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

CYTO ACTIVA AND CYTO ACTIVA VE

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

CYTO ACTIVA has been designed for total protection of the operator, the product and the surrounding environment
The Cyto Activa / Cyto Activa VE are class II biohazard equipment with frontal air intake opening from the outside to the inside, ISO 5 class vertical laminar sterile air flow inside the working chamber with HEPA filter 14h (ISO 1822 standards), n.1 HEPA H14 absolute filter in expulsion and an additional HEPA filtration stage under the work surface with high flow rate HEPA H14 filters.

The hood, solid and on the market for years, is characterized by a modern and elegant design, by technically advanced electronics and a remarkable simplicity of maintenance; it's designed for the overall protection of the operator, product and environment. The presence of a third stage of filtration immediately under the work surface makes it ideal for the preparation of cytostatic - antiblastic drugs, treatment of dusts, as well as for medium-risk pathogens (class 1-2).

Main features

Two models proposed in different versions: Cyto Activa (toggle opening of the front glass) and Cyto Activa VE (glass with motorized up-and-down sliding and inclined front).
Available in different width dimensions.

- External carpentry in 12/10 thick sheet metal, oven painted with RAL 7035 polyepoxy powder;
- Internal carpentry in AISI 304L stainless steel scotch-brite finish.
- Perforated worktop in AISI stainless steel 304L scotch-brite finish, divided into several sectors that can be easily extracted and sterilized in an autoclave;
- Filter holder and liquid collection tank in stainless steel under the worktop.
- 6 mm thick tempered protective front glass that can be opened by over 90° with acoustic alarm of a wrong operating condition, equipped with 2 gas springs for glass anti-fall system when opening (Cyto Activa model); with motorized up and down from level zero to 430 mm of maximum height (Cyto Activa VE).
- Possibility of ducting the expelled air to the outside by adding the discharge fitting diam . 250mm (optional).
- N°2 absolute filters (HEPA H14 according to EN1822 standard), removable from the front and top, with efficiency over 99.995% MPPS (ex 99.999% on particles with a diameter equal to or greater than 0.3 microns)
- Third stage of absolute filtration on filters HEPA H14 high flow, located under the worktop. Replacement with the Bag in - bag -out method for laboratory and operator safety.
- Rigid internal dynamic sealing plenum.
- Taken for DOP test on downflow and exhaust
- N° 2 independent electronically controlled fan motors, capable of compensating the load losses due to the progressive clogging of the absolute filters with automatic regulation of the downflow and exhaust air speed (frontal barrier)
- N° 2 valved taps for combustible gas and various gases
- N° 1 internal IP65 4A electric socket; 230V / 50-60Hz for small instruments (IP65)

Control panel

On the control panel, which contains the electronic card controlled by a powerful microprocessor, there are:
General O/I selector
Membrane keyboard with passive button controls
Electronic card equipped with a small graphic display with numerous information in real time
Emergency button for the possibility of increasing the speed of the expelled air flow (operator protection barrier)
Buttons for :

- turning on the internal white LED lamps
- UVC lamp activation (if installed), interlocked and alternative to white light lamp
- ignition of internal centrifugal fan motors
- activation of the safety solenoid valve (if installed) on the gas cock
- inserting power supply of the internal electrical socket
- up/down electric window lifter

Digital electronic hour meter for general machine operation (available for consultation)
Digital electronic hour counter for UVC lamp operation
Digital electronic hour meter for electrical outlet operation
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 outlet 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 shutdown will be displayed
Audible and visual alarms for:

- front glass in wrong position: it is canceled automatically when the glass is closed.
- downflow and/or exhaust anomalies (frontal barrier) due to both 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 is activated when there is no current circulating with the fan powered, i.e. when it does not work
- secondary fan alarm not connected or faulty: it's activates when there is no current circulating with the fan powered, i.e. when it does not work;

Visual pre-alarms with indication on the display of the need for next replacement for:

- UVC lamp lifetime over (appears after 1900 hours of lamp operation)
- limit of use of installed filters reached (appears after 3900 hours of fan motor operation)
- possibility to choose the sound of the buzzer (among the various presets by default);

Display of the event memory in the alarm history, resettable. Possibility of entering a start-up password
Visualization of the temperature inside the working chamber
Stand by system: activated, it makes the machine work in an energy saving regime with reduced laminar flow;
possibility to use the preferred language of the LCD display between Italian, English (other languages on request).

General technical characteristics:

· External drain connection:	mm250 vert (diam . ext) (optional to transform from class II type A, to type B3)
· Exhaust air flow:	Cyto Activa 120 about 400 m3/hour Cyto Activa 180 about 600 m3/hour
· Noisiness:	< 60 dBA
· Thermal increase:	< 4°C
· Filtration Efficiency:	> 99.995%MPPS
· LAF average speed:	0.40 m/sec (default, user editable)
· Barrier average speed:	> 0.40 m/sec (default, user editable)
· Light intensity on the work surface:	> 800 lux
· Power supply:	230V; 50/60Hz
· Nominal power:	0.90 kW (model 120); 1.00 (model 180)
Total external dimensions CYTO ACTIVA:	
· BioActiva 120:	1285 x 800 x 2250mm (L x W xh)
· BioActiva 180:	1895 x 800 x 2250mm (L x W xh)
Internal useful dimensions:	
· BioActiva 120:	1185 x 600 x 650 mm (L x W x h)
· BioActiva 180:	1795 x 600 x 650mm (L x W x H)
· Front opening height in condition of work:	200mm
Total external dimensions CYTO ACTIVA VE:	
· CytoActiva 90 VE:	985 x 800 x 2100 mm (L x W x h)
· CytoActiva 120 VE:	1285 x 800 x 2100 mm (L x W x h)
· CytoActiva 150 VE:	1465 x 800 x 2100 mm (L x W x h)
· CytoActiva 180 VE:	1895 x 800 x 2100mm (L x W xh)
Internal useful dimensions:	
· CytoActiva 90 VE:	915 x 680 x 610mm (L x W x H)
· CytoActiva 120 VE:	1220 x 680 x 610mm (L x W x H)
· CytoActiva 150 VE:	1400 x 680 x 610 mm (L x W x h)
· CytoActiva 180 VE:	1830 x 680 x 610 mm (L x W x H)
Cyto Activa net weight :	
· CytoActiva 120:	280kg
· CytoActiva 180:	350kg
Cyto Activa VE net weight:	
· CytoActiva 90 VE:	250kg
· CytoActiva 120 VE:	290kg
· CytoActiva 150 VE:	320kg
· CytoActiva 180 VE:	360kg

Compliance

Safety cabinet against biological risks (BIOHAZARD), with work chamber protected from vertical laminar flow in class ISO 5 (standard EN 14644-1), bench version, classified class II type A/B3 and therefore suitable for handling pathogens at low and medium biological risk.
Built in compliance with:

- European Standard UNI-EN12469:2000 (vertical laminar flow cabinets) European Standard EN 1822 (absolute filters)
- 2006/42/EC Machinery Directive
- 2014/30/EU Electromagnetic Compatibility Directive
- CEI EN 61010-1:2010 (Safety requirements electrical equipment, measurement, control and laboratory use)

Models available

Cyto Activa equipped with:

n°1 modular perforated worktop
n°1 front night closing panel
n°2 internal centrifugal fan motors
n°3 white led lamps at 4000°K
n°1 downflow HEPA H14 filter
n°1 HEPA H14 exhaust filter
n°1 HEPA H14 filtration stage under the worktop
n°1 internal 800W electric socket
n°1 power supply cable 230 V – 50/60 Hz equipped with UNEL-schuko type plug

Cyto Activa VE equipped with:

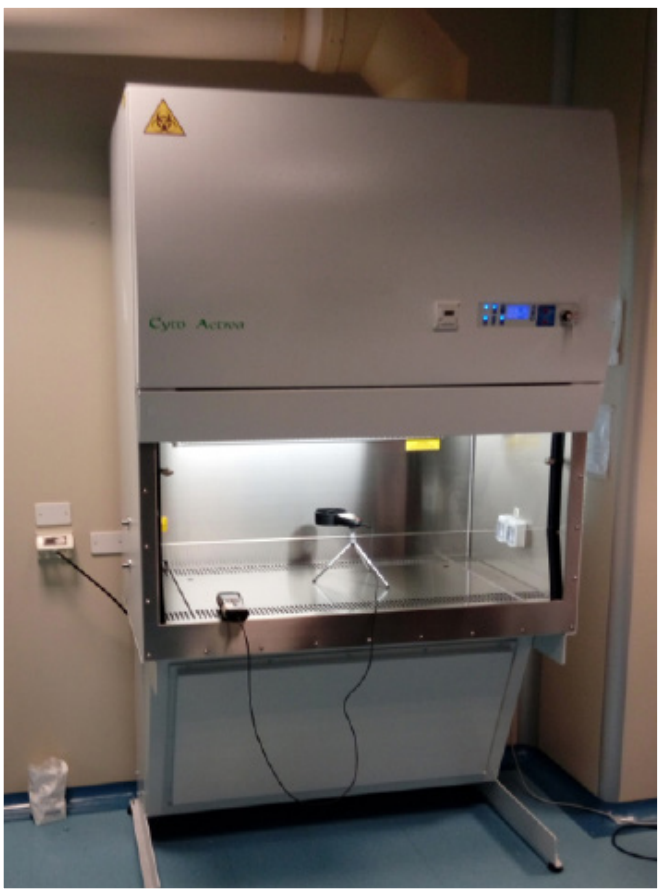
n°1 modular perforated worktop
n°1 electric window lifter gearmotor
n°2 internal centrifugal fan motors
n°3 white led lamps at 4000°K
n°1 downflow HEPA H14 filter
n°1 HEPA H14 exhaust filter
n°1 HEPA H14 filtration stage under the worktop
n°1 internal 800W electric socket
n°1 power supply cable 230 V – 50/60 Hz equipped with UNEL-schuko type plug

Some optional accessories on request:

Special worktops
Floor stands (height 77 cm; worktop height 87 cm)
Cabinets and chests of drawers
Gas taps (prearranged for drilling on the left side)
Additional electrical sockets (preparation is standard on some models)
Solenoid valve on gas cock
UVC germicidal lamps in fixed internal location
Accessories for possible channeling of the expelled air to the outside


Cyto Accua VE


Enhaust flow 0.61
Laminar flow 0,39
Environment Temp 22,3
Total hours 19
Enter


Cyto Accua