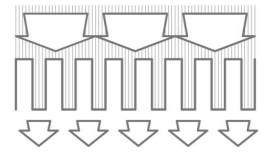




Gelman BioEssential

CLASS II TYPE A2 BIOLOGICAL SAFETY CABINETS



Leaders in clean air technology



Key Features

- superior ergonomic design & styling
- microprocessor-controlled diagnostic system with digital display & audible alarm
- hourmeter
- delayed-automatic-off timer
- elapsed / event timer
- UV timer
- negative pressure double-wall housings for containment
- all stainless steel work zone construction with radiused & crevice-free corners
- spacious work zone interior
- smooth & effortless sliding tempered glass window, closes completely
- ISO Class 5 (Class 100) air cleanliness work zone for absolute product protection
- ZERO-LEAK airflow system for enhanced safety
- reliability-proven design & performance

APPLICATIONS

Gelman BioEssential Class II Type A2 Series Laminar Flow Biological Safety Cabinets are designed to provide a high degree of personnel, product and environment protection for work with low to moderate risk biological agents that require Biosafety Level 1, 2 or 3 containment.

When ventilated to the outside atmosphere via a facility exhaust system after HEPA filtration, the cabinets are suitable for work with biological agents treated with minute quantities of volatile toxic chemicals and trace amounts of radionuclides that will not interfere with the work if recirculated in the downflow air.

OPERATION

The BioEssential Class II Type A2 Series cabinets maintain a minimum average inflow velocity of 100 fpm through the work access opening.

An effective air barrier between the operator and the work zone, maintained by an inflow of room air into a full-width front grille in the work opening provides personnel and environment protection.

The barrier air blends with the contaminated work area air in a sump beneath the work surface and is partially recirculated back to the work area through a supply HEPA filter on top of the work zone.

The recirculated air is HEPA-filtered to create a biological-clean work environment for product protection.

The remaining contaminated work area air is exhausted to the laboratory or outside atmosphere after HEPA filtration.

The BioEssential Class II Type A2 Series cabinets have all biologically contaminated ducts and plenums under negative pressure.

The GELMAN ZERO-LEAK airflow system ensures that all positive pressure zones are surrounded by negative pressure zones to contain potentially-hazardous aerosols.

STANDARD FEATURES

Ergonomically designed with a 10° slanted viewing window offers less glare, improved operator comfort and easy access of work.

Exclusive double-wall housings design captures and contains contaminated air under negative pressure and prevents the air from escaping into the laboratory environment in the event of a puncture or leak in the cabinet.

Rigid all-steel cabinet exterior with attractive durable epoxy-coated finish.

Glare-free stainless steel work zone construction with radiused & crevice-free corners improves eye comfort, facilitates cleaning and prevents accumulation of biological agents.

Spacious work zone interior facilitates work involving the use of auxiliary equipment.

Removable stainless steel work tray with spill-retention lip provides cleaning access beneath the work surface and paper catch.

Stainless steel spillage trough is water-tight to catch large volume spillage in the work area.

Paper catch prevents wipes and other paper materials from being drawn into the fan system during disinfection.

Ergonomically shaped armrest which improves arm support and comfort, is designed to raise above the front air grille to prevent contaminants from entering or leaving the work area via the operator arms.

Fully closing tempered viewing window, counter-balanced to provide smooth & effortless opening/closing, prevents contaminants from entering the cabinet when not in use or during UV decontamination.

Eye-level touch controls with easy operation system. Function icons provided enable quick identification and operation.

Microprocessor-controlled diagnostic system with digital display and audible alarm provides continuous monitoring of critical cabinet functions and warns of loss in safe airflow due to failures in the air barrier containment, laminar flow and exhaust systems or when the viewing window is raised above the safe work opening access.

External glare-free, instant-start fluorescent lighting with solid-state ballasts eliminate flicker, minimize heat output, improve eye comfort and extend lamp life.

Germicidal UV light (if installed) is instant-start and electrically interlocked for added safety to operate only when fan and fluorescent lights are off and viewing window is closed.

Microprocessor-controlled external switch provides an alternative for easy activation of the two electrical outlets in the work area.

Independent circuit breaker for power and electrical outlets prevents any overload caused by auxiliary equipment.

HEPA filters used are manufactured to the most exacting standards for critical applications. HEPA filters are 99.99% efficiency rated for 0.3 micron particulates and protected with perforated metal grilles against mechanical damage.

Minihelic pressure gauge in work area provides instant monitoring of the HEPA filter condition.

Direct drive centrifugal fan with integrated solid-state variable fan speed controller enables correct airflow to be maintained through filter life. Failure of the fan will cause a loss in safe airflow and activates both the audible and visual alarm systems.

Delayed-Automatic-Off (DAO) timer when selected, enables the cabinet to continue operating for a preset time before switching off automatically so that any residual aerosols are removed from the work area.

Hourmeter displays the total elapsed running hours when the cabinet is connected to the main supply.

Elapsed / Event timer provides countdown from the desired time duration for an event / operation.

UV timer provides control of the desired UV exposure time in the work area.

Front access fan / filter installation design facilitates easy installation or removal of fan and filters from the front of the cabinet, thus reducing cabinet downtime during replacement / repair and saves costs.

Standard units operate from 230V, single phase, 50Hz.

PHYSICAL DATA

MODEL	Overall Dimensions(mm)			Work Zone Dimensions(mm)		
	W	D	H	W	D	H
BH 24 BE	741	788	1498	578	630	684
BH 36 BE	1046	788	1498	883	630	684
BH 48 BE	1351	788	1498	1188	630	684
BH 60 BE	1656	788	1498	1493	630	684
BH 72 BE	1961	788	1498	1798	630	684

*Custom sizes available upon request

COMPLIANCE

Gelman BioEssential Class II Type A2 Series Biological Safety Cabinets are manufactured under a rigorous Total Quality Management in full compliance with ISO 9001:2015 and conform with the performance requirement of EN 12469 / NSF/ANSI 49.

OPTIONAL FEATURES

- All stainless steel exterior / interior construction
- Germicidal UV lamp 254nm with interlocking safety features
- Service fixtures for gas, air or vacuum
- Stainless steel IV bar with 6 hooks
- Airflow monitor
- ULPA filter, 99.999 % efficiency rated
- Exclusive HMZD molecular exhaust carbon filter for gaseous contaminants removal
- Exhaust air UV sterilization system
- Integrated anti-vibration platform
- Automatic sliding viewing window
- Microscope viewing window
- Thermally-controlled work surface
- Base support stand with castors / brakes or levelling feet

WARRANTY

Each unit is warranted against faulty materials and workmanship for a minimum period of twelve(12) months.

*Prices and product designs subject to change without prior notice.

