



# Harnessing nature for a better tomorrow.



SOLAR WATER HEATER  
**ETC SERIES**  
Harnessing the sun

[www.vguard.in](http://www.vguard.in)



Sacrificial  
Anodic Corrosion  
protection



ISI Electric  
Back up heater  
optional



High density  
PUF insulation



Evacuated  
Tube  
Collector

## 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 (Al/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
- GI tank with 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

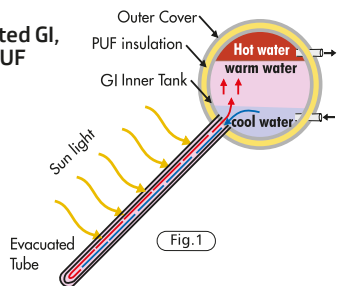
- Imported machineries
- Latest welding technology
- Experienced R&D personnel

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

#### FPC PRESSURISED MODEL

Model	Utility points	Number of persons using hot water	Working Pressure	Number of evacuated tube	Back up heater (optional)	Inner tank	Inlet/outlet pipe size of tank	Size of Evacuated Tubes	Approx weight of the tank without water	System height from the roof	Min. required overhead tank height from the roof	Min. space area reqd. (NS X EW)
100 LPD	2	2-3	0.4 Kg/Cm2	10	2 KW	GI	125 mm (1")	58 x 1800mm	37 KG	1.32M	1.5M	1.3 x 1.9M
150 LPD	3	4-5	0.4 Kg/Cm2	15	2 KW	GI	125 mm (1")	58 x 1800mm	45 KG	1.32M	1.5M	1.6 x 1.9M
200 LPD	4	5-6	0.4 Kg/Cm2	20	2 KW	GI	125 mm (1")	58 x 1800mm	64 KG	1.32M	1.5M	1.9 x 1.9M
250 LPD	5	6-7	0.4 Kg/Cm2	25	2 KW	GI	125 mm (1")	58 x 1800mm	66 KG	1.32M	1.5M	2.2 x 1.9M
300 LPD	5	8-9	0.4 Kg/Cm2	30	2 KW	GI	125 mm (1")	58 x 1800mm	75 KG	1.32M	1.5M	2.5 x 1.9M
500 LPD	8	14-15	0.4 Kg/Cm2	30	3 KW	GI	125 mm (1")	58 x 2100mm	100 KG	1.40M	1.55M	2.8 x 1.9M
1000 LPD	14	30	0.4 Kg/Cm2	100	6 KW	GI	125 mm (1")	58 x 1800mm	124 KG	1.40M	1.55M	9.2 x 4.3M

Outer Cover: Coated GI,  
Tank insulation: PUF



### Applications

- Houses and Bungalows
- Hotels
- Hospitals
- Restaurants
- Resorts
- Apartments
- Poultry Farms
- Textile Mills & Drying Units
- Industries
- Pool Heating

#### ANNUAL SAVINGS ON ELECTRICITY BILLS (SAMPLE CHART)

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 6.5 (rate/unit)*	Rs. 9068/- (approx)

No. of units saved will depend on the usage.

\*Rate is applicable in Kerala for consumption of 500 and above units per month

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

Authorised DMA/ Dealer:

\* Due to the continuous development & product improvement, the company reserves the right to change the specification without any prior notice.

## V-Guard Industries Ltd.

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