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## BIT(Building Integrated Thermal) Solar Hot Water Heater



## 1. Benefit of the BIT system:

The BIT Collector advantages over other swimming pool solar heating systems are abundant. It is proven to be 30-40% more efficient than existing solar water heaters. The units can be installed on ground level in a yard or pool barrier, and are visually pleasing, so no annoying panels to look at! The Solar units are very low maintenance and come in different colors to match your backyard decor.

e.g. The above picture showing brown pool barriers with matching BIT frame painted in the same shade of color.

The BIT Collector comes with a digital control system for easy use, and due to it's fantastic rate of collection, it increases your swimming pool usage up to 4 months.

Simpler Ground level installation, no roof penetration. Depending upon pool size and heating needs, units can be connected in series or parallel as required. And easy to expand to a larger system when pools or household hot water need is increased.

Low maintenance required and easy to clean when necessary! The system is outdoor weatherproof and last longer than the wood structures.

Build at sites, saving expensive and unsightly long pipes to transfer hot water from roof top to the pool or hot water storage tanks. Self -contained collector and storage system.

On site installation and it is on ground level, both can reduce the construction cost. And reducing the risk of workers to crawl on the slope roof for installation and repairing. See more installation examples in next page!





House Handrail, Balcony, Wall Section or Fence



Winters Summers



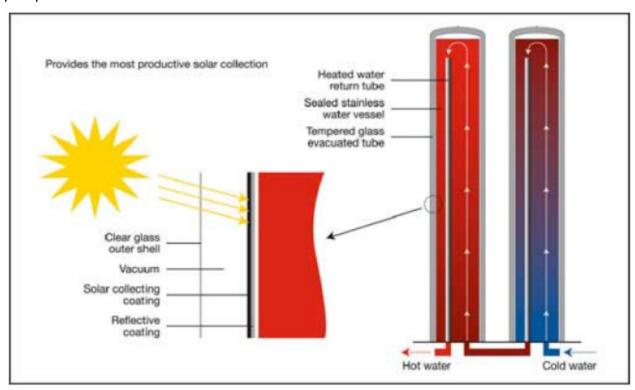
House BIT Hot Water Systems not installed on the roof, so not to worry when you need reroofing. Removing and put it back the roof top Solar Hot Water system is a constant headache!



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#### 2. How it works

Cold water is fed into the bottom of the first tube. In each tube there is a stand pipe that allows only the water from the top of each tube to pass to next, insuring that only the hottest water is passed on. As the water progresses through the tubes the water temperature increases. Once the water has reached the desired temperature it is pumped out of the collector.



#### 3. Safety

Evacuated tubes are absolutely safe to touch always, as the suns energy is drawn into the tube and then not allowed to escape. Heat goes one way and the tubes keeps cool. The tubes are made of a thick borosilicate glass and tempered for safety which meets the level 11 rating for impact as defined by SRCC.

The tubes are designed to be robust to impact as required to be mounted below the 18 inch threshold by all national builders codes.



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## 4. High Productivity

This products is more productive than other Solar Water Heaters due to the design that allows for solar absorption from every angle, increasing the total time the unit is producing hot water.

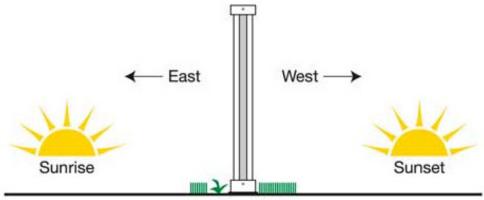
With Direct Heat, High Mass design, these units are able to be mounted at ground level, removing the need to make any penetration through your roof.

These units produce between 41,000 and 92,000 Btu's per day.

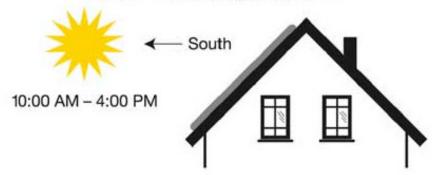
#### Example:

One of the 6' panels is enough to increase the temperature of a 25,000 gallon pool by 10 to 15 degrees or it could be used to provide hot water for a household of 6 people.

# Solar Water Heating System Vertical ground installation offers up to 12 hours energy absorption



Roof installation facing South offers only 6-7 hours energy absorption



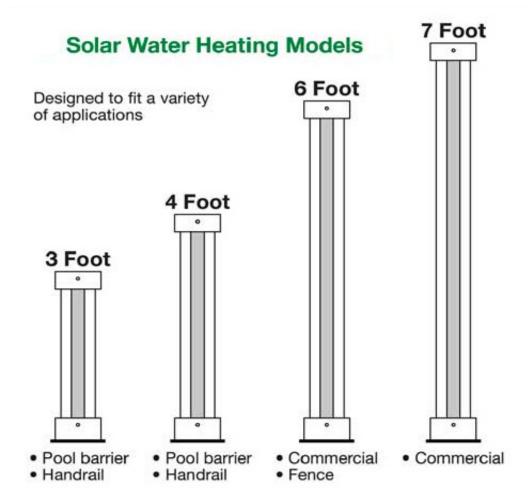


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#### 4. Product Sizes:

To provide options and application variation, the products are available in the following sizes. The 3', 4', and 7' models are 10 tubes wide for an overall width just over 6'. Each day Heating capacity to 120F is 50/65 & 110 Gallon respectively & Hot water Storage Capacity at night time for each size are 16/22 & 45 gallons respectively.

6' model is designed with only 9 tubes to allow it to fit between existing 6' centered fence .Heating capacity to 120F per day is 90 gallons, Storage capacity is 34 gallons. Products are designed to provide a solution to typical solar water heaters by moving them from the roof top to ground level. The units can be integrated as part of a balcony or deck railing and are designed to be resistant to impact as required by ISO 19806-2.





Products: E=End Unit M=Middle Unit	L. of tube /Quantity	Daily Hot water	Hot Water Storage at Night	Prices	After Federal 30% Tax Deduction
SHP-310-E or M	3' / 10	50 gallons	16 gallons	\$1,900.00	\$1,330.00
SHP-410-E or M	4' / 10	65 gallons	22 gallons	\$2,100.00	\$1,470.00
SHP-609-E or M	6' / 9	90 gallons	34 gallons	\$2,500.00	\$1,750.00
SHP-710-E or M	7' / 10	110 gallons	45 gallons	\$2,900.00	\$2,030.00

## 5. Architectural design blend into buildings or garden landscape

1) Condos in China-

Big cities like BeiJing, TianJing, QinDao, new buildings now must add heaters to get permits. Southern cities in China is considering the same laws! US is behind in Solar Thermal legislation!!







2) Garden Fence Solar Hot Water Heater:





## 3) Residential Solar Hot Water Heater

