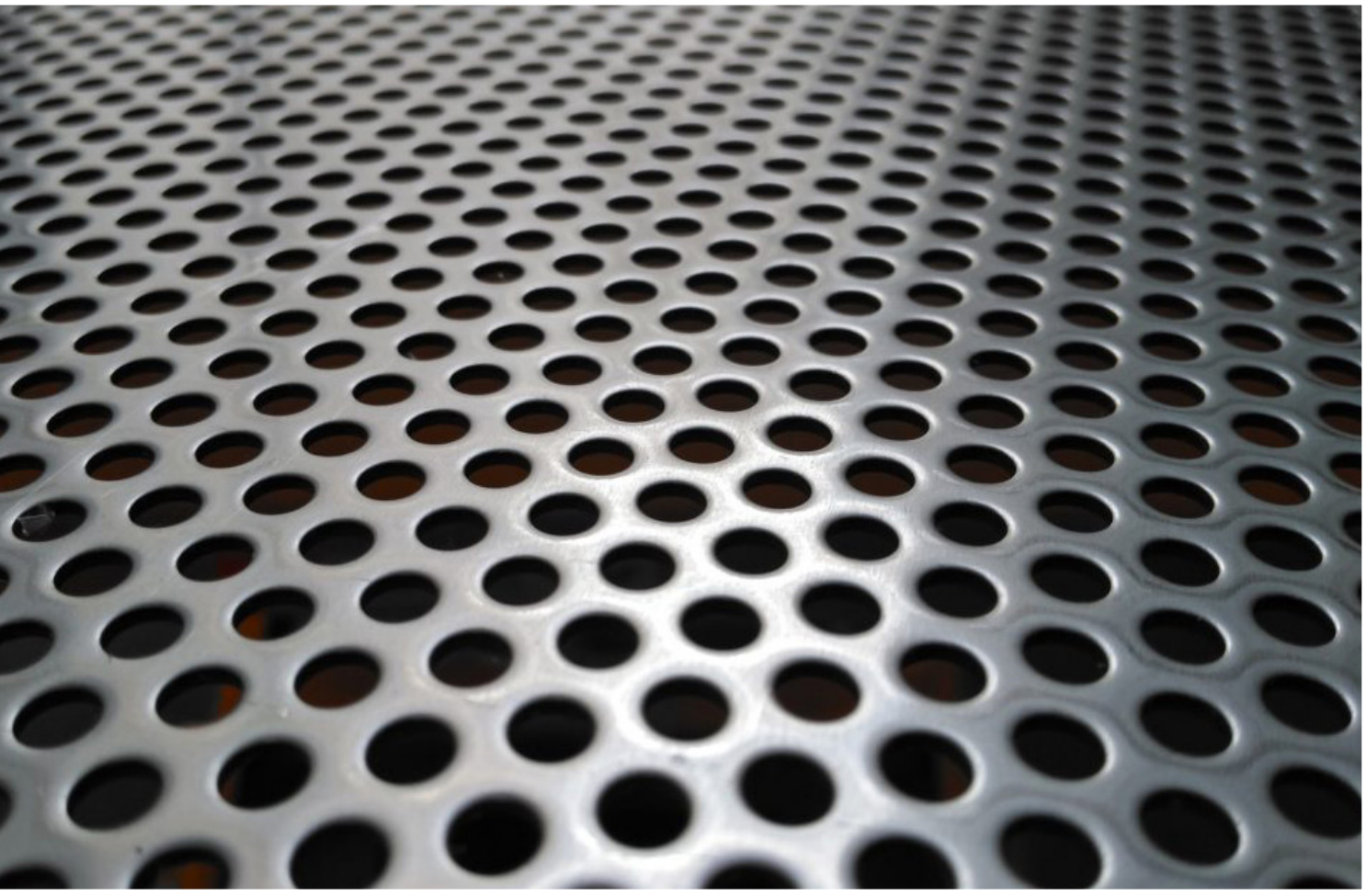
TECHNICAL FEATURES VERTICAL LAMINAR FLOW BIOHAZARD CABINET CLASS II A/B3

BIO ACTIVA ONE



Elmont S.R.L
Apparecchiature elettromedicali
Cappe da laboratorio

Registered office, production and offices: via G. Di Vittorio 1
25030 Adro (BS) – Italy

Tel: 030/5123683 Fax : 030/7457833 mob. 338/2614082
www.elmontsrl.com e-mail : elmont.srl@tiscali.it

Bio Activa ONE has been designed for the overall protection of the operator, the product and the environment.

Class II biohazard cabinets are hoods with front opening, air intake from outside to inside, vertical laminar sterile air flow inside the cabinet and HEPA absolute filter in expulsion.

The cabinet is characterized by a modern and elegant design, by technically advanced electronics and by a remarkable simplicity of maintenance.
The machines have been certified by a third party company in compliance with the EN12469:2001 standard

Main features and equipment

- External carpentry in 12/10 thick sheet metal, polyepoxy powder coating, RAL 7035
- Internal rear wall in AISI 304 stainless steel with scotch-brite finish
- Perforated worktop, in AISI stainless steel 304 scotch-brite finish, divided into easily removable and autoclavable sectors
- Tempered protective front glass (thickness 6 mm) that can be opened with motorized vertical ups and downs (6° inclination) and exceptionally for introducing bulky objects into the work chamber or to facilitate cleaning, with acoustic alarm on a wrong operating condition, equipped with glass support gasket in total closure, without the need for a front closing panel.
- Front opening height: 200 mm (in working position), from zero to 495 mm (in raised glass position).
- The flow value indicated by the display relates to the glass positioned 20 cm from the work surface.
- Ø 250 mm collar for external ducting of expelled air (optional)
- Two absolute filters (HEPA), removable from the front and top, with efficiency higher than 99.995% MPPS (ex 99.999% on particles with a diameter equal to or greater than 0.3 µm), in class H14
- Dynamic sealing rigid plenum
- N° 2 independent electronically controlled fan motors capable of compensating the load losses due to the progressive clogging of the absolute filters
- Taken for DOP test on delivery flow and exhaust
- Automatic adjustment of downflow air speed and exhaust air (frontal barrier)
- Arrangement for gas valved taps (optional)
- N° 1 internal electrical socket for small instruments IP65, 800W, 230V – 50/60 Hz

Control panel

On the control panel, which contains the electronic card controlled by a new generation microprocessor, there are:

- O/I general switch
- Membrane keyboard with passive button controls
- Display: digital with real-time reading of the speed of the vertical laminar flow and of the frontal barrier, expressed in metres/second. Optional: plus electronic card equipped with a small graphic display with numerous additional information
- Emergency button for the possibility of increasing the speed of the expelled air flow (operator protection barrier)
- Button for operating the safety solenoid valve (if installed) on the gas tap
- Buttons for:

1. switch on white lamp and UVC lamp (if installed) interlocked with each other
2. inserting power supply of the internal electrical socket
3. up/down power window system

- Digital electronic hour meter for general machine operation (available for consultation)
- Digital electronic hour counter for UVC lamp operation (only with plus board)
- Digital electronic hour meter for electrical outlet operation (only with plus card)
- Timer in minutes of UVC lamp operation with countdown that can be set by the customer with auto-off at the end of the cycle
- Operation timer of the internal electrical socket with countdown that can be set by customer with automatic switch-off at the end of the cycle (maximum time: 24 hours). During the countdown, the time remaining until shutdown will be displayed (only with plus board)

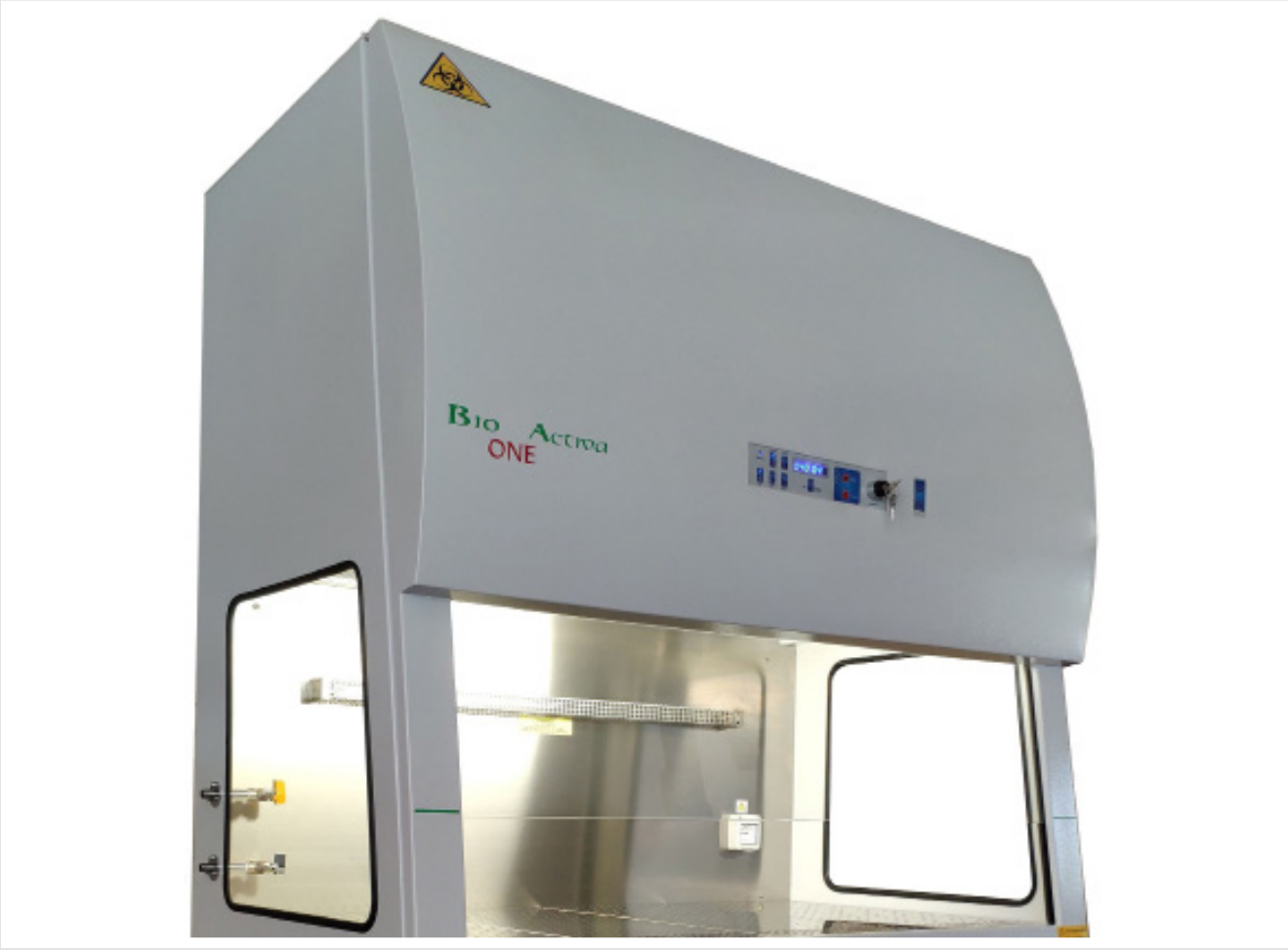
Audible and visual alarms for:

- Front glass in wrong position;
- Automatically cancels when the glass is closed.

- Downflow and/or exhaust anomalies (frontal barrier) due to either clogging of the filters and/or faulty operation of the fan motors
- Low downflow speed alarm: it is activated when the air speed read by the main sensor falls below the minimum limit set
- High downflow speed alarm: it is activated when the air speed read by the main sensor rises above the minimum limit set
- Low exhaust air speed alarm: it is activated when the air speed read by the secondary sensor falls below the minimum limit set
- High exhaust air speed alarm: it is activated when the air speed read by the secondary sensor rises above the minimum limit set;
- Main fan alarm not connected or faulty: it activates when the fan is powered and there is no current, i.e. when it does not work (only with plus board)
- Secondary fan alarm not connected or faulty: it activates when with fan, when powered, there is no current or when it doesn't work (only with plus card)

Preallarmi visivi con segnalazione su display di necessità di prossima sostituzione per:

- UVC lamp lifetime over (appears after 1900 hours of lamp operation)
- The usage limit of the installed filters has been reached (appears after 3900 hours of fan motor operation)
- Possibility to choose the buzzer sound (among the various presets by default) (only with plus board)
- Display of the event memory in the alarm log, resettable (with plus type card)
- Possibility of entering start-up password (with plus-type card)
- Working chamber temperature display (with plus type board)
- Stand by system: activated, it makes the machine operate in energy saving mode with a lower laminar flow
- Possibility of using the preferred language of the graphic display between Italian, English (other languages on request, only with plus-type board)



Technical features:

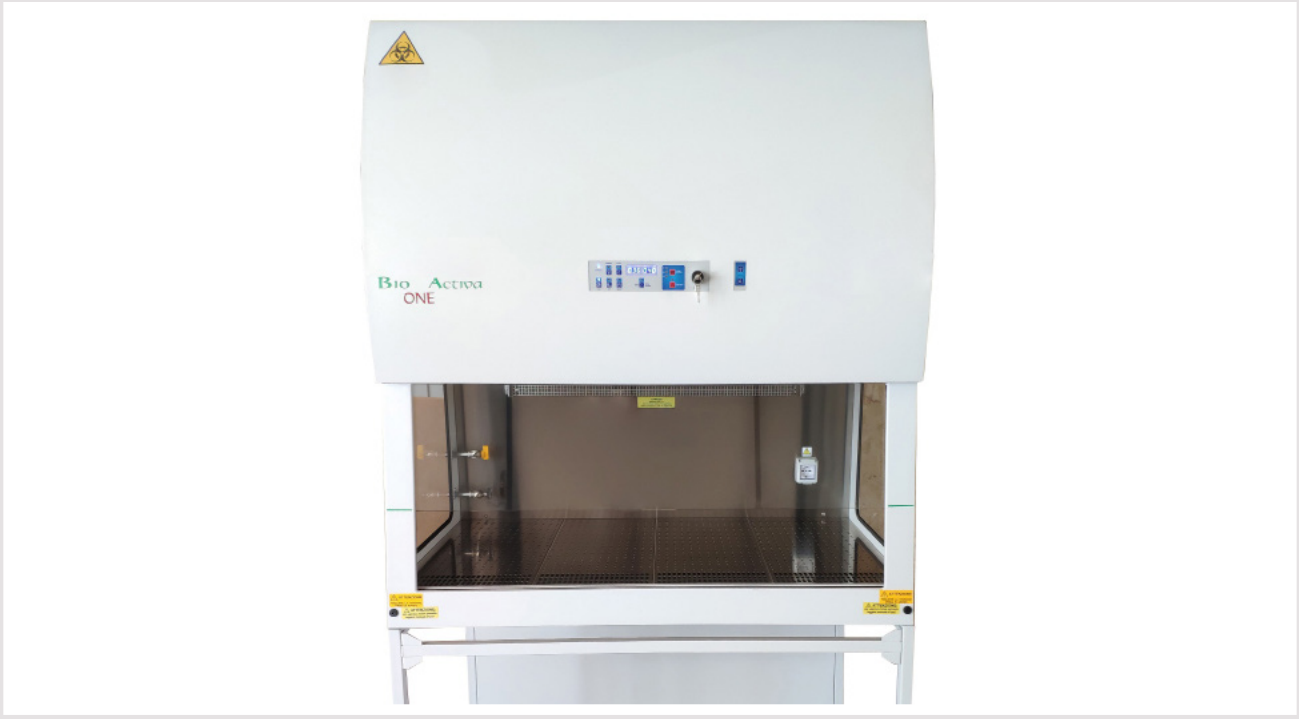
· External drain connection:	250 vert (Ø ext mm) (optional to transform from class II type A, to type B3)
· Exhaust air flow:	variable, 400 m3/hour model 120
· Noise level:	< 60 dBA
· Thermal increase:	< 4°C
· Efficiency of filtration:	> 99.995% MPPS H14
· LAF average speed:	0.40 m/sec (can be modified by the customer within the limits)
· Barrier average speed:	> 0.40 m/sec (customizable)
· Luminous intensity on the plane of Work:	> 800 lux
· Power supply:	230V; 50/60Hz
Nominal power:	
· Model 90:	620W
· Model 120:	660W
· Model 150:	690W
· Model 180:	900W
· Exhaust air flow:	from 400 to 600 m3/h
External dimensions (excluding stand):	
· Model 90:	985 x 800 x 1440 mm (wxdxh)
· Model 120:	1290 x 800 x 1440 mm (wxdxh)
· Model 150:	1470 x 800 x 1440 mm (wxdxh)
· Model 180:	1890 x 800 x 1440 mm (wxdxh)
Internal useful dimensions:	
· Model 90:	970 x 690 x 600 mm (wxdxh)
· Model 120:	1280 x 690 x 600 mm (wxdxh)
· Model 150:	1460 x 690 x 600 mm (wxdxh)
· Model 180:	1880 x 690 x 600 mm (wxdxh)
Gross weight:	
· Model 90:	200 kg
· Model 120:	230 kg
· Model 150:	260 kg
· Model 180:	300 kg
Net weight:	
· Mod. 90:	180 kg
· Model 120:	210 kg
· Model 150:	235 kg
· Model 180:	270 kg

Compliance:

Safety cabinet against biological risks (BIOHAZARD), with work area protected from vertical laminar flow in class ISO 5 (standard UNI EN ISO 14644-1), bench version, classified class II type A/B3 and therefore suitable for handling low/medium pathogens risk. The machines have been certified by a third-party company in compliance with the EN12469:2001 and UNI EN ISO 14644-1:2016 standards.

Built in compliance with:

- European standard EN 1822
- UNI EN 12469: 2000 standard
- 2006/42/EC Machinery Directive
- 2014/30/EU Electromagnetic Compatibility Directive
- CEI EN 61010-1:2010 (Safety requirements for electrical equipment, measurement, control and laboratory use)
- EN 14644-1 standard in ISO class 5



Composition of the standard hood

Standard equipped with:
n° 1 perforated 304L stainless steel worktop that can be dismantled into autoclavable segments
n° 2 internal fan motors
n° 3 white light led lamps
n° 1 downflow HEPA H14 filter
n° 1 HEPA H14 exhaust filter
n° 1 socket of 800W max – 230V 50Hz for small instruments (on the right)
n° 1 power supply cable 230 V - 50 Hz equipped with unel - schuko type plug

Optional accessories:

Special tray worktops

Floor stands (height 77 cm; worktop height 87 cm)

Metal cabinets and chests of drawers

Gas valve taps (existing arrangement on the internal left side wall)

Solenoid valve for gas tap

Additional internal electrical outlet type UNEL-schuko 230 V- on the right

UVC germicidal lamp installation in fixed internal location

Accessories on request

Accessories for possible external ducting