WHY SUN CONTROL?

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

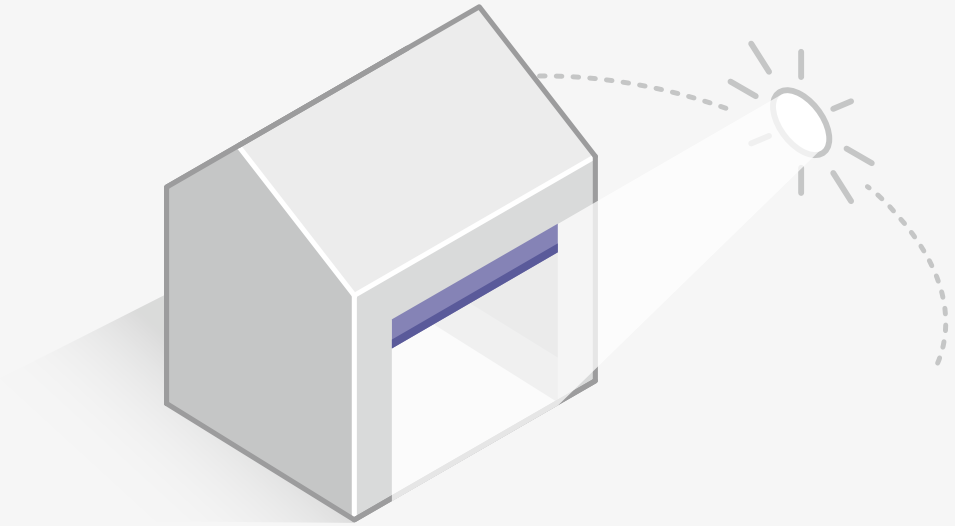
COMFORT TAILORED TO EACH SEASON

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.

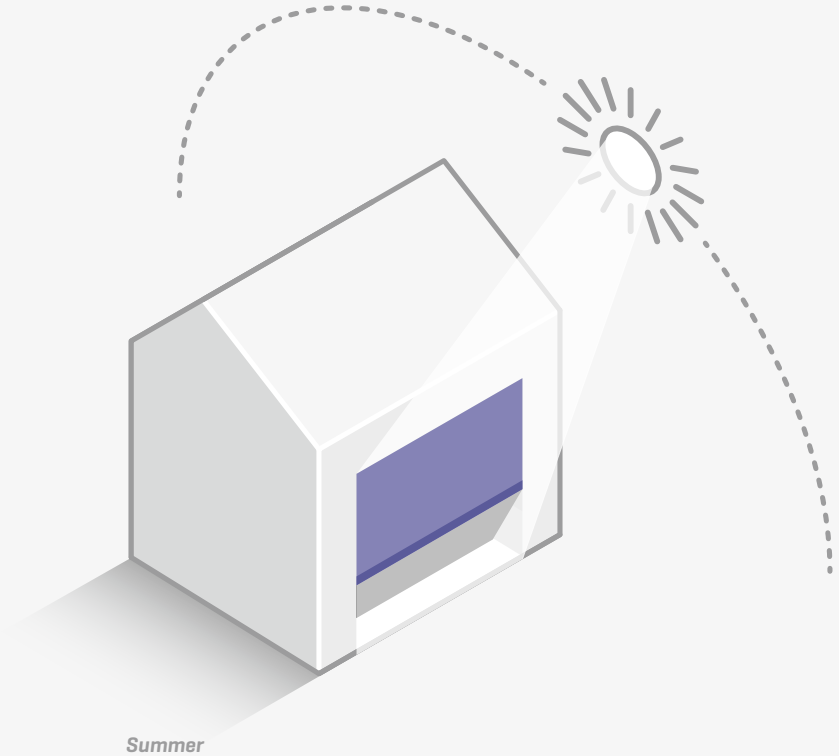
Everyone knows however that the sun can also influence the indoor climate less positively. Excessive sunlight can cause overheating, disruptive reflections on screens and discoloration of the furniture and decor.

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.

"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® 150EVO

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 even when you're not at home.

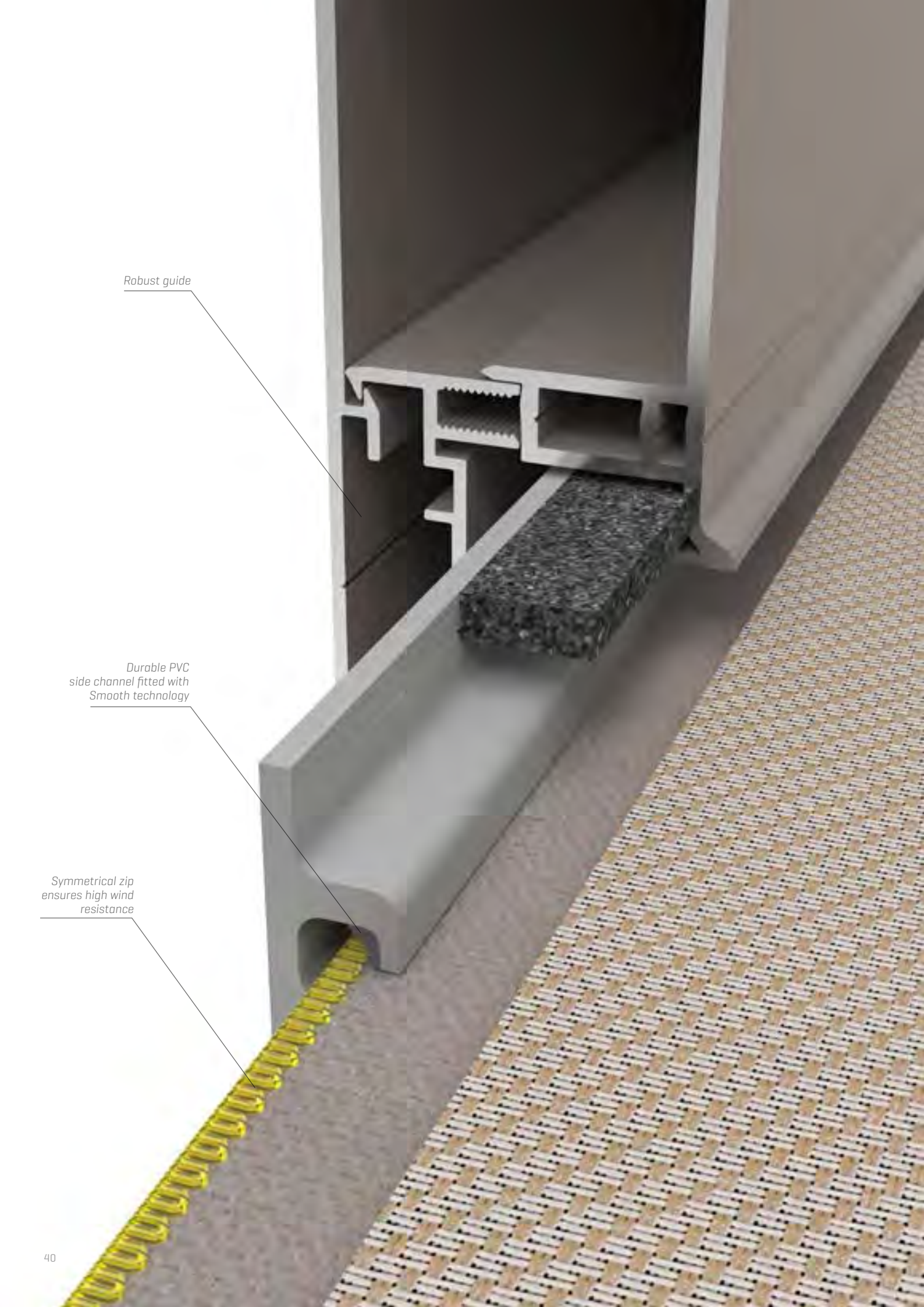
Sustainability

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:

Standard screen at 30 km/h

Fixscreen® at 130 km/h


Robust guide
Durable PVC
side channel fitted with
Smooth technology
Symmetrical zip
ensures high wind
resistance

FIXSCREEN® TECHNOLOGY

Fixscreen from Renson® was the first truly wind-resistant sunscreen/ external blind in the world. Thanks to the ingenious zip system, the Fixscreen technology, the screen remains wind-resistant in every position and it is also insect-proof when closed. The principle is simple: the sunscreen/external blind is equipped with a special side guide channel with symmetrical zips. This keeps the whole unit fixed firmly on both sides. 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 tube. 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 updated conducting system that ensures even better wind resistance and extremely smooth functioning.

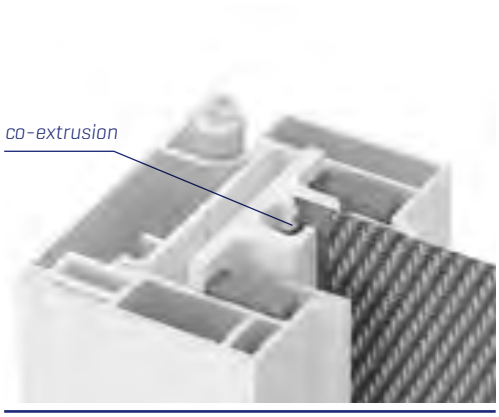
Click&Safe®

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

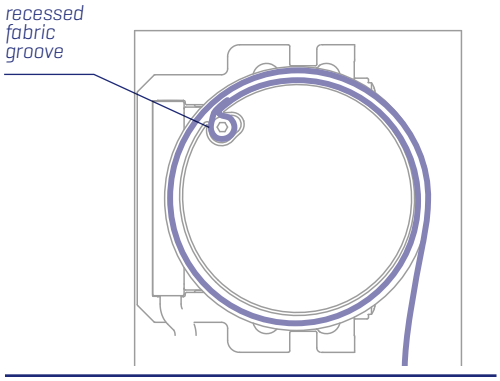

Headbox
Side channel
Fabric

The headbox
The headbox profile is made of extruded aluminium profiles.

Side channel including zip system
Side channels are made of extruded aluminium. No visible screws at the front. The intelligent wind-proof zip guide features a patented wear-resistant layer based on co-extrusion. This guarantees extremely smooth, wind-proof functioning.



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




Bottom bar

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 plastic blackout strip.

5 years guarantee on all faults normal use and maintenance

7 years guarantee on Fixscreen® technology

10 years guarantee on the paintwork of aluminium components

BENEFITS

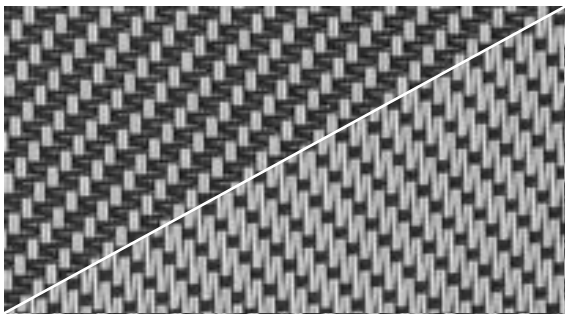
- **Extremely wind-proof screen**
- **Privacy**
- **Light control**
- **Heat and energy control**
- **Insect repellent**
- **Silent operation**
- **Simple operation**
- **Simple maintenance**
- **Simple assembly**
- **Large dimensions (up to 22 m²)**
- **Joinable**
- **Unspoilt outside view**

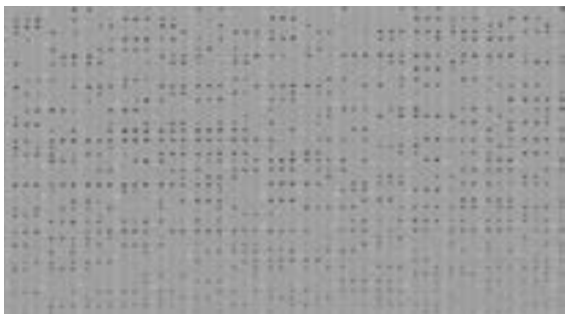

Fixscreen®

SUN CONTROL FABRIC TYPOLOGY

Sunscreens use technical textiles which keep out the excessive heat and the bright light of the sun. An outside canvas screen reduces the effect of overheating. The warm sun rays are stopped before they reach the glass. Beside this functional role, the fabric also fulfills a decorative role. Colour determines the heat transmission, the filtering of light, protection against UV rays and the colour of light.

Confection side 1





Confection side 2

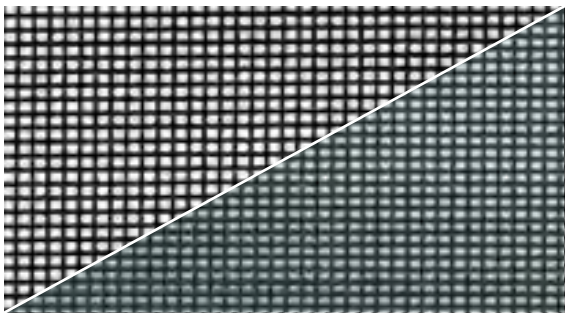
Fibreglass fabric

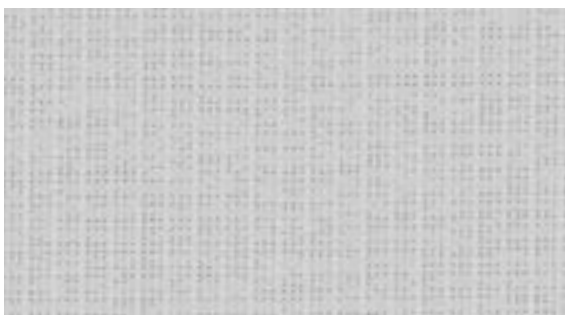
This fabric screen is made of fibreglass threads with a PVC coating. A fibreglass fabric is rigid, impervious to moist, heat and rot, and colourfast. Fibreglass fabric has 2 sides: confection 1 and confection 2. Both can be used as outside visibility of the screen fabric. There are different types of fibre glass fibrics, as for example Privacy with an opennessfactor of only 1%.

Soltis Polyster fabric

This type of fabric is made of a finely woven mesh equipped with a PVC coating (fire classification M1) according to the précontraint method. This produces an extremely stable and non-deformable fabric with a long service life.

Insectscreen





Tuffscreen

Insectscreen/Tuffscreen

In the case of products with Fixscreen technology, it is possible to use insect screen (Mesh 18x16).
There is also the Tuffscreen (Mesh 17x13) with unrestricted dimensions.

Light-block

Light-block is a fully darkening polyester fabric Soltis (B92). This is a fine polyester mesh fabric with a fire-resistant PVC coating (fire classification M2) produced according to the précontraint method. The back is also equipped with a blackout coating.


Fixscreen® Mono AK^EVO

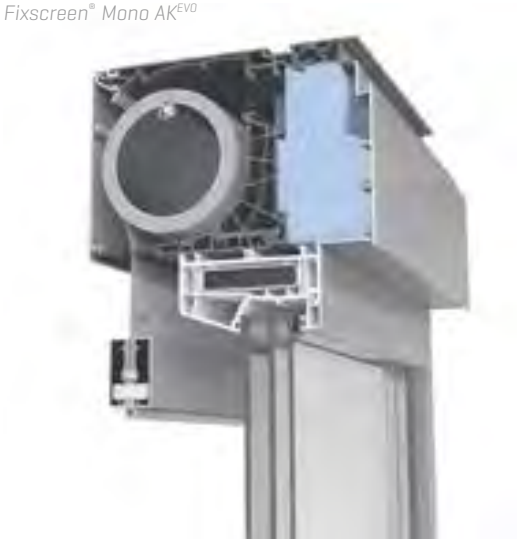
FIXSCREEN® MONO AK^{EVO}

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**
- **Connectable up to 21 m²** (with 2 motors)
- **Simple replacement of fabric** (Click&Safe)
- **Darken at the touch of a button** (optionally with Light-block)
- **Windproof up to 130 km/h in closed position**
- **Insect repellent**

Fixscreen® known in the USA as RENSON ZipShade

Fixscreen® 100^{EVO} IM7

FIXSCREEN® HIDDEN INSTALLATION

Invisible, discrete installation

With installation method 7 (IM7) the fabric roll is accessible for installation and maintenance from underneath. With this method it is possible to fully conceal the box in the cavity. This installation method is the perfect solution for low-energy homes and passive houses, since there is no need to penetrate the outer shell of the house.

- For all window types: aluminium, wood, PVC
- For new builds/private house construction and projects

The slim version enables the sunscreens to be integrated in an even narrower cavity (box of 110 mm). An additional benefit is the fully retractable base bar in the box.

Fixscreen® 100^{EVO} Slim - IM7A

Fixscreen® 150^{EVO} - IM7A

BENEFITS

- **Fabric roller removable from outside and below**
- **Hidden installation**
- **Ideal for low-energy houses**
- **Insect repellent**
- **Ideal for extension by integration into the passage**
- **Conservation of privacy**
- **Up to 22m²**

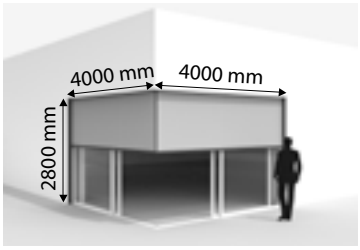
Fixscreen® known in the USA as RENSON ZipShade


Panovista® Max

PANOVISTA® FOR GLASS TO GLASS CORNER WINDOWS

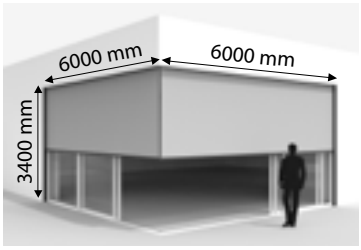
A new range of screens for glass-on-glass corner windows
'Invisible architecture' is a new trend highly compatible with the trend towards minimalism. The Panovista is Renson's perfect response to this development. This new development is perfect for applications with glass-on-glass corner windows when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

* Wind load after Renson® specifications

BENEFITS

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

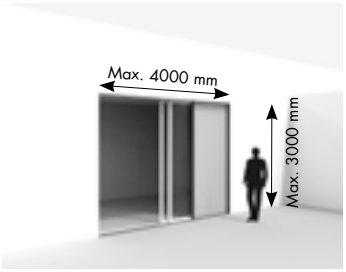

Slidefix®

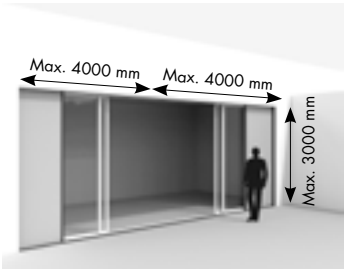
SLIDEFIX®

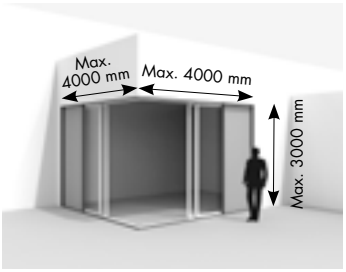
The first laterally opening sun protection slides
Renson's Slidefix is another response to the 'Invisible architecture' trend. This new development with a horizontally opening screen is the ideal windproof solution for large openings, sliding windows and corner solutions. A logical movement that enhances 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**

Slidefix® known in the USA as SlideShade


Topfix® Max

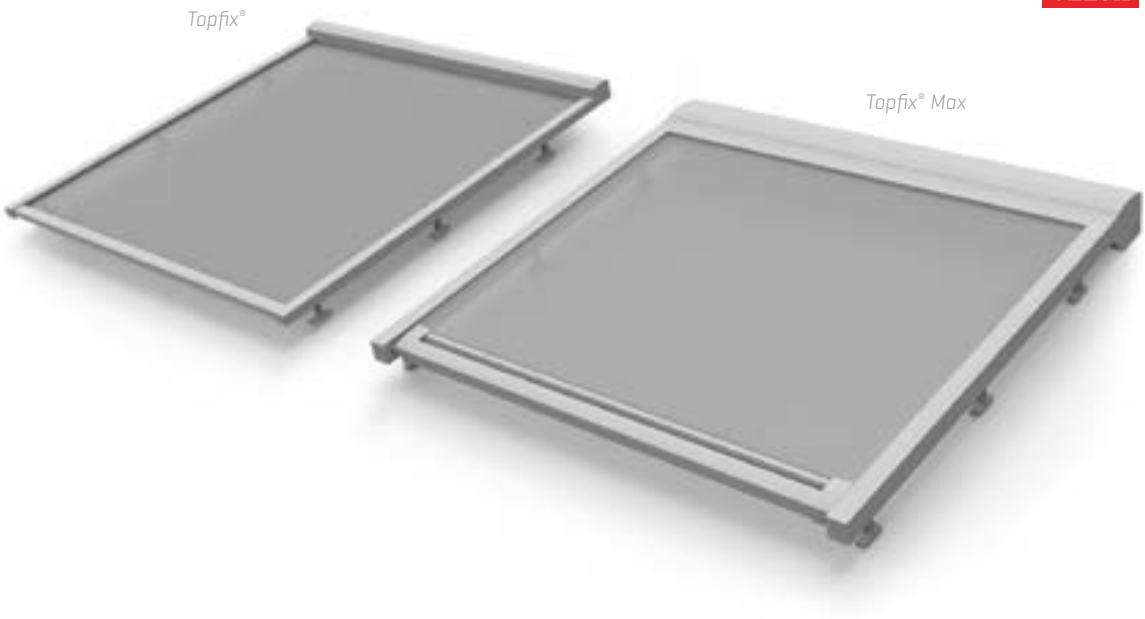
TOPFIX®, TOPFIX® MAX AND TOPFIX® VMS

This sun control prevents all horizontal or inclined glazing (conservatories, skylights etc.) from heating up. Topfix is a motor-operated sunscreen equipped with a revolutionary span system in combination with renowned Fixscreen technology. This makes it possible to achieve unprecedented tensioning of the fabric, without the need for traditional fabric supporting rolls. Thanks to the discrete design, Topfix blends in perfectly with your home.

Topfix Max offers the choice between top-bottom or bottom-top installation. Full blackout is also achievable with indoor and outdoor applications. For the Topfix Max, widths up to 5m and extremely large surfaces up to 30 m^2 are possible.

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®



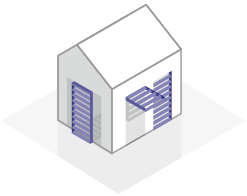
BENEFITS

- ⊕ **Guaranteed at wind speeds up to 120 km/h**
- ⊕ **Perfect fabric tension without fabric support rollers**
- ⊕ **Compact headbox dimensions**
- ⊕ **Topfix® Max up to 30 m^2 per module**

Topix® (Max) known in the USA as RENSON ZipShade Top (Max)


Sunclips®

SUN CONTROL:
STRUCTURAL SUN CONTROL



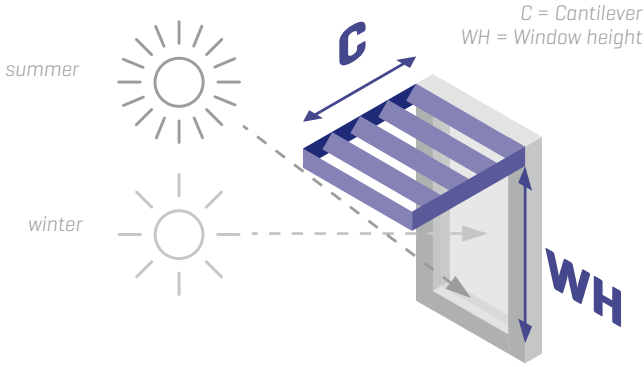
HORIZONTAL STRUCTURAL ALUMINIUM SUN CONTROL

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 sunscreens offer ideal protection. During winter, when the sun is low, they let heat into the building.

Recommended overhang of the brise-soleil

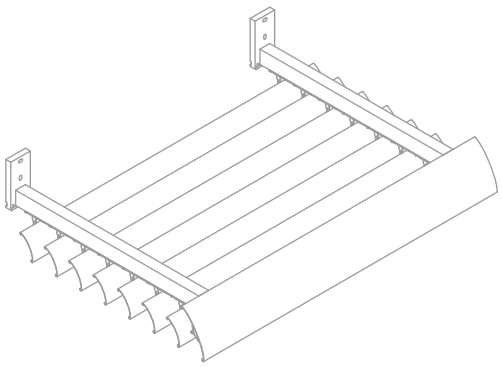
To achieve optimal results with the canopy it is important that the cantilever is properly tuned to the situation. The orientation of the façade and the height of the window shade are crucial elements. The dimensions of the cantilever recommended by Renson® in the table to the right, is calculated to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



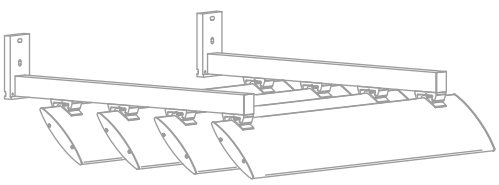
Orientation of the façade	E	SE	S	SW	W
Recommended cantilever C	1.2 x WH	0.8 x WH	0.5 x WH	0.8 x WH	1.2 x WH

Programme available for specific calculations

Sunclips® (SE.096)



Icarus® (ICA.125)

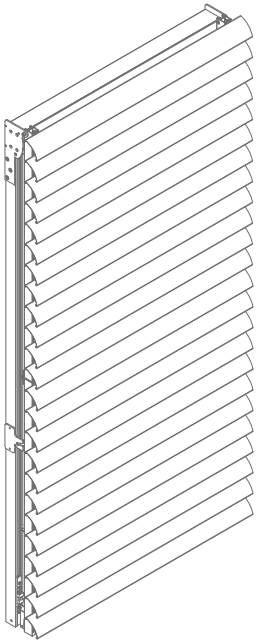


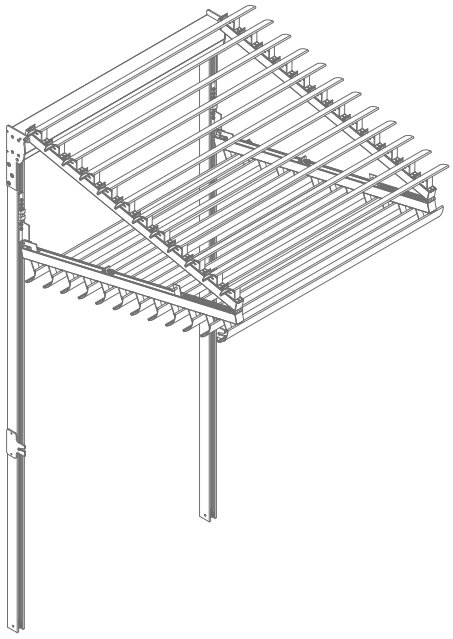

Cilium®

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 an 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**

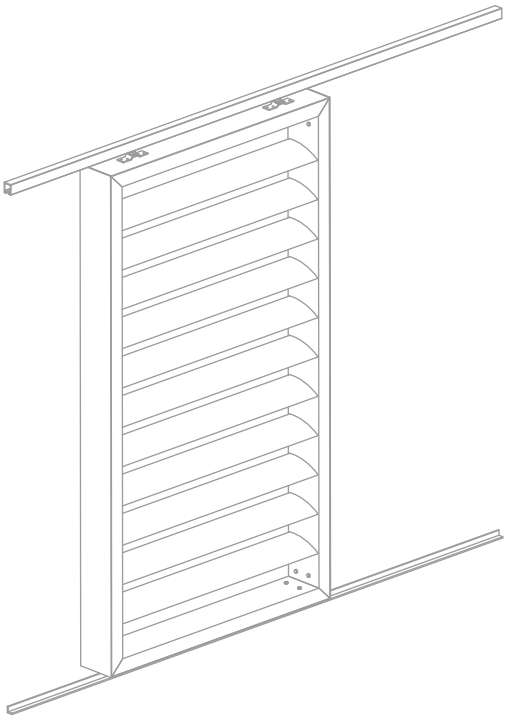
Loggiawood®


Loggialu
Loggialu Plano
Loggiawood
Loggialu Privacy
Loggiawood Privacy
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**

Loggialu Stirata | Loggialu Linea | Wooddesign

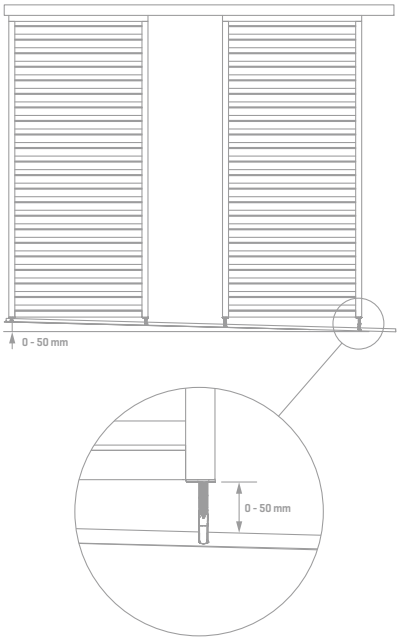
Specifically for Outdoor applications

Privacy
Privacy with rotating wooden or aluminium blades


Loggiawood®

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.



BENEFITS

- ⊕ **Height deviations up to 50 mm**
- ⊕ **Discrete installation**
- ⊕ **Maintenance free**