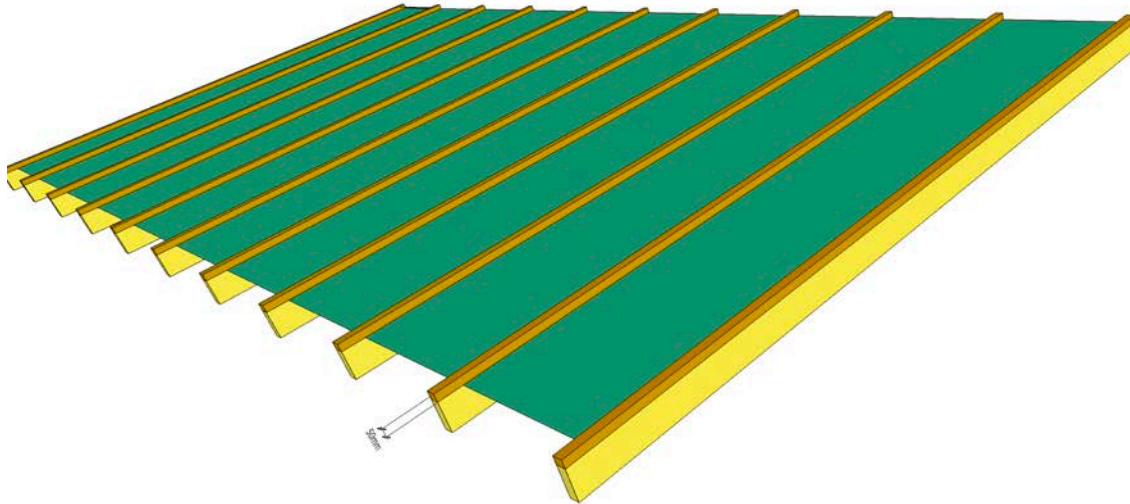


Roof preparation

Stage I

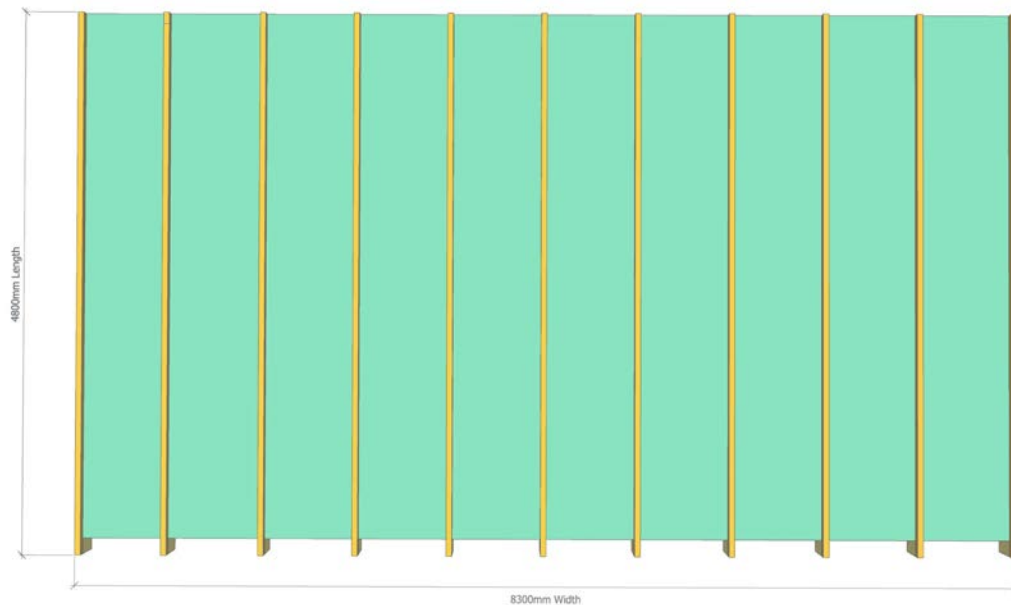
1. Installation of underlayment and counter battens.

Recommended thickness of counter battens is minimum 50 mm. Depending on roof and wall connection details the underlayment must reach either directly to the gutter or fascia board.



2. Validate roof measurements.

Width and length of the roof.



Top view. Insert roof measurements in solarstone.ee/calculator

3. Insert solar module and roof dimensions.

Refer to exact module measurements from manufacturers datasheet. Sample: modules 1002 x 1684mm ; roof 4800 x 8300mm.

Insert solar module dimensions:

Length (mm) ↑
 ✓

Width (mm) ↔
 ✓

Power (W)
 ✓

Insert roof dimensions (gable roof):

Length (mm) ↑
 ✓

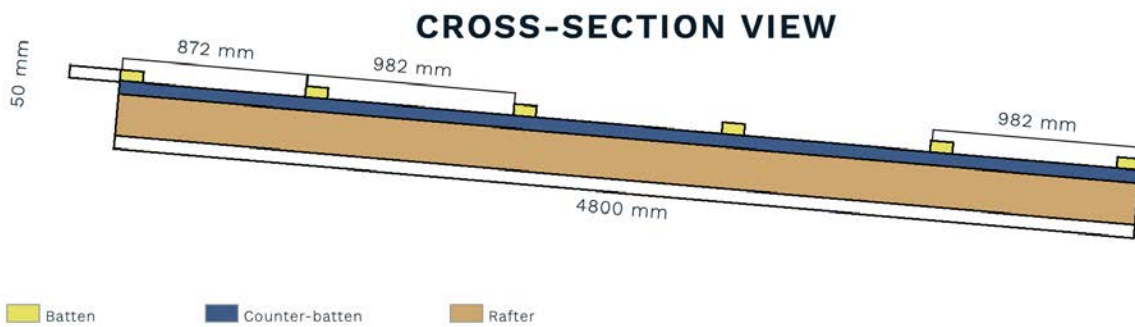
Width (mm) ↔
 ✓

Slope (°)
 ✓

SUBMIT

4. Press Submit.

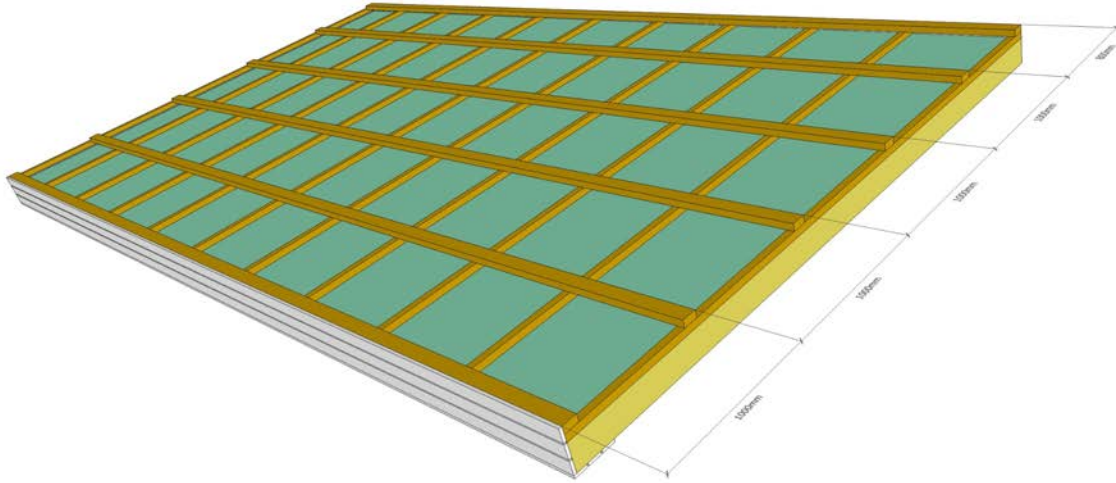
Calculator will automatically calculate batten layout and specification list.



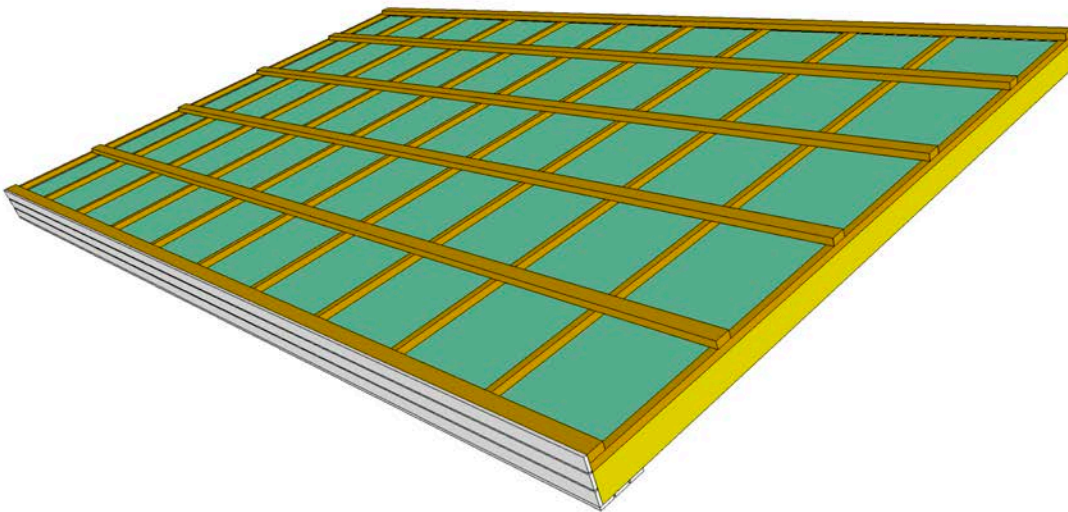
Details:

- Panel column count: 4
- Panel row count: 4
- Total number of panels: 16
- Full-width composite count: 4
- Click-on A profile kit: 16
- Batten spacing: 982 mm
- Upper/lower dummy panel height: 872 mm
- Upper/lower dummy panel quantity: 5

5. Execute the batten layout.
Adhere to the results from the calculations.



6. Roof preparation is completed.
Proceed with installation of clamps and modules in Stage 2.



Installation of Clamps and Modules (Landscape)

Stage II

1. Module and Roof dimensions.

Refer to the same results obtained from Stage I, section 3.

Insert solar module dimensions:

Length (mm)

Width (mm)

Power (W)

Insert roof dimensions (gable roof):

Length (mm)

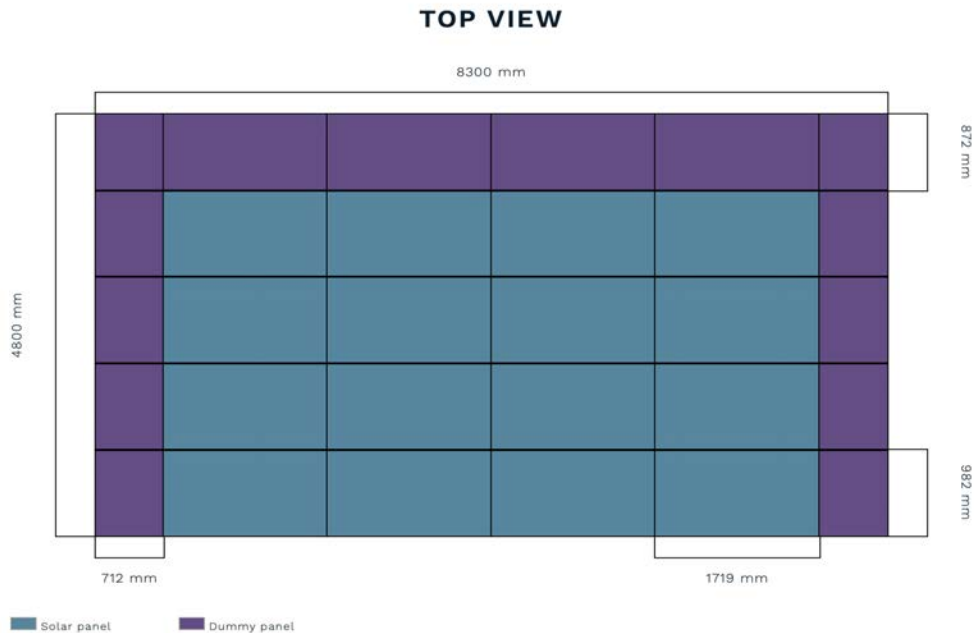
Width (mm)

Slope (°)

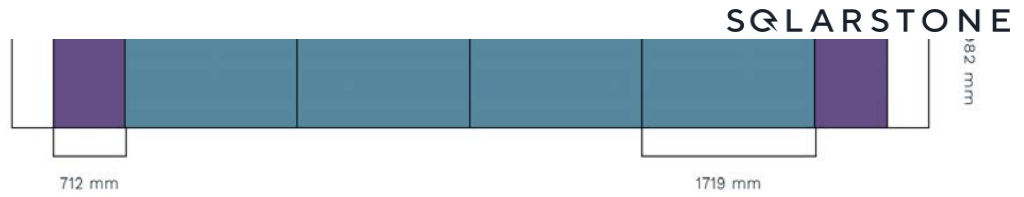
SUBMIT

2. Layout plan.

Calculator will generate layout plan

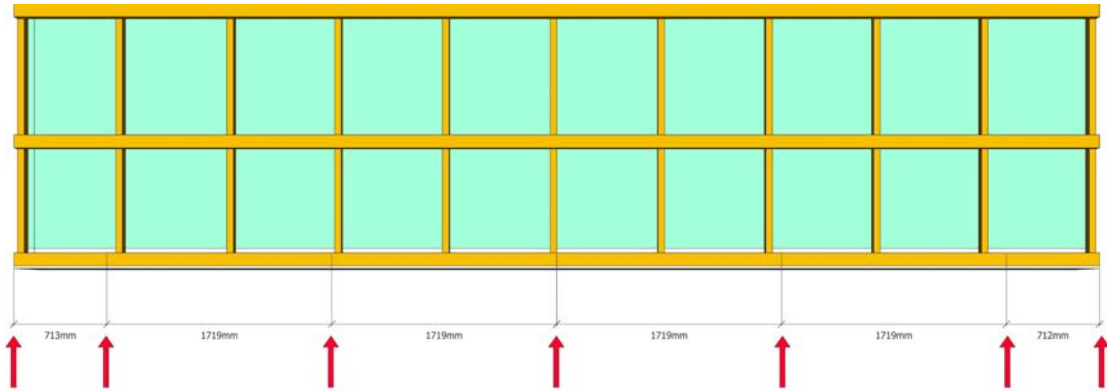


Use the lower section of the layout plan as a guideline.



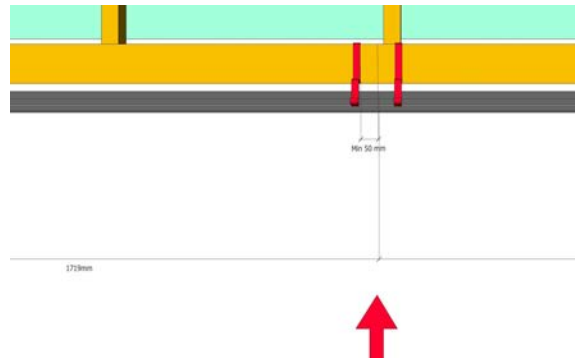
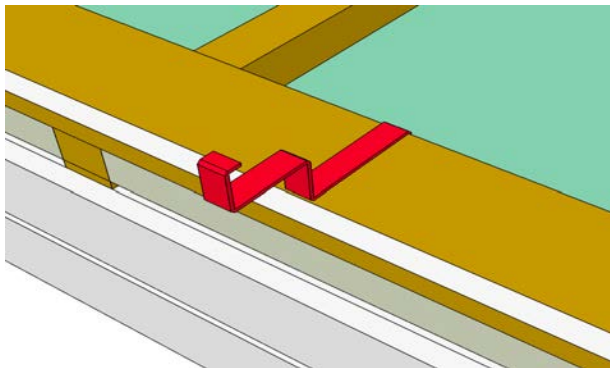
3. Markup

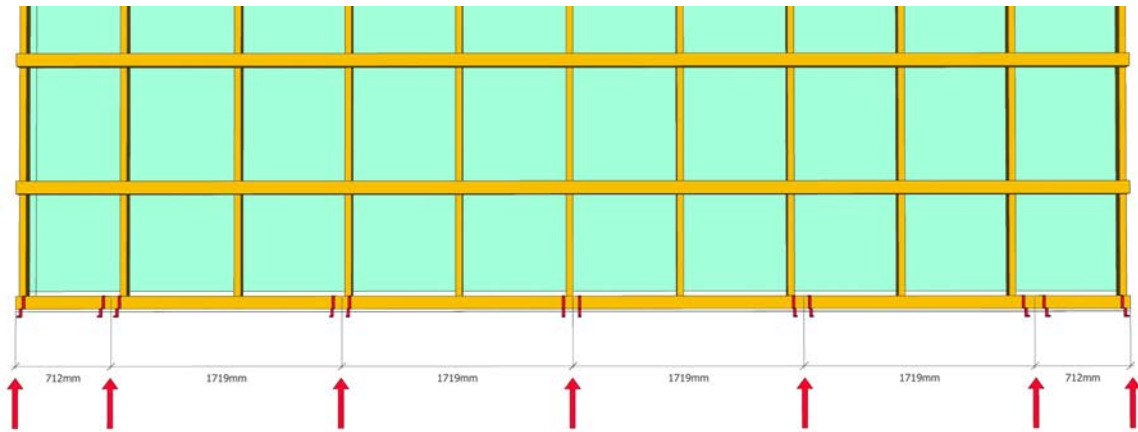
Vertical gap of 5mm is already predefined in the calculations. Gap tolerance is $\pm 3\text{mm}$. Mark up the layout on battens as shown below.



4. Installation of outer starter clamps

Starter clamps are positioned 50mm inwards from both sides of the 1684mm module.

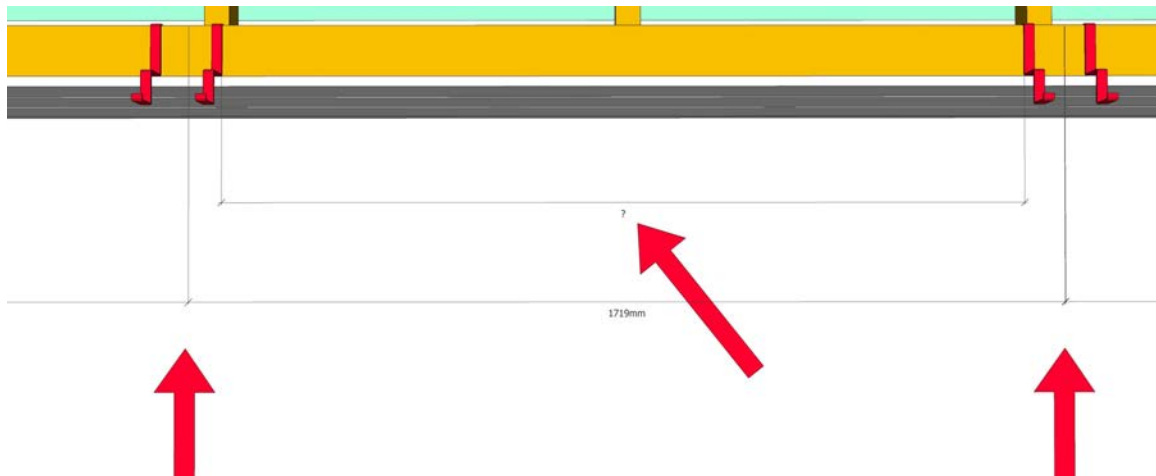


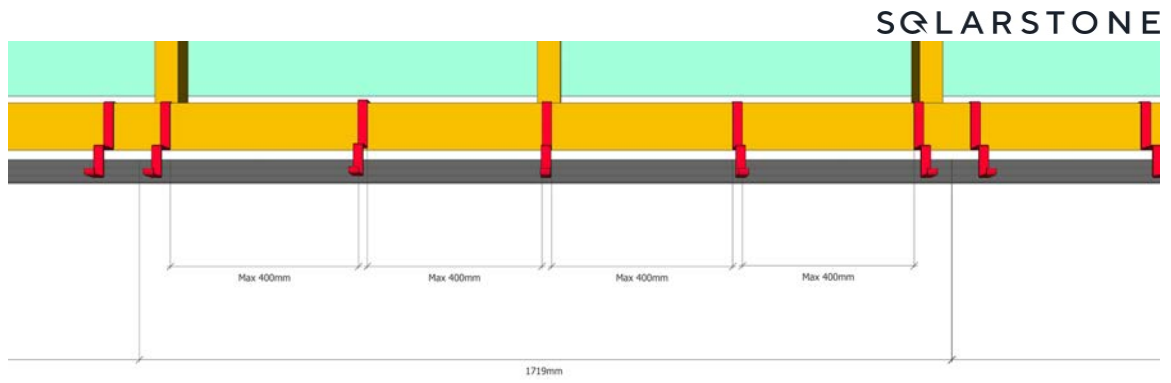


Top view with starter clamps mounted in the right position.

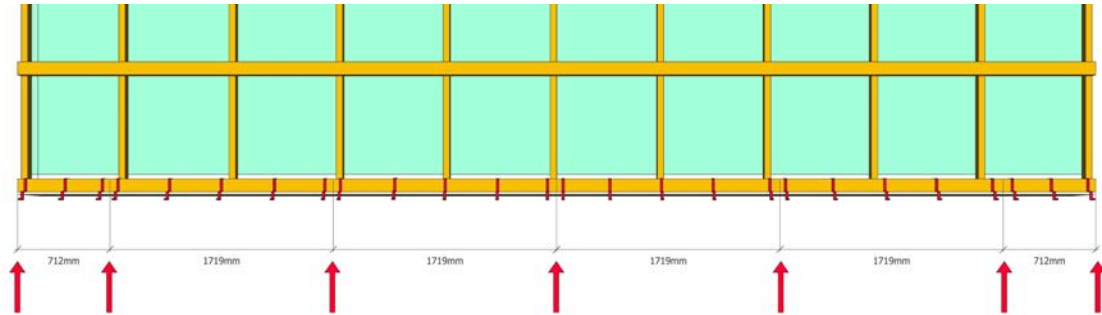
5. Positioning of center starter clamps

One clamp is fitted in the center. 4 starter clamps must be used per module on roofs with pitch over 40 degrees.





5 starter clamps must be used in total per module on roofs with pitch over 40 degrees.



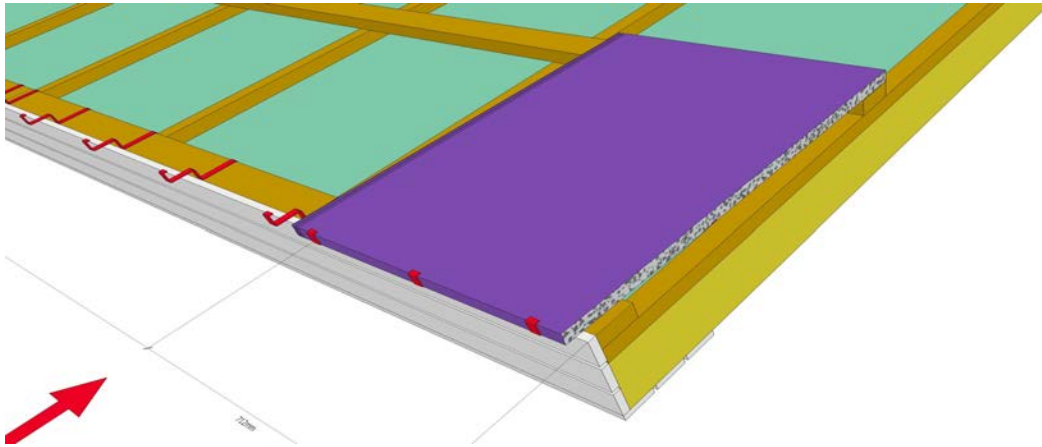
Layout with all starter clamps mounted.

Installation of Active and Dummy Modules

Stage III

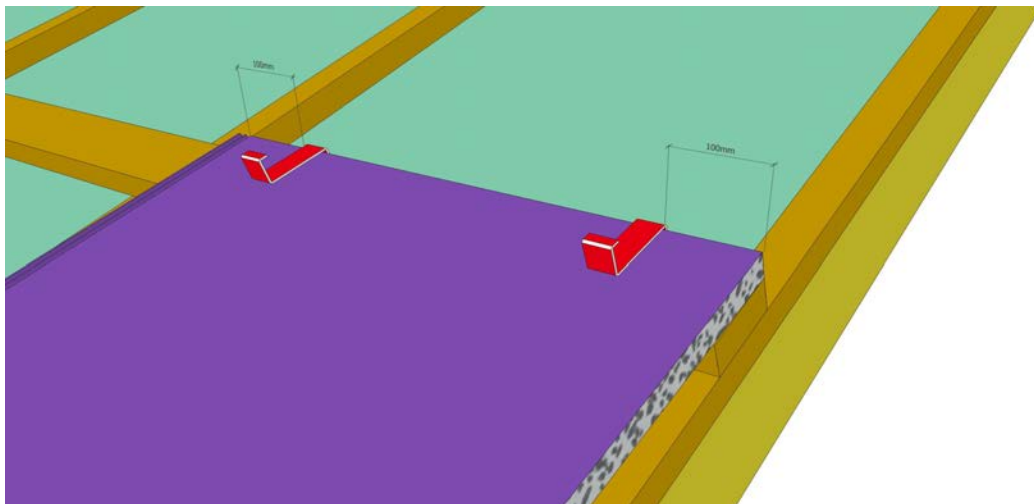
1. Laying of Dummy modules.

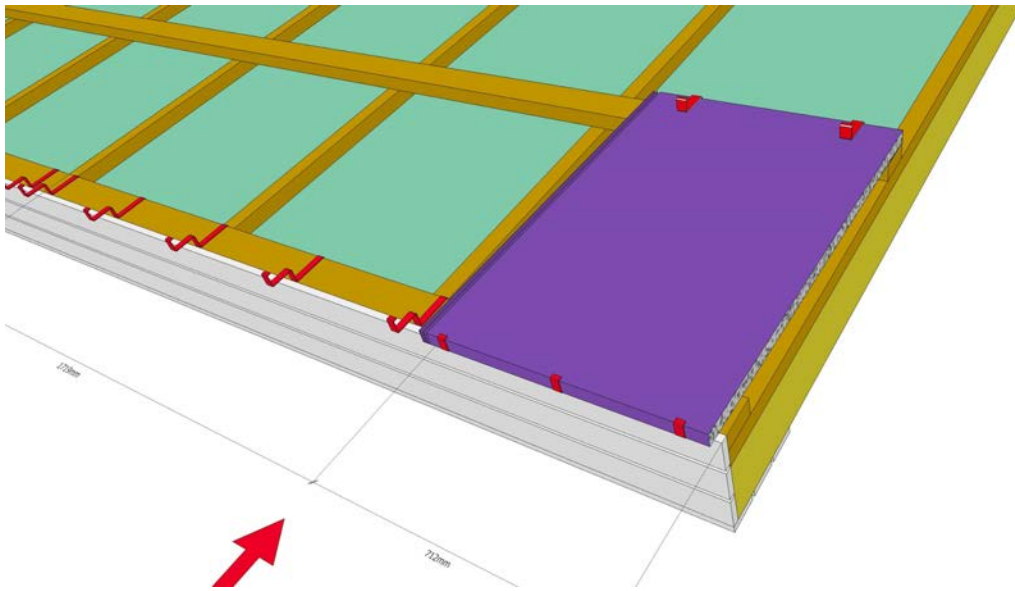
Inactive dummy modules are cut to size on site or in the workshop (regular circular saw can be used to cut the aluminium). The first row clamps must be installed 100mm, measured from the bottom corner of the dummy module.



2. Regular clamps.

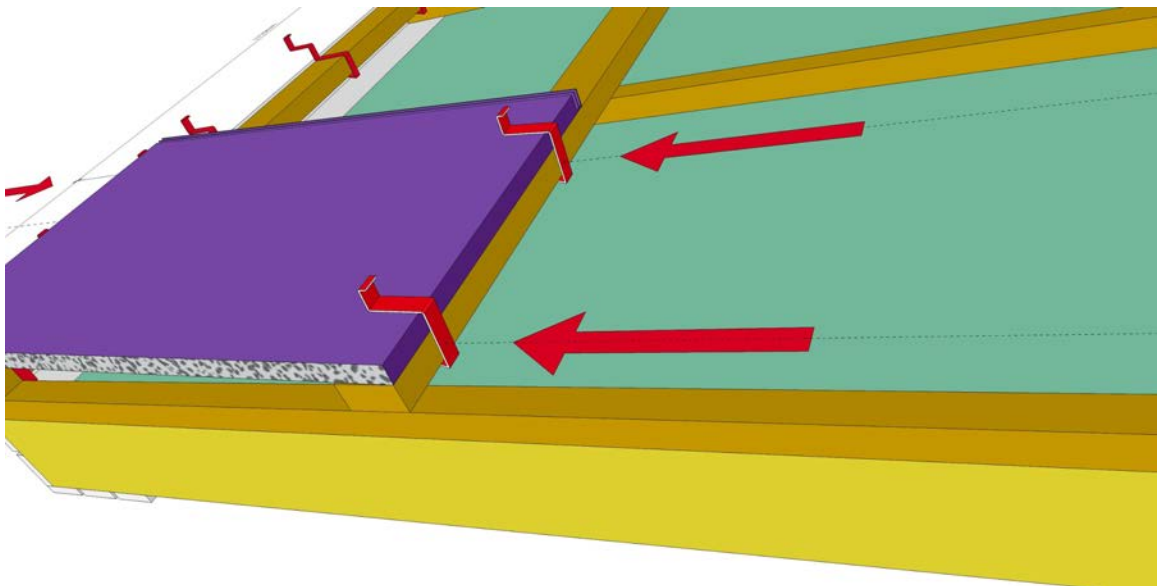
Overlap clamps must be installed 100mm, measured from the bottom corner of the module.





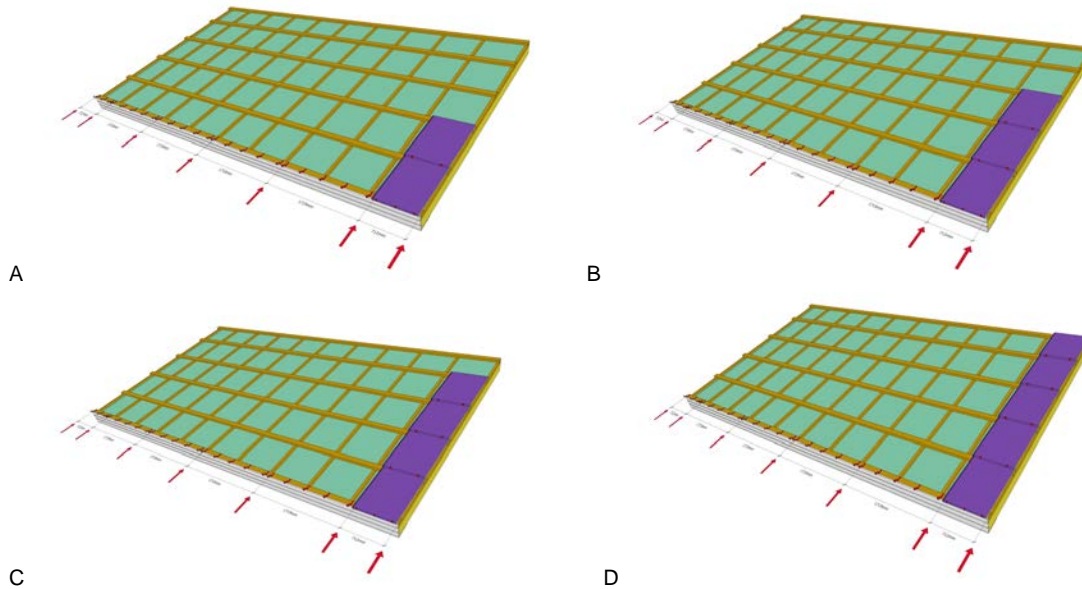
3. Fixing clamps into position.

Drive screws through the hole in the clamp into the batten.



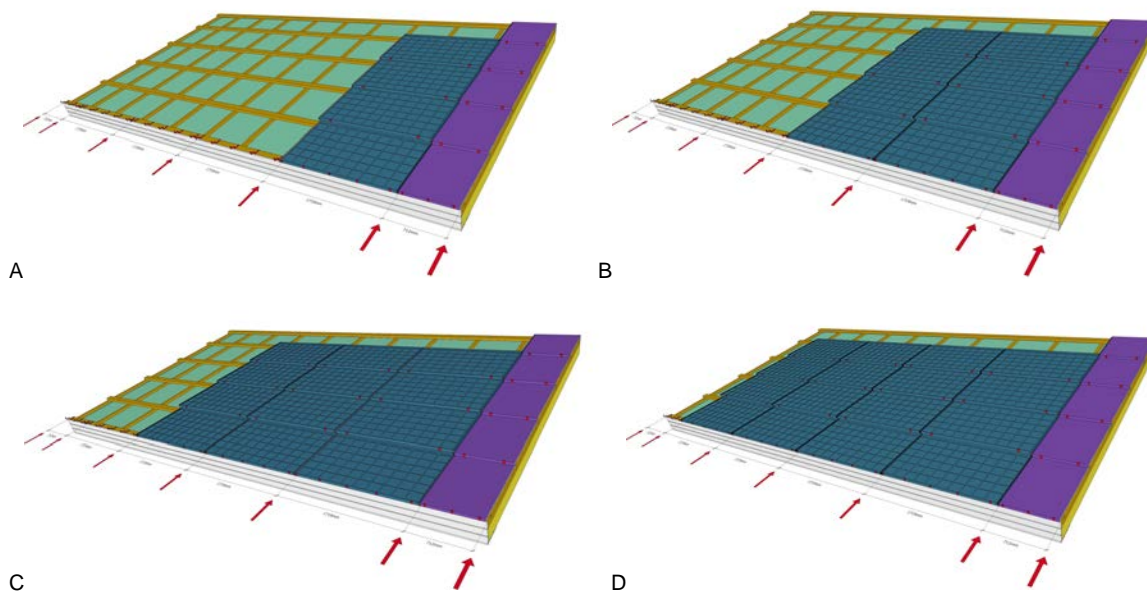
4. Complete the installation of Dummy modules

Install the whole right side column with dummy modules.



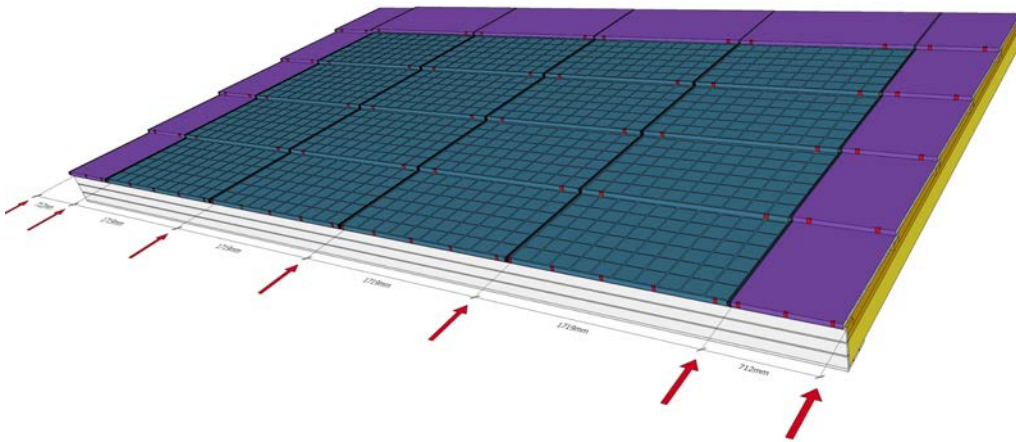
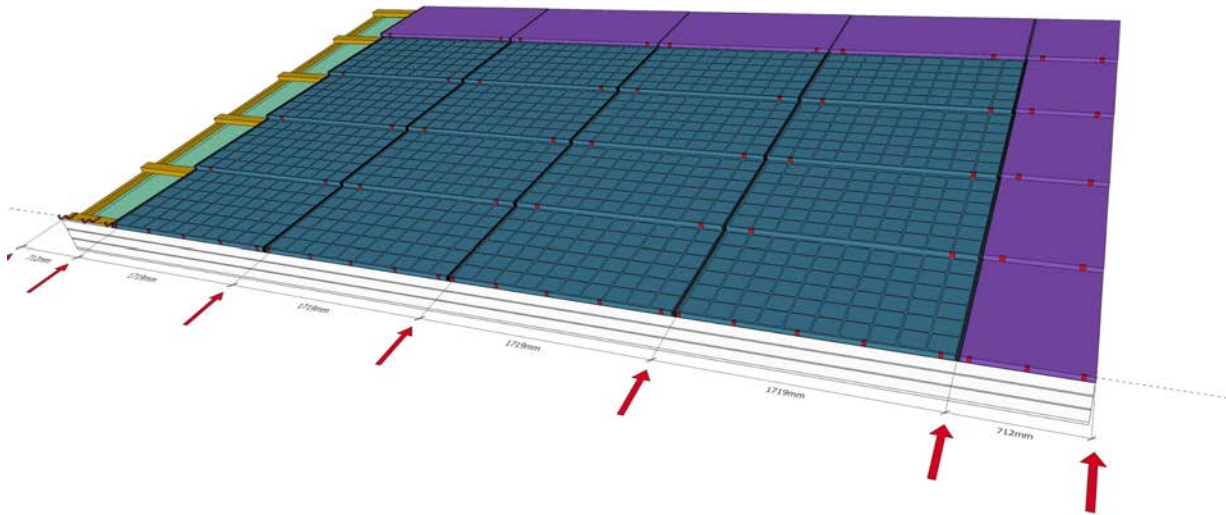
5. Installation of PV modules

As outlined in the previous section repeat the same procedure with Solarstone Click-On PV modules. Solar panels are installed in landscape mode from right to left, progressing with full columns. Follow the regular solar installation principles and manufacturer's instructions when connecting the solar cables.



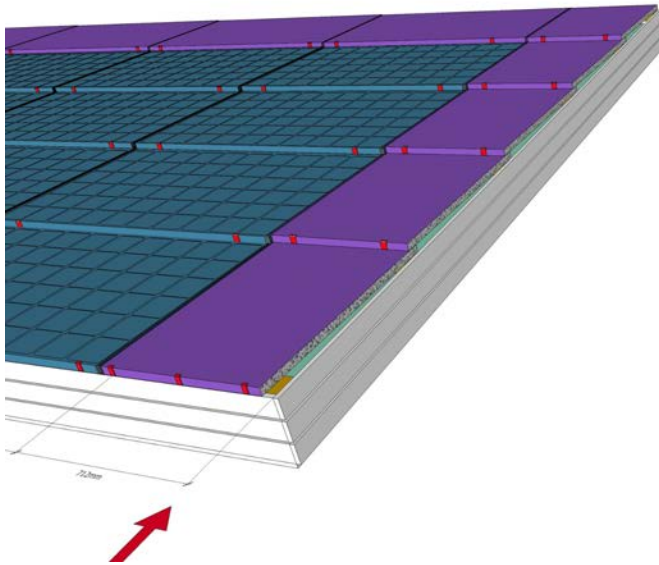
6. Top row dummy modules

Top row inactive modules are cut to the size according to layout specifications and onsite measurements.

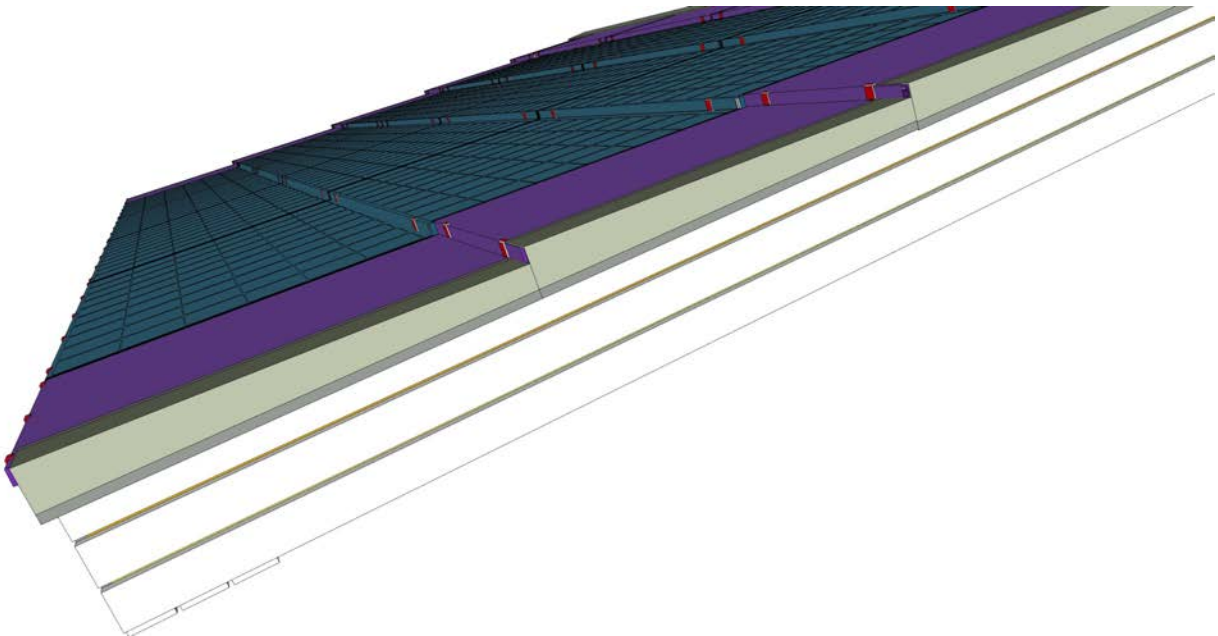


7. Ridge and edge metal flashings

Specific architectural appeal must be considered to match the flashing type used on other inactive roof facets. This is equally important in renovation and new-builds. Edge flashings are designed to cover the barge boards, however custom design options are permitted.



Ridge and side metal flashings are required to complete the layout. Solarstone has developed custom edge flashing pieces to imitate the structure and slope of the roof.



Final Result

