



Assembly Manual

# N-Rack System

## Pile-driven foundations



Connecting Strength

[k2-systems.com](https://k2-systems.com)

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## Quality tested - several 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](https://k2-systems.com)

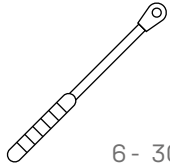
# Tools overview



6 mm



8 mm



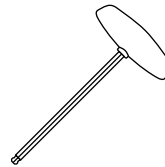
6 - 30 Nm  
(4.5 - 22.2 lb-ft)



6 mm



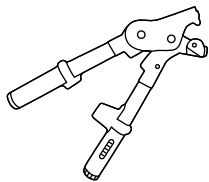
17 mm



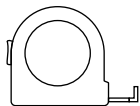
6 mm



17 mm



**Gripple Torq Tool 400** · 2004456



≥ 3,0 m



≥ 6,0 m

# 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](https://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 roof-mounted systems, the roof load-bearing capacity 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.
  - 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](https://k2-systems.com) 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.
- K2 Systems GmbH reserves the right to exclude liability if our general safety instructions are disregarded or if components of the competition are installed or attached.
- 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](https://k2-systems.com). 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 in the following standard conditions. The system is also suitable for higher requirements. However, if a value exceeds the standard conditions, please contact K2 Systems.



## Requirements for foundations with driven piles

The required driving depth of the driven piles and the chemical analysis of the soil must be carried out and determined by a geotechnical soil investigation, for example by a geologist.

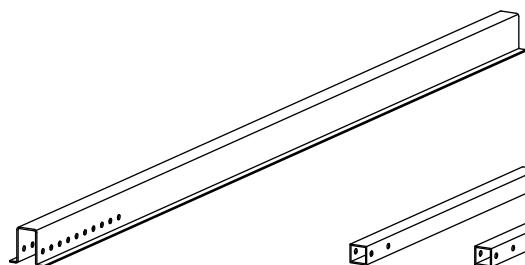
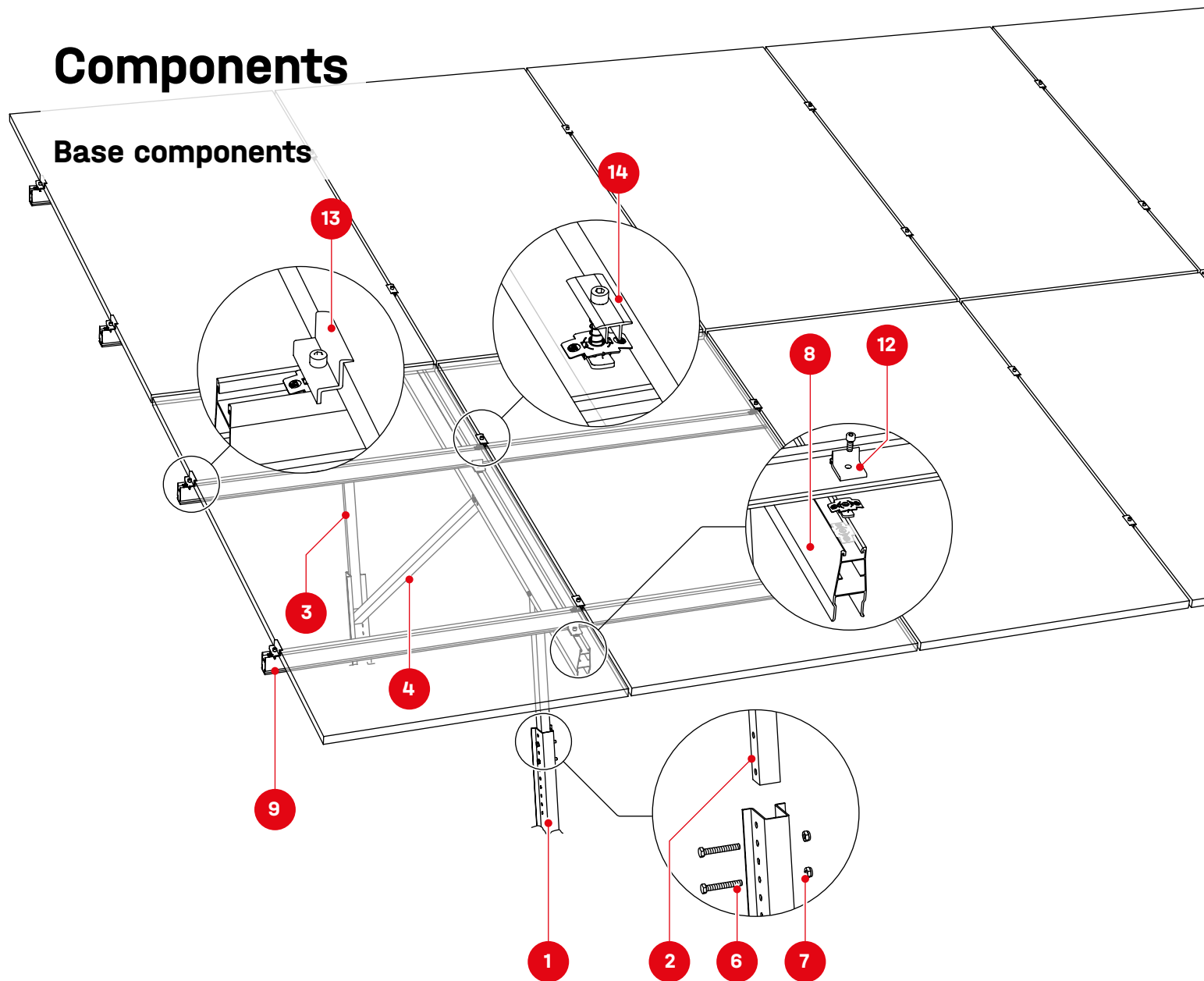


## Important mounting instructions

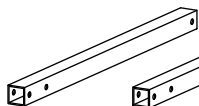
- On-site general standards and regulations for lightning protection must be observed and consultation with a specialist to create a lightning protection concept is recommended (use lightning protection clamp if necessary). Country-specific regulations must be observed.
- Adhere to module manufacturer recommendations for clamping area and module installation (see module manufacturer instructions).
- Module frame heights: 25 - 40 mm (other module clamps available)

# Components

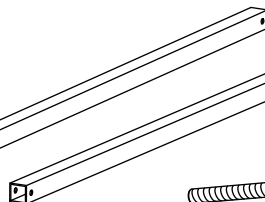
## Base components



**1** 2004384  
**Cap-Profile**



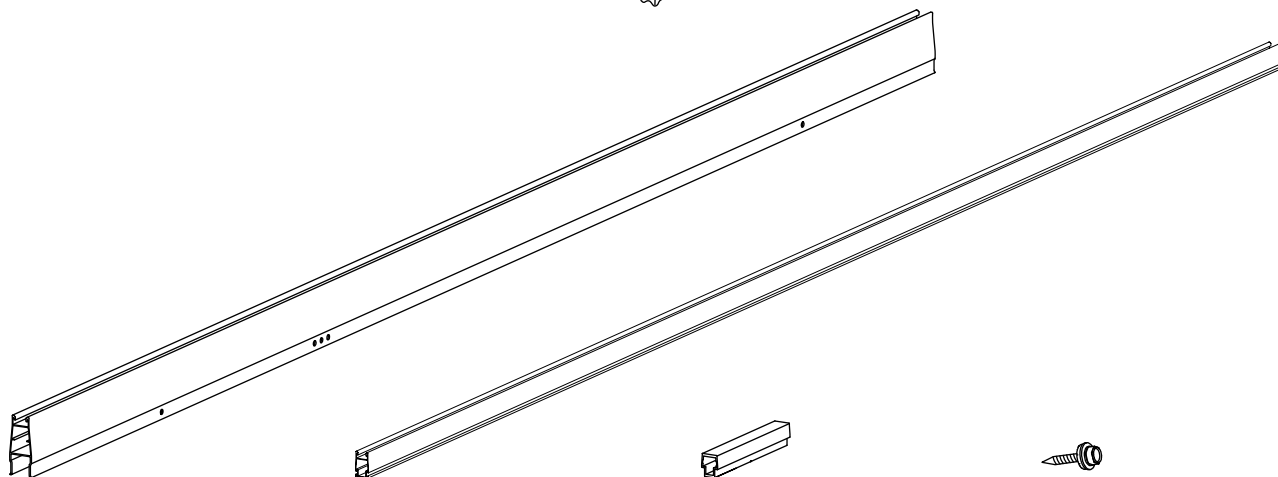
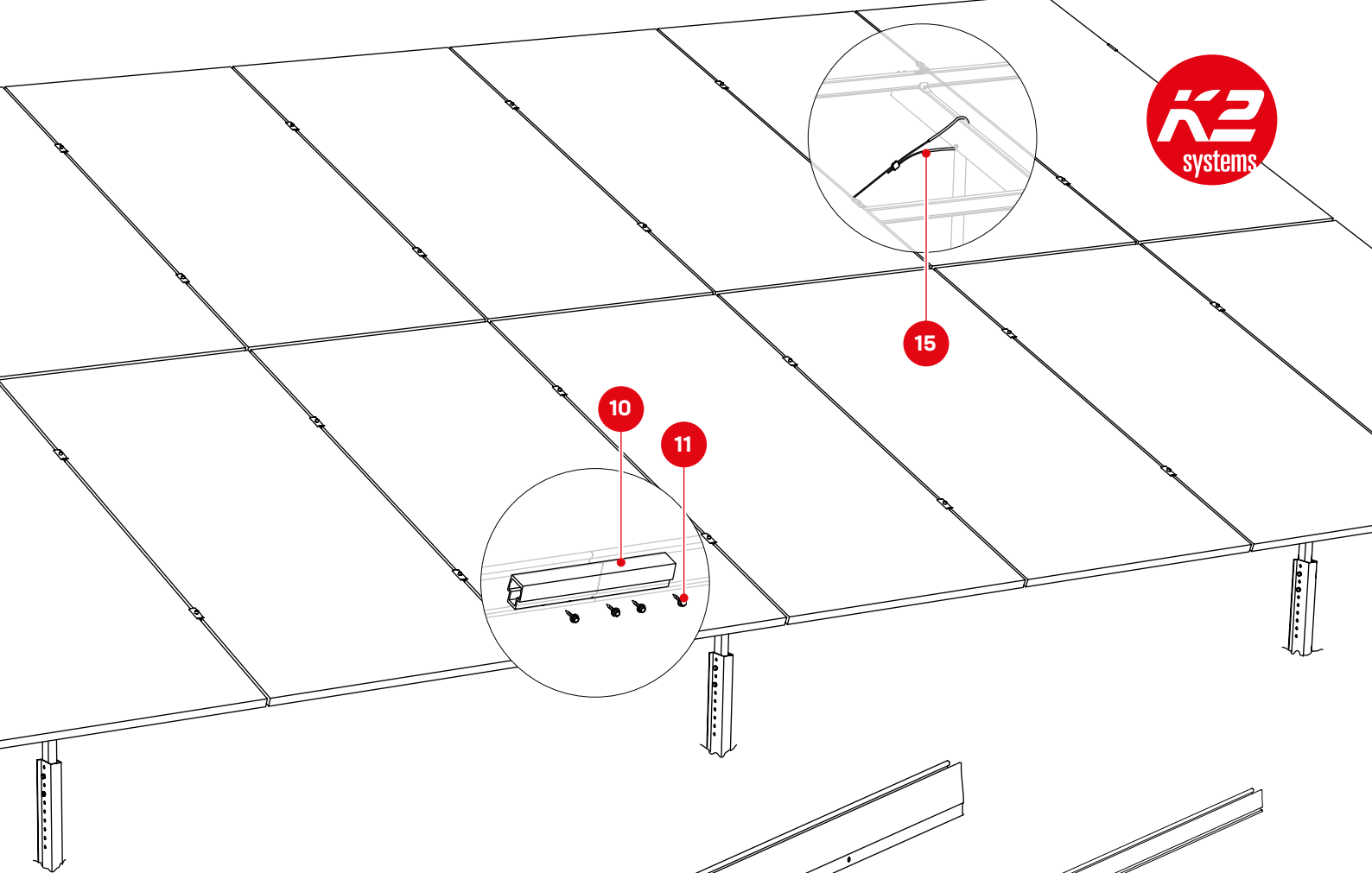
**2 3 4** Item number project  
specific , see P. 8 - 11  
**N-Rack Brace**



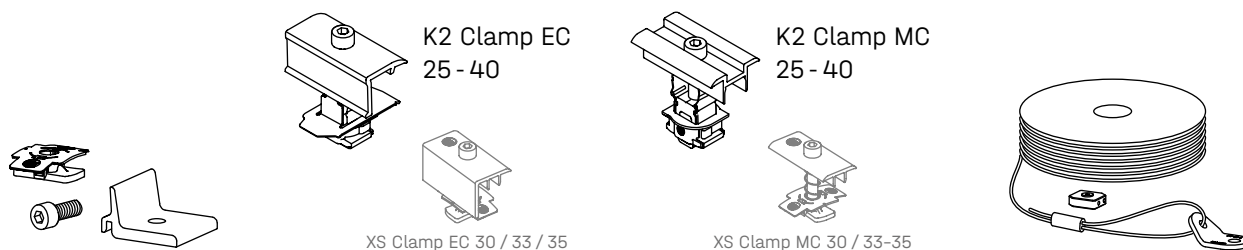
**6** 2004408  
**Hexagon head  
screw with  
shank M10 × 70**



**7** 1002849  
**Hexagon lock  
nut M10**



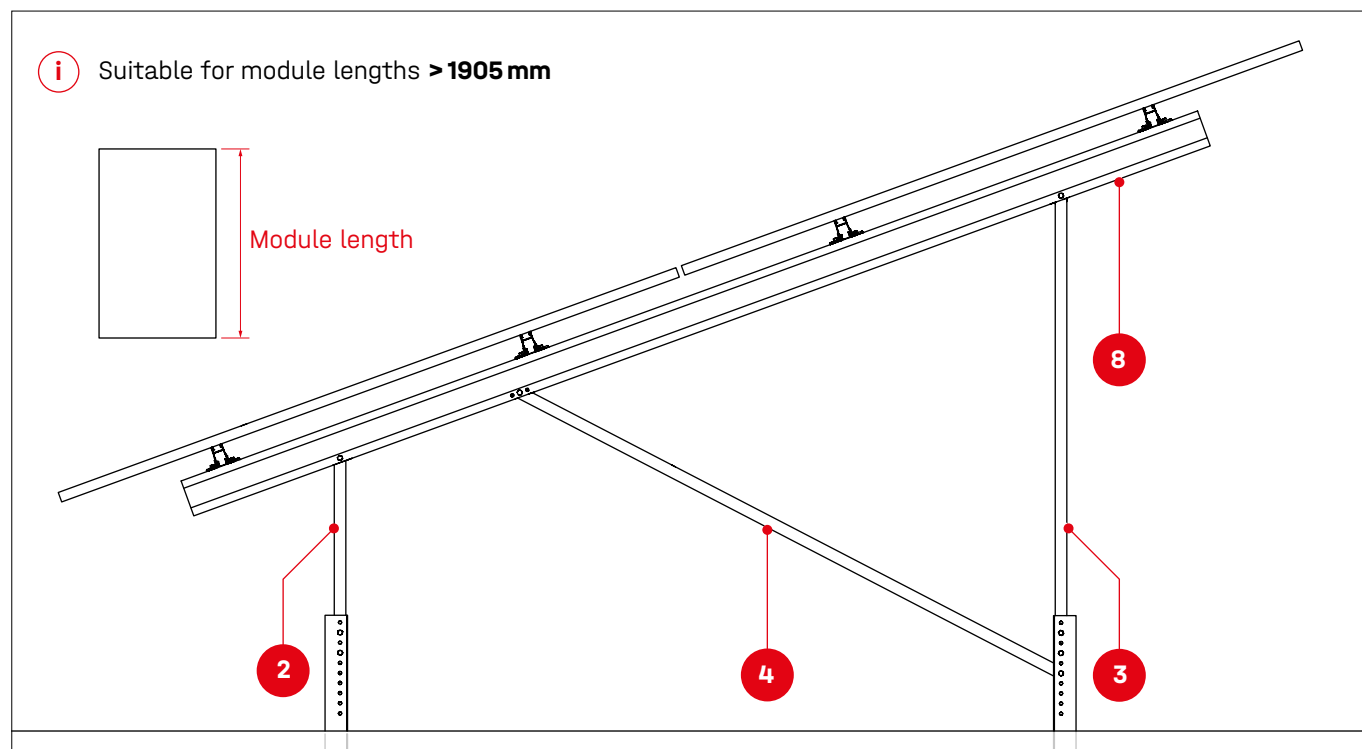
- 8** Item number project specific, see P. 8-11  
**N-Rack Beam**
- 9** 2004381  
**CrossRail 73**
- 10** 2004409  
**CrossRail 73 Con-  
nector**
- 11** 1001051  
**Self-drilling screw  
5,5 × 25**



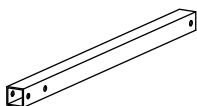
- 12** 2003145  
**Climber 36/50 set**
- 13** Item number project specific  
**Module end clamp**
- 14** Item number project specific  
**Module middle clamp**
- 15** 2004410  
**Wind bracing set**



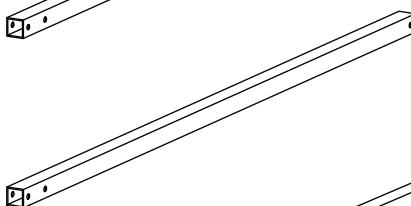
## Brace/Beam Components N-Rack 2.20



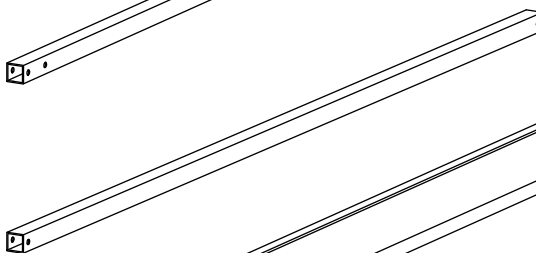
**2** 2004401  
**3-Hole Brace N-Rack 715**



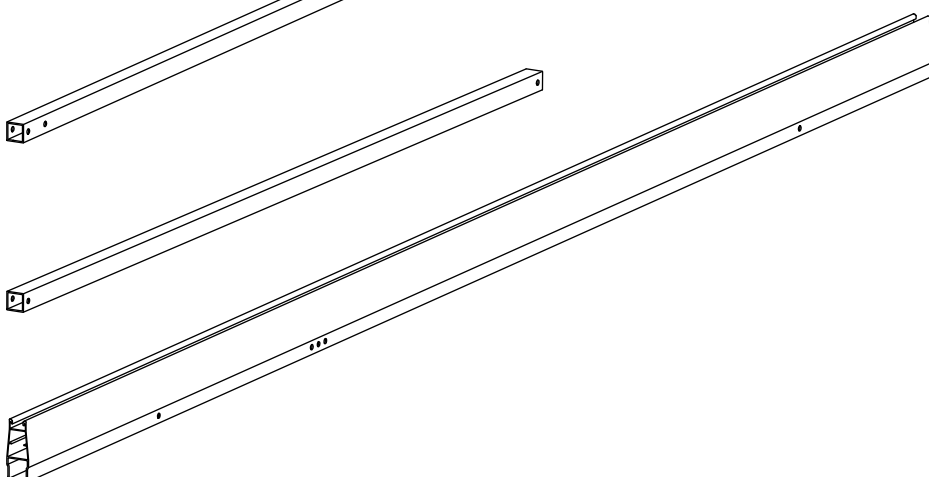
**3** 2004403  
**3-Hole Brace N-Rack 1625**



**4** 2004406  
**2-Hole Brace N-Rack 2154**



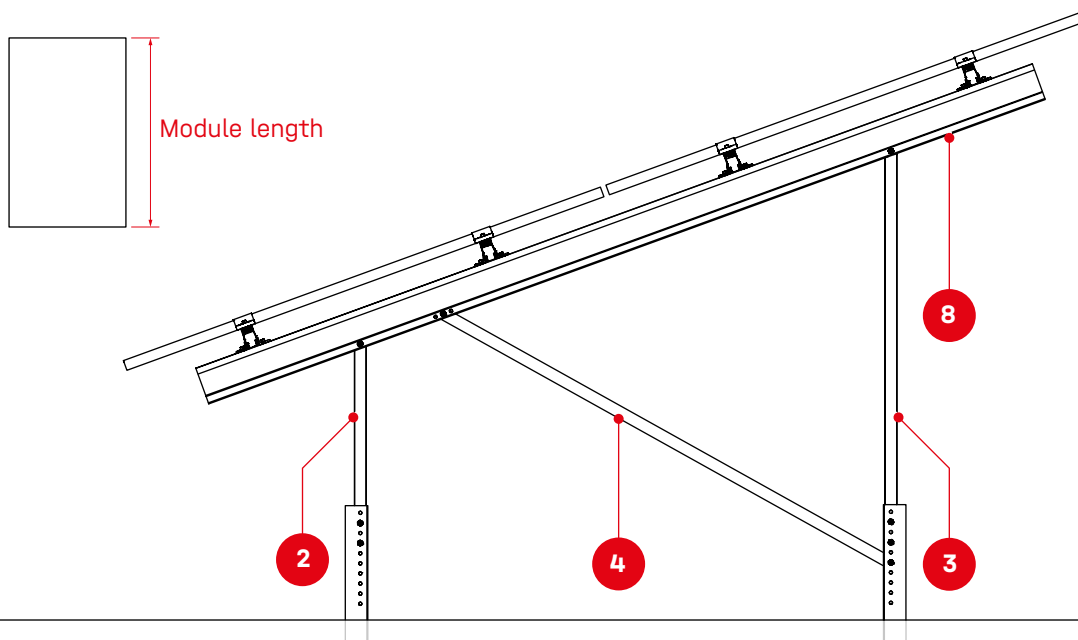
**8** 2004399  
**Beam N-Rack 3750**



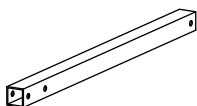


## Brace/Beam Components N-Rack 2.20 S

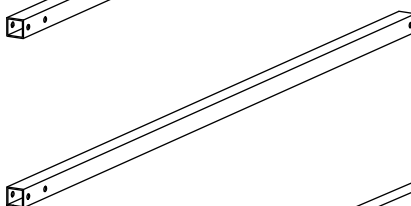
**i** Suitable for module lengths  $\leq 1905$  mm



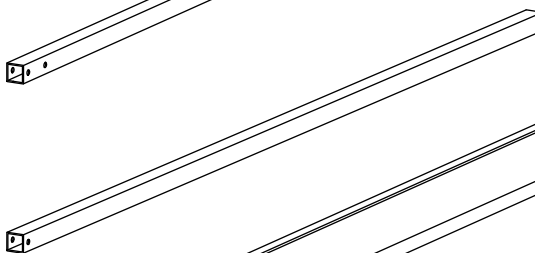
**2** 2004401  
**3-Hole Brace N-Rack 715**



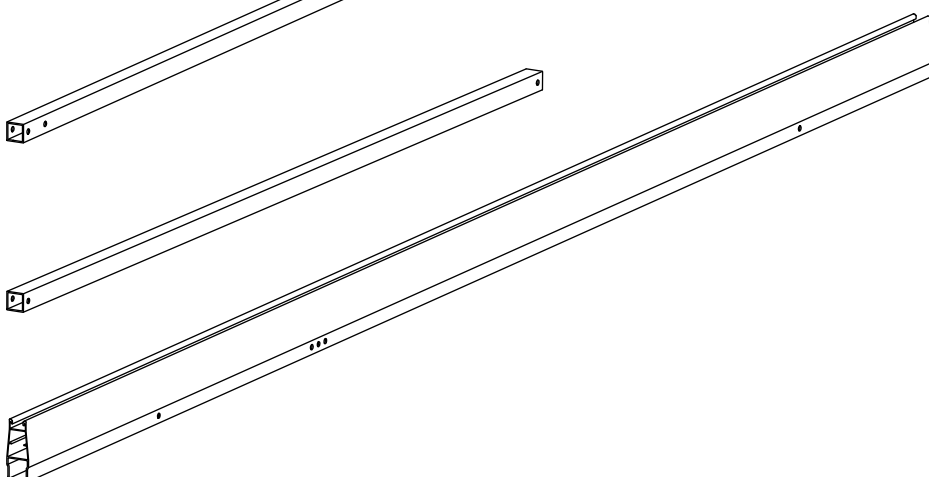
**3** 2004402  
**3-Hole Brace N-Rack 1370**

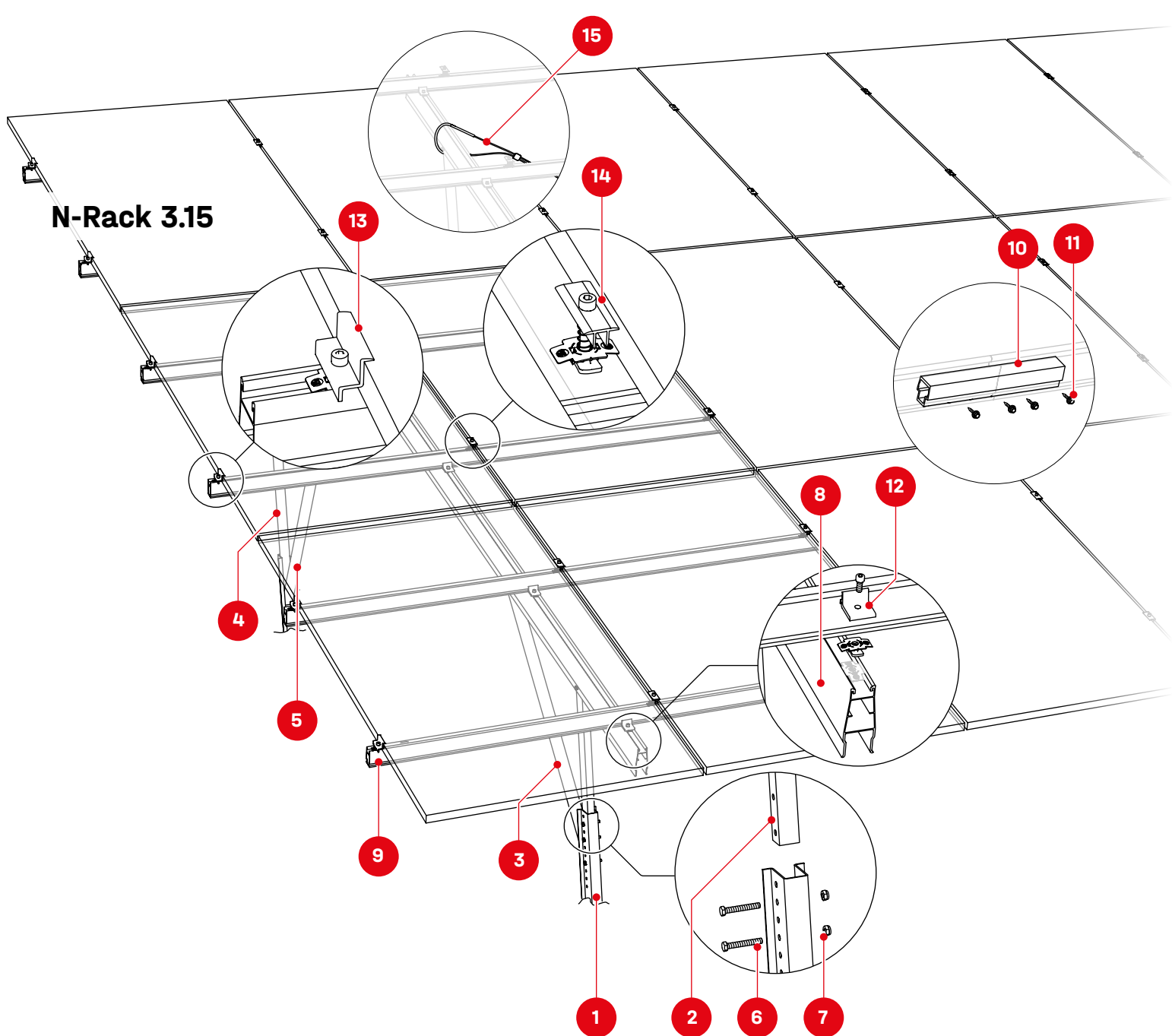


**4** 2004452  
**2-Hole Brace N-Rack 1779**



**8** 2004400  
**Beam N-Rack 3020**





**1** 2004384  
**Cap-Profile**

**2** Item number project  
specific, see P. 11  
**3** **N-Rack Brace**  
**4**  
**5**

**6** 2004408  
**Hexagon head screw with  
shank M10 × 70**

**7** 1002849  
**Hexagon lock nut M10**

**8** Item number project  
specific, see P. 11  
**N-Rack Beam**

**9** 2004381  
**CrossRail 73**

**10** 2004409  
**CrossRail 73 Connector**

**11** 1001051  
**Bohrschraube 5,5 × 25**

**12** 2003145  
**Climber 36/50 Set**

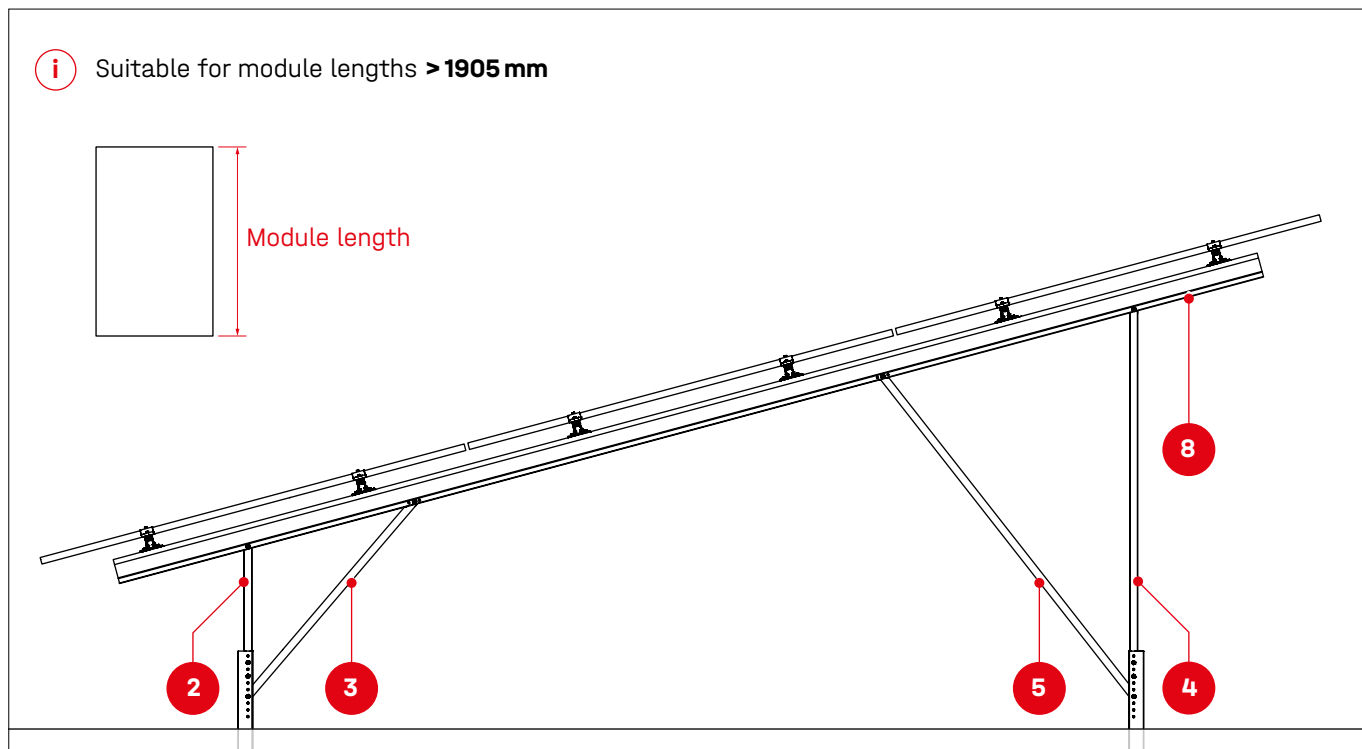
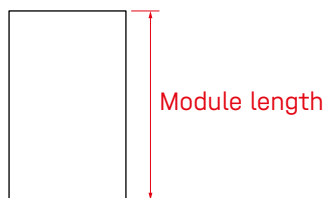
**13** Item number project  
specific  
**End clamp**

**14** Item number project  
specific  
**Middle clamp**

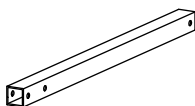
**15** 2004410  
**Wind bracing Set**

## Brace/Beam Components N-Rack 3.15

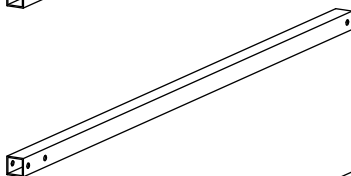
**i** Suitable for module lengths  $> 1905$  mm



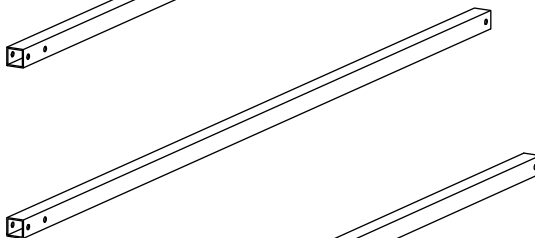
**2** 2004401  
**3-Hole Brace N-Rack 715**



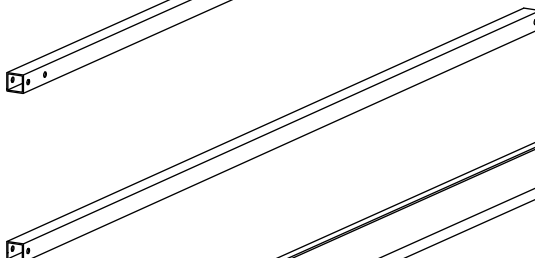
**3** 2004402  
**3-Hole Brace N-Rack 1370**



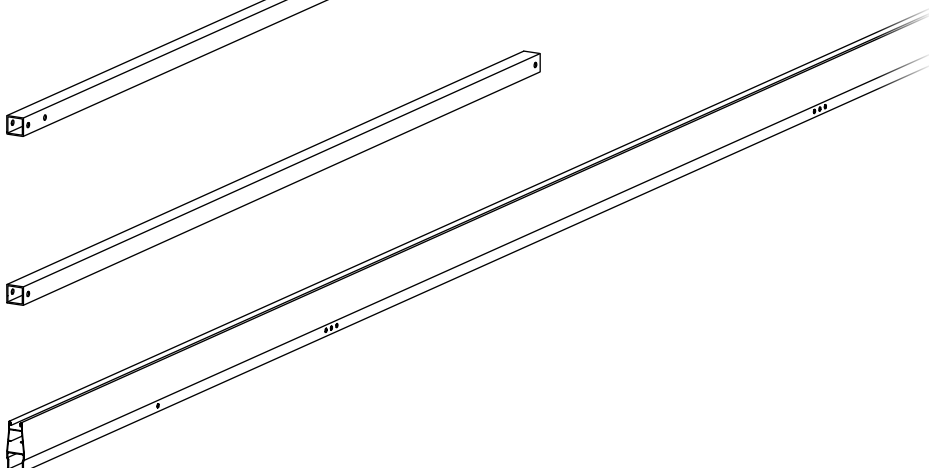
**4** 2004405  
**3-Hole Brace N-Rack 1948**



**5** 2004406  
**2-Hole Brace N-Rack 2154**

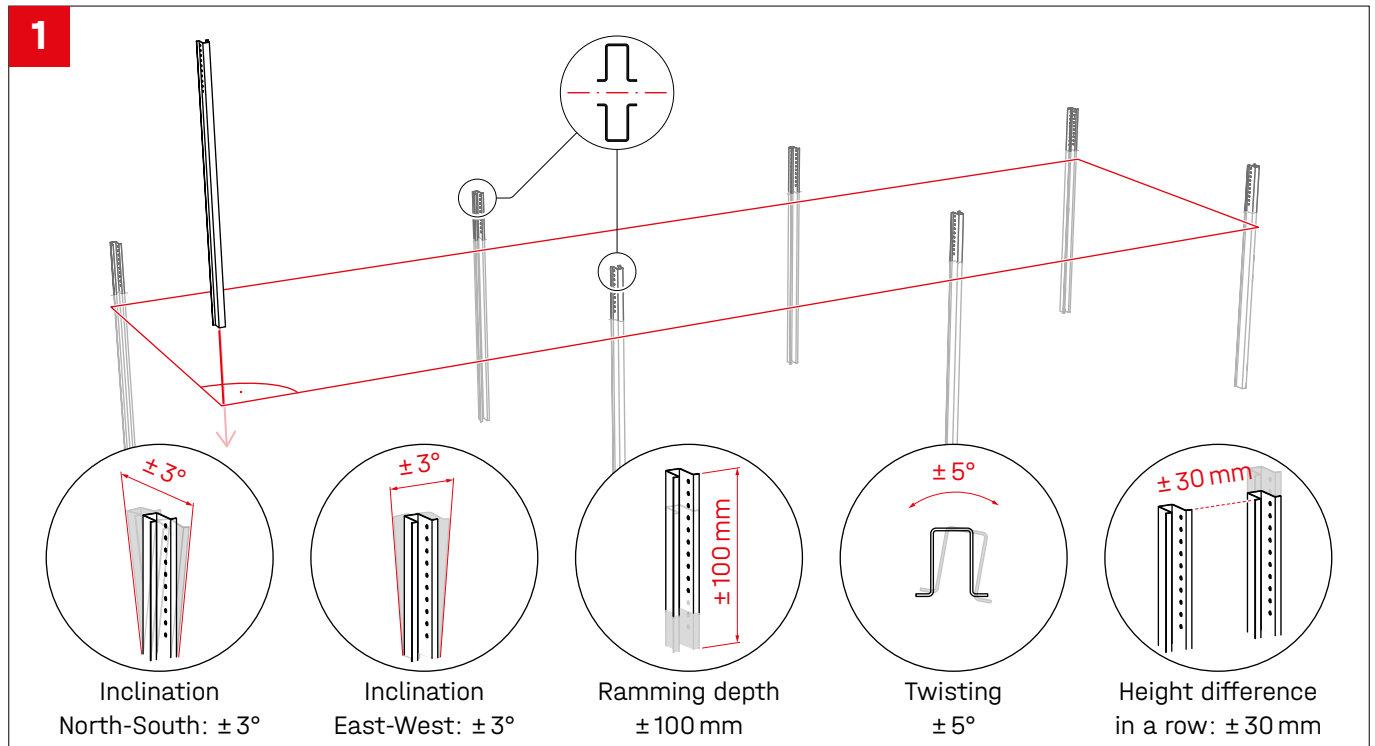


**8** 2004398  
**Beam N-Rack 6150**

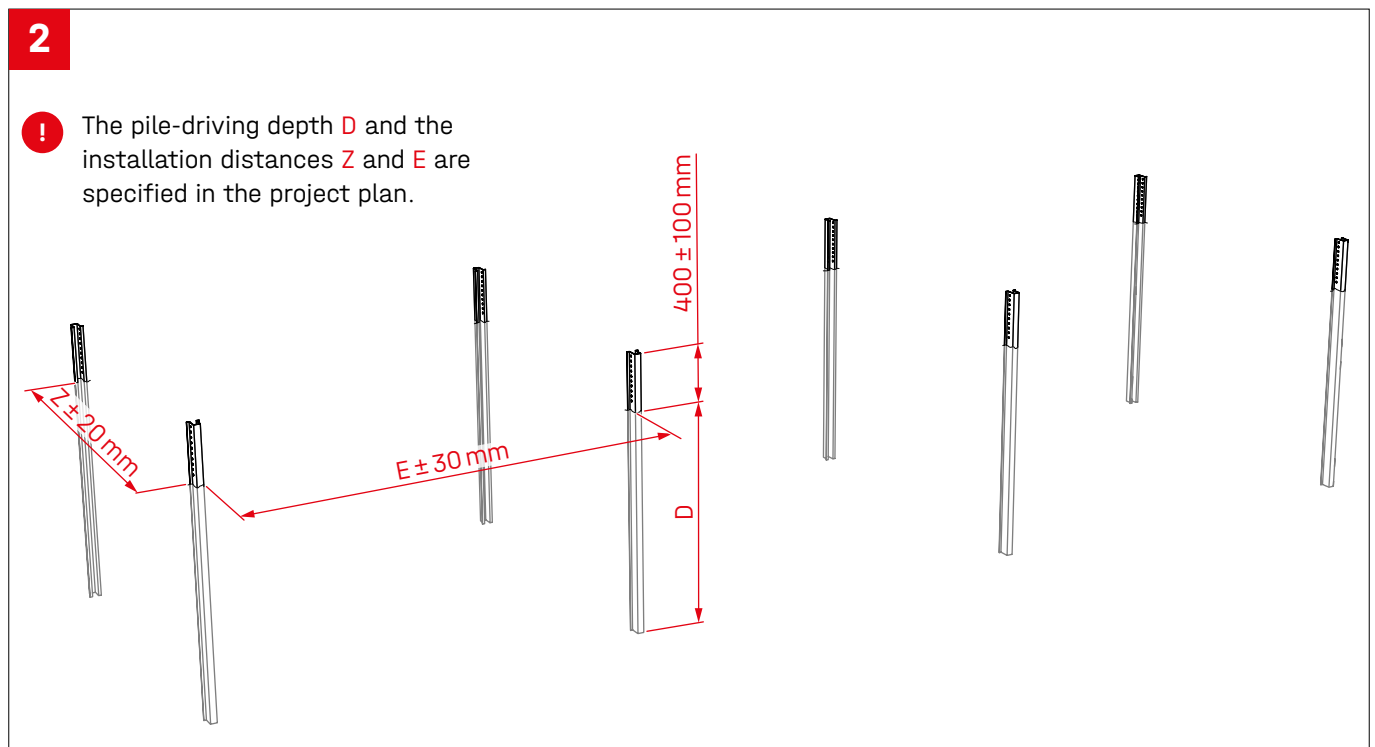


# Assembly

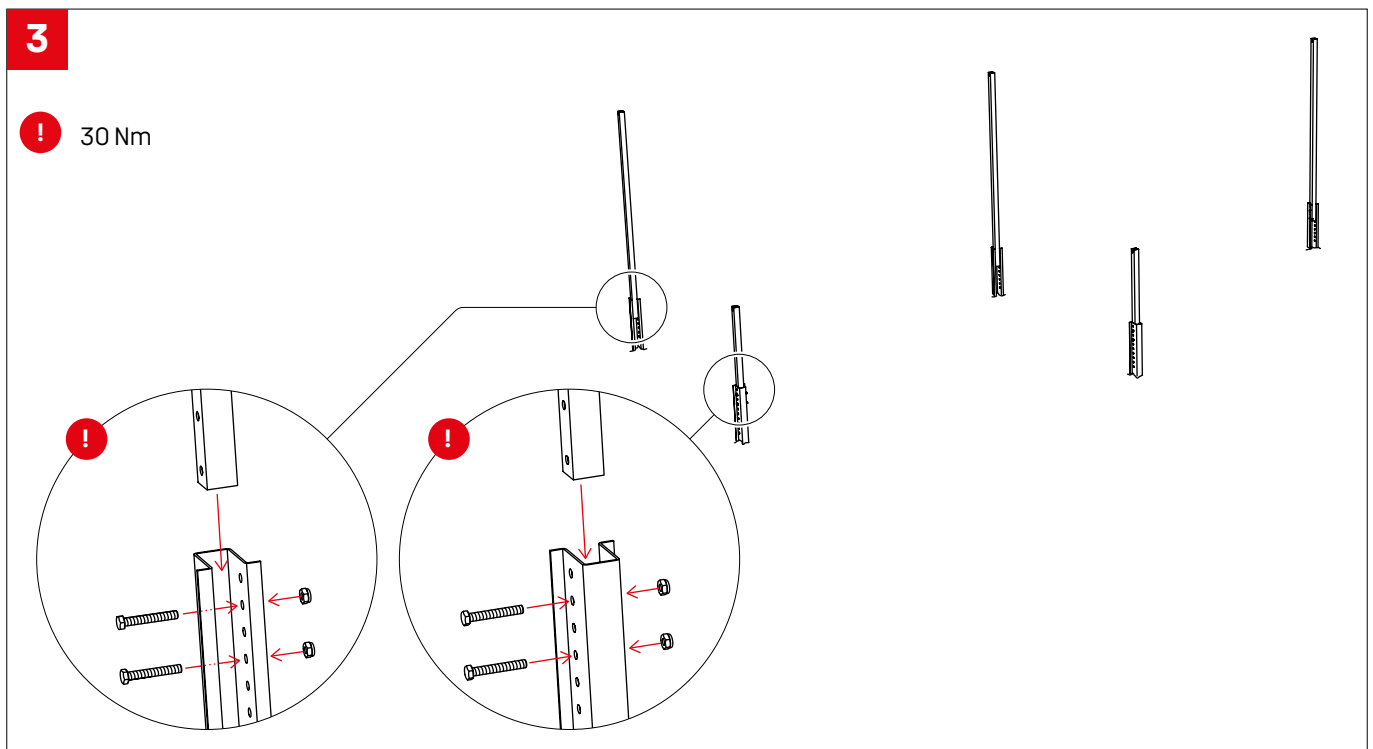
## Ramming tolerances



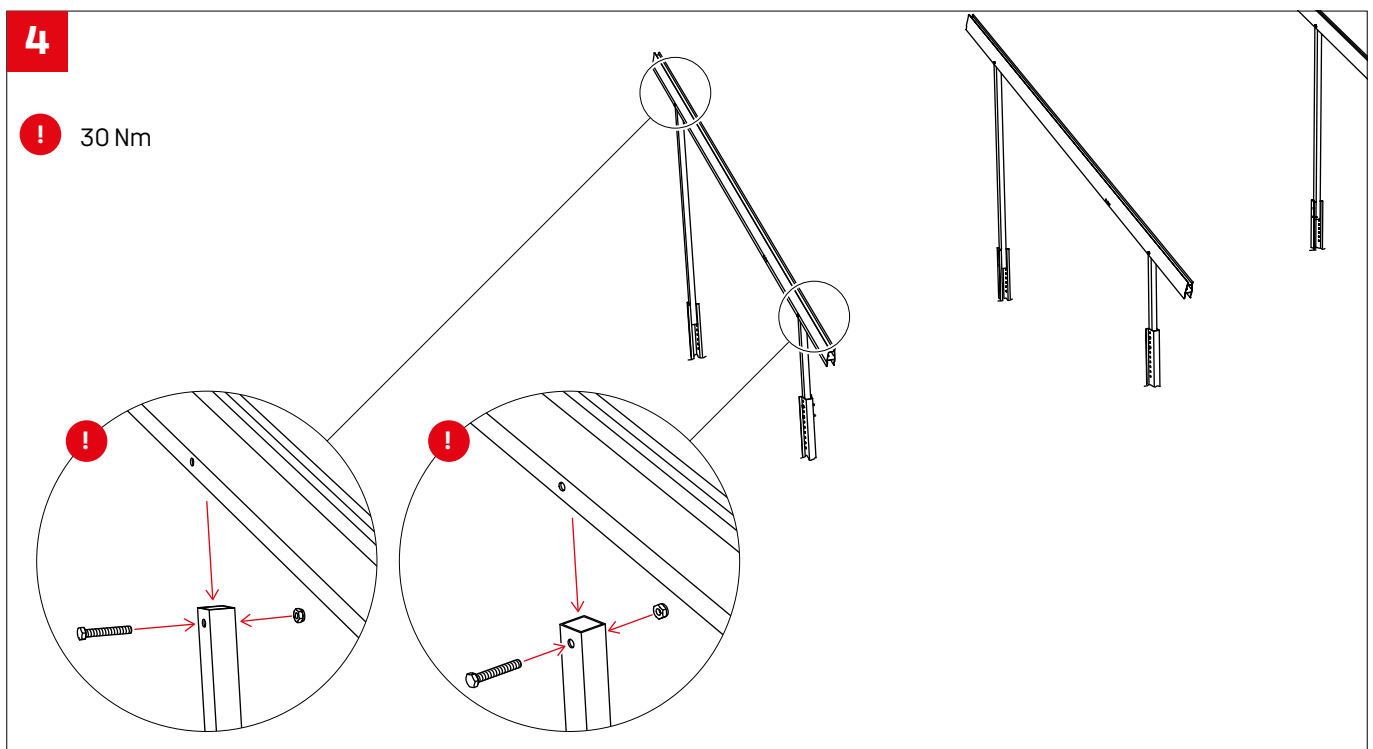
## Ramming foundation spacing



## Fixation Braces



## Fixation Beam

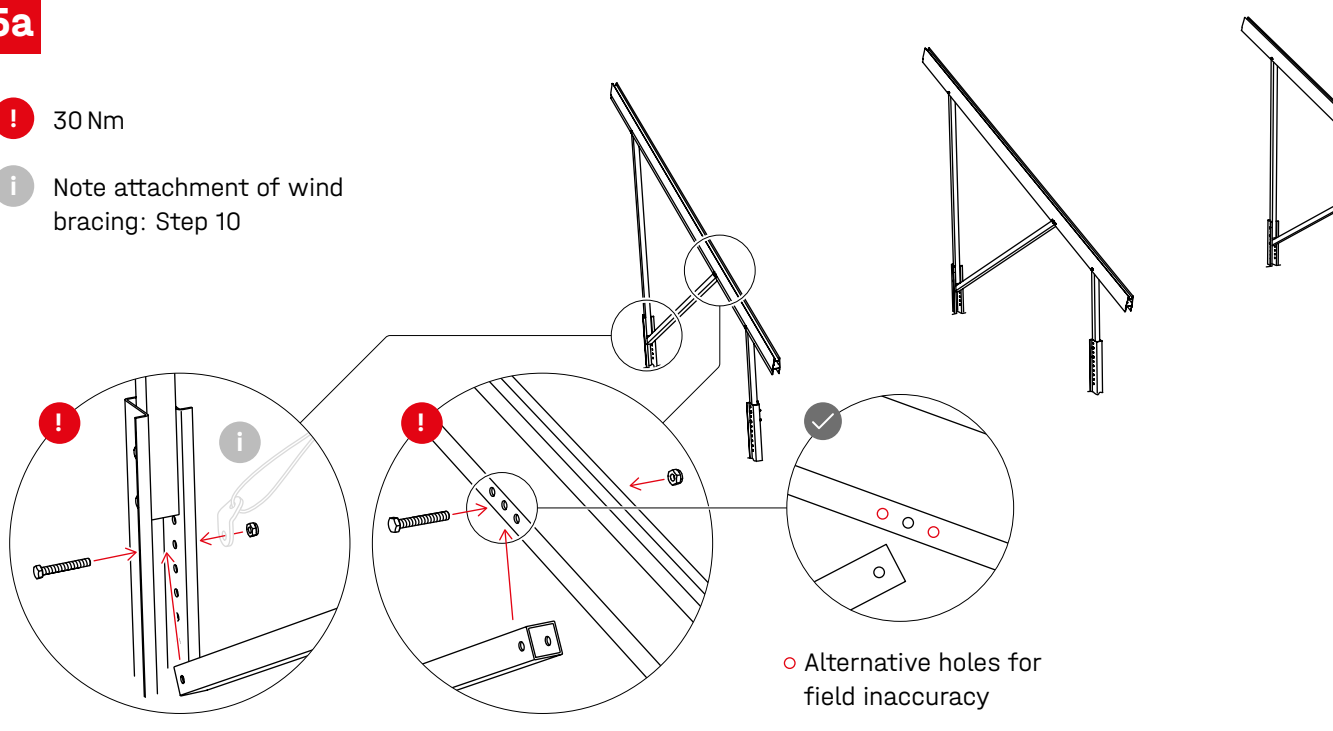


## N-Rack 2.20 / 2.20 S Bracing

**5a**

! 30 Nm

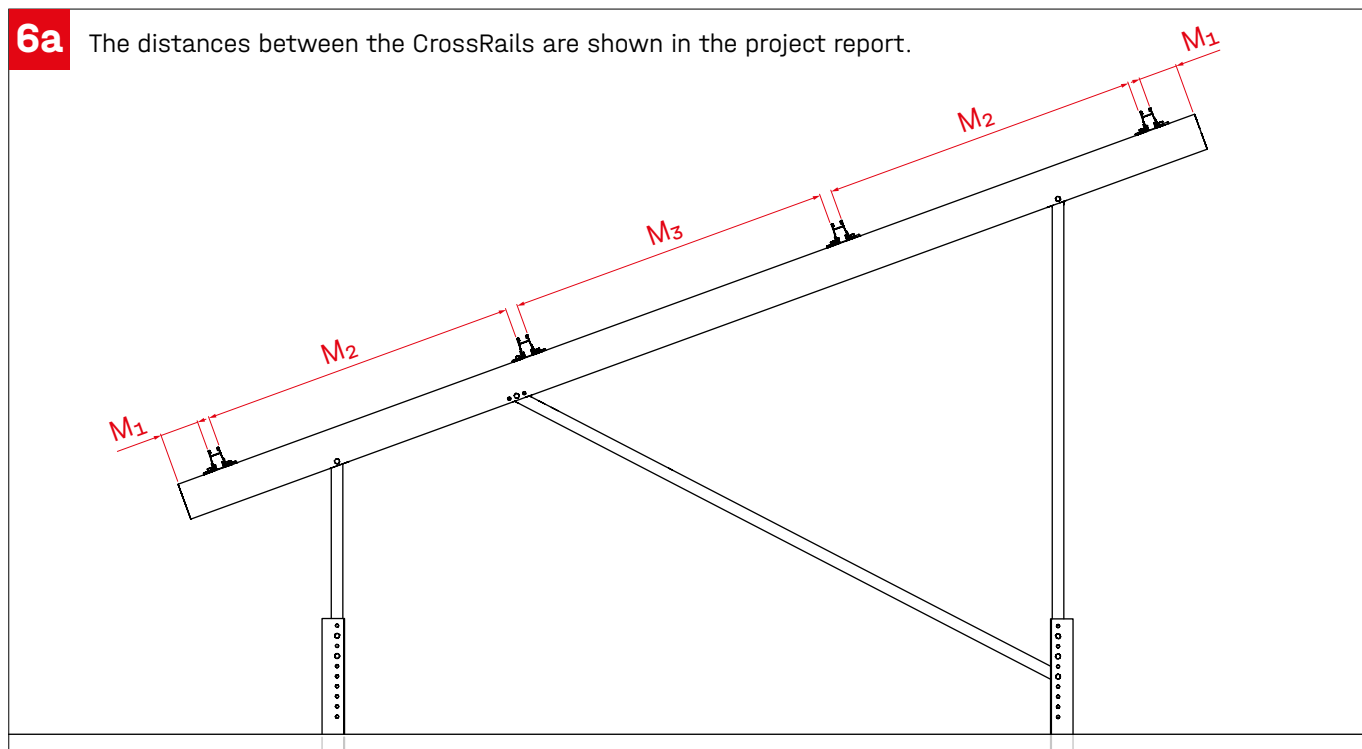
i Note attachment of wind bracing: Step 10



## N-Rack 2.20 / 2.20 S Distances CrossRails

**6a**

The distances between the CrossRails are shown in the project report.

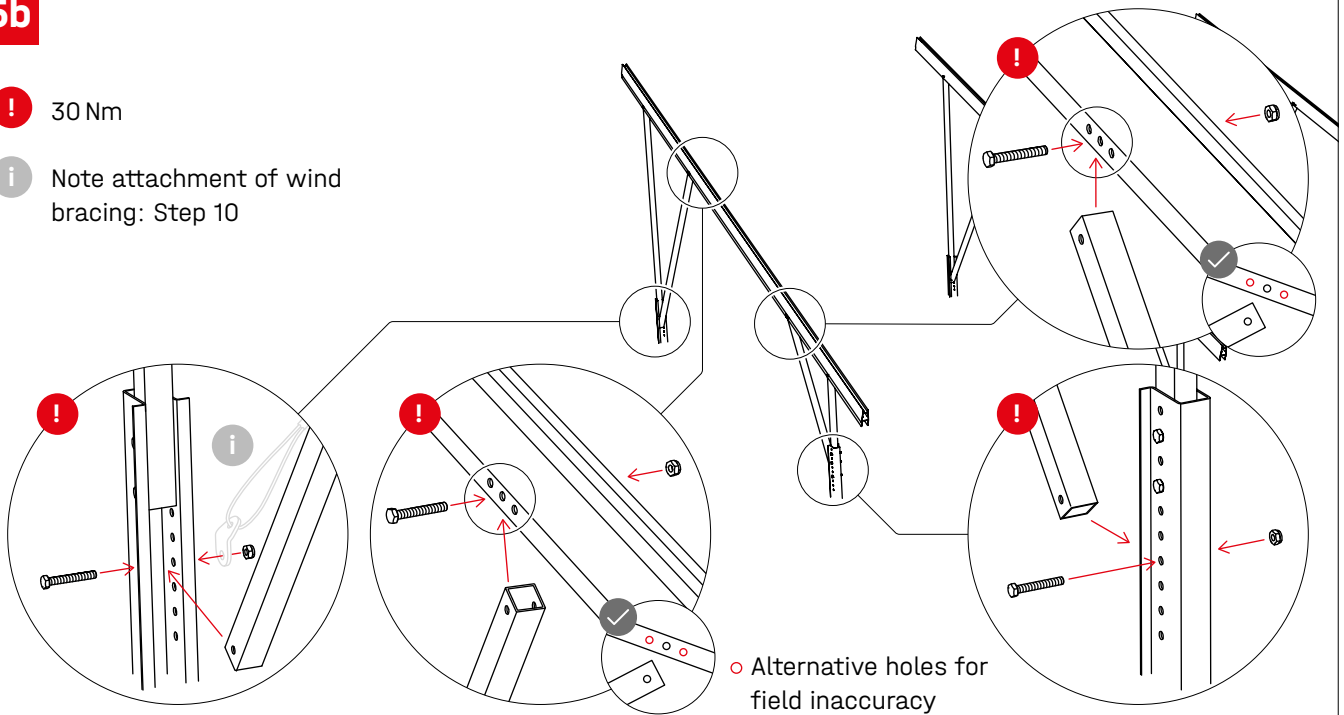


## N-Rack 3.15 Bracing

**5b**

! 30 Nm

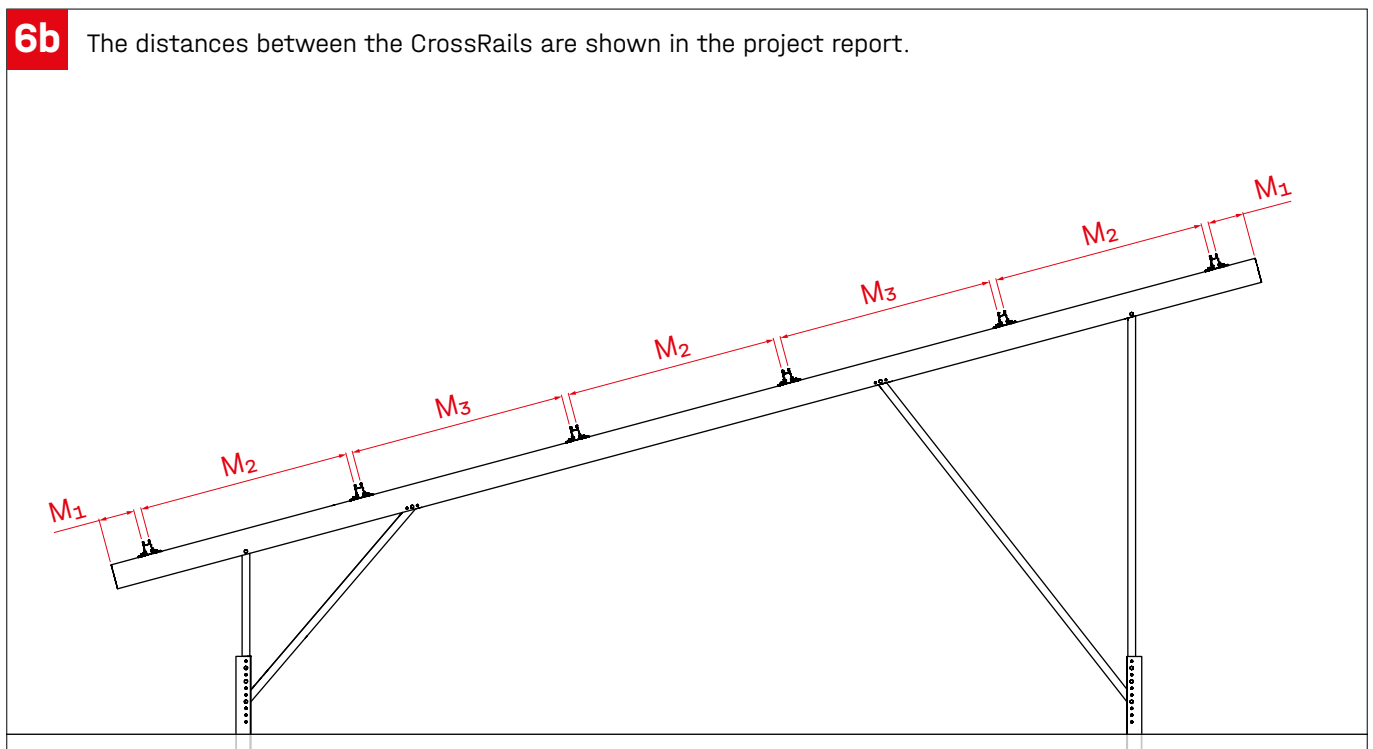
i Note attachment of wind bracing: Step 10



## N-Rack 3.15 Distances CrossRails

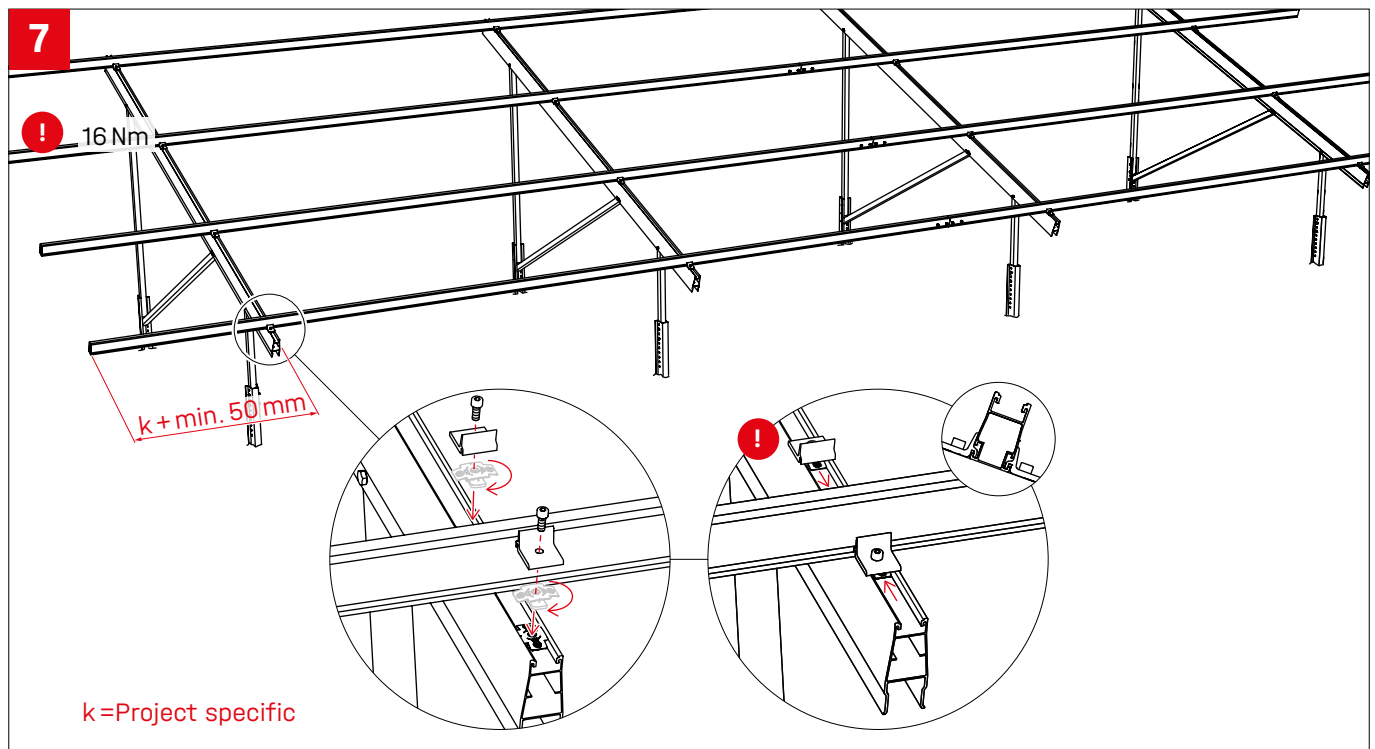
**6b**

The distances between the CrossRails are shown in the project report.

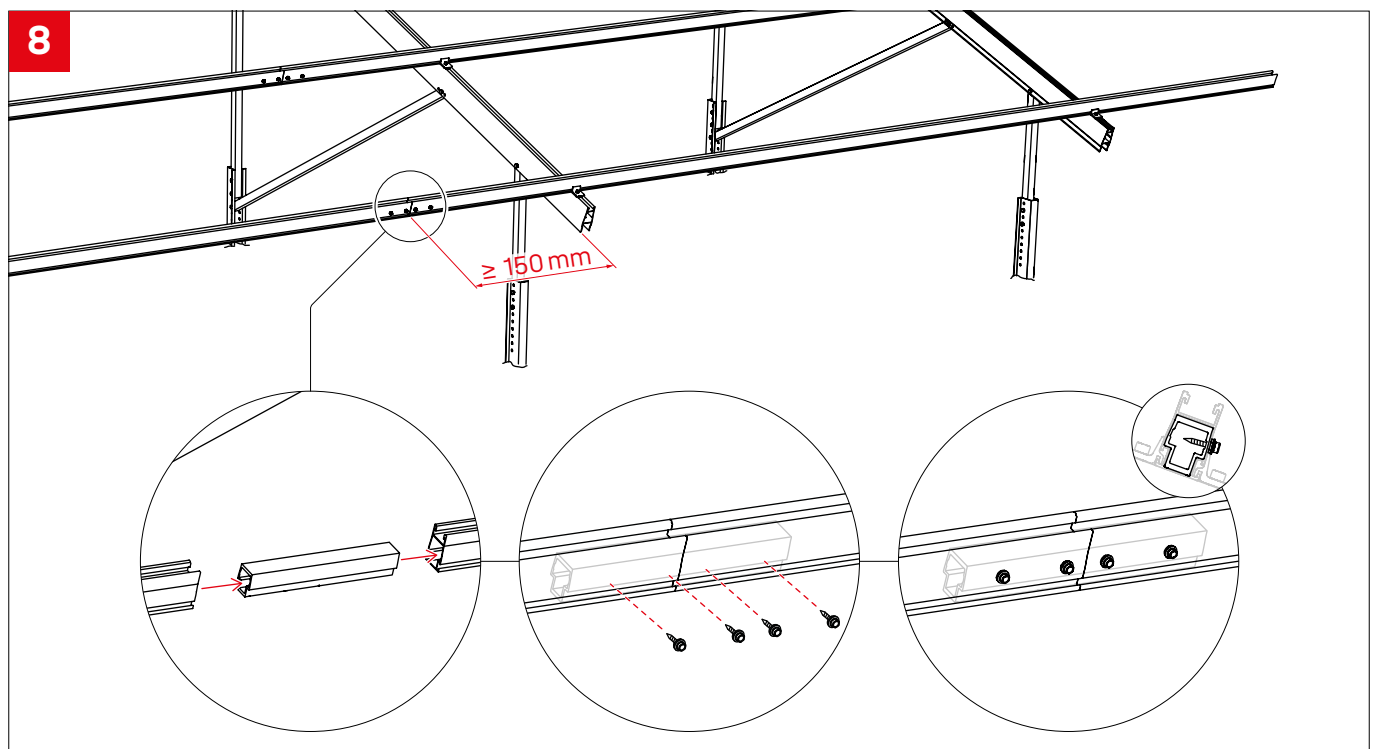




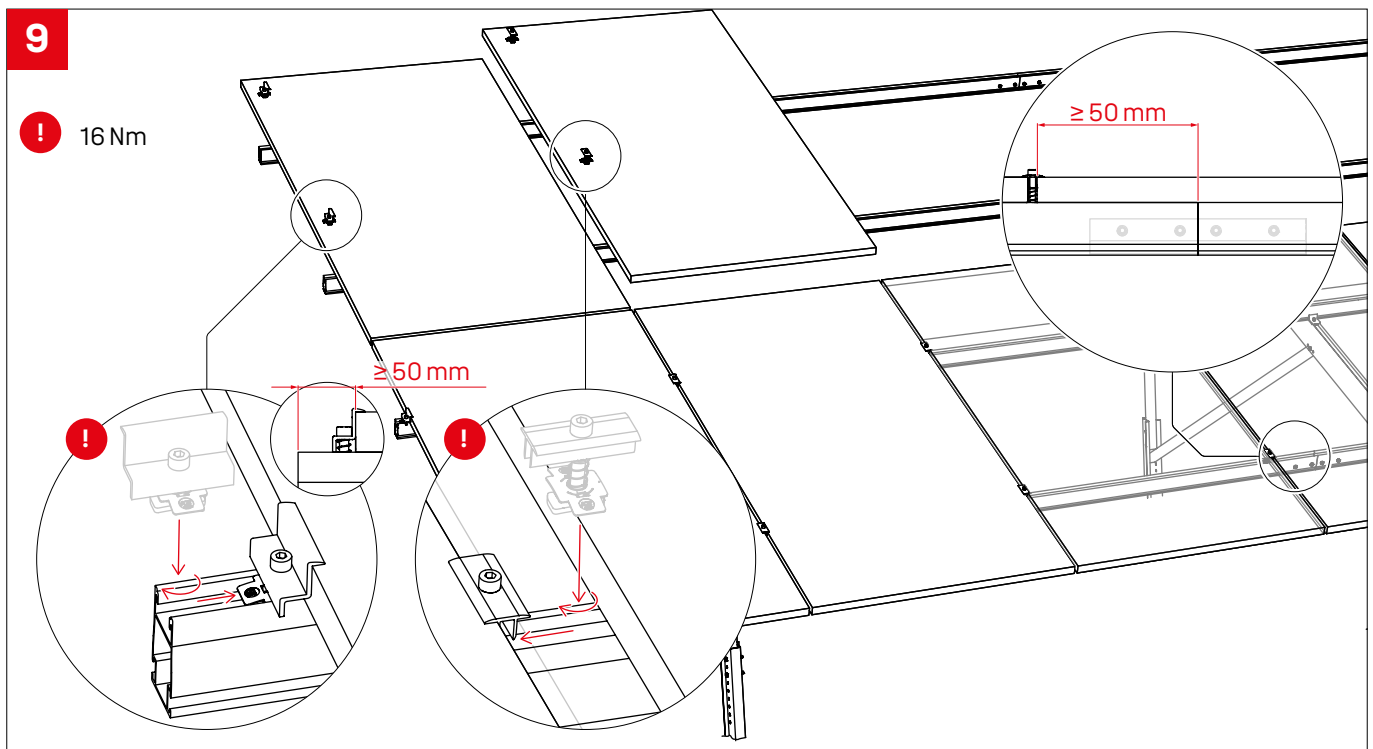
## Fixation CrossRail 73 + Climber



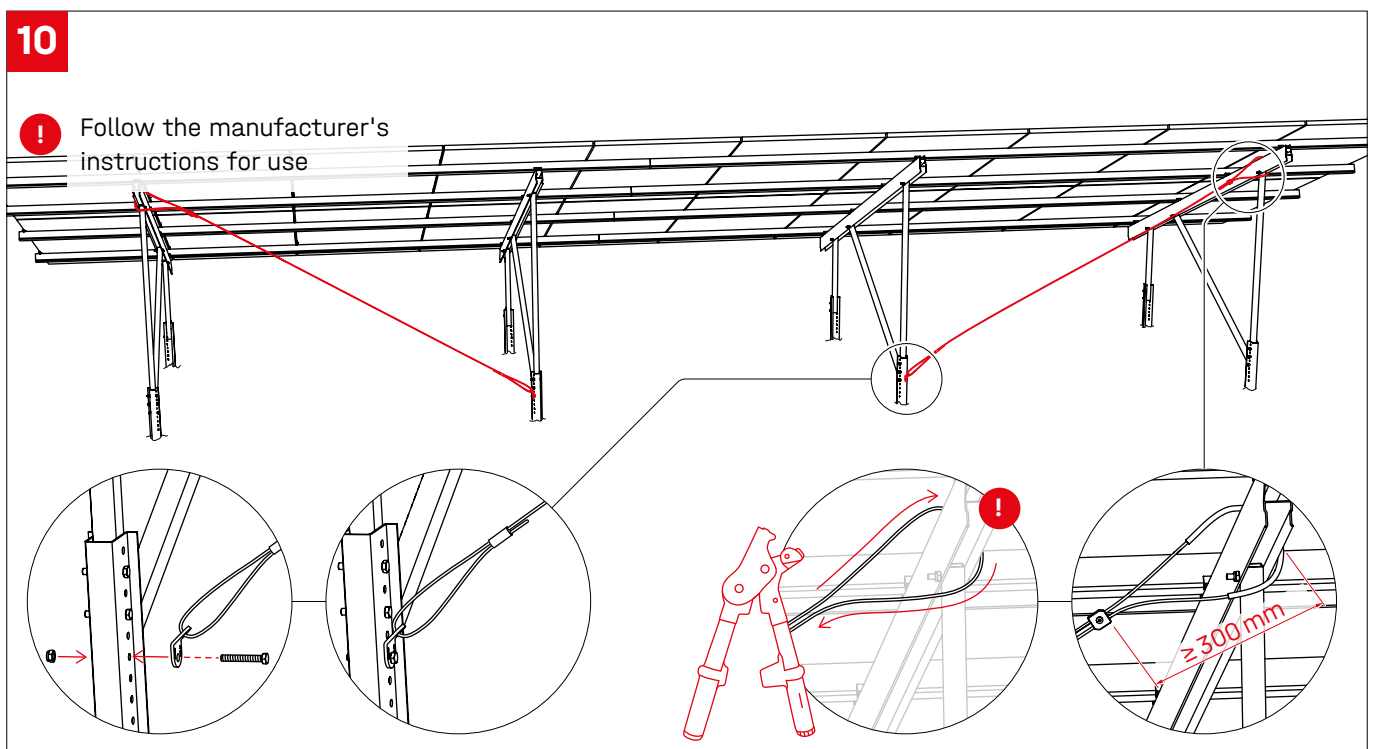
## CrossRail 73 Connector



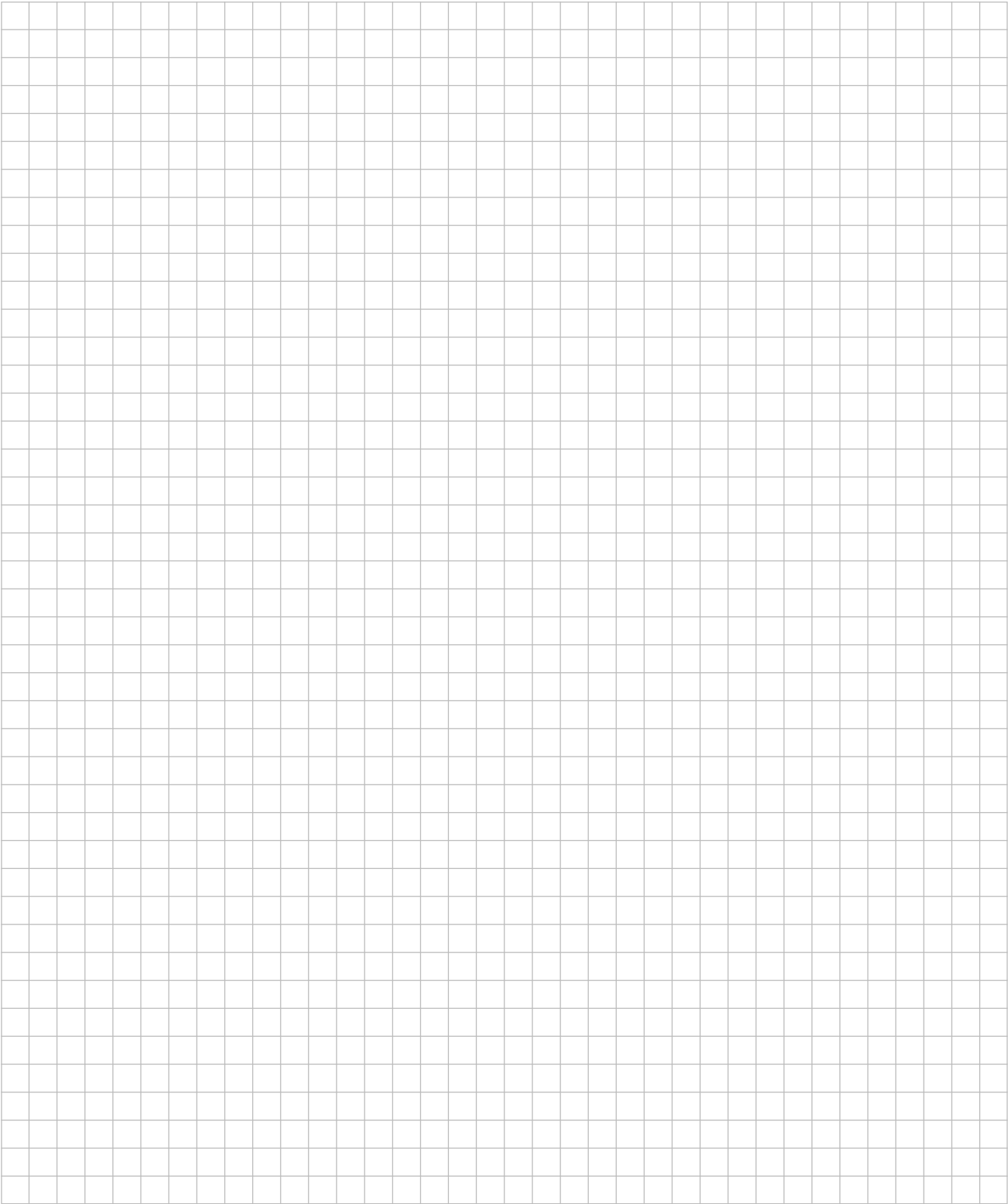
## Module assembly (End clamp / Middle clamp)



## Manufacture of the wind bracing



## Notes



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

Our General Terms of Business apply. Please refer:  
[k2-systems.com](https://k2-systems.com)

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N-Rack Pile-driven Foundation Assembly EN V1 | 0925 · Subject to change  
Product illustrations are exemplary and may differ from the original.



**Connecting Strength**

**[k2-systems.com](https://k2-systems.com)**