Airstream®

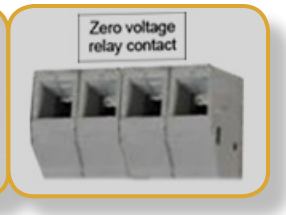
EN12469

Airstream Class I Biosafety Cabinet, Model AC1-4E8

Class I Microbiological Safety Cabinets

The Leading Energy Efficient, Quiet, and Ergonomic Biosafety Cabinet

ESCO
WORLD CLASS. WORLDWIDE.



RS 232 Port and Zero Volt Relay Contact

- *RS 232 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*

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*

Optional Secondary H14 or Carbon Filter

H14 Filter

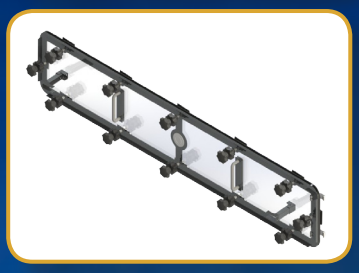
- *10x filtration efficiency of HEPA filter*

Easy to Clean Back Wall

- *Large back wall radius for easy cleaning*
- *With UV Lamp Provision*

Hinged Window

- *90° opening for an easy workzone access*
- *8 mm UV Resistant Polycarbonate Window*
- *Gasket-surrounded window to provide airtight seal for better safety.*

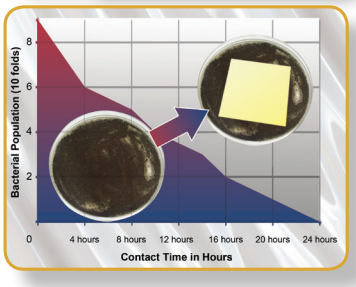


UV Door

- *Safety door against UV light*
- *Provides air-tight seal during decontamination*
- *Integrated with VHP Injection Port for easy connection to VHP/ HPV generator*

Work Top

- *1.2 mm (0.05") 18 gauge SS 304, 4B Finish*
- *Spill-retaining work top design with a recessed central area contains accidental liquid spills.*



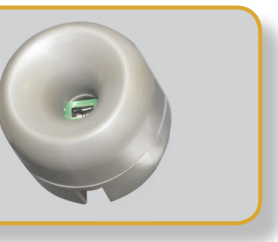
Isocide™ Powder Coat

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

Available in 1.2 meter / 4 ft width

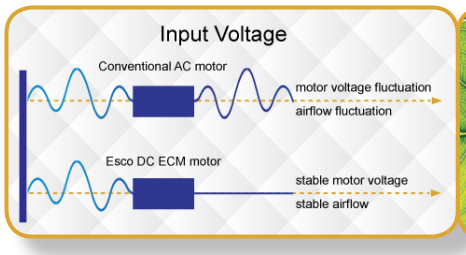
EN12469

Esco Class I Microbiological Safety Cabinets has been certified by PHE / Public Health England (formerly HPA) for compliance to EN 12469



Energy Efficient DC ECM Motor

- *70% Energy savings from AC motor*
- *Stable airflow, despite building voltage fluctuations*
- *Standby Mode to further reduce power consumption by 60%*



TECHNICAL SPECIFICATIONS

Model		AC1-4E8
External Dimensions (W x D x H)		1340 x 731 x 1395 mm (52.8" x 28.8" x 55.0")
Gross Internal Dimensions (W x D x H)		1220 x 660 x 670 mm (48.0" x 26.0" x 26.4")
Usable Work Area		0.76 m^2
Maximum Window Opening (at 90° opening)		565 mm (22.2")
Working Opening		203 mm (8")
Average Inflow Velocity		0.85 m/s (167 fpm)
Airflow Volume	Inflow	758 m^3/h (446 cfm)
	Exhaust	758 m^3/h (446 cfm)
	Required Exhaust with Optional Thimble Exhaust Collar	1219 m^3/h (717 cfm)
	Static Pressure for Optional Thimble Exhaust Collar	85 Pa (0.34 in H2O)
HEPA Filter Typical Efficiency		>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
Sound Emission in Typical Lab Room per EN 12469		48.4 dBA
Fluorescent Lamp Intensity (lux)		>1200 lux (>111 foot candles)
Cabinet Construction	Main body	1.2 mm (0.08") /18 gauge EG Steel with Isocide™ Oven-Baked Epoxy-Polyester Powder Coating
	Work Zone	Table: 1.2 mm (0.08") / 18 gauge, SS 304, 4B Finish
	Side Walls	5 mm (0.2") UV Absorbing Tempered Glass
Electrical	Cabinet Full Load Amps (FLA)	8.1
	Heat Load (BTU / Hr)	628
Nominal Power Consumption		184 W
Net Weight *		230 Kg (507 lbs)
Shipping Weight *		285 Kg (628 lbs)
Shipping Dimensions, Maximum (W x D x H)*		1450 x 820 x 1760 mm (57.1" x 32.3" x 67.6")
Shipping Volume, Maximum *		2.09 m^3

Accesories for AC1 Biological Safety Cabinets

Cabinet	Stainless Steel Side Wall	AC1-4E8 2010732
Optional Secondary Filter	Secondary H14 Filter	HP-AC1-4 5080138
	Secondary Carbon Filter	CRF/SEC-AC1-4 5080139
Exhaust Ducting	Exhaust Hard Ducting (with VHP out Port)	EHD AC1-4 5170666
	Anti-blowback Valve 10"	ABBV-10P 5170352
	Tri-safe Exhaust Collar with Alarm	TEM-4 2010606
	Exhaust Damper	B2-DAMPER 5170352
Hydrogen Peroxide Decontamination Kit	UV Door (with VHP In Port)	UV DOOR AC1-4 5090044
	VHP Out Top Box for Cabinet WITHOUT Exhaust Collar Installed (Ø 1")	VHP OUT TOP BOX 4ft 5170665
Work Zone	UV Lamp	UV-30A-L 5170255
	IV Bar	IV-1215 5170231
	Pre-filter	PF-25 5090045
Electrical Outlet	Universal	EO-UNI 5170060
Service Fixtures	EU SF-Gas-20 mm	SF-1G20 5170410
	EU SF-Vacuum-20 mm	SF-1V20 5170457
	EU SF-Air-20 mm	SF-1A20 5170502
	EU SF-Nitrogen-20 mm	SF-1N20 5170503
	EU SF-Water-20 mm	SF-1W20 5170458
	EU SF-Universal-22 mm	SF-2U22 5170504
Support Stands, Ships Flat	Fixed Stand with Leveling Feet, 28" height	SAL-4A0 Gen 2 5130134
	Fixed Stand with Leveling Feet, 34" height	SAL-4B0 Gen 2 5130175
	Fixed Stand with Caster Wheels, 28" height	SPC-4A0 Gen 2 5130152
	Fixed Stand with Caster Wheels, 34" height	SPC-4B0 Gen 2 5130166
	Motorized Height Stand with Caster Wheels	SPM-4A_
Misc	IQ OQ Protocol	9010179

Standards Compliance	Biological Safety Cabinets	Filtration	Electrical Safety
	EN 12469, Europe SANS12469, South Africa	EN-1822 (H14), Europe IEST-RP-CC001.3, USA IEST-RP-CC007, USA IEST-RP-CC034.1, USA	IEC61010-1, Worldwide EN-61010-1, Europe

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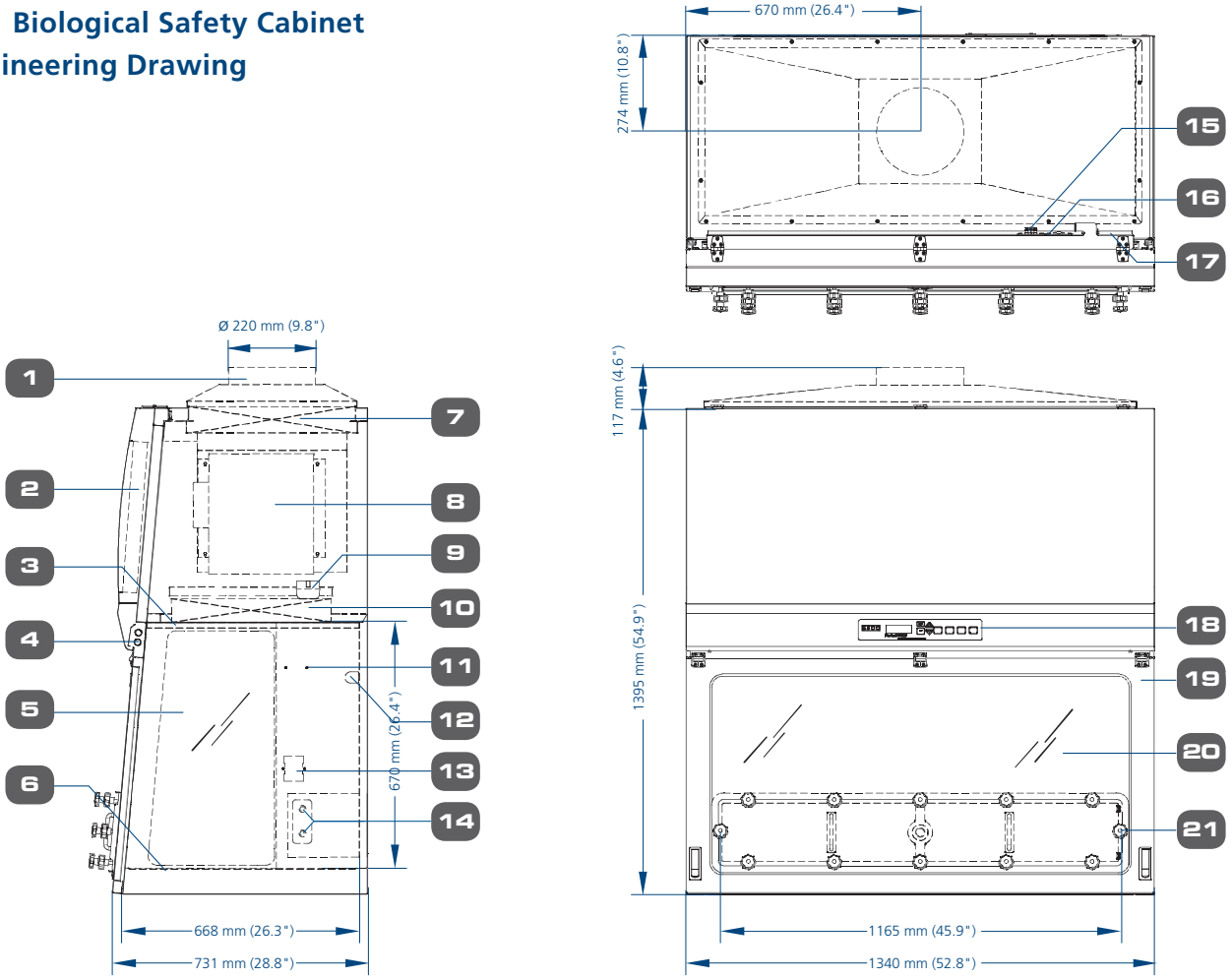
AC1 Biological Safety Cabinet
Engineering Drawing



1. *Exhaust Ducting (optional)*
2. *Electrical Panel*
3. *Diffuser / Optional Pre-filter*
4. *T5 Fluorescent Lamps*
5. *Side Tempered Glass*
6. *Stainless Steel Table*
7. *Optional Secondary H14 Filter / Carbon filter)*
8. *DC ECM Blower*
9. *Inflow Sensor*
10. *Main H14 Filter*
11. *IV Bar Retrofit Kit Provision*
12. *UV Lamp Provision*
13. *Standard Electrical Outlet Kit Provision*
14. *Service Fixtures Kit Provision (2 on each side)*
15. *2 Sets Zero Volt Relay Contact*
16. *RS 232 Port*
17. *Power Inlet*
18. *Sentinel™ Gold Microprocessor System*
19. *Hinged Front Door*
20. *8 mm UV Resistant Polycarbonate Window*
21. *Air Tight UV / Decontamination Panel*

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
Laminar Flow Clean Benches
PCR Cabinets
PCR Thermal Cyclers
Powder Weighing Balance Enclosures
Ultra-low Freezers

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