

*Esco Garment Storage Cabinet,
Model EQU/04-EGSC.*

Esco Garment Storage Cabinet

Introduction

Esco is a leader in laminar flow cabinets. Since 1978, Esco has installed tens of thousands of laminar flow cabinets providing reliable protection for samples and work processes for a multitude of applications.

Esco laminar flow cabinets are the premium selection for the discerning user, offering a combination of value, high quality construction, low operating noise levels, and a wide product range to suit all budgets, from an industry leader.

Designed and Built for Enhanced Usability

Cleanroom garments can accumulate contamination during storage and between laundry washes, which in turn may lead to lower product yields and increased product quality issues. Esco garment storage cabinets make a positive contribution to maintaining the cleanliness of a cleanroom environment.

- ULPA-filtered airflow keeps garments clean in storage and when being handled.
- Enables garments to be stored in a visible and organized manner.
- This small investment emphasizes to both employees and visitors that the garment they are about to don will be used to enter a controlled environment, which leads to a better awareness of cleanroom standards and operating procedures.

The Highest Quality Cabinet Construction

All Esco products are manufactured for the most demanding cleanroom applications.

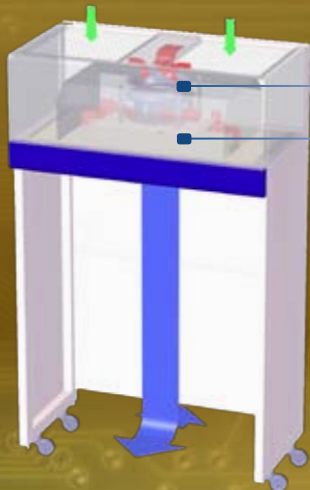
- Reliable rocker switches operate the fan and lights and a Minihelic™ pressure gauge monitors cabinet operation.

- Built-in warm white, electronically ballasted, 5000k lighting provides excellent illumination of the work zone and reduces operator fatigue. The reliable lighting system is zero-flicker and instant start.
- All components are designed for maximum chemical resistance and enhanced durability for a long service life.
- The main body of the cabinet is constructed of industrial-grade electrogalvanized steel.
- The cabinet is mobile on casters and may be fixed in place via the built-in leveling feet.
- All cabinet components are clean room compatible. Isocide eliminates 99.9% of surface bacteria within 24 hours of exposure.

Enhanced Filtration System

The enhanced filtration system on the garment storage cabinet is designed to provide the highest level of air quality within the work zone, meeting all relevant standards (see Technical Specifications for details).

- Esco laminar flow cabinets provide ISO Class 3 air cleanliness within the work zone as per ISO 14644.1, 100 times cleaner than the usual Class 5 classification on cabinets offered by the competition.
- High quality ULPA filters utilizing an improved mini-pleated separation technique to maximize surface area improves efficiency and extends the filter life. Filters operate at a typical efficiency of >99.999% at 0.1 to 0.3 micron sizes, providing superior product protection over conventional HEPA filters.



Cabinet Filtration System

Blower
Supply ULPA Filter

ULPA-filtered air
Unfiltered / potentially contaminated air
Room air / Inflow air

- During operation, room air is drawn through the top of the cabinet via a non-washable polyurethane pre-filter with 85% arrestance, trapping larger particles and increasing the life of the main filter.
- The air is then forced evenly through the ULPA filter with >99.999% efficiency, resulting in a unidirectional stream of clean air projected vertically over the internal work zone. All airborne contaminants are flushed and diluted, resulting in a particulate-free work environment.
- The purified air then leaves the storage area across the entire open front of the cabinet.
- A nominal filter face velocity of 0.45 m/s (90 fpm) ensures that there is a sufficient number of air changes within the enclosed area of the cabinet in order to maintain cleanliness.

Standards Compliance	Cabinet Performance	Air Quality	Filtration	Electrical Safety
	EN 12469 IEST-RP-CC002.2, Worldwide	ISO 14644.1, Class 3, Worldwide AS 1386 Class 1.5, Australia JIS B9920 Class 3, Japan	EN-1822 (H14), Europe IEST-RP-CC001.3, Worldwide IEST-RP-CC007.1, Worldwide IEST-RP-CC034.1, Worldwide	IEC 61010-1, Worldwide EN 61010-1, Europe UL 61010-1, USA CAN/CSA-22.2, No.61010-1

- An additional disposable pre-filter on all models traps large particles in the inflow air prior to reaching the main filter, protecting it against damage and prolonging its life.

Mini-pleat Separatorless Filter (left) vs. Conventional Aluminium Separator Filter (right)



Esco cabinets use Swedish Camfil Farr® mini-pleat filters without aluminum separators to increase filter efficiency, minimize the chance of leakage, and to prolong filter life. Filters include a lightweight aluminum frame for structural stability and elimination of swelling common to conventional wood frames.

Blower Efficiency

- Esco laminar flow cabinets incorporate permanently lubricated direct drive centrifugal blowers.
- The energy efficient external rotor motor design reduces operating costs and has extremely low noise and vibration levels.
- The intelligent blower system maintains airflow as the filter becomes loaded, ensuring optimum efficiency and product protection.
- Built-in solid state variable speed controllers, with integral RFI and noise filters, are superior to conventional “step” controllers and offer infinite adjustment from zero to maximum setting.

Designed and Built to Exceed Safety Criteria

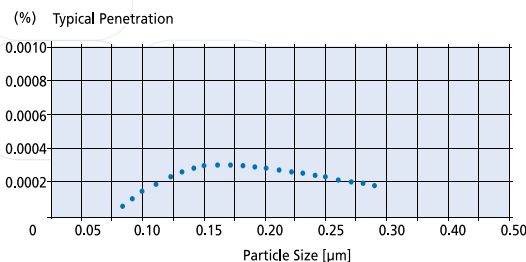
All components used in Esco products meet or exceed all applicable safety requirements.

- Each cabinet is individually factory tested for safety and performance in accordance with international standards.
- All electrical components are UL listed or UL recognized, ensuring superior electrical safety for the operator.
- All Esco laminar flow cabinets meet general safety requirements set by independent testing laboratories (see Technical Specifications for details).

Warranty

Esco garment storage cabinets come with a 12 month warranty, excluding consumable parts and accessories. Contact your local representative for specific warranty details.

Esco ULPA Filter Efficiency



This filter efficiency graphs reflect filter efficiencies for ULPA filters with 66mm / 2.6" height for the nominal airflow velocity of 0.45 m/s or 90fpm. Filter efficiency figures change with different airflow settings and filter heights, e.g. filter efficiency will be higher for lower airflow velocities and vice versa.

Accessories and Options

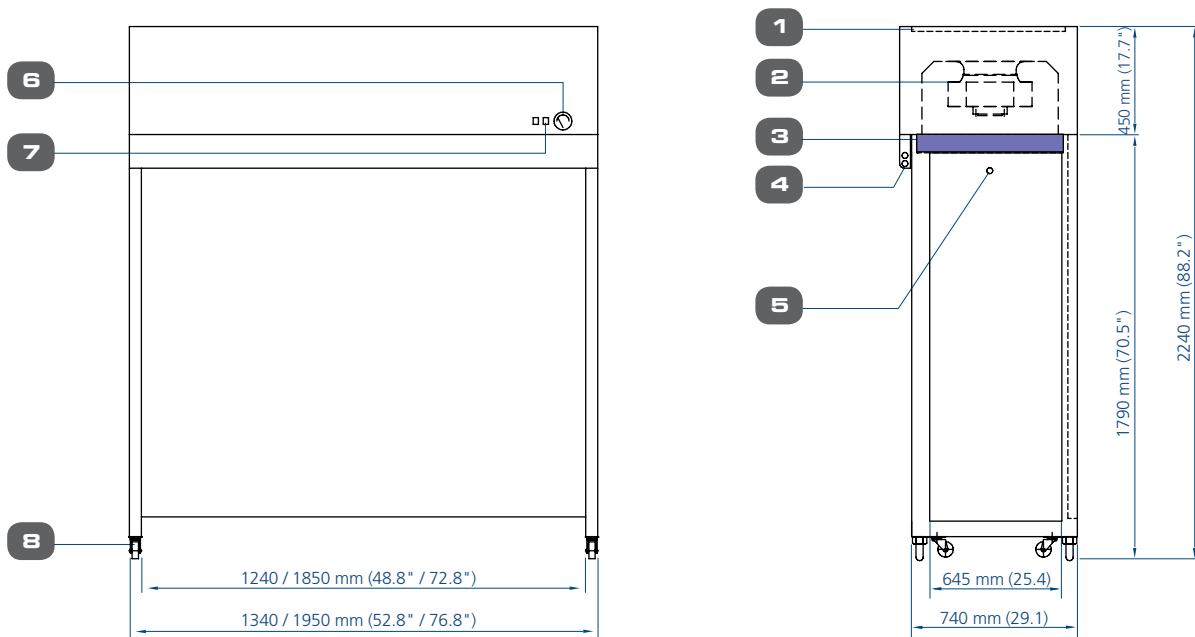
Esco offers a variety of options and accessories to meet local applications. Contact Esco or your local Sales Representative for ordering information.

- Cleanroom hangers

General Specifications, Garment Storage Cabinet

Model		EQU/04-EGSC	EQU/06-EGSC
Nominal Size		1.2 meters (4')	1.8 meters (6')
External Dimensions (W x D x H)		1340 x 740 x 2240 mm 52.8" x 29.1" x 88.2"	1950 X 740 X 2240 mm 76.8" x 29.1" x 88.2"
Internal Storage Area, Dimensions (W x D x H)		1240 x 645 x 1790 mm 48.8" x 25.4" x 70.5"	1850 x 645 x 1790 mm 72.8" x 25.4" x 70.5"
Storage Capacity		16 garments on hangers (4' model)	24 garments on hangers (6' model)
Average Airflow Velocity		0.45 m/s (90 fpm)	
Pre-Filter		Disposable and non-washable polyester fibers with 85% arrestance / EU3 rated	
ULPA Filter Typical Efficiency		99.999% for particles size at 0.3 microns	
Sound Emission Per IEST-RP-CC002.2		61 dBA	63 dBA
Fluorescent Lamp Intensity At Zero Ambient		>800 Lux (74 foot candles)	
Cabinet Construction	Main Body	1.2mm (0.05") 18 gauge electro-galvanised steel with white oven-baked epoxy powder-coated finish	
Electrical	220-240V, AC, 50Hz, 1Ø	EQU/04-EGSC	EQU/06-EGSC
	Cabinet Power	350 W / 1.8 A	600 W / 3.2 A
	BTU/ Hr	714	1224
Net Weight		150 kg (331 lbs)	320 kg (705 lbs)
Gross Weight		220 kg (485 lbs)	540 kg (1190 lbs)
Shipping Dimensions, Maximum (W x D x H)		1800 x 900 x 1300 mm 70.9" x 35.4" x 51.2"	2150 x 920 x 1300 mm 84.6" x 36.2" x 51.2"
Shipping Volume, Maximum		2.1 m ³ (74.1 cu.ft)	2.5 m ³ (88.3 cu.ft)

Model EGSC Esco Garment Storage Cabinet



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| <ul style="list-style-type: none"> 1. Pre-filter 2. Blower 3. ULPA filter 4. Fluorescent lamps | <ul style="list-style-type: none"> 5. Stainless steel rod 6. Pressure gauge 7. Operating switches 8. Castors |
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Esco Containment, Clean Air and Laboratory Equipment Products

- Biological Safety Cabinets, Class II, III
- Fume Hoods, Conventional, High Performance, Ductless Carbon Filtered
- Laminar Flow Cabinets, Horizontal, Vertical, PCR
- Animal Containment Workstations
- Hospital Pharmacy Isolators, Cytotoxic Safety Cabinets
- Specialty Workstations: *In-Vitro* Fertilization, Powder Weighing
- PCR Thermal Cyclers, Conventional, Real-Time
- Cleanroom Fan Filter Units, Modular Rooms, Air Showers, Pass Thrus

Since 1978, Esco has emerged as a leader in the development of controlled environment, laboratory and cleanroom 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. www.escoglobal.com.

NSF / ANSI 49 Biological Safety Cabinets • Animal Containment Workstations • Fume Hoods • Clean Benches



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Esco Technologies, Inc. • 2940 Turnpike Drive, Units 15-16 • Hatboro, PA 19040, USA
 Toll-Free USA and Canada 877-479-ESCO • Tel 215-441-9661 • Fax 215-441-9660
www.escoglobal.com • usa@escoglobal.com

Esco Micro Pte. Ltd. • 21 Changi South Street 1 • Singapore 486 777
 Tel +65 6542 0833 • Fax +65 6542 6920 • mail@escoglobal.com
www.escoglobal.com

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