



Ascent™ Storage Cabinet, Model: ASC-4

# Ascent™

## Storage Cabinet

*Filtered Storage Solution*



**ESCO**

WORLD CLASS. WORLDWIDE.



## Welcome to Esco

*Esco's Vision is to provide enabling technologies for scientific discoveries to make human lives healthier and safer.*



Esco represents innovation and forward-thinking designs, which are all coupled with the highest standard quality since 1978. The Esco Group of Companies remains dedicated in delivering innovative solutions for the clinical, life sciences, research, industrial, laboratory, pharmaceutical and IVF community. With the most extensive product line in the industry, our products have passed a number of international standards and certifications. Esco operates under ISO 9001, ISO 14001 and ISO 13485.

**Availability and Accessibility.** Headquartered in Singapore, manufacturing facilities are located in Asia and Europe. R&D is conducted worldwide spanning the US, Europe and Asia. Sales, services and marketing subsidiaries are located in 12 major markets including the US, UK, Japan, China and India. Our regional distribution centers are located in Bangladesh, China, Denmark, Germany, Hong Kong, India, Indonesia, Italy, Japan, Lithuania, Malaysia, Philippines, Russia, Singapore, South Africa, South Korea, Russia, Taiwan, Thailand, UAE, United Kingdom, USA, and Vietnam. Because of our worldwide presence, you can be sure that Esco is within your reach.

**High Quality, Reliable and Dependable.** Our customers are confident that only with the best quality, reliable, and dependable products, can they be sure of the accuracy of their research and procedures. Cross functional teams from Esco Production, R&D, Quality Assurance and Senior Management, are regularly assembled to review and implement areas for improvement.

**Esco Cares for Your Safety.** Esco focuses on providing safety not just for your samples but also for you and the environment.

**Esco Cares for Your Comfort.** Comfort of our users is ensured by building ergonomic designs and by reducing the noise levels of the units.

**Esco Cares for the Environment.** One in every four of Esco's employees is involved in Research and Development and a number of these evaluate new components and/or designs to produce energy efficient equipment. Being GREEN is more than just modifying the parts we use to produce a new energy efficient technology, it also embodies the every aspect of the company.

**Customer Service and Support.** Our service does not stop once purchase has been made. Esco gives on-time customer service and offers end-user seminars, service training, preventive maintenance, provides educational materials and informative videos.

As Esco takes the opportunity to respond to the world's needs, we aim not just to contribute in the advancement of scientific discoveries but also in making the world a safer, healthier and a better place to live in.

## Ascent™ Storage Cabinet

Filtered Storage Solution

# Products and Application

## Life Sciences Laboratory Equipment

### Sample Preparation

- Class I Biological Safety Cabinets
- Class II Type A2 Biological Safety Cabinets
- Class II Type B1 Biological Safety Cabinets
- Class II Type B2 Biological Safety Cabinets
- Class III Biological Safety Cabinets
- Horizontal Laminar Flow Clean Benches
- Vertical Laminar Flow Clean Benches
- Laboratory Animal Research Workstations
- Laboratory Centrifuges

### Sample Cultivation

- CO<sub>2</sub> Incubators, Direct Heat Air-Jacketed
- CO<sub>2</sub> Incubators with Cooling System
- CO<sub>2</sub> Incubators with Stainless Steel Exterior
- Laboratory Shakers

### Sample Analysis

#### PCR Thermal Cyclers

- Conventional Thermal Cyclers
- Real-time PCR Systems

#### PCR Sample Handling

- Microplate Shakers
- PCR Cabinets

### Sample Storage & Sample Protection Solutions

- Ultra-low Temperature Freezers
- Lab Refrigerators and Freezers
- Sample Database Management Software
- Intelligent Remote Monitoring Application Protocol
- Remote Monitoring, Datalogging, Programming Software
- Wireless Monitoring System

### Chemical Research

- Ductless Fume Hoods
- Laboratory Fume Hoods
- Fume Hood Airflow Monitors
- Exhaust Blowers
- Powder Weighing Balance Enclosures

### General Equipment

#### Laboratory Thermostatic Products

- Laboratory Oven
- Forced Convection Laboratory Incubator
- Natural Convection Laboratory Incubator
- Refrigerated Incubator

### Forensic Sciences

- Evidence Drying Cabinet

## Medical / IVF Equipment

### Controlled Embryo Handling

- Fertilisafe™ ART Workstation
- AVT-I Anti Vibration Table
- Semi Closed Environment IVF

### Safe Embryo Culture

- Mini® Multi room Benchtop Incubator
- CelCulture® CO<sub>2</sub> Incubator
- Mini Mini® Humidified Benchtop Incubator

### Innovative Time Lapse Imaging

- Mini® Time-lapse Incubator

### Accurate Quality Control

- Mini® GA Gas and Temperature Validation Unit
- Mini® GA Mini Gas Validation Unit

### Unique Consumables

- CultureCoin

## Healthcare

### Esco Pharma Products

#### Airflow Containment Products

- Pharmacon® Downflow Booths
- Ceiling Laminar Airflow Units
- Laminar Flow Horizontal/Vertical Trolley
- Enterprise™ Laminar Flow Straddle Unites
- Cytoculture™ Cytotoxic Safety Cabinets

#### Isolation Containment

- Aseptic Containment Isolator (ACTI)
- Weighing and Dispensing Containment Isolator (WDCI)
- General Processing Platform Isolator (GPPI)
- Containment Barrier Isolator (CBI)
- Turbulent Flow Aseptic (Grade A) Isolator (TFAI)
- Isoclean® Healthcare Platform Isolator (HPI)
- Streamline® Compounding Isolators (SCI)
- Technetium Dispensing Isolators
- Blood Cell Labeling Isolators
- Open and Closed Restricted Barrier Access Systems (RABS)

#### Cross Contamination Facility Integrated Barrier

- BioPass™ Pass Through
- Infinity® Air Shower Pass Box
- Cleanroom Air Shower
- Infinity® Cleanroom Transfer Hatch
- Infinity® Pass Box
- Soft capsule® Soft Wall Cleanroom
- Dynamic Passboxes and Dynamic Floor Laminar Hatches
- Laminar Flow Storage Cabinet

#### Ventilation Containment

- Ventilated Balance Enclosure

### VacciXcell Products

#### Bioreactors and Fermenters

- CelCradle™
- TideCell®
- VacciXcell™ Hybrid Bioreactor

#### Cell Culture Monitoring, Media and Consumables

- Super Plus™
- Plus™ Vero
- Plus™ MDCK
- Plus™ MDCK II
- BioNOC™ II macrocarriers
- GlucCell® Glucose Monitoring System
- CVD Kit

#### Filling Line Equipment

- Filling Line Isolators
- cRabs (close restricted access barriers)
- oRabs (open restricted access barriers)

#### Integrated Solutions

- Cell Processing Isolator
- Cell Processing Center

### TaPestle Rx Products and Services

#### PRODUCTS

##### Pharmacy Automation and Compounding Supply

- Compounding Pharmacy Isolators (SCI, HPI, CBI, GPPI)
- Safety Cabinets and Enclosures (Class II BSC, VBE, LFC)
- Radiopharmacy Hoods and Isolators
- Aseptic Filling Systems

#### Healthcare and Laboratory Construction Components

- Prefabricated Walls (Airecell®)
- Prefabricated Containerized Facility (Prefab™)
- Series Ceiling Systems
- Hygienic/Hermetic Door Systems
- Surgical Scrub Sinks
- Vinyl Tiles and Epoxy
- Laboratory Fit-outs
  - Worktops
  - Frames
  - Specialty Storage cabinets
  - Service Spines & Reagent Shelving

#### SERVICES

- Conceptualization
- Planning
- Procurement
- Installation

#### FACILITY DESIGNS

- Process Architecture
- Biocontainment/Biosafety
- Pharmacy Compounding/Nuclear Medicine
- Cleanroom, Vaccine and Cell Processing
- Laboratory
- Containerized Facility
- ART/IVF
- Cold Chain



# Ascent™ Storage Cabinet

## INTRODUCTION

Fumes from chemical containers often result to the storage cabinet's corrosion and contaminated air in the laboratory. Ascent™ storage cabinet is ideal in providing a safe and convenient storage solution. This cabinet is equipped with Nanocarb™ filters that effectively adsorb chemical fumes to provide operator and environment protection.

## EACH ASC COMES STANDARD WITH:



VOC SENSOR



SENTINEL™ CONTROL SYSTEM



PP TRAYS



HEPA FILTER  
(FOR B AND D SERIES ONLY)



## FEATURES:



Easy Filter Change



Safety Lock to restrict access

## Designed for Enhanced Usability and Efficiency

The Ascent™ Storage Cabinet is designed specifically to provide the operator with a high level of usability, comfort and visibility.

- Industrial-grade main body constructed of electro-galvanized steel: with an abrasion resistant white oven-baked powder-coated finish.
- Esco Isocide™ antimicrobial surface on all painted surfaces minimizes surface contamination.
- Multiple filter configuration options to suit customer's needs.
- Permanently lubricated direct drive centrifugal fan(s); energy efficient, extremely low noise and vibration levels due to proprietary construction and mounting technology.
- Acrylic Glass doors with alarms to notify if doors are left opened.
- Large tray capacity to accommodate more chemical bottles with different weights.

## Enhanced Filtration System

Esco's Nanocarb™ activated carbon filters are constructed in order to ensure maximum filter efficiency, retention capacity and operator protection. Esco's research scientists and engineers, working in consultation with world-leading authorities on adsorption science, have developed the following set of unique technologies:

- Optimized retention capacity.
- Generously sized filters with more activated carbon by weight retain more chemicals and last longer.
- Proprietary computer modelling software to predict application suitability, filter saturation capacity, and efficiency for single and multiple compounds.
- Quick-change out filter clamping mechanism allows filter replacements to be carried out with minimal tools; even filter clamping (perimeter, not point force) prevents leaks from occurring.
- Diffusion technology to ensure even filter loading and better airflow uniformity.
- Can filter most commonly used solvents specially acids and organic solvents

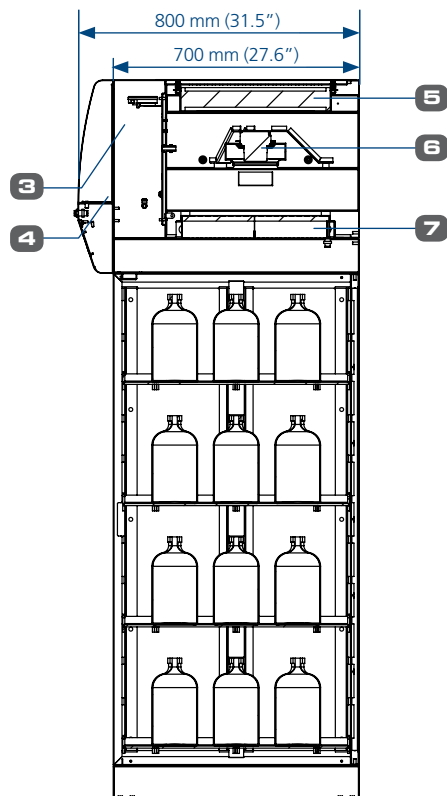
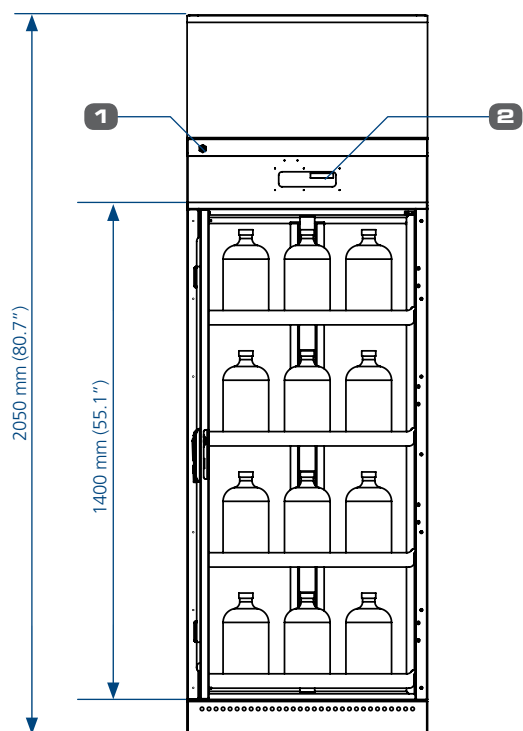
## Sentinel™ Microprocessor Control, Alarm, Monitoring System

Esco's Sentinel™ microprocessor-based hood control systems supervises operation of all hood functions. The user-friendly microprocessor control system is fully configurable according to operator's requirements and comes equipped with a number of enhanced features to promote cabinet usability.

- Continuous monitoring of hood airflow is displayed on a bright, easy-to read LCD panel.
- Audible and visual alarms for low airflow.
- An integrated, temperature-compensated, true airflow velocity sensor provides an accurate airflow reading despite room temperature fluctuation.
- An administrator controlled PIN (Personal Identification Number) can be set to restrict access to main menu.
- The airflow alarm can be activated or deactivated depending on user preference and nature of the work.

Guide to Models							
ASC - 4A8							
Model	Code	External Width	Code	Filter Configuration	Code	Electrical	Code
Ascent™ Storage Cabinet	ASC	27.0" (2ft.)	2	Carbon filter only	A	230 VAC , 50/60 Hz	8
		53.9" (4ft.)	4	Carbon Filter + HEPA Filter	B	115 VAC , 50/60 Hz	9
		80.9" (6ft.)	6	Carbon filter + Carbon filter	C		
				HEPA filter only	D		
				HEPA Filter + Carbon Filter	E		

## Engineering Drawing



1. Sample Port

2. Sentinel™ Silver Control System

3. Electrical panel

4. Front panel

5. Secondary Filter

(For B, C, and E series only)

6. Blower

7. Main Filter

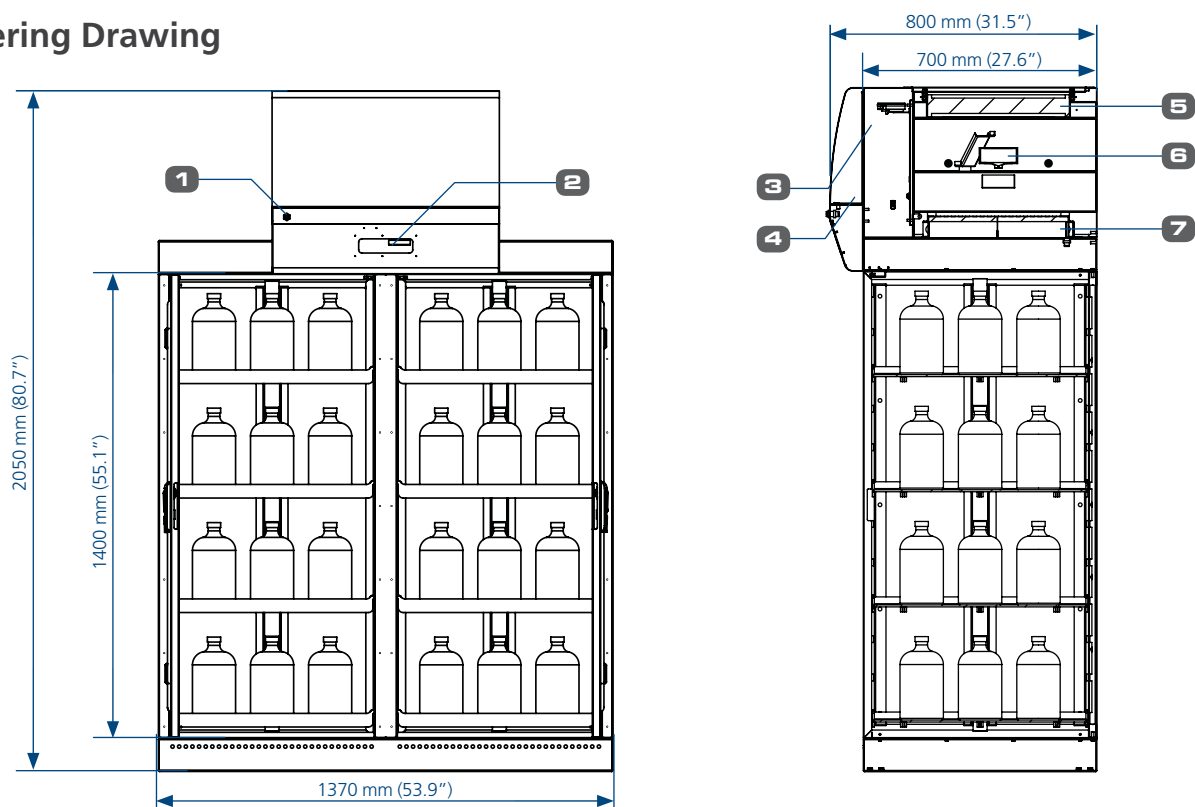
### General Specifications, Ascent™ Storage Cabinet (2ft. series)

Models	220-240 VAC, 50-60 Hz, 1Ø	ASC-2A8 2040293	ASC-2B8 2040294	ASC-2C8 2040295	ASC-2D8 2040296	ASC-2E8 2040328
	110-120 VAC, 50-60 Hz, 1Ø	ASC-2A9 2040297	ASC-2B9 2040298	ASC-2C9 2040299	ASC-2D9 2040300	ASC-2E9 2040330
Nominal Size		0.7 m (2')				
External Dimensions (W x D x H)		685 mm x 700 mm x 2050 mm (27.0" x 27.6" x 80.7")				
Door		Powder Coated electro-galvanized steel door with 6 mm thick Acrylic window and lockable Swing Handle				
Main Body		1.2 mm 18 gauge electro-galvanized steel with white oven-baked epoxy-polyester ISOCIDE™ antimicrobial powder coated finish				
Number of Blower/s		1				
Air volume		140 cfm				
Trays	Number of Trays	Standard: 4 Trays Maximum: 6 Trays				
	Tray capacity per bottle size	For 2.5 - 4 L bottles: each tray can fit 9 bottles For 2.0 L bottles: each Tray can fit 12 bottles				
	Maximum weight per tray	40 kg				
	Tray dimension	600 mm x 600 mm (23.6" x 23.6")				
	Tray material	Polypropylene				
Filtration Elements	Main Filter	Nanocarb™ Filter (type A-H)	Nanocarb™ Filter (type A-H)	Nanocarb™ Filter (type A-H)	HEPA filter	HEPA Filter
	Secondary Filter	None	HEPA Filter	Nanocarb™ Filter (type A-H)	None	Nanocarb™ Filter (type A-H)
Control System		Sentinel™ Silver microprocessor control system				
VOC Sensor		✓				
Door Alarm		✓				

## Ascent™ Storage Cabinet

Filtered Storage Solution

## Engineering Drawing



1. Sample Port  
2. Sentinel™ Silver Control System

3. Electrical panel  
4. Front panel

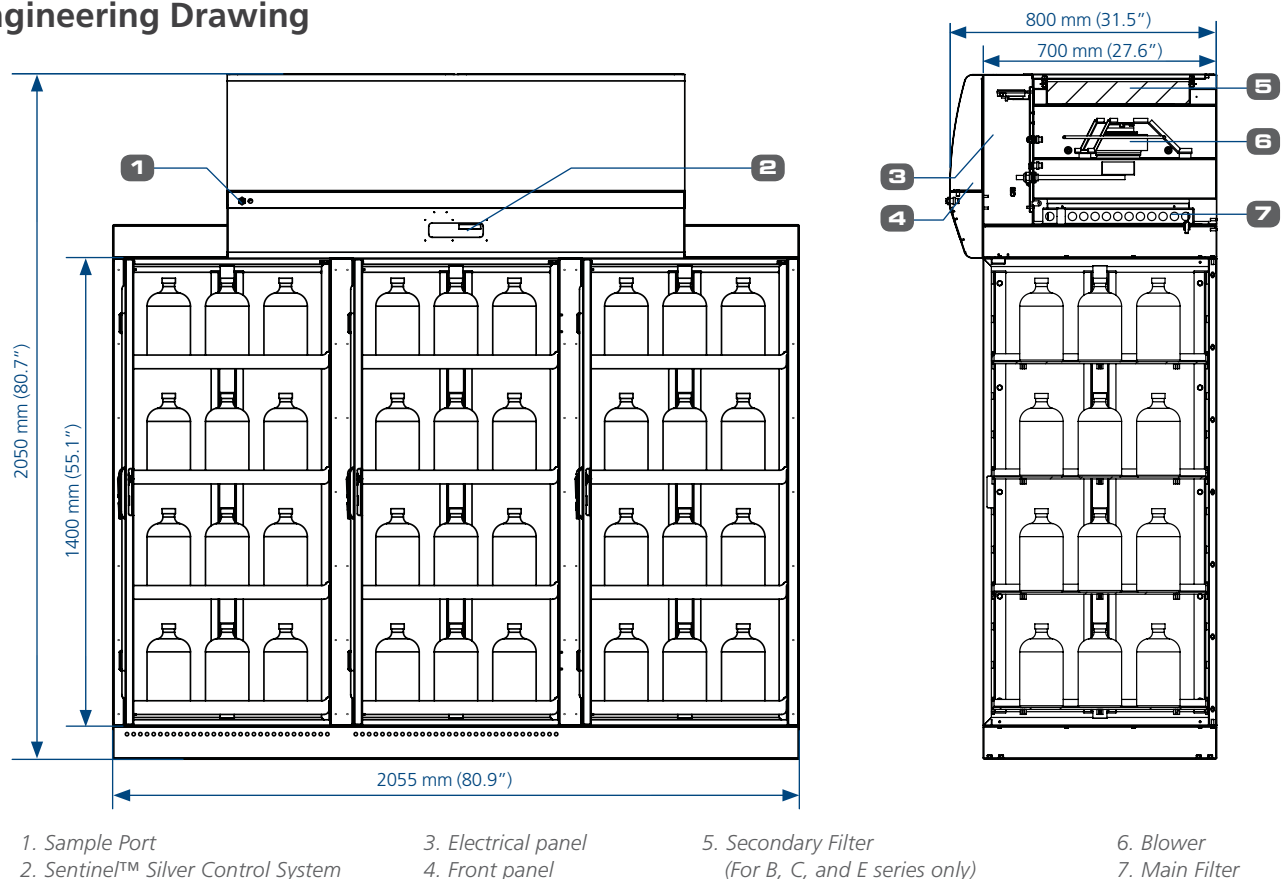
5. Secondary Filter  
(For B, C, and E series only)

6. Blower  
7. Main Filter

### General Specifications, Ascent™ Storage Cabinet (4ft. series)

Models	220-240 VAC, 50-60 Hz, 1Ø	ASC-4A8 2040317	ASC-4B8 2040284	ASC-4C8 2040285	ASC-4D8 2040325	ASC-4E8 2040286
	110-120 VAC, 50-60 Hz, 1Ø	ASC-4A9 2040318	ASC-4B9 2040288	ASC-4C9 2040289	ASC-4D9 2040326	ASC-4E9 2040290
Nominal Size		1.2 m (4')				
External Dimensions (W x D x H)		1370 mm x 700 mm x 2050 mm (53.9" x 27.6" x 80.7")				
Door		Powder Coated electro-galvanized steel door with 6 mm thick Acrylic window and lockable Swing Handle				
Main Body		1.2 mm 18 gauge electro-galvanized steel with white oven-baked epoxy-polyester ISOCIDE™ antimicrobial powder coated finish				
Number of Blower/s		1				
Air volume		140 cfm				
Trays	Number of Trays	Standard: 8 trays (4 per section) Maximum: 12 trays (6 per section)				
	Tray capacity per bottle size	For 2.5 -4L bottles: each tray can fit 9 bottles For 2.0 L bottles: each Tray can fit 12 bottles				
	Maximum weight per tray	40 kg				
	Tray dimension	600 mm x 600 mm (23.6" x 23.6")				
	Tray material	Polypropylene				
Filtration Elements	Main Filter	Nanocarb™ Filter (type A-H)	Nanocarb™ Filter (type A-H)	Nanocarb™ Filter (type A-H)	HEPA filter	HEPA filter
	Secondary Filter	None	HEPA filter	Nanocarb™ Filter (type A-H)	None	Nanocarb™ Filter (type A-H)
Control System		Sentinel™ Silver microprocessor control system				
VOC Sensor		✓				
Door Alarm		✓				

## Engineering Drawing



### General Specifications, Ascent™ Storage Cabinet (6ft. series)

Models	220-240 VAC, 50-60 Hz, 1Ø	ASC-6A8 2040319	ASC-6B8 2040321	ASC-6C8 2040323	ASC-6D8 2040327	ASC-6E8 2040331
	110-120 VAC, 50-60 Hz, 1Ø	ASC-6A9 2040320	ASC-6B9 2040322	ASC-6C9 2040324	ASC-6D9 2040328	ASC-6E9 2040332
Nominal Size		1.8 m (6')				
External Dimensions (W x D x H)		2055 mm x 700 mm x 2050 mm (80.9" x 27.6" x 80.7")				
Door		Powder Coated electro-galvanized steel door with 6 mm thick Acrylic window and lockable Swing Handle				
Main Body		1.2 mm 18 gauge electro-galvanized steel with white oven-baked epoxy-polyester ISOCIDE™ antimicrobial powder coated finish				
Number of Blower/s		2				
Air volume		140 cfm				
Trays	Number of Trays	Standard: 12 trays (4 per section) Maximum: 18 trays (6 per section)				
	Tray capacity per bottle size	For 2.5 -4L bottles: each tray can fit 9 bottles For 2.0 L bottles: each Tray can fit 12 bottles				
	Maximum weight per tray	40 kg				
	Tray dimension	600 mm x 600 mm (23.6" x 23.6")				
	Tray material	Polypropylene				
Filtration Elements	Main Filter	Nanocarb™ Filter (type A-H)	Nanocarb™ Filter (type A-H)	Nanocarb™ Filter (type A-H)	HEPA filter	HEPA filter
	Secondary Filter	None	HEPA filter	Nanocarb™ Filter (type A-H)	None	Nanocarb™ Filter (type A-H)
Control System		Sentinel™ Silver microprocessor control system				
VOC Sensor		✓				
Door Alarm		✓				

## Ascent™ Storage Cabinet

Filtered Storage Solution



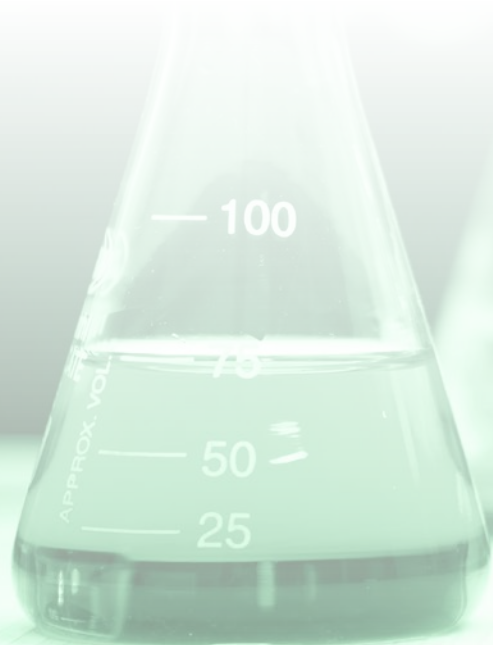
## CARBON FILTER OPTIONS

Dimension : 425 X 520 X 65 mm

ITEM CODE	MODEL CODE	DESCRIPTION
5080003	CFA-11	Standard filter
5080095	CFB-11	Acid Filter
5080028	CFC-11	Mercury Filter
5080039	CFD-11	Sulphur Filter
5080050	CFE-11	Halogen Filter
5080061	CFF-11	Aldehyde Filter
5080072	CFG-11	Ammonia / Amine Filter
5080104	CFH-11	Ethers / Chloroforms Filter

## ACCESSORIES AND OPTIONS

ITEM CODE	DESCRIPTION
5021370	<p>Additional Polypropylene Tray  1 Set = 2 Trays:  For 2 ft model – 1 set  For 4 ft model – 2 sets  For 6 ft model – 3 sets</p>



## After Sales Services



### Parts Availability

Whenever service is needed and parts are required, minimizing downtime is a critical objective. Statistical usage analysis helps Esco to predict parts life, permitting Esco to manage logistics and stage proper inventories around the world. The combination of predictive maintenance, historical data and geospecific proximity assures our customers that parts and labor are available whenever service is scheduled through the local sales organization.

### Registration, Documentation and Instruction

Quality control at Esco extends from research and development through engineering, manufacturing, shipment, delivery and customer feedback. Esco maintains an aggressive program to encourage warranty card registration by mail, email or online submission so that we know where Esco products are located and how they are being used. Rest assured that all information disclosed from warranty registrations will be kept confidential. All Esco products include unique serial numbers for identification. Documentation for all performance tests is archived and maintained for customer reference.

### Online Technical Information

Site preparation instructions are useful before product arrival and installation. Installation and start-up manuals, operation manuals and quick reference guides are available anytime from the Esco resources online. An interactive online LiveSupport™ concierge center accessible through the Esco website offers extended hours of operation. LiveSupport™ permits users to dialogue directly with Esco personnel.

### NSF International Accreditations

The National Sanitation Foundation (NSF) International is an independent, non-profit organization that provides standards development, product certification, auditing, education and risk management for public health and the environment.

In line with Esco's commitment in providing world class services worldwide, Esco has a large contingent of NSF accredited certifiers which makes Esco not only an **Excellent Standards Company** but also an **Excellent Service Company**, which exemplifies Esco's collective quest of being an **Eternally Successful Company**.

The NSF mark is your assurance that the product complies with all the standard requirements, tested by one of the most respected independent certification organizations in existence today. NSF conducts periodic unannounced inspections and product testing to verify that the product continues to comply with the standard. It is valued by consumers, manufacturers, retailers and regulatory agencies worldwide.

### References and Links

For more information, you can visit Esco at [www.escoglobal.com](http://www.escoglobal.com)

Whatever your needs are,  
**we serve it to you  
on a silver platter.**



**Ascent™ Storage Cabinet**

Filtered Storage Solution



## Esco Gives You Better Choices

With the widest range of laboratory, medical, and pharmaceutical products available worldwide

- Airflow Containment
- ART / IVF Equipment
- Barrier Isolation System
- Biological Safety Cabinets
- Bioreactors and Fermenters
- CO<sub>2</sub> Incubators
- Compounding Isolators
- Cross Contamination Facility Integrated Barrier
- Ductless Fume Hoods
- Evidence Drying Cabinet
- Freeze Dryer
- Isolation Containment
- Lab Animal Research Products
- Laboratory Fume Hoods
- Lab Refrigerators and Freezers
- Laboratory Ovens and Incubators
- Laboratory Shakers
- Laminar Flow Cabinets
- PCR Cabinets
- PCR Thermal Cyclers
- Powder Weighing Balance Enclosures
- Radiopharmacy Isolators
- Sample Protection Solutions
- Ultra-low Temperature Freezer



Winner, SPBA - Maybank Regional Brands  
**2014**



Winner, SPBA - Maybank Regional Brands  
**2015**



Winner, SPBA - Regional Brands  
**2016**

**Singapore Prestige  
Brand Award (SPBA)  
HALL OF FAME**

Inducted October, 2016

Our induction as **Overall Winner, SPBA - Regional Brands in three consecutive years - 2014, 2015 and 2016** is just one of our many other accolades testifying to the world class quality, reliability and fame of our products and services which are recognized by our customers throughout the world.

**Esco Micro Pte. Ltd.**

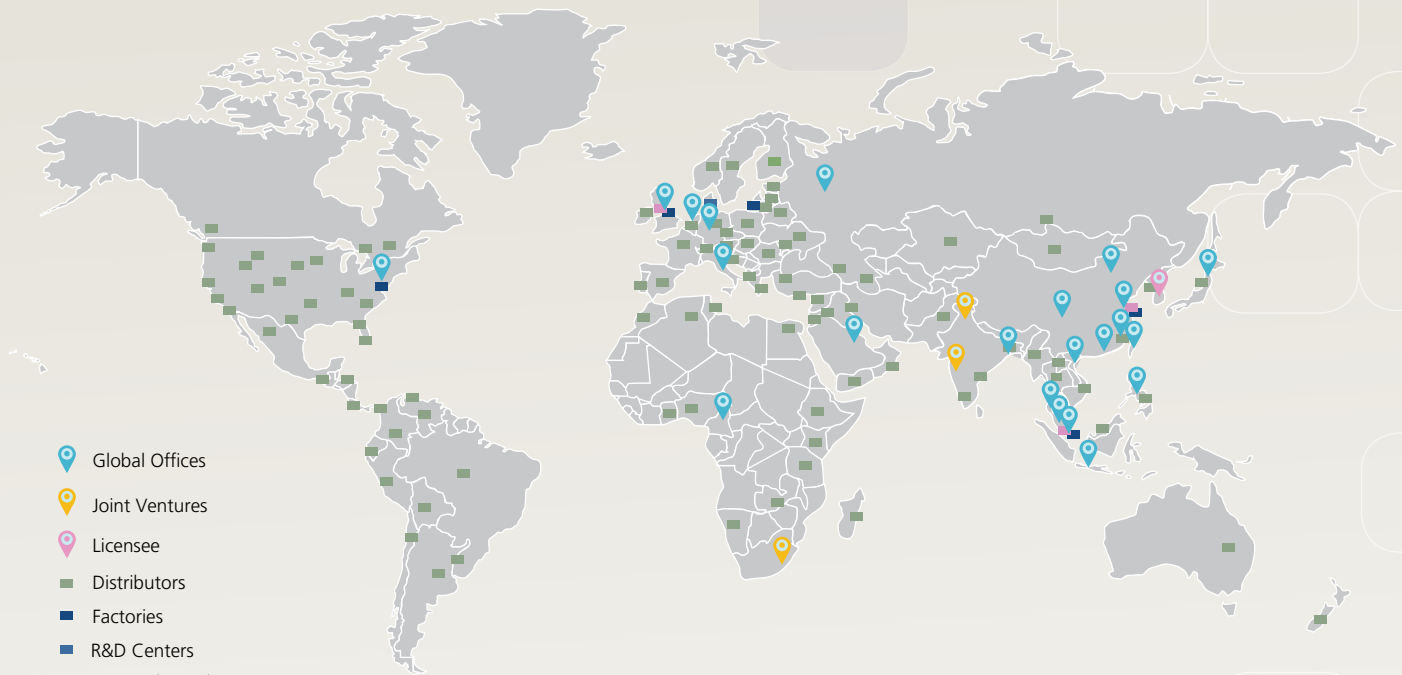
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## ESCO GLOBAL NETWORK

43 LOCATIONS IN 23 COUNTRIES ALL OVER THE WORLD



ART Equipment  
 Biological Safety Cabinets  
 CO<sub>2</sub> Incubators  
 Compounding Pharmacy Equipment  
 Containment / Pharma Products  
 Ductless Fume Hoods  
 Lab Animal Research Products  
 Laboratory Centrifuges  
 Laboratory Fume Hoods  
 Laboratory Ovens and Incubators  
 Laboratory Shakers  
 Laminar Flow Clean Benches  
 PCR Cabinets  
 PCR Thermal Cyclers  
 Powder Weighing Balance Enclosures  
 Ultra-low Temperature Freezers

The Esco Group of Companies is a global life sciences tools provider with sales in over 100 countries. The group is active in lab equipment, pharma equipment and medical devices. Manufacturing facilities are located in Asia and Europe. R&D is conducted worldwide spanning the US, Europe and Asia. Sales, service and marketing subsidiaries are located in 12 major markets including the US, UK, Singapore, Japan, China and India. Regional distribution centers are located in the US, UK, and Singapore.

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# ESCO

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