





VIVA® Universal Animal Containment Workstation, Model VA2-4S_G4 12"

VIVA® Bedding Disposal Animal Containment Workstation, Model VBD-4A_

VIVA® Animal Research Workstations

The Portable Safety Solution for Animal Research Laboratories







Airflow Sensor

- Real-time airflow monitoring system
- Alerts the user if the airflow is insufficient

Sentinel™ Gold Microprocessor Controller

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





Easy-to-clean Work Surface and Drain pan

- Two-piece, easy-to-lift stainless steel tray
- Drain hole on both sides to dump animal bedding



Easy Work Access

- Large access opening of 344 mm (14")
- Accomodates rat and mouse cages
- Hinged up for easy cleaning



Advanced Work Tray Design

- V-shaped grill to avoid blocking
- Center grill to separate clean and contaminated area
- Large tray handle for easy lifting



Comfortable Leg Room

- 254 mm (10") leg room on both sides
- Reduces user's fatigue when in sitting position
- Hydraulic motor to adjust the 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
- Service Fixtures





Side Shield

Feed Hopper





ELISA Proven Containment

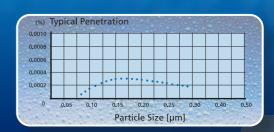
 Provides >99% allergen containment to ensure user's safety





ULPA Filter

- 10x filtration efficiency than of HEPA filter
- Creates an ISO Class 3 workzone instead of the industrystandard ISO Class 5



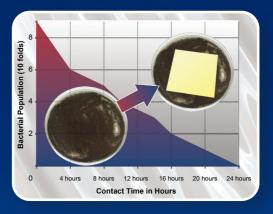
Quiet Operation

 Comfortable low noise emission at 53 for the users and animals



Isocide™ Antimicrobial Coating

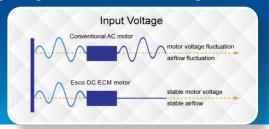
- Silver-ion impregnated powder coat
- Inhibits the microbial growth to improve safety



Dual Energy-efficient DC ECM Blower

- Powered by the latest generation DC ECM 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 ISO 14644.1, Class 3, Worldwide JIS B9920, Class 3, Japan JIS BS5295, Class 3, Japan US Fed Std 209E, Class 1 USA

Air Quality

EN-1822 (H14), Europe IEST-RP-CC001.3, USA IEST-RP-CC007, USA IEST-RP-CC034.1, USA

Filtration

UL-61010A-1, USA CSA22.2, No.1010-192, Canada EN61010-1, Europe IEC61010-1, International

Electrical Safety



VIVA® G4 (VA2 G4) CLASS II TYPE A2 ANIMAL BSC, FI







Airflow Sensor

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

USB Port and Zero Volt Relay Contact

- USB Port to send operational information to Building Management System (BMS)
- Zero Volt Relay Contact to turn ON/OFF exhaust blower and signal the building alarm



Centurion 7" Capacitive Touchscreen Controller

- Displays all safety information on one large screen
- Shows cabinet parameters with intuitive 3D illustration
- Easy to use menu, similar to Smart Phone Apps
- Large buttons, easy to operate when wearing gloves
- Self-guidance to users to deal with specific situations
- Centered and angled down for easy reach and viewing



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Single Piece Wall

- Easy to reach service fixtures and electrical outlets on sidewalls
- Large radius corners for easy cleaning



User-friendly Work Tray

- Largest useable area in the market
- Recessed to contain spillage
- Sloped perimeter for easy cleaning
- Large, easy to clean tray handle



Raised Arm Rest

- Prevent grille blocking
- Comfortable working posture
- Durable stainless steel construction



Available in 1.2, 1.5, and 1.8 meter models (4', 5', and 6').



Ergonomic Work Zone

- 10° angle to optimize user comfort, reduce glare, and maximize reach into the work area
- Brightly illuminated with 1000 lux (93 ft-c)
- Industry-leading dimmable LED for optimum work comfort
- Airtight seal port for cable/tube exit protected by a negative pressure side wall
- 12" sash working height for mouse and rat cages



Pre-filter Rack

- Captures animal dander
- Easy to replace pre-filter
- Prolongs ULPA filter life



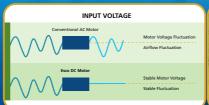




FEATURING ADVANCED TOUCHSCREEN CONTROLLER

Energy-efficient DC ECM Blower

- The leading energy-efficient Class II Type A2 Biosafety Cabinet in the world with 70% energy savings compared to AC motor
- Stable airflow despite building voltage fluctuations and filter loading
- Standby mode to further reduce power consumption by 80%







Advanced ULPA Filtration System

- 10x Filtration efficiency of HEPA filter
- Creates ISO Class 3 work zone instead of industry-standard ISO Class 5
- Same 10 years filter life and replacement cost as HEPA filters Note:
 - 99.999% at 0.1 to 0.3 micron, ULPA as per IEST-RP-CC001.3 USA
- 99.999% at MPPS, H14 as per EN 1822 EU

Dimmable LED Lamp

Save energy and optimize work comfort

Removable Paper Catch

- Prevent objects from being pulled into blower plenum
- Removable for easy cleaning

Tray Support Beams

- Support work tray evenly for less vibration
- Cleaning holder to easily wipe the drain pan

Isocide™ Powder Coat

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









ELISA Proven Containment

- Provides >99% allergen containment.
- Ensures user's safety

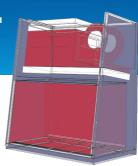


| Certification | | | | | | | | |
|-------------------------|---------------------|--|---|---|--|--|--|--|
| | Performance | Air Quality | Filtration | Electrical Safety | | | | |
| Standards Compliance | NSF / ANSI 49, USA* | ISO 14644.1, Class 3, Worldwide US Fed Std 209E, Class 1 USA JIS 89920, Class 3, Japan | EN-1822 (H14), Europe IEST-RP-CC001, USA | UL 61010-1 3rd Ed, USA CSA22.2, No.1010-192, Canada IEC61010-1, Worldwide | | | | |

* The NSF / ANSI 49 certified models are VA2-4S_ G4 and VA2-6S_ G4

Dynamic Cham<u>ber™</u>

- Blower plenum and side walls are surrounded by negative pressure
- Prevent contaminants from escaping outside
- Positive Pressure
- Negative Pressure







Airflow Sensor

ESCO

- Real-time airflow monitoring system
- Alerts the user if the airflow is insufficient

Sentinel™ Silver Microprocessor Controller -

- Displays all safety information on one screen
- Centered and angled down for easy reach & viewing



Bang Bars -

 Increases efficiency of bedding disposal operations



Integrated Waste Chute

Disposes refuse bag safely within the work-zone



User and Environment Protection

The VIVA Bedding Disposal Workstation provides operator and environment protection User animal allrgen.



Exclusive hydraulic height-adjustable stand

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



VIVA® Bedding Disposal Animal Containment Workstation, Model VBD-4A_

Available in 1.2 meter model (4') or



Carbon Filter

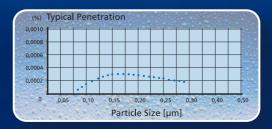
Nanocarb activated carbon filter to remove unpleasant odors



VIVA®

ULPA Filter

- 10x filtration efficiency than of HEPA filter
- Creates an ISO Class 3 work-zone instead of the industry-standard ISO Class 5



ELISA-proven Containment

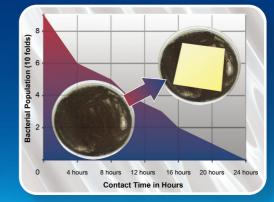
Provides >99% allergen containment to ensure user's safety





Isocide™ Antimicrobial Coating

- Silver-ion impregnated powder coat
- Inhibits the microbial growth to improve safety



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

Filtration

UL61010-1, USA

Electrical Safety



AIRFLOW PATTERN

VDA Cabinet Airflow System

- The VDA Dual Access Workstation employs

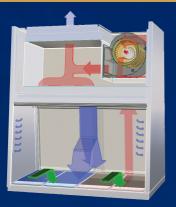
 a recirculating airflow configuration for better filtration efficiency.
- The blower system pulls ambient intake air through the front grilles, creating inflow that provides operator protection from allergen inside the work-zone. An activated carbon pre-filter removes unpleasant odors
- Air flows through 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 laminar air with a non-turbulent downflow.
- The combination of vertical laminar inflow and downflow creates an air curtain to protect the user from contaminants released from the work surface.

ULPA-filtered air

■ Unfiltered / Potentially contaminated air

Room air / Inflow air

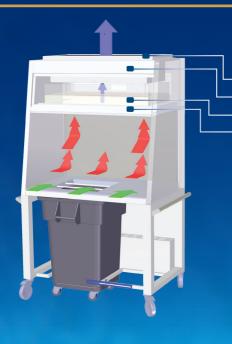
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- ULPA-filtered air
- Unfiltered / Potentially contaminated air
- Room air / Inflow air

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 towards 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.



VBD Cabinet Airflow System

Carbon Filter

Blower

Exhaust ULPA Filter

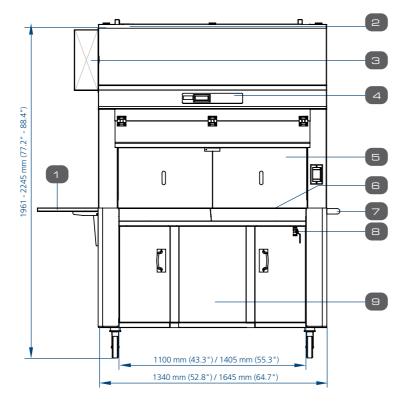
Pre-filter

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

- 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.

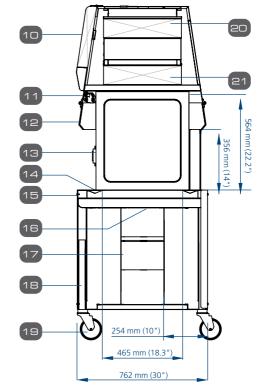
General Specifications, Dual Access Animal Containment Workstation, Model VDA VDA-4A VDA-5A Model 1340 x 762 x 1961 mm (52.8" x 30.0" x 77.2") min height 1645 x 762 x 1961 mm (64.7" x 30.0" x 77.2") min height External Dimensions (W x D x H) 1645 x 762 x 2245 mm (64.7" x 30.0" x 88.4") max height 1340 x 762 x 2245 mm (52.8" 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) Disposable and non-washable polyester fibres with 85% arrestence / EU3 rated Pre-Filter **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 LED 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.) VDA-_A8 220-240 VAC, 50 / 60 Hz, 1Ø **Electrical Rating** VDA-_A9 110-130 VAC, 50 / 60 Hz, 1Ø VDA-_A8 190 W 230 W **Power Consumption** VDA-_A9 210 W 250 W Foldable Side Tray VDA-001 5170257 (SS Shelf Kit) Accessories Side Shield VDA-004 5170562 VDA-005 5170563 Feed Hopper VDA-006 5170594

^{*} Noise as measured in an open field / anechoic chamber.



- 9. Knee Space (254 mm / 10" Deep) at both sides
- Foldable Side Tray (Optional)
 Airflow Sensor
- 3. Retractable Cord Reel (30 ft)
- 4. Sentinel[™] Gold Microprocessor Control System
- 5. Side Shield (Optional)
- 6. Stainless Steel Work Top
- 7. Push Handle
- 8. Drain Valve

- 10. Electrical Panel
- 11. LED Lamp (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



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| *Only VA2-4S_ | .G4 12" ai | nd VA2-6S_ | G4 12" | are the N | SF-certified models. |
|---------------|------------|------------|--------|-----------|----------------------|
| | | | | | |

220-240 V 50/60Hz

110 - 120 V 50/60Hz

External dimensions with SLC support stand

Internal work area, dimensions (W x D x H)

Inflow

Downflow

ducting

Inflow / exhaust without

thimble exhaust collar

Required exhaust with optional

at minimum height (W x D x H)**

Maximum sash opening

ULPA Filter typical efficiency

Sound emission per NSF / ANSI 49***

Net weight cabinet including stand

Shipping dimensions, maximum

(W x D x H) cabinet excluding stand

Shipping volume, excluding stand

Main body

Workzone

Shipping weight Cabinet including stand

Model

Nominal Size

Average airflow velocity

Airflow volume

LED Lamp intensity

Cabinet

construction

**Depth with arm rest removed: 815 mm (32.1") without SLC stand and 852mm (33.5") with SLC stand

General Specifications, VIVA® Class II Type A2 Animal BSC

VA2-5S8 G4 12"*

2011863

VA2-5S9 G4 12"*

2011864

1.5 meter (5')

1790 x 919 x 2025-2533 mm

(70.4" x 36.2" x 79.7-99.7")

1525 x 625 x 720 mm (60.0" x 24.6" x 28.3")

575 mm (22.6")

0.53 m/s (105 fpm)

0.35 m/s (70 fpm)

890 m³/h (525 cfm)

1128 m³/h (662 cfm)

1340 m³/h (790 cfm)

>99.999% at 0.1 to 0.3 micron, ULPA as per IEST-RP-CC001.3 USA

>99.999% at MPPS, H14 as per EN 1822 EU

65 dBA

1000 lux (93 foot-candles)

Electro-galvanized steel with white oven-baked epoxy-polyester Isocide™ antimicrobial powder-coated finish, 1.5 mm

(0.06") / 16 gauge thick

Stainless steel type 304 with no.4 finish, 1.5 mm (0.06") / 16 gauge thick

381 kg (840 lbs)

439 kg (968 lbs)

1650 x 950 x 2250 mm (64.9" x 35.0" x 74.8")

3.00 m³ (cu.ft.)

VA2-6S8 G4 12"

2011865

VA2-6S9 G4 12"

2011866

1.8 meter (6')

2095 x 919 x 2025-2533 mm

(82.5" x 36.2" x 79.7-99.7")

1830 x 625 x 680 mm

(73.2" x 24.6" x 28.3")

0.35 m/s (70 fpm)

1065 m3/h (630 cfm)

1349 m³/h (794 cfm)

1610 m³/h (950 cfm)

65.9 dBA

400 kg (882 lbs)

506 kg (1116 lbs)

2200 x 890 x 1900 mm (86.6" x 35.0" x 74.8")

3.6 m³ (cu.ft.)

VA2-4S8 G4 12"

2011861

VA2-4S9 G4 12"

2011862

1.2 meter (4')

1485 x 919 x 2025-2533 mm

(58.5" x 36.2" x 79.7-99.7")

1220 x 625 x 720 mm

(48.0" x 24.6" x 28.3")

0.30 m/s (60 fpm)

710 m³/h (420 cfm)

771 m³/h (461 cfm)

1070 m³/h (630 cfm)

60 dBA

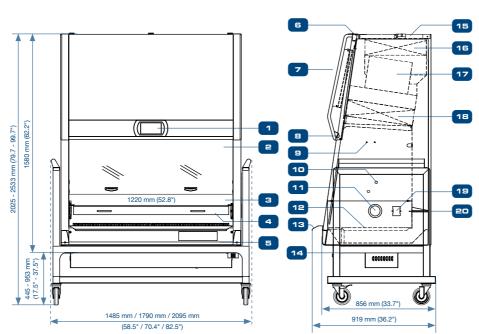
287 kg (633 lbs)

350 kg (772 lbs)

1400 x 950 x 2250 mm

(55.1" x 37.4" x 88.6")

2.5 m³ (cu.ft.)

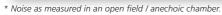


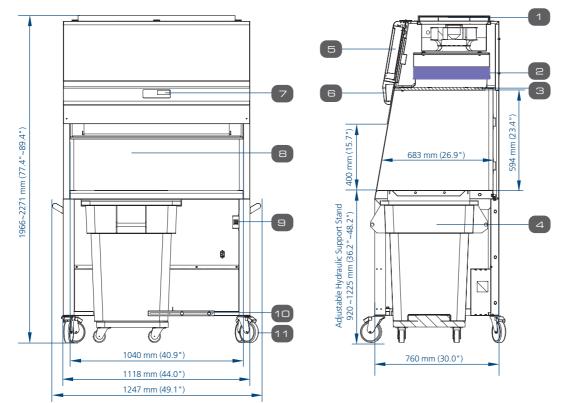
- 1. Centurion™ Touchscreen Controller
- 2. Safety Glass Sliding Sash Window
- 3. Single-piece Stainless Steel Back Wall and Side Walls
- 4. Prefilter Rack
- 5. Removable Side Panel for Plumbing Access
- 6. USB Port for Data Transfer Data, Zero Volt Relay Contact (Blower & Alarm)
- 7. Electrical Panel
- 8. LED Lamps
- 9. IV Bar Retrofit Kit Provision
- 10. Plugged Service Fixture provisions (2 on each side)
- 11. Cable Port
- 12. Stainless Steel Singlepiece Work Tray
- 13. Stainless Steel Arm Rest
- 14. Drain Valve Retrofit Kit
 Provision
- 15. Airflow Sensor
- 16. Exhaust ULPA / H14 Filter
- 17. Energy-efficient DC ECM Blower
- 18. Downflow ULPA / H14 Filter
- 19. Pre-filter
- 20. GFCI Electrical Outlet (5A Max)



^{***}Noise as measured in open field / 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.

| 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 | | <65 dBA | | | | | | |
| LED Lamp | | > 1,300 lux (> 121 foot candles) | | | | | | |
| Workstation | Main Body | 1.2 mm (0.05") 18 gauge electro-galvanized steel with Isocide™ white oven-baked epoxy-polyester powder-coating | | | | | | |
| Construction | 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, 1 Ф | 110-120 VAC, 60 Hz, 1Ф | 220-240 VAC, 60 Hz, 1Ф | | | | |
| | 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 | | | | |





- 1. Carbon filter
- 2. ULPA / H14 filter
- 3. Pre-filter
- 4. Waste container
- 5. Electrical Panel
- 6. LED 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



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