

SAFEMATE TOTAL

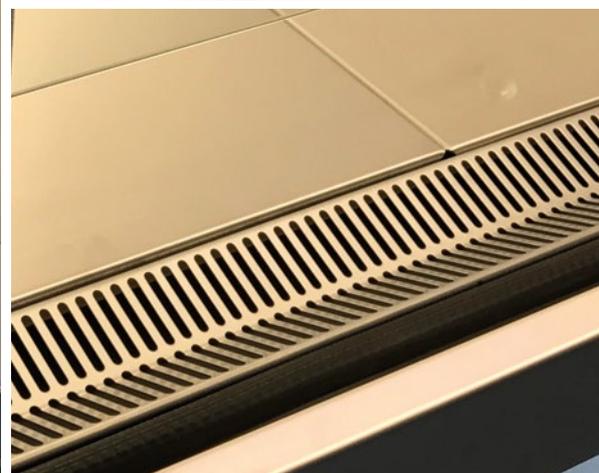
CLASS II
MICROBIOLOGICAL SAFETY
CABINET - TYPE B2



TOTAL EXHAUST, TOTAL PROTECTION

Importing the total exhaust philosophy from the US NSF49 normative into an European EN12469:2000 compliant cabinet, the new Class II (type B2) Microbiological Safety Cabinet SafeMate TOTAL allows the users to safely work with volatiles and chemicals in processes requiring biological protection, while keeping all the signature safety provisions of the SafeMate family, like the “V”-shaped anti-obstruction grill, the self-positioning electrically operated front sash and the fully stainless steel. **Your Safety is our Commitment.**

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



FEATURE RICH!

Electrical front sash: the front glass is operated using the switches on the main control panel allowing effortless opening and closing of the working area.

V-shaped front grill: forget about armrests limiting your working position: SafeMate's Vshaped front grill ensures the front barrier is always at its best.

Customizable utilities: want more space in the working area? Do not take the optional taps if. Changed your mind and want the taps? Just buy the option and they will be installed in your cabinet even after sales!

Fully VHP compliant: with the optional VHP connector kit you can easily use any Hydrogen Peroxide vapour generation system to fully sterilize your cabinet.

Ready for ducting: the Safemate TOTAL is already equipped with a collar for connection to an external exhaust duct.



SAFEMATE TOTAL

CLASS II MICROBIOLOGICAL SAFETY
CABINET - TYPE B2



An elegantly crafted standard control panel and display, for your convenience



Sloped front for the most comfortable access



UV Lamp on back wall (standard)

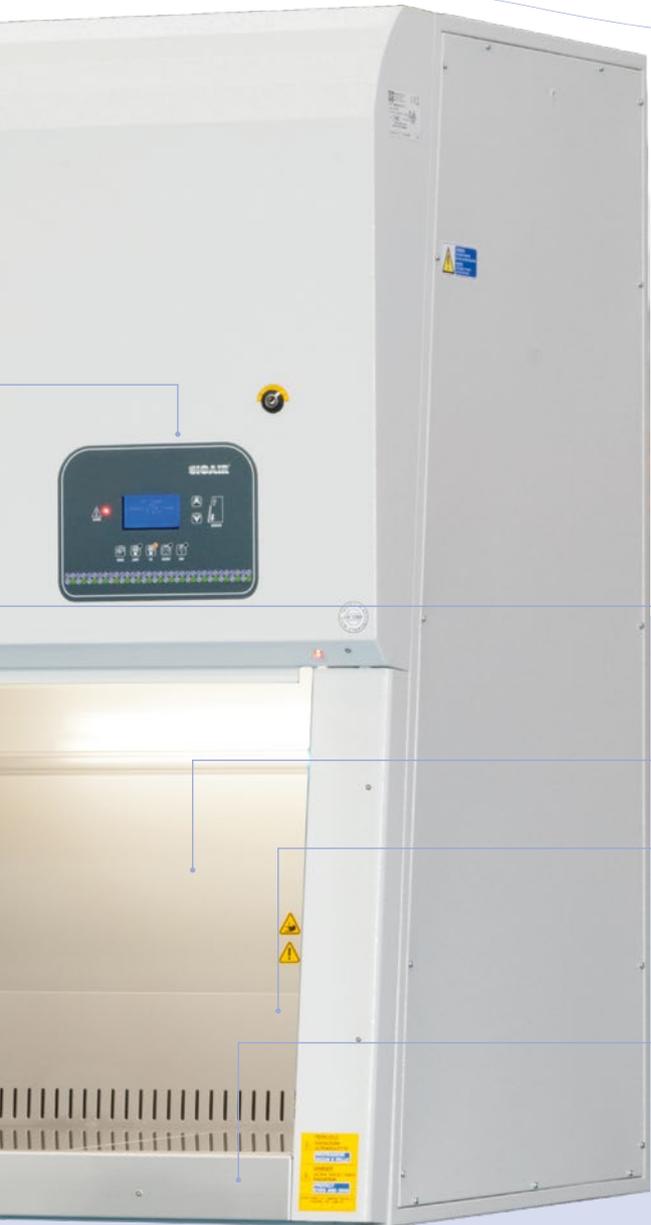


Air/Aerosol tight electrical sliding sash with exclusive "zyz" movement



Italian Quality

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



Silent operation: <math><49\text{dB(A)}</math>

Electrically operated front sash

Gas & Vacuum taps (optional, retrofittable)

Anti obstruction "V" shaped front grille



Height adjustable support stand

MAIN SPECIFICATIONS:

- ✓ State of the art AC motorblower enhances energy efficiency, reducing operating costs.
- ✓ Fully compliant Class II microbiological safety cabinet according to EN12469:2000 safety standard
- ✓ Air and aerosol tight electrical sliding sash
- ✓ UV light on back wall
- ✓ 5° Sloping front aperture to maximise comfort.
- ✓ V-Shaped anti-obstruction front grill
- ✓ Optional utilities for gas and vacuum, installable in-field Real
- ✓ Time reporting of air speeds (inflow & downflow) Fully stainless steel working chamber and surface.
- ✓ Integrated 350mm diameter hard-duct connection collar
- ✓ Prefilter on air inlet to improve main HEPA filter life



How does it work?

The Safemate Total has been designed to fulfil the protection and safety requirements of an EN12469:2000 compliant Class II Microbiological Safety Cabinet, while at the same time provide the airflows described by the NSF49 for a Class II Type B2 cabinet. This means that the pattern followed by the air is a bit different than what you have in a standard Class II MSC.

The air enters the work area via two different ways:

- ✓ The front aperture (30%), creating an aeraulic barrier to prevent any contaminant from leaving the working area;
- ✓ The top of the cabinet (70%), providing air to the main blower and HEPA filter to create the unidirectional downflow granting sterility inside the working area;

After traversing the working area and flowing below the work surface, the entire volume of air is then sent through the back area of the cabinet to the exhaust HEPA filter and then leaves the cabinet via a direct connection to an external ducting.

Installing a Safemate TOTAL requires the availability of an external exhaust duct equipped with a suitably configured extraction blower. Precautions must also be taken to ensure proper air flow in the lab due to the large amount of air being exhausted. Type B2 cabinet are not designed to recirculate the air in the lab.

STANDARD UTILITIES

STANDARD ELECTRICAL EQUIPMENT

Automatic electronic airflow velocity control PCB	✓
Motorblower (fan)	✓
Inverter	✓
Fluorescent lamps	✓
Sliding window electric motor	✓
Combustible gas solenoid valve.	✓

STANDARD UTILITIES

Tap for combustible gas line	Optional
Tap for inert fluids/vacuum line	Optional
Auxiliary electrical service socket	✓
2nd auxiliary electrical service socket	✓
UVC lamp socket	✓
Voltage-free contact (VFC) outlet	✓



OPTIONS & ACCESSORIES

CODE	DESCRIPTION	NOTES	SIZE 1.2
AC10000	CHEST DRAWER	2 drawers - with castors	✓
AS1L410	SUPPORT STAND 1.2	h= 730 - 890 mm	✓
AS1L400	SUPPORT STAND 1.2	h= 730 mm	
AZ1L010	CASTORS KIT	With retractable foot	✓
AP1K604	IV bar for 1.2	(includes 10 hooks)	✓
AZ1H613	ARMRESTS		✓

TECHNICAL DATA

DESCRIPTION	SIZE 1.2
Part No. (cabinet)	LDK4E0N
Part No. (Sector divided solid work surface)	AZ9K040
Part No. (Sector divided perforated work surface)	AZ9K041
SPECIFICATIONS	
Reference Standards:	IEC 61010-1:2010 / EN 61010-1:2010 IEC 61326-1:2012 / EN 61236-1:2013 EN12469:2000
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)	1300
Absorbed power (W): (*) (fan and light on only)	475
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):	280
Overall size L x D x H (mm): (without support stand)	1380 x 795 x 1640
Front aperture size L x H (mm):	1230 x 200
Working space size L x D x H (mm):	1230 x 600 x 700
MATERIALS	
Main structure:	cold rolled steel, stove enamel coated
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 ÷ 0,38
Inflow Air Barrier mean velocity [EN 12469](m/s):	0,54 ±10%
Exhaust Air flow rate (m ³ /h):	1300 ±10%
Exhaust Air flow ratio (%):	30 ±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):	>850
Sound level [EN ISO 3744] (dB[A]): (**)	<58
Vibration [EN 12469] (mm RMS):	<0,005
Max increase inside cabinet in temperature from the ambient [EN 12469] (°C):	<5
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

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 CO₂ 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.

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.



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