

DOCUMENTATION GENERAL 2025

ADJUSTABLE SUN BLINDS

OUR SELECTION OF ADJUSTABLE SUN BLINDS

MARCHAL adjustable sun blinds create a pleasant atmosphere in your home by gently regulating the amount of light entering rooms. They are resistant to strong winds and rain, and will serve you for decades.

We paint the components in our paint shop near Vienne (38) to guarantee perfect durability over time.

In addition, we adjust and prepare the blinds directly in the factory to facilitate their installation as much as possible.

All our sunshade adjustable benefit from an extended 5-year warranty, to ensure quality, durability and peace of mind.

Z-LINE

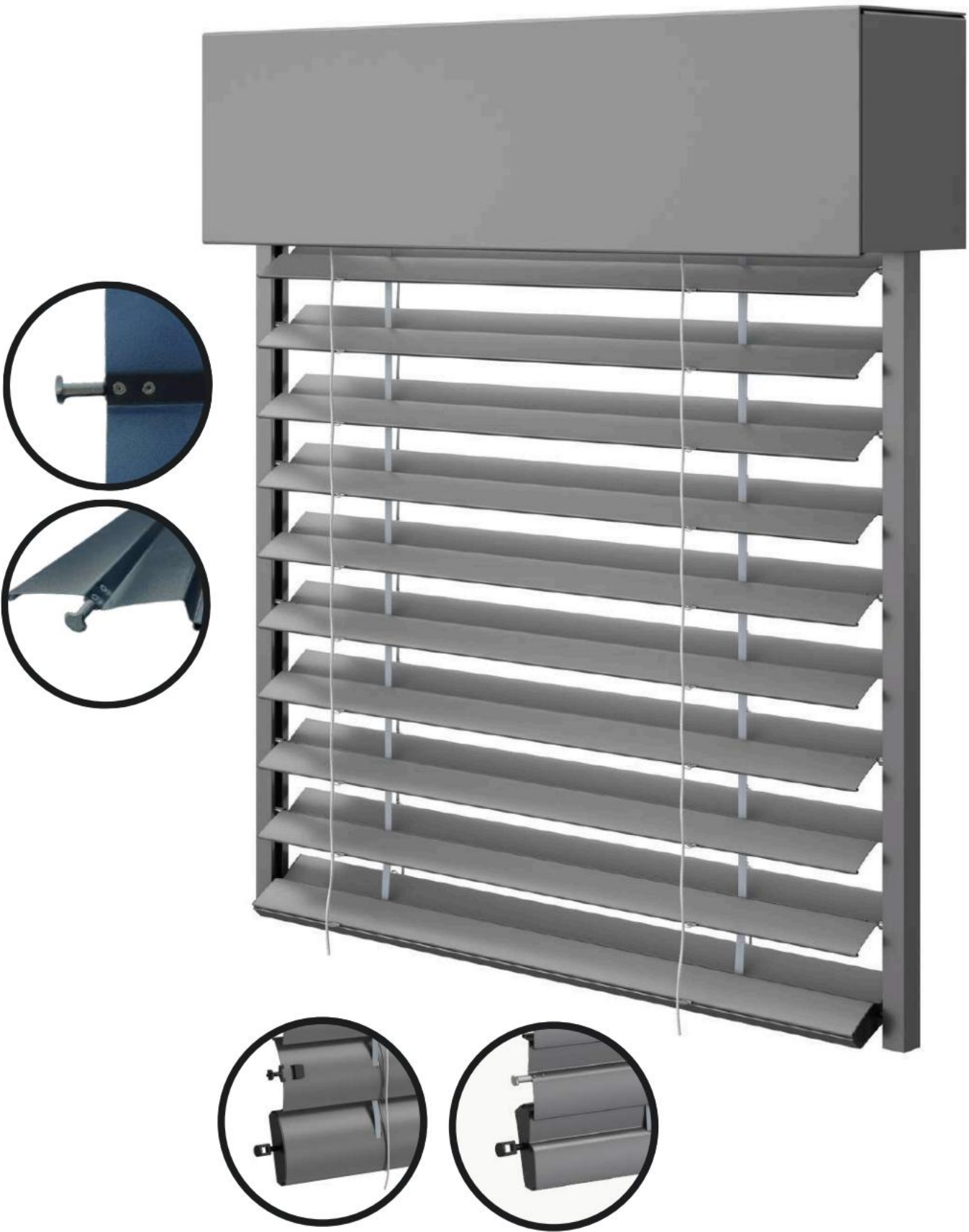
+ very strong slats + top BSO sales + multiple uses

SP-LINE

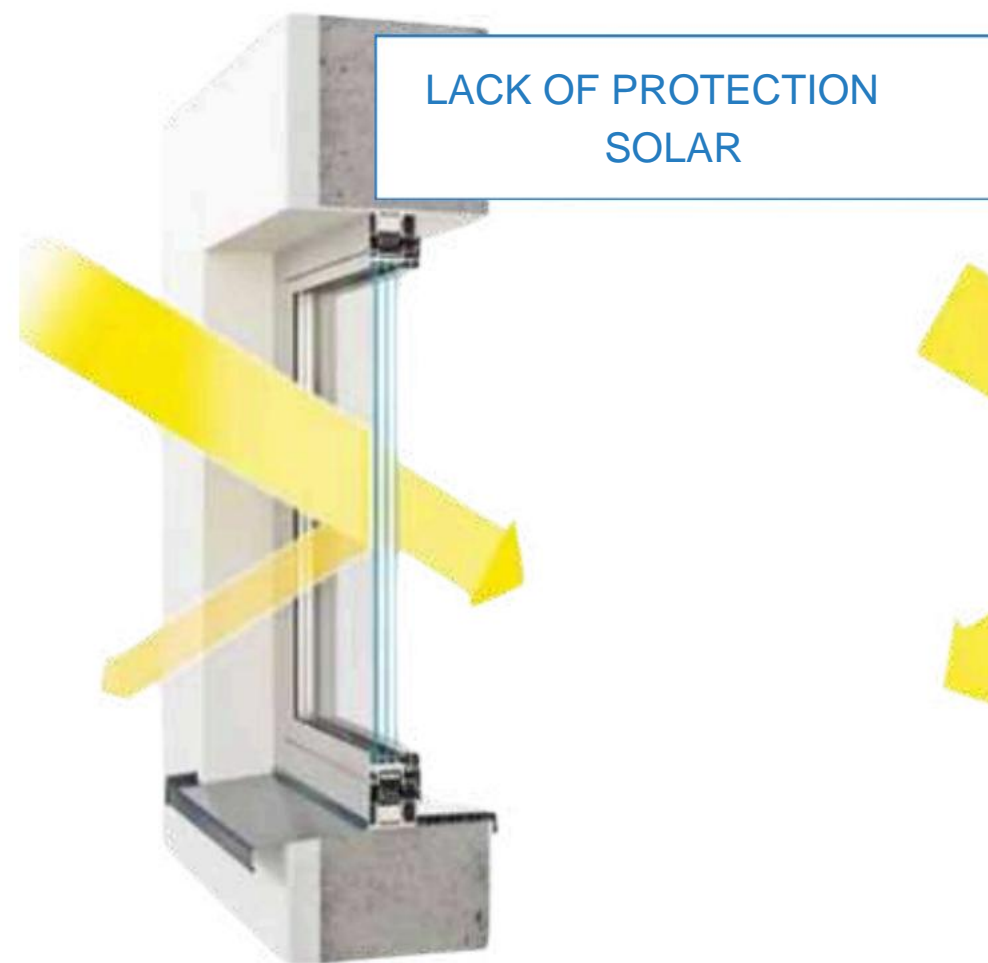
+ economical product + low stacking

S-LINE

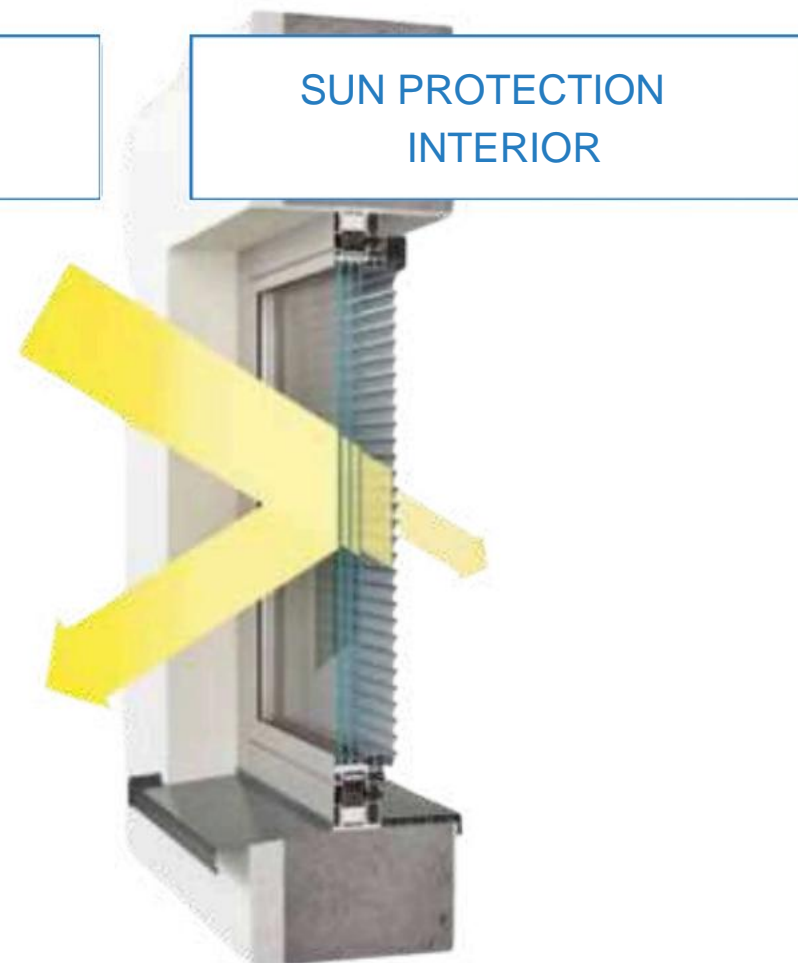
+ adjustable on both sides + versatile solutions + convex blades



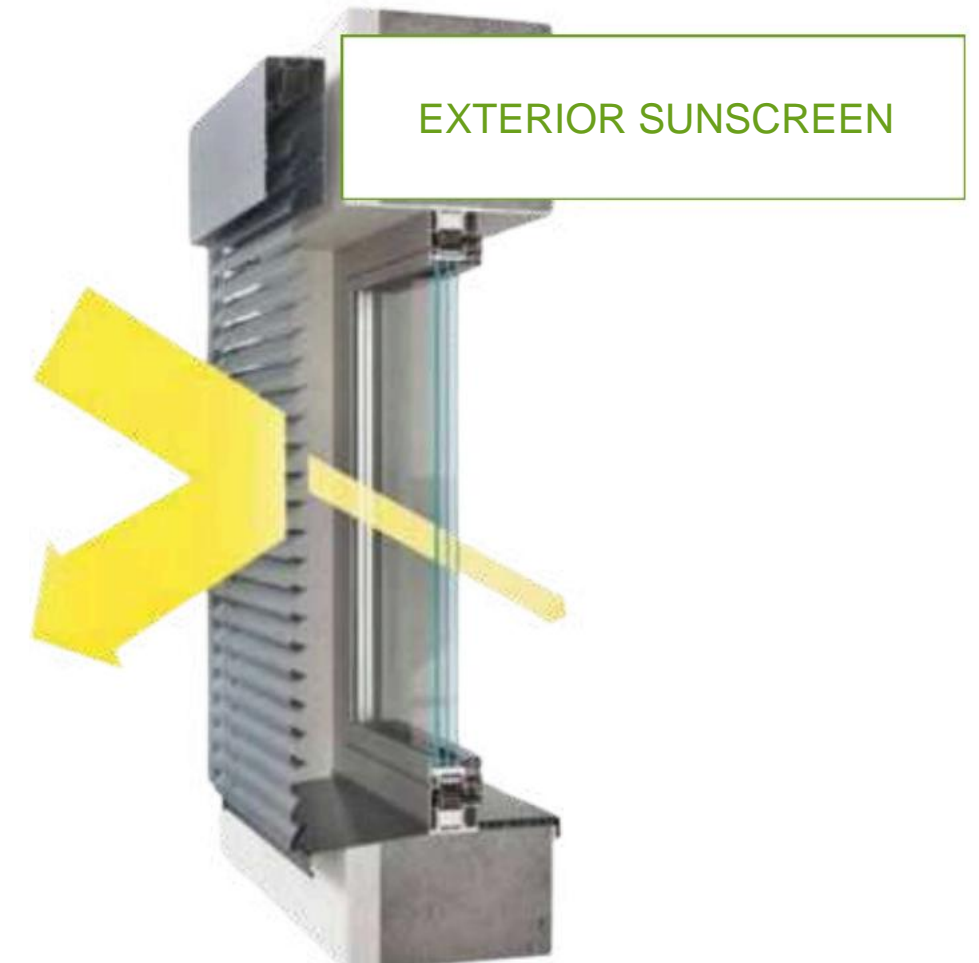
THERMAL MANAGEMENT: WHY CHOOSE A BSO?



UNCONTROLLED HEAT When a window isn't protected by a solar solution, it lets between 30% and 80% of the sun's rays inside. The result: an increase in ambient temperature, thermal discomfort, and excess energy consumption due to air conditioning.



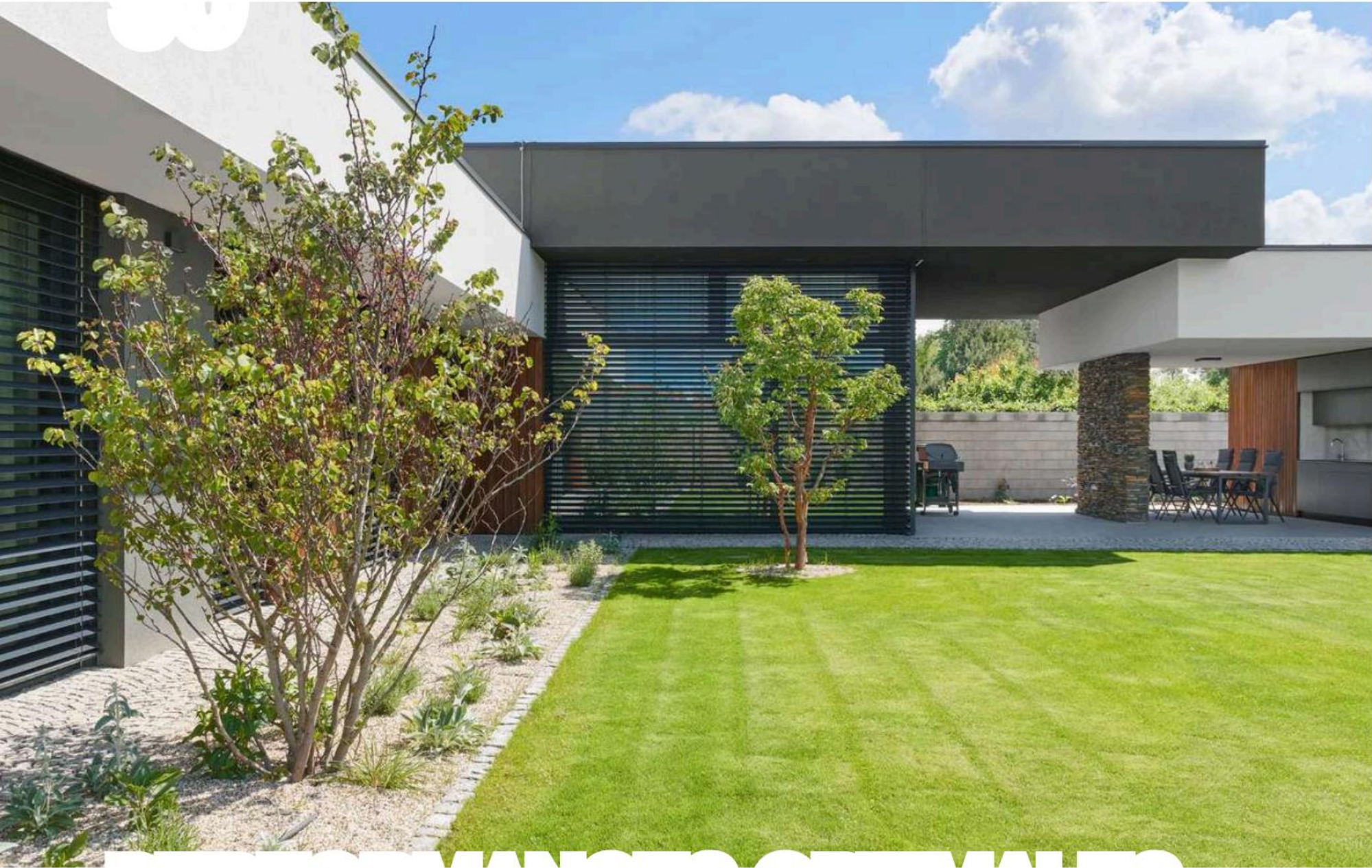
LIMITED EFFECTIVENESS An interior blind filters light, but it doesn't block heat before it enters the home. Heat passes through the glass and remains trapped inside, reducing the blind's thermal efficiency and maintaining a greenhouse effect in the room.



OPTIMAL PERFORMANCE The adjustable sunshade (BSO) is the most effective solution against heat. Placed on the exterior, it blocks **80% to 90%** of the sun's rays before they reach the window, thus limiting overheating and reducing the need for air conditioning. By adjusting the inclination of the slats, it optimizes natural light while preserving interior thermal comfort.

Z-LINE

Z-LINE 90, THE UNIVERSAL BSO FOR ALL TYPES OF BUILDINGS



ANODIZED ALUMINUM METAL TIPS: Unlike competing models often equipped with plastic tips, our tips guarantee high resistance to breakage and increased durability.

Their eccentric shape allows for optimal wedging of the blades in the side guide rails, thus reducing wind noise when the apron is closed.

ARAMID FIBER REINFORCED CARRIER RIBS: These 8 mm wide ribbons exceed market standards (usually 6 mm) and ensure good blade closure for many years.

BEST-SELLING BLINDS : The BSO Z-Line 90 boasts the title of best-selling blind in our range. Its quality is attested to by numerous satisfied customers worldwide.



The Z-Line 90 adjustable sunshade offers excellent sun protection and great robustness. It is distinguished by its wider slats (90mm), ideal for protecting veranda windows and large bay windows.

ROBUST AND DURABLE BLADES: With a thickness of 0.47 mm, including lacquering, the BSO Z-Line 90 blades offer exceptional strength, resisting strong winds, shocks and wear, for incomparable longevity.

Tight-closing blades reduce airflow between the apron and window, thus improving the thermal and acoustic insulation of your home.

MULTI-PURPOSE: The Z-Line 90 BSOs, due to their appearance and properties, work equally well in polluted urban environments as in the mountains. Their modern appearance and durable slats are suitable for

most buildings.

Documentation available on www.marchal.fr

BASIC TECHNICAL PARAMETERS

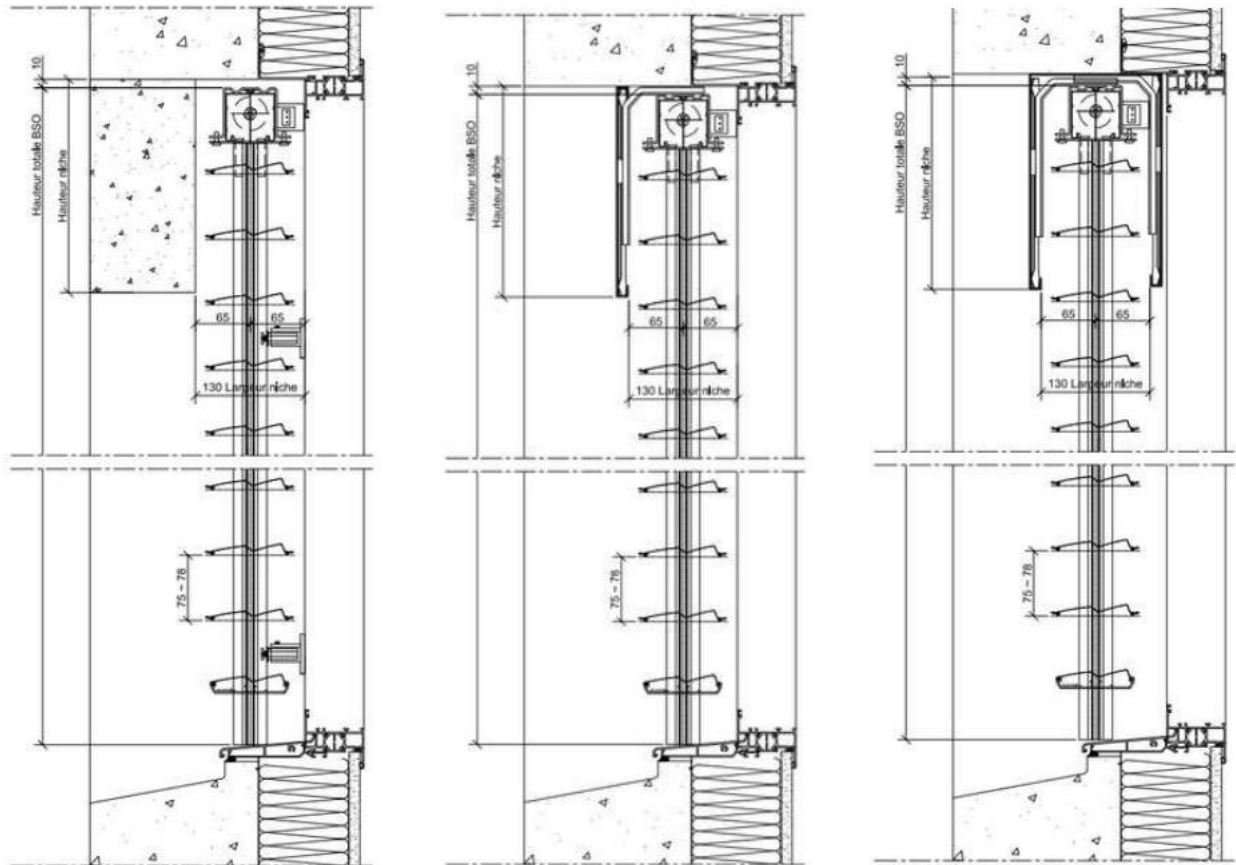
Order mode	Engine	Crank
Width	600 - 5000 mm	400 - 5000 mm
Height	500 - 4500 mm	500 - 5000 mm
Maximum surface area	12 m2	9 m2

Wind resistance: CSTB wind advice 2m x 2m = 103 km/h



- 23 standard colors to blend perfectly with any facade. 16 non-standard colors for a touch of originality.
- Over 200 custom colors to meet all your specific needs.

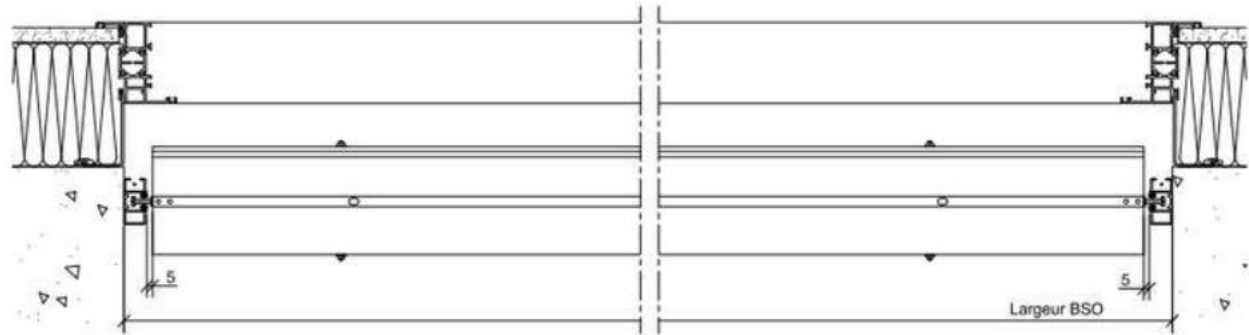
Z-LINE 90 ELECTRIC PLANS



Z-Line 90 Vertical Section
Self-supporting slide
Face pose
Masonry niche

Z-Line 90 Vertical Section
Self-supporting slide
Face pose
Valance type 1

Z-Line 90 Vertical Section
Self-supporting slide
Valance type 9



Z-Line 90 horizontal section
Self-supporting slide
Valance type 9

ADJUSTABLE SHIFTERS FOR FRONT INSTALLATION

Small shifter 50
mm 70
mm



Large shifter 70 mm
100 mm



MIN. AND MAX. DIMENSIONS

Minimum back width.
Winch control = 400 mm Electric control = 560 mm

Max. slide back width.
All types of order = 5000 mm guaranteed

Height under package
Minimum = 400 mm
Maximum guaranteed = 5000 mm

Maximum individual blind surface
Winch control = 10 m²
Electrical control = 12 m²

Maximum surface area of coupled blinds
Winch control = 10 m²
Electrical control = 15 m²

Study to be further developed depending on the types of implementation (buildings)

LINTEL DIMENSIONS

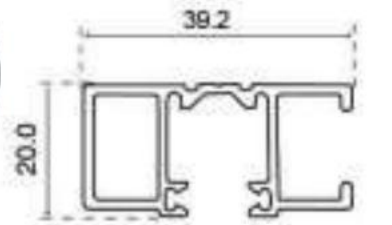
Hauteur lumière (hl)	Hauteur paquet (hp)
1010 - 1250	190
1260 - 1500	200
1510 - 1750	220
1760 - 2000	230
2010 - 2250	250
2260 - 2500	260
2510 - 2750	280
2760 - 3000	290
3010 - 3500	310
3260 - 3500	320
3510 - 3750	340
3760 - 4000	350

Côtes en mm
Hauteurs de paquet plus petites sur demande
Les hauteurs de paquet sont des données approximatives pouvant varier d'un seuil à l'autre pour des raisons techniques.

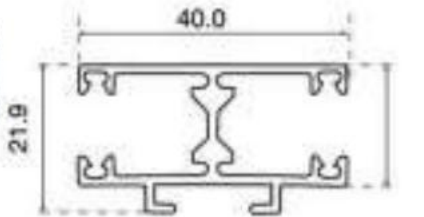
BEHIND THE SCENES



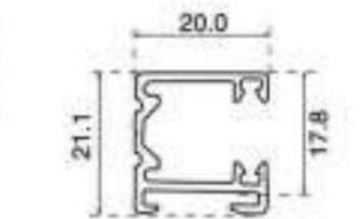
AP
Self-supporting slide



DPF
Double face-mounted slide



SFP
Single slide, face-mounted and table-mounted

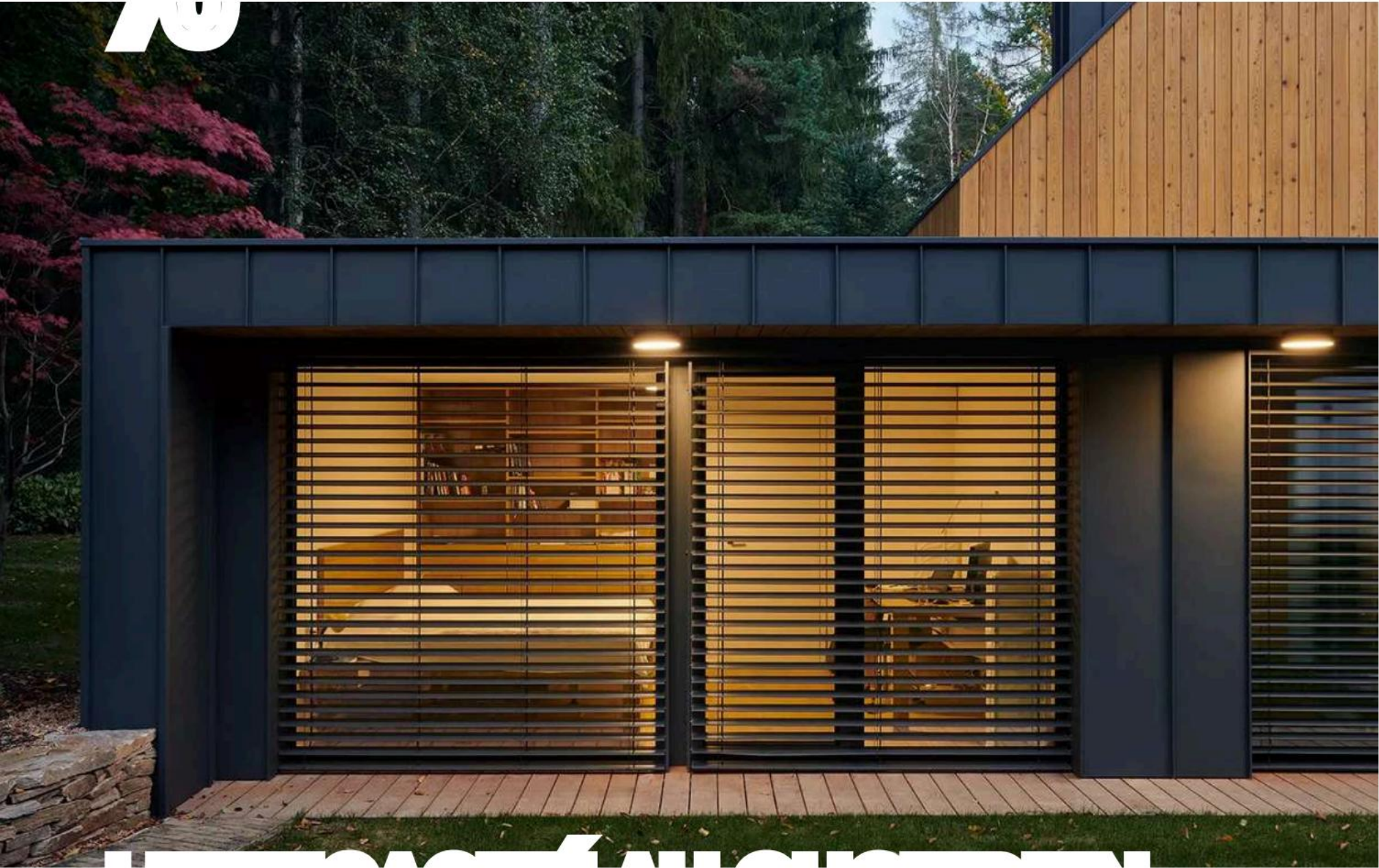


BSO Z-LINE 90



Z-LINE

Z-LINE 70, THE ELEGANT AND RESISTANT BSO FOR NARROW WINDOWS



ANODIZED ALUMINUM METAL TIPS: Unlike competing models often equipped with plastic tips, our tips guarantee high resistance to breakage and increased durability.

Their eccentric shape allows for optimal wedging of the blades in the side guide rails, thus reducing wind noise when the apron is closed.

ARAMID FIBER REINFORCED CARRIER RIBS: These 8 mm wide ribbons exceed market standards (usually 6 mm) and ensure good blade closure for many years.

FLEXIBLE SOLUTIONS : Z-Line 70 blinds are ideal for smaller windows. Thanks to their narrower slats, they're ideal for areas where Z90 blinds don't fit.



The pleasantly quiet, adjustable sunshade is ideal for small rooms and windows. It is distinguished by its thinner, numerous, and elegant slats. Thanks to their reduced width, these slats fit perfectly even in narrow facade spaces.

THE BLINDS MATCH : The slats of the bso Z-Line 70 fit precisely into each other, creating a compact and elegant layer when lowered to perfectly conceal and protect.

The structured and textured lacquering offers a unique finish combining elegant aesthetics and reinforced protection against weather and wear, for a durable and easy-to-maintain BSO.

ELEGANT APPEARANCE : Thanks to the greater number of narrower slats, the BSO Z-Line 70 have a slim and elegant appearance even on small windows.

Documentation available on www.marchal.fr

BASIC TECHNICAL PARAMETERS

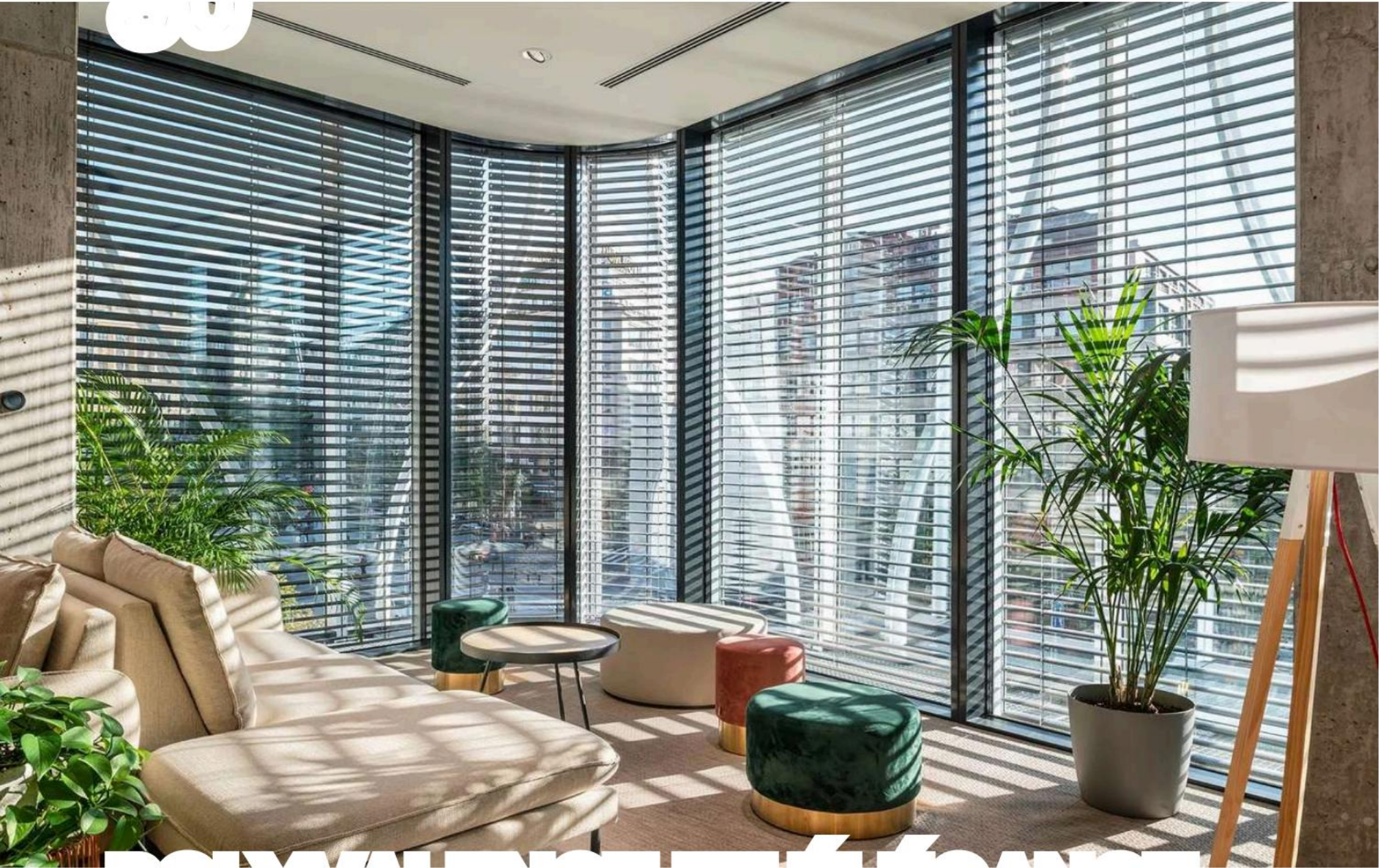
Order mode	Engine	Crank
Width	600 - 5000 mm	400 - 5000 mm
Height	500 - 4500 mm	500 - 4500 mm
Maximum surface area	12 m2	9 m2



22 standard colors to fit perfectly into all facades.

S-LINE

S-LINE 80, THE SILENT AND DESIGNER BSO



VARIABLE SOLUTIONS : The BSO S-Line 80 are very popular not only in single-family houses and apartments, but also in administrative buildings and offices.

ARCHITECTURALLY INTERESTING : The BSO S-Line 80 are guided in a guide profile, making it an ideal choice for all buildings where variable and durable blinds are required.

COLLAR PERFORATIONS : These perforations protect the traction tapes from chafing, eliminating the need for breakable protective grommets, for increased durability and fewer repairs.



Documentation available on www.marchal.fr

BASIC TECHNICAL PARAMETERS

Order mode	Engine	Crank
Width	600 - 5000 mm	400 - 5000 mm
Height	500 - 4500 mm	500 - 4500 mm
Maximum surface area	10 m2	9 m2



22 standard colors to fit perfectly into all facades.

Thanks to the adjustable slat angle on both sides, the BSO S-Line 80's design allows for precise control, allowing you to adjust the amount of light entering the room to suit your needs. Its robust slats are ideal for effectively protecting large areas from the sun.

THESE BLINDS ARE ADJUSTABLE ON BOTH SIDES : If you're looking for universal blinds, the S-Line 80 is the best choice. The double-sided tilt offers a wide range of sun protection options, allowing the ideal amount of light to enter the room.

SP-LINE

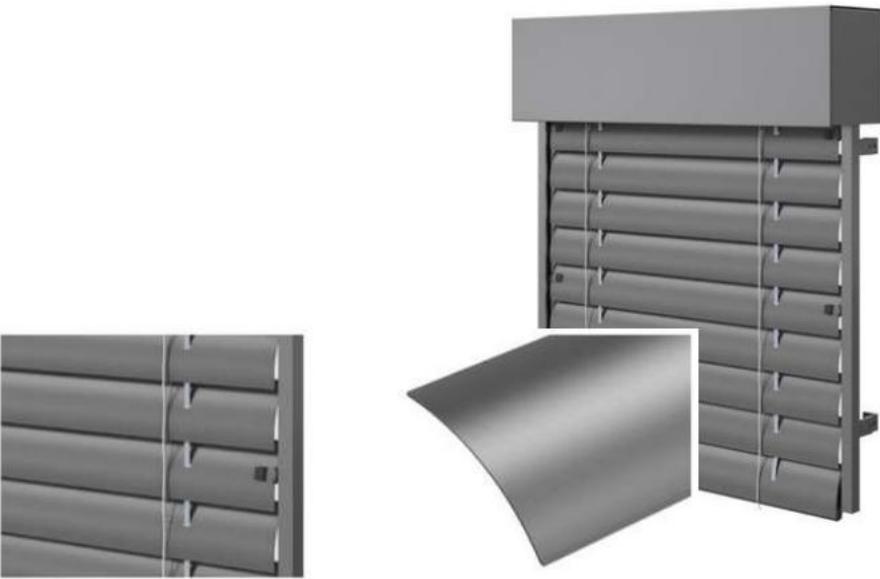
SP-LINE 80, THE UNIVERSAL BSO FOR BUILDINGS OFFICES



SPACE SAVING : Flat slats have many advantages. Once unpacked, the blinds form a small unit, which does not reduce the window's headroom and is therefore suitable for subsequent installations during construction.

VARIABLE SOLUTIONS : The BSO SP-Line 80 are a popular outdoor screen not only for houses and apartments, but also for administrative buildings and offices.

LIGHT OPTIMIZATION : The curtain can be divided into several sections to modulate the inclination of the slats. The open upper part lets in natural light in depth, while the closed lower part prevents glare.



Documentation available on www.marchal.fr

BASIC TECHNICAL PARAMETERS

Order mode	Engine	Crank
Width	600 - 4000 mm	400 - 4000 mm
Height	500 - 4000 mm	500 - 4000 mm
Maximum surface area	9 m2	9 m2

SP-Line 80 adjustable sun blinds are designed to maximize brightness while providing efficient light and heat management. With 80 mm flat slats, these blinds are ideal for full-height windows, ensuring optimal brightness and visual comfort. Their compact design with reduced stack and niche heights allows for seamless integration even in smaller spaces.

THESE BLINDS ARE ADJUSTABLE ON BOTH SIDES : Tilting on both sides offers a wide range of options to let the ideal amount of light into the room



5 standard colors

LINTELS AND CHESTS BAY BLOCKS FOR BSO



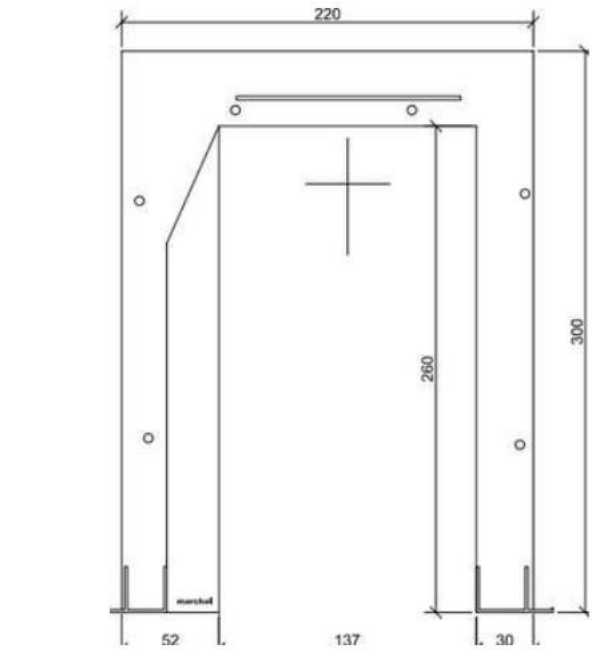
The Marchal Lintel Box (CLM) BSO is an innovative solution designed to harmoniously integrate an adjustable sunshade into the facade of your building. Made of high-density expanded polystyrene (30/35 kg/m³) with a 4 mm galvanized steel frame, it offers high-performance thermal insulation with a U-value of 0.607 W/m².°C. Its exterior faces coated with enriched cement mortar ensure perfect adhesion with all types of coatings, guaranteeing optimal aesthetic integration.

SUPERIOR THERMAL AND ACOUSTIC INSULATION : CLM BSO provides excellent thermal insulation, contributing to your building's energy efficiency. Additionally, its high-density expanded polystyrene design and galvanized steel frame provide effective acoustic insulation, reducing external noise pollution.

Documentation available on www.marchal.fr

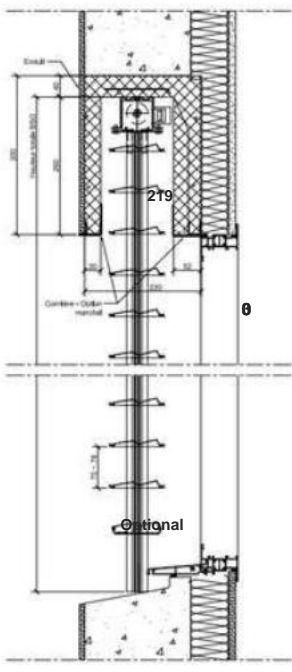
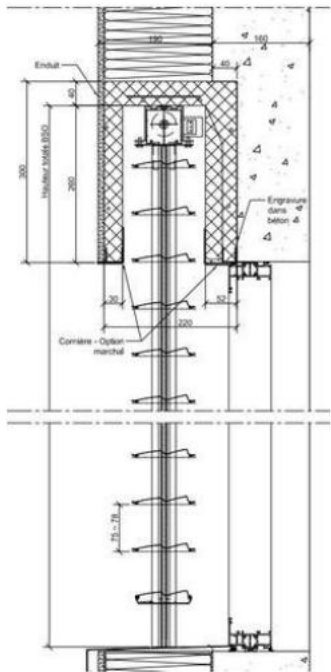
DISCREET ARCHITECTURAL INTEGRATION : Designed to disappear completely into the façade, the CLM BSO box allows for aesthetic integration without compromising the design of your building. This architectural discretion is particularly appreciated for projects requiring a neat and modern finish.

UNIVERSAL COMPATIBILITY : The CLM BSO is designed to accommodate all types of adjustable sunshades, providing maximum flexibility in the choice of sun protection equipment. This universal compatibility makes it easy to adapt to your specific light and solar energy control needs.



EXTERIOR INSULATION

INTERIOR INSULATION



RENOVATION INSTALLATION WITH FOKUS 235

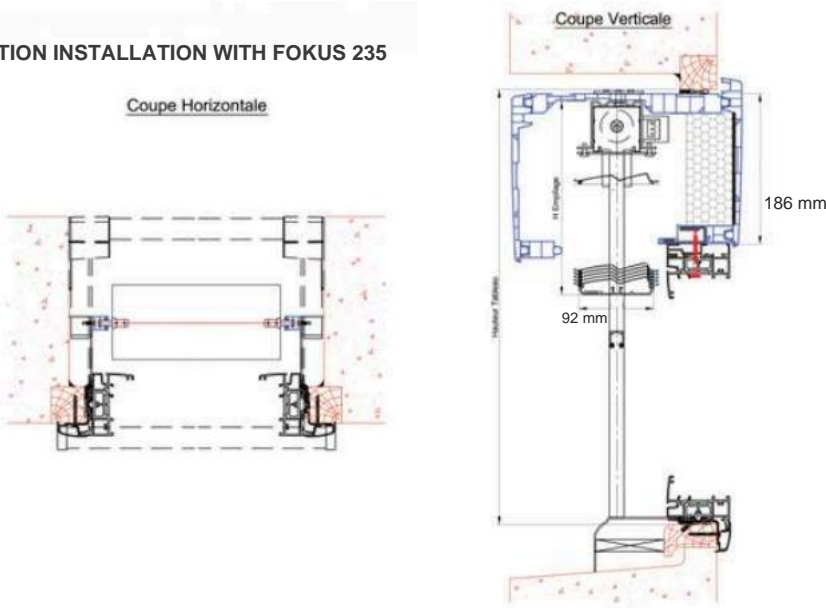
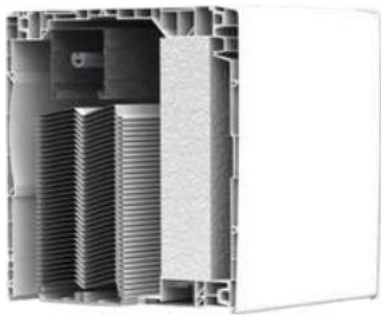
The BSO window unit is an innovative solution that combines solar protection, energy efficiency, and ease of maintenance. Its direct integration into the window box optimizes thermal and acoustic insulation while preserving the aesthetics of the facade.

Thanks to its internal inspection hatch, access to the mechanism is simplified, thus avoiding the use of external equipment such as a nacelle and facilitating maintenance.

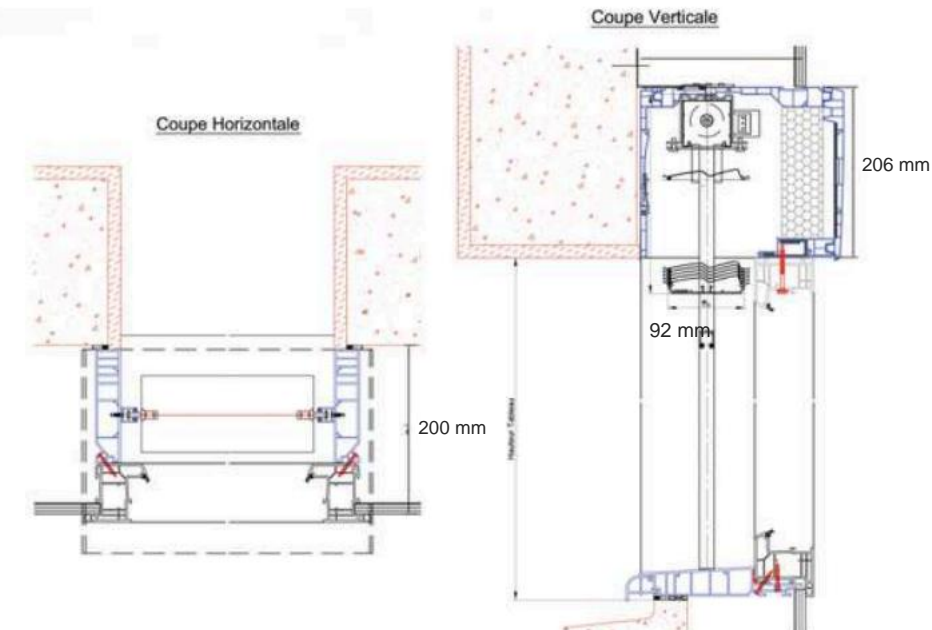
Compliant with the RE 2020 standard, it helps improve the energy efficiency of buildings by limiting excessive solar gain and optimizing the thermal comfort of occupants.

The BSO half-lintel box is the ideal solution for those looking for a discreet installation while preserving the aesthetics of their façade. Designed for adjustable sunshades, this box allows for partial integration into the lintel, leaving a small visible section on the façade. It thus offers excellent protection for the mechanisms while facilitating installation, particularly during renovations. This model is perfect for projects where you want to combine modern design and functionality, while ensuring efficient light and heat management.

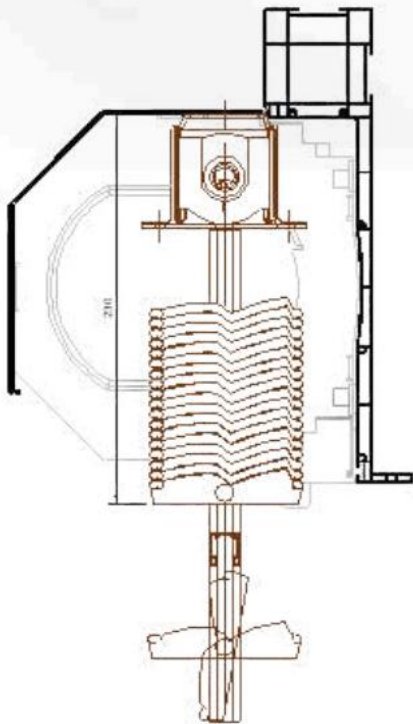
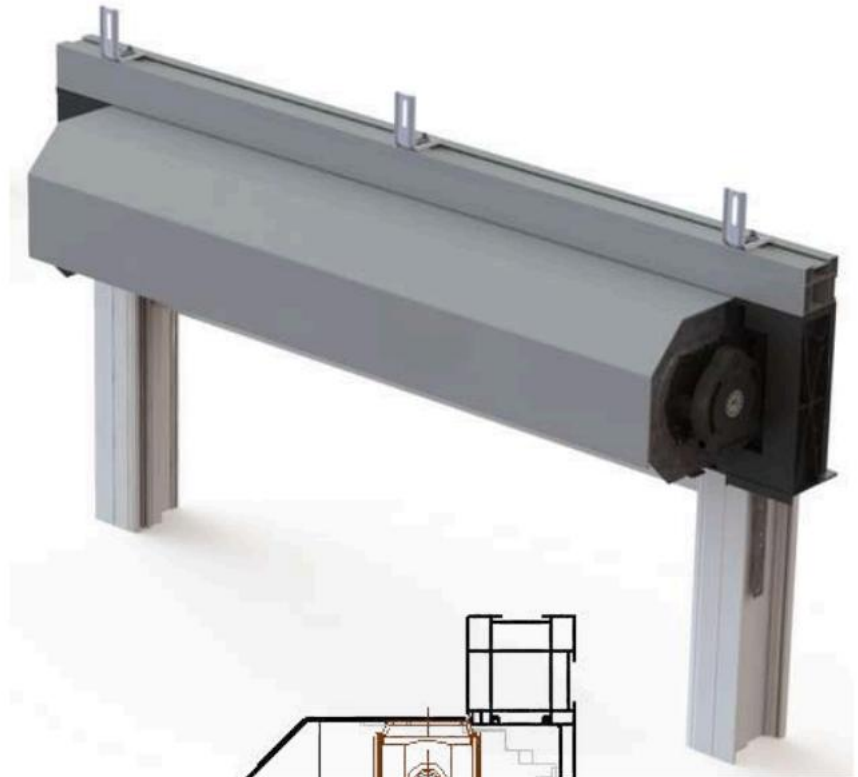
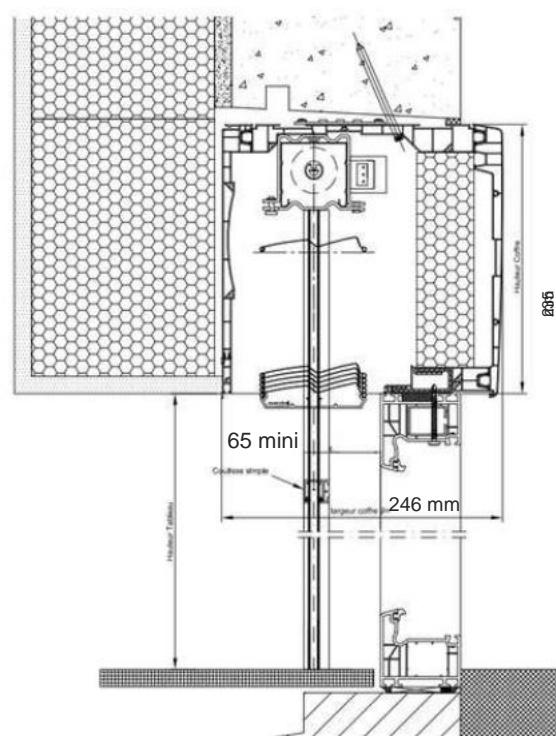
RENOVATION INSTALLATION WITH FOKUS 235



D200 INSTALLATION WITH FOKUS 235



INSTALLATION IN ITE WITH FOKUS 235

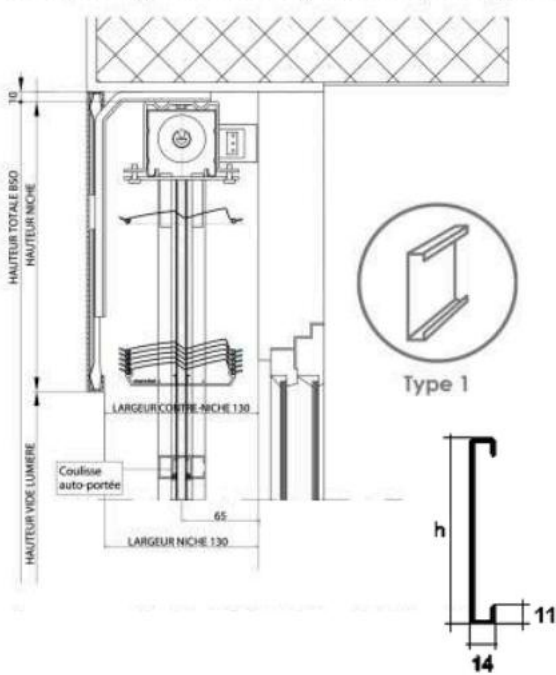


BSO

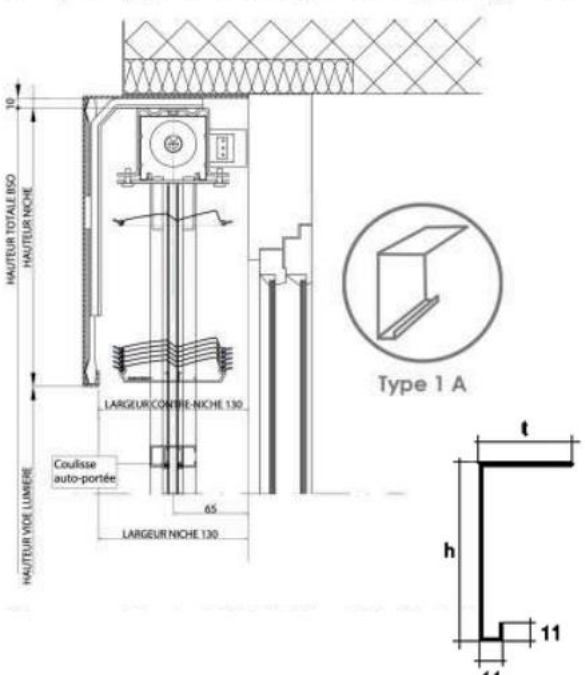
Hauteur BSO 230



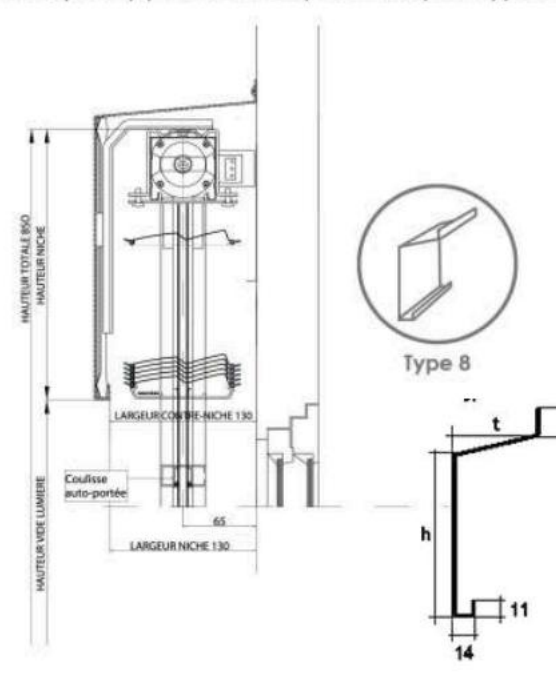
Coupe verticale BSO Z-Line 90 électrique, autoporté, pose tableau, Lambrequin Type 1



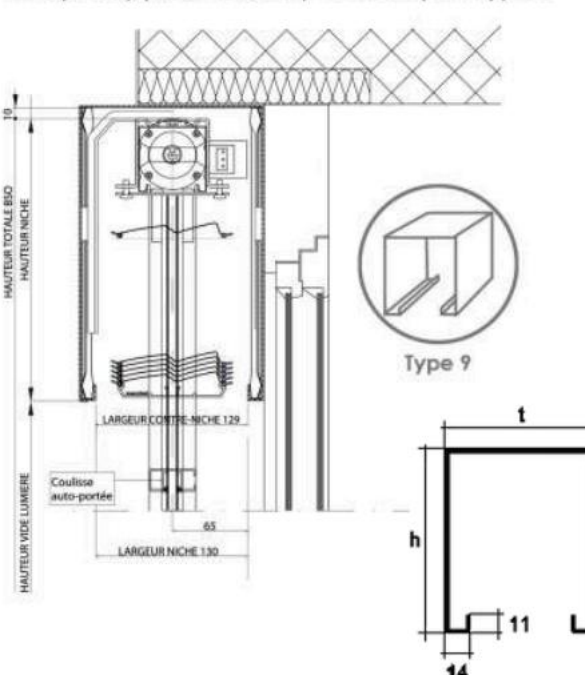
Coupe verticale BSO Z-Line 90 électrique, autoporté, pose tableau, Lambrequin Type 1 A



Coupe verticale BSO Z-Line 90 électrique, autoporté, pose tableau, Lambrequin Type 8



Coupe verticale BSO Z-Line 90 électrique, autoporté, pose tableau, Lambrequin Type 9



Four standard types of valances are available. Valances are often essential to the finishing touches of your adjustable sunshade, further enhancing the aesthetic appeal of this product.

The valances in our range are made from folded aluminum sheet metal. They can, of course, be completed with end caps and brackets.

BSO COLORS

Machine Translated by Google
WHITE RAL 9016



PURE WHITE RAL 9010



GREY BEIGE RAL 7006



ANTHRACITE GREY RAL 7016



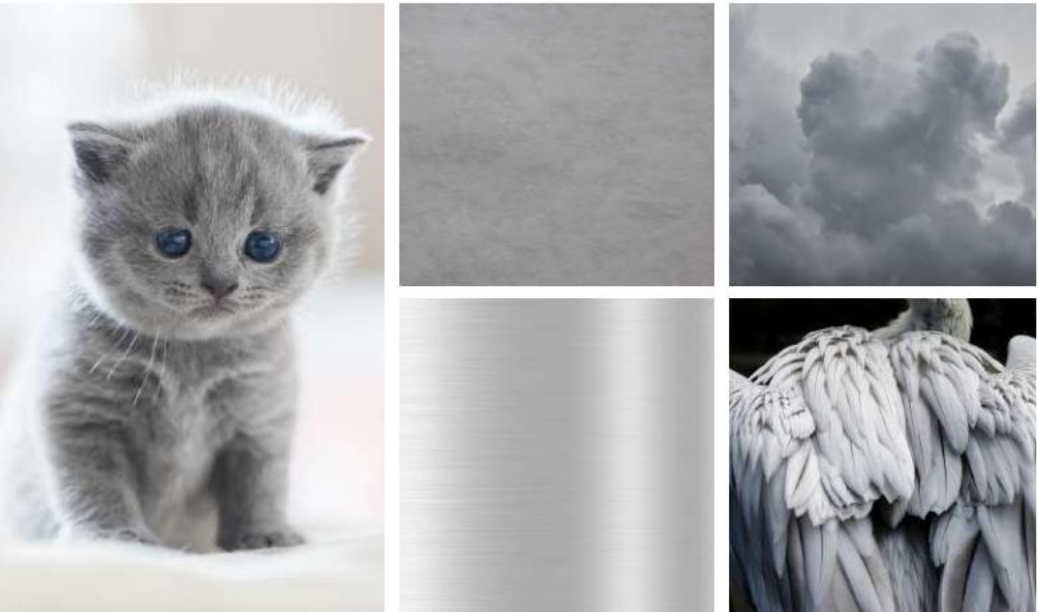
SANDY BLACK RAL 2100



DARK BLACK RAL 9005



ALUMINUM GREY RAL 9007



SANDY GREY RAL 2900



UMBER GREY RAL 7022





BSO Z-LINE 90 COLORS

MARCHAL COLOR PALETTES

The Adjustable Sunshade is not only a highly effective sun protection, but also a design element that plays an important role in the architecture of your home. Marchal therefore offers you extensive customization of your BSO with 23 standard colors, 15 non-standard colors and is also able to create colors for you

custom made.

STANDARD COLORS

LIGHT IVORY RAL 1015	MOSS GREEN RAL 6005	GREY BEIGE RAL 7006	SLATE GREY RAL 7015	ANTHRACITE GREY RAL 7016	GREY BLACK RAL 7021	SHADOW GREY RAL 7022	STONE GREY RAL 7030
LIGHT GRAY RAL 7035	AGATE GREY RAL 7038	GREY QUARTZ RAL 7039	GREY WINDOW RAL 7040	SEPIA BROWN RAL 8014	BROWN GREY RAL 8019	DARK BLACK RAL 9005	WHITE ALUMINUM RAL 9006
GREY ALUMINUM RAL 9007	PURE WHITE RAL 9010	WHITE RAL 9016	BLACK 2100 SAND	BROWN 2650 SAND	GREY 2900 SAND		

NON-STANDARD COLORS

MARCHAL COLORS	COLORISFUTURA	DUST GREY	PURPLE RED	AZURE BROWN	PEARL MOUSE GREY
LIGHT OAK	MARS2525	RA 7037	RA 3004	RA 5009	RA 7048
GOLDEN OAK					
MARCHAL COLORS	BEIGE GREY	PEARL BEIGE			
TEAK	RA 1019	RA 1035			
ROSEWOOD					

ON REQUEST

RAL COLORS



NCS COLORS



FUTURA INTERPON AKZO NOBEL RANGE





OTHER COLORS

Z-LINE 70, S-LINE 80, WAVE LINE

RAL 9003/S	VSR 071/S	VSR 110/S	RAL 7038/S	RAL 9006/S	DB703	RAL 9005/S	RAL 9010/S
RAL 9006/H	VSR 240/S	JANUARY 2	RAL 3004/S	RAL 7016/S	YW359F	RAL 9007/S	SW 203G/S
RAL 7021/S	RAL 7022/S	RAL 7035/S	RAL 7037/S	RAL 7039	VSR 780/S		

SP-LINE 80

RAL 9006/H	RAL 9003/H	RAL 7016/H	RAL 9007/H	SW 203G/H

BLACK OUT

OFF-WHITE	LIGHT BEIGE	BEIGE	BROWN	CEDAR BROWN	BRONZE	PURPURINE RED	TERRACOTTA
NCS S 0502-Y	NCS S 2010-Y30R	NCS S 4010-Y50R	NCS S 8010-Y50R	IGP 591	KABE 6632	NCS S 3560-R	NCS S 3560-Y80R
CHROME YELLOW	GREEN MOUSSE	AZURE BLUE	PALE BLUE-GREY	ULTRAMARINE BLUE	BROWN GREY	DARK BLACK	WHITE
NCS S 1080-Y20R	NCS S 7020-B90G	NCS S 5040-B	NCS S 4030-R90B	NCS S 4350-R74B	RAL 8019	RAL 9005	NCS S 0502-B
LIGHT GRAY	GRAY	DUST GREY	ANTHRACITE GRAY ALUMINUM GRAY	NATURAL ALUMINUM ALUMINUM	FERRITE		
NCS S 1502-G	NCS S 3000-N	RAL 7037	RAL 7016	KABE 4933	STRUCTURED LACQUERING	KABE 7437	IGP 5803
CARBON	ORE GREY	UMBRELLA GREY					
IGP 5803	IGP 5803 71266	RAL 7022					



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