

# SOLAR WATER HEATING

## SUNGRACE SOLAR WATER HEATING



Solar Vacuum Glass Tube Water Heater is scientifically designed system to suit tropical, as well as high altitude sub-zero regions. These systems are suitable for hard and saline water and are used for domestic as well as industrial application such as hotels, hospitals, dairies, hostels, nursing homes, feed water for boilers, process industries etc.

The Twin-Tube provides double protection against harsh climate conditions. By reducing your electricity bills significantly, Sungrace ETC adds value to your money spend and saves on electricity and EB bills.

Sungrace offers the widest range of solar water heating systems for both domestic and industrial applications.



### FEATURES

- High quality tubes made from borosilicate glass
- Withstands hail storms
- No clogging/choking
- Long lasting
- Inner coating of tubes consists of layers of copper, stainless steel and aluminium nitride
- Heats water to a very high temperature
- Makes hot water available even on partially cloudy days
- High quality PUF insulation for maintaining high temperature of water inside the tank
- End caps made from UV resistant ABS plastic enhances aesthetics of product
- Powder coated support structure for long life
- Compact and light weight water heater
- Easy to install, operate and maintain
- Works efficiently with hard water with hardness up to 400 ppm.



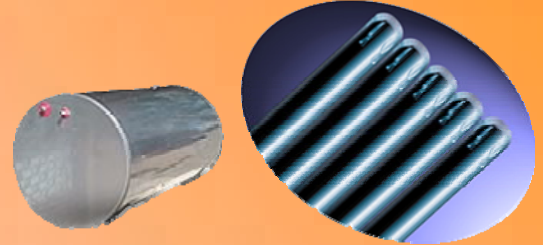


### Advantages of Solar Vacuum Glass Tube Hot Water Systems:

- ⊗ **POLLUTION FREE & ECO-FRIENDLY.**
- ⊗ **FREE HOT WATER FOR LIFE TIME.**
- ⊗ **DURABLE AND RELIABLE.**
- ⊗ **FREE & RENEWABLE SOURCE OF ENERGY.**
- ⊗ **SAVING IN ELECTRICITY BILLS.**
- ⊗ **MINIMAL OR NO MAINTENANCE.**
- ⊗ **ELECTRIC BACKUP FOR HOT WATER AVAILABILITY DURING CLOUDY DAYS.**
- ⊗ **MODULAR NATURE AND EASY ADDITIONS IN CAPACITY.**

### Specification of Solar Vacuum Glass Tube Hot Water Systems:

- ⊗ **CAPACITY – DOMESTIC: 100, 200, 300, 500 LITERS /DAY**
- ⊗ **TEMPERATURE - 70 °C TO 80 °C**
- ⊗ **VACUUM GLASS TUBE**
- ⊗ **STORAGE TANK SS 304**
- ⊗ **PUF INSULATED WITH STAINLESS STEEL CLADDING**
- ⊗ **BACKUP 1.5 KW ELECTRICAL HEATER WITH THERMOSTAT**
- ⊗ **STAINLESS STEEL TANK AND SUPPORT STRUCTURE**
- ⊗ **AVERAGE OVER ALL EFFICIENCY 73% HIGHEST IN SOLAR HOT WATER SYSTEMS AS PER TESTING AT REGIONAL SOLAR ENERGY TESTING CENTRE MADURAI (APPROVED BY MNES GOVT. OF INDIA)**



### Comparison Chart: Flat Plate Collectors System Vs Vacuum Glass Tube System

Feature	Flat Plate Collector System	Vacuum Glass Tube System
Sun Tracking	No sun tracking. Max absorption at 12 Noon only.	Auto sun tracking. 93% absorption all through the day.
Effect of Hard Water	Efficiency drops. Causes leaks & scaling. Frequent de-scaling required. Impossible to clean	No efficiency drop. No scaling or choking. Possible to clean tubes & tank manually.
Effect of weather & ambient temperature	Low efficiency during cold weather	Ideal even during winters
Start-up and heating time	Delayed heating process. Takes more than 5 hours.	Low start-up time from cold to hot in just 2 to 3 hours.
Connections between collectors and storage tank	Uses interconnection pipes that result in heat loss and reduces system life	Integrated design eliminates interconnecting pipes completely.
Number of collectors for a 100 LPD system	9 or 10 fins	15 evacuated glass tubes
Storage Tank	Generally the tank is arc welded SS with powder coated aluminum cladding	Both the inner tank and cladding are of SS. Inner tank is TIG welded.
Storage Tank Insulation	Generally glass wool or rock wool. Susceptible to soaking during rains. Frequent replacement required.	Highly efficient PUF insulation, that does not deteriorate or absorb water. Extremely long lasting.
Space required for installation of 100 LPD system	Base length of 10 feet. Cannot be used for multi-storey apartments due to heat loss in long pipes.	Base length of only 6 feet. Balcony type cantilever mounting possible for apartment blocks, reducing length of pipes.
Relative position of cold water tank	Must be at a height of 7 to 8 feet from the base of the system.	Could be at a height of only 4 feet from the base of the system.

Specification & other details mentioned in this sheet subject to change without any prior notice. Please feel free to contact us at the following address. We assure you our best service always.



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