Fan Construction and Components

Solar Whiz has the most comprehensive, flexible and powerful range of Solar Roof Ventilation fans from 700 m^3/h to 10000 m^3/h.
The design and choice of materials also ensures very quiet operation; as low as 40 dBa for the SW-RAF 900.

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, gable vents or alternatively roof cowls.

Installing closable ceiling vents opening into the roof space allows the Solar Whiz to extract hot air directly from rooms; a feature especially useful in multi-storey 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 environment. In some cases it may be beneficial to connect a Solar Whiz directly to one or more internal rooms, 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.
Dedicated range of sub floor fans also available!

Benefits

$0 Running Costs

- Cools your home 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 can save you money
- Increases productivity level of your employees
- No running cost
- No carbon emissions
- Quiet operation
- Simple and 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

100% SOLAR

Commercial Roof Ventilation & Heat Extraction

Need ventilation for large commercial premises such as a warehouse or a factory?

The Solar Whiz SW-RAF10000 commercial roof ventilator - with a capacity of 10000 m^3/h - is 3 times more powerful than any other solar ventilator and offers the same capacity as the largest powered roof fan available in Australia.

Solar Whiz ventilation and cooling systems are a great way to make your home or work environment more comfortable and 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 eaves

Global Eco & Environmental Solutions

Visit our showroom at:

1135 Toorak Road, Camberwell, VIC 3124

Call us: 1300 655 118

www.solarwhiz.com.au

Or contact your local dealer:

Warranty

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.
Extended warranty also available.

Delivery available Australia wide

Solar Whiz

The Smart way to stay cool

Solar Roof Ventilation and Cooling Systems

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

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

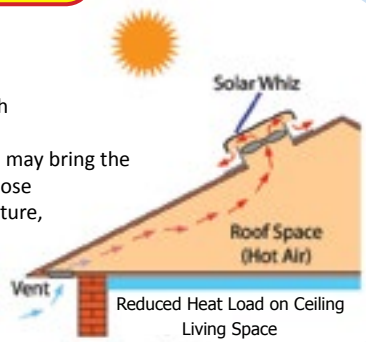
Roof temperatures throughout most of Australia often reach 60°C – 70°C in the summer months.
By ventilating your roof space, Solar Whiz effectively reduces the heat load on your ceiling and helps you keep the temperature inside the house under control, whilst increasing the efficiency of your ducted air conditioning.

www.solarwhiz.com.au

✓ See How it Works

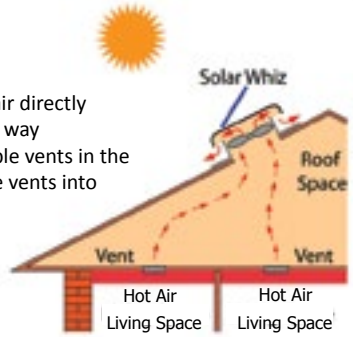
Standard Installation

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.
This 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 during standard operation.
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?

According to studies, the average good quality whirly bird moves about 100 m^3/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 and allow 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 900 m^3/h capacity (SW-RAF 900) for a 150 m^2 standard pitched roof for effective ventilation. This is equivalent to approximately 9 whirlybirds. However, the Solar Whiz only requires one roof penetration/installation – not 9!

❄ 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 passive vents in your roof space they will let some hot air out, however passive 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 the sun first shines on the roof and therefore prevents the heat from building up.

❄ Not just hot air!

INCREASE COMFORT

SW has some other great applications!

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, therefore combating 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 roof 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 low noise level at max capacity. The biggest benefit of solar sub floor ventilation is that the fan will be functioning predominantly during sunny periods, where humidity levels are at their lowest. As a result, the fan will be moving fresh, dry air through the subfloor; for maximum drying effect. Mains powered fans will continue to run in humid conditions e.g. during rain which actually increases moisture levels in the sub floor.

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.

Model	Roof Mounted	Gable Mounted	Commercial
Models Available	SW-RAF 700, 900, 1400, 2100	SW-RAF 700G, 900G, 1400G, 2100G	SW-RAF 10000 Other Models Available See Commercial Brochure
Capacity	700 m^3/h, 900 m^3/h, 1400 m^3/h, 2100m^3/h	700 m^3/h, 900 m^3/h, 1400 m^3/h, 2100 m^3/h	10000 m^3/h
PV panel Polycrystaline. High impact resistant panel	Adjustable angle 0-80 degrees 10 watt, 10 watt 20 watt, 35 watt	All models adjustable mounting brackets 10 watt, 10 watt 20 watt, 35 watt	Adjustable angle 0-80 degrees (mounted separately) 150 Watt
Fan motor	10 - 24 Volt DC		10 - 26 Volt DC
	Brushless motor with double shielded ball bearings		
Fan Decibels	<40dBA, <40dBA <45dBA, <60dBA	<40dBA, <40dBA <45dBA, <60dBA	<70 dBA
Fan Cap	Aluminium alloy for maximum durability	N/A	Aluminium alloy for maximum durability
Body	Corrosion Resistant Steel (superior corrosion resistance suitable for coastal installations)		
Flashing	Aluminium RAF700 400 x 400 x 0.9mm RAF900-2100 500 x 500 x 0.9mm	N/A	Aluminium SW-RAF 10000 915 x 915 x 0.9mm
Coating	Electro Static UV resistant spray cured in high temperature drying process		
Hardware	Cold sheet steel brackets, stainless steel fasteners and screen		
Dimensions	RAF 700 Diameter 460mm Height: 260mm Throat: 225mm Other Models Diameter: 560mm Height: 360mm Throat: 330mm	RAF 700G 285 x 295 x 200mm Other Models Diameter: 500mm Depth: 180mm	SW-RAF 10000 Diameter: 900mm Height: 305mm Throat: 620mm 150W Panel: 1630 x 760 x 40mm
Packing Size	RAF 700: 475 x 475 x 280mm RAF 900 + 1400: 620 x 620 x 280mm RAF 2100: 680 x 610x 280mm	RAF 700G 430 x 310 x 295mm RAF 900G + 1400G 515 x 515 x 250mm RAF2100G 690 x 620 x 250mm	SW-RAF10000 920 x 920 x 340mm 150W Panel 1650 x 725 x 70mm
Packing Weight	6Kg, 10Kg 11Kg, 14kg	5Kg, 6Kg, 7Kg, 10kg	SW-RAF 10000: 8kg 150W Panel: 18kg
Colour	Black powder coating		
Options	Thermostatic Control: Fixed Temperature 30°C or adjustable 10-30°C. Eave Vents, Ceiling Vents & Roof Cowls, Night operation 300mm Adaptor for ducting		

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