

LAMINAR AIR FLOW UNITS

Model Envir-05 series



At the heart of ZENITH laminar flow lies the absolute filters which are type HIGH EFFICIENCY PARTICULAR AIR (HEPA) filters. These HEPA filters do not allow particles of diameter more than 0.3 microns to pass through them. At the same time, Class 100 laminar air flow units like ZENITH laminar flows do not allow particle contamination (diameter below 0.3 microns) exceed 100 parts of the volume of air in consideration. ZENITH laminar flow units make molecules of air move at the same speed in parallel directions. Thus, molecules and particles do not change direction and cause turbulence in a laminar air flows.

ZENITH laminar air flow units correspond to all the above specifications and conform to the Federal Standards 209b Class 100 conditions. The HEPA filters are 99.97% effective while the dust guard pre-filters are 30% effective. The air flow is $0.45 \text{ m/s} \pm 0.1 \text{ m/s}$. The blower fans used are statically & dynamically balanced. The noise level is less than 80 decibels.

There is a large variety of unit construction to choose from. There are table top units; which can be placed on a stand or a table. These table top units come in horizontal as well as vertical air flow. The laminar air flow cabinets are self standing units with the work area being approximately 80 cm above the ground. Again, these come in horizontal as well as vertical air flow options.

The table tops are made of sunmica or stainless steel. As the panels are of imported acrylic-glass they have strength, utility and beauty. Excellent in construction ZENITH laminar air flow units are efficient, performance oriented and guaranteed. They incorporate engineering values and are designed aesthetically.



PREFILTERS MOUNTED ON TOP

In our units, prefilters are mounted on top and not on the bottom. This prevents floor dust from clogging the prefilters. Air is drawn from the top, where it is comparatively cleaner. Thus, the HEPA filters last longer and you get better performance.



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Design & Engineering of Clean Air Equipment

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> Outer Body Construction:

Choice of outer body construction material: laminated wooden board, cold rolled steel, stainless steel grade 304, stainless steel grade 316.

> Inner Work Surface Construction:

Laminated wooden board, cold rolled steel, stainless steel grade 304, stainless steel grade 316 or solid epoxy tops.

> Final Filters:

Choice of HEPA (rated 99.99% efficient @ 0.3µm particles) or ULPA (rated 99.999% efficient @ 0.12µm particles).

> Pre Filters:

Washable prefilters to remove larger dust particles and lessen load on HEPA/ULPA filters.

> Performance:

Dust count exceeds Class 100 requirements (per Fed-Std 209E)

> Lighting:

CFL lamps, chokeless, less heat generation. 2 - 6 lamps per unit depending on laminar size.

> Impeller / Motor:

Direct drive, forward curve, centrifugal type with sealed bearings; rated for continuous duty; Rated 180W. 1 - 4 units fitted depending on laminar size.

> Average Airflow Velocity:

90 (±20%) FPM (0.45 m/sec) measured at 6" from filter face.

> Sound level:

68 dB, measured no more than 30" from filter face.

> Electrical:

220VAC, 50Hz, single phase. Requires approx. 10-18 amps. A control panel with switches for ON/OFF of mains, blowers, tube lights along with pilot lamp indicators of mains and blowers is provided.

> Gas Cock:

Cock for vacuum, DI water, or gas.

> Manometer Gauge:

Manometer monitors backpressure across filter.

> Options:

Audible/visible filter alarm system (measures face velocity); ionizing system (including self-balancing power supply); cocks for vacuum, DI water, or gas.

> Optional Certifications:

Air speed measurement using anemometer.

Sound level measurement using decibel meter.

Model:	ENVIR-05-222	ENVIR-05-322	ENVIR-05-422	ENVIR-05-622	ENVIR-05-822
Working area:	2' x 2' x 2'	3' x 2' x 2'	4' x 2' x 2'	6' x 2' x 2'	8' x 2' x 2'
Size of HEPA filters:	2' x 2' x 6"	3' x 2' x 6"	4' x 2' x 6"	3' x 2' x 6"	4' x 2' x 6"
No. of HEPA filters:	1	1	1	2	2
No. of Pre-filters:	1	2	2	2	3

Unit made of wooden board and laminate:

Horizontal air flow model:

Vertical air flow model:

Unit made of mild steel with SS table top:

Horizontal air flow model:

Vertical air flow model:

Unit made of stainless steel:

Horizontal air flow model:

Vertical air flow model:

Optional Accessories for:

- SS top (needed only for wooden unit):
- Transparent front door:
- Static pressure manometer:
- Built-in Germicidal light
- Cock for Gas, Air or Vacuum:

ENVIR-05-222 ENVIR-05-322 ENVIR-05-422 ENVIR-05-622 ENVIR-05-822

Models & Systems
Available

Accessories