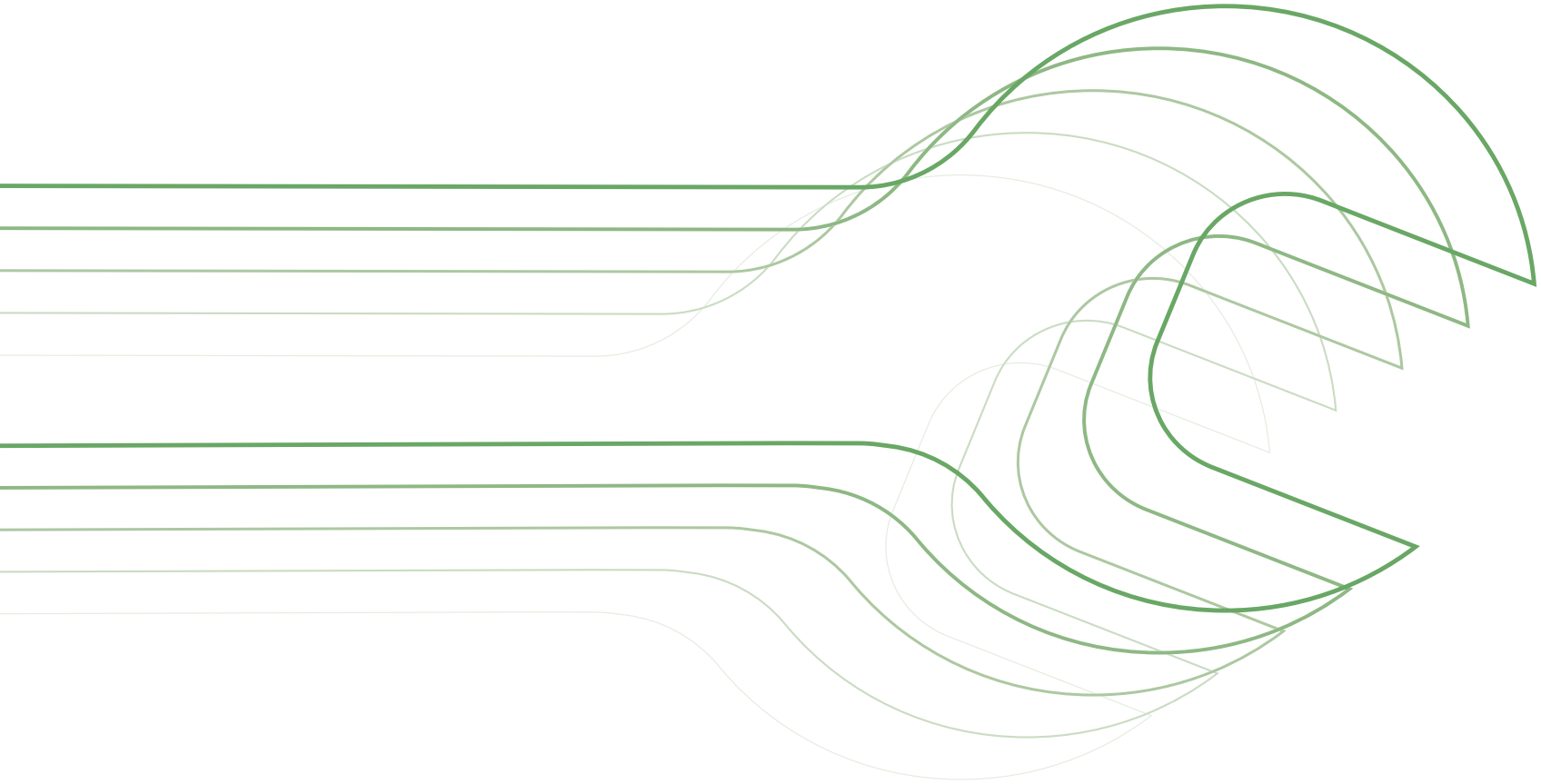
ALUMERO

EN



SUSTAINABLE
SOLAR
SOLUTIONS

easyBRIDGE
Tilt
ASSEMBLY MANUAL

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.

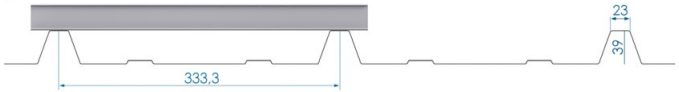
For further questions, use ALUMERO‘s professional and comprehensive consulting service.

TABLE OF CONTENTS

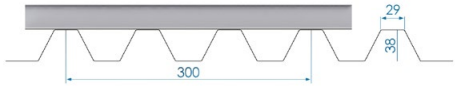
GENERAL INFORMATION

Min. Sheet thickness:	Sheet steel min. 0,4 mm Aluminium min. 0,5 mm	
Roof pitch:	Max. 15° for vertical, 13° for horizontal mounting	
Trapezoidal sheet high bead:	Minimum width of the high bead 22 mm (25 mm recommended). The height of the high bead is irrelevant.	
High bead spacing:	Trapezoidal sheet metal bridge: 400: 100-170 / 190-333mm 250: 65-207mm	
Connection:	Thin sheet metal screws	
Max. Module field size:	12 m Length	
Screw mounting:	M8 (A2-70)	M10 (A2-70)
Torque:	15 Nm	30 Nm

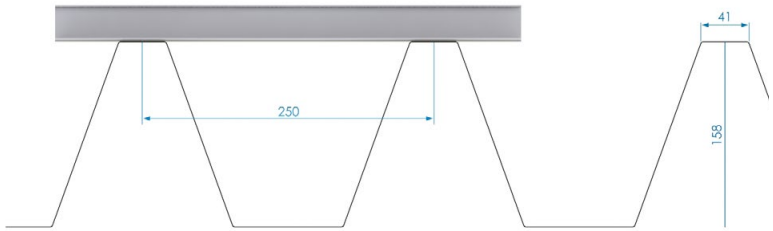
39/333,3



38/300



158/250



TOOLS REQUIRED

Cordless screwdriver with bit inserts:
Hexagon SW 5, SW 6
Hexagon SW 13

Bit attachment SW8

Torque spanner

Measuring tape

Impact cord

Spirit level

COMPONENTS

STANDARD

Trapezoidal sheet bridge 2.1

L = 400 mm, incl. screws and sealing
Distance between beads: 100 - 333 mm
Product No.: **802440**

Trapezoidal sheet bridge 2.1

L = 250 mm, incl. screws and sealing
Distance between beads: 100 - 207 mm
Product No.: **802441**

Front piece Plus

Product No.: **802446**

Back piece Plus

Product No.: **802447**

End clamp Click

Product No.:
Sheer: **802304C P1 30-42**
Black: **802304C P1 30-42**

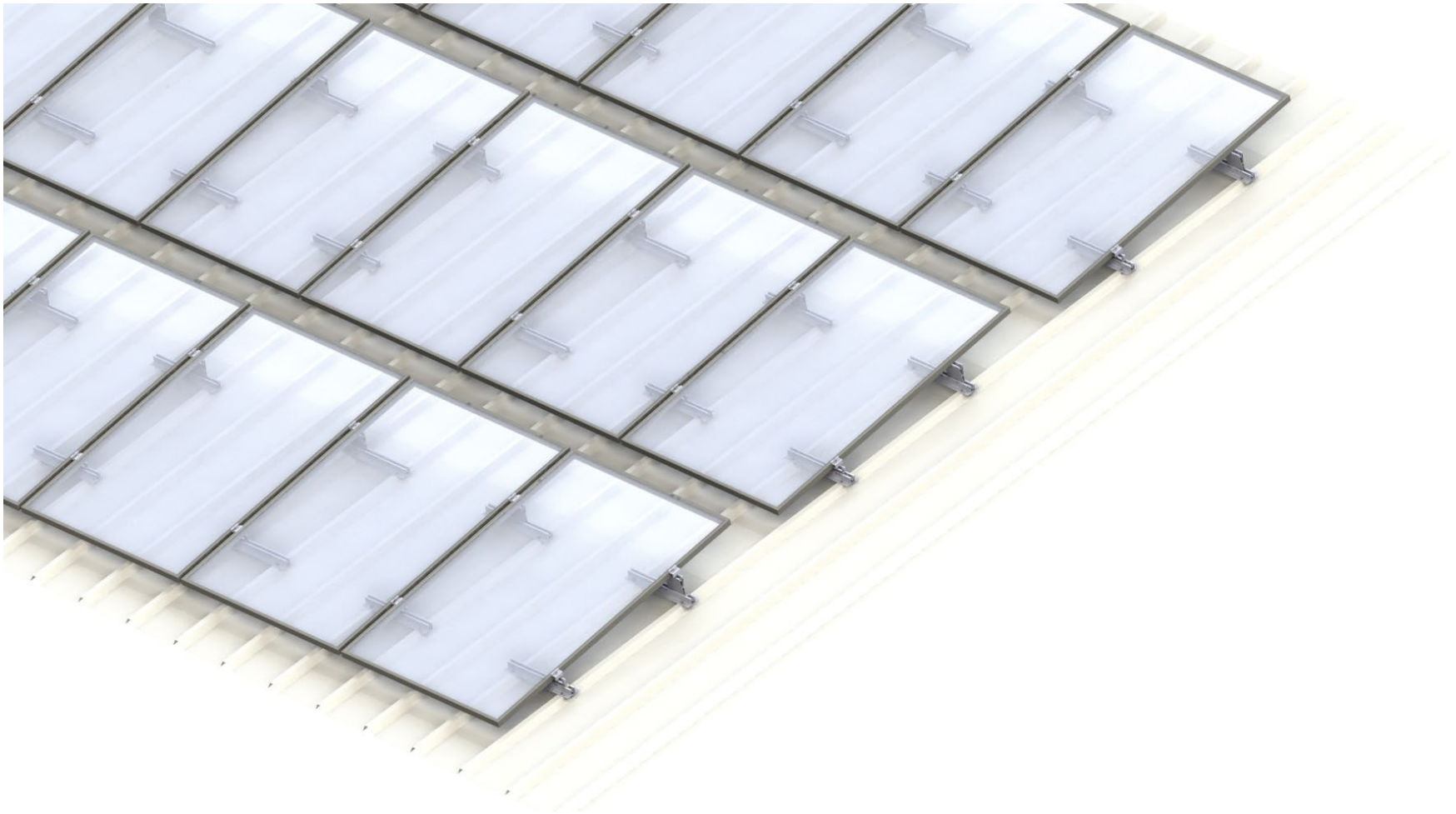
Middle clamp Click 2.1

Product No.:
Sheer: **802301C P1 30-45**
Black: **802391C P1 30-45**

Securing set Plus

Product No.: **802448**

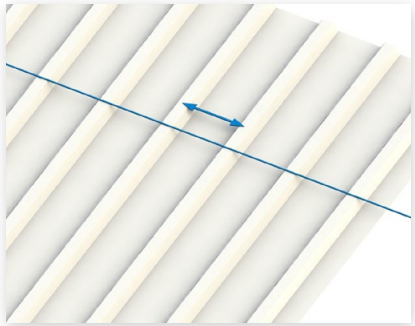
MOUNTING WITH TRAPEZOIDAL SHEET METAL TILT 5°
VERTICAL MODULE ALIGNMENT



INSTALLATION

1 Measure and mark positions

Measure the positions of the trapezoidal sheet metal bridges on the roof according to the Solar.Pro.Tool project report and mark them using a chalk line. Measure the distance between the raised beads and position the trapezoidal sheet metal bridges.



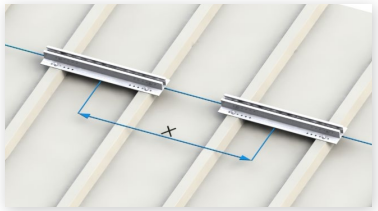
2 Installation of the trapezoidal sheet metal bridges

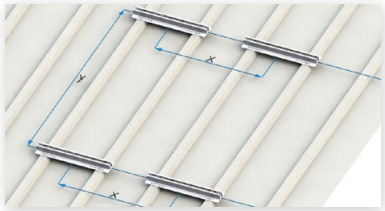
Screw the trapezoidal sheet metal bridge onto the centre of two raised beads using 4 thin sheet metal screws. Ensure that the EPDM seal under the trapezoidal sheet metal bridge and the sealing discs of the thin sheet metal screws are not compressed by more than 50%. The distance between the thin sheet metal screws and the bead edge should be at least 8 mm.

Please note: Mounted trapezoidal sheet metal bridges must not be used as stepladders!

Place the next trapezoidal sheet metal bridges on the subsequent raised beads so that the **distance X** is maintained. The **distance X** depends on the module width + clamping width (20 mm) + minimum distance to the end of the respective trapezoidal sheet metal bridge (20 mm).

The **distance Y** depends on the module length and should correspond to the selected clamping range of the module.

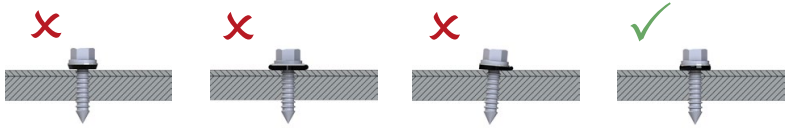




Please note: Please refer to the installation instructions for the modules used for the clamping ranges and the resulting loads.

Note on the thin sheet metal screws

Screw the thin sheet metal screws slowly, in a controlled manner and with a low torque so as not to overtighten the screw or destroy the sheet metal. Only tighten the screw until the EPDM seal under the rail and the thin sheet metal screws is reduced to approx. 50 % of its original thickness. Further tightening does not increase the strength of the connection, but only the risk of failure.



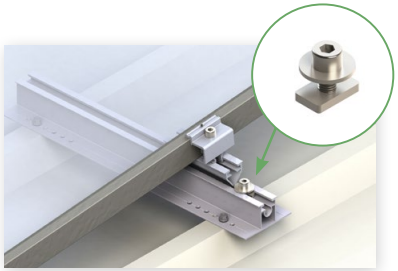
INSTALLING THE FRONT PLUS AND REAR PLUS ADAPTERS

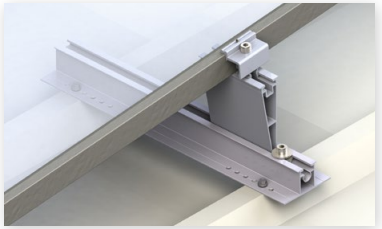
Slide the adapters **front piece Plus** and **rear piece Plus** into the already installed trapezoidal sheet metal bridges Plus. Position the adapters so that they sit between two raised beads and the modules can be attached to the centre of the adapters.

Mount the modules vertically to achieve an additional inclination of 5°.

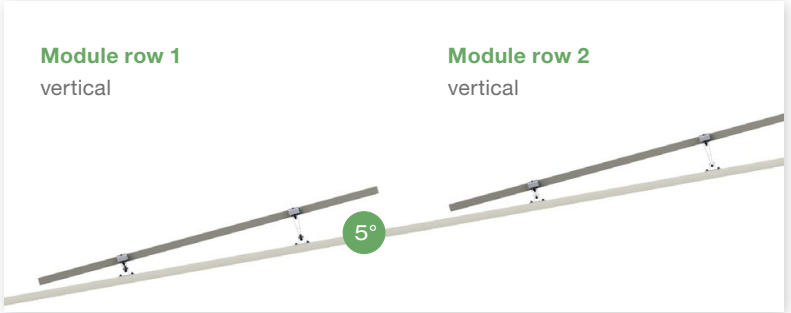
Fit the **locking set Plus** on the outside, at the end of each module row, to prevent the adapters from slipping out.

The adapters including the locking screws must be fitted at least 20 mm from the end of the respective trapezoidal sheet metal bridge Plus.



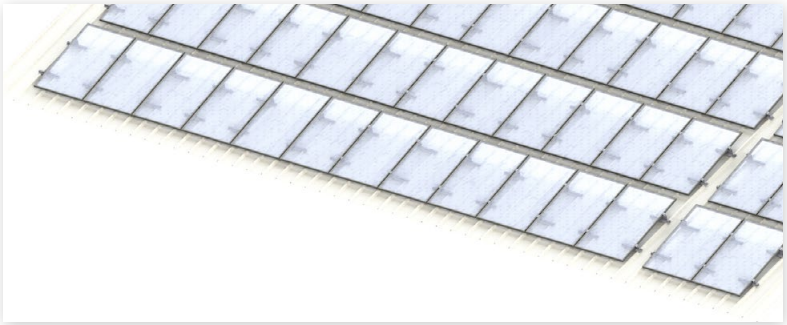


Please refer to the Solar.Pro.Tool project report for the distance between module row 1 and module row 2.

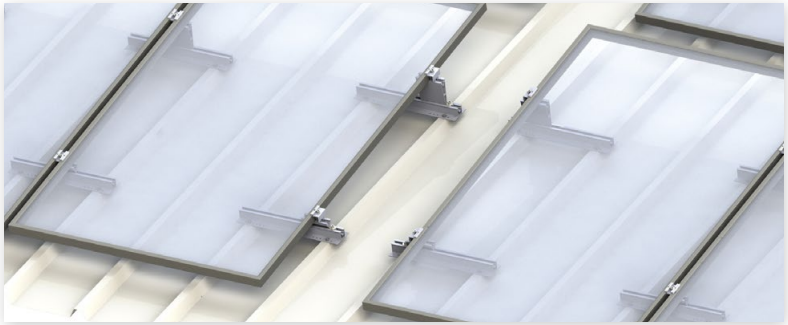


THERMAL SEPARATION AND MAINTENANCE ROUTES

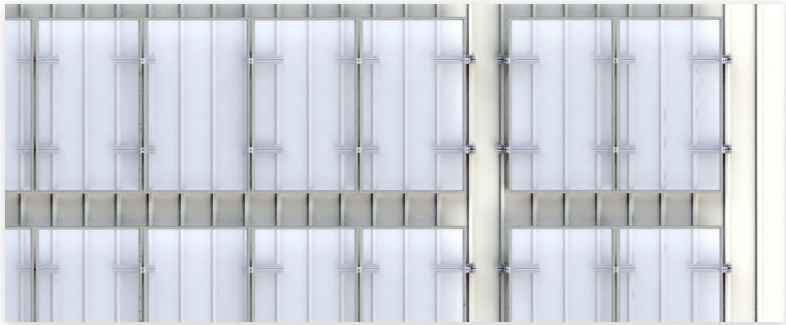
Observe the maximum module field length of 12 m. After this length, the modules must be thermally separated. A raised bead should be left free for this purpose.



Detail: thermal separation after 12 m in horizontal direction.



For larger systems, you should always plan maintenance spaces in a horizontal and vertical direction.

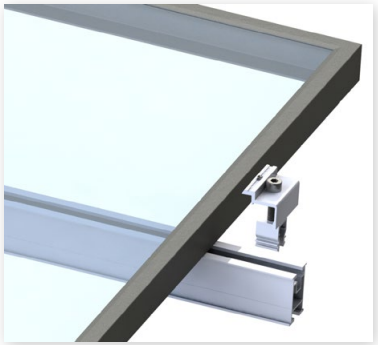


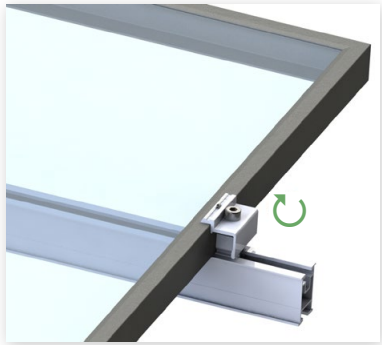
INSTALLING MODULES

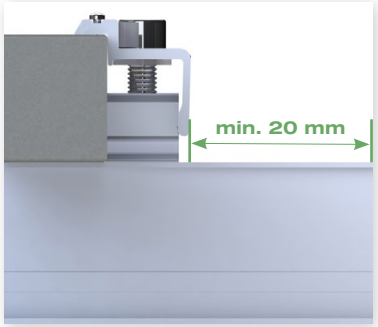
1 Installing the end clamps

Start with the bottom row of modules. Place the first module on the trapezoidal sheet metal bridges and align. Click in the Click end clamp at a slight angle and slide it towards the module frame.

Tighten the Allen screw to a **torque of 15 Nm**.







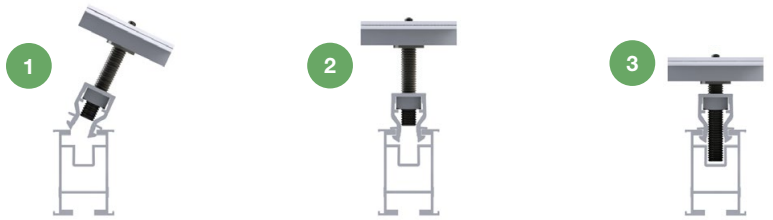
Please note:
The end clamps must be fitted at least 20 mm from the end of the respective mounting profile.

Attention: When using end clamps with threaded plates, attention must be paid to the alignment. The threaded plate must be at right angles to the profile channel.

2 Installing the middle clamps

Place the Click centre clamp on the frame of the previous module and click in at a slight angle. Push the module in so that both modules are firmly in place. Tighten the Allen screw with a **torque of 15 Nm**.

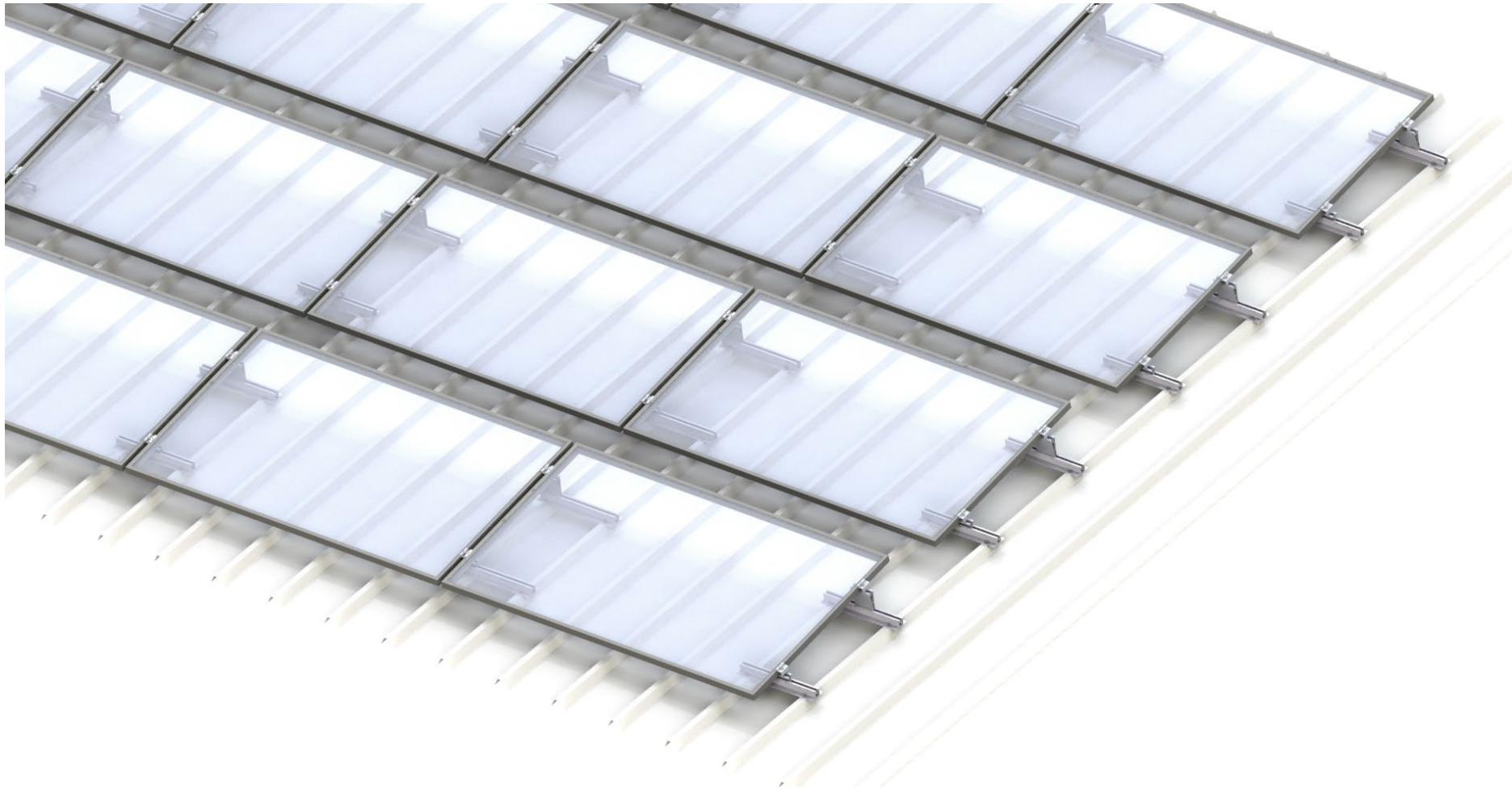
Install the last module of each module row with end clamps as described above. Install the remaining module rows in the same way.



Please note:

- Distance of the clamps to the ends of the trapezoidal sheet metal bridges: **min. 20 mm**!
- Clamp the modules only in the specified fastening areas! These can be found in the module manufacturer‘s module data sheet.
- Distance (horizontal and vertical) between modules: **approx. 20 mm**!

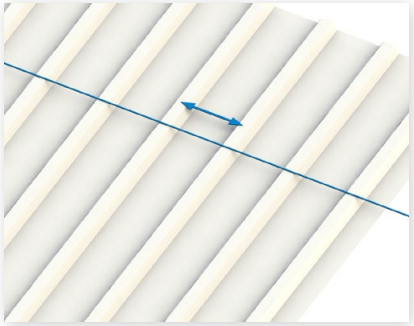
STRUCTURE WITH TRAPEZOIDAL SHEET METAL TILT 7° HORIZONTAL MODULE ALIGNMENT



INSTALLATION

1 Measure and mark positions

Measure the positions of the trapezoidal sheet metal bridges on the roof according to the Solar.Pro.Tool project report and mark them using a chalk line. Measure the distance between the raised beads and position the trapezoidal sheet metal bridges Plus.



2 Installation of trapezoidal sheet metal bridges Plus

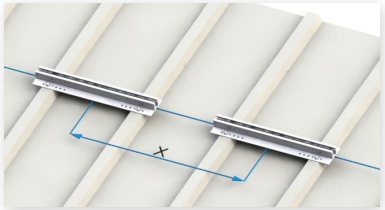
Screw the trapezoidal sheet metal bridge Plus onto the centre of two raised beads using 4 thin sheet metal screws. Ensure that the EPDM seal under the trapezoidal sheet metal bridge and the sealing discs of the thin sheet metal screws are not compressed by more than 50 %.

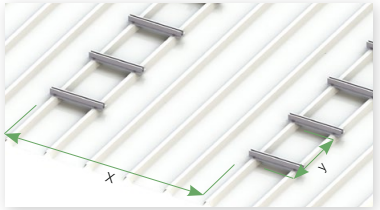
The distance between the thin sheet metal screws and the beading edge should be at least 8 mm.

Bitte beachten: Montierte Trapezblechbrücken dürfen nicht als Trittleiter benutzt werden!

Place the next trapezoidal sheet metal bridges on the subsequent raised beads so that the **distance X** is maintained. The **distance X** depends on the module length + clamping width (20 mm) + minimum distance to the end of the respective trapezoidal sheet metal bridge (20 mm).

The **distance Y** depends on the module width and should correspond to the selected clamping area of the module.

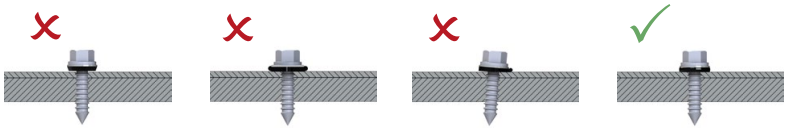




Please note: Please refer to the installation instructions for the modules used for the clamping ranges and the resulting loads.

Note on the thin sheet metal screws

Screw the thin sheet metal screws slowly, in a controlled manner and with a low torque so as not to overtighten the screw or destroy the sheet metal. Only tighten the screw until the EPDM seal under the rail and the thin sheet metal screws is reduced to approx. 50 % of its original thickness. Further tightening does not increase the strength of the connection, but only the risk of failure.



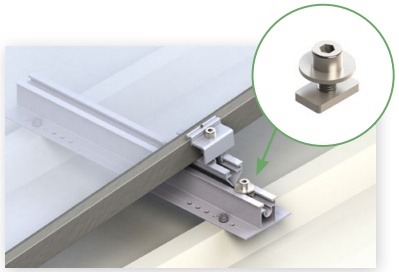
FITTING THE FRONT PLUS AND REAR PLUS ADAPTERS

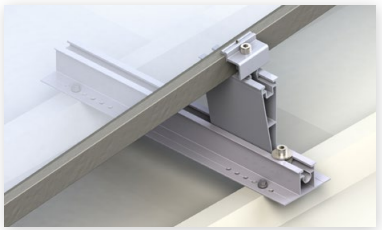
Slide the adapters **front piece Plus** and **rear piece Plus** into the already installed trapezoidal sheet metal bridges Plus. Position the adapters so that they sit between two raised beads and the modules can be attached to the centre of the adapters.

Mount the modules vertically to achieve an additional inclination of 7°.

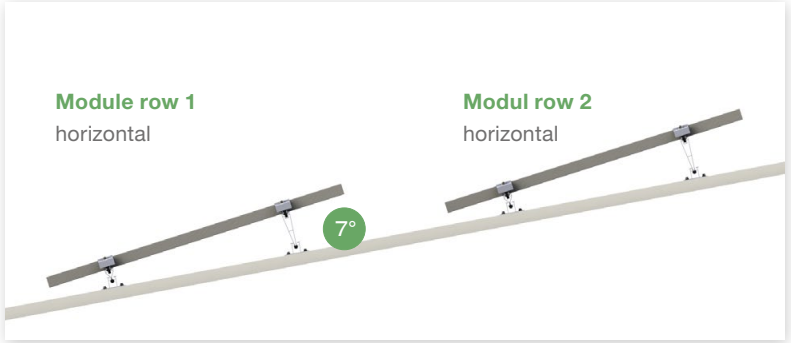
Fit the **locking set Plus** on the outside, at the end of each module row, to prevent the adapters from slipping out.

The adapters, including the locking screws, must be fitted at least 20 mm from the end of the respective trapezoidal sheet metal bridge Plus.



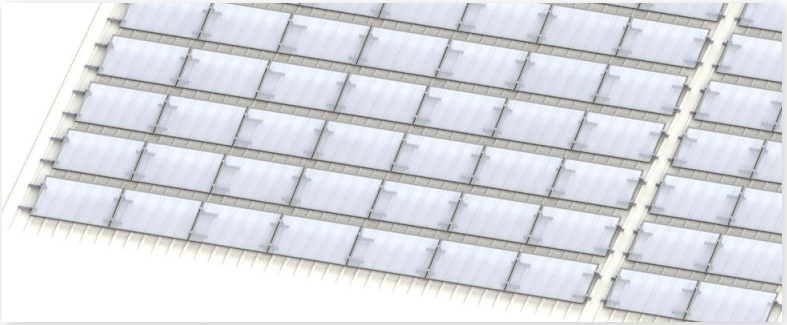


Please refer to the Solar.Pro.Tool project report for the distance between module row 1 and module row 2.

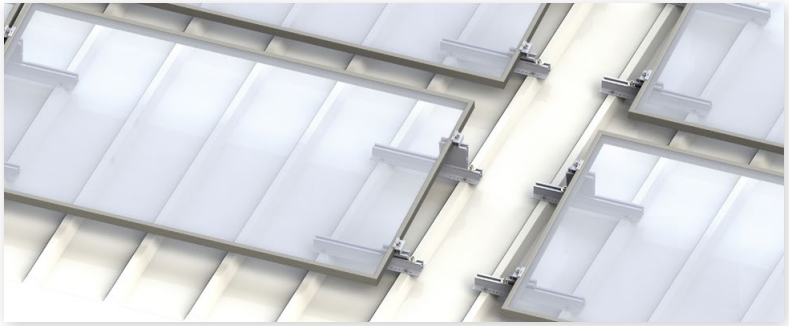


THERMAL SEPARATION AND MAINTENANCE ROUTES

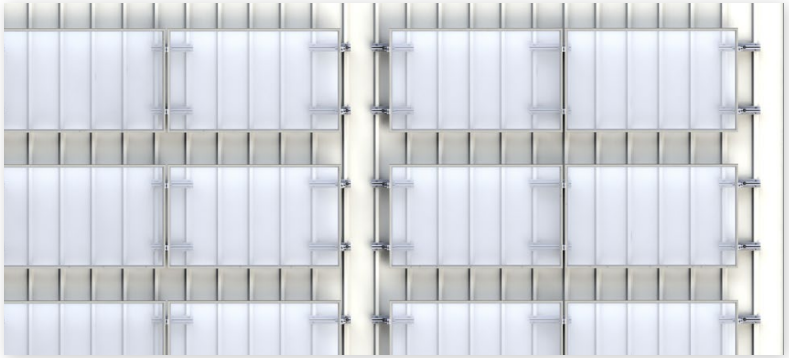
Observe the maximum module field length of 12 m. After this length, the modules must be thermally separated. A raised bead should be left free for this purpose.



Detail: thermal separation after 12 m in horizontal direction.



For larger systems, you should always plan maintenance spaces in a horizontal and vertical direction.

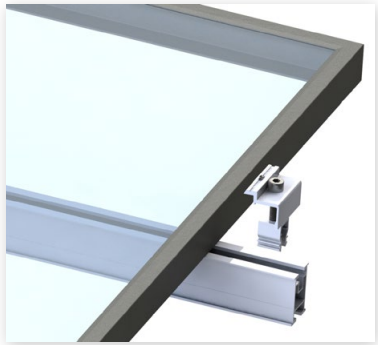


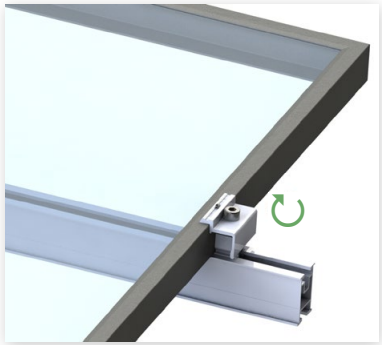
INSTALLING MODULES

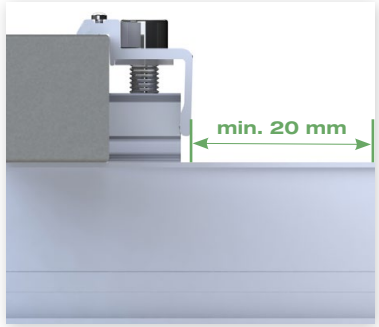
1 Installing the end clamps

Start with the bottom row of modules. Place the first module on the trapezoidal sheet metal bridges and align. Click in the Click end clamp at a slight angle and slide it towards the module frame.

Tighten the Allen screw to a **torque of 15 Nm**.







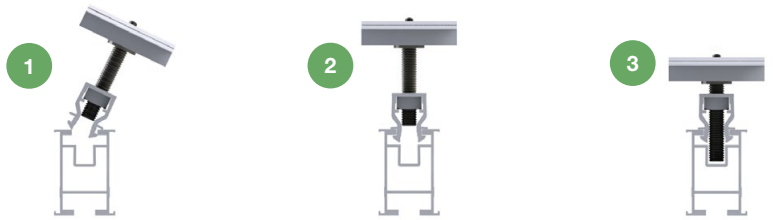
Please note:
The end clamps must be fitted at least 20 mm from the end of the respective mounting profile.

Attention: When using end clamps with threaded plates, attention must be paid to the alignment. The threaded plate must be at right angles to the profile channel.

2 Installing the middle clamps

Place the Click centre clamp on the frame of the previous module and click in at a slight angle. Push the module in so that both modules are firmly in place. Tighten the Allen screw with a **torque of 15 Nm**.

Install the last module of each module row with end clamps as described above. Install the remaining module rows in the same way.



Please note:

+ Distance of the clamps to the ends of the trapezoidal sheet metal bridges: **min. 20 mm**!
+ Clamp the modules only in the specified fastening areas! These can be found in the module manufacturer‘s module data sheet.
+ Distance (horizontal and vertical) between modules: **approx. 20 mm**!

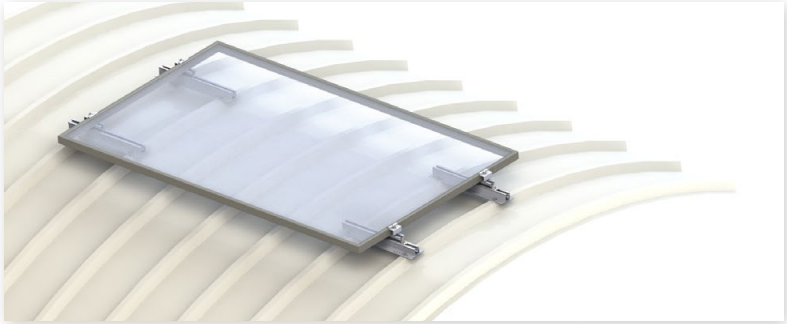
OPTIONAL:
BARREL ROOF WITH TRAPEZOIDAL SHEET METAL TILT HORIZONTAL / VERTICAL MODULE ARRANGEMENT

General information

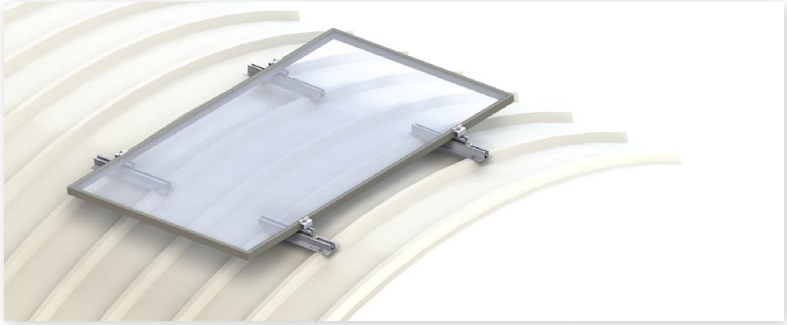
Min. sheet thickness:	Sheet steel min. 0,5 mm Aluminium min. 0,8 mm	
Module alignment:	Vertical, horizontal	
Installation:	Roof parallel	
Roof radius:	> 3,5 m	
Trapezoidal sheet metal high beads:	Minimum width of the high bead 25 mm. The height of the high bead is irrelevant.	
High bead spacing:	Trapezoidal sheet metal bridge: 400: 100-170 / 190-333mm 250: 65-207mm	
Connection:	Thin sheet metal screws	
Max. module field size:	12 m length	
Screw mounting:	M8 (A2-70)	M10 (A2-70)
Torque:	**15 Nm**	**30 Nm**

Attention: It is recommended to use only the Front Plus adapter and thus not to give the modules any additional inclination. Any other use is considered improper use.

The **trapezoidal sheet metal bridge Plus** can be used for mounting on curved trapezoidal sheet metal roofs. To compensate for the curvature, the **front piece Plus adapters** are pushed into the trapezoidal sheet metal bridges Plus.



The installation of the **trapezoidal sheet metal bridge Plus** and the **adapter front piece Plus** is described on pages 12 and 13.

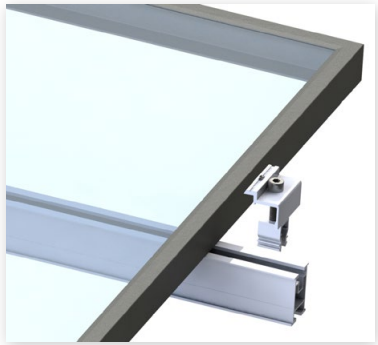


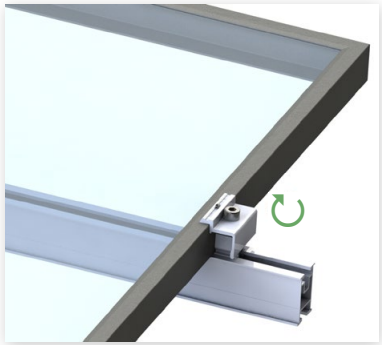
INSTALLING MODULES

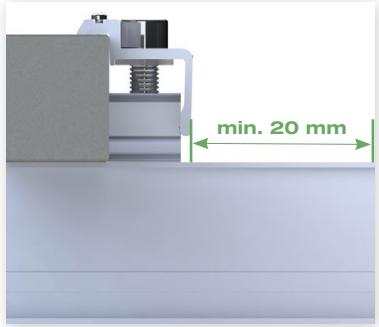
1 Installing the end clamps

Start with the bottom row of modules. Place the first module on the trapezoidal sheet metal bridges and align. Click in the Click end clamp at a slight angle and slide it towards the module frame.

Tighten the Allen screw to a **torque of 15 Nm**.







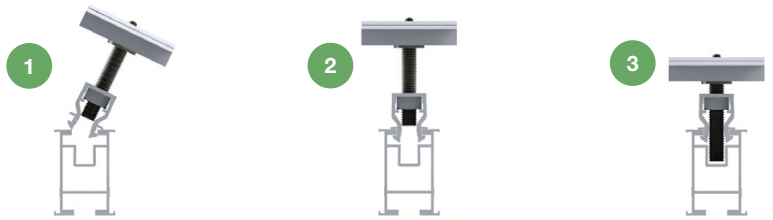
Please note:
The end clamps must be fitted at least 20 mm from the end of the respective mounting profile.

Attention: When using end clamps with threaded plates, attention must be paid to the alignment. The threaded plate must be at right angles to the profile channel.

2 Installing the middle clamps

Place the Click centre clamp on the frame of the previous module and click in at a slight angle. Push the module in so that both modules are firmly in place. Tighten the Allen screw with a **torque of 15 Nm**.

Install the last module of each module row with end clamps as described above. Install the remaining module rows in the same way.



Please note:

+ Distance of the clamps to the ends of the trapezoidal sheet metal bridges: **min. 20 mm**!
+ Clamp the modules only in the specified fastening areas! These can be found in the module manufacturer‘s module data sheet.
+ Distance (horizontal and vertical) between modules: **approx. 20 mm**!

FASTENING THE MODULE CABLE

1 Module cables should not hang down or rest on the roof covering.

Press the clip attached to the cable tie into a profile channel of the carrier profile. Tie the cable together with the cable tie.

Remove the clip by sliding it out of the profile channel from the side.

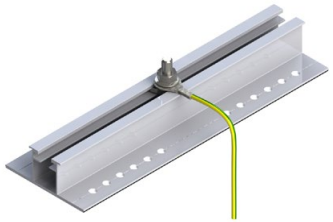
POTENTIAL EQUALISATION

1 Potential equalisation between the individual system components must be carried out in accordance with the respective country-specific regulations. One option for earthing the ALUMERO trapezoidal sheet metal roof system is shown below. Cable cross-sections and the overall earthing concept are not included in these instructions and must be calculated or created by the installer in accordance with the applicable standards and guidelines. Other professional earthing methods than those listed here are also possible.

Grounding of the trapezoidal sheet bridge rows

Insert a wire clamp into the lower profile channel of the support profile in each row of trapezoidal sheet metal bridges. Insert the aluminium wire into the wire clamp and secure it by tightening the screw. In this way, connect all rows of modules to each other conductively.

Fastening the aluminium wire using a wire clamp



Fastening the earthing wire using a hammer-head screw

2 Grounding the modules

Whether the modules must be earthed is specified by the module manufacturer in the respective module data sheet. If so, the potential equalisation of the modules can be created in the following way recommended by ALUMERO:

To integrate the modules into the potential equalisation, you can use ALUMERO end and centre terminals with pins. The pins are located in the terminals, pierce the anodised layer of the module frames and thus connect all module rows to each other conductively.

Click end clamp with pin

Click middle clamp with pin

All product illustrations contained in these installation instructions are for illustrative purposes only and are not to scale. Changes and errors excepted!

Finished!

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.

ALUMERO

As of May 2025

CONGRATULATIONS,
WELL DONE!

SUSTAINABLE SOLAR SOLUTIONS

ALUMERO Systematic Solutions GmbH
Sonnenweg 1-2 | 5162 Seeham - Österreich
T +436217 / 68 41 - 0
alumero@alumero.at | www.alumero.at