TS system

ENVIROSUN® Thermosiphon System

Certified Product™
Australian Standard
AS2712: 2007
Lic. SMKP20021
SAI Global

WaterMark™
AS3498 Lic. WMKA21707
SAI Global

ENVIROSUN –
SMARTER SOLAR SOLUTIONS

Everyone knows the benefits of solar water heating – by harnessing the sun's energy and converting it into hot water, a solar heater reduces your household's greenhouse gas emissions, saves you money on energy bills and adds value to your home.

Envirosun takes these benefits one step further, with a real commitment to the environment and to you.

The Envirosun story is one that encompasses over a quarter of a century of industry experience, innovation and commitment.

Building solar hot water systems is all that we do, and we do it well.

Our approach and philosophy is different – we are designers, not manufacturers; we are specifiers, not fabricators.

The benefit is that we're not shackled by an investment in out-dated plant and equipment. Instead we use the very best and latest components – globally sourced and matched to deliver performance, reliability and durability.

TS

THERMOSIPHON SYSTEMS

Features of the TS system

1. Tank and collectors roof-mounted as a single, integrated unit.
2. Maximum solar efficiency with no power input.
3. Technologically-advanced safety and control systems.
4. Closed circuit for maximum solar collector freeze and fouling protection (THX only).
5. Superior durability, reliability and cost-effectiveness.

AS NATURAL AS GRAVITY

Thermosiphon flow is a natural process that drives the weather, currents in the ocean and water heated in a pot. It occurs as a result of the density difference between warm and cool water – warm-water, because it is less dense, naturally rises and displaces denser cool-water.

The same process drives our TS and THX solar water heaters. The storage tank sits on the roof immediately above and nestled against the solar collectors. This reduces the amount of pipework between the tanks and collectors and keeps heat loss down. It also means that as fluid is heated in the solar collectors, it can naturally rise up to the cooler storage tank.

Provided the fluid in the collectors is hotter than the base of the storage tank, circulation continues. As the collector temperature approaches that of the tank, circulation stops - automatically. The whole process occurs without the need for any external power to operate pumps or valves – and the flow is naturally optimised.

With our TS systems, hot water from the collectors flows to the middle of the storage tank, and displaces cooler water lying in the bottom of the tank. This in turn flows down into the collectors to be heated.

For our THX system, the hot collector fluid enters the jacket chamber around the storage tank, transfers its heat to the water within the tank and returns to the solar collectors for reheating.

TS AND THX –
SOLAR WATER HEATERS

STEEL THAT'S STAINLESS

At the heart of our heaters is the DEJONG tank – a high-pressure cylinder manufactured in Holland specifically for us. DEJONG is one of Europe's leading, independent producers of stainless hot water tanks.

It has a history that tracks back some 40 years and each year it makes more than 120,000 tanks.

DEJONG understands that not every grade of stainless steel is suited to hot water applications and knows that the total manufacturing process is an important element in preserving the corrosion-resistance of the material.

That's why our DEJONG tanks are made exclusively from grade 444 stainless steel and are 'pickled and passivated' after fabrication – a process that ensures our tanks give the longest possible serviceable life.

COPPER & CHROME THAT'S CONDUCTIVE

Our Selective Surface solar collectors are made to order and made to last. Within a weather-resistant aluminium tray, over thermal insulation and protected by a low-iron, tempered glass cover, sits our peak-performing solar absorber. Made entirely from highly-conductive and durable copper, our design fuses the absorber plate to the riser and header tubes. The plate is coated with a black-chrome surface that absorbs more and re-emits less solar radiation.

Our bespoke collectors gather extra energy while withstanding almost everything that's thrown at them. With two product designs available to ensure we maximise the solar collection even in the coldest and wettest locations.

A GREENHOUSE EFFECT

Solar collectors are like small greenhouses. The short wavelength rays of the sun pass through the high-transmittance glass covers to heat the absorber plate. Any re-emitted heat is in the form of long wavelength radiation which is reflected back into the collector tray by the glass. This clever application of the greenhouse effect is part of working with nature, not against it.

SIMPLY AND RELIABLY THE BEST

Our TS and THX solar water heaters are amongst the most advanced hot water systems available. They're simple, efficient and durable for the lowest long-run cost.

The hot water storage tank and the solar collectors are roof-mounted as a single integrated unit. Water is heated in the collectors and rises naturally through the system and up to the insulated storage tank.

This passive, thermosiphon process negates the need for externally-powered pumps to move hot water from the collectors to the tank - it automatically matches the flow rate to solar radiation. The proximity of the collectors to the tank also helps by keeping transport heat losses to a minimum. The overall result is zero parasitic power losses, maximum solar collection efficiency and negligible system heat loss for the greatest possible energy savings.

And because the design is self-regulating with fewer moving parts or controls, it keeps doing this day-after-day, year-after-year.

ENVIROSUN EXTENDED PRODUCT WARRANTY

Component	Up to 1 year from date of installation Parts & Labour	From 1 to 5 years from date of installation Parts & Labour	From 5 to 7 years from date of installation Parts
TS Plus Open Circuit System			
Tank	✓	✓	✓
Collector	✓	✓	✓
Electrical Parts, Valves & Plumbing Accessories	✓		

ELECTRIC BOOSTED OPEN SYSTEMS	TS300/25e	TS300/40e	TS300/50e
CER Code	TS300/25/O/E24/S2/E25BC	TS300/40/O/E24/S2/E20BC	TS300/50/O/E24/S2/E25BC
Tank	TS300/O/E24/S2	TS300/O/E24/S2	TS300/O/E24/S2
Collectors	E25BC	E20BC	E25BC
Storage capacity	304L	304L	304L
Mass empty	102kg	129kg	143kg
Mass full	408kg	437kg	451kg
Footprint	2,010 x 2,600mm	2,2238 x 2,600mm	2,645 x 2,600mm
Boost capacity	140L	140L	140L
TANK			
Model	TS300/O/E24/S2	TS300/O/E24/S2	TS300/O/E24/S2
Mass empty	59kg	59kg	59kg
Mass full	363kg	363kg	363kg
Footprint	650 x 2,150mm	650 x 2,150mm	650 x 2,150mm
Height	600mm	600mm	600mm
COLLECTORS			
Quantity	1	2	2
Model	E25BC	E20BC	E25BC
Mass empty (each)	41.0kg	34kg	41.0kg
Mass full (each)	43.0kg	35.7kg	43.0kg
Footprint (each)	1,235 x 2,000mm	1,000 x 2,000mm	1,235 x 2,000mm
Height (each)	82mm	82mm	82mm
ELECTRIC BOOSTER			
Rating	2.4kW	2.4kW	2.4kW

URECO

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