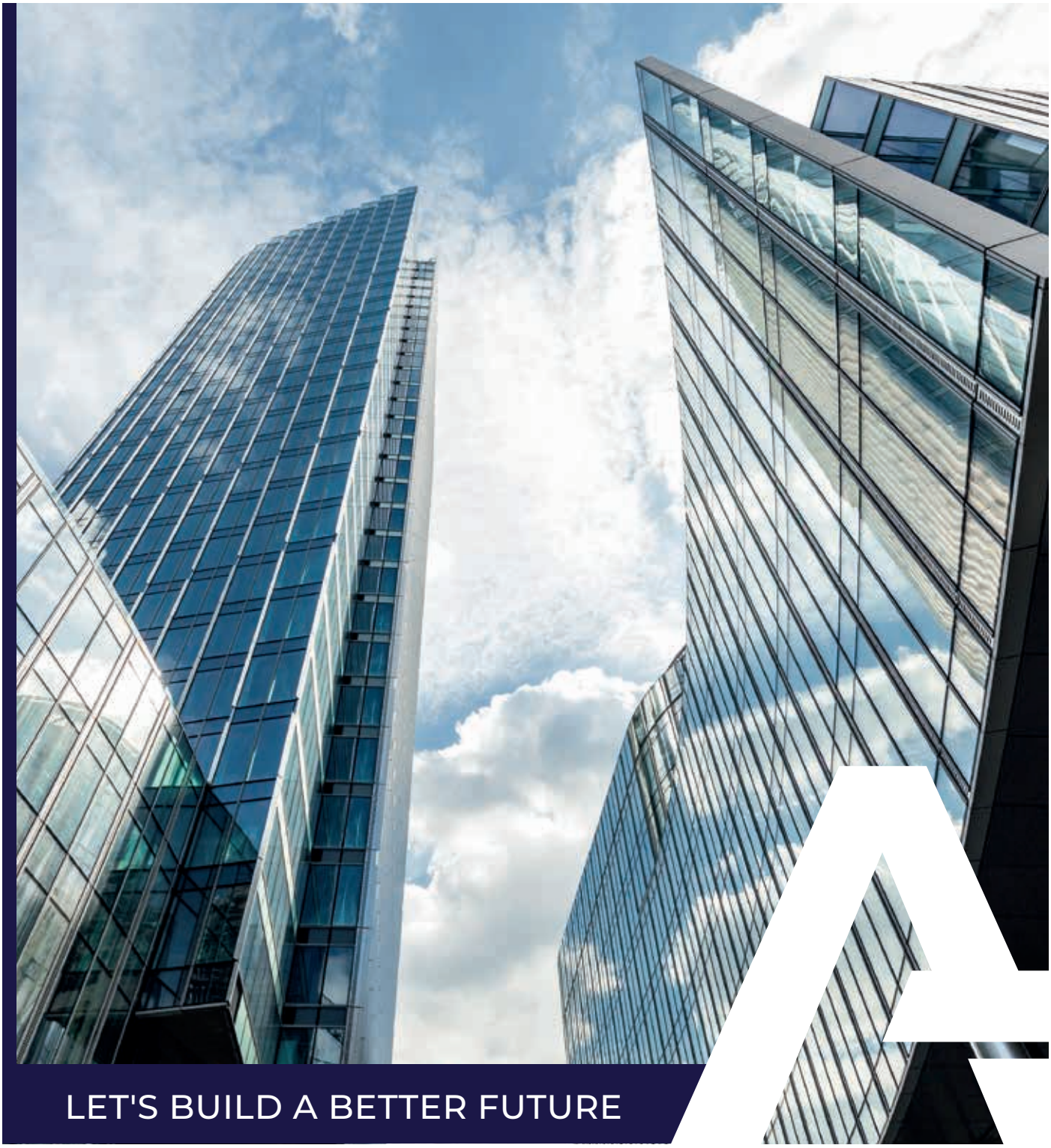
ALUPROF
ALUMINIUM SYSTEMS



ARCHITECTURAL PRODUCT GUIDE

SHOWROOM
BIELSKO-BIAŁA
POLAND

ul. Warszawska 153 ▬ 43-300 Bielsko-Biała ▬ PL

SHOWROOM
PRAGA
CZECH REPUBLIC

Brumlovka, budova G ▬ Michelská 1552/58 ▬ 140 00 Praha 4 – Michle ▬ CZ

SHOWROOM
ALTRINCHAM
UNITED KINGDOM

Unit 5 ▬ Altrincham Business Park ▬ Stuart Road ▬ Altrincham ▬ UK

The main idea behind the issue of the “Architectural Product Guide” is to present the complete offer of Aluprof, with descriptions of the systems, basic technical information and selected typical structure cross sections. The guide has been prepared for all designers, investors and entities involved in construction who are interested in the ALUPROF offer.

ALUPROF ENERGY EFFICIENT SYSTEMS – A NEW STANDARD IN BUILDING

Our range of products includes modern constructions, which, thanks to the excellent thermal insulation and innovative technical solutions, can perfectly meet the requirements of green building. That is the case with numerous buildings constructed using Aluprof systems, awarded with prestigious certifications BREEAM, LEED or Green Building. Products in this group are labeled "Recommended for energy-efficient buildings". This includes façade systems such as **MB-MT50N**, **MB-SR50N HI+**, as well as the following window & door systems: **MB-86N**, **MB-104 Passive**, **MB-82HS** or panelled door. Improving building energy use and thermal comfort in buildings can successfully be done with the majority of “protective” solutions such as roller shutter, external louvers and shutters.

GAIN VALUABLE TIME

ALUPROF systems offer includes specialised solutions: fire-resisting, smoke-proof and smoke exhaust structures up to **EI120** class. Using these products in situations that threaten the life or health can buy time for safe evacuation while increasing chances to control the fire and reducing losses caused by fire.

SOLUTIONS FOR YOUR NEEDS

Today’s architecture poses a real challenge for the contractors. Complicated structures, original shapes or very large spaces often require customized solutions dedicated to a specific building. For modern facilities, Aluprof has prepared special systems, materials and projects, thanks to which buildings look exceptionally grand.

ALUPROF SA is one of the leading European distributors of aluminium systems for the building industry. The company's offer includes windows and doors, curtain wallls, roller shutters and gates systems. Large logistical facilities, modern machinery, profile embossing within the Group and own paint shops provides the company with full independent and market flexibility – which, for many years, has resulted in the growth of the portfolio of customers and distribution areas.

Manufacturing plant ALUPROF in Bielsko-Biała

Manufacturing plant ALUPROF in Opole

Manufacturing plant ALUPROF in Goleszów

Manufacturing plant ALUPROF in Złotów

Manufacturing plant ALUPROF in Ogrodzona

ALUPROF SA manufacturing plants are located in Bielsko-Biała, Opole, Goleszow, Złotow and Ogrodzona, and have a surface area of over 230 K m², and a modern equipment including:

- automated line for the production of composite sections,
- ten latest generation lines for the production of roller shutters and boxes,
- high bay warehouses, equipped with automatic shelving system for profiles,
- modern, fully automated lines for powder painting, including two cutting-edge vertical powder coating lines for profiles.

Offices of the Management Board of Grupa Kapitałowa Kety S.A.

ALUPROF SA belongs to Grupa Kapitałowa Kety S.A. (Kety Group) – the most advanced and fastest growing company in the aluminium industry in Poland. The company is set up as a holding that combines 24 businesses operating in Poland and abroad that all together process nearly 110.000 tons of aluminium and sell their products to dozens of countries in Europe and around the world. The Kety Group is the leader in the Polish market of aluminium profiles, aluminium systems, and flexible packaging. The Group's list of some 4.700 customers includes international corporations, large and medium-sized enterprises, as well as wholesale companies and workshops representing almost every branch of the industry, starting with construction, through automotive, interior furnishing, electric and machinery, to the food industry. The Kety Group employs nearly 5500 experienced and qualified staff. Consolidated sale revenue of Grupa Kety SA amounts over 700 million €. We export 47% of our output to countries all over Europe and beyond.

Selected certification institutions
and organisations that issue certificates
to the company and its products

In its operations **ALUPROF SA** strives for the constant improvement of the quality level of its products. The total quality management system in the company complies with the requirements of EN/ISO 9001 standards. The offered products meet the requirements of the European standards as regards the quality of alloys, working tolerances and the strength properties. Technological expertise is the company's know-how. Trained professionals work on the state-of-theart technological solutions. The designed systems satisfy the market demands, architectural visions, and also the developments of the aluminium systems industry.

The highest quality of our products is the result of the creative work of the development department. It designs new elements of windows and doors, curtain wallls and roller shutters, taking into consideration the remarks and guidelines of our clients; it also conducts research and development, and supervises the production quality at every stage of product development.

The company has won numerous awards and distinctions: Windoor Foreign Investment Award, Budowlana Marka Roku (Market Leader) 2022, Złoty Konsumencki Lider Jakości (Consumer Leader of Quality) 2022, Ambassador of the Polish Economy, Consumer Leader of Quality 2011-2016, the Large Pearl of the Polish Economy, Forbes's Diamonds, the Brown Emblem of Quality QI, a Diamond for the Polish Business Leader, the Crystal Profile, Eagles of the Polish Construction Industry, the Exports Leader, Eu Standard.

Polish awards
and distinctions

Fundacja Grupa Kęty
Dzieciom Podbeskidzia

As one of the companies of the Kety Group, Aluprof has pursued the idea of the Business Social Responsibility and sustained development through the establishment of multi-lateral relations with its environment that consist in accounting for the needs of an increasingly larger group of stakeholders: shareholders, employees, clients, business partners, and local communities. Building such comprehensive relations with the environment warrants the company's harmonious development and is a path that leads to creating a positive image.

Based on an initiative of the Kety Group, Kety Group for Children from the Podbeskidzie Region Foundation has been established, the main purpose of which is to provide support for those who are in Care Centres of Orphanage Houses and to promote the idea of foster family homes.

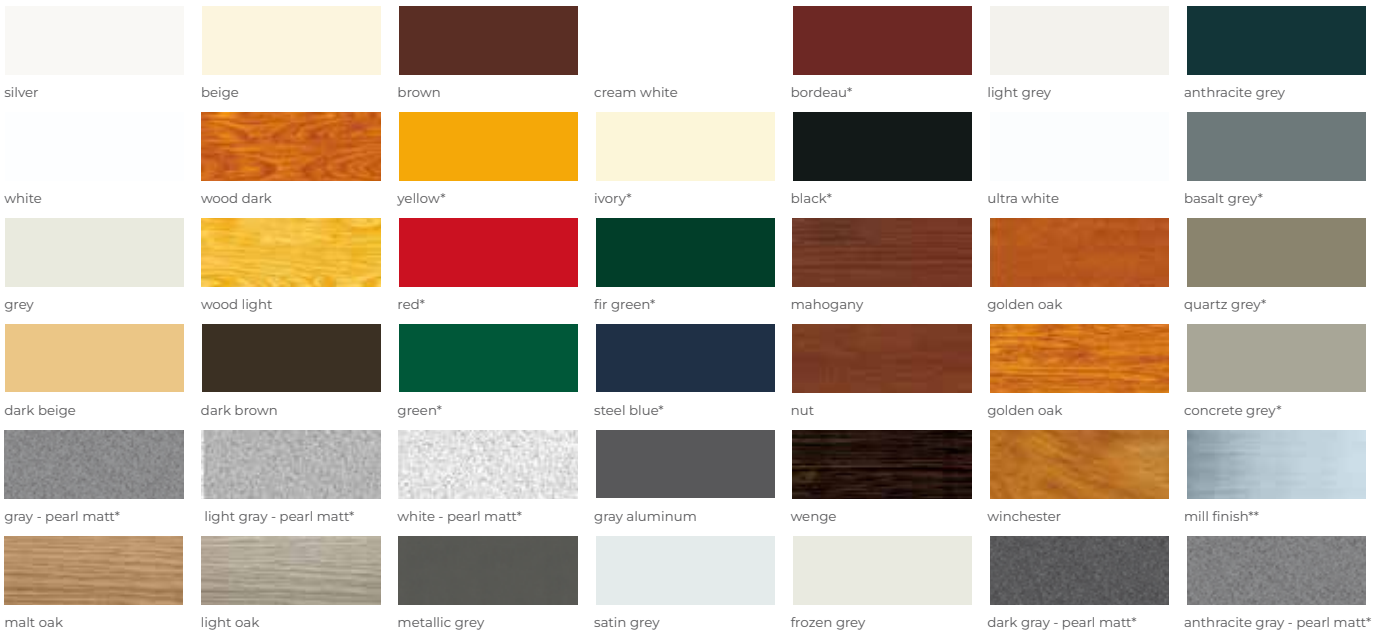
The surface of aluminum profiles used for windows, doors and curtain wallls can be finished with powder coating or anodizing. ALUPROF SA has the technical capabilities of producing various decorative and protective coat types: in the RAL palette, in the NCS palette, wood-like coats in the ADEC range, using our customized ATEC lacquers or lacquers with special properties or application range.

Paints to RAL

Standard Color Collection & Metallic Finishes

Wood-effect colours ADEC

Colours range of roller shutters profiles



The colours don't pattern faithfully upon the real colours. The availability of colours depends on the profiles' type.

ALUPROF CLASSIC

available colours: RAL

doors ↗

slide & lift and slide doors ↗

windows ↗

ALUPROF STYLE

available colours: RAL white, anthracite, black, inox anodised, stainless steel

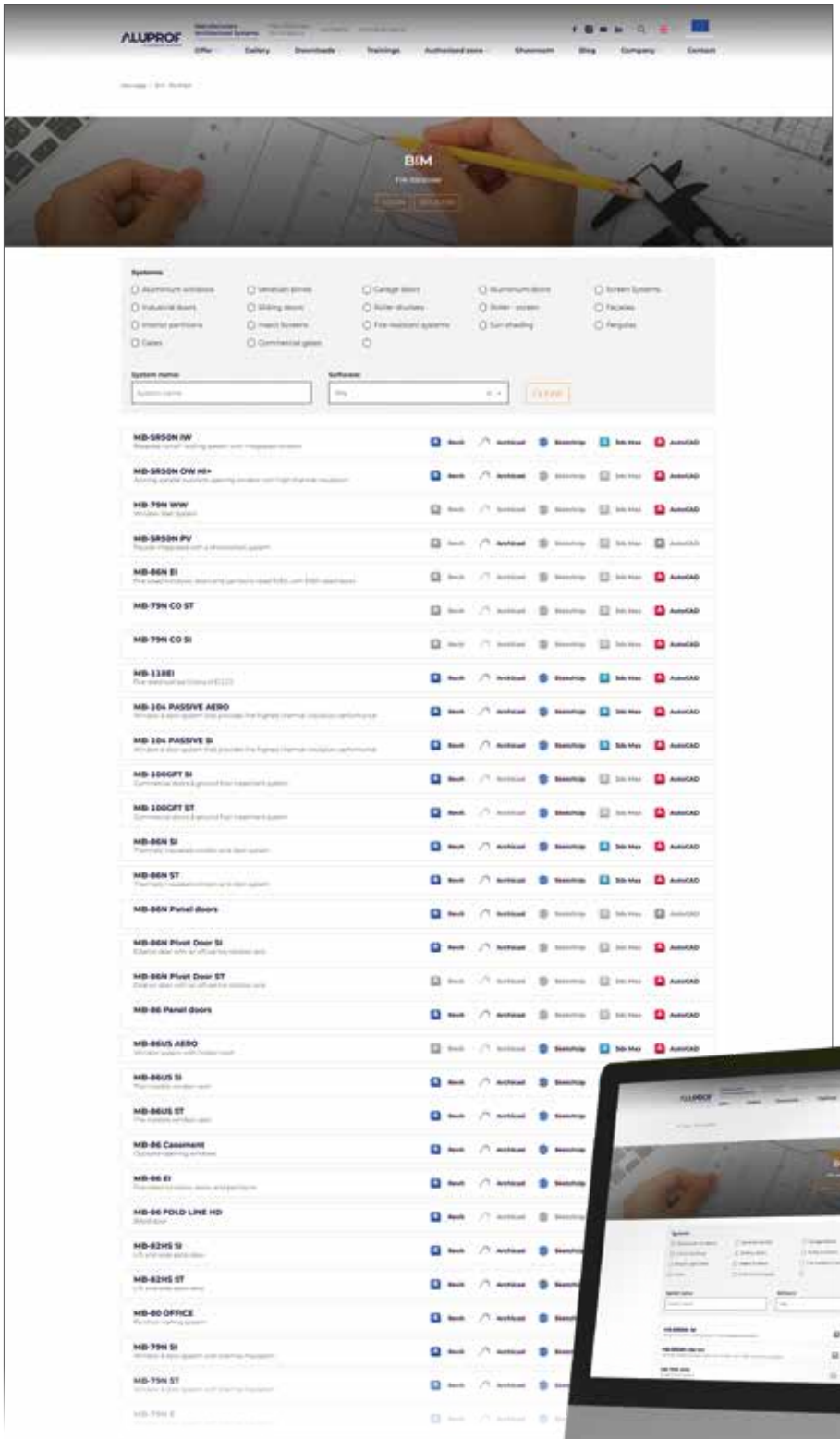
doors ↗

doors ↗

slide & lift and slide doors ↗

windows ↗

Detailed information on the products presented in the Guide and dwg files for designing can be found in our multimedia-based **BIM file database at www.aluprof.com/en/bim-file-finder**



3dsky

3D Warehouse

ARCHISPACE

architectenweb

bimobject®

CADforum POWERED BY ARKANCE

cgtrader

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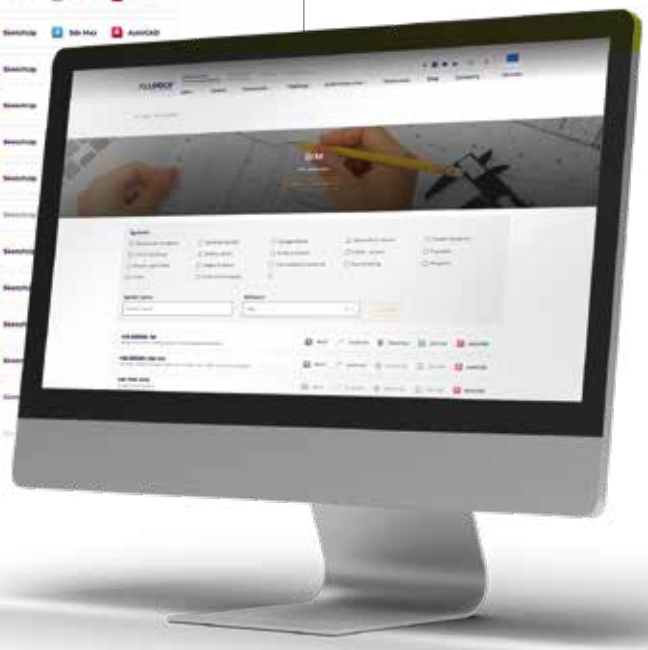
proidea

TURBOSQUID



RESPONSIBILITY CERTIFICATE

Aluprof systems help to care for the environment

Real-estate developers and fabricators increasingly attach importance to environmental building rating systems. A certification adds value to a building, gives it prestige and makes it easier to get tenants. Obtaining the certification is not an easy task. It takes time and requires best practices, but the effort it takes to obtain it, is something that more and more investors are aware of. The same goes for the importance of sustainable building, and the responsibility building brings. On the other hand, increased environmental awareness of the society (consumers, tenants) and direction of changes in technical conditions to be met by buildings make a lot of corporate social responsible companies think of the environment and energy-efficient building as part of their business strategy and thus making it a priority.

There are different systems for assessing buildings' energy efficiency and their environmental impact. One of the most famous is BREEAM, introduced in 1990. So far, more than 13000 buildings in the world have been awarded with this certification. LEED, an American organization established in 2000 is becoming increasingly popular. The youngest European system is the EU Green Building, launched by the European Commission in 2008.

While assessing newly constructed buildings, the following key criteria apply: location of the building, its immediate proximity, access to the city's infrastructure, suitability of the building, its impact on the quality of life of the local community, water conservation, care about the quality of conditions in the interior, the amount and cost of energy needed to operate the facility and effectiveness of energy saving systems. Thermal insulation and air-tightness of the building are of primary importance. These two depend on the proper selection of windows and building envelope systems: facades, windows and doors that minimise heat loss while providing access to sunlight and the energy that comes with it.

Atrium City, Warsaw
– LEED PLATINUM

Pollard Street, Manchester
– BREEAM EXCELLENT

Alchemia, Gdańsk
– LEED PLATINUM

Quattro Business Park, Cracow
– BREEAM VERY GOOD

Alma Tower, Cracow
– LEED PLATINUM

Aquarius Business House, Wrocław
– BREEAM

PASSIVE BUILDINGS AMBASSADOR

ALUPROF SA co-operates with Poland's Passive House and Renewable Energy Institute and participates in the "Passive Buildings Ambassador" programme. In our development activities, we put strong emphasis on thermal insulation and excellent technical parameters of our products. That is why Aluprof's systems are often used in sustainable building, and the list of certified facilities that have used our products or for which they were specifically designed just gets longer and longer. These solutions are brought up as early as the design stage for the facilities for which the investors are willing to apply for such a certificate.

ECOLOGY IS ECONOMY

RECOMMENDED FOR ENERGY-EFFICIENT CONSTRUCTIONS

Energy-efficient building & construction is becoming increasingly important, as people are more & more looking at the impact on the environment.
Newly constructed buildings use technologies & products that ensure the lowest power consumption possible but in reality.

What is an energy efficient building?

Energy-efficient buildings include low-energy & Passive Houses, not forgetting to mention those in which the energy consumption amounts to nearly zero. They are called the nZEB – Zero Energy Buildings. What are the differences between them? Each structure is characterised by way of the energy standard, that which shows or defines the annual energy consumption. For an energy-efficient building, the standard is NF40 – EuCO ≤40 kWh/(m² per year), for Passive House NF15 – EuCO ≤15 kWh/(m² per year), & for the nZEB building, the standard reaches 0 kWh/(m² per year). In addition to these performances it should be remembered that, there are buildings with a positive energy effect, characterised by a positive energy balance. This means that within a year, such a building would produce more energy than they consume.

But what does passive building really mean?

These structures have low energy requirements that are used for heating purposes. Passive buildings consume no more than 15 kWh/ (m² per year), which equates to 1.5 m³ gas per 1 m² of the building surface. The level of primary energy consumption in a building of this type cannot exceed 120 kWh/(m² per year) for all energy needs, which include heating, hot water & electricity consumption we need for living. At the same time, & with existing residential dwellings, the energy consumption (heating only) is up to 120 kWh/(m² per year). The demand for energy in the passive building is eight times smaller than in the traditional one.

The essence of the energy-efficient building is to minimise energy loss. With that, each stage of the process is of importance, from identification of the right project, choosing of a suitable plot, through to the very last detailing however small, such as the selection & install of a suitable window sill. Low energy house is, first of all, a perfectly insulated house that prevents heat from escaping. To encourage the people to build ecologically & economically, governments in many countries have launched a program of subsidised loans for energy-efficient houses. A bonus is available upon completion of construction, provided that the building is compliant with the relevant parameters & can be proven as such.

Then why not invest in a house that will reduce energy consumption for heating, lighting & air conditioning, whilst at the same time being more friendly for us & for our planet?

ALUPROF
ALUMINIUM SYSTEMS

The Models of Aluprof Systems for BIM-Based Design

- Support throughout the design process
- Easier and faster 3D object modeling
- Wide range of ready-to-use constructions

Grupa Kęty

aluprof.com/en/bim-file-finder
aluprof.com

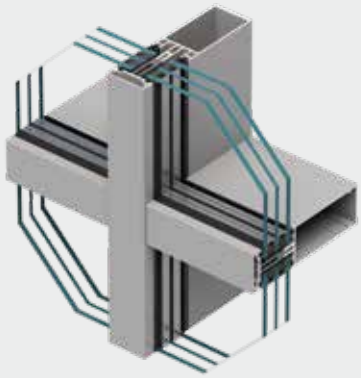
CURTAIN WALL
SYSTEMS

www.aluprof.com

ALUPROF
ALUMINIUM SYSTEMS

CURTAIN WALL SYSTEMS

MB-MT50N



The MB-SR50N is a system intended for the construction of lightweight suspended and infill curtain walls, glazed roofs, skylights and other spatial structures. The design is rooted in the Cradle to Cradle Certification® guidelines corresponding to the requirements for sustainable development and the circular economy concept. Optimised in terms of the profiles, profile durability and accessories, it also features solutions that simplify on-site installation. It comes in two different thermal versions which are fitted with innovative insulators made using a combination of two materials. The standard version has an ABS/TPE insulator and the SI version is equipped with a PET/PE insulator, making it possible to obtain a very low thermal transmission for the façade.

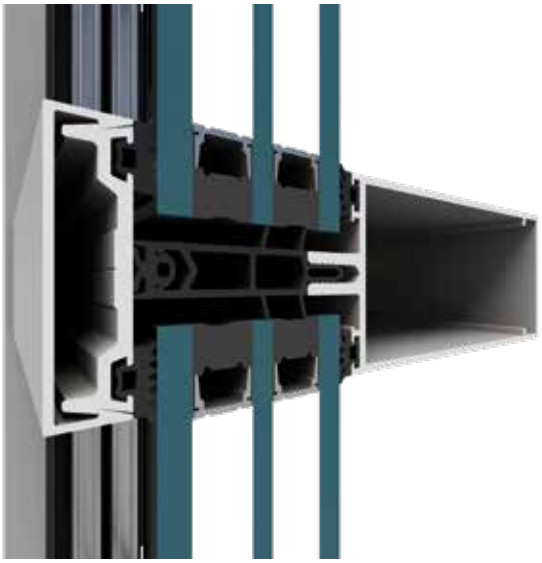
MULLION AND TRANSOM CURTAIN WALL SYSTEM

The system also offers designers plenty of freedom, allowing them to create façades with complex structures and guaranteeing their problem-free use. As far as functionality is concerned, the MB-MT50N is also highly flexible when it comes to the use of operable elements based on ALUPROF's classic window and door systems, lift and slide solutions and systems designed solely for façades, such as tilt or tilt and slide windows, not to mention roof windows.

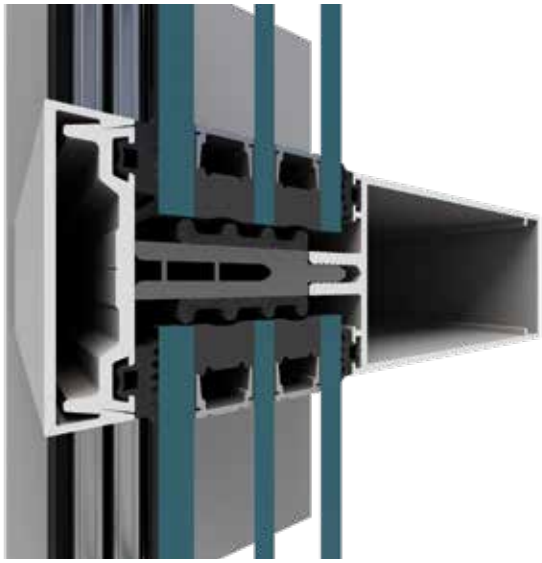
FUNCTIONS AND AESTHETICS

- a range of mullions and transoms meeting the highest static requirements
- high thermal performance in both the SI and standard versions
- a minimum U_f value of 0.55 W/(m²K); the system meets the requirements for certification by the Passive House Institute in Darmstadt
- excellent watertightness and wind load resistance
- the socket of the central mullion and transom is open, permitting assembly by screwing without additional drilling
- the width of the central socket is reduced, providing an increased displacement compensation capability
- a three-stage, cascading drainage system for every type of mullion-to-transom and transom-to-transom connection
- the shape of the water channel facilitates the installation of drainage components and connectors from the front of the mullion
- innovative insulators made from a combination of two materials, ABS/TPE or PER/PE, provide a more secure screw installation, easier processing and damage-free transportation
- the new shape of the half-mullion simplifies the assembly from two parts. It features a new sealing system and the possibly of ladder installation
- standardised installation screws with torx sockets simplify installation and provide secure attachment
- the new gasket shape facilitates glazing and guarantees high airtightness performance
- available as a quick-action coupling system for mullion-transom connection which is suitable for glass with a maximum weight of 300 kg

X2 Boutique Office, Warsaw, Poland
design / Projekt PBPA sp. z o.o.



MB-MT50N

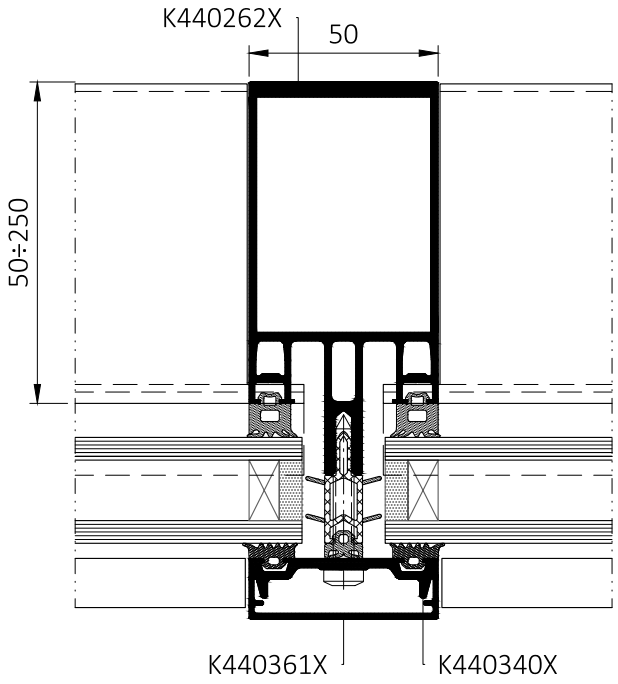


MB-MT50N SI

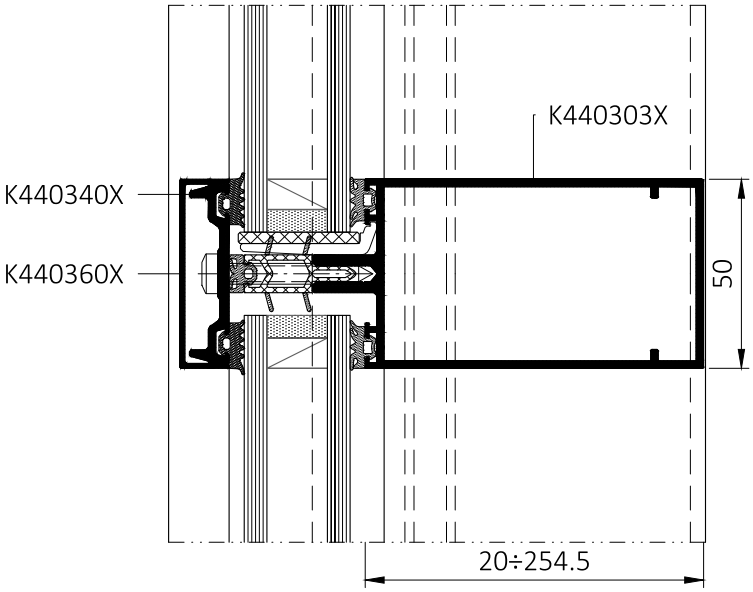
TECHNICAL SPECIFICATION	MB-MT50N
Mullion depth	20 – 250 mm
1st row transom depth	20 – 254.5 mm
2nd row transom depth	85 – 175 mm
Mullion rigidity (Ix ratio)	26.76 – 1665,22 cm^4
Transom rigidity (Ix ratio)	3.49 – 950,59 cm^4
Glazing	20 – 64 mm

PERFORMANCE	MB-MT50N
Air permeability	AE 1950, EN 12152
Watertightness	RE 1950, EN 12154
Windload resistance	± 3000 Pa, EN 13116
Impact resistance	I5/E5, EN 14019

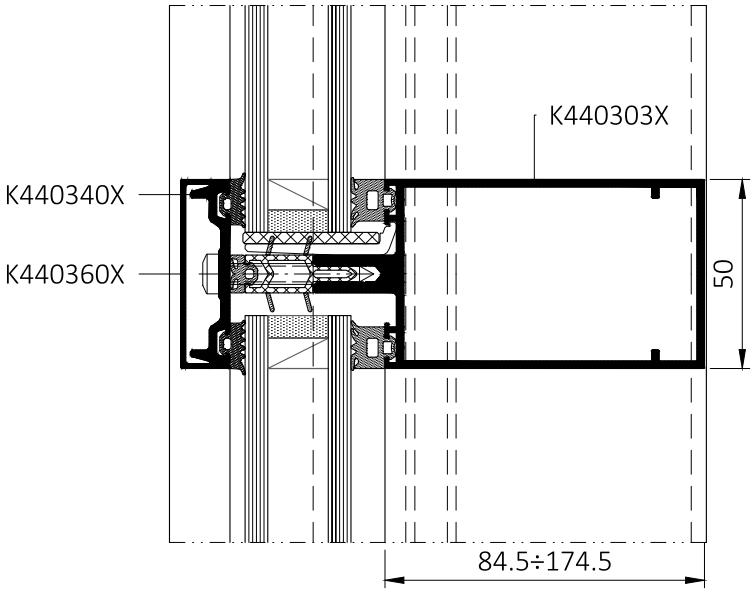
Cross section of an MB-MT50N mullion



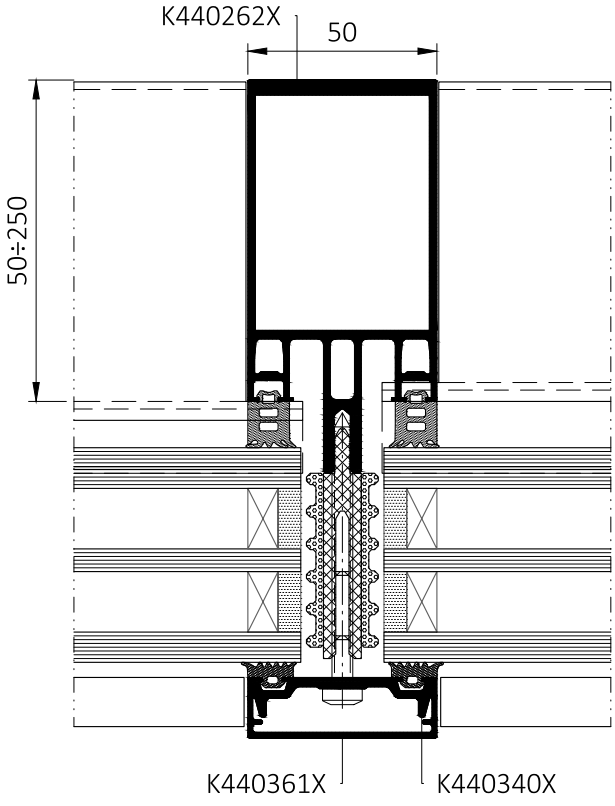
Cross section of a row 2 MB-MT50N transom



Cross section of a row 1 MB-MT50N transom

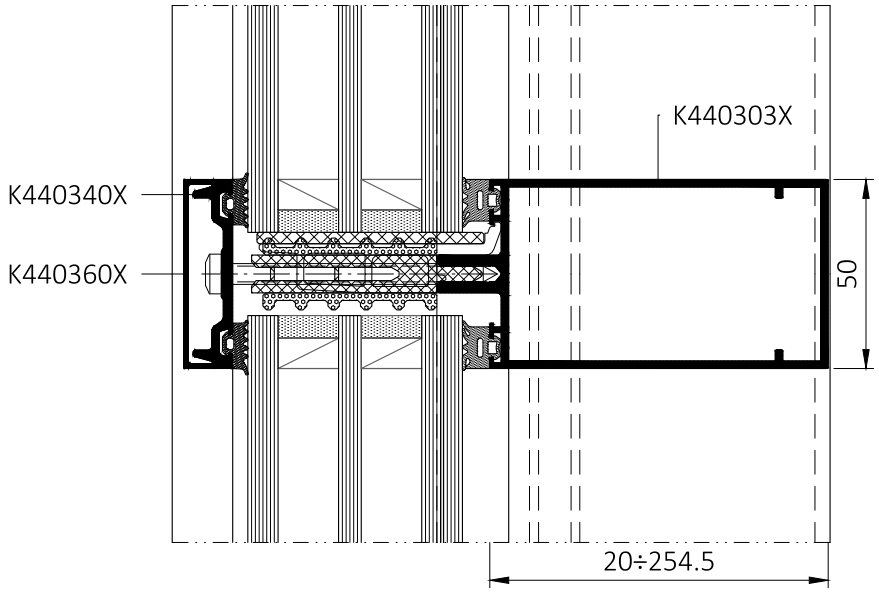


Cross section of an MB-MT50N SI mullion

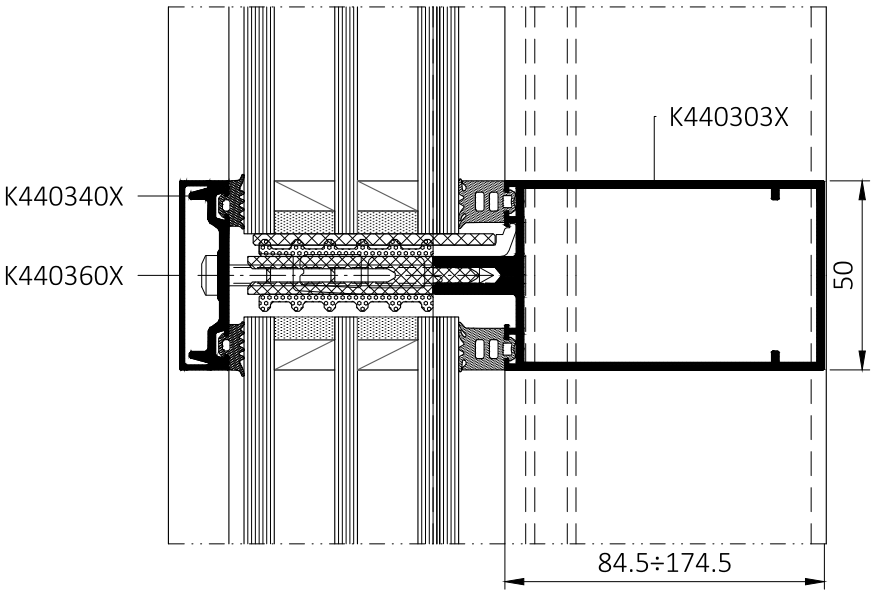


Scale 1:2

Cross section of a row 2 MB-MT50N SI transom

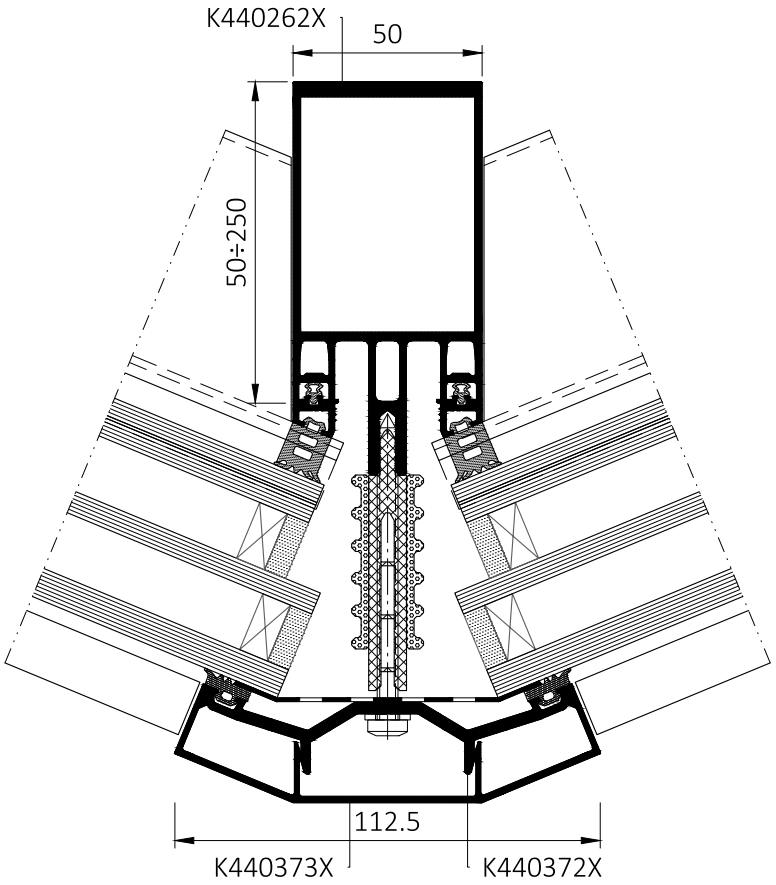


Cross section of a row 1 MB-MT50N SI transom



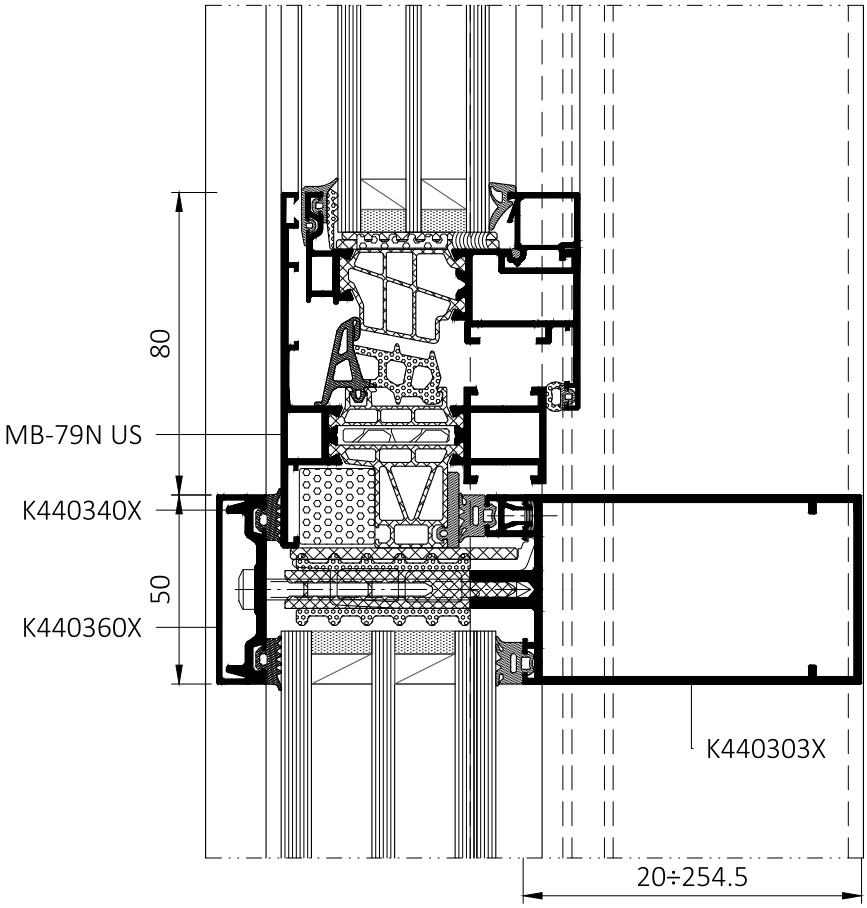
Scale 1:2

Cross section of an MB-MT50N SI corner mullion

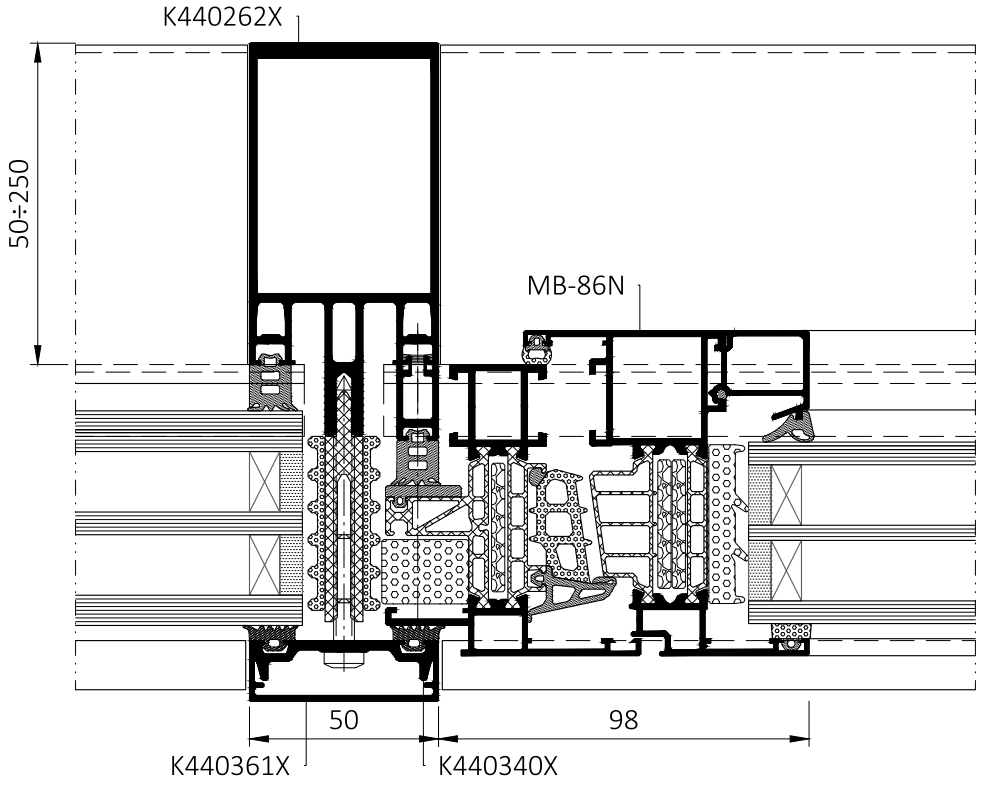


Scale 1:2

Cross section of an MB-MT50N SI
transom and an MB-79N US window

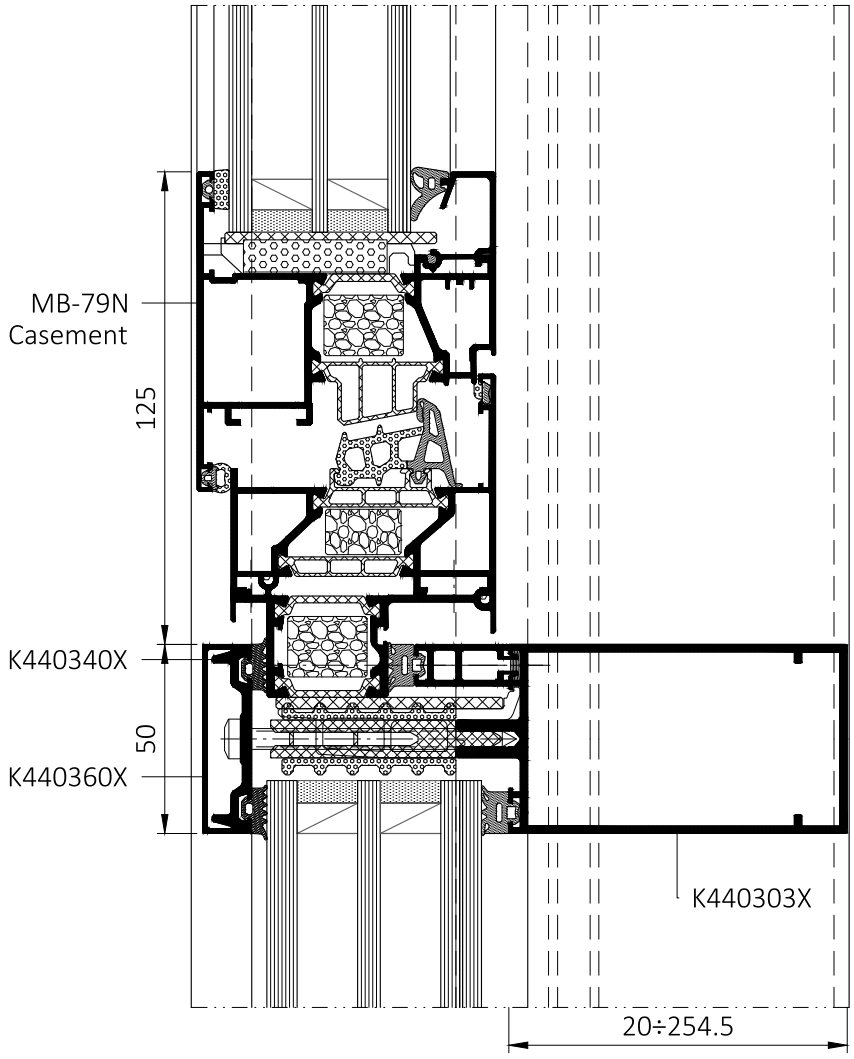


Cross section of an MB-MT50N SI
mullion and an MB-86N window



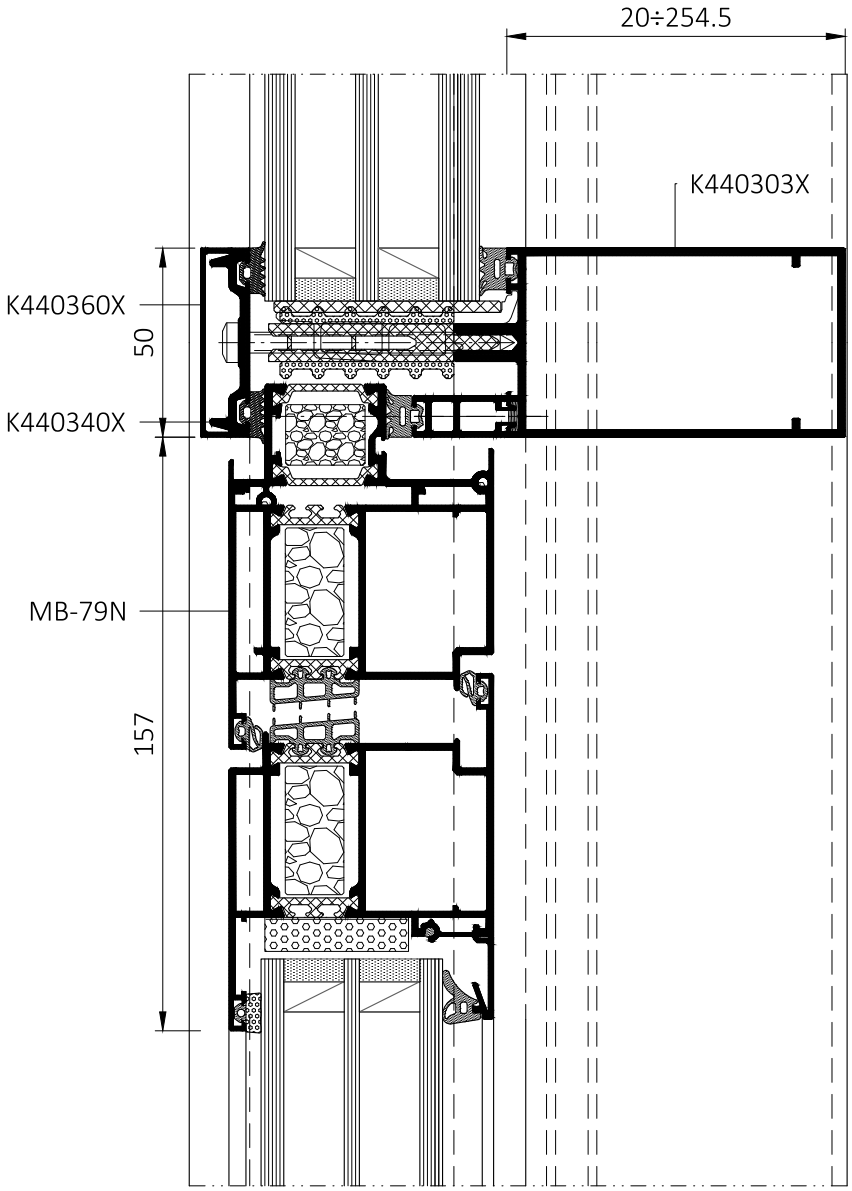
Scale 1:2

Cross section of an MB-MT50N SI
transom and an MB-79N Casement window



Scale 1:2

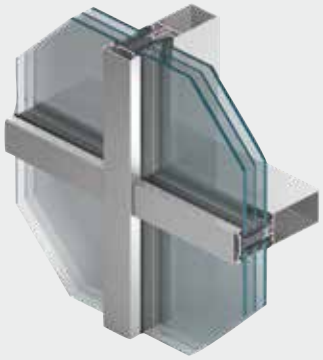
Cross section of an MB-MT50N SI transom and an MB-79N door



More examples on: www.aluprof.com/en/bim-file-finder **Scale 1:2**

CURTAIN WALL SYSTEMS

MB-SR50N MB-SR50N HI+



The system is designed for the fabrication and installation of flat, light-weight curtain walls of a suspended or filling type, roofs, skylights and other spatial structures. It enables constructing aesthetic curtain walls with narrow sight lines, ensuring at the same time durability and strength of the end product. There are different ways to finish off the external appearance, including the horizontal or vertical line (MB-SR50N HI PL) and the semi-structural version (MB-SR50N HI EFEKT). The system features very good technical parameters. Among its strong points is flexibilty in shaping space and a wide variety of opening elements to be installed on the curtain wall. Particularly noteworthy is the version with enhanced thermal insulation MB-SR50N HI, HI+ which uses special insulators. The MB-SR50N HI+ system is certified by the Passive House Institute PHI Darmstadt.

MULLION AND TRANSOM CURTAIN WALL SYSTEM

CONSTRUCTION
The load bearing construction is formed by vertical and horizontal aluminium sections of box-type cross sections (mullions and transoms) of a fixed width, i.e. 50 mm and properly connected with each other. Clamping strips supporting the panes and masking strips of any shape form the external side of the curtain wall. The system also includes additional sections, accessories performing sealing or connecting function and a wide range of EPDM gaskets, applied to seal panes or other infills in the curtain wall.

DEPTH OF SECTIONS
Mullions: 50 – 325 mm,
transoms: 5 – 189.5 mm.
Infills 24 – 64 mm thick may be fitted in the system.

HIGH AESTHETIC VALUES. VARYING APPLICATIONS
The shape of mullions and transoms enables developing aesthetic curtain walls with visible narrow division lines, ensuring at the same time durability and strength of the construction. Profiles may be selected in such a way that they are flush on the inside of the curtain wall. The “horizontal and vertical line” forms an aesthetic variety of the MB-SR50N PL and MB-SR50N HI PL systems, with an emphasis placed on either horizontal or vertical division with the bullnose cap used in lieu of the square cap. A particular variant is the MB-SR50N EFEKT which resembles a structural wall in appearance: a uniform and smooth wall is obtained from the outside, divided by a truss of vertical and horizontal lines 20 mm wide.

D48, Warsaw, Poland
design / HRA Architekci, Epstein

FUNCTIONALITY OF THE CONSTRUCTION AND A WIDE RANGE OF OPENING ELEMENTS ON THE CURTAIN WALL
A characteristic feature of the MB-SR50N HI system is its close correlation with the door & window system of the MB series. Therefore, different opening elements may be installed on the curtain wall, suited to the project requirements with regard to the function and thermal insulation performance:

- self-closing, swing or sliding doors,
- standard windows (casement, tilt & turn or hopper),
- windows with a hidden sash of the following versions: MB-70US, MB-86US, MB-79N US (with a wider frame) or MB-70SG (with a narrower frame),
- pivot windows,
- awning windows with sash profiles imperceptible on the outside or with sash profiles visible on the outside.
- integrated windows – inward opening but imperceptible from the external side of the curtain wall,

– roof windows MB-SR50N RW, MB-RW.

FREEDOM OF DESIGN
A wide range profiles allows architects and designers to implement even the most challenging ideas for aluminium and glass constructions. In order to construct a broken wall, both in its vertical and horizontal sections, special overlapping profiles and appropriately shaped clamping and concealing strips have been used, with the result that there are no restrictions as to styling the body of the building and there is no need to use special angle mullions.

PROVEN STRENGTH
Proven strength Depending on the division pattern and external loads, the system provides for an adequate number of mullions and transoms varying in depth, with the moment of inertia Ix, adjusted in such a way as to guarantee optimal aluminium consumption and effective reduction in material costs. In case of large bearing loads all mullions may be additionally reinforced by applying special internal aluminium profiles, thus significantly improving their strength. Max. weight of glass: up to 1100 kg.

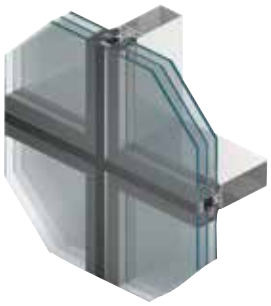
EXCELLENT TIGHTNESS TO WATER AND AIR INFILTRATION
The system provides for the execution of mullion – transom overlapping connection, which enables proper water drainage and wall ventilation, as well as securing low values of air infiltration coefficient and water tightness.

FIRE SAFETY
Due to the sandwich construction of the window head & sill area, in which nonflammable materials such as mineral wool and plasterboards have been used, fire classification EI30 and EI60 have been achieved depending on the construction. The MB-SR50 EI system is a separate solution, which meets fire safety requirements set for the whole curtain wall, i.e. of class EI30 or EI60.

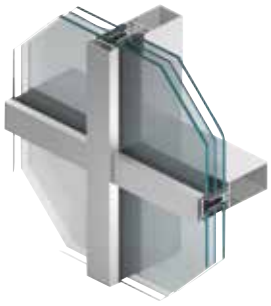
PERFORMANCE
- Heat transfer coefficient: U_f from 0.59 W/(m²K), EN ISO 10077-2:2005
- Air permeability: to Class AE 1200,EN 12152
- Watertightness: to Class RE1200, EN 12154
- Windload resistance: 2.4 kN/m², EN 13116
- Impact resistance: Class I5/E5, EN 14019
- Acoustic insulation: R_w=47 dB, R_{a2}=44 dB (depending on the infill material)
- Burglary resistance: Class RC1 to RC3, EN 1627

Variations available in **MB-SR50N** system

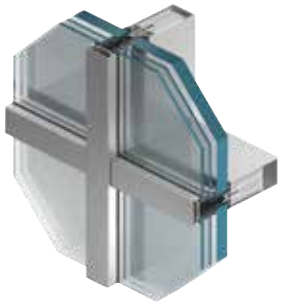
MB-SR50N HI+



MB-SR50N EFEKT



MB-SR50N HI



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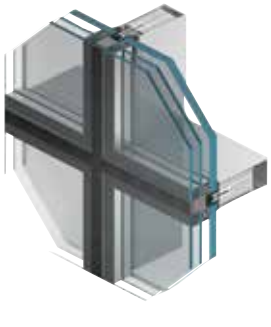
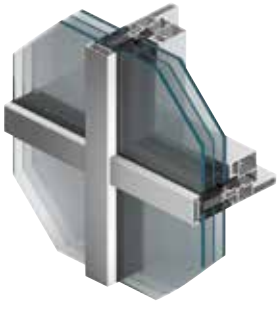
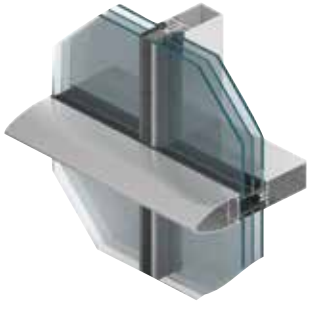


MB-SR50N EI EFEKT



MB-SR50N IW



MB-SR50N PL

CURTAIN WALL SYSTEMS

MB-SR50N OW HI+

The window structure is based on aluminum profiles with a thermal break enabling the installation of large windows with high performance. It is designed in two glazing versions:

– as a window with a visible capping, used to hold the glass and highlight the window outlines
– as a frameless construction, using a structural silicone sealant to fix the outer pane to the aluminum frame – operable windows are then consistent with the appearance of adjacent fixed sections.

In the MB-SR50N OW HI+ windows glass units with a thickness of 48 – 64 mm can be used.

PARALLEL TILTING SLIDING WINDOWS OPENING OUTWARDS

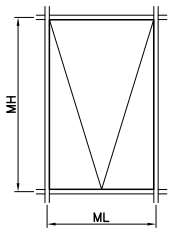
PERFORMANCE

- Air permeability: Class 4, EN 12207
- Watertightness: E 1950, EN 12208
- Resistance to wind load: B5/C5, EN 12210

Medicus, Wrocław, Poland
design / JSK ARCHITEKCI

Max. dimensions in the curtain wall

MB-SR50N OW
top hung window

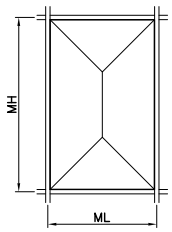


MHmax = 2630 mm
MLmax = 2000 mm

MHmin = 500 mm
MLmin = 500 mm

KG 180 kg

MB-SR50N OW
parallel window

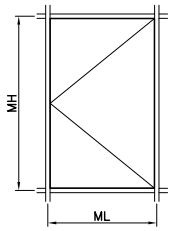


MHmax = 3000 mm
MLmax = 2000 mm

MHmin = 890 mm
MLmin = 540 mm

KG 440 kg

MB-SR50N OW
side hung window

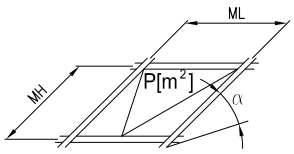


MHmax = 2000 mm
MLmax = 970 mm

MHmin = 500 mm
MLmin = 430 mm

KG 47 kg

MB-SR50N RW
roof vent



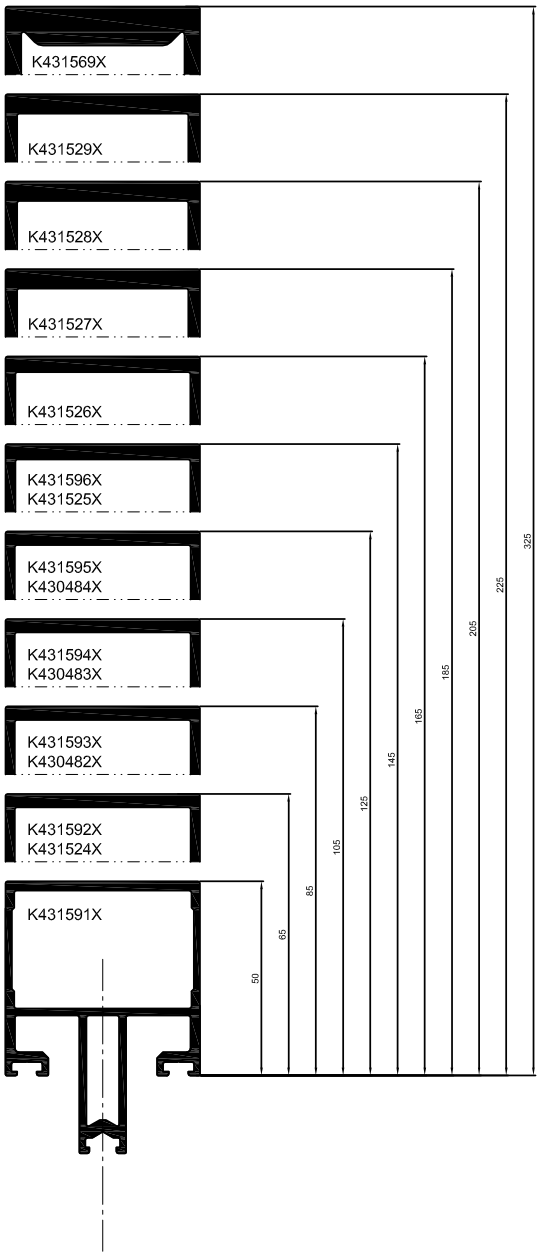
MHmax = 2050 mm
MLmax = 1800 mm
Pmax = 3.40 m²

αmin = 5°
αmax = 75°

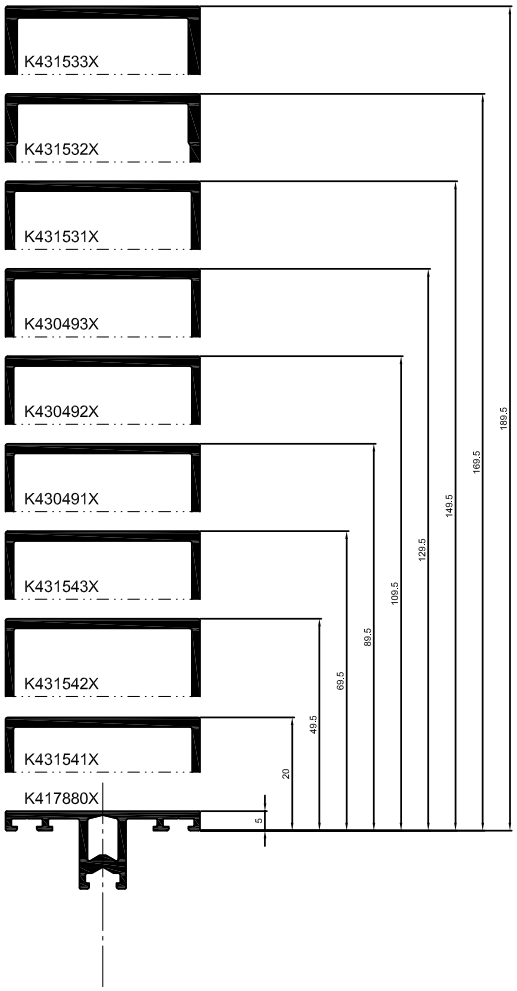
KG 150 kg

KG Maximum weight of the vent

Mullions



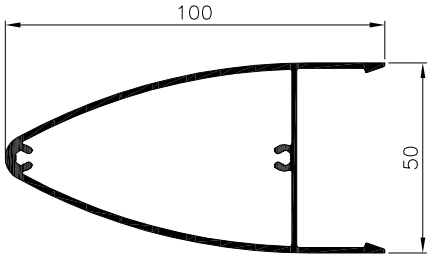
Transoms



Scale 1:2

Cover caps and pressure plates, additional profiles

K417889X



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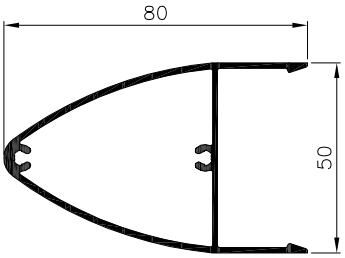

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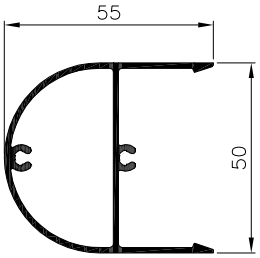

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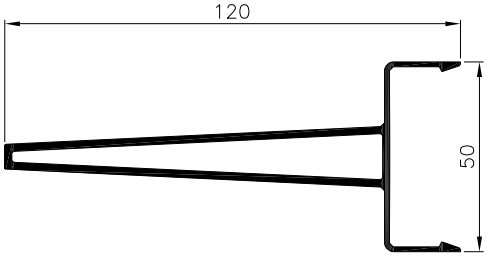

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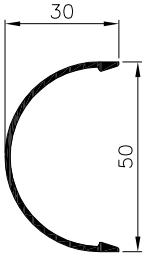

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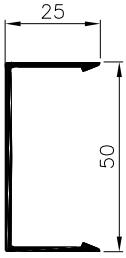

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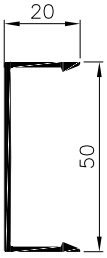

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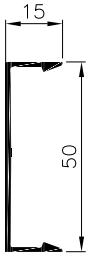

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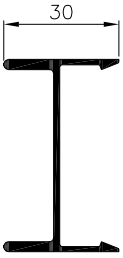

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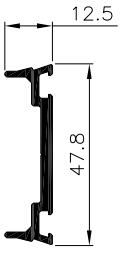

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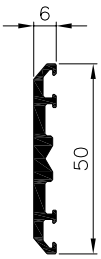

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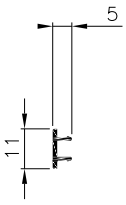

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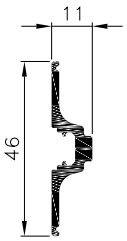

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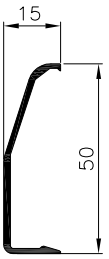

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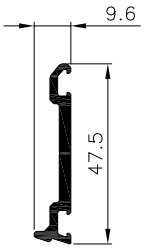

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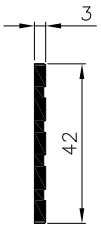

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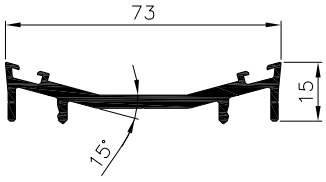

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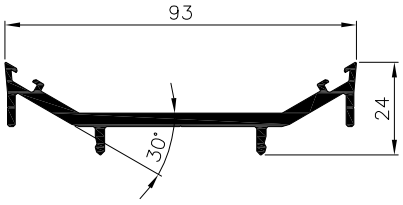

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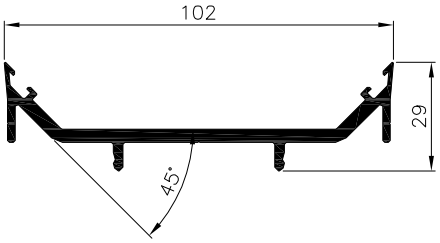

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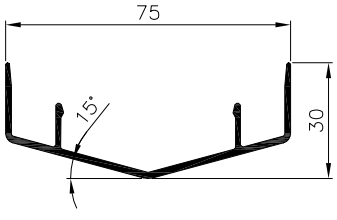

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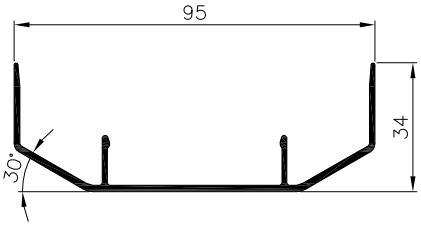

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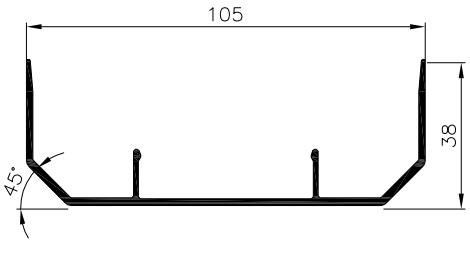
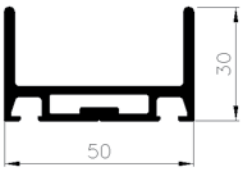


Scale 1:2

Cover caps and termination bars

K430408X



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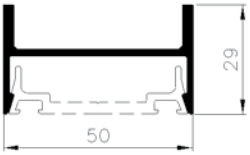

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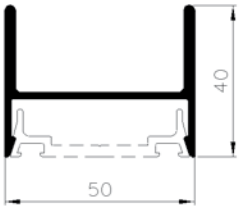

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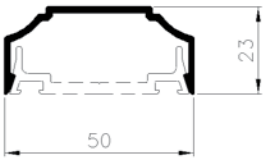

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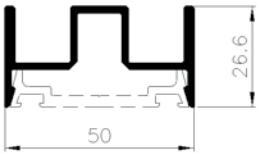

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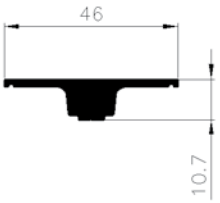

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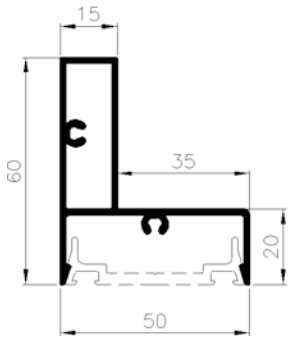

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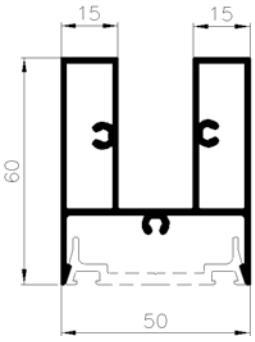

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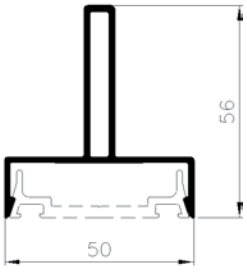
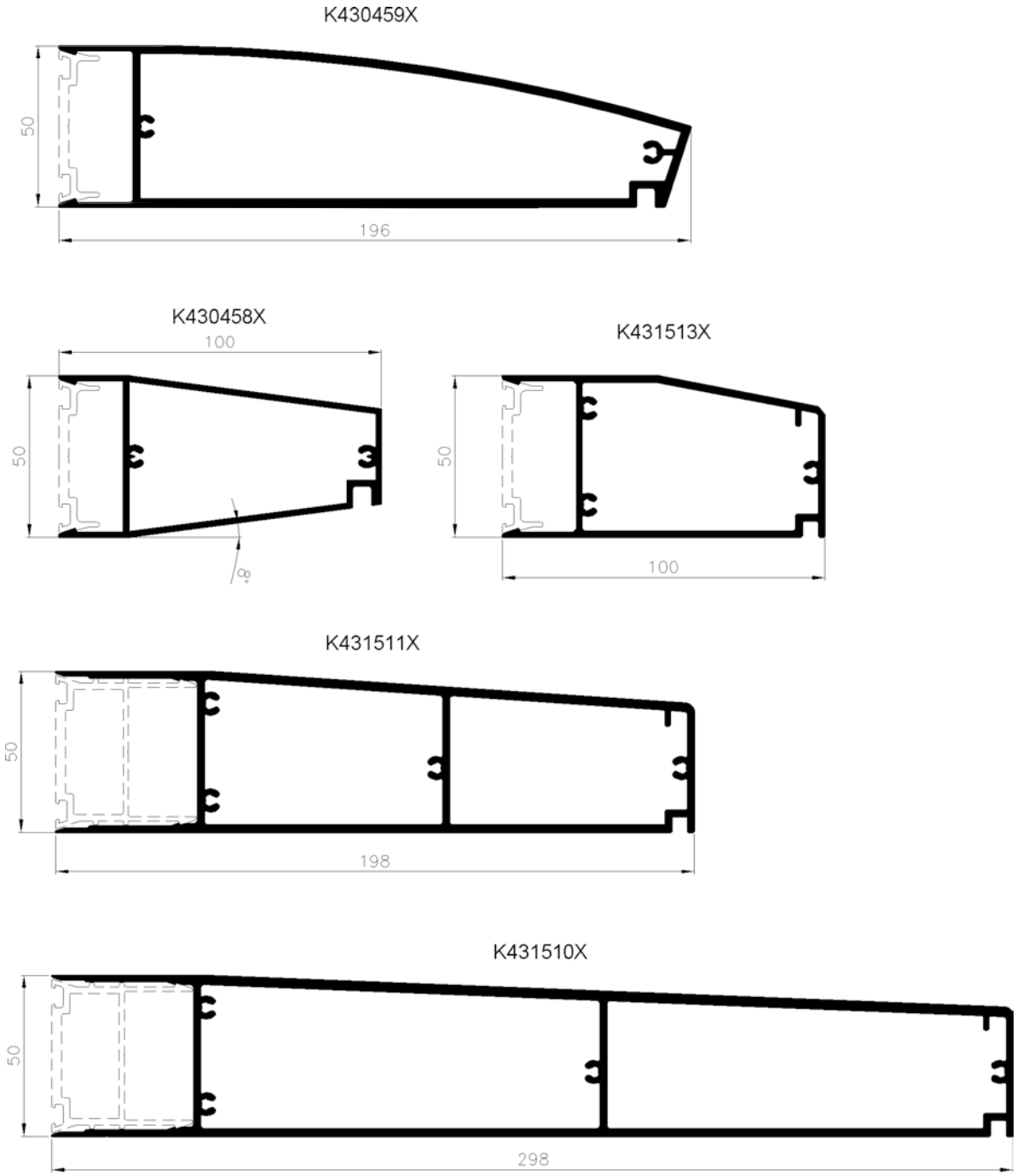


Scale 1:2

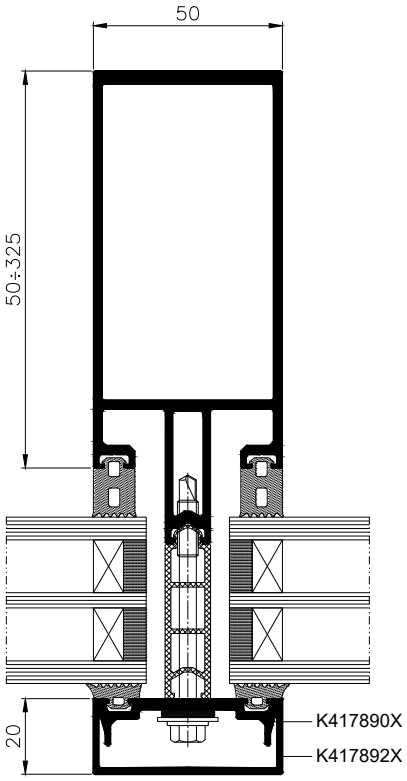
Cover caps and termination bars



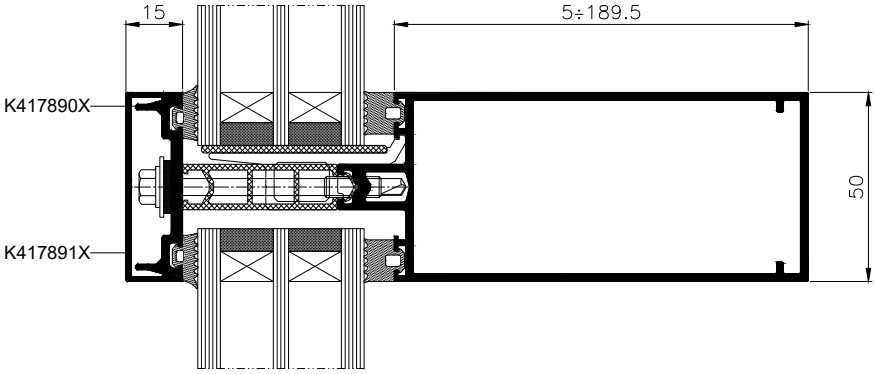
More termination bars and cover caps' profiles are presented in the Catalogue for Architects on **www.architects.aluprof.com** and in the Project Specific & Bespoke Solutions.

Scale 1:2

Mullion – cross section MB-SR50N

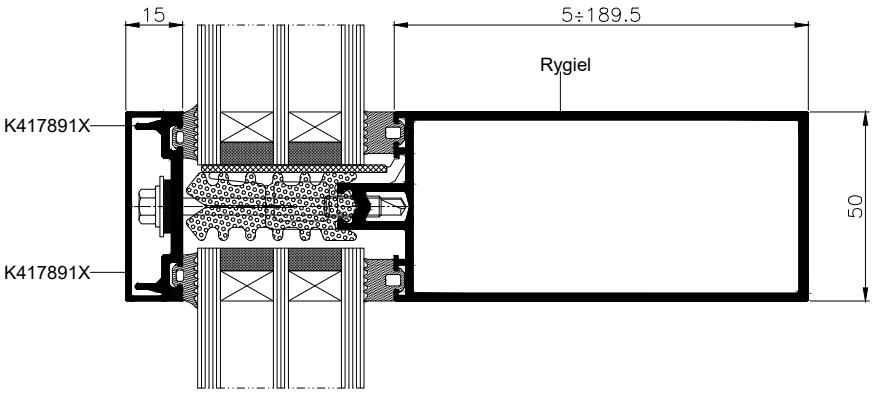


Transom – cross section MB-SR50N



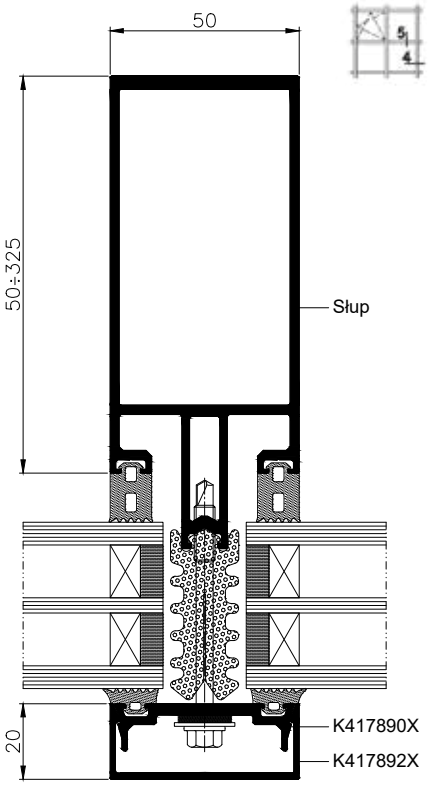
Transom – cross section MB-SR50N HI+

5



Mullion – cross section MB-SR50N HI+

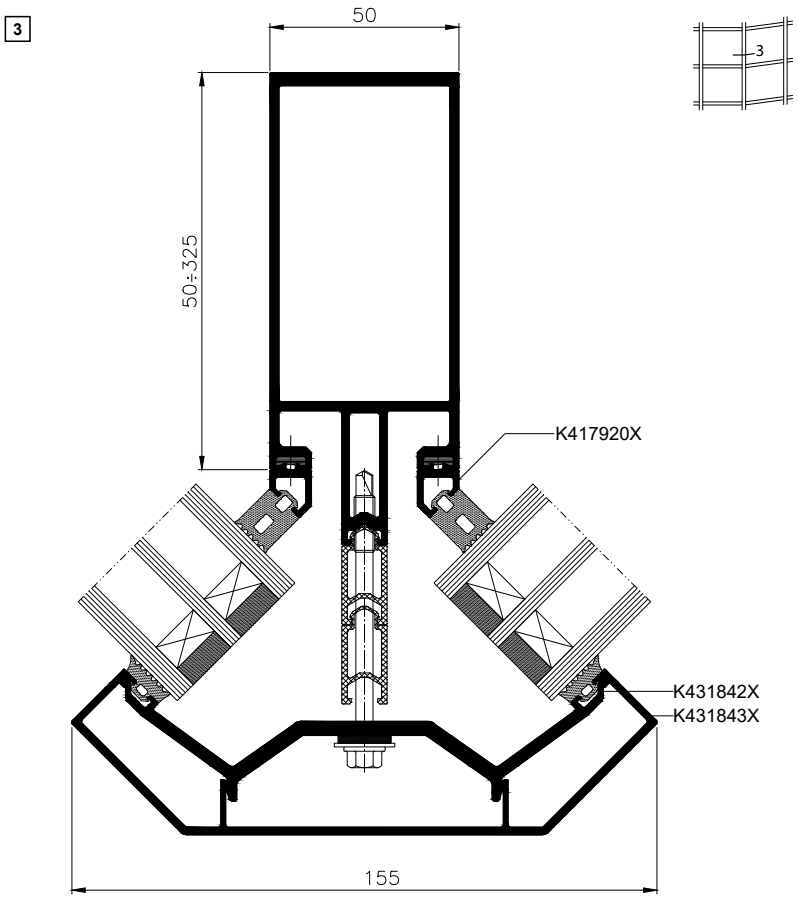
4



Scale 1:2

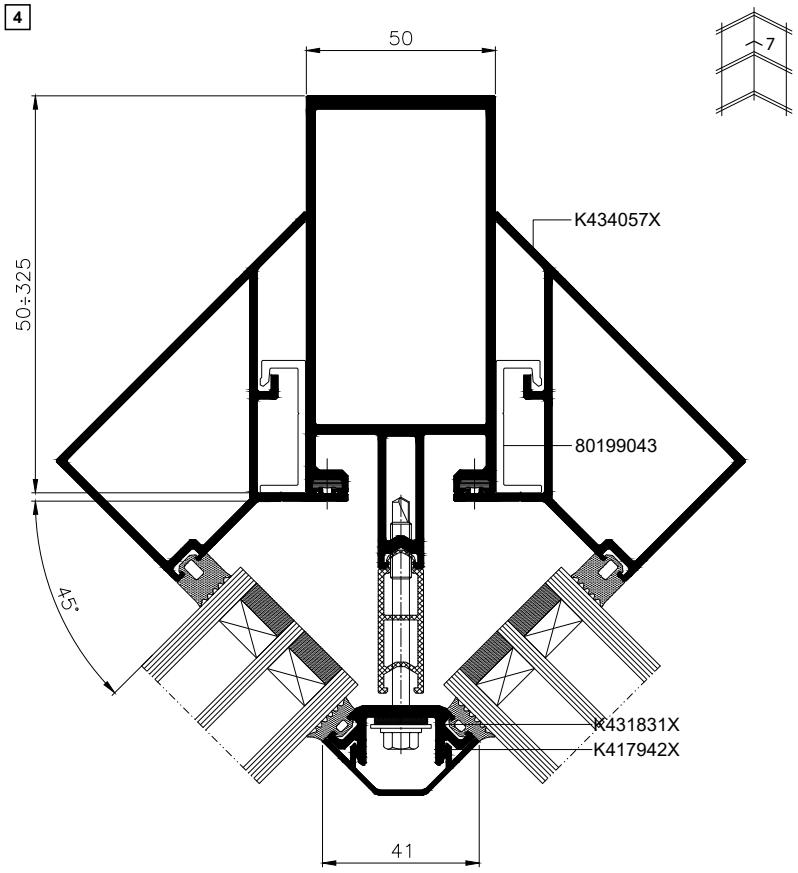
Symmetrical angel joint – cross section

3



Symmetrical angel joint – cross section

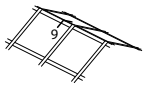
4

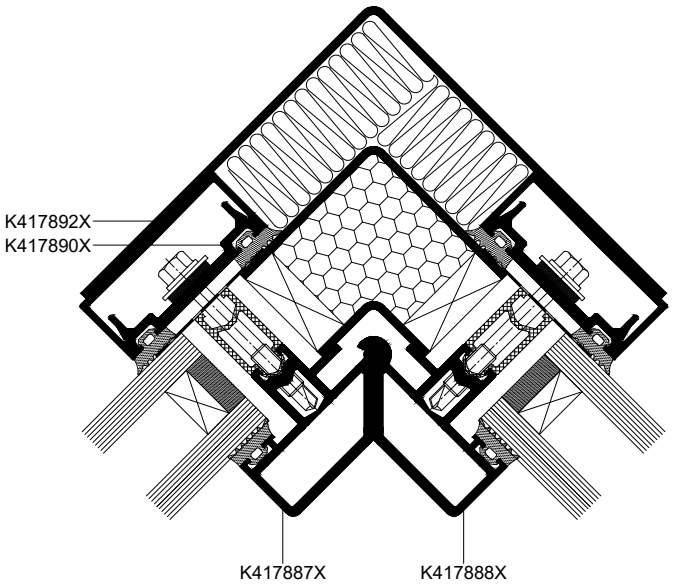


Scale 1:2

Horizontal section of roof ridge

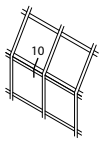
9

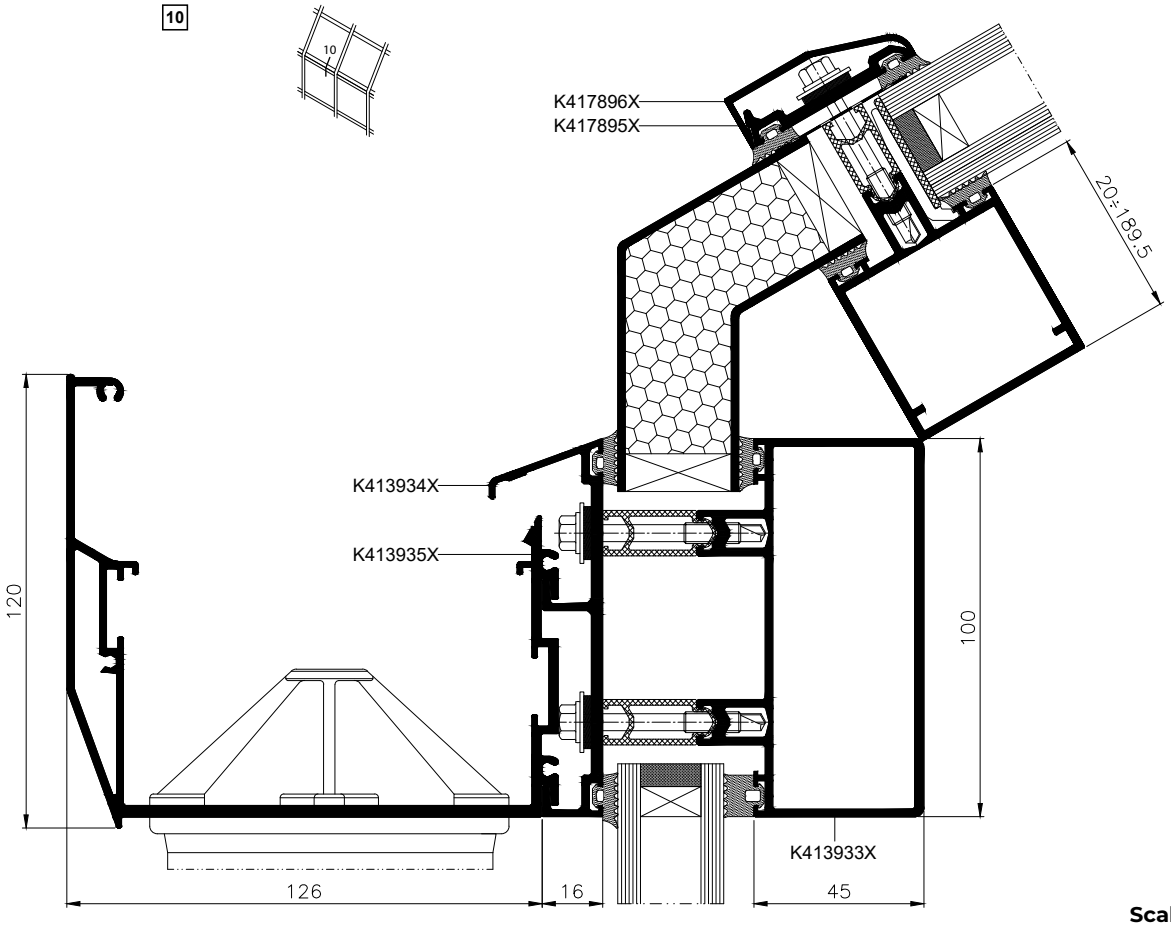




Horizontal section of gutter

10

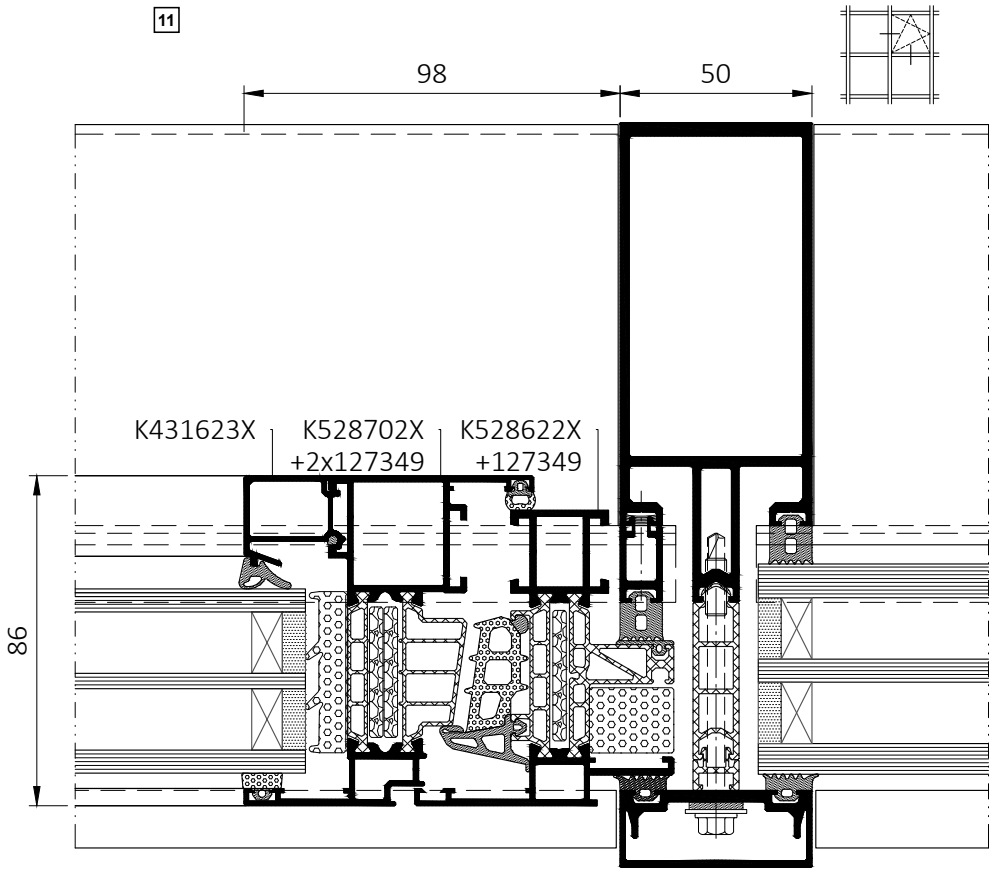




Scale 1:2

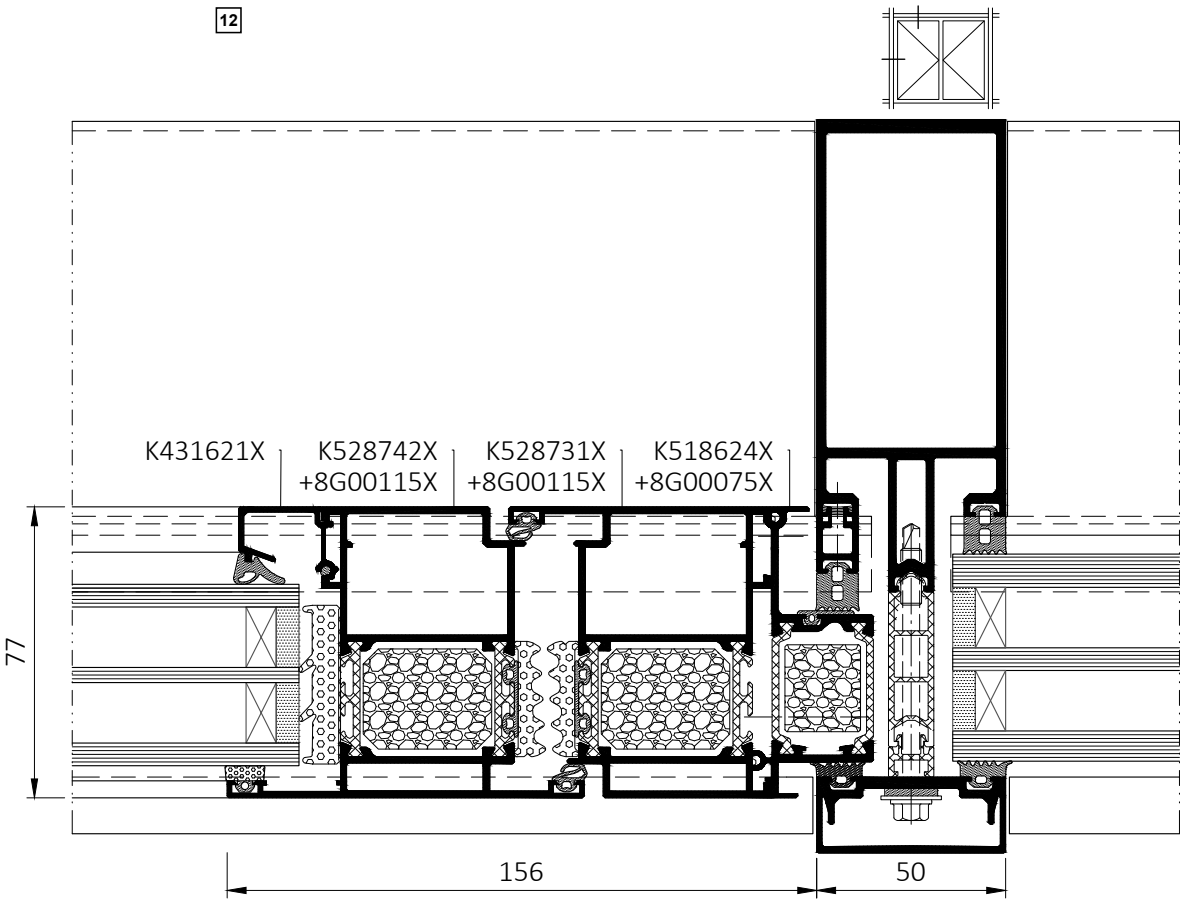
MB-86N SI window cross section in MB-SR50N HI curtain wall

11



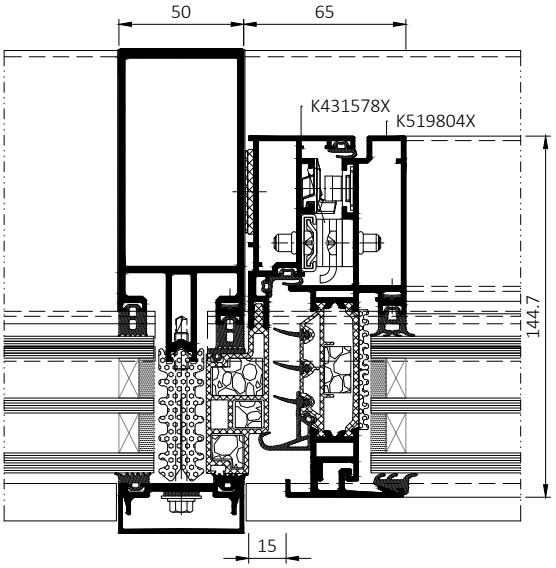
MB-86N SI door cross section in MB-SR50N HI+ curtain wall

12

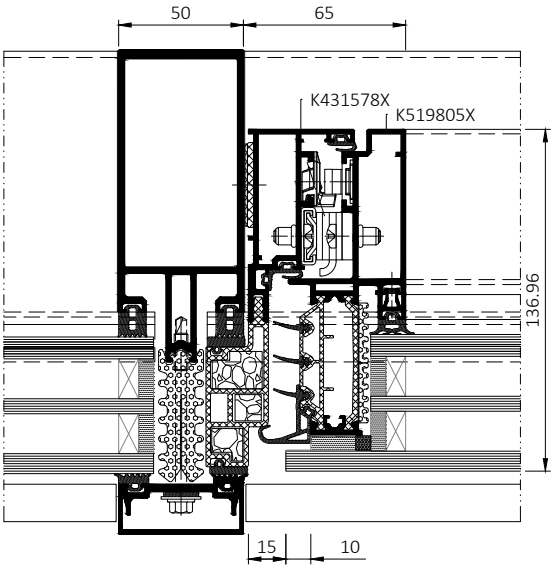


Scale 1:2

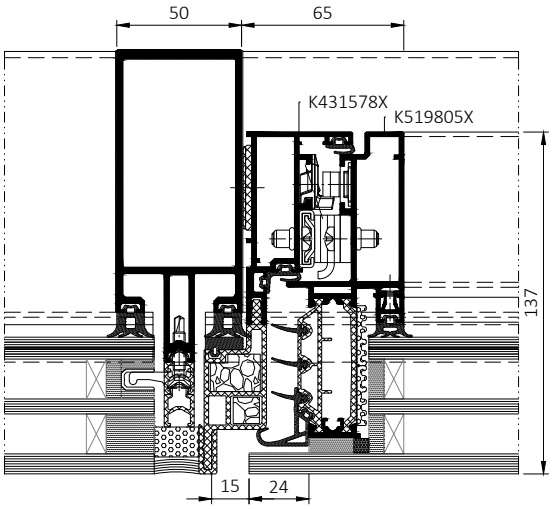
MB-SR50N OW HI+ beaded casement window – cross section



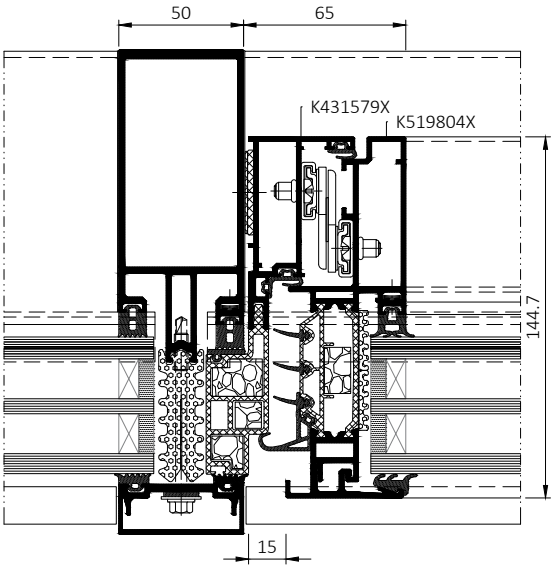
MB-SR50N OW HI+ SGG casement window – cross section



MB-SR50N OW HI+ beaded parallel window – cross section



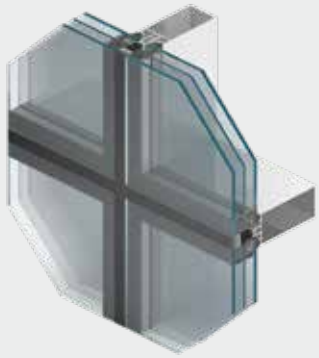
MB-SR50N OW HI+ SGG casement window – cross section



More examples on: www.aluprof.com/en/bim-file-finder **Scale 1:3**

CURTAIN WALL SYSTEMS

MB-SR50N EFEKT



MB-SR50N EFFECT is a special curtain wall system, in which the method of fixing the glass to mullions and transoms offers a unified external glass surface sectioned by 2 cm wide vertical and horizontal lines. The gaps between the glass panels of the curtain wall are filled with a special silicone sealant providing high tightness and improved insulation of the structure.

SEMI – STRUCTURAL CURTAIN WALL SYSTEM

MB-SR50N EFFECT is used for the construction of light curtain walls of a suspended and filling type, as well as roofs, skylights and other spatial structures. Its support structure is based on a modern and proven aluminum MB-SR50N mullion and transom system offering a wide range of profiles and options for selecting the profiles to harmonize the surfaces of members on the internal side of the curtain wall, thus, creating a visually attractive connection with the curtain wall and the inner structure.

One of the key benefits of MB-SR50N EFFECT curtain walls is the wide offer of glazing: a wide range of infills available in the catalog with a thickness within 24 to 56 mm includes double-glazed or triple-glazed glass units, as well as opaque panels based on insulated glass. A real novelty in such curtain walls is the possibility to use laminated glass units. A precise fixing system for infills allows flexible and economic adjustment to the requirements of an individual project – differentiated depending on glass weight and including solutions for transferring the loads from glass to profiles up to a capacity of 600 kg. We have two standard variants for glass fixing: with continuous or non-continuous spacers. It is also worth noting that for this system sealants of various colors can be used, which significantly increases the options for creating aesthetic curtain walls.

Curtain walls based on MB-SR50N EFFECT have excellent user properties and offer not only desired visual attractiveness, but also very high thermal insulation, which is one of the main criteria for assessing contemporary curtain walls due to the strong world-wide trend focused on the reduction of energy consumption in buildings.

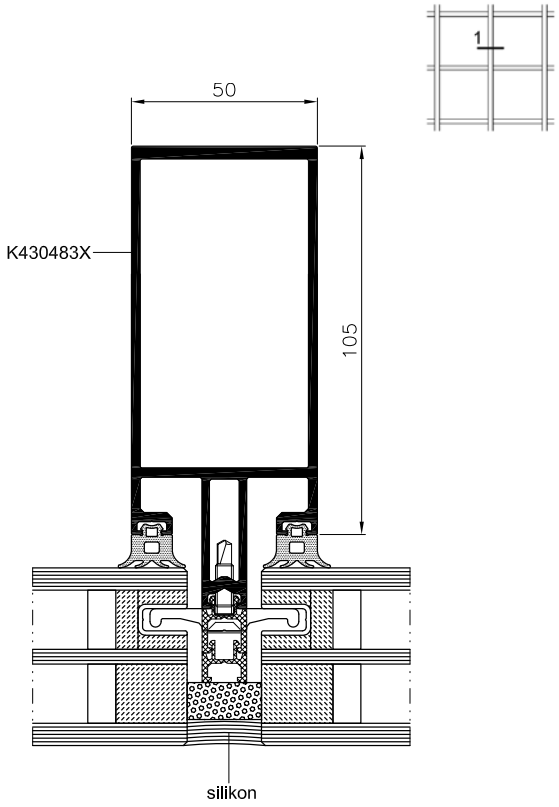
Double Tree by Hilton, Łódź, Poland
design / APA Kuryłowicz&Associates

PERFORMANCE

- Air permeability: Class AE 1200 Pa
- Watertightness: Class RE 1200Pa
- Windload resistance: up to 2400 Pa
- Impact resistance: Class I5/E5
- Thermal insulation: U_f from 1.1 W/(m^{2}K)

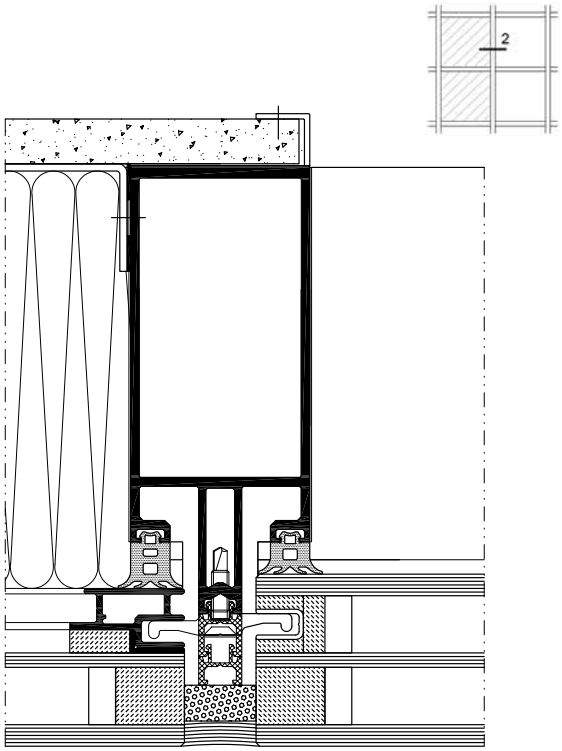
Mullion – cross section

1



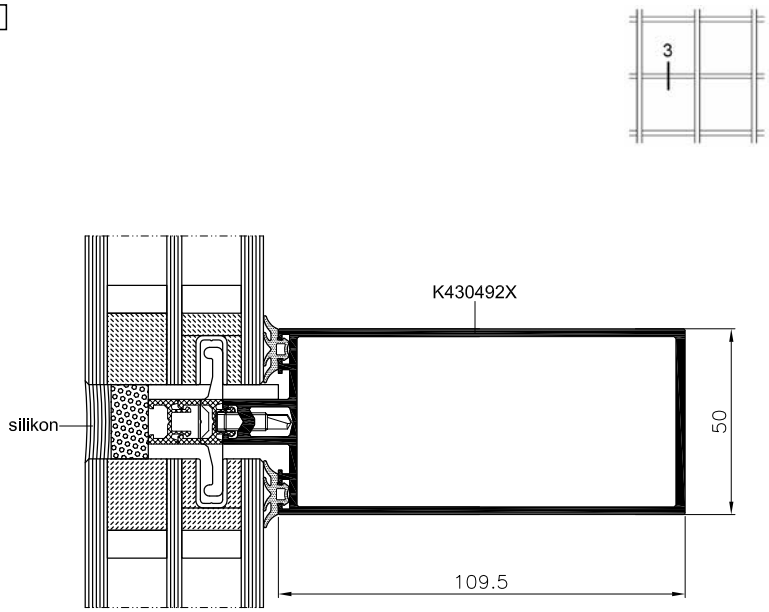
Mullion with glazing unit and obscure panel – cross section

2



Transom – cross section

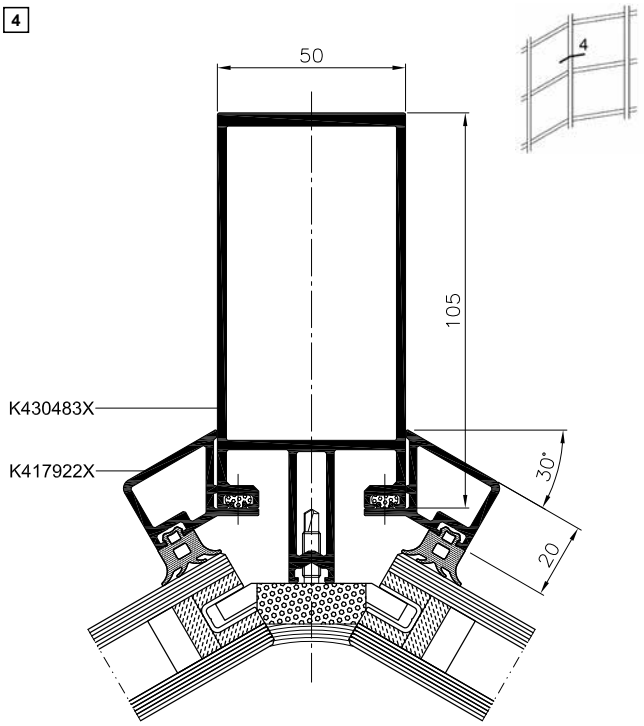
3



Scale 1:2

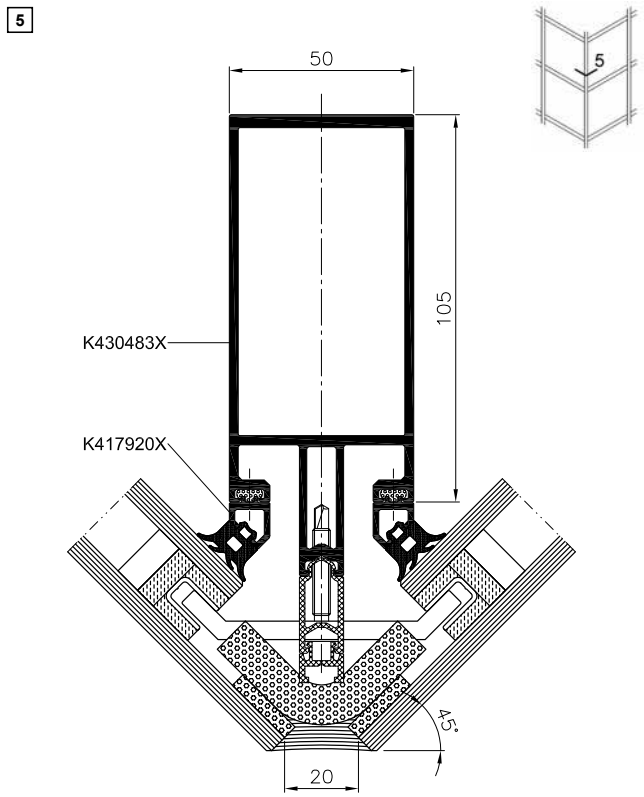
Internally folding joint – cross section

4



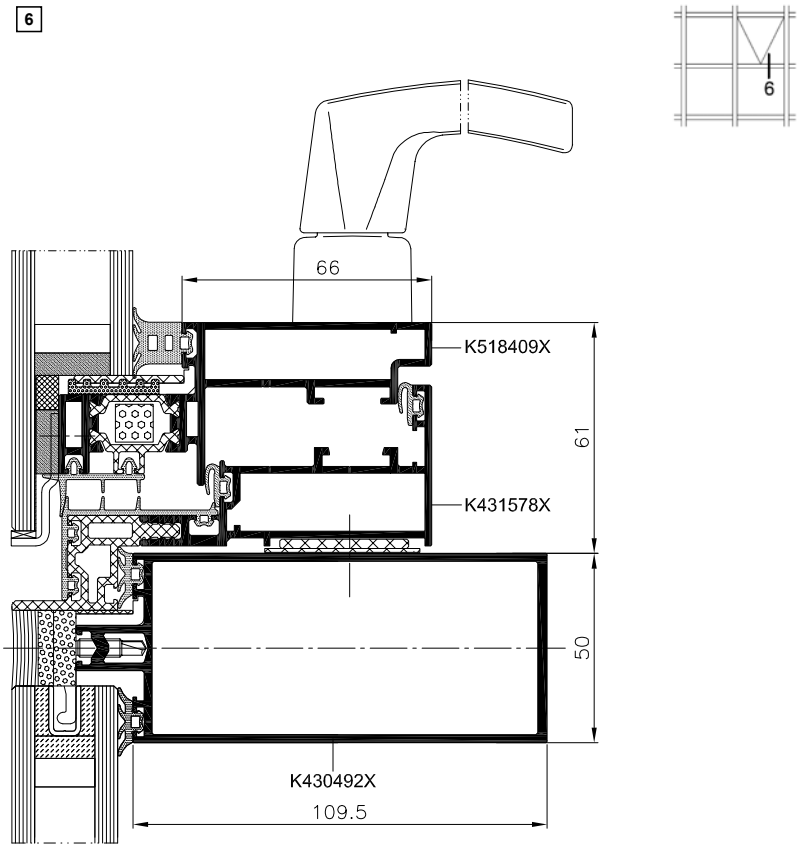
Externally folding joint – cross section

5



Transom with SG parallel window – cross section

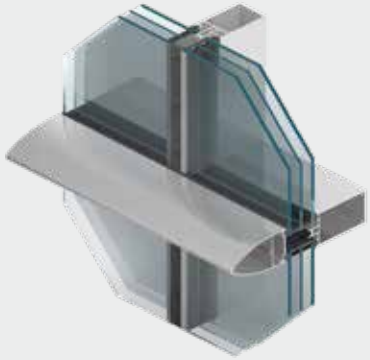
6



More examples on: www.aluprof.com/en/bim-file-finder **Scale 1:2**

CURTAIN WALL SYSTEMS

MB-SR50N PL



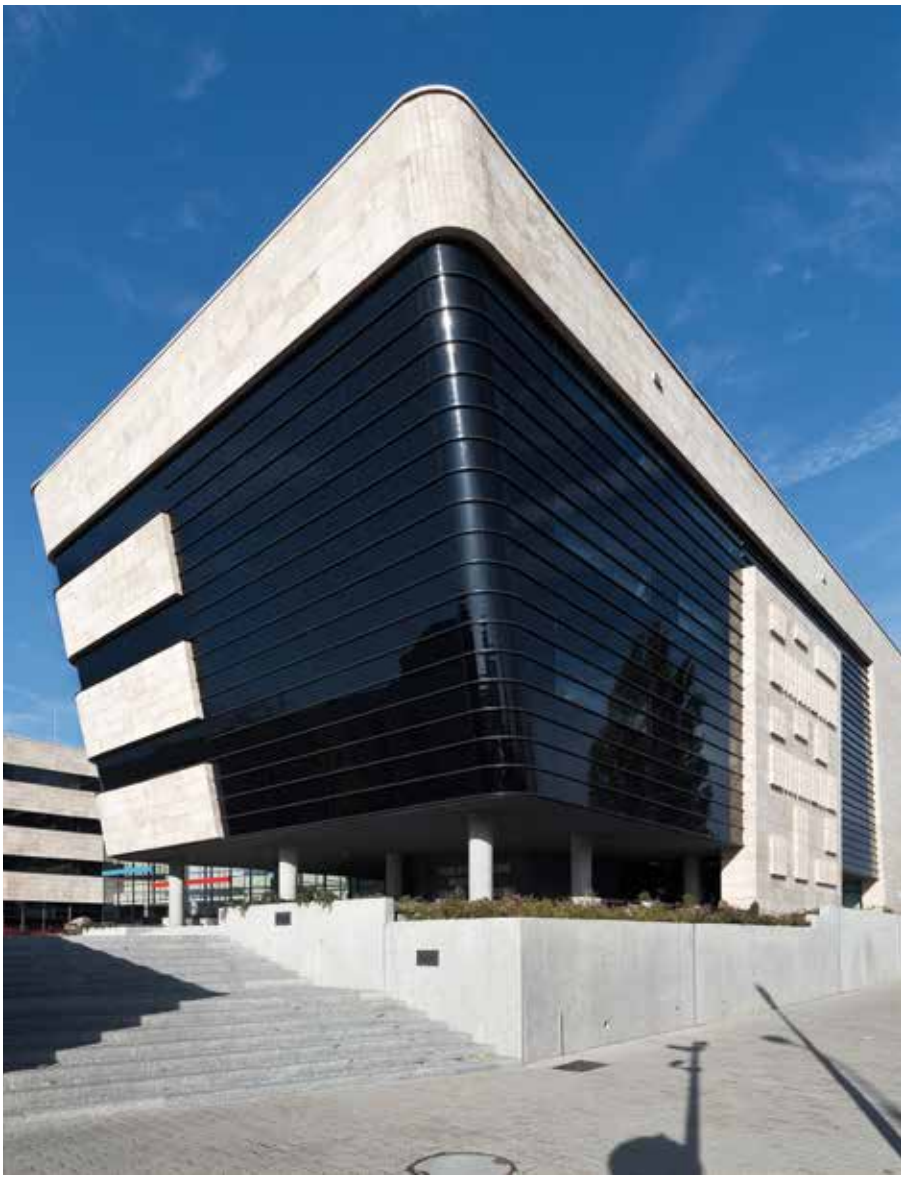
Solution MB-SR50N PL "Horizontal line" is the aesthetic variant of the mullion and transom façade, in which horizontal or vertical partitions are emphasised. This is realised by using the appropriate masking (e.g. elliptical) strips to stress one direction of façade division, whereas in lines that are perpendicular to them, the glass fastening strips are eliminated. When required, the connectors that function between fillings can be used in these lines and masked with so-called weather silicone or special gasket, thus making them not visible from the outside. As in other façade versions, hinged windows can be used in the MB-SR50N PL construction without changing its appearance.

HORIZONTAL LINE

MB-SR50N PL is used for the construction of light curtain walls of a suspended and filling type, as well as roofs, skylights and other spatial structures. Its support structure is based on a modern and proven aluminium MB-SR50N mullion and transom system offering a wide range of profiles and options for selecting the profiles to harmonize the surfaces of members on the internal side of the curtain wall, thus, creating a visually attractive connection with the curtain wall and the inner structure.

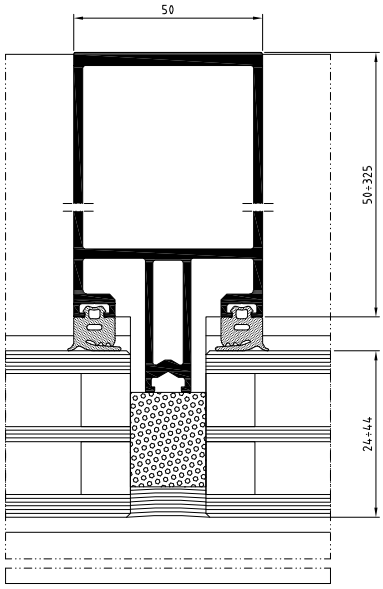
PERFORMANCE

- Air permeability:
  Class AE, EN 12152
- Watertightness:
  Class RE 1200, EN 12154
- Windload resistance:
  2.4 kN/m², EN 13116
- Impact resistance:
  Class I5/E5, EN 14019

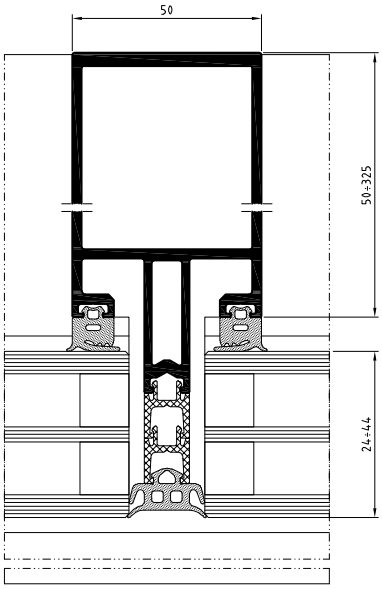


Poznan University of Technology, Faculty of Chemical Technology, Poznań, Poland
design / Yoris Architectural Studio

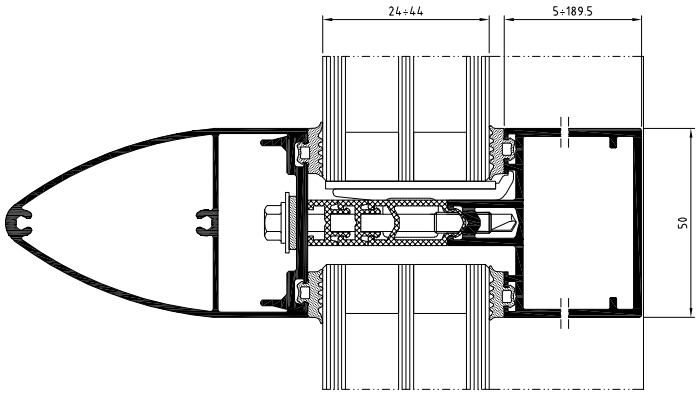
Mullion – cross section



Mullion – cross section

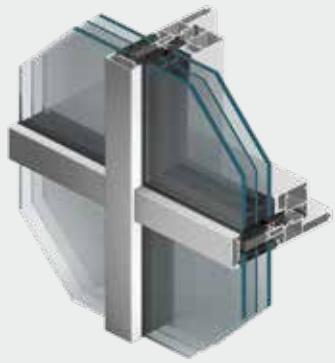


Transom – cross section



CURTAIN WALL SYSTEMS

MB-SR50N IW



Unique in its design, the MB-SR50 IW system gives a fully integrated curtain wall option, that of an inward opening concealed vent. The external appearance of a fixed light is no different to that of a Tilturn vent. The MB-SR50WI system is available in three "finished look" options, including standard cap, flat 4mm pressure caps, and EFEKT system option silicone joint.

BESPOKE CURTAIN WALLING SYSTEM WITH INTEGRATED WINDOW

FLEXIBILITY IN DESIGN

The structure of MB-SR50IW curtain wall is based on bespoke design mullion and transom sections. The sections are shaped to accommodate vent profiles in opening areas, providing sharp edge finish profiles and the choice of an internal flush finish mullion & transom, giving a modern, contemporary look. Various design features relating to the glazing are available, including different shape standard 50 mm capping, 46 mm wide flat pressure plates and 20 mm wide silicon joints. The overlapping nature of the mullion-transom joints, provides excellent weather tightness.

GLAZING

MB-SR50N IW system accommodates glazing units from 24 mm up to 36 mm for fixed lights, and from 28 mm up to 36 mm for opening lights. The glass unit of the "IW" concealed vent is bonded to the frame by way of a structural silicone.

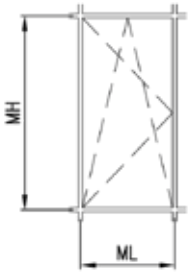
PERFORMANCE

- Heat transfer coefficient: U_f from 1.68 W/(m²K)
- Air permeability: AE1200, EN 12153:2003; EN 12152:2002
- Watertightness: RE1200, EN 12155:2003; EN 12154:2002
- Windload resistance: 2400Pa, EN 12179:2002; EN 13116:2002
- Impact resistance: E5/15
- Acoustic insulation: R_w=42 dB (depending on the infill material)

Transatlantyk, Gdynia, Poland
design / Bazyli Domsta, Adam Drohomirecki and Marcin Pilch

Max. dimensions in the curtain wall

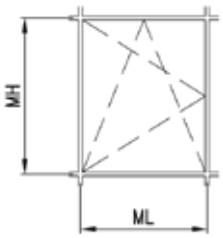
Tilt and turn window



MHmax = 2400 mm
MLmax = 1300 mm

MHmin = 550 mm
MLmin = 450 mm

180 kg

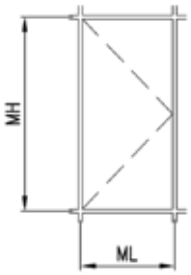


MHmax = 2000 mm
MLmax = 1600 mm

MHmin = 550 mm
MLmin = 450 mm

180 kg

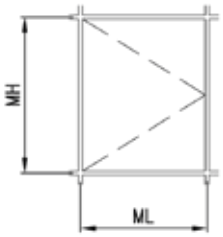
Side hung window



MHmax = 2400 mm
MLmax = 1300 mm

MHmin = 550 mm
MLmin = 400 mm

180 kg



MHmax = 2000 mm
MLmax = 1600 mm

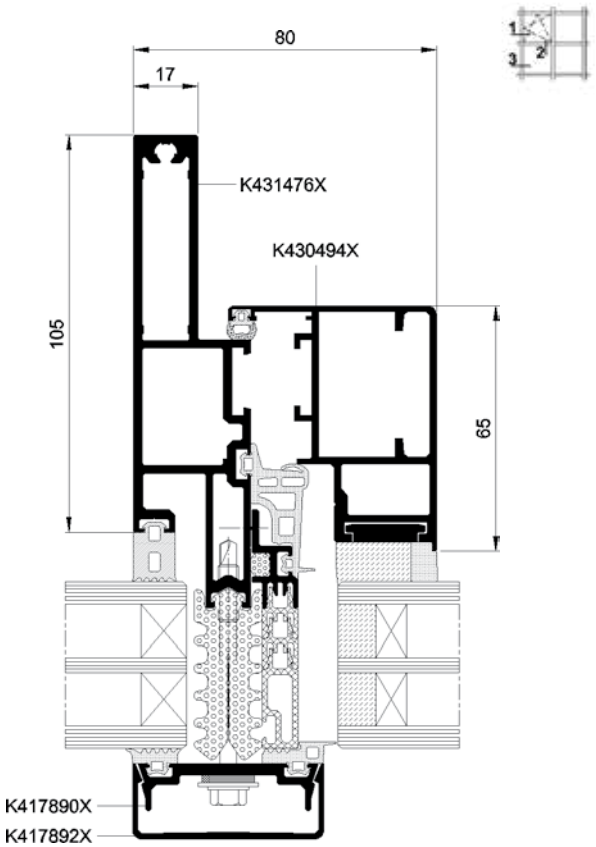
MHmin = 500 mm
MLmin = 400 mm

180 kg

Maximum weight of the vent

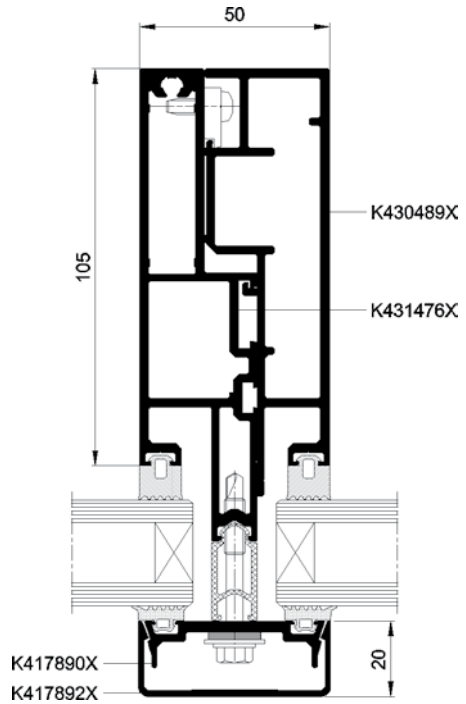
Mullion – cross section

1



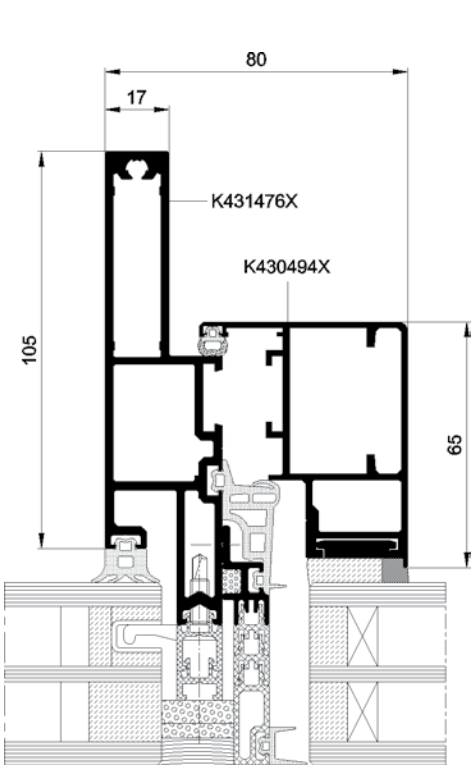
Transom – cross section

3



Transom – cross section

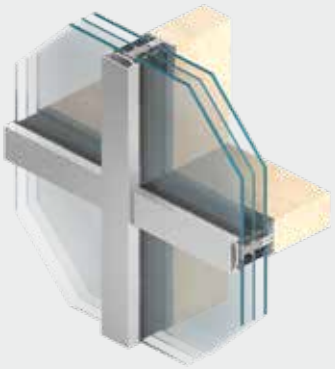
2



More examples on: www.aluprof.com/en/bim-file-finder **Scale 1:2**

CURTAIN WALL SYSTEMS

MB-SR50N A — MB-SR50N A EFEKT

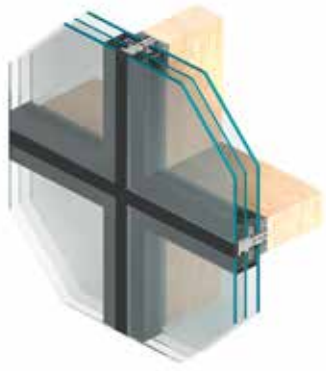


Our panelled front doors are an offer for even the most demanding of users. The cutting-edge technology and design make them not only a functional and durable entrance to a home, but also an attractive showpiece in their own right. They are built using our MB-70, MB-79N, MB-86 and MB-104 Passive aluminium profile systems. The profile for the leaf is adapted for use together with special infills which are flush with the frame on the exterior. The panels can be installed by gluing them to the supporting profiles on one or both sides.The option of using concealed hinges adds an even greater aesthetic value.

OVERLAY SYSTEM FOR WOOD AND STEEL

CONSTRUCTION

The structure is designed with a mullion transom profile, which is attached to wooden or steel profiles with fasteners. This creates the composite profile from which the curtain wall framework is constructed. The mulliontransom profile is used to attach and hold glazing or other infills and it also transfers wind loads and other forces acting on the structure. This profile also plays a fundamental role in draining and ventilating the structure. To this end, it is covered with EPDM sheathed gaskets. The gaskets are varied in order to obtain cascading drainage for the mullion and transom, which is essential to maintaining watertightness. A thermal insulator with excellent parameters is located between the panes of glass. Thanks to its component parts, the MB-SR50N A curtain wall construction meets the highest technical requirements in terms of both thermal and acoustic insulation, as well as airand watertightness.



MB-SR50N A EFEKT

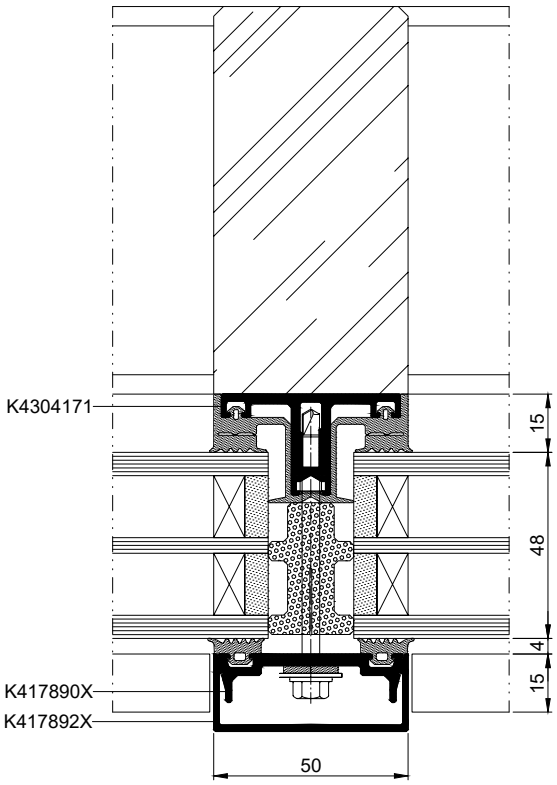
A WIDE RANGE OF USES

The MB-SR50N A can be used for vertical structures, glass roofs and conservatories. Like the MB-SR50N, its appearance can be moulded in line with individual tastes and the architectural design by shaping the cover caps accordingly

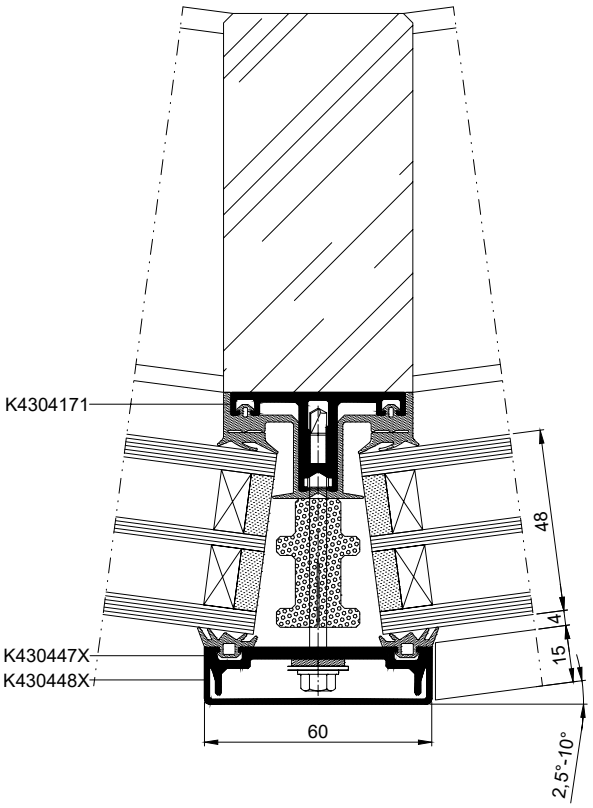
TECHNICAL DATA AND PARAMETERS

- Mullion width: 50 mm
- Transom width: 50 mm
- Transparent glazing: 24-64 mm thick
- Maximum infill weight: 600 kg
- Thermal insulation: U_f from 0.72 W/(m²K)

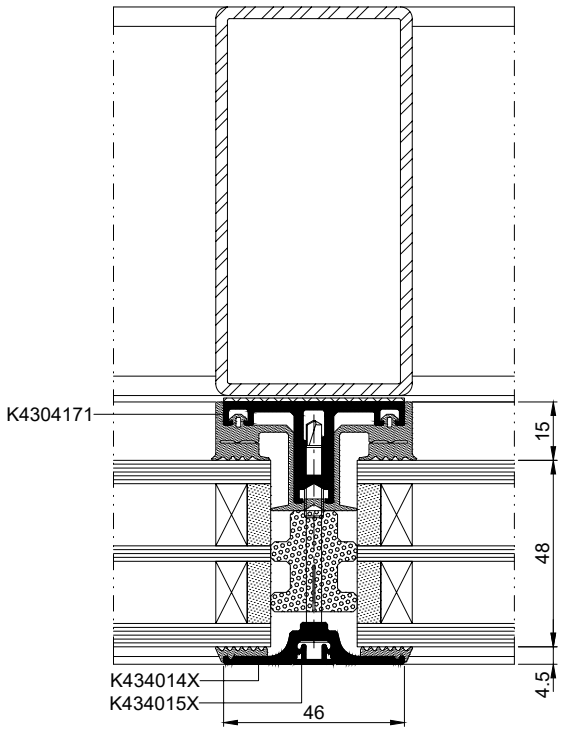
Mullion – cross section



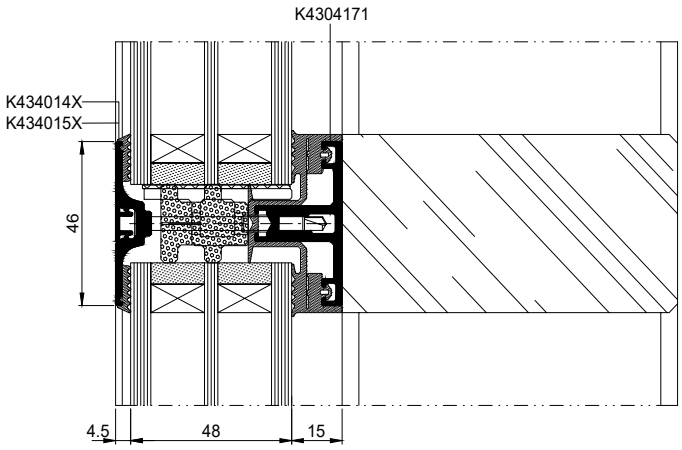
Mullion – cross section



Mullion – cross section



Transom – cross section

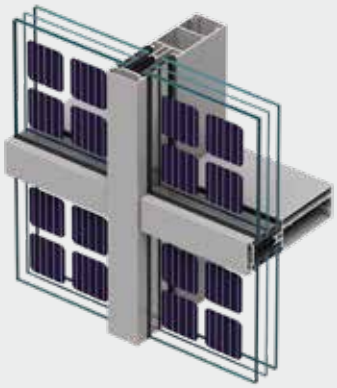


More examples on: www.aluprof.com/en/bim-file-finder **Scale 1:2**

NEW

FAÇADE INTEGRATED WITH A PHOTOVOLTAIC SYSTEM

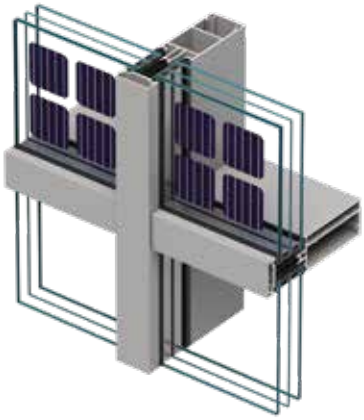
MB-SR50N PV

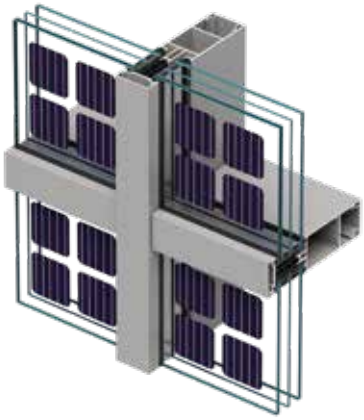


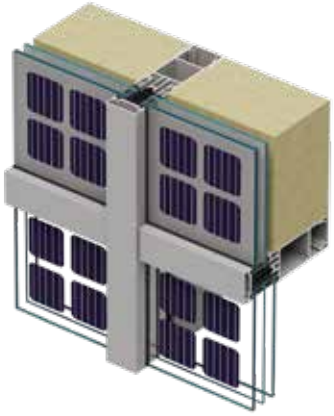
The MB-SR50N PV façade is a state-of-the-art architectural system developed to meet the growing demands placed on modern curtain-wall construction. By integrating photovoltaic (PV) panels, it represents the sustainable evolution of the well-established MB-SR50N mullion-and-transom façade. Its clear environmental advantage lies in its ability to improve a building's overall energy balance by generating renewable electricity on site.

HIGH ENERGY EFFICIENCY OF BUILDINGS

The MB-SR50N PV system is designed for zero-energy façades using both transparent and opaque PV panels. Owing to its excellent thermal performance, it enables the design of buildings with very high energy efficiency. A distinctive feature of this façade is its specially designed profiles with internal chambers that accommodate cabling and connect the entire electrical installation. The system also features a single-sided open transom, which allows easy inspection and diagnostics of the panels located in the inter-floor spandrel zones. All these characteristics make the MB-SR50N PV façade an ideal choice for projects aligned with the principles of sustainable development and energy-efficient architecture.







BENEFITS OF THE MB-SR50N PV FAÇADE:

- **for architects:** design flexibility for curtain-wall layouts using mullion-and-transom construction; identical appearance of façades with or without PV panels
- **for fabricators:** simple processing and installation of PV panels from various manufacturers
- **for users and developers:** on-site energy generation for building systems; lower energy costs; reduced building emissions and improved energy balance; identical interior and exterior appearance to a traditional mullion-and-transom façade

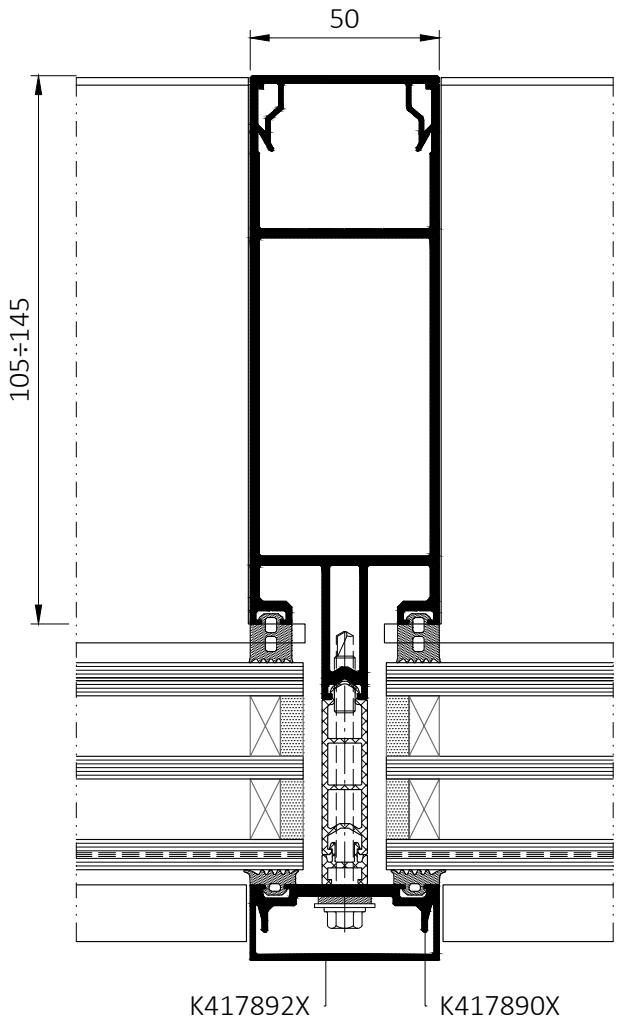
FEATURES AND ADVANTAGES OF THE SYSTEM:

- profile dimensions: mullions 105 – 145 mm, basic and half transoms 109.5 – 149.5 mm
- option for additional profile reinforcement
- optimised profile geometry designed to accommodate electrical installations within the façade structure
- compatibility with photovoltaic modules from different manufacturers
- mullion and transom chambers adapted to standard PV electrical connectors and closed with the same cover cap
- possibility of inspecting the installation through mullions or transoms, from either the interior or exterior
- full integration with the MB-SR50N façade system: shared cover caps, load-bearing profiles, and system accessories; the PV façade can be combined with the standard mullion-and-transom version and glazed using the same methods
- high airtightness and watertightness parameters identical to those of MB-SR50N
- structural solutions enabling easy diagnosis and replacement of a damaged PV cell without interfering with the façade assembly

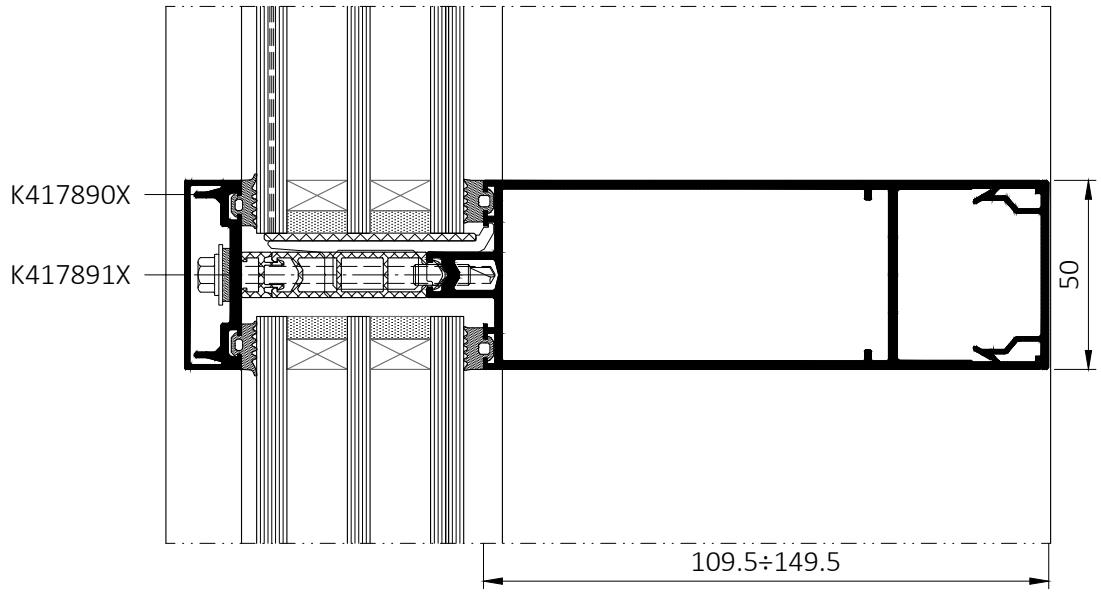
TECHNICAL SPECIFICATION	MB-SR50N PV
Mullion depth	105 – 145 mm
Transom depth	109,5 – 149,5 mm
Glazing thickness	to 64 mm

PERFORMANCE	MB-SR50N PV
Air permeability	AE 1200, EN 12152
Water tightness	RE 1200, EN 12154
Windload resistance	2,4 kN/m², EN 13116
Impact resistance	I5/E5, EN 14019
Thermal insulation	U_f from 1,13 W/(m²K)

Mullion – cross section

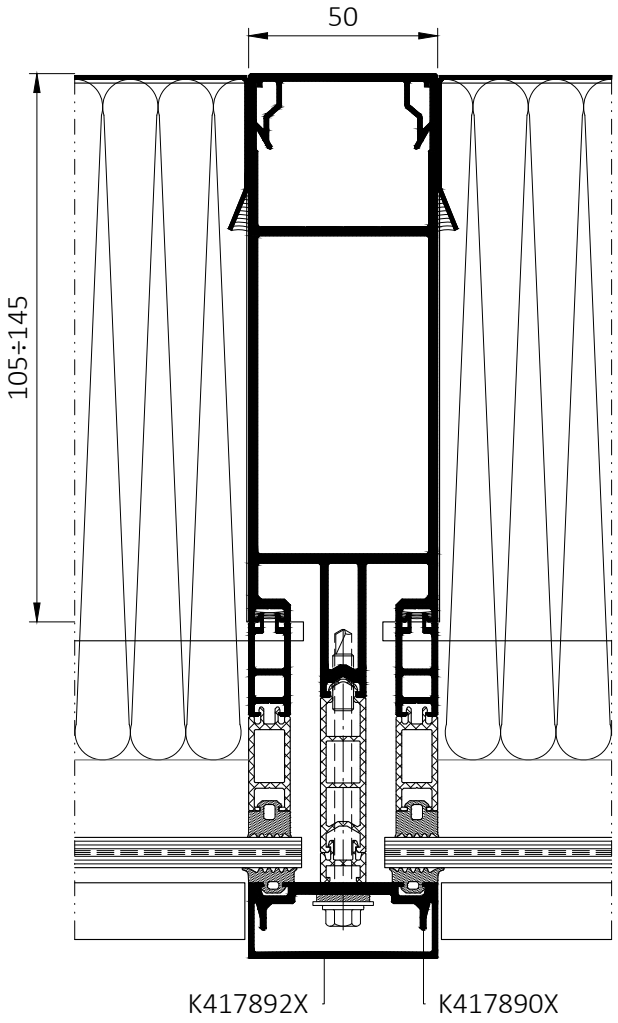


Transom – cross section

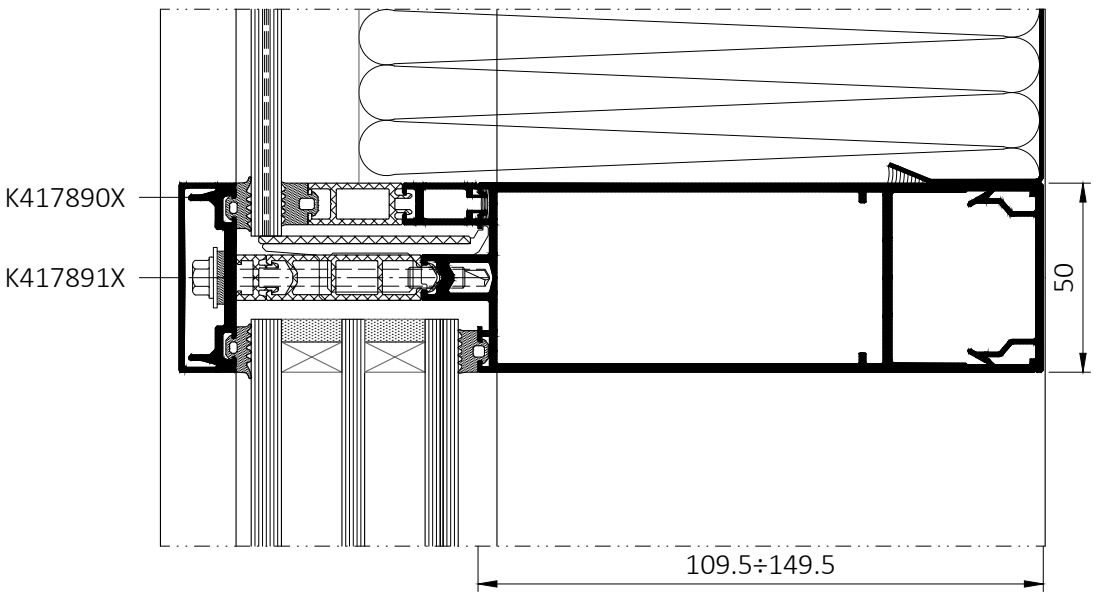


Scale 1:2

Mullion – cross section



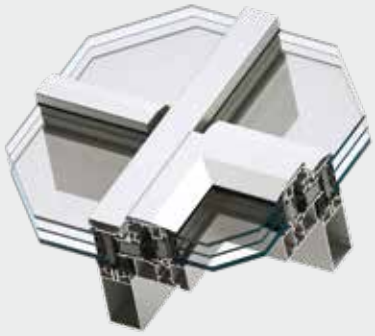
Transom – cross section



More examples on: www.aluprof.com/en/bim-file-finder **Scale 1:2**

CURTAIN WALL SYSTEMS

MB-RW ROOF WINDOW



Regardless of the type, windows are a major element of the roof and support the ventilation of important parts of the building. But glazed roof plane's windows should have special features. In addition to the "opening function", windows should as much as possible match the rest of the structure in terms of aesthetics, glazing possibilities and thermal insulation. MB-RW is a modern system which responds to the increasing thermal and functional demands the contemporary roof constructions are facing today. It also complements Aluprof's offering of energy-efficient aluminium systems. 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.

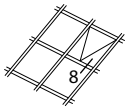
MB-RW's high thermal insulation and a wide range of glazing (from 32 to 51 mm) allows the realization of energyefficient building projects. To do so, special insulating materials were used. A specially-designed glazing gasket and a cover cap allow to obtain excellent tightness parameters while providing an efficient and simple installation of the infill.

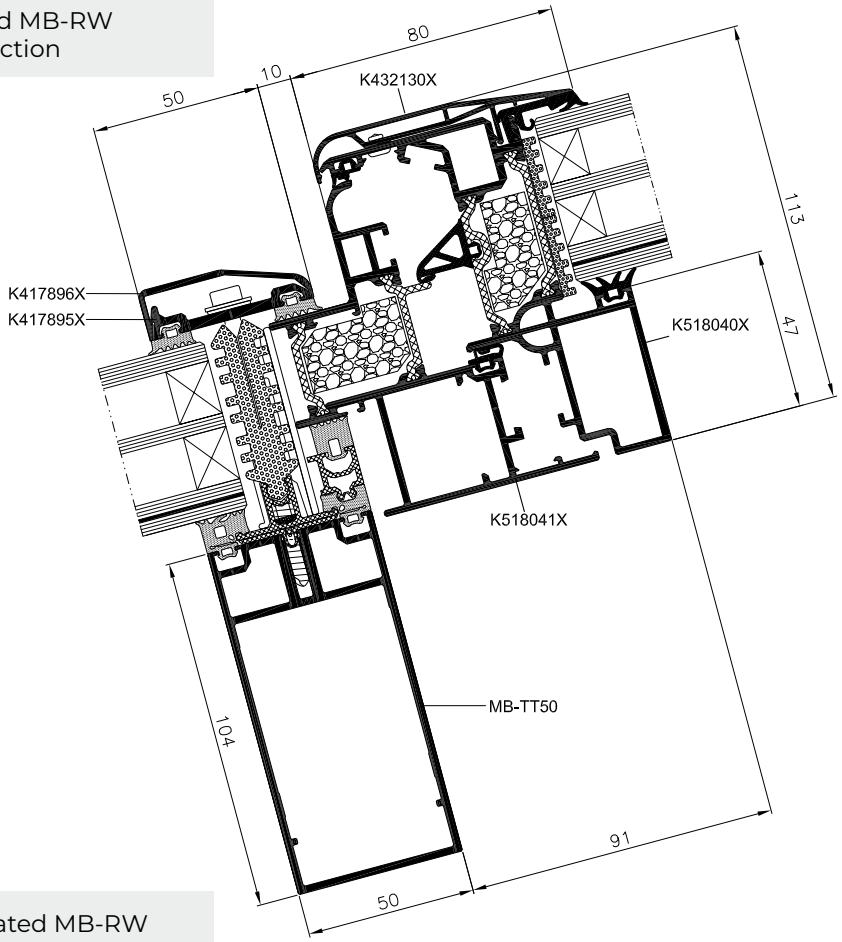
Technical capabilities – in terms of fittings – is yet another advantage of the MBRW system-based window roofs. To simplify fabrication stage, dedicated hinges were developed – these can be installed at the final stage of the construction's fabrication. In order to increase the dimensions of the windows, profiles can be optionally ferruled with standard multi-point locking fixtures, this without prejudice to the tightness of the whole structure. This also allows to fabricate windows opened manually by the handle. The system also allows the installation of electric actuators from different manufacturers in a wide range of constructions – MB-RW windows can therefore be part of the gravitational ventilation system of the building.

PERFORMANCE

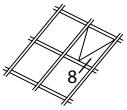
- Thermal insulation:
  U_f from 1.8 W/(m²K)
- Air permeability:
  Class 4 (1350 Pa); EN 12207
- Watertightness:
  E1800; EN 12208
- Windload resistance:
  2.4 kN/m²; EN 12210
- Impact resistance:
  Class 4; EN 1873

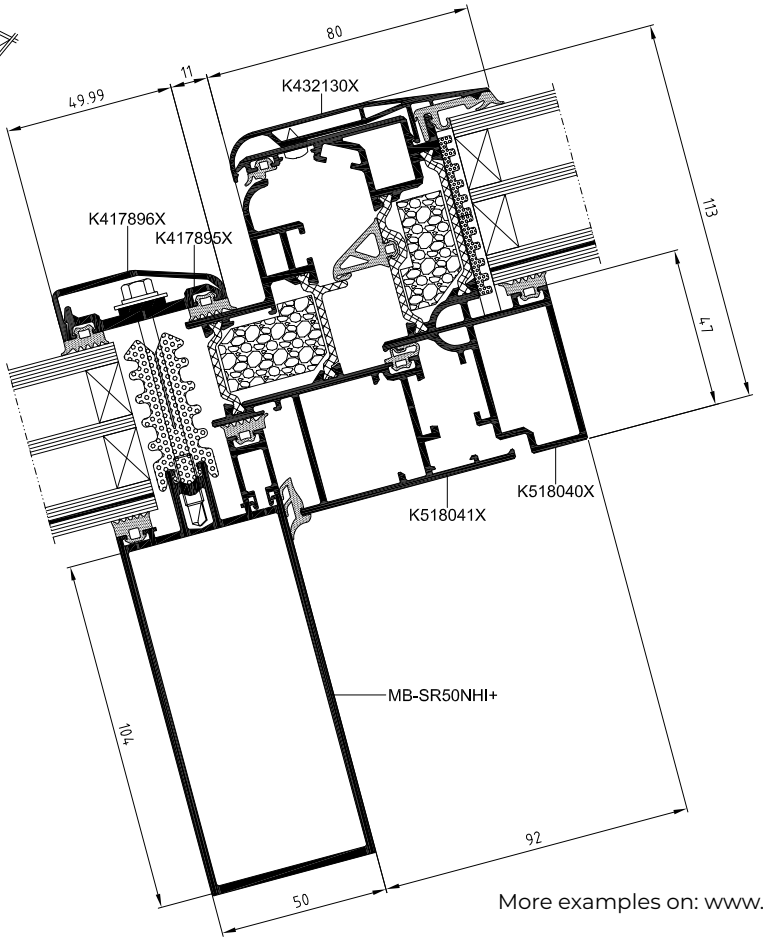
MB-TT50 façade-integrated MB-RW window roof – cross section





MB-SR50N HI+ façade-integrated MB-RW window roof – cross section

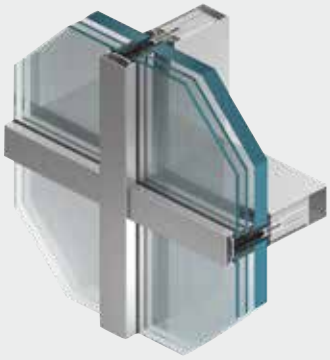




More examples on: www.aluprof.com/en/bim-file-finder **Scale 1:2**

CURTAIN WALL SYSTEMS

MB-SR50N EI — MB-SR50N EI EFEKT



The mullion-transom system MB-SR50N EI is intended for the construction and execution of light fire resistant curtain and filling walls of the fire resistance class EI15, EI30, EI45, EI60 according to the standards EN 1364-3 and EN 1364-1 as well as glazed roof coverings of the fire resistance class RE20, REI20, RE30, REI30 as per the standard EN 1365-2. The system has been classified as non-fire-propagating (NFP). The MB-SR50N EI system is also available in „EFFECT" version – without aluminium strips visible from the outside.

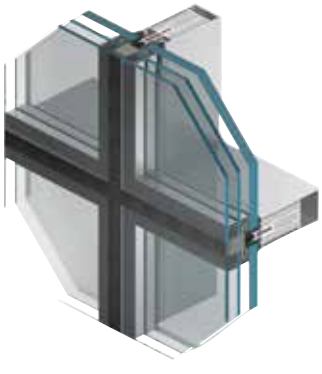
CURTAIN WALL FIRE RATED SYSTEM

SYSTEM DESIGNED BASED ON WELL PROVEN MB-SR50N SOLUTION

This solution use profiles of the basic MB-SR50N facade system: mullions of a depth of between 85 and 225 mm and transoms of a depth of between 69.5 and 189.5 mm. In order to obtain fireproof aluminium profiles, mullions and transoms have been equipped with special fireproof inserts. A fireproof insert consists of a special-shape aluminium profile, fulfilling the function of reinforcement, shielded with panels made from fireproof materials.

HIGH THERMAL AND ACOUSTIC INSULATION

In order to achieve optimal heat and sound insulation in construction we use continuous thermal break profile of HPVC and EPDM seals. In addition, the side surfaces of the insulator are equipped with fire-proof tape that under high temperature expands and fills the space between the areas of the facade.



MB-SR50N EI EFEKT

Cross Point, Łódź, Poland
design / AGG-Architekci Grupa Grabowski

GLAZING

The MB-SR50 EI and MB-SR50N EI systems can accommodate glazing units from 15mm up to 64mm. This gives flexibility of using single or double glazing fire rated glass products, such as Pyrobel, Polflam, Swissflam, Pyrostop and Promaglas, depending on the project requirement. The system also allows for fire rated panels.

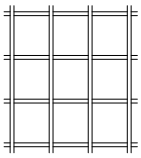
FUNCTIONALITY AND AESTHETICS

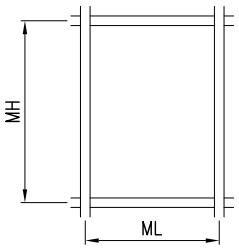
The design of the fire rated curtain wall system allows the use of angled connections 90° or 135° (inside and outside), angled connections to ± 7.5° per side and building facades tilted from the vertical at an angle of ± 10°. It is also possible to install the MB-78EI fire doors while maintaining the fire resistance of the whole structure in classes EI 30 or EI 60.

PERFORMANCE

- Air permeability:
  MB-SR50N EI:
  Class AE 1050 Pa
  MB-SR50N EI EFEKT:
  Class AE 1200 Pa
- Watertightness:
  Class RE 1200Pa
- Thermal insulation:
  U_f from 1.78 W/(m²K)

Max. dimensions in the curtain wall

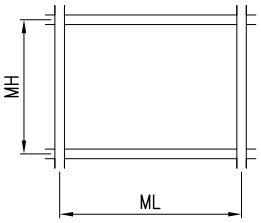




MHmax = 3000 mm
MLmax = 1500 mm

KG 300 kg

Fixed window,
transparent



MHmax = 1200 mm
MLmax = 1800 mm

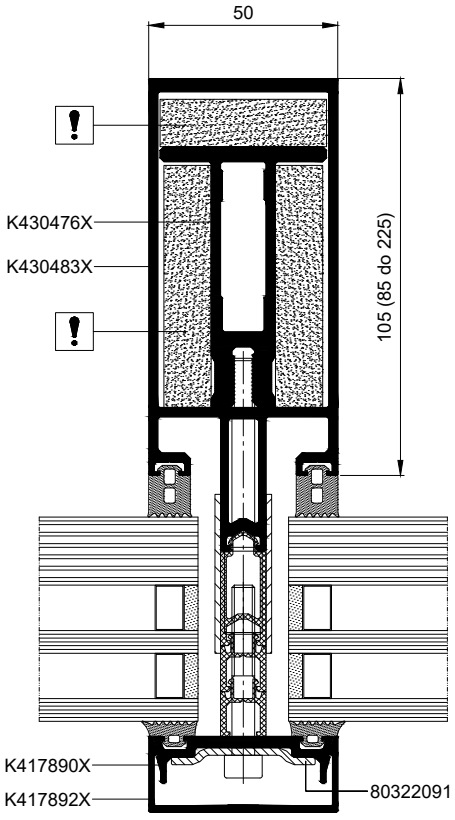
KG 300 kg

KG Maximum weight of the vent

Scale 1:2

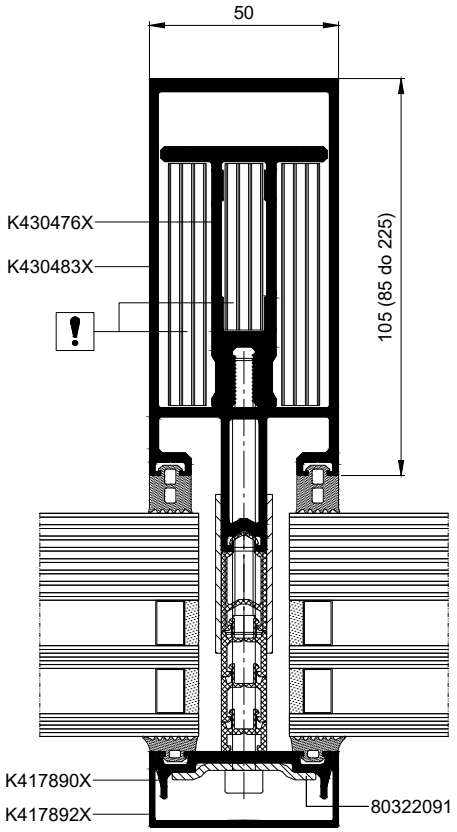
Mullion – cross section EI 30

1



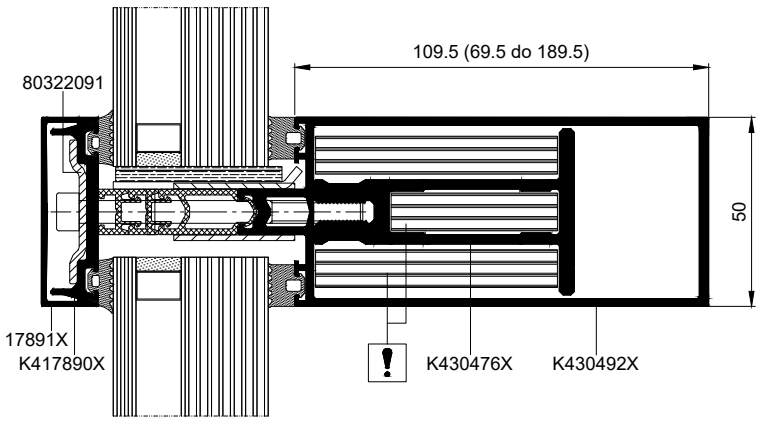
Mullion – cross section EI 60

1



Transom – cross section EI 60

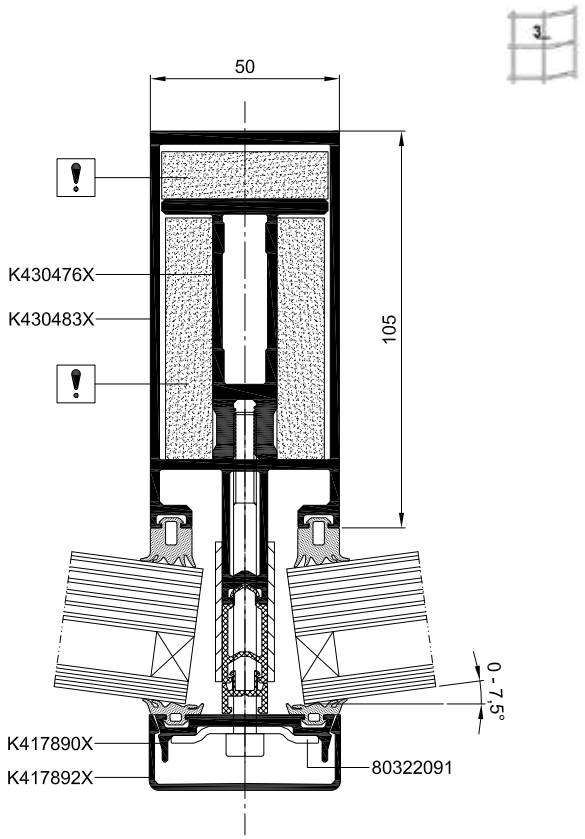
2



Scale 1:2

Mullion – cross section (-7,5°)÷7,5°. EI 30

3



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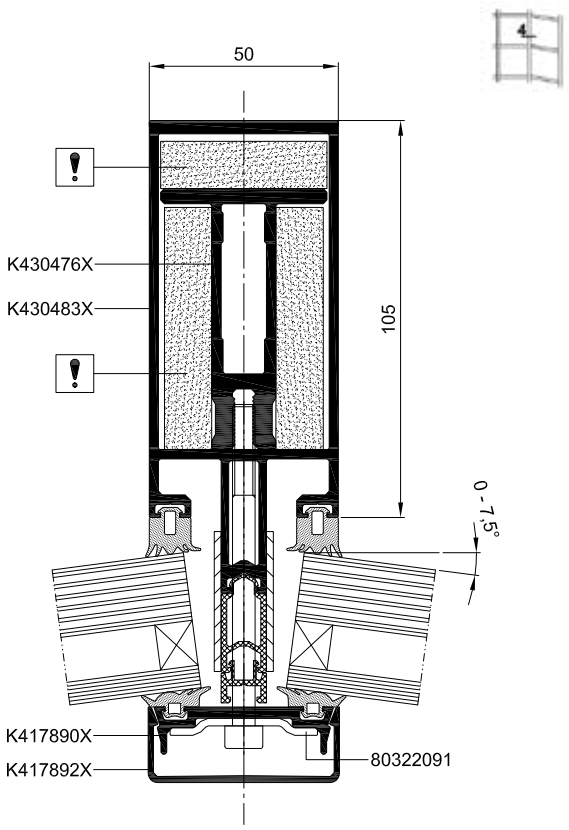

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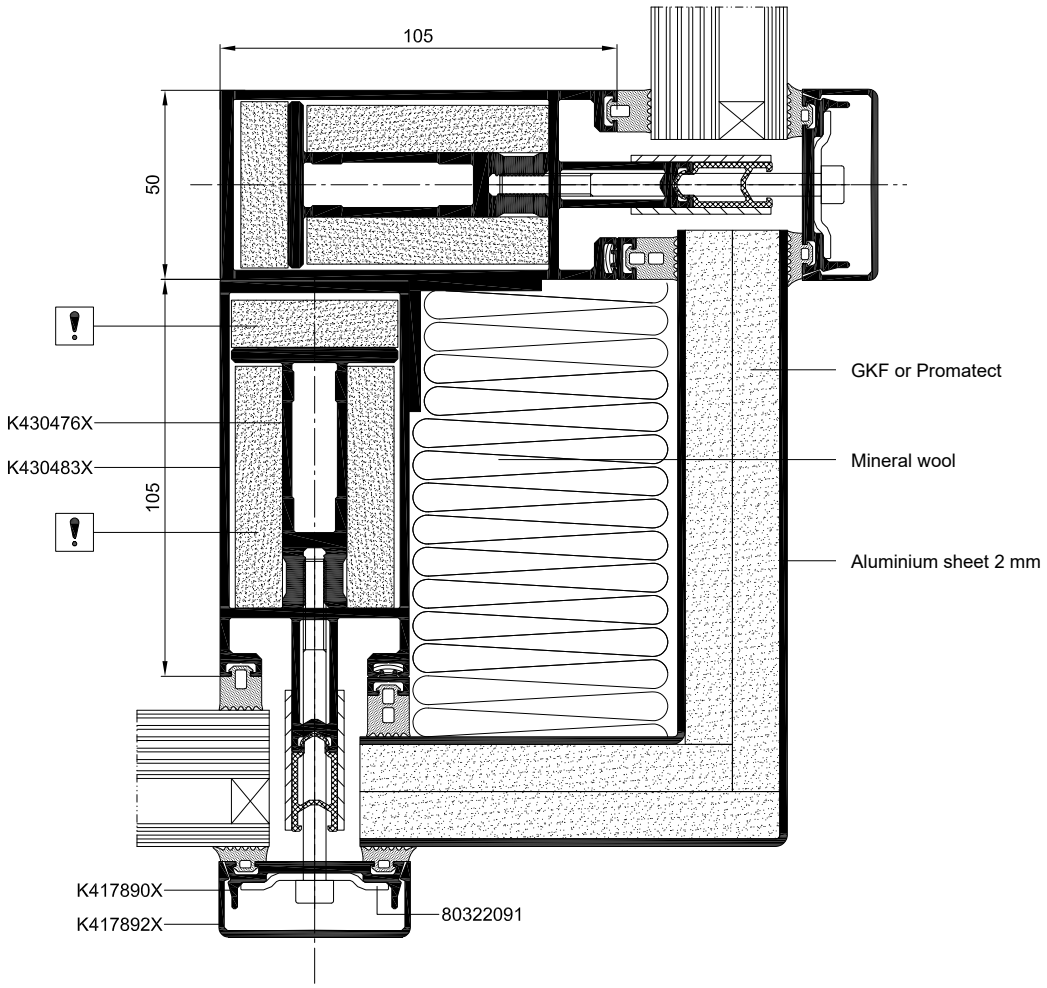
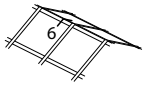
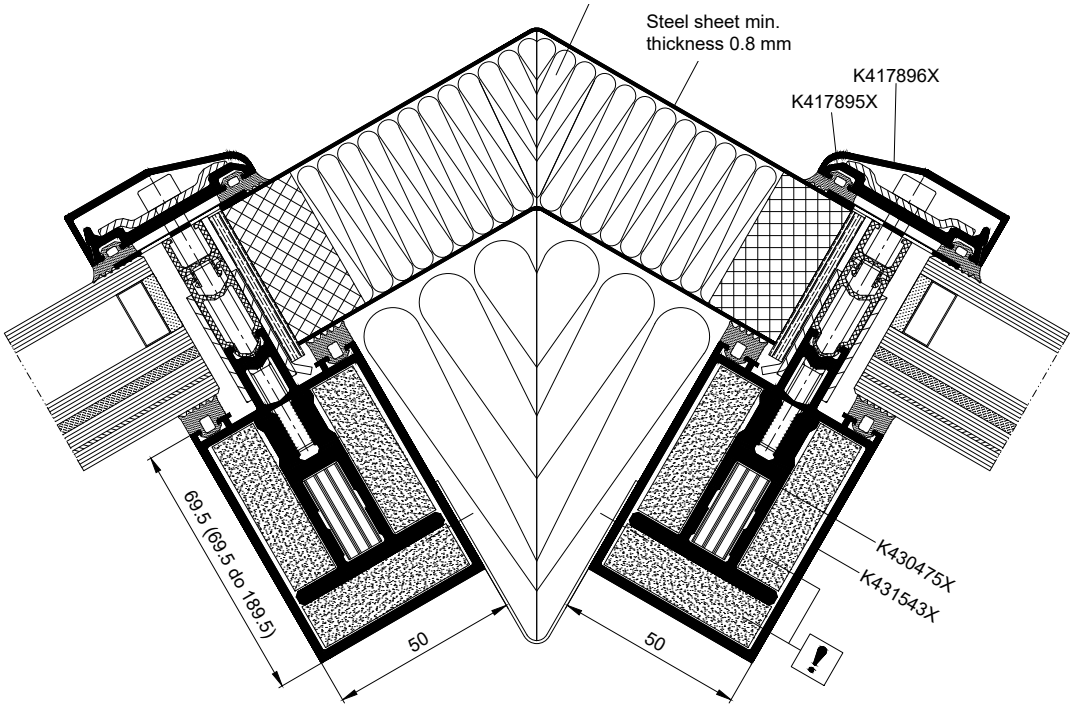


Scale 1:2

Fire roof peak line – cross section

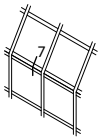
6

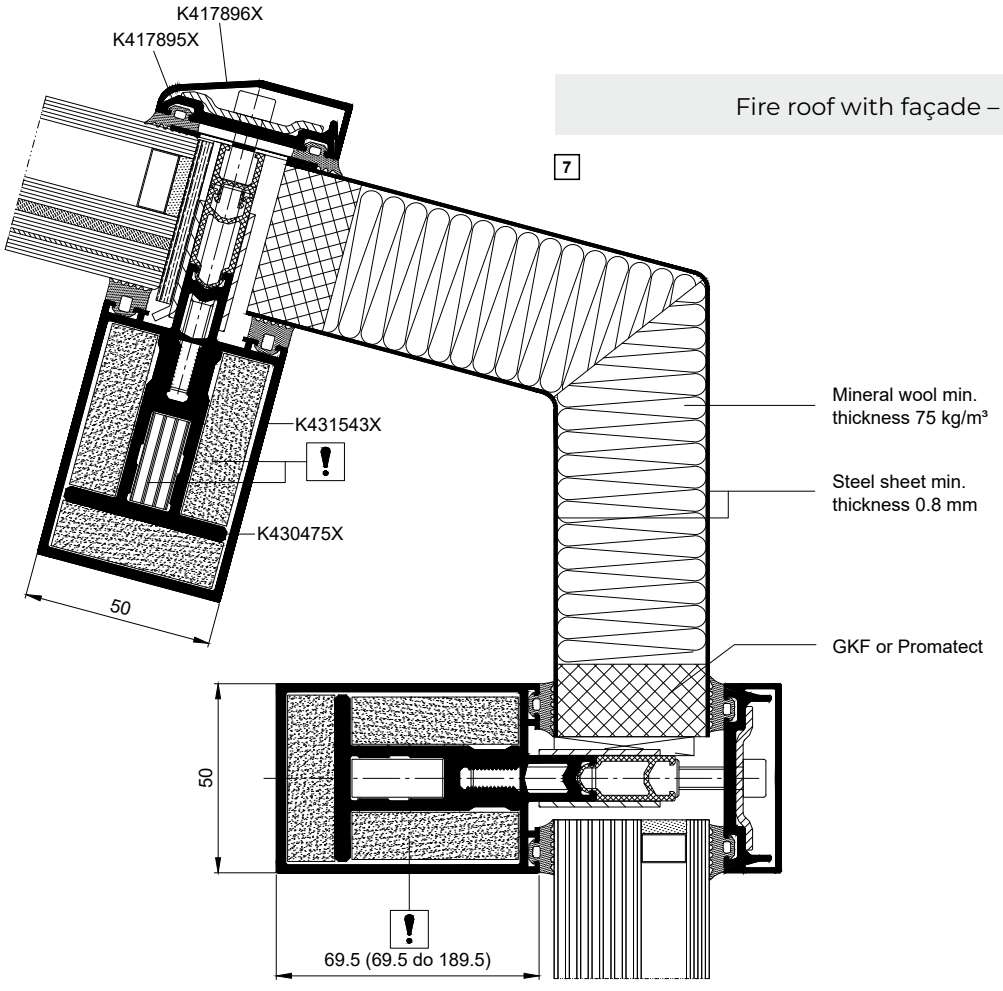




Fire roof with façade – cross section

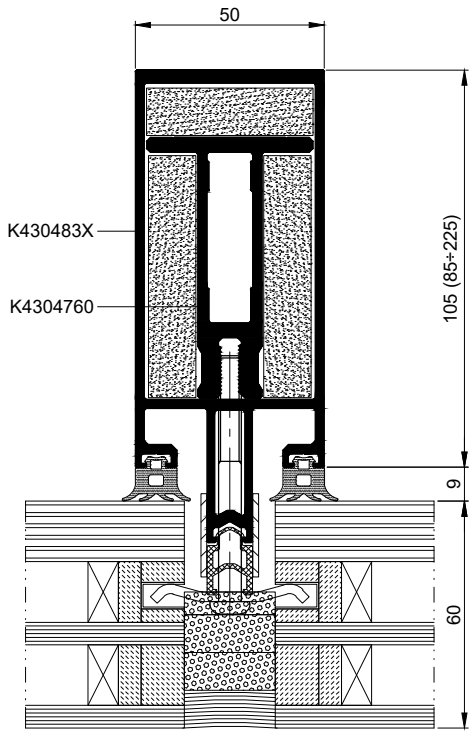
7



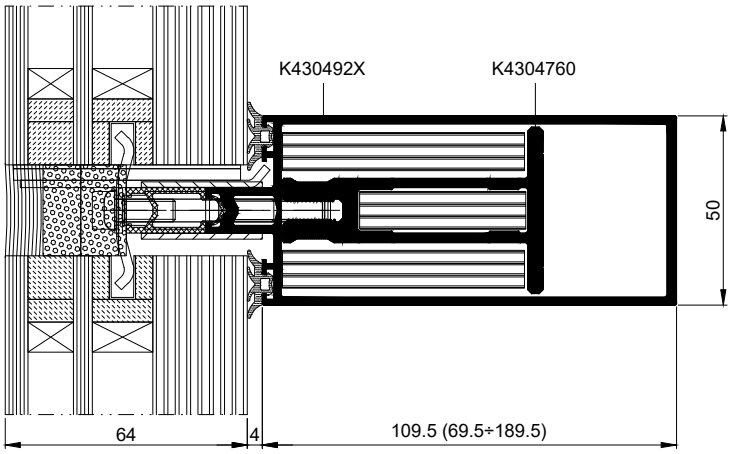


Scale 1:2

Mullion – cross section EI30



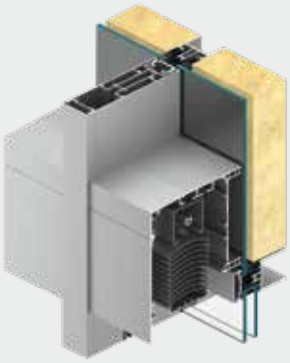
Transom – cross section EI60



More examples on: www.aluprof.com/en/bim-file-finder **Scale 1:2**

CURTAIN WALL SYSTEMS

MB-SR50N ZS



The MB-SR50N ZS system is an innovative solution combining the SkyFlow venetian blind system with Aluprof's mullion-transom curtain walling system MB-SR50N. It has been created primarily for the construction of buildings where complete harmony between the technical and aesthetic aspects plays a particular role. With this in mind, we designed clamping strips, making it possible to fit the façade infills and concealing strips, which also act as the guides for the external blinds. This means that the decision to use this kind of blind can be taken later on in the process, when the façade has already been installed. The entire mechanism is discreetly concealed in an aesthetic, extruded aluminium headbox. The MB-SR50N ZS is available with aluminium or cord guides. The maximum dimensions are 4500×4000 mm.

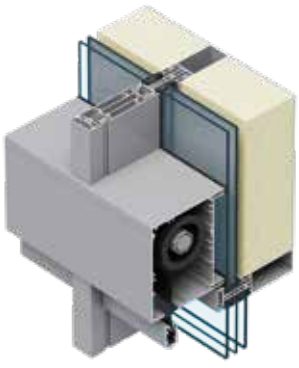
MULLION AND TRANSOM CURTAIN WALL SYSTEM INTEGRATED WITH SKYFLOW VENETIAN BLINDS

FUNCTIONALITY AND AESTHETICS

– there are two types of pins available in the offer: aluminium (durable and resistant) and PVC (minimizes noise that may arise during wind)
– slats made of shaped aluminium sheet and are available in two shapes: C and Z
– the guide channels, the only solution of this type available on the market, are equipped with special seals eliminating the noise that can arise when the slat hits the guide channel
– the textile elements of the blind (ladders and straps) are made of high quality polyester and they are thermally fixed, which guarantees high resistance to weathering, stretching, abrasion, as well as UV rays and the appearance of mould.
– the string ladder is arranged in the shape of the number 8 during rolling, so that it does not become entangled between the slats, ensuring smooth retraction
– two variants of the bottom bar: complete and open

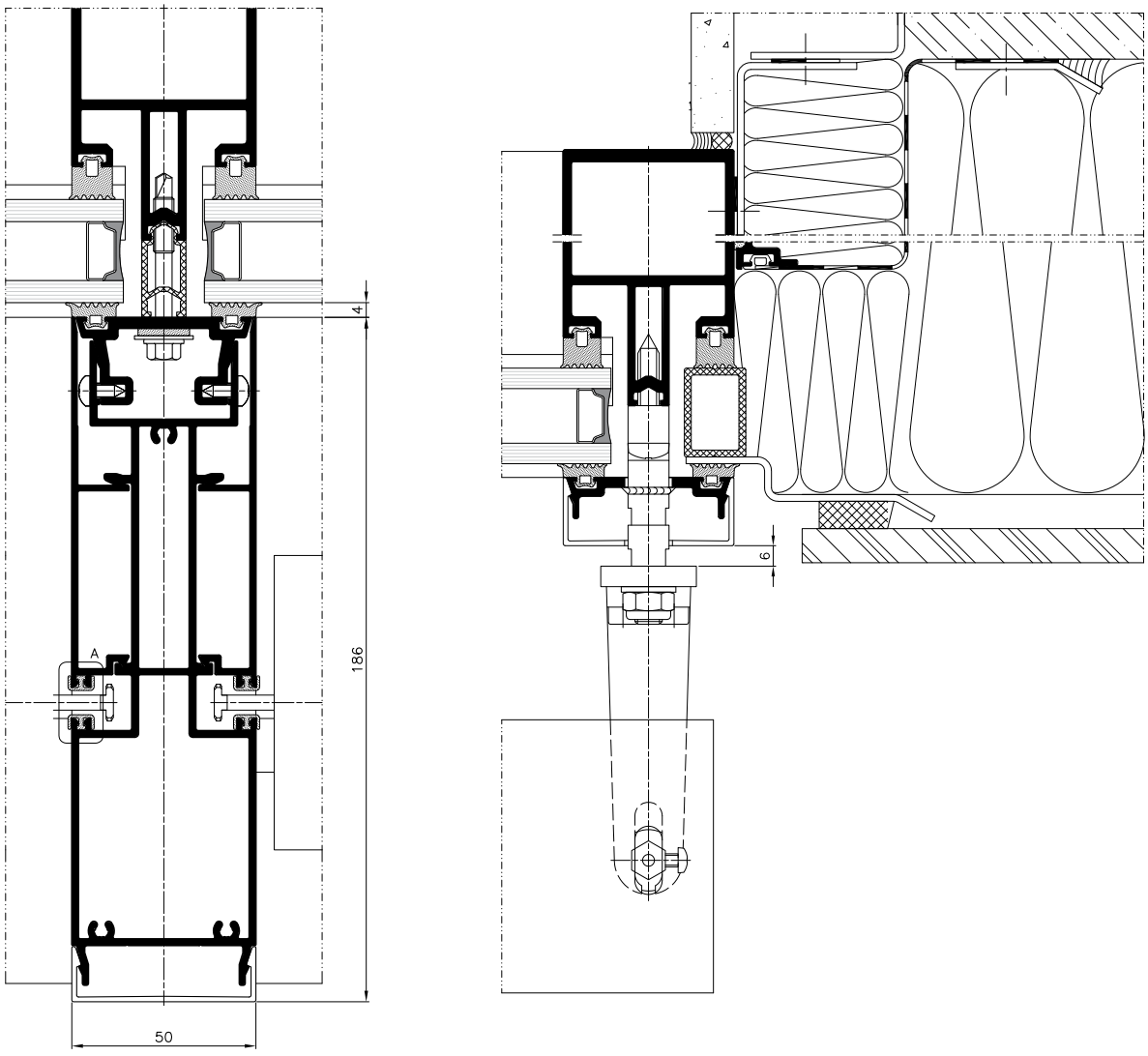
PERFORMANCE

- Air permeability: Class AE1200 Pa, EN 12152
- Watertightness: Class RE1200 Pa, EN 12154
- Windload resistance: 2.4 kN/m2, EN 13116



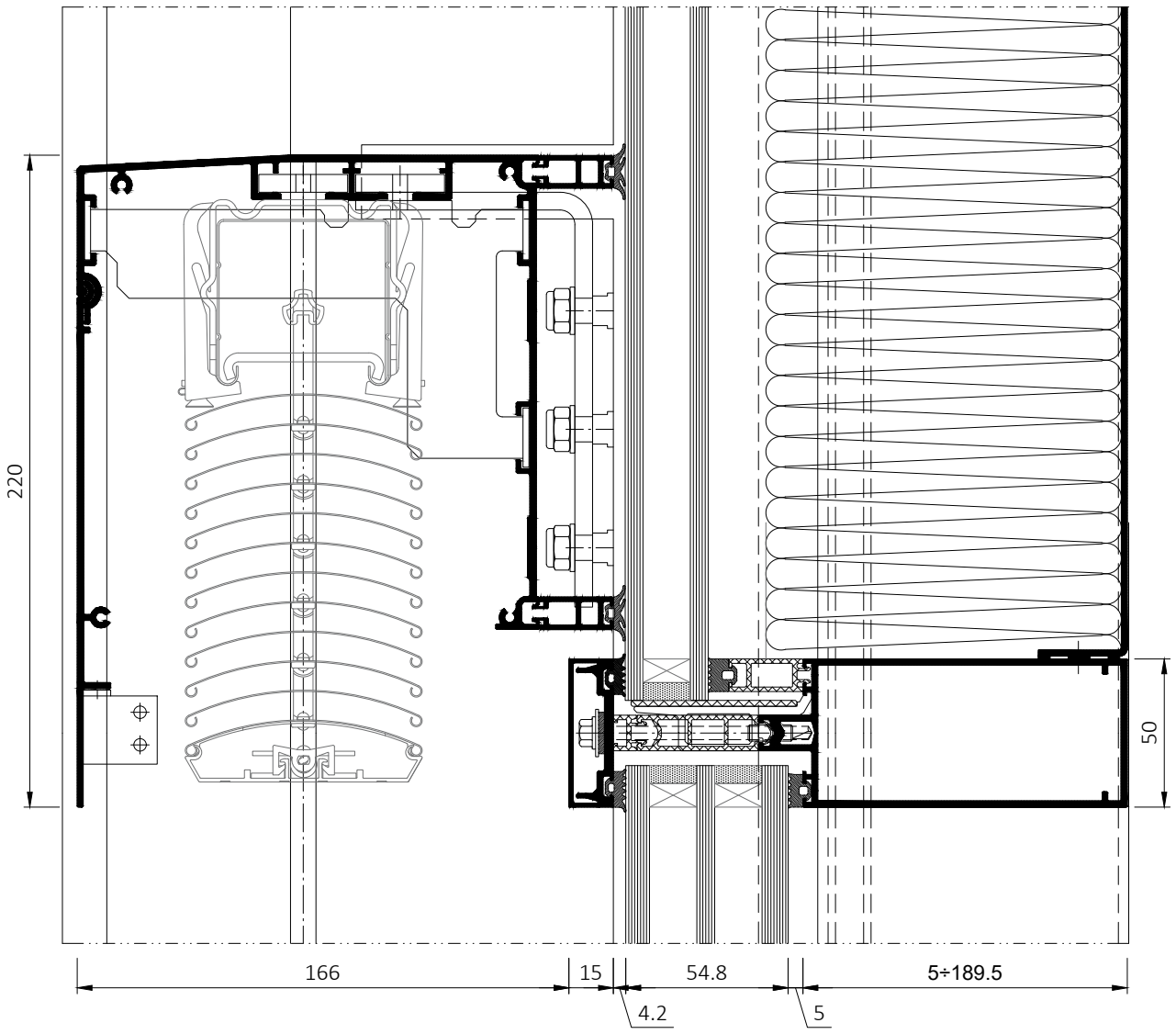
MB-SR50N ZS system is available as façade system compatible with SkyRoll screens.

Mullion – cross section

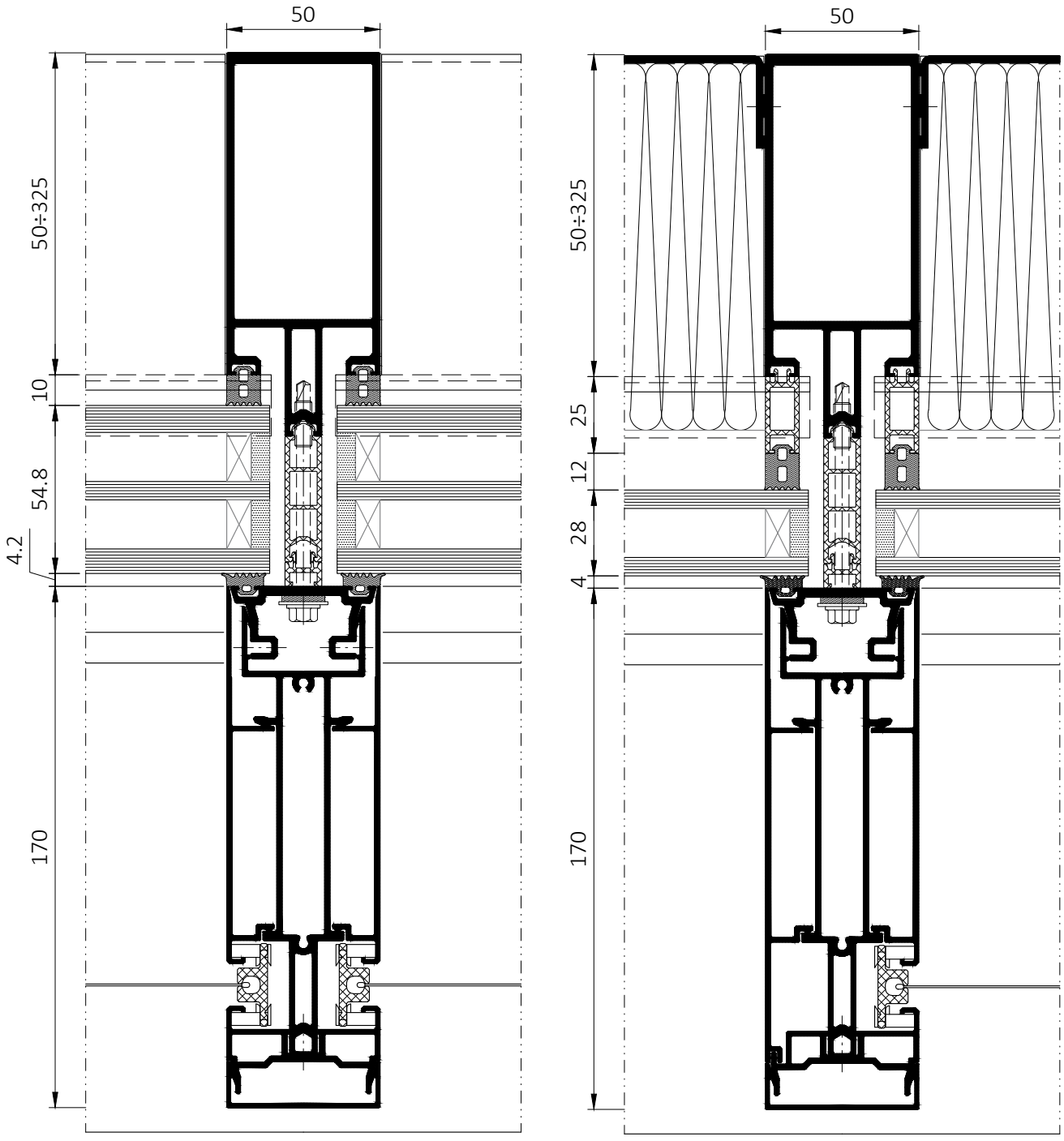


Scale 1:2

Transom - cross section

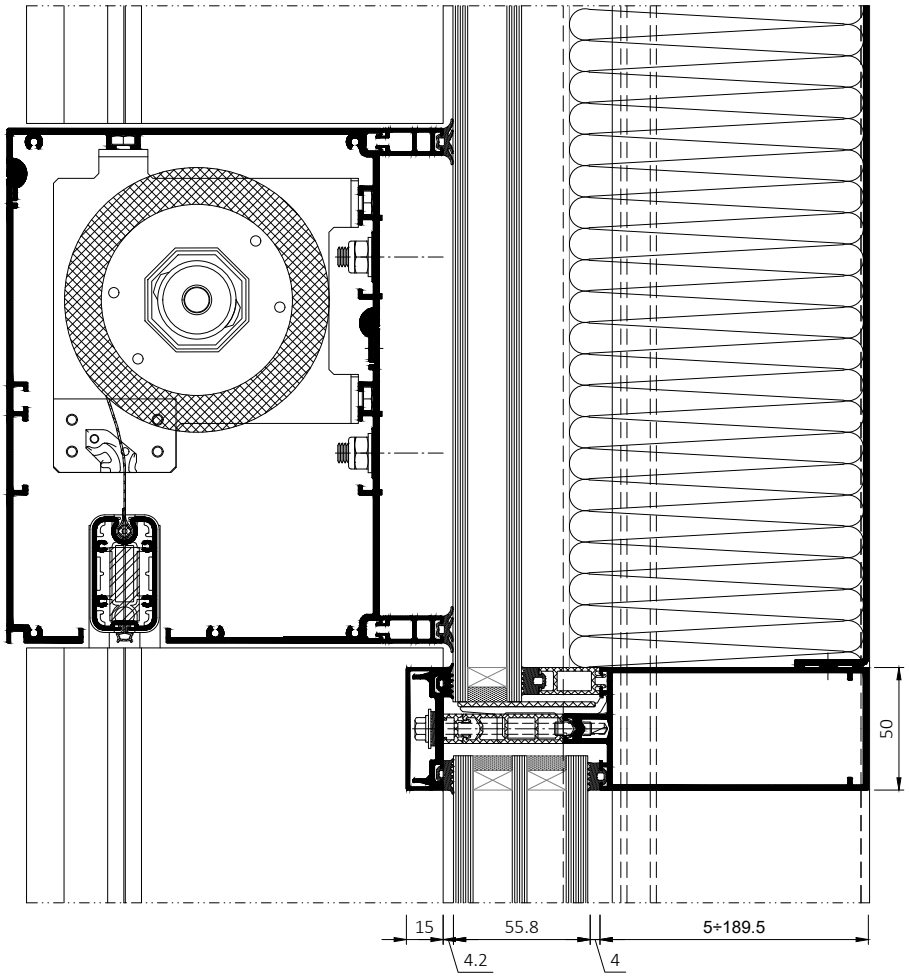


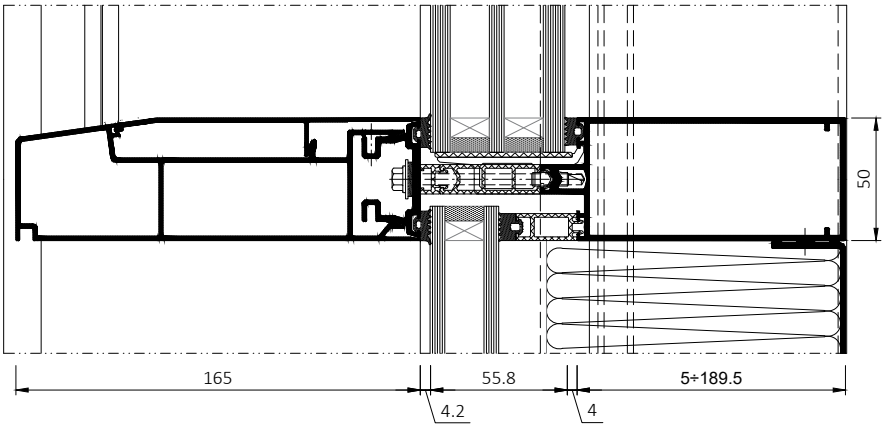
Mullion – cross section



Scale 1:2

Transom - cross section

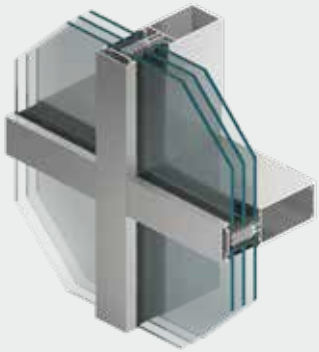




More examples on: www.aluprof.com/en/bim-file-finder **Scale 1:3**

CURTAIN WALL SYSTEMS

MB-SR60N MB-SR60N HI+ MB-SR60N EFEKT



The system is designed for the fabrication and installation of flat, light-weight curtain walls of a suspended or filling type, roofs, skylights and other spatial structures. It enables constructing aesthetic curtain walls with narrow sight lines, ensuring at the same time durability and strength of the end product. There are different ways to finish off the external appearance and the semi-structural version (MB-SR50N HI EFEKT). The system features very good technical parameters. Among its strong points is flexibilty in shaping space and a wide variety of opening elements to be installed on the curtain wall. Particularly noteworthy is the version with enhanced thermal insulation MB-SR60N HI+ which uses special insulators. The MB-SR60N EFEKT, another version with no cover caps visible from the outside, is also available

MULLION AND TRANSOM CURTAIN WALL SYSTEM

CONSTRUCTION
The load bearing construction is formed by vertical and horizontal aluminium sections of box-type cross sections (mullions and transoms) of a fixed width, i.e. 60 mm and properly connected with each other. Clamping strips supporting the panes and masking strips of any shape form the external side of the curtain wall. The system also includes additional sections, accessories performing sealing or connecting function and a wide range of EPDM gaskets, applied to seal panes or other infills in the curtain wall.

DEPTH OF SECTIONS
Mullions: 50 – 325 mm,
Transoms: 5 – 189.5 mm,
Infills 24 – 72 mm thick may be fitted in the system.

HIGH AESTHETIC VALUES. VARYING APPLICATIONS
The shape of mullions and transoms enables developing aesthetic curtain walls with visible narrow division lines, ensuring at the same time durability and strength of the construction. Profiles may be selected in such a way that they are flush on the inside of the curtain wall.
A particular variant is the MB-SR50N EFEKT which resembles a structural wall in appearance: a uniform and smooth wall is obtained from the outside, divided by a truss of vertical and horizontal lines 24 mm wide.

PROVEN STRENGTH
Proven strength Depending on the division pattern and external loads, the system provides for an adequate number of mullions and transoms varying in depth, with the moment of inertia Ix ranging between 54.6 and 1232.5 cm^4, adjusted in such a way as to guarantee optimal aluminium consumption and effective reduction in material costs. In case of large bearing loads all mullions may be additionally reinforced by applying special internal aluminium profiles, thus significantly improving their strength. Max. weight of glass: up to 1000 kg.

PPNT, Gdynia, Poland
design / AEC Krymow & Partnerzy

VERY GOOD THERMAL INSULATION, EXCELLENT WATER AND AIR TIGHTNESS
In terms of technical performance, the curtain wall can meet the requirements of applicable standards, as well as the increasing expectations of architects

andinvestors. Particularly noteworthy is the version with enhanced thermal insulation MB-SR60N HI+ which uses special insulators.

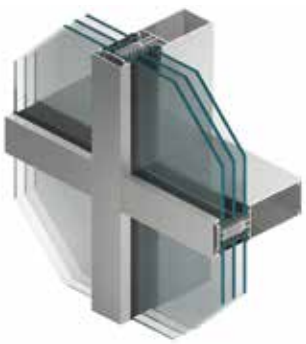
PERFORMANCE

- Air permeability: to Class AE 1350,EN 12152
- Watertightness: to Class RE1500, EN 12154
- Windload resistance: 2.4 kN/m², EN 13116:2002
- Impact resistance: Class I5/E5, EN 14019
- Acoustic insulation: R_w=45 dB (depending on the infill material)

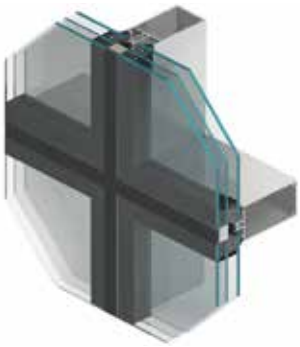
Hilton, Kiev, Ukraine
design / John Seifert Architects Ltd

The Park, Warsaw, Poland
design / APA Wojciechowski

Variations available in **MB-SR60N** system



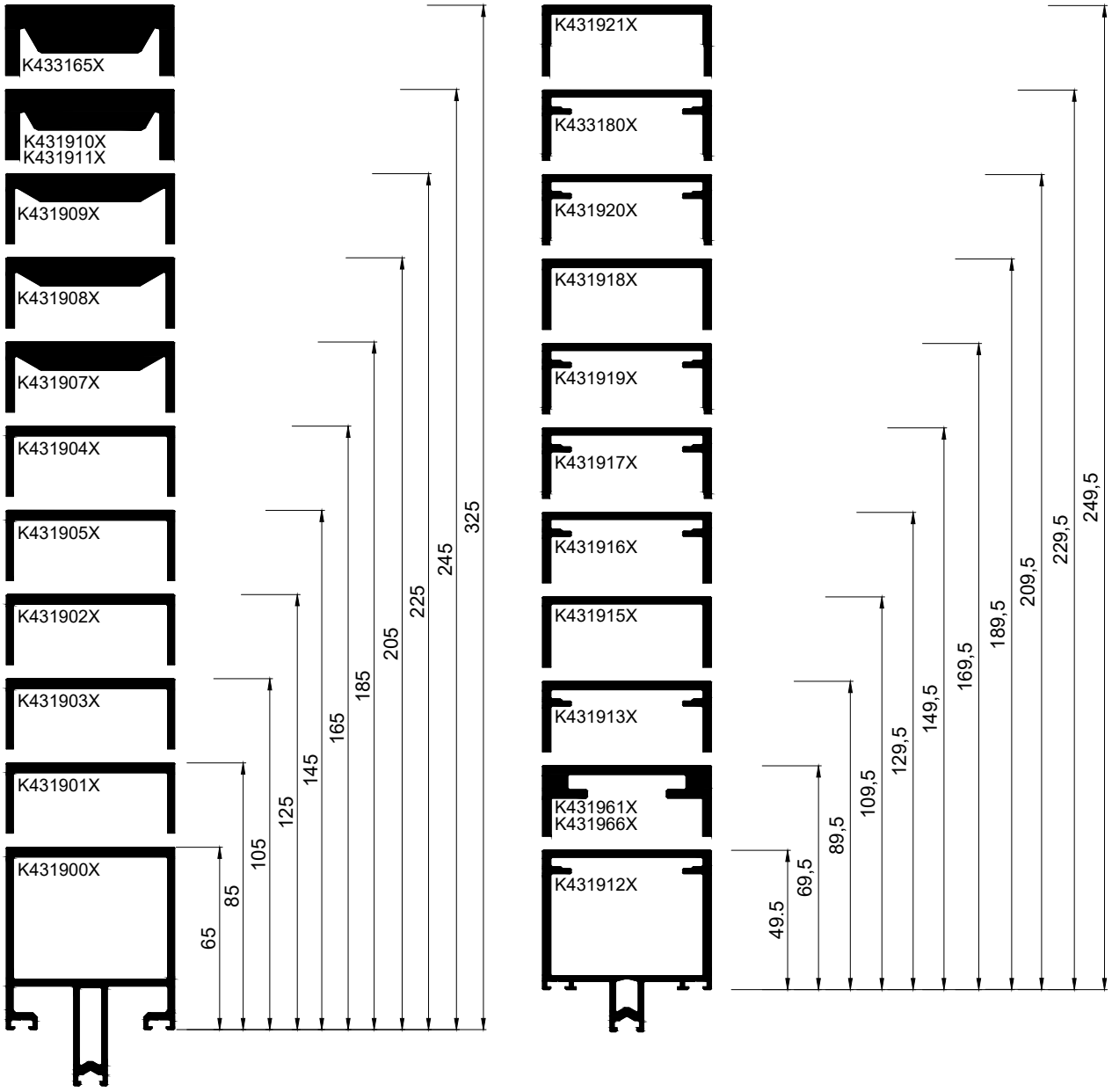
MB-SR60N HI+



MB-SR60N EFEKT

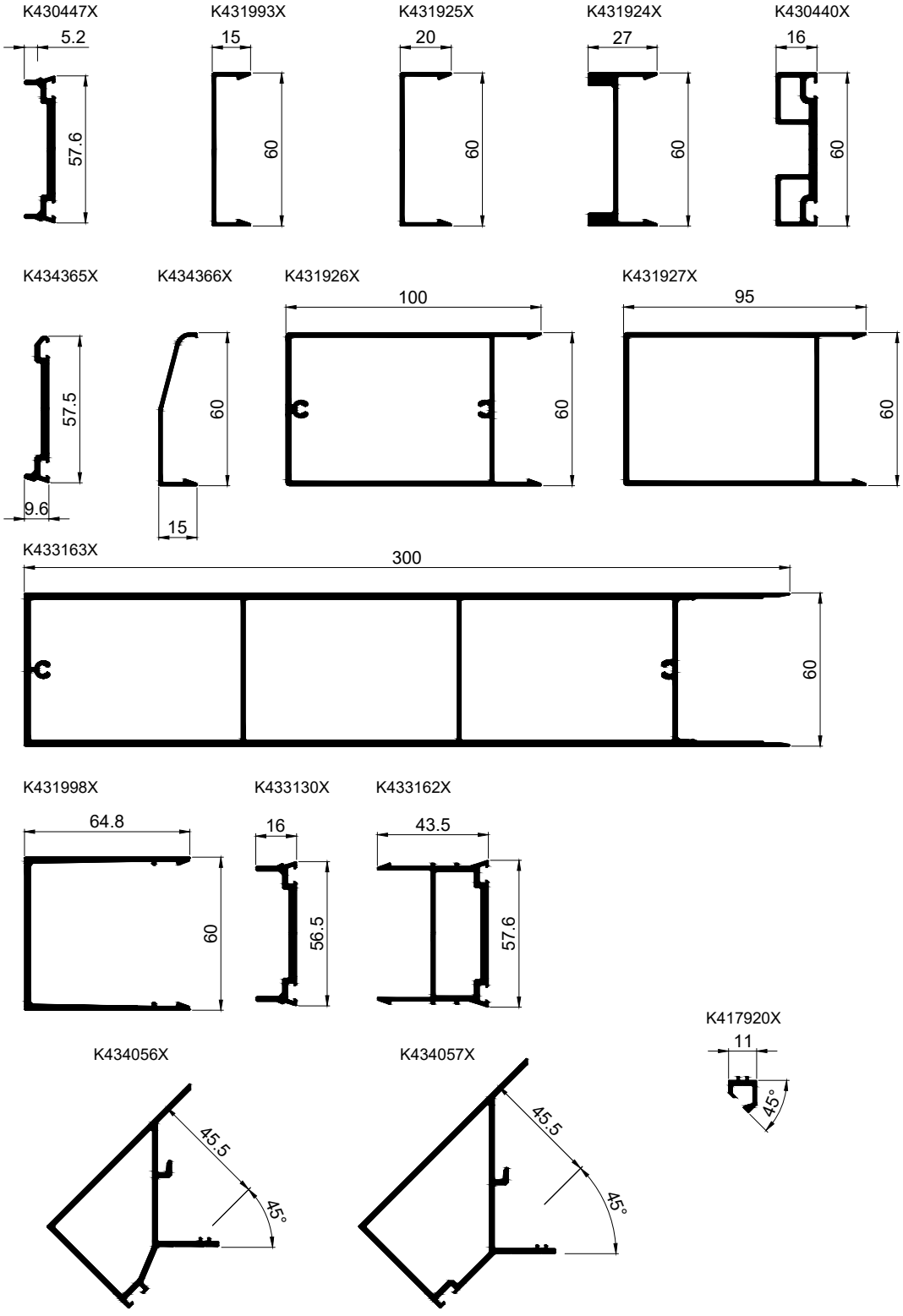
Mullions

Transoms



Scale 1:2

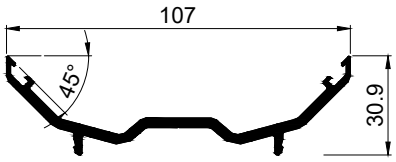
Cover caps and pressure plates, additional profiles



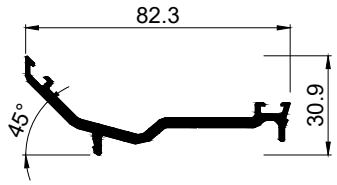
Scale 1:2

Cover caps and pressure plates, additional profiles

K431821X



K433176X



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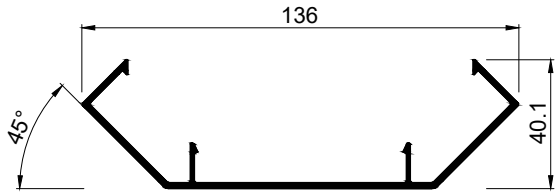

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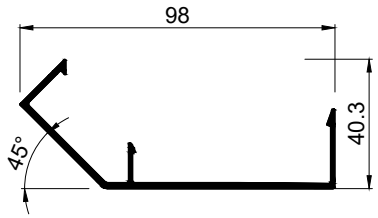

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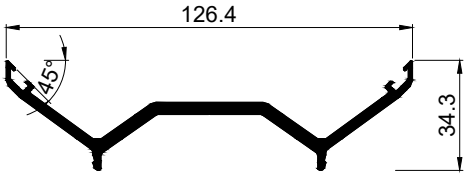

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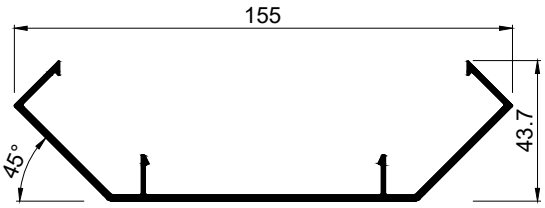

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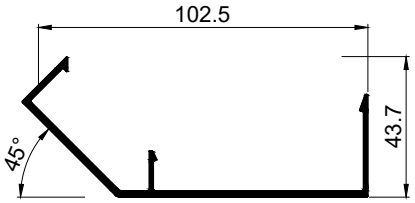

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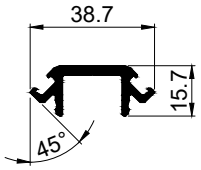

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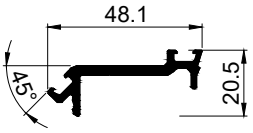

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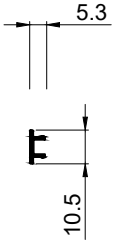

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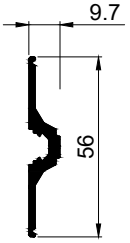

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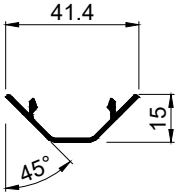

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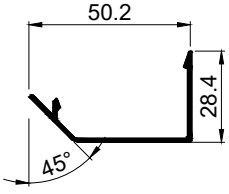
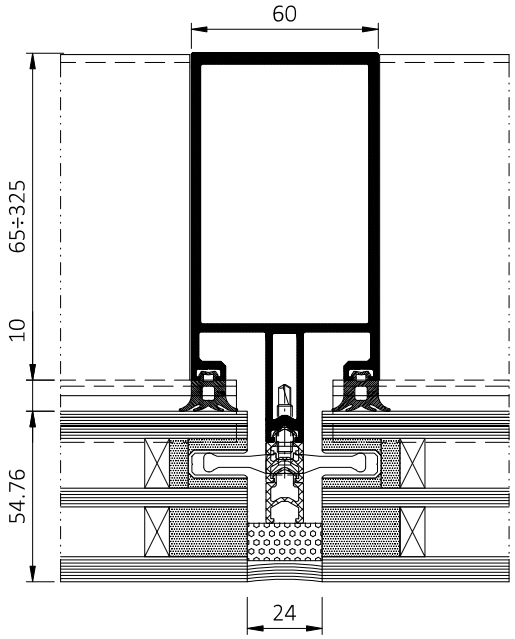
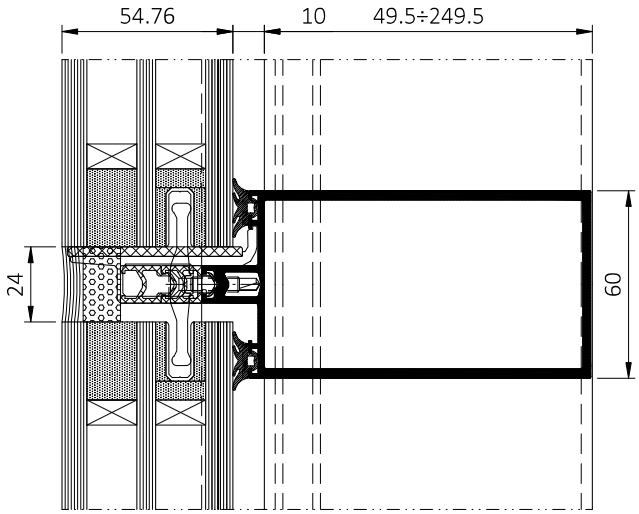


Scale 1:2

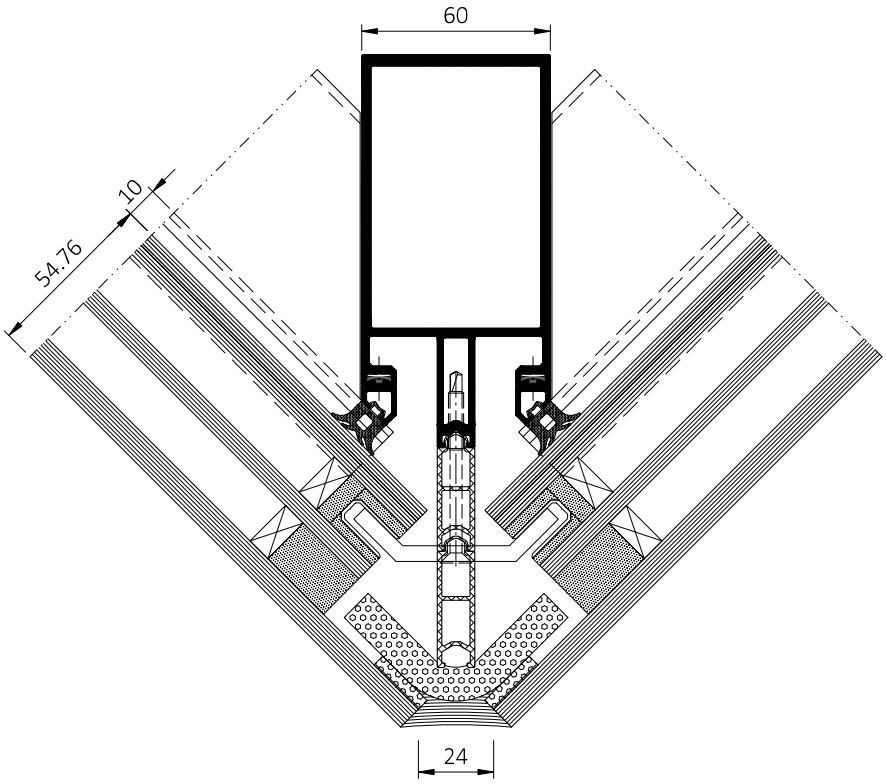
MB-SR60N EFEKT mullion – cross section



MB-SR60N EFEKT transom – cross section



Cross section of an angled intersection point



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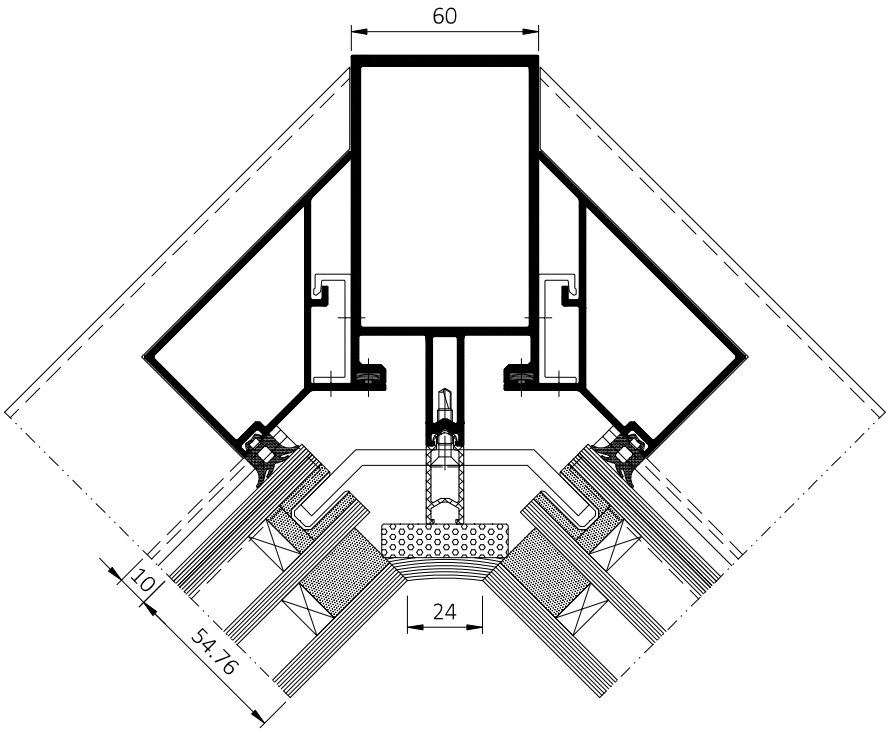
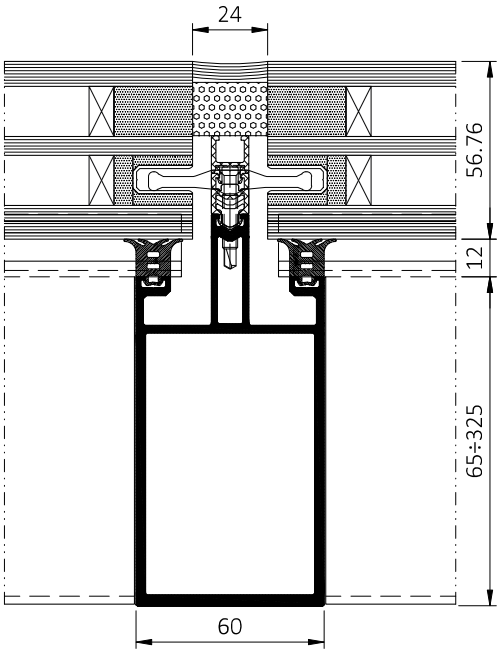
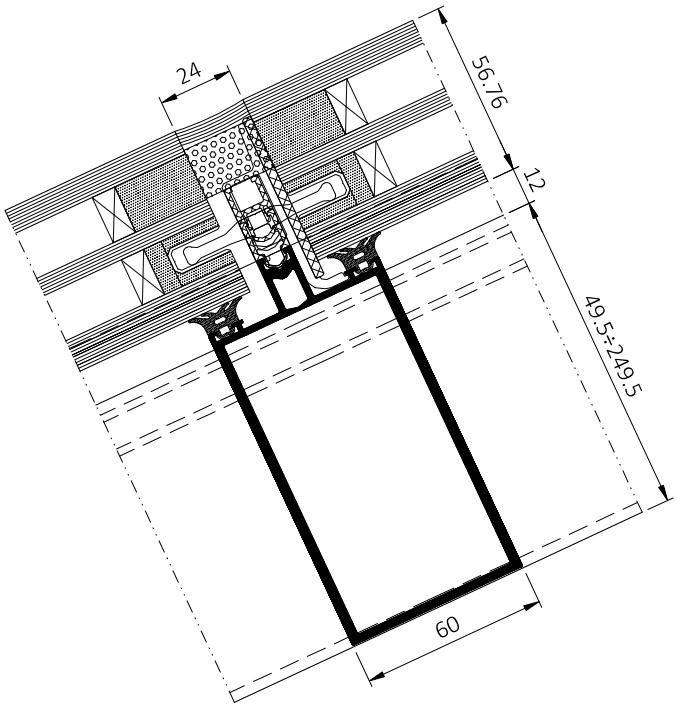
Cross section of an angled intersection point



Cross section of a roof mullion



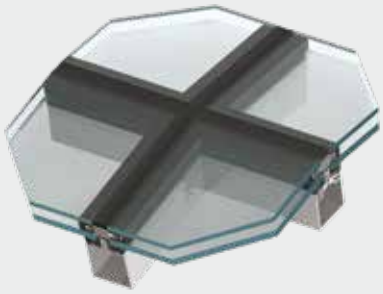
Cross section of a roof transom



More examples on: www.aluprof.com/en/bim-file-finder **Scale 1:2**

CURTAIN WALL SYSTEMS

MB-SR60N ROOF



The MB-SR60N roof glazing system is a solution that offers extensive possibilities in the scope of spatial structures providing the architects with a complete freedom in designing modern building envelopes. The MB-SR60N allows to fabricate structures of a complex shape: pitched roofs, multiplane skylights and domes that pass into vertical walls in the form of a rotunda. This system has been designed specifically for the Galeria Katowice shopping mall. The solution consists of using 60 mm wide aluminium profiles of an appropriate strenth to maximize glazing area and increase amount of natural light inside the building in order to achieve stunning aesthetic effect and create an optimal indoor environment.

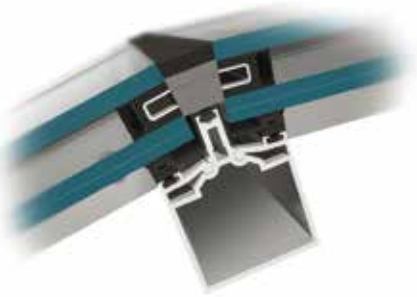
MULLION-TRANSOM SYSTEM FOR SPATIAL STRUCTURES

The supporting mullion-transom structure is aligned on the inside of the façade. Due to the required, industrial-look interiors or to some large spans between the supports, system structure can be supported by steel substructure to obtain the required strength of the whole construction. Mullion and transom profiles are designed to play a fundamental role in dranaige and ventilation strategy. Fitted with specially shaped EPDM gaskets to form channels which allow proper cascade drainage and ventilation of the façade. Glazing, in the form of a fixed glazing units and spandrel panels, can be installed on a continuous basis or using glass fittings. With a range of glazing beads, the joints can be made with angles from 0 to 20°. The glazing of different shapes can be used (trapezoidal, triangular, etc.). From the outside the system is sealed with a special PE sealing cord (PP) and with weather silicone guarantee full air and water tightness, as well as providing an excellent thermal insulation of the façade.

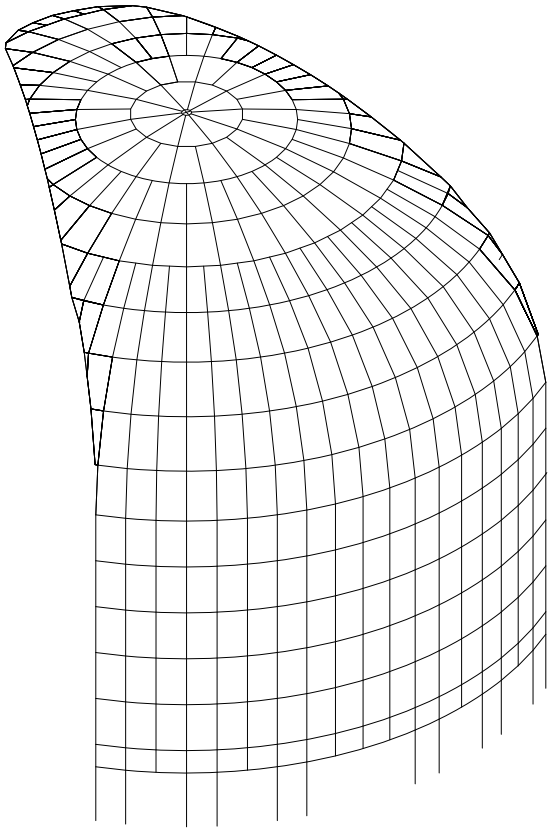
Katowice Gallery, Katowice, Poland
design / SUD Architectes

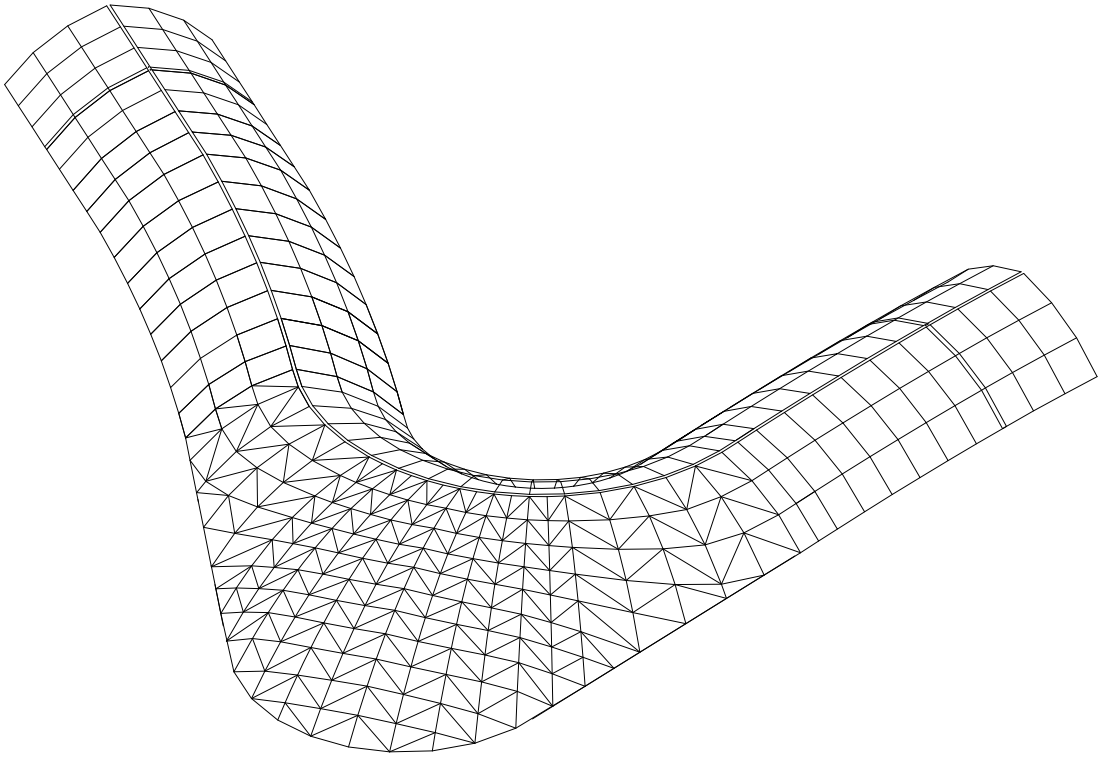
PERFORMANCE

- Air permeability: Class AE 1200 Pa
- Watertightness: Class RE 1200 Pa
- Windload resistance:
  2800 Pa (safety testing 4200 Pa)
- Clamping load: Class DL 4200
- Pull-off-load: Class UL 4200
- Impact resistance: Class SB 1200

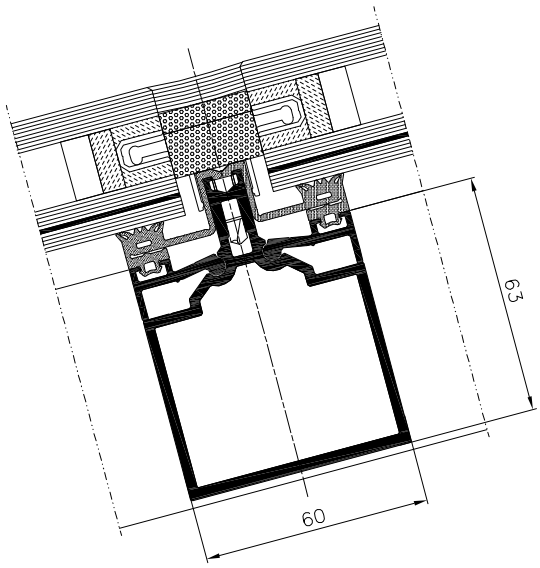


Construction schemes

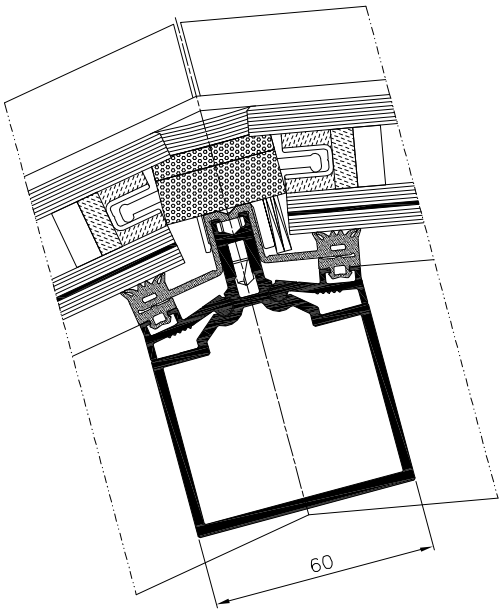




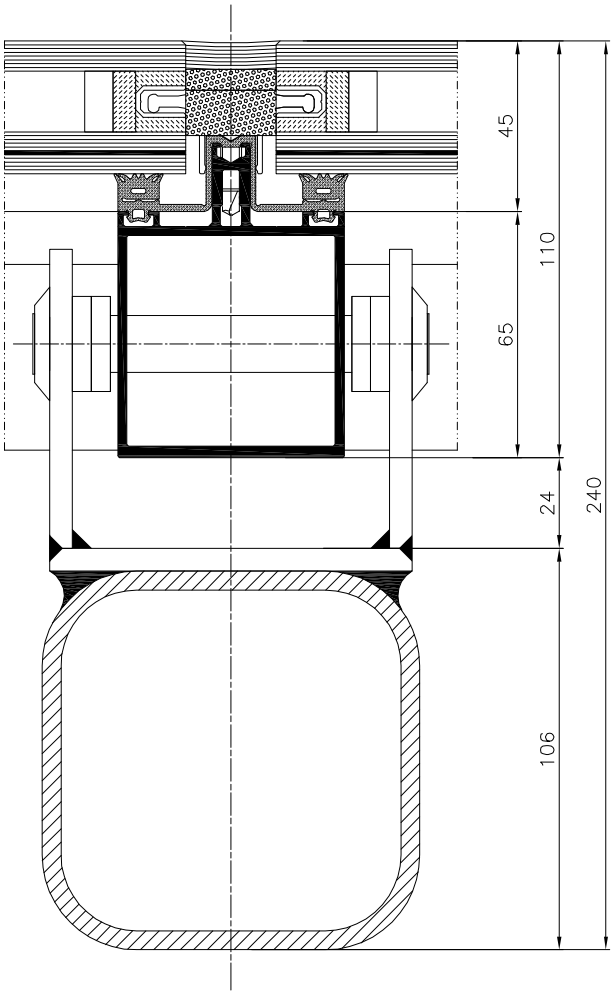
Transom – cross section



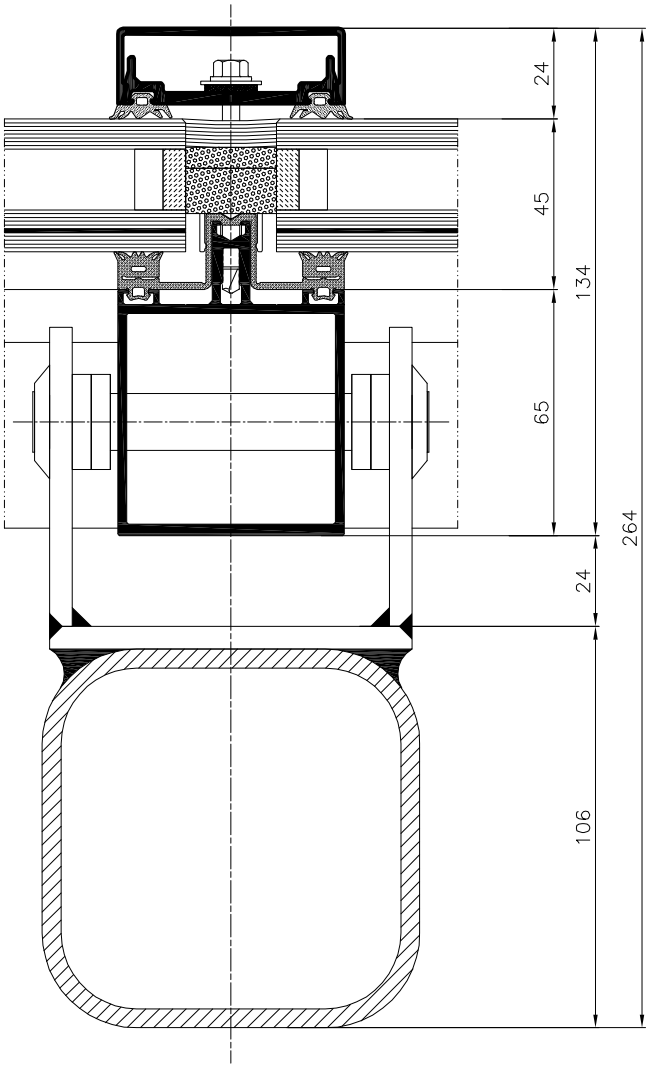
Transom – cross section



Mullion – cross section



Mullion – cross section



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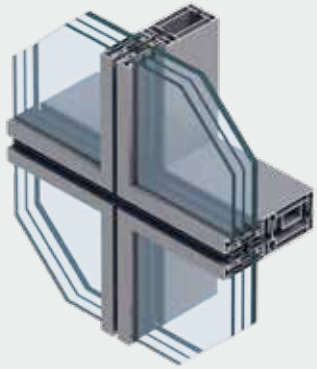
CURTAIN WALL SYSTEMS

MB-SE65 MB-SE65 SF



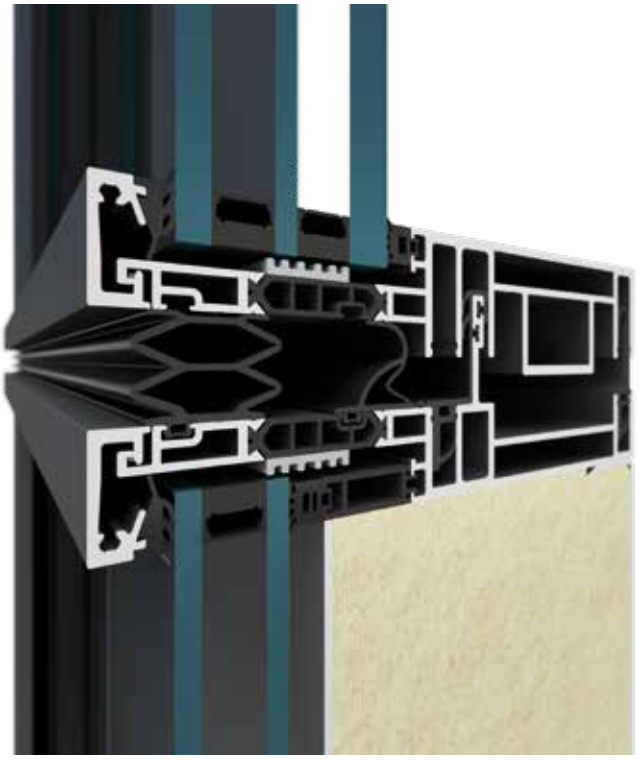
The MB-SE65 is a technologically advanced unitised curtain wall system with excellent thermal insulation. It stands out for its versatility of applications, high technical performance, and streamlined prefabrication, offering a modern approach to creating façades in prestigious buildings.

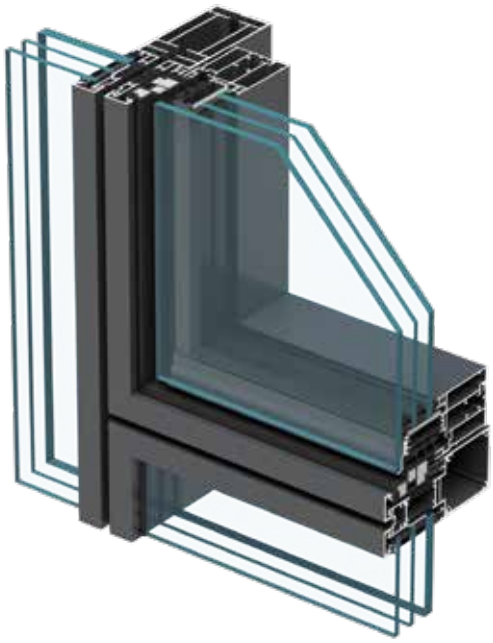
A QUICK INSTALLATION WITHOUT AN EXTERNAL SCAFFOLDING USAGE

The MB-SE65 curtain wall is the result of experience gained from constructing high-rise buildings in the United States and Europe. It has been designed for lightweight, suspended curtain walls. The structure consists of modules that are entirely prefabricated in a production facility, which brings many advantages. Among these, the high quality of the fabricated components stands out, as they are produced under optimal conditions, where the manufacturer has full control over the entire process. The installation of such façades is extremely fast and eliminates the need for scaffolding on-site.

FEATURES AND BENEFITS

- slim profiles (65 mm)
- capability to create non-standard segments and various decorative trims
- seamless integration of standard and façade windows

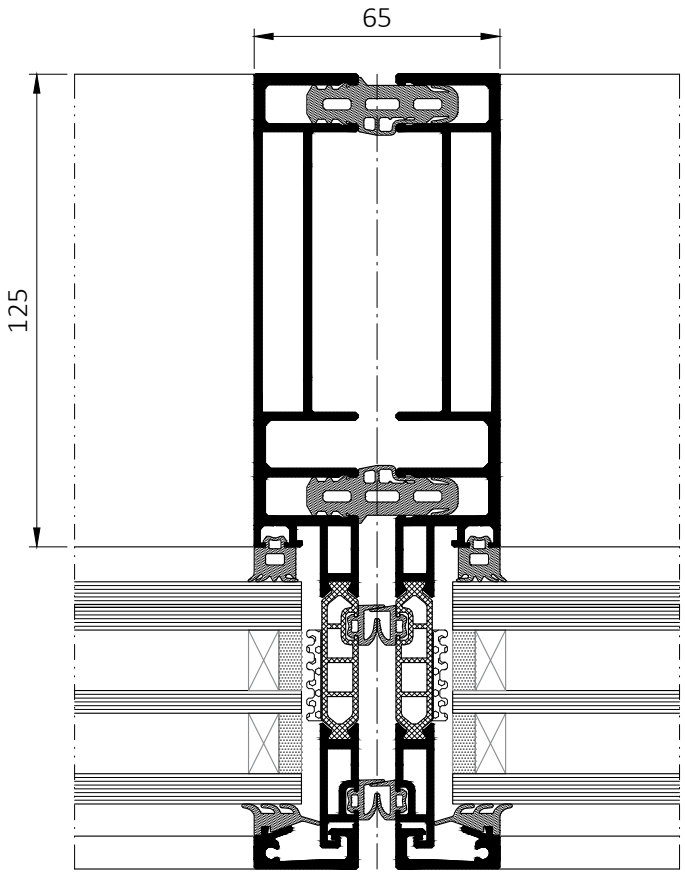




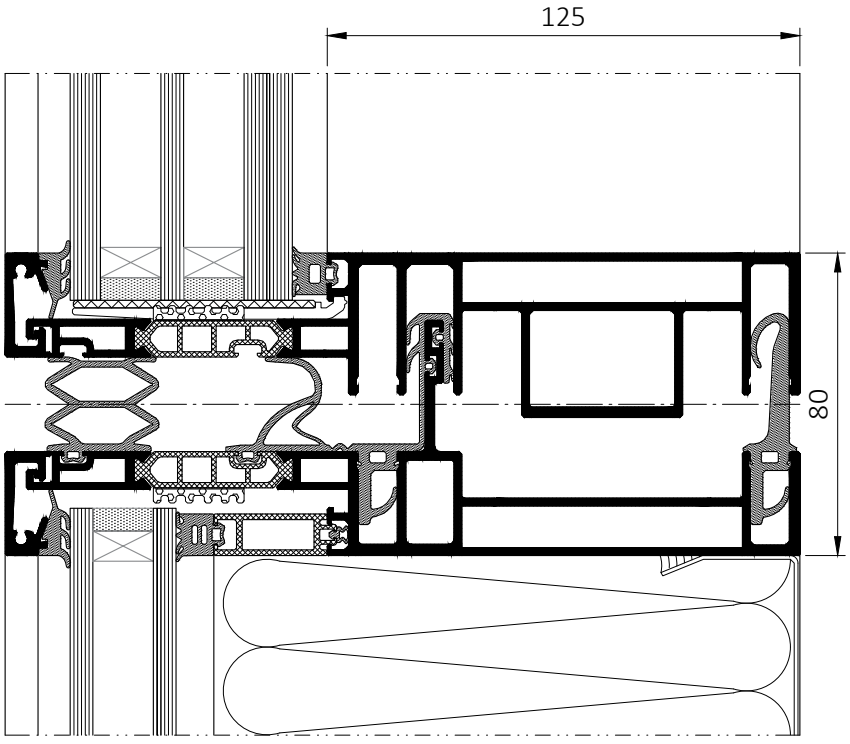
TECHNICAL SPECIFICATION	MB-SE65
Mullions depth	125 i 150 mm
Transom depth	124,5 - 149,5mm
Horizontal expansion gap	25 mm ±12 mm
Vertical expansion gap	10 mm ±3 mm
Glazing width	500 kg

PERFORMANCE	MB-SE65
Air Permeability	class AE1200 EN 12152
Watertightness	class RE1200 EN 12154
Windload resistance	2000 Pa EN 13116
Impact resistance	class I5/E5 EN 14019
Thermal insulation	U_{cw} from 0,9 W/(m²K)
Acoustic Insulation	R_w coefficient calculated individually

Mullion – cross section

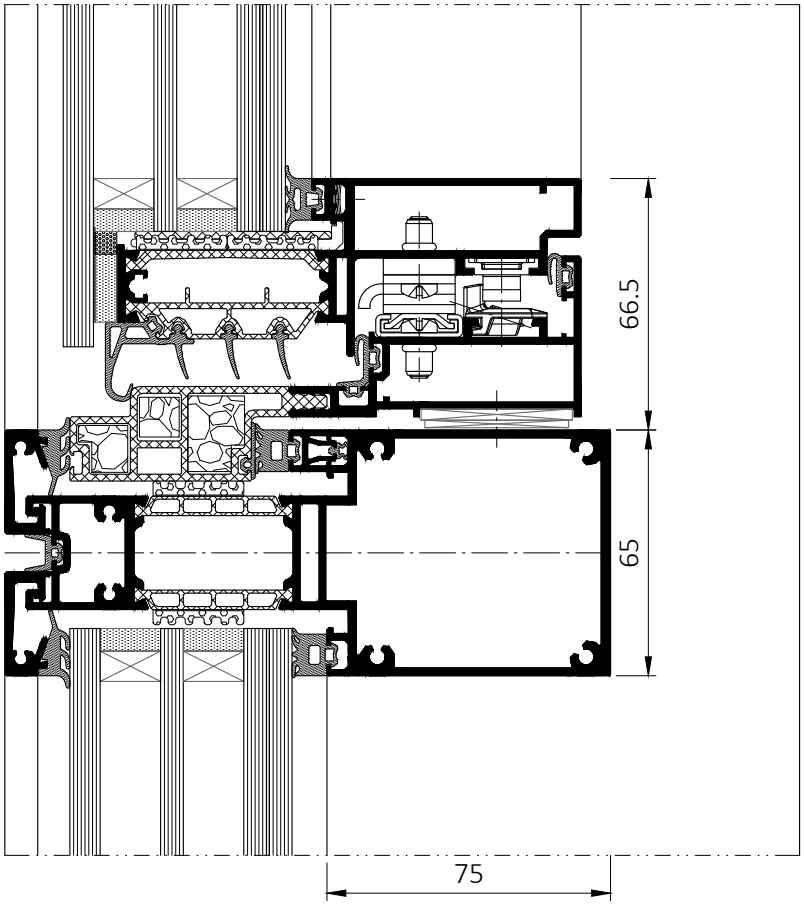


Transom – cross section

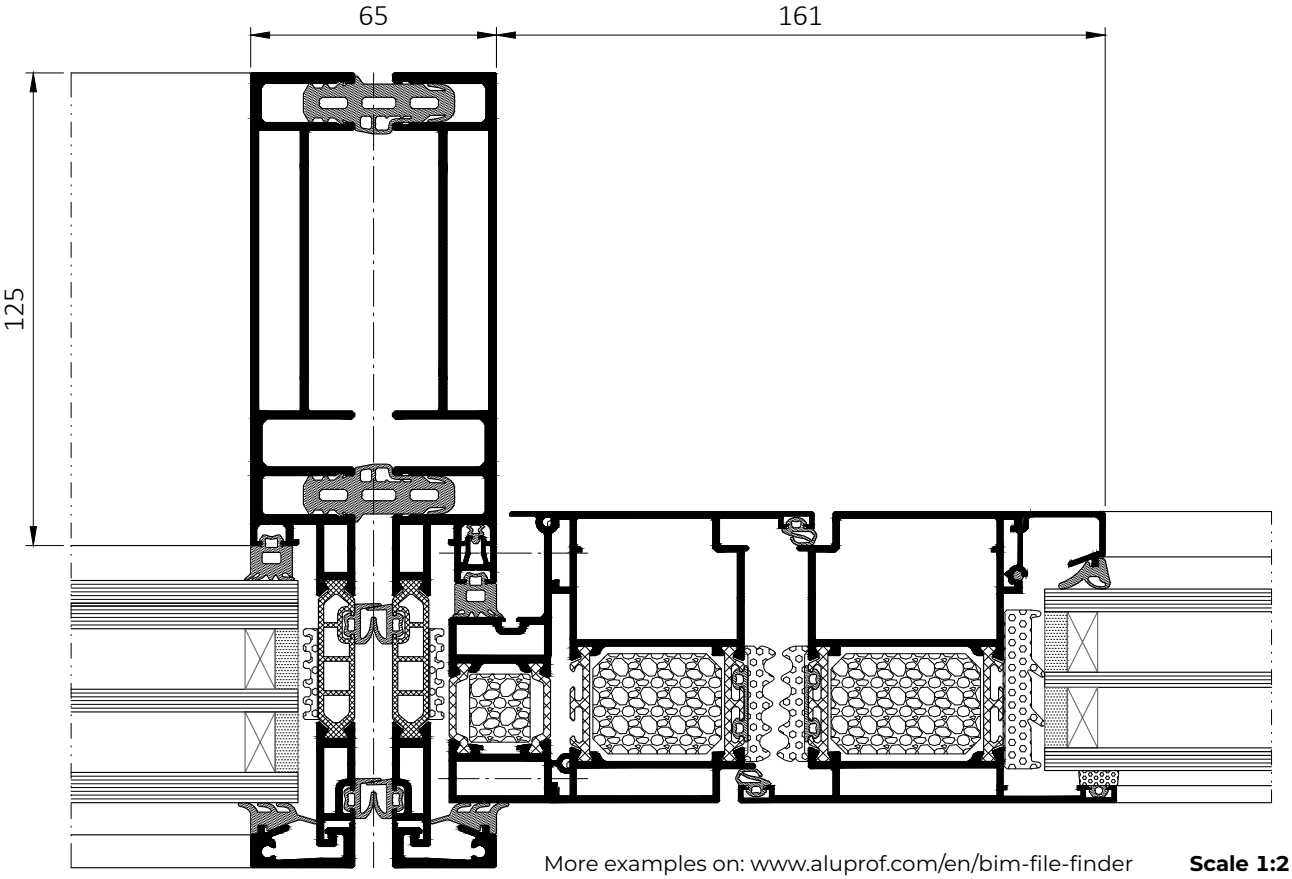


Scale 1:2

Transom and window MB-SR50N OW HI+ – cross section



Mullion and door MB-86N – cross section



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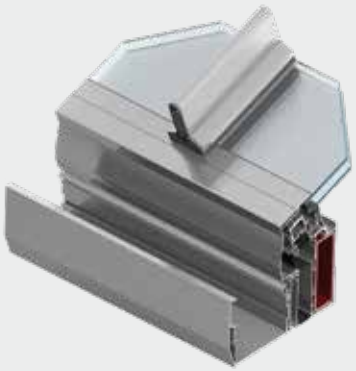
CURTAIN WALL SYSTEMS

MB-WG60



MB-WG60 thermally insulated profiles system designed for building winter gardens and other constructions such conservatories, verandas, etc, allowing users to have direct contact with nature and the surrounding landscape. This type of construction aims at adding new quality to the living space, with natural light falling from above, which provides optimum lighting of the room and ensures proper atmosphere of the interior. In the conventional meaning, a winter garden is an unheated veranda used in winter and summer time, making it possible to rest close to nature. Our aim was to design such a system that could be used as a living room all year long.

WINTER GARDEN

CONSTRUCTION
The system of winter gardens has been designed while taking into account basic requirements of its user with regard to aesthetic properties of the facility. Primary load-bearing profiles, i.e. rafters are shaped from the outside of the room in the form of a reversed profile ended with a 20 mm radius. To enhance resistance of the roof there is an option of strengthening profiles with additional aluminium or steel elements. Rafters are joined with purlin profiles and hinge profiles leaning against the eaves beam and wall-mounted beam in cascades, which significantly facilities proper water drainage and enables efficient ventilation of the room. The roof gradient equals 7°-45°

THERMAL INSULATION
Very good thermal insulation performance and high durability have been attained due to the application of special chamber thermal breaks. EPDM membranes and an HPVC profile thermally protect the corner area of a window pane, particularly exposed to low temperature.

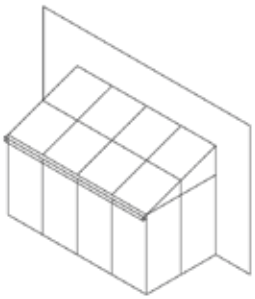
GLAZING AND TIGHTNESS TO WATER AND AIR INFILTRATIONS
This system allows for the use of glazing range between 24-36 mm. To ensure efficient drainage of rainwater from the roof and condensed vapour from the inside of the room, the system has been equipped with an internal drip, integrated with the profile of eaves beam and hinge profile as well as with an external gutter detachable from the eaves beam, thus the image of the winter garden can be changed.

DESIGNED COMPATIBILITY
The system enables application of doors and windows in MB system as well as other elements made of plastic, wood or other materials available on the market.

COLOUR PALETTE
A wide choice of colours offered in the standard colour option meets the requirements of even the most demanding customers. Colour finishes are made by powder coating or anodising.

Standard constructions

Type 1



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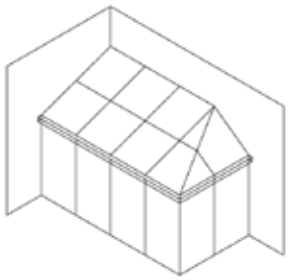

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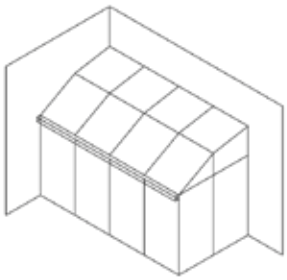

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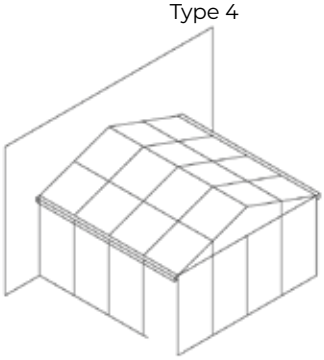

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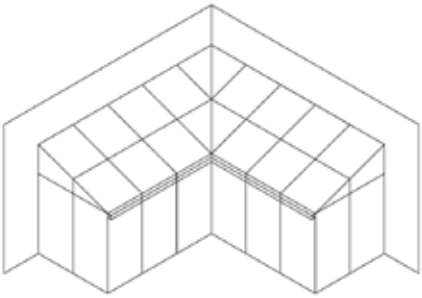

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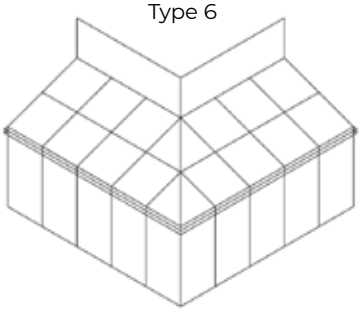

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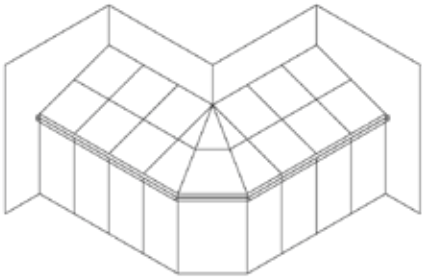

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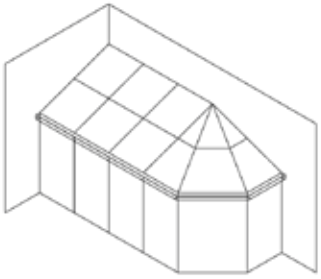

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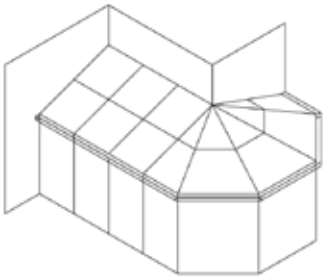

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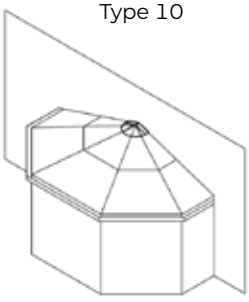

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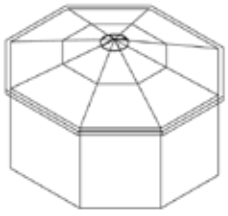
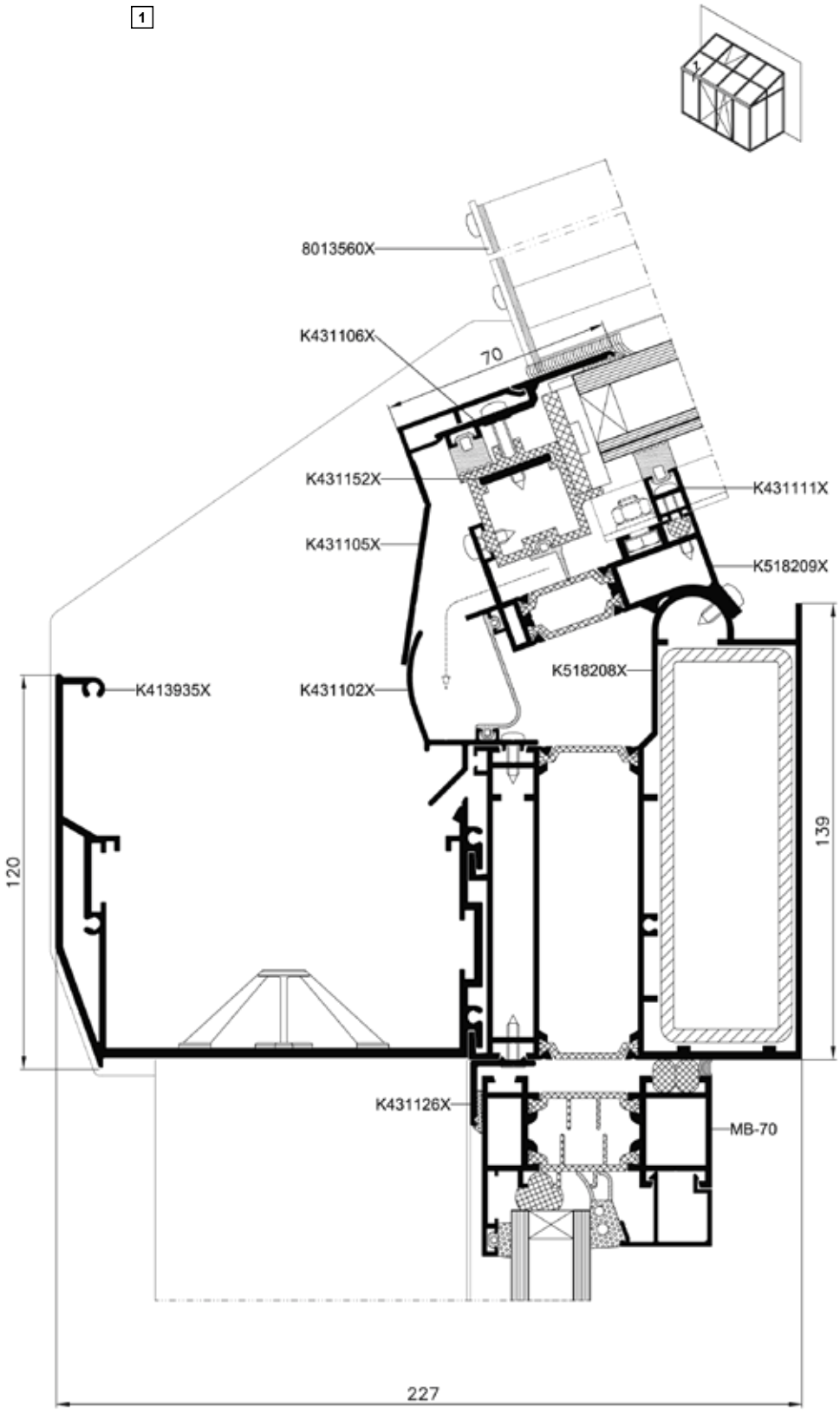


Scale 1:2

Eaves beam cross section

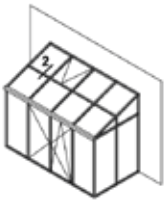
1

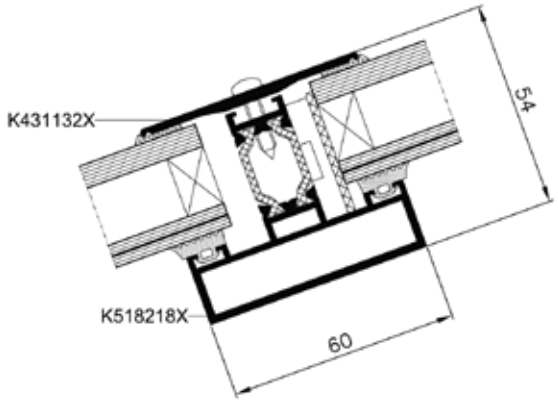


Scale 1:2

Purlin cross section

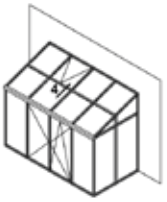
2

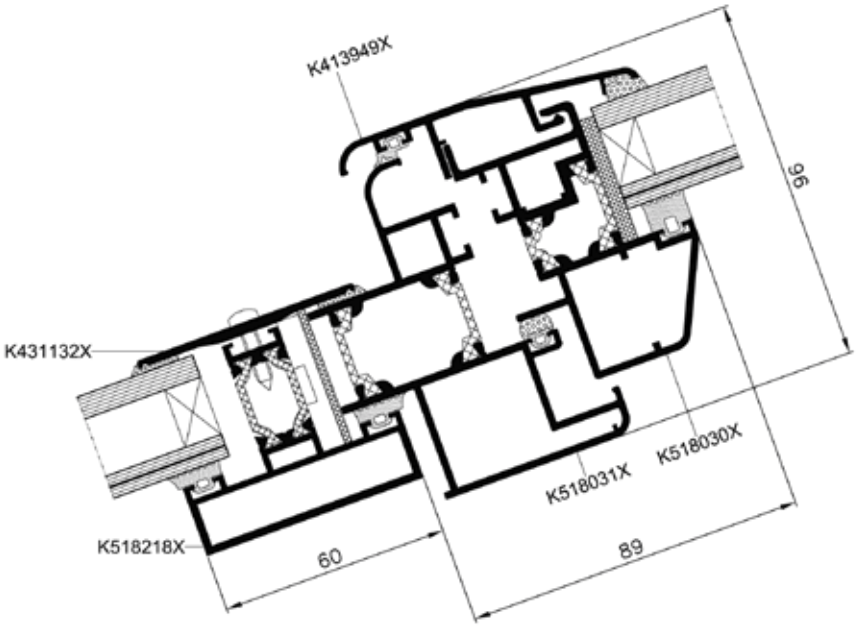




Purlin cross section

4

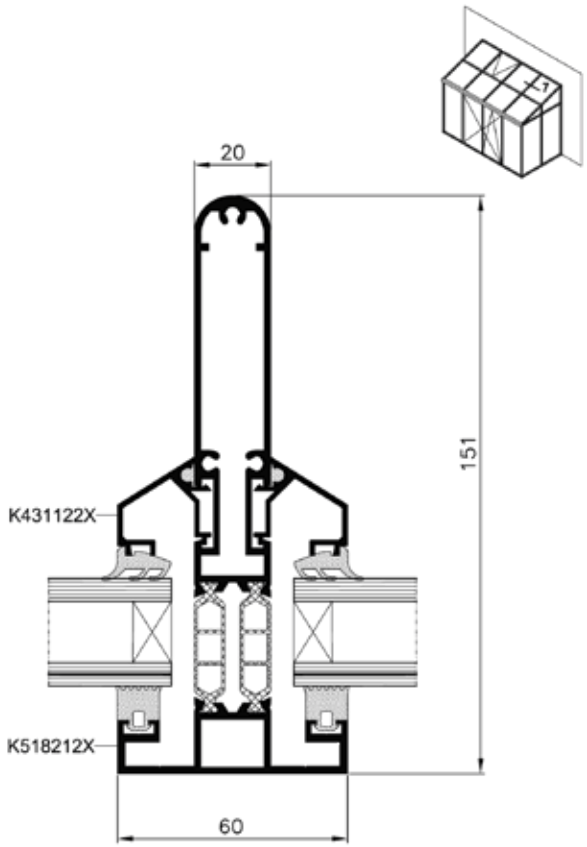




Scale 1:2

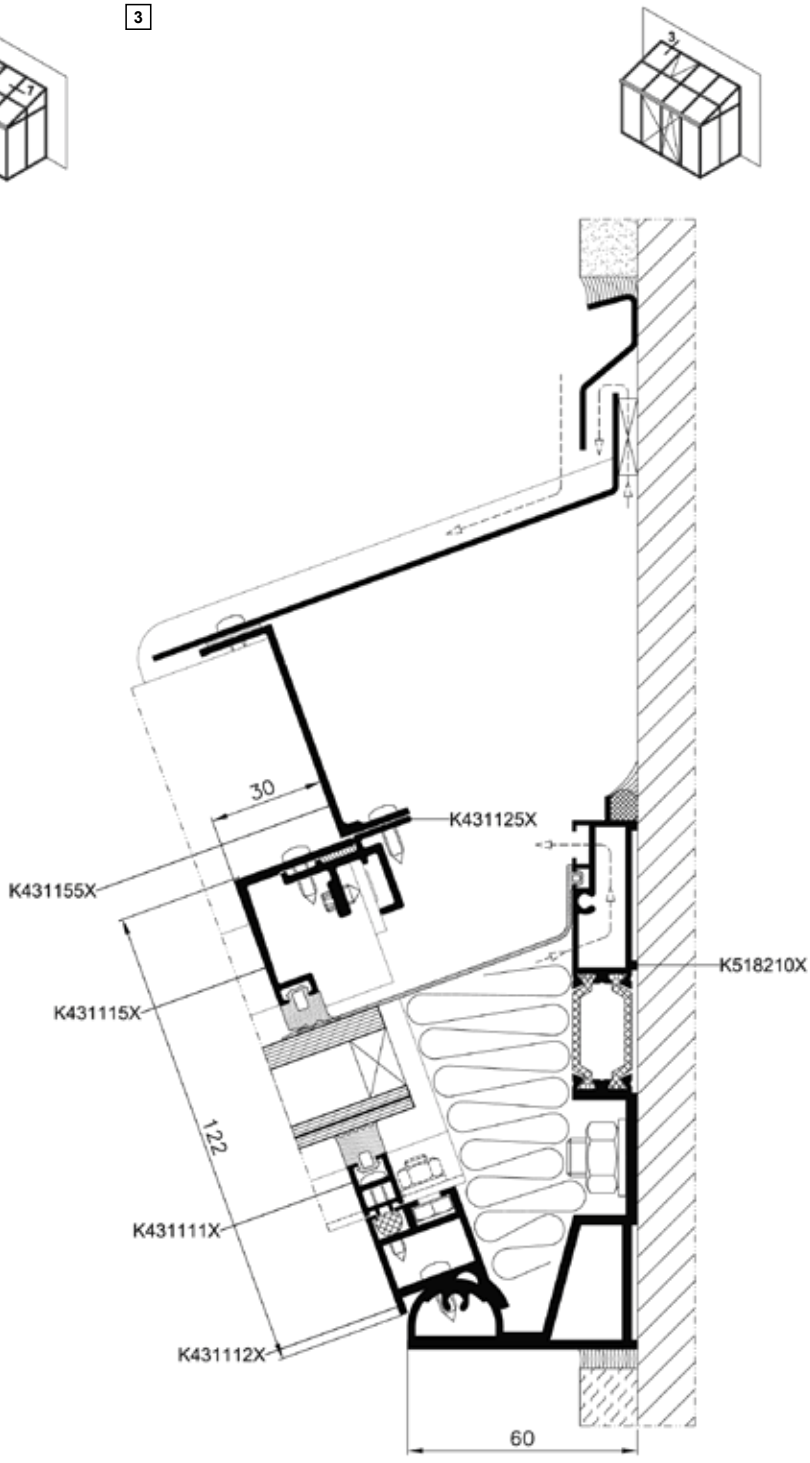
Rafter cross section

7



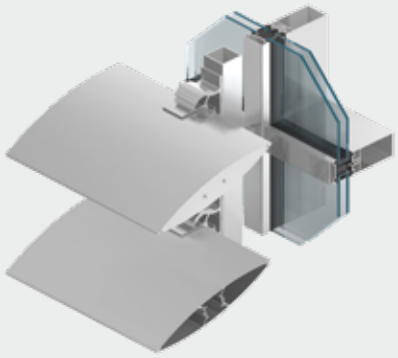
Wall beam cross section

3



More examples on: www.aluprof.com/en/bim-file-finder **Scale 1:2**

MB-SUNPROF



Conserving energy by reducing exposure to direct solar radiation while allowing for natural day lighting is one of a major focus of today's environmentally aware engineers, architects and specifiers. MB-SUNPROF Sun Shades have been designed to meet these needs. The system comprises aluminum blades, which are available in variety of sizes and integrate the Aluprof's curtain wall systems range, providing an impressive visual effect that helps unite the building envelope.

Features and benefits

- Selection of aluminum blade profiles of width from 100 to 300 mm to serve variety of projects' requirements
- Range of outriggers (brackets) to choose from
- Up to 45 degrees incident angle
- Brings together solar glare control with the appropriate amount of natural light coming into the building's internal environment
- Comes together with Aluprof's MB range of curtain wall systems, ensuring significant visual effect on the building envelope
- Quick and easy to install to the curtain wall, load bearing wall or window frame
- Retrofit options for existing buildings that have utilized MB range of curtain walls
- Wide range of finish option

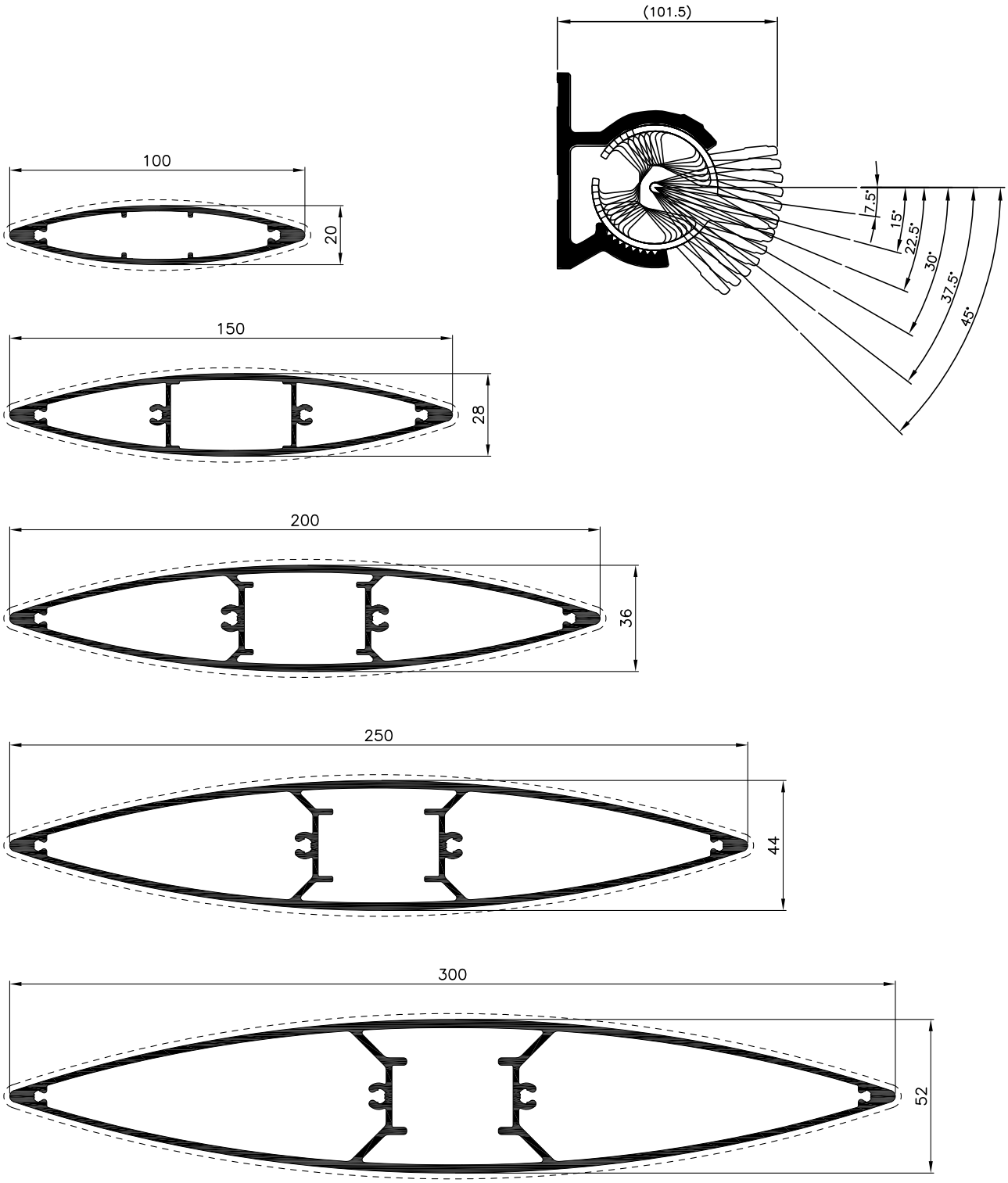
Limiting the solar heat gain of the building through the use of MB-SUNPROF Sun Shades on the curtain wall ensures the enhancement of the thermal performance of the building combined with energy savings through.

- Reduction of direct solar heat whilst remaining natural light rate coming inside the building
- Lowered use of energy required to operate electric ventilation and air conditioning systems
- Optimization of natural ventilation

Please refer to our Local technical support team for advice and support in estimating energy saving rates that result from the use of MB-SUNPROF sun shades for each individual project.

Park Naukowo-Technologiczny, Suwałki, Poland
design / ARH+, arch. Andrzej Rydzewski

Brise soleil profiles



More examples on: www.aluprof.com/en/bim-file-finder **Scale 1:2**

DECORATIVE PROFILES

EARTHLINE

The EARTHLINE decorative aluminium profiles redefine wall finishing by introducing a dynamic, three-dimensional effect that brings a unique and modern aesthetic to any building. This innovative solution enhances architectural character, creating a bold and contemporary style.
Designed to integrate seamlessly with other Aluprof systems, EARTHLINE enables a coherent architectural vision. These versatile profiles can be used for ventilated facades, door panels, or as decorative interior wall finishes, delivering a distinct and refined look to all applications. They are ideal for modern homes, luxury residences, multi-family developments, and public buildings. For those seeking 21st-century quality and style, EARTHLINE is the perfect choice.

CONTEMPORARY WALL DESIGN

PERFECT HARMONY OF FUNCTIONALITY AND DESIGN

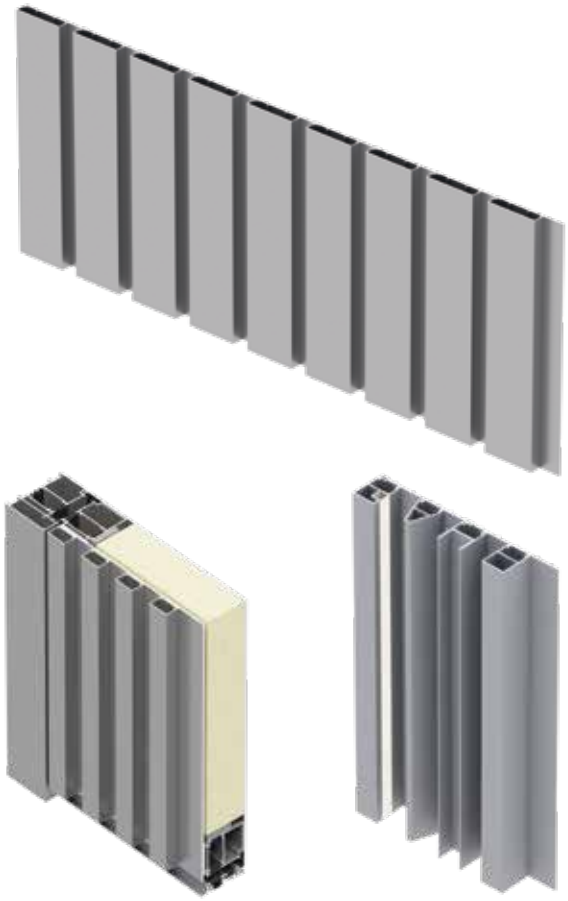
EARTHLINE decorative aluminium profiles combine cutting-edge technology with exceptional aesthetics. Built with robust base sections and sleek cover strips, the system ensures both strength and elegance. The snap-on profiles attach effortlessly to pre-prepared aluminium or wooden substructures, or directly to interior walls, offering a straightforward and efficient installation process.

UNLIMITED DESIGN POSSIBILITIES

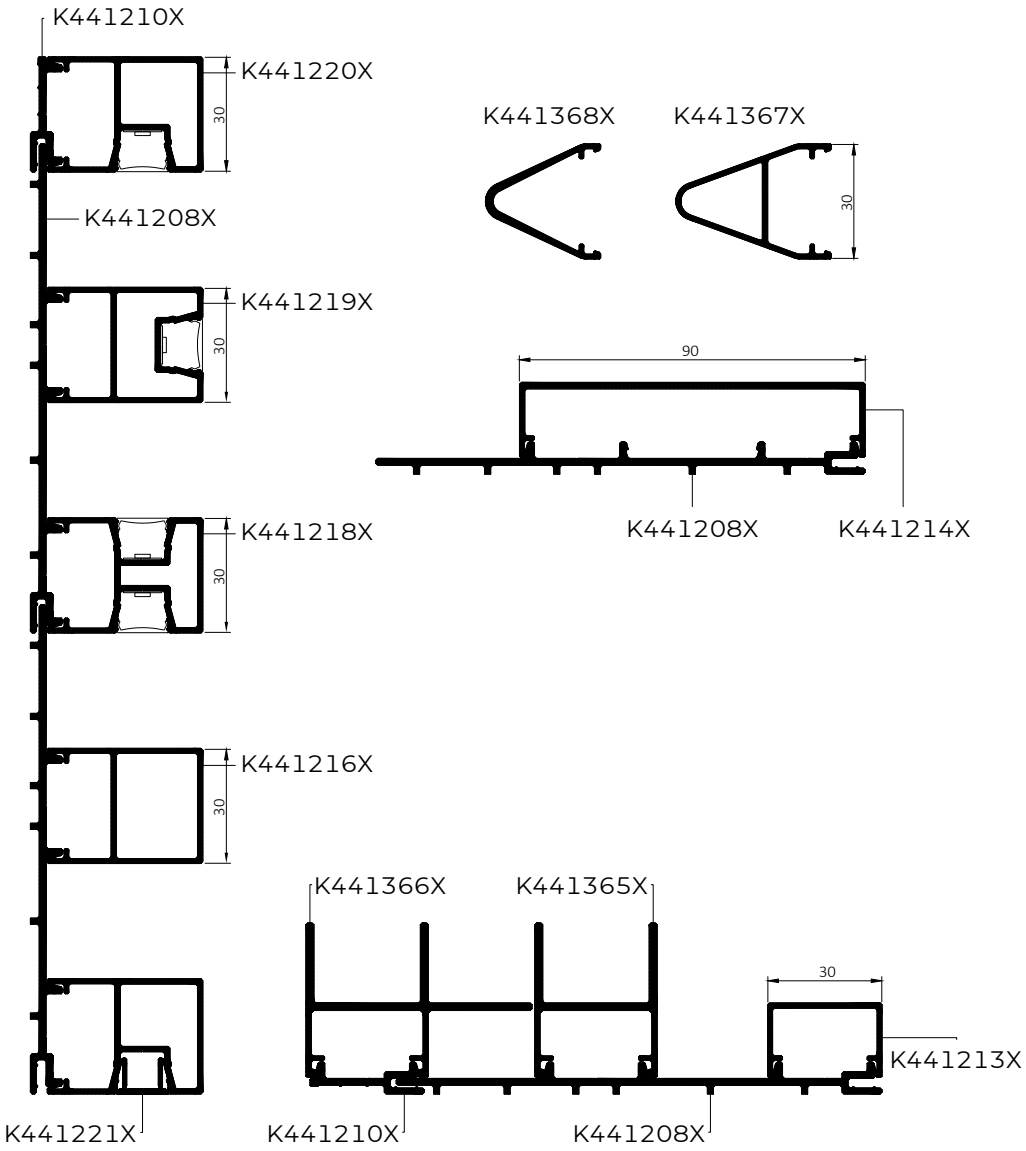
Available in widths of 30 mm and 90 mm, the profiles can be installed vertically or horizontally, catering to various design preferences. The system also accommodates LED lighting in single-sided, double-sided, or central configurations, enabling creative lighting effects that elevate architectural projects. With an extensive palette of colours and finishes-including coatings that imitate natural materials like wood or concrete-EARTHLINE offers limitless design flexibility. Every project becomes a personalised statement, perfectly aligned with the homeowner's or developer's vision. Additionally, the system supports custom extrusion of unique shapes, allowing architects to highlight a building's distinctive features while maintaining compatibility with the standard mounting system. EARTHLINE is the ultimate solution for modern wall design, blending aesthetics, functionality, and ease of installation to create architectural masterpieces that stand out.

KEY FEATURES AND BENEFITS OF EARTHLINE PROFILES

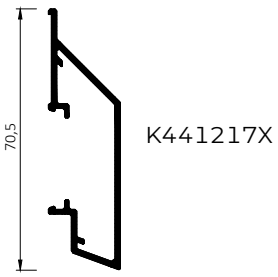
- Elevates architectural projects with a modern, prestigious look
- Suitable for both indoor and outdoor use
- Available in a wide range of styles and colours, including wood and stone imitations
- Enables stunning lighting effects for a striking visual impact
- Offers custom designs to match individual project visions
- Unique façade aesthetics attract attention and add value to buildings
- Resistant to weather conditions and wear for long-lasting performance
- Easy to clean with minimal upkeep required
- Visually harmonises with other Aluprof products for cohesive architecture
- Quick and simple fabrication, optimised for productivity
- Snap-on system and compatible profiles ensure fast and straightforward installation
- Fully compatible with other Aluprof systems for effortless coordination



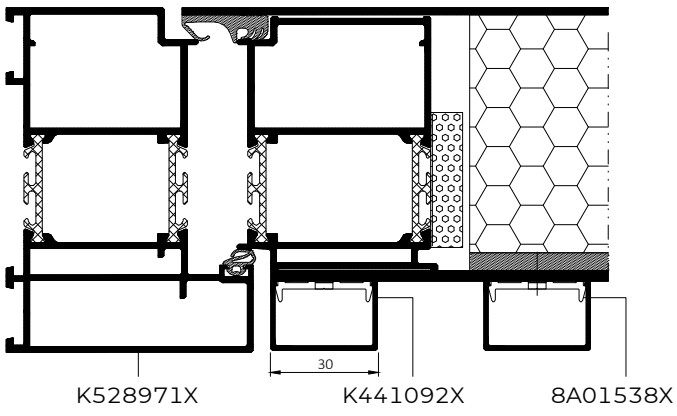
Cross-sections through vertical slats



Cross-section through a horizontal slat

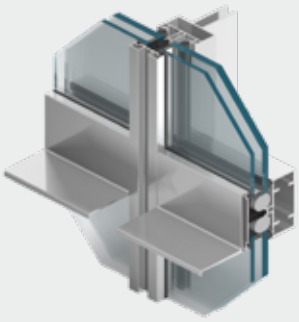


Cross-section of MB-86N door with vertical slats

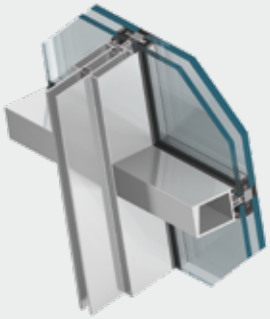


More examples on: www.aluprof.com/en/bim-file-finder **Scale 1:2**

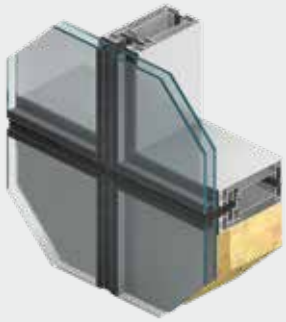
SYSTEM
MB-SR80



SYSTEM
MB-SG60



SYSTEM
MB-SE80 SG



BESPOKE SOLUTIONS

More and more often contemporary architectural projects use concepts that require an individual approach to the curtain wall. Based on the experience of our design engineers and technical capabilities, we are able to quickly design and implement into production structures that meet the specific needs of architects and ensure proper technical parameters with respect to visual appearance and functionality. References of ALUPROF SA include a few dozen customized solutions for individual projects. Several examples of such structures are presented below.

One of the most important buildings, for which customized solutions in Aluprof systems were designed was the Warsaw Chopin Airport. The following curtain wall systems were designed for the airport: MB-SR80, MB-SR100 and MB-SG50.

The airport terminal uses MB-SR80 stick system curtain walling. The design of its profiles is a feature that deserves special attention.

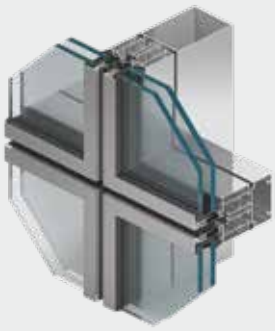
The inclined external walls of the upper part of the airport pier use MB-SG60 revers curtain wall system.

325 LEX is one of the many typical high-rise buildings in New York. And it's yet another Aluprof systemsbased project in the US. The unitized curtain wall MB-SE80 SG, designed especially for this project is an example of a system that meets the individual needs of the project both in terms of aesthetics and technical solutions. It allows a quick segment installation to the reinforced concrete frame. In terms of glazing technology, it is a fully structural, 4-edge SSG system that comes with customized bottom hung windows and foldable corner joints. The MB-SE80 SG system was tested at the National Certified Testing Laboratorie in York by the standards applicable in the US.

Warsaw Chopin Airport, Warsaw, Poland
design / arch. Pierluca Roccheggiani, arch. Paweł Czaplicki

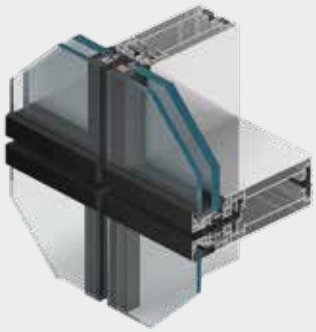
325 LEX, New York, USA
design / Time Square Development

SYSTEM
MB-SR85 SEMI



On the outside, the system resembles semi-structural and element curtain walls, where every glazing frame is visible. There are mechanical Frames, made of thermally insulated profiles, are mechanically fixed to the stick support structure, which allows the use of a wide range of infills with single panes or insulated glass units. The profiles of mullions, transoms and frames were designed in such a way as to create a monolithic structure when joined together. Thanks to its well-thought design, the MB-SR85 SEMI system is not only visually appealing but also shows very high technical parameters. The solution was designed specially for the construction of buildings in the Pomeranian Science and Technology Park in Gdynia.

SYSTEM
MB-SE85 SG



The 212m high SKY TOWER is the highest residential and commercial building in Poland. For the needs of this building, the structural element MB-SE85 SG curtain wall system was adopted to meet the requirements related to the visual quality, strength, high technical parameters and quick installation of segments without the use of traditional scaffolding. The system for anchoring the panels to the structure of roofs made of reinforced concrete was also customized.

Sky Tower, Wrocław, Poland
design / Biuro Architektoniczne FOLD

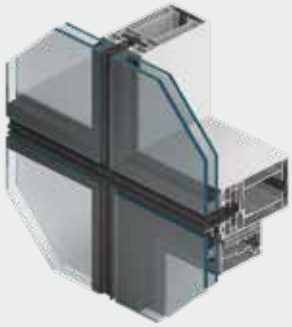
Pomeranian Science and Technology Park, Gdynia, Poland
design / AEC Krymow & Partnerzy

SYSTEM
MB-SE98 SG

125 Greenwich is 278 m (912 feet) high, and has 88 levels. As provided for in the architectural design, the external wall has rounded corners, providing the dwellers with a magnificent panoramic view to the city. 125 Greenwich Street dedicated unitized curtain wall system MB-SE98 SG enables to build fully glazed constructions from the outside, and theglass is attached by means of structural sealant using the SSG technology. Typical dimensions for this structure are: width of mullions & transoms 98 mm (3.85”), vertical expansion joint 16 mm (0.62”), horizontal expansion joint 42 mm (1.65”). Horizontal expansion joint has a large movement tolerance range – up to ±27.4 mm (1.08”). MB-SE98 SG system has two types of mullions that provide the ability to fabricate basic types of façade segments plus the segments with a special vertical profile for attaching a transport platform. Also, the system has two types of parallel opening windows.

125 Greenwich Street, New York, USA
design / Rafael Vinoly Architects PC

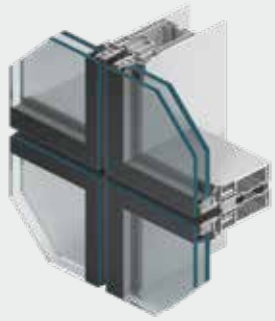
SYSTEM
MB-SE80 SG



LIC MARRIOTT is a 106 m high, 31-storey building. Its design encompasses the unitized curtain wall MB-SE80 SG, which, in terms of glazing technology, is characterized by a fully structural, 4-edge SSG system. In order to meet project requirements, the curtain wall has been modified accordingly: sealing system and profiles’ design have been changed. This enabled the structure to meet the required resistance to seismic displacement, and increased the level of tightness of the façade. Another customized aspect are bottom hung windows and angle connections, allowing the fabrication of the characteristic, concave portion of the building façade. In terms of compensation of tectonic movements, the construction allows vertical segment movements, increased to ±13 mm. The MB-SE80 SG system provides a possibility to install special anchors for "climbing fixing", designed for façade maintenance teams.

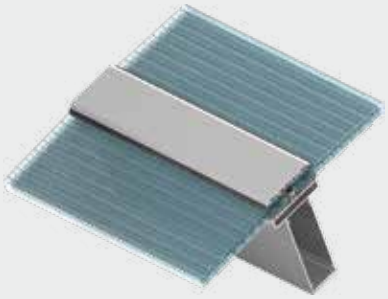
LIC Marriott, New York, USA
design / Handel Architects LLP

SYSTEM
MB-SE95 CKK



Developed for the Centrum Kongresowe building in Cracow, the unitized curtain wall MB-SE95 CKK is adapted for quick segment assembly to the steel substructure using special connectors. In terms of glazing technology, it is a fully structural system and the glazing is fixed to the aluminium profiles using a special adhesive with no mechanical protection, and the façade itself has inf ills with tin or ceramic panels.
The construction provides large opportunities in terms of development: it allows to create angle connections both with a smooth adjustable angle of ±15°, as well as to deflect portions of the façade from the vertical by an angle of 12 - 25°. The MB-SE95 also gives the opportunity to replace external glazed modules without having to remove the façade segments' aluminium construction.

SYSTEM
ROOFING SYSTEM



PGE Arena stadium is yet another construction with a customized roofing system solution. Due to the unusual shape, and the lightness of the roofing, it was decided to use polycarbonate and aluminium profiles. The main task here was to design bulky, bending, T-shaped purlin profiles. Each element was given a different curvature, and the entire roof was to be totally tight, thus eliminating the risk of ingress of rainwater. This was made possible thanks to a double sealing system, that entirely covered the infills in the glazing groove.

PGE Arena, Gdańsk, Poland
design / RKW Rhode Kellermann Wawrowsky

ICE Congress Centre, Cracow, Poland
design / Ingarden & Ewý Architekci, Arata Isozaki & Associates

For more information on our products see **Project Specific & Bespoke Solutions Catalogue.**

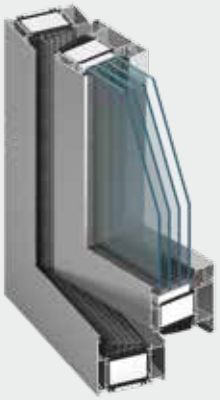
WINDOW AND DOOR SYSTEMS

www.aluprof.com

ALUPROF
ALUMINIUM SYSTEMS

WINDOW AND DOOR SYSTEMS

MB-104 PASSIVE



Thanks to its excellent thermal performances, thermally broken window-door system MB-104 Passive meets all the requirements for the building elements used in passive buildings. This was confirmed by certificates granted by the Passive House Institute PHI Darmstadt. This system is intended for fabrication of external structure elements such as various types of windows, doors, anterooms, shop fronts and spatial structures, which are highly robust and characterized by excellent water and air tightness, and thermal & acoustic insulation performance.

FOR PASSIVE HOUSES

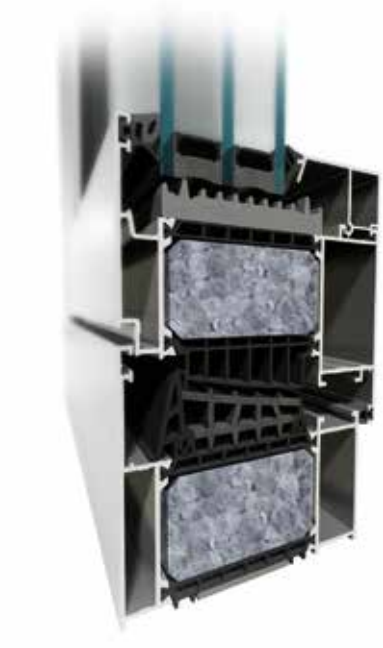
FEATURES AND BENEFITS

- windows certified by the Passive House Institute PHI Darmstadt (MB-104 Passive SI & MB-104 Passive Aero)
- excellent weather tightness & thermal insulation performance U_w for window from 0.59 W/(m²K)*
- wide range of glazing, up to 81 mm allowing for triple and fourfold glazing units
- "Euro" grooves allow the fitting of most of the available hardware, both for aluminium and PVC windows
- can use surface, roller or concealed hinges
- expansion joint profiles for door leaf
- 95 mm-wide threshold – the threshold and the frame have the same width
- anti-burglary windows and doors up to RC3 class

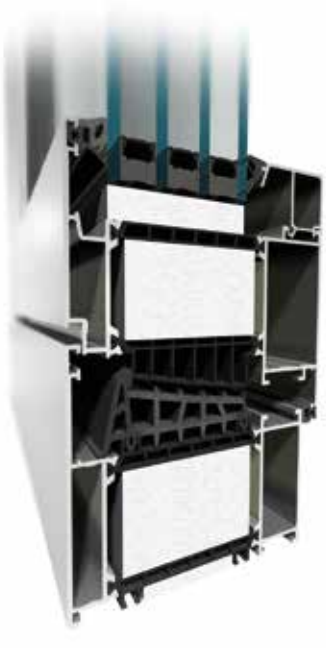
TECHNICAL SPECIFICATION	WINDOWS MB-104 PASSIVE	DOOR MB-104 PASSIVE
Depth of frame	95 mm	95 mm
Depth of leaf	104 mm	95 mm
Glazing range	freme: 27 – 72 mm, vent: 34.5 – 81 mm	27 – 72 mm
Maximum size of leaf (H×L)	H to 2900 mm, L to 1700 mm	H to 3000 mm, L to 1400 mm

PERFORMANCE	WINDOWS MB-104 PASSIVE	DOOR MB-104 PASSIVE
Air Permeability	class 4, EN 12207	class 4, EN 12207
Watertightness	to class AE 1800 Pa, EN 12208	class E1200 Pa, EN 12208
Thermal insulation	U_w from 0.59 W/(m²K)*, U_w from 0.62 W/(m²K)**	U_D from 0.66 W/(m²K)***
Windload resistance	class C5/B5, EN 12210	class C4/B5, EN 12210
Burglary resistance	class RC1 to RC3, EN 1627	class RC1 to RC3, EN 1627

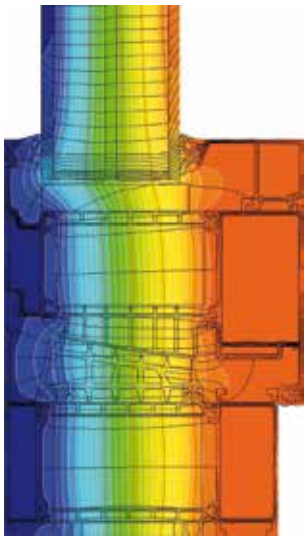
* - U_w for MB-104 Passive Aero-based fixed window casement size 1700×2900 mm, with glazing U_g=0.5 W/(m²K)
** - U_w for MB-104 Passive Aero-based openable window casement size 1700×2150 mm, with glazing U_g=0.5 W/(m²K)
*** - U_D for panel door MB-104 Passive Aero casement size 1230×2180 mm, with glazing U_g=0.5 W/(m²K)



MB-104 PASSIVE SI Window

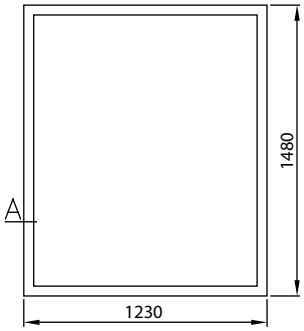
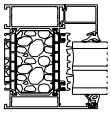
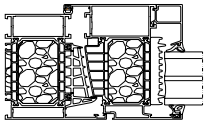
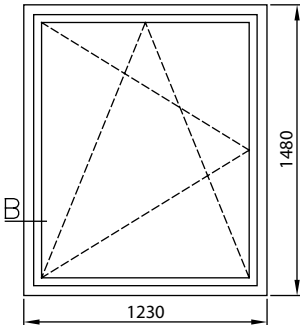
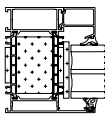
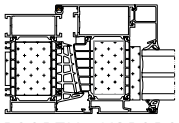


MB-104 PASSIVE SI Window



Isothermal lines in
MB-104 Passive Aero window

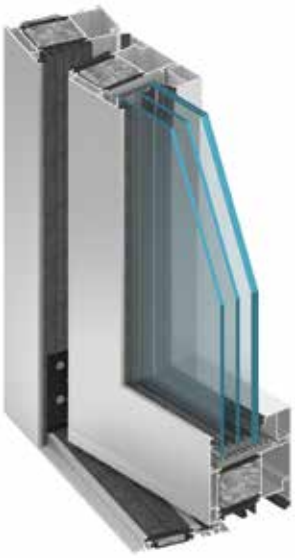
Examples of heat transfer coefficients U_w

WINDOWS SCHEMES	SECTION A OR B		Value U_w [W/m²K]	
			Glass with Multitech frame	
			Double chamber	
			U_g 0.5	U_g 0.7
	MB-104 PASSIVE SI	 K519013X	0.62	0.78
		 K519013X + K519104X	0.68	0.80*
	MB-104 PASSIVE AERO	 K819013X	0.60	0.75
		 K819013X + K819104X	0.64	0.76

* according with PHI Darmstadt Certificate

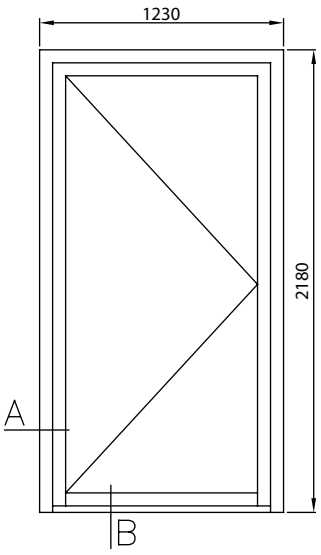
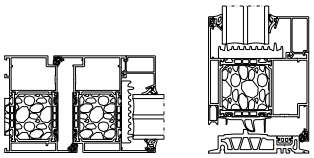
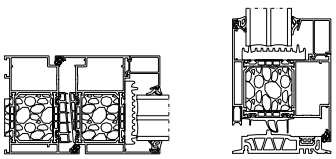
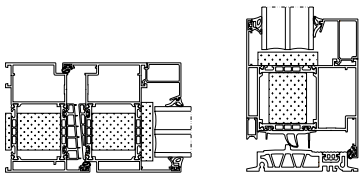
MB-104 Passive Aero Door

MB-104 PASSIVE SI Door



MB-104 PASSIVE SI, RC3 Door

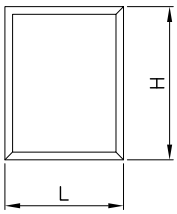
Examples of heat transfer coefficients U_D

DOOR SCHEME	SECTION A OR B		Value U_D [W/m²K]		
			Glass with Multitech frame		Panel G=60 mm
			Double chamber		
			U_g 0.5	U_g 0.7	U_g 0.55
	MB-104 PASSIVE SI	 K519141X+K519161X+009204	0.88	1.01	0.87
	MB-104 PASSIVE SI+	 K519141X+K519161X+009204	0.76	0.88	0.72*
	MB-104 PASSIVE AERO	 K819141X+K819161X+009204	0.71	0.84	0.70

* according with PHI Darmstadt Certificate

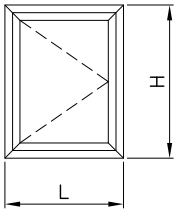
Max. dimensions of windows

Fixed window



Max. dimensions of windows result from maximal glass sizes

Turn-hung window

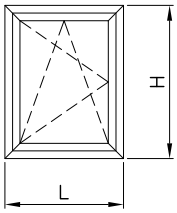


Hmax = 2900 mm
Lmax = 1260 mm

160 kg

Hmax = 2150 mm
Lmax = 1700 mm

Tilt and turn window

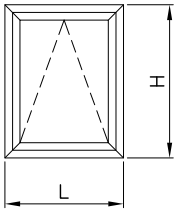


Hmax = 2900 mm
Lmax = 1260 mm

160 kg

Hmax = 2150 mm
Lmax = 1700 mm

Tilt window



Hmax = 2900 mm
Lmax = 1260 mm

160 kg

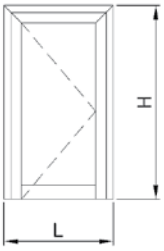
Hmax = 1400 mm
Lmax = 2400 mm

130 kg

Maximal vent weight

Max. standard dimensions of the door

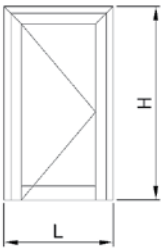
Inward openable



MHmax = 3000 mm
MLmax = 1400 mm

KG 200 kg

Outward openable

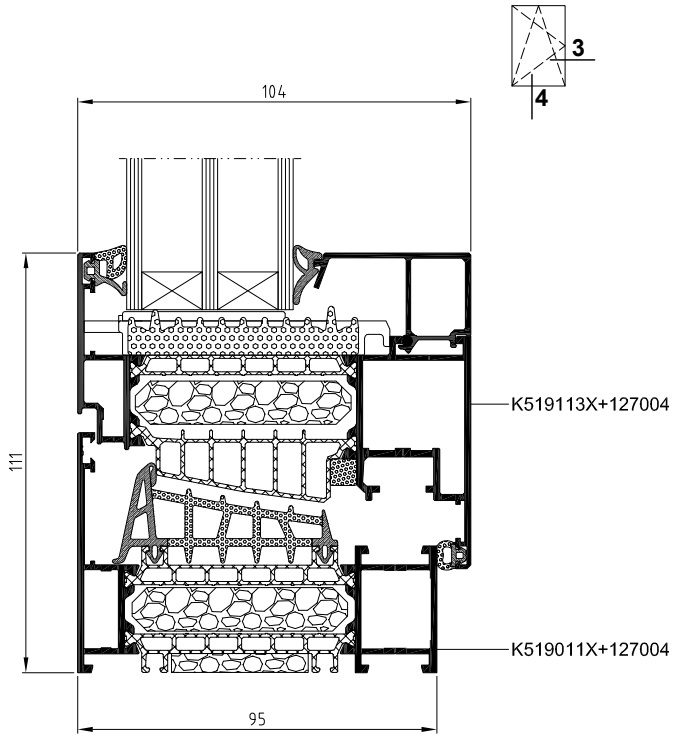


MHmax = 3000 mm
MLmax = 1400 mm

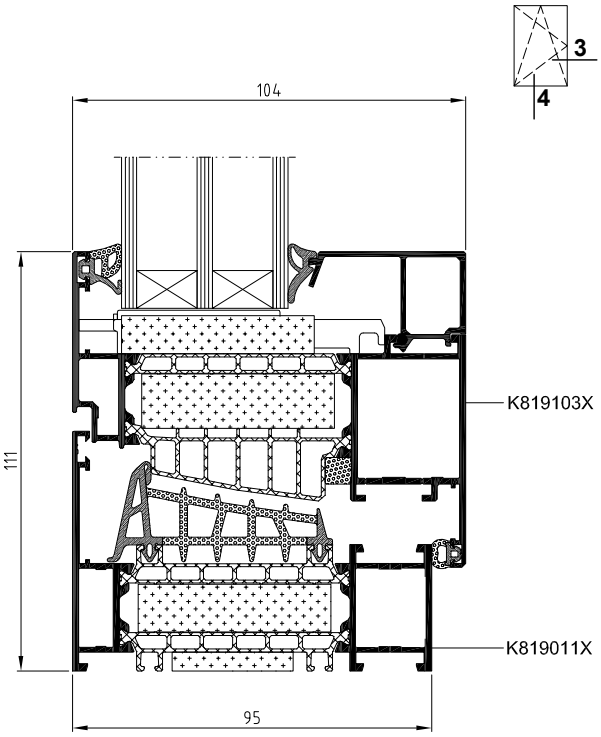
KG 200 kg

KG Maximal vent weight

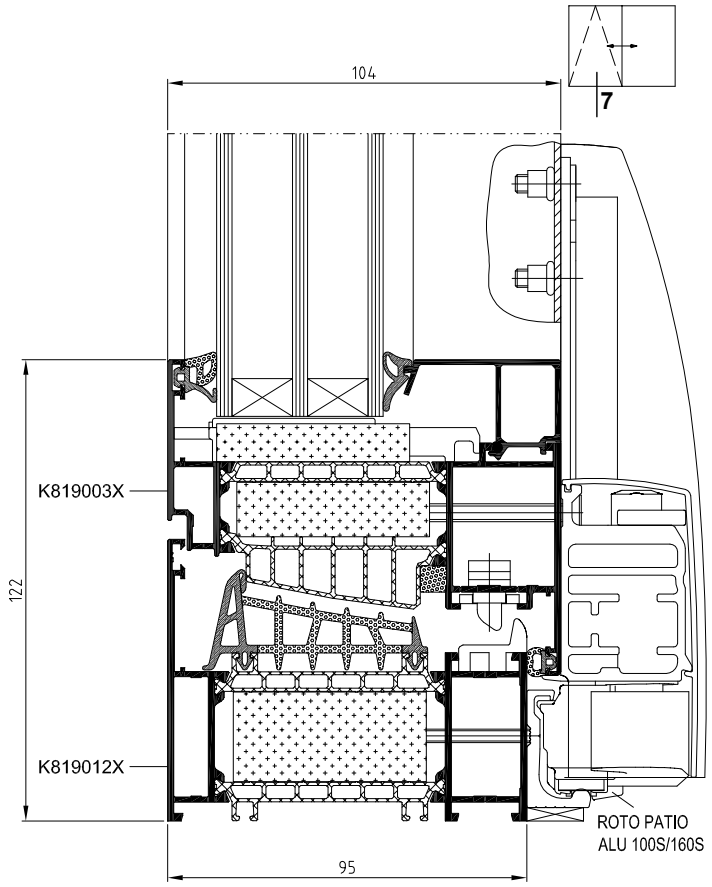
MB-104 Passive SI openable window



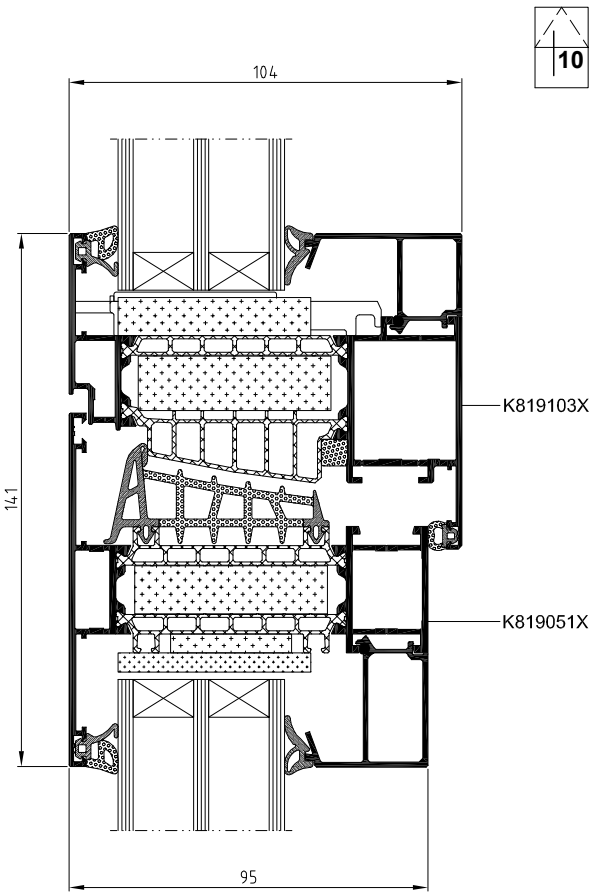
MB-104 Passive Aero openable window



MB-104 Passive Aero tilt-and-slide window

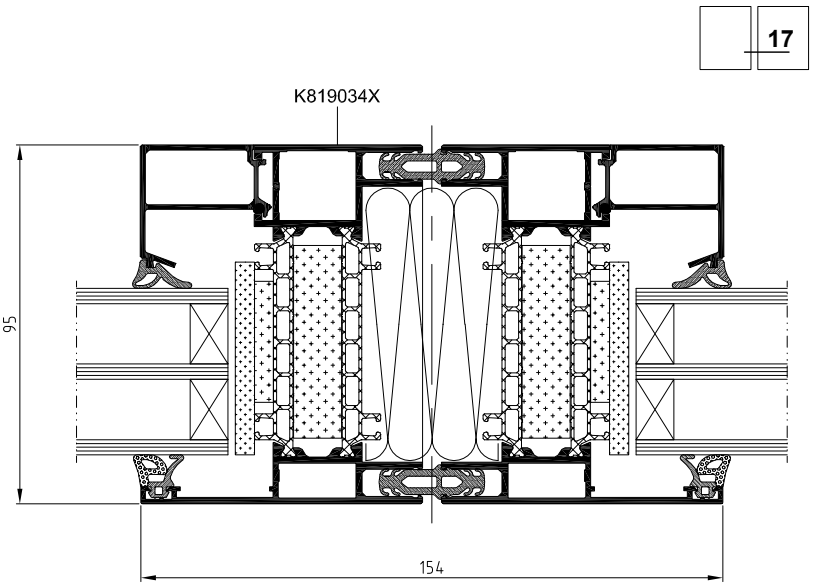


MB-104 Passive Aero window transom

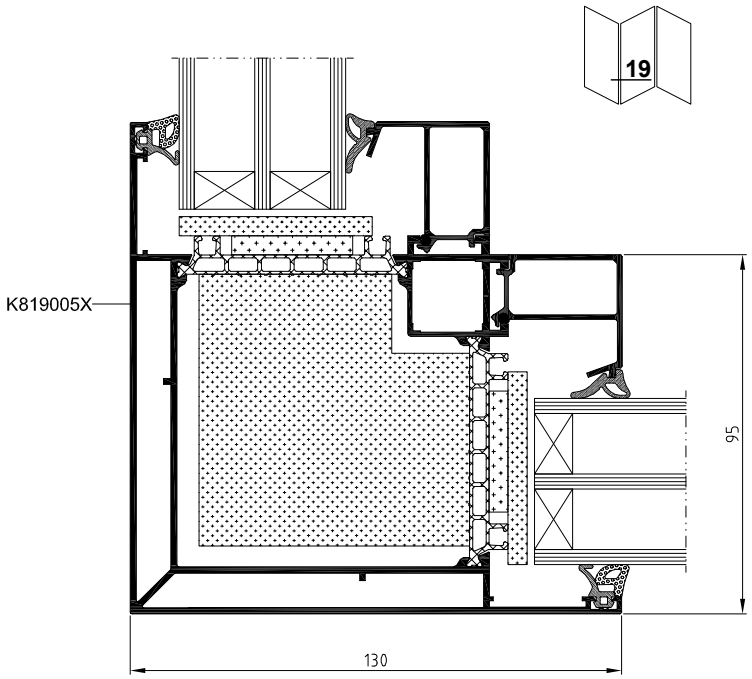


Scale 1:2

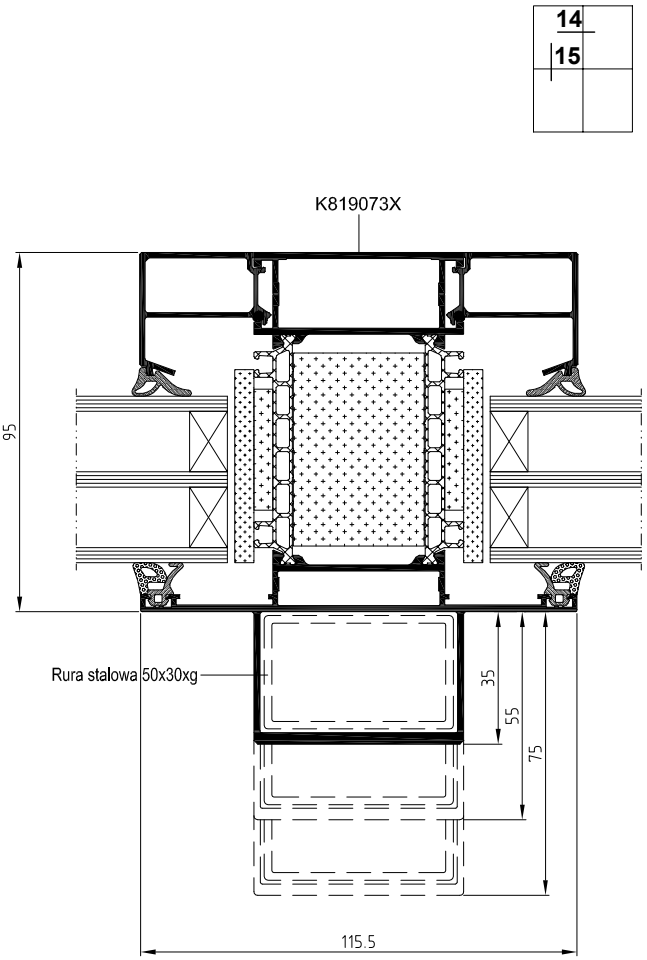
Expansion joint



Corner mullion 90°

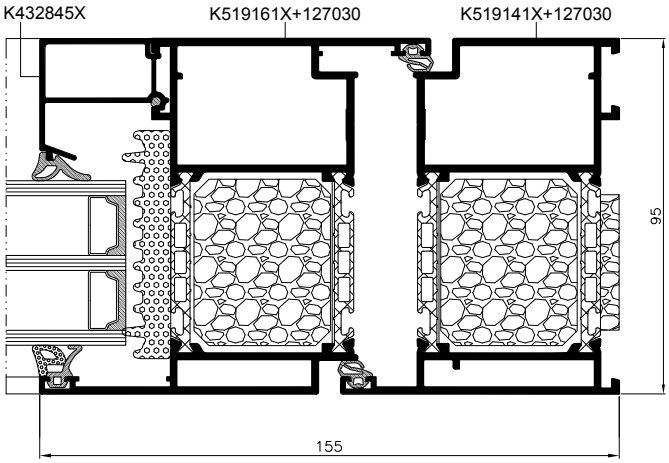


Reinforced mullion

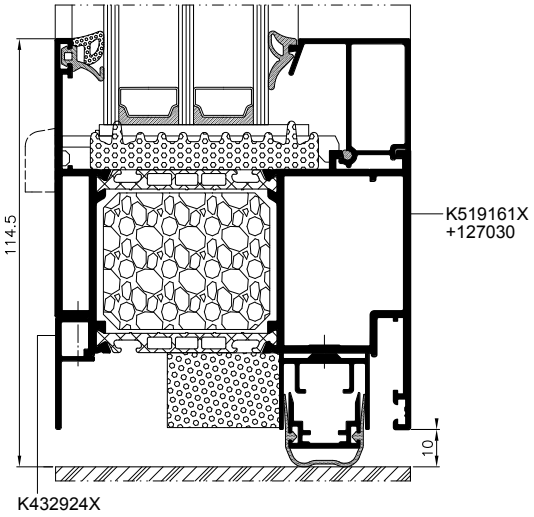


Scale 1:2

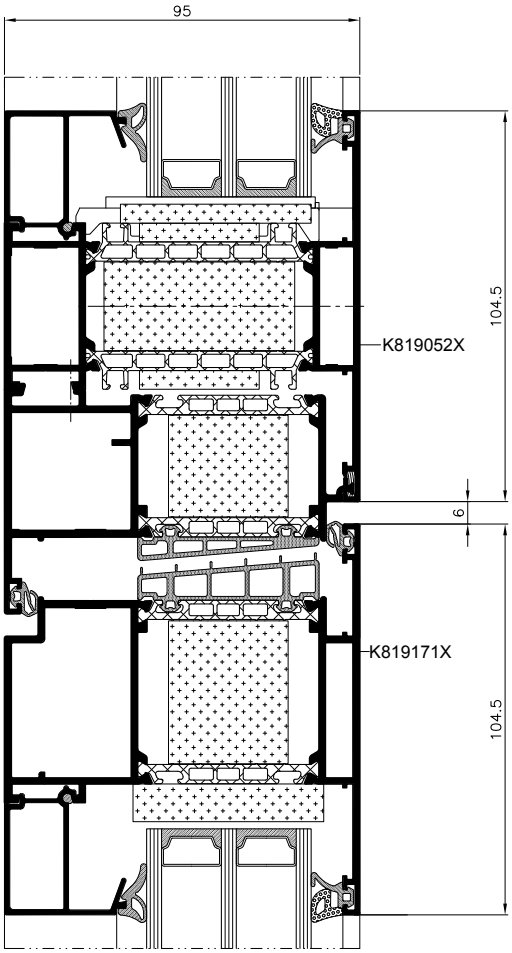
MB-104 Passive SI door



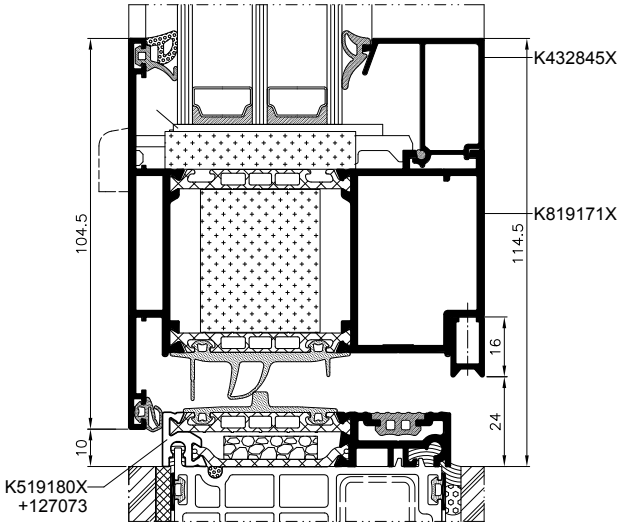
MB-104 Passive SI door threshold



MB-104 Passive Aero - horizontal section of rail in display window assembly



MB-104 Passive Aero door threshold

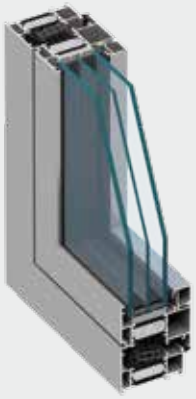


More examples on: www.aluprof.com/en/bim-file-finder **Scale 1:2**

WINDOW AND DOOR SYSTEMS

MB-86N

RECOMMENDED FOR ENERGY-EFFICIENT CONSTRUCTIONS



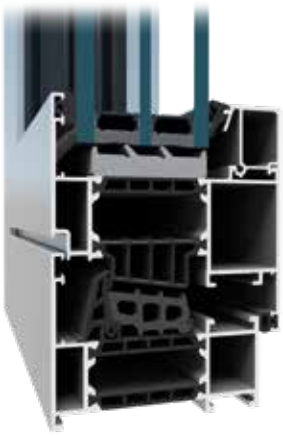
This highly efficient window and door system meets the diverse needs of users. The system's profiles have been designed in 2 versions depending on the requirements of thermal energy savings: ST and SI. Highly resistant profiles are yet another advantage of MB-86N system – they allow for producing large-size and heavy structures. Also, Aluprof offers a version for windows with concealed sash MB-86US as well as a thermally broken, outward opening window system – the MB-86 Casement. MB-86B has been developed to meet the requirements/needs of the Belgian market.

SYSTEM WITH A THERMAL BREAK

SYSTEM FEATURES

- A wide range of sections guarantees the desired visual qualities and structural strength. The system includes a wide range of profiles for frames, leafs, batten plates, reinforced mullions and angular braces, which offer good flexibility while designing buildings and minimize the necessity of using additional braces for large windows or display windows.
- Wide thermal spacers with a new shape, allowing the use of additional barriers in the profile insulation section. Thermal spacers occupy the central chamber of MB-86N profiles and are 43, 42 or 30.5 mm wide. Depending on the system version, additional elements can be used between them to improve thermal insulation: SI includes plastic or metal sheet partitions, while Aero includes special aerogel inserts.
- A double-component central gasket provides excellent sealing and thermal insulation in the space between the leaf and frame.
- A wide range of glazing allows the use of all types of triple-glazed units, soundproof or anti-burglar glass.
- Glazing beads are available in three lines: Standard, Prestige and Style. Most strips in the Standard and Prestige versions are closed profiles, which ensures the secure fixing of infills and improves the anti-burglar qualities of the structure. Internal glazing gaskets are set deep in the beads so they are barely visible from outside.
- The shapes of the profiles are adjusted to the installation of various types of peripheral fittings, including hidden hinges. The use of typical fitting grooves in window leafs allows the installation of most available fittings, designed both for aluminum and PVC windows.
- Profile drainage is available in two options: traditional, with a visible decorative cap for the drain opening or hidden.
- Anti-burglary windows and doors up to RC3 class.

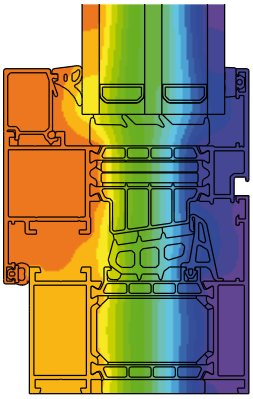
Cross Point C, Łódź, Poland
design / Kiwi Architektura



MB-86N ST Window

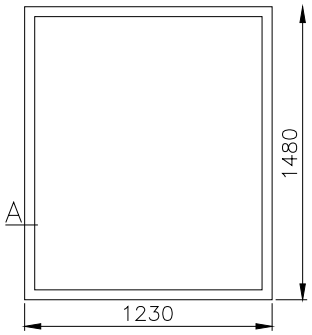
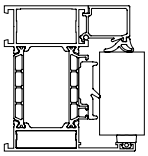
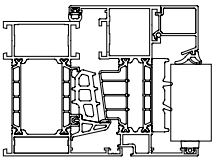
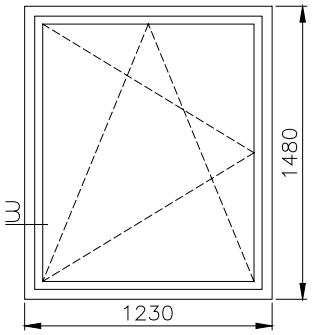
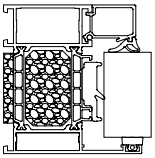
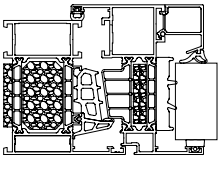
MB-86N SI Window

MB-86US Window



Isothermal lines in **MB-86N SI** window

Examples of heat transfer coefficients U_w

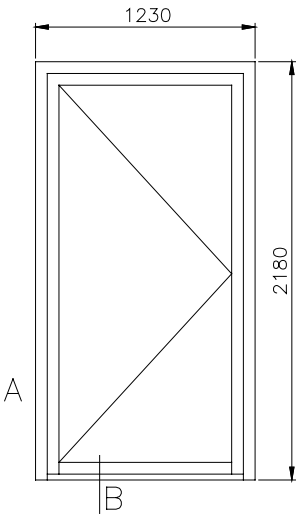
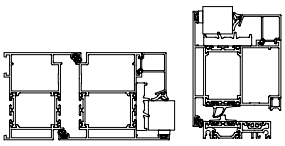
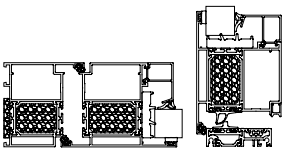
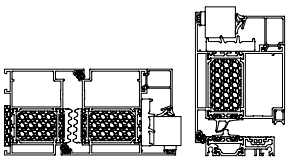
WINDOWS SCHEMES	SECTION A OR B		Value U_w W/(m²K)	
			Glass with Multitech frame - Double chamber	
			U_g 0.5	U_g 0.7
	MB-86N ST	 K528612X	0.79	0.96
		 K528612X + K528702X	0.89	1.02
	MB-86N SI	 K528612X	0.67	0.83
		 K528612X + K528702X	0.76	0.89

MB-86N ST Door

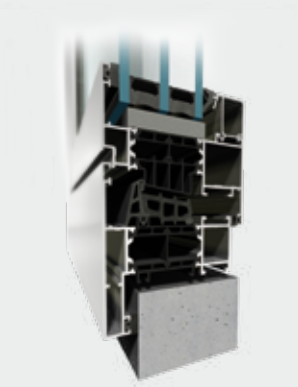
MB-86N SI Door

MB-86N SI+ Door

Examples of heat transfer coefficients U_D

DOOR SCHEMES	SECTION A OR B		Value U_D W/(m²K)	
			Glass with Multitech frame - Double chamber	
			U_g 0.5	U_g 0.7
	MB-86N ST	 K528731X+K528746X+K528770X	1.10	1.23
	MB-86N SI	 K528731X+K528746X+K528770X	0.97	1.10
	MB-86N SI+	 K528731X+K528746X+K528770X	0.88	1.01

SYSTEM
MB-86B



MB-86B system has been developed to meet the requirements/needs of the Belgian market. It has been designed to execute elements of architectural external development, e.g. different types of windows, porch enclosures, shop windows, spatial structures, featuring high thermal and sound insulation performance, tightness to water and air infiltration. MB-86B has been awarded with certification ATG by the Belgian Research Institute UBAtc.

SYSTEM
MB-86US

CONCEALED CASEMENT WINDOW

A characteristic feature of this solution is its appearance: the profile of the sash is concealed behind the frame profile and the glass surfaces lazed in openable and fixed sections lie in one plane. This makes the openable and fixed lits look the same on the outside.

SYSTEM
MB-86 CASSEMENT

OUTWARD OPENING WINDOWS

The system enables the fabrication of various types of outward opening or fixed windows, anterooms, shop fronts and spatial structures. Top-hung or side hung windows can use traditional butt hinges or friction hinges, that can move away the entire casement from the frame.

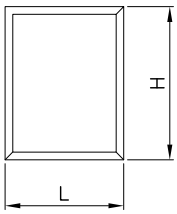
TECHNICAL SPECIFICATION	MB-86N	MB-86B	MB-86US	MB-86 CASEMENT
Depth of frame (window / door)	77 mm / 77 mm	77 mm / 77 mm	77 mm	77 mm
Depth of leaf (window / door)	86 mm / 77 mm	86 mm / 77 mm	80,8 mm	77 mm
Glazing range (window / door)	frame: 8.5 to 61 mm leaf: 17.5 to 70 mm / frame: 8.5 to 61 mm	frame: 13 to 61 mm leaf: 21 to 70.5 mm / frame: 13 to 61 mm	frame: 7 to 52 mm, vent: 15 to 60 mm	frame: 13 to 61 mm, vent: 22 to 70 mm
Maximum size of leaf (H×L) (window / door)	H to 3000 mm, L to 1700 mm / H to 3000 mm, L to 1400 mm	H to 2500 mm, L to 1500 mm / H to 2600 mm, L to 1400 mm	H to 2500 mm, L to 1600 mm	H to 2500 mm, L to 2400 mm / H to 2800 mm, L to 1400 mm

PERFORMANCE	MB-86N	MB-86B	MB-86US	MB-86 CASEMENT
Air Permeability (window / door)	class 4, EN 12207	class 4, EN 12207	class 4, EN 12207	class 4, EN 12207
Watertightness (window / door)	class E 4800*, EN 12208, class E 1500, EN 12208 / class E 1350 Pa, EN 12208	class 9A, EN 12208 / class 6A, EN 12208	class E 1500 Pa, EN 12208	class E 1950 Pa, EN 12208
Thermal insulation (window / door)	U_w from 0.62 W/(m²K)* U_w from 0.68 W/(m²K)** U_D from 0.80 W/(m²K)***	—	—	—
Windload resistance (window / door)	class CE3330 (3330Pa) EN 12210 / class C5 (2000Pa), class B5 (2000Pa) EN 12210	class C4, EN 12210 / class C5, EN 12210	class C5, EN 12210	class C5, EN 12210
Impact resistance (window / door)	—	class 3 / class 3	—	class 3 / class 3

* - U_w for MB-86N SI -based fixed window casement size 1700×2800 mm, with glazing U_g=0.5 W/(m²K)
** - U_w for MB-86N SI -based openable window casement size 1700×2150 mm, with glazing U_g=0.5 W/(m²K)
*** - U_D for panel door MB-86N SI+ casement size 1400×3000 mm, with glazing U_g=0.5 W/(m²K)

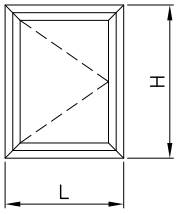
Max. dimensions of windows

Fixed window



Max. dimensions of windows result from maximal glass sizes

Turn-hung window

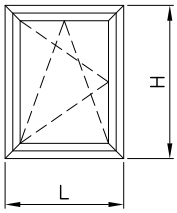


Hmax = 3000 mm
Lmax = 1300 mm

KG 160 kg

Hmax = 2150 mm
Lmax = 1700 mm

Tilt and turn window

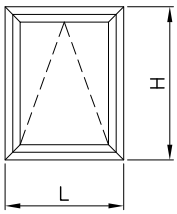


Hmax = 3000 mm
Lmax = 1300 mm

KG 160 kg

Hmax = 2150 mm
Lmax = 1700 mm

Tilt window



Hmax = 3000 mm
Lmax = 1300 mm

KG 160 kg

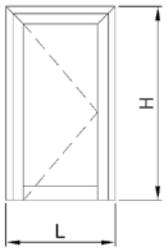
Hmax = 2150 mm
Lmax = 1700 mm

Hmax = 1300 mm
Lmax = 2400 mm

KG Maximal vent weight

Max. standard dimensions of the door

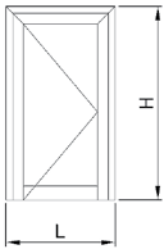
Inward openable



MHmax = 3000 mm
MLmax = 1400 mm

KG 200 kg

Outward openable

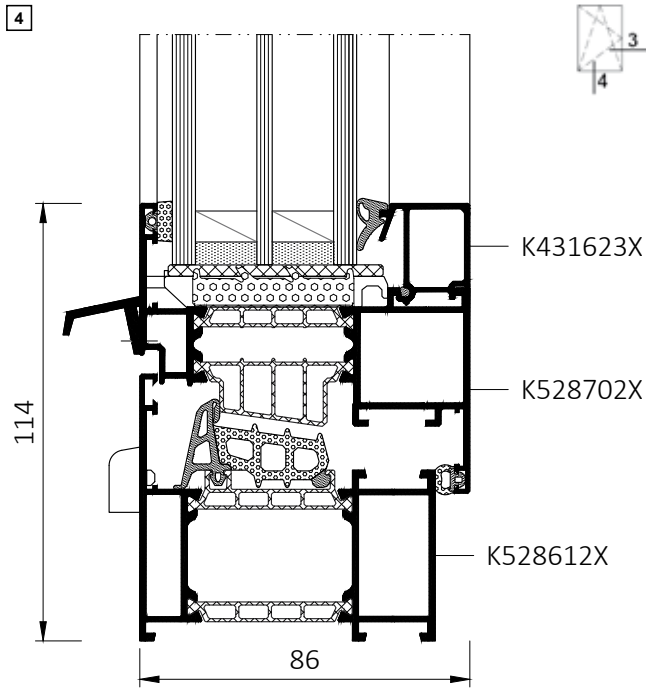


MHmax = 3000 mm
MLmax = 1400 mm

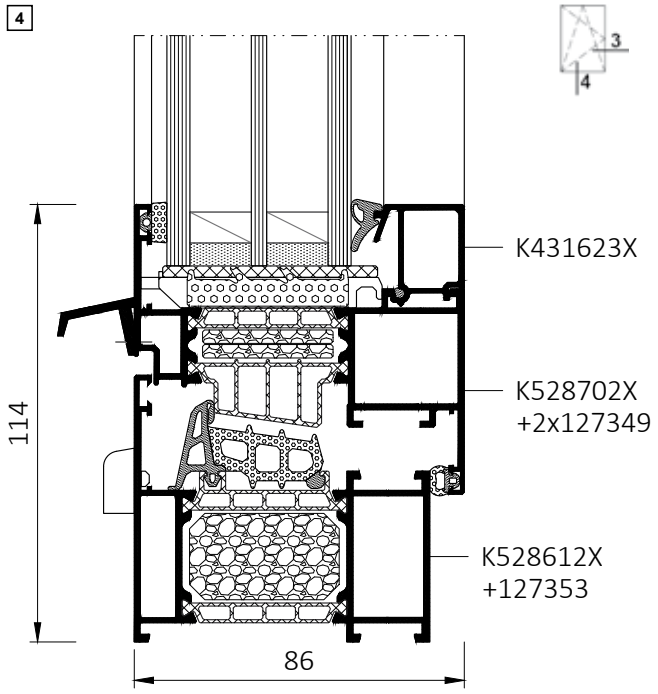
KG 200 kg

KG Maximal vent weight

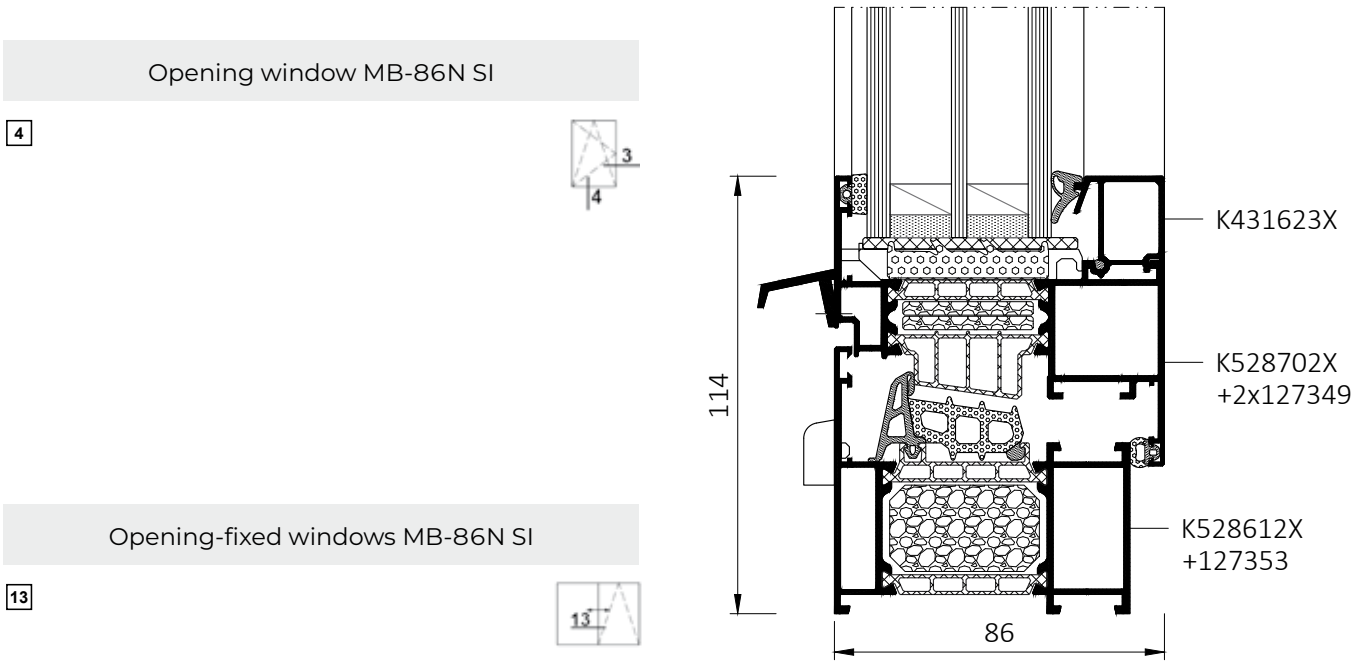
Opening window MB-86N ST



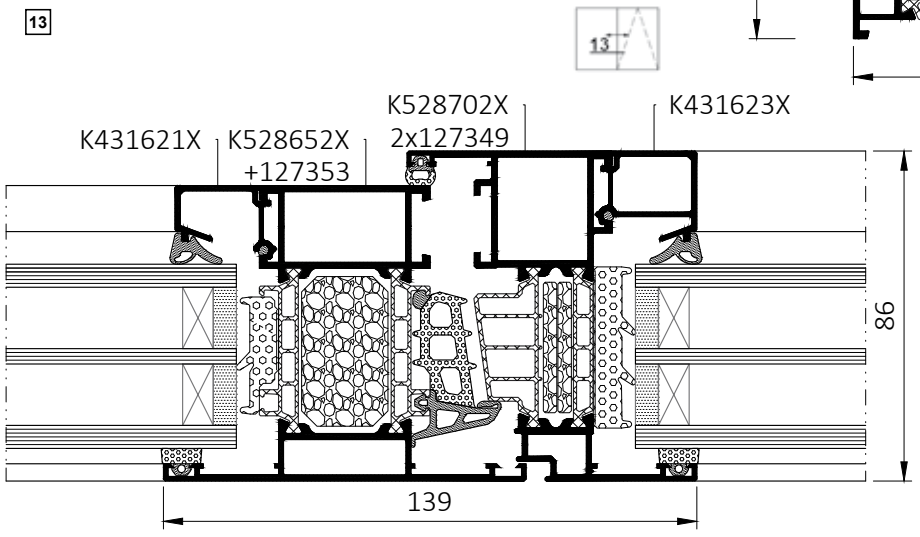
Opening window MB-86N ST



Opening window MB-86N SI



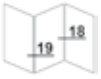
Opening-fixed windows MB-86N SI

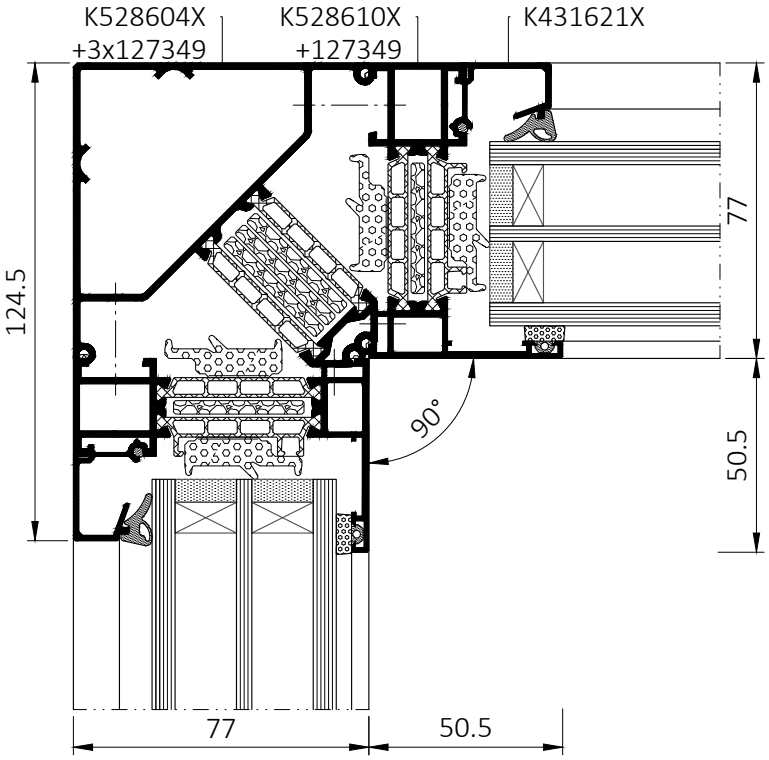


Scale 1:2

Windows corner connections MB-86N SI

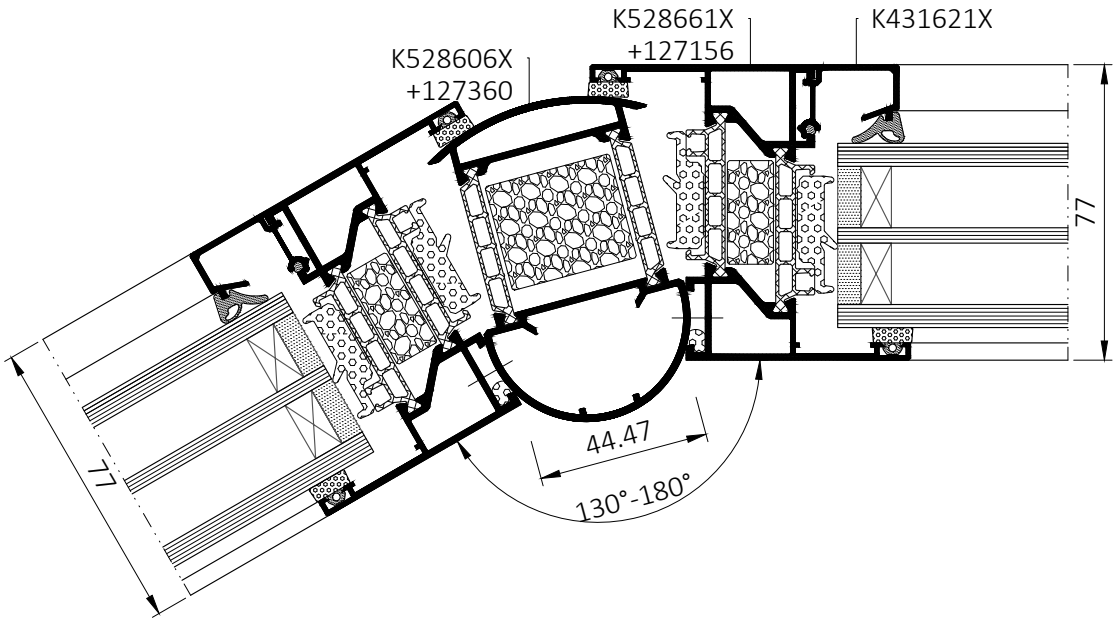
19





Windows corner connections MB-86N SI

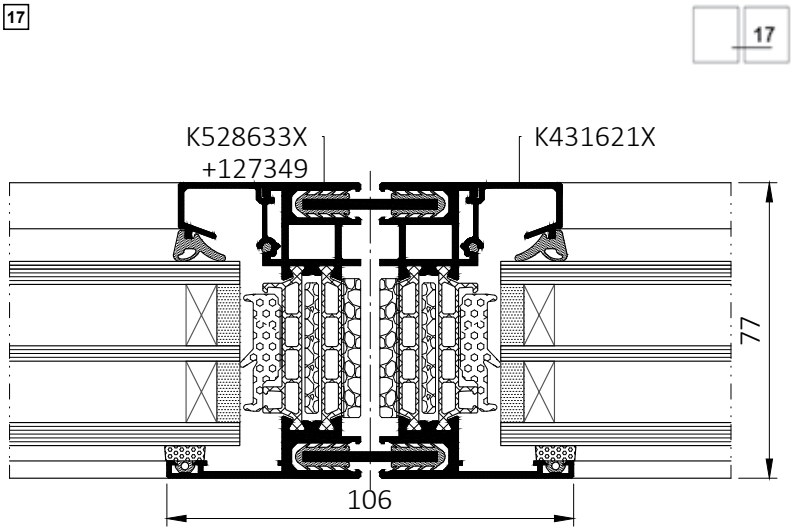
18



Scale 1:2

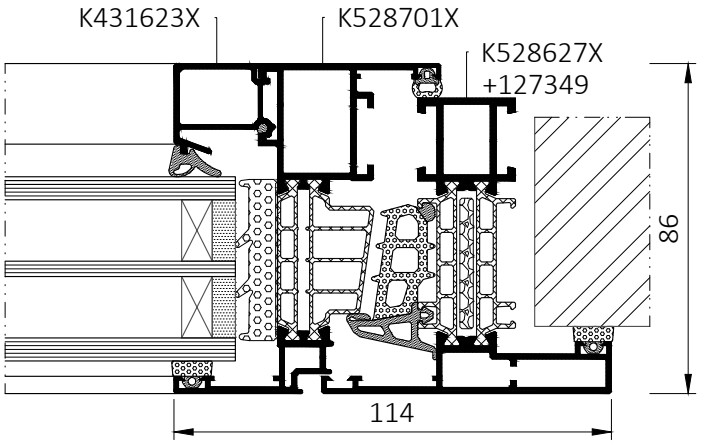
Expansion connection MB-86N SI

17



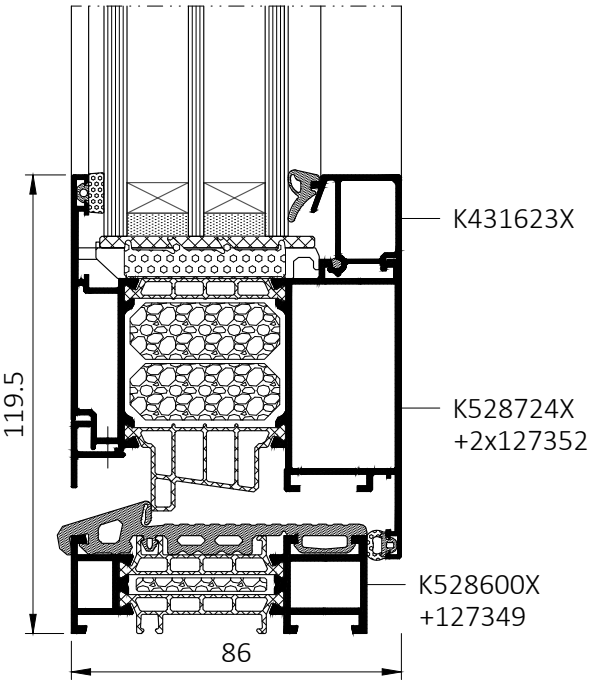
Openable window with renovation frame

3



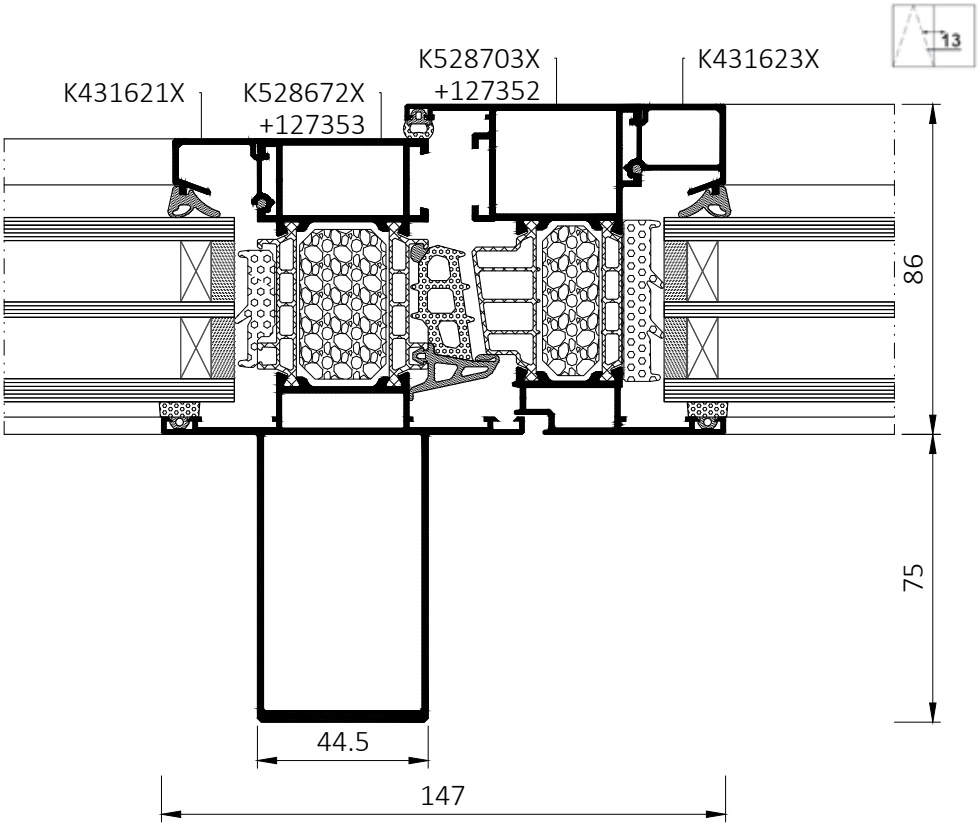
MB-86N SI balcony door with low treshold

4a

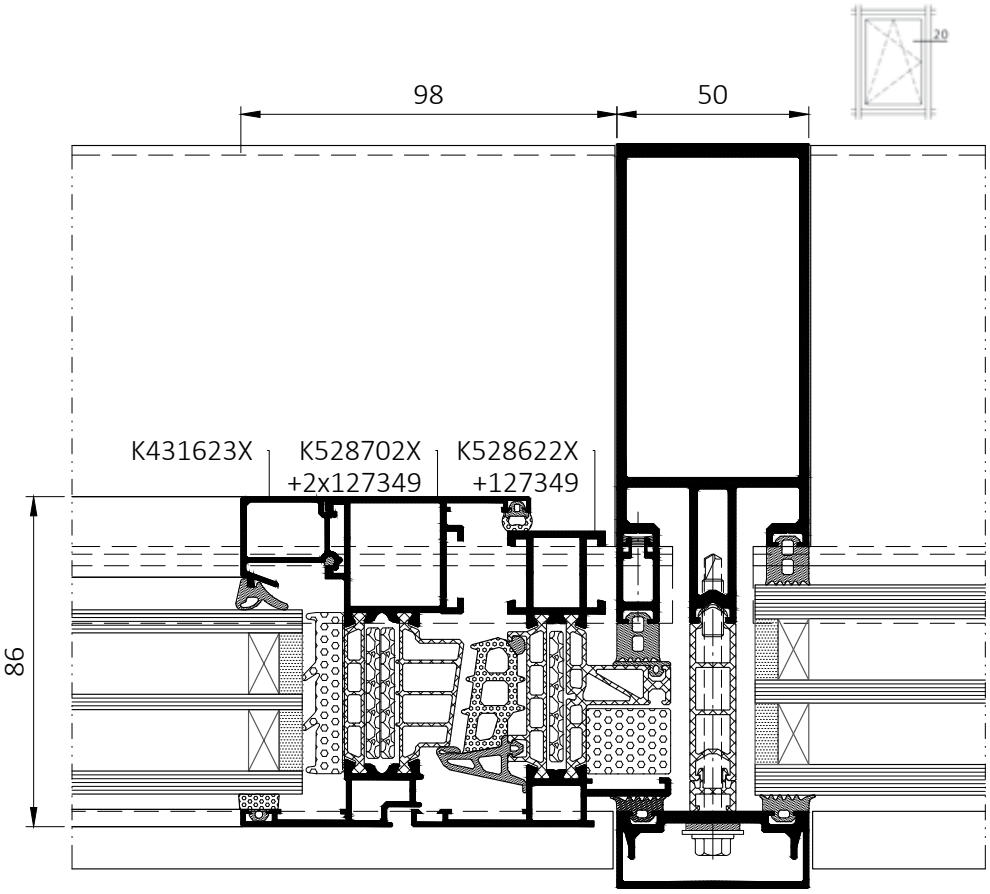


Scale 1:2

MB-86N SI Tilt&Slide window with reinforced mullion



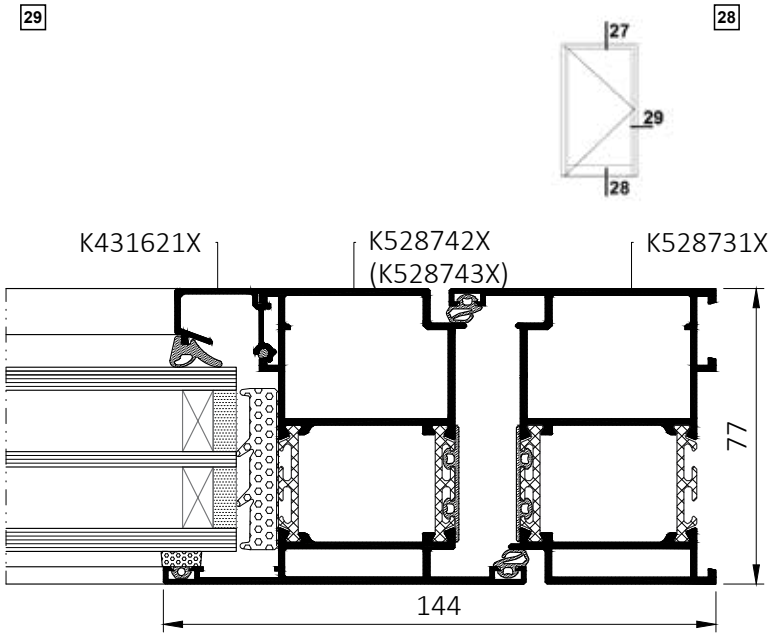
MB-86N SI window in MB-SR50N curtain wall



Scale 1:2

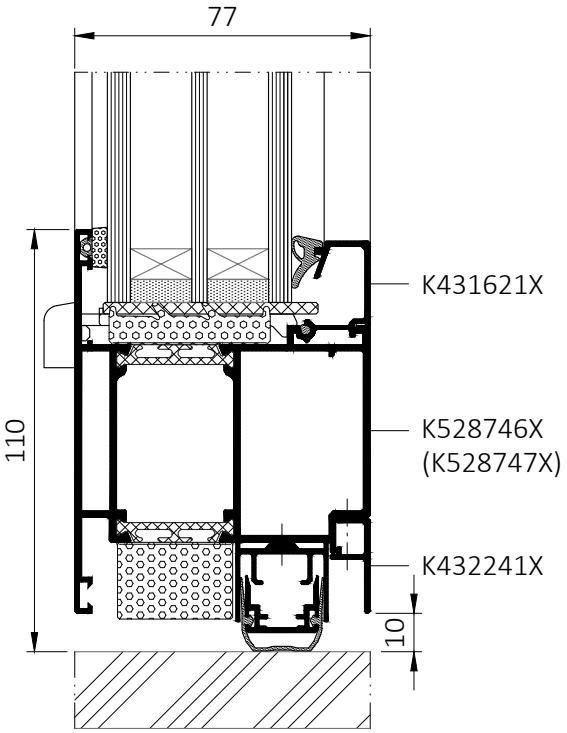
MB-86N ST door section

29



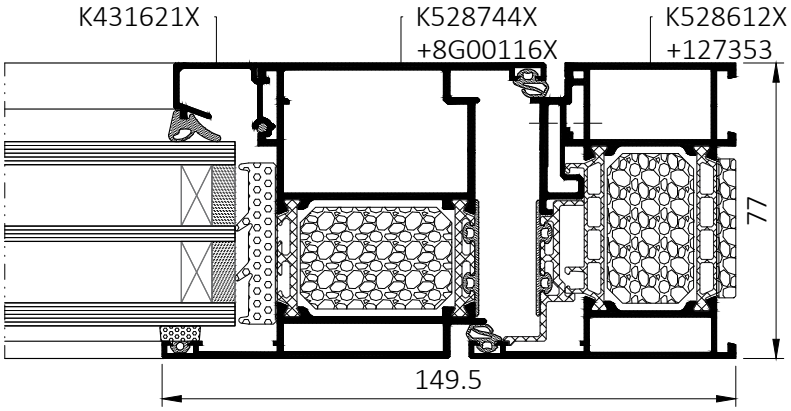
MB-86N ST door threshold section

28

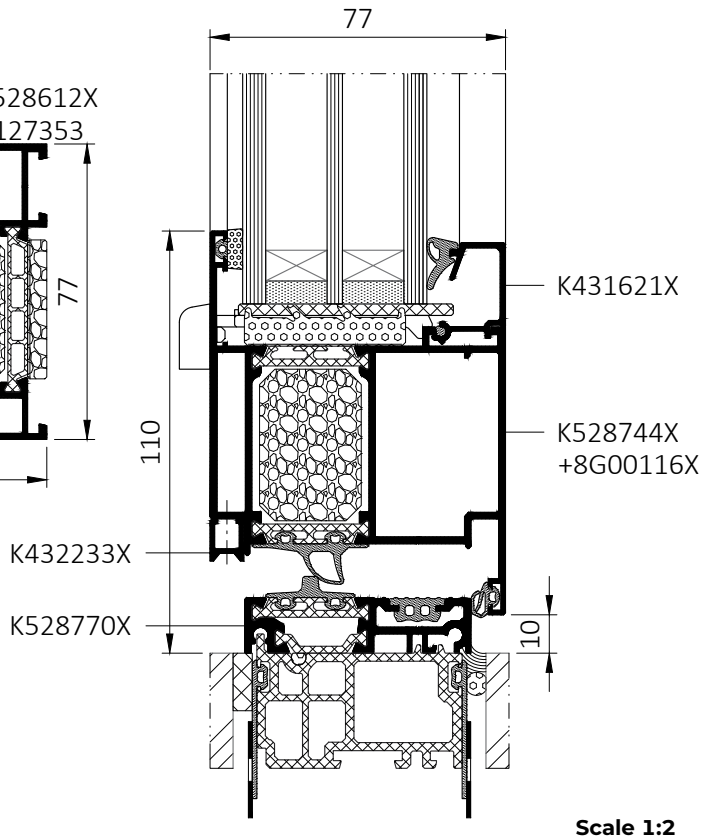


Cross section through the MB-86N SI door in continuous shopfront

35

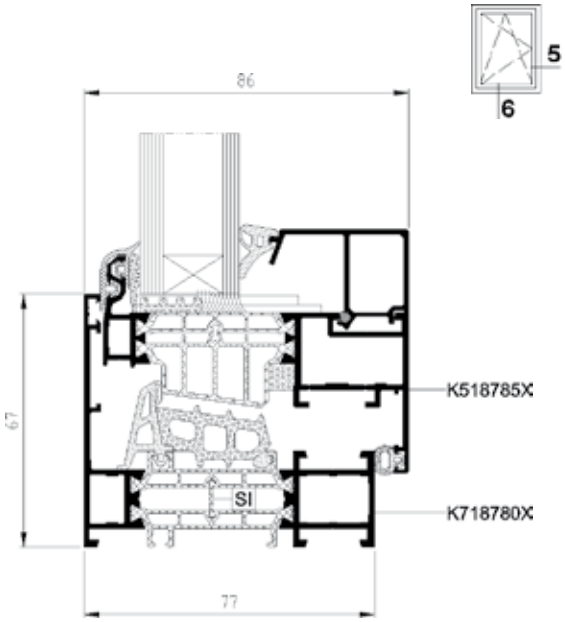


Cross section through the MB-86N SI door threshold

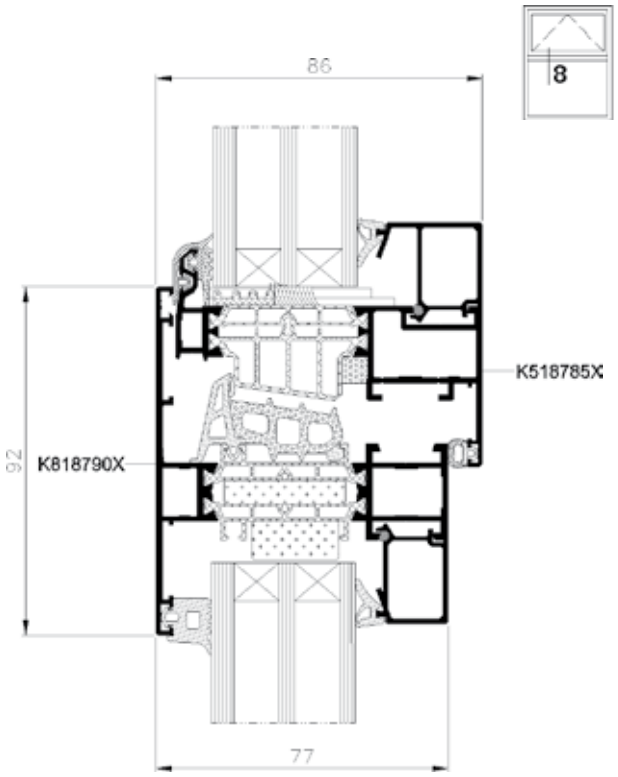


Scale 1:2

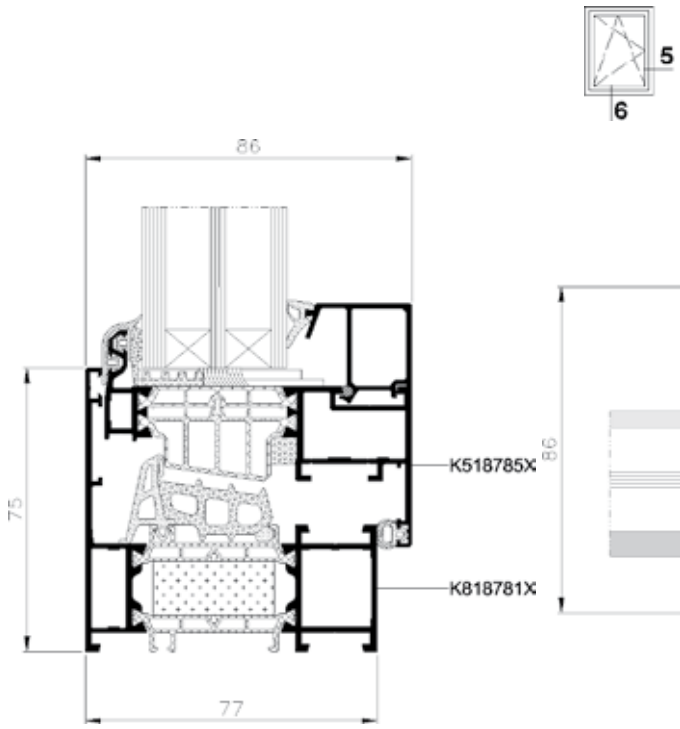
MB-86US ST/SI openable window, cross section



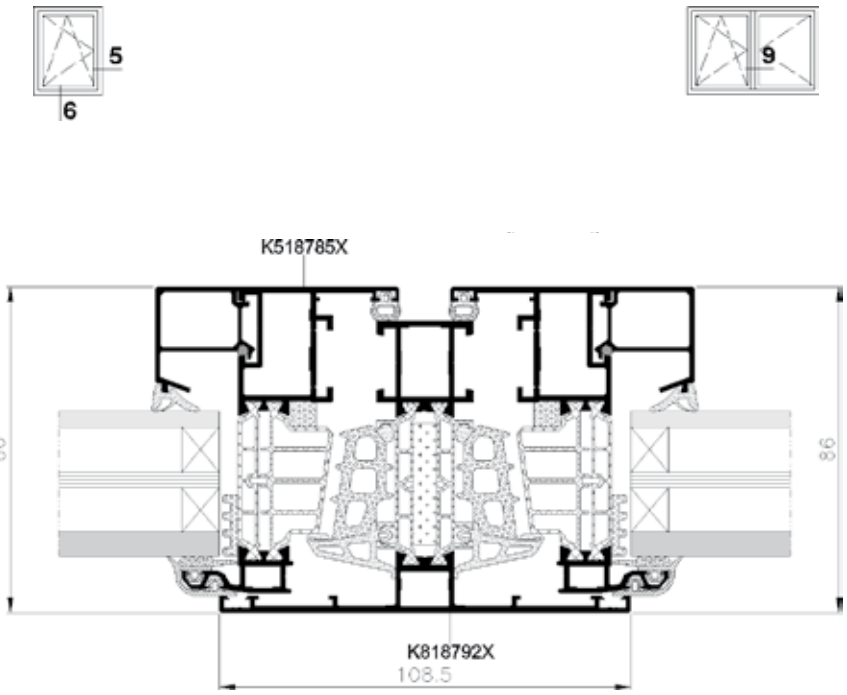
MB-86US AERO fixed and openable window



MB-86US openable window



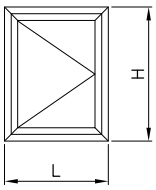
MB-86US AERO openable 2-casement window



More examples on: www.aluprof.com/en/bim-file-finder **Scale 1:2**

Max. dimensions of windows

Outward opening
casement window

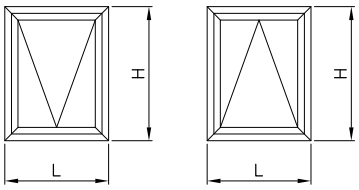


MHmax = 2800 mm
MLmax = 1300 mm

MHmax = 2700 mm
MLmax = 1400 mm

KG 180 kg

Outward opening
awning window

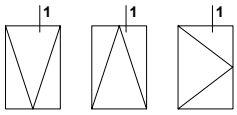


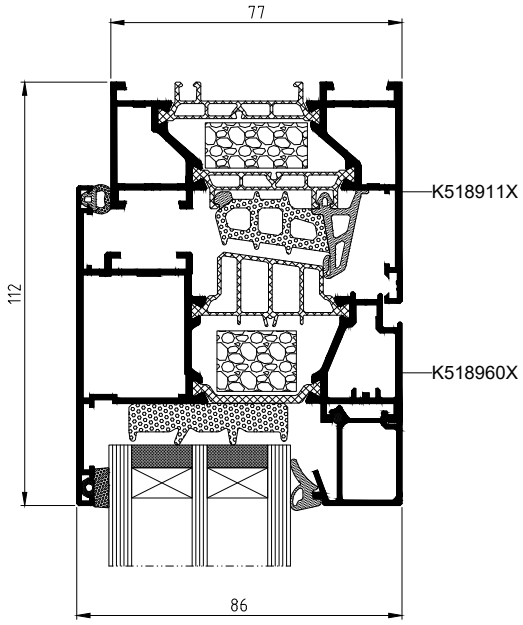
MHmax = 2500 mm
MLmax = 2400 mm

KG 180 kg

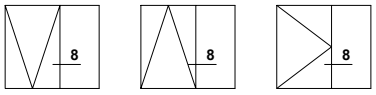
Maximum dimension are clearly correlated with the sash profiles and are applicable only with the total set of hardware, taking into account the application range of this hardware.

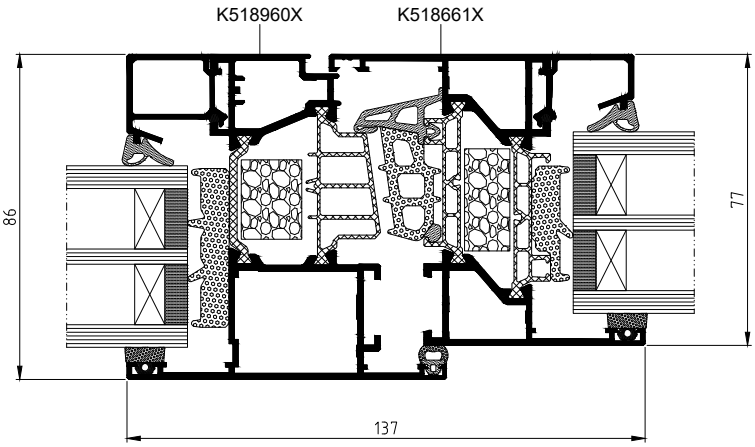
Opening window



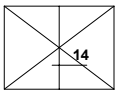


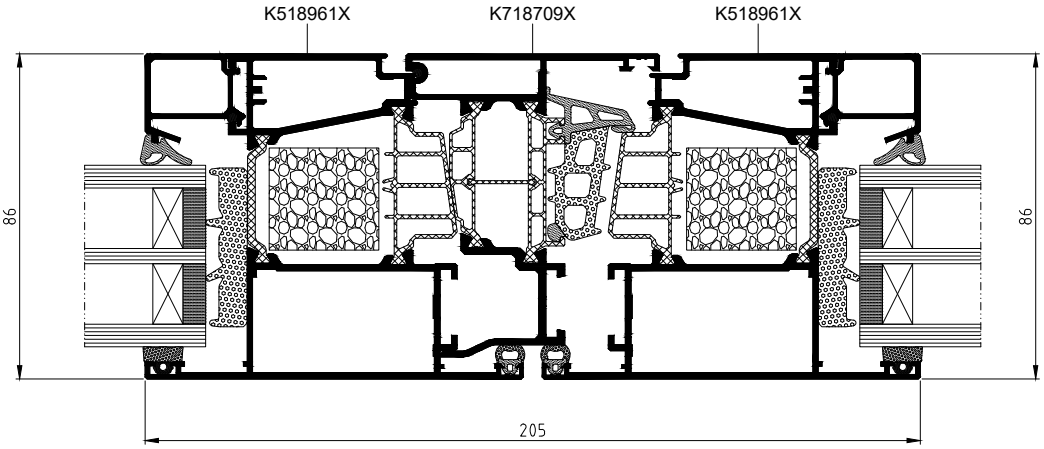
Opening and fixed window





Openable 2-casement window





More examples on: www.aluprof.com/en/bim-file-finder **Scale 1:2**

WINDOW AND DOOR SYSTEMS

MB-86 FOLD LINE HD

Exterior folding door offers greater flexibility to its users. It enables us to use weather conditions to our advantage and virtually eliminate the barrier between the interior space and its surroundings. Such door can perfectly combine the interior space (home, café, restaurant) with the terrace or the outside area that is used seasonally.

With its excellent technical parameters, MB-86 FOLD LINE HD is a very convenient solution that enables the fabrication of large-dimension structures. Folding door can be opened both outwards and inwards and its leaves can be freely configured. It's a modern product, designed to meet the high demands of users, architects and owners.

FOLDING DOOR

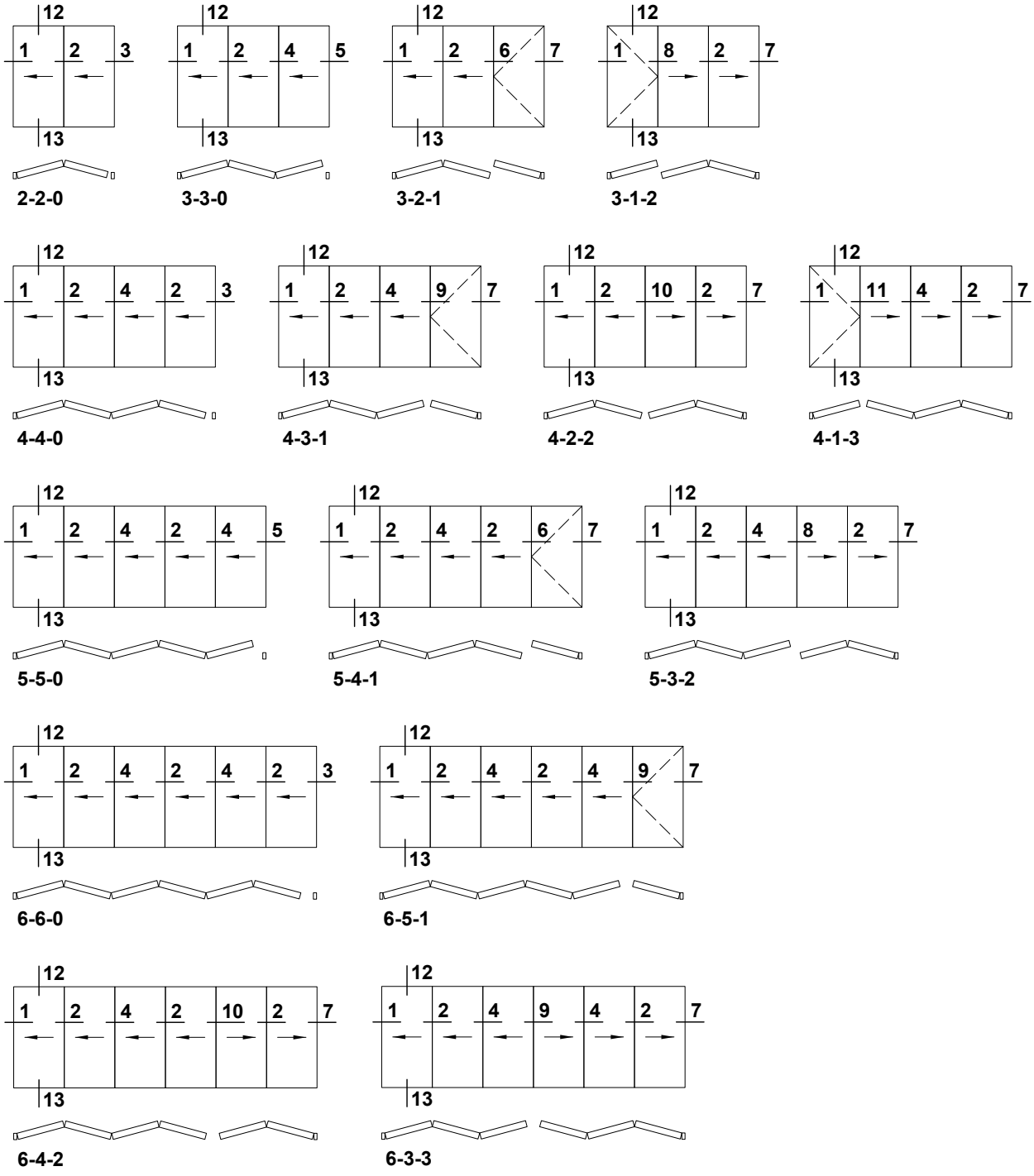
FEATURES AND BENEFITS
MB-86 FOLD LINE HD

- three-chambered, durable aluminium profiles of a structural depth of 86 mm for frames and 77 mm for door leaves
- MB-86 Fold Line profiles are designed for triple glazing, with the central section serving as insulation between thermal breaks that are 24 and 34 mm wide
- specialized and dedicated hardware for MB-86 FOLDLINE ensures comfortable operation of the door leaves of a max. weight of up to 120 kg
- large dimensions of the construction enable the fabrication of doors that are up to 3000 mm high and 700 to 1200 mm wide
- threshold solutions in different versions: classic, with edge sealing or convenient, with a low-level threshold
- glazing thickness range from 13.5 to 61.5 mm; all types of glass available on the market can be installed
- important degree of compatibility with the well-known and highly appreciated window & door system Aluprof MB-86: profiles are jointed the same way, and some profiles, gaskets and accessories are common to both systems

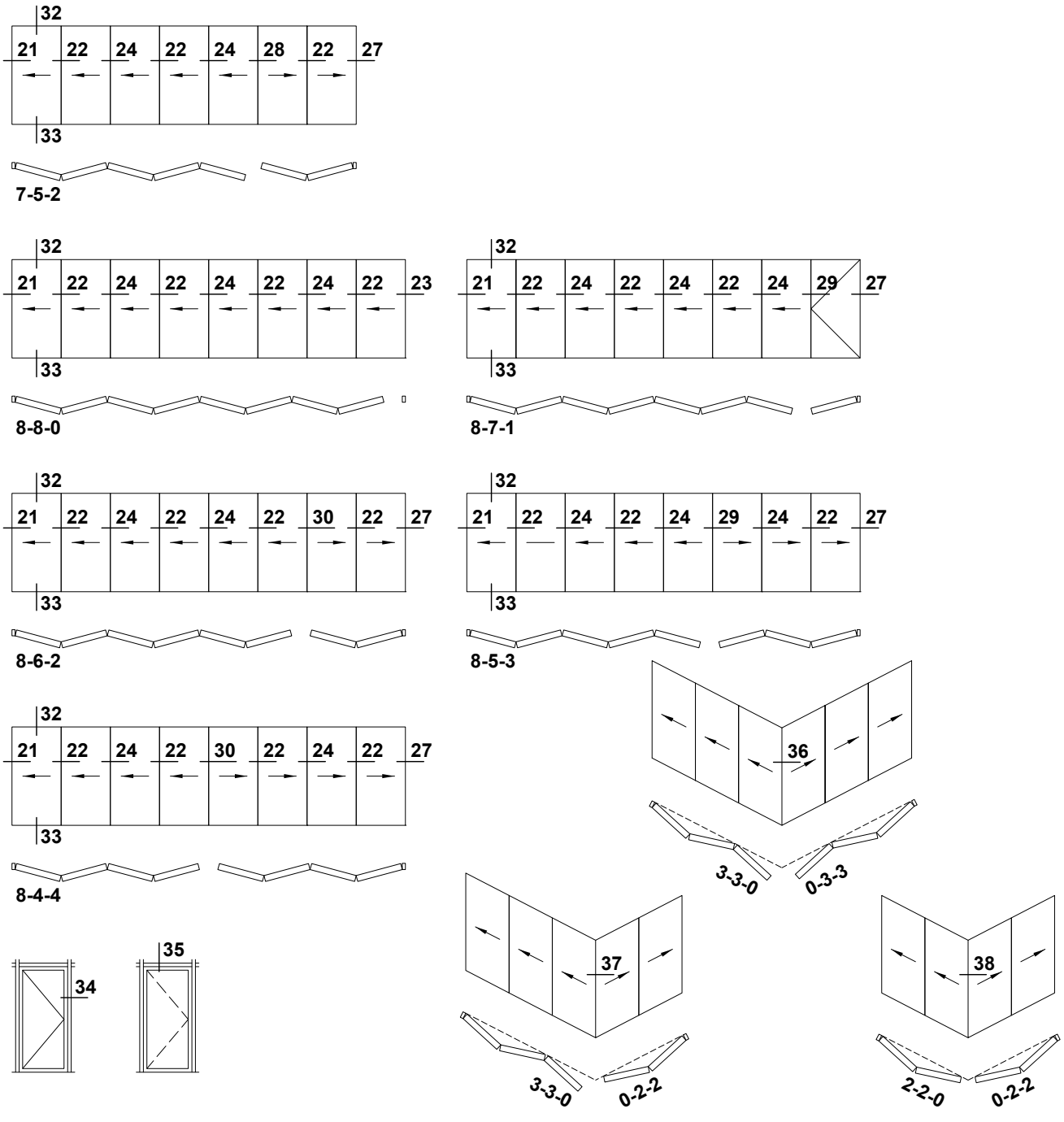
PERFORMANCE

- Air permeability: up to class 4, EN 12207
- Watertightness: up to class 9A (600 Pa), EN 12208
- Windload resistance: class C1, EN 12210

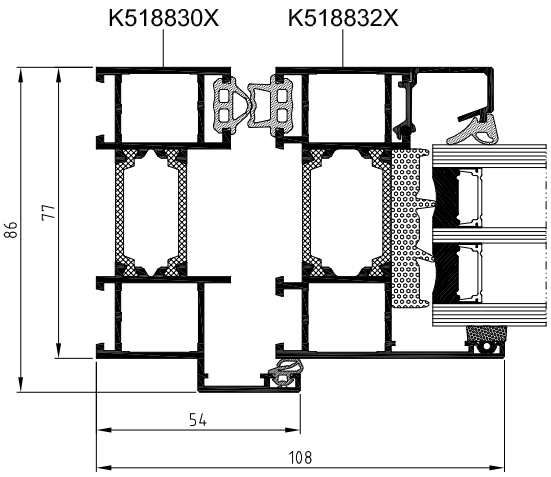
Selected configurations



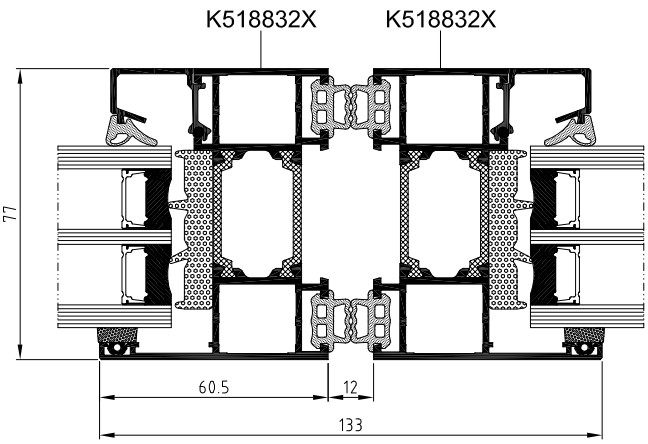
Selected configurations



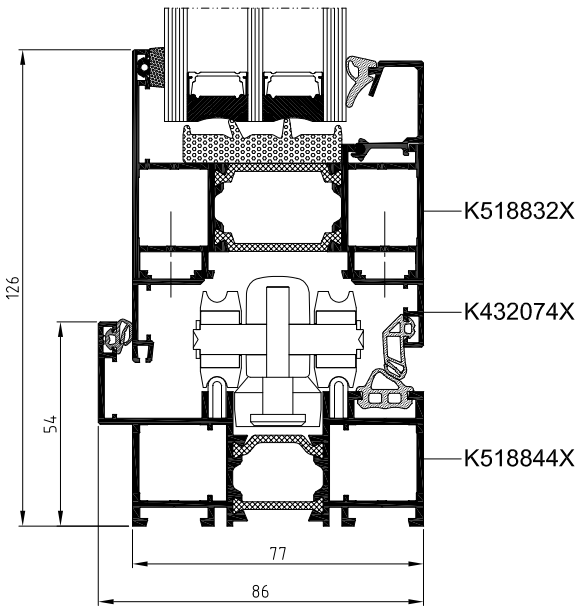
Door – cross section



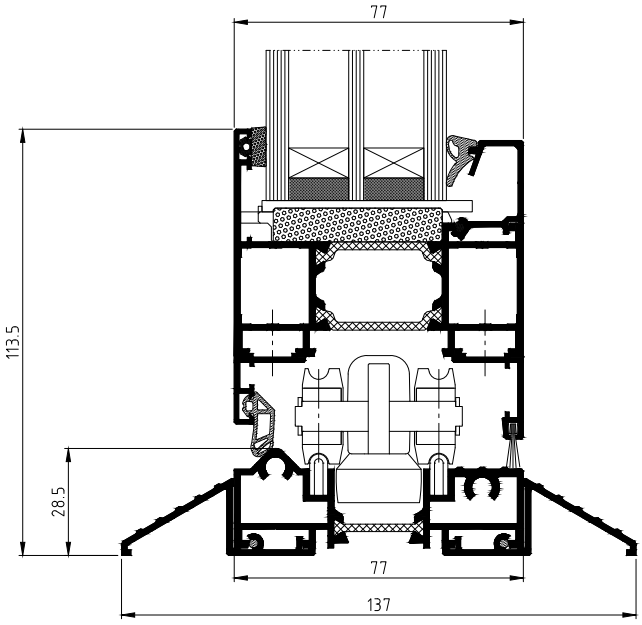
Door/leaves – cross section



Door with edge sealing, bottom cross section

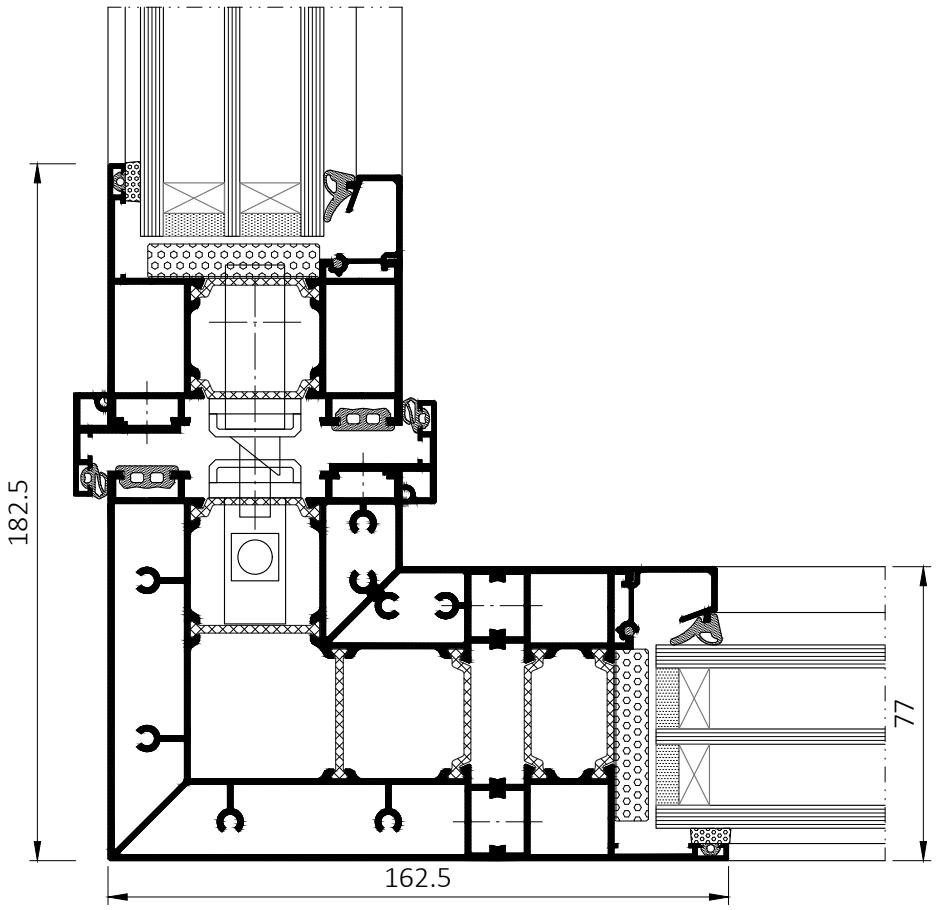


Door with low-level threshold, bottom cross section



Scale 1:2

Section thru door leaf joint in corner door



WINDOW AND DOOR SYSTEMS

MB-79N

The MB-79N is a state-of-the art and economical addition to the Aluprof window & door systems. It has been designed to outperform typical thermal insulation requirements. The MB-79N series can be used to fabricate fixed, side-hung, hopper, tilt-and-turn, and hopper-and-slide windows, as well as single and double exterior doors, and storefront solutions complete with doors. In addition to the economical version MB-79N E, featuring a one-component central seal, and the MB-79N ST version with a two-component central seal, Aluprof also offers the MB-79N SI variant with enhanced thermal insulation, and with profiles that come equipped with insulating inserts and a two-component central seal. For external doors, Aluprof also offers the MB-79N SI+ variant that comes with a central seal and insulating inserts inside the profiles.

INNOVATIVE SYSTEM WITH THERMAL BREAK

FEATURES AND AESTHETICS

- profile depth: 79 mm (casement) and 70 mm (window frame and door leaf)
- thermal breaks made of an innovative material with a brand-new shape allow the use of a seal in the area of profile insulation, in both windows and doors
- windows in 3 thermal variants (MB-79N E, MB-79N ST, MB-79N SI) and doors in 4 thermal variants (MB-79N E, MB-79N ST, MB-79N SI and MB-79N SI+)
- thermal insulation: U_w start from 0.64 W/(m²K), U_f start from 0.83 W/(m²K)
- excellent kinematics enabling the fabrication of narrow, operable windows and doors
- door leaf profiles have isolation joint, which eliminates thermal stresses during operation
- possibility of using invisible hinges and the most popular multi-point hardware, including hidden fittings + state-of-the art AluPilot fittings; for doors, fittings with automation and access control functions are also available
- able to receive double or triple glazing, up to 63 mm for windows and 54 mm for doors, thus making it possible to use all common types of glass, including acoustic or burglar-resistant glass
- possibility to produce security doors rated RC1 - RC3, and panel doors in many highly aesthetically pleasing versions
- large selection & different styles of handles, including minimalist looking handles with or without rosette

MB-79N E Window

MB-79N ST Window

MB-79N SI Window

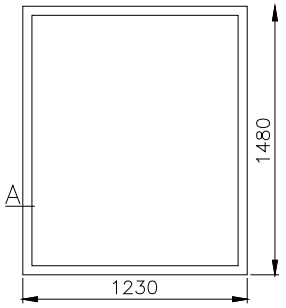
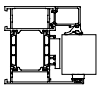
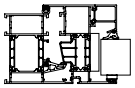
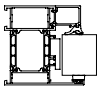
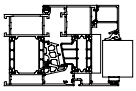
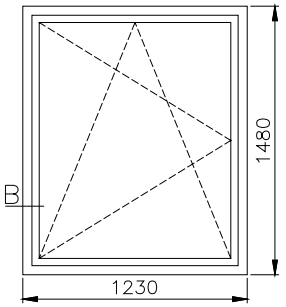
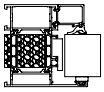
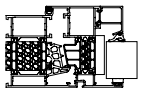
MB-79N SI+ Door

TECHNICAL SPECIFICATION	MB-79N WINDOW	MB-79N DOOR	MB-79N CASEMENT
Depth of frame	70 mm	70 mm	70 mm
Depth of leaf	79 mm	70 mm	79 mm
Glazing range	frame: 1.5 – 54 mm, leaf: 10.5 – 63 mm	frame/leaf: 1.5 – 54 mm	frame: 1.5 – 54 mm, leaf: 10.5 – 63 mm
Maximum size of leaf (H×L)	H to 1700 mm, L to 2700 mm	H to 1400, L to 2800 mm	H to 1400 mm, L to 2700 mm

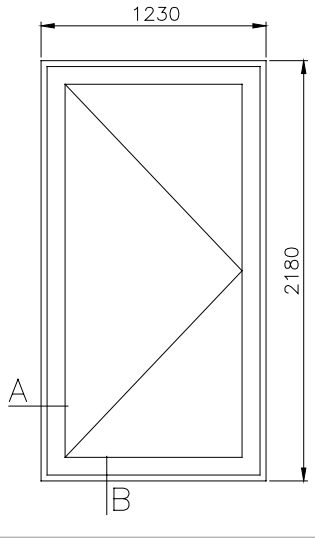
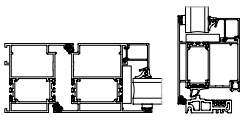
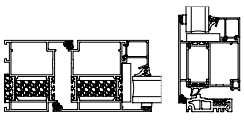
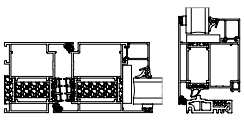
PERFORMANCE	MB-79N WINDOW	MB-79N DOOR	MB-79N CASEMENT
Air Permeability	class 4, EN 12207	class 4, EN 12207	class 4, EN 12207
Watertightness	class E 1950, EN 12208	class E 900, EN 12208	E 1800, EN 12208
Thermal insulation	U_w from 0.64 W/(m²K)* U_w from 0.72 W/(m²K)**	U_D from 0.90 W/(m²K)***	—
Windload resistance	class C5, EN 12210	class C5/B5, EN 12210	class C5/B5, EN 12210

* - U_w for MB-79N SI -based fixed window casement size 1700×2700 mm, with glazing U_g=0.5 W/(m²K)
** - U_w for MB-79N SI -based openable window casement size 1700×2150 mm, with glazing U_g=0.5 W/(m²K)
*** - U_D for panel door MB-79N SI+ casement size 1400×2800 mm, with glazing U_g=0.5 W/(m²K)

Examples of heat transfer coefficients U_w

WINDOWS SCHEMES	SECTION A OR B		Value U_w W/(m²K)	
			Glass with Multitech frame - Double chamber	
			U_g=0.5	U_g=0.7
	MB-79N E	 K520012X	0.82	0.98
		 K520012X + K520102X	0.98	1.12
	MB-79N ST	 K520012X	0.82	0.98
		 K520012X + K520102X	0.95	1.09
	MB-79N SI	 K520012X	0.70	0.86
		 K520012X + K520102X	0.79	0.93

Examples of heat transfer coefficients U_w

DOOR SCHEMES	SECTION A OR B		Value U_D W/(m²K)	
			Glass with Multitech frame - Double chamber	
			U_g=0.5	U_g=0.7
	MB-79N E (ST)	 K520131X+K520146X+8G00031X	1.16	1.29
	MB-79N SI	 K520131X+K520146X+8G00031X	1.06	1.20
	MB-79N SI+	 K520131X+K520146X+8G00031X	1.01	1.14

SYSTEM
MB-79N US

SYSTEM
MB-79N Casement

INVISIBLE SASH WINDOW SYSTEMS VARIETY

FUNCTIONALITY AND AESTHETICS
- uniform external appearance of fixed and active windows,
- fixed and inward-opening windows: casement windows, tilt-and-turn, double-casement with a fixed or floating mullion,
- different types of glazing beads: Standard, Prestige, Style,
- possibility of building two-colour constructions: profiles can have different colours outside and inside,
- installation in individual developments or on aluminium curtain walls.

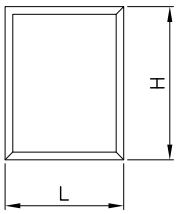
OUTWARD OPENING WINDOWS

The system enables the fabrication of various types of outward opening or fixed windows, anterooms, shop fronts and spatial structures.
As it is the case for the base system, MB-79N Casement windows have the SI variant, with central chamber filled with a special insulating insert. Possible ranges of glazing thickness are: for the window frame – from 1.5 to 54 mm, for the casement – from 10.5 to 63 mm.
Top-hung or side hung windows can use traditional butt hinges or friction hinges, that can move away the entire casement from the frame.
Compared to the inward opening windows, the outward opening constructions have an important feature: wind pressure affects their tightness to a lesser extent, as it compresses the casement to the frame. This type of construction has excellent thermal and acoustic performance.

Mokotów Plaza, Warsaw, Poland
design / JPM Design & Build

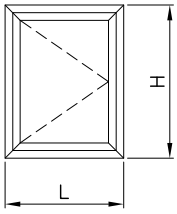
Max. dimensions of window

Fixed window



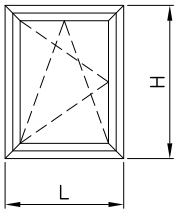
Max. dimensions of windows result from maximal glass sizes

Turn-hung window



Hmax = 2700 mm
Lmax = 1350 mm

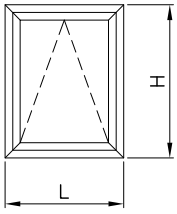
Tilt and turn window



Hmax = 2700 mm
Lmax = 1350 mm

Hmax = 2150 mm
Lmax = 1700 mm

Tilt window



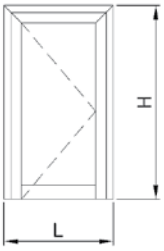
Hmax = 2700 mm
Lmax = 1350 mm

Hmax = 1300 mm
Lmax = 2400 mm

KG Maximal vent weight

Max. standard door size

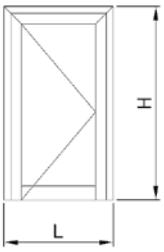
Inward opening door



MHmax = 2800 mm
MLmax = 1400 mm

200 kg

Outward opening door

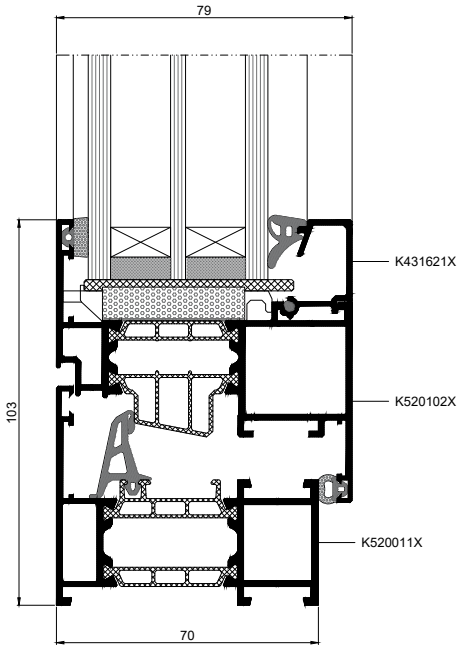


MHmax = 2800 mm
MLmax = 1400 mm

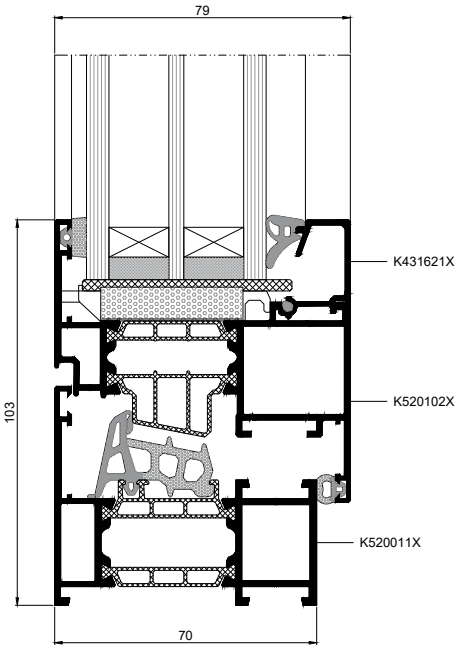
200 kg

Maximal vent weight

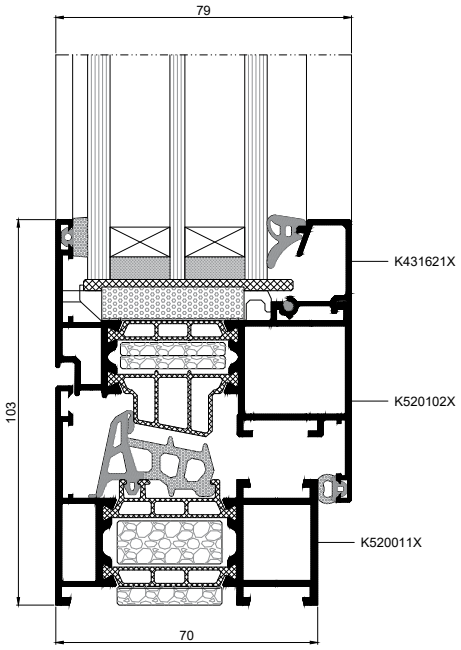
Openable window MB-79N E – cross section



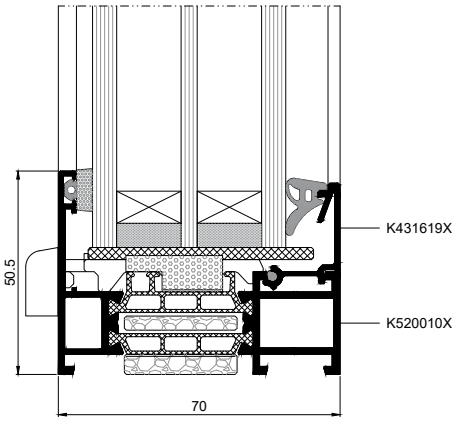
Openable window MB-79N ST – cross section



Openable window MB-79N SI – cross section

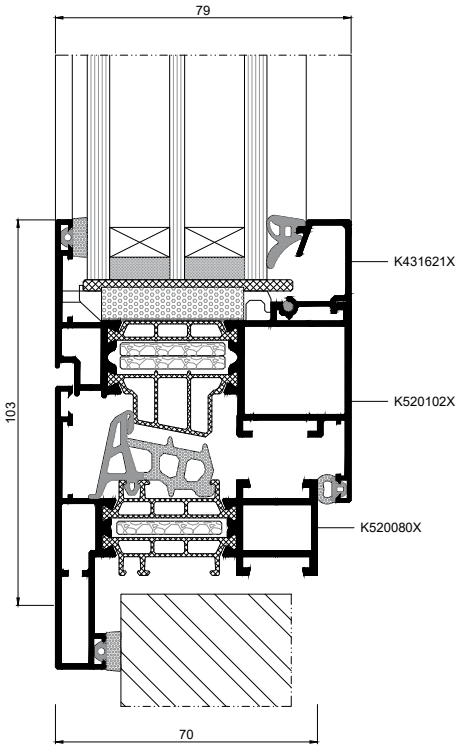


Fixed window MB-79N SI – cross section

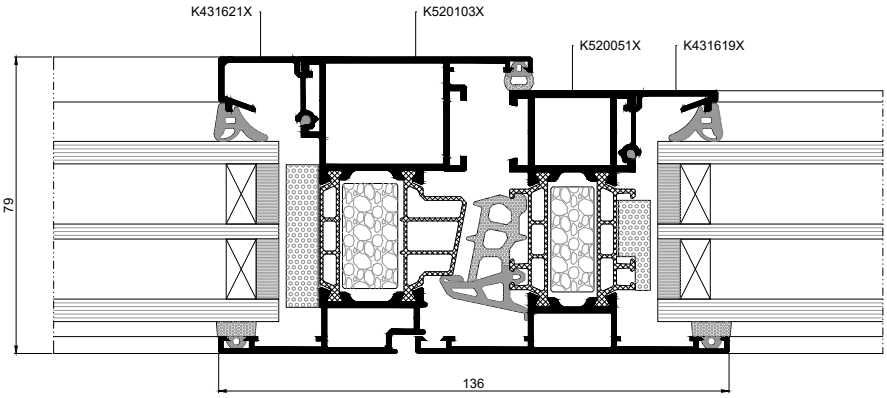


Scale 1:2

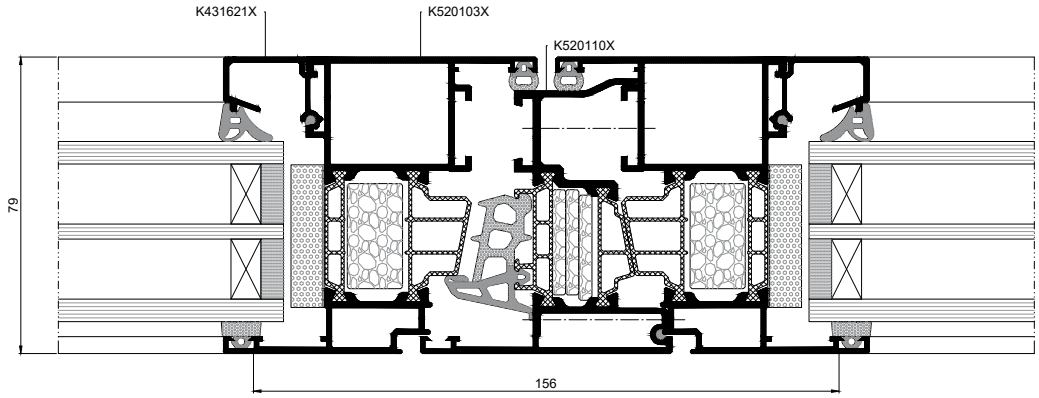
Window with renovation frame – cross section



MB-79N SI openable and fixed window – cross section

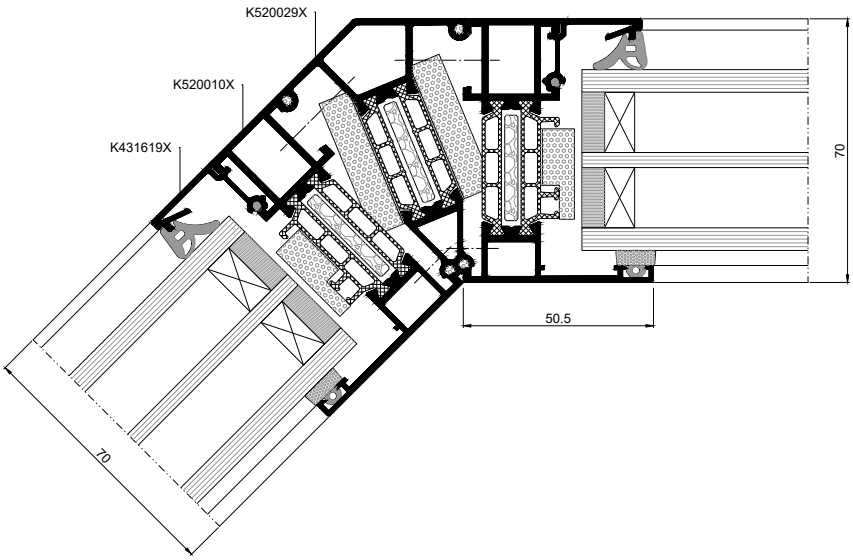


MB-79N SI openable, 2-leaf window – cross section

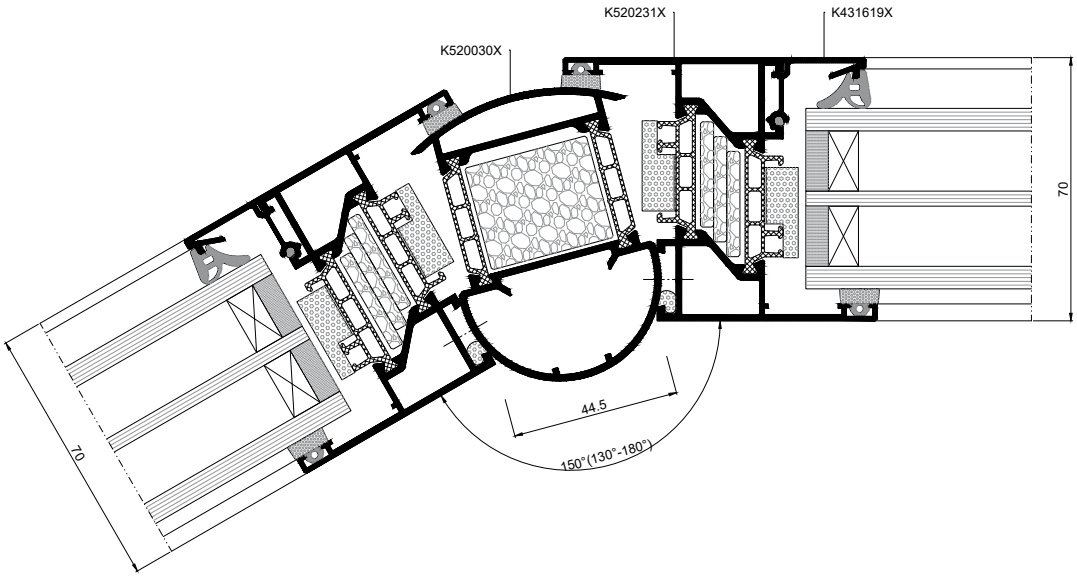


Scale 1:2

Angular connection – cross section

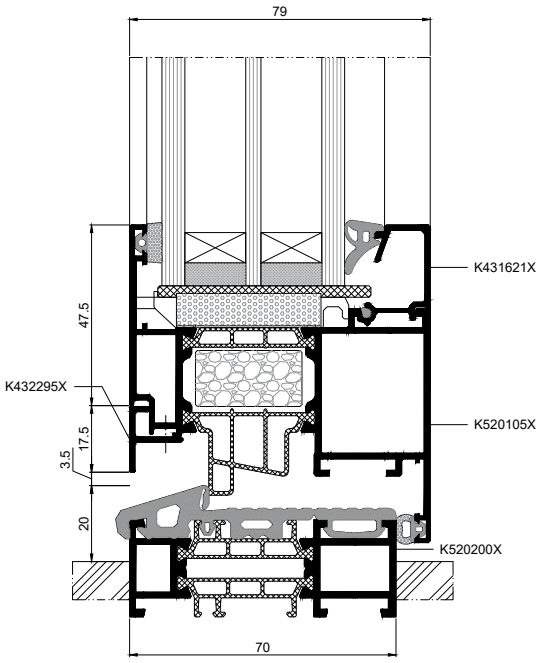


Angular connection – cross section

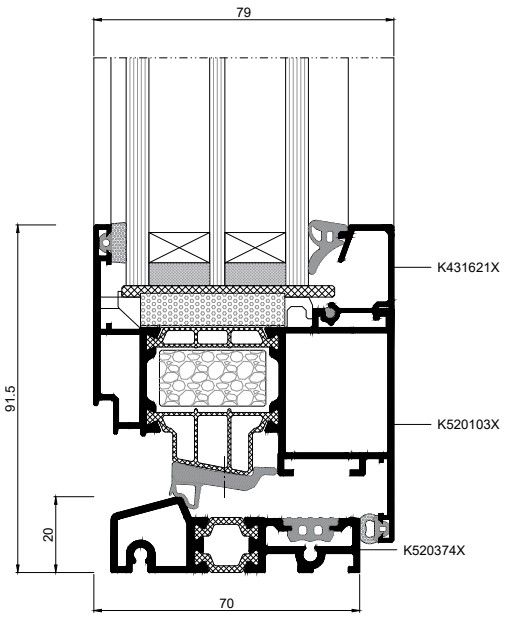


Scale 1:2

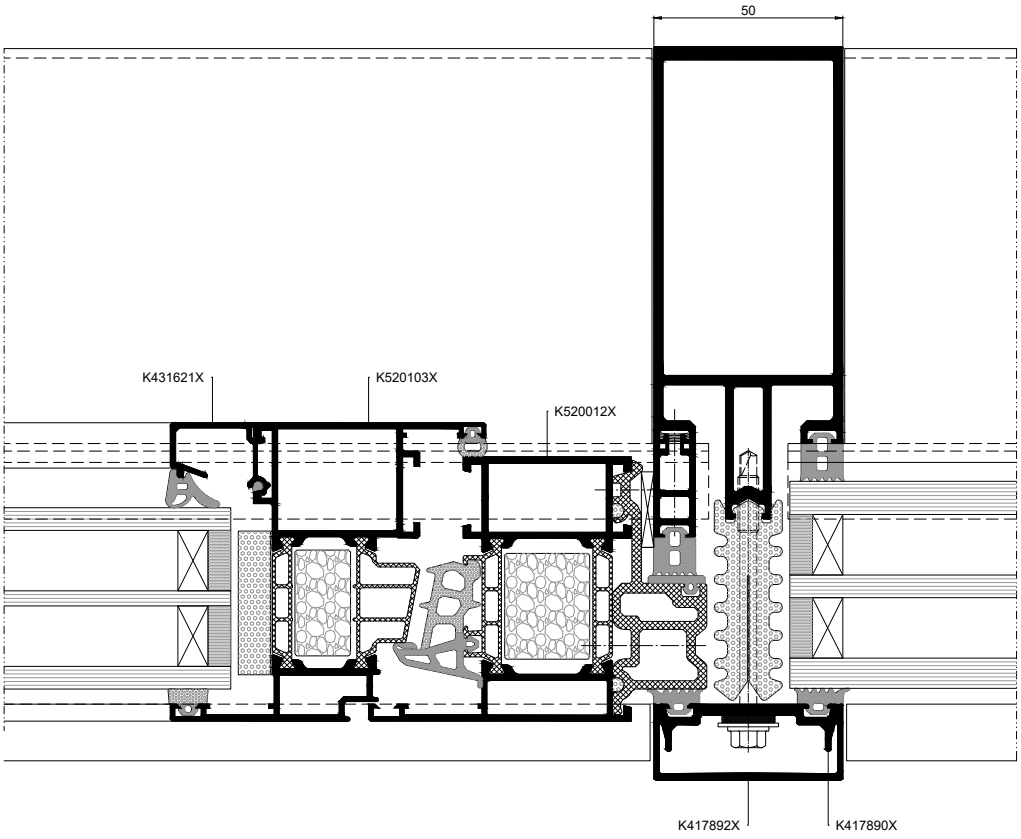
MB-79N SI balcony door
with low treshold – cross section



MB-79N SI balcony door
with low treshold – cross section

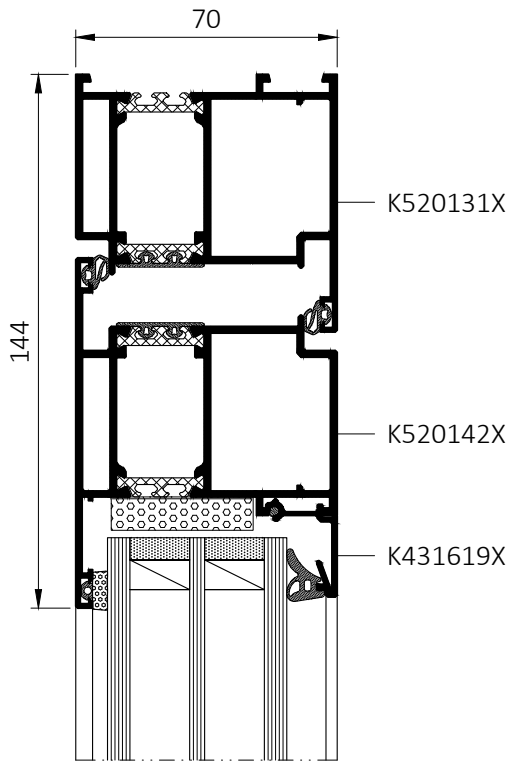


MB-79N SI window in MB-SR50N HI+ curtain wall
– cross section

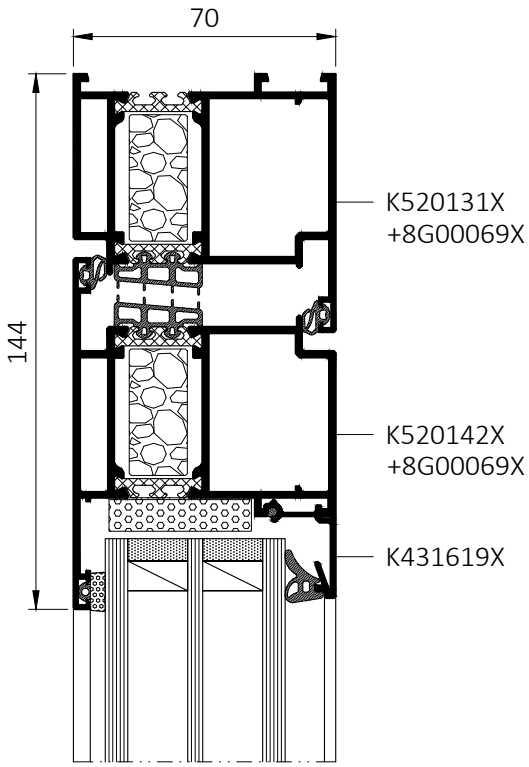


Scale 1:2

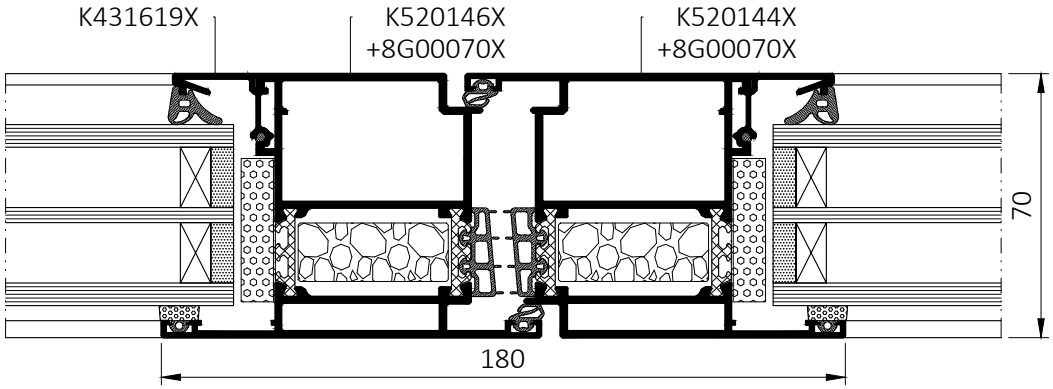
MB-79N E, ST door – cross section



MB-79N SI+ door – cross section

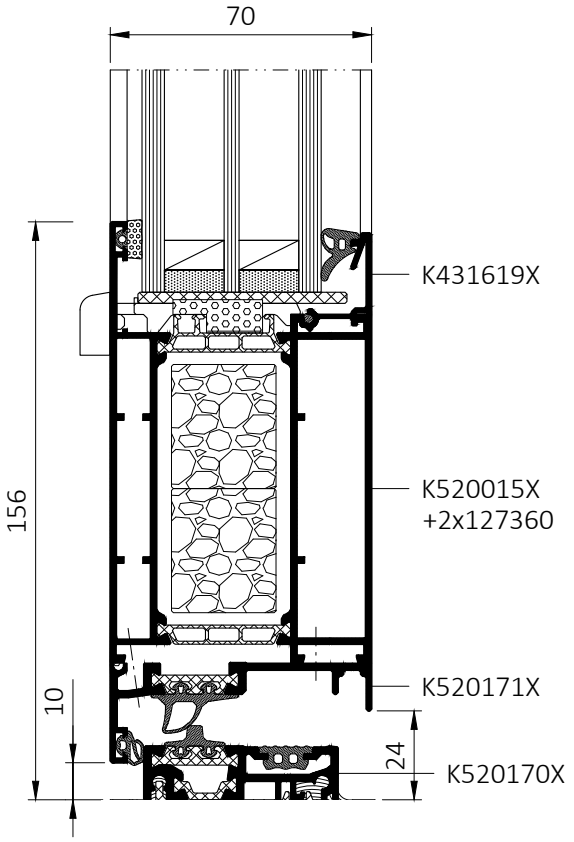


MB-79N SI+ double door – cross section

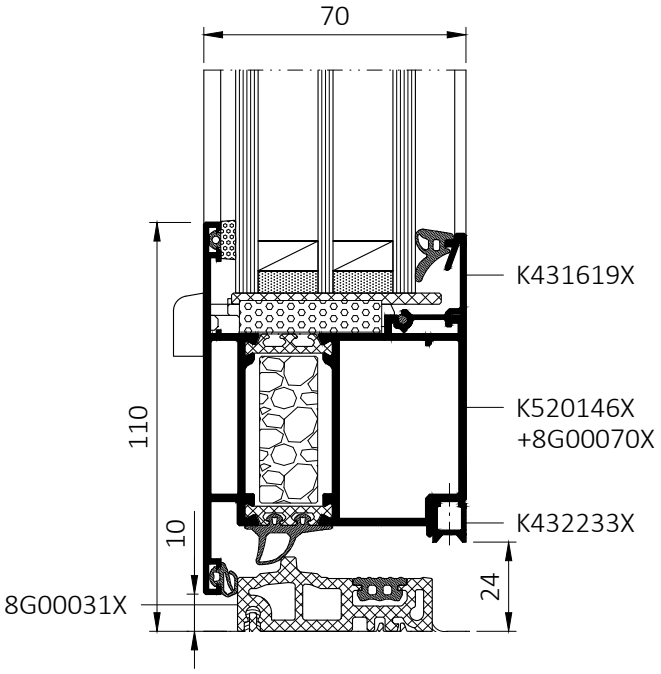


Scale 1:2

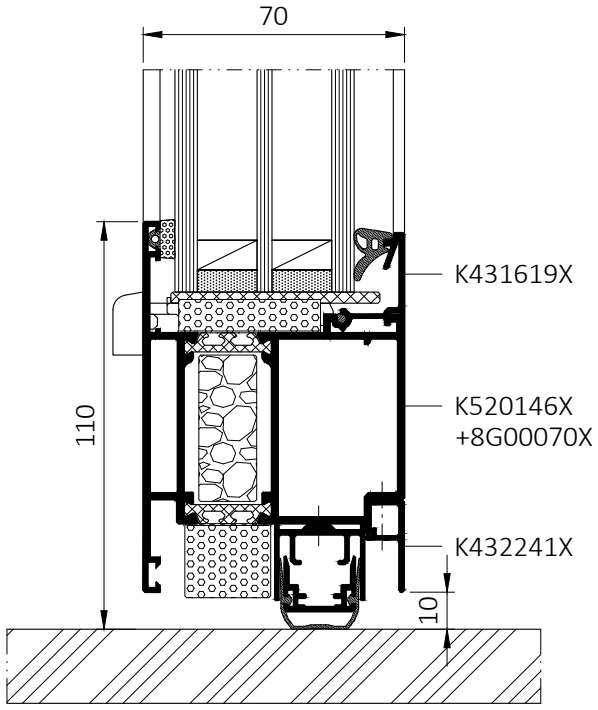
MB-79N SI+ door – cross section



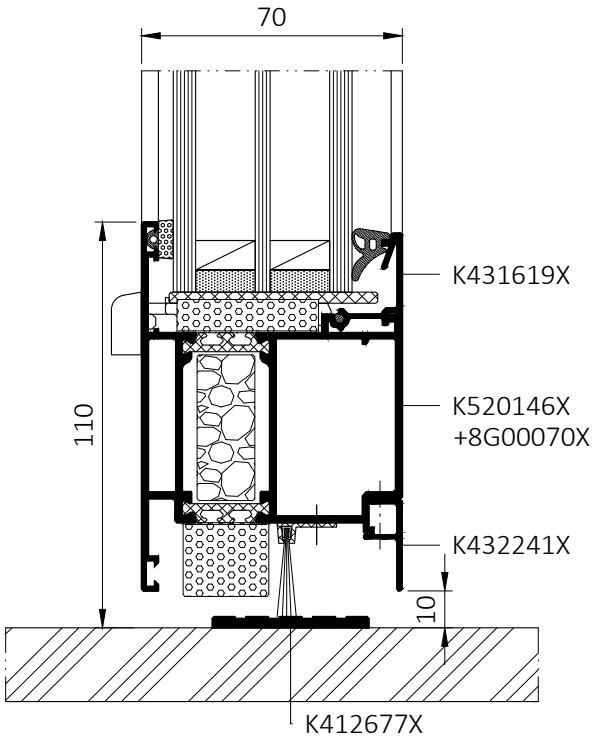
MB-79N SI+ door – cross section



MB-79N SI+ door – cross section

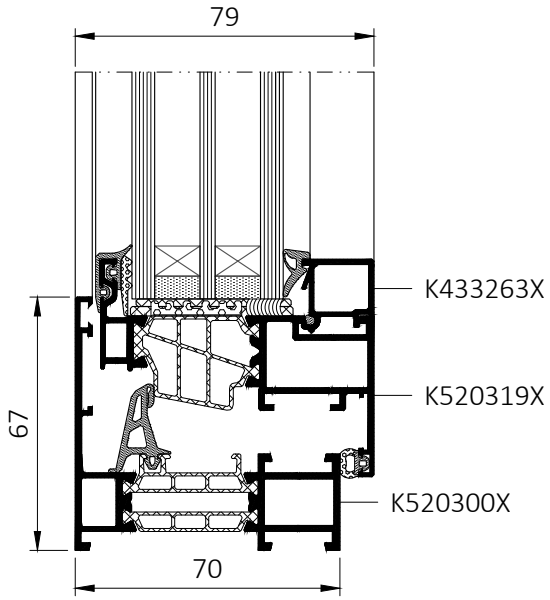


MB-79N SI+ door – cross section

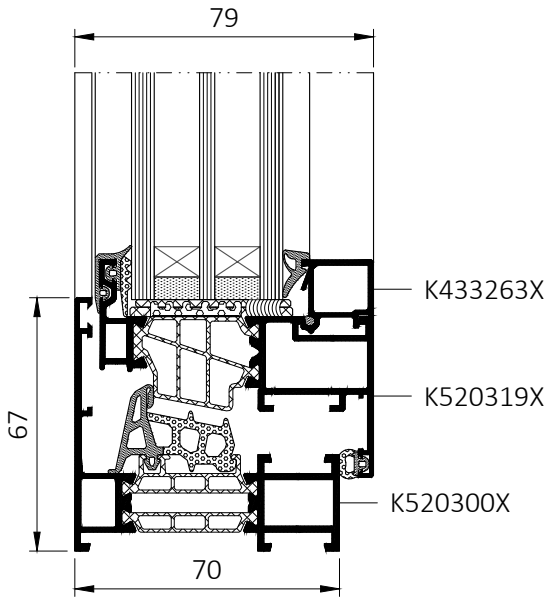


Scale 1:2

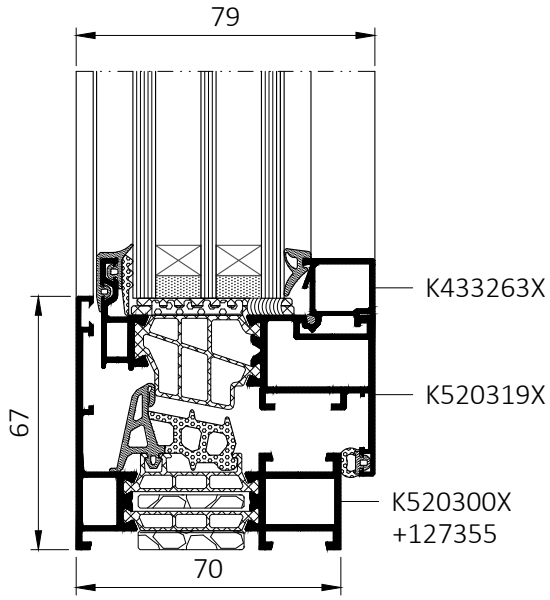
MB-79N US E opening window – cross section



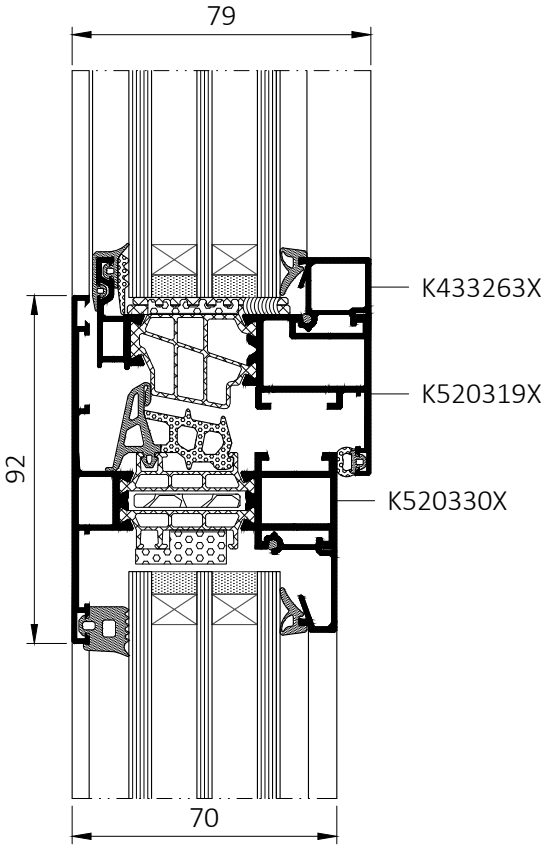
MB-79N US ST opening window – cross section



MB-79N US ST opening window – cross section



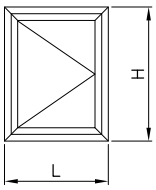
MB-79N US SI openable and fixed window – cross section



Scale 1:2

Max dimensions of window

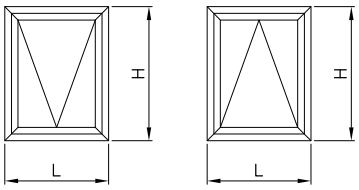
Outward opening
casement window



MHmax = 2700 mm
MLmax = 1400 mm

180 kg

Outward opening
awning window

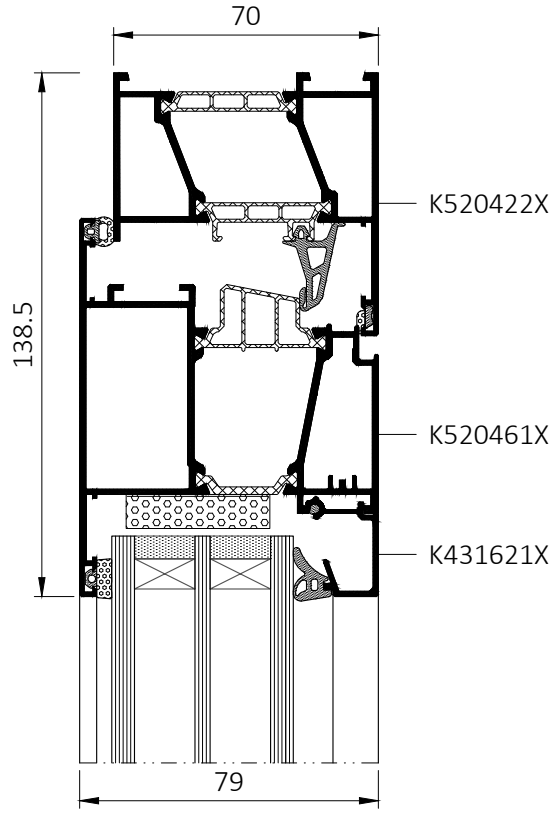


MHmax = 2500 mm
MLmax = 2400 mm

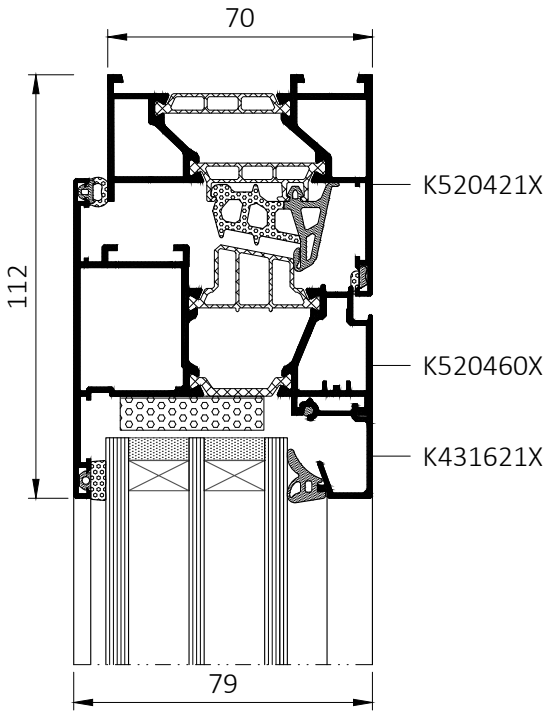
180 kg

Maximum dimension are clearly correlated with the sash profiles and are applicable only with the total set of hardware, taking into account the application range of this hardware.

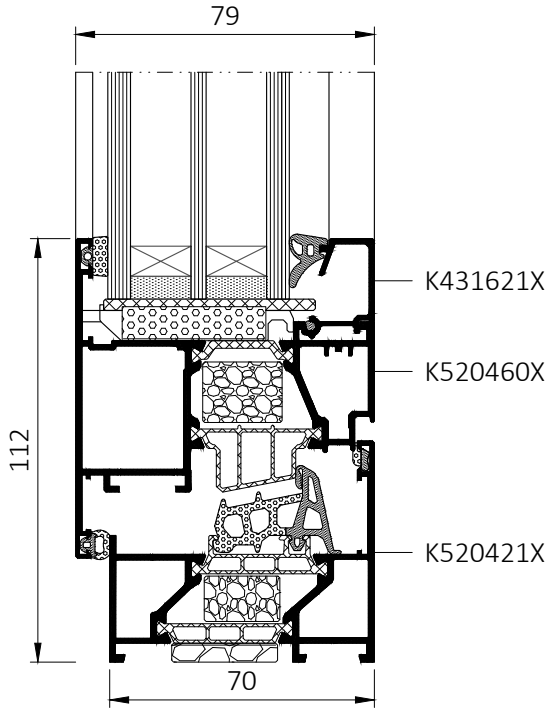
Outward opening window – cross section



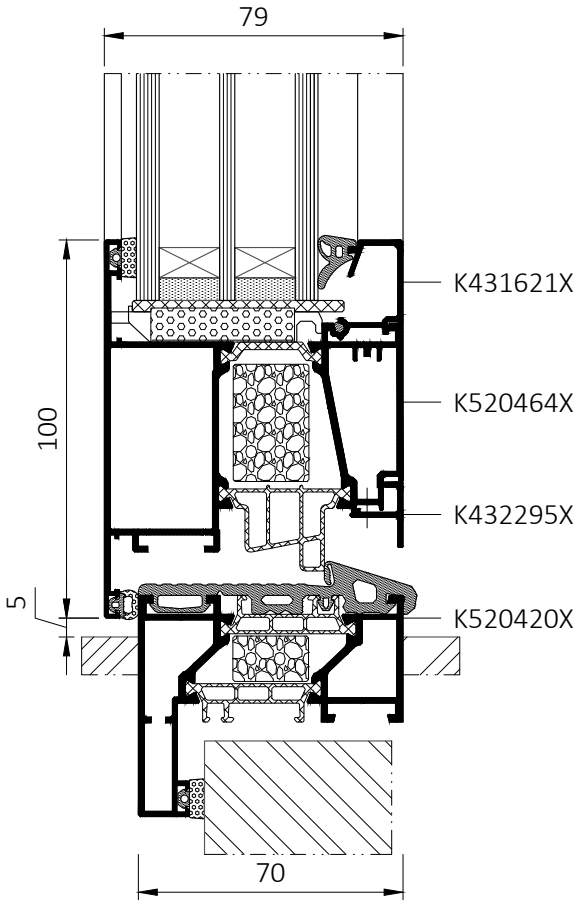
Outward opening window – cross section



Outward opening window – cross section



Balcony door with low treshold – cross section



More examples on: www.aluprof.com/en/bim-file-finder **Scale 1:2**

NEW

CRANK-OUT & PUSH-OUT WINDOWS

MB-79N CASEMENT OPERATOR

MB-79N CASEMENT OPERATOR is the first thermally broken aluminum window system with a crank-out operator designed specifically for the U.S. market and available to fabricators in Poland. It combines ease of use, sleek aesthetics, and high performance – tailored to meet American standards. Its bottom-mounted crank handle makes the window easy to operate, even for individuals with limited mobility. The system also accommodates frame-mounted insect screens, offering a solution that is both convenient and practical. A "nail fin" frame option enables quick and efficient installation in both new construction and renovation projects.

PRESTIGE STARTS AT THE THRESHOLD

KEY FEATURES OF MB-79N CO WINDOWS:

- **Effortless operation** – crank-out mechanism ensures smooth, precise opening and closing
- **Sleek, narrow profiles** allow for larger glazing areas and more natural light indoors
- **Outward-opening design** frees up interior space and supports easy installation of interior-mounted insect screens
- **Two opening styles:** crank-out & push-out
- **Dedicated frame-mounted insect screens** – always ready to keep bugs out
- **Concealed sash profiles deliver a clean, streamlined interior look** – clean, modern aesthetic
- **Excellent thermal performance** – U-factor as low as 0.30 Btu/(h·ft²·°F)
- **Broad glazing range** – compatible with units from 12 mm to 55.5 mm and supports dual-color profiles
- **Nail fin installation option** – seamless integration into the MB-79N and MB-79N US system families

ADVANTAGES FOR FABRICATORS:

- **Fully compliant with** AAMA CW50 performance standards
- **Compatible with the MB-79N system family** – streamlined production workflow
- **Two drainage options:** concealed or visible with decorative cover
- **Available in both ST and SI thermal insulation versions**

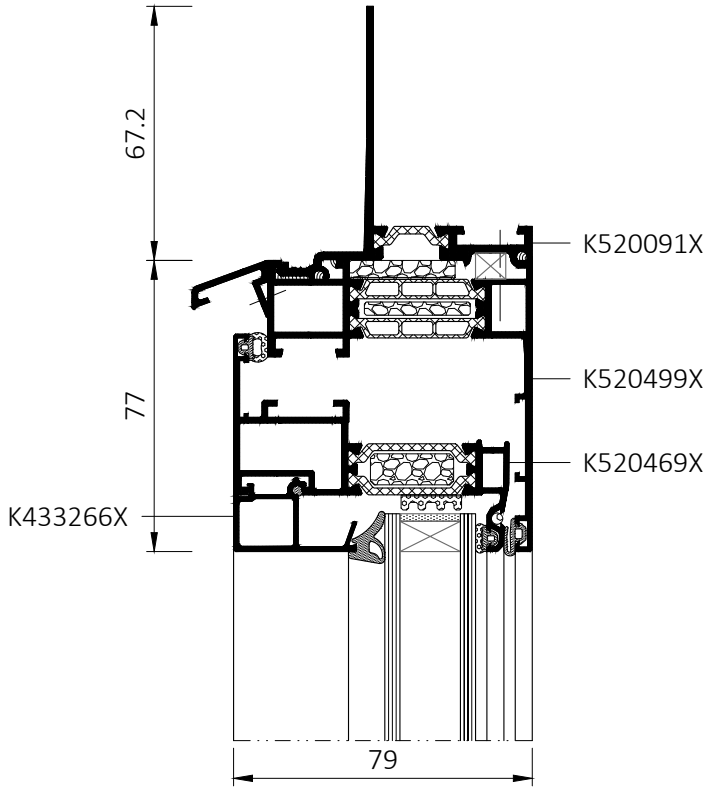
Outward-opening awning window with handle

Outward-opening awning window with crank and insect screen

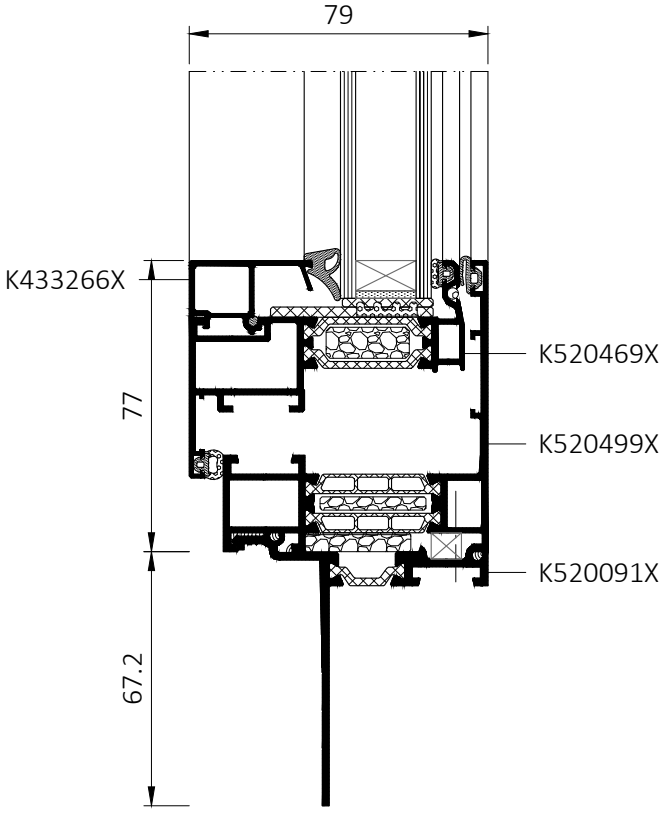
Outward-opening casement window with handle

Outward-opening casement window with crank and insect screen

Openable window – cross section

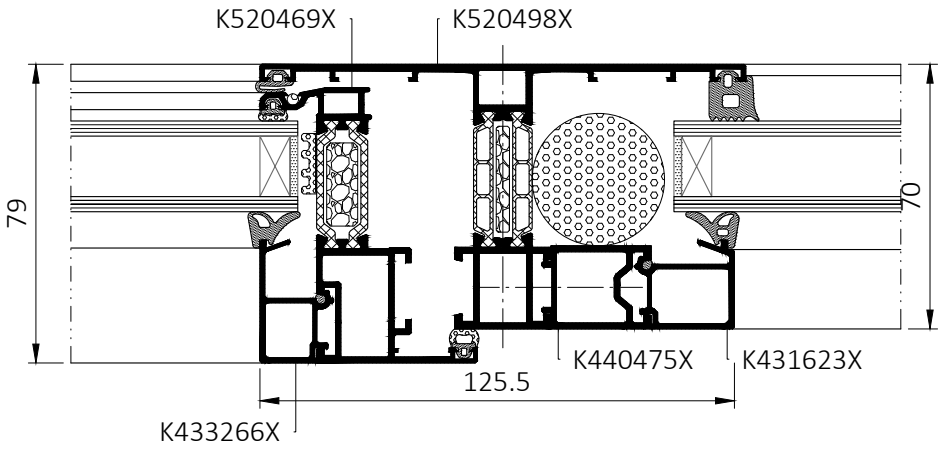


Openable window – cross section

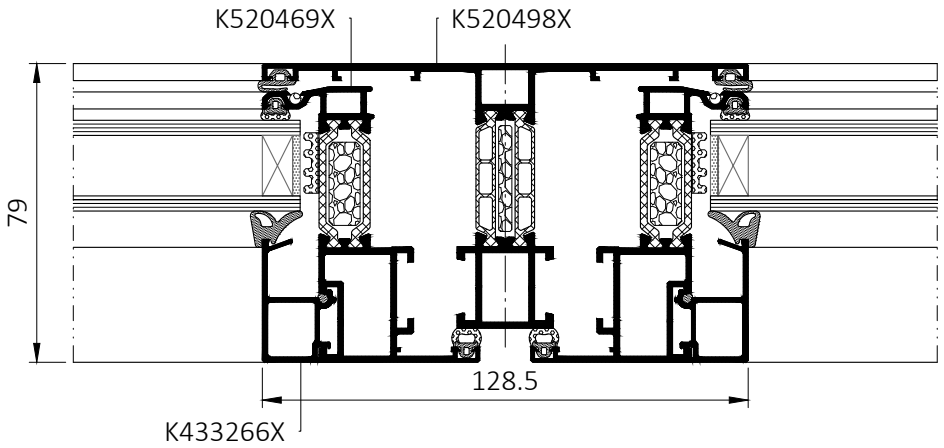


Scale 1:2

Openable and fixed window – cross section

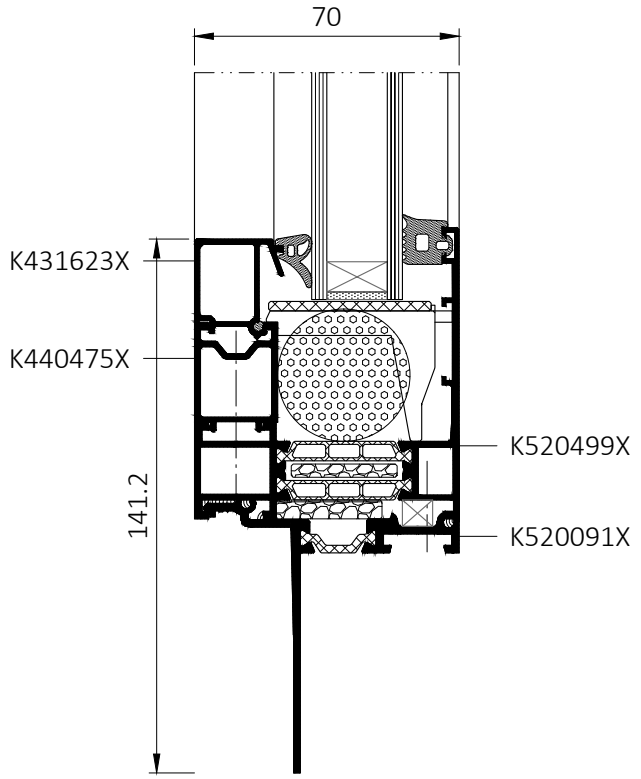


Openable, 2-leaf window – cross section

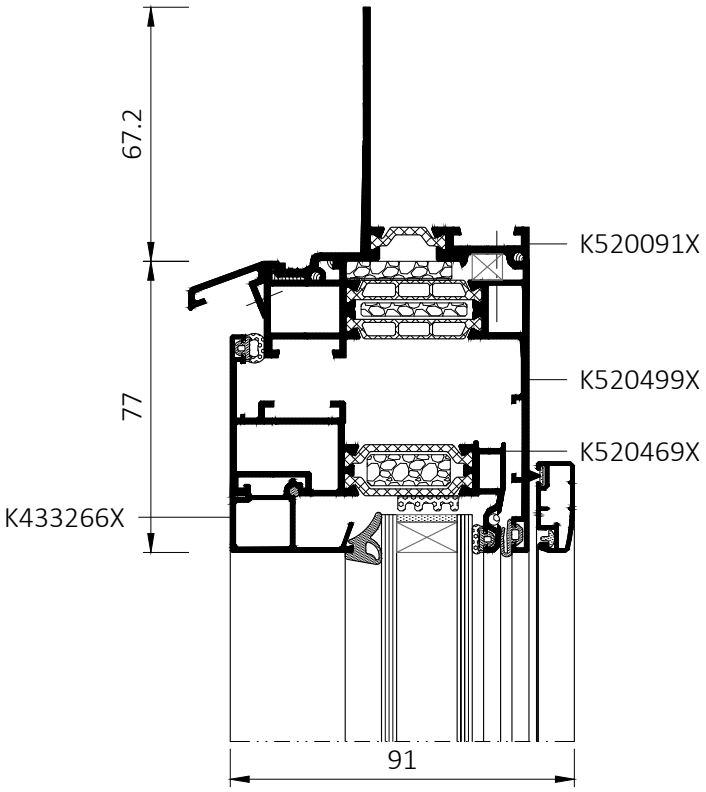


Scale 1:2

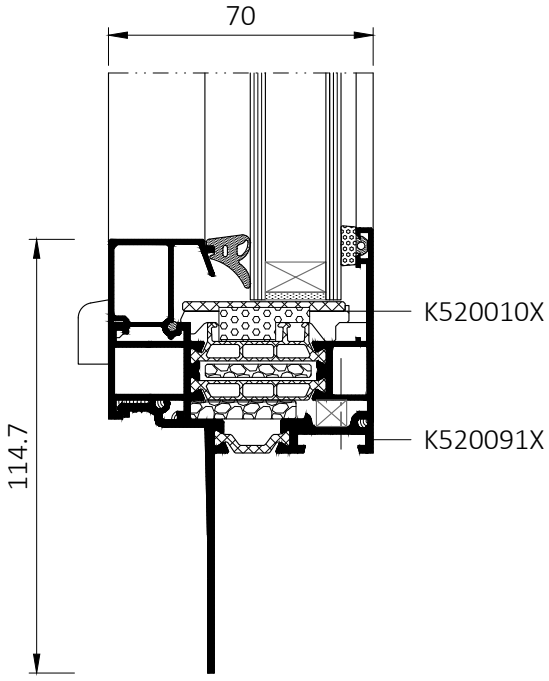
Fixed window – cross section



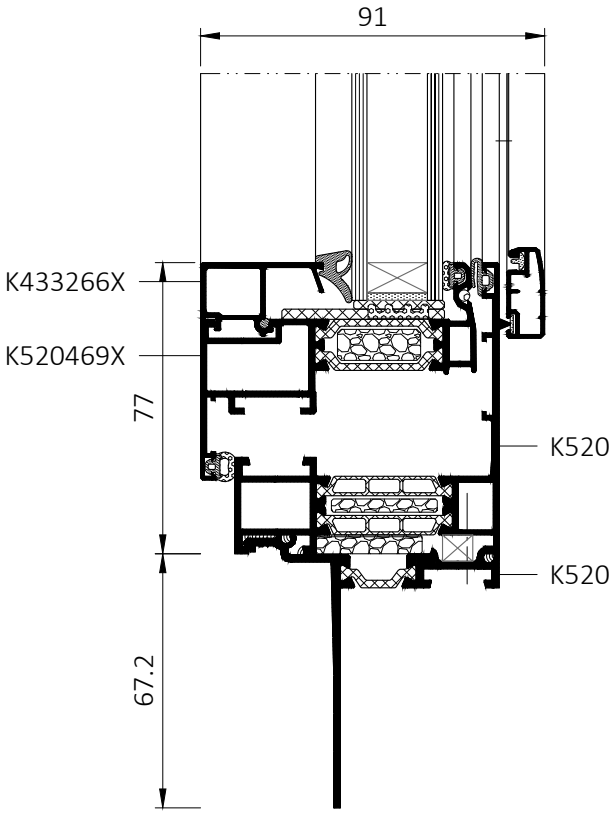
Openable window
with an internal mosquito net – cross section



Fixed window – cross section



Openable window
with an internal mosquito net – cross section



More examples on: www.aluprof.com/en/bim-file-finder **Scale 1:2**

NEW

SLIMLINE WINDOWS

MB-79N CSF

MB-79N CSF outward-opening slim-profile windows are designed for the most demanding clients in the UK and Ireland, offering advanced technology and refined details. This makes them an excellent choice for manufacturers, architects, developers, and homeowners who prioritise quality, aesthetics, and energy efficiency.
With a thermally broken three-chamber profile, MB-79N CSF combines minimalist design with high insulation performance. Its versatility allows for the creation of various window types, including fixed, side-hung, and top-hung configurations. The system is available in two aesthetic options: a flush variant, in which the sash and frame sit flush on the exterior plane, and a non-flush variant-reminiscent of a traditional casement style- enhancing the window's architectural expression.

TAILORED TO DIVERSE NEEDS

The product is designed to accommodate diverse needs and is available in two thermal insulation variants. The MB-79N CSF ST version delivers solid thermal performance, wellsuited for a wide range of applications. Meanwhile, the MB-79N CSF SI version is enhanced with dedicated insulating inserts located within the thermal barriers, significantly improving thermal efficiency. This makes the **MB-79N CSF** system suitable for both residential and commercial applications, allowing for tailored solutions that meet specific design and energy requirements.

TECHNICAL SPECIFICATION	MB-79N CSF WINDOWS
Frame depth	70 mm
Casement depth	70 mm
Glazing thickness	frame and vent: 10.5 – 42 mm
Max. casement size (W×H)	side hung casement windows: W to 1500 mm, H to 1000 mm, top hung casement windows: W to 1500 mm, H to 1500 mm

PERFORMANCE	MB-79N CSF WINDOWS
Air permeability	class 4 (600 Pa), EN 12207
Watertightness	class E1950, EN 12208
Windload resistance	C4/B4 (2000 Pa), EN 12210

The flush variant of window

The non-flush variant of window

MB-79N CSF ADVANTAGES FOR FABRICATORS:

- Streamlined fabrication – the manufacturing process has been optimised for ease and efficiency, supported by dedicated tooling.
- Versatile applications – the ability to create different window types (fixed, side-hung, and top-hung) in two design variants (flush and non-flush).
- Unique market advantage – the hybrid hinge represents a significant advancement in UK and Ireland window design, enabling the use of heavier window elements in construction projects.

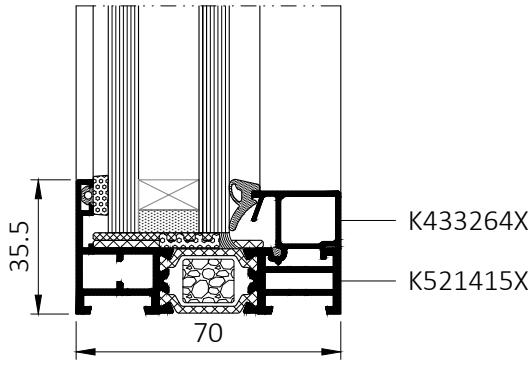
MB-79N CSF ADVANTAGES FOR ARCHITECTS:

- Minimalist aesthetics – slim profiles and a wide range of colour options support modern, visually appealing designs.
- Design flexibility – the choice between flush and non-flush configurations allows seamless integration with a broad spectrum of design intents.
- Energy efficiency – the system meets energy-saving and environmental performance standards.

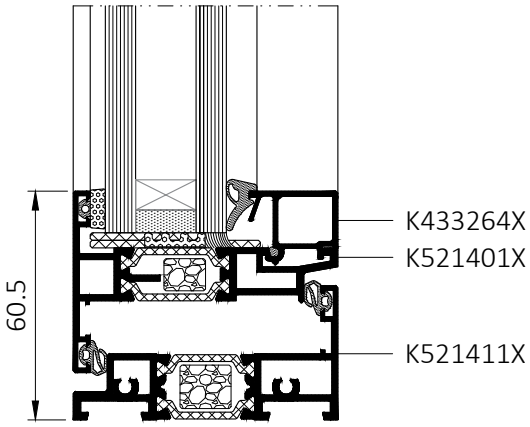
MB-79N CSF ADVANTAGES FOR DEVELOPERS AND HOMEOWNERS:

- Reduced energy costs – excellent thermal insulation helps lower heating expenses.
- Security and comfort – optional anti-burglary enhancements and high-spec glazing options improve both safety and peace of mind.
- Long-term durability – anodised or powder-coated profiles ensure resistance to weather conditions and years of trouble-free use.

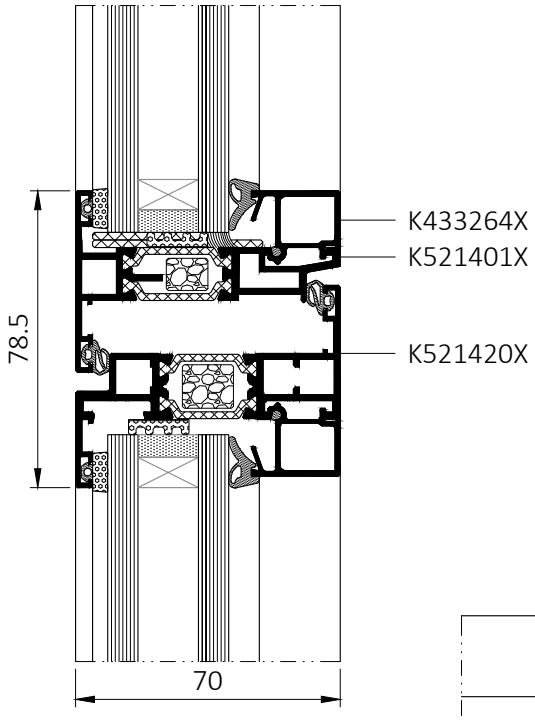
Fixed window – cross section



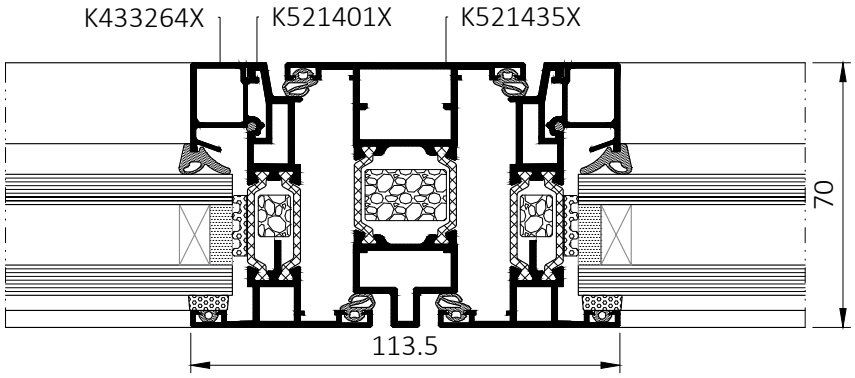
Openable window (a flush variant) – cross section



Openable and fixed window (a flush variant) – cross section

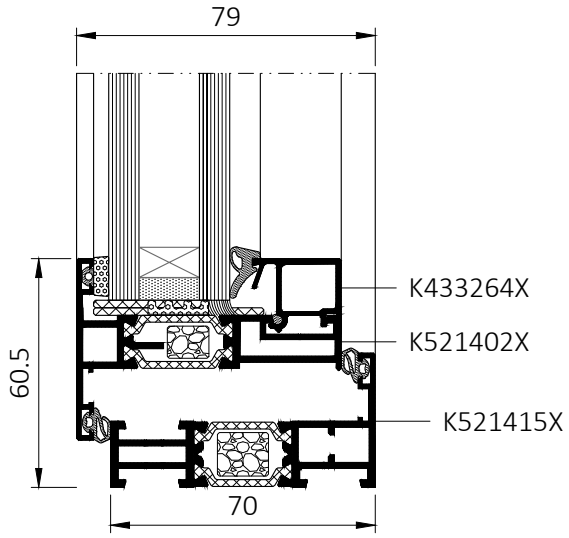


Openable, 2-leaf window (a flush variant) – cross section

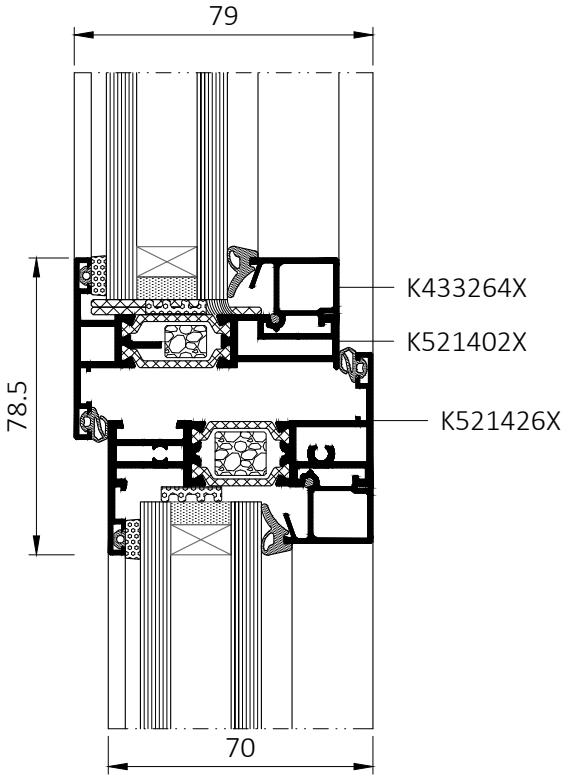


Scale 1:2

Openable window (a non-flush variant) – cross section

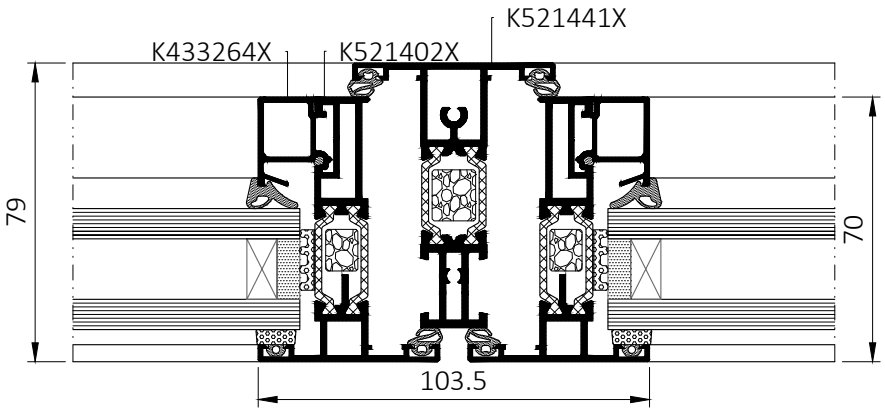


Openable and fixed window (a non-flush variant)
– cross section

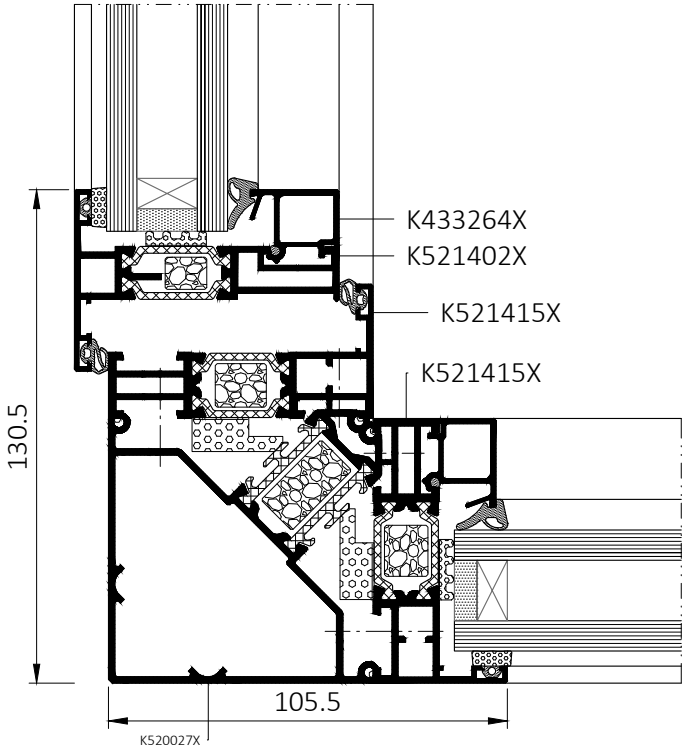


Scale 1:2

Openable, 2-leaf window (a non-flush variant) – cross section



Angular connections of 2 windows (a non-flush variant) – cross section



PANELLED FRONT DOORS

Our panelled front doors are an offer for even the most demanding of users. The cutting-edge technology and design make them not only a functional and durable entrance to a home, but also an attractive showpiece in their own right. They are built using our MB-70, MB-79N, MB-86N and MB-104 Passive aluminium profile systems. The profile for the leaf is adapted for use together with special infills which are flush with the frame on the exterior. The panels can be installed by gluing them to the supporting profiles on one or both sides. The option of using concealed hinges adds an even greater aesthetic value.

A CONTEMPORARY AND STYLISH LOOK WHICH WILL STAY IN VOGUE FOR YEARS

The panels are available in a wide range of designs and colours. The techniques used in their production, which include milling to create different shapes, decorative inlays and the addition of insulated glass, open up the possibility of creating countless combinations and variants. This makes the doors are a perfect solution for contemporary homes and classical architecture alike. One thing is certain; they will always create a stunning entrance that is not only eye-catching, but also enhances the appeal of entire façade. The infills are constructed using durable and weatherresistant materials. The exterior parts often have an additional coating in the form of layers of special varnishes. In other cases, the surfaces contain epoxy resins. Either way, this means that the panels will retain their stylish appearance for a long time. It is also possible to use Finea's unique Teflon™ paints, which minimise the amount of dirt adhering to the surface.

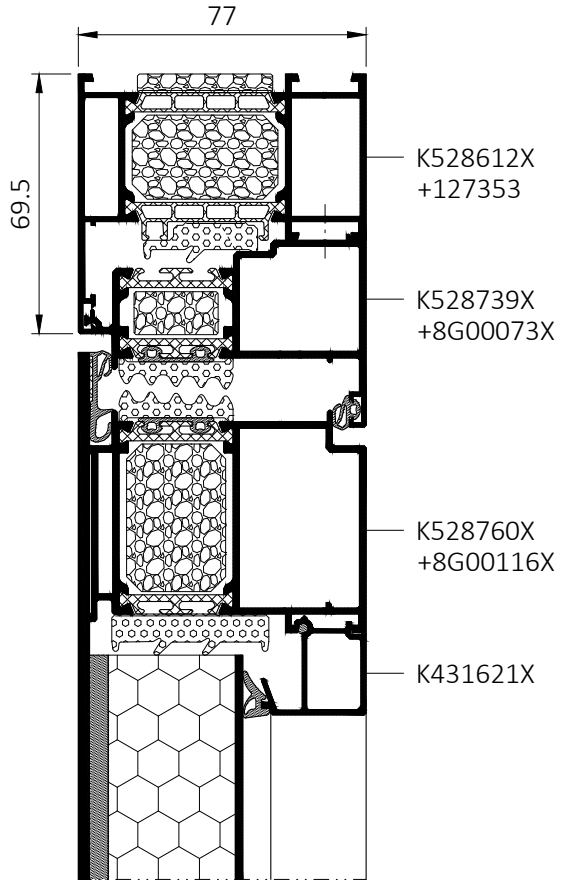
IN THREE WORDS... THE IDEAL DOOR

ALUPROF's front doors offer a stylish look and high technical parameters and, given the largescale construction dimensions available and the possibility of using them as part of a sweeping, glazed structure, they offer an abundance of freedom in designing the entrance to a building. They are a perfect proposition for people whose home means very much more than simply a place to live.

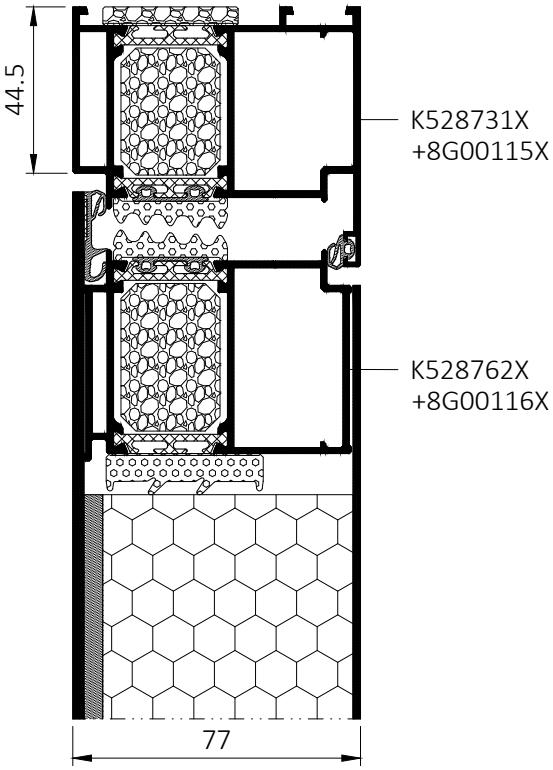
TECHNICAL SPECIFICATION	MB-79N PANELLED DOOR	MB-86N PANELLED DOOR	MB-104 PASSIVE PANELLED DOOR
Frame depth	70 mm	77 mm	95 mm
Casement depth	70 mm	77 mm	95 mm
Infill panel thickness	44 mm and 70 mm	44 mm and 77 mm	up 95 mm
Max. size of casement (H×L)	H to 2600 mm L to 1400 mm	H to 2600 mm L to 1400 mm	H to 2600 mm L to 1400 mm

PERFORMANCE	MB-79N PANELLED DOOR	MB-86N PANELLED DOOR	MB-104 PASSIVE PANELLED DOOR
Air permeability	class 3, EN 12207	class 3, EN 12207	class 3, EN 12207
Watertightness	class E900 (900Pa), EN 12208	class 6A (250 Pa), EN 12208	class 7A (250 Pa), EN 12208
Windload resistance	class C5/B5, EN 12210	class C5/B5, EN 12210	class C4/B5, EN 12210
Thermal insulation	U_D from 0.7 W/(m²K)	U_D from 0.63 W/(m²K)	U_D from 0.44 W/(m²K)

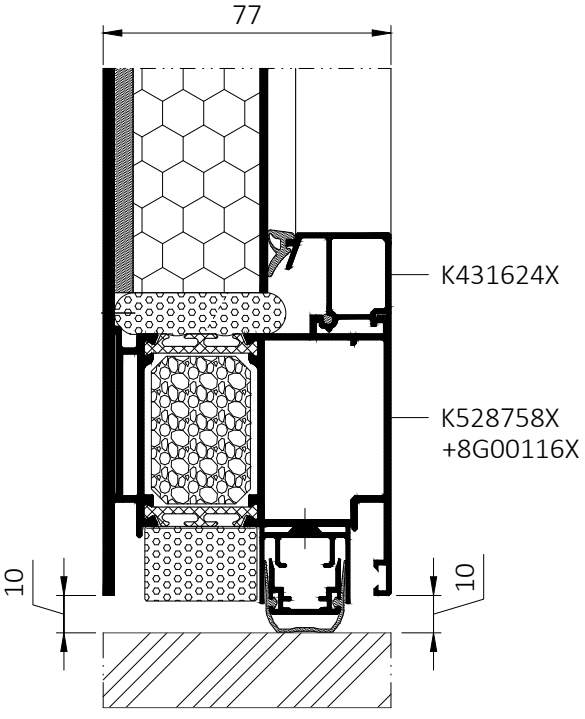
Cross section of the MB-86N SI+ panelled front door with a single-sided panel, in continuous shopfront



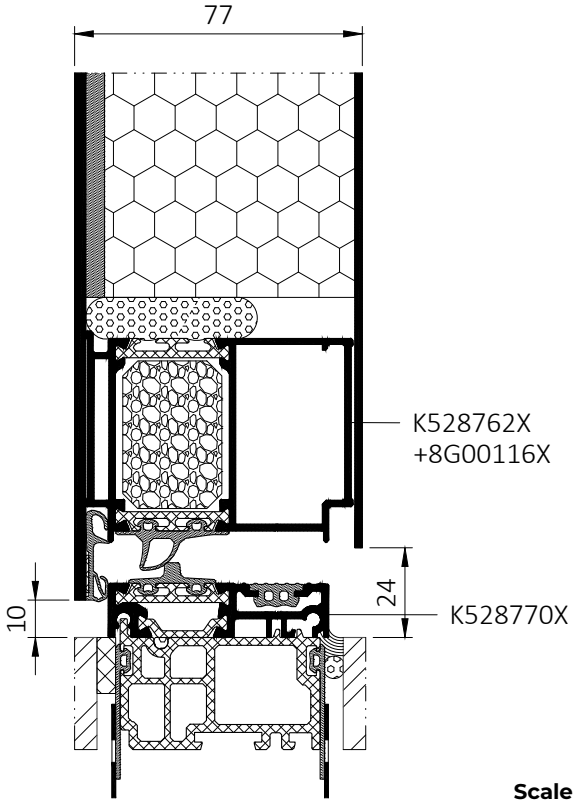
Cross section of the MB-86N SI+ panelled front door with a double-sided panel



Cross section of the MB-86N SI panelled front door with a single-sided panel

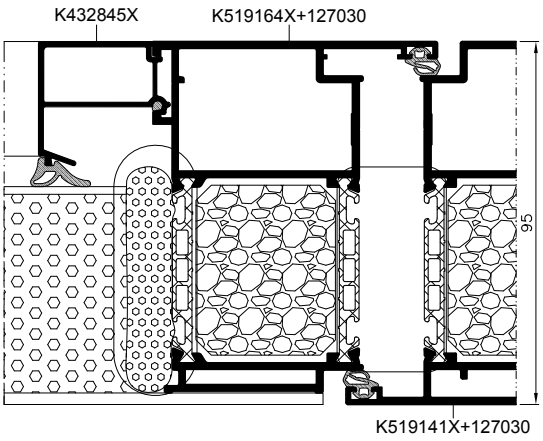


Cross section of an MB-86N SI panelled front door with a double-sided panel

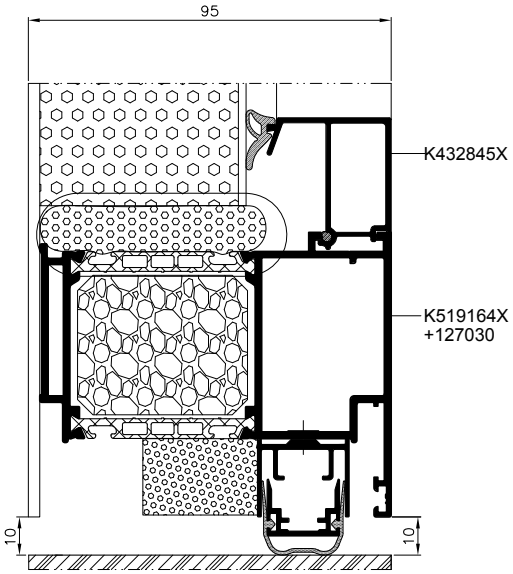


Scale 1:2

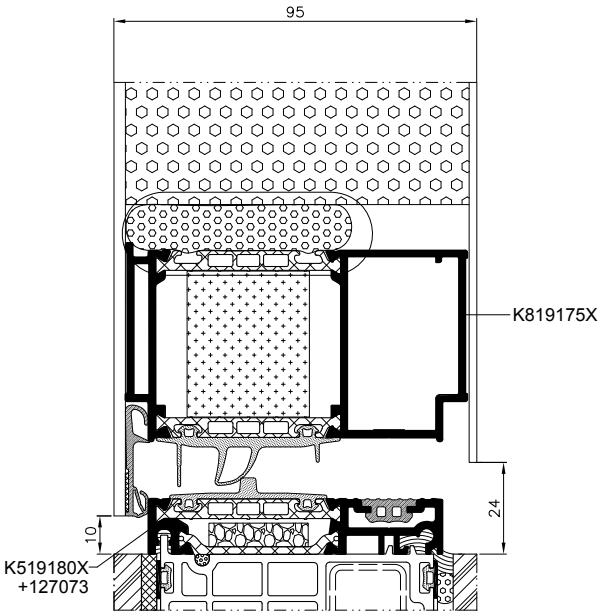
Cross section of an individual MB-104 Passive SI with a single-sided panel



Cross section of the sill of an MB-104 Passive panelled front door with a single-sided panel



Cross section of the sill of an MB-104 Passive AERO panelled front door with a double-sided panel



More examples on: www.aluprof.com/en/bim-file-finder **Scale 1:2**

EXTERIOR DOOR WITH AN OFF-CENTRE ROTATION AXIS

MB-86N PIVOT DOOR

The MB-86N Pivot Door is an external structure. Its primary features are its impressive dimensions and out-of-the-box design. The off-centre rotation axis endows the door with a unique look, while the concealed hinges provide a very high load capacity. Structures of this kind are popular with architects and are often used for projects where large-scale dimensions and original design play a major part. Pivot doors are recommended whenever there is a requirement to ensure that an entryway is powerfully accentuated and performs as a showpiece element of a building's façade.

PRESTIGE STARTS AT THE THRESHOLD

ALUPROF's MB-86N Pivot Doors are a statement alternative to their classic profiled, sliding or bifold counterparts. The system can be used to create panelled and glazed doors featuring excellent thermal and acoustic performance, along with first-class air- and watertightness, making it possible to meet requirements for energy efficiency and environmental protection. Other unique aspects include a customised locking system offering one- or two-latch options.

FUNCTIONALITY AND AESTHETICS

- large-scale leaves measuring up to 2 m wide and 3.4 m high
- off-centre pivot
- leaves or glazed insulating units up to 60 mm thick
- concealed bearing hinges with a load capacity of up to 500 kg
- three thermal construction variants, the ST, the SI and the SI+
- locked by means of alternating strips on the leaf and frame
- the bottom is sealed using a drop seal
- the low, 20 mm threshold can be fully built in, obtaining a 'zero threshold' effect with the possibility of draining water to the outside
- linear drainage can be installed
- quick and efficient leaf installation and uninstallation
- the solution is based on ALUPROF's MB-86N system profiles

Panelled door

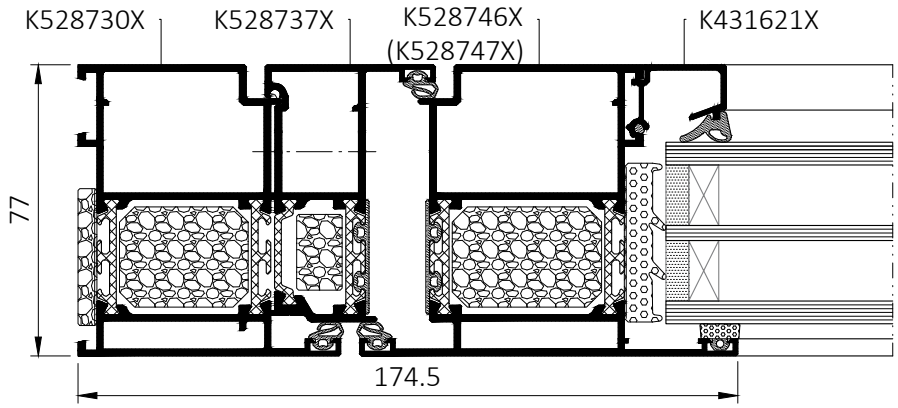
Glass door

TECHNICAL SPECIFICATION	MB-86N PIVOT DOOR
Frame depth	77 mm
Casement depth	77 mm
Glazing range	casement: 7 – 52 mm, frame: 15 – 60 mm
Maximum size of leaf (H×L)	H to 2000 mm, L to 3400 mm
Maximum weight of leaf	500 kg

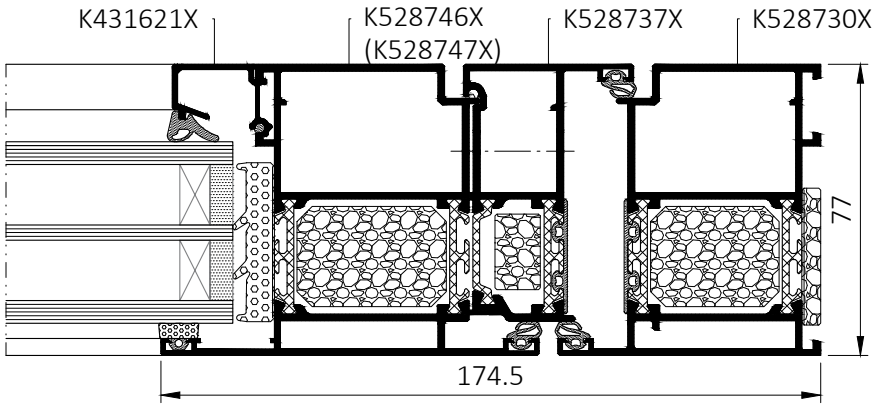
PERFORMANCE	MB-86N PIVOT DOOR
Airtightness	class 3, EN 12207
Watertightness	class 3B, EN 12208
Wind load resistance	class C3, EN 12210
Thermal insulation	U_D from 0,73 (W/m²K)*

* - For panelled MB-86N Pivot Doors with leaves measuring 2000×2180 mm

Cross section of a glazed door

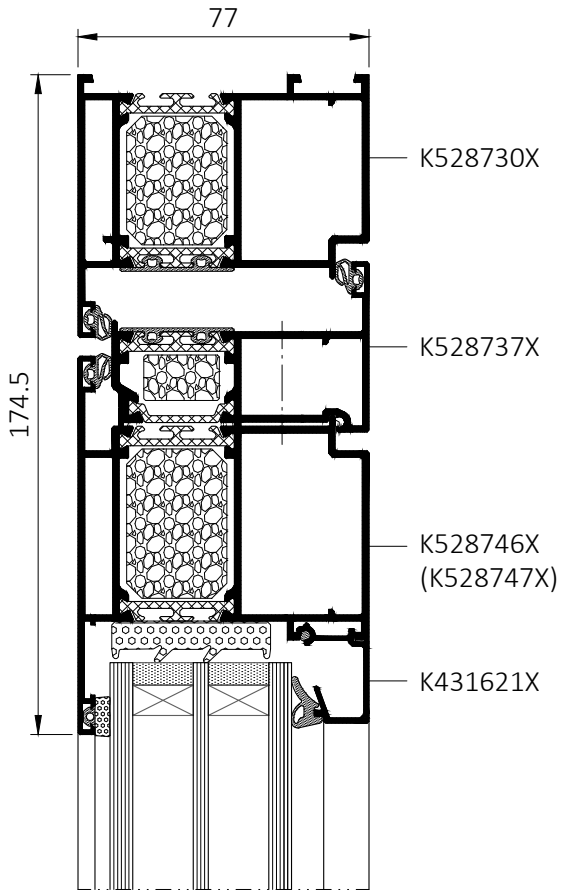


Cross section of a glazed door

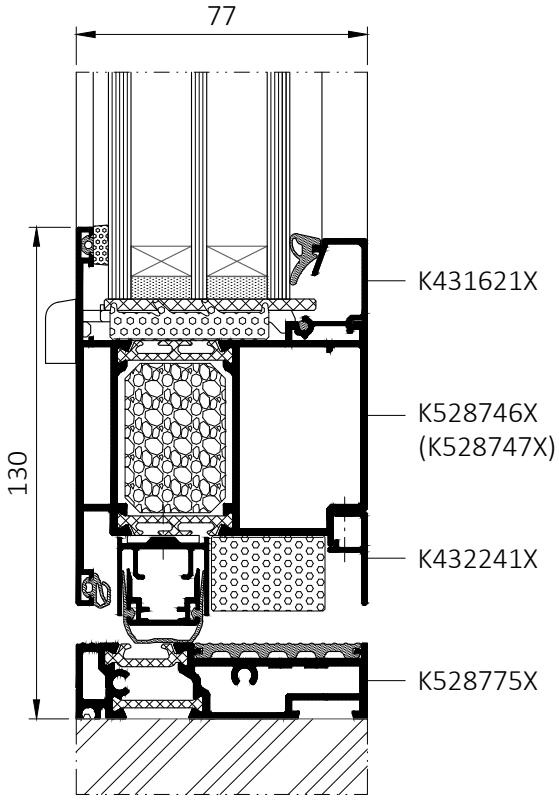


Scale 1:2

Cross section of the top of a glazed door

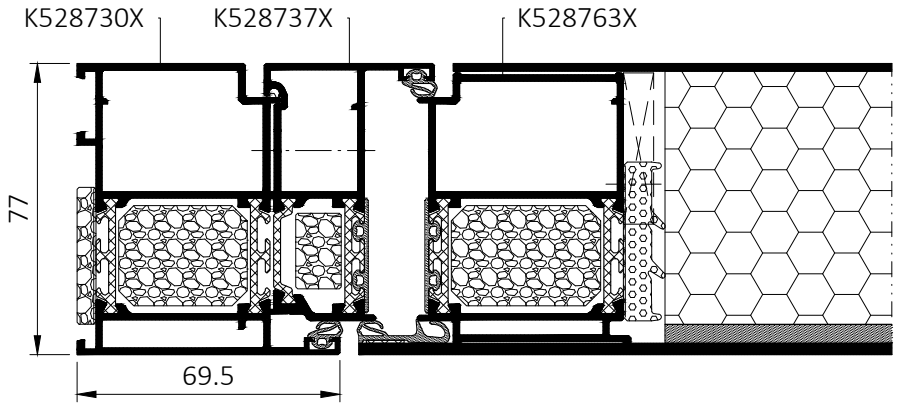


Cross section of the bottom of a glazed door

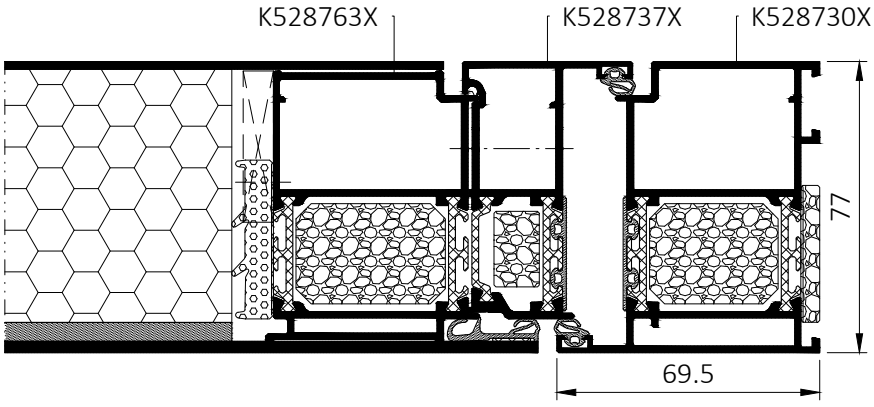


Scale 1:2

Cross section of a panelled door

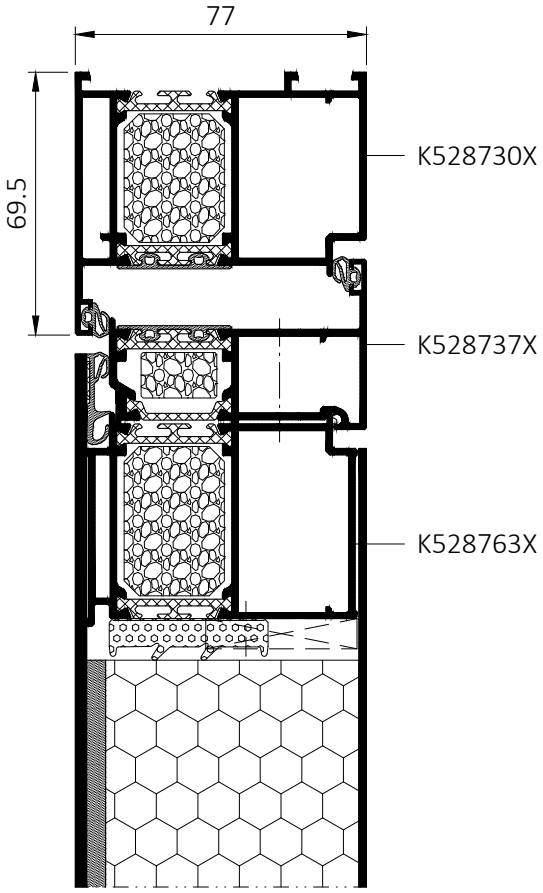


Cross section of a panelled door

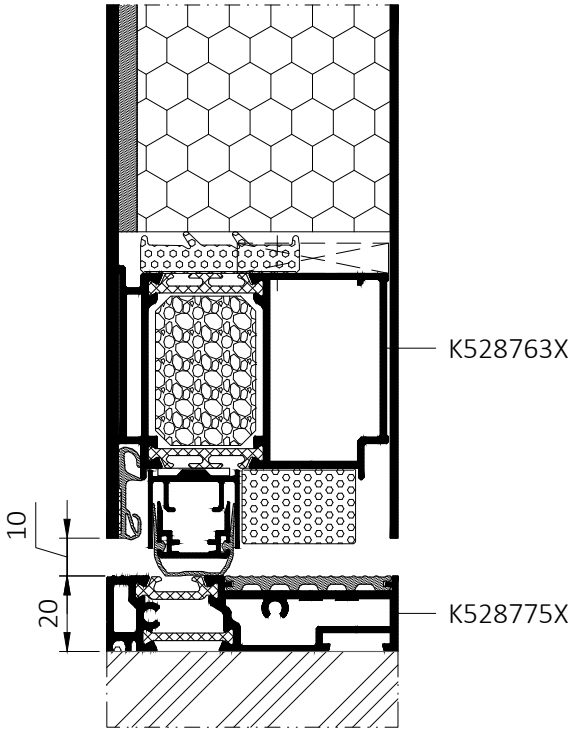


Scale 1:2

Cross section of the top of a panelled door



Cross section of the bottom of a panelled door



More examples on: www.aluprof.com/en/bim-file-finder **Scale 1:2**

WINDOW AND DOOR SYSTEMS

MB-SLIMLINE

Highly insulated, MB-Slimline window system with thermal break is intended for fabrication of external structure elements such as various types of highly resistant, inward-openable windows (side-hung, hopper, tilt-and-turn windows) and fixed windows of an excellent water resistance, air tightness, and sound insulation performance.

NARROW-PROFILE WINDOWS

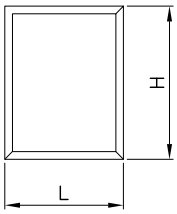
With its very small-width aluminium profiles visible from the external side of the construction, MB-Slimeline enables to fabricate casements in two variants – with visible or invisible profiles (SG) from the external side of the structure.
When invisible casements are used, the appearance of openable and fixed units is almost identical.
This system can also greatly replace the old-style windows, made of steel profiles, and maintain a similar appearance from the outside of the construction while significantly increasing the thermal insulation of the partition.

TECHNICAL SPECIFICATION	MB-SLIMLINE
Depth of frame	68.5 – 123.5 mm / 90.5 – 145.5 mm
Depth of leaf	77.5 mm / 99.5 mm
Fixed / opened window for 68.5 mm frame (type A)	8 – 50 mm / 17 – 59 mm
Fixed / opened window for 90.5 mm frame (type B)	30 – 72 mm / 39 – 81 mm
Maximum size of window (H×L)	H to 2400 mm, L to 1400 mm, H to 2100 mm, L to 1600 mm
Maximum weight of leaf	150 kg

PERFORMANCE	MB-SLIMLINE
Air Permeability	class 4, EN 1026:2001; EN 12207:2001
Watertightness	class E 1500, EN 1027:2001; EN 12208:2001
Thermal insulation	U_w from 0.8 W/(m²K)
Burglary resistance	class RC1, RC2, EN 1627

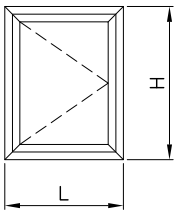
Max. dimensions of window

Fixed window

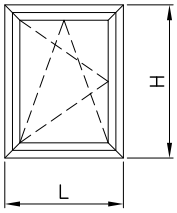


Max. dimensions of windows result from maximal glass sizes

Turn-hung window



Tilt and turn window



TYPE A

Hmax = 2100 mm Lmax = 1070 mm	Hmax = 1600 mm Lmax = 1400 mm

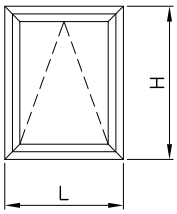
KG 90 kg

TYPE B

Hmax = 2400 mm Lmax = 1350 mm	Hmax = 2030 mm Lmax = 1600 mm

KG 150 kg

Tilt window



TYPE A

Hmax = 2100 mm Lmax = 1600 mm	Hmax = 900 mm Lmax = 2400 mm

KG 130 kg

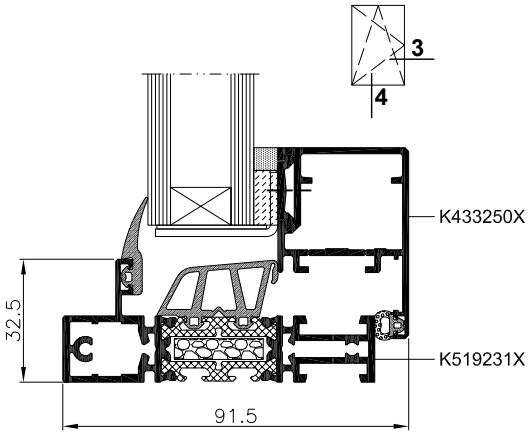
TYPE B

Hmax = 2400 mm Lmax = 1600 mm	Hmax = 1300 mm Lmax = 2400 mm

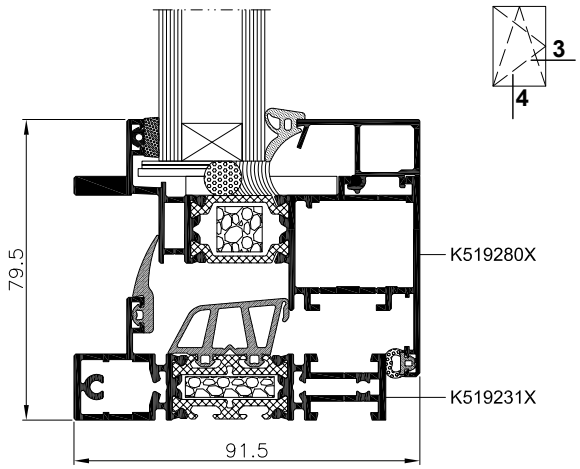
KG 130 kg

KG Maximal vent weight

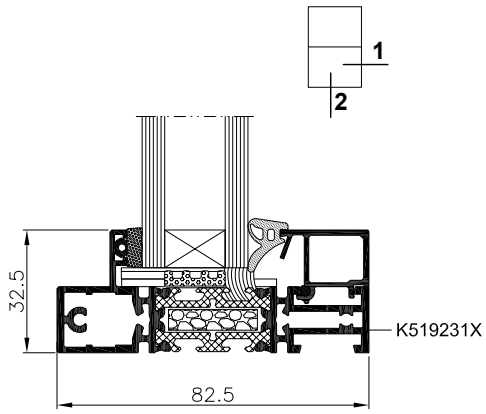
Openable window SG – type A – cross section



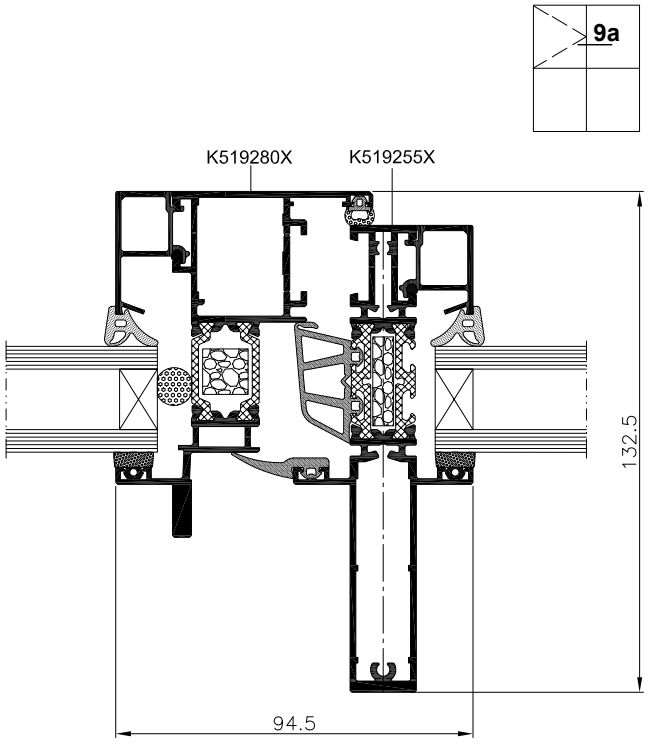
Openable window – type A, – cross section



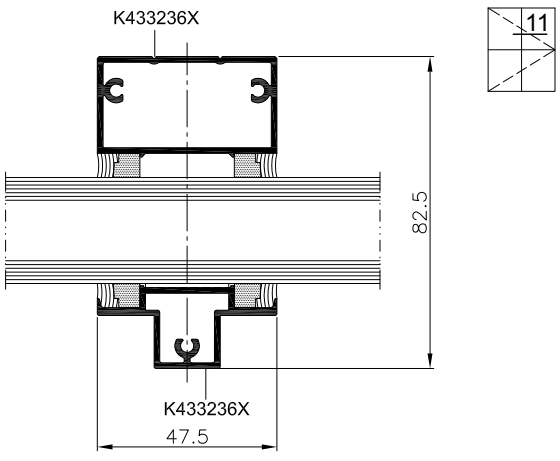
Fixed window – type A – cross section



Openable window & mullion – type A – cross section

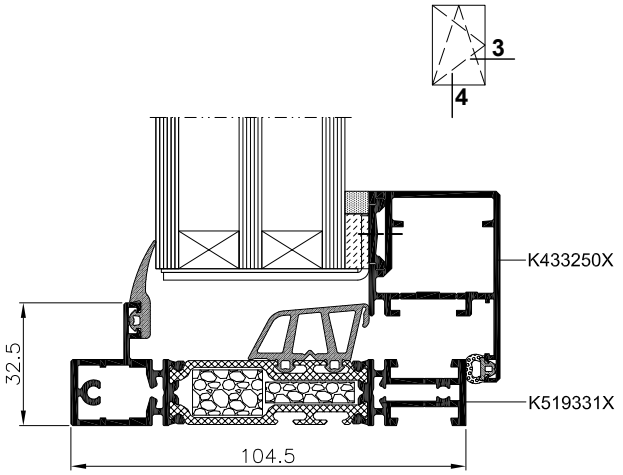


Decorative strip – cross section

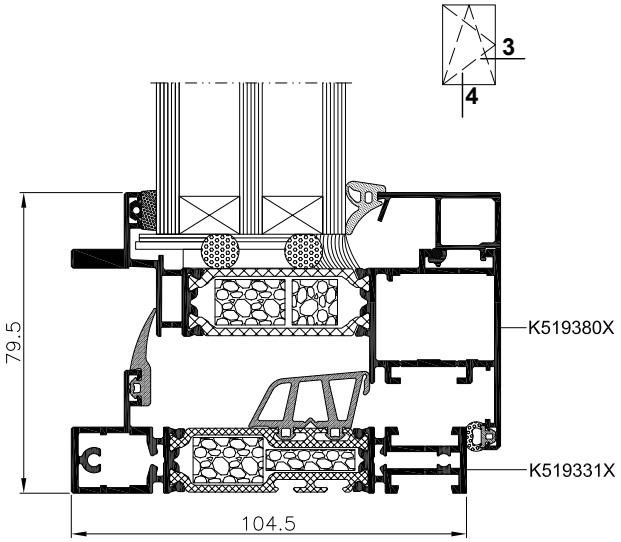


Scale 1:2

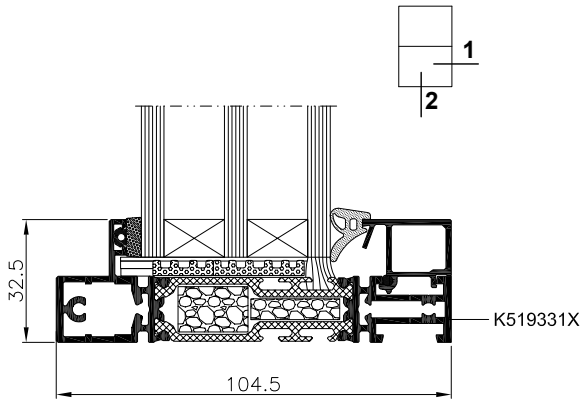
Openable window SG – type B – cross section



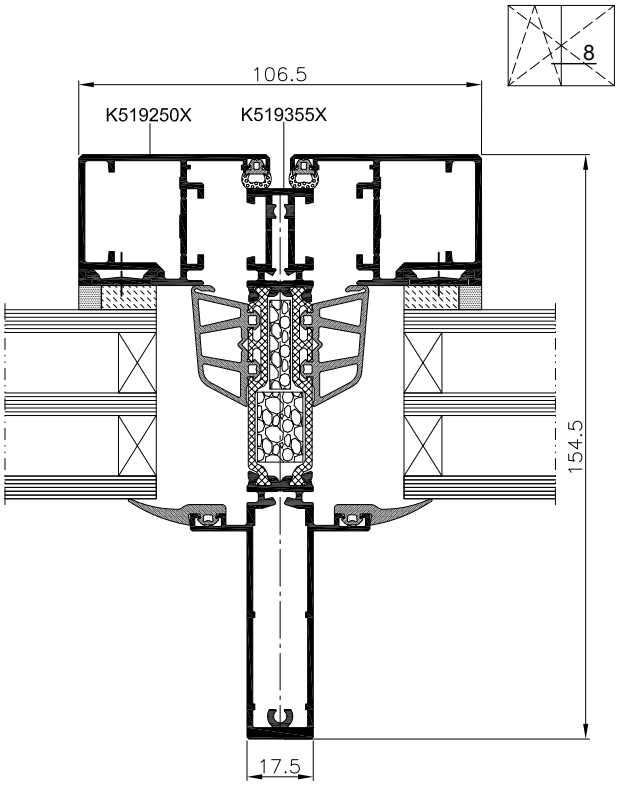
Openable window SG – type B – cross section



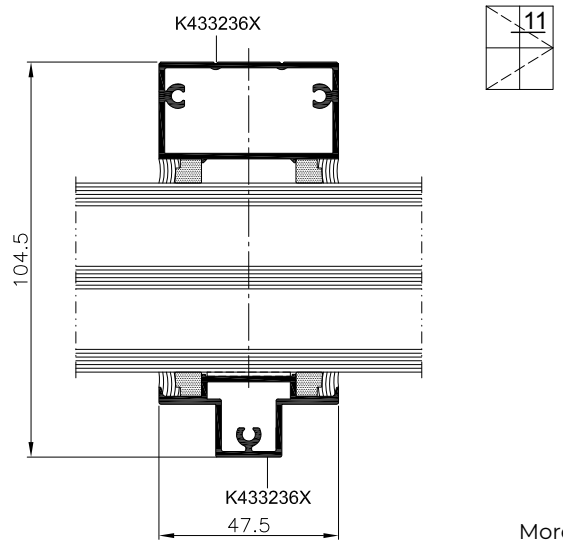
Fixed window – type B – cross section



Openable window & mullion – type B – cross section



Decorative strip – cross section



More examples on: www.aluprof.com/en/bim-file-finder **Scale 1:2**

WINDOW AND DOOR SYSTEMS

MB-FERROLINE

The new window system with thermal break MB-FERROLINE is perfectly suitable for renovation of historic buildings and helps to preserve the appropriate appearance of windows, which can imitate steel joinery, whilst ensuring very good technical performance of the construction. The system enables the fabrication of various types of highly resistant, inward opening windows (side-hung, hopper, tilt-and-turn windows), outward opening windows (side-hung and top hung windows) and fixed windows of an excellent water resistance, air tightness, and sound insulation performance.

WINDOW SYSTEM WITH SLIM PROFILES

Several types of profile appearance are offered. Renovation frames available within the system enable for installation of new constructions without having to disassemble the old frames, and there is no risk of damage to the surrounding wall. The adjusted, visible width of aluminium profiles makes the old and new windows look virtually identical. Based on reliable solutions and offering a whole range of appropriately shaped new profiles, MB-FERROLINE enables the fabrication of constructions that fit the appearance of the building.

FEATURES AND BENEFITS

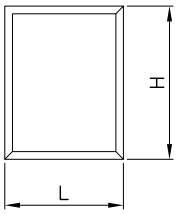
- classical appearance
- MB-86-based technical solutions ensure an excellent thermal protection of the construction, profiles come in two versions with different thermal insulation performance: ST and SI
- high resistance to water & air infiltration
- wide range of glazing up to 61.5 mm
- application of the typical euro grooves enable the installation of most of the available fittings offered by major companies

TECHNICAL SPECIFICATION	MB-FERROLINE
Depth of frame	77 mm – 110 mm
Depth of leaf	86 mm – 93.5 mm
Glazing range: frame / leaf	13.5 mm – 61.5 mm

PERFORMANCE	MB-FERROLINE
Air Permeability	class 4, EN 12207
Watertightness	to class E1350, EN 12208
Windload resistance	to class C5, EN 12210
Burglary resistance	class RC1, RC2, EN 1627

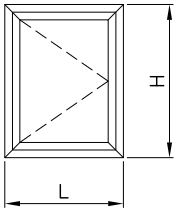
Max. dimensions of window

Fixed window



Max. dimensions of windows result from maximal glass sizes

Turn-hung window

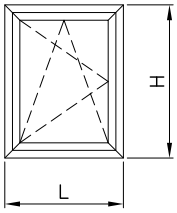


Hmax = 2400 mm
Lmax = 1360 mm

Hmax = 2030 mm
Lmax = 1600 mm

KG 150 kg

Tilt and turn window

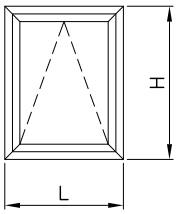


Hmax = 2400 mm
Lmax = 1360 mm

Hmax = 2030 mm
Lmax = 1600 mm

KG 150 kg

Tilt window



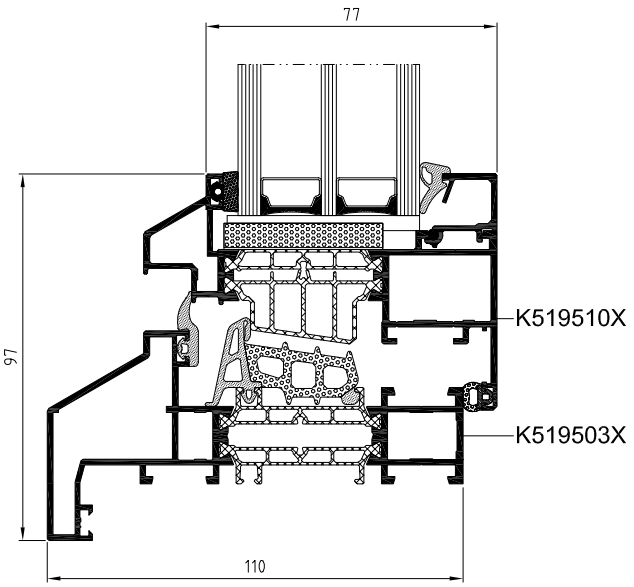
Hmax = 2400 mm
Lmax = 1600 mm

Hmax = 1300 mm
Lmax = 2400 mm

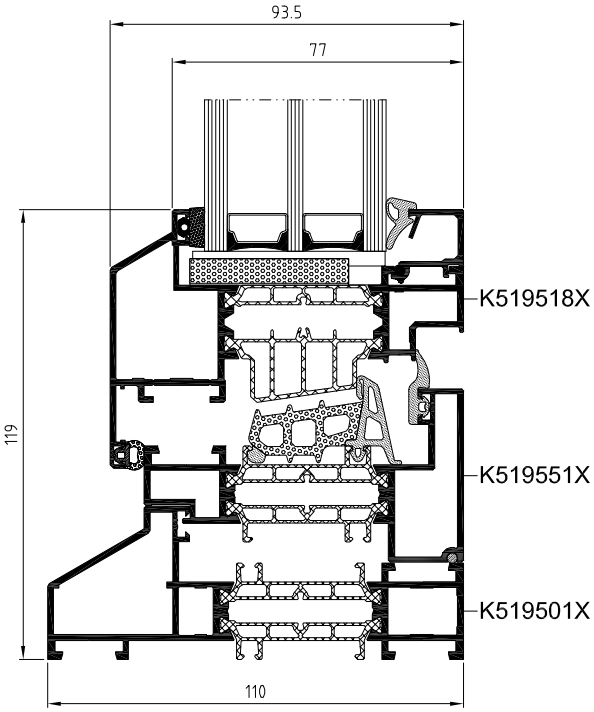
KG 130 kg

KG Maximal vent weight

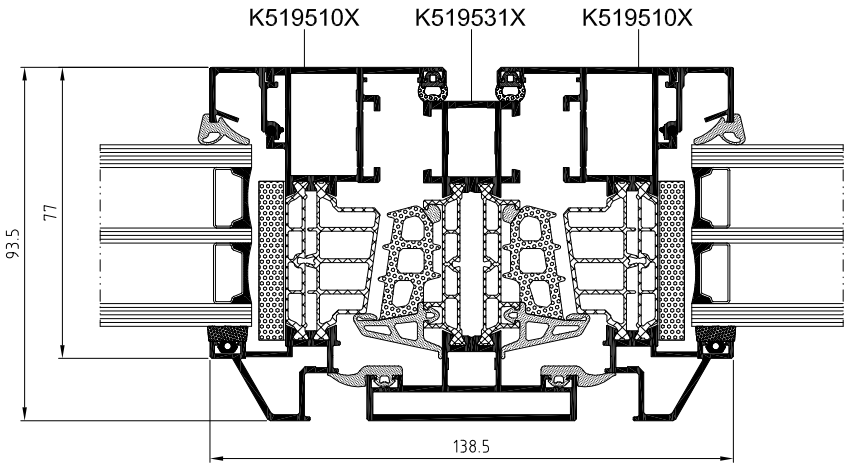
Window with renovation frame – cross section



Outward opening window – cross section

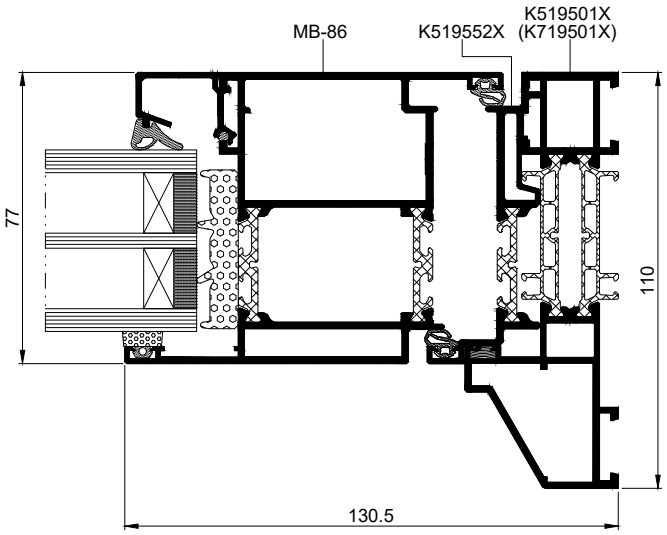


Mullion and opening windows – cross section

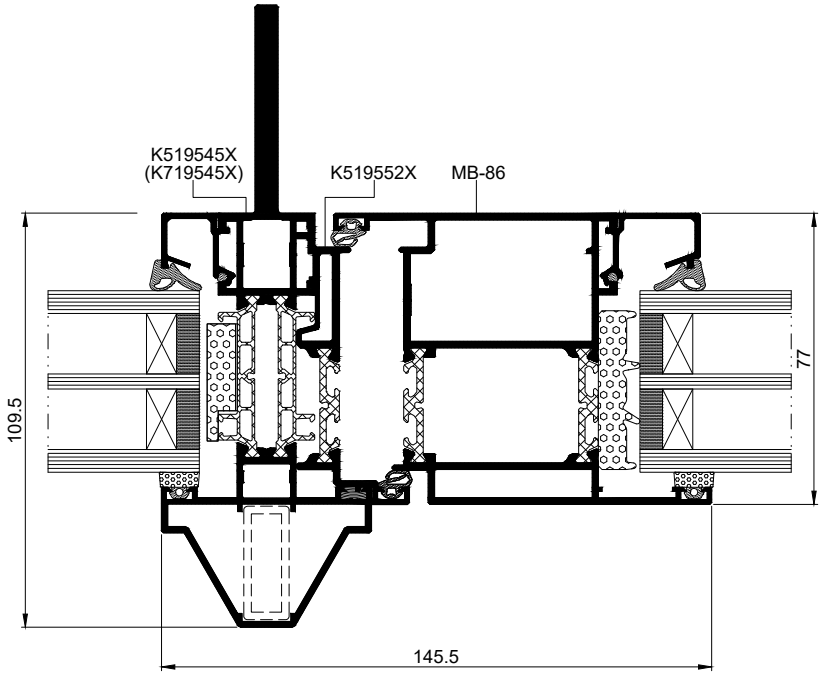


Scale 1:2

Horizontal section of door



Horizontal section of jambs



MB-SKYLINE

The MB-SKYLINE sliding door system with invisible frame uses narrow profiles. This gives the construction a modern and minimalist look. Constructions fabricated with MB-SKYLINE have a one-of-a kind design and raise the profile of any project. They provide a comfortable, threshold-free connection of indoor and outdoor living spaces making natural environment part of users' daily experience. While the doors can be very large, their slim construction gives the impression of lightness and delicacy. The product is uniformly glazed, has slim modulations and perfectly fits into high-end construction market.

SLIDING DOOR WITH INVISIBLE FRAME

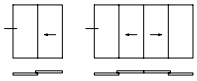
FEATURES AND BENEFITS:

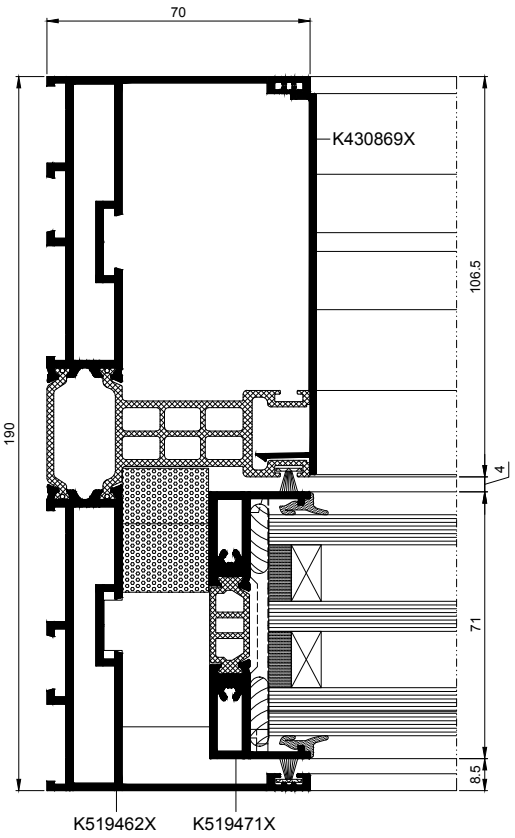
- 71 mm (door leaf), 190 mm-deep profiles (2-rail frame) and 292 mm -deep profiles (3-rail frame)
- modern design and high aesthetics: the frame is concealed in the wall, in the floor and in the ceiling, the frame profile is fully aligned at the sides, the visible connection width of door leaves is 25 mm
- door leaves up to 700 kg and up to 4 m high
- 3-chambered, thermally-insulated profiles
- 52 to 60 mm-thick triple glazing units
- door opens manually or automatically
- drives and control units are concealed in frame profiles
- can use an automatic unit mounted on the outside of the construction

PERFORMANCE	MB-SKYLINE
Air permeability	class 4, EN 12207
Watertightness	up to class 8A (450Pa), EN 12208
Windload resistance	up to class C3 (1200 Pa) / B3 (1200 Pa), EN 12210
Thermal insulation	U_D from 0.85 W/(m²K)*

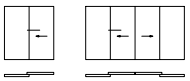
* - for door leaf: 2070×3440 mm, infilled with triple glazing units U_g=0,5 W/(m²K) and warm spacer

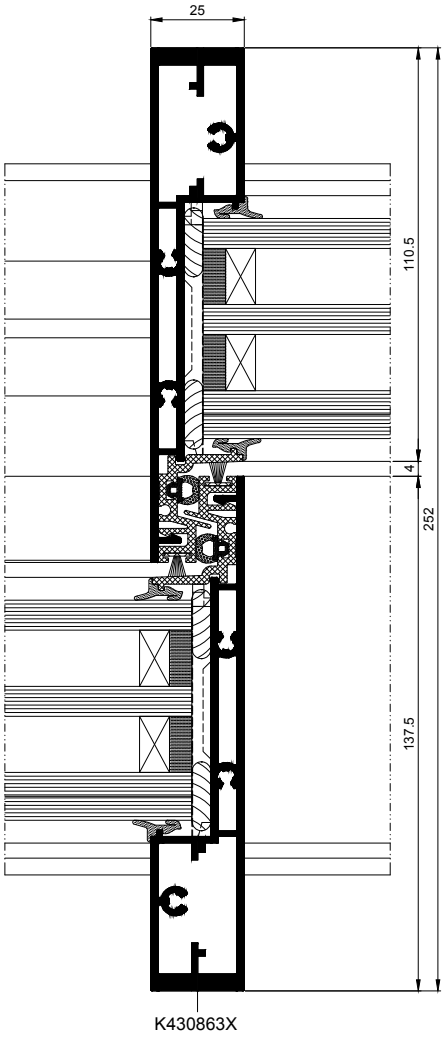
Door, side – cross section





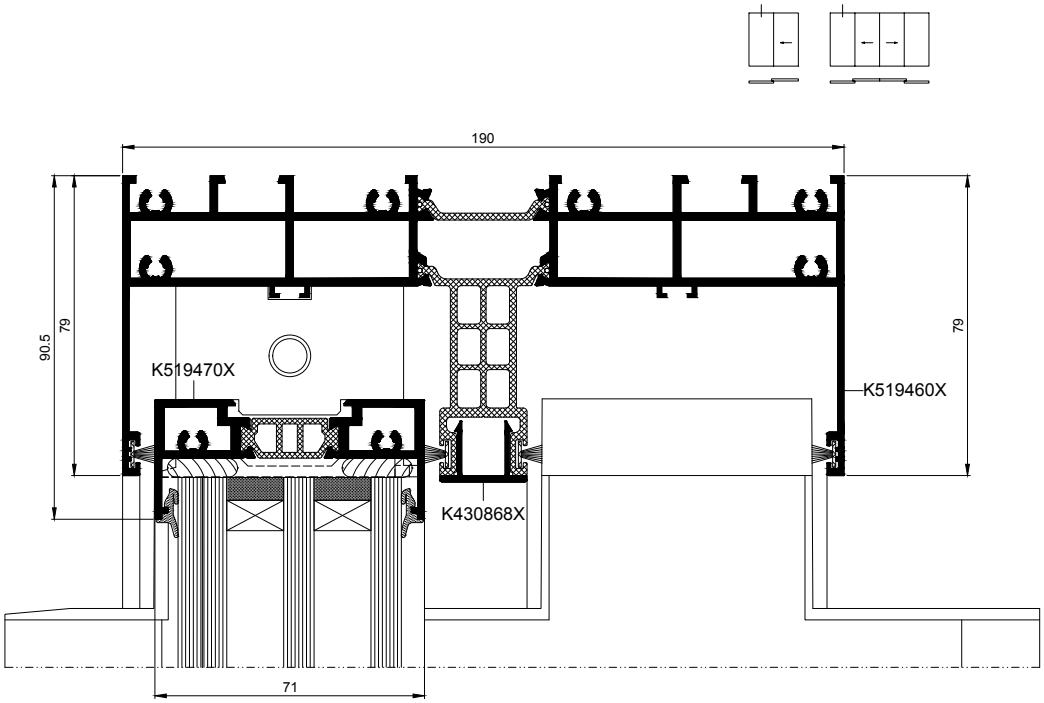
Door leaves connection – cross section



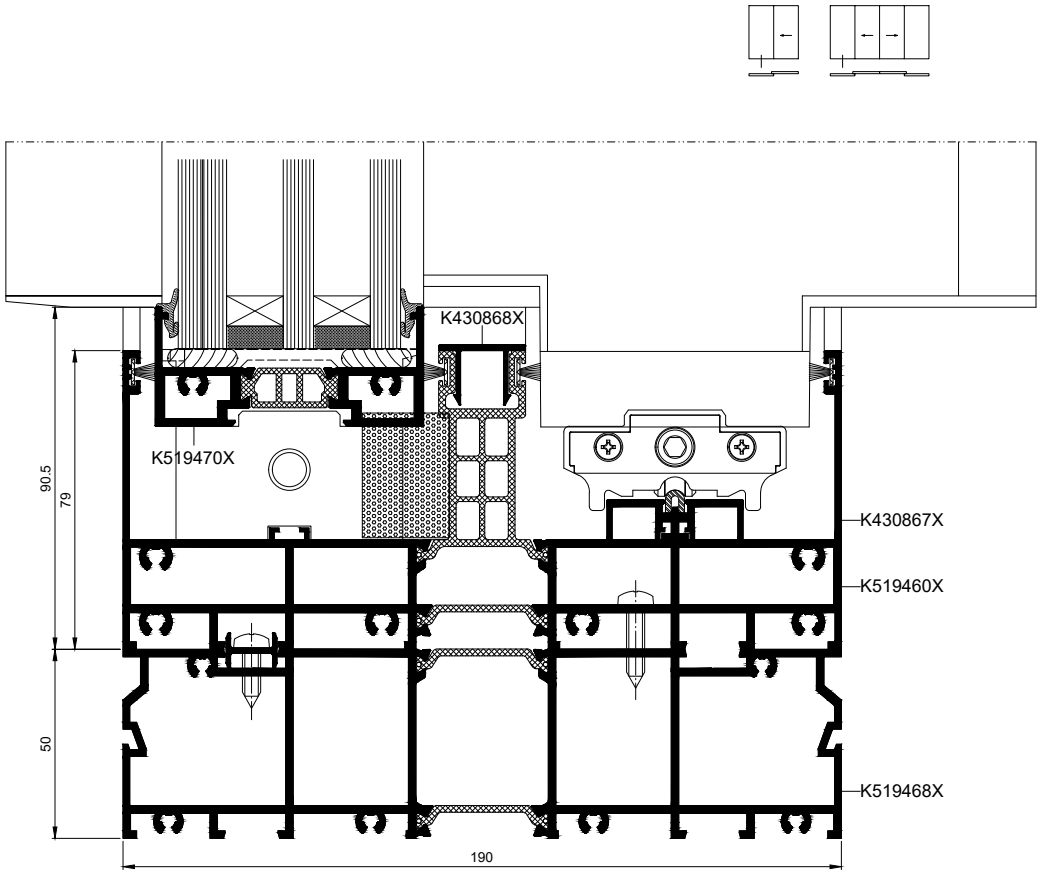


Scale 1:2

Door, top – cross section

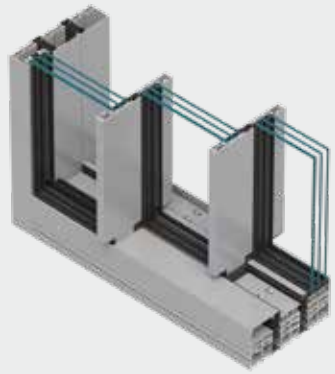


Door, bottom – cross section



More examples on: www.aluprof.com/en/bim-file-finder **Scale 1:2**

MB-SKYLINE TYPE R

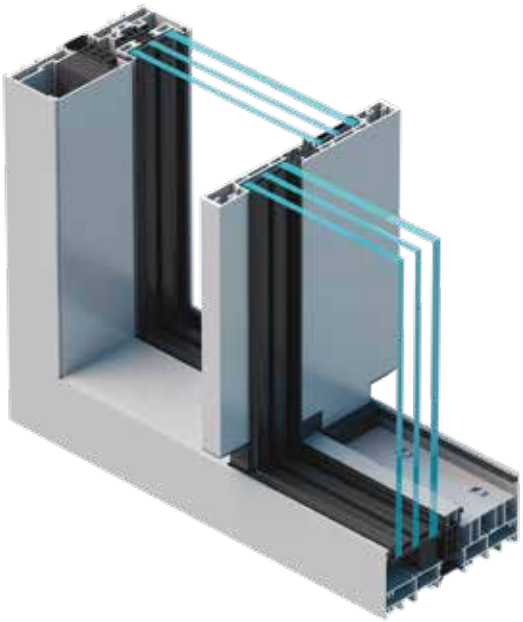


The ALUPROF MB-SKYLINE TYPE R is a cutting-edge, large-scale, sliding door system which makes a feature of lightness and aesthetics. Slender profiles simultaneously provide both a contemporary look and a panoramic view of the surroundings. The main features of the MB-SKYLINE TYPE R are the completely invisible profile of the door leaf, the slender mullion and the shallow frame, all of which will be appreciated at the very first glance. The leaves may be massive, but no great effort is required to slide them open and close and the mechanism that operates them is almost soundless. The maximum height for a structure based on the system is no less than four metres and, if the motor is fitted on the outside rather than being hidden, then the moving leaf can weigh as much as seven hundred kilos. This affords the possibility of designing spectacular glass walls. Doors created using the MB-SKYLIBE TYPE R give a building an exceptional style and enhance the status of an entire development.

SLIDING DOOR SYSTEM WITH INVISIBLE FRAME

FUNCTIONS AND AESTHETICS

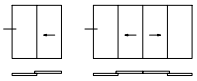
- 2- or 3-rail door frame built into the walls, floors and ceiling
- the leaf profiles are completely hidden in the upper and lower frames when the automatic drive unit option is selected, or the mullion features a locking mechanism, the leaf profiles remain invisible at the sides of the structure
- the width of the mullion where the leaves meet is 25 mm
- a convenient, shallow, 23 mm deep frame
- a slender, symmetrical, three-light structure with an operable central section (type G), which is also available for the manually operated version
- the innovative profile compensates for the results of slab drift
- the maximum leaf weight is 500 kg for manually operated leaves and 1200 kg for automatically operated
- glazing options range from 52 to 60 mm
- the structural depth of the door profiles is 71 mm for leaf, 190 mm for 2-rail frame and 292 mm for 3-rail frame
- the door leaves are made using state-of-the-art insulation material with high thermal parameters
- the cutting-edge sliding seals used in the frame are aesthetically pleasing and silent in use
- the rollers the leaf moves along are available in stainless steel or black polyamide
- there are two locking; manual, using BT Lock hardware or fitted to the mullion
- the motor is equipped with a radio receiver and security radar
- fixed panels can be used, with the glazing set into the door frame, giving a similar appearance to the operable panel
- state-of-the-art drainage system, complete with guttering
- system brackets with height regulation
- the structural base has excellent thermal isolation
- the system features a 'zero mullion', which makes it possible to use external venetian and roller blinds like the ALUPROF Skyflow and Skyroll

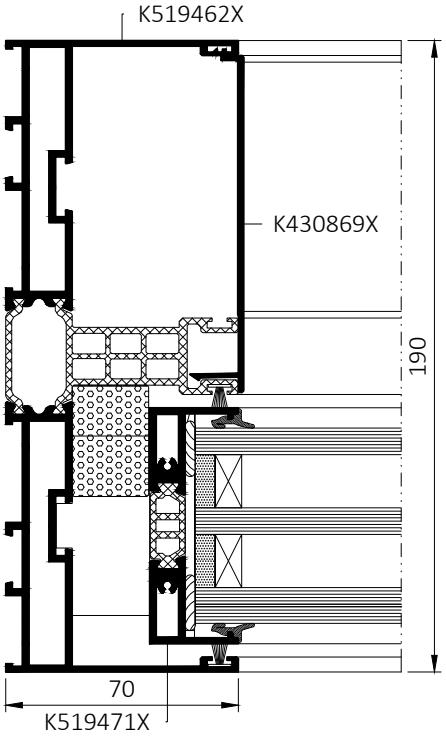


PERFORMANCE	MB-SKYLINE TYPE R
Air permeability	class 4, EN 12207
Watertightness	up to class 8A (450Pa), EN 12208
Windload resistance	up to class C3 (1200 Pa) / B3 (1200 Pa), EN 12210
Thermal insulation	U_D from 0.80 W/(m²K)*

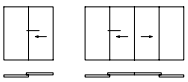
* - for door leaf: 2049×3441 mm, infilled with triple glazing units U_g=0,5 W/(m²K) and warm spacer

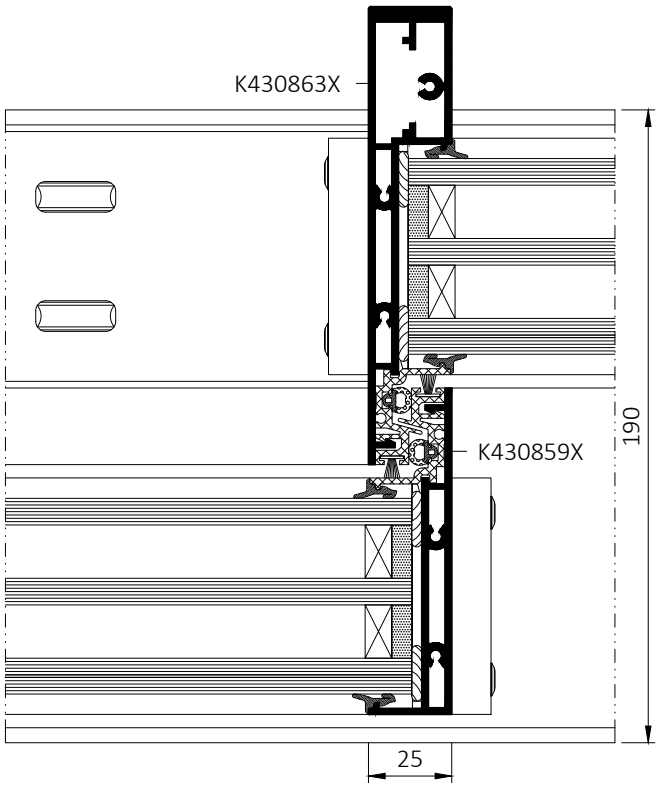
Door, side – cross section





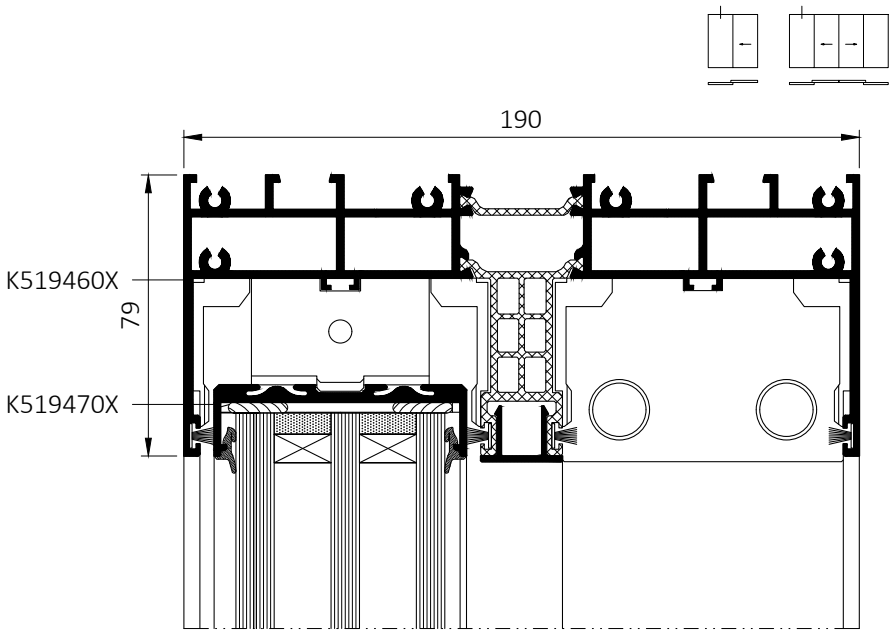
Door leaves connection – cross section



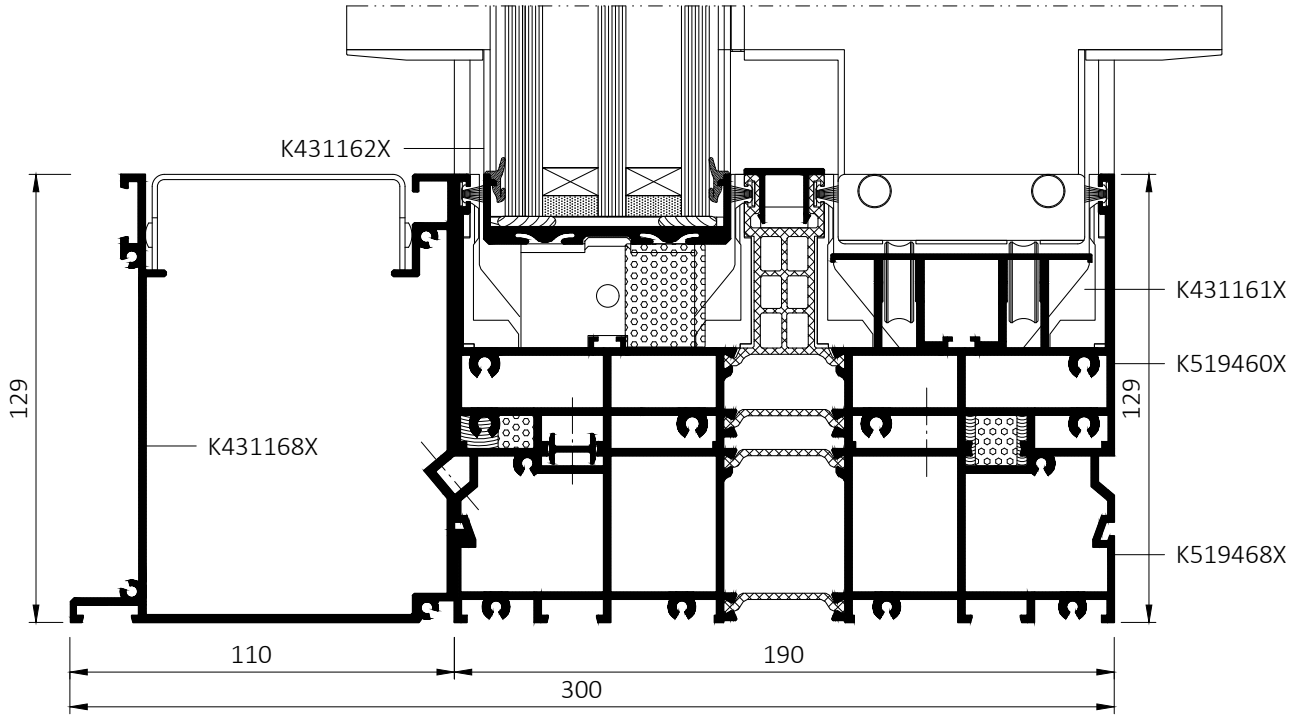


Scale 1:2

Door, top – cross section

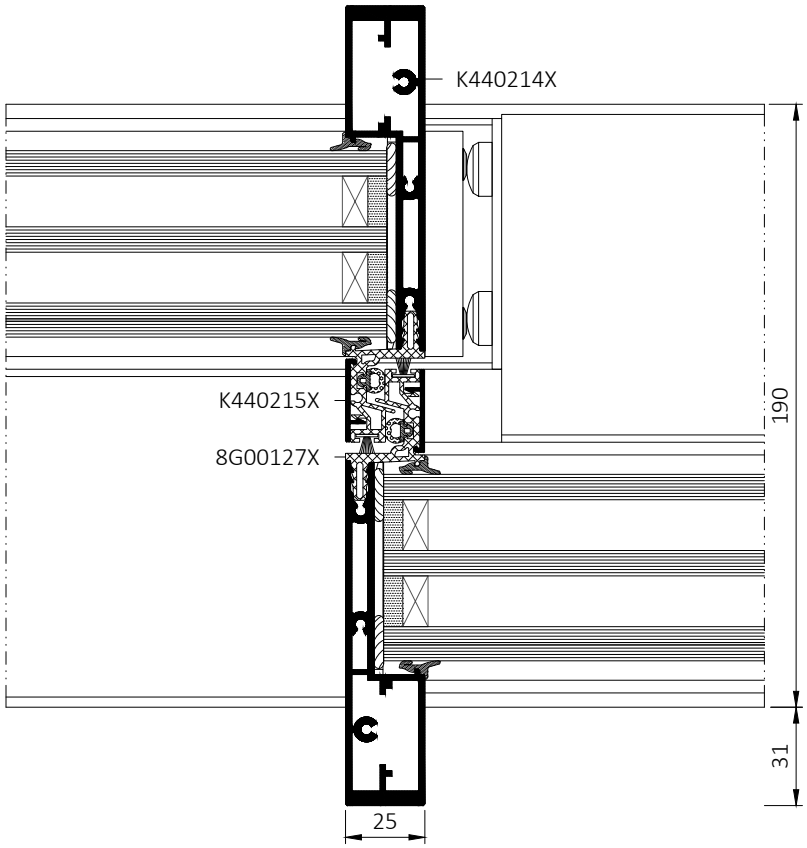


Door, bottom – cross section

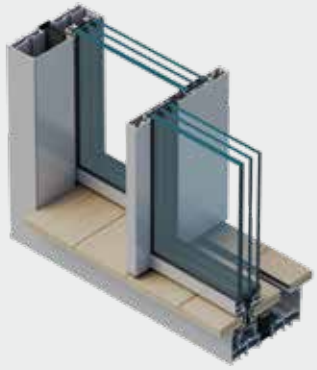


Scale 1:2

Door leaves connection in the slender, symmetrical, three-light structure with an operable central section – cross section



MB-SKYLINE TYPE S

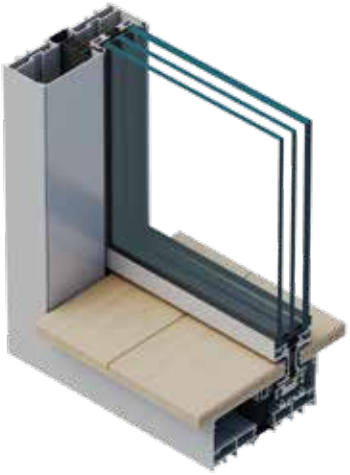


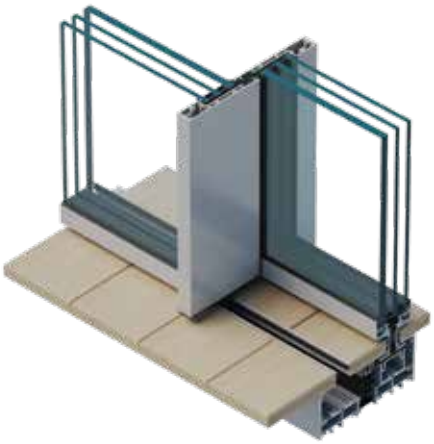
The MB-SKYLINE TYPE S sliding door system represents a groundbreaking evolution in architectural design. Featuring slim profiles that seamlessly integrate into walls and ceilings, and an ultra-narrow mullion where door leaves meet, this system achieves a sleek, minimalist aesthetic that enhances the elegance and lightness of any structure. Its standout feature is the fully concealed gap threshold, creating a seamless transition between indoor and outdoor spaces like never before.
In the MB-SKYLINE TYPE S system, cutting-edge technology is discreetly hidden beneath the floor. The bottom profile and sliding rollers are ingeniously integrated, leaving only a slim, visually pleasing gap. Building on the proven success of the MB-Skyline model, this enhanced version ensures exceptional quality, smooth operation, and unparalleled design flexibility.

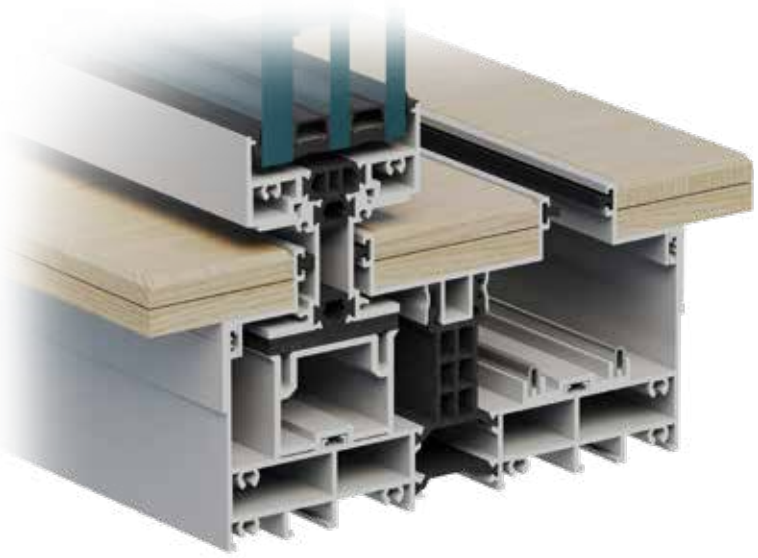
SLIDING DOOR SYSTEM WITH INVISIBLE FRAME

FUNCTIONS AND AESTHETICS

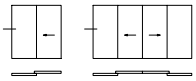
- Door frame with two or three tracks, integrated into the walls and ceiling
- Slim door leaf profiles that remain invisible at the sides when equipped with a drive or mullion-based locking
- A 25 mm mullion at the meeting point of the door leaves
- Maximum door leaf weight: 500 kg (manual operation) or 750 kg (with concealed drive)
- Glazing options ranging from 52 to 60 mm
- Construction depth of door profiles: 71 mm for the leaf, 190 mm for the two-track frame, and 292 mm for the three-track frame
- Innovative profile to compensate for ceiling deflection
- Quiet and aesthetically refined sliding seals in the frame
- Adjustable sliding rollers ensure smooth door operation
- Manual locking available on the door leaf profile or mullion
- Drive with integrated radio receiver, safety radar, and smart device control compatibility
- Option for a fixed glazed panel, visually matching the operable door leaf
- Concealed drainage system for a clean look
- System-specific adjustable mounting consoles
- Enhanced thermal insulation in the structural base
- 'Zero mullion' design enables external sun protection, such as SkyFlow venetian blinds and SkyRoll screens

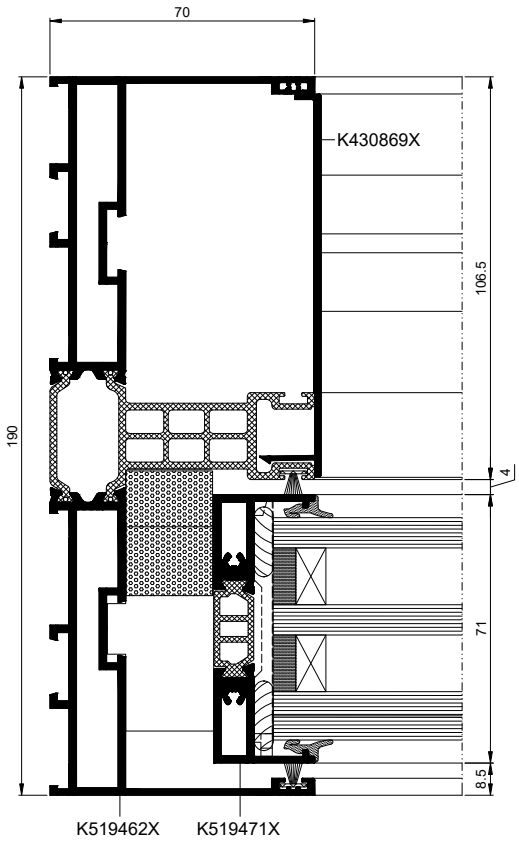




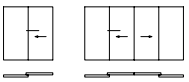


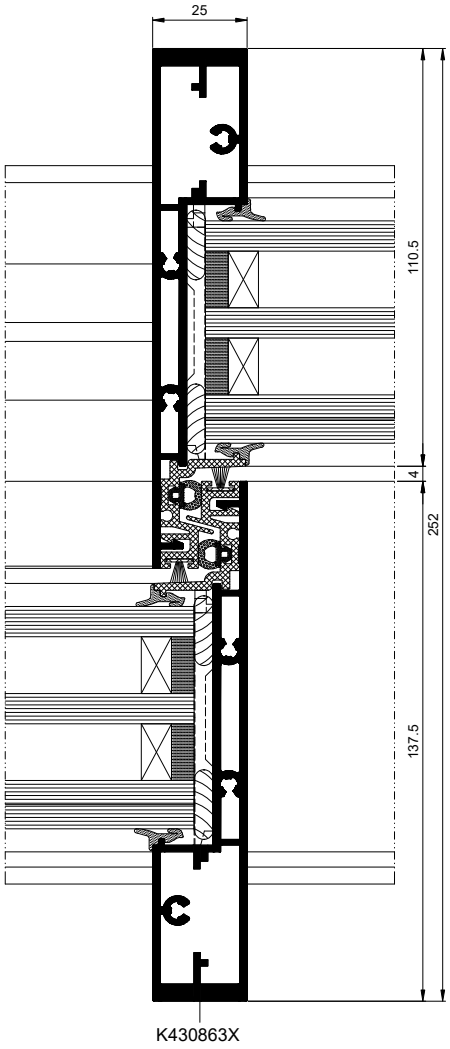
Door, side – cross section





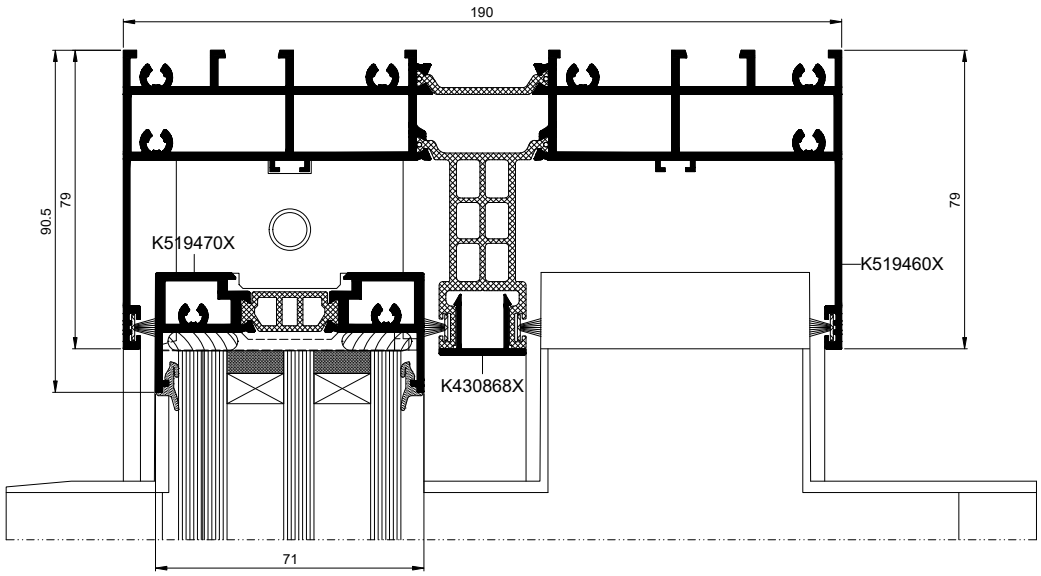
Door leaves connection – cross section



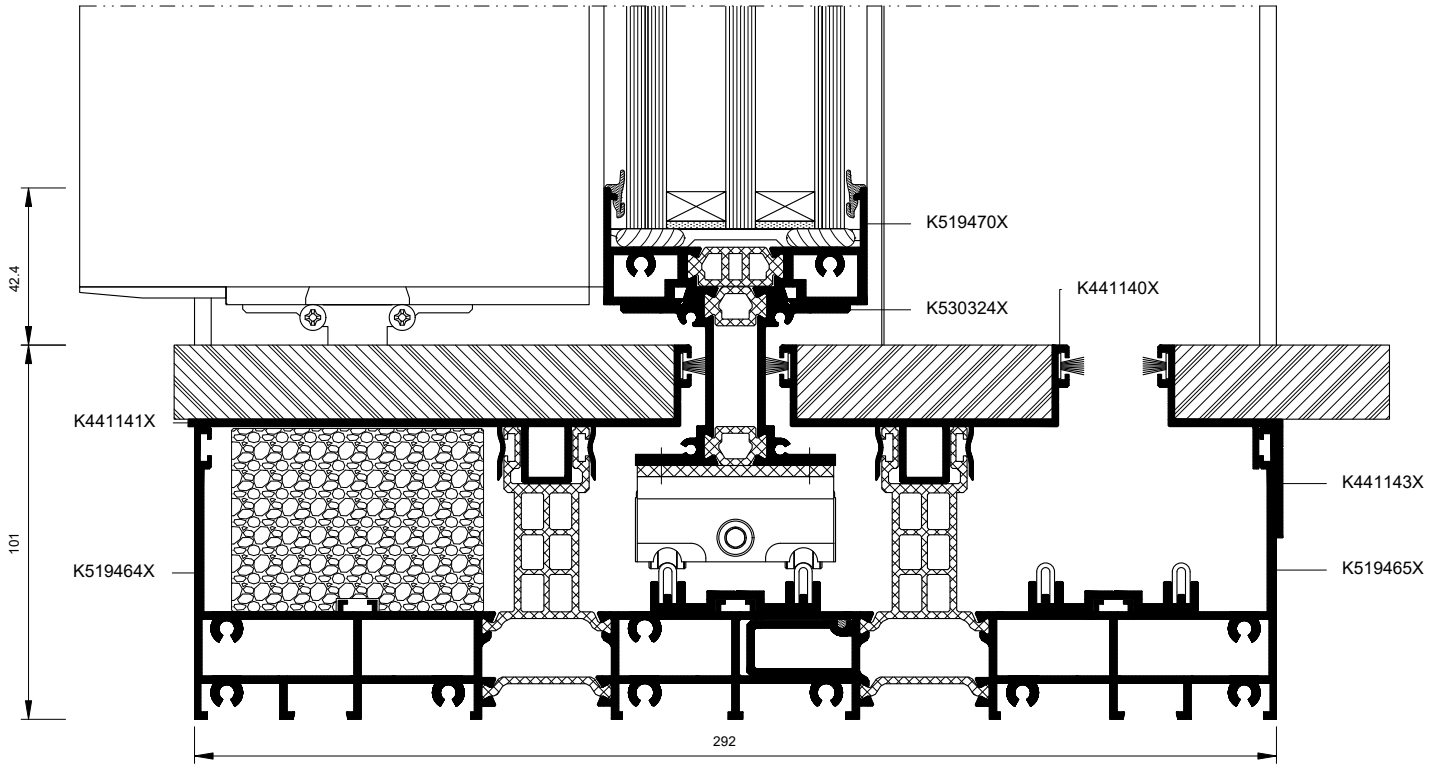


Scale 1:2

Door, top – cross section

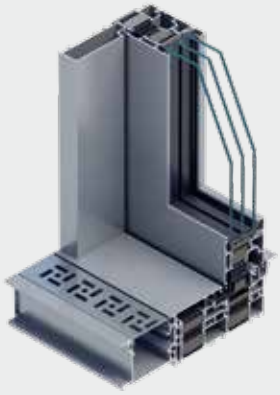


Door, bottom – cross section



More examples on: www.aluprof.com/en/bim-file-finder **Scale 1:2**

MB-82HS



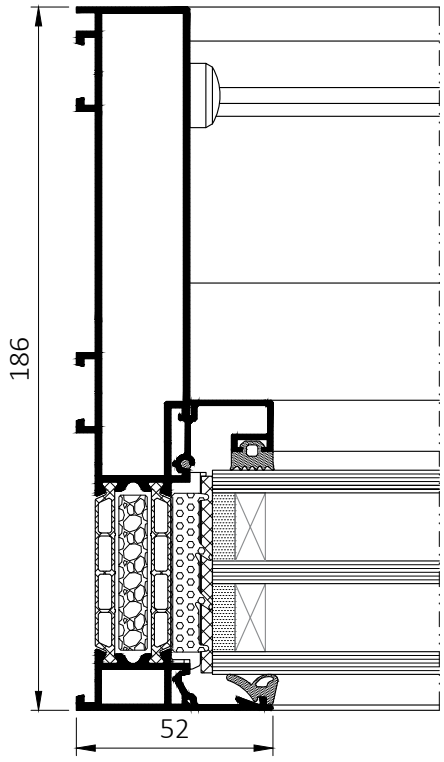
The MB-82HS lift and slide patio door with thermal break is a structure which is a perfect match for contemporary interiors. It is designed for creating a building with user comfort in mind, where the living space connects seamlessly with the patio. It offers high aesthetic values, easy fabrication and excellent performance parameters, including impressive thermal insulation, airtightness and watertightness. Generous dimensions are achievable for structures made with the MB-82HS and the doors can be opened either manually or automatically. The parameters mean that the system can be used for buildings with demanding energy efficiency requirements. The technological solutions it features include a 'zero' threshold embedded in the floor, a linear drainage system, slim mullions and no masking strips on the vertical frames. This makes the MB-82HS a door where visual appeal goes hand in hand with functionality and user comfort.

LIFT & SLIDE DOOR WITH ENHANCED THERMAL PERFORMANCE

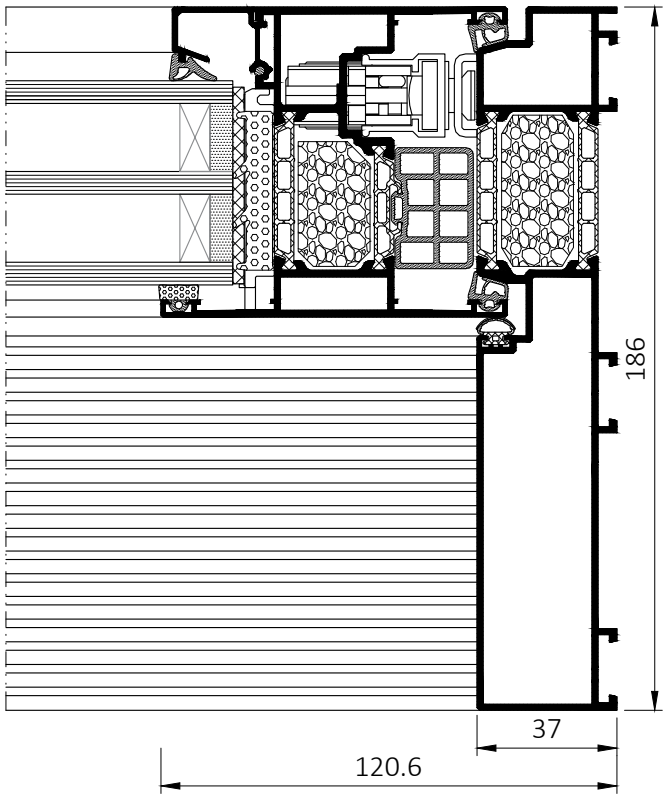
FUNCTIONS AND AESTHETICS

- profile depth: 82 mm for the leaf, 186 mm for the frame
- three thermal variants: the ST, SI and SI+
- glazing: 18-66 mm for the leaf, 36-65 mm for the fixed lights
- maximum leaf dimensions: 3240×3300 mm
- maximum leaf weight: 600 kg
- outstanding sound insulation performance of up to 46 dB
- a wide selection of hardware
- a range of mullion solutions; the SI+ mullion offers enhanced thermal performance or a slim mullion with high aesthetic values
- the glazing of the lights from the outside makes it possible to install large, heavy panes of glass
- a compensating profile is available for preventing ceiling deflection from affecting the functioning of the door
- the custom-designed profiles make the door easy to combine with other ALUPROF systems, such as the MB-79N, MB-86N and MB-104 Passive
- easier prefabrication, thanks to the simplified drainage model, straight-cut and bolted frame and glazing on the outside of the fixed lights
- a comprehensive system solution for installation; an EPS structural base, mounting brackets, a compensating profile and linear drainage

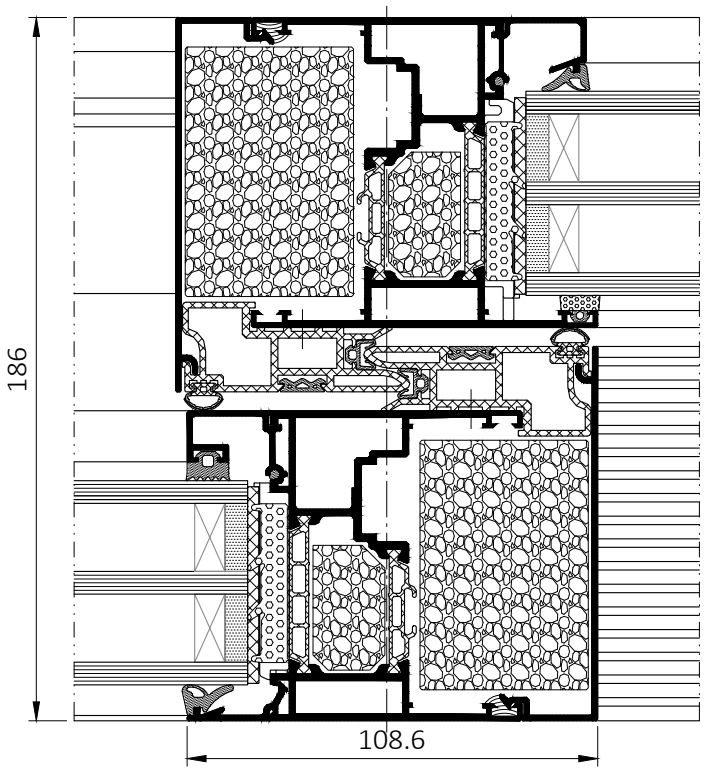
Side door – cross section



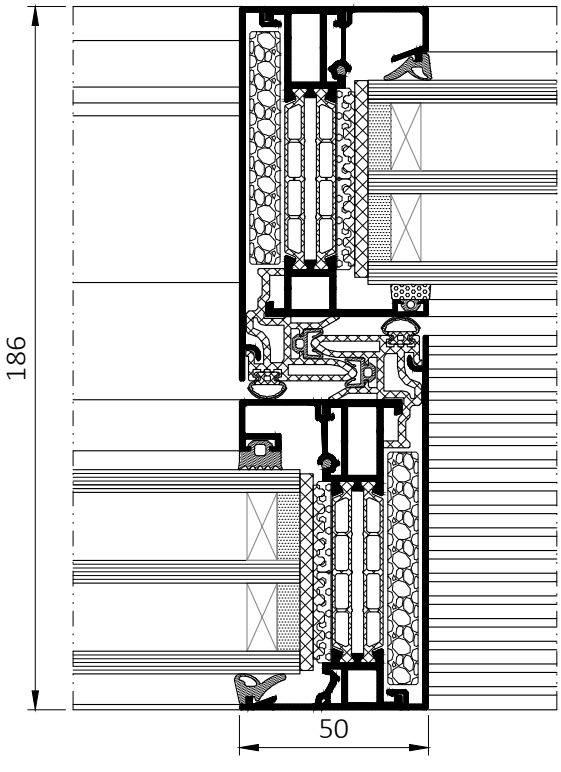
Side door – cross section



Jambs of door – cross section

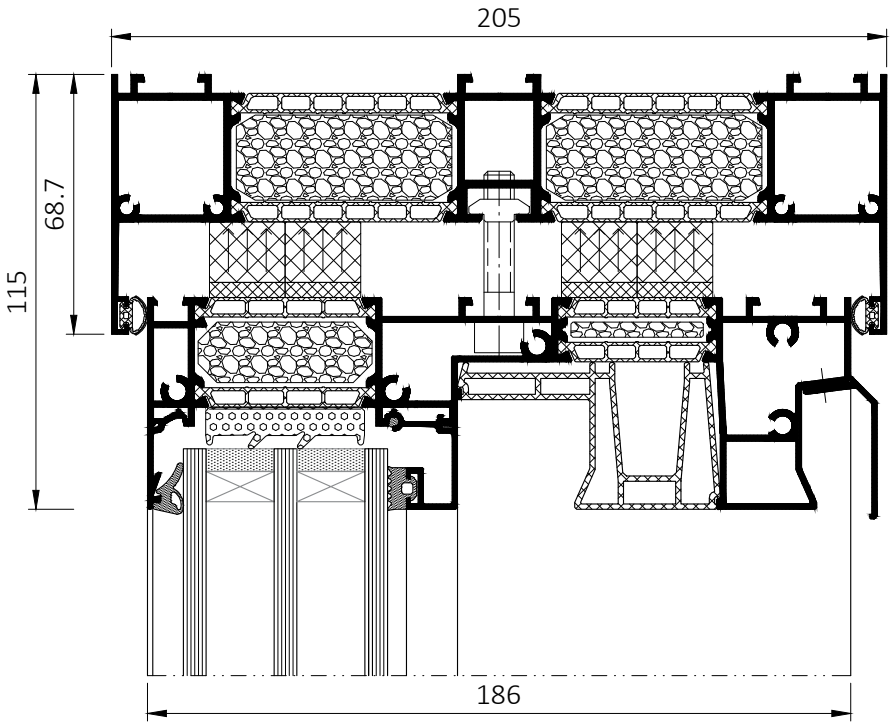


Jambs of door – cross section

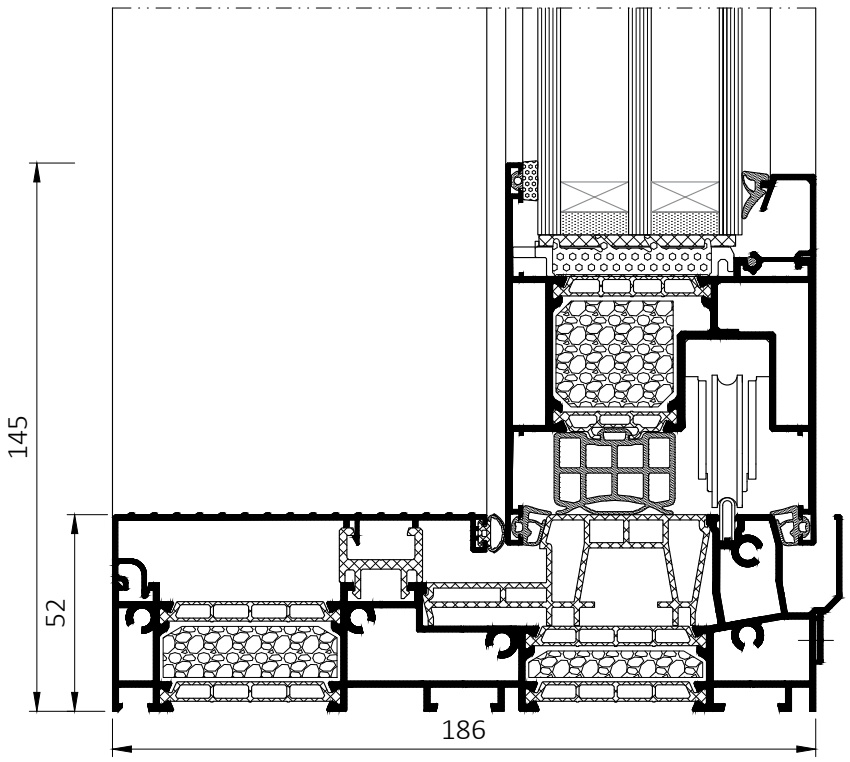


Scale 1:2

Door top rail – cross section

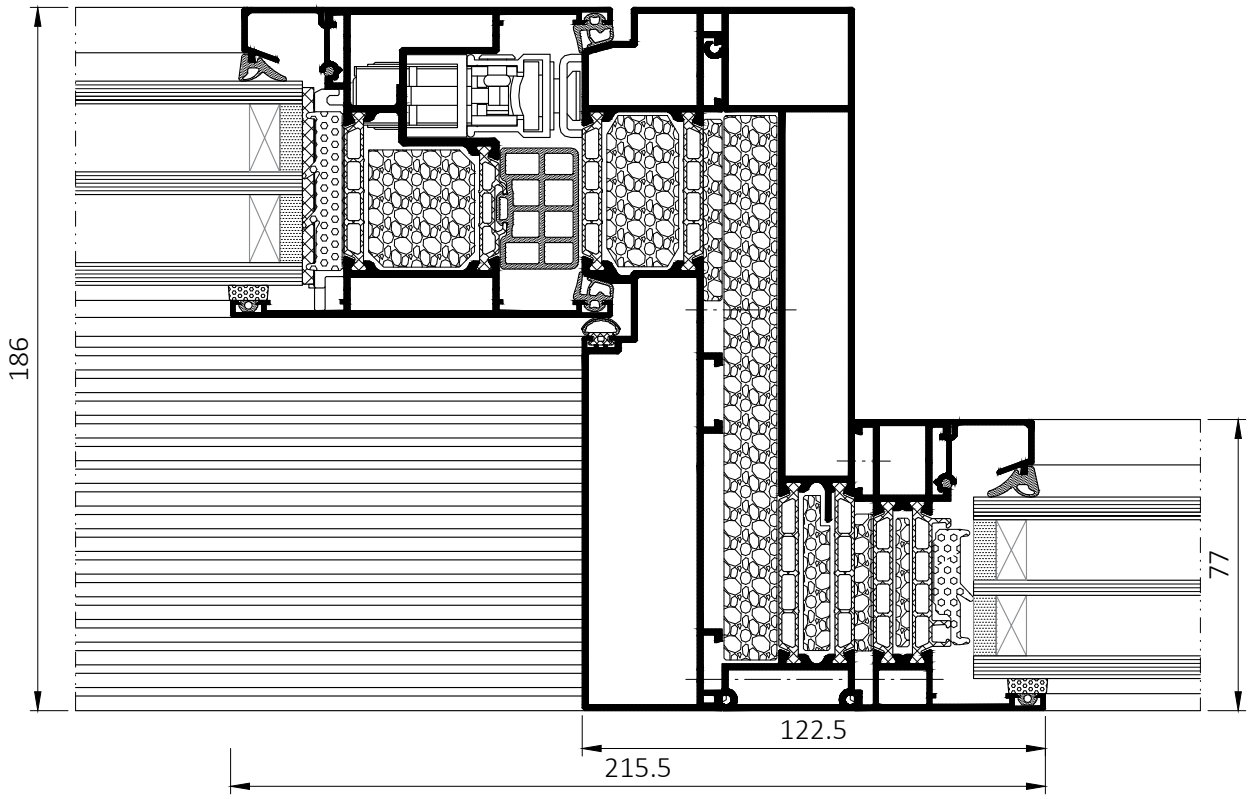


Door bottom rail – cross section



Scale 1:2

MB-82HS door connection with
the MB-86N fixed window – cross section



MB-77HS — MB-77HS HI

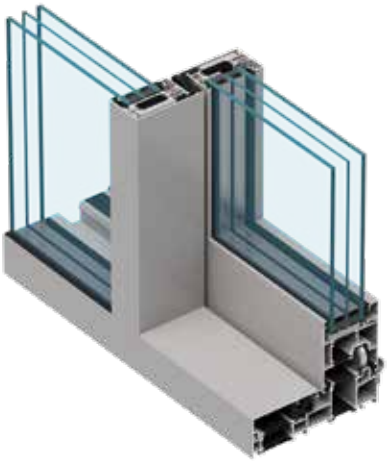
The MB-77HS "Lift & Slide" door product is an ideal solution for connecting interior space rooms or conservatories with the outside balcony, terrace or garden area. Providing both a smooth & silent slide action operation, it can bring the benefits of a beautiful day outside, into the living space. In addition, & by way of its design & operation, the MB-77HS is a great space saving opening & does not encroach the free space beyond the internal or external confines of the frame, without any compromise.

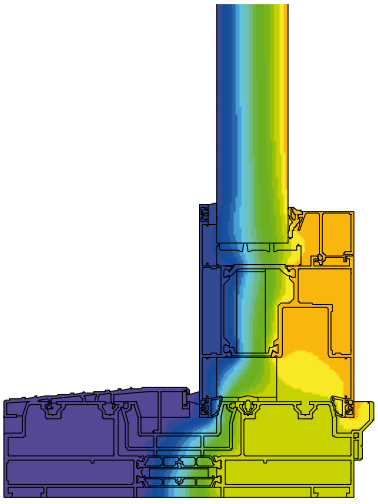
LIFT & SLIDE DOOR WITH ENHANCED THERMAL PERFORMANCE

Providing excellent weather tightness together with enhanced thermal performance, the MB-77HS complies with all of the requirements associated with this product type. Available in two different options, with regard to the level of thermal performance, the MB-77HS is further categorised as "ST" and "HI" standard or highly insulated. The design & arrangement of the system profiles enable luxurious openings of large dimensions, accommodating double & even triple glass unit compositions, which in conjunction with the constituent parts & innovative technical solutions, help achieve a high level of thermal & acoustic performance. Due to the system properties, & rigorous performance proven through a stringent testing regime, the MB-77HS is ideally suited to many domestic & retail applications, providing a comfortable, safe working, cost effective & low maintenance solution for the end user.

FEATURES OF SYSTEMS MB-77HS

- durable and slender profiles enable screens of a low-threshold door of the weight of the leaf of up to 600 kg, height – up to 3.24 m and width – up to 3.3 m
- we offer solutions with narrow mullion, and our profile sections have a visible width of only 47.5 mm
- a wide range of glazing options, allowing
- application of double or triple glazed units combined with thermal breaks as well as additional inserts, enable achieving high thermal and acoustic insulation of the door
- for aesthetic values glazing beads come in three options: Standard (rectangular), Prestige (rounded) and Style (shaped)
- closed shape of glazing beads and antijemmy details provide enhanced security properties without altering any essential constructional elements of the door
- unique shape of closing and glazing gaskets and quality hardware ensure top end weather and air tightness performance
- profiles adapted to accommodate a number of manually or automatically operated hardware available on the market
- a large degree of compatibility with the MB-86 system creates an aesthetic combination of the MB-77HS doors with windows and using the same components in fabrication process
- the MB-77HS features mechanisms designed to facilitate door operation: HS Master visible drive, ePower concealed drive, Comfort Close / Silent Close restrictor and GU Lift Unit mechanism that facilitates lifting of the door leaf
- a wide range of colour schemes allows for arrangement of doors to meet any individual requiremants





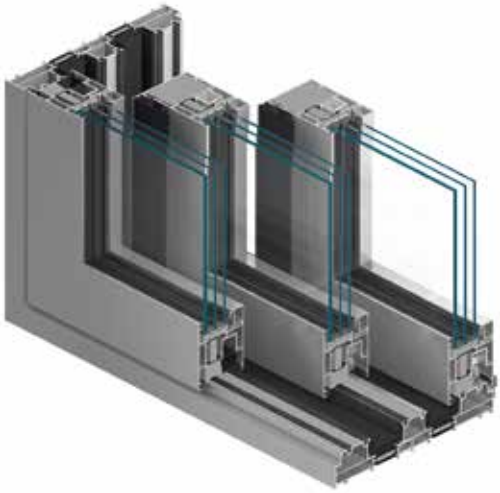
Isothermal lines in
MB-77HS HI door

TECHNICAL SPECIFICATION	MB-77HS ST / MB-77HS HI
Depth of frame	174 mm (2-rail profile), 271 mm (3-rail profile)
Depth of leaf	77 mm
Glazing rang	13.5 – 58.5 mm
Frame	48 mm
Leaf	94.5 – 105.5 mm

PERFORMANCE	MB-77HS ST / MB-77HS HI
Air Permeability	class 4, EN 12207
Watertightness	class 9A, EN 12208
Thermal insulation	U_w from 0.84 W/(m²K)*
Windload resistance	to class C4, EN 12210
Burglary resistance	class RC1, RC2, EN 1627

* - U_w for MB-77HS HI doors with 3000 × 2900 mm leaf, and glazing of U_g=0,5 W/(m²K) equipped with a Chromatech Ultra spacer

AVAILABLE CONSTRUCTIONS



3-rail frame

fixed glazing in the frame

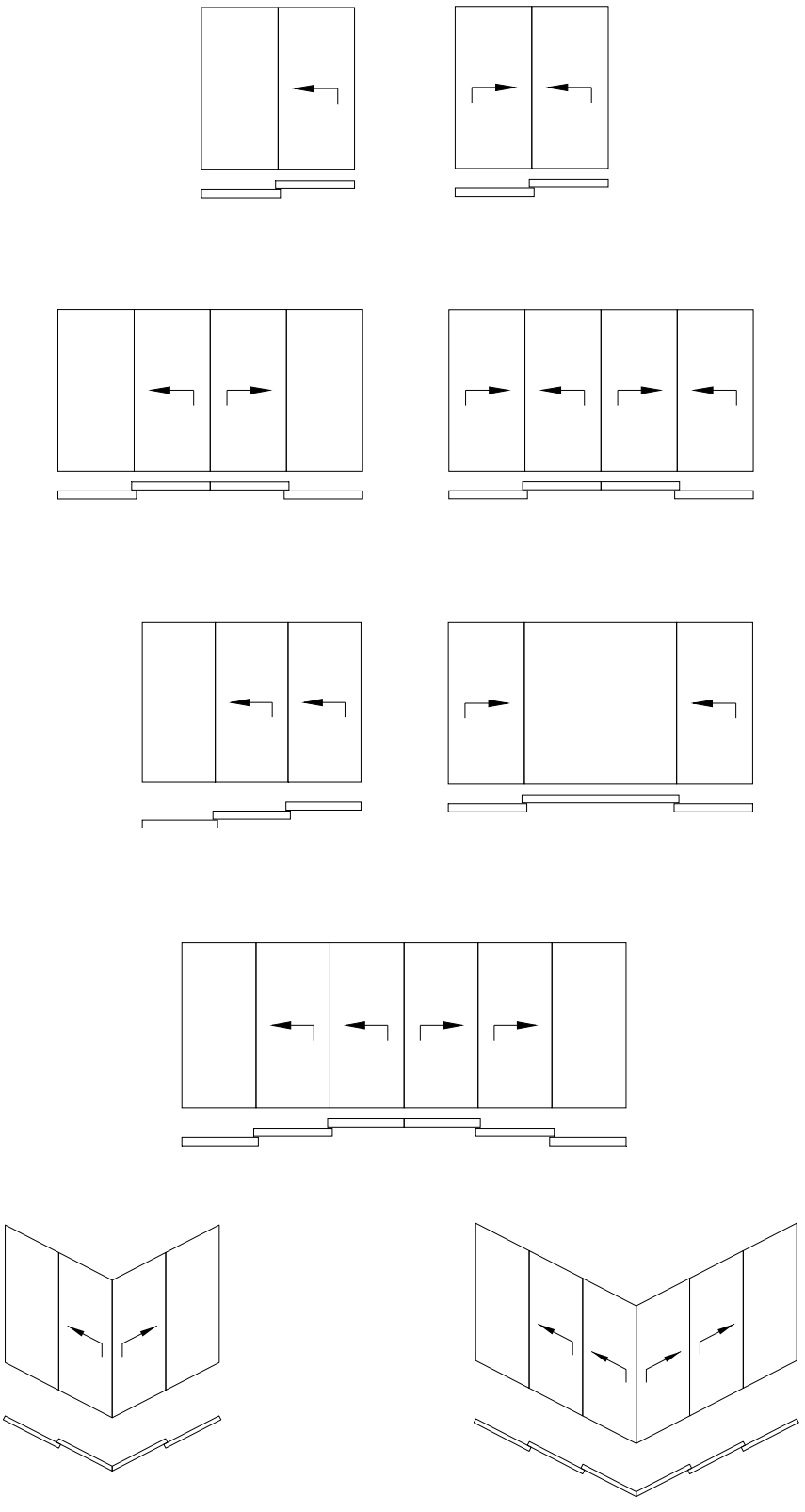
openable corner joint

MECHANISMS TO FACILITATE THE OPERATION

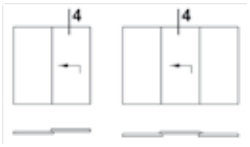
HS Master drive

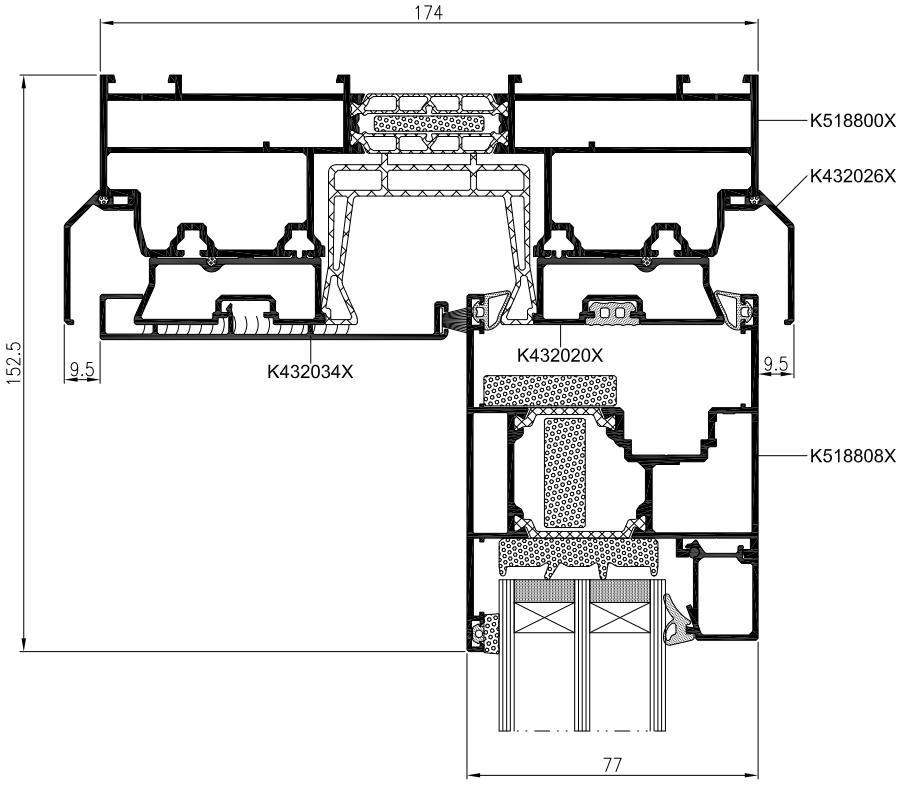
GU Lift Unit mechanism that facilitates lifting of the door leaf

Lift & slide doors types

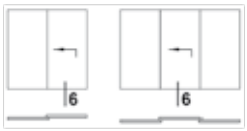


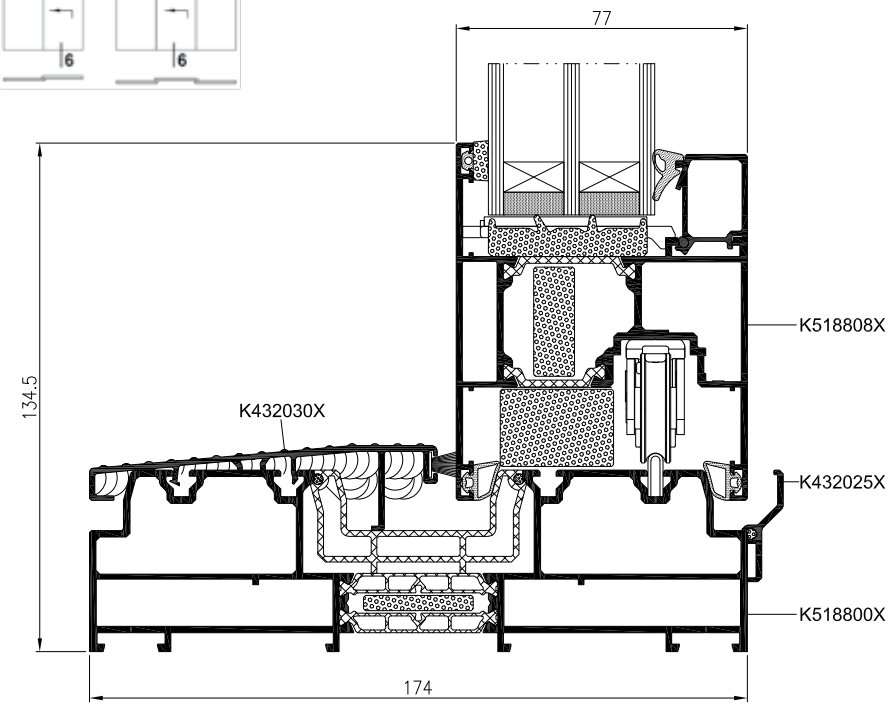
Door top rail – cross section





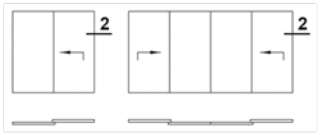
Cross – section of door bottom rail

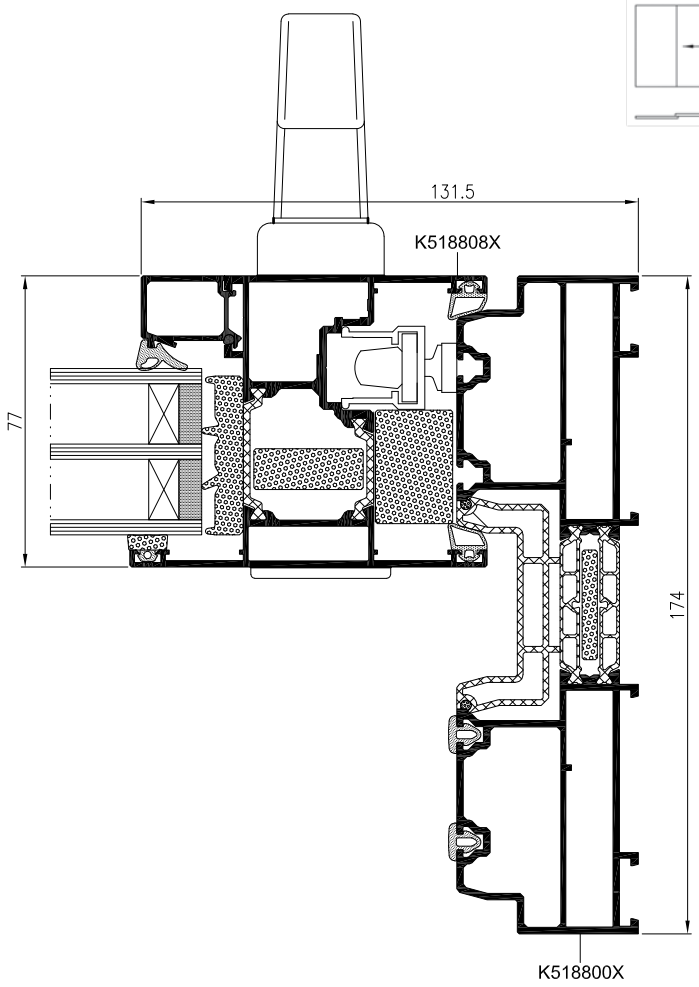




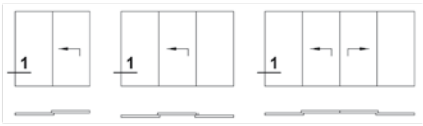
Scale 1:2

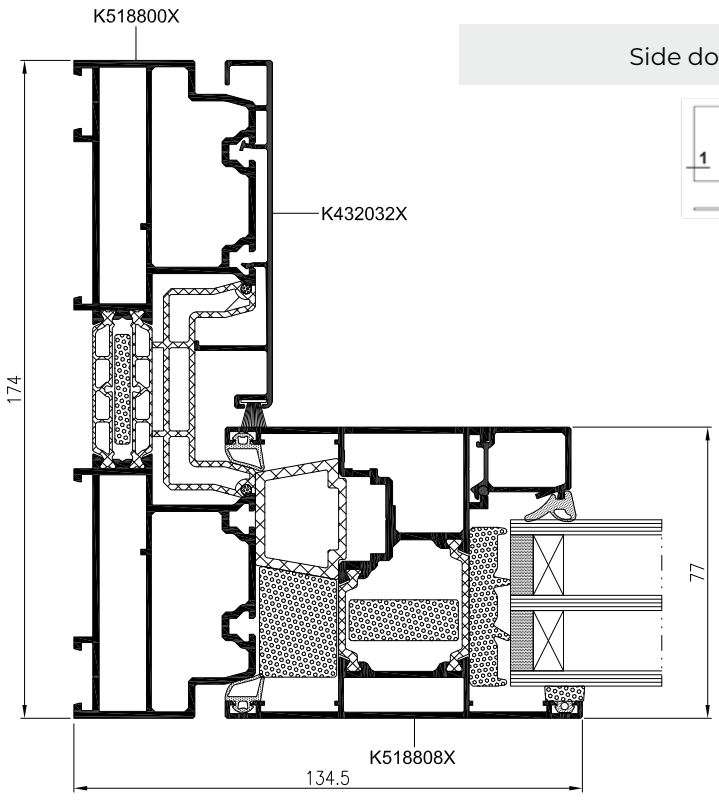
Side door – cross section





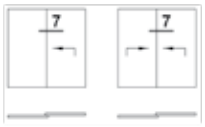
Side door – cross section

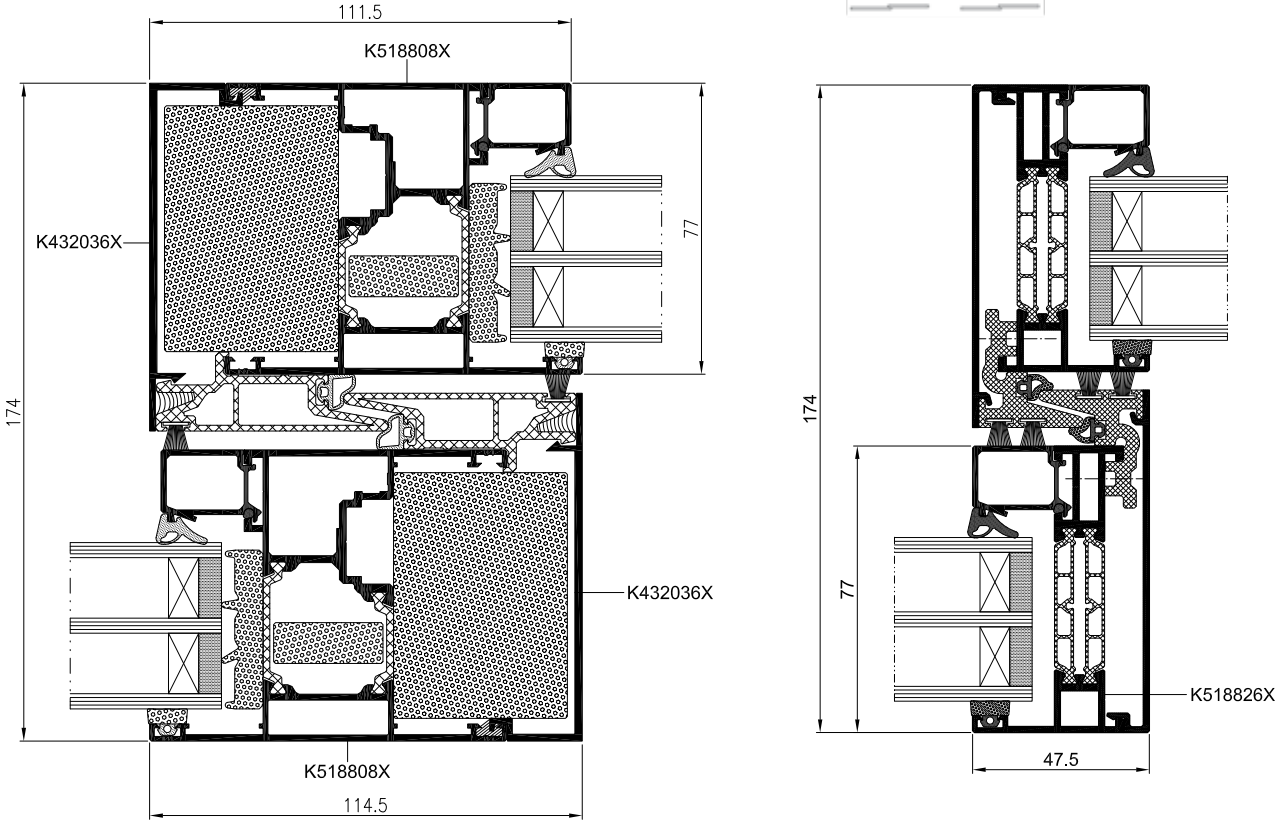




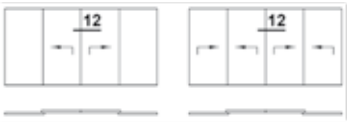
Scale 1:2

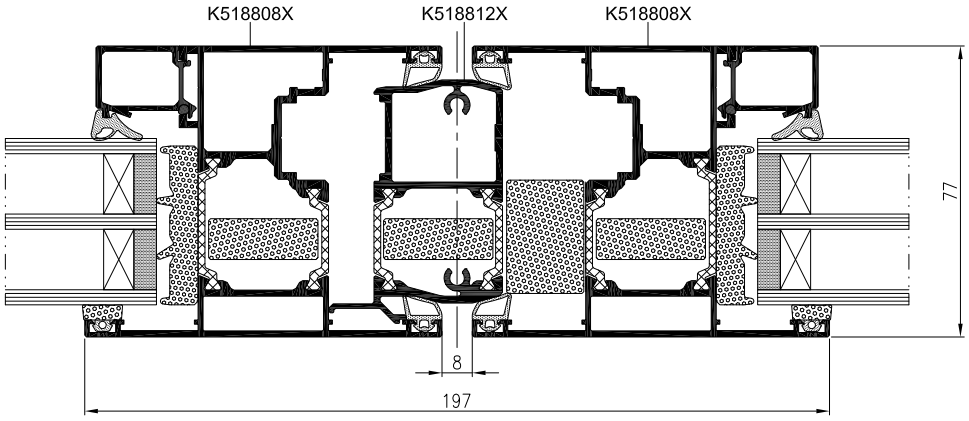
Cross – section of jambs of door





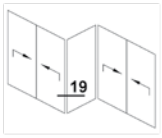
Cross – section of jambs of door

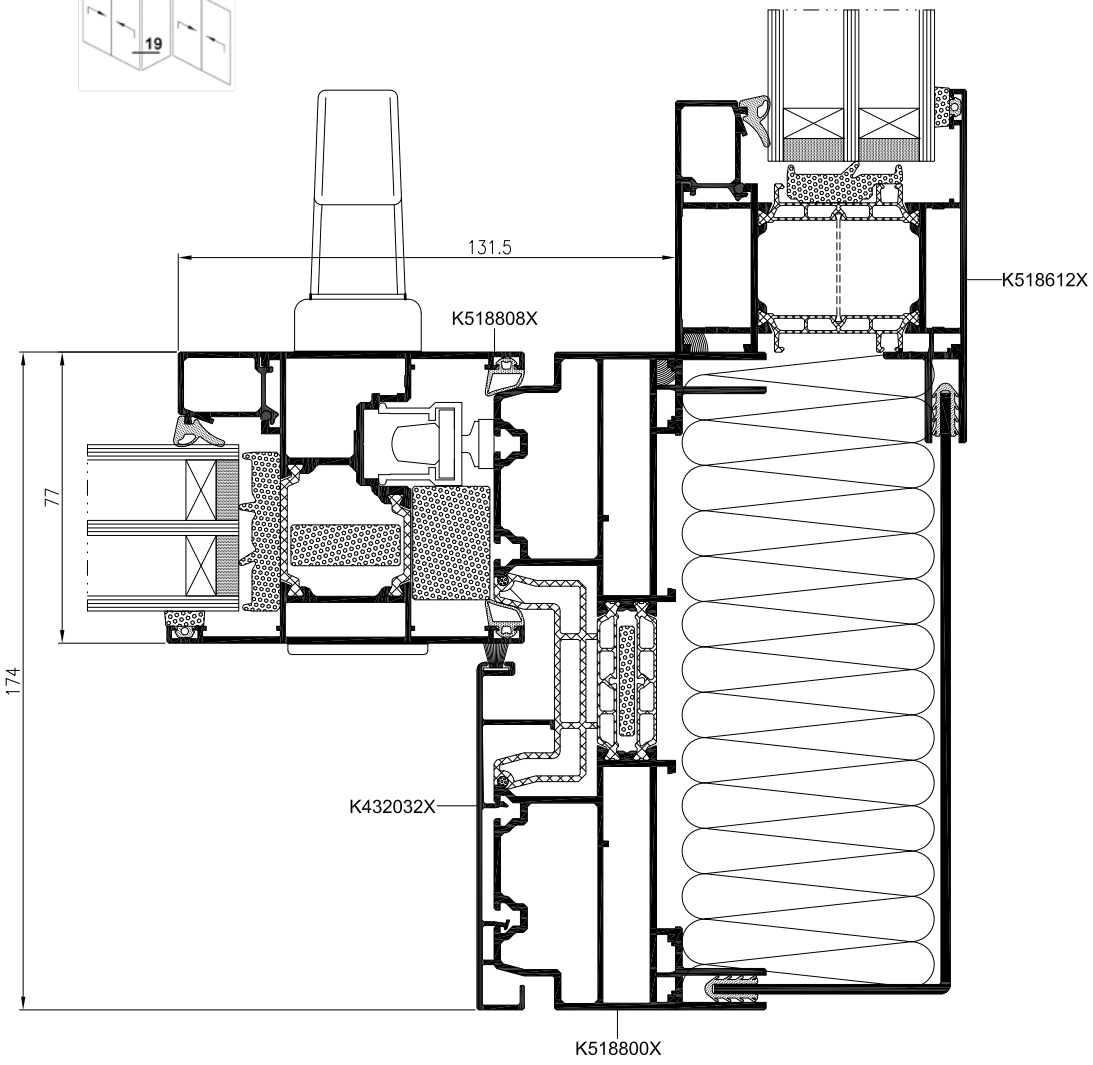




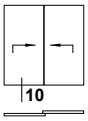
Scale 1:2

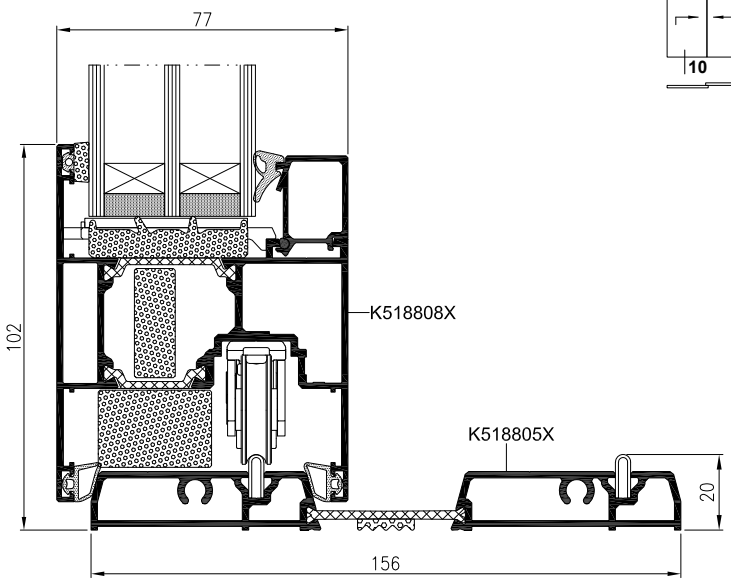
Cross – section of 90° mullion





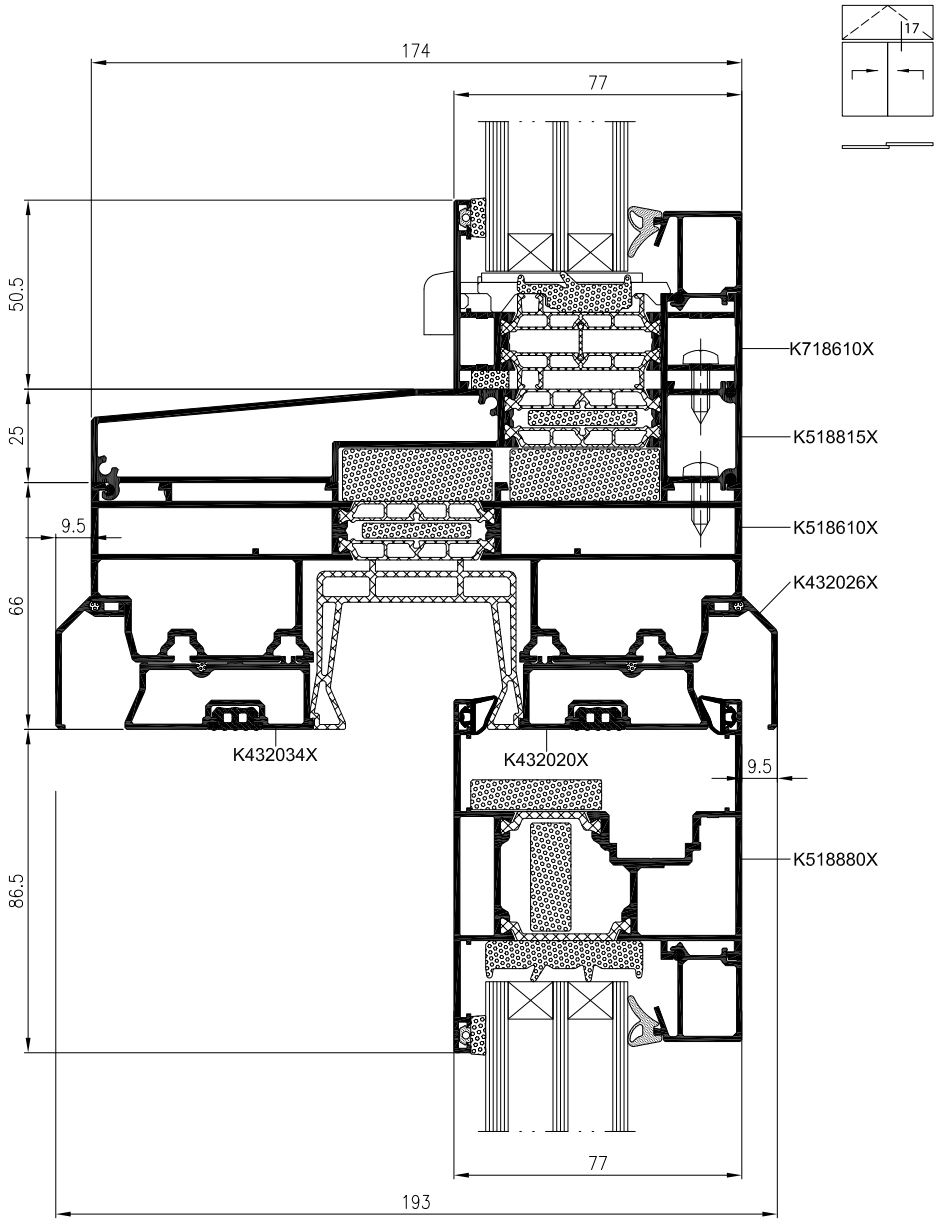
Doors with low threshold, bottom section



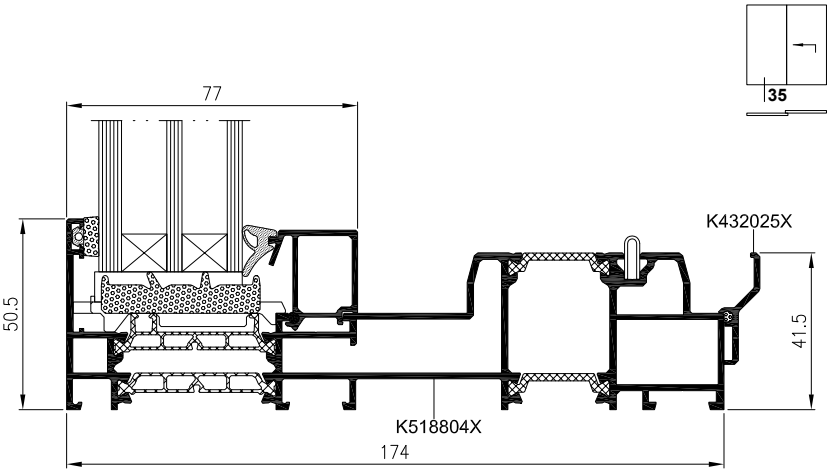


Scale 1:2

Horizontal section of door top rail

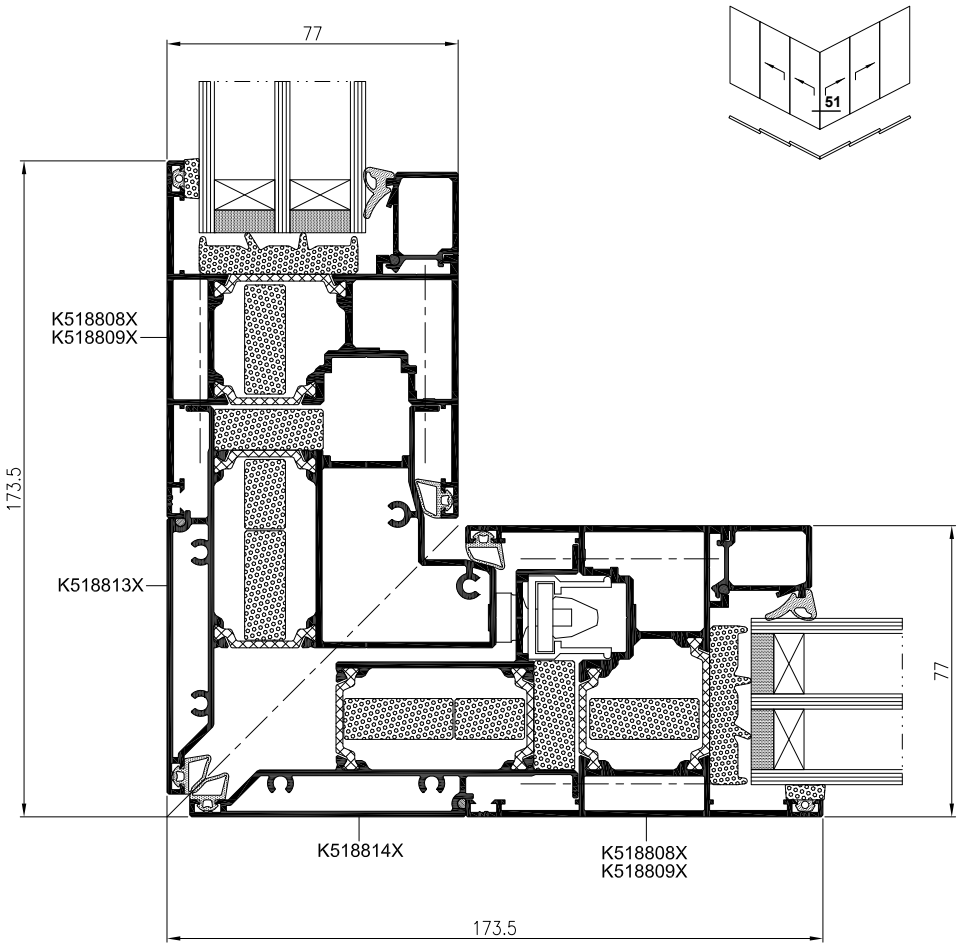


Section thru doors with fixed glazing panel

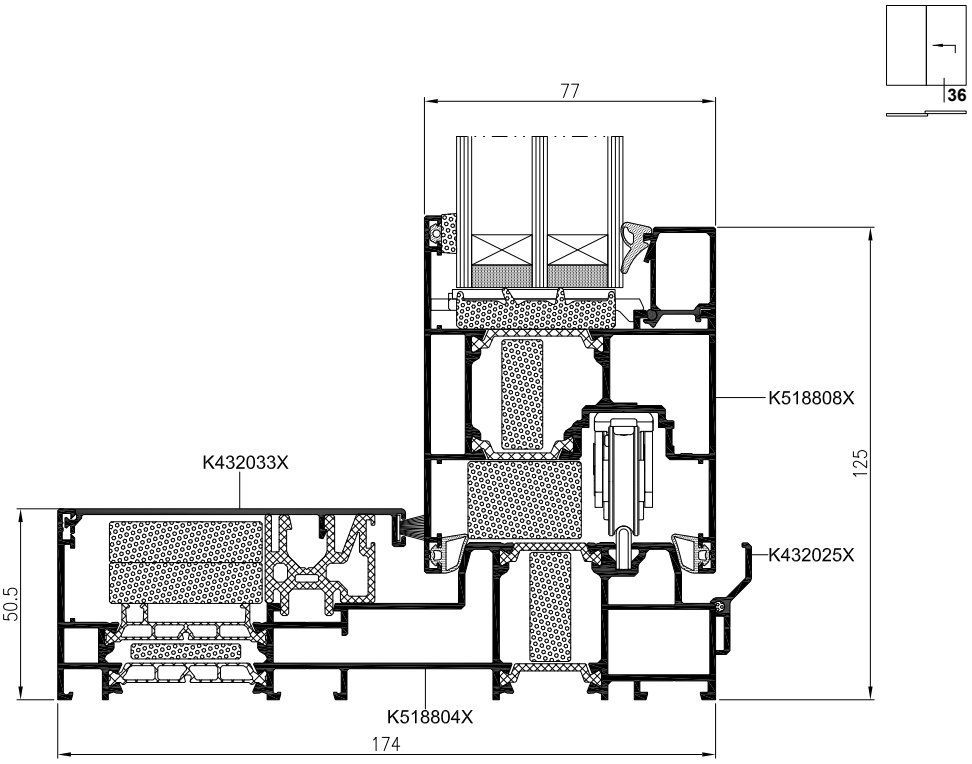


Scale 1:2

Section thru door leaf joint in corner door

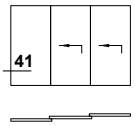


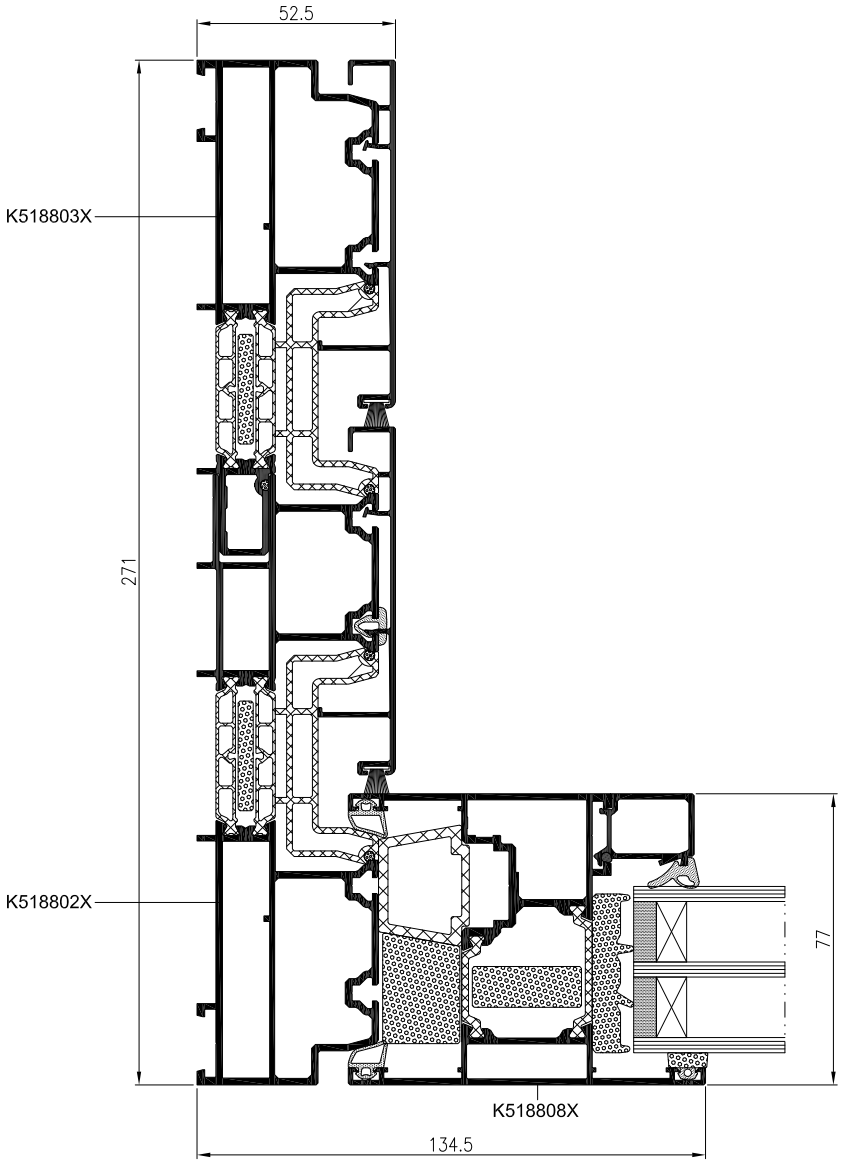
Section thru doors with fixed glazing panel



Scale 1:2

Section thru triple track frame





MB-59HS — MB-59HS HI

Lift & slide door is the perfect integrating element that connects rooms or winter gardens with external spaces. It provides a convenient exit to the balcony, terrace or garden. MB-59HS gives you great possibilities in applications of lift & slide doors door, and is the optimized solutions in terms of construction and dimensions of its profiles and frames. With its high thermal and sound insulation, combined with excellent water and air tightness, MB-59HS meets all the requirements for energy conservation and environmental protection.

LIFT & SLIDE BALCONY DOOR

In terms of thermal insulation, MB-59HS profiles have two different variants: ST and HI. The range of available profiles include 2- and 3-rail frames, and leaves that are adapted to two heights of rolling devices. A wide range of glazing enables the use of double and triple glazing units, including safety and sound insulationunits. Due to its characteristics, the MB-59HS can be used in various types of buildings: individual buildings, hotels or apartments.

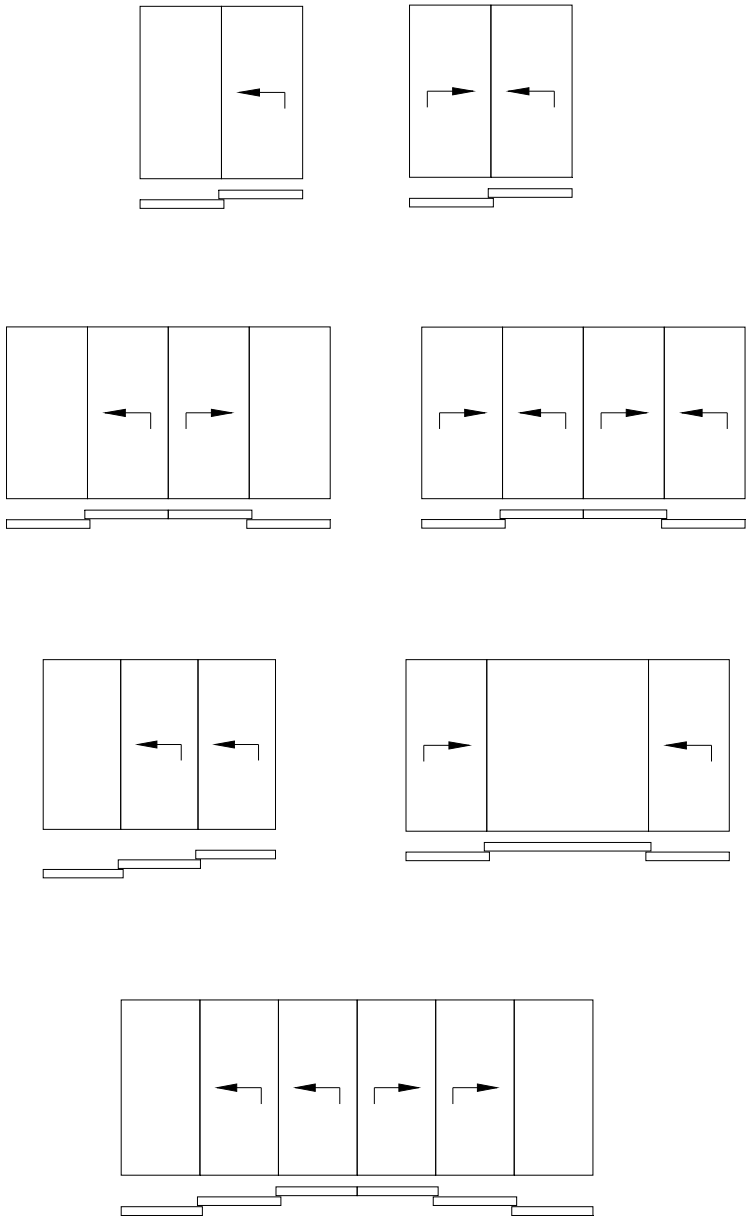
ADVANTAGES

- important dimensions of the door leaves that exceed by far any standard values: height up to 2.8 m, width up to 3.3 m; and max. leaf weight up to 300 kg
- slender and robust, 3-chambered profiles, with insulating chamber equipped with wide thermal breaks in the central part
- 2-or 3-rail frames that enable the fabrication of doors with wide clear passage size
- large glass thickness to be fitted in the door leaves (up to 42 mm), to bring flexibility in choosing the appropriate glass
- fixed lites can be fabricated with glass mounted directly to the frame – a solution that is both aesthetic and economical
- relatively low heat transfer coefficient for frames (U_f) assured by wide thermal breaks, polyethylene inserts and chambered profiles mounted in thermal insulation strips
- high water and air tightness assured by specially-shaped gaskets and hardware that allow the leaf to embed on the frame in the final stage of closing the leaf ability to mount most of the hardware for lift & slide doors available on the market
- door version with a low-level threshold, which makes it easier to use the door especially by the elderly or disabled
- doors can be mounted individually or as part of larger constructions: mullion and transom curtain walls or winter gardens
- maximally simplified construction technology to reduce time and costs of fabrication
- compatibility with other Aluprof systems – common components can be used

PERFORMANCE

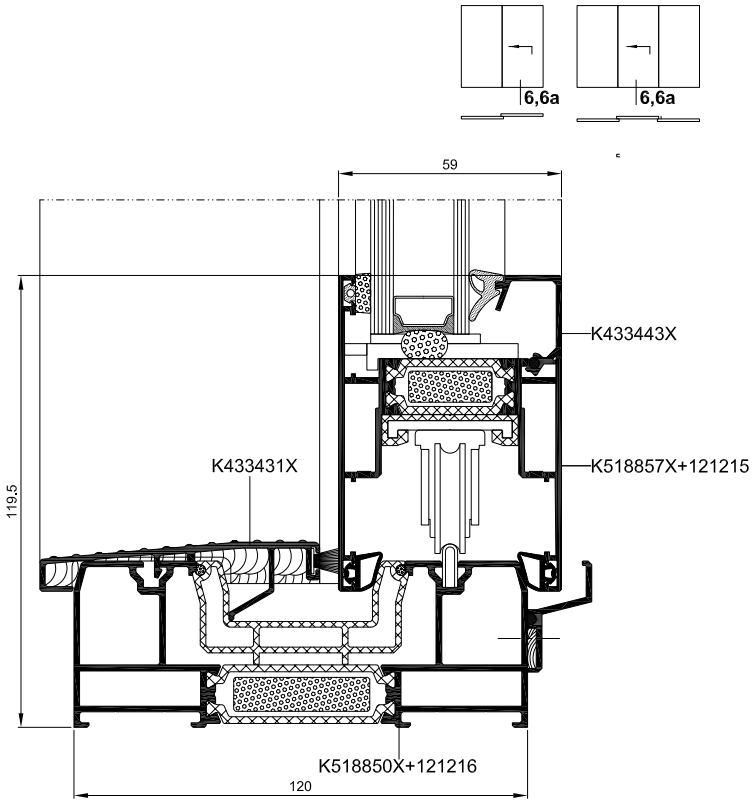
- Air tightness: class 3, EN 12207
- Watertightness: up to class 9A, EN 12208
- Windload resistance: to class C3, EN 12210
- Thermal insulation: U_f from 1.8 W/(m²K)

Lift & slide doors types

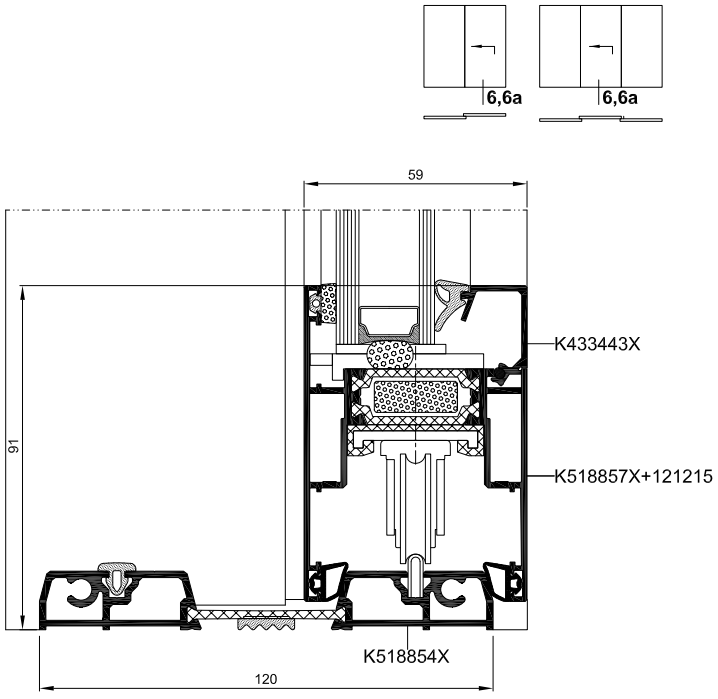


Scale 1:2

Cross – section of door bottom rail

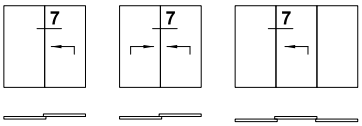


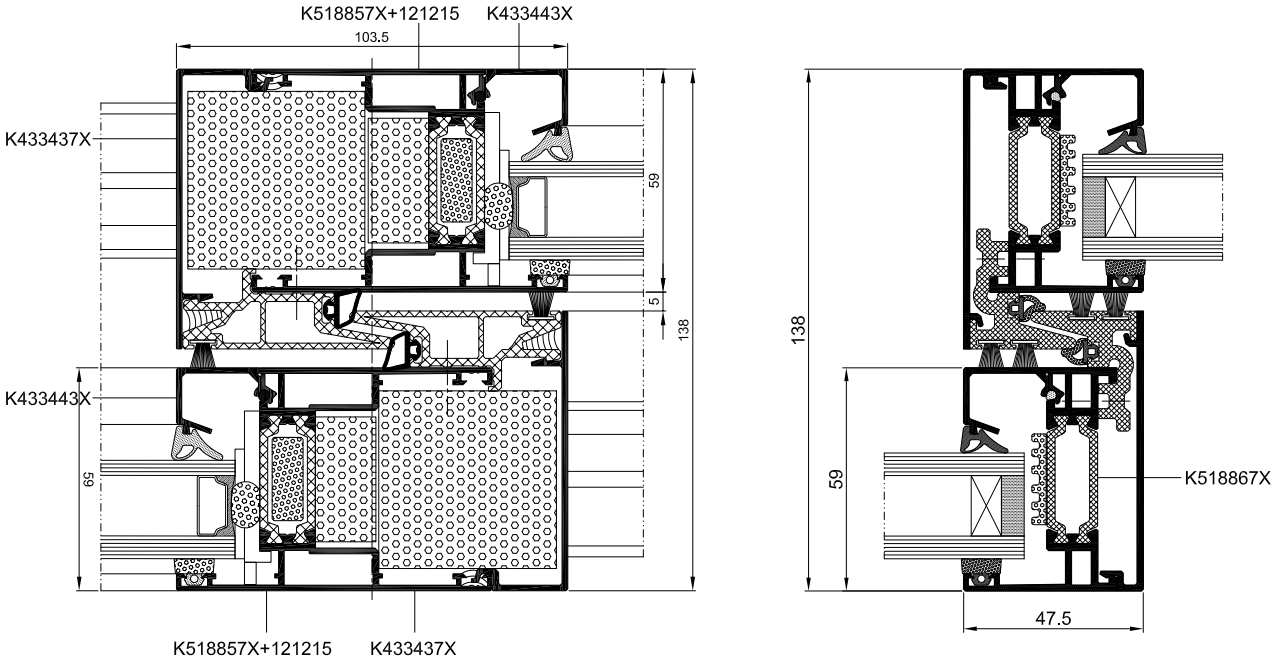
Doors with low threshold, bottom section



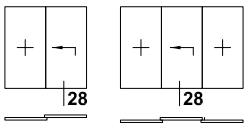
Scale 1:2

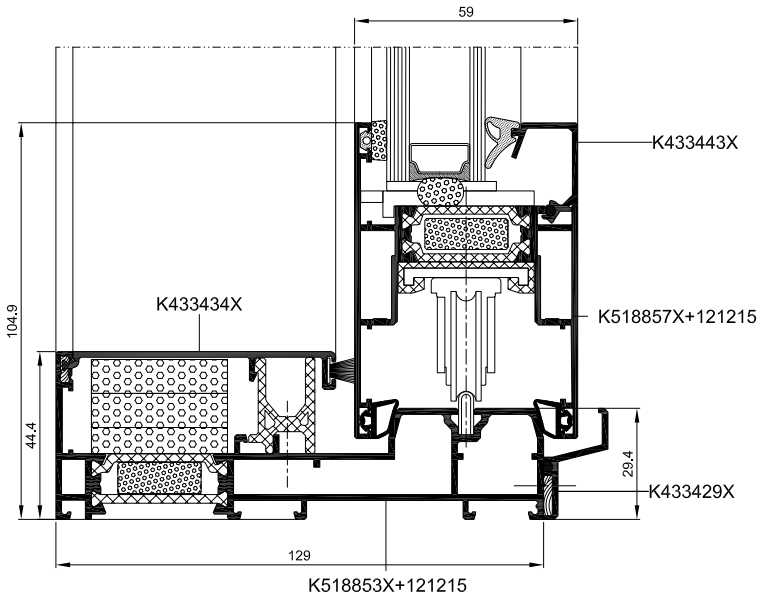
Cross – section of jambs of door





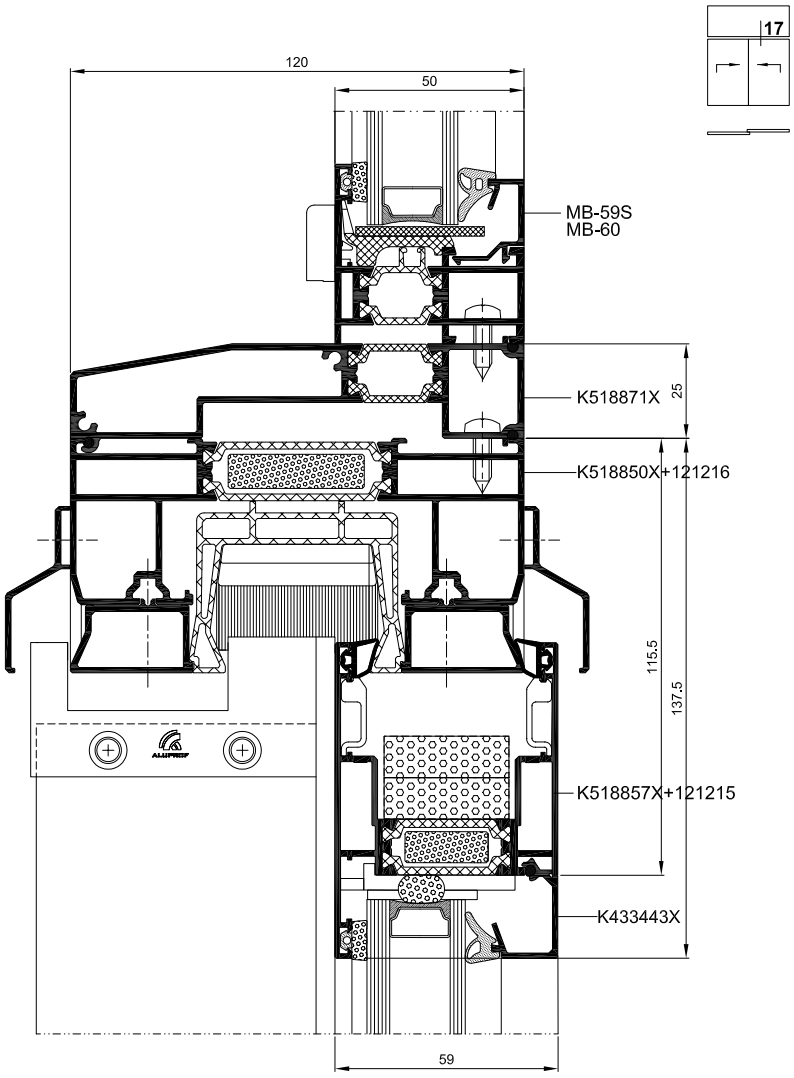
Section thru doors with fixed glazing panel



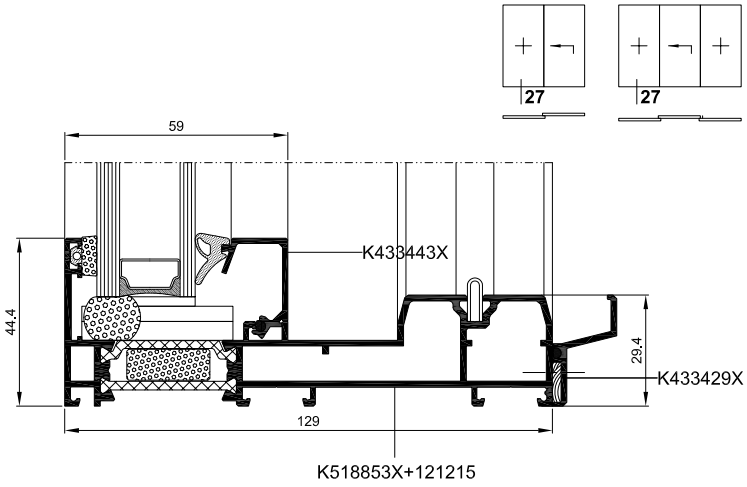


Scale 1:2

Horizontal section of door top rail

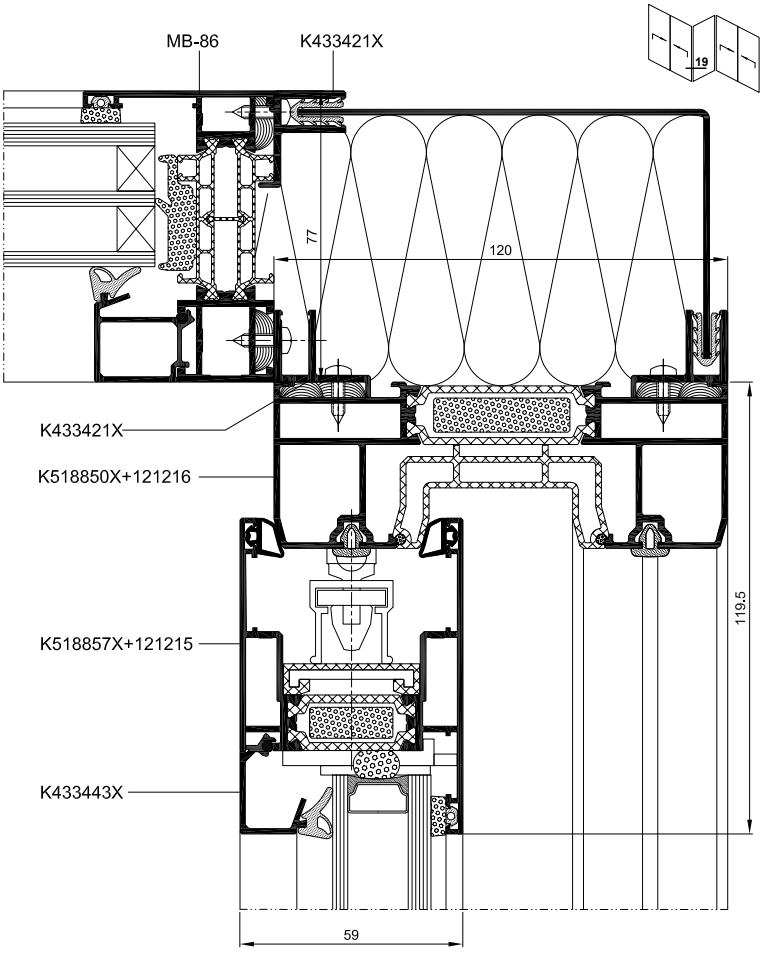


Section thru doors with fixed glazing panel

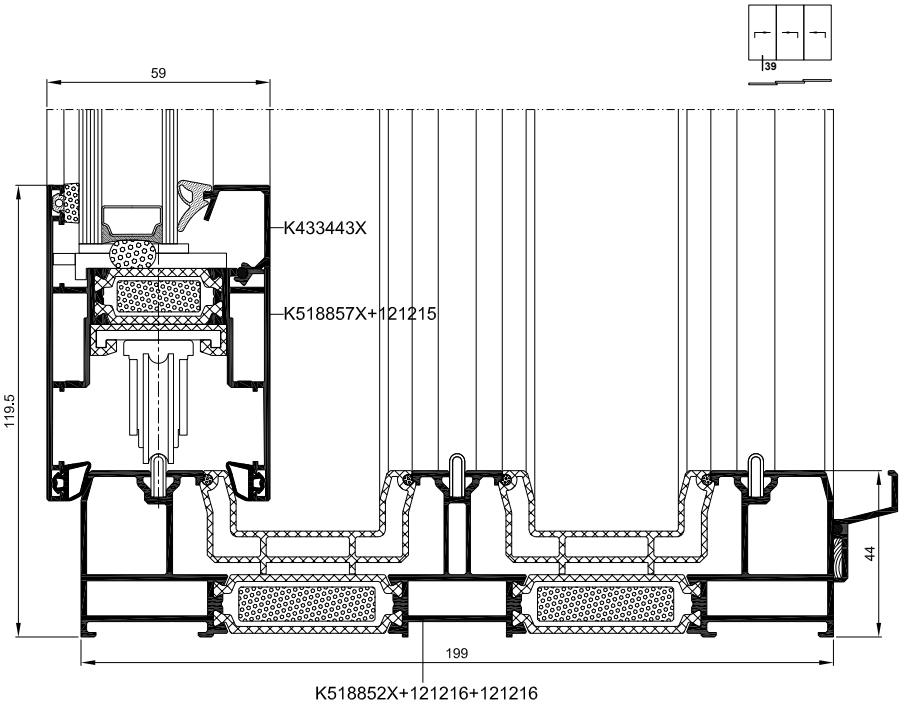


Scale 1:2

Cross – section of 90° mullion



Section thru door with 3-rail frame



More examples on: www.aluprof.com/en/bim-file-finder **Scale 1:2**

WINDOW AND DOOR SYSTEMS

MB-59 SLIDE

MB-59 Slide system has been designed to fabricate thermally-insulated sliding doors to be integrated in masonry walls, aluminum curtain walls, winter gardens or window walling. Sliding doors, especially large ones, can make living space visually bigger by combining it with the external terrace or garden. In terms of thermal insulation, MB-59 Slide profiles have two different variants: ST and HI. The range of available profiles include 2- and 3-rail frames. A wide range of glazing enables the use of double and triple glazing units, including safety and sound insulation units. The system can be used in various types of buildings: individual buildings, hotels or apartments.

BALCONY SLIDING DOOR

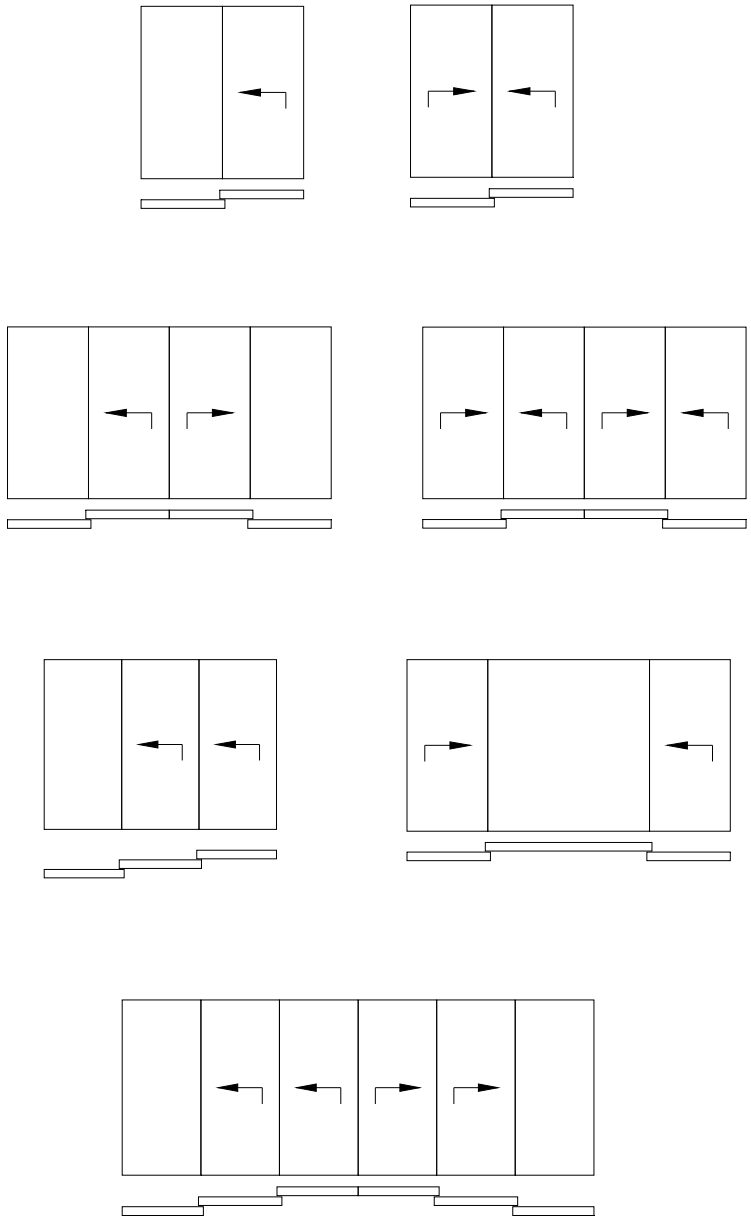
FEATURES AND BENEFITS

- important dimensions of the door leaves: height up to 2.6 m, width up to 1.8 m; and max. leaf weight to160 kg
- slender and robust, 3-chambered profiles with insulating chamber equipped with wide thermal breaks in the central part
- 2-or 3-rail frames that enable the fabrication of doors with wide clear passage size
- large glass thickness to be fitted in the door leaves (up to 42 mm), to bring flexibility in choosing appropriate glass
- possibility to use most of the sliding door hardware available on the market
- door can be mounted individually or as part of larger constructions: mullion and transom curtain walls or winter gardens
- maximally simplified construction technology to reduce time and cost

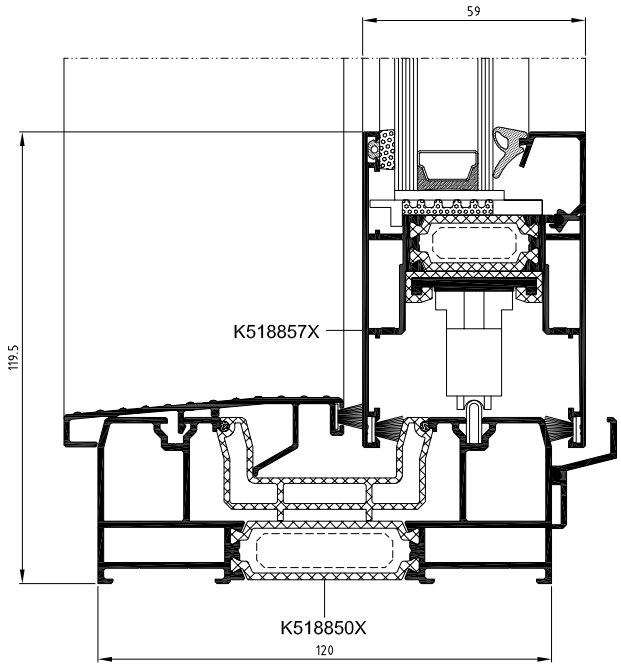
TECHNICAL SPECIFICATION	MB-59 SLIDE / MB-59 SLIDE HI
Depth of frame	120 mm (2-rail profile), 199 mm (3-rail profile)
Depth of leaf	59 mm
Glazing rang	10.5 mm – 42 mm
Frame	44 mm
Leaf	83.5 mm

PERFORMANCE	MB-59 SLIDE / MB-59 SLIDE HI
Air Permeability	class 3, EN 12207
Watertightness	class 6A, EN 12208
Windload resistance	class C3, EN 12210
Thermal insulation	U_f from 1.9 W/(m²K)

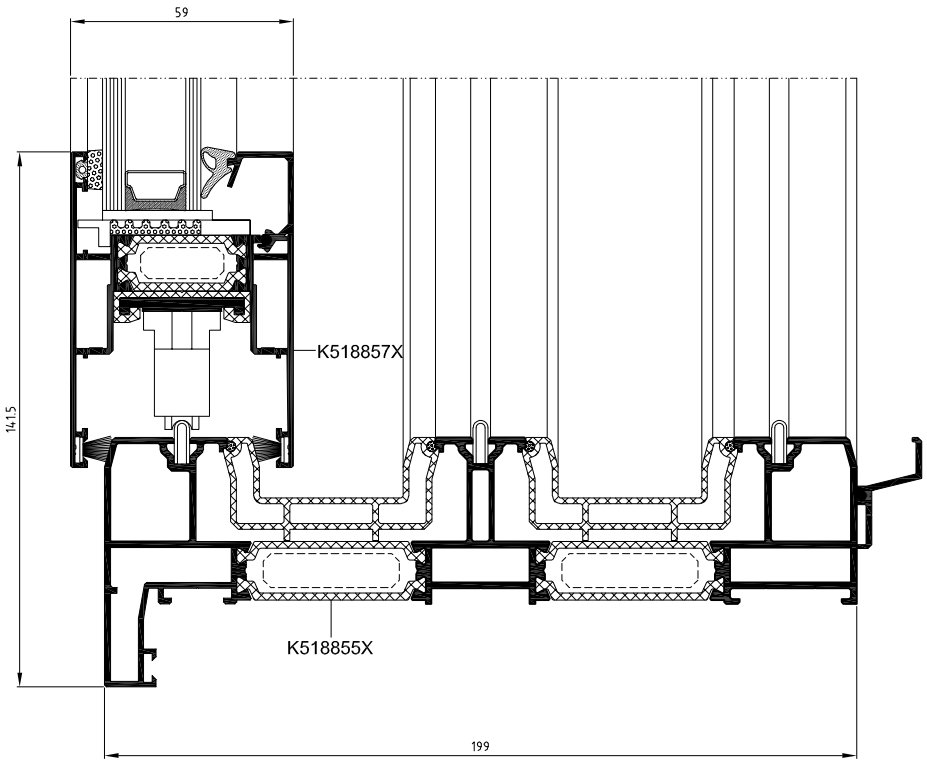
Slide doors types



Door – bottom cross section

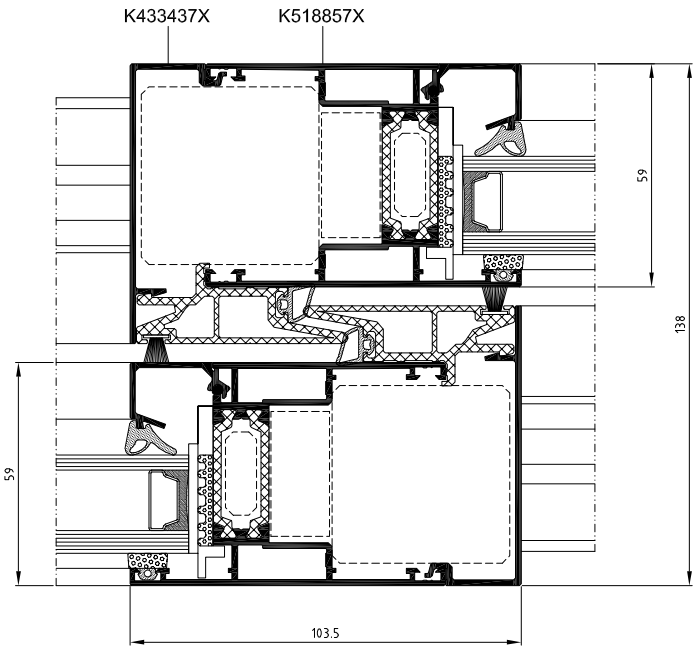


Door with 3-rail frame, cross section

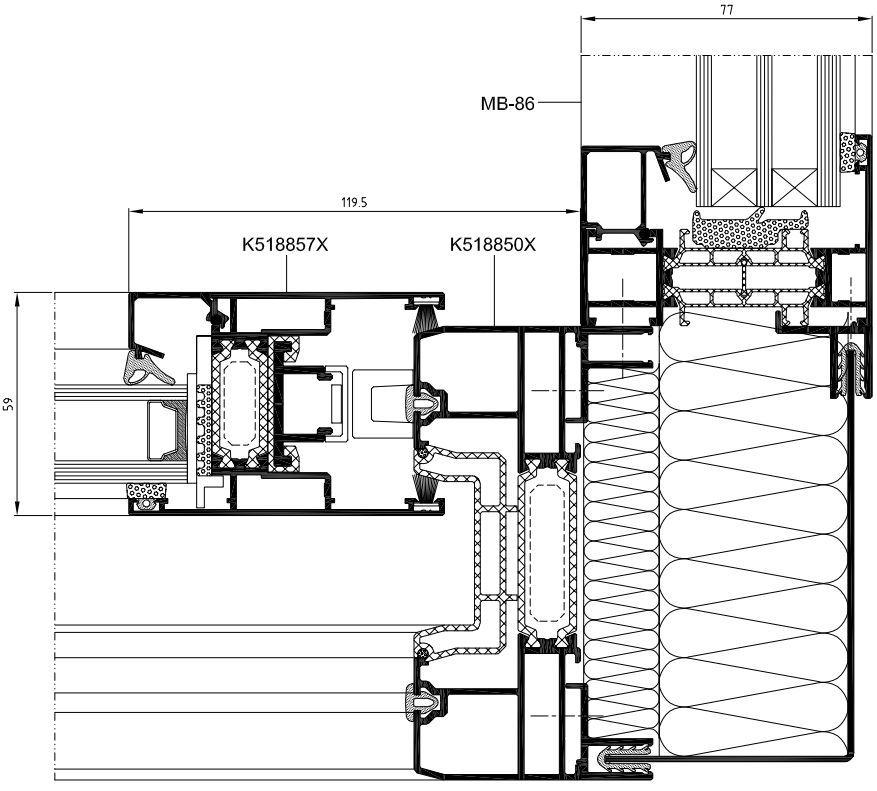


Scale 1:2

Horizontal section of jambs of door

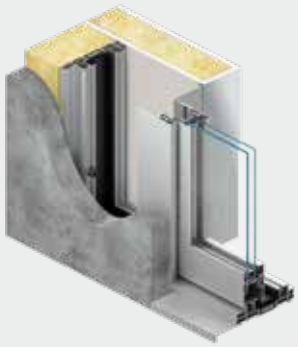


Cross - section of 90° mullion



More examples on: www.aluprof.com/en/bim-file-finder **Scale 1:2**

MB-59 SLIDE GALANDAGE



MB-59 Slide Galandage is based on the MB-59 Slide system solutions and has been designed for producing thermally insulated sliding doors that slide straight into the wall (once open, the door leaf is hidden in the wall). Installed that way, the door fully connects indoor and outdoor living spaces. MB-59 Slide Galandage's system profiles come in two options that offer different thermal insulation performances: ST and HI. The range of available profiles include 2- and 3-rail frames. Many glazing options allow for double and triple glazing units, including safety and sound insulation glass.

SLIDING FRENCH DOORS

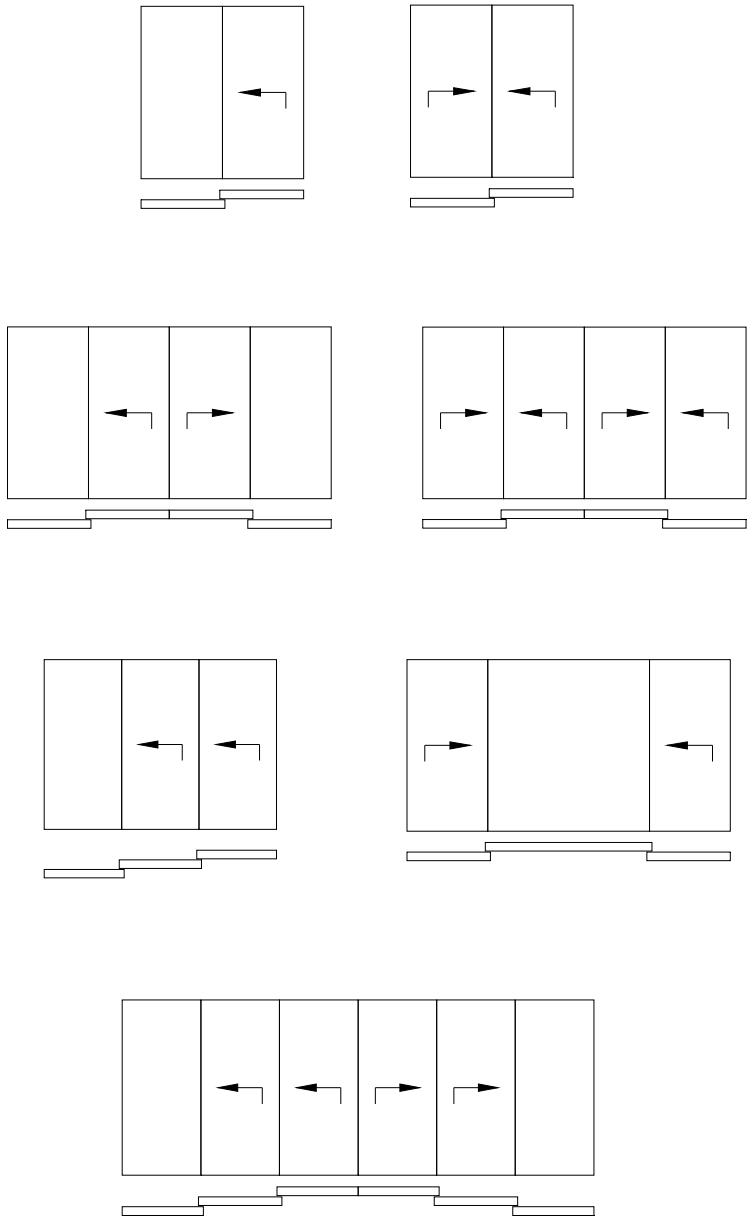
FEATURES AND BENEFITS

- door leaf hidden in the wall gives full access to the open space of the terrace or garden
- large size of door leaves: up to 2.6 m high, up to 1.8 m wide and to 160 kg in weight
- slender and robust 3-chambered profiles with a thermally broken central chamber
- 2-or 3-rail frames to produce doors with wide clear passage size
- large glazing options (up to 42 mm) to bring flexibility in choosing the appropriate glass
- can use most of the sliding hardware available on the market

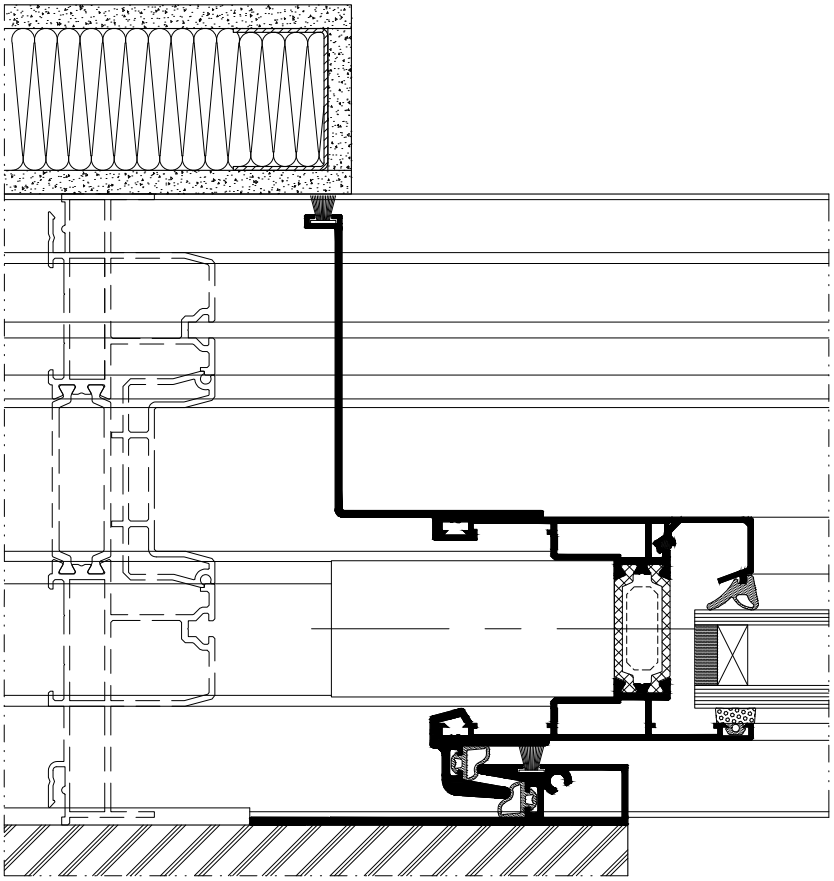
TECHNICAL SPECIFICATION	MB-59 SLIDE GALANDAGE / MB-59 SLIDE GALANDAGE HI
Depth of frame	120 mm (2-rail profile), 199 mm (3-rail profile)
Depth of leaf	59 mm
Glazing rang	10.5 mm – 42 mm
Frame	44 mm
Leaf	83.5 mm

PERFORMANCE	MB-59 SLIDE GALANDAGE / MB-59 SLIDE GALANDAGE HI
Air Permeability	class 3, EN 12207
Watertightness	class 5A, EN 12208
Windload resistance	class C2 / B2, EN 12210
Thermal insulation	U_f from 1.9 W/(m²K)

Slide doors types

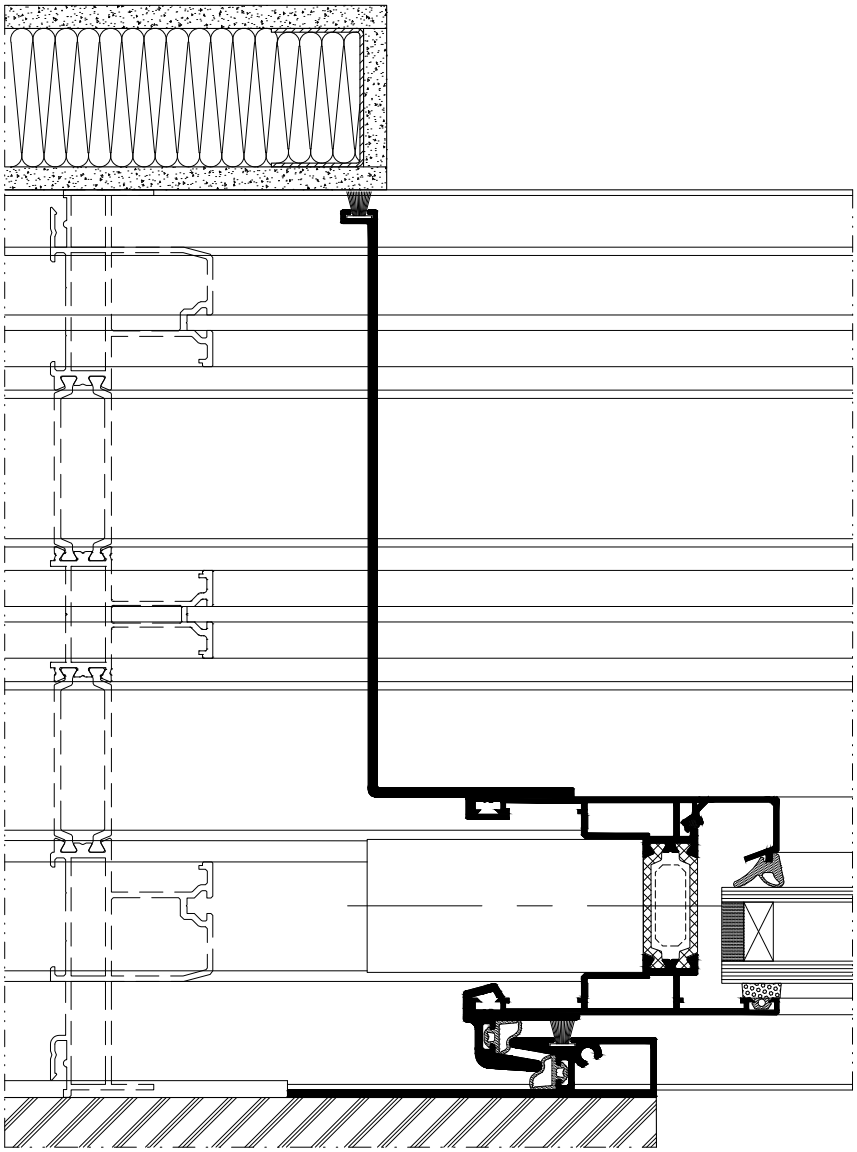


Sliding French doors with 2-rail frame – cross section



Scale 1:2

Sliding French doors with 3-rail frame – cross section



More examples on: www.aluprof.com/en/bim-file-finder **Scale 1:2**

FIRE RESISTANT CONSTRUCTIONS

MB-78EI

The MB-78 EI system is used to construct exterior and interior fire rated partition walls with single and double-leaf doors featuring fire resistance class of EI30, EI60 or EI90 according to EN 13501-2:2005. The construction of the MB-78 EI system is based on aluminium profiles with a thermal break. The constructional depth of the profiles is 78 mm. The profiles are characterised by a low overall heat-transfer coefficient U_f due to the use of, among other things, special profiled thermal breaks 34 mm wide. The system allows glazing with any standard fireproof glass pane of the appropriate class (infill thickness between 8 and 65.5 mm). Within his system it is also possible to built smoke-proof constructions, which come in several options. Bending profiles and building arch constructions is also possible.

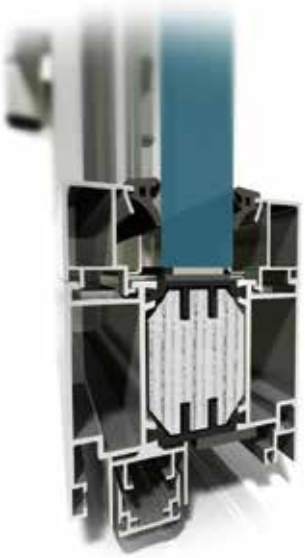
FIRE RATED DOORS AND WALL PARTITIONS

WIDE RANGE OF APPLICATIONS
The **MB-78EI** system has been developed for the producing of internal or external fire rated partition walls, with single- or double-leaf doors.

OPTIMALLY SELECTED PROFILE SHAPE
The system profiles have a three-chamber structure. The constructional depth of profiles is 78 mm. The door leaf and frame surfaces are flush with the wall both outside and inside. The shape of profiles makes it possible to built slender and durable window and wall constructions.

HIGH FIRE RESISTANCE AND SMOKE TIGHTNESS
Depending on the construction variant and the type of panes (infills) installed, the fire resistance of the MB-78EI system can be **EI30, EI60** or **EI90**. According to this classification, fire resistance relates to fire insulation and tightness. It is obtained, inter alia, by insertion of profiles into internal chambers and fire resistance components into the spaces between these profiles. The system also features high smoke tightness classifications according to EN13501-2:2010 – classes S_{200} and S_a. The system is classified as non-fire propagating (NRO).

GOOD THERMAL AND SOUND PERFORMANCE
The MB-78EI system is characterised by a low overall heat-transfer coefficient U due to the application of special thermal breaks and gaskets. The value of overall heat transfer coefficient Uf starts from 1.60 W/(m²K). Omega-shape profiled thermal breaks 34 mm wide are used in the system. Such shape of breaks improves profile rigidity in relation to



flat breaks and facilitates water removal from sections, thus ensuring proper thermal insulation under any weather conditions. A thermally insulated sill and EPDM gaskets ensure good thermal insulation of door leaves and water and air tightness. The system also ensures good sound insulation. The value of the R_w index depends on the pane and type of door used.

DIVERSITY OF SOLUTIONS

Versatility and attractiveness of the system is additionally enhanced by the possibility to select from several variants of solutions for different constructional details, e.g. bottom sealing of door leaves or the shape and height of doorsills.

WIDE GLAZING RANGE.
FREEDOM OF HARDWARE SELECTION

The MB-78EI construction has been adapted to typical hardware, locks and hinges, following European standards. Sections are equipped with grooves of such dimensions as to enable fixing of multi-point locking hardware and connecting members, as per EURO standard. Thus, it is possible to meet the demands of our customers without changing the basic construction.

FLEXIBLE GLAZING

MB-78EI system can by glazed with package of thickness between 8 mm and 65.5 mm

– single glass units in accordance with EN 357:2005
– double or triple glazing units in accordance with EN 1279-1:2006 and EN 1279-5+A1:2009, with fire rated glass internally and safety glass externally
– multi-layer panels made of two aluminium or steel sheets of relevant thickness and gyp-rock or Promatec insulation between with additional mineral wool layer of 70 kg/m^3 minimum density if required.

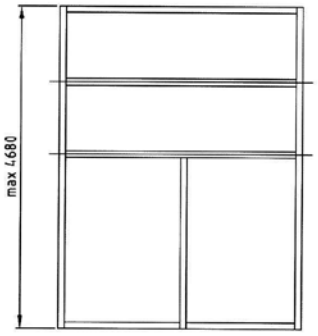
FIRE RATED GLASS RANGE

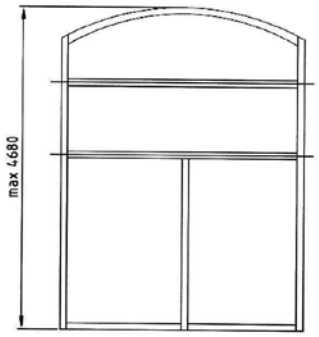
Tested and approved to be used with MB-78EI system includes:
Contraflam 30 (16 mm)
Contraflam 60 (25 mm)
Pyrobel 16 (17.3 mm)
Pyrobel 25 (25 mm)
Promaglas 30/17 (17 mm)
Bohflam EI30 (15 mm)
Bohflam EI60 (26 mm)
Polflam EI30 (20 mm)
Polflam EI60 (25, 27 mm)
Pyroguard T-EI30 (18 mm)
Pyroguard T-EI60 (28 mm)
Pyrostop (23 mm)
Glassprof (15, 25, 35 mm)

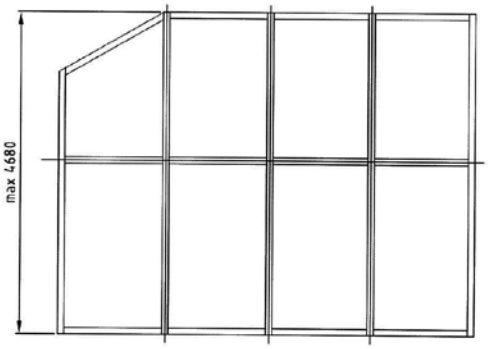
PERFORMANCE

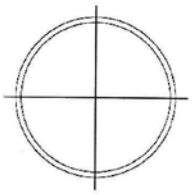
- Air permeability:
  class 2 EN 12207
- Watertightness:
  class 5A, EN 12208
- Resistance to windload:
  2400 Pa, EN 12179, EN13116
- Acoustic insulation:
  R_w = 41 dB (subject to the glazing package being used)

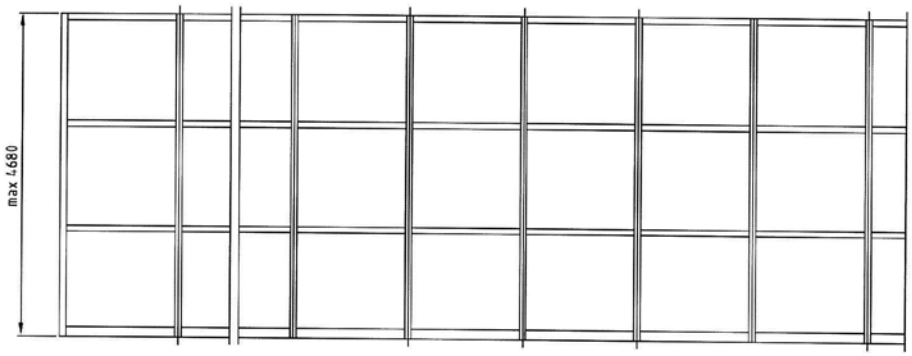
Max. dimensions of wall segments



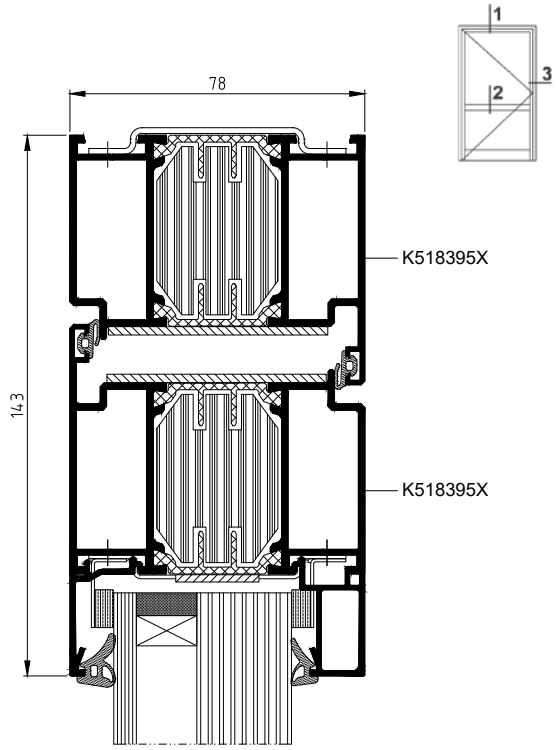






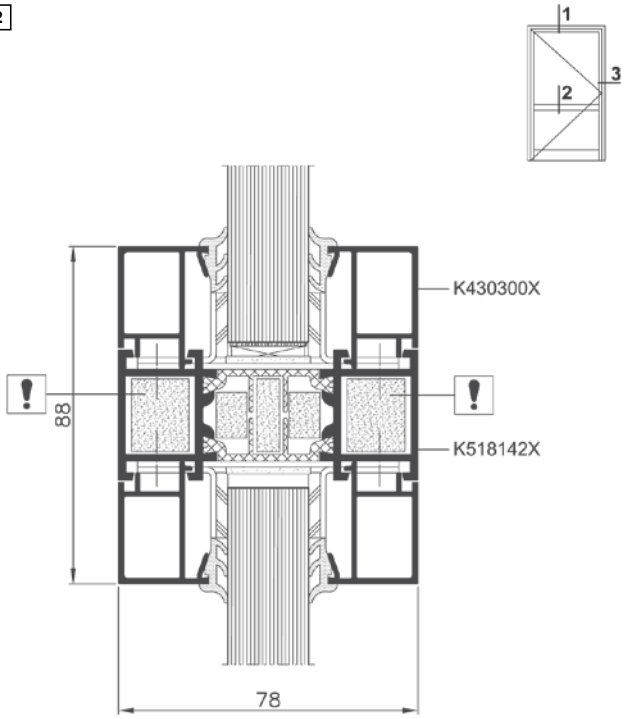


Expansion – cross section



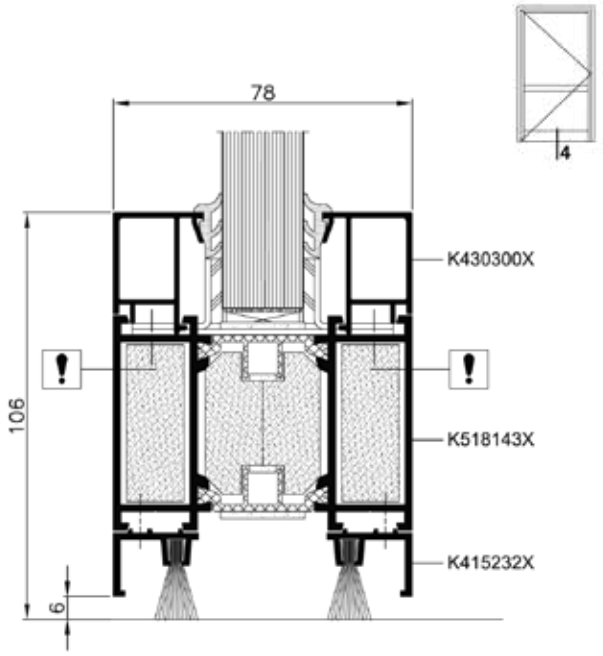
Angular connection– cross section

2



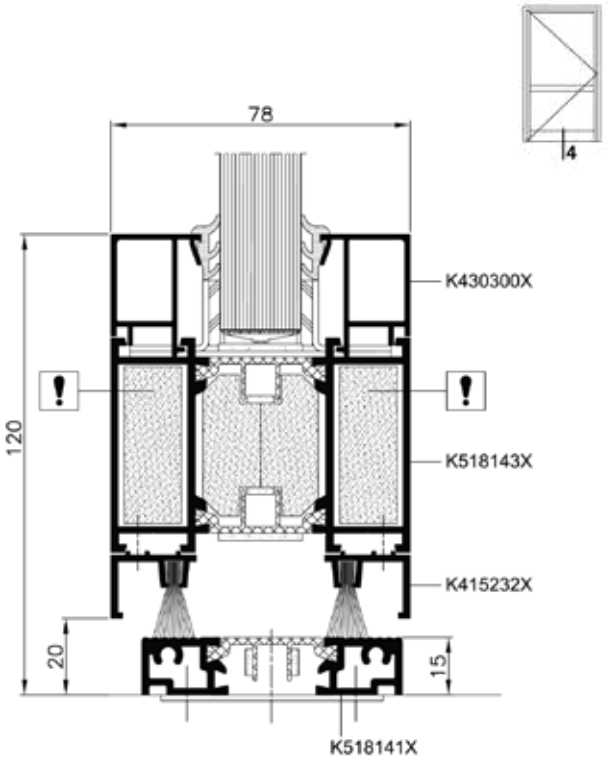
Expansion – cross section

4



Angular connection– cross section

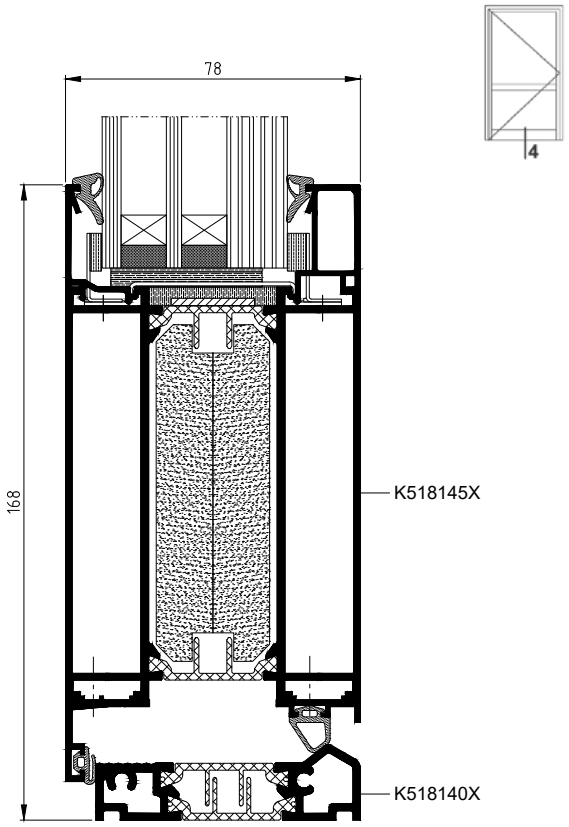
4



! Applicable only for EI60

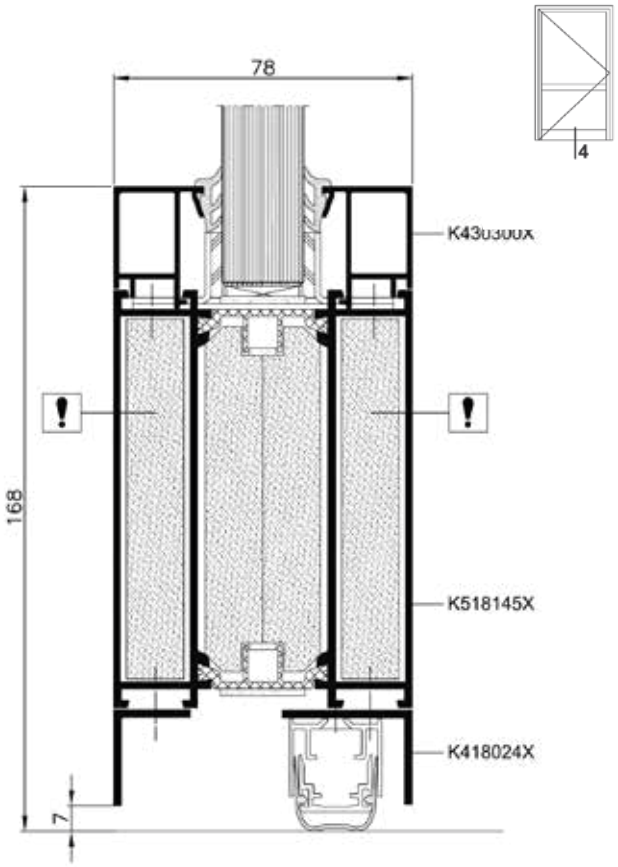
Scale 1:2

Single outward or inward opening door
– cross section



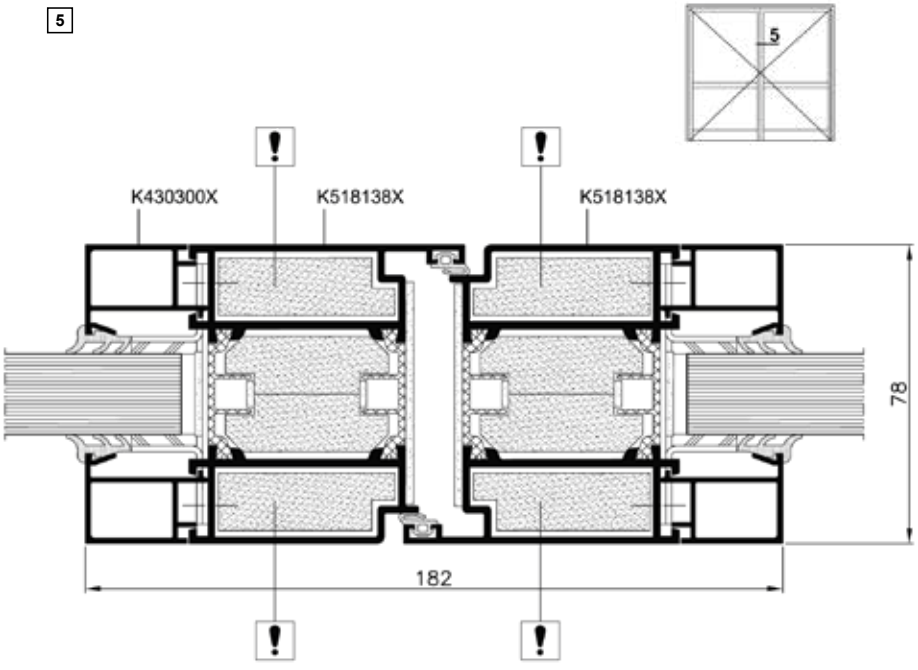
Single outward or opening door
– cross section

4



Double door – cross section

5

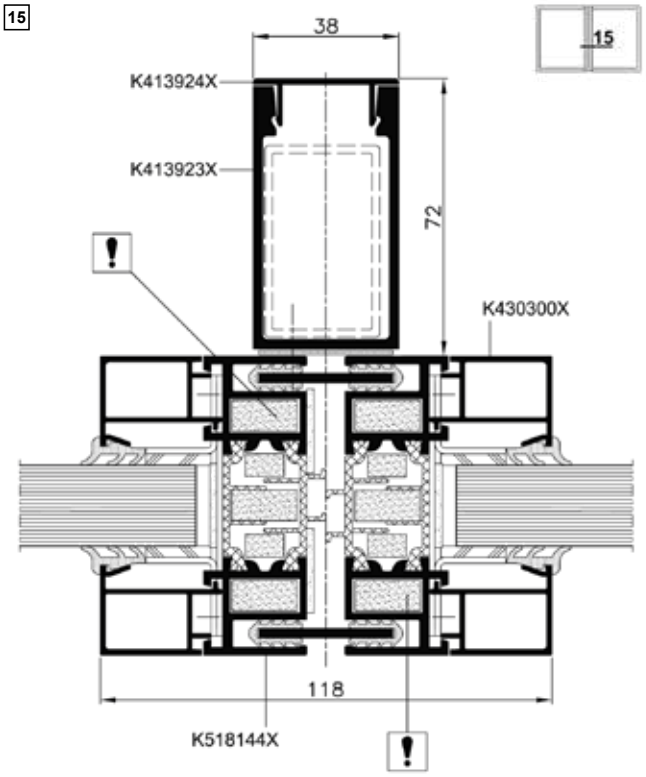


! Applicable only for EI60

Scale 1:2

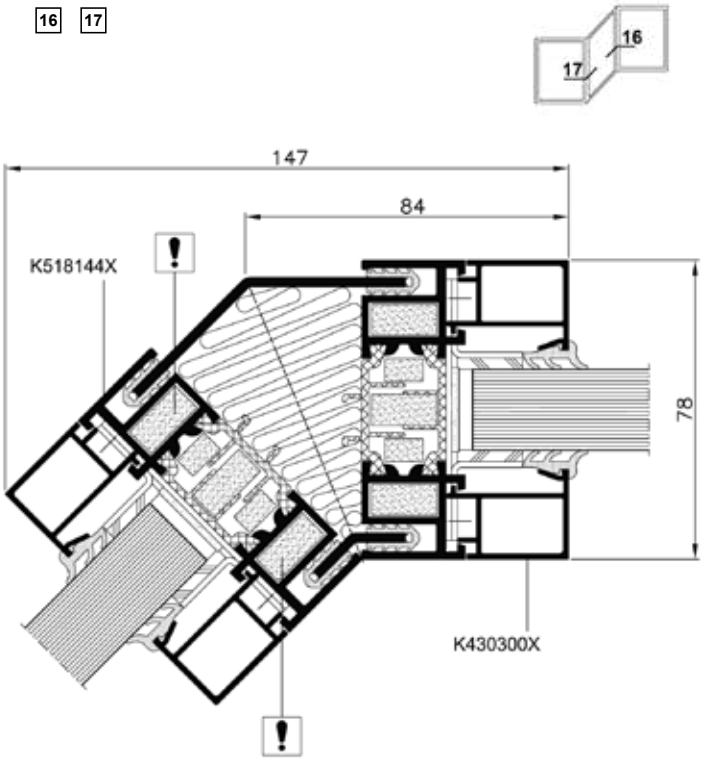
Expansion – cross section

15



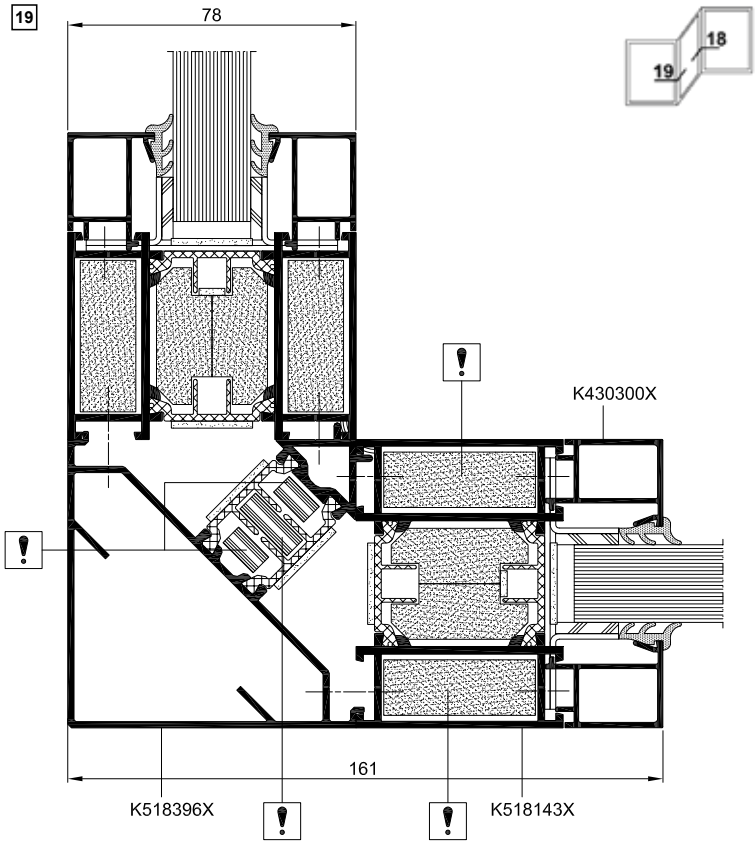
Angular connection– cross section

16 17



Angular connection – cross section

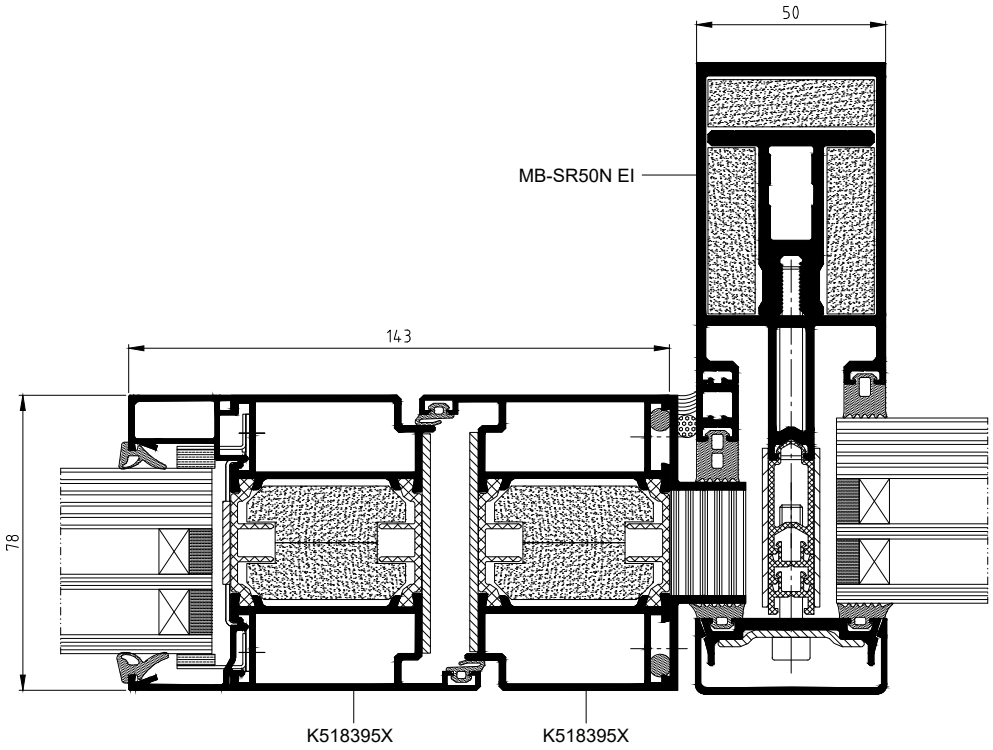
18 19



! Applicable only for EI60

Scale 1:2

MB-78EI fire rated doors in
MB-SR50N EI fire rated curtain wall



More examples on: www.aluprof.com/en/bim-file-finder **Scale 1:2**

MB-78EI

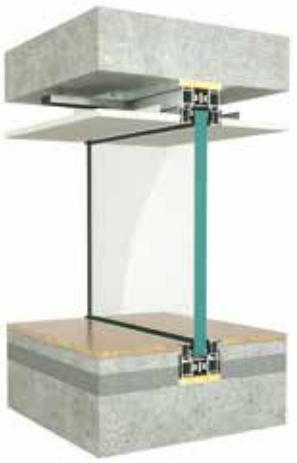
Aluprof offers MB-78EI system-based transparent, fire-rated wall solution: silicone-joined glazed walls. This enables fabrication of internal partitions without the visible vertical wall profiles that separate the individual modules of the wall, while preserving its full fire resistance in classes EI30 and EI60. The joint between the glass panes is only 4 mm and is filled with firestop, intumescent material and with non-inflammable silicone. The silicone is available in three colours (black, grey or white).

SILICONE-JOINTED GLAZED PARTITIONS

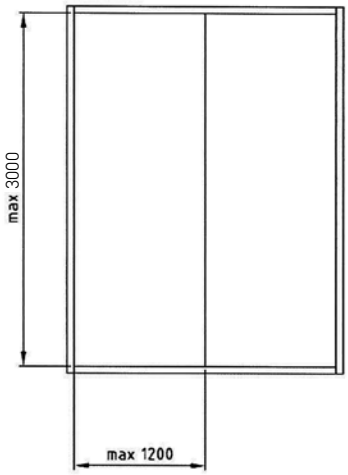
MB-78EI-based partition walls in their silicone-jointed variant can thus have a height of more than 3.6 m with modules' width up to 1.8 m. Fire tests performed by the Building Research Institute (ITB, Poland) on these partitions included the so-called "free-edge model", so there is no limit as to the maximum length of this type of walls.

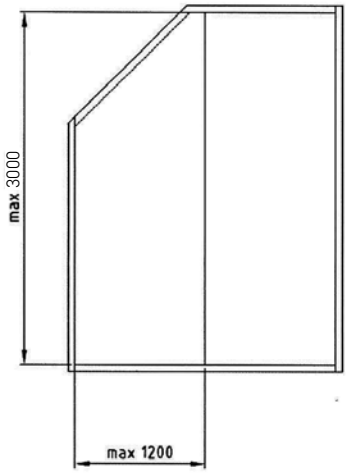
MB-78EI-based silicone-jointed glazed walls enable to freely design and build very large internal partition walls. With their transparent modules, the constructions made of this system make every room optically bigger. The system also provides security by allowing the arrangement of the building's fire zones, whilst ensuring appropriate conditions for the evacuation of building occupants.

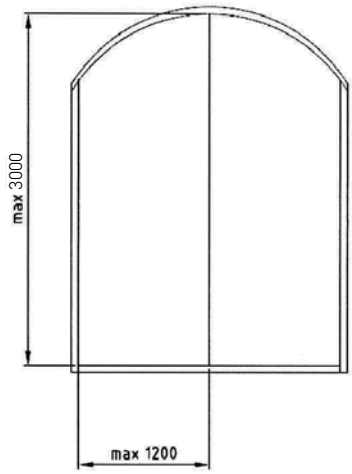
Aluprof also offers a version with profiles fitted in the floor, walls and ceiling. Hidden wall mount enhances this optical effect while maintaining the full fire protection of the construction.

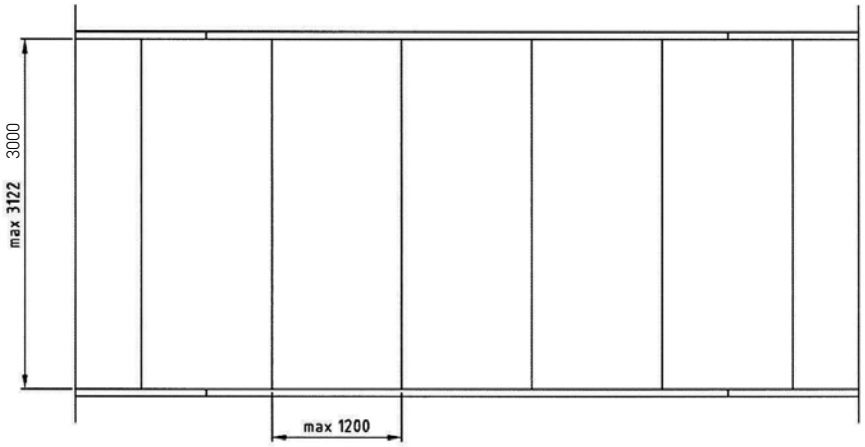


Examples, max. dimensions

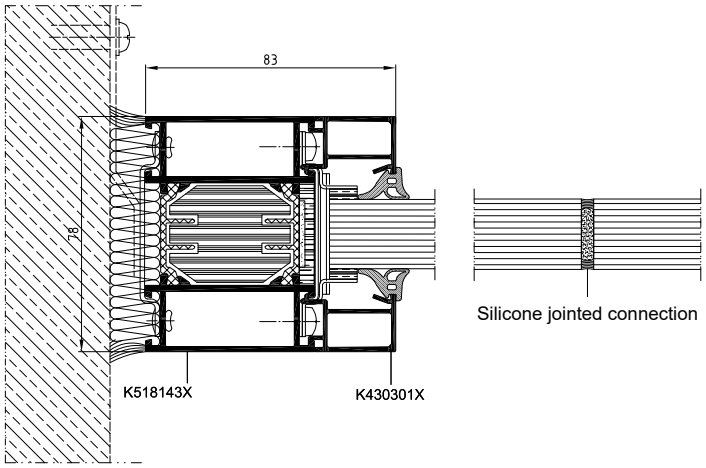




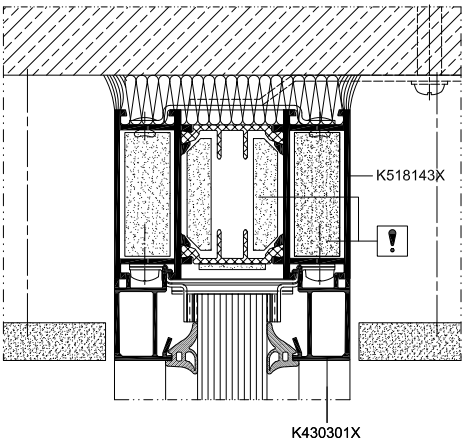




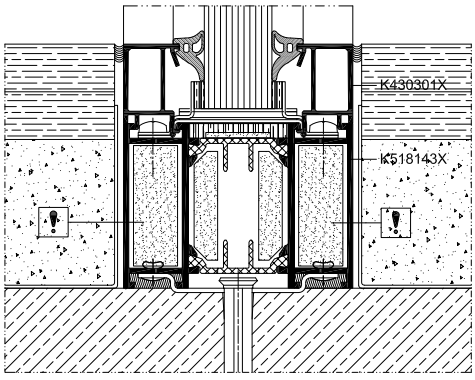
Silicone joined glazed wall MB-78EI – cross section



Partition with a ceiling-integrated profile – cross section

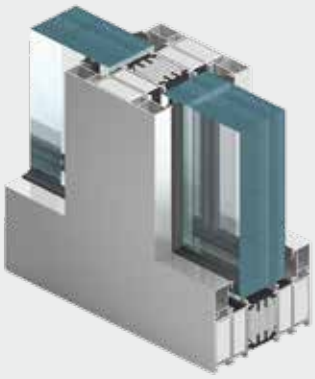


Partition with a floor-integrated profile – cross section



More examples on: www.aluprof.com/en/bim-file-finder **Scale 1:2,5**

MB-118EI



MB-118 EI is a system for external or internal fire rated wall partitions with a fireproofing classification of EI120. It is based on the MB-78EI system of fire partitions with doors, which provides here most of the components, including glazing beads, cooling inserts, expanding foam tapes, seals and most accessories. The system is classified as fire-retardant; it can be also used for smoke-tight structures.

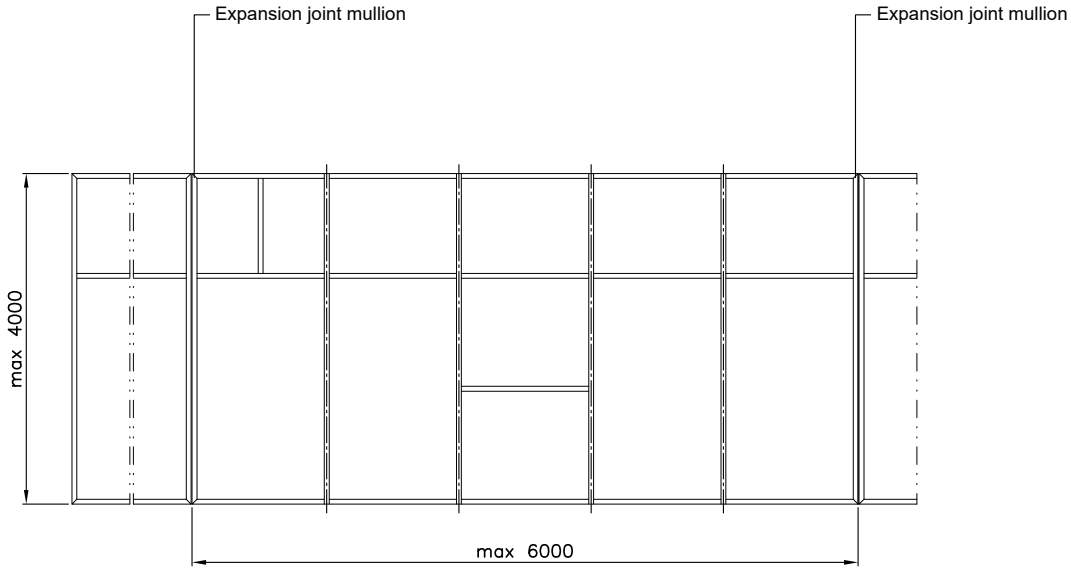
FIRE RATED PARTITIONS

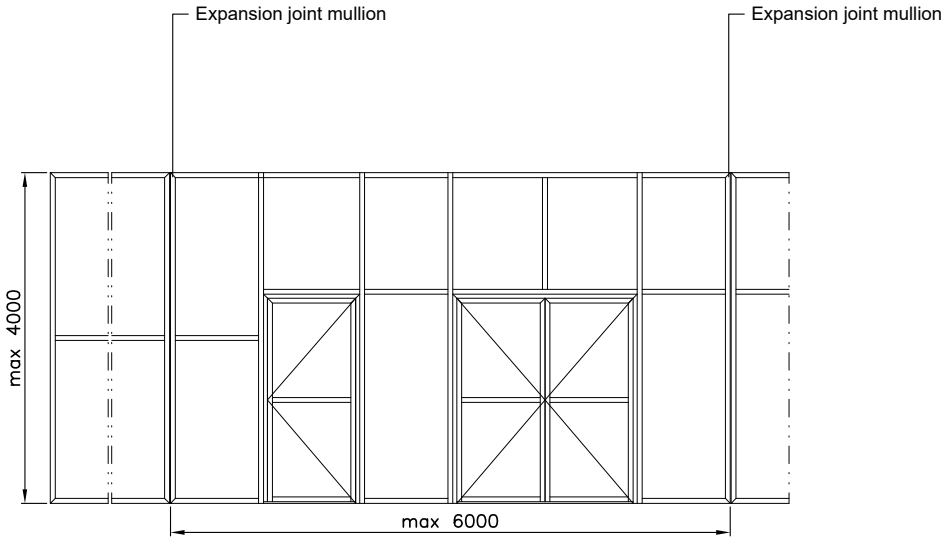
MB-118EI FEATURES

- Design depth of profiles is 118 mm
- The system is based on five-chamber aluminum profiles with a 34 mm wide thermal spacers
- The internal chambers of the profiles and insulating spaces between the profiles include fire insulation elements. On the external surfaces, additional foam tapes are mounted, which expand under high temperatures
- The glazing range for MB-118EI partition walls covers a infill thickness of 31-84 mm. Depending on the function of the building, single fire-resistant panes or glazing units with fire-resistant glass can be used
- The fire-resistance of MB-118EI walls is classified EI120 for both external and internal fire
- It is possible to use decorative muntins
- Technical approval: ITB AT-15-9186
- The construction technology is the same as for the MB-78EI system

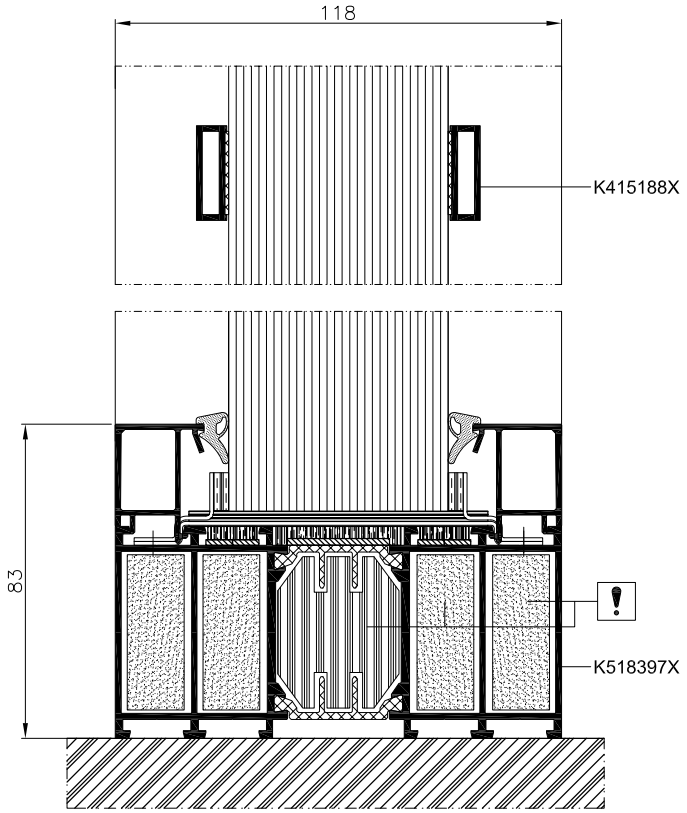
G2A Arena, Jasionka, Poland
design / A.P.P. DOM

Max. dimensions of wall segments

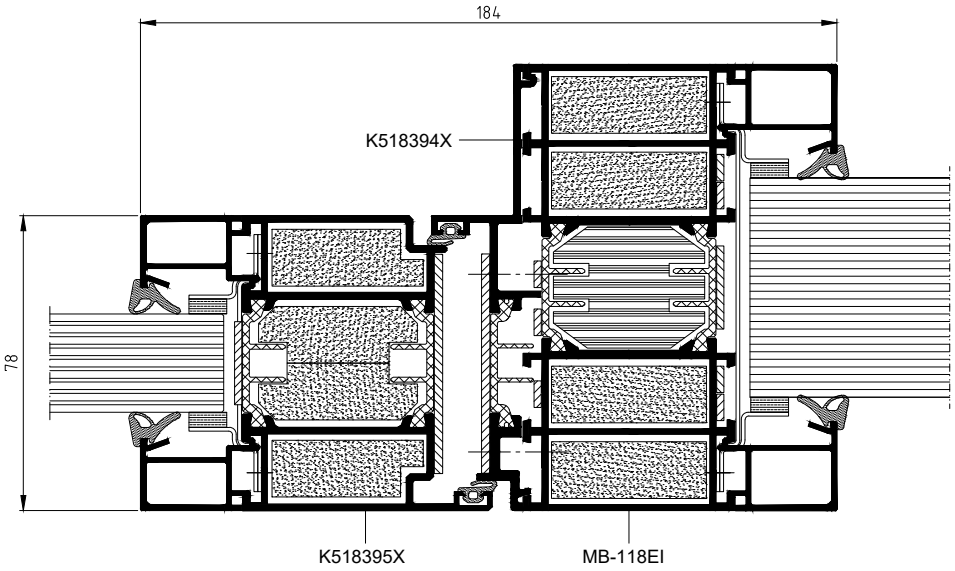




Section through bottom rail



Section through the joint of MB-118EI screen with MB-78EI doors



More examples on: www.aluprof.com/en/bim-file-finder **Scale 1:2**

FIRE RESISTANT CONSTRUCTIONS

MB-60E EI

MB-60E EI has been designed to fabricate internal or external single & double firerated door. It also enables the fabrication of “technical windows” and fireresisting partitions. MB-60E EI-based constructions are classified EI15 or EI30 to EN 13501-2+A1:2010. The system is classified as non-fire spreading (NRO).

FIRE RATED DOORS AND WALL PARTITIONS

This solutions is based on aluminium profiles with thermal break (system MB-60E) with the structural depth of profiles of 60 mm. The fire resistance of the construction is ensured by its fire insulation components that are mounted in internal chambers of its profiles. In addition, constructions are equipped with intumescent tapes, which stop the fire from spreading.

The system enables the use of all typical fire-resistant glass panes classified EI15 and EI30. Unlike other fire-resisting systems, MB-60 E EI glass is fastened on the inner face using glazing strips. Special steel elements are an important element in securing the glass before falling out during the fire.

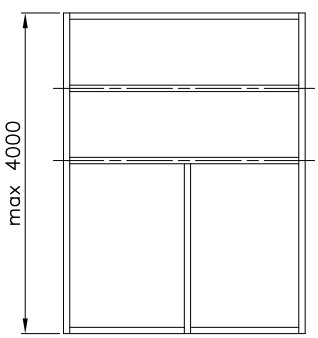
This solution, due to its design capabilities and compatibility with other MB-series systems is in many cases a very attractive proposition in this class of fire protection products.

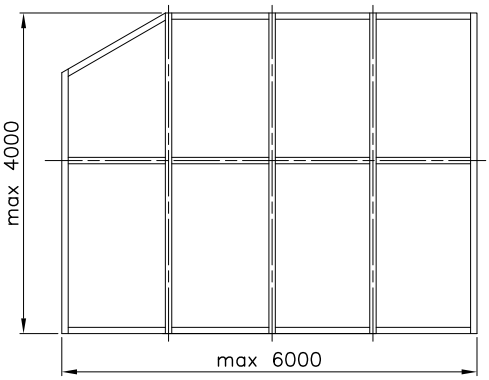
PERFORMANCE

- Air permeability: class 2, EN 12207
- Watertightness: class 3A, EN 12208
- Windload resistance: class C5, EN 12210

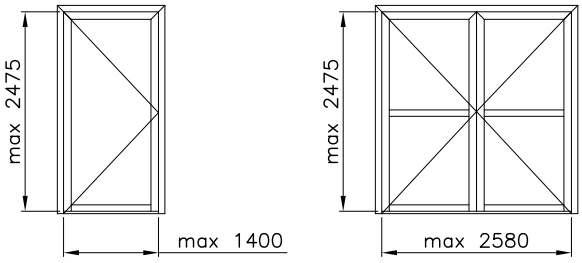
TECHNICAL SPECIFICATION	MB-60E EI
PROFILE SIZES, RANGE OF GLAZING	
Frame width	60 mm
Leaf width	60 mm
Glazing width	5 – 41 mm
MIN VISIBLE WIDTH T PROFILE	
Door frame	62.5 mm / 55 mm
Door leaf	67 mm / 76 mm
SIZE AND WEIGHT LIMITATIONS	
Max size of door leaf / wall area (H×L)	H up to 2475 mm, L up to 1400 mm
Max weight of door leaf / wall area	120 kg

Max. dimensions of construction

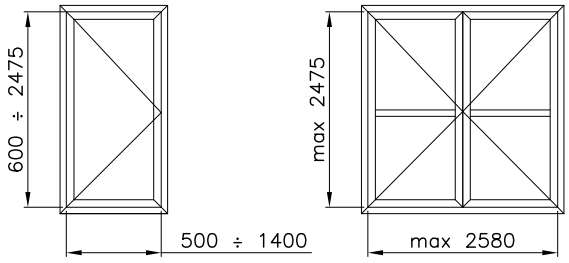




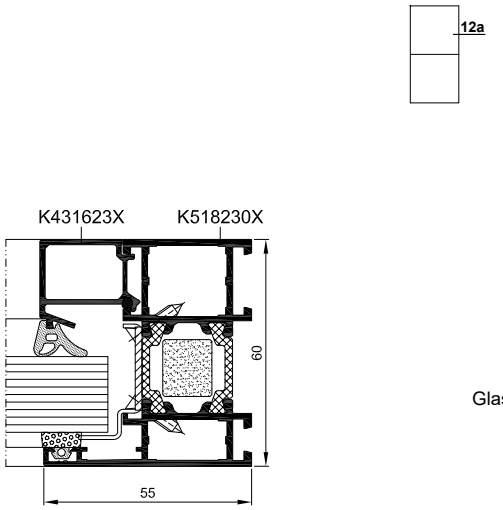
Doors



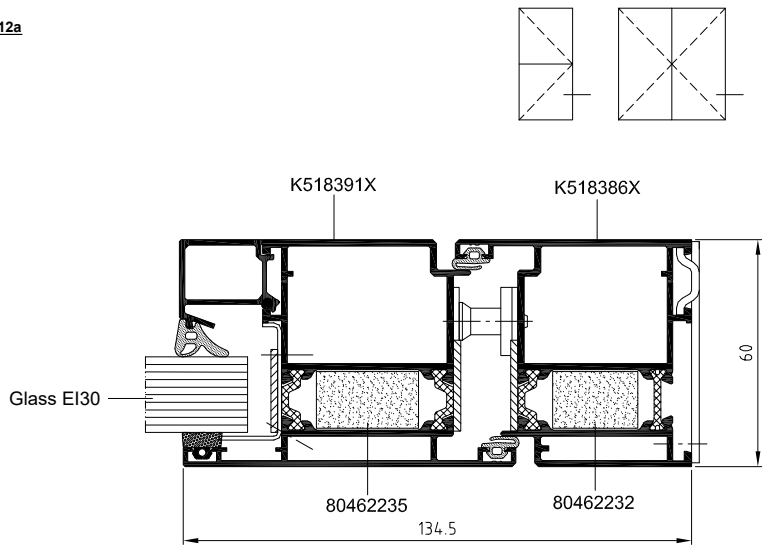
Technical window



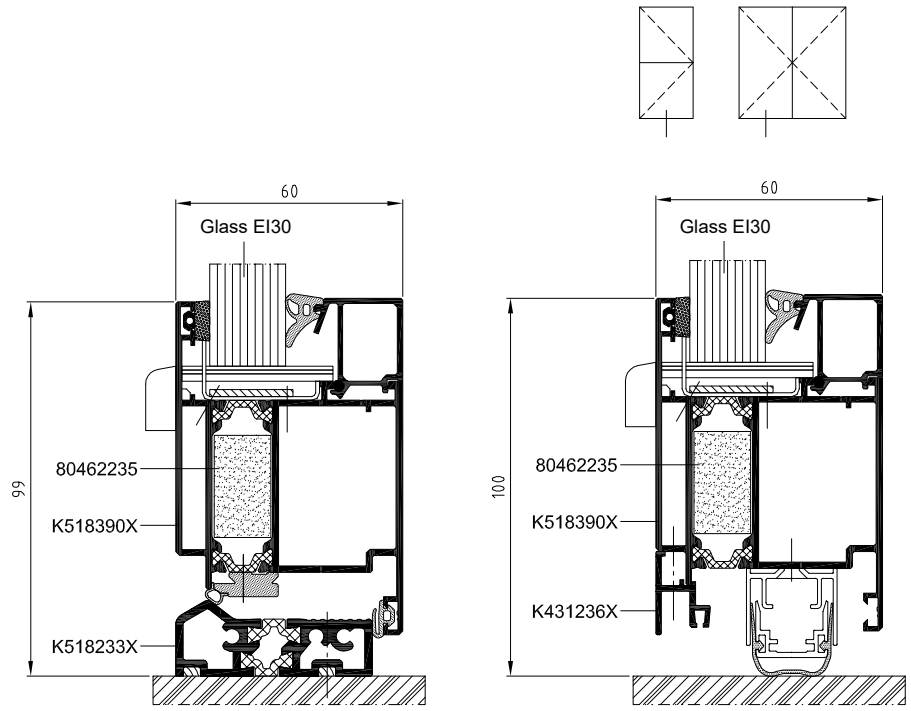
Fixed partition – cross section



Door – cross section



Horizontal sections of bottom rail for door



More examples on: www.aluprof.com/en/bim-file-finder **Scale 1:2**

FIRE RESISTANT CONSTRUCTIONS

MB-86N EI

The MB-86N EI system is used to construct structures with high thermal insulation: windows, doors and walls in fire resistance class EI30 and doors in fire resistance class EI60 according to EN 13501-2:2023-09. MB-86N EI is based on MB-86N system, and has excellent thermal, sound reduction, water resistance and air leakage performances. The MB-86N EI combines the advantages of a classic window system with the properties of a fire partition walling – the construction meets all the requirements of the applicable regulations and standards, especially regarding energy saving and environmental protection, while ensuring proper fire safety. The system is classified as non-fire spreading (NRO).

FIRE-RATED WINDOWS AND DOORS

SYSTEM CHARACTERISTICS

Three-chambered profiles, with a 43 or 42 mm -wide insulation chamber between thermal breaks as a central part.

Fire resistance is ensured by the appropriately rated glass panes, fire insulation elements in the internal chambers of aluminium profiles and
special accessories and materials used in the space between aluminium profiles and the glazing.

Wide range of glazing thickness allows for use of different types of insulated glass, including triple glazing units.

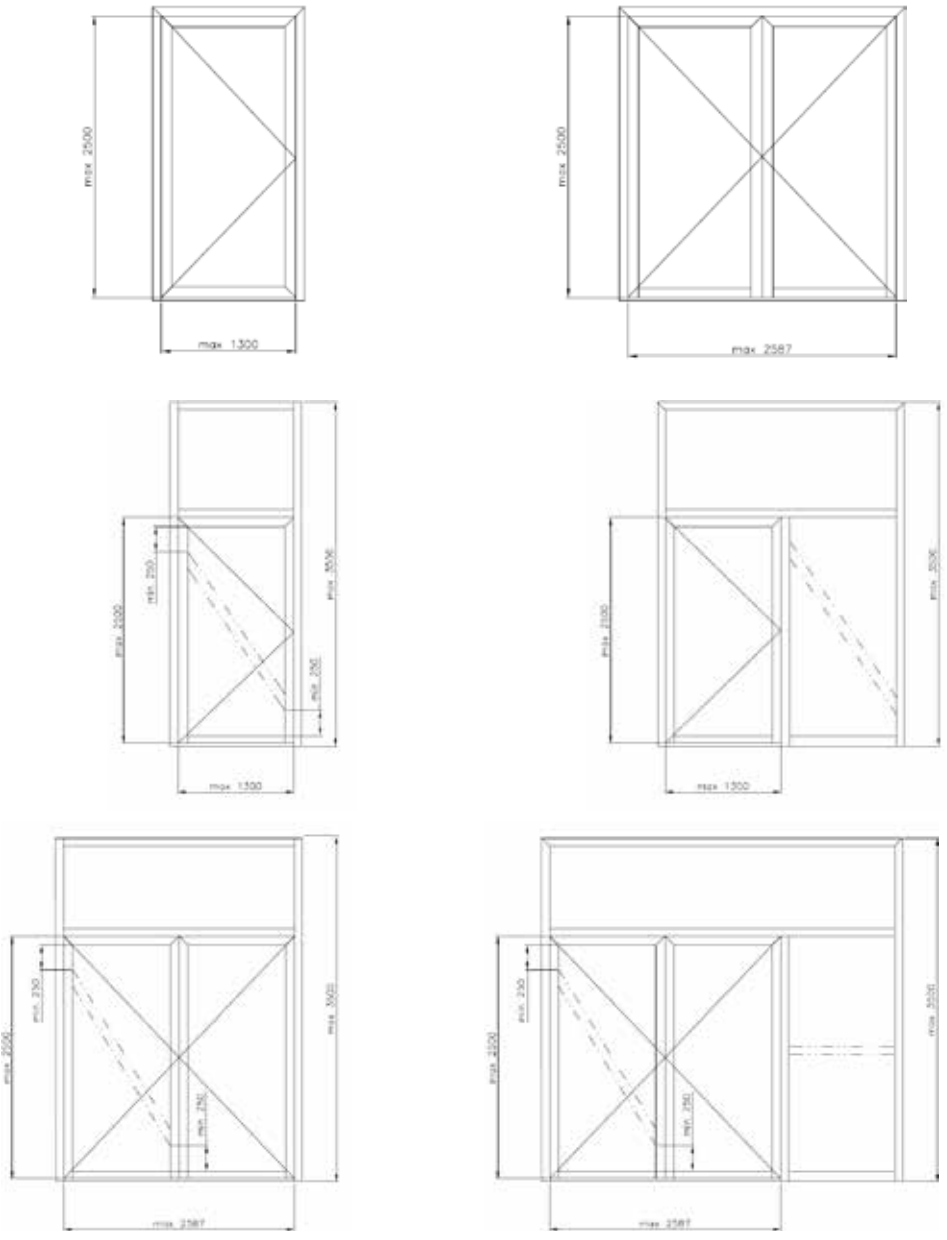
Hardware used in MB-86N EI is typically RC2 burglar-resistant-rated.

TECHNICAL SPECIFICATION	WINDOWS MB-86N EI	DOOR MB-86N EI
Frame depth	77 mm	77 mm
Casement depth	86 mm	77 mm
Glazing thickness	frame: 41 – 61 mm, casement: 41 – 70 mm	41 – 61 mm
MAX. SIZE OF THE CONSTRUCTION		
Max. casement size (H×L)	H to 2400 mm, L to 1600 mm	H to 3000 mm, L to 1300 mm

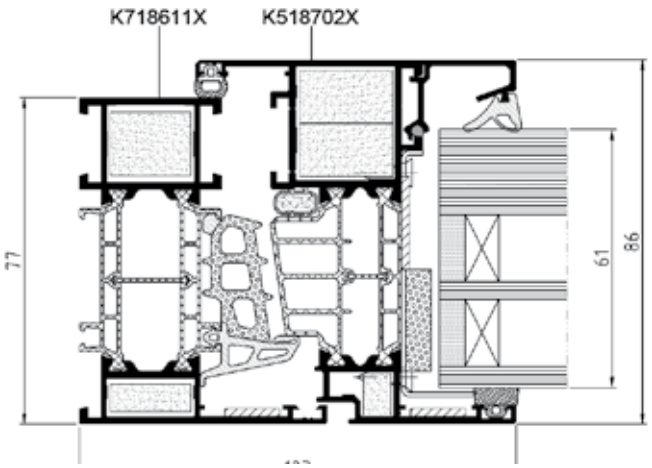
PERFORMANCE	WINDOWS MB-86N EI	DOOR MB-86N EI
Air Permeability	class 4, EN 12207	class 4, EN 12207
Watertightness	class E 1500, EN 12208	class E 1350, EN 12208
Windload resistance	class C5, EN 12210	class C5/B5, EN 12210
Thermal insulation	U_w up to 0.86 W/(m²K)*	U_D up to 1.2 W/(m²K)
Fire resistance	class EI30	class EI30, EI60

* - for a 2000×1100 mm window with triple glazing unit U_g 0,5 W/(m²K), warm spacer and EI30-rated fire-resisting glazing pane

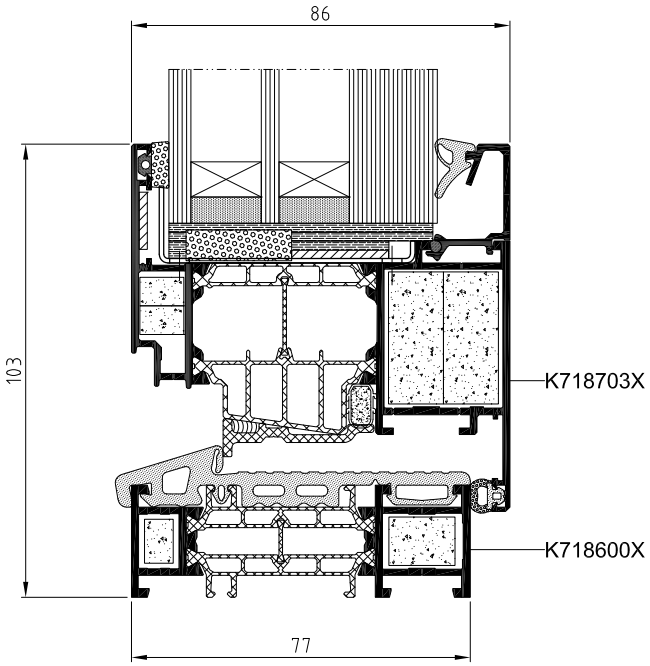
Max. dimensions of construction



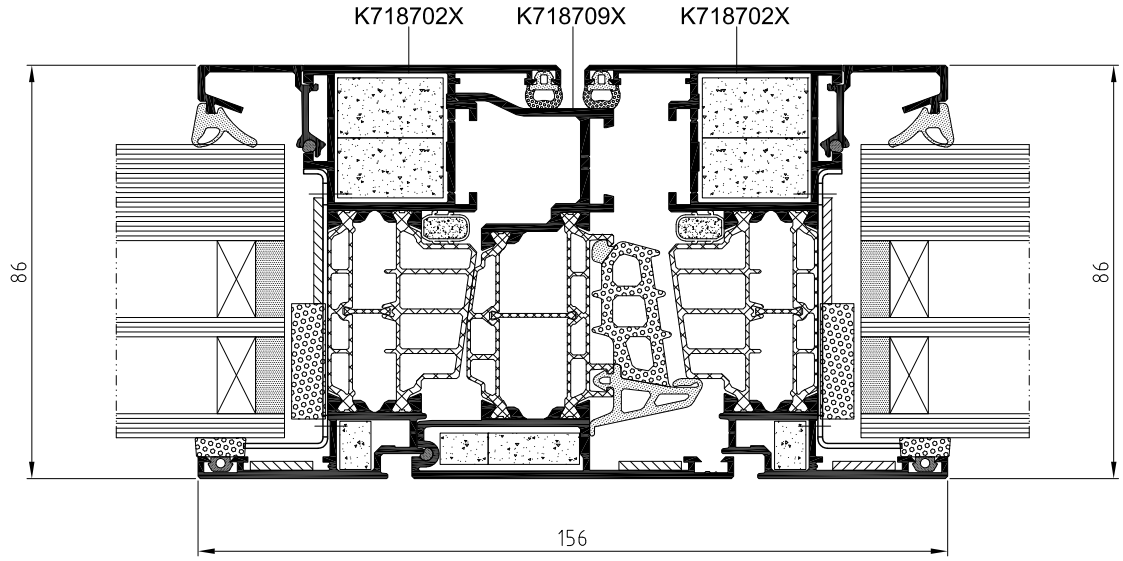
Window – cross section



Balcony door with low-level threshold – cross section

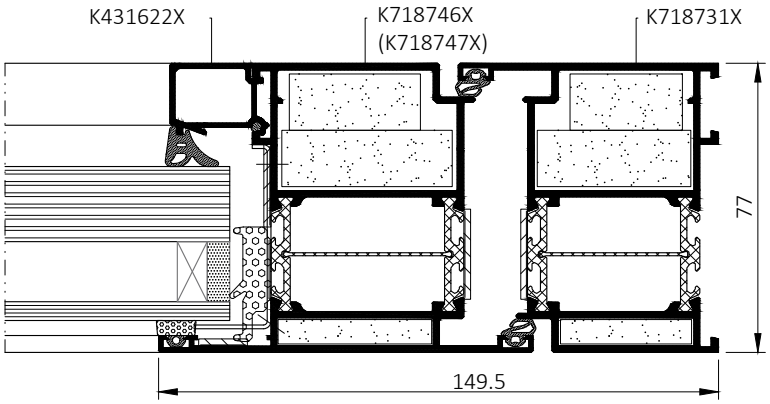


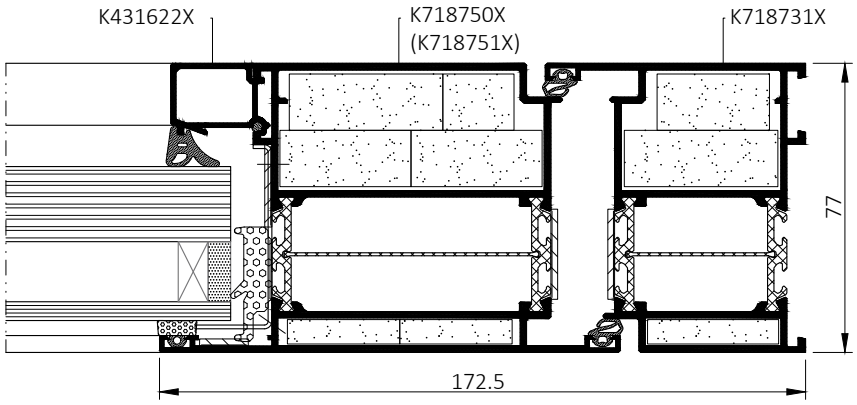
Double window with floating mullion – cross section



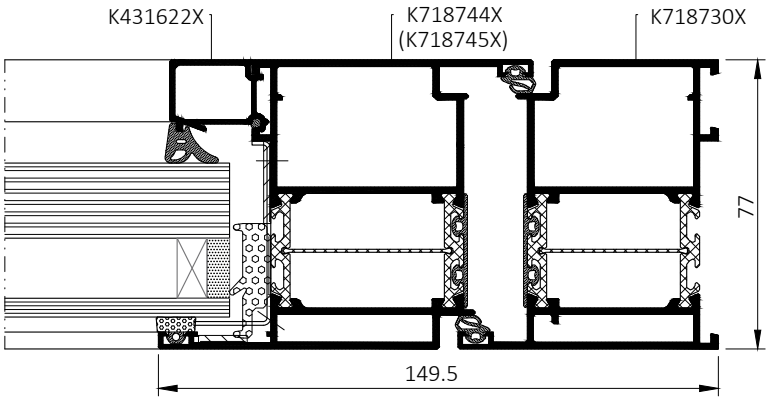
Scale 1:2

Door EI_1 – cross section



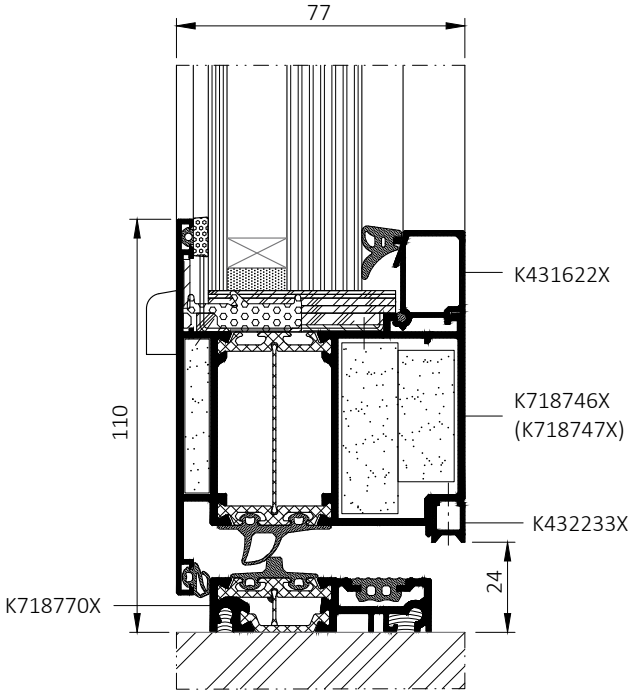


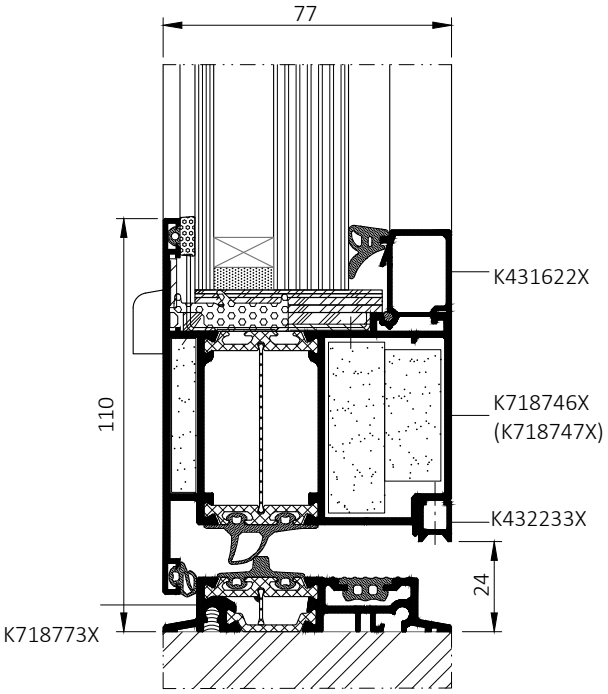
Door EI_2 – cross section



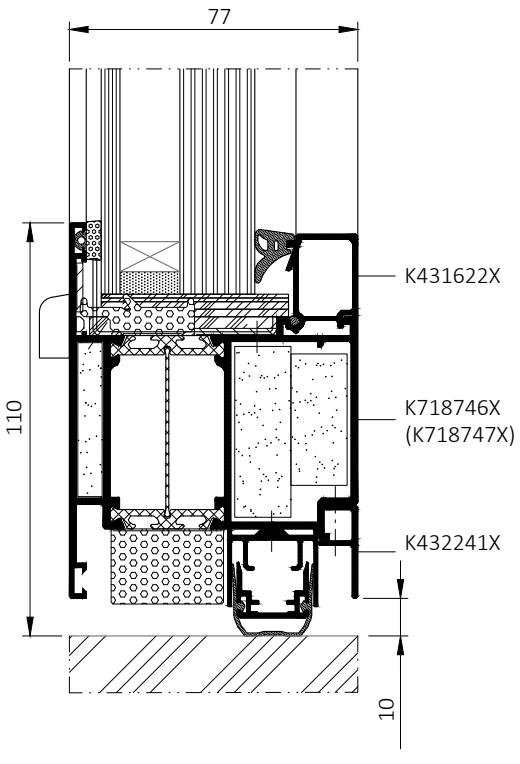
Scale 1:2

Door – cross section (class $EI_1$30)

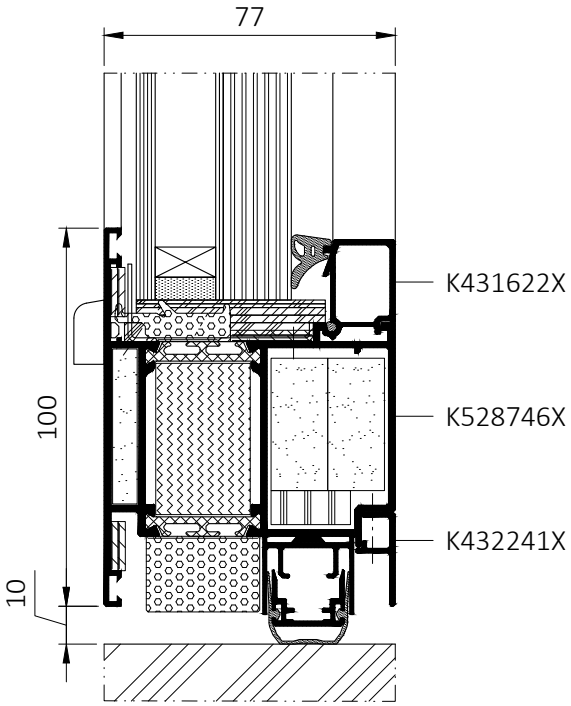




Door – cross section (class $EI_1$30)

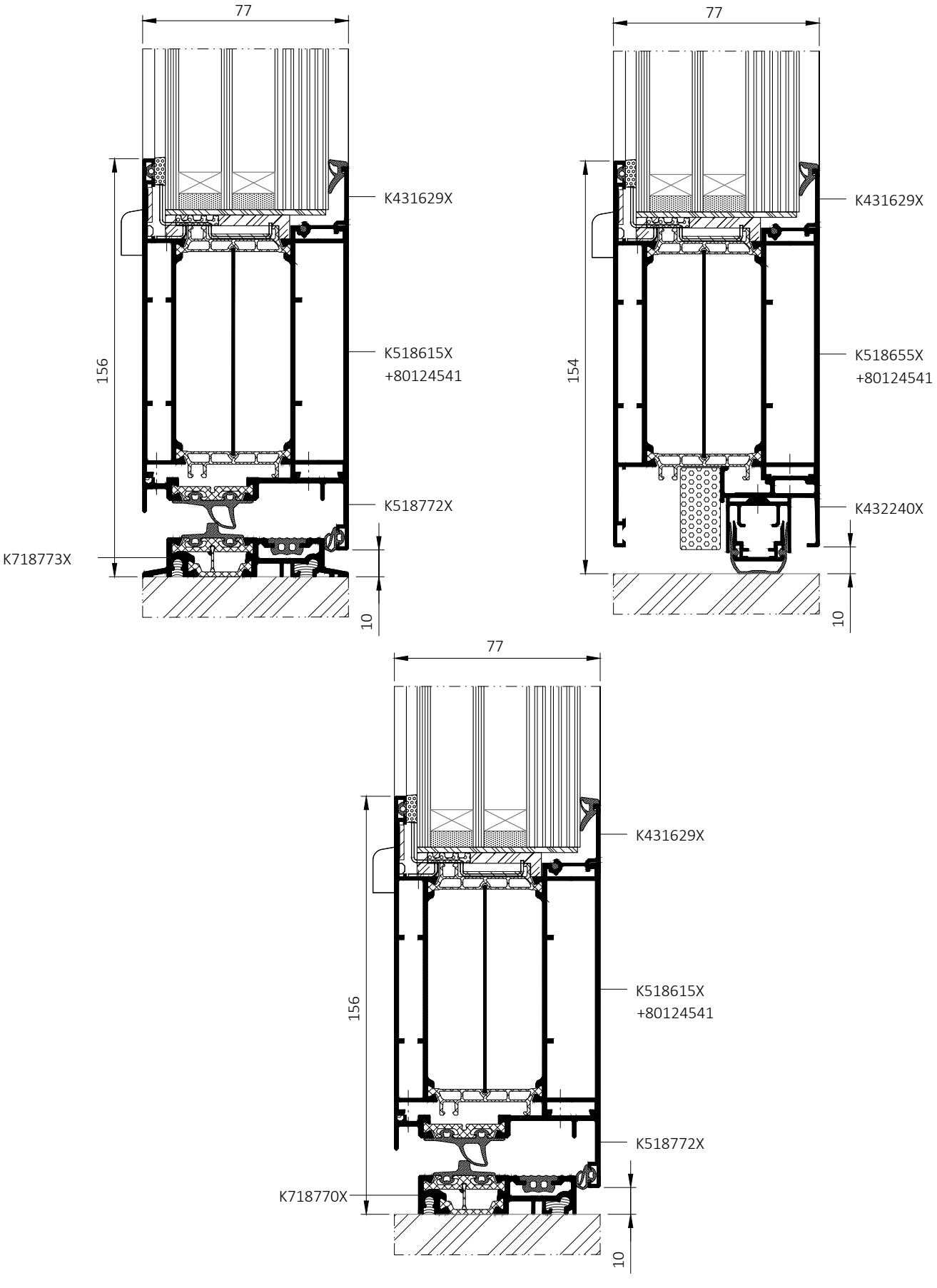


Door – cross section (class $EI_2$60)



Scale 1:2

Door – cross section (class EI_2)



More examples on: www.aluprof.com/en/bim-file-finder **Scale 1:2**

FIRE-RESISTANT GLASS

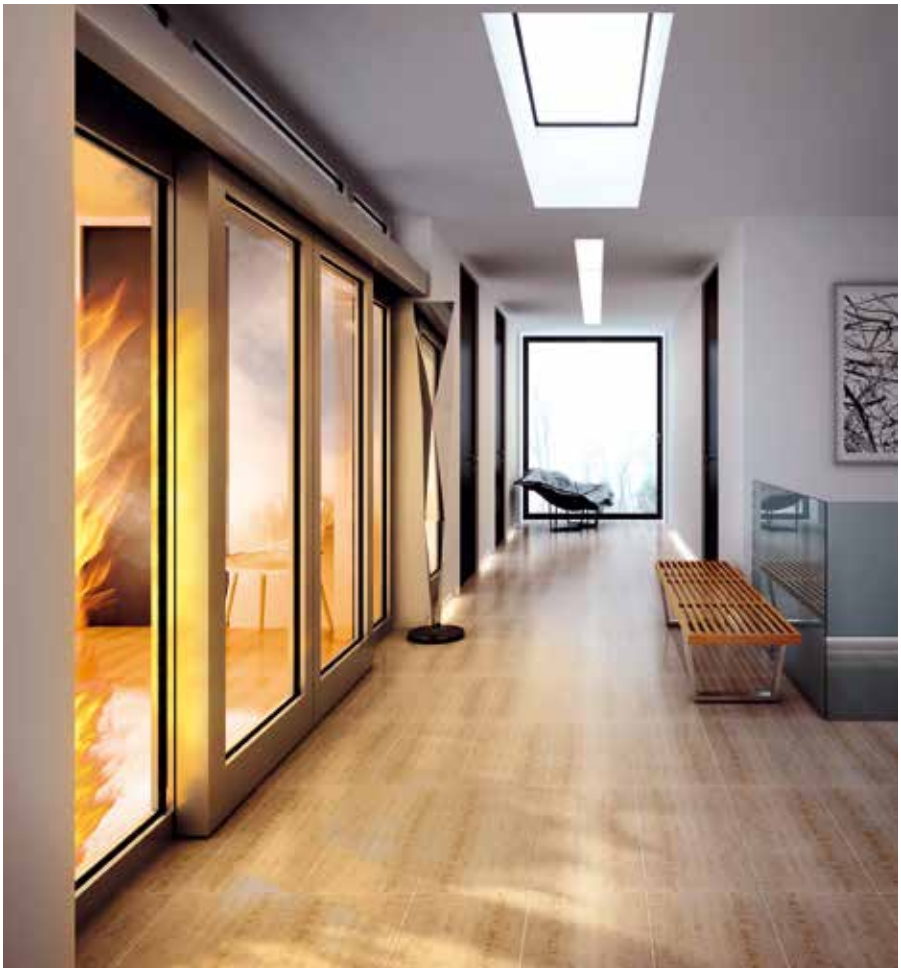
GLASSPROF EI

GLASSPROF's EI-rated glass, which is manufactured by GLASSPROF sp. z o.o., a subsidiary of ALUPROF SA., is designed for use in building structures such as windows, doors, partitions, façades and similar. The company's product range includes not only EI 30, EI 60 and EI 90 fire-rated glass, but also other types of glazing. The technology used at GLASSPROF enables us to produce insulating glass units featuring a range of glass functions, including fire resistance, thermal insulation, sun protection, sound reduction and security.

SAFETY GLASS

Our EI glass is layered in structure, made with sheets of 5-mm-thick, clear, tempered glass to ensure user safety and reduce the risk of breakage during transport, installation and use. The panes are separated by a layer of special fire-resistant gel. The overall thickness of glass constructed in this way ranges from 15 mm for EI 30 glass to 35 mm for EI 90 glass.

The fire rating determines the quantity of tempered glass and layers of gel. The gel used in GLASSPROF panes is resistant to radiation. As a result, it crystallises in the event of fire, forming a layer that provides fire insulation and safety. The fundamental advantages of GLASSPROF EI glazing are its high transparency, low weight and UV resistance.



Fire proof

Tempered glass

Lightweight

Reduces noise

Impact resistant

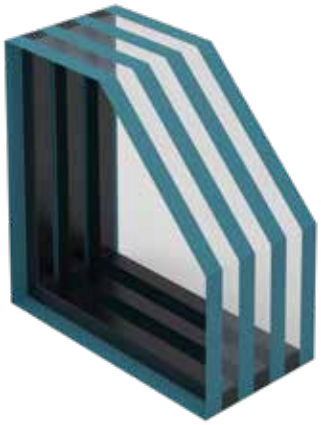
Transmits light

Large dimensions

High temperature range

EI 30

EI 60



EI 90

Functions and aesthetics of GLASSPROF fire-resistant glass:

- The glass is neutral in colour, with a transparency level as high as 87%
- The radiation resistance has been confirmed by independent testing (EN 12543-4). There is no need to use external laminated glass to protect the fire-rated glass in insulating units from UV radiation
- It is classified as safety class 1B1, the highest as per the EN 12600 standard
- The high level of sound insulation reduces noise by 93% and more
- Lightweight, at 32.5 kg/m² for GLASSPROF's EI30 glass
- Large-scale glazing is possible
- GLASSPROF glasses are composed of tempered panes featuring automatically arrised edges
- No aluminium tape is needed on the edges of the glass for moisture protection
- Cutting-edge, fully automatic production technology is used for the glass
- The glass is also available in the form double and triple glazing units featuring a range of glass functions

TECHNICAL SPECIFICATION	GLASSPROF EI30	GLASSPROF EI60	GLASSPROF EI90
FIRE RESISTANCE (EN 13501-2)	EI 30	EI 60	EI 90
Thickness	15 mm	25 mm	35 mm
Composition	5 / 5 / 5	5 / 5 / 5 / 5 / 5	5 / 5 / 5 / 5 / 5 / 5 / 5
Weight	32,5 kg/m²	52,5 kg/m²	72,5 kg/m²
Temperature range for transport, storage and use	-10 / +45°C		
Visible light transmission Lt (EN 410)	87 %	84 %	82 %
Solar factor g (EN410)	74 %	69 %	66 %
U_g value (EN 673)	5,0 W/m²K	4,5 W/m²K	4,0 W/m²K
Sound reduction R_w (C; Ctr) (EN ISO 10140-2, EN 717-1)	39 (-1; -2) dB	43 (-2; -2) dB	45 (-2; -3) dB
Radiation resistance (EN 12543-4)	2000 h		
Humidity resistance (EN 12543-4)	2 weeks / 100% relative humidity		
Pendulum impact class (EN 12600)	1B1		
Hazardous substances	none		

INTERIOR GLASS PARTITION SYSTEMS

MB-HARMONY

The MB-HARMONY is a single-glazed system which is part of the MB-HARMONY OFFICE glass partition series. Geometrically light and easy to assemble, it requires no special construction tools. It is designed to be combined with tempered glass or with 10-12 mm acoustic glass. The system is ideal for typical office spaces, even those with acoustic requirements above the norms.Our MB-HARMONY OFFICE is a new range of products for the construction of interior glass partitions. It was conceived to create an easily prefabricated and quickly installed system that delivers durable, contemporary and spacious designs with guaranteed performance and user comfort.

SPACIOUS DESIGN AND USER COMFORT

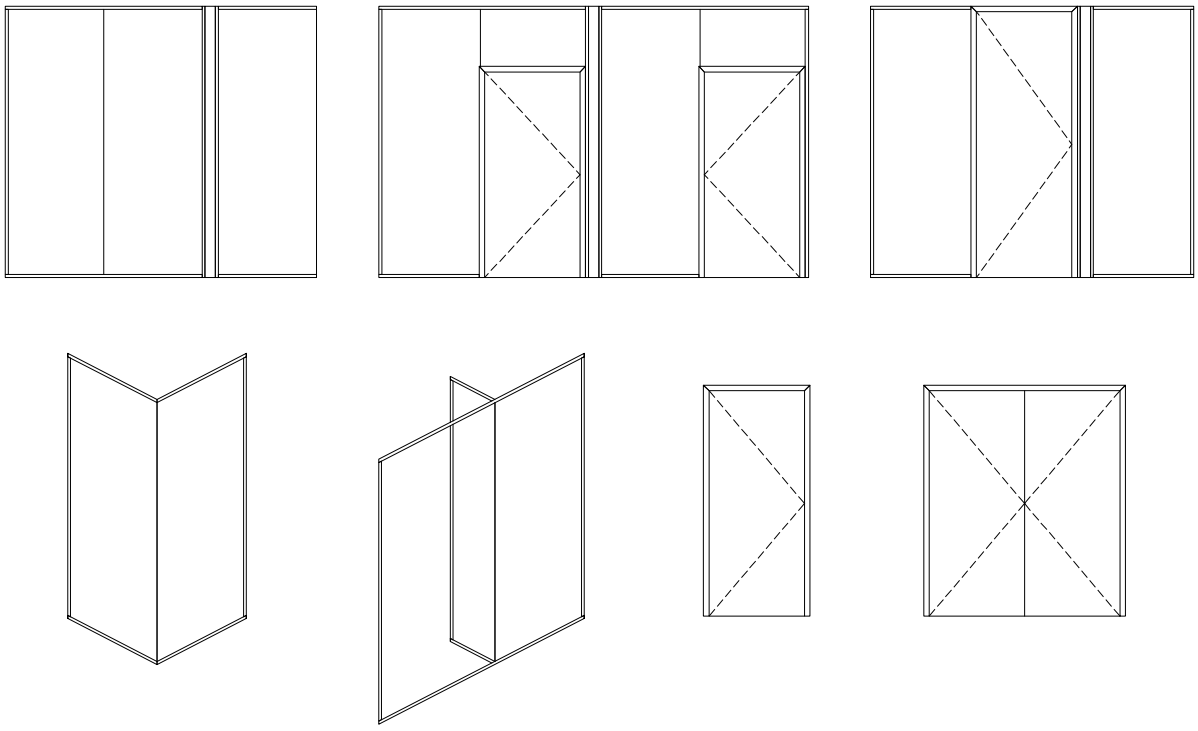
IMPORTANT FEATURES

- the structurally light profiles are only 31 mm high
- the entire system consists of just a few basic elements
- the connectors and accessories have been reduced to a minimum
- the system is simple to prefabricate and to install, that can be done on site
- the unique installation panel is built using base profiles
- acrylic joints by walls are unnecessary
- hardware and accessories are mainly installed without machining, which has been limited to no more than a few instances
- the required machining can be carried out using portable tools
- the concealed glazing gaskets are inserted before the profiles are installed
- the stability and reliability of the structure has been confirmed by tests
- the universal frame is suitable for all types of doors

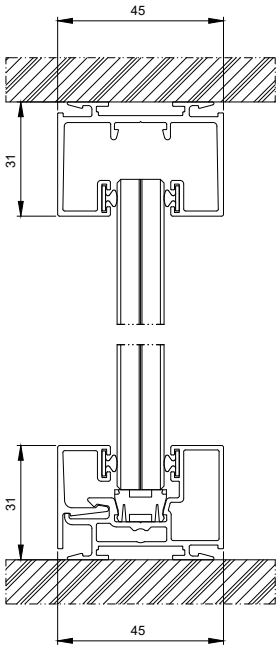
SPECIFICATIONS	MB-HARMONY
Glazing	ESG 10, ESG12, VSG 55.1, VSG 55.2, VSG 66.1, VSG 66.2 VSG 55.2 with acoustic foil, VSG 66.2 with acoustic foil
Acoustic insulation	R_w of 39 Db max. / RA_1 of 38 dB max.
Use category	IVb
Room category	A, B, C1÷C5, D
Height	3200 / 3600 mm*
Finishing	anodised, RAL colours, ADEC wood and concrete colours

* - for glass types ESG 12, VSG 66.1, VSG 66.2 and VSG 66.2 with acoustic film

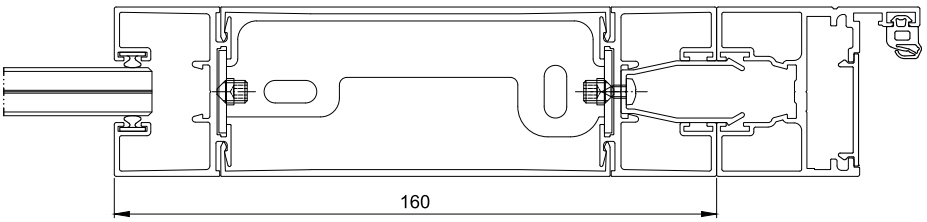
Examples of constructions



Internal partition, vertical – cross section

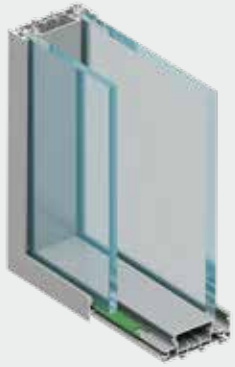


Horizontal cross section through the mullion and door frame



INTERIOR GLASS PARTITION SYSTEMS

MB-HARMONY DUO



The MB-HARMONY DUO is a system for building double-glazed interior partitions. It was designed primarily for offices spaces with very high acoustic requirements. The double glazing provides the insulation essential to maintain both excellent user comfort and the privacy of conversations held inside. The DUO echoes the geometry of single-glazed partitions of its sister system, the MB-HARMONY, meaning that both solutions can be used together to create an aesthetic consistency.

HIGH ACOUSTIC PARAMETERS

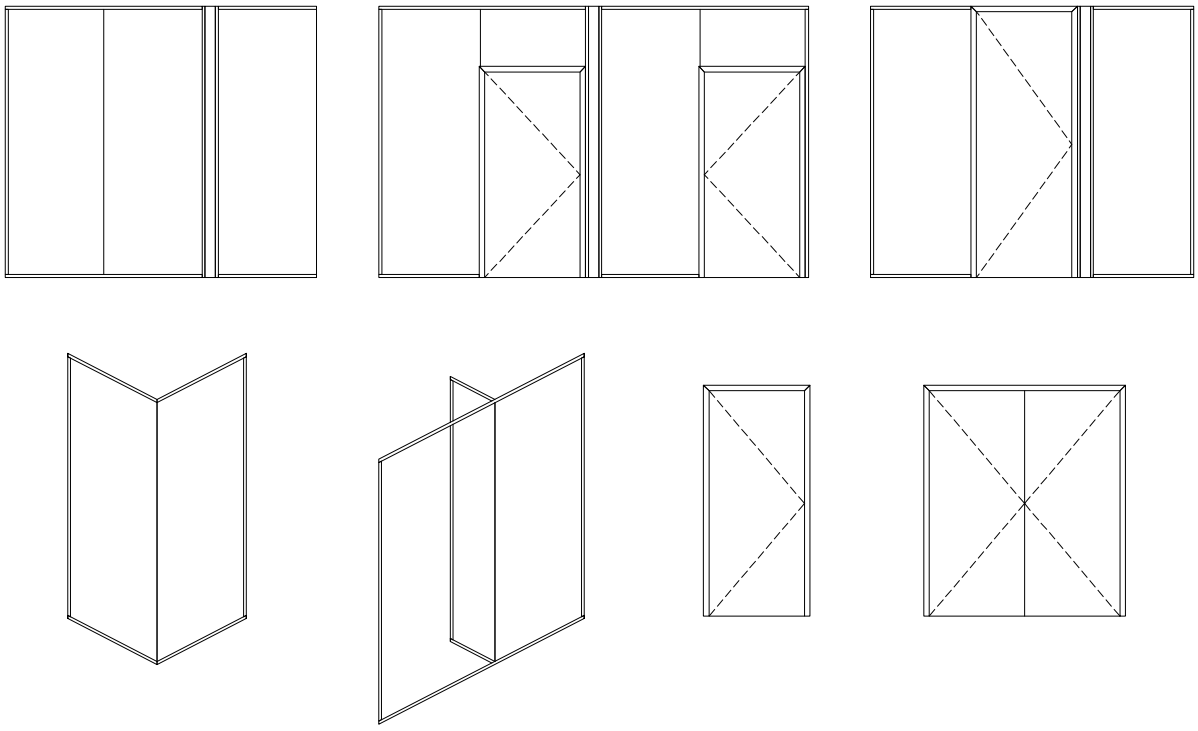
IMPORTANT FEATURES

- the structurally light profiles are only 31 mm high
- the MB-HARMONY and MB-HARMONY DUO solutions are compatible
- the entire system consists of just a few basic elements
- the connectors and accessories have been reduced to a minimum
- the system is simple to prefabricate and to install, that can be done on site
- the unique installation panel is built using base profiles
- acrylic joints by walls are unnecessary
- hardware and accessories are mainly installed without machining, which has been limited to no more than a few instances
- the required machining can be carried out using portable tools
- the stability and reliability of the structure has been confirmed by tests
- the universal frame is suitable for all types of doors
- the concealed glazing gaskets are inserted before the profiles are installed

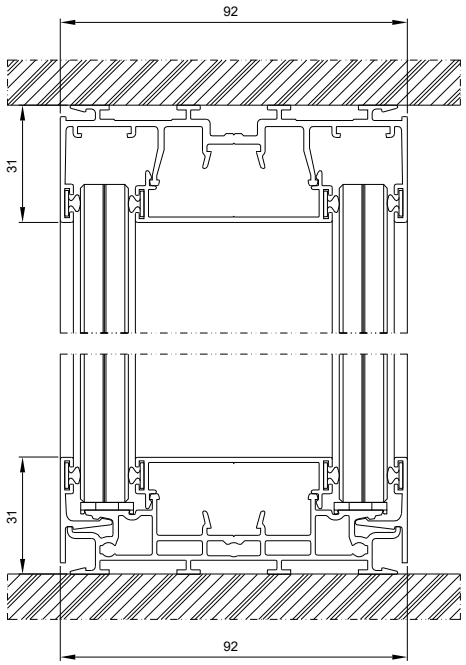
SPECIFICATIONS	MB-HARMONY DUO
Glazing	ESG 10, ESG12, VSG 55.1, VSG 55.2, VSG 66.1, VSG 66.2 VSG 55.2 with acoustic foil, VSG 66.2 with acoustic foil
Acoustic insulation	R_w of 39 Db max. / RA_1 of 38 dB max.
Use category	IVb
Room category	A, B, C1÷C5, D
Height	3200 / 3600 mm*
Finishing	anodised, RAL colours, ADEC wood and concrete colours

* - for glass types ESG 12, VSG 66.1, VSG 66.2 and VSG 66.2 with acoustic film

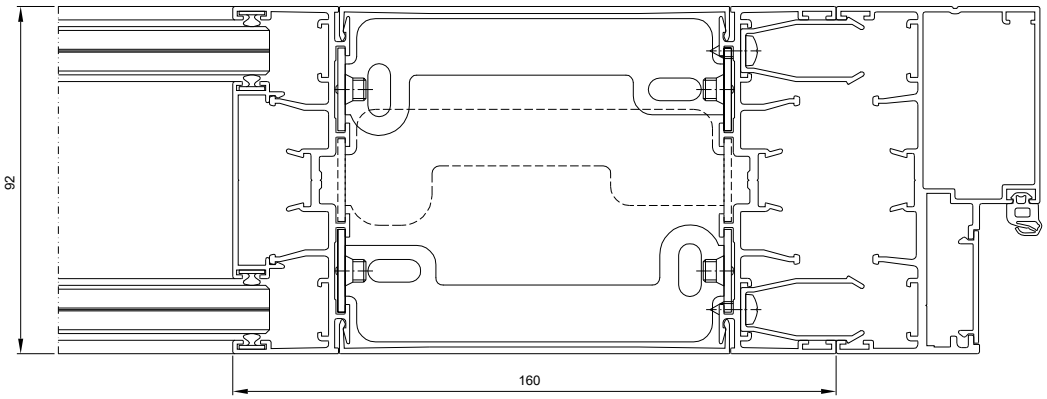
Examples of constructions



Internal partition, vertical – cross section



Horizontal cross section through the mullion and door frame



More examples on: www.aluprof.com/en/bim-file-finder **Scale 1:2**

MB-80 OFFICE

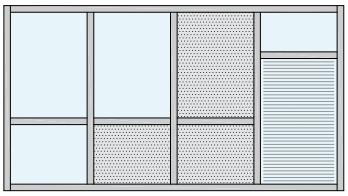
This internal, double-glass partition walling system is designed to fabricate internal partitions in offices and other public facilities. The system enables the use of different types of infills, transparent or obscure, with internal blinds and electrical components and office equipment. These partitions are especially suitable in buildings where a high sound insulation is required. The basic feature of this construction is its versatility in arranging office space, combined with the simplicity of execution of all the works on site.

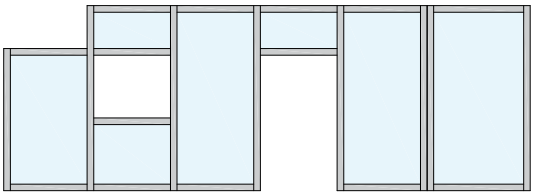
PARTITION WALLING SYSTEMS

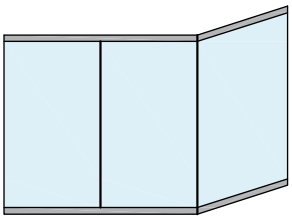
SYSTEM CHARACTERISTICS

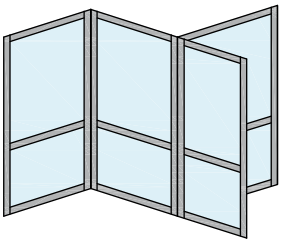
- different types of infill panes 4-14 mm thick, furniture boards 16-18 mm thick, gypsum plasterboards
- depth & construction of the basic profiles enables installation of intra-pane blinds
- can be combined with a standard, 75 mm -thick gypsum plasterboards
- excellent sound insulation in office spaces - noise reduction of 50 dB depending on the type of infill used
- possibility to fabricate 80 mm & 92 mm walls
- custom division of space, angle of refraction within the range 90°÷180°
- simple prefabrication & installation, direct on-site pre-fabrication in option
- cables inside the wall, installation of standard power sockets
- can be combined with MB-45-based wall (MB-45S-based doors that flush with the plane of the wall) (flushed with the plane of the wall and with non-protruding hinges), and with MB-EXPO & MB-45 OFFICE doors (with centrally-installed leaf, flushed with the plane of the wall, plus non-protruding hinges)
- high rigidity of the profiles makes the construction fit to any interior space, for instance, a construction with 4 mm glass and 1.3 m post spacing can be up to 5.4 m high and up to 6.35 m if the posts are steel core-reinforced

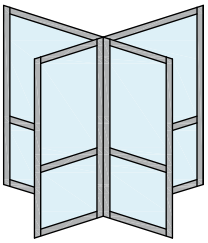
Examples of constructions

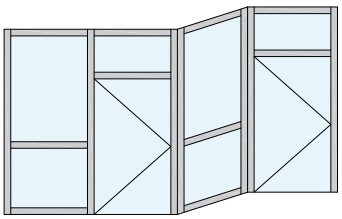


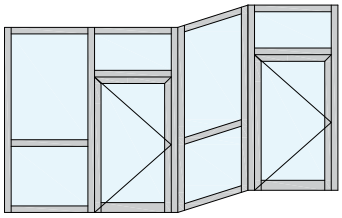


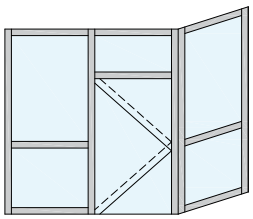




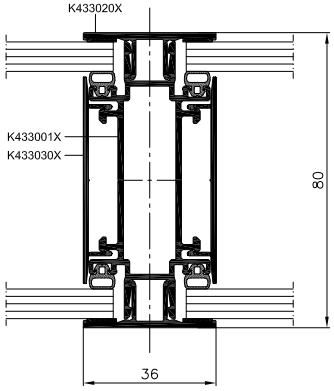




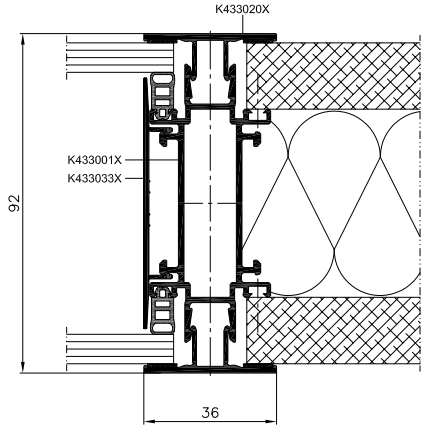




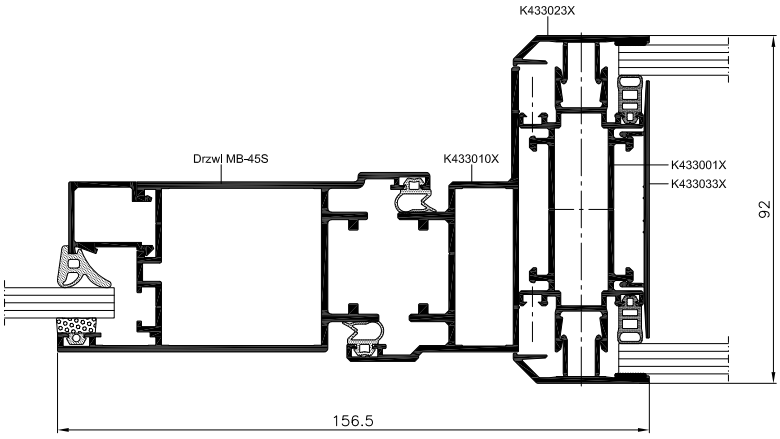
Partition 80 mm – cross section



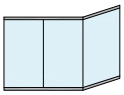
Partition 92 mm – cross section

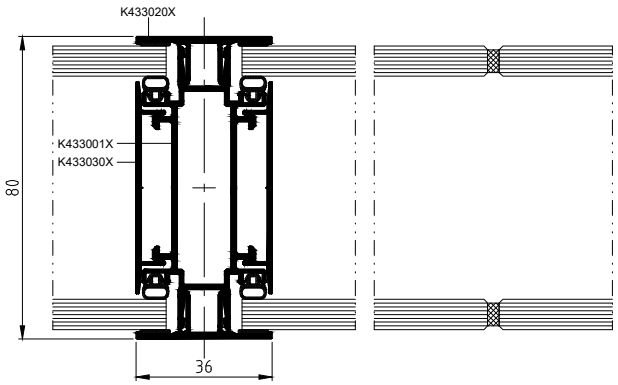


Partition with door MB-45S – cross section



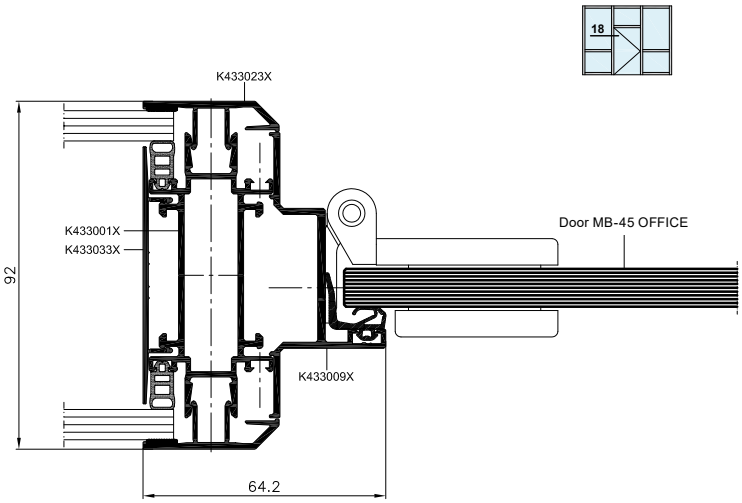
Silicone joined glazed wall – cross section



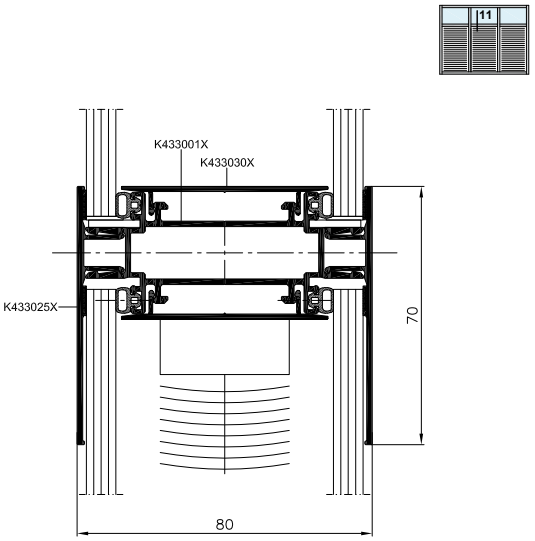


Scale 1:2

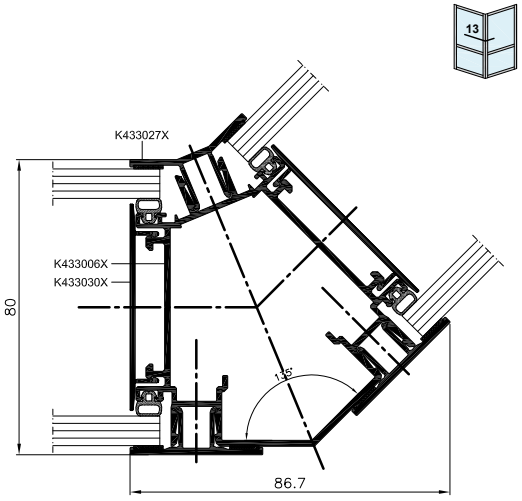
Partition with all-glass doors – cross section



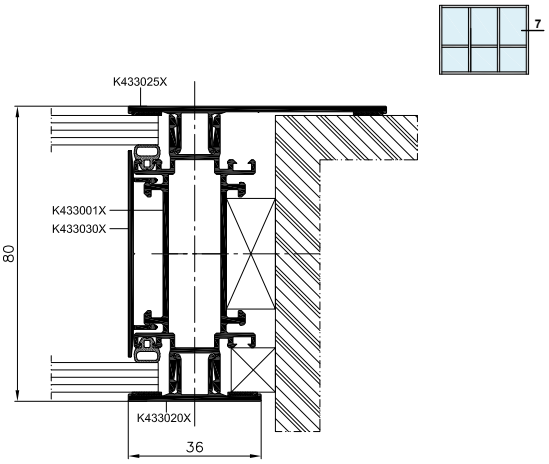
Partition with blind – cross section



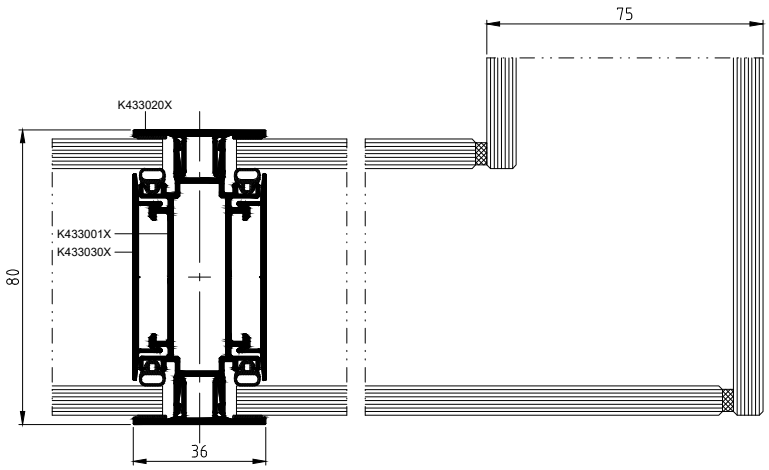
Partition, angle connection – cross section



Edge of the partition attached to the wall – cross section

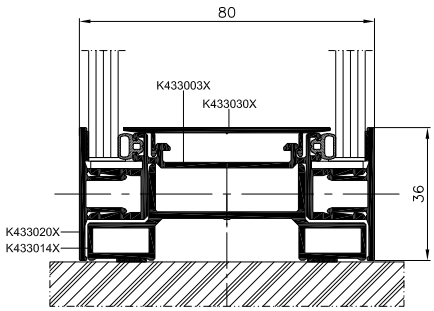


Silicone joined glazed wall – cross section

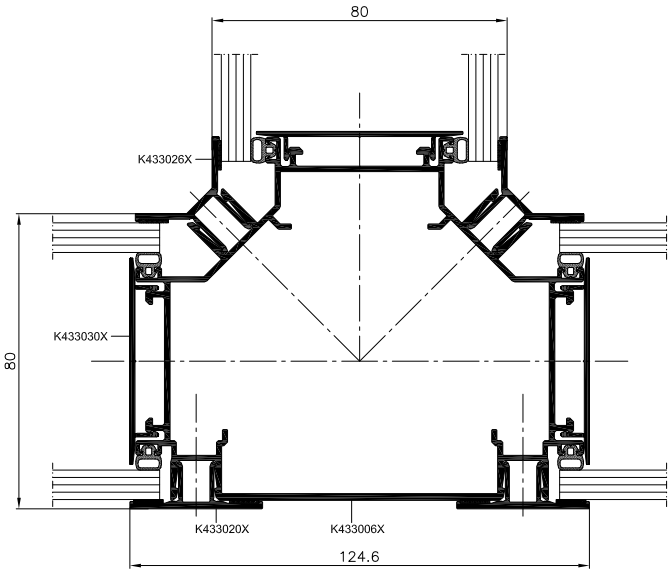


Scale 1:2

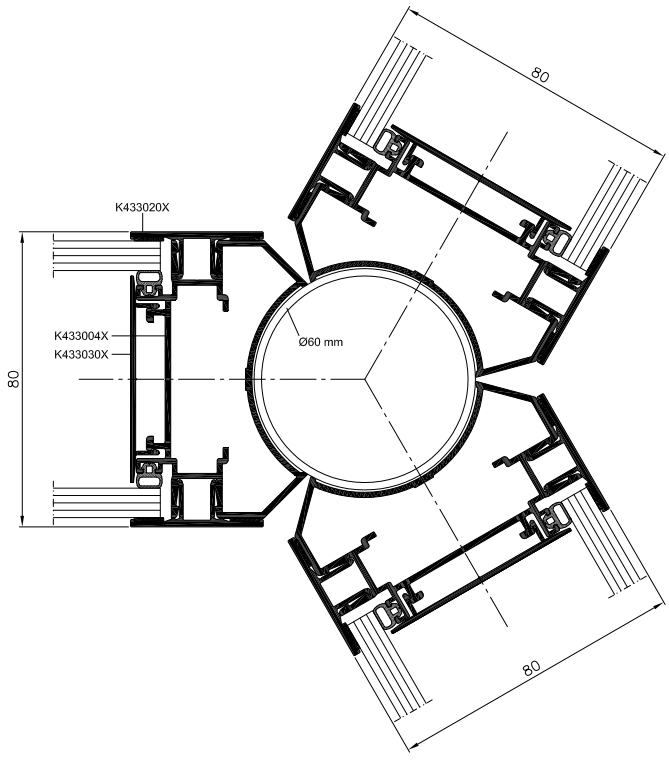
Lower crossbar – cross section



Three partitions interconnected – cross section

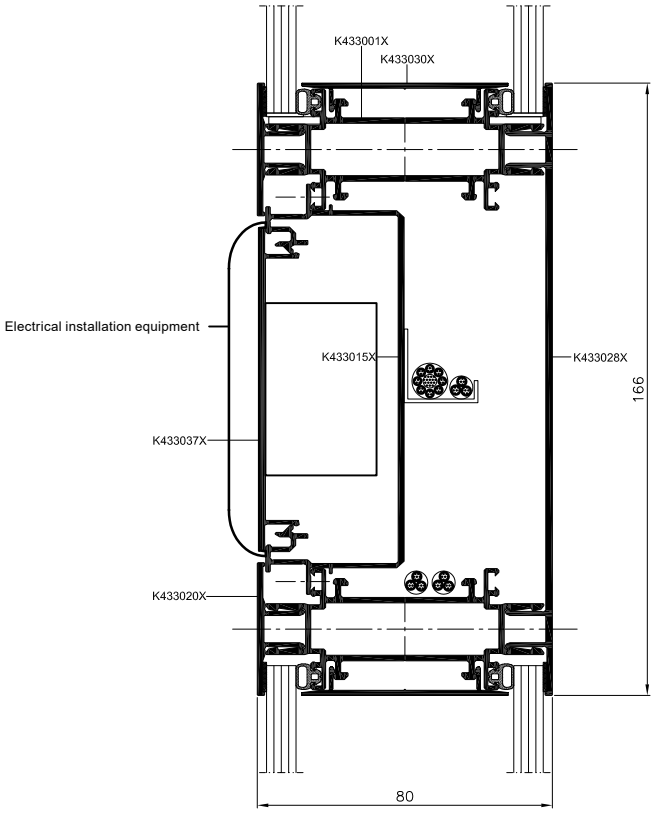


Three partitions interconnected – cross section

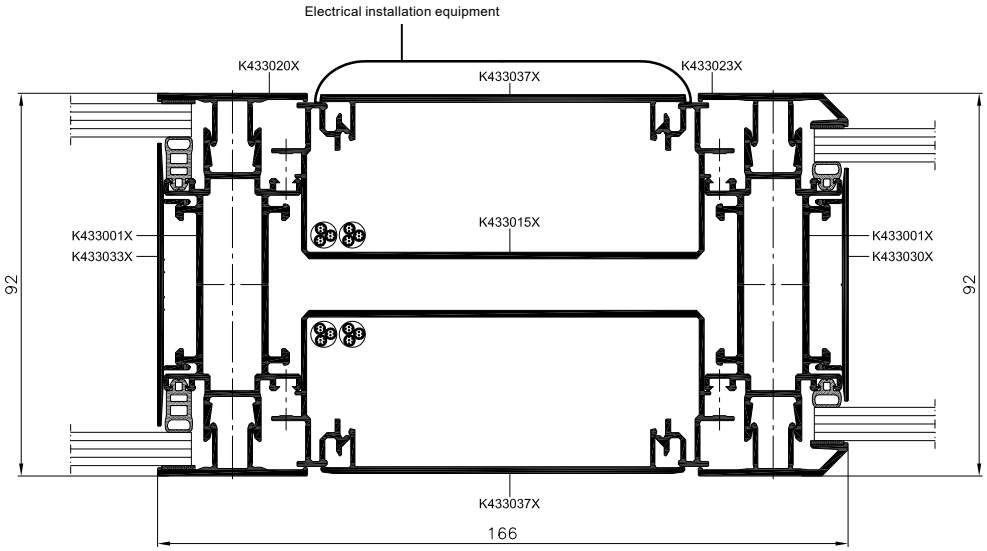


Scale 1:2

Transom with electrical fittings – cross section



Mullion with electrical fittings – cross section



More examples on: www.aluprof.com/en/bim-file-finder **Scale 1:2**

MB-45 OFFICE

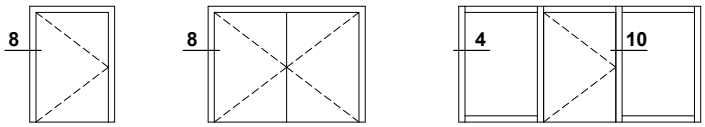
MB-45 OFFICE system is designed for internal partition walls and distinguishes itself by the fact that a tempered glass can be its structural element. The details of this system allow to fabricate fixed partition walls and all-glass hinged and swing doors. The possibility of using the MB-45 in high ceilings areas with wide openings, makes this solution this ideal for shopping malls and contemporary office interiors.

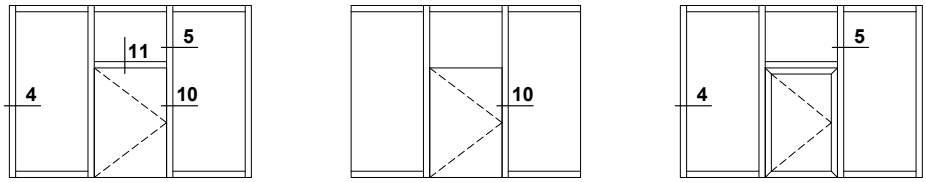
FIXED AND OPERABLE PARTITION WALLING SYSTEM

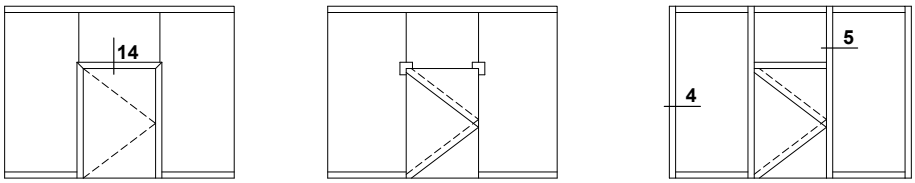
This system option comes with the same 45mm profiles' depth as the basic MB-45 system. Both solutions are fully compatible, making it possible to freely combine the profiles of both systems. The MB-45 OFFICE is based on a few standard profiles and appropriate adapter profiles giving wide choice of window frames, profile door frames and, transoms. Hinges, locks and closers available with the MB-45 OFFICE can be selected from range offered by Aluprof, Geze and WSS. The functionality of the MB-45 system allows to change the interior layout design by removing the connections and then reassembling them i.e. with new angle or functions.

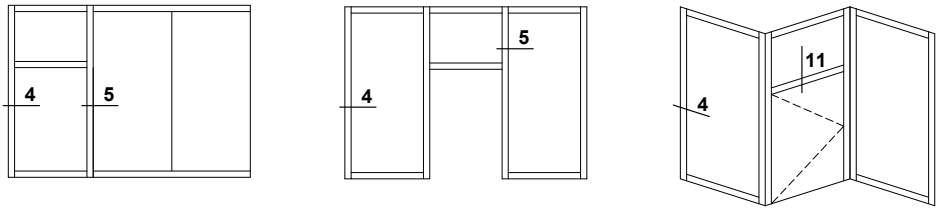
The MB-EXPO version with supporting aluminium structure can accomodate different types of panels and lazing: both single and double units, with thicknesses ranging from 2-25 mm. The system is available with dedicated 8, 10 and 12 mm thin bulky tempered glass. Units are installed using beads and glazing gasket. Glazing beads are available in two versions: Standard and Prestige, both box-type, which allows a robust and secured glass fixing.

Examples of constructions

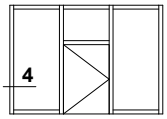


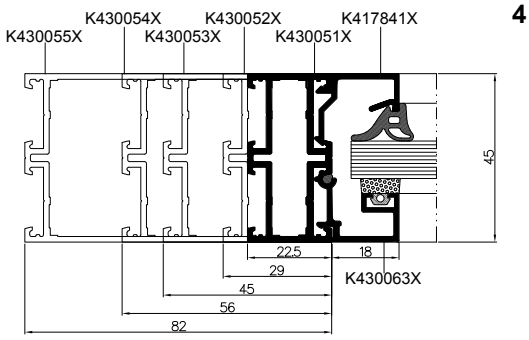


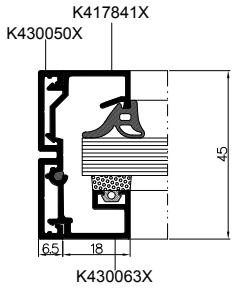




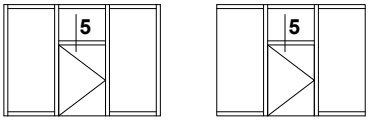
Horizontal section of jambs

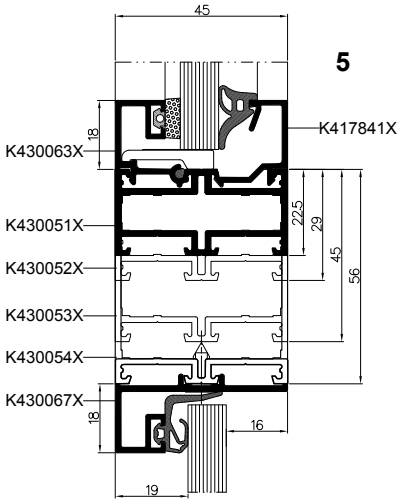




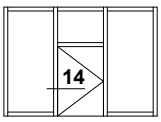


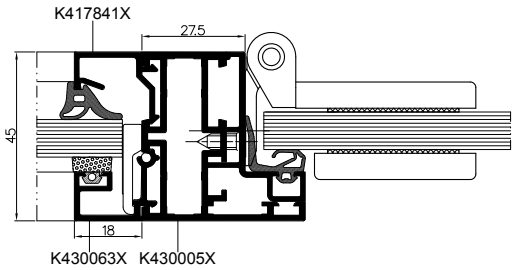
Door transom – cross section



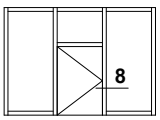


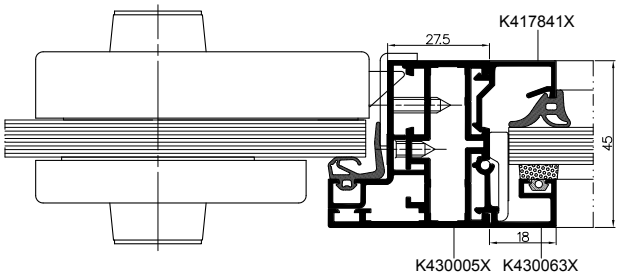
Horizontal section of jambs





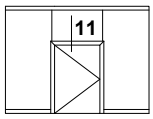
Horizontal section of jambs

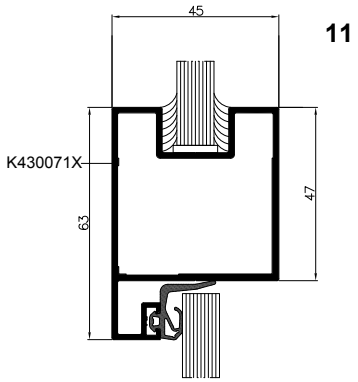




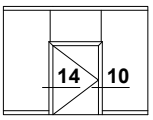
Scale 1:2

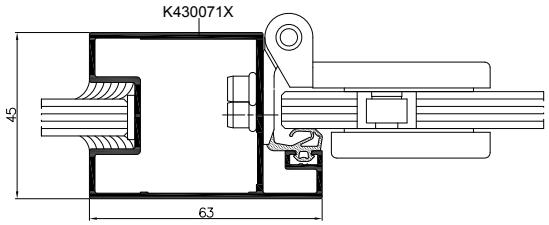
Door transom – cross section



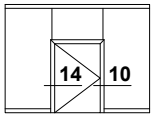


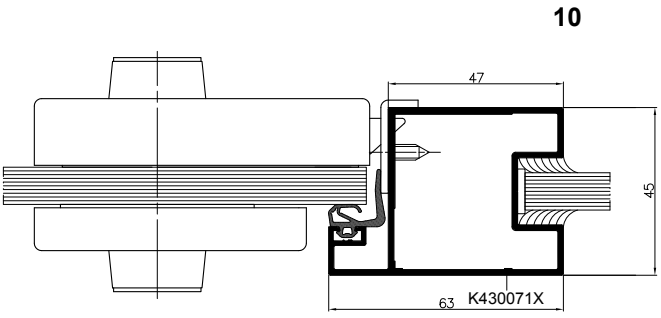
Horizontal section of jambs





Horizontal section of jambs





MB-45

The MB-45 system has been designed for internal use where thermal insulation is not required. i.e. various types of partition walls, windows, and doors. Additionally, sliding, swing and self-closing doors, enclosed entrance porches, shop windows, cash-desk boxes, display cabinets, etc. The system is also the basis for special solutions: MB-45D smoke- proof partitions and doors (class S30) and the MB-45S doors with clamp hinges. The versatility and attractiveness of the system is also enhanced by a wide selection of door sealing options, glazing beads or sills of various shapes and heights.

NON-THERMAL BARRIER

LIGHTWEIGHT,
DURABLE PROFILE DESIGN

The MB-45 window system comes with a frame depth of 45 mm and a sash depth of 54 mm. The door system is 45 mm frame and sash. Depths of the sash and frame provide smooth external sightlines on the opening lights and single surface effect after closing the window and - with regard to the door – an aligned effect of leaf and outer frame surface. The profile dimensions results in a narrow sightline on our sturdy yet lightweight windows and doors suitable for all internal applications.

DIVERSITY OF SOLUTIONS

Versatility and attractiveness of the system is additionally enhanced by the option to select from several variant solutions for different constructional details, e.g. bottom sealing of door leaves, sealing of sliding and swing doors, the shape of glazing beads, the shape and height of doorsills..

FREEDOM OF HARDWARE SELECTION

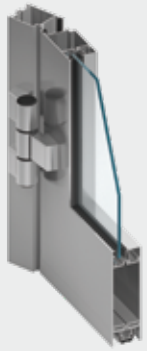
The MB-45 construction has been adapted to typical hardware, locks and hinges, following European standards. Sections are equipped with grooves as to enable fixing of multi-point locking hardware and connecting members, as per EURO standard. Therefore, it is possible to meet the demands of our customers without changing the basic construction.

PERFORMANCE

- Impact resistance: class 3, EN 1192
- Acoustic insulation: R_w=45 dB (depending on the infill material)

Filharmonia Gorzowska, Gorzów Wielkopolski, Poland
design / BUDOPOL S.A.

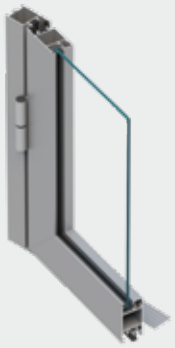
SYSTEM
MB-45



SMOKE-PROOF DOORS

MB-45 partition system is intended for producing smoke exhaust single- or doubleleaf doors with a class of S_a, and S_{200} according to the EN 13501-2:2016-07 standard.
Proper performance of the smoke-tightness function is conditioned by the correct application of the leaf peripheral sealings, rear glazing and other fillings as well as the application of threshold seals.

SYSTEM
MB-45



MORTISE DOORS

MB-45S doors are also available with 2 part butt hinges as part of the same range. The MB-45 system is intended for constructing cost-efficient doors equipped with butt hinges, featuring good functional parameters, as well as partition walls equipped with such doors. The constructional depth of profiles equals 45 mm. The MB-45 system features simple and quick prefabrication of products eliminating the majority of labour and time consuming mechanical workings. Due to the application of special grooves, the profile construction allows hinges, catches and locks to be fixed with minimal effort.

SYSTEM
MB-45EW

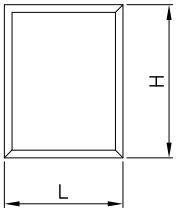
DOOR SYSTEM

The MB-45EW system enables the fabrication of fire-rated single and double doors and fixed partition walls with doors. The constructions based on the MB-45EW system are classified fire-resistant EW30 to EN 13501-2+A1:2010. The fire resistance of the construction is ensured by materials inserted into the internal chambers of the profiles. The outer surfaces have strips that swell under the effect of temperature. The system can use fire-resistant glazing EW 30 (thickness 11 mm – 15.5 mm).

TECHNICAL SPECIFICATION	MB-45	MB-45	MB-45 smoke-proof doors	MB-45EW
PROFILES DIMENSIONS				
Depth of frame (door / window)	45 mm			
Depth of leaf (door / window)	45 mm / 54 mm	45 mm		
Glazing range (fixed window and door / opening window)	1.5 – 31.5 mm / 1.5 – 34 mm	1.5 - 32 mm		11 - 15.5 mm
SIZE LIMITATIONS				
Maximum size of tilt turn window (H×L)	H to 2400 mm (1850 mm), L to 1250 mm (1600 mm)	—	—	—
Maximum size of door (H×L)	H to 2400 mm (2200 mm), L to 1250 mm (1400 mm)			
Max weight of doors / windows	120 kg / 130 kg	130 kg	120 kg	120 kg
TYPES OF CONSTRUCTIONS				
Available solutions	Tilt window, turn window, tilt turn window, Doors open out and open in	Mortise doors, Partition walls with doors	Doors open out and open in	One or both sides doors, solid walls in class EW30

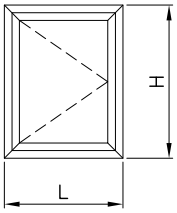
Max. dimensions of window

Fixed window



Max. dimensions of windows result from maximal glass sizes

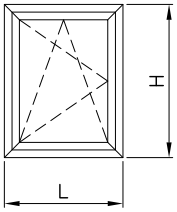
Turn-hung window



Hmax = 2250 mm
Lmax = 1300 mm

KG 130 kg

Tilt and turn window

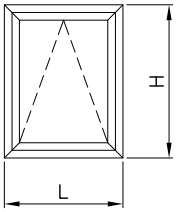


Hmax = 2400 mm
Lmax = 1250 mm

Hmax = 1850 mm
Lmax = 1600 mm

KG 90 kg / 130 kg

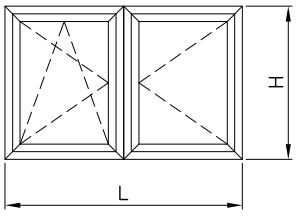
Tilt window



Hmax = 1000 mm
Lmax = 2150 mm

KG 130 kg

Double casement



Hmax = 2250 mm
Lmax = 2700 mm

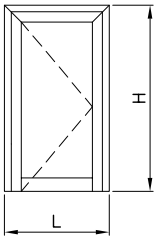
Turn-hung vent KG 130 kg

Tilt and turn vent KG 130 kg

KG Maximal vent weight

Max. standard dimensions of the door

Inside opening door,
internal development

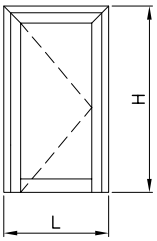


Hmax = 2400 mm
Lmax = 1250 mm

Hmax = 2200 mm
Lmax = 1400 mm

KG 120 kg

Inside opening door,
external development

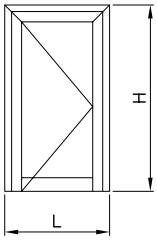


MHmax = 2400 mm
MLmax = 1200 mm

Hmax = 2200 mm
Lmax = 1300 mm

KG 120 kg

Outside opening door,
internal development

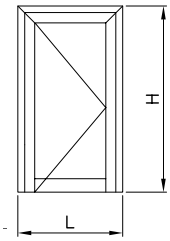


Hmax = 2400 mm
Lmax = 1250 mm

Hmax = 2200 mm
Lmax = 1400 mm

KG 120 kg

Outside opening door,
external development



MHmax = 2400 mm
MLmax = 1200 mm

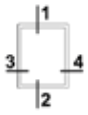
Hmax = 2200 mm
Lmax = 1300 mm

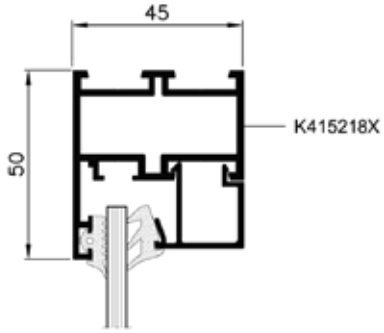
KG 120 kg

KG Maximal
vent weight

Fixed window – cross section

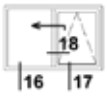
1

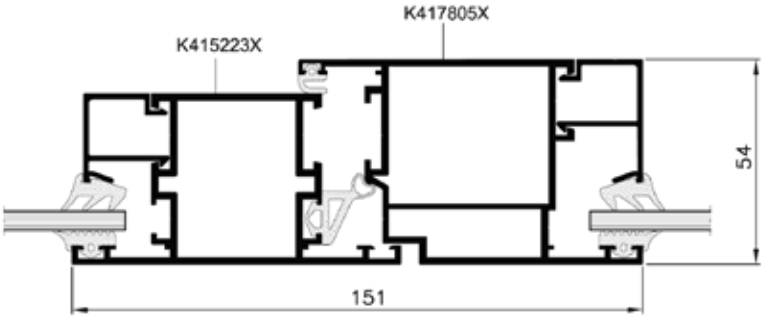




Opening window – cross section

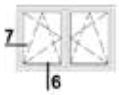
18

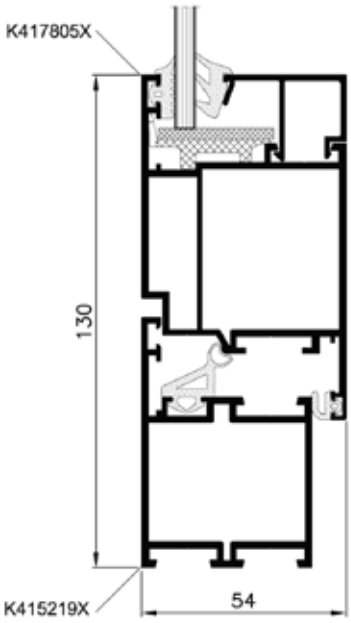




Tilt and slide window – cross section

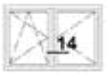
6

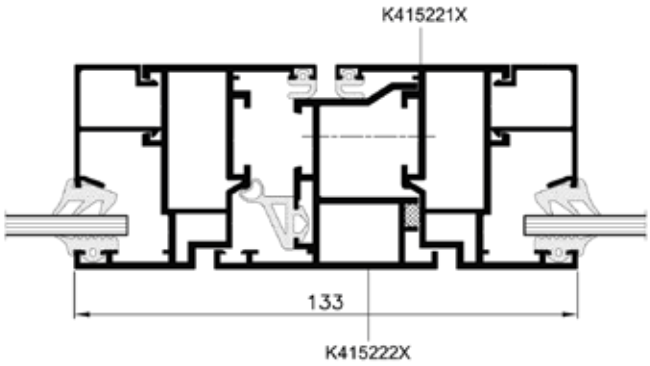




Opening window – cross section

14

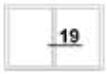


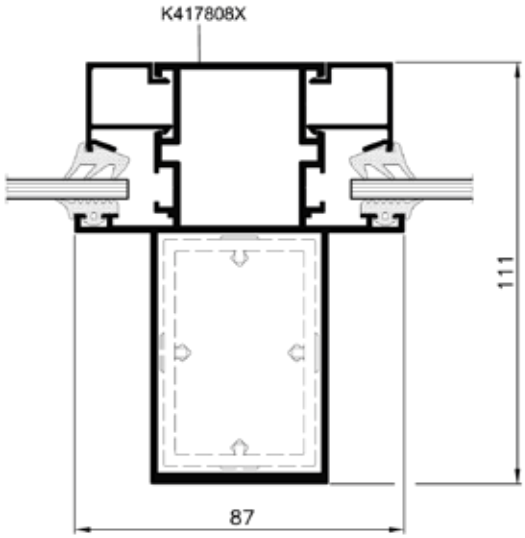


Scale 1:2

Reinforced mullion – cross section

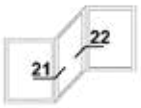
19

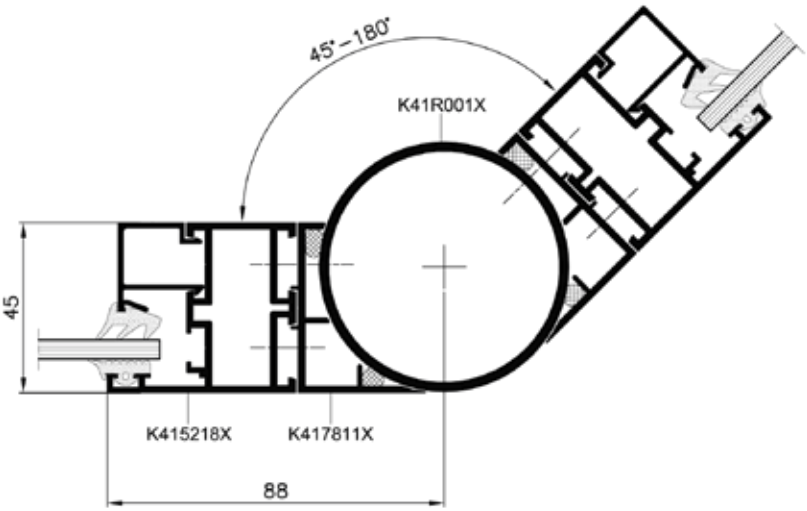




Adjustable corner connection – cross section

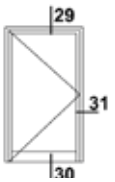
21

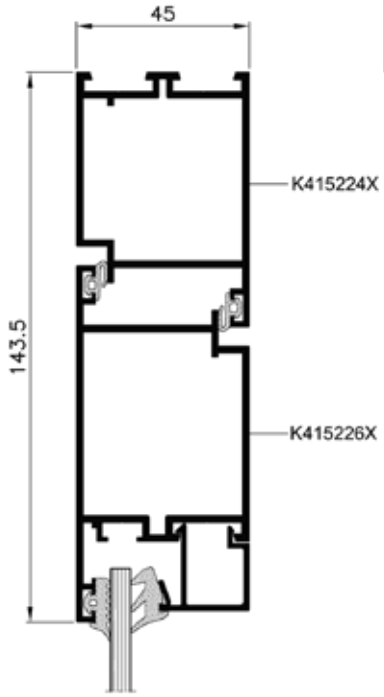




"Standard" single, active, outward opening door – cross section

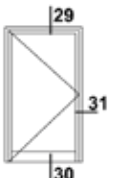
29

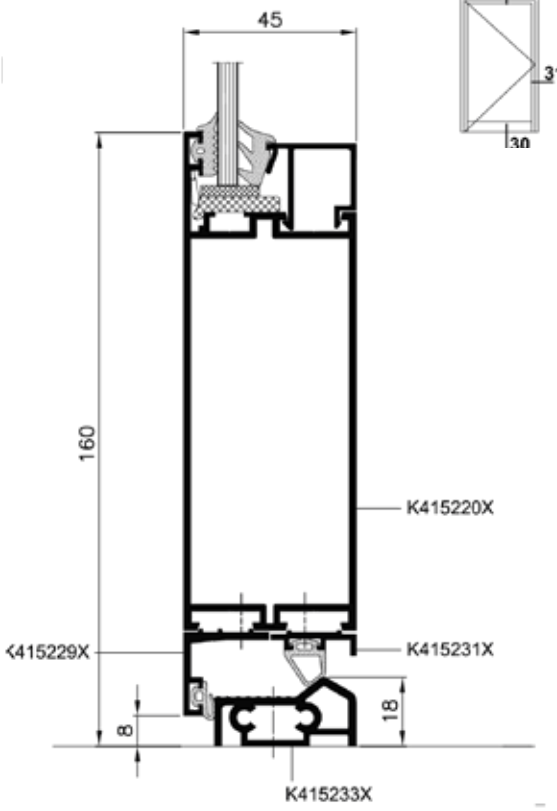




"Standard" single, active, outward opening door – cross section

30

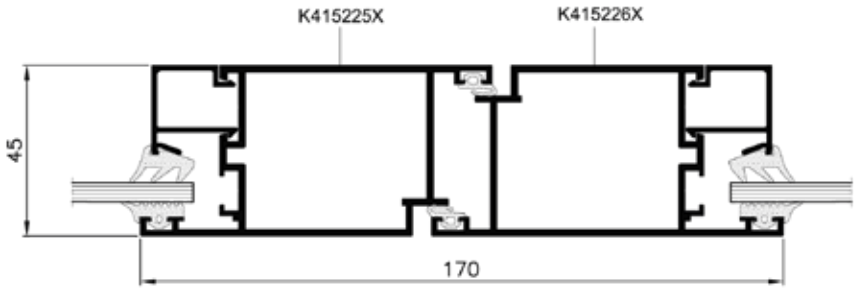




Scale 1:2

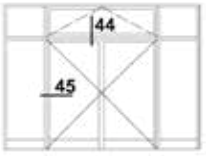
Double leaf door – cross section

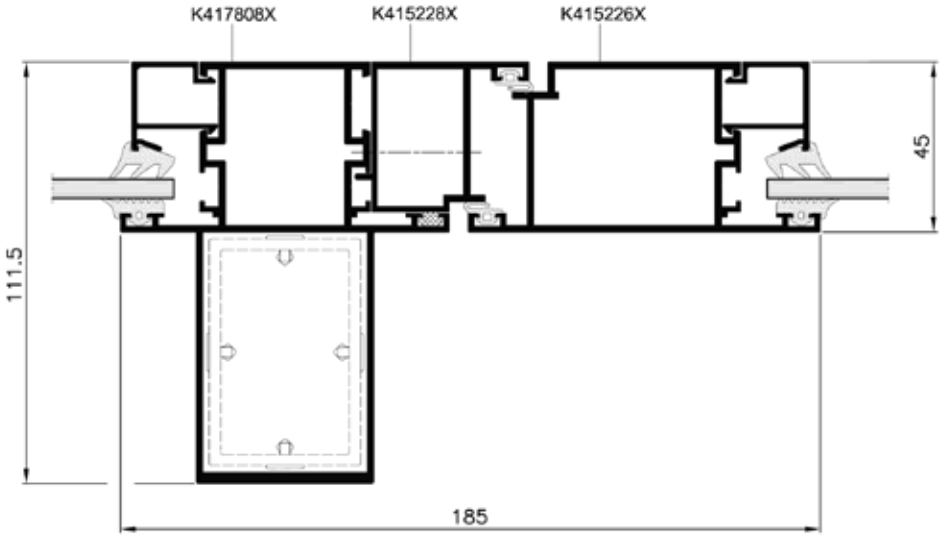
35



Display window with double door – cross section

45

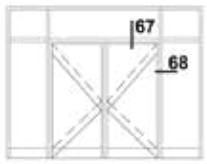


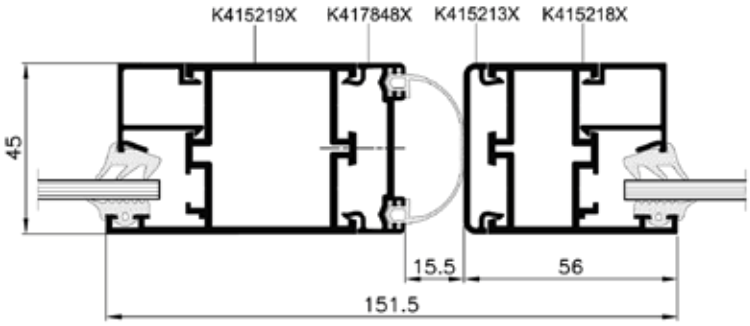


Scale 1:2

Swing door – cross section

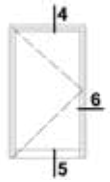
68

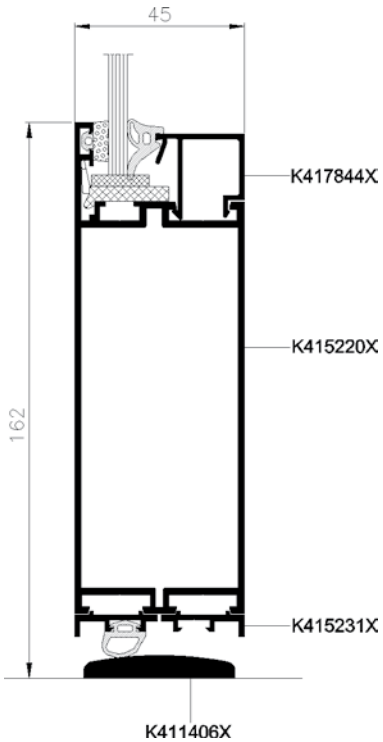


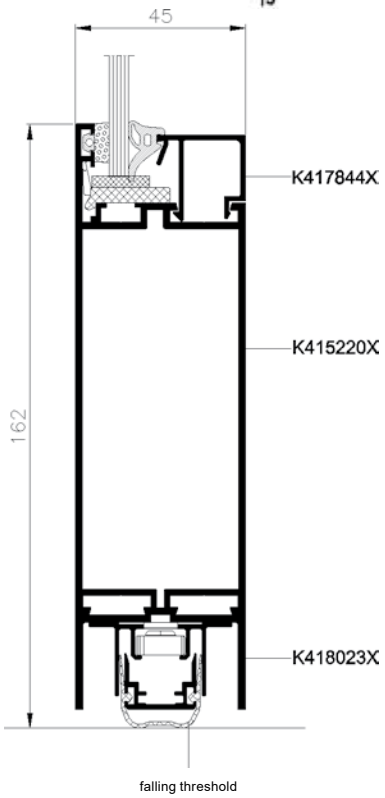


Single outward opening smoke-proof door – cross section

5 MB-45D







More examples on: www.aluprof.com/en/bim-file-finder **Scale 1:2**

MB-SLIDER WINDOW

MB-Slider Window is used for producing vertically and horizontally sliding windows in internal and external applications which do not require thermal insulation. MB-Slider Window can be used as reception windows in banks, canteens, receptions, etc. Constructions based on the sliding window system can be quickly and easily prefabricated as they no longer need labor-intensive mechanical processing.

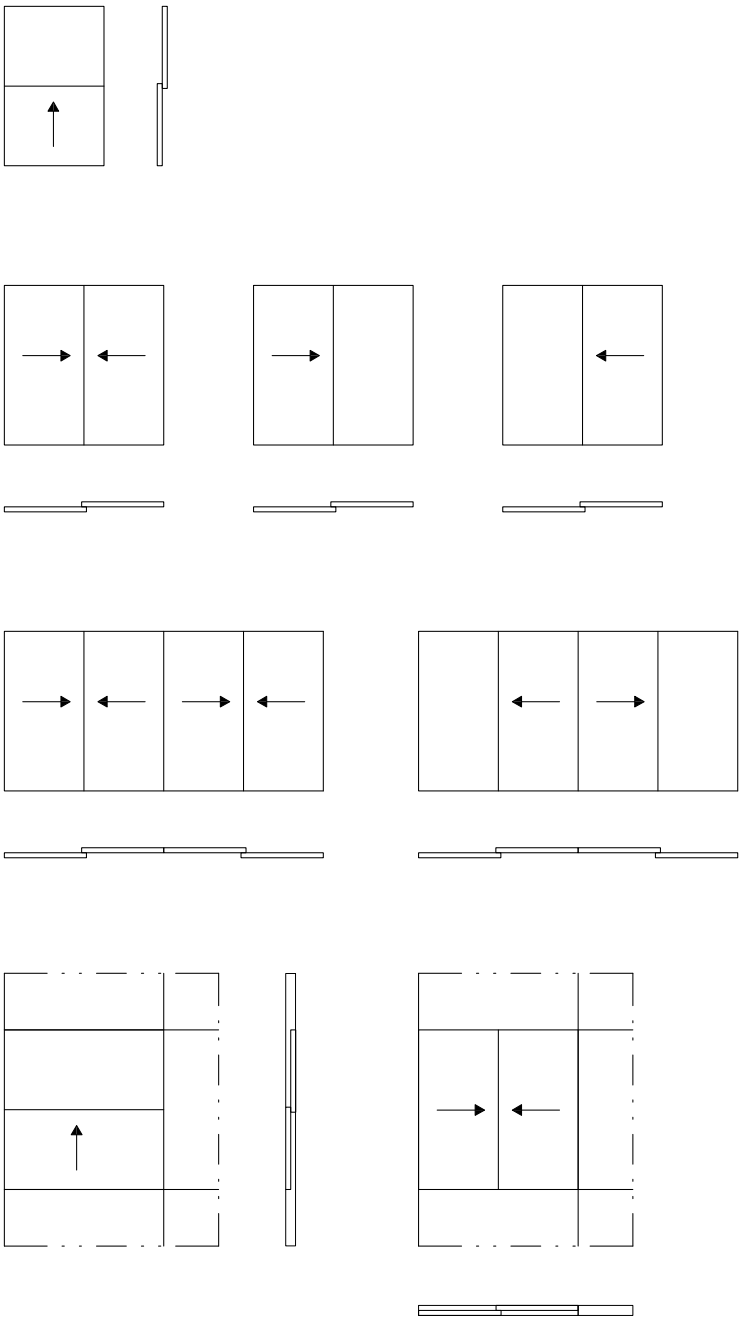
SLIDING WINDOW SYSTEM

MB-Slider Window features slender leaf & frame profiles. The structural depth of window profiles is 45 mm for frame and 26 mm for leaves. A great advantage of the vertical sliding window system is that its drives are concealed in the leaf profile. This makes the construction even more aesthetically appealing. MB-Slider Window can further benefit from hardware manufactured by industry recognized companies so that the final appearance and functionality of the products meets the highest standards.

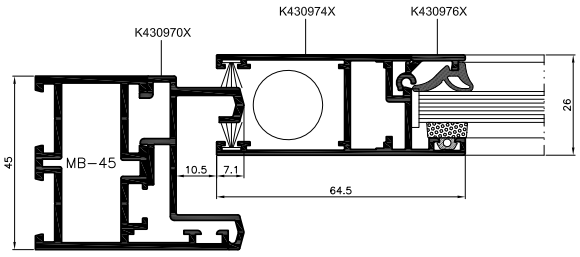
FEATURES AND BENEFITS

- system-based windows can slide vertically or horizontally
- can be used with any window & door system
- maximum leaf weight in horizontal sliding window: 80 kg
- maximum active leaf weight in vertical sliding window: 25.5 kg
- drive concealed in the leaf profile
- effective water drainage & ventilation system in internal applications
- hardware by recognized companies
- two sizes of leaf profile
- reception windows can be fabricated in MB-45 system frame or as independent constructions – thanks to the system frame
- glazing options from 4 mm to 10.5 mm

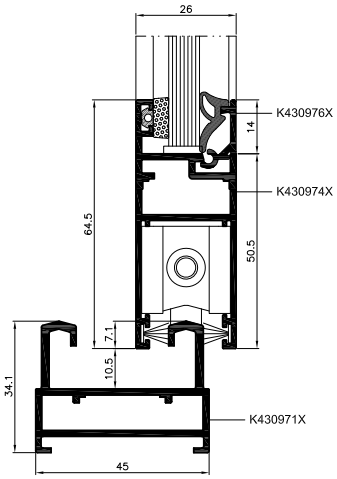
Examples of constructions



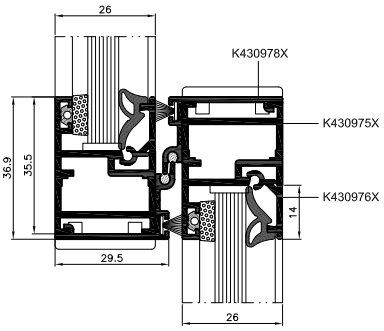
Window in MB-45 system frame – cross section



Horizontally sliding window – cross section



Vertically sliding window – cross section



More examples on: www.aluprof.com/en/bim-file-finder **Scale 1:2**

MB-DPA

Sliding doors provide an aesthetic, safe and comfortable solution for their users. In view of their properties they find application both in small objects, as well as in large office buildings and shopping centres. The construction of the MB-DPA system enables execution of doors in two variants: they may be built of thermally insulated profiles belonging to the MB-59S Casement system, MB-70 Casement system or from profiles without a thermal break, which are a part of the MB-45 system. Among assets of this solution are large allowable dimensions and weight of the construction: the leaves may be up to 3000 mm wide and weigh up to 200 kg.

AUTOMATIC AND MANUAL SLIDING DOOR

CONSTRUCTION

The constructional depth of profiles equals 50 mm in the case of thermally insulated profiles and 45 mm in the case of uninsulated profiles. The MB-DPA sliding doors may be fitted in different types of development: they can be installed directly in masonry or in glazed internal partitions of the MB-45 system, in glass and aluminium curtain walls or in display window structures, built either of profiles of the MB-59S, MB-60 or MB-70 systems, depending on thermal insulation requirements. The Aluprof door and window systems may come with wide crosspiece and frame profiles, which allow mounting most of sliding-door automatic gear available on the market. The gear may be freely selected, independent of the type of development.

A WIDE RANGE OF INFILLS

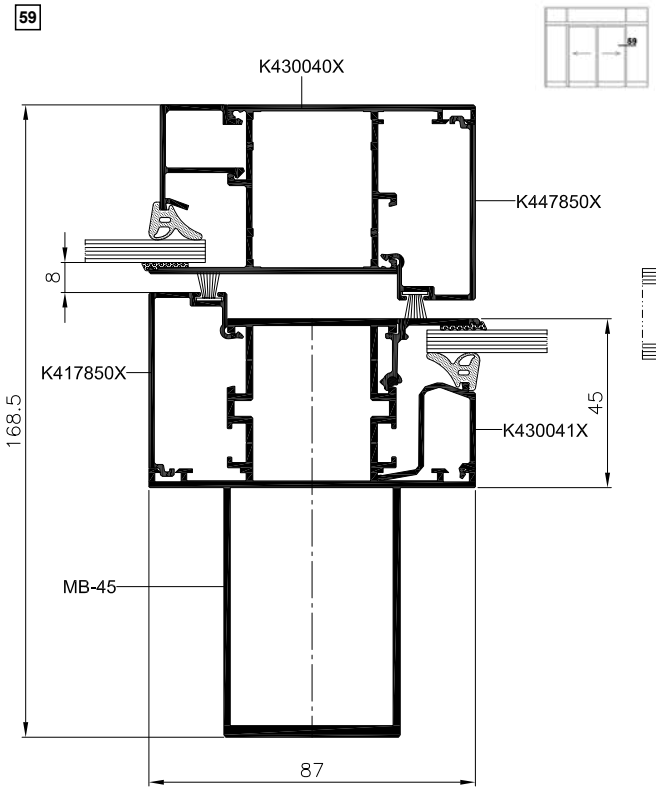
Depending on the choice of variant and requirements, the door leaves may be filled with either single glass panes or with insulating glass units. Glazing range for infills ranges between 4.5 mm and 31.5 mm.

COMFORT AND SAFETY OF USE

Due to their principle of operation, sliding doors are space-efficient and ensure safety of operation and in automatic version they provide their user full comfort of passage devoid of any architectural barriers. However, in view of a lack of the threshold, doors installed in external developments should be protected against direct exposure to rain water.

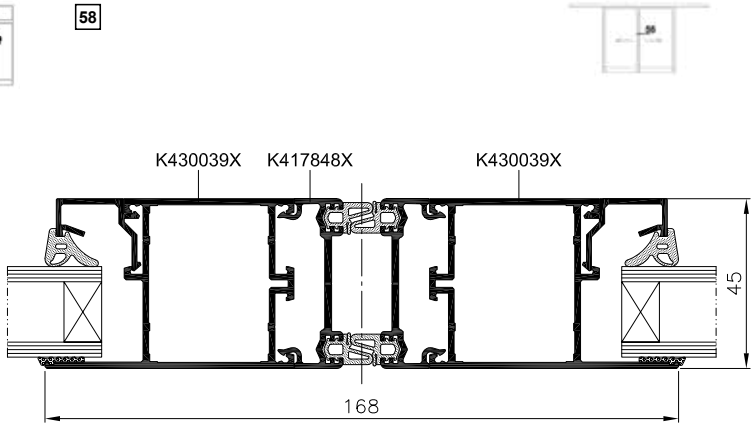
Sliding door – cross section

59

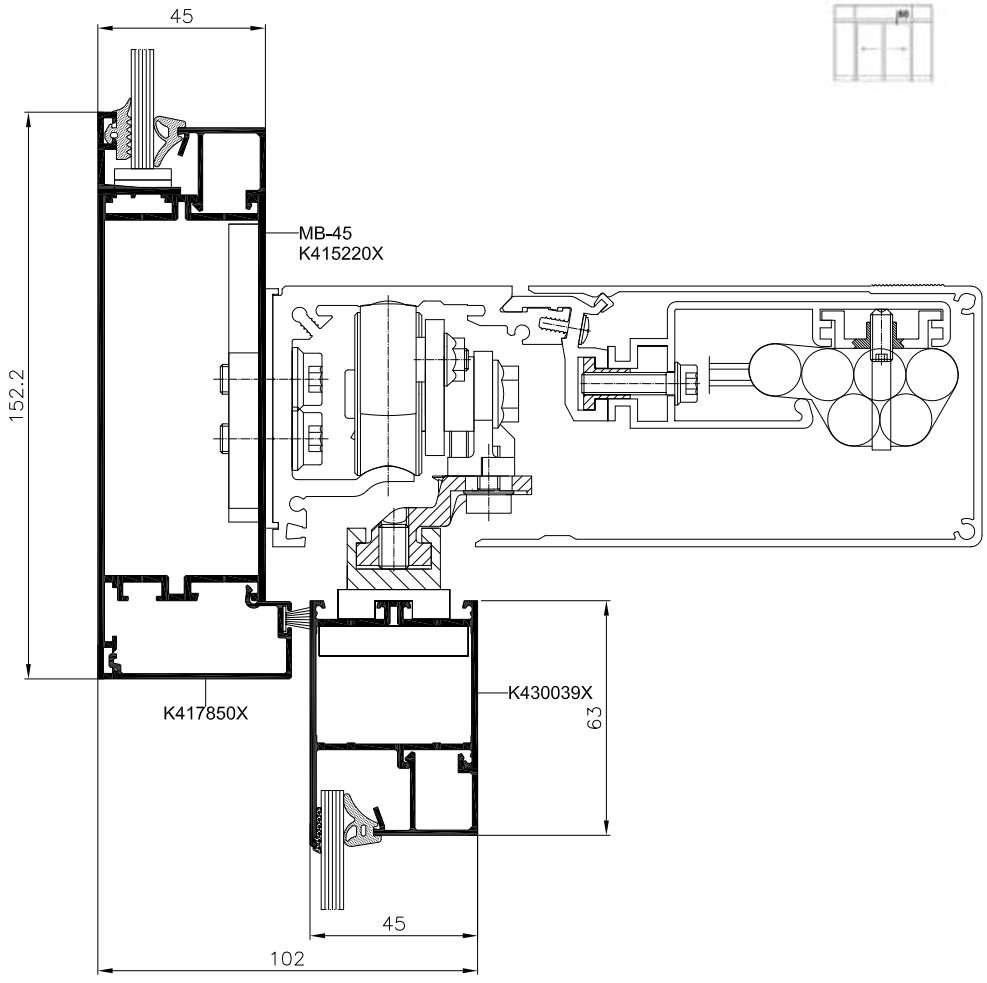


Sliding door – cross section

58



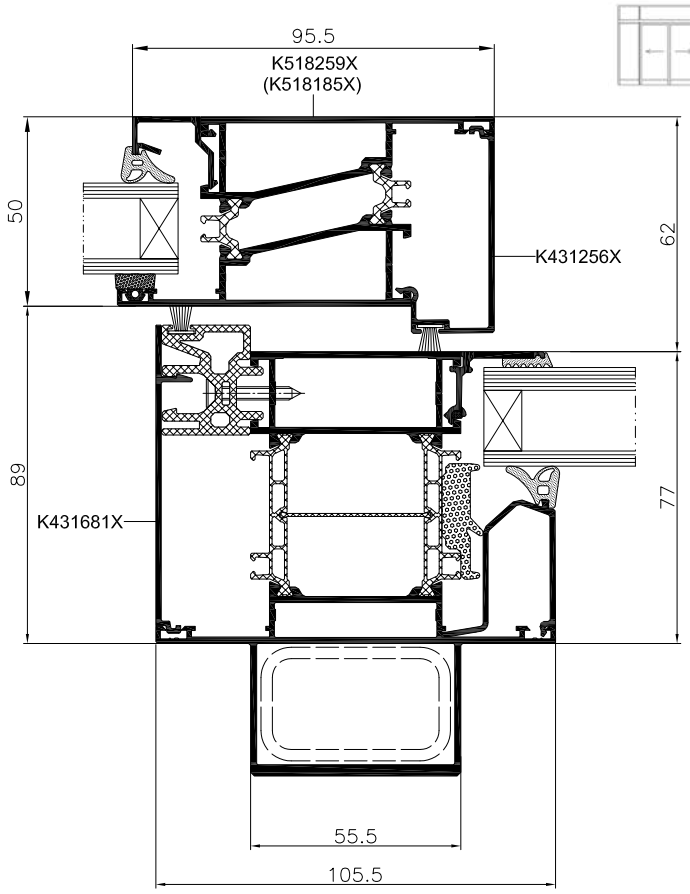
Sliding door – cross section



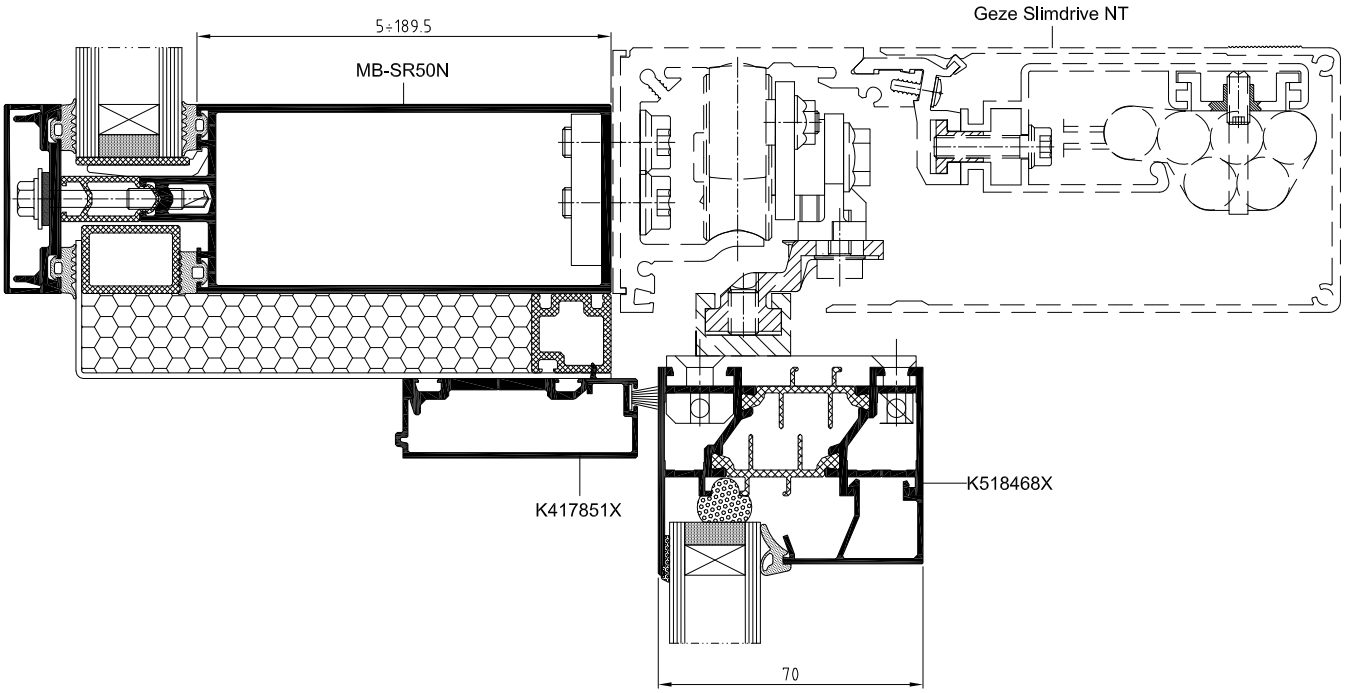
Scale 1:2

DPA doors in MB-86 screen – cross section

59



DPA doors in MB-SR50N curtain wall – cross section



More examples on: www.aluprof.com/en/bim-file-finder **Scale 1:2**

SMOKE EXHAUST SYSTEMS

WINDOWS AND FLAPS

Smoke exhaust windows play a particular role in ensuring safety and comfort for the people staying in the building. When properly selected, they are the elements of gravity ventilation, and when necessary they can help to quickly get rid of smoke & toxic vapours which can be hazardous to health or worse. Smoke exhaust joinery based on MB aluminium systems comes fitted with specialized openers and control systems and has been tested and certified to EN 12101-2. Variety of solutions makes our product well suited for individual or joint integration (with aluminium façades, roof glazings). Our smoke exhaust and ventilation system is supplemented by fresh air doors or windows.

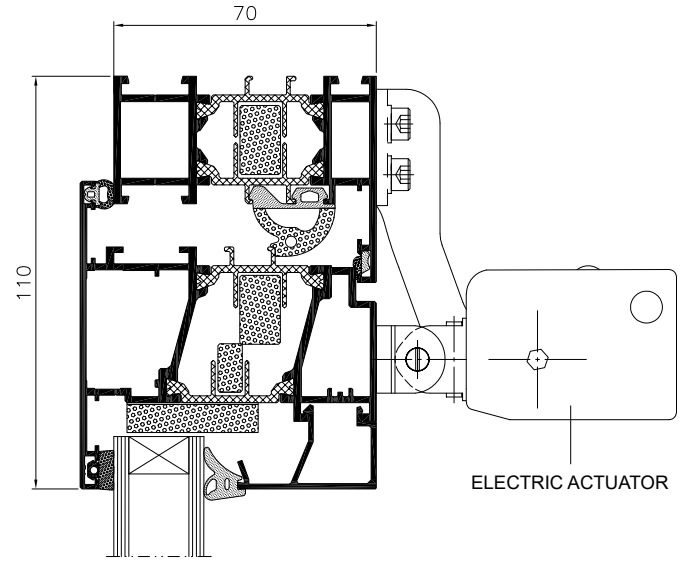
FUNCTIONALITY AND GOOD APPEARANCE

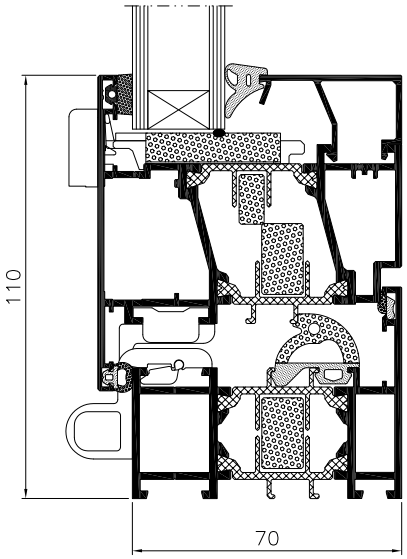
- wide range of solutions based on i. a. MB-60, MB-60US, MB-70, MB-70US, MB-86, MB-86US window systems or on façade-dedicated window structures
- various opening options: side or inward bottom/top hung casement but also roof slope windows used in sloped façades or skylights
- reliable, silent mechanisms, different types of actuators (chain, spindle or rack)
- possibility of using single, double or triple operators of an opening force up to 3.000N, in synchronized "Tandem"-type systems
- mechanisms allowing windows to open wide
- additional functionalities and security features such as "High Speed" functionality, protection against crushing, extra interlocks
- good appearance and possibility of using small openers, disposed parallelly to the surface of the window
- integration with power supply, control and protection systems e.g. emergency power supply, coupling with the building's ventilation system

Plaza Sosnowiec, Sosnowiec, Poland
design / Architekci PALLADO SKUPIN Biuro Projektów Architektonicznych Sp. z o.o.

TECHNICAL SPECIFICATION	
Max. dimensions of the casement (horizontal view)	L to 2500 mm, H to 1600 mm
Max. dimensions of the casement (vertical view)	L to 1600 mm, H to 2500 mm
Max. dimensions of the roof window	L to 1500 mm, H to 2200 mm or L to 2200 mm, H to 1500 mm
Max. area of the vertical/roof smoke exhaust window	to 4.0 m² / to 3.3 m²
Max. opening angle of the smoke exhaust window	to 90°

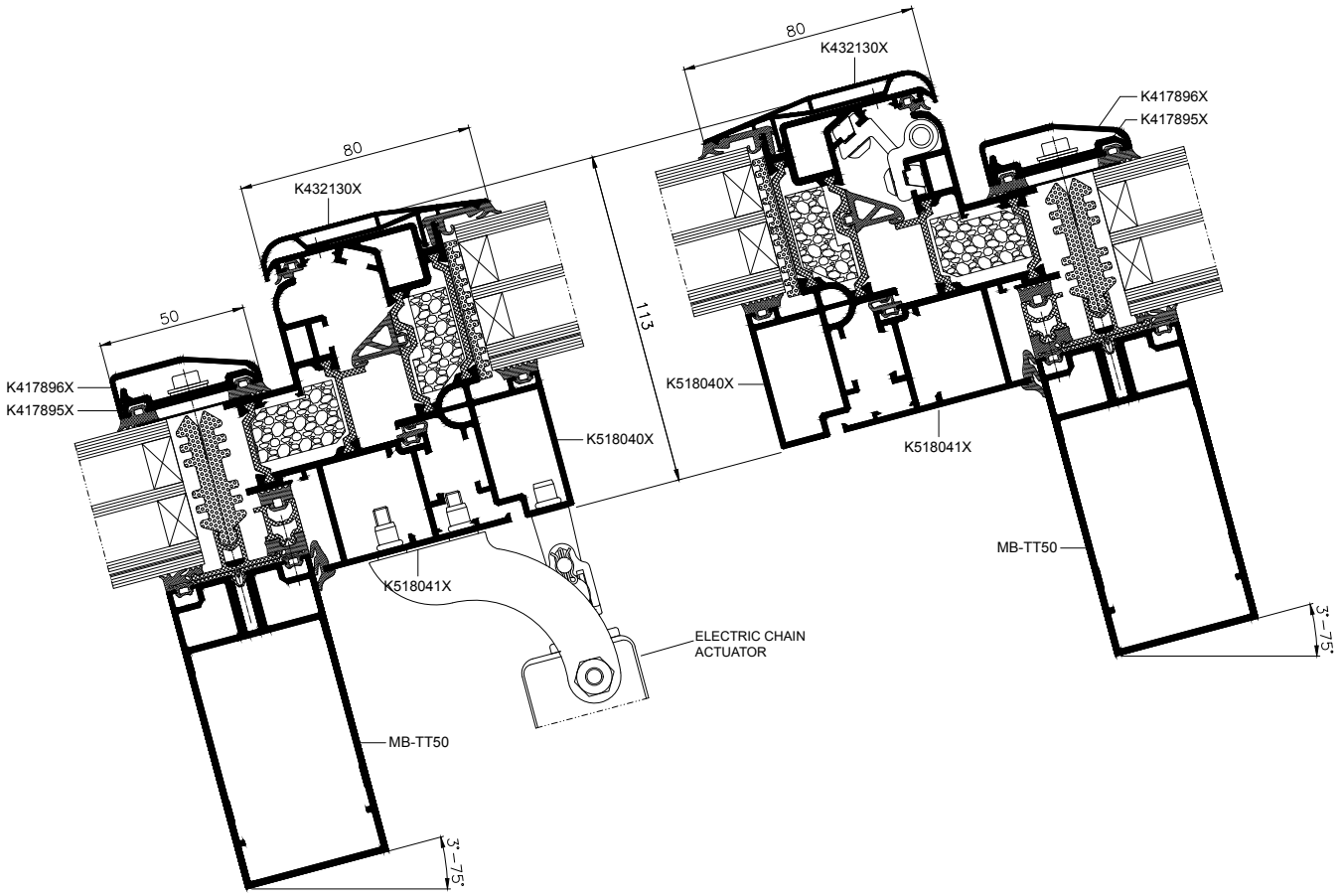
MB-70HI smoke exhaust window – cross section

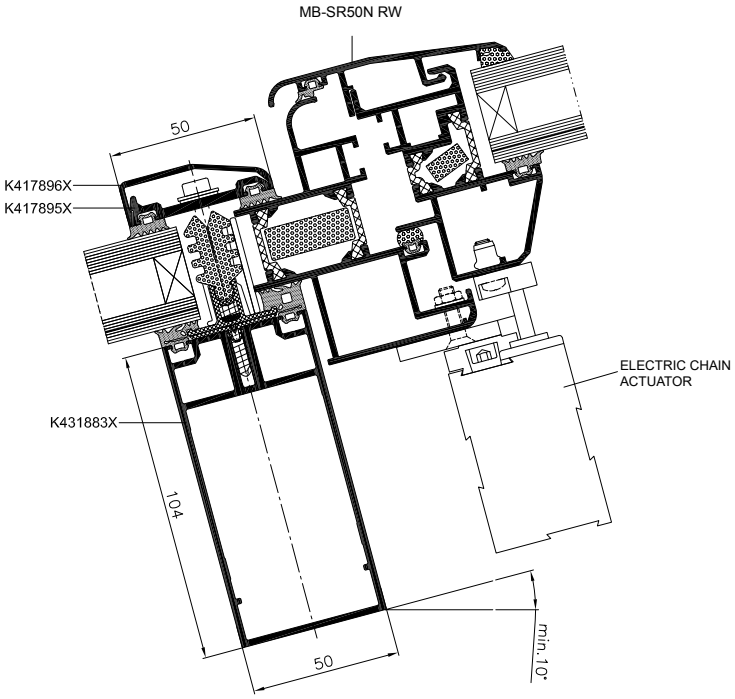




Scale 1:2

Smoke exhaust roof window – cross section





More examples on: www.aluprof.com/en/bim-file-finder **Scale 1:2,5**

MB-GLASS BARRIER

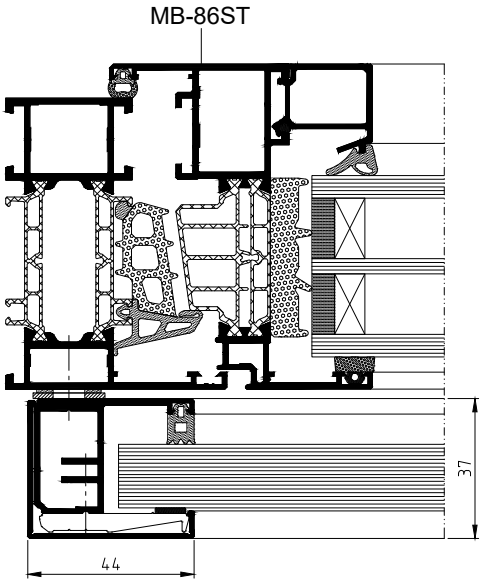
MB-GLASS BARRIER-based external balustrades are used on upper floors with opening French doors or floor to ceiling full high windows as a safety element to prevent from falling. Additionally can also help to reduce noise coming from the outside. When attached to aluminium windows, they can perfectly fit their colour. Also, they can be attached to PVC or wooden windows.

EXTERNAL JULIET BALCONY

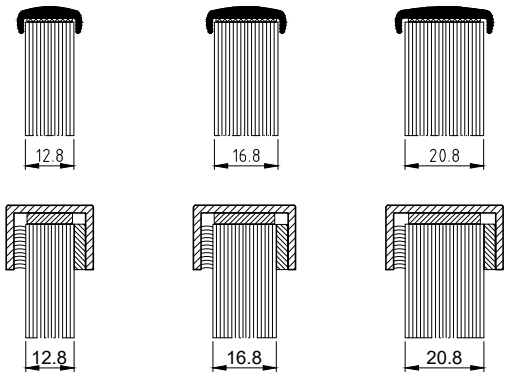
FEATURES AND BENEFITS

- attached directly to window profiles
- upper edge of the glass protected with aluminium or stainless-steel strip
- can be installed on single or double-leaf constructions
- glass infills increase daylighting
- infills made of bonded glass from 8.8 to 20.8 mm
- can be used in housing, offices and public facilities

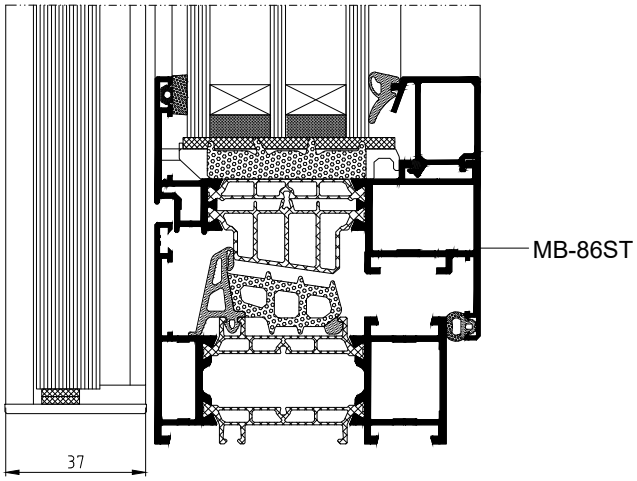
Window with barrier – cross section



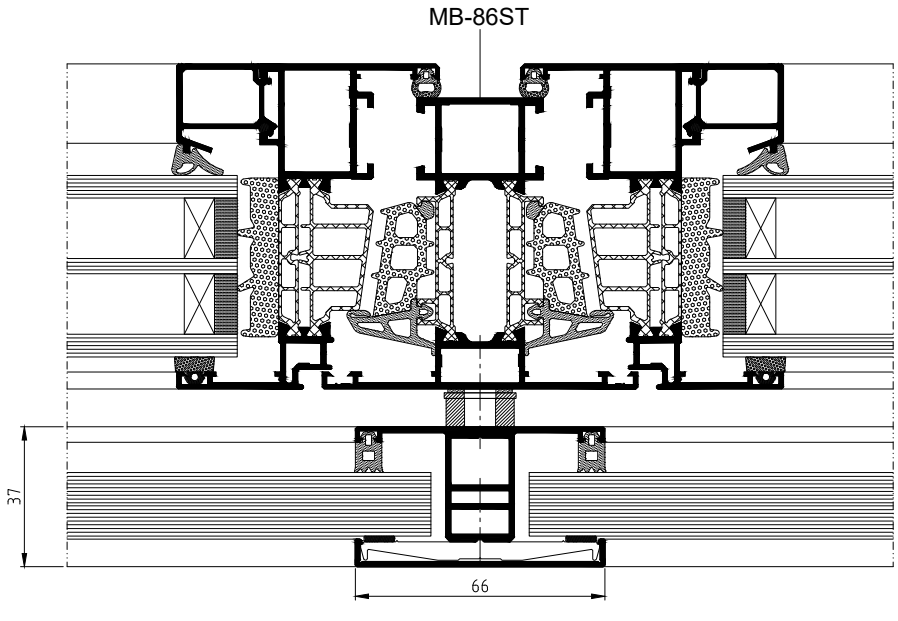
Barrier, top – cross section



Window with H-type barrier – bottom – cross section



Window mullion – cross section



More examples on: www.aluprof.com/en/bim-file-finder **Scale 1:2**

WARM INSTALLATION SYSTEM

MB-INSTALLATION SOLUTION

Energy-saving and passive buildings seek to reduce heat losses due to thermal bridges and leaky connections. But even installing highly insulated fenestration products (windows, doors) may simply be not enough. For this reason, it is recommended to install windows and balcony doors in the thermal insulation area, if possible, extended beyond the face of the wall (moved to the external insulation area of the building), and to tightly connect window and door frames to the wall. The MB-Installation Solution ensures that this installation is carried out easily, quickly and accurately.

A WARM AND TIGHT INSTALLATION SYSTEM

This solution is based on segmented EPS hard polystyrene components with very low heat conductivity $\lambda = 0.032$ W/(m²K). It consists in widening the door opening by making a tight supporting frame out of these elements – it's like putting the blocks together. The frame is made of 100 or 200mm wide warm mounting beams, equipped with two types of system anchors (external or internal). These beams, together with their additional mounting elements: bottom beam, inner and outer threshold bases and other connecting elements such as adhesives, PU foams, mounting connectors and sealing tapes, ensure tight and easy installation of windows and doors produced with ALUPROF systems.

The MB-Installation Solution can be used for masonry walls made of ceramic and carved blocks, light concrete blocks, limestone blocks, solid bricks, concrete and concrete hollow blocks, wooden or steel frame. It can be combined with a seamless system based on polystyrene or wool (ETICS system) or with insulation in the wall.

In addition to installing windows in the insulation area, the MB-Installation Solution allows the woodwork to be installed in the face of a wall, with bottom beam, and sealed with a vapour-permeable and breathable tape.

Examples of window's mounting connections

Bottom connection, 100 mm beam with external anchor

Bottom connection, 200 mm beam with internal anchor

Examples of window's mounting connections

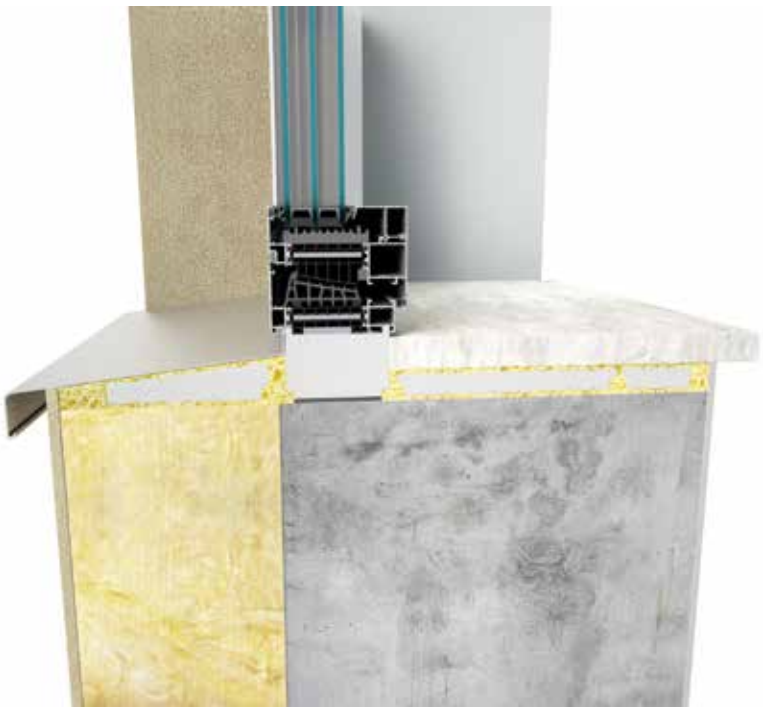
Top connection, with vapour-permeable tape and sealing adhesive

Top connection, with jamb external profile

Examples of window's mounting connections

Window installed in the insulation area, view

Window installed in the face of the wall, view



ALUPROF
ALUMINIUM SYSTEMS

ULTRA LOW CARBON

LUPROF LOW CARBON **APPROACH**

LOW CARBON BILLET
2,9 eCo_2/kg

65% recycled aluminium

ULTRA LOW CARBON BILLET
1,2 eCo_2/kg

85% post-consumer recycled aluminium

At Aluprof, we are committed to sustainability and reducing carbon emissions in every window, door or curtain wall system we manufacture. With a holistic approach that considers both embodied carbon and carbon in use, we aim to offer environmentally friendly solutions without compromising on quality or performance.

Choose Aluprof solutions that build a sustainable future

SUN PROTECTION, GATES AND INSECT SCREEN SYSTEMS

www.aluprof.com

ALUPROF
ALUMINIUM SYSTEMS

FRONT MOUNTED ROLLER SHUTTER SYSTEMS

SK, SKE and SKP

SK and SKE

SKP

FUNCTIONALITY

SK, SKE and SKP front mounted roller shutters are intended for use in existing buildings. The main advantage of these products is that they do not require any work to existing building or any special preinstallation preparation – they are not integrated with the window. Buyers can thus decide to install front-mounted roller shutters at any time. These solutions can be installed to the window joinery (in the niche) or directly on the wall.

CONSTRUCTION DETAILS

The roller shutter curtain is usually made of high quality aluminium sheet filled with foam (profiles PA), that have special twolayer paint coatings (system PU/PA). This makes the product more resistant to abrasion and weathering. Aluprof also offers profiles of greater rigidity and stability, made of extruded aluminium, plus PVC profiles. SK & SKP systems have aluminium roller shutter boxes that are made of high quality aluminium sheets, which provide their high resistantance, just as the profiles PA. The roller shutter box in SKE system is made from extruded alimnium that guarantees its durability and resistance to abrasion and weathering.Alumnium roller shutter boxes differ in shape: SK and SKE roller shutter boxes are cut and angel of 45°, and SKP roller-box is semi-oval, which makes it look great in the niche.

Comfort of operation

Depending on the users' needs, roller shutters can be controlled manually or by an electric drive via a wallmounted transmitter or remote control. Smart control via computer, tablet or smart-phone is also an option.

ADVANTAGES OF APPLICATION

External roller shutters perform a very important function when it comes to comfort. In adverse weather conditions, they constitute a barrier that efficiently protects the window from the rain, snow or wind. In the summer they perfectly protect interior spaces from excessive sunlight, whilst limiting the use of air conditioning equipment. In addition, a properly selected external roller shutter provides effective protection against burglary. The advantage of these products is the ability to use the roller-independent system "Moskito", that additionally protects interior spaces against insects while maintaining the access of light and air.

COLOUR SCHEME

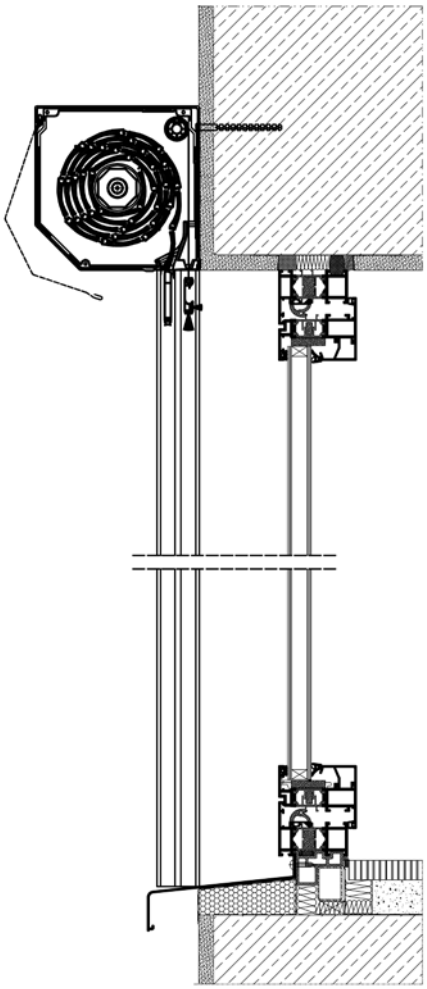
Large selection of colours (standard chart for profiles PA) allow to meet the needs of the most demanding Customers. Woodgrain coatings are also available. Colour coatings on the extruded elements are manufactured using powder coating, which ensures high quality and durability of the product (any RAL colour can be used).

REQUIREMENTS

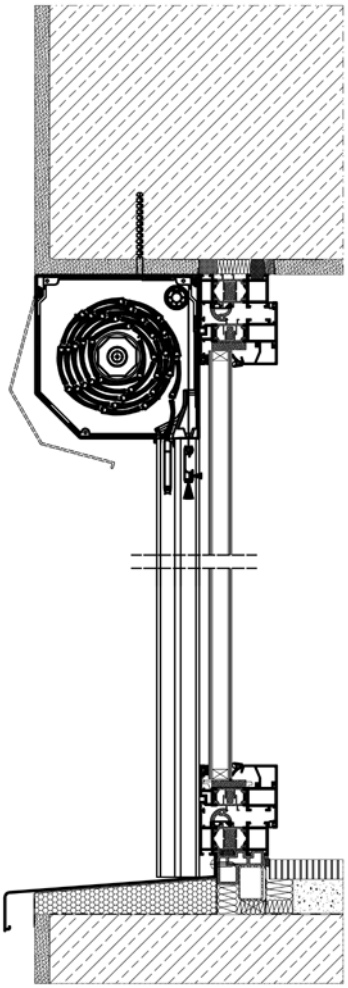
SK, SKE and SKP front mounted roller shutters were subjected to initial type testing performed by an accredited research laboratory – test results are available to the buyers. In addition, specific properties were determined eg. thermal resistance, air permeability, acoustic resistanc.

Installation examples in 1-layer wall

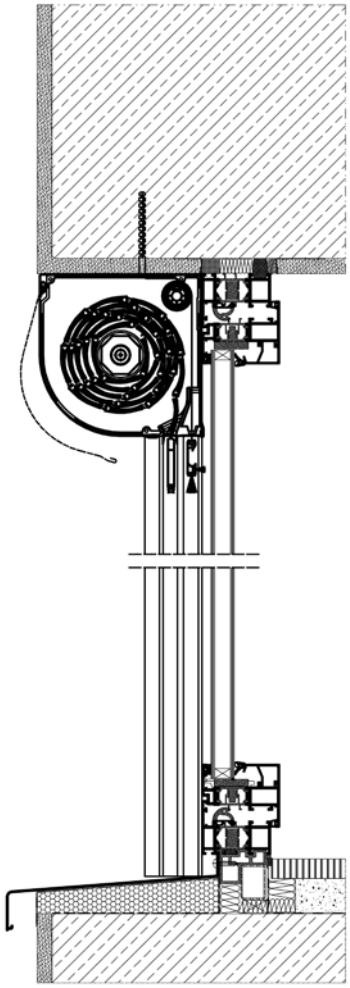
SK + MKT



SKE + MKT

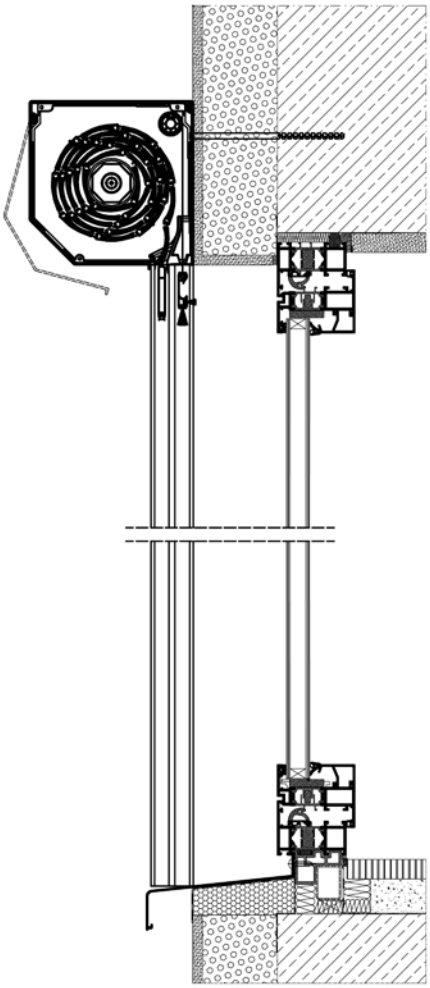


SKP + MKT

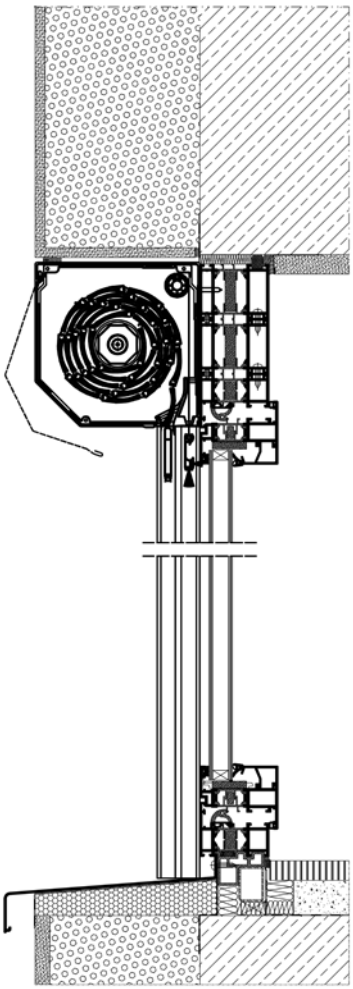


Installation examples in 2-layer wall

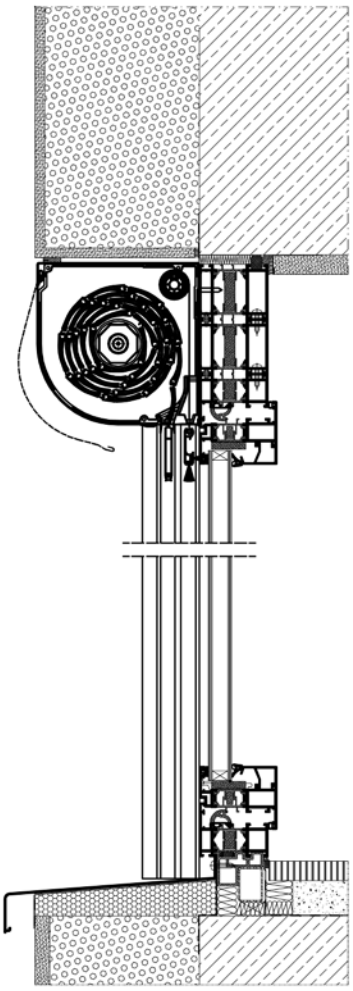
SK + MKT



SKE + MKT

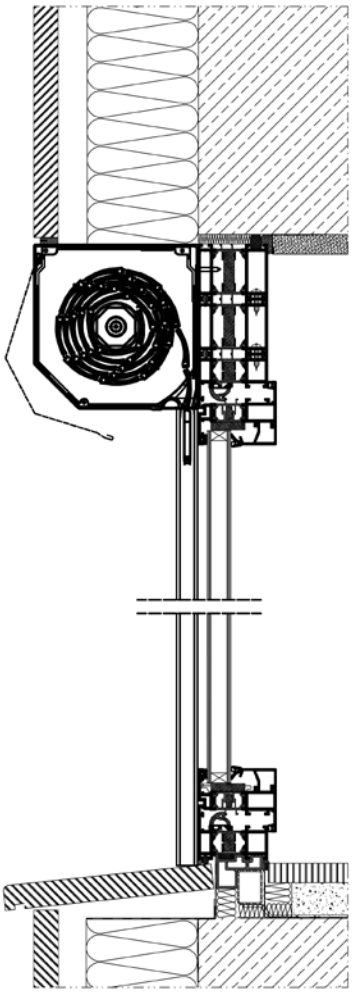


SKP + MKT

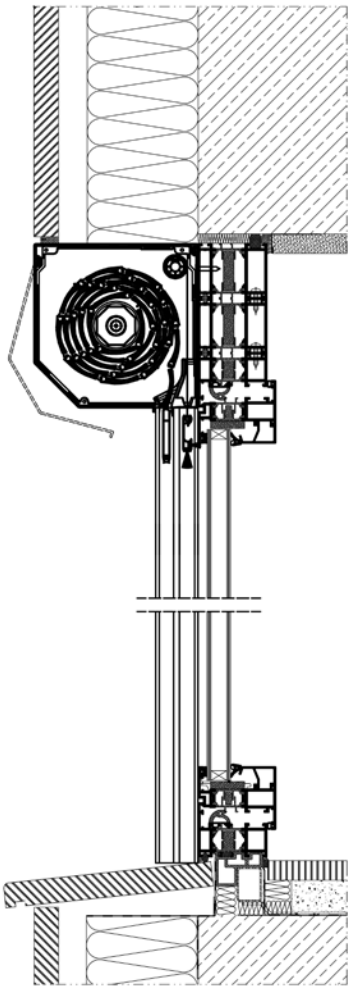


Installation examples in 3-layer wall

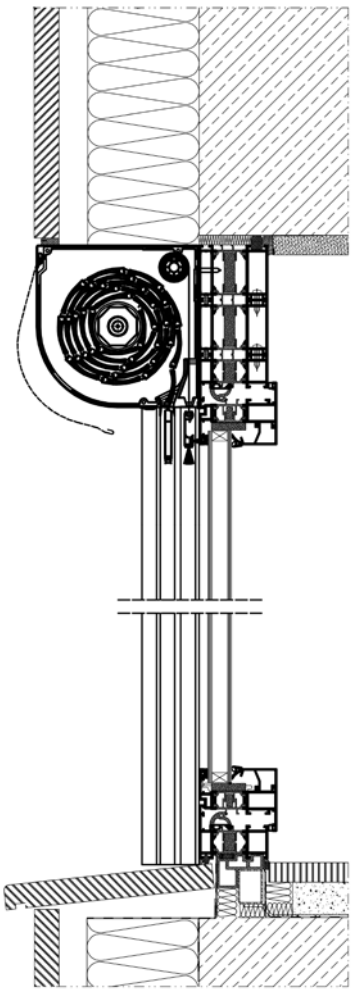
SK



SKE + MKT



SKP + MKT



More examples on: www.aluprof.com/en/bim-file-finder

FRONT MOUNTED ROLLER SHUTTER SYSTEMS

SKO and SKO-P

SKO

SKO-P

FUNCTIONALITY

SKO & SKO-P systems belong to the family of the front-mounted roller shutters, dedicated mainly to existing buildings. As these products are not an integral part of the window and do not require any special pre-installation preparation, they can be installed at any time. Clever design and oval shape make these systems a solution of choice for buyers who want to have their roller shutters on the external wall, as a perfect decorative element.

CONSTRUCTION DETAILS

SKO-P roller shutter box is made of high quality aluminium sheet covered with a special, PU/PA technology-based coating that ensures durability and resistance to abrasion and weathering. Unlike, the SKO system box is made of extruded aluminium, which makes it even more rigid and stable. As it is the case for SK and SKP systems, the roller shutter curtain can be made of foam-filled profiles, PVC or extruded profiles.

COMFORT OF OPERATION

Depending on the users' needs, roller shutters can be controlled manually or by an electric drive via a wallmounted transmitter or remote control. Smart control via computer, tablet or smartphone is also an option.

ADVANTAGES OF APPLICATION

External roller shutters serve a very important function when it comes to comfort. In adverse weather conditions, they constitute a barrier that efficiently protects the window from the rain, snow or wind. In the summer, they perfectly protect interior spaces from excessive sunlight, whilst limiting the use of air conditioning equipment. In addition, a properly selected external roller shutter system provides effective protection against burglary. The advantage of these products is the ability to use roller-independent system Moskito, that additionally protects the interiors against insects while maintaining the access of light and air.

COLOUR SCHEME

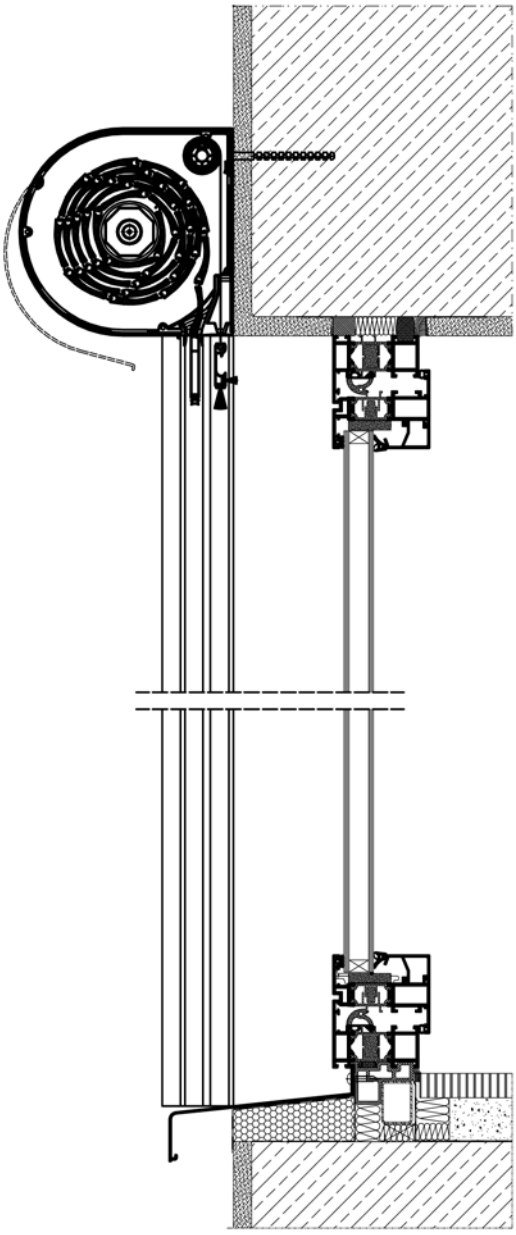
Large selection of colours (standard chart for profiles PA) allow to meet the needs of the most demanding Customers. Woodgrain coatings are also available. Colour coatings on the extruded elements are manufactured using powder coating, which ensures high quality and durability of the product (any RAL colour can be used).

REQUIREMENTS

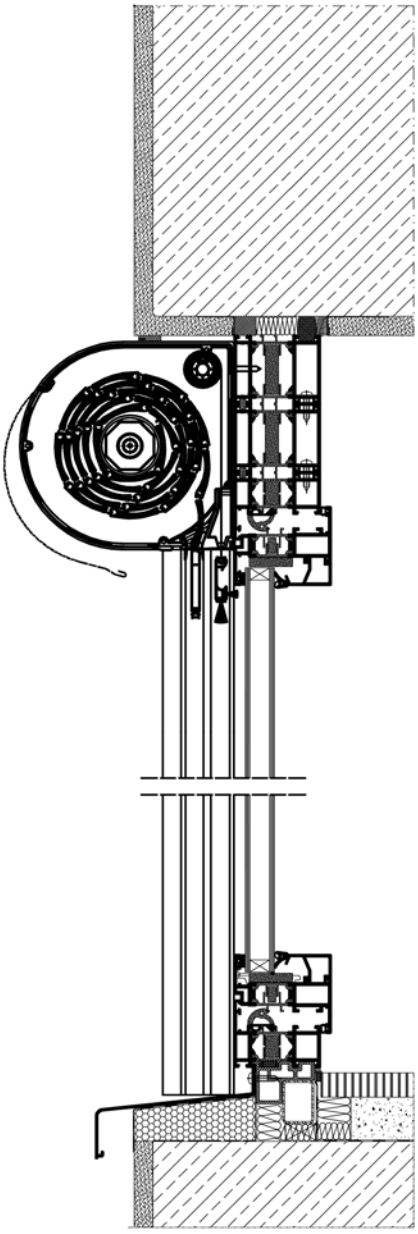
SKO & SKP front mounted roller shutters were subjected to initial type testing performed by an accredited research laboratory – test results and available to the buyers. In addition, specific properties were determined: thermal resistance, air permeability, acoustic resistance.

Installation examples in 1-layer wall

SKO + MKT

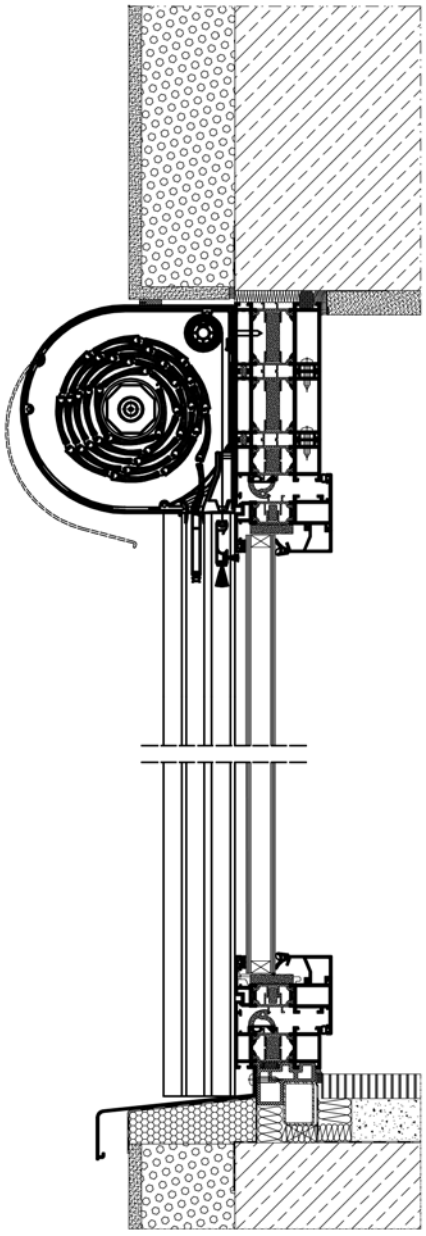


SKO-P + MKT

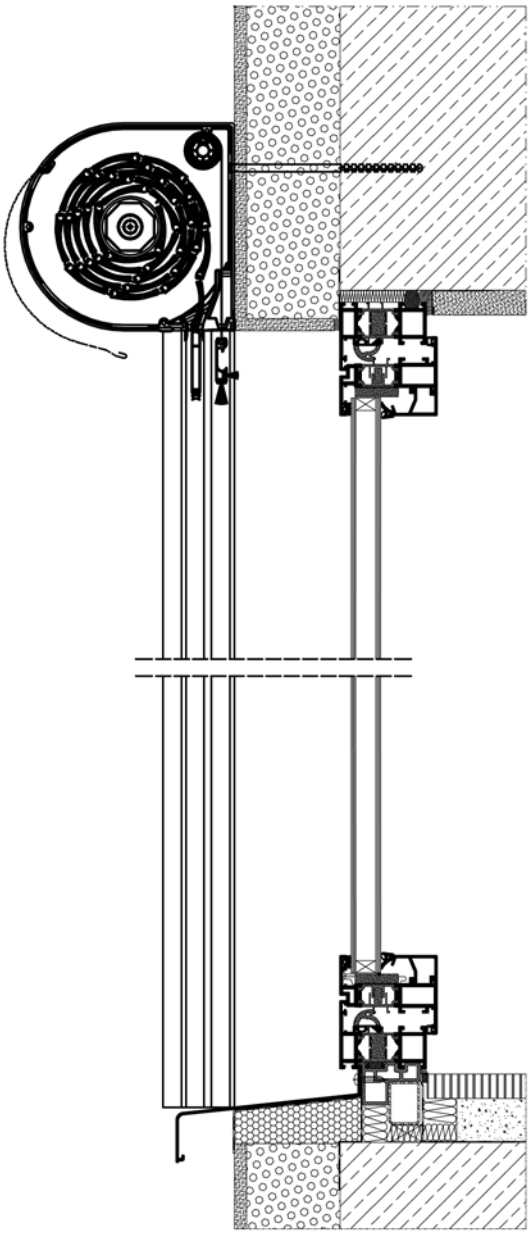


Installation examples in 2-layer wall

SKO + MKT



SKO-P + MKT



More examples on: www.aluprof.com/en/bim-file-finder

TOP MOUNTED ROLLER SHUTTER SYSTEMS

SP and SP-E

SP

SP-E

FUNCTIONALITY

SP & SP-E flush-mounted systems are mainly designed for use in newly erected buildings, but also in existing ones, once the necessary changes are made to the lintel. It is important to plan the use of such solutions, this also applies to the installation method, as early as at the building design stage to allow for the effective use of the product's functional values. SP & SP-E systems bring excellent thermal & sound insulation performance as they do not require any work to existing windows, doors or lintels, and thus they do not affect the building's energy use. What's more, they integrate the building's façade and form an integral part thereof.

CONSTRUCTION DETAILS

The front section of the aluminium shutter box is equally a base for any finishing material (plaster, clinker, etc.) so that the box could remain an unnoticed element of the façade. Other elements such as access cover or channels can colour-match the windows. As it is the case for front-mounted systems, the roller's curtain can be made of foamfilled plastic or extruded profiles. Flushmounted system-based roller shutters can be equipped with an insect screen which provides effective protection against insects while maintaining the flow of light and fresh air to interior spaces.

COMFORT OF OPERATION

Depending on the users' needs, roller shutters can be controlled manually or by an electric drive via a wallmounted transmitter or remote control. Smart control via computer, tablet or smartphone is also an option.

ADVANTAGES OF APPLICATION

External roller shutters are far more efficient than ordinary curtains or shutters – their design produces a sort of airbag between the surface of the window and the curtain making it an excellent insulator. This helps to reduce yearly energy costs up to 30%. Roller shutters significantly contribute to the reduction of heat loss in winter and improve the building's energy use, while in summer, they protect effectively interior spaces from overheating, reducing the consumption of additional cooling equipment.

COLOUR SCHEME

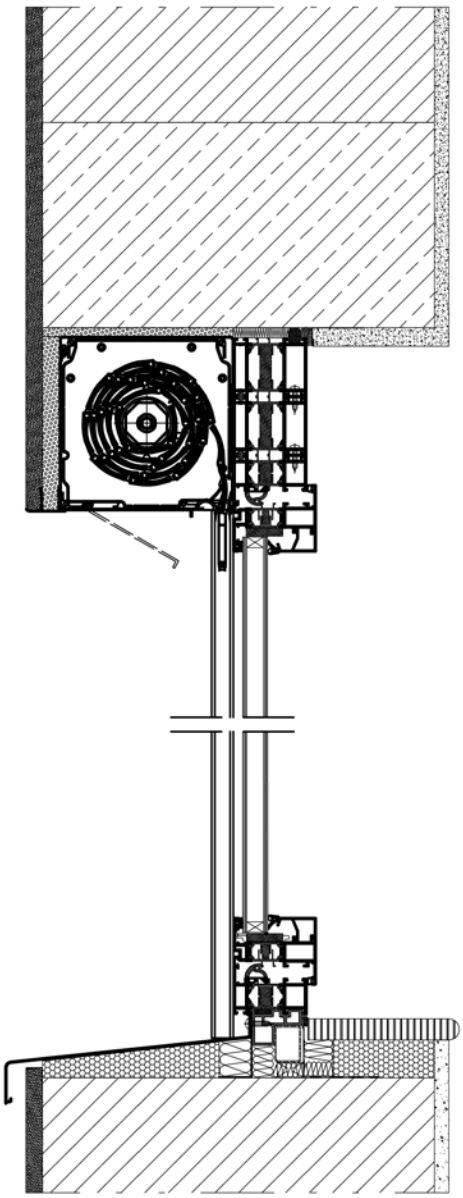
Large selection of colours (standard chart for profiles PA) allow to meet the needs of the most demanding Customers. Woodgrain coatings are also available. Colour coatings on the extruded elements are manufactured using powder coating, which ensures high quality and durability of the product (any RAL colour can be used).

REQUIREMENTS

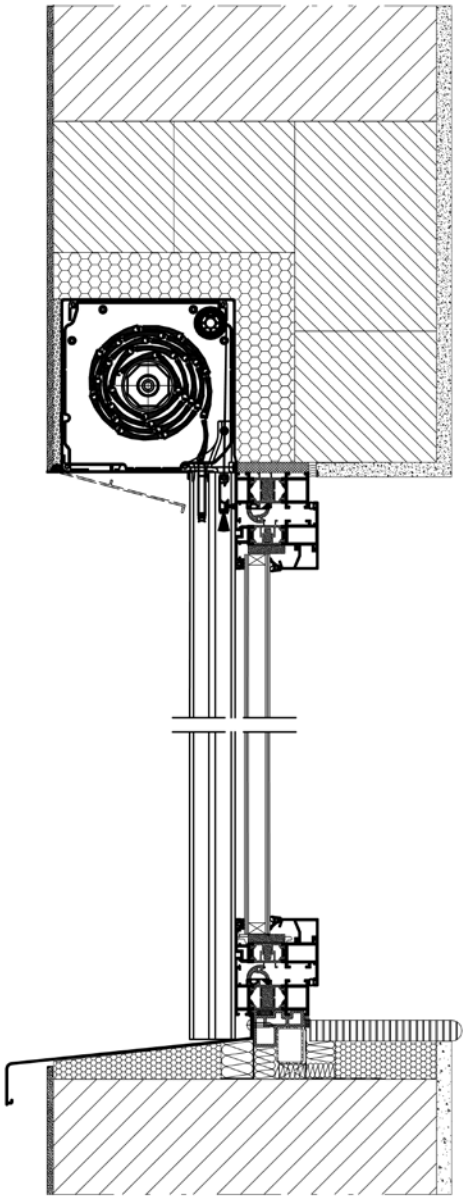
SP & SPE flush-mounted roller shutter systems were subjected to initial type testing performed by an accredited research laboratory – test results and available to the buyers. In addition, specific properties were determined: thermal resistance, air permeability, acoustic resistance. In addition, SP & SP-E roller shutter aluminium boxes, size: 165 mm or lower are certified by the Passive House Institute PHI Darmstadt, which means that, once certain installation requirements are meet, the product can be used in low-energy buildings.

Installation examples in 1-layer wall

SP

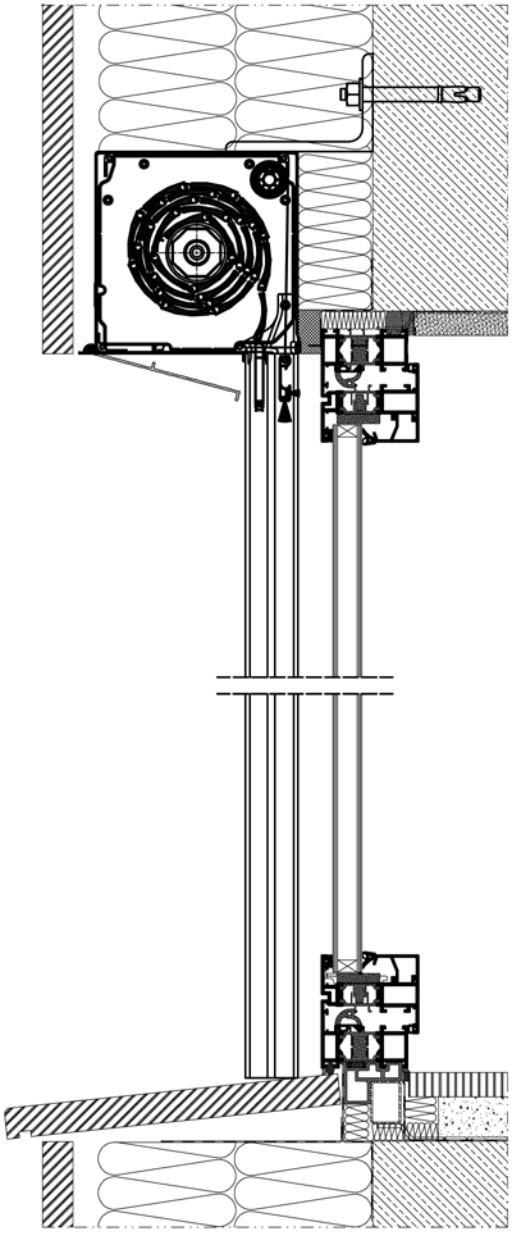


SP-E



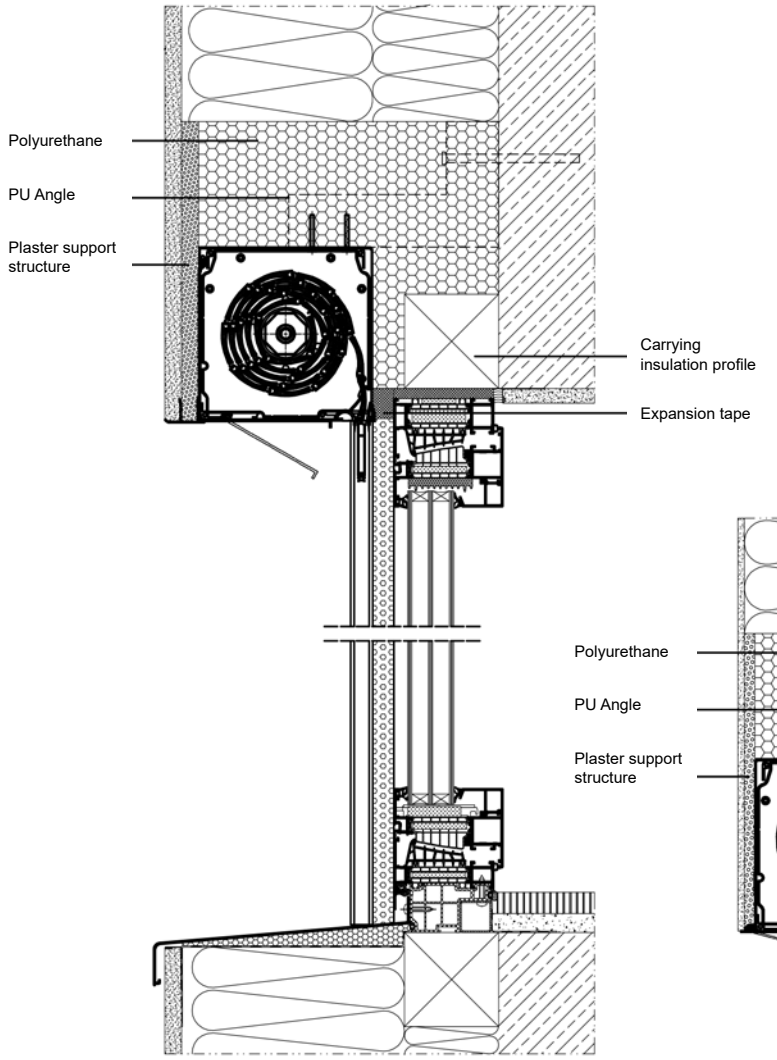
Installation examples in 3-layer wall

SP-E

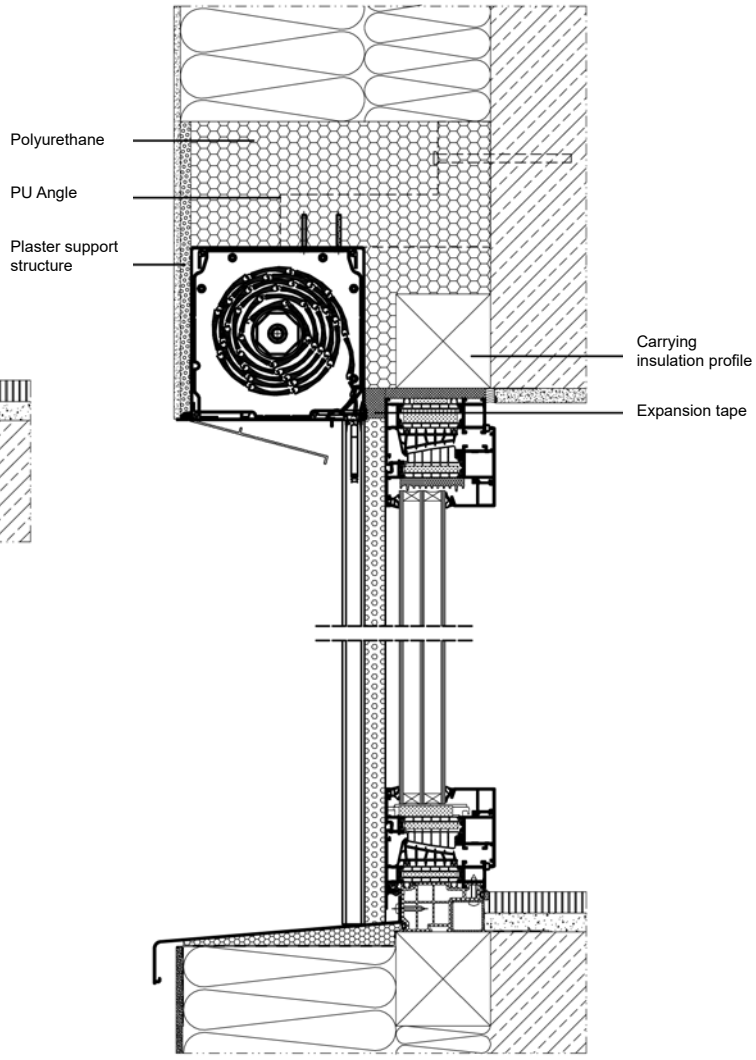


Installation of under plaster systems SP, SP-E certified by the Passivehaus Institut

SP



SP-E



More examples on: www.aluprof.com/en/bim-file-finder

ROLLER SHUTTER SYSTEM

SKB STYROTERM

FUNCTIONALITY

The SKB Styroterm top-mounted roller shutter system is a highly technologically advanced solution, which was developed with a view to improving the energy balance of the building. The product can be used both in newly erected buildings, as well as in those that already exist during replacement of window joinery. As in the case of the Opoterm system, the installation of roller shutters involves direct installation of the shutter box on the window frame by means of an appropriately selected adaptation profile. Aluprof's offer includes several options, which are adjusted to 90% of profiles available on the market. The SKB Styroterm system has been designed to be completely insulated, so that the shutter box remains an unnoticeable element of the building façade.

CONSTRUCTION DETAILS

The main element of this product is a shutter box, which was made of a material specially designed at the request of Aluprof, characterized by very good thermal properties. It is available in two sizes: 260×260mm and 300×300mm. The advantage of the new product is also the possibility to choose the revision flap from the inside or outside of the room, which is extremely important in the case of maintenance services. The well thought-out system design makes it possible to use the mechanism of façade shutters in the box. As a result, external roller shutters and façade shutters can be aesthetically combined on the same façade, ensuring homogeneous appearance of the building façade. The roller shutter's curtain can be made of foam filled profiles and plastic profiles. Roller shutters in the STYROTERM system can be equipped with insect screens installed in a shutter box. Due to the click technology it is very fast and easy to install.

OPERATION SIMPLICITY

Depending on the needs of the users, the roller shutters can be controlled manually, via an electric motor via a wall transmitter or remote control, as well as through the use of intelligent control via a computer, tablet or smartphone.

ADVANTAGES OF APPLICATION

Roller shutters in SKB Styroterm system are an extremely versatile solution. In winter the system reduces heat loss through windows and doors, while in summer it protects rooms against overheating. This allows for significant savings of up to 30% per year. What is more, due to its integration with the insect screen, it provides a barrier that protects the interior of the house from the presence of annoying insects.

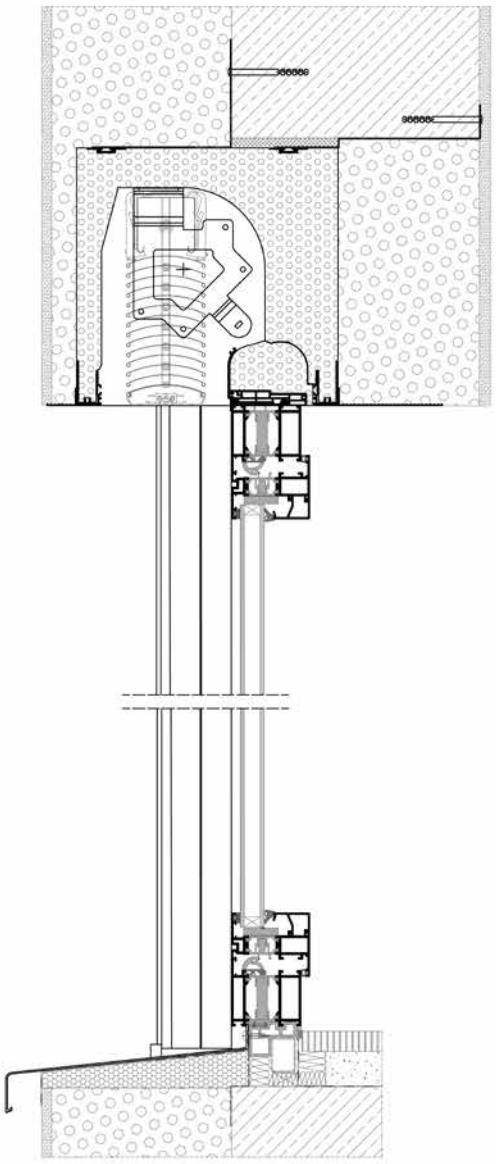
COLOUR SCHEME

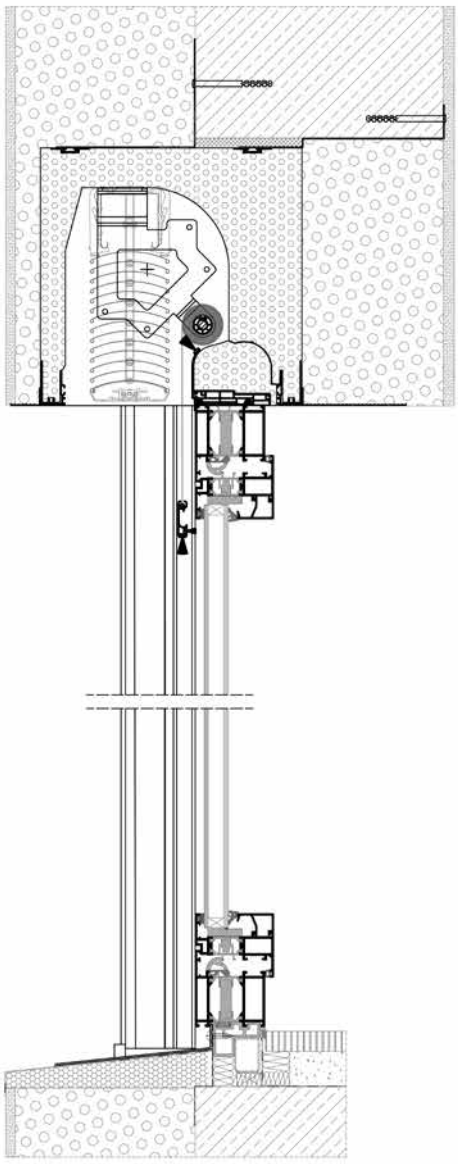
Large selection of colours (standard chart for profiles PA) allow to meet the needs of the most demanding Customers. Woodgrain coatings are also available. Colour coatings on the extruded elements are manufactured using powder coating, which ensures high quality and durability of the product (any RAL colour can be used).

REQUIREMENTS

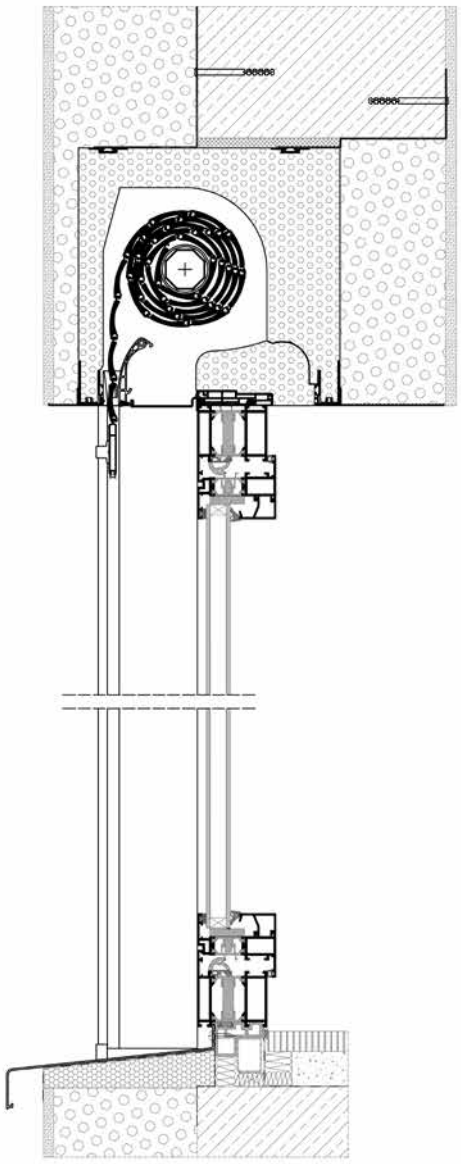
Roller shutters in the SKB Styroterm system have preliminary type tests, which have been carried out by an accredited laboratory and are available for system recipients. In addition, special parameters such as thermal resistance, air permeability or acoustic resistance have been determined. Studies at a renowned research institute IFT ROSENHEIM have shown that the proposed solution has an extremely high coefficient of thermal transmittance with U_{sb} from only 0.29 W/(m²K), which places the system in the first place among other products of this type.

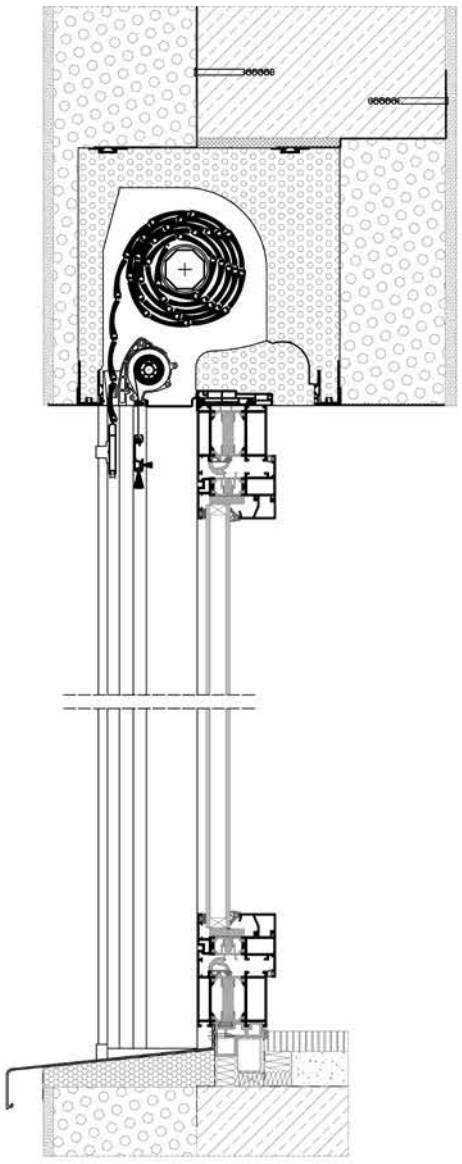
Installation examples in 2-layer wall



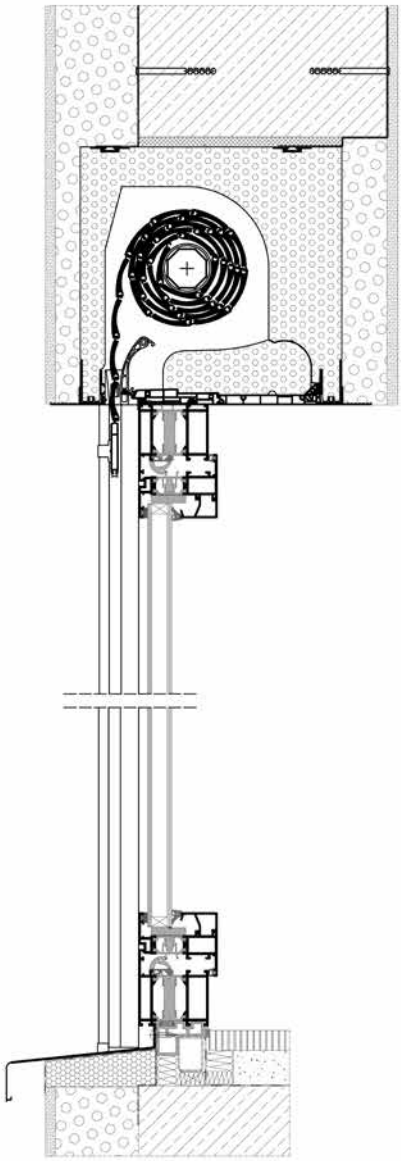


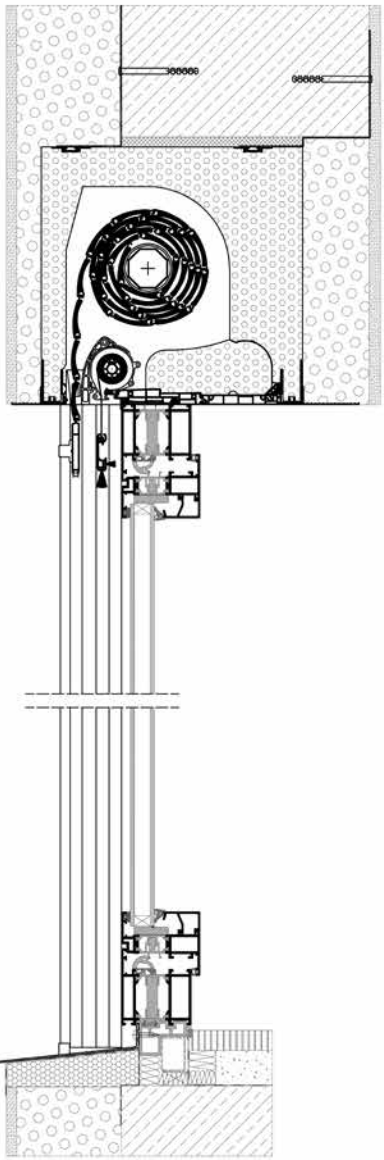
Installation examples in 2-layer wall





Installation examples in 2-layer wall





More examples on: www.aluprof.com/en/bim-file-finder

PVC ROLLER SHUTTER SYSTEM

SKT OPOTERM

FUNCTIONALITY

SKT OPOTERM top mounted roller shutter system is intended for both newly constructed and refurbished buildings (replacement of windows). This on-window mounted system has its box direct installed on the window frame by means of an appropriate profile. These profiles are compatible with the majority of window and door frame profiles (aluminium, wooden & PVC). This universal and versatile product can be installed unintegrated, partially or totally integrated, as the front face of the box is also a base for any finishing material (polystyrene, plaster, clinker, etc.) so that it remains unnoticed element of the façade.

CONSTRUCTION DETAILS

These boxes are made of high quality PVC components and are characterised by an increased thermal insulation. Its clever design allows to fabricate a single roller shutter, as well as a set of rollers shutters contained in only one box. SKT Opoterm's particular advantage is the ability to choose how to access the product from the bottom or from the front of the box, this before the final installation of the roller shutter. The installation is made directly to the window frame using an appropriate profile. Special profiles offered by Aluprof are compatible with the majority of window & door systems (aluminium, wooden & PVC joinery). The roller's curtain can be made of high quality aluminium sheet that ensures durability and resistance to abrasion and weathering or made of PVC profiles. The system enables the integration with insect screens, which ensures effective protection against insects.

COMFORT OF OPERATION

Depending on the users' needs, roller shutters can be controlled manually or by an electric drive via a wallmounted transmitter or remote control. Smart control via computer, tablet or smart-phone is also an option.

ADVANTAGES OF APPLICATION

SKT OPOTERM top mounted roller shutter systems ensure high thermal insulation that enable to lower the costs of heating in winter and reduce solar gains inside the rooms. The possibility of direct integration with Mosquito system guarantees the insect protection while keeping the access to the light and fresh air.

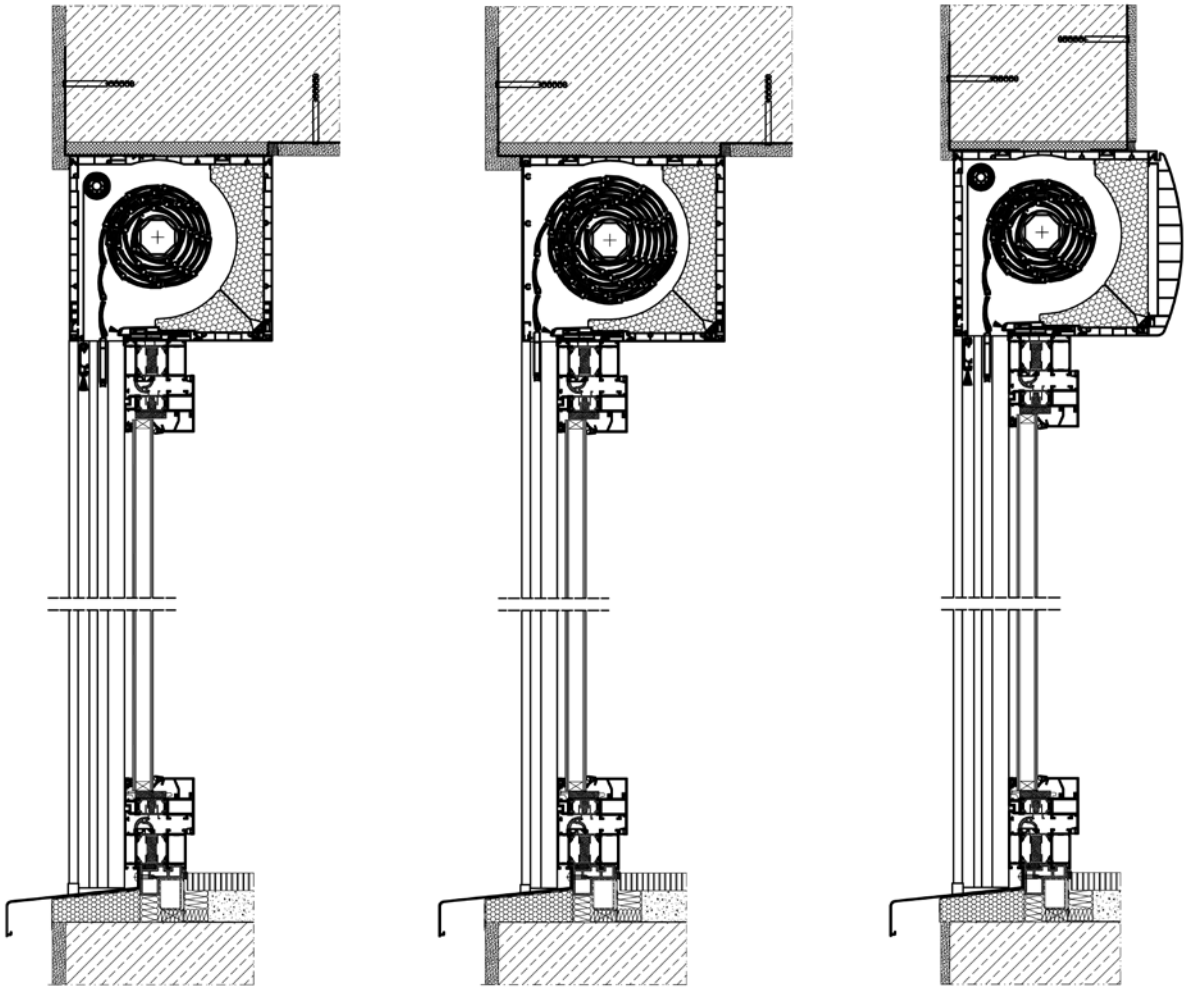
COLOUR SCHEME

Large selection of colours (standard chart for profiles PA) allow to meet the needs of the most demanding Customers. Woodgrain coatings are also available. Colour coatings on the extruded elements are manufactured using powder coating, which ensures high quality and durability of the product (any RAL colour can be used).

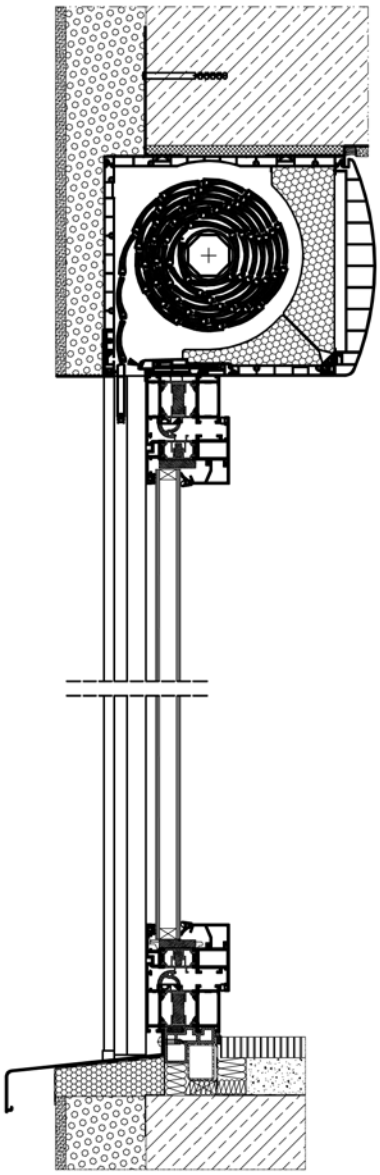
REQUIREMENTS

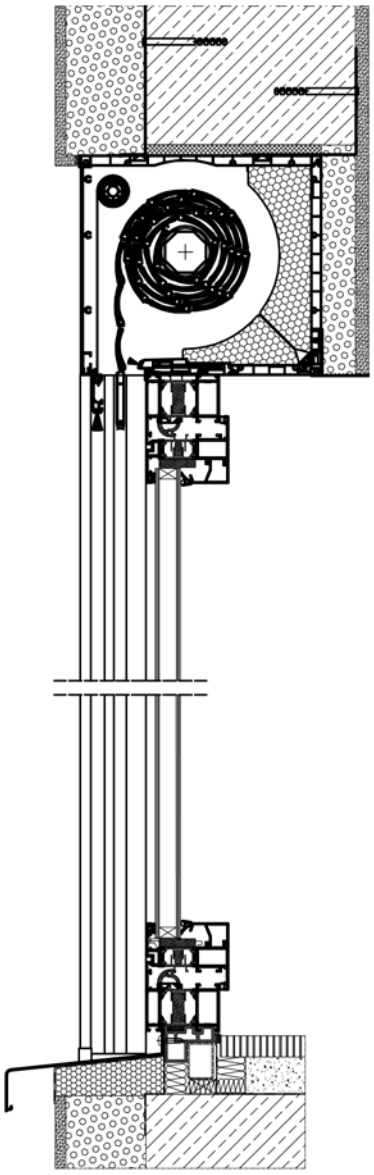
SKT OPOTERM top mounted roller shutters system was subjected to initial type testing performed by an accredited research laboratory – test results and available to the buyers. In addition, specific properties were determined: thermal resistance, air permeability, acoustic resistance. This system has received a thermal transmittance-related certificate from renowned research centre IFT Rosenheim. The rollerboxes were tested using EPS (Neopor, thermal insulation material) – the tests were based on the current standards and calculation methods. The product demonstrated an excellent performance, e.g. the SKT 230/170 box with integrated insect screen obtained a U_{sb} coefficient of 0.73 W/(m²K).

Installation examples in 1-layer wall

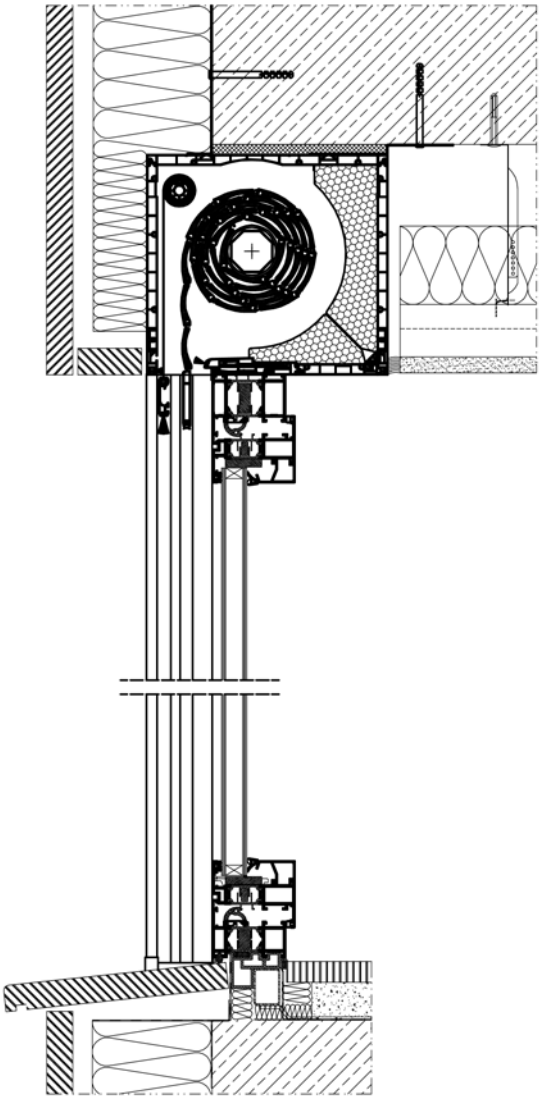


Installation examples in 2-layer wall





Installation examples in 3-layer wall



More examples on: www.aluprof.com/en/bim-file-finder

SAFETY PREMIUM and SAFETY PLUS

Designed for users with special requirements for home safety. As a manufacturer of shutter systems, we decided to go a step further and offer a product that would be an excellent decorative element and yet provide efficient protection against burglary at the same time.

SAFETY PREMIUM

Anti-burglary roller shutter system Aluprof Safety Premium is a highly technically advanced product, which thanks to the design of innovative structural elements has successfully passed specialized research and was the first system in Poland to receive the RC3 class of burglary resistance. Effective protection is guaranteed here by, among others, reinforced construction of guide channels, which does not allow for bending and pulling out the roller shutter profiles and special reinforcement in the endslat, ensuring high rigidity and stability of the curtain. In addition, adequately strong and durable construction of roller shutter curtain made of extruded aluminium profiles prevents any damage during impact. In addition, the latch system in the lower part of the roller shutter prevents the closed roller shutter from being lifted, which guarantees effective protection of the house.

SAFETY PLUS

Aluprof Safety Plus anti-burglary roller shutter system is a proposal addressed to investors for whom security issues are of vital importance and are looking for a certified solution at an affordable price. The main advantage of the product is a specially developed latch system in the endslat, which makes it difficult to lift the roller shutter curtain when attempting to open manually the shutter from the bottom and enter into the property. Thanks to the reinforcement of the guide channels and the bottom endslat, it is also difficult to pull out single roller shutter profiles and thus dismantle the curtain. Its robust and durable construction, made of extruded profiles PE41 provides increased resistance to impact. The proposed solution has been successfully tested in a research institute and has been certified in the RC2 burglary resistance class.

OPERATION SIMPLICITY

Anti-burglary roller shutters can be controlled only by an electric drive via a wallmounted transmitter or remote control. Smart control via computer, tablet or smartphone is also an option.

USER PROPERTIES

The anti-burglar roller shutters can be adapted to various systems, in which the curtain is rolled back into an aluminum box installed on the wall or frame. The technology and well-thought out design allow the boxes to be concealed as much as possible. A wide range of compatible systems ensure aesthetic compatibility with the curtain wall.

COLOR PALETTE

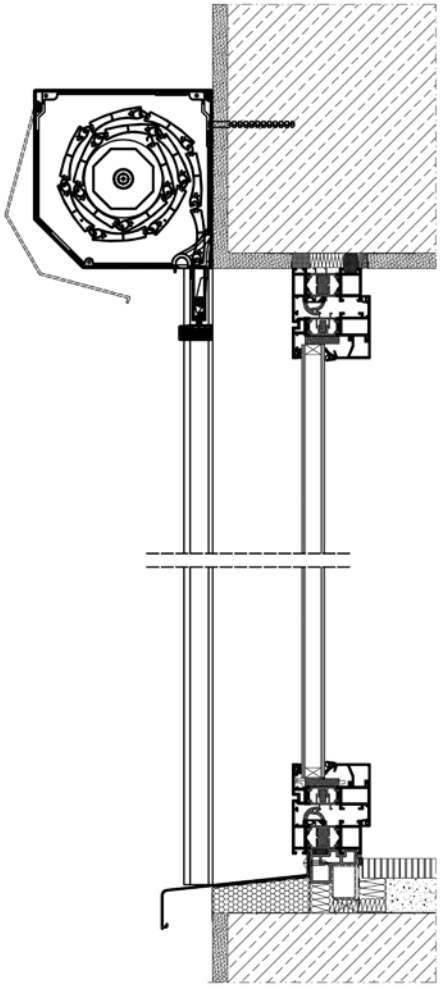
The profiles are available in a wide range of colors, therefore, they can perfectly match the windows and doors.

REQUIREMENTS

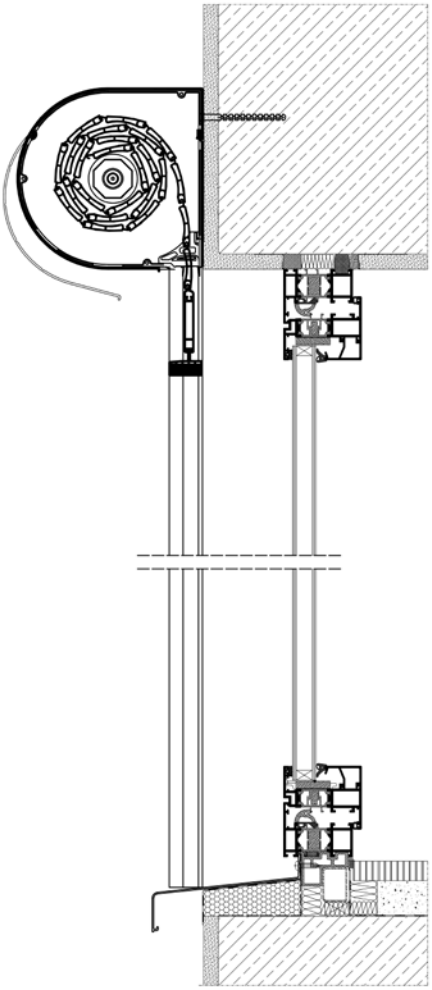
Anti-burglar roller shutters based on Aluprof systems are type-tested in an accredited laboratory.

Installation examples in 1-layer wall

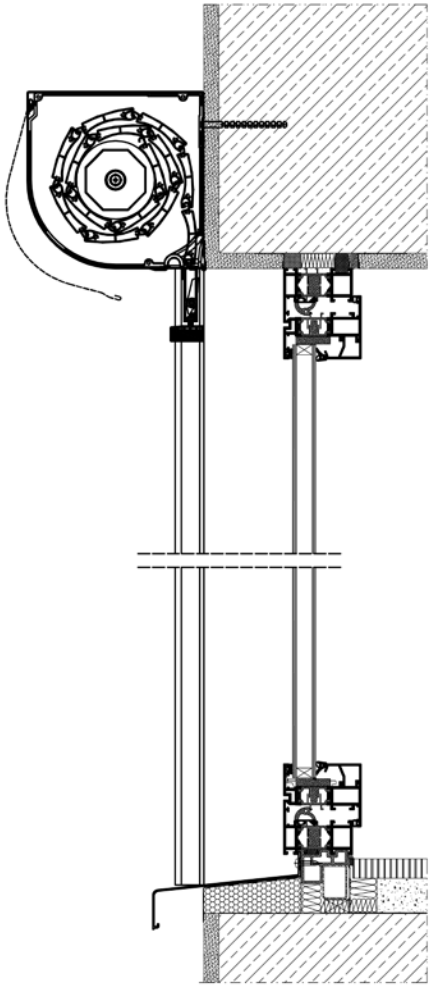
SAFETY PREMIUM - SKE



SAFETY PLUS - SKO

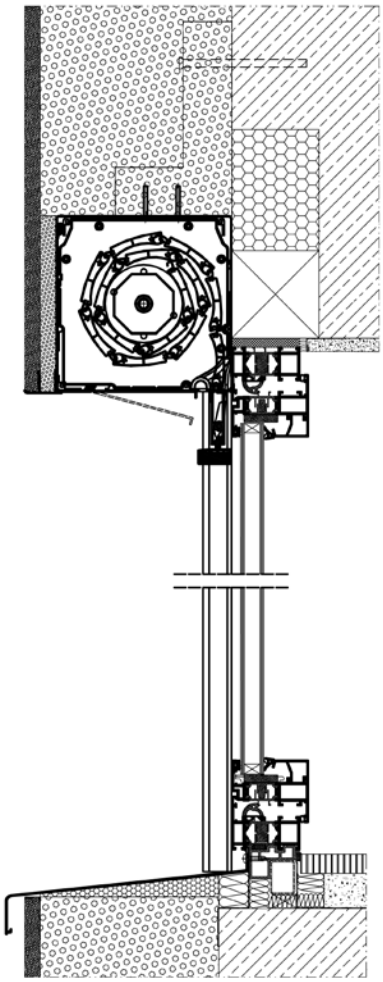


SAFETY PREMIUM - SKP

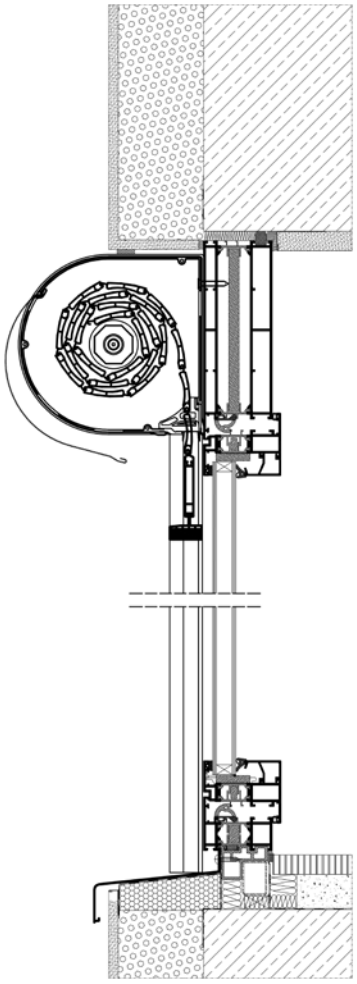


Installation examples in 2-layer wall

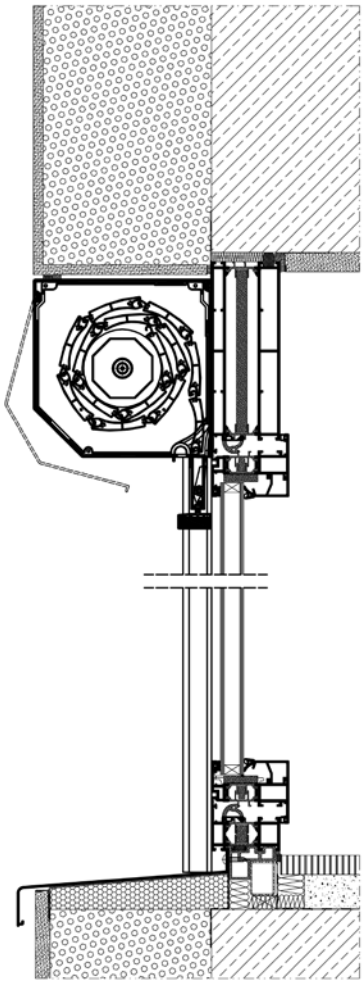
SAFETY PREMIUM - SP



SAFETY PLUS - SKO-P

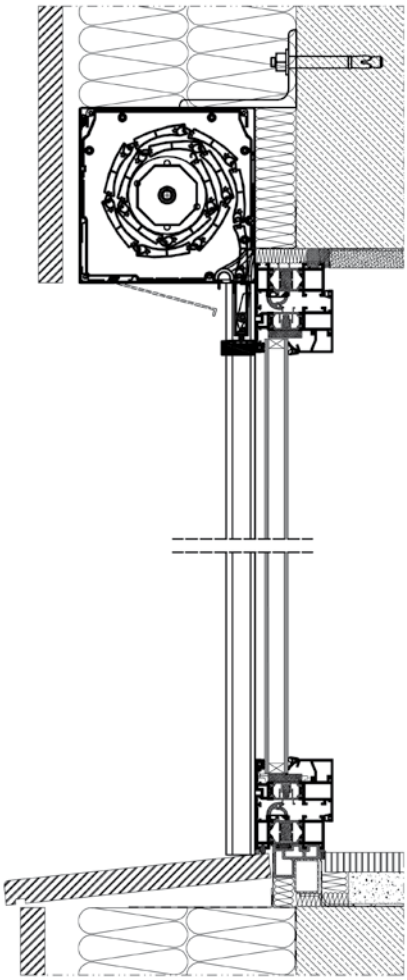


SAFETY PREMIUM - SKE

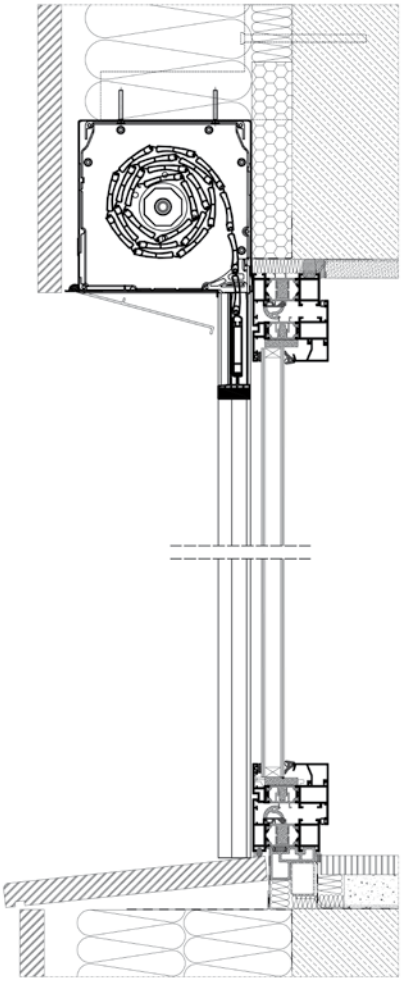


Installation examples in 3-layer wall

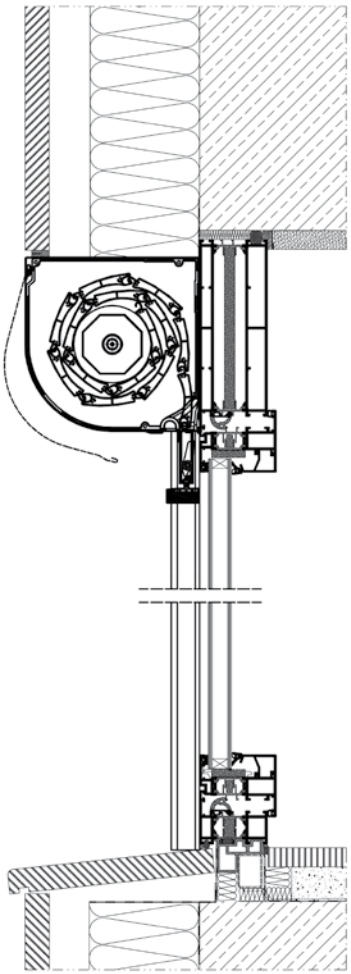
SAFETY PREMIUM - SP



SAFETY PLUS - SP-E



SAFETY PREMIUM - SKP



More examples on: www.aluprof.com/en/bim-file-finder

BUILT-IN ROLLER SHUTTER SYSTEM

SDZ

FUNCTIONALITY

SDZ system, commonly known as the traditional roller shutter system, is mainly intended for use in existing buildings. This is the perfect solution in case of renovation, when the old roller shutters need to be replaced. Also, this system is often used in newly constructed buildings. At the building's design stage, architects provide the opportunity to replace roller shutters after years of operation.

CONSTRUCTION DETAILS

Specially designed SDZ system allows to quickly et noninvasively install the product to the existing surface. Aluprof offers many construction variants of the system, depending on the components used to match the functionality of the roller shutter and its mode of installation. Roller shutter's curtain consists of profiles made of high quality sheets covered with two-layer PU/PA paint coatings that are highly resistant to abrasion and weathering. There is also an option to use the PVC profiles.

COMFORT OPERATION

Depending on the user preferences, roller shutters can be controlled manually or by an electric drive via a wall-mounted transmitter or a remote control. Smart control via computer, tablet or smartphone is also an option.

PRACTICAL VALUES

Use of external roller shutters in the SDZ system can fully satisfy expectations of investors. They constitute extremely aesthetic and functional tools that can contribute to minimising heat loss, prevent overheating rooms in the summer, but also constitute protection against excessive noise, or simply protect the interior from the eyes of undesirable persons. In addition, special design enables the replacement of roller shutters after years use.

COLOUR RANGE

Large selection of colours (standard chart for profiles PA) allow to meet the needs of the most demanding Customers. Woodgrain coatings are also available. Colour coatings on the extruded elements are manufactured using powder coating, which ensures high quality and durability of the product (any RAL colour can be used).

ROLLER SHUTTERS WITH CURTAIN

S_ONRO®

FUNCTIONALITY

The Aluprof s_onro® roller shutters with curtain is designed for use in existing and newly build developments. The curtain profiles can completely exclude external light from a room or other interior space. They can also protect the room from overheating in the sun's rays, while letting in some important amount of light (up to 20% of the curtain surface can be transparent). In addition, their unique form plays a decorative role, providing a definite enhancement to the overall aesthetics of a building.

CONSTRUCTION DETAILS

The curtain is made using highly stable, dihedral, rolled aluminium profiles. They contain a light perforation which fulfils the additional function of facilitating the exchange of air. The volume of light is regulated by closing individual profiles up to the point where a total blackout is obtained inside the room. The standard curtain can be immobilised on both sides and to its full height, which secures the profiles, preventing them from shifting in relation to each other. The state-of-the-art shape of the profiles, with a geometry corresponding to the very latest requirements as regards the permeation of light brings savings on electricity.

EASY TO USE

The roller shutters can be controlled manually or by means of an electric drive connected to the control system for ease of use.

PRACTICAL VALUES

The s_onro® profiles curtain will work without drawbacks in conjunction with roller shutter systems such as the SK, SKP, SKO and SKO-P adaptive systems and the top-mounted systems (SP, SP-E). The degree to which the curtain is open during the day is flexible and can be adapted to suit individual requirements simply by opening or closing it further. When the angle at which the sun's rays are falling exceeds 20°, the s_onro® profiles prevent any direct sunlight whatsoever from entering the room, while simultaneously guaranteeing the possibly of seeing out.

COLOUR RANGE

S_onro® profiles are available in the standard colours of silver, white, grey and anthracite grey.

REQUIREMENTS

The Aluprof s_onro® roller shutters with curtain hold initial type testing certification according with the product standard.

VENETIAN BLINDS SYSTEM

SKEF

FUNCTIONALITY

SKEF venetian blinds systes is intended for use in existing buildings. The advantage of these products is that they do not require any special pre-installation preparation nor works to the existing structure as they are not integrated with the window. Buyers can thus decide to install the front-mounted roller shutters at any time. These solutions can be mounted to the window joinery (in the recess) or directly on the wall. In the first case.

CONSTRUCTION DETAILS

The construction of the systems is made of extruded aluminium that ensures its durability and resistance to abrasion and weathering. Using any RAL colour allows for a perfect colour match for visible elements of the façade or window frame. The box of the SKEF system is cut at an angle of 45° and due to its specially design construction is more durable and resistant to weathering.

PRACTICAL VALUES

Prefabrication is very easy – non – invasive installation of venetian blind rail eliminates the need for drilling keeping the product aesthetic. Specially designed guide channels provide a consistent functioning. SKEF system is an universal solution that can be used for installation of venetian blinds using slats in size from 50 – 80 mm. Moreover SKEF system allows to equip venetian blinds with an insect screen, which provides effective protection against insects while maintaining the flow of light and fresh air to interior spaces.

COLOUR RANGE

A wide range of standard colors will satisfy the most demanding customers. The color coats are applied with the following methods, depending on customer needs: powder coating and Decoral paints.

VENETIAN BLINDS SYSTEM

SKYFLOW

FUNCTIONALITY

Venetian blinds are highly functional solutions that effectively protect interiors against excessive heat while providing appropriate optical comfort. As a result, the use of air-conditioning equipment is limited, which reduces costs, resulting in large savings over the year. There are 3 product variants available: SZF/P under plaster blind and SZF/BX, SZF/S self-supporting blind and SZF/A adapting blind. Therefore, the decision to install this type of solutions can be made at every stage of the investment, also in existing buildings.

CONSTRUCTION

The blind slats are made of aluminium sheet and are available in two shapes: "C" and "Z". The former are turned inwards on both sides, which guarantees rigidity and wind resistance. In addition, they have a rotation range of 0-180 degrees. The Z-shaped slats, on the other hand, provide more complete shading due to their design and are additionally equipped with a special soundproofing seal. Their rotation range is from 0 to 90 degrees.

The blinds are covered with a cassette which, depending on the selected option, may be made from 1.2 or 2.0 mm thick aluminium sheet or extruded aluminium. The guide channels, as the only solution of this type available on the market, are equipped with special seals eliminating the noise that can arise when the slat hits the guide channel. There are two types of pins available in the offer: steel and PVC.

ADVANTAGES

Due to the slat angle adjustment function, it is possible to select the appropriate degree of shading, which allows the user to manage it individually according to his individual needs. In addition, the well-thought-out construction makes it possible to create larger size blinds, which makes them often used for large glazed areas. This makes these products ideal for both public buildings and residential developments.

OPERATION SIMPLICITY

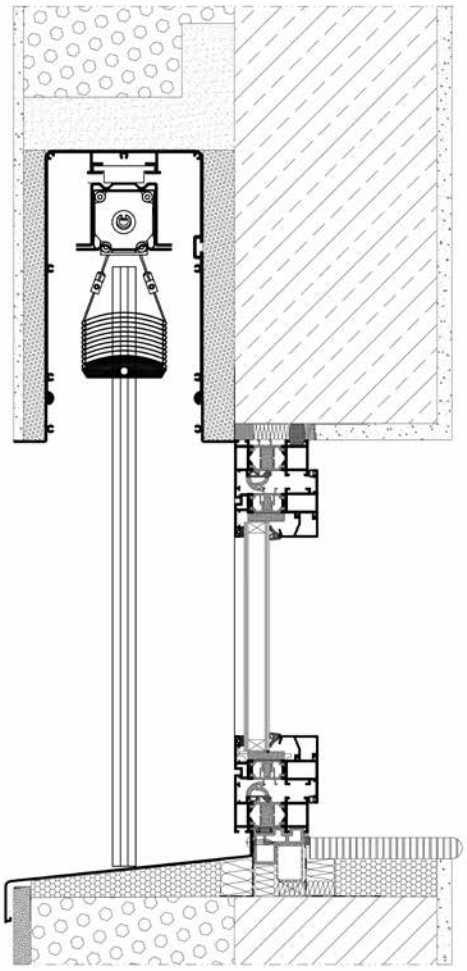
Electrical control not only ensures comfort of use, but also lowers the building's operating costs, while ensuring the appropriate indoor microclimate. Due to the use of various accessories, such as weather sensors (wind, solar, etc.) or time automation, we can create scenarios tailored to our needs, and what is more, we can remotely manage our blinds from any place and at any time using tablets or smartphones.

COLOUR PALETTE

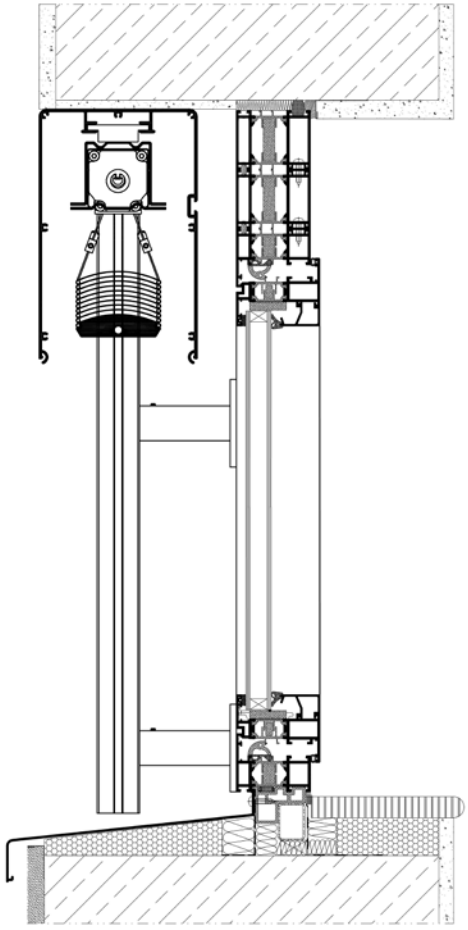
The colour palette of venetian blind slats available in the offer will certainly satisfy all needs of the most demanding customers. Colour coatings of extruded elements are made by powder coating, which ensures high quality and durability of the product.

Example of SkyFlow venetian blinds installation

SkyFlow SZF/P
(under plaster)

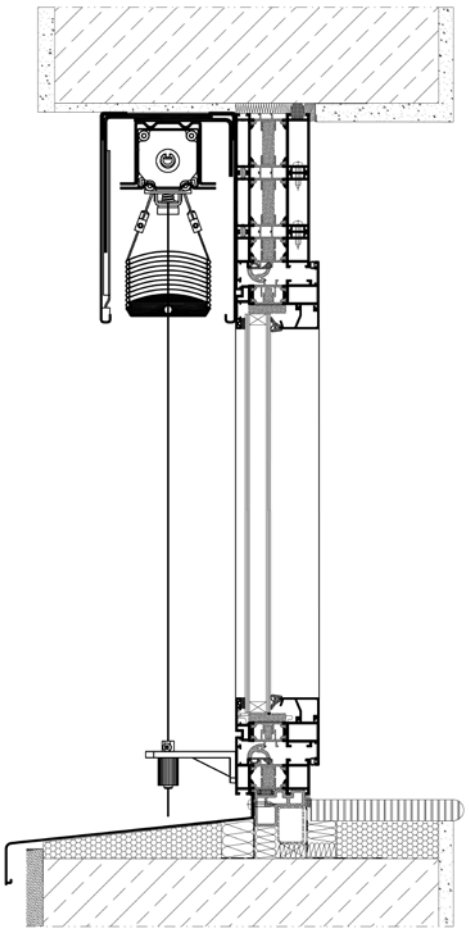


SkyFlow SZF/S
(self-supporting)

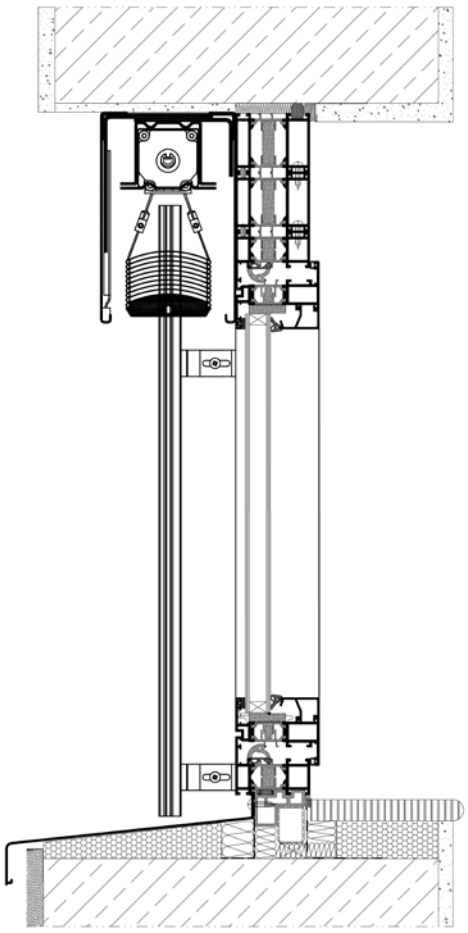


Cross section of the roofing

SkyFlow SZF/A
(adapting with a rope)



SkyFlow SZF/A
(adapting with guide channels)



SCREEN-TYPE SUN PROTECTION SYSTEM

SKYROLL

FUNCTIONALITY
Screens are modern and very functional solutions which are eagerly used both in public buildings and in residential construction. They are also perfect as a protective element on balconies, gazebos or pergolas. There are three systems available in Aluprof offer. SkyRoll Zip, SkyRoll Classic and SkyRoll Eco. Therefore, the decision to install this type of solutions can be made at every stage of the investment, also in existing buildings.

CONSTRUCTION
The available screen solutions differ in detail design and are available as under plaster, adapting (visible box) and top-mounted (system mounted directly on the window frame, built-in; not applicable to the ECO version). SkyRoll ZIP is an innovative product due to the use of technology borrowed from the zipper mechanism on the edges of the fabric. Specially designed two-part guide channels are thus directly integrated into the fabric, which guarantees maximum sealing and protection of the interior against insects. The fabric is properly tensioned and stably fixed in the guide channel, which protects it especially against gusty winds. SkyRoll CLASSIC is the most popular solution in the screen family, where there is no direct integration of the fabric with the guide channel. SkyRoll ECO, on the other hand, is a low-budget product for less demanding investors. A characteristic feature of the blind is its manual control using a spring system. An intuitive mechanism ALU-CLICK for convenient closing and opening of the insect screen is applied here, which makes the use very simple and does not require a lot of effort.

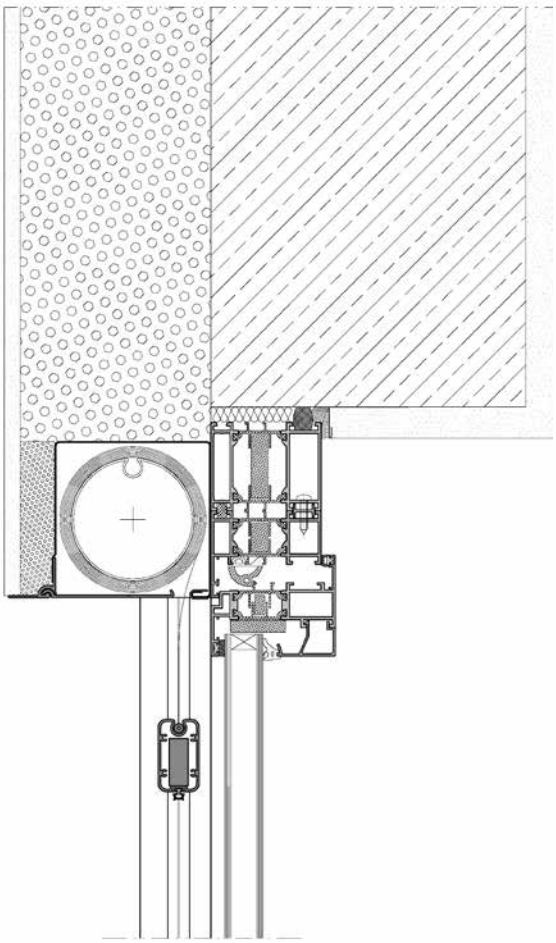
ADVANTAGES
Screens are very functional solutions which are eagerly used both in public buildings and in residential construction. The main advantage of this type of product is the protection of rooms from intense sunlight through the use of specialised technical fabrics. In addition, they protect the interior from the gaze of unwanted people while maintaining good visibility to the outside. These solutions also provide an effective optical barrier to light entering the room, minimising the glare effect that can occur on monitor screens. Owing to properly selected fabric they are also a stylish accessory that will give the object a unique character. SkyRoll ZIP and SkyRoll ECO, due to their well-thought-out construction, can also be used as an insect screen, protecting interiors from insects.

OPERATION SIMPLICITY
Electrical control available for ZIP and CLASSIC options not only ensure comfort of use, but also lower the building's operating costs, while ensuring the appropriate indoor microclimate. Due to the use of various accessories, such as weather sensors (wind, solar, etc.) or time automation, we can create scenarios tailored to our needs, and what is more, we can remotely manage our blinds from any place and at any time using tablets or smartphones.

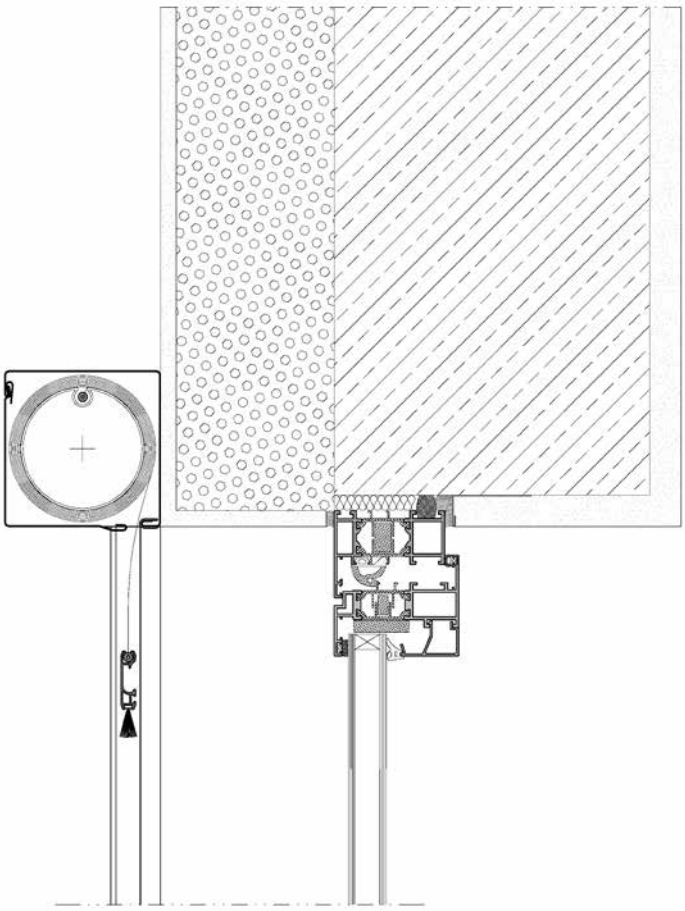
COLOUR PALETTE
The colour palette of screen constructions available in the offer will certainly satisfy the needs of the most demanding investors, allowing for their colour matching with the window woodwork or façade.

Examples of screen installations

SkyRoll ZIP
(under plaster variant)

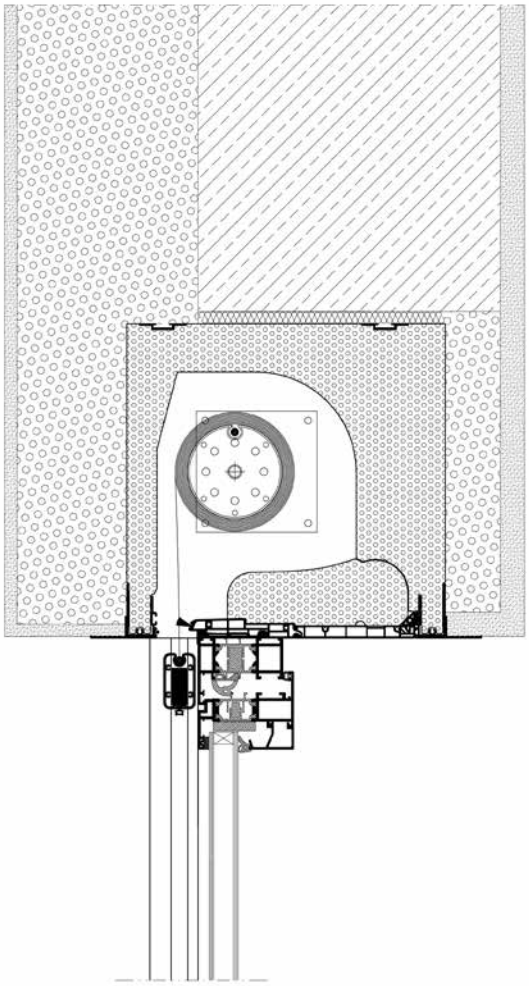


SkyRoll ECO
(adapting variant)

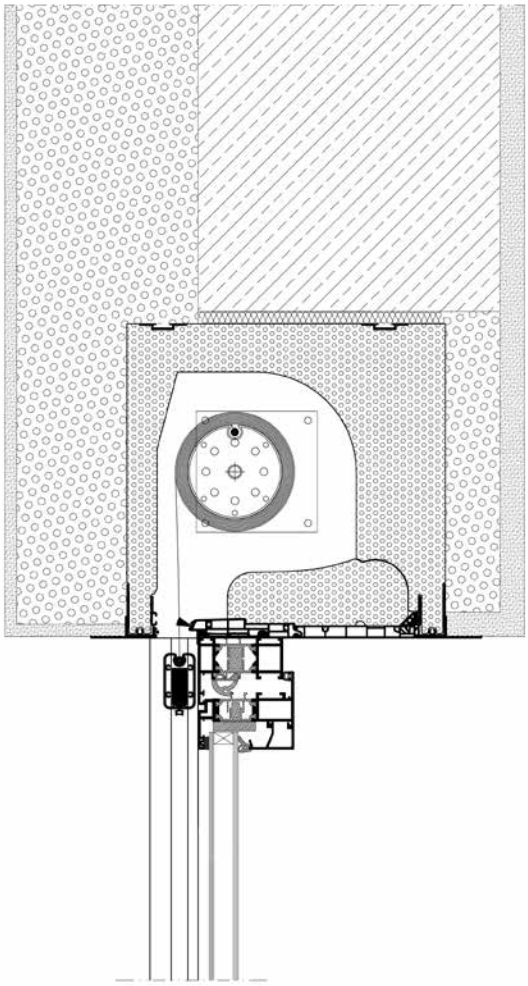


Examples of screen installations

SkyRoll ZIP
(under plaster variant)



SkyRoll ECO
(adapting variant)



More examples on: www.aluprof.com/en/bim-file-finder

PERGOLA SYSTEM

MB-OPENSKY 120

MB-OpenSky 120 is a unique product that perfectly fits in with the trends of modern construction and is characterised by its high durability and high quality of details. The use of an innovative method of fitting profiles has ensured the stability of the entire system, as well as aesthetically pleasing connections with invisible gaps.

The roofing of the MB-OpenSky 120 pergola is a module made up of movable slats (two shapes available), equipped with a mechanism enabling smooth change of its inclination angle from 0 to 135° on the axis. The transmission mechanism, equipped with an automatic adjustment system, allows rapid installation on-site and easy and problem-free adjustment of the individual slats.The clever design of the MB-OpenSky 120 pergola makes it durable and resistant to weather conditions.

MB-OpenSky 120 pergola is resistant to weather conditions. The product has been equipped with a gabled drainage system, allowing rainwater to be effectively drained from the roof inside the entire surface of the column (water discharge capacity of up to 57 l/min). Tests have shown that for maximum dimensions, i.e. length 6 m × width 4 m × height 3 m, the permissible snow load is 72kg/m² and a simultaneous wind load of around 110 km/h.

COMFORT OF USE

The MB-OpenSky 120 pergola is equipped with an electric drive that allows the use of SMART technology control devices from various manufacturers, including Somfy. Pergola can be operated using a remote control, a switch, a mobile phone app or the desired scenario programmed into a smart home control system. The pergola can also be fitted with further accessories

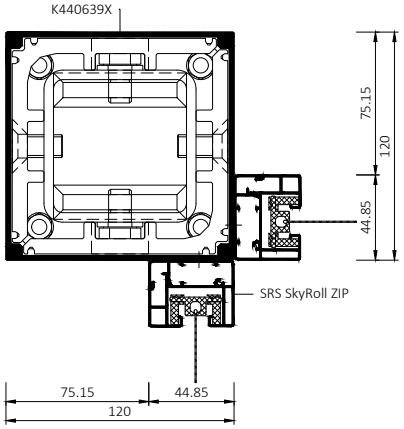
UTILITY VALUES

The clever design of the MB-OpenSky 120 pergola allows for any arrangement. It is possible to incorporate side screens such as screens, sliding glass panels or both solutions at the same time. In this way, we can create a unique atmosphere in a natural setting regardless of the prevailing weather conditions. What's more, the product also has the option of LED lighting. The lighting has been designed to work non-invasively with the roof slats. The available solution provides for its installation in the form of an LED strip both in the roof slat (linear for SLIM slats, punctual for STANDARD slats) and along the outline of the structure. In addition, a special revision in the rafter makes it possible to install radiant heaters.

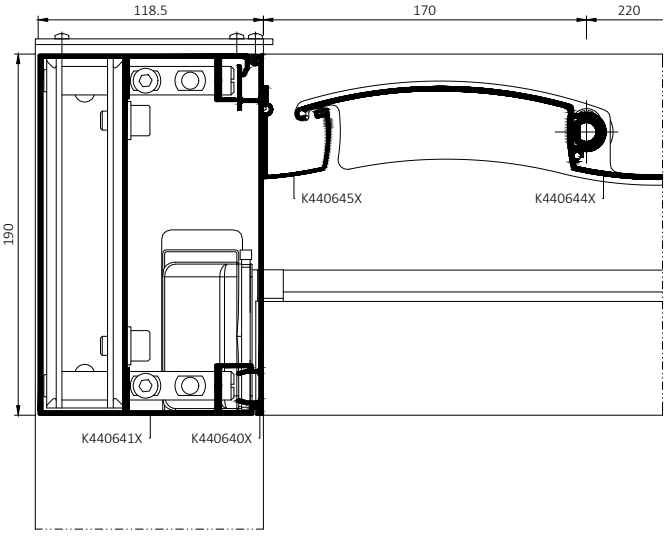
COLOR PALETTE

The extruded aluminium structure can be coated with any colour from the RAL palette. It can also be coordinated with the joinery of a building's window and/or façade. Up to 12 colours are available in the standard palette. The powder coating technology ensures the durability and strength of the coating for many years of use.

Cross section of a mullion

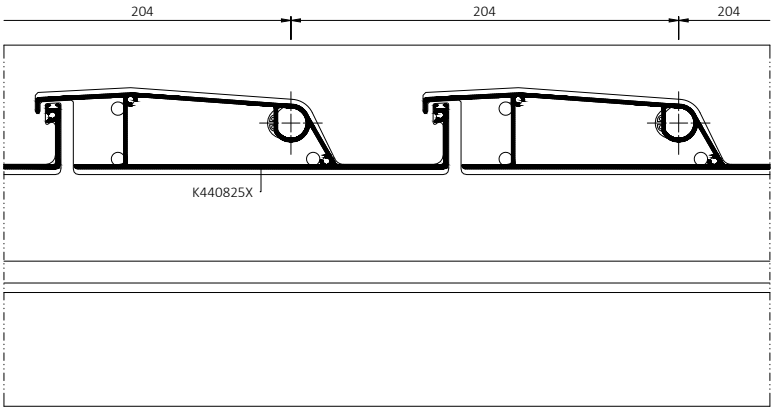


Cross section of a purlin and the roofing

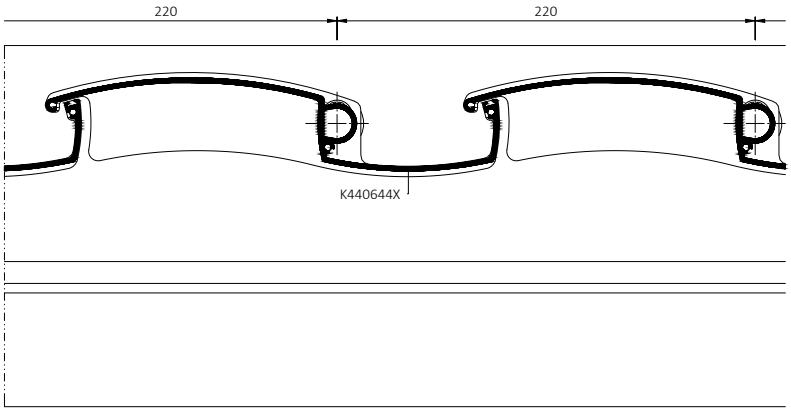


Scale 1:4

Cross section of the roofing

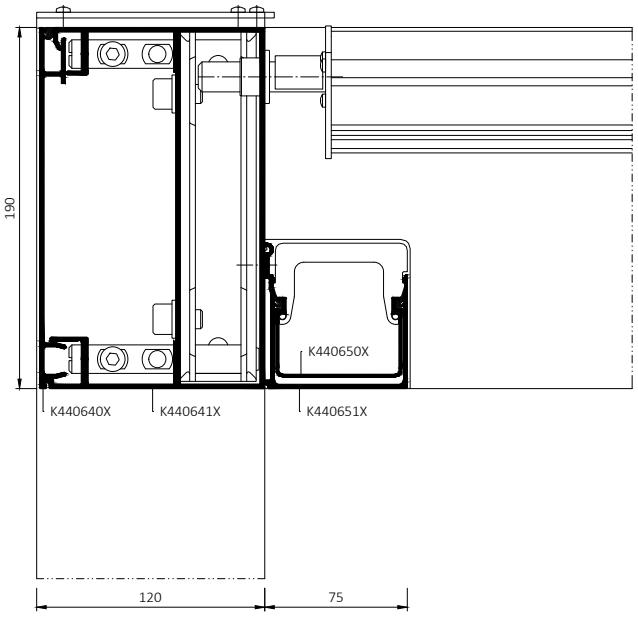


Cross section of the roofing

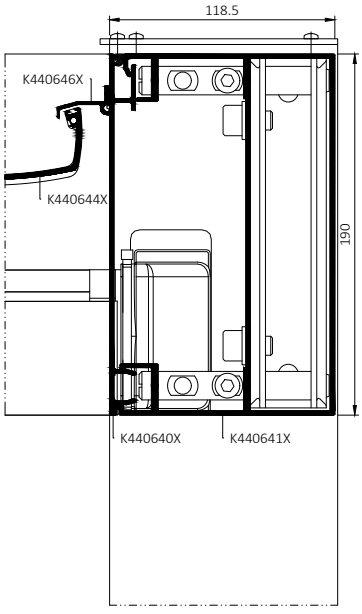


Scale 1:4

Cross section of a rafter

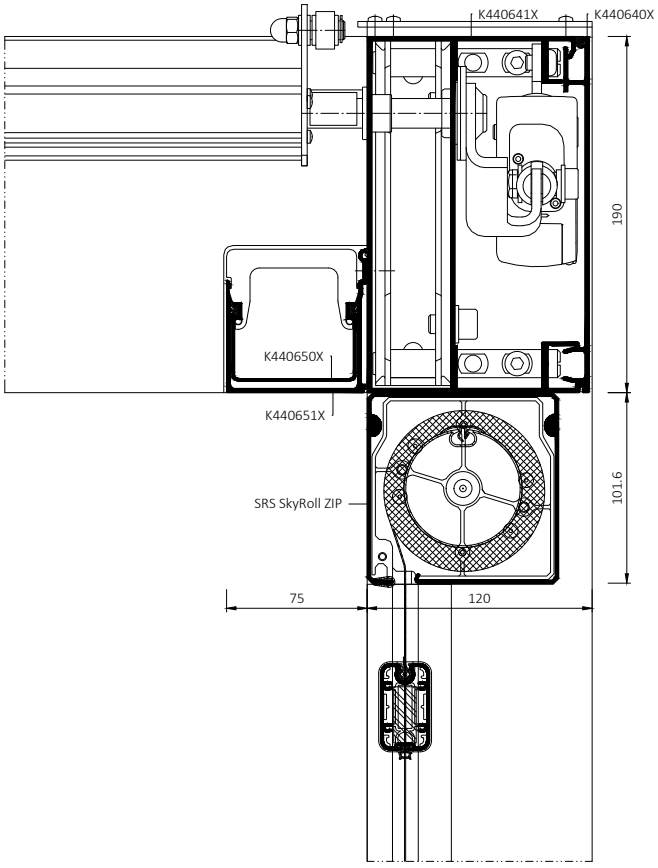


Cross section of a purlin and the roofing



Scale 1:4

Cross-section through the rafter and the SkyRoll sunshade box



More examples on: www.aluprof.com/en/bim-file-finder **Scale 1:4**

PERGOLA SYSTEM

MB-OPENSKY 140

Pergola is a modern and extremely functional solution, used as roofing for terraces or separate garden areas, which, depending on the needs and creativity of the user can find a number of applications.

The MB-OpenSky 140 structure is made of extruded aluminium, which guarantees its durability for years. The supporting posts are extremely tough and their geometry provides exceptional rigidity. The profiles of the posts and purlins are connected by means of C and L type joints. An innovative method of spacing the profiles with custom-designed cleats makes it possible both to ensure the stability of the entire system and to create an aesthetic connection with no visible gaps. The canopy is formed by a module composed of movable slats and fitted with a mechanism for changing their angle on an axis from 0 to 135°.The slats feature tailor-made seals for protection against rainwater and there is a drainage system located in the posts. This ensures that water is efficiently fed through gutters and downpipes to the storm drain.

The product meets the conditions for resistance to snow load and strong wind gusts. Tests carried out on the system showed that, for structures with the dimensions of 6 m length × 4 m width × 3 m height, the permissible snow load is 200 kg/m², which corresponds to a covering of snow approximately 1000 mm deepand a simultaneous wind load of around 59 mph.

The product is available as a free-standing and wall-mounted version, with a special console for wall insulation. It is possible to use the two-nave option, which allows to increase the usable area. The maximum dimensions of one section are 7 m lenght × 5 m width × 3 m height.

COMFORT OF USE

The MB-OpenSky 140 pergola is equipped with a fully electric roof-control mechanism that is completely concealed in the structure. The angle of the slats can be smoothly adjusted to anywhere between 0 and 135°, which provides full control not only of how much sunlight is allowed in but also of the natural ventilation. The mechanism can be operated using a remote control, a switch, a mobile phone app or the desired scenario programmed into a smart home control system. The pergola can also be fitted with further accessories, including a wind sensor, a rain sensor and/or a sun sensor, all of which significantly enhance user comfort. If side blinds or panels are used, they can be fully integrated into the roof control system. This means that the entire pergola can be controlled via one device.

UTILITY VALUES

The ingenious design of the ALUPROF MB-OpenSky 140 means that side blinds or sliding glass panels can be fitted. This opens up the possibility of creating a unique atmosphere, surrounded by nature, no matter how the weather is. The pergola can also be equipped with LED lighting tailored to work without affecting the roof slats and heating unit. The solution provides for it to be installed in the form of a LED strip on the roof slats and a spotlight, together with additional lighting, around the upper edge.

COLOR PALETTE

The extruded aluminium structure can be coated with any colour from the RAL palette. It can also be coordinated with the joinery of a building's window and/or façade. The powder coating technology ensures that the coating is tough and will endure for years.

POWERED by somfy

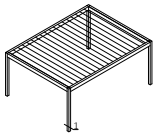
connects with Somfy TaHoma

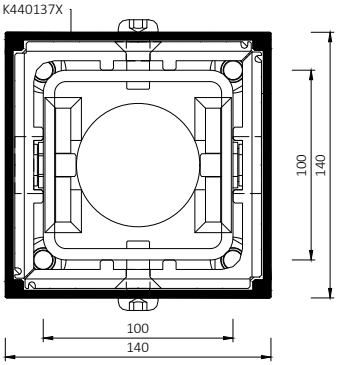
io homecontrol

works with Hey Google

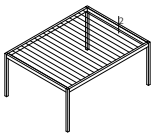
works with alexa

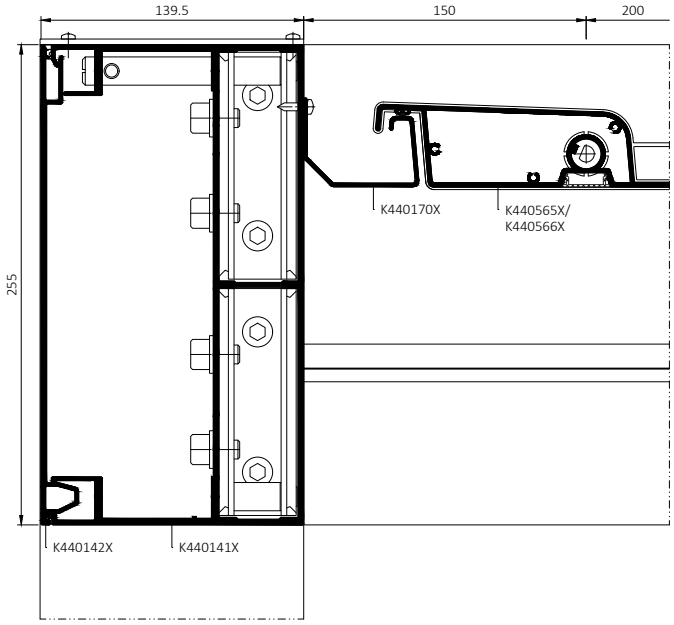
Cross section of a mullion





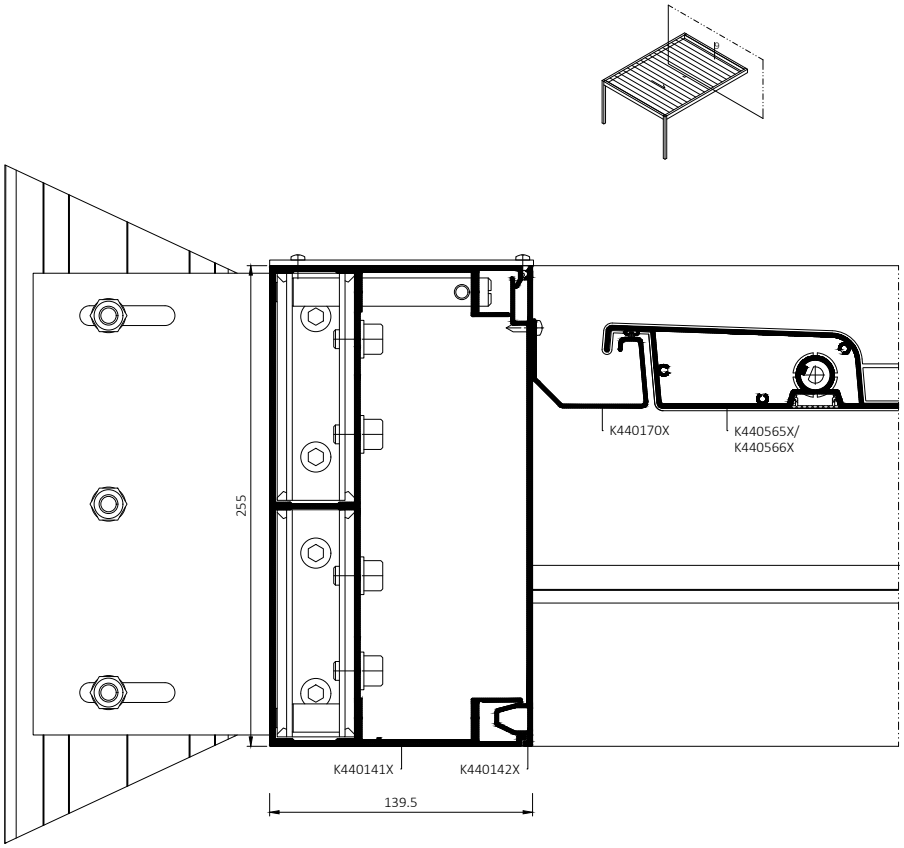
Cross section of a purlin and the roofing



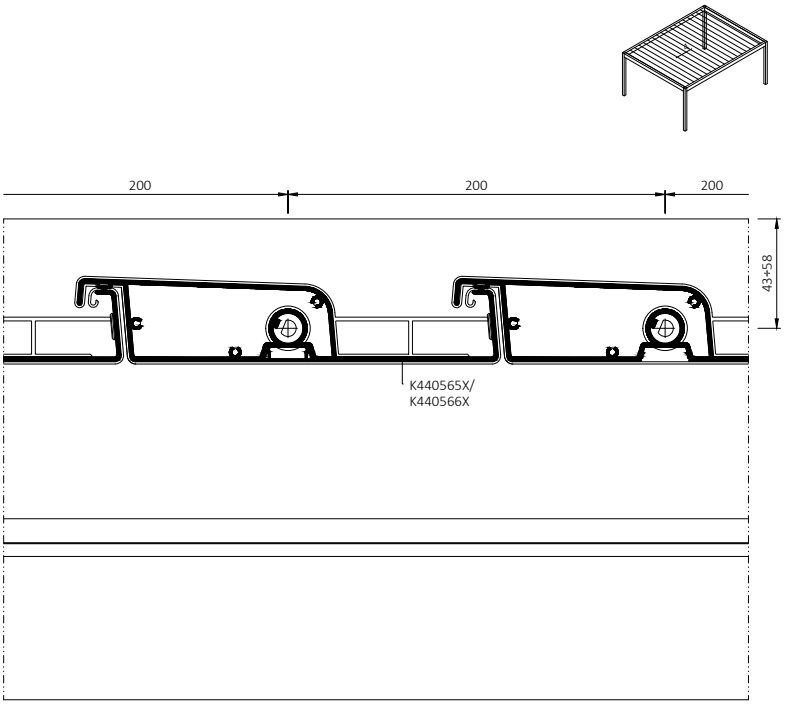


Scale 1:4

Cross section of a purlin attached to a wall

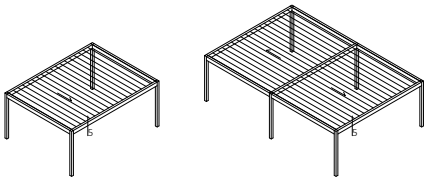


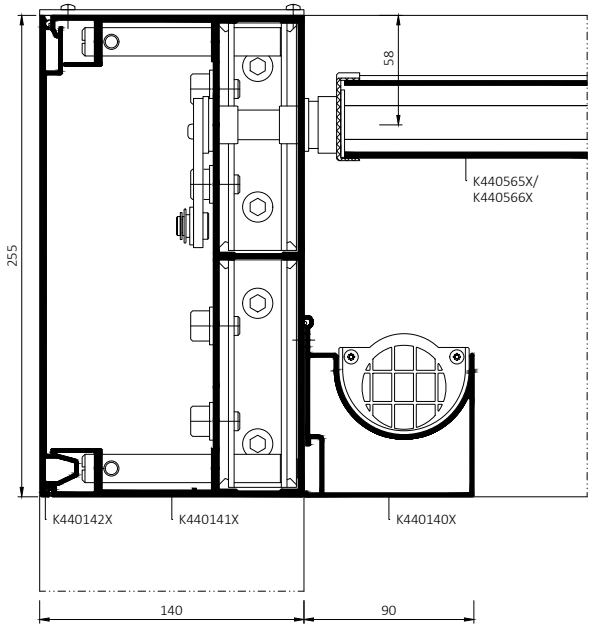
Cross section of the roofing



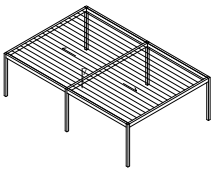
Scale 1:4

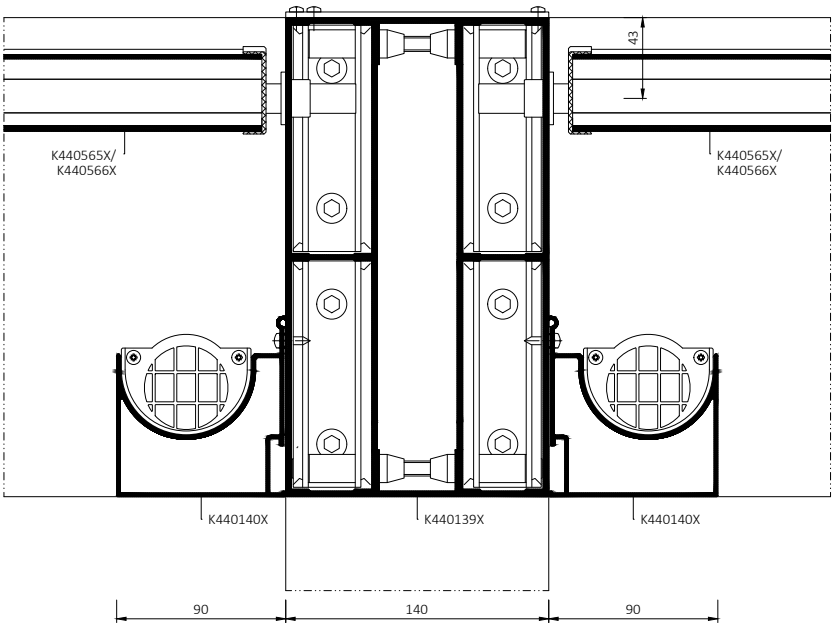
Cross section of a rafter





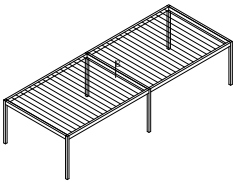
Cross section of the central rafter

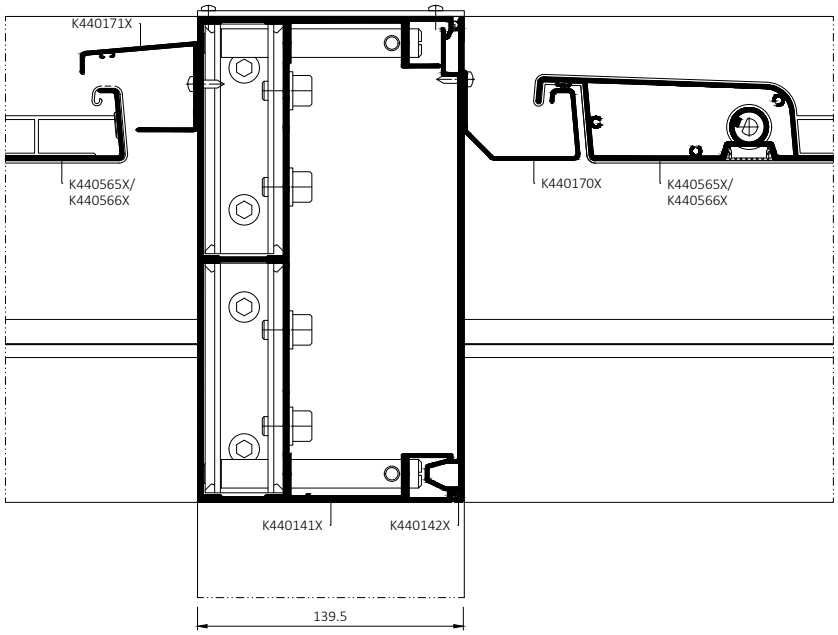




Scale 1:4

Cross section of the central purlin





INSECT SCREEN SYSTEM

MPH HARMONY

FUNCTIONALITY

Pleated insect screen system MPH is a solution primarily designed with the aim of providing space savings. This product is ideal for installation on the patio doors and balcony niches, where the width reaches up to 4 m.

CONSTRUCTION

The insect screen is made of extruded aluminium, which makes it durable and resistant to weather conditions, and in addition it can be varnished in any RAL colour. The use of special pleated mesh, which when closing arranges in a zigzag pattern and hides in the side profile is a characteristic feature of this product. Thus, the insect screen takes up little space allowing optimal use of the surface. Importantly, it does not impair, in any way, the functionality of the door and does not obstruct visibility to the outside. An advantage of this solution offered by Aluprof is the possibility of separate tension control of each of the ropes controlling the insect screen, which guarantees its stable arrangement.

OPERATION SIMPLICITY

The MPH system is characterized by an extremely smooth movement, which makes its use very simple and does not require much effort. In addition, the construction of the insect screen allows to stop it in any position. The advantage of this solution is also the low threshold that does not hinder in any way the passage.

ADVANTAGES

The well-considered construction of the insect screen and good selection of materials provide excellent protection against insects, without reducing the amount of light and air. Moreover, the pleated insect screen Harmony has been designed to smoothly work with the Aluprof roller shutter systems with the guide channel PPMO 53.

COLOURS

A large selection of standard colours meets the requirements of the most demanding customers. Colour layers are applied using the following methods powder lacquer technology, depending on the customer's request: powder coating and Decoral.

The insect screen construction is made of extruded aluminium, which guarantees its durability and strength.

The possibility of separate tension control of each of the ropes controlling the insect screen, which guarantees its stable arrangement.

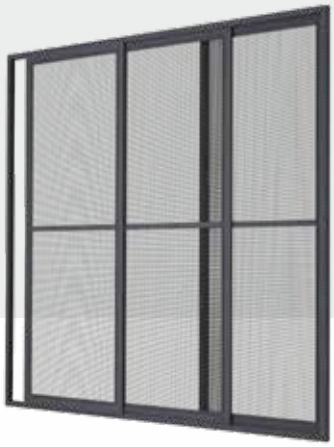
The possibility of achieving large widths up to 4 m.

The use of low threshold allows free passage of users.

The pleated mesh when closing arranges in a zigzag pattern and hides in the side profile, which guarantees considerable space savings.

THE SLIDING INSECT SCREEN

MRP



FUNCTIONALITY
The system of mosquito screens with a sliding frame protects rooms against insects and is used in large, glazed niches of buildings, terraces and conservatories. The screen panel slides between the upper and lower guide. The lower section includes a roller with a mechanism for the smooth adjustment of the tilt angle for each leaf. Additional reinforcement, mounted by snap joints, makes it possible to install larger frames.

CONSTRUCTION DETAILS
The frames and guides are made of strong extruded aluminum profiles with a modern shape, finished with a coat of increased resistance to abrasion and weathering. The shape of the main profile eliminates the need for additional brackets. The frame and leaf of the screen are fixed with internal corner joints. The mosquito screen can be installed in a three section version.

COMFORTABLE OPERATION
The mosquito screen with a sliding frame is fixed directly to the frame or jamb. A wide range of guides allows the use of different installation versions on all types of windows and frames, without blocking the external roller blinds.

USER PROPERTIES
The well-thought out design of the mosquito screen and properly selected materials provide effective protection against insects, without blocking the light and air. Each screen leaf is additionally sealed with brush weatherstrips. The system also includes a braking device to slow down the roller close to the extreme position and a stopper to prevent the screen from hitting the guide.

COLOR PALETTE
A wide range of standard colors will satisfy the most demanding customers. The color coats are applied with the following methods, depending on customer needs: powder coating and Decoral.

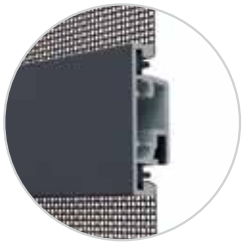
Optional installation in three rows.

The guide is used to position and secure the leaf.

The frame and leaf are fixed with internal corner joints offering high durability and an aesthetic finish.

Each leaf is provided with a brush seal.

The solution with a low rail makes this product work perfectly with sliding doors with the so-called low-level threshold.



Additional reinforcement of a famed screen is installed by the use of snap joints, so the surface of a leaf can be easily expanded.

THE SWING INSECT SCREEN

MRO

FUNCTIONALITY

Mosquito screens with opening frames excellently protect rooms against insects without having any impact on the operation of the balcony door. The frame can be fixed using internal aluminum corner joints of a snap or screw type (set screws). Additional reinforcement, mounted by snap joints, make it possible to install larger frames.

CONSTRUCTION DETAILS

The frame profile is made of strong extruded aluminum profile with a modern beveled shape that nicely matches current door frames.

COMFORT OPERATION

The mosquito screen with an opening frame is installed directly onto the door frame using hinges with a door closer, with a simple design allowing the adjustment of the spring tension with an Allen key. The infill panel in the lower section of the leaf protects the net against damage when opening.

USER PROPERTIES

The well-thought out design of the mosquito screen and properly selected materials provide effective protection against insects, without blocking the light and air. The screen is equipped with a handle for opening and a magnet for keeping the closed position, as a standard.

COLOUR SCHEME

A wide range of standard colors will satisfy the most demanding customers. The color coats are applied with the following methods, depending on customer needs: powder coating and Decoral paints.

A hinge with a closer allows easy control of the spring tension using an Allen key. It is possible to install the hinge in two planes. The system has been patented.

Two opening variants available: "ergonomic" and "aesthetic" or a specially designed, joining profile allow to open and close the mosquito net from both inner and outer part of the casement.

Easy installation of the frame with an internal corner joint and set screws.

Two different heights of the cavity slab of in the lower part of the casement protect the screen from opening-induced damages.

INSECT SCREEN SYSTEM

MPH VERTI

FUNCTIONALITY

The insect screen system MPH HARMONY VERTI complements the offer of pleated insect screens and was designed primarily for installation on standard and roof windows.

CONSTRUCTION

The use of a special pleated mesh, which when closing arranges in a zigzag pattern and hides in the upper profile is a characteristic feature of this product. The main advantage of the new system is the possibility of tensioning each of the cords guiding the insect screen net, which allows for its precise and even layout. It is available in several sizes, so called sets, which, depending on the needs, can be cut symmetrically, thus adjusting the pleats to the size of the window. The construction of the insect screen is made of extruded aluminium guaranteeing its durability, and is based to a large extent on components of the MPH HARMONY system. Maximum size of the new insect screen is 2300×2000 mm.

OPERATION SIMPLICITY

Closing and opening of the insect screen is very easy and smooth, thanks to the system of springs installed in the bottom profile. The tensioning elements have been aesthetically hidden under a special masking profile, which can be detached and clipped in at any time. The sliding profile of the insect screen, thanks to the designed recess, allows for convenient opening and closing. It is also possible to stop the insect screen at any time.

ADVANTAGES

The well-considered construction of the insect screen and good selection of materials provide excellent protection against insects, without reducing the amount of light and air. Moreover, the pleated insect screen does not obstruct visibility to the outside.

COLOUR SCHEME

A large selection of standard colours meets the requirements of the most demanding customers. Colour layers are applied using the following methods powder lacquer technology, depending on the customer's request: powder coating and Decoral.

The construction of the insect screen is made of extruded aluminium which ensures its stability and resistance to weather conditions.

The possibility of separate tension control of cords controlling the insect screen, which guarantees its stable arrangement.

Specially designed recess in the sliding profile allows convenient opening and closing of the insect screen.

The tensioning elements in the form of a system of springs have been aesthetically hidden under a special masking profile, which can be detached and clipped in at any time.

ROLLER INSECT SCREEN SYSTEM

MZH

FUNCTIONALITY

The system MZH for roll-up insect screen is a modern and fully functional solution designed primarily for installation on roof windows. Extremely versatile, MZH is also well suited for mounting on vertical windows.With the use of specially designed channels with offset, MZH-based insect screen can also be mounted on windows with outer sill that usually prevents the standard, direct installation to the window frame.

CONSTRUCTION DETAILS

The construction is made of extruded aluminium and is mainly based on components of the system MZN. This solution enabled to use i.a. a bottom strip and channels that perfectly match a specially designed swing hook. With this innovative solution, it is now possible to block the bottom strip on the roof windows from the inside.

COMFORT OF OPERATION

The carefully formed hook shape enables to efficiently click-in and click-out the bottom strip, which makes the use of this fly screen straightforward and simple. What's more, the hook provides additional sealing to the bottom part of the fly screen, so there's no need for additional gaskets.

USER PROPERTIES

The well-thought out design of the mosquito screen and properly selected materials provide effective protection against insects, without blocking the light and air. The screen is equipped with a handle for opening and a magnet for keeping the closed position, as a standard.

COLOUR SCHEME

A wide range of standard colors will satisfy the most demanding customers. The color coats are applied with the following methods, depending on customer needs: powder coating and Decoral paints.

Small-size, semi-oval cassette of extruded aluminium.

Hook shape enables to efficiently click-in and click-out the bottom strip.

With this innovative solution, it is now possible to block the bottom strip on the roof windows from the inside.

The hook provides additional sealing to the bottom part of the insect screen.

ROLLER INSECT SCREEN SYSTEM

MZN

FUNCTIONALITY
The independent roll-up insect screen system is an excellent and extremely tight solution that secures interior spaces against insects with the possibility of closing and opening at any time. This is a very aesthetic and modern solution, which, thanks to its small box fits perfectly in any recess.

CONSTRUCTION DETAILS
Structural elements of the screen (box, rails, endslat) are made of extruded aluminium, which ensures durability and resistance for many years of use. A special clip helps adjust the height of the mesh closure. Installing the system to the lintel is very fast and simple, thanks to the aluminium catch, which is also painted in the colour of the box. In addition, it is possible to use a restrictor, allowing the gentle and noiseless closure of the endslat to the box. The system is very practical, especially that it uses, to the maximum extent, other insect screen system components that are offered by Aluprof.

COMFORT OPERATION
The roll-up insect screen system is an excellent and extremely tight solution that secures interior spaces against insects with the possibility of closing and opening at any time. A novelty in the offer is an intuitive mechanism ALU-CLICK for convenient closing and opening of the insect screen, which makes its use very simple and does not require a lot of effort. When closing it is enough to gently close the bottom endslat of the insect screen. If you want to open it, press on the endslat, which opens automatically.

USER PROPERTIES
The well-thought out design of the mosquito screen and properly selected materials provide effective protection against insects, without blocking the light and air. The screen is equipped with a handle for opening and a magnet for keeping the closed position, as a standard.

COLOUR SCHEME
A wide range of standard colors will satisfy the most demanding customers. The color coats are applied with the following methods, depending on customer needs: powder coating and Decoral paints.

Small-size, semi-oval cassette of extruded aluminium.

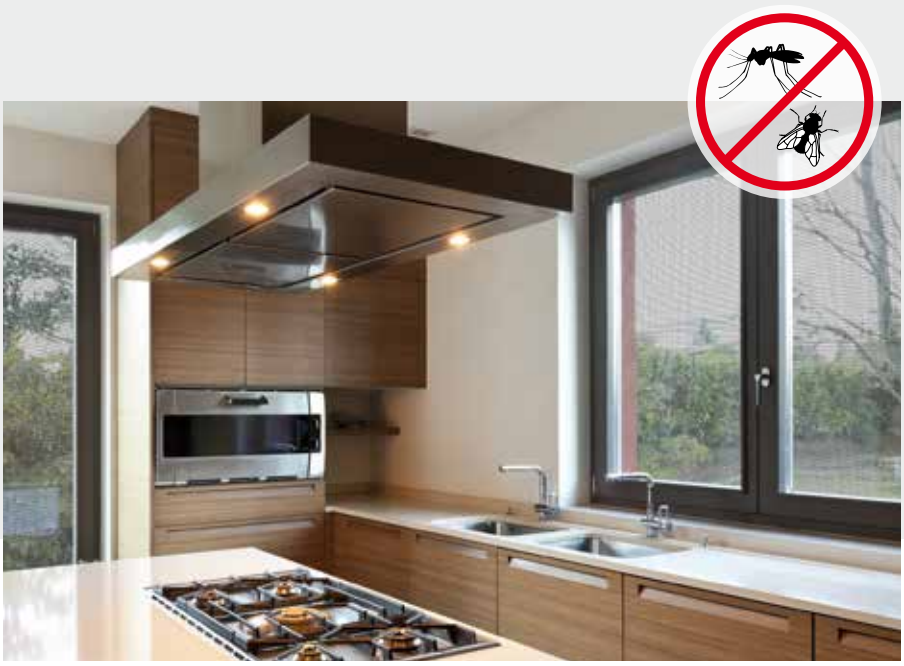
Endslat of extruded aluminium with sealing gasket to the windowsill / window frame.

Sealing gasket mounted at the top of the box.

Channels of extruded aluminium with sealing gasket.

THE FIXED INSECT SCREEN

MRS



FUNCTIONALITY

The system of framed mosquito screens excellently protects rooms against insects. The frame can be fixed using internal aluminum corner joints of a snap or screw type. The offer also includes external plastic corner joints in various colors. The system is compatible with most window profiles. Fixing brackets are offered in five sizes.

CONSTRUCTION DETAILS

The frame profile is made of strong extruded aluminum with a modern shape and powder coated surface. The profile is offered in two versions: with a “fin” abutting the window frame and without the “fin”, with a place for a brush weatherseal, used for a fully enclosed window frame.

COMFORTABLE OPERATION

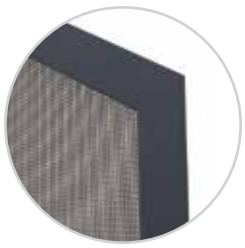
The framed mosquito screen is installed on the external side of the window frame. With the use of noninvasive rotary joints, the screen can quickly and easily be mounted and dismounted, while keeping the full functionality of the windows.

USER PROPERTIES

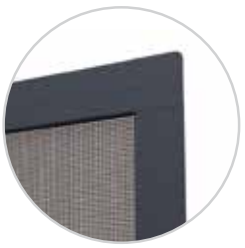
The well-thought out design of the mosquito screen and properly selected materials provide effective protection against insects, without blocking the light and air.

COLOR PALETTE

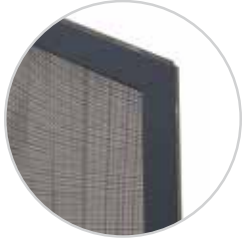
A wide range of standard colors will satisfy the most demanding customers. The color coats are applied with the following methods, depending on customer needs: powder coating and Decoral paints.



Frame with an internal corner joint.



Frame with an internal corner joint and side sealing.



Frame with an external plastic corner joint.

Frame with an external corner joint and side sealing.

FIXED INSECT SCREEN SYSTEM

MRSZ

FUNCTIONALITY

Fixed insect screen system MRSZ is designed for use on flushed aluminium windows. The screens are highly aesthetic and are supplemented by high quality details. This solution is perfectly suited for the balcony door. In rooms where we need regular protection, such as bedroom, bathroom or child's room.

CONSTRUCTION DETAILS

All of its components are made of extruded aluminium, which ensures resistance to weathering, and a reliable operation of the product for many years. The specially desinged mosquito profile togehther with brush seal provides the full sealing of the window frame. Moreover, using of the joining profile let to obtain larger dimensions of the insect screens.

COMFORT OPERATION

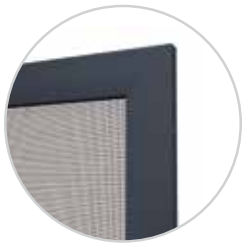
Installation of the MRSZ system is made at the external side of the window frame. Mounting clips helps easily and quickly to set up and dismantle of the the insect screen from the windows frame keeping the functionality of the window.

ADVANTAGES OF APPLICATION

The well-thought out design of the mosquito screen and properly selected materials provide effective protection against insects, without blocking the light and air. The screens are highly aesthetic and are supplemented by high quality details that guaranty its durability and resistance for many years of use.

COLOUR SCHEME

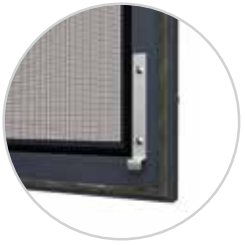
A wide range of standard colors will satisfy the most demanding customers. The color coats are applied with the following methods, depending on customer needs: powder coating and Decoral paints.



Frame with plastic inside corner (screwed or crimped).

Mounting clip helps to easily and quickly set the screen in the windows frame.

The upper hook allows for easy setting of the screen in the upper part of the frame, which is also equipped with a brush seal that provides full sealing.



The lower hook allows an easy setting of the screen in the bottom part of the frame.

BGR

FUNCTIONALITY
The roller shutter garage door can be mounted in already existing facilities as well as in those that are being built. One of the advantages of their application is the economy of space. The door operable in the vertical plane is a good solution when the driveway to the garage is short or comes directly from the street. It significantly improves the driver's safety, as the raised curtain of the door does not limit visibility.

CONSTRUCTION DETAILS
Depending on the overall dimensions and conditions of installation, it is possible to mount the roller shutter garage door on brackets and in a box. The door profiles are made of high-grade aluminium sheet. This sheet is covered with a two-layer varnish coat in the PU/PA system, characterised by enhanced resistance to abrasion and weather conditions. Due to the filling foam, the profiles feature good thermal and sound insulting performance. Sufficient amount of fresh air can be provided by application of ventilation profiles in the door curtain. You can also use glazed profiles to fill the interior with natural light. With regard to the manner of fitting a winding tube roller shutter garage door fall into two categories:
– sitting on brackets: BGR/KNB
– in a box: BGR/SK

COMFORT OF OPERATION
The electrical drive allows for the use of a remote control. The radio-wave control allows the door to be opened and closed without the need to leave the car. It is particularly useful in the evening, when it is raining, or in winter.

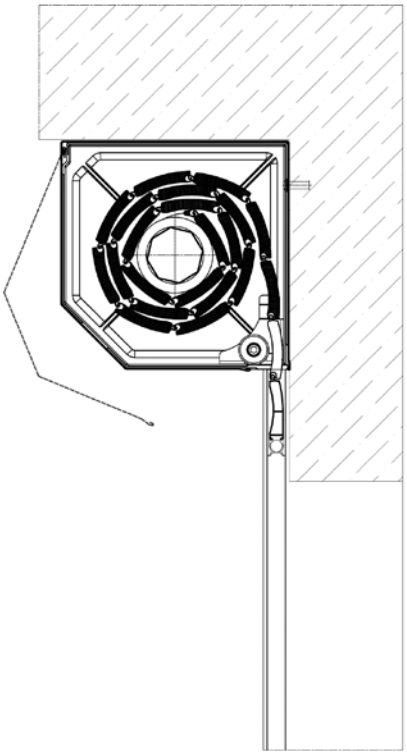
SAFETY
In accordance with the applicable standards, the roller shutter garage door is standard-equipped with the anti drop device. Can be retrofitted with protection against crushing when closing and motion sensing devices. In the event of powe failure, the roller shutter garage door can be opened with the emergency manual drive. The electromagnetic brake of the roller shutter garage door drive and the locking hangers efficiently thwart any attempts to lift the curtain.

COLOUR SCHEME
A wide range of colours in the standard colour chart allows for meeting the requirements of the most demanding customers. The colour finish of the surface is applied by powder coating.

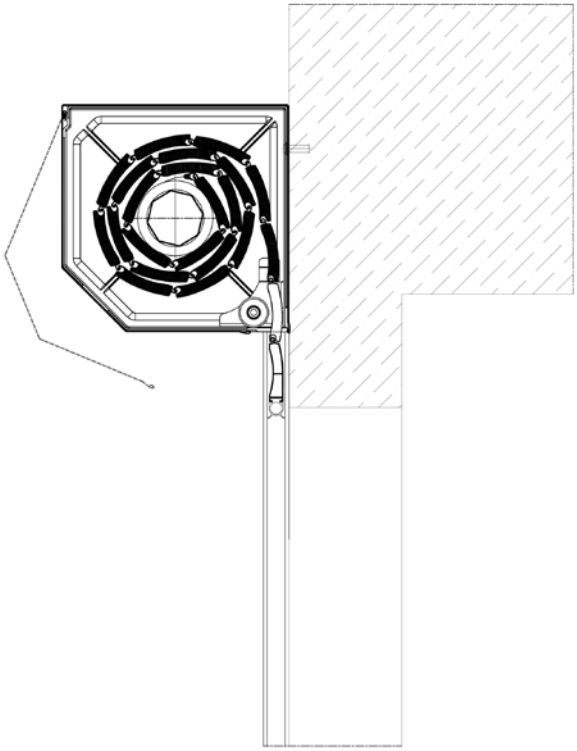
REQUIREMENTS
Roller shutter garage doors of the ALUPROF systems have a Initial Type Testing, made by the notified body and rendered.

Gate system – installation examples

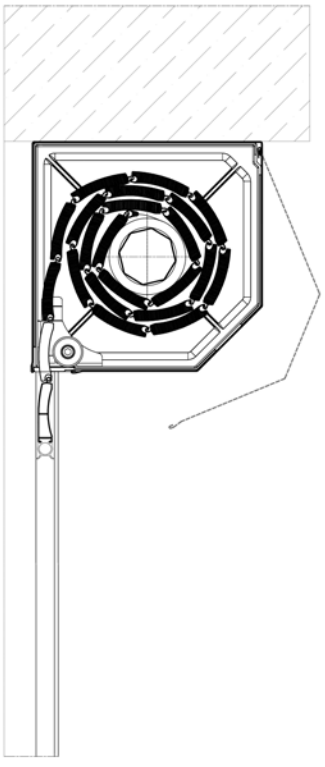
BGR/SK VARIANT 1



BGR/SK VARIANT 2

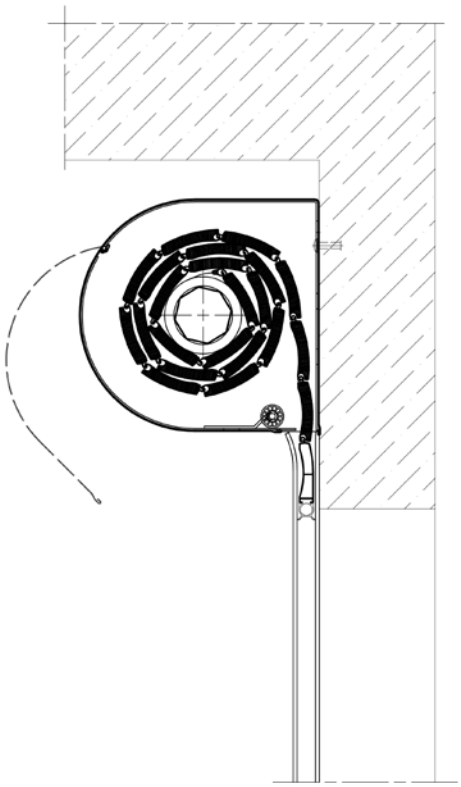


BGR/SK VARIANT 3

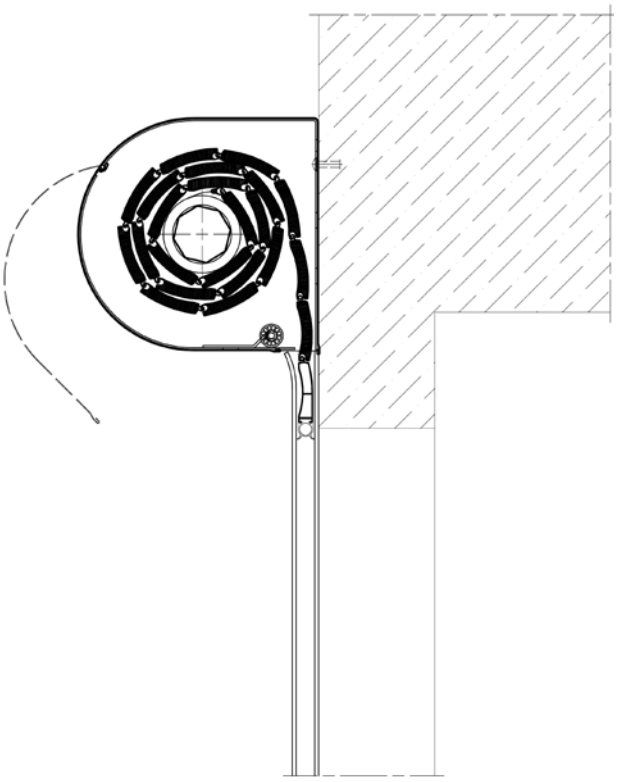


Gate system – installation examples

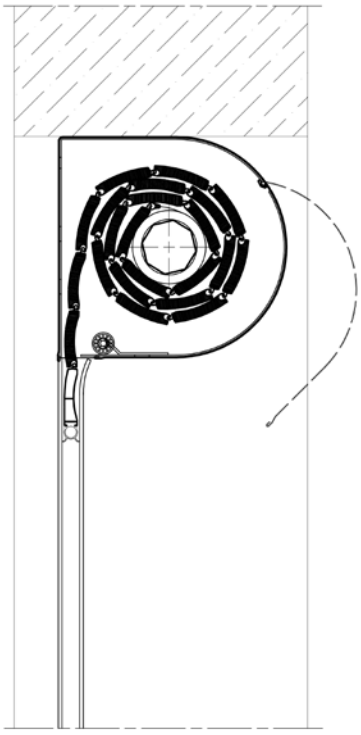
BGR/SKO-P VARIANT 1



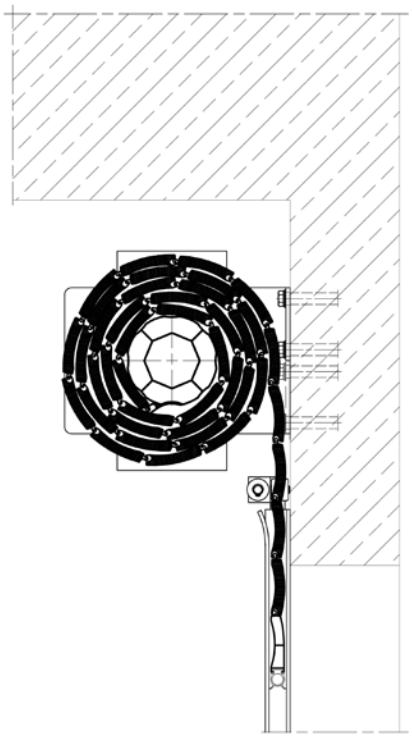
BGR/SKO-P VARIANT 2



BGR/SKO-P VARIANT 3



BGR/KNB



More examples on: www.aluprof.com/en/bim-file-finder

BPR

COMFORT OF OPERATION
Industrial roller shutter doors provide primary protection for building apertures in industrial halls, warehouses or commercial and serviceproviding buildings against unauthorised entry, break-ins or weather conditions. These are external doors, situated behind the opening of the building, inside the facility. They may also be utilized as internal doors.

CONSTRUCTION DETAILS
The door curtain is made of PE 100 extruded aluminium profile. The shape and thickness of its walls were selected so that the curtain made from it is stable and resistant to mechanical damage. Profiles and guide rails are powder coated in a wide range of RAL colours. The curtain is rolled up into a steel winding tube sitting on the brackets that are its support and bearings. For doors mounted within the area of the header, attention should be paid to the minimum height of the header that is required to mount the door. With regard to the type of applied brackets industrial roller shutter doors fall into two categories:
– sitting on travelling brackets: BPR/KNJ
– sitting on fixed brackets: BPR/KNS

COMFORT OF OPERATION
The industrial roller shutter door can be mounted in already existing facilities, as well as in those that are being erected. The door operation is controlled with a switch located inside the building. When necessary, the radio-wave control or other selected combinations of control devices can also be applied to improve the comfort of operation.

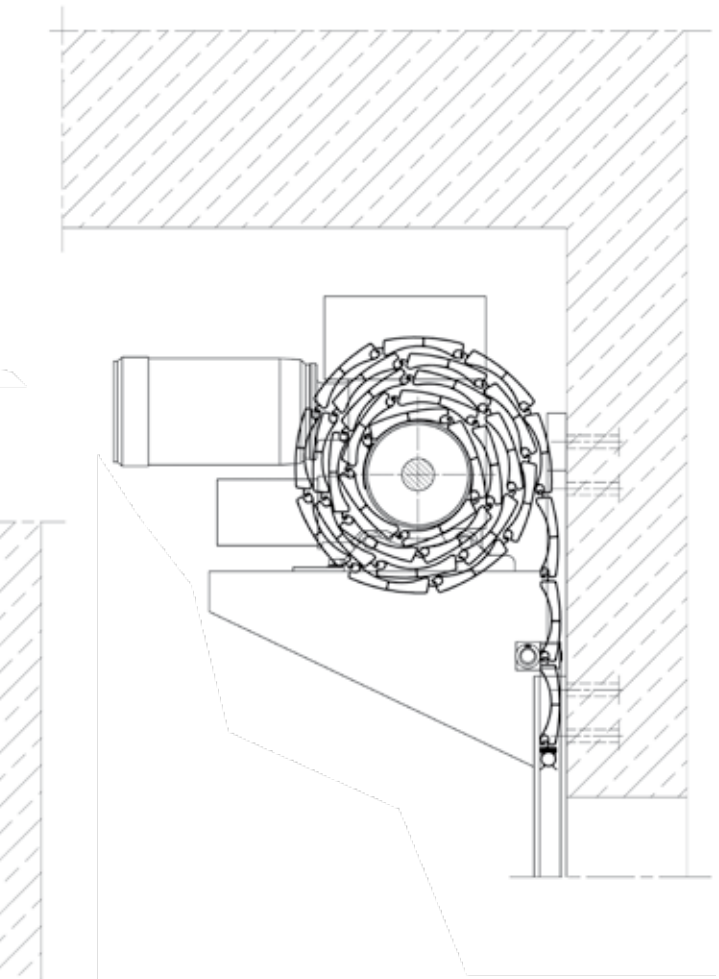
SAFETY
In accordance with applicable standards, the industrial roller shutter door is standardequipped with the anti drop device. Can be retrofitted with protection against crushing when closing and motion sensing devices. In the event of power failure, the roller shutter garage door can be opened with the emergency manual drive.

COLOUR SCHEME
A wide range of colours in the standard colour chart allows for meeting the requirements of the most demanding customers. The colour finish of the surface is applied by powder coating.

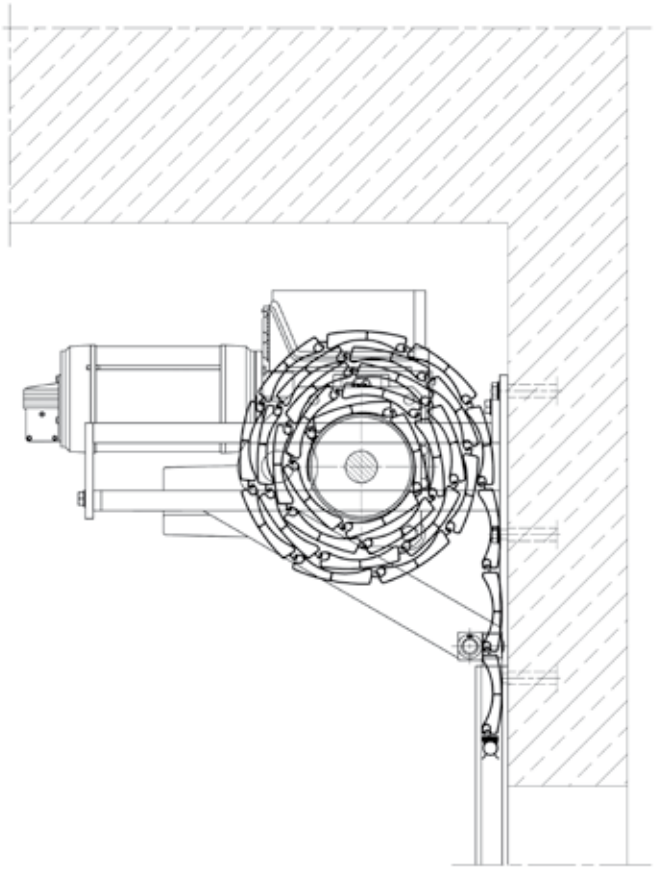
REQUIREMENTS
Industrial roller shutter doors of the ALUPROF systems have a Initial Type Testing, made by the notified body and rendered accessible recipients of systems.

Industrial rolling gates – installation example

BPR/KNS



BPR/KNJ



More examples on: www.aluprof.com/en/bim-file-finder

BKR

FUNCTIONALITY
The rolling grille can be mounted in already existing facilities as well as in those that are being erected. The basic function of the rolling grille grating is to protect the facility and at the same time to:
– present shop window displays;
– provide proper ventilation in shopping arcades and underground garages;
– use glazing in the grating profile as an additional protection against wind and other weather conditions.

CONSTRUCTION DETAILS
Depending on the overall dimensions and conditions of installation, it is possible to mount the rolling grille on brackets and in a box. The door curtain is made of extruded aluminium PEK 52, PEK 77, PEK 80, PEK 100 or new PEKO grating profile. Profiles and guide rails are powder coated in a wide range of RAL colours. With regard to the manner of fitting a winding tube rolling grille falls into two categories:
– sitting on brackets: BKR/KNB,
– in a box: BKR/SK.

COMFORT OF OPERATION
The rolling grille is controlled with a switch placed inside or outside the facility. When necessary, the radio-wave control or other selected combinations of control devices can also be applied to improve the comfort of operation.

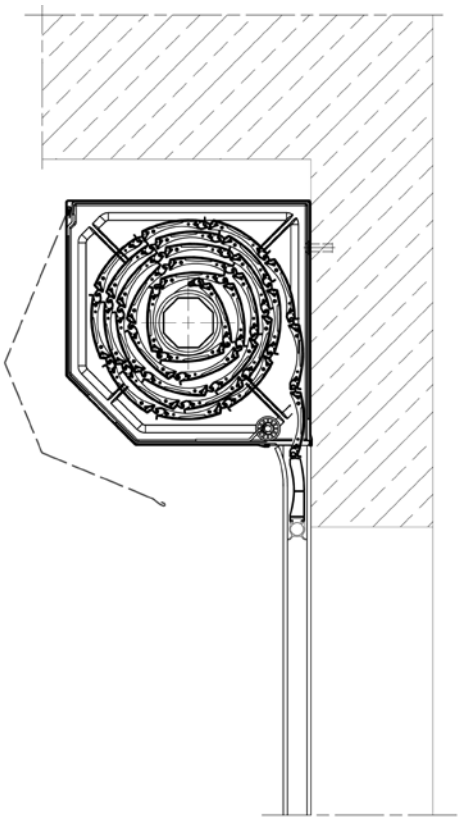
SAFETY
In accordance with the applicable standards, the rolling grille is standard equipped with the anti drop device. Can be retrofitted with protection against lifting, protection against crushing when closing and motion sensing devices. In the event of power failure, the rolling grille can be opened with the emergency manual drive. The electromagnetic brake of the grating drive and the locking hangers efficiently thwart any attempts to lift the curtain.

COLOUR SCHEME
A wide range of colours in the standard colour chart allows for meeting the requirements of the most demanding customers. The colour finish of the surface is applied by powder coating.

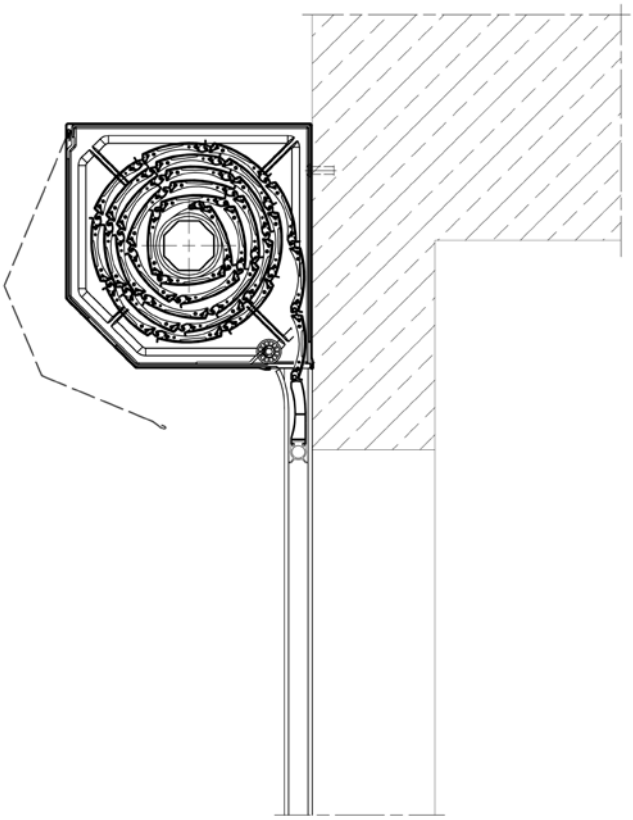
REQUIREMENTS
Rolling grilles of the ALUPROF systems have a Initial Type Testing, made by the notified body and rendered accessible recipients of systems.

Commercial gate – installation example

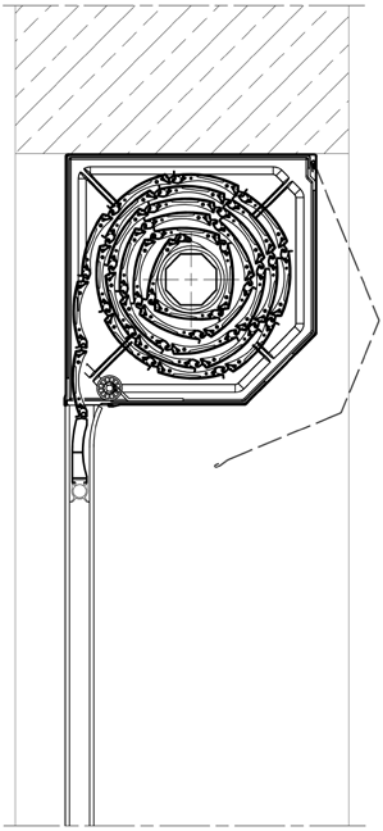
BKR/SK VARIANT 1



BKR/SK VARIANT 2

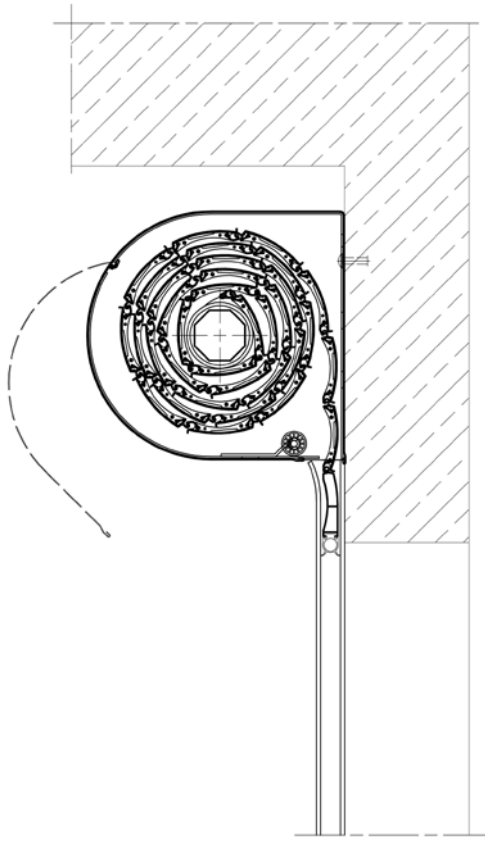


BKR/SK VARIANT 3

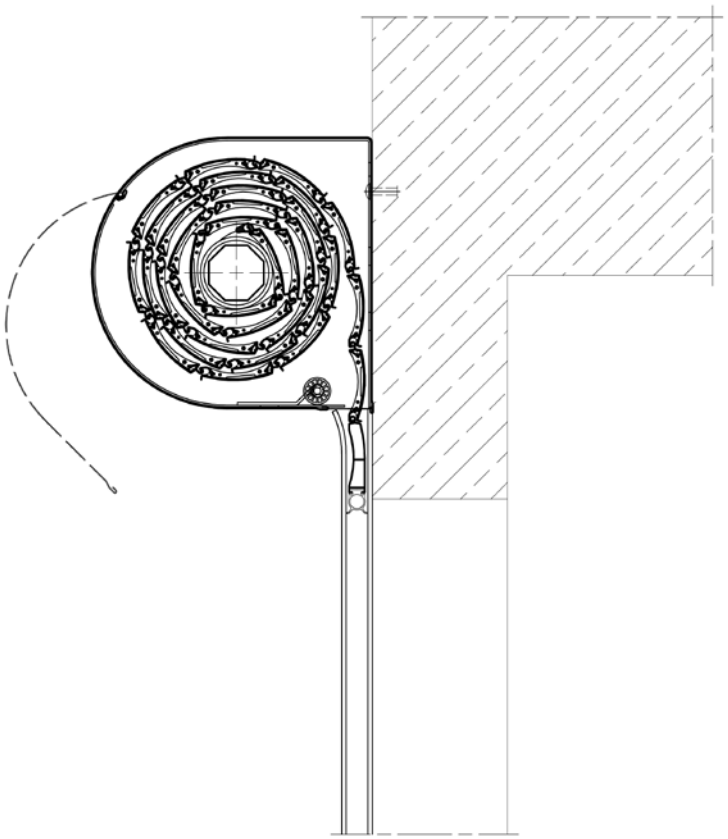


Commercial gate – installation examples

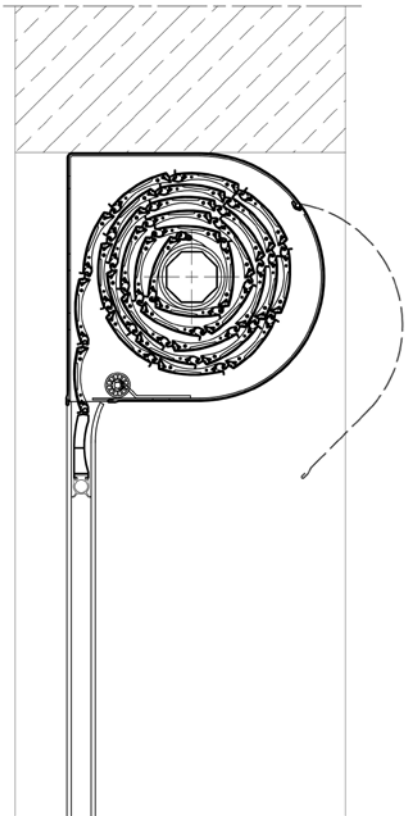
BKR/SKO-P VARIANT 1



BKR/SKO-P VARIANT 2

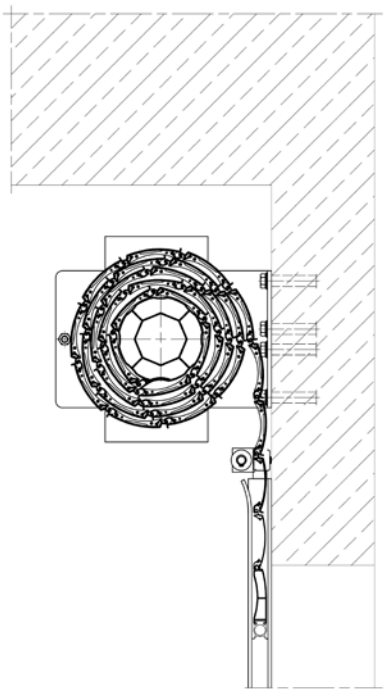


BKR/SKO-P VARIANT 3

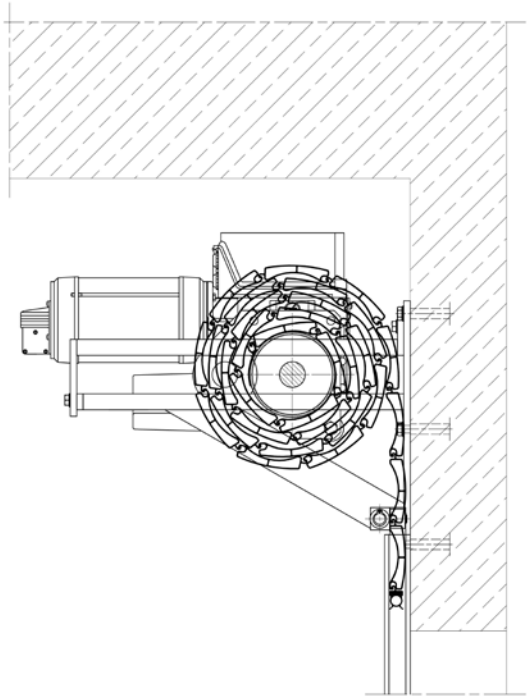


Commercial gate – installation examples

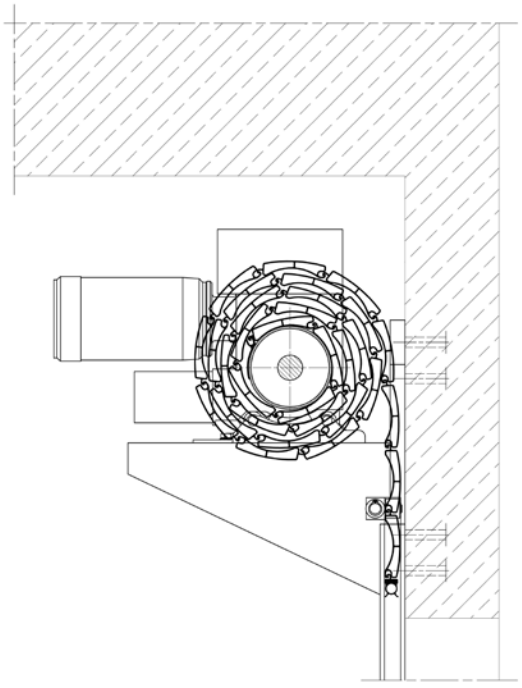
BKR/KNB



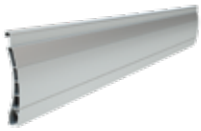
BKR/KNJ



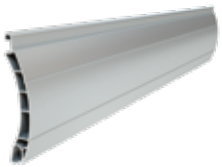
BKR/KNS



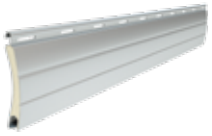
More examples on: www.aluprof.com/en/bim-file-finder



PT 37
Profile height: 37 mm
Thickness: 8 mm

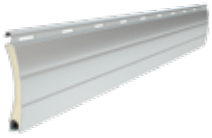


PT 52
Profile height: 52 mm
Thickness: 14 mm

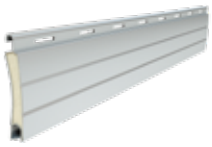


PA 37
Profile height: 37 mm
Thickness: 8,5 mm

PAN 37
Profile height: 37 mm
Thickness: 7,5 mm



PA 39
Profile height: 39 mm
Thickness: 9 mm



PA 40
Profile height: 40 mm
Thickness: 8,7 mm

PA 43
Profile height: 43 mm
Thickness: 8,8 mm

PA 45
Profile height: 45 mm
Thickness: 9 mm

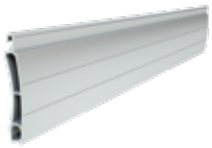
PA 52
Profile height: 52 mm
Thickness: 13 mm

PAB 52
Profile height: 52 mm
Thickness: 13 mm

PA 55
Profile height: 55 mm
Thickness: 14 mm

PA 77
Profile height: 77 mm
Thickness: 18,5 mm

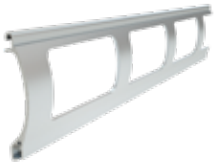
PA 100
Profile height: 100 mm
Thickness: 25 mm



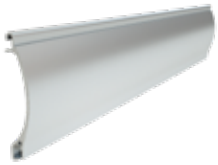
PE 41
Profile height: 41 mm
Thickness: 8,5 mm

PE 55
Profile height: 55 mm
Thickness: 14 mm

PE 100
Profile height: 100 mm
Thickness: 25 mm



PEK 52
Profile height: 52 mm
Thickness: 13 mm



PEKP 52
Profile height: 52 mm
Thickness: 13 mm

PEK 77
Profile height: 77 mm
Thickness: 18,5 mm

PEKP 77
Profile height: 77 mm
Thickness: 18,5 mm

PEK 80
Profile height: 80 mm
Thickness: 18,5 mm

PEKP 80
Profile height: 80 mm
Thickness: 18,5 mm

PEKO 80
Profile height: 80 mm
Thickness: 18,5 mm

PEK 100
Profile height: 100 mm
Thickness: 25 mm

PER 77
Profile height: 77 mm
Thickness: 18,5 mm

PEW 77
Profile height: 77 mm
Thickness: 14,5 mm

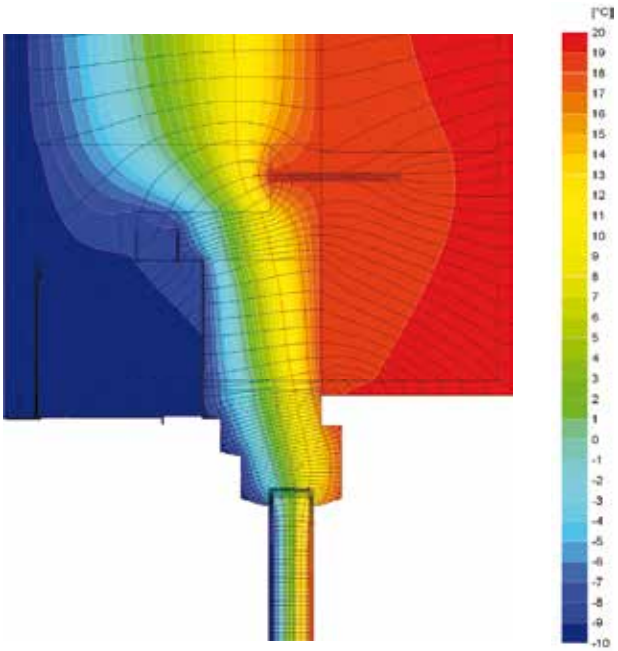
PER 100
Profile height: 100 mm
Thickness: 25 mm

CERTIFIED THE PASSIVE HOUSE INSTITUTE, DARMSTADT

We are pleased to announce that our roller-boxes SP/165 & SP-E/165 (SP and SP-E top-mounted systems) have obtained a component certificate from the Passive House Institute Darmstadt.

Passive House Institute, Darmstadt, issued a certificate for the roller-box in the size of 165 mm or lower (for both SP & SP-E top-mounted systems), thus approving the system and its installation as a solution for passive houses.

Suitable installation method enables the use of any window recommended by the PHI, i.e. windows whose heat transfer coefficient U_w does not not exceed 0.80 W/(m²K), and the glass coefficient U_g does not exceed 0.70 W/(m²K). It is the first all-in-one solution for top-mounted roller shutter in the PHI passive components base, as well as the first certificate for a Polish company in this group of products.



Isothermal lines

SHUTTER SYSTEM

MB-SUNSHADES

MB-SUNSHADES provide solar shading and give the external wall its characteristic appearance. The solution consists of a frame with diagonally arranged slats or panels. Made of aluminium, the components are highly resistant to weather conditions and do not require any renovation work over years, which distinguishes them from products built with PVC or timber. Frame profiles are slim and light, but of an appropriate stiffness, which allows to fabricate both shutters for windows and patio doors.

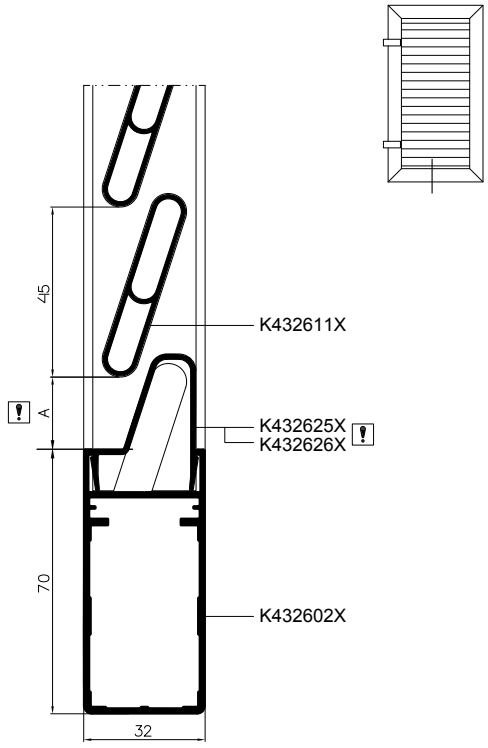
SHUTTERS BY ALUPROF PROTECTING AND EMBELLISHING YOUR HOME

Aluprof' s shutters are an option for those who look for practical yet aesthetic solutions. The shutters can be colour matched with the external wall or with the windows or used simply as a remarkable accent on the wall. Given the ample possibilities offered by the technology of decorative and protective coatings made on aluminium, the MB-SUNSHADES are perfect for use in various types of construction: traditional buildings will succesfully call for structures with timber-like texture, whereas in modern homes, a colour combination of a structure with muted colours, identical to those of the windows, especially impressive when windows and doors are made of aluminium, may be preferred.

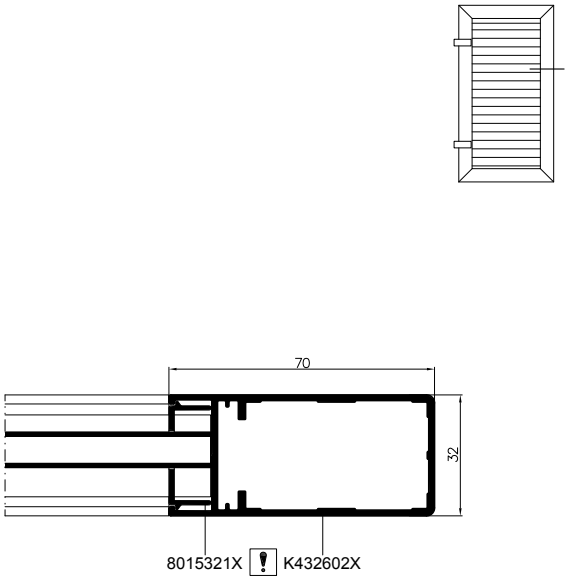
The hinges available for this system allow to use different solutions when in closed position: they can be jutting out, flushed in line, or placed deeper in the window recess.

TECHNICAL SPECIFICATION	
Profile dimensions	70 × 32 mm
Infill profiles depth	50 mm
Module (infill profiles distance)	every 45 mm
Maximum dimensions of the casement (H×L)	L to 1200 mm, H to 2500 mm

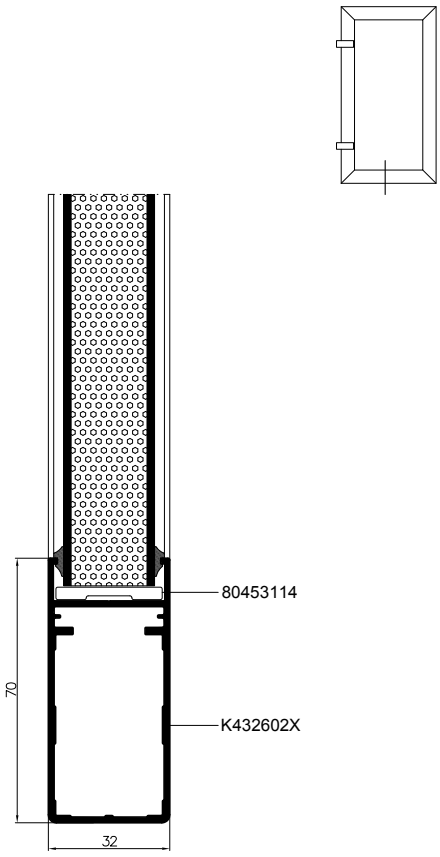
Louvres, vertical view



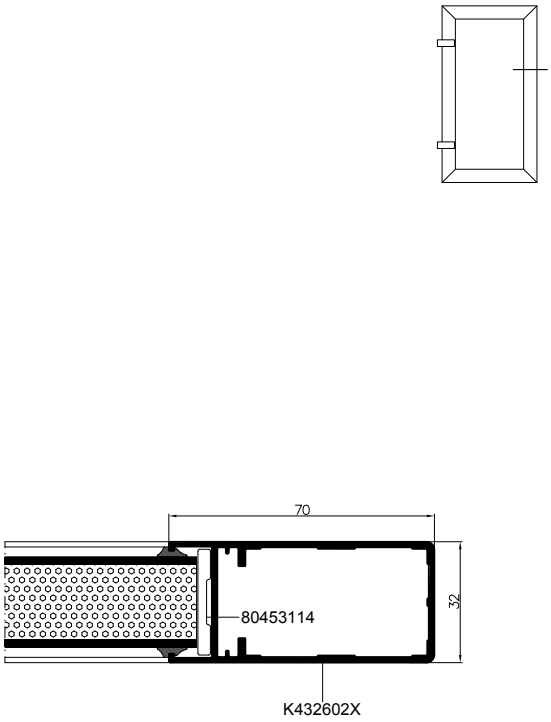
Louvres, horizontal view



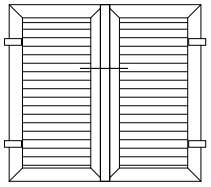
Paneled shutter, vertical view

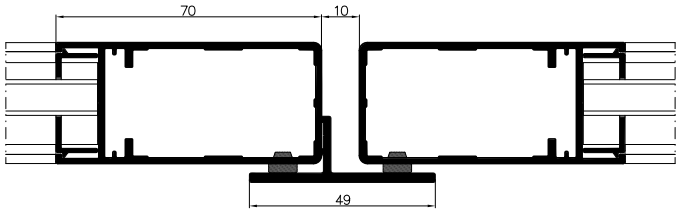


Paneled shutter, horizontal view

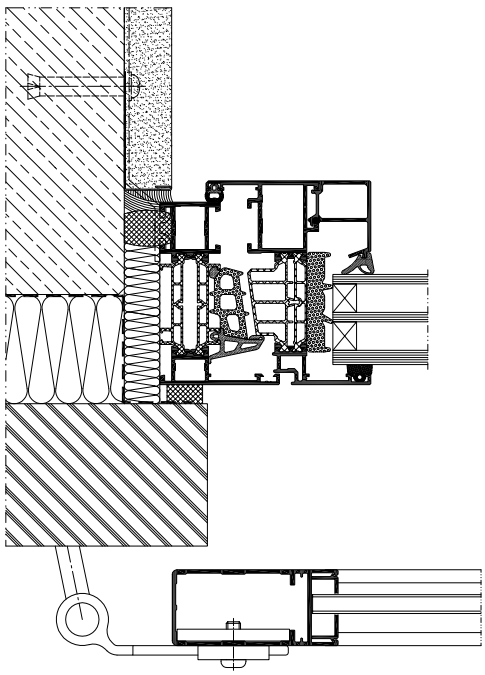


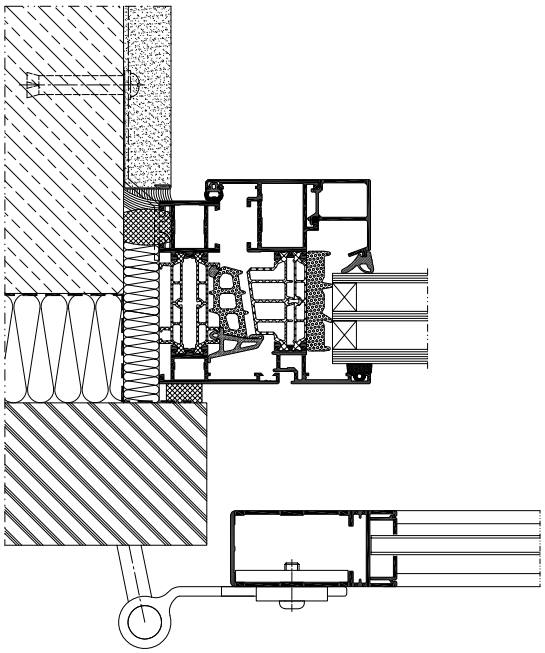
Casement with rebate, horizontal view





Construction examples





More examples on: www.aluprof.com/en/bim-file-finder

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HEAD OFFICE ALUPROF SA, ul. Warszawska 153, 43-300 Bielsko-Biała, Poland
Tel.: +48 33 81 95 300, e-mail: aluprof@aluprof.com

ALUPROF UK LTD, tel. +44 161 941 4005, e-mail: info@aluprof.co.uk
ALUPROF DEUTSCHLAND GMBH, tel. +49 421 89 81 89 0, e-mail: Kontakt@aluprof-deutschland.com
ALUPROF SYSTEMA UKRAINA OOO, tel. +38 044 494 47 84, e-mail: torg@aluprof.com.ua
ALUPROF HUNGARY KFT, tel. +36 27 542 600, e-mail: aluprof@aluprof.hu
ALUPROF SYSTEM ROMANIA SRL, tel. + 40 374 004 594, e-mail: aluminiu@aluprof.ro
ALUPROF SYSTEM CZECH SRO, tel. +420 595 136 633, e-mail: firma@aluprof.eu
ALUPROF NETHERLANDS B.V., tel. +31 49 37 69 004, e-mail: info@aluprof-nederland.nl
ALUPROF BELGIUM, tel. +32 52 258 110, e-mail: belgium@aluprof.eu
ALUPROF USA, LLC, tel. 1 212 687 0300, e-mail: info@aluprofusa.com

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