

HEALTHY **APARTMENT** CONCEPT



OUR MISSION

Creating healthy spaces



Paul Renson

"RENSON® specialises in ventilation, sun protection and outdoor. With experience dating back to 1909, and an integrated team of more than 1000 employees, we develop systems and solutions which provide consumers with a healthy and comfortable living and working environment, also taking into account energy efficiency and the use of renewable energy. We develop innovative products and systems, and offer total solutions to make every house into a healthy and comfortable home.

"We also appreciate the aesthetic values of every building, allowing our sun control and ventilation systems to be incorporated invisibly into your home. Our outdoor coverings and aluminium blades for covering façades provide clear accents, offering added value to the architecture. Inside, we ensure that doors are integrated invisibly with no conspicuous frames or visible joints."

Discover how Renson® products can optimise the comfort experience while guaranteeing a contemporary design.

"We develop innovative products and systems allowing for aesthetic integration in every building."

COMFORTABLE LIVING STARTS WITH **RENSON®**

Renson® is innovation with a clear vision: ensuring the occupant's health and comfort, whilst taking energy efficiency and the added value of aesthetics into consideration.

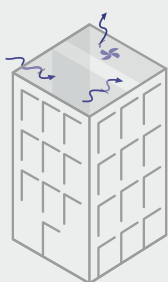
The continuous supply of fresh air and the extraction of contaminated air through a demand-driven ventilation system enable you to breathe healthy air at all times.

Intensive ventilation and exterior window blinds allow the warmth of the sun to enter when required, but prevent unnecessary cooling costs on warmer days.

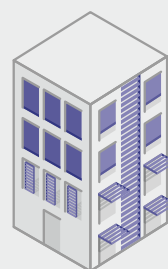
The outdoor coverings ensure a pleasant ambiance so you can live outside throughout the year, without any hindrance from excessive sun, rain, wind or cold.

Whether you want something eye-catching ... or not: aluminium blades provide striking facades with straight continuous lines. The ventilation and sunscreen systems are hardly noticeable from the inside, while invisible door systems ensure that closed doors and walls appear as one, without any disruptive frames and hinges.

HEALTHY INDOOR AIR QUALITY



CONTROLLED INDOOR CLIMATE



Ventilation

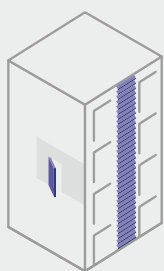
Solar control



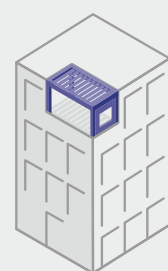
**Cladding
& interior**

**Outdoor
concepts**

ARCHITECTURAL UNITY



CONTROLLED OUTDOOR CLIMATE





A beautiful view, maximum comfort, attractive design, etc., all in modern apartment buildings; these are the aspects that appeal to occupants.

But obviously apartments, like single-family homes, also have to satisfy the stringent Energy Performance of Buildings Directive (EPB). Improved insulation and air-tightness make an apartment more energy efficient. However, we also have to think of the health and comfort of the occupants. Good ventilation all the time, a cosy warmth during the winter, and the prevention of overheating in warmer months ensure a healthy indoor climate.

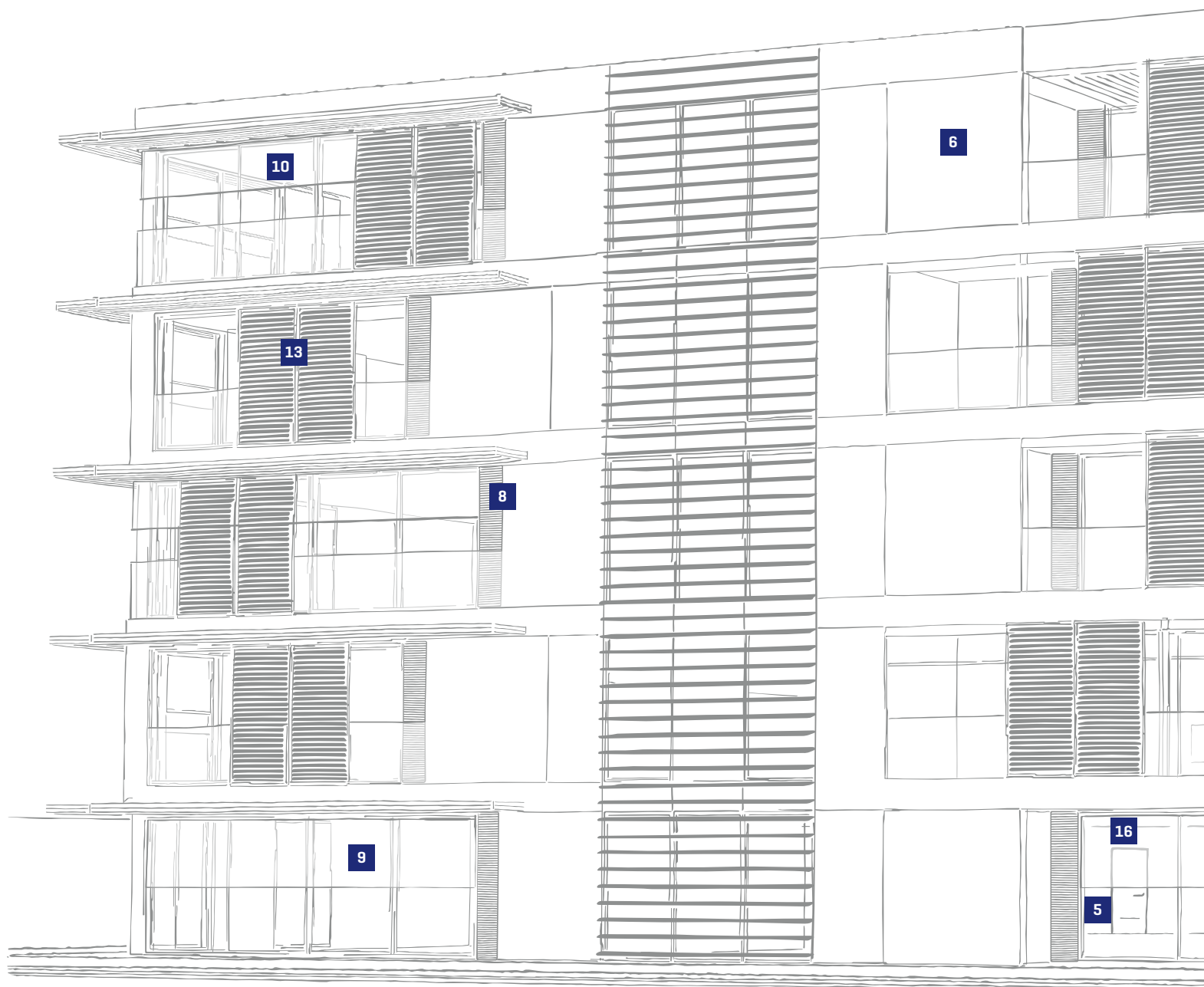
In this connection, technical building facilities such as heating, plumbing, ventilation and sun protection play an important role. They constitute the heart of the apartment. Since, in most cases, all these technical facilities are centrally controlled - in other words, the controls are not in the hands of the occupants of the various apartments - they are often forgotten.

The RENSON® Healthy Apartment Concept (HAC) offers innovative ventilation and sun protection systems that also make an energy-efficient apartment healthy and comfortable - with due attention to design aspects as well.

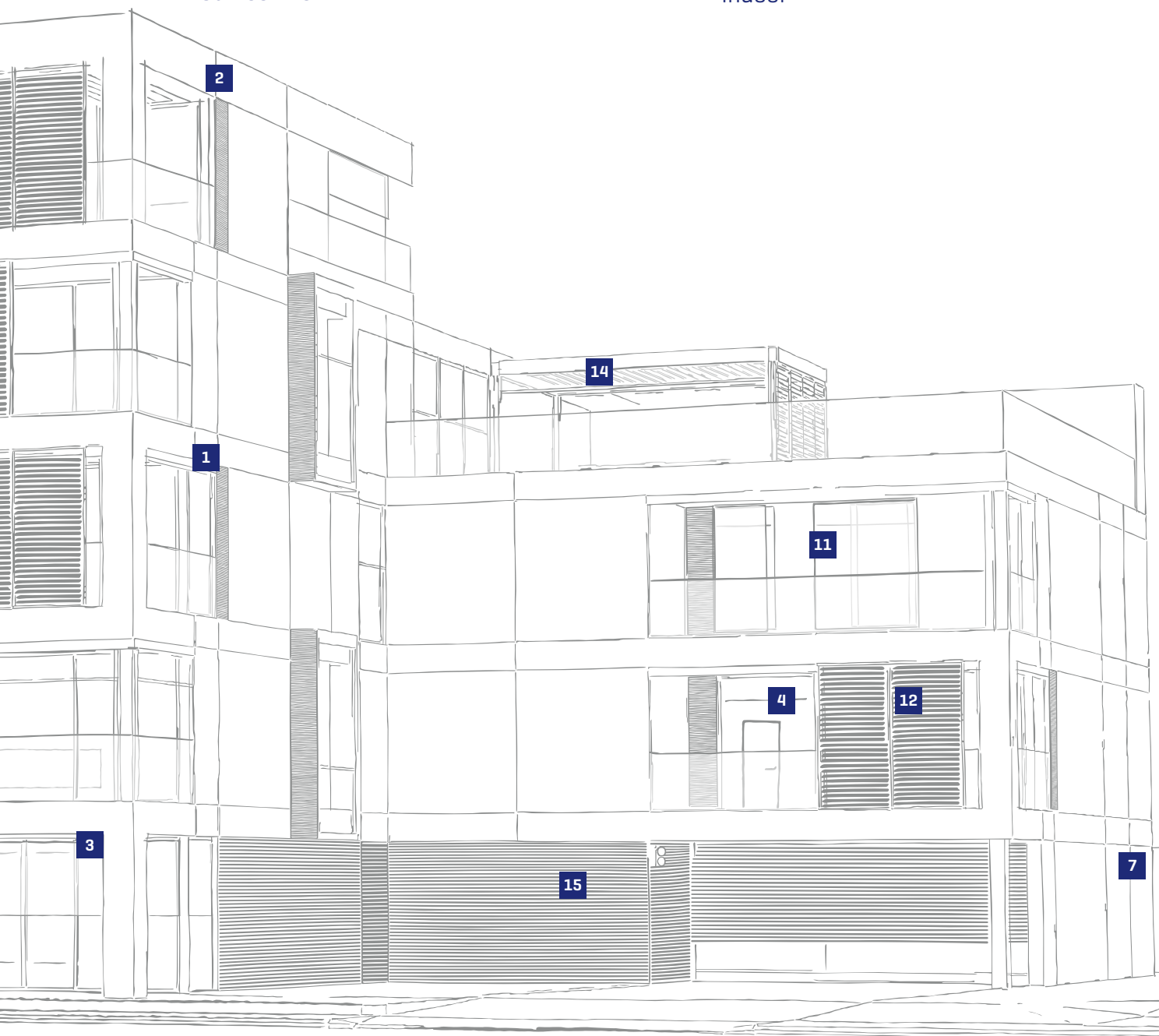


OUR SOLUTIONS

- | | | |
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WHY VENTILATE?

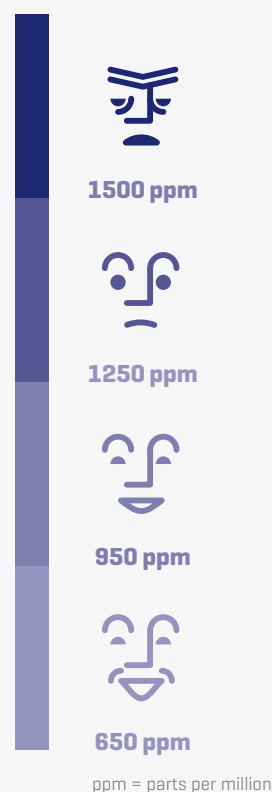
A house is alive. Its occupants pollute the indoor air by breathing and sweating. However, their activities [cooking, showering, heating, smoking etc.] as well as the house itself [volatile organic compounds such as formaldehyde and terpenes] also contribute to inferior air quality. High levels of insulation and insufficient ventilation produce musty, polluted air and create a breeding ground for annoying moulds, viruses and bacteria. Fluid accumulation, CO₂ and high concentrations of dangerous gasses [such as radon] are also among the risks.

In the long term, a poor indoor climate can damage the health of the occupants. Respiratory problems, a dry throat, eye irritation, headaches, allergies, loss of concentration, low energy or sleepiness are only some of the possible effects. That is why it is extremely important to ventilate thoroughly and regularly.

GOOD FOR THE OCCUPANT AND THE HOUSE

Many people are convinced it is necessary to open the windows from time to time to allow fresh air coming in. However, the impact is temporary and local. Moreover, ventilating with open windows is not controlled, which results in a loss of precious energy. Open windows are also associated with noise and are an invitation for burglars and annoying insects.

Demand controlled ventilation is your only guarantee of an efficient and healthy indoor air quality.

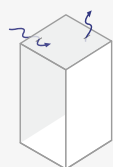


NATURAL VENTILATION: A HEALTHY AND ENERGY-EFFICIENT CHOICE

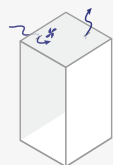
A ventilation system with natural fresh air supply has many benefits. It is a healthy choice first and foremost because the fresh air is supplied directly. This also saves energy immediately, because a natural flow of fresh air means no energy is required. Thanks to its simplicity in design, the system is also particularly maintenance-friendly.

THE DIFFERENT VENTILATION SYSTEMS

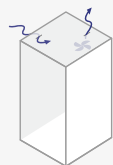
Ventilation standards NBN D50-001 and NEN 1087/8088 define 4 systems: A, B, C and D



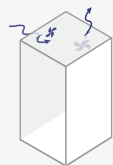
System A: Natural supply,
natural extraction



System B: Mechanical supply,
natural extraction

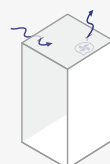


System C: Natural supply,
mechanical extraction [MEV]



System D: Mechanical supply,
mechanical extraction [MVHR]

In addition to these systems, RENSON® introduces demand-controlled ventilation called **System C+^{®EVO}** and system **E+[®]**



System C+^{®EVO}: Natural supply,
demand-controlled mechanical
extraction [DCV]



HIGHER ENERGY EFFICIENCY PER APARTMENT

The healthy indoor climate requirement applies to houses as well as apartment buildings. An apartment requires healthy ventilation to the same extent as a house.

Due to their stacked form, apartments have a structural advantage over individual houses; they are surrounded by other apartments and thereby have far fewer surfaces along which heat can escape.

Thus it may be concluded that in comparison to individual homes, the heat loss through basic ventilation in an apartment is a relatively higher component of the total heat loss [see diagram].

The energy-efficient operation of the basic ventilation will have a greater impact in an apartment than in a house.

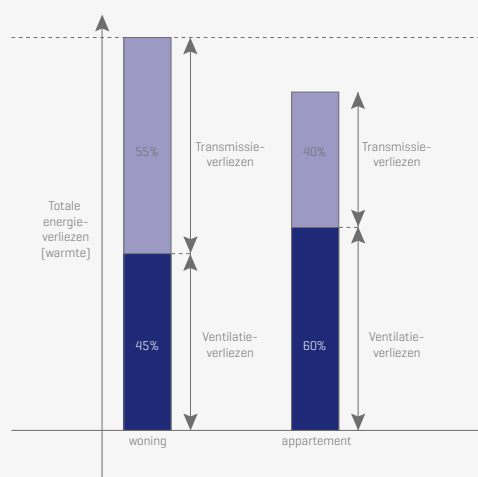
The apartment becomes more energy efficient by applying demand-controlled basic ventilation.



Average
6 loss surfaces.



Average
2 loss surfaces.



HEALTHY **APARTMENT** CONCEPT

STRUCTURAL SUN PROTECTION



Sunclips®

NATURAL VENTILATION SUPPLY



Invisivent® EVO [AK/HR]

INTENSIVE VENTILATION



MECHANICAL VENTILATION EXTRACTION



Healthbox® 3.0



Design grill



SUN PROTECTION SCREEN



Fixscreen® 100^{EVO} SLIM F



Fixscreen® Mono AK ^{EVO}

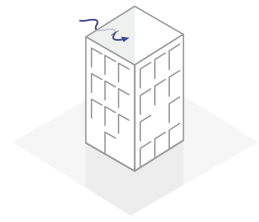
NATURAL VENTILATION SUPPLY & SUN PROTECTION SCREEN



Fixvent® Mono AK ^{EVO}



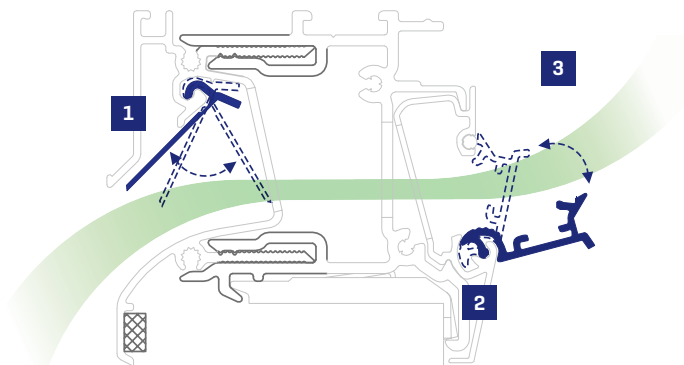
VENTILATION: SUPPLY/TRANSIT/EXTRACTION



I-FLUX® TECHNOLOGY



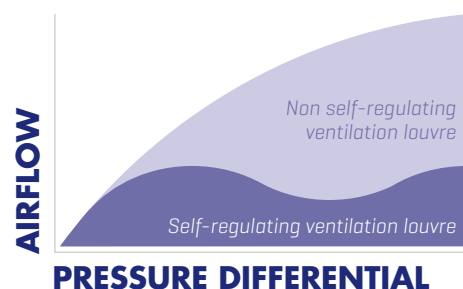
Thanks to the application of i-Flux technology, Renson® can guarantee maximum comfort with minimum energy loss. i-Flux technology is based on the following three principles:



1. Self-regulating: a self-regulating flap reacts to changes in pressure, ensuring a constant air-flow, that prevents draughts even with windgusts.

2. Manually controlled inner flap: the required air flow can be determined depending for example on the occupancy in the room.

3. Upward air flow: the shape of the inner flap conducts the fresh air upwards resulting in optimal distribution throughout the space and guaranteeing maximum comfort.



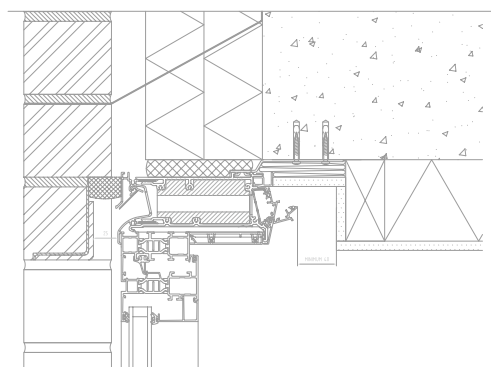


Invisivent® EVO

INVISIVENT^{®EVO} & INVISIVENT^{®EVO} AK

Natural air supply

This supply window ventilator can be incorporated almost invisibly above the window guaranteeing a maximum inlet of natural light and a stylish finish. To keep unwanted noise out of houses on a busy environment or of bedrooms you can also opt for the acoustic version, the Invisivent^{EVO} AK.



BENEFITS

- ⊕ Healthy and natural ventilation
- ⊕ Draught-free thanks to self-regulating flap
- ⊕ Discrete positioning
- ⊕ Burglar proof
- ⊕ Rain- and insect repellent
- ⊕ Maintenance-friendly



ACOUSTICS

Noise pollution can have a serious impact on the human environment. Opt during the design phase of the house for an Invisivent^{EVO} AK or a Fixvent Mono AK^{EVO} with integrated sunscreen. Thanks to acoustic module AKR33, one can easily upgrade a previously installed Invisivent^{EVO} acoustically.



Invisivent® EVO HR



INVISIVENT®^{EVO} HR

The most discreet, self-regulating and acoustic window vent for wind-impacted applications.

The Invisivent^{EVO} HR is a sound damping, self-regulating and thermally broken window vent that has been specially developed for wind-impacted applications such as high-rise buildings and apartment buildings on the coast. The Invisivent^{EVO} HR contains acoustic material that muffles external noises to the extent possible (for example, wind, seagulls, traffic), thereby increasing user comfort. The presence of various types of sound-damping foam in the inside profile provides 3 possible levels of sound insulation:

- Invisivent^{EVO} HR Basic:
34 [0;-1] dB sound reduction in the open position
- Invisivent^{EVO} HR High:
39 [0;-1] dB sound reduction in the open position
- Invisivent^{EVO} HR Ultra:
42 [0;-2] dB sound reduction in the open position

In addition to that, the rain cap, which is mounted as a standard feature, ensures perfect water-resistance even under the most extreme conditions. Extra mounting screws and clips guarantee satisfactory stability and sturdiness of the entire window.

The unique Invisivent^{EVO} HR combines its functionality with maximum respect for the architecture since it can be positioned on the window frame, behind the wall.

The Invisivent^{EVO}AK is tested and approved for water repellence up to 900 Pa. Tests of up to 1200 Pa were carried out for the Invisivent^{EVO} HR.



BENEFITS

- ⊕ **Perfect solution for wind-impacted applications**
- ⊕ **Equipped with rain cap as standard that ensures perfect waterproofing**
- ⊕ **Discreet, since it is almost invisible**
- ⊕ **Energy efficient due to self-regulating valve**
- ⊕ **Draught-free, thanks to interior flap that ensures upward air flow**
- ⊕ **Acoustic damping for various sound levels**
- ⊕ **Replaceable acoustic foam**

Fixvent® Mono AK^{EVO}



FIXVENT® MONO AK^{EVO}

Discrete ventilation, sun control, acoustic comfort and insect screen in one

In addition to providing sun control, the Fixvent Mono AK^{EVO} also ensures ventilation and draught-protection thanks to the self-regulating flap which regulates the supply of fresh air. Wind resistance up to 130 km/h in closed position is guaranteed with the Fixscreen technology. Moreover, the screen can be used as an insect screen when closed.



BENEFITS

- ⊕ Integrated ventilation & sun control
- ⊕ High level of acoustic and thermal comfort
- ⊕ Draught-free thanks to self-regulating flap
- ⊕ Darken at the touch of a button [optionally with Light-block]



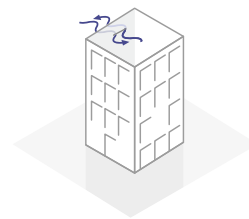
AIR TIGHTNESS

The air tightness of the house is demonstrated by the Blowerdoor test. This allows you to calculate air loss at a pressure differential of 50 Pa. The low leak flow of the Renson® window ventilators are measured according to EN1026 and are not decisive for the result of the blower door test.



Endura® Twist

VENTILATION: SUPPLY/TRANSIT/EXTRACTION



DEMAND-CONTROLLED* DECENTRAL MECHANICAL VENTILATION WITH HEAT RECOVERY

ENDURA® TWIST

The Endura Twist is a decentral mechanical ventilation with heat recovery which stores the heat of the indoor air in its regenerators. As the fans turn every 30 seconds, the regenerators pass the stored heat to the fresh incoming air, creating a pleasant preheated air being blown into the room.

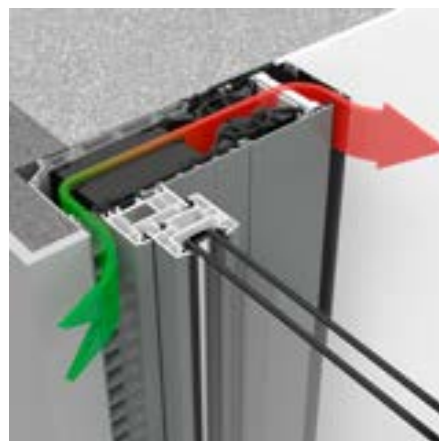
Due to the continuous cyclic operation of the alternating fans, which ensures a **constant air supply and air extraction**, the customer can enjoy an optimal air quality at any time. The quick installation without ducts and easy maintenance make the Endura Twist ideal for both **new-builds** as **renovations**.

Thanks to its **innovative twisting technology**, the economical and highly efficient Endura Twist can boast with a thermal efficiency up to 81%.

Available for both **horizontal** installation (on top of the window profile) and **vertical** installation (perfectly combinable with screens/ roller shutters)



Endura Twist horizontally



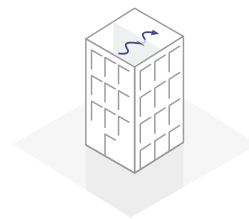
Endura Twist vertically

* with TouchDisplay with CO₂-sensor



Invisido®

VENTILATION: SUPPLY/**TRANSIT**/EXTRACTION



INVISIDO®

Discrete transit above the door

Invisido is a discrete door grille, almost invisible. Because this grille is mounted on top of the door, an aesthetically disruptive opening beneath the door is no longer required. The unique design blocks see through and guarantees sufficient air transit from one room to another.



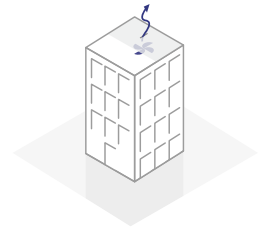
BENEFITS

- ⊕ Discrete - fully integrated
- ⊕ No see through
- ⊕ Suitable for all door thicknesses from 35 mm
- ⊕ Suits every interior
- ⊕ Guaranteed air flow - 25 m³/h
- ⊕ Sound reducing - 28 dB
- ⊕ Draught-free



Designgitter

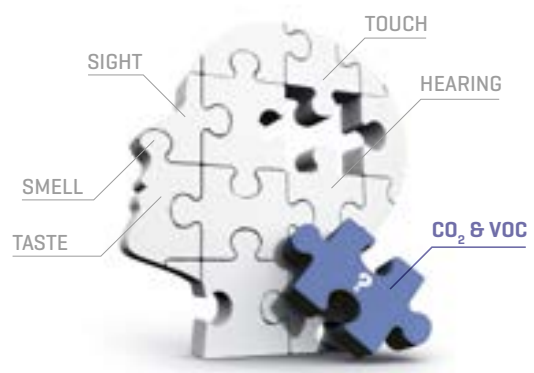
VENTILATION: SUPPLY/TRANSIT/EXTRACTION



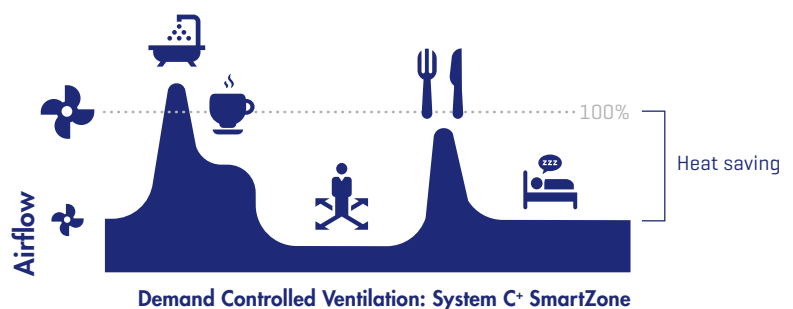
THE IMPORTANCE OF DEMAND-CONTROLLED VENTILATION

Correct ventilation is required to achieve optimum indoor air quality. It is important to extract polluted air from rooms and ensure it is replaced with fresh air.

People themselves are not able to detect changes in air quality. So we can't detect when certain concentrations of CO₂ or VOC become too high. We therefore can't expect the occupants of a house to assess how much ventilation is required to achieve a healthy indoor air quality.



That is why it is important for the level of ventilation to be adapted automatically to the ventilation needs. The ventilation level can be automatically adapted to anticipate the different phases of the day using integrated, intelligent sensors in the central demand-controlled ventilation unit. This automatic adaptation saves 30 to 50% of energy as compared with a permanent ventilation flow.





< 90 cm >

DEMAND-CONTROLLED MECHANICAL VENTILATION

HEALTHBOX® 3.0

Demand-controlled ventilation

Healthbox 3.0 screens air quality 24 hours a day for CO₂ or humidity and/or VOCs (odour) for each room connected. The extraction flow rate is adjusted fully automatically depending on the measured air quality by means of demand control. If the quality of the air in the room is good, then the extraction of air from that room will be reduced (temporarily). This provides maximum comfort and maximum energy savings.

SmartZone technology

Up to 11 rooms can be connected to Healthbox 3.0. With a SmartZone configuration, in addition to extracting air from wet rooms, air is also extracted from dry rooms, such as bedrooms. Optimal air quality with low CO₂ concentration guarantees a healthy night's sleep after all.

SmartConnect

The integrated SmartConnect links Healthbox 3.0 to the digital world. Healthbox 3.0 can provide interaction with the user in this way [via the app] and with other smart devices in the Smart Home [in order to experience enhanced overall comfort].

TRY DEMO

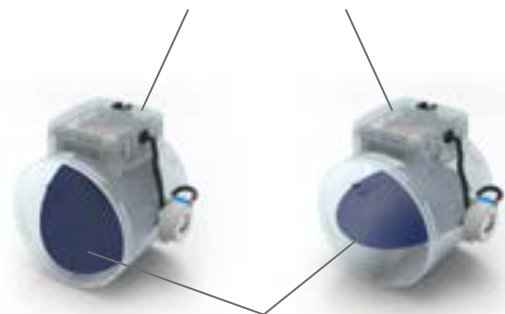


Interactive app gives occupant a 24/7 overview of indoor air quality



Control valve

Humidity or/and VOC or CO₂ sensor



The vane controls the ventilation level



BREEZE-FUNCTION

If there is a high demand for cooling, for example in summer, the Breeze function switches demand control off, so that the ventilation capability can be used to best effect.



Design grille

EASYFLEX®

Flexible duct system

Easyflex is a semi-rigid, corrugated air duct made out of polyethylene with an external diameter of 140 x 64 mm and an equivalent inner diameter of 90 mm. The smooth inner surface of the double walled air duct is treated with antistatic and antibacterial additives to prevent dust accumulation and bacteria outbreaks.

The limited height of the Easyflex air duct allows it to be installed easily into false walls/ceilings, in concrete or screed. A high air flow combined with a low air speed guarantees a silent air duct system.



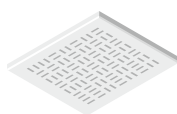
BENEFITS

- ⊕ **Flexible duct system**
- ⊕ **Large air flows at low air speeds**
- ⊕ **Compact and easily installed into false walls/ceilings, in concrete or screed.**
- ⊕ **Treated with antistatic and antibacterial additives**
- ⊕ **High acoustic comfort**
- ⊕ **Airtightness D (top class)**

ALUMINIUM DESIGN GRILLES FOR EXTRACTION

These aluminium design grilles have been developed for installation in or on the ceiling (or wall), for plasters, plasterboards or MDF surfaces. These grilles are available in RAL 9010 matt (white) as standard but can be recoated in other colours. With a choice of 6 different designs, they can be combined to suit every style of decoration. The grilles come

with a connection for a diameter of 80 or 125 mm. Design grilles have no damper control blades and are therefore noiseless; the central ventilation unit is responsible for regulation. The design grilles can therefore always be perfectly cleaned without disrupting the ventilation system.



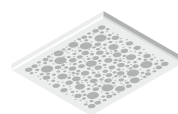
Deco



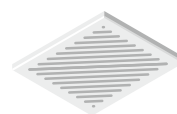
Puro



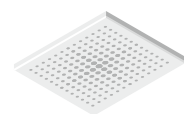
Square



Aqua



Diagonal



Artist



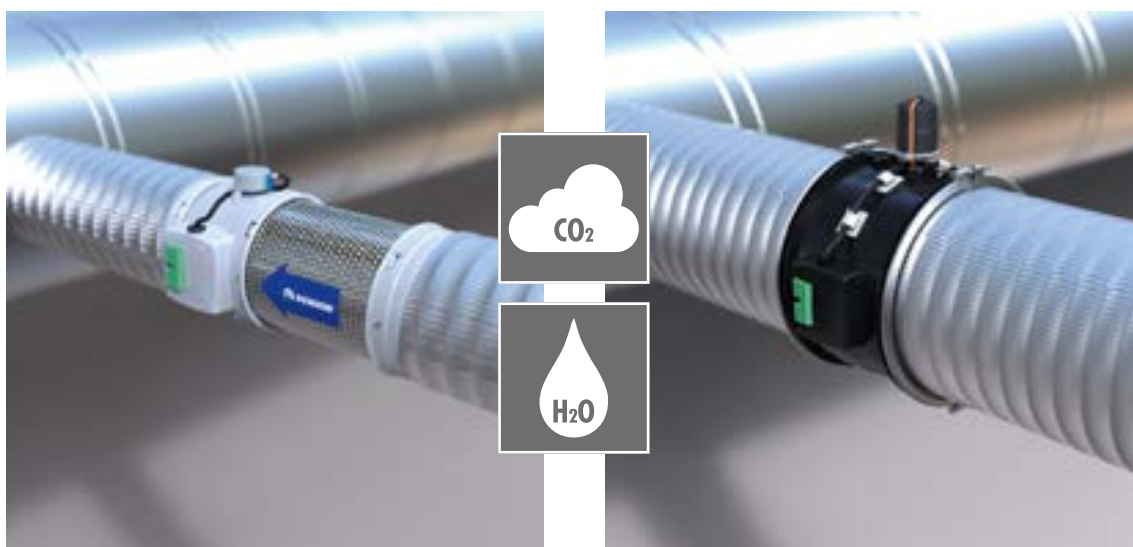
CENTRAL EXTRACTION HEALTHCONNECTOR®

Demand-controlled mechanical ventilation based on CO₂ and H₂O combined with a central pressure-controlled ventilator

For new buildings or in case of major renovations, it is important to ensure the achievement of a sound, energy efficient, but at the same time, efficient extraction of contaminated indoor air as well.

The Renson® Healthconnector is an extraction valve that is controlled based on CO₂ and air humidity. This ensures that good air quality is always present in the rooms at all times.

Integrating the Healthconnector into an [existing] duct system.



BENEFITS

- ⊕ Demand-controlled extraction according to CO₂ and H₂O
- ⊕ Maintenance friendly
- ⊕ Self-selection of ppm level

Demand-controlled mechanical ventilation

It is important to focus attention on achieving energy efficiency and efficient extraction of the polluted air in healthcare facilities. The demand-controlled ventilation via the Healthconnector offers a solution in this regard.

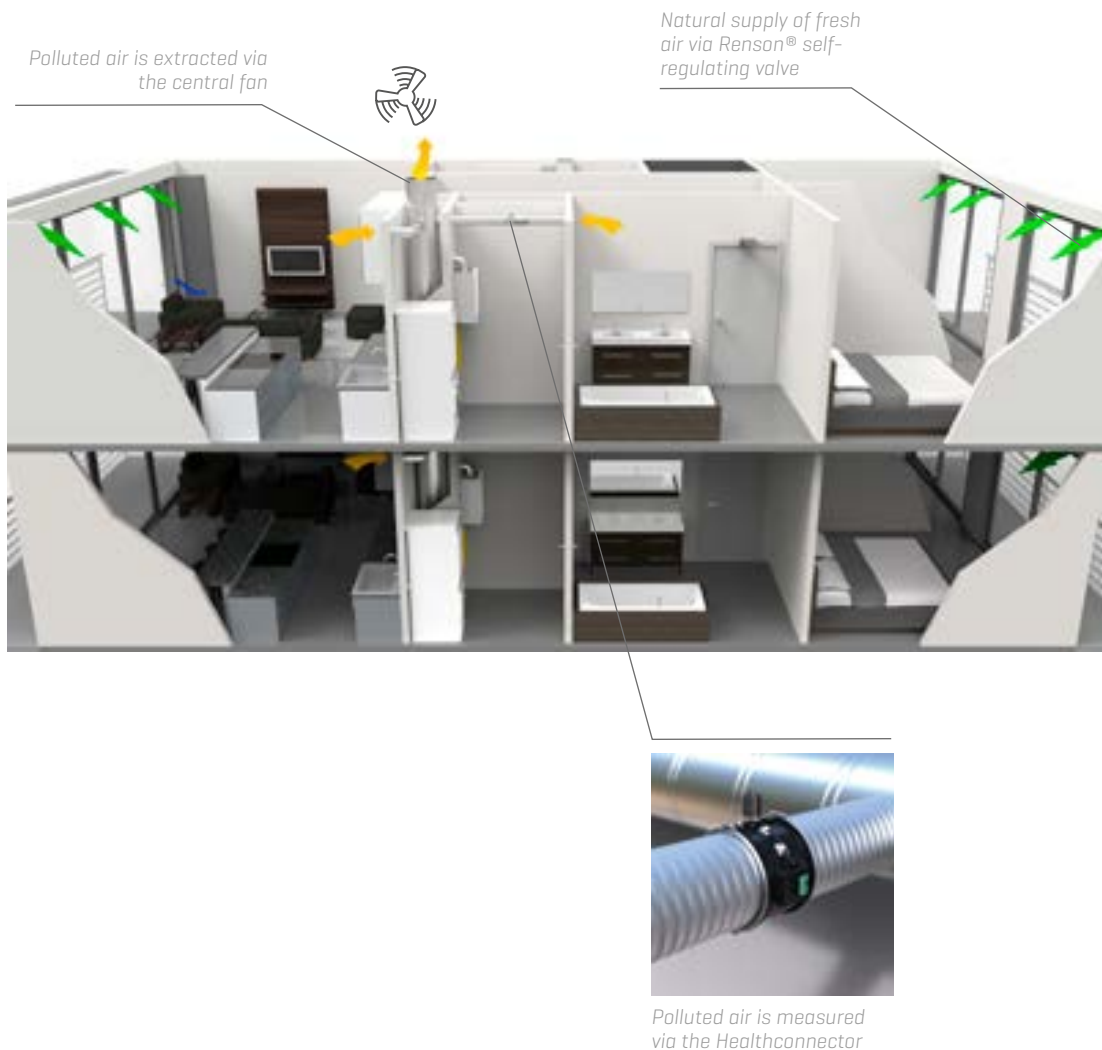
Demand-controlled ventilation with the Healthconnector ensures:

- good air quality with guaranteed comfort feeling
- heat saving
- less noise, since the central fan runs at a lower power

With demand-controlled ventilation with the Healthconnector, the CO₂ and moisture limit levels in a room are not exceeded.

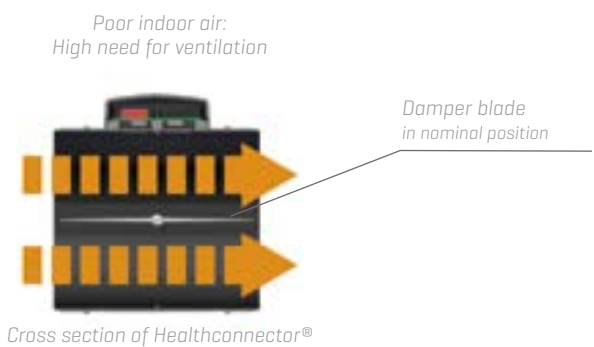
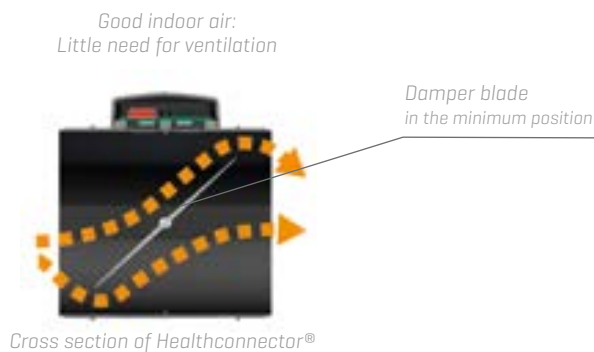
Air control class CO₂ detection

Control of air quality via CO₂ detection as is done by Healthconnector is classified under the best air control class IDA-C6 of the European standard ventilation for non-residential buildings (NBN EN 13779).



Working of the Healthconnector®

The Healthconnector is an autonomous precision control valve, fitted with CO₂ and H₂O [relative humidity] air quality sensors. The sensors measure the indoor air quality in the air stream extracted from the room, 24 hrs/day. Based on the air quality measured, the damper blade is automatically placed in the appropriate position (with a stepper motor). Thus the extraction flow is determined in an intelligent manner according to the indoor air quality measured.



Comprehensive applications

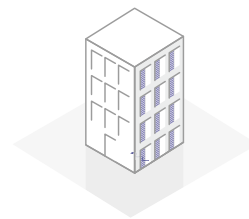
- Renson® motorised natural supply**
 Air supply and extraction can be adjusted to each other. If the indoor air is of sufficiently good quality, the air supply as well as extraction can be reduced [energy-efficient].
- Link to building management system [GBS]**
 The Master Healthconnector can be controlled via an [external] building management system [0-10 V] in order to adjust the ventilation rate by adjusting the Healthconnector according to the logic of the building management system.
- Demand-controlled ventilation system with heat recovery**
 If a ventilation system with heat recovery [System D] is supplemented with a Healthconnector Master/Slave combination, this results in a demand-controlled ventilation system with heat recovery.



Ventilative Cooling



VENTILATION: VENTILATIVE COOLING



WHY CHOOSE VENTILATIVE COOLING?

Ventilative cooling, also known as “nightcooling,” is the principle where cooler outside air is used to naturally cool down the apartment.

With ventilative cooling, large natural air flows are conducted into the house via louvres. This air circulation extracts warm air thus cooling the house. The night coolness is stored in thermal mass of the house and is released during the day, creating a pleasant indoor climate. And this is all completely free of charge. To use nightcooling in a house, one or more louvres are located outside the window. Ventilative cooling requires high air flows.

That is the reason for selecting louvres with a large air throughput, which also ventilate reliably. The louvres are water and insect proof thanks to the design of the blades and integrated insect screen. This allows the windows to be open at night in order to cool the room. In new buildings, nightcooling is built into the design of the house. In existing houses a louvre can simply be installed in front of each opening window.



Louvre type 431

This surface mounted louvre ensures secure ventilation of your home.



Louvre type 432

To ensure increased light inflow in winter, and for temporary removal, the Renson® louvre is simply removable. The louvre is fixed from the inside to ensure risk-free ventilation.



Louvre type 424RC2 (WK2)

For extra secure ventilation, a burglar proof louvre is used for ventilative cooling.

WHY SUN CONTROL?

Saving energy is one of the key challenges in new construction and renovation. Windows play a vital role in this process.

COMFORT TAILORED TO EACH SEASON

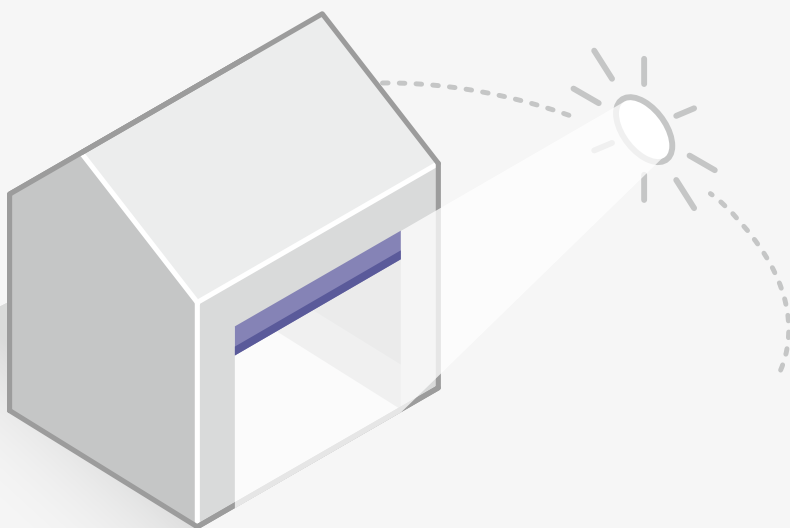
Large glass panels are frequently chosen in contemporary architecture. Today's high-performance glazing ensures good insulation and plenty of natural daylight guarantees optimal energy consumption and increased comfort in the home. Artificial, energy-intensive light does not suit pleasant, bright living spaces. During the winter months, a low sun also ensures pleasant warmth in the house, which means there is less need to use heating.

Everyone knows however that the sun can also influence the indoor climate less positively. Excessive sunlight can cause overheating, disruptive reflections on screens and discoloration of the furniture and decor.

An efficient outdoor sunscreen - sun control blades for the frame, brise-soleil above the window, sliding panels and wind-resistant screens - enables the occupants to enjoy the sun at any time of the day. These systems stop the sun rays from heating the indoor air, without disturbing the view of the garden.

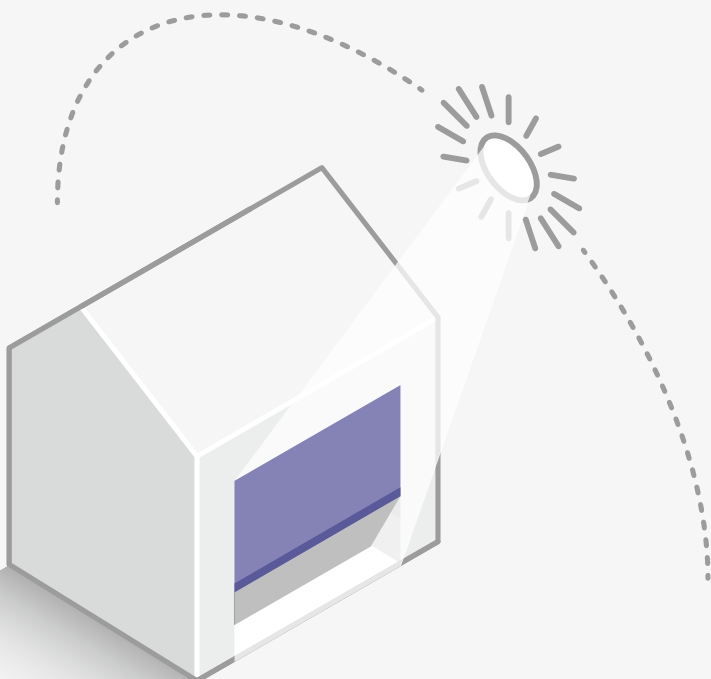
Dynamic outdoor sunscreen provides extra efficiency by keeping out the excess sun when necessary but still be able to enjoy the pleasant solar gains in the winter.

"Outside sun control, guaranteeing comfort at 3 levels: thermal comfort, visual comfort and aesthetic comfort."



Winter

When there is a low-lying sun it is important to maximise solar gains (warmth and light) to increase comfort and limit energy loss.



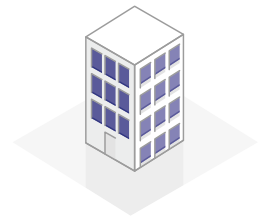
Summer

When the sun is high in the sky it is necessary to limit solar gains using an efficient outdoor sunscreen. The application of screens and awnings avoids energy-wasting cooling and limits disruptive reflections without losing the view of the garden.



Fixscreen®

SUN CONTROL: SUNSCREEN



WHY CHOOSE SUNSCREEN/EXTERNAL BLINDS?

Design

Renson® emphasises on design. With a large range of colours for the fabric and aluminium components, discrete integration into the façade and wrinkle-free fabric, the sunscreen/external blind is seamlessly integrated into your home. Dimensions up to 6m width or 6m height are possible [up to 22 m²].

Comfort

Sunscreens/external blinds not only ensure a comfortable indoor climate, they also prevent annoying reflections or glare, without disturbing the view of outside. The sunscreen can be fully automated for maximum comfort. This enables you to maintain an optimal temperature.

Sustainability

Thanks to the Fixscreen technology, screens/external blinds can be operated even with wind resistance up to 130 km/h, which corresponds to a hurricane of 12 Beaufort.

Wind tunnel test:



Non-wind resistant
screen at 30 km/h



Fixscreen® at 130 km/h

Side guiding channel

*Durable PVC
innerrail fitted with
Smooth technology*

*Symmetrical zip
ensures high wind
resistance*

FIXSCREEN®

Thanks to the Fixscreen technology [combination of a symmetrical zip and a patented wear-resistant HPVC innerrail], the screens are windproof in any position. So, flapping and ripped screens are a thing of the past. Fixscreen is branded as Renson® ZipShade in Northern America.

The Fixscreen® is equipped with several patented technologies:



Connect&Go®

The unique *Connect&Go* plug ensures simple connection of the motor to the current. The empty box is assembled first, followed by the fabric. It is ideal for fast installation of heavy boxes [large dimensions]; it is also easy to replace the fabric [e.g. with other colour] or motor [e.g. switching a home automation system]. [Not in the US]



Smooth technology

Smooth technology is the innovative guidance system that ensures even better wind resistance and extremely smooth functioning.



Click&Safe®

In case of hidden installation, *Click&Safe* ensures safe installation of the fabric roller. When installing, simply click the fabric roll into the box allowing the installer to keep his hands free to complete the installation safely.



- 5 years product guarantee for normal household use and regular maintenance [with Panovista Max subject to a maintenance contract]
- 5 years guarantee on gloss level of aluminum profiles
- 5 years guarantee on electronic control [Somfy motorization & automation]
- 5 years guarantee on fabric collection [Crystal window 2 years guarantee] [Acryl Dickson 10 years guarantee]



- 7 years guarantee on the Fixscreen technology for Fixscreen, Topfix and Topfix VMS - zipper stays in side guiding channel - optimal attachment of zipper to fabric
- 5 years guarantee on the Fixscreen technology for Fixscreen Freestanding Topfix Max [F], Panovista [Max] and Slidefix



- 10 years guarantee on the coating of aluminium components



The headbox

The box profile is made of extruded aluminium profiles with sleek minimal lines.



Square design



Soft design

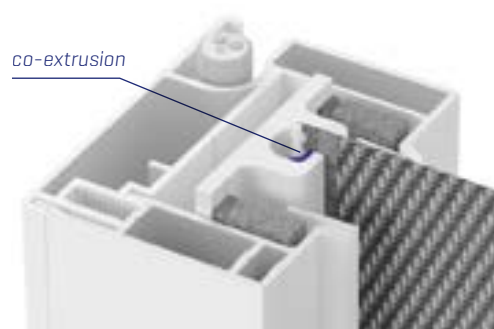
The bottom bar

The extruded aluminium bottom bar is weighted with galvanised steel to achieve optimum performance and fabric tension. For perfect sealing, the base bar is equipped with a uPVC sealing strip.



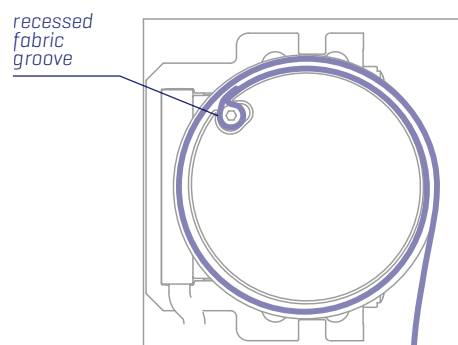
Side guiding channel including zip system

The side guiding and the coupling side guiding channel are made of extruded aluminium. No screws are visible at the front. The intelligent windproof HPVC-innerrail has a patented wear-resistant layer, Smooth technology. This guarantees extremely smooth, windproof operation.



The fabric roller tube

This fabric roller tube is equipped with a unique patented recessed fabric groove to limit compression of the fabric strip on the screen.



BENEFITS

- ⊕ Extremely wind-proof screen
- ⊕ Privacy
- ⊕ Light control
- ⊕ Heat and energy control

- ⊕ Insect repellent
- ⊕ Silent operation
- ⊕ Simple operation
- ⊕ Simple maintenance

- ⊕ Simple assembly
- ⊕ Large dimensions (up to 22 m²)
- ⊕ Joinable
- ⊕ Unspoilt outside view

Fixscreen® 100^{EVO} Slim Freestanding



FIXSCREEN® 100^{EVO} SLIM & 150^{EVO} FREESTANDING

Wind-resistant sun protection screens are ideal for your terrace

With the Fixscreen F (Freestanding), Renson® offers a sun protection solution for freestanding applications such as balconies, building extensions or terrace coverings. With the Fixscreen F, the sun protection screen is installed without an underlying window. This ensures extra protection and

shelter on the terrace or on the balcony. The Fixscreen F can be combined with crystal windows for a perfect view of the outside. These sun protection screens are available for a surface area of up to 16.8 m² with a maximum height of 2800 mm. The operation can be automatic depending on the sun or wind intensity.

Fixscreen® 100^{EVO} Slim Freestanding



Fixscreen® 150^{EVO} Freestanding



BENEFITS

- ⊕ Wind-resistant sun protection screen
- ⊕ 100% insect-proof in the closed position
- ⊕ The fabric (for example, new colour) and the motor can be replaced easily
- ⊕ No visible electrical cables through the cable channel for guides
- ⊕ Can be supplied with fibreglass fabric and insect screen



Fixscreen® Mono AK^{ev0}

FIXSCREEN® MONO AK^{EVO}

Acoustic comfort

The Fixscreen Mono AK^{EVO} ensures increased acoustic comfort thanks to sound reduction of at least 47 dB. This screen can be used on aluminium, wood, and PVC frames of depths from 50 up to and including 215 mm.

Fixvent & Fixscreen Mono AK^{EVO} are two new screen concepts, each with its own specific characteristics, nevertheless combining simply in the same living space with a single look and feel.

Fixscreen® Mono AK^{EVO}



Fixvent® Mono AK^{EVO}



BENEFITS

- ⊕ **High level of acoustic and thermal comfort**
- ⊕ **Simple replacement of fabric**
[Click&Safe]
- ⊕ **Windproof up to 130 km/h in closed position**
- ⊕ **Connectable up to 21 m²**
[with 2 motors]
- ⊕ **Darken at the touch of a button**
[optionally with Light-block]
- ⊕ **Insect repellent**



Panovista®

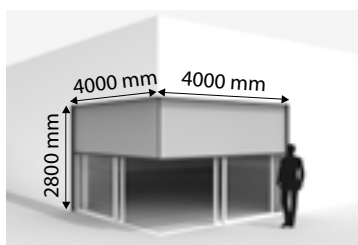
PANOVISTA® FOR GLASS-ON-GLASS CORNER WINDOWS

A new range of screens for glass-on-glass corner windows

'Invisible architecture' is a new trend highly compatible with the trend towards minimalism. The Panovista is Renson's perfect response to this development. This development is perfect for applications with glass-on-glass corner windows when there are no satisfactory solutions with conventional screens. Further, the Panovista can be integrated almost invisibly into the architecture of the building. There are no aluminium side guiding channels or cables in the corner.

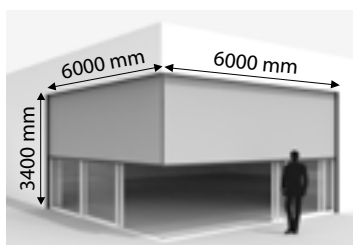
Two types of boxes:

- Panovista: maximum width of 4000 mm on each side with a maximum height of 2800 mm. Yearly maintenance is advised.
- Panovista Max: maximum width of 6000 mm on each side with a maximum height of 3400 mm for a maximum surface area of 30 m². Yearly maintenance is mandatory.



Max. total surf.: 22,4 m²

Panovista® [no middle zip]



Max. total surf.: 30 m²

Panovista® Max [with middle zip]



reddot design award
winner 2018



BENEFITS

- ⊕ The panoramic view towards the outside is unrestricted
- ⊕ The box and side guiding channels can be aesthetically hidden away
- ⊕ Simultaneous movement of the both sides with a single motor
- ⊕ The zip on the corner automatically zips the two fabrics together
- ⊕ Combines perfectly with other Renson® screens



Slidefix®

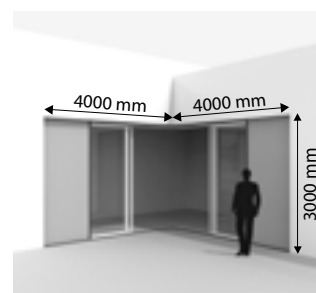
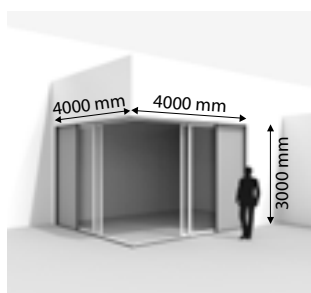
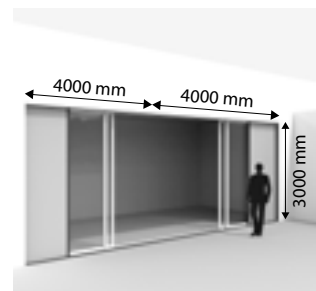
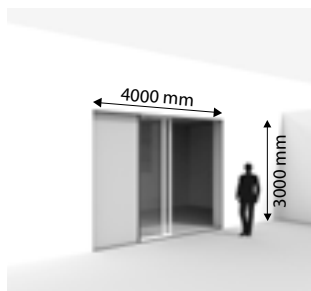
SLIDEFIX®

The first laterally opening sun protection slides

Renson's Slidefix is another response to the 'Invisible architecture' trend. This new development with a horizontally opening screen is the ideal windproof solution for large openings, sliding windows and corner solutions. A logical movement that enhances convenience and flexibility in terms of the room's use and need for sun protection. So, a passage remains usable even with sun protection. The Slidefix is also easy to maintain (removal of leaves, dust, etc.), has perfect water drainage and ensures invisible integration into the building envelope.

Different configurations are possible:

- Single system
- Double system
- Corner solution: both inner and outer corner



BENEFITS

- ⊕ Laterally opening sun protection slides
- ⊕ Combines perfectly with other Renson® screens
- ⊕ Flexibility in terms of the room's use and need for sun protection
- ⊕ Maximum width of 4000 mm x 3000 mm height
- ⊕ Durable design and invisible integration into the building envelope
- ⊕ Easy maintenance
- ⊕ Perfect water drainage



Topfix®



TOPFIX®, TOPFIX® VMS AND TOPFIX® MAX (F)

The range of screens for horizontal windows

These sunprotection screen enable optimal management of the incoming sunlight in all horizontal or inclined glazing (verandas, skylights, etc.).

Topfix®

Topfix is a motor-operated horizontal sun screen equipped with a revolutionary span system combined with the renowned Fixscreen technology. This makes it possible to achieve unequalled tensioning of the fabric, which eliminates the need for traditional fabric supporting rolls. The Topfix can handle up to 12 m² with the compact box. The box can be installed on top, sideways or at the bottom.



Box on top



Box sideways



*Box at bottom
[indoor application]*

Topfix® VMS

The Topfix VMS features a revolutionary tension technique, made possible by the renowned Fixscreen technology and has been specifically developed for the VELUX Modular Skylights modules. The Topfix VMS can be installed above the fixed and movable modules e.g. with special mounting feet, enabling a perfect installation onto the VELUX Modular Skylights.

VELUX

Topfix® Max (F)

Topfix Max (F) allows the rolling of the fabric from top to bottom, from bottom or to top depending on the required aesthetics. Blackout is also achievable with indoor and outdoor applications. For the Topfix Max, widths of up to 5 m, and extremely large surfaces of up to 30 m² are possible.



Box on top



*Box at bottom
[outdoor application]*

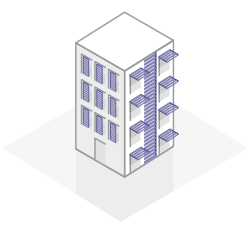
BENEFITS

- ⊕ **Guaranteed at wind speeds up to 120 km/h**
- ⊕ **Perfect fabric tension without fabric support rollers**
- ⊕ **Compact headbox dimensions**
- ⊕ **Topfix® Max up to 30 m² per screen**



Sunclips®

SUN CONTROL: ARCHITECTURAL SUN CONTROL



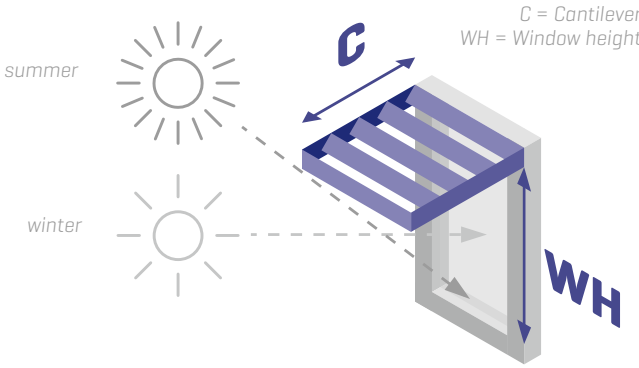
HORIZONTAL ARCHITECTURAL ALUMINIUM SUN CONTROL

Horizontal shading offers the ideal solution for managing heat entry through sunlight, without impeding the view. Applied especially above window frames in south-facing windows.

During summer, when the sun is high, horizontal brise soleil offer ideal protection. During winter, when the sun is low, they let heat into the building.

Recommended overhang of the brise-soleil

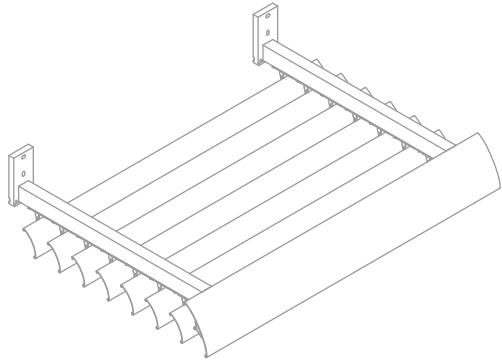
To achieve optimal results with the brise soleil it is important that the overhang is properly tuned to the situation. The orientation of the façade and the height of the window shade are crucial elements. The dimensions of the overhang recommended by Renson® in the table to the right, is an example calculated for Belgium to ensure 75% of total warmth radiation is kept out during the summer by the cantilever.



Orientation of the façade	E	SE	S	SW	W
Recommended overhang O (eg. Belgium)	1.2 x WH	0.8 x WH	0.5 x WH	0.8 x WH	1.2 x WH

Recommended overhang is in function of the latitude, programme available for specific calculations

Sunclips® [SE.096]



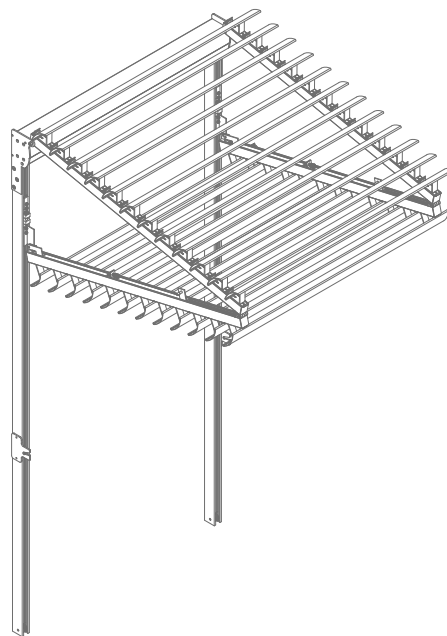
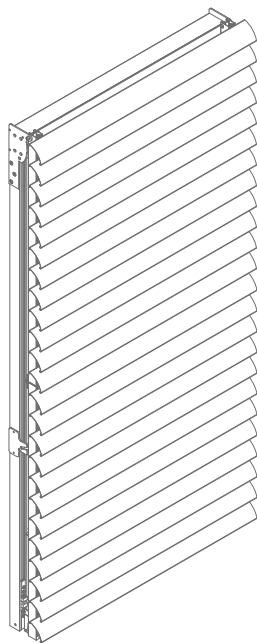
Cilium®



CILIUM®

Motorised folding shutters with aluminium blades

This dynamic sun protection system can be transformed from a vertical sun protection in front of a window to a horizontal, open awning above a window. Cilium satisfies the requirements laid down by the "Energy Performance of Buildings Directive" [EPBD].



BENEFITS

- ⊕ In the closed position, it offers protection against direct sunlight
- ⊕ Protection against high sun in the open position, if the awning is placed above the window
- ⊕ Can be provided with Sunclips^{EVO} SE.096 and SE.130 blades
- ⊕ In the open position, the natural radiation heat is utilised optimally in the colder periods
- ⊕ Can also be provided without blades for perfect integration into the façade with other materials
- ⊕ Constitutes a continuous louvre wall with slats above, below and/or adjacent to the folding hatch in the closed position



Loggialu



Loggialu Plano



Loggiawood



Loggialu Privacy
[rotating blades]



Loggiawood Privacy
[rotating blades]



Loggiascreen
Canvas

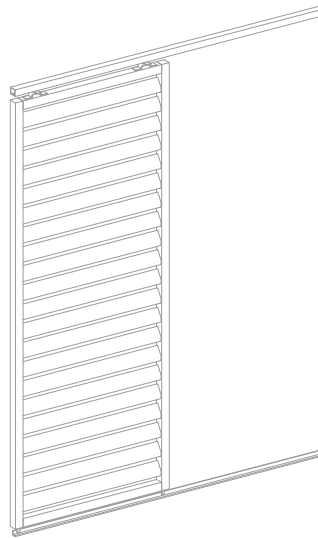


LOGGIA®

You control the amount of light that comes in

The Loggia sliding panels combine the functionality of an efficient sun screen panel with the elegant look and aesthetic design within a high-quality and contemporary concept. With the vertical sun screen sliding panels, the owner can even influence the way sunlight enters rooms (i.e. dynamic sun protection).

The Loggia panels are constructed from aluminium frames finished with screens, and aluminium or wooden blades. It is also possible to opt for movable aluminium or wood blades, which can be manually rotated from the closed position to the fully open position, or vice versa.



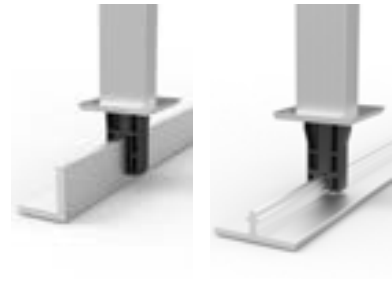
BENEFITS

- ⊕ **Multipurpose façade elements**
- ⊕ **For simple and flexible use**
- ⊕ **Aesthetic quality finish**

FLEXGUIDE®

The Flexguide is a self-regulating under-guide that uses spring tension to adjust itself to height differences with respect to inclines, construction tolerance, thermal dilatation, etc. It eliminates the need to place filling material under the under-guide profile to level out slopes (up to 50 mm).

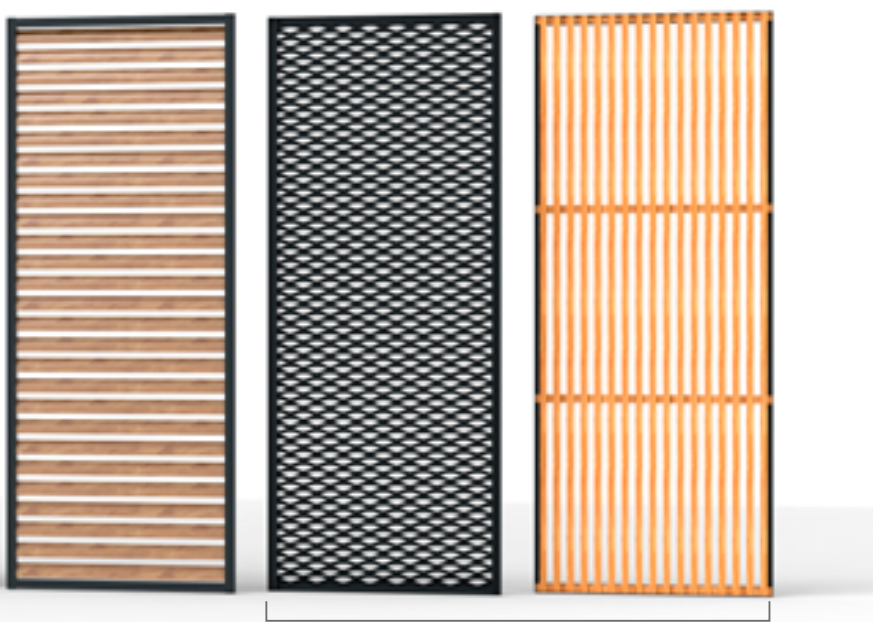
The under-guide profile should be secured normally to the base. The Flexguide spring-loaded pin must always remain in contact with the under-guide profile, on inclines or uneven surfaces, or if the dimensions change, for example, due to temporary loads or thermal dilatation.



Loggialu Wooddesign

Loggialu Stirata

Loggiawood Linea



Specifically for Outdoor applications

Privacy

Privacy with rotating wooden or aluminium blades





OUTDOOR COVERINGS



Whatever the weather, we like to spend as much time as possible outside. Our gardens are no longer separate from our houses. Together they are one. That is why we long for more atmosphere, comfort and optimum lifestyle pleasure. Being outside becomes living outside!

Translucent blade Linea® Luce



Side elements



Integrated lighting



Audio and heating

Who wants to live outside has to consider nature's elements. If the sun becomes too hot, it starts to rain, or the wind suddenly blows harder, we have to run inside. Or don't we? Outdoor coverings are the solution. Available in all colours, adapted to the style of the house, free-standing or fixed to the house or an existing [roof] structure.

These comfortable outside spaces ensure a good atmosphere, but also warmth and cosiness. When it gets darker at night, simply switch on the integrated lighting. Even if it gets colder, you can still stay comfortably outside. Depending on the size of the patio cover, one or more heating elements can be included. You can even play your favourite music on the terrace thanks to the incorporated speakers.

SQUARE DESIGN



LOUVERED ROOFS
(rotatable louvered roof)

LOUVERED ROOFS
(rotatable and retractable louvered roof)

FIXED ROOF

CAMARGUE® LINE

CAMARGUE®



This innovative and modular mountable patio cover can be supplemented with perfectly integrated side elements.

CAMARGUE SKYE®



A fully closable patio cover with rotatable and retractable aluminium blades. Here too, side elements can be perfectly invisibly integrated.

INCLINED DESIGN



RETRACTABLE
fixscreen roof

LAGUNE®

LAGUNE®



This patio cover has a sun-, water- and windproof translucent fabric in the roof structure. Side elements can be seamlessly integrated.

ALGARVE® LINE

ALGARVE®



A horizontal sun and water resistant roof with tiltable aluminium blades. Side elements are possible in surface mounted.

ALGARVE CANVAS®



Covering with fixed roof, aesthetically finished with fixed ceiling with Fixscreen-technology.

LAPURE®

LAPURE®



Minimalist patio cover with water, wind and sun resistant screen roof and open panoramic view. Side elements are possible in surface mounted.

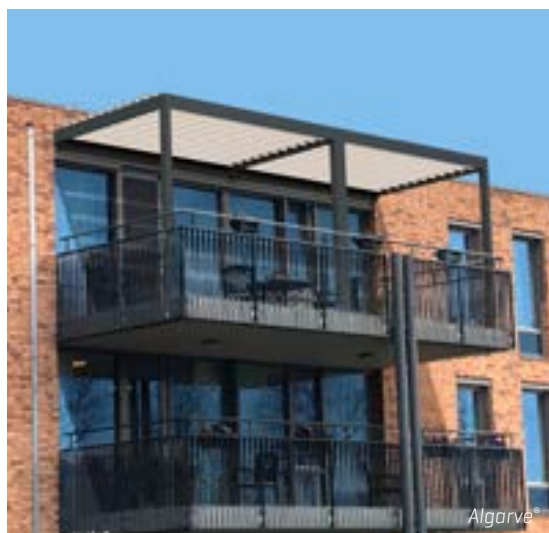
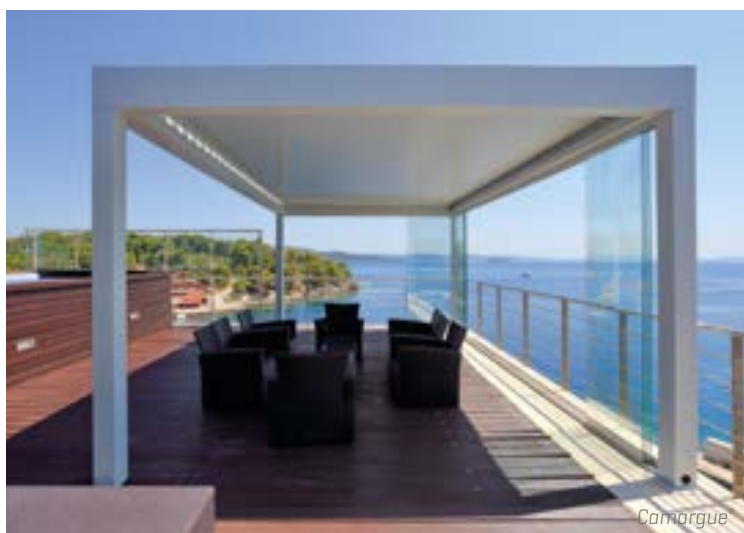
AERO® LINE

AERO®



Horizontal sun and water resistant roof with tiltable aluminium blades, perfectly integrable into new or existing structures.

FITS PERFECTLY FOR THE **ATTIC** AND **APARTMENT ROOFS**





Linus®

FAÇADE & INDOOR



Renson® also thinks about the durable aesthetic finish of the façade and indoor. We include architectural cladding of the façade, which makes a house really stand out in the street. The ventilation and sun control, on the other hand, are hardly noticeable inside. And thanks to the invisible door systems, we perfectly anticipate recent developments in minimalistic and pure architecture in contemporary homes.

Aluminium blades add a unique and pure look to the outdoor façade of your home. The Linius wall-mounted blade system ensures continuous façades with clean lines into which even the doors and garage doors can be integrated. Available in all possible RAL colours, adapted to the joinery of the façade.

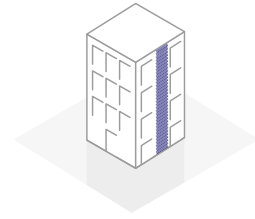
The inconspicuous integration of ventilation and sunscreens also follows this pattern. That is why ventilation louvres have evolved the last years from large block-systems on the glass to discrete flap gratings, such as the Invisivent^{EV0}, which are positioned almost invisibly on the window profile.

Renson® also considers the uniformity of its systems allowing the design of the ventilation and sun control system to be perfectly coordinated.

'Discrete interior doors' – the trend for a timeless interior with a consistent minimalist design. The invisible door system perfectly anticipates this recent development. Thanks to this system, the door blends into the wall, without disturbing frames and hinges.

The Invisidoor is an invisible aluminium frame for interior doors, which can be painted to match walls perfectly and is equipped with a magnetic lock, detachable acoustic seal as a door buffer, and invisible 3D-adjustable hinges of argenta. Thanks to these hinges, the outside cylinder of the door, usually seen on the outside of the door, is no longer visible.

FAÇADE CLADDING



LINIUS®

Horizontal façade cladding

With the Linius system, façades or façade parts can be finished to create seamless wholes with a strong horizontal accent. Gates or doors can also be clad with the same profiles. This way you get a precise and tight fit with the rest of the façade to create a uniform whole. The façade system consists of individual aluminium profiles, which are available in different versions. Depending on the application, you have the choice between either completely closed or ventilating systems. Due to its high quality finish, Linius is also suitable for indoor use.



LINARTE®

Vertical façade cladding

Aluminium façade cladding with minimalist vertical lines. The profiles are available in different shapes and numerous colors, which can be combined differently. The façade can be personalized by integrating LED-strips and wooden inserts. Garage doors and house doors integrate smoothly into a single flush façade surface. Functional elements such as a letterbox, intercom or doorbell are seamlessly integrated. Thanks to the individual profiles, you can even finish curved façades and because of the high-quality finish, they are also suitable for indoor applications.



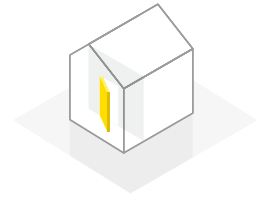
reddot design award
winner 2018



argenta® invisidoor®



INDOOR: INVISIBLE DOOR SOLUTIONS



Argent Alu, better known under the brand name argenta®, is part of the Renson® group. Argent Alu is already active for over 100 years in developing and producing hinges and joints for interior doors. Under the brand name Rob, it has become the specialist in sliding gear for both interior and exterior sliding doors.



More information: www.argentalu.com & www.rob.be

ARGENTA® INVISIBLE NEO

Invisible design hinges

The argenta invisible neo is a 3D adjustable invisible hinge that excels thanks to its timeless design and superior finish and testifies to a high level of technical ingenuity. The argenta invisible neo stands out as the winner of the renowned Red Dot Design Award and IF Product Design Award.



BENEFITS

- ⊕ Pure and high quality design
- ⊕ No visible screws
- ⊕ 3 sizes: S5 – M6 – L7
- ⊕ Easy-hook: position and 3D adjustment by 1 person

ARGENTA® INVISIDOOR®

Invisible frame for interior doors

Thanks to the invisidoor, an invisible aluminium frame for interior doors, it is possible to enjoy pure design. Thanks to the invisidoor® the door is in line with the wall, enabling you to be creative with spaces and partitions. argenta invisidoor is branded as argenta invisiframe in Northern America.



BENEFITS

- ⊕ Little chance of cracks in paintwork
- ⊕ Wide choice of standard dimensions [made-to-measure available]
- ⊕ Standard with paintable primer
- ⊕ Also double doors, room-height doors, Rf doors...

ARGENTA® INVISIDOOR® SDX

Invisible wall fixture system

The argenta invisidoor SDX is a complete solution with an invisible aluminium frame for interior doors which slide into the wall. Now you can also choose the sleek design of the invisidoor range for sliding doors. Because the frame is equipped with the argenta proslide slide-bar bracket, you can use doors up to 100 kg. Can be assembled and disassembled quickly and easily using the removable upper section of the roller assemblies and stops. The fittings are fixed to the door using Manual-Fix. This creates a tiny space [up to 5 mm] between the door panel and upper profile with a sleek finish result.

BENEFITS

- ⊕ **Complete solution**
- ⊕ **Quick and simple assembly**
- ⊕ **Invisible and stable profile**
- ⊕ **Removable upper rail**
- Doors up to 45 mm and 100 kg
- ⊕ **Minimum play of 5 mm**



ARGENTA® PIVOTICA®

Minimalistic and invisible pivot system

Thanks to its compact dimensions the pivotica is not only simple to install in the door, but this pivot system can also be used to adapt it to room-height doors. You can even choose where the door is hinged [minimum of 40 mm from the side edge of the door]. This allows you for example to rotate wide doors in the middle and the pivotica is suitable for both left and right doors. Thanks to the argenta pivotica it can be used creatively in different shaped spaces and walls because no frame is required for this pivot system, which means you can position it perfectly flat against the wall. All components of this system are rustproof. The pivotica is preferably used in combination with the magnotica, a magnetic door closing system.



BENEFITS

- ⊕ **Invisible**
- ⊕ **Simple assembly**
- ⊕ **Child-friendly**
[easy to open]
- ⊕ **Suitable for floor-to-ceiling-height doors**
- ⊕ **Free choice of pivot**
- ⊕ **Pivot system in door leaf**
[instead of floor/ceiling]

SQUARE BLACK

Sober lines

The Square combines pure geometry with excellent sliding door capacities. The rectangular modern shapes, powder coated in trendy black is the perfect eye-catcher in every modern home. The rolling system is completely hidden behind an adjustable running track. Tight design but also easy to install.

BENEFITS

- ⊕ Doors up to 80kg
- ⊕ Plastic wheels with ball bearing
- ⊕ Firm powder coated components
- ⊕ Adjustable for every door width



LATENT


Sober lines

Minimalistic doors only reveal the door panel while the sliding railsystem remains entirely hidden. For this sliding door type, the Latent profile offers a perfect solution. The running track is completely hidden in the ceiling and leaves a small gap of 3mm between the door and ceiling. The profile is designed for a quick and strong connection with plasterboard. If there are any problems, there is a small access part to disassemble every rolling part without damaging the ceiling.

BENEFITS

- ⊕ Doors up to 80kg or up to 120kg
- ⊕ Parts can always be disassembled, even after finishing
- ⊕ Completely hidden running track
- ⊕ Available in anodised grey or black





Get inspired in our showroom
EXIT5 at Waregem along the E17

EXIT 5

EXPERIENCE, INNOVATION & TECHNOLOGY @ RENSON

WE'D BE HAPPY TO HELP YOU!

Our head office - the elegant building designed by the late architect Jo Crepain, which has been the visiting card of our company for many years now - is now being renovated. The bottom part of the building now has an imposing glass façade. Behind the façade, there is a new 'Customer Centre' with reception rooms for customers, conference rooms, and an auditorium, where large groups of more than 300 people can participate in presentations. In case of smaller groups, this auditorium can also be divided into 3 separate rooms.

The highlight of the project is the new showroom of 1250 m², where professional customers as well as private individuals can be accommodated. Apart from a showroom for Renson's various innovative solutions and concepts, it is planned to make this room a knowledge centre, where customers can walk in and ask questions about ventilation, heating, sun protection, ventilative cooling, acoustics, interior, etc., In short: everything to provide the home with all the necessary comfort. There is also the possibility to view the solutions in practice in show houses located nearby.

For more information about the network of Renson ambassadors, please visit our website at: www.renson.be

RENSON®: YOUR PARTNER IN VENTILATION, SUN PROTECTION AND OUTDOOR

Renson®, with its headquarters in Waregem (Belgium), is a worldwide trendsetter in natural ventilation, sun control and outdoor.

Creating healthy spaces

From 1909, we've been developing energy efficient solutions assuring a healthy and comfortable indoor climate. Our headquarters - built according to the 'Healthy Building Concept' - is a beautiful example portraying our corporate mission.

No speed limit on innovation

A multidisciplinary team of more than 80 R&D employees continually optimize our products and develop new and innovative concepts.

Strong in communication

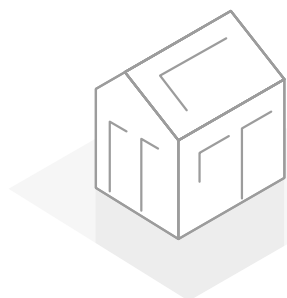
Contact with the customer is of the utmost importance. A group of 100 in-the-field employees worldwide and a powerful international distribution network are ready to advise you on site. EXIT 5 at Waregem gives you the possibility to experience our products on your own and provides necessary training for installers.

A reliable partner in business

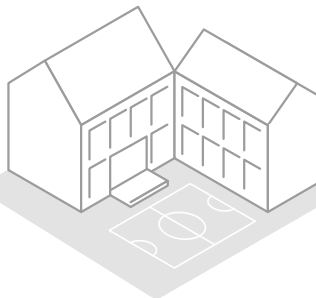
We can guarantee our customers optimal quality and service thanks to our environmentally friendly and modern production sites [with automated powder coating line, anodisation line, uPVC injection molding machinery and mold making shop] covering an area of 95.000 m².

Discover our solutions for

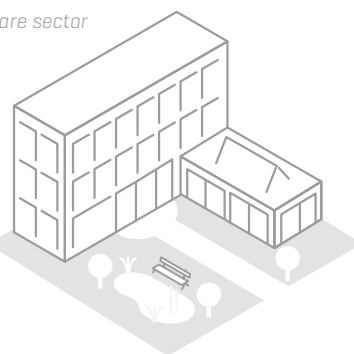
Residential homes



Schools



Care sector





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