



*Esco Viva® Dual Access Animal Handling Workstation draws on Esco's experience of over 25 years in laminar air flow technology. The enclosure employs two independently balanced ULPA filtration modules to protect animals inside the enclosure from exposure to airborne particulates / ambient contamination, as well as the user from exposure to allergens and other potentially hazardous materials. It employs a "push pull" system of airflow similar to a Class II Type B2 cabinet.*

*An ergonomic sloped front and large 14" / 350mm work zone access openings on both sides of the cabinet allow easy access for any cage changing procedure. The microprocessor-based soft touch control / alarm system and ULPA filters with a superior filtration efficiency compared to conventional filters make this product an optimum choice for the modern animal research laboratory.*

#### MAIN FILTRATION AGENTS

- **ISO Class 3\* air cleanliness** within workzone as per ISO 14644.1 supplied by the top downflow ULPA filter (\*equivalent to Class 1 as per the US Federal Standard 209E, **100 times cleaner** than the usual Class 100 classification on cabinets offered by the competition).

- The lower module exhausts air through slots around the perimeter of the work surface. Proper balancing at the factory and routinely on site ensures that specific air ratios are maintained. The resulting effect is an inflow of air from outside the enclosure that enters the slots therefore preventing any escape of potentially hazardous and / or allergenic materials from inside the work zone. At the same time, contaminated air from the outside does not actually enter the sterile work zone.

- **Minipleat separatorless H13 HEPA / U15 ULPA filter technology**, operating at the typical efficiency of **>99.999% at MPPS, 0.3 and 0.12 microns** provides better operator, product and environmental protection than conventional HEPA filters.

- ULPA filters - 1 downflow filter supplying clean air to the work zone and another exhaust filter removing allergens and other particulates before exhausting air back to the laboratory.

- Disposable and non-washable pre-filters are used in both modules to ensure long main ULPA filter lifespans.

#### CABINET CONTROL SYSTEM

- **Esco Sentinel™ Microprocessor Cabinet Control System** allows the user to easily access all cabinet functions. The control system monitors and displays cabinet airflow constantly on the control LCD screen, prompting the user with audible and visual alarms in case of any unsafe condition.

- True airflow velocity sensing technology, with temperature compensation for improved sensor accuracy.

- Audible and visual alarms for low airflow, unsafe sash positions.

- An admin PIN can be set to restrict unauthorized access to all menu functions.

- **The two eye-level MiniHelic® pressure gauges** mounted on the front panel monitor the pressure across each blower system and provide a gross indicator of airflow changes within the cabinet. The unique position of the gauges means the operator can monitor the cabinet operation from standing position.

#### ERGONOMIC FEATURES

- **Sloped fronts** on both sides reduces glare, and allows for an easier reach into the work zone.

- **Large 14" / 350mm work access opening** allows standard sized animal cages to be inserted and removed quickly from the work zone.

- **Dual sided openings** facilitate team-based projects and multiple user access.

- **Electrically adjustable work surface height** ensures maximum operator comfort.

- **Cabinet is mobile** on non-marking 5" / 125 mm casters with total-lock brakes and will fit through a standard door, thus allowing the station to be transported to cage storage areas which increases work efficiency. Work surface is adjustable from 34" to 46" by electric hydraulic lift to suit the operator's optimum working height.

- **The cabinet height is 78.7" / 2000mm** at its lowest and this facilitates for easy movement through doorways into the laboratory.

- **Built-in 5000k fluorescent lighting** offers excellent illumination throughout the workzone. **Electronically-ballasted lighting system** is instant-start, non-flickering and energy-efficient.

#### CABINET BODY CONSTRUCTION

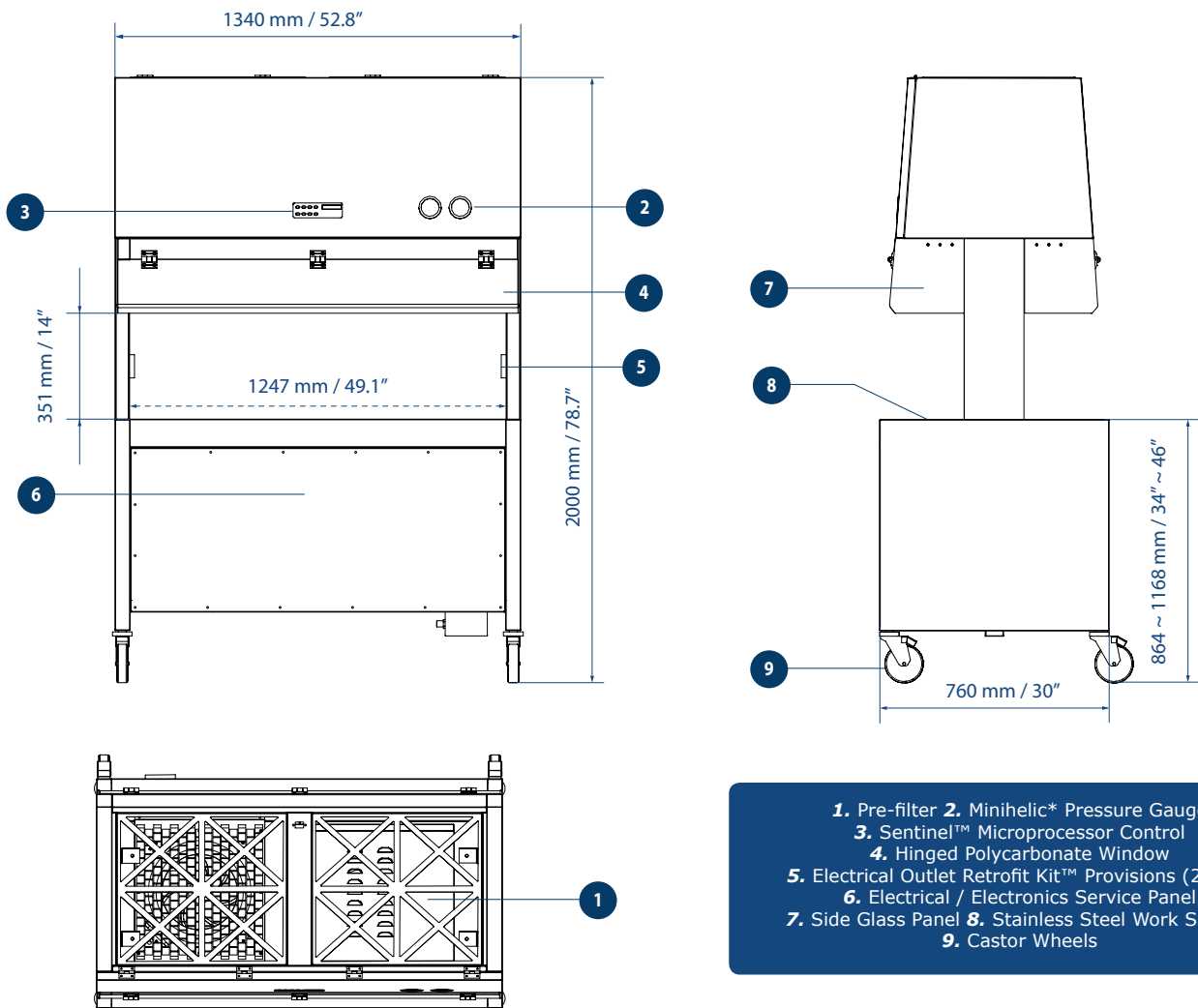
- Industrial-grade main body constructed of electrogalvanised steel: with an abrasion-resistant white oven-baked powder-coated finish. **Stainless steel work surface with recessed central area** and stainless steel drain pan to contain spills and prevent liquids from entering the lower filtration or blower systems. The perforations on the work surface are recessed downwards, which ensures that items placed on the grille do not block the airflow.

- **2 centrifugal direct-drive permanently lubricated blowers** - one supplying clean air to the work zone in the top module and another exhausting air back to the laboratory in the lower module; **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.

- Built-in solid state variable speed controller(s) (infinitely adjustable from zero to the maximum setting) with built-in RFI and noise filters is superior to conventional "step" controllers.

- **Superior electrical safety for the operator**; all electrical components are UL listed or UL recognized; all cabinets are factory tested for electrical safety after production at manufacturing site.

- Designed to meet the general safety requirements of the IEC 61010-1 / EN 61010-1 / UL 61010A-1 / CSA C22.2 No. 1010.1-92.



- 1. Pre-filter
- 2. Minihelic\* Pressure Gauge
- 3. Sentinel™ Microprocessor Control
- 4. Hinged Polycarbonate Window
- 5. Electrical Outlet Retrofit Kit™ Provisions (2 no's)
- 6. Electrical / Electronics Service Panel
- 7. Side Glass Panel
- 8. Stainless Steel Work Surface
- 9. Castor Wheels

General Specifications	VDA-4AX*
External Dimensions (L x W x H)	1340 x 760 x 2000 mm / 52.8" x 30.0" x 78.7"
Internal Work Zone (L x W x H)	1247 x 740 x 584 mm / 49.1" x 29.1" x 23"
Standards Compliance	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
Downflow Velocity	Initial setpoint: 0.28 m/s or 55 fpm
Cleanliness Within Working Area	ISO 14644.1 Class 3, US Federal Standard 209E Class 1 / M1.5, AS 1386 Class 1.5, JIS B9920 Class 3, BS5295 Class C, Class M10,000 as per KS 27030.1 and equivalent classes of VDI 2083 and AFNOR X44101
Pre-Filter	Disposable and non-washable polyester fiber with 85% arrestance / EU3 rated
Filter Efficiency Ratings	ULPA filter with integral metal guards and filter frame gaskets; Typical efficiency >99.999% at 0.3µm, 0.12µm and MPPS; fully compliant with EN 1822 and IEST-RP-CC001.3 requirements
Noise Level	Typically <67 dBA at initial blower speed setting (measured 1m from the front of the centre of the work opening, subject to acoustic properties of test environment)
Light Intensity	>1000 Lux / >93 footcandles (measured at work surface level, zero background)
Main Body Construction	1.5mm / 0.06" / 16 gauge electro-galvanised steel with white oven-baked epoxy powder-coated finish
Power Supply Options	*Choose from the following options and specify option number when ordering, (e.g. VDA-4A2 for 100-110VAC 50HZ / 60HZ) 1. 220-240VAC 50HZ, 1 phase 2. 110-130VAC 60HZ, 1 phase 3. 220-240VAC 60HZ, 1 phase 4. 110-130VAC 50HZ, 1 phase 5. 100-110VAC 50HZ / 60HZ
Max Shipping Dimensions (L x W x H)	1440 mm x 830 mm x 2100 mm / 56.7" x 32.7" x 82.6"
Max Shipping Volume	2.5 cbm / 88.3 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.

**PT Esco Bintang Indonesia**



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