

ENVAIR LAB



Envair Lab SCS Evo Comfort+

Class II Microbiological Safety Cabinets



Envair SCS Evo Comfort + Class II Microbiological Safety Cabinets set the benchmark in laminar airflow technology, creating a new generation of laminar airflow systems. This is a jump into the future, going way beyond the strictest safety standards to deliver outstanding performance with low power consumption, noise level and CO2 emissions.



Envair SCS Evo Comfort + Class II Microbiological Safety Cabinets are designed and built to the performance requirements of the BS EN 12469: 2000 Standard, with 70% of the air re-circulated via the downflow H14 (EN1822) HEPA filter within the cabinet, whilst the remaining 30% is discharged through an exhaust H14 (EN1822) HEPA filter.

Featuring automatic regulation and microprocessor-based monitoring systems, these cabinets are suitable for handling micro-organisms and pathogens as defined by the appropriate European and other international standards, current health and safety guidelines and legislation, aimed at safeguarding both product and operators at work.

They are fitted with direct current (DC) double motor-fans and can, if required, discharge the filtered air outside the laboratory through a ducting system.

Applications

Envair SCS Evo Comfort + Class II Microbiological Safety Cabinets have been adopted worldwide for use in product, personnel and environmental protection whilst handling harmful agents pathogenic to human beings and/or animals. They operate in a wide range of disciplines, such as Microbiology, Virology, Haematology, Cell culture, Genetics, and the handling of hazardous agents.



EASY CLEANING / MAINTENANCE

Electrically operated safety glass sash window, the framework of which is also hinged and can be opened for easy access during cleaning and routine maintenance.

REMOVABLE WORK SURFACE

Work surface in stainless steel AISI 316L, consisting of sections which are easily removable for routine cleaning and/or autoclaving sterilization procedures, supplied as standard with solid multi-piece work surface.

SASH-HEIGHT OPENING

The standard working height of the sash is set to 160 mm. Alternative height setting (200-250 mm) available upon request.

HIGH LEVEL LIGHTING - LED TECHNOLOGY

Wide safety glass side-windows with the ideal positioning and size LED lighting system, provide the highest lighting level (> 1000Lux) within the work area. A dimmer is provided as standard to adjust light intensity.

EASY HANDLING AND MAINTENANCE

The safety cabinet can pass through 800 mm wide door openings. In addition, the overall depth of the cabinet can be reduced to approx. 790 mm by the removal of the rear panel. All service operations are conducted from the front of the cabinet.

ERGONOMIC DESIGN

The angled sloping front safety-glass and higher lighting level provide optimum visibility of all interior objects. The front glass is electrically operated, pressing the appropriate touch-sensitive keys will completely open or close the sash.

STABLE AIRFLOW PROVIDED BY DC BLOWERS AND ENVAIR ECS® MICROPROCESSOR

Envair SCS Evo Comfort + is fitted with direct current (DC) motorblowers and enhanced with innovative Envair ECS®- Eco Controlling System microprocessor control.

MOBILE UV STERILIZING LAMP

Mobile UV sterilizing lamp (optional) can be placed on the back wall, complete with three countdown timers – one fully programmable by the operator, one variable on a 0:3 hours scale (one minute steps), and one set to three fixed hours.

The User Friendly Practical Keyboard

The rear-lit LCD continuously displays vital data keeping the user informed of the cabinet conditions.

The display shows:

- Laminar airflow velocity and frontal air barrier velocity
- Inside and outside temperature
- Residual lifetime of HEPA filters, UV Lamp (if fitted)
- Total number of hours of operation
- Saturation level of HEPA filters

Audio-visual alarms are fitted for:

- Out of range or incorrect laminar airflow velocity and frontal air barrier velocity
- Incorrect position of front sash-window
- Saturation of the filters
- End of life-cycle of UV lamp (if fitted)
- Blockage in the exhaust duct
- Fan-motor malfunction
- Power failure



Applications

OUTLET FITTINGS

2 electrical sockets fitted as standard.

LOW PRESSURE DROP HEPA FILTERS

Innovative certified low pressure drop H14 (EN1822) HEPA filters tailored for the unit with increased media filtration for double filter lifetime. The filters are integrated with equaliser laminator sheet for superior air flow distribution to the work surface.

OUTSTANDING NOISE LEVEL - 42dB(A)

With its 42dB(A) of sound pressure level, Envair SCS Evo Comfort + is the most silent cabinet worldwide. Thanks to DC low power consumption motorblowers, innovative plenum design and certified low pressure drop H14 (EN1822) HEPA filters, Envair SCS Evo Comfort + records a noise level performance way below the parameters specified in the current BS EN 12469:2000 standard.

OPERATIONAL PRINCIPLES

The ambient air is drawn in from the slots at the stainless-steel base of the front opening, passing under the work surface, and is drawn up and blown into the plenum of the recirculating and exhaust fans.

The "bio-dynamic sealing system" of the negative pressure plenum ensures that all contaminated particles are kept inside the system and are automatically drawn to the plenum or pressure chamber to be captured by the main re-circulating and exhaust H14 (EN1822) HEPA filters.

The fan system ensures that no part of the cabinet ever comes under positive contaminated pressure, thus protecting the environment and operating personnel from exposure to agents of bio-contamination. 70% of the filtered air is recirculated (after passing through a H14 (EN1822) HEPA) in an ISO Class 3 laminar (unidirectional) flow pattern downwards into the work chamber and the remaining 30% is exhausted through another H14 (EN1822) HEPA filter.



Safety

Manufacturing truly “safe” cabinets depends entirely upon the quality of their design and components. The ENVAIR QUALITY AND SAFETY PROGRAM consists of a new set of standard operational procedures and manufacturing methods, which is applied to each and every step of the production processes aimed at fulfilling the highest standards of safety.

ANTI BACTERIAL COATING

Each ENVAIR cabinet is coated with exclusive Dupont™ ALESTA® anti-bacterial “Ag+cations-based solution”, capable of preventing microbial contamination of surfaces thereby inhibiting long term surface growth.

LOW NOISE LEVEL

The unique design and materials of the special plenum and filterhousing ensure a reduction in sound-pressure levels providing almost silent operation.

STAINLESS STEEL AISI 316L

The Envair SCS Evo Comfort + Microbiological Safety Cabinet is fitted with AISI 316L stainless steel work-surface.

REAL LAMINAR FLOW

The internal aerodynamic design of the structure of the chamber provides ideal laminar air-flow patterns, satisfying BS EN 12469:2000 European Standard.

Software

- Instant management and monitoring of operational parameters and automatic compensation system control by the new ECS® microprocessor.
- Software features easily programmable replacement of spare parts and filters
- Countdown timer integrated within the control board.
- Permanent record of all alarms and anomalies memorised by the control-board for the lifetime of the cabinet.
- One Push Restore menu, to reset the original factory calibration data.





Our Commitments:

New technology for low environmental impact

Fully aware that today's choices will determine tomorrow's world, we are convinced that technology must protect the environment to ensure continuing sustainable progress.

Respect for the environment motivates us to manufacture laminar-flow, cytotoxic drug safety cabinets and microbiological safety cabinets with ultra-low environmental impact, by utilising:

- Certified 'low pressure-drop' HEPA filters, providing up to 30% saving on power consumption
- Electronically controlled motor-blower with automatic pressure-drop compensation
- 99% recyclable components
- Innovative technologies, such as the new ECS® microprocessor



CERTIFICATIONS
ISO 9001 Certification



TAILOR-MADE CABINETS
Custom cabinets manufactured on request

ECS® MICROPROCESSOR MONITORING SYSTEM

Full status report provided via 2-line digital display by the new ECS® generation microprocessors, which automatically control all functions and all safety alarm systems ensuring that performances are maintained according to BS EN 12469:2000 requirements. High power lithium battery keeps safety data saved to microprocessor system.



CUSTOMER CARE
Prompt technical assistance by phone and mail – within 24 hours of the call
Hot-line for immediate technical assistance and feasibility study

Top Quality Components...

...Mean Outstanding Performances.



THE LOWEST POWER CONSUMPTION

Envair SCS Evo Comfort + offers outstanding energy efficiency performance with a power consumption value rated to 84, 4 Watt at operational mode.

This performance is achieved by combining innovative solutions such as DC blowers, low pressure drop H14 HEPA filters, low power consumption LED light and revolutionary Envair ECS® microprocessor.



THE LOWEST NOISE LEVEL

Envair SCS Evo Comfort + records unmatched sound pressure level of 42,5dB(A), thanks to special plenum design and certified low pressure drop H14 HEPA filters.



THE LOWEST CO2 EMISSIONS

Envair SCS Evo Comfort + boasts the lowest CO2 emission value equal to 163 Kg/year, as a result of advanced technical solutions and choice of materials.

Technical Specification



Description	Unit	SCS EVO 2-3	SCS EVO 2-4	SCS EVO 2-5	SCS EVO 2-6
Product Code		O00024900100	O00025200100	O00025500100	O00025800100
External Dimensions (W x H x D)	mm	1045x1500x860	1350x1500x860	1655x1500x860	1960x1500x860
Depth reduced to 780mm for delivery by simply removing the back panel					
Internal Dimensions (W x H x D)	mm	887x740x580	1192x740x580	1497x740x580	1802x740x580
Maximum front aperture	mm	440			
Working aperture	mm	160			
Weight	Kg	170	195	225	260
Noise level	dB (A)	42.5	42.5	51.8	54.2
Lighting level	Lux	>750			
Inflow	m/s	0.45			
Downflow	m/s	0.25			
Main voltage	V	230V AC 2P+T			
Frequency	Hz	50/60			
Current	A	4,5	4,63	5,1	5,5
LED Lighting	W	3x10	4x10	5x10	6x10
Electrical class		1			
Protection level		IP20			
Internal outlet (maximum current for all the sockets: 4A)		2P+T 230V 4A			



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Pricing on any accessories shown can be found by keying the part number into the search box on our website.

The specifications listed in this brochure are subject to change by the manufacturer and therefore cannot be guaranteed to be correct. If there are aspects of the specification that must be guaranteed, please provide these to our sales team so that details can be confirmed.

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Please contact us if this literature doesn't answer all your questions.