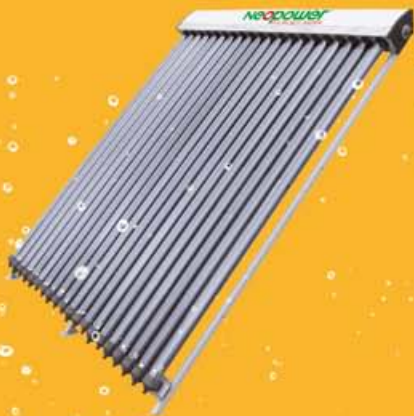


# Solar Hot Water Systems



**Neopower**<sup>®</sup>  
SOLAR HOT WATER

The Best Choice for Solar Hot Water





# About Neopower<sup>®</sup> SOLAR HOT WATER

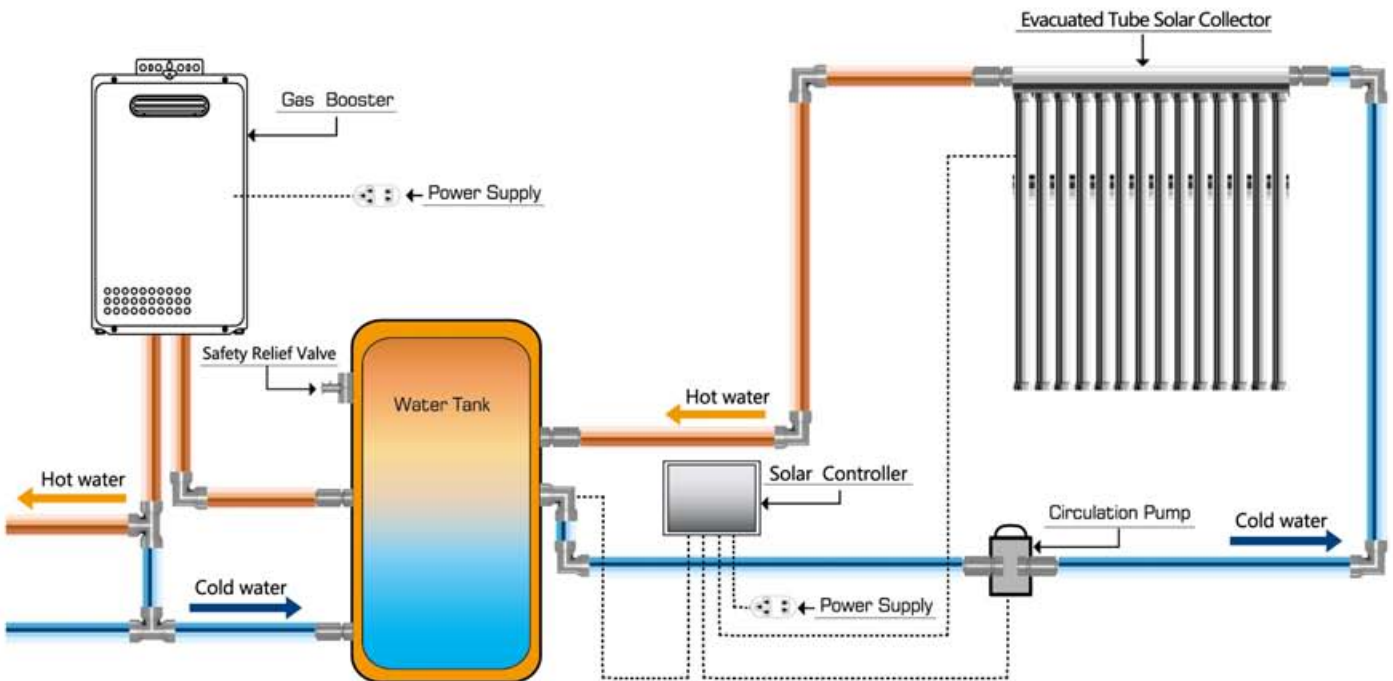
Neopower Solar Hot Water Systems are proudly brought to you by Imaca Pty Ltd. Imaca has developed and manufactures one of the most advanced solar hot water system in Australia.

All Neopower solar hot water systems are meticulously designed and manufactured under strict quality assurance procedures which comply with WaterMark and OceanaMark.

The proven and certified Neopower solar evacuated tube technology provides highly energy-efficient hot water solutions with gas or electric boosted options.



## Gas Boosted Solar Hot Water System



Model Name	No. of people	Container Model	Tank Capacity (Litres)	Hot Water Delivery (Litres)	Evacuated tube	No. of Tubes	Gas Booster
STB-250L-NS20-ET20	1-3	ST-250L-0	270	250	SA58/1800-20R	20	Rinnai S20NG
STB-250L-LS20-ET20	1-3	ST-250L-0	270	250	SA58/1800-20R	20	Rinnai S20LP
STB-250L-NS20-ET25	2-4	ST-250L-0	270	250	SA58/1800-25R	25	Rinnai S20NG
STB-250L-LS20-ET25	2-4	ST-250L-0	270	250	SA58/1800-25R	25	Rinnai S20LP
STB-315L-NS20-ET30	4-6	ST-315L-0	340	315	SA58/1800-30R	30	Rinnai S20NG
STB-315L-LS20-ET30	4-6	ST-315L-0	340	315	SA58/1800-30R	30	Rinnai S20LP
STB-315L-NS26-ET30	4-6	ST-315L-0	340	315	SA58/1800-30R	30	Rinnai S26NG
STB-315L-LS26-ET30	4-6	ST-315L-0	340	315	SA58/1800-30R	30	Rinnai S26LP
STB-400L-NS26-ET40	6-8	ST-400L-0	450	400	SA58/1800-40R	40	Rinnai S26NG
STB-400L-LS20-ET40	6-8	ST-400L-0	450	400	SA58/1800-40R	40	Rinnai S26LP

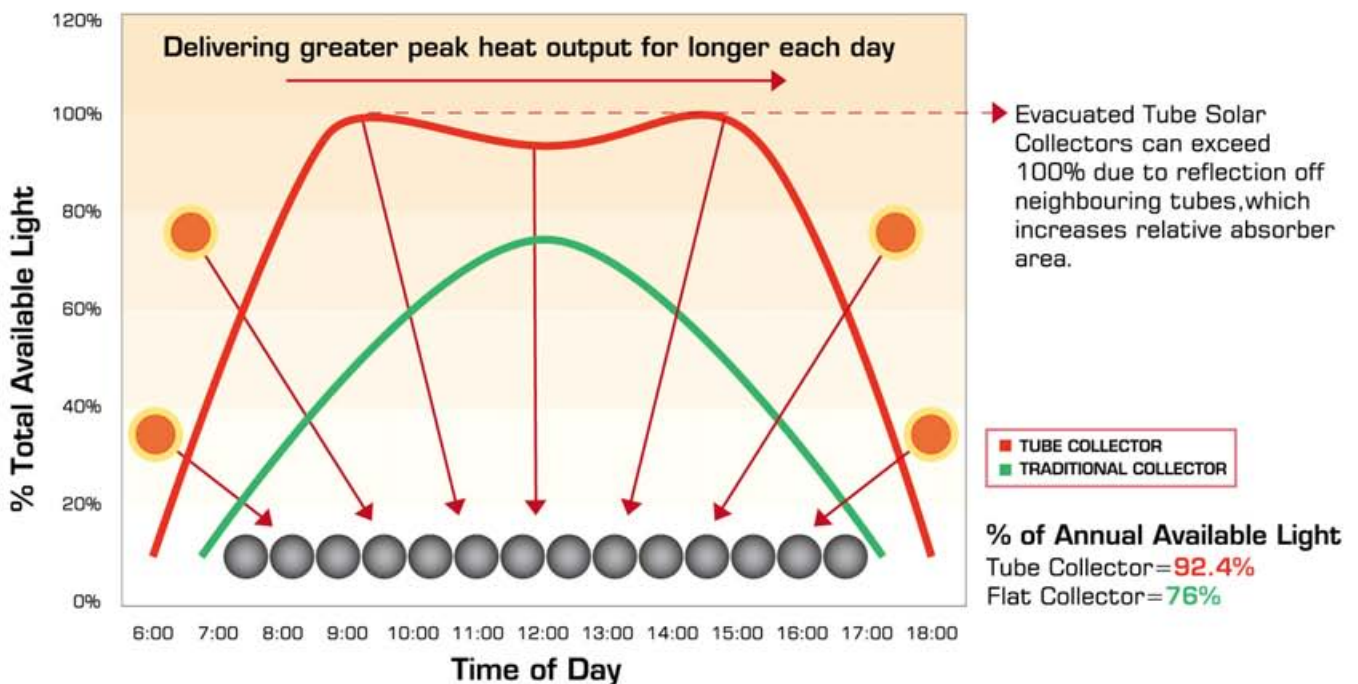
# Neopower solar collector (evacuated tube)

## Advantages

- 1) Positive sun tracking due to cylindrical absorber shape.
- 2) A vacuum seal in the glass tube delivers a high level of insulation and eliminates conductive and convective heat loss.
- 3) 2mm toughened borosilicate glass tubes.
- 4) Absorber coating retains up to 97% heat.
- 5) Naturally self-cleaning by design breakages.
- 6) Flat and pitched roof mounting systems available.
- 7) Can be used in subzero temperatures.
- 8) Certified – Australian Standard 2712.



Evacuated tube specifications	15 Tube	20 Tube	25 Tube	30 Tube
Collector Size (h*w*d)	2020*1410*155	2020*1825*155	2020*2240*155	2020*2655*155
Total Area (m <sup>2</sup> )	2.85	3.69	4.52	5.36
Weight (kgs)	58.3	77.1	96.1	114.1
Manifold Material	Anodized Aluminium Alloy			
Evacuated Tube	Hail resistant to AS/NZ 2712			
Tube Glass Type	Borosilicate Glass (high heat resistance)			



# WATER TANK

**1** Ternary Overheat and Overpressure Protections. Thermostat, Overheat ECO, and TP Relief Valve.

**2** Quality Super Thick Steel Plate. The special quality 2.5mm~3.5mm steel plate shaped by automatic bending roll machine and welded by imported program-controlled welding facilities, ensures the excellent pressure-bearing ability of the vitreous enamel tank.

**3** Vitreous Enamel Tank. The enamel frit for interior tank is provided by the professional enamel supplier. We wet spray the enamel frit onto the steel plate that has been degreased and hot-blasted, and then sinter it at 900°C so that the enamel lining and the steel plate fuse together. This enables the Neopower tank's resistance to corrosion, fatigue and impact.



**4** Super Large Anode Protection. The quality anode magnesium rod is made according to the German DIN4753 standard. It is twice as big as that in other electric water heaters in order to better protect the tank from corrosion.

**5** Environment-friendly Fluoride-free Polyurethane Foaming Insulation Layer. Super thick fluoride-free polyurethane froths evenly under high pressure so that it has great heat retention. The tank is able to still deliver hot water even after 24 hours if required.

**6** High Quality Colorbond Steel Shell. The colorbond steel shell looks elegant, and wears well because it is water-proof and corrosion-resistant meeting the IP34 standard. This kind of water heater can be installed both indoors and outdoors.

Container Model	Storage Capacity (Litres)	Hot Water Delivery (Litres)	Diameter (mm)	Height (mm)
ST-250L-O	270	250	648	1388
ST-315L-O	340	315	648	1690
ST-400L-O	450	400	731	1703
ST-E250L-O	270	250	648	1388
ST-E315L-O	340	315	648	1690
ST-E400L-O	450	400	731	1703

# Circulation PUMP



**GRUNDFOS** 

## Grundfos Pump

Grundfos is one of the leading global suppliers of pump technology in the world. The compact design of the Grundfos Circulation pump simplifies installation and it is very quick in operation. As well the low wattage motors are energy efficient and provide a long and reliable service life.



# Gas Booster

# Rinnai

## Rinnai booster

- Quality Japanese design & manufacturing
- Compact design allowing installation flexibility
- Only heats the water when needed
- The gas booster is always available as a backup, therefore hot water will never run out
- Regardless of whether your hot water is used in the morning or evenings, gas boosting is an efficient, convenient & cost effective boost option

- Designed with low burner settings making them the most compatible with lower flow rated (WELS) showers & basin outlets
- Choice of 2 gas booster sizes to suit small to large homes (20L&26L)
- Internal solar booster option (26L)
- 10 year warranty on heat exchanger





# QUESTIONS & ANSWERS

**Q** Why is the evacuated tube panel more efficient than the flat plate panel system?

**A** The keys to achieve higher efficiency are to maximize solar heat gain and minimize heat loss. Inside each evacuated tube, a special coating absorbs solar heat and transfers this to an inner copper tube. Having an evacuated space between the two fused glass tubes provides perfect insulation and also maximizes the heat being transferred to the inner tube. Evacuated tube collectors are up to 80% more efficient than flat panel collectors sold on the market today. Flat panel solar collectors generally have poor insulation features, causing them to have increased convective heat loss. This alone decreases their efficiency significantly in the colder months, as heat is lost quickly from the panel. Flat panel systems can produce very good heat output similar to evacuated tube collectors in the warmer months; however they perform very poorly during the cooler months, requiring a greater reliance on back up energy to maintain a good, constant supply of hot water.

**Q** What happens if the Evacuated Tubes are damaged in a storm or broken by accident?

**A** The Neopower collector tubes are made from extremely clear and strong borosilicate glass which is highly resistant to damage under various weather conditions. However, if a glass tube is broken, the system will still work and there is no heat loss except from the broken tube. The tube is easily replaceable.

**Q** Will a Neopower hot water system work on winter and cloudy days?

**A** The vacuum between the tubes in our system virtually eliminates heat loss to the external air, thus making these collectors particularly useful in areas with cold and cloudy winters; even in areas with the coldest temperature reached is -40°C.

**Q** Why do evacuated tube panels work longer hours than flat plate panels?

**A** The cylindrically constructed evacuated glass tubes allow them to absorb sunlight perpendicularly from all directions. Neopower Evacuated glass tubes will pick up more solar energy from sunrise till sunset allowing them to achieve higher temperature and with greater efficiency. With flat plate panels, the sun is only perpendicular to the collector around noon each day. Therefore evacuated glass tube panels will pick up solar energy from sunrise till sunset which achieves both higher temperatures and higher efficiencies than flat plate collector.

**Q** Does the high efficiency last long?

**A** The results of stagnation tests by laboratories show Neopower collectors can maintain optimal efficiency performance. That means our collectors can work for many years as good as new.

**Q** Is a Neopower Hot Water System a good investment for me?

**A** Air conditioners and heaters are seasonal expense appliances, while hot water is a constant daily expense to the family home. Savings can be huge when you connect an evacuated tube solar H/W system to your home. Fuel bills will be drastically reduced as you are taking free energy from the environment as an alternative for high cost Gas & Electricity. In Australia, the full cost to purchase a Neopower H/W system can be recovered in as little as 4 years taking into account current government rebates.

**Q** Can the Neopower Solar collector be mounted on a flat roof?

**A** Yes. Neopower Collectors can be mounted on a flat surface at 5+ degrees or by using a frame.

**Q** Can we get Government rebates for purchasing a Neopower Hot Water System?

**A** Yes. All the models of Neopower Hot Water Heaters are accredited by ORER (Office of Renewable Energy Regulator). Government rebates are available for most of the systems being replaced today. Rebates differ significantly from state to state.



# Save Environment! Save Money!

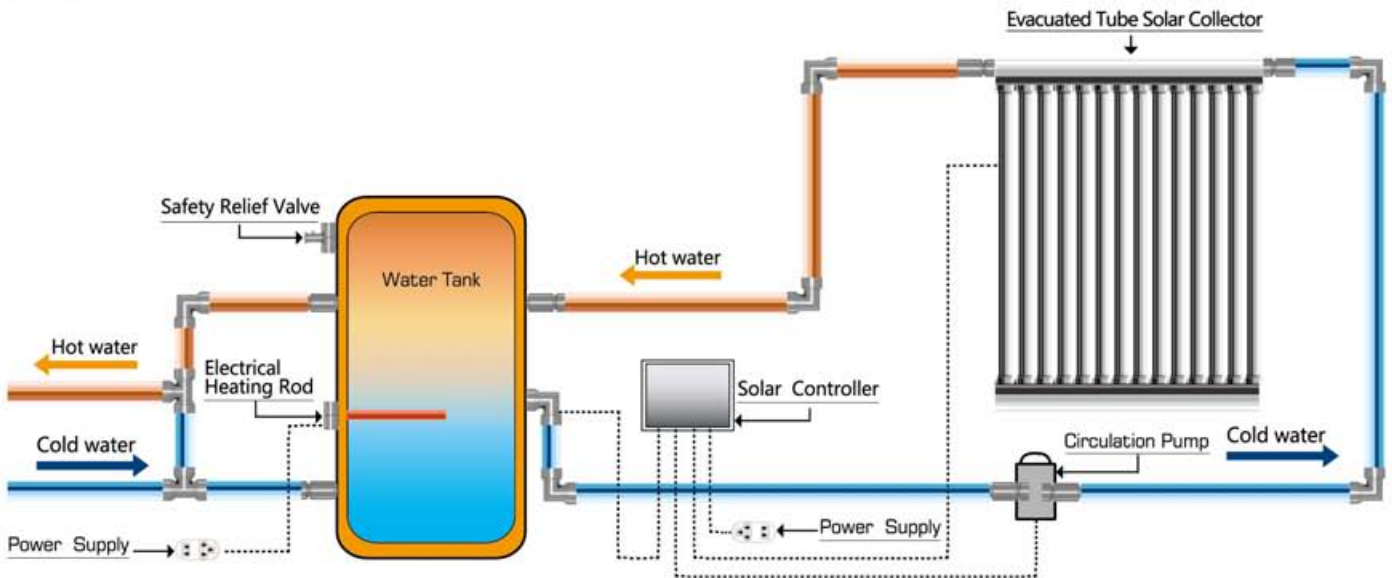
According to the Australian Government, water heating is the largest single source of greenhouse gas emissions from the average Australian home, accounting for around 28% of home energy use, excluding the family car. The Australian government is encouraging Australian households and community organizations to switch to solar hot water technologies.

### The benefits of installing a Neopower system are:

- **Generous government rebates and incentives:** there are a number of federal and state government rebates available which make solar hot water even more of a financial no-brainer! The types of rebates available depend on where you live, what system you're replacing, and what solar hot water system you intend to install
- **Reduce energy bills:** the installation of a solar hot water system has the potential to save as much as 50% to 90% off a hot water bill or in dollar terms as much as \$700 per annum.
- **Add capital value to your home:** a survey conducted by Australia's largest property website realestate.com.au found "An overwhelming 73.37 percent of respondents believed that having one or more environmentally friendly features around the home would make it more saleable, with half (52.88%) predicting that value of the property can attractive a premium of 5-10 percent if on the market."
- **Protect our environment:** install a solar hot water system can reduce household carbon footprint more than 4 tones per year, the equivalent of planting 200 trees or taking a small car off the road each year.



## Electric Boosted Solar Hot Water System



Model Name	No. of people	Container Model	Tank Capacity (Litre)	Hot Water Delivery (Litre)	Evacuated tube collector	No. of Tubes	Booster
STB-250L-EO-ET20	1-3	ST-E250L-O	270	250	SA58/1800-20R	20	Electric
STB-250L-EO-ET25	2-4	ST-E250L-O	270	250	SA58/1800-25R	25	Electric
STB-315L-EO-ET25	4-6	ST-E315L-O	340	315	SA58/1800-25R	25	Electric
STB-315L-EO-ET30	4-6	ST-E315L-O	340	315	SA58/1800-30R	30	Electric
STB-400L-EO-ET30	6-8	ST-E400L-O	450	400	SA58/1800-30R	30	Electric
STB-400L-EO-ET40	6-8	ST-E400L-O	450	400	SA58/1800-20R*2	40	Electric



*The Best Choice for Solar Hot Water*

## **IMACA PTY LTD**

**Address** 1 Jellico Drive, Scoresby, Victoria 3179

**Phone** 1300 062 788 or 03 8740 3556

**Fax** 03 8288 1385

**E-mail** [info@neopower.com.au](mailto:info@neopower.com.au)

**Web** [www.neopower.com.au](http://www.neopower.com.au)