



PHOTON THERMAL SYSTEMS PVT. LTD.

(A Group Company of PHOTON ENERGY SYSTEMS LTD.)

An ISO 9001:2000 Company

PHOTON CROWN

The World's Latest Solar Water Heating Technology
Specially Designed To Suit All Conditions



**MNRE
Chanel
Partner**

Applications:

Home & Hostels,
Restuarants & Canteens,
Hospitals & Nursing Homes,
Guest Houses & Choultries,
Hotels & Resorts,
Process Industries.

- Solar Industrial heating systems
- Complete solar solutions for all purposes
- All India service/Dealer Network

Monthly Savings on Electricity Bills

Rating of the Electric Geyeser / Heater	Daily Usage		
	1 hour	2 hours	3 hours
	Monthly Electricity Bills (Rs.)*		
2 KW	324.00	628.00	972.00
3KW	486.00	972.00	1458.00

Salient Features:

- ◆ Produces safe drinking water to WHO standards using solar/waste heat.
- ◆ Highly Energy Efficient and Eco friendly Design concept.
- ◆ Considerably less power demand - Can be configured to operate even in the most remote places (using 100% Solar Energy) - where Electrical power is not available.
- ◆ Minimum maintenance with no requirement for skilled man power
- ◆ Huge savings on electric city bills and pays back with in two years. High Thermal Efficiency using the world's largest proven and tested, and Evacuated glass tube collectors, with track the sun throughout the day and intercepts more than 93% of solar radiation.
- ◆ Tested at regional solar energy center,(Approved test center of MNES & BIS, Govt. of India)
- ◆ Requires much lesser space as compared to conventional solar geysers.
- ◆ Handles hard water with ease without droop in efficiency and does not require frequent internal cleaning.
- ◆ Hi-Density PUF Insulated Stainless Steel Tank with SS cladding / G.I. Ensure hot water even on winter mornings.
- ◆ Electrical Back - Up also available to provide additional heat during monsoon season.
- ◆ Long Life of about 20 Years.
- ◆ Available in various capacities to suite every need: 100/200/500 Liters per day and custom build large sizes.
- ◆ Screw less fitting tanks.

Approvals



Regd. Office : Plot No. 775-K, Road No. 45, Jubilee Hills, Hyd-33.
Corp. Office : # 19, Mount View Enclave, Road No. 12, Banjara Hills, Hyd-34.
Fax : +91 8458 279842.
Email : swhs@photonsolar.in
Factory : 74D ANRICH Indl Estate, IDA, Bollaram, Medak Dist - 502 325

Technical Specifications:

Available sizes	100 LPD	200 LPD	500 PD
Output Water Temperature	65 ± 5*c		
Number of tubes	10	20	50
Length of Tubes	1800mm		
Tube Material	Special Grade Borosilicate Glass		
Tube Outer Diameter	58mm		
Inner Tube Diameter	47 mm with selective absorption 3 layer coating		
System Capacity	100 Liters	200 Liters	500 Liters
Inner Tank Material	Ms with anti rust corrosion coating inside Ss 304 Grade for soft water Ss 316 Grade for Hard Water		
Tank Insulation	Hi - Density PUF – Poly Urethane Foam		
Tank Capacity	Stainless Steel / GI Powder Coated Ms / Ss Glossy outer cladding		



Also Suitable for Hard Water

1. Inner Glass Tube
2. Selective Absorbing Coating
3. Vacuum Gap
4. Cover Glass Tube
5. Supporting Component
6. Gas Absorbent
7. Absorbing Film

Due to continuous developments and product improvement the company reserves the right to change / after specifications.

Crown vs CONVENTIONAL FLAT PLATE SOLAR HEATERS – COMPARISON OF BENEFITS

Features	Conventional Flat Plate Solar Heaters	Miracle Solar Geyser
Sun tracking	No sun tracking possible due to flat surface collector. Maximum heat absorption only at 12 Noon.	Circular glass tubes allow Auto Sun tracking and ensures maximum heat absorption (>93%) throughout the day.
Effect of External Weather and ambient temperature	Design dependent on ambient temperature results in low efficiency during cold weather	Design independent of ambient temperature Ideal even during winters.
Effect of Hard water	System efficiency drops drastically as hard water causes scaling and chokes the narrow metallic absorber pipes (12 mm). Leaks could also develop. Frequent expensive cleaning essential. Tank cleaning manually impossible due to Completely sealed design.	Non-metallic glass tubes of much larger diameter (37mm) prevents choking and ensures maximum efficiency and life of the system without frequent cleaning and maintenance. Glass tubes and tanks can be cleaned manually.
Start-up and heating time	Delayed heating process from cold to hot. 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 internal connection pipes that result in heat loss and reduces system life.	Integrated design eliminates interconnecting pipes completely.
Number of collectors for a 100L PDs system	9 or 10 fins	15 evacuated glass tubes
Installation space requirement (for 100L PD)	Base length of 10 feet. Can be mounted only on roof. Cannot be used for multi storeyed apartments due to heat loss in lengthy pipes from roof.	Balcony type cantilever mounting possible. Ideal for multi storeyed apartments, reducing hot water piping.
Relative position of cold water tank	Cold-water tank must be mounted at a height of about 7 to 8 feet from the base of the system.	Cold-water tank could be mounted at a height of only 4 feet from the base of the system.

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