MASTERING SUN PROTECTION

STRUCTURAL SUN PROTECTION

RENSON®

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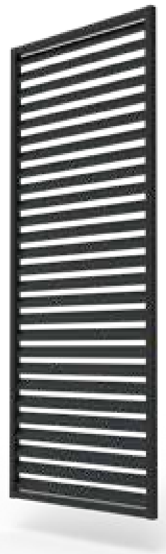
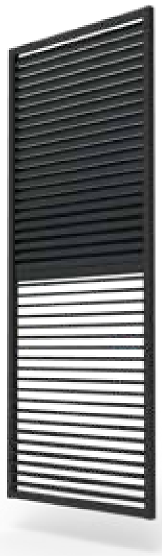
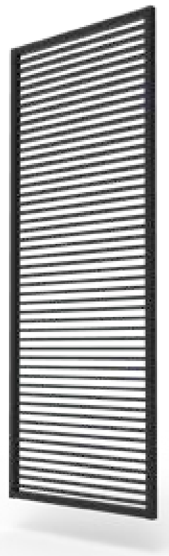
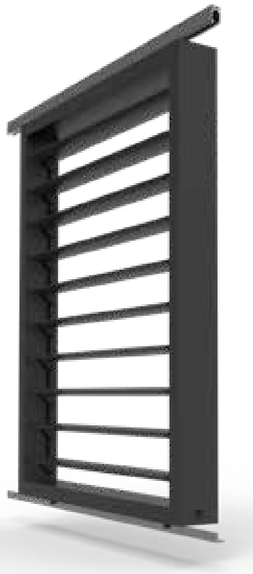
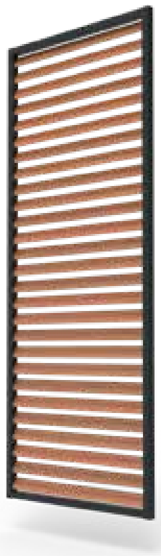
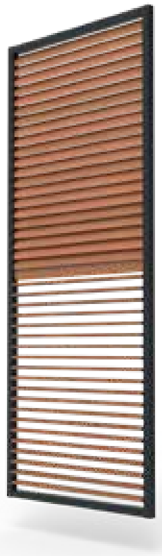
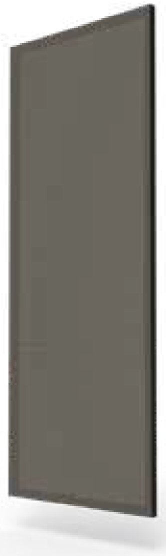
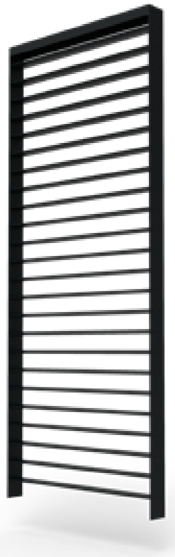
> // Our passion lies in creating innovative products and complete solutions that turn every home into a healthy and comfortable place to live.
> Our commitment to 'creating healthy spaces' is the foundation of everything we do.
> Paul Renson //

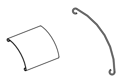
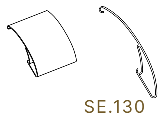
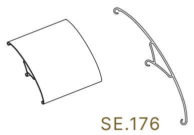
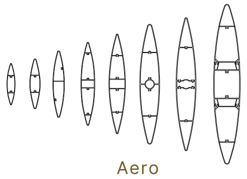
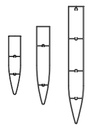
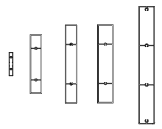
OVERVIEW
SLIDING PANELS

Sliding panels									
	Loggialu					Loggiawood		Loggiascreen	Loggialu
Insert	Aluminium blades					Wooden blades		Screen fabric	Aluminium blades
Movable blade	-	✓	-	-		-	✓	-	
									
Standard/residential application	✓	✓	✓	-		✓	✓	✓	-
Project application	✓	✓	✓	✓		-	-	-	✓
Type	Standard	Privacy	Plano	LG.130		Standard	Privacy	Canvas	Patio
	Page 28	Page 30	Page 32	Page 34		Page 36	Page 38	Page 40	Page 42

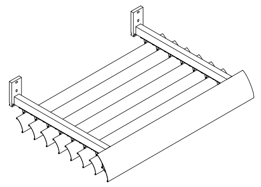
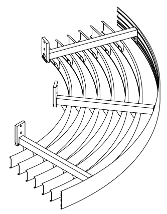
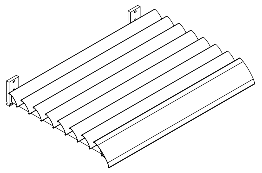
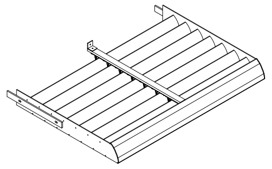
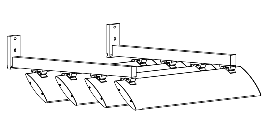
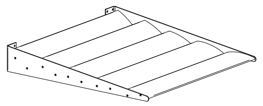
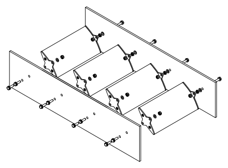
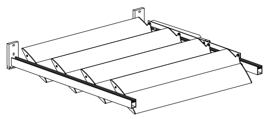
OVERVIEW OF FIXED STRUCTURAL SUN PROTECTION

Project application: In the range of structural sun protection, a distinction is made between standard/residential applications and project applications. Project application starts at a project price of **€20,000 net**.

BLADE TYPE

	Sunclips			Icarus[*]		
Blade type	 SE.096.01	 SE.130	 SE.176	 Aero	 Plaero	 Plano

HORIZONTAL SUN PROTECTION

	Sunclips					Icarus			
Movable blade	-	-	-	-		-	-	-	✓
									
Standard/residential application	✓	-	-	-		-	-	-	-
Project application	✓	✓	✓	✓		✓	✓	✓	✓
Type	Bottom blades	Curved bottom blades	Overhead blades	Cassettes		Quickfix® canopy with fixed bottom blades	Cassettes, multiple fixed blades	Fixed, single blades	Movable blades
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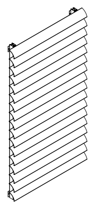
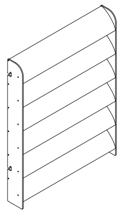
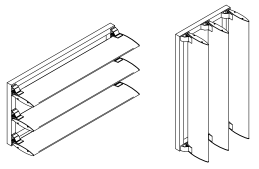
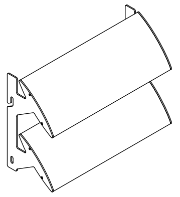
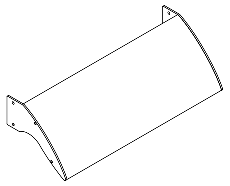
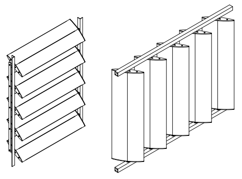
VERTICAL SUN PROTECTION

	Sunclips			Icarus			
Movable blade	-	-		-	-	-	✓
							
Standard/residential application	-	-		-	-	-	-
Project application	✓	✓		✓	✓	✓	✓
Type	Vertical on mullions	Cassettes		Quickfix® with horizontal or vertical blades	Cassettes, multiple fixed blades	Fixed, single blades	Movable with horizontal or vertical blades
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***Certain extrusions are upon request. Minimum order quantity and delivery period to be agreed per project.**

WHY STRUCTURAL SUN PROTECTION?

Structural sun protection blocks the heat from the sun in an efficient and effective way. Without compromising on natural light, your view of the outside or smooth controls.

1

UP TO 10 DEGREES COOLER

Structural sun protection blocks the sunrays before they reach the glass, making this a perfect solution for keeping the inside temperature under control. Smart and correct use of the sun protection system can make the inside temperature up to 10°C cooler.

2

SAVE ON ENERGY

In summer, inside temperatures remain under control without the need for any energy-guzzling air-conditioning. And thanks to the design of the structural sun protection, you will make the most of the fact that the sun is low in the sky to heat your home indoors and save on energy all year round!

3

FOR EVERY PROJECT

Renson offers structural sun protection for both residential and project applications, resistant to all weather conditions. Renson also offers a whole host of assembly options to help you find the right structural sun protection for any building.

4

DURABLE AND STYLISH

Choosing aluminium means opting for durability and a stylish finish, giving structural sun protection a sleek look for a long time. The stylish finish of each component and architectural touches take care of the rest.

ENJOY ALL SEASONS

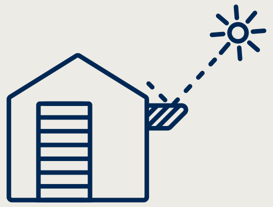
Everyone wants a view outside and as much natural daylight in their home as possible, while keeping the indoor climate under control at the same time. Sun protection adds comfort in the warm summer months and during cold winters. Moreover, sun protection also positively affects your power consumption.

CUSTOMISED COMFORT IN ALL SEASONS

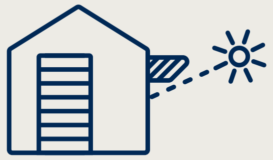
When the sun is high in the sky, efficient outdoor sun protection is a necessity to prevent the indoors from overheating. Structural sun protection reduces the need for power-hungry air-conditioning. It also improves indoor comfort without losing sight of your garden.

When the sun is low in the sky, it is important to optimally use the benefits of sunlight (warmth and light) to increase comfort and reduce power consumption.

Summer



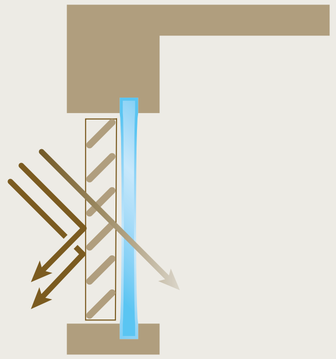
Winter



SLIDING PANELS

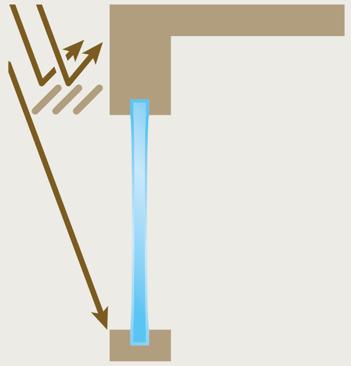
To meet the increasing demand for aesthetic, multifunctional façade elements, Renson® has further expanded its **range of sliding panels**.

The Loggia panels are made of frames with aluminium blades, wooden blades or fabric inserts. The Patio panels are sliding cassettes where the aluminium blades are screwed in between vertical end cap plates (e.g. Sunclips and Icarus).



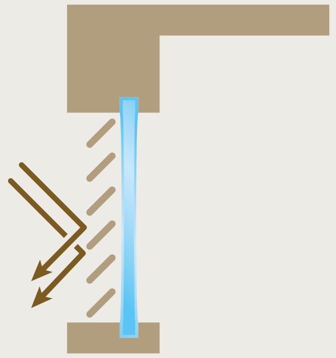
HORIZONTAL STRUCTURAL SUN PROTECTION

Fixed canopies with horizontal blades mounted to an aluminium support structure. As these canopies hang above the windows, they do not interfere with the view outside. The systems also provide excellent shade when the sun is high in the summer months. When the sun is low during the winter, they allow the pleasant warmth of the sun to enter.



VERTICAL STRUCTURAL SUN PROTECTION

Vertical aluminium blades for the window are attached to an anchored support structure on the façade. Because of the dimensions of these installations and the fact that fixed as well as movable blades remain in front of the windows, such systems are frequently used in project construction and less so in residential applications. The production of a similar application requires customisation and the installation must be entrusted to a specialised steel or façade builder.



! Possible systems

Multiple types of blades can be used in all systems. Depending on the desired shading and required transparency, the blades can be positioned at different inclination angles and with different degrees of blade pitch.

SUPPORT FROM A TO Z

! RENSON.NET

Customers will find lots of information about our products on our website. Moreover, on our Professionals portal, you will find all technical information such as manuals, technical data sheets, ecolabel, brochures for your customers, specification sheets, and more. If you have trouble finding what you're looking for right away, please get in touch with our HOTLINE.

We are here for you (and your team)! In need of training? Technical assistance or an intervention at the construction site?

> // *One phone call to the HOTLINE was enough to get my team back on track at the construction site. We promptly got the technical information we were looking for. Perfect service that saved a lot of time!* //

Technical assistance?
RENSON
HOTLINE
+32 (0)56 30 30 30
Every call matters

Hotline

Not sure which solution is the best answer? Struggling with a specific technical issue at the construction site? Contact one of our distribution partners or call a Renson helpdesk representative via the **HOTLINE** on +32 (0)56 30 30 30. If necessary, we will even send a Renson technician to your site. This will save you lots of time and give you a lot less to worry about!

Renson Academy

Perfectly functioning sun protection starts with correct installation. Good product knowledge and technical skills will save you a lot of time. You (and your team) are welcome to join us for:

- An update of your product knowledge
- A refresher of your skills
- Learning new techniques

? PROJECT APPLICATIONS

Have you got a specific project? Renson Services will work with you to find a suitable solution for your unique project, in accordance with the applicable Eurocodes. A team of technically trained employees is at the ready to answer all your questions. You can also contact us for after-sales service or questions related to assembly.

! Renson Academy On Tour

Limited in time? Distance too great? Our Academy is happy to come to you. In need of a tailored training course? Not a problem. Putting theory straight into practice will help you move forward! We would love to hear how we can support you.
Register at:
renson.net > i'm a professional > Training

RENSON
ACADEMY ON TOUR

WHY RENSON?

At Renson, we believe that high-quality products and innovative solutions contribute to an energy-efficient, comfortable and healthy life. There is a reason why our baseline is ‘Creating healthy spaces’. And in doing so, we start from a few basic principles.

MINIMALIST DESIGN

We aim high when it comes to design. Renson solutions discretely fit into any project. The detailed finishing and seamless integration contribute to this fact.

THE POWER OF INNOVATION

Our hunger for innovation is what drives progress. We achieve impressive results together by developing and applying innovative technologies.

ENDLESS CUSTOMISATION OPTIONS

For your home or workspace, rustic or contemporary. Configuring a solution tailored to each customer and building is quick and easy.

SUSTAINABLE ENTREPRENEURSHIP

We cannot build a healthy living environment without tending to a healthy world. From our choice of materials to our production and logistics, we are building a sustainable business.

ULTIMATE EASE OF USE AND MAINTENANCE

Thorough engineering is a function of ease of use and minimum maintenance. From configuration and ordering to quick and trouble-free installation, with our digital platform, RIO, as its beating heart.

PRODUCT OVERVIEW

Sliding panels

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Panels 27

Fixed structural sun protection

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Horizontal sun protection 67
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  Icarus cassettes 86
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  Icarus movable 92

Vertical sun protection 97
  Sunclips on mullions 98
  Sunclips cassettes 102
  Icarus Quickfix 104
  Icarus cassettes 110
  Icarus fixed 112
  Icarus movable 116

LOGGIA® SLIDING PANELS

Vertical sun protection

Offering a great deal of flexibility, Loggia sliding panels are a form of structural sun protection. You decide whether to slide the panel in front of the window or slide it away completely. This gives you the freedom to create the best indoor climate in both summer and winter.

Properties

- Efficient sun protection with a maximum amount of light incidence and a comfortable view outside
- Architectural accent
- Finish without any visible connecting elements
- Fixed or movable blades or sun protection fabric
- Suitable as a sliding or fixed panel
- Manual or motorised control
- Uniform appearance of the element both indoors and out
- Low maintenance- High-quality and maintenance-free sliding hardware- Powder-coated aluminium, easy to clean
- CE tested
- The range of possible dimensions is subject to the local wind load and regional legislation

Loggia is available both in customised production (ready-to-install) and in individual parts to assemble yourself (stock lengths and parts).

Applicability

The structural and functional added value of sliding panels is reflected in a variety of applications.

Windows

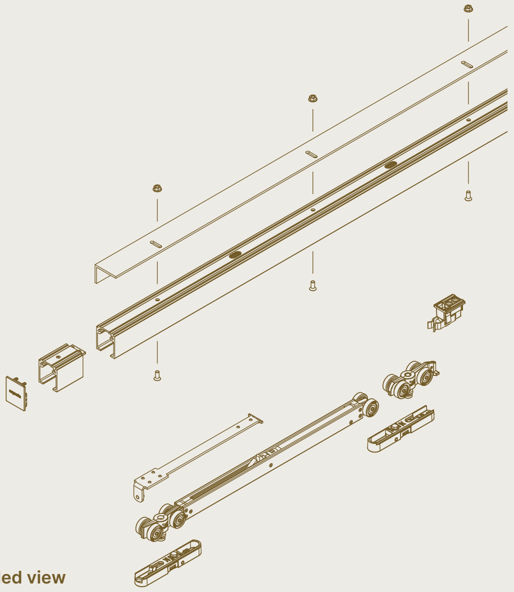
Balcony

Pergola or garden room

GUIDING

Possible systems

Proslide is a professional surface-mounted sliding door hardware system for both wall and ceiling applications. The unique guiding-in profile, specially developed for both recessed and surface-mounted installation, are suitable for both residential and non-residential new-build and renovation projects. Combining a guiding rail with the necessary accessories is child's play, as the wear-resistant roller assemblies and stoppers are universally applicable to both types of rails. This roller guide is suitable for single, double, telescopic, simultaneous, symmetrical and motorised sliding panels.

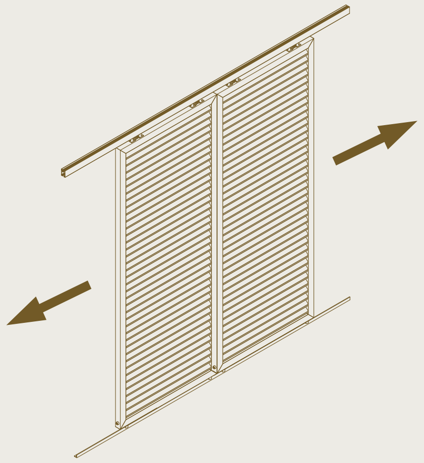


Exploded view

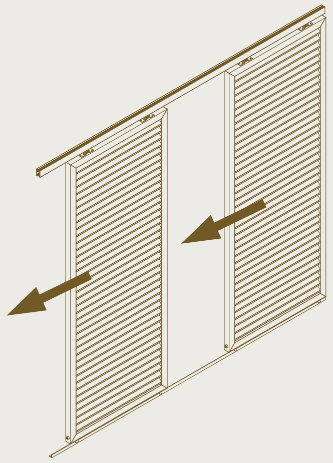
SYMMETRICAL / SIMULTANEOUS SLIDING

This system includes a series of two interconnected panels. The panels are linked in order to move simultaneously, either towards or away from one another (symmetrical) or in the same direction (simultaneous). Optionally, these versions can be motorised.

Symmetrical sliding

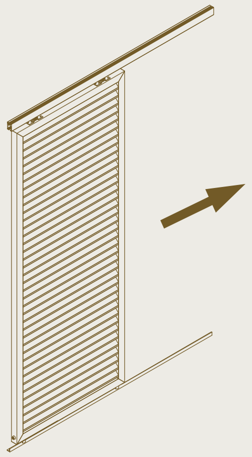


Simultaneous sliding



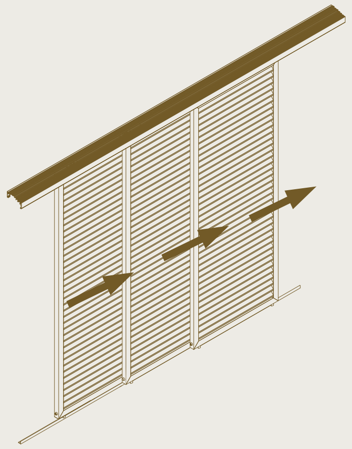
SINGLE SLIDING 1D, 2D OR 3D

In this application, one to three panels are operated individually. Each panel can be placed in the desired position without affecting other panels. Optionally, this version can be motorised.



TELESCOPIC SLIDING

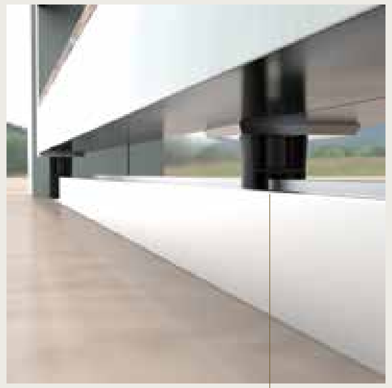
Telescopically connected panels are an option for applications requiring wider window surfaces to be shielded in one go. This involves linking two or three panels together in such a way that they telescopically slide out or behind each other when operated. The various panels slide along separate tracks and neatly stack behind one another in the open position. Optionally, the version with two panels can be motorised.



FLEXGUIDE®

Bottom guiding channel

Flexguide by Renson ® is a patented self-regulating bottom guiding channel system, which allows level differences of up to 50 mm to be compensated for. In case of drainage gradients or unevenness due to construction defects or temporary loads, this self-regulating bottom guiding channel adjusts automatically thanks to its spring tension. A thickening or doubling of the bottom guide profile is unnecessary. The bottom-guide profile is simply fixed to the ground, just like with a flat surface. The Flexguide's spring-loaded pin always remains in contact with this bottom guiding channel, even when on a sloping or uneven surface.

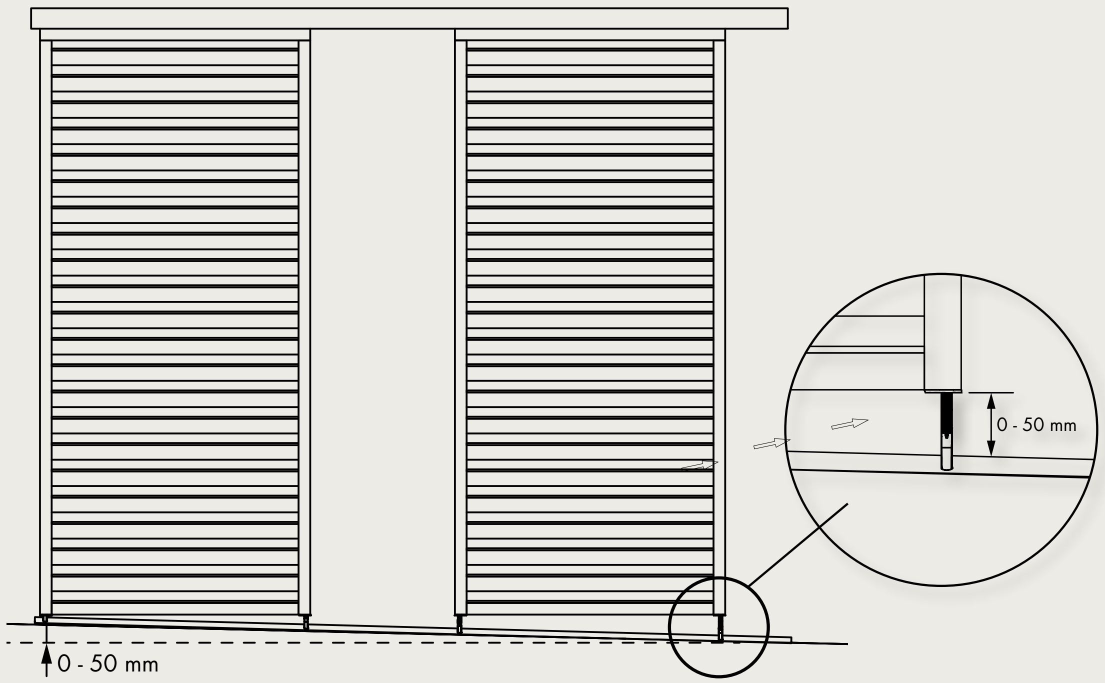


Integrated into the frame profile

Can be installed in all standard sliding panels

Properties	
Applicability	Sloping surfaces / between two levels
Compatibility	All standard sliding panels
Composition	Stainless steel material
Stability	
Thermal expansion	✓
Settlement of building (elements)	✓
Certificates	
Declaration of Performance (DoP)	DoP/RP/001

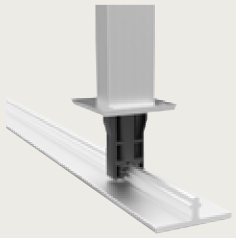
Detailed drawings

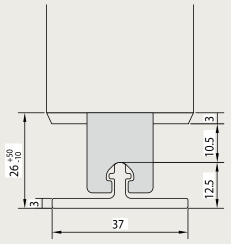


Types of Flexguide® and application:

Flexguide®-Plus

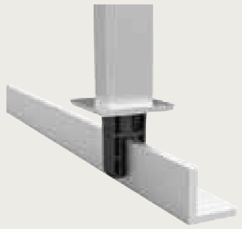
Flexguide®-Plus
- 37 mm x 12.5 mm x 3 mm
- Bottom guide profile "T" with low height of 12.5 mm, suitable for wheelchair access passage and more.

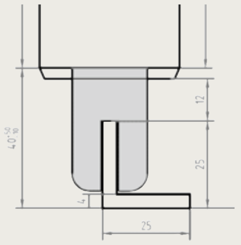




Flexguide®-Long

Flexguide®-Long
- 25 mm x 25 mm x 4 mm
- Bottom guide profile "L" with height of 25 mm





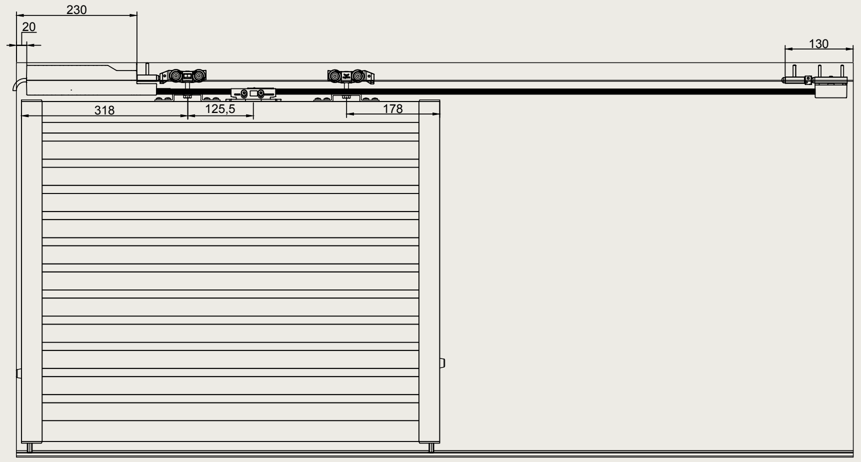
ROB A-SLIDE EXTERIOR MOTOR

Loggia panels can be motorised in addition to manually operated. To this end, Renson offers the Rob A-slide Exterior motor. This motor comes with obstacle detection and simple plug-and-play installation, and can be connected to the Proslide rail.

Properties	
Obstacle detection	✓
Voltage	24 V DC
Supply network	230 V AC, 50 Hz
Speed	5 cm/s
Included	Control electronics and power supply
Not included	Wall-mounted switch
Compatibility	Proslide rail
Cable length	0.5 m

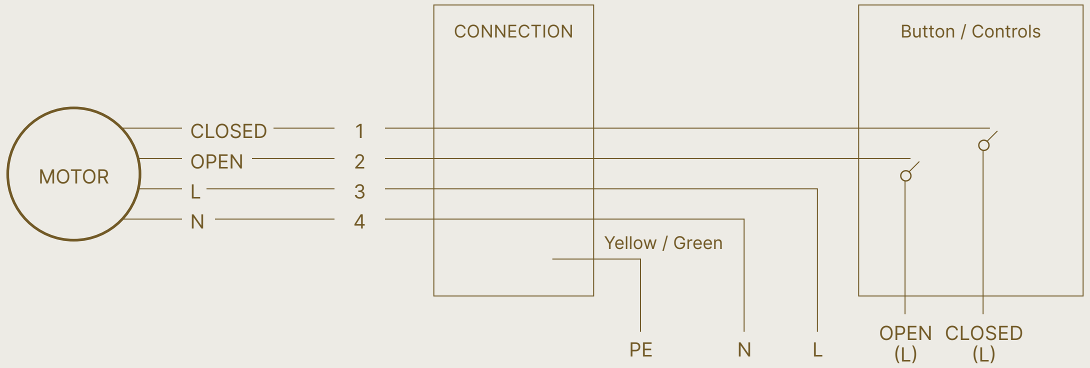
Detailed drawings

Motor connection


230
20
130
318
125,5
178

The motor is applicable for single sliding, symmetrical, simultaneous and telescopic with two panels. Renson® recommends finishing the rail of the system with a back cover plate (sloping or flat) so the belt is not visible.

Motor wiring


CONNECTION
Button / Controls
MOTOR
CLOSED
OPEN
L
N
1
2
3
4
Yellow / Green
PE
N
L
OPEN (L)
CLOSED (L)

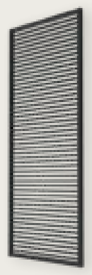
Can be controlled with a wall-mounted switch (not included) or with standard switch modules (cfr. shutter controls).

SLIDING PANELS

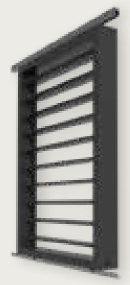
Sliding panels combine the functionality of an efficient sun protection panel with an elegant appearance and aesthetic design within a high-quality and contemporary concept. A solid surrounding frame ensures good overall shape retention, while the blades are discreetly embedded in the vertical side profiles of the frame without any visible mounting.

Loggialu
Page 28

Loggialu
Privacy
Page 30



Loggialu
Plano
Page 32



LG.130
Page 34

Loggiawood
Page 36

Loggiawood
Privacy
Page 38

Loggiascreen
Canvas
Page 40

Loggialu
Patio
Page 42

LOGGIA® ALU

Sliding panel with fixed, parallelogram-shaped aluminium blades

Finished panels with no visible connecting elements
Low maintenance
Suitable as a sliding or fixed panel

Technical properties	
Aluminium extrusion	Alloy EN AW-6063 T66
Polyester powder coating	(60-80 micron) in RAL colours
Blades	
Pitch	90 mm
Depth	30 mm
Inclination	33°
Angle limit of solar radiation AS	46°
Maximum blade span (in terms of height)	1500 mm
Perpendicular visual opening OV	31%
Frames*	
Standard 40	Normal dimensions (max. panel height 3000 mm)
Project application 60	Larger dimensions (max. panel height 3500 mm)
Options	
Powder coating	Imitation wood: white oak, natural oak or walnut
Flexible bottom guiding channel	Flexguide (see page 22)

*Depending on the height of the sliding panel, the horizontal frame profile (top and/or bottom) can be 70 mm high instead of 40 mm.

Overview of possible panel heights “H” as a function of wind pressure qb and panel width “B”

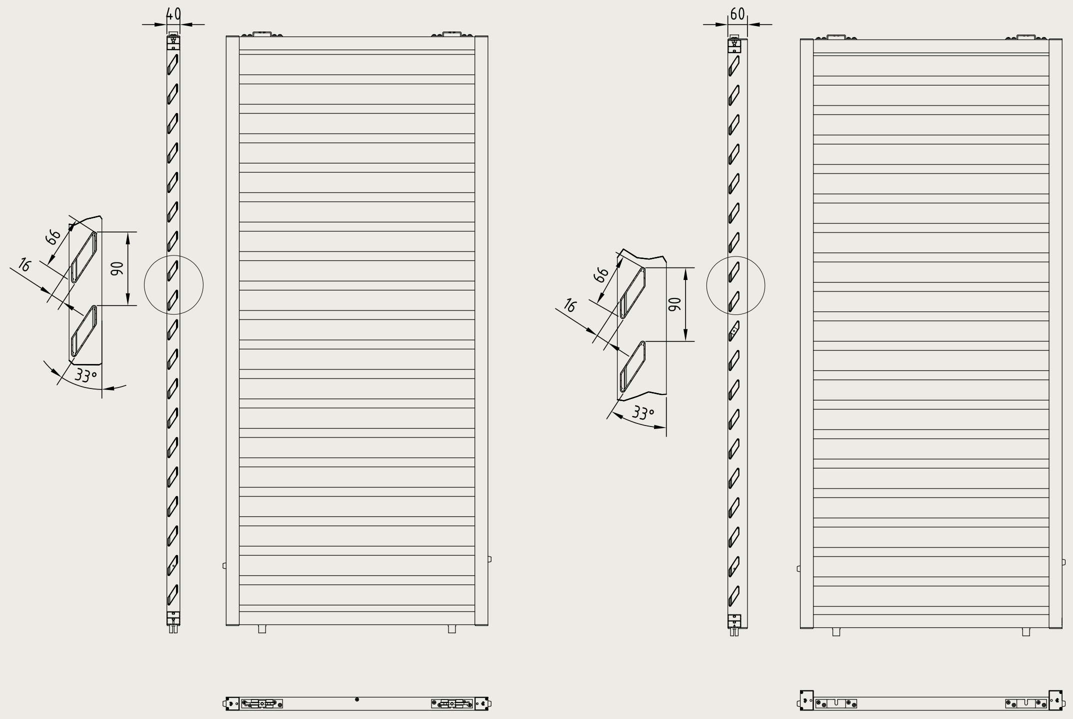
Frame	Wind pressure qb in Pa	Typical panel widths “B” in mm 800	1200	1500
Standard 40	600	3000	2730	2580
	800	2800	2540	2400
	1200	2540	2300	2170 *
Project application 60	600	3500	3500	3500
	800	3500	3450	3270
	1200	3450	-	-

* Middle mullion: More details or larger panel dimensions are available in consultation with our project team. Base wind pressure qb, according to standard ENV 1991-2-4(1995).

Detailed drawings

Loggialu® 40

Loggialu® 60



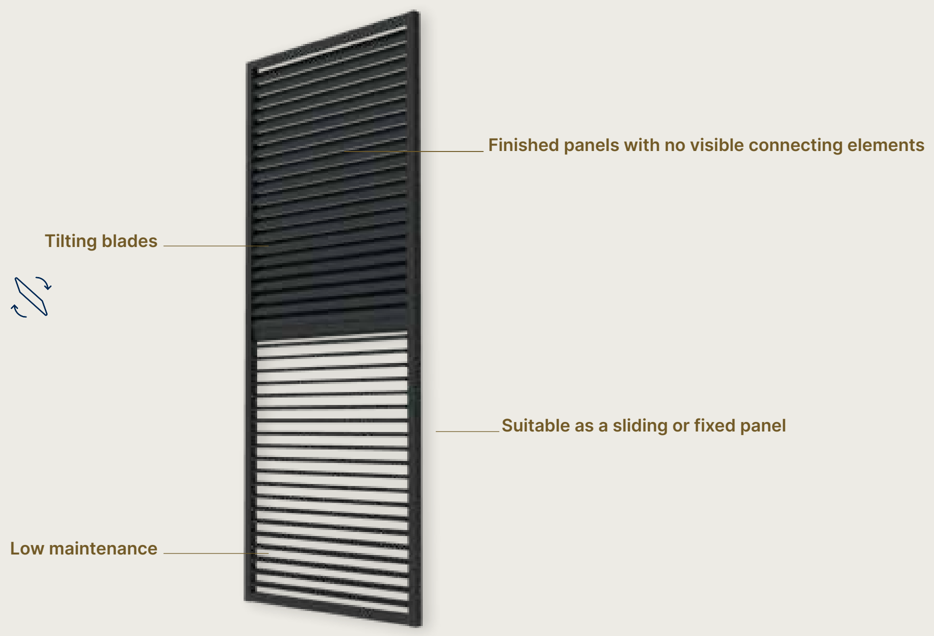
Standard/Residential

Project application

LOGGIA® ALU PRIVACY

A sliding panel with tilting aluminium blades

“Privacy” panels come with movable blades; they can be manually tilted from the closed position to fully open or vice versa. This allows you to place the blades in the open position at the top and in the closed position at the bottom, for example.


Finished panels with no visible connecting elements
Tilting blades
Suitable as a sliding or fixed panel
Low maintenance

Technical properties	
Aluminium extrusion	Alloy EN AW-6063 T66
Polyester powder coating	(60-80 micron) in RAL colours
Blades	
Pitch	57 mm
Rotation angle of the blade	147°
Dimensions	65 × 16 mm
Maximum blade span (in terms of height)	1500 mm
Frames*	
Standard 40	Normal dimensions (max. panel height 3000 mm)
Project application 60	Larger dimensions (max. panel height 3500 mm)
Options	
Powder coating	Imitation wood: white oak, natural oak or walnut
Flexible bottom guiding channel	Flexguide (see page 22)

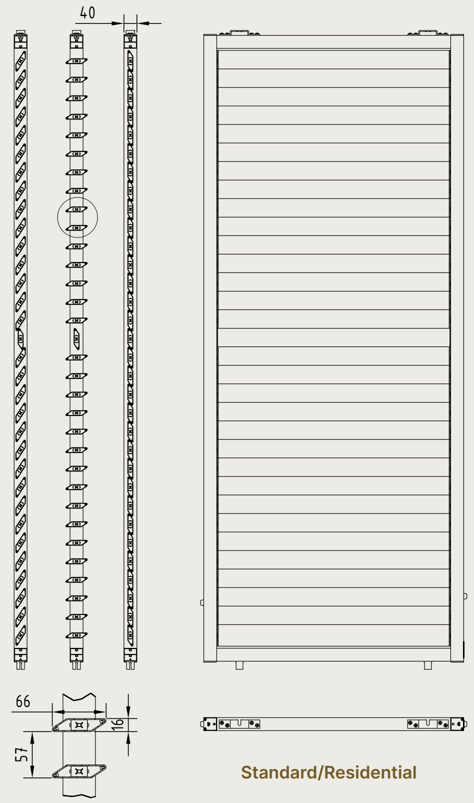
*Depending on the height of the sliding panel, the horizontal frame profile (top and/or bottom) can be 70 mm high instead of 40 mm.

Overview of possible panel heights “H” as a function of wind pressure qb and panel width “B”

Frame	Wind pressure qb in Pa	Typical panel widths “B” in mm		
		800	1200	1500
Standard 40	600	2780	2520	2380
	800	2590	2340	2210
	1200	2340	2120	2000
Project application 60	600	3500	3000	2700
	800	3390	3000	2700
	1200	3060	-	-

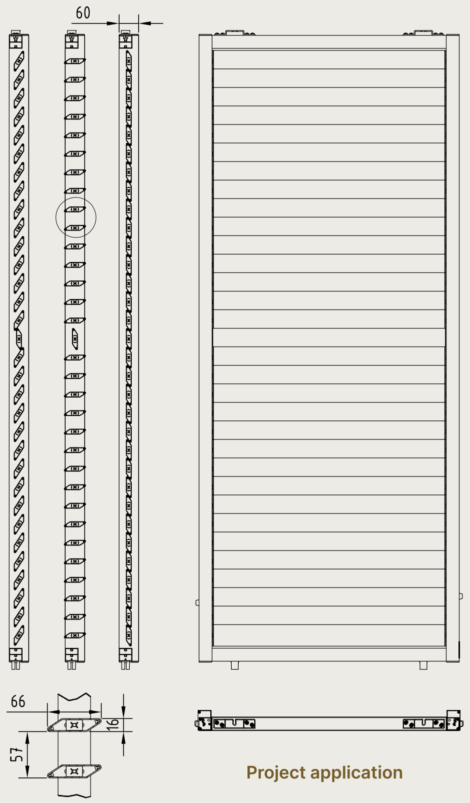
Detailed drawings

Loggialu® Privacy 40



Standard/Residential

Loggialu® Privacy 60



Project application

LOGGIA® ALU PLANO

Sliding panel with fixed rectangular aluminium blades

Finished panels with no visible connecting elements

Low maintenance

Suitable as a sliding or fixed panel

Technical properties	
Aluminium extrusion	Alloy EN AW-6063 T66
Polyester powder coating	(60-80 micron) in RAL colours
Blades	
Pitch	50 mm
Depth	33 mm
Height	16 mm
Angle limit of solar radiation AS	46°
Perpendicular visual opening OV	32%
Maximum blade span	1200 mm
Frames*	
Standard 40	Normal dimensions (max. panel height 3000 mm)
Project application 60	Larger dimensions (max. panel height 3500 mm)
Options	
Flexible bottom guiding channel	Flexguide (see page 22)

*Depending on the height of the sliding panel, the horizontal frame profile (top and/or bottom) can be 70 mm high instead of 40 mm.

Overview of possible panel heights “H” as a function of wind pressure qb and panel width “B”

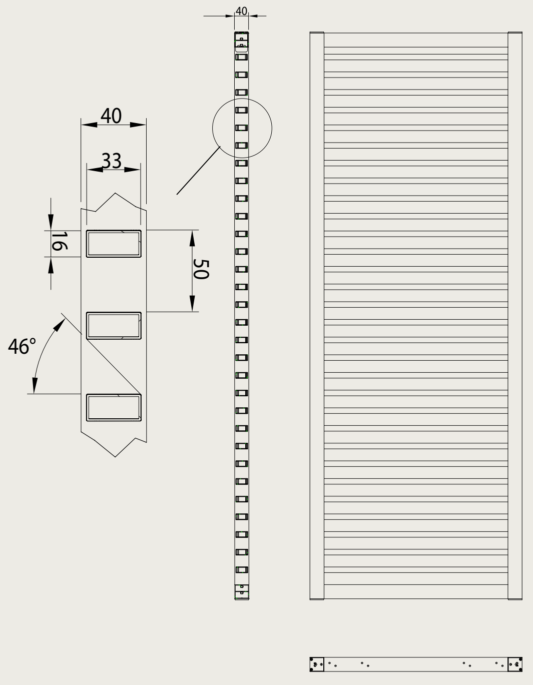
Frame	Wind pressure qb in Pa	Typical panel widths “B” in mm		
		800	1200	1500
Standard 40	600	3000	2970	2805
	800	3000	2760	2610
	1200	2760	2500	2360
Project application 60	600	3500	3500	3500
	800	3500	3500	3500
	1200	3500	3390	3200*

PRODUCT

- Loggialu Plano is only available in customised production (ready-to-install). The range of possible dimensions is subject to the local wind load, regional legislation and is determined in consultation with the Renson project team.

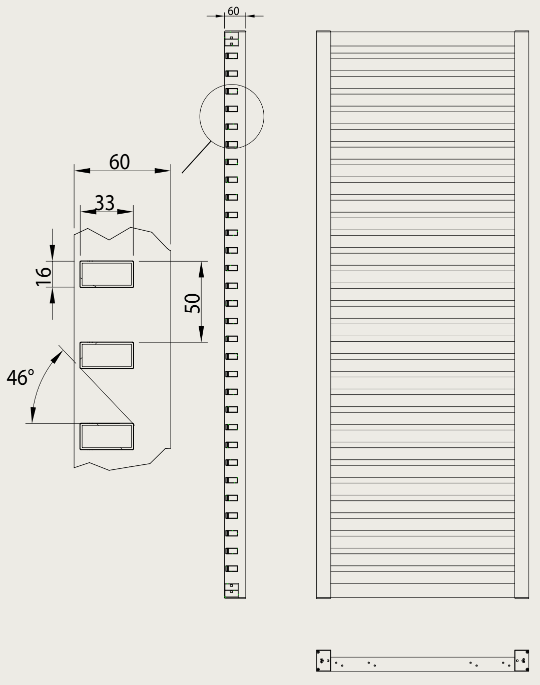
Detailed drawings

Loggialu® 40



Standard/Residential

Loggialu® 60



Project application

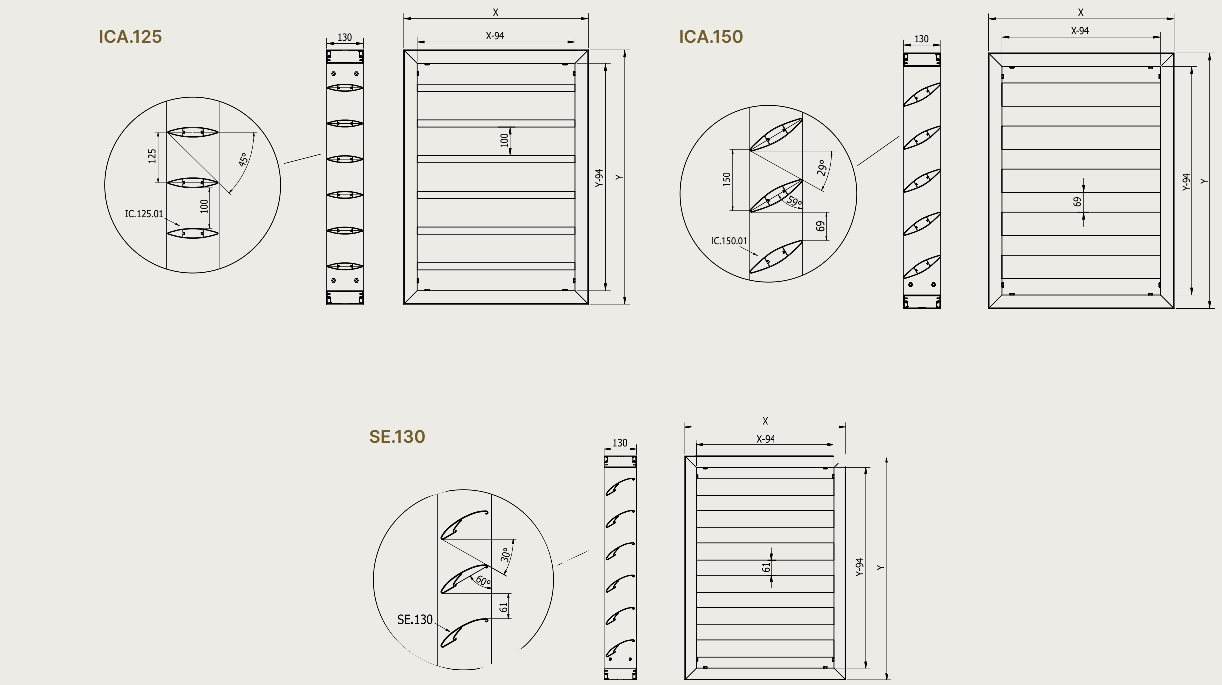
LOGGIA® ALU
LG.130

PROJECT
APPLICATION

Aluminium sliding panels for project applications

The extra-strong Loggia LG.130 frames were designed to meet the requirements for sun protection panels up to 6000 mm in height. This takes into account the local wind pressure acting on the system and the type of blade being installed. Frames of type LG.130 can be fitted with different types of blades: ICA.125, ICA.150 and SE.130. The blades can be installed at various angles with custom spacing.

Detailed drawings



Technical properties	
Aluminium extrusion	Alloy EN AW-6063 T66
Polyester powder coating	(60-80 micron) in RAL colours
Control	Motorised or manually sliding panel
Blades	
Tilting blades*	ICA.125 – Manual
Corner blade	Per 15°
Maximum permissible dimensions	Upon request

- Only Blade ICA.125 can tilt

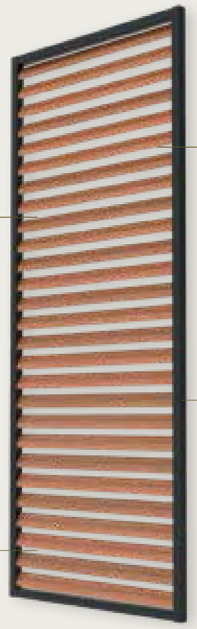
Blade type	Angle (°)	Blade pitch (mm)	AS (°)	OV (%)
ICA.125	90	125	45	80.0
ICA.125	75	125	37	70.8
ICA.125	75	150	44	75.7
ICA.125	60	125	30	48.4
ICA.125	60	150	39	57.0
ICA.125	60	175	46	63.1
ICA.125	45	125	22	28.3
ICA.125	45	150	35	40.3
ICA.125	45	175	44	48.8
ICA.150	59	150	29	46.0
ICA.150	59	200	44	59.5
ICA.150	45	150	22	27.8
ICA.150	45	200	42	45.9
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: Angle limit of solar radiation OV: Perpendicular visual opening

LOGGIA® WOOD

Sliding panel with fixed wooden blades

Loggiawood combines the quality of aluminium and the natural qualities of wood in an aesthetic and efficient contemporary system.


Finished panels with no visible connecting elements
Low maintenance
Suitable as a sliding or fixed panel
Wooden blades

Technical properties	
Aluminium extrusion	Alloy EN AW-6063 T66
Polyester powder coating	(60-80 micron) in RAL colours
Blades	
Wooden blades	Western Red Cedar Clear No. 2 or thermo-es
Treated	Untreated for natural ageing
Pitch	90 mm
Depth	30 mm
Inclination	33°
Angle limit of solar radiation AS	46°
Perpendicular visual opening OV	31%
Maximum blade span	> 1200 mm
Frames*	
Standard 40	Normal dimensions (max. panel height 3000 mm)
Project application 60	Larger dimensions (max. panel height 3500 mm)
Options	
Flexible bottom guiding channel	Flexguide (see page 22)

*Depending on the height of the sliding panel, the horizontal frame profile (top and/or bottom) can be 70 mm high instead of 40 mm.

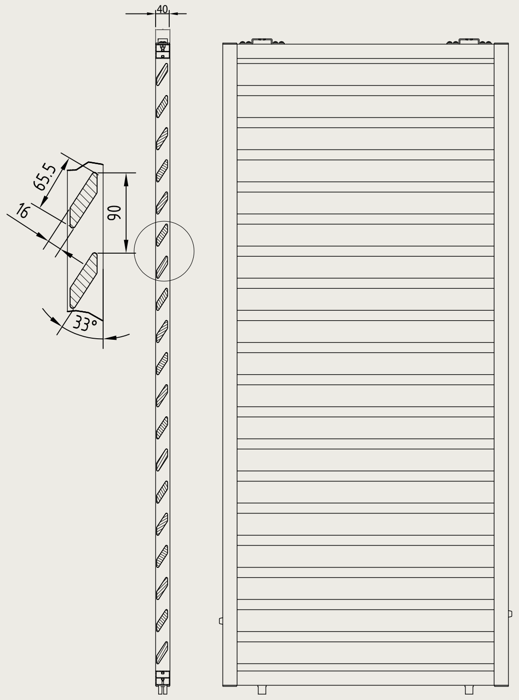
Overview of possible panel heights "H" as a function of wind pressure qb and panel width "B"

Frame	Wind pressure qb in Pa	Typical panel widths "B" in mm		
		800	1200	1500
Standard 40	600	3000	2740	2590 *
	800	2820	2550	2410 *
	1200	2550	2300	2180 *
Project application 60	600	3500	3500	3500 *
	800	3500	3460	3280 *
	1200	3460	-	-

* Middle mullion: More details or larger panel dimensions are available in consultation with our project team. Base wind pressure qb, according to standard ENV 1991-2-4(1995).

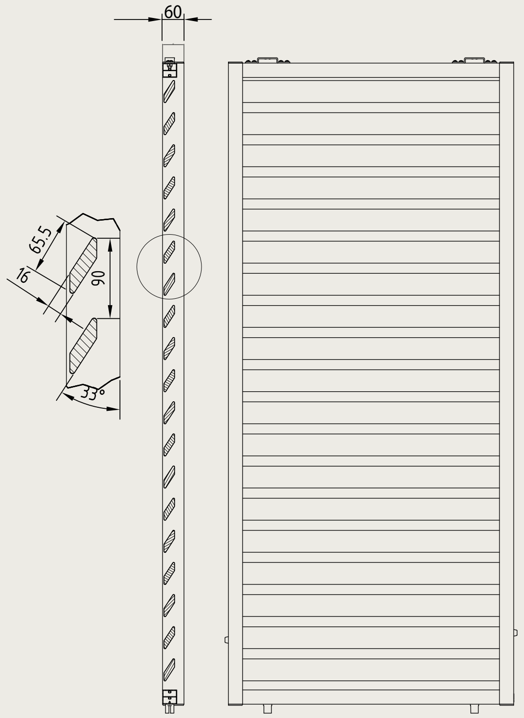
Detailed drawings

Loggiawood® 40



Standard/Residential

Loggiawood® 60

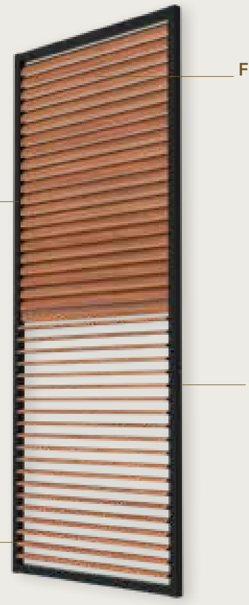


Project application

LOGGIA® WOOD PRIVACY

A sliding panel with tilting wooden blades

“Privacy” panels come with movable blades; they can be manually tilted from the closed position to fully open or vice versa. This allows you to place the blades in the open position at the top and in the closed position at the bottom, for example.


Finished panels with no visible connecting elements
Tilting wooden blades
Suitable as a sliding or fixed panel
Low maintenance

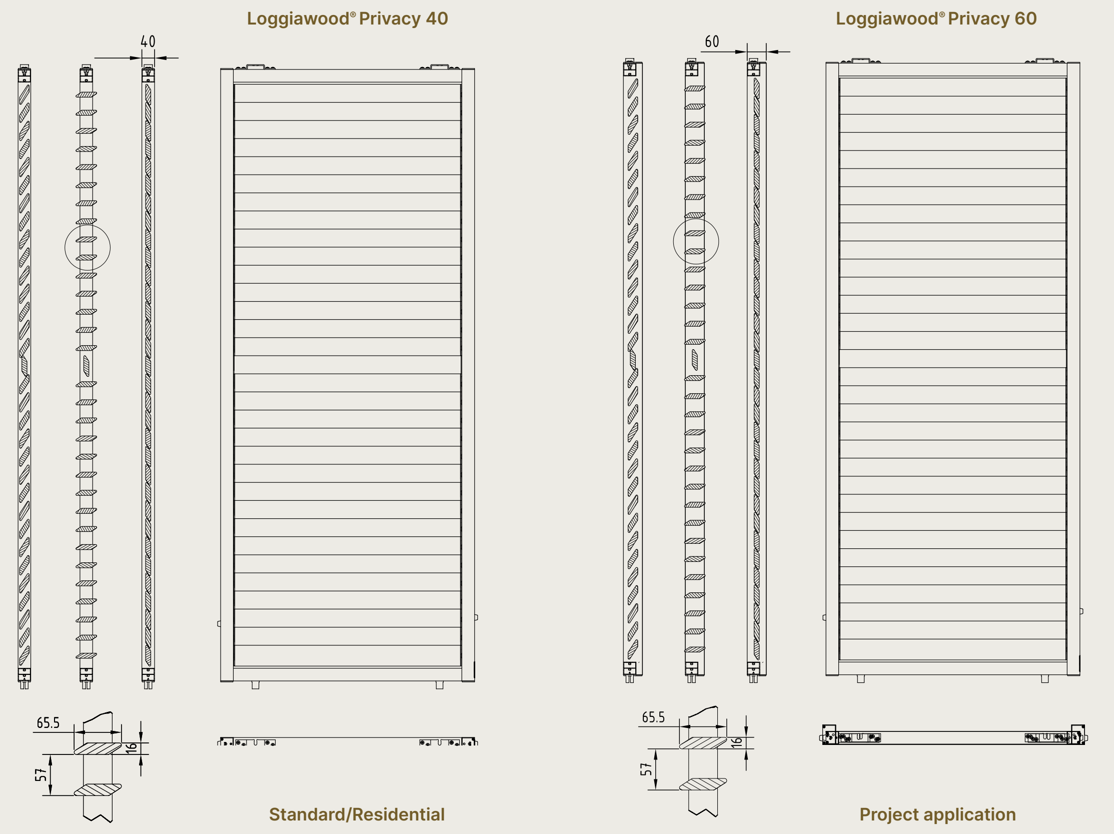
Technical properties	
Aluminium extrusion	Alloy EN AW-6063 T66
Polyester powder coating	(60-80 micron) in RAL colours
Blades	
Wooden blades	Western Red Cedar Clear No. 2 or thermo-es
Treated	Untreated for natural ageing
Pitch	57 mm
Rotation angle of the blade	147°
Blade dimensions	65 × 16 mm
Maximum blade span	1200 mm
Frames*	
Standard 40	Normal dimensions (max. panel height 3000 mm)
Project application 60	Larger dimensions (max. panel height 3500 mm)
Options	
Flexible bottom guiding channel	Flexguide (see page 22)

*Depending on the height of the sliding panel, the horizontal frame profile (top and/or bottom) can be 70 mm high instead of 40 mm.

Overview of possible panel heights “H” as a function of wind pressure qb and panel width “B”

Frame	Wind pressure qb in Pa	Typical panel widths “B” in mm		
		800	1200	1500
Standard 40	600	2790	2120	2379
	800	2590	2340	2210
	1200	2340	2115	2200
Project application 60	600	3500	3000	2700
	800	3390	3000	2700
	1200	3060	-	-

Detailed drawings


Loggiawood® Privacy 40
40
65.5
57
16
Standard/Residential
Loggiawood® Privacy 60
60
65.5
57
16
Project application

LOGGIA® SCREEN CANVAS

Sliding panel with sun protection fabric

Loggiascreen Canvas is a sliding panel with a sleek, contemporary design that combines the properties of various materials. In order to manage light and heat penetration efficiently, a high-performance screen fabric (Sergé or Soltis) is stretched over the frame. The invisible frame gives the panel its minimalist look.

Finished panels with no visible connecting elements

Low maintenance

Suitable as a sliding or fixed panel

Finished with sun protection fabric

Technical properties	
Aluminium extrusion	Alloy EN AW-6063 T66
Polyester powder coating	(60-80 micron) in RAL colours
Screen fabric	Fibreglass fabric (Sergé) or polyester fabric (Soltis Horizon 86), available in a wide range of colours
Frames	
Standard 40	Normal dimensions (max. panel height 3000 mm)
Options	
Flexible bottom guiding channel	Flexguide (see page 22)

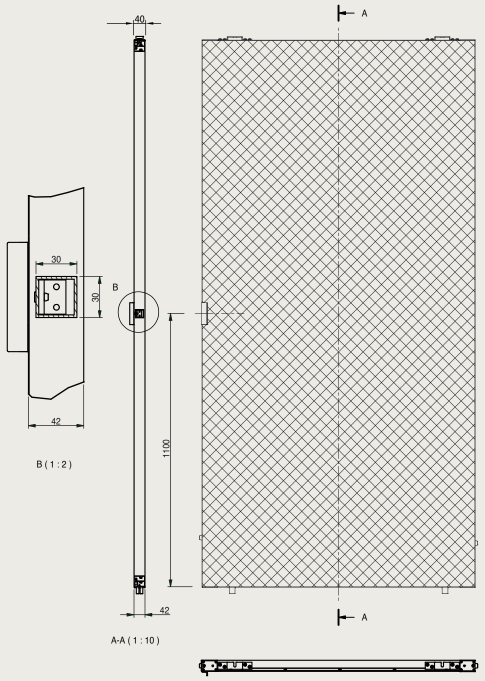
Overview of possible panel heights "H" as a function of wind pressure qb and panel width "B"

Frame	Wind pressure qb in Pa	Typical panel widths "B" in mm		
		800	1200	1500
Loggiascreen	600	2760	2140	2240
	800	2510	2190	1860
	1200	2190	1550	1240

PRODUCT

- Loggiscreen Canvas is only available in customised production (ready-to-install). Possible dimensions depend on the local wind load and regional legislation, and are determined in consultation with the Renson project team

Detailed drawings



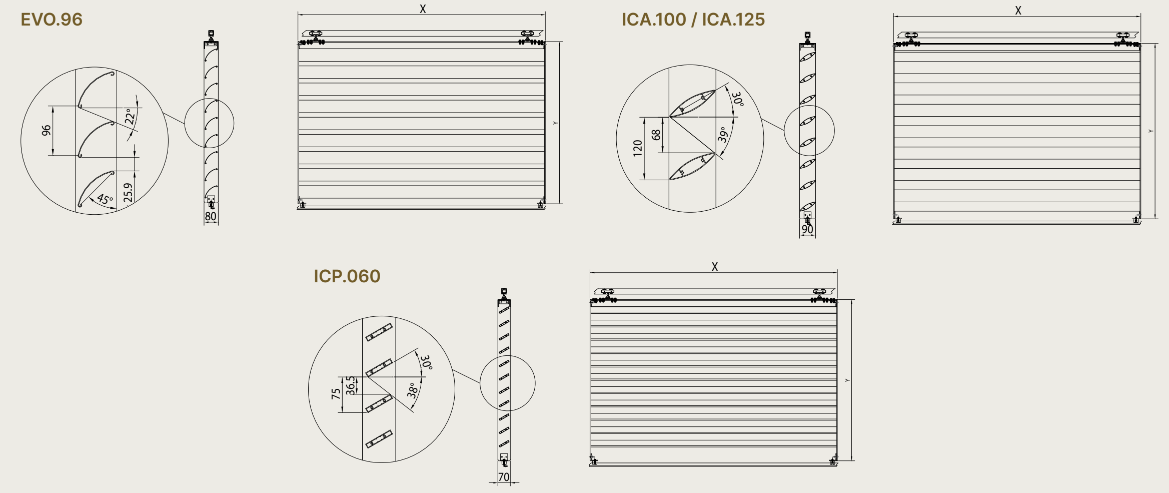
LOGGIA® ALU PATIO

PROJECT APPLICATION

Aluminium sliding panels for project applications. Slim frame.

Patio sliding panels with Sunclips and Icarus blades are composed of sun protection blades screwed in between two flat end plates. This installation principle is what secures the great flexibility of this product, thanks to the option of using different types of blades, installed at different intervals or with different inclination angles. Patio sliding panels stand out in particular for the slimness and elegance of the end panels.

Detailed drawings

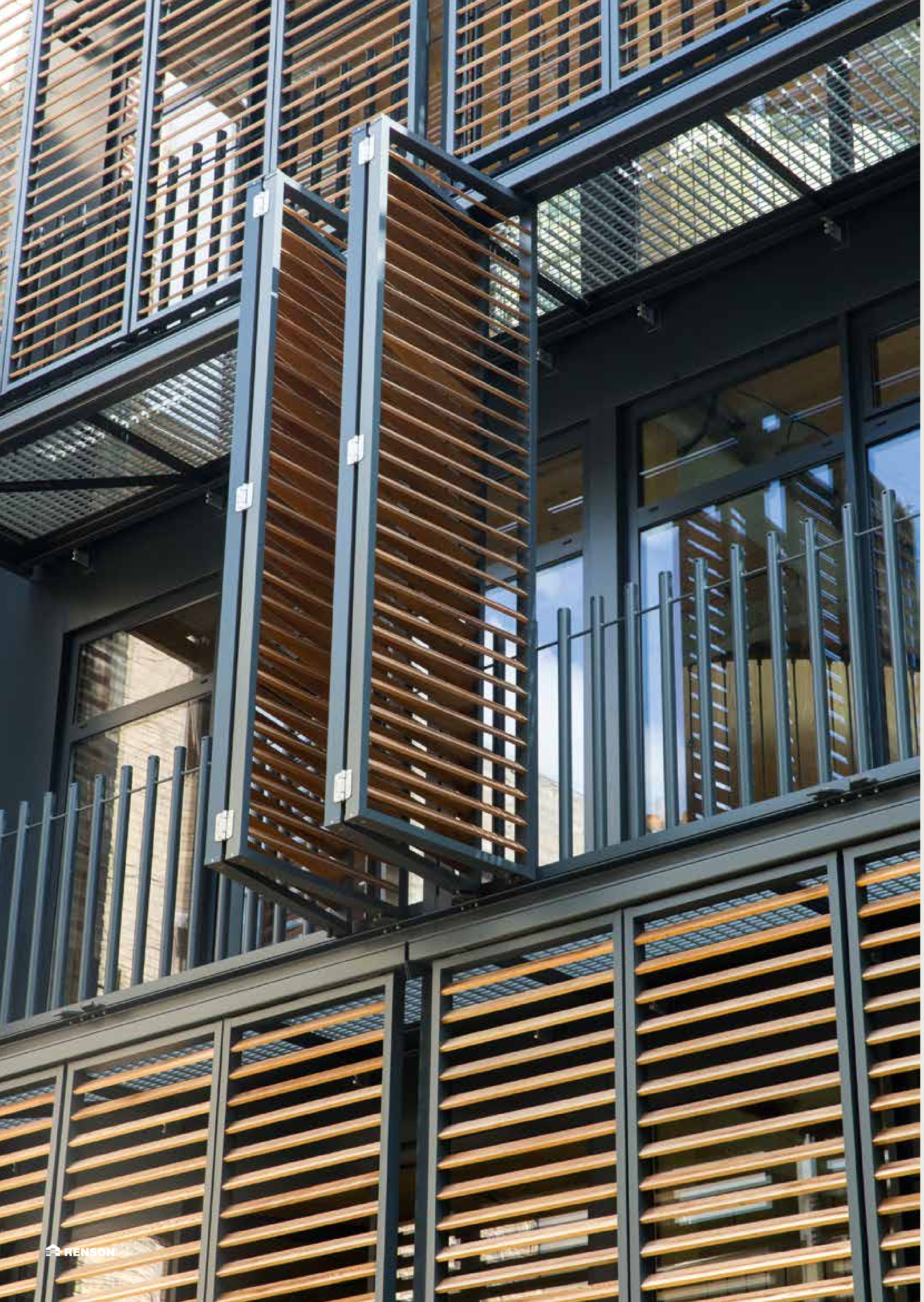

EVO.96
96
22°
25.9
45°
80
X
Y
ICA.100 / ICA.125
30°
39°
120
68
90
X
Y
ICP.060
30°
38°
75
36.5
70
X
Y

Finished panels with no visible connecting elements
Low maintenance
Suitable as a sliding or fixed panel

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	44	76
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

AS: Angle limit of solar radiation OV: Perpendicular visual opening

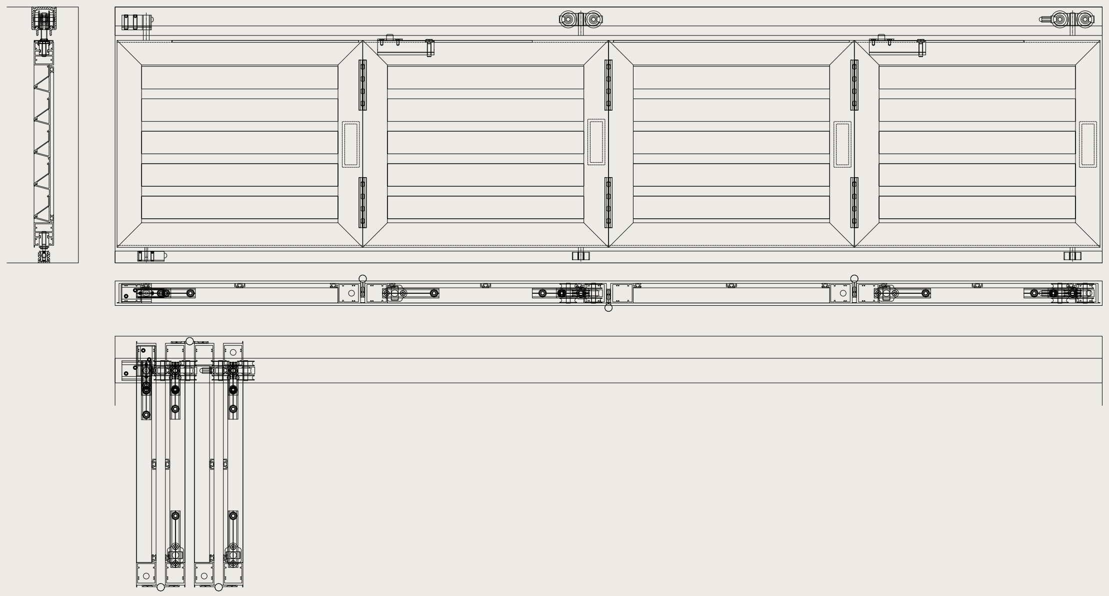
Technical properties	
Polyester powder coating	(60-80 micron) in RAL colours



FOLDING PANELS

PROJECT APPLICATION

Technical drawings



Available with frame LG.040.

FIXED STRUCTURAL SUN PROTECTION

Mounting and finishing	51
Horizontal sun protection	67
Vertical sun protection	97

SUNCLIPS®

Horizontal and vertical sun protection

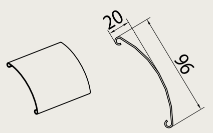
Sunclips consists of aluminium C-shaped blades installed on a fixed support structure. The Sunclips system is installed horizontally on or vertically in front of the façade to achieve the desired shading effect.
Sunclips includes three profile types:
- SE.096 with widths of 96, 130 and 176 mm
- SE.130 with widths of 96, 130 and 176 mm
- SE.176 with widths of 96, 130 and 176 mm

Technical details		Width (mm)	Height (mm)	I_Y (MM^4)	W_Z (mm^4)	I_Z (mm^3)
Residential	**SE.096.01**	96	20	160842	6048	3348
Project	**SE.130**	130	22	55097	19124	7610
	SE.176	176	25	1250307	24909	14097

Y: strength axle. Z: weakness axle

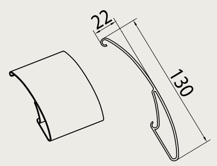
Technical drawings

Standard profiles

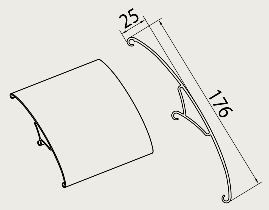


SE.096.01

Project profiles



SE.130



SE.176

ICARUS®

Horizontal and vertical sun protection

Icarus blades are extruded aluminium profiles that can be used as sun protection, façade cladding or as a visual barrier. The Icarus system is installed horizontally on or vertically in front of the façade to achieve the desired shading effect. Icarus includes three profile types:
- Icarus Aero is a lens-shaped blade, available in widths between 100 and 480 mm.
- Icarus Plaero is a combination of a rectangular and lens-shaped blade with widths of 150, 200 and 300 mm.
- Icarus Plano is a rectangular blade with widths of 60, 150, 200 and 300 mm.

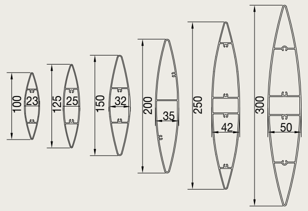
Other shapes and sizes are possible, depending on project needs and in consultation with our project department.

Technical details							
Icarus® Aero		**Width (mm)**	**Height (mm)**	I_Y (MM^4)	W_y (mm^4)	I_z (mm^3)	W_z (mm^3)
Project	**ICA.100**	100	23	256337	5126	16992	1482
	ICA.125	125	25	484640	7754	29399	2352
	ICA.150	150	32	950301	12616	64713	3936
	ICA.200	200	35	2395293	23905	113538	6387
	ICA.250	250	42	5155315	41231	214720	10264
	ICA.300	300	50	6999889	64666	402436	16097
	ICA.400*	400	60	23853116	119266	874358	29079
	ICA.480*	480	80	46149163	192285	2321828	58045
Icarus® Plaero		**Width (mm)**	**Height (mm)**	I_Y (MM^4)	W_y (mm^4)	I_z (mm^3)	W_z (mm^3)
Project	**ICL.150***	150	32	1201029	1475	96620	5426
	ICL.200*	200	35	3318686	30087	176148	9937
	ICL.300*	300	40	11843210	73712	400594	19031
Icarus® Plano		**Width (mm)**	**Height (mm)**	I_Y (MM^4)	W_y (mm^4)	I_z (mm^3)	W_z (mm^3)
Project	**ICP.060***	60	10	70800	2333	3131	626
	ICP.150*	150	30	2270694	30273	153477	10232
	ICP.200/30*	200	30	4028998	40285	171972	11271
	ICP.200/40*	200	40	5417853	54177	382888	19143
	ICP.300*	300	40	1402200	93480	462605	22384

Y: strength axle. Z: weakness axle
* Project profiles are available upon request. Minimum order quantity and delivery period to be agreed per project.

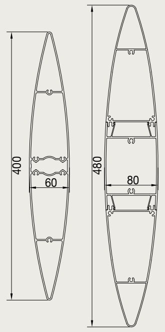
Technical drawings

Standard profiles

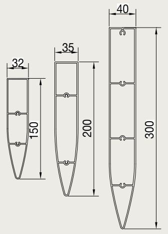


Aero

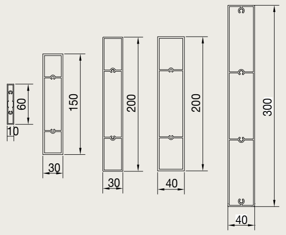
Project profiles



Aero



Plaero



Plano

MOUNTING AND FINISHING

Mullion profiles 52
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Decorative profiles 60
Horizontal corner applications 62
Vertical corner applications 64

MULLION PROFILES

Sunclips® / Icarus®

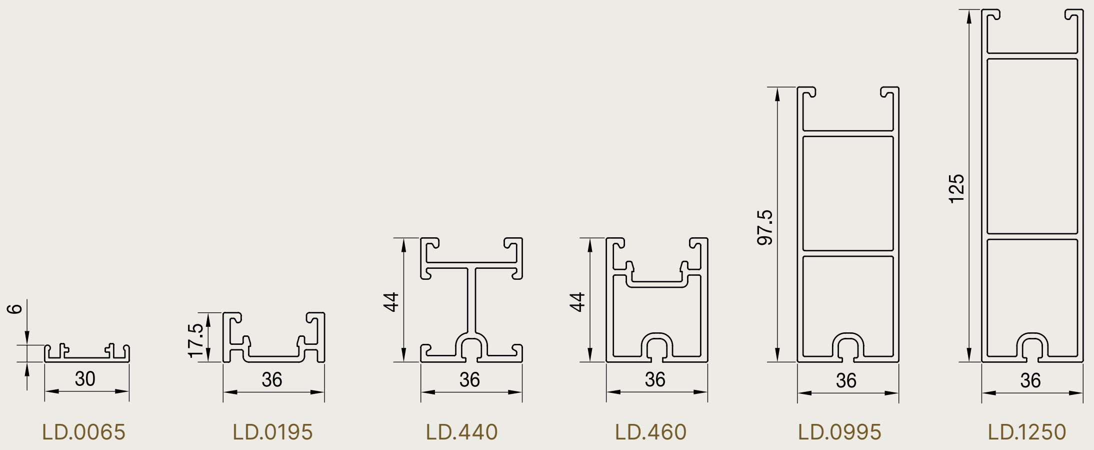
Extruded aluminium profiles, application as mullion profiles in permanent horizontal and vertical sun protection.

Technical properties	
Aluminium extrusion	Alloy EN AW-6063 T66
Surface treatment	Anodised (20 micron) F1
Polyester powder coating	(60-80 micron) in RAL colours

Technical details	Profile depth (mm)	Profile width (mm)	Moment of inertia (mm^{Q})	Bending modulus (mm^3)
LD.0065	65	30	261	60
LD.0108*	10.8	30	987	147
LD.0195	17.5	36	5931	570
LD.0440	44	36	83228	3622
LD.0460	44	36	83348	3560
LD.0995	97.5	36	625740	12097
LD.1250	125	36	1219444	18531
SD.014	14.5	40	4510	497
SD.054	54	40	208672	7360
SD.100	100	40	124814	24405

(*) Adapter profile for combination with mullion profiles SD.014, SD.054 or SD.100

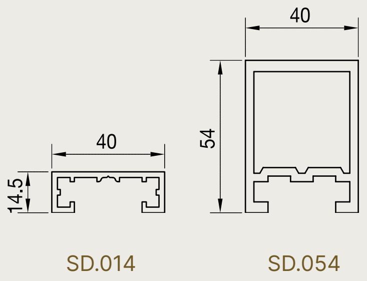
Mullion profiles Type LD – Icarus range only for vertical installation

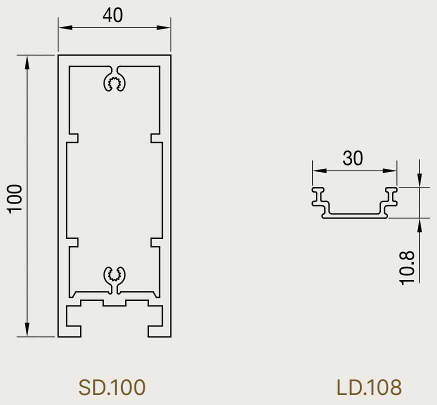

6
30
LD.0065
17.5
36
LD.0195
44
36
LD.440
44
36
LD.460
97.5
36
LD.0995
125
36
LD.1250

End caps for mullions

Mullion profiles Type SD – Sunclips range

Applied in residential applications

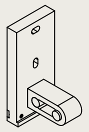

40
14.5
SD.014
40
54
SD.054


40
100
SD.100
30
10.8
LD.108

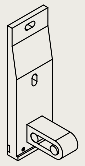
MOUNTING HORIZONTAL MULLIONS

The dimensions of the canopy, the wind load and the type of façade structure that the sun protection is installed on determine the mounting method. We are able to offer several standard applications.

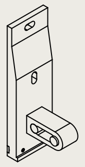
Fixation bracket type



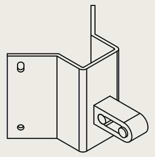
Standard fixation bracket SD.088.11
Application: For installation on solid substrates such as concrete.
Suitable for mullion profile SD.054.



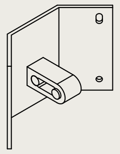
Fixation bracket SD.088.41
Application: For installation on weak substrates such as façade brick.
Suitable for mullion profile SD.054.



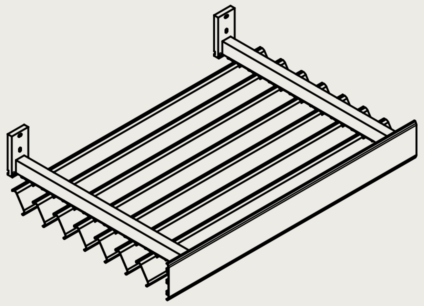
Standard fixation bracket SD.088.71
Application: For installation on solid substrates such as concrete and large cantilevers.
Suitable for mullion profile SD.100.



Steel fixation bracket SD.088.23
Application: Corner mullion for outer corners.
Suitable for mullion profiles SD.054 and SD 100.

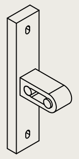


Steel fixation bracket SD.088.24
Application: Corner mullion for inner corners.
Suitable for mullion profiles SD.054 and SD 100.

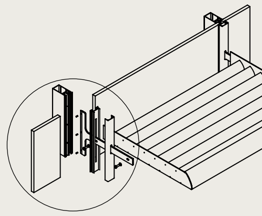


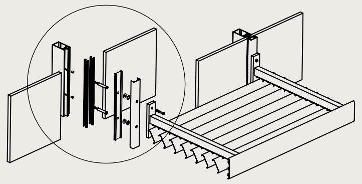
Renson ® offers several fixing brackets that can be pre-installed on SD-type mullions. Mainly used for direct installation on steel, concrete or for curtain wall 50/60 mm.

Fixation bracket type



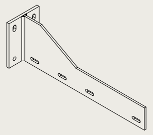
Fixation bracket SD.088.51 / SD.088.61
Application: For installation on curtain walls (SD.088.51 = 50 mm / SD.088.61 = 60 mm).
Suitable for mullion profile SD.054.



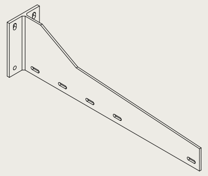


Depending on the type of curtain wall profile, specific project applications can be fleshed out. Analogous to mounting on knife.

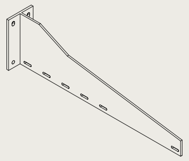
Type of mounting on knife



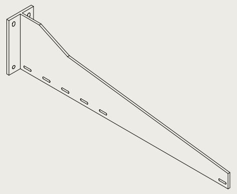
Steel knife bracket SD.089.01 – type 1, length 450 mm
Application: - Normal cantilevers and wind loads
- Façade package depths up to 100 mm
Suitable for mullion profiles SD.054 and SD 100



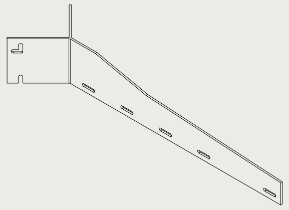
Steel knife bracket SD.089.02 – type 2, length 650 mm
Application: - Normal cantilevers and wind loads
- Façade package depths up to 300 mm
Suitable for mullion profiles SD.054 and SD 100



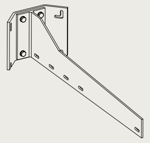
Steel knife bracket SD.089.06 – type 3, length 860 mm
Application: - Normal cantilevers and wind loads
- Façade package depths up to 500 mm
Suitable for mullion profiles SD.054 and SD 100



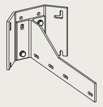
Steel knife bracket SD.089.07 – type 4, length 1112 mm
Application: - Extreme cantilever sizes and wind loads
- Façade package depths up to 500 mm
Suitable for mullion profiles SD.054 and SD 100



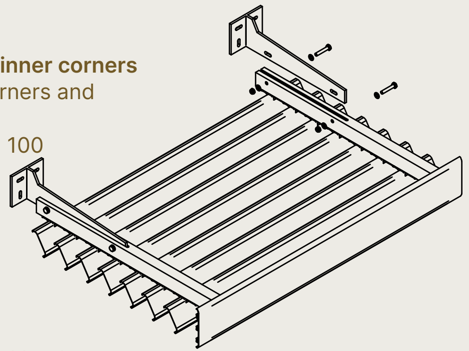
Steel knife bracket SD.089.03 – for outer corners
Application: For corner mullions at outer corners.
Suitable for mullion profiles SD.054 and SD 100



Steel knife bracket SD.089.04 – type 1 for inner corners
Application: For corner mullions at inner corners and normal cantilevers and wind loads.
Suitable for mullion profiles SD.054 and SD 100

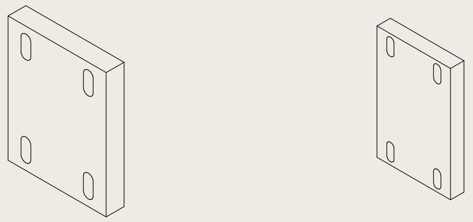


Steel knife bracket SD.089.05 – type 2 for inner corners
Application: For corner mullions at inner corners and large cantilevers and wind loads.
Suitable for mullion profiles SD.054 and SD 100

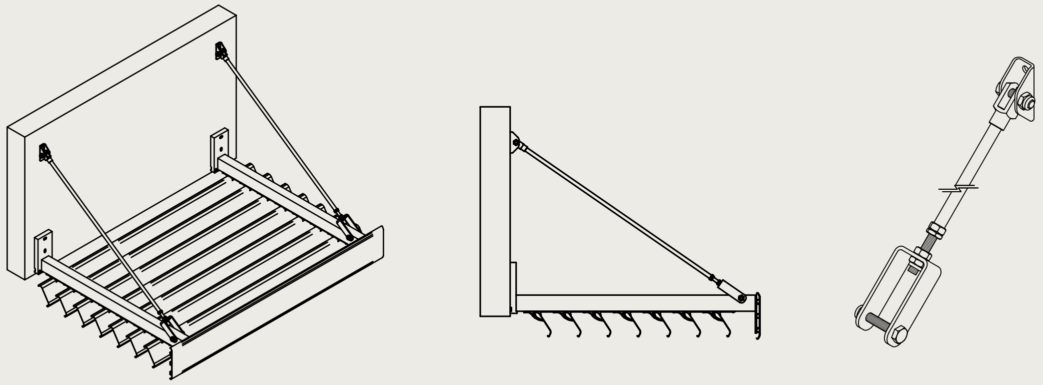


Bracket installation can be done in advance. Canopy structure can be installed afterwards. Mainly applied in system construction.

Optional: Knife bracket with thermal interruption



Pull bar

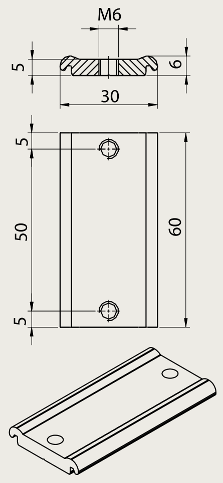


Depending on the cantilever, installation options and wind load, an adjustable pull bar can be made to size

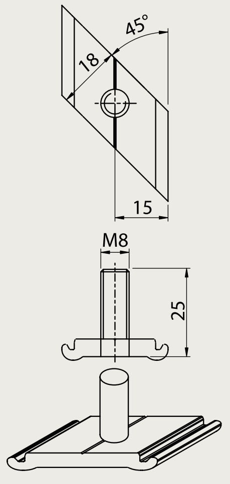
MOUNTING MULLIONS VERTICAL

Sunclips® / Icarus®

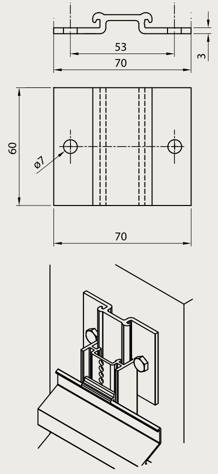
Detailed view: Fixed mounting element LZ.4202, LZ.4211 and LZ.4206


M6
5
6
30
5
50
5
60

Type LZ.4202
Includes two bolts (M6×16) and locking ring

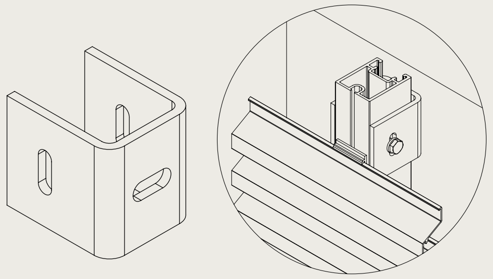

45°
18
15
M8
25

Type LZ.4211
Includes nut M6 and locking ring


53
70
3
60
ø7
70

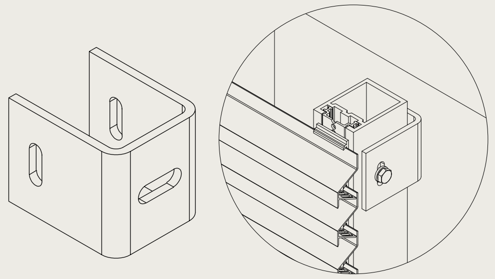
Type LZ.4206

U-fixation bracket LZ.4210 for Linius mullions



Includes bolt (M6×16), includes nut and locking ring

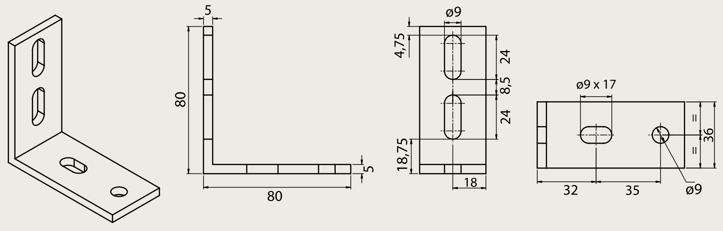
U-fixation bracket SD.086.11 for Sunclips mullions



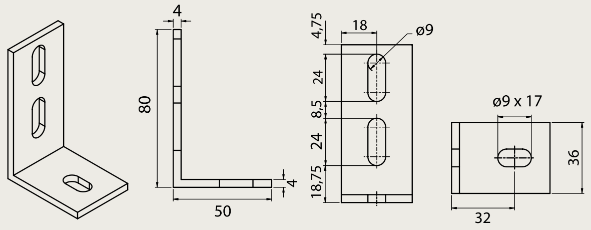
Includes bolt (M6×16), includes nut and locking ring

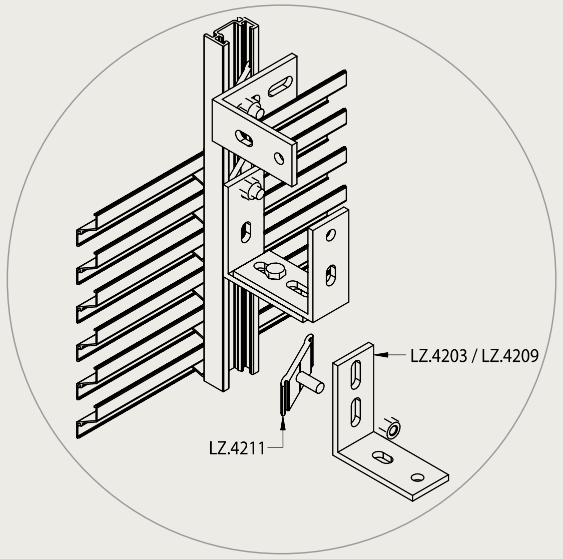
L-shaped mounting element type LZ.4203 and LZ.4209

Type LZ.4203


5
80
80
5
ø9
4,75
24
8,5
24
18,75
18
ø9 x 17
36
32
35
ø9

Type LZ.4209


4
80
50
4
4,75
18
ø9
24
8,5
24
18,75
ø9 x 17
36
32

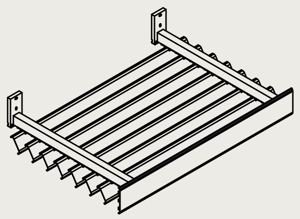

LZ.4203 / LZ.4209
LZ.4211

If necessary, special mounting elements can be designed and supplied for a project.

DECORATIVE PROFILES

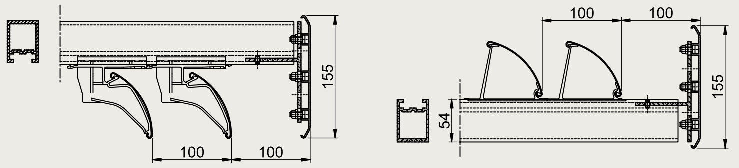
Sunclips® / Icarus®

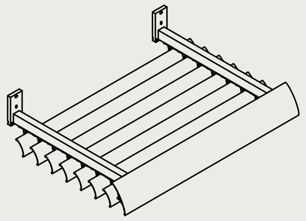
Decorative profile type



Decorative trim SC.155

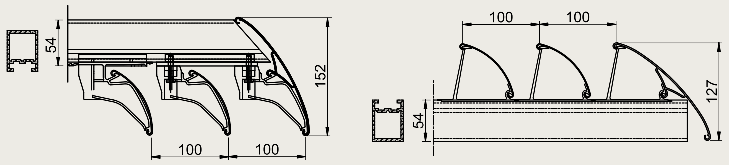
- Installation method: Bottom or overhead canopy structure
- Applicability: Preferably in combination with blade type Sunclips SE.096 or Icarus ICA.100 and mullion SD.054.

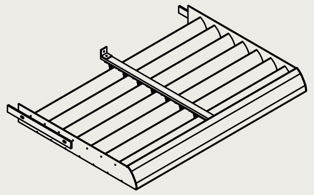




Decorative trim Sunclips® blade SE.176

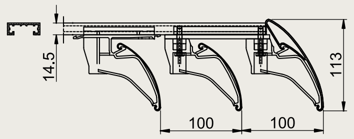
- Installation method: Bottom or overhead canopy structure
- Applicability: Preferably in combination with blade type Sunclips SE.096 and mullion SD.054

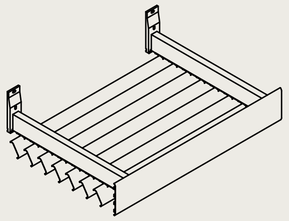




Decorative trim Sunclips® blade SE.130

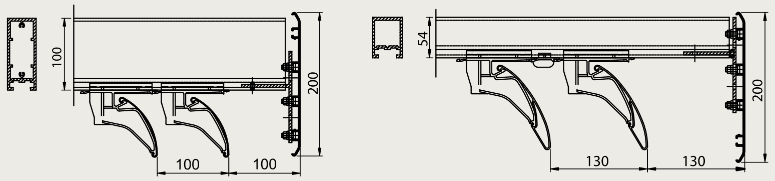
- Installation method: Cassette
- Applicability: Preferably for mullion SD.014

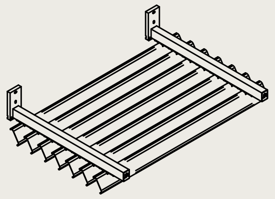




Decorative trim SC.200

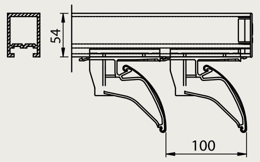
- Installation method: Bottom or overhead canopy structure
- Applicability: In combination with
  - Sunclips blade SE.096 and mullion SD.100
  - Sunclips blade SE.130 and mullion SD.054
  - Icarus blade ICA.150 and mullion SD.054





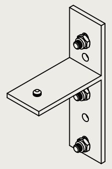
Without decorative trim – end cap SD.054.98

- Applicability: In combination with mullion SD.054

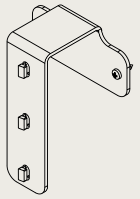


Various decorative profiles can serve as the finish for the canopy structure according to the installation method.

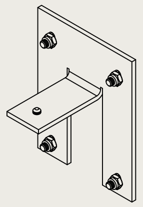
Decorative profile mounting elements horizontal



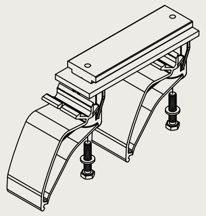
Standard decorative profile mounting element SC.087.11
Application: For mounting a continuous decorative profile, type SC.155 or SC.200. Suitable for mullion profiles SD.014, SD.054 and SD.100.



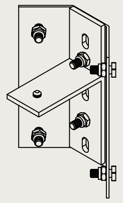
Sideways decorative profile mounting element SC 091
Application: For sideways mounting of a decorative profile, type SC.155 or SC.200, to the mullion profile. Suitable for mullion profiles SD.054 and SD.100.



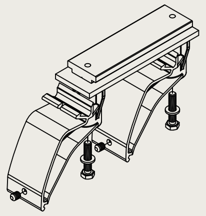
Decorative profile joint mounting element SC.087.12
Application: For mounting two decorative profiles, type SC.155 or SC.200. Suitable for mullion profiles SD.014, SD.054 and SD.100.



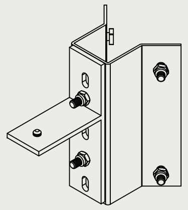
Decorative profile mounting element SE.095.01
Application: UPVC clips (POM black or grey) for mounting of a continuous decorative profile, type SE.176. Suitable for mullion profiles SD.014, SD.054 and SD.100.



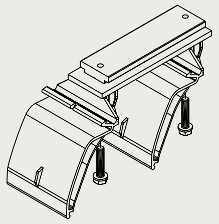
Decorative profile outer corner mounting element SC.087.13
Application: For mounting two decorative profiles, type SC.155 or SC.200, to outer corners. Suitable for mullion profiles SD.014, SD.054 and SD.100.



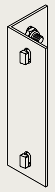
Decorative profile mounting element SE.095.02
Application: UPVC clips (POM black or grey) with additional adjusting screws M6×8 for attaching the decorative profile SE.176 at a gradient due to thermal dilatation. Suitable for mullion profiles SD.014, SD.054 and SD.100.



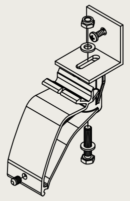
Decorative profile inner corner mounting element SC.087.14
Application: For mounting two decorative profiles, type SC.155 or SC.200, to inner corners. Suitable for mullion profiles SD.014, SD.054 and SD.100.



Decorative profile joint mounting element SE.095.12
Application: UPVC clips (POM black or grey) for mounting of two decorative profiles, type SE.176. Suitable for mullion profiles SD.014, SD.054 and SD.100.

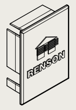


Decorative profile end corner mounting element SC.090
Application: For mounting two decorative profiles, type SC.155 or SC.200, to the ends of the corners. Suitable for mullion profiles SD.014, SD.054 and SD.100.

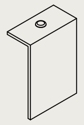


Sideways decorative profile mounting element SE.091
Application: For sideways mounting of a decorative profile, type SE.176, to the mullion profile. Suitable for mullion profiles SD.054 and SD.100.

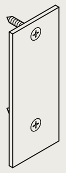
End caps for mullions



SD.054.98
HPVC end cap for mullion profile SD 054 (grey)



SD.054.99
Aluminium cover plate for mullion profile SD.054



SD.100.99
Aluminium cover plate for mullion profile SD.100

As such, the ends of the mullion profile are closed. If required, the canopy can also be provided without a decorative profile.

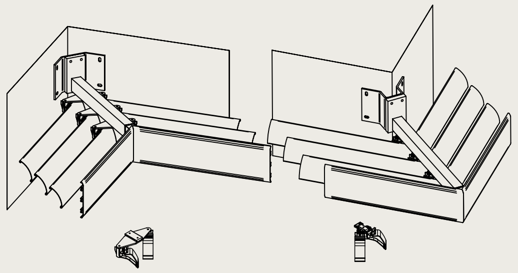
HORIZONTAL CORNER APPLICATIONS

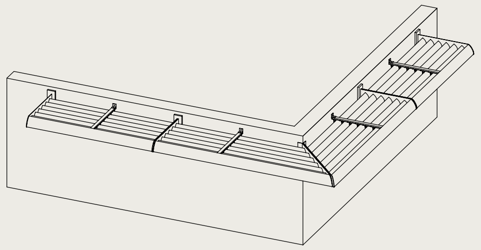
Corner application Sunclips®

Renson ® offers a unique corner application for bottom awnings with the following key benefits:

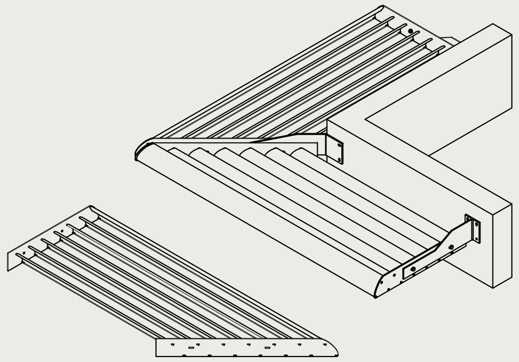
- Only one mullion profile required
- Freely adjustable corner clips
- Inner and outer corners possible
- Continuous and perfectly connecting blades

Blade support and mounting parts for decorative profiles.
Corner applications are also possible with framed awnings (with Sunclips blades). Dimensions to be determined per project.

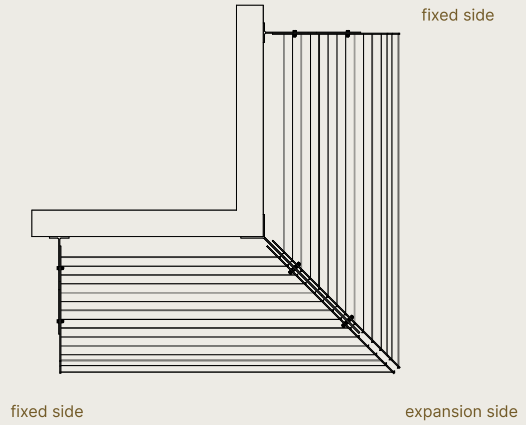




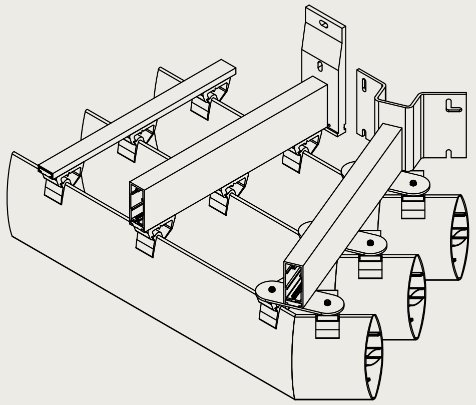
Corner application cassettes Icarus®/ Sunclips®



expansion joint on the corner



Corner application Icarus® Quickfix



VERTICAL CORNER APPLICATIONS

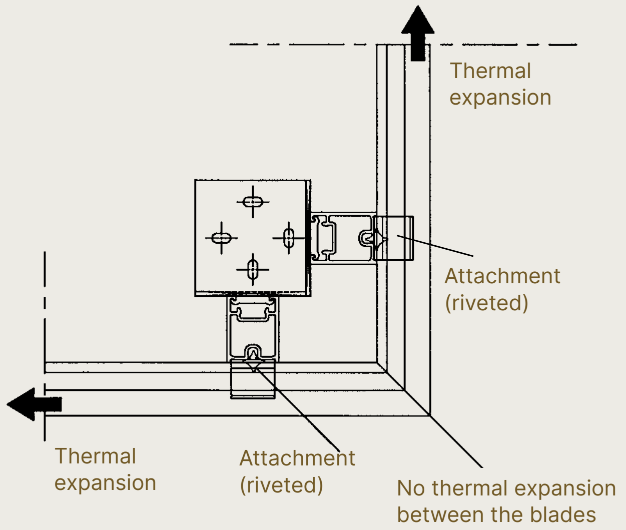
Mitred corners

Where a corner is formed, the blades are cut at the right angle in order to fit perfectly when installed, providing a nice aesthetic finish.

Possible solutions for corner installation

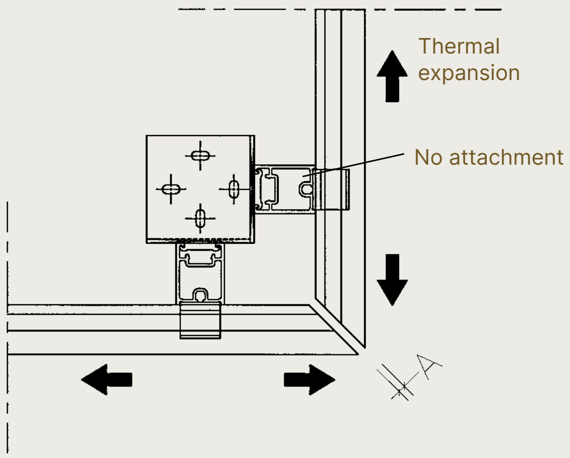
Expansion

Expansion
The mullions are installed as close to the corner as possible.


Thermal expansion
Attachment (riveted)
Thermal expansion
Attachment (riveted)
No thermal expansion between the blades

Expansion joint

Expansion joint included in mitre
The mullions are installed as close to the corner as possible.


Thermal expansion
No attachment

HORIZONTAL SUN PROTECTION

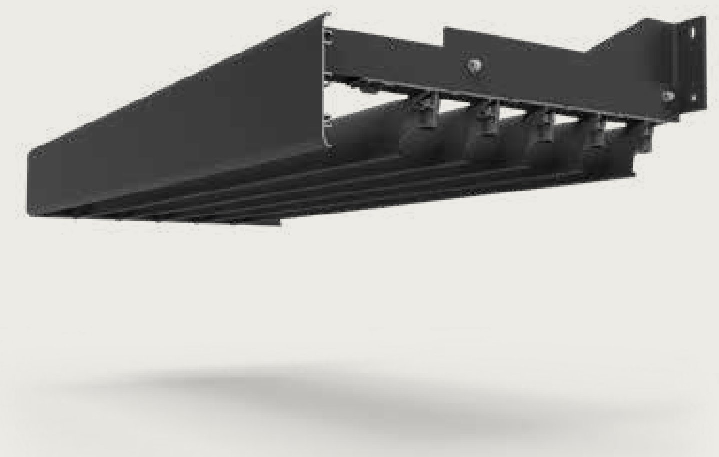
Sunclips bottom	68
Sunclips curved bottom	72
Sunclips overhead	74
Sunclips cassettes	78
Icarus Quickfix	80
Icarus cassettes	86
Icarus fixed	88
Icarus movable	92

SUNCLIPS® BOTTOM

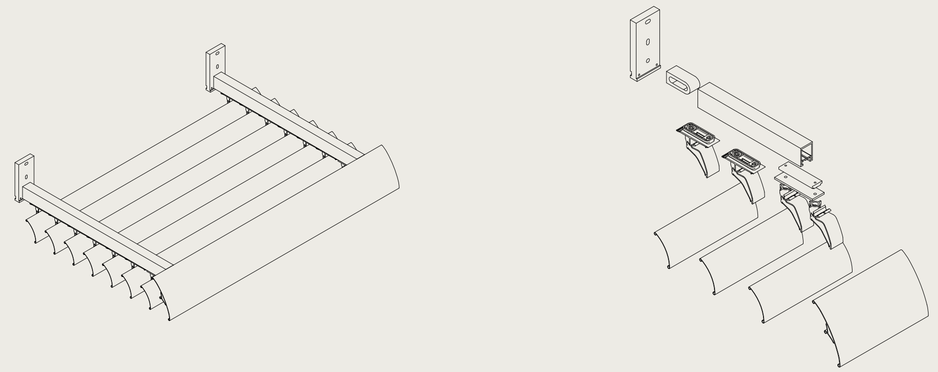
RESIDENTIAL/ PROJECT APPLICATION

Rapid assembly using clip system. Continuous lines.

Permanent awning where the blades are installed below the support profiles in a continuous layout. This application can be horizontal or cantilevered at an angle.

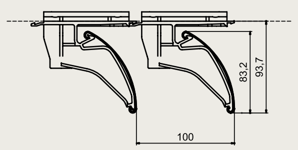


Detailed drawings



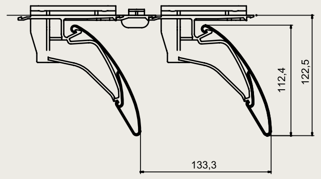
Types

Residential application

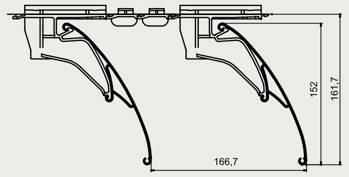


SE.096.01

Project application

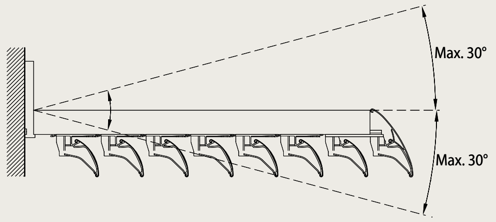


SE.130



SE.176

Mullion profile



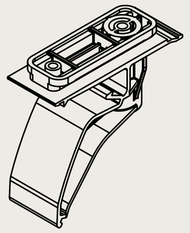
Technical properties	
Material	Aluminium extrusion profile EN AW-6063 T66
Aluminium	Anodised (20 micron) F1
Polyester powder coating	(60-80 micron) in RAL colours
Blade type	Applicable with all Sunclips blade types
Blade support	Clipped on UV-resistant UPVC clips
Blade incline	Standard 60°
Blade pitch	Standard: 100 mm For blade type SE.130: 133 mm and SE.176: 166 mm recommended
Decorative profile	See page 60 for finishing
Façade mounting	See page 54 for various applications
Mullion profiles	Three types: SD.014, SD.054 and SD.100, see page 52 Inclination possible, max. angle 30°
Middle mullion profile	Middle mullion SD.014 with standard clips is required depending on the free span and wind load

Bottom Sunclips finished with decorative trim SC.155 all around

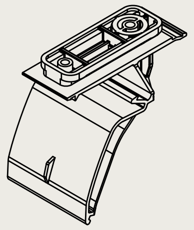
Bottom Sunclips® blades – Horizontal

The blade support for Sunclips with bottom blades are made of black or grey UV-resistant POM UPVC and have a fixed blade installation angle of 60° relative to the horizontal.
The blade support is available as single or double support for joints and as corner clips for inner and outer corners.

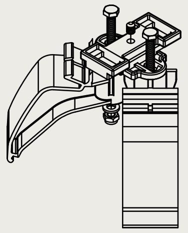
Type



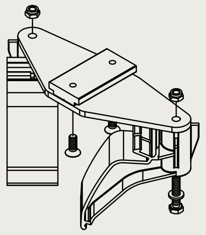
Standard blade support SE.084.11
Application: For mounting a continuous blade, type SE.096.01, SE.130.01 and SE.176.01. Suitable for mullion profiles SD.014, SD.054 and SD.100 – see page 110.



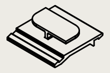
Blade support SE.084.12
Application: For mounting two blades, type SE.096.01, SE.130.01 and SE.176.01. Suitable for mullion profiles SD.014, SD.054 and SD.100 – see page 110.



Blade support SE.084.13
Application: For outer corner application of two blades, type SE.096.01, SE.130.01 and SE.176.01. Suitable for mullion profiles SD.014, SD.054 and SD.100 – see page 110.



Blade support SE.084.14
Application: For inner corner application of two blades, type SE.096.01, SE.130.01 and SE.176.01. Suitable for mullion profiles SD.014, SD.054 and SD.100 – see page 110.

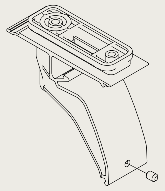


Spacer clips 33 mm SE.084.10
Application: As a spacer for larger blade distances for blade types SE.130.01 and SE.176.01. Suitable for mullion profiles SD.014, SD.054 and SD.100 – see page 24.

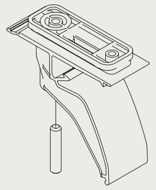
Other types of Sunclips® blade support – Horizontal

In addition to this standard blade support for Sunclips, other blade support types are available for other applications.

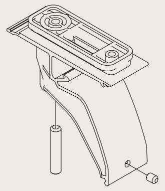
Type



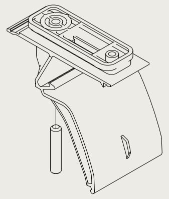
SE.084.15 UPVC clips (POM black or grey) for Sunclips, version like type SE.084.11, with adjusting screws M6×8 included for attaching the blade at a gradient as a consequence of thermal dilatation.



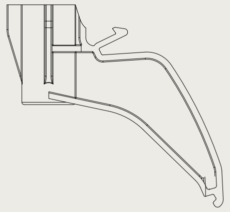
SE.084.16 UPVC clips (POM black or grey) for Sunclips, version like type SE.084.11, with adjusting screws M8×40 included for attaching the blade at a gradient as a consequence of thermal expansion.



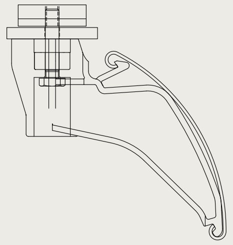
SE.084.17 UPVC clips (POM black or grey) for Sunclips, version like type SE.084.11, with adjusting screws M6×8 included for attaching the blade at a gradient as a consequence of thermal dilatation and adjusting screw M8×40 for attaching the clips to the mullion profile.



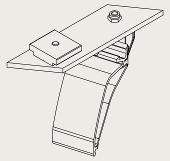
SE.084.18 UPVC joint clips (POM black or grey) for Sunclips, version like type SE.084.12, with adjusting screws M8×40 included for attaching the clips to the mullion profile.



SE.084.19 UPVC corner clips (POM black or grey) for Sunclips, version like type SE.084.11, with adjusting screw M6×8 included for attaching the blade at a gradient as a consequence of thermal dilatation.



SE.084.23 UPVC corner clips (POM black or grey) for Sunclips with bottom blades and a fixed installation corner of 60° relative to the horizontal, application for outer corner on knife support SD.110.11 or SD.110.12.



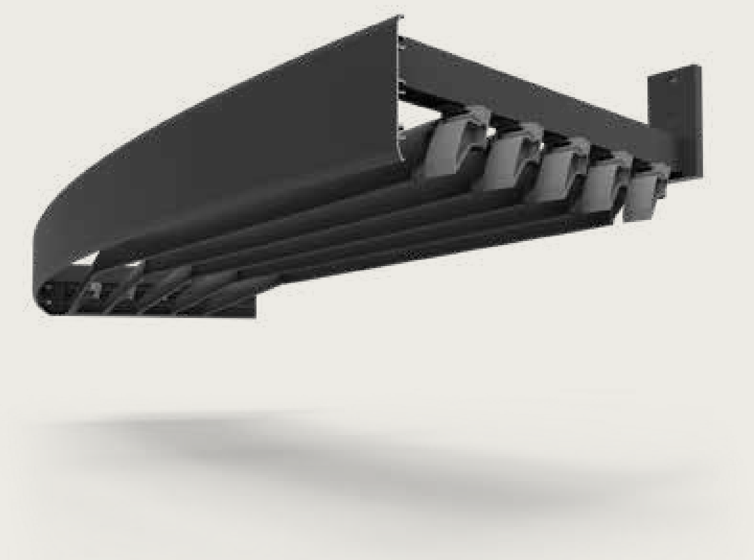
SE.084.24 UPVC corner clips (POM black or grey) for Sunclips with bottom blades and a fixed installation corner of 60° relative to the horizontal, application for inner corner on knife support SD.110.11 or SD.110.12.

SUNCLIPS®
BOTTOM CURVED

PROJECT APPLICATION

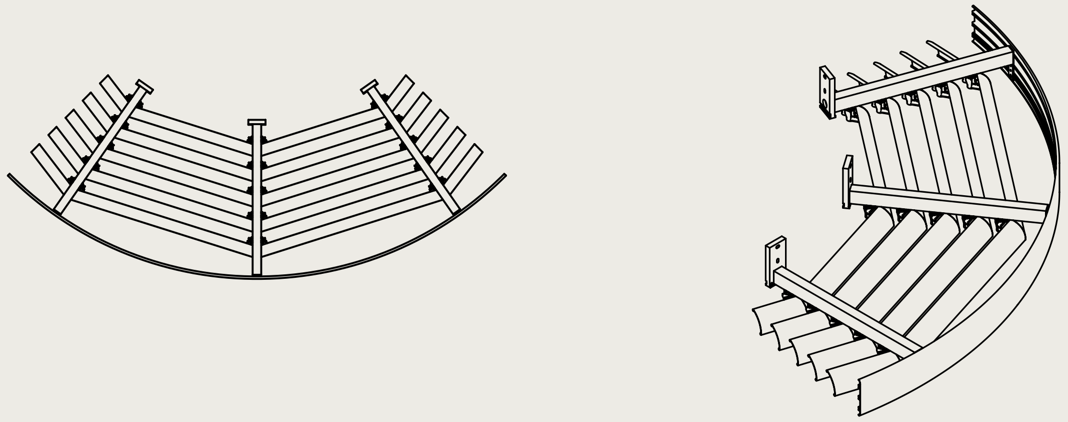
Emphasises the curve of your façade, available curved or in facets

Permanent awning installed on a curved façade and with blades running below the support profiles. In this version, the blades are offered straight with or without a curved decorative trim SC.155. All Sunclips blade types are compatible with this faceted version. In addition, this version can be made with an incline.



Technical properties	
Material	Aluminium extrusion profile EN AW-6063 T66
Aluminium	Anodised (20 micron) F1
Polyester powder coating	(60-80 micron) in RAL colours
Blade type	Faceted version with all Sunclips blade types
Blade support	Faceted version: For blades SE.096, SE.130 and SE.176: UV-resistant UPVC clips, type SE.084.11 – .19
Blade incline	Faceted version 60°
Blade pitch	Standard: 100 mm For blade type SE.130 and SE.176: 133 mm–166 mm recommended
Decorative profile	Only type SC.155 can be curved for finishing, see page 60
Façade mounting	See page 54 for various applications
Mullion profiles	Three types: SD.014, SD.054 and SD.100, see page 52 Compatible with inclination, max. angle of 30°
Middle mullion profile	Middle mullion SD.014 with standard clips is required depending on the free span and wind load

Detailed drawings



SE.096 SE.130 SE.176

SUNCLIPS® OVERHEAD

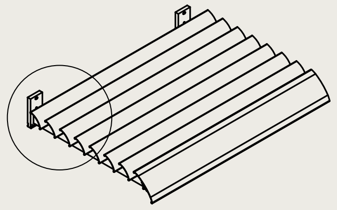
PROJECT APPLICATION

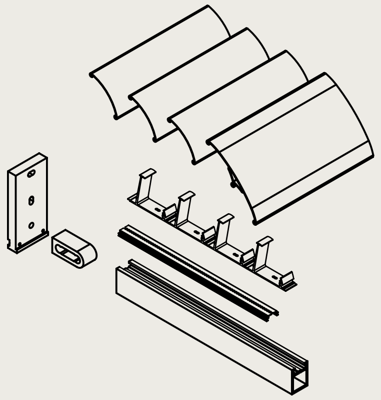
Blades installed on the mullion to impede people looking in from above

Permanent awning where the blades are installed above the mullion profiles in a continuous layout. This application can be horizontal or cantilevered at an angle.

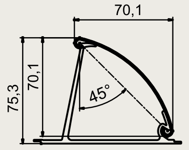
Technical properties	
Material	Aluminium extrusion profile EN AW-6063 T66
Aluminium	Anodised (20 micron) F1
Polyester powder coating	(60-80 micron) in RAL colours
Blade type	Applicable with all Sunclips blade types
Blade support	Clipped on aluminium clips
Blade incline	Standard 45°
Blade pitch	Standard: 100 mm For blade type SE.130 and SE.176: 133 mm and 176 mm recommended
Decorative profile	For finishing, see page 60 Decorative trim type SC.155: Flat decorative profile Decorative trim blade type SE.176: Rounded decorative trim
Façade mounting	See page 54 for various applications
Mullion profiles	Three types: SD.014, SD.054 and SD.100, see page 52. Standard profile LD.0108 necessary. Inclination possible, max. angle of 30°
Middle mullion profile	Middle mullion SD.014 with standard clips is required depending on the free span and wind load

Detailed drawings

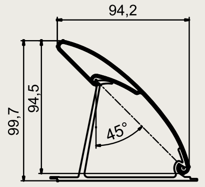




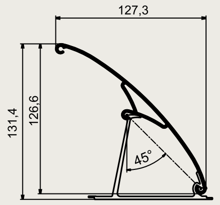
Types



SE.096.01

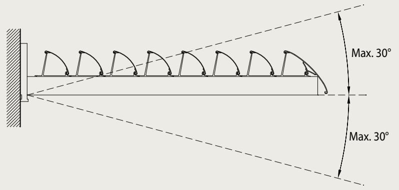


SE.130



SE.176

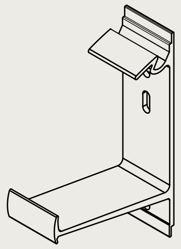
Mullion profile



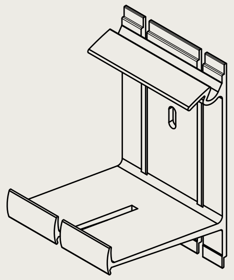
Sunclips® blades – Horizontal overhead

The blade support for Sunclips with overhead blades is positioned on the mullions vertically and is made of aluminium. It has a fixed blade installation angle of 45° relative to the horizontal/vertical. The blade support is available as single and double support as joint clips.

Types



Blade support SE.082.11
Application: For mounting a continuous blade, type SE.096.01, SE.130.01 and SE.176.01. Suitable for mullion profiles from the Linius range of type LD.0065, LD.0195, LD.0440, LD.0460, LD.0995, LD.1250 and Sunclips mullions SD.014, SD.054 and SD.100 in combination with adapter profile LD.0108.



Blade support SE.082.12
Application: For mounting two blades, type SE.096.01, SE.130.01 and SE.176.01. Suitable for mullion profiles from the Linius range of type LD.0065, LD.0195, LD.0440, LD.0460, LD.0995, LD.1250 and Sunclips mullions SD.014, SD.054 and SD.100 in combination with adapter profile LD.0108.

HORIZONTAL
SUN PROTECTION

SUNCLIPS® CASSETTES

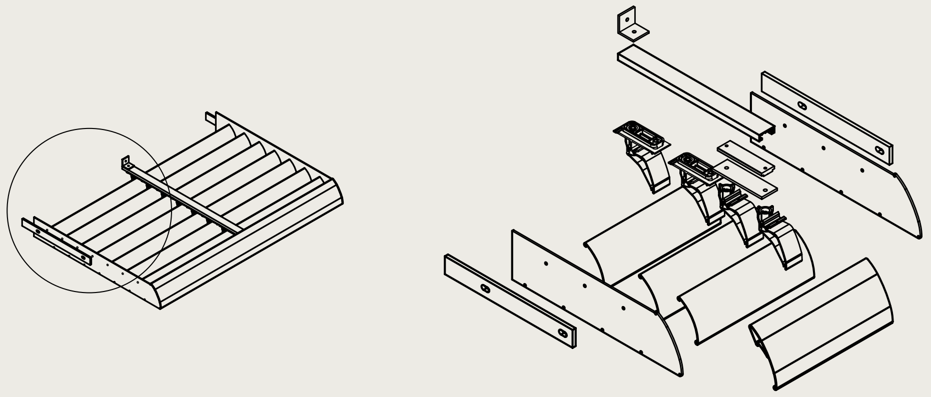
PROJECT APPLICATION

Blades screwed in between aluminium plates

Cantilevered permanent awning, where the blades are screwed in between end cap plates. This application can be installed horizontally or cantilevered at an angle. The cassettes can be delivered to your site fully assembled.

Technical properties	
Material	Aluminium extrusion profile EN AW-6063 T66
End cap plates	Aluminium or treated steel
Aluminium	Anodised (20 micron) F1
Polyester powder coating	(60-80 micron) in RAL colours
Steel parts	Galvanised and powder coated
Blade type	Compatible with blades SE.096, SE.130 and SE.176:
Blade incline	In cassettes with middle mullion: 60°
Blade pitch	Standard: 100 mm For blade type SE.130: 133 mm and SE.176: 166 mm recommended
Façade mounting	For installation on knives or directly on façades, see page 54
Mullion profiles	Three types: SD.014, SD.054 and SD.100, see page 52 Compatible with inclination, max. angle of 30°
Middle mullion profile	Middle mullion SD.014 with standard clips is required depending on the free span and wind load

Detailed drawings

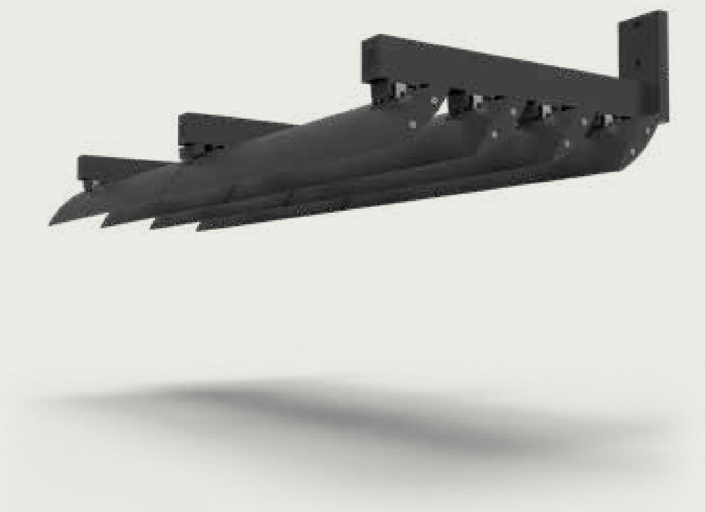


ICARUS®
QUICKFIX®

PROJECT APPLICATION

A patented clip system for rapid installation and continuous lines

Icarus Quickfix is a unique, patented structural sun protection system, easy and discreet to install by means of clip installation. The Quickfix support consists of one clip fixed to the support structure and one fork profile installed on the blade with stainless steel rivets. Thanks to this two-part concept, smooth dilatation of the blade due to thermal expansion is possible, preventing stresses in the support structure. Moreover, the system allows for a continuous line of blades.



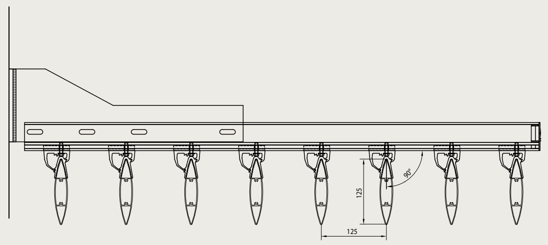
Technical properties	
Blade material	Aluminium extrusion profile EN AW-6063 T66
End cap plates	Aluminium (AlMg3)
Plate screws and mounting	Stainless steel
Aluminium	Anodised (20 micron) F1
Polyester powder coating	(60-80 micron) in RAL colours
Blade type	ICA.100, 125, 150, 200, 250 and 300
Inclination angles	45°, 60°, 75° or 90°

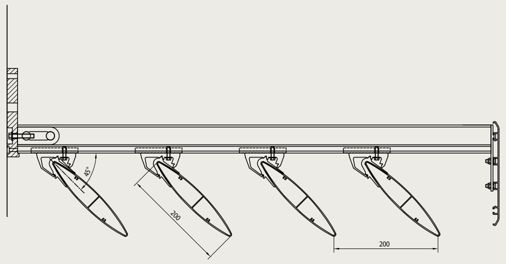
Maximum free span (Recommended maximum blade length)

Blade type	Wind load 650 Pa	 800 Pa	 1250 Pa
ICA.100	2220 mm	2060 mm	1780 mm
ICA.125	2540 mm	2360 mm	2020 mm
ICA.150	3110 mm	2900 mm	2480 mm
ICA.200	3400 mm	3150 mm	2700 mm
ICA.250	3760 mm	3580 mm	3050 mm
ICA.300	4200 mm	4100 mm	3500 mm
ICA.400	3600 mm	3600 mm	3120 mm
ICL.150	3440 mm	3440 mm	3270 mm
ICL.200	3710 mm	3710 mm	3710 mm
ICL.300	4150 mm	4150 mm	4150 mm

The maximum free spans described here are only valid for the blade and depend on the dimensions of the sun protection. Other free spans may be possible subject to detailed study of the effective project situation.

Detailed drawings

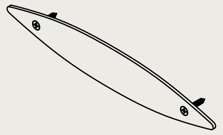




Icarus® end caps

Depending on the application, the ends of the Icarus blades are fitted with end caps.
The end caps are mounted by screwing them into the screw channels of the blades.

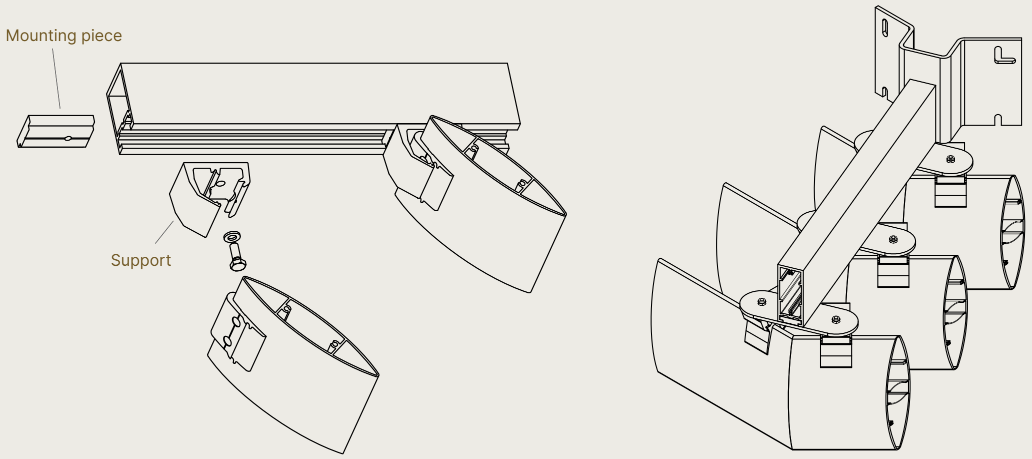
End cap type



Fixed end cap – Type 1
Application: Installation on ends of Icarus blades in Icarus Quickfix system.

Blade type	End cap type 1
ICA.100	ICA.100.11
ICA.125	ICA.125.11
ICA.150	ICA.150.11
ICA.200	ICA.200.11
ICA.250	ICA.250.11
ICA.300	ICA.300.11
ICA.400	ICA.400.11
ICA.480	ICA.480.11
ICL.150	ICL.150.11
ICL.200	ICL.200.11
ICL.300	ICL.300.11
ICP.150	ICP.150.11
ICP.200/30	ICP.200.31
ICP.200/40	ICP.200.11
ICP.300	ICP.300.11

Detailed drawings



Supports

There are four types of Quickfix supports that can be combined with various fork profiles according to the inclination of the blade:

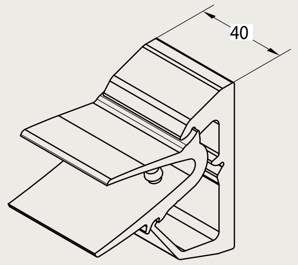
- **Type 1**: For blade types ICA.100 and ICA.125: clips and fork for 90°, 45°, 75° or 60° blade inclination angles.
- **Type 2**: For blade types ICA.150, ICL.150, ICA.200 and ICL.200: clips and two forks for 90°, 45°, 75° or 60° blade inclination angles.
- **Type 3**: For blade types ICA.250, ICA.300 and ICL.300: clips and two forks for 90°, 45°, 75° or 60° blade inclination angles.
- **Type 4**: For blade type ICA.400: clips and two forks for 90°, 45°, 75° or 60° blade inclination angles.

In addition, the Quickfix supports are available as single and double supports.

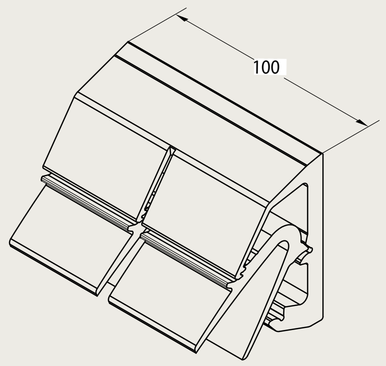
Icarus® Quickfix®		Blade inclination angle							
		45°		60°		75°		90°	
Support type	Blade type	Single support	Double support	Single support	Double support	Single support	Double support	Single support	Double support
Type 1	ICA.100	IQ.1101	IQ.1201	IQ.1102	IQ.1202	IQ.1102	IQ.1202	IQ.1101	IQ.1201
	ICA.125	IQ.1101	IQ.1201	IQ.1102	IQ.1202	IQ.1102	IQ.1202	IQ.1101	IQ.1201
Type 2	ICA.150	IQ.2101	IQ.2201	IQ.2102	IQ.2202	IQ.2102	IQ.2202	IQ.2101	IQ.2201
	ICL.150	IQ.2101	IQ.2201	IQ.2102	IQ.2202	IQ.2102	IQ.2202	IQ.2101	IQ.2201
	ICA.200	IQ.2101	IQ.2201	IQ.2102	IQ.2202	IQ.2102	IQ.2202	IQ.2101	IQ.2201
	ICL.200	IQ.2101	IQ.2201	IQ.2102	IQ.2202	IQ.2102	IQ.2202	IQ.2101	IQ.2201
Type 3	ICA.250	IQ.3101	IQ.3201	IQ.3102	IQ.3202	IQ.3102	IQ.3202	IQ.3101	IQ.3201
	ICA.300	IQ.3101	IQ.3201	IQ.3102	IQ.3202	IQ.3102	IQ.3202	IQ.3101	IQ.3201
	ICL.300	IQ.3101	IQ.3201	IQ.3102	IQ.3202	IQ.3102	IQ.3202	IQ.3101	IQ.3201
Type 4	ICA.400	IQ.4101	IQ.4201	IQ.4102	IQ.4202	IQ.4102	IQ.4202	IQ.4101	IQ.4201

Parts

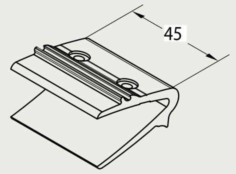
Single support



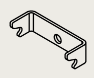
Double support



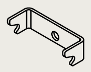
Fork



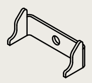
Locking plate



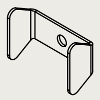
Locking plate
Type 1 – IQ.1001
(ICA.100 and ICA.125)



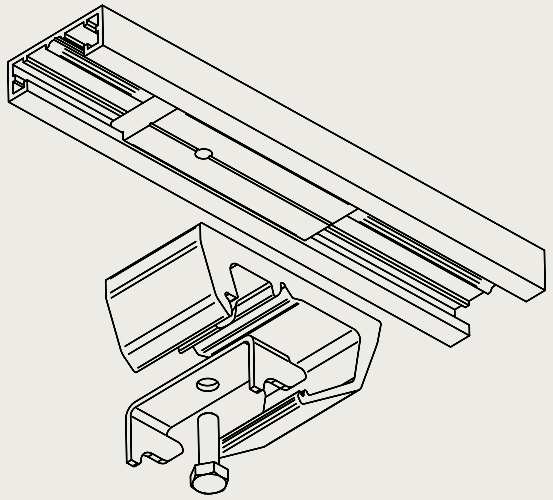
Locking plate
Type 2 – IQ.2001
(ICA.150, ICL.150, ICA.200 and ICL.200)



Locking plate
Type 3 – IQ.3001
(ICA.250, ICA.300 and ICL.300)

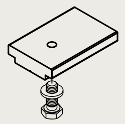


Locking plate
Type 4 – IQ.4001
(ICA.400)

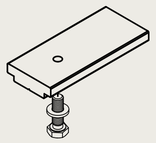


Each blade should always have a locking plate in one place. The type depends on the blade type.

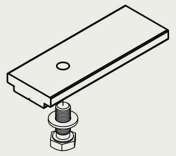
Mounting pieces



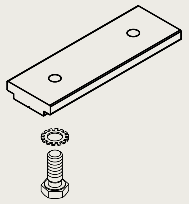
Mounting piece IQ.1002
Application: Type 1 mounting piece for Quickfix
on SD mullion profiles; see page 58.
Suitable for Quickfix system ICA.100 and ICA.125



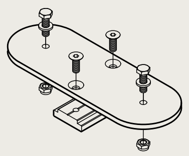
Mounting piece IQ.2002
Application: Type 2 mounting piece for Quickfix
on SD mullion profiles; see page 58.
Suitable for Quickfix system ICA.150, ICL.150, ICA.200 and ICL.200



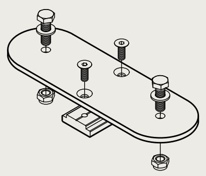
Mounting piece IQ.3002
Application: Type 3 mounting piece for Quickfix
on SD mullion profiles; see page 58.
Suitable for Quickfix system ICA.250, ICA.300 and ICL.300



Mounting piece IQ.4002
Application: Type 4 mounting piece for Quickfix
on SD mullion profiles; see page 58.
Suitable for Quickfix system ICA.400



Mounting piece IQ.9001 for corner application
Application: Type 1 mounting piece for Quickfix
on SD mullion profiles; see page 58.
Suitable for Quickfix system ICA.100, ICA.125, ICA.150, ICL.150, ICA.200 and ICL.200



Mounting piece IQ.9002 for corner application
Application: Type 2 mounting piece for Quickfix
on SD mullion profiles; see page 58.
Suitable for Quickfix system ICA.250, ICA.300 and ICL.300

ICARUS® CASSETTES

PROJECT APPLICATION

Blades screwed in between aluminium plates

Horizontally cantilevered permanent awning where several blades are installed as cassettes between end plates. Orientation, cantilever and design can be freely chosen. Mounting the end plates directly to the façade (application 1) or mounting on knife (application 2).

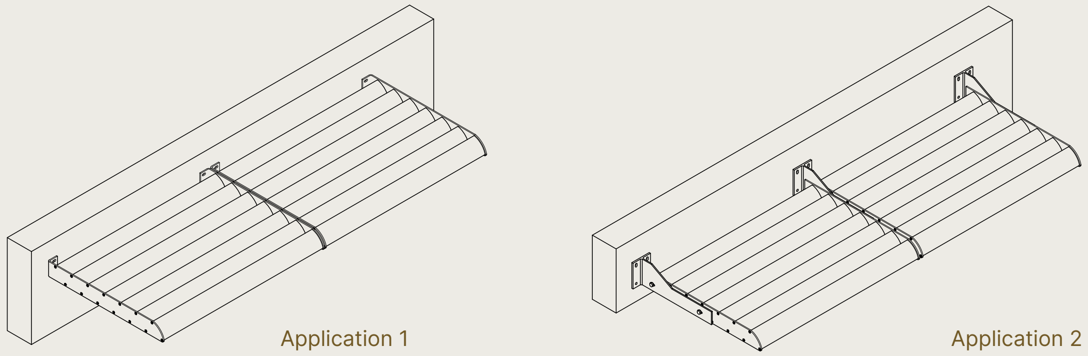
Technical properties	
Blade material	Aluminium extrusion profile EN AW-6063 T66
End cap plates	Aluminium (AlMg3) or steel Thickness subject to dimensions, weight and local wind load
Plate screws and mounting	Stainless steel
Aluminium	Anodised (20 micron) F1
Polyester powder coating	(60-80 micron) in RAL colours
Steel parts	Galvanised and powder coated
Blade type	Applicable with all Icarus blade types

Maximum free span (below 45° inclination angle) relative to the vertical cantilever

Blade type	Wind load		
	650 Pa	800 Pa	1250 Pa
ICA.100	2450 mm	2270 mm	1960 mm
ICA.125	2800 mm	2600 mm	2225 mm
ICA.150	3430 mm	3185 mm	2735 mm
ICA.200	3740 mm	3460 mm	2970 mm
ICA.250	4140 mm	3940 mm	3350 mm
ICA.300	4610 mm	4520 mm	3850 mm
ICA.400	5330 mm	5330 mm	4580 mm
ICA.480	6000 mm	6000 mm	6000 mm
ICL.150	3640 mm	3515 mm	3320 mm
ICL.200	3825 mm	3685 mm	3440 mm
ICL.300	4610 mm	4520 mm	3850 mm
ICP.060	1610 mm	1490 mm	1270 mm
ICP.150	3850 mm	3850 mm	3540 mm
ICP.200/30	3910 mm	3910 mm	3910 mm
ICP.200/40	4730 mm	4730 mm	4730 mm
ICP.300	4755 mm	4755 mm	4755 mm

The maximum free spans described here are only valid for the blade and depend on the dimensions of the sun protection. Other free spans may be possible subject to detailed study of the effective project situation.

Detailed drawings



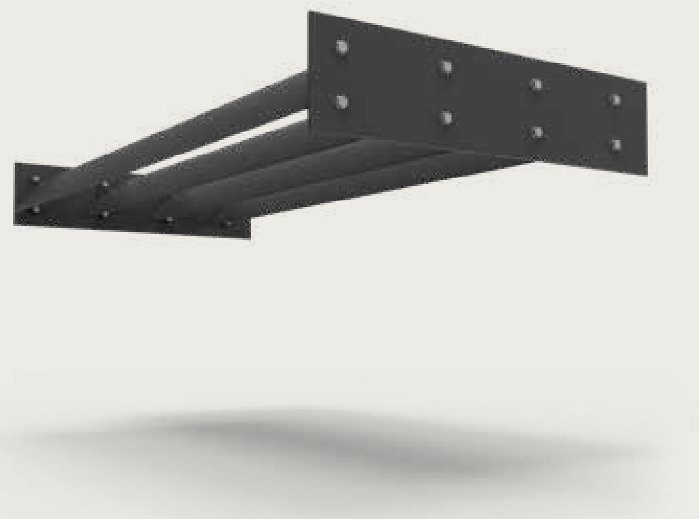
Application 1 Application 2

ICARUS® FIXED

PROJECT APPLICATION

Blades with end caps to be mounted to existing structure

Horizontally cantilevered permanent awning where individual blades are installed between the customer's structure. Orientation, cantilever and design can be freely chosen. Mounting the type 14 or 15 end caps directly to a structural substructure. For the purpose of thermal dilatation, one side is fixed and the opposite side is installed loose.



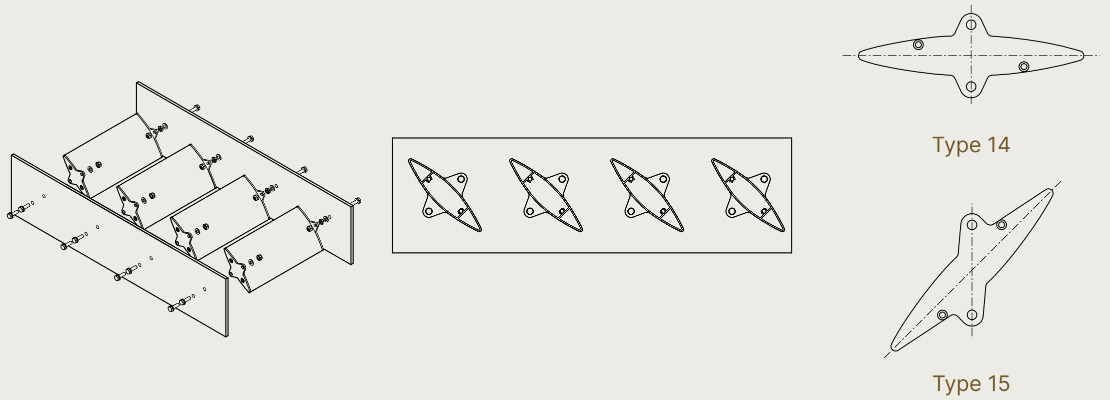
Technical properties	
Blade material	Aluminium extrusion profile EN AW-6063 T66
End cap plates	Aluminium (AlMg3) or steel Thickness subject to dimensions, weight and local wind load
Plate screws and mounting	Stainless steel
Aluminium	Anodised (20 micron) F1
Polyester powder coating	(60-80 micron) in RAL colours
Steel parts	N/A
Blade type	Applicable with all Icarus blade types

Maximum free span (below 45° inclination angle) relative to the vertical cantilever

Blade type	Wind load 650 Pa	 800 Pa	 1250 Pa
ICA.100	2450 mm	2270 mm	1960 mm
ICA.125	2800 mm	2600 mm	2225 mm
ICA.150	3430 mm	3185 mm	2735 mm
ICA.200	3740 mm	3460 mm	2970 mm
ICA.250	4140 mm	3940 mm	3350 mm
ICA.300	4610 mm	4520 mm	3850 mm
ICA.400	5330 mm	5330 mm	4580 mm
ICA.480	6000 mm	6000 mm	6000 mm
ICL.150	3640 mm	3515 mm	3320 mm
ICL.200	3825 mm	3685 mm	3440 mm
ICL.300	4610 mm	4520 mm	3850 mm
ICP.060	1610 mm	1490 mm	1270 mm
ICP.150	3850 mm	3850 mm	3540 mm
ICP.200/30	3910 mm	3910 mm	3910 mm
ICP.200/40	4730 mm	4730 mm	4730 mm
ICP.300	4755 mm	4755 mm	4755 mm

The maximum free spans described here are only valid for the blade and depend on the dimensions of the sun protection. Other free spans may be possible subject to detailed study of the effective project situation.

Detailed drawings



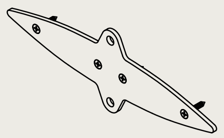
Type 14

Type 15

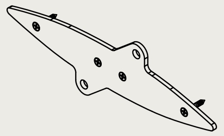
Icarus® end caps

Depending on the application, the ends of the Icarus blades are fitted with end caps.
The end caps are mounted by screwing them into the screw channels of the blades.

End cap type



Fixed end cap for mounting 90° – Type 4
Application: Installation on ends of Icarus blades at an inclination angle of 90°.

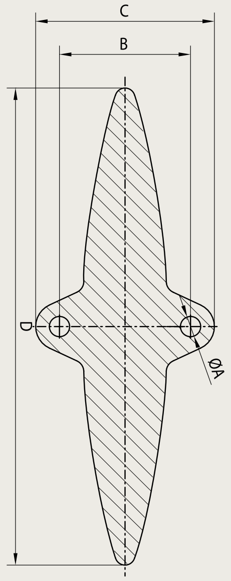


Fixed end cap for mounting 45° – Type 5
Application: Installation on ends of Icarus blades at an inclination angle of 45°.

Blade type	End cap type 4	End cap type 5
ICA.100	ICA.100.14	ICA.100.15
ICA.125	ICA.125.14	ICA.125.15
ICA.150	ICA.150.14	ICA.150.15
ICA.200	ICA.200.14	ICA.200.15
ICA.250	ICA.250.14	ICA.250.15
ICA.300	ICA.300.14	ICA.300.15
ICA.400	ICA.400.14	ICA.400.15
ICA.480	ICA.480.14	ICA.480.15
ICL.150	ICL.150.14	ICL.150.15
ICL.200	ICL.200.14	ICL.200.15
ICL.300	ICL.300.14	ICL.300.15
ICP.150	ICP.150.14	ICP.150.15
ICP.200/30	ICP.200.34	ICP.200.35
ICP.200/40	ICP.200.14	ICP.200.15
ICP.300	ICP.300.14	ICP.300.15

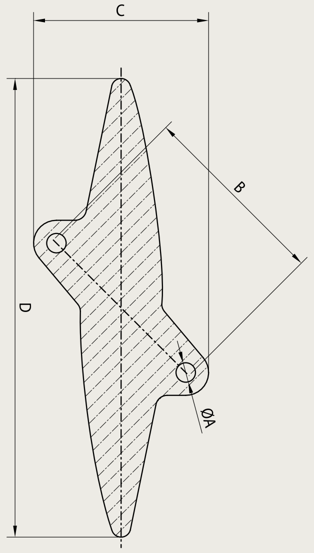
End cap type 4 Inclination angle 90°	Dimensions according to sketch (mm)			
	Size D	Size ø A	Size B	Size C
ICA.100.14	100	6.5	45	57
ICA.125.14	125	8.5	45	65
ICA.150.14	150	8.5	50	70
ICA.200.14	200	8.5	55	75
ICA.250.14	250	8.5	65	85
ICA.300.14	300	8.5	70	90
ICA.400.14	400	10.5	85	110
ICA.480.14	480	10.5	120	150
ICL.150.14	150	8.5	50	70
ICL.200.14	200	8.5	60	80
ICL.300.14	300	8.5	70	90
ICP.150.14	150	8.5	50	70
ICP.200.34	200	8.5	50	70
ICP.200.14	200	8.5	60	80
ICP.300.14	300	8.5	70	90

Technical drawing



End cap type 5 Inclination angle 45°	Dimensions according to sketch (mm)			
	Size D	Size ø A	Size B	Size C
ICA.100.15	100	6.5	60	55
ICA.125.15	125	8.5	65	66
ICA.150.15	150	8.5	70	70
ICA.200.15	200	8.5	80	77
ICA.250.15	250	8.5	90	84
ICA.300.15	300	8.5	100	94
ICA.400.15	400	10.5	120	110
ICA.480.15	480	10.5	160	144
ICL.150.15	150	8.5	75	73
ICL.200.15	200	8.5	85	80
ICL.300.15	300	8.5	100	94
ICP.150.15	150	8.5	75	73
ICP.200.35	200	8.5	75	73
ICP.200.15	200	8.5	90	84
ICP.300.15	300	8.5	100	94

Technical drawing

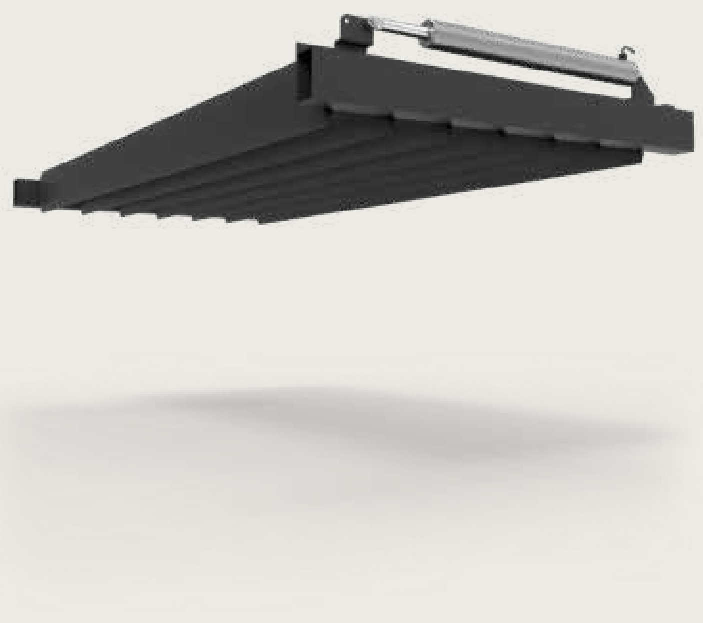


ICARUS®
MOVABLE

PROJECT APPLICATION

Dynamic sun protection system with tilting blades

Horizontal cantilevered permanent awning with movable blades. The blades can be moved 90° as standard. Other movement angles are possible in consultation with our project department. The blades can be tilted manually or motorised.



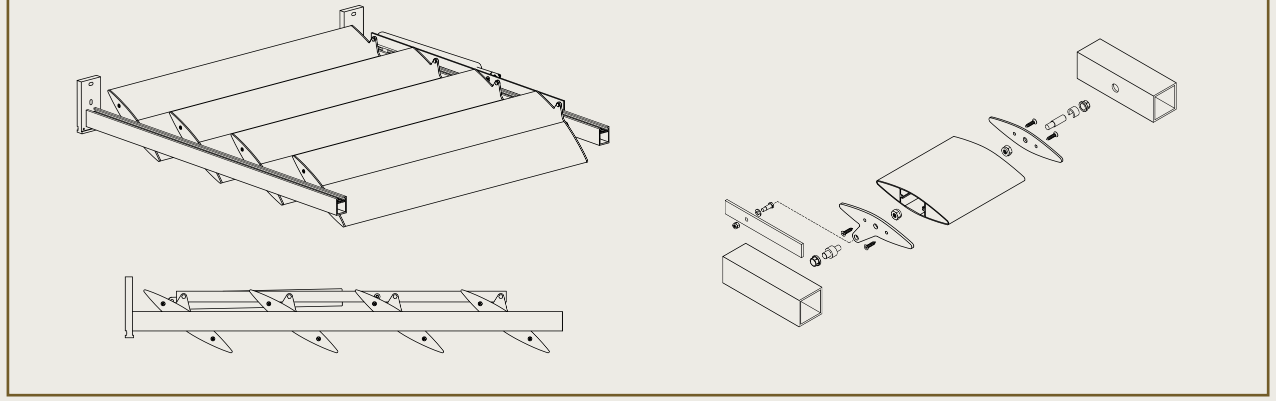
Technical properties	
Blade material	Aluminium extrusion profile EN AW-6063 T66
End cap plates	Aluminium (AlMg3) or steel Depending on cantilever, weight and wind and snow loads
Axles	Stainless steel centrally mounted in aluminium end caps
Bearings and locking rings	UV-resistant UPVC
Plate screws and mounting	Stainless steel
Aluminium	Anodised (20 micron) F1
Polyester powder coating	(60-80 micron) in RAL colours
Steel parts	N/A
Blade type	Applicable with all Icarus blade types

Maximum free span (Recommended maximum blade length)

Blade type	Wind load		
	650 Pa	800 Pa	1250 Pa
ICA.100	1870 mm	1750 mm	1520 mm
ICA.125	2080 mm	1950 mm	1700 mm
ICA.150	2540 mm	2390 mm	2070 mm
ICA.200	2790 mm	2620 mm	2270 mm
ICA.250	3190 mm	2990 mm	2600 mm
ICA.300	3690 mm	3460 mm	3010 mm
ICA.400	4320 mm	4070 mm	3540 mm
ICA.480	5170 mm	5170 mm	4590 mm
ICL.150	2830 mm	2660 mm	2310 mm
ICL.200	2980 mm	2800 mm	2430 mm
ICL.300	3690 mm	3460 mm	3010 mm
ICP.150	3120 mm	2940 mm	2550 mm
ICP.200/30	3710 mm	2980 mm	2595 mm
ICP.200/40	3830 mm	3830 mm	3370 mm
ICP.300	3850 mm	3620 mm	3150 mm

The maximum free spans described here are only valid for the blade and depend on the dimensions of the sun protection. Other free spans may be possible subject to detailed study of the effective project situation.

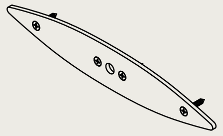
Detailed drawings



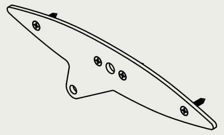
Icarus® end caps

Depending on the application, the ends of the Icarus blades are fitted with end caps.
The end caps are mounted by screwing them into the screw channels of the blades.

End cap type



End cap movable without controls – Type 2
Application: Installation on ends of Icarus blades in movable Icarus system, on one side without controls.



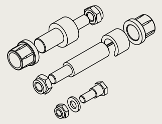
End cap movable with controls – Type 3
Application: Installation on ends of Icarus blades in movable Icarus system, on one side with controls.

Blade type	End cap type 2	End cap type 3
ICA.100	ICA.100.12	ICA.100.13
ICA.125	ICA.125.12	ICA.125.13
ICA.150	ICA.150.12	ICA.150.13
ICA.200	ICA.200.12	ICA.200.13
ICA.250	ICA.250.12	ICA.250.13
ICA.300	ICA.300.12	ICA.300.13
ICA.400	ICA.400.12	ICA.400.13
ICA.480	ICA.480.12	ICA.480.13
ICL.150	ICL.150.12	ICL.150.13
ICL.200	ICL.200.12	ICL.200.13
ICL.300	ICL.300.12	ICL.300.13
ICP.150	ICP.150.12	ICP.150.13
ICP.200/30	ICP.200.32	ICP.200.33
ICP.200/40	ICP.200.12	ICP.200.13
ICP.300	ICP.300.12	ICP.300.13

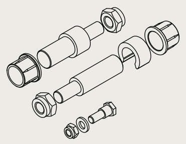
Rotary shaft set

Three types of rotary shaft sets are available, according to the blade system used. A rotary shaft set consists of two stainless steel rotary shafts (1x long ; 1x short), two UPVC bearing bushes, one UPVC locking ring for fixing the blade, two lock nuts for mounting the stainless steel rotary shafts to the end caps and a set for connecting the transmission rod, consisting of one transmission shaft Ø8 – M6 with one HPVC locking ring for M8 and one lock nut M6.

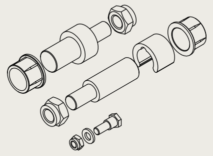
Types



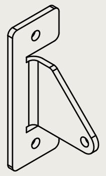
Rotary shaft set IM.9001
Application: Rotary shaft set for movable system type 1.
Suitable for blade types ICA.100, ICA.125, ICA.150, ICL.150, ICA.200, ICL.200 and ICP.150, ICP.200/30, ICP.200/40



Rotary shaft set IM.9002
Application: Rotary shaft set for movable system type 2.
Suitable for blade types ICA.250, ICA.300 and ICL.300



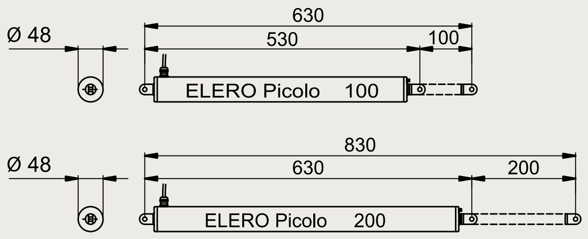
Rotary shaft set IM.9003
Application: Rotary shaft set for movable system type 3.
Suitable for blade types ICA.400 and ICA.480



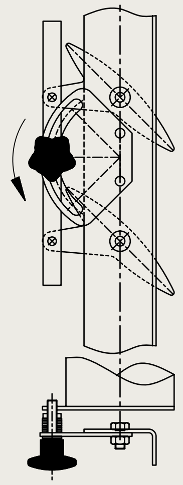
Stainless steel motor support IM.9201
Application: Stainless steel motor support for mounting motors on substructures.
Suitable for several types of motors.

Operating methods

Automated controls
Example of applicable motors



Manual control
Direct manual control



Motor type is determined according to the stroke length required.

VERTICAL SUN PROTECTION

Sunclips on mullions	98
Sunclips cassettes	102
Icarus Quickfix	104
Icarus cassettes	110
Icarus fixed	112
Icarus movable	116

SUNCLIPS®
ON MULLIONS

PROJECT APPLICATION

Rapid assembly using clip system. Continuous lines.

Vertically installed permanent sun protection or visual barrier. Ideal as an application for sun protection on east- or west-facing façades.

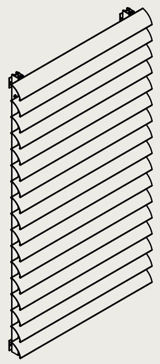
Technical properties	
Material	Aluminium extrusion profile EN AW-6063 T66
Aluminium	Anodised (20 micron) F1
Polyester powder coating	(60-80 micron) in RAL colours
Blade type	Applicable with all Sunclips blade types
Blade support	Blades are clipped on aluminium clips
Blade incline	Standard 45°
Blade pitch	Standard: 100 mm For blade type SE.130 and SE.176 133 mm – 176 mm recommended
Mullion profile	Mullion profiles possible on all SD and LD types
Expansion panels	Optionally, prefabricated expansion panels are available.

Maximum free span (Recommended maximum blade length)

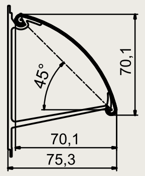
Blade type	Wind load 650 Pa	 800 Pa	 1250 Pa
SE.096	1350 mm	1220 mm	1000 mm
SE.130	2000 mm	1800 mm	1440 mm
SE.176	2000 mm	1800 mm	1440 mm

The maximum free spans described here are only valid for the blade and depend on the dimensions of the sun protection. Other free spans may be possible subject to detailed study of the effective project situation.

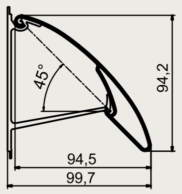
Detailed drawings



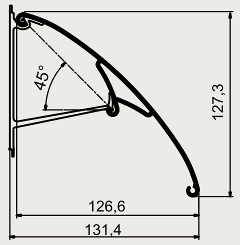
Types



SE.096.01



SE.130

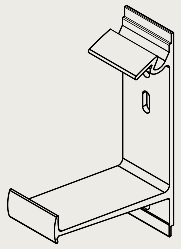


SE.176

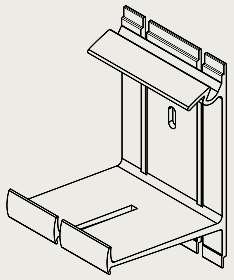
Sunclips® blades – Vertical

The blade supports for Sunclips blades are positioned on the mullions vertically and are made of aluminium. They have a fixed blade installation angle of 45° relative to the horizontal/vertical. The blade support is available as single and double support as joint clips.

Types



Blade support SE.082.11
Application: For mounting a continuous blade, type SE.096.01, SE.130.01 and SE.176.01. Suitable for mullion profiles from the Linius range of type LD.0065, LD.0195, LD.0440, LD.0460, LD.0995, LD.1250 and Sunclips mullions SD.014, SD.054 and SD.100 in combination with adapter profile LD.0108.



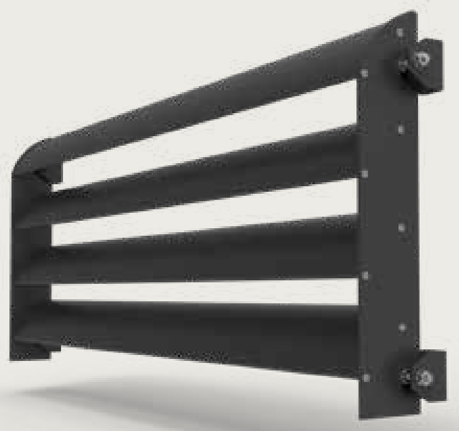
Blade support SE.082.12
Application: For mounting two blades, type SE.096.01, SE.130.01 and SE.176.01. Suitable for mullion profiles from the Linius range of type LD.0065, LD.0195, LD.0440, LD.0460, LD.0995, LD.1250 and Sunclips mullions SD.014, SD.054 and SD.100 in combination with adapter profile LD.0108.

SUNCLIPS® CASSETTES

PROJECT APPLICATION

Blades screwed in between aluminium plates

Vertical permanent sun protection where multiple blades are installed between end plates as cassettes. The pitch and inclination of the blades can be freely chosen. Moreover, you can also choose between different versions of the sideways end plates. The cassettes can be delivered to your site fully assembled. Mounting the cassettes directly to a structural substructure using brackets or fixing on knife.



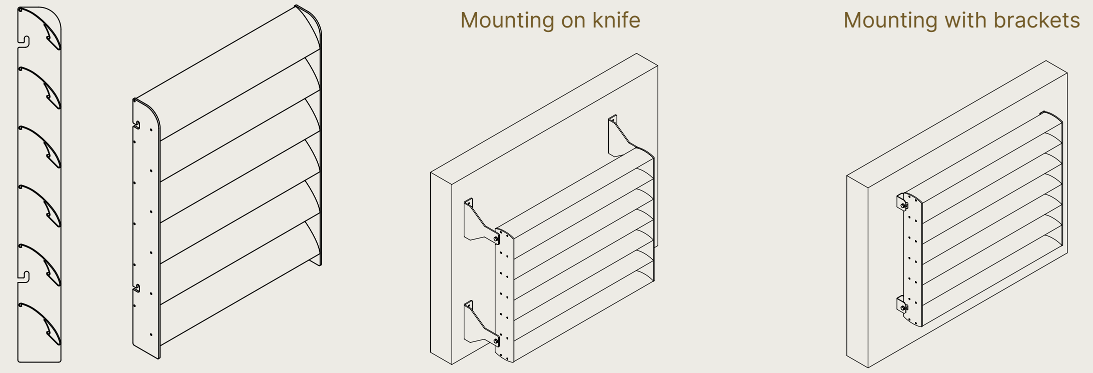
Technical properties	
Blade material	Aluminium extrusion profile EN AW-6063 T66
End cap plates	Aluminium (AlMg3) or steel Thickness subject to dimensions, weight and local wind load
Plate screws and mounting	Stainless steel
Aluminium	Anodised (20 micron) F1
Polyester powder coating	(60-80 micron) in RAL colours
Blade type	Possible with SE.096, SE.130 and SE.176
Blade incline	Standard 45°
Blade pitch	Standard: 100 mm For blade type SE.130 and SE.176 133 mm – 176 mm recommended

Maximum free span (Recommended maximum blade length)

Blade type		Wind load	
	650 Pa	800 Pa	1250 Pa
SE.096	1350 mm	1220 mm	1000 mm
SE.130	2000 mm	1800 mm	1440 mm
SE.176	2000 mm	1800 mm	1440 mm

The maximum free spans described here are only valid for the blade and depend on the dimensions of the sun protection. Other free spans may be possible subject to detailed study of the effective project situation.

Detailed drawings



Mounting on knife

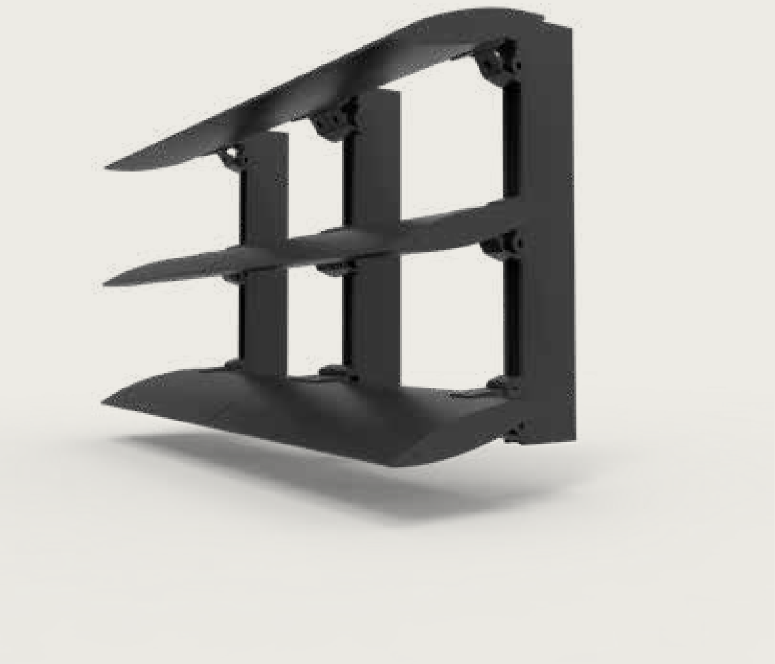
Mounting with brackets

ICARUS®
QUICKFIX®

PROJECT APPLICATION

A patented clip system for rapid installation and continuous lines

Icarus Quickfix is a unique, patented structural sun protection system, easy and discreet to install by means of clip installation. The Quickfix support consists of one clip mounted to the support structure and one fork profile installed on the blade with stainless steel rivets. Thanks to this two-part concept, smooth dilatation of the blade due to thermal expansion is possible, preventing stresses in the support structure. Moreover, the system allows for a continuous line of blades to be created.



Technical properties

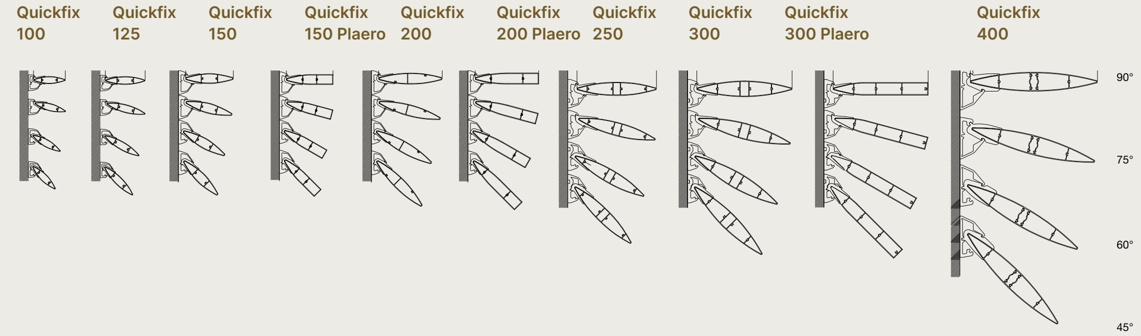
Blade material	Aluminium extrusion profile EN AW-6063 T66
End cap plates	Aluminium AlMg3
Plate screws and mounting	Stainless steel
Aluminium	Anodised (20 micron) F1
Polyester powder coating	(60-80 micron) in RAL colours
Blade type	ICA.100, 125, 150, 200, 250 and 300
Inclination angles	60°, 75°, 90°
Application	Lying or upright in front of the façade

Maximum free span (below 90° inclination angle)

Blade type		Wind load	
	650 Pa	800 Pa	1250 Pa
ICA.100	2000 mm	1860 mm	1590 mm
ICA.125	2150 mm	2000 mm	1706 mm
ICA.150	2775 mm	2580 mm	2200 mm
ICA.200	2820 mm	2620 mm	2240 mm
ICA.250	3320 mm	3085 mm	2635 mm
ICA.300	3735 mm	3735 mm	3415 mm
ICA.400	3235 mm	3235 mm	2865 mm
ICL.150	2860 mm	2660 mm	2270 mm
ICL.200	3210 mm	2980 mm	2545 mm
ICL.300	3700 mm	3455 mm	2950 mm

The maximum free spans described here are only valid for the blade and depend on the dimensions of the sun protection. Other free spans may be possible subject to detailed study of the effective project situation.

Detailed drawings

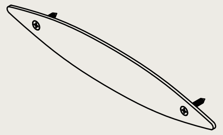

Quickfix 100
Quickfix 125
Quickfix 150
Quickfix 150 Plaero
Quickfix 200
Quickfix 200 Plaero
Quickfix 250
Quickfix 300
Quickfix 300 Plaero
Quickfix 400
90°
75°
60°
45°

Hoffmann Group

Icarus® end caps

Depending on the application, the ends of the Icarus blades are fitted with end caps.
The end caps are mounted by screwing them into the screw channels of the blades.

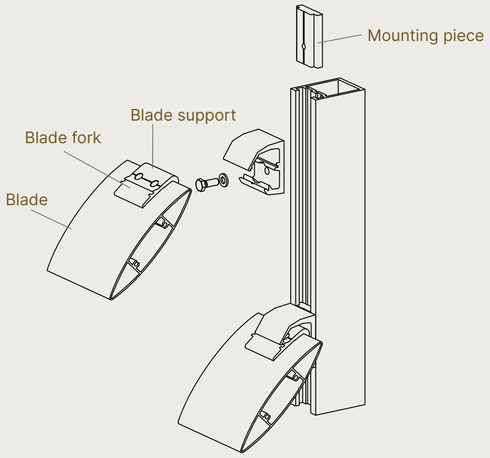
End cap type



Fixed end cap – Type 1
Application: Installation on ends of Icarus blades in Icarus Quickfix system.

Blade type	End cap type 1
ICA.100	ICA.100.11
ICA.125	ICA.125.11
ICA.150	ICA.150.11
ICA.200	ICA.200.11
ICA.250	ICA.250.11
ICA.300	ICA.300.11
ICA.400	ICA.400.11
ICA.480	ICA.480.11
ICL.150	ICL.150.11
ICL.200	ICL.200.11
ICL.300	ICL.300.11

Detailed drawings



Supports

There are four types of Quickfix supports that can be combined with various fork profiles according to the inclination of the blade:

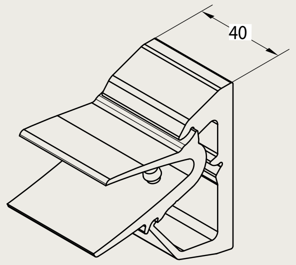
- **Type 1**: For blade types ICA.100 and ICA.125: clips and fork for 90°, 45°, 75° or 60° blade inclination angles.
- **Type 2**: For blade types ICA.150, ICL.150, ICA.200 and ICL.200: clips and two forks for 90°, 45°, 75° or 60° blade inclination angles.
- **Type 3**: For blade types ICA.250, ICA.300 and ICL.300: clips and two forks for 90°, 45°, 75° or 60° blade inclination angles.
- **Type 4**: For blade type ICA.400: clips and two forks for 90°, 45°, 75° or 60° blade inclination angles.

In addition, the Quickfix supports are available as single and double supports.

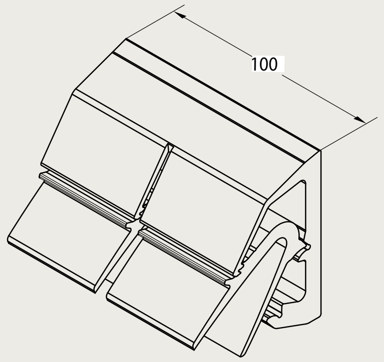
Icarus® Quickfix®		Blade inclination angle							
		45°		60°		75°		90°	
Support type	Blade type	Single support	Double support	Single support	Double support	Single support	Double support	Single support	Double support
Type 1	ICA.100	IQ.1101	IQ.1201	IQ.1102	IQ.1202	IQ.1102	IQ.1202	IQ.1101	IQ.1201
	ICA.125	IQ.1101	IQ.1201	IQ.1102	IQ.1202	IQ.1102	IQ.1202	IQ.1101	IQ.1201
Type 2	ICA.150	IQ.2101	IQ.2201	IQ.2102	IQ.2202	IQ.2102	IQ.2202	IQ.2101	IQ.2201
	ICL.150	IQ.2101	IQ.2201	IQ.2102	IQ.2202	IQ.2102	IQ.2202	IQ.2101	IQ.2201
	ICA.200	IQ.2101	IQ.2201	IQ.2102	IQ.2202	IQ.2102	IQ.2202	IQ.2101	IQ.2201
	ICL.200	IQ.2101	IQ.2201	IQ.2102	IQ.2202	IQ.2102	IQ.2202	IQ.2101	IQ.2201
Type 3	ICA.250	IQ.3101	IQ.3201	IQ.3102	IQ.3202	IQ.3102	IQ.3202	IQ.3101	IQ.3201
	ICA.300	IQ.3101	IQ.3201	IQ.3102	IQ.3202	IQ.3102	IQ.3202	IQ.3101	IQ.3201
	ICL.300	IQ.3101	IQ.3201	IQ.3102	IQ.3202	IQ.3102	IQ.3202	IQ.3101	IQ.3201
Type 4	ICA.400	IQ.4101	IQ.4201	IQ.4102	IQ.4202	IQ.4102	IQ.4202	IQ.4101	IQ.4201

Parts

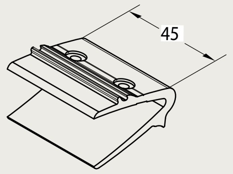
Single support



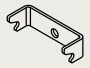
Double support

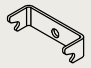


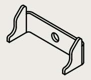
Fork

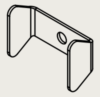


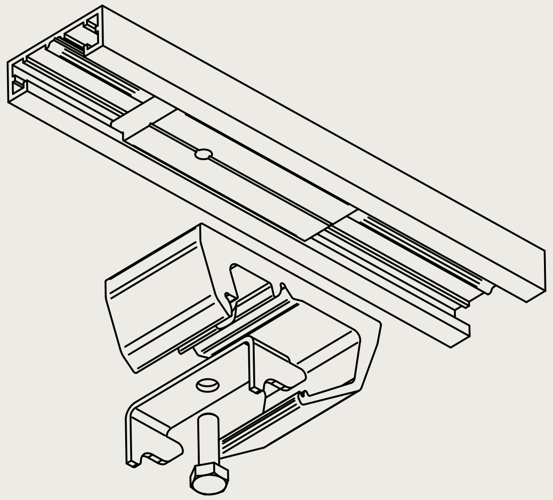
Locking plate


Locking plate
Type 1 – IQ.1001
(ICA.100 and ICA.125)


Locking plate
Type 2 – IQ.2001
(ICA.150, ICL.150, ICA.200 and ICL.200)

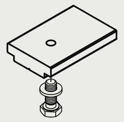

Locking plate
Type 3 – IQ.3001
(ICA.250, ICA.300 and ICL.300)


Locking plate
Type 4 – IQ.4001
(ICA.400)

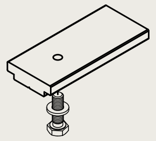


Each blade should always have a locking plate in one place. The type depends on the blade type.

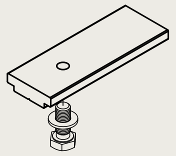
Mounting pieces



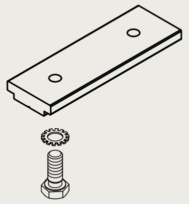
Mounting piece IQ.1002
Application: Type 1 mounting piece for Quickfix
on SD mullion profiles; see page 58.
Suitable for Quickfix system ICA.100 and ICA.125



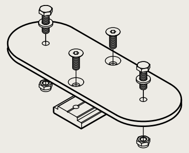
Mounting piece IQ.2002
Application: Type 2 mounting piece for Quickfix
on SD mullion profiles; see page 58.
Suitable for Quickfix system ICA.150, ICL.150, ICA.200 and ICL.200



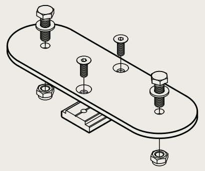
Mounting piece IQ.3002
Application: Type 3 mounting piece for Quickfix
on SD mullion profiles; see page 58.
Suitable for Quickfix system ICA.250, ICA.300 and ICL.300



Mounting piece IQ.4002
Application: Type 4 mounting piece for Quickfix
on SD mullion profiles; see page 58.
Suitable for Quickfix system ICA.400



Mounting piece IQ.9001 for corner application
Application: Type 1 mounting piece for Quickfix
on SD mullion profiles; see page 58.
Suitable for Quickfix system ICA.100, ICA.125, ICA.150, ICL.150, ICA.200 and ICL.200



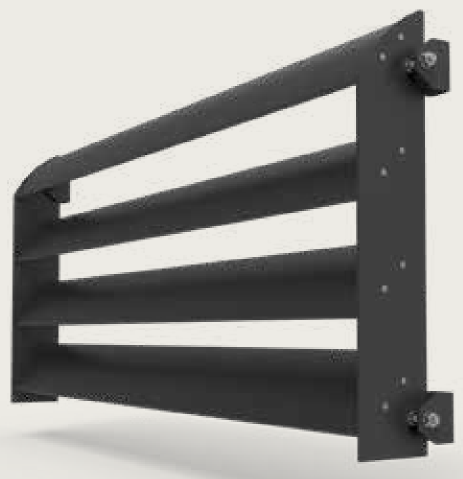
Mounting piece IQ.9002 for corner application
Application: Type 2 mounting piece for Quickfix
on SD mullion profiles; see page 58.
Suitable for Quickfix system ICA.250, ICA.300 and ICL.300

ICARUS® CASSETTES

PROJECT APPLICATION

Icarus blades screwed in between aluminium plates

Vertical permanent sun protection where multiple blades are installed between end plates as cassettes. The pitch and inclination of the blades can be freely chosen. Moreover, you have a choice between different versions of the sideways end plates. Mounting the cassettes directly to a structural substructure using brackets or fixing on knife.



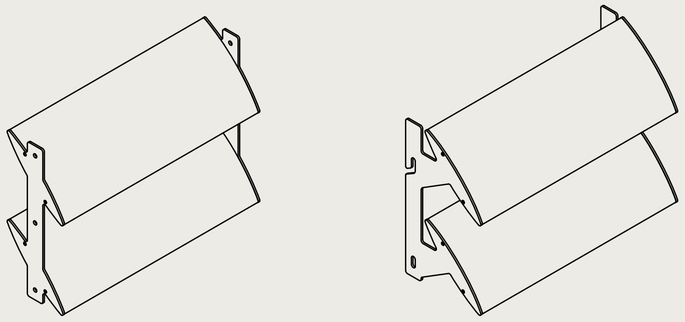
Technical properties	
Blade material	Aluminium extrusion profile EN AW-6063 T66
End cap plates	Aluminium AlMg3 or steelThickness according to dimensions, weight and wind load
Plate screws and mounting	Stainless steel
Aluminium	Anodised (20 micron) F1
Polyester powder coating	(60-80 micron) in RAL colours
Steel parts	N/A

Maximum free span (below 45° inclination angle) relative to the vertical cantilever

Blade type	Wind load 650 Pa	 800 Pa	 1250 Pa
ICA.100	2280 mm	2105 mm	1785 mm
ICA.125	2470 mm	2290 mm	1965 mm
ICA.150	3145 mm	2890 mm	2440 mm
ICA.200	3590 mm	3285 mm	2755 mm
ICA.250	4110 mm	3745 mm	3125 mm
ICA.300	4615 mm	4515 mm	3730 mm
ICA.400	5325 mm	5325 mm	4475 mm
ICA.480	6000 mm	6000 mm	5880 mm
ICL.150	3420 mm	3150 mm	2675 mm
ICL.200	3750 mm	3450 mm	2900 mm
ICL.300	4615 mm	4515 mm	3730 mm
ICP.060	1435 mm	1335 mm	1150 mm
ICP.150	3700 mm	3415 mm	2910 mm
ICP.200/30	3910 mm	3615 mm	3050 mm
ICP.200/40	4735 mm	4675 mm	3935 mm
ICP.300	4755 mm	4440 mm	3725 mm

The maximum free spans described here are only valid for the blade and depend on the dimensions of the sun protection. Other free spans may be possible subject to detailed study of the effective project situation.

Detailed drawings



ICARUS®
FIXED

PROJECT
APPLICATION

Blades with end caps to be mounted to existing structure

Vertical permanent sun protection where blades are installed between end caps. The pitch and inclination of the blades can be freely chosen. Moreover, you have a choice between different versions of the sideways end caps. Mounting the end caps directly to a substructure.

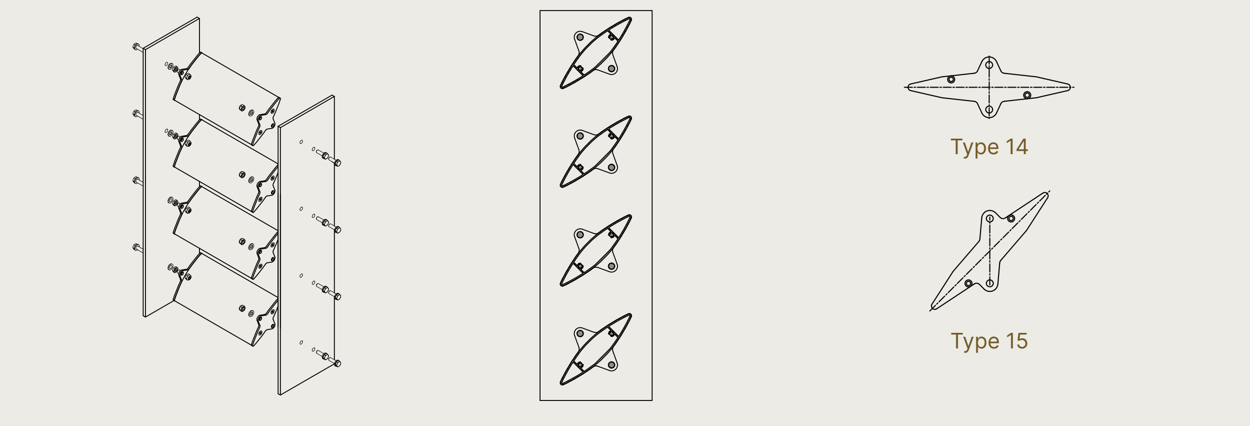
Technical properties	
Blade material	Aluminium extrusion profile EN AW-6063 T66
End cap plates	Aluminium AlMg3 or steelThickness according to dimensions, weight and wind load
Plate screws and mounting	Stainless steel
Aluminium	Anodised (20 micron) F1
Polyester powder coating	(60-80 micron) in RAL colours
Steel parts	N/A
Blade type	Applicable with all Icarus blade types

Maximum free span (below 45° inclination angle) relative to the vertical cantilever

Blade type	Wind load 650 Pa	 800 Pa	 1250 Pa
ICA.100	2280 mm	2105 mm	1785 mm
ICA.125	2470 mm	2290 mm	1965 mm
ICA.150	3145 mm	2890 mm	2440 mm
ICA.200	3590 mm	3285 mm	2755 mm
ICA.250	4110 mm	3745 mm	3125 mm
ICA.300	4615 mm	4515 mm	3730 mm
ICA.400	5325 mm	5325 mm	4475 mm
ICA.480	6000 mm	6000 mm	5880 mm
ICL.150	3420 mm	3150 mm	2675 mm
ICL.200	3750 mm	3450 mm	2900 mm
ICL.300	4615 mm	4515 mm	3730 mm
ICP.060	1435 mm	1335 mm	1150 mm
ICP.150	3700 mm	3415 mm	2910 mm
ICP.200/30	3910 mm	3615 mm	3050 mm
ICP.200/40	4735 mm	4675 mm	3935 mm
ICP.300	4755 mm	4440 mm	3725 mm

The maximum free spans described here are only valid for the blade and depend on the dimensions of the sun protection. Other free spans may be possible subject to detailed study of the effective project situation.

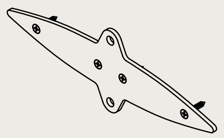
Detailed drawings



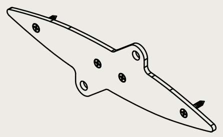
Icarus® end caps

Depending on the application, the ends of the Icarus blades are fitted with end caps.
The end caps are mounted by screwing them into the screw channels of the blades.

End cap type



Fixed end cap for mounting 90° – Type 4
Application: Installation on ends of Icarus blades at an inclination angle of 90°.

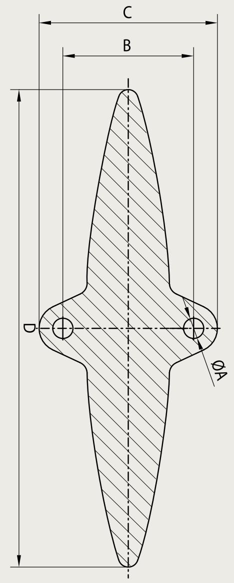


Fixed end cap for mounting 45° – Type 5
Application: Installation on ends of Icarus blades at an inclination angle of 45°.

End cap type	Type 4	Type 5
ICA.100	ICA.100.14	ICA.100.15
ICA.125	ICA.125.14	ICA.125.15
ICA.150	ICA.150.14	ICA.150.15
ICA.200	ICA.200.14	ICA.200.15
ICA.250	ICA.250.14	ICA.250.15
ICA.300	ICA.300.14	ICA.300.15
ICA.400	ICA.400.14	ICA.400.15
ICA.480	ICA.480.14	ICA.480.15
ICL.150	ICL.150.14	ICL.150.15
ICL.200	ICL.200.14	ICL.200.15
ICL.300	ICL.300.14	ICL.300.15
ICP.150	ICP.150.14	ICP.150.15
ICP.200/30	ICP.200.34	ICP.200.35
ICP.200/40	ICP.200.14	ICP.200.15
ICP.300	ICP.300.14	ICP.300.15

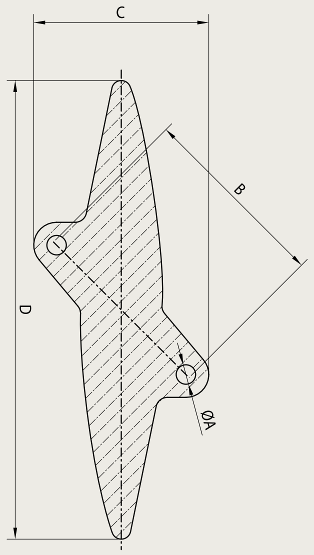
End cap type 4 Inclination angle 90°	Dimensions according to sketch (mm)			
	Size D	Size ø A	Size B	Size C
ICA.100.14	100	6.5	45	57
ICA.125.14	125	8.5	45	65
ICA.150.14	150	8.5	50	70
ICA.200.14	200	8.5	55	75
ICA.250.14	250	8.5	65	85
ICA.300.14	300	8.5	70	90
ICA.400.14	400	10.5	85	110
ICA.480.14	480	10.5	120	150
ICL.150.14	150	8.5	50	70
ICL.200.14	200	8.5	60	80
ICL.300.14	300	8.5	70	90
ICP.150.14	150	8.5	50	70
ICP.200.34	200	8.5	50	70
ICP.200.14	200	8.5	60	80
ICP.300.14	300	8.5	70	90

Technical drawing



End cap type 5 Inclination angle 45°	Dimensions according to sketch (mm)			
	Size D	Size ø A	Size B	Size C
ICA.100.15	100	6.5	60	55
ICA.125.15	125	8.5	65	66
ICA.150.15	150	8.5	70	70
ICA.200.15	200	8.5	80	77
ICA.250.15	250	8.5	90	84
ICA.300.15	300	8.5	100	94
ICA.400.15	400	10.5	120	110
ICA.480.15	480	10.5	160	144
ICL.150.15	150	8.5	75	73
ICL.200.15	200	8.5	85	80
ICL.300.15	300	8.5	100	94
ICP.150.15	150	8.5	75	73
ICP.200.35	200	8.5	75	73
ICP.200.15	200	8.5	90	84
ICP.300.15	300	8.5	100	94

Technical drawing



ICARUS®
MOVABLE

PROJECT APPLICATION

Dynamic sun protection system with tilting blades

Vertical permanent sun protection with movable blades. The blades can be moved 90° as standard. Other movement angles are possible in consultation with our project department. The blades can be tilted manually or motorised.

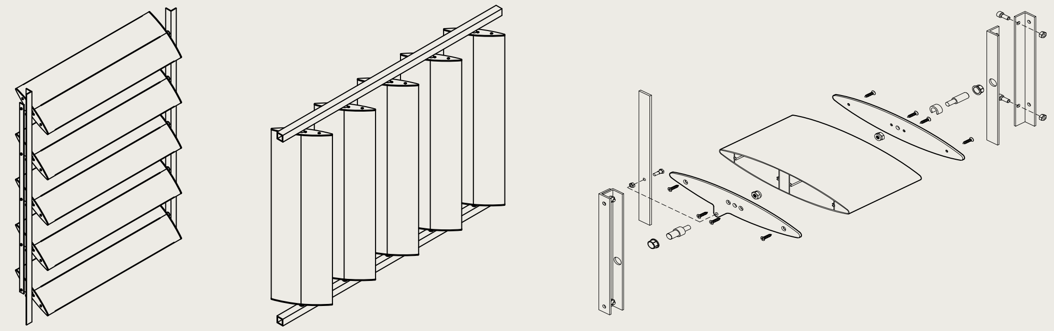
Technical properties	
Blade material	Aluminium extrusion profile EN AW-6063 T66
End cap plates	Aluminium AlMg3
Support structure	Aluminium or steel depending on cantilever, blade weight and wind and snow loads
Axles	Stainless steel centrally mounted in aluminium end caps
Bearings and locking rings	UV-resistant UPVC
Plate screws and mounting	Stainless steel
Aluminium	Anodised (20 micron) F1
Polyester powder coating	(60-80 micron) in RAL colours
Steel parts	Galvanised and powder coated
Blade type	Applicable with all Icarus blade types

Maximum free span (Recommended maximum blade length)

Blade type	Wind load 650 Pa	 800 Pa	 1250 Pa
ICA.100	2000 mm	1860 mm	1590 mm
ICA.125	2145 mm	1990 mm	1700 mm
ICA.150	2775 mm	2580 mm	2200 mm
ICA.200	2820 mm	2615 mm	2240 mm
ICA.250	3325 mm	3085 mm	2630 mm
ICA.300	3735 mm	3735 mm	3415 mm
ICA.400	4315 mm	4315 mm	3820 mm
ICA.480	5170 mm	5170 mm	4975 mm
ICL.150	2950 mm	2825 mm	2410 mm
ICL.200	2985 mm	2765 mm	2365 mm
ICL.300	3735 mm	3735 mm	3415 mm
ICP.150	3130 mm	3075 mm	2620 mm
ICP.200/30	3150 mm	2920 mm	2495 mm
ICP.200/40	3835 mm	3775 mm	3220 mm
ICP.300	3850 mm	3620 mm	3150 mm

The maximum free spans described here are only valid for the blade and depend on the dimensions of the sun protection. Other free spans may be possible subject to detailed study of the effective project situation.

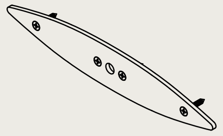
Detailed drawings



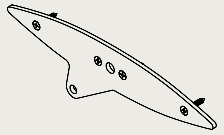
Icarus® end caps

Depending on the application, the ends of the Icarus blades are fitted with end caps. The end caps are mounted by screwing them into the screw channels of the blades.

End cap type



End cap movable without controls – Type 2
Application: Installation on ends of Icarus blades in movable Icarus system, on one side without controls.



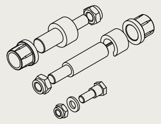
End cap movable with controls – Type 3
Application: Installation on ends of Icarus blades in movable Icarus system, on one side with controls.

Blade type	End cap type 2	End cap type 3
ICA.100	ICA.100.12	ICA.100.13
ICA.125	ICA.125.12	ICA.125.13
ICA.150	ICA.150.12	ICA.150.13
ICA.200	ICA.200.12	ICA.200.13
ICA.250	ICA.250.12	ICA.250.13
ICA.300	ICA.300.12	ICA.300.13
ICA.400	ICA.400.12	ICA.400.13
ICA.480	ICA.480.12	ICA.480.13
ICL.150	ICL.150.12	ICL.150.13
ICL.200	ICL.200.12	ICL.200.13
ICL.300	ICL.300.12	ICL.300.13
ICP.150	ICP.150.12	ICP.150.13
ICP.200/30	ICP.200.32	ICP.200.33
ICP.200/40	ICP.200.12	ICP.200.13
ICP.300	ICP.300.12	ICP.300.13

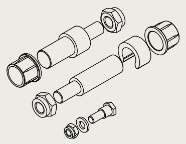
Rotary shaft set

Three types of rotary shaft sets are available, according to the blade system used. A rotary shaft set consists of two stainless steel rotary shafts (1x long ; 1x short), two UPVC bearing bushes, one plastic locking ring for attaching the blade, two lock nuts for mounting the stainless steel rotary shafts on the end caps and a set for connecting the transmission rod, consisting of one transmission shaft Ø8 – M6 with one UPVC locking ring for M8 and one lock nut M6.

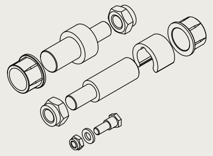
Types



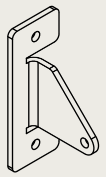
Rotary shaft set IM.9001
Application: Rotary shaft set for movable system type 1.
Suitable for blade types ICA.100, ICA.125, ICA.150, ICL.150, ICA.200, ICL.200 and ICP.150, ICP.200/30, ICP.200/40



Rotary shaft set IM.9002
Application: Rotary shaft set for movable system type 2.
Suitable for blade types ICA.250, ICA.300 and ICL.300



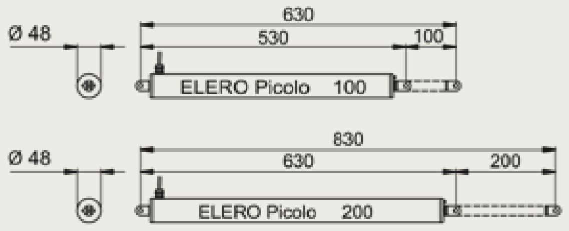
Rotary shaft set IM.9003
Application: Rotary shaft set for movable system type 3.
Suitable for blade types ICA.400 and ICA.480



Stainless steel motor support IM.9201
Application: Stainless steel motor support for mounting motors on substructures.
Suitable for several types of motors.

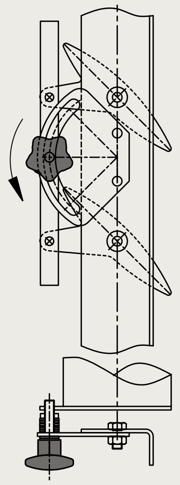
Operating methods

Automated controls
Example of applicable motors

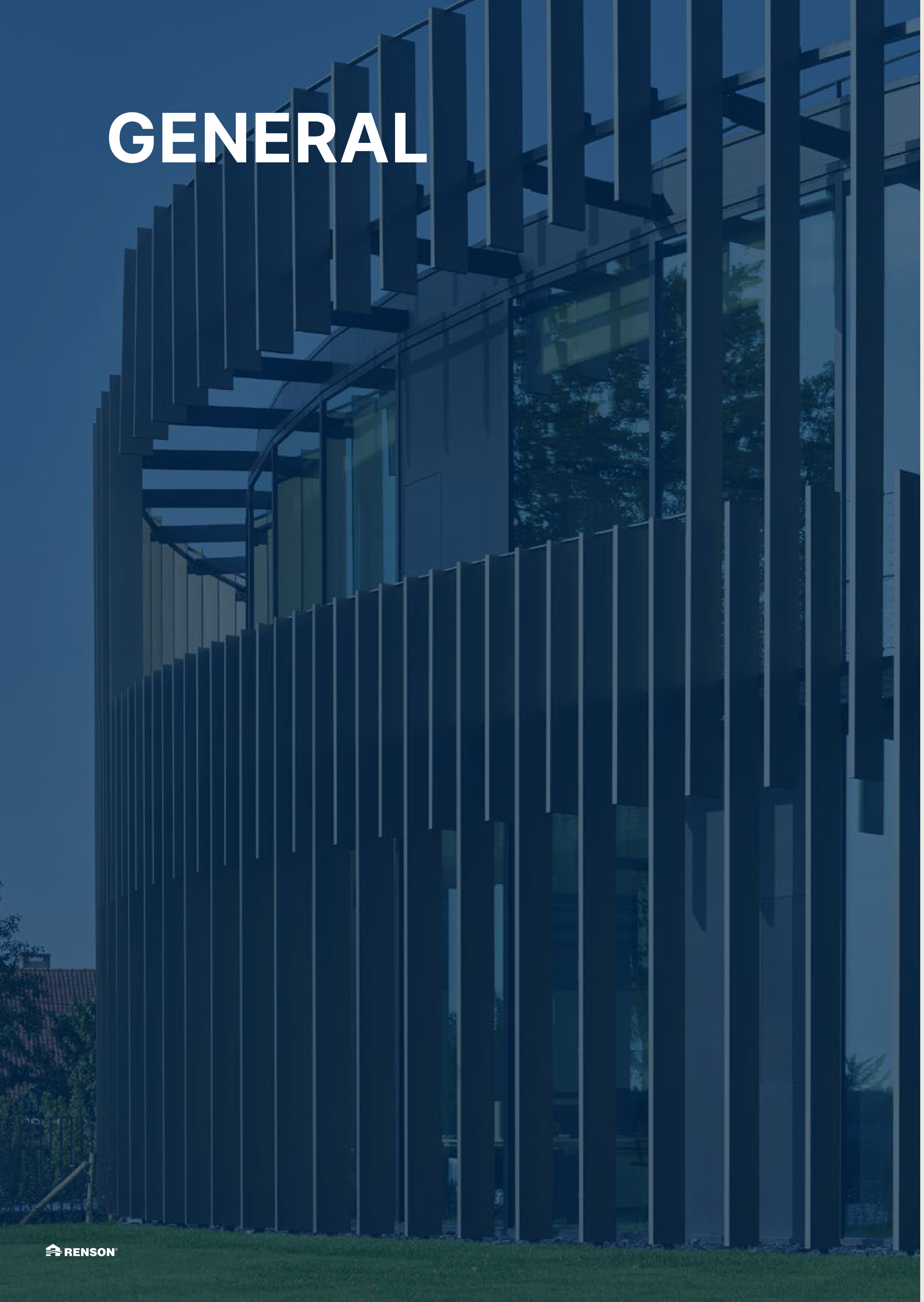


The motor type is determined based on the necessary stroke length.

Manual control
Direct manual control



GENERAL



WARRANTY

All materials we use are high quality and have been modified for their intended purpose.

As a manufacturer, we guarantee:

- 2-year warranty on the Rob A-slide Exterior motor
- 5-year warranty on the gloss level of aluminium profiles
- 5-year product warranty on all defects arising from normal domestic use and provided regular maintenance has been carried out
- 5-year warranty on the electronic controls
- 10-year warranty on all coatings on the aluminium profiles

5 YEARS GENERAL WARRANTY

10 YEARS COATING WARRANTY

The warranty covers the delivery of replacement parts, assembly on site by an installer, or a complete revision of the system by the manufacturer at one of our locations. Installation costs (travel plus hourly rate) are not covered by this warranty.

The warranty period starts on the date of production and applies only to the product itself, and not to its installation.

The warranty is only valid if the product is used and maintained in accordance with the prescriptions contained in the user manual. The warranty is voided if the product is used incorrectly or in an abnormal way. When reporting a problem, please tell the installer the serial number.

Please refer to the guarantee certificate.

MAINTENANCE

Sun protection requires little maintenance. If used carefully, the lifespan of your sun protection system can be extended by many years.

A few general guidelines:

- If the fabric gets wet during an unexpected shower, you can roll it up before lowering it again in better weather to let it dry. Do not allow the fabric to stay rolled up wet for more than three days so as to prevent mould and stains.
- Before cleaning, remove loose dirt with a brush. You can then use a cleaning product (avoid caustic products) and lukewarm water to remove any remaining dirt. Always rinse the fabric after cleaning. Do not clean the fabric in direct sunlight: if soapy water dries too quickly, it may leave stains on the fabric.
- We recommend against the use of high-pressure cleaning devices.
- Do not use abrasive products when cleaning.
- Hinged or rotating parts should be lubricated annually. A dry lubricant (Teflon) should be used to do so.
- Regularly check your screen for twigs, leaves, etc. and remove them. Maintain this product with due care and attention. As a manufacturer, we recommend a regular technical inspection by the installer: annually for commercial buildings and every two years for sun protection at home.
- For non-aggressive environments, we recommend six-monthly maintenance. For aggressive environments (sea, heavy industry, etc.), we recommend frequent maintenance, around four times a year.
- Always use original parts from the manufacturer.

* See our user manual for more information.

Maintenance is easy with the Renson® Maintenance Set

- The structure is made using powder-coated aluminium. Yearly cleaning with the **Renson® Maintenance Set** will make sure the intense colour is maintained for years and it provides extra protection from acid rain, sea air and UV rays. For coastal and wooded areas, we recommend maintenance twice a year.
- **Renson® 'Clean'** is a concentrated product with strong cleaning and degreasing properties that acts against the most common types of natural dirt, such as dust, oily rainfall, grease stains, moss, insect remains, and so on.
- This product cannot be compared to other cleaning products on the market. It penetrates deeply and 'lifts out' the dirt. Renson 'Clean' can also be used to clean polyester roof fabrics and vertical fibreglass screen fabrics.
- After cleaning, you should protect the aluminium structure with **Renson® 'Protect'**. This product leaves a protective film that enables you to clean the surface by simply wiping it down using a small amount of **Renson® 'Clean'**. It also protects the aluminium from acid rain, sea air and UV radiation, and ensures the colour remains just as intense.
- Do not use either product in direct sunlight or in hot weather. Drying the product too quickly may result in stains on the structure or fabric. Never use corrosive or aggressive products, scouring pads or other scouring products. Do not pressure-wash your products under any circumstances.

RENSON
Clean
Protect
Maintenance Set

Renson® Maintenance Set

RENSON COLOURS

We offer a wide range of colours. This ensures that the sun protection always integrates seamlessly with the style of the building. The choice is yours: a glossy or matte version, or a trendy textured coating that is not only wear- and scratch-resistant, but also easy to maintain.

To guarantee the colourfastness of the coating, we recommend Seaside Quality for coastal areas and other aggressive environments (heavy industry, etc.). This ensures that the screen's coating always remains in perfect condition and looks like new even after many years.

Gloss
Matte
Structure

More information

Consult our colour guide.

AMBASSADORSHIP

You are convinced about our products and enthusiastically share this with the world. In turn, we are proud that you are the connecting factor between Renson and your customers. Just for you, we created the Renson Ambassadorship: a long-term partnership.
This quality label guarantees your customers that you are a reliable expert in ventilation with excellent product knowledge and perfect service, from installation to the first service visit.

What does your Ambassadorship stand for?

- You share your passion for Renson with a strong professional network.
- Every two years, you will be invited to our Ambassador Days where you can network with your colleagues to your heart’s content.
- You are among the first to gain access to innovative and market-specific products and solutions.
- You have access to exclusive promotions for end customers, supported by media campaigns (online/offline).
- Through our lead tool, you will get one-to-one leads per region, which we receive via our communications, trade shows and events.
- We put you in the spotlight regularly and support you through co-branding to develop the Renson brand in your region.
- We promote you to your end customers.
- You may wear the exclusive quality label of Renson Ambassador.

WANT TO JOIN OUR RENSON AMBASSADOR FAMILY? GET IN TOUCH WITH YOUR RENSON CONTACT.

SOUDAL
QUICK-STEP
RENSON
OUTDOOR

SOUDAL QUICK-STEP PRO CYCLING TEAM POWERED BY RENSON

RENSON®

All photos shown are solely for illustration purposes and are a snapshot of the usage situation. The actual product may vary due to adjustments to the product. Renson® reserves the right to make technical changes to the products shown.
The most recent brochures are available for download at **www.renson.net**

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