RENSON

DESIGN IN SUNPROTECTION

STRUCTURAL ALUMINIUM SUNPROTECTION

SLIDING PANELS

INTRODUCTION

ICARUS® RENSON, Waregem (BE) arch. : J. Crepain

Over the past decade, healthy and ecological construction methods have become increasingly important. Particular attention should be paid to avoid overheating in summer and to assure a good air quality. Nevertheless, it has become obvious that the right solution is more complex than simply installing an air conditioning system. Various studies have proven that health problems arise more frequently in air conditioned buildings than in naturally ventilated buildings. According to these studies, 90% of the interviewees prefer natural ventilation to an air conditioning system.

Healthy Building Concept

The Healthy Building Concept (HBC) offers an alternative by providing a healthy, comfortable and energy-efficient indoor climate (in accordance with the requirements of the Kyoto protocol). HBC guarantees a good air quality through natural ventilation, as well as pleasant temperatures in summer using external sun protection and intensive night ventilation. In companies, this boosts the employees' productivity and increases output. As a result, buildings constructed according to the Healthy Building Concept offer benefits to their owners, occupants and the environment .

SUNCLIPS® & ICARUS® RENSON HQ, Waregem (BE), Arch.: Jo Crepain, photo : Nike Bourgeois

The need for sunprotection

Sun-oriented buildings or homes, with large glass surfaces facing south, offer many advantages. Many people feel that the visual contact with the exterior and the natural light entering the building is very important. However, in summer, this may create less comfortable side-effects, such as overheating or annoying glare.

The efficiency of a sun protection system strongly depends on its position. An exterior sun protection system blocks sunrays before they reach the glass. Therefore it eliminates the greenhouse effect, strongly reduces undesirable heating of the building and diminishes the need to cool down the space.

LOGGIA® • Sogima-Salengro • Marseille (FR), Arch.: Dusapin-Leclercq + Navelet - Zakarian

LOGGIA® with SUNCLIPS® Evo 130 blades.
Private residence • Vilvoorde (BE)

LOGGIA® • Sogima-Salengro • Marseille (FR),
Arch.: Dusapin-Leclercq + Navelet-Zakarian

INTRODUCTION

In reply to the growing demand for aesthetic, multifunctional façade elements, RENSON has expanded its range of sliding panels even further. The SUNCLIPS® and ICARUS® PATIO panels are sliding cassettes, in which the blades have been screwed between vertical endcap plates.
The LOGGIA® panels are constructed with frames fitted with aluminium blades. Different types of blades can be used with both systems. Depending on the desired enclosure and the required see-through visibility, the blades can be positioned at different inclinations and with different blade pitches.
In addition to this wide range of sliding panels fitted with fixed, aluminium sun protection blades, panels with fabric or movable blades are now available as well: LOGGIA® SCREEN or LG.130/ICA.125M.

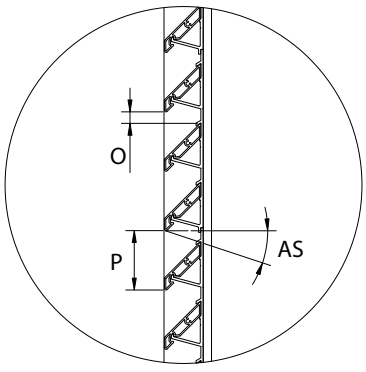
APPLICATIONS

Multi-functional façade elements

- Sun protection
- Intensive ventilation
- Visual screen
- Fence
- Daylight control
- Insect mesh
- Partial shading

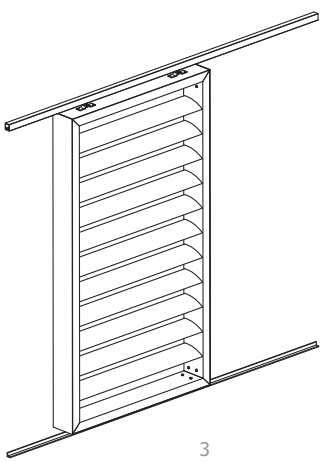
TECHNICAL FEATURES

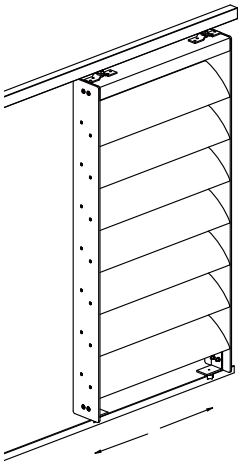
- Extruded aluminium profiles
- Aesthetic quality finish
- Polyester powdercoating RAL or Suntha Pulvin colours (60-70 micron / UK : min.40 micron – min.60 micron for white finish)
- Factory pre-assembled and delivered "ready-to-fit", made-to-measure production
- Easy to operate
- High-quality accessories
- Rigid and stable



PARAMETERS

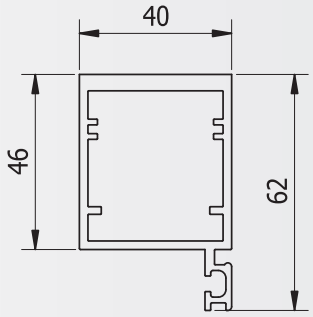
Each type of panel is characterized by its properties in terms of visual openness and sun protection. Visual openness is represented by the parameter OV (= O/P), the perpendicular visual opening; the larger OV, the more visibility through the panels.
The level of sun protection is represented by AS: the limit angle of sunray incidence; the smaller AS, the more efficient the sun protection.





LOGGIA®LG.040

LOGGIA® LG.040 is a frame characterized by a minimal thickness for heights up to 2,500 mm, always taking into account the local wind pressure bearing on the system. LG.040 type frames can be fitted with different types of blades: L.050.21 and L.066.21. For both blades, the angles and intervals between blades are fixed.

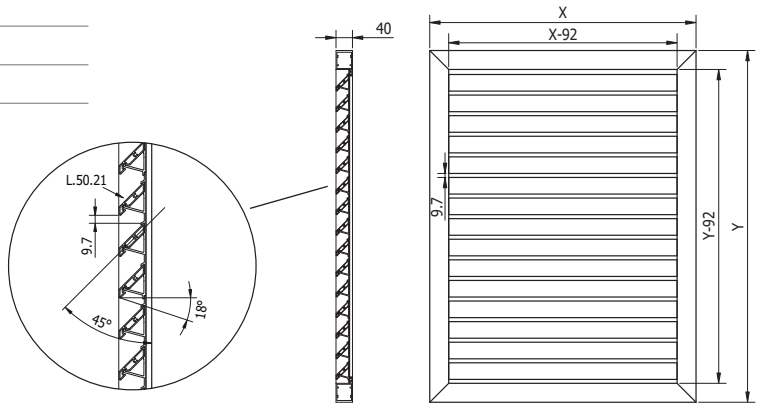


LG.040 + L.050.21

Normal maximum dimensions:

Qb (*)	Typical dimension L x H (mm x mm)
650 Pa	1100 x 2600
800 Pa	1000 x 2500
1250 Pa	800 x 2320

Perpendicular visual opening OV: 19,4 %
Limit angle of sunray incidence AS: 18°
Blade pitch: 50 mm

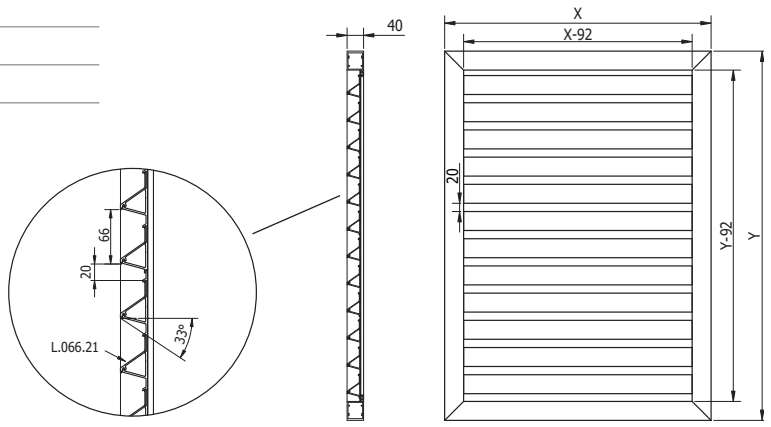


LG.040 + L.066.21

Normal maximum dimensions:

Qb (*)	Typical dimension L x H (mm x mm)
650 Pa	1100 x 2500
800 Pa	900 x 2500
1250 Pa	800 x 2240

Perpendicular visual opening OV: 30,3 %
Limit angle of sunray incidence AS: 33°
Blade pitch: 66 mm

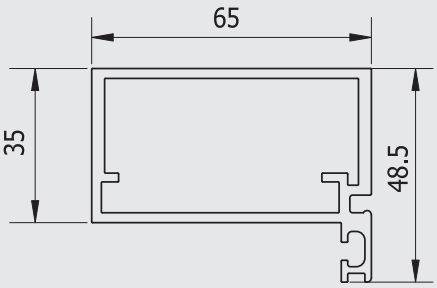


(*) Qb: Basic wind pressure in accordance with the ENV 1991-2-4 (1995) standard

Ref. Jardin des Sens • Arch. : AKTIS Architecture - 38000 Grenoble

LOGGIA®LG.065

The LOGGIA® LG.065 frame is designed for bigger heights up to 3,000 mm, always taking into account the local wind pressure bearing on the system and depending on the type of blade to be fitted. LG.065 type frames can be fitted with different types of blades: L.066.P and L.066.01. For both types of blades the angles and intervals between blades are fixed.

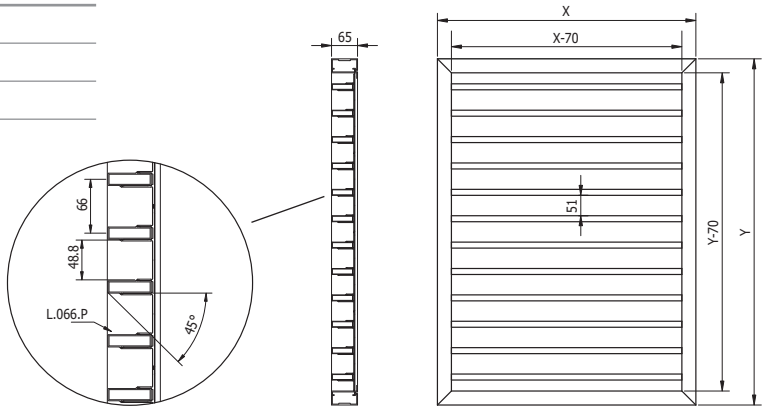


LG.065 + L.066P

Normal maximum dimensions:

Qb (*)	Typical dimension L x H (mm x mm)
650 Pa	1300 x 6000
800 Pa	1200 x 6000
1250 Pa	1000 x 5510

Perpendicular visual opening OV: 73,9 %
Limit angle of sunray incidence AS: 45°
Blade pitch: 66 mm

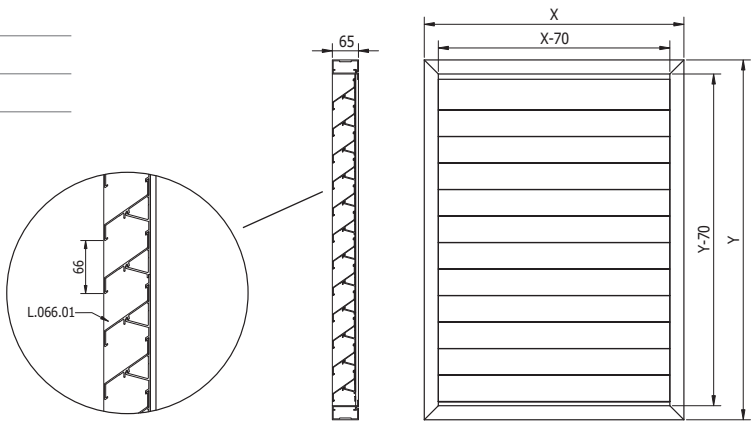


LG.065 + L.066.01

Normal maximum dimensions:

Qb (*)	Typical dimension L x H (mm x mm)
650 Pa	1000 x 3220
800 Pa	1000 x 3010
1250 Pa	800 x 2790

Perpendicular visual opening OV: 0 %
Limit angle of sunray incidence AS: 0°
Blade pitch: 66 mm

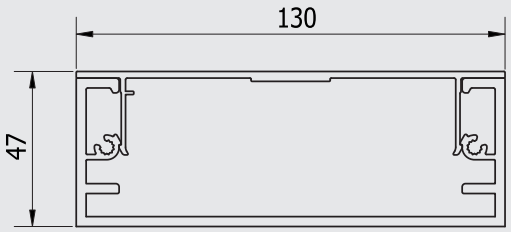


(*) Qb: Basic wind pressure in accordance with the ENV 1991-2-4 (1995) standard

Apartments, Kirchberg (Luxemburg)

LOGGIA®LG.130

LOGGIA® LG.130 frames are extra rigid, designed to meet the requirements for sun protection panels up to 6,000 mm in height. The local wind pressure bearing on the system and the type of blade to be fitted are always taken into account. LG.130 type frames can be fitted with different types of blades: ICA.125, ICA.150, ICP.150 and SE.130. The blades can be positioned at different inclinations and at different intervals. The following table suggests twenty different possibilities. Other configurations are possible on request.



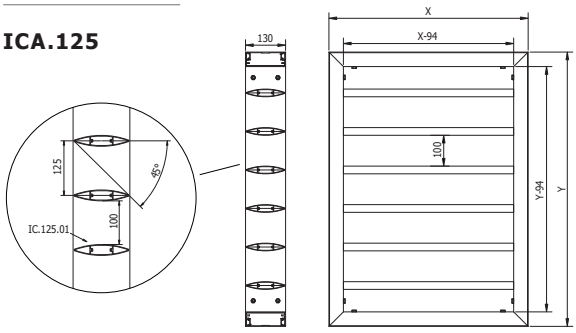
Blade type	Angle (°)	Blade pitch (mm)	As (°)	OV (%)
ICA.125	90	125	45	80,0
ICA.125	75	125	37	70,8
ICA.125	75	150	44	75,7
ICA.125	60	125	30	48,4
ICA.125	60	150	39	57,0
ICA.125	60	175	46	63,1
ICA.125	45	125	22	28,3
ICA.125	45	150	35	40,3
ICA.125	45	175	44	48,8
ICA.150	59	150	29	46,0

Blade type	Angle (°)	Blade pitch (mm)	As (°)	OV (%)
ICA.150	59	200	44	59,5
ICA.150	45	150	22	27,8
ICA.150	45	200	42	45,9
ICP.150	45	150	15	15,3
ICP.150	45	200	41	36,5
SE.130	60	130	30	46,8
SE.130	60	160	40	56,8
SE.130	45	130	22	27,5
SE.130	45	160	37	41,1
SE.130	45	190	47	50,4

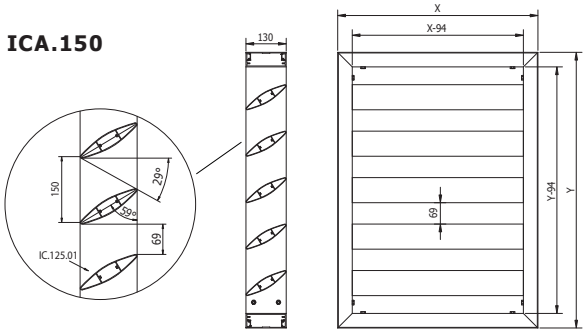
AS: Limit angle of sunray incidence • OV: Perpendicular visual opening • Definitions: see page 3

EXAMPLES

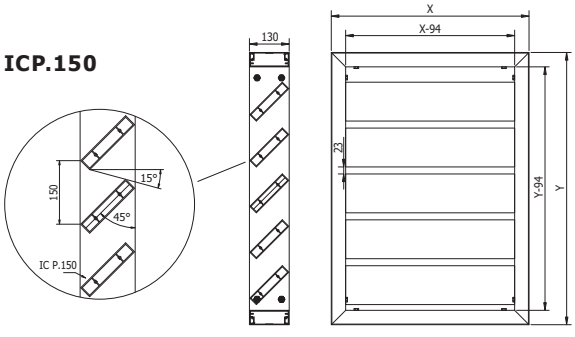
ICA.125



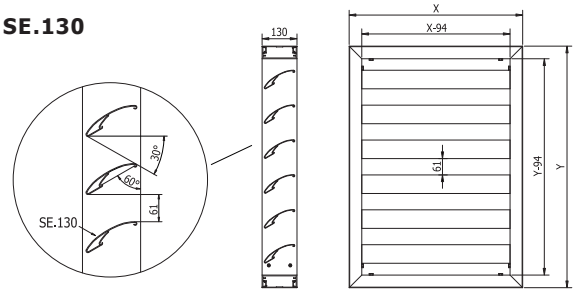
ICA.150



ICP.150



SE.130



Ref. Spoorweglaan Kortrijk (BE)

SUNCLIPS® EN ICARUS® PATIO

SUNCLIPS® and ICARUS® PATIO are sliding panels constructed with sun protection blades screwed between 2 flat end plates. This assembly principle is the basis of this product's great flexibility: different types of blades can be installed at different intervals or at different inclinations.

PATIO sliding panels are notable for the elegant design of the end plates.

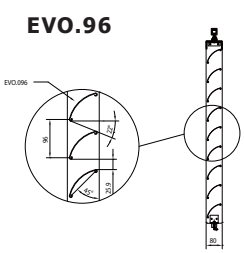
The maximum panel dimensions depend on the selected profiles and the local wind pressure bearing on the system.

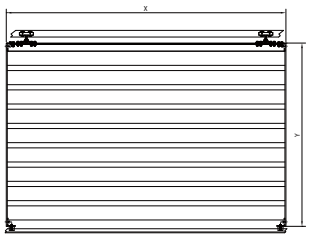
Blade type	Angle (°)	Blade pitch (mm)	As (°)	OV (%)
EVO.96	45	96	22	27
EVO.96	45	115	35	39
EVO.96	45	135	45	48
EVO.130	45	130	22	28
EVO.130	45	160	36	41
EVO.130	45	190	47	50
ICA.100	0	100	45	77
ICA.100	0	120	50	81
ICA.100	15	100	37	70
ICA.100	15	120	44	75
ICA.100	30	100	30	48
ICA.100	30	120	39	57
ICA.100	30	140	46	63
ICA.100	45	120	22	28
ICA.100	45	120	35	40
ICA.100	45	140	44	49
ICA.125	0	125	45	80
ICA.125	0	150	50	83

Blade type	Angle (°)	Blade pitch (mm)	As (°)	OV (%)
ICA.125	15	125	37	71
ICA.125	15	150	44	76
ICA.125	30	125	30	48
ICA.125	30	150	39	57
ICA.125	30	175	46	63
ICA.125	45	125	22	24
ICA.125	45	150	35	40
ICA.125	45	175	45	49
ICP.060	0	60	40	83
ICP.060	0	75	47	87
ICP.060	15	60	32	58
ICP.060	15	75	42	67
ICP.060	30	60	25	36
ICP.060	30	75	38	49
ICP.060	30	90	48	57
ICP.060	45	60	17	18
ICP.060	45	75	36	34
ICP.060	45	90	48	45

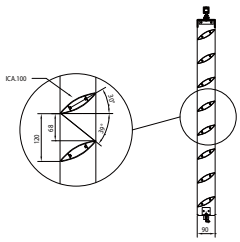
AS: Limit angle of sunray incidence • OV: Perpendicular visual opening • Definitions: see page 3

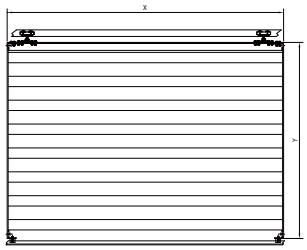
EVO.96



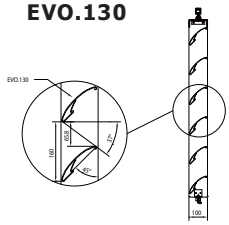


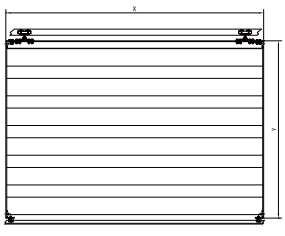
ICA.100



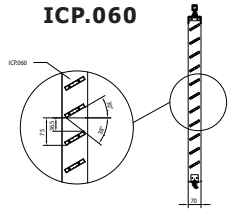


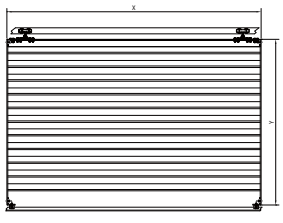
EVO.130





ICP.060





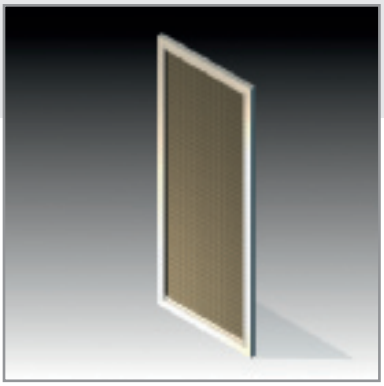
Ref. Candy Wharf, Copperfield Road - London (UK)

LOGGIA® SCREEN

New !

DESCRIPTION

LOGGIA® SCREEN combines the properties of various materials and systems into a solution that is notable for its elegance, flexibility and efficiency. The design of this new product was inspired by the standard LOGGIA®, a sliding panel with aluminium blades.
LOGGIA® SCREEN is a system of sliding panels with fabric, allowing access of light and warmth to be managed at your convenience by adjusting the position of the panels as needed. In addition, in function of the desired combination of sunprotection and transparency, the panel filling may be selected from a wide range of high-performance sun protection fabrics.



TECHNICAL FEATURES

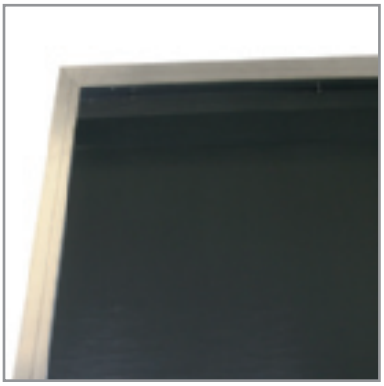
- Profiles in extruded aluminium
- Frame type LG.040 or LG.065
- Integrated system for permanent fabric tension
- Factory-assembled and ready for installation, made to measure
- High-quality, maintenance-free sliding fittings

MATERIALS

- Aluminium extrusion, EN AW-6063 T66 alloy
- Screen fabric based on prestressed coated polyester fabric (Soltis® 86) - available in a wide range of colours. Other types of fabric available on request.

FINISH

Aluminium parts:
- Anodised (20 microns) F1
- Polyester powdercoating RAL or Suntha Pulvin colours (60-70 micron / UK : min.40 micron – min.60 micron for white finish)



New!

LOGGIA® LG.130/ICA.125M

To manage solar heat and natural daylight even more effectively, RENSON has developed the LOGGIA® LG.130 with manually movable blades ICA.125. This system allows not only the panel to be moved in the desired position, but the blades can also be rotated into their ideal position. According to the position of the sun or the desired level of shading, the rotation can be determined.

APPLICATIONS

- Sunprotection
- Intensive ventilation
- Visual screen
- Control of daylight
- Control of shading

PRODUCT

- LOGGIA® LG.130 frame
- ICA.125 blade
- Equipped with high-quality sliding hardware

TECHNICAL FEATURES

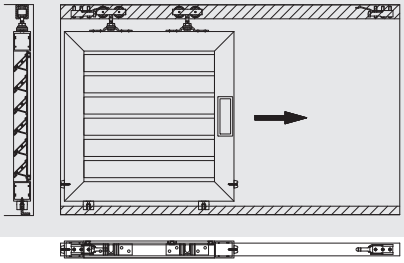
- Profiles in high-quality extruded aluminium
- High-quality aesthetic finish
- Polyester powdercoating RAL or Suntha Pulvin colours
  (60-70 micron / UK : min.40 micron – min.60 micron for white finish)
- Made-to-measure
- Factory-assembled and ready for installation
- Easy to operate
  - sliding system : manual or motorised control
  - movable blades : manual control
- Blades adjustable in 15° increments (7 positions)
- Maximum dimensions on request

SLIDING SYSTEMS

Depending on the situation and user preferences, different sliding systems can be selected:

• INDIVIDUALLY SLIDING

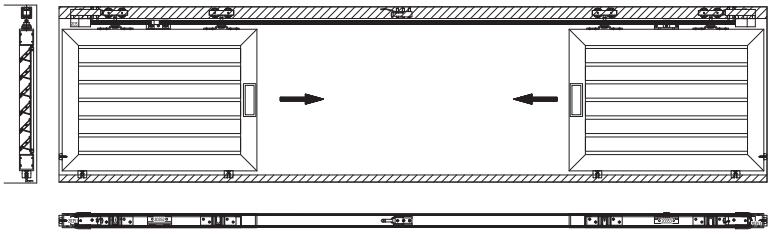
For this application, the panels are controlled individually. Each panel can be placed in its desired position without affecting the other panels.



Ref. Rabobank Franeker (NL)
Arch.: ALYNIA Architects, Harlingen

• SYMMETRICALLY SLIDING

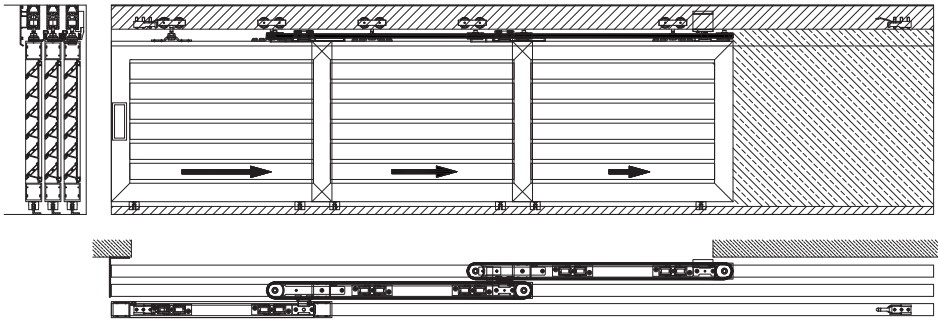
This system consists of pairs of mutually interconnected panels. The panels are connected in order to move symmetrically in relation to one another.



Ref. Rabobank Franeker (NL)
Arch.: ALYNIA Architects, Harlingen

• TELESCOPICALLY SLIDING

For applications requiring wider window surfaces to be shaded in one go, telescopically connected panels are a suitable option. In this system, two or more panels are telescopically interconnected so that, if controlled, they telescopically slide out or behind one another. Each panel moves in a different rail and, in open position, they are neatly "parked" behind one another.



Ref. Rabobank Franeker (NL)
Arch.: ALYNIA Architects, Harlingen

CONTROL

All sliding systems can be equipped with manual or powered motorised controls.

For powered motorised controls two systems are available:

- 230V motor for controls using a simple switch or to be connected to the building management system.
- 12VDC motor with respective control unit, to be connected as a unit to a 230V power supply.

OTHER APPLICATIONS

The sun protection panels described above can also be applied in other ways than sliding panels, e.g. as fixed installations or as folding systems.

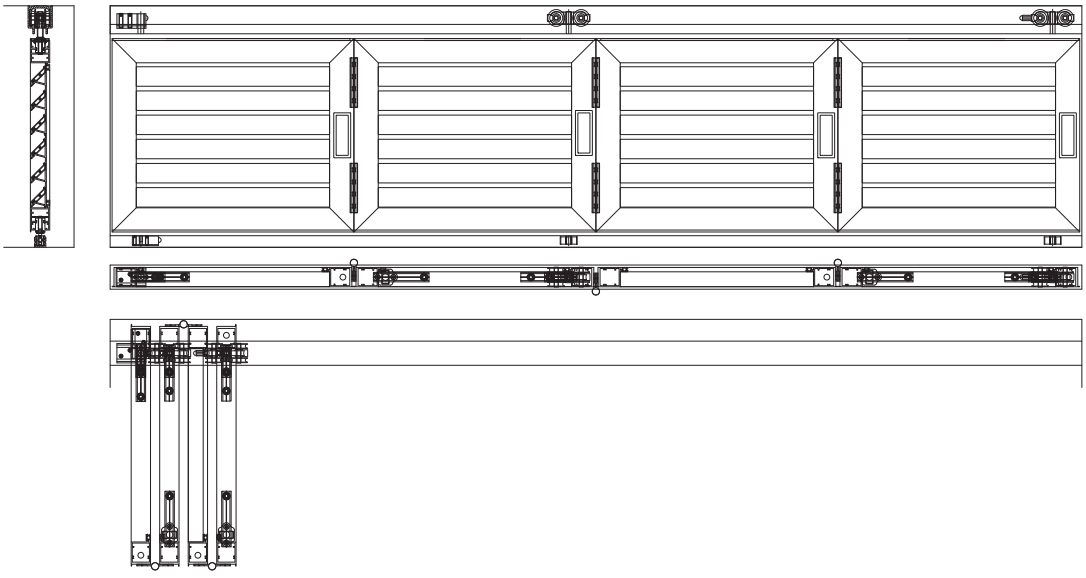
Ref. Jardin des Sens
Arch.: AKTIS Architecture - 38000 Grenoble

Fixed panels

If the moving elements do not need to be flexible, the different types of sunprotection panels can also be applied as fixed sun or wind screens.

Folding panels

Only with LG.040
The folding system is only available in a manually controlled version.



RENSON : YOUR PARTNER IN NATURAL VENTILATION AND SUN PROTECTION

RENSON has a rich tradition in innovation, and has been building on the experience it has gained since 1909. Now Renson profiles itself as the undisputed market leader in natural ventilation and sun protection. Since 2003, we have been working from a striking building in Waregem alongside the E17 Kortrijk-Ghent motorway. The complex is an application of our Healthy Building Concept and it is a model for our technological professionalism and know-how.

Renson's highest priority is the creation of a healthy internal climate. And this is more than just a trend. We develop and commercialise products which contribute to low energy consumption. In this way, RENSON provides an important contribution to the application of the Kyoto climate treaty.

RENSON HAS EVERYTHING RIGHT HERE:

- Our multi-disciplinary R&D department works together with leading European research institutions. This results in many innovative designs and products.

- Our automatic powder coating installation, anodisation unit, plastic moulding centre, injection moulding unit, assembly department and warehouse are accommodated within an area of 75,000 m². Thanks to this vertical integration RENSON supplies high-quality products.

- Our sales and marketing department has its headquarters in Belgium. There are also branches in France and Great Britain. We are also operating across the European borders.

- The diversity and competence of the RENSON project team are our guarantee for the correct solution for your building project. The development of a constructive long-term relationship with all building specialists is a matter of importance for us.

RENSON reserves the right to make technical changes to the products shown.
The latest brochures may be downloaded from www.renson.eu

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RENSON
DESIGN IN SUNPROTECTION

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