

# Homeowners: Solar Roof brackets, Pipework and Roof Flashings

From RVR

## Solar Roof brackets, Pipework and Roof Flashings

### Roof Brackets

#### On-Roof mounting of vacuum and flat panels

The Vacuum tube and Flat Panel collectors from RVR are all mounted on-roof by means of a similar method.

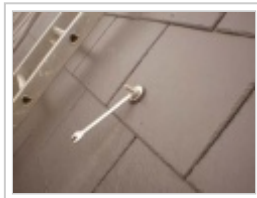
A hangar bolt (a special bolt with a machine thread at one end and a screw thread on the other) is mounted in the roof, through the slate directly into a rafter. A hangar bolt is used at each corner of the panel. A frame is then mounted to these hangar bolts and the panel can be mounted straight into the frame.



Vacuum Tube Panels on a roof



**A Hangar Bolt**



**The bolt screwed into the roof**



**The frame mounted on the hangar bolts**



**The completed frame**

The hangar bolts come complete with a neoprene washer so that when they are tightened into the roof, they provide a watertight seal.

## In-Roof mounting of flat panels

TiSun Flat Panels can be mounted in-roof by means of a flashing kit. This is most suitable for new build houses as the area covered by the panels does not have to be tiled.

A flashing or edging is then provided so that the panels can be mounted to the rafters and the flashing seals the area around the panels flush with the roof.



Flat Panels on a roof

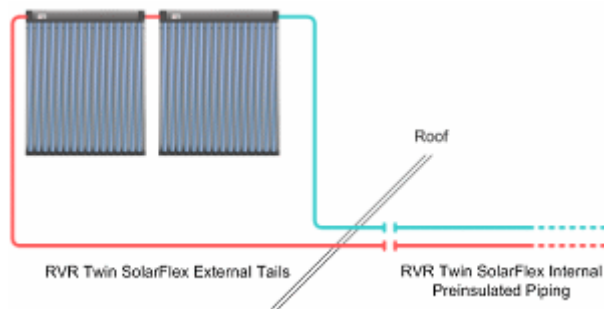
## Solar Pipework

Solar pipework can be made from metals such as copper or stainless steel. The pipework also requires a high temperature insulation as the temperature in solar heating systems can rise to over 200°C. Regular insulation would melt at these temperatures.

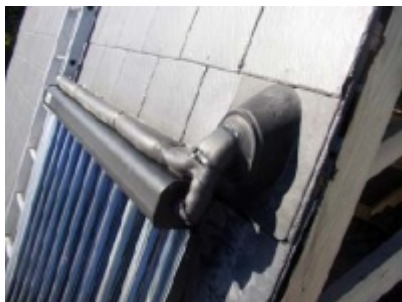
The pipework requires hard solder or compression fittings to prevent any problems with temperature.

Any pipework that is outside must have UV stabilised and Hardened insulation to prevent damage from the sun, wind, rain and animals.

RVR Supply a range of internal pre-insulated flexible pipework known as RVR Twin SolarFlex. This consists of two insulated pipes of 10 or 20m lengths, which can bend and be twisted and curved around obstacles. This is an excellent timesaver and most installers use this form of solar piping. This pipe system is for external use but comes with external tails with UV protection for the final connection to the panels on the roof.



## Roof flashings



In order to get the pipework through the roof once it has been connected to the collector, the installer will usually use one or more roof flashings. These can usually be mounted near and behind the panels so they are well hidden on the roof.

This flashing is sealed to the roof with a SoudaSeal mastic which is designed for high temperature and long life.

## Further Reading

Read on about combination systems here: [Homeowners:Combination Tanks and Systems](#)

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