

Warm or Cool air from an extended *SolarVenti* system

SolarVenti®

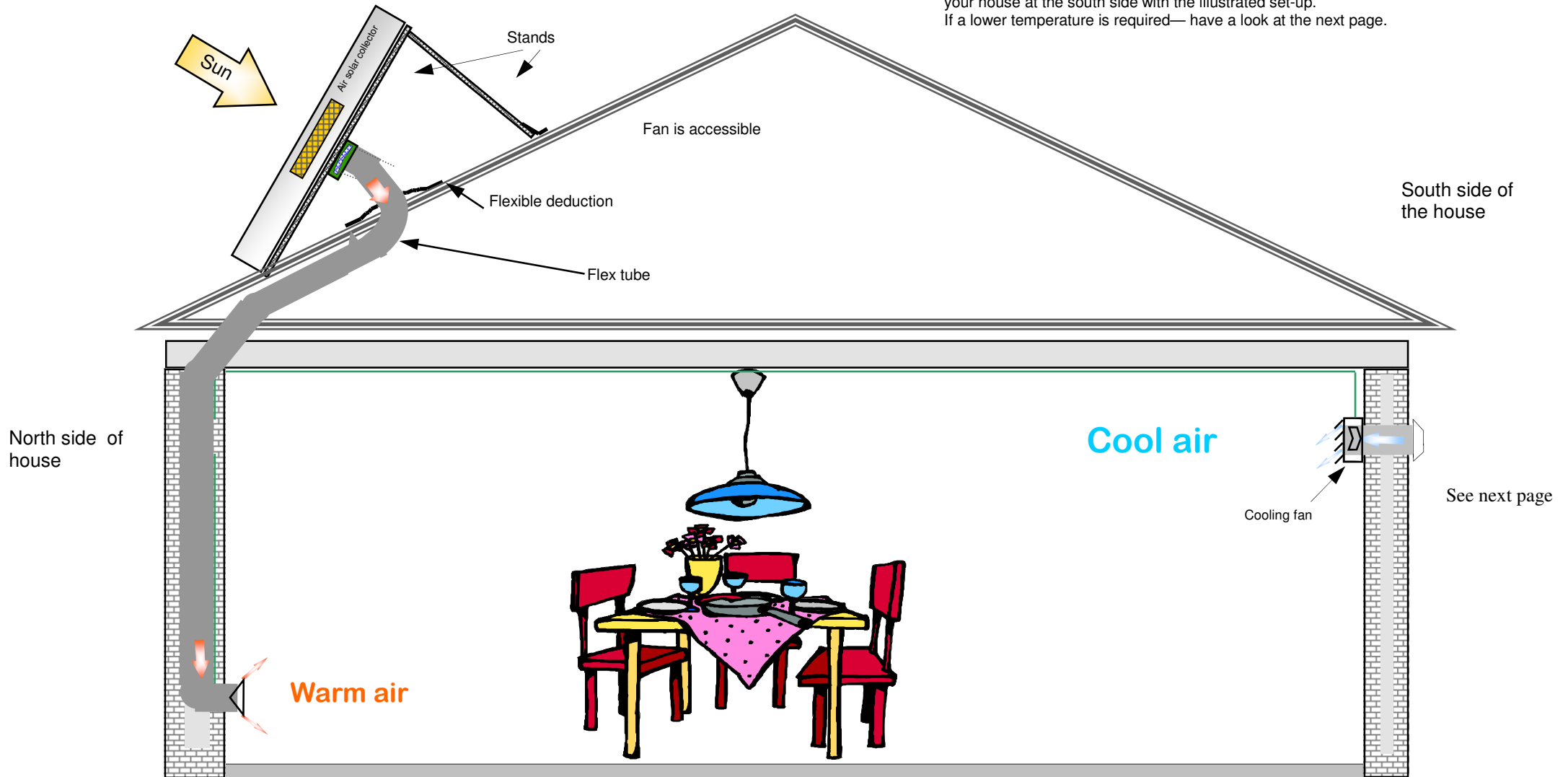
Function - principle

Whenever the sun shines, the fan in a SolarVenti system will be activated. In an extended system the thermostat setting determines which ventilator will run. If the thermostat is set at 23 °C and the room temperature is lower than that, the main (heating) fan will be running. If the room temperature is higher than the temperature setting, the cooling fan will run until the room temperature is below the chosen temperature (or the sun stops shining).

That means that the system will aim to maintain a comfortable temperature (e.g. 23 °C) while keeping the air fresh and circulating all the time.

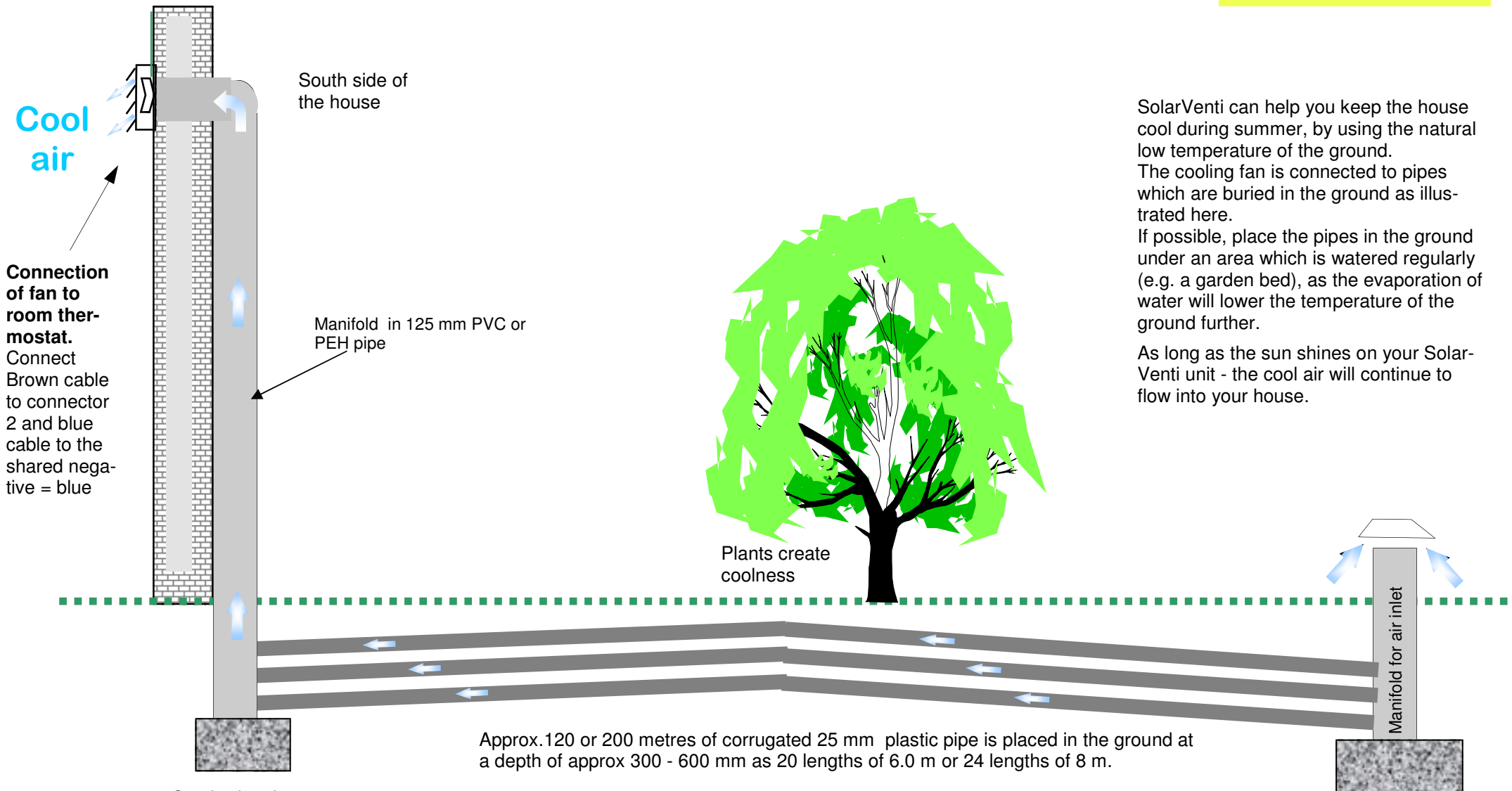
Notice that the temperature indoor cannot be lower than the temperature outside your house at the south side with the illustrated set-up.

If a lower temperature is required— have a look at the next page.



Principle for installation of in ground pipes for cooling with SolarVenti

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Cool air

South side of the house

Connection of fan to room thermostat.
Connect Brown cable to connector 2 and blue cable to the shared negative = blue

Manifold in 125 mm PVC or PEH pipe

Plants create coolness

Manifold for air inlet

Crushed rock to allow drainage of water generated by condensation.

Approx. 120 or 200 metres of corrugated 25 mm plastic pipe is placed in the ground at a depth of approx 300 - 600 mm as 20 lengths of 6.0 m or 24 lengths of 8 m.

The pipes can be placed in many ways as long as you are aware of the following:

The highest point may be in the middle to ensure that condensation will run off into the drains at the bottom of the manifolds. The pipes may also be installed sloping only in one direction.

Ensure that condensation can not accumulate anywhere to prevent airflow through the pipe.

The pipes are connected to the manifolds by pushing the 25 mm corrugated plastic pipe into the pre-drilled holes in the manifolds.

Crushed rock to allow drainage of water generated by condensation.

SolarVenti can help you keep the house cool during summer, by using the natural low temperature of the ground. The cooling fan is connected to pipes which are buried in the ground as illustrated here.

If possible, place the pipes in the ground under an area which is watered regularly (e.g. a garden bed), as the evaporation of water will lower the temperature of the ground further.

As long as the sun shines on your SolarVenti unit - the cool air will continue to flow into your house.