



Energized by the Sun











www.vguard.in

V-Guard Evacuated Tube Collector Solar Water Heater

A revolutionary product from the house of V-Guard, the brand that has always delivered the best in quality, technology, performance and service. The most advanced in Solar Water Heaters, V-Guard Solar Water Heaters are made from high-quality components and come with international technology. The Evacuated Tube Collector System facilitates high-efficiency absorption and utilization of solar energy, with minimum heat loss. V-Guard Solar Water Heater saves a substantial amount on electricity bills and other fuels, making it a worthy investment for a lifetime.

Working Principle

Sunlight, incident on the Vacuum Tube, passes through the outer transparent glass tube and strikes the outer surface of the inner glass tube with selective coating (AI/AIN). This glass tube, which acts like a black body, absorbs the radiation and gets heated up in the process. The presence of vacuum between the two tubes prevents heat loss to the surroundings. The heated inner tube transfers this heat to the water with which it is directly in contact. Hot water is lower in density and therefore has a tendency to rise up. Cool Water from the tank flows down to replace the hot water, facilitating circulation by thermosyphon. And through this process, the entire water in the storage tank heats up and gets ready for use. The storage tank is insulated with PUF which minimises the heat loss at night.

Features of V-Guard Evacuated Tube Collector System

- Generates hot water without electricity or any other fuel.
- High quality vacuum tubes made from Borosilicate minimize heat loss.
- Negligible scaling of tube.
- SS 304L tank with pre-coated GI cladding.
- High quality PUF insulation minimizes the heat loss of water inside the tank.
- Auto sun tracking due to circular shape of vacuum tubes.
- Efficient performance in winter and partially cloudy days.
- ISI Electric back up heater (optional to the customer)
- Compact size, low height, light weight. Easy to install and transport.
- Advanced technology at competitive rate.
- Huge saving on electricity and fuel charges.

V-Guard Solar Water Heaters are manufactured in our factory with

- Imported machineries
- Latest welding technology
- Experienced R&D personnel

Received business leadership award (Solar Thermal) from Solar **Energy Society of India, New Delhi.**

| Model Win-Hot series | Utility points | Number of persons using hot water | Number of evacuated tubes | Back up heater (optional) | Inner tank | Inlet/outlet pipe size of storage tank | Outer Cover | Size of the evacuated tubes | Tank insulation | Approx. wt of the storage tank without water | System height from the roof | Min. required over head tank height from the roof | Min. space area reqd. (NS X EW) |
|----------------------------|-------------------|--|---------------------------------|---------------------------------|---------------|--|---------------|-----------------------------------|--------------------|---|-----------------------------------|--|------------------------------------|
| 100 LPD | 2 | 2-3 | 10 | 2KW | SS 304-L | 1.9 cm (3/4") | Pre-Coated GI | φ58 x 1800 mm | PUF | 11 kg | 1.12 m | 1.27 m | 2.1 x 1.1 m |
| 150 LPD | 3 | 3-4 | 15 | 2KW | SS 304-L | 1.9 cm (3/4") | Pre-Coated GI | φ58 x 1800 mm | PUF | 14 kg | 1.12 m | 1.27 m | 2.1 x 1.6 m |
| 200 LPD | 4 | 4-5 | 20 | 2KW | SS 304-L | 1.9 cm (3/4") | Pre-Coated GI | φ58 x 1800 mm | PUF | 18 kg | 1.12 m | 1.27 m | 2.1 x 2.05 m |
| 250 LPD | 4 | 5-6 | 24 | 2KW | SS 304-L | 1.9 cm (3/4") | Pre-Coated GI | φ58 x 1800 mm | PUF | 32 kg | 1.15 m | 1.3 m | 2.1 x 2.1m |
| 300 LPD | 5 | 6-7 | 28 | 2KW | SS 304-L | 1.9 cm (3/4") | Pre-Coated GI | φ58 x 1800 mm | PUF | 36 kg | 1.15 m | 1.3 m | 2.1 x 2.4 m |
| 500 LPD | 8 | 12-13 | 30 | 3KW | SS 304-L | 2.54 cm (1") | Pre-Coated GI | φ58 x 2100 mm | PUF | 54 kg | 1.33 m | 1.48 m | 2.5 x 2.7 m |



| Outer Cover | |
|----------------------------|----------------------------|
| PUF insulation Hot water | |
| Stainless Steel Inner Tank | |
| //cool water □← | |
| cool water | |
| Sun light TAN | nk cross section |
| Sur | Pre-coated GI Outer cover |
| | PUF Insulation |
| | Stainless Steel Inner tank |
| Evacuated Fig.1 | (SS 304-L) |
| Tube | |
| | |
| | 0 00 |
| | |
| | Fig.2 |
| | |

| Annual Savings o | n Electricity Bills (sample chart) |
|--------------------------------|------------------------------------|
| Electricity of the second form | +i 100 |

| Electricity consumed for heating 100 litres of water in a 25 Lit. electric water heater. | 4.65 Elect. Unit/day(approx.) |
|--|-------------------------------|
| 4.65 x 300 (sunshine days) | 1395 Elect. Unit |
| 1395 x 5(rate/unit)* | ₹ 6975 (approx). |

No. of units saved will depend on the usage.

*Electricity tariff is calculated as per the charges in the state of Kerala, for the Consumption of 501-600 units

Note: Only 300 days of a year have considered. Rest of the days are assumed to be cloudy and overcast

- Large scale systems such as 1000 LPD, 2000 LPD, 3000 LPD, 4000 LPD & 5000 I PD are available.
- Pressurised models in ETC is also available



Factory

Authorised DMA/Dealer:





CIN: L31200KL1996PLC010010

V-GUARD INDUSTRIES LTD. Branch Offices: South Zone ● Bangalore Ph: 080 25280866 ● Hubli Ph: 0836 2272942 ● Coimbatore Ph: 0422 2457578 ● Chennai Ph: 044 22248215 ● Madurai Ph: 0452 2348666 ● Hyderabad Ph: 040 24221841 ● Vijayawada Ph: 0866 2474374 North Zone ● Delhi Ph: 011 32954434 • Dehradun Ph: 0135 3243394 • Ghaziabad Ph: 0120 3193829 • Gurgaon Ph: 0124 2201501 • Jammu Ph: 0191 2459440 • Kanpur Ph: 0512 3294006 • Ludhiana Ph: 0161 3265420 • Varanasi Ph: 0542-2108574 East Zone • Bhubaneswar Ph: 0674 3257275 • Ranchi Ph: 0657 3208030 North East Zone • Guwahati Ph: 0361 2492897 • Kolkata Ph: 033 32963221 • Patna Ph: 0612 2344677 West Zone • Ahmedabad Ph: 079 27680330 • Bhopal Ph: 0755 3265383 • Jaipur Ph: 0141 2359143 • Mumbai Ph: 022 32996202 • Nagpur Ph: 0712 3294021 • Pune Ph: 020 32516054 • Raipur Ph: 0771 3265450