

Laminar flow safety cabinets
Steril Line



Angelantoni Life Science's series of biological safety cabinets represents the high quality range of microbiological cabinets that protects the operator, the product and the environment. This line is synonymous with technological excellence and translates into safety, reliability and comfort.

STERIL represents a wide range of laminar and horizontal flow cabinets for microbiology, biology, chemistry and electronics laboratories, for the preparation of antiplastic drugs or genetic sequencing and engineering.

The biological or microbiological safety cabinets, also called biohazard cabinets, are primary collective protective equipment present in every biological laboratory as they protect the operator and the work environment from the risk of exposure to aerosols of potential pathogens.

Some versions of the range are also used to ensure operator safety and sterile conditions of the handled product, as in the case of cell culture or in the preparation of chemotherapy drugs.

The biohazard hoods are divided into two types based on laminar flow direction:

- Horizontal laminar flow hood (**HELIOS**)
- Vertical laminar flow hood (**GEMINI, POLARIS**)

With regard to the legislation on safety levels, laminar flow hoods are grouped into classes:

CLASS I: Hoods with front opening, protection is achieved thanks to the air flow direct from the outside to the inside of the hood through the front opening. Environmental protection is achieved through a HEPA filter in the exhaust system. They do not protect the sample from contamination and are suitable for use with biological agents with low and medium handling risk;

CLASS II: Hoods designed to protect both the operator and the sample. These hoods consist of a perforated stainless steel top, which allows the air previously filtered to enter through a HEPA filters system, one at the inlet and one at the outlet. 30% of the air comes out of these hoods, while the remaining 70% remains inside them, ensuring complete sterile conditions. The air enters the hood with a vertical flow, so that microorganisms are unable to leave the work environment and do not contaminate the operator.

(**BIOBAN, STERILSAFE, STERILSAFE EVO, STERILSAFE TE, VBH, CTH, CTH EVO, TOPFLOW**);

CLASS III: Fully hermetically sealed hoods, operate at negative pressure and manipulations inside the hood are carried out using gloves inserted into the hood structure, hence the name "glove box". They are equipped with a HEPA filter on the inlet air and a double HEPA filter on the outlet air, allowing total protection of the operator and the environment. They are therefore suitable for handling high biological risk and are also used when handling carcinogens and antiplastic agents.

(**CYTOBOX, CYTOBOX LIGHT**);

CLASS ISO 3: according to **EN standard 14644-1**: These cabinets are used in all situations where the product needs to be protected from harmful effects due to the uncontrolled spread of airborne contaminants during handling.

(**GEMINI, POLARIS, HELIOS**);

SAFETY HOODS MICROBIOLOGICAL

STERIL STERILSAFE EVO
CLASS II A

STERIL STERILSAFE
CLASS II A

STERIL STERILSAFE TE
CLASS II A

VBH
CLASS II A

BIOBAN
CLASS II A

SAFETY HOODS MICROBIOLOGICAL FOR CYTOTOXIC DRUGS

CTH
CLASS II

CTH EVO
CLASS II

GLOVE BOX

CYTOBOX
CLASS III

CYTOBOX LIGHT
CLASS III

FLOW HOODS HORIZONTAL LAMINAR

HELIOS
CLASS ISO 3

FLOW HOODS VERTICAL LAMINAR

GEMINI
CLASS ISO 3

POLARIS
CLASS ISO 3

FLOW CABINETS VERTICAL LAMINAR FOR APPLICATIONS ZOOOPHILAXIS

TOPFLOW
CLASS II

MODULAR SYSTEMS LAMINAR FLOW

CLASS II MICROBIOLOGICAL SAFETY HOODS

Class II hoods provide protection to both the operator and the sample, assuring complete sterile conditions. They consist of a perforated stainless steel top, which allows the air previously filtered to enter through a 2 HEPA filters system, placed at close range. 30% of the air escapes to the outside, while the remaining 70% remains in the hood. The air enters the hood with a vertical flow, so that microorganisms are unable to leave the work environment and do not contaminate the operator (in case of pathogenic microorganisms). Indicated for handling group II and group III microorganisms.

STERILSAFE EVO

CLASS II A

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The **STERILSAFE EVO** line is used in all situations where it is required to protect the operator and the environment from the harmful effects of uncontrolled spreading of airborne contaminants and, equally, to ensure that no environmental interference of a microbiological nature can affect the product during its handling.

The **STERILSAFE EVO** model is made of powder-coated stainless steel, with a worktop that can be adjusted into segments and is lit. The walls are made of tempered glass and front screen with electronic opening.

The ventilation system is built using two low-consumption DC fans that feed a unidirectional air flow towards the work area, while the recirculation and exhaust air filtration is carried out with HEPA H14 filters with 99.995% MPPS efficiency

Standard Equipment

- Perforated top, divided into sectors
- Power socket (2 sockets in models 60 and 72)
- DEHS port 100%
- Vacuum tap
- Gas tap with solenoid valve

- Floor support
- UV lamp
- Additional power sockets
- Armrests (pair)
- Chest of drawers on wheels
- Gas/nitrogen/vacuum/compressed air taps
- Additional power socket
- Dry contact NO/NC
- Blind side walls (on request, with no surcharge)
- Touch screen controller

Optional accessories

- Blind top, divided in sectors (on request, with no surcharge)



TECHNICAL SPECIFICATIONS

DESCRIPTION	UNIT	STERILSAFE EVO 36	STERILSAFE EVO 48	STERILSAFE EVO 60	STERILSAFE EVO 72
Code		14652	14653	14654	14655
Outer dimensions LxPxH ⁽¹⁾	mm	1045x855x1545	1350x855x1545	1655x855x1545	1960x855x1545
Internal dimensions LxPxH	mm	887x580x740	1192x580x740	1497x580x740	1802x580x740
Front opening	mm	160			
Max front opening	mm	440			
Weight	kg	170	195	225	260
Ejected volume	m ³ /h	290	390	485	585
Noise level ⁽²⁾	dB(A)	41	42,5	47	49
Lighting level	lux	>1100	>1200	>1300	>1300
Power supply		230V / 1 + T / 50Hz			
Consumption ⁽³⁾	A	0,5	0,6	0,9	1,2
Electrical Class/IP		1/20			
Internal sockets		The sockets have a maximum load of 6A and are protected by a T6A fuse			
Heat generation	W	78	84,4	128	171

(1) The total height can be reduced to 1995 mm for narrow passages during transport

(2) Under operating conditions, in accordance with EN 12469:2000

(3) Clean filters, lighting activated, internal sockets without loads

STERILSAFE

CLASS II A

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The **STERILSAFE** line is used in all situations where it is required to protect the operator and the environment from the harmful effects of uncontrolled spreading of airborne contaminants and, equally, to ensure that no environmental interference of a microbiological nature can affect the product during its handling.

The STERILSAFE model is made of powder-coated stainless steel, with a worktop that can be adjusted into segments and is lit. The walls are made of tempered glass and front screen with electronic opening.

The ventilation system is built using two centrifugal fans that feed a unidirectional air flow towards the work area, while the recirculation and exhaust air filtration is carried out with HEPA H14 filters with 99.995% MPPS efficiency.

Standard Equipment

- Perforated top, divided into sectors
- Power socket (2 sockets in models 60 and 72)
- DEHS port 100%
- Vacuum tap
- Gas tap with solenoid valve

Option accessories

- Blind top, divided in sectors (on request, with no surcharge)
- Floor support
- UV lamp
- Additional power sockets
- Armrests (pair)
- Chest of drawers on wheels
- Gas/nitrogen/vacuum/compressed air taps
- Additional power socket
- Dry contact NA/NC
- Blind side walls (on request, with no surcharge)
- Touch screen controller



STERILSAFE series hoods, specifically models 48 (120cm) and 72 (180) only, are certified by TÜV Rheinland Group according to EN 12469:2000

TECHNICAL SPECIFICATIONS

DESCRIPTION	UNIT	STERILSAFE 36	STERILSAFE 48	STERILSAFE 60	STERILSAFE 72
Code		14500	14501	14502	14503
Outer dimensions LxPxH ⁽¹⁾	mm	1045x855x1545	1350x855x1545	1655x855x1545	1960x855x1545
Internal dimensions LxPxH	mm	887x580x740	1192x580x740	1497x580x740	1802x580x740
Front opening	mm	200 *			
Max front opening	mm	490			
Weight	kg	170	195	225	260
Ejected volume	m ³ /h	290	390	485	585
Noise level ⁽²⁾	dB(A)	<53	<54	<55	<56
Lightning level	lux	>1100	>1200	>1300	>1300
Power supply		230V / 1 + T / 50Hz			
Consumption ⁽³⁾	A	1,9	2,1	3,4	3,6
Electrical Class/IP		1/20			
Internal sockets		The sockets have a maximum load of 6A and are protected by a T6A fuse			
Heat generation	W	175	240	295	360

(1) The total height can be reduced to 1995 mm for narrow passages during transport

(2) Under operating conditions, in accordance with EN 12469:2000

(3) Clean filters, lighting activated, internal sockets without loads

STERILSAFE TE

CLASS II A Type B2

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STERILSAFE TE (Total Exhaust) class II hoods with total exhaust air involved (B2) belong to the latest generation of laminar air flow systems where construction with the highest quality materials ensures compliance with the strictest safety standards. STERILSAFE TE are microbiological safety cabinets with 100% of air ejected according to NSF / ANSI 49; they are designed to provide protection to the operator, the product (ISO 5 according to ISO/EN 14644-1) and the environment and to eject 100% of the air outside the building. Commonly used in laboratories to handle volatile toxic chemicals and radionuclides. They are also required in a wide range of applications such as: microbiology, virology, haematology, cell culture, genetics, handling of agents hazardous to humans or animals.

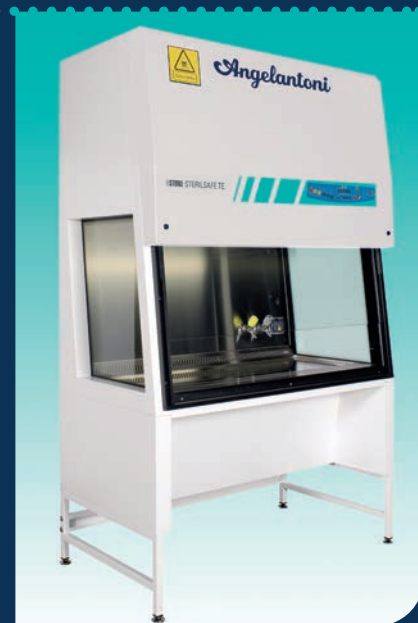
The STERILSAFE TE model is made of powder-coated stainless steel, with a worktop that can be adjusted into segments and is lit. Equipped with a special inclined top to facilitate air filter maintenance and replacement. The walls are made of tempered glass and front screen with electronic opening. The ventilation system is built using two centrifugal fans that feed a unidirectional air flow towards the work area, while the recirculation and exhaust air filtration is carried out with HEPA H14 filters with 99.995% MPPS efficiency

Standard Equipment

- Perforated top, divided into sectors
- Power socket (2 sockets in models 60 and 72)
- DEHS port 100%
- Vacuum tap
- Gas tap with solenoid valve

Option accessories

- Blind top, divided in sectors (on request, with no surcharge)
- Floor support
- UV lamp
- Additional power sockets
- Armrests (pair)
- Chest of drawers on wheels
- Gas/nitrogen/vacuum/compressed air taps
- Additional power socket
- Dry contact NA/NC
- Blind side walls (on request, with no surcharge)
- Touch screen controller



TECHNICAL SPECIFICATIONS

DESCRIPTION	UNIT	STERILSAFE 36 TE	STERILSAFE 48 TE	STERILSAFE 60 TE	STERILSAFE 72 TE
Code		14690	14691	14692	14693
Outer dimensions LxPxH ⁽¹⁾	mm	1045x855x1545	1350x855x1545	1655x855x1545	1960x855x1545
Internal dimensions LxPxH	mm	887x580x740	1192x580x740	1497x580x740	1802x580x740
Front opening	mm	200			
Max front opening	mm	490			
Weight	kg	170	195	225	260
Ejected volume	m ³ /h	1065	1420	1780	2140
Noise level ⁽²⁾	dB(A)	<53	<54	<55	<56
Lightning level	lux	>1100	>1200	>1300	>1300
Power supply		230V / 1 + T / 50Hz			
Consumption ⁽³⁾	A	1,9	2,1	3,4	3,6
Electrical Class/IP		1/20			
Internal sockets		The sockets have a maximum load of 6A and are protected by a T6A fuse			
Heat generation	W	900	1000	1250	1600

(1) The total height can be reduced to 1995 mm for narrow passages during transport

(2) Under operating conditions, in accordance with EN 12469:2000

(3) Clean filters, lighting activated, internal sockets without loads

The line **VBH** is used in Microbiology, Virology, Haematology and Oncology laboratories.

It grants the option to work cell cultures, recombinant DNA, viruses and pathogens.

The VBH model is made of powder-coated stainless steel, with a worktop that can be adjusted into segments and is lit. The tilting front screen is equipped with gas springs made of shatterproof laminated glass.

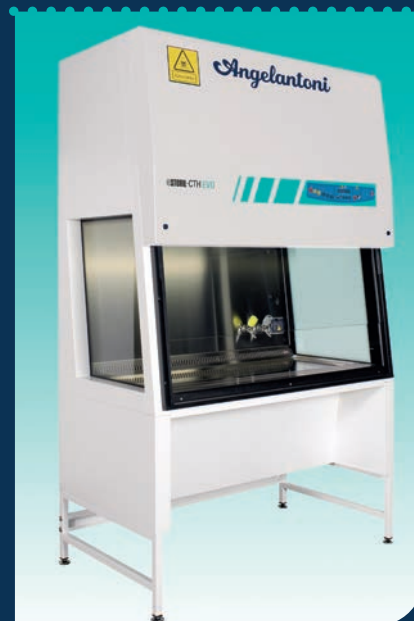
The ventilation system is created using 2 centrifugal fans, one of which is dedicated to the unidirectional air flow towards the work area, accounting for 70% of the air involved; the other dedicated to the amount of ejected air, equal to 30%. In the event of a fan malfunction, the other is able to ensure the protection efficiency of the front barrier during the emergency stage.

Standard Equipment

- Perforated worktop
- Power socket
- Vacuum circuit with tap
- Gas tap with solenoid valve
- Front closure panel in anodised aluminium

Optional accessories

- Blind top, divided in sectors (on request, with no surcharge)
- Floor support
- UV lamp (mounted on the front closure panel)
- Armrests (pair)
- Chest of drawers on wheels
- Additional activated carbon exhaust filter (without collar)
- Additional power socket
- Compressed air circuit with tap
- Nitrogen circuit with manual tap
- Dry contact NA/NC



TECHNICAL SPECIFICATIONS

DESCRIPTION	UNIT	VBH 36	VBH 48	VBH 60	VBH 72
Code		14520	14521	14522	14523
Outer dimensions LxPxH ⁽¹⁾	mm	1015x785x1470	1320x785x1470	1625x785x1470	1930x785x1470
Internal dimensions LxPxH	mm	885x580x660	1190x580x660	1495x580x660	1800x580x660
Front opening	mm	200			
Max front opening	mm	430			
Weight	kg	185	215	260	300
Ejected volume	m ³ /h	290	390	485	585
Noise level ⁽²⁾	dB(A)	<57	<58	<59	<60
Lighting level	lux	>1000	>1100	>1200	>1200
Power supply		230V / 1 + T / 50Hz			
Consumption ⁽³⁾	A	2,22	2,24	3,9	4,9
Electrical Class/IP		1/20			
Internal sockets		The sockets have a maximum load of 6A and are protected by a T6A fuse			
Heat generation	W	175	240	295	360

(2) Under operating conditions, in accordance with EN 12469:2000

(3) Clean filters, lighting activated, internal sockets without loads

BIOBAN

CLASS II A Type A1

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The **BIOBAN** model is made of powder-coated stainless steel, with a worktop that can be adjusted into segments and is lit. The walls are made of tempered glass and front screen with electronic opening.

The ventilation system consists of:

- one fan in BIOBAN versions
- two fans in BIOBAN DF versions

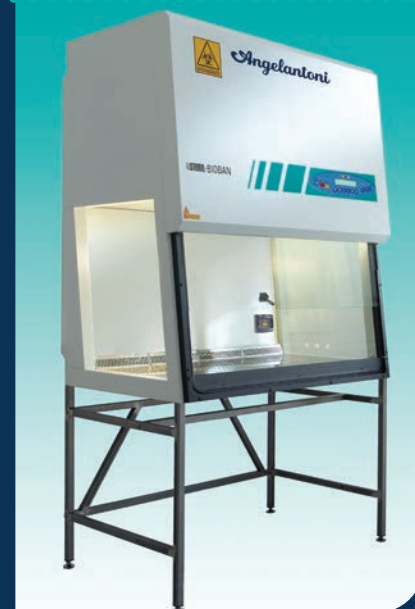
which feed a unidirectional air flow towards the work area, while the recirculation and exhaust air filtration is carried out with HEPA H14 filters with 99.995% MPPS efficiency

Standard Equipment

- Perforated top, divided into sectors
- Power socket (1 socket for 36 and 48, 2 sockets for 60 e 72 models)
- DEHS port 100%
- Side window
- Through holes on the side windows for any tap installations or connections with scales

Optional accessories

- Blind top, divided in sectors (on request, with no surcharge)
- Floor support
- UV lamp
- Additional power sockets
- Armrests (pair)
- Chest of drawers on wheels
- Gas/nitrogen/vacuum/compressed air taps
- Additional power socket
- Dry contact NA/NC
- Blind side walls (on request, with no surcharge)



ALSO AVAILABLE IN MODELS:

36 DF	48 DF	60 DF	72 DF
14694	14695	14696	14697

TECHNICAL SPECIFICATIONS

DESCRIPTION	UNIT	BIOBAN 36	BIOBAN 48	BIOBAN 60	BIOBAN 72
Code		14536	14537	14538	14539
Outer dimensions LxPxH ⁽¹⁾	mm	1045x810x1545	1350x810x1545	1655x810x1545	1960x810x1545
Internal dimensions LxPxH	mm	887x580x740	1192x580x740	1497x580x740	1802x580x740
Front opening	mm	200 *			
Max front opening	mm	490			
Weight	kg	170	195	225	260
Ejected volume	m ³ /h	290	390	485	585
Noise level ⁽²⁾	dB(A)	<53	<54	<55	<56
Lighting level	lux	>1100	>1200	>1300	>1300
Power supply		230V / 1 + T / 50Hz			
Consumption ⁽³⁾	A	1,9 (2,2) **	2,1 (2,2) **	3,4 (2,4) **	3,6 (4,2) **
Electrical Class/IP		1/20			
Internal sockets		The sockets have a maximum load of 4A			
Heat generation	W	175	240	295	360

(1) The total height can be reduced to 1995 mm for narrow passages during transport

(2) Under operating conditions, in accordance with EN 12469:2000

(3) Clean filters, lighting activated, internal sockets without loads

MICROBIOLOGICAL SAFETY HOODS FOR CYTOTOXIC DRUGS

Safety cabinet suitable for the preparation of cytotoxic and chemotherapeutic drugs, and for the manipulation of biological agents, in hospital pharmacies, oncology wards, day hospitals and pharmaceutical industries.

Classified as a class II type H vertical laminar flow cabinet, with front opening through which the operator can work inside the chamber. Designed and built to protect the operator, increase product protection from external contamination and to minimise biological risks to the environment.

CTH

CLASS II

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The CTH model is designed to meet three protection levels:

1. Protection of the operator: The containment index, evaluated over the total surface area of the frontal suction area, is equal to or less than 5 CFU for a non-turbulence test or APF equal to or greater than 1x10⁵ according to EN12469;
2. Protection of the product: Cleanliness of the air in the working area in Class ISO 3 as per ISO EN 14644-1;
3. Protection of the environment: This involves filtration of the expelled air quota with EN 1822 compliant HEPA H14 filters with an efficiency of 99.995% MPPS (equivalent to 99.999% on 0.3 mm particles with DOP/DOS test).

Made of AISI 304L stainless steel, with a lit worktop, fitted with a gas spring tilting front screen, it has a ventilation system consisting of 2 centrifugal fans, one of which is dedicated to the unidirectional air flow to the work area, accounting for 70% of the air; the other dedicated to the amount of eject air, equal to 30%

Standard equipment

- Blind worktop
- Floor support (integrated, third HEPA filter)
- Power socket
- Vacuum circuit with tap
- Gas circuit with tap and solenoid valve
- Front closure panel in anodised aluminium
- DES port 100%

Optional accessories

- UV lamp (mounted on the front closure panel)
- Armrests (pair)
- Drawer chest on wheels, three drawers
- Additional activated carbon exhaust filter (without collar)
- Additional power socket
- Compressed air circuit with tap
- Nitrogen circuit with manual tap
- Dry contact NO/NC

TECHNICAL SPECIFICATIONS

DESCRIPTION	UNIT	CTH 36	CTH 48	CTH 60	CTH 72
Code		14561	14562	14563	14564
Outer dimensions LxPxH ⁽¹⁾	mm	1015x785x2245	1320x785x2245	1625x785x2245	1930x785x2245
Internal dimensions LxPxH	mm	885x580x660	1190x580x660	1495x580x660	1800x580x660
Front opening	mm	200			
Max front opening	mm	430			
Weight	kg	250	295	380	460
Ejected volume	m ³ /h	290	390	485	585
Noise level ⁽²⁾	dB(A)	<57	<58	<59	<60
Lighting level	lux	>1000	>1100	>1200	>1200
Power supply		230 V / 1 + T / 50 Hz			
Consumption ⁽³⁾	A	2,22	2,24	3,9	4,9
Electrical Class/IP		1/20			
Internal sockets		The sockets have a maximum load of 6A and are protected by a T6A fuse			
Heat generation	W	175	240	295	360

(1) The total height can be reduced to 1995 mm for narrow passages during transport

(2) Under operating conditions, in accordance with EN 12469:2000

(3) Clean filters, lighting activated, internal sockets without loads

CTH EVO

CLASS II

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The CTH model is designed to meet three protection levels:

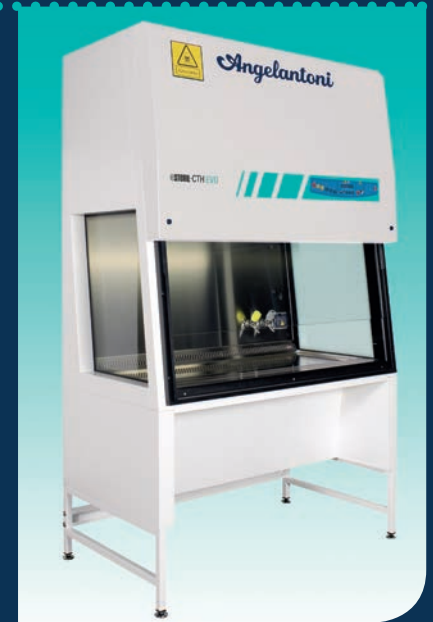
1. Protection of the operator: The containment index, evaluated over the total surface area of the frontal suction area, is equal to or less than 5 CFU for a non-turbulence test or APF equal to or greater than 1×10^5 according to EN12469;
 2. Protection of the product: Cleanliness of the air in the working area in Class ISO 3 as per ISO EN 14644-1;
 3. Protection of the environment: This involves filtration of the expelled air quota with EN 1822 compliant HEPA H14 filters with an efficiency of 99.995% MPPS (equivalent to 99.999% on 0.3 mm particles with DOP/DOS test).
- the other dedicated to the amount of eject air, equal to 30% Made of AISI 304L stainless steel, with a lit worktop, fitted with an electrically operated, 7° inclined, shatterproof laminated glass front screen, it has a ventilation system consisting of 2 centrifugal fans, one of which is dedicated to the unidirectional air flow to the work area, accounting for 70% of the air; the other dedicated to the amount of eject air, equal to 30%

Standard equipment

- Blind AISI 316L worktop single piece
- Floor support (integrated, third HEPA filter)
- 1 power socket for models 36 and 48, 2 for models 60 and 72
- Vacuum circuit with tap
- Gas circuit with tap and solenoid valve
- DES port 100%

Optional accessories

- UV lamp
- Armrests (pair)
- Drawer chest on wheels, three drawers
- Additional activated carbon exhaust filter (without collar)
- Additional power socket
- Dry contact NO/NC



TECHNICAL SPECIFICATIONS

DESCRIPTION	UNIT	CTH 36 EVO	CTH 48 EVO	CTH 60 EVO	CTH 72 EVO
Code		14698	14699	14700	14701
Outer dimensions LxPxH ⁽¹⁾	mm	1045x855x1950	1350x855x1950	1655x855x1950	1930x785x1950
Internal dimensions LxPxH	mm	887x580x740	1192x580x740	1497x580x740	1802x580x740
Front opening	mm	200			
Max front opening	mm	420			
Weight	kg	215	245	285	325
Ejected volume	m ³ /h	290	390	485	585
Noise level ⁽²⁾	dB(A)	<53	<54	<55	<56
Lighting level	lux	>1100	>1200	>1200	>1300
Power supply		230V / 1 + T / 50Hz			
Consumption ⁽³⁾	A	2,3	3	3,6	4,5
Electrical Class/IP		1/20			
Internal sockets		The sockets have a maximum load of 4A			
Heat generation	W	175	240	280	360

(1) The total height can be reduced to 790 mm for narrow passages during transport removing the rear panel

(2) Under operating conditions, in accordance with EN12469:2000 e DIN 12980:2005

(3) Clean filters, lighting activated, internal sockets without loads

CYTOBOX

CLASS III



CYTOBOX is a negative pressure isolator with a unidirectional flow that isolates the operator and the environment from the process and its parts.

All the air is made to pass through a HEPA filter fitted under the work surface, to keep the working area clean and free from contaminants.

Fresh air is sucked from the top of the pass boxes through an H14 HEPA / ULPA filter and pushed into the working area of the pass boxes. Then air passing through a second HEPA / ULPA H14 filter is drawn in by the main fan. The pressurised air pushed into the plenum passes through the HEPA / ULPA LAF H14 filter and then downwards, in a laminar flow, into the work chamber to protect the products being handled. From here, air is sucked into the main HEPA / ULPA H14 filter underneath the working surface, and then the air passes through the channel at the rear of the working chamber.

Part of the air is expelled through the exhaust HEPA H14 filter; this process creates a negative pressure condition in the working area to protect the operator and the environment.

TECHNICAL SPECIFICATIONS

DESCRIPTION	UNIT	CYTOBOX 48	CYTOBOX 60	CYTOBOX 72
Code		14572	14573	14574
Outer dimensions LxDxH	mm	2670x880x1950	2975x880 x1950	3280x880x1950
Internal dimensions LxDxH	mm	1192x580x740	1497x580x740	1802x580x740
Pass-box external	mm	660x658x730		
Pass-box internal	mm	615x455x335		
External structure		Steel painted with Alesta® Dupont antimicrobial epoxy powders		
Pass-box structure		Steel painted with Alesta® Dupont antimicrobial epoxy powders		
Worktop		AISI 316L stainless steel, 4B finish with 1.2 mm and 1.5 mm thickness		

CYTOBOX LIGHT

CLASS III

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CYTOBOX LIGHT is a system mainly designed for the formulation of antineoplastic drugs, i.e. used for the manipulation of pathogens, cytotoxic or dangerous chemicals. The filtration system consists of triple HEPA filtration level, at negative pressure, providing triple operator, environment and product protection. The polyethylene gloves, installed on the front screen, guarantee the ability of handling the agents/processing components, while at the same time ensuring physical separation between the handled products and the operators.

The body is made of cold rolled steel painted with antimicrobial coating. The internal surfaces and the worktop are made of stainless steel with smooth corners. The front screen of the main chamber is made with 8 mm thick anti-reflective safety glass, it can be fully opened for cleaning or maintenance purposes by means of two handles and a pair of gas springs. The front and interior screens of the transfer hatch are made of PMMA, while the left and right side screens of the insulator body are made of 6 mm thick tempered glass. The transfer compartment hatches are interlocked and the exterior and interior doors are timed.

The gloves are made of neoprene material and separated by means of sleeves made of textile material with unmatched resistance.



TECHNICAL SPECIFICATIONS

DESCRIPTION	UNIT	CYTOBOX LIGHT 48	CYTOBOX LIGHT 60	CYTOBOX LIGHT 72
Code		14702	14703	14704
Outer dimensions LxDxH	mm	1350x882x2345	1655x882x2345	1960x882x2345
Internal dimensions LxDxH	mm	(852+316)x580x740	(1157+316)x580x740	(1462+316)x580x740
Reference tray	mm	290x300	290x300	290x300
Noise level	dB(A)	<54	<57	<57
Brightness of the Worktop	lux	>1000	>1000	>1000
Power supply		230V - 50Hz - 10A		
Weight	Kg	315	350	400

HELIOS

CLASS I

HELIOS hoods are classified with horizontal laminar flow and can be used in all situations where the product needs to be protected from harmful effects due to the uncontrolled spread of airborne contaminants during handling. It ensures maximum worktop sterile conditions, therefore it is used for quality control in the food industry, micromechanical assemblies, preparation of nutritional parenteral therapies and in vitro fertilisation.

Since they are not biological safety cabinets, they CANNOT be used to handle pathogens.

The HELIOS model is made of steel, with safety tempered glass walls and equipped with fluorescent lamps positioned in an uncontaminated area. The ventilation system is provided by a fan dedicated to supplying the work area with a unidirectional flow of air; the fan is a double-intake centrifugal type with IP 55 protection rating.

Air filtration is carried out with a G3 pre-filter with high retention capacity and HEPA filter type 'H14' according to EN 1822 with 99.995% MPPS efficiency

Standard equipment

- Power socket
- DEHS port 100%
- No. 3 19 mm diameter through holes on each side glass for possible installation of taps

Optional accessories

- Floor support
- Automatic air speed regulator with digital display
- Drawer chest on wheels, three drawers
- Gas/nitrogen/air/vacuum taps
- UV lamp, complete with curtain front screen
- Curtain front screen (WITHOUT UV lamp)



TECHNICAL SPECIFICATIONS

DESCRIPTION	UNIT	HELIOS 36	HELIOS 48	HELIOS 60	HELIOS 72
Code		14594	14595	14596	14597
Outer dimensions LxDxH	mm	945x925x1195	1250x925x1195	1555x925x1195	1860x925x1195
Internal dimensions LxDxH	mm	885x600x734	1190x600x734	1495x600x734	1800x600x734
Front opening	mm	735			
Weight	kg	104	122	171	194
Noise level	dB(A)	<60			
Power supply		230V / 1 + T / 50Hz			
Power	kW	0,7	0,9	1,4	1,4

GEMINI

CLASS I

The **GEMINI** line is used in all situations where the product needs to be protected from harmful effects due to the uncontrolled spread of airborne contaminants during handling.

Since it is not a biological safety cabinet, it CANNOT be used to handle pathogens.

It is used in quality control in the food industry, micromechanical assembly and nucleic acid amplification and thermocycling.

The GEMINI model is made of stainless steel, painted with epoxy powders, with the worktop perforated in a single section and lit.

The front glass is hinged to facilitate access even for large objects, fitted with gas springs to hold the opening position firm. The side walls are made of glass and have 2 holes for placing the service taps. Air filtration is entrusted to a H14 HEPA / ULPA filter with an efficiency greater than 99.995% MPPS (EN-1822)

Standard equipment

- DEHS port 100%
- Electrical outlet

Optiona accessories supplied

- Support table in painted steel with/ without wheels
- Additional power sockets
- UV lamp with front closure panel
- Front closure panel WITHOUT UV lamp
- HEPA exhaust filter
- Air/nitrogen/vacuum taps

**TECHNICAL SPECIFICATIONS**

DESCRIPTION	UNIT	GEMINI
Code		14582
Outer dimensions LxDxH	mm	830x652x925
Internal dimensions LxDxH	mm	732x380x580
Weight	kg	75
Power	Kw	0,2
Power supply		230V / 1+ T / 50Hz

POLARIS

CLASS I

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The **POLARIS** line is used in all situations where the product needs to be protected from harmful effects due to the uncontrolled spread of airborne contaminants during handling. Since it is not a biological safety cabinet, it CANNOT be used to handle pathogens. It is used in quality control in the food industry, micromechanical assembly and nucleic acid amplification and thermocycling.

The POLARIS model is made of stainless steel, painted with epoxy powders, blind worktop in a single section and lit. The front glass is hinged to facilitate access even for large objects, fitted with gas springs to hold the opening position firm. The side walls are made of glass. Air filtration is entrusted to a H14 HEPA / ULPA filter with an efficiency greater than 99.995% MPPS (EN-1822).

Standard equipment

- AISI 304L stainless steel worktop with blind top in one indivisible sector
- Power socket (2 sockets for models 60 and 72)
- Side perforated windows DEHS port 100%

Optional accessories supplied

- Floor support
- Gas/vacuum/air/nitrogen/water taps
- Chest of drawers on wheels, UV lamp to be placed on the front closing panel in stainless steel
- Additional power sockets



TECHNICAL SPECIFICATIONS

DESCRIPTION	UNIT	POLARIS 36	POLARIS 48	POLARIS 60	POLARIS 72
Code		14622	14623	14624	14625
Dimensioni esterne LxPxH	mm	1045x760x1500	1350x760x1500	1655x760x1500	1960x760x1500
Dimensioni interne LxPxH	mm	893x609x755	1198x609x755	1503x609x755	1808x609x755
Front opening	mm	250			
Weight	kg	185	192	274	325
Noise level	dB(A)	<60			
Power supply		230 V / 1 + T / 50 Hz			
Power	kW	0,9	0,9	1,4	1,4

LAMINAR FLOW HOODS FOR ZOOPROPHYLAXIS APPLICATIONS

ALS decided to design a line of hoods dedicated to the processing of products of animal origin, derivation and destination, in order to provide a range of products designed for all applications, i.e. human, animal and vegetable, ensuring all-round technological excellence, reliability and comfort.

VERTICAL LAMINAR FLOW HOOD

TOPFLOW

CLASS II

ALS
SERVING
LIFE SCIENTISTS

The **TOPFLOW** series represents a single fan cabin, classified as a class I microbiological safety cabin with inward air velocity above 0.80 m/s, 100% discharged through a HEPA filter and with visual/acoustic alarms in accordance with European EN 12469: 2000 standard.

It provides a sterile working environment, ensuring high standards of protection for the operator and the environment. The unit is supplied with a waste trolley and stainless steel wheels. The external structure is made of epoxy-coated sheet steel, while the worktop and armrest are made of AISI 304L stainless steel, as is the waste bag trolley.

The side screens are made of tempered glass, equipped with fluorescent lamps installed in a non-contaminated area. It has a double centrifugal inlet fan and HEPA filter for the exhaust air flow.

There are also pre-filters located behind the worktop with a protective grid made of AISI 304L stainless steel. Equipped with brakes and stainless steel wheels for easy mobilisation. Equipped with electronic panel with microprocessor control system.



MODULAR SYSTEMS LAMINAR FLOW

ALS
SERVING
LIFE SCIENTISTS

The **MVF** series represents modular vertical laminar flow systems that allow the articulated connection of modular units. The units autonomously generate a laminar air flow in class ISO5.

- MVF2 • HMFV2 • MVF3

Construction in AISI 304L stainless steel with "Scotch-Brite" finish. Diffusion grille and absolute filter protection in anodised aluminium. Double suction fan unit. Air plenum with dynamic sealing with high aerodynamic efficiency and high acoustic containment. D.O.P. socket test, differential pressure gauge socket, HEPA filters, 85% arrestance prefilters and G-3 efficiency.

Optional accessories

- Command and control system for up to 20 coupled modules with stainless steel control cabinet
- Electronic board with self-regulator
- Floor-standing system with fixed supports or wheels
- Confinement curtains
- Lighting system with teardrop lamps
- Stop/start system by means of a control panel mounted on a mast

ALS

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AS

AG

STERIL

AIC

Angelantoni Life Science (ALS) is a world leader in the supply of refrigeration equipment and in the design of technological solutions in the biomedical sector, constantly engaged in innovation and safety, both biological and environmental.

AS brand provides for a wide range of refrigerators cabinets, ultra-low temperature freezers, blood banks refrigerators, freezers to preserve blood components, mortuary prefabricated rooms, stability tests and plant growth chambers, refrigerators and freezers for COVID-19 vaccines.

AG brand supplies standardized brine chilling units for pharmaceutical and chemical applications or pharma process, manual or automated solutions allow to reach -70°C for special walk-in chambers and shelters to storage vaccines or other farmaceutical products.

STERIL brand provides for equipment able to meet any product protection need, as well as the product, operator and environment safety requirements, for any level of concentration and for any kind of substance (horizontal and vertical laminar flow cabinets, biohazard and cytostatic safety cabinets, laminar flow pass boxes with UV, sanitized hydrogen peroxide pass boxes, weighing, sampling and dispensing cabinets and isolators designed in accordance with the latest international standards (GMP).

AIC brand provides Waster, and an automated treatment system for hospital and contaminated waste.



Angelantoni Plants



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TECHNOLOGY FOR LIFE

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www.cik-solutions.com

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