

**Assembly instructions**

# Bioclimatic Pergola P-190

4 columns





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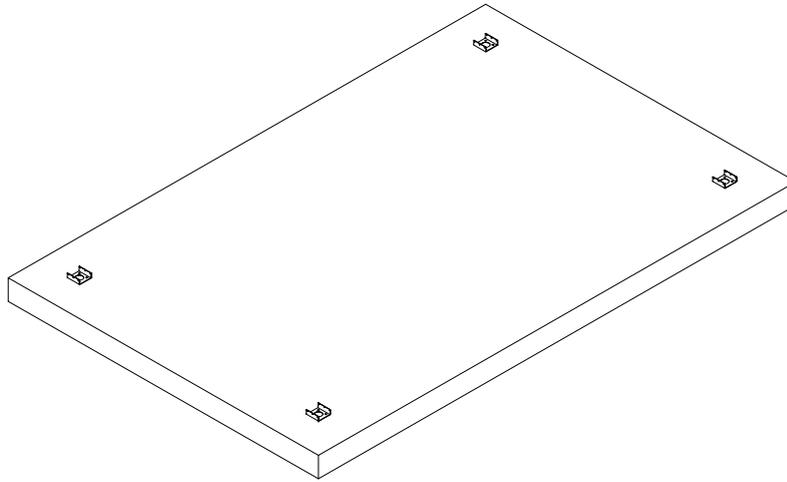
We do not provide the screws for fixing-anchoring to the wall and/or foundations. The fitter must choose the adequate rod/screw/plug/nut/washer system for fixing and flushing to the foundations and/or wall based on the nature of these surfaces. In any case, the screws must be in stainless steel.

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## 1. Installation

### 1.1 Installing the fixation for the column base



Measure the foundation in order to make sure that the levelling is correct.

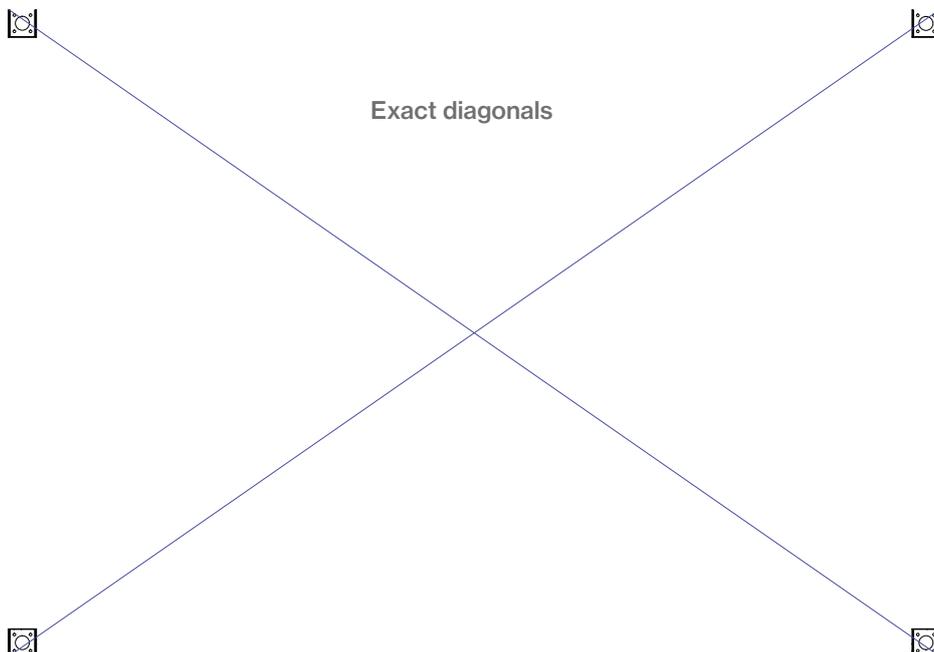
Install the base fixings using M-12 screws (not included), with a quality of at least AISI 304 (stainless steel), leaving all bases properly levelled.

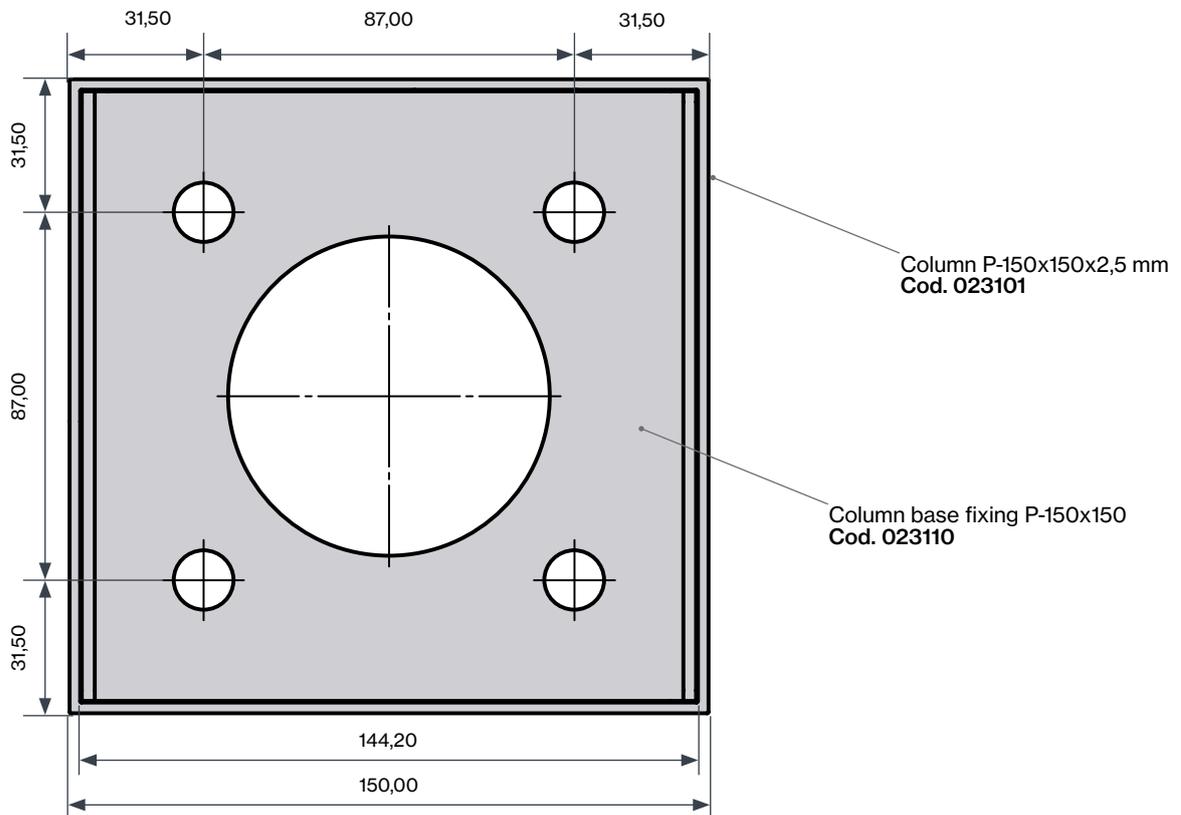
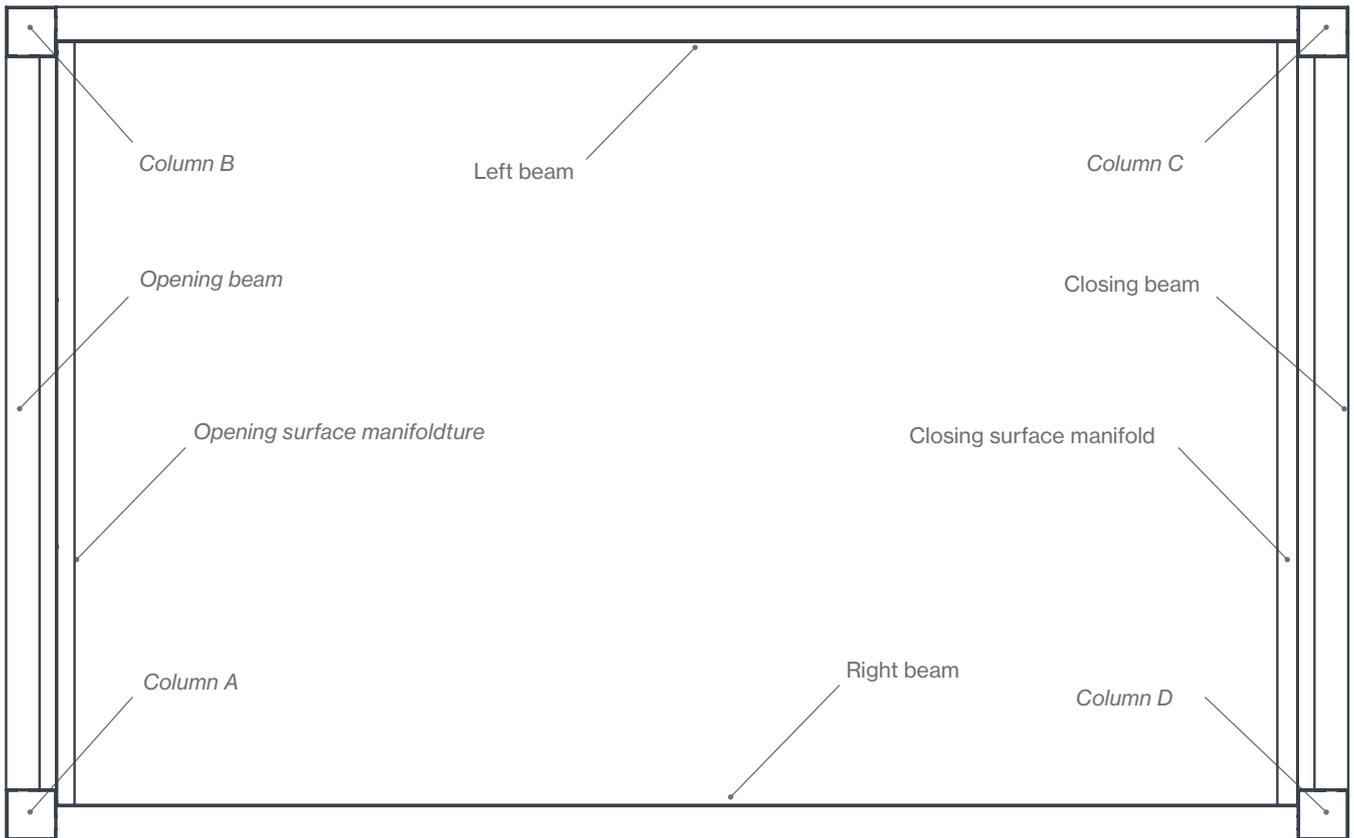
Once the column bases are installed in place, measure the diagonal lines to ensure both distances are equal.

#### Attention

- Recommended installation is against a wall with reinforced concrete floor of at least 150 mm thickness (or surface of equivalent strength) by means of 12 mm stainless steel fittings (not included).

- Leave a 100 mm space above the beam so the slats can turn.

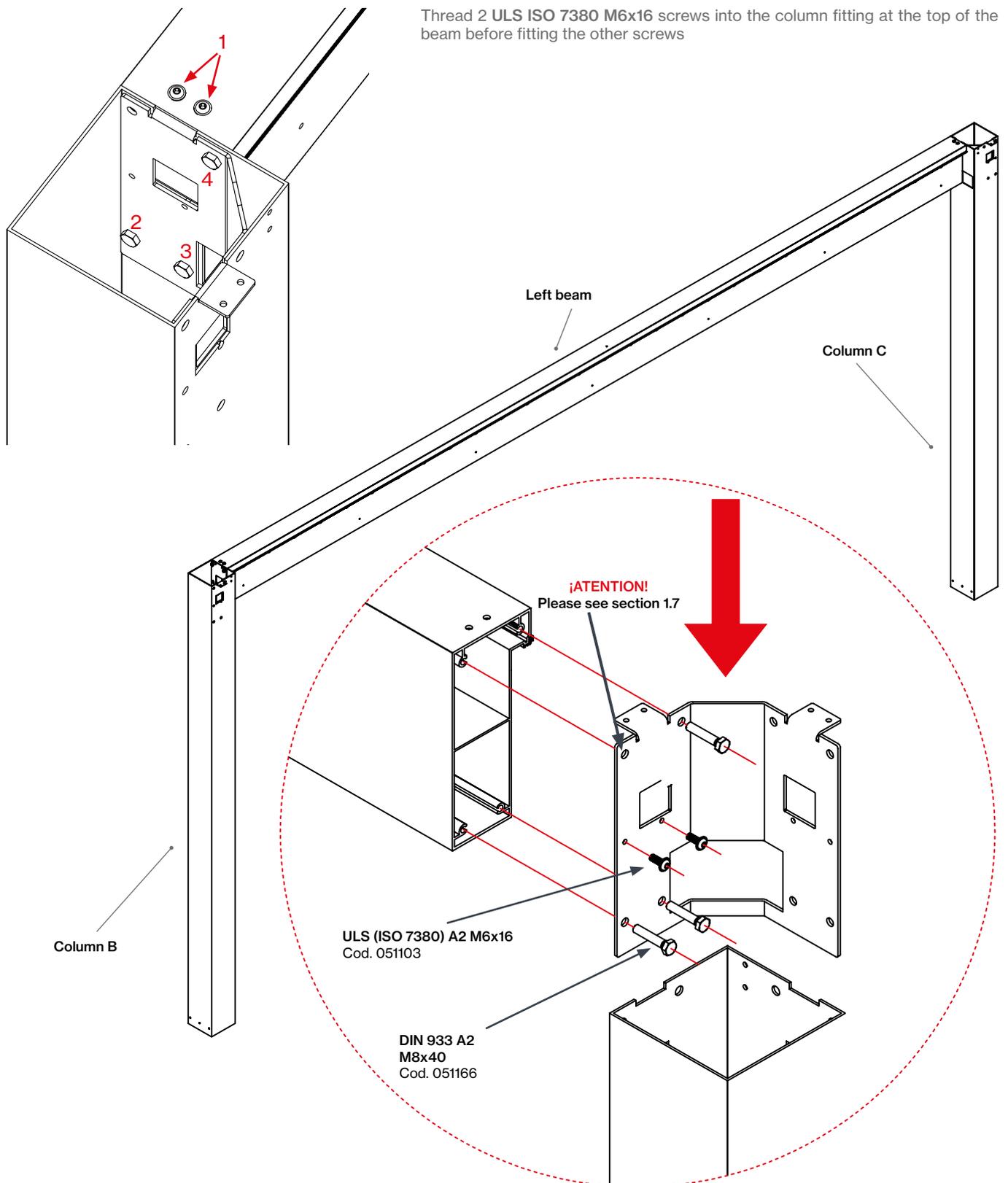




## 1.2 Assembling the left beam with the b and c columns (inverted "U" profile)

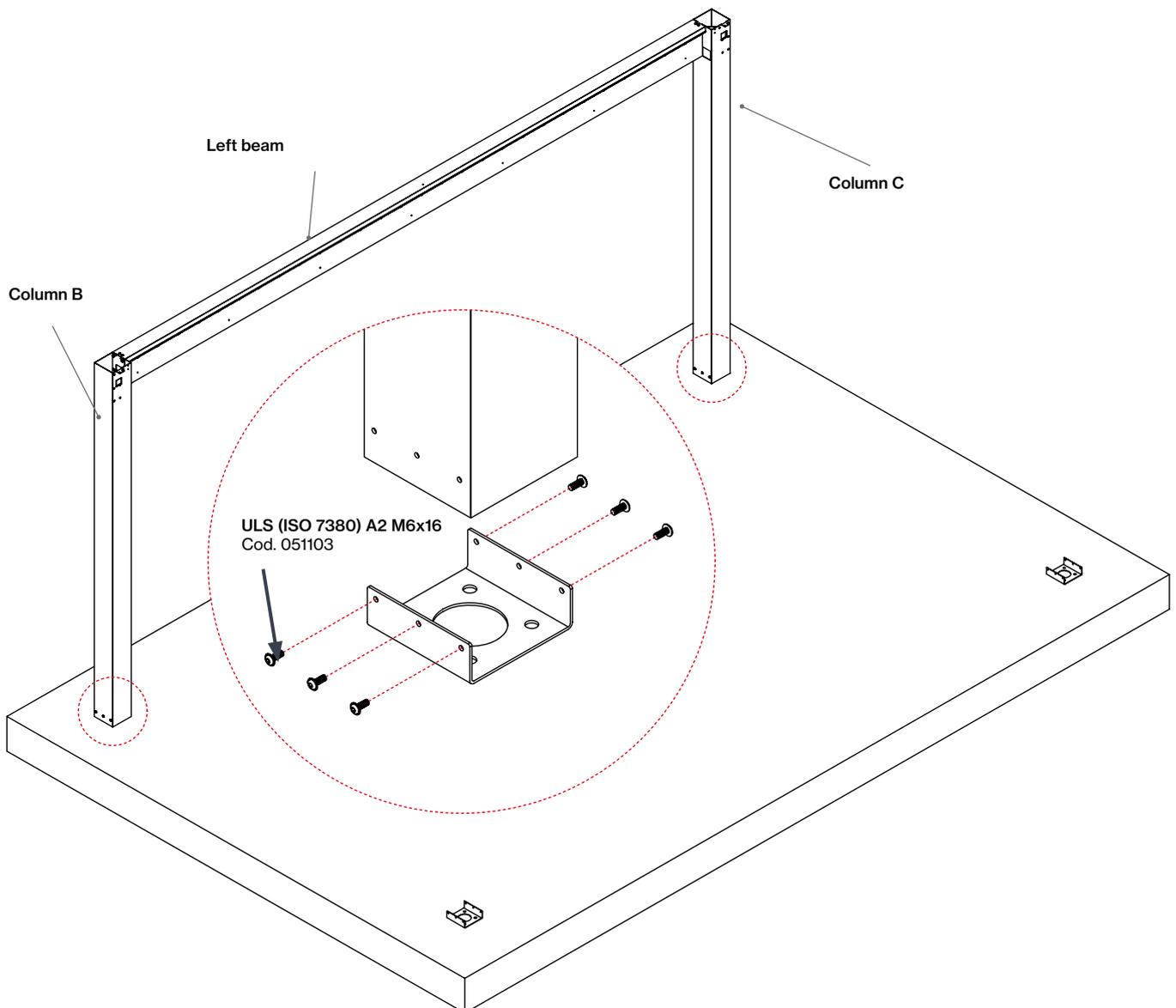
Join the B and C columns to the ends of the **left** beam.

Follow the screwing sequence indicated in the image. To do this, unscrew gutters that are bolted to closed columns.



### 1.3 Fixing the inverted "U" profile to the floor

With the inverted "U" profile already mounted, fix it to the columns bases of the foundation using the (ISO 7380) A2 M6x16 mm.

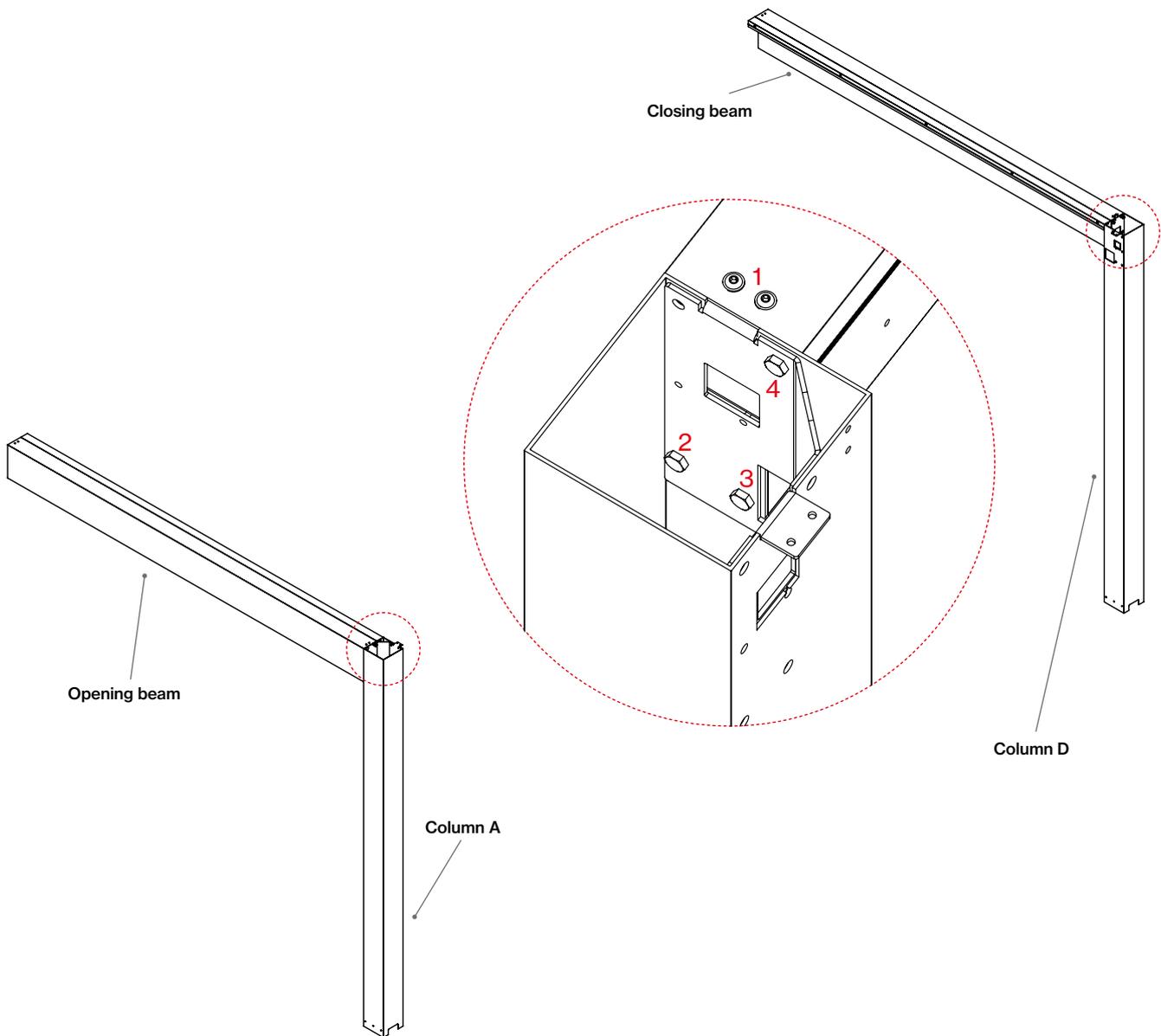


### 1.4 Assembling the sides

Join the **opening** beam to column A.

Join the **closing** beam to column D

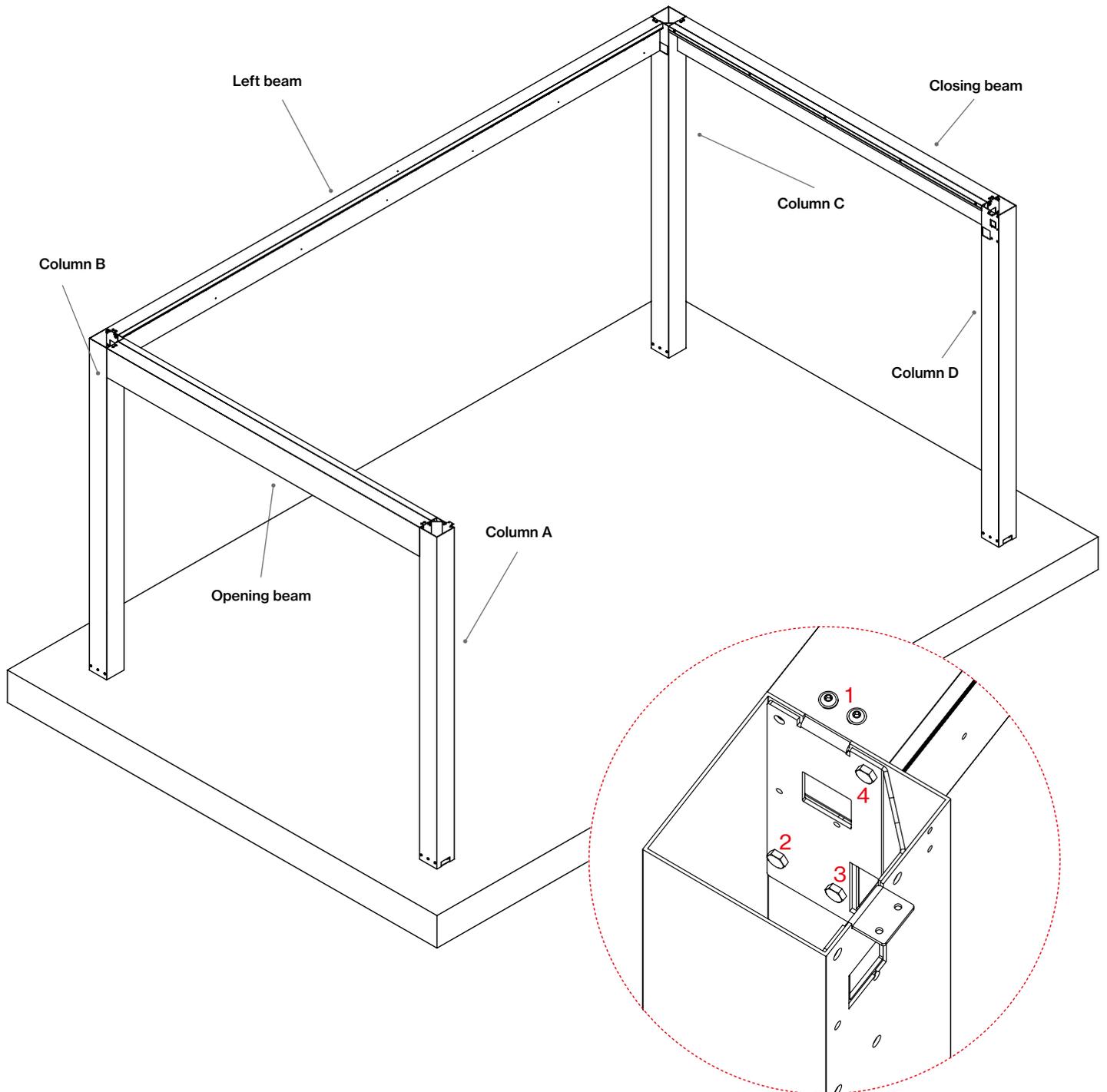
Follow the screwing sequence indicated in the image.



1.5 Side joints with the inverted "U" profile

When both sides have been assembled, it will be necessary to attach them to the corresponding base fixings and the ends of the **opening** and **closing** beams to the B and C columns (using the framing brackets wings to fasten the assembly).

Follow the screwing sequences indicated in the image.

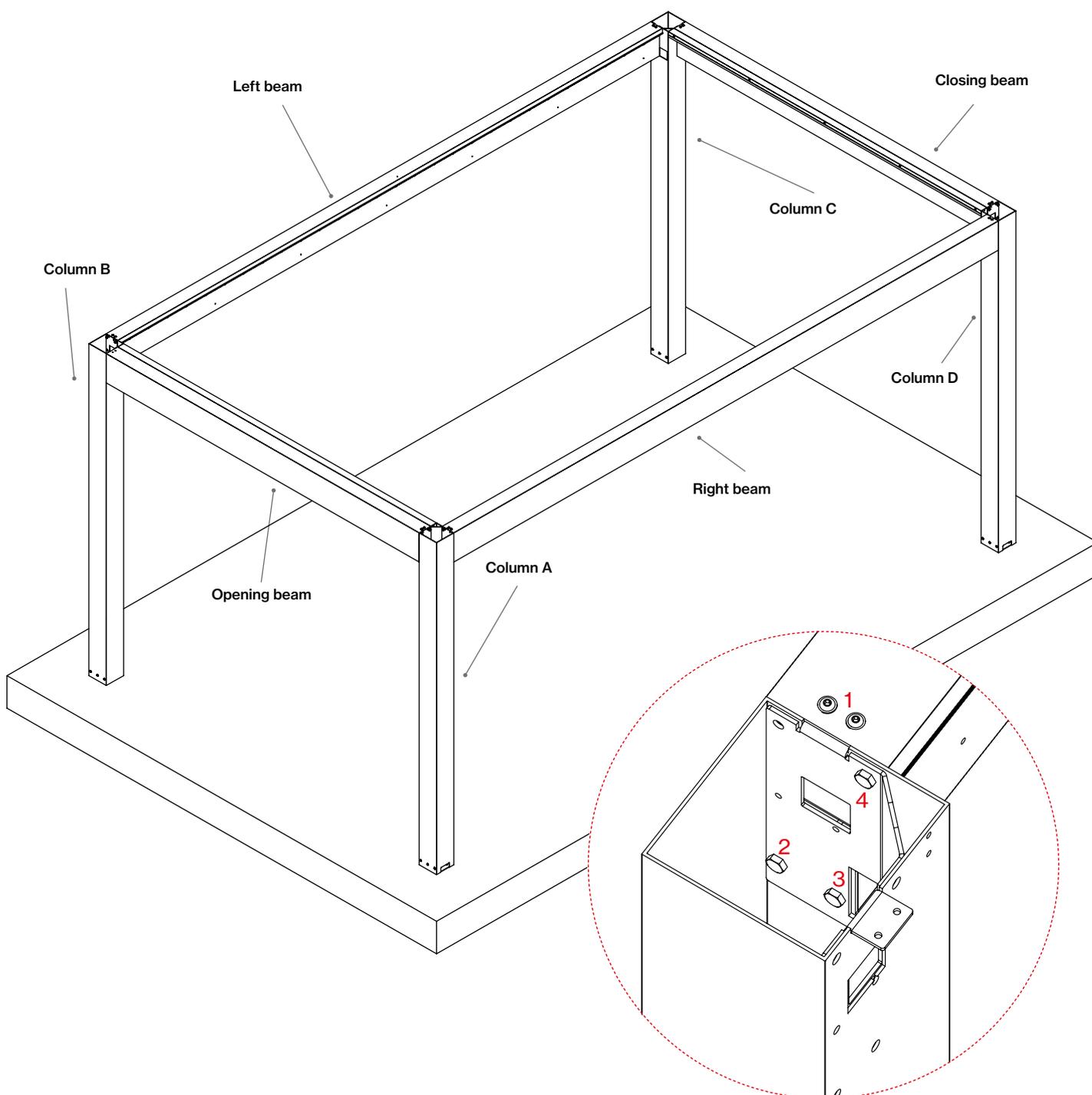


## 1.6 Joining the right beam

The last step to complete the structure assembly is to join the RIGHT beam to de A and D columns (using the framing brackets wings to fasten the assembly).

Follow the screwing sequences indicated in the image.

Check that beams and columns are level. If so, carry out the final tightening of all the bolts of the structure, according to the specifications provided in this manual.



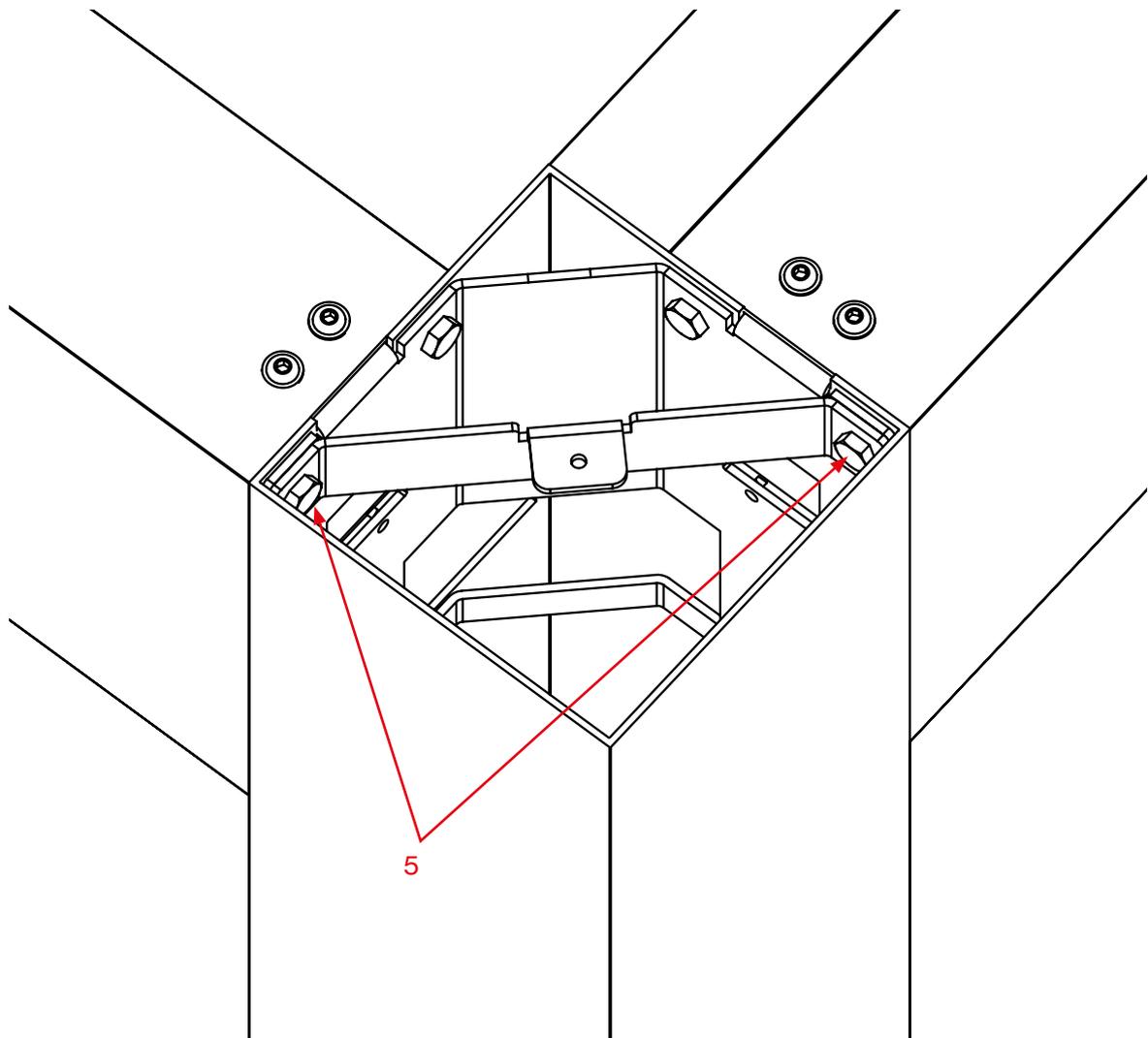
### 1.7 Installing the inner reinforcement

After the structure has been mounted, the framing bracket inner reinforcements will be installed on the four columns.

Tighten and do the final adjustment of all the screws in the framing brackets of the structure.

#### Attention

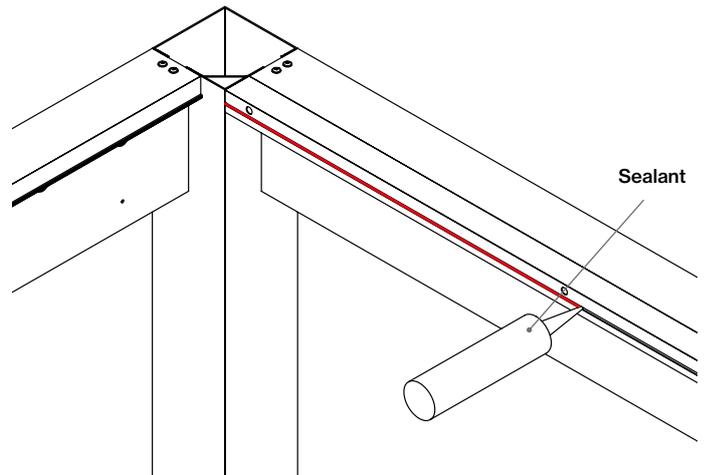
Tighten the screws with the torque indicated in the maintenance section.



### 1.8 Joining the surface manifolds

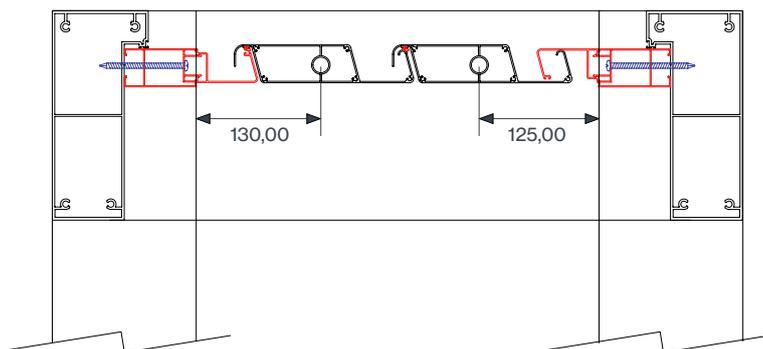
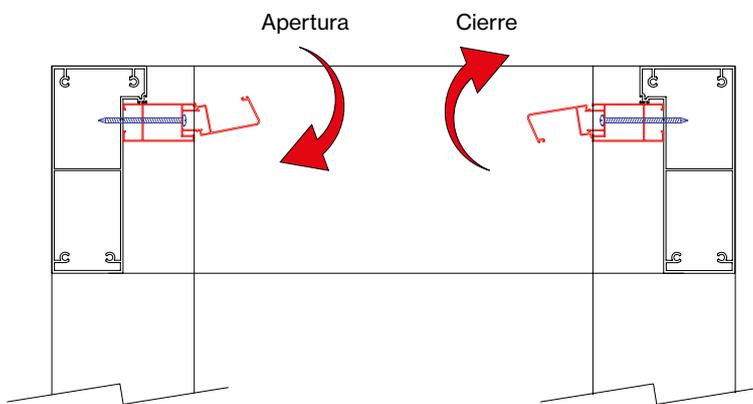
Apply the provided sealant between the contact sides of the **opening** and **closing** beams and their corresponding surface manifolds.

The opening and closing surface manifolds will be joined, screwing them to the beams.



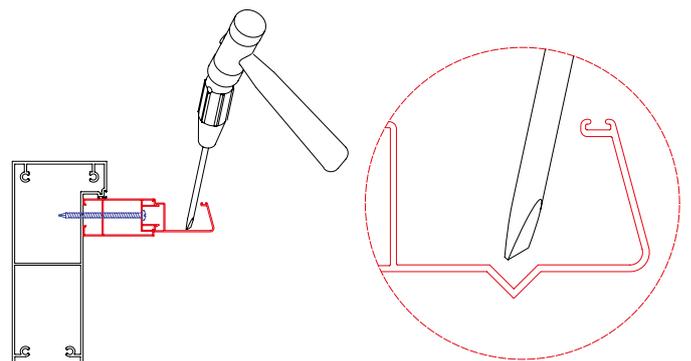
#### ! Attention

Do not bypass this step, it is very important to seal the manifold joint properly (sealant provided).



#### ! Important

Create a groove at the ends of the opening manifold, before proceeding with the installation, (use a hammer and a flat screwdriver).



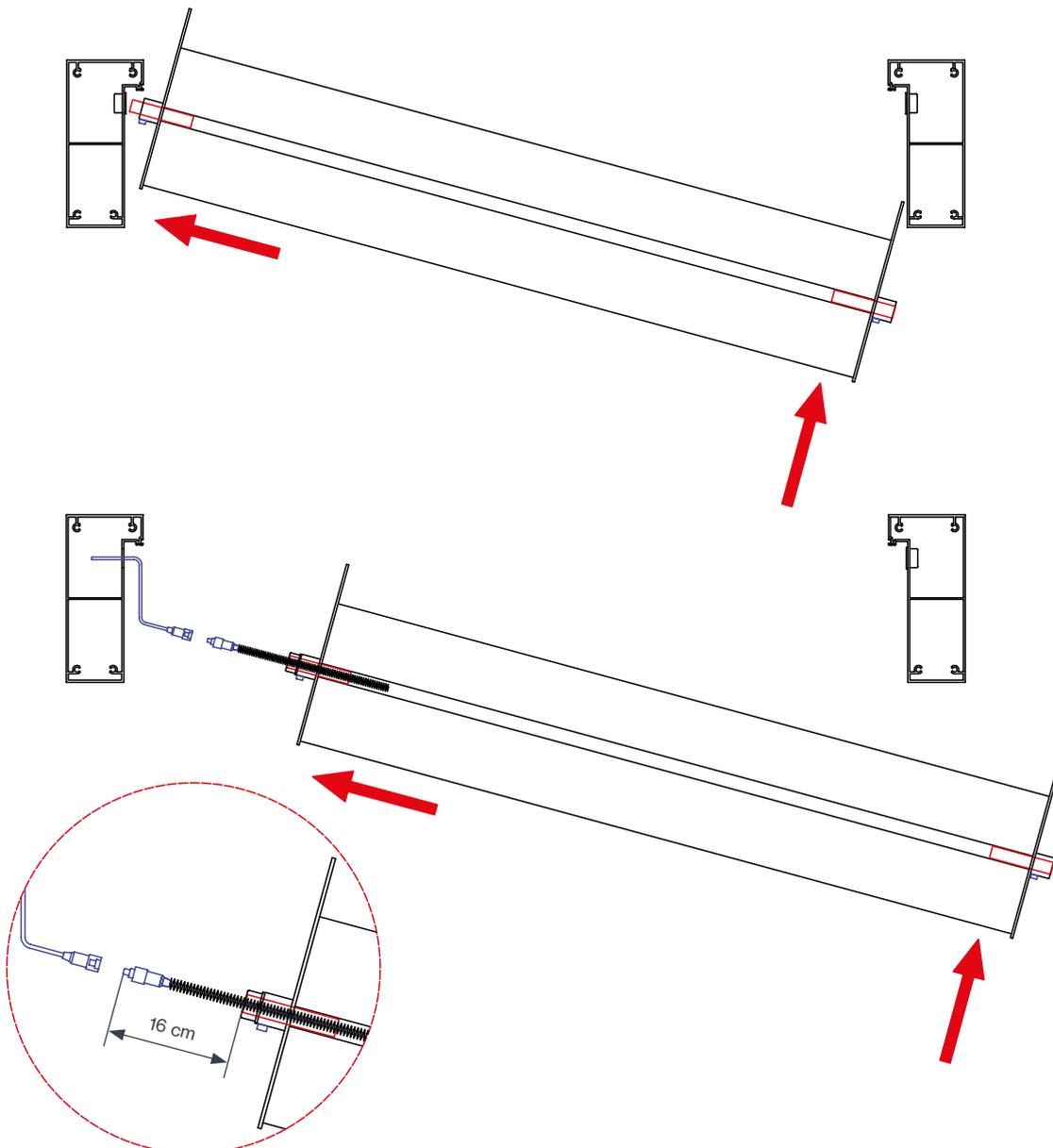
### 1.9 Installing the slats

When the structure has been assembled, and before installing the slats, place the 16,3 mm plastic rimmed caps in the machined beam holes where no LEDs are going to be installed.

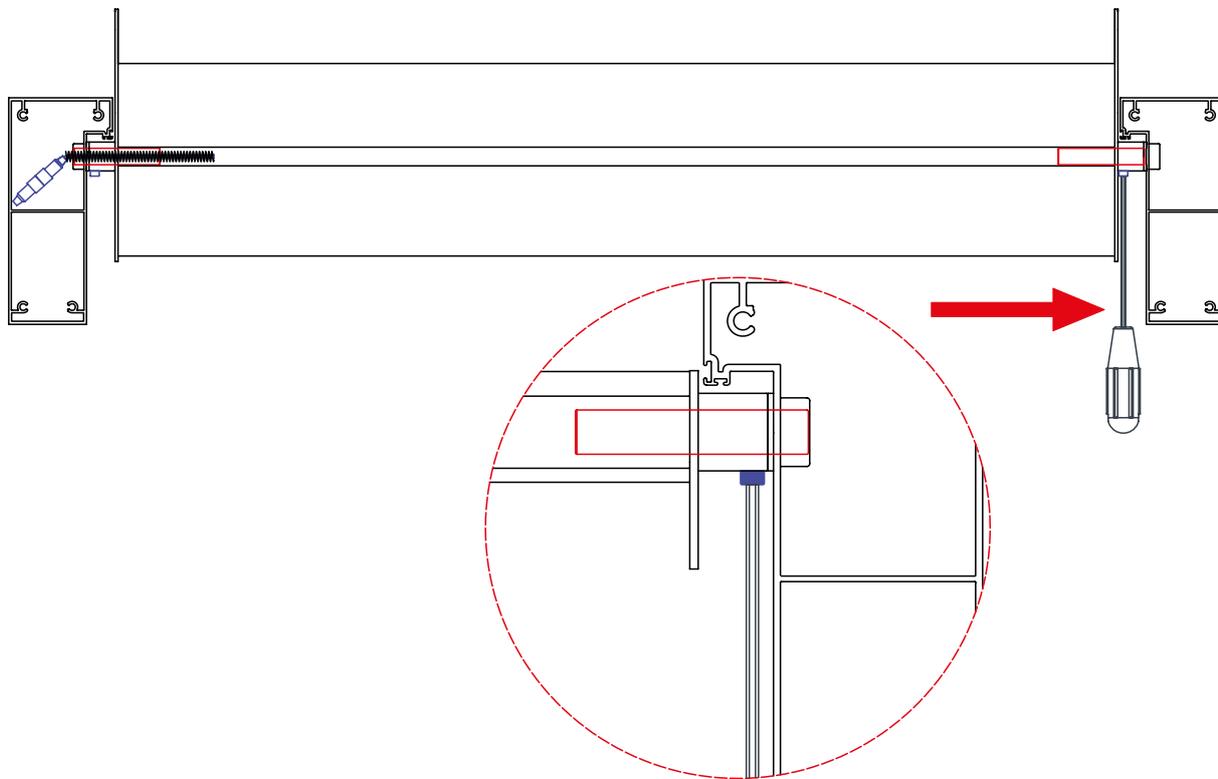
Start the slat installation from the opening side.

When reaching a hole for LED slats, connect the connector and insert it inside the beam (as shown in the images below). Then install the 16,3 mm rimmed plastic cap.

Prepare the fixed axes for the left side of the slats and the mobile axes for the right side.



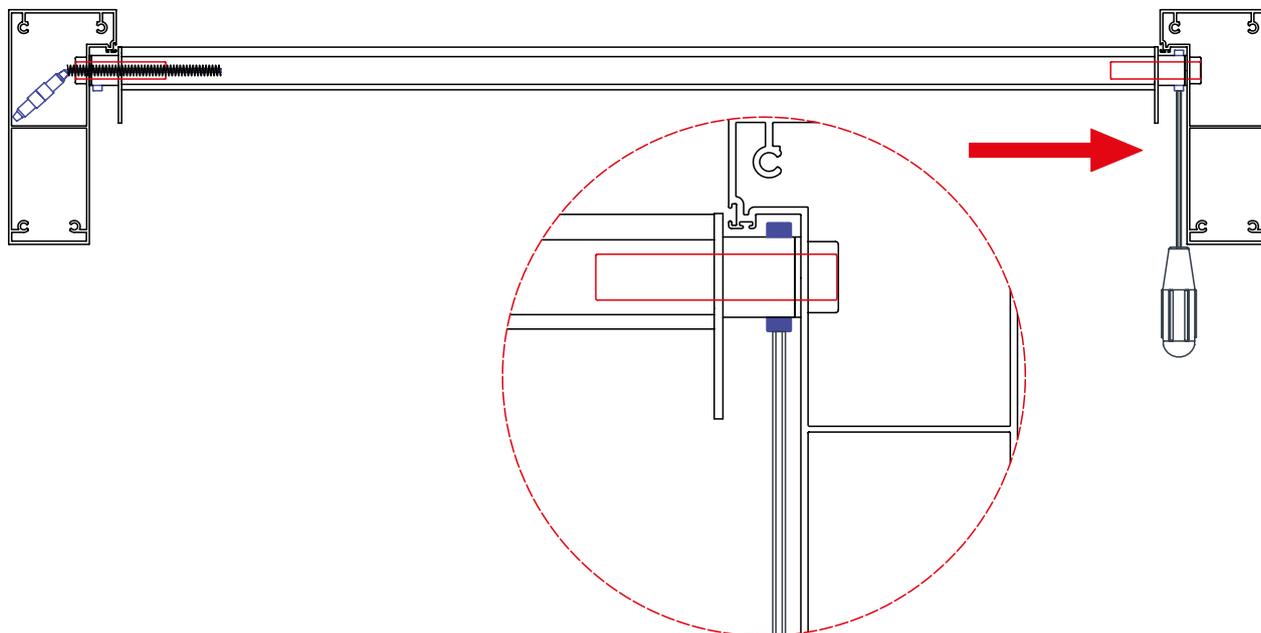
To install the slats, they must be tilted with the end caps facing down, inserting the fixed axle first (left) and then the mobile one (right).



Using a N° 4 Allen key, pull back the axle until it stops in the grooved hole.

When it stops, fasten the screw of the cap.

**Turn the axle 180° and insert the safety screw.**

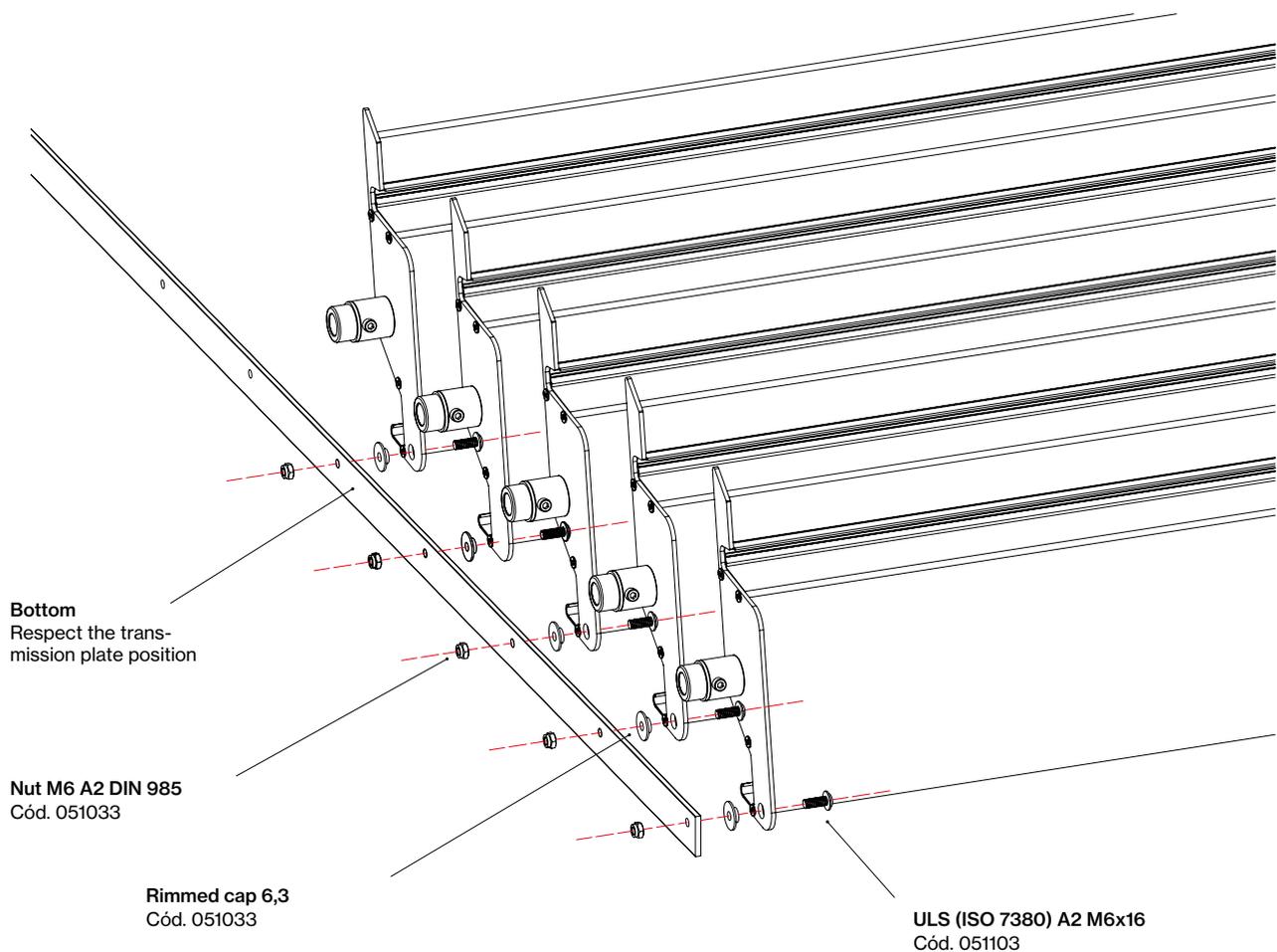


### 1.10 Installing the transmission plate

With the slats already in the structure, install the two transmission plates in the slat end caps. One of the slats will include an integrated support with a motor fixing stud. It is necessary to know the side of the pergola where the motor will be installed, so the plate can be mounted on that side.

Install the two plates simultaneously if possible. Start by fixing the first, the last and the centre slats to the transmission plate. This facilitates the rest of the installation.

Join the plates to the end caps with their corresponding USL (ISO 7380) A2 M6x16 screws, 6,3 mm rimmed plastic caps and M6 DIN 985 nut.

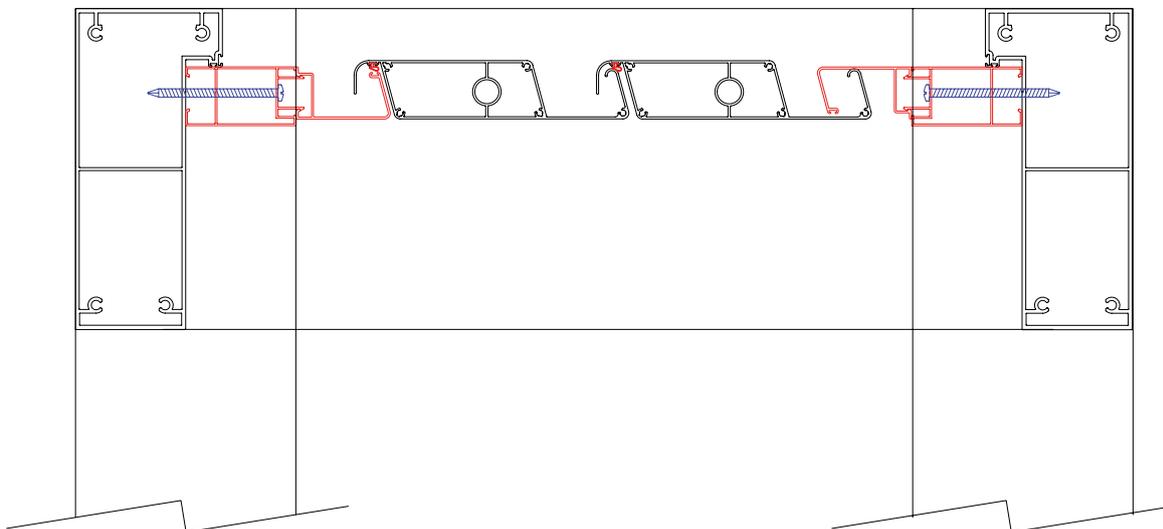


#### **!** Important

When installing the plate in the slats, do not tighten too much the screw nuts, so they are set without tightening. Thus the plate can perform manually the opening and closing movements with no friction whatsoever.

### 1.11 Installing the "U" profile

Start by installing the "U" profile with the pre-mounted motor on the **left** beam. To do this, it will be necessary to insert the profile end through the pre-drilled draining hole in the B column. Install the "U" profile on the other side following the same procedure.



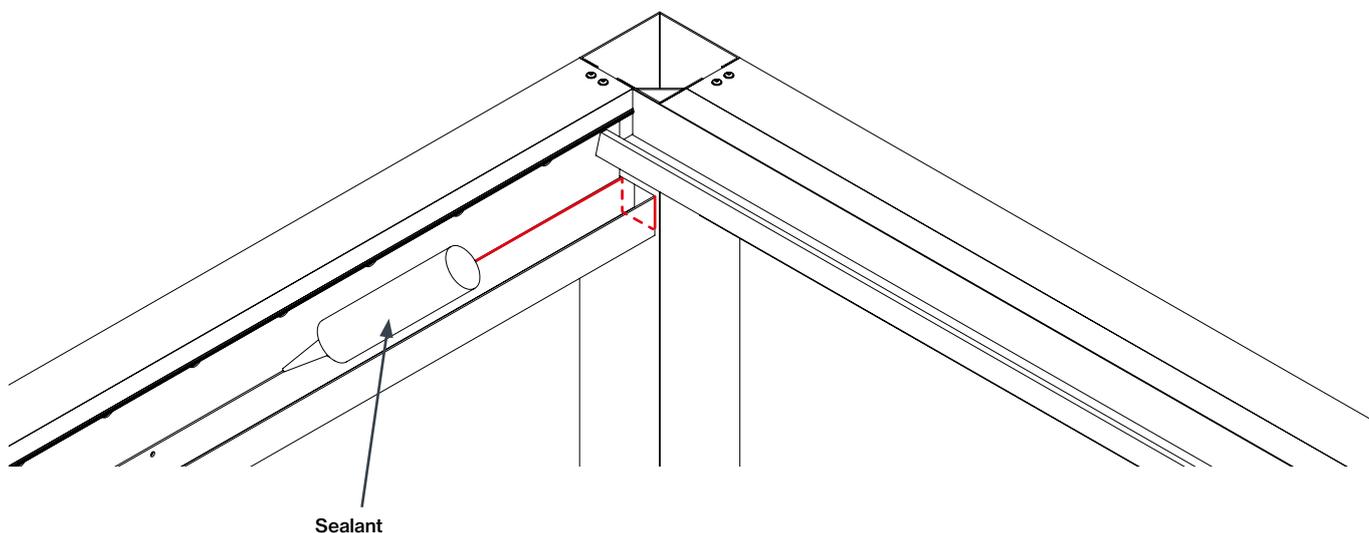
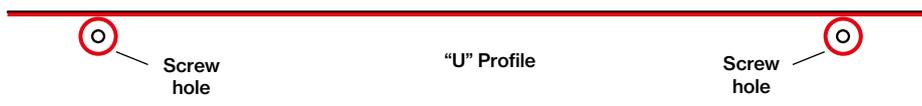
Check that all the "U" profile holes match the M6 machined ones on the beam. If all of them match, apply the sealant between the "U" profile and the beam after screwing the profiles with the USL (ISO 7380) A2x16 screws.

Use the sealant provided to seal the "U" profiles to the beams and the joints that could suffer water leaks.

#### **!** Important

Check that all joints are perfectly sealed with silicone and that there are no gaps that could allow water to pass between profiles.

#### Sealant

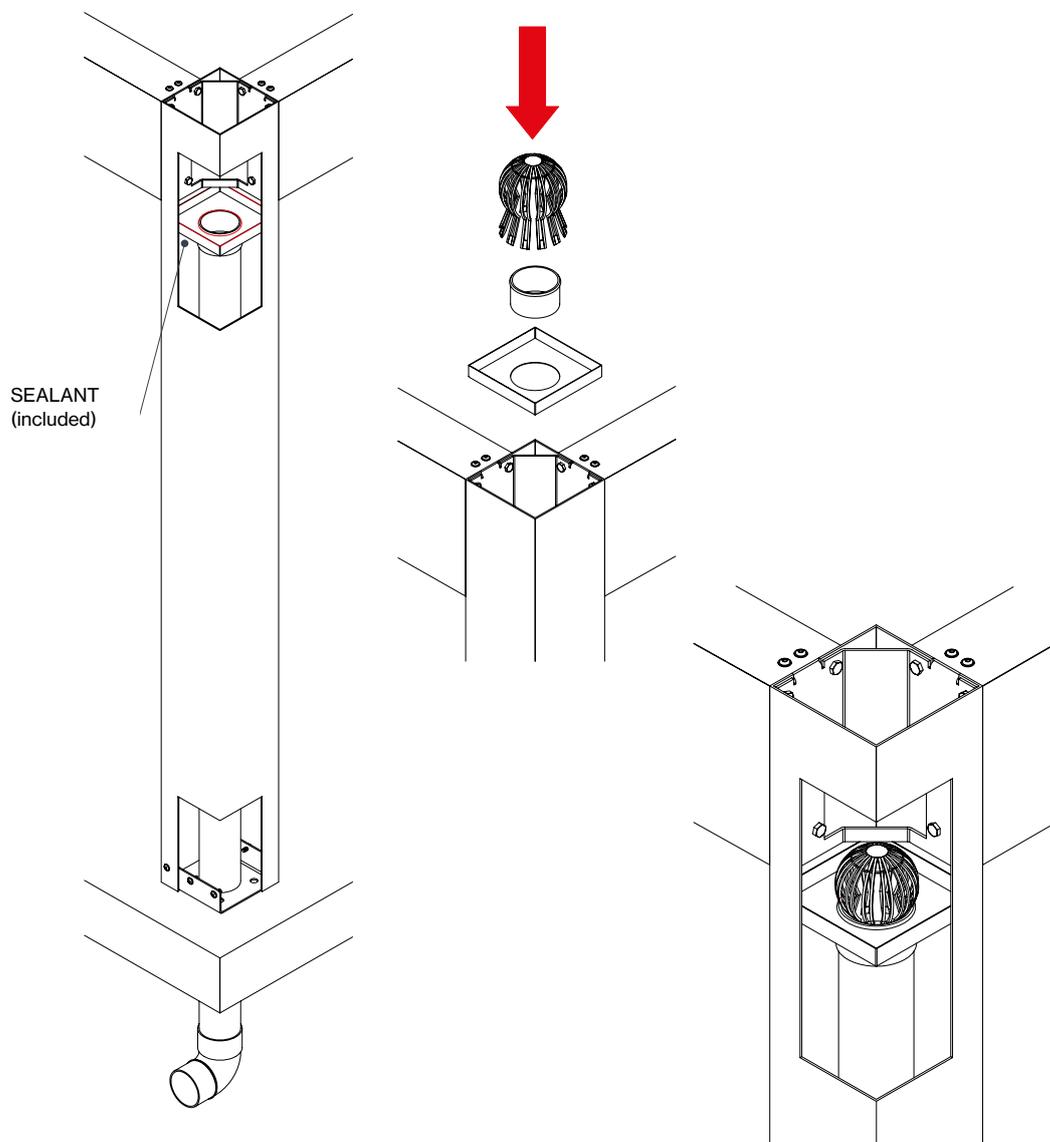
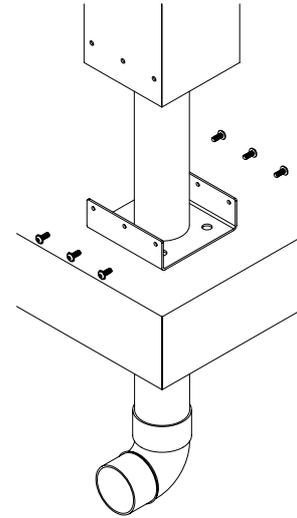


#### 4.2.1 Drainage channel closed column

When the closed column is channelled through the foundations, start by installing the column fixings. Calculate the length of the 75 mm PVC drainage pipe, depending on the height of the pergola and the height at which the collecting tray will be installed.

Please note that the tray must be installed at a minimum distance of 250 mm from the top of the column; insert the drain pipe through the top of the column and connect it to the bottom drain of the foundations.

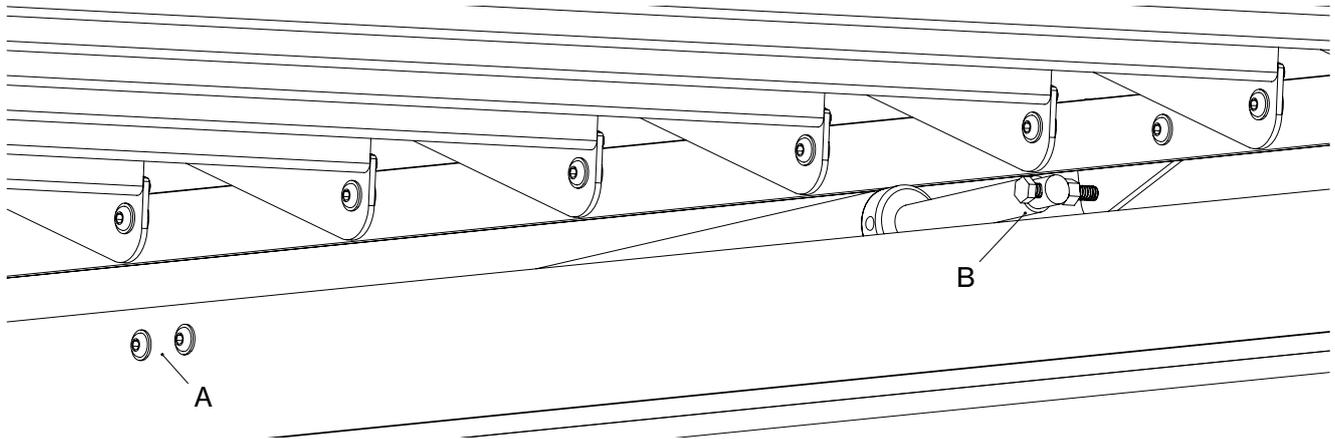
Then insert the collecting tray (by tilting it) and position it on the tube, joining the assembly with the joint adapter.



Finally, apply the sealant (included) all around the perimeter of the collecting tray and the adapter, as shown in the picture (sealant in red), and insert the universal leaf guard into the adapter.

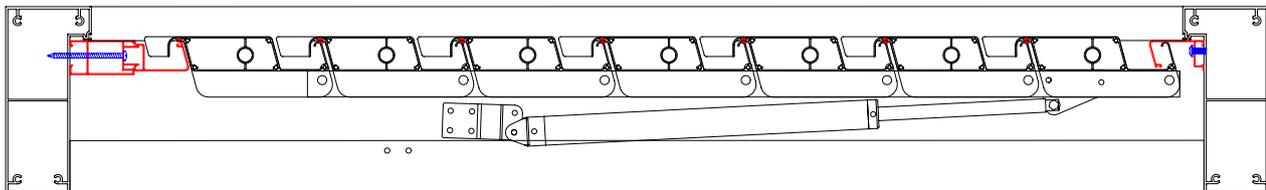
### 1.13 Motor installation

The motor is already pre-installed in the "U" profile. The motor piston rod needs to be halfway through its stroke so it can be inserted into the plate stud and the support with the engine can be taken to the profile position.

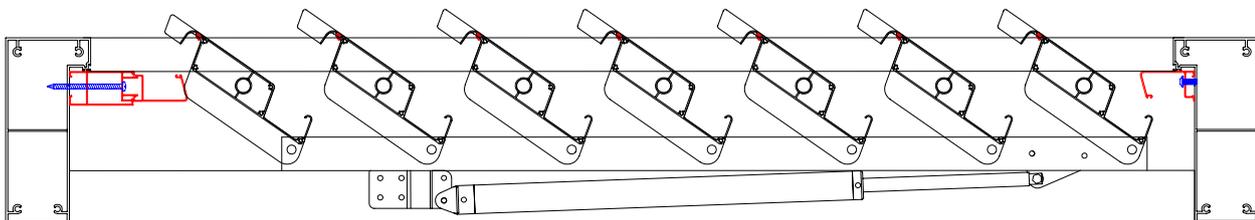


Steps to install the motor:

1. Unscrew the ULS (ISO 7380) A2 M6x16 screws from the "U" profile motor support (A).
2. Insert the tip of the motor piston rod into the transmission plate stud (B).



3. Mount the nut on the transmission plate stud so the motor does not come out (B).



4. Finally we reinstall the motor support in the "U" profile with its 2 screws (A).

## 2. Electrical connections

### ! Attention

The reception of the operators can be reduced or cancelled by the emission of frequencies that are issued in the same range as our automatisms.

The connection of the electrical installation must be in compliance with the rules and regulations of each country (Low voltage electrotechnical regulation). The perimeter cabling for the electrical and sound installations will be passed through the beam and column spaces.

The cable of the motor will go through the "U" profile towards the end where the electric connection will be performed, making a loop at the motor outlet and passing it under the support, so it cannot be pinched by the transmission plate when the assembly moves.

Complete the electric connections of the pergola according to the instructions and considering that both the motor and the LEDs run with a 24V voltage. For this reason, it is necessary to use the power source and switchboard provided for the pergola operation.

**For greater safety, it is necessary to ground the pergola.**

### ! Attention

It is recommended to place the electrical components on a column where the drainage of the pergola is not located. If this is not possible, seal all joints of the drainage parts of the column where electrical components are placed.

### 2.1 Teleco Documentation



Scan the QR code with your mobile device or click to access Teleco Documentation

#### Teleco Automation System Documentation

1. Programming the automation systems
2. Quick guides
3. Motor configuration
4. Using the transmitter
5. Sensors
6. Supplier documentation

### 2.2 Somfy Documentation



Scan the QR code with your mobile device or click to access Somfy Documentation

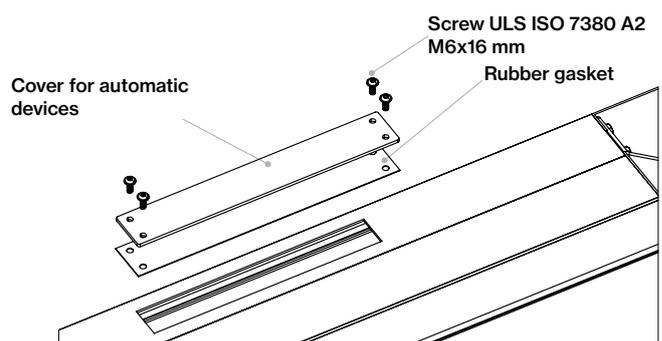
#### Somfy Automation System Documentation

1. Electrical connections
  - 1.2 Wiring diagram
    - 1.2.1 Wiring
    - 1.2.2 RTS programming (factory set)
    - 1.2.3 Electrical connection of the Bos io Louver Control Centre

### 2.3 Installation of automatic devices on beams

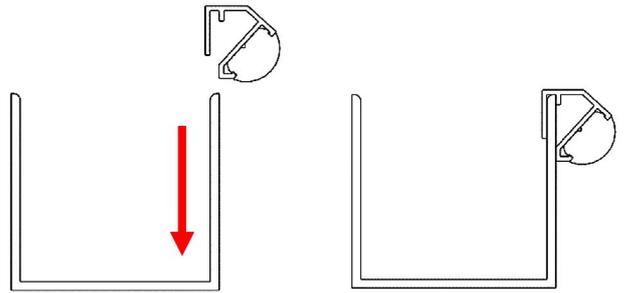
When Teleco automatic devices are chosen, the control units are placed inside the closing beam on the side where the motor is installed.

For this purpose, a rubber gasket is fitted and the cover is fixed by means of 4 ULS ISO 7380 screws + A2 washer M6X16 as shown in the reference picture.



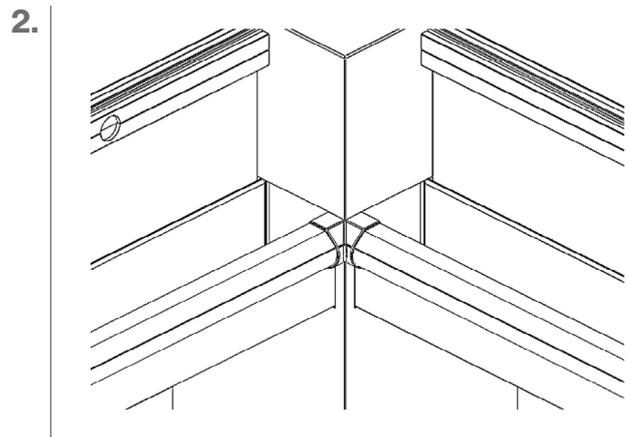
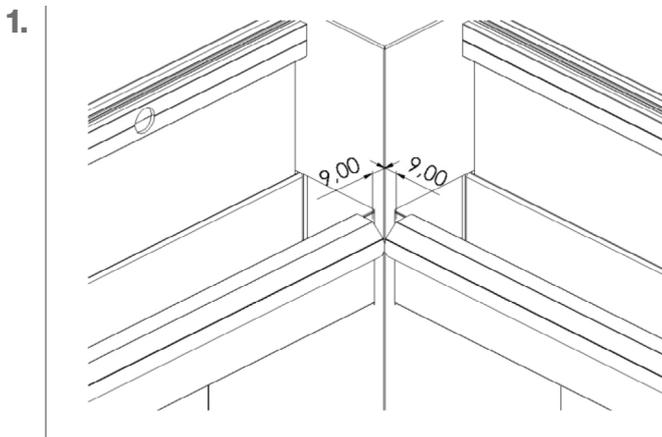
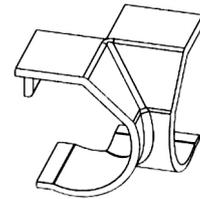
## 2.4 Perimeter LED installation

If the pergola is fitted with perimeter LEDs, an aluminium profile with an LED strip will be installed in the gutters of the pergola.



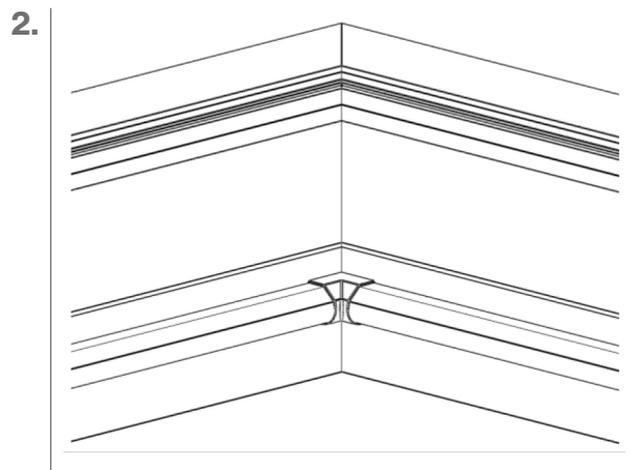
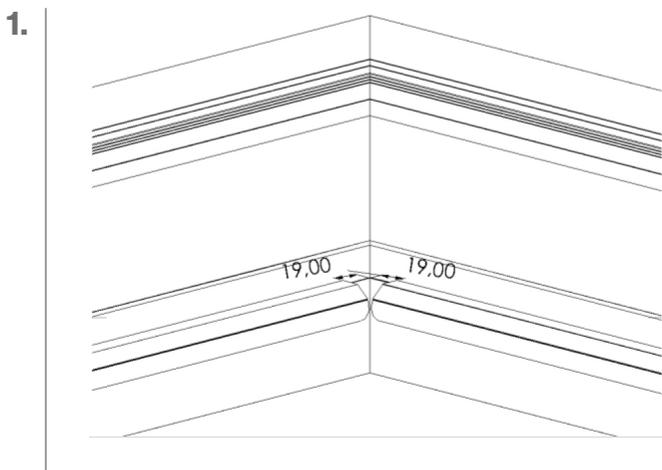
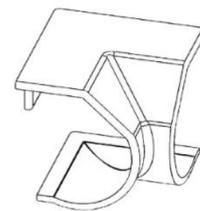
Fit the perimeter LED corner piece shown in the picture on the right to the **corners of the pergola with a column**.

The perimeter LED profiles should be 9 mm from the column.



Fit the perimeter LED corner piece shown in the picture on the right to the **corners of the pergola with a mitre**.

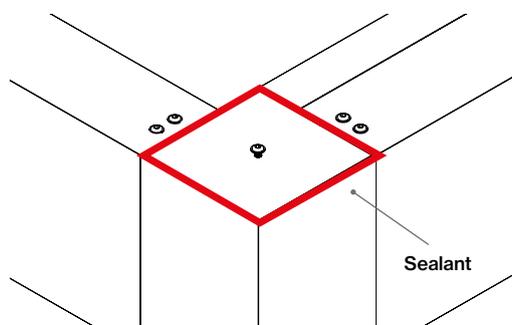
The perimeter LED profiles should be 19 mm from the column.



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### 3. Installing column cap

Once the electric connections are completed, that just leaves the column caps to be installed. This is done by screwing the caps to the vertical brackets using ULS (ISO 7380) A2 M6x16 mm screws.



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## 4. Maintenance

Before assembling, please read the maximum tightening torque for each type of screw, as indicated in this section.

For best use and extended durability of your pergola, it is recommended to carry out regular maintenance and services at least once a year, or even more often depending on the wind fatigue at the installation site.

To prevent corrosion, it is recommended to periodically clean gutters and sections with neutral soap. The minimum frequency is once a year, and must be increased for cloths exposed to aggressive environments (marine, industrial, airborne dust particles, etc.). It is important to rinse thoroughly with water, after using detergents, to avoid the formation of salts on the surface of the sections.

When properly done, this periodical cleaning removes from the surface of the cloth the exogenous agents that can attack the coating and aluminium, extending the life of the sections and their aesthetic performance.

Inspection of seals, revision of the electrical installation, as well as a review of the tightening of screws according to the tightening torques (standard metric thread) set forth in the attached table.

### SCREWS HARDNESS CATEGORY 70

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THREAD	µges.	MA TIGHTENING TORQUE (Nm)
M5	0,2	5,7
M6	0,2	10
M8	0,2	24

## Annex I

### Disassembly and disposal of the packaging and components of the product at the end of its useful life

## Disposal of packaging

### Important

The packaging must be recycled by the authorised professional who installed the product.

We advise you to recycle the product packaging responsibly:

- Please dispose of this waste in accordance with the current regulations:
  - Directive 94/62/EC on packaging and packaging waste.
  - Spanish Law 11/1997 of April 24th on packaging and packaging waste.
- Please sort the waste by separating each and every one of the various materials, to facilitate effective disposal of the packaging.
- Do not dispose of packaging materials together with other types of waste. Take them to a packaging materials collection point designated by the local authorities.
- In order to minimise the environmental impact of packaging and packaging waste, it is necessary to define the composition and nature of the packaging of our products to recommend their best disposal.

#### **Paper and cardboard:**

In waste management, the recycling of paper and cardboard plays an important role, because up to 70% can be reclaimed. The disposal of paper and cardboard can be done through various channels such as collection by private operators or delivery to waste treatment plants.

#### **Plastic:**

The recycling of plastics has many advantages for the environment and therefore benefits the quality of life of everyone, contributing to a greater saving of raw materials as well as natural, energy producing and economic resources. The disposal of plastic can be done by private operators or delivered to waste treatment plants.

#### **Bubble wrap:**

This is made of low density poly-ethylene, which makes it 100 % recyclable. For optimal disposal, please deliver any waste comprising this material to plastic waste treatment plants.

## Our commitment to the environment

One of **Saxun's** objectives is to maintain socially responsible behaviour. This commitment to the environment implies continuous improvements in the measures that are adopted to combat climate change.

Promoting responsible care of the environment, complying with the legal and regulatory requirements applicable to our products and promoting energy saving in all our projects are measures that are essential for us to achieve our objectives.

## Disassembly and removal of the product

When disassembling this product, a number of precautionary measures must be taken. Observe the following warnings and instructions. Please contact your supplier with any queries.

Disassembly may only be carried out by experienced fitters. This manual is not intended for DIY enthusiasts or installers in training.

For more information on these disassembly instructions, please refer to the chapters regarding installation in this manual that contain diagrams and detailed information.

## Warning

Always act with care. Use appropriate tools which are in perfect condition.

### • Étape 1

Disconnect the electricity. ¡ATTENTION! Shut off the energy supply before disconnecting any cables.

### • Étape 2

Unscrew the screw on the top cover of the column and remove the cover.

### • Étape 3

To remove the side cover, unscrew the right-hand clipping piece and open the left-hand clipping of the rubber bands from the top.

### • Étape 4

Dismantle the motor.

### • Étape 5

Dismantle the transmission plate.

### • Étape 6

Dismantle the slats.

### • Étape 7

Dismantle the drainage channels.

### • Étape 8

Dismantle the rubber parts.

### • Étape 9

Dismantle the pergola structure by disassembling the interior brackets that fasten the beams to the columns, and the wall fixtures, if there are any.

### • Étape 10

Dismantle the columns and their fixtures.

## Attention

Make sure that you dispose of all the product's parts according to the nature of the material.

Components	Galvanised Steel	Stainless Steel	Aluminium	WEEE	Plastic	Textile
Cables and LED lines				•		
Caps					•	
Switchboard				•	•	
Brackets		•				
Upper brackets		•				
Rubber seal					•	
Motor		•		•	•	
Profile			•			
Motor brackets		•				
End plates			•			
Screws		•				

Our products are mainly made of recyclable materials. It is advisable to be informed about the recycling or disposal systems provided for in the current regulations in your country for this product category.

## Important

Always act with care. Please only use suitable tools that are in perfect condition.



This symbol means that the product must not be disposed of together with household waste as it must be collected separately for recovery, reuse or recycling in accordance with local regulations.



In compliance with European Directive 2012/19/EU, waste electrical and electronic equipment (WEEE) can become a serious environmental problem if not managed properly. The Directive provides the general framework valid throughout the European Union for the disposal and re-use of waste electrical and electronic equipment.

At the end of the service life of the electrical or electronic equipment, it must not be thrown away together with other types of waste. They can be delivered to the specific centres regulated for this purpose by the local authorities.

The effective separation of waste will avoid negative consequences for the environment and health that could result from poor waste management or inadequate waste disposal.

**! Important**

By complying with this directive, you will be acting in favour of the environment and will contribute to the conservation of natural resources and the protection of health.

**Local regulations may impose significant penalties for illegal disposal of the product.**

## The materials that our products are made of offer a great variety of environmental advantages



**Galvanised steel**

Galvanised steel is a type of steel which undergoes a certain treatment, at the end of which it is coated with several layers of zinc which protect it, avoiding oxidation. The recycling of zinc helps reduce demand for new materials and as a result generates considerable energy savings, being a metal that constitutes a very valuable and sustainable resource.

**For proper recycling of galvanised steel, it is advisable to visit a metal waste collection centre.**



**Stainless steel**

Stainless steel is an iron alloy containing nickel and chromium to protect against corrosion and rust. Its qualities include resistance to high temperatures and being a particularly strong material. Stainless steel is an infinitely recyclable "green material". Its properties make it ideal for exposure to poor weather conditions.

**Therefore, to ensure proper disposal of stainless steel, it is recommended that this material be left at a specialised waste collection centre.**



**Aluminium**

Aluminium recycling guarantees an endless variety of environmental benefits. The use of recycle aluminium saves 95% of the energy used in its production in its raw state, and it can be recycled as many times as desired and is fully recoverable. Therefore, the recycling of aluminium is both technically and economically profitable.

**Therefore, to ensure proper disposal of aluminium, it is recommended that this material be left at a specialised waste collection centre.**



### Cables

The recycling of electrical cables prevents the contamination that can come from these elements. Its re-cycling allows for the subsequent use of the copper, aluminium and brass from the cables, once they are separated from their plastic insulation.

**Electrical and electronic waste must be taken to clean points for proper recycling**



PET



HDPE



PVC



LDPE



PP



PS



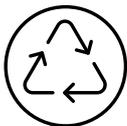
Other

### Plastic

Plastic recycling provides a sustainable source of raw material for the industry. Its reuse also significantly reduces environmental problems, as it is a non-biodegradable material.

Recycling reduces energy consumption and CO2 emissions, thus mitigating pollution and climate change.

**There are several types of plastic, so to achieve optimal recycling it is essential to deposit them in clean points where the separation of the different types and their identification will take place.**



### Textiles

The use of textile waste is essential when we talk about recycling. Reuse of such waste helps to reduce the consumption of water and the gases that are released in the manufacturing process.

**In order to encourage the proper disposal of textiles, it is recommended that they be left at a specialised waste centre where the different textile fibres will be separated.**

### ! Important

Follow the recommendations for effective product recycling. Remember that recycling is more than an action; it is the value of accepting responsibility

## Annex II

**Certificate of guarantee**

The Saxun bioclimatic pergola is composed of a waterproof structure with adjustable aluminium slats, driven by a motor.

Its main structure is made of 6063 T5 alloy aluminium profiles, lacquered or anodised according to the technical specifications of the Qualicoat and Qualanod quality brands. This structure is totally self-supporting and can be dismantled, so that no type of work or construction is required for its installation.

Our pergolas, just like the rest of our products, are subjected to a variety of tests in our labs in order to check their resistance and behaviour in every type of circumstance.

Tests carried out following the requirements of international standards, involving parameters such as wind resistance and loads of rain or snow, demonstrate the excellent performance of our bioclimatic pergolas against the most adverse conditions.

The P-150 and P-190 pergolas were tested in accordance with the following standards, obtaining the following results;

*Wind resistance:*

<b>P-150 et P-190</b>	<b>Norme:</b> EN 13659	<b>Class 6 (Aprox. 112 km/h)</b> Tested up to 190 km/h, without breakage due to limitation of the test bench.
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*Rain load:*

<b>P-150 y P-190</b>	<b>Norme:</b> EN 12056-3	<b>Class: (0.03 l/s max.)</b> torrential rain approx. 108 l.m2/h (structure + slat)
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*Snow load:*

<b>P-150</b>	<b>Norme:</b> EN 1999 Eurocode 9 Aluminium structures projects.	<b>≤65 kg/m<sup>2</sup></b> (Including own weight)
<b>P-190</b>	<b>Norme:</b> EN 1999 Eurocode 9 Aluminium structures projects.	<b>≤100 kg/m<sup>2</sup></b> (Including own weight)

*Maximum dimensions:*

<b>P-150</b>	5.000 mm x 3.600 mm x 3.000 mm*	Approximate weight of <b>310 Kg</b>
<b>P-190</b>	6.200 mm x 4.200 mm x 3.000 mm*	Approximate weight of <b>485 Kg</b>

\* Length (mm) X Width (mm) X Height (mm)

### *Warranty:*

Saxun only guarantees these results in cases where the pergola has been correctly installed and assembled and properly maintained.

It may be possible for leaks to occur between the slats in the event of occasional heavy rainfall, as the sealing between the slats is not watertight.

The values stated in the calculations shall not be applicable if customers and/or installers not authorised by Saxun manipulate the equipment in any way.

The warranty period for Saxun pergolas is 3 calendar years from the date that the product is supplied, with the date being that indicated in the delivery note issued by GIMÉNEZ GANGA, S.L.U.

For more information about the Saxun warranty conditions and possible exclusions from the warranty, the Saxun Warranty Certificate is available in the general price list.

<b>Client:</b>	<b>Order/Quote:</b>
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**Prior to placement of columns** **OK**

	Squaring and parallel alignment of bases for anchoring to floor slab	
	Strength of attachment of bases for anchoring to floor slab	
	Accurate levelling of bases for anchoring to floor slab	

**Prior to installation of slats** **OK**

	Strength of wall fasteners	
	Confirm accurate plumbing of columns	
	Confirm accurate levelling of beams	

**Prior to final installation of motor** **OK**

	Confirm wires are correctly earthed in compliance with REBT	
	Visual inspection of electrical installation, loose cables, pipes, stuffing boxes, closing and sealing of boxes (motor cable)	
	Confirm correct insertion of all security screws (attachment of slat axes)	
	Confirm correct clipping of collectors and slat axes	
	Confirm correct functioning, (smooth and silent) when opening and closing manually, (before installing the motor)	
	Confirm proper sealing by applying water to critical points with a hose or bucket	
	Check tightness of all screws according to tightening chart, (except the transmission)	

**During final installation of motor** **OK**

	Confirm correct operation of all motor manoeuvres, according to the issuer	
	Re-check and confirm that the drainage collectors, channels and conduits are clean and free of anything that might hinder proper drainage	
	Check profiles and slats are clean (use pH-neutral soap and dilute heavily)	

**Check functioning of optional extras** **OK**

	LED lighting at all levels	
	Music, Bluetooth and loudspeaker equipment	
	Infra-red heating	
	Rain sensor	
	Temperature sensor	

**Warnings**

- The structural stability of the pergola cannot be guaranteed if any foreign parts are attached to it.
- The proper evacuation of rainwater cannot be guaranteed if you fail to enable the channels and downspouts recommended in the quotation.

<b>Installer comments</b>	
<b>Date, signature and stamp of installer</b>	<p>I confirm receipt of the installed pergola, with no observable defects. I have received and understood the instructions for use and maintenance, and the warranty conditions.</p> <p style="text-align: right;"><b>Signed by the client</b></p>







**saxun**  
by Giménez Ganga

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