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SOLIDBOX External Venetian Blind Systems

C-80 | Z-90

catalogue of system solutions

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SOLIDBOX External Venetian Blind Systems

C-80 | Z-90

Contents

SOLIDBOX External venetian blind system components

SOLIDBOX CASSETTE

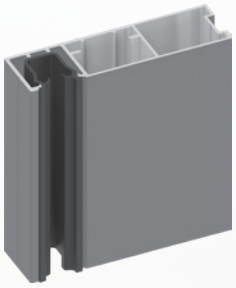
150 mm deep cassette available in three different heights: 220, 270, 320 mm.
The four main components of the cassette are: top fitting profile, front cover (inside and outside) and side covers. They are all made of aluminium and partially covered in weatherproof varnish.

Product specification

Material: aluminium

Motorised control

Electric motor with 230V nominal voltage and 50 Hz frequency, mounted inside the head rail. End positions set mechanically or electronically. Standard, radio-controlled or io-Homecontrol radio-controlled motors are available. The standard motor is fitted with power cord with Hirschmann plug type Stas3 (Pass-S).

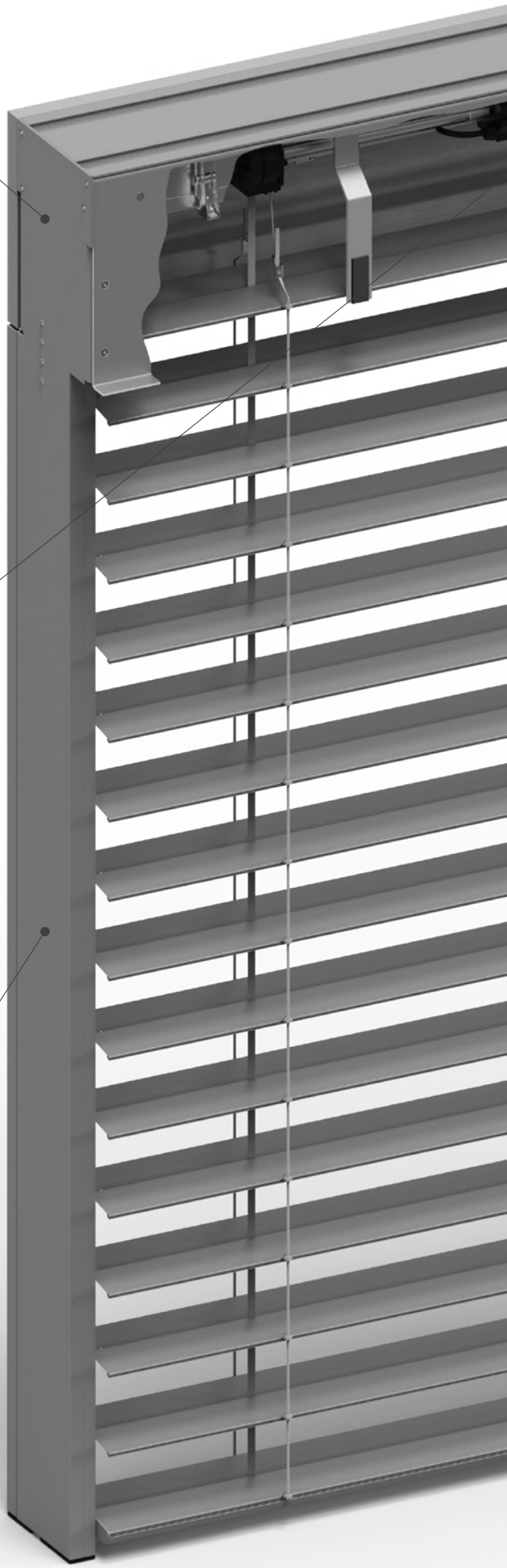


Guide channels

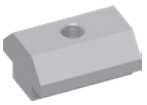
Made of aluminium, available in two sizes (95,110 mm), covered in weatherproof varnish. Inside the guide channel a plastic insert is fitted to facilitate mounting and disassembly of the blind during maintenance work.

Product specification

- Guide channel: aluminium
- Insert: plastic



Hammer cap (fixing the brackets)



A component for fixing the head rail bracket and fitting profile stabilising bracket.
Thanks to the special air chamber within the profile one can easily operate these components during assembly.

Product specification

Material: steel

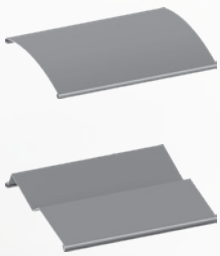
Stabilising bracket

Stabilising bracket supports cassette's external front cover preventing its deformation at the plastering stage.
Due to mounting using a hammer cap it is easy to determine the mounting position without clashing with other head rail mounting components.

Product specification

Material: zinc-plated

Slats



Horizontal, aluminium slat:
- 0,4 mm thick
- 80, 90 mm wide
roll-formed.
Aluminium tape covered with weather-resistant varnish.
Tapes available in a wide range of colours.

Product specification

Material: aluminium

Practicality and modern design

The key feature of the SOLIDBOX system is its structure which enables building the blind into the wall while the cassette remains hidden under the layer of insulation (eg. polystyrene). The only visible part of the blind are the slats which, when pulled up, disappear under the building facade.

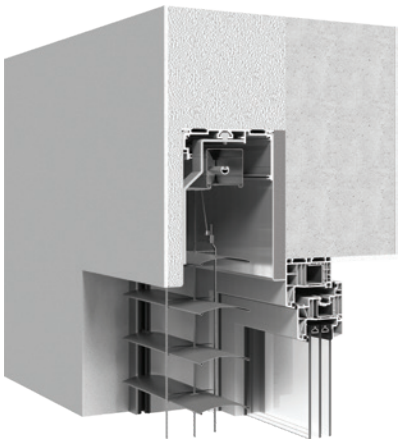
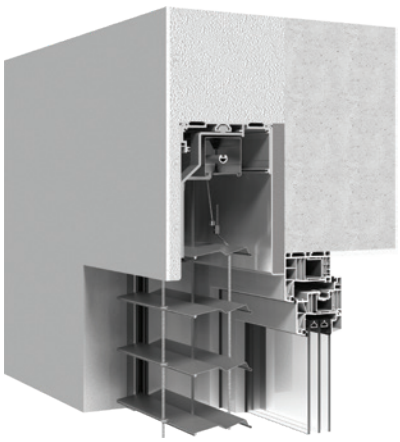
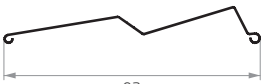
Two sizes of guide channels and an extra modular spacer for guides we provide make it possible to match the blind with the best insulation system. These solutions offer versatility both at the design stage or when selecting a product to suit a ready-made design of a building. SOLIDBOX flush-mounted venetian blind is fitted with C-80 and Z-90 slats, whose edges are bent on both sides of the slat for increased rigidity in adverse weather conditions. The Z-90 slat, with its Z-shape guaranteeing an almost total black-out, is additionally fitted with a sound insulation gasket.

The minimalist design of the blind makes SOLIDBOX flush-mounted venetian blind an ideal choice for modern buildings and commercial facilities functioning in public.

External blinds - product characteristics

- effective protection of the interior against sunlight and noise
- smooth adjustment of the amount of daylight penetrating into the room
- weatherproof and exceptionally durable product
- a wide range of colours on offer
- an elegant feature of the building facade
- light and simple aluminium construction not overburdening the building's facade
- smooth and easy operation using motors
- weather sensors / work automation light and simple aluminium structure
- protection and temperature control
- quality coatings
- smooth operation
- exceptional durability

Technical characteristics of the SOLIDBOX system

		C-80	Z-90
			
	WIDTH OF SLAT		
MAX. DIMENSIONS OF THE BLIND	WIDTH	4000 mm	4000 mm
	HEIGHT	3500 mm	3500 mm
	SURFACE AREA	14 m²	14 m²
TYPE OF SLAT	FOLDED EDGES	✓	✓
SIDE GUIDE	CABLE GUIDE	–	–
	SIDE GUIDE	✓	✓
DRIVE	MANUAL (CRANK MECHANISM)	–	–
	MOTORISED (ELECTRIC DRIVE)	✓	✓
SLAT ROTATION	90°	✓	✓
	180°	✓	–
TYPE OF GUIDE PIN	PVV	–	–
	ALU	✓	✓
GUIDE PIN POSTIONING	EVERY OTHER SLAT	✓	✓
	EVERY THIRD SLAT	–	–

SOLIDBOX – cassette and guide channels

WHITE (RAL 9016)

BEIGE (VSR 240)

SILVER (RAL 9006)

SILVER (GREY) (RAL 9007)

ANTHRACITE STRUCTURE (DB 703)

ANTHRACITE (RAL 7016)

BASALT GREY (RAL 7012)

BLACK (RAL 9005)

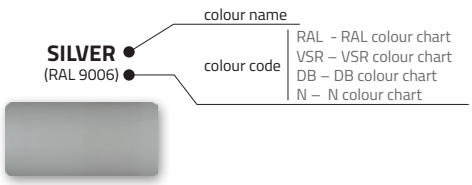
Varnish is applied to visible surfaces of the cassette only (see p. 15).

Guide channel insert is available in black only.

C-80 / Z-90 Slat

	C-80	Z-90
SILVER (RAL 9006)	✓	✓
SILVER (GREY) (RAL 9007)	✓	✓
ANTHRACITE (RAL 7016)	✓	✓
WHITE (RAL 9016)	✓	✓
BEIGE (VSR 240)	✓	✓
ANTHRACITE STRUCTURE (DB 703)	✓	✓
BASALT GREY (RAL 7012)	✓	✓
BLACK (RAL 9005)	✓	✓
LIGHT IVORY (N 0502-Y)	✓	–
BROWN (N 8010)	✓	–
BEIGE GREY (VSR 780)	✓	–
PURPLE RED (N 3560)	✓	–
YELLOW (N 1080)	✓	–
PIGEON BLUE (N 4030)	✓	–
MOSS GREEN (N 7020)	✓	–
CREAM (N 0502-B)	✓	–
GREY (N 3000)	✓	–
DUSTY GREY (RAL 7037)	✓	–
LIGHT GREY (RAL 7035)	✓	–
BLUE (RAL 5002)	✓	–
GOLDEN OAK (additional charge will be applied)	✓	–
WALNUT (additional charge will be applied)	✓	–

Key to colour code

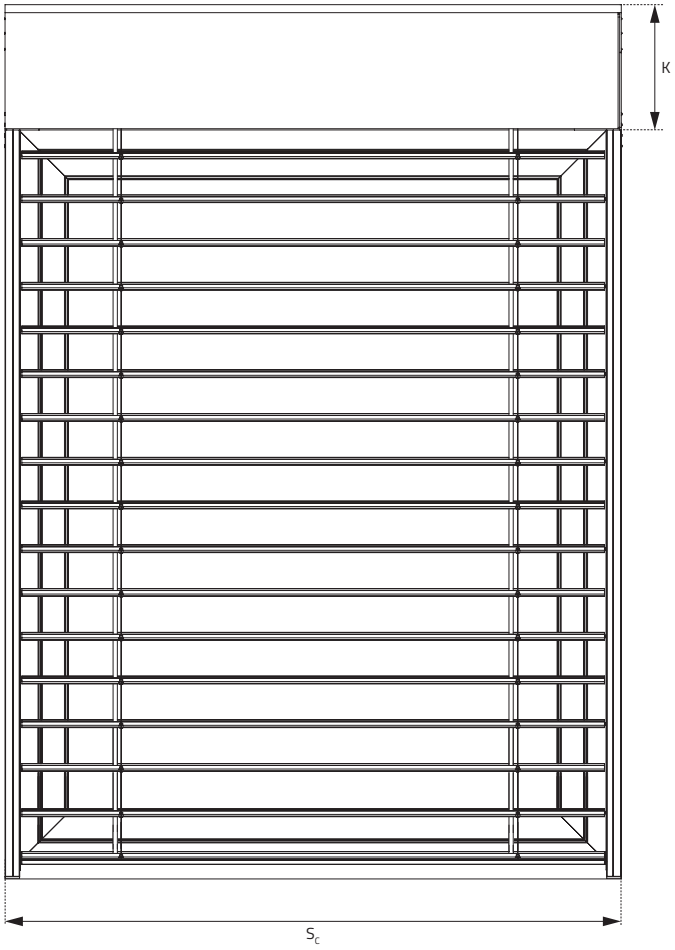


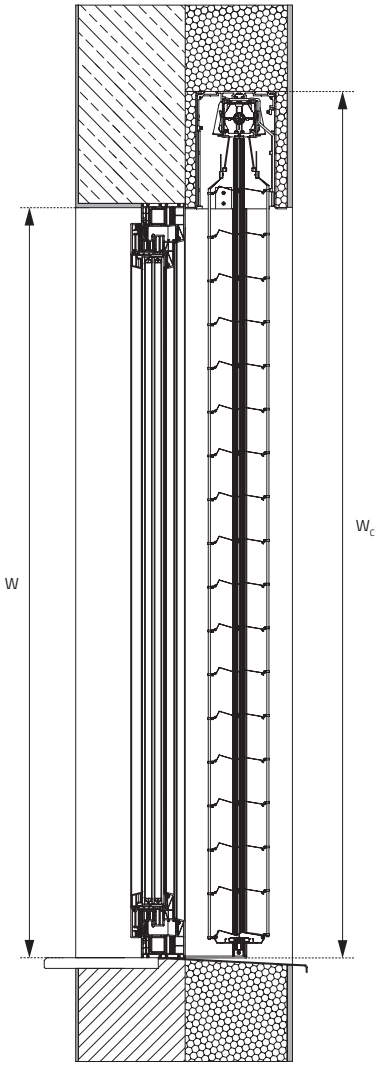
It is possible to order external venetian blinds in a colour not mentioned above as long as it belongs to the RAL colour chart.

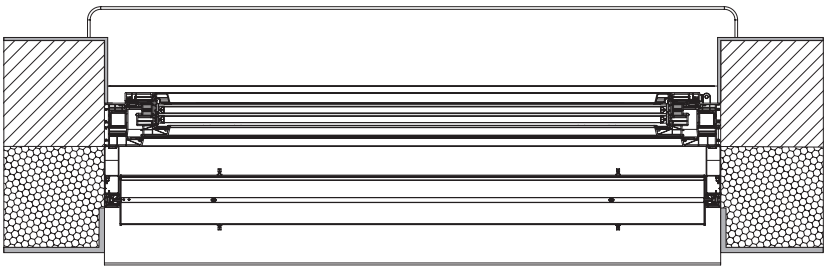
The price and completion date are set on an individual basis.

Due to different techniques of surface varnishing being applied, there may occur slight differences between the colour of SOLIDBOX slats and the colour of the blind's other elements (bottom bar, guide channels and the cassette).

SOLIDBOX EXTERNAL VENETIAN BLINDS – dimensions







S_c - ordering width
W - height of the opening/window
W_c - ordering height
K - cassette height

Dimensions as specified on order form

S_c x W_c

$W_c = W + K$

Measurement and mounting should be carried out by trained staff only.

External venetian blinds – operation / care and maintenance

Making the best use of your blind

- Rotate the slats and raise/lower the blind with a motor.
- The blind should be used only when there are no obstacles within the operating range of slats and control mechanism.
- The covering of the blind should enable access to the cover and head rail, where the control unit/motor is located so adjustment, care and maintenance and repair works can be carried out in a manner that does not interfere with the movement of slats.
- The safety of SOLIDBOX motorised blinds must be confirmed by an authorised person before the first use; later on the procedure should be repeated at least once a year.
- To prevent the risk of electric shock, the motors and any electrical components must comply with the current safety standards.
- Should the blinds malfunction, please notify the manufacturer of the fact.
- During strong wind gusts the blind should be left in the raised position.

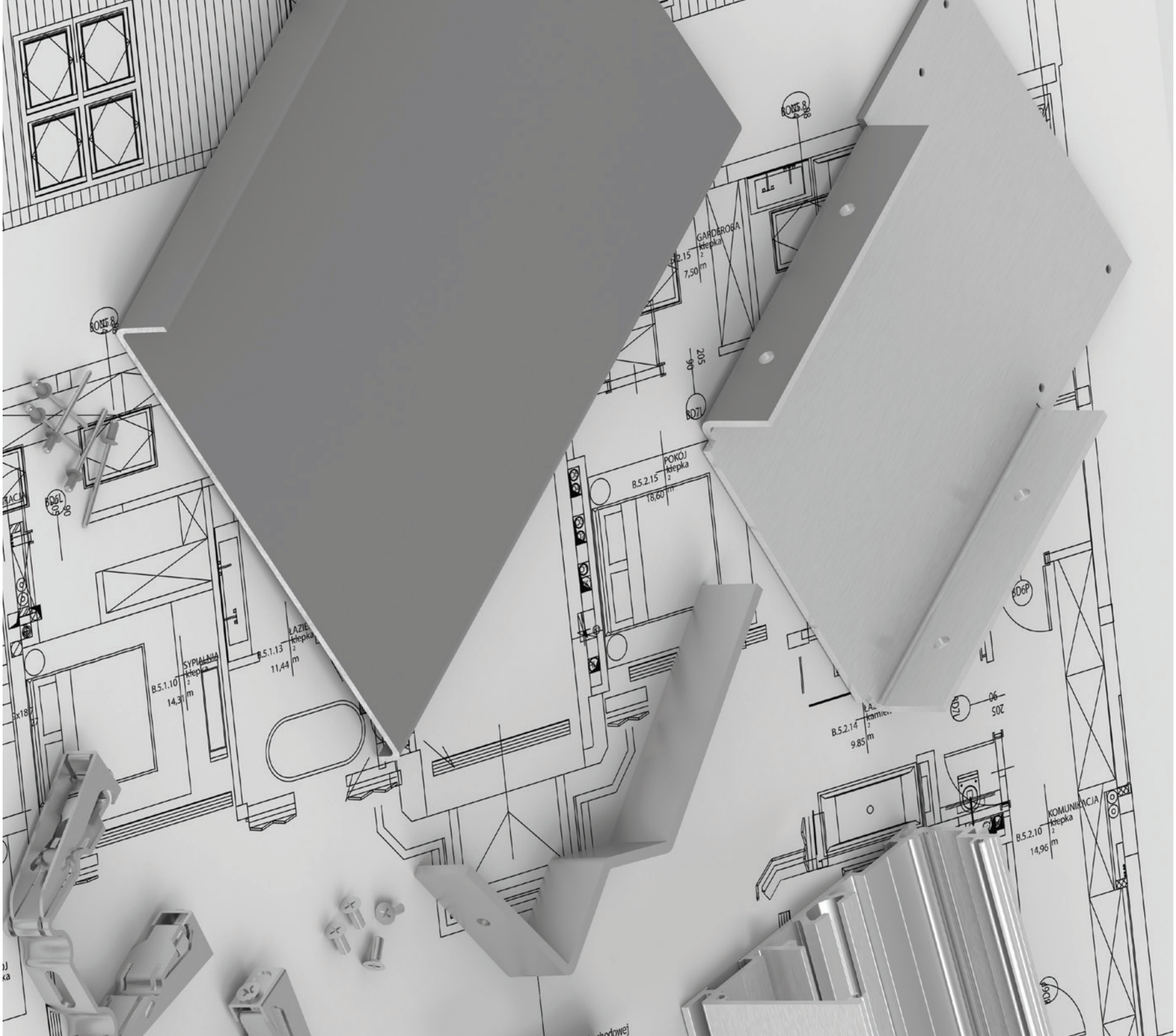
Cleaning the blind

The slats can be cleaned using a soft cloth lightly moistened with a mild soap solution with addition of some degreasing agent. Do not use solvent/diluent-based cleaners or tamper with textile components while cleaning the blind; should they get damaged or change their position, the blind will not function properly and the warranty will be lost.

External venetian blinds – disclaimer

The manufacturer is not responsible for:

- The crank and ladder coming off due to improper use
- Product damage resulting from alterations, modifications or repairs made by the client
- Mechanical damage and damage resulting from misuse, improper storage or overload.
- Damage caused by chance events eg. lightning strike etc.
- Damage resulting from not following manufacturer's assembly instructions
- Mechanical damage resulting from adverse weather conditions (eg. frost, freezing rain etc.)
- Mechanical damage due to strong wind (in absence of automatic wind control or as a result of selecting a wrong wind resistance class)
- Damage resulting from irregular folding of ladder between the slats while the blind is pulled up (so called uneven package)
- Malfunctioning of a blind of width less than 700 mm.


GARDEROBA
Klepka
B.5.2.15
7,50 m
POKÓJ
Klepka
B.5.2.15
18,60 m
ŁAZIE
Klepka
B.5.1.13
11,44 m
SYPIALNIA
Klepka
B.5.1.10
14,31 m
KOMUNIKACJA
Klepka
B.5.2.10
14,96 m
B.5.2.14
9,85 m
BD5.8
BD7L
BD6L
BD6P
205
90

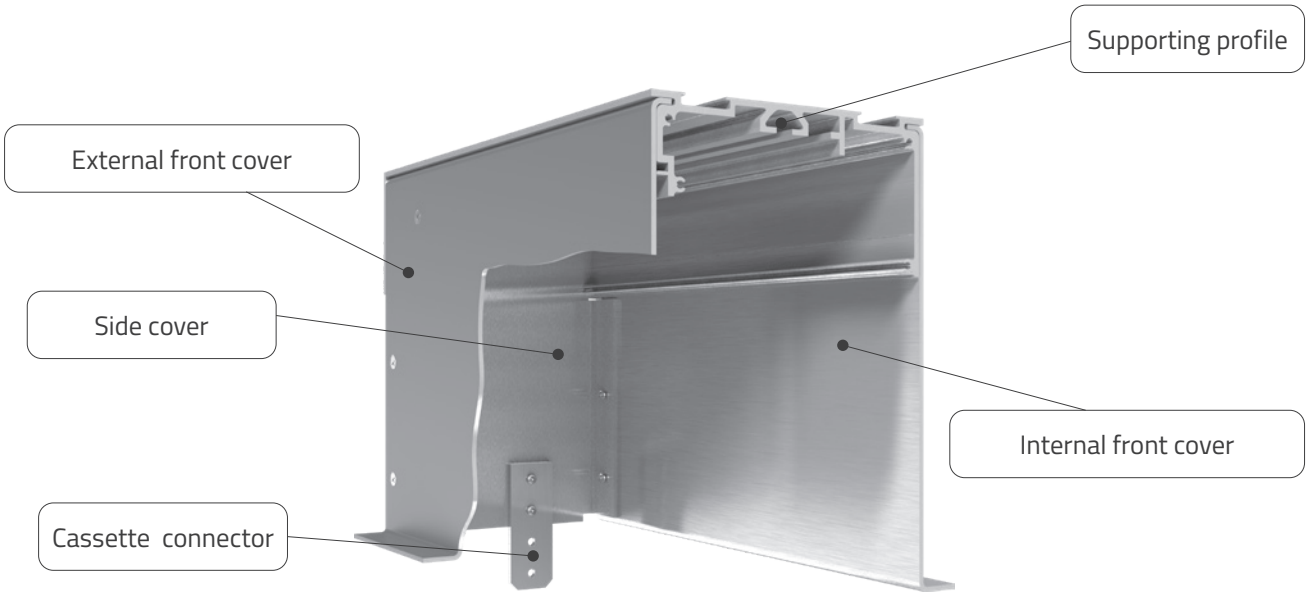
CASSETTE

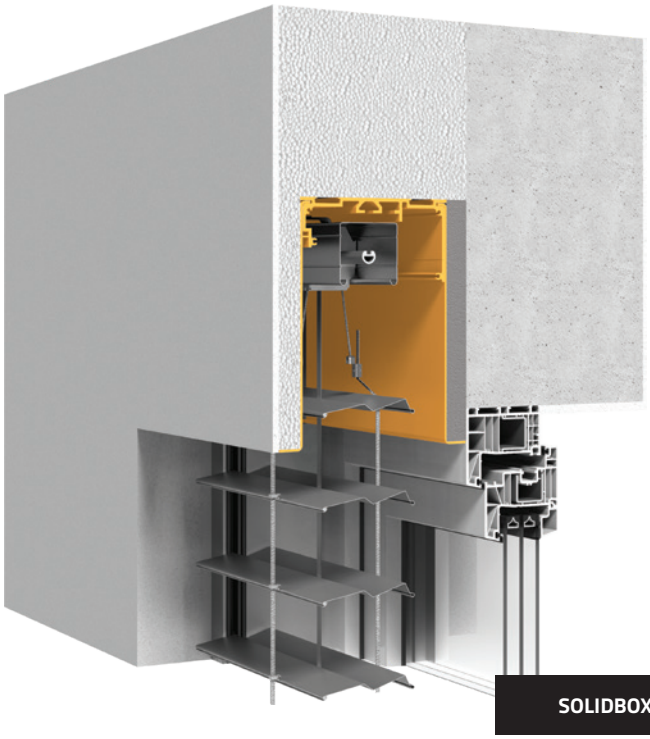
SOLIDBOX cassette – system components

SOLIDBOX cassette

Cassette 150 mm deep, available in 3 sizes: 220, 270 and 320 mm. It consists of 4 main components: Top supporting profile, front covers (internal, external) and side covers. Front covers are made of 2 mm thick steel sheets, with visible parts covered with weather-resistant varnish.

SOLIDBOX cassette – system components

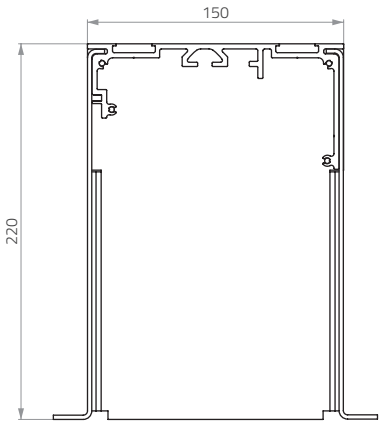




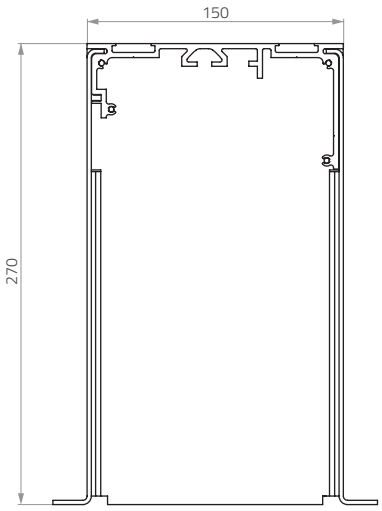
SOLIDBOX cassette

SOLIDBOX cassette – available heights

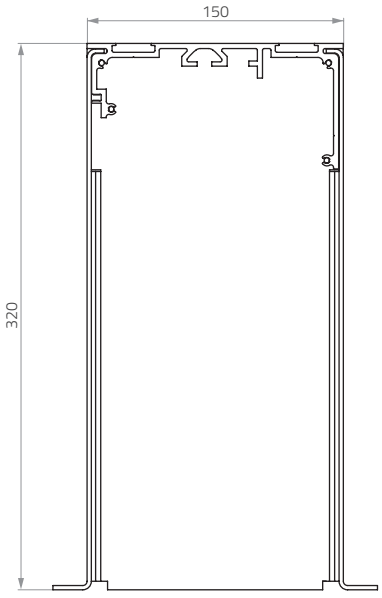
220 cassette



270 cassette



320 cassette

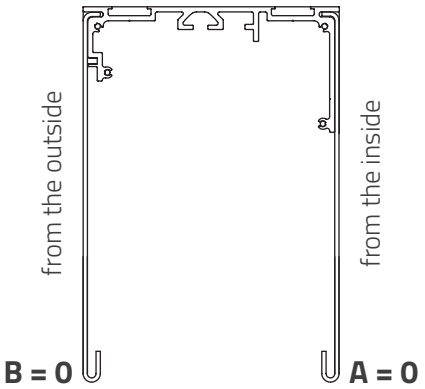


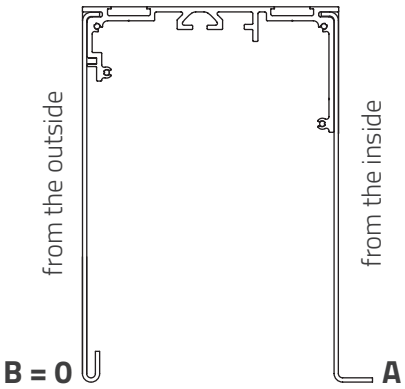
Selecting SOLIDBOX cassette

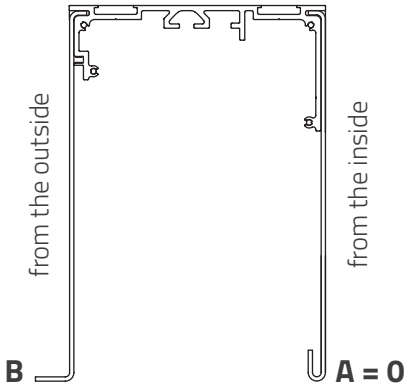
HEIGHT OF SOLIDBOX CASSETTE	C-80	Z-90
800	220	220
900		
1000		
1100		
1200		
1300		
1400		
1500		
1600		
1700	270	
1800		
1900		270
2000		
2100		
2200		
2300		
2400		
2500		
2600		
2700		
2800		320
2900		
3000		
3100	320	
3200		
3300		
3400		
3500		

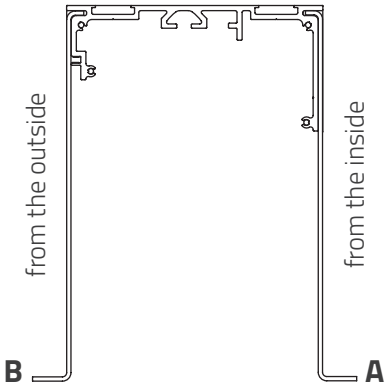
SOLIDBOX cassette – options

SOLIDBOX cassette – available options









		0	10 mm	15 mm	20 mm	25 mm	30 mm	35 mm
thermal insulation masking (from the inside)	A	✓	✓	✓	✓	✓	✓	✓
thermal insulation masking + XPS (from the inside)	A			✓	✓			✓
plaster carrier (from the outside)	B	✓	✓	✓	✓	✓	✓	✓

SOLIDBOX cassette – varnishing

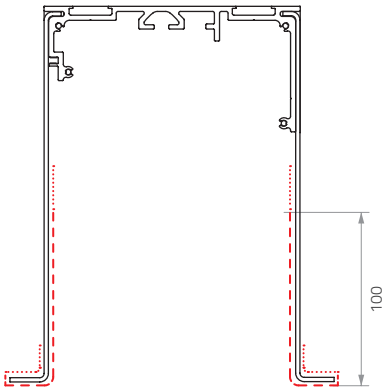
SOLIDBOX cassette varnishing

Varnishing of parts of SOLIDBOX cassette involves coating selected parts of the cassette with high quality, weather resistant varnish.

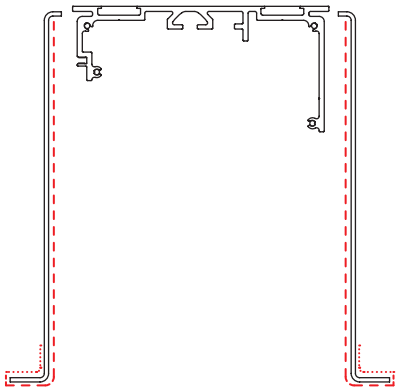
Two options of standard varnishing:
- option 1: plaster carrier / thermal insulation masking varnished from the bottom; front covers varnished on the inside up to the height of 10 cm.
- option 2: plaster carrier / thermal insulation masking varnished from the bottom; front covers varnished on the inside up to their full height.

Cassette varnishing options

Version 1 (standard)

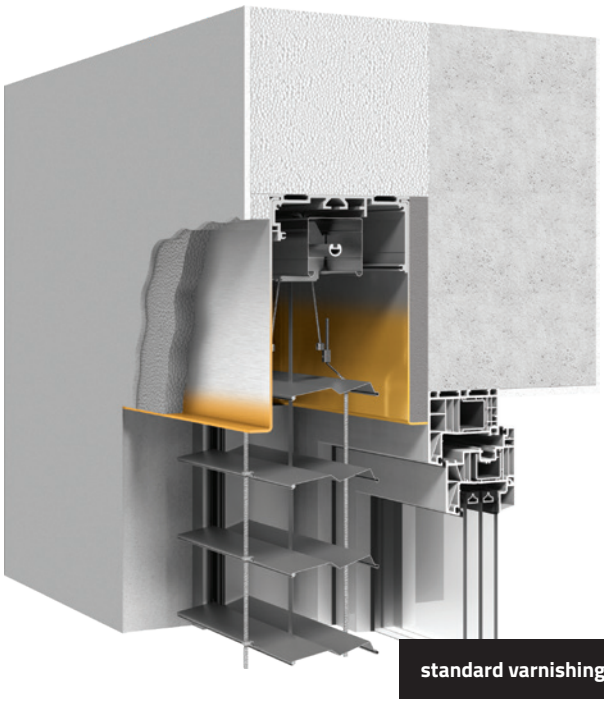


Version 2 (option)



possible dust

100% paint coverage



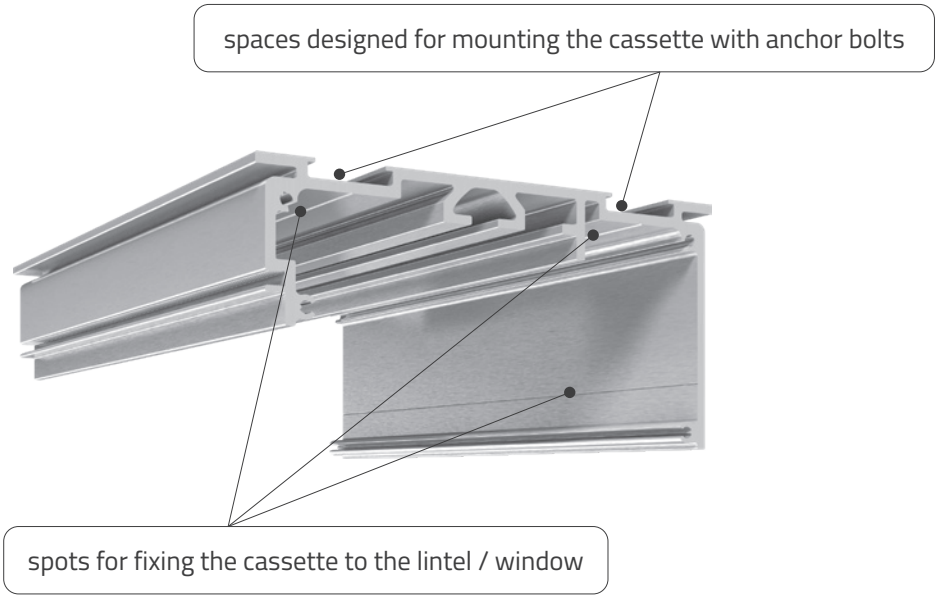
standard varnishing of the SOLIDBOX cassette

SOLIDBOX cassette – supporting profile

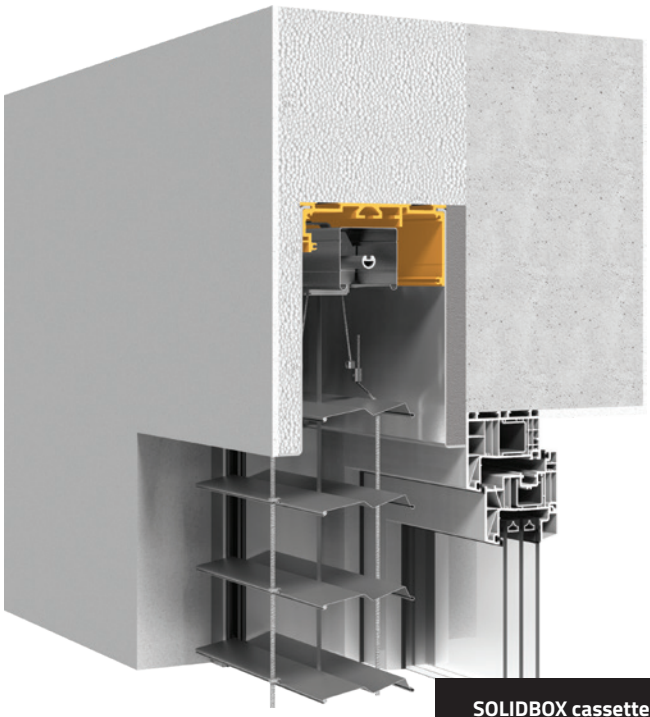
Supporting profile

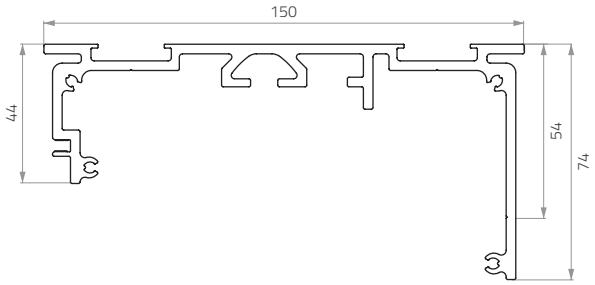
manufactured by extrusion, aluminium profile is the main supporting element of the blind. Fixed to the lintel with plugs as standard. On the outside there is a chamber for fixing the outside front cover with screws. Inside front cover is riveted in the production process. In the upper part of the supporting profile there are spaces designed for mounting the cassette with anchor bolts.

SOLIDBOX cassette supporting profile



Only unvarnished supporting profiles are available



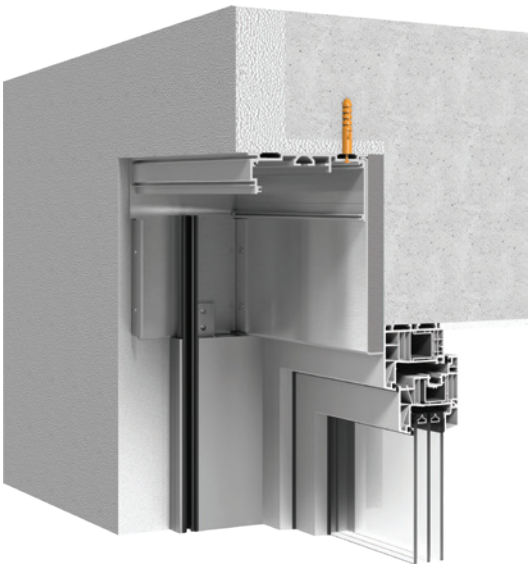


SOLIDBOX cassette supporting profile

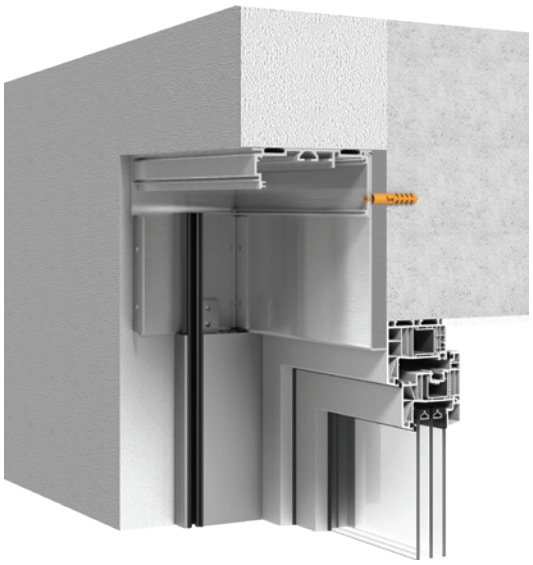
SOLIDBOX cassette – mounting

SOLIDBOX cassette – mounting options

Top fixing to the lintel

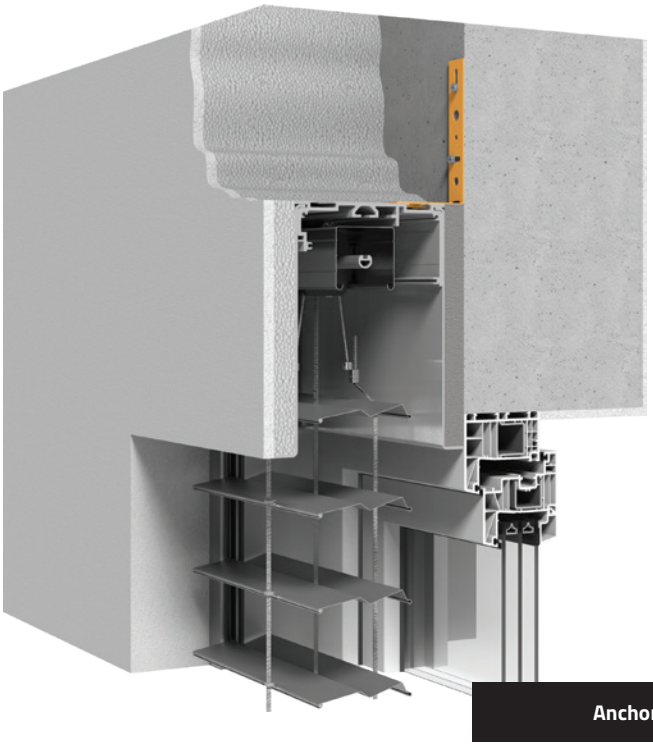


Front fixing to the lintel



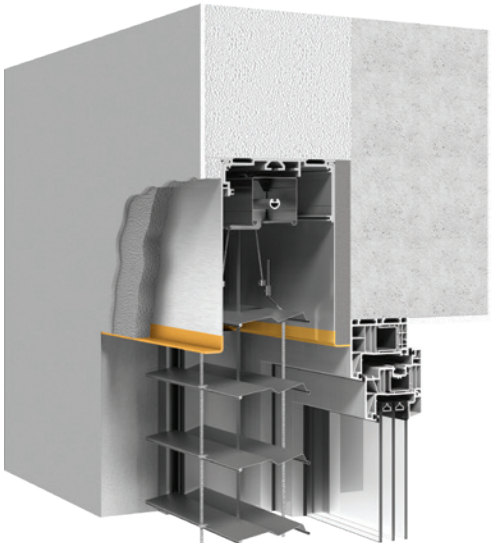
Additional fixing of the SOLIDBOX cassette using anchor bolts (option)

	blind width (mm)						
	≤ 1000	1001 - 1500	1501 - 2000	2001 - 2500	2501 - 3000	3001 - 3500	3501 – 4000
number of anchor bolt	2 pcs	3 szt.	4 szt.	5 szt.	6 szt.	7 szt.	8 szt.



Anchor bolt

SOLIDBOX cassette – plaster carrier, thermal insulation masking



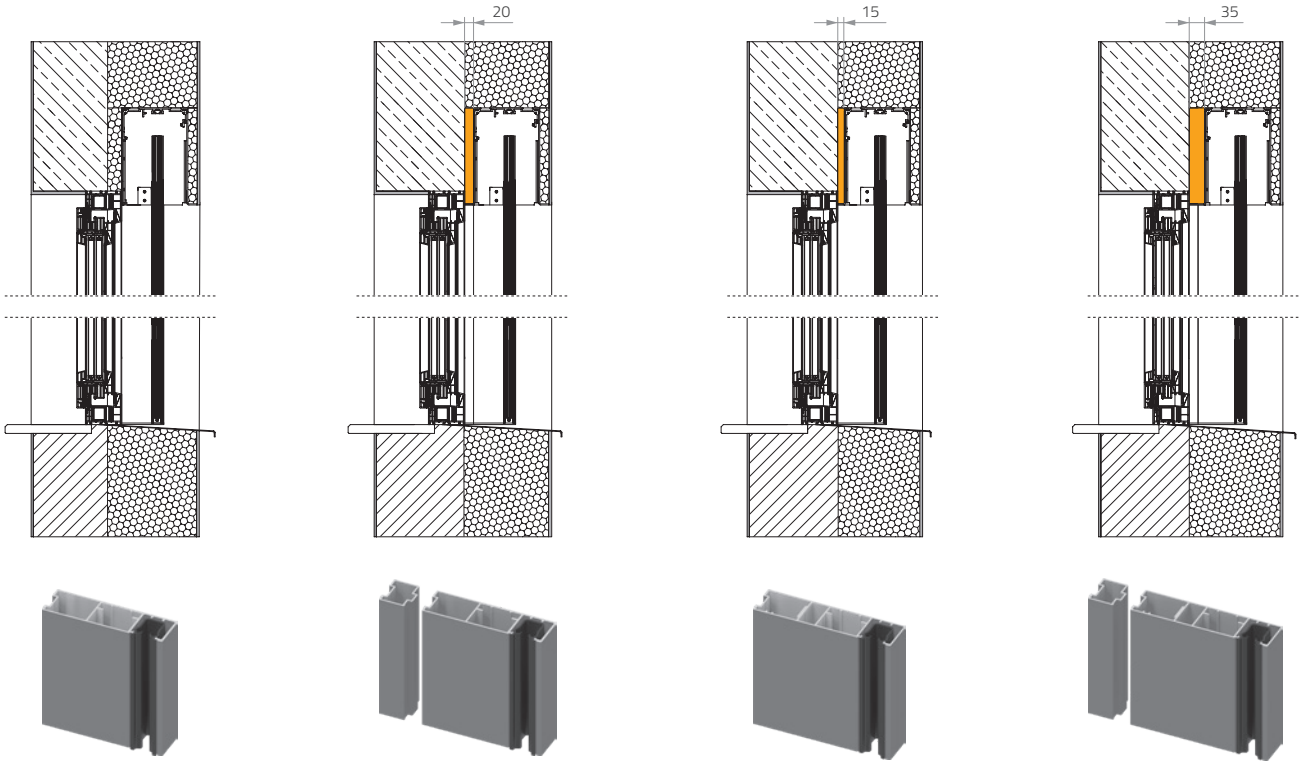
Plaster carrier, thermal insulation masking

Plaster carrying and thermal insulation masking functions of the cassette are performed by the bent edges of its front cover (made of 2 mm thick steel). Available in a range of sizes: 10, 15, 20, 25, 30 and 35 mm. 15, 20, 35 mm sizes are compatible with XPS Anwis thermal insulation.

Available sizes

	0	10 mm	15 mm	20 mm	25 mm	30 mm	35 mm
thermal insulation masking (from the inside)	✓	✓	✓	✓	✓	✓	✓
thermal insulation masking + XPS (from the inside)			✓	✓			✓
plaster carrier (from the outside)	✓	✓	✓	✓	✓	✓	✓

Different thicknesses of XPS thermal insulation vs. various types of guide channels



95 mm guide channel

95 mm guide channel + spacer

110 mm guide channel

110 mm guide channel + spacer

SOLIDBOX cassette – thermal insulation

Extruded polystyrene foam (XPS)

Synthos XPS PRIME S is a thermal insulating material in the form of a panel formed in the process of extrusion and direct foaming. It is based on polystyrene resin – a safe for human health food contact material. Extruded polystyrene hard foam is a closed-cell foam material which absorbs only minimum quantities of moisture.

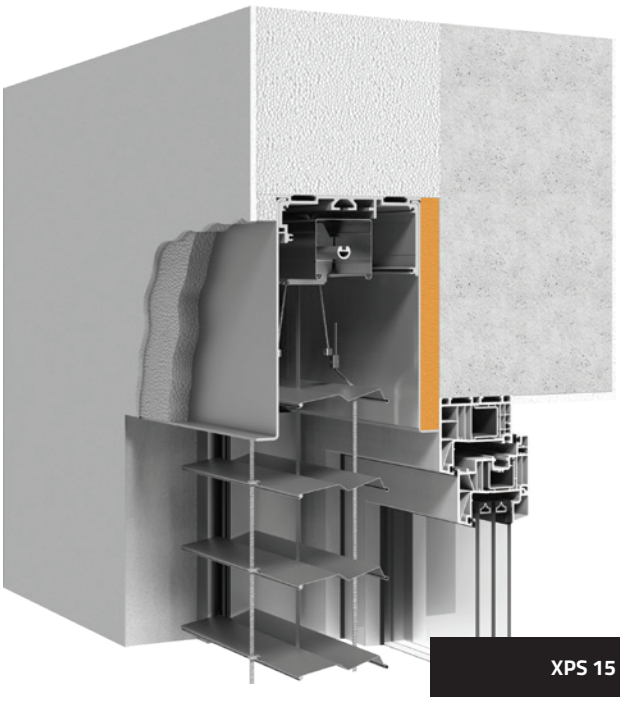
THERMAL PARAMETERS

XPS thickness	Unit	Test method	Thermal conductivity factor (λ_D) EN-13164 (10 °C)	Thermal resistance (R_D) EN-13164 (10 °C)
d_N = 15 mm	W/(m·K) m² ·K/W	PN-EN 13164	–	–
d_N = 20 mm			0,034	0,50
d_N = 35 mm			0,034	1,00

HYDROPHOBIC PARAMETERS

Property	Unit	Test method	XPS PRIME S value or feature
Declared water absorbability (prolonged submersion)	%	PN-EN 12087 + A1	≤ 0,70
Average achieved water absorbability (prolonged submersion)	%		≤ 0,25
Short-term water absorption	kg/m³ kg/m²	PN-EN 1609	≤ 0,50 ≤ 0,10

As a result of an XPS board's prolonged exposure to direct sunlight, its surface and structure may get damaged, its dimensions may change, it may lose its flatness and rectangularity. To prevent this from happening, the board should be protected with a light-coloured, opaque cover.



XPS 15 mm

PRODUCT ADVANTAGES

- ✓ excellent thermal insulation properties
- ✓ closed-cell structure
- ✓ low water absorption
- ✓ high compressive strength
- ✓ trouble-free mounting
- ✓ fully recyclable
- ✓ cell structure, filled with air, keeps stable thermo-insulation parameters of the product. Additionally, the structure ensures progressive improvement of insulation properties which increase as the temperature outside lowers (the value of thermal conductivity factor decreases)
- ✓ product made in Poland

ALUTHERMO QUATTRO insulation foil

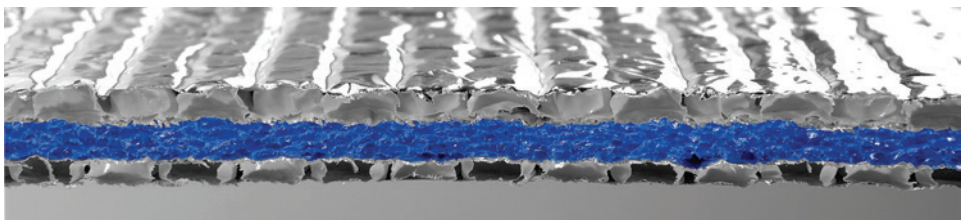
Aluthermo Quattro is an ultra-thin, multi-reflective, fitted with 4 layers of aluminium, multi-layer insulation material which is thermally-welded across all its surfaces. Aluthermo Quattro* consists of two layers of pure polished aluminium, 30 micron thick, treated against oxidation and divided by two layers of bubbles of dry air in honeycomb structure enclosed in self-extinguishing polyethylene. It is also covered with two extra films of pure aluminium and waterproof and self-extinguishing polyethylene foam. Aluthermo Quattro* is almost impenetrable to infrared radiation, which ensures comfortable temperature conditions both in the summer heat and in the frost of winter. According to research (see technical data) Aluthermo Quattro's* thermal resistance equals R=5,7m2K/W and its thermal performance is comparable to 20 cm thick mineral wool (λ 0.040 W/m.K.).

Advantages:

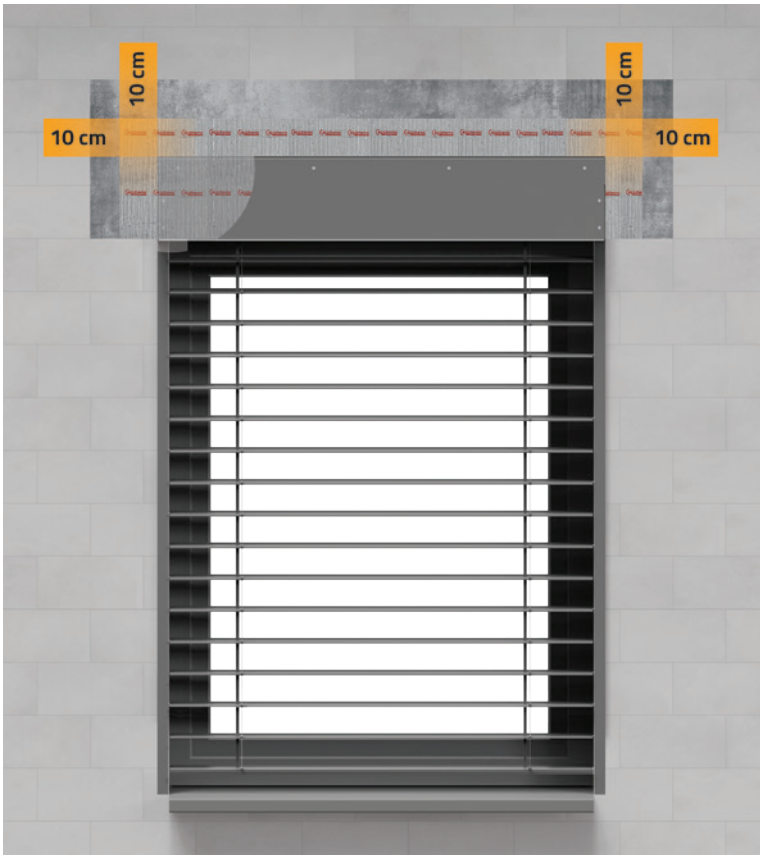
- 3 in 1: a cost-effective solution (wind-protection, thermal insulation, vapour barrier).
- Fire protection class B-d0-s1.
- Lightweight: does not burden nor affect the structure of the entire building.
- Durable: materials used guarantee the highest quality; 30 micron thick aluminium film retains 100% of its insulating properties for many years even when stained or covered in dust; the polyethylene does not undergo degradation as, thanks to the reflective properties of the aluminium film, it is not exposed to extreme temperatures; does not delaminate when cut; treated against oxidation; thermally-welded across all its surfaces.
- Easy mount: one-person job (tools: cutting knife, stapler). Can be fitted to a surface of almost any shape. Lightweight, portable, does not take up much space, does not gather dust.
- A 10-year guarantee: material used am. others in aviation industry.

Thickness	+/- 10 mm
Thickness of the polyethylene film	150 µm
Number of the aluminium films	4
Thickness of the polyethylene foam	3 mm
Thickness of the outer aluminium film	30 µm
Weight	+/- 750 g/m2
* R [m^2 K/W]	R= 5,70 m^2 K/W
** R [m^2 K/W]	R= 2,80 m^2 K/W
Installation temperature range	- 40°C - +80°C
Number of m^2 per roll	30,00
Dimensions of the roll	1,20 m x 25 m
Weight of the roll	22,5 kg

* Performance data valid only for installation between 2 air gaps (without direct contact with any other material).
** Performance data valid only for installation without air gaps (with direct contact with some other material).



ALUTHERMO QUATTRO insulation foil mounting instructions



1

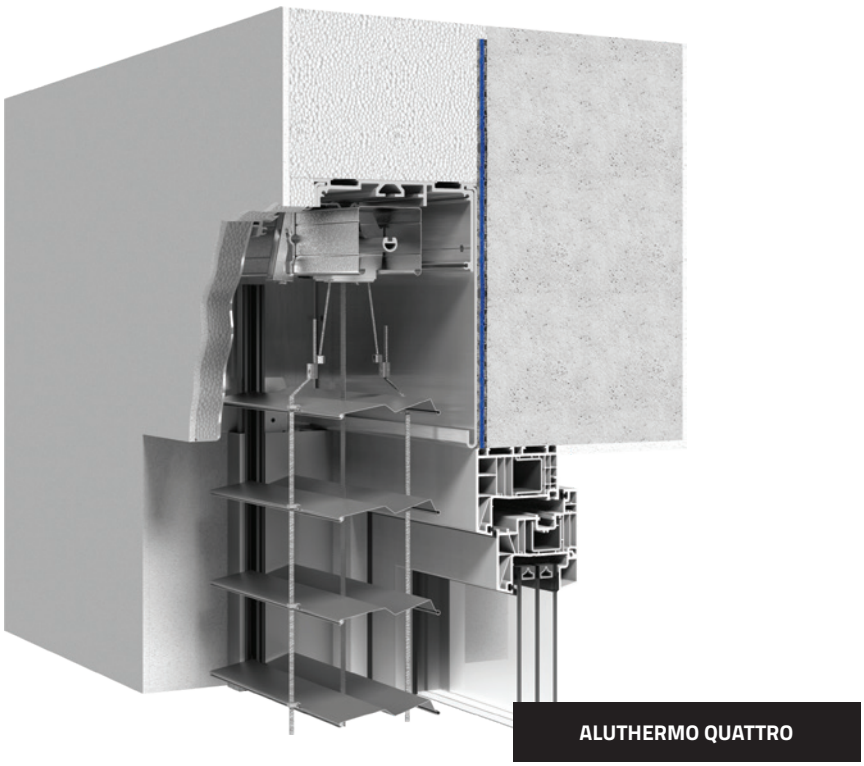
Before Aluthermo® QUATTRO foil is mounted, measurements need to be taken to determine the amount of foil required for the job. While measuring the sides and the top of the SOLIDBOX cassette please add min. 10 cm overlap to avoid the risk of creating a thermal bridge where the cassette and insulation meet (eg. polystyrene, wool etc.)

2

After Aluthermo® QUATTRO foil has been cut to size, its edges must be sealed with Aluthermo® aluminium tape.

3

In order to mount Aluthermo® QUATTRO foil on the lintel, one must remove all dirt from the foil's surface. Once the surface is all dry and clean, cover it with Aluthermo® glue spreading it in the direction from the centre towards the edges. The foil covered with glue, applied evenly over the surface, should be pressed firmly to the lintel so it adheres tightly to the entire surface. IMPORTANT: the edges of isolation must not protrude beyond the wall face.

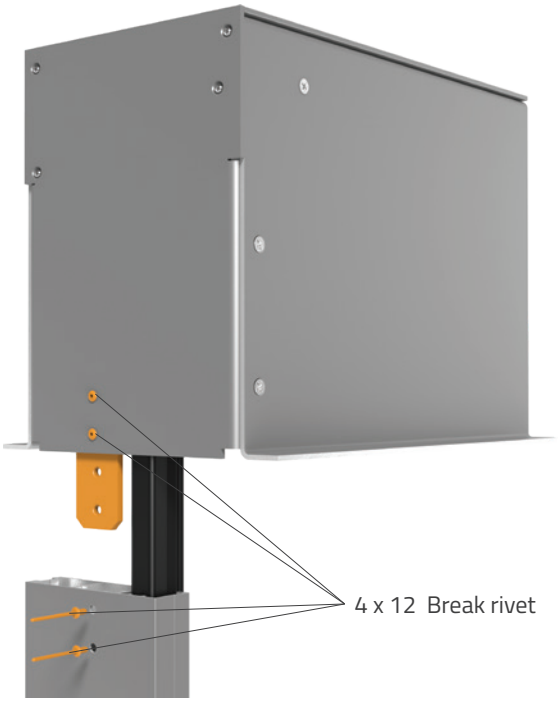


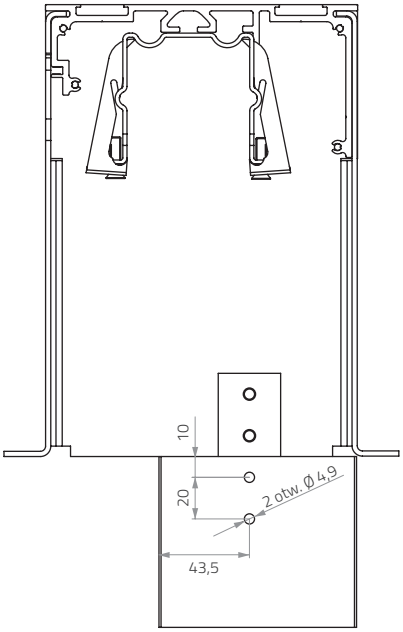
ALUTHERMO QUATTRO

SOLIDBOX CASSETTE – cassette connector

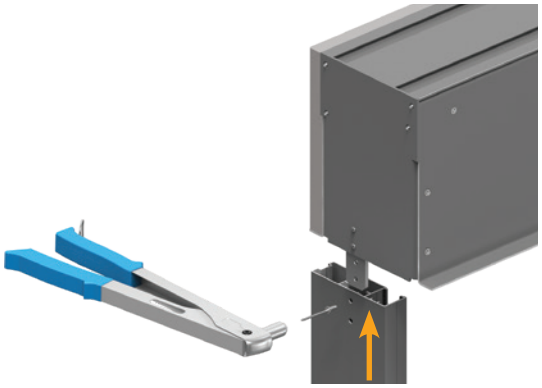
Cassette connector

Made of 4 mm thick steel, galvanised, joins the cassette with guide channels. The element is connected to the cassette during the production process. Mounted on guide channels using two 4x12 rivets during assembly.



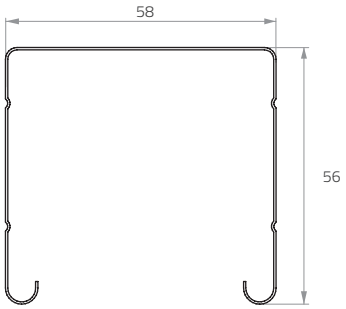


Joining SOLIDBOX cassette with the guide channels



Cassette connector

58 x 56 Head rail



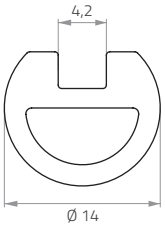
Technical parameters

- galvanised steel rail, roll-formed
- thickness:
  standard rail – 0,6 mm
  reinforced rail – 0,75 mm*

* Reinforced head rail, made of 0,75 mm thick galvanised steel, used in blinds wider than 2500 mm.

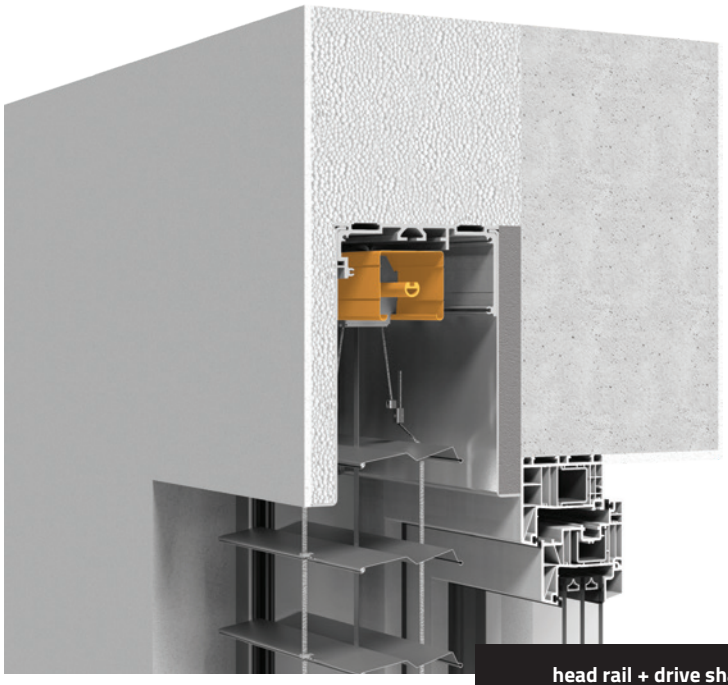
Standard width of head rail: **the width of blind minus 65 mm.**

Drive shaft



Technical parameters

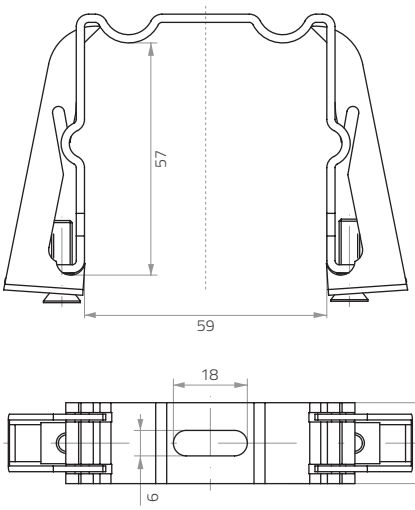
- aluminium drive shaft
- manufactured using extrusion process

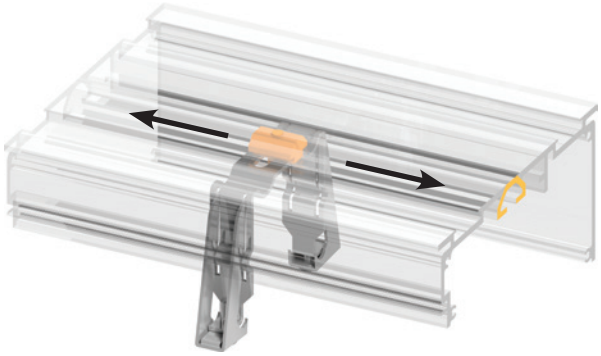


head rail + drive shaft

Head rail fixing bracket

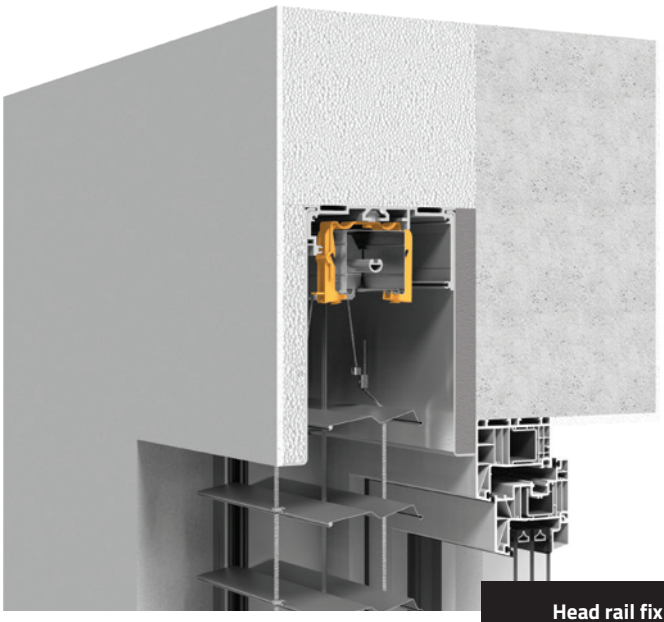
Automatic head rail bracket





As a result of mounting the head rail on the supporting profile using hammer cap it is easy to find the mounting position of the bracket which does not collide with other head rail components like bearings or electric drive.

	blind width			
	≤ 1500 mm	1501 – 2500 mm	2501 – 3500 mm	3501 – 4000 mm
number of brackets	2 pcs	3 pcs	4 pcs	5 pcs



Head rail fixing bracket

Stabilising bracket

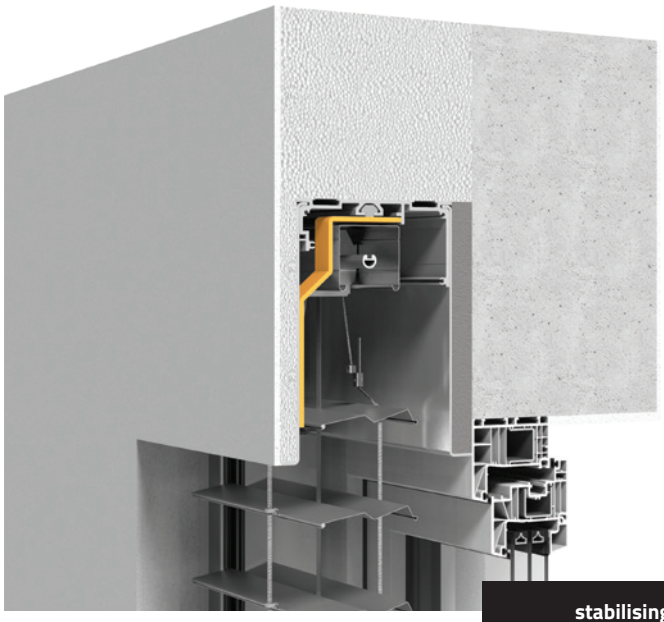
External front cover stabilising bracket

A component made of 4 mm thick aluminium for improved stability of SOLIDBOX external front cover.
Its purpose is limiting the extent of deformation of the cover during plastering.

As a result of mounting stabilising bracket on the supporting profile using hammer cap it is easy to find the mounting position of the bracket which does not collide with other head rail components like bearings or electric drive.

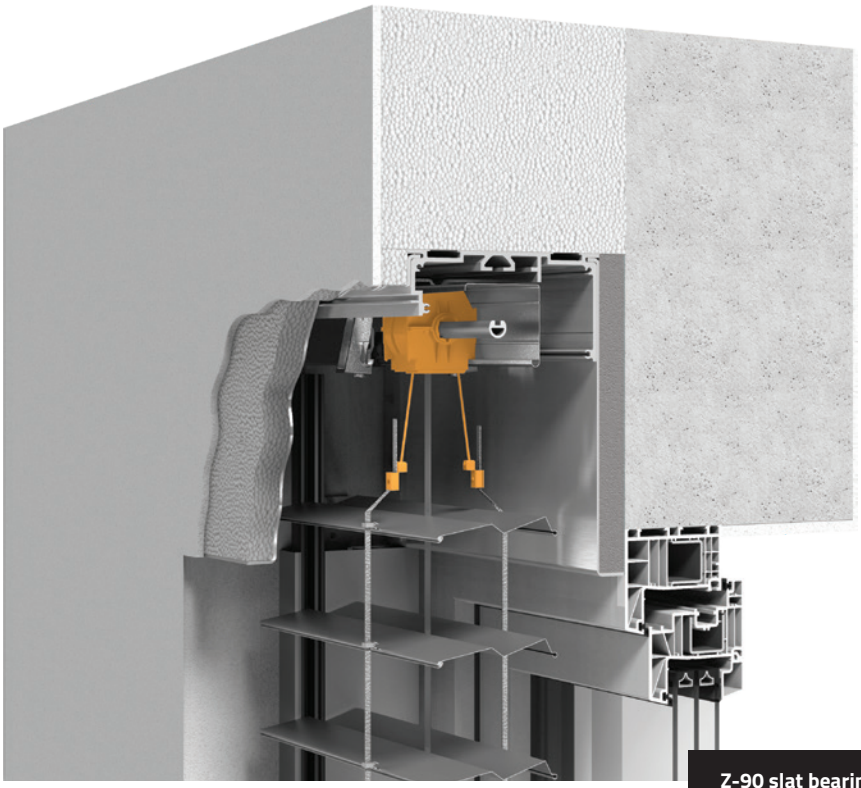
Stabilising bracket is fitted with 5 cm high shock-absorbing foam as standard.

	blind width				
	≤ 1000 mm	1001 – 1500 mm	1501 – 2500 mm	2501 – 3500 mm	3501 - 4000 mm
number of brackets	none	1 pc	2 pcs	3 pcs	4 pcs



stabilising bracket

Control bearing



Z-90 slat bearing, 90⁰ rotation

Mounting position of brackets in relation to bearings

As a result of mounting the brackets on the supporting profile using hammer cap it is easy to find the mounting position of the brackets which does not collide with other head rail components like bearings or electric drive.

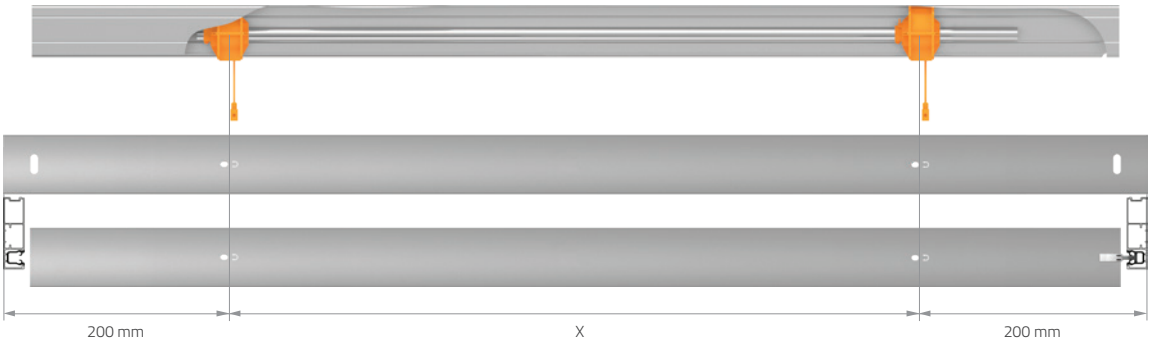
Number of bearings in blinds of different size

	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200
500-2500	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3
2501-3000	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3
3001-3500	2	2	2	2	2	3	3	3	3	3	3	3	3	4	4

Control bearings

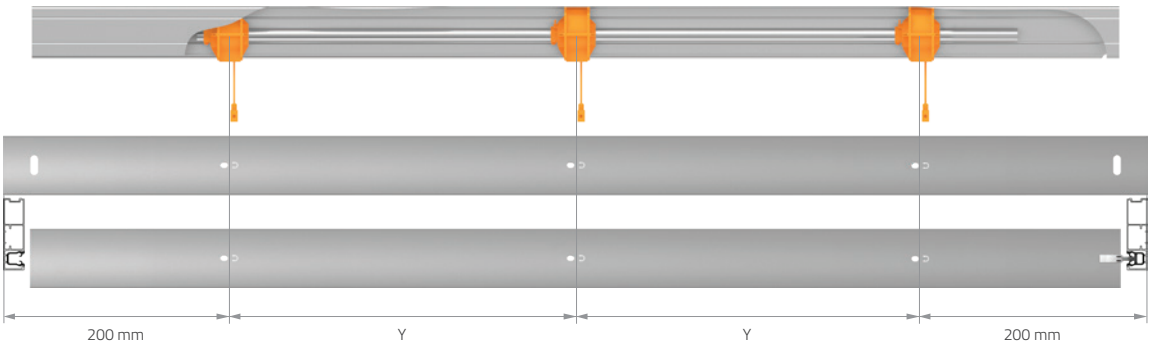
The spacing of bearings in the head rail in relation to blinds size

Number of bearings: 2 pcs



X = blind width – 400 mm

Number of bearings ≥ 3 pcs



$$Y = \frac{\text{blind width} - 400\ \text{mm}}{\text{number of bearings as in the table} - 1}$$

Example:

C-80 external venetian blind with guide channels, dimensions: 2960 x 3100 mm.
Number of bearings as in the table: 5 pcs.

$$Y = \frac{2960 - 400\ \text{mm}}{5 - 1} = 640\ \text{mm}$$

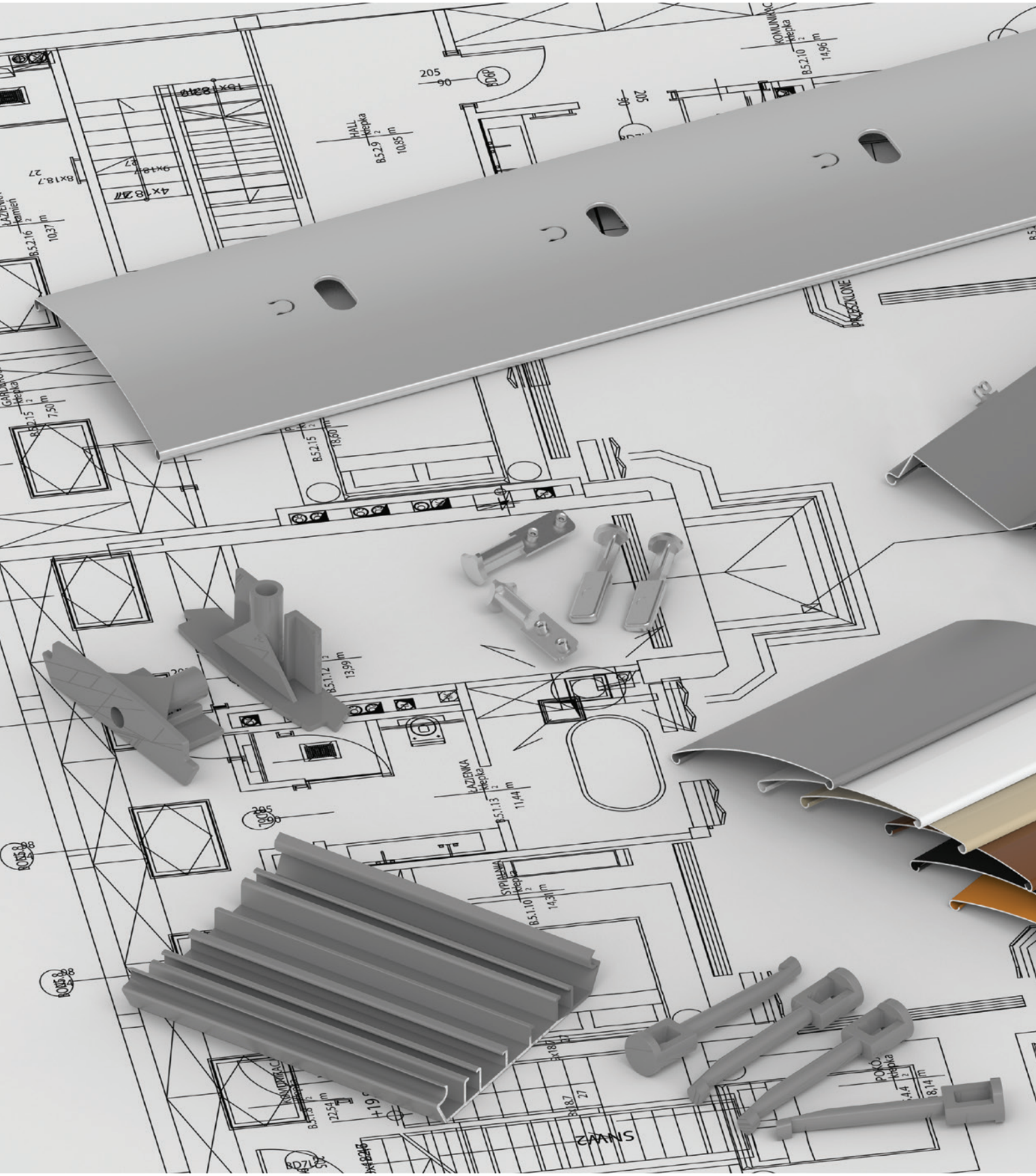
The spacing of bearings in blinds < 800 mm wide is determined on an individual basis.

Rotation of different types of slats

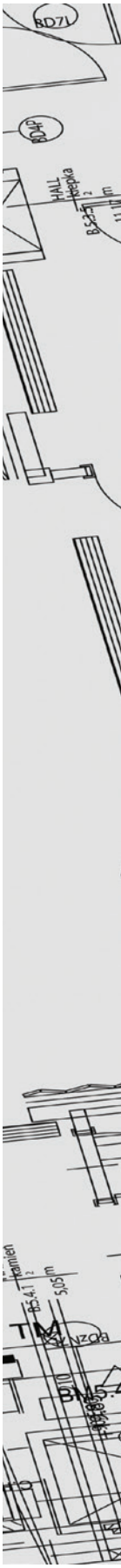
		type of slat	
		C-80	Z-90
slat rotation	90°	✓	✓
	180°	✓	

< 800 mm wide blinds are manufactured with 90° slat rotation only

2300	2400	2500	2600	2700	2800	2900	3000	3100	3200	3300	3400	3500	3600	3700	3800	3900	4000
3	3	4	4	4	4	4	4	4	4	4	4	5	5	5	5	5	5
4	4	4	4	4	4	4	4	4	5	5	5	5	5	5	5	5	5
4	4	4	4	4	4	5	5	5	5	5	5	5	5	6	6	6	6



THE STACK OF SLATS

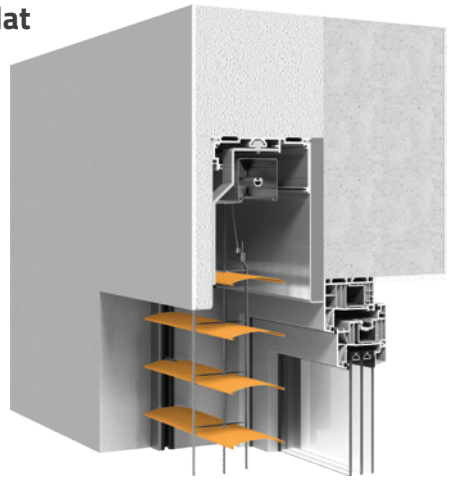


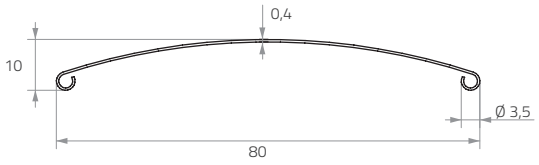
Types of slats

Aluminium slats

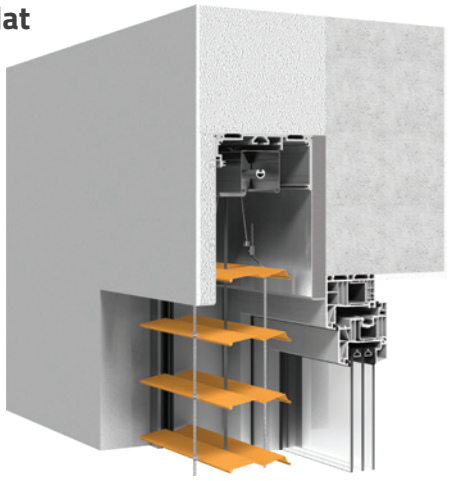
Suitably formed aluminium slats whose width depends on the type of blind (80/90 mm). 0,4 mm thick aluminium tape used in the slat production process is covered with weather resistant varnish.

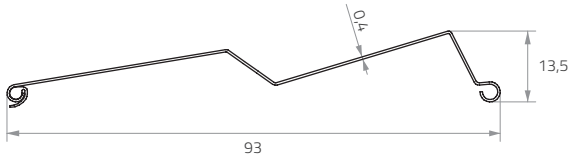
C-80 slat

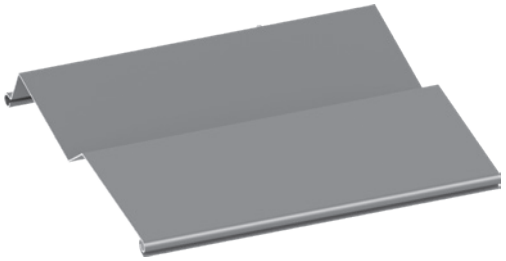


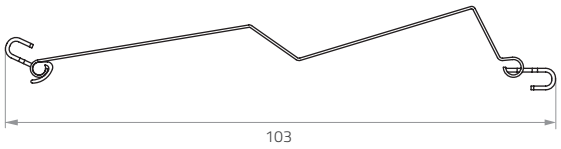


Z-90 slat









dimension with cloth tape lock

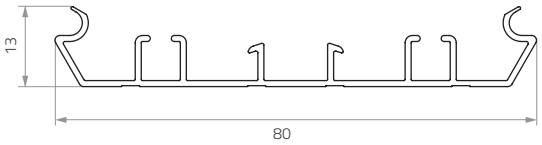
	C-80	Z-90
Slat thickness	0,4 mm	0,4 mm
Max. width	4000 mm	4000 mm
Max. height	3500 mm	3500 mm
Max. surface area	14 m^2	15,75 m^2
Slat type	folded edge	folded edge
Slat rotation	90° / 180°	90°
Type of guide pin	ALU	ALU
Spacing of guide pins	every other slat	every other slat
Number of available colours	22	8

Bottom bar

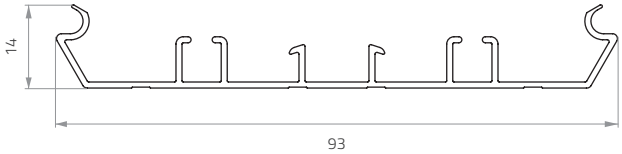
Bottom bar

extruded aluminium profile 80 or 93 mm wide (depending on the type of slat). The bar is closed from the top by pressing the slat on the bar until it clicks. On the ends of the bottom bar there are end caps with pins.

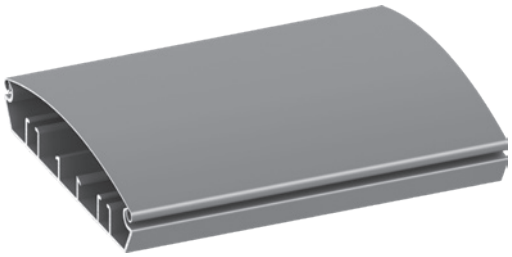
C-80 bottom bar



Z-90 bottom bar



Closing the bottom bar

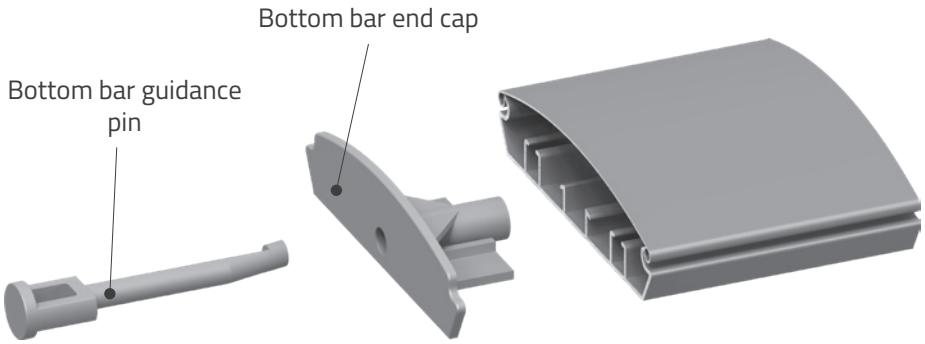


The bottom bar is closed with a slat which corresponds with the system.

Note: when maintenance or repair work needs to be carried out inside the bottom bar, it must be dismantled with care.
The top slat must be carefully levered up and supported across the entire width.

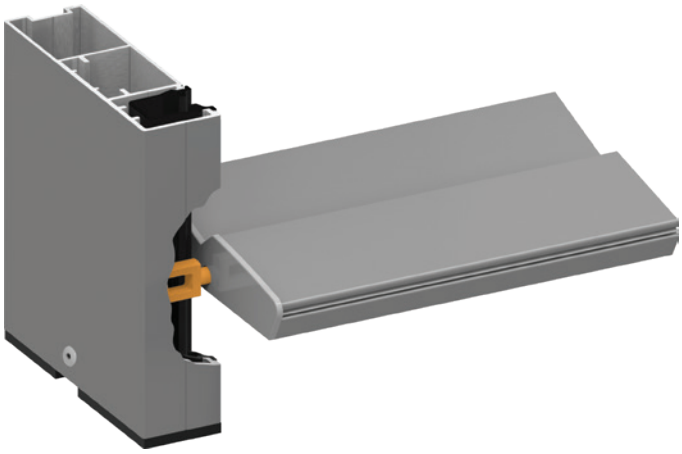
C-80 bottom bar

Bottom bar



The standard end cap is riveted to the bottom bar during manufacturing process.

Positioning of guidance pin in side guide



C-80 bottom bar

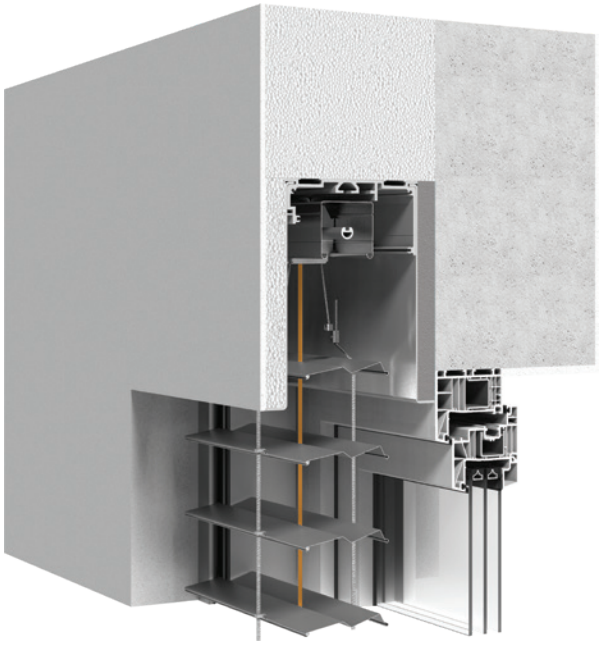
Cloth tape

Cloth tape

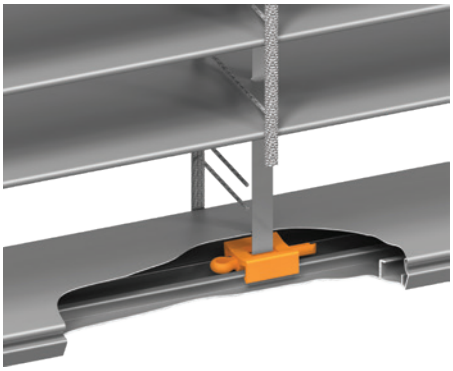
responsible for raising and lowering the blind, made of special fabric with poliester fibres with addition of Kevlar® for extra durability, increased wear resistance, colour fastness as well as resistance to UV radiation and adverse weather conditions. Available widths – 6 or 8 mm (depending on slat) in two colour options: grey or black.

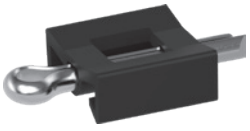
		C-80	Z-90
cloth tape	6 mm	✓	
	8 mm		✓

		C-80	Z-90
colour of ladder and cloth tape	gray	✓	✓
	black	✓	✓



Attaching cloth tape to the bottom bar





Cloth tape lock

Cloth tape lock is a fitting component only and should not be used as a tool for adjusting bottom bar level.

The level of the bottom bar should be adjusted with ladder lock (the component joining the ladder with the bearing) or directly – by using the bearings fitted in the head rail.

Ladders

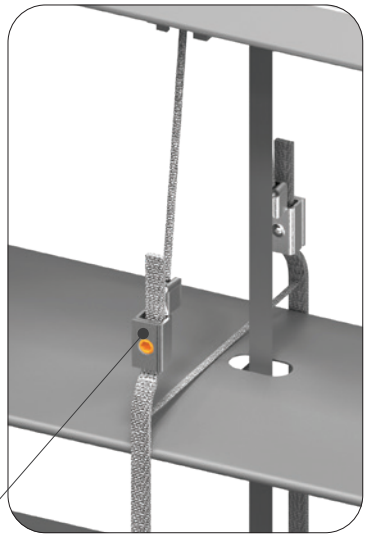
Ladder

responsible for raising and lowering the blind, made of special fabric with poliester fibres with addition of Kevlar® for extra durability, increased wear resistance, colour fastness as well as resistance to UV radiation and adverse weather conditions. Available widths – 6 or 8 mm (depending on slat) in two colour options: grey or black.

		C-80	Z-90
Ladder	standard	✓	
	HAGO FIX®		✓

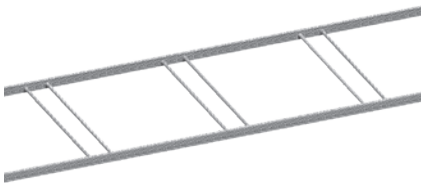
		C-80	Z-90
colour of ladder and cloth tape	grey	✓	✓
	black	✓	✓

Attaching the ladder to control bearing

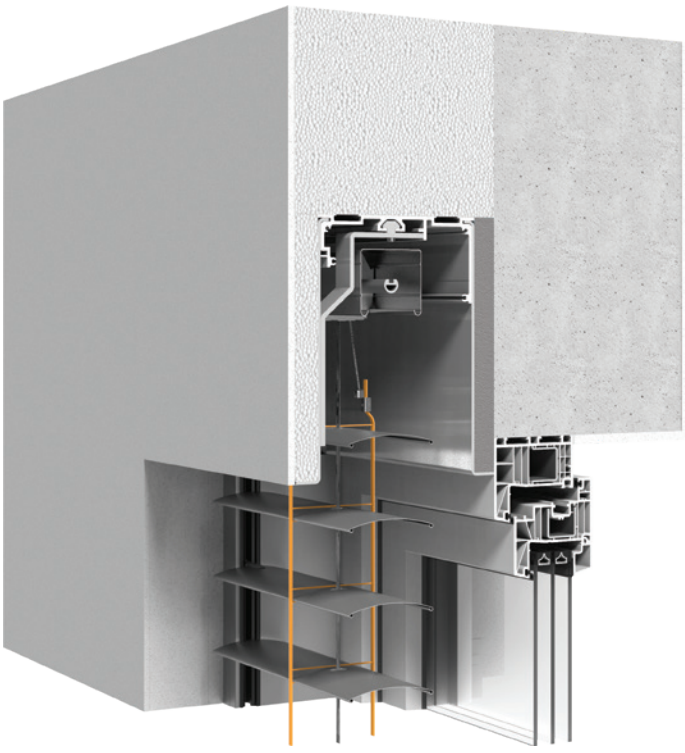


M4x5 set screw
2,5 hex key

Standard ladder



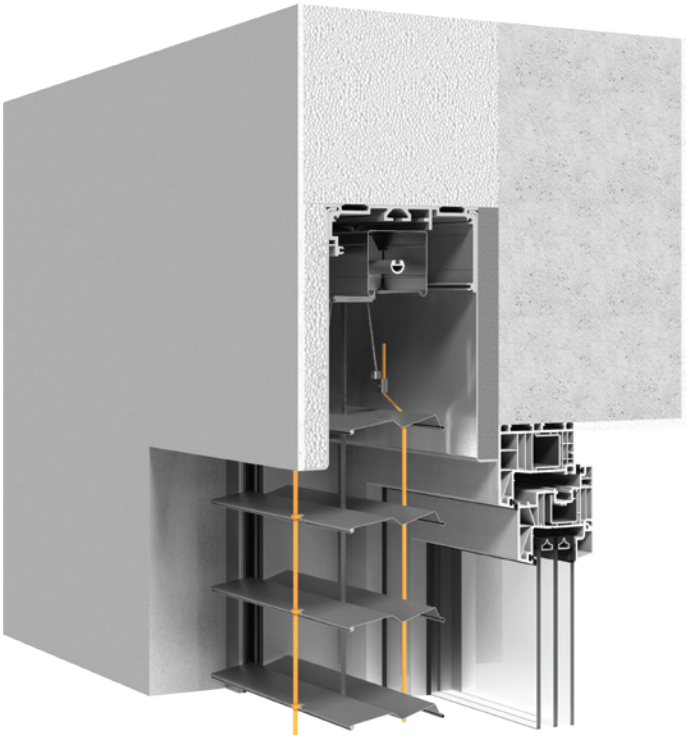
Tape spacing:
– C-80: 72 mm



Irregular folding of ladder between the slats while the blind is pulled up (so called uneven package) is a natural phenomenon resulting from the properties of textile fabric, which does not in any way interfere with the operation of the blind and does not constitute grounds for a complaint.

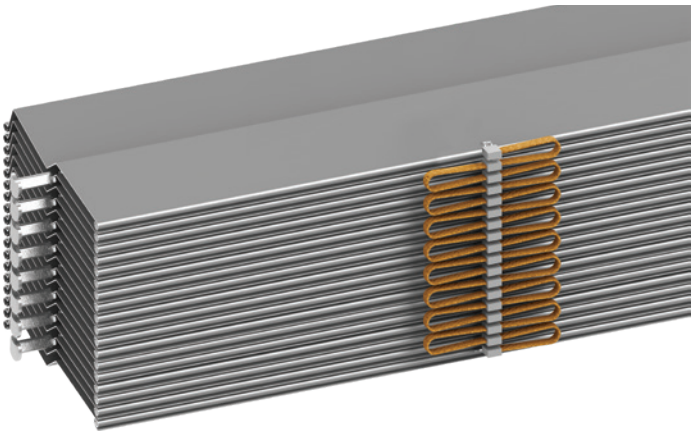
HAGO FIX® ladder

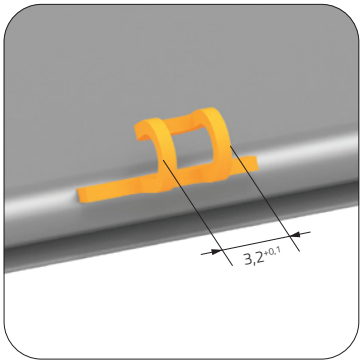
Ladder spacing:
– Z-90: 82 mm



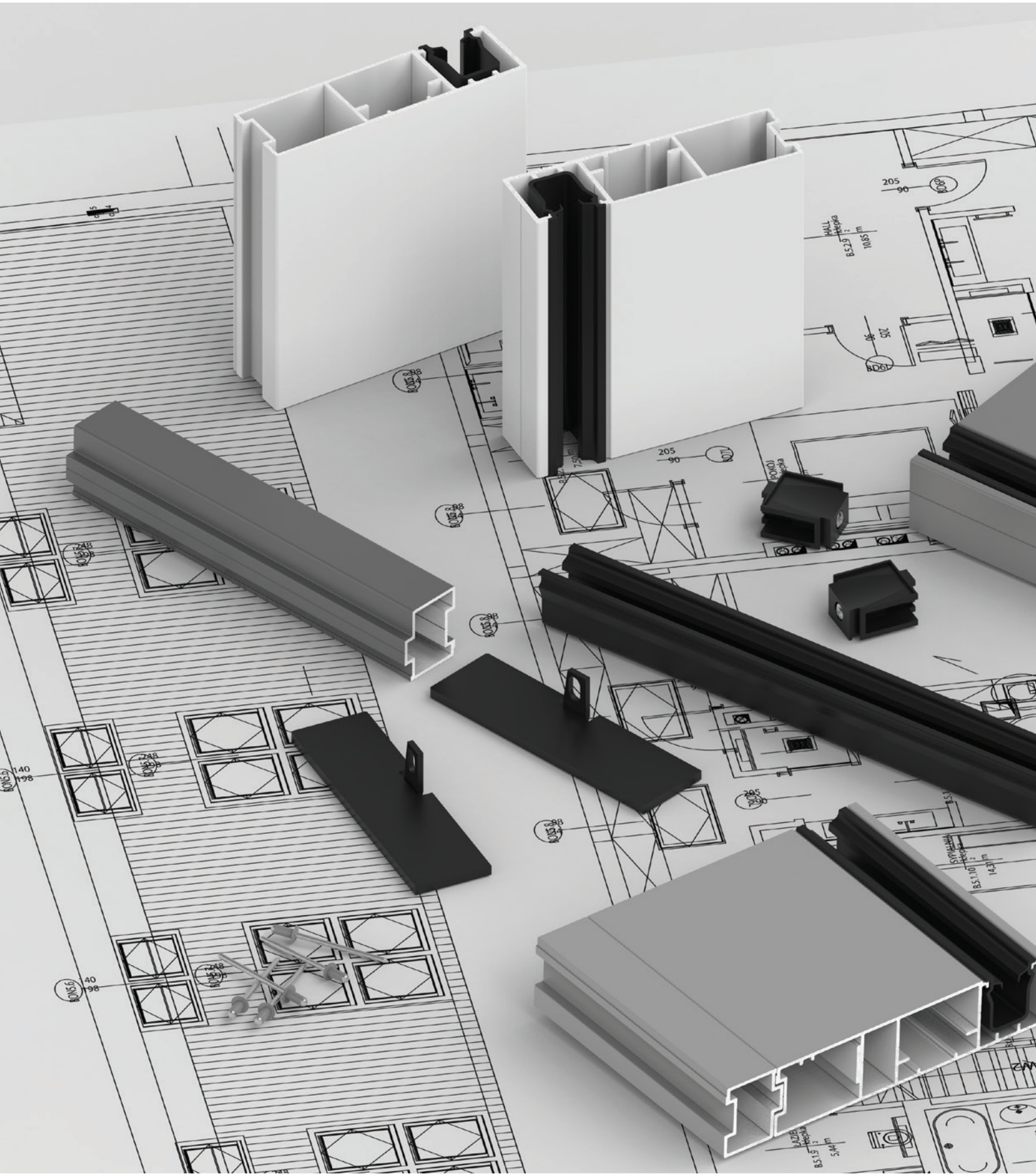
In HAGO FIX® ladder system small, steel hooks are put into slat profiles; a special machine presses on them tiny balls, which are an integral part of the ladder, until they click. The system ensures that the ladder is evenly distributed once the packet is folded (see drawing below).

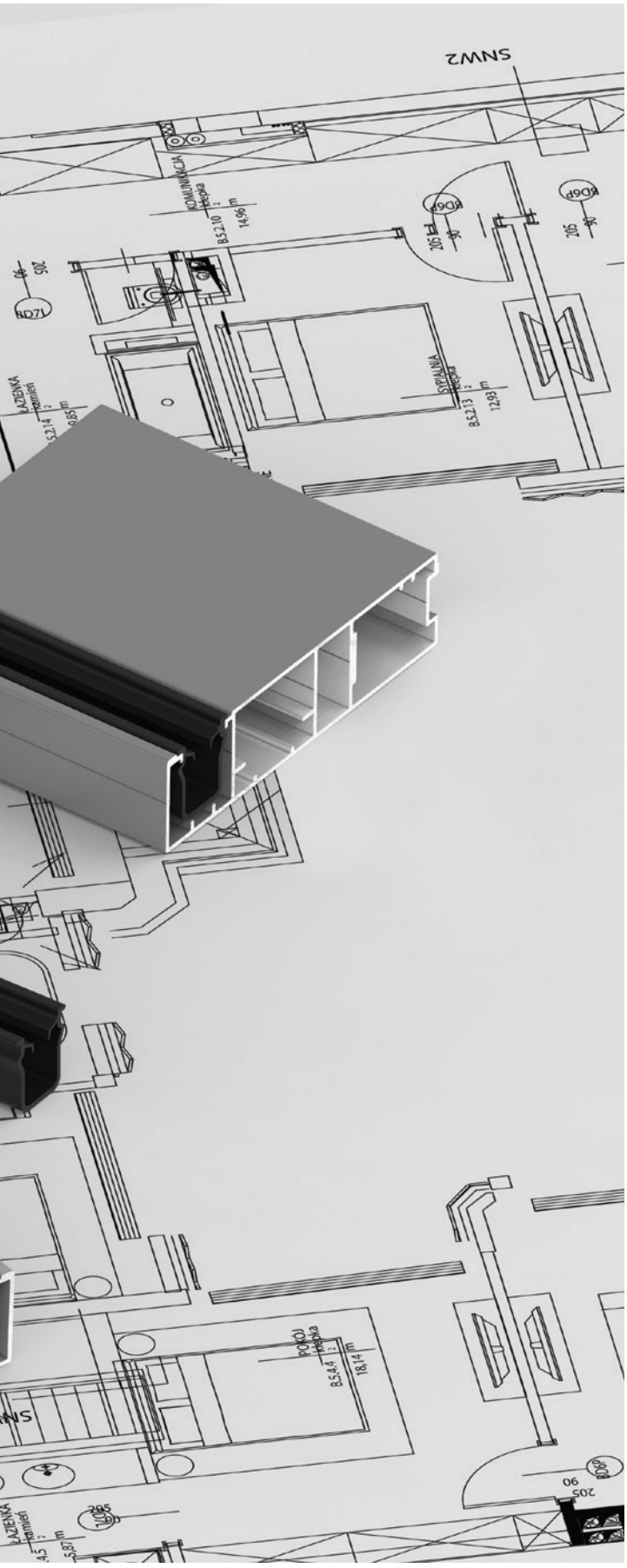
HAGO FIX® ladder alignment in a packet of slats



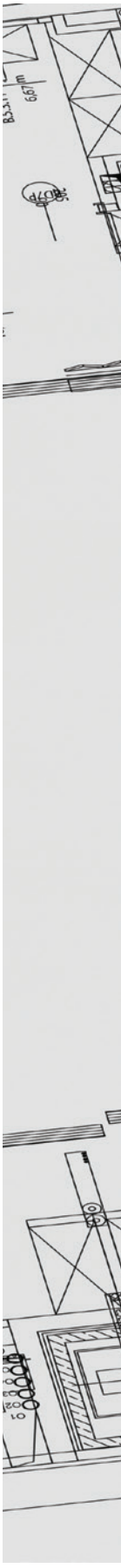


When HAGO FIX® ladders are being replaced as part of the standard maintenance procedure, it is crucial to push the ball (part of the ladder) well into the steel hook, so it finally clicks in and the distance between the hook's edges remains as shown in the drawing above.





SIDE GUIDE

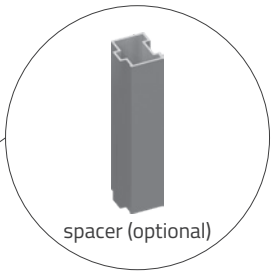


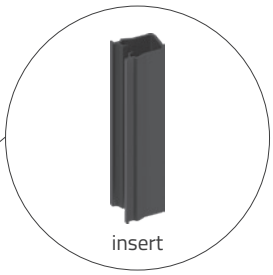
SOLIDBOX side guide system

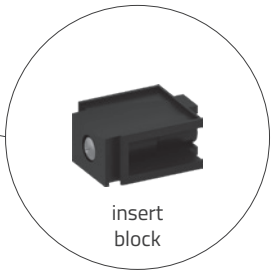
Guiding with guide channels

Produced from aluminium by extrusion, 27,5 mm wide, guide channels (profiles) are the main component of the guiding system. Guide channels come in two sizes: 95 and 110 mm. The complete guide channel consists of: guide channel, insert, insert block, bottom rail end cap plus 20 mm spacer (optional).
The slats are guided inside the guide channels using guide pins made of aluminium alloy.


guide channel


spacer (optional)


insert


insert block

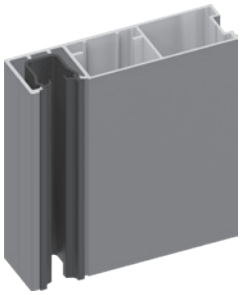

guide channel bottom end cap

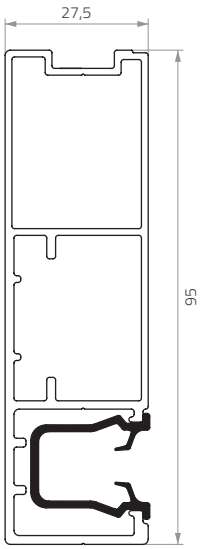
SOLIDBOX flush-mounted external venetian blinds are available with aluminium guide pins **only**.

Guide channel bottom end cap available in black **only**.

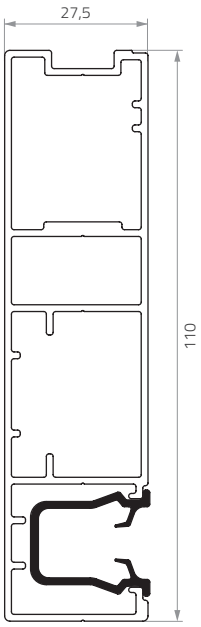
SOLIDBOX side guide system – guide channels

95 mm guide channel

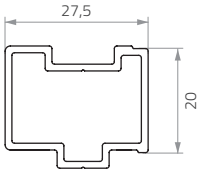




110 mm guide channel

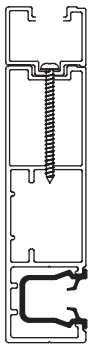


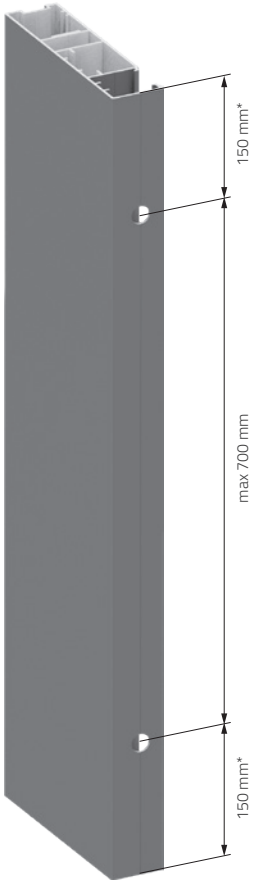
Guide channel spacer

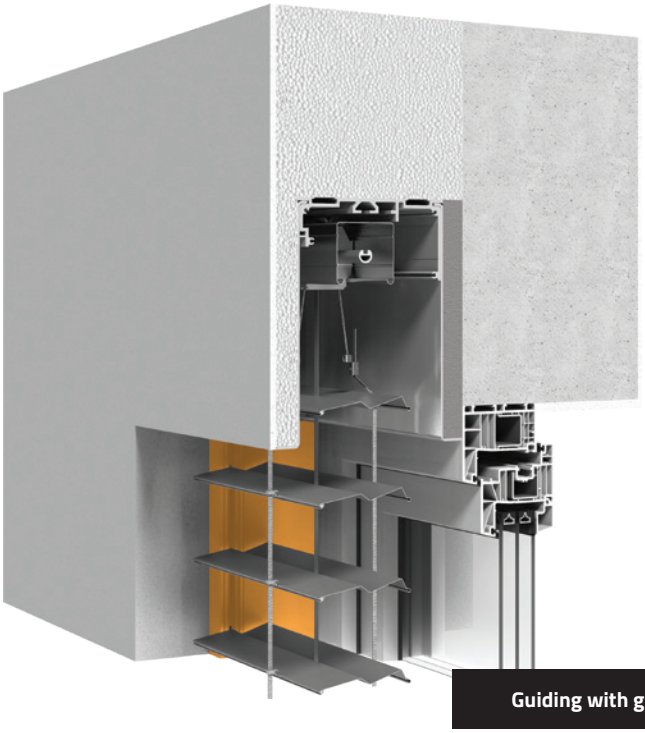


Guide channel spacer, screw-fixed and drilled in the production process.

Joining distance with guide channel







Guiding with guide channels

* In short guide channels the distance of the hole from the edge of the guide channel is smaller and amounts to 70 mm.

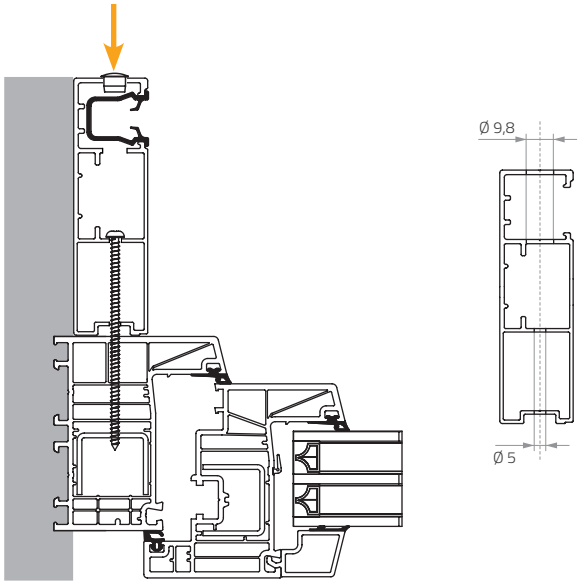
SOLIDBOX side guide system – assembly

Mounting guide channels on the window frame / building structure

Fixing holes are drilled in the process of production.

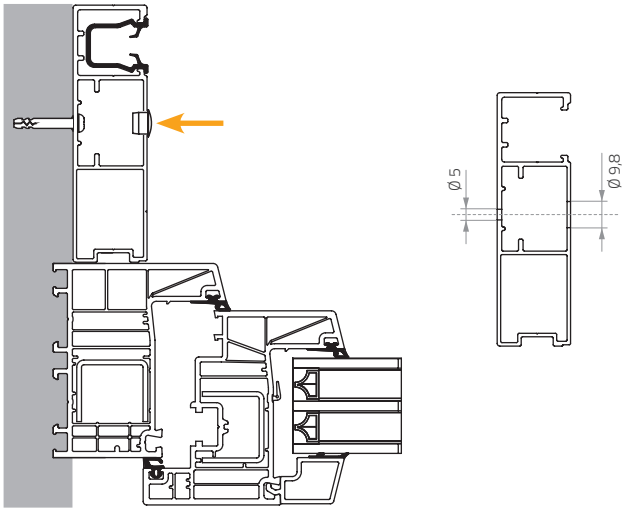
Hole diameters must be adequate for the type of assembly materials used (rawlplugs, anchor bolts).

Type A (from the front)



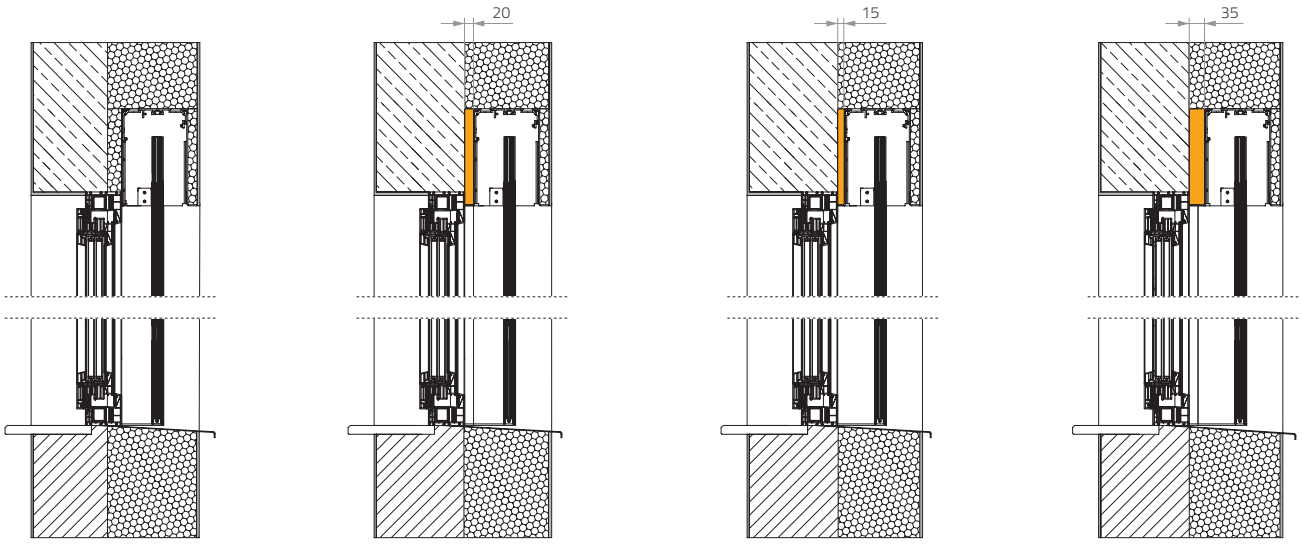
Mounting on the frame

Type B (from the side)



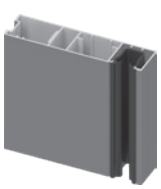
Mounting on the window splay

Thickness of insulation (XPS) vs. guide channels of different types

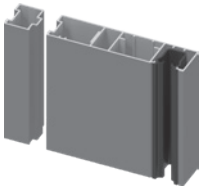


95 mm guide channel

95 mm guide channel + spacer



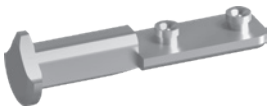
110 mm guide channel



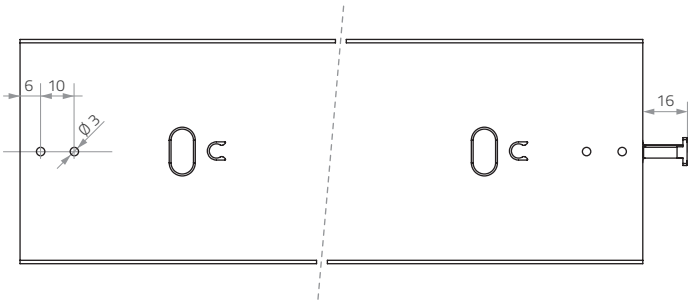
110 mm guide channel + spacer

SOLIDBOX side guide system – guide pins

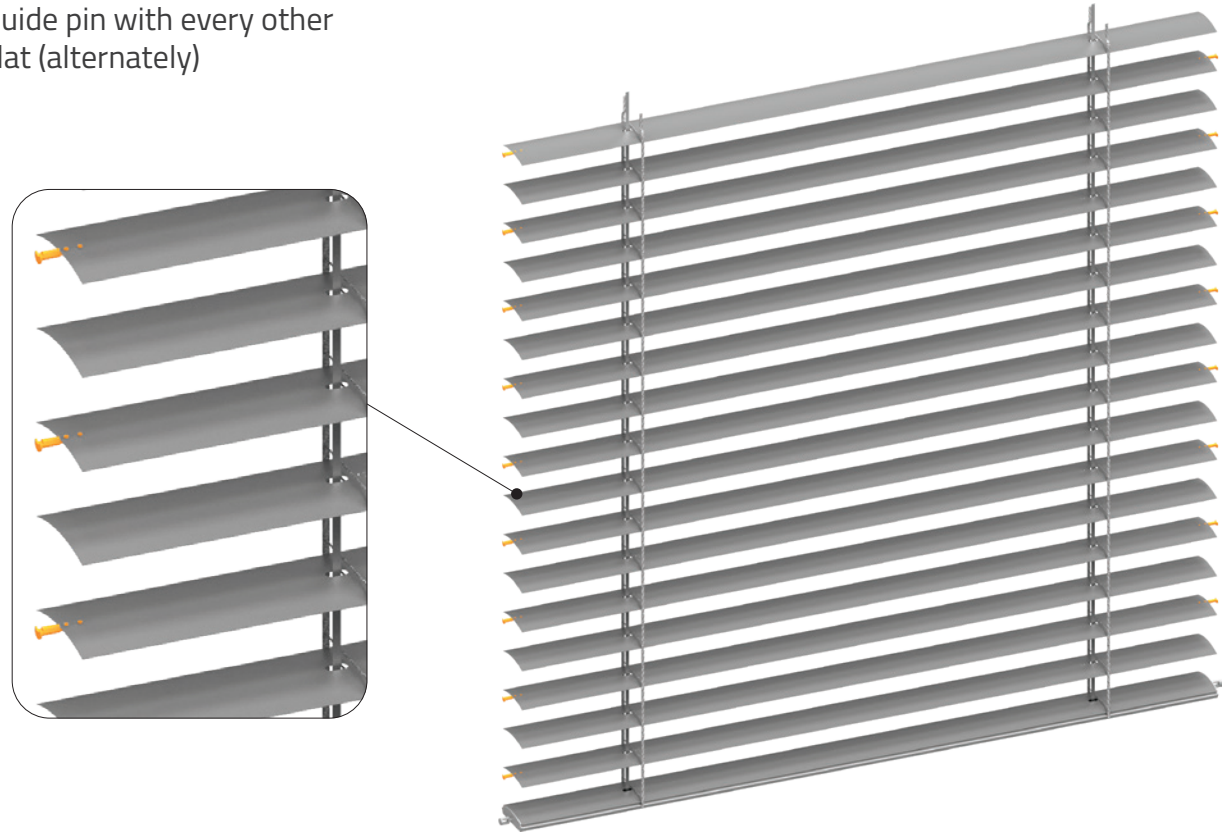
Aluminium guide pin

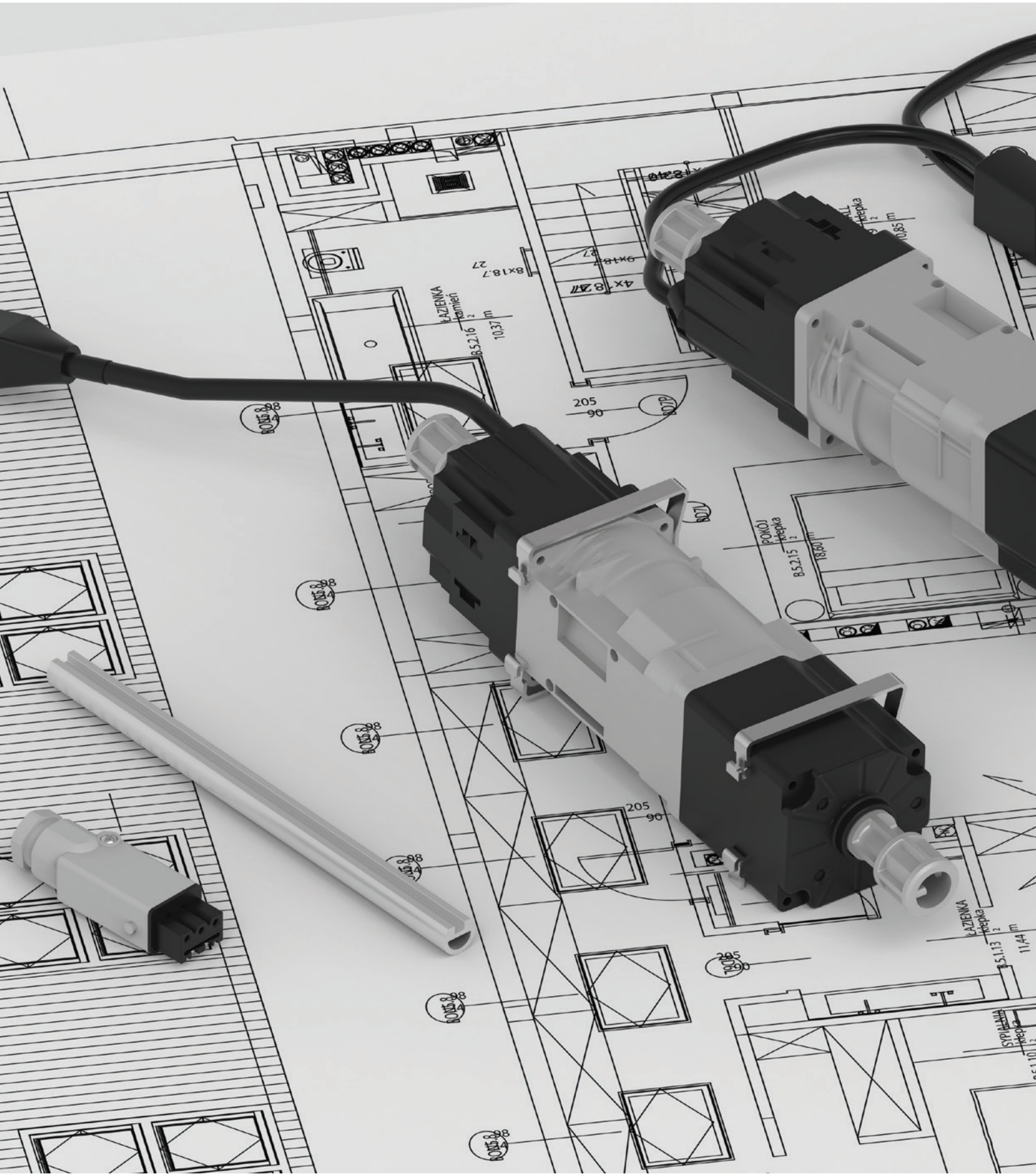


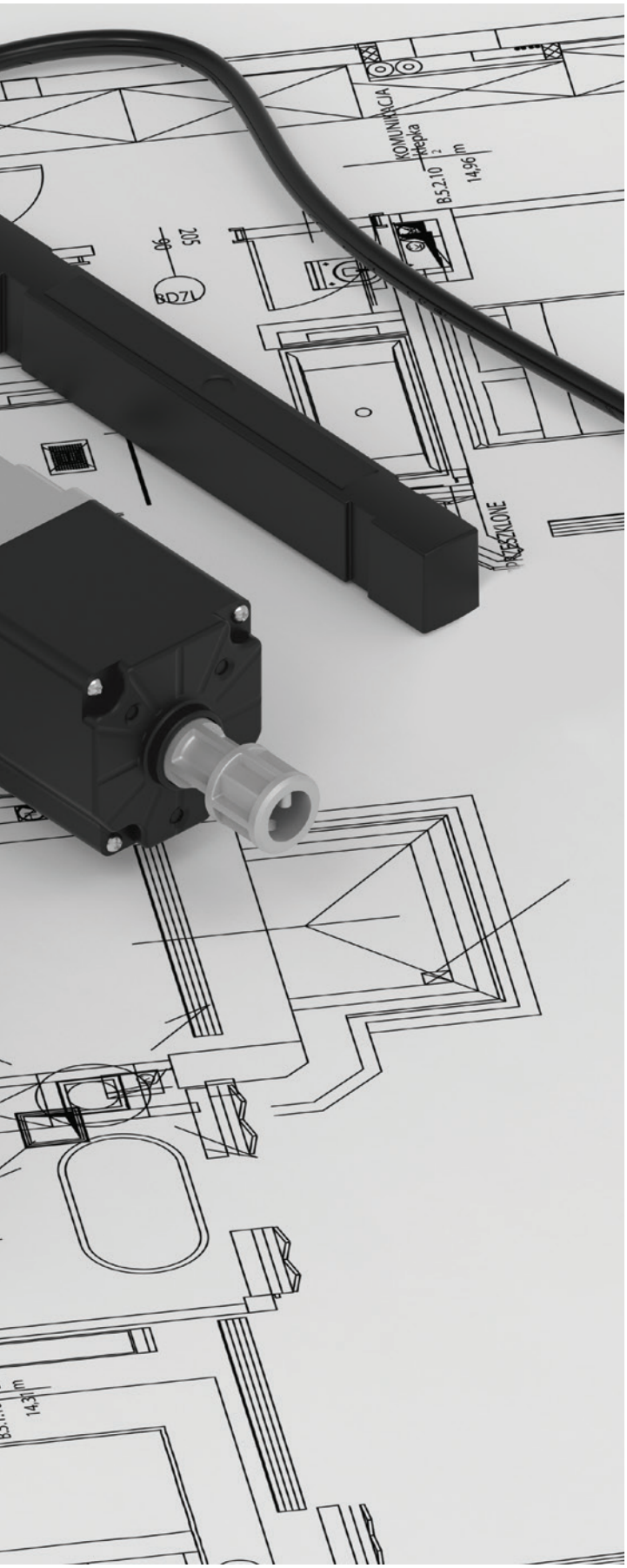
SOLIDBOX external venetian blinds are fitted with aluminium guide pins only.



Guide pin with every other slat (alternately)




KAZIENKA
Kamień
B.5.2.16
10,37 m
POKÓJ
Hrepka
B.5.2.15
18,80 m
KAZIENKA
Hrepka
B.5.1.13
11,44 m
205
90



MOTORISED CONTROL

Motorised control – description of the system

Motorised control

The standard electric motor with 230V nominal voltage and frequency 50 Hz is located inside the head rail. End positions can be set mechanically or electronically. Three types of motors available are: standard motors, radio-controlled motors and io-Homecontrol radio-controlled motors. The motors are fitted with a cable with Stas3 (Pass-S) Hirschmann plug.

The minimum width of the blind

Motor / solution	min. width of the blind
Standard motor	520 mm

Electric shock risk

Before fitting, connecting or tuning of the motor please read the user manual.

Installation must be carried out by certified personnel who have the necessary training and technical competence required by rules and regulations applicable in the country where the installation is taking place.

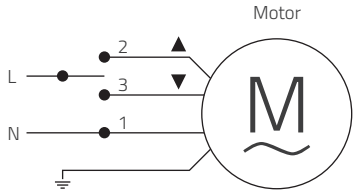
Non-compliance with the instructions can result in severe damage to health with the possibility of life threatening injuries; it can also impede the smooth functioning of the blinds as well as affect claims resulting from the warranty.

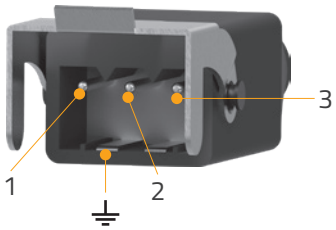
In blinds with an even number of control bearings the motor is positioned in the middle of the head rail.

In blinds with an uneven number of control bearings the motor is positioned next to the middle bearing.

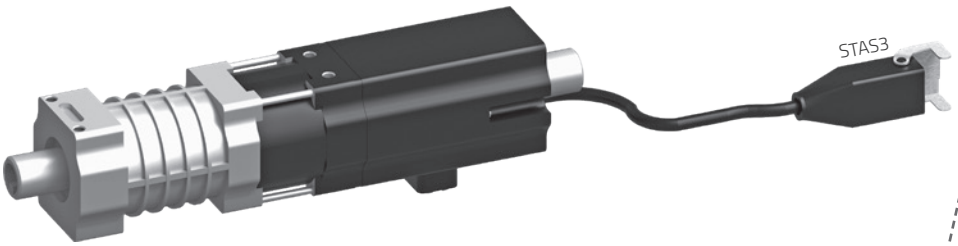
Motorised control – electrical connection

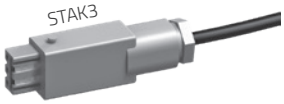
Connecting motor with external blind – diagram





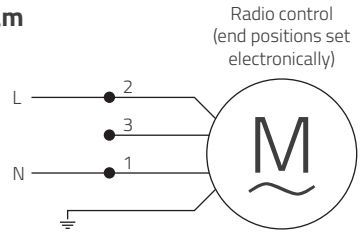
1	=	N Neutral / blue
2	=	Top / black
3	=	Bottom / brown
⏚	=	Protective / yellow-green

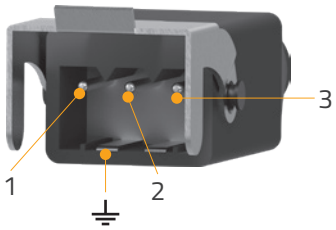




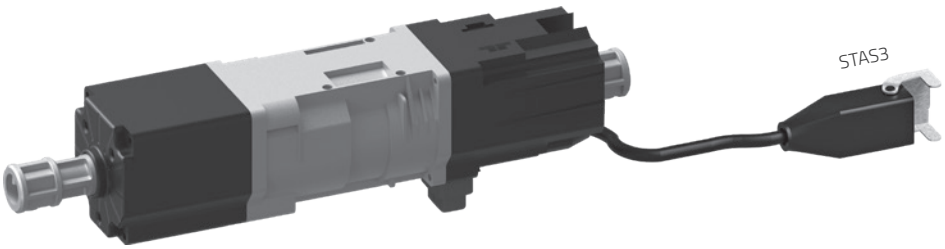
L	=	Phase
N	=	Neutral
⏚	=	Protective

Connecting radio-controlled motor with external blind – diagram





1	=	N Neutral / blue
2	=	Top / brown
3	=	– –
⏚	=	Protective / yellow-green



L	=	Phase
N	=	Neutral
⏚	=	Protective

JA Soft / JA dk motor

Technical characteristics:
– end positions set mechanically
– motors cannot be connected in parallel
– motor is fitted with safety button

	JA 06 Soft	JA 09 Soft	JA 20 dk
Nominal torque (Nm)	6	9	2 x 10
Rotational speed (rpm)	26	26	26
Nominal supply voltage (V)	~ 230	~ 230	~ 230
Frequency (Hz)	50	50	50
Amperage (A)	0,5	0,6	1,0
Energy consumption during use (W)	115	140	230
Quiet brake	✓	✓	
IP class	IP 44	IP 44	IP 44
Cable length (m)	0,8	0,8	0,8
Running time (thermal protection) (min.)	5	4	4
Operating temperature (°C)	-20 / +60	-20 / +60	-20 / +60

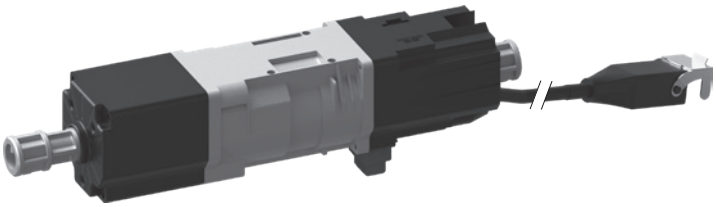
JA Comfort / JA Comfort 868

Technical characteristics:
– end positions set electronically
– slow rotating slats
– soft and quiet brake
– soft-close / soft start (two speeds – slow / fast)
– cyclical, automatic check correcting length of lifting tapes
– Ja Comfort 868 motor is fitted with an in-built radio receiver

	JA 06 Comfort	JA 09 Comfort	JA 06 Comfort 868	JA 09 Comfort 868
Nominal torque (Nm)	6	9	6	9
Rotational speed (rpm)	26	26	26	26
Nominal supply voltage (V)	~ 230	~ 230	~ 230	~ 230
Frequency (Hz)	50	50	50	50
Amperage (A)	0,5	0,68	0,5	0,68
Energy consumption during use (W)	115	156	115	156
Quiet brake	✓	✓	✓	✓
IP class	IP 44	IP 44	IP 44	IP 44
Cable length (m)	0,8	0,8	0,8	0,8
Running time (thermal protection) (min.)	5	4	5	4
Operating temperature (°C)	-20 / +60	-20 / +60	-20 / +60	-20 / +60
Radio receiver			✓	✓
Radio frequency (MHz)			869,25	869,25

J4 WT / J4 WT PROTECT

Technical characteristics:
- end positions set electronically (via Somfygurator – universal installation cable)
- parallel installation of up to three motors (max. length of cable is 50 m)
- motor fitted with safety button
- frost and obstacle detection and tension release (in PROTECT version) for greater durability and all-weather protection



	J4 06 WT / J4 06 WT PROTECT	J4 10 WT / J4 10 WT PROTECT	J4 18 WT / J4 18 WT PROTECT
Nominal torque (Nm)	6	10	18
Rotational speed (rpm)	24	24	24
Nominal supply voltage (V)	~ 230	~ 230	~ 230
Frequency (Hz)	50	50	50
Amperage (A)	0,4	0,5	0,7
Energy consumption during use (W)	95	110	155
Protection class	class I	class I	class I
IP class	IP 54	IP 54	IP 54
Cable length (m)	0,9	0,9	0,9
Running time (thermal protection) (min.)	6	6	6
Operating temperature (°C)	-10 / +40	-10 / +40	-10 / +40

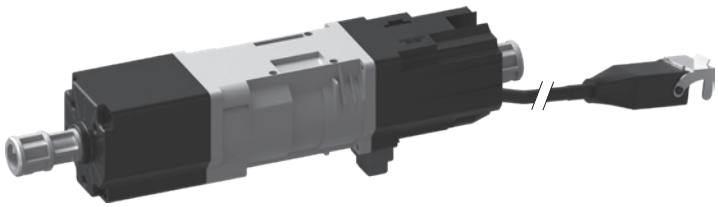
J4 RTS

Technical characteristics:
- end positions set electronically (via Somfygurator – universal installation cable)
- parallel installation of up to three motors (max. length of cable is 50 m)
- motor fitted with safety button
- in-built radio receiver with slat angle adjusting function
- compatible with sun sensor
- max. 12 RTS transmitters, 3 RTS sensors

	J4 06 RTS	J4 10 RTS	J4 18 RTS
Nominal torque (Nm)	6	10	18
Rotational speed (rpm)	24	24	24
Nominal supply voltage (V)	~ 230	~ 230	~ 230
Frequency (Hz)	50	50	50
Amperage (A)	0,5	0,6	0,7
Energy consumption during use (W)	95	110	155
Protection class	class I	class I	class I
IP class	IP 54	IP 54	IP 54
Cable length (m)	0,9	0,9	0,9
Running time (thermal protection) (min.)	6	6	6
Operating temperature (°C)	-10 / +40	-10 / +40	-10 / +40
Radio receiver	✓	✓	✓
Radio frequency (MHz)	433,42	433,42	433,42

J4 io PROTECT motor

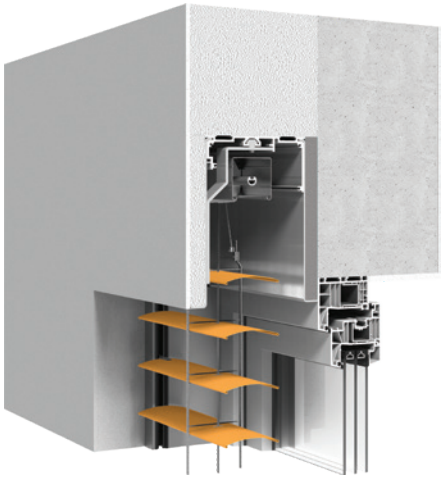
Technical characteristics:
– end positions set electronically
– remote controlled end positions and slat rotation
– bi-directional system of data transmission (feedback info on vertical position and slat angle)
– frost detection at the start of the motor
– obstacle detention when the blind is raised (once an obstacle has been detected, the motor enters „back release" mode)
– comfortable position setup
– motor is fitted with safety button
– compatible with sun sensor
– max. 9 transmitters and RTS sensors



	J4 io PROTECT 06	J4 io PROTECT 10	J4 io PROTECT 18
Nominal torque (Nm)	6	10	18
Rotational speed (rpm)	24	24	24
Nominal supply voltage (V)	~ 230	~ 230	~ 230
Frequency (Hz)	50	50	50
Amperage (A)	0,4	0,5	0,7
Energy consumption during use (W)	95	110	155
Protection class	class I	class I	class I
IP class	IP 54	IP 54	IP 54
Cable length (m)	0,5	0,5	0,5
Running time (thermal protection) (min.)	4	4	4
Operating temperature (°C)	-20 / +70	-20 / +70	-20 / +70
Radio receiver	✓	✓	✓
Radio frequency (MHz)	868-870	868-870	868-870
Brake	sliding brake	sliding brake	sliding brake
Noise level (dB)	53	55	56
Weight of motor with adapter (kg)	1,5	1,7	2,2

DWG drawings

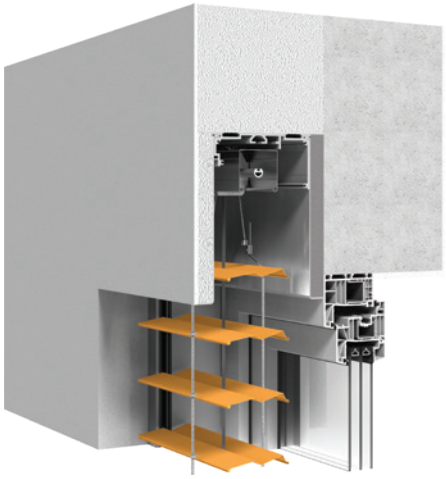
C-80 slat



	cassette 220	cassette 270	cassette 320
guide channel 95 mm			
guide channel 95 mm + spacer			
guide channel 110 mm			
guide channel 110 mm + spacer			

DWG drawings

Z-90 slat



	cassette 220	cassette 270	cassette 320
guide channel 95 mm			
guide channel 95 mm + spacer			
guide channel 110 mm			
guide channel 110 mm + spacer			

A set of DWG drawings for all systems

More information

Key to symbols:

Information for customers placing an order

Information for persons installing the product

Wire control

Radio control

This cataloque cannot be considered as a trade offer within the meaning of Polish trade law and the civil code. Its character is purely informative.

The information included in the Cataloque reflects the current state of our knowledge and experience.

Due to numerous factors that might influence the way our products are applied and which remain beyond our control, ANWIS shall not be held responsible for occurence of the prospective difficulties resulting from incorrect application of its products. The recipients of ANWIS products are obliged to ensure that the products are applied in the correct way.

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We welcome any comments and suggestions about the catalogue.

Please write: pm@anwis.pl

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