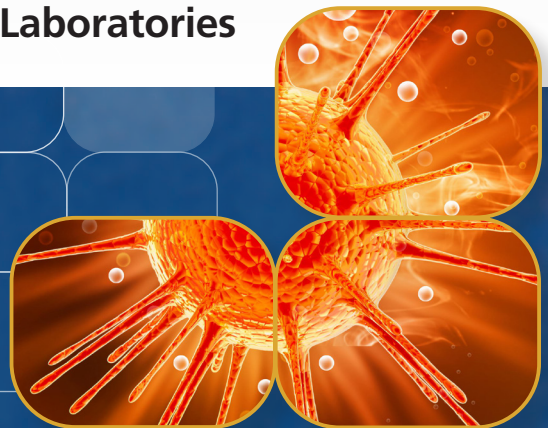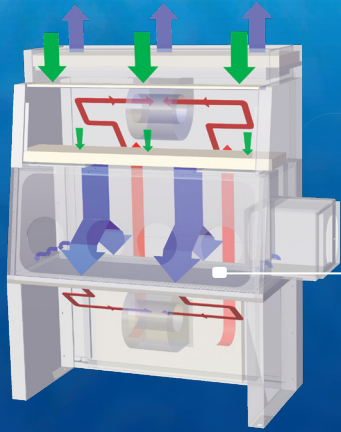# Airstream®

Airstream® Class lll, Biological Safety Cabinet,
Model: AC3-4B_.

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**

Available in 1.2, 1.5, and 1.8 meter models (4', 5', and 6'). Shown with optional telescoping stand.

Neoprene™ Synthetic Arm-length Gauntlets

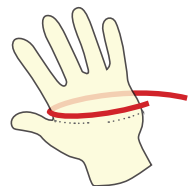- **Single piece, leak-tested assembly guarantees maximum protection and flame and abrasion resistant**

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.**
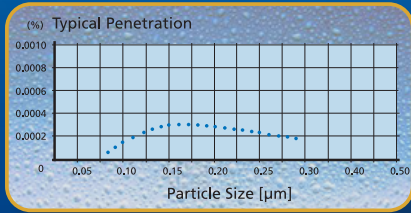- **Standard glove sizes available are 8 (standard size) and 9. Specify when ordering.**

ISOCIDE™   ULPA filter   cen EN12469

Standards Compliance	Biosafety Cabinets	For Air Quality	For Filtration	For Electrical Safety
	EN 12469, Europe	ISO 14644.1 Class 3, Worldwide	IEST-RP-CC034.1, Worldwide	IEC 61010-1, Worldwide
		IEST-G-CC1001, USA	IEST-RP-CC007.1, Worldwide	EN 61010-1, Europe
		IEST-G-CC1002, USA	IEST-RP-CC001.3, Worldwide	UL 61010-1, USA
			EN 1822 (H14), Europe	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**

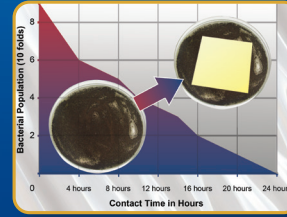■ **Creates ISO Class 3 work zone instead of industry-standard ISO Class 5**

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

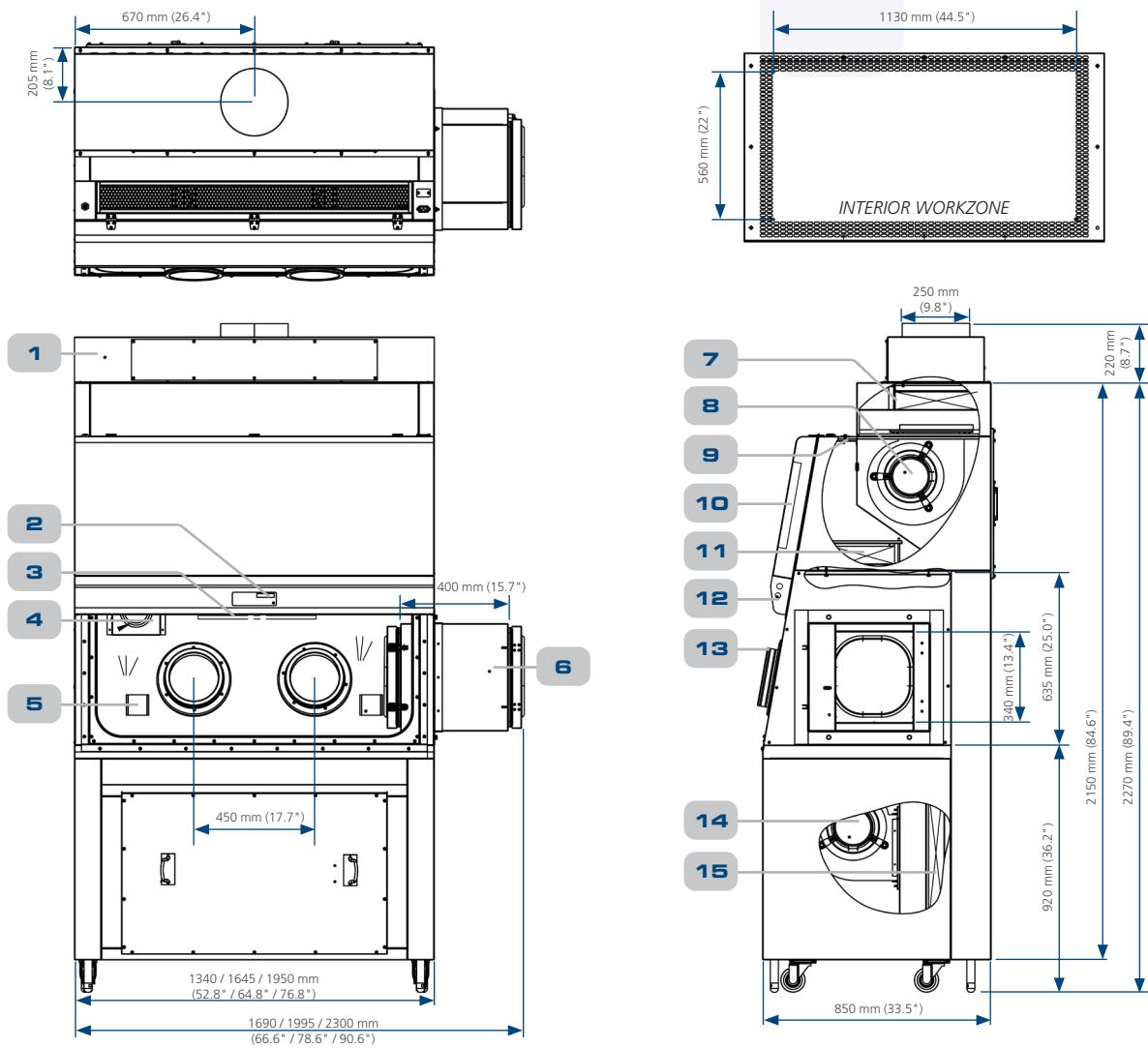| Model		AC3-4B__	AC3-5B__	AC3-6B__
Nominal Size		1.2 meter (4')	1.5 meter (5')	1.8 meter (6')
External Dimensions (W x D x H)		1690 x 850 x 2270 mm 66.6" x 33.5" x 89.4"	1995 x 850 x 2270 mm 78.6" x 33.5" x 89.4"	2300 x 850 x 2270 mm 90.6" x 33.5" x 89.4"
Internal Work Area, Dimensions (W x D x H)		1130 x 560 x 635 mm 44.5" x 22" x 25"	1430 x 560 x 635 mm 56.3" x 22" x 25"	1755 x 560 x 635 mm 69.1" x 22" x 25"
Internal Work Area, Space		0.63 m² (6.8 sq.ft)	0.80 m² (8.6 sq.ft)	0.98 m² (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 m³/h (355 cfm)	756 m³/h (445 cfm)	902 m³/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
LED 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
	Optional Outlets FLA	5 A	5 A	5 A
	Cabinet Nominal Power	536 W	586 W	620.5 W
	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 102.4" x 76.8" x 52.0"	2600 x 2150 x 1320 mm 102.4" x 84.6" x 52.0"	2600 x 2150 x 1320 mm 102.4" x 84.6" x 52.0"
Shipping Volume, Maximum		6.69 m³ (236 cu.ft.)	7.38 m³ (261 cu.ft.)	7.38 m³ (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)

Dimensions shown:
- 670 mm (26.4")
- 205 mm (8.1")
- 1130 mm (44.5")
- 560 mm (22")
- INTERIOR WORKZONE
- 250 mm (9.8")
- 220 mm (8.7")
- 400 mm (15.7")
- 340 mm (13.4")
- 635 mm (25.0")
- 2150 mm (84.6")
- 2270 mm (89.4")
- 450 mm (17.7")
- 920 mm (36.2")
- 1340 / 1645 / 1950 mm (52.8" / 64.8" / 76.8")
- 1690 / 1995 / 2300 mm (66.6" / 78.6" / 90.6")
- 850 mm (33.5")

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

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