Elmont S.R.L.
Apparecchiature elettromedicali
Cappe da laboratorio

Bio Activa
ONE

TECHNICAL FEATURES

Bio activa
ONE

BIOHAZARD HOOD WITH VERTICAL LAMINAR FLOW CLASS II

BUREAU VERITAS
1828
BUREAU VERITAS

BIO ACTIVA ONE

The hood has been designed for the overall protection of the operator, product and environment. The class II biohazard cabins are hoods with a front opening, air intake from the outside to the inside, vertical laminar sterile air flow inside the cabin and absolute HEPA filter in expulsion. The hood is characterized by a modern and elegant design, technically advanced electronics and remarkable simple maintenance. The machines have been certified by third-party companies in compliance with the standards EN12469:2001 EN 61010-1; EN 14644-1 and EN 61326-1:2021

MAIN FEATURES

- External carpentry in sheet metal thickness 12/10, polyepoxy powder coating, RAL 7035;
- Internal rear wall in AISI 304 stainless steel with scotch-brite finish;
- Perforated worktop, in AISI304 stainless steel with a scotch-brite finish, divided into easily removable and autoclave-sterilizable
- sectors;
- Tempered protective front glass (6 mm thick) with motorized vertical lift (6° tilt) and exceptionally also for introducing bulky objects into the work chamber or to facilitate cleaning, with an acoustic alarm of incorrect operating condition, equipped with a glass support gasket in total closure, without the need for a front closure panel;
- Front opening height: 200 mm (in working position), from zero to 495 mm (in the glass raised position);
- The flow value indicated by the display is relative to the glass positioned 20 cm from the worktop;
- Ø 250 mm collar for channeling the expelled air outside (optional);
- Two absolute filters (HEPA), removable from the front and upper part, with efficiency greater than 99.995% MPPS (formerly 99.999% on particles with a diameter equal to or greater than 0.3 µm), in class H14;
- Rigid plenum with dynamic seal;
- No. 2 electronically controlled fan motors capable of compensating for the load losses due to the progressive clogging of the absolute filters;
- Sockets for DOP tests on the supply flow and on the exhaust;
- Automatic regulation of the speed of the downflow air and exhaust air (front barrier);
- Provision for valved gas taps (optional);
- No. 1 internal IP65 electrical socket of 800W, 230 V - 50 Hz for small instruments.

CONTROL PANEL

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

- General switch O/I
- Membrane keyboard with passive button controls
- Digital display with real-time reading of the speed of the vertical laminar flow and of the
- front barrier, expressed in meters/second. Optional: electronic plus board equipped with a small graphic display with numerous additional information
- Emergency button for the possibility of increasing the speed of the expulsion air flow (operator protection barrier)
- Safety solenoid valve activation button (if installed) on the gas tap
- Buttons for:
1. Switching on the white lamp and UVC lamp (if installed) interlocked with each other
2. Switching on the power supply of the internal electrical socket
3. Up/down electric window system
- Electronic digital hour meter for general machine operation (viewable)
- Electronic digital hour meter for UVC lamp operation (only with plus card)
- Electronic digital hour meter for electrical socket operation (only with plus card)
- U.V.C lamp operation timer in minutes with countdown that can be set by the customer with automatic switch-off at the end of the cycle
- Internal electrical socket operation timer with countdown that can be set by the customer with automatic switch-off at the end of the cycle (maximum time: 24 hours). During the countdown, the time remaining until switch-off will be displayed (only with plus card)


- **Inside the hood**

ACOUSTIC
AND VISUAL ALARMS

- For front window in incorrect position: it is automatically cancelled when the glass is closed.
- Anomalies in the downflow and/or exhaust (front 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 not connected or fault alarm: it activates when the fan is powered and there is no current circulating, i.e. when it does not work (only with plus card)
- Secondary fan not connected or fault alarm: it activates when the fan is powered and there is no current circulating, i.e. when it does not work (only with plus card)
- Visual pre-alarms with a signal on the display that replacement is imminent for:
1. UVC lamp end of life (appears after 1900 hours of lamp operation)
2. Installed filter usage limit reached (appears after 3900 hours of fan motor operation)
3. Possibility to choose the buzzer sound (among the various default presets) (only with plus card)
4. Viewing of the event memory in the alarm history, resettable (with plus type card)
5. Possibility to enter a start-up password (with plus type card)
6. Viewing of the working chamber temperature (with plus type card)
7. Stand by system: when activated, the machine operates in energy saving mode at a lower laminar flow
8. Possibility to use the preferred graphic display language between Italian and English (with plus type card)

GENERAL TECHNICAL CHARACTERISTICS

- External exhaust connection: 250 vert (Ø ext mm) (optional to transform from class II type A, to type B3)
- Expelled air flow rate: variable, 400 m3/hour model 120
- Noise level: < 60 dBA
- Thermal increase: < 4°C
- Filtration efficiency: > 99,995% MPPS H 14
- Average LAF speed: 0.40 m/sec adjustable by the user within the limits of the standard
- Average barrier speed: > 0.45 m/sec (customer adjustable)
- Light intensity on the work surface: > 800 lux
- Liquid collection tank capacity: > 20 litri (rif. Bio Activa 120)
- Electrical power supply: 230 V; 50 Hz
- Nominal power:
1. Bio Activa 90: 620W
2. Bio Activa 120: 660 W
3. Bio Activa 150: 690 W
4. Bio Activa 180: 900 W
- Air flow rate expelled: da 400 a 600 mc/h
- External dimensions (excluding support):
1. Bio Activa 90: 985 x 800 x 1440 mm (L x P x h)
2. Bio Activa 120: 1290 x 800 x 1440 mm (L x P x h)
3. Bio Activa 150: 1470 x 800 x 1440 mm (L x P x h)
4. Bio Activa 180: 1890 x 800 x 1440 mm (L x P x h)
- Internal usable dimensions:
1. Bio Activa 90: 970 x 690 x 600 mm (L x P x h)
2. Bio Activa 120: 1280 x 690 x 600 mm (L x P x h)
3. Bio Activa 150: 1460 x 690 x 600 mm (L x P x h)
4. Bio Activa 180: 1880 x 690 x 600 mm (L x P x h)
- Gross weight:
1. Bio Activa 90: 200 kg
2. Bio Activa 120: 250 kg
3. Bio Activa 150: 270 kg
4. Bio Activa 180: 300 kg
- Net weight:
1. Bio Activa 90: 180 kg
2. Bio Activa 120: 210 kg
3. Bio Activa 150: 235 kg
4. Bio Activa 180: 275 kg

TECHNICAL DRAWING
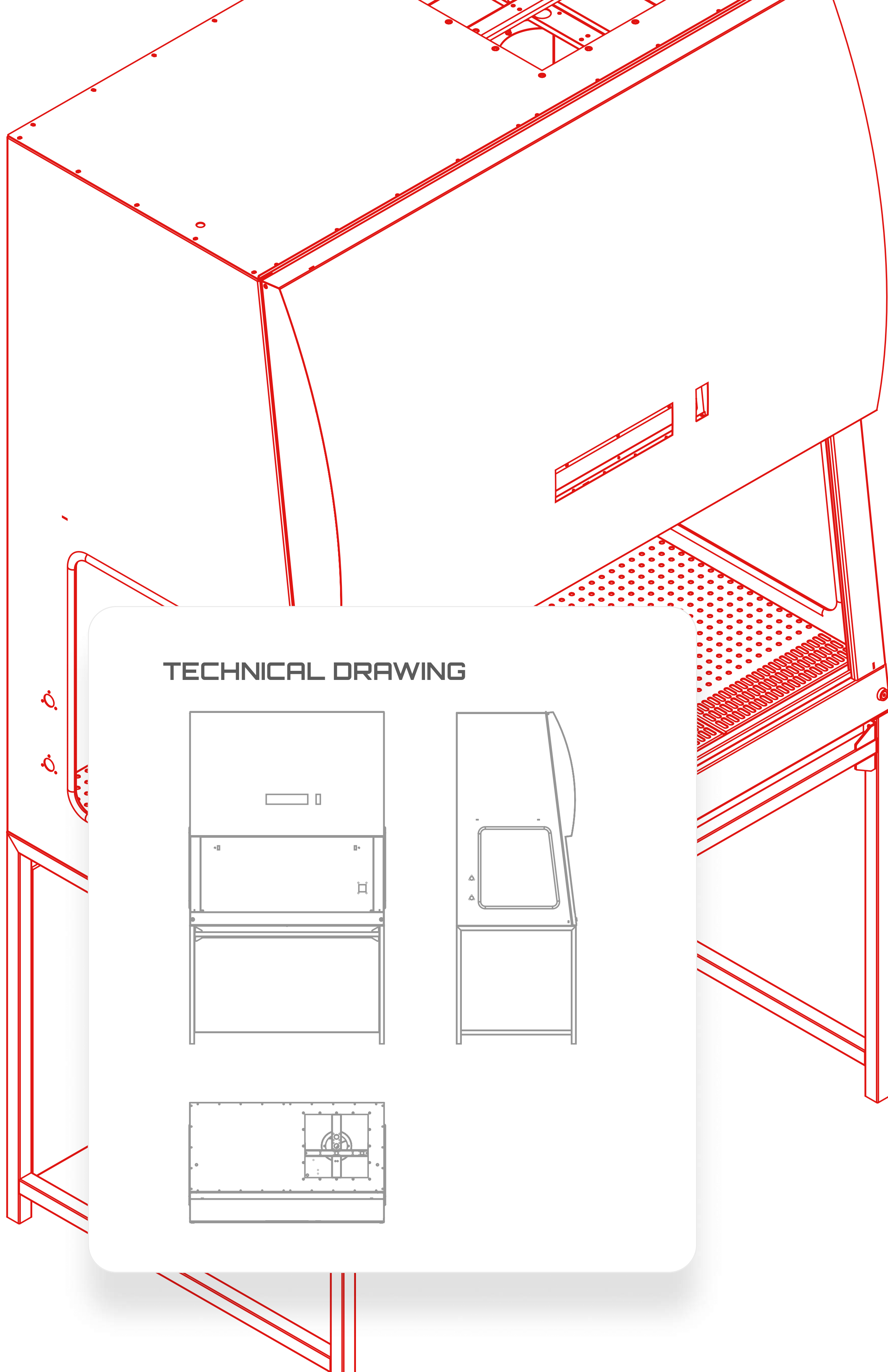
COMPLIANCE

Safety cabinet against biological risks (BIOHAZARD), with work area protected by vertical laminar flow in class ISO 5 (UNI EN ISO 14644-1 standard), benchtop version, classified class II type A/B3 and therefore suitable for the manipulation of pathogens with low/medium biological 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 accordance with:

- UNI EN 12469: 2001 and EN 14644-1 in ISO class 5
- CEI EN 61010-1:2010 (Safety requirements for electrical equipment for measurement, control and for laboratory use)
- EN IEC 61326-1:2021 (electrical equipment for measurement and control used in laboratories and/or for industrial applications)
- 2006/42/EC Machinery Directive
- 2014/30/EU Electromagnetic Compatibility Directive
- European Standard EN 1822

MODELS AVAILABLE

Equipped **as standard** with:

- n°1 perforated worktop in 304L stainless steel that can be broken down into autoclavable segments
- n°2 internal motor fans
- n°3 white light LED lamps
- n°1 HEPA H14 filter in downflow
- n°1 HEPA H14 filter in exhaust
- n°1 800W max socket – 230V 50Hz for small instruments (on the right)
- n°1 230 V - 50 Hz power cable equipped with unel-schuko plug

ACCESSORIES AVAILABLE

- Special worktops
- Floor supports (height 77 cm; worktop height 87 cm)
- Metal cabinets and drawers
- Gas valve taps (existing provision on the left internal side wall)
- Solenoid valve for gas tap
- Additional internal electrical socket type UNEL-schuko 230 V- on the right
- UV lamps
- Installation of U.V.C germicidal lamp in fixed internal location
- Accessories on request
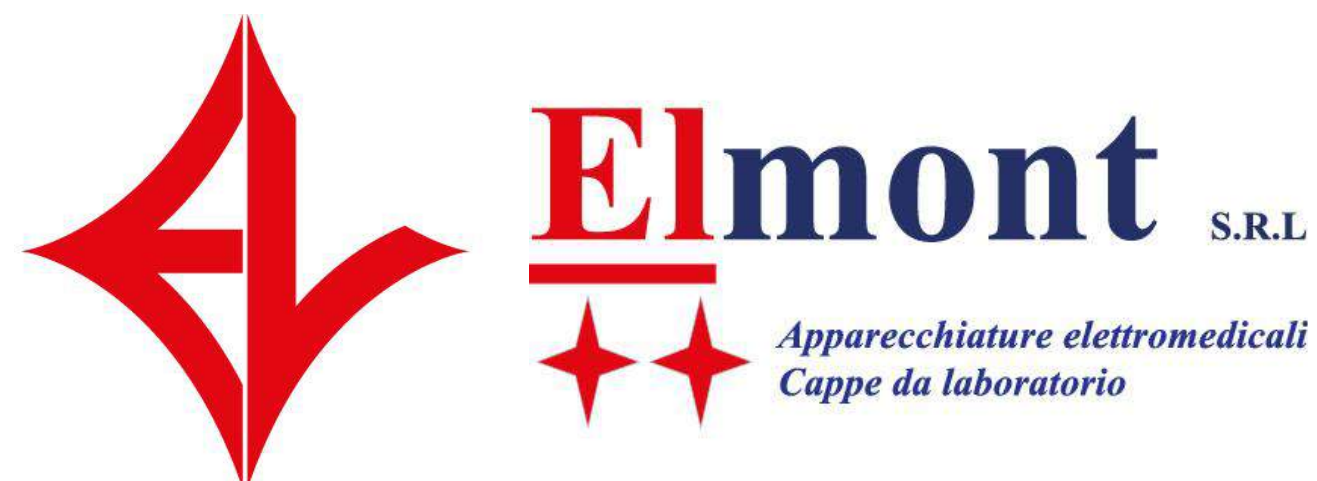- Accessories for possible external channeling

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Elmont s.r.l.

Via G. Di Vittorio 1, 25030 Adro
Tel. +39/0305123683
Fax. +39/0307457833
Email. elmont.srl@tiscali.it
Sito. www.elmontsrl.com

Amedeo Lunardi

Tel. +39/3382614082
a.lunardi.elmont@gmail.com

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www.elmontsrl.com