

## Fan Construction and Components

Solar Whiz has the most comprehensive, flexible and powerful range of Solar Roof Ventilation fans from 1400 m<sup>3</sup>/h to 3000 m<sup>3</sup>/h.

The design and choice of materials also ensures whisper quiet operation as low as 40dBa for the SW1400.



## Applications

Solar Whiz is designed for the Australian market and is easily mounted on a tin or tile roof or in the gable to reduce the heat load on your ceiling by removing hot air from your roof space. Replacement air is best supplied through eave vents or alternatively roof cowls.

Installing closable ceiling vents opening into the roof space allows the Solar Whiz to extract hot air directly from hot rooms a feature especially useful in multistorey homes. Ceiling vents also allow ventilation of the interior to reduce risk of mould and mildew in summer/warmer climates, thereby creating a healthier indoor climate. In some cases it may be beneficial to connect a Solar Whiz directly to one or more internal areas, via ducting, to extract the hot or moist air.

Solar Whiz may also reduce humidity levels in the roof space and protect against moisture damage to the roof structure and insulation. Solar Whiz Gable Fans are also very effective for sub floor ventilation.

## Benefits

- Cools your house or business
- Reduces heat build up in the roof space
- Minimizes the need for air conditioning
- Increases the efficiency of ducted air conditioning and evaporative cooling systems
- Increases comfort levels and/or saves money
- Increases productivity levels
- No running cost
- No carbon emissions
- Quiet operation
- Simple installation
- Safe low voltage installation
- No electrician required
- Reduces moisture levels in the roof space
- Operates when required (i.e. when the sun is shining)
- Protects against moisture damage to roof structure

**\$0 Running Costs**

**100% SOLAR**

Solar Whiz helps Australian homes and businesses save money & increase comfort

Solar Whiz ventilation and cooling systems are a great way to make your home or work environment comfortable and more energy efficient whilst saving money

We have all the accessories you will need to maximise the performance of your system:

- Eave Vents- ensure sufficient air flow into the roof space
- Ceiling Vents- extract hot air directly from rooms
- Thermostat Control- prevents heat loss during winter
- Day/Night Pack allows the Solar Whiz to operate after sunset
- Roof cowls- if you don't have eave vents

We also have the economical and eco-friendly ventilation solution for your home, Business, Caravan, Boat, Car & more!

**Call us: 1300 655 118**

**www.solarwhiz.com.au**

**Global Eco & Environmental Solutions**

Visit our showroom at:

**205 Elgar Rd, Surrey Hills, Vic 3127**

Or contact your local dealer:

## Warranty

The whisper quiet Solar Whiz is designed and manufactured for durability in the harsh Australian conditions and is backed up by a substantial warranty. We have a 10 year warranty on PV panels and a 2 year warranty on all other components. An extended warranty also available.

## Delivery available Australia wide

Disclaimer: Global Eco & Environmental Solutions does not accept any responsibility for events that result from the use of this product or the information provided in this brochure.



## Solar Roof Ventilation and Cooling Systems

Is the heat "getting" to you?  
Are you hot & bothered?  
Are you spending a fortune on air conditioning?

**CUT COOLING COSTS!**



Beat the heat and stay cool and comfortable with Solar Whiz whilst saving money

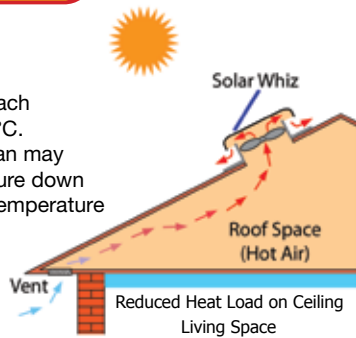
Roof temperatures throughout most of Australia often reach 60°C – 70°C in the summer months.

By ventilating your roof space, Solar Whiz effectively reduces the heat load on your ceiling and helps you keep the temperature inside the house under control, whilst increasing the efficiency of your ducted air conditioning.

## ✓ See How it Works

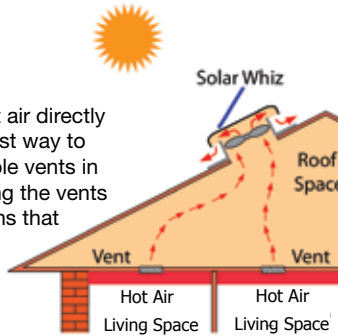
### Standard Installation

In summer roof spaces can reach temperatures in excess of 70 °C. A Solar Whiz heat extraction fan may bring the roof space temperature down close to the outside ambient temperature reducing the heat load on the ceiling by replacing the hot air with ambient air through eave vents.



### Heat Extraction from Rooms

Solar Whiz may also remove hot air directly from specific rooms. The simplest way to achieve this is by placing closable vents in the warmest room(s) and opening the vents into the roof space, which means that the replacement air for the roof space will be partially supplied through these vents.



If required, it is possible to connect ducting to the Solar Whiz to extract air from specific areas.

## ✿ Simple Installation

Solar Whiz is powered by a low voltage solar panel and does not require an electrician or a connection to a power point. No wiring means that the Solar Whiz can be installed quickly and effectively on the roof by any handyman.

Ask for a copy of our detailed DIY instructions.

## ✿ Why not just install a whirly bird?

The average good quality whirly bird moves according to studies about 100 m³/h. In order to keep the roof space temperature close to the outside ambient temperature your roof will require 3-4 air changes an hour. To compensate for resistance, for the cooler replacement air to enter the roof space as the hot air is removed, a significant airflow capacity is required.

As a rule of thumb, Solar Whiz recommends a minimum of 1400 m³/h capacity (SW1400) for a 150m² standard pitched roof for effective ventilation. This is equivalent to approximately 14 whirly birds. But only one roof penetration - not 14!

## ✿ Why are passive / convection systems not enough?

We all know that hot air rises - but it also expands - and it expands in all directions. If you have vents in your roof space they will let some hot air out; however, vents only work when the roof space is already warm and the expanding air starts radiating into your home. To combat this problem, Solar Whiz starts from the moment sun first shines on the roof and therefore prevents the heat from building up.

## Not just hot air!

### Other applications for Solar Whiz:

**Reduce moisture levels:** Solar Whiz is also a very effective way to reduce moisture levels in the roof space. The extraction fan removes moist air, which will combat damaging effects such as condensation in the roof and in extreme cases condensation dripping onto insulation / ceiling causing damage, such as cracking plaster and peeling paint. A Solar Whiz will also help prevent mould and mildew and protects the roofs structure.

**Subfloor Ventilation:** The Solar Whiz has proved extremely efficient for sub floor applications, due to the high volume of air it moves and the very low noise level. However, the biggest benefit of solar sub floor ventilation is the fact that the fan generally ventilates the subfloor when it is sunny and therefore avoids the problem with main powered sub floor ventilation systems, which actually may increase moisture levels under the house, when operating during wet weather.

Please refer to our sub floor ventilation brochure for more information including our smaller solar fans.

## ✿ Where to use Solar Whiz

Retrofitting is easy, but every new building should incorporate one or more Solar Whiz fans to improve energy efficiency and comfort levels. Here is a list of the most popular applications and uses: Homes, sheds, offices, holiday houses, stables, motels, schools, factories, warehouses, nursing homes, storage facilities, consulting rooms, day care institutions, and much more!

## ✿ What if my roof doesn't face the sun?

The Solar Whiz can be turned to face the sun no matter which way the roof is facing so not having a north facing roof is no problem! The adjustable PV panel mounting allows you to choose a suitable angle (up to 80°) for any pitch even if your roof faces south.

**INCREASE COMFORT**

Model	Roof mounted	Gable mounted
Models Available	SW 1400 SW 2100 SW 3000	SW 1400G SW 2100G SW 3000G
Capacity	1400 m³/h 2100 m³/h 3000 m³/h	1400 m³/h 2100 m³/h 3000 m³/h
PV panel Polycrystalline. High-impact resistant panel	Adjustable angle 0-80 degrees 10 watt 20 watt 25 watt	All models adjustable mounting brackets 10 watt 20 watt 25 watt
Fan motor	6-14 volt DC brushless motor with double shielded ball bearings	
Fan Decibels	<40dBA <45dBA <50DBA	<40dBA <45dBA <50DBA
Fan blade	Balanced 4-wing design, ABS polymeric reinforced fan blade with UV protection designed for high airflow and low noise 300 mm diameter	
Fan cap	Aluminium alloy for maximum durability	N/A
Body	Corrosion resistant Steel (superior corrosion resistance suitable for coastal installations)	
Flashing	Aluminium 500 x 500 x 0.9mm	N/A
Coating	Electro Static UV resistant spray cured in high temperature drying process	
Hardware	Cold sheet steel brackets, stainless steel fasteners and screen	
Dimensions	All Models Diameter: 560mm Height: 360mm	All Models Diameter: 500mm Depth: 180mm
Packing Size	640 x 640 x 390mm 640 x 640 x 290mm 670 x 630 x 290mm	520 x 520 x 280mm 570 x 520 x 280mm 670 x 520 x 280mm
Packing Weight	10Kg 11Kg 12kg	7Kg 8kg 9kg
Colour	Black powder coating	
Options	Thermostatic control: Fixed temperature 30°C or adjustable 10-30°C Eave Vents, Ceiling Vents & Roof Cows Night operation	

\* Global Eco & Environmental Solutions reserves the right to alter any of the information in this document without notification.