Solar Water Heating
Clean Green Energy

innovation

GREEN TECHNOLOGIES
HIGH EFFICIENCY, RENEWABLE ENERGY AND LOW EMISSIONS
Why Solar?

Because We Care
Each solar panel eliminates tons of carbon dioxide from being released into the atmosphere. It would take the planting of 40 trees per year to recoup that much CO₂.

Because Solar Pays
Collecting and using solar energy reduces fuel consumption, be it electricity or natural gas, by 15,000 cubic feet of natural gas or 4,400 kwh, based on 40,000 BTU per day for each solar panel. (Consult local utility rates for your area.)

Helpful Rebate Links:
www.htproducts.com
(go to our web site for more info)
www.energystar.gov
www.dsireusa.org
www.aceee.org

Because Solar Heating Pays Off For You
- Saves you money by cutting your electricity or gas use
- Provides 50 to 75% of your home hot water needs
- Diminishes CO₂ gasses that pollute our air
- Adds resale value to your home or business
- Provides energy savings
- Provides radiant heating for your home or business

Because Rebates Lower the Costs
$ Federal Tax Incentives
$ State Rebates & Incentives
$ Utility Rebates & Incentives
$ Local City or Municipality Rebates & Incentives

Solar Accessories

Contact Your Local Wholesaler or HTP Representative for Your Solar Needs

HTP Solar Accessories:
Drain Back Tanks
Controllers
Monitors
Pump Stations
Loggers
Pumps

HTP has Everything You Need for a Complete Solar System. Keep Yourself In Hot Water the GREEN Way
Freeze-protected heat pipes transfer heat energy from within the evacuated tubes up to an insulated copper “header” through which a heat transfer liquid is circulated. HTP Solar Tube Collectors maintain strong efficiency levels even at high temperature differences. For this reason, the collectors are ideal for installations in cold regions or for high temperature applications anywhere.

**Collector Thermal Performance Rating for 30-tube Collectors**

<table>
<thead>
<tr>
<th>Weather-Category (Ti-Ta)*</th>
<th>Clear Day 2000 Btu/ft²-d</th>
<th>Mildly Cloudy 1500 Btu/ft²-d</th>
<th>Cloudy Day 1000 Btu/ft²-d</th>
</tr>
</thead>
<tbody>
<tr>
<td>A (-9°F)</td>
<td>46.1</td>
<td>34.8</td>
<td>23.5</td>
</tr>
<tr>
<td>B (9°F)</td>
<td>44.0</td>
<td>32.7</td>
<td>21.4</td>
</tr>
<tr>
<td>C (36°F)</td>
<td>40.6</td>
<td>29.3</td>
<td>18.0</td>
</tr>
<tr>
<td>D (90°F)</td>
<td>34.2</td>
<td>23.0</td>
<td>11.8</td>
</tr>
<tr>
<td>E (144°F)</td>
<td>27.1</td>
<td>15.9</td>
<td>5.9</td>
</tr>
</tbody>
</table>

A = Pool Heating (Warm Climate)  B = Pool Heating (Cool Climate)
C = Water Heating (Warm Climate)  D = Water Heating (Cool Climate)
E = Air Conditioning

*Ti = Inlet temperature to the collector
*Ta = The ambient air temperature

(For the methodology of this thermal performance rating see www.solar-rating.org/standards/ogdocuments/RM-1_2002.PDF)

**Vacuum Tube Collectors**

**HP-30SC**

30 Evacuated Tube Solar Collector with Mounting Hardware

101" x 79"

**Drain Back Tank**

Drain Back systems are a smart choice. The Drain Back Tank allows the solar collectors to drain all the water from collectors and related pipe connections into a reservoir to protect the system from either freezing or overheating. HTP’s Drain Back system also has fewer components, so maintenance is greatly reduced.

- Virtually maintenance free operation
- Quality construction: a highly efficient cupronickel heat exchanger boasts excellent heat transfer properties, while the robust **stainless steel** tank eliminates the need for anode rods
- Lightweight construction (easier installation)
- Effortless monitoring: sight window makes it possible to visually monitor the tank’s water level
- Aesthetically pleasing: the durable plastic jacket will not rust or dent
- 5 year limited warranty

**Drain Back Tanks**

<table>
<thead>
<tr>
<th>Drain Back</th>
<th>Model with Heat Exchanger</th>
<th>Gal.</th>
<th>Height/ Diameter</th>
<th>Freight Weight (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSU-10DB</td>
<td>SSU-10DBX</td>
<td>10</td>
<td>20&quot;/19.25&quot;</td>
<td>31</td>
</tr>
<tr>
<td>SSU-15DB</td>
<td>SSU-15DBX</td>
<td>15</td>
<td>22&quot;/19.25&quot;</td>
<td>33</td>
</tr>
<tr>
<td>SSU-20DB</td>
<td>SSU-20DBX</td>
<td>20</td>
<td>27&quot;/19.25&quot;</td>
<td>37</td>
</tr>
<tr>
<td>SSU-30DB</td>
<td>SSU-30DBX</td>
<td>30</td>
<td>39.5&quot;/19.25&quot;</td>
<td>49</td>
</tr>
<tr>
<td>SSU-40DB</td>
<td>SSU-40DBX</td>
<td>40</td>
<td>51.875&quot;/19.25&quot;</td>
<td>61</td>
</tr>
<tr>
<td>SSU-60DB</td>
<td>SSU-60DBX</td>
<td>60</td>
<td>52.125&quot;/23.25&quot;</td>
<td>90</td>
</tr>
<tr>
<td>SSU-80DB</td>
<td>SSU-80DBX</td>
<td>80</td>
<td>71.5&quot;/23.25&quot;</td>
<td>125</td>
</tr>
</tbody>
</table>

Drain Back Tanks come in a 10 Gallon Tank size on up to an 80 Gallon Tank size, with or without a heat exchanger option (see Chart)
Phoenix Solar
Stainless Steel • Solar • Gas Fired Back-Up • Water Heater

- Up to 96% thermal efficiency
- 5 to 1 turndown ratio
- The tank loses only ½ °F per hour, due to 2” of environmentally safe foam insulation
- Virtually maintenance free
- System flexibility: built in auxiliary taps provide connections to air handlers or supplemental storage tanks
- Quality construction: an extremely durable cupronickel and stainless steel heat exchanger boasts excellent heat transfer properties and resists corrosion

<table>
<thead>
<tr>
<th>Model</th>
<th>Input Modulation</th>
<th>Gal.</th>
<th>1st Hr. Rating</th>
<th>Height/ Diameter</th>
<th>Freight Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>PH130-80S</td>
<td>35,000–130,000</td>
<td>80</td>
<td>227 gal</td>
<td>72”/ 23”</td>
<td>245 lbs</td>
</tr>
<tr>
<td>PH199-80S*</td>
<td>40,000–199,000</td>
<td>80</td>
<td>314 gal</td>
<td>72”/ 23”</td>
<td>245 lbs</td>
</tr>
<tr>
<td>PH130-119S*</td>
<td>35,000–130,000</td>
<td>119</td>
<td>257 gal</td>
<td>74”/ 27”</td>
<td>415 lbs</td>
</tr>
<tr>
<td>PH199-119S*</td>
<td>40,000–199,000</td>
<td>119</td>
<td>335 gal</td>
<td>74”/ 27”</td>
<td>415 lbs</td>
</tr>
</tbody>
</table>

*SNHX (Solar No Heat Exchanger) Versions Available

- Robust 316L stainless steel tank eliminates the need for anode rods
- Vents in inexpensive, easy to install PVC or CPVC pipe, with combined vent lengths up to 200’ in 3” pipe and combined vent lengths up to 85’ in 2” for the 130 models
- Eligible for tax credits & utility company rebates
- 7 year limited warranty

VERSAA-HYDRO SOLAR
Space Heating & Domestic Hot Water Combined • Solar with Gas Fired Back-Up

- The tank loses only ½ °F per hour when the burner is off
- Virtually maintenance free operation
- The modulating burner operates at a 5 to 1 turndown ratio, while the space heating module operates at a 10 to 1 turndown ratio
- Low energy costs resulting from ultra high 96% thermal efficiency and 93% combustion efficiency ratings
- 12 year limited warranty

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PHE130-80S</td>
<td>80</td>
<td>130,000</td>
<td>100,000</td>
<td>227 Gal.</td>
<td>160° F</td>
<td>72”/ 23”</td>
<td>275 lbs</td>
</tr>
<tr>
<td>PHE130-119S*</td>
<td>119</td>
<td>130,000</td>
<td>100,000</td>
<td>257 Gal.</td>
<td>160° F</td>
<td>74”/ 27”</td>
<td>445 lbs</td>
</tr>
</tbody>
</table>

*SNHX (Solar No Heat Exchanger) Versions Available

- Incredible system flexibility: Built-in auxiliary taps provide connections to air handlers or supplemental storage tanks
- The Versa-Hydro saves space by combining the equivalent of a 135,000 BTU boiler, an indirect water heater, and a buffer tank into one small footprint
- An extremely durable cupronickel & stainless steel heat exchanger boasts excellent heat transfer properties and resists corrosion
Phoenix LD Solar
Stainless Steel • Solar • Gas Fired Back-Up • Water Heater

- Reduce your water heating bills by 50% to 75%
- Federal solar tax credits
- Utility rebates & state incentives
- Energy compliance credits & fuel savings
- Long lasting 316L stainless steel tank
- No anode rods needed
- Super insulated!
- Extremely durable 316L stainless steel solar heat exchanger
- Space heating with auxiliary port
- 76,000 Btuh modulating burner with up to 3 to 1 turndown ratio
- 10 year limited warranty

Solar Tank
with a Up to 97%
High Efficiency
Gas Fired Back-up

Solar Electric
with an Indirect
Back-Up

Extremely Durable Heat Exchanger:
Enhanced Corrugated Surface:
316L Stainless Steel Heat Exchanger
Boasts Excellent Heat Transfer
Properties, Resists Corrosion & Offers
Extremely Low Pressure Drop

<table>
<thead>
<tr>
<th>Model</th>
<th>Input Modulation</th>
<th>Gal.</th>
<th>Height/ Diameter</th>
<th>Freight Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>PH76-80S</td>
<td>25,000–76,000</td>
<td>77</td>
<td>69”/23”</td>
<td>245 lbs</td>
</tr>
</tbody>
</table>

Superstor PRO SOLAR

- Reduce your water heating bills by 50% to 75%
- Federal solar tax credits
- Utility rebates & state incentives
- Energy compliance credits and fuel savings
- Long lasting 316L stainless steel tank
- No anode rods needed
- Super insulated!
- Top connections: inlet, outlet and auxiliary ports auxiliary port for the recirculation line increases overall efficiency by eliminating short cycling of the connected boiler
- 10 Year limited warranty

**Solar Electric with an Electric Back-up**

Extremely Durable Heat Exchanger:
Enhanced Corrugated Surface:
316L Stainless Steel Heat Exchanger
Boasts Excellent Heat Transfer
Properties, Resists Corrosion & Offers
Extremely Low Pressure Drop

<table>
<thead>
<tr>
<th>Model</th>
<th>GAL.</th>
<th>Height/ Diameter</th>
<th>Freight Weight</th>
<th>1st Draw **</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSP-60SE</td>
<td>60</td>
<td>52.625”/ 23.5”</td>
<td>150 lbs</td>
<td>37 Gal.</td>
</tr>
<tr>
<td>SSP-80SE</td>
<td>80</td>
<td>69”/ 23.5”</td>
<td>160 lbs</td>
<td>40 Gal.</td>
</tr>
<tr>
<td>SSP-100SE</td>
<td>100</td>
<td>61”/ 27”</td>
<td>215 lbs</td>
<td>40 Gal.</td>
</tr>
<tr>
<td>SSP-115SE</td>
<td>115</td>
<td>69”/ 27”</td>
<td>235 lbs</td>
<td>60 Gal.</td>
</tr>
</tbody>
</table>

**First draw was acquired by heating the entire tank until the thermostat was satisfied, then drawing until a Delta T of 15ºF was seen at the outlet**
For the ultimate in performance and longevity, choose a SuperStor Stainless Steel Solar Tank. Each SuperStor Solar Tank features the highest performance available. Its internal cupronickel finned heat exchanger is capable of quickly transferring energy from any solar collection system. Its tank is constructed of high quality 316L stainless steel for long service life and eliminates foul water caused by anode rods.

A limited Lifetime Protection Plan gives users peace of mind that their investment is backed by the industry’s strongest warranty. Thick CFC-free foam insulation provides superior heat retention and durability. Encased in an attractive silver colored jacket, the SuperStor Solar Tank will look good while providing many years of worry-free performance.

Tank Key: Number = Gallon Capacity; SB = Solar Backup; DW = Double Wall; SE = Solar Electric; NHX = No Heat Exchanger; DB = Drain Back; DBX = Drain Back with Exchanger; S = Solar (most tanks are available in these variations)