



INTERLOCKING PANELS INSTALLATION MANUAL

Metrotile[®]
worldwide roofing systems

METROTILE® iPANELS

iPanel



Length of Panel: 1330 mm
Length of Cover: 1230 mm
Width of Cover: 375 mm
Panels/m²: 2.17
Minimum Pitch: 10° (18%)

iShake



Length of Panel: 1330 mm
Length of Cover: 1230 mm
Width of Cover: 375 mm
Panels/m²: 2.17
Minimum Pitch: 10° (18%)

iShingle



Length of Panel: 1340 mm
Length of Cover: 1240 mm
Width of Cover: 375 mm
Panels/m²: 2.17
Minimum Pitch: 10° (18%)

iSlate



Length of Panel: 1330 mm
Length of Cover: 1235 mm
Width of Cover: 375 mm
Panels/m²: 2.17
Minimum Pitch: 10° (18%)

Shingle



Length of Panel: 1335 mm
Length of Cover: 1240 mm
Width of Cover: 252 mm
Panels/m²: 3.21
Minimum Pitch: 16° (29%)

PREPARATION INSTRUCTIONS

STORAGE AND HANDLING

If storage outside, a waterproof cover must be placed over the tiles to keep them dry and prevent damage to the substrate.

NON-STANDARD ELEMENTS

Materials that could cause corrosion (e.g. copper, lead, stainless steel) should not be used above the level of the roof.

CUTTING WITH A SAW

When cutting tiles with a metal cutting saw (which has been approved by IKO Metals), special (tipped) metal cutting blades should be used. Cutting should be performed with the chip-coated surface facing downwards to reduce the amount of swarf adhering to the chip coating. Failure to do so will result in rust stains on the tile surface.

WET SURFACE

Walking and working on a wet roof should not be attempted.

SUITABLE DECKING

The following decking materials are suitable for the on deck installation of IPanels.

- Exterior grade plywood (22mm)
- OSB 3 Conditioned Boarding (22mm)
- Plain edge timber boarding (25mm)

We recommend to install an underlay on top of the roof decking that is made from SBS rubber bitumen or durable polyester felt.

VENTILATION SPACE

A ventilation space should be provided below the decking, by means of eaves and ridge ventilation. This is achieved by the installation of counter battens nailed to the rafters. The height of the counter battens can be from 25 to 50 mm. Thicker counter battens enlarge the ventilation space, thus enabling humidity to exit more efficiently. To achieve good air circulation, an air inlet in the eaves and an air outlet in the ridge should be ensured.

FIXING

IPanels are fixed with sheet nails or screws (4 pieces / panel = 10 pieces / m²) and from the places shown in the figures NAIL POSITIONING (page 6). You may nail in the roofing nails manually or use a pneumatic nail gun. The nails/screws must penetrate the roof decking.

HANDLING

Care should be taken when handling the tiles to avoid damage to the surface. If minor damage does occur, the Repair kit (provided by Metrotile) should be used to repair it.

RESPONSIBILITY

It is the responsibility of the architects, builders and roof installers to ensure that all the elements of the roof (e.g. underlay, ventilation space, thermal insulation and vapour barrier) are constructed correctly.

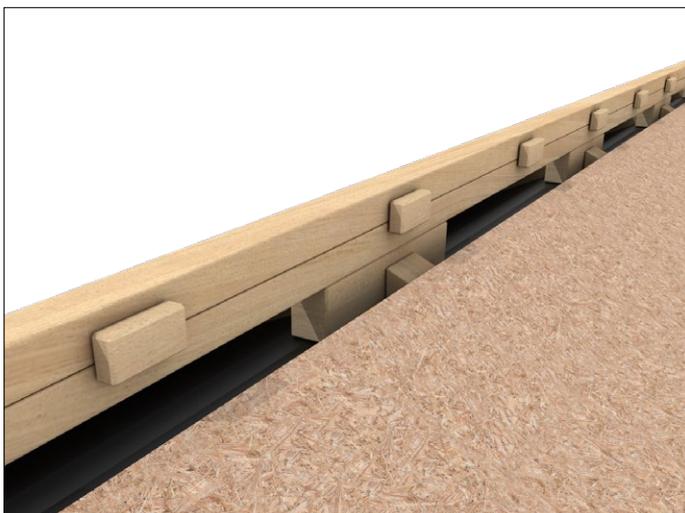
LOCAL STANDARDS

It is strongly recommended that local building standards and regulations are always followed and fully complied with.



ROOF STRUCTURE

RIDGE BATTEN



GABLE



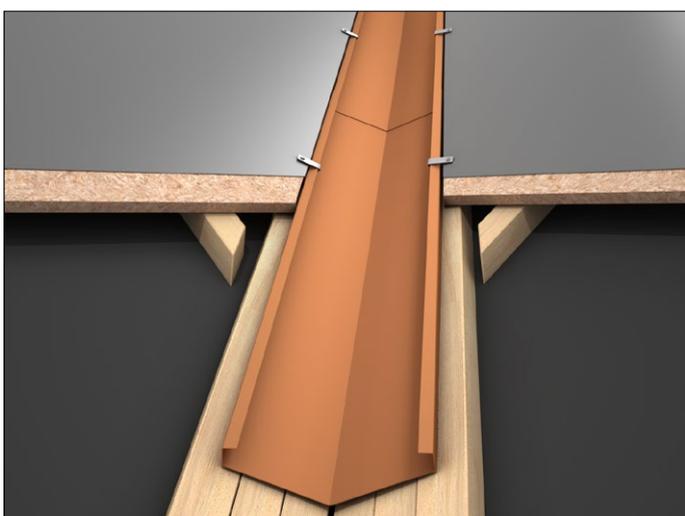
HIP BATTEN



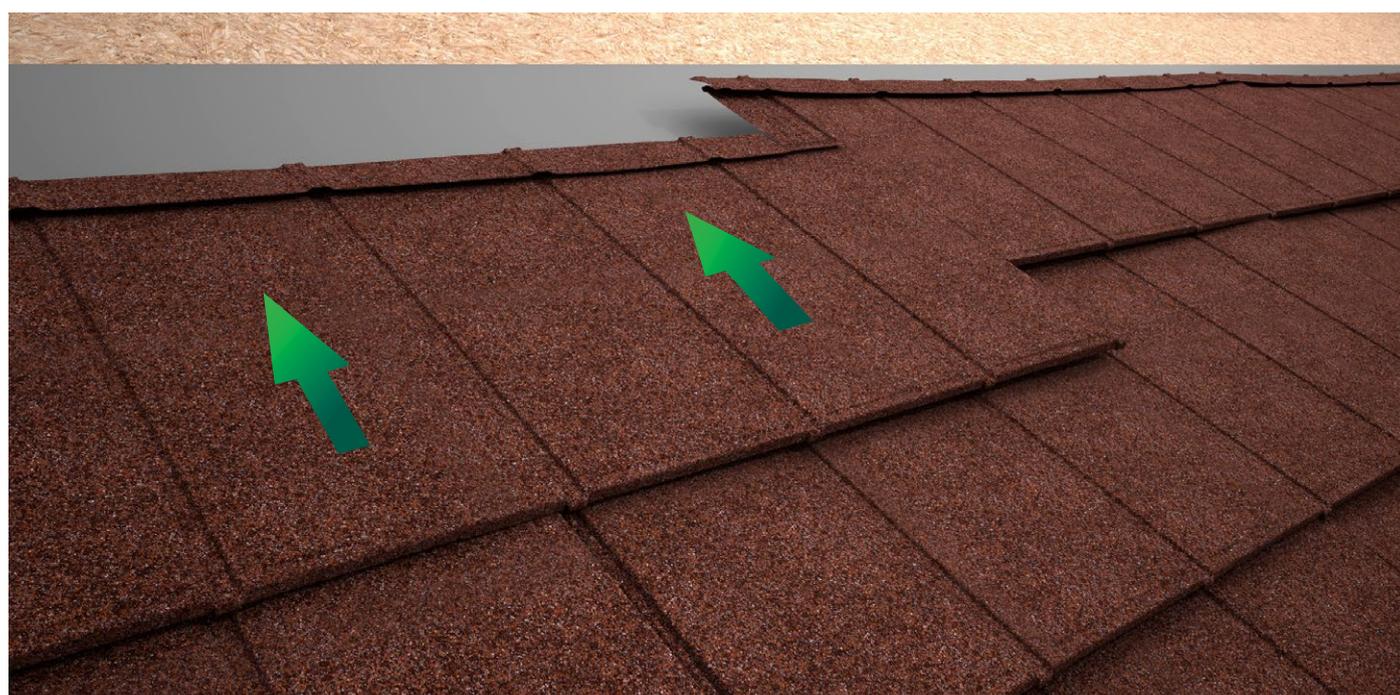
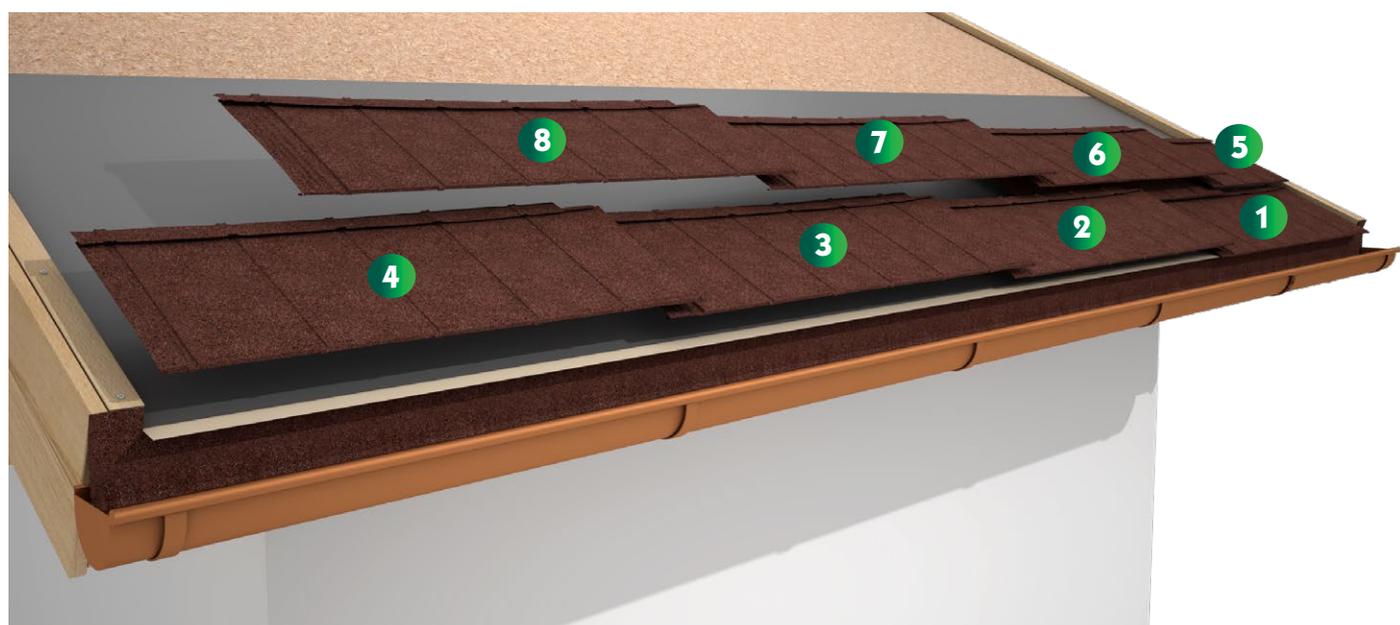
EAVE



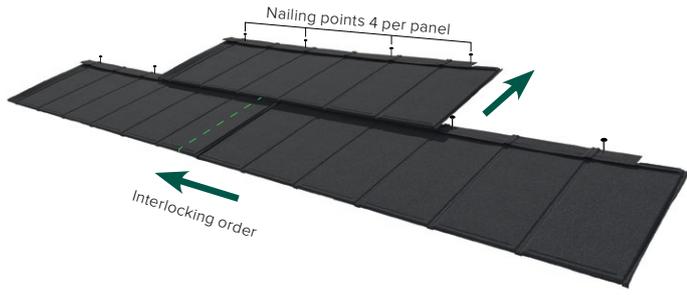
VALLEY



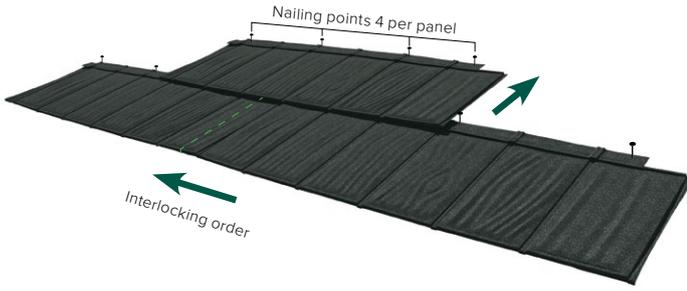
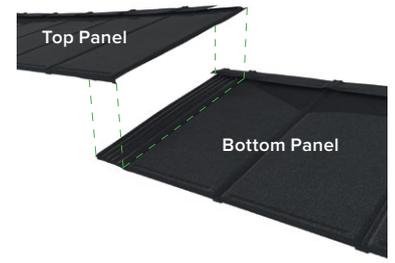
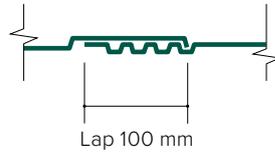
INTERLOCKING OF THE PANELS



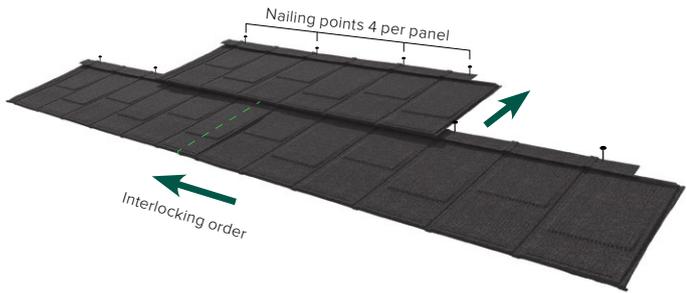
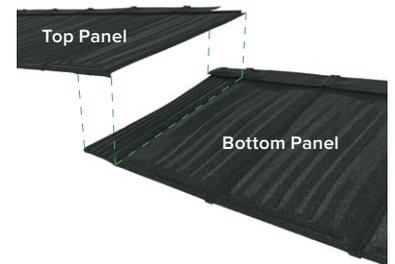
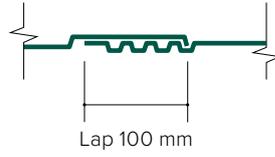
NAIL POSITIONING



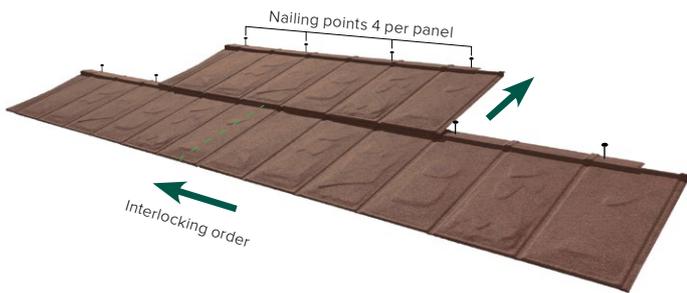
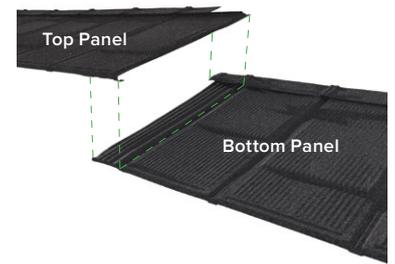
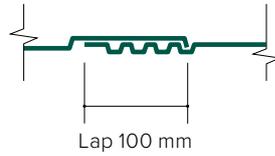
METROTILE iPANEL



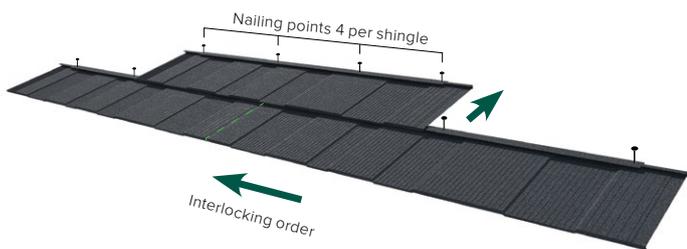
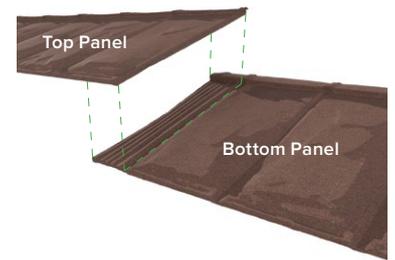
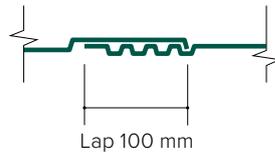
METROTILE iSHAKE



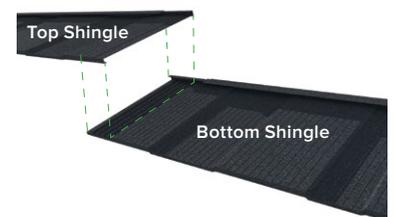
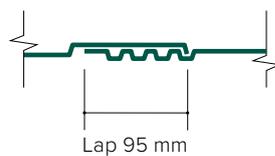
METROTILE iSHINGLE



METROTILE iSLATE

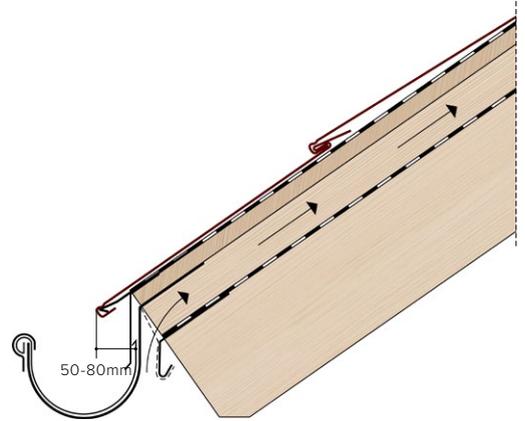


METROTILE SHINGLE

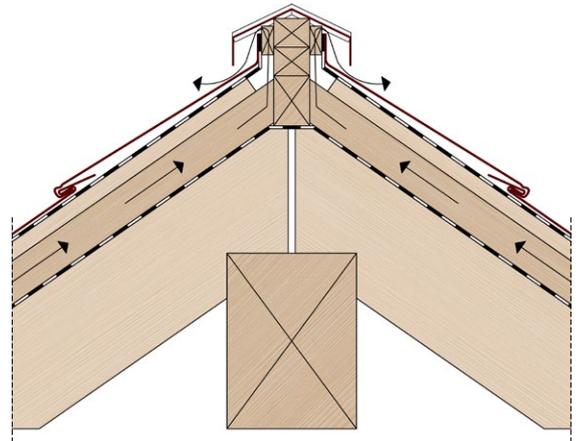


INSTALLATION DETAILS

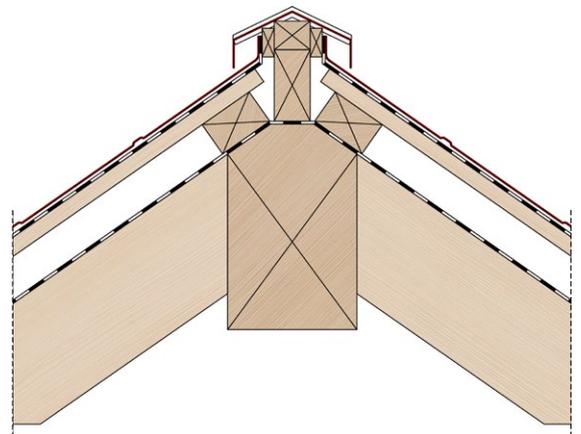
EAVE APRON



RIDGE INSTALLATION

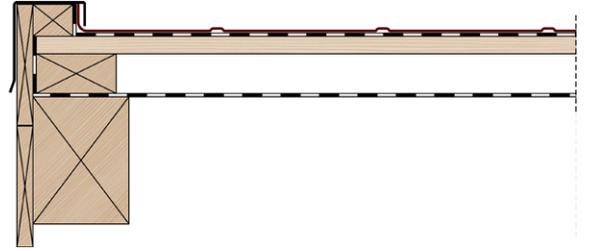


HIP INSTALLATION

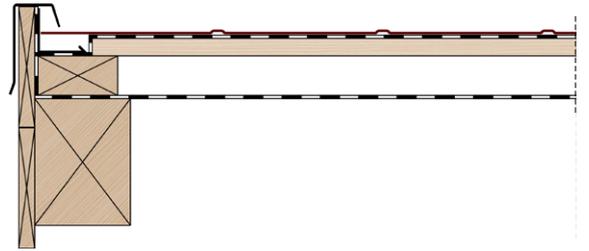


INSTALLATION DETAILS

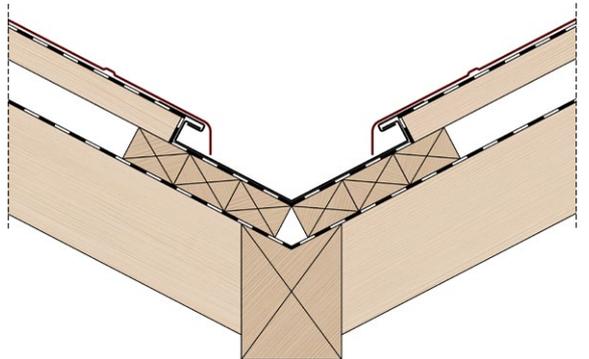
BARGE INSTALLATION Option 1



BARGE INSTALLATION Option 2

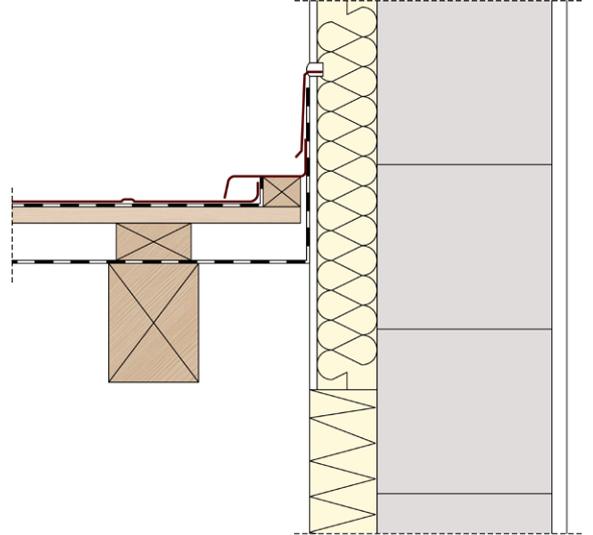


VALLEY INSTALLATION

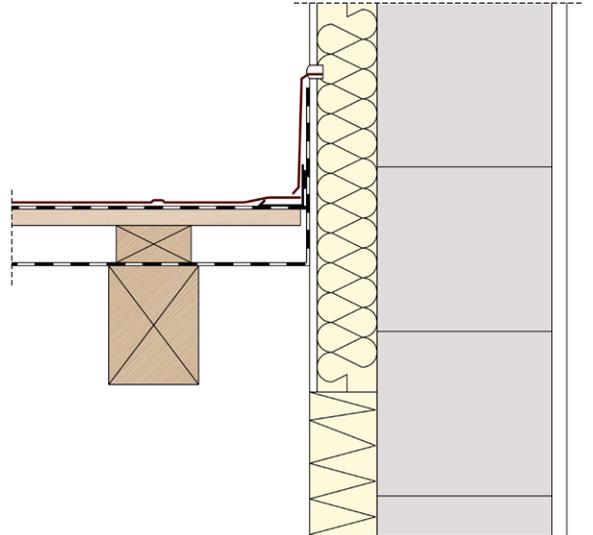


INSTALLATION DETAILS

WALL FLASHING Option 1



WALL FLASHING Option 2



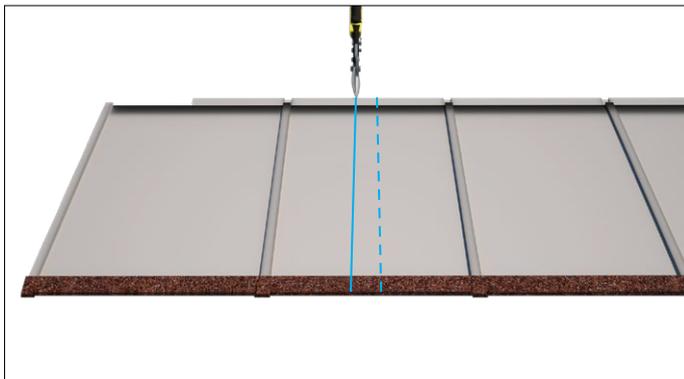
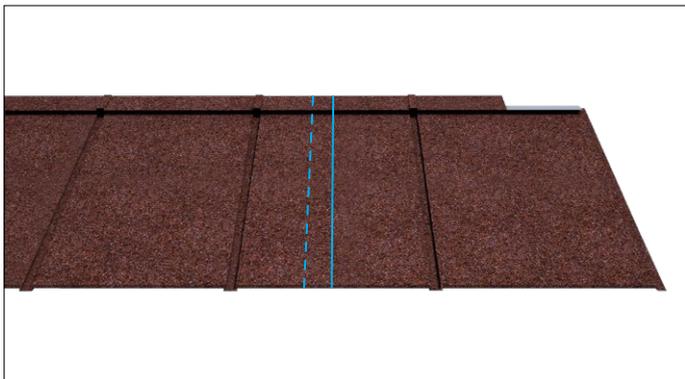
BENDING PROCESS

When installing the interlocking I-Panels on a Barge and Side Walls with Option 1, it is essential that the edge of the end panel is turned up against the barge or side wall batten.

The backward bent edge at the front of the panel must be cut beforehand, using hand shears.

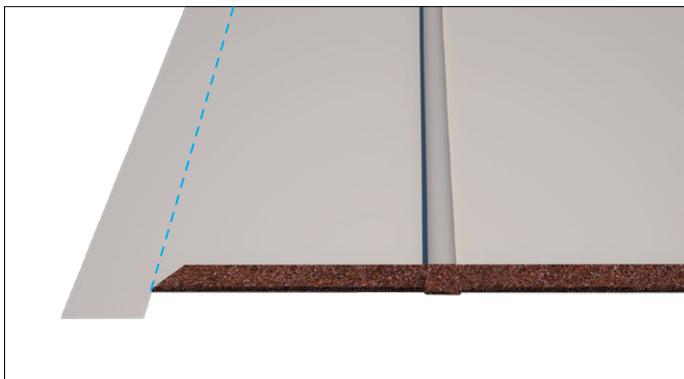
Step 1 / Measure and mark the required measurements taken from the roof on the Panel, ensuring that the matching corrugation of the overlapping panel to be cut is taken as the measurement starting point. This forms the Bending Line (indicated by the dotted blue line). Add the height of the Gable Batten projection above the panel line to the Bending Line measurement to obtain the Cutting Line (indicated by the blue line).

Step 2 / Transfer the measurements to the underside of the panel. Cut the panel along the marked Cutting Line using the guillotine, hand shears or metal cutting saw. Cutting should be performed with the chip-coated surface downwards to extend the durability of the tool.



Step 3 / Mark a V-notch of single-hem edge (backward bent edge) at the front of the I-Panel (indicated by the blue line). Cut a V-notch using hand shears. The usage of right and left-handed shears can make the cutting easier.

Step 4 / Flatten the backward bent edge.



Step 5 / Bend the panel upwards along the Bending Line (dotted blue line) using a combined bender or hand pliers.

Step 6 / Place the panel in its final position.

