

# Esco Cleanroom Garment Storage Cabinet

Maintaining the cleanliness of PPE clothing to ensure product and personal safety



### EGSC with Cupboard Design

## Introduction

Esco Garment Storage Cabinet is 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.

# **Basic Principles**

Esco Garment Storage Cabinet make a positive contribution to maintaining the cleanliness of a cleanroom environment, specifically to maintain the Personal Protective Equipment (PPE) such as lab coat and jumpsuit.

- ULPA-filtered as per IEST-RP-CC001.3, USA airflow keeps garments clean during storage and handling.
- High quality ULPA filters utilizing an improved mini-pleated separation technique to maximize surface area improving efficiency and extending the filter life. Filters operate at a typical efficiency of > 99.995% at 0.1 to 0.3 micron sizes.
- Enables garments to be stored in a visible and organized manner.
- Esco laminar flow cabinets provide ISO Class 5 air cleanliness within the work zone as per ISO 14644.1.
- An additional disposable prefilter on all models traps large particles in the inflow air prior to reaching the main filter, protecting it against damage and prolonging its life.

#### **Standard Features**

- Reliable rocker switches control the fan and lights and a Minihelic<sup>™</sup> 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 with industrialgrade electrogalvanized steel.
- The cabinet can be designed as mobile with caster wheels or static via built-in leveling feet.
- All cabinet components are clean room compatible. Isocide™ eliminates 99.9% of surface bacteria within 24 hours of exposure.

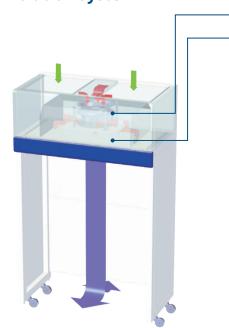






EGSC with Shelves

# Esco Garment Storage Cabinet Filtration System

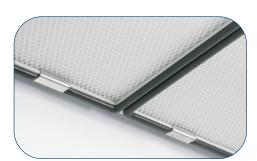


Blower
ULPA-filtered air
Unfiltered / potentially contaminated air
Room air / Inflow air

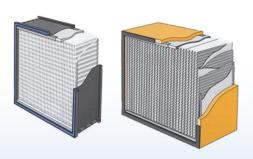
- During operation, room air is drawn through the top of the cabinet via a non-washable polyurethane prefilter with 90% efficiency, trapping larger particles and increasing the life of the main filter.
- The air is then forced evenly through the ULPA filter with > 99.995% efficiency, resulting in a unidirectional 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 with in the enclosed area of the cabinet in order to maintain cleanliness.

- Esco laminar flow storage cabinets incorporate permanently lubricated direct drive centrifugal blowers.
- The energy efficient external rotor motor design reduces operating costs, noise, and vibration levels.
- Built-in solid state variable speed controllers with integral RFI and noise filters offering flexible adjustment from zero to maximum setting.
- Each cabinet is individually factory tested for safety and performance in compliance with international standards.
- All electrical components are UL listed or UL recognized, ensuring superior electrical safety.
- All Esco laminar flow storage cabinets meet general safety requirements set by independent testing laboratories.

	Cabinet Performance	Air Quality	Filtration	Electrical Safety
Standard Compliance	IEST-RP-CC002.2, Worldwide	ISO 14644.1, Class 5, Worldwide	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



Mini-pleat Separatorless Filter (left) vs. Conventional Aluminum 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.

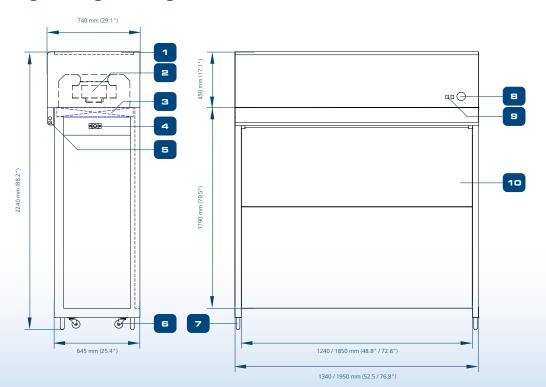


# **General Specifications, Garment Storage Cabinet**

Specify the electrical code when ordering

Model		EGSC-4H	EGSC-6H	
Nominal Size		1.2 meter (4')	1.8 meter (6')	
External Dimensions (W x D x H)		1340 x 740 x 2240 mm	1950 X 740 X 2240 mm	
		(52.8" x 29.1" x 88.2")	(76.8" x 29.1" x 88.2")	
Internal Storage Area, Dimensions (W x D x H)		1240 x 645 x 1790 mm	1850 x 645 x 1790 mm	
		(48.8" x 25.4" x 70.5")	(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)		
Prefilter		Washable non-woven polyester fibers with 90% efficiency		
ULPA Filter Typical Efficiency		99.995% for particles size at 0.3 microns		
Sound Emission Per IEST-RP-CC002.2		<67 dBA	<67 dBA	
Fluorescent Lamp Intensity At Zero Ambient		>800 Lux (74 foot candles)		
Cabinet Construction	Main Body	1.2 mm (0.05") 18 gauge electro-galvanised steel with white oven-baked epoxy powder-coated finish		
Electrical	1 - 220-240V, AC, 50Hz, 1ø			
	2 - 110-120V, AC, 50Hz, 1ø	EGSC-4H	EGSC-6H	
	3 - 220-240V, AC, 60Hz, 1ø	EG3C-411		
	4 – 110-120V, AC, 60Hz, 1ø			
	Cabinet Nominal Power	378 W	628 W	
	Cabinet Full Load Amps (FLA)	1.8 A	4 A	
	Cabinet BTU	1290	2143	
Net Weight		150 kg (331 lbs)	220 kg (484 lbs)	
Gross Weight		229.5 kg (506 lbs)	311.6 kg (687 lbs)	
Shipping Dimensions, Maximum (W x D x H)		2150 × 950 × 1610 mm (84.6" × 37.4" × 63.4")	To be Advised upon detailing stage	
Shipping Volume, Maximum		3.29 m³ (116 cu.ft.)	To be Advised upon detailing stage	

# **Engineering Drawing**



- 1. Prefilter
- 2. Blower
- 3. ULPA Filter
- 4. Stainless Steel Rod
- 5. Fluorescent Lamps
- 6. Caster Wheel
- 7. Leveling Feet
- 8. Pressure Gauge
- 9. Operating Switches
- 10. Back Panel

## **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.







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