INSTALLATION MANUAL

COMPACT STEEL ROOF TILES
COMPACT SERIES

COMPACT SERIES

THE POWER OF ROOFS

BP2.EU

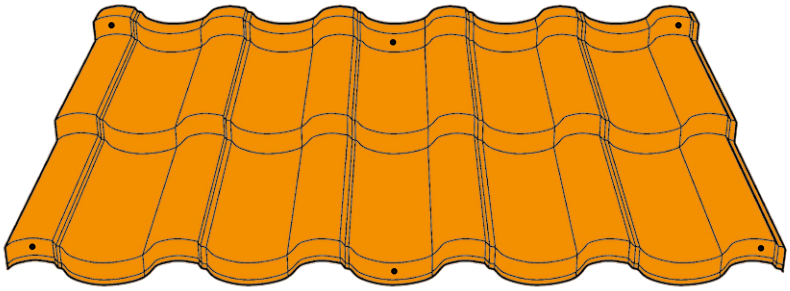
Contents

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

1. Technical specifications of COMPACT SERIES steel roof tiles

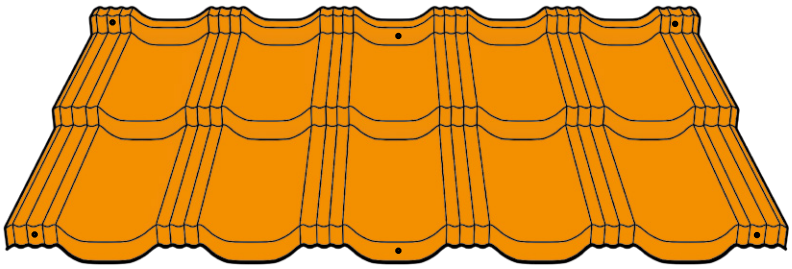
STIGMA 2.0

Technical parameters [mm]	
Effective width	1105
Total width	1194
Thickness of steel sheet	0,5
Total profile height	57/67
Height of forming	30/40
Length of module	350
Weight	~ 4,5 kg/m^2
Effective area (cladding) of a single sheet	0,774 m^2



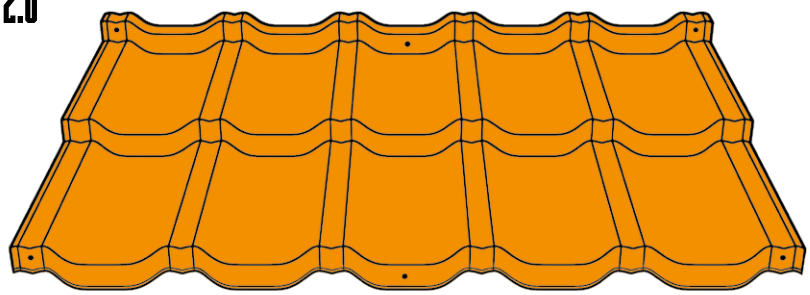
BAVARIA ROOF 2.0

Technical parameters [mm]	
Effective width	1120
Total width	1206
Thickness of steel sheet	0,5
Total profile height	50/60
Height of forming	30/40
Length of module	350
Weight	~ 4,5 kg/m^2
Effective area (cladding) of a single sheet	0,784 m^2



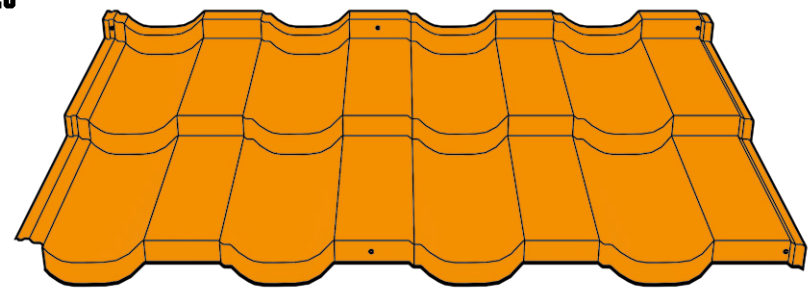
GAMMA 2.0

Technical parameters [mm]	
Effective width	1150
Total width	1212
Thickness of steel sheet	0,5
Total profile height	50/60
Height of forming	30/40
Length of module	350
Weight	~ 4,5 kg/m^2
Effective area (cladding) of a single sheet	0,805 m^2



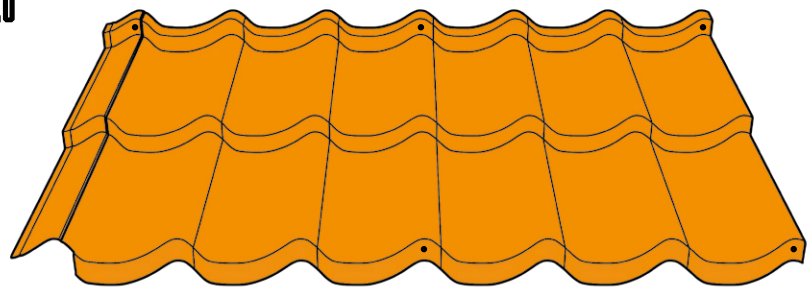
Technical parameters [mm]	
Effective width	1157
Total width	1202
Thickness of steel sheet	0,5
Total profile height	56/66
Height of forming	30/40
Length of module	350
Weight	~ 4,5 kg/m^2
Effective area (cladding) of a single sheet	0,810 m2

HETA 2.0



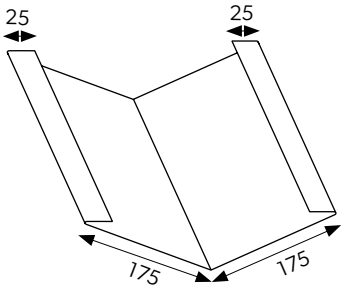
Technical parameters [mm]	
Effective width	1100
Total width	1183
Thickness of steel sheet	0,5
Total profile height	53/58
Height of forming	30/35
Length of module	350
Weight	~ 4,5 kg/m2
Effective area (cladding) of a single sheet	0,770 m^2

ALFA 2.0

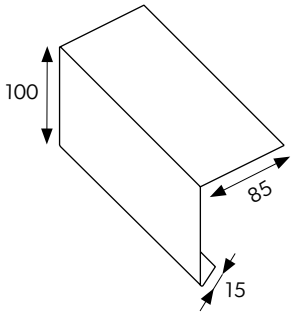


2. Flashing system

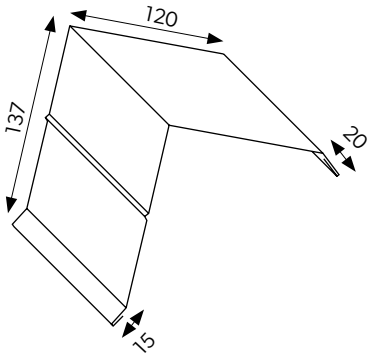
The flashings are made of sheets characterized by the same palette of coatings and colors as our steel roof tiles, trapezoidal sheets and roof panels.



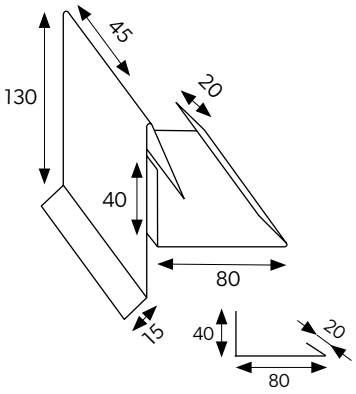
VALLEY GUTTER



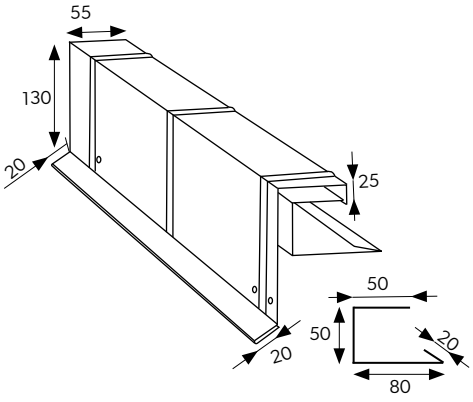
OVER-GUTTER STRIP



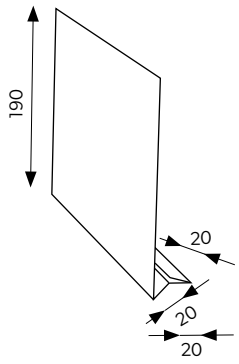
WIND BRACE I



WIND BRACE II

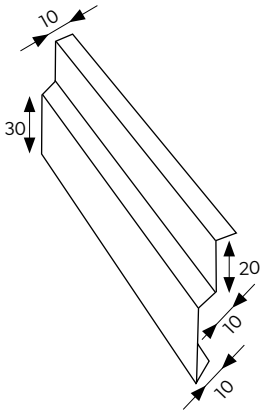


WIND BRACE III

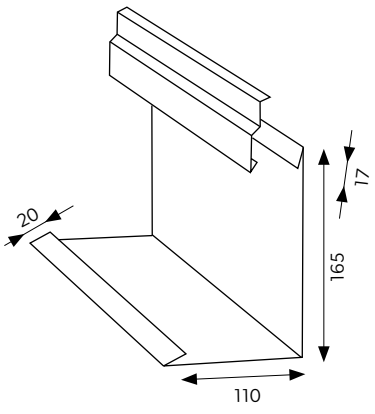


UNIVERSAL VERGE TRIM/
WIND BRACE EXTENSION

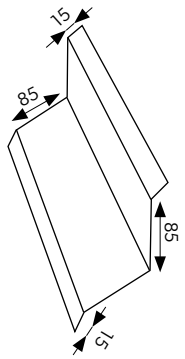
We offer standard flashings with a length of 2 m and a thickness of 0.5 mm as well as non-standard flashings up to a length of 8 m and a thickness of 2 mm suitable for all heights of ribs (30-40 mm).



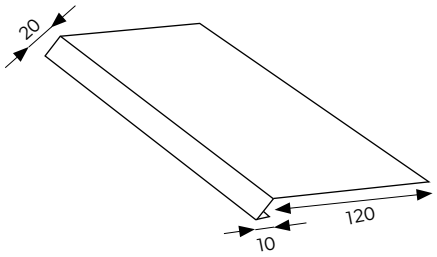
EXPANSION STRIP



WALL FLASHING WITH
EXPANSION STRIP

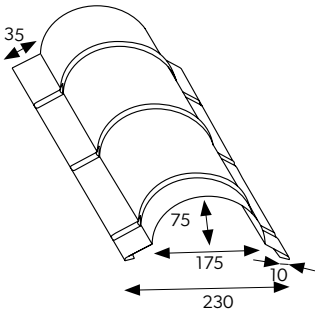


NEAR WALL FLASHING I

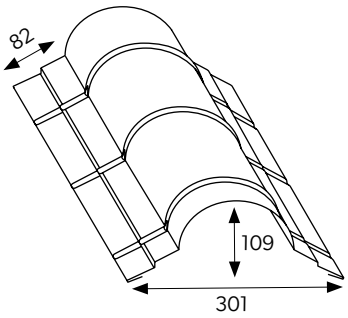


EAVES STRIP

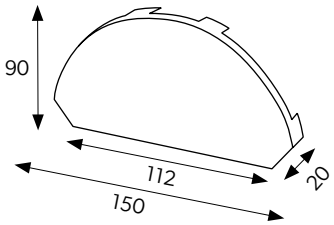
The flashings are made of sheets characterized by the same palette of coatings and colors as our steel roof tiles, trapezoidal sheets and roof panels.



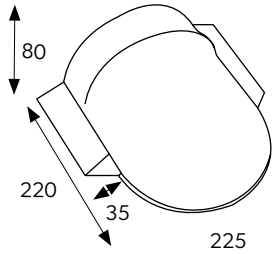
BARREL-SHAPED RIDGE TILE



WIDE RIDGE TILE

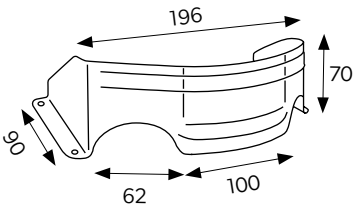


BOTTOM OF THE BARREL RIDGE TILE

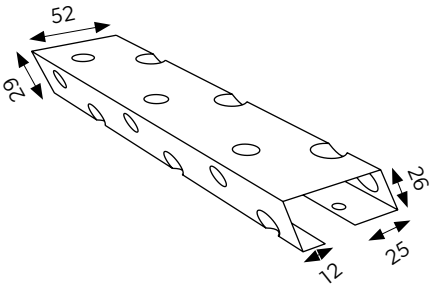


HIP TILE ENDING

We offer standard flashings with a length of 2 m and a thickness of 0.5 mm as well as non-standard flashings up to a length of 8 m and a thickness of 2 mm suitable for all heights of ribs (30-40 mm).



SNOW GUARDS



UNIVERSAL VENTILATION FLASHING / STARTING PROFILE

3. General recommendations

Transport

Compact steel roof tiles are delivered on non-returnable 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, two-modular sheets allow the transport to the installation place (e.g. using a stairwell) by one person and without the need to use any specialist equipment.

Storage

Compact steel roof tiles must be kept 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 14cm. 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

It is forbidden to use cutting tools that cause thermal effect (sudden increase of temperature), e.g. angular grinder. It causes damage to the organic and zinc coatings 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.

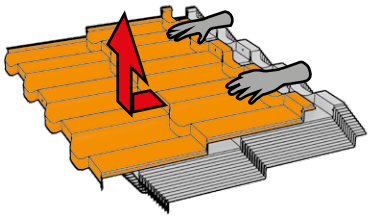
Attention - one of the conditions set out in the guarantee is to protect the open cut edges of the coated sheet with lacquer.

Maintenance

In case of coating damage caused during transport, installation or treatment, 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.

It is not allowed to take another sheet from the package by lifting them up directly as it may cause damage to the coating on the ribs. Before lifting the sheet, gently push it forward a few centimetres. Special caution must be taken.

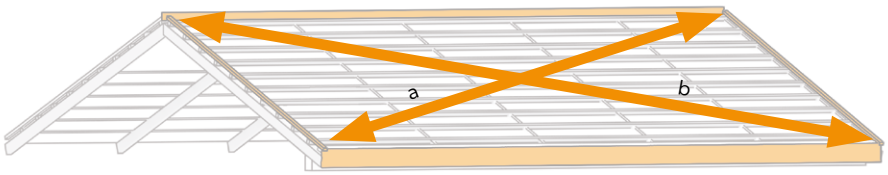


Compact steel roof tiles can be used on a roof with an inclination angle of not less than 9°.

4. Construction preparation

Compact steel roof tiles must be installed on normallly prepared base using battens and counter-battens. 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 the compact steel roof tiles, it is necessary to apply universal ventilation flashing **(Fig. 2).** It also functions as the starting profile. Before the installation, check the roof diagonals. The roof inclination slope cannot be less than 15 degrees.

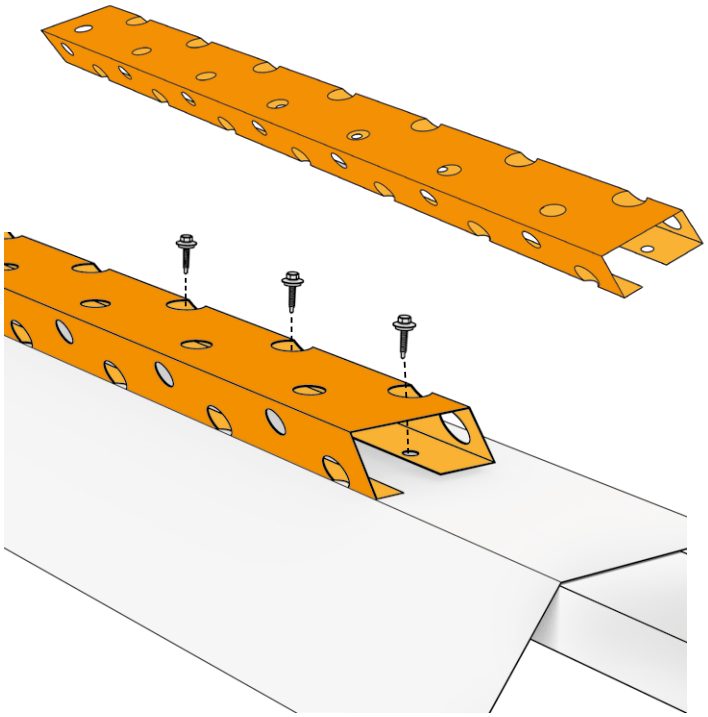
FIG.1

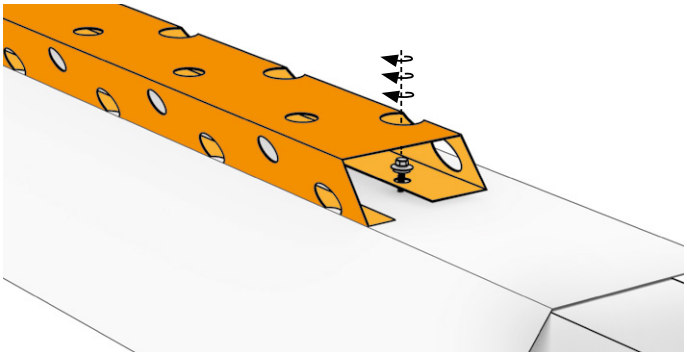


a = b

FIG.2

The universal ventilation flashing must be installed using installation holes in the bottom flashing edge. Insert the bolts through the larger pilot holes in the top edge, as shown in the following cross-section.

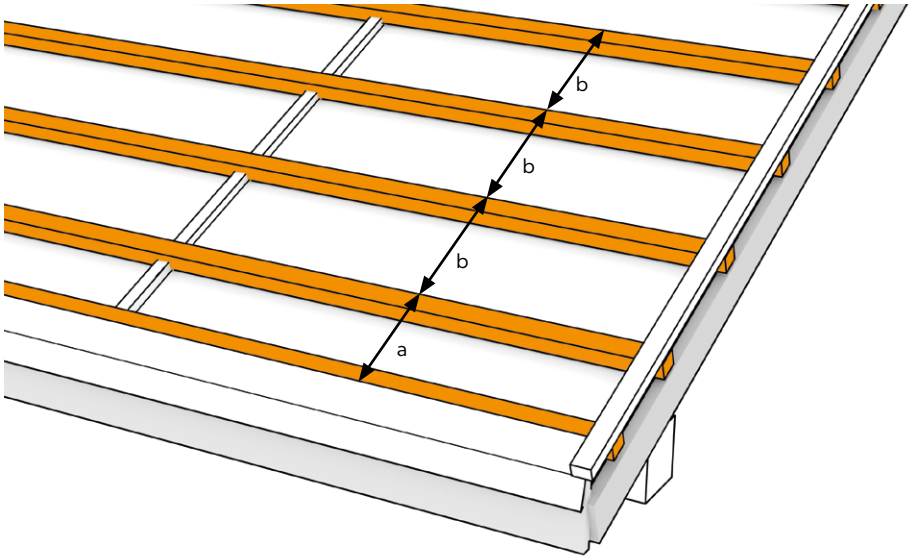




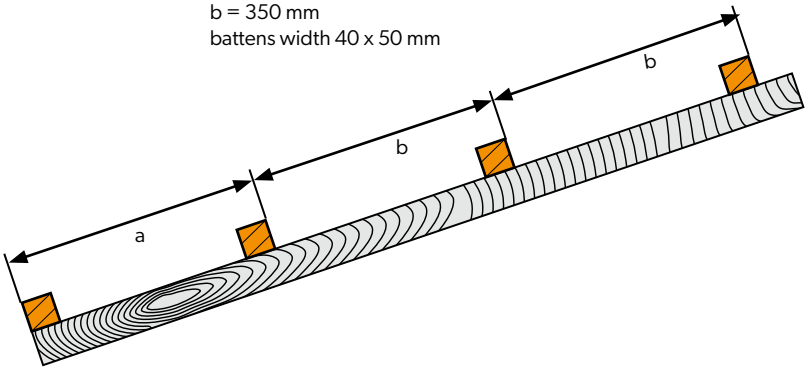
5. Batten spacing

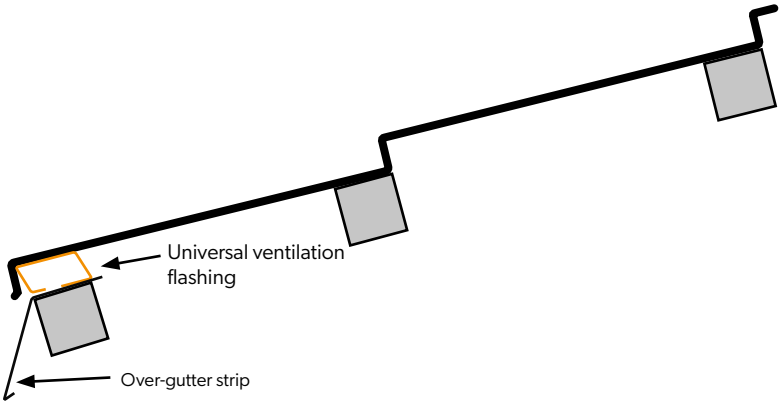
The contractor must make every effort and be precise when installing the battens and preparing the roof for the installation of the compact steel roof tiles. Accurate arrangement of the battens is critical and highly affects the final result. The spacing of the main battens is most important, i.e. 350mm.
Distance between the bottom edge of the first batten and the top edge of the second batten from the eaves' side should be 320mm **(see Fig. 3)**.

FIG.3



a = 320 mm
b = 350 mm
battens width 40 x 50 mm





6. Installation of the first sheet in the row

Installation from the ridge. The first sheet in the row should be fixed by the universal ventilation flashing that functions as the starting profile, then screw the sheet to the battens using Torx screws. Each next sheet in the row is connected with the previous one (lower) using the middle and right installation holes and only then screwed to the battens.

FIG.4

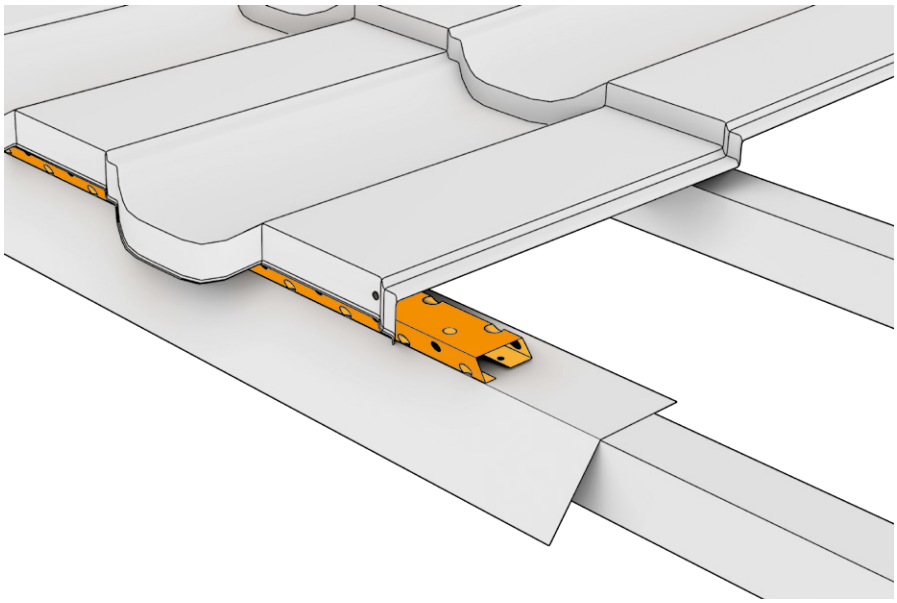
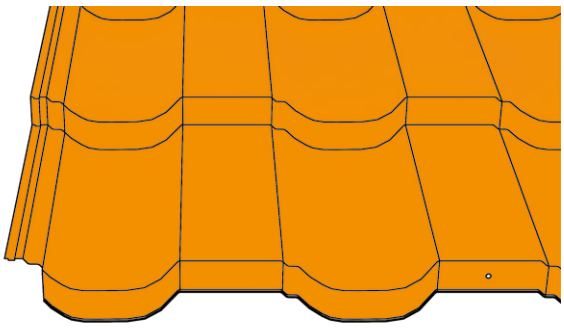
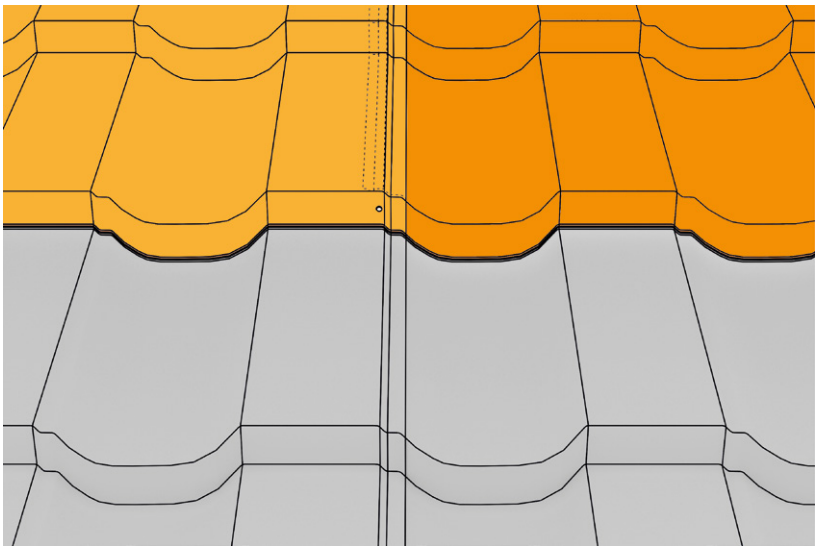


FIG.5





7. 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.

8. Sheets installation sequence

Installation of compact steel roof tiles should be performed from the eaves towards the ridge.

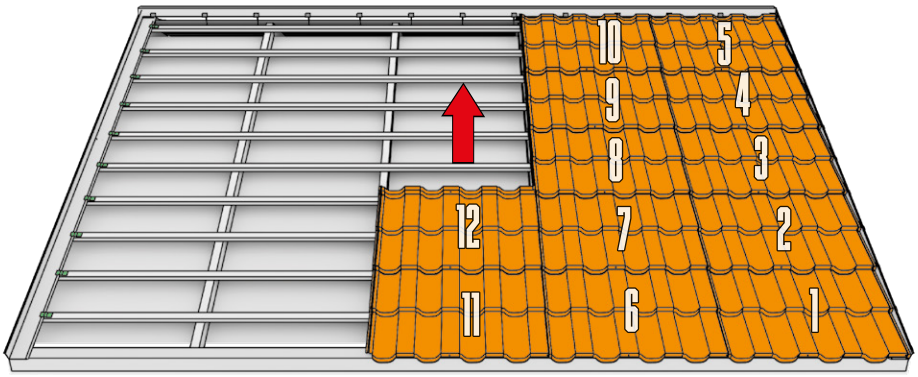
Correct sequence of compact steel roof tiles installation is in rows from the right side to the left.

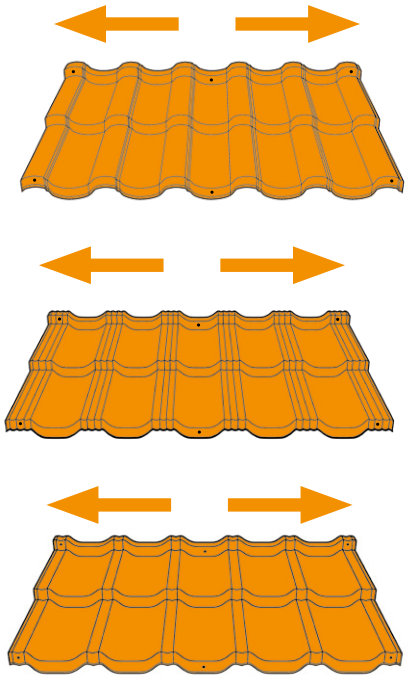
In case of compact steel roof tiles, such as STIGMA 2.0, BAVARIA Roof 2.0 and GAMMA 2.0, it is also possible to install the tiles from the left side to the right.

The first sheet in the row must be fixed to the universal ventilation flashing that also functions as the starting profile and then screwed to the battens using Torx screws. Each next sheet in the row is connected with the previous one (lower) using the middle and right installation holes and only then screwed to the battens.

STIGMA, BAVARIA Roof 2.0 and GAMMA 2.0 Compact steel roof tiles allow the overlaps both from the left and right side.

FIG.6



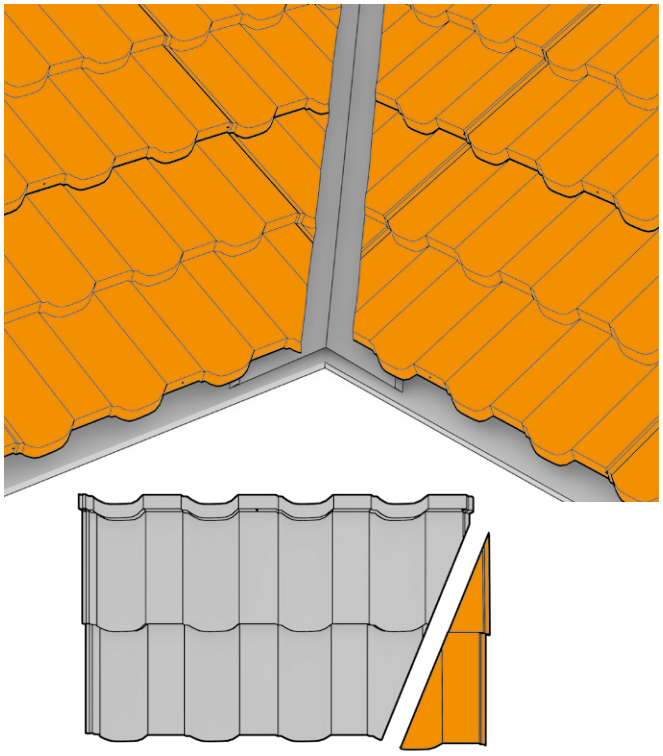


9. Cutting sheets to valley gutter

Cutting sheets to the valley gutter should be performed in line with the basket in order to ensure aesthetic finish.

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

FIG.7



10. Hip tiles installation

Install a ridge batten on supports in order to provide continuous roofing ventilation.

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

FIG.8

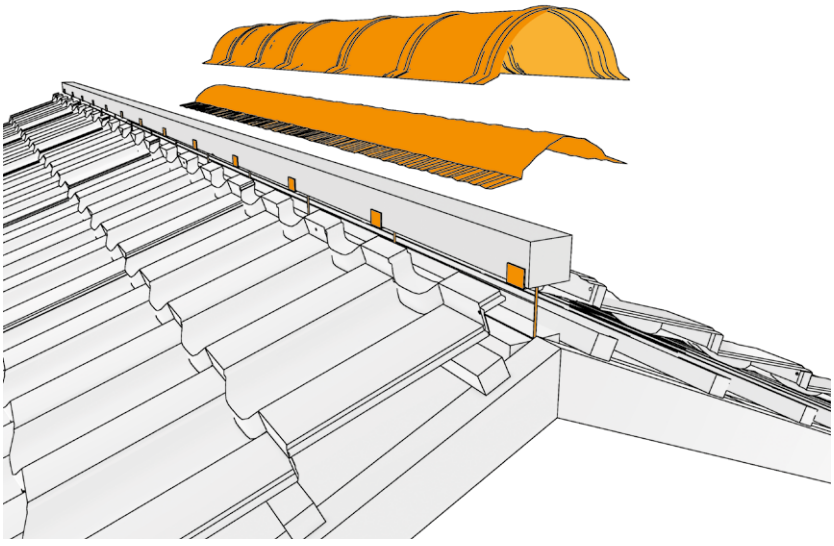
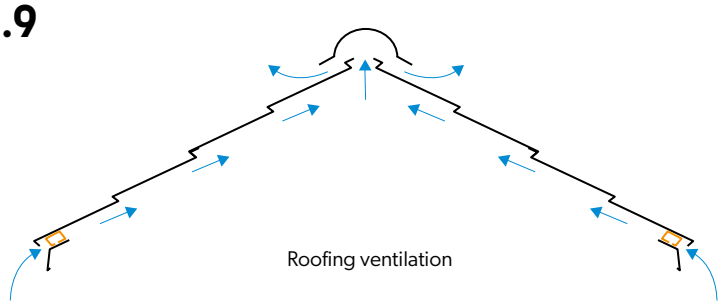


FIG.9



11. Wind brace installation

Because there are often strong winds at the edge of the roof area, remember to properly fix the wind brace flashing. In this case, we use the WIND BRACE III. First, install the wind brace tray **(Fig. 10).** This element must be installed using installation clips both from the roof area side and the external side. Before covering the roof, glue an expanding tape of expansion range up to 3 cm (according to the sheet rib height) to the bottom area of the flashing.

FIG.10

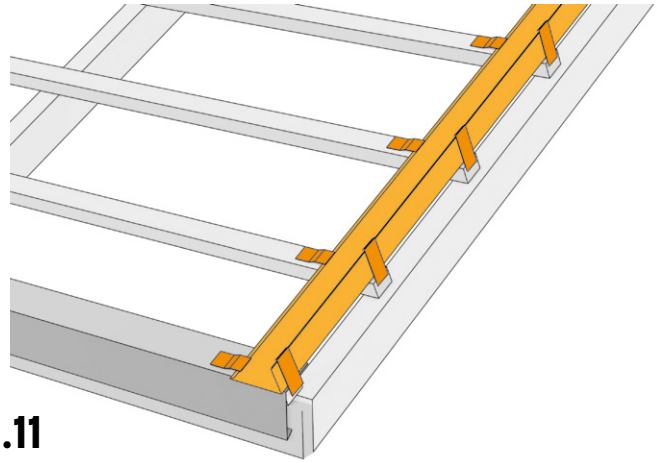
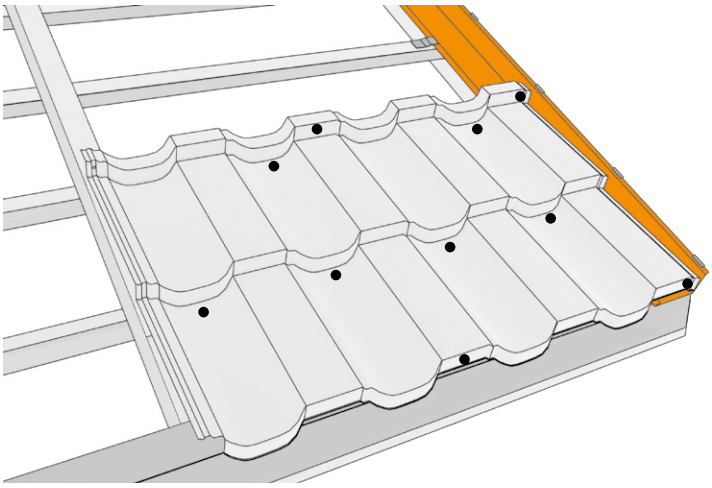
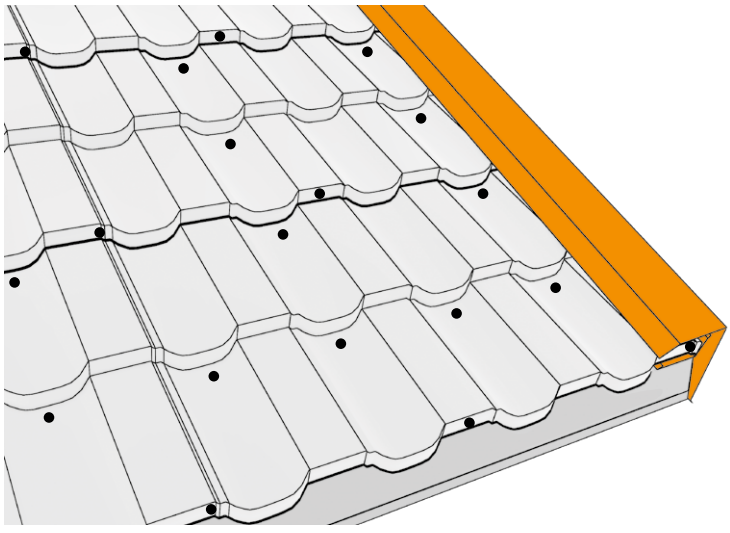


FIG.11



For the external element of the wind brace, use farmer screws, and when necessary, apply a 15-30 cm overlap when connecting the wind braces.
In case of the extreme sheets covering the wind brace tray, plug the installation holes with bolts at the points the sheet overlaps the flashing.

FIG.12

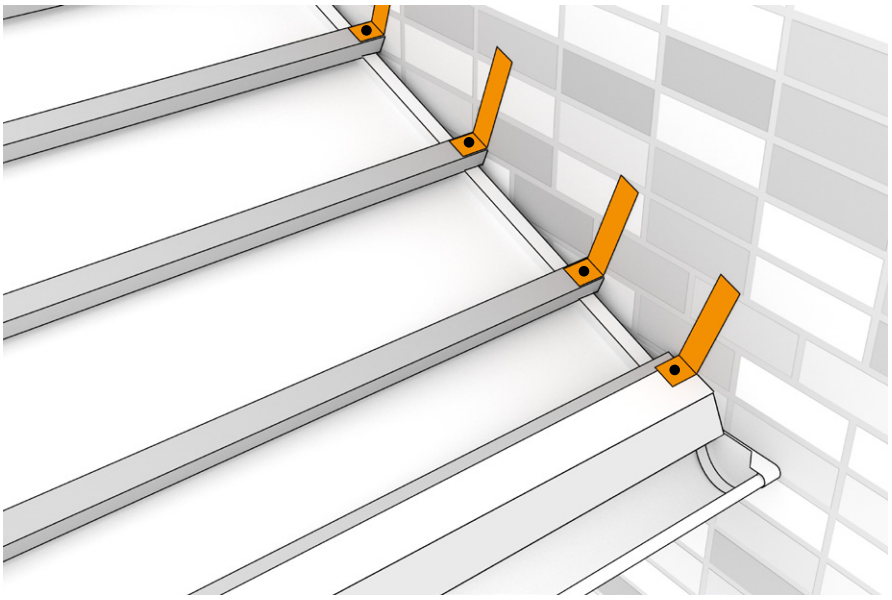


Correct arrangement of the fasteners on the roof area should cover all extreme installation points and every second one inside the roof area.

12. Wall flashing installation

The first step is to prepare and attach the grips to the roof slope, which will be used to attach the wall flashing **(Fig. 13)**. 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.

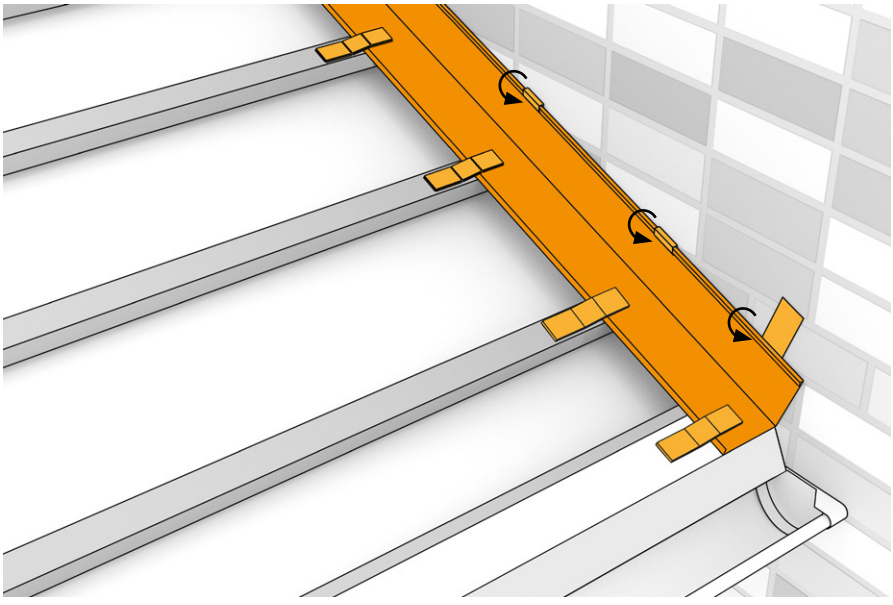
FIG.13

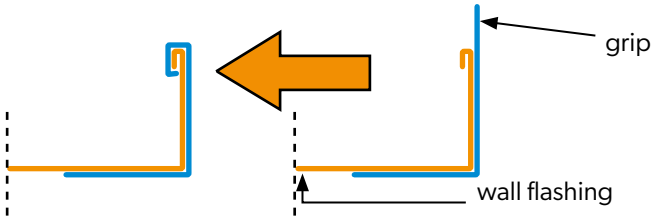


When preparing the flashing, its upper edge should be rolled, which will enable a secure connection with the previously prepared grips without the need to use additional fasteners.
Before the installation, the flashing should be applied to the roof edge in order to adjust it, taking into account the 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 previously prepared grips **(Fig. 14)**.

FIG.14





As in the case of the wind brace installation, in the edge sheets overlapping the flashing, the mounting holes should be sealed with screws (**Fig. 16**).

FIG.15

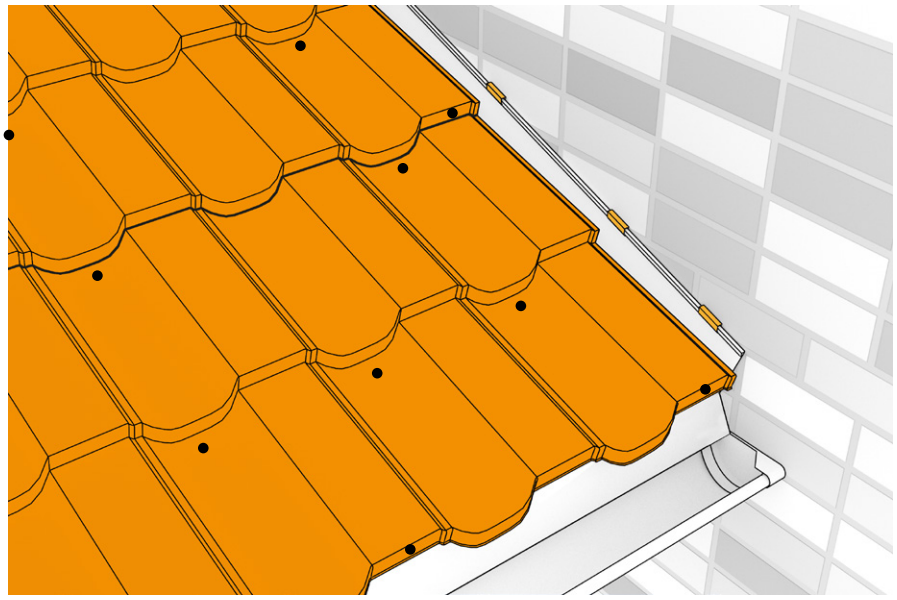
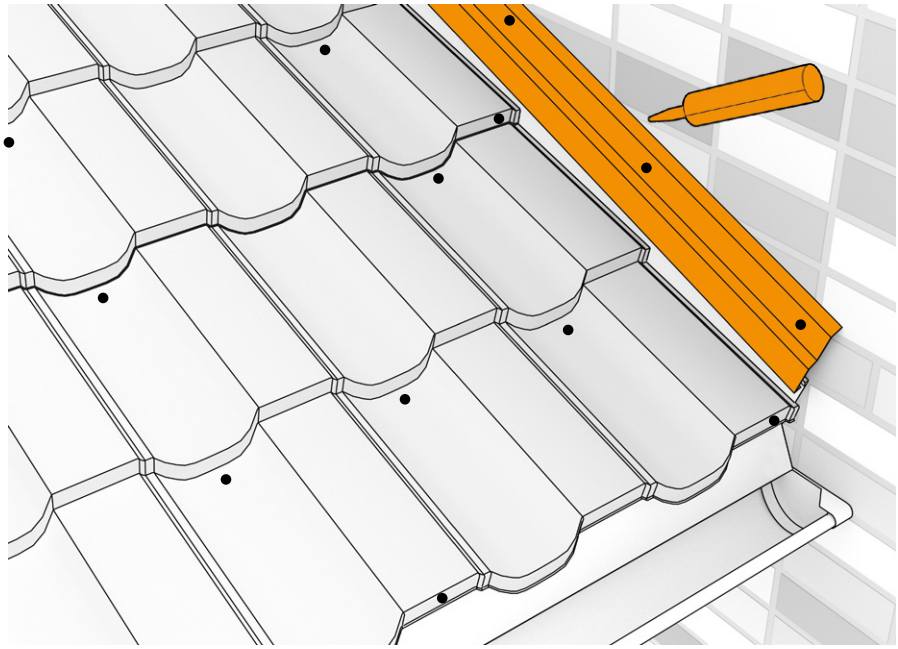


FIG.16

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 **(Fig. 16)**.



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