ENVAIR eco®

SCO GERMANY TECH

Microbiological Safety Cabinets

ENVAIR eco safe Basic Plus

Class	Microbiological Safety Cabinet	Standard	Breite (m)
II		EN 12469	0.9 / 1.2 1.5 / 1.8

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Clean technology for a clean environment

ENVAIR eco safe Basic Plus – the clean generation

ENVAIR eco safe Basic Plus Microbiological Safety Cabinets belong to the latest generation of laminar airflow systems, in which the choice of materials of construction of the highest quality guarantees
conformity to the strictest safety standards.

ENVAIR eco safe Basic Plus vertical laminar flow cabinets are Class II Microbiological Safety Cabinets - designed and built to performance requirements of the EN-12469: 2000 European Standard, with 70% of the air re-circulated via the main Class H14 HEPA filter within the cabinet, whilst the remaining 30% is discharged through an exhaust Class H14 HEPA filter.

Safety Cabinets with 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 health and safety of operators at work. ENVAIR eco safe Basic Plus Microbiological Safety Cabinets series are supplied with centrifugal fan to provide complete operator, product and environmental protection.

Multifunctional Keyboard
Speed Reduction

Electrical opening frontal screen
(optional aufklappbar)

incl. 1/2 electrical sockets

Powder-coated rear wall

Multi-piece stainless steel work surface
or single-piece

Safety glass side-window
with 3 cabinet elements ø 23mm

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Technology of today for the world of tomorrow

Fully aware that our choices of today will determine and shape our fates tomorrow, our company - ENVAIR - are convinced that technology must protect the environment to ensure a continuing sustainable progress.

Respect for the environment motivates ENVAIR to manufacture laminar-flow, cytotoxic drug safety cabinets and microbiological safety cabinets possessing ultra-low environmental impact, by utilizing:

- 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

ECO Controlling System (ECS)

The new ECS® microprocessor employs the latest innovative methods of integrated management of all the principal functions of ventilation and filtration - self-regulating all the main filtration and ventilation system components - compensating for declining pressure drops and restoring power balance. Combining the use of AC motorblowers and certified low pressure-drop filters, the new ECS® controlling system optimize power consumption, reducing CO_2 emissions into the environment.

Absolute safety for the operator

Manufacturing truly "safe" cabinets depends entirely on the quality of their design and components.

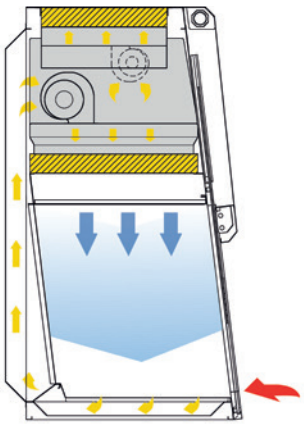
Hardware

- Anti bacterial coating
- Low noise level
- Stainless steel AISI 316L
- Real Laminar Flow

Software

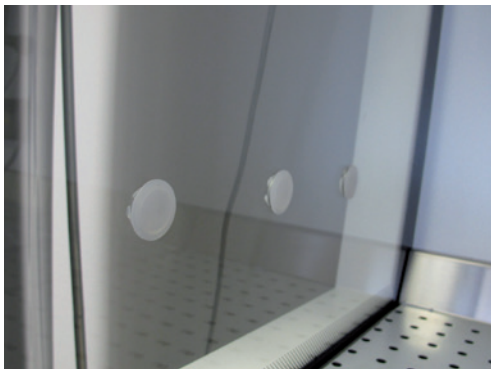
- Instant management and monitoring of operational parameters and automatic compensation system control by the new ECS® microprocessor.
- Software features easily programmable replacement regime of spare parts and filters
- Countdown-Timer integrated within the control board.
- Permanent record of all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

- **Energy consumption <257W**
- **Low noise level <53 dB(A)**
- **Ergonomic Design**



Airflow

Electrical socket



Side-window with 3 cabinet elements ø 23mm

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Our technology protects human and environment

User-friendly keyboard

ECS® Microprocessor based monitoring system: full status report provided via 2-line digital display by the new generation microprocessors - which automatically control all functions and all safety alarm systems ensuring that performance characteristics are maintained to EN12469:2000 requirements. High power lithium battery keeps safety data saved to microprocessor system. The user-friendly practical keyboard and the rear-lit LCD will continuously display all required data keeping the user constantly informed of the cabinet conditions in operation and in particular:

- display of laminar airflow velocity and frontal air barrier velocity
- display of inside and outside temperature
- display of residual lifetime of HEPA filters, UV Lamp (if fitted)
- display of total number of hours of operation
- display of saturation level of HEPA filters

Audio visual alarms provided for

- out of range or incorrect laminar airflow velocity and frontal air barrier velocity
- uncorrect position of front sash-window
- saturation of HEPA filters
- end of life-cycle of UV lamp (if fitted)
- blockage in the exhaust duct
- fan-motor malfunction
- power failure

Certification

- ISO 9001 certified

Configuration Overview

- Electrical frontal screen
- 1 electrical socket at 0.9m and 1.2m
- 2 electrical sockets at 1.5m and 1.8m
- 3 cabinet elements every side-window
- Operation mode for overnight-reduction

Tailor-made Cabinets

Special cabinets are manufactured as per customer´s requirements on demand.

Applications

ENVAIR eco safe Basic Plus Microbiological Safety Cabinets have been adopted worldwide in use for product, personnel and environmental protection while handling harmful agents pathogenic to human beings and/or animals as defined in the appropriate International Standards, in a wide range of disciplines in applications such as:

Microbiology, Virology, Haematology, Cell culture, Genetics, Handling of hazardous agents to human beings or animals.

Technische Spezifikationen

Description	Unit	ENVAIR eco safe Basic Plus			
		0.9m	1.2m	1.5m	1.8m
Overall Dimensions W×H×D (1)	mm	1045×1500×860	1350×1500×860	1655×1500×860	1960×1500×860
Useful Dimensions W×H×D	mm	887×740×580	1192×740×580	1497×740×580	1802×740×580
Total high with modular stand	mm	2350 mm			
Working aperture	mm	200			
Max elec. front aperture	mm	440			
Complete front opening	mm	740 (optional)			
Weight	kg	170	195	225	260
Exhaust flow rate	m^3/h	290	390	485	585
Inflow	m/s	0,45			
Downflow	m/s	0,38			
Noise level (2)	dB(A)	<53	<54	<55	<56
Lighting level	lux	>1100	>1200	>1300	>1300
Electrical Data		1Ph+E - 230V 50Hz			
Power consumption	W	256	364	539	644
Current consumption (2) (3)	A	1,9	2,1	3,4	3,6
Electrical class / IP		1 / 20			
Internal electrical outlet		4A			
Heat emission	W	175	240	295	360

(1) The total depth of the cabinet can be easily reduced to 780 mm by removing the back panel
(2) At operation condition according to EN12469: 2000
(3) Clean filters, lighting activated, internal outlet load excluded

Options and Accessories

- Solid Work Surface
- V-shape work surface
- UV Light
- Additional Taps for Gas, Vacuum, Nitrogen
- Additional Electrical Outlet
- Suspension Bar
- Armrest
- Anti Blow Back Damper
- Direct Duct Exhaust Transition
- Floor Stand 900mm
- Electric Adjustable Floor Stand (750 – 950mm)
- Manual Adjustable Floor Stand (750 – 950mm)
- Floor Stand with Castors
- and so on

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