



Fixscreen®

Fixscreen® 85 | Fixscreen® 100^{EVO}

Fixscreen® 100^{EVO} Slim (F) | Fixscreen® 150^{EVO} (F)

Fixscreen® Mono AK^{EVO}



The need for sun protection

A sun-oriented building or one with large windows on the south-side has many benefits. During the autumn, winter and spring, you can enjoy all of the benefits of the incoming rays of sunshine. In the summertime, though, the building can be susceptible to overheating and occupants may experience uncomfortable light refractions.

Structural sun protection systems and screens are used to help protect the building from overheating and to block the sunrays before they hit the glass surfaces. The unwanted heat and the disturbing glare does not get inside. There is no chance of people being blinded or having to deal with unpleasant reflections on the TV or computer monitors, yet you still maintain visual contact with the environment outside. The outdoor view is important and our products respect that.

KYOTO protocol

Many developed countries have now signed the Kyoto protocol. People are becoming more aware of the growing dangers human impact will have on our planet and how it will affect our climate in particular. In order to control these changes and to reduce the Greenhouse Effect, energy consumption must be decreased.

Cooling buildings is a major energy-consuming activity. In order to reduce or in some cases completely eliminate the need for cooling, efficient sun protection can be used.

Several governments have already taken steps related to energy consumption and ventilation.

- Belgium: Regulations concerning Energy Performance & Indoor Climate (EPB)
- Netherlands: Energy Performance Coefficient (EPC)
- France: Règlement Thermique 2012 (RT2012)
- Germany: Energy savings regime
- Great Britain: Approved Document L2 'Conservation of fuel and power in buildings other than dwellings'

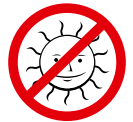
table of contents

Introduction	3
Advantages	4
Technical specifications Fixscreen®	5
Product specifications Fixscreen®	8
Product specifications Fixscreen® Mono AK ^{EVO}	10
Installation method Fixscreen® 85	13
Installation method Fixscreen® 100 ^{EVO}	14
Installation method Fixscreen® 100 ^{EVO} Slim (F)	17
Installation method Fixscreen® 150 ^{EVO} (F)	18
Installation method Fixscreen® Mono AK ^{EVO}	21
Methods of operation	22
Technical possibilities Fixscreen®	24
Technical possibilities Fixscreen® Mono AK ^{EVO}	27
Type of fabric	28
Fabrics in Renson® sun protection & terrace coverings	30
Overview top RAL	31
Maintenance	32
Guarantee	32
EC declaration	33

The Fixscreen was developed by RENSON® Sun protection-Screens and is the first external screen in the world that is truly wind tight.

Thanks to an ingenious zip system, the fabric is wind tight in every position and can be insect-proof in the closed position. It is a simple principle by which the sun-protecting fabric has a special trim with a symmetrical zip which holds the entire structure firmly in the two side channels.

Fixscreen, the technological performer in terms of comfort and ease of use, can be used in residential, offices and project buildings.



Fixscreen® has a full range of wind-tight screens.

Fixscreen® 85 is developed for dimensions of 2.50 m (width) by 1.80 m (height) (up to max. 4.50 m²). It is possible to join them up to dimensions of 5.00 m (width) by a maximum of 1.80 m (height). This small screen is important for the 'standard window' and the renovation market.

Fixscreen® 100^{EVO} is developed for dimensions up to 4.00 m (width) by 2.70 m (height) or 3.00 m (width) by 3.50 m (height) (up to 10.8 m²). It is possible to join them up to dimensions of 6.00 m (width) by a maximum of 2.70 m (height). Equipped with a patented & CE-approved Connect&Go technology

Fixscreen® 100^{EVO} Slim (F) was developed for dimensions up to 4.50 m wide and 2.80 m (F) high or dimensions from 3.00 m wide and 3.50 m high. This all presumes a limited depth for building into the cavity wall.

Fixscreen® 150^{EVO} can handle unique dimensions up to 6.00 m width or 6.00 m height (up to 22 m²).

Fixscreen® 150^{EVO} F can be installed in an open construction without a window lying behind. It is developed for dimensions up to 6,00 m (width) and 2,80 m (height), by a maximum of 16,8 m².

Fixscreen® Mono AK^{EVO} helps you to achieve a healthy indoor climate in your home. This new vertical sunprotection will offer you a better visual, thermal and acoustic comfort. This screen is developed for dimensions up to 4,00 m (width) and 3,50 m (height).

The extensive range of colours of the fabrics and the profiles ensures that the Fixscreen is in perfect harmony with the architecture of your home or company, which automatically leads to a pleasant living and working environment. All materials used for the Fixscreen are 100% corrosion-proof. Only stainless steel screws have been used. The aluminium profiles consist of an alloy EN AW-6063 T66. The profiles are available in every possible colour.





✓ **A wind-tight screen**

The Fixscreen is compliant with European standard EN13561 (Wind Resistance class 3). Flapping and torn fabric are a thing of the past.

✓ **No wrinkling**

The zip technology guarantees a smooth and wrinkle-free fabric.

✓ **Control over light**

Fixscreen blocks the sunrays before they come into contact with glass surfaces. There is no chance of blinding or unpleasant glare. And you still maintain visual contact with the environment outside. The outdoor view is important and we respect that. Depending on the type of fabric selected, different degrees of translucence are possible.

✓ **Control over heat and energy**

Specially designed to protect the building from the sun's energy and to achieve an optimal indoor climate. Structural sun protection and screens helps to avoid overheating by making sure the unwanted heat does not get inside. This can save a lot of money on cooling and air-conditioning during the summer and in the winter can be controlled to let in the optimum amount of light whilst reducing glare. Depending on the type of fabric selected, different degrees of heat-resistance are possible.

✓ **Insect-proof**

Intensive ventilation is possible without insects getting a chance to invade your home. There is no opening between the side channel and the screen plus the bottom bar with a darkening strip ensures a seamless connection with the sill.

✓ **Silent operation**

We guarantee a bottom bar without the banging noise.

✓ **Easy to operate**

Manual or electric operation.

✓ **Easy maintenance**

Fixscreen does not require much maintenance.

✓ **Easy installation**

Installation for the window or on the wall (mounting). Also possible on the window with or without roller blind encased with mounting braces (built-in).

The open & closed side channels are pre-drilled, which fastens the process of placement (100^{EVO} & 150^{EVO}).

The Connect&Go technology is available with the Fixscreen 100^{EVO}, Fixscreen 150^{EVO} and Fixscreen Mono Ak. This simplifies the assembly and disassembly of the fabric roller barrel, the motor and the fabric. This new technology also makes it possible to easily secure the headbox.

✓ **Large dimensions up to 22 m²**

Fixscreen 150^{EVO} is suitable for dimensions of 6 m wide or 6 m high (up to 22 m²).

✓ **Possibility to couple**

The Fixscreen 85, the Fixscreen 100^{EVO} and the Fixscreen 150^{EVO} can be coupled, this ensures an easy and quick mounting by your carpenter

Wind tested

Wind tunnel tests at Velux® A/S Wind Tunnel, observed by Force Technology (Force Report 113-25809).
 Fixscreen of 3000 x 3000 mm has no problems in winds up to 126 km/h (see Beaufort scale).



Fixscreen® 120 km/h



Standard screen 30 km/h



The result: guaranteed up to 130 km/h when closed.

Beaufort scale				
Beaufort	Description	Average speed in m/s	Average speed in km/h	Consequences
0	Calm	< 0,2	< 1	You don't feel the wind. Smoke will rise virtually straight up.
1	Light air	0,3 - 1,4	1 - 5	Wind direction can be read from the smoke plume, but not from the weather vane.
2	Light breeze	1,5 - 3,4	6 - 12	Wind can be felt on the face, leaves rustle, the weather vane moves visibly with the wind.
3	Gentle breeze	3,5 - 5,4	13 - 19	Flags wave and leaves move about constantly
4	Moderate	5,5 - 7,4	20 - 27	Dust blown up causes problems for the eyes. Hair is awry.
5	Fresh breeze	7,5 - 10,4	28 - 37	Bushes rustle, white tops on lakes and canals.
6	Strong breeze	10,5 - 13,4	38 - 48	Umbrellas are difficult to hold on to, large branches sway, power lines hum
7	High wind to near gale	13,5 - 17,4	49 - 62	It is difficult walking against the wind. Trees sway.
8	Gale	17,5 - 20,4	63 - 73	Making headway is very difficult. Small branches break off.
9	Fresh gale	20,5 - 24,4	74 - 87	Chimney tops, roofing tiles and antennas blow away.
10	Whole gale	24,5 - 28,4	88 - 102	Adults blow over. Major damage to buildings.
11	Violent storm	28,5 - 32,4	103 - 117	Major damage to houses and forests.
12	Hurricane	> 32,5	> 118	Destruction

Source: Deutscher Wetterdienst (DWD) - Offenbach

Pressure tests

Destructive test at the WTCB.

The wind resistance of the sun protection system is determined on the basis of a test in a wind tunnel in accordance with NBN EN 1932 version 2001.

The underpressures and overpressures are tested in the wind tunnel with the help of a fan and a system of electrically operated valves to create those pressures.

Durability test report of the WTCB (no. 651 XE823 CAR4139).



335 Pa

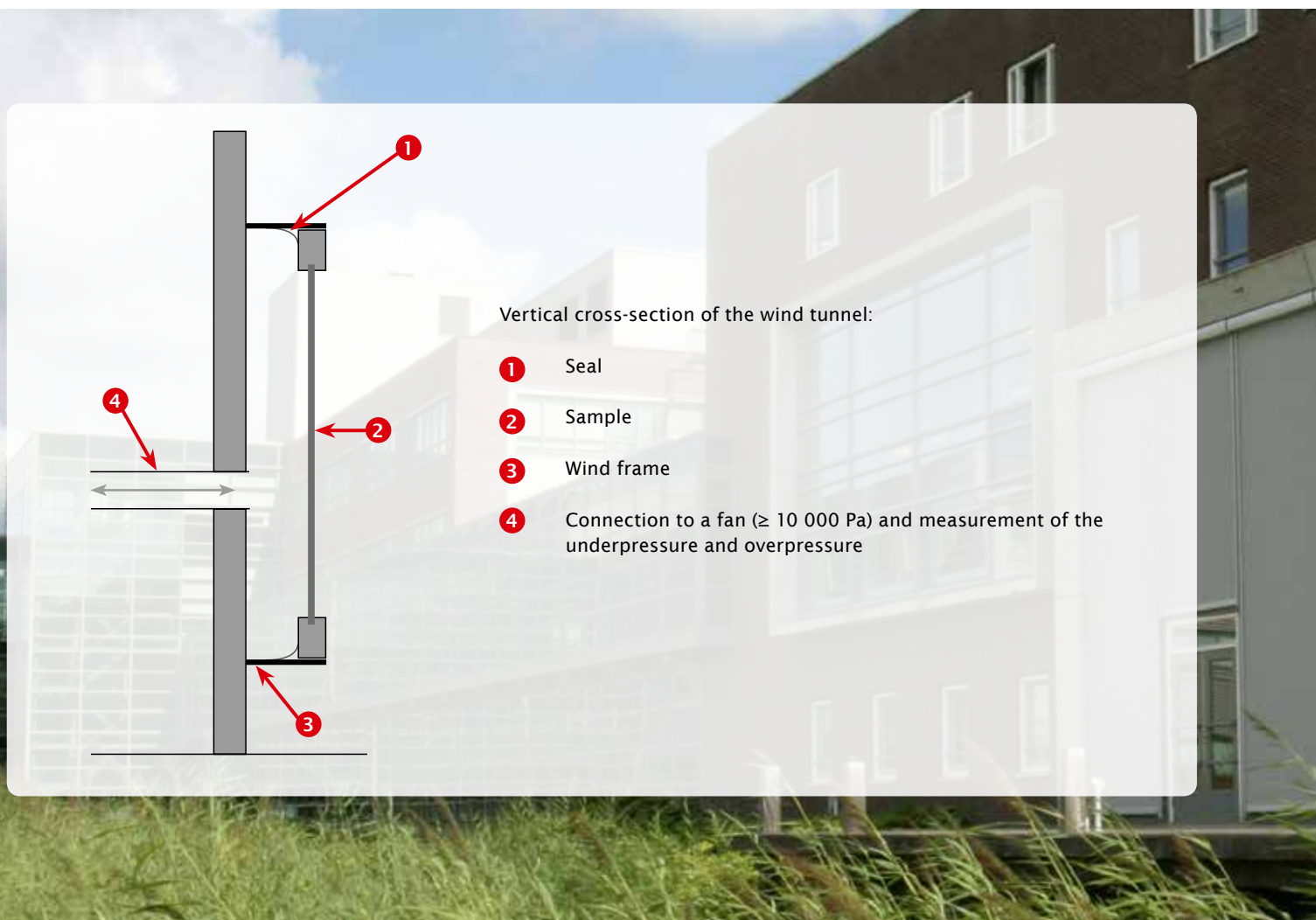


Max. 600 Pa

Results

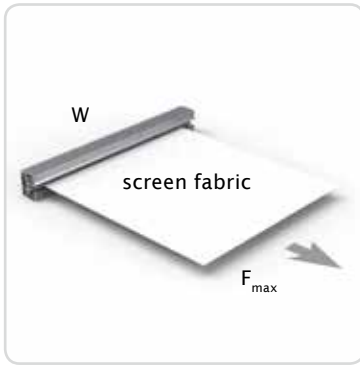
Pressure was increased in steps from 50 Pa up to the limit of 600 Pa.

At pressure of 600 Pa, the zip was pulled from the side channel without tearing.



Vertical cross-section of the wind tunnel:

- 1 Seal
- 2 Sample
- 3 Wind frame
- 4 Connection to a fan ($\geq 10\ 000$ Pa) and measurement of the underpressure and overpressure



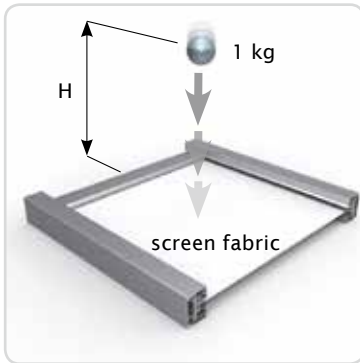
Test at tension

Allowed tension T_{max}

$$T_{max} = F_{max} / W = 13,5 \text{ (kg/cm)}$$

Conditions:

- Fixscreen symmetrical zip principle
- Aluminium side channel 34 mm
- PVC side channel

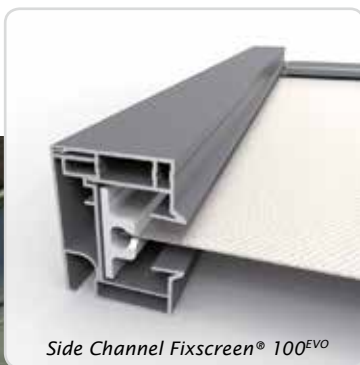


Collision test

Test: Ball (1 kg) dropped from different heights onto the screen

Result: Fabric tears apart before the zip-structure gets broken.

Fabric sample in test: Fibreglass Sergé



Side Channel Fixscreen® 100^{EVO}

Fabric selection

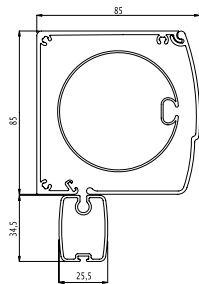
All recommended and commercially available fabrics for indoor and outdoor use.



Product specifications < Fixscreen®

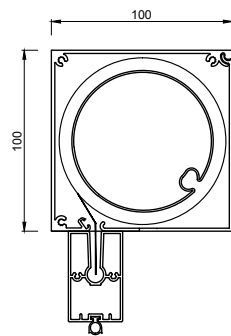
Sections

Fixscreen® 85

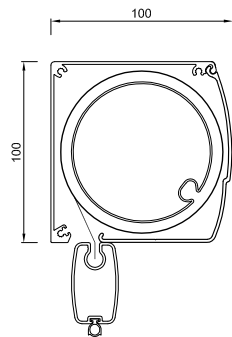


Fixscreen® 100^{EVO}

Square design

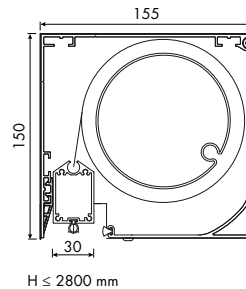


Softline design

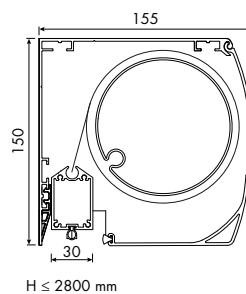


Fixscreen® 150^{EVO} (F)

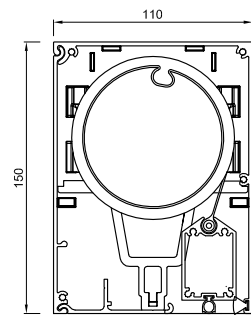
Square design



Softline design



Fixscreen® 100^{EVO} Slim (F)



Technical features					
	Fixscreen® 85	Fixscreen® 100 ^{EVO}	Fixscreen® 100 ^{EVO} Slim (F)	Fixscreen® 150 ^{EVO}	Fixscreen® 150 ^{EVO} F
GENERAL					
Material	EN AW-6063 T66				
Powder coating	60-80 micron				
Anodisation	20 micron				
DIMENSIONS (mm)					
Headbox (W x H)	85 x 85	100 x 100 110 x 143 (IM7)	150 x 110	150 x 155	150 x 155
Bottom bar (excl. light-block profile)	34,5 x 25,5	Soft: 45 X 26 Square: 50 x 30	45 x 30	46 x 30	46 x 30
Side channels	34 x 48	35 x 48	35 x 48	35 x 48	35 x 48
Coupling side channel	68 x 48	58 x 48	58 x 48	58 x 48	38 x 48
Deep side channel	-	35 x 143	35 x 110	35 x 155	
Maximum	2500 x 1800	4000 x 2700 3000 x 3500	4500 x 2800 (F) 3000 x 3500	6000 x 3400 3200 x 6000	6000 x 2800 16,2 m ²
Max. 2-part coupled (electrical only)	5000 x 1800	6000 x 2700	joinable	joinable	joinable
OPERATION					
Manual	Yes	Yes	No	No	No
Electrical	Yes	Yes	Yes	Yes	Yes
Connect&Go	No	Yes	Yes	Yes	Yes
INSTALLATION METHOD (see p. 13 and next)					
Installation method 1	Possible	Possible	Not possible	Possible	Possible
Installation method 1+	Not possible	Possible	Not possible	Possible	Not possible
Installation method 4	Possible	Possible	Not possible	Possible	Possible
Installation method 5	Possible	Possible	Not possible	Possible	Possible
Installation method 6	Possible	Possible	Not possible	Possible	n.a.
Installation method 7	Not possible	Possible	Possible	Possible	Possible
Installation method 9	Not possible	Possible	Not possible	Possible	Not possible

Subject to technical changes.



Fixscreen® 100^{EVO}

The screen headbox

The box is constructed of extruded aluminium profiles.

The ends have side consoles that support the roll-up mechanism and are equipped with pins to slide the box onto the side channels.

The box is closed by means of a rounded front profile that hinges into the box and can be disassembled.

Box material:

Aluminium extrusion profile, alloy EN AW-6063 T66

Surface treatment: Anodised, 20 micron

Powder coating in RAL colours, 60-80 micron

Side console material:

Fixscreen 85:

ASA

Available in 4 standard colours:

white, grey, cream & black

Fixscreen 100^{EVO} & 150^{EVO} (F):

Aluminium

Powder coating in RAL colours, 60-80 micron



Fixscreen® 100^{EVO}

Fabric roll

The fabric roller barrel with groove is made of steel and has a unique sunken fabric groove to limit the impression of the fabric loop. That will strongly reduce the horizontal line formation in the fabric.

The endpieces of the fabric roller barrel are conical to compensate for the thicker ends of the zip when it is rolled up: patented technology!

Material: Steel

The bottom bar

The bottom bar, made of extruded aluminium, is solid and is made heavier with a round bar of galvanised steel. That is covered by PE foam to prevent contact between the aluminium and steel.

For a perfect connection with the sill, the bottom bar has a plastic darkening strip.

Material: Aluminium extrusion profile, alloy EN AW-6063 T66
Surface treatment: Anodised, 20 micron
Powder coating in RAL colours, 60-80 micron



Fixscreen® 100^{EVO} Softline

The side channel

The side channel and the coupling side channel are made of extruded aluminium.

The side channel is in two parts; the coupling side channel comes in three parts.

For Fixscreen 100^{EVO} Slim & Fixscreen 150^{EVO}, the side channel comes in three parts (IM7).

They are both pre-drilled for easy assembly. No screws are visible at the front.

The internal guide is made of HPVC with neoprene buffer zones that are 60 mm long to compensate for wind gusts. The zip is slid into this internal plastic guide and the fabric is held fast.

Sufficient tolerance has been provided between the fabric, the aluminium side channel and the internal guide to guarantee smooth use.

The side channels of the Fixscreen 100^{EVO} Slim and the Fixscreen 150^{EVO} have an extra channel to conceal the cable!

Material of the exterior side channel:

Aluminium extrusion profile, alloy EN AW-6063 T66

Surface treatment: Anodised, 20 micron

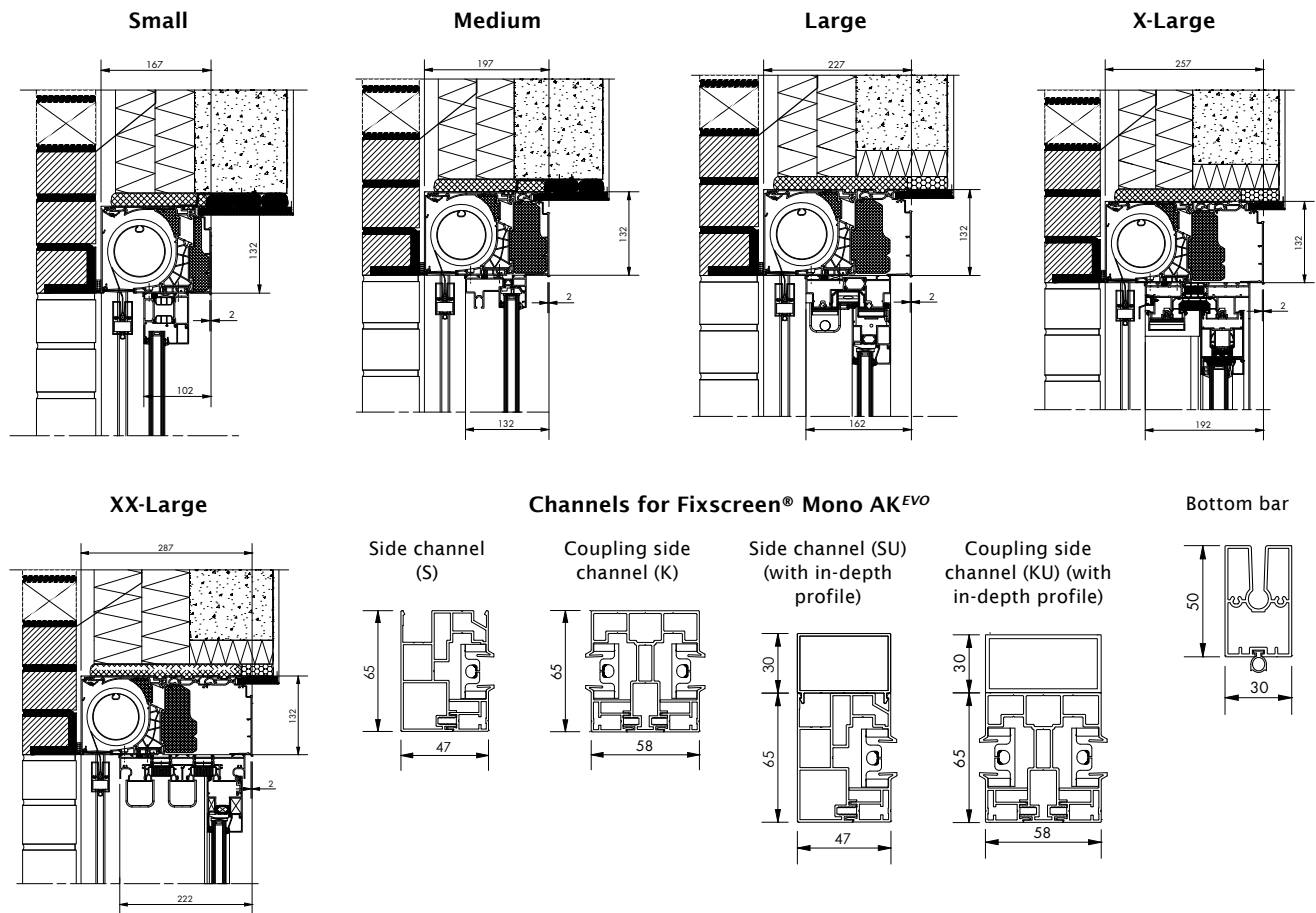
Powder coating in RAL colours, 60-80 micron



Fixscreen® 100^{EVO}

Product specifications < Fixscreen® Mono AK^{EVO}

Sections



Technical features	Small	Medium	Large	X-Large	XX-Large
COMFORT					
Sound reduction $D_{n,e,w}(C;C_{tr})$ (screen up)	47(-1;4)dB	50(-1;-3)dB	50(-1;-3)dB	50(-1;-3)dB	52(-2;-5)dB
TECHNICAL SPECIFICATIONS					
Thermally broken			Yes		
U-value (W/m ² K)	0,92	0,53	0,54	0,54	0,55
CONTROL					
Screen	Motor control, manually				
DIMENSIONS					
Box					
(W x H) (mm)	167 x 132	197 x 132	227 x 132	257 x 132	287 x 132
Compatible window depths (mm)	50-94	95-124	125-154	155-184	185-215
Screen: max. WxH (mm)+max. surface					
Single (1 screen - 1 control)	4000 x 3500 (14 m ² for motor control; 7,5 m ² for manual control)				
Coupled (2 parts - 1 motor)	6000 x 3000 (18 m ²)				
Coupled (2 parts - 2 motors)	6000 x 3500 (21 m ²)				
Bottom bar (D x H) (mm)	30 x 57				

Screen headbox

The box is made of multi-chamber PVC profiles. This multi-chamber system guarantees excellent thermal & acoustic insulation. The PVC box is finished using 2 extruded aluminium profiles available in the same colours as the joinery. The sides of the box are fitted with aluminium end covers, which support the roller mechanism and are fitted with pins to slide the box onto the side channels. The rear Alu profile is removable and the rear PVC profile hinges in the box can be disassembled.

Box material:	PVC composite extrusion profile
Side console material:	ASA Available in 2 standard colours: cream, black
Material finishing profile:	Aluminium extrusion profile, alloy EN AW-6063 T66 Surface treatment: Anodised, 20 micron Powder coating in RAL colours, 60-80 micron

Fabric roll

The fabric roller with groove is made of steel and has a unique sunken fabric groove to limit the impression of the fabric loop. That will strongly reduce the horizontal line formation in the fabric.

The endpieces of the fabric roller barrel are conical to compensate for the thicker ends of the zip when it is rolled up: patented technology!

Material:	steel
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The bottom bar

The bottom bar, made of extruded aluminium, is solid and is made heavier with a round bar of galvanized steel. That is covered by PE foam to prevent contact between the aluminium and steel.

For a perfect connection with the sill, the bottom bar has a plastic darkening strip.

Material:	Aluminium extrusion profile, alloy EN AW-6063 T66 Surface treatment: Anodised, 20 micron Powder coating in RAL colours, 60-80 micron
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The side channel

The side channels are made of extruded aluminium. The external side channel consists of 2 parts. They are screwed directly on the frame. The screws are not visible from the front.

The internal channel is made of HPVC and is fitted with neoprene buffer zones (60mm long) to compensate for wind gusts. The zip, which is welded to the fabric, slides onto those HPVC side channels and the fabric is 'held fast' in that way. When installed correctly, there is sufficient clearance between the screen and the aluminium side channels and the HPVC side guides to ensure smooth operation.

Material external side channel:	Aluminium extrusion profile, alloy EN AW-6063 T66 Surface treatment: Anodised, 20 micron Powder coating in RAL colours, 60-80 micron
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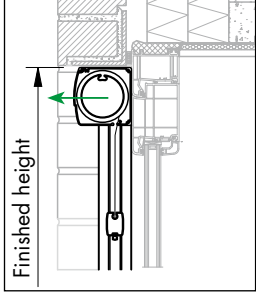


When the Fixscreen was developed, user friendliness and easy installation were made priorities. The box is self-supporting and is installed on the side channels.

There are 4 installation methods:

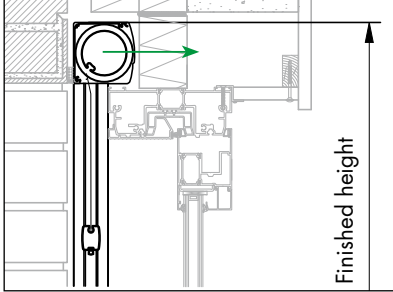
→ towards disassembly fabric roller barrel with fabric and motor.

Installation method 1



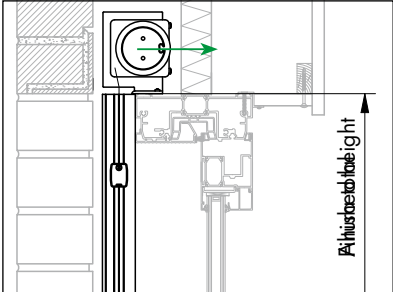
Surface-mounted
Outside, in front of the window

Installation method 4
Interior to be finished by a carpenter



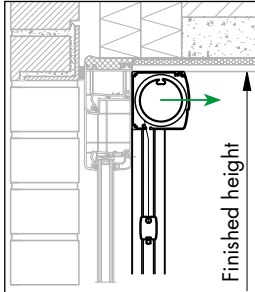
Reversed box
On top of the window with box, **without front cover**

Installation method 5
Interior to be finished by a carpenter



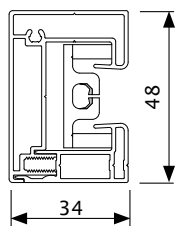
Hidden installation
with brackets, **without box**

Installation method 6

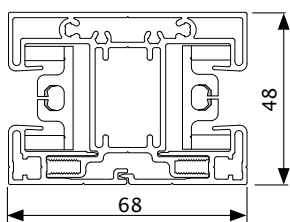


Surface-mounted
Inside, in front of the window

Standard side channel (S)

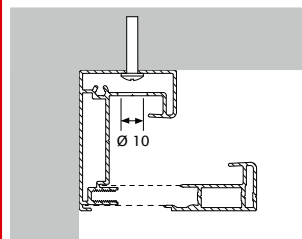


Coupling side channel (K)

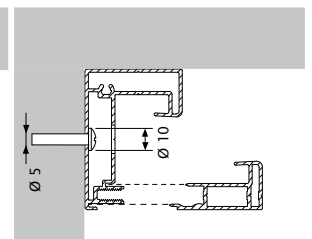


Side channels

		S	K
FIXSCREEN® 85	IM1	STANDARD	x
	IM4	STANDARD	x
	IM5	STANDARD	x
	IM6	STANDARD	x



Rear mounting of the side channel Fixscreen® 85



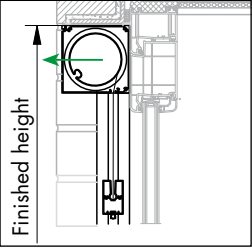
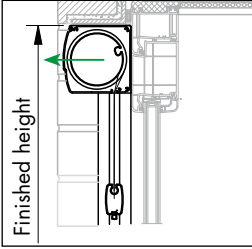
Side mounting of the side channel Fixscreen® 85

Installation < Fixscreen® 100^{EVO}

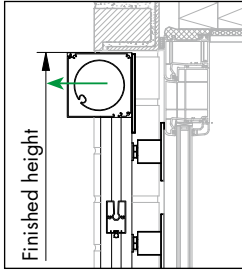
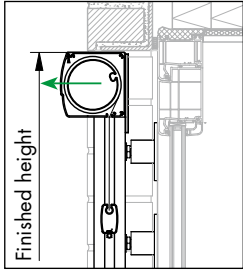
There are various installation possibilities:

→ towards disassembly fabric roller barrel with fabric and motor.

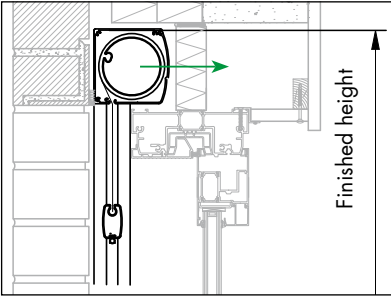
Installation method 1

Square design	Softline design
	
Surface-mounted Outside, in front of the window	Surface-mounted Outside, in front of the window

Installation method 1+

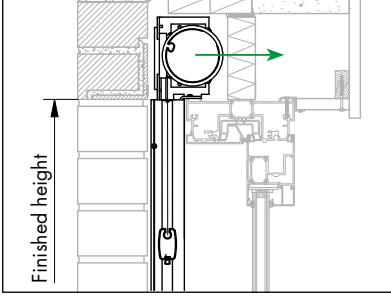
Square design	Softline design
	
Surface-mounted placed at a distance relative to the structure	Surface-mounted placed at a distance relative to the structure

Installation method 4
Interior to be finished by a carpenter



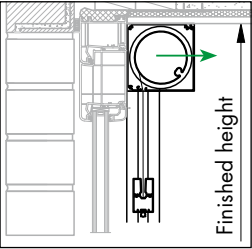
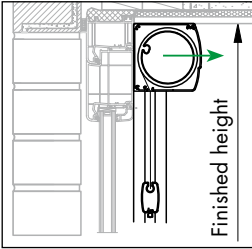
Hidden installation, reversed box,
on top of the window with box, **without front cover**

Installation method 5
Interior to be finished by a carpenter

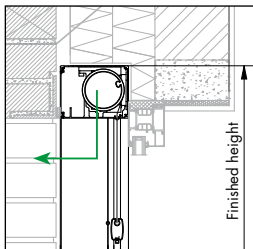
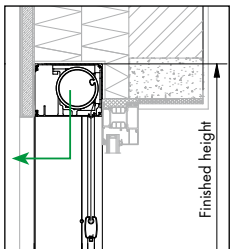


Hidden installation, with brackets, without box

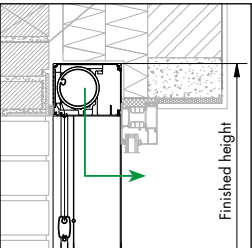
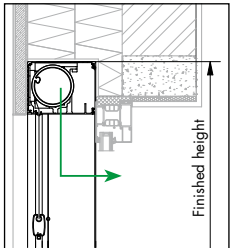
Installation method 6

Square design	Softline design
	
Surface-mounted Inside, in front of the window	Surface-mounted Inside, in front of the window

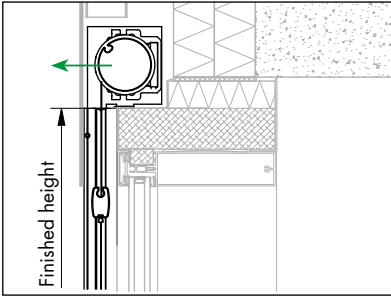
Installation method 7A

Standard	Standard
	
Surface-mounted with box	Surface-mounted with box, Stucco

Installation method 7B
With reversed box and side channels

	
Surface-mounted with box	Surface-mounted with box, Stucco

Installation method 9

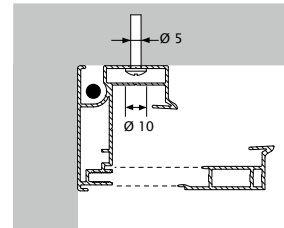


Hidden installation
with brackets, **without box**

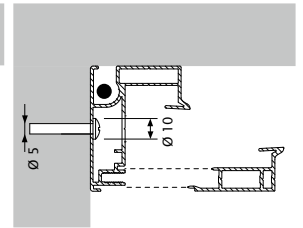
Side channels

	S	S+	G	K	D	
FIXSCREEN® 100 ^{EVO}	IM1	STD	x	x		
	IM1+	STD				
	IM4		STD	x		
	IM5	STD		x	x	
	IM6	STD		x	x	
	IM7A	x		x	x	STD
	IM7B	x		x	x	STD
	IM9	STD		x	x	

* To be able to disassemble the fabric roller barrel from beneath in case of IM7, the client must foresee something underneath the headbox that can be dismantled when choosing the narrow side channels S x G. The dimensions of this dismantlable part are determined as follows: the minimum depth equals the depth of the box less the depth of the narrow side channel and with a minimal height of 680 mm

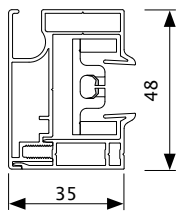


Rear mounting of the side channel Fixscreen® 100^{EVO}

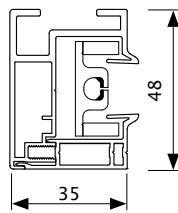


Side mounting of the side channel Fixscreen® 100^{EVO}

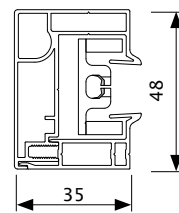
Open side channel (S)



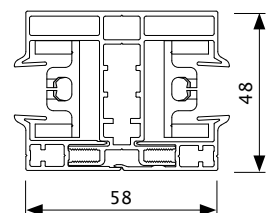
Open side channel (S+)



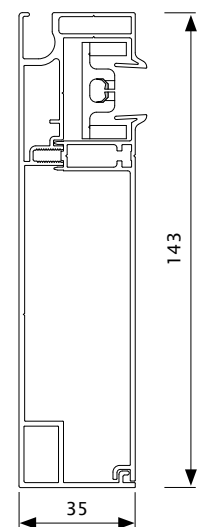
Closed side channel (G)



Coupling side channel (K)



Deep side channel (D)



Box extension

Is possible in installation methods 1, 6 & 7 (Fixscreen 100^{EVO}, Fixscreen 100^{EVO} Slim & Fixscreen 150^{EVO}). The box profiles extend all the way to the consoles. This extension can be made to the left and/or to the right with 500 mm.



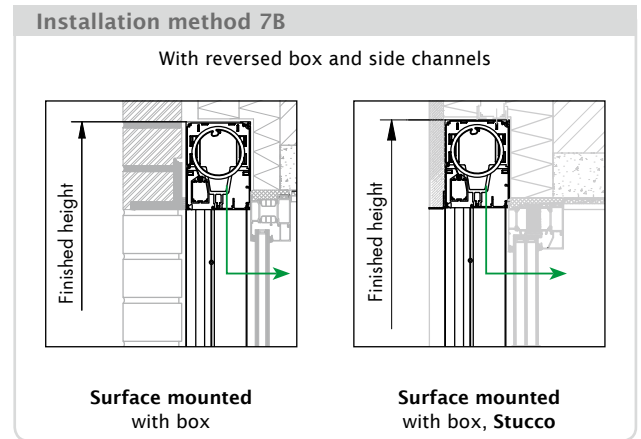
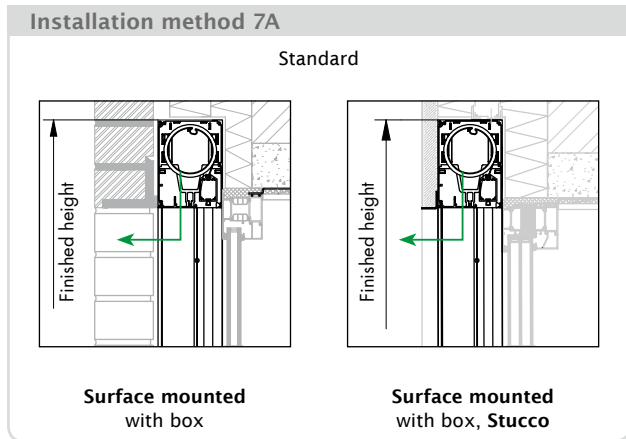
Several methods of extension are then made possible. 2 box extensions can be positioned next to another, making an angle.



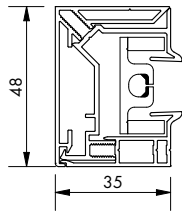


There are various installation possibilities:

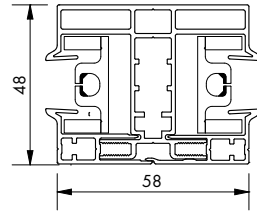
→ towards disassembly fabric roller barrel with fabric and motor.



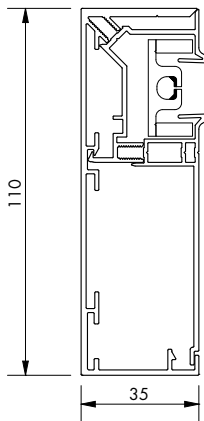
Closed side channel (G)



Coupling side channel (K)



Deep side channel (D)



Side channels

		G	K	D
FIXSCREEN® 100 ^{EVO} Slim (F)	IM7A	x	x	STD
	IM7B	x		STD

* To be able to disassemble the fabric roller barrel from beneath in case of IM7, the client must foresee something underneath the headbox that can be dismantled when choosing the narrow side channels S x G. The dimensions of this dismantlable part are determined as follows: the minimum depth equals the depth of the box less the depth of the narrow side channel and with a minimal height of 680 mm

Installation < Fixscreen® 150^{EVO} (F)

There are various installation possibilities:

→ towards disassembly fabric roller barrel with fabric and motor.

Installation method 1

Square design

Surface-mounted
outside in front of the
window

Softline design

Surface-mounted
outside in front of the
window

Installation method 1+

Square design

Surface-mounted
placed at a distance relative
to the structure

Softline design

Surface-mounted
placed at a distance relative
to the structure

Installation method 4

Interior to be finished by a carpenter

Hidden installation, reversed box,
on top of the window with box, **without front cover**

Installation method 5

Interior to be finished by a carpenter

Concealed
on top of the window with brackets, **without box**

Installation method 6

Square design

Surface-mounted
inside in front of the window

Softline design

Surface-mounted
inside in front of the window

Installation method 7A

Standard

Surface mounted
with box

Surface mounted
with box, **Stucco**

Installation method 7B

With reversed box and side channels

Surface mounted
with box

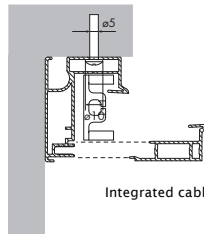
Surface mounted
with box, **Stucco**

Installation method 9

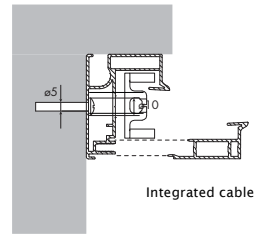
Concealed,
on top of the window with brackets, **without box**

Side channels

	S	S+	G	K	D
FIXSCREEN® 150 ^{EVO} (F)	STD		x	x	
IM1	STD				
IM1+		STD			
IM4			STD	x	
IM5	STD		x	x	
IM6	STD		x	x	
IM7A			x	x	STD
IM7B			x		STD
IM9	STD		x	x	

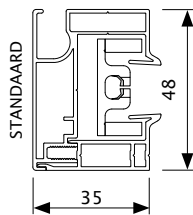


Rear mounting of the side channel Fixscreen® 150^{EVO} (F)

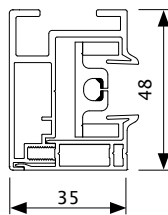


Side mounting of the side channel Fixscreen® 150^{EVO} (F)

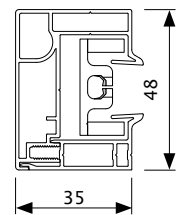
Open side channel (S)



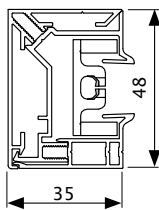
Open side channel (S+)



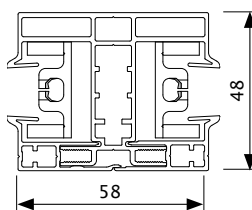
Closed side channel (G)



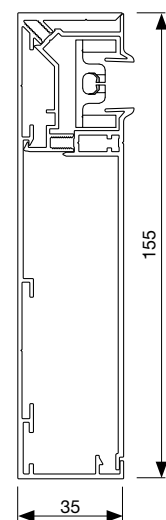
Closed side channel (G) IM7



Coupling side channel (K)



Deep side channel (D)

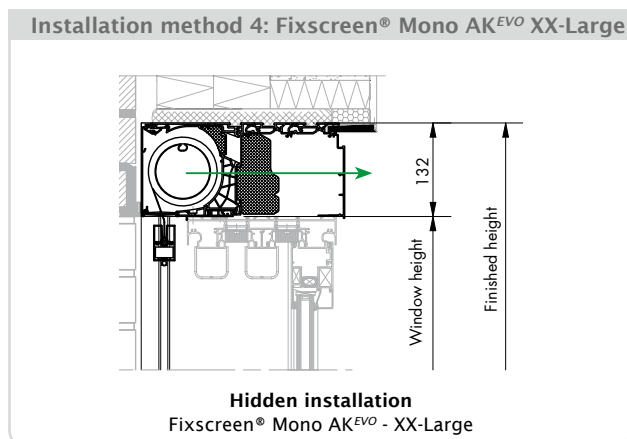
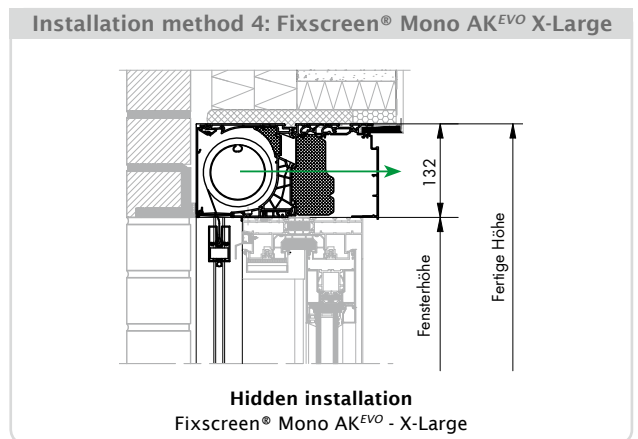
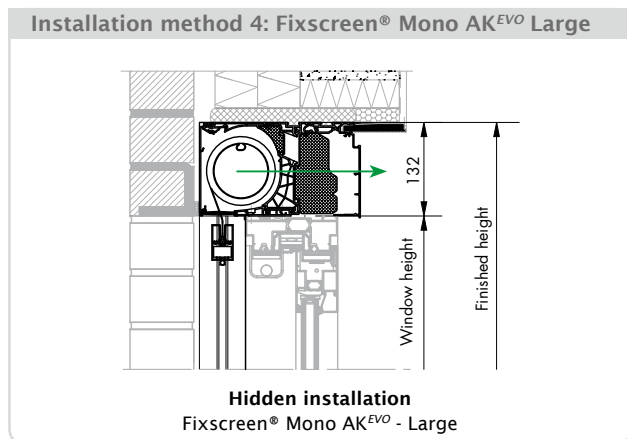
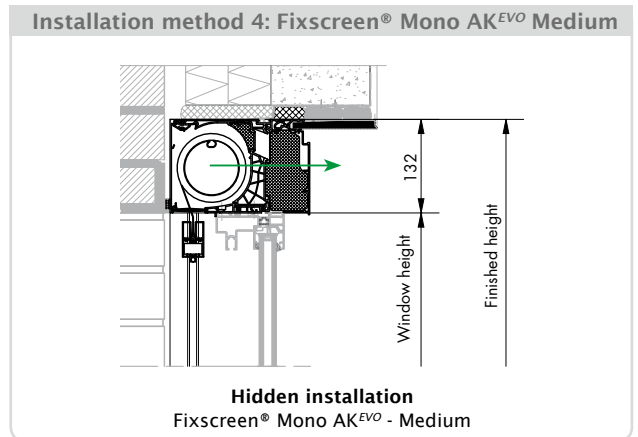
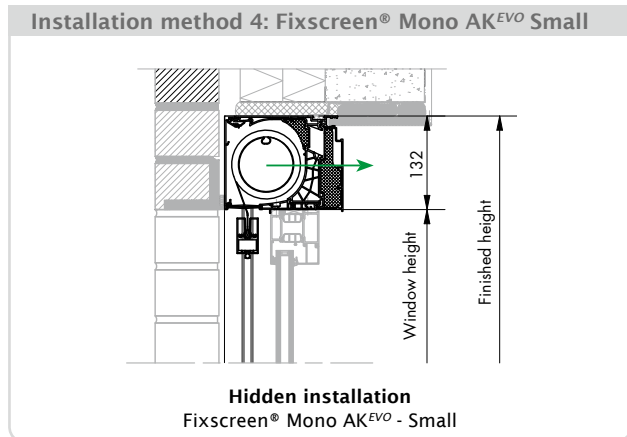




When installing the Fixscreen Mono AK, it is mounted on the window profiles as a monobloc.

There are 5 versions depending on the frame thicknesses:

→ towards disassembly fabric roller barrel with fabric and motor



Methods of operation

For manual operation, you have a choice of:

- A fixed crank
- A removable crank

For electrical operation, you have a choice of:

- Somfy, mechanical motor
- Somfy, electronic WT motor:
 - Fixscreen 100^{EVO} and Fixscreen Mono Ak up to a maximum finished height of 2700 mm
- Somfy, radio-controlled motor
- Somfy, IO - Homecontrol powered motor:
 - only for Fixscreen 100^{EVO} up to a maximum finished height of 2700 mm
- Detecto, electric motor with obstacle detection



Fixed crank



Removable crank (Tulipe)



technology

The Fixscreen 100^{EVO}, Fixscreen 100^{EVO} Slim and the Fixscreen 150^{EVO} has the new and revolutionary Connect&Go technology! This technology simplifies

- installing and removing of the fabric roller barrel
- replacing the fabric
- replacing the motor
- securing the headbox

This patented Connect&Go technology is a water tight, electrical connection with CE certification:

EC declaration of conformity

NV RENSON® Sunprotection-Screens SA Kalkhoevestraat 45 8790 Waregem • Belgium	
EC DECLARATION OF COMPLIANCE	
BE:	FIXSCREEN® 100 ^{EVO}
Brand: RENSON® Sunprotection-Screens NV/SA Type: MS1 - MS4 - MS5 - MS6 - MS7	
The undersigned, Mr Paul Renson, authorised by RENSON® Sunprotection-Screens NV/SA hereby declares that the aforementioned machine, if installed, maintained and use in accordance with the enclosed instructions and the rules of good practice, is in compliance with the following EEC directives:	
<ul style="list-style-type: none"> - the machines directive 2006/42/EC - the low-tension directive 2006/95/EC - he EMC directive 2004/108/EC 	
Date: 21/03/2011	
Name: Paul Renson	
Signature:	
Reference: RAP VV/GDB-201100927-1 certificate, RAP DO/GDB-20110318-1 certificate RAP DO/GDB-20110321-1 certificate issued by J. VAN HEMELLEN, Kortrijk, Belgium	

* See also the guarantee certificate



Somfy motor: radio controlled



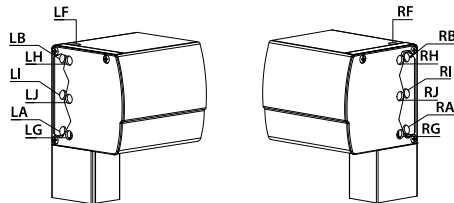
Connect&Go technology

Throughput & position

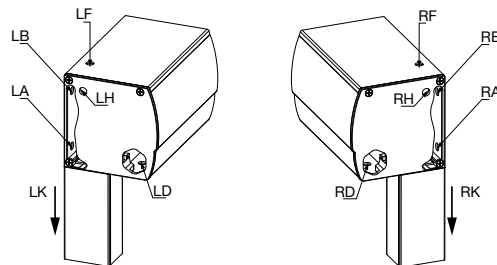
The location of the throughput depends on the choice of method of operation. The operating mechanism can be positioned on the left or right, at the installer's discretion.

- R & L: Position right or left
- A & B: Throughput crank and motor cable
- D: Throughput crank
- F, G, H, I, J & T: Throughput motor cable
- K: Throughput motor cable in side channel

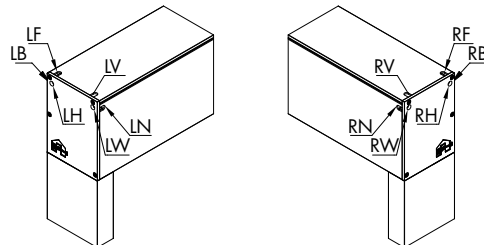
Fixscreen® 85



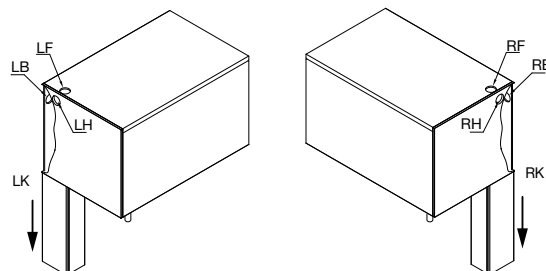
Fixscreen® 100^{EVO}



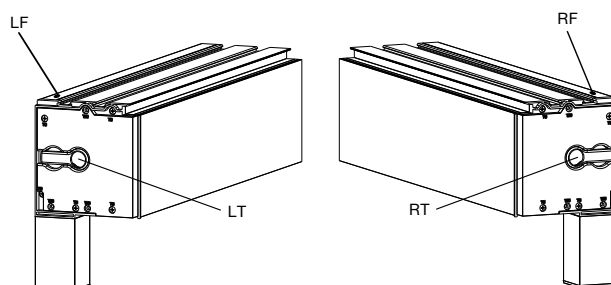
Fixscreen® 100^{EVO} Slim (F)



Fixscreen® 150^{EVO} (F)



Fixscreen® Mono AK



Technical possibilities < Fixscreen®

Fixscreen® 85

- Installation method 1 & 6, manueel: manual: minimum width 600 mm, not joinable.
- ▲ Installation method 1, 4 & 6, electrical operation: minimum width 700 mm, 2-parts joinable up to 5000 mm.
- Installation method 5, electrical operation: minimum width 700 mm, 2-parts joinable up to 5000 mm. (Bracket 120 mm)

		Width								
m x m		1,00	1,20	1,40	1,60	1,80	2,00	2,20	2,40	2,50
Height	1,00	■▲●	■▲●	■▲●	■▲●	■▲●	■▲●	■▲●	■▲●	■▲●
	1,20	■▲●	■▲●	■▲●	■▲●	■▲●	■▲●	■▲●	■▲●	■▲●
	1,40	■▲●	■▲●	■▲●	■▲●	■▲●	■▲●	■▲●	■▲●	■▲●
	1,60	■▲●	■▲●	■▲●	■▲●	■▲●	■▲●	■▲●	■▲●	■▲●
	1,80	■▲●	■▲●	■▲●	■▲●	■▲●	■▲●	■▲●	■▲●	■▲●

Tables subject to technical changes.

Fixscreen® 100^{EVO}

- Installation method 1 & 6, manual: minimum width 600 mm, not joinable.
- ▲ Installation method 1, 4 & 6, electrical operation: minimum width 795 mm, 2-parts joinable up to 6000 x 2700 mm (W x H).
- Installation method 1+ electrical operation: minimum width 795 mm, not joinable.
- Installation method 5 & 9, electrical operation: minimum width 795 mm, 2-parts joinable up to 6000 x 2700 mm (W x H). (Bracket 120 mm)
- ★ Installation method 7, electrical operation: minimum width 795 mm, (IM7A: 2-parts joinable up to 6000 x 2700 mm (W x H)).

		Width															
m x m		1,00	1,20	1,40	1,60	1,80	2,00	2,20	2,40	2,60	2,80	3,00	3,20	3,40	3,60	3,80	4,00
Height	1,00	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★
	1,20	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★
	1,40	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★
	1,60	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★
	1,80	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★
	2,00	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★
	2,20	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★
	2,40	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★
	2,60	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★
	2,70	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★
	2,80	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★
	3,00	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★
	3,20	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★
	3,40	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★
	3,50	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★	■▲●★

Tables subject to technical changes.

Fixscreen® 100^{EVO} Slim (F)

- ★ Installation method 7, electrical operation: minimum width 800 mm, (IM7A: joinable).
- Installation method 7 F, electrical operation: minimum width 800 mm, (IM7A: joinable).

m x m		Width																		
		1,00	1,20	1,40	1,60	1,80	2,00	2,20	2,40	2,60	2,80	3,00	3,20	3,40	3,60	3,80	4,00	4,20	4,40	4,50
Height	1,00	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●
	1,20	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●
	1,40	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●
	1,60	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●
	1,80	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●
	2,00	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●
	2,20	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●
	2,40	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●
	2,60	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●
	2,80	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●	★●
	3,00	★	★	★	★	★	★	★	★	★	★	★								
	3,20	★	★	★	★	★	★	★	★	★	★	★								
	3,40	★	★	★	★	★	★	★	★	★	★	★								
	3,50	★	★	★	★	★	★	★	★	★	★	★								

Tables subject to technical changes.

Fixscreen® Mono AK^{EVO}

- Installation method 4, electrical operation: minimum width 825 mm, minimum width (until 6000 mm).

m x m		Width															
		1,00	1,20	1,40	1,60	1,80	2,00	2,20	2,40	2,60	2,80	3,00	3,20	3,40	3,60	3,80	4,00
Height	1,00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2,80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3,00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3,20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3,40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3,50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Tables subject to technical changes.

Types of fabric

Fibreglass fabric

This screen fabric is woven from fibreglass threads with a PVC coating. Fabric made of fibreglass retains its shape, does not suffer from moisture or heat, will not rot and is colour fast. The sides of the finished fabric are reinforced with a transparent band that is 13 mm wide and 0.6 mm thick (included fabric). The upper and lower side have a welded seam through which a screen cord has been threaded. For a selection of screens: horizontale weld if height > 3200 mm. At heights greater than 2700 mm, the fabric also has a horizontal welding seam.



Fibreglass fabric sampler

Soltis® polyester fabric

This type of fabric is made of finely meshed tissue with a fire-retardant PVC coating (fire classification IM1/IM2, depending on the colour) using the précontraint method. That means that the warp and weft of the polyester tissue is pre-stretched before and during the coating process. That creates an extremely stable and firm fabric, resulting in a long lifespan. At heights greater than 1770 mm, the Soltis 86 & 92 fabrics also have a horizontal welding seam. For a selection for Soltis 86 & 92 : horizontale weld if height > 2670 mm.



Soltis® fabric sampler

Light-block fibreglass fabric

Technical fabric of fibreglass threads (42%) with a blackout PVC coating (58%).
Caution! Only for use on the interior of the building, exceptional for Miniscreen.
At heights greater than 1400 mm or 2100 mm, the fabric also has a horizontal welding seam.

Light-block Soltis® B92 polyester fabric

Fine polyester mesh fabric with a fire-retardant PVC coating using the précontraint method. The back side also has a blackout PVC coating. Soltis B92 is 100% recyclable. The blackout polyester fabric can be used inside and outside the building.

In case of application outside, there is a restriction that it is only applicable with:

- Fixscreen 100^{EVO}, Fixscreen 100^{EVO} Slim / Fixscreen Mono AK^{EVO} :
 - Minimal width: 1000 mm
 - Maximal width: 2000 mm
 - Maximal height: 2700 mm
- Fixscreen 150^{EVO}:
 - Minimal width: 1000 mm
 - Maximal height: 4000 mm
 - Maximal surface: 16 m²

At heights greater than 1700 mm, the Soltis B92 fabric has a horizontal welding seam.



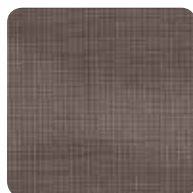
Light-block fabric sampler

Insectscreen

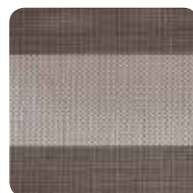
Fixscreen 85, Fixscreen 100^{EVO}, Fixscreen 100^{EVO} Slim, Fixscreen 150^{EVO} & Fixscreen Mono AK^{EVO} can also have mosquito netting in the following colours:



ISR Grey



ISR Charcoal



ISR Zebra

At heights greater than 2400 mm, the mosquito netting has a horizontal welding seam.
For more information: see our "Screen fabric types" technology brochure.

Crystal fabric (Fixscreen® 100^{EVO} Slim F & Fixscreen® 150^{EVO} F)

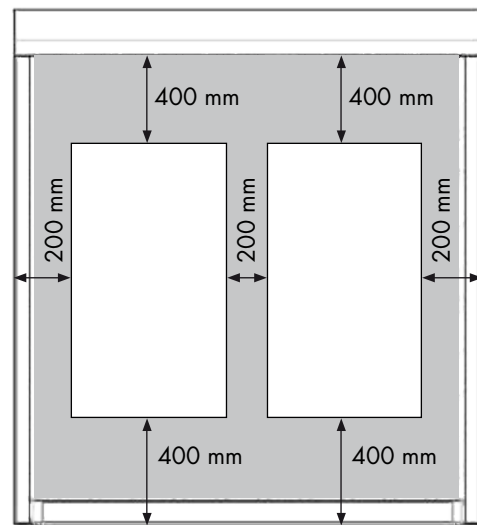
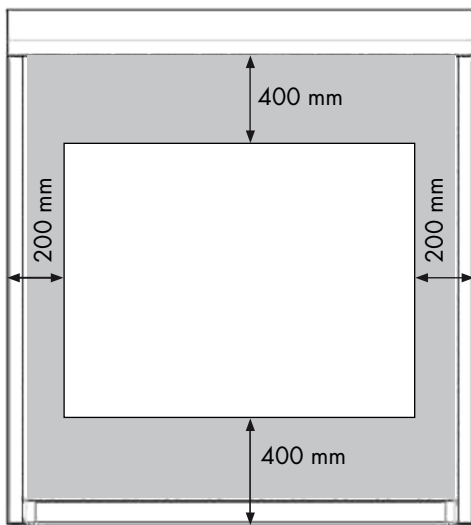
In order to have optimal contact with the exterior, transparent Crystal fabric can be fitted in the Fixscreen 100^{EVO} Slim F & Fixscreen 150^{EVO} F.

There exist various possibilities of positioning the crystal fabric, in which can be chosen between three types of windows:

- a window of 1200mm by 1200mm
- a window across the width of the screen and 1200mm high
- a window in the height of the screen and 1200mm wide

For each screen, maximum 2 crystal windows can be integrated.

Horizontally, the distance to the edge of the fabric or between two windows must be at least 200mm. Vertically, the distance to the edge of the fabric or between two windows must be at least 400mm.



Fabrics in RENSON® sun protection & terrace coverings

Type of fabric	Acryl fabric		Glass fibre				Polyester fabric		Blackout fabric		Renson® Exclusive			Insect fabric
Type of brand	Dickson®	Dickson® Orchestra Max	Sergé®	Natté	Métal	Privacy®	Soltis® 86	Soltis® 92	Satiné 21154	Soltis® B92	Rensonscreen®	Rensonscreen® Waterproof	Rensonscreen® Opaque	Insect screen
Vertical sunscreens														
Fixscreen® 85	-	-	✓	✓	✓	✓	✓	✓	✓*	✓*	-	-	-	✓
Fixscreen® 100 EVO	-	-	✓	✓	✓	✓	✓	✓	✓*	✓**	-	-	-	✓
Fixscreen® 100 EVO Slim	-	-	✓	✓	✓	✓	✓	✓	✓*	✓**	-	-	-	✓
Fixscreen® 100 EVO Slim Freestanding	-	-	✓	✓	✓	✓	-	-	-	-	-	-	-	✓
Fixscreen® 150 EVO	-	-	✓	✓	✓	✓	✓	✓	✓*	✓**	-	-	-	✓
Fixscreen® 150 EVO Freestanding	-	-	✓	✓	✓	✓	-	-	-	-	-	-	-	✓
Fixvent® / Fixscreen® Mono AK EVO	-	-	✓	✓	✓	✓	✓	✓	-	✓**	-	-	-	✓
<i>Remarks: Applicable screens, see price list.</i>														
<i>(*) Exclusively for interior use.</i>														
<i>(**) Max width 2500 mm & max surface 7m²</i>														

Overview top RAL

All our fixscreens are manufactured from anodised aluminium profiles or in all standard RAL colours available

RAL 70% gloss level



RAL 7016



RAL 7021



RAL 7030



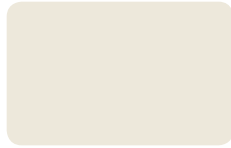
RAL 7035



RAL 7039



RAL 8019



RAL 9001



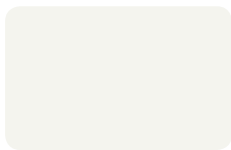
RAL 9005



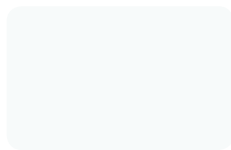
RAL 9007



EUR 9010



BEL 9010



RAL 9016

MAT 30% gloss level



MAT 7016



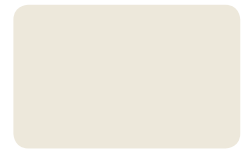
MAT 7021



MAT 7039



MAT 8019



MAT 9001



MAT 9005



MAT 9006



MAT 9007



MAT 9010



MAT 9016

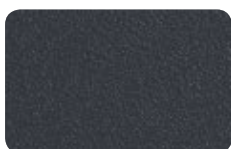


RYD 7M16



RYD 7M21

Textured coating



Textured 7016



Textured 7021



Textured 7039



Textured 8019



Textured 9005



Textured 9007

* Printed colours may deviate slightly, from real RAL colours. Use this scheme only as a reference.



Maintenance

The system requires little maintenance, but we do advise the following to ensure years of sun-protection enjoyment.

- If the fabric gets wet in an unexpected shower, you can roll it up without problems and then roll it out later to allow it to dry. Do not allow the fabric to stay rolled up wet for longer than three days; that will help prevent mould and stains.
- Before cleaning, remove loose dirt with a brush or vacuum cleaner. You can then remove the remaining dirt with a cleaning product and warm water (special cleaning products are available from the installer). Always rinse the fabric after cleaning. Avoid cleaning in full sunlight: if the soapy water dries quickly, it can leave stains on the fabric. Do not use abrasive products to clean.
- The hinges and moving parts should be lubricated at least annually. A dry lubricant (Teflon) should be used to do so.
- As the manufacturer, we recommend having a technical inspection of your installation carried out regularly by the installer.
 - Annually for utilities buildings.
 - Every 4 years for residential sun protection.
- Always use original parts for maintenance.
- See our user manual for more information.



Guarantee

All of the materials we use are of high quality and have been modified for the purposes used.

As manufacturer, we guarantee:

- 5 year guarantee on all defects arising from normal use and maintenance.
- 7 year guarantee on the Fixscreen technology*:
 - zip remains in side channel
 - optimal adhesion of zip to fabric

The warranty covers the delivery of replacement parts, assembly on site by an installer (possibly assisted by a technical employee from RENSON® Sunprotection-Screens) or a complete revision of the system by the manufacturer at our location. The assembly costs (travel + hourly rate) are not covered by this guarantee.

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

The warranty can only apply if the product is used and maintained in accordance with the instructions contained in this manual. The guarantee lapses if the product is used incorrectly or abnormally.

When reporting a problem, please tell the installer the serial number.

* See our guarantee terms and conditions.

1 January 2005

EC Declaration of Conformity

Manufac RENSON® Sunprotection-Screens
IZ 1 Flanders Field
Kalkhoevestraat 45
B-8790 Waregem
Belgium

The undersigned,
Hereby declares that the product:

“Fixscreen®, Outdoor sun protection system” with CE certificate in accordance with Annex
Z.A1 of the European Standard EN13561:2004



N.V. RENSON®
Sunprotection-Screens S.A.
Kalkhoevestraat 45
B-8790 Waregem

03

DOP-2015SC00002

EN 13561:2004+A1:2008

Fixscreen®
External sunprotection screen

Wind resistance: Class 3
Shading coefficient g_{tot}: Class 1-4

Paul Renson,

Managing Director







Creating healthy spaces

RENSON®: your partner in ventilation and sun protection

RENSON®, headquartered in Waregem (Belgium), is a trendsetter in Europe in natural ventilation and sun protection.

- **Creating healthy spaces**

From 1909, we've been developing energy efficient solutions assuring a healthy and comfortable indoor climate.

Our remarkable headquarters - built according to the 'Healthy Building Concept' - is a beautiful example portraying our corporate mission.

- **No speed limit on innovation**

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

- **Strong in communication**

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

- **A reliable partner in business**

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

Dealer



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

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Creating healthy spaces