

SOLAR THERMAL WATER HEATING SYSTEM



The earth receives around 1353W/sq.mtrs of solar energy every day in the form of light and heat radiation. Solar thermal systems do not generate electricity; instead these systems capture sun's warmth to heat water and other fluids which are then used for variety of applications such as water heaters for industrial, commercial and domestic applications.

Solar water heating systems are most cost effective way of converting radiant energy of the sun is predominantly used to heat water for domestic as well as for industrial use.



1. Solar Collector
2. Controller
3. Solar storage tank
4. Backup water heater
5. Boiler
6. Pump
7. Cold water feed
8. Hot water to home (washing machine, dishwasher, sink, shower, etc)

The collector is manufactured with copper channels, which fasten tightly with special clips all along the copper surface of the absorber. With this unique method the heat transfer is achieved completely making it a more effective collector.

The water storage tank has been insulated to maintain the hot water temperature overnight. These systems are designed based on the per day hot water requirements of the users. The systems are available in modular sizes ranging from 120ltrs to 300ltrs capacities, which can be integrated to meet larger hot water requirements.

Salient features of Solar Hot Water Systems are :

- ✔ It works on thermo-syphon principle.
- ✔ Heat absorber is made of copper.
- ✔ Hot water storage tank is fabricated from non-corrosive material.
- ✔ Insulated hot water storage tank is covered with anodized aluminum sheets.
- ✔ It is lightweight, compact and easy to install.

Quality Benefits :

- ✔ No expenditure on energy as solar energy is in abundance.
- ✔ No pollution.
- ✔ No additional space required for installation as it can be installed on roof or terrace or in balcony.
- ✔ No day-to-day maintenance is necessary, as system is simple.
- ✔ No moving parts and it can give a long life.
- ✔ No electrical shocks and burning accidents.

INDUSTRIAL SOLUTION

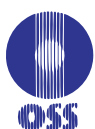
Solar water heating (SWH) systems are ideal for hotels, hospitals and industrial units where the consumption of hot water is very high.

A properly designed and well maintained solar thermal water heating system will last over 20 years. The payback period for the SWH investment is approximately 4 to 6 years as compared to natural gas based water heating systems.



OSS provides turn-key solution for the following applications :

- » **Industrial Applications**
 - Pre-heating for boiler
 - Vapor absorption chiller, etc.
- » **Hospital Water Sterilization**
- » **Dairy Farm Heating & Sterilization**
- » **Hotels Requirements**
 - Swimming pools
 - Kitchens
 - Rooms
- » **pace Heating**



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