ESCO LIFESCIENCES

Biobooth®

Protecting Your Research Equipment from Medium to Large-Scale



Introduction

BioBooth® is similar to a Biological Safety Cabinet Class II which can provide an ISO Class 5 work environment to house relatively larger research devices, apparatus, equipment, machineries and operating robotics under appropriate controlled cleanroom conditions.

The BioBooth® utilizes airflow design mechanism which allows adequate control on the inflow and exhaust of air, ensuring operator, product, and environmental protection.

Key Features

- ISO Class 5 air cleanliness as per ISO 14644-1
- HEPA (H14) filter as per EN 1822 with a typical efficiency of >99.995% at 0.1 to 0.3 microns
- Electronic Door Lock
- Electrogalvanized steel finish with ISOCIDE™ antimicrobial coating construction
- Esco Sentinel™ Gold Microprocessor Controller with audio/visual alarms for downflow velocity differential pressure across filters
- Stainless steel easy-to-clean interior work surfaces
- Side door access and ports for caps and bottle entry
- Viewing hinged window
- Permanently lubricated direct drive centrifugal blowers
- Front air capture and rear grilles
- Airflow sensor
- Filter life display
- Monitoring system of airflow and proper enclosure conditions
- LED lighting

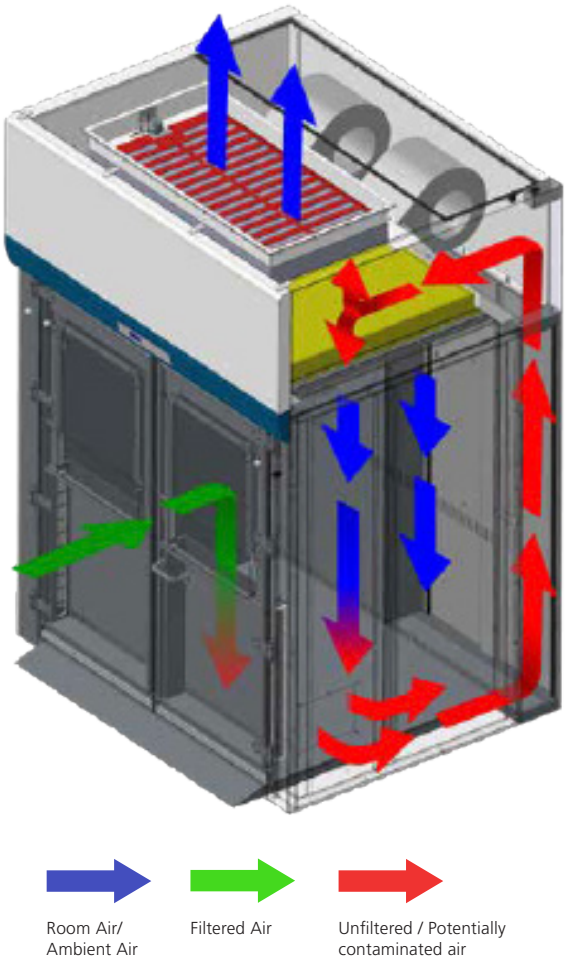
	Design	Cabinet Performance	Air Cleanliness	Electrical Safety
Standard Compliance	NSF/ANSI:49, ISO 9001, ISO 14001	CETA CAG-002-2006	ISO 14644-1:2015 Class 5, IEST-RP-CC001.3, EN 1822,	EN 61010-1:2010, EN 61326-1:2013 Class B

For the client's safety guarantee, the Esco BioBooth® underwent a series of microbiological tests based on the international standards of NSF ANSI 49 and EN 12469:2000

- **Personnel Protection Test:** It utilized KI Discus based on the international standard of EN 12469:2000. The test ensures that the operator, working with appropriate distance from the front opening, will be safe against potential hazardous samples processed inside the booth as it resulted with an Apf number ≥ 1.5 x 105.
- **Product Protection Test:** BioBooth® complied with the NSF/ANSI 49 standard. This test guaranteed product protection from outside factors due to the strength of the unit's airflow curtain.
- **Cross-contamination Test:** This is also under the NSF/ANSI 49 standards wherein the unit proved to prevent the risk of cross-contamination from either side of the booth's opening.

Filtration System

- Ambient air is pulled through the perforations located in front of the work zone front to prevent contamination of the work surface and product. The inflow does not mix with the clean air within the cabinet work zone. Inflow air travels through a return path toward the common air plenum (blower plenum) at the top of the cabinet.
- Approximately 37% of the air in the common plenum is exhausted through the HEPA filter to the room. The remaining 63% of the air is passed through the downflow HEPA filter and into the work area as a vertical laminar flow air stream, bathing the work surface in clean air.
- The uniform, laminar/unidirectional air stream protects against cross-contamination within and throughout the work area.
- Near the work surface, the downflow air stream splits with a portion moving toward the front air grilles, and the remainder moving to the rear air grilles.
- A combination of inflow and downflow air streams form an air barrier that prevents contaminated room air from entering the booth, and prevents work surface emissions from escaping the work zone. Air returns to the common air plenum where the 37% exhaust and 63% recirculation process is continued.



Optional Features

- Stainless steel worktop with caster wheels
- UV lamp
- Electrical ports
- Decontamination port
- Reinforced base with ramp to facilitate wheeled-cart transfers

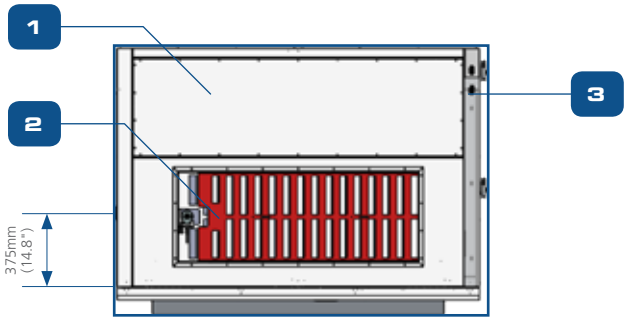
Warranty

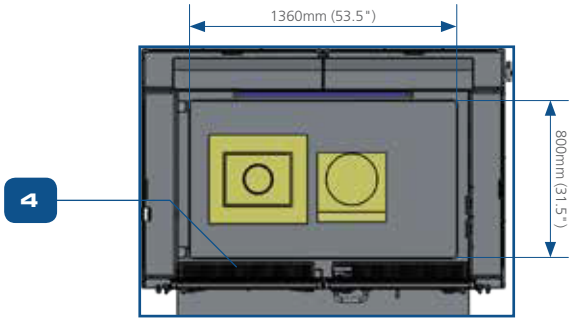
1 year warranty excluding consumables parts and accessories.

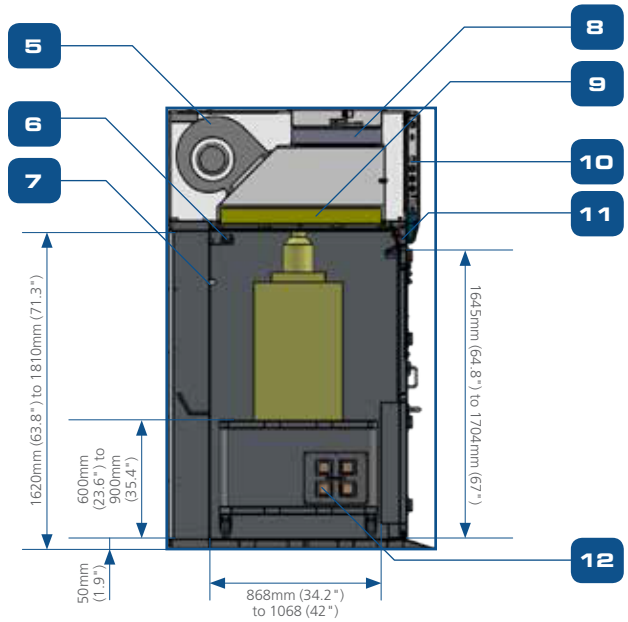
During the period of warranty, any repair, modification, testing and commissioning performed by any unauthorized party other han Esco Service Team shall void the warranty of the unit.

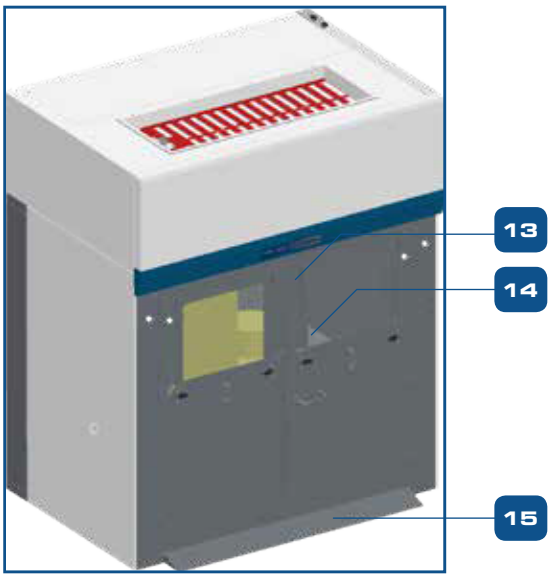
General Specifications		
Model	**BioBooth®**	
External Dimensions (W x D x H)	1840mm x 1580mm x 2510mm (72.4" x 62.2" x 98.8")	1840mm x 1352mm x 2220mm (72.4" x 53.2" x 87.4")
Internal Work Area, Dimensions (W x D x H)	1480mm x 1068mm x 1810mm (58.3" x 42" x 71.3")	1480mm x 868mm x 1570 mm (58.3" x 34.2" x 61.8")
External Construction	Electrogalvanized steel with white oven-baked epoxy-polyester ISOCIDE™ antimicrobial powder-coated finish, 1.5 mm (0.06") / 16 gauge thick	
Internal Construction	Stainless steel Type 304 with No.4 finish, 1.5 mm (0.06") / 16 gauge thick	
Downflow Velocity	0.30 m/s ± 20%	
Inflow Velocity	0.5 m/s ± 5%	

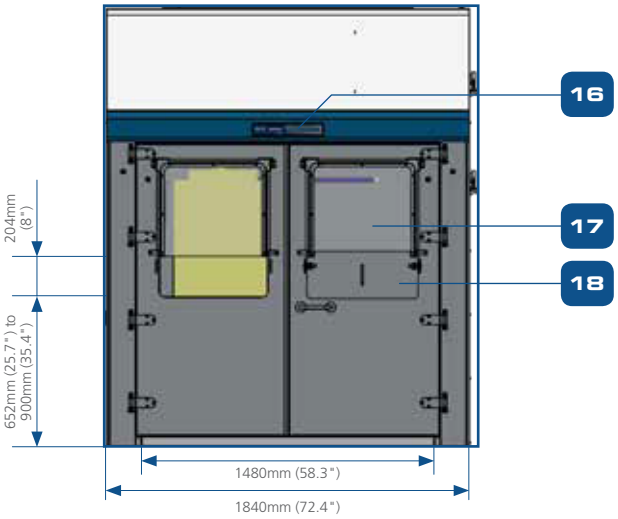
Engineering Drawing

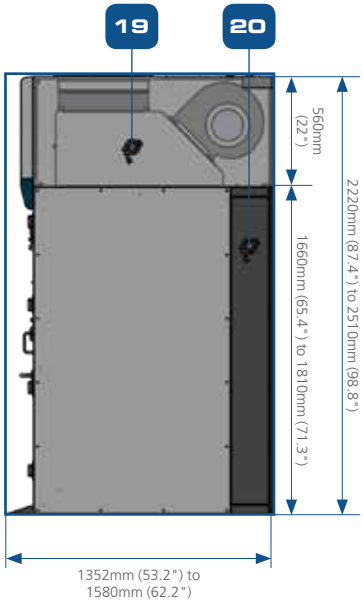






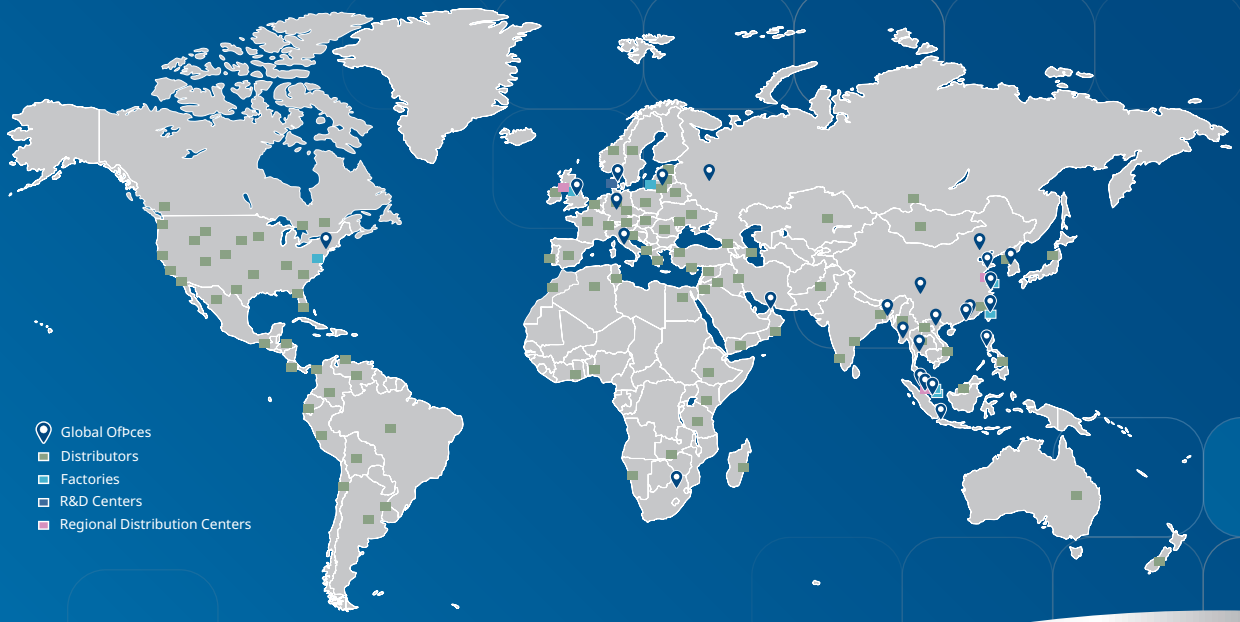






1. *Fan Access Cover*
2. *Exhaust Damper*
3. *IEC Power Inlet, 2 X 13 Amps*
4. *Front Air Capture Grilles*
5. *Fan*
6. *Airflow Sensor*
7. *UV Lamp*
8. *Exhaust HEPA Filter, H14*
9. *Electrical Panel*
10. *Supply HEPA Filter, H14*
11. *LED Light*
12. *Electrical Outlets, 4 Nos.*
13. *Electronic Door Lock*
14. *Stainless Steel Table*
15. *Reinforced Base with Ramp*
16. *Esco Sentinel™ Gold Microprocessor Control*
17. *Viewing Hinged Window*
18. *Removable UV Cover*
19. *Decontamination Port (In)*
20. *Decontamination Port (Out)*

ESCO LIFESCIENCES GROUP NETWORK
42 Locations in 24 Countries All Over the World





Air Shower
Aseptic Containment Isolator (ACTI)
Ceiling Laminar Airflow Units
Cleanroom Transfer Hatch
Containment Barrier Isolator (CBI)
Downflow Booth (DFB)
Dynamic Floor Laminar Hatch
Dynamic Pass Box
Evidence Drying Cabinet
Garment Storage Cabinet
General Processing Platform Isolator (GPPI)
Laminar Flow Horizontal Trolley
Laminar Flow Straddle Units, Single and Double
Laminar Flow Vertical Trolley
Pass Box
Soft Wall Cleanroom
Sputum Booth
Ventilated Balance Enclosure (VBE)
Weighing and Dispensing Containment Isolator (WDCI)

Since 1978, Esco has emerged as a leader in the development of controlled environment, laboratory and pharmaceutical equipment solutions. Products sold in more than 100 countries include biological safety cabinets, fume hoods, ductless fume hoods, laminar flow clean benches, animal containment workstations, cytotoxic cabinets, hospital pharmacy isolators, and PCR cabinets and instrumentation. With the most extensive product line in the industry, Esco has passed more tests, in more languages, for more certifications, throughout more countries than any biosafety cabinet manufacturer in the world. Esco remains dedicated to delivering innovative solutions for the clinical, life science, research and industrial laboratory community.

ESCO® LIFESCIENCES

Esco Micro Pte. Ltd.
19 Changi South Street 1,
Singapore 486779
Tel: +65 65420833
Email: mail@vaccixcell.com

Esco Technologies, Inc.
2512 Metropolitan Drive, Suite 120 B
Feasterville- Trevose, PA 19053-6738
Tel: +1 215 322 2155
Email: eti.pharma@escolifesciences.com

Esco GB Ltd
Unit 2 R-evolution @ Gateway 36, Kestrel Way, Barnsley, S70 5SZ
Tel: +44 (0) 1226 360 799
Email: egb.info@escolifesciences.co

Esco Lifesciences Offices: Bangladesh | China | Denmark | Germany | Hong Kong | Indonesia | Italy | Lithuania | Malaysia | Myanmar | Philippines | Russia | Singapore | South Africa | South Korea | Taiwan | Thailand | UAE | UK | USA | Vietnam

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