



# IMPERIAL

## *Solar Water Heating System*



### ***24 Hours HOT Water, with Super Savings...***

#### ***The Company -***

**Imperial Solar Solutions** is a specialized solar company that believes in the efficient utilization and development of application technology of solar energy. We look forward to provide the best quality of product and service to our every customer, and bringing more awareness among them regarding solar power.

The company is an ISO 9001:2008 Certified, dealing with products like Solar Water Heater, Solar Street Lights, Solar Power Packs, Solar Home Lighting Systems, Solar Lanterns, etc.

Solar Water Heater forms a major part of our sales. We have installed solar water heaters mostly in hotels, hostels and for domestic purposes. We believe in offering the society with the systematic usage of the solar energies at an affordable price. Our manufacturing facilities are accompanied with several technicians, engineers and consultants in addition to a full research and development staff.

Our goal is to strengthen the power, bringing more perfection to our products and provide a matured and satisfying service to our customers.



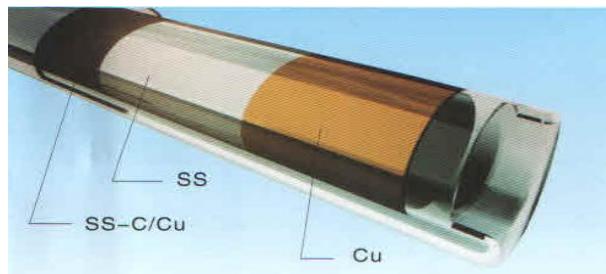
## The Tri-element Vacuum Tube



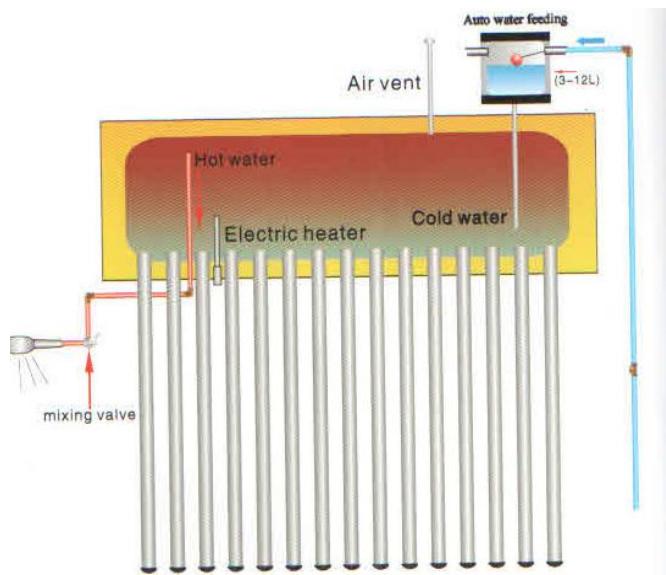
### Feature:



Vacuum tubes assimilate the advanced 12 layers of spattering deposition of trivalent element technology, high borosilicate glass, gradual change of ALN/AiN-SS/CU selective complex absorptive coating. And these make vacuum tubes have high performance of absorptance and low reflection ratio. Through the interlayer, vacuum has a unique effect of thermo, with its temperature up to 380°C of ideal sunning, performing a strong heating ability.



## Non-Pressurized Solar Water Heater





### **Technical Characteristics -**

This type uses the all-glass evacuated solar collector tubes as the heat absorbing element. The high vacuum degree of the clearance between the outer and the inner tube reduces the heat emission which is caused by convection and conduction. The layer films (coating) of the all-glass evacuated tubes transfer the sun energy into heat energy. The high absorption and low emittance rate of film is unique.

Using thermo siphon system – depending on the different density between hot water and cold water, a water flowing cycle is created in the tubes. Hot water flows automatically upwards while the cold water flows down. The water in the storage tank will be heated from this natural circulation.

1	Capacities available	100ltrs, 120 ltrs, 150ltrs, 200 ltrs, 250ltrs, 300 ltrs
2	Major Components	Boro-silicate Vacuum Tubes, PUF insulated Hot Water Tank, Assistant Tank, Heater Element, Galvanized Steel frame & structure
3	Vacuum Tube size and length	58 mm outer diameter 47 mm inner diameter 1800 mm length
4	Water Output	40-80 °C under normal sunny conditions
5	Vacuum tube material	Borosilicate
6	Coating	Selective Coating of Aluminum Nitride Stainless Steel & Copper (ALN/AIN-SS/CU)
7	Vacuum of the tube	< <u>3x10-3 Pa</u>
8	Hail resistance	<30 mm Diameter
9	Solar Water Heater frame and mounting structure	Corrosion-resistant Galvanized steel frame for durability and strength to withstand wind at 250km/hr.
10	Innertank material/thickness	Stainless Steel 304 food grade
11	Insulation	50 - 60 mm Injected Poly-Urethane Foam (PUF) for minimal heat loss



## Solar Water Heater – *Savings for Tomorrow*

On an average a family of 4 persons spends over 25% of its electricity bills on water heating. This share may shoot up further in case of hotels or hostels, especially during monsoons and winters. While the cost of solar water heater can be easily recovered within a short duration with the amount of savings you make, an effective solar water heating system will –

- \* Provide almost all of your hot water needs
- \* Cut a major part of your electricity, gas or wood bills
- \* Saves tones of greenhouse gas emissions every year

<b><i>Savings forecast and pay-back period calculation</i></b>	
Approximate electricity consumed while using an average water geyser or heater for 4 hours a day	8 kWh or 8 units
Cost of electricity consumed per day	Rs. 40.00 (1 unit = Rs. 5.00)
Cost of electricity consumed per month	40 X 30 = Rs. 1,200.00
Savings per year if solar water heater is installed	Rs. 7,200.00 (considering hot water requirements for 6 months per year)
Payback period for a 100 litres solar water heater	Approx. 2.5 years

### *Advantages of Solar Water Heater –*

- Saves thousands on electricity, gas and wood bills
- Hot water all time
- High temperature
- Extremely long life
- Maintenance free
- Stainless steel inner tank
- In-built power back up
- Environment friendly
- Capacity to suit your needs
- Reasonable prices



For details and business enquiries please contact:

 **Imperial Solar Solutions**

An ISO 9001:2008 Certified Company

*- Our every stride is for a Green Initiative*

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