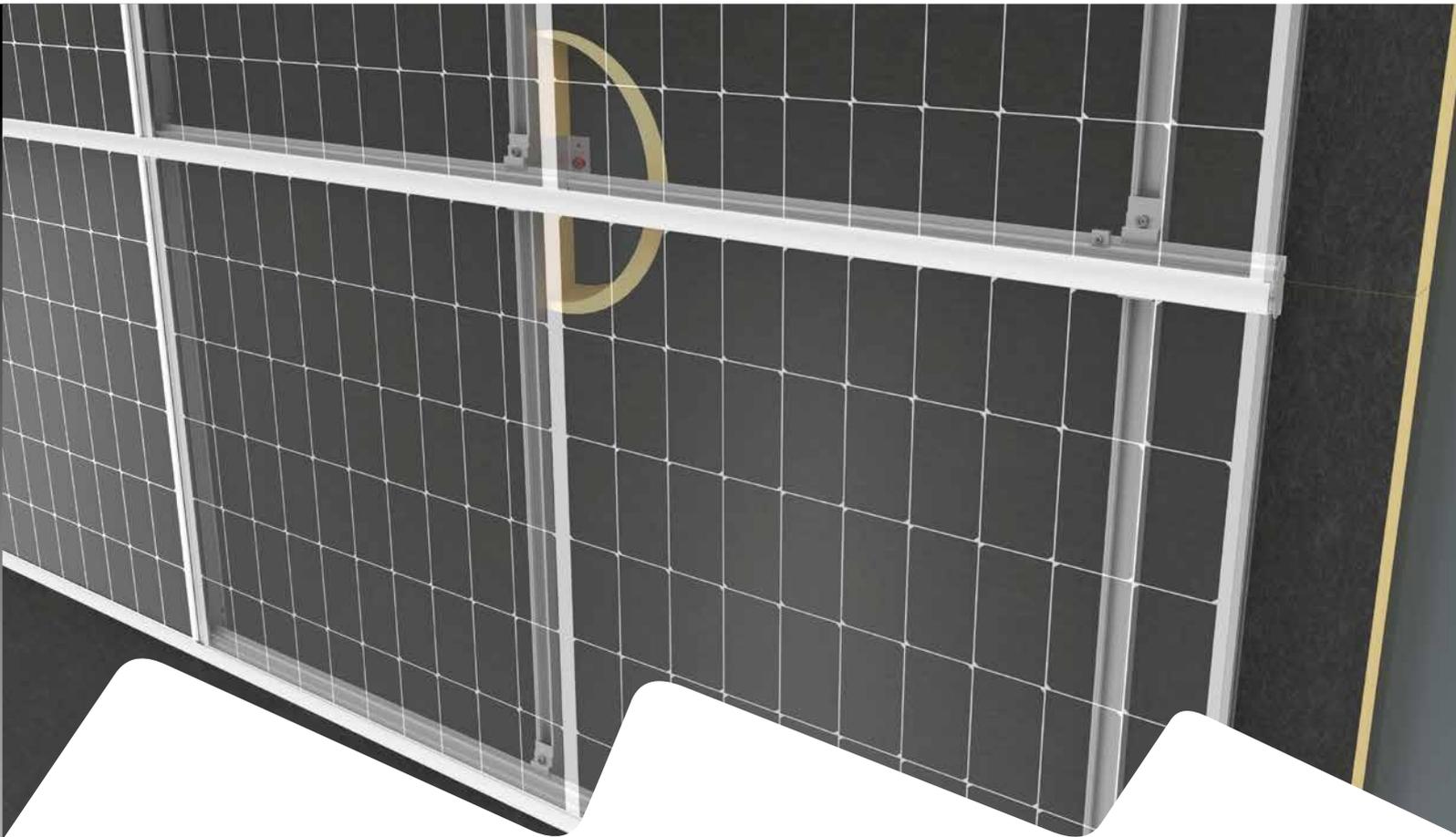




Connecting Strength



 Assembly instructions

WallPV FacadeRail

InsertionRail

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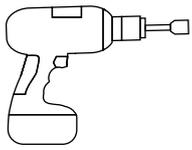
Quality tested - multiple certifications

K2 Systems stands for secure connections, highest quality and precision. Our customers and business partners have known that for a long time. Independent institutes have tested, confirmed and certified our capabilities and components.

Please find our quality and product certificates under:

k2-systems.com/en/technical-information

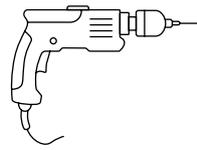
Tools overview



6 mm



8 mm



6,5 / 11 mm



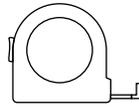
6 - 35 Nm
(4,5 - 22,2 lb-ft)



4/6 mm



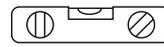
4/6 mm



≥ 3.0 m



≥ 6.0 m



Digital Toolbox



Do you already know our digital services? Use our K2 DocuApp now and record the first important data directly at the customer or project site.

Simply transfer the data to our online planning software K2 Base. Here you can plan your project easily, safely and quickly. You receive a detailed project report with assembly plan and static report. The K2+ interface enables seamless project data transfer to the planning tools of well-known inverter manufacturers or yield planning tools.

With the K2 DocuApp, project documentation is done quickly and easily - without any annoying paperwork.

Get started and register now:

docuapp.k2-systems.com



base.k2-systems.com



General safety information

Please note that our general mounting instructions must be followed at all times and can be viewed online at k2-systems.com

- The equipment may only be installed and operated by qualified and adequately trained installers.
- Prior to installation, ensure that the product complies with on-site static loading requirements. For WallPV systems, the load-bearing capacity of the facade must always be checked.
- National and local building regulations and environmental requirements must be adhered to.
- Compliance with health and safety regulations, accident prevention guidelines and applicable standards is required.
 - Protective equipment such as safety helmet, boots and gloves must be worn.
 - Facade works must be in accordance with local regulations and must utilise fall protection safeguards when working height exceeds 3m.
 - At least two people must be present for the duration of the installation work in order to provide rapid assistance in the event of an emergency.
- K2 mounting systems are continuously developed and improved and the installation process may thereby change at any time. Prior to installation consult our website at k2-systems.com/en/technical-information for up-to-date instructions. We can send you the latest version on request.
- The assembly instructions of the module manufacturer must be adhered to.
- Equipotential bonding/grounding/earthing between individual parts is to be performed according to country specific standards, as well as national laws and regulations.
- At least one copy of the assembly instructions should be available on site throughout the duration of the installation.
- Failure to adhere to our general safety and assembly instructions and not using all system components, K2 is not liable for any resulting defects or damages. We do not accept liability for any damage resulting in the use of competitor's parts. Warranty is excluded in such cases.
- German law shall apply excluding the UN Convention on CISG. Place of venue is Stuttgart. Our General Terms of Business apply.
- If all safety instructions are adhered to and the system is correctly installed, there is a product warranty entitlement of 12 years! We strongly recommend reviewing our terms of guarantee, which can be viewed at k2-systems.com/en/warranty-terms-and-conditions We will also send this information on request.
- Dismantling of the system is performed in reverse order to the assembly.
- K2 stainless steel components are available in different corrosion resistance classes. Each structure or component must be carefully checked for possible corrosion exposure.

The following guidelines apply



This system can be used without further testing by K2 systems under the following standard conditions. It is also suitable for higher requirements, however if a value exceeds the standard conditions, please contact K2 Systems.



Planning with K2 Base

We recommend our free online software K2 Base for the planning. In five steps, you can plan the right assembly system and get a construction recommendation, parts list and the structural analysis report. Simply register and start planning:

base.k2-systems.com



Facade requirements

- The wall structure to which the PV mounting system is attached must have sufficient load-bearing capacity to absorb the additional loads generated by the PV system.
- The load-bearing capacity of the mounting substrate must be checked against the substrate assumed in the calculation before starting the installation work.
- It must be checked that the technical specifications of the wall construction, e.g. material, wall thickness, etc. correspond to the specifications of the static calculation.



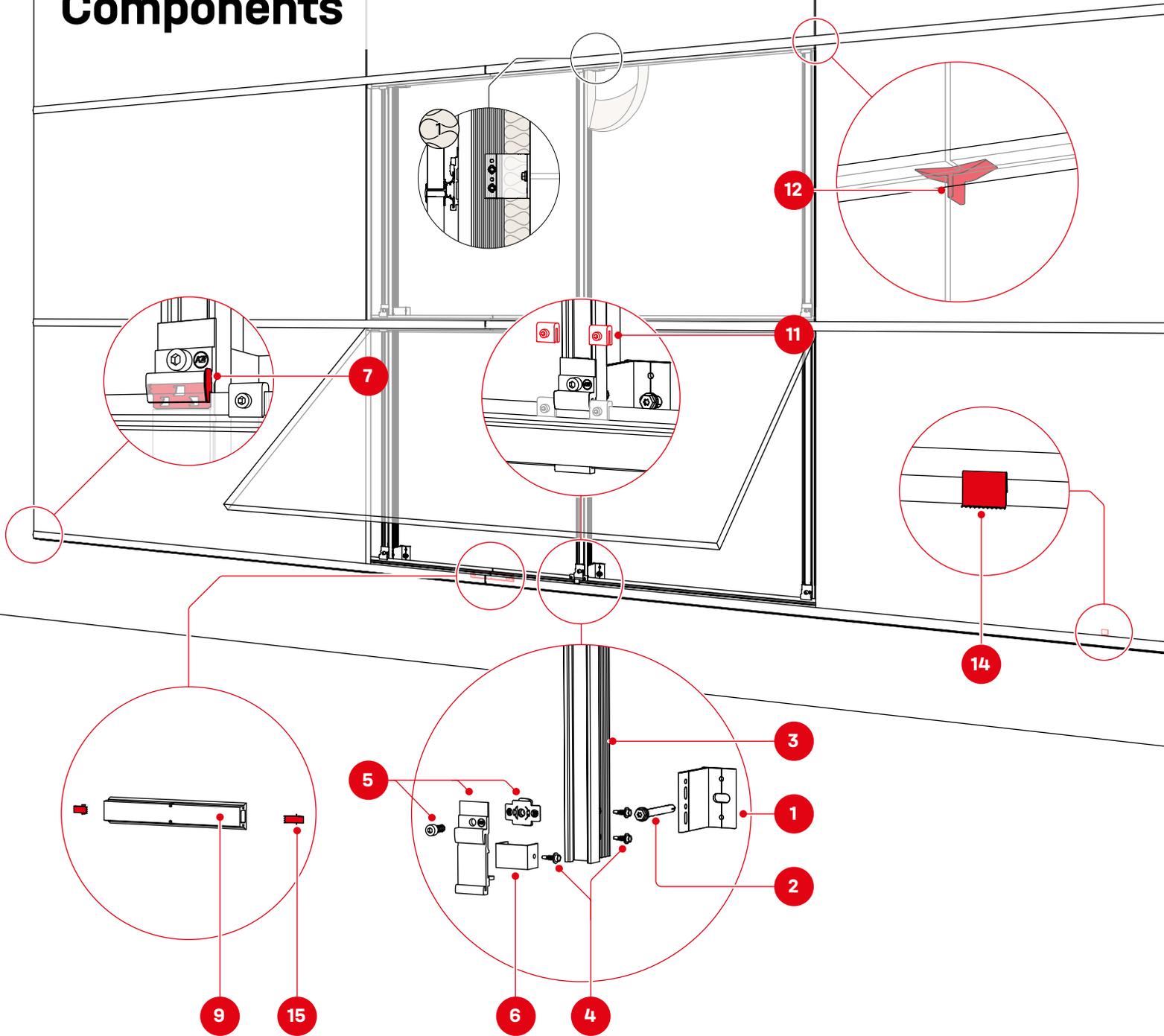
Important mounting instructions

- On-site general standards and regulations for lightning protection must be observed and consultation with a specialist to create a lightning protection concept is recommended (use lightning protection clamp if necessary). It should be noted that the installation direction is from bottom to top. Country-specific regulations must be observed.
- After 13.6 m (vertical) and 21.0 m (horizontal) a thermal separation must be installed. Fire protection regulation may specify a value less than 13.6 m (vertical) and 21.0 m (horizontal) and must be adhered to.

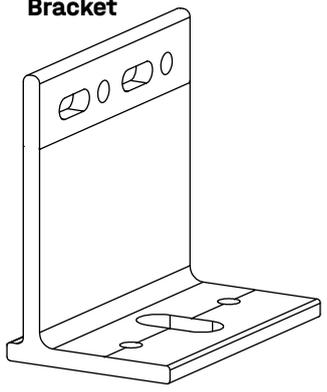
The distance between FacadeRails in the direction of the high crests as well as the InsertionRails must be at least 30 mm.

- Each cut-to-size rail section (InsertionRail) must have at least 2 fastening points (CrossConnector).
- Rail cut (InsertionRail) \geq 1100 mm
- Horizontal distance between the modules must be at least 5 mm (ModuleSafety).
- Min. 50 mm projection from the end of the rail (InsertionRail) to the outer edge of the CrossConnector.
- Follow the bracket manufacturer's installation instructions
- For anchoring, it is important that the properties of the load-bearing wall in which the PV façade mounting system is anchored can be specified precisely. If the substrate material is not covered by ETA or HILTI FTM, load tests on masonry are necessary. You can request this load test service directly from HILTI under k2-systems.com/en/hilti-anchor-testing
- Item number 2004533 (component overview, item 2) can only be used if no moisture can penetrate the anchor shaft. In addition, the screw head itself must be coated with a soft-plastic, permanently elastic bitumen-oil combination coating (e.g. primer or cavity protection for cars).
- The country-specific requirements for the modules when mounted on the facade must be observed.
- The country-specific rules for fire protection on the facade must be observed. If necessary, the system must be assessed by a fire protection expert.
- The country-specific rules for rear ventilation of the facade must be observed.

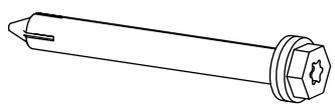
Components



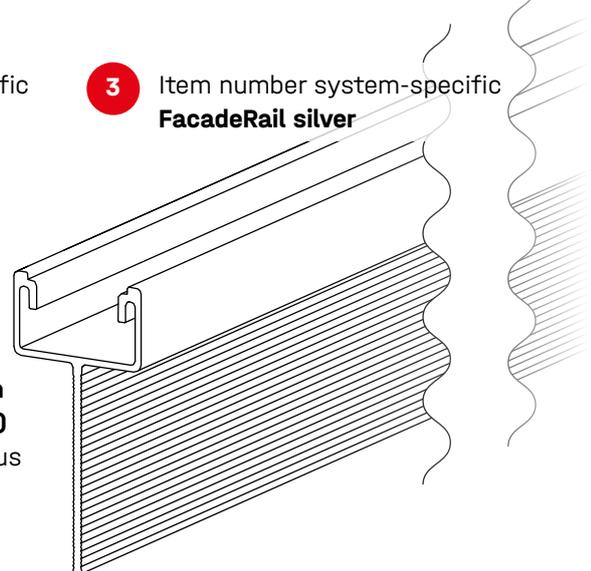
1 Item number system-specific **Bracket**



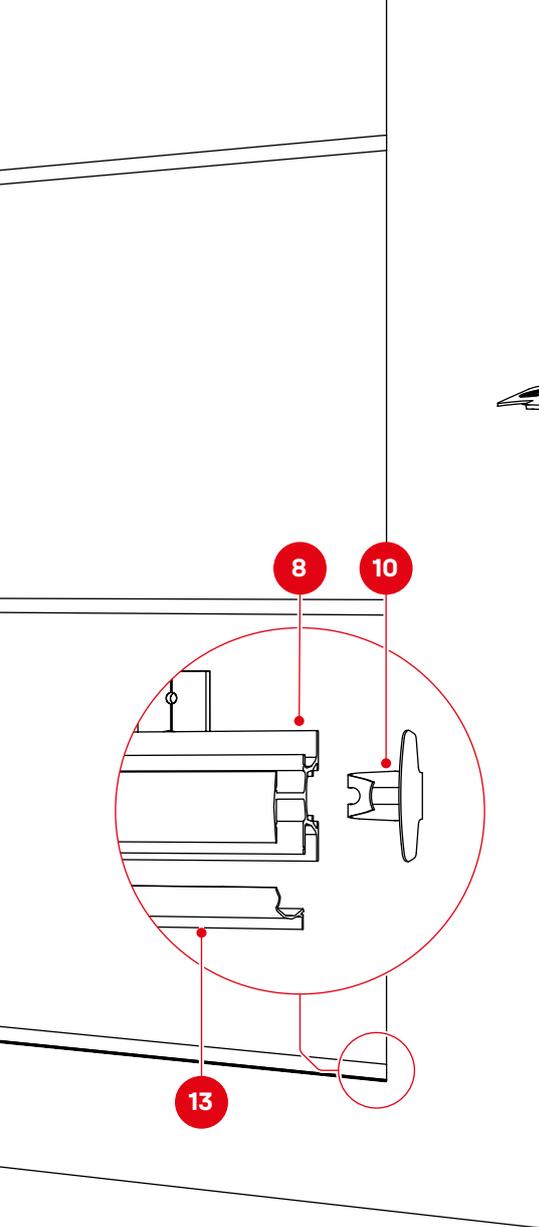
2 Item number system-specific **Dowel**



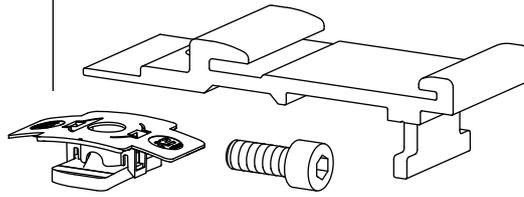
3 Item number system-specific **FacadeRail silver**



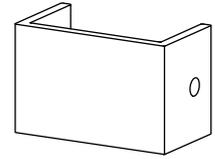
External thermal insulation composite systems (ETICS)
Brackets available in various lengths



5 2004812/2004813
CrossConnector-T Set
silver/black



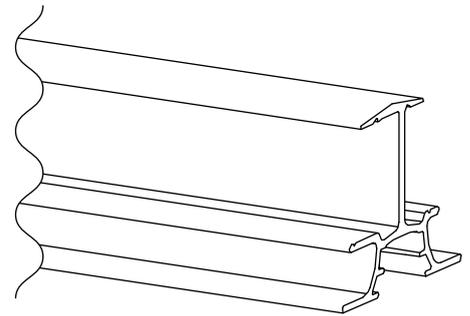
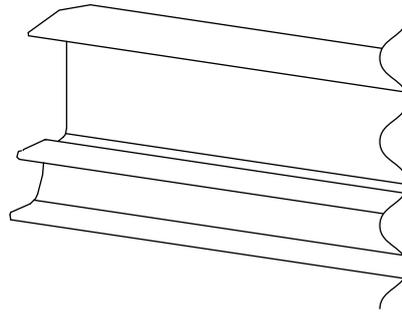
6 2004289
Rail AntiSlip Clip



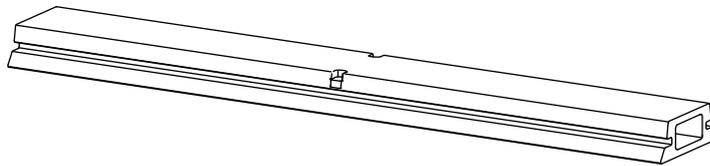
7 2004916
CrossConnector Clip



8 Item number system-specific
InsertionRail 2.0 silver/black



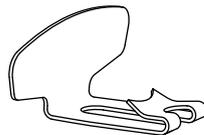
9 2004355/2004322
RailConnector silver/black



4 2004432
Self-tapping metal screw
5,5 × 19



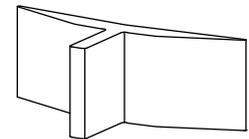
10 2004693/2004692
EndStop S silver/black



11 2004370
FixStop 2.0

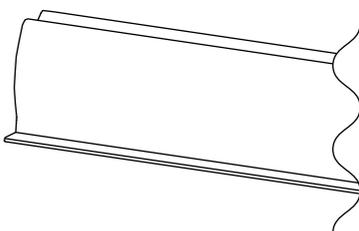


12 2004290
ModuleSafety

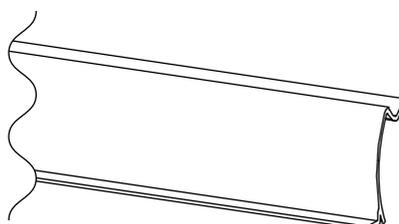


Optional

13 Item number system-specific
InsertionRail 2.0 Cover
silver/black



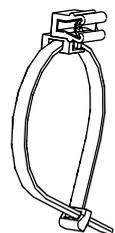
14 2000056
TerraGrif K2U17



15 2004102
TerraGrif PL

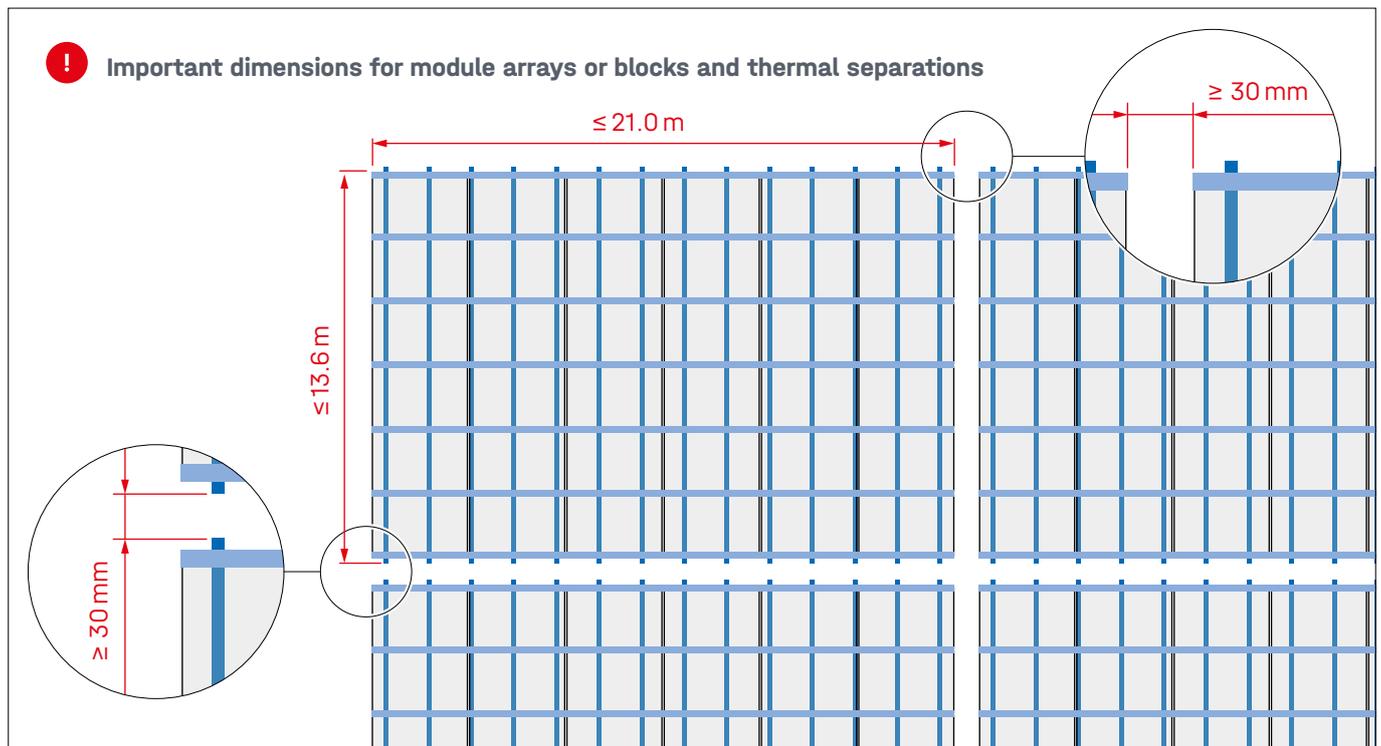


2002870
Cable Manager

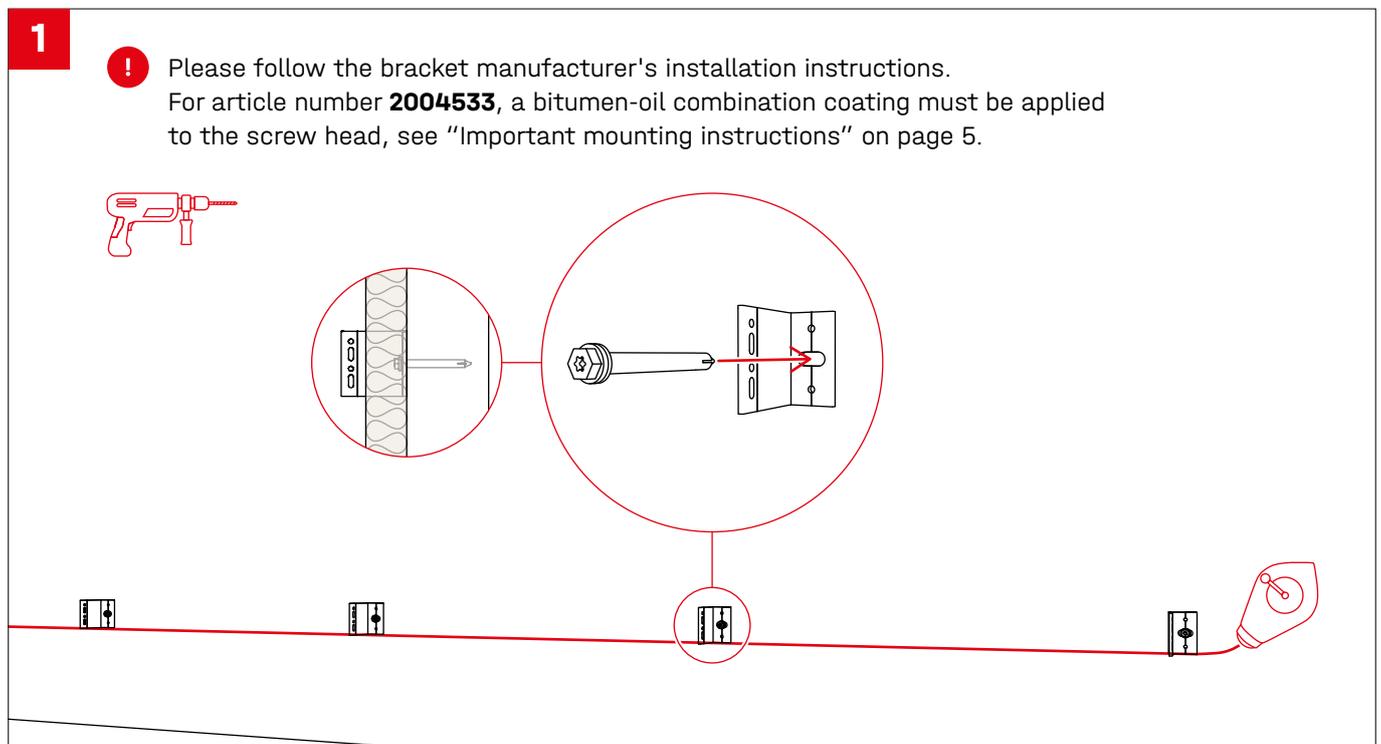


Assembly

Portrait / landscape



Attach bracket to masonry



Vertical distances brackets

2

The number and size of the brackets is determined on a project-specific basis and output in the project report.

$D_{B1} = \text{Width} / \text{Length}_{\text{Module}} - 20,0 \text{ mm}$

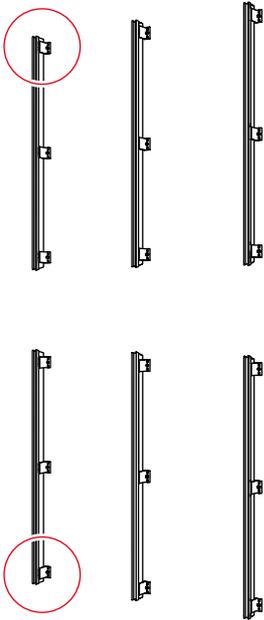
$D_{B2} = \text{Width} / \text{Length}_{\text{Module}} + 14,0 \text{ mm}$

$D_{B3} = \text{Width} / \text{Length}_{\text{Module}} - 2,5 \text{ mm}$

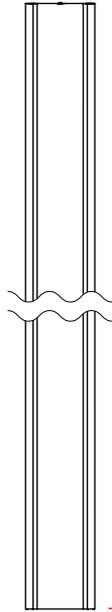
Attach FacadeRail to brackets

3a For each FacadeRail, 2 screws must be placed in the round holes (round hole fixed bearing 1). With 2 brackets, the position can be freely selected; with 3 or more brackets, place them in the center or above the center. All other fixing points must be placed in the centre of the slotted holes (2).

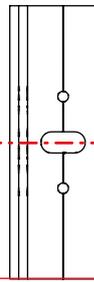
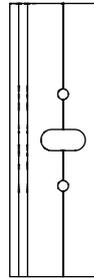
1 ● Round hole fixed bearing 2 ● Slotted hole floating bearing

3b

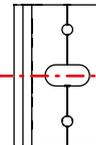
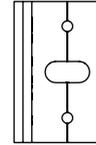
FacadeRail



Bracket L



Bracket M



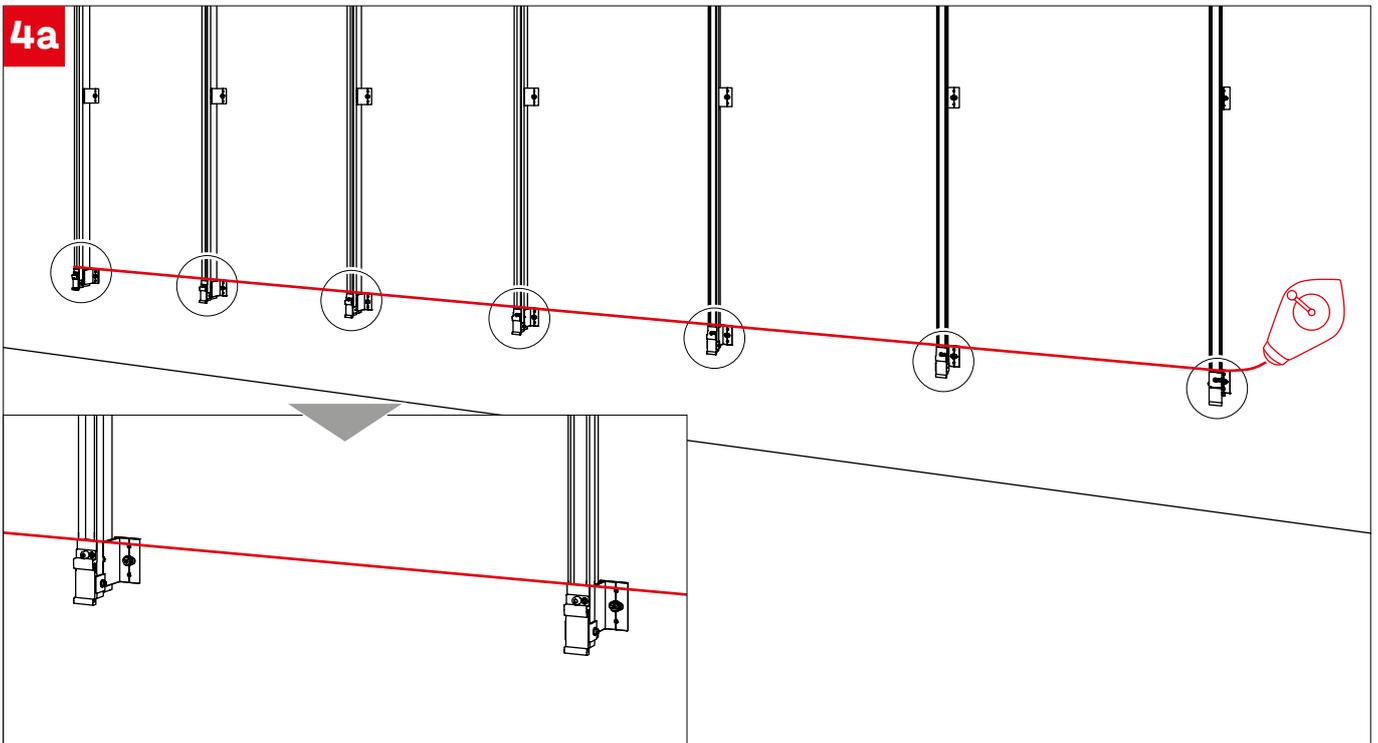
Bracket S



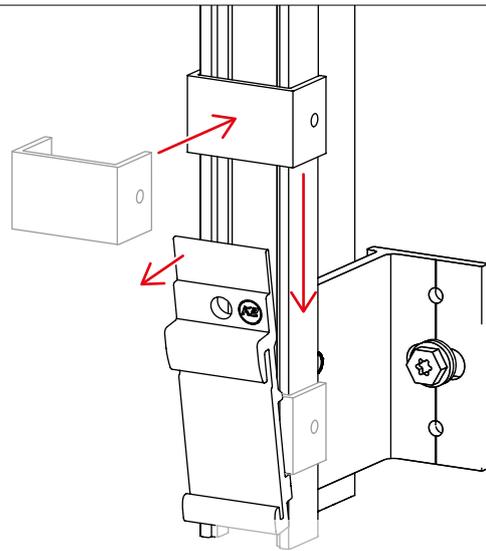
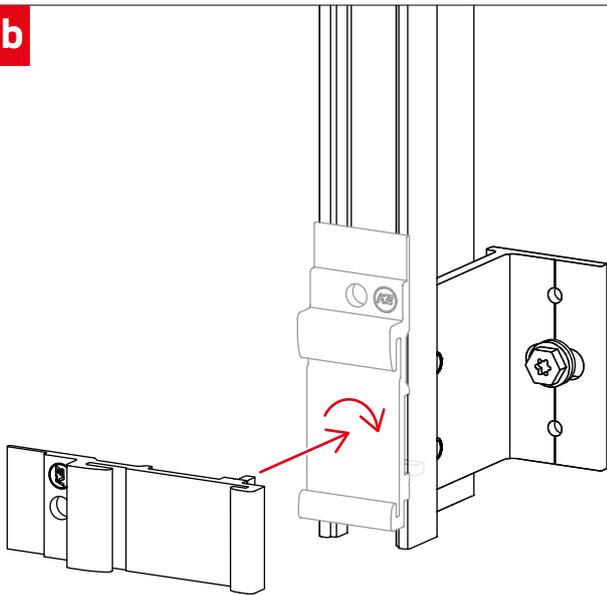
The bracket distances (top and bottom) to the FacadeRail apply to one module block each.

75 mm

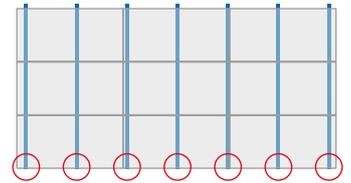
CrossConnector T assembly

4a

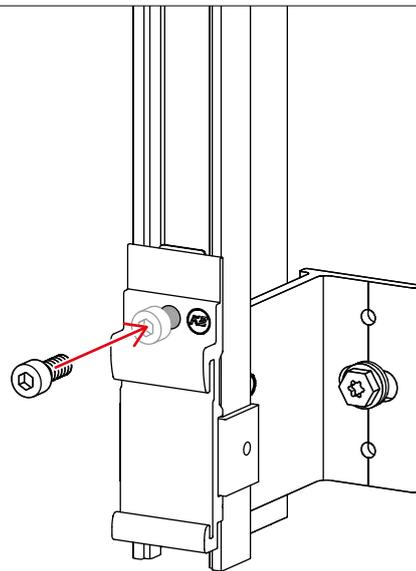
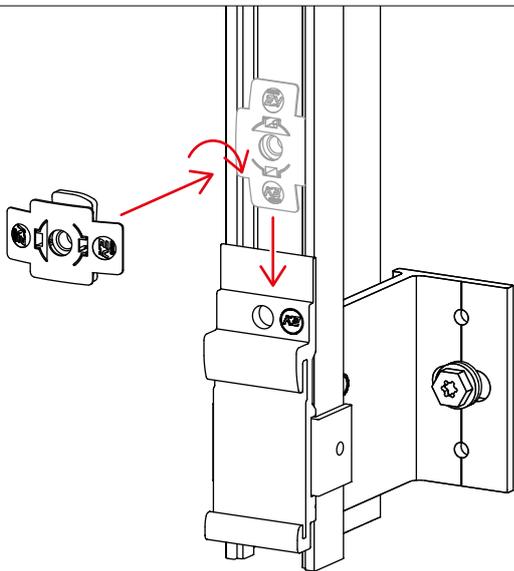
4b



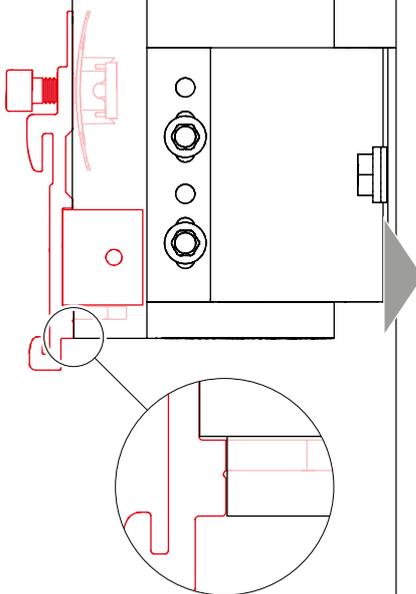
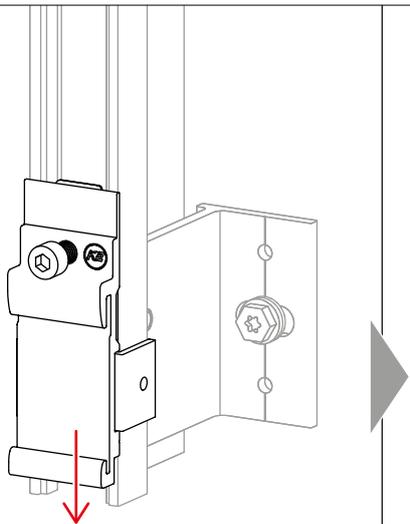
! Install Rail AntiSlip Clips in the bottom row of each module block.



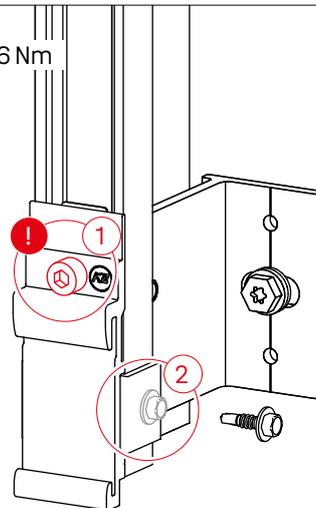
4c



4d



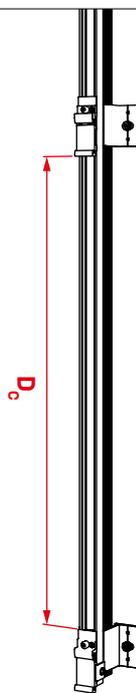
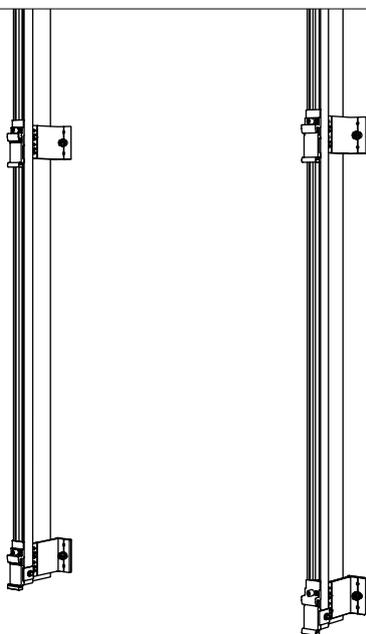
! 16 Nm



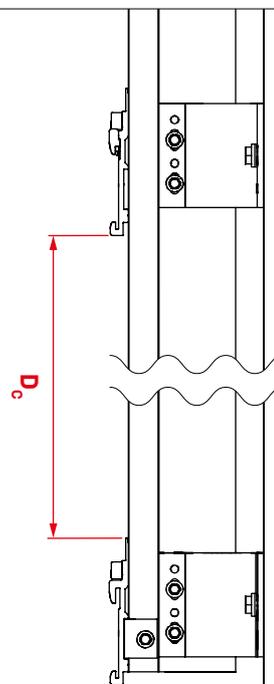
2 Before fastening the Rail AntiSlip Clip screw, make sure that the CrossConnectors are precisely aligned horizontally!

Vertical distance CrossConnector T

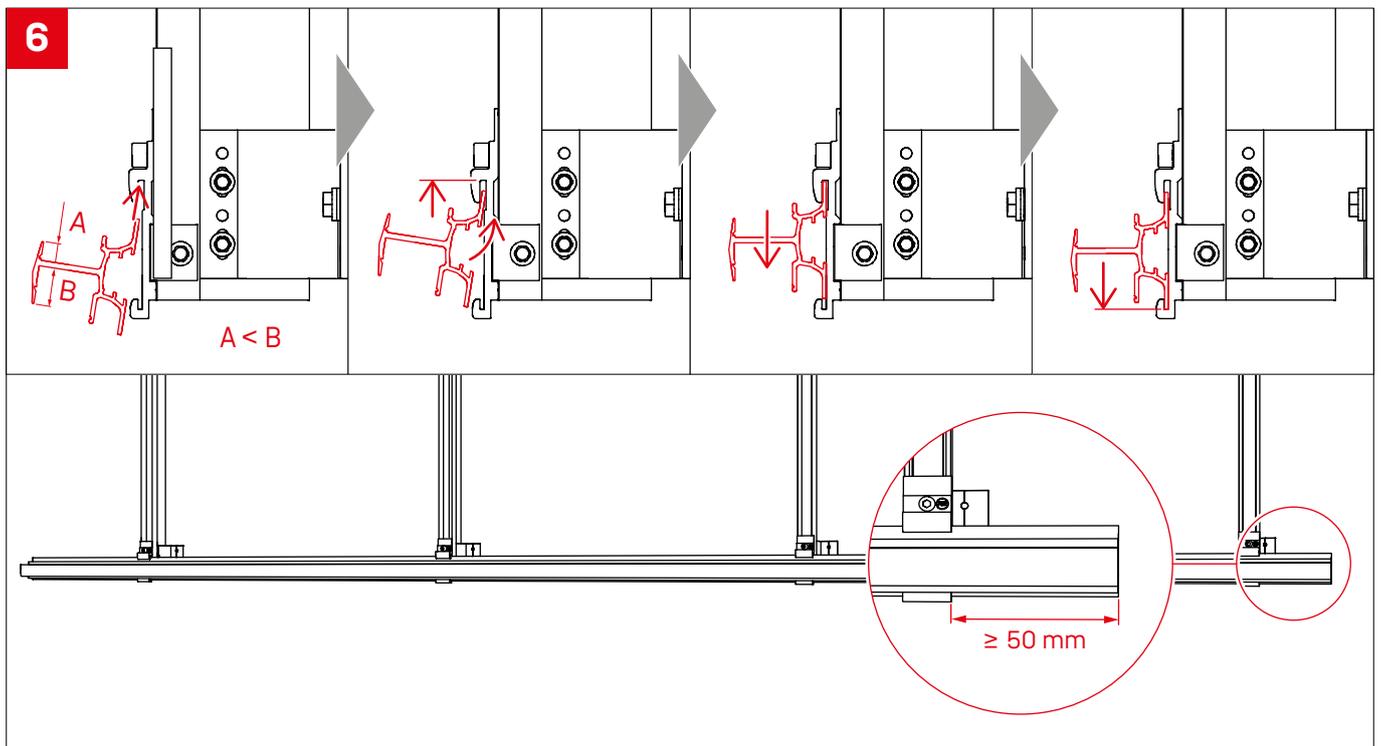
5



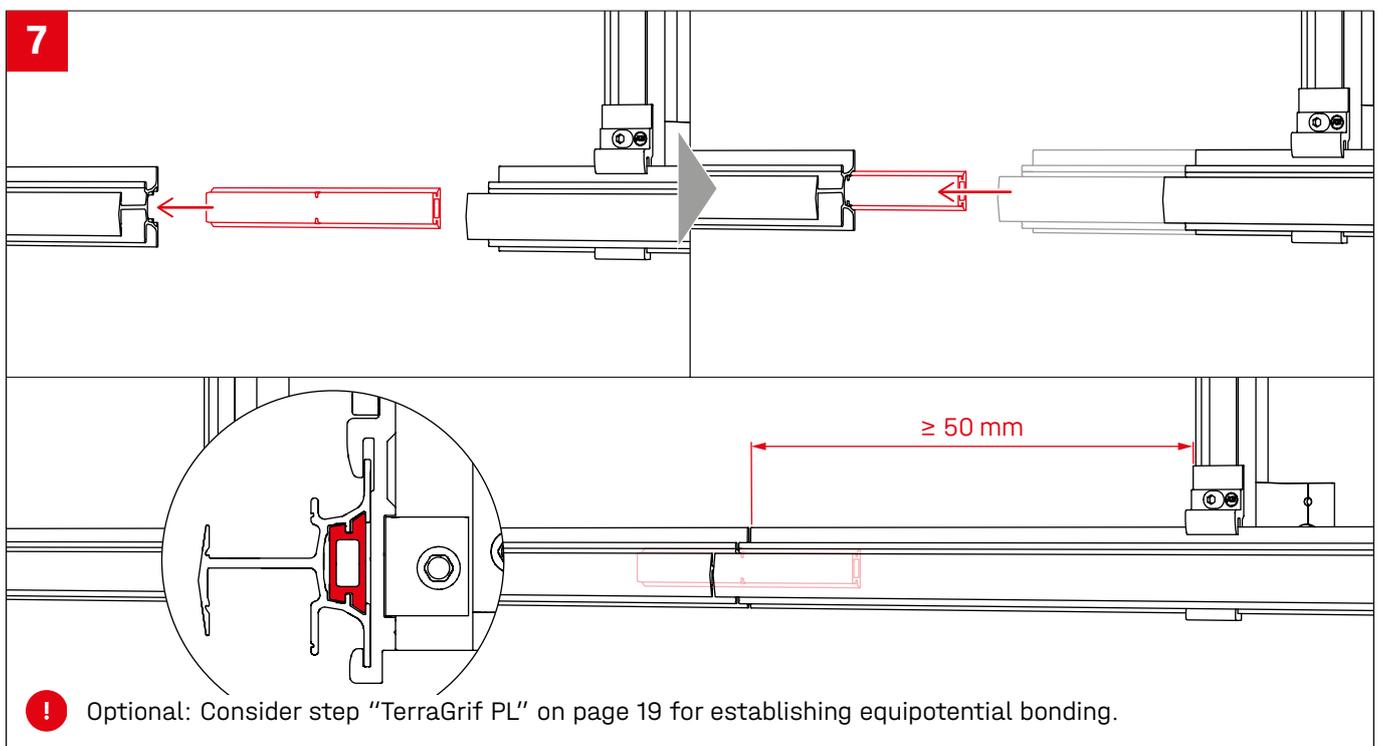
$$D_c = \text{Width / Length}_{\text{Module}} - 99 \text{ mm}$$



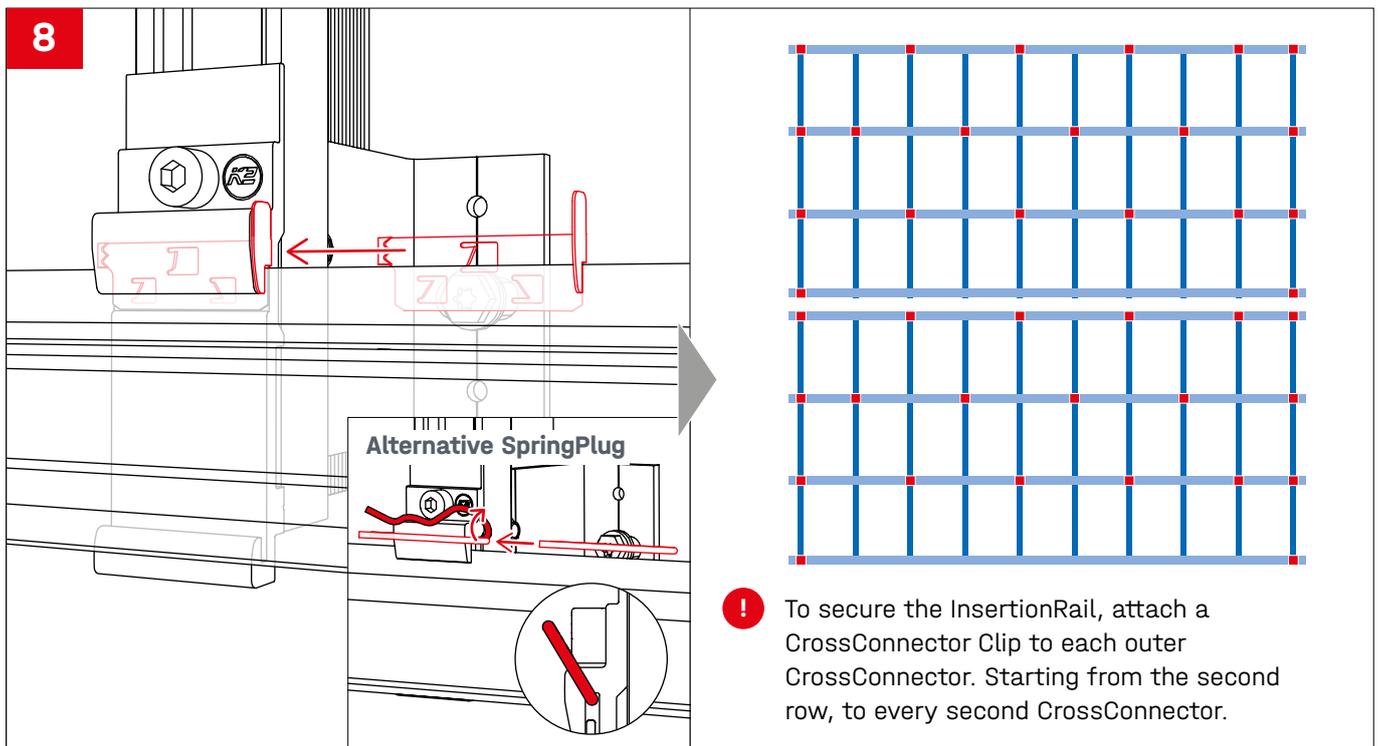
Insert InsertionRail



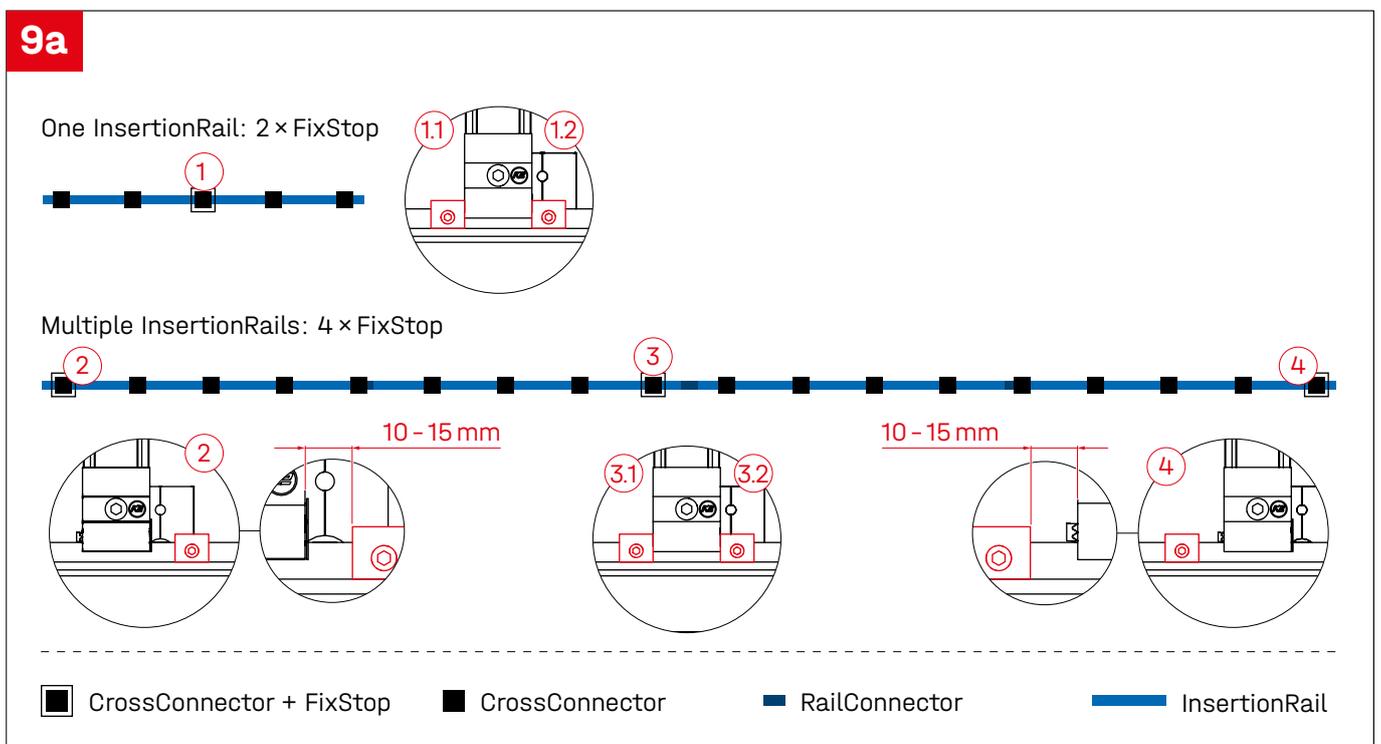
Connect InsertionRails with InsertionRail RailConnector



Fixing InsertionRail with CrossConnector Clip

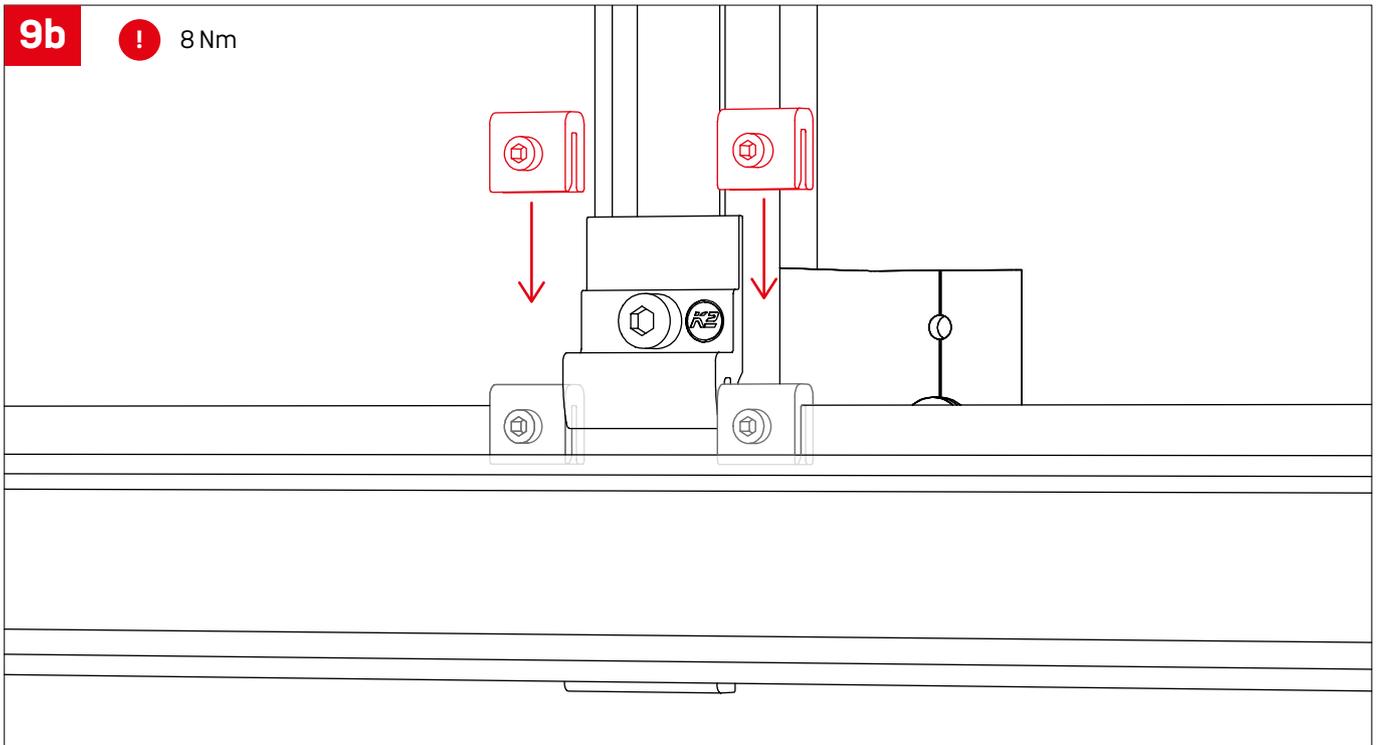


Positioning and assembly FixStop



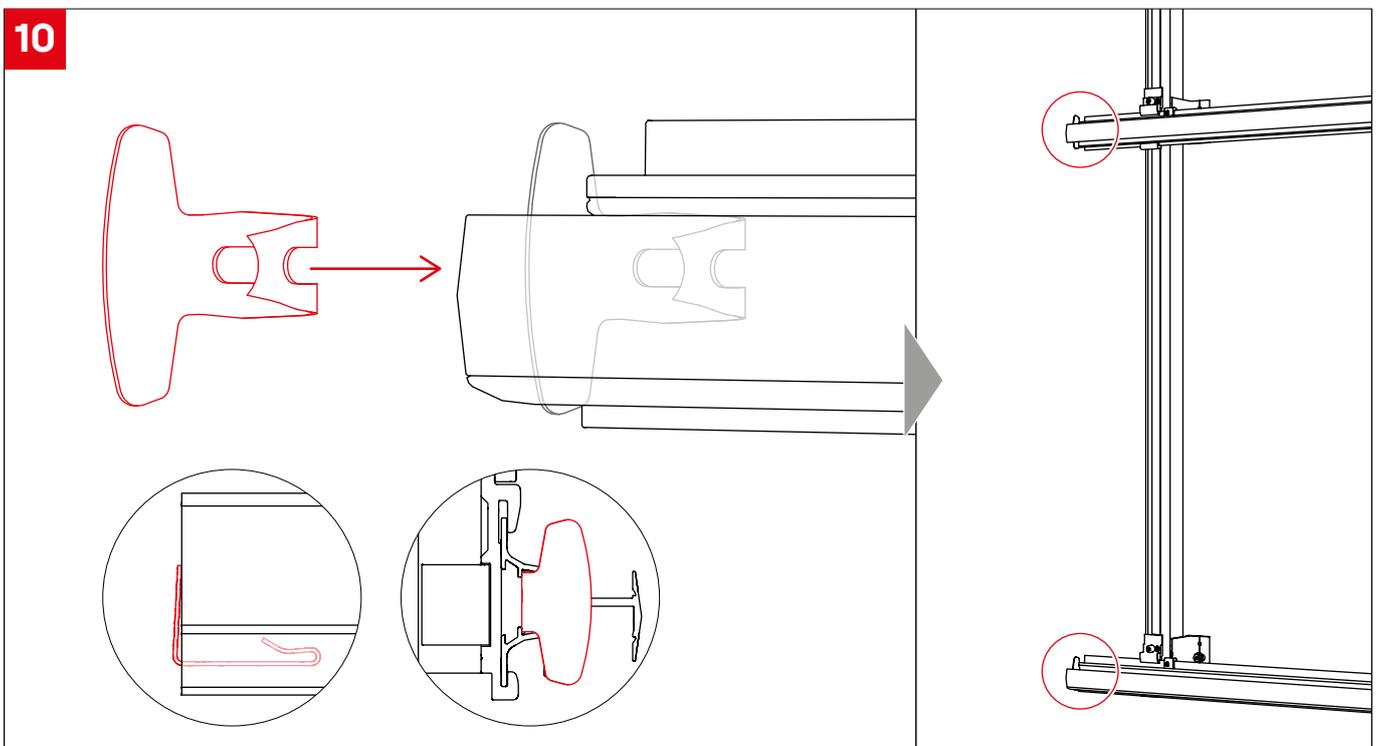
9b

! 8 Nm

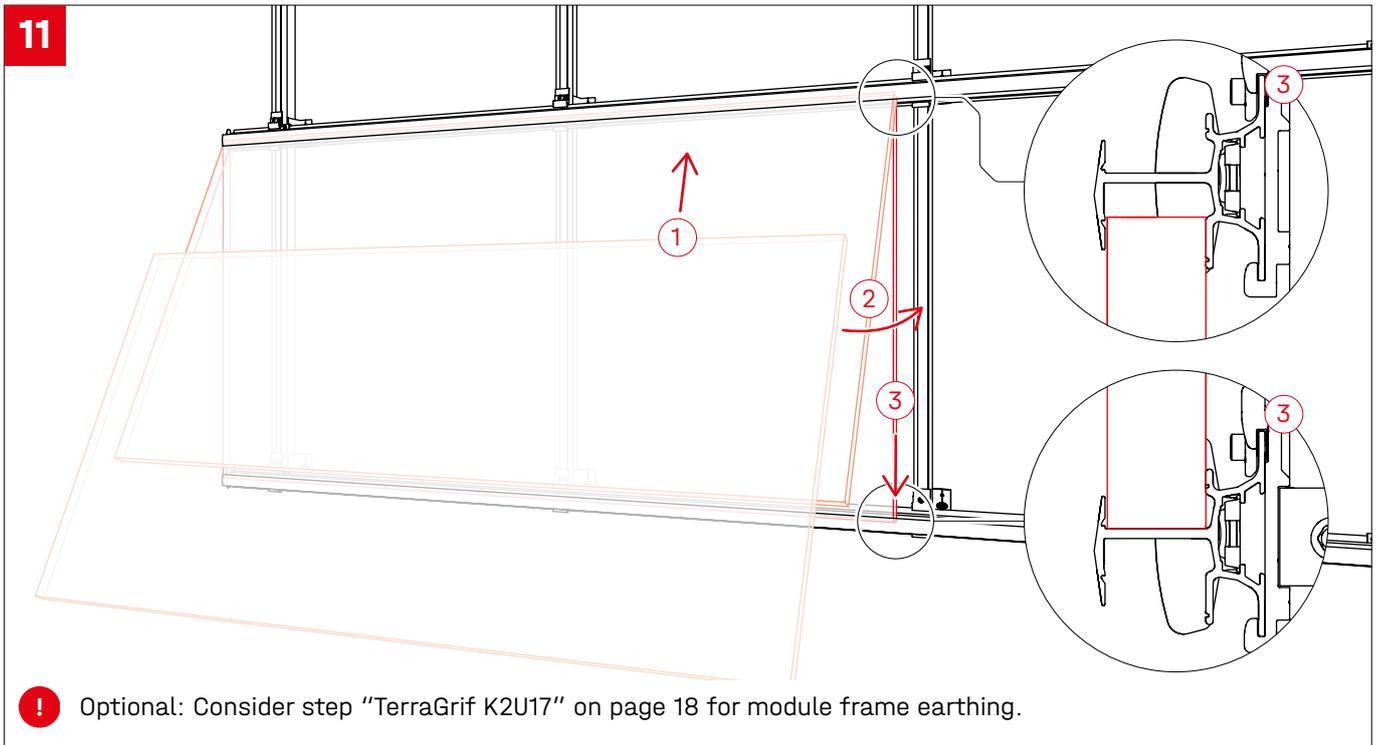


Side guarding with EndStop S - start of rail

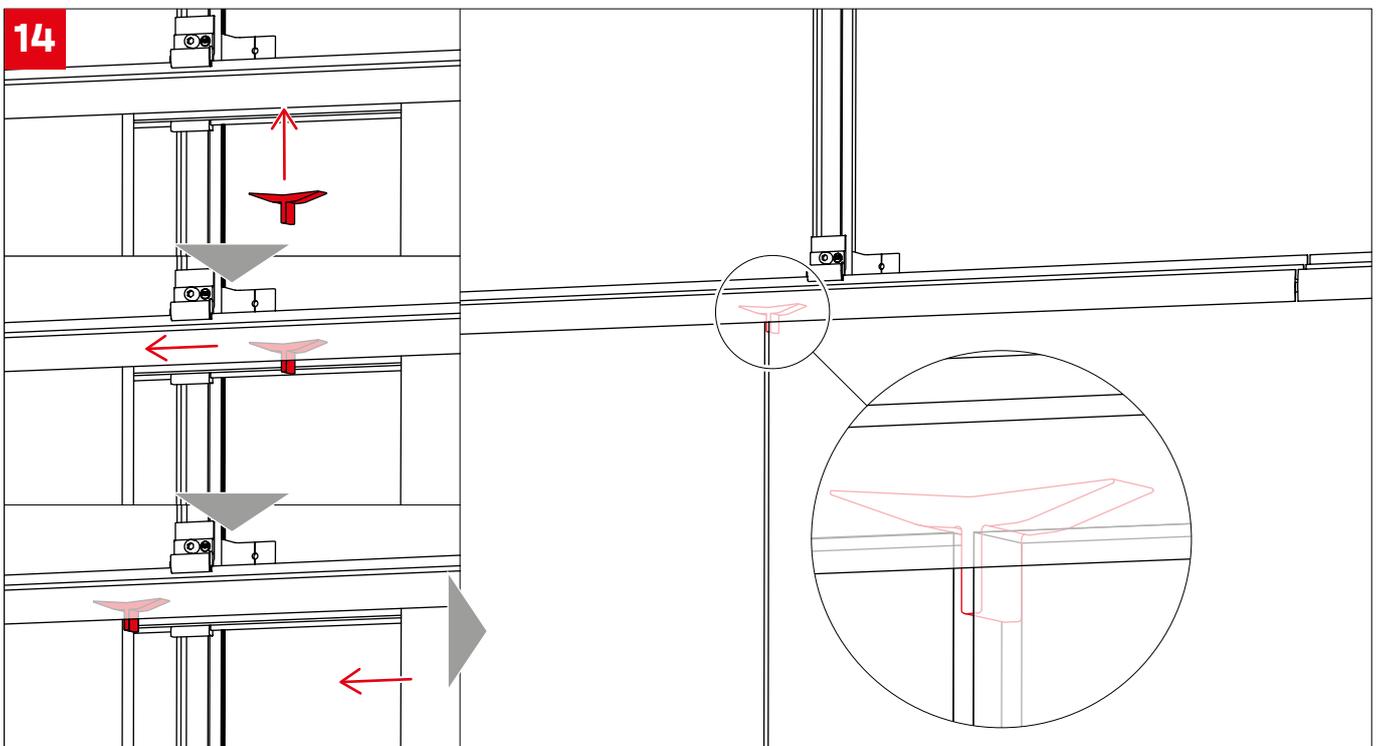
10



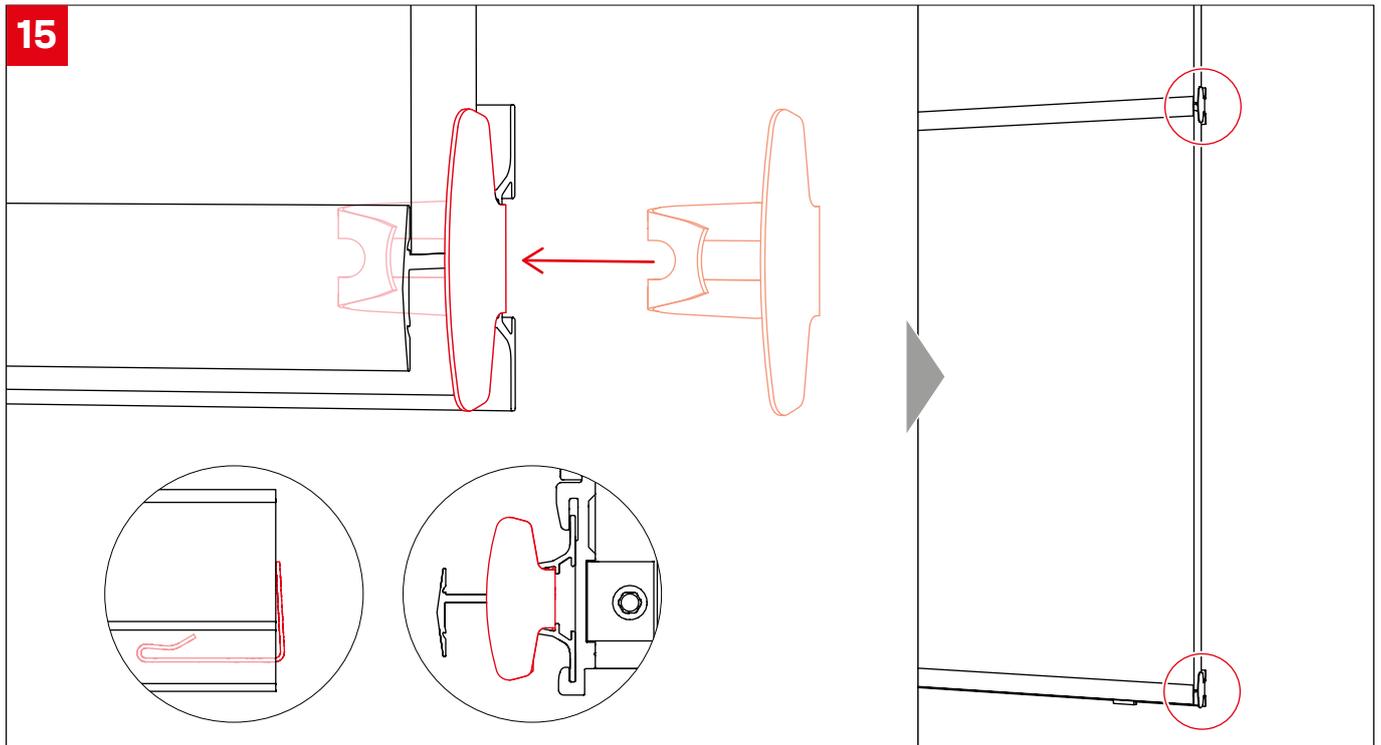
Insert modules



Maintain module spacing with ModuleSafety

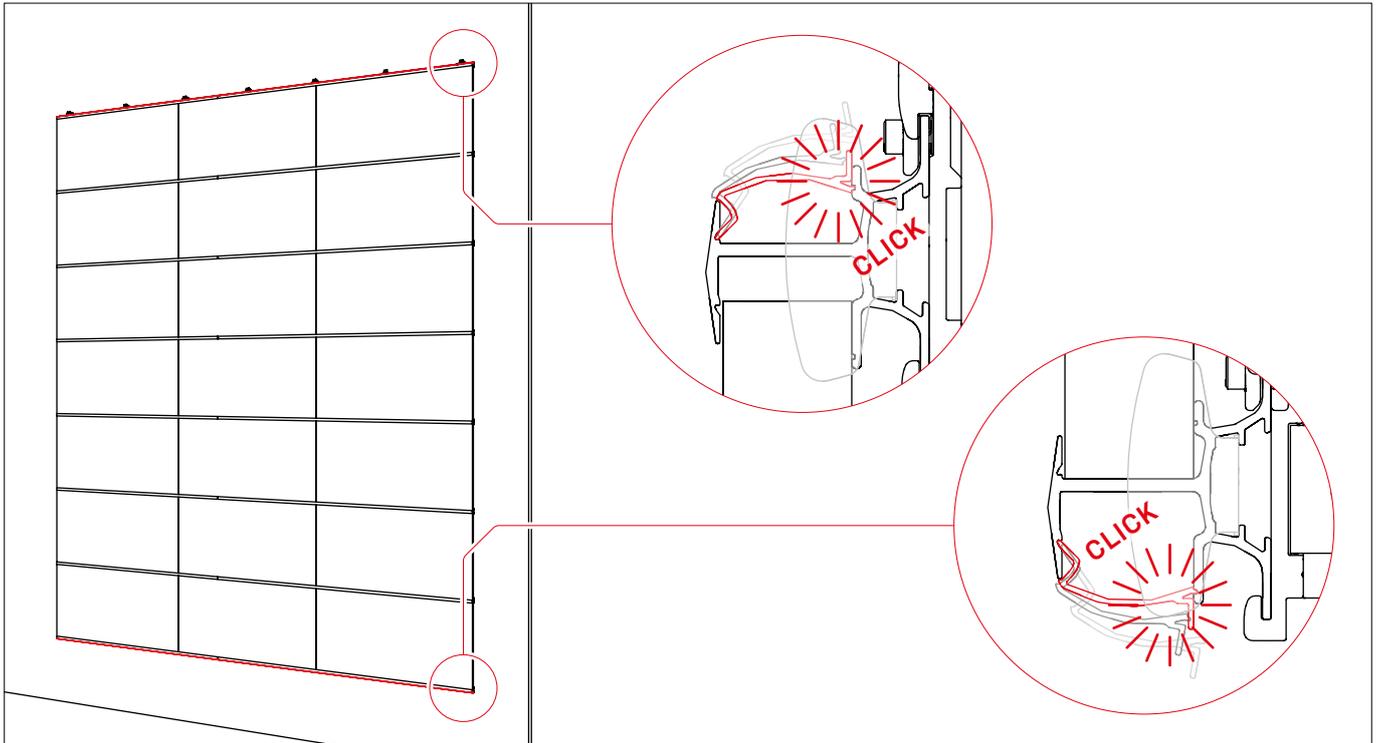


Side guarding with EndStop S - end of rail

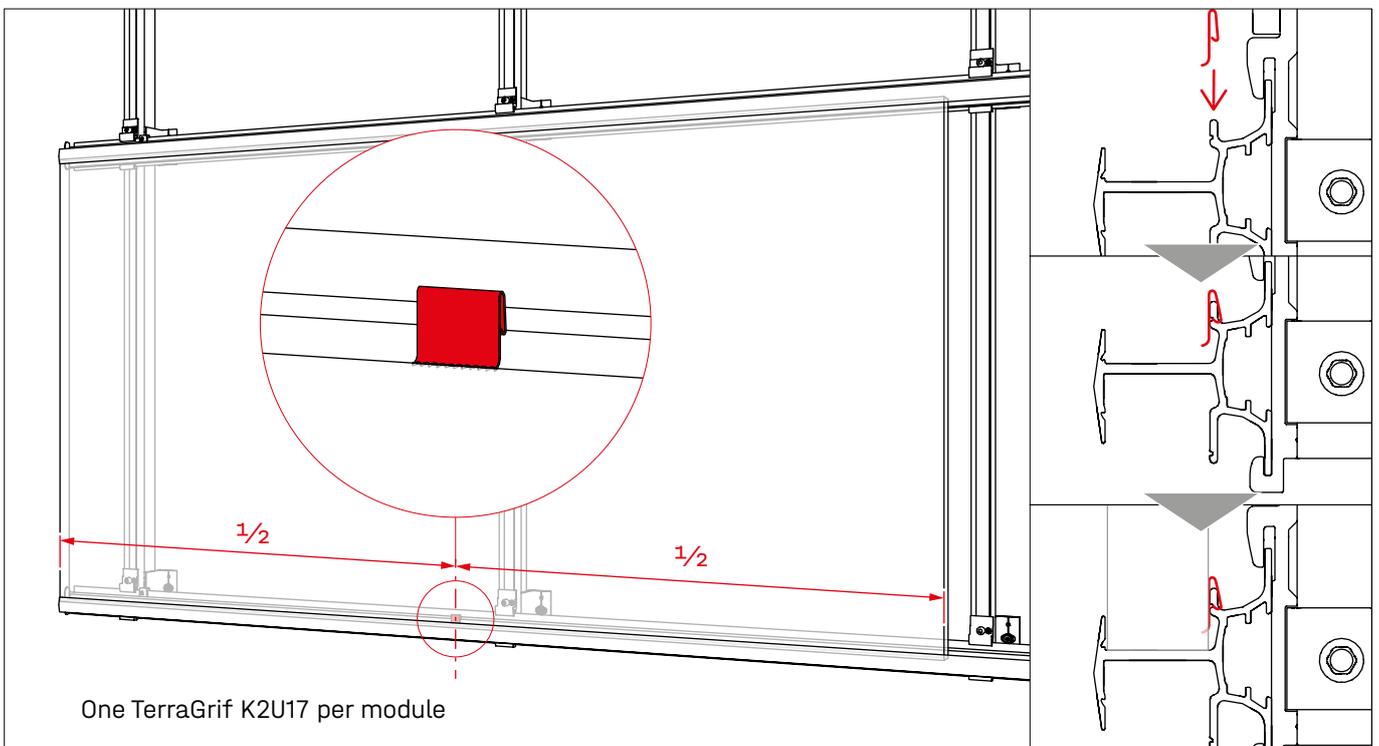


Optional

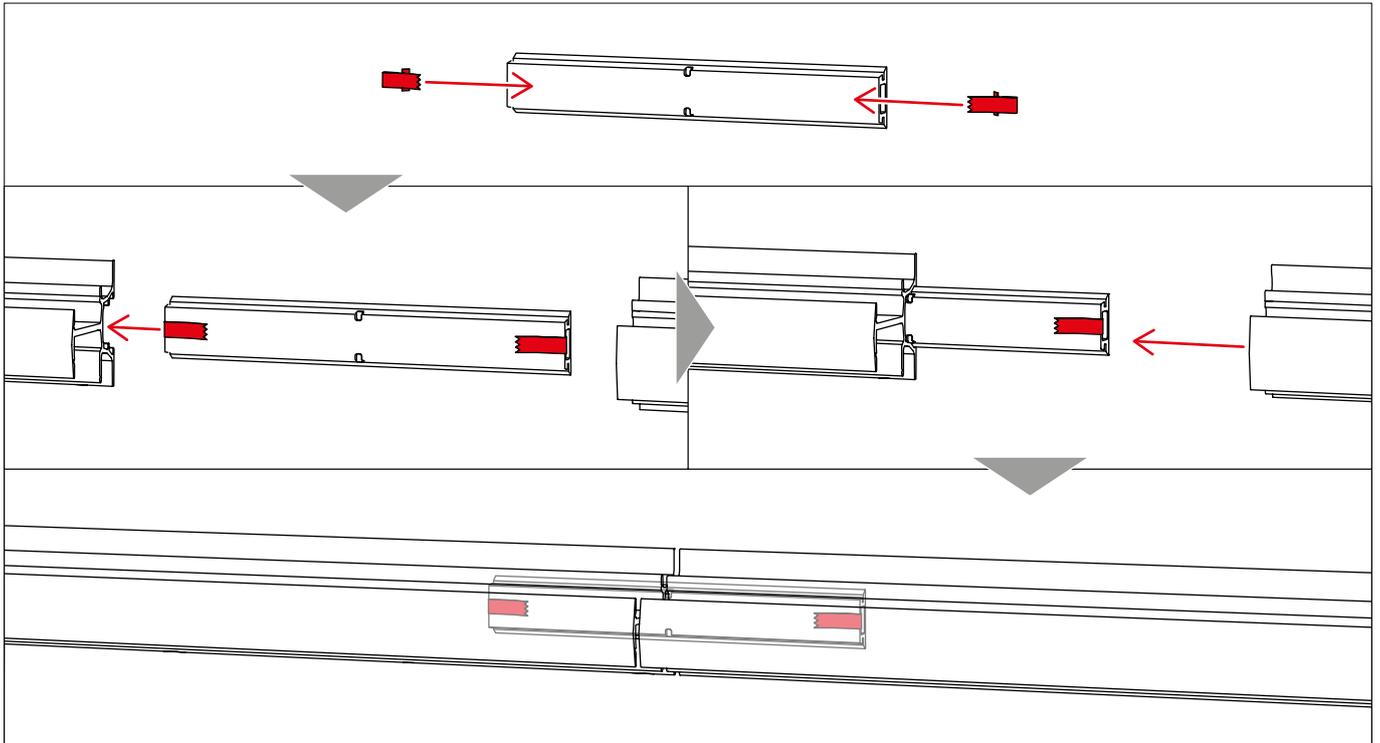
InsertionRail Cover



TerraGrif K2U17



TerraGrif PL





Connecting Strength

Thank you for choosing a K2 mounting system.

Mounting systems from K2 Systems are quick and easy to install. We hope these instructions have helped. Please contact us with any questions or suggestions for improvement. Our contact data:

- k2-systems.com/en/contact
- **Service Hotline: +49 (0)7159 42059-0**

Our General Terms of Business apply. Please refer:
k2-systems.com

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WallPV FacadeRail InsertionRail Assembly EN V3 | 0226 · Subject to change
Product illustrations are exemplary and may differ from the original.