LAMSYSTEMS

MICROBIOLOGICAL
SAFETY CABINETS
Class III

OPERATOR,
ENVIRONMENT,
PRODUCT
PROTECTION

www.lamsys.com

The document is interactive and by clicking the active icons you can go to an associated product webpage, brochure or video:

Video

FEATURES OF CLASS III CABINETS

THE MAIN FEATURE AND ADVANTAGE OF LAMSYSTEMS CABINETS IS ENSURING SAFE AND COMFORTABLE WORK OF AN OPERATOR.

HIGH-QUALITY MATERIALS are used for production of the cabinets.

FRONT WINDOW has ergonomic oval-shaped glove ports the size and location of which may vary.

To allow equipment loading, the front sash **CAN BE LIFTED UP** thanks to gas springs in its configuration.
Material of the front sash is **LAMINATED SAFETY GLASS.**

ALL-WELDED WORK CHAMBER is made of AISI 304 stainless steel that is highly resistant to corrosion as well as to mechanical and chemical impact.

CHAMBER GLOVES WITH SILICON O-RINGS are impermeable to water, gas and vapor, can be used in a wide temperature range and are resistant to certain solvents.

TOUCHSCREEN ENSURES CLEAR visualization of operating modes and simple control of the cabinet as well as provides the user with more service and maintenance information.

At operation mode, the screen displays the cabinet configuration with airflow layout as well as current pressure in the work chamber and service data.

In addition to the control screen, a **DIFFERENTIAL PRESSURE GAUGE** located on the front panel of the cabinet indicates the operating pressure.

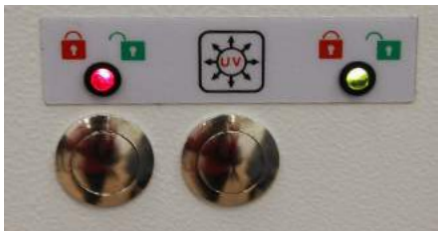
In case of any disturbance of the operation mode, an **AUDIBLE AND VISIBLE ALARM** is automatically activated and a corresponding message is displayed on the control panel.

Video

The control screen allows operation in gloves and wet cleaning with disinfectants (including the hydrogen peroxide).

THE PASS BOX is leak-tight and can be either straight or corner type.
External case of the pass box is made of powder coated steel, the working chamber is made of stainless steel.
Door windows are made of **TEMPERED GLASS.**
For convenient disinfection, **THE PASS BOX IS FEATURED WITH TWO UV LAMPS.**

As per Customer's request, the pass box can be equipped with a **HYDROGEN PEROXIDE DISINFECTION SYSTEM.**
A PULLOUT PERFORATED TRAY ensures simple transferring of objects from the pass box into the work chamber and UV irradiation of the bottom of the transferred materials.



The pass box is featured with **ELECTROMECHANICAL DOOR INTERLOCK SYSTEM** for preventing simultaneous opening of both of the doors and, consequently, depressurization of the work chamber.

THE WORK CHAMBER FITS WELL FOR CLEANING AND DISINFECTION: has rounded corners, a UV lamp and removable electric sockets with external power switch.
A special cleaning mode allows disinfection of the work surfaces when fans are on.

THE CABINETS CAN BE CUSTOMIZED IN ACCORDANCE WITH REQUIREMENTS OF TECHNOLOGICAL PROCESSES OF A CUSTOMER OR THEIR APPLICATION FIELD

ADDITIONAL OPTION OF CLASS III CABINETS

SELF-CONTAINED GLOVE INTEGRITY TESTING KIT ENSURES IDENTIFICATION OF ANY DEFECTS AS SMALL AS A NEEDLE PUNCTURE

The kit consists of a glove port plug with a built-in pressure gauge and a compressed air line connection valve.

The glove ports are featured with catches and guides for self-contained glove integrity testing kit fixation.

LAMSYSTEMS

PROTECT

BMB-II-«Laminar-S.»

MICROBIOLOGICAL SAFETY CABINETS
Class III

– Reduction of risk of infection of an operator working with airborne pathogenic agents and microorganisms, protection of the environment as well as the product from external contamination and cross-contamination.

– Possibility to work with small amount of toxic chemicals and radionuclides as well as to remove work agent odors in case of mandatory connection to an active exhaust system.

– Equipment of individual work places in medical, pharmaceutical and other institutions working with I-II-III-IV risk group pathogens and parasitic disease causative microorganisms.

1200 mm 1800 mm

THE CABINET IS CONTROLLED via a touchscreen control panel.

FRONT SASH is featured with oval-shaped glove ports; the material of the window is laminated safety glass resistant to UV and disinfectants.

Each glove port is equipped with a CHAMBER GLOVE.

In the bottom part of the work chamber, there is a 10-liter LIQUID-COLLECTING TRAY (without drain).

LED LIGHTING of the work chamber.

REMOVABLE SET OF SOCKETS.

UV LIGHT in the work chamber.

LEAK-TIGHT PASS BOX.

The model of 1800 mm width has 4 glove ports allowing simultaneous work of two operators

BSC Class III

BMB-III-«Laminar-S.» **PROTECT**

MAIN CHARACTERISTICS

Installation work chamber air cleanliness class for suspended particle (aerosol) concentration as per ISO 14644-1

– for particles of 0.5μm and more ..... ISO 5

– for particles of 5.0μm and more ..... ISO M (20; ⩾5μm); LSAPC

Cabinet class according to EN 12469 III

Class of the installed HEPA filters according to EN 1822-1 ..... H14

Prefilter class according to EN779 ..... G4

Minimum negative pressure in the work chamber, Pa 200

Constantly maintained (operating) negative pressure in the work chamber, Pa, ... 250

Supply air filtration ..... two-stage (G4, H14)

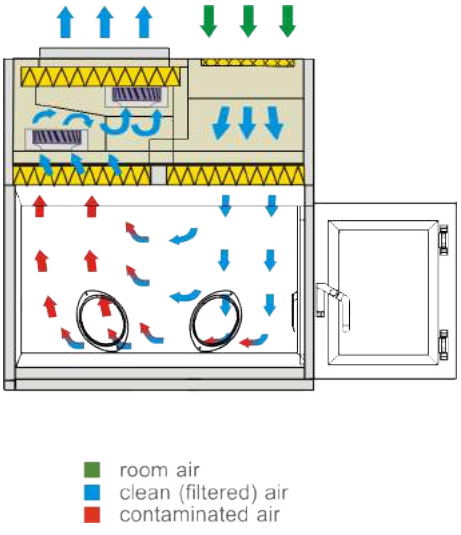
Exhaust air filtration ..... two-stage (H14, H14)

MAIN PARAMETERS AND DIMENSIONS

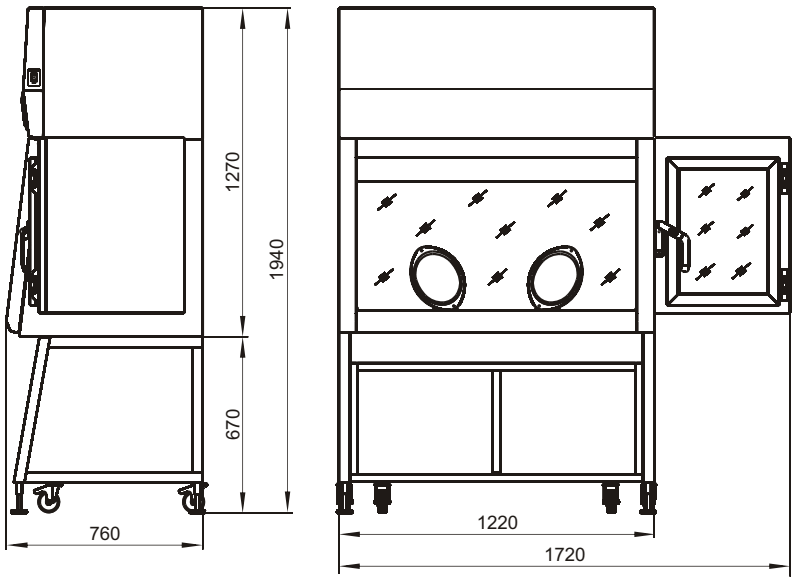
Article	2E-C.001-12	2E-C.001-18
Maximum dimensions of the cabinet with pass box* (WxDxH), mm	1720x750x1940*	2320x750x1940*
Dimensions of the work chamber (WxDxH), mm	1140x640x675	1740x640x675
Maximum input power (without built-in electric sockets), W	420	460
Maximum allowed load on the built-in electric sockets, W	1000	1000
Minimum downflow, m^3/h	270-320	400-450
Minimum illumination of the work zone, lx	1500	2000
Maximum net weight of the cabinet with stand, kg	350	400

** Dimensions do not account for outstanding supports.*

AIRFLOW LAYOUT



DIMENSIONAL DRAWING 2E-C.001-12



LAMSYSTEMS

PROTECT VIS-A-VIS

BMB-II-«Laminar-S.»

MICROBIOLOGICAL SAFETY CABINETS
Class III

1200 mm 1800 mm

– Reduction of risk of infection of an operator working with airborne pathogenic agents and microorganisms, protection of the environment as well as the product from external contamination and crosscontamination.

– Possibility to work with small amount of toxic chemicals and radionuclides as well as to remove work agent odors in case of mandatory connection to an active exhaust system.

– Equipment of individual work places in medical, pharmaceutical and other institutions working with I-II-III-IV risk group pathogens and parasitic disease causative microorganisms.

- The cabinet is designed for operators working simultaneously opposite one another (special configuration VIS-A-VIS).

CONTROL SYSTEM COMPONENTS:
– control system boards are located under the front panel outside of the contamination area to ensure access for electronic component repair or replacemnt without prior decontamination required;
– cabinet control is carried out via a touchscreen control panel;
– pass box control panel is pushbutton with door and lock position indication.

WORK CHAMBER:
– work chamber is made of stainless steel;
– hinged front sashes for equipment loading; each front window has oval-shaped glove ports. The windows are made of laminated safety glass;
– 10-liter liquid-collecting tray is located in the bottom part of the work chamber;
– LED lighting in the work chamber;
– removable set of electric sockets.

SUPPLY AND EXHAUST AIR FILTRATION SYSTEM:
– filtration of the air coming into the work chamber is carried out via successive filters: prefilter G4 and supply HEPA filter H14;
– filtration of the exhaust air coming out of the cabinet is carried out via two successive exhaust HEPA filters H14.

LEAK-TIGHT PASS BOX.

! The cabinet is designed for simultaneous work of two operators opposite one another. The model of 1800 mm width has 8 glove ports

BSC Class III

BMB-III-«Laminar-S.» **PROTECT VIS-A-VIS**

MAIN CHARACTERISTICS

Installation work chamber air cleanliness class for suspended particle (aerosol) concentration as per ISO 14644-1

– for particles of 0.5μm and more ..... ISO 5

– for particles of 5.0μm and more ..... ISO M (20; ⩾5μm); LSAPC

Cabinet class according to EN 12469 III

Class of the installed HEPA filters according to EN 1822-1 ..... H14

Prefilter class according to EN 779 ..... G4

Minimum negative pressure in the working chamber, Pa, not less than 200

Constantly maintained (operating) negative pressure in the work chamber, Pa 250

Supply air filtration ..... two-stage (G4, H14)

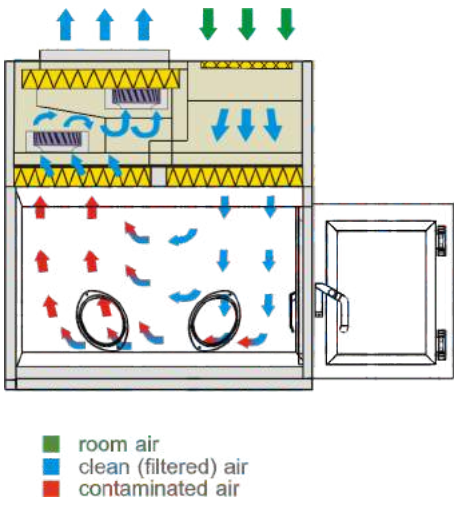
Exhaust air filtration ..... two-stage (H14, H14)

MAIN PARAMETERS AND DIMENSIONS

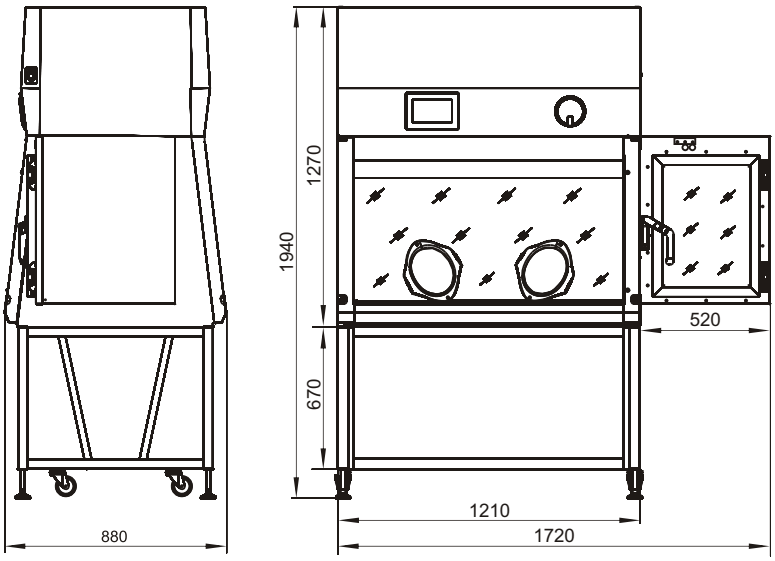
Article	2E-C.002-12	2E-C.002-18
Maximum dimensions of the cabinet with pass box* (WxDxH), mm	1720x880x1940*	2320x880x1940*
Dimensions of the work chamber (WxDxH), mm	1040x655x685	1640x655x685
Maximum rated input power (without built-in electric sockets), W	450	460
Maximum allowed load on the built-in electric sockets, W	1000	1000
Minimum downflow, m^3/h	270-320	400-450
Minimum illumination of the work zone, lx	2000	2000
Maximum net weight of the cabinet with stand, kg	350	400

** Dimensions do not account for outstanding supports.*

AIRFLOW LAYOUT



DIMENSIONAL DRAWING 2E-C.002-12



LAMSYSTEMS

CUSTOMIZED DESIGN

EXTENSIVE EXPERIENCE AND HIGH QUALIFICATION OF OUR SPECIALISTS, UNIQUE ENGINEERING AND TECHNOLOGICAL DEVELOPMENTS, THE LATEST EQUIPMENT AND MACHINERY – ALL OF THE ABOVE ALLOWS CREATION OF ANY NON-STANDARD PRODUCTS.

These are just few of our products developed for some of our Customers in accordance with their technical requirements.

Cabinet with reduced dimensions

Cabinet with body made of stainless steel with two pass boxes

VIS-À-VIS cabinet with multi-height location of the glove ports

ARRANGEMENT SOLUTIONS

BASED ON OUR EQUIPMENT, COMPLETE LINES FOR CONTINUOUS TECHNOLOGICAL PROCESSES CAN BE DEVELOPED

The equipment lines can consist of biosafety cabinets, laminar flow cabinets, fume hoods, positive and negative pressure isolators etc.

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LAMSYSTEMS

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Published in 2023.