SOLARKING

Commercial Solar Roof Exhaust Fan Installation V3.2 Instructions

Installation Advice

The SolarKing 120W commercial fan comes in 2 sections, the head unit and the flashing.

First assess how many commercial roof fans you will require for the factory where the fans are being fitted. Factories generally have very high roof's, this needs to be taken into consideration. Our recommendations are based on a 6M high roof. We recommend 1x 600mm commercial for every 200m2, if the roof is higher than 6M you will need to consider more fans.

Placement of the fans should normally be at the peak of the roof, some factory roofs only have a very slight pitch in these installations again the units should be placed at the highest point. Placement should also consider avoiding shade on the solar panel in the afternoon. The solar panel if required can be tilted up towards the sun, try to have no shadow cast onto the solar panel.

The solar panel mounting will depend on your roof and position in Australia. Mounting flat on the roof as the unit comes out of the box in northern Australia or if you . Mount panel on an angle using the stay bars to get the angle of the sun correct if you are in southern Australia or if you roof only has a high pitch.

STEP 1

Slide the top edge of the flashing up under the ridge capping of the roof (remove ridge capping screws to do this) as per Figure 1. It is important to position the flashing is not covering any roofing screws, the roofing screws running from the top to the bottom of the roof are where the rafters/beams are located. Once positioned mark a circle on the inside edge of the flashing.

STEP 2

Following the circle marked on the roof cut the roof as per figure 2 using a metal bladed saw or tin snips. If there is any foil under the metal sheets cut a cross in the foil and fold back the corners. Tip: Take care not to cut into any battens/rafters/beams under the roof sheet when cutting.
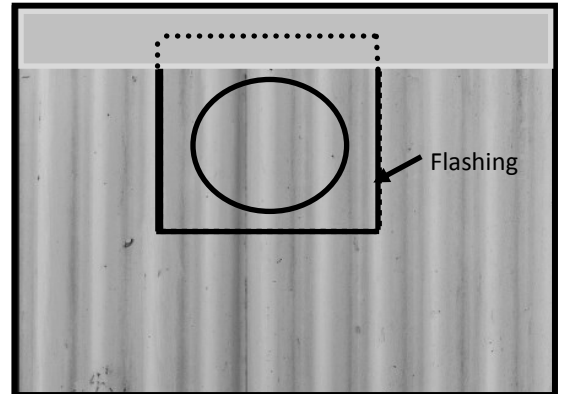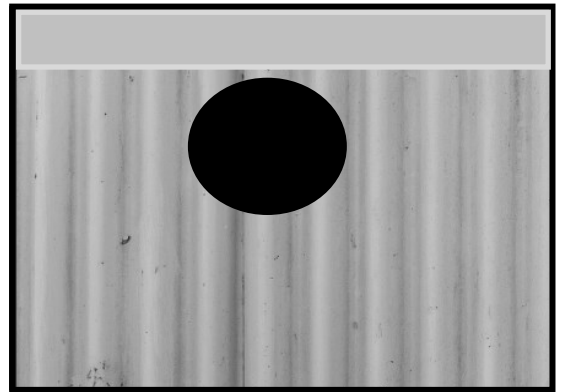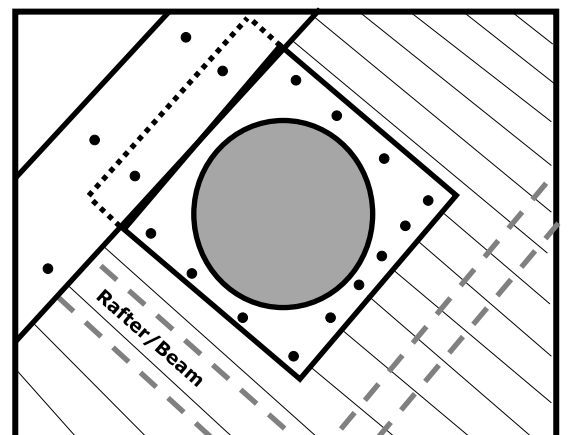
Figure 1

Flashing

Figure 2

Figure 3

Rafter/Beam

STEP 3

Slide the flashing back up under the roof capping Figure 3 and refit the ridge capping screws through the flashing and bend the edges of the flashing down on the left and right sides of the flashing to create a tight fit with the roof. Then using tin snips to cut notches in the bottom of the flashing to suit the corrugations of the roof and bend the notches down. Then silicon the underside of the edges and the outside of the edges and the underside and outside of the bottom section of the flashing. Use up a minimum of 18 tech or roof screws with rubber seals along the left, right and bottom of the flashing to secure to the roof. Note: Tech screws and roofing screws are not included.

STEP 4

Place the main body of the fan over the flashing as per figure 4.

STEP 5

As per figure 5 using a powered screw driver, screw at least 6 small tech screws through the pre-drilled holes in the fan main body through into the flashing. (Tip: You may not be able to get the top tech screw in place as the angle of the roof may prevent this, in this case you can simply screw the tech screw into another section where the main body is over the flashing)

Wiring

When installing the unit you need to connect the disconnected MC-4 connector. Note the unit will only operate when the panel is in daylight and the temperature is above 25C°. To bypass the temperature control you can unplug the white temperature plug on the wiring loom, now the unit will operate anytime it is daylight.

DC Back Up

There is a short black cable with a 2.5mm DC jack. This cable will require the optional 24V/3.75A mains power pack SKU-2096. This will allow the unit to run when the daylight level drops too low or after dark.
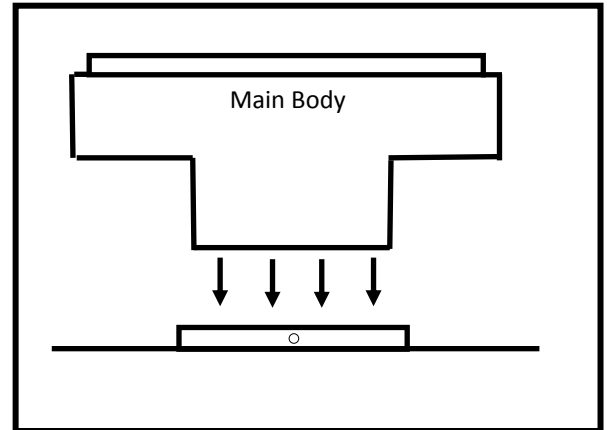
Figure 4

Figure 5