SAFEMATE EVO

CLASS II MICROBIOLOGICAL
SAFETY CABINET

BIOAIR®

THE EVOLUTION OF MICROBIOLOGICAL SAFETY

The new Safemate EVO Series is the culmination of BioAir's more than 30 years of experience in designing and manufacturing microbiological safety cabinets. Inheriting its predecessors safety features and longstanding reliability and expanding them with new and improved functionalities, the Safemate EVO Series of Class II (type A2) microbiological safety cabinets embodies once more our company motto: **Your Safety is our Commitment.**

No compromise for Operator, Product and Environment. Protection guaranteed as required by EN12469:2000 standard.

TECHNOLOGY EVOLVED!

New plenum system: the improved textile plenum system allows Safemate EVO cabinet to obtain an extremely uniform and stable airflow, reduce noise and also improve the life of the HEPA filters.

Partial double skin with lateral windows: for the first time in the Safemate series the double skin feature from Safeflow cabinets makes its appearance: enjoy the improved safety of the front barrier without sacrificing the large side-windows' ergonomy.

The most complete range of models: with three single-blower models and two dual-blower models, the Safemate EVO series provides the right choice for every customer in every lab.

SAFEMATE EVO

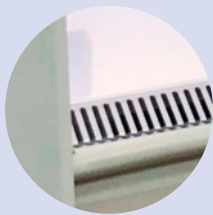## CLASS II MICROBIOLOGICAL SAFETY CABINET

Plenum Plus: the enhanced textile plenum provides

- Noise reduction
- Unparalleled airflow uniformity
- Longer HEPA filters life-span

Integrated UV lamp

V-shaped front grill: improve ergonomy and comfort by keeping you safe without the need for armrests.

Air/aerosol tight electrical sliding sash with exclusive "yxy" movement

Italian Quality

Our cabinet are completely made in Italy using components of italian or european origins! We use only the best for our cabinets!

German Certification

Our quality has been certified by the most prestigious body in Europe! All of our cabinets have been tested according to the most rigorous requirements to provide the best performance possible!
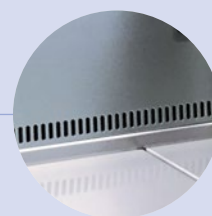
One knob control system: control easily all the functions of the cabinet and the menus with a single knob.

New partial double skin with lateral windows
Added security thanks to lateral double skin, more comfort thanks to lateral side windows: why choosing one if you can have both?

Sloped front

Removable taps: Stop wasting space for taps you don't need. And if you change your mind you can easily fit them with our fastplug system: no need to call for service support!

A better world

As a manufacturer we feel that is our responsibility to reduce our ecological footprint to grant for a sustainable working place both economically and ecologically!

MAIN SPECIFICATIONS:

✔ Microprocessor controlled EC motorblower enhances energy efficiency, reducing operating costs.

✔ Fully compliant with the EN 12469 safety standard as independently tested and certified by TUV Nord – the leading testing agency in Europe.

✔ Air and aerosol tight electrical sliding sash with unique "YZY" movement.

✔ Back wall installed UV light for disinfection.

✔ Innovative Lower Edge Tilting System for safe cleaning of the front glass

✔ Double skin with windows for increased protection and comfort.

✔ ECO Mode to reduce power consumption

✔ Improved textile plenum: less noise, better flow stability and longer filters lifespan

✔ Keyless operation: login with your numeric password to unlock and operate the cabinet

✔ Easy fit holes for tubings: use the four holes in the side windows to let tubings reach in the working area without disturbing the front barrier.

FEATURES FOR UNBEATEN SAFETY, QUALITY AND USABILITY:

✔ Air and aerosol tight electrical sliding sash system with unique "YZY" movement ensures the containment of aerosol within the chamber when the front window is fully closed. The sash can be rapidly closed in an emergency

✔ Continuous monitoring of the front barrier airflow for the highest operator safety.

✔ Permanent monitoring of HEPA filters life span.

✔ Multilevel alarm system.

✔ One-knob control panel

✔ Stainless steel internal surfaces with full access to exposed surfaces for ease of cleaning.

✔ Sloping front aperture and rear chamber lining for optimal downflow air distribution across the work surface.

✔ Self calibration cycle performed each time the cabinet is switched on.

✔ Removable stainless-steel three-part work surface for easy steam sterilisation in an autoclave.

✔ Safety grid in the backwall to prevent filter clogging.

✔ Interconnected UV and fluorescent lights

✔ Side windows for maximum illumination of the working area.

SUSTAINABLE TECHNOLOGY

The new Safemate EVO follows the philosophy we started with the SafeMate ECO series, by sporting low power consumption motorblowers. This, along with the new "ECO Mode", contributes to the reduction of CO_2 emissions and running costs!

ADVANTAGES
OF ECM MOTORS

- **Reduced running costs:** energy consumption is reduced by about 30% with comparison to standard single-phase triac-controlled motors

- **Reduced heat output:** helps reducing the overall air conditioning costs

- **Stepless speed regulation:** extremely efficient and precise regulation of airflows

- **Reduced sound level:** thanks to the sinusoidal waveform, ECM motors are more silent than conventional single-phase AC motors

- **External electronics:** the inverter is not in the contaminated area allowing for easier maintenance than with DC motors

- **Long life:** reduce maintenance costs!
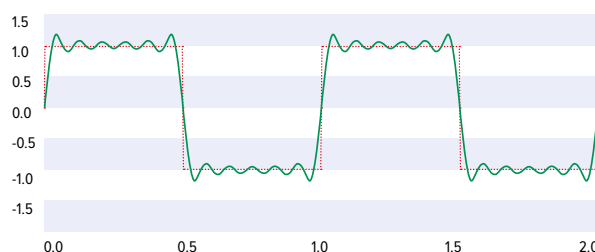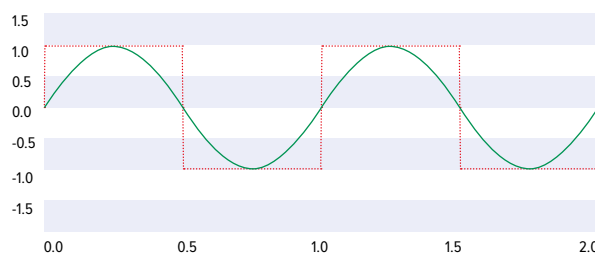
STANDARD UTILITIES

STANDARD ELECTRICAL EQUIPMENT	SIZE 1.2	SIZE 1.5	SIZE 1.8
Automatic electronic airflow velocity control PCB	√	√	√
Motorblower (fan)	√	√	√
2nd motorblower (fan)	Optional	NO	Optional
Inverter	√	√	√
Fluorescent lamps	√	√	√
UVC Lamp (backwall mounted)	√	√	√
Sliding window electric motor	√	√	√
Combustible gas solenoid valve.	√	√	√
STANDARD UTILITIES			
Tap for combustible gas line	√	√	√
Tap for inert fluids/vacuum line	√	√	√
Auxiliary electrical service socket	√	√	√
2nd auxiliary electrical service socket	√	√	√
UVC lamp socket	√	√	√
Alarm mute connector (for service personnel only)	√	√	√

OPTIONS & ACCESSORIES

CODE	DESCRIPTION	CODE	SIZE 0.9	SIZE 1.2	SIZE 1.5
AC10000	CHEST DRAWER	2 drawers – with castors	√		√
AS1L410	SUPPORT STAND 1.2		√		
AS1L510	SUPPORT STAND 1.5	h= 730 - 890 mm		√	
AS1L610	SUPPORT STAND 1.8				√
AZ1L010	CASTORS KIT	With retractable foot	√		√
AP1K604	IV bar for 1.2		√		
AP1K605	IV bar for 1.5	(includes 10 hooks)		√	
AP1K606	IV bar for 1.8				√
AZ1H613	ARMRESTS		√		√
DUCTING AND ADDITIONAL FILTERS OPTIONS					
AZ1H124	Active extraction kit		√		
AZ1H154	Additional charcoal filter adapter		√		
CP62000	Additional charcoal filter	Requires AZ1H124 and AZ1H154	√		
AZ1H126	Active extraction kit			√	√
AZ1H156	Additional charcoal filter adapter			√	√
CP66000	Additional charcoal filter	Requires AZ1H126 and AZ1H156		√	√
AZ1H204	Passive transition adapter kit		√		
AZ1H205	Passive transition adapter kit	Requires remote blower for extraction		√	
AZ1H206	Passive transition adapter kit				√
AZ1H304	Extraction open hood ("thimble")		√		
AZ1H305	Extraction open hood ("thimble")	Requires remote blower for extraction		√	
AZ1H306	Extraction open hood ("thimble")				√

TECHNICAL DATA

DESCRIPTION	SIZE 1.2	SIZE 1.5	SIZE 1.8
Part No. (without work surface)	LDL420N	LDL520N	LDL620N
Part No. (solid work surface)	AZ9L040	AZ9L050	AZ9L060
Part No. (perforated work surface)	AZ9L041	AZ9L051	AZ9L061
SPECIFICATIONS			
Reference Standards:	IEC 61010-1:2010 / EN 61010-1:2010 IEC 61326-1:2012 / EN 61236-1:2013 EN 12469:2000		
Electrical insulating/protection class [IEC 61140]:	I		
Mains supply voltage:	220-240 V~ 50/60 Hz		
Required power line (W): (700 W service socket included)	1350	1500	1600
Absorbed power (W): (*) (fan and light on only)	355	470	580
Window glass UVC radiations retention (%):	98		
Combustible gas fixture max pressure (mbar):	20		
Inert fluids/vacuum fixture max pressure (bar):	4		
Electrical service socket max current (A):	3		
WEIGHT AND SIZE			
Net Weight (kg):	250	290	340
Overall size L x D x H (mm): (without support stand)	1425 x 830 (795) x 1403	1735 x 830 (795) x 1403	2015 x 830 (795) x 1403
Front aperture size L x H (mm):	1200 x 210	1500 x 210	1800 x 210
Working space size L x D x H (mm):	1210 x 585 x 690 - 650	1530 x 585 x 690 - 650	1830 x 585 x 690 – 650
MATERIALS			
Main structure:	cold rolled steel, stove enamel coated RAL 7035		
Working space surface:	stainless steel AISI 304 - SB finishing		
Front and side walls windows:	laminated safety glass		
PERFORMANCES			
Laminar Air Flow mean velocity [EN 12469](m/s):	0,35 ÷ 0,40		
Inflow Air Barrier mean velocity [EN 12469](m/s):	0,57 ±10%		
Exhaust Air flow rate (m3/h):	520 ±10%	650 ±10%	770 ±10%
Apf - Aperture Protection Factor [EN 12469]: (Retention efficiency at front aperture)	≥1,0 x 105		
Working space air cleanliness class [EN 14644-1]:	ISO 5		
Illuminance [EN 12469] (lux):	>750		
Sound level [EN ISO 3744] (dB[A]): (**)	<50	<54	<58
Vibration [EN 12469] (mm RMS):	<0,005		
Max increase inside cabinet [EN 12469] (°C):	<5 over ambient temperature		
FILTERS			
Filters efficiency class [EN 1822-1]:	H14 (***)		
Filters global MPPS efficiency [EN 1822-1](%):	99,995		
MPPS diameter [EN1822-1](μm):	0,1 ÷ 0,3		

* Motorblower on, lights on (flow 0.28m/s, LED lights)
** Measured in operating conditions. Actual values at customer site may be different due to room structure
*** Efficiency higher than ULPA (Class F) as per IESP-RP-CC001

OVER 40 YEARS OF EXPERIENCE

BioAir has been manufacturing Biohazard and Laminar Air Flow cabinets since the early '70s, when the Gelaire® brand became the "gold standard" for airborne contamination control in laboratories all over the world.

A family of Recirculating Fume Hoods, based on the adsorption of toxic vapors by charcoal filters, was successfully introduced a few years later, thus positioning the Company as the only one seriously focused on the protection of its operators, in line with its inspiring motto "Your safety is our commitment".

This unique know-how and insistence on quality were continually developed, and 25 years on, under the name of BioAir®, the entire range was completely re-designed to meet the changing requirements of laboratory staff and increasingly stringent regulations.

At the top of the range are the Biohazard Cabinets (or Microbiological Safety Cabinets - MSC), the sum of the Company's know-how, certified to European standards (EN12469:2000) and also complying with Australian regulations. In other words, they are designed to provide technicians with the maximum level of safety when used according to GLP/GMP standards in their respective environments.

Today, in a facility occupying over 2,800 square meters, BioAir

PLUS
BIOAIR

MADE IN ITALY

Our products are designed and produced in Italy, drawing on the long tradition and internationally recognized high quality of Italian manufacturing, to bring you the best equipment for your safety.

TRADITION AND EXPERIENCE

All our Microbiological Safety Cabinets were designed with your safety in mind and that's a task where even the smallest details count. Our team stems directly from the company that launched the market for MSCs in Europe, so we put a lot of history and experience into all our products, as well as care over those often-overlooked details that improve your safety.

WE CARE FOR YOU

Thanks to our network of highly trained dealers and distributors, our complete portfolio and long experience in the field, we will always be able to help you find the right product for your needs, no matter how unique they are. And our commitment doesn't stop there: our Service network will make sure your equipment always performs at its best.

manufactures a full range of microbiological safety cabinets, laminar flow cabinets and fume cupboards, with over 15 models, many of which available in different sizes. Customized models and cabinets designed for specific applications can be produced by our team of skilled engineers and operators.

Decades of experience in sales and support for cell biologists have enabled BioAir to give the market an extremely innovative CO_2 Incubator, the Safegrow® PRO, the fruit of deep knowledge of the optimum conditions required for critical tissue culture methods and input from scientists engaged in growing cells in vitro.

The core business of the recently established BioAir® Industrial Team is the design, manufacturing and validation of customized equipment for the protection of the operator and of the product in pharmaceutical and healthcare production facilities.

This dedicated team will leverage the long experience and production capability acquired in laboratory LAF applications to offer complex equipment ranging from **dispensing/ sampling Downflow Booths** and **Clean Rooms** to **RABS** and **Isolators** for Regenerative Medicine and Advanced Cell Therapy.

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