

SOLAR WATER HEATING SYSTEMS





solitairesolar® TS series - open circuit system

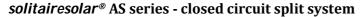
designed, manufactured and assembled particularly for the weather and water conditions of the MENA region,

complete and compact close coupled flat or pitched on-roof Thermosiphon system is a natural heating system where the storage tank and solar collectors are mounted on the roof as a unit with no moving parts resulting in low maintenance, open circuit where water to be heated is circulated in the system by thermosiphon principle of natural convection whereby water heated in the solar collector panels rises up into the storage tank and is replaced by cold water from the water main supply in a continues cycle, simple, stylish and innovative model,

unmatched quality standards and performance efficiency,

first and only solar water heating system tested and certified by the Dubai Municipality Laboratory (DCL) and ESMA,

ruggedly built to handle the harshness and extremes of any environment that guarantees long service life and durability,



Active Systems also known as Split Systems which are usually installed when visual impact is to be kept to a minimum or the roof structure is not able to hold a tank or the requirement is for a large volume storage tank used in commercial/industrial premises,

High efficiency solar water heaters with roof mounted collectors and ground / roof standing vertical storage tanks, designed for poor water quality and frost-prone areas,

designed to use special solar transfer fluid which is circulated through the system by a pump which transfers the heat to the water that is required to be heated via a heat exchange module/system in the storage tank,

available from 300 Litre to 5,000 Litre storage tank sizes,

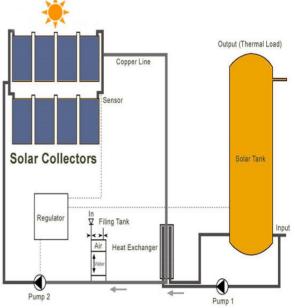
a combination of cutting edge technology and high level of Innovation, with high performance and maximum efficiency,

a life time investment with maximum annual savings over 25 years and an average short payback period of 3 years, with a significant reduction in heating costs and, at the same time, an increase in heating comfort,

the most economical and efficient water heating system.









Hot Water Storage Tank - Solitairesolar® TS / Close Coupled / On Roof / Open Circuit				
Storage Volume	200 Liters	300 Liters		
Outer Tank Size (mm)	Ф 530 х 1320L	Φ 525 x 2175L		
Outer Tank Material	0.5mm Zinc Aluminium Sheet			
Inner Tank Size (mm)	Φ 483 x 1038L	Ф 483 х 2076L		
Inner Tank Material	2mm BTC 340R Mild Steel - Low Carbon - Enamel Grade			
Inner Tank Lining	Porcelain Enamel			
Insulation	45mm High Density CFC Free Poly-Urethane			
Corrosion Protection	20 mm Magnesium Anode Stick			
Weight Empty	65 kg (+/- 10%)	110 kg (+/- 10%)		
Weight Full	265 kg (+/- 10%)	410 kg (+/- 10%)		
Booster Element	220 – 250 Volt ac, 50 – 60 hz 1.8, 2.4, 3.0 or 4kW			
Thermostat	Probe Type – Adjustable (30°C – 80°C)			
Electrical Connection	3-4kw / 220-240 V / 50 Hz			
Max Working Pressure	600 kPa Pressurized			
P&T Safety Relief Valve	Copper - 600 kPa - 95°C			
Copper Connection	G ¾" BSP Internal Thread to Φ 22			
Inlet/Outlet/Circulation Pipe	G ¾" BSP External Thread			
Typical Number of Collectors	1 2			

Hot Water Storage Tank - Solitairesolar® AS / Split System / Closed Circuit								
Capacity Litres	500	750	1000	1250	1500	2000	2500	3000

Collector Panel - Universal Solitairesolar® Flat Plate Pressurized					
Gross Area	2.03 m ²				
Aperture Area	1.84 m ²				
Absorber Area	1.73 m ²				
Riser Tubes Spec.(mm) & Qty	Copper Φ10*δ 0.5, 8-10 pcs Round Shape				
Header Tubes Spec.(mm) & Qty	Copper Φ22*δ 0.6, 2 pcs				
Absorber Spec.(mm) & Qty	A unique sheet with selective titanium coating with ultrasonic weldings				
Absorption / Emission	95% / <5%				
Max Working Pressure	0.8Mpa				
Spectrum Absorber Coating	Selective Black Chromed/ Titanium				
Insulation Material / Thermal Conductivity	50 mm Fibre Glass / 0.048W/(m.K)				
Frame / Sealing Gasket	δ 1.3mm Anodized Aluminium Alloy / EPDM				
Glass Cover	92% Transmittance, 3-4 mm Low Iron Tempered Textured				
Back Plate	δ 0.4 mm Galvanized Zinc Aluminium Plate				
Fluid Volume (Litres)	1.2 L				
Weight - Empty / Full (kg)	48Kgs				
Net Dimension (mm)	2000 x 1000 x 95				



Technical Specifications of the Stortage tank

• External casing : anodized aluminium

• Tank's insulation : polyurethane foam

40-55 mm

Cylinder's material
Jacket's material
Iow carbon steel 3 mm
Iow carbon steel 1,5 mm

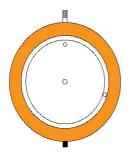
• Cylinder's internal Protection : glass enameling

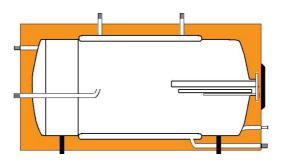
• Additional protection : magnesium rod

• Electric element : copper

• Thermostat : bipolar of four contacts

• Power rate : available from 0.8kw – 4kw







Technical Specification of the collector

1. External frame : anodized aluminium profile

6. Absorber's tubes

: copper pipes \varnothing 10 & \varnothing 22 (risers and headers)

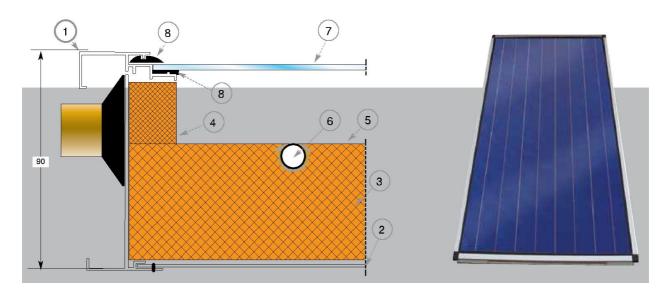
2. Back side : galvanized sheeting - 0,4 mm

3. Back insulation : rock wool 35 mm

4. Side insulation : glass-wool of 20 mm5. Absorber : A unique sheet with selective

titanium coating with ulstrasonic weldings.

7. Cover 8. Watertightness : tempered glass 4mm : EPDM rubber/transparent silicone





External Dimensions—All models



Solar water heater Package Details

All appliances (storage tank, collector, support base and con-nection accesories), are delivered well packed to the customer.

The collector is packed with 4 plastic protective elbows, attached on each corner, which are fast tightened around the

collector with a plastic strap (upon special order, the collectors could be delivered in groups of 10 pcs on a wooden pallete).

The plastic bag contains all the connection fittings of each appli-ance like, screws, nuts for the support base, brackets, pipe unions, moly plugs, screw-nuts, safety valves, plugs and filling funnel of the thermal fluid

All the tubes of the storage tank and collectors are covered with plastic plugs, in order to protect their turns from striking during the transportation.







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Branches:

- Ajman (Ajman Freezone)
- Abu Dhabi (Masdar City)

Overseas Offices:

- Sri Lanka (Colombo)
- Maldives (Male)

Also Available with:









