

ENVAIR

integrity in clean air

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Microbiological Safety Cabinets ENVAIR eco safe Basic Plus



Class

II

Microbiological
Safety
Cabinet

Standard

EN 12469

Width (m)

0.9 / 1.2

1.5 / 1.8

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

incl. 1/2 electrical sockets

Powder-coated rear wall

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

Multi-piece stainless steel work surface
or single-piece



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 CO2 emissions into the environment.

Absolute safety for the operator

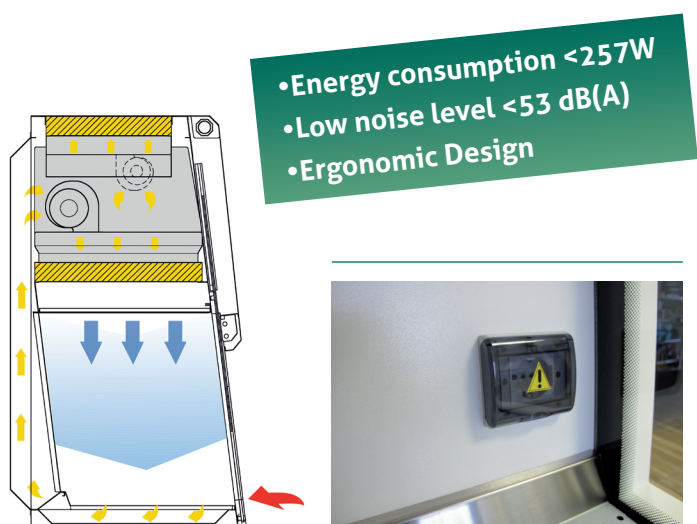
Manufacturing truly "safe" cabinets depends entirely on the quality of their design and components.

Hardware

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

Software

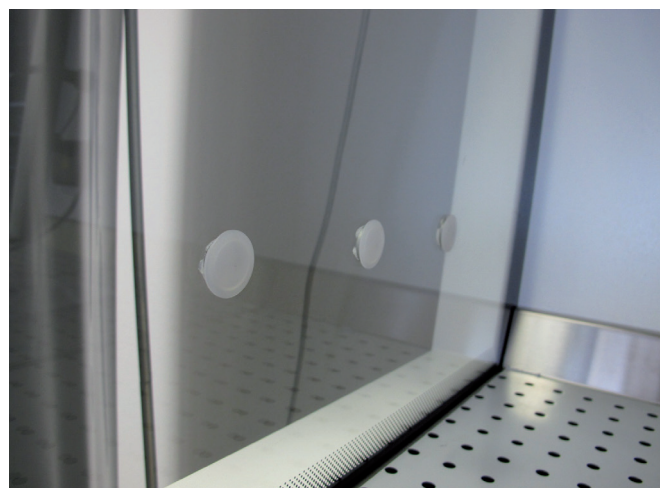
- ✓ Instant management and monitoring of operational parameters and automatic compensation system control by the new ECS® microprocessor.
- ✓ Software features easily programmable replacement regime of spare parts and filters
- ✓ Countdown-Timer integrated within the control board.
- ✓ Permanent record 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.



Airflow



Electrical socket



Side-window with 3 cabinet elements ø 23mm

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
- incorrect 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.

Technical specifications

Description	Unit	ENVAIR eco safe Basic Plus			
		0.9m	1.2m	1.5m	1.8m
Overall Dimensions WxHxD (1)	mm	1045x1500x860	1350x1500x860	1655x1500x860	1960x1500x860
Useful Dimensions WxHxD	mm	887x740x580	1192x740x580	1497x740x580	1802x740x580
Working aperture	mm	200			
Max front aperture	mm	440			
Weight	kg	170	195	225	260
Exhaust flow rate	m ³ /h	290	390	485	585
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

<ul style="list-style-type: none"> • Solid Work Surface • V-shape work surface • UV Light • Additional Taps for Gas, Vacuum, Nitrogen • Additional Electrical Outlet 	<ul style="list-style-type: none"> • Suspension Bar • Armrest • Anti Blow Back Damper • Direct Duct Exhaust Transition • Floor Stand 900mm 	<ul style="list-style-type: none"> • Electric Adjustable Floor Stand (750 – 950mm) • Manual Adjustable Floor Stand (750 – 950mm) • Floor Stand with Castors • and so on
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Legend:



Low power consumption



Work zone rear wall varnished



Ergonomic

Service in pure culture

Envair offers service in pure culture. We do not simply sell our units to you but will assist you gladly from A to Z.

Delivery:

We deliver all units ex works.
Set-up service and packaging disposal
are included upon request.



Service:

- 24h at site service and 24h free of charge phone hotline
- 7 days a week



Spare parts guaranty:

- 10 years
- Availability within 24h
- Ex stock Emmendingen



Qualification:

- IQ/OQ
- GMP
- GAMP
- 21 CFR Part 11



Decontamination:

We carry out microbiological decontaminations with most modern H2O2 generators or Formalin units in Cleanrooms, Isolators and Safety Cabinets



Maintenance:

- Microbiological Safety Cabinets DIN 12469
- Cytotoxic Dispensing Cabinets with KI-discus test DIN 12980
- Product Protection Cabinets
- Laboratory Fume Hoods
- Cytotoxic Dispensing Isolator EN 14644-7
- Isolator EN 14644-7
- Cleanrooms



Service by professional staff. All works are carried out by service technicians qualified by TÜV Nord

Maintenance contract:

Regular terms of maintenance increase your safety. With a maintenance contract we guarantee the complete check of all functions of your units. We will contact you reliably in regular terms.



Guaranty and Warranty:

Combined with an ENVAIR maintenance contract we offer a 2-year warranty to all units. Excepted are consumables and wearing parts as well as compressed air components.

