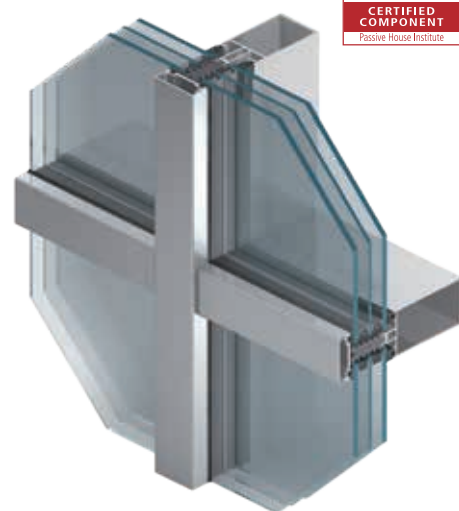




LET'S BUILD A BETTER FUTURE

## Façade systems **MB-SR50N** **MB-SR50N HI+**

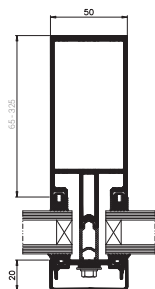
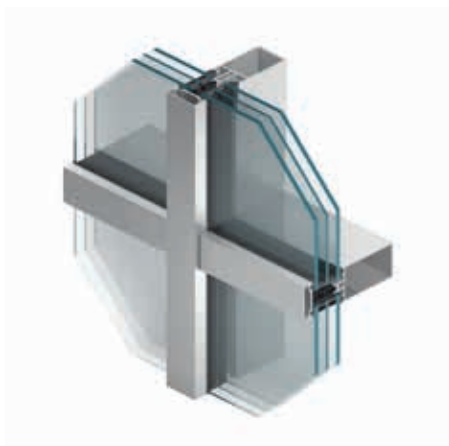
The MB-SR50N mullion-transom system has been designed to fabricate lightweight curtain walling, roofs, skylights and other spatial structures. On current trends in architecture, it allows aligning of mullion and transom profiles on the inner side of the façade, so obtaining variants of different appearance. This system forms the basis of a variant with enhanced thermal insulation: MB-SR50N HI+, and other fire protection solutions, and is also linked to the structures of different types of windows such as tilt-and-pull windows, roof windows and façade-integrated windows. When it comes to glass and aluminium structures, with this rich variety of solutions based on the MB-SR50N façade, architects and designers can now make their most audacious visions come true.



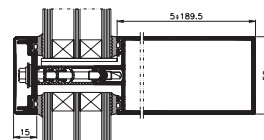
modern look

thermal insulation:  $U_f$  from 0.7 W/(m<sup>2</sup>K)

MB-SR50N / MB-SR50N HI



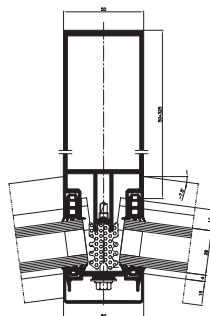
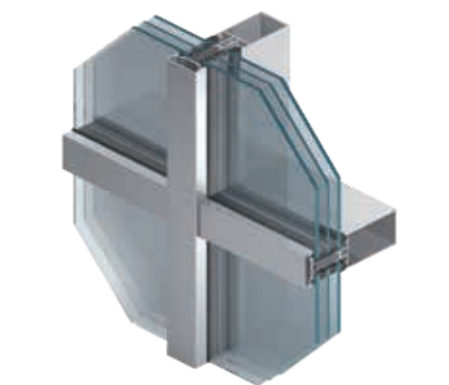
mullion – cross section MB-SR50N



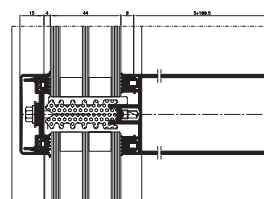
transom – cross section MB-SR50N HI

The MB-SR50N and the version with enhanced thermal insulation, the MB-SR50N HI+, is intended for the design and construction of lightweight curtain and infill walls, roofs, skylights and other spatial structures. In line with current architectural trends, this means that the mullion and transom profiles can be flush on the inside of the façade and makes it possible to obtain a host of different looks for the exterior. The system also constitutes a basis for fire-resistant solutions.

MB-SR50N HI+



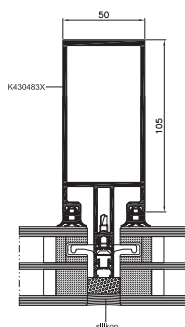
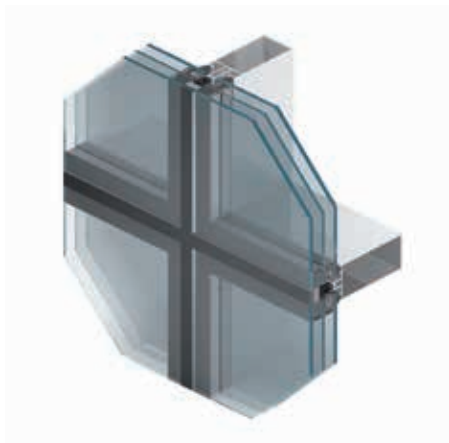
mullion – cross section – 7.5 %



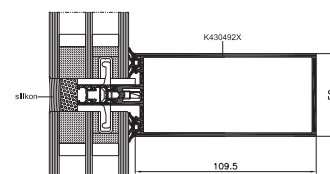
transom – cross section

This version, with the best thermal and acoustic insulation performance, uses a modified insulator made of PE material. The adequate shape of the insulator, in addition to high protection against heat transfer, ensures the proper conduct of screws that fix the clamping strips. This is important during the installation of the façade. For their part, new accessories give more freedom in selection of glazing.

MB-SR50N EFEKT



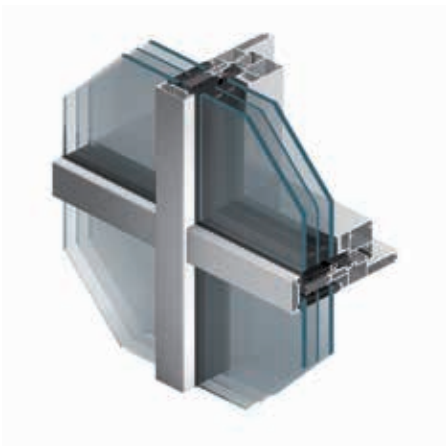
mullion – cross section



transom – cross section

A curtain wall which uses toggles and channels to fix the glazing to provide a uniform appearance of a smooth glass wall divided by a structure of vertical and horizontal lines of a width of 20 mm. It is possible to use within it large and heavy one- or two-chamber glass in-fills, including laminated pane sets and non-transparent panels based on insulated glass.

## MB-SR50N IW



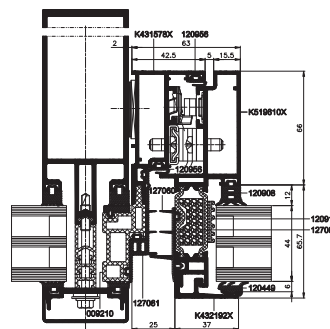
mullion with window, section view  
MB-SR50N IW – standard variant



mullion with window, section view  
MB-SR50N IW – EFEKT variant

MB-SR50N IW enables the use of inward openable windows integrated with mullion-transom profiles. The area of the façade with tilt-andturn function does not differ, as seen from the outside, from the neighbouring areas with fixed glazing. This systems comes in 3 varieties: standard, with flat strip and EFEKT.

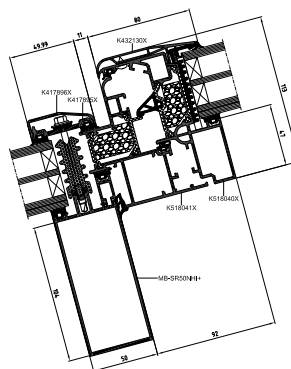
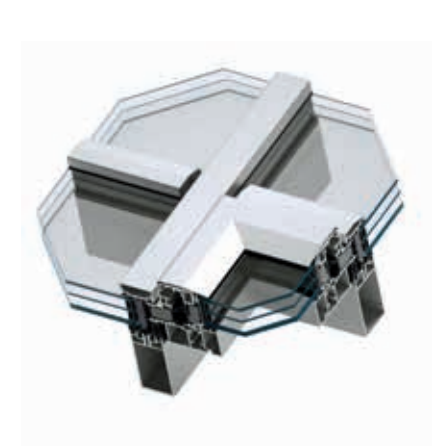
## MB-SR50N OW



façade with window MB-SR50N OW – variant with strips

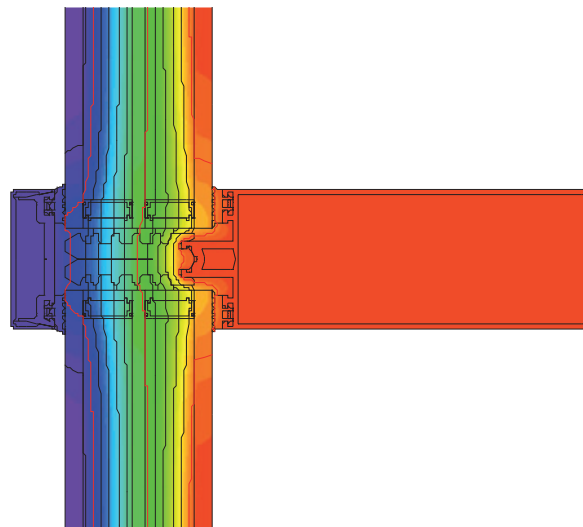
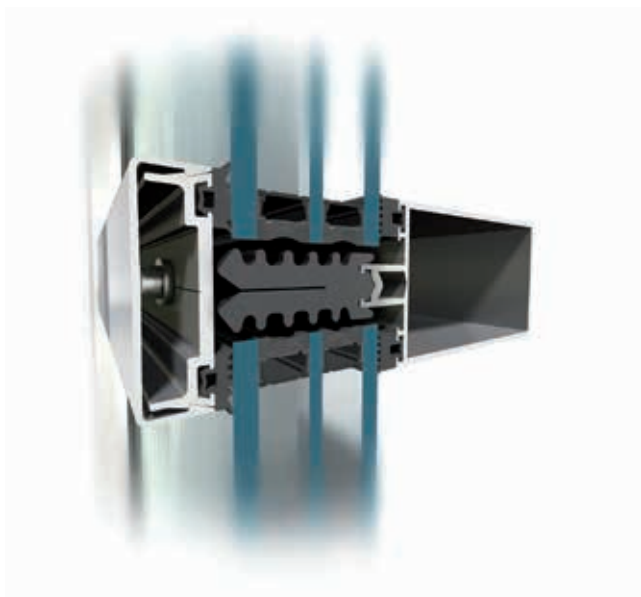
One of the most important advantages of this solution are the unusually economical shapes, which add lightness to the entire structure. Thanks to application of the most modern technology of structural gluing, based on gluing the outer glass panel to the aluminium frame with structural silicon, we have avoided the necessity to use any aluminium elements from the outside or any mechanical joints for fitting the glass panel.

## MB-RW



MB-RW roof slope window, view

Windows fabricated using the MB-RW system are intended for installation on roofs with mullion-transom systems (MB-SR50N & MB-TT50 group of products) of an inclination angle of 3° to 75° in relation to the horizontal plane. In rafters/purlins axes, roof windows can have dimensions up to 2.5 m and weight up to 200 kg.



distribution of isotherms in MB-SR50N HI+ – façade

## FUNCTIONALITY AND AESTHETICS

- angle joints enabling the free shaping of aluminium structures
- posts and beams with 'sharp' edges allowing construction of curtain wall supporting structures with the appearance of a uniform truss
- aesthetic curtain wall varieties and a number of lining profiles of various shapes providing multiple curtain wall appearances
- a large choice of curtain wall opening elements: windows and doors of various types, including skylight windows and windows integrated with the curtain wall, as well as tilt and parallel opening MB-SR50N OW windows
- a wide glazing range along with the availability of insulators and accessories allowing a high level of curtain wall thermal insulation
- the possibility of bending profiles and creating use curved structures

TECHNICAL SPECIFICATION	MB-SR50N MB-SR50N HI+	MB-SR50N HI	MB-SR50N EFEKT	MB-SR50N IW	MB-SR50N OW	MB-RW
Mullions depth	50 – 325 mm			85 – 125 mm	—	—
Transom depth	5 – 209.5 mm			49.5 – 129.5 mm	—	—
Inertia mullions (range Ix)	26.04 – 4123.45 cm <sup>4</sup>			70.43 – 245.70 cm <sup>4</sup>	—	—
Inertia transoms (range Iz)	0.79 – 629.54 cm <sup>4</sup>			23.76 – 205.98 cm <sup>4</sup>	—	—
Glazing thickness	24 – 56 mm	24 – 52 mm	24 – 56 mm	24 – 56 mm	28 – 41 mm	32 – 51 mm

PERFORMANCE	MB-SR50N MB-SR50N HI+	MB-SR50N HI	MB-SR50N EFEKT	MB-SR50N IW	MB-SR50N OW	MB-RW
Air Permeability	AE 1200, EN 12152			class 4, EN 12152		
Watertightness	RE 1200, EN 12154	RE 1500, EN 12154	RE 1200, EN 12154	E 1500, EN 12208	E 1650, EN 12208	E 1800, EN 12208
Windload resistance	2400 Pa, EN 13116			E 2400, EN 12210	class C5, EN 12210	2.4 kN/m <sup>2</sup> , EN 12210
Thermal insulation	U <sub>f</sub> from 0.7 W/(m <sup>2</sup> K)	U <sub>f</sub> from 1.0 W/(m <sup>2</sup> K)	U <sub>f</sub> from 1.1 W/(m <sup>2</sup> K)	U <sub>f</sub> from 1.6 W/(m <sup>2</sup> K)	—	U <sub>f</sub> from 1.8 W/(m <sup>2</sup> K)
Impact resistance	I5/E5, EN 14019				—	class 4, EN 1873