



Based on Esco's best-selling Airstream® Vertical Laminar Flow Cabinets, **Esco SVE® Vertical Laminar Flow Cabinet** offers a proven level of protection for your samples and processes. Like all Esco cabinets, this model features numerous key innovations for which Esco is recognized for: **mini-pleat separatorless HEPA filter technology**, the best product protection in the world, external rotor motors, superior filter mechanical construction, state-of-the-art **Sentinel™ microprocessor control** and unique ergonomic design features.

### MAIN FILTRATION AGENTS

- **ISO Class 4 air cleanliness within work zone as per ISO 14644.1** (equivalent to Class 10 as per US Federal Standard 209E, **10 times "cleaner"** than the usual Class 100 classification on cabinets offered by the competition). All materials used in the product are cleanroom compatible.

- High-quality polyurethane pre-filter and main **HEPA filter with a typical efficiency of 99.99% at 0.3 microns** provide the best product protection in the world; typical HEPA filter lifespan is more than 3 years depending on operating conditions.

- **Mini-pleat separatorless HEPA filter** technology reduces energy consumption and delivers increased laminar airflow uniformity for better product and cross contamination protection. HEPA filters are double scan tested, at the time of manufacturing, and after installation.

- Integral filter metal guard on the HEPA filter prevents accidental damage to the filter media; seamless filter gasket is permanently molded on the filter frame and will not deteriorate over time.

### CONTROL FEATURES

- Large, generously-sized LCD screen with backlight.

- UV-timer (UV is interlocked with the front sliding sash and is available only with the sash fully closed).

- Built-in 24hr clock and experiment timer.

- Pre-purge cycle can be set to warm up the cabinet before use.

- ADMIN PIN can be set to restrict access to the cabinet.

### CONSTRUCTION FEATURES

- The cabinet is designed with a **sloped front** for greater operator comfort (see diagram overleaf), while the **front control panel is downward sloping** for easier view of and access to the Sentinel™ microprocessor control buttons.

- **Transparent UV-resistant tempered glass sliding sash** (glass thickness: 6mm) and the side walls (glass thickness: 5 mm) provide greater visibility into the work zone

and protect the user from harmful UV rays, when a UV lamp is installed.

- Built-in warm white, **electronically ballasted** 5000k lighting offers excellent illumination throughout the work zone to reduce operator fatigue and is comfortable to the eyes. Light tubes are mounted out of the air stream for better airflow uniformity.

- **Easy-to-clean 304-grade stainless steel work top** will never rust, chip or generate particles, while the front edge of the work surface is rounded to provide maximum comfort the operator's arms during extended usage.

- **Easily accessible blower speed controller** is mounted on the cabinet front panel, giving the operator full control over the blower speed, thus airflow velocity within the cabinet work zone.

- Industrial-grade main body constructed of electro-galvanised steel; with an abrasion-resistant white oven-baked powder-coated finish.

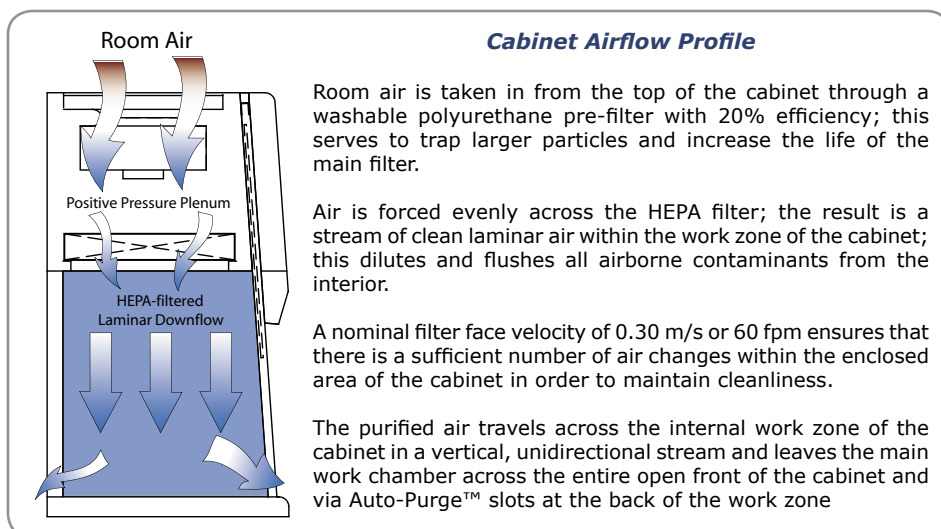
- Permanently lubricated direct drive centrifugal blower(s); **energy efficient external rotor motor** type design reduces operating costs.

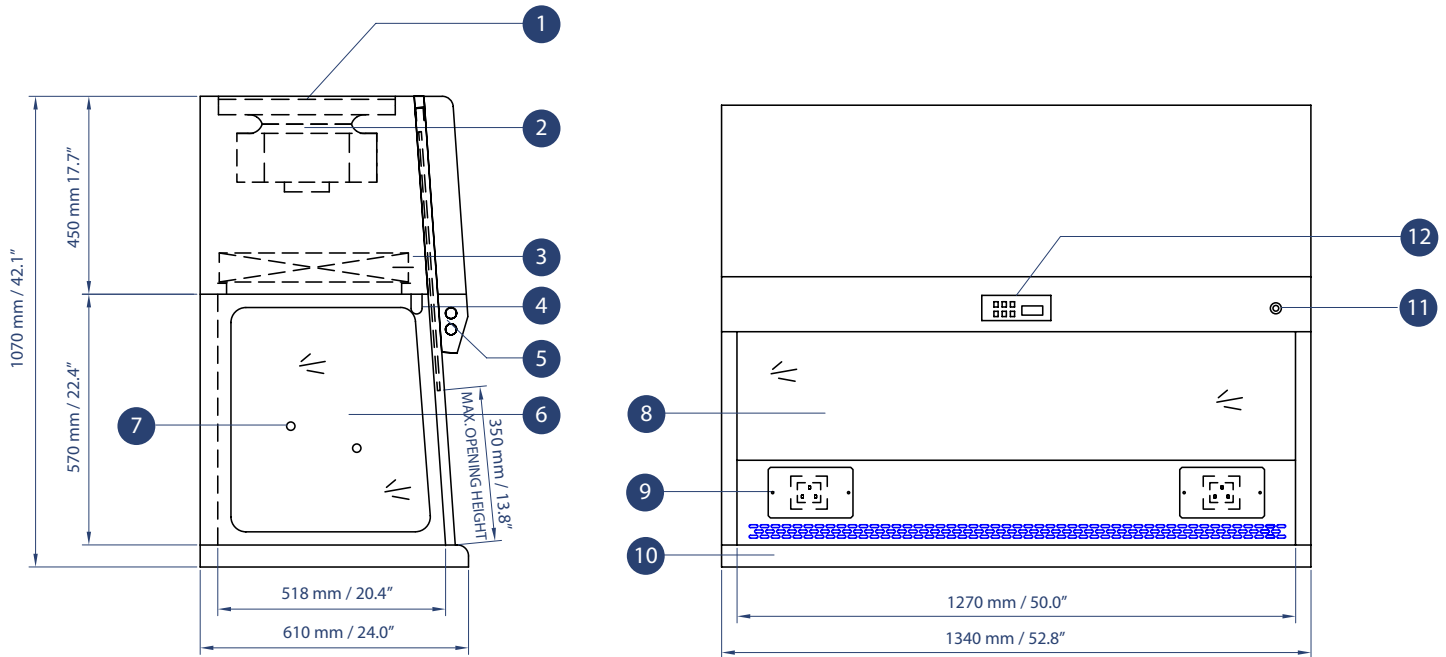
- Extremely low noise and vibration levels (less than 67dBA at working position) due to proprietary construction and mounting technology.

- **Service fixture provisions** are offset and staggered for easier reach and access

- **Warranty period of 12 months** excluding consumable parts and accessories.

- Designed to meet the safety requirements of IEC 61010-1 / EN 61010-1 / UL 61010A-1 / CSA C22.2 No. 1010.1-92. All cabinet components are UL listed and / or recognised.





- 1. Pre-Filter 2. Blower 3. Downflow HEPA Filter 4. UV Light Retrofit Kit™ Provision 5. Fluorescent Lamps 6. Tempered Glass Side Panel 7. Service Fixture Retrofit Kit™ Provisions (2 on each side wall) 8. Sliding Front Sash Window 9. Electrical Outlet Retrofit Kit™ Provisions (2 pieces) 10. Stainless Steel Work Surface 11. Blower Speed Controller 12. Sentinel™ Microprocessor Control

**Optional Retrofit Kits™:** support stand, service fixtures, germicidal UV lamp, electrical socket outlets.

General Specifications		SVE-4AX
External Dimensions (W x D x H)		1340 x 610 x 1070 mm / 52.8" x 24" x 42.1"
Internal Work Zone (W x D x H)		1270 x 518 x 570 mm / 50.0" x 20.4" x 22.4"
Air Volume (At Initial Velocity)		686 cmh / 404 cfm
Laminar Airflow Velocity		Average of 0.30 m/s or 60 fpm measured 150mm / 6" from filter face for 45 air changes / minute (uniformity is +/-20%)
Standards Compliance		Individually performance tested and certified at factory under controlled conditions for: General requirements: IEST-RP-CC002.2 and AS1386.5 Air cleanliness: ISO 14644.1 Class 4, IEST-G-CC1001, IEST-G-CC1002 and other air cleanliness requirements Filter performance: IEST-RP-CC034.1, IEST-RP-CC007.1, IEST-RP-CC001.3 and EN1822 Electrical safety: IEC 61010-1 / EN 61010-1 / UL 61010A-1 / CSA C22.2 No. 1010.1-92
Air Cleanliness Within Working Area		ISO 14644.1 Class 4, US Federal Standard 209E Class 10 / M2.5, AS 1386 Class 0.35, JIS B9920 Class 4 BS5295 Class D Class M1,000 as per KS 27030.1 and other equivalent cleanliness classifications of the VDI 2083 and AFNOR X44101
Main Filter Type		H13 HEPA filter with a typical efficiency of 99.99% at 0.3 microns; integral metal guards and filter frame gaskets; fully compliant with EN1822 and IEST-RP-CC001.3 requirements
Pre-filter		Washable non-woven polyurethane fibers with an efficiency of 20%
Noise Level		Typically < 67 dBA at initial blower speed setting measured as per IEST-RP-CC002.2 (figure subject to acoustic properties of test environment)
Light Intensity		>1200 lux / >111 foot candles, measured at work surface level (zero background) as per IEST-RP-CC002.2
Main Body Construction		1.5 mm / 0.06" / 16 gauge electro-galvanised steel with white oven-baked epoxy powder-coated finish
Side Window Construction		Colourless and transparent UV-absorbing 5 mm / 0.2" tempered glass
Work Surface Construction		1.2 mm / 0.05" / 18 gauge stainless steel grade 304
Maximum Power Consumption / Current	220-240VAC / 50Hz 1Ph	162W / 0.7A
	110-130VAC / 60Hz 1Ph	162W / 1.4A
Power Supply Options		<b>Choose from the following power supply configuration codes when ordering (e.g. SVE-4A3, for 220-240VAC 60HZ)</b> 1: 220-240VAC 50HZ 2: 110-130VAC 60HZ 3: 220-240VAC 60HZ 4: 110-130VAC 50HZ 5: 100-110VAC 50HZ/60HZ
Max Shipping Dimensions (W x D x H)		1500 x 900 x 1200 mm / 59.1" x 35.4" x 47.2"
Max Shipping Volume		1.62 cbm / 57.15 cbf

## ESCO® Esco Biotechnology Equipment Division

Esco Biotech is a highly focused manufacturer of laminar flow, biohazard safety and other HEPA-filtered cabinets for the laboratory with a history of quality cabinets since 1978. We are predominantly oriented towards the international marketplace, with sales in more than 60 countries and 90% of turnover exported. Our products have been independently tested to standards such as AS1807.5 and EN12469. Products are manufactured under an ISO 9001 registered quality system.



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