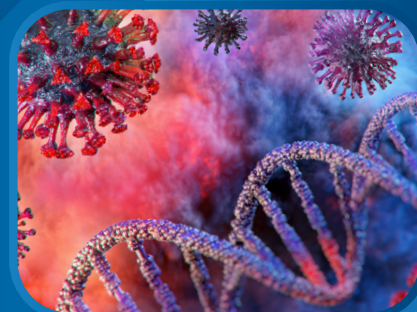




Airstream® G4

Class II Type A2 Biological Safety Cabinets

*The Leading Energy-efficient, Quiet,
and Ergonomic Biosafety Cabinet in the World*





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 Touchscreen Controller

- 7" Capacitive Touch Screen, intuitive to use like phones
- Displays key safety information graphically on one screen
- Built-in guide to use the cabinet and respond to situations
- Centered and angled down for easy reach & viewing
- Datalogger to assist diagnostics and send info to BMS
- Optional: 21 CFR Part 11 Compliance



One-Piece Interior Wall

- Double layer side walls with negative pressure
- Easy to reach service fixture and outlets
- Large radius corner for easy cleaning



Unique Stainless Steel (S-Series) and Glass Hybrid (E-Series) Wall

- Large corner radius for easy cleaning
- Easy to reach service fixture and outlets



Removable Paper Catch

- Easy-to-clean
- Optional pre-filter can be fitted



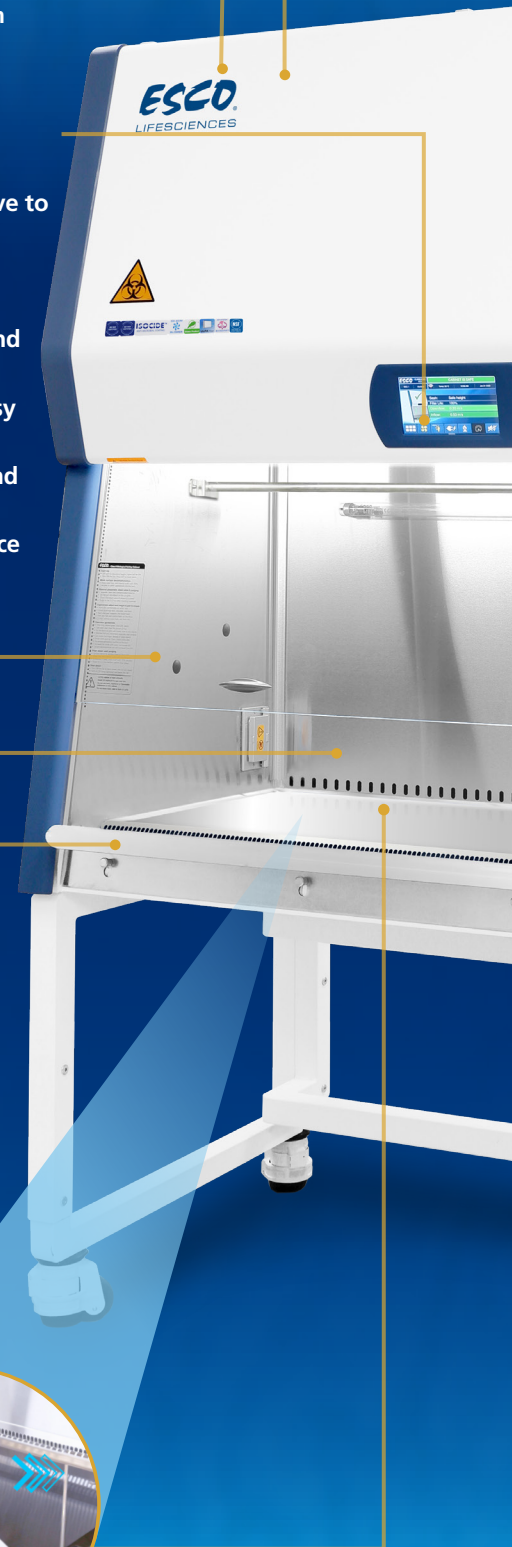
Raised Ergonomic Arm Rest

- Helps prevent grille blocking
- Comfortable working posture



Dished Work Tray

- Contains spillage
- Angled edge for easy cleaning
- V-shaped grille to prevent blocking
- Work tray holder for drain pan cleaning



Available in 0.9, 1.2, 1.5, and 1.8 meter width (3', 4', 5', and 6')





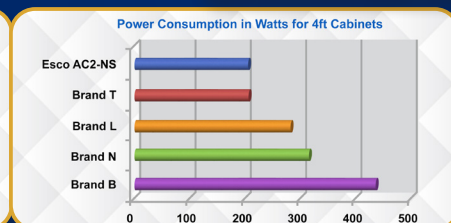
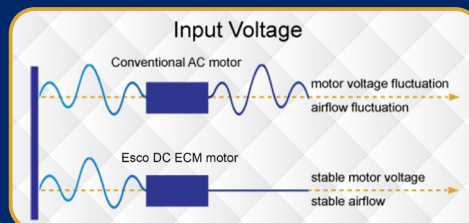
Airflow Sensor

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



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 60%

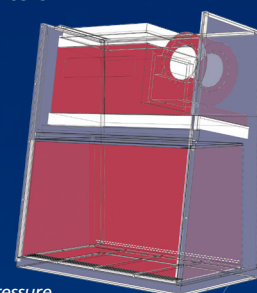


ULPA Filter

- 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

Dynamic Chamber™

- Blower plenum and side walls are surrounded by negative pressure
- Prevents contaminants from escaping outside
- Steel plenum with Isocide™ coating, instead of flexible bag plenum, to prevent contamination leak



Positive pressure
Negative pressure

User Modified Pass-Through / Cable Port

- 3" Port with 1/4" hole on rubber membrane inside
- NSF-approved. Surrounded by negative pressure
- Allows cables and tubes to exit with fully closed sash



Angled Sash

- 10° angled front to optimize user comfort, reduce glare and maximize reach into the work area



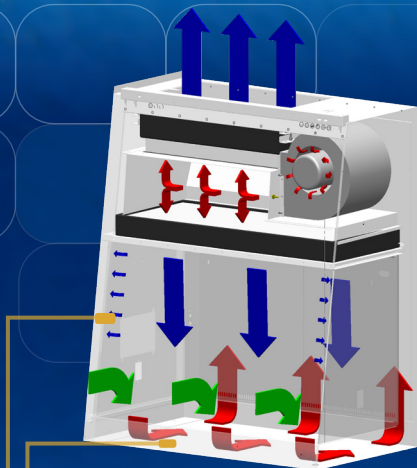
ISOCIDE™ Powder Coat

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

| Standards Compliance and Certifications | | | | |
|---|---|---|---|-------------------------------------|
| Performance | Air Quality | Filtration | Electrical Safety | Electromagnetic Compatibility (EMC) |
| NSF / ANSI 49 | ISO 14644.1, Class 3, Worldwide, US Fed Std 209E, Class 1 USA JIS B9920, 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 | EN IEC 61326-1 Group 1 / Class A |

Note: All units are NSF/ANSI 49 Certified except AC2-359-NS G4 10"

Cabinet Filtration System



Dynamic air barrier, where inflow and downflow converge

Side capture zones

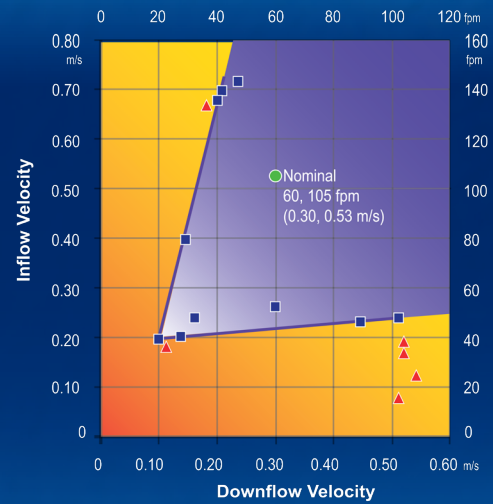
ULPA-filtered air

Unfiltered / potentially contaminated air

Room air / Inflow air

- Ambient air is pulled through front grille to create inflow, without going into the work surface. Inflow is joined by half of the downflow, to create front air curtain that is fine-tuned to create a large performance envelope. The combined air stream travels through the back air column towards the blower.
- Approximately $\frac{1}{4}$ of the air in the common plenum is exhausted through the ULPA filter to the room. The remaining $\frac{3}{4}$ of the air is passed through the downflow ULPA filter and into the work area as a vertical laminar flow air to create ISO Class 3 work surface and prevents cross contamination.
- Near the work surface, the downflow splits. About half goes to the front grille, and half goes to the rear grille. A small portion enters the side capture zones to prevent dead air corners (small blue arrows).
- The design was optimized to give large performance envelope, that provides operator and product protection at wide Inflow and Downflow variation from the Nominal point.

The Performance Envelope Concept



Nominal Airflow

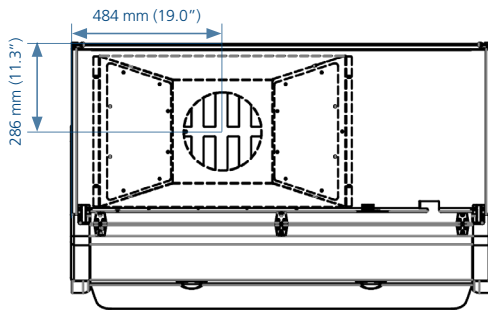
Personnel / Product Protection

Area of Personnel and Product Protection

NO Personnel / Product Protection

Area of NO Personnel and Product Protection

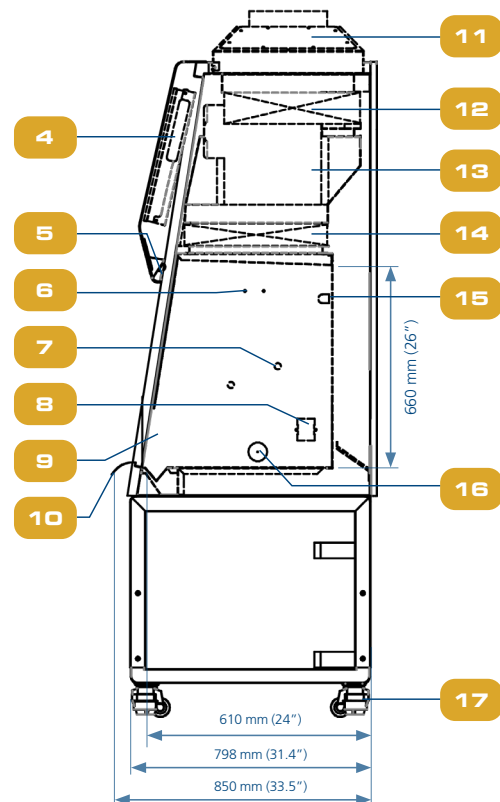
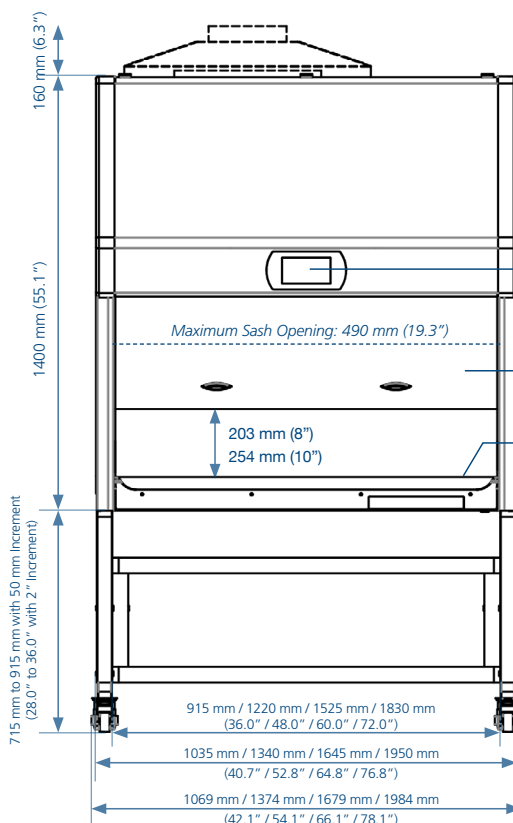
Engineering Drawing



- Centurion 7" Touchscreen Control System
- Tempered Glass - Sliding Sash Window
- Stainless Steel Dished Work Tray
- Electrical/Electronic Panel
- Dimmable LED lamp
- Provision for IV Bar (Optional)

- Service Fixture Retrofit Kit Provision
- Electrical Outlet (Max. 5 Amp Total)
- Stainless Steel Side Wall
- Stainless Steel Curved Armrest
- Exhaust Collar (Optional)
- Exhaust ULPA (H14) Filter

- ECM Blower
- Downflow ULPA (H14) Filter
- UV Lamp
- Cable Port
- Caster wheel - Leveling Feet Combo



TECHNICAL SPECIFICATIONS

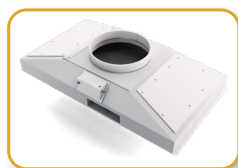
| Model | Stainless Steel Side Walls | 8" Sash Opening | AC2-3S9-NS G4 8" 2011429 | AC2-4S9-NS G4 8" 2011403 | AC2-5S9-NS G4 8" 2011431 | AC2-6S9-NS G4 8" 2011433 |
|--|---|----------------------------|---|--|--|--|
| | | 10" Sash Opening | AC2-3S9-NS G4 10" 2011926 | AC2-4S9-NS G4 10" 2011927 | AC2-5S9-NS G4 10" 2011928 | AC2-6S9-NS G4 10" 2011929 |
| | Glass Hybrid Side Walls | 8" Sash Opening | AC2-3E9-NS G4 8" 2011421 | AC2-4E9-NS G4 8" 2011423 | AC2-5E9-NS G4 8" 2011425 | AC2-6E9-NS G4 8" 2011427 |
| Nominal Size | | | 0.9 meter (3') | 1.2 meter (4') | 1.5 meter (5') | 1.8 meter (6') |
| External Dimensions (W x D x H) | | | 1035 x 850 x 1400 mm (40.7" x 33.5" x 55.1") | 1340 x 850 x 1400 mm (52.8" x 33.5" x 55.1") | 1645 x 850 x 1400 mm (64.8" x 33.5" x 55.1") | 1950 x 850 x 1400 mm (76.8" x 33.5" x 55.1") |
| Gross Internal Dimensions (W x D x H) | | | 915 x 610 x 660 mm (36.0" x 24.0" x 26.0") | 1220 x 610 x 660 mm (48.0" x 24.0" x 26.0") | 1525 x 610 x 660 mm (60.0" x 24.0" x 26.0") | 1830 x 610 x 660 mm (72.0" x 24.0" x 26.0") |
| Usable Work Area | | | 0.45 m² (4.9 ft²) | 0.6 m² (6.5 ft²) | 0.75 m² (8.2 ft²) | 0.9 m² (9.8 ft²) |
| Working Opening | | | 203 mm (8") / 254 mm (10") | | | |
| Maximum Opening | | | 490 mm (19.3") | | | |
| Average Inflow Velocity | | | 105 fpm (0.53 m/s) | | | |
| Average Downflow Velocity | | | 60 fpm (0.30 m/s) | | | |
| Airflow Volume | Inflow / Exhaust Without Ducting | 8" Sash Opening | 356 cmh (210 cfm) | 473 cmh (280 cfm) | 593 cmh (350 cfm) | 709 cmh (417 cfm) |
| | | 10" Sash Opening | 446 cmh (263 cfm) | 594 cmh (350 cfm) | 744 cmh (438 cfm) | 891 cmh (525 cfm) |
| | Downflow | 8" Sash Opening | 566 cmh (333 cfm) | 751 cmh (442 cfm) | 942 cmh (554 cfm) | 1127 cmh (663 cfm) |
| | | 10" Sash Opening | 566 cmh (333 cfm) | 751 cmh (442 cfm) | 942 cmh (554 cfm) | 1127 cmh (663 cfm) |
| | Required Exhaust with Optional Thimble Exhaust Collar | 8" Sash Opening | 390 cmh (230 cfm) | 526 cmh (310 cfm) | 627 cmh (369 cfm) | 780 cmh (459 cfm) |
| | | 10" Sash Opening | 614 cmh (362 cfm) | 647 cmh (382 cfm) | 786 cmh (463 cfm) | 948 cmh (559 cfm) |
| | Static Pressure For Optional Thimble Exhaust Collar | 8" Sash Opening | 15-25 Pa (0.06-0.10 in H ₂ O) | 25-35 Pa (0.10-0.14 in H ₂ O) | 25-35 Pa (0.10-0.14 in H ₂ O) | 45-55 Pa (0.18-0.22 in H ₂ O) |
| | | 10" Sash Opening | 20-30Pa (0.08-0.12 in H ₂ O) | 30-40Pa (0.12-0.16 in H ₂ O) | 35-45Pa (0.14-0.18 in H ₂ O) | 50-60Pa (0.20-0.24 in H ₂ O) |
| ULPA 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 per NSF / ANSI 49* | | | 55.8 dBA | 59.5 dBA | 59.8 dBA | 62.8 dBA |
| LED Lamp Light Intensity | | | 117 foot candles (1260 lux) | 122 foot candles (1313 lux) | 113 foot candles (1216 lux) | 114 foot candles (1227 lux) |
| Cabinet Construction | Main Body | | 1.2 mm (0.05") / 18 gauge EG Steel with Isocide™ Oven-Baked Epoxy-Polyester Anti-microbial Powder Coating | | | |
| | Work Zone | | 1.5 mm (0.06") / 16 gauge, Stainless Steel 304, 4B finish | | | |
| | Side Walls | Stainless Steel (S Series) | 1.5 mm (0.06") / 16 gauge, Stainless Steel 304, 4B finish | | | |
| | | Glass Hybrid (E Series) | 6 mm thickness UV-absorbing Tempered Glass | | | |
| | Sash Glass Material | | 6 mm thickness UV-absorbing Tempered Glass | | | |
| Electrical** 110-130 VAC, 50/60 Hz | Nominal Power Consumption (W) | | 132 | 184 | 242 | 333 |
| | | | 148 | 180 | 255 | 338 |
| | Heat Load (BTU / Hr) | | 450 | 628 | 826 | 1136 |
| | | | 505 | 614 | 870 | 1153 |
| | Cabinet Full Load Amps (FLA) | | 15 | 15 | 15 | 15 |
| | | | 15 | 15 | 15 | 15 |
| Net Weight | | | 203 Kg (448 lbs) | 245 Kg (540 lbs) | 303 Kg (668 lbs) | 361 Kg (796 lbs) |
| Shipping Weight | | | 231 Kg (509 lbs) | 300 Kg (661 lbs) | 369 Kg (814 lbs) | 443 Kg (977 lbs) |
| Shipping Dimensions, Maximum (W x D x H) | | | 1200 x 850 x 1950 mm (47.2"x 33.5" x 76.8") | 1450 x 850 x1 950 mm (57.1" x 33.5" x 76.8") | 1720 x 850 x 1950 mm (67.7" x 33.5" x 76.8") | 2050 x 850 x 1950 mm (80.7" x 33.5" x 76.8") |
| Shipping Volume | | | 2.0 m3 (70.64 f3) | 2.5 m3 (88.2 f3) | 3.0 m3 (105.9 f3) | 3.6 m3 (127.1 f3) |

Disclaimer: Technical Specifications may be subjected to further changes without prior notice.

*Noise reading in open field condition / 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.

**Electrical power consumption is an measurement of new unit with clean filter operated within nominal setpoint. Result per unit may vary.

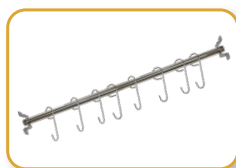
| Options and Accessories | | | | | |
|-------------------------|--|-------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhaust Collar | | ECO-F-LA2/AC2-3 G4 5171097 | ECO-F-LA2/AC2-4 G4 5171098 | ECO-F-LA2/AC2-5 G4 5171099 | ECO-F-LA2/AC2-6 G4 5171100 |
| Exhaust Damper | | DAMPER-10 5170104 | | | |
| UV Lamp | | UV-15A-L 5170251 | UV-30A-L 5170255 | | |
| IV Bar | | IV-955 5170499 | IV-1215 5170231 | IV-1520 5170500 | IV-1870 5170501 |
| Electrical Outlet | GFCI | EO-GFCI 5170071 | | | |
| Service Fixtures | US SF-Universal-20 mm | SF-2U22 5170504 | | | |
| Support Stand | Telescoping Stand with Caster Wheels | STA-3A0 5131340 | STA-4A0 5131341 | STA-5A0 5131427 | STA-6A0 5131389 |
| | Motorized Stand Height with Levelling Feet | SPML-3A2 5131503 | SPML-4A2 5131504 | SPML-5A2 5131505 | SPML-6A2 5131506 |
| | Motorized Stand Height with Levelling Feet and Seismic Bracket | | SPML-4A2-SB 5131403 | SPML-5A2-SB 5131443 | SPML-6A2-SB 5131404 |
| | Motorized Stand Height with Caster Wheels | SPMC-3A2 5130093 | SPMC-4A2 5130047 | SPMC-5A2 5130100 | SPMC-6A2 5131141 |
| | Motorized Stand with Castors Cradle | | SLC-4A2 G4 with 20" piston 5131441 | SLC-5A2 G4 with 20" piston 5131447 | SLC-6A2 G4 with 20" piston 5131440 |
| Pipette Storage Shelf | | 5260327 | | | |
| Arm Rest Padding | | MEWREST 5170127 | | | |
| Foot Rest | | FT-REST 5170492 | | | |
| Laboratory Chair | | ME-LD-AR360 1150006 | | | |
| IQOQ Protocol | | 9010179 | | | |



ECO-F-LA2-4 G4



UV-_A-L



IV-_



EO-GFCI



SF-2U-22



STA-_A0



SPML-_A2



SPMC-_A2



SLC-_A2 G4 20"



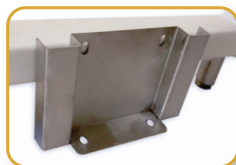
Pipette Storage Shelf



MEWREST



FT-REST



Seismic Bracket



ME-LD-AR360



IQOQ



LIFESCIENCES GROUP

Life Science Tools



Biological Safety Cabinets



Laminar Flow Cabinet



Animal Workstations



CO₂/O₂ Incubators

Chemical Research



Ducted Fume Hoods



Ductless Fume Hoods



USP 797 / 800
Compliant Isolators



Powder Containment
Workstations

Pharma Compounding

Medical (IVF)



Multi-room Incubators



Time-Lapse Incubators



IVF Workstations

PCR



PCR Workstations

Bioprocessing



Bioreactors

Pharmaceutical



cGMP and Filling Line Isolators



Air Showers and Pass Boxes



Downflow Booths

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