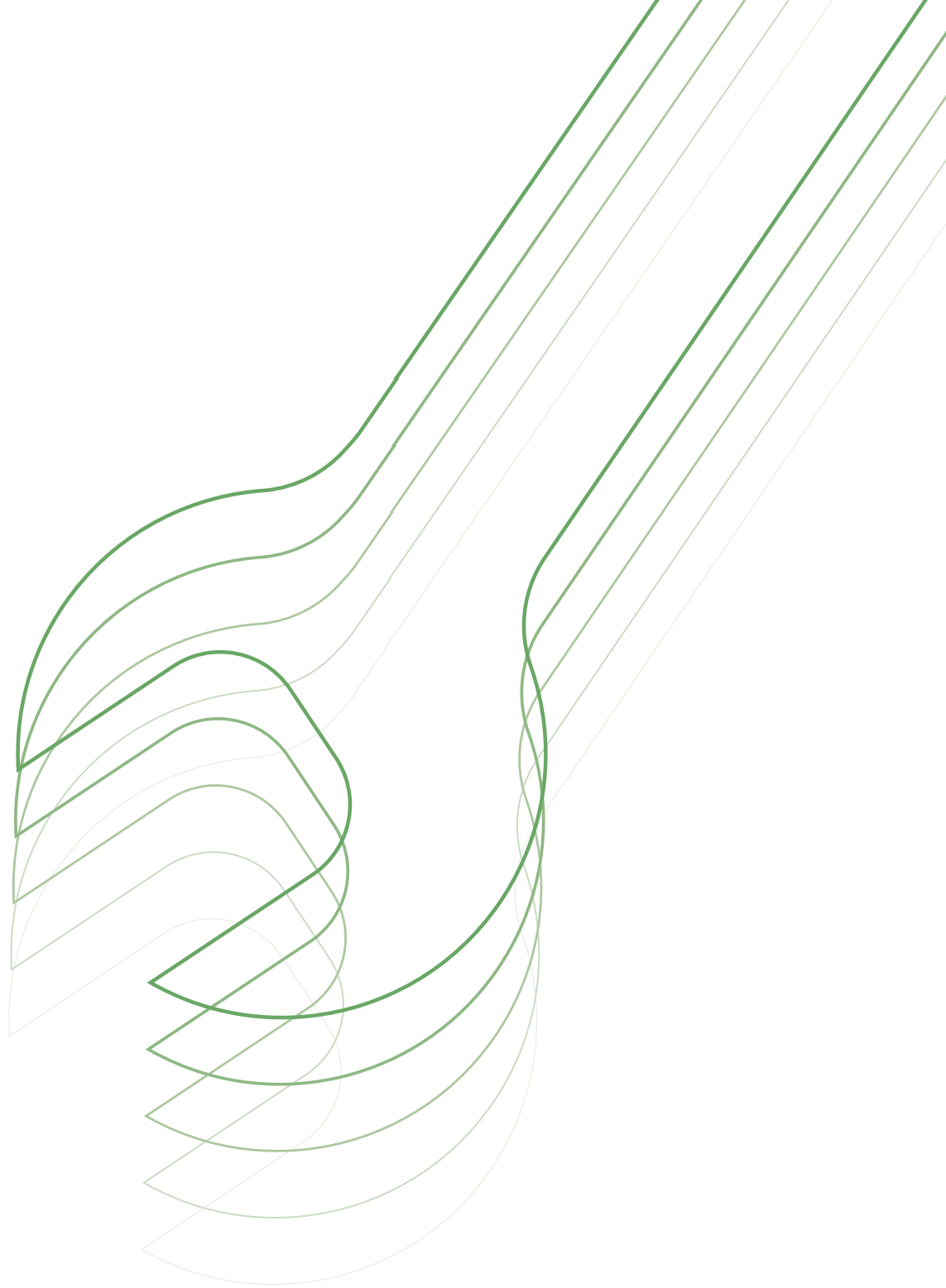


ALUMERO



ASSEMBLY MANUAL

easyGROUND

East / West



**SUSTAINABLE
SOLAR
SOLUTIONS**

Please read the safety instructions at the end of this manual before starting the installation. Make sure you are using the latest version of the assembly manual.

The layout and planning of the mounting system should be done using the ALUMERO.PRO.TOOL software. Refer to the required materials, positions, and arrangement of individual components as detailed in the project report provided by ALUMERO.PRO.TOOL or your ALUMERO sales representative. This data has been statically calculated and are essential for the safe and proper functioning of the system.

The installer of the photovoltaic system must ensure before installation begins that the roof substructure provided is designed for the additional loads.

This manual describes the assembly processes for the according ALUMERO system, attachment in open terrain, and the installation of modules.

This ALUMERO mounting system is designed exclusively for mounting PV modules. Any other use is considered inappropriate.

Installation must only be performed by qualified personnel. Roofing work in particular should be carried out by a roofing professional.

For further questions, use ALUMERO's professional and comprehensive consulting service.

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Technical Data

Description:	Aerodynamic mounting system for the elevation of framed framed PV modules on open ground.
Area of application:	Meadows, fields as well as sand, gravel, concrete or tarmac
Module dimensions:	900 - 1150 mm × 1500 - 2250 mm (width × length)
Installation angle:	10° on both sides
Row spacing:	8° internal shading angle: 609 mm
Distance from ground:	Approx. 400 mm
Max. ground pitch:	Up to 10° without ground anchor, beyond 10° only with ground anchor
Min. & max. field size:	Min. 2 double rows per 2 modules, max. 12 × 16 rows, 384 modules or 25 × 40 m
Wind load:	Suction load up to 2.4 kN/m ²
Snow load:	Compressive load up to 2.4 kN/m ²
Design / Stability	Software-supported on the basis of wind tunnel analyses
On-site requirements	Sufficient static load-bearing capacity of the roof structure and the building support structure as well as sufficient pressure load-bearing capacity of the roof structure must be ensured on site. The general terms and conditions of business and warranty as well as the user agreement apply.
Module release	The module release can be obtained from the module manufacturer or the corresponding data sheet.
Components	Module clamps with earthing pin, open-ground bracket, weights, ballast troughs, roof anchors
Materials	Load-bearing connecting parts made of aluminium EN AW 6060 T64, module clamps made of aluminium EN AW 6063 T66, screws made of stainless steel A2-70, wind deflectors and ballast troughs made of steel with aluminium-zinc coating, building protection mat made of polyester fleece

Required tools



Cordless screwdriver
Bit inserts: Hexagon **SW 6**



Measuring tape



Torque wrench



Chalk line



Spirit level

Components



Anfangsfuß mit Bautenschutzmatte | Starting support with building protection mat

Produktnr. | Product No.
821015



Mittelstütze mit Bautenschutzmatte | Short centre support with building protection mat

Produktnr. | Product No.
820925



Verbinder mit Bautenschutzmatte | Connector with building protection mat

Produktnr. | Product No.
820938



Mittelklemme | Middle clamp

Produktnr. | Product No.
820302-30-50V P2

Farbe | Colour
Silber | Silver



Mittelklemme schwarz | Middle clamp black

Produktnr. | Product No.
820392-30-50V P2

Farbe | Colour
Schwarz | Black



Abschlussklemme | End clamp

Produktnr. | Product No.
820305-..V P2

Farbe | Colour
Silber | Silver



Abschlussklemme schwarz | End clamp black

Produktnr. | Product No.
820395-..V P2

Farbe | Colour
Schwarz | Black



Bautenschutzmatte PES | Building protection mat PES

Produktnr. | Product No.
823037V

Optional components



Ballastwanne lang | Long ballast tray

Produktnr. Product No.	Länge Length
706001-1800	1800 mm
706001-2050	2050 mm
706001-2300	2300 mm



Ballastwanne kurz | Short ballast tray

Produktnr. Product No.	Länge Length
70600-880	880 mm



Inbusmutter M8 SW6 | Allen nut M8 SW6

Produktnr. Product No.	Abmessungen Dimensions
800656	480 x 220 mm



Torbandschraube M8x20 | Gate hinge screw M8x20

Produktnr. Product No.
823007



Unterlegscheibe | Washer

Produktnr. Product No.
823002-28



Bodenanker 45x460 | Ground anchor 45x460

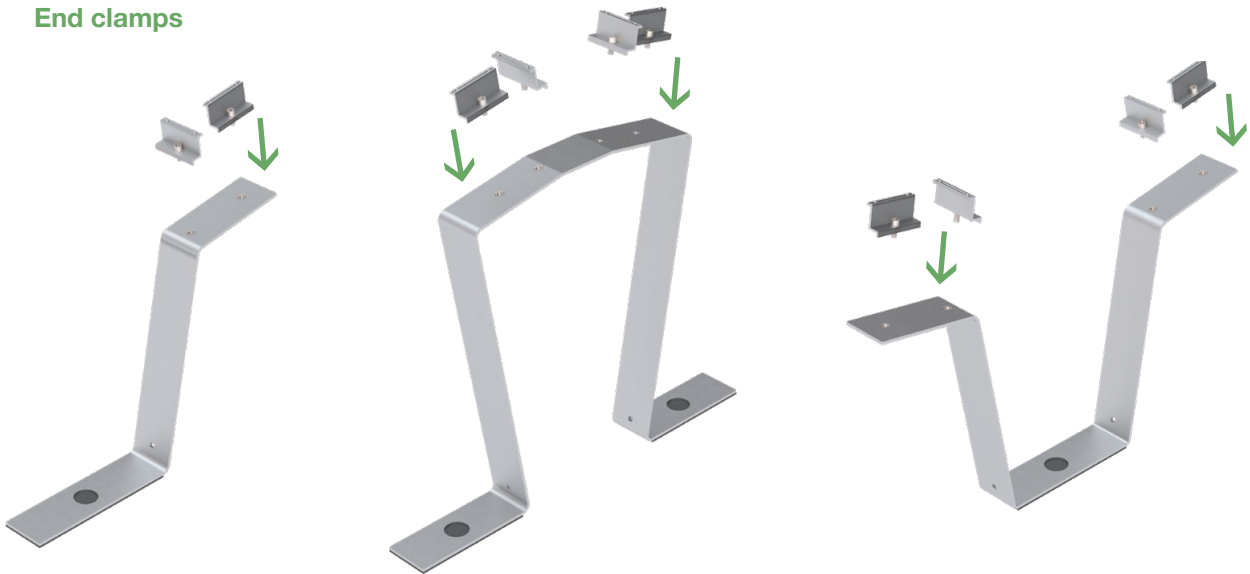
Produktnr. Product No.
823044

ASSEMBLY | MODULES

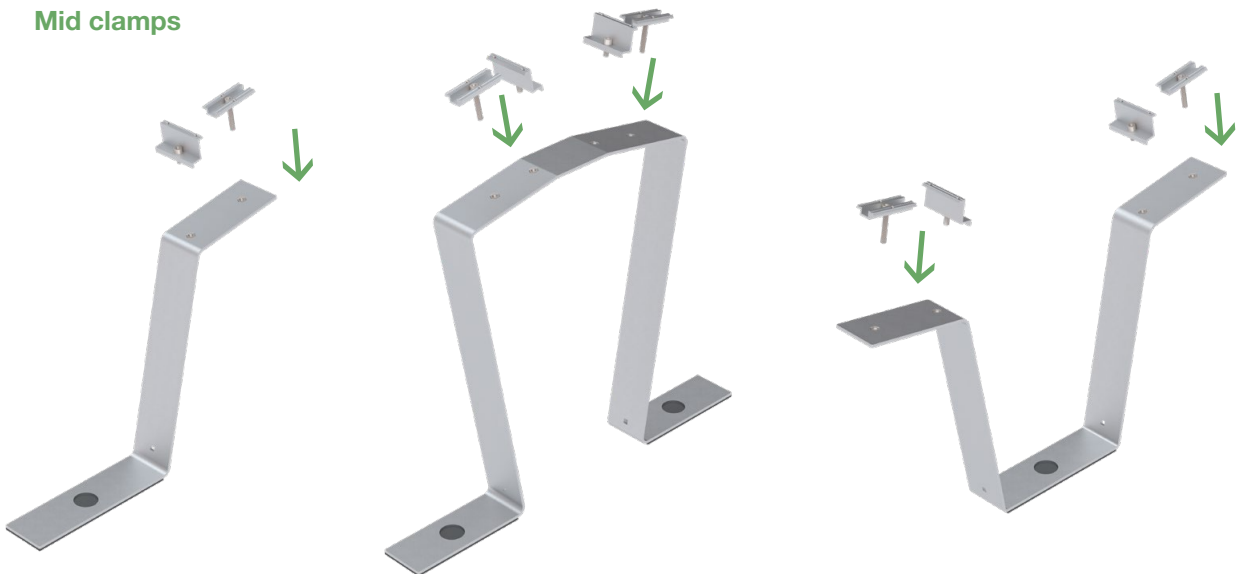
Pre-assembly clamps

- + Attach end or mid clamps to the starting feet, middle supports, and connectors as needed.

End clamps



Mid clamps



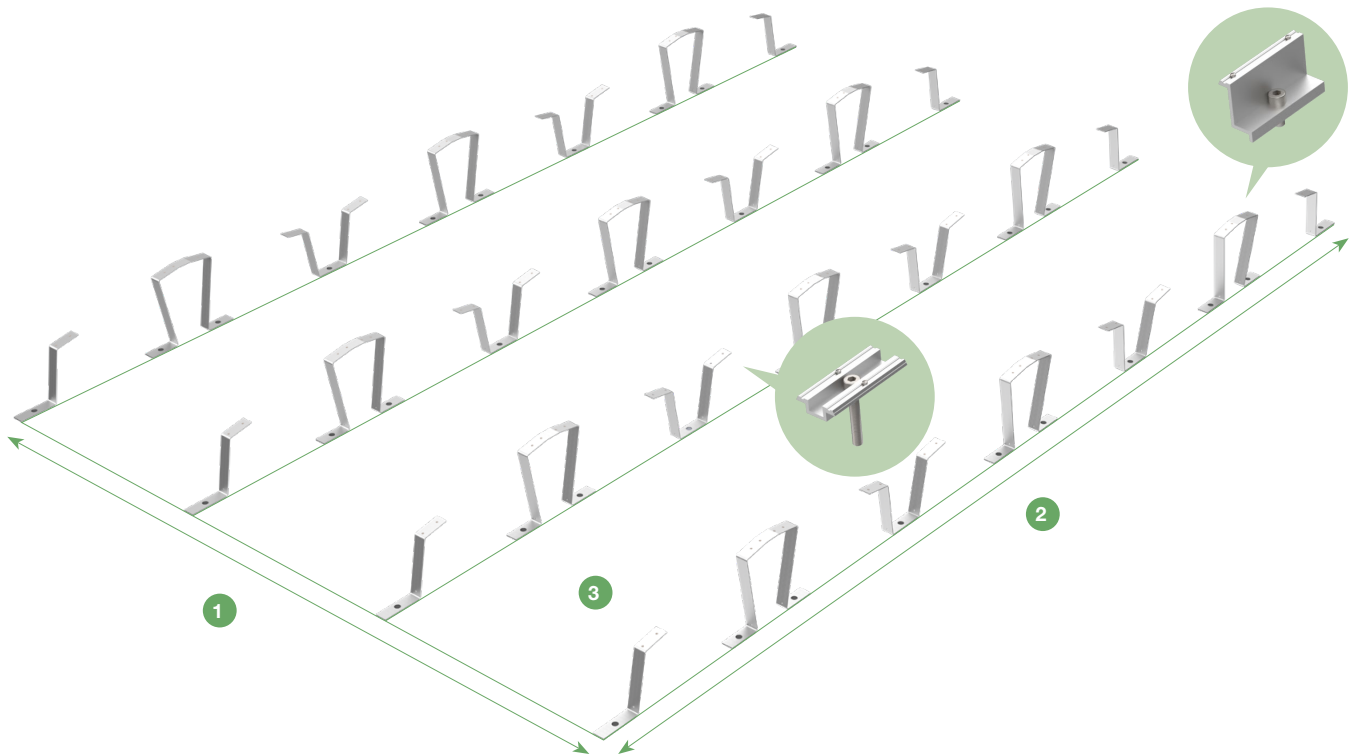
ASSEMBLY | MODULES

Measuring the area and placing components

- + Take the dimensions of the module field from the planning documents.
- + Measure the length of the module bay **1** and mark the line.
- + Measure the width of the module bay **2** and mark the line.
- + Place the starting feet, centre supports and connectors in the module field. **3**

Edge rows: Place the starting feet, centre supports and connectors with end clamps.

Centre rows: Place starting feet, centre supports and connectors with centre clamps.



ASSEMBLY | MODULES

Installing modules

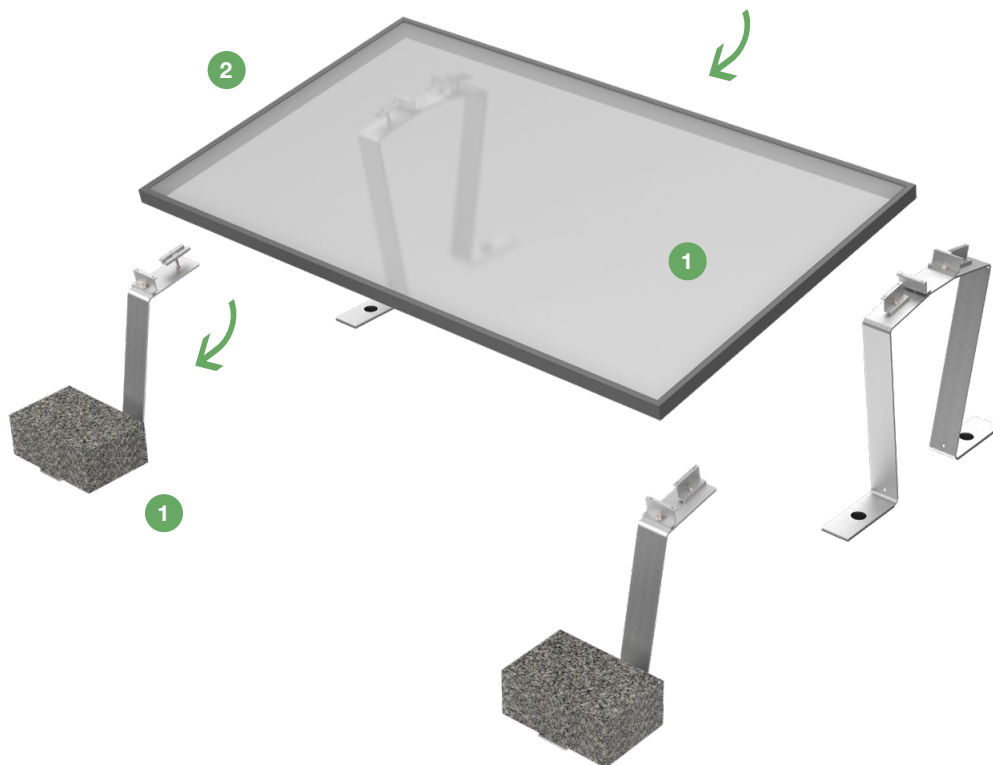


TIP:

When installing, wire the modules at the same time. The cables can be attached to the module using the cable tie clip. The distance between the clips is determined by the feet/connectors or by the module size.

Installing the first row of modules

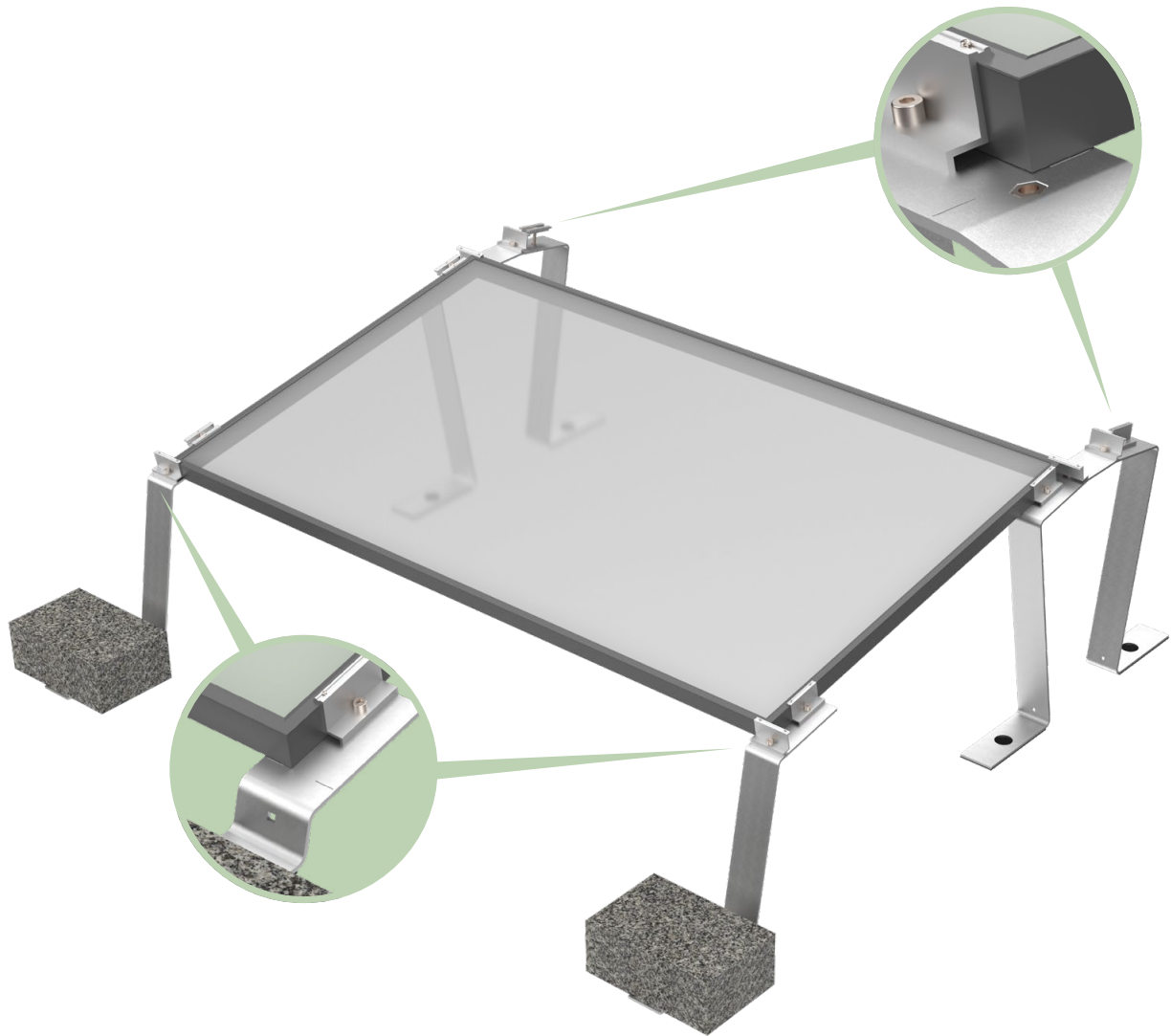
- + Weigh down the starter feet with ballast stones. ①
- + Place the module ② on the starter feet and centre supports.



ASSEMBLY | MODULES

Installing modules

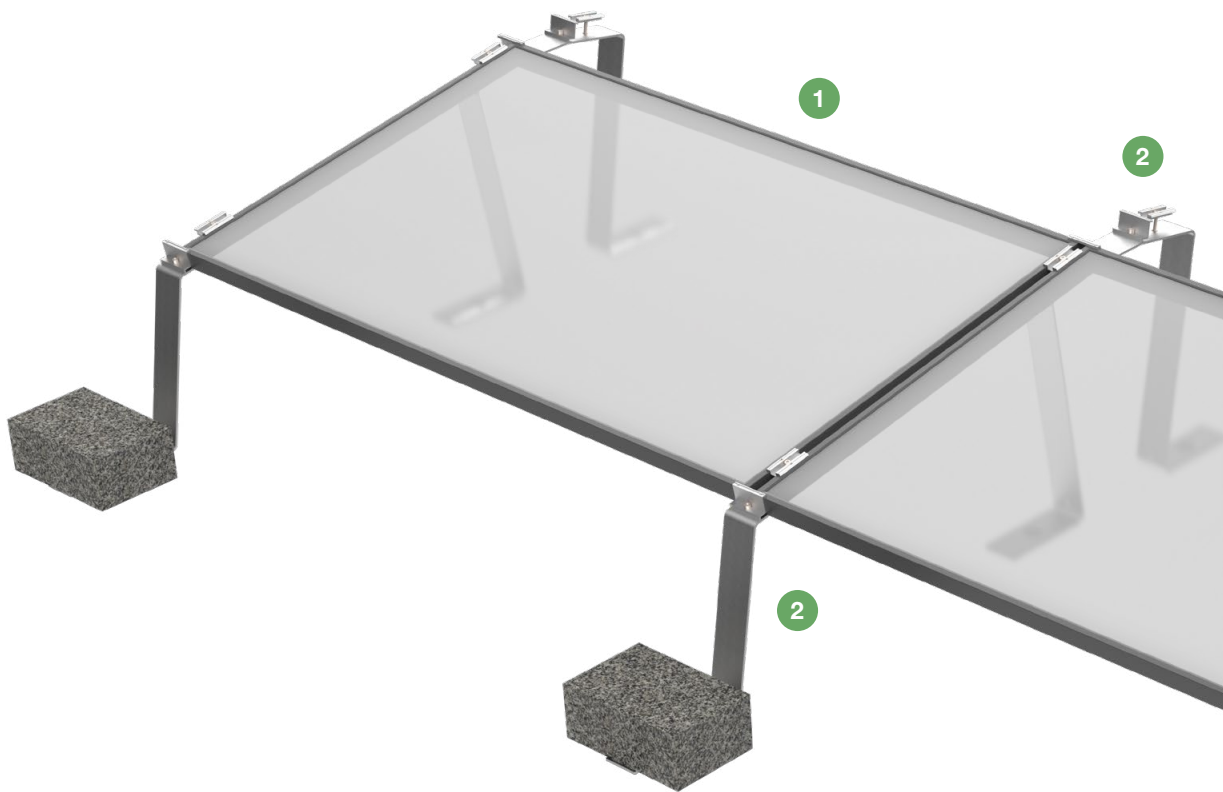
- + Align the module with the notches on the feet / centre supports.
- + Tighten the screws on the end clamps to 15 Nm.



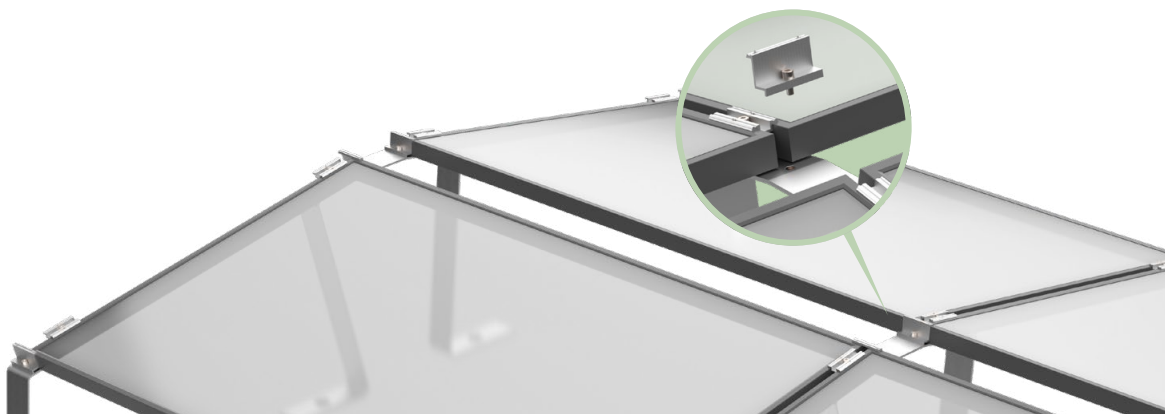
ASSEMBLY | MODULES

Installing modules

- + Position the next module. ①
- + Tighten the screws on the centre terminals ② of the previous module with 15 Nm.



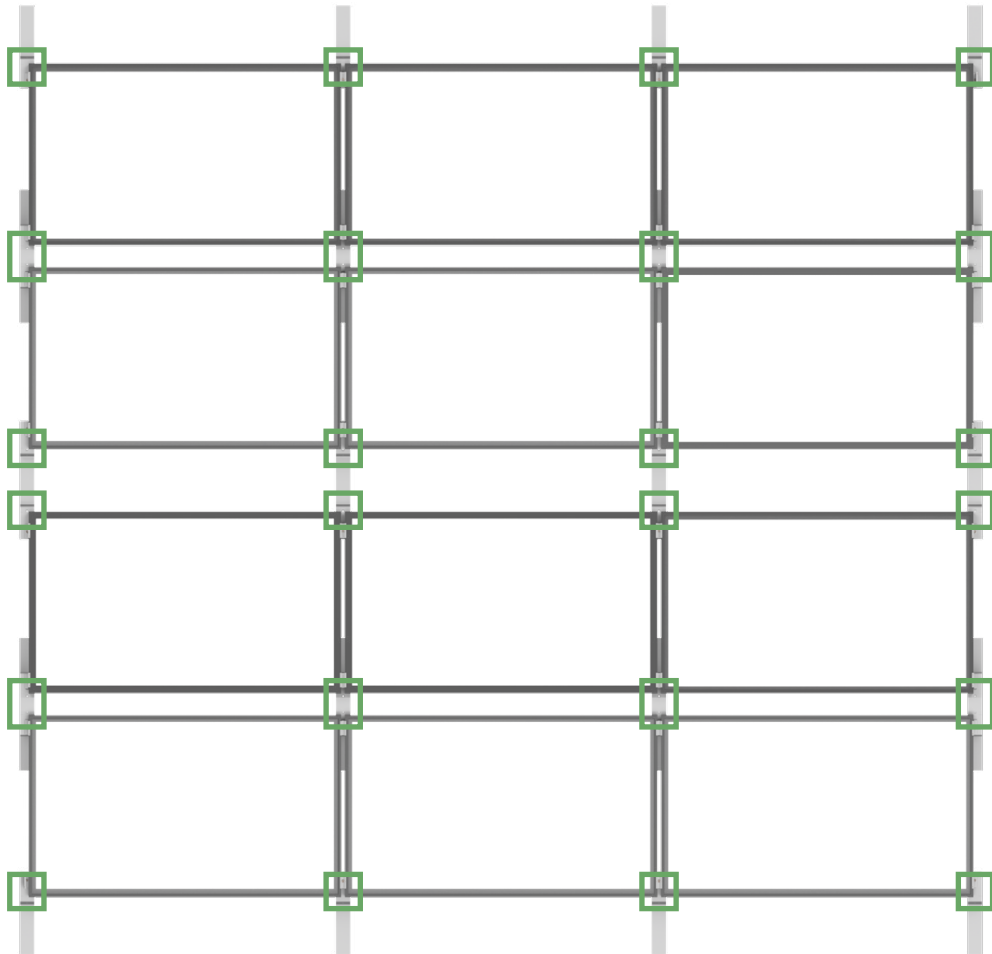
- + For a stronger bond, attach another end clamp to each of the centre supports.
- + Tighten the screws to 15 Nm.
- + Install further modules in this series as described.



ASSEMBLY | MODULES

Installing modules

- + For a stronger bond on the centre supports, attach another end clamp to each of the marked positions.
- + Tighten the screws to 15 Nm.



ATTACHING THE BALLAST

Variant 1: Ballasting with ground anchors

The ground anchors are used to anchor the system to the starting feet, connectors or end feet in the floor.



TIP:

Depending on the circumstances or project requirements, the system is ballasted differently depending on the circumstances or project requirements. The exact number and position of the ground anchors can be found in the ALUMERO.PRO.TOOL planning documents.

- + Completely countersink the ground anchor at the start foot, connector or end foot into the ground.



ATTACHING THE BALLAST

Variant 2: Ballasting directly on the starter legs, centre supports or connectors

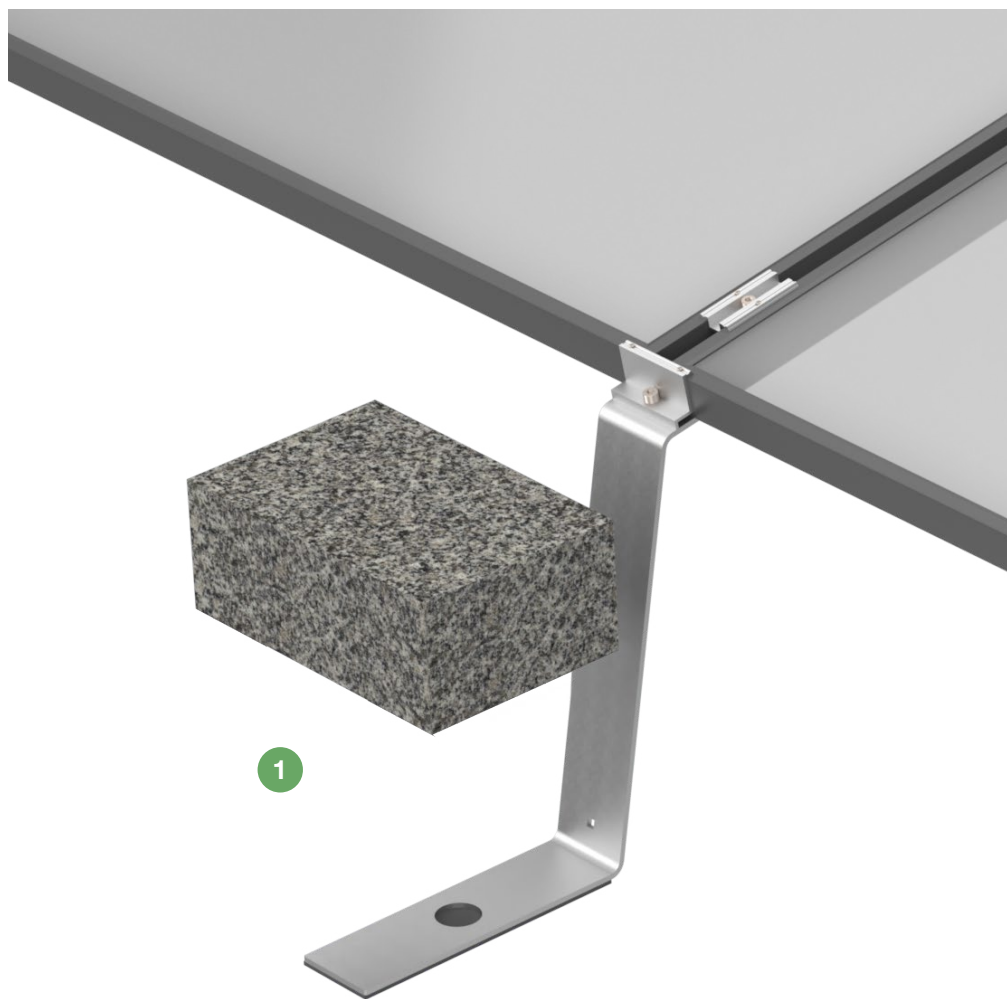
With this ballasting variant, the ballast blocks are placed directly onto the the starting feet, connectors or centre supports.



TIP:

The exact number and position of the ballast blocks can be found in the ALUMERO.PRO.TOOL planning documents.

- + Place the ballast stone **1** on the starting feet, connectors or centre supports.



ATTACHING THE BALLAST

Variant 3: Short ballast tray

The short ballast tray can be fitted in the following positions:

- A** at the starting foot
- B** at the connector
- C** at the starting foot - last row, mirror-inverted

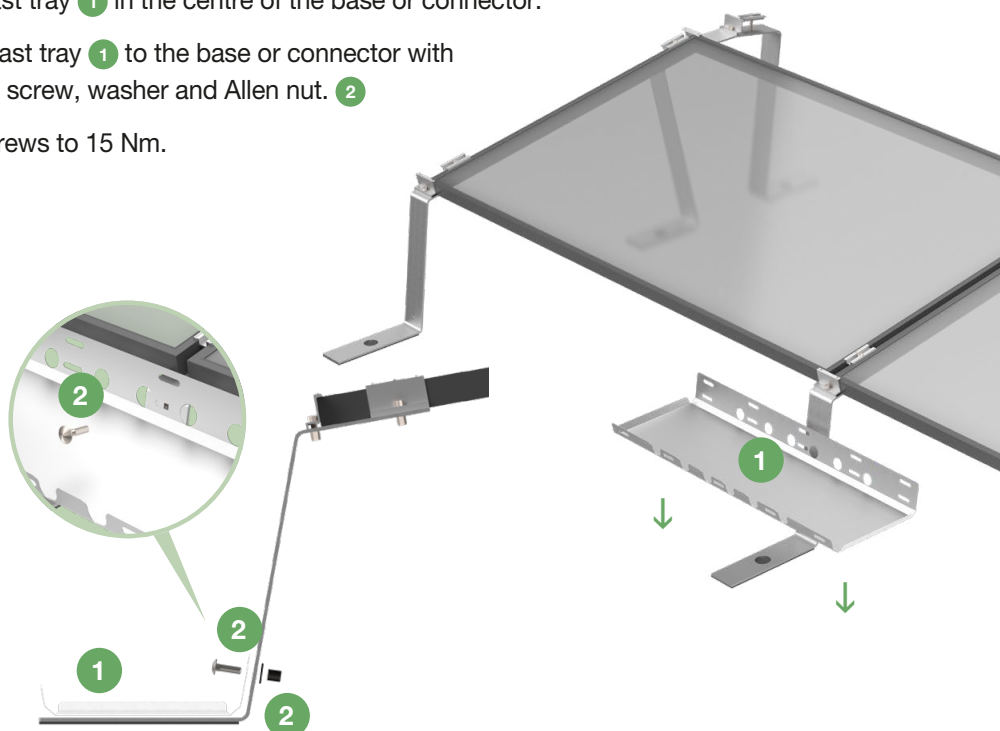


TIP:

The exact number and position of the short ballast troughs can be found in the ALUMERO.PRO.TOOL planning documents.



- + Place the ballast tray **1** in the centre of the base or connector.
- + Attach the ballast tray **1** to the base or connector with the door hinge screw, washer and Allen nut. **2**
- + Tighten the screws to 15 Nm.



ATTACHING THE BALLAST

Variant 4: Long ballast tray

The long ballast tray can be attached in the following positions:

- A** at the starting foot
- B** at the mid support
- C** at the connector
- D** at the starting foot - last row, mirror-inverted



TIP:

The exact number and position of the long ballast trays can be found in the ALUMERO.PRO.TOOL planning documents.

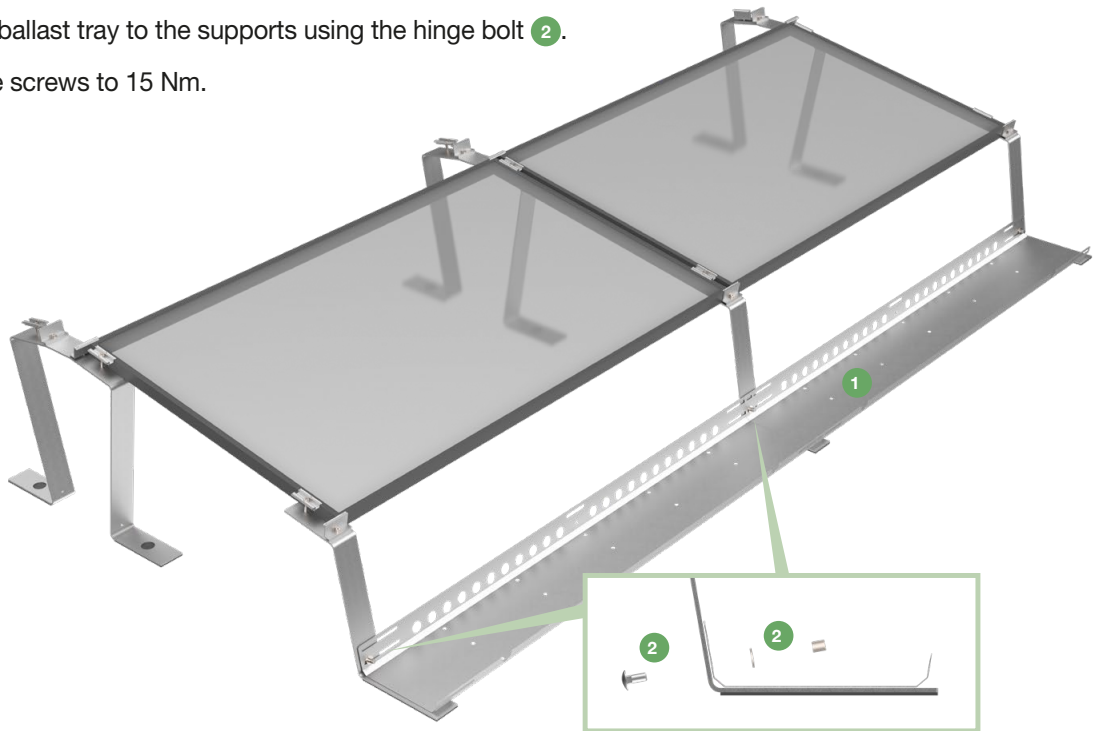


ATTACHING THE BALLAST

Variant 4: Long ballast tray

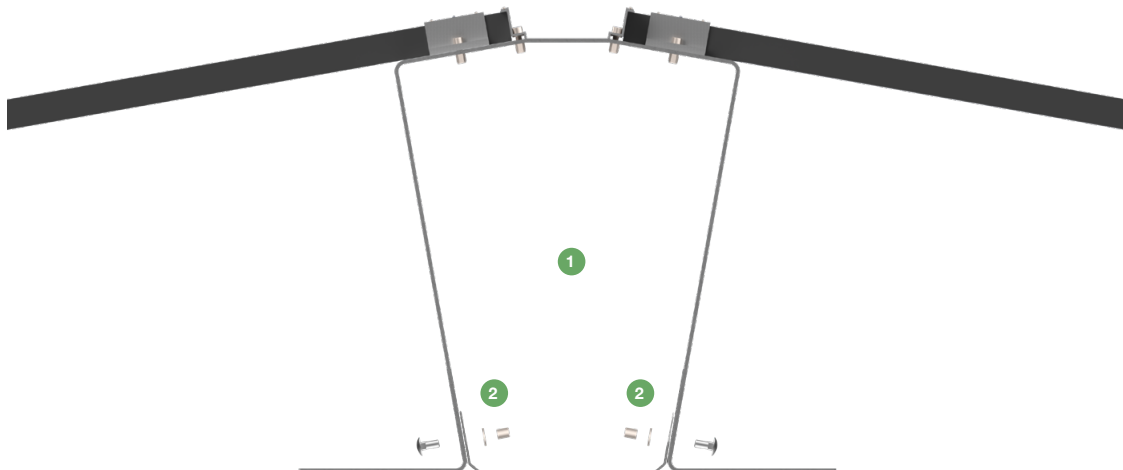
Mount the long ballast tray on the starting foot or centre support

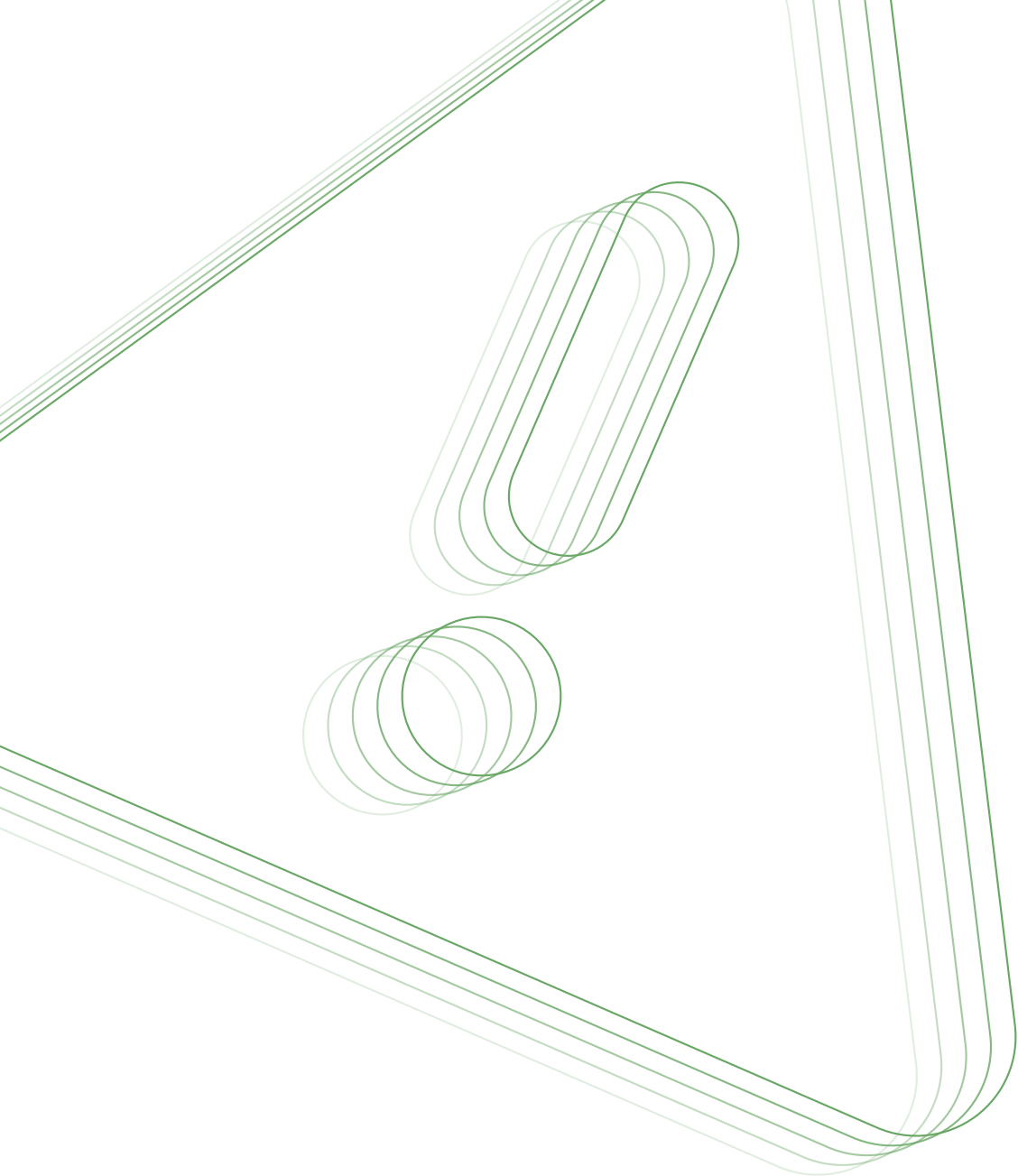
- + If several ballast trays follow one another: Lay out the ballast trays so that they overlap at the connectors or end feet **1**.
- + Screw the ballast tray to the supports using the hinge bolt **2**.
- + Tighten the screws to 15 Nm.



Mount the long ballast tray to the centre support

- + Place the ballast tray **1** underneath the centre support.
- + Fasten the ballast tray to the centre support with two gate hinge screws **2**.



An abstract graphic composed of multiple thin, green, curved lines that form a large, irregular shape on the left side of the page. Inside this shape, there are two smaller, more defined shapes: one resembling a rounded rectangle and the other a circle, both also formed by multiple overlapping green lines.

PLEASE NOTE THE FOLLOWING ADDITIONAL DOCUMENTS!

The following documents are required in addition to the installation instructions and for correct installation of the system:

- + Project report from ALUMERO.PRO.TOOL
- + Planning documents and drawings
- + The generally applicable document “Installation instructions” at <https://www.alumerogroup.eu/service> under “General” -> “Other”

Please also inform yourself about the safety regulations of the other system components.

