#### **PROTECTING**

### YOUR LIFE IN LABORATORY







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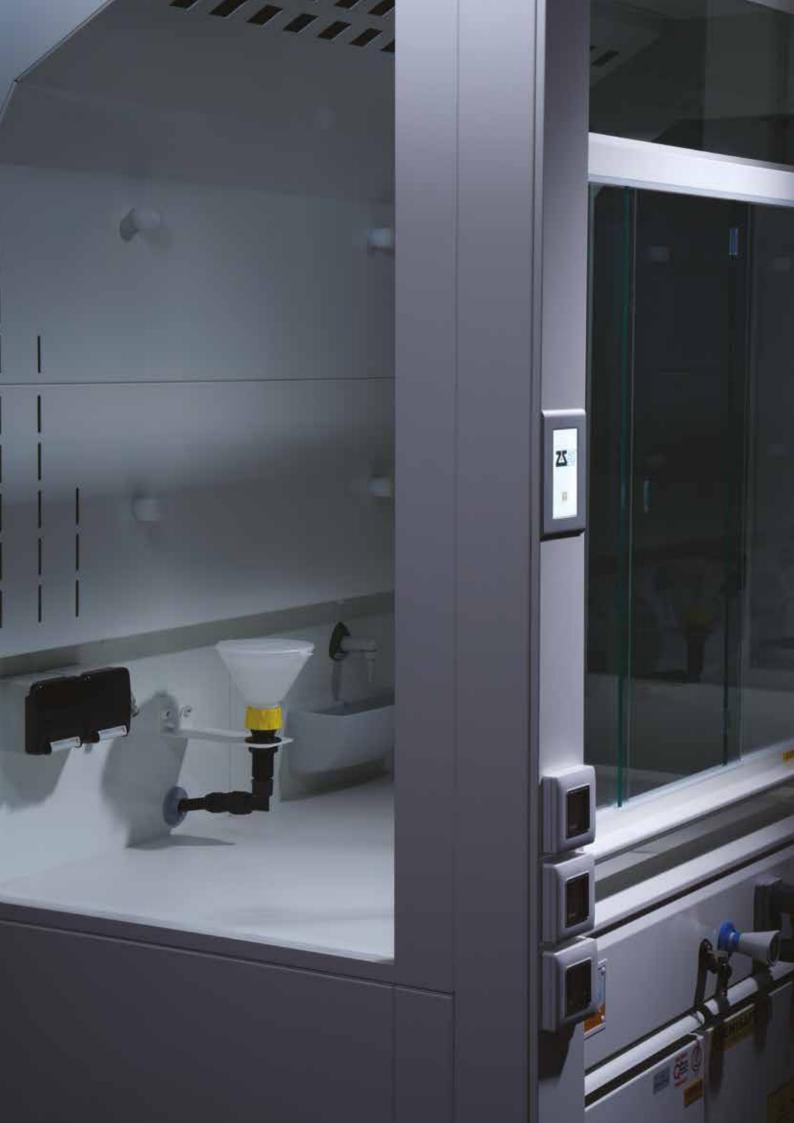
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ASEM®
WORLDWIDE
LEADER IN THE
STUDY DESIGN
AND PRODUCTION
OF FUME HOODS



#### **CERTIFICATION = SAFETY**

Certification is the guarante of compliance with the SAFETY objective that we give all our customers through our products. SAFETY to guarantee health without compromise.

#### QUALITY

The countless supplies we have provided to the most important industries, universities, hospitals and research centres, in Italy and abroad, confirm a consensus on quality that endures over time.

#### **EXPERIENCE**

Over 50 years in the industry have let ASEM® acquire a technical background that can provide all-round solutions.

#### **TECHNOLOGY**

Constant research into cutting-edge technical solutions and tangible innovations in fume hoods are the hallmark of our presence on the market.

#### This is ASEM®:

this is the Quality, this is the Certification.

### **BACKGROUND**

# NOTES AND REMARKS ON THE IMPORTANCE OF THE HOOD IN THE LABORATORY



The first hood was invented in 1450 by an Italian, who was called Giuliano Sorboni and was a student of Lucrezia Borgia, or rather her assistant, and who used arsenic on the noble lady's orders for reasons we all know.

In order to avoid "self-poisoning" during the preparation phase, and in the absence of the mechanical components that appeared thanks to the arrival of electricity a few centuries later, Sorboni had to design a fairly basic but equally effective protection device.

In effect, by preparing the potions with the arms raised at half-mast and with the help of a flame to induce wind extraction towards a chimney, the then-apprentice took care to use this method throughout his career.





The Sorboni method soon became known, and in the following centuries was revived and developed by French chemists under the technical name (still used today) of Sorbonne.

## FUME HOODS ASEM®



The ASEM® total expulsion laboratory fume extraction hoods ensure protection of the operator when handling toxic products, while maintaining a work environment that meets safety requirements (Legislative Decree 81/08).

The accurate design and construction allow significantly better performance than what is required by EN standards.

The hoods are available with different front sizes 120, 150, 180, 210 and 240 cm; with single sash or in two elements; versions in different materials with standard worktop 90 cm from the ground; for distillation with worktop height 50 cm and walk-in for working with cumbersome and heavy equipment.

Most hoods have a height of **230 cm**, while the walk-in is **250 cm** tall.

All our ASEM® fume extraction hoods are factory tested for the containment index and are all certified according to the **EN 14175 2-3-4-5-6-7** and **UNI TS 11710** standards.





## **KEY**

- 1 Airfoil
- 2 Double extraction
- 3 Alarm
- 4 Sash
- 5 Sash lock 45 cm
- 6 Orizontally sliding windows
- 7 Airfoil: armrest with anemometric probe
- 8 Economy flow: low consumption lock







#### 1 Airfoil

Elements that promote the entry of air inside the hood, avoiding the formation of vortices that could disrupt the flow, and helping to avoid dead spots where vapours could stagnate. SAFETY to guarantee health without compromise.

#### 2 Double extraction

As a double base, it promotes elimination of heavy vapours by increasing the extraction speed from the back. Easy to remove, it makes it possible to "sanitise" the rear part from any sludge and hazardous dust, as required by the regulations.

#### 3 Alarm

Monitoring system for good suction operation. In the event of low flow, a buzzer and an LED will sound and flash to get the operator's attention when the "containment" conditions are not being ensured.

#### 4 Sash

Glass screen that can be opened vertically, allowing entry of the appliances and/or substances that will be used/handled.

#### 5 Sash lock 45 cm

Mechanical lock of maximum height, it is possible to unlock the mechanism to proceed with the maintenance and/or insertion of large instruments.

Opening the sash over the lock no longer guarantees "containment".

#### 6 Horizontally sliding glass

Glass sections that can be opened horizontally allowing operation, with the sash lowered, in complete protection.

#### 7 Airfoil:

#### armrest with anemometric probe

The anemometric probe is normally positioned on the roof of the hood.

This position involves some problems over time:

- a) Possible dust deposit.
- b) Interference due to the temperature of the hot air in the environment near the ceiling.
- c) Interference for internal temperature if heat sources are used in the hood.
- d) Difficulties with maintenance/replacements. To avoid these problems we have, after various tests, incorporated the anemometric probe into the ARMREST AIRFOIL.

#### 8 Economy flow: low consumption lock

The vertical sash is locked at 30 cm from the worktop.

By not interfering with the user's operation, there is a considerable reduction in the suction volume without compromising the "containment". (Table on pages 42 and 43). A second lock is maintained at 45 cm from the worktop.



# **ASEM® HOODS**CP SERIES CLASS 0





- 1 Sash with sliding glass
- 2 Worktop
- 3 Control panel
- 4 Collar for extraction Ø 250 mm
- 5 Glass on the side of the hood (optional), standard glazing on Kristal
- 6 Drain tray on the worktop (optional)
- 7 Drain tank on the back panel
- 8 Low cabinet or safety cabinet under hood
- 9 Remote control water tap
- 10 Gas tap with remote control
- 11 Technical gas pressure regulator with pressure gauge
- 12 Power outlets





# **ASEM® HOODS**CP SERIES CLASS 0



#### **USE**

Collective protection device for the user, certified according to EN14175. UNI TS 11710.

Extraction of vapours and dust from the working volume so that no concentration of chemical substances reaches the operator and the laboratory.

Prevention of an explosive atmosphere forming in the working volume.

Protection against the projection of chemicals. The fume hoods are not suitable for handling biological agents or microorganisms.

Reaction to fire class "0".

#### **STRUCTURE**

#### Entirely made of sheet steel.

Built with steel elements, in independent modules, modular and mechanically connectable, allowing interchangeability or replacement of individual elements.

Sides, back wall, double suction and ceiling in galvanised sheet steel, thickness 15/10 -10/10 mm, cold pressed and painted, after degreasing treatment, with a first application of epoxy primer and two successive applications of thermosetting powders of at least 90 microns; here, the enamel undergoes a drying and firing treatment in a thermal tunnel at 210 °C and fuses with the metal part.

Powder with pigmentation of WHITE RAL 9010 colour.

The quality and adhesion of the covering are verified according to the standard UNI EN ISO 12944.

Hexagonal steel screws allow rapid assembly of the various components, creating a particularly solid and robust load-bearing structure.

Adjustable feet in anti-acid material at the base allow the structure to be levelled.

#### **BODY**

Extraction point is on the roof of the hood: flange/collar with a diameter of 250 mm.

Operating elements outside the hood on the triangular side deflectors. The double rear base of the suction area necessary to uniformly capture gases and vapours, also on the worktop, is obtained by installing a removable sanitising panel, with the same characteristics of the walls, and with the number of openings distributed for optimum ventilation.

#### **DEFLECTORS**

Full height, free from edges, to convey the air from the sides of the hood towards the inside; they also avoid "regurgitation" and flow returns.

Made of 12/10 mm electro-galvanised steel sheet coated with epoxy paints.

Removable panel for the entry of new utilities or for maintenance.

Cable hole with cover.

#### THE DOUBLE REAR BASE

The double rear base is designed to be able to apply detachable structures and stands, and is sized according to the width of the fume hoods. It is easily removable for cleaning; this operation can be performed by the users themselves, without the presence of a specialised technician. This allows a reduction in the maintenance costs for the fume hood.

# **ASEM® HOODS** (CP SERIES CLASS 0



#### **SASH**

The sash consists of a 1 mm thick galvanised steel frame, phosphated and covered with epoxy powder fixed through a thermal tunnel at 180 °C and/or in aluminium. 2 or 3 Securit laminated glass thickness 3 + 3 + PVB compliance with UNI EN12543-1 and EN 12600.

The sash opens and closes in any position, thanks to a manual or motorised system.

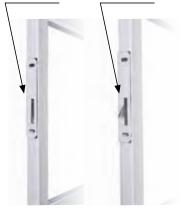
The sash windows can also be opened and closed horizontally so they can act as a complete screen for the operator's whole body, while allowing handling inside the hood.

The sash is equipped with a mechanical locking system for vertical opening.

Opening is possible up to 300 and 450 mm from the worktop.

For maintenance or introducing bulky instruments, it is possible to unlock this system and allow the guillotine to be completely opened.

> During In case of breakage the normal of the cable/toothed use belt



Safety sash

The hood is also equipped with an optical/ acoustic alarm device which, in the event of voluntary opening by the operator, is activated and signals the anomaly.

By re-lowering the sash, the locking system is automatically reactivated and the optical/acoustic alarm switches off, in accordance with EN 14175 (optional).

The sash frames are equipped with a safety device that immediately blocks their fall in the event of breakage of one of the steel cables/ toothed belts from the counterweight.

These counterweights are placed behind the back wall, outside the hood and supported by ropes of AISI 316 stainless steel diam. 3 mm or toothed belts with steel core, low-friction plastic pulleys with anti-roll-over device that guarantees a low displacement force.

They are outside the suction volume and therefore are not in contact with the corrosive vapours that can develop during handling inside the hood.

Safety device with immediate locking in any sash position in case the cables are unbalanced or sheared. Limit switch position with finger guard lock in case of accidental closing.

In accordance with EN 14175, the manual force to be exerted to open or close the guillotine must not exceed 30 N

per linear metre.

These security systems are controlled by production and verified during audits by Bureau Veritas.



# ASEM® HOODS © CP SERIES CLASS 0



#### **METALLIC SUPPORT HOLDER WORKTOP**

Constructed with TIG welded steel tubes that allow a high load capacity, possibility of height adjustment.

The protection treatment is carried out by pickling and hot phosphating process to eliminate any residues of slag or grease, then electrostatically applied powders with colour pigmentation WHITE RAL 9010.

The enamel undergoes a drying and firing treatment in a thermal tunnel at 210 °C, where the enamel melts with the metal part.

Hexagonal steel screws allow a quick assembly of the frame to the self-supporting base creating a particularly solid and robust structure.

#### **ROOF OF THE HOOD**

The roof of the hood is entirely made of galvanised sheet steel 1.2 - 1.5 and 2 mm thick, phosphated and painted with epoxy powders fixed thanks to the passage in the thermal tunnel at 180 °C.

On request, it can be made in PVC with the same air flow characteristics as the steel roof.

#### **CEILING OF THE HOOD**

In the double suction part, the ceiling is equipped with a large number of ventilation openings, designed to convey the suction vapours evenly to avoid turbulence.

There is an opening with an optical polycarbonate panel on the roof to accommodate the lighting. This panel also has the function of being the preferential escape route in case of explosion and/or pressure increase inside the hood.

On the ceiling of the hood the 250 mm diameter expulsion collar is positioned, equipped with an anti-condensation collection system to avoid condensation forming inside the hood, due to the heat exchange inside the pipes of different temperatures between the laboratory and the outside.

The fume hood can also be equipped with the SA7000 system, which makes it possible to extract from the cabinets under the fume hoods, ensuring the necessary ventilation and air exchange.

ALL OUR FUME HOODS ARE DESIGNED SO THAT PARTS THAT MAY BE DAMAGED OVER TIME CAN BE EASILY REPLACED.

THIS ALSO REDUCES THE COSTS OF MANAGEMENT AND MAINTENANCE.



# **ASEM® HOODS**CP SERIES CLASS 1





- 1 Sash with sliding glass
- 2 Worktop
- 3 Control panel
- 4 Collar for extraction Ø 250 mm
- 5 Glass on the side of the hood (optional)
- 6 Drain tray on the worktop (optional)
- 7 Drain tank on the back panel
- 8 Low cabinet or safety cabinet under hood
- 9 Remote control water tap
- 10 Gas tap with remote control
- 11 Technical gas pressure regulator with pressure gauge
- 12 Power outlets







# **ASEM® HOODS**CP SERIES CLASS 1





#### **USE**

Collective protection device for the user, certified according to EN14175. UNITS 11710. Extraction of vapours and dust from the working volume so that no concentration of chemical substances reaches the operator and the laboratory.

Prevention of an explosive atmosphere forming in the working volume.

Protection against the projection of chemicals. The fume hoods are not suitable for handling biological agents or microorganisms.

Reaction to fire class "1".

#### **STRUCTURE**

#### Rear part entirely made of sheet steel.

Built with steel elements, in independent modules, modular and mechanically connectable, allowing interchangeability or replacement of individual elements are made of electro-galvanised steel sheet, thickness 15/10 - 10/10 mm, cold-press and painted, previously degreasing treatment, with a first application of epoxy primer and with 2 successive applications of thermosetting powders of at least 90 microns where the enamel undergoes a treatment of drying and firing in a thermal tunnel at 210 °C and melts with the metal part.

Powder with pigmentation of WHITE RAL 9010 colour.

The quality and adhesion of the covering are verified according to the standard UNI EN ISO 12944.

Flanks, internal panel and façade and ceiling made of water-repellent panels covered with fireproof laminate made with melamine resins with low formaldehyde content in the class of formaldehyde E1 or F4 STARS.

FSC certified recycled product.

Double suction in polypropylene and/or HPL stratified 6 mm.

Hexagonal steel screws allow rapid assembly of the various components, creating a particularly solid and robust load-bearing structure. Adjustable feet in anti-acid material at the base allow the structure to be levelled.

#### **BODY**

Extraction point is on the roof of the hood: flange/collar with a diameter of 250 mm.

Operating elements outside the hood on the triangular side deflectors.

The double rear base of the suction area necessary to uniformly capture gases and vapours, also on the worktop, is obtained by installing a removable sanitising panel, with the same characteristics of the walls, and with the number of openings distributed for optimum ventilation.

#### **DEFLECTORS**

On all the height, free from edges, to convey the air from the sides of the hood towards the inside; they also avoid "regurgitation" and flow returns.

Made of 12/10 mm electro-galvanised steel sheet coated with epoxy paints.

Removable panel for the entry of new utilities or for maintenance. Cable hole with cover.

#### **DOUBLE REAR BASE**

The double rear base is designed to be able to apply detachable structures and stands, and is sized according to the width of the fume hoods. It is easily removable for cleaning; this operation can be performed by the users themselves, without the presence of a specialised technician.

This allows a reduction in the maintenance costs for the fume hood.

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# **ASEM® HOODS**CP SERIES CLASS 1





#### **SASH**

The sash consists of a 1 mm thick galvanised steel frame, phosphated and covered with epoxy powder fixed through a thermal tunnel at 180 °C and/or in aluminium. 2 or 3 Securit laminated glass thickness 3 + 3 + PVB compliance with UNI EN12543-1 and EN 12600.

The sash opens and closes in any position, thanks to a manual or motorised system.

The sash windows can also be opened and closed horizontally so they can act as a complete screen for the operator's whole body, while allowing handling inside the hood.

The sash is equipped with a mechanical locking system for vertical opening.

The opening is possible up to 300 and 450 mm from the worktop.

For maintenance or introducing bulky instruments, it is possible to unlock this system and allow the guillotine to be completely opened.

The hood is also equipped with an optical/ acoustic alarm device which, in the event of voluntary opening by the operator, is activated and signals the anomaly.

By re-lowering the sash, the locking system is automatically reactivated and the optical/acoustic alarm switches off, in accordance with EN 14175 (optional).

The sash frames are equipped with a safety device that immediately blocks the fall in case of breaking of one of the steel cables / toothed belts from the counterweight.

These counterweights are placed behind the back wall, outside the hood and supported by ropes of AISI 316 stainless steel diam. 3 mm or toothed belts with steel core, low-friction plastic pulleys with anti-roll-over device that guarantees a low displacement force.

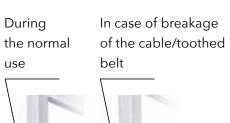
They are outside the suction volume and therefore are not in contact with the corrosive vapours that can develop during handling inside the hood.

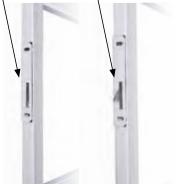
Safety device with immediate locking in any position of the sash in case of cable unbalance or shearing.

Limit switch position with finger guard lock in case of accidental closing.

In accordance with EN 14175, the manual force to be exerted to open or close the guillotine must not exceed 30 N per linear metre.

These security systems are controlled by production and verified during audits by Bureau Veritas.





Safety sash

# **ASEM® HOODS**CP SERIES CLASS 1



#### **METAL SUPPORT WORKTOP BASE**

Constructed with TIG welded steel tubes that allow a high load capacity, possibility of height adjustment.

The protection treatment is carried out by pickling and hot phosphating process to eliminate any residues of slag or grease, then electrostatically applied powders with colour pigmentation WHITE RAL 9010.

The enamel undergoes a drying and firing treatment in a thermal tunnel at 210 °C, where the enamel melts with the metal part.

Hexagonal steel screws allow a quick assembly of the frame to the self-supporting base creating a particularly solid and robust structure.

#### **ROOF OF THE HOOD**

The roof of the hood is entirely made of galvanised sheet steel 1, 1.5 and 2 mm thick, phosphated and painted with epoxy powders fixed thanks to the passage in the thermal tunnel at 180 °C.

On request, it can be realised in PVC with the same aeraulic characteristics of the steel roof.

#### **CEILING OF THE HOOD**

In the double suction part, the ceiling is equipped with a large number of ventilation openings, designed to convey the suction vapours evenly to avoid turbulence.

There is an opening with an optical polycarbonate panel on the roof to accommodate the lighting. This panel also has the function of being the preferential escape route in case of explosion and/or pressure increase inside the hood.

On the ceiling of the hood the 250 mm diameter expulsion collar is positioned on request, equipped with an anti-condensation collection system to avoid that, due to the heat exchange inside the pipes of the different temperatures between the laboratory and the outside, the condensation falls inside the hood.

The fume hood can also be equipped with the SA7000 system, which makes it possible to extract from the cabinets under the fume hoods, ensuring the necessary ventilation and air exchange.

ALL OUR FUME HOODS ARE DESIGNED SO THAT PARTS THAT MAY BE DAMAGED OVER TIME CAN BE EASILY REPLACED.

THIS ALSO REDUCES THE COSTS OF MANAGEMENT AND MAINTENANCE.

### THE QUALITY

# IS THE CERTAINTY OF THE CERTIFICATION

Hoods must be considered proper **safety devices** as they must guarantee the health of those who work inside the Laboratory.

The objective of ASEM® is obsessive research to reduce risks to operators to zero.

All ASEM® fume hoods are certified by an accredited body and then tested according to EN 14175 standards.

All our test instruments are also subject to periodic checks and calibrations.

All electrical components are tested according to EN 61010-1 CEI 66-5 standards.

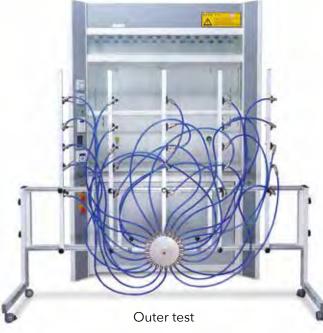
Every six months a certification body checks all production processes to ensure that all hoods conform to the original product.







Inner test



Each of our hoods is equipped with a serial number for the traceability of the "dossier" where the production processes are stored; this allows us to guarantee the supply of spare parts and assistance over time.



Robustness test



All ASEM® hoods come with an instruction booklet with a report of the tests carried out and the relative values found, including the test on air speed.

After each installation on the user's premises, this is checked during the test; if the values found are equal to or higher than those of the factory, we can confirm that it is not necessary to carry out the "in situ" containment index test.

Accurate aerodynamic studies have allowed us to design our hoods to avoid dead angles, and the flows have been optimised, free from turbulence or regurgitation of the products handled.



Probe tests anemometric omnidirectional



Evidence of the frontal speed high-precision



Luxometer tests



Dynamometer tests



Sound level meter tests



Smoke test



Anemometric probe tests

THIS IS

ASEM®

THIS IS THE

QUALITY

THIS IS THE

CERTIFICATION



## **SUCTION FUME HOODS**

## ASEM® DPC<sup>2</sup> WITH VAV (RMP) AND BALANCED DOUBLE SUCTION WITH AND WITHOUT DOUBLE MOTOR

THE ONLY VAV SYSTEM WITH A CERTIFIED RESPONSE TIME OF 0.5 SECONDS.
WITH VAV (RMP) AND BALANCED DOUBLE SUCTION, WITH AND WITHOUT DOUBLE MOTOR.

The total extraction fume hoods are normally provided with "double suction" obtained by a rear panel which, connected to the roof, increases the speed in its "cavity", promoting the extraction of heavy stagnant vapours on the worktop.

The patented DPC<sup>2</sup> system consists of suction in the lower part, and potentially on the sides of a total extraction fume hood, done mechanically by a remote motor-driven fan.

This suction will act concurrently with the main suction, and can be adjusted manually or automatically by means of a frequency variator.

With the glass raised, it will give greater preference and extraction air flow to the main motor. With the glass lowered, it will give preference and extraction air flow to the lower motor.

In the diagram you can see, with the blue line, the trend of the classic variable flow (VAV) with motorised valve or inverter.

On the left, the opening of the sash and then closing.

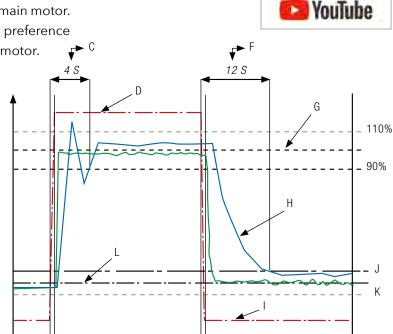
#### With the green line, the behaviour with RMP.

As you can see, traditional systems have a stabilisation time that causes the "confinement" to be lost and therefore the vapours come out.

ASEM DPC<sup>2</sup>VIDEO

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#### With RMP the system is completely stable.



40 41





Α

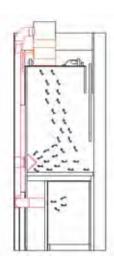
## THE **ADVANTAGES** OF THE DOUBLE SUCTION SYSTEM





THE ADVANTAGES OF THE SYSTEM ARE A REDUCTION IN THE REQUIRED FLOW RATES, A HOMOGENEOUS SUCTION THAT AVOIDS TURBULENCE. THE POSSIBILITY TO INCREASE OR DECREASE THE SUCTION ACCORDING TO THE NEEDS OF THE OPERATOR AND THE TYPE OF PRODUCT BEING HANDLED.

This system avoids the problem created by the classic VAV (variable volume) system which, once the sash has been lowered, keeping the suction speed constant, drastically reduces the volume of air flow so it is no longer sufficient to guarantee "washing", especially when the interior uses bunsens, sand baths or hot plates to dry acid or solvent products.



#### 1 Continuous suction only on the worktop It will also be possible, by keeping the suction turned off, to have continuous suction only

on the worktop.



Through an iris valve, this system makes it possible to turn off the ventilation on the worktop, and by turning off the main one, to have 24-hour cabinet ventilation.











#### 3 Affordability

Another special feature is the use of piping with its "coaxial" curves, that is a pipe with a smaller section inside the main pipe.

The two pipes, once outside, will go to the 2 motors.

This solution does not increase installation. costs.

#### 4 Values close to zero

The homogeneity of the flows will guarantee the operator and those who work in the laboratory "containment index" values close to zero.

#### 5 High safety performance

The system will be combined with the RMP patent by configuring a hood with high safety performance that cannot be compared to other hoods on the market.

# ASEM® RMP PATENTED MECHANICAL FLOW REGULATION MO2012A000139

The fundamental purpose for a hood is protecting the operator: with RMP this is total. Furthermore, energy savings are always guaranteed.

For regulating the flow rate of a fume hood, 2 systems are usually used:

- 1) Regulation by "inverter" on the motor.
- 2) Motorised butterfly valve (suction by multiple hoods with only one motor).
- The system is based on an electronic control that, with a set constant suction speed normally from 0.3 to 0.7 m/s, by sending asignal to the inverter, can regulate the motor speed according to the position of the sash.

The flow rate decreases and/or increases when opening and/or closing the sash according to the equation:

Flow rate  $P = V \times S$  where V = speed (0.3...0.7 m/s) multiplied by the section S (frontal suction area).

The critical moment of this system is given by the opening of the sash.

The reaction time of the electronic system and the inverter is not instantaneous, and therefore there is a risk of leakage of the toxic vapours present in the suction chamber.





THE FIRST HOOD WITH INTEGRATED MECHANICAL VAV FLOW REGULATION SYSTEM THAT ALLOWS GREATER PROTECTION AND ENERGY SAVINGS THAN TRADITIONAL SYSTEMS.







Hood without ASEM® RMP

2) The system is based on an electronic control that, with a set constant suction speed normally from 0.3 to 0.7 m/s, regulates by sending a signal to the motorised valve, that will open and/or close depending on the position of the sash.

The flow rate decreases and/or increases when opening and/or closing the sash according to the equation:

Flow rate  $P = V \times S$  where V = speed (0.3...0.7 m/s) multiplied by the section S (frontal suction area).

The critical moment of this system is given by the opening of the sash.

The reaction time of the electronic system and the inverter is not instantaneous, and therefore there is a risk of leakage of the toxic vapours present in the suction chamber.

The RMP system acts upon opening and/or closing of the sash by immediately adjusting a valve mechanically. The movement of the front screen is "coupled" directly to the valve which, therefore, makes it possible to maintain constant speed and therefore to regulate the volume of air sucked. The response is instantaneous and therefore, unlike other electronic systems, there are no "dead" times that let dangerous vapours be released from the hood and breathed by the operator and people working in the laboratory.

# ASEM® RMP DOUBLE SAFETY IN THE LABORATORY





No risk of a "breakdown" with the RMP system; the maintenance and/or control will be carried out in concomitance with the ordinary maintenance of the hood.

The valve, even in the absence of electricity, will remain open, guaranteeing a slight suction for "chimney effect".

The RMP system, having no electrical components, can be installed in ATEX zones combined with a "cross measurement" flow alarm system.

#### ASEM® RMP: mechanical flow regulation.

The device, patent MO2012A000139, makes it possible to regulate the air flow of a fume hood with total expulsion, keeping the suction speed constant.

The adjustment is made by a butterfly valve, that opens and closes automatically in a linear manner when the sash glass is raised or lowered. The system is automatically unlocked if it is necessary to open more than 45 cm for maintenance or to allow an instrument to enter the suction chamber.

The advantage of this system, compared to the motorised system and the frequency variator, in addition to its economy, is the immediate response without "dead" times or inertia.





THE RMP SYSTEM CAN BE REGULATED TO THE SPEEDS REQUIRED BY THE OPERATOR, EVEN TWICE IN A FEW SECONDS, TO HAVE A SUCTION SPEED FROM 0.3 TO 0.7 M/S.



#### 1. Closed loops: valve closed

The sash is lowered then the valve closed: air flow reduced to the minimum constant speed (normally 0.5 m/s).



## 2. Sash 1/3 open: valve 1/2 open

The sash 1/3 open then the valve 1/2 open: increased air flow.



#### 3. Sash open 45 cm: valve open

The sash open 45 cm then the valve open: maximum air flow constant speed (normally 0.5 m/s).







## KRISTAL H 2300 @ A CLASS 0

### 1 SASH

Chemical hood certified according to EN 14175-2-3-5-6, white RAL 9010 colour, epoxy-painted acid-resistant sheet metal body with large windows on the sides which allow for easy cleaning and maintenance.

This design guarantees maximum performance in terms of air flow and maximum safety for the user and the environment. Inside there is a double suction which favors the flow of air in several points, favoring the suction of "heavier" vapours.

This hood guarantees the maximum size of the worktop with the same external dimensions, using larger standard worktops of 1500 x 750 mm, easily available on the market, at reasonable prices and in less time than plans with special measures or dimensions, and also avoids to be bound to the hood manufacturer. If you believe we are able to supply hoods with a total external dimensions of 1500 mm with a work surface of 1430 x 750 mm under the same conditions.

The monolithic stoneware top is completely detached from the hood and can be removed for replacement or maintenance without dismantling any element of the structure.

Made up of a single large plate with raised perimeter edges, a single body without joints or joints. It is made by molding a mixture of clays, pure quartz, kaolin and feldspar fluxes, with light gray anti-reflective enamelling and a single firing at 1300°C, giving the enamel excellent chemical resistance. After cooking, it presents a perfectly smooth, smooth, uniform surface, easily washable and decontaminable and resistant to chemical agents, solvents, thermal and mechanical stress.





**HOOD WITH DOUBLE SUCTION SYSTEM** AND V.A.V. DEVICE CERTIFIED ACCOR-**DING TO EN 14175-2-3-5-6 BY BUREAU VERITAS.** 

Resists corrosion of acids, alkalis, salts and solvents at all concentrations, poor resistance to hydrofluoric acid and strong, hot alkalis.

The monolithic stoneware tops have high mechanical resistance and good resistance to thermal shocks and are non-flammable.

Characteristics compliant with DIN 12916 standards. Peculiar characteristics of the monolithic stoneware top are: self-supporting; absence of joints; high chemical inertness; ease of replacement; ease of cleaning, decontamination and disinfestation. Dimensions 1800 x 750 mm. With 300 x 150 mm polypropylene tank on the

right raised to avoid the accidental discharge of spilled products.

#### Side panels with class 0 CP glass.

Large 6 mm shatterproof safety glass allows for better internal vision in safe conditions. They can be easily removed from the outside after removing the fixing profiles.

2 EE UNEL 10/16° IP55 sockets and dedicated

thermomagnetic switch.

Hood water

control kit

included of



the inside without having to move them

The spouts of all fluids can be removed from the hood.

spout and faucet.

Front counterweights





Drawer which hides all the electronics and fluid services inside, easily accessible for maintenance or routine interventions.

This drawer is completely detached from the top and the hood body so as to avoid contact with any liquids on the work surface and can be easily opened if necessary using a key.





## **CPO EN H 2300**













The fire load of these hoods is negligible.

The front conveyors with removable panelling allow the addition of a wide range of utilities, and can be customised.

These hoods have a very large work surface with respect to the external size.

3

## **CP1 EN H 2300**

1 SASH, 2 SASHES, DISTILLATION









Hoods for general use, built with the same technical features as the CP0 EN hoods, but made with panels in hydro-fireproof plastic laminate.



# ICP EN SELF-SUPPORTING





CLASS 0 IN METAL, CLASS 1 IN LAMINATE, CLASS 1 IN PVC

HOODS WITH AN EXCEPTIONAL QUALITY/PRICE RATIO, HIGH FLEXIBILITY WITHOUT SACRIFICING SAFETY AND CERTIFICATION.



ICP CLASS 0 / CLASS 1 self-supporting



ICP PVC self-supporting

EN 14175 certified hoods in 3 different versions:

- Class 0 with metal structure, coated with anti-acid epoxy paints;
- Class 1 built with panels in water-repellent agglomerate coated with fireproof plastic laminate;
- or acid-resistant version with the suction chamber in 15 mm thick PVC panels and polycarbonate sashes.

Removable service panels with arrangements for electrical utilities and control panel on the left.

Support structure with "C" leg, with option to insert cabinets, with drawers and doors, on wheels, in different combinations.



# ICP EN SUPERSTRUCTURE





CLASS 0 IN METAL, CLASS 1 IN LAMINATE, CLASS 1 IN PVC



THE FRONT CONVEYORS
WITH REMOVABLE PANELLING
ALLOW THE INSERTION
OF A WIDE RANGE OF UTILITIES.

ICP EN CLASS 0 / CLASS 1



**ICP EN PVC** 

**8** 

## ACCESSORIES AND SERVICES SMART SYSTEM AC 4000

- 1 "ON-OFF" operations: also with Smartphone Apps;
- 2 Reading of the hood operating parameters;
- Manual or automatic setting of the speed (m/s) with consequent variation of the suction flow rate based on the parameters set by the user.

The parameters relating to the front speed of the incoming air and the set value are displayed on a digital display and indicated in m/s.

The frequency of the inverter can also be checked and changed.

The system modifies the flow rate of the hood according to the different positions of the front screen or the opening of the horizontal sliding windows, keeping the front speed constant at the set value.

Operation in "manual" with the possibility to control the electric suction device by excluding the automatic control, but keeping the set parameters in memory;

- 4 Possibility of remote management;
- 5 Display of alarms in progres;
- 6 Silencing the alarm buzzer;
- 7 Historical display of the alarms that have occurred;
- 8 Input and variation of the operating and calibration parameters;



- 9 Working hours of the hood;
- 10 Scheduled maintenance;
- 11 Frontal glass alarm: signalling, with an optical-acoustic alarm, the raising of the front screen over 50 cm from the worktop;
- 12 Insufficient air suction speed alarm, possibility of setting an alarm threshold for insufficient flow with optical-acoustic signal for exceeding the limit set by the user;
- 13 Inverter programme control and modification;
- 14 Signalling, with an optical-acoustic alarm, by means of a probe placed inside the hood, when the preset safety temperature is exceeded (the temperature must be selected by the operator in steps of 1 degree, from -40 °C to +99 °C);
- 15 "Emergency" button to activate maximum suction. Insertion is possible either automatically or manually, and is accompanied by an optical-acoustic signal;
- 16 LAN connection with the possibility of remote control of the hood status, parameter change, alarm history.

Potential technological updates.

The acoustic signals of an alarm can be silenced by the operator, while the optical alarm remains.

The alarm is stored, and a new alarm condition will reactivate it.



# ACCESSORIES AND SERVICES SMART SYSTEM





AC 4000

























## ACCESSORIES AND SERVICES

#### AC1000 / AC2000 AIR FLOW

Microprocessor hood command and control system with high sensitivity hot wire anemometric sensor for air/smoke velocity with automatic temperature compensation.

Display on double alphanumeric backlit LCD display of speed and diagnostics.

Keys with LED indicator for ventilation, lamp, alarm buzzer, switching between Automatic and Manual adjustment, selection of "outlets", emergency.

Multi-function keys for configuring the instrument with separate menus protected by a password for: sensor calibration, output signal calibration, minimum speed and reduced speed threshold, setpoint for normal and reduced speed, alarm activation delay, maintenance, data logger with serial channel.

Connection for external temperature sensor. Relay outputs for: ON/OFF ventilation; lamp;

alarm; outlets. Output 0- 10 V.

Electrical safety in accordance with EN 61010-1. EMC immunity in accordance with EN 61000-6-2, EN 61000-6-4.

Non-volatile data memory (EEPROM), data retention over 10 years.

If connected to a motorised valve or an inverter, it allows automatic control of the air flow drawn in by the hood, depending on the opening of the sash, VAV and the extension of the certification to the standard EN14175.6.

# Comment Assistance Commen

AC 1000 - AIR FLOW



AC 2000 - AIR FLOW

#### **AC3500 CONTROL FLOW**

Electronic device with acoustic and visual alarm for the front speed of the air drawn in by the hood, with hot wire anemometer probe.

Display on BAR GRAPH LED.

Switch for centrifugal suction and lamp.

Provision for additional 2 alarms for connection to temperature sensor or for opening sash over 40/60 cm (optional).

When connected to an inverter or motorised valve, it allows automatic control of the front air flow according to the opening of the sash, VAV and the certification in accordance with the standard EN14175.6.

AC3500K version with high sensitivity hot wire anemometric probe.



AC3500 CONTROL FLOW

#### **Control panel WAC3500**

The control panel WAC3500 is a PI action command and control instrument for valve and/or fan via voltage signal (0 - 10 V).

This alarm can manage turning on the outlets, lights, and engine.

Through the LCD display it will be possible to see the operations and parameters in progress and adjust the engine power.



- Alphanumeric LCD display
- **2** Engine ignition button
- 3 Lights power button
- 4 Socket ignition button (only when the engine is running)
- 5 Alarm LED
- 6 Alarm silence button
- 7 Emergency button

## ACCESSORIES AND SERVICES



## RMP EN 14175-6 V.A.V. MECHANICAL FLOW REGULATOR PATENT NO. 0001411596

The RMP system acts upon the opening and/or closing of the sash by immediately adjusting a valve mechanically.

The movement of the front screen is "coupled" directly to the valve which, therefore, makes it possible to maintain constant speed and therefore to regulate the volume of air sucked.

**The response is instantaneous**, therefore, unlike other electronic systems, there are no "dead" times that let dangerous vapours be released from the hood and breathed by the operator and people working in the laboratory.

The RMP system can be adjusted to the speed requested by the operator, even twice in a few seconds, for suction speeds of 0.3 to 0.7 m/s.

No risk of a "breakdown" with the RMP system, as the maintenance and/or inspection will be carried out in concomitance with the ordinary maintenance of the hood. Even in the absence of electricity, the valve will remain open and will still allow a slight suction for "chimney effect".

The RMP system, having no electrical components, can be installed in ATEX zones combined with a "measuring cross" flow alarm system.

#### **INVERTER**

For automatic regulation of the motor speed according to the opening of the hood sash. In the IP65 tin container this device allows a substantial reduction in the volume of air sucked in, and therefore a considerable saving in the energy necessary for conditioning the air to be restored.

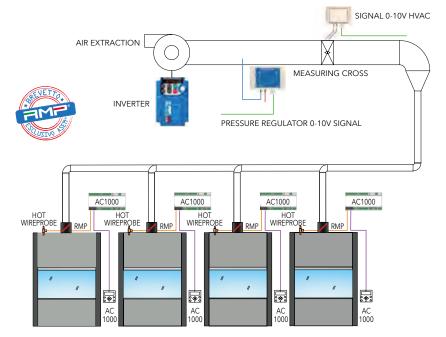
### **VALVE**

Motorised damper with continuous control for the partialisation of the intake duct.

It is controlled by the hood control system according to the height of the front sash.

Made of white PVC pipe diameter 250 mm. 24V power supply.

It allows a substantial reduction of the volume of air drawn in and therefore a considerable energy saving.





Automatic microprocessor control of the air intake and compensation system for a laboratory with one or more hoods.



## ACCESSORIES AND SERVICES

## ZSAS®

### **SASH HEIGHT SAFETY**

The frames of the single and double sashes integrate a new safety device that immediately stops it falling in case the steel cord of the counterweight breaks.

#### **MOTORISED SASH OPENING SYSTEM**

All ASEM® hoods can be equipped with a motorised opening and closing system for the sash. This device makes it possible to open the sash with a simple touch of the handle or via a button on the panel up to the lock at 45 cm.

Subsequently, if necessary, it will be possible to continue opening up to the maximum for any extraordinary operations of cleaning or arranging equipment.

#### **PRESENCE SENSORS**

All hoods with motorised sash can optionally be equipped with a presence sensor that allows automatic closing when the operator is away. There are safety devices that block closing, including in the presence of objects.





Presence sensors



Sash safety

#### **DOUBLE SANITARY SUCTION**

Our double-suction system for heavy fumes can easily be removed without tools.

When removing the PVC cylinders that support the rack, the panel can be removed.

The air space can be accessed for cleaning, as required by the standard.

### **ARMREST WITH PROBE**

Studied in every detail, the deflector allows the conveyance of the intake air with the sash closed, eliminates the turbulence that could be created in the presence of the operator, and thanks to the shaping allows the operator to lean and rest their arms during prolonged work at the hood.

Positioning the probe on the armrest is recommended when working at high temperatures, or when the reintegration or air conditioning systems are oriented towards the ceiling of the hood.

## ACCESSORIES AND SERVICES



### LOW CONSUMPTION LOCK

Double mechanical lock for the sash 30 and 45 cm from the worktop.

In the first position there is already easy access to the suction chamber and a drastic reduction in air consumption.

It can be passed by simply pressing the lock.

## AC7000 4.0 SYSTEM COMBINED WITH WAC3500 and AC3500 CONTROL UNITS

An INDUSTRY 4.0 hood must be remotely controllable via software.





Low consumption lock

The AC7000 control unit, installed on extractor hoods, allows you to monitor all the fundamental functions, including suction, lighting, electrical sockets, opening greater than 50 cm with related alarms that are stored in a history.

The device tends to minimize the user's action and at the same time add safety features to the normal operations of using an extractor hood. The AC7000 system is the system for controlling the functions of extractor hoods. The product is presented as a plastic junction box, to which the various devices of the function control are connected by means of cable grommets on the lower wall.

The AC7000 is installed in the WAC3500 and AC3500 alarms, which allow the adjustment, control in presence and possibly the regulation of the air flow.

The AC7000 performs the following functions:

- "ON-OFF" operations;
- Reading of the front speed parameter of the hood: digital WAC3500; AC3500 led bargraphe;
- Manual or automatic setting of the speed (m/s) with consequent variation of the suction flow rate based on the parameters set by the user; automatic control, but keeping the reset parameters in memory;
- Display of ongoing alarms;
- Silence of the audible buzzer of alarms;
- Historical view of the alarms that occurred;
- Hood working hours;
- Front glass alarm: signaling, with an optical-acoustic alarm, that the front screen has been raised beyond 50 cm from the work surface;
- Insufficient air intake speed alarm: possibility of setting an alarm threshold for insufficient flow rate, with optical-acoustic signaling for exceeding the limit set by the user.
- "Emergency" button for activating maximum suction; arming is possible either automatically or manually and is accompanied by an optical-acoustic signal;
- WiFi connection with the possibility of remotely controlling the status of the hood, changing parameters, alarm history.

The acoustic signals of an alarm can be silenced by the operator, the optics remain.

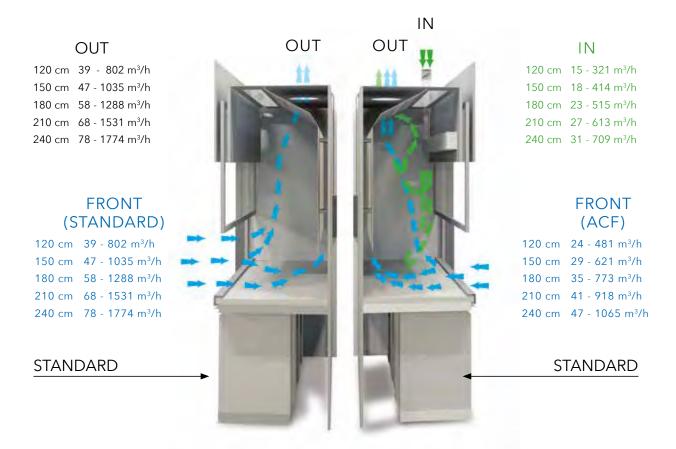
The alarm is memorized, a new alarm condition will reactivate it.





# ACF AUTOMATIC COMPENSATION FLOW





A suction hood installed in a laboratory, depending on its design, could "degrade" the air conditioning system and create many problems such as:

- Lack of adequate suction volumes with consequent escape of the vapours.
- Negative pressure that prevents doors in the laboratory being opened.

The ACF device is a system that, by taking a portion of air from outside or from another environment, compensates the volume of air sucked in by the hood in the laboratory. The distribution is done in such a way as to create a front barrier with consequent improvement in containment.

TO SOLVE
THESE PROBLEMS
WE CREATED
THE ACF DEVICE

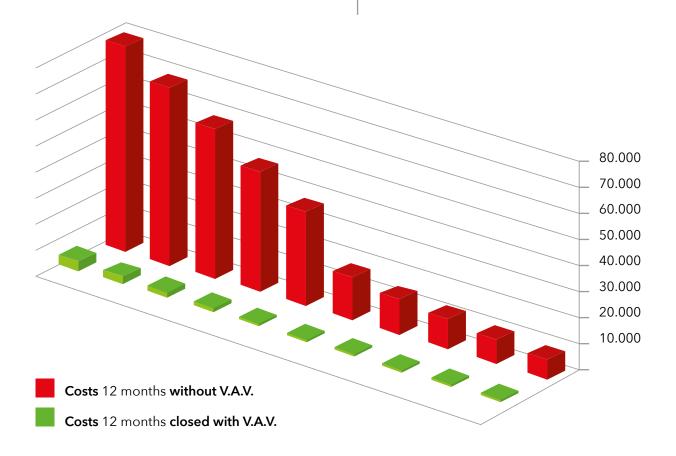
The **manual** version only needs to be connected to an existing air intake system.

The **semi-automatic** version needs a suction device divided by a butterfly valve.

The **fully automatic** version uses a suction device that ensures optimal balance via an inverter.

## CONSUMPTION AND COSTS OF A HOOD





NOMINAL DIMENSIONS OF HOOD	WORKING HOURS	WORKING DAYS	FLOW m³/h OPEN 45 cm	FLOW m³/h CLOSED 2 cm	CONSUMPTION m³/YEAR WITHOUT V.A.V.	CONSUMPTION m³/YEAR CLOSED WITH V.A.V.	COSTS 12 MONTHS WITHOUT V.A.V.	COSTS 12 MONTHS CLOSED WITH V.A.V.	SAVINGS 12 MONTHS WITH V.A.V.	SAVINGS %
120	8	220	802	39	1.411.520	68.640	7.290	354	6.935	95%
150	8	220	1.035	47	1.821.600	82.720	9.408	427	8.981	95%
180	8	220	1.288	58	2.266.880	102.080	11.707	527	11.180	95%
210	8	220	1.531	68	2.694.560	119.680	13.916	618	13.298	96%
240	8	220	1.774	78	3.122.240	137.280	16.125	709	15.416	96%
120	24	360	802	39	6.929.280	336.960	35.787	1.740	34.046	95%
150	24	360	1.035	47	8.942.400	406.080	46.184	2.097	44.086	95%
180	24	360	1.288	58	11.128.320	501.120	57.473	2.588	54.885	95%
210	24	360	1.531	68	13.227.840	587.520	68.316	3.034	65.282	96%
240	24	360	1.774	78	15.327.360	673.920	79.159	3.481	75.679	96%

## TABLE OF EXTRACTED AIR VOLUME "NORMAL"

## TABLE OF EXTRACTED AIR VOLUME "WITH ECONOMY: LOW CONSUMPTION"

					THE ESCHOLINI EST SCHOOL HOLD							
HOOD MODEL	DIMENSIONS W x D x H mm	OPENING DIMENSIONS with sash closed or 45 cm	FIX VOLUM		with RMI or motorise closed o	OLUME m³/h ?, inverter d valve sash or 45 cm worktop	OPENING DIMENSIONS sash closed or 30 cm from the		ED 1E m³/h	VARIABLE VO con RMP or motorised closed c from the	; inverter d valve sash or 30 cm	CONTAINMENT
		from the work W x H mm	V = 0,5 m/s	V = 0,3 m/s	V = 0,5 m/s	V = 0,3 m/s	worktop W x H mm	V = 0,5 m/s	V = 0,3 m/s	V = 0,5 m/s	V = 0,3 m/s	ŭ
WCP0125ENK	1265 x 960 x 2300	991 x 20/450	802	481	39 - V - 802	24 - V - 481	991 x 20/300	535	321	39 - V - 535	24 - V - 321	<0,1 ppm
WCP0155ENK	1565 x 960 x 2300	1291 x 20/450	1035	627	47 - V - 1035	28 - V - 627	1291 x 20/300	697	418	47 - V - 697	28 - V - 418	<0,1 ppm
WCP0185ENK	1865 x 960 x 2300	1591 x 20/450	1288	773	58 - V - 1288	34 - V - 773	1591 x 20/300	859	515	58 - V - 859	34 - V - 515	<0,1 ppm
WCPRW127EN	1179 x 1115 x 2500	900 x 20/450	729	438	32 - V - 729	19 - V - 438	900 x 20/300	486	291	32 - V - 486	19 - V - 291	<0,1 ppm
WCPRW157EN	1479 x 1115 x 2500	1200 x 20/450	972	584	43 - V - 972	26 - V - 584	1200 x 20/300	648	389	43 - V - 684	26 - V - 389	<0,1 ppm
WCPRW187EN	1779 x 1115 x 2500	1500 x 20/450	1215	729	54 - V - 1215	32 - V - 729	1500 x 20/300	810	486	54 - V - 810	32 - V - 486	<0,1 ppm
WCPRW217EN	2079 x 1115 x 2500	1800 x 20/450	1458	875	64 - V - 1458	39 - V - 875	1800 x 20/300	972	583	64 - V - 972	39 - V - 583	<0,1 ppm
WCPRW247EN	2379 x 1115 x 2500	2100 x 20/450	1701	1020	75 - V - 1701	45 - V - 1020	2100 x 20/300	1134	680	75 - V - 1134	45 - V - 680	<0,1 ppm
WCP0125EN	1265 x 1027 x 2300	991 x 20/450	802	481	39 - V - 802	24 - V - 481	991 x 20/300	535	321	39 - V - 535	24 - V - 321	<0,1 ppm
WCP0155EN	1565 x 1027 x 2300	1291 x 20/450	1035	627	47 - V - 1035	28 - V - 627	1291 x 20/300	697	418	47 - V - 697	28 - V - 418	<0,1 ppm
WCP0185EN	1865 x 1027 x 2300	1591 x 20/450	1288	773	58 - V - 1288	34 - V - 773	1591 x 20/300	859	515	58 - V - 859	34 - V - 515	<0,1 ppm
WCP0215EN	2165x 1027 x 2300	1891 x 20/450	1531	919	68 - V - 1531	41 - V - 919	1891 x 20/300	1021	612	68 - V - 1021	41 - V - 612	<0,1 ppm
WCP0245EN	2465 x 1027 x 2300	2191 x 20/450	1774	1064	78 - V - 1774	47 - V - 1064	2191x 20/300	1183	709	78 - V - 1183	47 - V - 709	<0,1 ppm



## TABLE OF EXTRACTED AIR VOLUME "NORMAL" TABLE OF EXTRACTED AIR VOLUME "WITH ECONOMY: LOW CONSUMPTION"

HOOD MODEL	DIMENSIONS W x D x H mm	OPENING DIMENSIONS with sash closed or 45 cm from the work W×H mm	FIX VOLUM V = 0,5 m/s		with RMF		OPENING DIMENSIONS sash closed or 30 cm from the worktop W×H mm		XED ME m³/h V = 0,3 m/s	con RMF or motorise closed c	OLUME m³/h ; inverter d valve sash or 30 cm worktop $V = 0.3$ m/s	CONTAINMENT
WCP0123EN	1265 x 1027 x 2300	1600 x 20/450	802	481	39 - V - 802	24 - V - 481	1600 x 20/300	535	321	39 - V - 535	24 - V - 321	<0,1 ppm
WCP0153EN	1565 x 1027 x 2300	1100 x 20/450	1035	627	47 - V - 1035	28 - V - 627	1100 x 20/300	697	418	47 - V - 697	28 - V - 418	<0,1 ppm
WCP0183EN	1865 x 1027 x 2300	1300 x 20/450	1288	773	58 - V - 1288	34 - V - 773	1300 x 20/300	859	515	58 - V - 859	34 - V - 515	<0,1 ppm
WCPD123EN	1265 x 1027 x 2300	991 x 20/450	802	481	39 - V - 802	24 - V - 481	991 x 20/300	535	321	39 - V - 535	24 - V - 321	<0,1 ppm
WCPD153EN	1565 x 1027 x 2300	1291 x 20/450	1035	627	47 - V - 1035	28 - V - 627	1291 x 20/300	697	418	47 - V - 697	28 - V - 418	<0,1 ppm
WCPD183EN	1865 x 1027 x 2300	1591 x 20/450	1288	773	58 - V - 1288	34 - V - 773	1591 x 20/300	859	515	58 - V - 859	34 - V - 515	<0,1 ppm
WCP1125EN	1265 x 1027 x 2300	991 x 20/450	802	481	39 - V - 802	24 - V - 481	991 x 20/300	535	321	39 - V - 535	24 - V - 321	<0,1 ppm
WCP1155EN	1565 x 1027 x 2300	1291 x 20/450	1035	627	47 - V - 1035	28 - V - 627	1291 x 20/300	697	418	47 - V - 697	28 - V - 418	<0,1 ppm
WCP1185EN	1865 x 1027 x 2300	1591 x 20/450	1288	773	58 - V - 1288	34 - V - 773	1591 x 20/300	859	515	58 - V - 859	34 - V - 515	<0,1 ppm
WCP1215EN	2165 x 1027 x 2300	1891 x 20/450	1531	919	68 - V - 1531	41 - V - 919	1891 x 20/300	1021	612	68 - V - 1021	41 - V - 612	<0,1 ppm
WCP1245EN	2465 x 1027 x 2300	2191 x 20/450	1774	1064	78 - V - 1774	47 - V - 1064	2191x 20/300	1183	709	78 - V - 1183	47 - V - 709	<0,1 ppm
WCP1125PVC	1265 x 1027 x 2300	991 x 20/450	802	481	39 - V - 802	24 - V - 481	991 x 20/300	535	321	39 - V - 535	24 - V - 321	<0,1 ppm
WCP1155PVC	1565 x 1027 x 2300	1291 x 20/450	1035	627	47 - V - 1035	28 - V - 627	1291 x 20/300	697	418	47 - V - 697	28 - V - 418	<0,1 ppm
WCP1185PVC	1865 x 1027 x 2300	1591 x 20/450	1288	773	58 - V - 1288	34 - V - 773	1591 x 20/300	859	515	58 - V - 859	34 - V - 515	<0,1 ppm
WCP1123EN	1265 x 1027 x 2300	991 x 20/450	802	481	39 - V - 802	24 - V - 481	991 x 20/300	535	321	39 - V - 535	24 - V - 321	<0,1 ppm
WCP1153EN	1565 x 1027 x 2300	1291 x 20/450	1035	627	47 - V - 1035	28 - V - 627	1291 x 20/300	697	418	47 - V - 697	28 - V - 418	<0,1 ppm
WCP1183EN	1865 x 1027 x 2300	1591 x 20/450	1288	773	58 - V - 1288	34 - V - 773	1591 x 20/300	859	515	58 - V - 859	34 - V - 515	<0,1 ppm
WCP1D123EN	1265 x 1027 x 2300	991 x 20/450	802	481	39 - V - 802	24 - V - 481	991 x 20/300	535	321	39 - V - 535	24 - V - 321	<0,1 ppm
WCP1D153EN	1565 x 1027x 2300	1291 x 20/450	1035	627	47 - V - 1035	28 - V - 627	1291 x 20/300	697	418	47 - V - 697	28 - V - 418	<0,1 ppm
WCP1D183EN	1865 x 1027 x 2300	1591 x 20/450	1288	773	58 - V - 1288	34 - V - 773	1591 x 20/300	859	515	58 - V - 859	34 - V - 515	<0,1 ppm
WICP0220EN	1200 x 887 x 2260	926 x 20/450	750	450	33 - V - 750	20 - V - 450	926 x 20/300	500	300	33 - V - 500	20 - V - 300	<0,1 ppm
WICP0250EN	1500 x 887 x 2260	1226 x 20/450	993	595	44 - V - 993	26 - V - 595	1226 x 20/300	662	397	44 - V - 662	26 - V - 397	<0,1 ppm
WICP0280EN	1800 x 887 x 2260	1526 x 20/450	1236	741	55 - V - 1236	33 - V - 741	1526 x 20/300	824	494	55 - V - 824	33 - V - 494	<0,1 ppm
WICP220EN	1200 x 887 x 2260	926 x 20/450	750	450	33 - V - 750	20 - V - 450	926 x 20/300	500	300	33 - V - 500	20 - V - 300	<0,1 ppm
WICP250EN	1500 x 887 x 2260	1226 x 20/450	993	595	44 - V - 993	26 - V - 595	1226 x 20/300	662	397	44 - V - 662	26 - V - 397	<0,1 ppm
WICP280EN	1800 x 887 x 2260	1526 x 20/450	1236	741	55 - V - 1236	33 - V - 741	1526 x 20/300	824	494	55 - V - 824	33 - V - 494	<0,1 ppm
WICP14P220EN	1200 x 887 x 2260	926 x 20/450	750	450	33 - V - 750	20 - V - 450	926 x 20/300	500	300	33 - V - 500	20 - V - 300	<0,1 ppm
WICP14P250EN	1500 x 887 x 2260	1226 x 20/450	993	595	44 - V - 993	26 - V - 595	1226 x 20/300	662	397	44 - V - 662	26 - V - 397	<0,1 ppm
WICP14P280EN	1800 x 887 x 2260	1526 x 20/450	1236	741	55 - V - 1236	33 - V - 741	1526 x 20/300	824	494	55 - V - 824	33 - V - 494	<0,1 ppm
WICP0120EN	1200 x 887 x 1400	926 x 20/450	750	450	33 - V - 750	20 - V - 450	926 x 20/300	500	300	33 - V - 500	20 - V - 300	<0,1 ppm
WICP0150EN	1500 x 887 x 1400	1226 x 20/450	993	595	44 - V - 993	26 - V - 595	1226 x 20/300	662	397	44 - V - 662	26 - V - 397	<0,1 ppm
WICP0180EN	1800 x 887 x 1400	1526 x 20/450	1236	741	55 - V - 1236	33 - V - 741	1526 x 20/300	824	494	55 - V - 824	33 - V - 494	<0,1 ppm
WICP120EN	1200 x 887 x 1400	926 x 20/450	750	450	33 - V - 750	20 - V - 450	926 x 20/300	500	300	33 - V - 500	20 - V - 300	<0,1 ppm
WICP150EN	1500 x 887 x 1400	1226 x 20/450	993	595	44 - V - 993	26 - V - 595	1226 x 20/300	662	397	44 - V - 662	26 - V - 397	<0,1 ppm
WICP180EN	1800 x 887 x 1400	1526 x 20/450	1236	741	55 - V - 1236	33 - V - 741	1526 x 20/300	824	494	55 - V - 824	33 - V - 494	<0,1 ppm
WICP14P120EN	1200 x 887 x 1400	926 x 20/450	750	450	33 - V - 750	20 - V - 450	926 x 20/300	500	300	33 - V - 500	20 - V - 300	<0,1 ppm
WICP14P150EN	1500 x 887 x 1400	1226 x 20/450	993	595	44 - V - 993	26 - V - 595	1226 x 20/300	662	397	44 - V - 662	26 - V - 397	<0,1 ppm
WICP14P180EN	1800 x 887 x 1400	1526 x 20/450	1236	741	55 - V - 1236	33 - V - 741	1526 x 20/300	824	494	55 - V - 824	33 - V - 494	<0,1 ppm

## **WORKTOPS**

IN OUR WORKTOPS EACH MATERIAL IS STRICTLY LINKED TO THE TYPE OF PROCESSING AND APPLICATION.

THE WIDE RANGE OF MATERIALS AND DIMENSIONS THAT ASEM® OFFERS, WILL ALLOW YOU MAXIMUM PERFORMANCE AGAINST HEAT, CHEMICAL ATTACKS AND DIRT.

#### **HPL LAMINATE**

Load-bearing panel, consisting of thermosetting resins evenly reinforced with wood-based fibres, manufactured at a high temperature and pressure.

The decorated surface is obtained using patented technology.

This technology guarantees the non-porosity of the surface which prevents the growth of bacteria, mildew and microorganisms.

Excellent resistance to numerous harsh chemicals normally used in chemical, microbiological and teaching laboratories. Test sheets can be supplied on request.

The surface has excellent wear resistance and a solid, long lasting structure that remains attractive for years. Ideal for flexible and dynamic environments, it can be used to quickly transform the design of your laboratory.

This material is extremely easy to adapt to the specific needs of a laboratory.

You can add sinks, drill holes and add other fittings.

Once installed, it can be easily adapted to new work requirements.

New cuts can be made and new taps, sinks or other equipment fitted without compromising its exceptional performance or aesthetic qualities.

It is a sustainable, environmentally friendly product. A method is used to transform soft wood from certified forests into an attractive, lasting, resistant material. It is a sustainable solution for worktops in laboratories now and in the future.

Standard colour is light grey and on request it is available in a wide range of colours.

Dimensions: 600 or 750 mm deep, 16 mm thick

#### **MONOLITHIC STONEWARE**

Consisting of a large slab with 4 raised edges, a single body without seams or joints.

It is made by pressing a mixture of clay, pure quartz, kaolin, feldspathic fluxes and other natural products and baked once at 1300 °C which makes it extremely strong.

It is then combined with an anti-reflective cold enamelling process in GREY which gives the product its excellent chemical resistance as well as its aesthetic qualities.

After baking, it has a perfectly smooth, even surface which can be easily washed and decontaminated and is also highly resistant to chemicals, solvents and heat and mechanical stresses.

Resistant to acids, alkalis, salts and solvents in all concentrations but not resistant to hydrofluoric acid.

The monolithic stoneware worktops have high mechanical resistance and good thermal shock resistance and are non-flammable.

Characteristics comply with DIN 12916 standards.

Special characteristics of the monolithic stoneware worktop are that: it is self-supporting;

has no joints; has high chemical inertia; is easy to replace; is easy to clean, decontaminate and disinfest.





Dimensions: 600 or 750 mm deep, 28-30 mm thick

### **GRESLAM 3**

Worktop consisting of a slab of 3 mm thick stoneware which is light grey in colour and structurally reinforced with glass fibre matting.

Perfectly smooth surface with high chemical resistance, resistant to acids, alkalis, solvents, disinfectants and detergents (except for hydrofluoric acid).

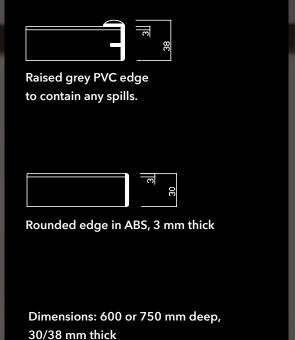
The surface is compatible with food products and it does not allow mildew, bacteria or fungus to develop.

Excellent resistance to mechanical wear, scratches and abrasions.

Resistant to fire and high temperatures, in the event of a fire, it does not emit any smoke or toxic substances.

It is a product of natural origin, does not pollute the environment and can be ground and fully recycled in other production processes.

It is supported by a waterproof chipboard panel, coated on both sides with F1 fireproof plastic melamine laminate.



## **WORKTOPS**

#### **ACRYLIC RESIN**

Worktop with raised edge to contain any spills.

Composite product consisting of acrylic resin and mineral fillers.

A slab with built-in edges, integral 6 mm thick material with built-in side edges, a material with uniform thickness which is particularly versatile with excellent aesthetic qualities.

Particularly long lasting and versatile, ideal for technical use.

High resistance to impact, wear and stresses. Excellent resistance to stains, UV rays, most acids and surface scratches.

Standard colour is light grey and on request it is available in a wide range of colours and veining.

Solid material that is not subject to delamination.

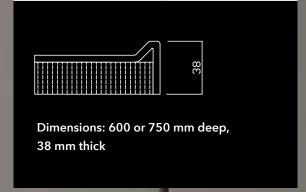
On request, worktops can be made with invisible joints and seem to have been elegantly carved from one single block.

Since it is a non-porous material, it prevents the formation of mildew and bacteria.

It is environmentally friendly, non-toxic, inert and hypoallergenic.

It is fire-resistant and does not produce toxic fumes.

It is support by a waterproof chipboard panel, coated on both sides with F1 fireproof plastic melamine laminate.

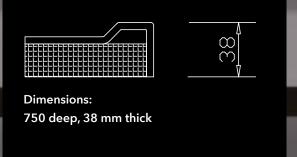


#### **POLYPROPYLENE**

Worktop with 4 edges to contain any spills, injection moulded. 10 mm thick, with lower support in fire-resistant chipboard which reinforces and absorbs sound.

Excellent chemical resistance to acids and alkalis, not suitable for use with very harsh solvents, suitable for temperatures up to 140 °C.

Good mechanical resistance for easier shock absorption.



### **STAINLESS STEEL**

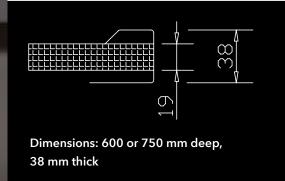
Worktop with 4 anti-overflow edges in AISI 316 18/10 stainless steel with a perfectly smooth surface and no seams.

It is obtained through pressing and electric welding in an inert gas atmosphere which guarantees a complete lack of porosity (ARGON process).

The upper surface of the worktop is satin-finished or machined using the Scotchbrite procedure which produces a micro-roughness which is similar to mirror polishing and is ideal for avoiding the formation of bacteria or the harshness of chemicals.

Specifications on the resistance to corrosion of stainless steel can be provided on request. The sheet metal used to make the worktops complies with the regulations UNI: 6900-71; 3992; 7500; 7660; 8317; and the criteria listed in the American Iron and Steel Institute (AISI) manual.

The lower support that the stainless steel sheet is fixed to is made from fire-resistant chipboard with edge shimming.



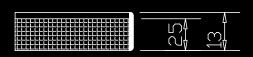
#### **GLASS + LAMINATE**

Worktop in 6 mm thick tempered glass which is perfectly smooth and practically chemically and biologically inert (not suitable for use with HF).

It is supported by a waterproof chipboard panel, coated on both sides with fireproof plastic melamine laminate.

Rounded shock-resistant edge in ABS, grey, 3 mm thick.

On request, it can be supplied with a raised grey PVC edge to contain any spills.



Dimensions: 600 or 750 mm deep, 31 mm thick

# COMBINATIONS OF HOODS AND WORKTOPS



### **WORKTOPS FOR CP0 EN - CP0D EN - CP1 EN - CP1D EN**

MONOLITHIC STONE	GRESLAM 3	STAINLESS STEEL	ACRYLIC RESIN	GLASS	POLYPROPYLENE	HPL LAMINATE
PL4704	PL44620	PL4504	PL4812	PLV120	PL4904	PL4604
Hood 120	Hood 120	Hood 120	Hood 120	Hood 120	Hood 120	Hood 120
Worktop 120 x75 cm	Worktop 120 x75 cm	Worktop 120 x75 cm	Worktop 120 x75 cm	Worktop 120 x75 cm	Worktop 120 x75 cm	Worktop 120 x75 cm
PL4750	<b>PL44650</b>	PL4515	PL4815	PLV150	PL4915	PL4650
Hood 150	Hood 150	Hood 150	Hood 150	Hood 150	Hood 150	Hood 150
Worktop 150 x75 cm	Worktop 150 x75 cm	Worktop 150 x75 cm	Worktop 150 x75 cm	Worktop 150 x75 cm	Worktop 150 x75 cm	Worktop 150 x75 cm
PL4718	<b>PL44680</b>	PL4518	PL4818	PLV180	PL4918	PL4618
Hood 180	Hood 180	Hood 180	Hood 180	Hood 180	Hood 180	Hood 180
Worktop 180 x75 cm	Worktop 180 x75 cm	Worktop 180 x75 cm	Worktop 180 x75 cm	Worktop 180 x75 cm	Worktop 180 x75 cm	Worktop 180 x75 cm
<b>PL4731</b>	PL44690	PL4541	PL4831	PLV210	PL4921	PL4621
Hood 210	Hood 210	Hood 210	Hood 210	Hood 210	Hood 210	Hood 210
Worktop 210 x75 cm	Worktop 210 x75 cm	Worktop 210 x75 cm	Worktop 210 x75 cm	Worktop 210 x75 cm	Worktop 210 x75 cm	Worktop 210 x75 cm
2 x PL4704	<b>PL44694</b>	PL4544	PL4834	PLV240	PL4924	2 x PL4604
Hood 240	Hood 240	Hood 240	Hood 240	Hood 240	Hood 240	Hood 240
2 Worktops 120 x75 cm	Worktop 240 x75 cm	2 Worktops 120 x75 cm				

## **WORKTOPS WITH CONTAINMENT EDGE FOR ICP EN**

MONOLITHIC STONE	GRESLAM	TEMPERED GLASS	POLYPROPYLENE	ACRYLIC RESIN	STAINLESS STEEL
PLIC5712	PLIC5612	PLIC5212	PLIC5912	PLIC5812	PLIC5512
Worktop 115 x 64 cm					
Thickness 2,8 cm	Thickness 3,8 cm				
PLIC5715	PLIC5615	PLIC5215	PLIC5915	PLIC5815	PLIC5515
Worktop 145 x 64 cm					
Thickness 2,8 cm	Thickness 3,8 cm				
PLIC5718	PLIC5618	PLIC5218	PLIC5918	PLIC5818	PLIC5518
Worktop 175 x 64 cm					
Thickness 2,8 cm	Thickness 3,8 cm				

## **WORKTOPS WITHOUT CONTAINMENT EDGE FOR ICP EN**

PLASTIC LAMINATE	HPL LAMINATE
PLIC5312	PLIC5412
ABS edge 115 x 64 cm	Worktop 115 x 64 cm
Thickness 3 cm	Thickness 1,6 cm
PLIC5315	PLIC5415
ABS edge 145 x 64 cm	Worktop 145 x 64 cm
Thickness 3 cm	Thickness 1,6 cm
PLIC5318 ABS edge 175 x 64 cm Thickness 3 cm	PLIC5418 Worktop 175 x 64 cm Thickness 1,6 cm

## **COMBINATIONS**



## OF HOODS AND CABINETS

## **METAL CABINETS EN 16121 CERTIFIED**

Metal cabinets for storing harmful toxic chemical products, in FEP01 electro-galvanised steel sheet (Skin passat), thickness 10/10 mm, cold bent and varnished, after degreasing treatment. First application of epoxy primer and 2 successive applications of thermosetting antacid powders, colour WHITE RAL 9010 and subsequent passing through a 200 °C thermal tunnel. Stickers on the doors identify the containment of ACIDS and BASES.

Prepared for suction conveyance.

Height-adjustable shelf.

Removable and rest on a frame integrated into the hood for the CP hoods; on wheels for the ICP hoods.

Pull handles coated with anti-acid epoxy paints.

FOR SAFETY CABINETS CERTIFIED FOR ACIDS/BASES OR FOR FLAMMABLE PRODUCTS CONSULT CHEMISAFE® AND EXACTA® CATALOGUES

#### **LAMINATE CABINETS EN 16121 CERTIFIED**

Cabinets with structure and doors in 18 mm thick water-repellent agglomerate in E1 class with low formaldehyde emission, coated with class 1 fireproof HPL melamine plastic laminate, white, resistant to impact, abrasions, reagents, oils, easy to decontaminate and clean.

Shockproof edges in white ABS, 3 mm thick and rounded.

Hinged doors with 172° opening with shock absorbers, internal shelves with adjustable height.

Handles covered with anti-acid epoxy paints.

#### **METAL AND LAMINATE CABINETS**

METAL	LAMINATE
CABINETS	CABINETS
<b>WMC00060</b>	<b>WMC00061</b>
600 W x 500 D x 720 H mm	600 W x 500 D x 720 H mm
<b>WMC00090</b>	<b>WMC00091</b>
900 W x 500 D x 720 H mm	900 W x 500 D x 720 H mm
<b>WMC00120</b>	<b>WMC00121</b>
1200 W x 500 D x 720 H mm	1200 W x 500 D x 720 H mm
<b>WMSF0001</b>	<b>ETM00010B</b>
600 W x 470 D x 685 + 100 H mm	600 W x 470 D x 685 + 100 H mm
<b>WMSF0011</b>	<b>ETM00025B</b>
900 W x 470 D x 685 + 100 H mm	900 W x 470 D x 685 + 100 H mm
<b>WMSF0004</b>	ETM00040B
1200 W x 470 D x 685 + 100 H mm	1200 W x 470 D x 685 + 100 H mm

### **COMBINATIONS OF HOODS AND CABINETS**

HOOD 120	HOOD 150	HOOD 180	HOOD 210	HOOD 240
WMC00090 Metal cabinet for CP0 EN and CP1 EN	WMC00120 Metal cabinet for CP0 EN and CP1 EN	WMC00060 + WMC00090 Metal cabinets for CP0 EN and CP1 EN	WMC00060 + WMC00120 Metal cabinets for CP0 EN and CP1 EN	WMC00090 + WMC00120 Metal cabinets for CP0 EN and CP1 EN
WMC00091 Laminate cabinet for CP0 EN and CP1 EN	WMC00121 Laminate cabinet for CP0 EN and CP1 EN	WMC00061 + WMC00091 Laminate cabinets for CP0 EN and CP1 EN	WMC00061 + WMC00121 Laminate cabinets for CP0 EN and CP1 EN	WMC00091 + WMC00121 Laminate cabinets for CP0 EN and CP1 EN
WMSF0004  Metal cabinet for SELF-SUPPORTING ICP EN	WMSF0011 + WMSF0001 Metal cabinets for SELF-SUPPORTING ICP EN	WMSF0004 + WMSF0001 Metal cabinets for SELF-SUPPORTING ICP EN	-	-
ETM0004B  Laminate cabinet for SELF-SUPPORTING ICP EN	ETM00010B + ETM00025B Laminate cabinets for SELF-SUPPORTING ICP EN	ETM00010B + ETM00040B Laminate cabinets for SELF-SUPPORTING ICP EN	-	-



## **ACCESSORIES**AND CUSTOMISATION



## **CLEANING PLENUM**

The fume and gas cleaning plenum is made entirely of PVC and is positioned as the back of the hood. Through the careful study of the suction slots, the plenum ensures uniformity and suction efficiency for both light and heavy gases.

The plenum contains a network of uniformly distributed nozzles suitable for creating a nebulising chamber where the passing air is purified.

The fumes are cleaned according to the following methods: air contact with nebulised water; condensation of the fumes due to the difference in temperature between water and air or between indoor and outdoor air, and dilution with solubility due to the substances carried by the air mixing with the nebulising liquid.

After the nebulising chamber, the air passes through the demister, releasing the droplets of water which are carried and suspended.

The efficiency of the plenum may vary depending on the suction flow speed.

The pumps and storage tank are not included.

#### **ACCESSORIES AND CUSTOMISATION**

Possibility of connecting

multiple cabinets.

SUCTION MODULES	CLEANING PLENUM	RACK	SIDE PANEL WITH GLASS SAFETY WINDOW
<b>SA7000</b> Cabinet suction arrangement with hood suction connection	<b>AF1200</b> For hoods of 120	AC972 Stainless steel rack for hoods of 120	CP3305 Right panel with glass CP hood Class "0"
SA7002  Cabinet suction arrangement independent of the hood (requires centrifugal extractor)	<b>AF1500</b> For hoods of 150	AC975 Stainless steel rack for hoods of 150	CP3308 Left panel with glass CP hood Class "0"
	<b>AF1800</b> For hoods of 180	AC978 Stainless steel rack for hoods of 180	CP3315 Right panel with glass cappa CP Classe "1"
SA 7000 Ventilation system for sta		AC972A Aluminium rack for hoods of 120	CP3318 Left panel with glass CP hood Class "1"
or safety under bench ca with the same suction motor as the hood.	binets	AC975A Aluminium rack for hoods of 150	CP3325 Right panel with glass ICP hood Class "0"
This system exploits the VENTURI principle,		AC978A Aluminium rack for hoods of 180	CP3328 Left panel with glass ICP hood Class "0"
allowing the cabinets to be put in negative		AC942 PVC rack for hoods of 120	CP3335 Right panel with glass ICP hood Class "1"
pressure with the consequent change of air Practical and economical	N .	AC945 PVC rack for hoods of 150	CP3338 Left panel with glass ICP hood Class "1"
also be installed in existing		AC948 PVC rack for hoods of 180	

## **ACCESSORIES**AND CUSTOMISATION



## **CUSTOMIZATION OF THE SIDE PANELS OF THE HOODS**

The side panels of the hood can be customised with colours chosen by the customer. Standard colour: WHITE RAL 9010. Other colours on request.

#### **CONTROLLED DISCHARGE AC 801**

It makes the fittings autonomous from arrangements for the discharge.

Suitable for inclusion in the technical compartment or inside a cabinet or security cabinet.

Consisting of a PVC sheet, with edge for containing any spills, of  $340 \times 340 \times 40 \text{ H}$  mm, removable and suitable for positioning various containers (not included), weighing device with adjustable maximum level and tare.

Remote device for filling control with LED bar and membrane keypad.

Acoustic and visual alarm.

Maximum load capacity 60 kg. Degree of protection IP55. Power supply 230V/50Hz.

Overall dimensions 360 x 360 x 85 H mm, available with removable 4-wheel kit.

#### **INTERNAL COVERING**

Internal coating of the suction chamber with panels suitable for use with high concentrations of particularly aggressive products or hot fumes.

Extension of certification to the EN14175.7 standard.

#### **CUSTOMIZATION OF THE INTERNAL COVERING**

POLYPROPYLENE	STONE	GLASS	HPL	AISI 316 STAINLESS STEEL
AC652	AC672	AC692	AC852	AC552
For hoods of 120	For hoods of 120	For hoods of 120	For hoods of 120	For hoods of 120
AC655	AC675	AC695	AC855	AC555
For hoods of 150	For hoods of 150	For hoods of 150	For hoods of 150	For hoods of 150
AC658 For hoods of 180	AC678 For hoods of 180	<b>AC698</b> For hoods of 180	<b>AC858</b> For hoods of 180	AC558 For hoods of 180
AC659	AC679	AC699	<b>AC859</b> For hoods of 210	AC559
For hoods of 210	For hoods of 210	For hoods of 210		For hoods of 210
AC660	AC680	AC690	AC870	AC560
For hoods of 240	For hoods of 240	For hoods of 240	For hoods of 240	For hoods of 240

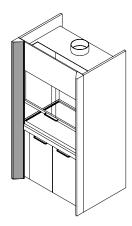
#### FOOTBOARD IN STAINLESS STEEL FOR WALK-IN HOODS

AC611	AC613	AC615	AC617	A619
For hoods of 120	For hoods of 150	For hoods of 180	For hoods of 210	For hoods of 240





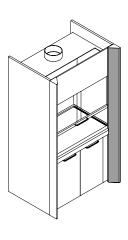
## ACCESSORIES AND CUSTOMISATION



## **ELEMENTS FOR THE LEFT SIDE: ELECTRICAL SERVICES**

SERVICES	ALARM PANEL Air speed control (essential)	ADJUSTABLE MOTOR PROTECTION PANEL (not necessary if used with inverter)	ACCESSORIES FOR USING THE CONTROLLER (extension of the EN14175.6 certification)
RC510 2 EE UNEL 10/16A sockets + switch	AC3500M Indicator with single-phase LED	RM0018 For 0.18 KW single-phase suction device from 1.6 to 2.5 A	AC4037 Inverter for motor up to 0.37 KW
RC520 4 EE UNEL 10/16A sockets + switch	AC3500T Indicator with three-phase LED	RM0025 For 0.25 kW single-phase suction devi- ce from 2.5 to 4.0 A	AC4055 Inverter for motor up to 0.55 KW
RC512 2 IP66 internal sockets + 1 external switch	AC1000M  Dual single-phase LCD display controller	RM0037 For 0.37 KW single-phase suction device from 2.5 to 4.0 A	AC4075 Inverter for motor up to 0.75 KW
RC513 3 IP66 internal sockets + 1 external switch	AC1000T Dual three-phase LCD display controller	RM0055 For 0.55 KW single-phase suction device from 4.0 to 6.3 A	AC4150 Inverter for motor up to 1.50 KW
RC514 4 IP66 internal sockets + 1 external switch	AC2000M Controller with single-phase LCD display	RM0075 For 0.75 KW single-phase suction device from 6.0 to 10.0 A	AC4220 Inverter for motor up to 2.20 KW
RC532 Additional UNEL 10/16A socket	AC2000T Controller with three-phase LCD display	RM0110 For 1.10 KW single-phase suction device from 8.0 to 14.0 A	AC4900 Motorised valve for AC
RC561 CEI 17 2P+T single-phase socket	AC4000M Single-phase TOUCH SCREEN controller	RA0018 For 0.18 KW three-phase suction device from 0.4 to 0.63 A	
RC563 CEI 17 2P+T single-phase interlocked socket	AC4000T Three-phase TOUCH SCREEN controller	RA0025 For 0.25 KW three-phase suction device from 0.63 to 1.0 A	
RC565 CEI 17 3P+T three-phase socket		RA0037 For 0.37 KW three-phase suction device from 1.0 to 1.6 A	
RC567 CEI 17 3P+T three-phase interlocked socket		RA0055 For 0.55 KW three-phase suction device from 1.0 to 1.6 A	
RC569 CEI 17 3P+N+T three-phase socket		RA0075 For 0.75 KW three-phase suction device from 1.6 to 2.5 A	
RC571 CEI 17 3P+N+T three-phase interlocked socket		RA0110 For 1.10 kW three-phase suction device from 2.5 to 4.0 A	
RC720X ATEX electricity socket			
RC730X ATEX switch			
RC710X ATEX lamp for hoods 120 (2 x 210 and 240)			
RC711X ATEX lamp for hoods 150 and 180			
RC1000 Manual electronic regulator single-phase motor fan speed			

## ACCESSORIES AND CUSTOMISATION



## **ELEMENTS FOR THE RIGHT SIDE: WATER AND GAS SERVICES**

WATER	GAS	TAPS FOR TECHNICAL GASES 2nd stage pressure reducer with built-in pressure gauge on panel
RC30301F  Water kit composed of a tap for the instrument panel, spout and flexible tube	RCB303F Wall hood gas spout	RPN001CP NITROGEN
RC30306F  Demineralised water kit composed of a tap for the instrument panel, spout and flexible tube	RC3160F Indirect hood gas tap	RPN002CP HELIUM
	RC30302F  Air kit composed of a tap for the instrument panel, spout and flexible tube	RPN003CP AIR
	RC30304F Nitrogen kit composed of a tap for the instrument panel, spout and flexible tube	RPN004CP VACUUM
	RC30305F  Vacuum kit composed of a tap for the instrument panel, spout and flexible tube	RPN005CP ACETYLENE
	RC30307F  Argon kit composed of a tap for the instrument panel, spout and flexible tube	RPN006CP HYDROGEN
		RPN007CP NITROUS OXIDE
		RPN008CP OXYGEN
		RPN009CP ARGON



## **ELECTRIC SUCTION**DEVICES





## **CENTRIFUGAL SUCTION**

The centrifugal suction devices used for the construction of suction systems in chemical laboratories must be produced with suitable materials for use with aggressive products.

EP0001 ON/OFF selector machine edge for three-phase motor

EP0002 ON/OFF selector machine edge for single-phase motor

The fluids do not come into contact with metal components, the motor has at least IP55 protection and is therefore suitable for outdoor positioning. An ON/OFF switch must be installed on the machine. Positioning on the outside, on the wall or on the floor is recommended to keep the piping inside the laboratory under vacuum and avoid any contamination in the case of cracks, as well as reducing noise. Available in different versions with single-phase or three-phase motors, IP55 protection, for use with speed regulators according to EN14175.6 standard; 2-speed or ATEX. We also recommend a manual damper to optimise the efficiency of the system. The dimensioning must take into account the dimensions of the hood, the load losses due to the size and length of the pipes, the number and type of curves as well as the presence of any filters. Our technical department is able to support you in the configuration.

### **SUCTION BLADE FORWARD**

Fully injection moulded. UV-resistant polypropylene shell, adjustable in 8 positions. High performance polypropylene fan with forward curved blades, statically and dynamically balanced, with reinforced hub. Anti-corrosion sealing against the risk of fumes escaping. Nylon motor support for B3/B5 motors. Stainless steel screws.



Electro suction device Single-phase and three-phase



Version ATEX certified

## ELECTRIC SUCTIONS BLADE FORWARD

ECTRIC SUCTIONS BLADE FORWARD		and three-phase	
THREE-PHASE IP55	SINGLE-PHASE IP55	THREE-PHASE IP55 (ATEX)	
EPAT120 0.18 KW motor - V 230/400/50 1450 RPM Entry/exit Ø 125 mm - Flow rate Q 100/250 m³/h Prevalence 12/8 mm H₂O	EPAM120 0.18 KW motor - V 230/400/50 1450 RPM Entry/exit Ø 125 mm - Flow rate Q 100/250 m³/h Prevalence 12/8 mm H <sub>2</sub> O	EXAT120 0.18 KW motor - V 230/400/50 1450 RPM Entry/exit Ø 125 mm - Flow rate Q 100/250 m³/h Prevalence 12/8 mm H <sub>2</sub> O	
<b>EPAT 200</b> 0.18 KW motor - V 230/400/50 1450 RPM Entry/exit Ø 200 mm - Flow rate Q 600/950 m³/h Prevalence 25/21 mm H <sub>2</sub> O	EPAM 200 0.18 KW motor - V 230/400/50 1450 RPM Entry/exit Ø 200 mm - Flow rate Q 600/950 m³/h Prevalence 25/21 mm H <sub>2</sub> O	EXAT200 0.18 KW motor - V 230/400/50 1450 RPM Entry/exit Ø 200 mm - Flow rate Q 600/950 m³/h Prevalence 25/21 mm H₂O	
EPAT250 0.55 KW motor - V 230/400/50 1450 RPM Entry/exit Ø 250 mm - Flow rate Q 1100/2200 m³/h Prevalence 48/40 mm H <sub>2</sub> O	EPAM 250  0.55 KW motor - V 230/400/50 1450 RPM Entry/exit Ø 250 mm - Flow rate Q 1100/2200 m³/h Prevalence 48/40 mm H <sub>2</sub> O	EXAT250  0.55 KW motor - V 230/400/50 1450 RPM Entry/exit Ø 250 mm - Flow rate Q 1100/2200 m³/h Prevalence 48/40 mm H <sub>2</sub> O	
<b>EPAT3 00</b> 1.1 KW motor - V 230/400/50 1450 RPM Entry/exit Ø 315 mm Flow rate Q 1300/3000 m³/h Prevalence 57/50 mm H <sub>2</sub> O	EPAM300  1.1 KW motor - V 230/400/50 1450 RPM Entry/exit Ø 315 mm Flow rate Q 1300/3000 m³/h Prevalence 57/50 mm H <sub>2</sub> O	EXAT300  1.1 KW motor - V 230/400/50 1450 RPM Entry/exit Ø 315 mm Flow rate Q 1300/3000 m³/h Prevalence 57/50 mm H <sub>2</sub> O	
EPAT320 3 KW motor - V 230/400/50 1450 RPM Entry/exit Ø 350 mm - Flow rate Q 3000/6000 m³/h Prevalence 83/80 mm H <sub>2</sub> Q	-	EXAT320  3 KW motor - V 230/400/50 1450 RPM Entry/exit Ø 350 mm - Flow rate Q 3000/6000 m³/h Prevalenza 83/80 mm H <sub>2</sub> O	
<b>EPAT350</b> 1,1 KW motor - V 230/400/50 2900 RPM Entry/exit Ø 200 mm - Flow rate Q 1100/1600 m³/h Prevalence 95/100 mm H.O	EPAM350  1,1 KW motor - V 230/400/50 2900 RPM Entry/exit Ø 200 mm - Flow rate Q 1100/1600 m³/h Prevalence 95/100 mm H.O	EXAT350  1,1 KW motor - V 230/400/50 2900 RPM Entry/exit Ø 200 mm - Flow rate Q 1100/1600 m³/h Prevalence 95/100 mm H.O	

## **ELECTRIC SUCTION DEVICES**

## **REVERSE SUCTION BLADE DEVICES**

Auger moulded in polyethylene or polypropylene, also available in anti-static and self-extinguishing version.

Temperature range PE -70° + 70° C PP -15° + 80° C.

Impeller moulded in polypropylene, with reverse blades.

Steel sheet motor holder, treated with epoxy paint on request, in stainless steel. Motor form B5. Stainless steel screws.



Electro suction device Single-phase and three-phase



Version ATEX certified

#### **REVERSE SUCTION BLADE DEVICES**

THREE-PHASE IP55	SINGLE-PHASE IP55	THREE-PHASE IP55 (ATEX)
EPRT120 0.18 KW motor - V 230/400/50 2900 RPM Entry/exit Ø 125 mm - Flow rate Q 100-250/450 m³/h Prevalence 35/21 mm H <sub>2</sub> O	EPRM120 0.18 KW motor - V 230/400/50 2900 RPM Entry/exit Ø 125 mm - Flow rate Q 100-250/450 m³/h Prevalence 35/21 mm H₂O	<b>EXRT120</b> 0.18 KW motor - V 230/400/50 2900 RPM Entry/exit Ø 125 mm - Flow rate Q 100-250/450 m³/h Prevalence 35/21 mm H <sub>2</sub> O
EPRT200 0.18 KW motor - V 230/400/50 2750 RPM Entry/exit Ø 160 mm - Flow rate Q 375/1000 m³/h Prevalence 46/20 mm H <sub>2</sub> O	<b>EPRM200</b> 0.18 KW motor - V 230/400/50 2750 RPM Entry/exit Ø 160 mm - Flow rate Q 375/1000 m³/h Prevalence 46/20 mm H <sub>2</sub> O	<b>EXRT200</b> 0.18 KW motor - V 230/400/50 2750 RPM Entry/exit Ø 160 mm - Flow rate Q 375/1000 m³/h Prevalence 46/20 mm H <sub>2</sub> O
<b>EPRT 250</b> 0.25 KW motor - V 230/400/50 2750 RPM Entry/exit Ø 200 mm - Flow rate Q 525/1350 m³/h Prevalence 59/35 mm H <sub>2</sub> O	<b>EPRM250</b> 0.25 KW motor - V 230/400/50 2750 RPM Entry/exit Ø 200 mm - Flow rate Q 525/1350 m³/h Prevalence 59/35 mm H₂O	<b>EXRT250</b> 0.25 KW motor - V 230/400/50 2750 RPM Entry/exit Ø 200 mm - Flow rate Q 525/1350 m <sup>3</sup> /h Prevalence 59/35 mm H <sub>2</sub> O
EPRT300 0.37 KW motor - V 230/400/50 2800 RPM Entry/exit Ø 225 mm - Flow rate Q 750/1800 m³/h Prevalence 70/40 mm H <sub>2</sub> O	<b>EPRM300</b> 0.37 KW motor - V 230/400/50 2800 RPM Entry/exit Ø 225 mm - Flow rate Q 750/1800 m³/h Prevalence 70/40 mm H <sub>2</sub> O	EXRT300 0.37 KW motor - V 230/400/50 2800 RPM Entry/exit Ø 225 mm - Flow rate Q 750/1800 m³/h Prevalence 70/40 mm H <sub>2</sub> O
<b>EPRT320</b> 0.75 KW motor - V 230/400/50 2850 RPM Entry/exit Ø 250 mm - Flow rate Q 1000/2700 m³/h Prevalence 110/60 mm H <sub>2</sub> O	EPRM320 0.75 KW motor - V 230/400/50 2850 RPM Entry/exit Ø 250 mm - Flow rate Q 1000/2700 m³/h Prevalence 110/60 mm H <sub>2</sub> O	EXRT320 0.75 KW motor - V 230/400/50 2850 RPM Entry/exit Ø 250 mm - Flow rate Q 1000/2700 m³/h Prevalence 110/60 mm H <sub>2</sub> O
<b>EPRT350</b> 1.50 KW motor - V 230/400/50 2850 RPM Entry/exit ∅ 280 mm - Flow rate ℚ 1700/4200 m³/h Prevalence 145/76 mm H <sub>2</sub> O	<b>EPRM350</b> 1.50 KW motor - V 230/400/50 2850 RPM Entry/exit Ø 280 mm - Flow rate Q 1700/4200 m³/h Prevalence 145/76 mm H <sub>2</sub> O	EXRT350 1.50 KW motor - V 230/400/50 2850 RPM Entry/exit Ø 280 mm - Flow rate Q 1700/4200 m³/h Prevalence 145/76 mm H <sub>2</sub> O

### **TOWER SUCTION DEVICES**

Fully injection moulded. Shell and base in polypropylene, adjustable in 2 positions.

Anti-corrosion sealing.

Motor cover made of polypropylene, resistant to atmospheric agents.

High performance polypropylene fan, statically and dynamically balanced.

Available in different versions with single-phase or three-phase motors, IP55 protection, EEx-d also on request at 2 speeds, for use with speed controllers, ATEX.



## **TOWER SUCTION DEVICES**

THREE-PHASE IP55	SINGLE-PHASE IP55	THREE-PHASE IP55 (ATEX)
<b>EPTT250</b> 0,55 KW motor - 1450 RPM Entry Ø 250 mm - Flow rate 1100/2200 m $^3$ /h. Prevalenza 48/40 mm H $_2$ O	<b>EPTM250</b> 0,55 KW motor - 1450 RPM Entry Ø 250 mm - Flow rate 1100/2200 m³/h. Prevalenza 48/40 mm H <sub>2</sub> O	EXTT250 0,55 KW motor - 1450 RPM Entry Ø 250 mm - Flow rate 1100/2200 m³/h. Prevalenza 48/40 mm H <sub>2</sub> O
EPTT300  1,1 KW motor - 1450 RPM  Entry Ø 315 mm - Flow rate 1300/4000 m³/h.	EPTM300  1,1 KW motor - 1450 RPM  Entry Ø 315 mm - Flow rate 1300/4000 m³/h.	EXTT300  1,1 KW motor - 1450 RPM  Entry Ø 315 mm - Flow rate 1300/4000 m³/h.



## **ELECTRIC SUCTION**

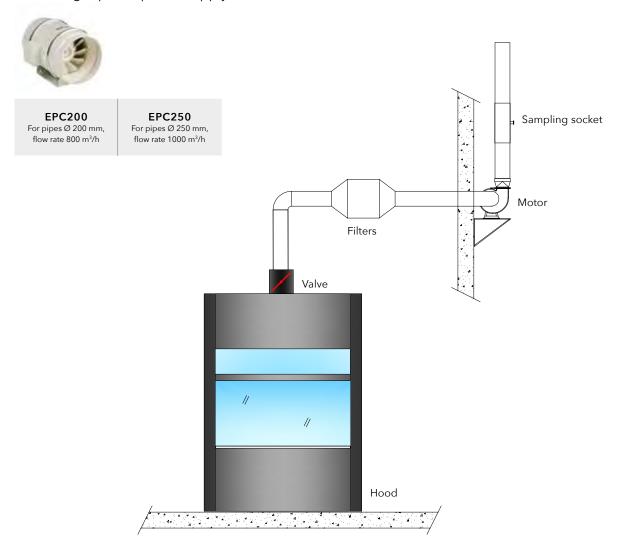


## **DEVICES**

## **COAXIAL CENTRIFUGAL SUCTION DEVICES**

The ideal solution for limited spaces, thanks to its particularly compact dimensions and ease of installation. Structure in galvanised sheet protected with epoxy paints and ABS fan.

The motor-fan unit can be removed for maintenance without removing it from the piping. 220 V single-phase power supply.



## **AC780 FUME COLLECTION CHIMNEY**

(Reference methods UNI 16911:2013, UNI EN 13284-12003, UNI EN 15259:2008).

The withdrawal points must be placed in straight sections of duct with regular cross-section (circular or rectangular), preferably vertical, away from obstacles, curves or any discontinuity that could influence the flow motion.

To guarantee the stationary condition necessary for the execution of the measurements and sampling, the location of the sampling point must respect the conditions imposed by the technical standards of reference (UNI 16911:2013 UNI EN 13284-12003, UNI EN 15259:2008) or at least 5 hydraulic diametersupstream of any discontinuity.

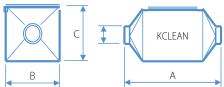
## **ACCESSORIES**



#### **ACTIVATED CARBON FILTER BOXES**

The activated carbon filter boxes are recommended for the treatment of fumes and vapours expelled through hoods, and must be positioned along the channel before the centrifugal extractor, both inside and outside. They are made of plastic, and the activated carbon sheets are inserted on guides and easily replaceable.

Version with HEPA filter or certified asbestos filter on request.







1920 Q/MC/H

Dimensions:  $1050 \times 900 \times 600 \text{ (A x B x C mm)} - \emptyset 315 \text{ mm}$ 

Replacement: **SETK12S + SETK12** 

1920 Q/MC/H

Dimensions:  $1050 \times 900 \times 600 \text{ (A x B x C mm)} - \emptyset 315 \text{ mm}$ 

Replacement: SETK12S

ACIDS	SOLVENTS
<b>KCLEAN 6 AP</b> 960 Q/MC/H Dimensions: 750 x 450 x 600 (A x B x C mm) - Ø 250 mm Replacement: <b>SETK6A + SETK06</b>	KCLEAN6SP  960 Q/MC/H  Dimensions: 750 x 450 x 600 (A x B x C mm) - Ø 250 mm  Replacement: SETK6S + SETK06
KCLEAN 8 A P  1280 Q/MC/H  Dimensioni: 850 x 600 x 600 (A x B x C mm) - Ø 250 mm  Replacement: SETK8A + SETK08	<b>KCLEAN8SP</b> 1280 Q/MC/H  Dimensions: 850 x 600 x 600 (A x B x C mm) - Ø 250 mm  Replacement: <b>SETK8S + SETK08</b>
KCLEAN10AP  1600 Q/MC/H  Dimensions: 950 x 770 x 600 (A x B x C mm) - Ø 315 mm  Replacement: SETK10A + SETK10	KCLEAN10SP  1600 Q/MC/H  Dimensions: 950 x 770 x 600 (A x B x C mm) - Ø 315 mm  Replacement: SETK10S + SETK10
KCLEAN12AP	KCLEAN12SP

## 1920 Q/MC/H

Dimensions:  $1050 \times 900 \times 600 \text{ (A x B x C mm)} - \emptyset 315 \text{ mm}$ Replacement: SETK12A + SETK12

1920 Q/MC/H

Dimensions:  $1050 \times 900 \times 600 \text{ (A x B x C mm)} - \emptyset 315 \text{ mm}$ 

Replacement: SETK12A

## **ACTIVATED CARBON FILTERS FOR ACIDS/SOLVENTS**

ACIDS	SOLVENTS
<b>KCLEAN6A</b> 960 Q/MC/H Dimensions: 750 x 450 x 600 (A x B x C mm) - Ø 250 mm Replacement: <b>SETK6A</b>	<b>KCLEAN 6S</b> 960 Q/MC/H Dimensions: 750 x 450 x 600 (A x B x C mm) - Ø 250 mm Replacement: <b>SETK6S</b>
<b>KCLEAN8A</b> 1280 Q/MC/H Dimensions: 850 x 600 x 600 (A x B x C mm) - Ø 250 mm Replacement: <b>SETK8A</b>	KCLEAN 8 S 1280 Q/MC/H Dimensions: 850 x 600 x 600 (A x B x C mm) - Ø 250 mm Replacement: SETK8S
<b>KCLEAN 1 0 A</b> 1600 Q/MC/H Dimensions: 950 x 770 x 600 (A x B x C mm) - Ø 315 mm Replacement: <b>SETK 10 A</b>	KCLEAN 1 0 S 1600 Q/MC/H Dimensions: 950 x 770 x 600 (A x B x C mm) - Ø 315 mm Replacement: SETK10S
KCLEAN12A	KCLEAN12S



## **ACCESSORIES**



## **INSTALLATION ACCESSORIES**

We recommend installing the damper with manual adjustment in the case of a hood equipped with an alarm without an automatic air speed regulator.













AC488 Manual butterfly damper Ø 100 mm	<b>AC493</b> Gravity damper Ø 120 mm	AC451 Flexible coupling Ø 200 mm	AC481 PVC motor cover from 0.37 to 0.55 KW	AC474 Cement base	AC475 Wall brackets
AC489 Manual butterfly damper ∅ 120 mm	<b>AC494</b> Gravity damper Ø 200 mm	AC452 Flexible coupling Ø 250 mm	AC482 PVC motor cover from 0.55 to 0.75 KW		
AC491 Manual butterfly damper Ø 200 mm	<b>AC495</b> Gravity damper Ø 250 mm	AC453 Flexible coupling Ø 315 mm	AC483 PVC motor cover from 1.1 to 2.2 KW		
AC492 Manual butterfly damper ∅ 250 mm	<b>AC496</b> Gravity damper Ø 315 mm				
AC490 Manual butterfly damper Ø 315 mm					













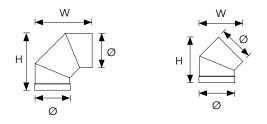
AC476 Anti-vibration support	AC411C Pipe clamp collar Ø 200 mm	AC510 PVC flexible tube Ø 100 mm*	AC462 Chimney Ø 125 mm rainproof	AC411-100 PVC pipe Ø 200 mm	AC458 Expulsion socket with Ø 200 mm grid
	AC412C Pipe clamp collar Ø 250 mm	AC512 PVC flexible tube Ø 125 mm*	AC463 Chimney Ø 200 mm rainproof	AC412-100 PVC pipe Ø 250 mm	AC459 Expulsion socket with Ø 250 mm grid
	AC413C Pipe clamp collar ∅315 mm	AC520 PVC flexible tube Ø 200 mm*	AC464 Chimney Ø 250 mm rainproof	AC413-100 PVC pipe Ø 315 mm	AC460 Expulsion socket with Ø 315 mm grid
		AC525 PVC flexible tube Ø 250 mm*	AC465 Chimney Ø 315 mm rainproof		
		AC530 PVC flexible tube Ø 315 mm*			

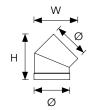
<sup>\*</sup> Includes hose clamp

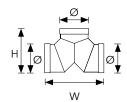
## **ACCESSORIES**



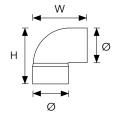


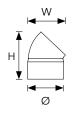






<b>AC711</b> Fireproof PVC pipe Ø 200 mm	<b>AC421R</b> 90° radius curve - Ø 200 mm H 328 - W 329 mm	AC431R 45° radius curve Ø 200 mm H 261 - W 254 mm	<b>AC444</b> Horizontal leg Ø 200/200/200 mm H 320 - W 430 mm
AC712 Fireproof PVC pipe Ø 250 mm	<b>AC422R</b> 90° radius curve - Ø 250 mm H 413 - W 418 mm	AC432R 45° radius curve Ø 250 mm H 322 - W 319 mm	<b>AC445</b> Horizontal leg Ø 250/250/250 mm H 430 - W 580 mm
AC713 Fireproof PVC pipe Ø 315 mm	<b>AC423R</b> 90° radius curve - Ø 315 mm H 502 - W 507 mm	AC433R 45° radius curve Ø 315 mm H 388 - W 390 mm	<b>AC446</b> Horizontal leg Ø 315/315/315 mm H 490 − W 690 mm







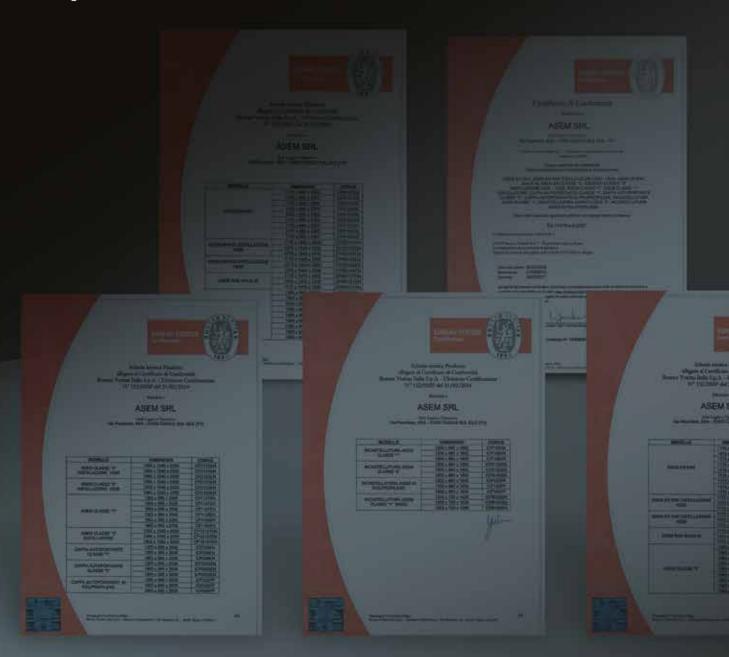
<b>AC421</b> 90° curve - Ø 200 mm H 315 - W 324 mm	<b>AC431</b> 45° curve - Ø 200 mm H 262 - W 210 mm	<b>AUM100125</b> Reduction Ø 100F - 125M mm - W 130 mm
<b>AC422</b> 90° curve - Ø 250 mm H 405 - W 395 mm	<b>AC432</b> 45° curve Ø - 250 mm H 328 - W 260 mm	<b>AUM100125F</b> Increase Ø 100M - 125F mm - W 130 mm
<b>AC423</b> 90° curve - Ø 315 mm H 475 - W 470 mm	<b>AC433</b> 45° curve Ø - 315 mm H 410 - W 325 mm	<b>AUM200250</b> Reduction Ø 200F - 250M mm - W 230 mm
<b>AC721</b> 90° fireproof curve - Ø 200 mm H 315 - W 324 mm	<b>AC731</b> 45° fireproof curve - Ø 200 mm H 261 - W 210 mm	<b>AUM200250F</b> Increase Ø 200M - 250F mm - W 230 mm
<b>AC722</b> 90° fireproof curve - Ø 250 mm H 405 - W 395 mm	<b>AC732</b> 45° fireproof curve - Ø 250 mm H 322 - W 260 mm	<b>AUM250315</b> Reduction Ø 250F - 315M mm - W 320 mm
<b>AC723</b> 90° fireproof curve - Ø 315 mm H 475 - W 470 mm	<b>AC733</b> 45° fireproof curve - Ø 315 mm H 410 - W 325 mm	<b>AUM250315F</b> Increase Ø 250M - 315F mm - W 320 mm

## **SAFETY**CERTIFICATIONS

Our study and design are constantly aiming at a single goal: the search for the best technological solutions, in terms of safety, to apply in designing fittings and systems, in order to reduce the risks to laboratory workers to a minimum.

The new generation of ASEM® hoods is certified in accordance with European directives EN14175-2-3-4-5-6-7, tests carried out at both 0.5 and 0.3 m/sec, containment index > 0.1 pmm.

Compliance with the rules and recommendations contained in Decree Law 81/08 and related decrees is also guaranteed.



The reference standard adopted by the main European countries is as follows:

STANDARD EN 14175: 2003

UNI EN 14175-1 - Part 1: Vocabulary

UNI EN 14175-2 - Part 2: Safety and performance requirements

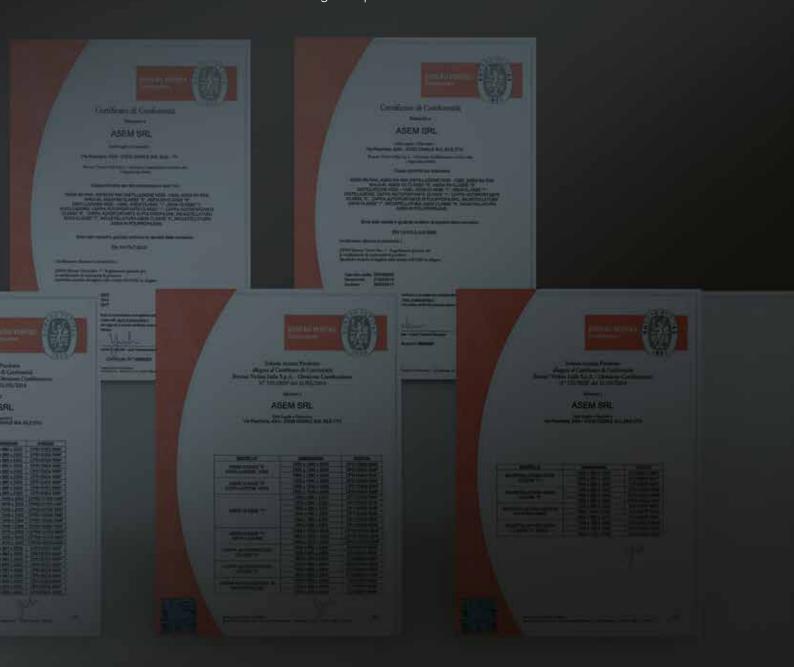
UNI EN 14175-3 - Part 3: Methods for approval tests

UNI EN 14175-4 - Part 4: Onsite testing methods

UNI EN 14175-5 - Part 5: Recommendations for installation and maintenance

UNI EN 14175-6 - Part 6: VAV Variable Air Volume Suction Hoods

UNI EN 14175-7 - Part 7: Hoods for high temperatures and acidic contents.



## KRISTAL H 2300 CLASS 0



## 1 SASH

#### **CHARACTERISTICS**

Self-supporting hood construction thanks to its full-height sides. 1 sash with safety glass, 3 windows horizontally openable. Exposed walls with glass.

### **MATERIALS**

Worktops: Monolithic Stone, Greslam, Polypropylene, Epoxy, Stainless Steel. Internal covering: Stone, Glass, HPL, Polypropylene, Stainless Steel.

#### LEFT DEFLECTOR ELECTRICITY

External sockets on the left side of the vertical support: 230V, 16A, IP 55.

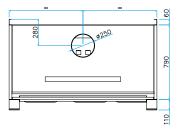
Possibility of internal sockets: 230V, 16A, IP 56.
Thermal switch obligatory for internal electrical sockets.
Lighting LED outside the suction volume, 800 lux.
Optional motorised sash.



## **FLUIDS ON FRONT DASHBOARD**

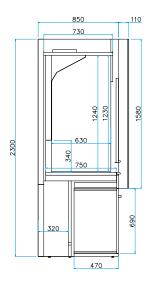
Openable drawer for maintenance.

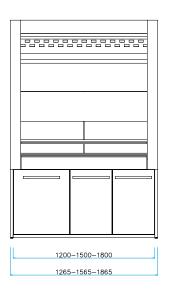
Supply: taps Water, Vacuum, Gas, Compressed Air, DN 3/8" F. Both on the worktop and on the rear wall of the hood, DN 40 mm.





Front counterweights





## KRISTAL H 2300 CLASS 0 1 SASH



## **DIMENSIONS AND WEIGHTS**

WCP0125ENK	WCP0155ENK	WCP0185ENK
<b>Dimensions</b>	<b>Dimensions</b>	<b>Dimensions</b>
1265 W x 960 D x 2300 H mm	1565 Wx 960 D x 2300 H mm	1865 W x 960 D x 2300 H mm
Useful dimensions	Useful dimensions	Useful dimensions
1200 W x 750 D x 1230 H mm	1500 W x 750 D x 1230 H mm	1800 W x 750 D x 1230 H mm
Weight without services Approximately 200 Kg	Weight without services Approximately 240 Kg	Weight without services Approximately 330 Kg

## NUMBER OF SUPPORTS FOR FIXING LATTICES Ø 12/13 mm

WCP0125ENK	WCP0155ENK	WCP0185ENK
4	6	6

## **CONSUMPTION / AIR FLOW**

V.A.V. response time containment: 0.5 /0.01 s/ppm. Pressure drop: pressure 50 Pa. Sash lock height 450 mm, ECONOMY sash lock height 300 mm.

WCP0125ENK	WCP0155ENK	WCP0185ENK
<b>802</b> Air flow rate (m³/hr) speed 0.5 m/s	<b>1035</b> Air flow rate (m³/hr) speed 0.5 m/s	<b>1288</b> Air flow rate (m³/hr) speed 0.5 m/s
<b>481</b> Air flow rate (m³/hr) speed 0.3 m/s	<b>627</b> Air flow rate (m³/hr) speed 0.3 m/s	<b>773</b> Air flow rate (m³/hr) speed 0.3 m/s
<b>39 - 802</b> V.A.V. Volume variabile speed 0.5 m/s	47 - 1035 V.A.V. Volume variabile speed 0.5 m/s	58 - 1288 V.A.V. Volume variabile speed 0.5 m/s
<b>24 - 481</b> V.A.V. Variable volume speed 0.3 m/s	28 - 627 V.A.V. Variable volume speed 0.3 m/s	<b>34 - 773</b> V.A.V. Variable volume speed 0.3 m/s
<b>39 - 535</b> V.A.V. ECONOMY variable volume speed 0.5 m/s	47 - 697 V.A.V. ECONOMY variable volume speed 0.5 m/s	<b>58 - 859</b> V.A.V. ECONOMY variable volume speed 0.5 m/s
24 - 321 V.A.V. ECONOMY variable volume speed 0.3 m/s	28 - 418 V.A.V. ECONOMY variable volume speed 0.3 m/s	<b>34 - 515</b> V.A.V. ECONOMY variable volume speed 0.3 m/s

## **ALARM CONTROL SYSTEMS**

AC3500	AC1000/AC2000	AC4000TS	WAC3500
YES	YES	YES	<b>NO</b>
Flow regulation	Flow regulation	Flow regulation	Flow regulation
YES (LED)	<b>YES</b>	<b>YES</b>	<b>YES</b>
Speed display	Speed display	Speed display	Speed display
<b>NO</b>	<b>OPTION</b>	<b>YES</b>	<b>NO</b>
Flow display	Flow display	Flow display	Flow display
<b>NO</b>	<b>NO</b>	YES	<b>NO</b>
Touch	Touch	Touch	Touch



## CP RAK EN CLASS 0 H 2500 WALK IN



#### **CHARACTERISTICS**

Self-supporting hood construction thanks to its full-height sides. 2 sashes with safety glass, 3 windows horizontally openable. Side walls blind, optional windows.

### **MATERIALS**

Worktops: Monolithic Stone, Greslam, Polypropylene, Epoxy, Stainless Steel. Internal covering: Stone, Glass, HPL, Polypropylene, Stainless Steel.

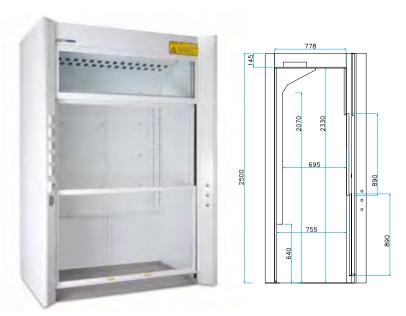
## LEFT DEFLECTOR ELECTRICITY

External sockets on the left side of the vertical support: 230V, 16A, IP 55.

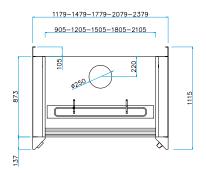
Possibility of internal sockets: 230V, 16A, IP 56. Thermal switch obligatory for internal electrical sockets. Lighting LED outside the suction volume, 800 lux. Optional motorised sash.

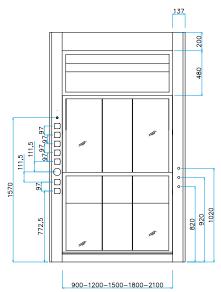
### **OPTIONAL RIGHT DEFLECTOR FLUIDS**

Supply: taps Water, Vacuum, Gas, Compressed Air, DN 3/8" F. Both on the worktop and on the rear wall of the hood, DN 40 mm.









## CP RAK EN CLASS 0 H 2500 WALK IN



## **DIMENSIONS AND WEIGHTS**

WCPRW127EN	WCPRW157EN	WCPRW187EN	WCPRW217EN	WCPRW247EN
<b>Dimensions</b>	<b>Dimensions</b>	<b>Dimensions</b>	<b>Dimensions</b>	<b>Dimensions</b> 2379 W x 1115 D x 2500 H mm
1179 W x 1115 D x 2500 H mm	1479 W x 1115 D x 2500 H mm	1779 W x 1115 D x 2500 H mm	2079 W x 1115 D x 2500 H mm	
Useful dimensions	Useful dimensions	Useful dimensions	Useful dimensions	Useful dimensions
905 W x 755 D x 2330 H mm	1205 W x 755 D x 2330 H mm	1505 W x 755 D x 2330 H mm	1805 W x 755 D x 2330 H mm	2105 W x 755 D x 2330 H mm
Weight without services	Weight without services Approximately 290 Kg	Weight without services	Weight without services	Weight without services
Approximately 230 Kg		Approximately 320 Kg	Approximately 360 Kg	Approximately 400 Kg

## NUMBER OF SUPPORTS FOR FIXING LATTICES Ø 12/13 mm

WCPRW127EN	WCPRW157EN	WCPRW187EN	WCPRW217EN	WCPRW247EN
6	9	9	12	12

## **CONSUMPTION / AIR FLOW**

V.A.V. response time containment: 0.5 /0.01 s/ppm. Pressure drop: pressure 50 Pa. Sash lock height 450 mm, ECONOMY sash lock height 300 mm.

WCPRW127EN	WCPRW157EN	WCPRW187EN	WCPRW217EN	WCPRW247EN
<b>729</b> Air flow rate (m³/hr) speed 0.5 m/s	<b>972</b> Air flow rate (m³/hr) speed 0.5 m/s	<b>1215</b> Air flow rate (m³/hr) speed 0.5 m/s	1458 Air flow rate (m³/hr) speed 0.5 m/s	<b>1701</b> Air flow rate (m³/hr) speed 0.5 m/s
<b>438</b>	<b>584</b> Air flow rate (m³/hr) speed 0.3 m/s	<b>729</b>	<b>875</b>	1020
Air flow rate (m³/hr)		Air flow rate (m³/hr)	Air flow rate (m³/hr)	Air flow rate (m³/hr)
speed 0.3 m/s		speed 0.3 m/s	speed 0.3 m/s	speed 0.3 m/s
32 - 729	43 - 972	54 - 1215	64 - 1458	75 - 1701
V.A.V. Variable volume	V.A.V. Variable volume	V.A.V. Variable volume	V.A.V. Variable volume	V.A.V. Variable volume
speed 0.5 m/s	speed 0.5 m/s	speed 0.5 m/s	speed 0.5 m/s	speed 0.5 m/s
19 - 438	26 - 584	32 - 729	39 - 875	45 - 1020
V.A.V. Variable volume	V.A.V. Variable volume	V.A.V. Variable volume	V.A.V. Variable volume	V.A.V. Variable volume
speed 0.3 m/s	speed 0.3 m/s	speed 0.3 m/s	speed 0.3 m/s	speed 0.3 m/s
32 - 486	43 - 684	<b>54 - 810</b>	64 - 972	75 - 1134
V.A.V. ECONOMY variable	V.A.V. ECONOMY variable	V.A.V. ECONOMY variable	V.A.V. ECONOMY variable	V.A.V. ECONOMY variable
volume speed 0.5 m/s	volume speed 0.5 m/s	volume speed 0.5 m/s	volume speed 0.5 m/s	volume speed 0.5 m/s
19 - 291	26 - 389	32 - 486	39 - 583	45 - 680
V.A.V. ECONOMY variable	V.A.V. ECONOMY variable	V.A.V. ECONOMY variable	V.A.V. ECONOMY variable	V.A.V. ECONOMY variable
volume speed 0.3 m/s	volume speed 0.3 m/s	volume speed 0.3 m/s	volume speed 0.3 m/s	volume speed0.3 m/s

## **ALARM CONTROL SYSTEMS**

AC3500	AC1000/AC2000	AC4000TS	WAC3500
<b>YES</b>	YES	YES	<b>NO</b>
Flow regulation	Flow regulation	Flow regulation	Flow regulation
YES (LED)	<b>YES</b>	<b>YES</b>	<b>YES</b>
Speed display	Speed display	Speed display	Speed display
<b>NO</b>	<b>OPTION</b>	<b>YES</b>	<b>NO</b>
Flow display	Flow display	Flow display	Flow display
<b>NO</b>	<b>NO</b>	<b>YES</b>	<b>NO</b>
Touch	Touch	Touch	Touch



## **CPO EN H 2300**

## ASEM\* Fume Cabinets

## 1 SASH

## **CHARACTERISTICS**

Self-supporting hood construction thanks to its full-height sides. 1 sash with safety glass, 3 windows horizontally openable. Side walls blind, optional windows.

#### **MATERIALS**

Worktops: Monolithic Stone, Greslam, Polypropylene, Epoxy, Stainless Steel. Internal covering: Stone, Glass, HPL, Polypropylene, Stainless Steel.

#### LEFT DEFLECTOR ELECTRICITY

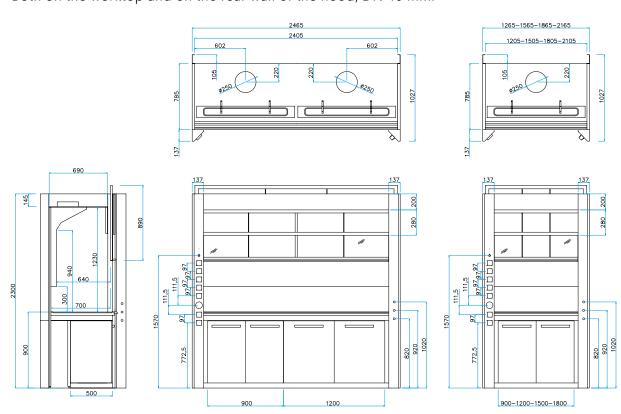
External sockets on the left side of the vertical support: 230V, 16A, IP 55.

Possibility of internal sockets: 230V, 16A, IP 56. Thermal switch obligatory for internal electrical sockets. Lighting LED outside the suction volume, 800 lux. Optional motorised sash.



## **OPTIONAL RIGHT DEFLECTOR FLUIDS**

Supply: taps Water, Vacuum, Gas, Compressed Air, DN 3/8" F. Both on the worktop and on the rear wall of the hood, DN 40 mm.







WCP0125EN	WCP0155EN	WCP0185EN	WCP0215EN	WCP0245EN
<b>Dimensions</b>	<b>Dimensions</b>	<b>Dimensions</b>	<b>Dimensions</b>	<b>Dimensions</b>
1265 W x 1027 D x 2300 H mm	1565 W x 1027 D x 2300 H mm	1865 W x 1027 D x 2300 H mm	2165 W x 1027 D x 2300 H mm	2465 W x 1027 D x 2300 H mm
Useful dimensions	Useful dimensions	Useful dimensions	Useful dimensions	Useful dimensions
1205 W x 700 D x 1230 H mm	1505 W x 700 D x 1230 H mm	1805 W x 700 D x 1230 H mm	2105 W x 700 D x 1230 H mm	2405 W x 700 D x 1230 H mm
Weight without services	Weight without services Approximately 240 Kg	Weight without services	Weight without services	Weight without services
Approximately 200 Kg		Approximately 330 Kg	Approximately 380 Kg	Approximately 430 Kg

## NUMBER OF SUPPORTS FOR FIXING LATTICES Ø 12/13 mm

WCP0125EN	WCP0155EN	WCP0185EN	WCP0215EN	WCP0245EN
4	6	6	8	8

## **CONSUMPTION / AIR FLOW**

V.A.V. response time containment: 0.5 / 0.01 s/ppm. Pressure drop: pressure 50 Pa. Sash lock height 450 mm, ECONOMY sash lock height 300 mm.

WCP0125EN	WCP0155EN	WCP0185EN	WCP0215EN	WCP0245EN
<b>802</b>	1035	1288	1531	1774
Air flow rate (m³/hr)	Air flow rate (m³/hr)	Air flow rate (m³/hr)	Air flow rate (m³/hr)	Air flow rate (m³/hr)
speed 0.5 m/s	speed 0.5 m/s	speed 0.5 m/s	speed 0.5 m/s	speed0.5 m/s
<b>481</b> Air flow rate (m³/hr) speed 0.3 m/s	<b>627</b> Air flow rate (m³/hr) speed 0.3 m/s	<b>773</b> Air flow rate (m³/hr) speed 0.3 m/s	<b>919</b> Air flow rate (m³/hr) speed 0.3 m/s	1064 Air flow rate (m³/hr) speed 0.3 m/s
39 - 802	47 - 1035	58 - 1288	68 - 1531	78 - 1774
V.A.V. Variable volume	V.A.V. Variable volume	V.A.V. Variable volume	V.A.V. Variable volume	V.A.V. Variable volume
speed 0.5 m/s	speed 0.5 m/s	speed 0.5 m/s	speed 0.5 m/s	speed 0.5 m/s
<b>24 - 481</b>	28 - 627	34 - 773	41 - 919	47 - 1064
V.A.V. Variable volume	V.A.V. Variable volume	V.A.V. Variable volume	V.A.V. Variable volume	V.A.V. Variable volume
speed 0.3 m/s	speed 0.3 m/s	speed 0.3 m/s	speed 0.3 m/s	speed 0.3 m/s
39 - 535	47 - 697	58 - 859	68 - 1021	76 - 1183
V.A.V. ECONOMY variable	V.A.V. ECONOMY variable	V.A.V. ECONOMY variable	V.A.V. ECONOMY variable	V.A.V. ECONOMY variable
volume speed 0.5 m/s	volume speed 0.5 m/s	volume speed 0.5 m/s	volume speed 0.5 m/s	volume speed 0.5 m/s
24 - 321	28 - 418	34 - 515	41 - 612	47 - 709
V.A.V. ECONOMY variable	V.A.V. ECONOMY variable	V.A.V. ECONOMY variable	V.A.V. ECONOMY variable	V.A.V. ECONOMY variable
volume speed 0.3 m/s	volume speed 0.3 m/s	volume speed 0.3 m/s	volume speed 0.3 m/s	volume speed 0.3 m/s

## **ALARM CONTROL SYSTEMS**

AC3500	AC1000/AC2000	AC4000TS	WAC3500
YES	YES	YES	<b>NO</b>
Flow regulation	Flow regulation	Flow regulation	Flow regulation
YES (LED)	YES	<b>YES</b>	<b>YES</b>
Speed display	Speed display	Speed display	Speed display
<b>NO</b>	<b>OPTION</b>	<b>YES</b>	<b>NO</b>
Flow display	Flow display	Flow display	Flow display
<b>NO</b>	<b>NO</b>	YES	<b>NO</b>
Touch	Touch	Touch	Touch

## 0/

## **CPO EN H 2300**



## 2 SASHES

## **CHARACTERISTICS**

Self-supporting hood construction thanks to its full-height sides. 2 sashes with safety glass, 3 windows horizontally openable. Side walls blind, optional windows.

#### **MATERIALS**

Worktops: Monolithic Stone, Greslam, Polypropylene, Epoxy, Stainless Steel. Internal covering: Stone, Glass, HPL, Polypropylene, Stainless Steel.

#### LEFT DEFLECTOR ELECTRICITY

External sockets on the left side of the vertical support: 230V, 16A, IP 55.

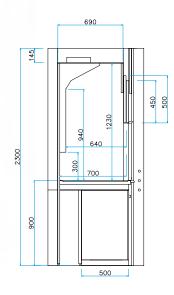
Possibility of internal sockets: 230V, 16A, IP 56. Thermal switch obligatory for internal electrical sockets. Lighting LED outside the suction volume, 800 lux. Optional motorised sash.

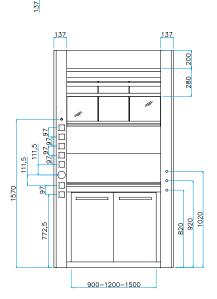


## **OPTIONAL RIGHT DEFLECTOR FLUIDS**

Supply: taps Water, Vacuum, Gas, Compressed Air, DN 3/8" F. Both on the worktop and on the rear wall of the hood, DN 40 mm.







1265-1565-1865

1205-1505-1805

220

## **CPO EN H 2300** 2 SASHES



## **DIMENSIONS AND WEIGHTS**

WCP0123EN	WCP0153EN	WCP0183EN
<b>Dimensions</b>	<b>Dimensions</b>	<b>Dimensions</b>
1265 W x 1027 D x 2300 H mm	1565 W x 1027 D x 2300 H mm	1865 W x 1027 D x 2300 H mm
Useful dimensions	Useful dimensions	Useful dimensions
1205 W x 700 D x 1230 H mm	1505 W x 700 D x 1230 H mm	1805 W x 700 D x 1230 H mm
Weight without services Approximately 200 Kg	Weight without services Approximately 240 Kg	Weight without services Approximately 330 Kg

## NUMBER OF SUPPORTS FOR FIXING LATTICES Ø 12/13 mm

WCP0123EN	WCP0153EN	WCP0183EN
4	6	6

## **CONSUMPTION / AIR FLOW**

V.A.V. response time containment: 0.5 /0.01 s/ppm. Pressure drop: pressure 50 Pa. Sash lock height 450 mm, ECONOMY sash lock height 300 mm.

WCP0123EN	WCP0153EN	WCP0183EN
<b>802</b> Air flow rate (m³/hr) speed 0.5 m/s	1035 Air flow rate (m³/hr) speed 0.5 m/s	<b>1288</b> Air flow rate (m³/hr) speed 0.5 m/s
<b>481</b> Air flow rate (m³/hr) speed 0.3 m/s	<b>627</b> Air flow rate (m³/hr) speed 0.3 m/s	<b>773</b> Air flow rate (m³/hr) speed 0.3 m/s
<b>39 - 802</b> V.A.V. Variable volume speed 0.5 m/s	47 - 1035 V.A.V. Variable volume speed 0.5 m/s	58 - 1288 V.A.V. Variable volume speed 0.5 m/s
<b>24 - 481</b> V.A.V. Variable volume speed 0.3 m/s	28 - 627 V.A.V. Variable volume speed 0.3 m/s	<b>34 - 773</b> V.A.V. Variable volume speed 0.3 m/s
39 - 535 V.A.V. ECONOMY variable volume speed 0.5 m/s	47 - 697 V.A.V. ECONOMY variable volume speed 0.5 m/s	58 - 859 V.A.V. ECONOMY variable volume speed 0.5 m/s
<b>24 - 321</b> V.A.V. ECONOMY variable volume speed 0.3 m/s	28 - 418 V.A.V. ECONOMY variable volume speed 0.3 m/s	<b>34 - 515</b> V.A.V. ECONOMY variable volume speed 0.3 m/s

## **ALARM CONTROL SYSTEMS**

AC3500	AC1000/AC2000	AC4000TS	WAC3500
<b>YES</b>	YES	YES	<b>NO</b>
Flow regulation	Flow regulation	Flow regulation	Flow regulation
YES (LED)	YES	YES	<b>YES</b>
Speed display	Speed display	Speed display	Speed display
<b>NO</b>	<b>OPTION</b>	<b>YES</b>	<b>NO</b>
Flow display	Flow display	Flow display	Flow display
<b>NO</b>	NO	<b>YES</b>	<b>NO</b>
Touch	Touch	Touch	Touch

## CPO EN H 2300 DISTILLATION



## **CHARACTERISTICS**

Self-supporting hood construction thanks to its full-height sides. 2 sashes with safety glass, 3 windows horizontally openable. Side walls blind, optional windows.

#### **MATERIALS**

Worktops: Monolithic Stone, Greslam, Polypropylene, Epoxy, Stainless Steel. Internal covering: Stone, Glass, HPL, Polypropylene, Stainless Steel.

#### LEFT DEFLECTOR ELECTRICITY

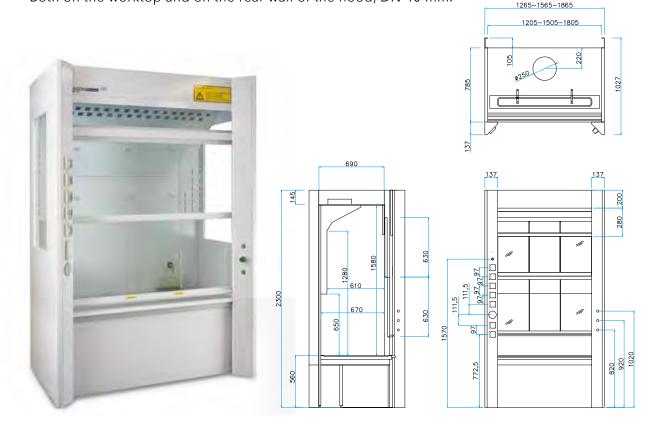
External sockets on the left side of the vertical support: 230V, 16A, IP 55.

Possibility of internal sockets: 230V, 16A, IP 56. Thermal switch obligatory for internal electrical sockets. Lighting LED outside the suction volume, 800 lux. Optional motorised sash.



## **OPTIONAL RIGHT DEFLECTOR FLUIDS**

Supply: taps Water, Vacuum, Gas, Compressed Air, DN 3/8" F. Both on the worktop and on the rear wall of the hood, DN 40 mm.



### **CPO EN H 2300 DISTILLATION**



### **DIMENSIONS AND WEIGHTS**

WCPD123EN	WCPD153EN	WCPD183EN
<b>Dimensions</b>	<b>Dimensions</b>	<b>Dimensions</b>
1265 W x 1027 D x 2300 H mm	1565 W x 1027 D x 2300 H mm	1865 W x 1027 D x 2300 H mm
Useful dimensions	Useful dimensions	Useful dimensions
1205 W x 670 D x 1580 H mm	1505 W x 670 D x 1580 H mm	1805 W x 670 D x 1580 H mm
Weight without services Approximately 200 Kg	Weight without services Approximately 240 Kg	Weight without services Approximately 330 Kg

### NUMBER OF SUPPORTS FOR FIXING LATTICES Ø 12/13 mm

WCPD123EN	WCPD153EN	WCPD183EN
4	6	6

### **CONSUMPTION / AIR FLOW**

V.A.V. response time containment: 0.5 /0.01 s/ppm. Pressure drop: pressure 50 Pa. Sash lock height 450 mm, ECONOMY sash lock height 300 mm.

WCPD123EN	WCPD153EN	WCPD183EN
<b>802</b> Air flow rate (m³/hr) speed 0.5 m/s	1035 Air flow rate (m³/hr) speed 0.5 m/s	<b>1288</b> Air flow rate (m³/hr) speed 0.5 m/s
<b>481</b> Air flow rate (m³/hr) speed 0.3 m/s	<b>627</b> Air flow rate (m³/hr) speed 0.3 m/s	<b>773</b> Air flow rate (m³/hr) speed 0.3 m/s
<b>39 - 802</b> V.A.V. Variable volume speed 0.5 m/s	47 - 1035 V.A.V. Variable volume speed 0.5 m/s	58 - 1288 V.A.V. Variable volume speed 0.5 m/s
<b>24 - 481</b> V.A.V. Variable volume speed 0.3 m/s	28 - 627 V.A.V. Variable volume speed 0.3 m/s	<b>34 - 773</b> V.A.V. Variable volume speed 0.3 m/s
39 - 535 V.A.V. ECONOMY variable volume speed 0.5 m/s	47 - 697 V.A.V. ECONOMY variable volume speed 0.5 m/s	58 - 859 V.A.V. ECONOMY variable volume speed 0.5 m/s
24 - 321 V.A.V. ECONOMY variable volume speed 0.3 m/s	28 - 418 V.A.V. ECONOMY variable volume speed 0.3 m/s	<b>34 - 515</b> V.A.V. ECONOMY variable volume speed 0.3 m/s

AC3500	AC1000/AC2000	AC4000TS	WAC3500
YES	YES	YES	<b>NO</b>
Flow regulation	Flow regulation	Flow regulation	Flow regulation
YES (LED)	<b>YES</b>	YES	<b>YES</b>
Speed display	Speed display	Speed display	Speed display
<b>NO</b>	OPTION	<b>YES</b>	<b>NO</b>
Flow display	Flow display	Flow display	Flow display
<b>NO</b>	NO	YES	<b>NO</b>
Touch	Touch	Touch	Touch



### **CP1 EN H 2300**



### 1 SASH

### **CHARACTERISTICS**

Self-supporting hood construction thanks to its full-height sides. 1 sash with safety glass, 3 windows horizontally openable. Side walls blind, optional windows.

#### **MATERIALS**

Worktops: Monolithic Stone, Greslam, Polypropylene, Epoxy, Stainless Steel. Internal covering: Stone, Glass, HPL, Polypropylene, Stainless Steel.

### LEFT DEFLECTOR ELECTRICITY

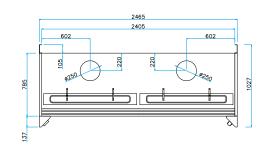
External sockets on the left side of the vertical support: 230V, 16A, IP 55.

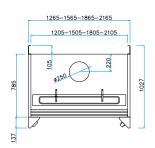
Possibility of internal sockets: 230V, 16A, IP 56. Thermal switch obligatory for internal electrical sockets. Lighting LED outside the suction volume, 800 lux. Optional motorised sash.

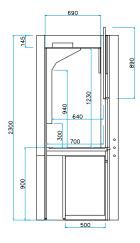


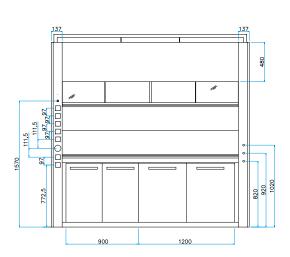
### **OPTIONAL RIGHT DEFLECTOR FLUIDS**

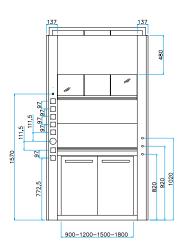
Supply: taps Water, Vacuum, Gas, Compressed Air, DN 3/8" F. Both on the worktop and on the rear wall of the hood, DN 40 mm.











### ZAS®

### **DIMENSIONS AND WEIGHTS**

WCP1125EN	WCP1155EN	WCP1185EN	WCP1215EN	WCP1245EN
<b>Dimensions</b>	<b>Dimensions</b>	<b>Dimensions</b>	<b>Dimensions</b>	<b>Dimensions</b>
1265 W x 1027 D x 2300 H mm	1565 W x 1027 D x 2300 H mm	1865 W x 1027 D x 2300 H mm	2165 W x 1027 D x 2300 H mm	2465 W x 1027 D x 2300 H mm
Useful dimensions	Useful dimensions	Useful dimensions	Useful dimensions	Useful dimensions
1205 W x 700 D x 1230 H mm	1505 W x 700 D x 1230 H mm	1805 W x 700 D x 1230 H mm	2105 W x 700 D x 1230 H mm	2405 W x 700 D x 1230 H mm
Weight without services	Weight without services Approximately 240 Kg	Weight without services	Weight without services	Weight without services
Approximately 200 Kg		Approximately 330 Kg	Approximately 380 Kg	Approximately 430 Kg

### NUMBER OF SUPPORTS FOR FIXING LATTICES Ø 12/13 mm

WCP1125EN	WCP1155EN	WCP1185EN	WCP1215EN	WCP1245EN
4	6	6	8	8

### **CONSUMPTION / AIR FLOW**

V.A.V. response time containment: 0.5 / 0.01 s/ppm. Pressure drop: pressure 50 Pa. Sash lock height 450 mm, ECONOMY sash lock height 300 mm.

WCP1125EN	WCP1155EN	WCP1185EN	WCP1215EN	WCP1245EN
<b>802</b>	1035	1288	<b>1531</b>	1774
Air flow rate (m³/hr)	Air flow rate (m³/hr)	Air flow rate (m³/hr)	Air flow rate (m³/hr)	Air flow rate (m³/hr)
speed 0.5 m/s	speed 0.5 m/s	speed 0.5 m/s	speed 0.5 m/s	speed 0.5 m/s
<b>481</b> Air flow rate (m³/hr) speed 0.3 m/s	<b>627</b> Air flow rate (m³/hr) speed 0.3 m/s	<b>773</b> Air flow rate (m³/hr) speed 0.3 m/s	<b>919</b> Air flow rate (m³/hr) speed 0.3 m/s	1064 Air flow rate (m³/hr) speed 0.3 m/s
39 - 802	47 - 1035	58 - 1288	68 - 1531	78 - 1774
V.A.V. Variable volume	V.A.V. Variable volume	V.A.V. Variable volume	V.A.V. Variable volume	V.A.V. Variable volume
speed 0.5 m/s	speed 0.5 m/s	speed 0.5 m/s	speed 0.5 m/s	speed 0.5 m/s
24 - 481	28 - 627	34 - 773	<b>41 - 919</b>	47 - 1064
V.A.V. Variable volume	V.A.V. Variable volume	V.A.V. Variable volume	V.A.V. Variable volume	V.A.V. Variable volume
speed 0.3 m/s	speed 0.3 m/s	speed 0.3 m/s	speed 0.3 m/s	speed 0.3 m/s
39 - 535	47 - 697	58 - 859	68 - 1021	76 - 1183
V.A.V. ECONOMY variable	V.A.V. ECONOMY variable	V.A.V. ECONOMY variable	V.A.V. ECONOMY variable	V.A.V. ECONOMY variable
volume speed 0.5 m/s	volume speed 0.5 m/s	volume speed 0.5 m/s	volume speed 0.5 m/s	volume speed 0.5 m/s
24 - 321	28 - 418	34 - 515	41 - 612	47 - 709
V.A.V. ECONOMY variable	V.A.V. ECONOMY variable	V.A.V. ECONOMY variable	V.A.V. ECONOMY variable	V.A.V. ECONOMY variable
volume speed 0.3 m/s	volume speed 0.3 m/s	volume speed 0.3 m/s	volume speed 0.3 m/s	volume speed 0.3 m/s

AC3500	AC1000/AC2000	AC4000TS	WAC3500
YES	YES	YES	<b>NO</b>
Flow regulation	Flow regulation	Flow regulation	Flow regulation
YES (LED)	<b>YES</b>	YES	<b>YES</b>
Speed display	Speed display	Speed display	Speed display
<b>NO</b>	OPTION	<b>YES</b>	<b>NO</b>
Flow display	Flow display	Flow display	Flow display
<b>NO</b>	NO	YES	<b>NO</b>
Touch	Touch	Touch	Touch



### CP1 EN H 2300 PVC ASEM Fume Cabinets



### 1 SASH

### **CHARACTERISTICS**

Self-supporting hood construction thanks to its full-height sides. 1 sash with safety glass, 3 windows horizontally openable. Side walls blind, optional windows.

### **MATERIALS**

Worktops: Monolithic Stone, Greslam, Polypropylene, Epoxy, Stainless Steel. Internal covering: Stone, Glass, HPL, Polypropylene, Stainless Steel.

### LEFT DEFLECTOR ELECTRICITY

External sockets on the left side of the vertical support: 230V, 16A, IP 55.

Possibility of internal sockets: 230V, 16A, IP 56. Thermal switch obligatory for internal electrical sockets. Lighting LED outside the suction volume, 800 lux. Optional motorised sash.



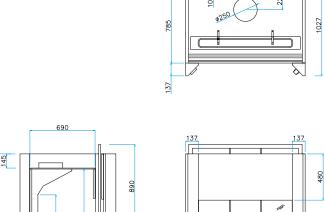
1265-1565-1865

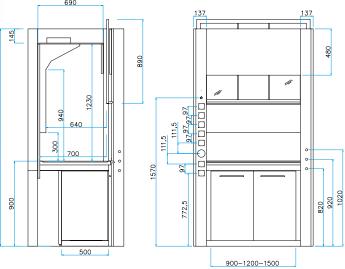
1205-1505-1805

### **OPTIONAL RIGHT DEFLECTOR FLUIDS**

Supply: taps Water, Vacuum, Gas, Compressed Air, DN 3/8" F. Both on the worktop and on the rear wall of the hood, DN 40 mm.







### **CP1 EN H 2300 PVC** 1 SASH



### **DIMENSIONS AND WEIGHTS**

WCP1125PVC	WCP1155PVC	WCP1185PVC
<b>Dimensions</b>	<b>Dimensions</b>	<b>Dimensions</b>
1265 W x 1027 D x 2300 H mm	1565 W x 1027 D x 2300 H mm	1865 W x 1027 D x 2300 H mm
Useful dimensions	Useful dimensions	Useful dimensions
1205 W x 700 D x 1230 H mm	1505 W x 700 D x 1230 H mm	1805 W x 700 D x 1230 H mm
Weight without services Approximately 230 Kg	Weight without services Approximately 280 Kg	Weight without services Approximately 330 Kg

### NUMBER OF SUPPORTS FOR FIXING LATTICES Ø 12/13 mm

WCP1125PVC	WCP1155PVC	WCP1185PVC
4	6	6

### **CONSUMPTION / AIR FLOW**

V.A.V. response time containment: 0.5 /0.01 s/ppm. Pressure drop: pressure 50 Pa. Sash lock height 450 mm, ECONOMY sash lock height 300 mm.

WCP1125PVC	WCP1155PVC	WCP1185PVC
<b>802</b> Air flow rate (m³/hr) speed 0.5 m/s	<b>1035</b> Air flow rate (m³/hr) speed 0.5 m/s	<b>1288</b> Air flow rate (m³/hr) speed 0.5 m/s
<b>481</b> Air flow rate (m³/hr) speed 0.3 m/s	<b>627</b> Air flow rate (m³/hr) speed 0.3 m/s	<b>773</b> Air flow rate (m³/hr) speed 0.3 m/s
<b>39 - 802</b> V.A.V. Variable volume speed 0.5 m/s	47 - 1035 V.A.V. Variable volume speed 0.5 m/s	<b>58 - 1288</b> V.A.V. Variable volume speed 0.5 m/s
<b>24 - 481</b> V.A.V. Variable volume speed 0.3 m/s	28 - 627 V.A.V. Variable volume speed 0.3 m/s	<b>34 - 773</b> V.A.V. Variable volume speed 0.3 m/s
39 - 535 V.A.V. ECONOMY variable volume speed 0.5 m/s	47 - 697 V.A.V. ECONOMY variable volume speed 0.5 m/s	58 - 859 V.A.V. ECONOMY variable volume speed 0.5 m/s
<b>24 - 321</b> V.A.V. ECONOMY variable volume speed 0.3 m/s	28 - 418 V.A.V. ECONOMY variable volume speed 0.3 m/s	34 - 515 V.A.V. ECONOMY variable volume speed 0.3 m/s

AC3500	AC1000/AC2000	AC4000TS	WAC3500
YES	YES	YES	<b>NO</b>
Flow regulation	Flow regulation	Flow regulation	Flow regulation
YES (LED)	YES	<b>YES</b>	<b>YES</b>
Speed display	Speed display	Speed display	Speed display
<b>NO</b>	<b>OPTION</b>	<b>YES</b>	<b>NO</b>
Flow display	Flow display	Flow display	Flow display
<b>NO</b>	<b>NO</b>	YES	<b>NO</b>
Touch	Touch	Touch	Touch



### **CP1 EN H 2300**



### 2 SASHES

### **CHARACTERISTICS**

Self-supporting hood construction thanks to its full-height sides. 2 sashes with safety glass, 3 windows horizontally openable. Side walls blind, optional windows.

#### **MATERIALS**

Worktops: Monolithic Stone, Greslam, Polypropylene, Epoxy, Stainless Steel. Internal covering: Stone, Glass, HPL, Polypropylene, Stainless Steel.

#### LEFT DEFLECTOR ELECTRICITY

External sockets on the left side of the vertical support: 230V, 16A, IP 55.

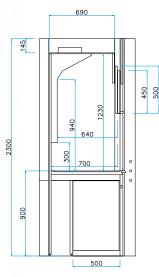
Possibility of internal sockets: 230V, 16A, IP 56. Thermal switch obligatory for internal electrical sockets. Lighting LED outside the suction volume, 800 lux. Optional motorised sash.

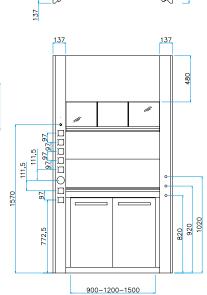


### **OPTIONAL RIGHT DEFLECTOR FLUIDS**

Supply: taps Water, Vacuum, Gas, Compressed Air, DN 3/8" F. Both on the worktop and on the rear wall of the hood, DN 40 mm.







1265-1565-1865

1205-1505-1805

220

### **CP1 EN H 2300** 2 SASHES



### **DIMENSIONS AND WEIGHTS**

WCP1123EN	WCP1153EN	WCP1183EN	
<b>Dimensions</b>	<b>Dimensions</b>	<b>Dimensions</b>	
1265 W x 1027 D x 2300 H mm	1565 W x 1027 D x 2300 H mm	1865 W x 1027 D x 2300 H mm	
Useful dimensions	Useful dimensions	Useful dimensions	
1205 W x 700 D x 1230 H mm	1505 W x 700 D x 1230 H mm	1805 W x 700 D x 1230 H mm	
Weight without services Approximately 230 Kg	Weight without services Approximately 280 Kg	Weight without services Approximately 330 Kg	

### NUMBER OF SUPPORTS FOR FIXING LATTICES Ø 12/13 mm

WCP1123EN	WCP1153EN	WCP1183EN
4	6	6

### **CONSUMPTION / AIR FLOW**

V.A.V. response time containment: 0.5 /0.01 s/ppm. Pressure drop: pressure 50 Pa. Sash lock height 450 mm, ECONOMY sash lock height 300 mm.

WCP1123EN	WCP1153EN	WCP1183EN
<b>802</b> Air flow rate (m³/hr) speed 0.5 m/s	<b>1035</b> Air flow rate (m³/hr) speed 0.5 m/s	<b>1288</b> Air flow rate (m³/hr) speed 0.5 m/s
<b>481</b> Air flow rate (m³/hr) speed 0.3 m/s	<b>627</b> Air flow rate (m³/hr) speed 0.3 m/s	<b>773</b> Air flow rate (m³/hr) speed 0.3 m/s
<b>39 - 802</b> V.A.V. Variable volume speed 0.5 m/s	47 - 1035 V.A.V. Variable volume speed 0.5 m/s	58 - 1288 V.A.V. Variable volume speed 0.5 m/s
<b>24 - 481</b> V.A.V. Variable volume speed 0.3 m/s	28 - 627 V.A.V. Variable volume speed 0.3 m/s	<b>34 - 773</b> V.A.V. Variable volume speed 0.3 m/s
<b>39 - 535</b> V.A.V. ECONOMY variable volume speed 0.5 m/s	47 - 697 V.A.V. ECONOMY variable volume speed 0.5 m/s	58 - 859 V.A.V. ECONOMY variable volume speed 0.5 m/s
<b>24 - 321</b> V.A.V. ECONOMY variable volume speed 0.3 m/s	28 - 418 V.A.V. ECONOMY variable volume speed 0.3 m/s	34 - 515 V.A.V. ECONOMY variable volume speed 0.3 m/s

AC3500	AC1000/AC2000	AC4000TS	WAC3500
<b>YES</b>	<b>YES</b> Flow regulation	YES	<b>NO</b>
Flow regulation		Flow regulation	Flow regulation
YES (LED)	<b>YES</b>	<b>YES</b>	<b>YES</b>
Speed display	Speed display	Speed display	Speed display
<b>NO</b>	<b>OPTION</b>	<b>YES</b>	<b>NO</b>
Flow display	Flow display	Flow display	Flow display
<b>NO</b>	<b>NO</b>	YES	<b>NO</b>
Touch	Touch	Touch	Touch



# **CP1 EN H 2300**DISTILLATION



### **CHARACTERISTICS**

Self-supporting hood construction thanks to its full-height sides. 2 sashes with safety glass, 3 windows horizontally openable. Side walls blind, optional windows.

#### **MATERIALS**

Worktops: Monolithic Stone, Greslam, Polypropylene, Epoxy, Stainless Steel. Internal covering: Stone, Glass, HPL, Polypropylene, Stainless Steel.

#### LEFT DEFLECTOR ELECTRICITY

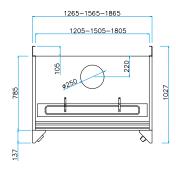
External sockets on the left side of the vertical support: 230V, 16A, IP 55.

Possibility of internal sockets: 230V, 16A, IP 56.
Thermal switch obligatory for internal electrical sockets.
Lighting LED outside the suction volume, 800 lux.
Optional motorised sash.

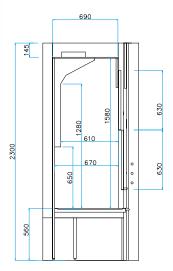


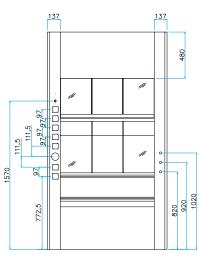
### **OPTIONAL RIGHT DEFLECTOR FLUIDS**

Supply: taps Water, Vacuum, Gas, Compressed Air, DN 3/8" F. Both on the worktop and on the rear wall of the hood, DN 40 mm.









### ZAS®

### **CP1 EN H 2300 DISTILLATION**

### **DIMENSIONS AND WEIGHTS**

WCP1D123EN	WCP1D153EN	WCP1D183EN
<b>Dimensions</b>	<b>Dimensions</b>	<b>Dimensions</b>
1265 W x 1027 D x 2300 H mm	1565 W x 1027 D x 2300 H mm	1865 W x 1027 D x 2300 H mm
Useful dimensions	Useful dimensions	Useful dimensions
1205 W x 670 D x 1580 H mm	1505 W x 670 D x 1580 H mm	1805 W x 670 D x 1580 H mm
Weight without services Approximately 230 Kg	Weight without services Approximately 280 Kg	Weight without services Approximately 330 Kg

### NUMBER OF SUPPORTS FOR FIXING LATTICES Ø 12/13 mm

WCP1D123EN	WCP1D153EN	WCP1D183EN
4	6	6

### **CONSUMPTION / AIR FLOW**

V.A.V. response time containment: 0.5 /0.01 s/ppm. Pressure drop: pressure 50 Pa. Sash lock height 450 mm, ECONOMY sash lock height 300 mm.

WCP1D123EN	WCP1D153EN	WCP1D183EN
<b>802</b> Air flow rate (m³/hr) speed 0.5 m/s	1035 Air flow rate (m³/hr) speed 0.5 m/s	<b>1288</b> Air flow rate (m³/hr) speed0.5 m/s
<b>481</b> Air flow rate (m³/hr) speed 0.3 m/s	<b>627</b> Air flow rate (m³/hr) speed 0.3 m/s	<b>773</b> Air flow rate (m³/hr) speed 0.3 m/s
<b>39 - 802</b> V.A.V. Variable volume speed 0.5 m/s	47 - 1035 V.A.V. Variable volume speed 0.5 m/s	58 - 1288 V.A.V. Variable volume speed 0.5 m/s
<b>24 - 481</b> V.A.V. Variable volume speed 0.3 m/s	28 - 627 V.A.V. Variable volume speed 0.3 m/s	<b>34 - 773</b> V.A.V. Variable volume speed 0.3 m/s
39 - 535 V.A.V. ECONOMY variable volume speed 0.5 m/s	47 - 697 V.A.V. ECONOMY variable volume speed 0.5 m/s	58 - 859 V.A.V. ECONOMY variable volume speed 0.5 m/s
<b>24 - 321</b> V.A.V. ECONOMY variable volume speed 0.3 m/s	28 - 418 V.A.V. ECONOMY variable volume speed 0.3 m/s	<b>34 - 515</b> V.A.V. ECONOMY variable volume speed 0.3 m/s

AC3500	AC1000/AC2000	AC4000TS	WAC3500
<b>YES</b>	YES	YES	<b>NO</b>
Flow regulation	Flow regulation	Flow regulation	Flow regulation
YES (LED)	<b>YES</b>	<b>YES</b>	<b>YES</b>
Speed display	Speed display	Speed display	Speed display
<b>NO</b>	OPTION	<b>YES</b>	<b>NO</b>
Flow display	Flow display	Flow display	Flow display
<b>NO</b>	<b>NO</b>	YES	<b>NO</b>
Touch	Touch	Touch	Touch



## ICP EN SELF-SUPPORTING

### ASEM\* Fume Cabinets (SEN 14175-2-3-4-5-6-7

### CLASS 0 IN METAL

### **CHARACTERISTICS**

Self-supporting hood construction thanks to its full-height sides. 1 sash with safety glass, Side walls blind, optional windows.

#### **MATERIALS**

Worktops: Monolithic Stone, Greslam, Polypropylene, Epoxy, Stainless Steel. Internal covering: Stone, Glass, HPL, Polypropylene, Stainless Steel.

### LEFT DEFLECTOR ELECTRICITY

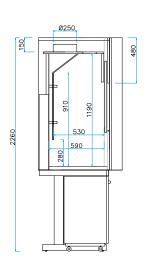
External sockets on the left side of the vertical support: 230V, 16A, IP 55.

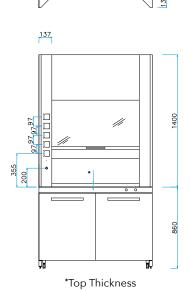
Possibility of internal sockets: 230V, 16A, IP 56. Thermal switch obligatory for internal electrical sockets. Lighting LED outside the suction volume, 800 lux. Optional motorised sash.



Supply: taps Water, Vacuum, Gas, Compressed Air, DN 3/8" F. Both on the worktop and on the rear wall of the hood, DN 40 mm.







1200-1500-1800



## $\infty$

### ICP EN SELF-SUPPORTING CLASS 0 IN METAL



### **DIMENSIONS AND WEIGHTS**

WICP0220EN	WICP0250EN	WICP0280EN
<b>Dimensions</b>	<b>Dimensions</b>	<b>Dimensions</b>
1200 W x 887 D x 2260 H mm	1500 W x 887 D x 2260 H mm	1800 W x 887 D x 2260 H mm
Useful dimensions	Useful dimensions	Useful dimensions
1150 W x 590 D x 1190 H mm	1450 W x 590 D x 1190 H mm	1750 W x 590 D x 1190 H mm
Weight without services Approximately 220 Kg	Weight without services Approximately 260 Kg	Weight without services Approximately 300 Kg

### NUMBER OF SUPPORTS FOR FIXING LATTICES Ø 12/13 mm

WICP0220EN	WICP0250EN	WICP0280EN
4	6	6

### **CONSUMPTION / AIR FLOW**

V.A.V. response time containment: 0.5 /0.01 s/ppm. Pressure drop: pressure 50 Pa. Sash lock height 450 mm, ECONOMY sash lock height 300 mm.

WICP0220EN	WICP0250EN	WICP0280EN
<b>750</b> Air flow rate (m³/hr) speed 0.5 m/s	<b>993</b> Air flow rate (m³/hr) speed 0.5 m/s	<b>1236</b> Air flow rate (m³/hr) speed 0.5 m/s
450	<b>595</b>	<b>741</b>
Air flow rate (m³/hr)	Air flow rate (m³/hr)	Air flow rate (m³/hr)
speed 0.3 m/s	speed 0.3 m/s	speed 0.3 m/s
<b>33 - 750</b>	<b>44 - 993</b>	55 - 1236
V.A.V. Variable volume	V.A.V. Variable volume	V.A.V. Variable volume
speed 0.5 m/s	speed 0.5 m/s	speed 0.5 m/s
20 - 450	<b>26 - 595</b>	33 - 741
V.A.V. Variable volume	V.A.V. Variable volume	V.A.V. Variable volume
speed 0.3 m/s	speed 0.3 m/s	speed 0.3 m/s
33 - 500	44 - 662	55 - 824
V.A.V. ECONOMY variable	V.A.V. ECONOMY variable	V.A.V. ECONOMY variable
volume speed 0.5 m/s	volume speed 0.5 m/s	volume speed 0.5 m/s
20 - 300	26 - 397	33 - 494
V.A.V. ECONOMY variable	V.A.V. ECONOMY variable	V.A.V. ECONOMY variable
volume speed 0.3 m/s	volume speed 0.3 m/s	volume speed 0.3 m/s

AC3500	AC1000/AC2000	AC4000TS	WAC3500
<b>YES</b>	YES	YES	<b>NO</b>
Flow regulation	Flow regulation	Flow regulation	Flow regulation
YES (LED)	<b>YES</b>	<b>YES</b>	<b>YES</b>
Speed display	Speed display	Speed display	Speed display
<b>NO</b>	<b>OPTION</b>	<b>YES</b>	<b>NO</b>
Flow display	Flow display	Flow display	Flow display
NO	<b>NO</b>	YES	<b>NO</b>
Touch	Touch	Touch	Touch

### **ICP EN SELF-SUPPORTING**



### CLASS 1 IN LAMINATE

### **CHARACTERISTICS**

Self-supporting hood construction thanks to its full-height sides. 1 sash with safety glass, Side walls blind, optional windows.

#### **MATERIALS**

Worktops: Monolithic Stone, Greslam, Polypropylene, Epoxy, Stainless Steel. Internal covering: Stone, Glass, HPL, Polypropylene, Stainless Steel.

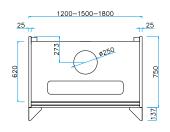
### **LEFT DEFLECTOR ELECTRICITY**

External sockets on the left side of the vertical support: 230V, 16A, IP 55.

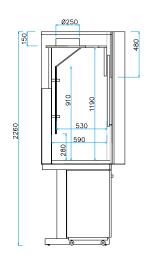
Possibility of internal sockets: 230V, 16A, IP 56. Thermal switch obligatory for internal electrical sockets. Lighting LED outside the suction volume, 800 lux. Optional motorised sash.

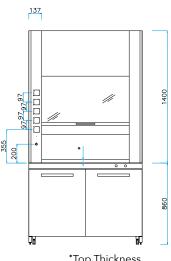


Supply: taps Water, Vacuum, Gas, Compressed Air, DN 3/8" F. Both on the worktop and on the rear wall of the hood, DN 40 mm.









\*Top Thickness



### ICP EN SELF-SUPPORTING CLASS 1 IN LAMINATE



### **DIMENSIONS AND WEIGHTS**

WICP220EN	WICP250EN	WICP280EN
<b>Dimensions</b>	<b>Dimensions</b>	<b>Dimensions</b>
1200 W x 887 D x 2260 H mm	1500 W x 887 D x 2260 H mm	1800 W x 887 D x 2260 H mm
Useful dimensions	Useful dimensions	Useful dimensions
1150 W x 590 D x 1190 H mm	1450 W x 590 D x 1190 H mm	1750 W x 590 D x 1190 H mm
Weight without services Approximately 200 Kg	Weight without services Approximately 240 Kg	Weight without services Approximately 280 Kg

### NUMBER OF SUPPORTS FOR FIXING LATTICES Ø 12/13 mm

WICP220EN	WICP250EN	WICP280EN
4	6	6

### **CONSUMPTION / AIR FLOW**

V.A.V. response time containment: 0.5 /0.01 s/ppm. Pressure drop: pressure 50 Pa. Sash lock height 450 mm, ECONOMY sash lock height 300 mm.

WICP220EN	WICP250EN	WICP280EN
<b>750</b> Air flow rate (m³/hr) speed 0.5 m/s	<b>993</b> Air flow rate (m³/hr) speed 0.5 m/s	<b>1236</b> Air flow rate (m³/hr) speed 0.5 m/s
450	<b>595</b>	<b>741</b>
Air flow rate (m³/hr)	Air flow rate (m³/hr)	Air flow rate (m³/hr)
speed 0.3 m/s	speed 0.3 m/s	speed 0.3 m/s
<b>33 - 750</b>	<b>44 - 993</b>	55 - 1236
V.A.V. Variable volume	V.A.V. Variable volume	V.A.V. Variable volume
speed 0.5 m/s	speed 0.5 m/s	speed 0.5 m/s
20 - 450	<b>26 - 595</b>	33 - 741
V.A.V. Variable volume	V.A.V. Variable volume	V.A.V. Variable volume
speed 0.3 m/s	speed 0.3 m/s	speed 0.3 m/s
33 - 500 V.A.V. ECONOMY variable volume speed 0.5 m/s	<b>44 - 662</b> V.A.V. ECONOMY variable volume speed 0.5 m/s	55 - 824 V.A.V. ECONOMY variable volume speed 0.5 m/s
20 - 300	26 - 397	33 - 494
V.A.V. ECONOMY variable	V.A.V. ECONOMY variable	V.A.V. ECONOMY variable
volume speed 0.3 m/s	volume speed 0.3 m/s	volume speed 0.3 m/s

AC3500	AC1000/AC2000	AC4000TS	WAC3500
<b>YES</b>	YES	YES	<b>NO</b>
Flow regulation	Flow regulation	Flow regulation	Flow regulation
YES (LED)	<b>YES</b>	<b>YES</b>	<b>YES</b>
Speed display	Speed display	Speed display	Speed display
<b>NO</b>	<b>OPTION</b>	<b>YES</b>	<b>NO</b>
Flow display	Flow display	Flow display	Flow display
NO	<b>NO</b>	YES	<b>NO</b>
Touch	Touch	Touch	Touch



## ICP EN SELF-SUPPORING

### CLASS 1 IN PVC

#### **CHARACTERISTICS**

Self-supporting hood construction thanks to its full-height sides. 1 sash with safety glass, Side walls blind, optional windows.

### **MATERIALS**

Worktops: Monolithic Stone, Greslam, Polypropylene, Epoxy, Stainless Steel. Internal covering: Polypropylene.

### LEFT DEFLECTOR ELECTRICITY

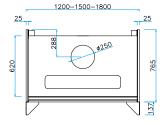
External sockets on the left side of the vertical support: 230V, 16A, IP 55.

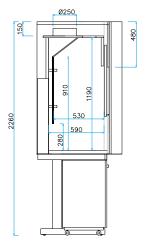
Possibility of internal sockets: 230V, 16A, IP 56. Thermal switch obligatory for internal electrical sockets. Lighting LED outside the suction volume, 800 lux. Optional motorised sash.

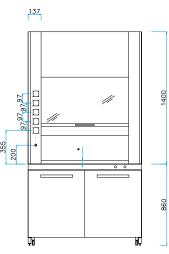
#### **OPTIONAL RIGHT DEFLECTOR FLUIDS**

Supply: taps Water, Vacuum, Gas, Compressed Air, DN  $3/8^{\prime\prime}$  F. Both on the worktop and on the rear wall of the hood, DN 40 mm.









\*Top Thickness

### ICP EN SELF-SUPPORING CLASS 1 IN PVC



### **DIMENSIONS AND WEIGHTS**

WICP14P220EN	WICP14P250EN	WICP14P280EN
<b>Dimensions</b>	<b>Dimensions</b>	<b>Dimensions</b>
1200 W x 887 D x 2260 H mm	1500 W x 887 D x 2260 H mm	1800 W x 887 D x 2260 H mm
Useful dimensions	Useful dimensions	Useful dimensions
1150 W x 590 D x 1190 H mm	1450 W x 590 D x 1190 H mm	1750 W x 590 D x 1190 H mm
Weight without services Approximately 220 Kg	Weight without services Approximately 240 Kg	Weight without services Approximately 280 Kg

### NUMBER OF SUPPORTS FOR FIXING LATTICES Ø 12/13 mm

WICP14P220EN	WICP14P250EN	WICP14P280EN
4	6	6

### **CONSUMPTION / AIR FLOW**

V.A.V. response time containment: 0.5 /0.01 s/ppm. Pressure drop: pressure 50 Pa. Sash lock height 450 mm, ECONOMY sash lock height 300 mm.

WICP14P220EN	WICP14P250EN	WICP14P280EN
<b>750</b> Air flow rate (m³/hr) speed 0.5 m/s	<b>993</b> Air flow rate (m³/hr) speed 0.5 m/s	<b>1236</b> Air flow rate (m³/hr) speed 0.5 m/s
450	<b>595</b>	<b>741</b>
Air flow rate (m³/hr)	Air flow rate (m³/hr)	Air flow rate (m³/hr)
speed 0.3 m/s	speed 0.3 m/s	speed 0.3 m/s
<b>33 - 750</b>	<b>44 - 993</b>	<b>55 - 1236</b>
V.A.V. Variable volume	V.A.V. Variable volume	V.A.V. Variable volume
speed 0.5 m/s	speed 0.5 m/s	speed 0.5 m/s
20 - 450	<b>26 - 595</b>	<b>33 - 741</b>
V.A.V. Variable volume	V.A.V. Variable volume	V.A.V. Variable volume
speed 0.3 m/s	speed 0.3 m/s	speed 0.3 m/s
33 - 500	44 - 662	55 - 824
V.A.V. ECONOMY variable	V.A.V. ECONOMY variable	V.A.V. ECONOMY variable
volume speed 0.5 m/s	volume speed 0.5 m/s	volume speed 0.5 m/s
20 - 300 V.A.V. ECONOMY variable volume speed 0.3 m/s	<b>26 - 397</b> V.A.V. ECONOMY variable volume speed 0.3 m/s	33 - 494 V.A.V. ECONOMY variable volume speed 0.3 m/s

AC3500	AC1000/AC2000	AC4000TS	WAC3500
YES	YES	YES	<b>NO</b>
Flow regulation	Flow regulation	Flow regulation	Flow regulation
YES (LED)	<b>YES</b>	<b>YES</b>	<b>YES</b>
Speed display	Speed display	Speed display	Speed display
<b>NO</b>	<b>OPTION</b>	<b>YES</b>	<b>NO</b>
Flow display	Flow display	Flow display	Flow display
<b>NO</b>	<b>NO</b>	YES	<b>NO</b>
Touch	Touch	Touch	Touch



## ICP EN SUPERSTRUCTURE



### CLASS 0 IN METAL

### **CHARACTERISTICS**

Self-supporting hood construction thanks to its full-height sides. 1 sash with safety glass, Side walls blind, optional windows.

### **MATERIALS**

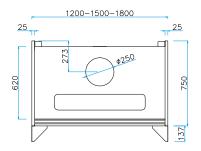
Internal covering: Stone, Glass, HPL, Polypropylene, Stainless Steel.

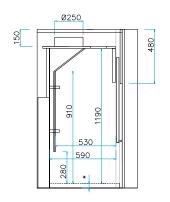
#### LEFT DEFLECTOR ELECTRICITY

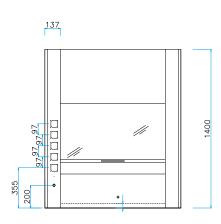
External sockets on the left side of the vertical support: 230V, 16A, IP 55.

Possibility of internal sockets: 230V, 16A, IP 56. Thermal switch obligatory for internal electrical sockets. Lighting LED outside the suction volume, 800 lux. Optional motorised sash.









\*Top Thickness

### ICP EN SUPERSTRUCTURE CLASS 0 IN METAL



### **DIMENSIONS AND WEIGHTS**

WICP0120EN	WICP0150EN	WICP0180EN
<b>Dimensions</b>	<b>Dimensions</b>	<b>Dimensions</b>
1200 W x 887 D x 1400 H mm	1500 W x 887 D x 1400 H mm	1800 W x 887 D x 1400 H mm
Useful dimensions	Useful dimensions	Useful dimensions
1150 W x 590 D x 1190 H mm	1450 W x 590 D x 1190 H mm	1750 W x 590 D x 1190 H mm
Weight without services Approximately 180 Kg	Weight without services Approximately 220 Kg	Weight without services Approximately 260 Kg

### NUMBER OF SUPPORTS FOR FIXING LATTICES Ø 12/13 mm

WICP0120EN	WICP0150EN	WICP0180EN
4	6	6

### **CONSUMPTION / AIR FLOW**

V.A.V. response time containment: 0.5 /0.01 s/ppm. Pressure drop: pressure 50 Pa. Sash lock height 450 mm, ECONOMY sash lock height 300 mm.

WICP0120EN	WICP0150EN	WICP0180EN
<b>750</b> Air flow rate (m³/hr) speed 0.5 m/s	<b>993</b> Air flow rate (m³/hr) speed 0.5 m/s	<b>1236</b> Air flow rate (m³/hr) speed 0.5 m/s
450	<b>595</b>	<b>741</b>
Air flow rate (m³/hr)	Air flow rate (m³/hr)	Air flow rate (m³/hr)
speed 0.3 m/s	speed 0.3 m/s	speed 0.3 m/s
<b>33 - 750</b>	<b>44 - 993</b>	55 - 1236
V.A.V. Variable volume	V.A.V. Variable volume	V.A.V. Variable volume
speed 0.5 m/s	speed 0.5 m/s	speed 0.5 m/s
20 - 450	<b>26 - 595</b>	33 - 741
V.A.V. Variable volume	V.A.V. Variable volume	V.A.V. Variable volume
speed 0.3 m/s	speed 0.3 m/s	speed 0.3 m/s
33 - 500 V.A.V. ECONOMY variable volume speed 0.5 m/s	<b>44 - 662</b> V.A.V. ECONOMY variable volume speed 0.5 m/s	55 - 824 V.A.V. ECONOMY variable volume speed 0.5 m/s
20 - 300	26 - 397	33 - 494
V.A.V. ECONOMY variable	V.A.V. ECONOMY variable	V.A.V. ECONOMY variable
volume speed 0.3 m/s	volume speed 0.3 m/s	volume speed 0.3 m/s

AC3500	AC1000/AC2000	AC4000TS	WAC3500
<b>YES</b>	<b>YES</b> Flow regulation	YES	<b>NO</b>
Flow regulation		Flow regulation	Flow regulation
YES (LED)	<b>YES</b>	<b>YES</b>	<b>YES</b>
Speed display	Speed display	Speed display	Speed display
<b>NO</b>	<b>OPTION</b>	<b>YES</b>	<b>NO</b>
Flow display	Flow display	Flow display	Flow display
<b>NO</b>	<b>NO</b>	YES	<b>NO</b>
Touch	Touch	Touch	Touch



## ICP EN SUPERSTRUCTURE



### CLASSE 1 IN LAMINATE

### **CHARACTERISTICS**

Self-supporting hood construction thanks to its full-height sides. 1 sash with safety glass, Side walls blind, optional windows.

### **MATERIALS**

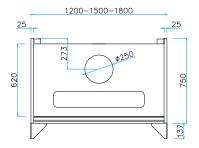
Internal covering: Stone, Glass, HPL, Polypropylene, Stainless Steel.

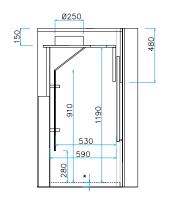
#### LEFT DEFLECTOR ELECTRICITY

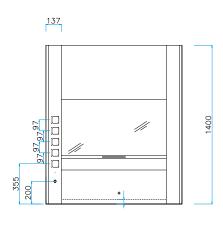
External sockets on the left side of the vertical support: 230V, 16A, IP 55.

Possibility of internal sockets: 230V, 16A, IP 56. Thermal switch obligatory for internal electrical sockets. Lighting LED outside the suction volume, 800 lux. Optional motorised sash.









\*Top Thickness

### ICP EN SUPERSTRUCTURE CLASS 1 IN LAMINATE



### **DIMENSIONS AND WEIGHTS**

WICP120EN	WICP150EN	WICP180EN
<b>Dimensions</b>	<b>Dimensions</b>	<b>Dimensions</b>
1200 W x 887 D x 1400 H mm	1500 W x 887 D x 1400 H mm	1800 W x 887 D x 1400 H mm
Useful dimensions	Useful dimensions	Useful dimensions
1150 W x 590 D x 1190 H mm	1450 W x 590 D x 1190 H mm	1750 W x 590 D x 1190 H mm
Weight without services Approximately 160 Kg	Weight without services Approximately 200 Kg	Weight without services Approximately 240 Kg

### NUMBER OF SUPPORTS FOR FIXING LATTICES Ø 12/13 mm

WICP120EN	WICP150EN	WICP180EN
4	6	6

### **CONSUMPTION / AIR FLOW**

V.A.V. response time containment: 0.5 /0.01 s/ppm. Pressure drop: pressure 50 Pa. Sash lock height 450 mm, ECONOMY sash lock height 300 mm.

WICP120EN	WICP150EN	WICP180EN
<b>750</b> Air flow rate (m³/hr) speed 0.5 m/s	<b>993</b> Air flow rate (m³/hr) speed 0.5 m/s	<b>1236</b> Air flow rate (m³/hr) speed 0.5 m/s
450	<b>595</b>	<b>741</b>
Air flow rate (m³/hr)	Air flow rate (m³/hr)	Air flow rate (m³/hr)
speed 0.3 m/s	speed 0.3 m/s	speed 0.3 m/s
<b>33 - 750</b>	<b>44 - 993</b>	<b>55 - 1236</b>
V.A.V. Variable volume	V.A.V. Variable volume	V.A.V. Variable volume
speed 0.5 m/s	speed 0.5 m/s	speed 0.5 m/s
20 - 450	<b>26 - 595</b>	33 - 741
V.A.V. Variable volume	V.A.V. Variable volume	V.A.V. Variable volume
speed 0.3 m/s	speed 0.3 m/s	speed 0.3 m/s
33 - 500	44 - 662	55 - 824
V.A.V. ECONOMY variable	V.A.V. ECONOMY variable	V.A.V. ECONOMY variable
volume speed 0.5 m/s	volume speed 0.5 m/s	volume speed 0.5 m/s
20 - 300	26 - 397	33 - 494
V.A.V. ECONOMY variable	V.A.V. ECONOMY variable	V.A.V. ECONOMY variable
volume speed 0.3 m/s	volume speed 0.3 m/s	volume speed 0.3 m/s

AC3500	AC1000/AC2000	AC4000TS	WAC3500
YES	YES	YES	<b>NO</b>
Flow regulation	Flow regulation	Flow regulation	Flow regulation
YES (LED)	<b>YES</b>	<b>YES</b>	<b>YES</b>
Speed display	Speed display	Speed display	Speed display
<b>NO</b>	<b>OPTION</b>	<b>YES</b>	<b>NO</b>
Flow display	Flow display	Flow display	Flow display
<b>NO</b>	<b>NO</b>	YES	<b>NO</b>
Touch	Touch	Touch	Touch

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## ICP EN SUPERSTRUCTURE



### CLASS 1 IN PVC

### **CHARACTERISTICS**

Self-supporting hood construction thanks to its full-height sides. 1 sash with safety glass, Side walls blind, optional windows.

### **MATERIALS**

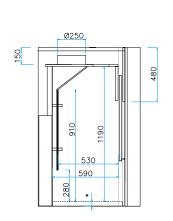
Internal covering: Polypropylene.

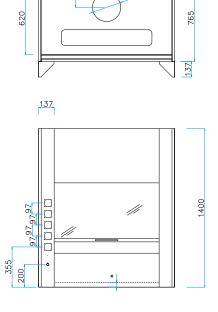
### **LEFT DEFLECTOR ELECTRICITY**

External sockets on the left side of the vertical support: 230V, 16A, IP 55.

Possibility of internal sockets: 230V, 16A, IP 56.
Thermal switch obligatory for internal electrical sockets.
Lighting LED outside the suction volume, 800 lux.
Optional motorised sash.







\*Top Thickness

### ICP EN SUPERSTRUCTURE CLASS 1 IN PVC



### **DIMENSIONS AND WEIGHTS**

WICP14P120EN	WICP14P150EN	WICP14P180EN
<b>Dimensions</b>	<b>Dimensions</b>	<b>Dimensions</b>
1200 W x 887 D x 1400 H mm	1500 W x 887 D x 1400 H mm	1800 W x 887 D x 1400 H mm
Useful dimensions	Useful dimensions	Useful dimensions
1150 W x 590 D x 1190 H mm	1450 W x 590 D x 1190 H mm	1750 W x 590 D x 1190 H mm
Weight without services Approximately 160 Kg	Weight without services Approximately 200 Kg	Weight without services Approximately 240 Kg

### NUMBER OF SUPPORTS FOR FIXING LATTICES Ø 12/13 mm

WICP14P120EN	WICP14P150EN	WICP14P180EN
4	6	6

### **CONSUMPTION / AIR FLOW**

V.A.V. response time containment: 0.5 /0.01 s/ppm. Pressure drop: pressure 50 Pa. Sash lock height 450 mm, ECONOMY sash lock height 300 mm.

WICP14P120EN	WICP14P150EN	WICP14P180EN
<b>750</b> Air flow rate (m³/hr) speed 0.5 m/s	<b>993</b> Air flow rate (m³/hr) speed 0.5 m/s	<b>1236</b> Air flow rate (m³/hr) speed 0.5 m/s
450 Air flow rate (m³/hr) speed 0.3 m/s	<b>595</b> Air flow rate (m³/hr) speed 0.3 m/s	<b>741</b> Air flow rate (m³/hr) speed 0.3 m/s
<b>33 - 750</b>	<b>44 - 993</b>	55 - 1236
V.A.V. Variable volume	V.A.V. Variable volume	V.A.V. Variable volume
speed 0.5 m/s	speed 0.5 m/s	speed 0.5 m/s
20 - 450	<b>26 - 595</b>	33 - 741
V.A.V. Variable volume	V.A.V. Variable volume	V.A.V. Variable volume
speed 0.3 m/s	speed 0.3 m/s	speed 0.3 m/s
33 - 500	44 - 662	55 - 824
V.A.V. ECONOMY variable	V.A.V. ECONOMY variable	V.A.V. ECONOMY variable
volume speed 0.5 m/s	volume speed 0.5 m/s	volume speed 0.5 m/s
20 - 300	26 - 397	33 - 494
V.A.V. ECONOMY variable	V.A.V. ECONOMY variable	V.A.V. ECONOMY variable
volume speed 0.3 m/s	volume speed 0.3 m/s	volume speed 0.3 m/s

AC3500	AC1000/AC2000	AC4000TS	WAC3500
<b>YES</b>	<b>YES</b> Flow regulation	YES	<b>NO</b>
Flow regulation		Flow regulation	Flow regulation
YES (LED)	<b>YES</b>	<b>YES</b>	<b>YES</b>
Speed display	Speed display	Speed display	Speed display
<b>NO</b>	<b>OPTION</b>	<b>YES</b>	<b>NO</b>
Flow display	Flow display	Flow display	Flow display
<b>NO</b>	<b>NO</b>	YES	<b>NO</b>
Touch	Touch	Touch	Touch

### **HOOD** SYSTEMS

The connection lines with the taps and delivery nozzles are made using hoses approved for pressure and flammable gases.

On request: lines in 3/8" copper pipe with capillary welding joints and/or with high-pressure fastlocking sleeves.

Lines in AISI 316 stainless steel pipe, for technical gases and demineralised water, single drawing,

pickled and dried in nitrogen stream, with high-pressure fast-locking sleeves.

PEH polyethylene evacuation pipes and traps; in HPDE (high density polyethylene) on request. The electric lines are made with G3 x  $1.5 \, \text{mm}^2$  cables for the fluorescent lamp with IP65 protection rating.

 $G3 \times 2.5 \text{ mm}^2$  cable for powering the IP 65 electrical sockets.

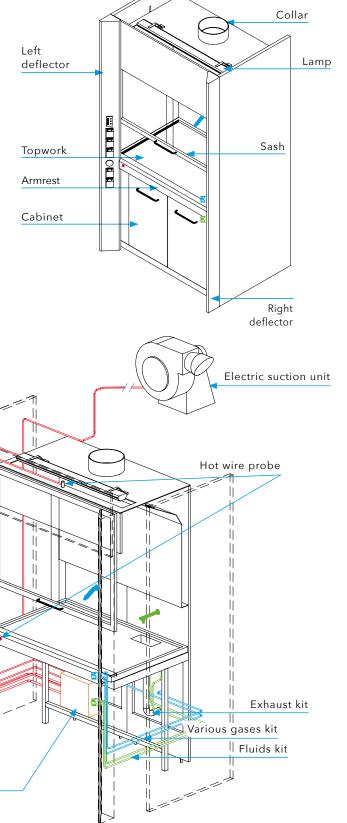
 $G3/4 \times 2.5 \text{ mm}^2$  cable for electric extractor (shielded if with inverter).

Alarm device

Sockets

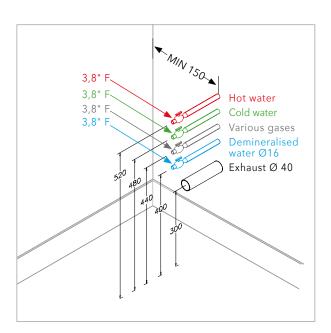
Supply box





### PIPING SETUP



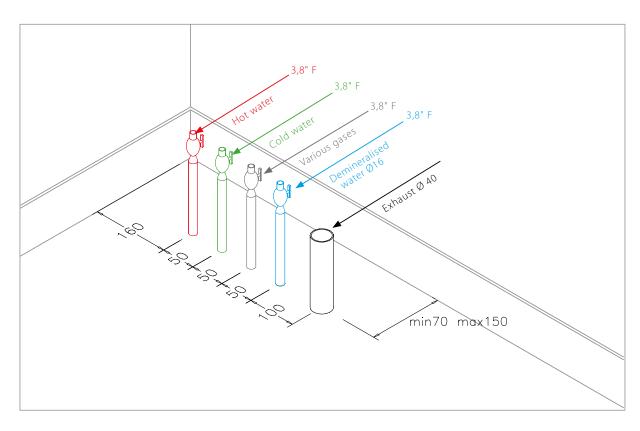


On this page we provide some tips on how to set up connections in your laboratory.

The supply pipes can be made of drawn "Mannesmann" galvanised steel and/or stainless steel according to the fluid. "Geberit" or "Nirlene" polyethylene exhaust pipes.

IP 55 sealed electrical box with G3 cables with 2.5 mm<sup>2</sup> section, for powering the sockets and single-phase control panel.

Our technical office is at your disposal to help you with the setup.





## **OPERATING**PRINCIPLE

### **AS**®

### **AIR FLOW**

The air flow, drawn by the fan external to the machine or by a centralised system, enters the working chamber through the front opening delimited by the screen and the worktop.

The air flows through the entire volume of the working chamber and is conveyed, thanks to the flow recovery mechanisms, up to the expulsion connection on the roof of the hood. The fumes are then expelled into the atmosphere, if present, through a filtration device.



The hood must always be equipped with an expulsion system for the fumes into the atmosphere. It is not appropriate to emit the fumes back inside the working environments, even if equipped with filtration systems.

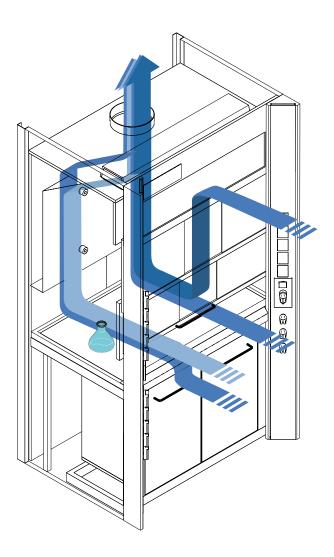
### **MAXIMUM SAFETY**

To ensure maximum safety during operation, the front screen must be kept as low as possible.

### **SMOOTH OPERATION**

Smooth operation of the system is linked to the correct design of the suction system.





## ADVICE ON

### HOODS POSITIONING

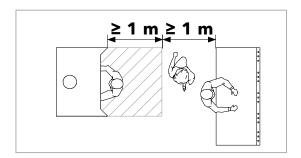


### **WORKING SPACES AND PASSAGES**

The correct and safe operation of the fume hood depends on the choice of a suitable place for positioning.

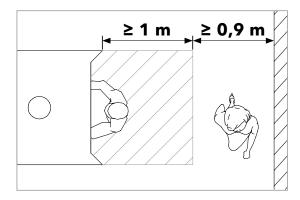
In accordance with the provisions of Standard CEN/TS 14175-5, point 4.2, without prejudice to the various provisions of the law on the subject, listed below are the recommended spaces between the fume hood and other elements of the building and/or other equipment present in the laboratory, to guarantee maximum safety and protection of the operator and efficiency of the work cycle.

The choice of position for a hood in the laboratory must take into account the risk of explosion and internal fire, evaluating all the relevant provisions of the law and the escape routes for the personnel present.



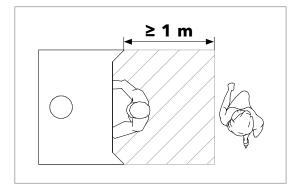
#### MINIMUM DISTANCE BETWEEN HOOD AND BENCH

The minimum distance between the hood and a laboratory bench must be at least 2 metres.



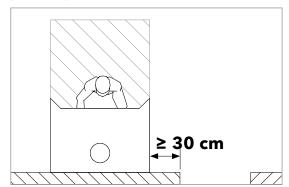
#### MINIMUM DISTANCE BETWEEN HOOD AND WALL

The minimum distance between the hood and a wall of the building must be at least 1.9 metres.



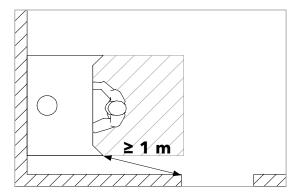
### MINIMUM DISTANCE BETWEEN HOOD AND PASSAGE ZONE

The minimum distance between the hood and the personnel passage zone must be at least 1 metre.



#### MINIMUM DISTANCE BETWEEN HOOD AND DOOR

The minimum distance between the hood and a door must be at least 30 cm to the side of the hood.



### MINIMUM DISTANCE BETWEEN HOOD AND DOOR

The minimum distance between the hood and a door must be at least 1 metre in front of the operator.

### **CORRECT USE** OF THE **FUME HOOD**



CORRECT USE AND PROPERLY TRAINED PERSONNEL HELP PREVENT AND AVOID MORE DANGEROUS SITUATIONS.

ADVICE AND RECOMMENDATIONS FOR BEST USE OF THE HOOD ARE USEFUL.

Nt is forbidden to use unsuitable electrical sockets (power strips, multipliers, etc.) inside the hood compartment. They cause the electrical contact to overheat and can lead to fires.

O not use the hood as:

• storage for chemical substances without adequate protection;

• a deposit for toxic substances without adequate protection;

• to dispose of chemical and/or toxic

Keep only the material strictly necessary for the experiment under the hood.

O not obstruct the passage of air along the hood worktop.

> When using equipment that clutters the worktop, you must:

- keep it raised at least 5 cm from the worktop;
- keep it away from the sides.

THE PRESENCE OF THE FUME **HOOD IN THE LABORATORY ALONE IS NOT SUFFICIENT TO GUARANTEE SAFETY** 



### **CORRECT USE**

### OF THE **FUME HOOD**



Do not enter the hood, for example with the head, for any reason.



The hood must be left in operation if:

- toxic chemicals and/or chemical substances are temporarily stored inside it;
- when you are not sure that the room's ventilation system is effective.



The hood must be located far from any source of air turbulence (doors, windows, ventilation systems, radiators, convectors, heaters, passing people, etc.).



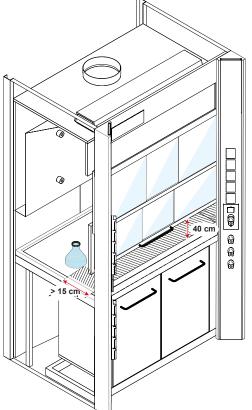
Before starting work, check that the hood is operating, for example with a handkerchief or a piece of paper.

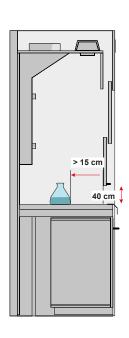


After introducing the material:

- lower the sash screen to at least c. 40 cm from the worktop so that the hood's operation suffers as little as possible from currents in the room;
- keep the horizontal sliding windows, if present, closed;
- keep emission sources (chemicals or equipment) at least 15-20 cm inside the hood to prevent the release of substances when environmental turbulence interferes with the suction.

It is advisable to mark the line on the hood's worktop.





## USEFUL ADVICE/ RECOMMENDATIONS



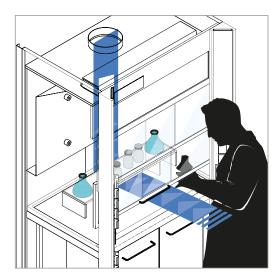
Here are some useful tips to ensure correct and efficient use of the hood. It is important to be aware of all the conditions to optimise its operation.

- 1 Turn on the hood before beginning the procedures;
- 2 The electric extractor must always be installed outside the laboratory, so that all the pipe portions inside the building are under vacuum;
- 3 Control the efficiency of the suction by measuring the nominal speed of the air entering the free section between the lower edge of the sliding panel frame and the work surface;
- 4 Keep the hood's vertical sash in the lowest possible position to allow work and extend arms inside the hood. When leaving the hood or not using it, keep the sash closed;
- 5 Keep the head vertical in front of the sash. The sash is the main protection in case of accidental explosion or liquid/gas leakage;
- 6 Do not put the head inside the hood to check the analysis process in progress;
- 7 Do not open and close the sash quickly. Avoid continuous movements near the hood. These movements can reduce the hood's suction efficiency;

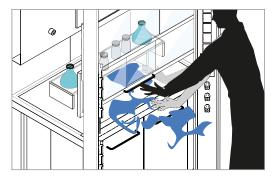
- 8 Emission sources must be at least 15-20 cm inside the hood.
  - It is recommended to mark the safe area on the surface of the worktop inside the hood;
- 9 Do not leave bottles or apparatus in the hood. Only the material which is currently in use and necessary must remain inside;
- 10 Try to separate and raise each piece of apparatus inside the hood, so that the airflow can easily pass through all the equipment;
- 11 If possible, do not use very large equipment inside the hood, because it can create dead spaces where the air flow can not pass. The hood's effectiveness will be compromised;
- 12 Do not modify the structure of the hood in any way; these operations can adversely affect performance;
- **13** The hood must never be used to dispose of toxic products.

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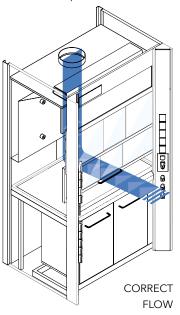
# USEFUL ADVICE/RECOMMENDATIONS

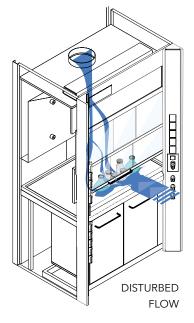


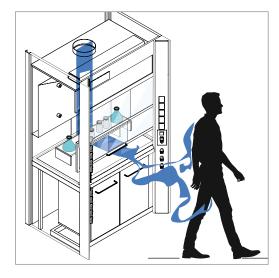
The position of the operator in front of the hood greatly influences the hood's suction capacity.



Avoid sudden movements inside the suction chamber, as these disturb the air flows and can cause the fumes to escape from the hood.

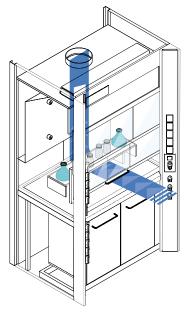




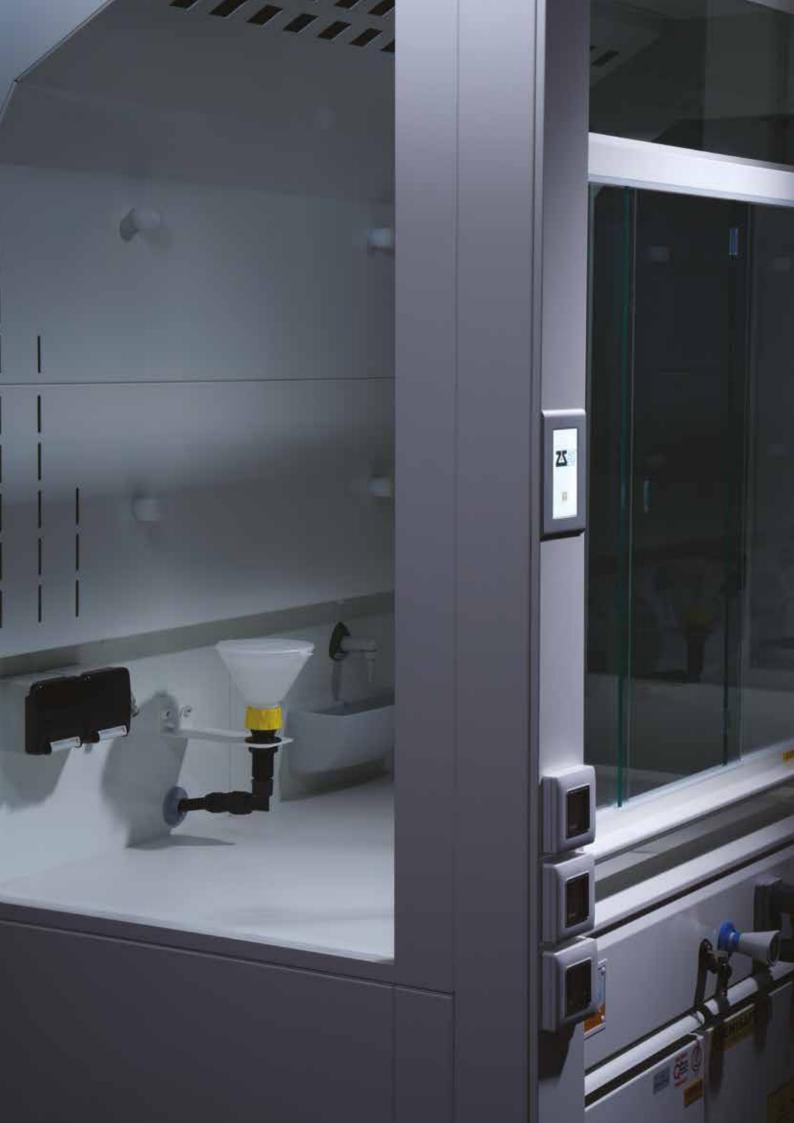


Moving continuously causes a continuous variation in the directionality of the air flows.

The passage of other people near the hood disturbs the air flows and their containment.



For positioning small accessories (bottles, glasses, containers, etc.) inside the hood, use a raised rack that allows air to pass through and does not disturb the flow.



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March 2024



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