



*bathe in
sunshine*

Hills ESTEEM™

EVACUATED-TUBE SOLAR HOT WATER SYSTEMS



leading the way

Hills Solar have developed a range of solar hot water systems that use advanced evacuated glass tube technology to capture the sun's thermal energy.

The result is a solar hot water system that delivers an improved energy efficiency of up to 90%. This effectively reduces households CO₂ emissions by up to 4 tonnes per year, the equivalent of taking a small car off the road.

Hills Solar hot water systems are designed to provide superior performance and will also look great and add value to your home.

next generation solar hot water system

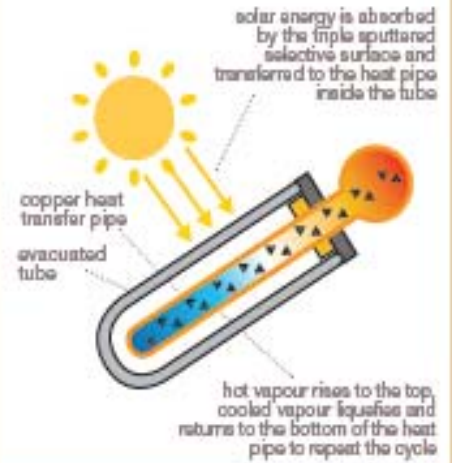
Hills ESTEEM™ represents the pinnacle of solar hot water systems in Australia today.

Using advanced evacuated tube solar thermal technology, Hills ESTEEM™ collectors deliver outstanding solar energy performance efficiencies.

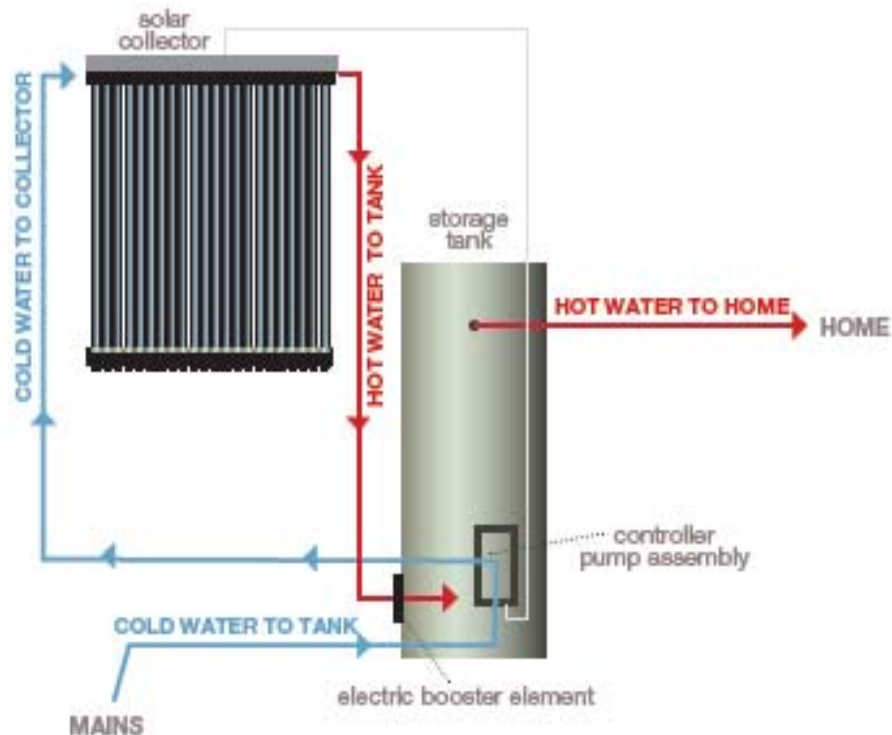
With superior design and enhanced insulating properties, the collectors optimise energy capture while minimising heat loss, providing greater energy efficiencies, particularly during the winter period when thermal energy is at its lowest.



> THE IDEAL LOCATION FOR COLLECTORS IS FACING DUE NORTH. However, 45° NW or NE is acceptable with minimal effect due to the cylindrical design of the evacuated tube.



> HOW IT WORKS



introducing Hills Solar hot water systems

Hills Solar sets the benchmark for efficiency, looks and reliability in solar hot water systems, coupling evacuated tube technology with superior storage tank construction.

Hills Solar hot water systems are designed with Australia's extreme climate in mind, offering frost resistance to -15°C .

"Frost resistant to -15°C "

Easier and quicker to install than comparative products on the market, Hills Solar hot water systems position the storage tank at ground level, with only the collectors visible on the roof. The result is a much more attractive roof aesthetic without the need for any costly, weight-bearing reinforcements.

At ground level, water is circulated from the storage tank to the collectors via the circulating pump. Once heated in the manifold, the hot water is returned to the tank while cool water is again circulated to the manifold to be heated, ensuring a constant supply of hot water.

Hills ESTEEM™

The Hills ESTEEM™ combines evacuated tubes with a stainless steel storage tank. The result is a solar hot water system that delivers exceptional heating efficiency and outstanding durability.

The Hills Solar stainless steel storage tank is not only lighter and tougher than equivalent mild steel tanks, it's also recyclable and exceeds the Australian Minimum Energy Performance Standards heat loss requirements.

Hills ESTEEM™ comes with a generous **15 year warranty** on major components.*

Hills ESTEEM™ is also available with a vitreous enamel (glass-lined) storage tank, suitable for a wide range of water conditions in Australia. The vitreous enamel tank has a 7 year tank warranty.



Tubes
Manifold
Frame



Stainless
Hot Water
Storage Tank



Vitreous Enamel
(Glass Lined)
Hot Water
Storage Tank

gas and electric boosting

When radiant energy is low as a result of cloud cover or rain, Hills ESTEEM*™ utilises gas or electric boosting to ensure you'll always have hot water.

Hills ESTEEM™ gas boosted solar hot water systems use continuous flow gas boosters that will deliver up to 26 litres of hot water per minute when required.

Hills ESTEEM™ electric boosted solar hot water systems ensure the water is maintained at 65 degrees C. Hills ESTEEM™ is available with a mid-mounted or a bottom mounted 3.6kW heating element.

“Hot water available all year round”

small-scale technology certificates (STCs)

STCs are a form of currency created by the Federal Government under the *Renewable Energy (Electricity) Act 2000* and are used to demonstrate compliance with the requirements of the Government's Renewable Energy Target (RET) scheme. There are 4 zones within Australia which will determine the amount of RECs per system.

In addition, some state governments and local councils offer generous incentives on Hills ESTEEM™ solar hot water systems



“The Hills ESTEEM™ solar hot water systems qualify for generous Government incentives”

Hills Solar evacuated tubes have passed the AS/NZS 2712: 2007 Standards for both hail and frost resistance.

* Conditions Apply.

caring
for your
environment

selection guide

No. of Persons in a Household	*Storage Tank Size (litres)	WARM Climate *Collector System Size (Number of tubes)	MODERATE Climate *Collector System Size (Number of tubes)	COOL Climate *Collector System Size (Number of tubes)
(up to 5 people) 	265L	22	22	30
(up to 7 people) 	330L	30	30	30

Note: The system size should be used as an indication only as each household's circumstances are different. Number of bathrooms should also be taken into account when considering a suitable system. Solar hot water systems assist to heat your hot water and some paid electricity may still be required for boosting during the cooler months of the year.

Based on AS3500. 4:2003 Appendix H. Assuming 80% container draw off. Energy calculations are based on AS4234-1994. * Suggested only.
 > Tank size shown denotes the rated tank capacity.

> WHAT'S YOUR CLIMATE?



> WHAT'S YOUR STCs ZONE?



Evacuated Tube Solar Collector Technical Specifications



Tubes
Manifold
Frames

	22 Tube Collector	30 Tube Collector
Weight including Standard Frame, Manifold and Tubes	82kg	110kg
Height of Collector (including Manifold)	2000mm	2000mm
Width of Collector	1845mm	2485mm
Distance between Inlet and Outlet Ports	1920mm	2560mm
Surface area of Collector	3.69m ²	4.97m ²
Absorber area of Collector	1.76m ²	2.40m ²
Aperture area of Collector	2.086m ²	2.844m ²
Water held in Collector	1260ml	1770ml
Weight of Low Pitched Roof Frame	10.5kg	11.1kg
Weight of A-Frame	11.5kg	12.1kg



22 EVACUATED TUBE SOLAR COLLECTOR
(Manifold, 22 Tubes, Black Caps & Standard Mounting Frame)

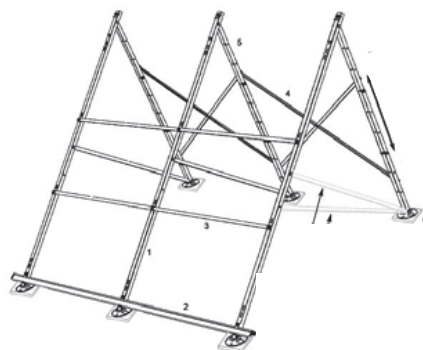


30 EVACUATED TUBE SOLAR COLLECTOR
(Manifold, 22 Tubes, Black Caps & Standard Mounting Frame)

STAINLESS STEEL PITCHING FRAME
(Optional Extra, Optimise Winter Solar Thermal Performance)



Low Pitch Frame



A Frame (for flat roof installations)



Stainless Steel Storage Tanks Measurements



		265	330
A	Tank Height	1690mm	2090mm
B	Tank Diameter	600mm	600mm
C	Cold Water Inlet	210mm	210mm
D	Flow Line to Collector	650mm	650mm
E	Return Line from Collector	300mm	300mm
F	PTR Valve	1480mm	1880mm
G	Electric Boosted Tank Hot Water Outlet	1480mm	1880mm
	Gas Boosted Tank Hot Water Outlet	880mm	1270mm
H	Sensor Well	210mm	210mm
I	Gas Boosted Tank Gas Booster Flue Outlet	1345mm	1735mm
J	Gas Boosted Tank System Depth	795mm	795mm

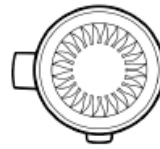
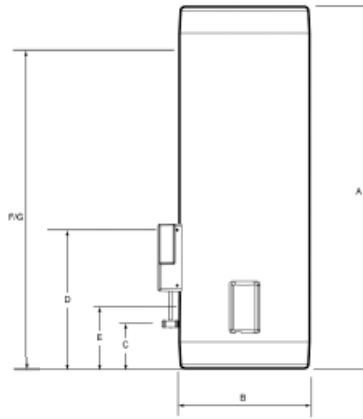


Figure 9 Electric boosted stainless steel storage tank

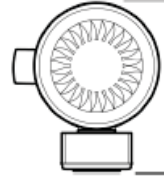
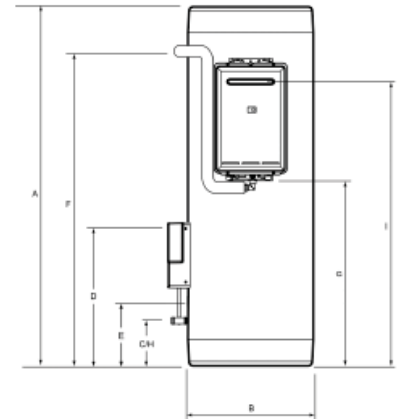


Figure 10 Gas boosted stainless steel storage tank

Vitreous Enamel (Glass Lined) Tanks Measurements



		270	340
A	Tank Height	1265mm	1510mm
B	Tank Diameter	685mm	685mm
C	Cold Water Inlet	260mm	260mm
D	Flow Line to Collector	700mm	700mm
E	Return Line from Collector	985mm	1230mm
F	PTR Valve	985mm	1230mm
G	Electric Boosted Tank Hot Water Outlet	985mm	1230mm
	Gas Boosted Tank Hot Water Outlet	675mm	920mm
H	Sensor Well	260mm	260mm
I	Gas Boosted Tank Gas Booster Flue Outlet	1135mm	1380mm
J	Gas Boosted Tank System Depth	879mm	879mm

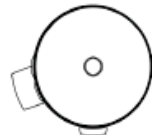
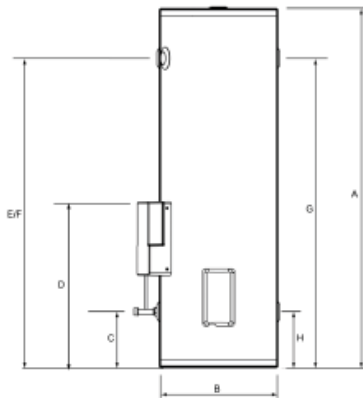


Figure 11 Electric boosted vitreous enamel storage tank

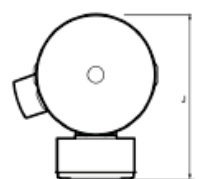
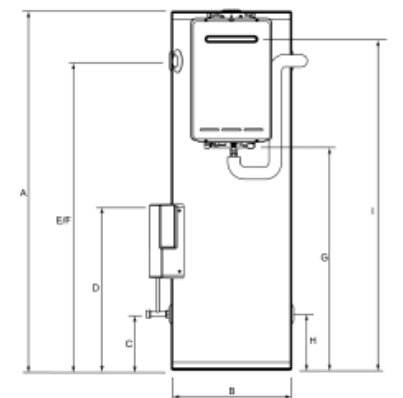


Figure 12 Gas boosted vitreous enamel storage tank