

BIOLOGICAL / BIOHAZARD SAFETY CABINET

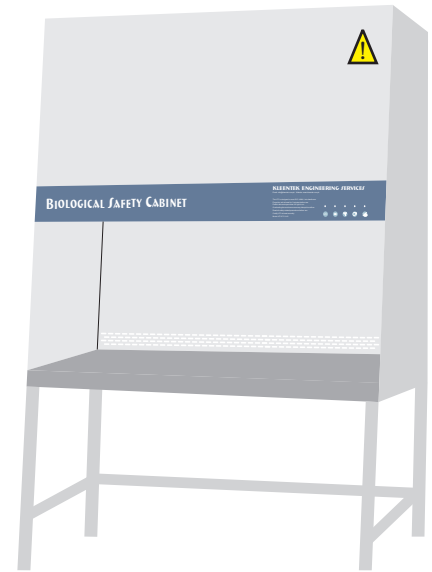
Class II Biological Safety Cabinet(s) are designed to provide unidirectional vertical laminar air flow which provides personal, product and environmental protection from biohazard materials.

KT Engineering offers a new adaptive ergonomic design, combined with a unique airflow management system which provides particle-free air quality with precise control of airflow volumes and velocities.

APPLICATION:

Biological Safety Cabinet are used where a biologically clean, particle free work environment is essential against biohazard materials. This includes:

- Pharmaceutical, electronics, chemical, medical, stem cell culture, IVF and food manufacturing
- Hospitals, Pharmacies, Laboratories, Surgical suites.
- Haematology, Oncology and Pathology clinics.
- Universities, Animal and Research facilities.



BIOLOGICAL SAFETY CABINET CLASSES:

CLASS	RECYCLE AIR (%)	EXHAUST AIR (%)	CONTROL PLENUM SURROUNDED BY	EXHAUST OPTIONS	BIOSAFETY LEVELS
II A1	70	30	Outside Air	Inside Room/Thimble Duct	1, 2 & 3
II A2	70	30	Negative Plenum	Inside Room/Thimble Duct	1, 2 & 3
II B1	30	70	Negative Plenum	Hard Duct	1, 2 & 3
II B2	0	100	Negative Plenum	Hard Duct	1, 2 & 3
III	0	100	Negative Plenum	Inside Room/Thimble Duct	1, 2, 3 & 4

AIR FLOW SYSTEM:

- The inflow air moves from the ambient environment into the perforation holes located at the front work zone and travels through return path located underneath the work surface.
- The uniform uni-directional vertical laminar air flow ensures a high level of protection within the cabinet work zone.
- At the work surface the downstream air splits with a portion of it moves towards the back return air grill and the remaining entered into the front air grill.

FILTRATION AGENTS:

- The clean air in the work-area meets or exceeds ISO Standard Class 3 conditions defined per ISO Standard 14644-1 and Class 1 conditions as defined by Federal Standard 209E.
- Mini-pleat separatorless H14 HEPA filter with a typical efficiency of 99.999% at 0.3 microns delivers increased laminar airflow uniformity for better product and cross contamination protection.
- Integral filter metal guard prevents accidental damage to HEPA filter.
- Filter performance: IEST-RP-CC034.1, IEST-RP-CC007.1, IEST-RP-CC001.3 and En1822.

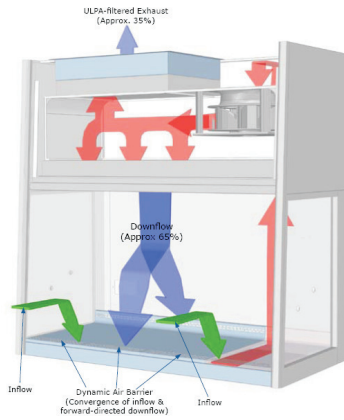
CONSTRUCTION FEATURES:

- Interior side wall and back wall are made from stainless steel 304.
- Approximately 35% of air is HEPA filtered exhausted from common plenum and approximately 65% of air is HEPA filtered and circulated into the work zone.
- The drain pan is easily accessible and sized to contain any spilled liquids.
- Standard electrical provisions are provided within the work zone.
- High quality electro-galvanized steel main frame with oven baked powder coating.
- Built-in energy efficient tear-drop glare-free fluorescent lamp for illumination and minimizes airflow disruption.
- Glare-free UV lamp and disinfection purposes (Optional).
- Voltage-compensating blower(s) ensure stable airflow.

SASH DESIGN:

- The specially designed counterbalanced frame-less sash can be lifted easily from any position.
- The design ensures smooth movement of sash and can be held at any position.
- The clear full side-to-side view of interior and service fixtures connections.
- The laminated safety glass used for safety and visibility.

Air Flow Diagram - Engineering Diagram



Standard Accessories:

Flourescent Lights.
Electrical Sockets.
DOP Test ports.
Magnehelic Guages.

Optional Accessories:

Digital Air Flow Meter.
UV Light.
Service fixtures.

General Specifications

KTE-BSC-2A2-42

External Dimensions (WxDxH)	53" x 30" x 55"
Internal Dimensions (WxDxH)	48" x 23" x 24"
Sizes	Available in 2 ft, 3 ft, 4 ft , 5 ft and 6ft sizes. Custom size's also available.
Air Velocity	Downflow: 0.35 m/s Inflow: 0.50 m/s
Air Cleanliness Standard	ISO 14644-1 (Class 3), EC-GMP (A), FS-209E (Class 1)
HEPA Filter Standard	IEST-RP-CC034.1, IEST-RP-CC007.1, IEST-RP-CC001.3 and EN1822
Downflow HEPA Filter Type	H 14 HEPA filter with integral metal guards and filter frame gaskets; fully compliant with En1822 and IEST-RP-CC001.3 requirements.
Downflow HEPA Filter Efficiency	99.999% at 0.3 microns.
Exhaust HEPA Filter Efficiency	99.999% at 0.3 microns.
Light Intensity	> 800 lux on zero background.
Noise Level	Typically < 70 dBA at initial blower speed of individual blower
Main Body Construction	18 ~ 20 guage electro-galvanized steel with powder coating finish.
Work Surface Construction	18 guage stainless steel - 304
Power Supply	220 V, Single Phase 50 hz / 60 hz.

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Kleentek Engineering manufacture's Downflow Booths , Laminar Flow Cabinet, Biohazard / Biological Safety Cabinet, Fume Hood, Pass Through Boxes, Pass Through Air Showers, Air Showers, HEPA Filter Housings.

Kleen Tek Engineering specialized in fabricating the custom sized equipments to meet the customer requirements at competitive prices

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