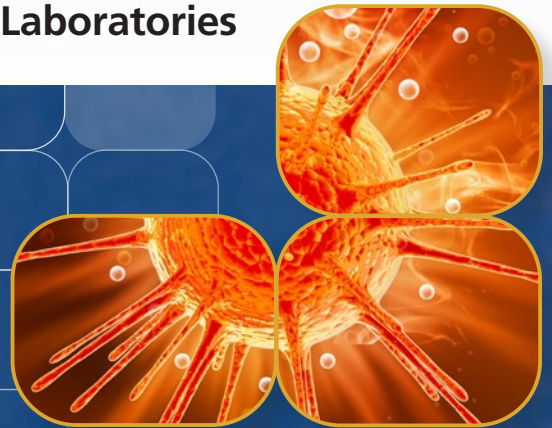


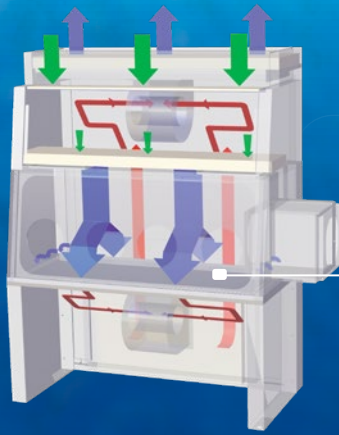
*Airstream® Class III, Biological Safety Cabinet,  
Model: AC3-4B\_*

# Airstream®

## **Class III, Biological Safety Cabinets** The Premier Solution for High Containment Laboratories



**ESCO**  
SCIENTIFIC



## Cabinet Filtration System

Dynamic air barrier, inflow and forward-directed downflow air converge

- Ambient air is pulled into the cabinet through a disposable pre-filter, trapping larger particles and prolonging the life of main filter. Air is then passed through the downflow ULPA filter into the work zone, bathing the work surface in clean air.
- Near the work surface, the downflow air stream splits and exits the chamber through perforations around the perimeter of the work zone.
- Air from work zone passes through the first ULPA exhaust filter below the work surface, before traveling through internal ducting and exhausting to the laboratory environment after passing through the second ULPA exhaust filter located above the cabinet's main chamber.

- ULPA-filtered air
- Unfiltered / potentially contaminated air
- Room air / inflow air



## Sentinel™ Silver Microprocessor Controller

- Supervises all cabinet functions
- Easy-to-use soft keys for menu, blower, light, UV, electrical outlet, etc
- Large display which monitors the operational parameters



## Magnehelic\* pressure gauge

- Mounted in the rear of the work zone for at-a-glance monitoring of work zone negative pressure

\*Registered trademark of Dwyer Instruments, Inc.



## Pass Box

- Equipped with interlocking doors that permits materials transfer without risk of environmental contamination



## Glove ports

- For easy and safe glove changing

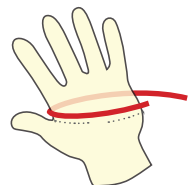


## Neoprene™ Synthetic Arm-length Gauntlets

- Single piece, leak-tested assembly guarantees maximum protection and flame and abrasion resistant

## Glove Sizes

- To find out your glove size, measure (in inches) around your hand with a tape measure at the place indicated on the diagram. This measurement, in inches, is the closest to your glove size, i.e. 8" is equal to a glove size of 8.
- You should use your dominant hand, the right if you are righthanded, and the left if you are left-handed.
- Standard glove sizes available are 8 (standard size) and 9. Specify when ordering.



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

ISOCIDE™

ULPA filter

cen  
EN12469

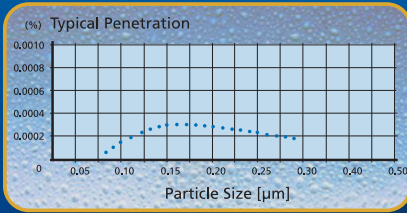
|                      | Biosafety Cabinets | For Air Quality  | For Filtration  | For Electrical Safety  |
|----------------------|--------------------|--|---|--|
| Standards Compliance | EN 12469, Europe   | ISO 14644.1 Class 3, Worldwide<br>IEST-G-CC1001, USA<br>IEST-G-CC1002, USA | IEST-RP-CC034.1, Worldwide<br>IEST-RP-CC007.1, Worldwide<br>IEST-RP-CC001.3, Worldwide<br>EN 1822 (H14), Europe | IEC 61010-1, Worldwide<br>EN 61010-1, Europe<br>UL 61010-1, USA<br>CAN/CSA-22.2, No. 61010-1 |

## Air-tight Built

- Completely welded construction to ensure absolute containment for operator and environmental safety

## Dual Exhaust ULPA FILTER

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

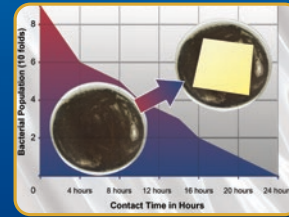


## Angled Front

- To optimize user comfort, reduce glare and maximize reach into the work area

## ISOCIDE™ Powder Coat

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



## General Specifications, Airstream Class III, Biological Safety Cabinets

Note to customer: Insert electrical voltage number into last model number digits \_ when ordering

| Model   |                              | AC3-4B__   | AC3-5B__  | AC3-6B__  |
|---|------------------------------|--|---|---|
| Nominal Size  |                              | 1.2 meter (4')   | 1.5 meter (5')                                  | 1.8 meter (6')                                  |
| External Dimensions (W x D x H)                                     |                              | 1690 x 850 x 2270 mm<br>66.6" x 33.5" x 89.4"  | 1995 x 850 x 2270 mm<br>78.6" x 33.5" x 89.4"   | 2300 x 850 x 2270 mm<br>90.6" x 33.5" x 89.4"   |
| Internal Work Area, Dimensions (W x D x H)                          |                              | 1130 x 560 x 635 mm<br>44.5" x 22" x 25"   | 1430 x 560 x 635 mm<br>56.3" x 22" x 25"        | 1755 x 560 x 635 mm<br>69.1" x 22" x 25"        |
| Internal Work Area, Space   |                              | 0.63 m <sup>2</sup> (6.8 sq.ft)  | 0.80 m <sup>2</sup> (8.6 sq.ft)                 | 0.98 m <sup>2</sup> (10.5 sq.ft)                |
| Number of Gloves Ports  |                              | 2 ports  | 4 ports   | 4 ports   |
| Glove Type & Sizes Available  |                              | Neoprene™ polychloroprene synthetic rubber gauntlets. Available in sizes 7, 8 (standard size) and 9                                |   |   |
| Initial Airflow Volume  |                              | 603 m <sup>3</sup> /h ( 355 cfm)   | 756 m <sup>3</sup> /h ( 445 cfm)                | 902 m <sup>3</sup> /h (531 cfm)                 |
| Minimum Required Negative Pressure                                  |                              | -200 Pa (0.8" Wg)  |   |   |
| Nominal Required Negative Pressure                                  |                              | -275 Pa (- 1.1" Wg)  |   |   |
| Pre-Filter  |                              | Disposable and non-washable polyester fibers with 85% arrestance / EU3 rated   |   |   |
| ULPA Filter Typical Efficiency (Downflow, 1st Exhaust, 2nd Exhaust) |                              | Typical: 99.999% at 0.1 to 0.3 µm and MPPS   |   |   |
| Sound Emission (Typical)*   | NSF 49                       | <61 dBA  | <62 dBA   | <64 dBA   |
|   | EN 12469                     | <58 dBA  | <59 dBA   | <61 dBA   |
| Fluorescent Light Intensity At Zero Ambient                         |                              | > 800 lux (74 foot candles)  |   |   |
| Cabinet Construction  | Main Body                    | 1.5 mm (0.06") 16 gauge electro-galvanized steel with white oven-baked epoxy-polyester Isocide™ antimicrobial powder coated finish |   |   |
|   | Work Zone                    | 1.2 mm (0.05") 18 gauge stainless steel, type 304, with 4B finish  |   |   |
| Electrical**  | 220-240V, AC, 50Hz, 1Ø       | AC3-4B1  | AC3-5B1   | AC3-6B1   |
|   | Cabinet Full Load Amps (FLA) | 3 A  | 3 A   | 3 A   |
|   | Optional Outlets FLA         | 5 A  | 5 A   | 5 A   |
|   | Cabinet Nominal Power        | 361 W  | 430 W   | 455 W   |
|   | Cabinet BTU                  | 1232   | 1467  | 1553  |
|   | 110-120V, AC, 60Hz, 1Ø       | AC3-4B2  | AC3-5B2   | AC3-6B2   |
|   | Cabinet Full Load Amps (FLA) | 10 A   | 11.5 A  | 11.5 A  |
|   | Cabinet BTU                  | 1829   | 2000  | 2117  |
| Net Weight  |                              | 498 kg (1096 lbs)  | 598 kg (1316 lbs)                               | 676 kg (1487 lbs)                               |
| Shipping Weight   |                              | 606.5 kg / 1337 lbs  | 615 kg / 1356 lbs                               | 720 kg / 1587 lbs                               |
| Shipping Dimensions, Maximum (W x D x H)                            |                              | 2600 x 1950 x 1320 mm<br>102.4" x 76.8" x 52.0"  | 2600 x 2150 x 1320 mm<br>102.4" x 84.6" x 52.0" | 2600 x 2150 x 1320 mm<br>102.4" x 84.6" x 52.0" |
| Shipping Volume, Maximum  |                              | 6.69 m <sup>3</sup> (236 cu.ft.)   | 7.38 m <sup>3</sup> (261 cu.ft.)                | 7.38 m <sup>3</sup> (261 cu.ft.)                |

## Accessories for AC3 Biological Safety Cabinets

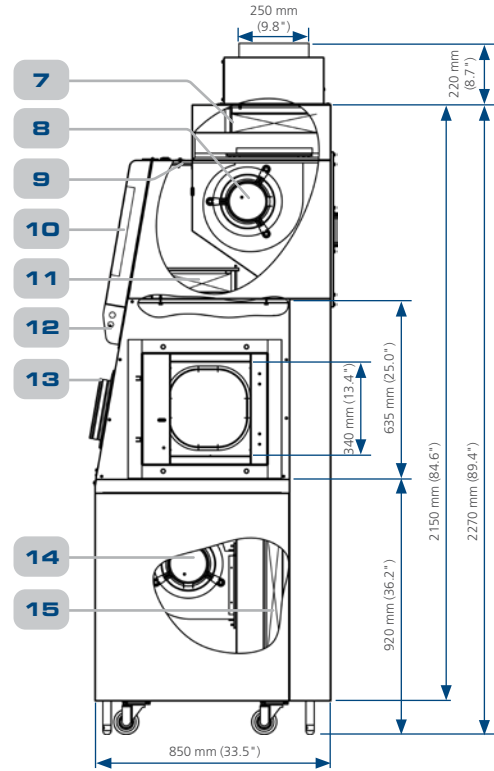
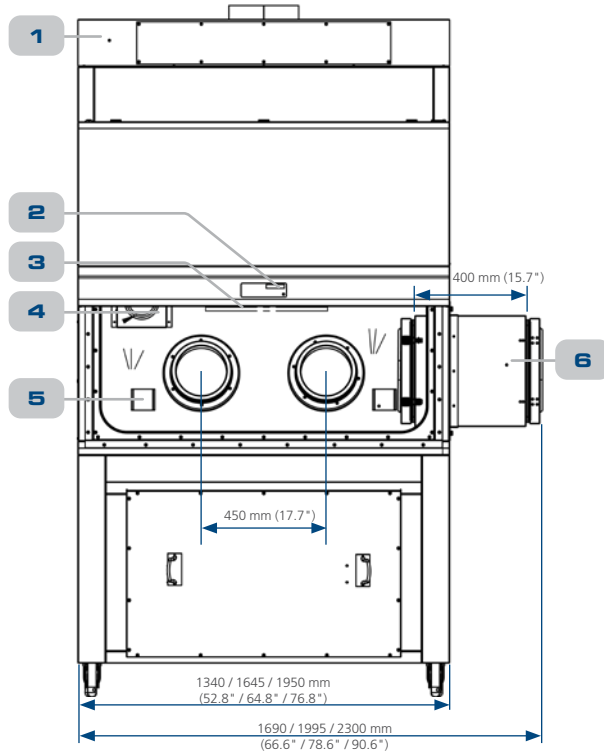
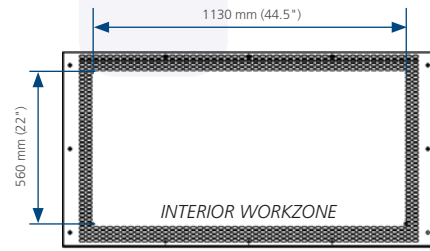
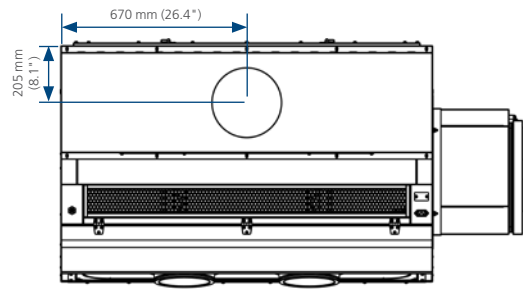
| Cabinet           | Stainless Steel Side Wall | AC3-4B1 (2010204)   | AC3-5B1 (2010207)   | AC3-6B1 (2010210)   |
|-------------------|---------------------------|---------------------|---------------------|---------------------|
| Exhaust Ducting   | Anti-blowback Valve       | ABBV-10P (5170352)  |                     |                     |
|                   | Exhaust Collar 10' dm     | ECO-AC34B (5170086) | ECO-AC35B (5170088) | ECO-AC36B (5170139) |
|                   | Air Tight Damper          | B2-Damper (5170104) |                     |                     |
| Work Zone         | Ultraviolet (UV) Lamp     | UV-15A (5170251)    | UV-30A (5170255)    |                     |
| Electrical Outlet | Direct Mounted            | EO-HD (5170036)     |                     |                     |

\* Noise reading in open field condition/ anechoic chamber.

\*\* Additional voltages may be available; contact Esco for ordering information.



# Airstream® Class III, Biological Safety Cabinets Engineering Drawing (AC3-4B)



- |  |                               |                                     |                               |
|--|-------------------------------|-------------------------------------|-------------------------------|
| 1. Exhaust Collar (Optional)                   | 4. Pressure Gauge             | 8. Second Exhaust Blower            | 12. Fluorescent Light         |
| 2. Esco Sentinel Microprocessor Control System | 5. Electrical Outlet          | 9. Pre-Filter                       | 13. Glove Ports               |
| 3. UV Lamp (Optional)                          | 6. Pass Box                   | 10. Electrical and Electronic Panel | 14. First Exhaust Blower      |
|  | 7. Second Exhaust ULPA Filter | 11. ULPA Filter (Downflow)          | 15. First Exhaust ULPA Filter |

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