

Advanced Protection for Personnel,
Product & Environment

GENAXY®

BIOSAFETY CABINETS

ENSURE SAFETY

**GBioSafe
Series**



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www.genaxy.com

GBioSafe Series BIO-SAFETY CABINETS

The GBioSafe Series Biological Safety Cabinets (BSCs) are engineered to provide superior protection for laboratory personnel, experimental samples, and the surrounding environment. Designed as a primary containment barrier, these cabinets are ideal for life science research, clinical laboratories, biotechnology, pharmaceuticals, and microbiological applications involving pathogenic or sensitive biological materials.

By creating a controlled inflow and downflow of HEPA/ULPA-filtered air, GBioSafe cabinets ensure operator safety while maintaining an ISO Class 3 / ISO 14644 Class 5 (Class 100) clean work zone to prevent cross-contamination.

Key Applications

- Handling of pathogenic biological samples
- Microbiological research and testing Cell culture and tissue culture work
- Pharmaceutical and biotech laboratories
- Academic and clinical research facilities

Design & Operating Principle

GBioSafe Biological Safety Cabinets operate on a vertical laminar airflow system:

- Ambient air is drawn through the front opening to protect the operator.
- Air passes through high-efficiency pre-filters and HEPA filters.
- Filtered downflow air creates a sterile working environment.
- Approximately 70% of air is recirculated and 30% exhausted through HEPA filtration to protect the environment.



Technical Features

Airflow & Filtration

Airflow Pattern: Vertical laminar flow

Recirculation / Exhaust: 70% recirculated, 30% exhausted

Pre-Filter Efficiency: 99% down to 5 microns

HEPA Filter Efficiency: 99.97% – 99.99% down to 0.3 microns

HEPA Protection: Mesh guard provided for filter safety

Work Zone Classification: ISO 14644 Class 5 (Class 100) Performance

Air Velocity:

0.35 – 0.50 m/sec Noise Level: 60 dB \pm 5%

Performance

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Noise Level: 60 dB \pm 5%

Construction

Work Table: Perforated stainless steel (SS 304) with gas cock provision

Cabinet Body: Stainless steel 304 (complete SS construction)

Front Door: Acrylic, counterbalanced for smooth operation

Side Panels: Durable, easy-to-clean design

Electrical & Controls

Switches: Blower, fluorescent light, and UV light controls

Illumination: 20W / 40W fluorescent lamp with diffuser

UV Lamp: 15W / 30W (Philips, Holland)

Pressure Monitoring: Manometer (0–50 mm range)

Power Supply: 230V \pm 10V, 50Hz, single-phase AC

Blower System

Motor: 0.25 HP dynamically balanced motor

Speed: 1440 RPM

Mounting: Anti-vibration pads for quiet operation

Safety & Environmental Protection

Virus Burn-Out System: Exhaust HEPA filtration for environmental safety

Stand: Heavy-duty stand with castor wheels

Mobility: Front wheels fitted with brakes for stability

Standard Accessories

- HEPA and pre-filter system
- UV and fluorescent lighting
- Manometer for pressure indication
- Stainless steel perforated work table
- Castor-mounted stand with brakes

Compliance & Quality

- Designed in accordance with international biosafety and cleanroom standards
- High-quality components for long service life
- Engineered for safety, reliability, and ease of maintenance

Ordering Information

Models	Dimensions	Construction
GBioSafe-S1	60 x 60 x 60mm	Complete SS 304
GBioSafe-S2	90 x 60 x 60mm	Complete SS 304
GBioSafe-S3	120 x 60 x 60mm	Complete SS 304
GBioSafe-S4	150 x 60 x 60mm	Complete SS 304
GBioSafe-S5	180 x 60 x 60mm	Complete SS 304
GBioSafe-M1	60 x 60 x 60mm	SS Table,Outer MS
GBioSafe-M2	90 x 60 x 60mm	SS Table,Outer MS
GBioSafe-M3	120 x 60 x 60mm	SS Table,Outer MS
GBioSafe-M4	150 x 60 x 60mm	SS Table,Outer MS
GBioSafe-M5	180 x 60 x 60mm	SS Table,Outer MS