lab.
- **Work Table:** Commercial ply board with white summica affixed on it, easily cleanable, alternatively SS. Table top at extra cost or any other materials as required by you.
- **Illumination:** 230 VAC 50 Hz Fluorescent tube lites
- **Controls:** Independent 16 A switches for AIR, Lite/UV.

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Extras and Spares:

- Front door made of clear Perspex sheet in two sections with hinges.
- Pre-filter cleanable, made of synthetic fibre material, pressure drop 5mm U.G. (Approx) for 90% efficiency down to 10 microns.
- Absolute (HEPA) Filter-24 x 24 x 6" suitable to delivery Ultra Clean Air as per U.S. Federal Standard 209 (Class 100), latest version.
- Inclined tube manometer with a range of minus 10 to plus 65 mm W.G. level to monitor dust built up across the HEPA Filters with red indicating oil.
- U.V. tube 30 Watts, 230 VAC 50 Hz I ph.
- Drawer & Cup-board,
- 5/15 A Switch/Socket.
- Gas cock.

Standard availability in 2/2", 3/2", 4/2", 6/2" 8/2" and any other size.

N.B.: Due to continuing research and development? The information contained herein is subject to change without prior notice.