## How it works - Solavent



# Here is the difference between other roof vents and the Sola-vent

Firstly, the Sola-vent is equal to the effectiveness of nine (9) Whirly Birds. This has been confirmed by one of our customers, an Engineer, who actually purchased one of our solar roof vents.

Here is the Best part - the Sola-vent has a built in Thermostat, this is what sets it apart from the others. The

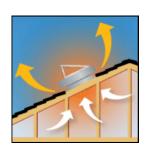
thermostat ensures that there is always an airlock in the roof cavity. **WHY**, this airlock ensures year round insulation at a **constant temperature** that ensures **everyone room** in the house is at an even temperature. The obvious benefit is often no air-condition operation summer or winter except on extreme days.

### **Roof cavity Venting Key Concepts**



Roof ventilation is an important aspect of maintaining the structure of your home as well as saving energy. Improper roof venting can lead to moisture buildup that can cause mould growth and also cause wood rot. The key to proper roof ventilation is to create continuous air circulation throughout the roof space while preventing moisture from entering. In an ideal venting system, air should enter the roof from the eaves or soffits and escape outside at the roofs ridge.

#### Solar Roof Fans Work With Your Existing Passive Vents



If you've ever been in your roof cavity, you know how just hot the space can get, especially in summer months. The sun beats down on the roof surface and heats up the stagnant air inside the roof space. Building codes require homes to have a passive vent system. But, passive ventilation does not provide the pressure needed to force the air through the roof and outside. That's where a motorised fan comes in. A roof fan placed at the roof's ridge will pull air in from outside, force it to move through the entire roof space and escape through the roof vent. In summer months, a solar roof fan can reduce the temperature up to  $40^{\circ}\text{F!}$ 

#### **Roof Venting Extends the Life of Your Roof**

The most obvious reason for roof ventilation is to lower the roof temperature during the warmer months. Roof temperatures can exceed 160°F during hot summer days. Proper roof ventilation can reduce those temperatures. No matter how much insulation is in the roof, heat can still transfer into adjacent living spaces. In fact, extra insulation can actually add to temperature increases because heat is trapped in the insulation. Proper ventilation removes this excess heat build-up. As the heat is exhausted, the workload of your air conditioning system is reduced, thereby saving energy costs and even extending the life of your air conditioning system.

#### **Reduces Moisture Build-up in the Roof space**



In the cooler months, moisture is the most serious concern. Even with the use of vapour barriers to keep moisture from entering the roof, there are air leaks around ceiling light fixtures, bathroom exhaust fans that allow unwanted moisture into the roof. Moisture condensing on the framing members and the inside of the roof deck can lead to the growth of mould, mildew and rot in the roof deck and framing. A good indicator of a moisture problem is rusty roof nails sticking through the roof deck.