ESCO
LIFESCIENCES



Model: SC2-4E_ G4

Model: SC2-4S_ G4

Streamline® G4

Class II Biological Safety Cabinets

The Leading Energy-efficient, Quiet, and Ergonomic Biosafety Cabinet in the World





USB Port

- Export Data Logging
- Software Update
- Wired data transaction to BMS



Centurion Touchscreen Controller

- 7" capacitive touchscreen, intuitive to use by user with gloves
- Displays key safety information graphically on one screen
- Built-in guide to use the cabinet and respond to situations
- Centered and angled down for easy reach & viewing
- Datalogger to assist diagnostics and send info to BMS



One-Piece Interior Wall

- Double layer side walls with negative pressure
- Easy to reach service fixtures and outlets
- Large radius corner for easy cleaning

Unique Side Walls

- Large corner radius for easy cleaning
- Glass hybrid wall is available (E-Series)
- Isocide™ coating Epoxy side wall is available (S-Series)
- Hole-free side glass for increased safety



Removable Paper Catch

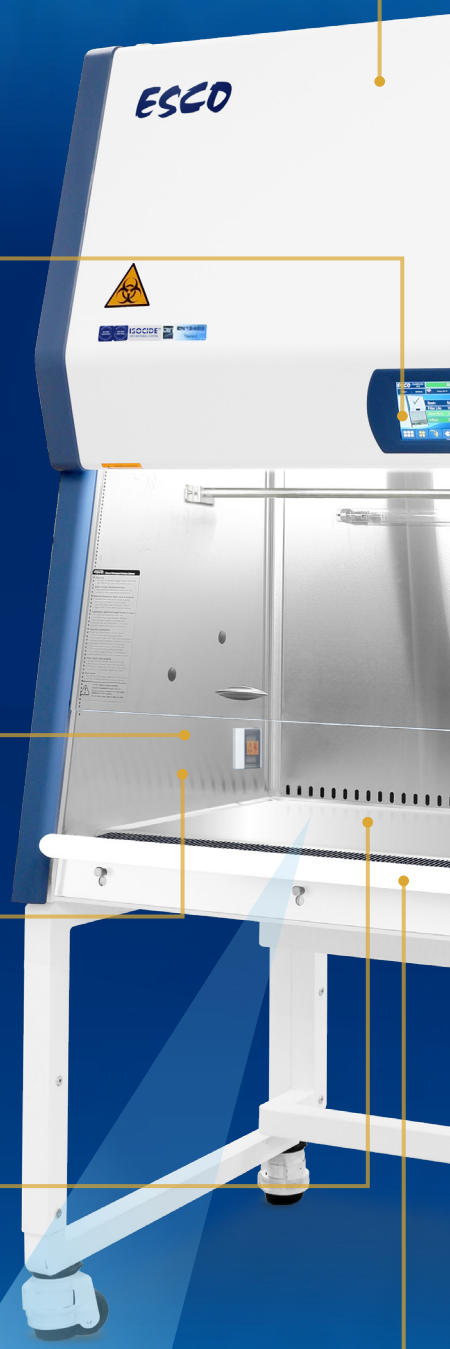
- Prolong the main filter life
- Easy to clean
- Optional pre-filter can be fitted



Raised Ergonomic Arm Rest

- Helps prevent grille blocking
- Comfortable working posture





EN12469

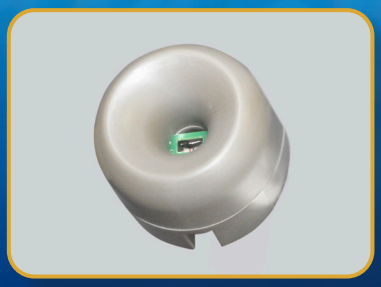
ET, FEATURING ADVANCED TOUCHSCREEN CONTROLLER



Esco Streamline® G4 Class II Biosafety Cabinet Available in 4 feet and 6 feet models.

Airflow Sensor

- Monitors real-time airflow for safety
- Alert the user if airflow is insufficient



Advanced Filtration System

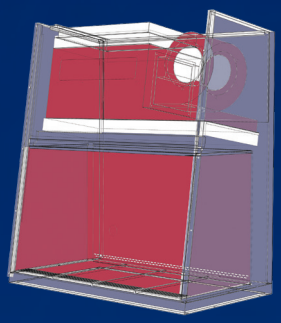
- Creates ISO Class 3 work zone instead of industry-standard ISO Class 5
- Up to 10-year filter life for lower operating costs

Note: >99.999% at 0.1 to 0.3 micron. >99.999% at MPPS, H14 as per EN 1822 EU



Dynamic Chamber™

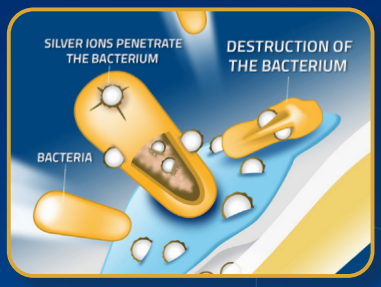
- Blower plenum and side walls are surrounded by negative pressure
- Prevents contaminants from escaping outside
- Steel plenum with Isocide™ coating, instead of flexible bag plenum, to prevent contamination leak



Positive pressure
Negative pressure

ISOCIDE™ Powder Coat

- Silver-ion impregnated powder coat
- Inhibits microbial growth to improve safety
- Prevents the plenum from becoming biohazard landfill



Angled Sash

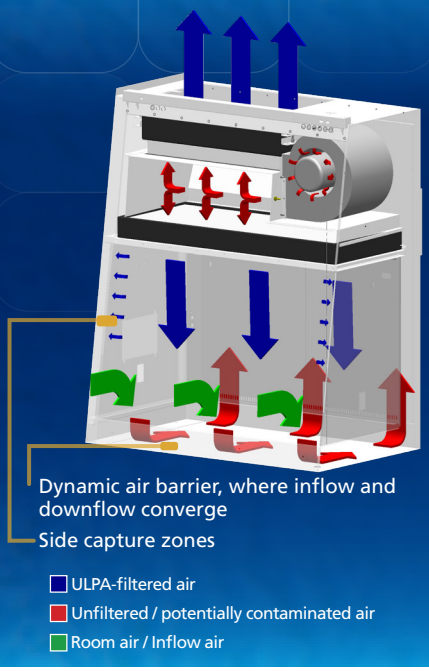
- 10° angled front to optimize user comfort, reduce glare and maximize reach into the work area

Dished Work Tray

- Contains spillage
- Angled edge for easy cleaning
- Work tray holder underneath for seamless drain pan cleaning



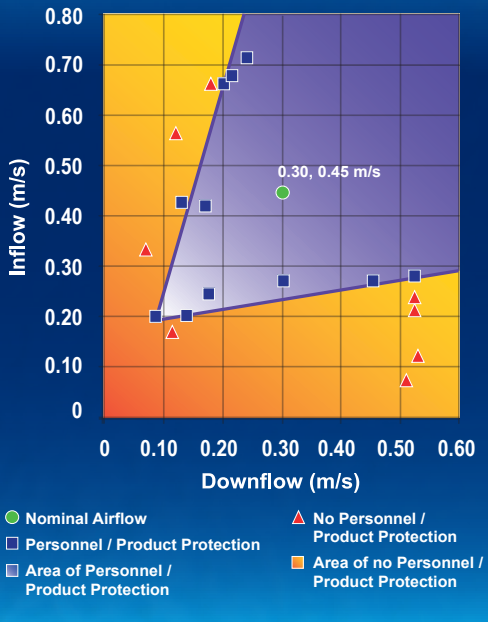
Standards Compliance and Certifications			
Biosafety Cabinets	**Air Quality**	**Filtration**	**Electrical Safety**
EN 12469	ISO 14644.1, Class 3, Worldwide, US Fed Std 209E, Class 1 USA JIS B9920, Class 3, Japan BS 5295, Class 3, UK	EN-1822 (H14), Europe	IEC/EN 61010-1



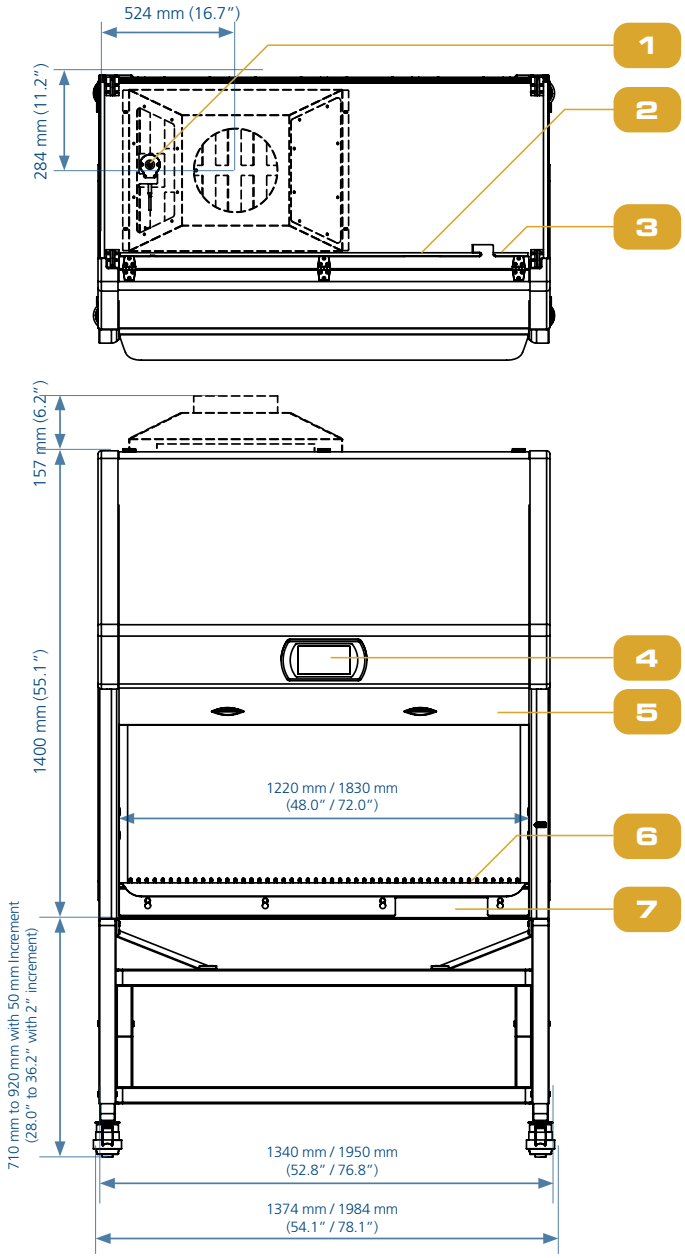
Cabinet Filtration System

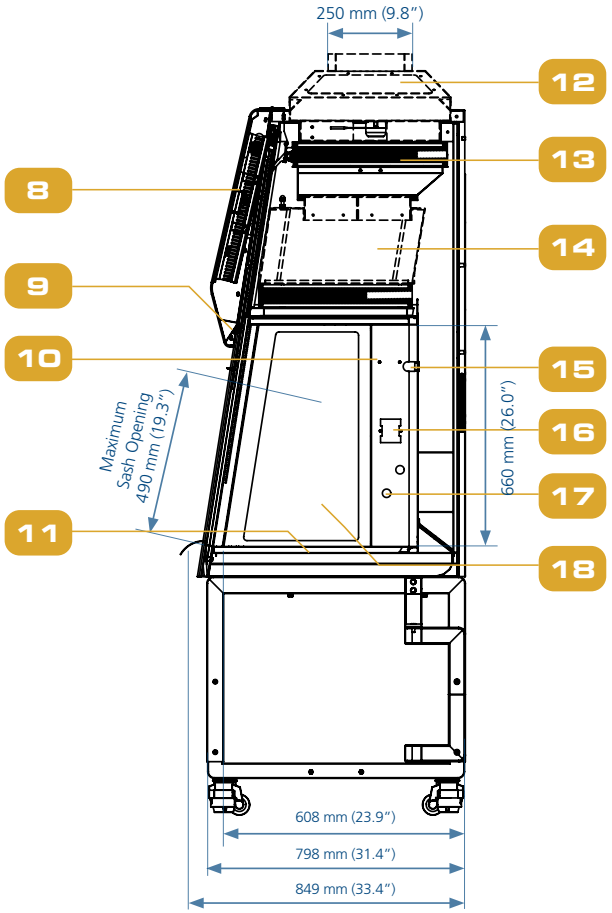
- Ambient air is pulled through front grille to create inflow, without going into the work surface. Inflow is joined by half of the downflow, to create front air curtain that is fine-tuned to create a large performance envelope. The combined air stream travels through the back air column towards the blower.
- Approximately ⅓ of the air in the common plenum is exhausted through the ULPA filter to the room. The remaining ⅔ of the air is passed through the downflow ULPA filter and into the work area as a vertical laminar flow air to create ISO Class 3 work surface and prevents cross contamination.
- Near the work surface, the downflow splits. About half goes to the front grille, and half goes to the rear grille. A small portion enters the the side capture zones to prevent dead air corners (small blue arrows).
- The design was optimized to give large performance envelope, that provides operator and product protection at wide Inflow and Downflow variation from the Nominal point.

The Performance Envelope Concept



Engineering Drawing





1. *Exhaust Sensor*
2. *USB Port for data transfer*
3. *Power Inlet*
4. *Centurion 7" Touchscreen Control System*
5. *Tempered Glass - Sliding Sash Window*
6. *Stainless Steel Dished Work Tray*
7. *Data Plate*
8. *Electrical panel*
9. *Dimmable LED lamp*
10. *Provision for optional IV Bar*
11. *Stainless Steel Milti-piece Work Tray*
12. *Optional Exhaust Collar*
13. *Exhaust Filter*
14. *Downflow Filter*
15. *Optional UV Lamp*
16. *Electrical Outlet*
17. *Service Fixture Retrofit Kit Provision*
18. *Stainless Steel / Glass Side Walls*

TECHNICAL SPECIFICATIONS		230 V, 50 HZ		230 V, 60 HZ	
S-Series *Stainless Steel Side Walls*		SC2-4S1 G4 2011575	SC2-6S1 G4 2011577	SC2-4S3 G4 2011576	SC2-6S3 G4 2011578
E-Series *Tempered Glass Side Walls*		SC2-4E1 G4 2011571	SC2-6E1 G4 2011573	SC2-4E3 G4 2011572	SC2-6S3 G4 2011578
Nominal Size		1.2 meter (4')	1.8 meter (6')	1.2 meter (4')	1.8 meter (6')
External Dimensions with armrest (W x D x H)		1340 x 850 x 1400 mm (52.8" x 33.5" x 55.1")	1950 x 850 x 1400 mm (76.8" x 33.5" x 55.1")	1340 x 850 x 1400 mm (52.8" x 33.5" x 55.1")	1950 x 850 x 1400 mm (76.8" x 33.5" x 55.1")
Gross Internal Dimensions (W x D x H)		1220 x 610 x 661 mm (48.0" x 24.0" x 26")	1830 x 610 x 661 mm (72.0" x 24.0" x 26")	1220 x 610 x 661 mm (48.0" x 24.0" x 26")	1830 x 610 x 661 mm (72.0" x 24.0" x 26")
Usable Work Area		0.55 m² (5.9ft²)	0.87 m² (9.3 ft²)	0.55 m² (5.9ft²)	0.87 m² (9.3 ft²)
Tested Opening		175 mm (6.9")			
Maximum Opening		490 mm (19.3")			
Average Inflow Velocity		0.45 m/s (89 fpm)			
Average Downflow Velocity		0.32 m/s (63 fpm)			
Airflow Volume	Inflow	96 l/s (346 cmh)	144 l/s (518 cmh)	96 l/s (346 cmh)	144 l/s (518 cmh)
	Downflow	815 cmh (480 cfm)	1223 cmh (720 cfm)	815 cmh (480 cfm)	1223 cmh (720 cfm)
	Total Airflow	911 cmh (536 cfm)	1367 cmh (805 cfm)	911 cmh (536 cfm)	1367 cmh (805 cfm)
	Exhaust	346 cmh (204 cfm)	518 cmh (305 cfm)	346 cmh (204 cfm)	518 cmh (305 cfm)
ULPA Filter Typical Efficiency	Exhaust	>99.999% at 0.1 to 0.3 micron >99.999% at MPPS, H14 as per EN 1822 EU			
	Downflow				
Sound Emission per EN12469*		60.2 dBA	61.5 dBA	60.2 dBA	61.5 dBA
Light Intensity		≥ 1000 lux			
Cabinet Construction	Main Body	1.2 mm (0.05") / 18 gauge EG steel with Isocide™ oven-baked epoxy-polyester anti-microbial powder coating			
	Work Zone	1.5 mm (0.06") / 16 gauge, stainless steel 304, 4B finish			
	Side Walls	S-Series: 1.5 mm (0.06") / 16 gauge, stainless steel 304, 4B finish E-Series: UV-absorbing tempered glass, 6 mm (0.2"), transparent			
	Sash Glass Material	6 mm thickness UV-absorbing Tempered Glass			
Electrical**	Cabinet Full Load Amps (FLA)	10 A			
	Heat Load (BTU)	894	1911	1126	2695
Nominal Power Consumption		262 W	560 W	330 W	790 W
Net Weight		264 kg (582 lbs)	360 kg (794lbs)	264 kg (582 lbs)	360 kg (794lbs)
Shipping Weight		296 Kg (653 lbs)	395 Kg (871 lbs)	296 Kg (653 lbs)	395 Kg (871 lbs)
Shipping Dimensions, Maximum (W x D x H)		1450 x 850 x 1950 mm (57.1" x 33.5" x 76.8")	2050 x 850 x 1950 mm (80.7" x 33.5" x 76.8")	1450 x 850 x 1950 mm (57.1" x 33.5" x 76.8")	2050 x 850 x 1950 mm (80.7" x 33.5" x 76.8")
Shipping Volume		2.5 m³ (88.2 f³)	3.6 m³ (127.1 f³)	2.5 m³ (88.2 f³)	3.6 m³ (127.1 f³)

Specifications are subject to change without notice.
**Noise reading in open field condition / anechoic chamber. Noise reading in normal room varies by room size, layout, and background noise, but may reach roughly 3-4 dBA above these values.*
*** Electrical power consumption is a measurement of new unit within nominal set point. Result may vary due to several independent variables.*

Options and Accessories

Model	SC2-4S1 G4 2011575 SC2-4E1 G4 2011571	SC2-6S1 G4 2011577 SC2-6E1 G4 2011573	SC2-4S3 G4 2011576 SC2-4E3 G4 2011572	SC2-6S3 G4 2011578 SC2-6S3 G4 2011578
UV Lamp	UV-30A-L 5170255			
IV Bar	IV-1215 5170231	IV-1825 5170501	IV-1215 5170231	IV-1825 5170501
Support Stand w/ Castors wheel and levelling feet (28" and 36")	STA-4A0 5131341	STA-6A0 5131389	STA-4A0 5131341	STA-6A0 5131389
EU SF – Gas – 20mm	SF-1G20 5170410			
EU SF – Vacuum – 20mm	SF-1V20 5170457			
EU SF – Air – 20mm	SF-1A20 5170502			
EU SF – Nitrogen – 20mm	SF-1N20 5170503			
EU SF – Water – 20mm	SF-1W20 5170458			
EU SF – Universal – 22mm	SF-2U22 5170504			
Solenoid Gas Valve	SOLENOID VALVE FITTING 5075239			
Copper Piping	5170026			
Thimble Exhaust Collar	ABBV-10P (EG material) 5170352			
Anti-blowback Valve 10"	B2-ABBV1 5170129			
Copper Piping	ABBV-10S 5170354			
Exhaust Damper (B2 Damper)	B2-DAMPER 5170354			
Front Decon cover with VHP IN PORT	FRONT DECON COVER VHP IN PORT LA2LR2VA2AC2AR2-4-G4 5171323	FRONT DECON COVER VHP IN PORT LA2LR2VA2AC2AR2-6-G4 5171327	FRONT DECON COVER VHP IN PORT LA2LR2VA2AC2AR2-6-G4 5171327	FRONT DECON COVER W/ VHP IN PORT AC2-5-G4 5171325
Top Decon cover with VHP OUT PORT	TOP DECON COVER VHP OUT LA2LR2VA2AC2AR2-4-G4 5171324	TOP DECON COVER VHP OUT LA2LR2VA2AC2AR2-6-G4 5171390	TOP DECON COVER VHP OUT LA2LR2VA2AC2AR2-4-G4 5171324	TOP DECON COVER VHP OUT LA2LR2VA2AC2AR2-6-G4 5171390
Thimble Exhaust Collar with VHP OUT (1" diameter)	ECO-W/ VHP-OUT SC2-4 G4 5171387	ECO-W/ VHP-OUT SC2-6 G4 5171388	ECO-W/ VHP-OUT SC2-4 G4 5171387	ECO-W/ VHP-OUT SC2-6 G4 5171388
Arm Rest Padding	MEWREST 5170127			
Foot Rest	FT-REST 5170073			
IQOQ Protocol	Hardcopy 9010179 Softcopy 9010179-A			
FAT	YES RSR-020			
SAT	YES RSR-034			

ESCO®
LIFESCIENCES GROUP

Improving Lives Through Science

DIRECT MANUFACTURER



- Animal Research Workstation
- Biosafety Safety Cabinet
- CO_2 Incubator
- Ducted Fume Hood
- Ductless Fume Hood
- Filtered Storage Cabinet
- Laboratory Centrifuge
- Laboratory Oven and Incubator
- Laboratory Refrigerator and Freezer
- Laboratory Shaker
- Laminar Flow Cabinet
- PCR Cabinet
- PCR Thermal Cycler
- Powder Weighing Balance Enclosure
- Ultra-low Temperature Freezer

ESCO® LIFESCIENCES

- Airflow Containment
- Cross-Contamination Facility Integrated Barrier
- Isolation Containment
- Ventilation Containment
- Radiopharmacy
- Adherent Cell Bioreactors
- Adherent Automated Cell Harvesting System
- Cell Culture Monitoring Tools
- Single-use Consumables for Bioprocessing



ESCO® MEDICAL

- Time-Lapse Incubator
- Benchtop Incubator
- ART Workstation
- CO_2 Incubator
- Anti-Vibration Table
- Gas Analyser
- Centrifuges

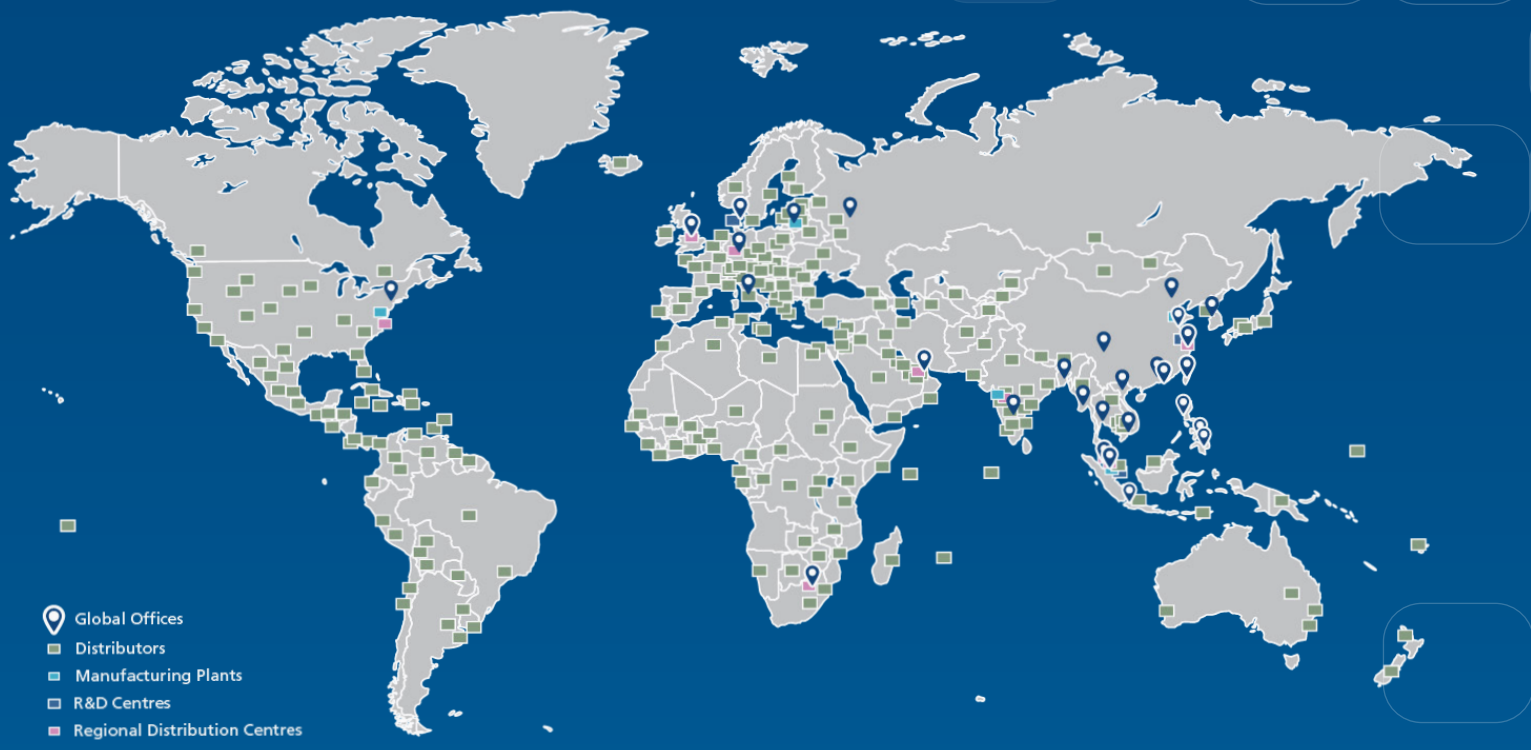
ESCO® ASTER



www.escolifesciences.com

ESCO LIFESCIENCES GROUP

42 LOCATIONS IN 24 COUNTRIES ALL OVER THE WORLD



Follow us on social media, download our apps, and scan the QR code for more info.

@EscoLifesciences @EscoLifesciences @EscoLifesci @Esco @EscoLifesciences @EscoLifesciences

Google Play Esco Lifesciences

App Store Esco Lifesciences

ESCO® LIFESCIENCES GROUP

Esco Micro Pte. Ltd. • 19 Changi South Street 1 • Singapore 486779
Tel +65 6542 0833 • mail@escolifesciences.com
www.escolifesciences.com

Esco Technologies, Inc. • 903 Sheehy Drive, Suite F, Horsham, PA 19044, USA
Tel: +1 215-441-9661 • Fax 484-698-7757
eti.admin@escolifesciences.com

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

9010627_Streamline®_SC2 G4_Gen 4_A4_vC_103026
Esco can accept no responsibility for possible errors in catalogues, brochures and other printed materials. Esco reserves the right to alter its products and specifications without notice. All trademarks and logotypes in this material are the property of Esco and the respective companies.