Run On Sun

Evacuated tube solar hot water system designed in Australia by Australian engineers:

Premium solar ready tanks – 10-year warranty:

Manufactured as a premium long life tank, we are now able to offer a 10-year warranty on all new tanks installed from October 2013.
The whole system including the tank is designed in Australia by our solar engineer to achieve maximum energy efficiency.
This is why the STC rebates on these systems are one of the highest rebates available in Australia.
If you live in Victoria, there is an additional VEEC rebate and if you meet the criteria, there is a solar homes Victoria $1000 rebate.

Exceeding Australian standards for heat loss:

All the Run On Sun tanks for the split systems are manufactured to exceed the strict Australian standards for heat loss by 14%.

Grundfos solar pump station attaches to the tank:

The tanks are equipped with customised fittings for attaching the waterproof Grundfos solar pump station to the tank. Alternatively, the pump station can be attached to a wall close to the tank.

Electric boosted tank:

The electric element and thermostat are located just above half way up the tank, so that in the rare event electric boosting is required, only the water in the top half of the tank will be heated, using half the energy required to heat a standard tank.

Gas boosted tank:

These tanks are designed to work with the Rinnai S20 or S26 instantaneous gas boosters.
The booster is situated on an outside wall between the tank and your hot water outlets.
Designed only to switch on in the rare event that the water entering the booster is below the boosters pre-set temperature.
During long periods of bad weather the flame will be automatically ignited and adjusted according to the water temperature entering the booster, making this the most energy efficient method of gas boosting available. This family of gas boosters does not require a pilot light.

Not all evacuated tubes are the same

“Run On Sun” evacuated tubes:

All the evacuated tubes supplied by “Run On Sun Australia” are known as a “Sydney Tube”.
Sydney University produced two patents, the first patent was for an aluminium nitrate solar selective coating and the latest patent was for the copper solar selective coating, which is close to 14% more efficient.
The lower efficiency tubes appear dark grey or black and the copper coated tubes appear dark blue. All “Run On Sun Australia” evacuated tubes are made with the latest copper coating. Both these coatings are available within the Australian market; different glass thicknesses are also available.
All “Run On Sun” tubes are made with the thickest glass possible, (2-mm) making them not only more efficient but more durable.

Flat to the roof frame

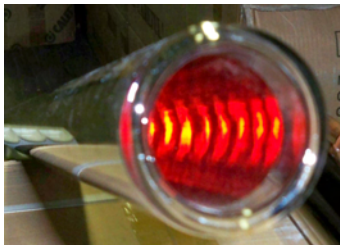
15 and 30-degree frames

The solar manifold casing and frame are both made from stainless steel. This stops electrolysis, which occurs when dissimilar metals come into contact.

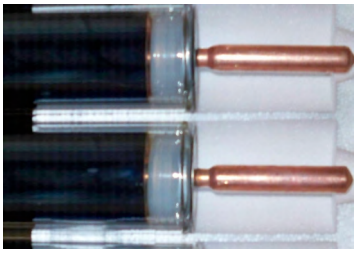
The solar manifold is the key component where the water is heated. It contains a pure copper header pipe with various amounts of tube ports silver soldered into the copper header.
The copper header is surrounded by high-density rock wool, which is incased into a stainless steel housing. This is known as the evacuated tube solar manifold.
To the best of our knowledge, the “Run On Sun” solar collector is the only brand in Australia that uses both stainless steel manifold housings and stainless steel frames; this eliminates the risk of corrosion that is caused when two dissimilar metals come into contact in a wet area such as a roof.

“Run On Sun” solar collectors are not only tested to Australian standards, they have been tested to European, US and Canadian standards, making them a reliable choice.

Copper inner coating



Copper heat pipe



Tube base and low reflection outer coating

Quality control throughout the whole system.

Low temperature heat pipes:

The boiling point of the small amount of fluid inside all “Run On Sun” heat pipes is just 25-degC.
This means that they can produce heat earlier in the morning, late in the afternoon and in overcast conditions.
Once the copper coating on the inside of the tube becomes 25-degC, the copper heat pipe absorbs this heat energy and starts to work, becoming 1000 times more conductive than a copper rod.
The temperature inside the tube becomes hotter while exposed to light and can reach temperatures as high as 180-degC, the steam inside the heat pipe becomes the same temperature as the inside of the tube.
The inside of an evacuated tube can reach these sort of temperatures regardless of the ambient temperature outside, that is why these systems are so effective in Canada and Europe.
We have tested other brands of evacuated tubes with heat pipes against our own,
Most have a start up temperature of 30-degC; The “Run On Sun” heat pipes were the first to become warm in the early morning and the last to cool down in the late afternoon due to the low boiling point of the heat pipe fluid that produces the steam.

Australian structural and mechanically engineered:

Every system that we sell comes with a cyclone rated mounting system that is built with a 4-1 safety factor making them suitable for installations in and around Broome, the highest cyclone rated region in Australia.
Both the frame, mounting kit and fixings are made from high-grade 2-mm thick stainless steel. Expensive pure silicon bricks are supplied, rather than low cost rubber, to make sure they stay solid over time and protect water collection from contamination, they go between the roof and the mounting rails allowing leaves to wash under them rather than building up behind them.

Why do the “Run On Sun” split systems cost less than other brands?

The main reason is that in most cases, we sell direct to the public and do not need to protect the big margins required by most distribution outlets.
Because “Run On Sun” sells direct to the public, we get paid up front and do not end up with bad debts, which need to be built into the price structure.
“Run On Sun” does have a trusted Victorian distributor who like us, is prepared to work hard with a smaller margin than normal industry standards.
We also sell to some plumbers who are happy to make a smaller margin on the product and get paid for the installation.
In 2019 we built our own warehouse, which reduced our overheads adding extra security to our long warranties.
My whole philosophy is to produce the highest quality and most efficient solar hot water systems in Australia that can be sold for a fair price.

Components included with each system.

Premium electric boosted tanks:

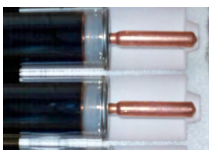
270, 340 and 450-litre capacity tanks.
Electric boosted models include the mid-tank 3.6Kw quick recovery element and thermostat.

Premium gas boosted tanks:

270, 340 and 450-litre capacity tanks.
The 270-litre tank includes the Rinnai S20 solar booster.
The 340 and 450-litre tanks include a choice of the Rinnai S20 or the Rinnai S26 gas booster.

“Run On Sun” evacuated tube collector:

The 270-litre tank comes with a 24-tube collector.
The 340-litre tank comes with a 30-tube collector.
The 450-litre tank comes with two 24-tube collectors.
Each evacuated tube collector includes a flat to roof frame, a 15-degree frame, and a 30-degree frame like the one in the picture.
Each frame comes with a stainless steel cyclone rated mounting kit engineered with a 4-1-safety factor.



Includes the best evacuated tubes available:

All “Run On sun” solar water heaters include the latest copper coated 2-mm thick evacuated tubes that were patented by Sydney University.

Grundfos solar pump station:

The pump and controller station includes the most advanced low energy (18-watts) Grundfos solar pump with unions, flow controller and one-way valve.
The system controller is Australian designed and comes with USA designed thermo sensors, all built into a UV resistant weather proof housing that attaches to the tank.

Quality control:

Every tube is checked, the frame is checked, and two tubes of heat conduction paste are added to every frame box before the systems are packed onto a heavy-duty pallet.

Ready for dispatch:

A finished 48-tube system professionally packed and ready for road freight to almost any destination in Australia.

2025 Inflation fighter inclusions: Save at least $1200

All the inclusions listed bellow help to make sure that the installation will cost a lot less and quality parts will be used.

- All valves & brassware for the tank are included. ($460 added value)
- All valves & brassware for the pump station are included. ($120 added value)
- Heavy-duty stainless steel pitched frames are included. ($160 added value)
- Cyclone rated roof-mounting kit is included. ($360 added value)
- 6 lengths of high temp pipe insulation are included. ($96 added value)
- A roll of aluminium tape for the insulation is included. ($22 added value)
- Every customer automatically receives our after sales service guarantee that allows you to speak directly with Andrew, the designer of these systems.
- Genuine warranty, we own our own warehouse so we are here to stay just like our previous 15-years in business. In 2021 & 2022 some Companies who were offering long warranties closed the doors leaving customers without any warranty at all

Complete system cost before any rebates or discounts are deducted:

Electric boosted models:

SPLIT250-24EL $3990
SPLIT315-30EL $4440
SPLIT400-48EL $5580

Gas boosted models:

SPLIT250-24G $4790
SPLIT315-30G $5240
SPLIT315-30G26 $5340
SPLIT400-48G26 $6480

To calculate the complete system cost after the STC rebates:

1. Go to link https://www.rec-registry.gov.au/rec-registry/app/calculators/swh-stc-calculator
2. Choose System brand (Run On Sun Australia)
3. Choose System model.
4. Add expected installation date.
5. Add your postcode, tick the disclaimer and press calculate.
6. The current STC value is listed near the top of our home page, multiply this dollar amount by the amount of STC's calculated or contact Run On Sun Australia.

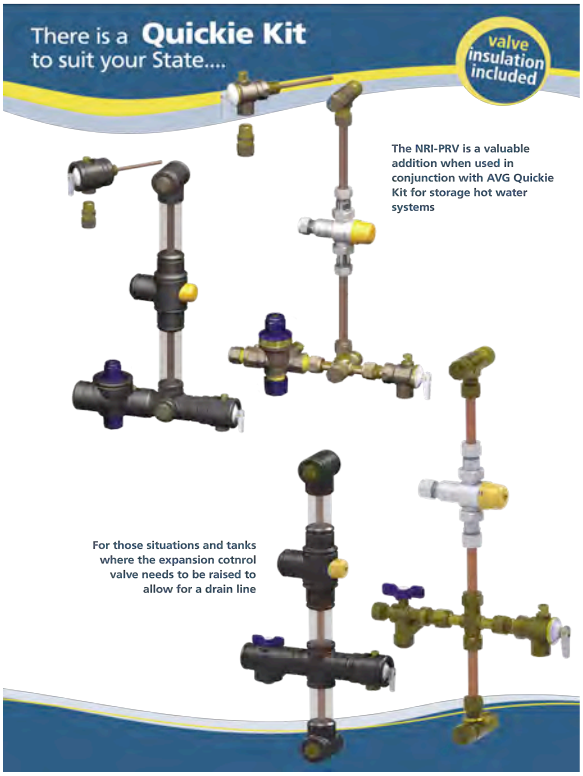
STC's are paid directly to you, normally within 7-days from the installation date.
Victoria –Solar homes rebate of $1000 to eligible customers for the above electric boosted models.
Victoria- VEECS rebate available for any electrical hot water system change over.

Note- Actual tank capacities:

270-litres with 250-litres hot water delivery.
340-litres with 315-litres hot water delivery
450-litres with 400-litres hot water delivery.

Optional components offered to all customers at a reduced cost.

To make your install as painless and cost effective as possible,
“Run On Sun Australia” bulk buys the quickie kits and insulation so that we can offer them to all our customers for a reduced price, this will save you hundreds of dollars off the installation cost.



The AVG solar quickie valve kits are a great product that makes the plumbing work so much faster.
Each kit includes all the valves and valve insulation gloves; they also come with all the tank fittings.
We only supply the premium kit, which includes an expansion valve that is not mandatory in all States, but it reduces water wastage due to hot water expansion.
The engineers at “Run On Sun Australia” have looked into every aspect to make sure your system works to its maximum performance.

15-mm quickie kit to suit the SPLIT-250 and the SPLIT-315 electric and gas boosted models.
RRP $450
Now included in the price for 2025 only.

20-mm quickie kit to suit the SPLIT-400 electric and gas boosted models.
RRP $570
Add $120 if the bigger kit is needed. 2025 only.

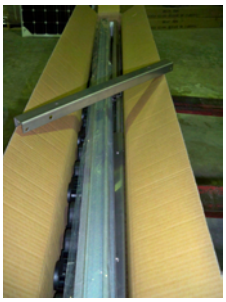
The Thermobreak solar heat and UV resistant copper pipe insulation is an industry standard for solar applications that require a higher level of heat resistance.

15-mm for the collector loop on all “Run On Sun Australia” split systems.
RRP for a 2-meter length $20.
Extra lengths $16 each. 6 lengths are now included for 2025 only.

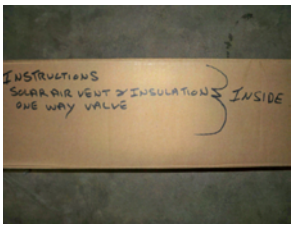
20-mm for pipe runs to and from the SPLIT450-48 systems.
RRP for a 2-meter length $24.
Your price $18.

Your installer is required to use solar rated insulation on all pipe work.

Quality controlled packing procedure to get a system ready for road freight to anywhere in Australia.



Every frame box is opened and checked to make sure it is correct and complete before it is packed and leaves our warehouse.



Check valve and instructions are added to the frame box at our warehouse.

Every tube is checked in our warehouse before been packed onto the pallet

The serial number is recorded from the compliance label and the manifold connectors are added to the solar manifold box before it is packed onto the pallet.

Tubes are packed first, followed by the frame and manifold boxes. The pump and solar controller go in the space at the end of the tube boxes. The pallet is then fully encapsulated.

The encapsulated pallet is finished with warning stickers and is then moved outside our warehouse ready to be picked up for road freight to anywhere in Australia.

Specifications

Solar collector weights:

24-tube collector mounted onto the roof 95-Kg
30-tube collector mounted onto the roof 110-Kg
2 x 24-tube collectors mounted onto the roof 190-Kg

Solar collector footprint:

24-tube collector mounted onto the roof
2150 mm (W) x 2000 mm (L)
30-tube collector mounted onto the roof
2650 mm (W) x 2000 mm (L)
2 x 24-tube collectors mounted onto the roof
4300 mm (W) x 2000 mm (L)

Solar tank size:

270-litre capacity tank 648-mm (D) x 1398-mm (H)
340-litre capacity tank 648-mm (D) x 1700-mm (H)
450-litre capacity tank 713-mm (D) x 1713-mm (H)

Manufacturer-Run On sun Australia P/L:

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andrew@runonsun.com.au

Victorian distributor:

Progressive solar
Noel Toumbourou (MD)
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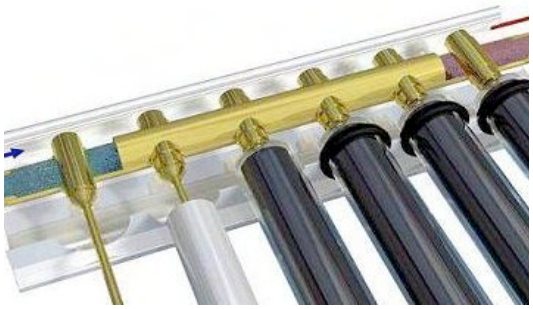

Some reasons why a Run On Sun evacuated tube system may be a better choice than other types of water heaters:

Compared with other similar brands, we have listed most of the extra benefits in this info pack. We have also value added over $1200 of extra value for 2023.

We hear reports that some people are using solar panels to heat a standard electric water heater.
Roof space is critical, an evacuated tube collector over a 2 square meter area can produce close to 2.8 kilowatts of heating energy. Modern high-energy solar panels using the same area can only produce around 0.9 Kilowatts of heating energy.
This is why it makes good sense to include a Run On Sun collector into that valuable roof space to achieve close to triple the heating energy of solar panels.

Older style solar water heaters that use the standard heating panels do not have a vacuum inside the panels.
Run On Sun evacuated tubes contain a vacuum, heat energy does not escape through a vacuum; it goes into the water instead.
Due to the older style panels been flat, they work at their best when the sun is directly shining on them; evacuated tubes have a 360-degree heating surface.

The simple reason we don't supply heat pumps is to not disappoint our customers in the long term.
Bellow are 5 points that keep us skeptical.

1. The COP rating (Kilowatt input to kilowatt output) can be deceiving; it is usually shown at an ambient temperature of 25-DegC.
   In winter when temperatures drop, the COP also drops.
   It may be worthwhile asking for a COP to temperature chart to check the real savings in COP for your area before purchase.
2. Limited lifespan. The longest warranty we can find on the higher priced models is only 6 years on all the electronic components, solenoid valves and compressor, many customers who own a heat pump call me soon after their warranty has expired and ask if they can add an evacuated tube collector to the heat pump tank because the tank is OK, but the heat pump has stopped working.
3. The ongoing noise can be annoying.
4. The difficulty of problem solving when things go wrong.
5. Different trades may be needed to fix a complex problem.
   A simple example can be, and do I need a plumber, a sparky or a refrigeration mechanic. This can be costly.

   Run On Sun has been approached by various heat pump manufacturers over the last 14-years. During those years, we have also been approached by many heat pump owners looking to change over to evacuated tubes, their past experience is what convinces me to think that the long term value in domestic heat pumps is hard to see.
   Run On Sun totally relies on a happy customer to spread the word about our high quality solar water heaters.