Tile Mounting Recommendations

Standard Method

1. The mounting hardware is attached to the tile using SS Screws supplied with the kit.
2. This requires drilling a pilot hole in the tile before inserting the screw. Use a 3/16” masonry drill bit. DO NOT drill into the substrate below the tile; doing so will cause a roof leak.
3. The mounting screws should be positioned 1” to 2” above the bottom edge of the tile. This will allow a space between the tile and the substrate due to the overlap in the tiles.
4. On barrel tile roofs, try to lay out the panels so that the mounting holes fall on the tops of the barrel tile. This can be accomplished by using 6” rubber couplings where additional spacing is required; cut the coupling to the correct length.

Mounting Bracket Method:

As an alternative to the above “Standard” tile roof installation many installers prefer to construct a bracket to support the collectors above the tile surface. The advantage to this method is that the mounting holes can more easily be placed on the tops of the barrel tile. The bracket should be constructed of a durable material such as aluminum or treated wood. It should also be strong enough to sustain maximum anticipated wind loads. The basic steps for bracket style installation using aluminum are below.

1. Aluminum brackets 1/8” x 1” can be purchased from typical hardware stores such as Lowes, Home Depot or specialty aluminum stores.
2. The bracket will need to be cut to the length of the system.
3. After choosing the best place to install the solar array on the roof, identify the type of sub-surface, depth from the bottom and top of the tile to the subsurface and identify placement of trusses.
4. Using stainless steel screws, secure the bracket to the roof trusses, not the sheathing, at the location that the collector header pipes will be placed.
5. Fasten Collectors to the bracket with stainless steel gear clamps supplied in the Techno-Solis panel kits.