INSTALLATION INSTRUCTIONS

PRESTIGE COMPACT PLUS SHINGLE

Shingle-layer flexible bituminous shingle, with glass fiber carrier and surface covered with a copper layer 100 µm thick – Fig. 1. The Prestige Compact Plus shingle has a rectangular shape, a self-adhesive upper strip and a metal clip.

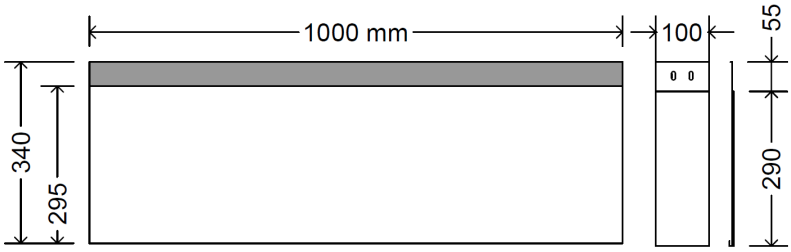

Fig. 1 – *Prestige Compact Plus shingle dimensions*

1. GENERAL RECOMMANDATIONS

- Stock pallets in a dry, covered and ventilated area.
- Avoid exposing the pallets to the direct sunlight or bad weather for long periods. Do not leave the pallets exposed to temperatures that are too high (>40°C) or too low (<10°C).
- Do not stack pallets on top of each other to avoid sticking of shingles inside the bundle.
- Shingles must be installed on a flat, rigid, continuous, and coplanar surface which will remain so over the time.
- Shingles must be applied on pitched roofs with a slope between 5° and 85°.
- The shingles installation method depends on the slope and length of the pitches, as well as on the substrate type - see paragraph 2.
- For nail installation of the shingles, use wide-headed stainless-steel nails (≥9,5mm), improved adherence and minimum 25mm length (32mm for the ridge elements), which has anyway to be evaluated depending on the substrate to ensure fastening.
- For torch installation, do not proceed on windy or particularly moisty days. Do not step on the membrane that has just been torched, to avoid footprint phenomena.
- Shingles must have a minimum temperature of 10° C to be applied.
- Under low outside temperatures, wind or wet conditions, warm the self-adhesive points of the shingles to improve adhesion and if it is necessary, apply the bitumen mastic Bitustick under the tabs.
- At the end of the day, the roofer must always check the good adhesion of the tabs and of the shingles.

2. INSTALLATION METHOD

The installation method of bituminous shingles depends on several factors: type of substrate, length and slope of pitch and type of membrane used. In particular:

- Installation surfaces made with wood panels (plywood or OSB) and similar are defined as nailable substrates.
- Installation surfaces made of concrete, fibrocement and similar are defined as non-nailable substrates.

For standard pitches with a maximum length of 7m, the following applies (summarised in Tab. 1):

- In the case of low roofing slopes (between 5° and 19°) or non-nailable substrate, bituminous shingles must be torch-applied on the Safety R-Evolution T membrane or on the Safety EPP polymer bitumen membrane with APP or APAO compound, which will ensure the waterproofing of the roof.
- In the case of low roofing slopes (between 5° and 19°) and nailable substrate, is available the Safety R-Evolution N membrane, self-adhesive and self-sealing for nail installation.
- For higher slopes (between 19° and 85°) and a nailable substrate, bituminous shingles can be applied with the nail installation technique, but it is mandatory to use the Startbar underlayer membrane. The number of nails per shingle to be used is specified in Tab. 1, based on the slope of the pitches.

TYPE OF SUBSTRATE	PITCH LENGTH	RANGE OF PITCH SLOPE	INSTALLATION METHOD	TYPE OF MEMBRANE
NOT NAILABLE	≤ 7m	5° - 19° (9%-35%)	BY TORCH	Safety R-Evolution T / Safety EPP membrane
NAILABLE	≤ 7m	5° - 19° (9%-35%)	BY TORCH	Safety R-Evolution T / Safety EPP membrane
			BY NAILS (6/shingle)	Safety R-Evolution N membrane
		19° - 60° (35%-173%)	BY NAILS (6/shingle)	Startbar underlayer membrane
		60° - 85° (173%-1100%)	BY NAILS (8/shingle)	Startbar underlayer membrane

Tab. 1 - *Shingle installation method vs pitch slope*

NOTES:

- In case of pitch slopes greater than 19° and non-nailable substrate, it is advisable to contact the technical office for further information.
- For pitches between 7 and 10m in length and a nailable substrate, the minimum pitch slope goes up from 19° to 22°. For these roof lengths and a pitch greater than 22°, it is recommended to use the mixed installation technique. The first few meters should be waterproofed with a bituminous membrane and the shingles should be fixed using a torch-on method. For the remaining 7 metres, it is possible to use an underlay and fix the shingles with nails.
- In case of areas classified as windy or snowy, for constructions with complex geometry (e.g. presence of windows, variations in slope or inclination), situated at altitudes above 1000m or buildings of great height, for pitches longer than 10m, it is advisable to contact the technical office for further information regarding the bituminous shingles fastening and their method of installation.

3. PRELIMINARY OPERATIONS

- Before installing the bituminous shingles, install the gutters or the drips and fix them properly to the substrate through tie-rods – Fig. 2.

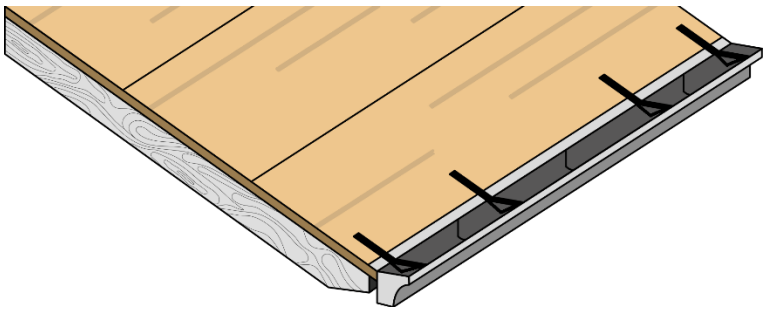

Fig. 2 *- Gutter installation*

- Apply the most appropriate membrane/underlayer according to the shingles installation method (paragraph 2) and ensure an appropriate flap in the gutter / over the drip.

4. TRACING OF THE ROOF

Once the membrane or the underlayer has been installed on the roof, before shingles installation, the pitch must be traced:

- Trace a straight ***x*** (orthogonal to the line of maximum slope) 32 cm from the eaves line, so that the shingle protrudes 2 cm from it;
- Locate a point A on line ***x*** and mark points B and C equidistant from A (example 150 cm);
- Starting from B and C, by using a string as a compass, identify the meeting point D, as close as possible to the ridge.
- Join A with D and identify the line ***y***;
- Draw a line ***z***, parallel to line ***y*** distant 50 cm;
- Draw horizontal lines parallel to ***x***, each one distant 29 cm from the previous, until you reach the ridge - see Fig. 3.

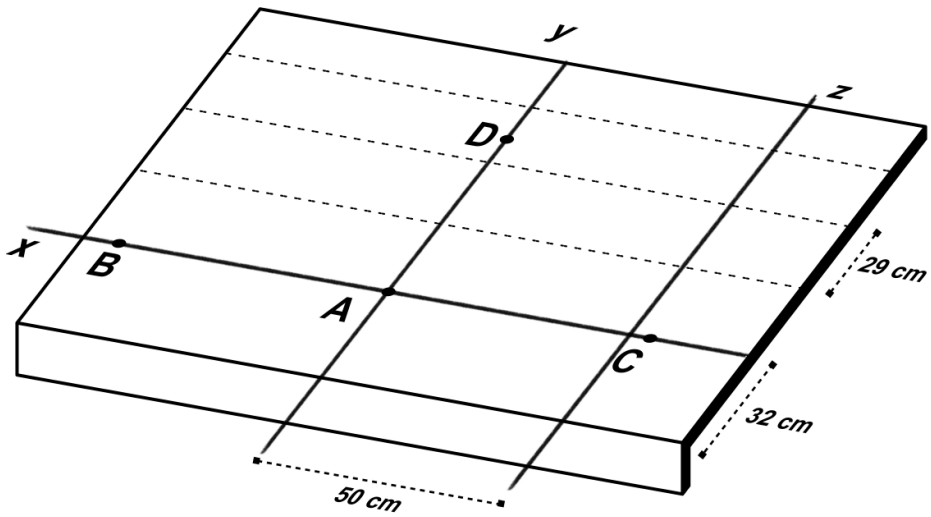

Fig. 3 *- Tracing of the pitch [cm]*

5. NAIL INSTALLATION OF THE SHINGLE

For the nail installation of the shingles, proceed as follows:

- Install the lateral flashing above the membrane/underlayer membrane applied to the roof. Apply a Bitustick bead to the external side of the lateral flashings. Proceed with the shingles installation, as described below, on the lateral flashing leaving a space of about 3cm between the end of the shingles and the edge of the lateral flashing – Fig. 4. Do not use nails less than 25 cm from the flashings.

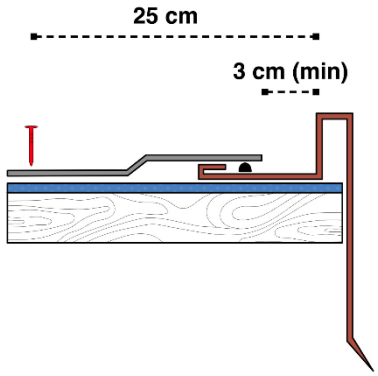

Fig. 4 *– Lateral flashing detail*

- Apply a bead of Bitustick bituminous adhesive along the eaves line, above the membrane/underlayer - Fig. 5;

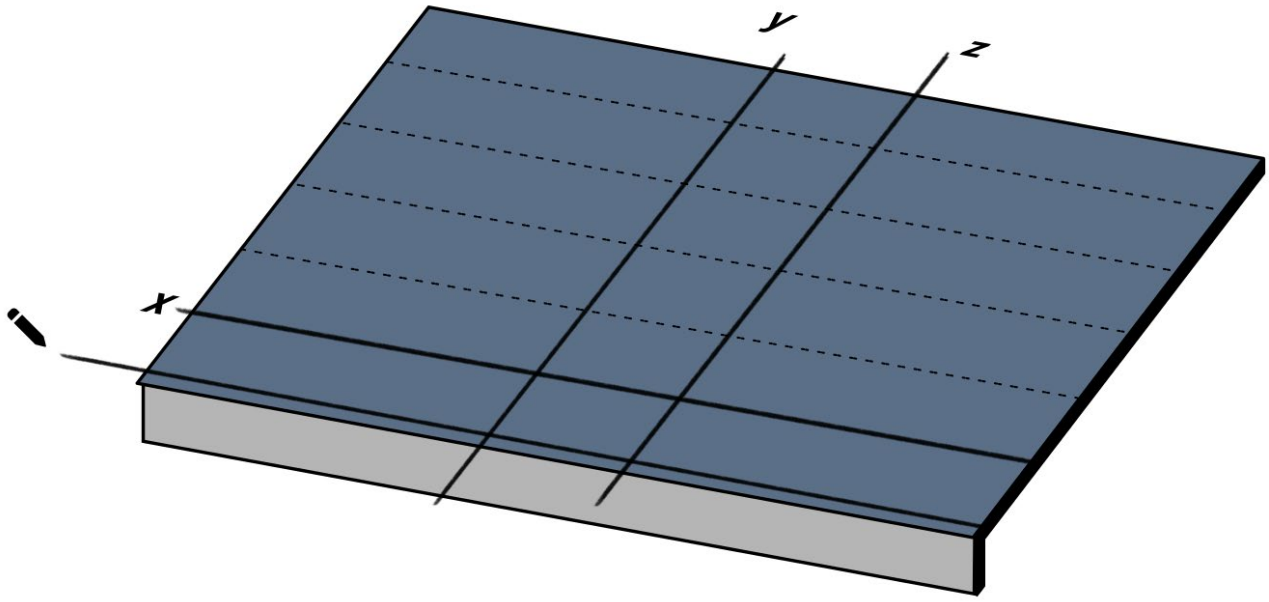

Fig. 5 *– Bitustick application*

- Then, proceed with the installation of the shingles: align the lateral edge of the first shingle on the vertical ***y*** and the upper edge on the horizontal ***x***. Remove the protective film of the self-adhesive strip. Fix the shingle to the substrate with stainless steel nails placed at 2 cm from the edges, in the same position as Fig. 6.

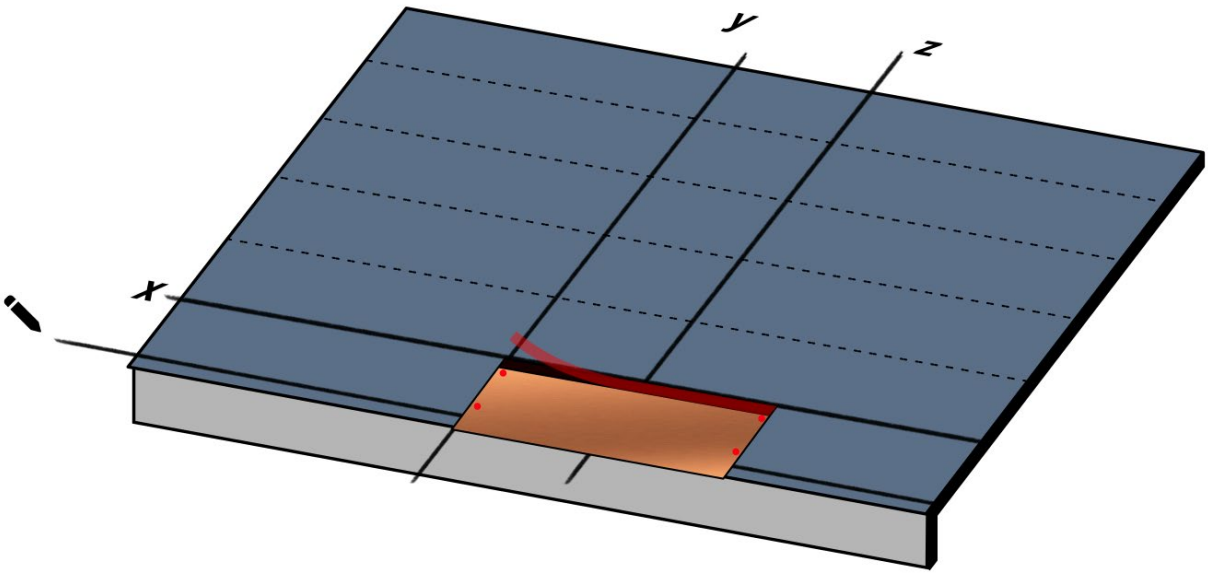

Fig. 6 *– First shingle installation*

- Place and nail the remaining shingles of the first row adjacent to each other, following the same fastening method, and remember to remove the protective film from the self-adhesive strip on the top of all the shingles.
- From the roll of Compact Strip sealant, cut pieces 34 cm long - Fig. 7. Position the prepared piece of Compact Strip at the centre of the joint between two consecutive shingles (Fig. 8), applying pressure to ensure perfect adhesion to the substrate. Do not remove the top non-stick film from the Compact Strip.

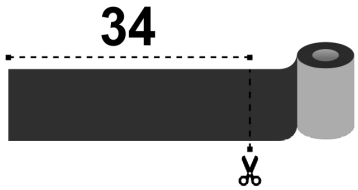

Fig. 7 *– Compact Strip*

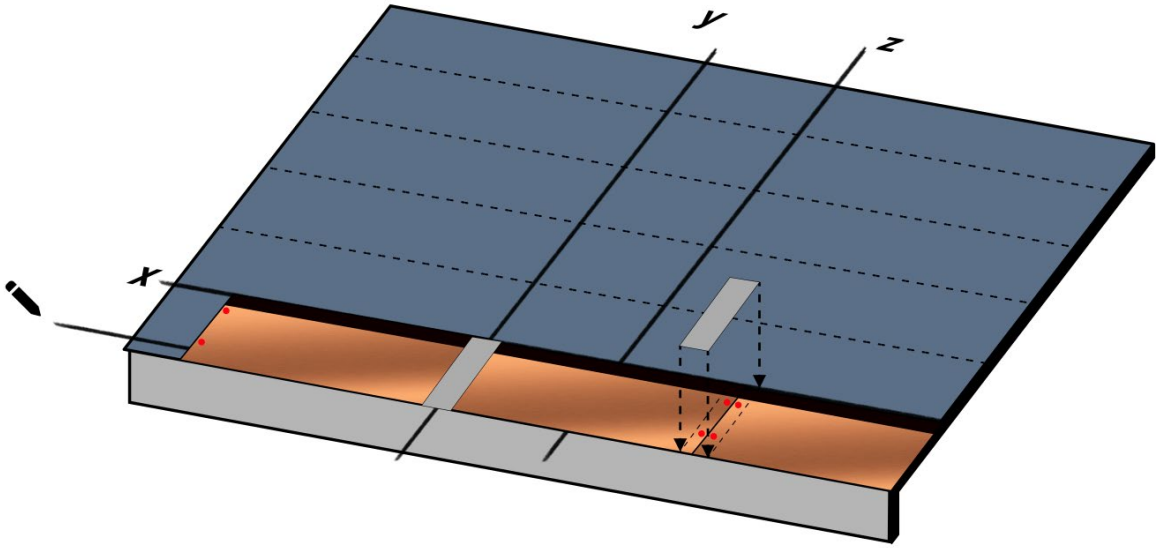

Fig. 8 *–Compact Strip installation*

- Insert the Compact Clip, aligning the central notch with the joint between two consecutive shingles. Proceed with nailing the Compact Clip, using the appropriate holes – green nails as shown in Fig. 9. This will also secure the shingles to the substrate with additional fastening points

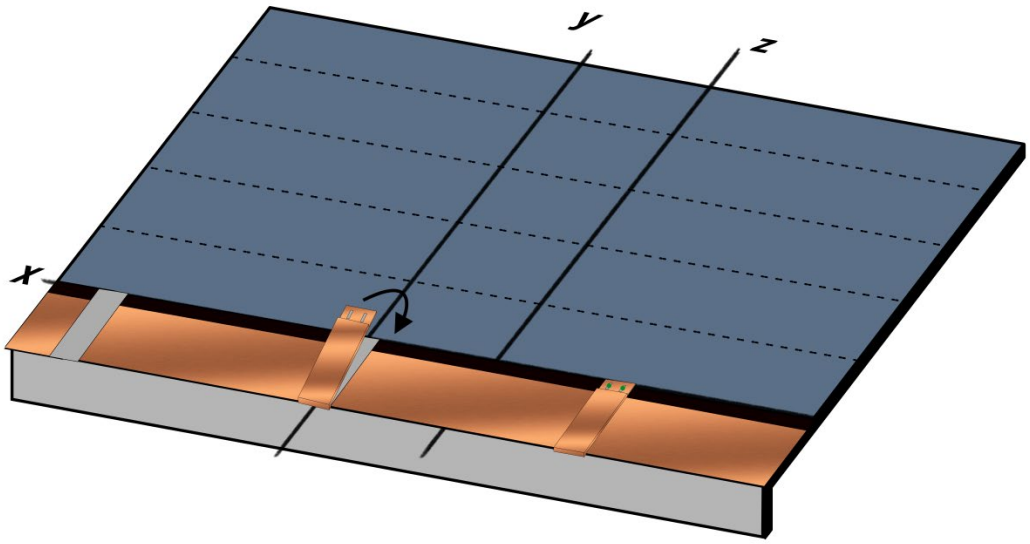

Fig. 9 *– Compact Clip installation*

- Proceed with the installation of the second row of shingles: align the side edge of the first shingle with the vertical line z and the upper edge with the horizontal line 29 cm away from x – Fig. 10. Nail the shingle to the substrate using 4 stainless steel nails per shingle, as shown with the red nails in Fig. 11 a). In the case of slopes between 60° and 85°, place 2 additional stainless steel nails, for a total of 6 nails per shingle, as shown with the red nails in Fig. 11 b). The green nails indicated in Fig. 11 are those used to fix the Compact Clips. Proceed with the installation of all the shingles in the row in the same manner. Remove the protective film from the self-adhesive strip on the shingles, apply the Compact Strip, and install the Compact Clip – Fig. 10.

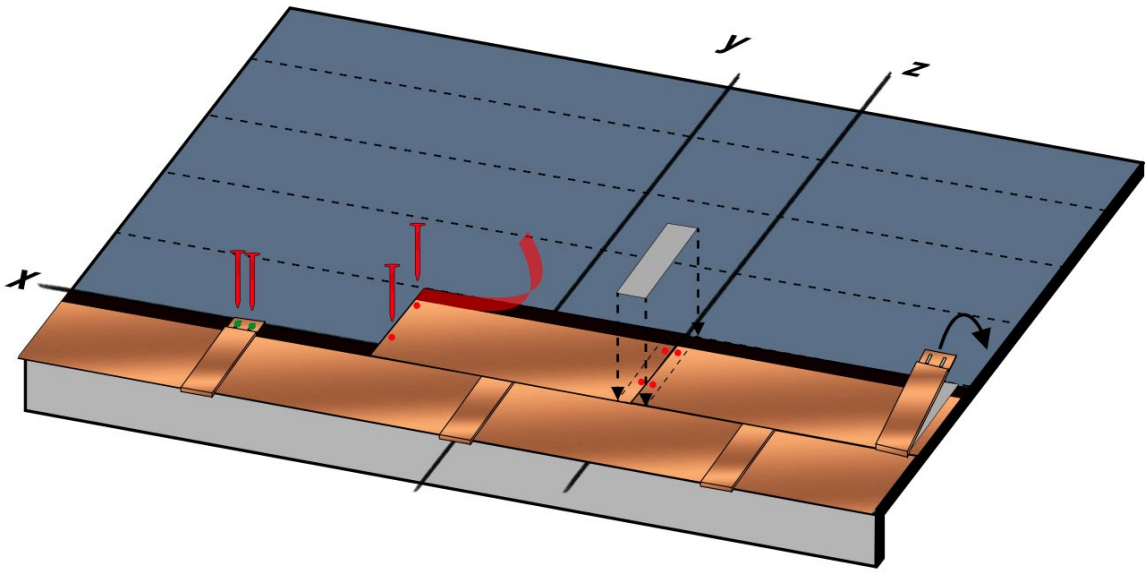

Fig. 10 *– Installation of the second row of shingles*

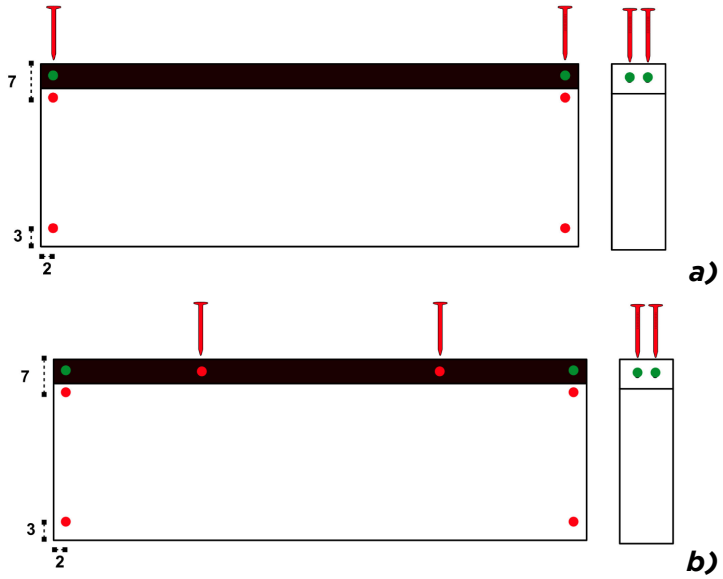

Fig. 11 *– Shingle nailing* ***a)*** *slopes <60°;* ***b)*** *slopes >60°*

- Repeat the procedure of installation of the bituminous shingles in rows, until the full coverage of the pitches to the ridge.
- The last row of bituminous shingles must protrude above the ridge line; the excess part will be cut along the ridge – Fig. 12.
- Repeat the same steps for the other pitch.

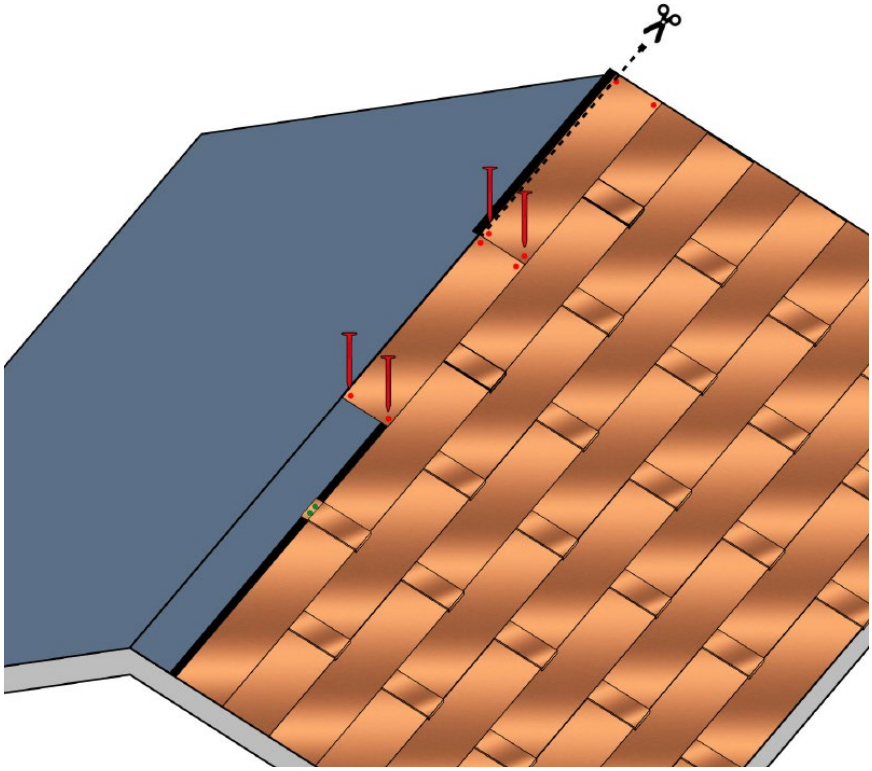

Fig. 12 *– Shingles installation at the ridge*

- For the execution of the ridge, take the Prestige Compact Ridge box and remove the Top Roll Colmo SA and the ridge components, which are already cut and shaped, contained within it - Fig. 13.

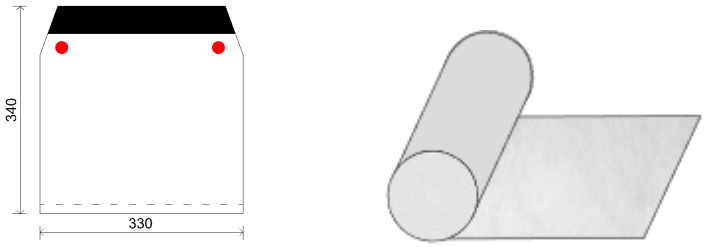

Fig. 13 *– Prestige Compact Ridge box contents*

- Place the Top Roll SA along the center of the ridge line, removing the protective film from the underside of the roll that covers the butyl tape. This will waterproof the ridge itself where the ridge shingles are cut. - Fig. 14. Fix the ridge components onto the Top Roll Colmo SA with 2 nails, each at least 32mm in length, one nail for each side of the pitch – Fig. 14
- Proceed with the installation of the other ridge elements, leaving an exposed part of 25cm between each element and the following one.

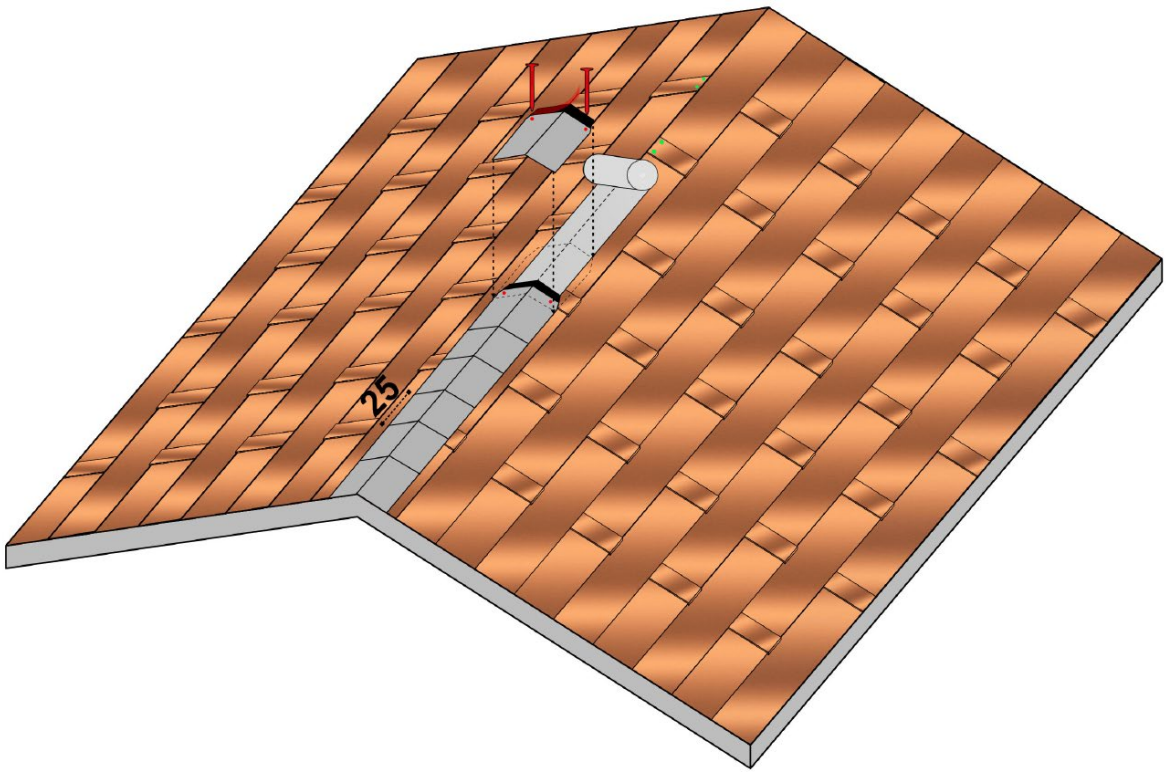

Fig. 14 – *Top Roll and ridge elements installation*

- Follow the same instructions also for the shingle installation at the hips.
- As for the roof valleys, prepare a band of bituminous membrane about 100cm wide, applied by torch in advance, to ensure its waterproofing. Install a copper metal valley flashing above the membrane, with a shape similar to Fig. 15, along the centre of the valley.

Fig. 15 – *Metal flashing profile*

- Install the shingles on the first pitch, up to the valley line, cutting them 3 cm and parallel to the valley line. Secure the shingles with stainless steel nails, up to approximately 40 cm from the valley line, and with Bitustick, applied in two parallel rows, at distances no greater than 40 cm from the valley line, above the metal valley flashing – Fig. 16. It is also advisable to cut the upper edge of the shingle transversely at the valley, to direct the descending water along the valley centerline – Fig. 16.
- Repeat the same procedure for the second pitch. In the end, a channel should be created between the shingles, along the metal valley, where the water will flow preferentially, Fig. 16.

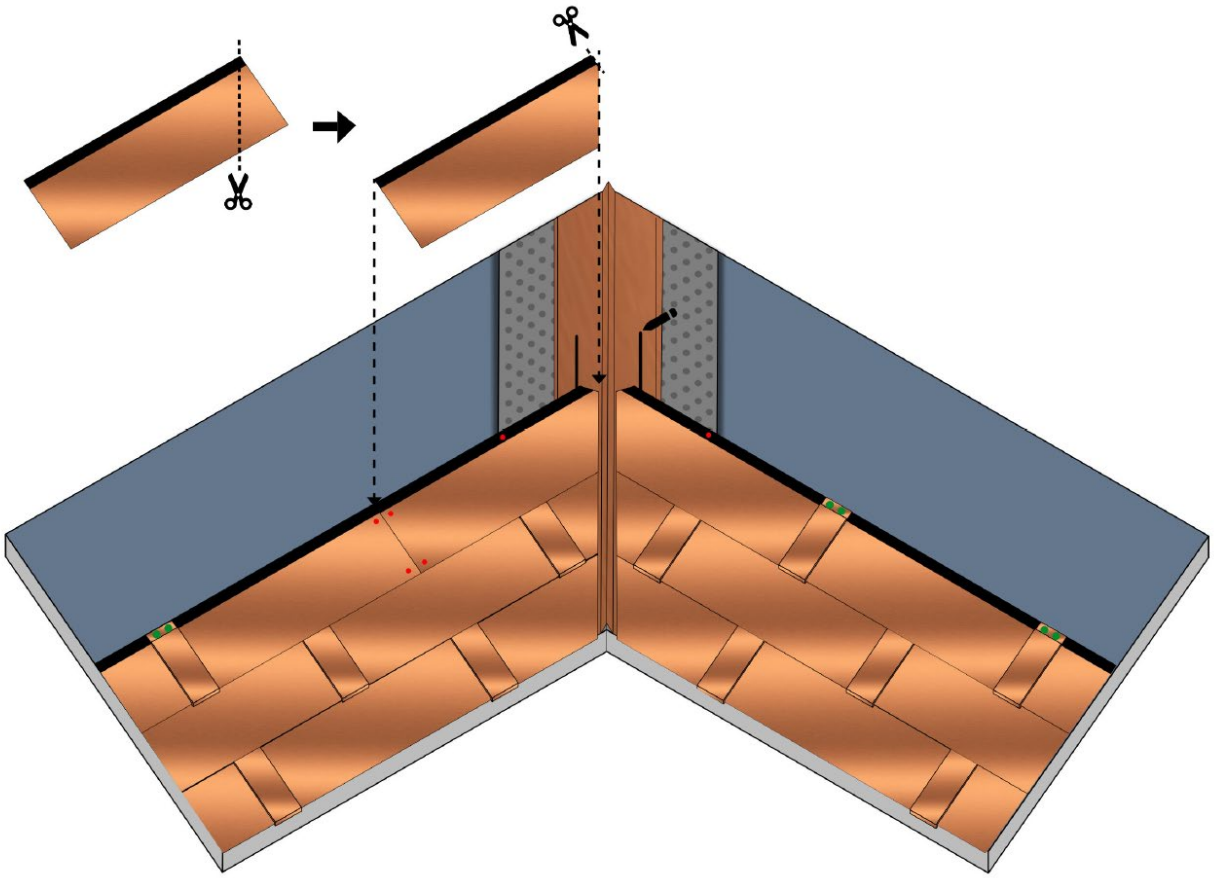

Fig. 16 – *Shingles installation at valley*

6. TORCH INSTALLATION OF THE SHINGLE

For the torch installation of the shingles, proceed as follows:

- Install the lateral flashings above the membrane applied to the roof. Apply a band of bituminous membrane, about 25 cm wide, to overlap the flashing. Proceed with the normal installation of the shingles by torch, as will be described below, above the lateral flashing. Leave a space of about 3cm between the end of the shingles and the edge of the lateral flashing. - Fig. 17.

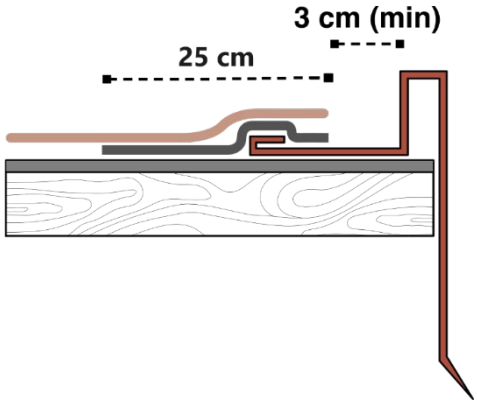

Fig. 17 *– Lateral flashing detail*

- Proceed with the installation of the first row of shingles, placing them on the bituminous membrane already installed: align the lateral edge of the first shingle with the vertical axis ***y*** and the upper edge with the horizontal axis ***x***. Secure the shingle to the membrane using the torch, while lifting the upper part of the shingle with the appropriate tool. Direct the flame towards the membrane to melt only the membrane itself. The underside of the shingle will only be heated – see Fig. 18. Then, lower the shingle and press it down (for example, by applying pressure with a foot) to assist the bonding of the bitumen from both elements: the shingle and the membrane.

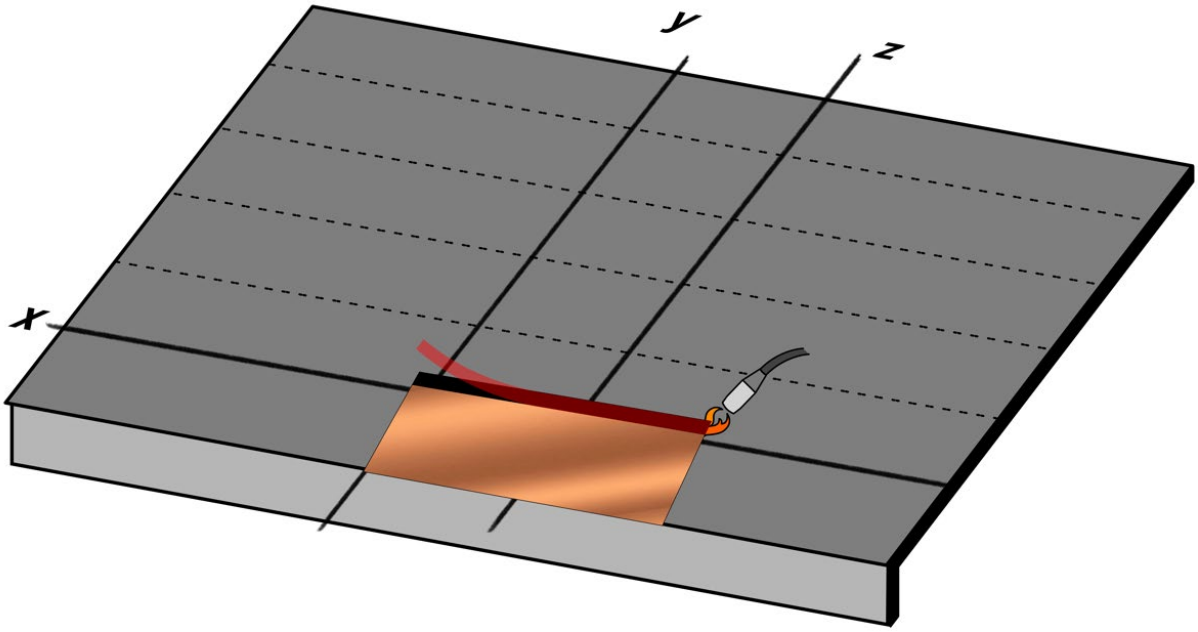

Fig. 18 *– First row shingles installation by torch*

- Arrange and secure the remaining shingles of the first row, placing them adjacent to each other, following the same installation method and ensuring the removal of the protective film from the upper self-adhesive strip on all the shingles.
- From the Compact Strip roll, cut pieces of 34 cm in length –Fig. 7. Position the prepared piece of Compact Strip at the centre of the joint between two consecutive shingles (Fig. 19), applying sufficient pressure to ensure perfect adhesion to the substrate. Do not remove the top anti-adhesive film from the Compact Strip but only cut off the upper part indicated in red in Fig. 20, exposing a portion of the butyl tape.

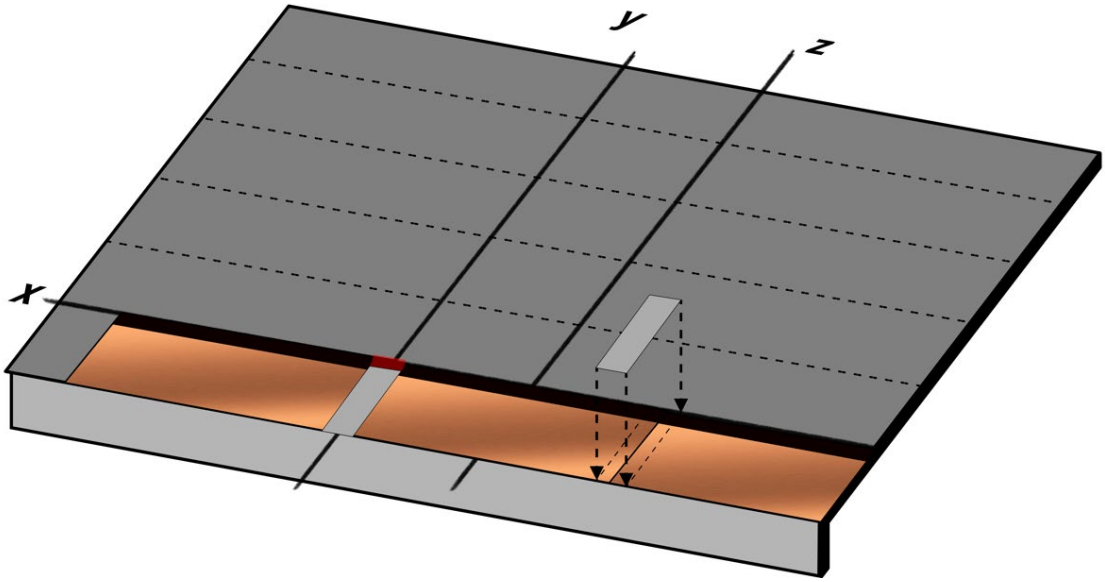

Fig. 19 *– Compact Strip installation*

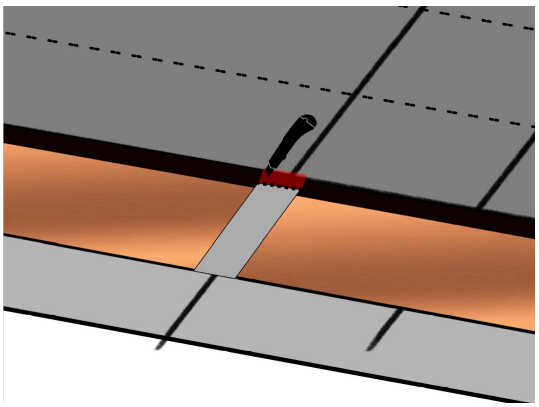

Fig. 20 *– Cutting the upper part of the Compact Strip protective film*

- Insert the Compact Clip, aligning the central notch with the joint between two consecutive shingles. The Compact Clip will be fixed in position, adhering to the exposed portion of the butyl tape, Fig. 21.

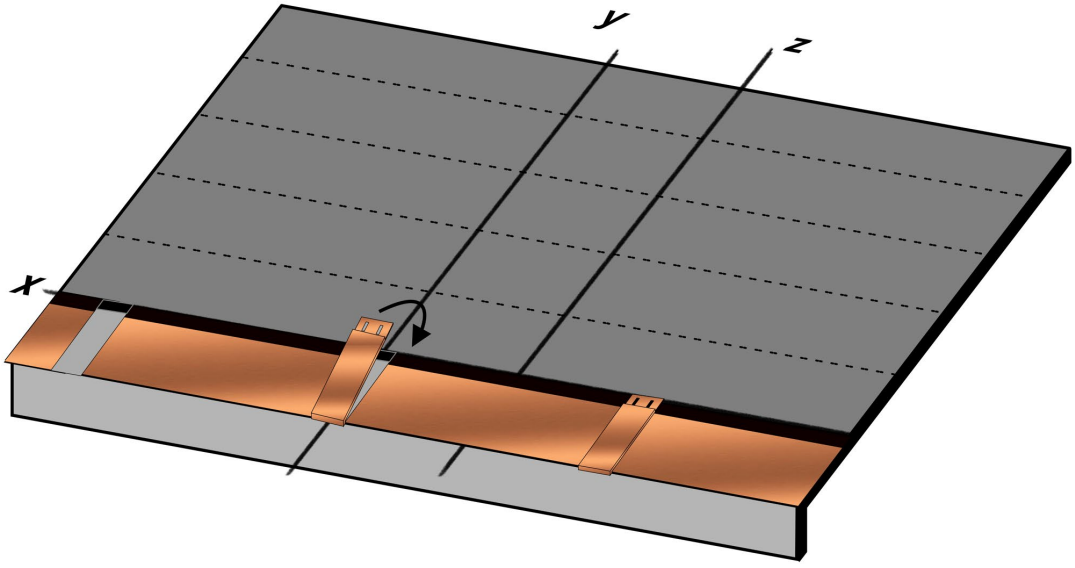

Fig. 21 *– Compact Clip Installation*

- Proceed with the installation of the first row of shingles: align the lateral edge of the first shingle on the vertical ***z*** and the upper edge on the horizontal 29 cm from ***x*** - see Fig. 22. Fix the shingle to the membrane using the torch and lifting the top of the shingle with a tool, Fig. 22. The self-adhesive upper strip of the first row shingles will fix the shingles of the upper row. Move forward installing all the shingles of the row.

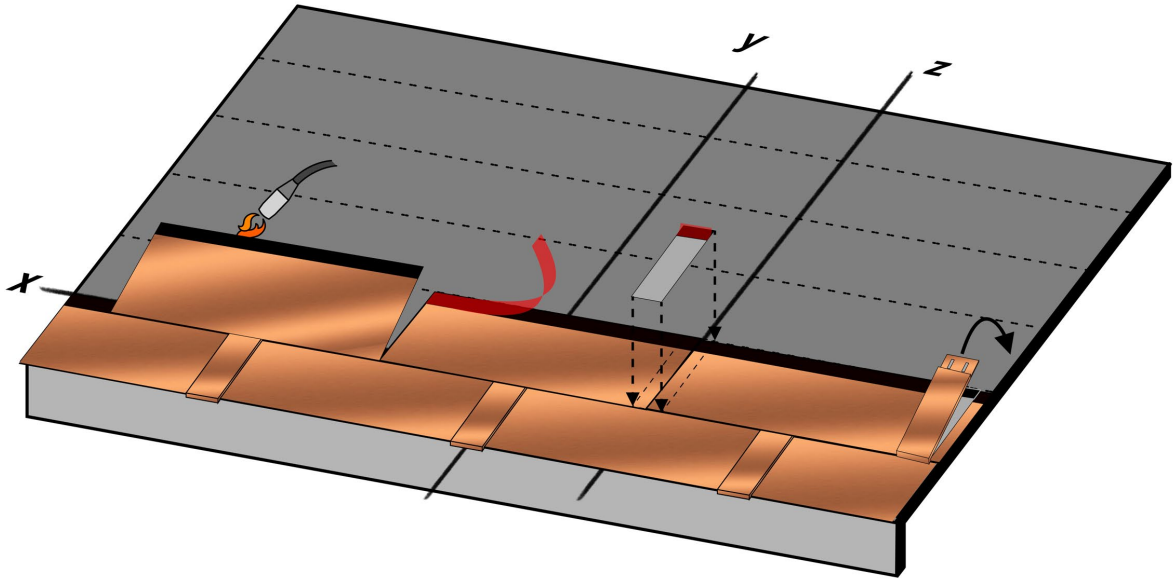

Fig. 22 – *Second row shingles installation by torch*

- Repeat the same steps for installation of the bituminous shingles in rows, until the entire pitch is covered, leaving the last 10 cm of bituminous membrane at the ridge exposed. If necessary, cut the top of the last row of shingles - Fig. 23.

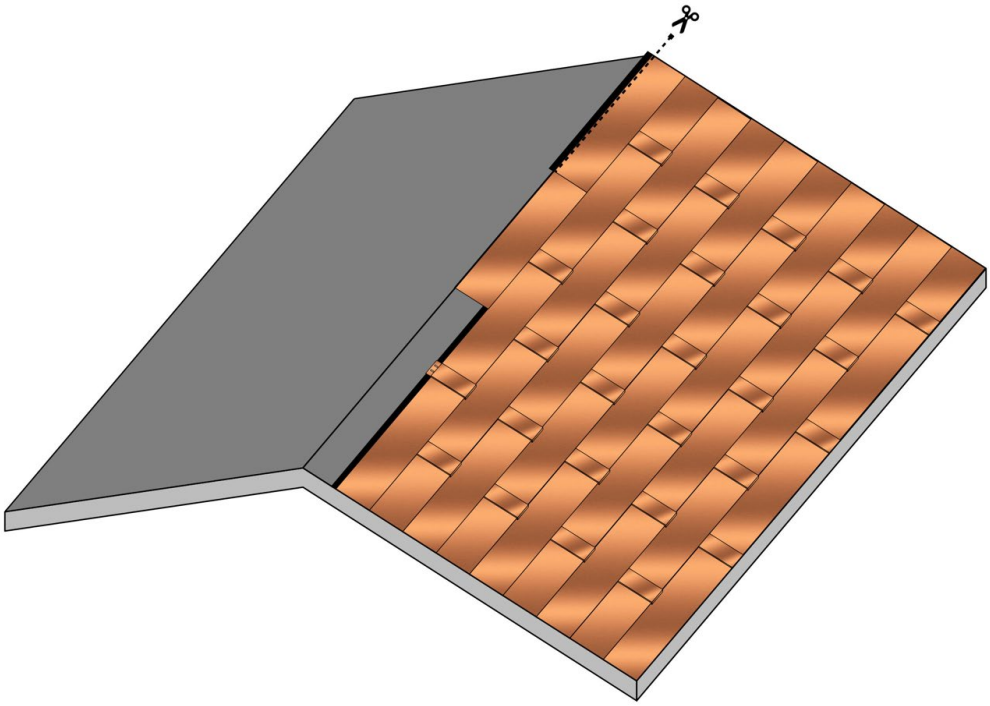

Fig. 23 – *Shingles installation until the ridge*

- Repeat the same steps for the other pitch.

- For the ridge installation, take the Prestige Plus Ridge Box containing the pre-cut and shaped ridge elements – see Fig. 13. Note that, in this case, the roll of Top Roll Ridge SA contained in the box will not be used. Instead, apply a strip of Safety EPP bituminous membrane with a torch to the ridge – see Fig. 24.
- Install the prepared ridge elements, securing them to the underlying membrane with the torch flame, always heating the membrane and not the shingle element. Continue installing the remaining ridge elements in sequence, leaving an exposed section of 25 cm between each element, as shown in Fig. 24.

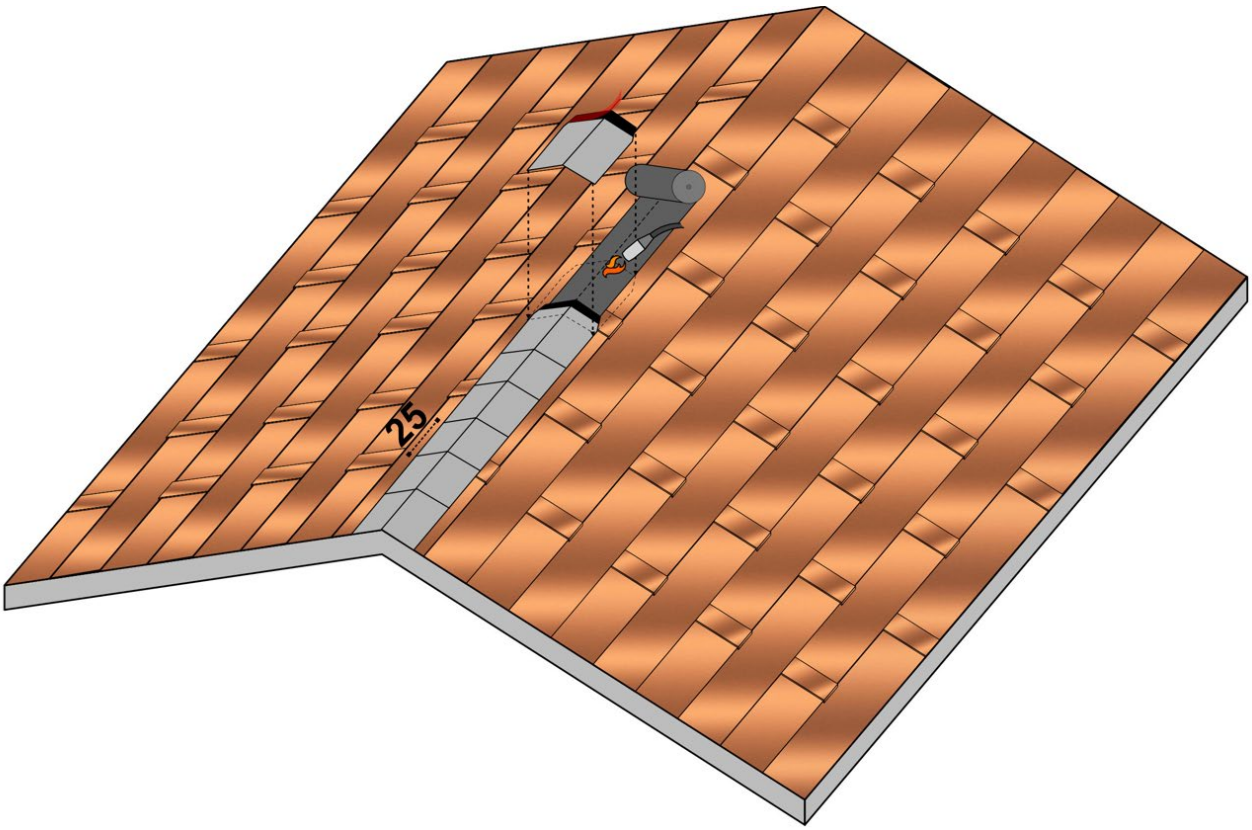

Fig. 24 – *Ridge elements installation*

- Follow the same instructions also for the shingle installation at the hips.
- As for the roof valleys, prepare a band of bituminous membrane about 100cm wide, applied by torch in advance, to ensure its waterproofing. Install a copper metal valley flashing above the membrane, with a shape like Fig. 15, along the centre of the valley.
- Next, install the shingles on the first pitch, up to the valley line, cutting them 3 cm and parallel to the valley line. Secure the shingles with the torch, and with Bitustick, applied in two parallel rows, above the metal valley flashing – Fig. 25.
- Repeat the same procedure for the second pitch. In the end, a channel should be created between the shingles, along the metal valley, where the water will flow preferentially, Fig. 25.
- Cross-cut the top edge of the shingle to the valley, so as to convey the descending water along the axis of the valley. Fig. 25

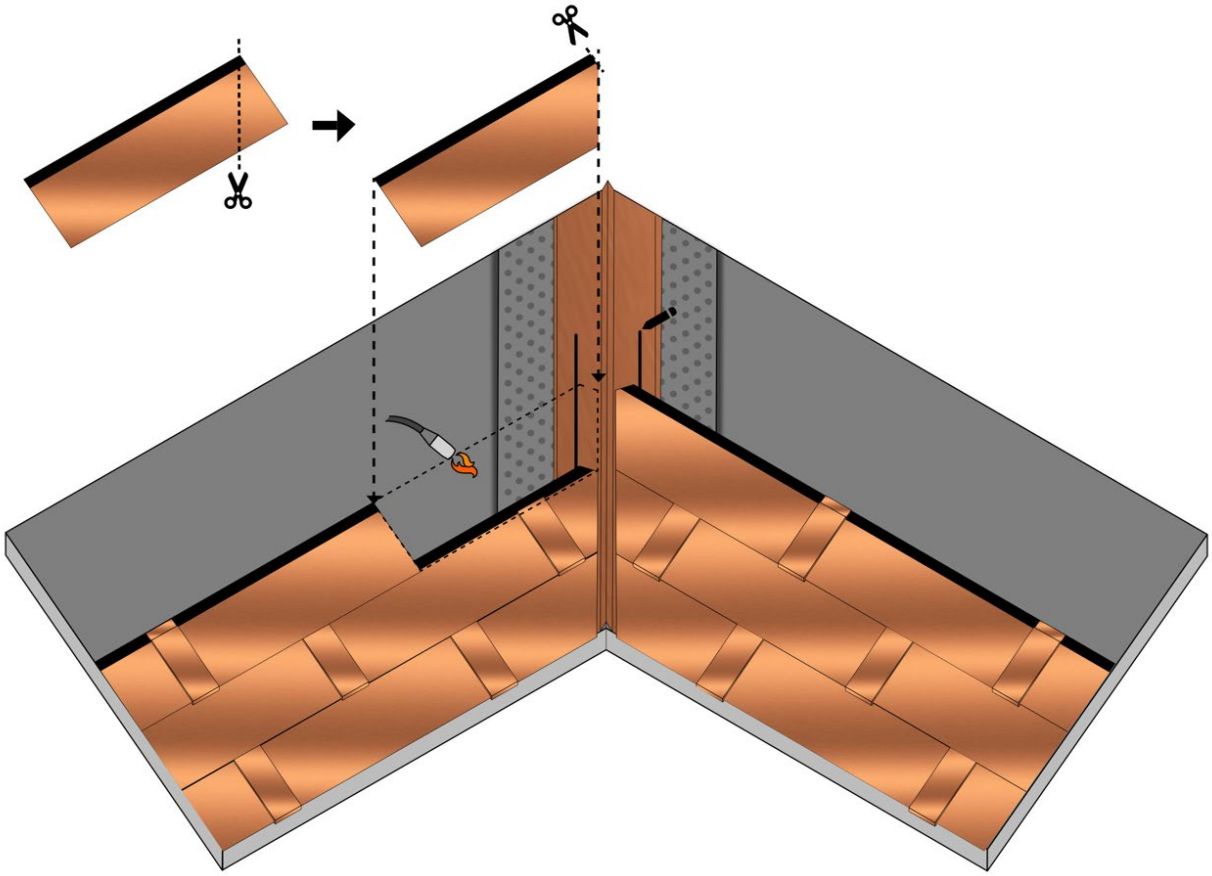

Fig. 25 *– Shingles installation by torch along the valley*

- Once the installation is finished, always check the adhesion between the membrane and the bituminous shingles, and also between the self-adhesive strips of the shingles and the tabs above.

7. FINISHES AND INSTALLATION DETAILS

All finishes for flashings, valleys, chimneys, snow stops, etc. can be performed with aluminium or other compatible metals. For their installation refer to the specific installation instructions.

The Prestige Compact Plus shingle model is equipped with self-adhesive strip along the upper edge that softens at ca. 30°C and thus allows the gluing of the shingle tabs of the subsequent rows. If necessary, you can force their activation with a heat gun. It is important to verify the adhesion of the tabs and of the shingles, at the end of the day, once the shingles installation is completed.