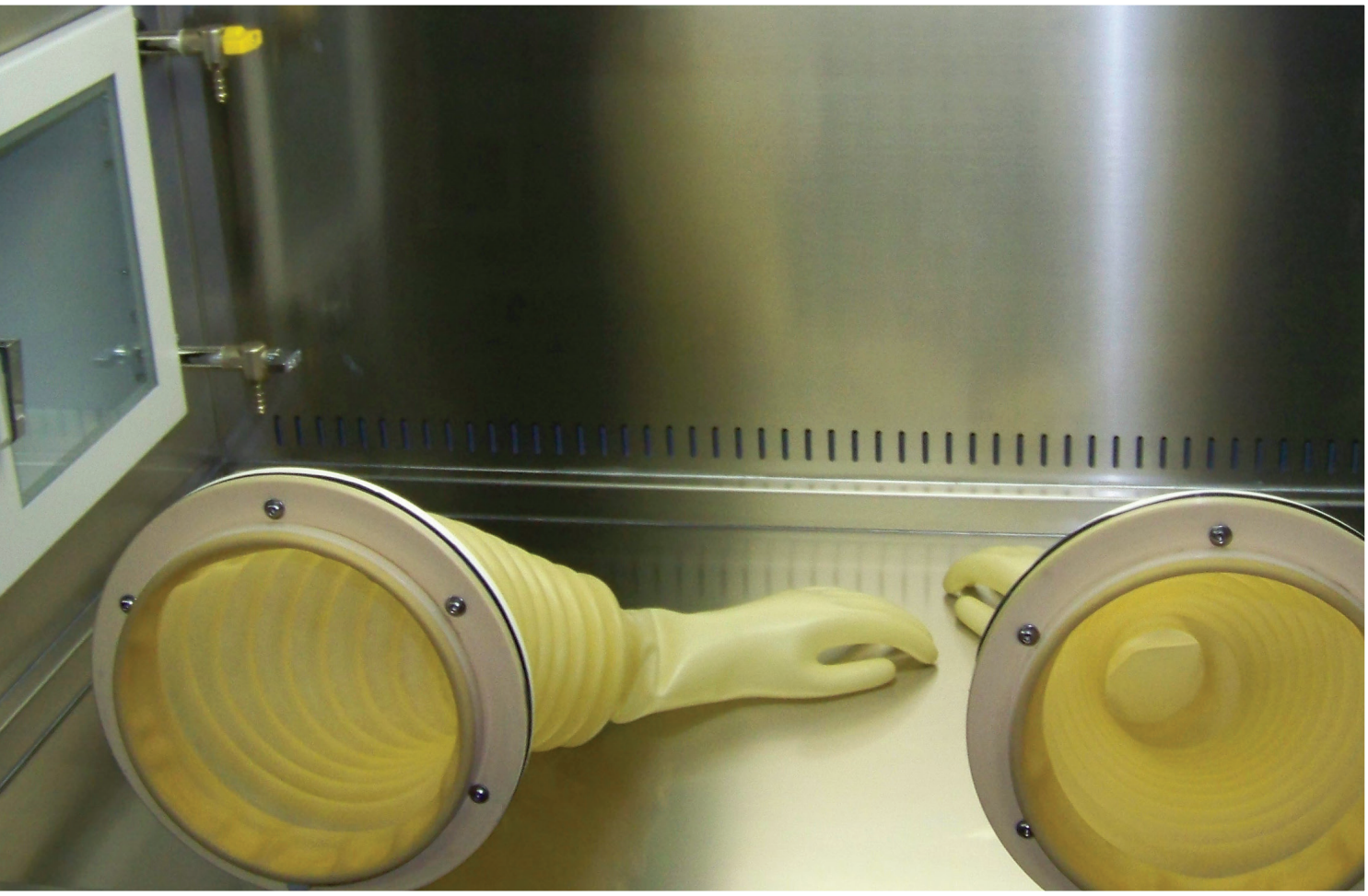
Technical description
class III benchtop equipment

MINI LABO ISOLATOR 90



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Elmont S.R.L.
Costruzioni Elettriche Generali

Isolator device made with a sterile and hermetically closed work area under negative pressure, designed to ensure a high level of personal protection from biological risk or the treatment of dusts dangerous for humans. Transportable hood, suitable for preparations in laboratories and pharmacies, mobile vehicles. It can be placed on any existing bench or placed on a suitable floor support.

The air entering from the hood roof, passes through a prefilter and an absolute Hepa H14 filter, then invests purified the working chamber creating an ISO5 zone (according to the UNI-EN-ISO14644-1 standards), then it is sucked by the perforated stainless steel work and then totally expelled from the fan after purification through a ULPA filter placed in the internal compartment - filter holder and motor - of the appliance.

On the left side of the machine there is the material transfer box, with 1 front door for the introduction of materials from the outside towards the pre-chamber of transit in depression; the ambient air entering it during opening of the hatch is purified by a HEPA filter positioned in the ceiling before expulsion to the outside; a second door with watertight closure on gasket, inside the machine, divides the material passage box from the work chamber. The fan will increase its rotation speed when the door of the external material handling box is opened, and will return to its automatically controlled speed when it is closed.
The two doors described above are interlocked with each other, to avoid simultaneous opening and the risk of contamination.

The air flow is kept constant by the electronic board, equipped with appropriate alarms, having self-regulation of the flow rate of the air treated in the hood by detecting the installed anemometric probe.

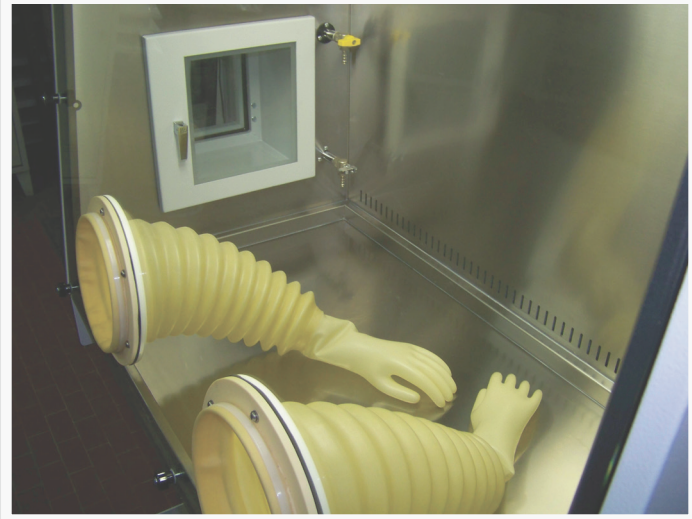
The operator will be able to safely handle the products placed in the work area through bellows latex gloves positioned and fixed, by means of flanges, on the inclined front window of the hood. Excellent vision of the interior of the work chamber.

prefilter detail

mini labo isolator 90

Structure

- External carpentry in steel sheet (thickness 12/10), epoxy powder coating, RAL 7035;
  Back panel and work chamber tops made of 304 stainless steel scotch-brite surface finish with rounded corners and edges;
- Work area completely closed and in depression, accessible only from the side material transfer box;
- Material transfer box located on the left side of the device, with two tempered glass doors equipped with turn and lift safety locks, accessible from the left front side of the machine;
- Worktop in 2 perforated segments aspirated from below made of stainless steel 304 L scotch brite;
- Front panel in 6 mm thick transparent tempered glass, equipped with 2 hermetic locking knobs and hinges on the upper side. Self-holding in opening position on gas pistons for internal cleaning.
- Front access panel to the work area equipped with 2 extensible rubber latex gloves, which can be replaced from the outside with the Glove IN / Glove OUT method;
- Absolute filtration of the external intake air by means of 1 prefilter on the hood roof that can be easily replaced in G3 arrestance class, and 1 absolute HEPA H14 filter with 99.995% MPPS efficiency in accordance with EN1822;
- Absolute filtration of the air expelled from the work chamber by means of 1 ULPA filter in class U15 with efficiency 99.9995% MPPS in accordance with EN 1822;
- Absolute filtration of the air expelled from the material pass box by means of 1 HEPA filter in class H14 with 99.9995% MPPS efficiency in accordance with EN 1822;
- Possibility of conveying the filtered air expelled to the outside of the building (zero recirculation) by means of a Ø 160 mm PVC pipe connected to the flange of the drain fitting (to be ordered separately);
- Connection attachment for DOP test instruments;
- Centrifugal fan inside the hood operating at variable voltage, automatically adjusted by the hood's electronic board according to the parameters set;
  Self-regulation of the preset flow speed according to the progressive clogging of the absolute inlet filter and the 2 absolute exhaust filters;
  Real-time verification of the incoming air flow (in m / sec) via the digital display on the front panel;
  15 Watt UV lamp with interlocked activation with respect to white LED lighting;
  Electronic card controlled by a microprocessor;
  Membrane keyboard (soft touch) with antistatic protection.



Control panel

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

- Blue bipolar light O / I main switch;
- Membrane keyboard (soft touch) with antistatic protection;
- Digital display with indication of the speed of air circulating in the car (in m / sec);
- Digital electronic hour meter of general operation equipment;
- Electronic digital hour meter for U.V.C lamp operation;
- Countdown U.V.C lamp operation timer that can be set by the customer with auto-off at the end of the cycle;
- Insufficient alarm speed of the air circulating in the hood;
- Insufficient depression alarm inside the working chamber;
- Early warning of the need to replace absolute filters with indication on the display;
- Pre-alarm of upcoming UVC lamp replacement with indication on the display.

Technical features

· Incoming air filtration efficiency:	n ° 1 absolute HEPA H14 filter: 99.995% MPPS
· Treated air filtration efficiency:	n ° 1 ULPA U15 absolute filter: 99.9995% MPPS
· Filtering efficiency of material pass boxes:	n ° 1 absolute HEPA H14 filter: 99.995% MPPS
· White lamp:	10 Watt LED
· Light intensity:	ca. 700 lux
· UVC germicidal lamp:	15 Watt, with interlocked activation with respect to LED lighting
· Speed of the incoming air:	default 0.7m / s; user adjustable on software parameters
· External drain connection:	160 vert ext mm)
· Material transfer box dimensions:	mm 240 x 320 (side x side) x 420 (depth)
· Total external dimensions:	mm 905 x 620 x 1020 (L x P x h)
· Useful chamber dimensions:	mm 600 L x 500 (worktop) / 400 (ceiling) D x 520 h
· Power supply:	single-phase 230 V; 50/60 Hz
· Total installed power:	0.26 kW
· Additional admissible powers:	2P + T socket max 800 Watt
· Net weight:	90 kg approx

Compliance

Safety cabinet against biological risks (BIOHAZARD) in the counter version, classified Class III type B2 and therefore suitable for handling medium-high risk pathogens (group IV).
Also perfect for treating even dangerous dusts (e.g. asbestos)

Compliant with:
CE conformity mark
European standard EN 1822 and EN12469: 2000
British Standard Institution (BSI 5726 Part 1)
Deutsches Institute fuer Normueng (DIN 12950 Teil 10)

Equipped with:
1 perforated worktop in AISI 304 stainless steel
n ° 1 absolute HEPA H14 inlet filter (from the machine roof)
n ° 1 absolute HEPA H14 filter expelled from material pass boxes
n ° 1 ULPA U15 absolute filter expelled from the working chamber
n ° 1 10W LED lamp
n ° 1 15W UVC germicidal lamp
n ° 2 rubber latex gloves
n ° 1 extractor motor box that can be freely positioned remotely, with 12m flex hose
n ° 1 internal electrical service socket for small instruments 230 V / 50 Hz
230 V - 50 Hz (1 phase + 1 neutral + 1 earth) power supply cable with plug

Available upon request:
Floor stand
Metal cabinet with 1 removable door on wheels
Removable metal chest of drawers on wheels
Height-adjustable stool with backrest
Solenoid valve on gas cock
1 ball valve kit for combustible or technical gas
Additional internal electrical socket
Accessories for outdoor ducting
Bunsen burner with electronic control
Foot control for Bunsen burner
Chromed bottle holder bar
Differential pressure gauge for checking the efficiency of HEPA filters