

INSTALLATION MANUAL

IZI MODULAR STEEL ROOF TILES



THE POWER OF ROOFS

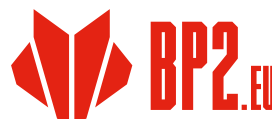


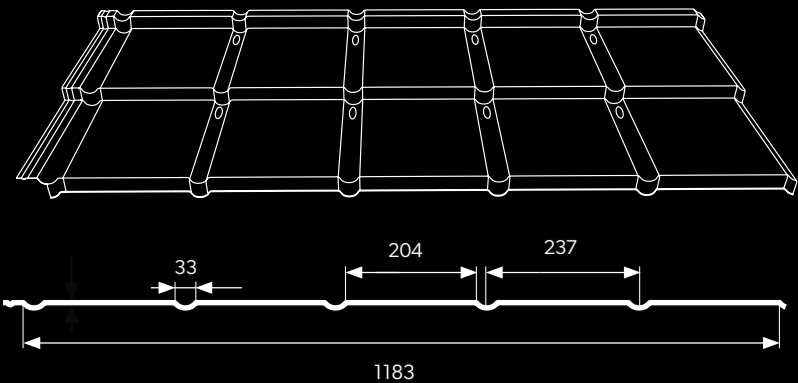
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**THIS MANUAL IS ILLUSTRATIVE AND DOES NOT RELEASE
CONTRACTORS FROM THE OBLIGATION TO FOLLOW THE RULES
OF THE ROOFING PRACTICE.**

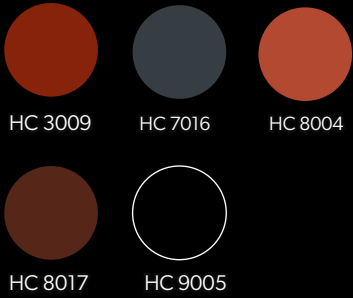
1. Technical specifications of IZI modular steel roof tiles



Technical parameters [in mm]	
Effective width	1183
Total width	1233
Thickness of steel sheet	0,5
Height of forming	30
Module length	363 (batten spacing 350 mm)

Available coatings and colours

HERCULIT



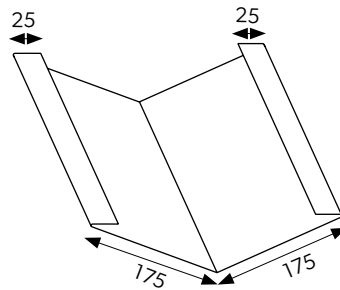
MAT 35 Standard



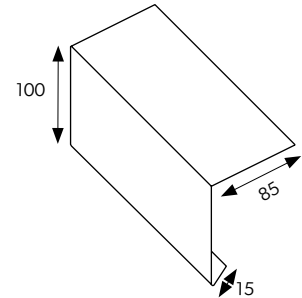
Printing technology does not have the capability of reproducing coating colours precisely. The colours shown here are intended for the orientation purposes only and may vary from those of the coatings themselves.

2. IZI flashing system

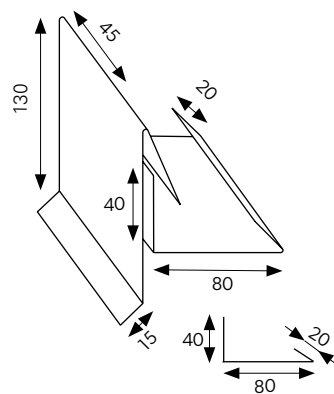
The flashings are made from sheets available in the same range of coatings and colours as the steel roof tiles, trapezoidal sheets and roof panels we produce.



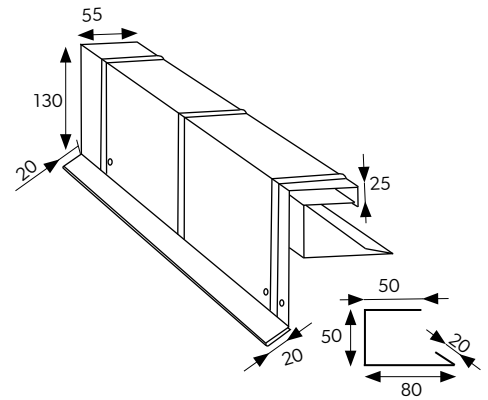
VALLEY GUTTER



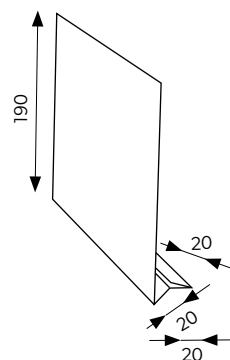
OVER-GUTTER STRIP



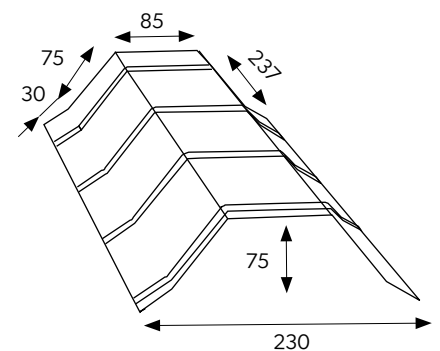
WIND BRACE II



WIND BRACE III



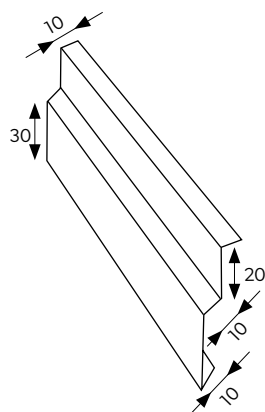
UNIVERSAL VERGE TRIM/
WIND BRACE EXTENSION



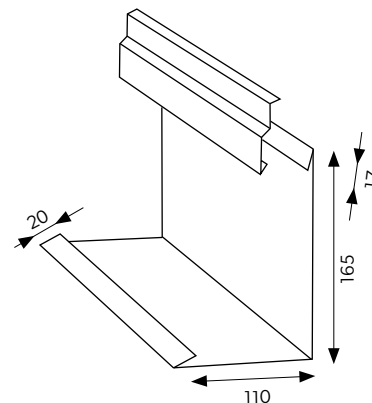
RIDGE TILE IZI



Standard flashing of the following dimensions:
2 m long and 0.5 mm thick.
Non-standard flashing of length up to 8 m and thickness of 2 mm.

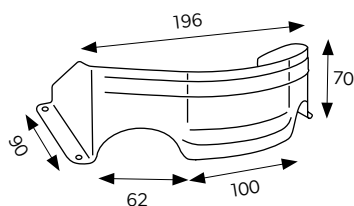


EXPANSION STRIP

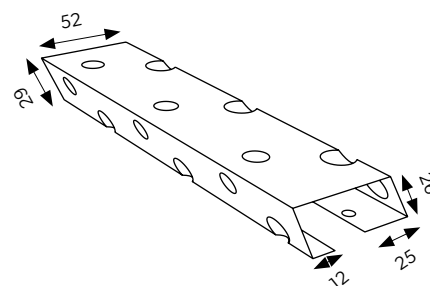


WALL FLASHING WITH
EXPANSION STRIP

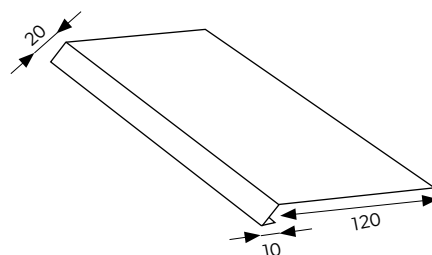
The flashings are made from sheets available in the same range of coatings and colours as the steel roof tiles, trapezoidal sheets and roof panels we produce.



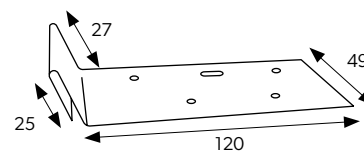
SNOW GUARDS



UNIVERSAL VENTILATION FLASHING /
IZI STARTING PROFILE



EAVES STRIP



ZET Look STARTING PROFILE



Standard flashing of the following dimensions:
2 m long and 0.5 mm thick.
Non-standard flashing of length up to 8 m and thickness of 2 mm.

3. General recommendations

Transport

IZI modular roof tile is delivered on non-returnable Euro pallets. No specialist transport is necessary to deliver the ordered material. However, during transport, it is necessary to fix the material so that it cannot move freely. Light modules allow transport to the installation site (e.g. using a stairwell) that can be performed by one person without the need to use specialist equipment.

Storage

IZI modular roof tile must be stored in a dry and ventilated warehouse. In case of long-term storage, the stacks must be placed on a sloped surface in order to enable moisture to evaporate or drain. Distance of a stored package from the ground should be at least 14 cm. Maximum storage time is 6 months since the production date. However, after 2 weeks since the production date, remove the foil covering the pallet in order to provide air circulation between the sheets.



Important - damage to the surface of steel panels as a result of moisture dismisses any claims.

Cutting the steel sheet

Using cutting tools that cause thermal effect (sudden increase of temperature), e.g. angular grinder, is forbidden. It causes damage to the organic and zinc coating and thus leads to corrosion accelerated by hot filings melting into the sheet surface. To cut the sheets, use a nibbler or manual scissors if the sections are short.



Attention - one of the conditions set out in the guarantee is to protect the open cut edges of the coated sheet with lacquer.

Maintenance

In case of coating damage caused during transport, installation or handling, carefully clean the damaged surface of dirt and grease and coat the damaged area with lacquer. The edges of the roof which are not protected with lacquer may delaminate. This is a natural phenomenon and shall not constitute grounds for guarantee claims. It is recommended to control the roof every year in order to perform maintenance works.



Before starting the works, remember to write down the serial number of one of the sheets. It is necessary to fill out the guarantee form.



IZI modular roof tiles can be used on a roof inclination not less than 9°.

4. Construction preparation

IZI modular steel roof tile should be installed on a normally prepared base using battens and counterbattens. The installation and preparation of the base should be performed according to normal roofing procedures. It is necessary to remember about the eaves and ridge ventilation. During the installation of **IZI Roof** and **IZI Look**, it is necessary to use the Universal ventilation flashing (**Fig. 2**). This is also a starting profile. Before installing the modular roofing tile **IZI**, first it is necessary to measure the roof diagonals. The roof inclination slope cannot be less than 9 degrees.

The universal ventilation flashing must be installed using mounting holes in the bottom flashing edge. Insert the screws through the larger pilot holes in the top edge, as shown in the cross-section on the right.

FIG.1

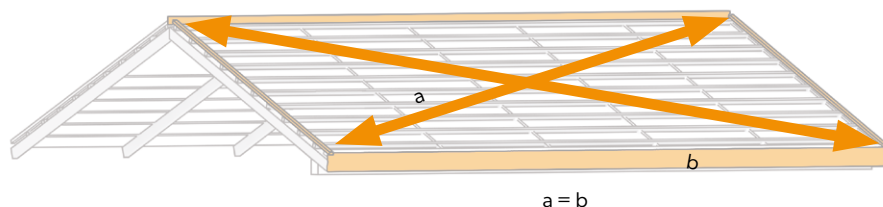
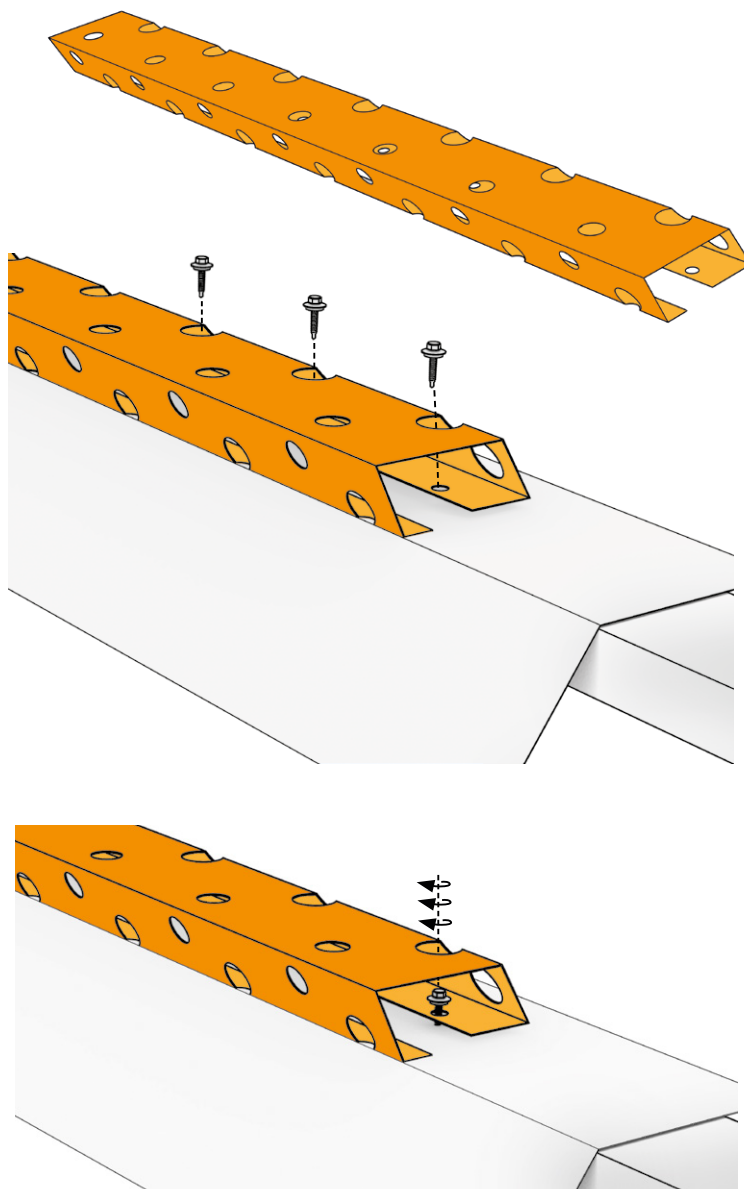


FIG.2



5. "Z" type lock

IZI is an asymmetric modular steel roof tile that has a module of perfectly flat surface. Moreover, it is fitted with the "Z" type lock that compensates stresses in the sheet and protects it against waving effect. It solves the problem of fastening the sheets using bolts as well as accelerates installation and reduces its costs.

FIG.3

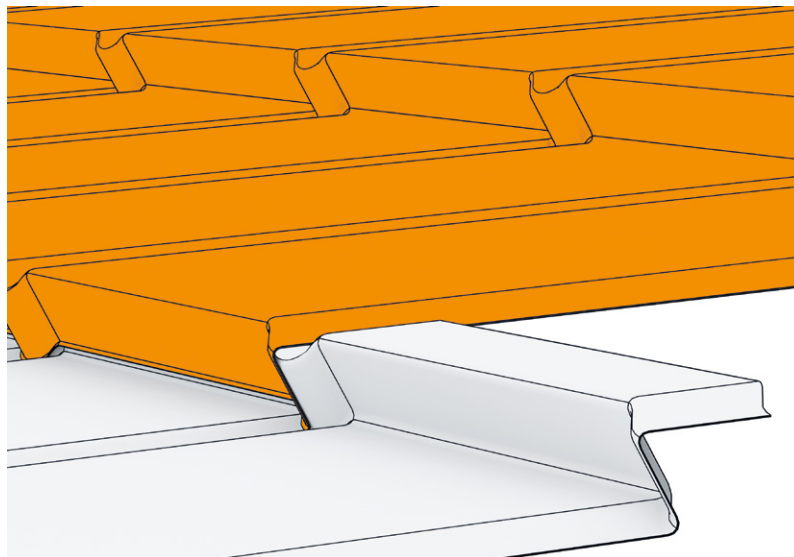
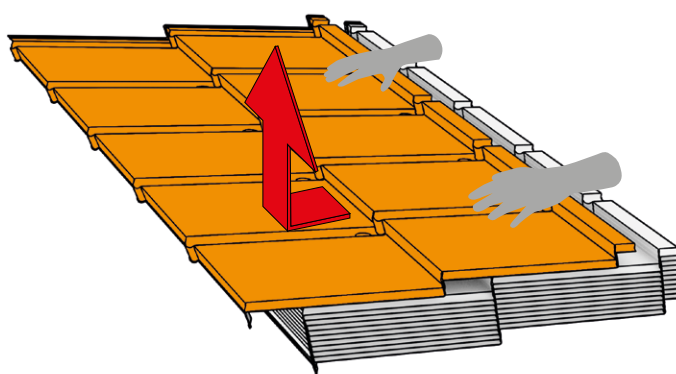


FIG.4

Due to the construction of the sheets ("Z" ribs), it is not allowed to take another sheet from the package by lifting them up directly. Before lifting the sheet, gently push it forward a few centimetres. Special caution must be taken so that installation dents do not scratch the lower sheet while sliding on the pallet.



6. Battens spacing

The contractor must make every effort and be precise when fixing the battens and preparing the roof for installation of the steel roof tiles **IZI Roof**. Accurate arrangement of the battens is critical and highly affects the final result. Spacing of the main battens is most important, i.e. 350 mm. Distance between the bottom edge of the first batten and the top edge of the second batten from the eaves side should be 340 mm (**see Fig. 6**).

FIG.5

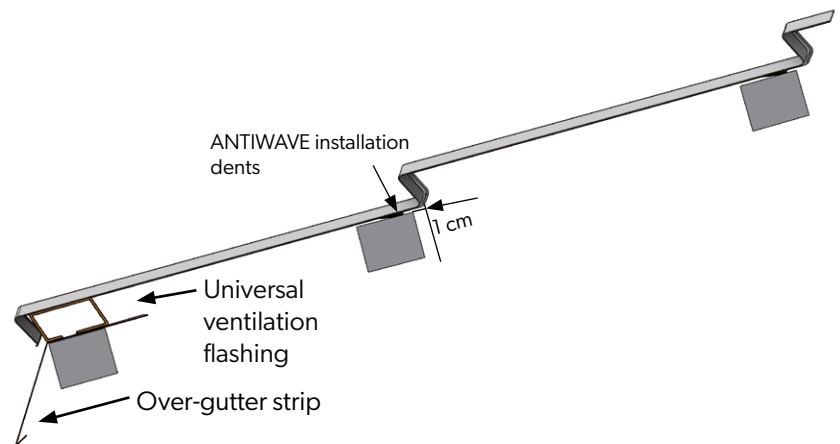
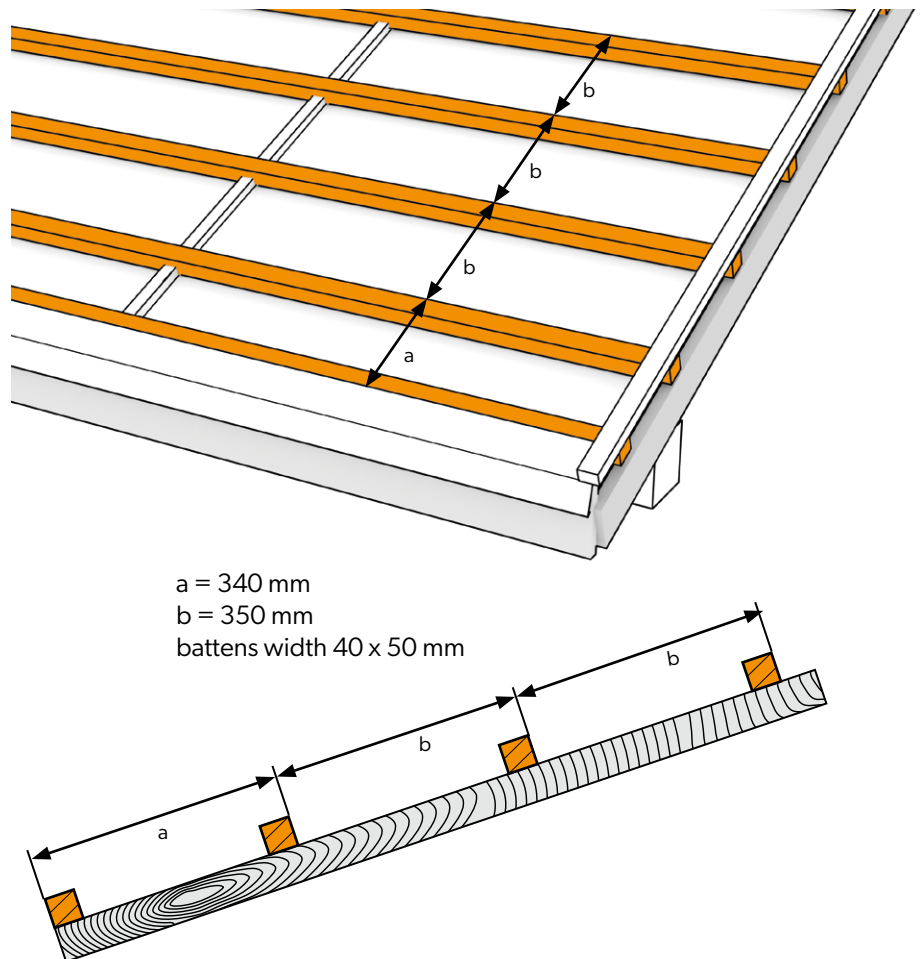


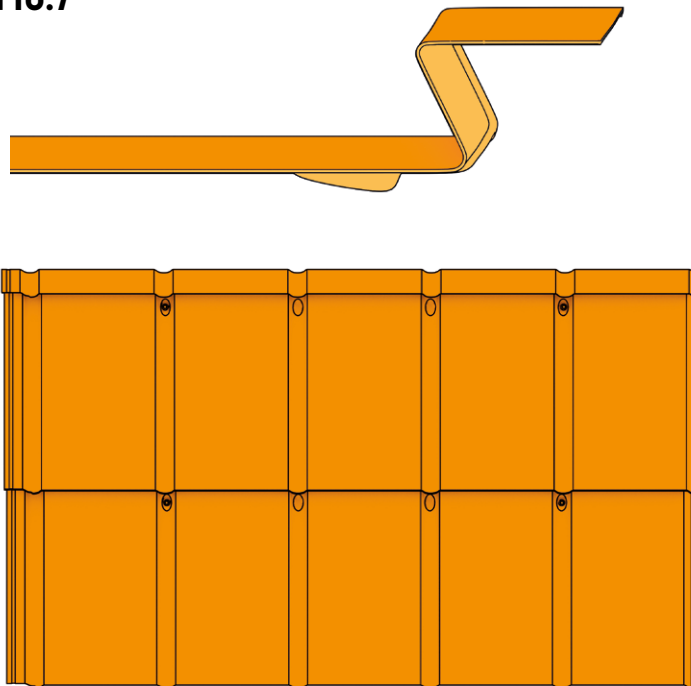
FIG.6



7. ANTI-WAVE

Sheets of **IZI** modular steel roof tile are equipped with a system of installation dents for bolts. They facilitate and accelerate precise location of the fastener, accurately in the area where the sheet is best fastened and the bolt is hidden in the shade of the lock. Moreover, the dents have a profile that facilitates water drainage during rainfall from the installation spot. This solution together with the "Z" rib reduces stresses and provides a perfectly flat surface.

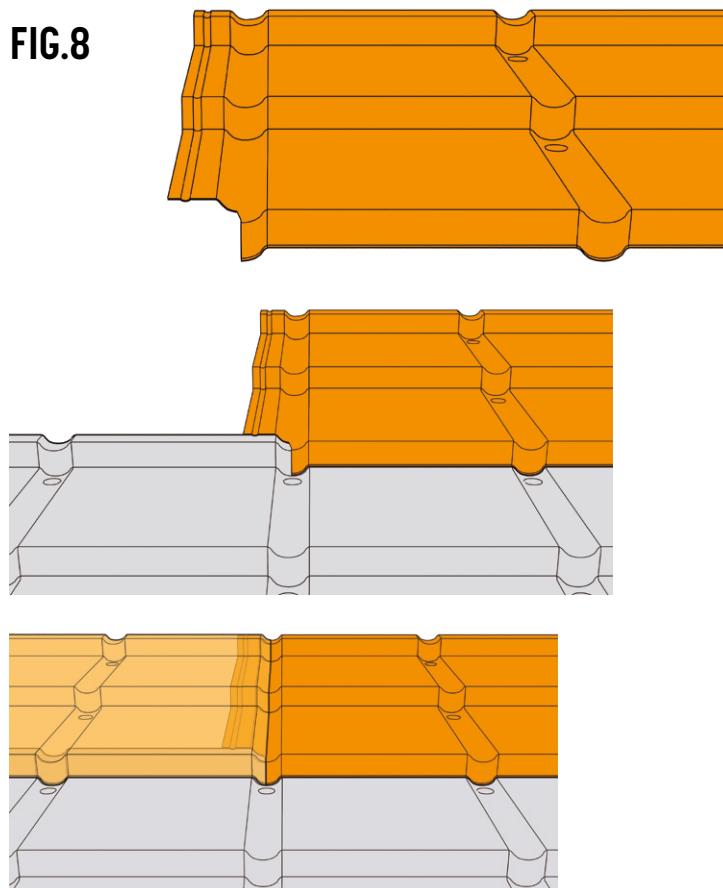
FIG.7



8. EASY LINK corner cut-out

Special cut-out and profile of the extreme rib that facilitates perfect match and levelling of the sheets without visible longitudinal joints.

FIG.8



9. Sheets installation sequence

We recommend two types of installation.

1. Installation from the eaves towards the ridge (**Fig. 9**)
2. Installation from the ridge towards the eaves (**Fig. 10 and 11**)

The first variant includes installation from the eaves towards the ridge. In this case, it is recommended to install the sheets using the “alternating method” in the sequence shown in **Fig. 9**. The correct way to install the modular roof tile **IZI** is the so called “alternating method” wherein the individual rows of sheets are shifted in relation to each other. The benefit of such panel arrangement is that there are no contact edges between four sheets. Moreover, longitudinal connection lines are not present in the same spots, which increases coating aesthetics.

According to the second variant, installation of the modular steel roof tiles **IZI Roof** is performed from the ridge towards the eaves, from the right side to the left. Correct installation imposes placement in rows (**Fig. 10**) which facilitates putting another row (lower) of sheets under the previously installed one. It is recommended to install the sheets using the “alternating method” as in the first variant.

10. Placing sheets one below the other

According to the second variant, the following sheets must be installed under the previously installed (upper) row (**Fig. 11**).



It is very important that during installation, the sheets are completely pushed against each other at the joint so that there is no play at the “Z” lock.

FIG.9

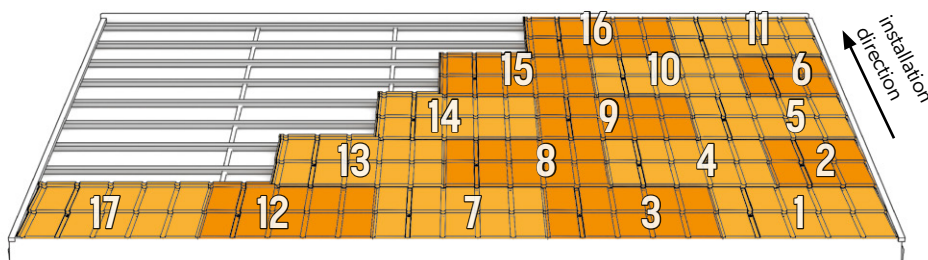


FIG.10

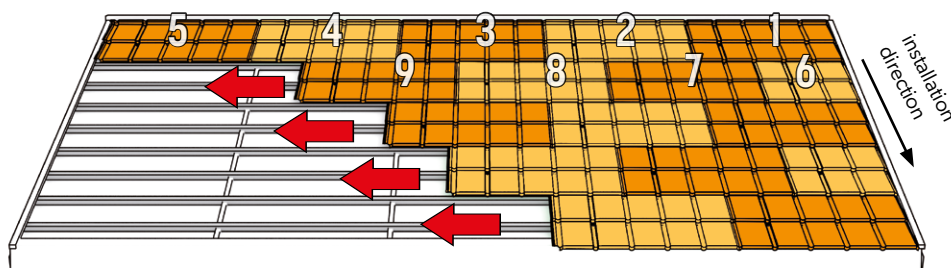
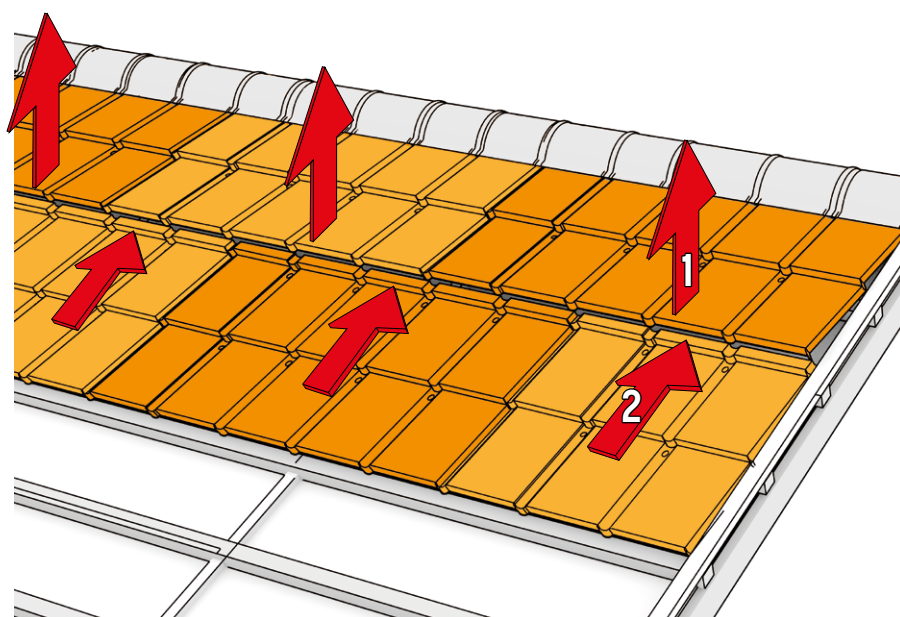


FIG.11

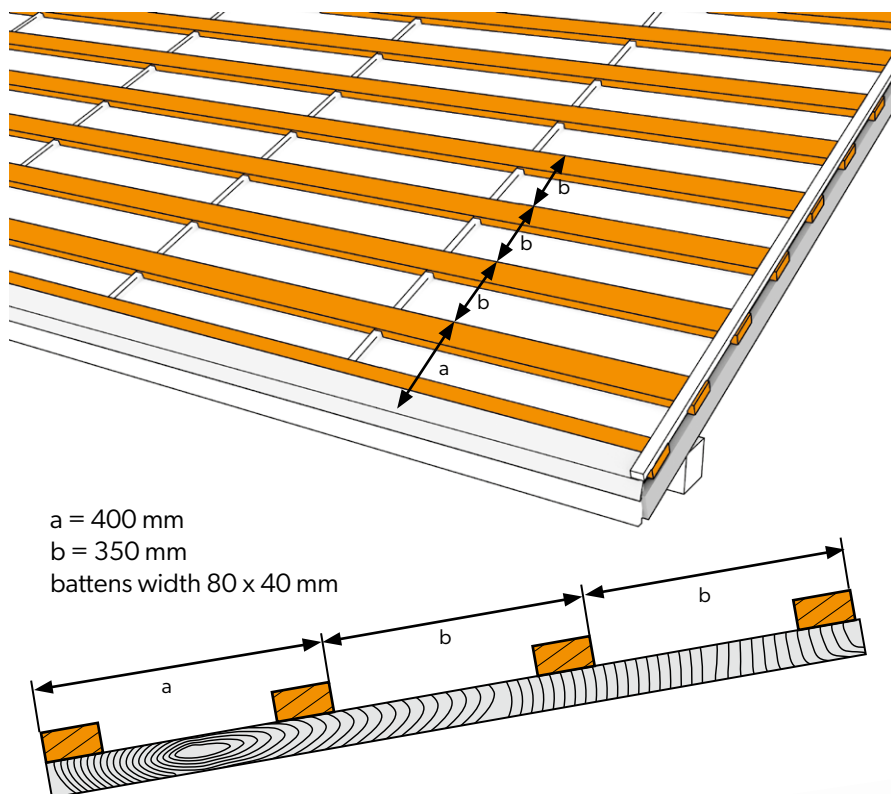


11. Installation of IZI Look modular steel roof tile

When installing modular steel roof tiles **IZI Look**, it is recommended to use 8cm wide battens.

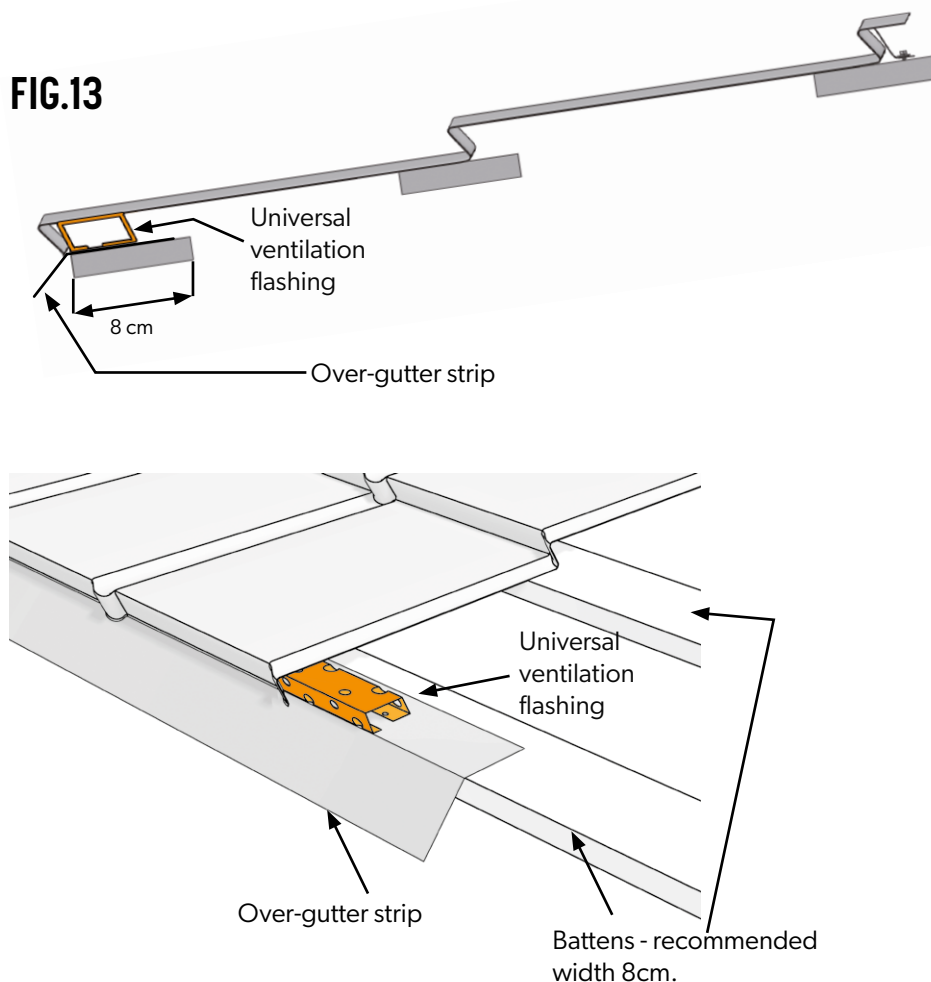
In case of this profile, ventilation flashing serves as the starting profile.

FIG.12



According to the diagram presented in **Fig. 13**, the sheets are slid over the starting profile and screwed to the batten at the point of the prepared installation holes at the end of the sheet, using a magnetic bit of a cordless screw gun. Do not bend the tabs with the installation hole before inserting the bolt. While screwing in, the tab must be pressed tight so that both the tab and bolt adhere to the strip. **IZI Look** sheets are fixed to the battens using 4.8x35mm bolts. It is necessary to use four bolts per one sheet.

FIG.13



In case of **IZI Look** variant, the installation is made from the eaves towards the ridge. Avoid walking on already installed **IZI Look** modular steel roof tiles. Thus, before starting the installation, it is recommended to prepare and secure necessary quantity of sheets on the roof. In effect, there is no need to walk on already installed sheets to transport them to the installation spot.

FIG.14

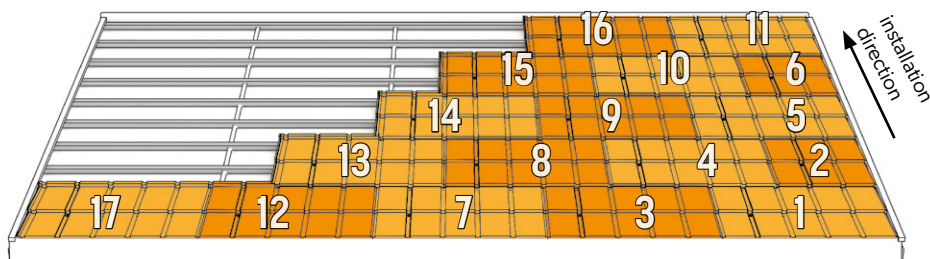
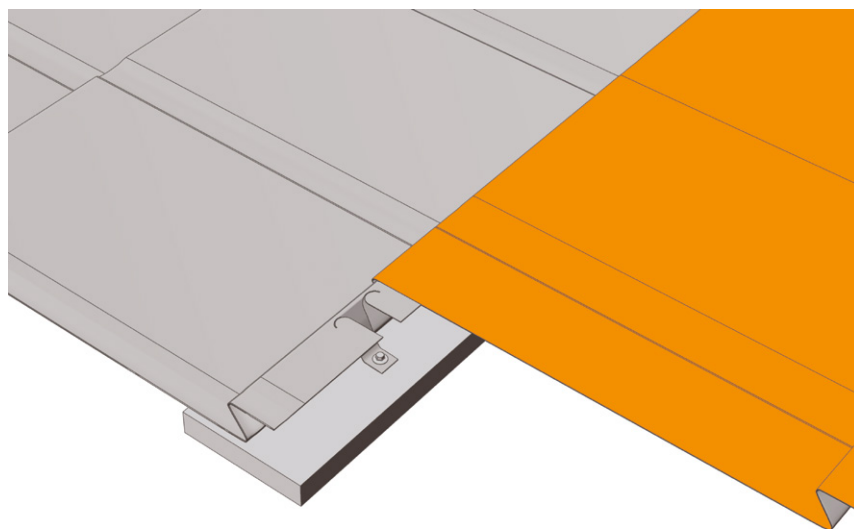


FIG.15



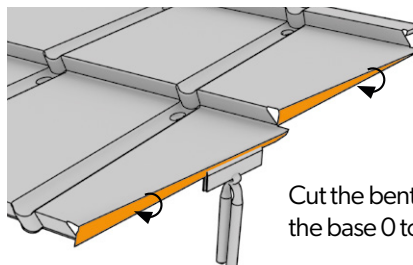
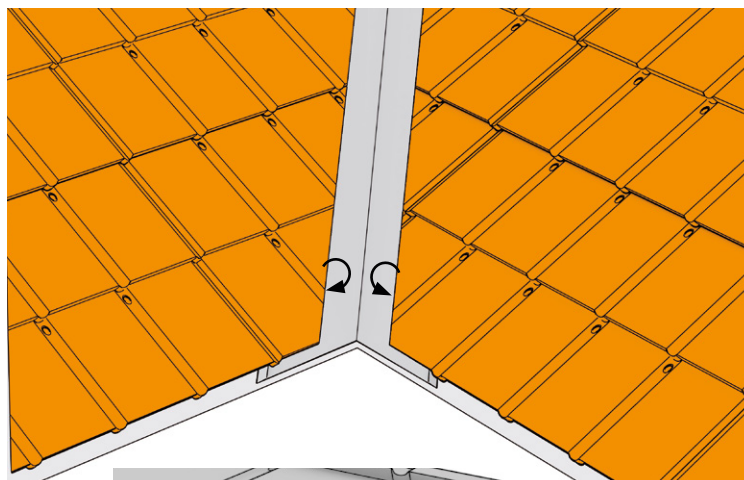
Remember not to bend the tabs with the installation hole before inserting the bolt. When screwing in, the tab is pressed so that it connects the strip together with the bolt.

12. Cutting sheets to valley gutter

When cutting a sheets to the valley gutter, provide 3 cm overlap. It allows bending the sheet in the line of the valley and improves aesthetic finish.

We recommend using expansion gasket as the valley gutter seal up to sheet rib height.

FIG.16



Cut the bent edge under the bevel from the base 0 to the rib - 3 cm.

13. Hip tiles installation

IZI modular steel roof tiles are offered together with hip tiles whose construction and ribs spacing accurately match the construction of the steel roof tile. It provides high aesthetics of the roofing.

The hip tiles must be installed using 4.8x20 mm bolts "sheet to sheet" every second ridge of the wave, using previously installed hip & ridge sealing tape or profiled gaskets.

FIG.17

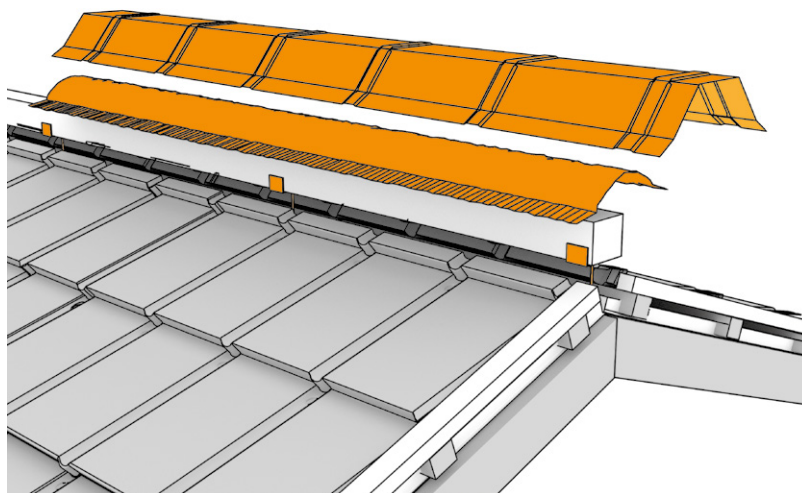
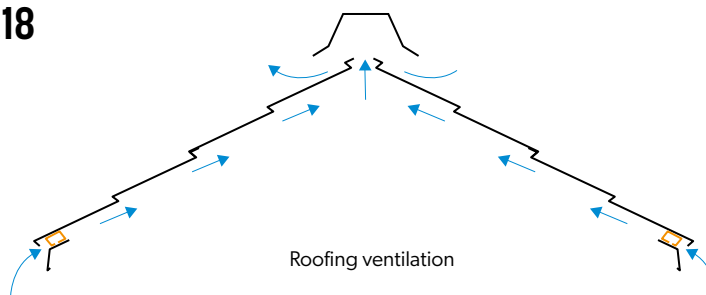


FIG.18



14. Wind brace installation

Due to the fact that at the edge of the roof slope we often deal with a strong influence of the wind, we must remember to install the wind brace flashing appropriately.

In this case, use the wind brace III. First, install the wind brace tray (**Fig. 19**).

This element must be installed using installation clips both from the roof area side and the external side. Before covering the roof, glue the expansion gasket of expansion range up to 3 cm (according to the sheet rib height) to the bottom area of the flashing.

At the external element of the wind brace, use the farmer screw, and when necessary, apply a 15 - 30 cm overlap when connecting the wind braces. The extreme sheets are fixed using the bolt in every valley of the sheets along the wind brace line.

Correct arrangement of the fasteners on the roof area should cover all extreme installation points and every second ones inside the roof area.

FIG.19

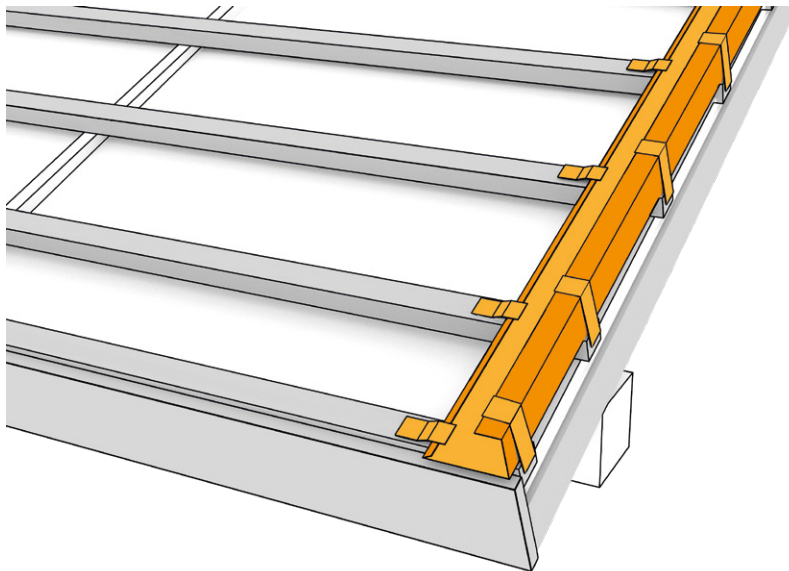
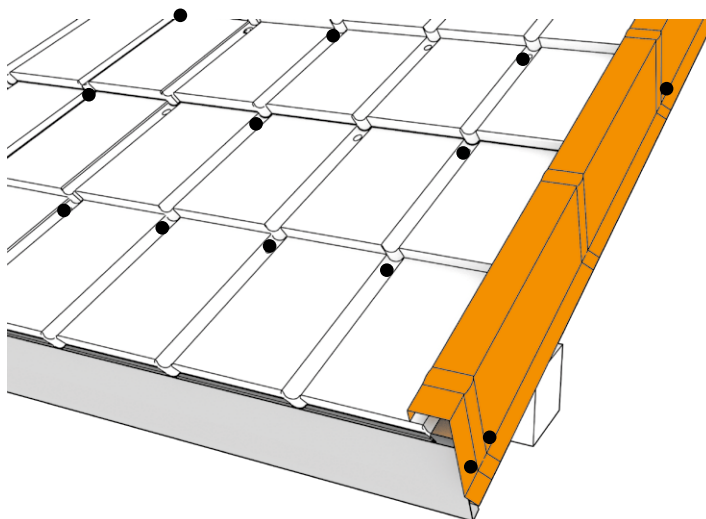
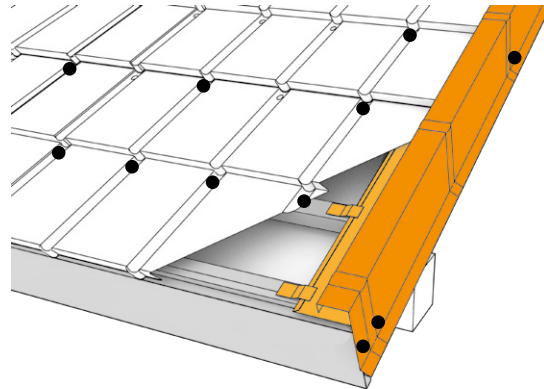


FIG.20

Install the steel roof tiles on the wind brace trace.



15. Wall flashing installation

The first step is to prepare and attach the grips to the roof, which will be used to attach the wall flashing. Such grips can be prepared from strips of steel sheet bent at right angles.

Since these grips will have to be bent in the next step, attaching them to the wall flashing, they must be correspondingly higher than the flashing.

When preparing the flashing, its upper edge should be rolled, which will enable a secure connection with the previously prepared grips without the need to use additional fasteners.

Before the installation, the flashing should be applied to the roof edge in order to adjust it, taking into account the type of wall and the slope angle. Install the cut and bent flashing to the battens using flat installation clips. Make sure that the flashing abuts the wall along its whole length.

If it is necessary to connect the wall flashing, use a 50 mm overlap but the overlap should be increased in case of roof inclination below 25°.

Then, the flashing is attached to the wall with the previously prepared grips.

FIG.21

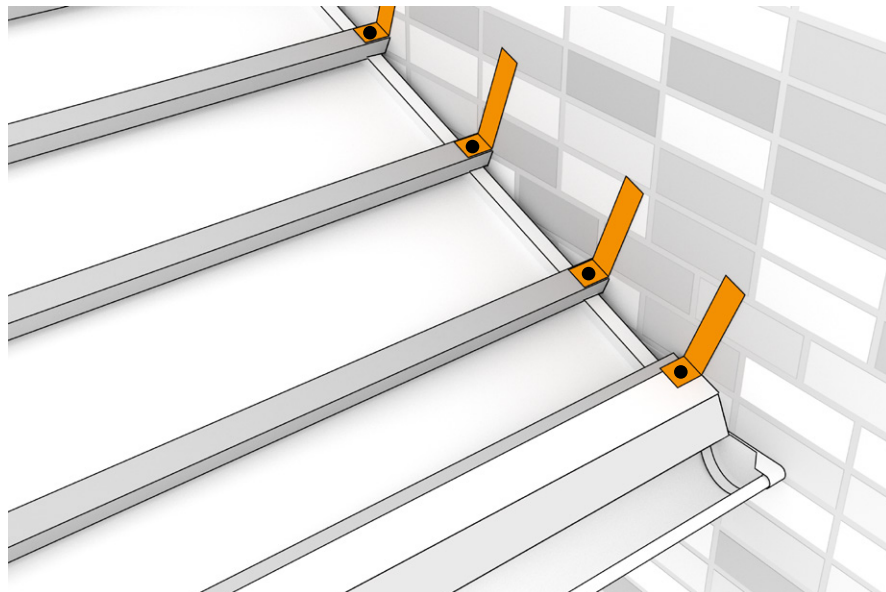


FIG.22

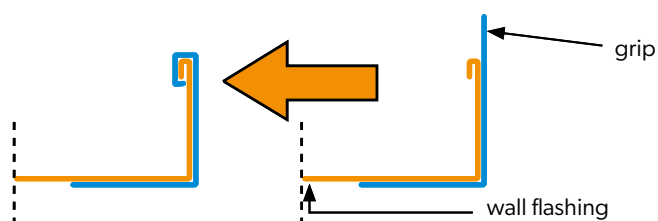
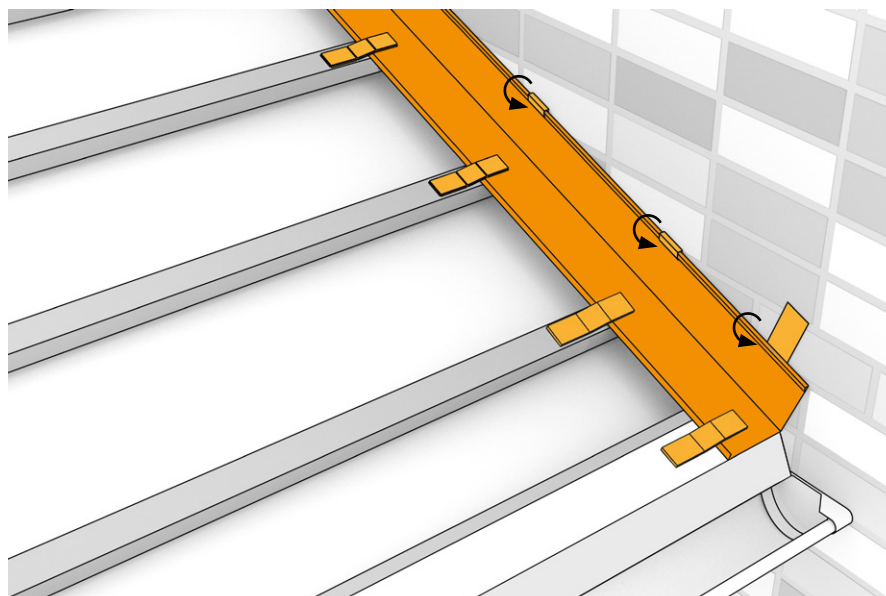


FIG.23

Correct arrangement of the fasteners on the roof area should cover all extreme installation points and every second ones inside the roof area.

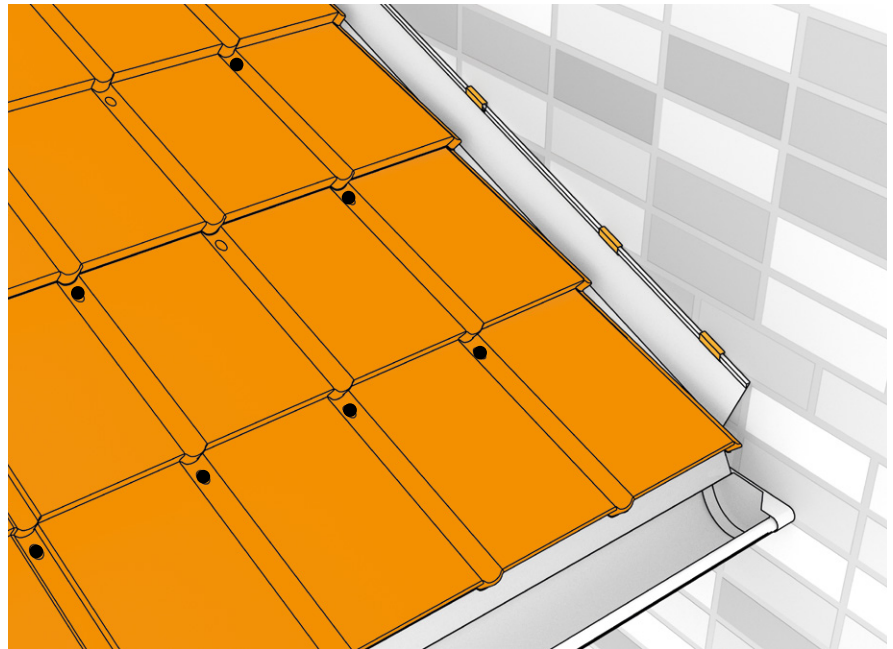
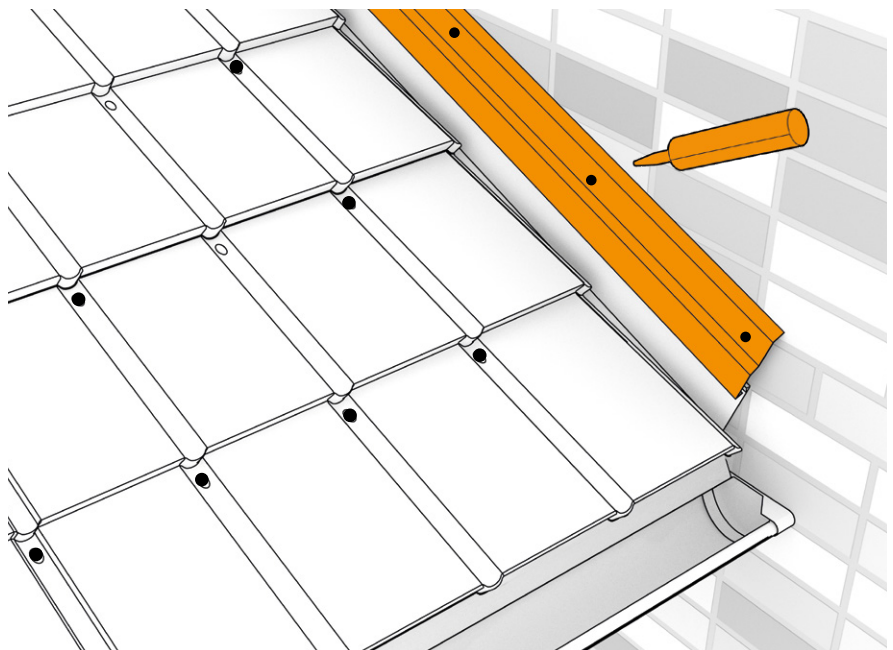


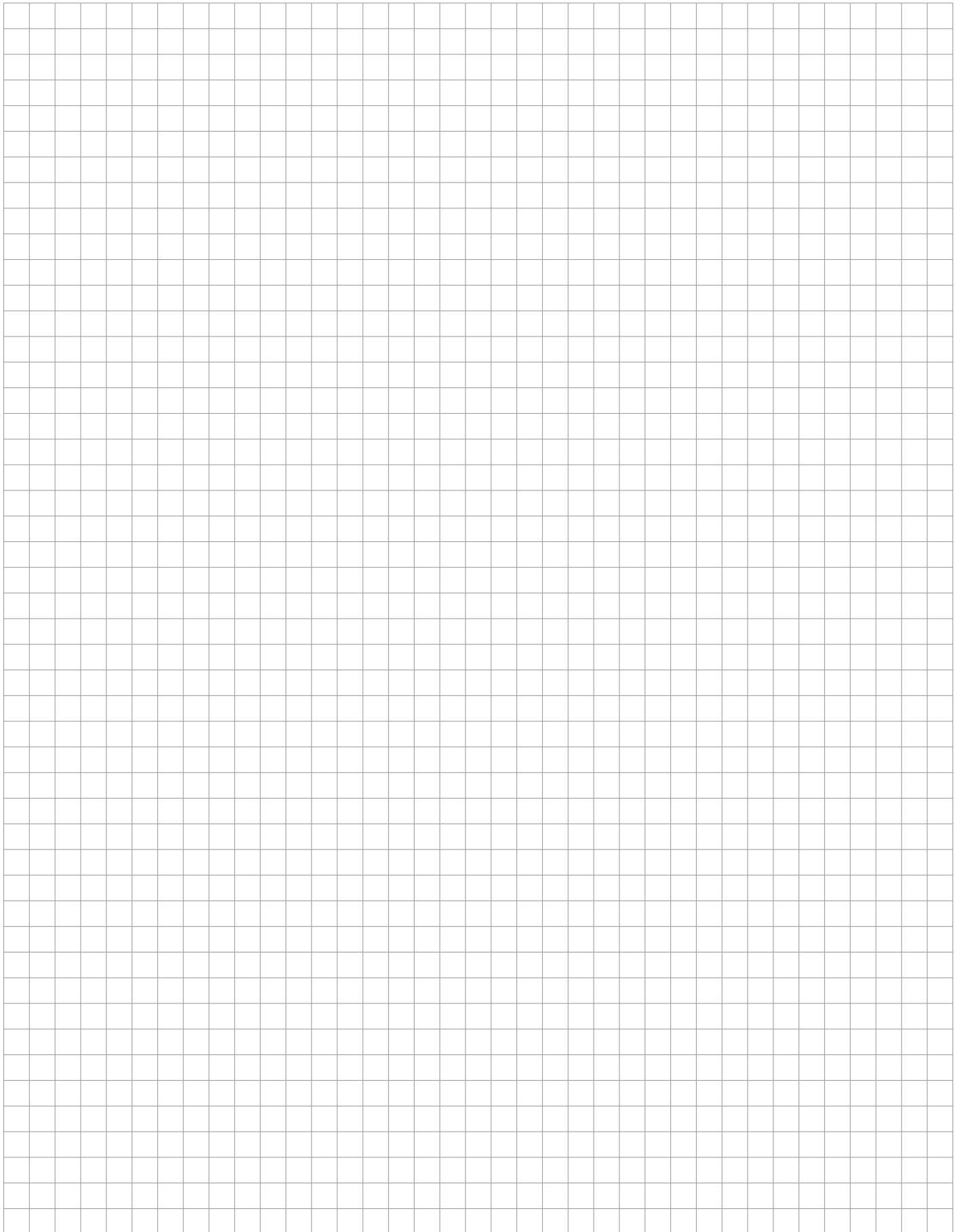
FIG.24

The joint with the wall should be protected with an expansion strip and, if necessary, additionally sealed with roofing sealant.

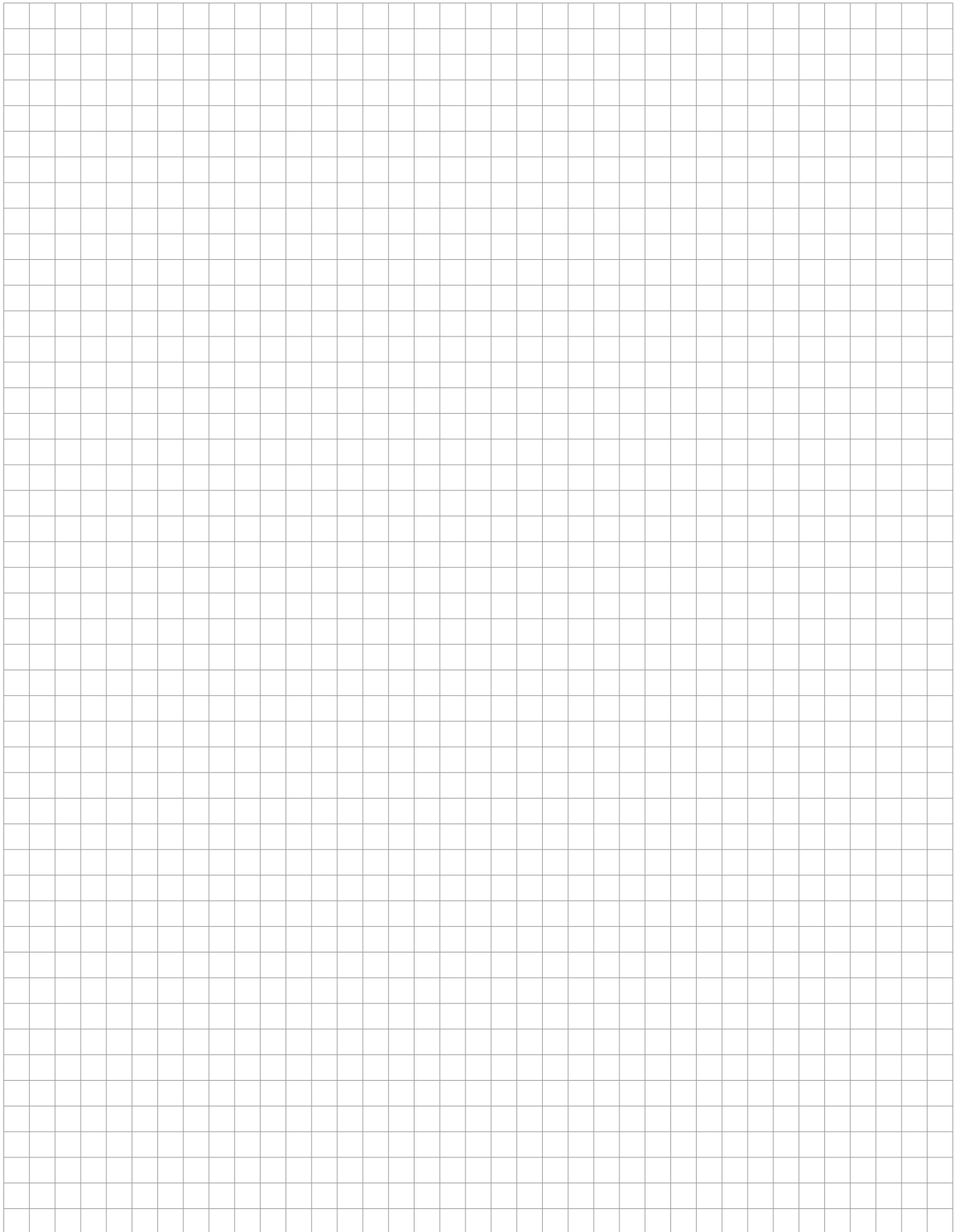
The expansion strip must be attached to the wall.



Notes



Notes





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