

Supreme Solar Online

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Established in the year 2004 in Bangalore, Supreme Solar has grown from a modest customer base to a trusted brand in domestic water heater market across the country.

We introduce ourselves as a manufacturer of Solar Thermal Systems for domestic and Industrial applications. Our company is approved by Ministry of New and Renewable Energy (MNRE) - Government of India, New Delhi and we are one of their channel partners eligible for Capital Subsidy under JNNISM Scheme. Our company is ISO 9001 and ISO 14001 certified - giving added confidence to our customers on our passion for process and standardization.

We have our own Research Team, which is constantly researching on improvements in the systems to benefit our customers. We have more than 3000 Dealer-Distributor network across India.

SOLAR WATER HEATER SERIES



BUSINESS OPPORTUNITIES

We are one of the leading manufacturer of Solar water heater, Established in 2004. We have plans to establish our exceeding products to market; we are looking for franchise all over India.

India's Largest SOLAR WATER HEATER Manufacturing company

BANGALURU

Renewable Energy is **Green**, Clean & Sustainable Energy



Government of India
Ministry of New and Renewable Energy



DOMESTIC HOT WATER REQUIREMENTS

According to the statistics, the average consumption of a family varies from 35 to 50 litres per day per person. Adding the consumption of the washing machine and the dishwasher - if they are connected to the water heater - it is necessary to add about 20 litres of water more for each of them (for one wash) per day. So, for example, a family of four, with average consumption is 40 litres of hot water per person, needs 165L water heater. By adding the household appliances connected to the water heater, the needs then increase to at least 40 liters per day. In order to get the most out of the operation of the water heater, hot water should be used mainly during the day, so that the system can constantly produce hot water during the hours of sunshine, thus maintaining its maximum yield.

HOW DOES A SOLAR WATER HEATER WORKS?

The Solar water Heater is based on the principle of black body absorption and Thermosyphon Principle. The black Surface of collector absorbs the heat from the Sun's rays and transfers it to the water passing through the pipes of the collector. Hot water being lighter, rises to the insulated storage tank and an equal amount of cold water replaces this hot water. This cycle repeats as long as the sun shines, resulting in all the water getting heated for distribution through pipes to the required usage point.



SUPREME SOLAR SYSTEMS

Our system is an ecological proposal and an effective self-contained energy saving solution with high efficiency and ease of installation. They are made with excellent materials according to international specifications and have all the certifications and technical opinions that confirm their quality. They are aesthetic systems superior with simple installation and quick to implement in harmony with the architecture of the buildings and thus provide free hot water almost all year round. Even in areas with low sunlight, they provide water preheating, which significantly contributes to reducing conventional energy consumption. The use of solar systems in thermosiphon or forced circulation makes it possible to achieve an energy saving of 70-100%, since the operating time of the burner or electrical resistance decreases depending on the sunshine in the region concerned and the size of the system, with a simultaneous reduction in carbon dioxide emissions.

Each package contains the essential equipment listed below:

- The water storage tank
- The Collectors
- Support Base, Attachments, and Accessories

The water storage tank is positioned between two circular polystyrene foam lids secured with stretch wrap. Accessories are boxed in cardboard packaging. Each part of the support system, along with connection accessories and other components, is packed in a separate carton. The accessories for each system are detailed in the table provided.

ACCESSORIES IN THE BOX	
Items and Name	
	Aluminium dummy
	Anode Rod
	Open Flange
	Heating coil & Thermostat
	PRD Hose Pipe
	EPDM Open Gasket
	M6 fasteners
	EPDM Dummy Gasket
	Threaded Flange
	Pressure relief valve
	Screws

Technical characteristics horizontal solar tank

Coating of the inner tank: Glasslined coating

Internal tank corrosion protection:

1. Glasslined coating completely safe and keeping the hard water clean and hygienic
2. Magnesium anode 3 cm in diameter and 50 cm long.

Welding: Plasma welded(Co2)

Insulation: High density expanded polyurethane (48Kgs/m)

Inner Vessel Maximum Working/ Test Pressure:

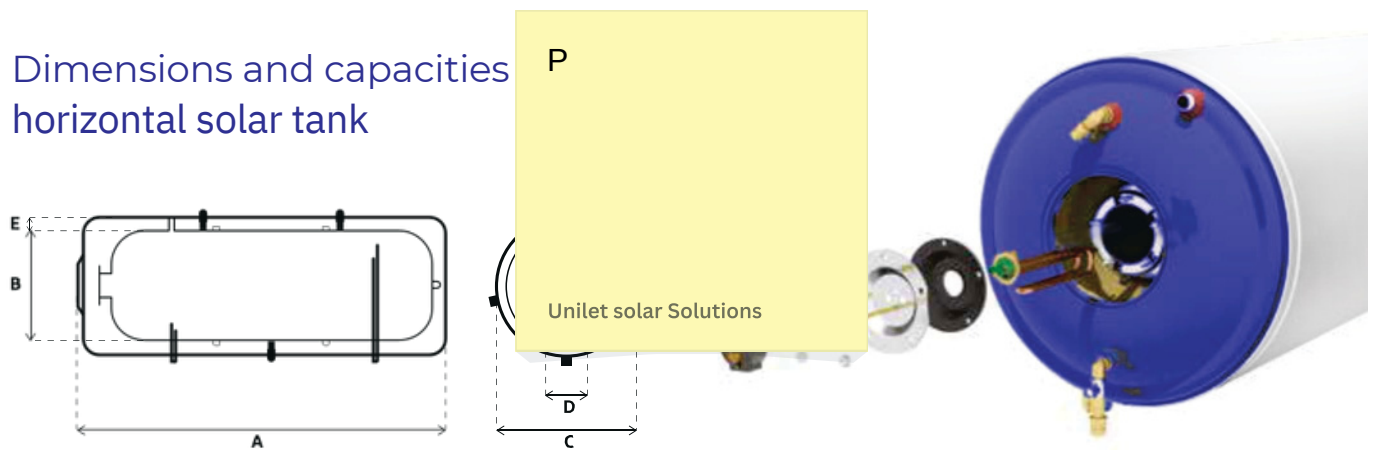
1.5 bar - 5 bar (10 min)

Maximum service temperature: 75°C

Siding : GI With Powder Coated, Resistance to chemical attack and corrosion in a humid environment

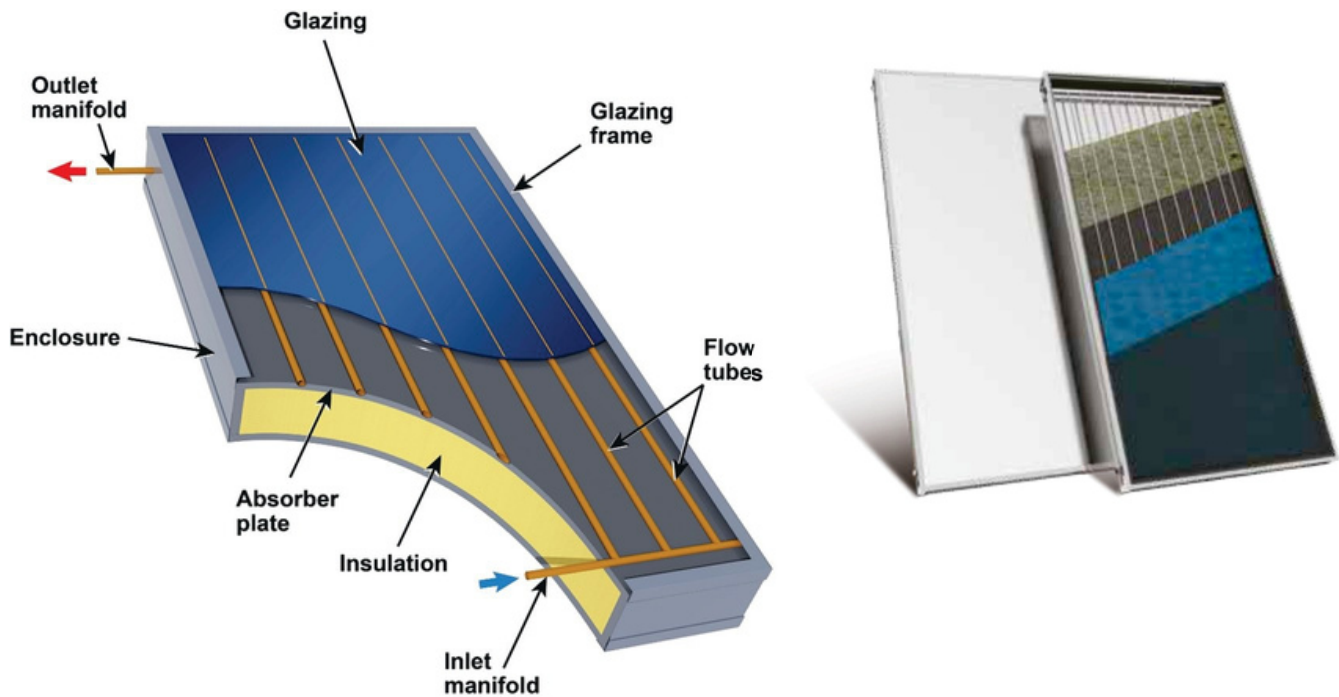


Dimensions and capacities horizontal solar tank



SI.NO	PARTICULARS	SSPECIFICATIONS
1	Inner Tank	3 mm Glass Line coating with co2 welding inside coated with prime guard coating / 3 mm for pressurized systems.
2	Connecting Pipes	SS.
3	Insulation:	50 mm thick PUF
4	Outer Cladding:	pre-coated laminated sheet(color:Half white)/ Mirror finish
5	End Caps:	GI with PP coating.
6	Support Structure:	Mild steel with powder coating.

Technical characteristics of the collector



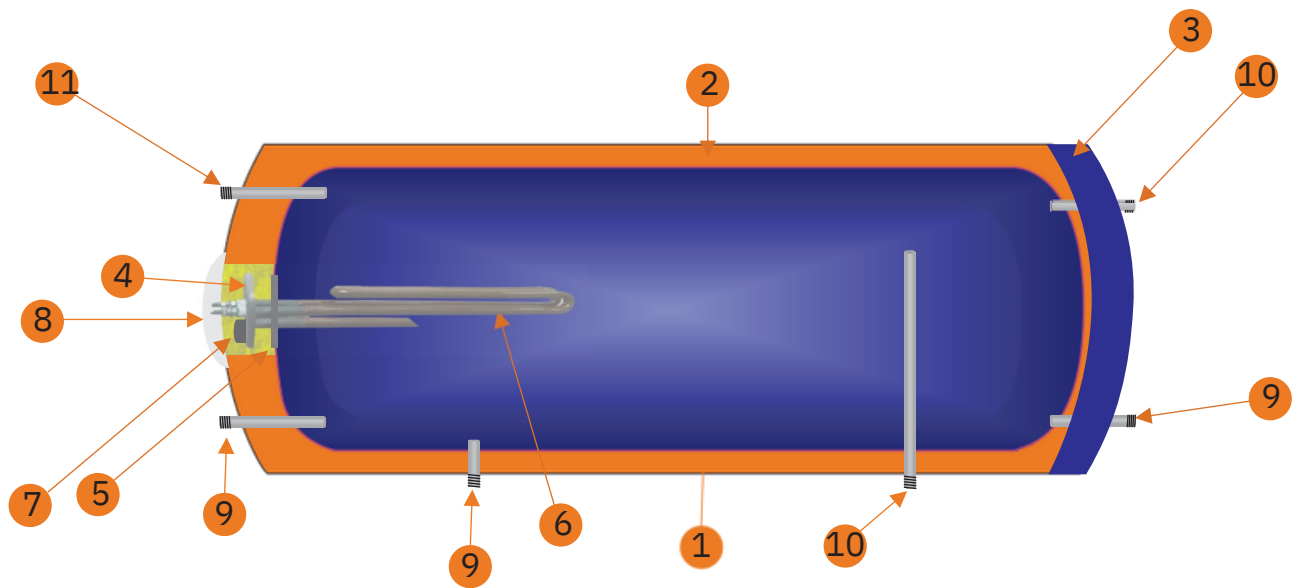
Sl.NO	PARTICULARS	SPECIFICAT ION
1	Section	1.2mm thick Aluminium
2	Back Sheet	0.46 mm thick Aluminium
3	Insulation	Fiber Glass Wool
4	Foil	0.05 mm thick Aluminium
5	Flat Plate Collector(9 fins)	Ultrasonic welded with Nalsum coating.
6	Copper pipe	24 SWG,Aluminium strip 0.20 mm
7	Header pipe	Copper 24 SWG
8	Gla zi ng	1000 * 2000 * 4 mm clear toughend glass
9	Glass beeding	E.P.D.M Rubber
10	Fasteners	High-Grade Steel
11	Grommets	E.P.D.M Rubber
12	Flanges	B rass
13	Finishing	Powder Coating
14	Collector size(without cartonbox)	2030*1030*115mm.

WATER STORAGE TANK SPECIFICATIONS

STEEL- ENAMEL

1.Storage tank: Made of 3mm thick enamel steel with glass lined/ porcelain enamel coating technology, baked at 850°C temperature. Enamelling is carried out in our state-of-the-art in-house production facility. Each tank is checked before its release, thus ensuring a superior quality of enamel. **2.Thermal insulation:** Eco-friendly high-density polyurethane foam (PUF) that minimizes heat loss while maintaining hot water temperature

3.Siding: Aluminium with powder coating.



4.Wide rubber protected round flange: Clever and innovative design, to easily remove limescale and directly access the electrical components.

5.Foot seal: Of EPDM, in non-toxic silicone material, which prevents contact between water and the flange which it protects against electrolysis and corrosion, specially manufactured, in accordance with generally accepted specifications for heat resistance. **6.Electrical resistance:** At the rate of charge in accordance with the standards of the country of destination. (Optional item that allows electric current to be used as a back-up power source). All electrical components are CE marked in accordance with EN 60335-1 and EN 60335-2-21 standards. **7Automatic regulated thermostat:** bipolar protection with auxiliary fuse. All electrical components are CE marked in accordance with EN 60335-1 and EN 60335-2-21 standards.

8.Protective cover: Designed to ensure the correct ventilation and sealing of the electrical part against bad weather.

9.Cold water inlet: Male thread tube with 3/4" BSP brass end for even water stratification, and 10 bar safety valve for pressure relief.

10.Hot water outlet: 3/4" BSP tube male threaded end.

11.Hot water inlet from panel: 3/4" BSP tube male threaded end.

000.Connection position of the 3 bar safety valve: 3/4" BSP tube male threaded end.

More precisely: To connect the solar system heat exchangers to the central water system storage tank, follow the steps below:

1. Connect the connectors to inlet and to outlet of the exchanger.
2. Place a shut-off valve of the appropriate diameter.
3. Place the automatic air vents both on the water supply and on the return from the tank to the boiler.
4. Insulate all connecting pipes with at least 9mm insulating material.
5. Fill the system with water and check for leaks.

POSSIBLE PROBLEMS - SOLUTIONS

THE SOLAR WATER STORAGE TANK DOES NOT DELIVER SATISFACTORY AMOUNT OF HOT WATER BY SOLAR ENERGY

1. Take weather conditions into consideration.
2. Avoid high hot water consumption over night.
3. Check if your hot water needs are not higher than the capacity of the system.
4. Ensure that your solar water heater is not shaded by any kind of obstacles.
5. Check that the system is level.
6. Carefully check all connections for tightness and tighten or replace all connections that are not over tight.
7. Check the building's plumbing and faucets for the possibility of a slow leak.
8. Ensure the hot water supply is not mixing with a cold water supply.
9. Ensure that the connecting pipes are not bent.
10. Ensure there is no trapped air in the water storage tank.

If after all the above checks you are still not satisfied with the performance of your solar system, then please contact your local representative or the company's technical department.



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