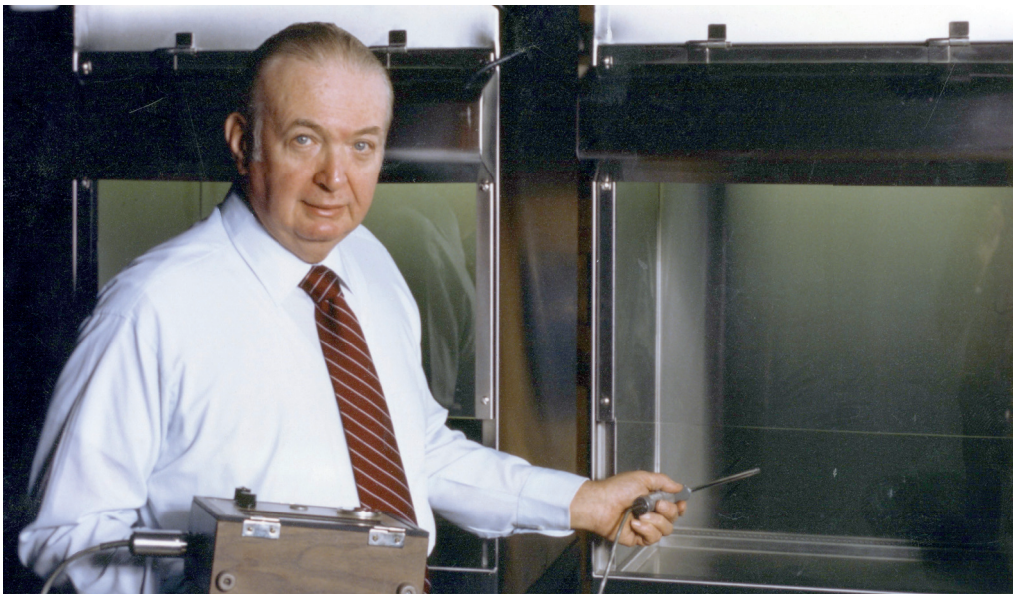


Class III gloveboxes
Class II biosafety cabinets
Class I biosafety cabinets
Fume hoods
PCR cabinets
Pass-through boxes
Mobile biocontainment facilities
Podular biocontainment facilities

Biocontainment







Creating Environments that Serve Life Science Innovation and Advance Global Health

Germfree has created innovative, compliant biocontainment equipment and facility solutions for six decades to serve experts in public health, compounding pharmacies, and research institutions. Quality, craftsmanship, and superior design have been a staple since Germfree's founding in gnotobiotic research.

From the cutting-edge institutions to resource-challenged countries, Germfree established itself as the worldwide partner of choice in advancing global health with solutions that enhance biosafety and biosecurity and enable advanced disease surveillance and research capabilities.



Biocontainment solutions: Robust, American-Made facilities and equipment

Today, Germfree is the standard for primary and secondary biocontainment solutions worldwide. Germfree's past has enabled the groundbreaking innovations that form the foundation for Germfree's quality and fabrication today. At Germfree's state of the art manufacturing facility located in Ormond Beach, FL, USA, all Germfree equipment and facilities are built to the highest quality standards and undergo rigorous testing to ensure unmatched operator safety.



SIX DECADES OF
BIOCONTAINMENT
EXPERIENCE



175,000 FT² (16,000 M²)
OF AIR CONDITIONED
MANUFACTURING SPACE



INSTALLATIONS
ON 6 CONTINENTS



1000s OF COMPLEX
EQUIPMENT INSTALLATIONS



100s OF GLOBAL
FACILITIES DELIVERED





Providing
superior
operator
protection

From biosafety cabinets to complex
biocontainment laboratory facilities,
Germfree provides complete solutions
for superior operator safety.

Standard gloveboxes

Germfree's line of standard gloveboxes represent the next step forward in personnel protection when working with dangerous or unknown materials.

Standard Glovebox (SEA)

The SEA-Glovebox provides a practical approach to integrating Class III level protection into an existing containment lab. The SEA series Class III is the most cost-effective off-the-shelf unit available while providing a state-of-the-art system for containment laboratories (BSL-2, BSL-3 and BSL-4). Designed with the operator in mind, ergonomic considerations promote natural arm position and enhance operator reach, and ergonomics, while reducing fatigue.

Portable Glovebox (PGB)

Germfree's PGB is the first field-deployable containment device that meets all of the requirements for a Class III Glovebox, as well as the standards for gloveboxes by the American Glovebox Society (AGS). With the standard HEPA filtration system, this Class III is lightweight, portable, and fit for a range of field applications—owing to its military origins.

Portable Glovebox (PGB)

Available in 30" and 36" models



Standard Glovebox (SEA)

Available in 2, 3, and 4-glove models

Custom gloveboxes and enclosures

Germfree is internationally recognized as a leading manufacturer of Custom Class III BSCs. Our gloveboxes provide containment for diverse research applications in the most advanced ABSL-3, BSL-3 and BSL-4 laboratories. Germfree's Custom Class III BSCs are engineered to exceedingly rigorous standards to meet the needs of each unique application. Germfree integrates all key components, and designs to the specification of the end user's needs and installation constraints.

Features & options:

- Pass-through Airlocks
- Through-Wall Embeds
- Chemical Dunk Tanks
- Biosecurity and Exhaust Filtration

Why Stainless Steel?

Germfree fabricates all of our standard pharmacy equipment from stainless steel. Equipment within a biocontainment facility needs to be fabricated from robust materials that can withstand harsh cleaning processes. Additionally, "Some metallic surfaces can corrode, and the powdery oxide particles that are produced can spread throughout the cleanroom. Therefore, untreated steel and untreated aluminum should be avoided in most facilities. The use of stainless...minimizes these problems."

Whyte, William. Cleanroom Technology: Fundamentals of Design, Testing and Operation. John Wiley & Sons, 2011



Class II biosafety cabinets

Laminar Flow Biological Safety Cabinets provide protection for the user, product and the environment from particulate and aerosol hazards.

Available options:

Class II, Type A2 – Approximately 70% of the air from each cycle is recirculated through the supply HEPA filter while the remaining air is discharged from the biosafety cabinet through the exhaust HEPA filter

Class II, Type B2 – 100% of the air entering the cabinet is exhausted out of the building

Germfree produces the most cleanable and robust equipment in the industry.



Class II Biosafety Cabinets

Available in 2', 3', 4', and 6' models

Public health in under-resourced regions

Germfree produces a variety of products oriented towards global public health. In developing products for this space, Germfree partnered with the WHO and CDC to produce products designed for resource-limited countries. Germfree also supports numerous NGOs with containment assets in tackling emerging pathogens and disease surveillance of remote populations.

Ventilated Workstation

The Ventilated Workstation (VWS) was developed by the Global Laboratory Initiative working group that included the Stop TB Partnership, WHO, the Union, FIND, CDC, Germfree and other partner organizations.

The Ventilated Workstation is specially designed for AFB-smear microscopy in developing regions. Complete units are available that include exhaust blower and duct. Multiple units can be shipped disassembled to reduce freight cost. Units are also available with an optional HEPA exhaust filter and fan for Class I BSC operation (Biological Safety Cabinet).



RCK



Rapid Containment Kit

The Rapid Containment Kit (RCK) provides a practical containment solution for field collection, laboratory containment, surge capacity, emergency response operations, or use as a decontamination chamber. The RCK protects the user, samples, reagents, and sensitive equipment from harsh environmental conditions and contaminants. The unit is battery-powered with double HEPA or HEPA/Carbon filters. The flexible film containment system is rapidly deployable and requires no tools for assembly. The RCK's low cost makes it viable for many environments.

Custom fume hoods

Featuring complete stainless steel construction, chemical resistant coatings, as well as Class I, Division 1 explosion-proof systems, Germfree's laboratory fume hoods are universally used for the safe handling of chemical fumes in cleanrooms, labs, and more. A hinged front window allows for the easy ingress and egress of large equipment.

- Ductless fume hoods
- Laminar flow fume hoods
- Explosion-proof fume hoods

American Made

Proudly engineered and manufactured in Florida, USA for six decades.



PCR cabinets

PCR Cabinets

Available 3' and 4' models

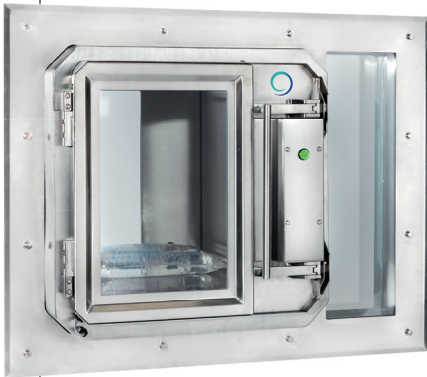


Amplification processes are very sensitive and proper sterility levels are required to achieve accurate Polymerase Chain Reaction (PCR) results. Germfree manufactures PCR Workstations and cabinets for processes involving PCR amplification and manipulation of DNA and RNA. We offer a range of PCR cabinets from 3' to 4', including units that protect personnel and the work environment while protecting samples from contamination.

Pass-through airlock

Germfree has leveraged decades of facility design experience to develop a pass-through airlock uniquely engineered to meet the demands of a modern biocontainment facility. This airlock allows for the safe transfer of materials in and out of containment areas without having to enter the laboratory. All stainless steel construction with coved interior and exterior corners and a pharmaceutical grade finish make these pass-through boxes the most cleanable and robust on

the market. When materials are placed within the pass-through a HEPA-purge cycle is initiated, which rapidly exhausts and filters the interior air until it has reached ISO Class 7. Interlocks assure that both doors cannot be opened simultaneously and that the receiving side door remains locked until the HEPA-purge is complete. These units are available in a variety of sizes and are designed to fit seamlessly into your new or existing laboratory facility.



Pass-Through Airlock

Available in 16" x 16", 24" x 16", and 24" x 24" models



Mobile biocontainment facilities

Germfree's mobile biocontainment lab platform delivers rapid solutions to meet BSL-2, BSL-2 +, and BSL-3 standards.

Germfree's bioGO® Mobile Laboratories are available in standard and custom configurations. Our mobile platforms range from Sprinter Vans to 53' (16 meter) long trailers. Each mobile facility is engineered and constructed to meet or exceed relevant CDC-NIH BMBL, World Health Organization (WHO) guidelines and other international standards for BSL-2 and BSL-3 biocontainment laboratories.

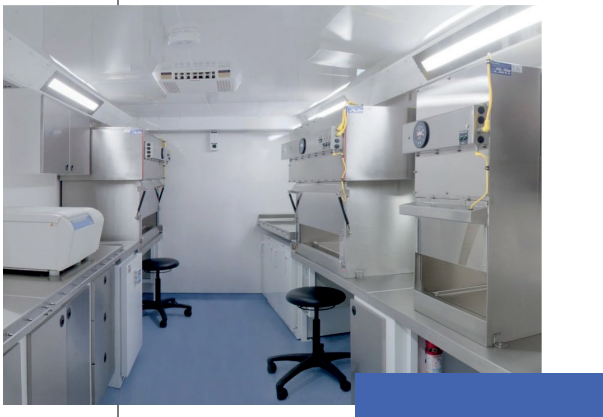
Our sophisticated trailer and vehicle-based laboratories are deployed globally, delivering rapid solutions for disease surveillance and response, field research and testing, surge capacity, and a diverse range of critical public health missions. Custom solutions available.

Features:

Seamless Arcoplast walls

Ample equipment space

Durable cleanroom flooring



Podular biocontainment facilities

Accelerated adaptability for a rapidly changing landscape

Germfree's bioGO® Podular Laboratories are available in standard and custom configurations to meet a wide range of applications at various levels including BSL-2, BSL-2+, BSL-3, and ABSL-3.

Our facilities deliver critical biocontainment capacity throughout the world. Germfree's Laboratory PODs are structural and can be configured in multi-building, multi-level layouts with placement of the MEP/HVAC on top, inside, or adjacent to the facility. Our Pods are single-building structural modules or ISO containers with integrated MEP/HVAC. These facilities can be installed as a freestanding outdoor building or within a shell building (box-in-box). Our Offsite-built, Containment-ready facilities offer accelerated timelines, when compared to traditional construction methods, and feature full integration of equipment.

Features & options:

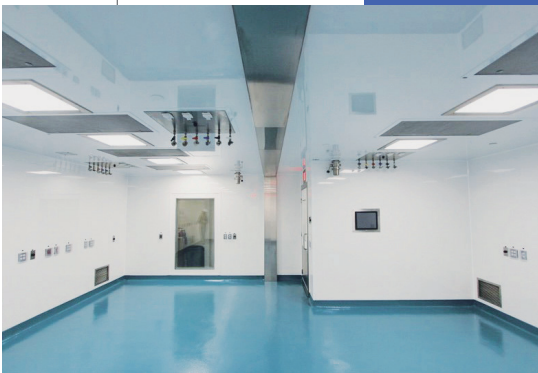
Proven solution — operational in an expedited timeline

Manufactured in our controlled environment to assure compliance and mitigate risks of traditional construction and renovation projects

Integrated Germfree equipment may eliminate the need for complex ducting in multi-story buildings

Larger configurations ideal for large research operations

Exterior designs to match your existing facility





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