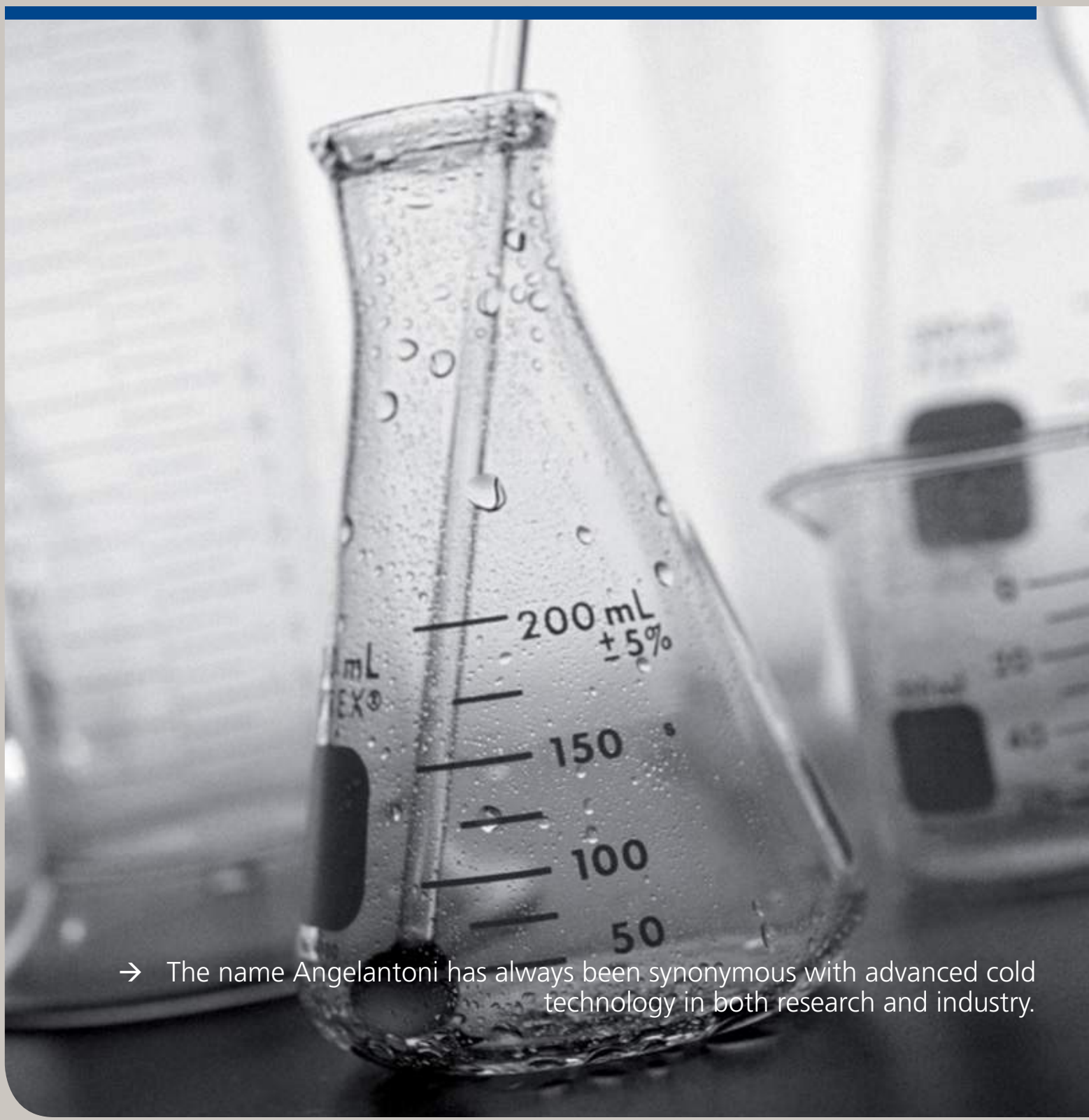
ALS
ANGELANTONI
LIFESCIENCE

Angelantoni Life Science
Safety cabinets and laminar air flow catalogue

STERIL



→ The name Angelantoni has always been synonymous with advanced cold technology in both research and industry.

→ Life Science, Testing and Renewable Energies.

Angelantoni Industrie began operating in 1932 in the refrigeration field, and over the years it has become increasingly specialized in the biomedical sector with the technological and scientific applications of refrigeration, but also in the broader field of laboratory equipment, such as laminar flow hoods and controlled contamination environments.

- **Today Angelantoni Industrie S.p.A. (Holding), comprises three separate subholdings:**

  Angelantoni Life Science S.r.l. (ALS) with the main brands AHSI – AS – STERIL – AG – ACOTEC (biomedical equipment, controlled contamination environment equipment, laminar flow hoods and clean rooms, instruments and furnishings for research laboratories, health facilities and the pharmaceutical industry);
  Angelantoni Test Technologies S.r.l. (ATT) with the main brands ACS – TIRA – BIA – AMEC – AKI (environmental test chambers and space simulators, test benches for the automotive industry, electrodynamic shakers, balancing systems);
  Angelantoni CleanTech S.r.l. (ACT) with the main brands SOLARLIGHT – 3RAYS – KENOSISTEC – ELIANTO – ENTERPRISE (photovoltaic plants for **asbestos replacement, photovoltaic greenhouses,** concentration photovoltaic systems, solar thermal power plants with Fresnel reflectors, equipment for **thin film technology coating, biogas power plants).**

Associated with ACT, but with a separate structure, ARCHIMEDE SOLAR ENERGY designs and produces molten salt solar receiver tubes, superheated oil and steam (DSG) for solar thermal power plants with parabolic or flat (Fresnel) reflectors.

- **Each of the brands in ALS has many years of experience in the biomedical sector.**

  Angelantoni Scientifica (AS).The field of refrigeration equipment for the maintenance and storage of biological materials has received a considerable boost in recent years through Research & Development activities. In 1961 Angelantoni produced the first freezer in Europe able to reach -100°C without the use of cryogenic gases. Along with the traditional laboratory refrigerators and the new generation of -86°C freezers, with the AS brand Angelantoni Life Science has put extremely innovative products on the market, with completely automated control systems, such as the HEMOSAFE™ blood storage systems and the SMARTFREEZER™ -86°C and -180°C freezers for biological materials complete with **RFID tracking systems.**
  ACOTEC, an engineering company, is specialized in turnkey setups for controlled contamination and biological containment environments ("clean rooms"), for the pharmaceutical, hospital and microelectronics industries.

AG, a historic brand, utilizes its considerable experience in the refrigeration field to design and build refrigeration systems for industrial processes, especially in the chemical-pharmaceutical sectors.
STERIL, which is proud of the many national and international awards it has received for its continuous innovation, is the ALS division dedicated to the designing and manufacturing of horizontal and vertical laminar flow cabinets, biohazard and cytostatic safety cabinets, laminar flow pass boxes with UV, sanitizing pass boxes with hydrogen peroxide, cabinets for weighing, sampling and dispensing and isolators for active powders in compliance with the most recent international standards (cGMP).
AHSI instead offers to the Italian market a complete range of biomedical and pharmaceutical products and services. Together with ALS equipment, AHSI also offers laboratory furniture, chemical hoods, laboratory centrifuges, CO2 incubators, nitrogen peroxide sanitizing systems, also available in packages, as laboratory turnkey projects.

→ Today the ANGELANTONI group includes 6 production units located in Italy, Germany, France, India and China, with a total of over 850 employees and turnover of 145 million Euro.

Angelantoni Life Science /Safety cabinets and laminar air flow catalogue


Index

→ Steril designs, constructs and validate a wide range cabinets for microbiological laboratory, for cytotoxic preparation laboratory, horizontal and vertical laminar flow for biology laboratory, laminar flow for electronic laboratory, safety cabinet for product and/or operator protection.

Microbiological safety cabinets, Class II, certified according to EN 12469:2000 (TUV and NF)

/01.

VBH C2 Series

EN 12469:2000

Work chamber and spillage tray in stainless steel AISI 304L "2B" finishing, smooth and sealed edges.
Working surface in stainless steel AISI 304L "2B" finishing, 4 and 6 sectors removable and autoclavable. Available both in perforated and solid version.
Front window, in laminated safety glass with camlock to provide an easier access for large items.
The cabinet is provided of gas springs outside the contaminated area to keep the front glass open during maintenance or sanitization activities. Opening 150°.
Ergonomic front closure panel in INOX complete of germicidal ultra-violet lamp.
Lighting on working surface by means of 2 fluorescent lamps of 54 Watt fitted in non-contaminated area, both with electronic ballast.
Construction structure in steel epoxy-polyester powder coated, resistant to the most common industrial disinfectants.
Ventilation system by means of n°2 motor blowers dedicated to the one-way airflow in the working chamber, equal to 70% of the total involved air and the other dedicated to exhaust the remaining 30%.
The motor blower is centrifugal type, direct driven motor with double aspiration and protection factor IP55.
Air filtration, both recirculate and exhaust air by means of H14 HEPA filters. Protection grid, for main HEPA filter made by anodized aluminium.

Available in the following sizes:

- Work surface **90 cm.**
- Work surface **120 cm.**
- Work surface **180 cm.**

Standard features

- Fluorescent lights with electronic ballast.
- Power socket 4 A German type IP 55 (internal back panel right side).
- Vacuum air line with manual tap (internal back panel – right side) manufactured in compliance with UNI/CIG regulations, piping made of copper and hose-bard 10 mm diameter (external) for the connection to the main line.
- Gas line with manual tap (internal back panel – right side) manufactured in compliance with UNI/CIG regulations, piping made of copper and hose-bard 10 mm. diameter (external) for the connection to the main line. The gas line is provided with electricaL automatic safety valve for interruption in case of electric blackout and/or ventilation failure.
- Anodized aluminium front closure shield with 30W germicidal lamp, wavelength 253.7 nm (UV-C).
- DOP/DOS 100% test inlet hose-barb port (internal under worktop - left side).

Optional features

- Internal working surface perforated or solid.
- Steel support stand epoxy polyester coated.
- Chest of 3 drawers on pivoting wheels in steel epoxy coated.
- Bunsen burner with automatic switch ignition or with automatic foot switch ignition.
- Double HEPA exhaust filter, available also with ducted connected to outside.
- Activated carbon exhaust filter, available also with ducted connected to outside.
- Additional electrical power socket French, UK or Swiss type are available (right or left internal side).
- Compressed air line with manual tap.
- Nitrogen line with manual tap.

VBH CE /C2E Series

EN 12469:2000

Work chamber and spillage tray in stainless steel AISI 304L "2B" finishing, smooth and sealed edges.
Working surface in stainless steel AISI 304L "2B" finishing, 4 and 6 sectors removable and autoclavable. Available both in perforated and solid version.
Front window, in laminated safety glass electrical driven. Window is design in order to obtain a gas-tight in two position (working position and close position for fumigation procedure, with automatic switch off of the motor blower).
Lighting on working surface by means of 2 fluorescent lamps of 54 Watt fitted in non-contaminated area for VBH48 and 80 Watt for VBH72 both with electronic ballast.
Minimum level of lighting 1.000 lux/m2.
Construction structure in steel epoxy-polyester powder coated, resistant to the most common industrial disinfectants.
Ventilation system by means of n°1 motor blower centrifugal type with protection factor IP55 (CE), or 2 motor blower (C2E).
Air filtration, both recirculate and exhaust air by means of H14 HEPA filters.
Protection grid, for main HEPA filter in anodised aluminium. Microprocessor control system.

Available in the following sizes:

- Work surface **90 cm.**
- Work surface **120 cm.**
- Work surface **180 cm.**

Standard features

- Fluorescent lights (n°2 – 54 Watt for VBH 48 CE and n°2 - 80 Watt for VBH 72 CE) with electronic ballast.
- Power socket 4 A German type IP 55 (internal back panel-right side).
- Vacuum air line with manual tap (internal back panel – right side) (in compliance with UNI/CIG regulations).
- Gas line with manual tap (internal back panel – right side) (in compliance with UNI/CIG regulations), the gas line is provided with electrical automatic safety valve for interruption in case of electric blackout and/or ventilation failure.
- DOP/DOS 100% test inlet hose-barb port (internal under worktop - left side).
- Stainless steel shield with 30W germicidal lamp.

Optional features

- Working surface in solid or perforated version.
- Steel support stand epoxy polyester coated.
- Chest of 3 drawers on pivoting wheels in steel epoxy coated.
- Bunsen burner with automatic switch ignition or with automatic foot switch ignition.
- Additional electrical power socket (right or left internal side).
- Compressed air line with manual tap.
- Nitrogen line with manual tap.

Microbiological safety cabinets Class II compliant according to EN 12469:2000

/02.

BIOBAN Series

EN 12469:2000

Back panel in stainless steel AISI 304L "2B" finishing, thickness 12/10.
Working surface in stainless steel AISI 304L "2B" finishing, divided in sectors removable and autoclavable (4 sectors for mod. 48 and 6 sectors for mod. 72), available both in perforated and solid version.
Sidewalls in toughened safety glass.
Lighting on working surface by means of fluorescent lighting fitted in non-contaminated area.
Minimum level of lighting 1.000 lux.
Construction structure in steel epoxy-polyester powder coated, resistant to the most common industrial disinfectants.
Ventilation system by means of n°1 motor blower centrifugal type with protection factor IP55.
Air filtration, both recirculate and exhaust air by means of H14 HEPA filters.
Both filters will be tested with scanning method for integrity with DOP/DOS test.
UV germicidal lamp on back stainless steel panel.

Available in the following sizes:

- Work surface **120 cm.**
- Work surface **180 cm.**

Standard features

- Fluorescent lighting.
- Power socket 4A, IP 55 (internal back panel-right side).
- DOP/DOS 100% test inlet hose-barb port (internal under worktop - left side).
- 3 holes (19 mm diameter) on both side windows (for fluid taps installation or other connections) with plastic caps.
- UV germicidal lamp 30 W on back stainless steel panel (UV-C).

Optional features

- Steel support stand epoxy polyester coated.
- Chest of 3 drawers on pivoting wheels in steel epoxy coated.
- Additional electrical power socket (right or left internal side).
- Bunsen burner with automatic switch ignition or with automatic foot switch ignition.
- Gas manual tap manufactured in compliance with UNI/CIG regulations. Tap is provided with the automatic safety valve for interruption in case of electric blackout and/or air velocity out of pre-set range.
- Vacuum air manual tap.
- Compressed air manual tap.
- Nitrogen manual tap.

Safety cabinets for the handling of Cytostatic drugs with triple filtration according to DIN 12980:2006 (EN 12469:2000)

/03.

CTH Series

DIN 12980:2006

Work chamber and spillage tray in stainless steel AISI 304L "2B" finishing, smooth and sealed edges.
Working surface in stainless steel AISI 304L "2B" finishing, divided in solid sectors removable and autoclavable.
Front window, in laminated safety glass with camlock to provide an easier access for large items. The cabinet is provided of gas springs outside the contaminated area to keep the front glass open during maintenance or sanitization activities. Opening 150°.
Ergonomic front closure panel in stainless steel AISI304L complete of germicidal ultra-violet lamp.
Lighting on working surface by means of 2 fluorescent lamps of 39 Watt (36 version) or 54 Watt (48 version) fitted in non-contaminated area with electronic ballast.
Construction structure in steel epoxy-polyester powder coated, resistant to the most common industrial disinfectants.
Ventilation system by means of n°2 motor blowers centrifugal type with protection factor IP55.
Air filtration, both recirculate and exhaust air by means of two, in line, H14 HEPA filters.
Protection grid, for main HEPA filter made by anodized aluminium. Microprocessor control system.
The 3rd stage of absolute filtration, under the working surface, treats the whole 100% of the air to prevent contamination of cytotoxic product from the inside of the cabinet to parts like construction structure, motorblower and other components.

Available in the following sizes:

- Work surface **90 cm.**
- Work surface **120 cm.**
- Work surface **180 cm.**

Standard features

- Fluorescent lights (n°2 T5 tubes) with electronic ballasts.
- Power socket 4 A, German type IP 55 (internal back panel-right side).
- DOP/DOS 100% test inlet hose-barb port (internal under worktop - left side).
- Stainless steel AISI 304L front closure shield with germicidal lamp (15W and 30W respectively for 36 and 48 models), (UV-C).

Optional features

- Vacuum air line with manual tap (internal back panel – right side) (in compliance with UNI/CIG regulations).
- Gas line with manual tap (internal back panel – right side) (in compliance with UNI/CIG regulations). The gas line is provided with electrical automatic safety valve for interruption in case of electric blackout and/or ventilation failure.
- Compressed air line with manual tap.
- Nitrogen line with manual tap.
- Additional electrical power socket (right or left internal side).
- Activated carbon exhaust filter. With this optional item the cabinet can be ducted to outside.
- Double HEPA exhaust filter. With this optional item the cabinet can be ducted to outside.

Safety cabinets for the handling of Cytostatic drugs with working area in Class A in accordance with directives "GMP" and "EU"

/03.

Cytobox Series

Cytobox is designed for those applications that require protection of the operator, of the product and the environment, from the effects caused by an uncontrolled spread of airborne contaminants and, at the same time, to avoid any contamination between the environment and biological product during processing.

Standard features

- Fluorescent light with electronic ballasts.
- Power socket 4 A, GERMAN TYPE IP 55 (internal back panel).
- DOP/DOS 100% test inlet hose-barb port (internal under worktop - left side).
- Stand support.
- 2 gloves.
- 2 pass boxes.

Construction structure in steel epoxy-polyester powder coated, resistant to the most common industrial disinfectants.
Work chamber and spillage tray in stainless steel AISI 304L "2B" finishing, smooth and sealed edges.
Working surface in stainless steel AISI 304L "2B" finishing, single piece solid worktop removable and autoclavable.
Ergonomics of the system with the possibility to adjust the position of the gloves respect to the plane of the floor according to the specific needs of operators via the automatic system
Front window, in laminated safety glass with cam lock to provide an easier access for large items. The cabinet is supplied with a transparent front screen, with opening counterbalanced by means of pre-compressed gas loaded piston situated outside the work zone. Opening 150°.
On the backside there is the predisposition for passages of between inside to outside of cables with a plug. During installation the plastic cover of the passage should be dismantled and assembled after that cable has been "trapped" inside the two half parts.
Lighting on working surface by means of fluorescent lamp fitted in non-contaminated area with electronic ballast.
Ventilation system by means of n°2 motor blowers centrifugal type, with protection factor IP55.
Air filtration, by means of H14 HEPA filters. All the filters are tested with scanning method for integrity with DOP/DOS. Protection grid, for main HEPA filter made by anodised aluminium.
The 3rd stage of absolute filtration, under the working surface, treats the whole 100% of the air to prevent contamination of Cytotoxic product from the inside of the cabinet to parts like construction structure, motor blower and other components.

Passbox

The passbox for input and output materials are characterized by the following functions:

- Manual opening of the door towards the outside. Simultaneous blocking of the inner door to prevent contamination of the working chamber.
- Wash cycle for a time setting: During this cycle you cannot open the inner door.
- Opening of the inner door using magnetic electric foot pedal.

The presence of passbox allows to ensure the maintenance of the class A inside the working chamber also during the insertion and loss of the material.

Customizable versions are available on request.

Laminar flow cabinets, Class 100 (ISO 5)

/04.

Vertical laminar air flow - Polaris Series

Lower part of back panel and spillage tray in stainless steel AISI 304L "2B" finishing, thickness 12/10, smooth and sealed edges.
Back panel in steel epoxy polyester powder coated, resistant to the most common industrial disinfectant.
Working surface in stainless steel AISI 304L "2B" finishing, 4 and 6 sectors removable and autoclavable. Available both in perforated and solid version.
Sidewalls in toughened safety glass.
Front window, in toughened safety glass electrical driven.
Lighting on working surface by means of 1 fluorescent lamps of 36W fitted in non-contaminated area for POLARIS 48 and 58W for POLARIS 72.
Construction structure in steel epoxy-polyester powder coated, resistant to the most common industrial disinfectants.
Ventilation system by means of n°1 motor blower centrifugal type (for POLARIS 48) and n°1 motor blower centrifugal type (for POLARIS 72) with protection factor IP22.
Air filtration, both recirculate and exhaust air by means of HEPA "H14 type" filter.

Available in the following sizes:

- Work surface **120 cm.**
- Work surface **180 cm.**

Standard features

- Fluorescent lights (n°1 - 36W for POLARIS 48 and 58W for POLARIS 72).
- Power socket 4 A IP 44 (internal back panel-right side).
- Vacuum line with manual tap (internal back panel – left side) (in compliance with UNI/CIG regulations).
- DOP/DOS test inlet hose-barb port.

Optional features

- Steel support stand epoxy polyester coated.
- Chest of 3 drawers on pivoting wheels in steel epoxy coated.
- Hour meter.
- Bunsen burner with automatic switch ignition or with automatic foot switch ignition.
- UV lamp timer.
- Additional electrical power socket (right internal side).
- Stainless steel shield with 30W germicidal lamp (UV-C).
- Exhaust HEPA filter.
- Automatic regulation complete of LAF digital display and exhaust HEPA filter.
- Gas line with manual tap (internal back panel – right side) (in compliance with UNI/CIG regulations). Gas line is provided with the automatic safety valve for interruption in case of electric blackout and/or low gas feed pressure.
- Compressed air line with manual tap.
- Nitrogen line with manual tap.

/04.

Vertical laminar air flow - Gemini Series

Back panel and working tray in stainless steel AISI 304L "2B" finishing, perforated.
Front window and side walls in toughened glass.
Lighting on working surface by means of 1 fluorescent lamps of 15W
Construction structure in steel epoxy-polyester powder coated, resistant to the most common industrial disinfectants.
Ventilation system by means of n°1 motor blower centrifugal type with protection factor IP22.
Air filtration by means of HEPA "H14 type" filter.

Applications

Normally used in laboratory of microbiology, molecular biology and, furthermore, used in innovative fields of scientific research and above all in the manipulation of:

- Quality Control in pharmaceutical and food industries.
- Micro mechanical assembly.
- DNA/RNA amplification and thermo-cycling.

Standard features

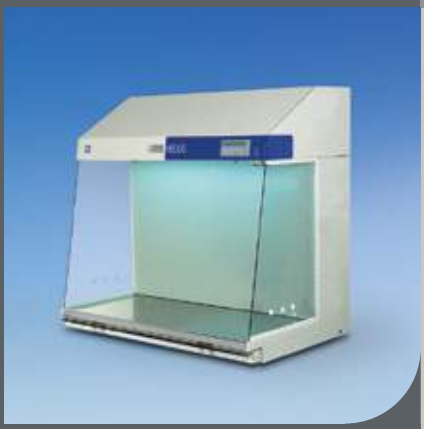
- Fluorescent light.

Optional features

- Steel support stand epoxy polyester coated with wheels.
- Electrical power socket 4A (left internal side).
- 15W germicidal lamp, wavelength 253.7 nm (UV-C) with s/s shield.
- Exhaust HEPA filter.
- Drain tray in s/s AISI 304.
- Closing plate.
- Compressed air line with manual tap.
- Nitrogen line with manual tap.
- Vacuum line with manual tap.

/04.

Horizontal laminar flow cabinet - Helios Series



Working surface in stainless steel AISI 304L "2B" finishing with 15 mm lift (see picture).
Side walls in toughened safety glass with 3 holes 19 mm diameter for the easy passage of external connection of fluids and/or cables without necessity of factory assembly.
Lighting on working surface by means of 2 fluorescent lamps of 36W fitted in non-contaminated area for HELIOS 48 and 58W for HELIOS 72.
Construction structure in steel epoxy-polyester powder coated, resistant to the most common industrial disinfectants.
Ventilation system by means of n°1 motor blower for HELIOS 48 and n°2 motor blower centrifugal type for HELIOS 72 with protection factor IP55.
Air filtration by means of disposable high retention capacity pre-filters and H14 HEPA filters.
Protection grid, for HEPA filter made by anodized aluminium.

Available in the following sizes:

- Work surface **120 cm.**
- Work surface **180 cm.**

Standard features

- Automatic air velocity regulation.
- Fluorescent lights.
- N° 3 holes on each side glass for any installations of taps.
- Power socket 4 A German type IP 55.
- DOP/DOS 100% test inlet hose-barb port.

Optional features

- Steel support stand epoxy polyester coated.
- Chest of 3 drawers on pivoting wheels in steel epoxy coated.
- 30W germicidal lamp with front screen, wavelength 253.7 nm (UV-C).
- Gas manual tap manufactured in compliance with UNI/CIG regulations. Tap is provided with the automatic safety valve for interruption in case of electric blackout and/or air velocity out of pre-set range. Terminal connection for 6 mm diameter gas line.
- Bunsen burner with automatic switch ignition or with automatic foot switch ignition.
- Compressed air line with manual tap.
- Nitrogen line with manual tap.
- Vacuum line with manual tap.

Vertical laminar air flow for micro-weighing.

/05.

Powder Safe Series

The POWDER SAFE cabinet is a containment solution for the weighing, the handling and the dosing of chemical and pharmaceutical active products with the operator outside the LAF (laminar air flow) area.

This POWDER SAFE cabinet is a vertical laminar flow in ISO 5 Class according to ISO EN 14644-1 @ 0,3 and 0,5 µm particles size (Class 100/M3.5 according to Federal Standard 209E). The cabinet is designed with part of air recirculated and part of air exhausted outside the equipment through H14 HEPA filters (according to EN 1822).

The operating cycle described above together with an inflow air barrier assure a slight depression and, therefore, isolation from the surrounding area.

Available in the following sizes:

- Work surface **120 cm.**
- Work surface **180 cm.**

Solid working surface in stainless steel AISI 304L "2B" finishing, 4 and 6 sectors removable and autoclavable.
Back panel and spillage tray in stainless steel AISI 304L "2B" finishing, thickness 12/10, smooth and sealed edges.
Side walls in toughened 6mm safety glass.
Construction structure in epoxy polyester powder coated steel, resistant to the most common industrial disinfectant.
Front window, in toughened safety glass electrically driven, 8° slope, for optimum ergonomical worker posture.
Lighting on working surface by means one fluorescent lamps of 36W fitted in non-contaminated area POWDER SAFE 48 and 58W for POWDER SAFE 72. Minimum level of lighting 1.000 Lux.
Ventilation system by means of n°1 motor blower centrifugal type with protection factor IP55.
Air filtration, both recirculated and exhausted air by means of H14 HEPA filters. Both filters can be tested with scanning method for integrity with DOP/DOS test.
Protection grid, for main HEPA filter made by anodized aluminium.

Standard features

- Fluorescent lights.
- N. 2 Power sockets 4 A GERMAN TYPE IP 55 (internal back panel right and left side).
- DOP/DOS 100% test inlet hose-barb port (internal under worktop - left side).
- 3 holes on both side windows with plastic caps.

Optional features

- Epoxy polyester coated steel support stand.
- Chest of 3 drawers on pivoting wheels in steel epoxy coated.
- Additional electrical power socket (right or left internal back panel).
- Anti-vibration marble stone support tested for measures up to 0,01 mg.
- Gas line with manual tap (internal back panel – right side) (in compliance with UNI/CIG regulations). The gas line is provided with electrical automatic safety valve for interruption in case of electric blackout and/or ventilation failure.

Laminar flow cabinets for change cages.

/06.

TOPFLOW2 Series

Cabinets for change cages

Top Flow 2 is a single fan cabinet manufactured like a Class I microbiological safety cabinet with inward air velocity more than 0.80 m/s, 100% exhausted through an HEPA filter and visual/acoustic alarms in compliance to European standard EN 12469:2000.
Top Flow 2 is designed for emptying out and cleaning of cages, in a sterile area, with protection given to operator and environment. The unit is supplied with one garbage trolley with stainless steel wheels.
External structure made of steel epoxy polyester powder coated, resistant to the most common industrial disinfectant.
Hinged solid work surface made of stainless steel AISI 304L scotch brite finish supported by two gas springs, to allow access to the garbage bag to operator in standing position while the cabinet is running, with transition adapter to waste material into the garbage bag.
Hinged window in safety laminated glass framed with anodised aluminium profile supported by two gas springs.
Safety glass side windows.
Double inlet centrifugal fan with direct driven external rotor motor to improve efficiency and reduce noise (less than 58 dB).
Stainless steel swivelling wheels with brake.
Easy access to all the dirty zones inside the cabinet.
30-Watt fluorescent lamp in non-contaminated area.
Garbage bag trolley made of stainless steel AISI 304L scotch brite finish and plastic with swivelling wheels.
Electronic board with microprocessor system to control all functioning of the cabinet: and automatic regulation of the fan speed fan to compensate the blockage of the filter, alarms, manages of the utilities.

On request, are available, also versions without side panels that allow the simultaneous activity of two operators (see special catalog production).

Modular laminar flow

/07.

MVF Series

The MVF modules can be variously assembled together to build-up small to room size clean work areas.
The basic module is a self-contained unit including HEPA filter and fan for delivering class ISO 5 air quality, according to norm ISO EN 14644-1 and can be assembled according to the needs of the clean area configuration.
The modules bolted together form a network structure to get a stiff assembling.

- **MVF2.**
- **HMVF2.**
- **MVF3.**

Made of Stainless Steel AISI 304 L with scotch brite finishing.
Diffusion and Protection Grid for pre-filter and HEPA Filter in anodised aluminium.
Modules MVF2 and MVF3 have a double intake fan rated to deliver 1.200 Nm^3/h at air velocity of 0,45 m/s and at max. pressure of 320 Pascal.
Module HMVF has a double intake fan rated to deliver 550 Nm^3/h at air velocity of 0,45 m/s and at max. pressure of 320 Pascal.
Improved design plenum in negative pressure to prevent risk that contaminated air might escape by-passing filter and to reduce pressure transition losses, noise level and uneven air velocity profile.
Outlet for D.O.P. testing.
Differential manometer outlet.
Differential pressure switch in each module.
Module MVF2 has a HEPA filter rated at 99,995% MPPS (0.3 micron) efficiency (H14 according to EN 1822), with dimensions 610x1220x66 mm.
Module HMVF has a HEPA filter rated at 99,995% MPPS (0.3 micron) efficiency (H14 according to EN 1822), with dimensions 610x610x66 mm.
Module MVF3 has a HEPA filter rated at 99,995% MPPS (0.3 micron) efficiency (H14 according to EN 1822), with dimensions 915x915x66 mm.
All MVF modules are provided of prefilter G 3 according EN 779.
Electrical supply 230 V/50 Hz monophase.
Maximum power consumption for each module 620W.

→ Since 1932, we learn from the past to better understand and anticipate the future.

Angelantoni Life Science _

Quality, Safety & Environment

Companies interested in pursuing success and growth must focus not only on innovation and technology, but also on environment, safety, and human resource aspects.
While ISO 9001 certification guarantees compliance with standards, efficiency of processes, and customer satisfaction, Angelantoni Industrie has introduced the **Integrated Management System**, demonstrating that it is possible to apply the principles and rules of quality, environmental respect, and worker and product safety in the manufacture of its products, focusing constantly on accident prevention, process and product improvement, and customer satisfaction.

Angelantoni Industrie has attained:

- **NATO AQAP 104** in 1991.
- **ISO 9001** in 1995.
- **ISO 14001** in 2001.
- **EMAS** (registration number IT-001058) in 2008 .
- Product certificates for HEMONINE 2, HEMOSAFE, IRIDIUM starting from 2008.

We also guarantee:

- From 2001: **SA8000**, **OHSAS 18001** and **SGLS** standards.
- Compliance with Directive **2002/95/EC** (RoHS Directive).
- **RAEE** registration (registration number IT 08020000003520).

In 2009 Angelantoni Industrie also obtained **ISO 13485:2003** certification and the **CE 93/42** mark for medical devices, with their registration with the Ministry of Health: these certifications require the maintaining of the configuration status of medical device products, updating of the personnel, constant monitoring of the performance of the medical devices, a rigorous analysis of complaints and nonconformities, and a more collaborative relationship with customers for any problems.

Angelantoni Industrie headquarters in Massa Martana (Perugia, Italy) extend over an area of 80.000 square metres (more than 16.000 covered square meters).
Massa Martana is located in Umbria, a region rich in art, history and tradition.
No location could be more appropriate; Angelantoni Industrie S.p.A. learns from the past to better understand and anticipate the future.

Our core competencies and services for total customer satisfaction:

- Training, both at our facility and at customer site.
- Testing and quality checks.
- Installation and start up.
- Service.
- Calibration using SIT certified instruments.
- "Full risk" assistance contracts.
- Special applications /Turn–key project.

ANGELANTONI
LIFESCIENCE

ANGELANTONI
GROUP
MORE THAN
YOU THINK

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