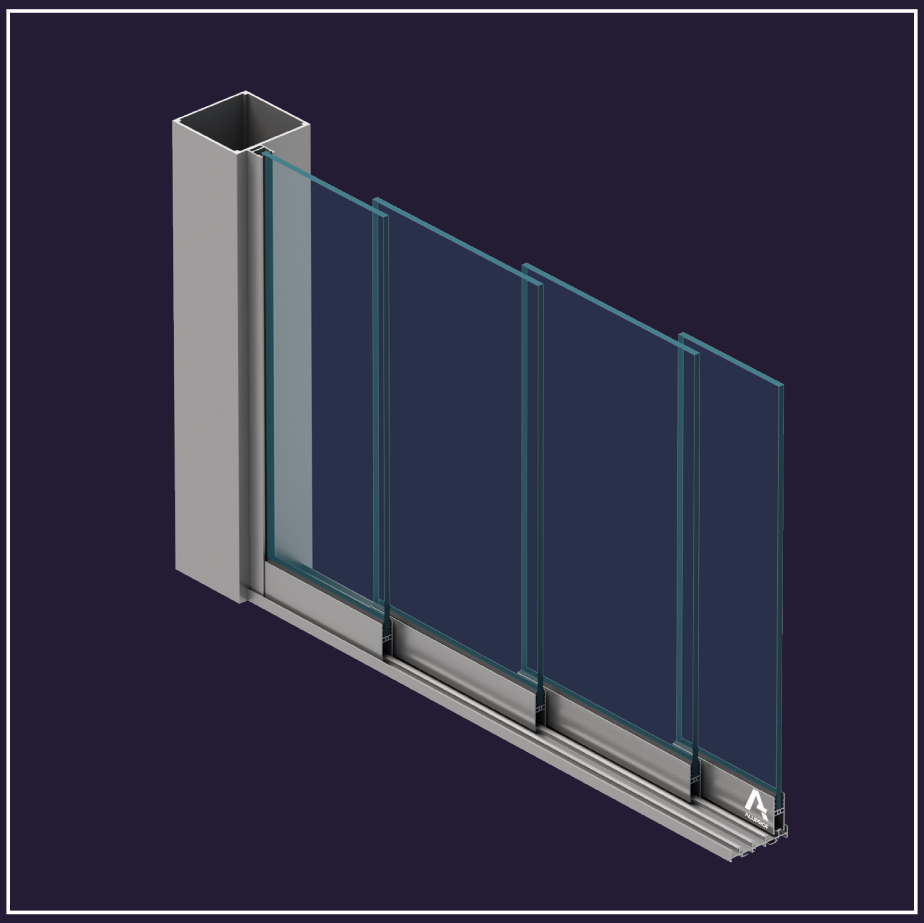
ALUPROF
SUN SHADING SOLUTIONS



MB-OpenSlide All-Glass Sliding System Installation Instructions

Supplier:

Manufacturer
ALUPROF SA

Address:
ul. Warszawska 153,
43-300 Bielsko-Biała, Poland
Tel. +48 33 819 33 00
e-mail: aluprof@aluprof.com
www.aluprof.com

Contact details:
ALUPROF SA

Address:
ul. Wschodnia 23a,
45-449 Opole, Poland
Tel. +48 77 553 21 00
e-mail: opole@aluprof.com
www.aluprof.com

MB-OpenSlide
The product meets CE safety requirements.

Construction Products Contact Point
https://punkt-kontaktowy.gunb.gov.pl/

Important safety instructions.

WARNING!
Compliance with this Manual is essential for personal safety. Keep this Manual for reference.

Read the installation instructions before installing the product.
If the manual contains unclear phrases or if there are any doubts regarding its interpretation, we recommend contacting the manufacturer before installing or using the pergola.

After installation, provide the user with the Instructions for Use and Maintenance.

CONTENTS

I. TECHNICAL DESCRIPTION

1. DESCRIPTION OF THE SYSTEM

The MB-OpenSlide system is used to enclose the side walls of a pergola or to enclose other unheated structure with sliding glass segments and it provides effective protection against weather conditions.

An enclosure consists of 3 to 10 sliding tempered glass segments that move on 3, 4 or 5 rail guides. The segments can be opened in two ways, i.e. you can slide them all to only one side, either to the left or to the right, or you can spread them apart from the centre of the wall to the left and to the right.

The enclosure system has been designed to minimise the amount of aluminium sections and accessories required to build the structure, as well as to eliminate labour-intensive machining and make prefabrication quick and easy. The system solution provides for the possibility of compensating for deflections coming from elements above the sliding enclosure.

The visible widths of the upper guide profiles are 50 mm, of the mullions 30 mm, of the labyrinth ~31 mm, of the movable mullion connection ~71 mm. The 19 mm high rail guides meet the safety criteria set for thresholds on roads for pedestrian traffic.

The MB-OpenSlide system offers both profileless and profile, labyrinth-type connection between the sliding sashes. Rainwater is drained from the bottom guide by a lateral evacuation system, on both sides.

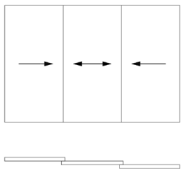
Frameless sashes give the sliding segments a particularly elegant appearance and maximum transparency. They are made of 10 or 12 mm thick tempered glass.

The system is equipped with bogies allowing for up and down adjustment of the sash position, and handles: full ones, glued to the glass, or through ones fixed to the glass, and a top lock fixed to the lower sash profile.

1.1. Characteristic

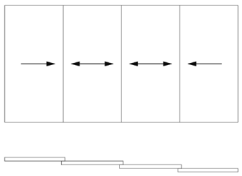
Segment dimensions:

3-piece segments



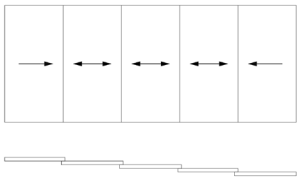
width 2380 ÷ 3580 mm
height 2000 ÷ 2810 mm

4-piece segments



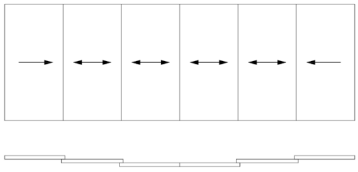
width 3150 ÷ 4750 mm
height 2000 ÷ 2810 mm

5-piece segments



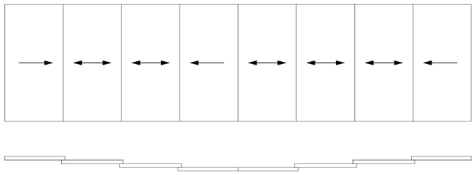
width 3920 ÷ 5920 mm
height 2000 ÷ 2810 mm

6-piece segments



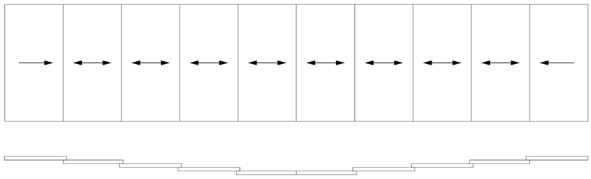
width 4790 ÷ 7190 mm
height 2000 ÷ 2810 mm

8-piece segments



width 6360 ÷ 9560 mm
height 2000 ÷ 2810 mm

10-piece segments



width 7930 ÷ 11130 mm
height 2000 ÷ 2810 mm

- maximum height of section including top and bottom guides - 2810 mm,
- maximum height of a sash - 2767 mm,
- maximum width of a sash - 1200 mm,
- minimum width of a sash - 800 mm,
- maximum length of a single enclosure section: 6780 mm,
- Recommended Hs ratio: Ls 3 : 1,
- two variants of trolleys with a load capacity of 80kg (8H00845X) and 160kg (8H01383X) per sash are available,
- filling: tempered glass 10 or 12mm.

The MB-OPEN SKY 120 and MB-OPEN SKY 140 pergolas together with the MB-OpenSlide segments built into them, are designed for seasonal, recreational use by people in rural, suburban and urban areas. They can be installed at ground level but also on terraces of buildings.

2. TECHNICAL DESCRIPTION OF RAW MATERIALS AND SUPPLIES

2.1. Aluminium sections

Aluminium sections are manufactured in a plastic working process from aluminium alloy EN AW-6060 , T66 in accordance with the following standards:

- chemical composition of alloy EN 573-3, EN 515,
- dimensional and shape tolerances EN 12020-2,
- mechanical properties EN 755-2,
- technical conditions for inspection and delivery EN 755-1.

2.2. Gaskets

The glazing gaskets are made of EPDM synthetic rubber according to DIN 7863 and the implementing standard DIN 7715E2 or EN ISO 3302-1.
The brush seals are made of polypropylene.

2.3. Fasteners

Fasteners (bolts, nuts, screws) used for connections and fixings should be made of stainless steel according to EN 10088-1.

2.4. Glass panes

Tempered glass panes of 10 mm and 12 mm thickness shall meet the requirements of EN 12150-1.
All visible edges of glass panes must be bevelled and polished.

3. SUPPLEMENTARY INFORMATION

All decorative surfaces of sections should be covered with a protective film to protect them from damage during mechanical processing.
Linear and angular tolerances for dimensions with no designation of tolerances shown by the drawing, shall be as per EN-22768-1, class of tolerance - m (medium accuracy level).
Any burrs caused by processing operations must be thoroughly removed.

3.1. Guidelines for assembly at the building site

The top guides and posts of sliding segment are to be connected to the posts and beams of the pergola with 4.8 mm diameter screws at a maximum spacing of 500 mm, while the bottom guide is to be fixed with 8 mm diameter expansion dowels at a spacing of 500 mm. The first and last screw or dowel should be no more than 100 mm from the corner.
If the installation of pergolas and sliding segments is accompanied by "wet" finishing work, it is absolutely necessary to protect the aluminium sections and glass panes against contact with lime, cement and mortar.
If mortars come into contact with aluminium surfaces, immediately wash the mortar off with clean water - failure to do so can result in permanent discolouration and damage to the surface.

3.2. Storage

Aluminium sections, accessories, hardware and glass panes shall be stored in dry rooms in a manner that ensure their protection against any mechanical damage.

3.3. Transport

Aluminium sections, details, filling elements, and segments may be transported by any means of transport provided that they are protected against dirt, dust and possibility of damage during transport.

3.4. Availability Of Products From Catalogue

The rules and dates of availability of products presented in the catalogue are specified in the price lists of Aluprof S.A. which can be found in the authorised section of the website http://www.aluprof.com under "Price lists" heading.

3.5. Maintenance

Anodised or paint-coated aluminium profiles should be cleaned with a soft cloth and mild cleaning agents. Strong alkaline or strong acid cleaning agents must not be used as they may damage the anodic oxidation coatings or powder coatings. Cleaning agents of pH below 5 or over 8 are not allowed. While cleaning, the temperature of coatings and the temperature of water must not exceed 25°/C. After each cleaning, the surface must be immediately rinsed with clean cold water. Regular cleaning prevents building up strong soiling, difficult to remove. Care and maintenance of hardware should be carried out in accordance with recommendations of its manufacturers.

WARNING:

Lime, cement, alkaline and cleaning substances (e.g. bleaches, abrasive pastes) have particularly harmful effect on aluminium profiles, especially on decorative protective surfaces. Thus any "wet" works must be limited to the minimum.
Should mortar be brought into contact with the surface of aluminium, it must be immediately washed off (its hardening must not be allowed). Failure to wash off the mortar will cause permanent discolouring and will damage the surface.
In places of contact between aluminium and other metals or their alloys electrochemical oxidation of aluminium takes place. Therefore, aluminium should be always separated from other metals with a protective layer.

3.6. Catalogue updates

Catalogue updates - as PDF files - may be downloaded from the authorised section at https://www.aluprof.eu under the heading "Catalogues".

4. GRAPHIC SYMBOLS USED IN THE CATALOGUE

Nº	Number
	Working
!	Remarks
	Compatible elements
	Total area [dm²/mb]
	Cutting
	Decorative area [dm²/mb]
G	Gluing with a two-component adhesive
	Angle of cut [º]
MS	Gluing and sealing
	Dimension [mm]
S	Sealing with silicone
1..	Quantity of items
G	Gluing
	Material
-- | ------	Execute with the use of: _ _ _ _ _ _
N	Standard
	Degreasing

II. STATICS

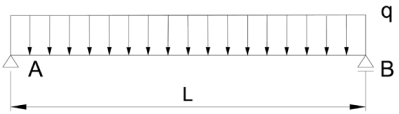
The allowable deflection of the glazing from the wind load should meet the condition:

$$f_{max} \leq L/50$$

where:

f_{max} – allowable deflection [m]
L – height of the glass pane [m]

To calculate the allowable deflections, the following load scheme for a glass pane supported on two edges should be adopted,



and the deflection value should be determined according to the formula:

$$f = \frac{5 \cdot q}{384 \cdot E \cdot I} \cdot L^4$$

where:

f – deflection arrow [m]
q – continuous load intensity from wind load [kN/m],
L – height of the glass pane [m],
E – Young's modulus of the material [GPa],
I – moment of inertia of the glass section [m^4].

For the purpose of proper accounting for statistical requirements of products, knowledge of principles and calculation methods for this type of structures is required.

Remarks and restrictions concerning calculations:

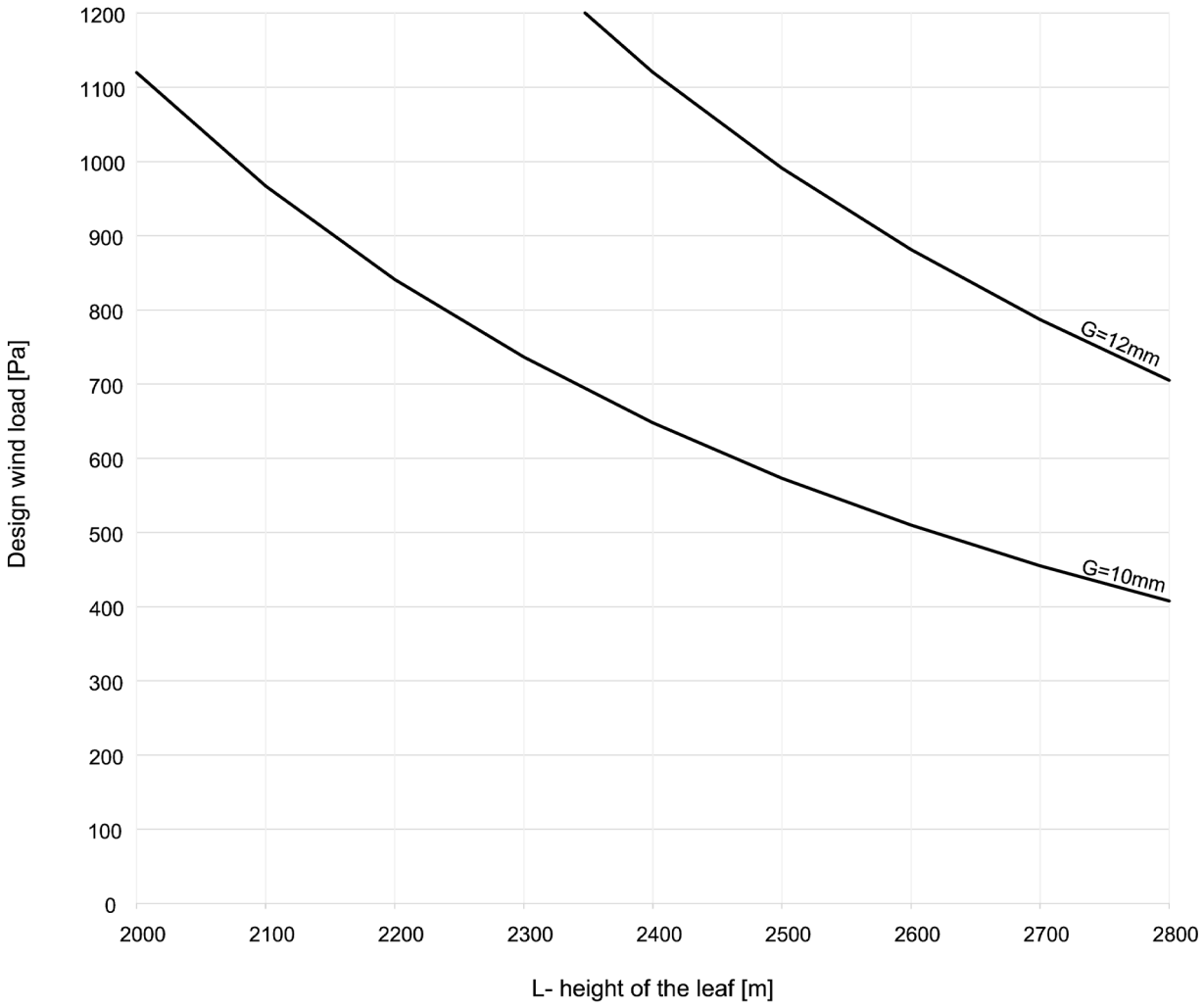
a. Computations included in the catalogue are simplified, i.e. they do not account for such phenomena as:
- vibrations of structures caused by dynamic force of the wind,
- existence of internal pressure in open buildings.

b. There is a risk of making a mistake at the stage of:
- collecting information about the structure (its location, dimensions, surrounding),
- assessment of probability of occurrence of the phenomena described in item a above.

Hence, in view of the foregoing:

⚠ ALUPROF S.A. shall bear no responsibility for faulty selection of profiles.

Diagram for the selection of glass height L [mm] as a function of wind load [Pa] for permissible deflection f/max ≤ L/50, for glazing thicknesses of 10 mm and 12 mm.



III. ASSEMBLY

1. INTRODUCTION

The MB-Openslide system is used to enclose the side walls of a pergola or other unheated structures with sliding glass segments. The assembly of a all-glass enclosure should be carried out so that it is fully suitable for operation, guarantees safety of use, and the method of assembly does not adversely affect its proper operation. The installation must be carried out in accordance with building standards, legal requirements set forth in national regulations, and assembly instructions and guidelines issued by renowned testing bodies, such as accredited and notified institutions.

⚠ These instructions define general conditions and guidelines for the installation of MB-Openslide all-glass sliding enclosure system. Each installation case requires an individual approach.

2. PREPARATORY WORK

Before starting any assembly work with the MB-Openslide all-glass enclosure, check the dimensions of the structural opening in which the enclosure will be installed and, basing on these data, prepare a list of profile cuts. The profiles of an all-glass construction, i.e. the threshold, side frames and top frame, are mounted directly to the pergola or other building structure and do not need to be connected to each other beforehand. The preparation of frame profiles is limited to their appropriate cutting (based on the dimensions of the construction opening and dimensional relationships given in the system catalogue) and making the necessary mounting holes in the profiles for fasteners used to attach the profiles to the substrate (according to the guidelines of the system catalogue).

All internal surfaces of the structural opening should be as smooth as possible, and without any cavities. The bottom part of the opening should be level, uniform, even, and made of a material that will ensure stability for the enclosure which is supported by it.

3. PREFABRICATION OF SLIDING LEAVES

3.1. Preparation of the leaf profiles

The leaves (K440851X) of the MB-Openslide system should be cut according to the guidelines and dimensional relationships shown in the system catalogue.

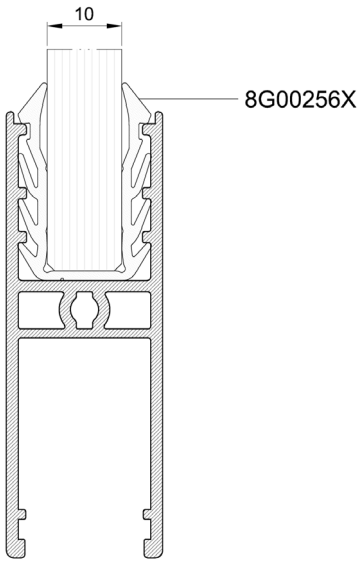
3.2. Leaf glazing

For the leaves, tempered glass with a thickness of 10 mm or 12 mm should be used, depending on the static calculations. The system provides three options for glazing the leaves: variant A, variant B and variant C

3.2.1. Glazing – VariantA

Description:

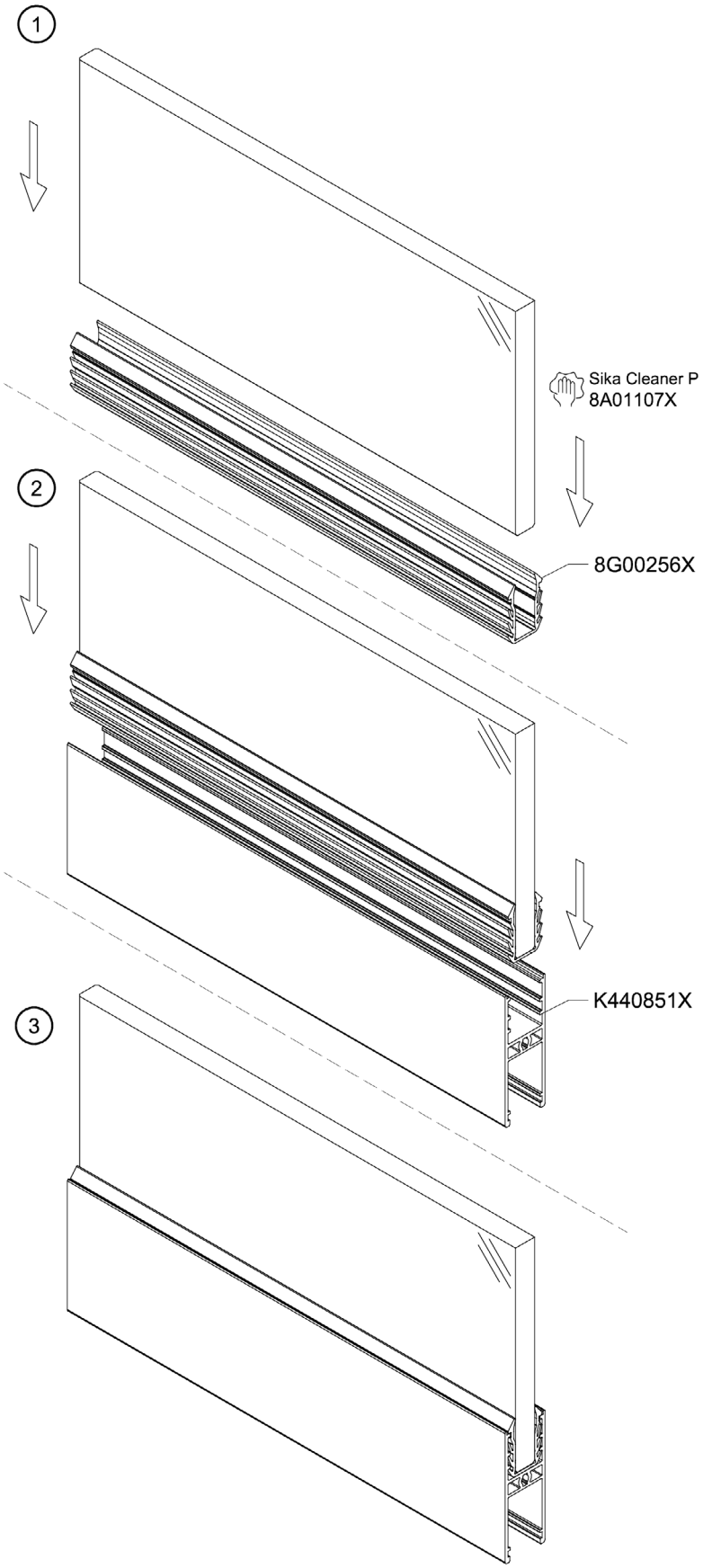
- - possibility of using glass with a thickness of 10 mm,
- - embedding the glass using a 8G00256X gasket.



Assembly sequence:

- Step 1: apply gasket 8G00256X to the glass.
- Step 2: slide the leaf profile K440851X onto the glass.
- Step 3: glazed leaf.

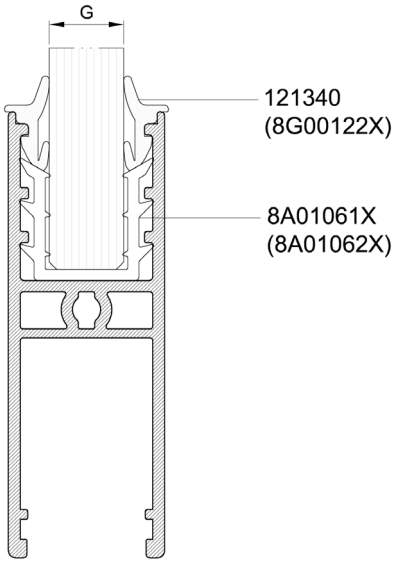
Assembly scheme:



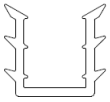
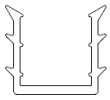
3.2.2. Glazing – Variant B

Description:

- possibility of using glass with a thickness of 10 mm or 12 mm,
- embedding glass panes using retaining elements 8G01061X or 8G01062X,
- glass panes glued to the leaf using two-component adhesive 8A01110X,
- glazing gasket 121340 is used between the profile and the glass.

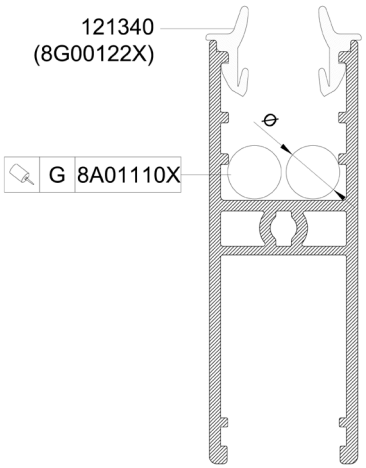


Selecting the retaining element:

G [mm]	8G01061X 	8G01062X 
10		
12		

Approximate diameter of a two-component glue roll 8A01110X:

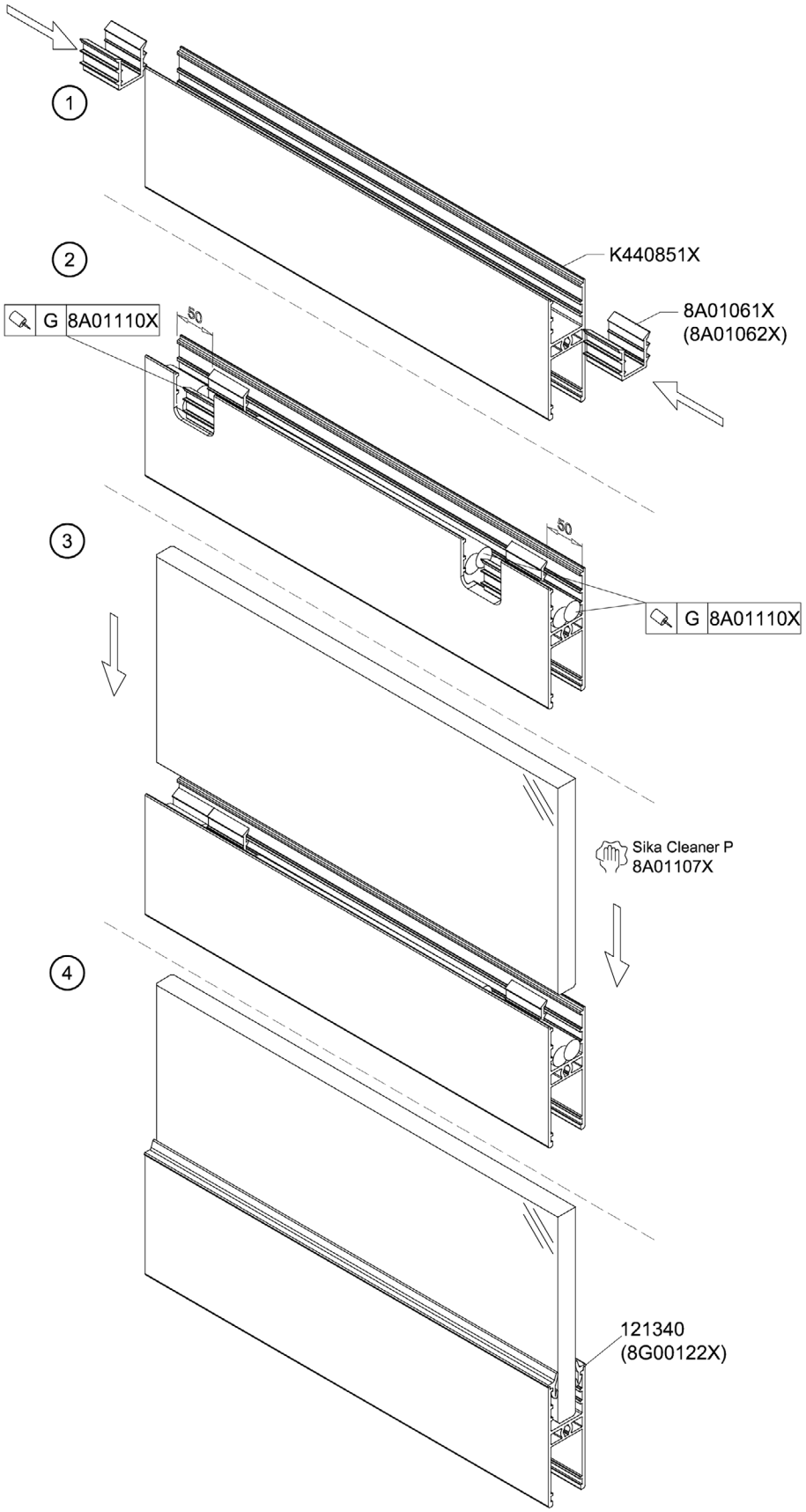
G [mm]	8A01110X
10	~ Ø 10
12	~ Ø 8



Assembly sequence:

- Step 1: install retaining elements 8A01061X or 8A01062X (at a distance of 50 mm from the edge of the leaf).
- Step 2: apply two-component adhesive 8A01110X.
- Step 3: embed the glass pane in the leaf.
- Step 4: install glazing seal 121340 (not later than 45 minutes after applying the glue rolls).

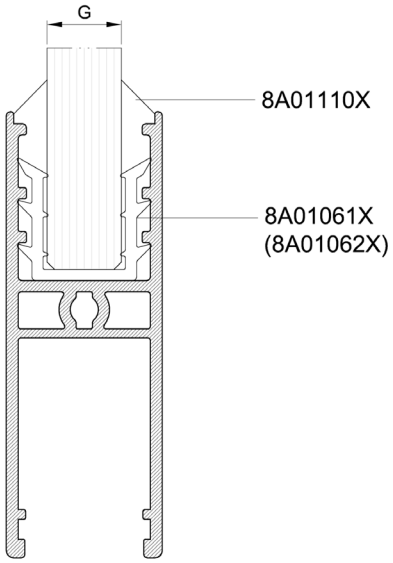
Assembly scheme:



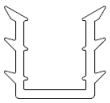
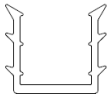
3.2.3. Glazing – Variant C

Description:

- possibility of using glass with a thickness of 10 mm or 12 mm,
- embedding glass panes using a retaining element 8G01061X or 8G01062X,
- glass panes glued to the leaf using two-component adhesive 8A01110X,
- the gap between the profile and the glass pane shall also be filled with two-component adhesive 8A01110X (excess glue must be smoothed out to form a shapely joint within a maximum of 45 minutes after laying the glue rolls).

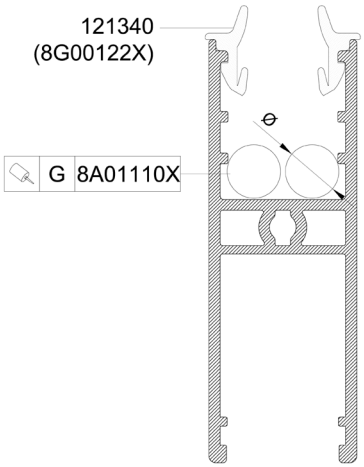


Selecting the retaining element:

G [mm]	8G01061X 	8G01062X 
10		
12		

Approximate diameter of the two-component glue roller 8A01110X:

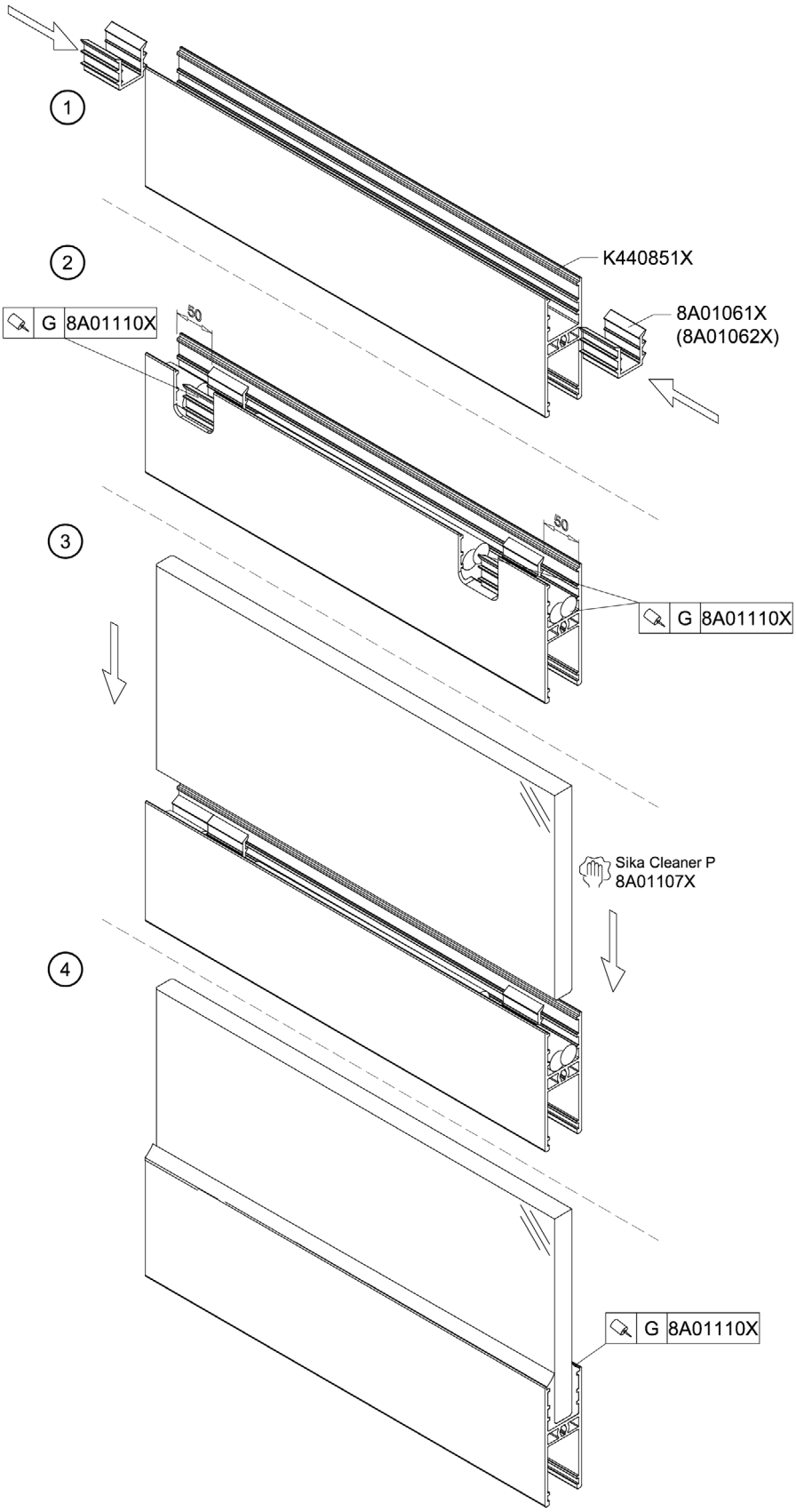
G [mm]	8A01110X
10	~ Ø 10
12	~ Ø 8



Assembly sequence:

- Step 1: install retaining elements 8A01061X or 8A01062X (at a distance of 50 mm from the edge of the leaf).
- Step 2: apply two-component adhesive 8A01110X.
- Step 3: embed the glass pane in the leaf.
- Step 4: fill the gap between the leaf profile and the glass with two-component adhesive 8A01110X (within a maximum of 45 minutes after laying the glue rolls).

Assembly scheme:



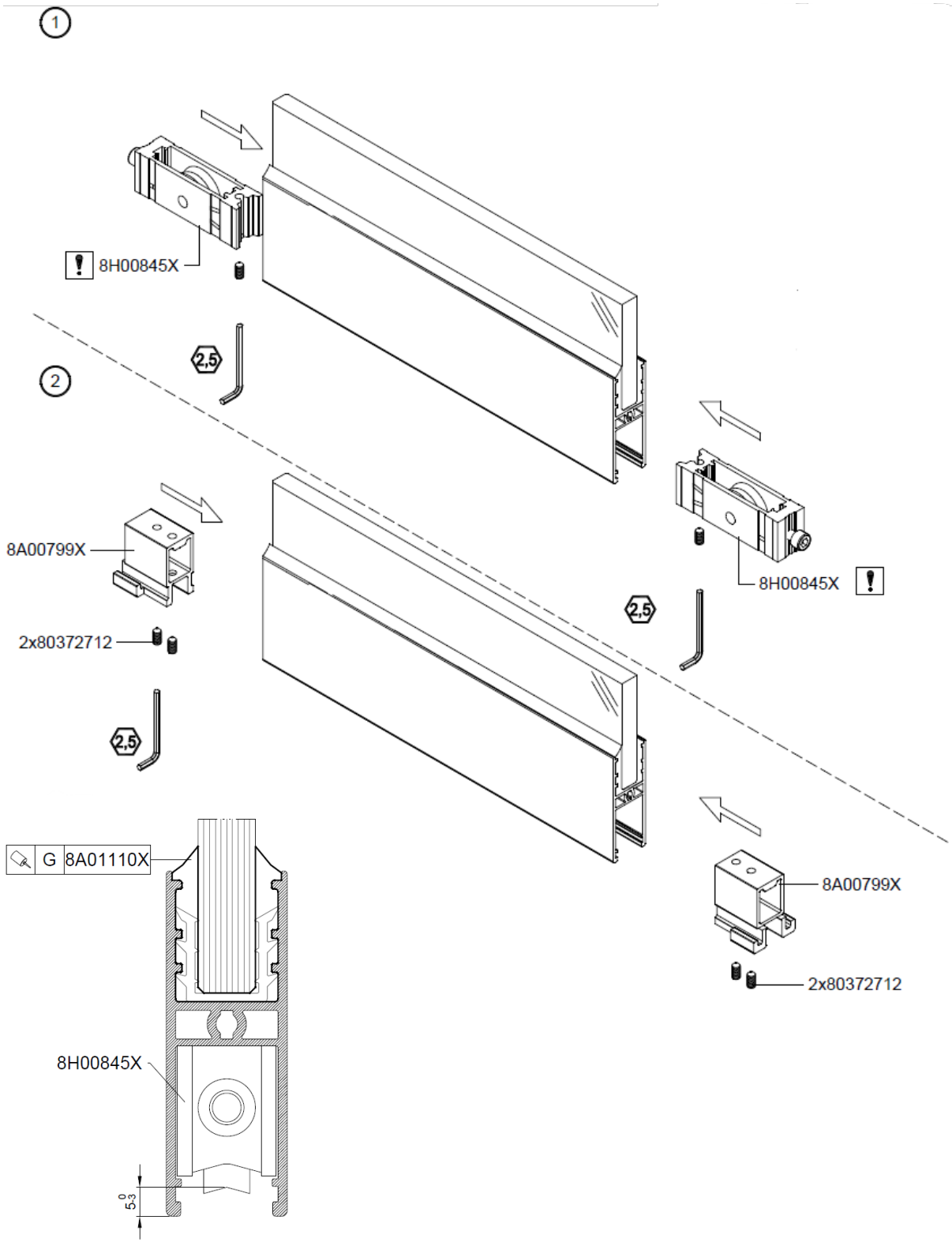
3.3. Fitting of hardware

3.3.1. Rollers and carriers

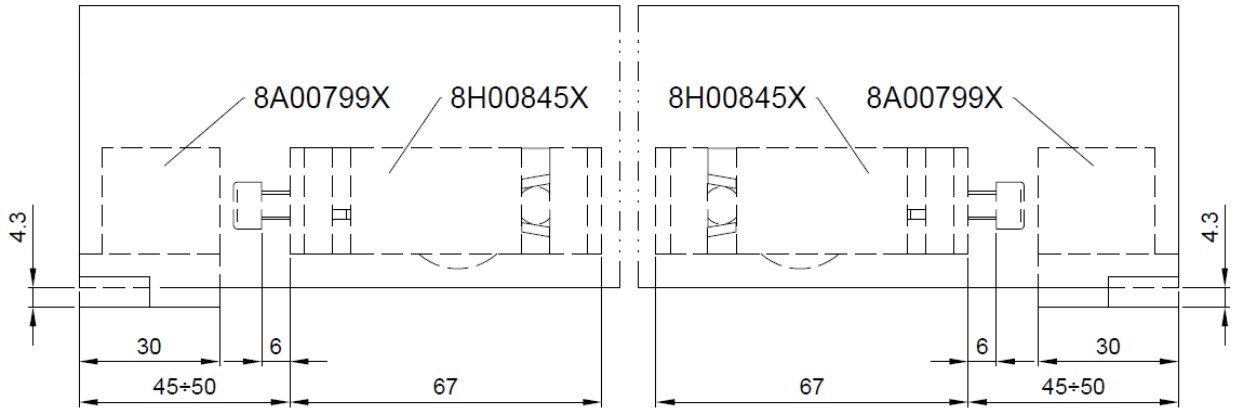
Assembly sequence:

- Step 1: install rollers 8A01061X at a distance of 45 -50 mm from the edge of the leaf.
- Step 2: install carriers 8A00799X.

Assembly scheme:



Dimensional relationships for installation of rollers and carriers:

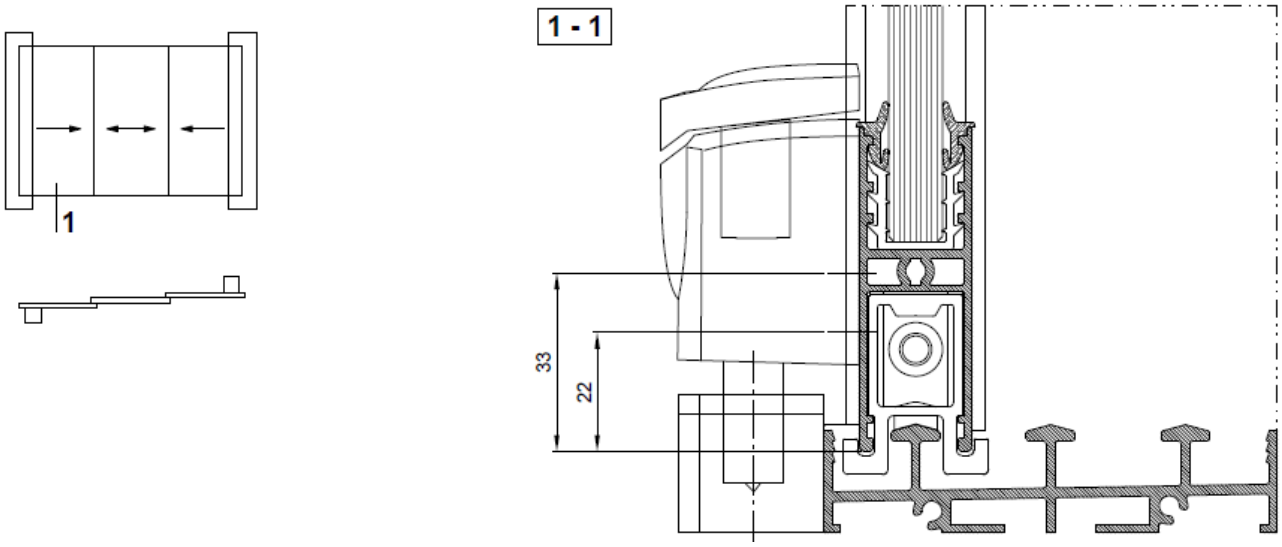


3.3.2. Lock

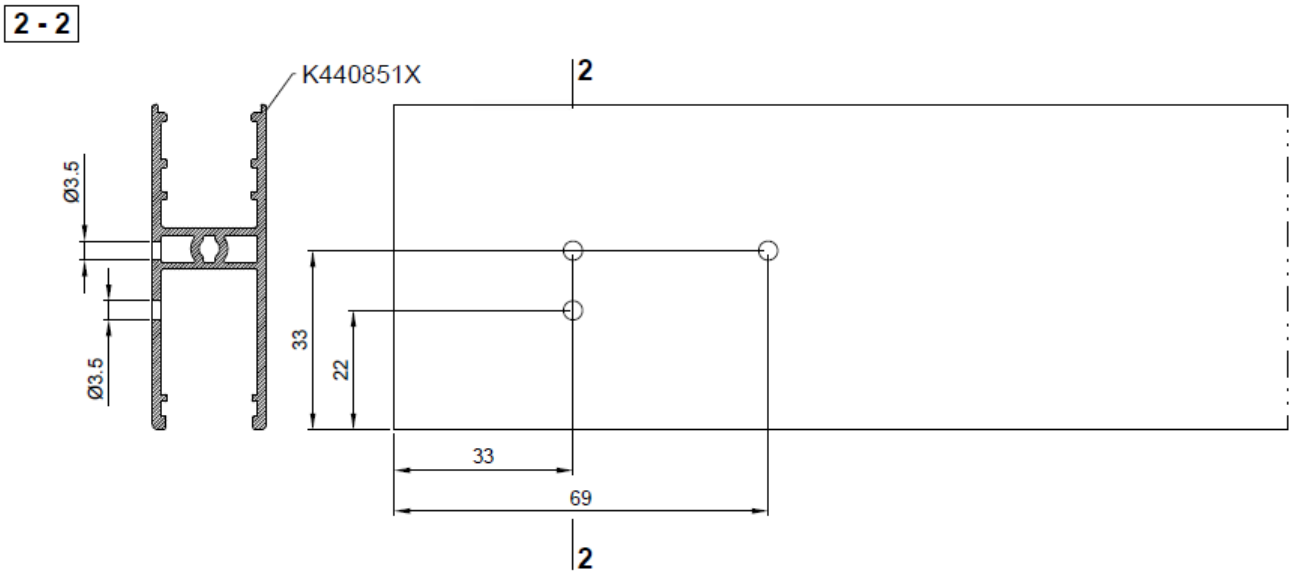
Description:

- the set is composed of a lock 8H00849X mounted to the leaf profile and a spacer 8A00801X mounted to the base surface,
- the spacer is mounted to the base surface using two Ø 8 mm expansion bolts,
- before installing the lock, prepare appropriate mounting holes in the leaf profile according to the scheme below.

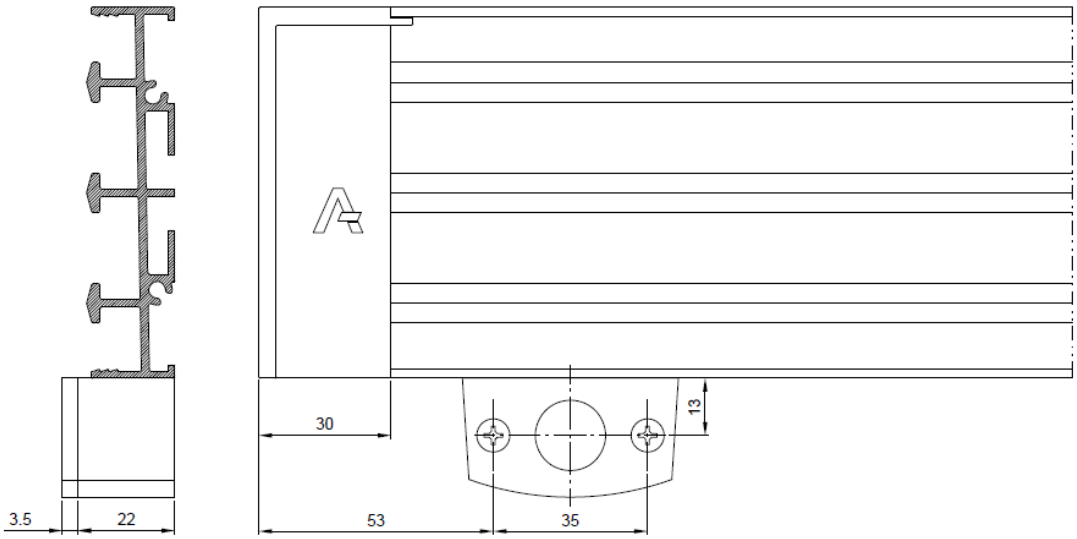
Scheme:

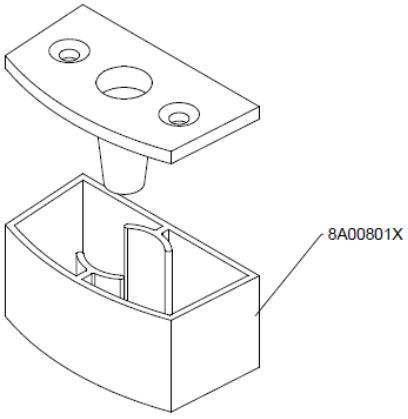


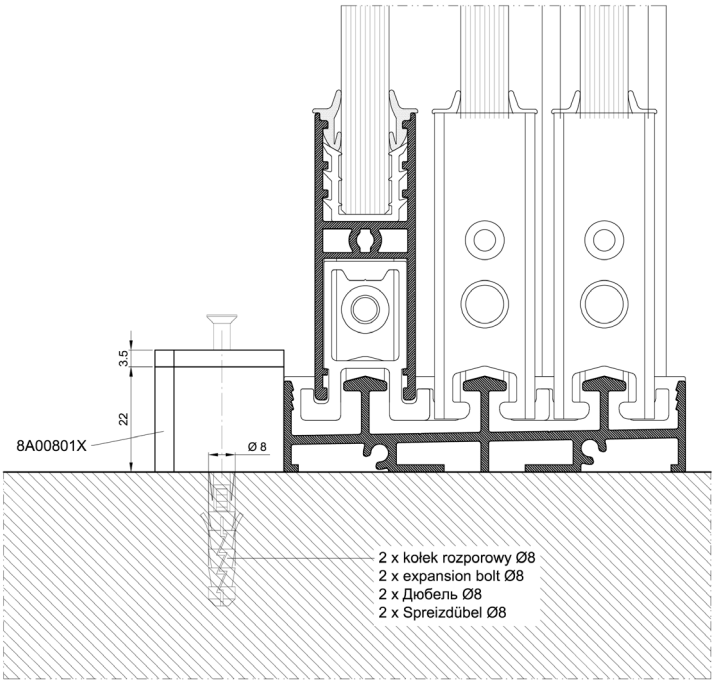
Location of holes for mounting the lock in the leaf profile K440851X:



Mounting the spacer to the base surface:





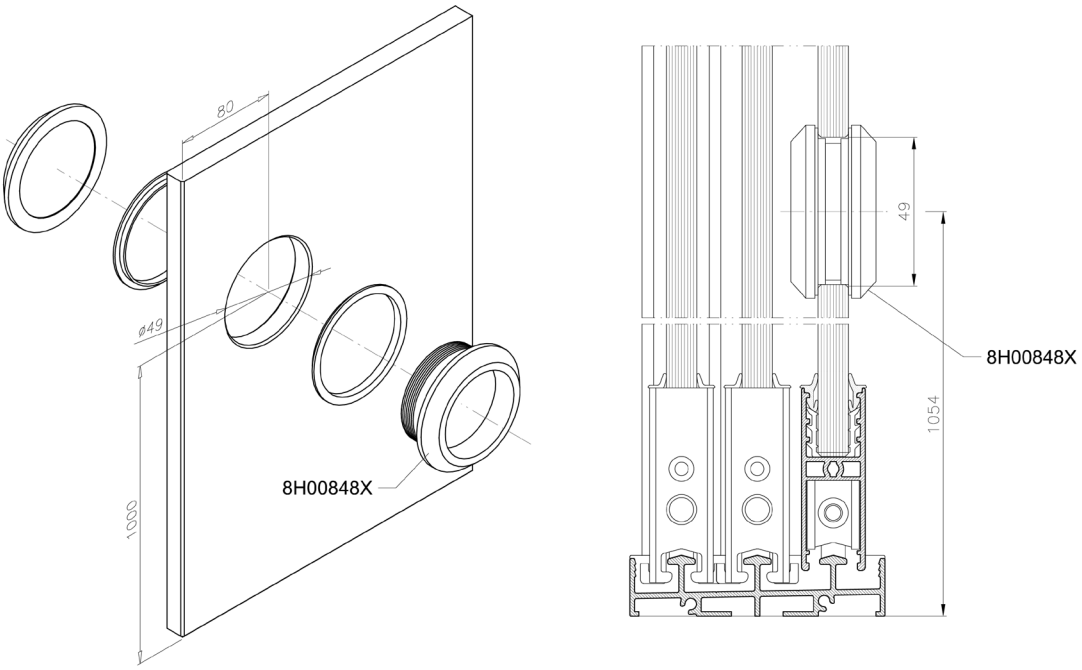


3.3.3. Pull handles

Pass-through handle 8H00848X:

- pass-through handle is mounted in a Ø49 hole cut out in the glass,
- the centre of the hole is located 996 mm from the bottom edge of the glass and 50 mm from the side edge of the glass.

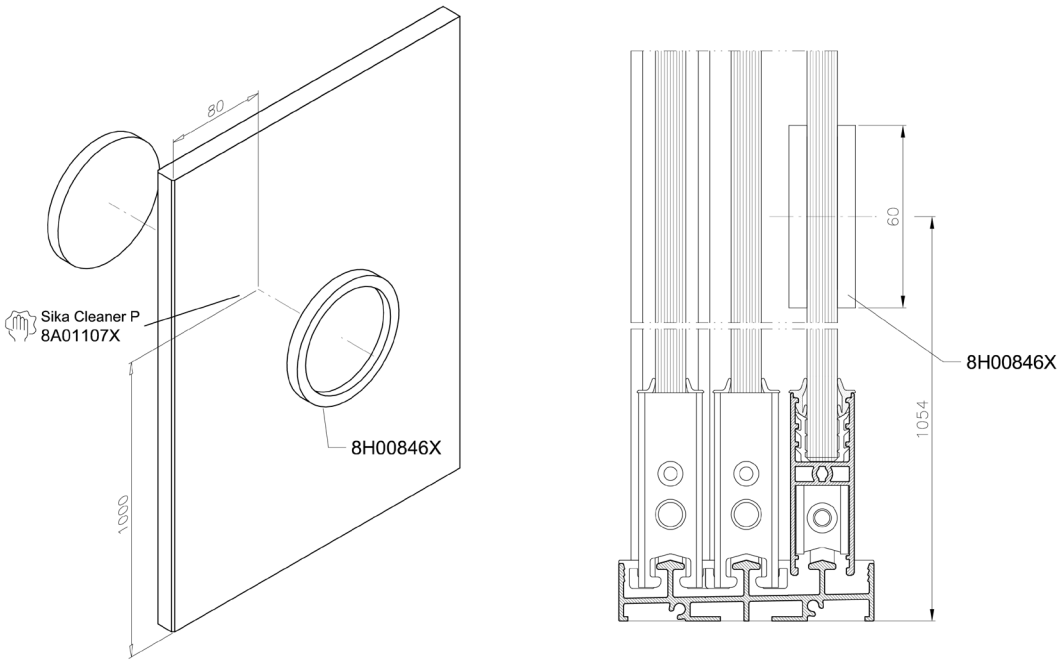
Scheme:



Glued handle 8H00846X:

- the handle is glued to the surface of the glass,
- before gluing the pull handle, clean and degrease the glass with the cleaning agent 8A01107X,
- the centre of the handle is located 996 mm from the bottom edge of the glass and 50 mm from the side edge of the glass.

Scheme:



4. ENCLOSURE ASSEMBLY

4.1. Preparing the profiles

- Before starting the assembly of the MB-Openslide system frame profiles, they must be cut to size based on the dimensions of the structural opening in which the enclosure is to be installed, taking into account the dimensional relationships shown in the system catalogue,
- In the profiles, holes are to be prepared for fasteners designed for the installation of the enclosure, and, additionally, holes for leaf bumpers in the jamb of the frame,
- Frame profiles are to be mount directly, for example, to the mullions and rafters of the pergola.

4.2. Fasteners - guidelines

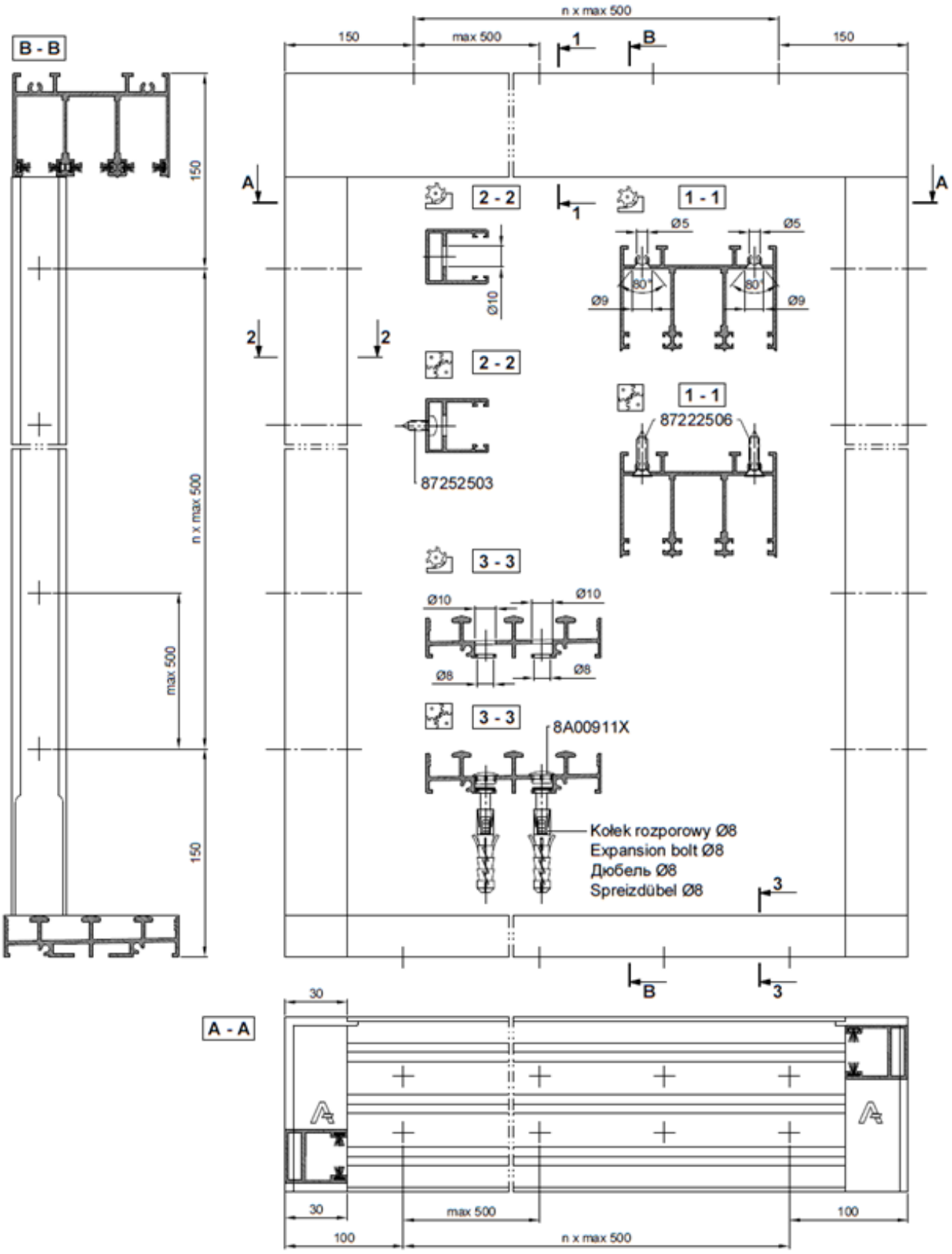
- The type of fasteners should be selected so as to ensure a durable and reliable connection with the pergola or other building structure,
- Example of fasteners in the case of mounting the enclosure to a pergola:
  - the threshold should be mounted using Ø8 expansion bolts,
  - the jamb of the frame should be mounted using A2 4.8 x 13 stainless steel screws, these screws are marked with the system code 87252503,
  - the upper part of the frame should be mounted using A2 4.8 x 22 stainless steel screws, these screws are marked with the system code 87222506.

4.3. Fasteners - spacing

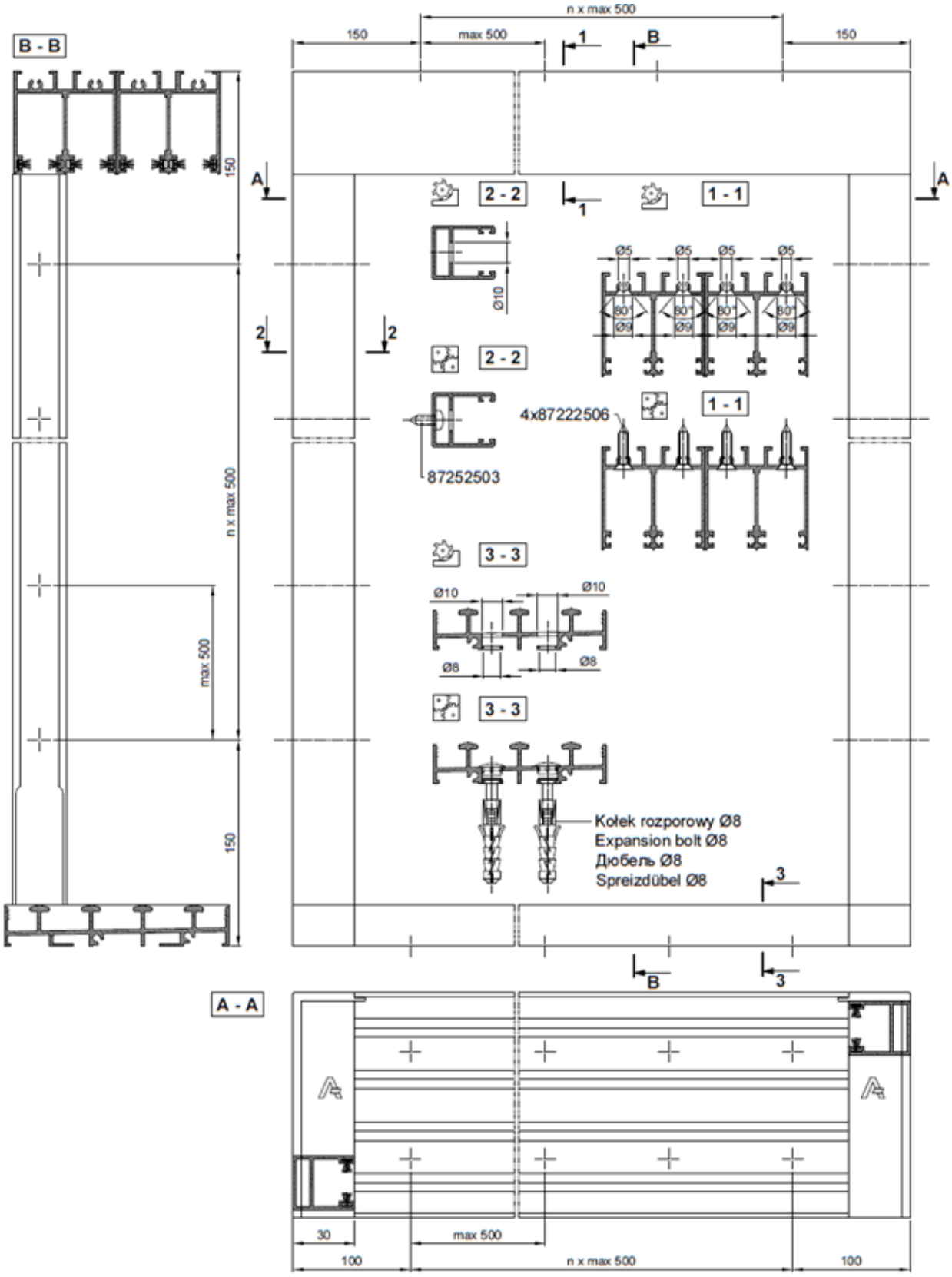
- Fasteners should be spaced according to the guidelines of the system catalogue.
- In case of the threshold, fasteners should be arranged in two rows at a maximum spacing of 500 mm and 100 mm from the edge of the enclosure - in accordance with the schemes in par. 4.4.
- In case of frame jamb, fasteners should be arranged in two rows at a maximum spacing of 500 mm and 150 mm from the edge of the enclosure - in accordance with the schemes in par. 4.4.
- In case of the upper part of the frame, fasteners should be arranged in two rows at a maximum spacing of 500 mm and 150 mm from the edge of the enclosure - in accordance with the schemes in par. 4.4

4.4. Fasteners – arrangement scheme

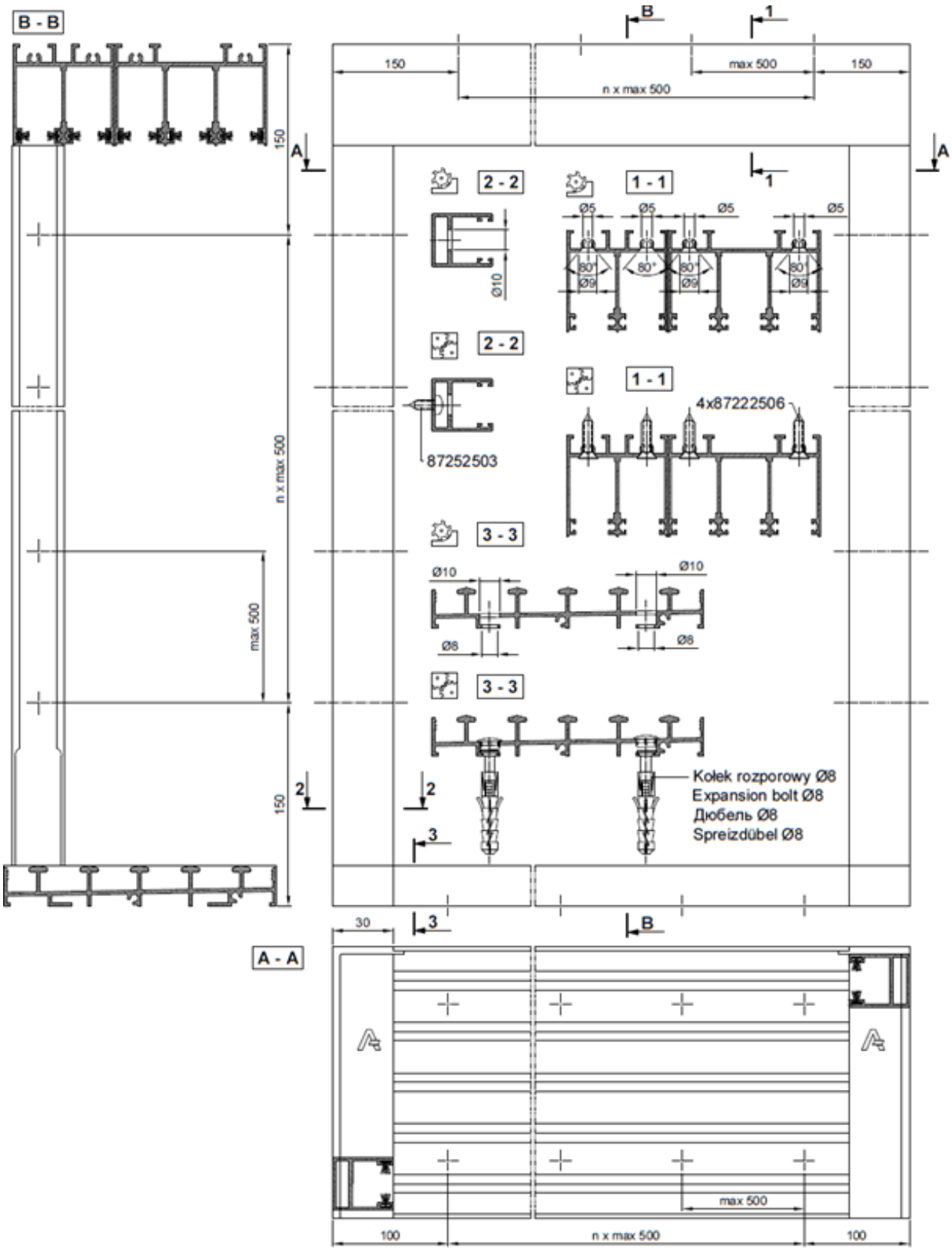
4.4.1. Location of fasteners in case of a three-rail construction



4.4.2. Location of fasteners in case of a four-rail construction



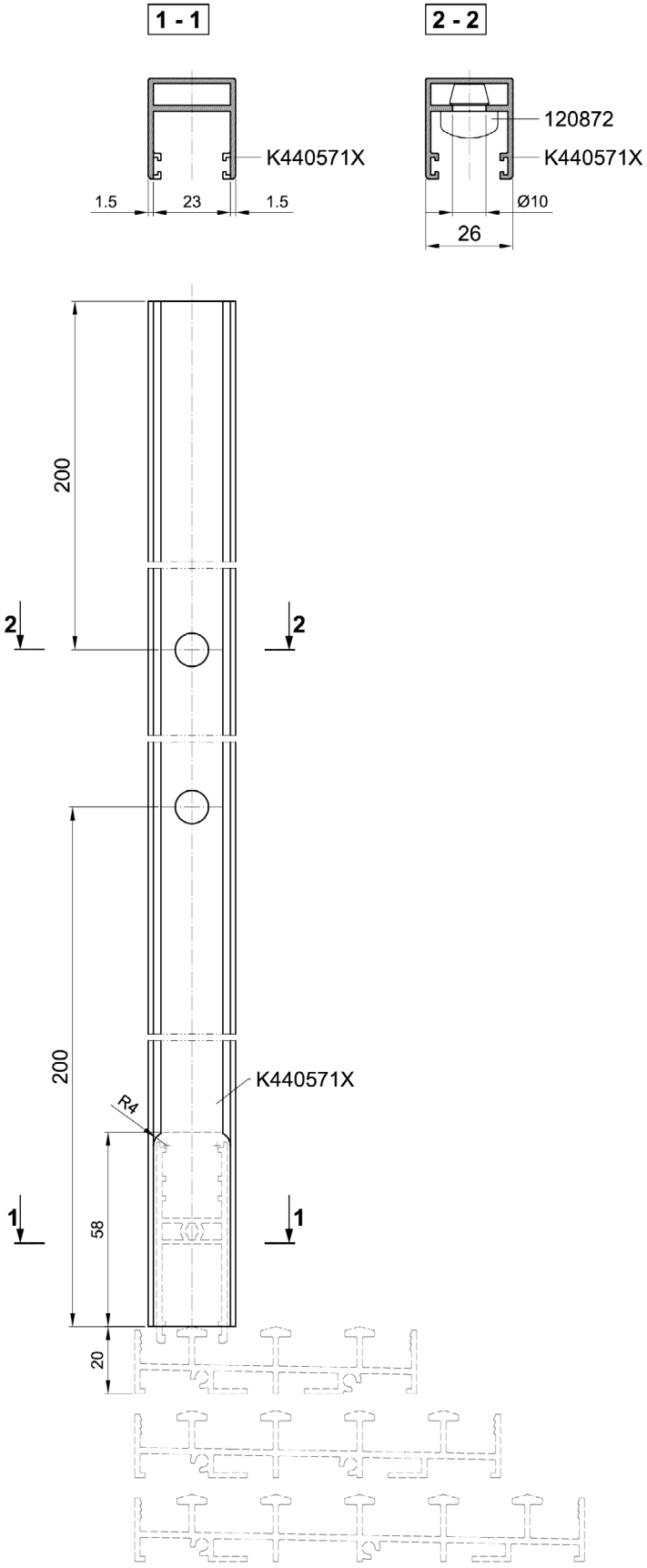
4.4.3. Location of fasteners in case of a five-rail construction



4.5. Leaf bumpers 120872

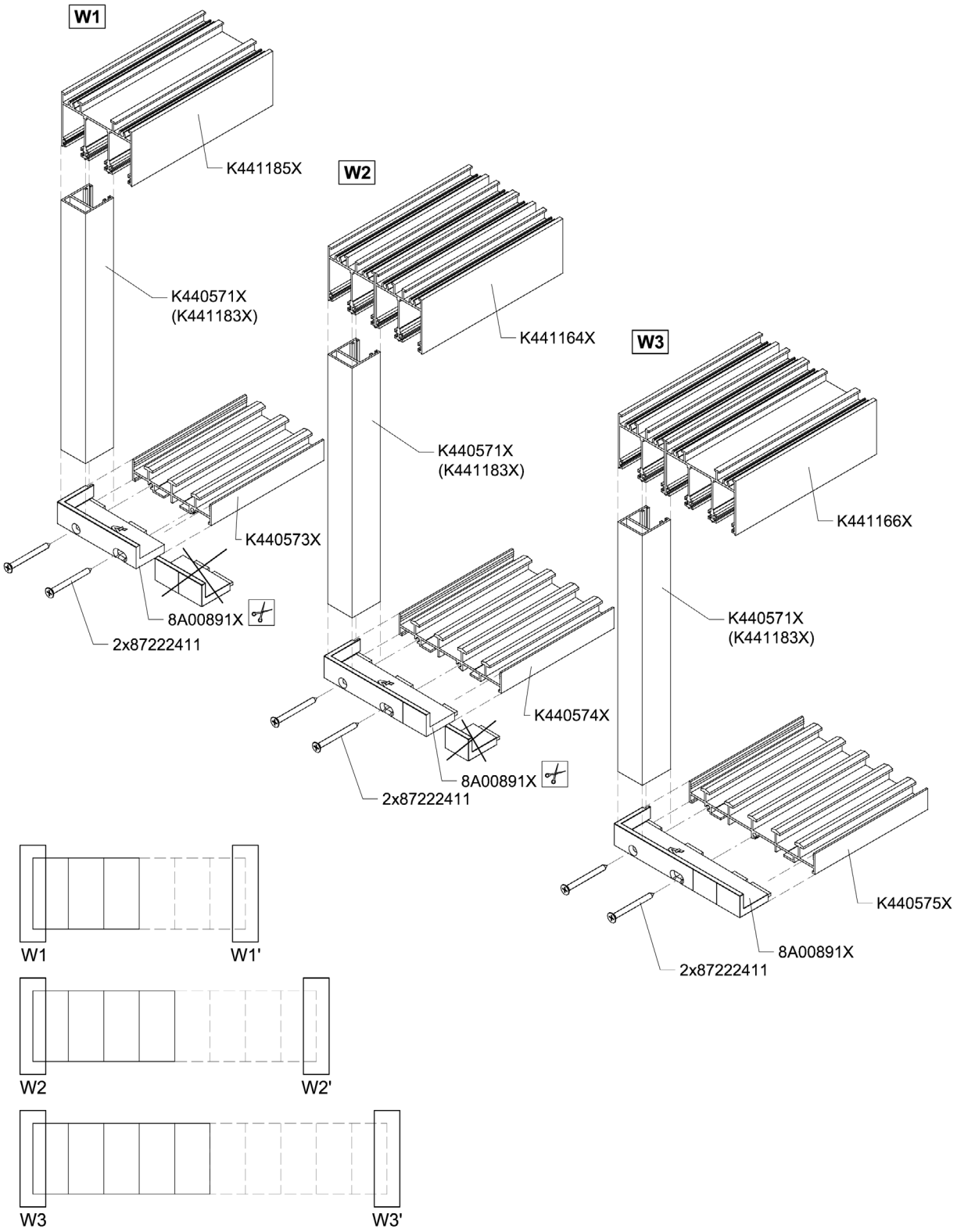
- In order to install leaf bumpers 120872 in the frame jamb K440571X, additional holes in the frame profile must be prepared.
- The holes should be located at a distance of 200 mm from the bottom and top edges of the frame profile K440571X.

Scheme:



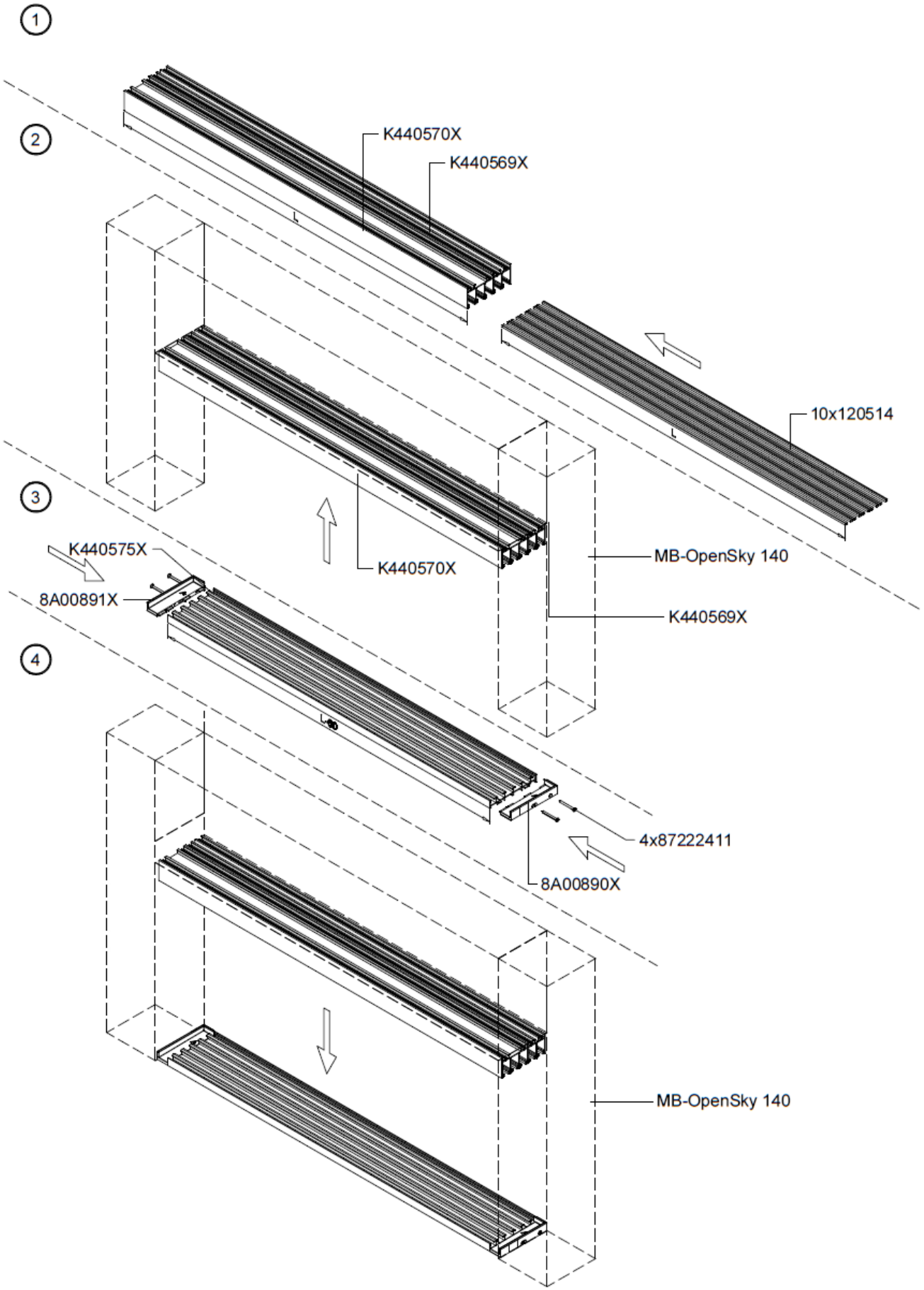
4.6. Fascia strips 8A00890X and 8A00891X

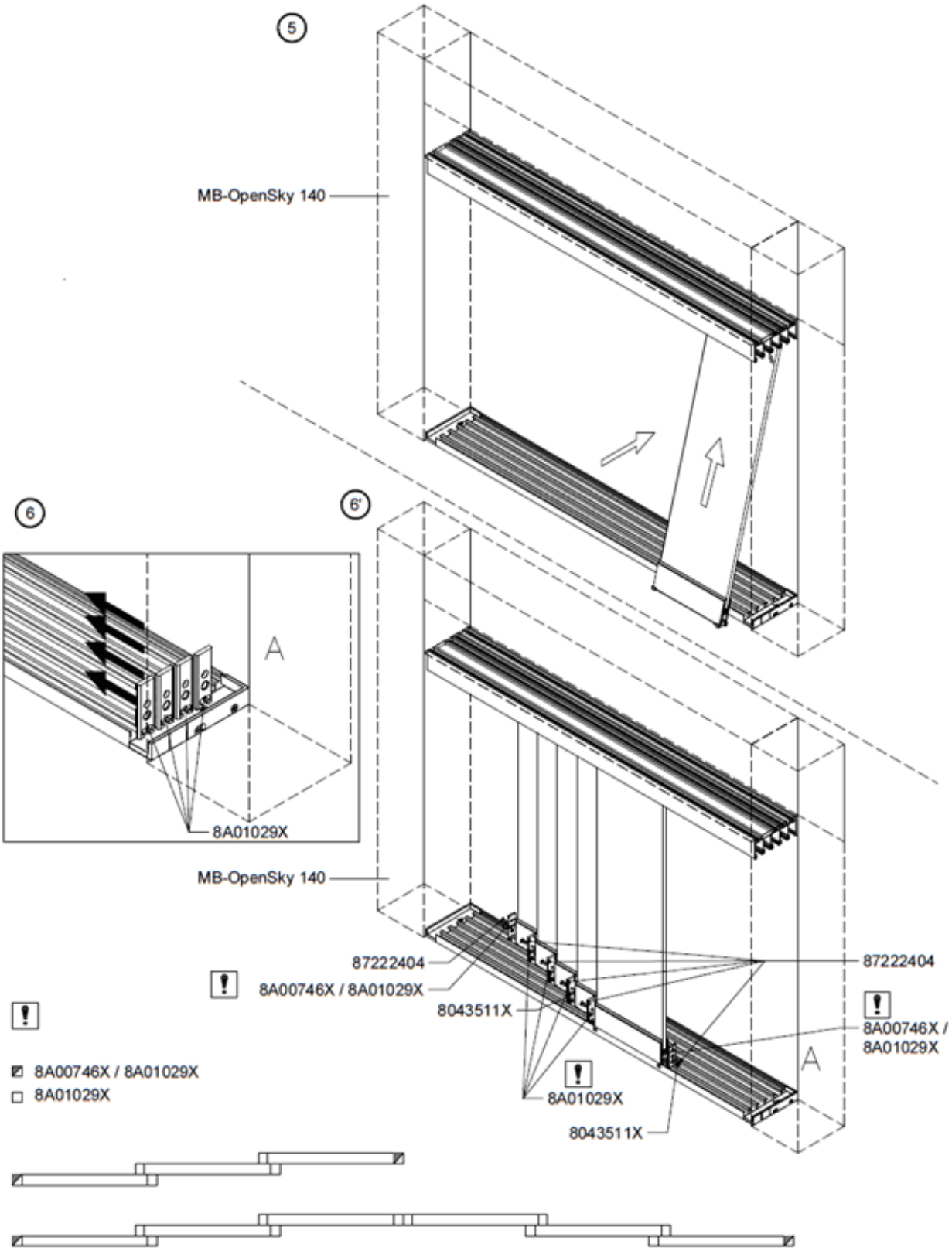
- Before embedding the threshold in the structure, fascia strips 8A00890X and 8A00891X should be mounted to it; depending on the type of threshold they are to be shortened as shown in the drawing.

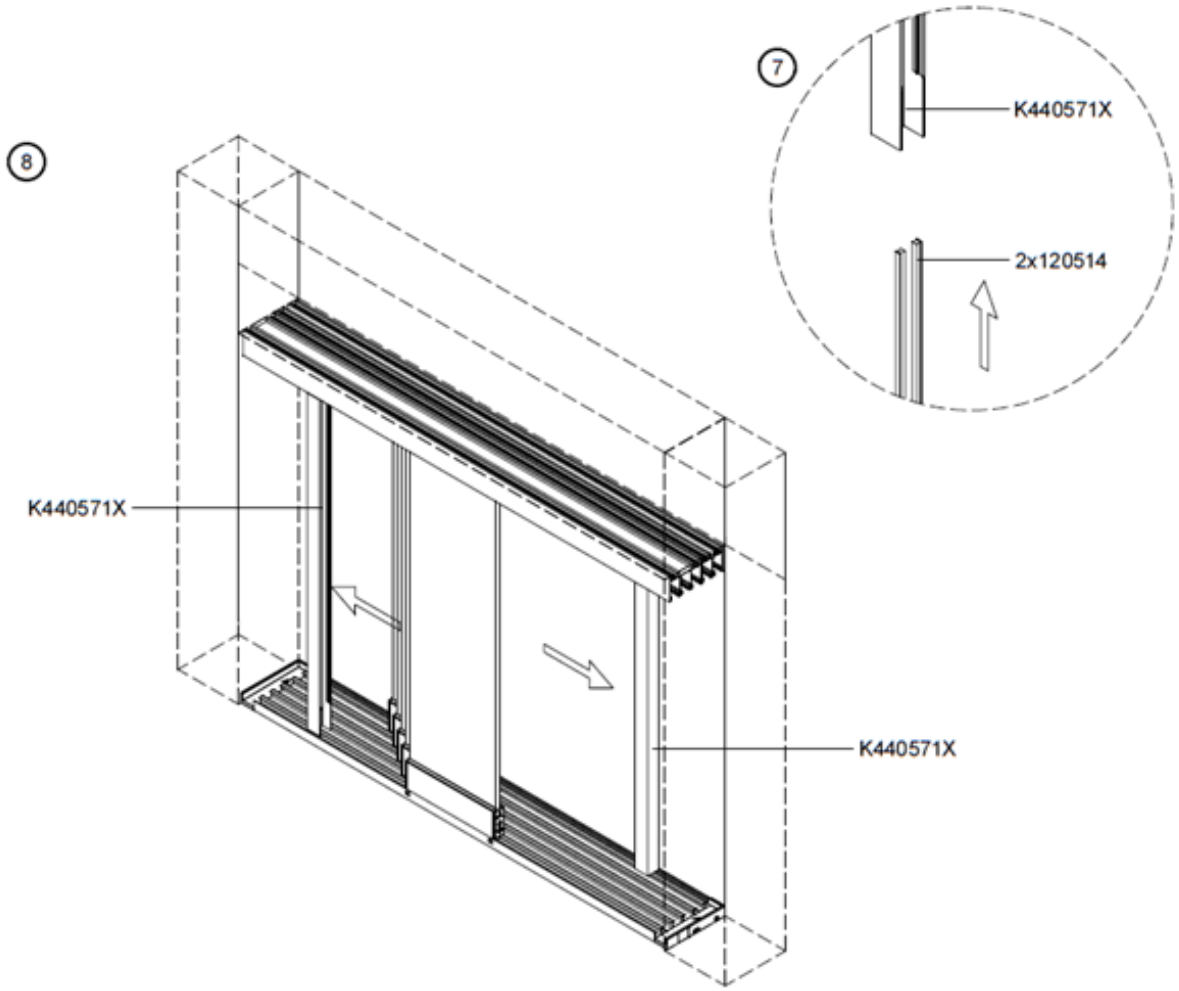


4.7. Assembly sequence on the example of a five-rail construction

Scheme:







Description:

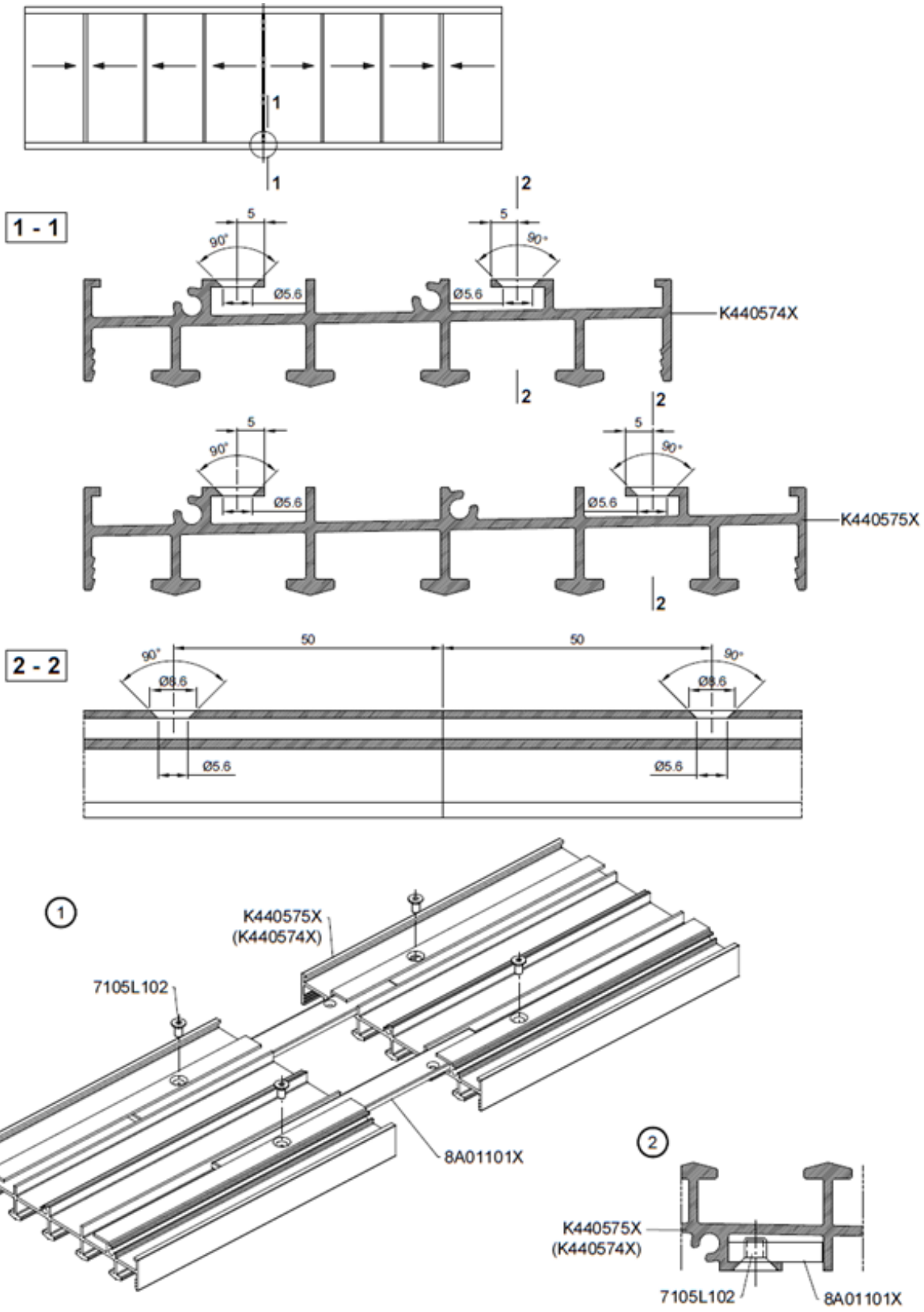
- Step 1: install gasket 120514 in the upper frame K440569X and K440570X.
- Step 2: install the upper frame K440569X and K440570X.
- Step 3: install fascia strips 8A00890X and 8A00891X (according to par. 4.6., depending on the type of threshold).
- Step 4: install the threshold K440575X (in case of three-rail variant K440573X, in case of four-rail variant K440574X).
- Step 5: install the leaves (prepared according to par. 3).
- Step 6: insert fascia strips 8A01029X.
- Step 6': install fascia strips 8A01029X (in each leaf on both sides) and 8A00746X (in the outermost leaves on the jamb frame side).
- Step 7: install gasket 120514 in the jamb frame K440571X.
- Step 8: install jamb frames K440571X.

4.8. Joining the frames

4.8.1. Joining the frame K440574X and K440575X

- If there is a need to extend the threshold profiles, they can be joined to each other using connectors 8A01101X which are mounted in the section with screws 7105L102 according to the diagram shown.

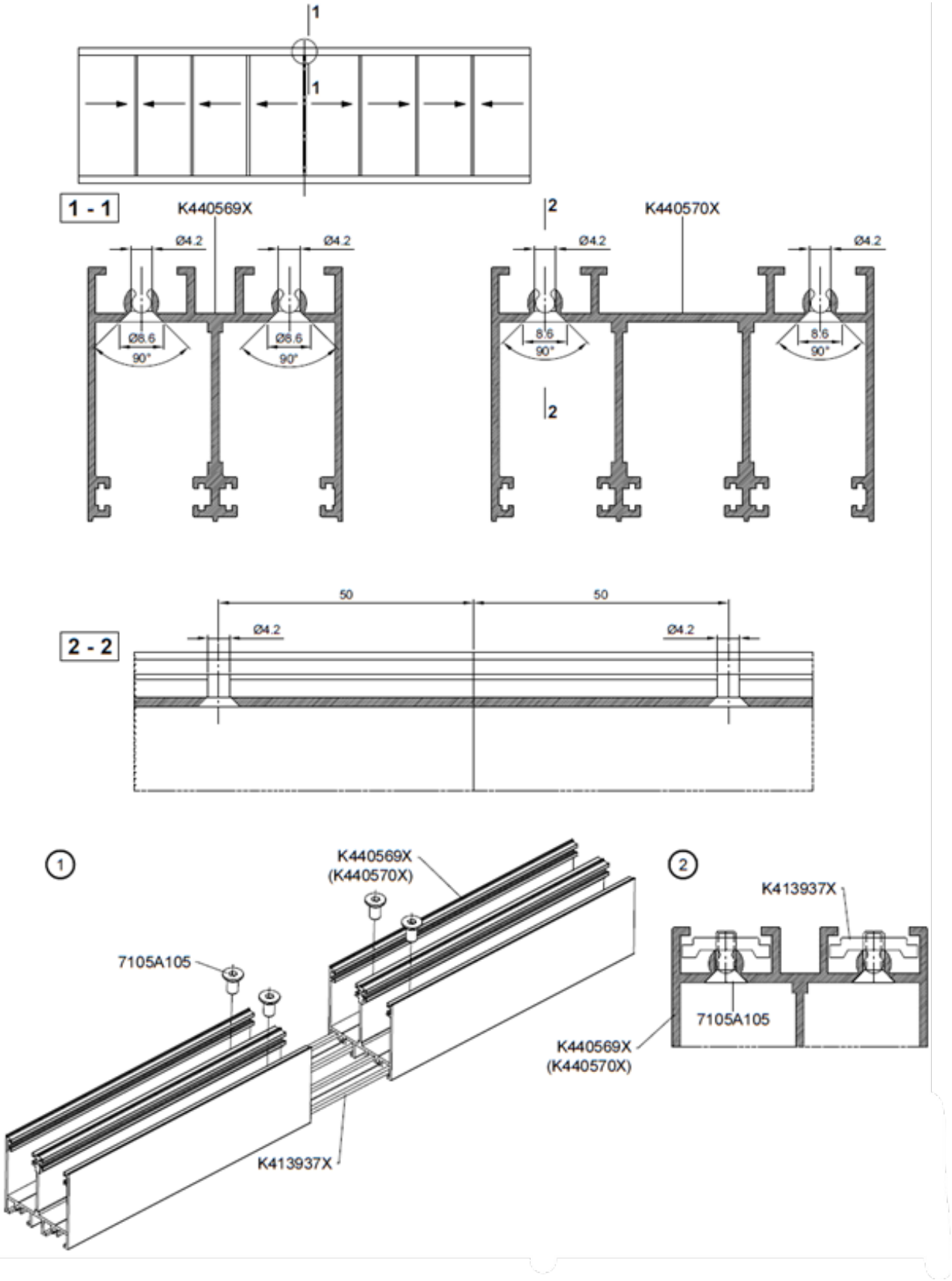
Scheme:



4.8.2. Joining the frame K440569X and K440570X

- If there is a need to extend the profiles of the upper frame, they can be joined to each other using connectors K413937X which are mounted in the section with screws 7105L102 according to the diagram shown.

Scheme:

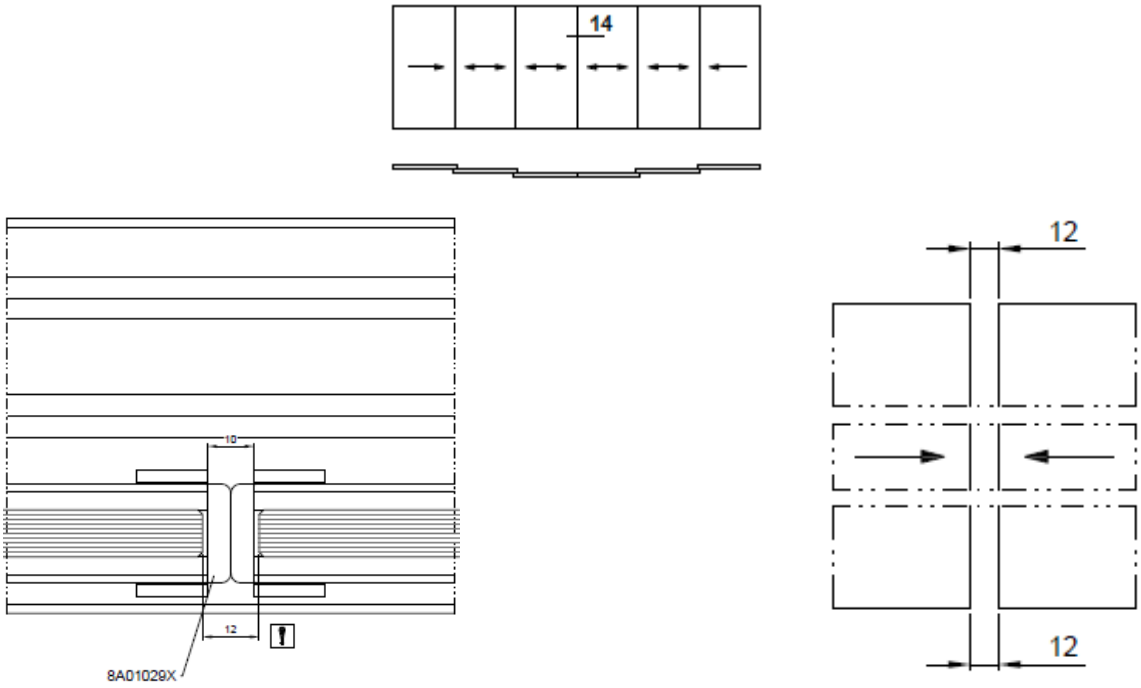


5. ADDITIONAL INFORMATION

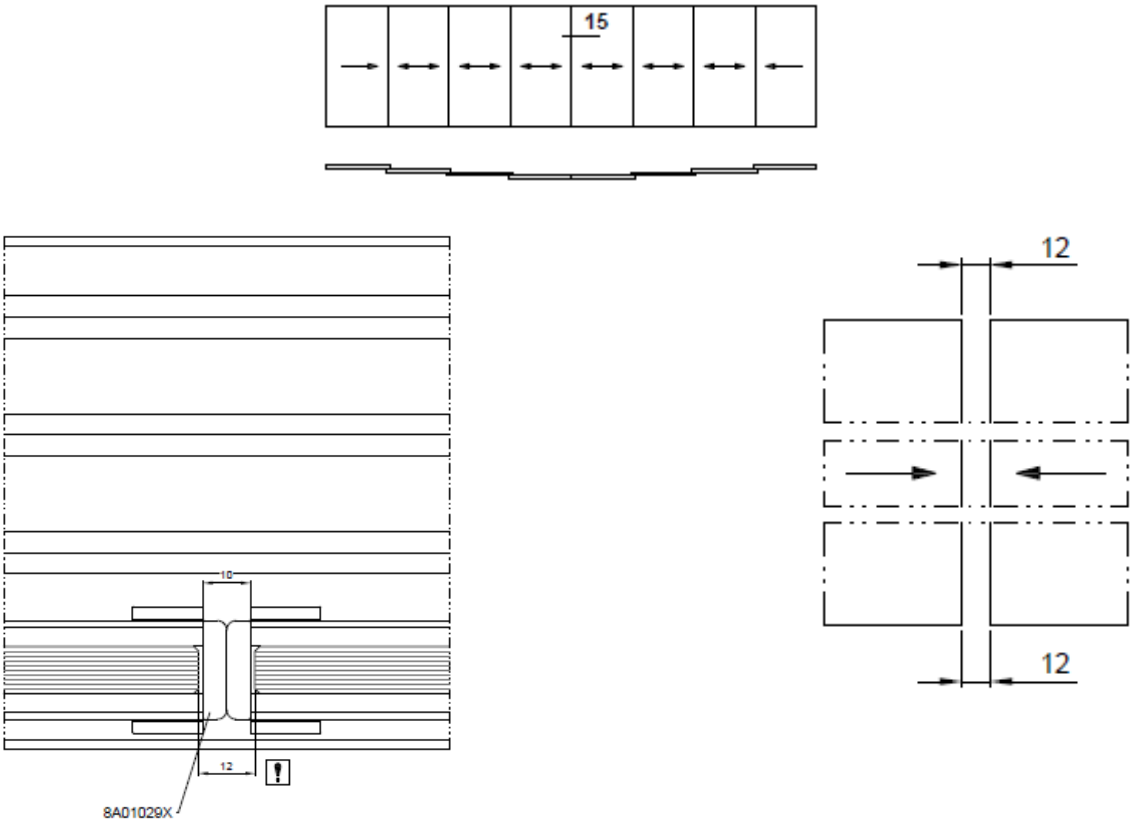
5.1. Adjusting the rollers

⚠ In the case of schemes where there is a butt joint between panes, the rollers must be adjusted in such a way that the edges of the glass panes are absolutely parallel to each other after closing! Otherwise there is a risk of damage to the glazing!

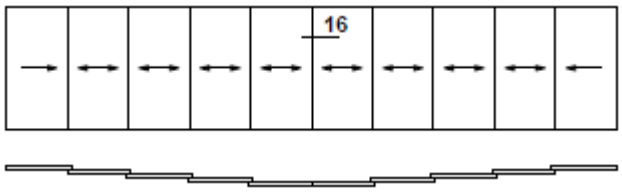
Three-rail construction - scheme:

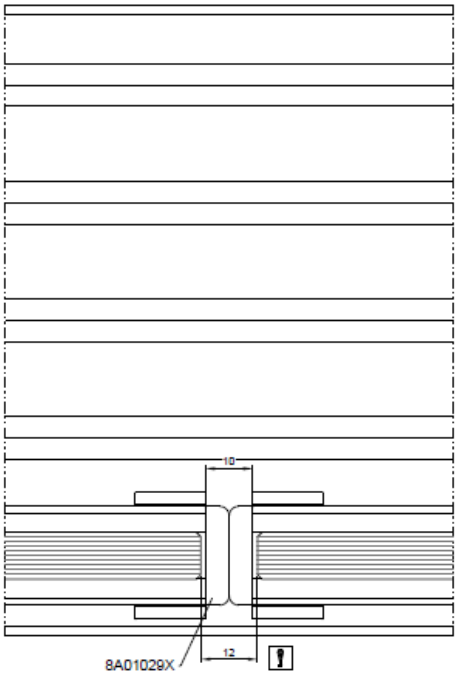


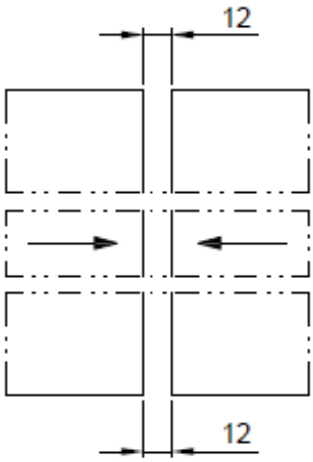
Four-rail construction - scheme:



Five-rail construction - scheme:







5.2. Decorative surfaces

All decorative surfaces of sections should be covered with a protective film to protect them from damage during mechanical processing. Linear and angular tolerances for dimensions with no designation of tolerances shown by the drawing, shall be as per EN-22768-1, class of tolerance - m (medium accuracy level). Any burrs caused by processing operations must be thoroughly removed.

5.3. Guidelines for assembly at the building site

If the installation of pergolas and sliding segments is accompanied by "wet" finishing work, it is absolutely necessary to protect the aluminium sections and glass panes against contact with lime, cement and mortar. If mortars come into contact with aluminium surfaces, immediately wash the mortar off with clean water - failure to do so can result in permanent discolouration and damage to the surface.

5.4. Storage

Aluminium sections, accessories, hardware and glass panes shall be stored in dry rooms in a manner that ensure their protection against any mechanical damage.

5.5. Transport

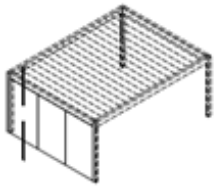
Aluminium sections, details, filling elements, and segments may be transported by any means of transport provided that they are protected against dirt, dust and possibility of damage during transport.

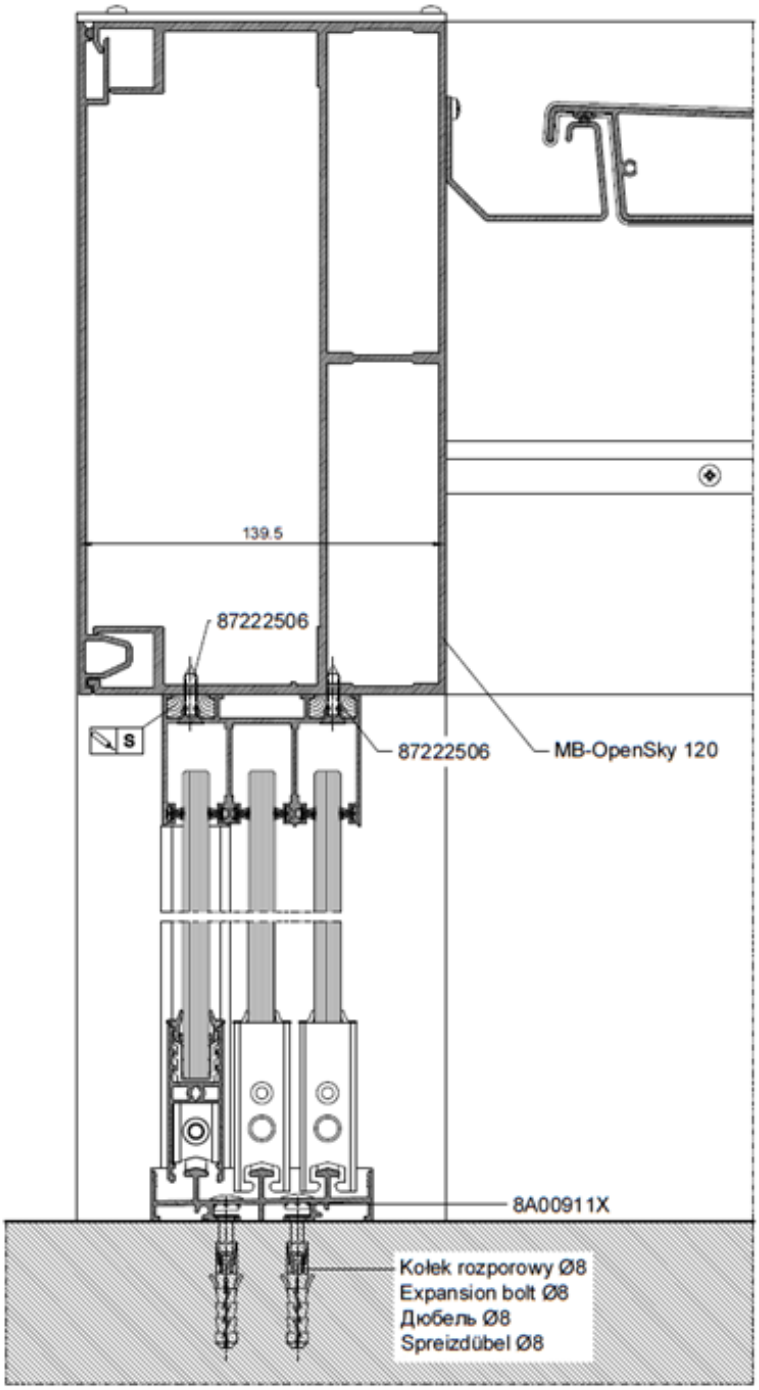
5.6. Maintenance

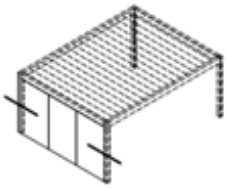
Use a soft cloth and gentle cleaning agents to clean anodized or varnished aluminium profiles. Clean stainless steel along the brushing pattern. Do not use liquid products containing highly alkaline or acidic compounds, as they may damage oxidation or varnish coatings. Never use cleaning products with pH below 5 or above 8. While cleaning, the temperature of coatings and the temperature of water must not exceed 25°C. After each cleaning, the surface must be immediately rinsed with clean cold water. Regular washing prevents the formation of intense, hard-to-remove stains. Maintenance of hardware items shall be carried out in accordance with the manufacturer's instructions.

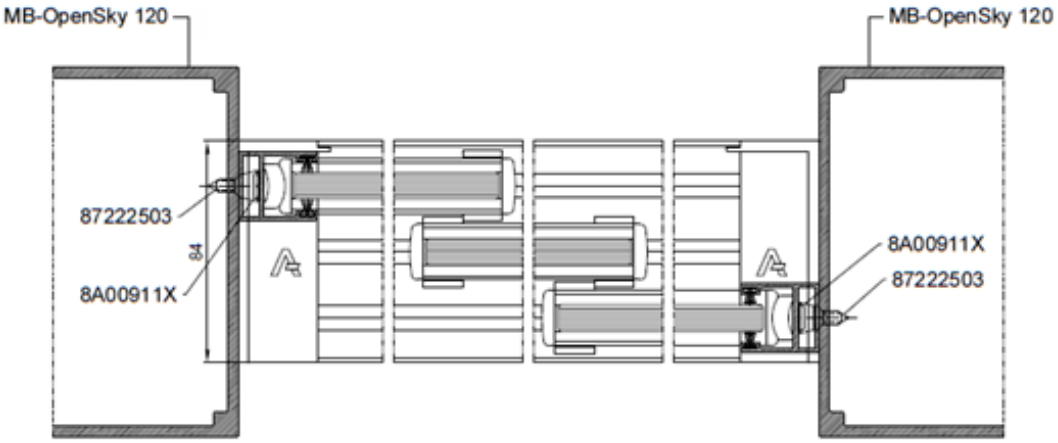
6. EXAMPLES OF CONSTRUCTIONS

6.1. Three-rail construction





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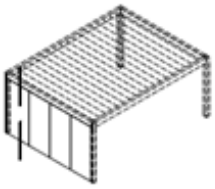
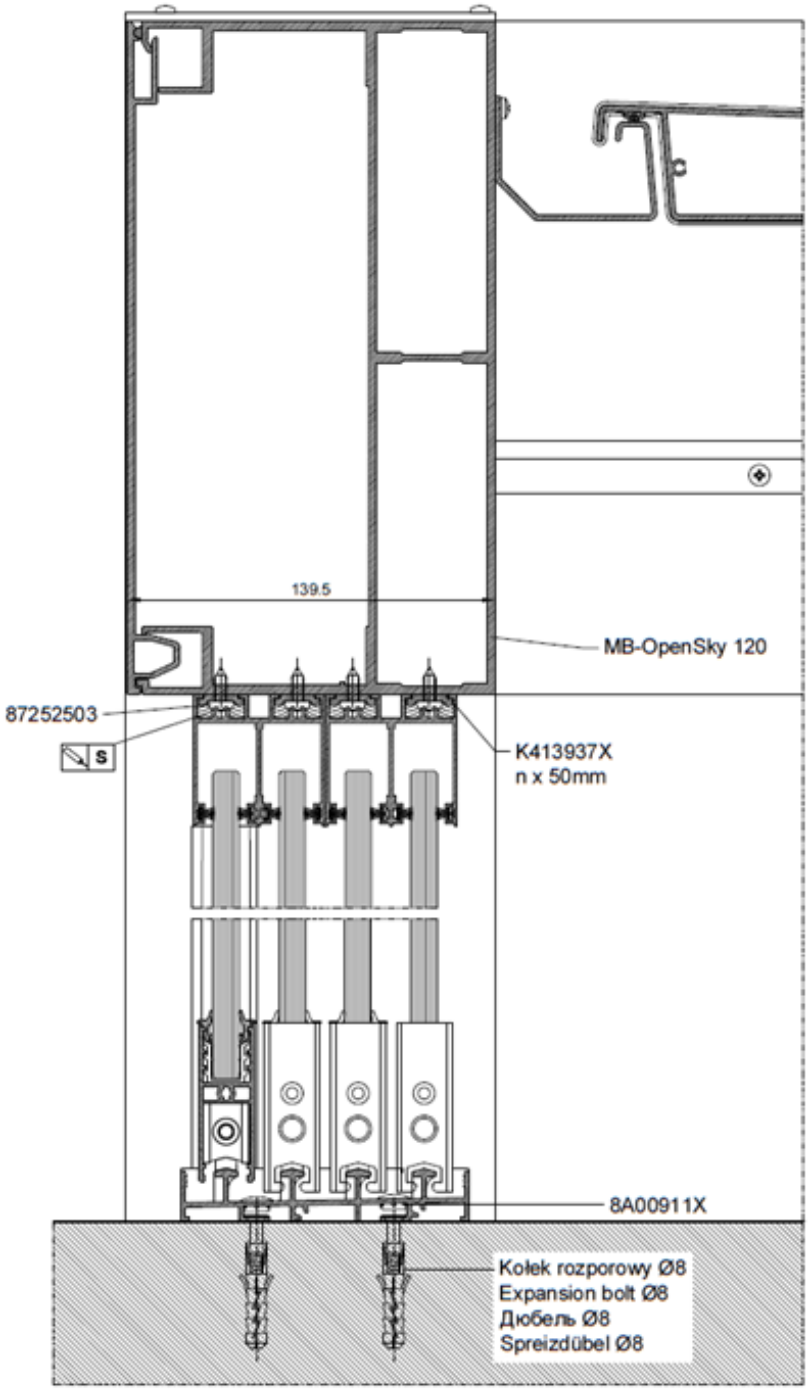
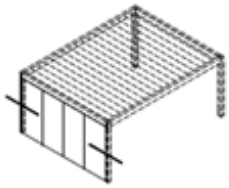
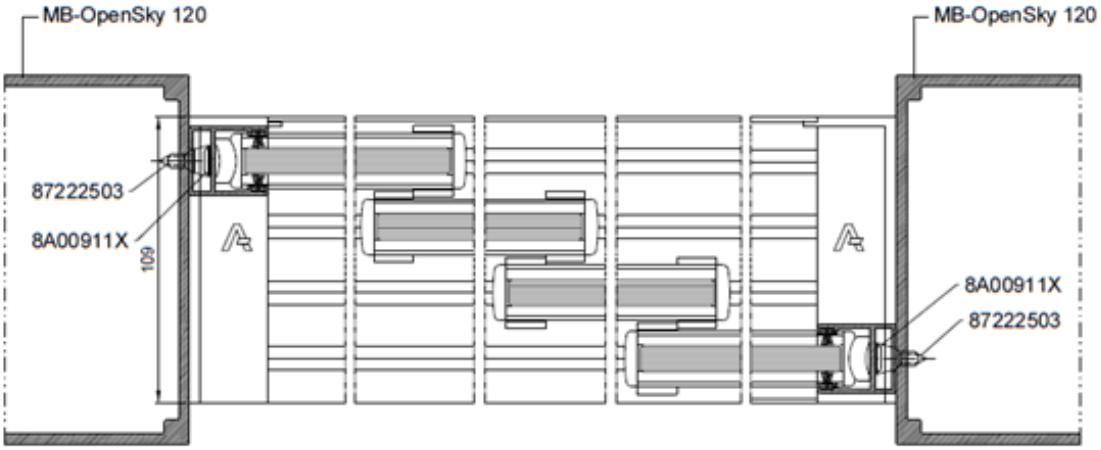
6.2. Four-rail construction





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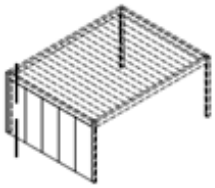
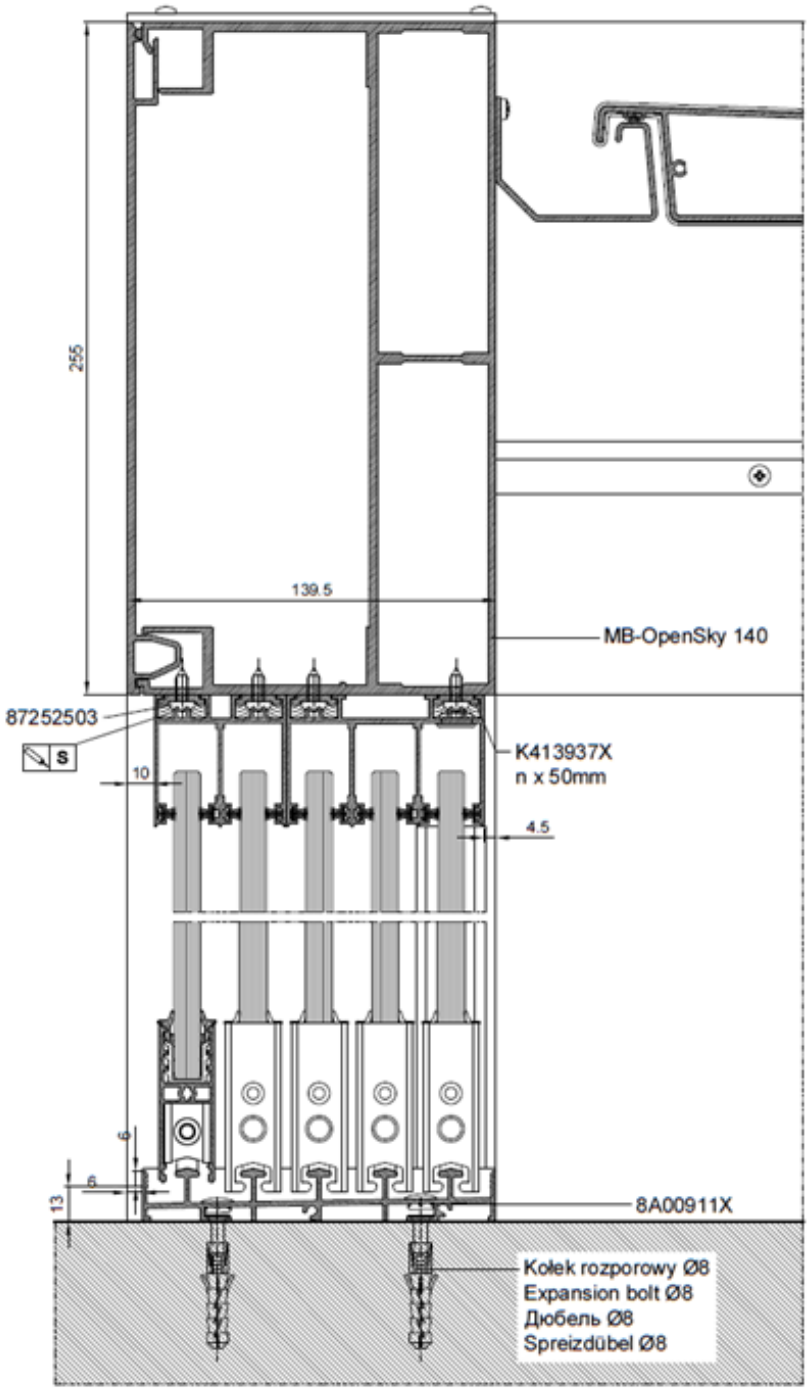
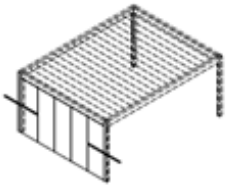
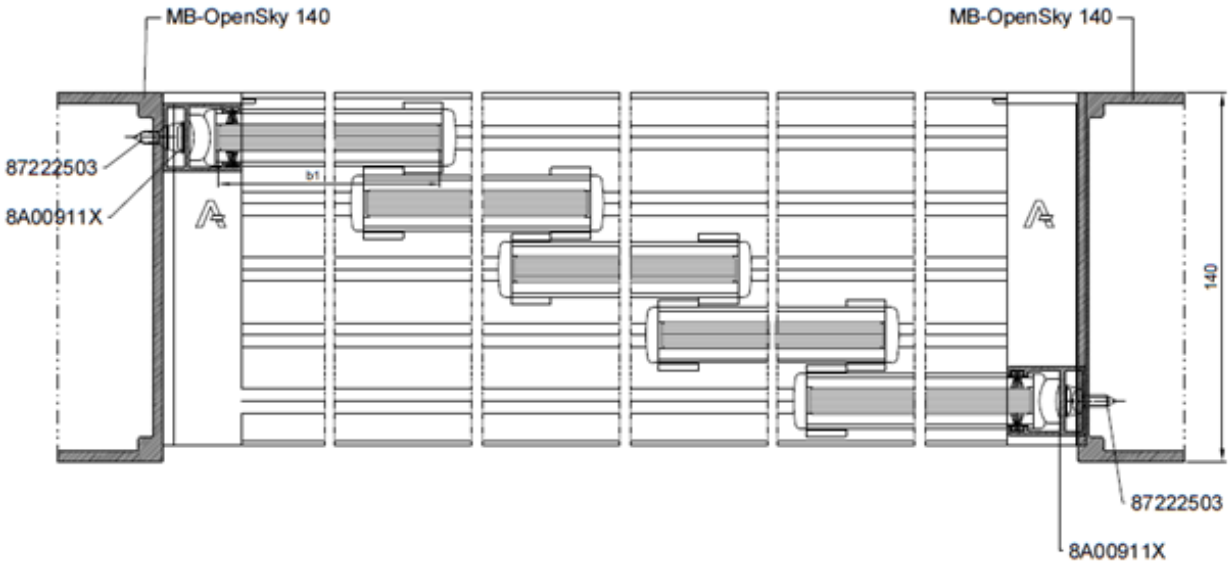
6.3. Five-rail construction





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ALUPROF
SUN SHADING SOLUTIONS

MB-OpenSlide
The product meets the CE safety requirements

Manufacturer:
Aluprof S.A.
ul. Warszawska 153, 43- Bielsko-Biała, Poland,
Tel. +48 33 81 95 300, fax +48 33 82 20 512
e–mail: aluprof@aluprof.eu
www.aluprof.com

ALUPROF

Head Office
ul. Warszawska 153
43-300 Bielsko-Biała, Poland
Tel. +48 33 81 95 300
fax +48 33 82 20 512
e–mail: aluprof@aluprof.eu
www.aluprof.com

ALUPROF SUN SHADING SOLUTIONS
ul. Wschodnia 23a
45-449 Opole, Poland
Tel. +48 77 55 32 100

Original instructions.
This document is part of the instructions within the meaning of the Regulation of the Minister of Economy of 21 October 2008 on the essential requirements for machinery.
The operating and maintenance instructions, installation instructions and product manufacturing documentation together constitute the entire set of instructions and are available from the manufacturer.

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We reserve the right to make technical changes.
Valid from 2026.01.01