Advice for Installing Roof Fixing Bolts

Fixing the solar collector using Roof Bolts:

Firstly, assemble the collector frame on the ground, this is relatively light weight and can be carried onto the roof. Position the frame in the area for installation and mark the position for the fixings.

Remember:
Heath & Saftey

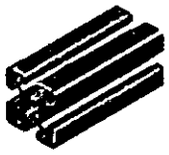


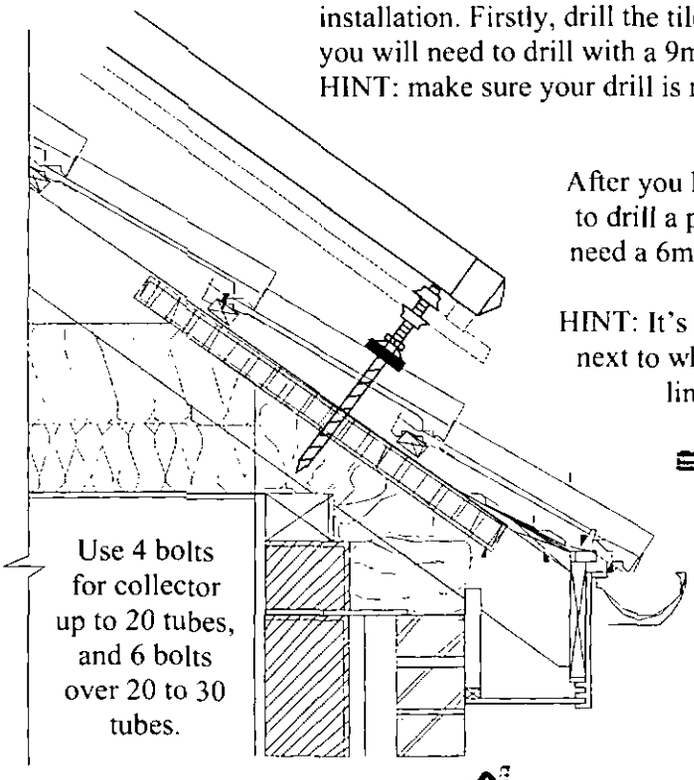
Fig 1.0

Next: You need to check your position to see if you are lying over a roof rafter. If you are great, if not you will have to bridge with a nogging from inside the roof space, to enable a fixing.

HINT: One option is to locate the fixings in a convenient position , then Rails-Sp Kits (Fig 1.0) . Bolt the Rails directly to the roof bolts and then bolt the collector frame to the railing system.

Once you have located the position for your fixings, you can proceed with the installation. Firstly, drill the tile with a masonry bit. The Roof Bolt is 8mm so you will need to drill with a 9mm or 10mm bit.

HINT: make sure your drill is not on hammer, you will break the tile.



Use 4 bolts for collector up to 20 tubes, and 6 bolts over 20 to 30 tubes.

After you have made the hole through the tile you will need to drill a pilot hole in the Wooden Rafter, for this you will need a 6mm X 150mm wood bit. Drill the pilot hole taking care to stay at 90° to the roof line.

HINT: It's worth placing a piece of timber longer than 1 Mtr next to where you are drilling, this will show you the roof line and not the tile line, which is different.



Fig 2.0

Once you have completed the pilot hole insert the Roof Bolt and screw into position. For your convenience, the Roof Bolts have a Torx head (Fig 2.0 bit not supplied), which you can use with an electric screwdriver or wrench. Remember that you are just making a seal against the tile, so do not over tighten.

After you have completed the installation of the Roof Bolts. Proceed to fit the collectors frame, using the two M8 flange lock nuts provided.

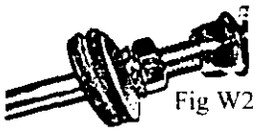


Fig W2

Use the bitumen sealing washers for sealing the hole through the tile. For contoured and curved tiles use the profiled washer (Fig W1). For flat tiles or slate use the coned washer (Fig W2)as provided.

It is not advisable to use flexible straps for fitting collectors to roofs, this will pose a safety risk in high wind, cause you to make un-necessary holes in the underlay and is not normally acceptable to building control.

Check out the THE SOLAR SHOP web site, page HSE for Advice on working at heights

Solar Shop Europe Ltd, www.thesolarshop.eu, UK Contact No Tel:020 8123 2921
Or email: advice@thesolarshop.eu

The content of this data sheet is to serve as advice only, every roof is different therefore it is not possible To account for all eventualities, if in doubt call for advice or contact a roofing professional.