

Streamline® G4

Class II Biological Safety Cabinets

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





STREAMLINE® G4 (SC2 G4) CLASS II BIOSAFETY CABINE



USB Port —

- Export Data Logging
- Software Update
- Wired data transaction to BMS



Centurion Touchscreen Controller

- 7" capacitive touchscreen, intuitive to use by user with gloves
- 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



One-Piece Interior Wall

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

Unique Side Walls —

- Large corner radius for easy cleaning
- Glass hybrid wall is available (E-Series)
- Isocide[™] coating Epoxy side wall is available (S-Series)
- Hole-free side glass for increased safety



Removable Paper Catch

- Prolong the main filter life
- Easy to clean
- Optional pre-filter can be fitted



Raised Ergonomic Arm Rest

- Helps prevent grille blocking
- Comfortable working posture





ESCO





T, FEATURING ADVANCED TOUCHSCREEN CONTROLLER



Airflow Sensor

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



Advanced Filtration System

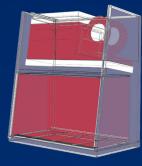
- Creates ISO Class 3 work zone instead of industry-standard ISO Class 5
- Long 10 years filter life for lower operating cost

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



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

ISOCIDE™ Powder Coat

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



Angled Sash

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

Dished Work Tray

- Contains spillage
- Angled edge for easy cleaning
- Work tray holder underneath for seamless drain pan cleaning



Standards Compliance and Certifications							
Biosafety Cabinets	Air Quality	Filtration	Electrical Safety				
EN 12469	ISO 14644.1, Class 3, Worldwide, US Fed Std 209E, Class 1 USA JIS B9920, Class 3, Japan BS 5295, Class 3, UK	EN-1822 (H14), Europe IEST-RP-CC001, USA	IEC/EN 61010-1				

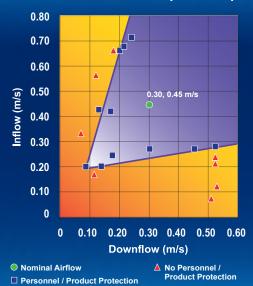


Dynamic air barrier, where inflow and downflow converge Side capture zones

Cabinet Filtration System

- 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 % of the air in the common plenum is exhausted through the filter to the room. The remaining % of the air is passed through the downflow 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 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.

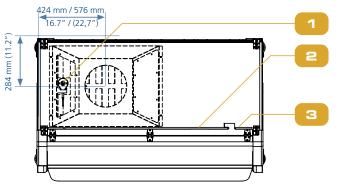
The Performance Envelope Concept



Engineering Drawing

Room air / Inflow air

Unfiltered / potentially contaminated air



- 1. Exhaust Sensor
- 2. USB Port for data transfer
- 3. Power Inlet
- 4. Centurion 7" Touchscreen Control System

Area of Personnel / Product Protection

- 5. Tempered Glass Sliding Sash Window
- 6. Stainless Steel Dished Work Tray
- 7. Data Plate
- 8. Electrical panel
- 9. Dimmable LED lamp

- 10. Provision for optional IV Bar
- 11. Stainless Steel Milti-piece Work Tray

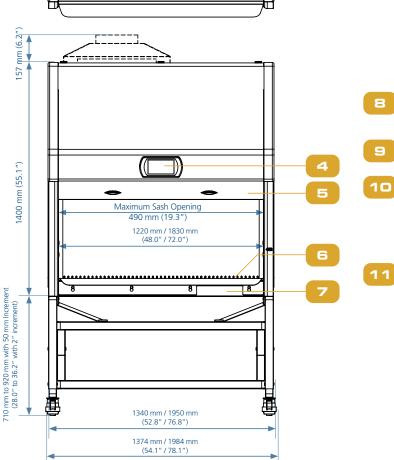
Area of no Personnel /

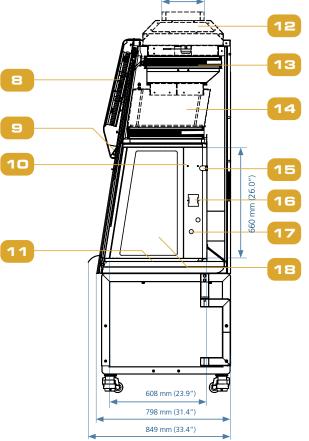
Product Protection

- 12. Optional Exhaust Collar
- 13. Exhaust Filter
- 14. Downflow Filter
- 15. Optional UV Lamp
- 16. Electrical Outlet

250 mm (9.8")

- 17. Service Fixture Retrofit Kit Provision
- 18. Stainless Steel / Glass Side Walls





TECHNICAL SPECIFICATIONS		230 V, 50 HZ		230 V, 60 HZ		
S-Series Stainless Steel Side Walls		SC2-4S1 G4 2011575	SC2-6S1 G4 2011577	SC2-4S3 G4 2011576	SC2-653 G4 2011578	
E-Series Tempered Glass Side Walls		SC2-4E1 G4 2011571	SC2-6E1 G4 2011573	SC2-4E3 G4 2011572	SC2-6E3 G4 2011574	
Nominal Size		1.2 meter (4')	1.8 meter (6')	1.2 meter (4')	1.8 meter (6')	
External Dimensions with armrest (W x D x H)		1340 x 850 x 1400 mm (52.8" x 33.5" x 55.1")	1950 x 850 x 1400 mm (76.8" x 33.5" x 55.1")	1340 x 850 x 1400 mm (52.8" 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)		1220 x 610 x 661 mm (48.0" x 24.0" x 26")	1830 x 610 x 661 mm (72.0" x 24.0" x 26")	1220 x 610 x 661 mm (48.0" x 24.0" x 26")	1830 x 610 x 661 mm (72.0" x 24.0" x 26")	
Usable Work Area		0.55 m² (5.9ft²)	0.87 m² (9.3 ft²)	0.55 m² (5.9ft²)	0.87 m² (9.3 ft²)	
Tested Opening		175 mm (6.9")				
Maximum Opening		490 mm (19.3")				
Average Inflow Velocity		0.45 m/s (90 fpm)				
Average Downflow	v Velocity	0.32 m/s (63 fpm)				
	Inflow	96 cmh (56.5 cfm)	144 cmh (84.8 cfm)	96 cmh (56.5 cfm)	144 cmh (84.8 cfm)	
Airflow Volume	Downflow	815 cmh (480 cfm)	1223 (720 cfm)	815 cmh (480 cfm)	1223 (720 cfm)	
	Total Airflow	911 cmh (536 cfm)	1367 cmh (805 cfm)	911 cmh (536 cfm)	1367 cmh (805 cfm)	
Advanced Filtration	Exhaust	>99.999% at 0.1 to 0.3 micron, ULPA as per IEST-RP-CC001.3 USA				
Efficiency Downflow		>99.999% at MPPS, H14 as per EN 1822 EU				
Sound Emission per EN12469*		60.2 dBA	61.5 dBA	60.2 dBA	61.5 dBA	
Light Intensity		more than 1000 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	S-Series: 1.5 mm (0.06") / 16 gauge, stainless steel 304, 4B finish E-Series: UV-absorbing tempered glass, 6 mm (0.2"), transparent				
	Sash Glass Material	6 mm thickness UV-absorbing Tempered Glass				
Electrical**	Cabinet Full Load Amps (FLA)	10 A				
	Heat Load (BTU)	894	1911	1126	2695	
Nominal Power Consumption		262	560	330	790	
Net Weight		255 kg (562 lbs)	338 kg (745 lbs)	255 kg (562 lbs)	338 kg (745 lbs)	
Shipping Weight		323 kg (712 lbs)	430 kg (948 lbs)	323 kg (712 lbs)	430 kg (948 lbs)	
Shipping Dimensions, Maximum (W x D x H)		1450 x 850 x 1950 mm (57.1" x 33.5" x 76.8")	2050 x 850 x 1950 mm (80.7" x 33.5" x 76.8")	1450 x 850 x 1950 mm (57.1" x 33.5" x 76.8")	2050 x 850 x 1950 mm (80.7" x 33.5" x 76.8")	
Shipping Volume		2.5 m³ (88.2 f³)	3.6 m³ (127.1 f³)	2.5 m³ (88.2 f³)	3.6 m³ (127.1 f³)	



Specifications are subject to change without 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 a measurement of new unit within nominal set point. Result may vary due to several independent variables.

Options and Accessories							
Model	SC2-4S1 G4 2011575	SC2-6S1 G4 2011577	SC2-4S3 G4 2011576	SC2-6S3 G4 2011578			
	SC2-4E1 G4 2011571	SC2-6E1 G4 2011573	SC2-4E3 G4 2011572	SC2-6E3 G4 2011574			
UV Lamp	UV-30A-L 5170255						
IV Bar	IV-1215 5170231	IV-1825 5170501	IV-1215 5170231	IV-1825 5170501			
Support Stand w/ Castors wheel and levelling feet (28" and 36")	STA-4A0 5131341	STA-6A0 5131389	STA-4A0 5131341	STA-6A0 5131389			
EU SF 20mm	Gas (5170410) Air (5170502) Water (5170458) Vacuum (5170457) Nitrogen (5170503)						
US SF – Universal – 22mm	SF-2U22 5170504						
Solenoid Gas Valve	SOLENOID VALVE FITTING 5075239						
Copper Piping	5170026						
Thimble Exhaust Collar	ECO-SC2-4FT G4 5171249	ECO-SC2-6FT G4 5171317	ECO-SC2-4FT G4 5171249	ECO-SC2-6FT G4 5171317			
Anti-blowback Valve 10"	B2-ABBV1 (5170129) / ABBV-10S (5170354)						
Exhaust Damper	DAMPER 5170104						
Front Decon cover with VHP IN PORT	FRONT DECON COVER VHP IN PORT LA2LR2VA2AC2AR2-4-G4 5171323	FRONT DECON COVER VHP IN PORT LA2LR2VA2AC2AR2-6-G4 5171327	FRONT DECON COVER VHP IN PORT LA2LR2VA2AC2AR2-6-G4 5171327	FRONT DECON COVER W/ VHP IN PORT AC2-5-G4 5171325			
Top Decon cover with VHP OUT PORT	TOP DECON COVER VHP OUT LA2LR2VA2AC2AR2-4-G4 5171324	TOP DECON COVER VHP OUT LA2LR2VA2AC2AR2-6-G4 5171328	TOP DECON COVER VHP OUT LA2LR2VA2AC2AR2-4-G4 5171324	TOP DECON COVER VHP OUT LA2LR2VA2AC2AR2-6-G4 5171328			
Thimble Exhaust Collar with VHP OUT (1" diameter)	ECO-W/ VHP-OUT SC2-4 G4 5171387	ECO-W/ VHP-OUT SC2-6 G4 5171388	ECO-W/ VHP-OUT SC2-4 G4 5171387	ECO-W/ VHP-OUT SC2-6 G4 5171388			
Arm Rest Padding	MEWREST 5170127						
Foot Rest	FT-REST 5170073						
IQOQ Protocol	Hardcopy 9010179 Softcopy 9010179-A						
FAT / SAT	RSR-020 / RSR-034						

Accessories



















LIFESCIENCES GROUP

Improving Lives through Science





- Animal Research Workstation
- Biological Safety Cabinet
- CO₂ Incubator
- Ducted Fume Hood
- Ductless Fume Hood
- Filtered Storage Cabinet
- Laboratory Centrifuge
- Laboratory Oven and Incubator
- Laboratory Refrigerator and Freezer
- Laboratory Shaker
- Laminar Flow Cabinet
- PCR Cabinet
- Powder Weighing Balance Enclosure
- Thermal Cycler
- Ultra-low Temperature Freezer









- Time-Lapse Incubator
- Benchtop Incubator
- ART Workstation
- CO₂ Incubator
- Anti-Vibration Table • Gas Analyser











Pharmaceutical Manufacturing, Pharmacy Compounding, and Bioprocessing Tools



























CRDMO Services

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