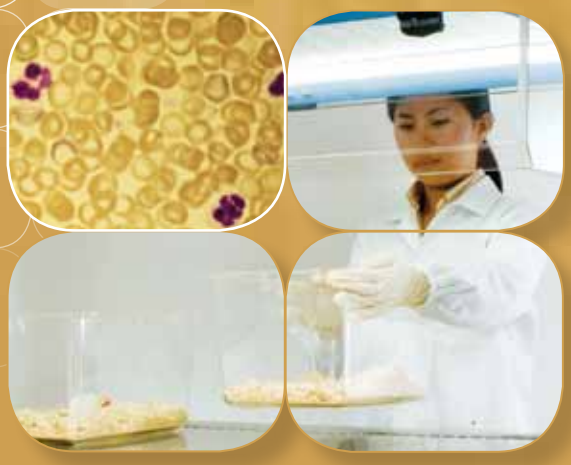
*Viva Dual Access Animal Containment Workstation, Model VDA-4A_*

Viva Universal Animal Containment Workstation, Model VA2-4A_E

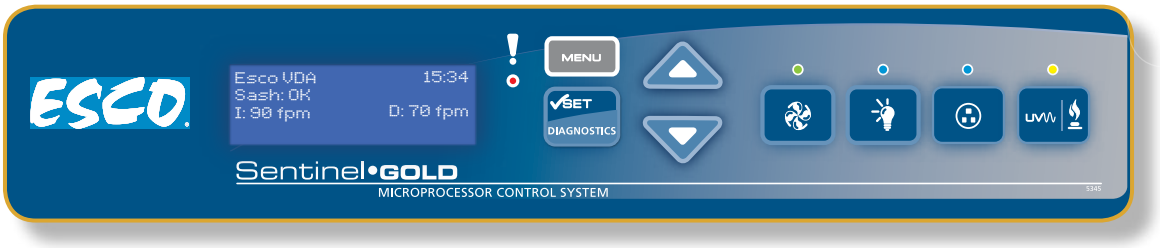
*Viva Animal Bedding Disposal Workstation Model VBD-4A_*

Animal Containment Workstation

The Portable Safety Solution for Animal Research Laboratories



ESCO
WORLD CLASS. WORLDWIDE.



Airflow Sensor

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

Sentinel™ Gold Microprocessor Controller

- *Displays all safety information on one screen*
- *Centered and angled down for easy reach & viewing*
- *Selectable Quickstart mode for fast operation*

Easy to clean Work Surface and Drain pan

- *Two-pieces Stainless Steel Tray, easy to lift.*
- *Drain hole on both sides to dump animal bedding.*

Easy Work Access

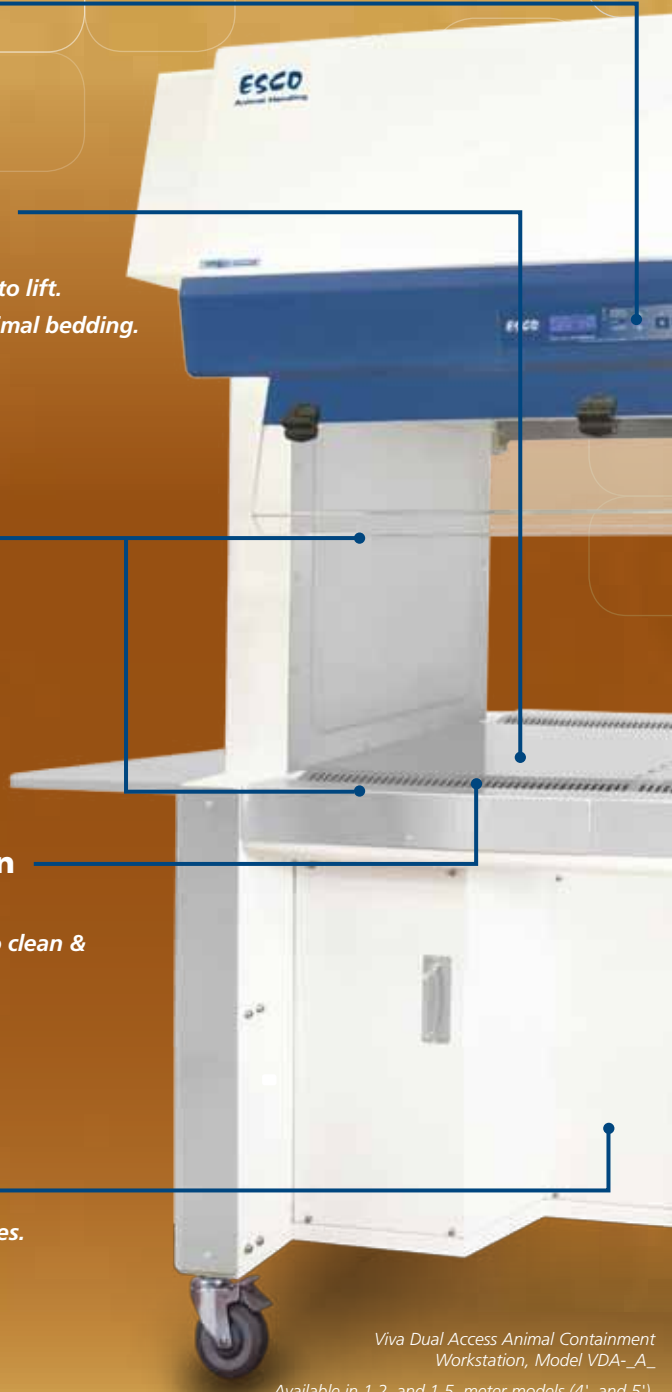
- *Large 354 mm (14") Access Opening.*
- *Accomodates rat and mouse cages.*
- *Hinged up for easy cleaning.*

Advanced Work Tray Design

- *V-shaped Grill to avoid blocking.*
- *Center Grill to separate Work zone to clean & dirty area.*
- *Large Tray handle for easy lift.*

Comfortable Leg Room

- *254 mm (10") Leg Room on BOTH sides.*
- *Reduce fatigue for sitting position.*
- *Hydraulic Motor to adjust height.*



*Viva Dual Access Animal Containment Workstation, Model VDA-_A_*
Available in 1.2, and 1.5 meter models (4', and 5').

Accessories and Options

Contact Esco or your Esco Sales Representative for details.

- *Electrical Outlets*
- *Foldable Side Tray*
- *Side Shield*
- *Feed Hopper*

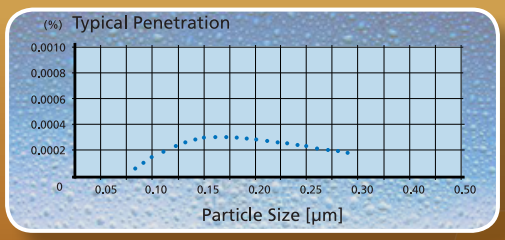
Side Shield *Feed Hopper*

ELISA Proven Containment

- *Provides >99% Allergen Containment.*
- *Ensures User's Safety.*

ULPA Filter

- *10x Filtration efficiency of HEPA filter*
- *Creates ISO Class 3 work zone instead of industry-standard ISO Class 5*

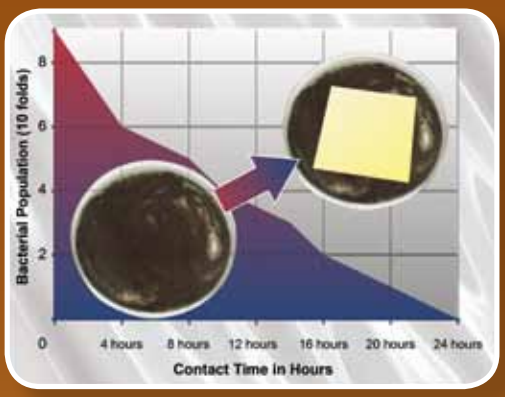


Quiet Operation

- *The quietest Dual-Access Animal Workstation in the world, at 53 dbA in open field condition*
- *Comfortable for the operator and animals*

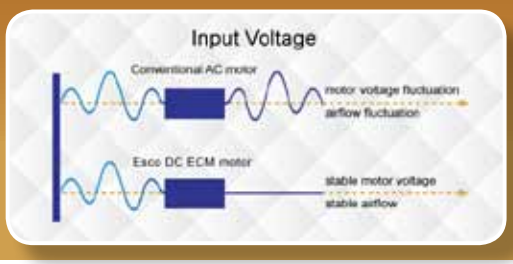
ISOCIDE™ Powder Coat

- *Silver-ion impregnated powder coat*
- *Inhibit microbial growth to improve safety*



Dual Energy Efficient DC ECM Motor

- *Powered by latest generation DC ECM motor, that is more efficient than legacy ECM and VFD motors*
- *70% Energy savings compared to AC motor*
- *Stable airflow, despite building voltage fluctuations & filter loading*



Standards Compliance	Air Quality	Filtration	Electrical Safety
	ISO 14644.1, Class 4, Worldwide JIS B9920, Class 4, Japan JIS BS5295, Class 4, Japan US Fed Std 209E, Class 10 USA	EN-1822 (H14), Europe IEST-RP-CC001.3, USA IEST-RP-CC007, USA IEST-RP-CC034.1, USA	UL-61010A-1, USA CSA22.2, No.1010-192, Canada EN61010-1, Europe IEC61010-1, International

Airflow Sensor

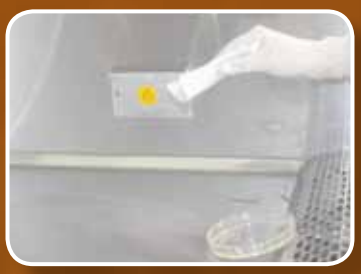
- *Monitors real-time airflow for safety*
- *Alert the user if airflow is insufficient*

Sentinel™ Gold Microprocessor Controller

- *Displays all safety information on one screen*
- *Centered and angled down for easy reach & viewing*
- *Selectable Quickstart mode for fast operation*

Single-Piece Wall

- *Large radius for easy cleaning*
- *Side-mounted electrical outlets and staggered service fixtures, for easy reach*



Single-Piece Work Tray

- *Recessed to contain spillage*
- *Curved grill to prevent blockage*

Raised Arm Rest

- *Helps prevent grille blocking*
- *Comfortable working posture*

Angled Drain Pan

- *Helps prevent grille blocking*
- *Does not harbor contaminants*

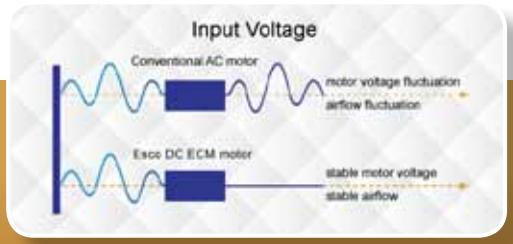
Viva Universal Animal Containment Workstation, Model VA2-_A-E

Available in 1.2, and 1.8 meter models (4', and 6').

EN12469 COMPLIANT

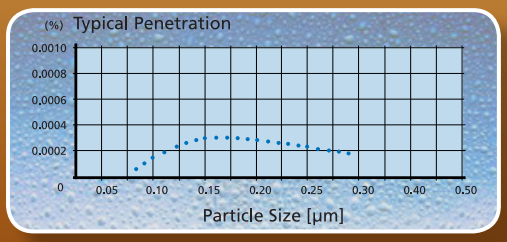
Energy Efficient DC ECM Motor

- *Powered by latest generation DC ECM motor, that is more efficient than legacy ECM and VFD motors*
- *70% Energy savings compared to AC motor*
- *Stable airflow, despite building voltage fluctuations & filter loading*



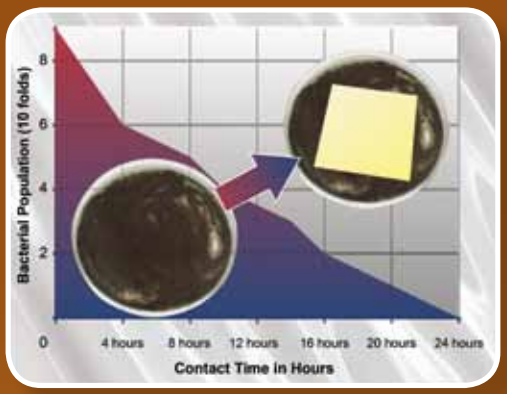
ULPA Filter

- *10x Filtration efficiency of HEPA filter*
- *Creates ISO Class 3 work zone instead of industry-standard ISO Class 5*



ISOCIDE™ Powder Coat

- *Silver-ion impregnated powder coat*
- *Inhibit microbial growth to improve safety*



ELISA Proven Containment

- *Provides >99% Allergen Containment.*
- *Ensures User's Safety.*

Standards Compliance	Air Quality	Filtration	Electrical Safety
	ISO 14644.1, Class 3, Worldwide JIS B9920, Class 3, Japan JIS BS5295, Class 3, Japan US Fed Std 209E, Class 1 USA	EN-1822 (H14), Europe IEST-RP-CC001.3, USA IEST-RP-CC007, USA IEST-RP-CC034.1, USA	UL-61010A-1, USA CSA22.2, No.1010-192, Canada EN61010-1, Europe IEC61010-1, International

Airflow Sensor

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

Sentinel™ Silver Microprocessor Controller

- *Displays all safety information on one screen*
- *Centered and angled down for easy reach & viewing*
- *Selectable Quickstart mode for fast operation*

Bang Bars

- *Increase efficiency of bedding disposal operations.*

Integrated Waste Chute

- *Dispose refuse bag safely within the work zone*

*Viva Animal Bedding Disposal Workstation Model VBD-4A_*

Available in 1.2 meter model (4') only.

Operator and Environmental Protection

The VIVA Bedding Disposal Workstation provides operator and environmental protection from animal allrgen.

Exclusive hydraulic height-adjustable stand

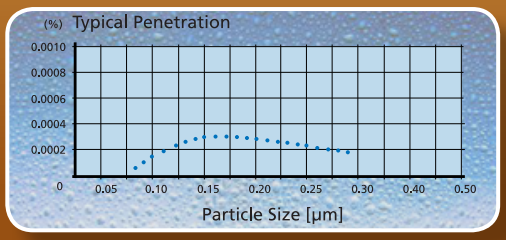
Allows the work surface height to be adjusted to user preference therefore minimizing strain during repetitive operations.

Carbon Filter

- *Nanocarb™ activated carbon filter removes odors*

ULPA Filter

- *10x Filtration efficiency of HEPA filter*
- *Yields 10x cleaner lab air from allergen than industry standard HEPA filter*

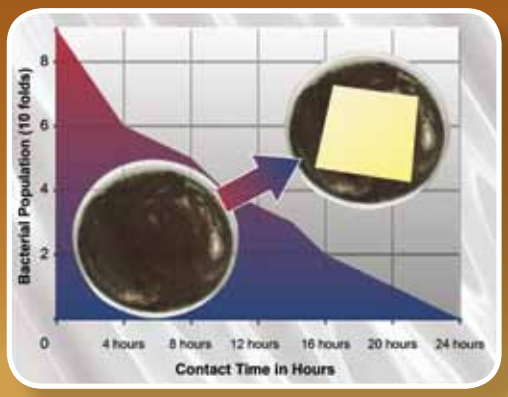


ELISA Proven Containment

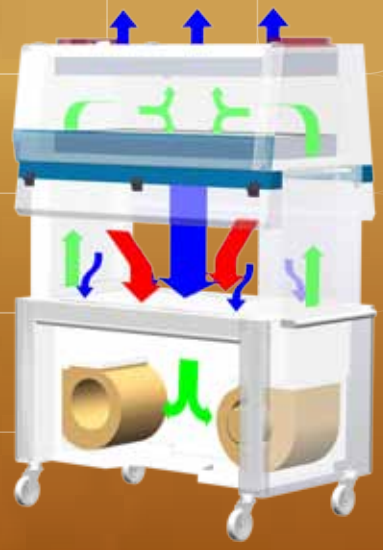
- *Provides >99% Allergen Containment.*
- *Ensures User's Safety.*

ISOCIDE™ Powder Coat

- *Silver-ion impregnated powder coat*
- *Inhibit microbial growth to improve safety*



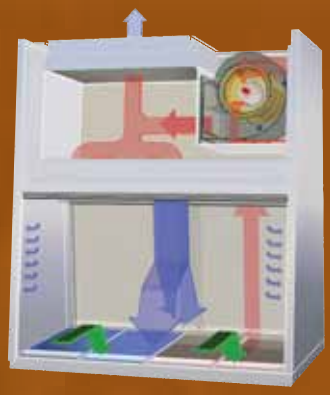
Standards Compliance	Filtration	Electrical Safety
	EN-1822 (H14), Europe IEST-RP-CC001.3, USA IEST-RP-CC007, USA IEST-RP-CC034.1, USA	UL61010-1, USA



VDA Cabinet Airflow System

- The VDA Dual Access Workstation employs recirculating airflow configuration for better filtration efficiency.
- The blower system pulls ambient intake air through the front grilles, creating inflow that provides operator protection from allergen inside the work zone. An activated carbon pre-filter removes odors.
- Air flows through the common plenum on top of the cabinet. A portion of it goes up through ULPA filter as exhaust to create inflow. The remaining portion goes down through ULPA supply filter and bathes the work zone in clean air with a non-turbulent downflow.
- The combination of vertical laminar downflow and inflow creates an air curtain to protect the operator from contaminants released from the work surface.

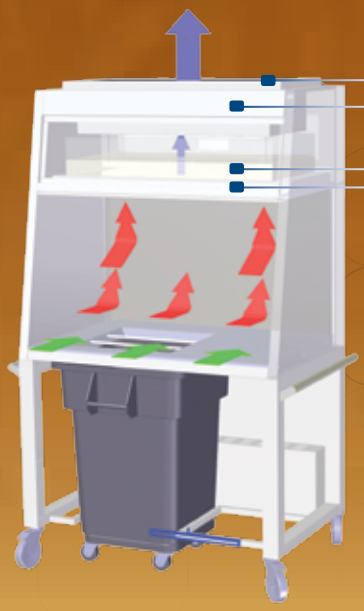
ULPA-filtered air
Unfiltered / Potentially contaminated air
Room air / Inflow air



VA2 Cabinet Airflow System

- Ambient air pulled through the perforations towards the work zone front prevents contamination of the work surface and work product. The inflow does not mix with the clean air within the cabinet work zone. Inflow air travels through a return path toward the common air plenum (blower plenum) at the top of the cabinet.
- Approximately 40% of the air in the common plenum is exhausted through the ULPA filter to the room. The remaining 60% of the air is passed through the downflow ULPA filter and into the work area as a vertical laminar flow air stream bathing the work surface in clean air.
- The uniform, non-turbulent air stream protects against cross-contamination within and throughout the work area.
- Near the work surface, the ULPA-filtered downflow air stream splits with a portion moving toward the front air grille, and the remainder moving to the rear air grille. A small portion of the downflow enters the side capture zones at a higher velocity (small blue arrows).
- A combination of inflow and downflow air streams form an air barrier that prevents contaminated room air from entering the work zone, and prevents work surface emissions from escaping the work zone.

ULPA-filtered air
Unfiltered / Potentially contaminated air
Room air / Inflow air



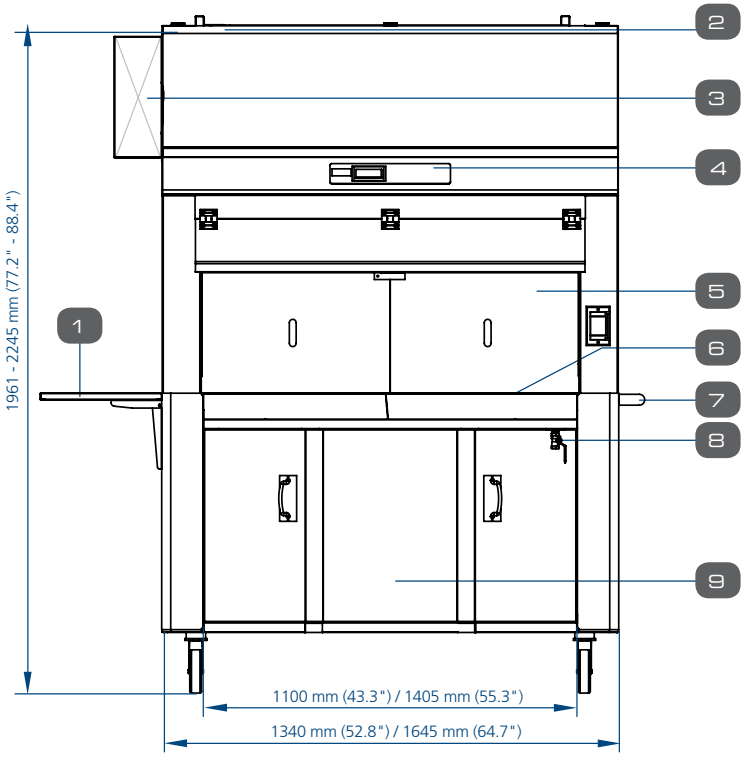
VBD Cabinet Airflow System

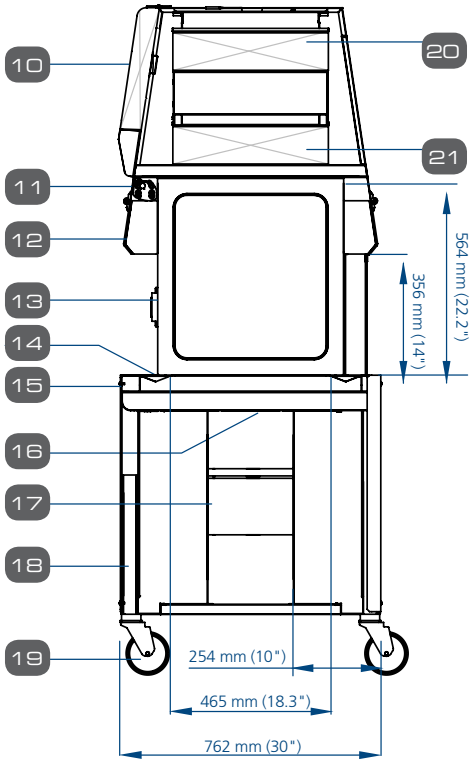
- Room air is drawn in across the front of the cabinet with an average velocity of 0.35 m/s (70 fpm).
- Air is drawn up through the cabinet's work zone and forced through the ULPA filter (>99.999% typical efficiency for 0.1 to 0.3 micron sized particles).
- The full work zone ceiling extraction system ensures airflow uniformity throughout the cabinet's main chamber.
- The ULPA filtered air then returns to the laboratory stripped of all airborne contaminants and odor.

ULPA-filtered air
Unfiltered / Potentially contaminated air
Room air / Inflow air

General Specifications, VIVA® Dual Access Animal Containment Workstation, Model VDA			
Model		VDA-4A_	VDA-5A_
External Dimensions (W x D x H)		1340 x 762 x 1961 mm (52.8" x 30.0" x 77.2") min height 1340 x 762 x 2245 mm (52.8" x 30.0" x 88.4") max height	1645 x 762 x 1961 mm (64.7" x 30.0" x 77.2") min height 1645 x 762 x 2245 mm (64.7" x 30.0" x 88.4") max height
Internal Work Area (W x D x H)		1100 x 465 x 564 mm (43.3" x 18.3" x 22.2")	1405 x 465 x 564 mm (55.3" x 18.3" x 22.2")
Downflow Velocity		0.24 m/s (47 fpm)	
Pre-Filter		Disposable and non-washable polyester fibres with 85% arrestence / EU3 rated	
ULPA Filter Typical Efficiency		>99.999% for particle size between 0.1 to 0.3 microns, per IEST-RP-CC001.3	
Sound Emission per EN 12469*		53 dBA	54 dBA
Fluorescent Lamp Intensity at Zero Ambient		1725 lux (160 foot candles)	1525 lux (142 foot candles)
Construction, Main Body		1.5 mm (0.06") 16 gauge EG Steel with Isocide™ Oven-Baked Epoxy-Polyester Powder Coated Finish	
Shipping Dimensions, Maximum (W x D x H)		1720 x 820 x 2240 mm (67.7" x 32.2" x 88.1")	2025 x 820 x 2240 mm (79.7" x 32.2" x 88.1")
Shipping Weight		342 Kg (754 lbs)	432 Kg (952 lbs)
Shipping Volume, Maximum		3.16 m³ (111.6 cu.ft.)	3.72 m³ (131.4 cu.ft.)
Electrical Rating	VDA-_A8	220-240 VAC, 50 / 60 Hz, 1Ø	
	VDA-_A9	110-130 VAC, 50 / 60 Hz, 1Ø	
Power Consumption	VDA-_A8	190 W	230 W
	VDA-_A9	210 W	250 W
Accessories	Foldable Side Tray (SS Shelf Kit)	VDA-001 5170257	
	Side Shield	VDA-004 5170562	VDA-005 5170563
	Feed Hopper	VDA-006 5170594	

** Noise as measured in open field / anechoic chamber.*





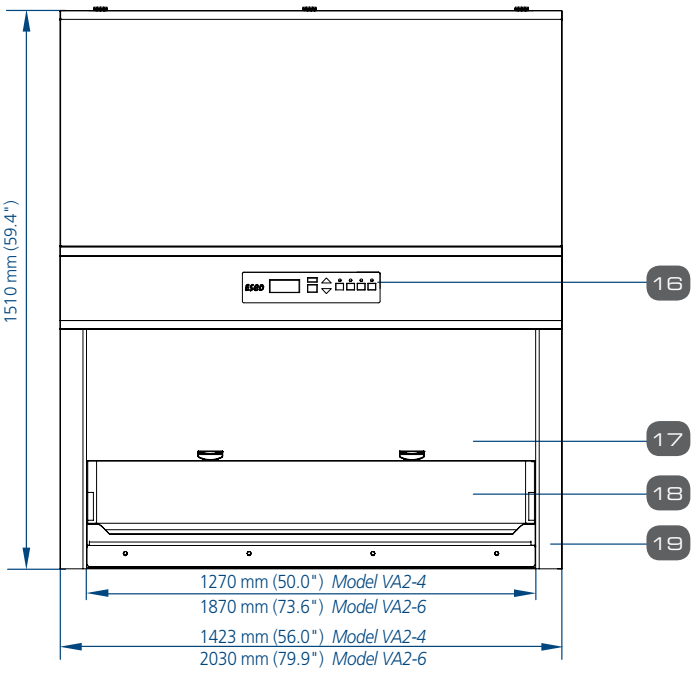
1. *Foldable Side Tray*
2. *Airflow Sensor*
3. *Retractable Cord Reel (30 ft)*
4. *Sentinel™ Gold Microprocessor Control System*
5. *Optional Side Shield*
6. *Stainless Steel Work Top*
7. *Push Handle*
8. *Drain Valve*
9. *Knee Space (254 mm / 10" Deep) at both sides*
10. *Electrical Panel*
11. *T5 Fluorescent Lamps (1 on each side)*
12. *Hinged Polycarbonate Window*
13. *GFCI Electrical Outlets with Dip Proof Cover (1 on each right side)*
14. *Recessed Air Intake Grill*
15. *Arm Rest*
16. *Impregnated Activated Carbon Pre-filter*
17. *DC ECM Blower (Self-compensating and Low Noise)*
18. *Electric Hydraulic Height Adjustor*
19. *Caster Wheels*
20. *Exhaust ULPA/H14 Filter*
21. *Downflow ULPA/H14 Filter*

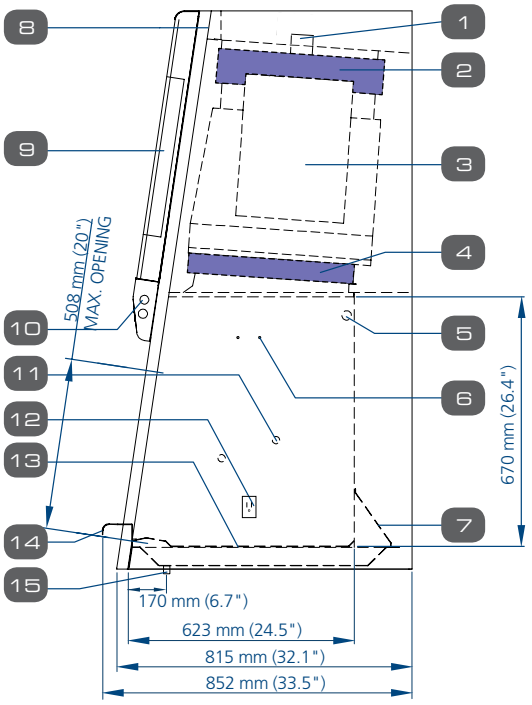
General Specifications, VIVA® Universal Animal Containment Workstation, Model VA2

Note to customer: Insert electrical voltage number into last model number digit_when ordering.

Model		VA2-4A_ -E	VA2-6A_ -E
Nominal Size		1.2 meter (4')	1.8 meter (6')
External Dimensions (W x D x H)		1423 x 815 x 1510 mm (56" x 32.1" x 59.4")	2030 x 815 x 1510 mm (79.9" x 32.1" x 59.4")
Maximum External Dimensions with Support Stand (W x D x H)		1585 x 852 x 2235 mm (62.4" x 33.5" x 88.0")	2193 x 852 x 2235 mm (86.3" x 33.5" x 88.0")
Internal Work Area (W x D x H)		1270 x 623 x 680 mm (50.0" x 24.5" x 26.7")	1870 x 620 x 680 mm (73.6" x 24.4" x 26.7")
Average Airflow Velocity	Inflow	0.45 m/s (90 fpm)	
	Downflow	0.35 m/s (70 fpm)	
Airflow Volume	Inflow	625 m^3 / h (368 cfm)	921 m^3 / h (542 cfm)
	Downflow, 60%	959 m^3 / h (547 cfm)	1414 m^3 / h (832 cfm)
	Exhaust, 40%	625 m^3 / h (368 cfm)	921 m^3 / h (542 cfm)
ULPA Filter Typical Efficiency		>99.999% for particle size between 0.1 to 0.3 microns per IEST-RP-CC001.3	
Sound Emission*	NSF / ANSI 49	63 dBA	64 dBA
	EN 12469	60 dBA	61 dBA
Fluorescent Lamp Intensity		> 1400 lux (> 130 foot candles)	> 1230 lux (> 114 foot candles)
Cabinet Construction		1.5 mm (16 gauge) electrogalvanized steel with Isocide white oven-baked epoxy power coating	
Net Weight Cabinet including stand		406 Kg (895 lbs)	528 Kg (1164 lbs)
Shipping Weight Cabinet including stand		456 Kg (1005 lbs)	570 Kg (1257 lbs)
Shipping Dimensions, Maximum (W x D x H) Cabinet excluding stand		1550 x 950 x 1900 mm (61.0" x 37.4" x 74.8")	2150 x 950 x 1900 mm (84.6" x 37.4" x 74.8")
Shipping Volume, excluding stand		2.80 m^3 (99 cu.ft.)	3.88 m^3 (137 cu.ft.)
Electrical*		**Model** / **Voltage**	**Model** / **Voltage**
		VA2-4A1-E / 220-240 VAC, 50/60 Hz, 1Ph, 5.5 amps	VA2-6A1-E / 220-240V, AC, 50/60 Hz, 1Ph, 6 amps
		VA2-4A2-E / 110-120 VAC, 50/60 Hz, 1Ph, 11 amps	VA2-6A2-E / 110-120V, AC, 50/60 Hz, 1Ph, 12 amps

** Noise as measured in open field / anechoic chamber.*

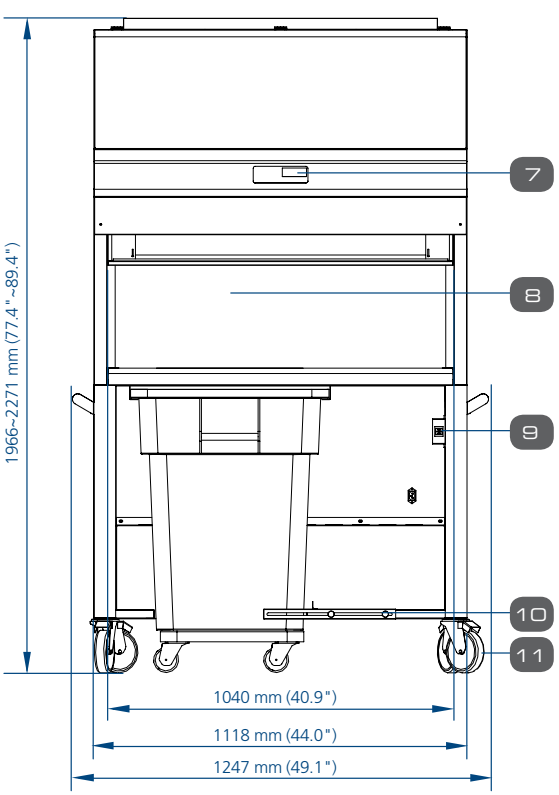


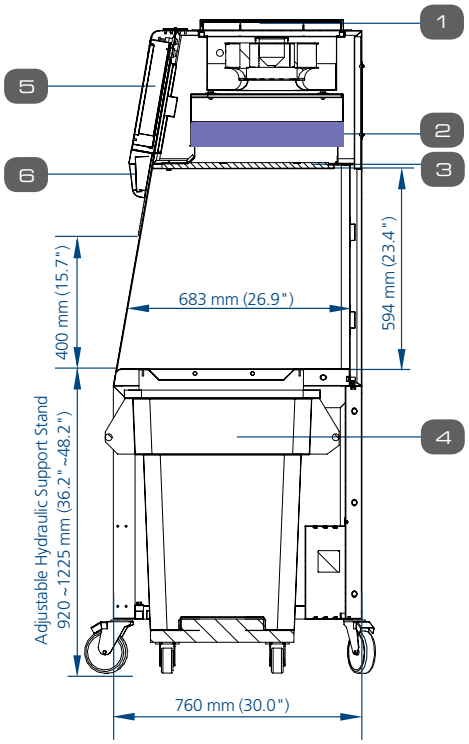


1. *Airflow Sensor*
2. *Exhaust ULPA / H14 Filter*
3. *Energy-efficient DC ECM Blower*
4. *Downflow ULPA / H14 Filter*
5. *UV light Retrofit Kit Provision*
6. *IV bar Retrofit Kit Provision*
7. *Pre-filter*
8. *RS 232 Port, zero volt relay contacts for exhaust and alarm system*
9. *Electrical Panel*
10. *Fluorescent Lamps*
11. *Plugged Service Fixture provisions (2 on each side)*
12. *Electrical Outlet Retrofit Kit Provision*
13. *Stainless Steel Single-piece Work Tray*
14. *Stainless Steel Arm Rest*
15. *Drain Valve Retrofit Kit Provision*
16. *Sentinel™ Gold Microprocessor Control System*
17. *Safety Glass Sliding Sash Window*
18. *Single-piece Stainless Steel Back Wall and Side Walls*
19. *Removable Side Panel for plumbing access*

General Specifications, VIVA® Bedding Disposal Workstation, Model VBD-4A_				
Nominal Size		1.2 meter (4')		
External Dimensions (W x D x H)		1247 x 760 x 1966 mm (49.1" x 30.0" x 77.4") minimum height 1247 x 760 x 2271 mm (49.1" x 30.0" x 89.4") maximum height		
Internal Work Area (W x D x H)		1040 x 680 x 594 mm (40.9" x 26.8" x 23.4")		
Work Surface Height		920 mm ~ 1225 mm (36.2" ~ 48.2")		
Front Opening		400 mm (15.7")		
Inflow Velocity		0.35 m/s (70 fpm) at initial setpoint		
Pre-Filter		Disposable, non-washable polyester fiber, 85% arrestance, EU3 rated		
ULPA Filter Typical Efficiency		>99.999% at 0.1 to 0.3 microns as per IEST-RP-CC001.3 USA		
Sound Emission* Per EN 12469		58 dBA		
Fluorescent Lamps		> 1,300 lux (> 121 foot candles)		
Workstation Construction	Main Body	1.2 mm (0.05") 18 gauge electro-galvanized steel with Isocide™ white oven-baked epoxy-polyester powder-coating		
	Work Top	1.2 mm (0.05") 18 gauge stainless steel, type 304, with 4B finish		
	Inner Liner	0.9 mm (0.035") 20 gauge stainless steel, type 304, with 4B finish		
Net Weight		233 Kg (514 lbs)		
Shipping Weight		294 Kg (648 lbs)		
Shipping Dimensions, Maximum (W x D x H)		2150 x 1840 x 1230 mm (84.6" x 72.4" x 48.4")		
Shipping Volume, Maximum		4.87 m³ (172 cu.ft.)		
Electrical**	Model	VBD-4A1	VBD-4A2	VBD-4A3
	Voltages	220-240 VAC, 50 Hz, 1Φ	110-120 VAC, 60 Hz, 1Φ	220-240 VAC, 60 Hz, 1Φ
	Cabinet Full Load Amps (FLA)	3 A	6.5 A	3 A
	Optional Outlets FLA	5 A	5 A	5 A
	Cabinet Nominal Power	309 W	268 W	309 W
	Cabinet BTU	1054	914	1054

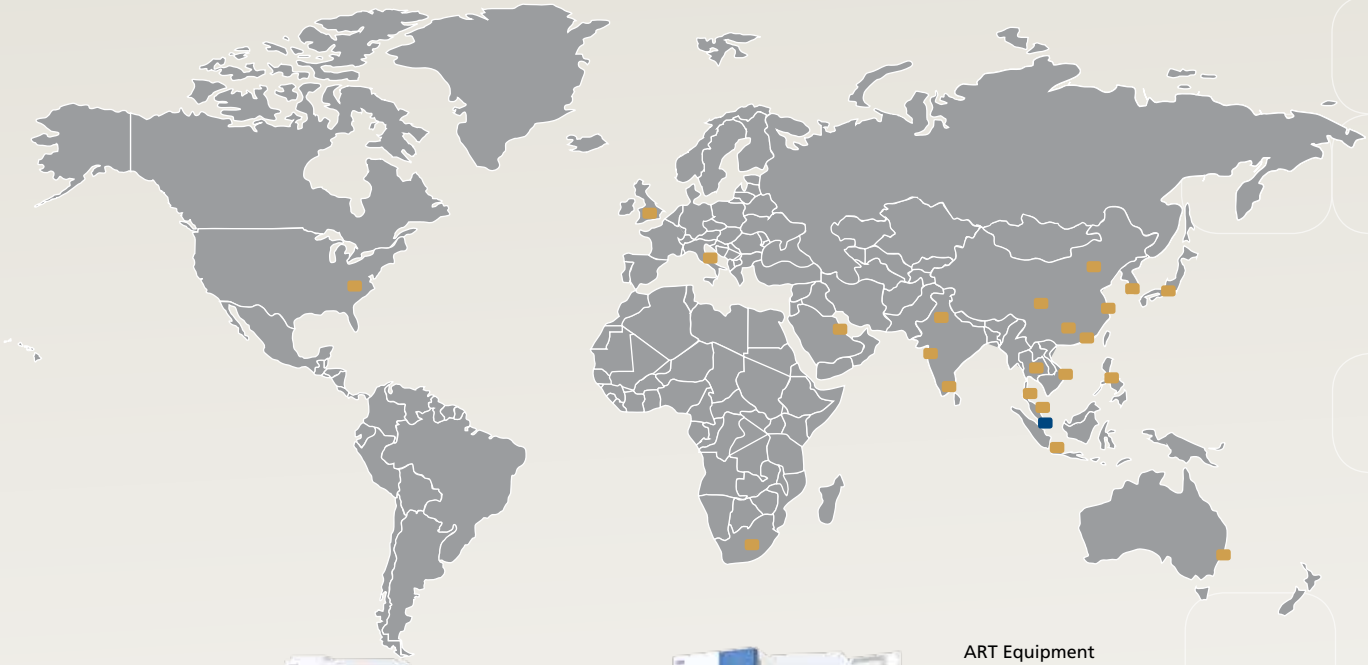
** Noise as measured in open field / anechoic chamber.*





1. *Carbon filter*
2. *ULPA / H14 filter*
3. *Pre-filter*
4. *Waste container*
5. *Electrical Panel*
6. *Fluorescent Lamp*
7. *Sentinel™ Microprocessor Control System*
8. *Stainless Steel single piece Work Zone*
9. *Switch to adjust stand height*
10. *Lock for waste container*
11. *Caster Wheels*

ESCO GLOBAL NETWORK



ART Equipment
Biological Safety Cabinets
CO_2 Incubators
Compounding Pharmacy Equipment
Containment / Pharma Products
Ductless Fume Hoods
Freeze Dryer
Lab Animal Research Products
Laboratory Fume Hoods
Laboratory Ovens and Incubators
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