## INSTALLATION INSTRUCTIONS FOR TILE ROOF BASES

The provided guidance are related to the installation of Tile Roof Base (Type I) on the roof. These instructions, with very small variations are applied also to the base (Type II).

Based on the general installation plan of the PV panels, initially, we are to identify the points where the bases are to be attached and particularly the specific tiles under of which the base is going to be fastened.

Remove the tiles roof as shown in Figure 1.

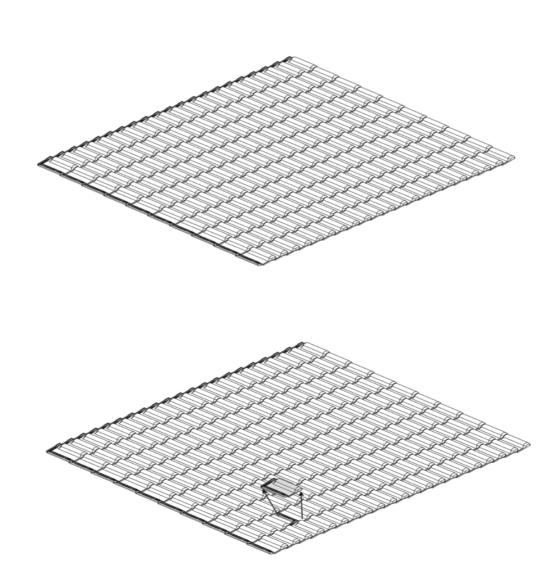
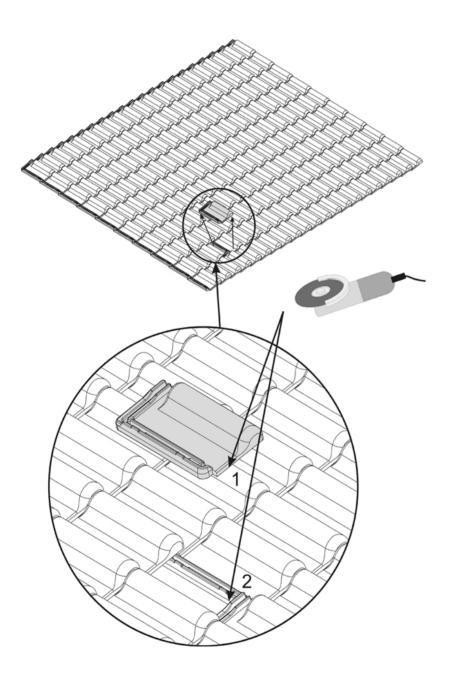


Figure 1

With electric sander, smooth the tiles that will come in contact with the bases. In particular, smooth, as shown in Figure 2 (points 1 and 2) the lower surface of the tile (this will cover the base) and the upper surface of the tile (this will touch the extension of the mount). This action is necessary, so the tiles and the base can not generate protrusions and abnormal to the slope of tiled roofs

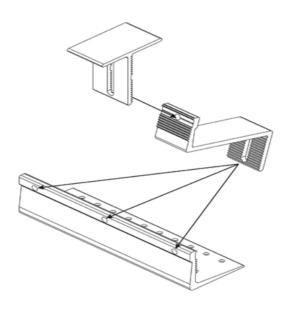


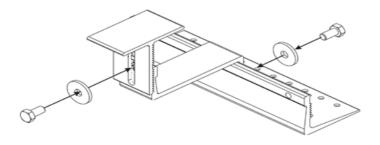


The second step is to assemble the Tile Roof Base, as shown in Figure 3. The Base packing box includes all the necessary materials.

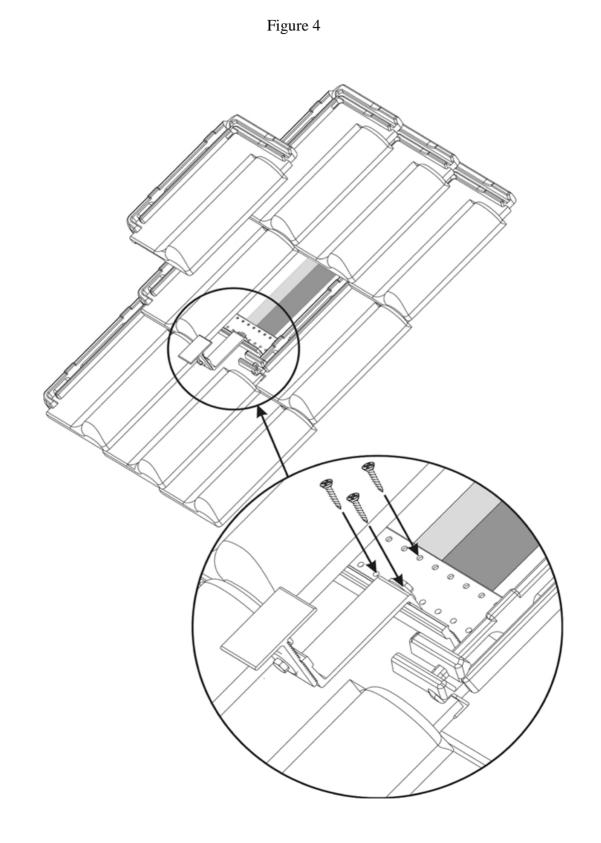
Initially, an adjustment of the profile shape 'Z' is achieved to the lower base and then adjustment of the profile shape "T" to the shape "Z".





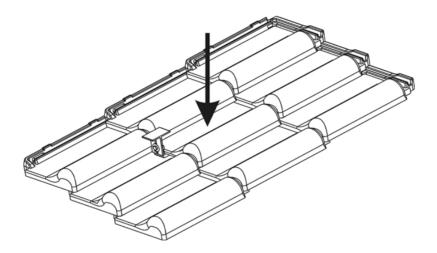


After assembling the base, the tightening to the rafters follows. The base is always placed perpendicular to the rafters and screwed in at least three (3) points, as shown in Figure 4.



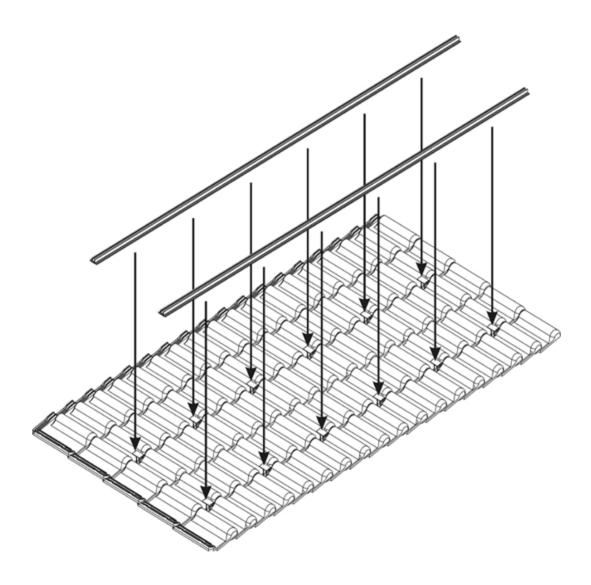
After verifying the proper attachment of the base, the tiles are placed in to their position and they retested for their excellent adaptation, not to leave loopholes that will allow water inflow.

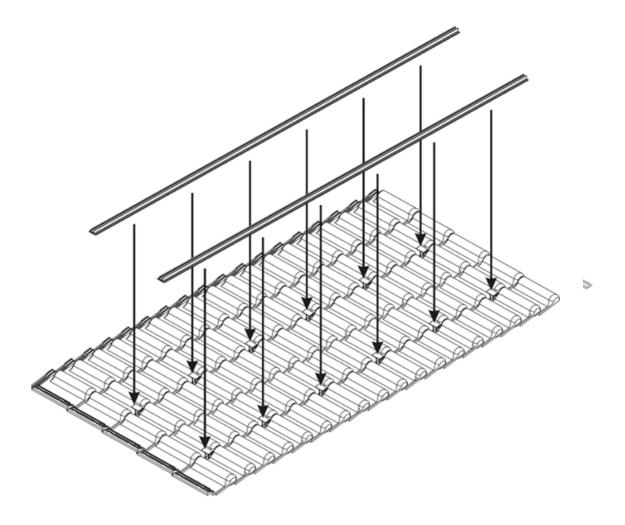




We continue with the installation and the rest support bases and after completing this task, we place the aluminum rails. The rails are placed horizontally or vertically in relation to the provision of tiled roofs, as shown in Figure 6 and 7.

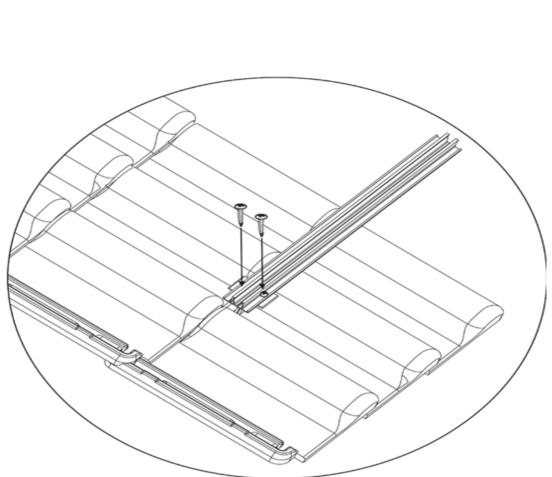
Figure 6





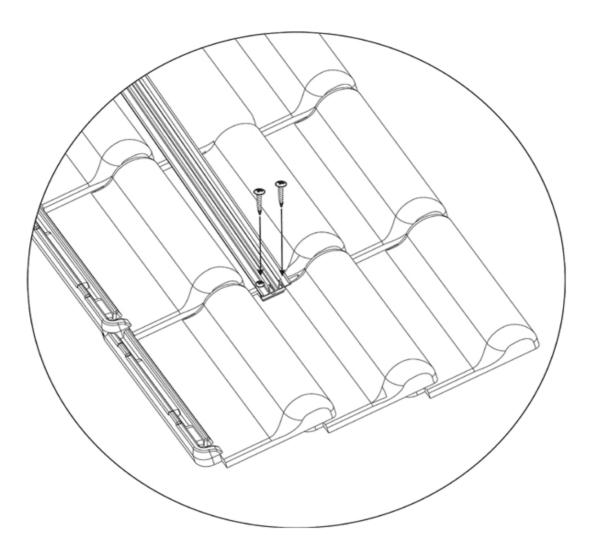


For rails mounting (Figure 8 and 9) on the base, we use Self-Drilling Screws. These type of screws offers flexibility in use and have better securing results.

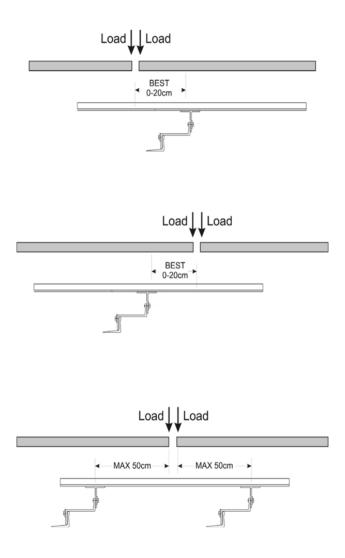








The following diagram shows the possible ways of placing photovoltaic modules on the aluminum rails. From the diagrams below it is noted that overhangs of the frame should refrain from tile base at distance from 0-20cm to a maximum of 50 cm.



After mounting the rails, we continue with the integration of the Cable Collector Clip. As shown in Figure 11, first we drag the clip in to the outer groove of the rail and stop it at the point we want. In order to stabilize the clip, it has to be rotated by 90 degrees clockwise . Maximum distance between two (2) clips is up 35 cm.



