

SolarFlash™ Instructions



Example of
Compatible Bracket

A basic knowledge of the principles of slating is essential when performing any type of slate roof repair/refit.

Slate Refit Kit



Slate New Build Kit



Flat Tile Kit



Profile Tile Kit



Roof Anchor/Bracket

Page 3

There are currently four different SolarFlash Kits:

Slate Refit Kit

Pages 4-10

For use on existing Slate Roofs (Natural and fibre cement slate)

Slate Newbuild Kit

Page 11

For use on all new build Slate Roofs (Natural and fibre cement slate)

Flat Tile Kit

Pages 12-13

For use on Plain Tiles (e.g. Rosemary), Concrete Tiles (e.g. Marley Modern, Stonewold)

Profile Tile Kit

Pages 14-16

For use on profile concrete tiles (e.g. Redland Regent, Marley Mendip, Double Roman)

Points to note:

- Some roof anchors/brackets available on the market are fundamentally not conducive with any flashing.
- Any contact between the roof anchor/bracket with the roofing material makes the roofing material load bearing.

Therefore:

- The elbow of the bracket must give at least 30mm clearance from the rafter to bend down the roof i.e. the elbow should be no less than 30mm deep and then can be made to work with shims (packing). Brackets with clearance of 40/45mm from the rafter probably won't need shims.
- Shims (packings) are used to lift the roof anchor/bracket away from the slate underneath the bracket.

NB: Any contact between the flashing and the roof anchor/bracket could cause a problem. The roof anchor/bracket is a moveable projection from the roof and must be allowed to move. The SolarFlash hood is designed to elevate above the roof anchor/bracket.

***There is a foam included in every kit** This must be used. It is required to seal the hood. The foam was designed with snow in mind, it's there to stop wind taking light snow into the roof.*



Slate roof showing 30mm clearance

Roof Anchor Positions

- Once the roof is opened and the rafter located, the position of the roof anchor/bracket is now determined.
- The positions of A, B and C (see below) are the only places that the rafter can land in relation to the slate.



- A. Rafter lands where two slates join on the rafter.
- B. Rafter lands in the middle of a slate.
- C. Rafter lands somewhere between the middle and the edge of a slate.

- Consequently, there are only three possible variations of cuts to the slates. See Page 5.

NB: Bracket shown is a Fischer bracket. Used for demonstration purposes only. Other brackets are available and compatible

Cutting Slates for Positions A, B and C

When installing on an existing roof, the bottom slates do not need to be removed, and can be cut in situ with an angle grinder.

Please see the demo video on the website.



Note re. above: One cut below roof anchor/bracket means two cuts above the flashing (A) and vice versa (B).

Note: Position C could fall either side of centre and only needs two cuts; one under and one over the roof anchor/bracket.

Installing SolarFlash (Refit)



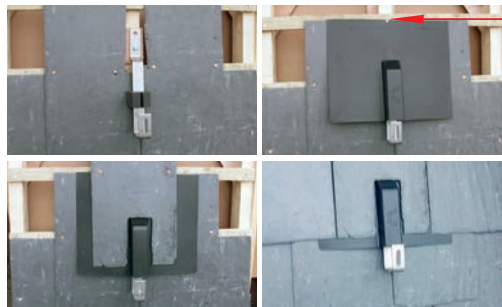
Step 1: Fix foam to bracket drop.



Step 2: As a guide, slate sizes are marked on the SolarFlash.



Step 3: SolarFlash can be trimmed or nailed through. If nailing through, ensure relevant line for slate size centres on the batten. Apply pressure to hold SolarFlash solid when nailing through.



Step 4: Cut slates around the hood of the SolarFlash as per Page 4.

The top of the cut SolarFlash should sit in the centre of the batten.

Using the Compensation (comp) Hook

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SLATE
REFIT #4



The comp hook is used where you can only access one nail hole, it prevents the head of the slate from tilting off the batten.

X Unable to access nail hole under this slate.

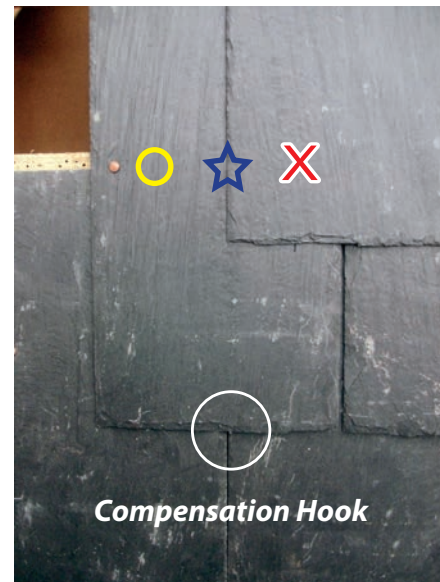
- Step 1: Mark position of the bottom of the object slate and fix the comp hook to this line.
- Step 2: Slide the slate into position on the comp hook and nail the accessible hole. Slate cannot tilt.

8 How to avoid using the Compensation Hook

The purpose of the compensation hooks is detailed on page 7 of the instruction booklet. These were designed to be used when you could only access one of the nail holes on the slate (shown below, you can't access the nail hole marked with a red cross).

Roofers will know where to just put a second nail hole (for example where I've put the yellow circle). This will stop the slate having any lateral movement. Going back a few years installers were incorrectly putting the second nail hole as far over as possible, for example where the blue star is, a nail hole there on the joint of two slates could let water gain access to the roof.

Most people these days for slate refit jobs buy the new build kit and the Hallhooks. Saving money on the compensation hooks and just putting a second nail hole as per yellow circle.



For a Slate Retrofit Installation

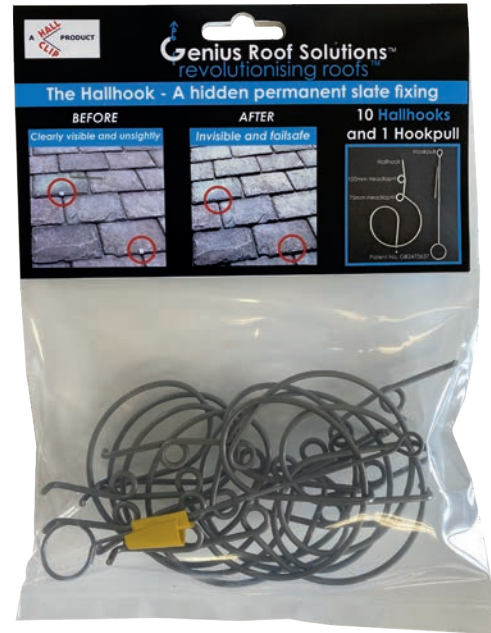
Rather than purchase the SolarFlash Slate Refit Kit, you can choose to purchase the SolarFlash Slate New Build Kit and packs of Hallhooks.

The Hallhooks allow you to put slates back in position when you can't access either nail hole. More details on the following page.

Depending on the position of the rafter (Position A, B or C) you will either need 2 or 3 Hallhooks per bracket installation. On average it is 2.2.

Example: On a 16 bracket install you would need approximately 37 Hallhooks which would mean purchasing 4 bags of 10 Hallhooks = 40 Hallhooks.

The compensation hook will continue to be available in the SolarFlash Slate Retro Fit Kit for those installers who would prefer to use it.



Replacing final slates using the 'Hallhook'



Hallhooks



HALLHOOK
Patent No. GB2473637



- Step 2: Slide object slate into position then using the hookpull, pull firmly until the Hallhook locates the base of the object slate. Remove hookpull.

- Step 1: Position the Hallhook between the slates. Use the nail hole that positions the bottom hook at least 10mm up from the finished slate line. The Hallhook will stretch up to 40mm. Hang the hookpull on the Hallhook as per illustration.

**For hip holed slates only*



Installing SolarFlash (New Build)

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SLATE
NEWBUILD #1

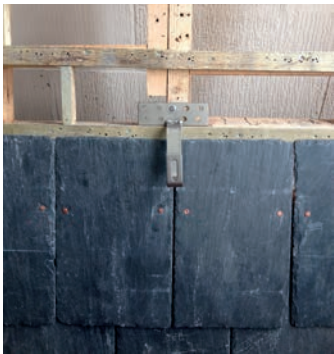
Like in the Slate Refit Installation, the bracket can land in three different positions (as per page 4). So consequently, there are only three possible variations to the cuts of the slates (as per page 5).

Step 1: Attach brackets to rafters as required.

Step 2: Slate as normal, make cut(s) to slate(s) around bracket.

Step 3: Foam around drop of bracket, SolarFlash on bracket.

Step 4: Slate as normal, make cuts to slate(s) around SolarFlash hood.



Bracket for demonstration purposes only, other brackets are available

Finish

Installing SolarFlash (Flat Tile)

The 'Flat Tile Kit' which includes the small SolarFlash is for use on plain tiles (Rosemarys) or standard flat concrete tiles.

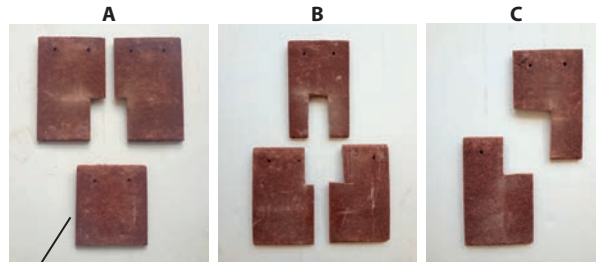
Below demonstrates an installation on plain tiles:

Once the roof is opened and the rafter located, the position of the roof anchor/bracket is now determined. The positions of A, B and C (see below) are the only places the rafter can land in relation to the tile.



Consequently, there are three possible variations of cuts to the tiles.

- A: Rafter lands where two tiles join on the rafter.
- B: Rafter lands in the middle of a tile.
- C: Rafter lands somewhere between the middle and the edge of a tile.



Install pictures on following page...

NB: Position A: When the bracket is in place, the lower tile can't hang on to the batten. The lower tile should hang on the tiles using the lugs or nails through the holes. The bottom of the tile is then cut so it is level with the side tiles (pictured on P13).

Installing SolarFlash (Flat Tile)

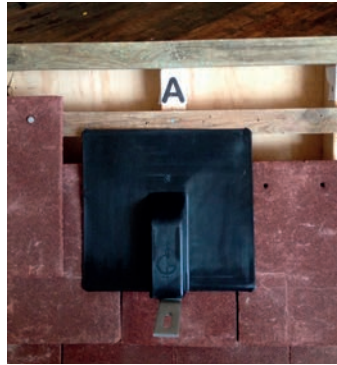
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FLAT
TILE #2

Continues from
page 12



Step 1: Fix foam to the bracket drop.



Step 2: Put SolarFlash (small) on the bracket.



Step 3: Cut tiles around the hood of the SolarFlash as per page 12.



Finished Result

Also use the small SolarFlash on large flat tiles e.g. Marley modern, stonewold, cambrian, edgemere.

On these tiles you do not need to cut the tiles under/below the bracket.

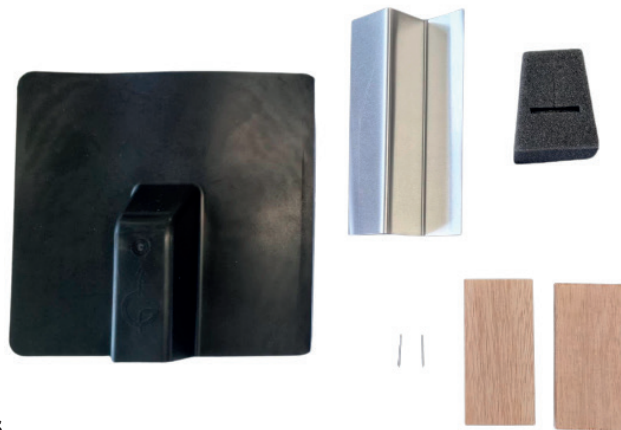
NB: Notching a tile with a hammer weakens the tile more than using an angle grinder. Tiles are cut into valleys and hips with an angle grinder, not with the trauma of a hammer.



Installing FlexiFlash (Profile Tile)

SolarFlash Profile Tile Kit

- 1 × FlexiFlash™
- 2 × Shims (packings)
- 1 × Foam Insert
- 1 × Metal Support
- 2 × Nails



**The Profile Tile Kit is to be used on profile concrete tiles
(For Example: Redland Regent, Double Roman, Marley Mendip, Ludlow Major)**

The FlexiFlash is the same size as our small SolarFlash: 235mm x 235mm. Unlike the small SolarFlash, the FlexiFlash is made of a flexible material allowing it to mould around the curvature of a profile tile.

Installing FlexiFlash (Profile Tile)

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PROFILE
TILE #2

Open up the roof to access the rafter.

Step 1:

Using the plate, fix the bracket in a position which allows the drop on the bracket to sit in the lower corrugation of the tile.

Then attach the foam to the drop of the bracket.



Step 2:

Using the nails provided, attach the support to the rafter above the bracket.

The support must be used.

It is there to maintain the effectiveness of the FlexiFlash by preventing it from sagging.



Installing FlexiFlash (Profile Tile)

Step 1:

Place the 'FlexiFlash' onto the bracket.



Step 4:

Cut a section out of the tile so it fits around the hood of the FlexiFlash. Place tiles back in position.



NB: Bracket shown is a Clenergy bracket. Used for demonstration only. Other brackets are available and compatible.



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