

K2 BasicRail System

Tile effect sheets with FlexAdapter

The following guidelines apply



Requirements for the roof

- Sheet thickness:
 - Aluminium $\geq 0,6$ mm
 - Steel $\geq 0,5$ mm
 - National regulations may require different material thicknesses.
- Metal roof tiles must have a smooth surface.
- Textured surfaces lead to leaky screw connections!
- Minimum tensile strength aluminium: 165 N/mm^2 ; steel grade at least S235
- High bead radius between $r = 30 - 60$ mm
- High crest without additional groove.
- Roof inclination $5 - 75^\circ$
- The angle (slope) to be compensated must be $\leq 7^\circ$
[$180 \div \pi \times \tan(\text{step height} \div \text{tile length})$]

Static requirements

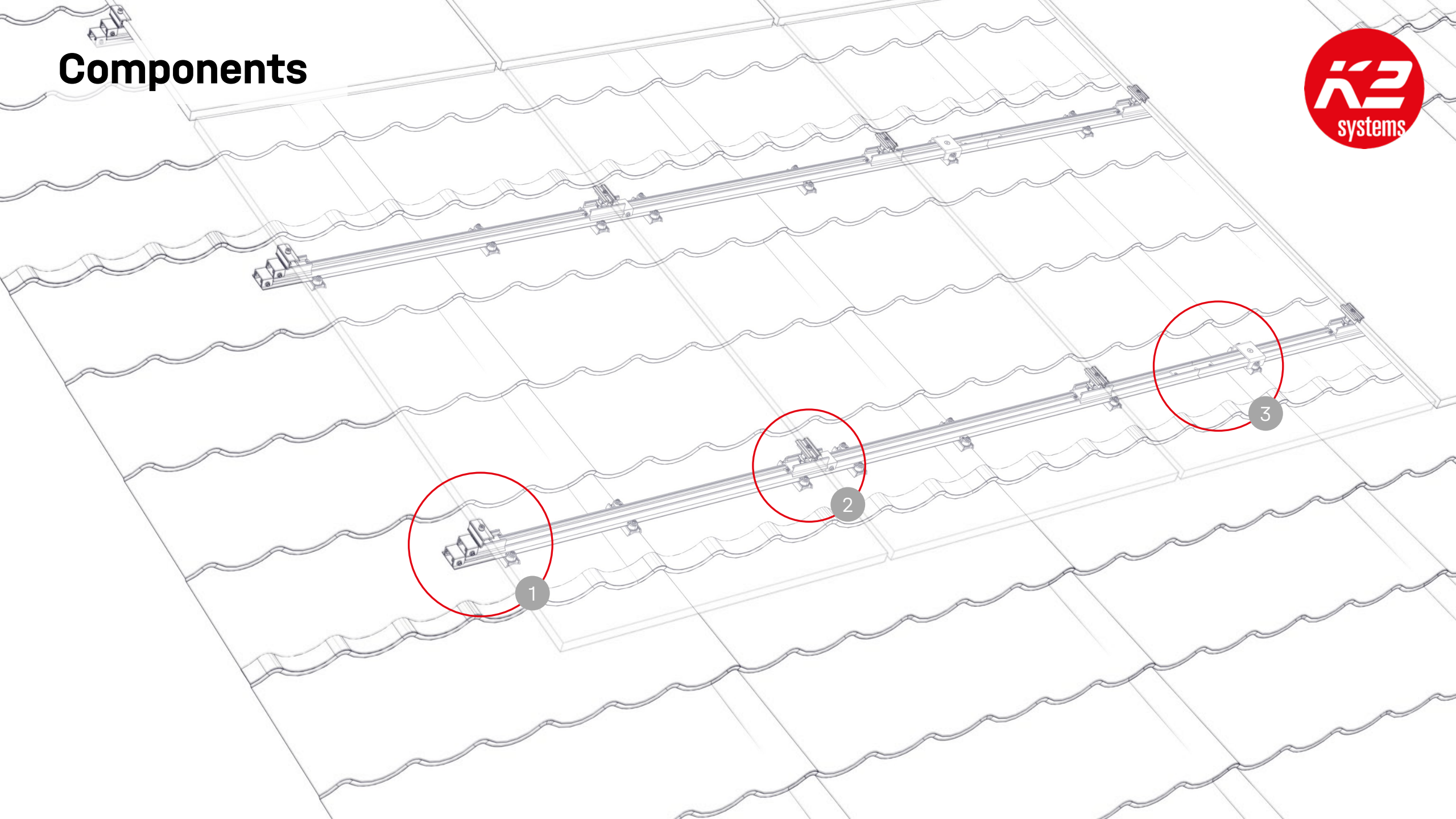
Sufficient holding force of the roof covering on the supporting or substructure.

Important installation instructions

- Earthing must be provided on site (use a lightning protection terminal if necessary).
- The distance between the BasicRails is a multiple of the tile length and is within the permissible clamping range of the modules.

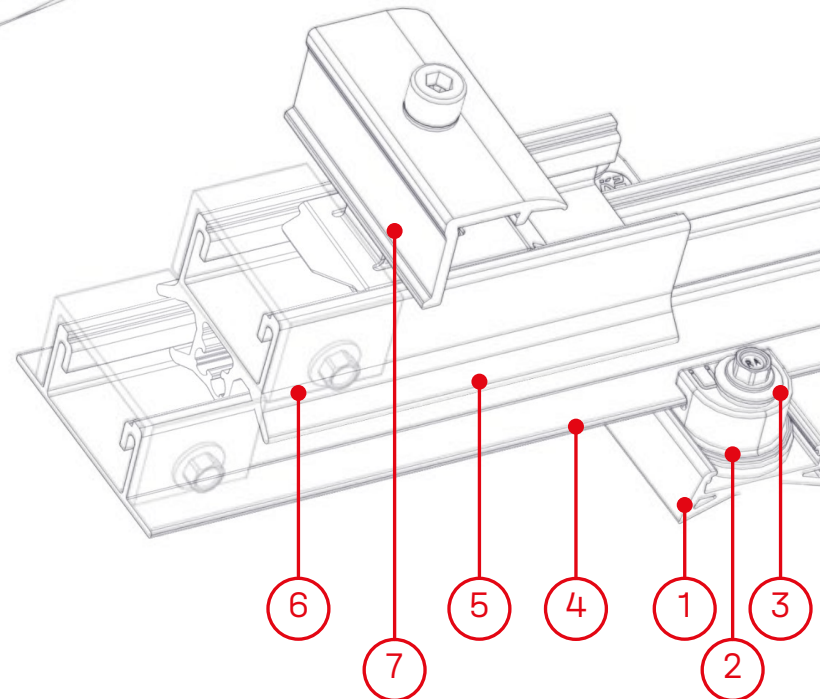
- All BasicClips on a roof surface must be installed at equal distances from the tile height difference.
- If the imitation tile sheet is fastened with calottes, please do not screw the BasicClips onto the domes under any circumstances. Instead, install all BasicClips in this row offset on the sheet.
- Every fourth or a quarter of all BasicClips is mounted rotated by 180° to fix the vertical position. Rotated BasicClips must not be placed at the end of the rail; see installation step 3c.
- At rail joints, it is essential to attach the BasicClips to the nearest high crests on both sides.
- A thermal separation must be installed after 9.60 m. The minimum distance between two rails should be 3 cm.
- Caution: Modules must not be clamped over the thermal expansion joint under any circumstances.
- One BasicLock is required per BasicRail, up to a total length of 9.60 m (BasicRails connected via a rail connector count as one BasicRail).
- MK2 insert nuts and module clamps on rail end joints must be avoided at all costs!
- Min. 50 mm installation distance from the end of the rail/rail joint/FlexAdapter end to the module frame.
- No pre-drilling! Except for overlapping sheets to avoid gaps.

Components



Components

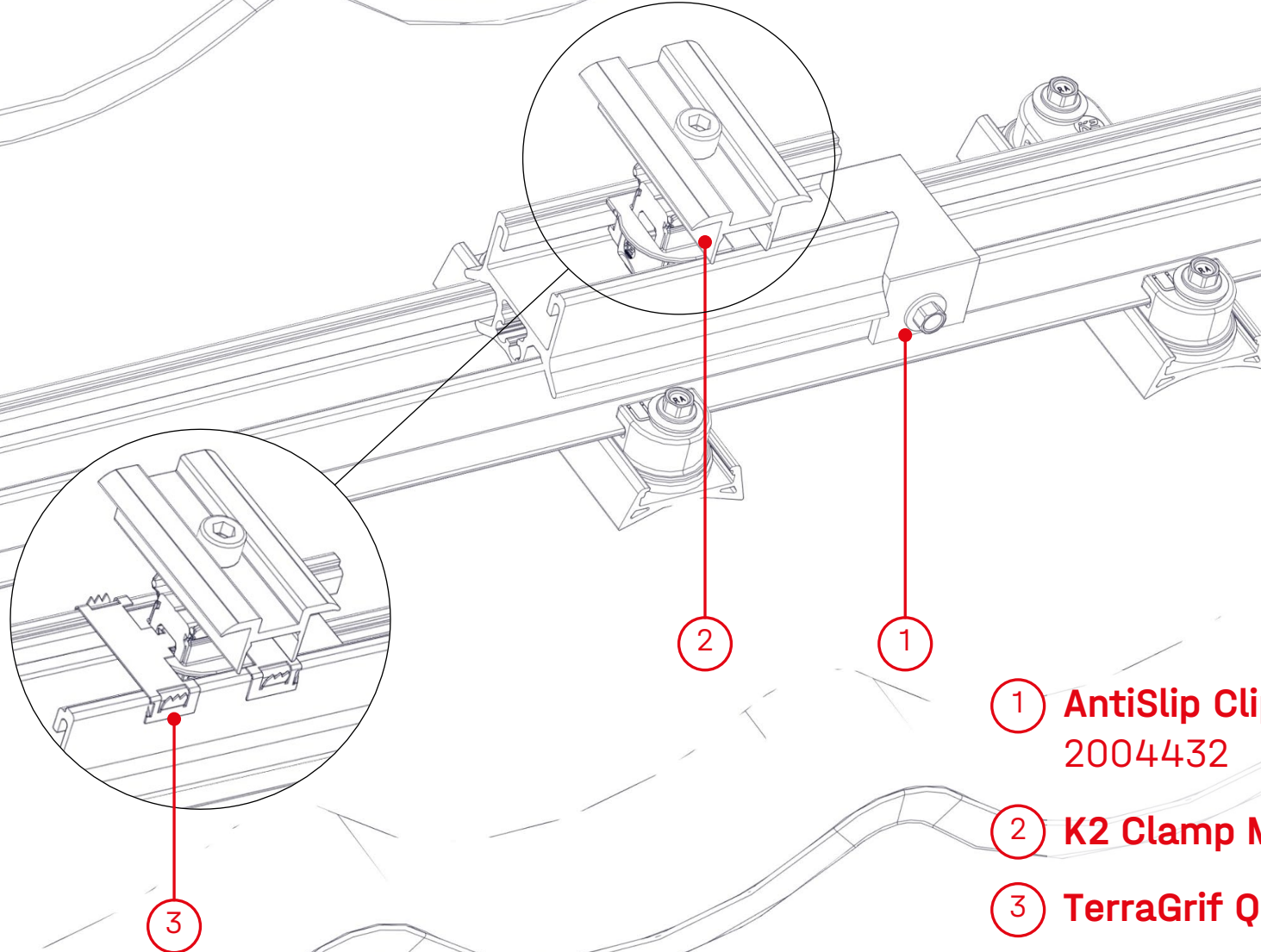
1



- ① **BasicClip CSM Adapter** · 2004912
- ② **BasicClip** · 1001164
- ③ **Thread-forming screws** · 1005193
- ④ **BasicRail** · Product number project specific
- ⑤ **FlexAdapter** · 2004914
- ⑥ **AntiSlip Clip + screw** · 2004289 + 2004432
- ⑦ **K2 Clamp EC** · silver/black

Components

2



① **AntiSlip Clip + screw** · 2004289 + 2004432

② **K2 Clamp MC** · silver/black

③ **TerraGrif QL** · 2004231

Components

3



1

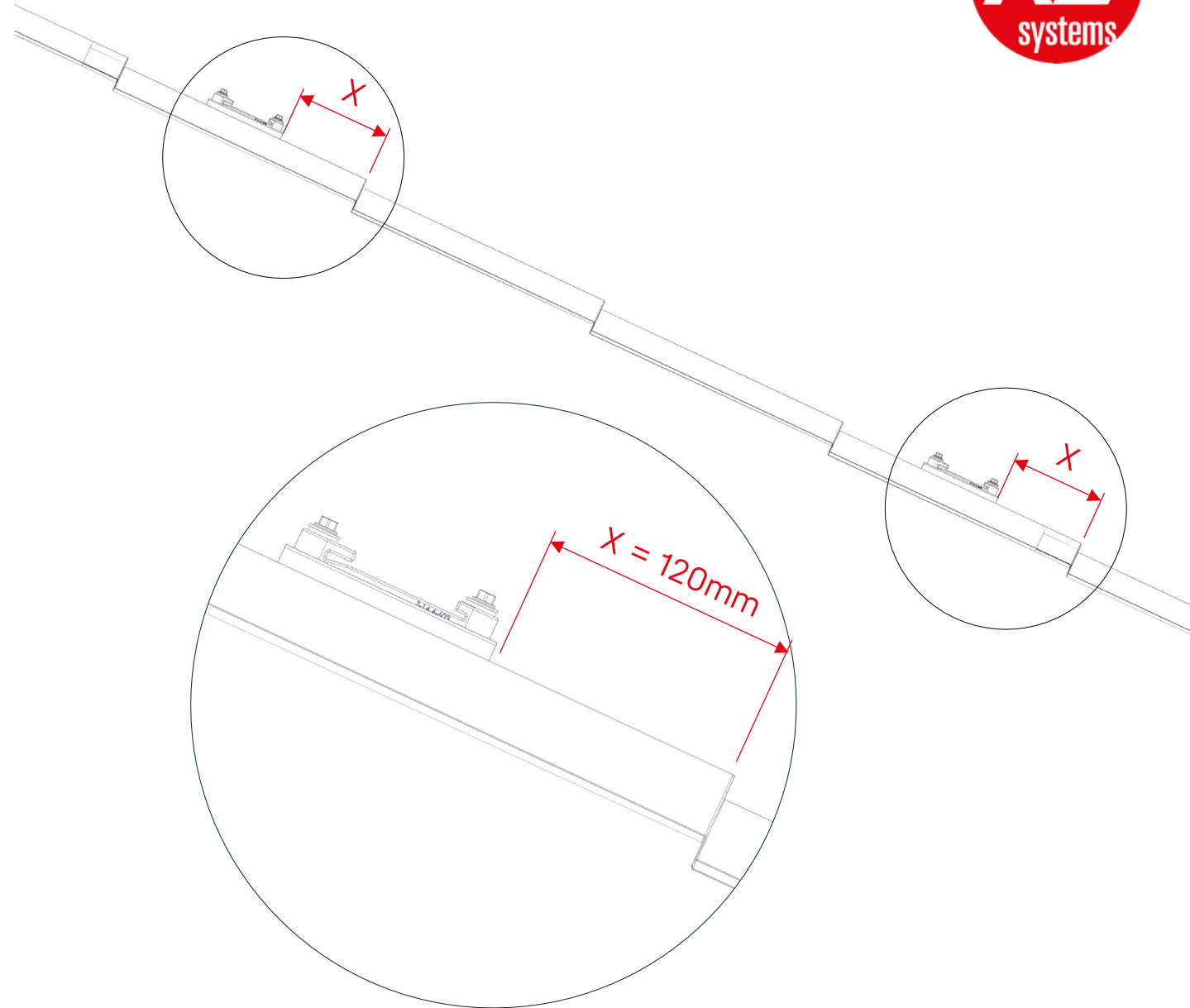
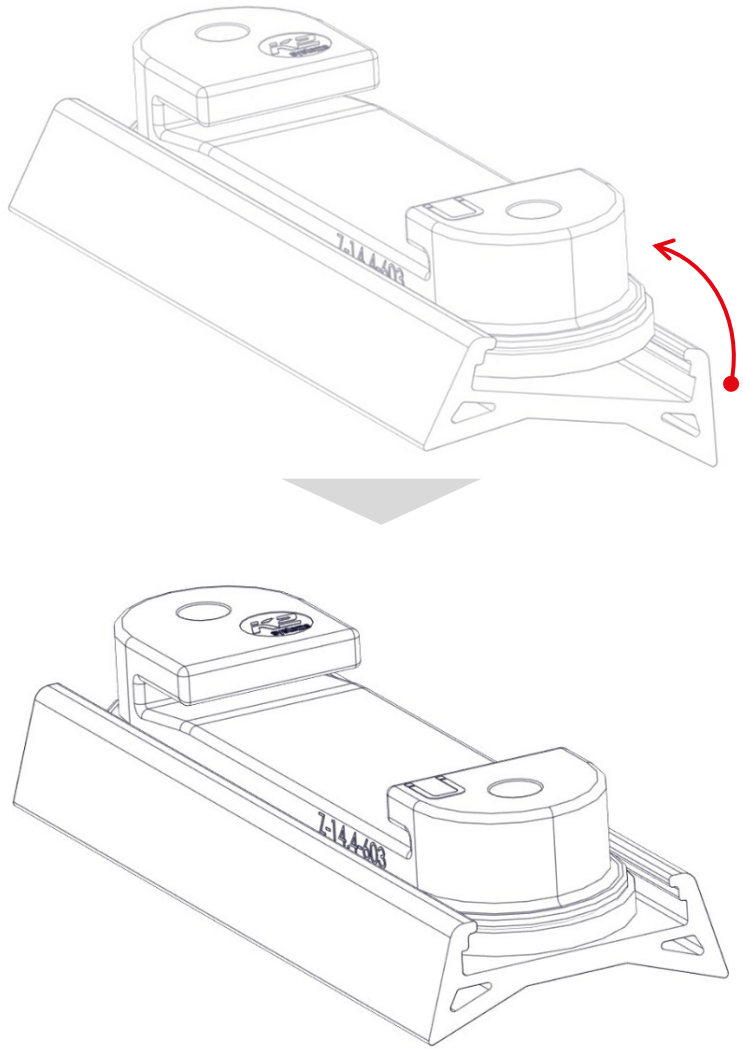
2

① Rail connector set · 1003571

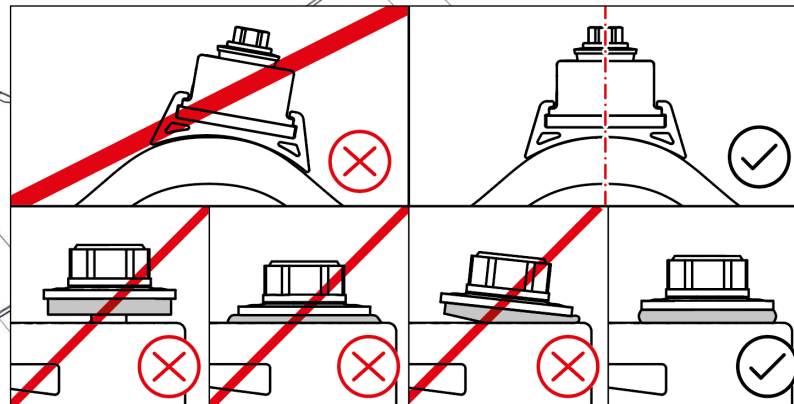
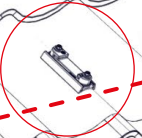
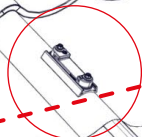
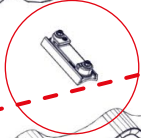
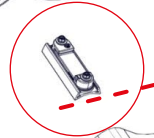
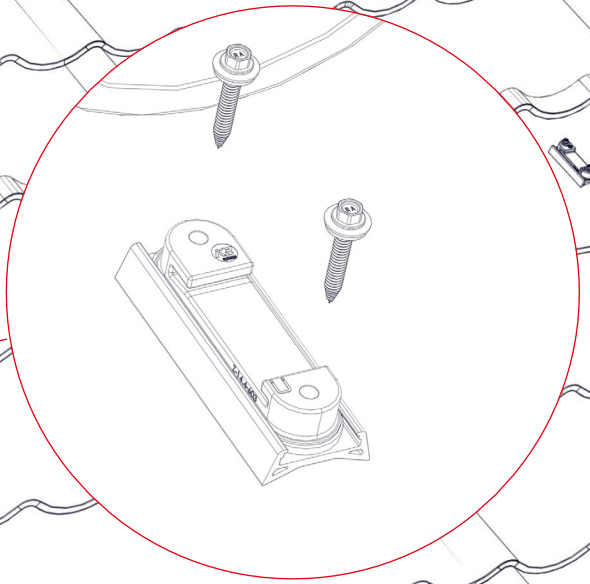
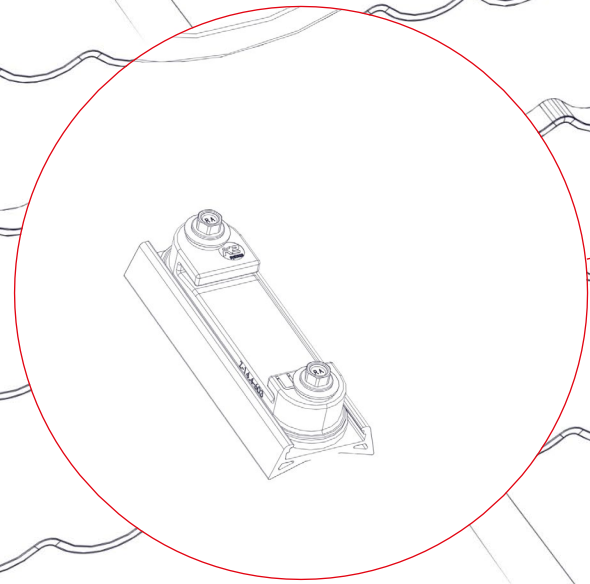
② BasicLock set · 1003558

1a

Positioning outer BasicClips with CSM adapter

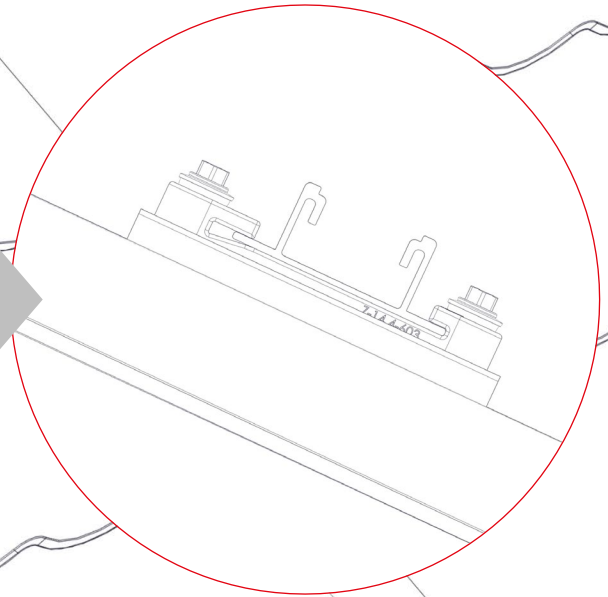
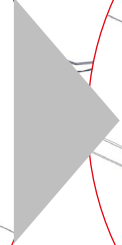
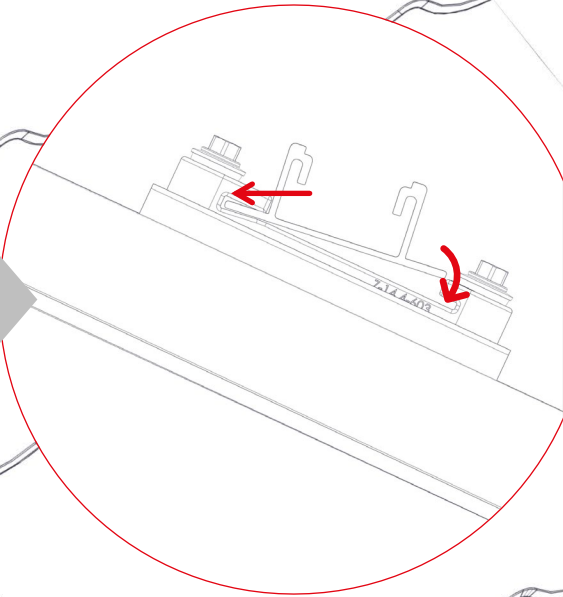
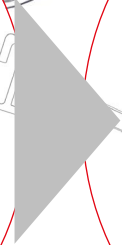
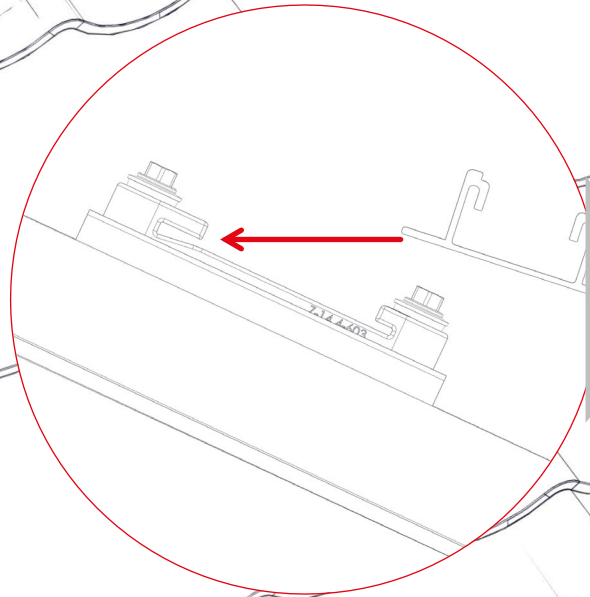
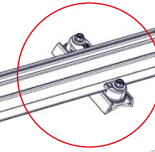
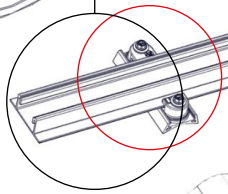
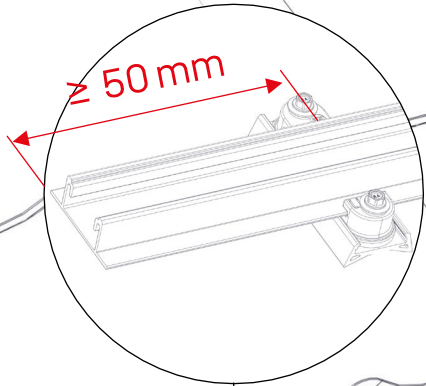


1b

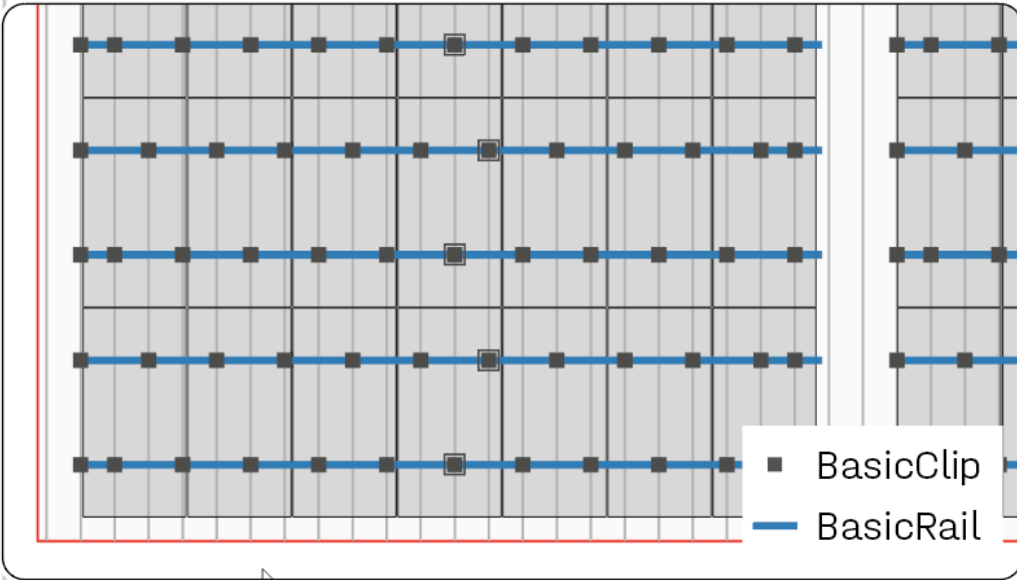
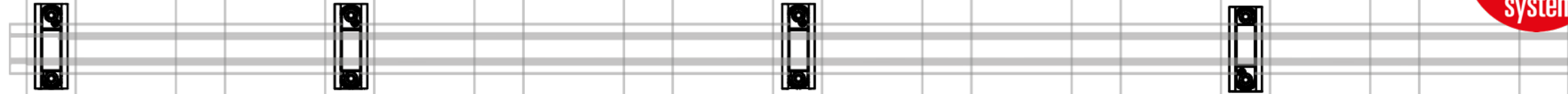


2

Insertion of BasicRail



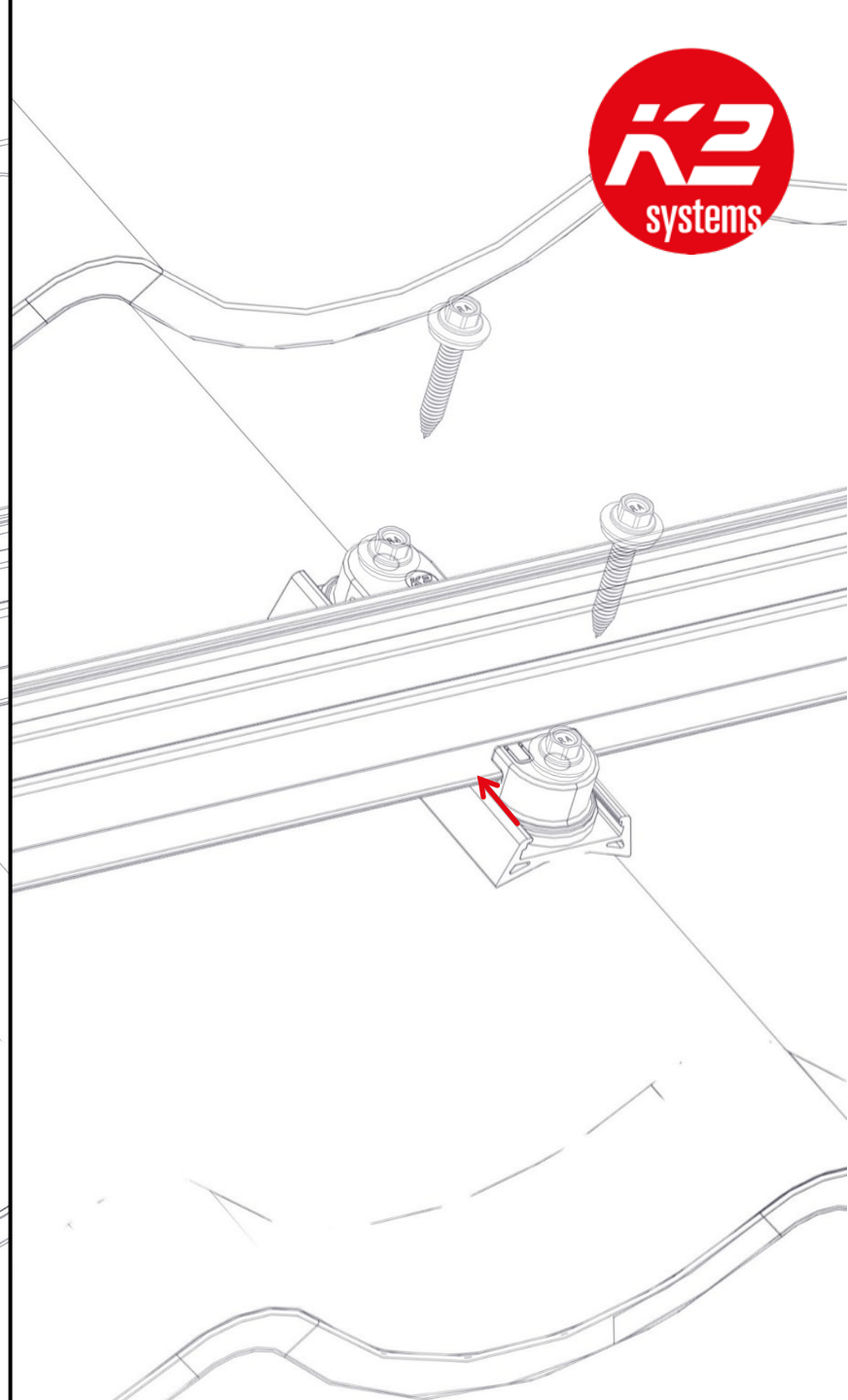
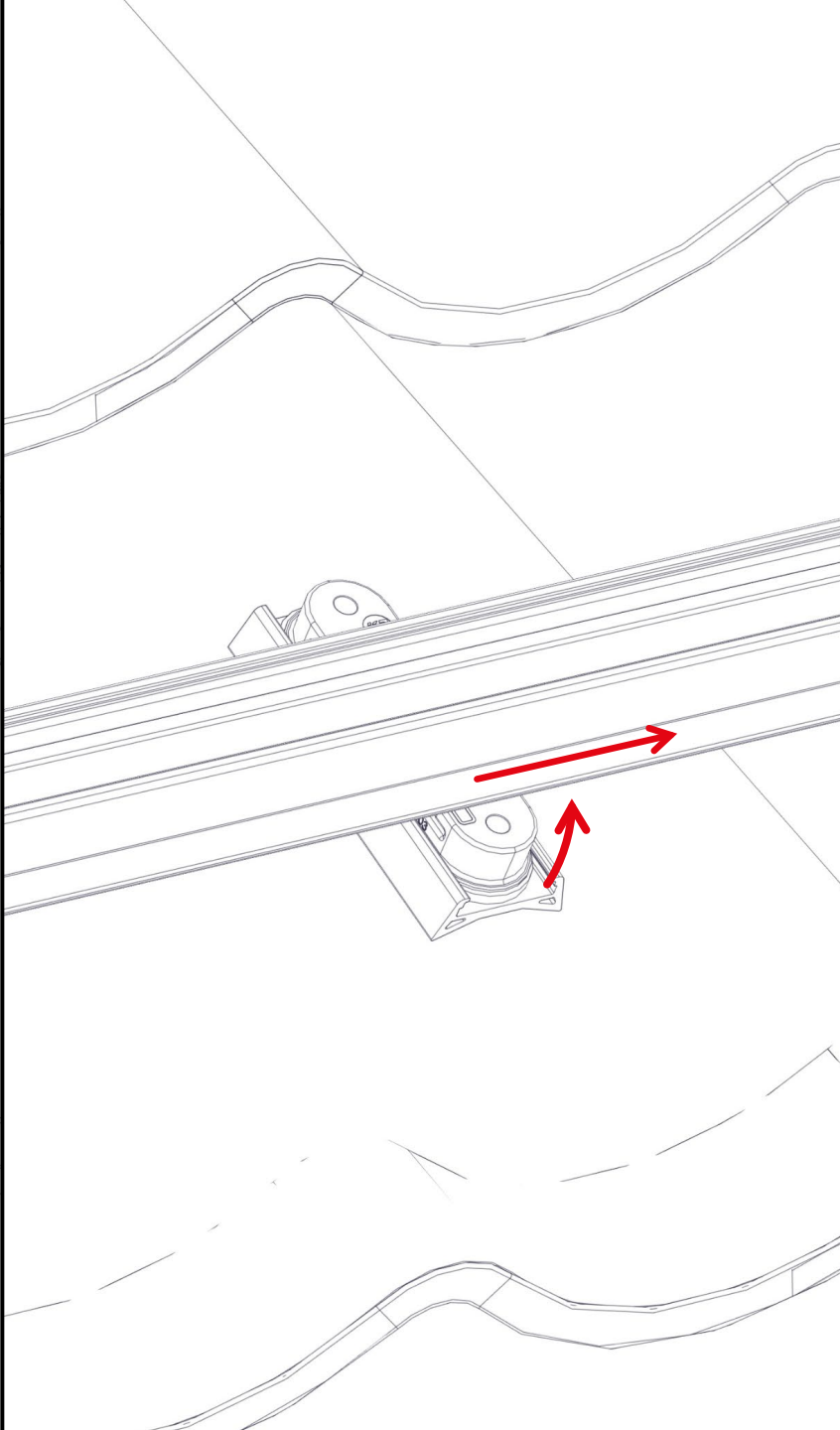
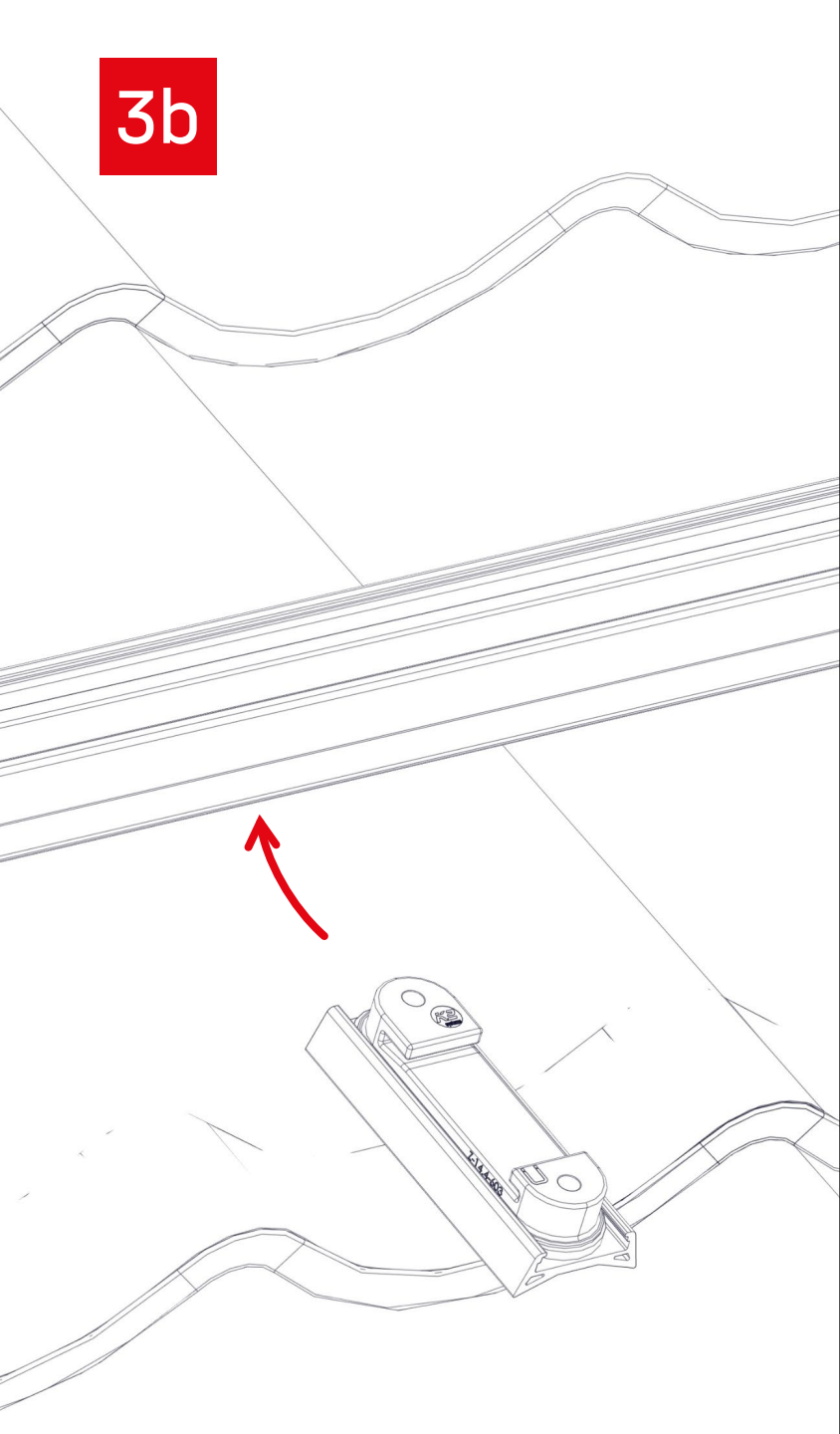
3a Placement of additional BasicClips with CSM adapter



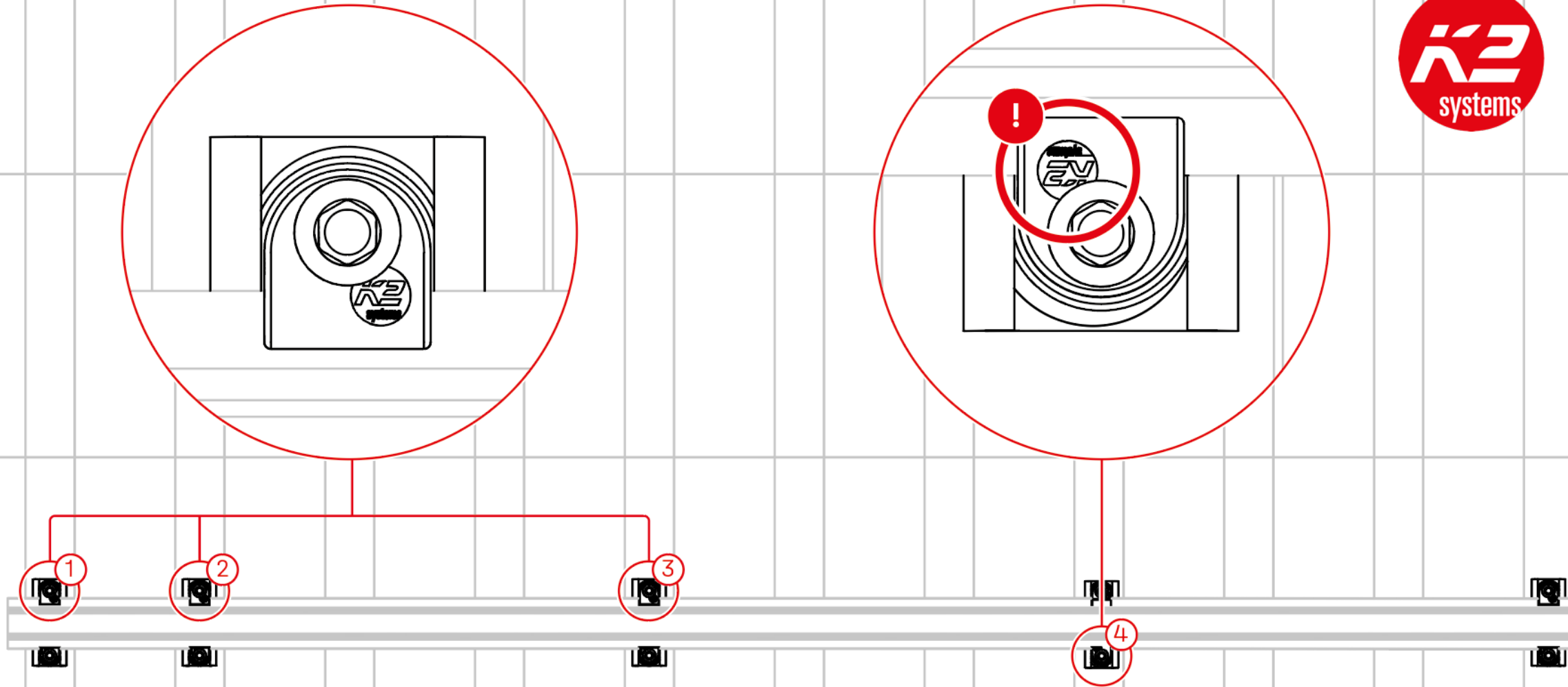
Horizontal distance between BasicClips: See Base installation plan!



3b



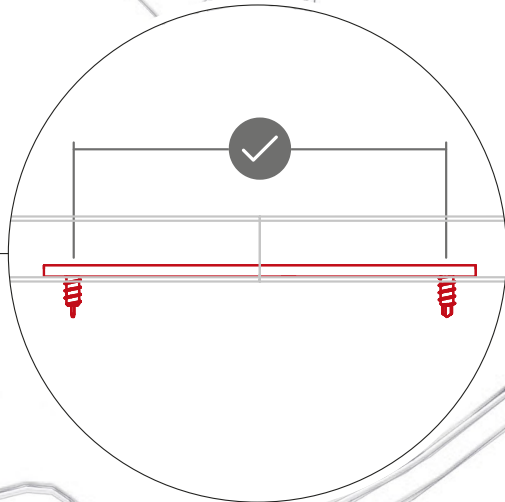
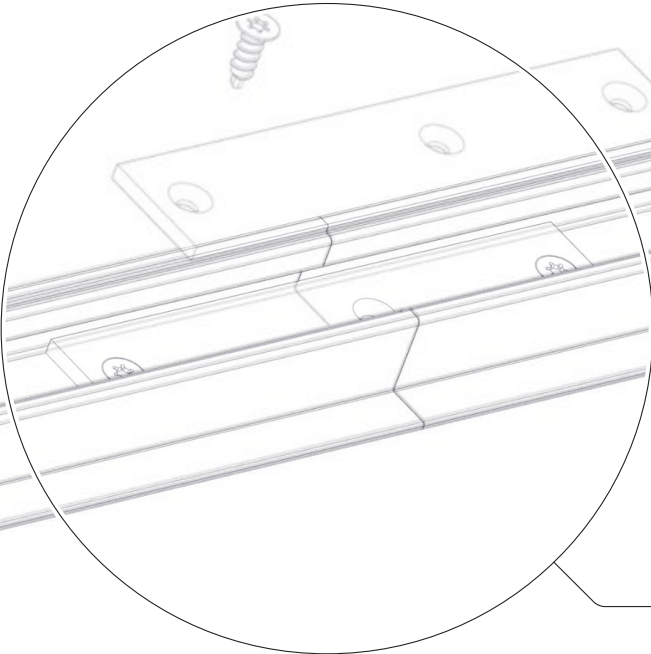
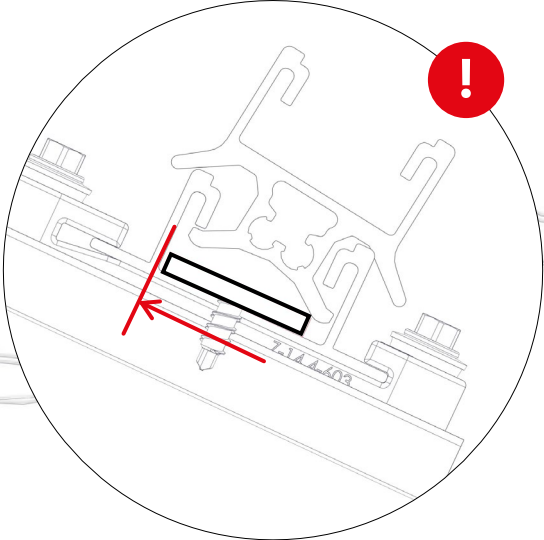
3c



! Every fourth or a quarter of all BasicClips are mounted rotated by 180° to fix the vertical position. Rotated BasicClips must not be placed at the end of the rail.

4

BasicRail rail connector

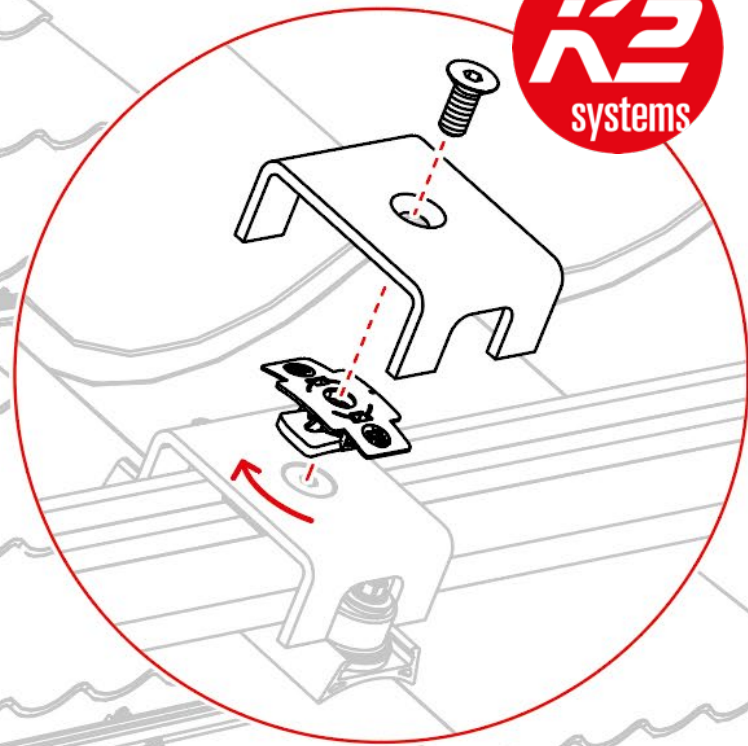


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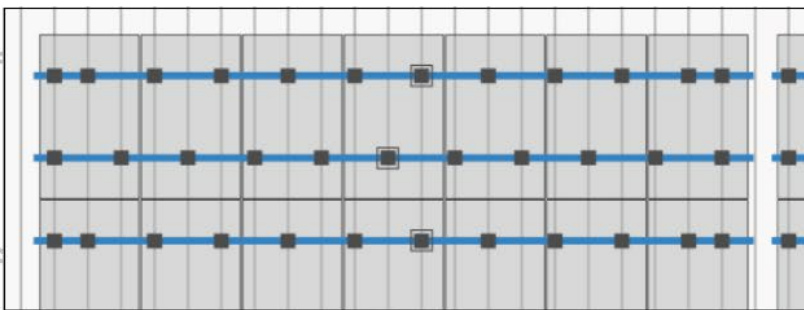
Placement of BasicLocks



! 14 Nm



■ BasicLocks



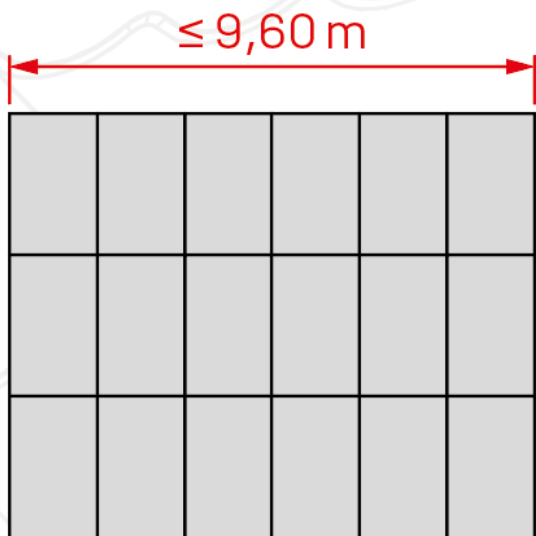
The number and placement are displayed in the K2 Base report.

6

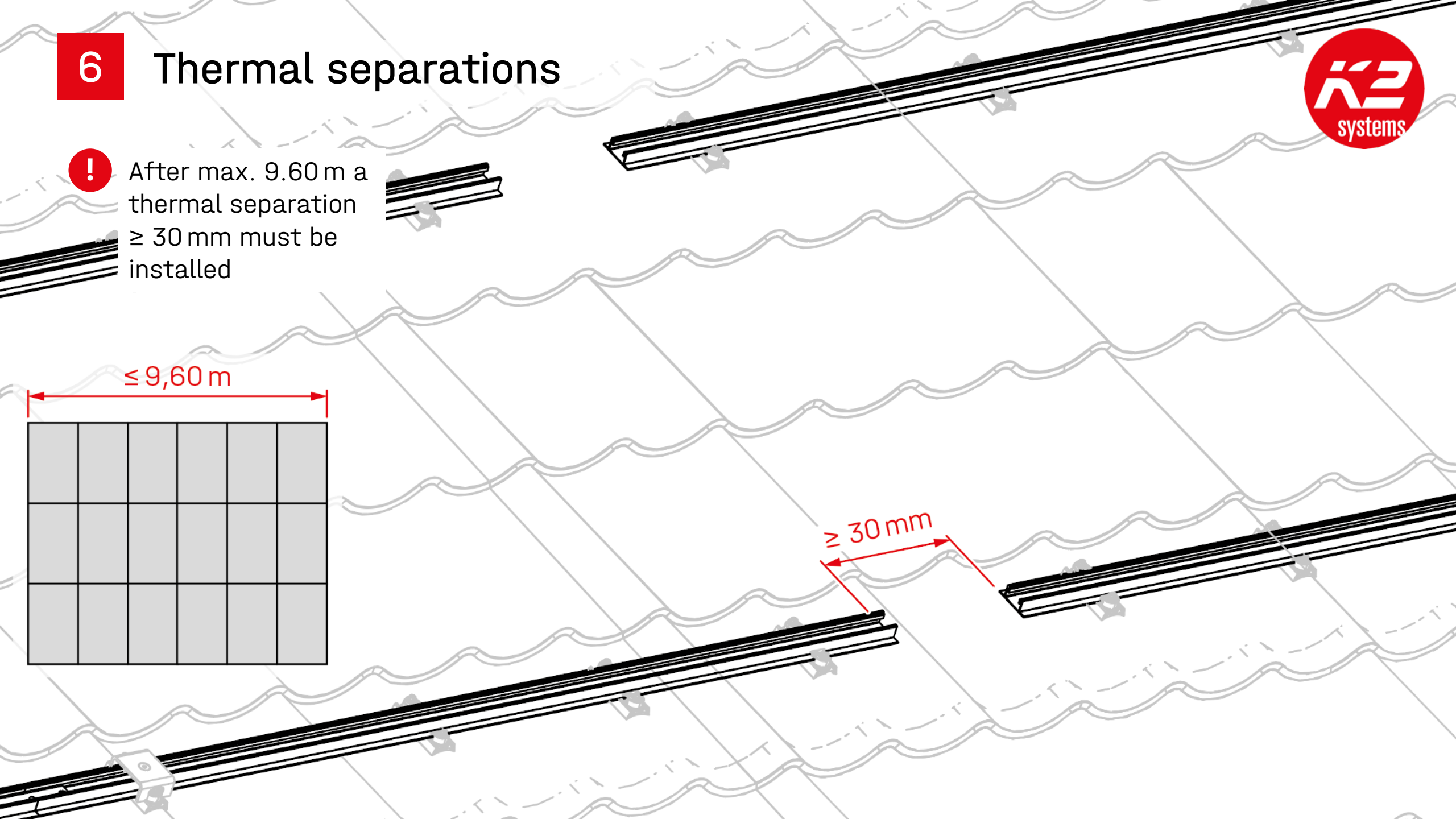
Thermal separations



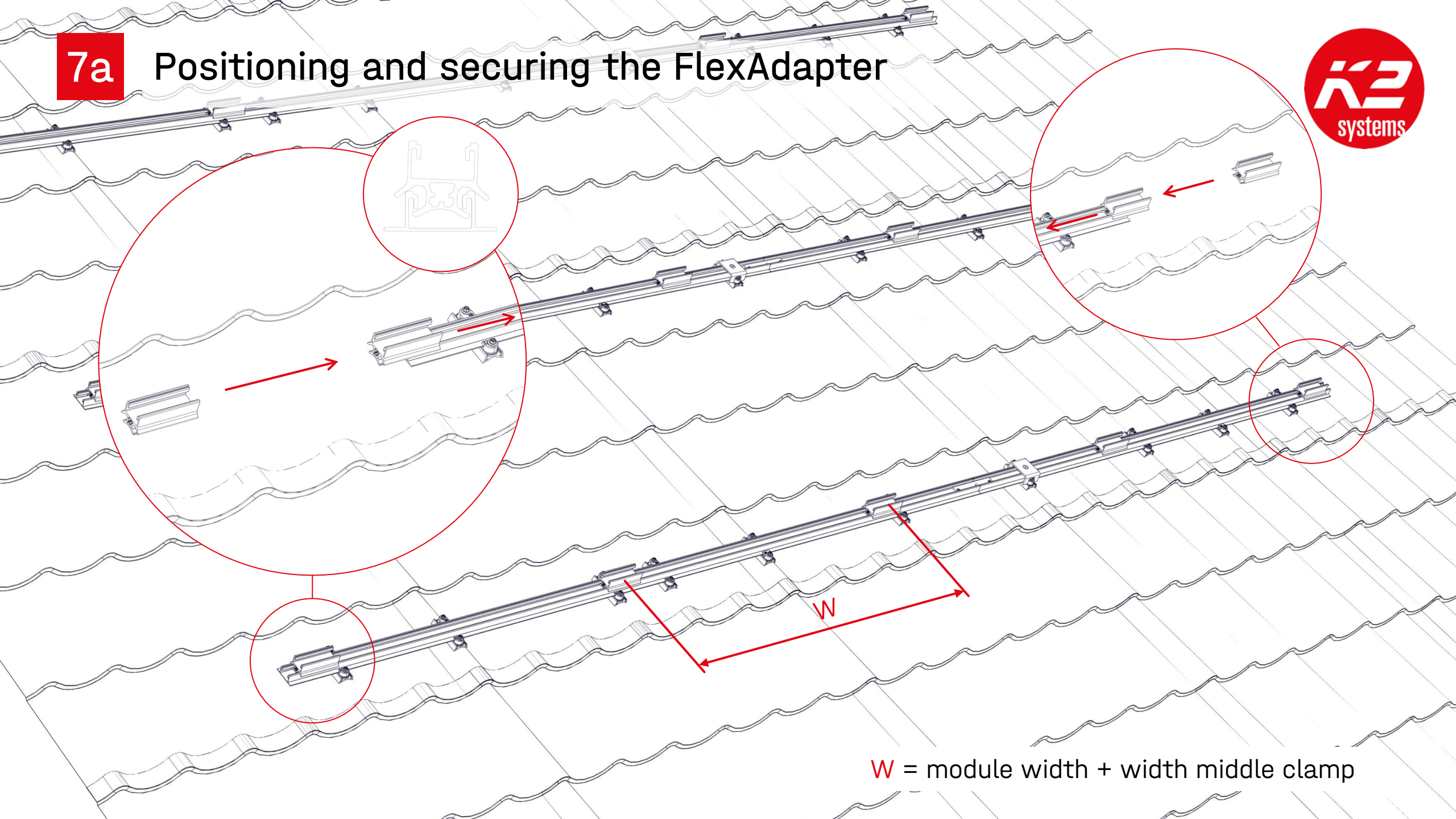
! After max. 9.60 m a thermal separation ≥ 30 mm must be installed



≥ 30 mm

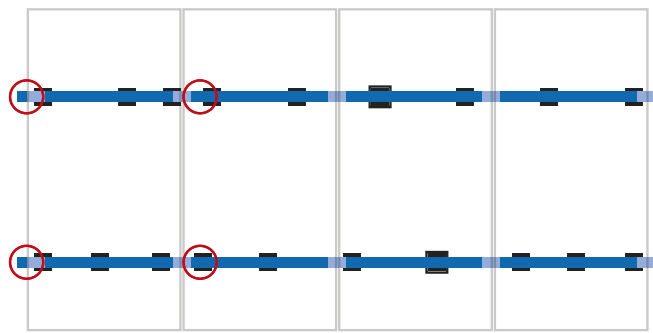
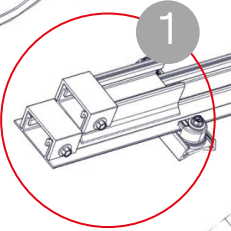
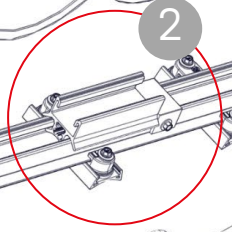
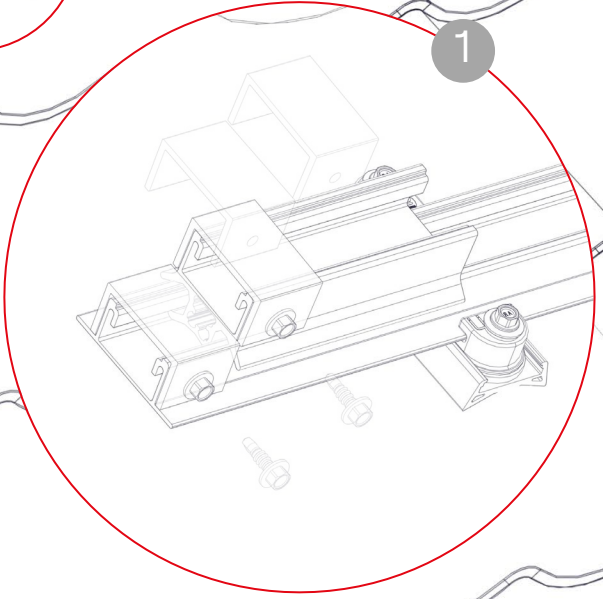
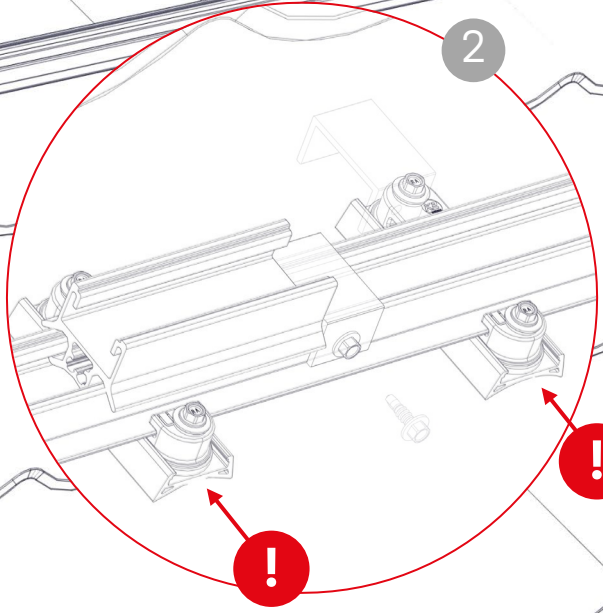
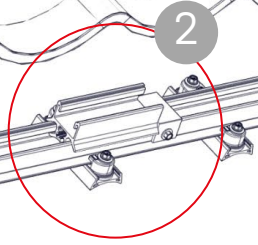
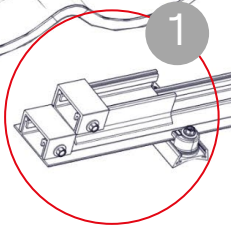


7a Positioning and securing the FlexAdapter



W = module width + width middle clamp

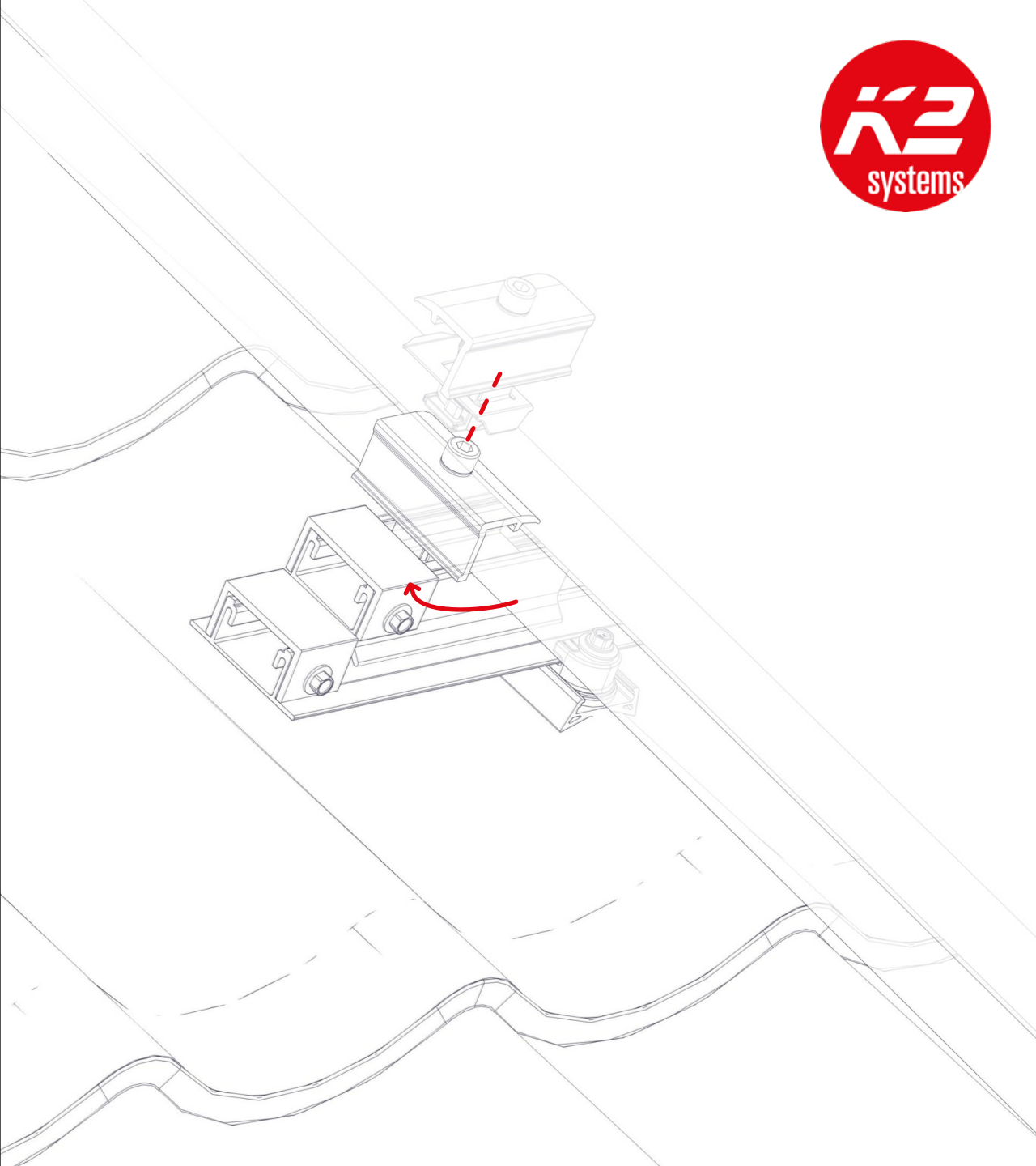
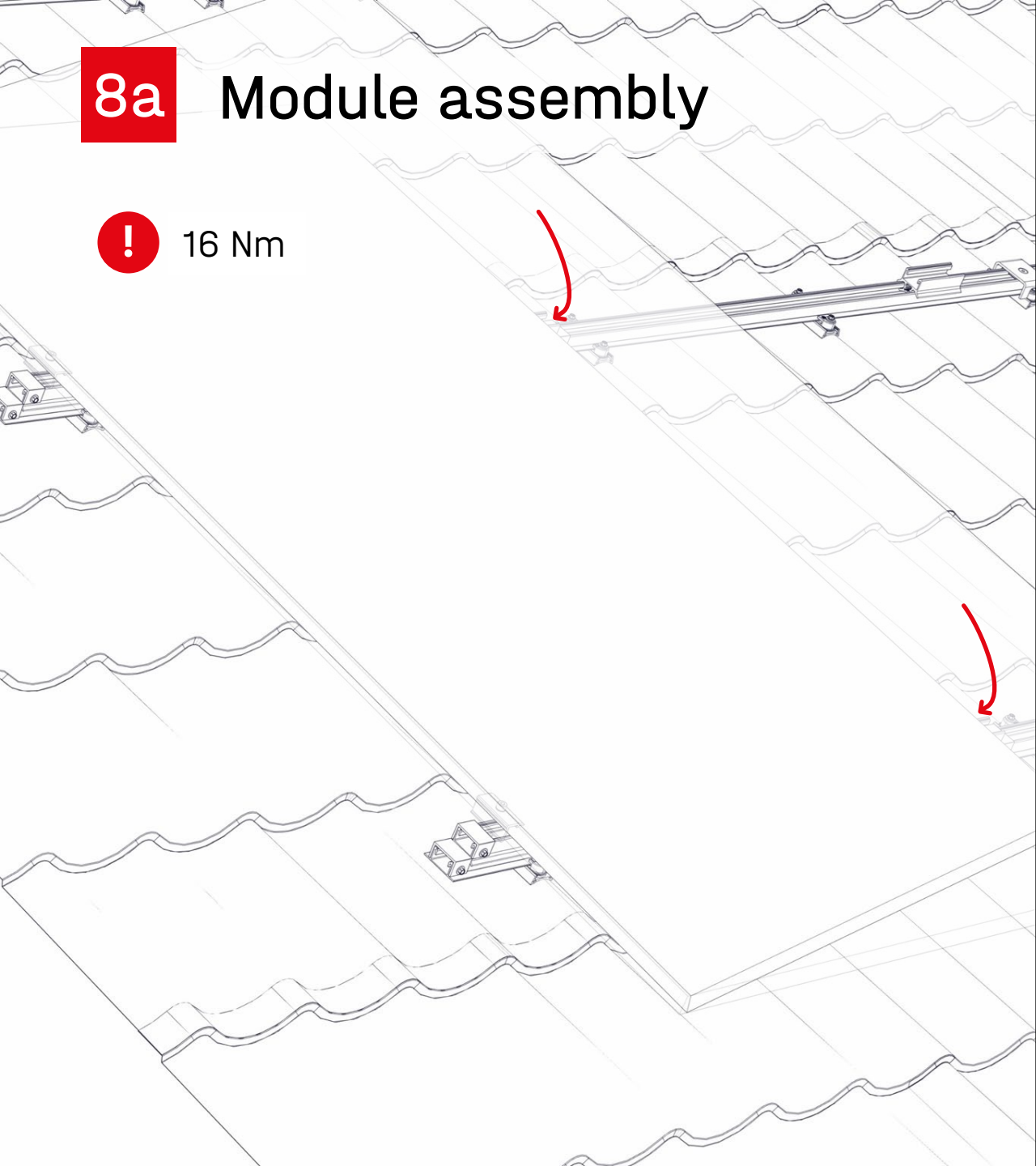
7b



! The internal securing must be supported on two adjacent high crests.

8a Module assembly

! 16 Nm



8b

! 16 Nm

