ESCO LIFESCIENCES

Esco Glassware Hood (EGH)

The Premium Solution For Protection From Hazardous Vapors & Fumes

EGH with Manual Sliding Doors

Introduction

The Esco Glassware Hood (EGH) is a premium solution for containing specialized equipment in kilo labs, pilot plants, and R&D environments. Originally coined from the concepts of "glassware reactors" and "fume hoods", it is a customizable enclosure specifically developed to safely house glassware assemblies in chemical processing.

Engineered for operations such as batch reactions, distillation and chemical synthesis, the EGH provide effective containment of hazardous fumes and vapors, while also protecting against spills, breakages and potential explosion risks. Its robust design enhances operator and environmental safety. It supports your process scalability while ensuring to give a reliable performance for demanding laboratory and industrial application.

Key Features

- Stainless Steel option of 304 or 316L internal material or Chemical Resistant Halar (ECTFE).
- Removable panels for utility piping access.
- Toughened glass sashes in sliding doors.
- Modular design allows future system adjustment without full booth alteration.
- Integrated controls to provide airflow alarming

Basic Principle

- Glassware Hood reduces the operator's exposure to hazardous fumes, vapours and gases
- Hazardous vapors are diluted using large amount of air, then drawn out through the duct of the facility's exhaust system
- Hoods accommodate oversized apparatus and are available in widths up to 16 feet such as bioreactors

Applications

The EGH is designed such that through the different configurations it can be applied; but not limited to, the following markets:

- Pharmaceutical
- Nutraceutical
- Food
- Kilo Lab
- Chemical Process
- Biological
- Animal
- Electronic

Options

- Carbon Filter
- Material handling (conveyors, turntables, etc.)
- ATEX & NEC (500/505) compliant hazardous area configurations
- Sump tray for containment of spills
- Sliding or hinged doors
- Vertical sliding sashes
- Airflow monitoring with alarms
- Full customization available

GENERAL SPECIFICATIONS
Esco Glassware Hood

		EGH-2	EGH-3	EGH-4	EGH-5
Dimension	Nominal Hood Size (Internal Width)	2000 mm (78.7”)	3000 mm (118.1”)	4000 mm (157.5”)	5000 mm (196.9”)
	External Width	2300 mm (90.6”)	3300 mm (129.9”)	4300 mm (169.3”)	5300 mm (208.7”)
	Internal Depth Options	900 mm (35.4”)			
		1200 mm (47.2”)			
		1800 mm (70.9”)			
		2100 mm (82.7”)			
	External Depth	+ 500 mm (19.7”) from the Internal Depth			
	Internal Height Options	2400 mm (94.5”)			
		2500 mm (98.4”)			
		2900 mm (114.2”)			
	External Height	+ 300 mm (11.8”) from the Internal Height			
Sash Airflow Velocity		0.5 m/s (100 fpm) when one door opens*			
Material of Construction	Hood	Stainless Steel 316L/304, Halar (ECTFE), electrogalvanized steel with Isocide™ white ovenbaked epoxy powder-coating, Combination (Internal SS 304/316L, External powder-coated electrogalvanized steel)			
	Sash	Phenolic glass, Polycarbonate, Tempered glass			
	Light	LED light			
Electrical Requirements		120 VAC 50/60 Hz for hood controls**			
		220 VAC 50/60 Hz for hood controls**			

Custom dimensions and specifications can be provided upon client request.
**To be discussed with the client for door specifications.*
***Additional outlets require additional electrical supplies.*
***for Open Loop External Blower*

Airflow Regime

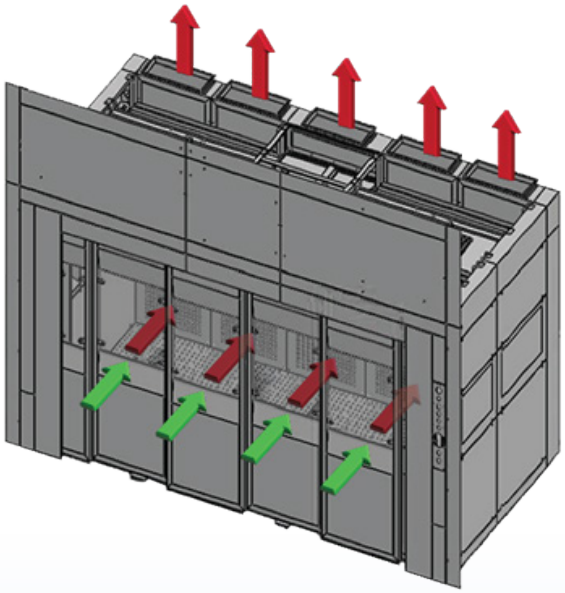


Figure 1: Door Closed

Ambient Air
Potentially Contaminated Air

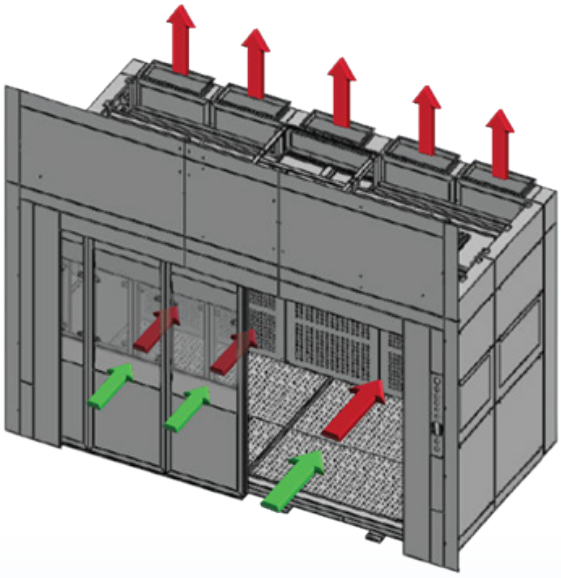


Figure 2: Door Opened

Ambient Air
Potentially Contaminated Air

Note: The EGH required airflow volume depends on its intended use and operation. It is critical that the hood be used as it was intended (door open/door closed) in line with the client-specific equipment load and process.

Esco Glassware Hood (EGH), as standard, is a passive cabinet that relies on the facility's HVAC system to draw large volumes of air through the enclosure.

This airflow reduces operator exposure to hazardous fumes, vapors and gases by diluting them and directing the contaminated air into the facility's exhaust duct system.

The inflow of air prevents unintended exposure to the operator outside of the hood while the hazardous process is taking place.

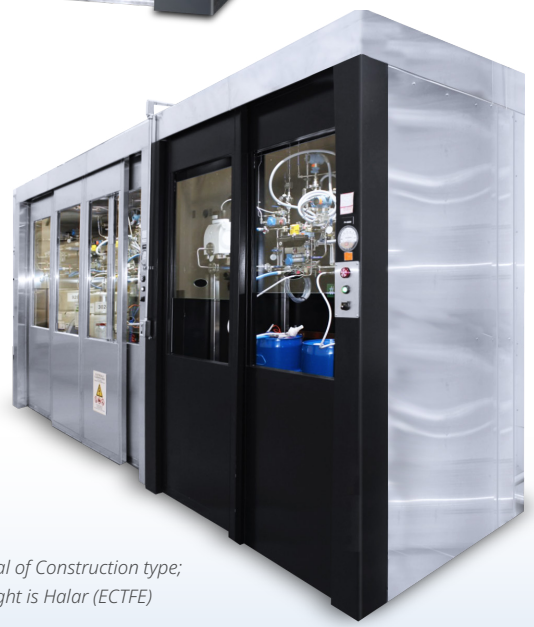
EGH works with basic principles as follows.

1. Inflow Air from environment is sucked either through the sash glass on the door or door grilles (according to the door design specifications) with door closed/open
2. The air then goes through the exhaust grilles on the rear wall
3. From the rear wall, the air goes up towards the building's HVAC system

Basic & Customized Units

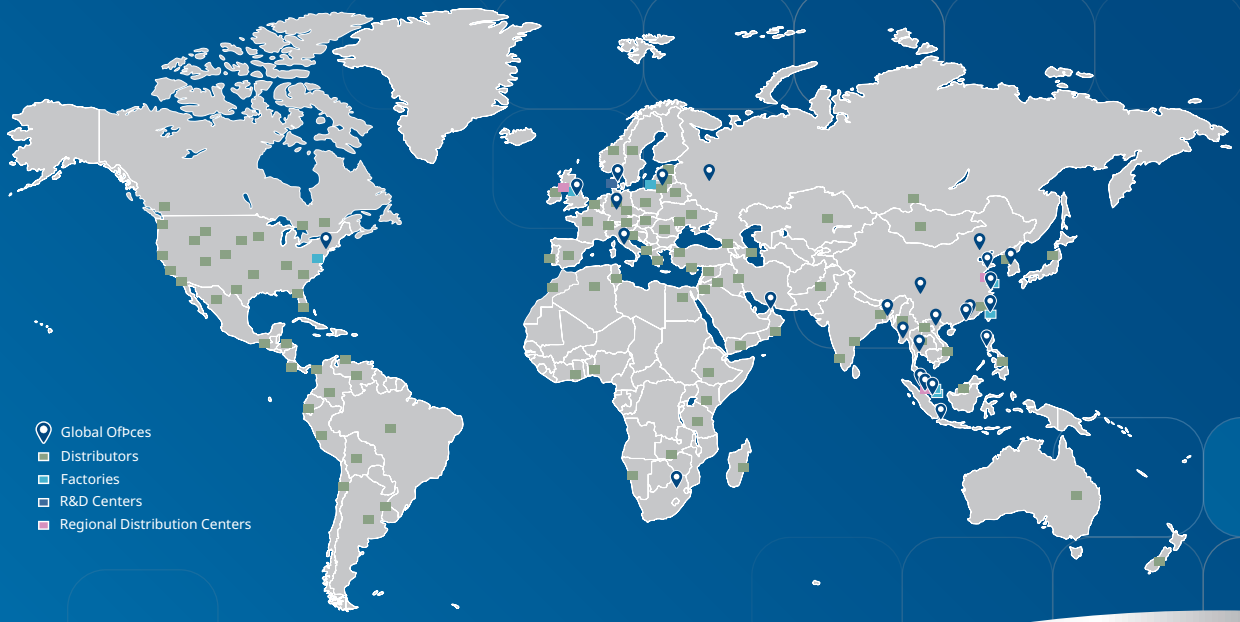
EGH with Manual Sliding Doors, Inlet Grilles on the Glass, ATEX rated

Basic EGH with Manual Sliding Doors



EGH with combined Material of Construction type; Left is stainless steel, Right is Halar (ECTFE)

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
General Processing Platform Isolator (GPPI)
Laminar Flow Horizontal Trolley
Laminar Flow Vertical Trolley
Pass Box
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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