



## What is a Solar Whiz?

The Solar Whiz is a SolarPowered Fan.

## What does it do?

The Solar Whiz does all of the things listed below:

1/ Heat extraction from the roof of homes or buildings.

- The Solar Whiz removes the hot air that accumulates in the roofs of houses and buildings. By removing this hot air it reduces the temperature in the roof from up to 70 degrees down to the outdoor ambient temperature. This reduction could be up to 30 degrees, however efficiency is subject to availability of replacement air. The Solar Whiz models have capacities from 1400 to 3000 cubic meters of air per hour depending on what size unit you use. Changing the air in your roof 3-5 times per hour will allow you to reach temperatures only a few degrees above the outside ambient temperature.

2/ What is the benefit for the home owner?

- SAVES MONEY Being solar powered the unit it has no running costs, it is FREE TO RUN. Heat that accumulates in the roof of houses and buildings builds up and radiates down – warming up the whole building.
- Installing a Solar Whiz prevents these unnecessary heat gains. High roof space temperatures also reduce the efficiency of cooling systems by up to 20%. The Solar Whiz reduces the amount of time you need to run cooling systems and increases their efficiency when they are running, saving money on power bills.

3/. Heat extraction from inside the house or building.

- Solar Whiz can also remove the hot air directly from specific rooms. By installing a closeable vent in the ceiling of the warmest room(s) and opening the vents into the roof space you allow the Solar Whiz to draw the air directly from targeted rooms. This is particularly, useful in double storey houses where stairs act as a heat chimney.

4/ What is the benefit for the home owner?

- Improve indoor comfort levels. Some houses have very hot rooms, particularly on the west side of the house, and/or upstairs areas. By installing closable vents in the ceiling, hot air can be drawn directly out of particular rooms or an upstairs areas, creating a much more comfortable environment, without having to run additional cooling systems.
- Improve indoor air quality and eliminate mould/ mildew problems. Some houses suffer from mustiness and mould or mildew problems; this can be eliminated by installing closable vents into the ceiling of the affected area. The Solar Whiz will draw out the stale damp air allowing fresh air to flow through the house. This method is mainly used in warmer weather.
- Reduce indoor humidity levels. In areas of high humidity any time the home is not occupied or the air conditioning is not running humidity builds up indoors. By installing closable vents in the ceiling, the Solar Whiz will draw the humid hot air out of the house. When returning at the end of the day the house will have been ventilated with outside ambient air and should therefore be fresher and dryer.



## 5/. Ventilate Sub Floor areas

- The Solar Whiz has a gable mount version that can be mounted into the external wall of buildings. This can be used to ventilate Sub Floor areas, by drawing air in through the sub floor vents, creating cross flow ventilation by drawing outside air over the damp soil effectively drawing out the moisture over time. The Solar Whiz then expels the stale damp air outside the building. The advantage the Solar Whiz has over powered fans is that they run when the sun is out and the air therefore relatively dry – unlike timer operated fans which maybe bringing moisture in under the building when it is raining.
- The Solar Whiz gable mount version comes with an external PV panel that can be mounted either on a north facing wall or roof. Being Solar powered the Solar Whiz will only operates when the sun is shining and when the outside air is dry. This means only relatively dry air will be drawn into the Sub Floor aiding the drying process. If air is drawn in when it is raining or at night it is generally adding to the damp under the Sub Floor not reducing it.
- Sometimes the Solar Whiz gable fan in the wall may be sufficient to provide the ventilation in the subfloor required – but often in order to ventilate the whole sub floor connecting it to ducts to suck air from “dead pockets” is necessary for the system to be effective.
- What is the benefit for the home owner? The benefit is to reduce / eliminate damp problems that can cause rising damp, mould, mustiness, rotting floor boards/stumps and attract white ants etc. for a relatively low cost. The Solar Whiz being solar powered has no running costs and is whisper quiet.
- Sub floor Ventilation with a roof mounted Solar Whiz. Sometimes, you may be unable to fit a Solar Whiz gable fan on the wall of the sub floor. On these occasions it would be worthwhile considering to install a roof mounted Solar Whiz and connect it to the subfloor via a duct through a cupboard – or a boxed in duct.

## Why Solar Whiz?

Replacement air: In order for any Solar Whiz installation to operate effectively – replacement air must be accessible e.g. via eave or ceiling vents -or for sub floor applications via vents into the sub floor area to provide cross flow ventilation.

How is it different from other brands

- Designed for Australian roofs – Most other brands available have been designed for the American market - I.e. designed for shingle roofs – with a rigid steel flashing, making it very hard to install on corrugated and other metal roofs as well as tiled roofs.
- Solar Whiz has a 0.9 mm aluminum flashing which is very easy to shape to the relevant roof type making it fast and easy to install
- Solar Whiz offers the most powerful Solar Heat Extraction fan on the Market – SW3000
- Solar Whiz also offers the quietest operation on the market 40dBA (SW1400)
- Night operation – if the customer wish to run the fan at night to continue to lower the temperature in the roof (and the house - if ceiling vents are installed) – SW offers a night operation kit consisting of a relay with mounting plate and a 12 volt power pack, which automatically switches to the power pack, when there is insufficient sun to power the fan.



- Thermostat. The Solar Whiz may be thermostatically controlled –so that it only operates when required. This is generally always recommended for the night pack.
- Stainless steel fasteners (SS316)
- Stainless steel 304 hinges
- Body made of Alloy not steel – making it lighter and much more durable Adjustable Thermostat
- High quality Automotive paint

## SOLAR WHIZ MODELS & OPTIONS

Solar Whiz Models Available:

Solar Whiz sizes SW1400, SW2100, SW3000 are available in the following models:

- Roof Mounted (With or without solar panels) – without PV – is not always available
- Roof Mounted (Bush Fire Rated) – Due to reduced airflow Sw1400 is not stocked in BF version
- Gable Mounted (With or without solar panels)