



An Investment with Real Returns



THERMOPOWER

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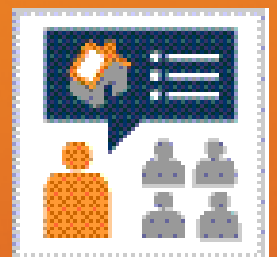
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SunMaxx INFORMATION GUIDE

Solar Storage Tanks



SOLAR STORAGE TANKS

Purchasing a storage tank specifically designed for a solar thermal hot water system is the best way to ensure your system reaches its full potential in efficiency. The internal heat exchanger located within a solar storage tank is the single most efficient way to transfer heat from the collector to your building's heating or hot water system. This allows water to be preheated before it actually enters the existing hot water and be stored. In some cases, a solar storage tank can replace an existing hot water tank.

SunMaxx solar hot water storage tanks incorporate strong insulation, durable exterior construction and efficient internal copper coil heat exchangers. These features make SunMaxx solar hot water storage tanks a great value to add to any new solar hot water system.

SunMaxx carries solar storage tanks for both commercial and residential applications. Our residential product line includes the StorMaxx-DW series, StorMaxx-Ptec series and the StorMaxx-Ctec series. For larger commercial applications, SunMaxx offers the StorMaxx-NP product line.

Each type of tank is designed to increase the efficiency of your SunMaxx solar thermal system and improve its overall performance and cost-effectiveness. The size of the tank for each application is determined by the hot water or space heating requirements of the overall system.

Choosing Your Solar Storage Tank

Choosing the right size solar hot water storage tank is critical in ensuring that your SunMaxx solar hot water system is as efficient and cost-effective as possible. There are a couple of factors that go into determining which SunMaxx solar hot water storage tank you need for your new solar thermal hot water system. These factors are:

- Storage tank capacity
- Number of internal heat exchangers

Storage tank capacity is incredibly important. To ensure that you have all of the hot water on demand that is required in your application, you will need to have enough storage on hand to meet your hot water needs. Typically, the average person uses 20 - 30 gallons of hot water each day. SunMaxx recommends 15 - 20 gallons of storage per person in order to meet your hot water needs throughout the day. With this in mind, a household of four people should have at least an 80 gallon solar hot water storage tank. It is possible to undersize your solar hot water storage tank because hot water will be heated to replenish the hot water that is used throughout the day. But keep in mind, a larger storage capacity will increase the overall efficiency of your solar thermal system.

The number of internal heat exchangers is also important. Systems which will use SunMaxx solar collectors and a backup electric heating element can use a solar hot water storage tank with a single heat exchanger (used for the solar collector input). If a secondary heat source is used, such as a boiler, it is necessary to use a solar hot water storage tank with two internal heat exchangers.

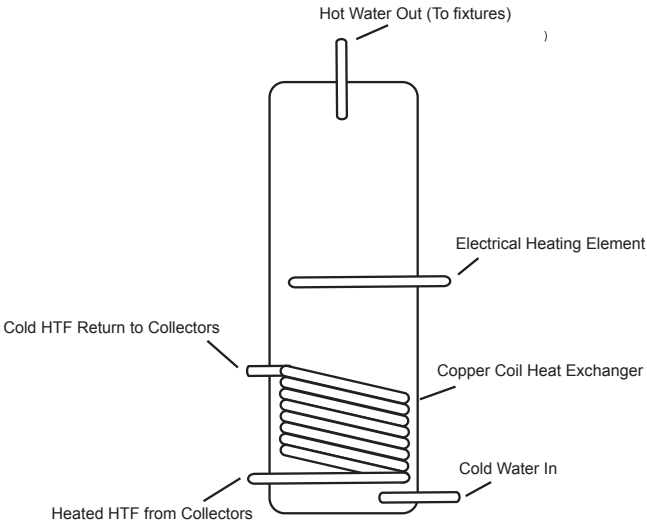
Because of the expense of copper coil heat exchangers, your solar hot water storage tank should contain only the heat exchangers you require for your system, or will reasonably require in the foreseeable future. This will keep your initial investment as low as possible and ensure as short a payback period.



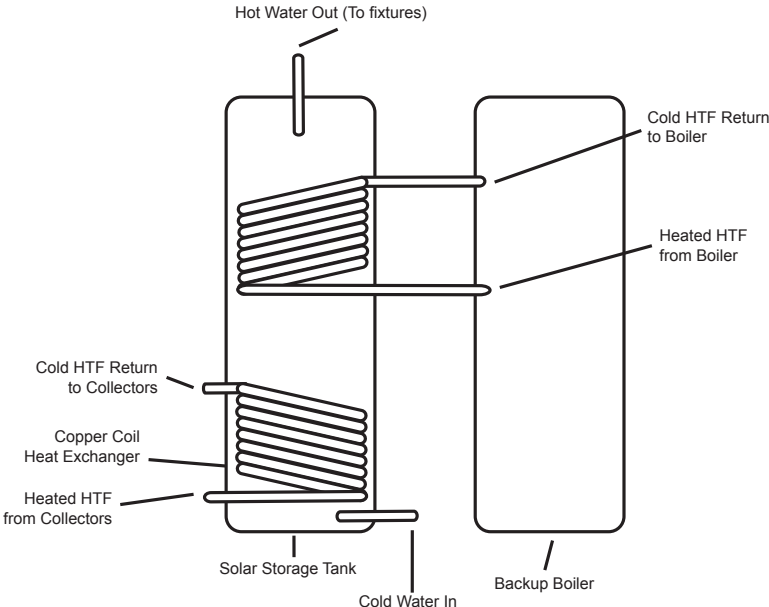
Connection Options & Diagrams

SunMaxx solar hot water storage tanks are extremely versatile in their application. There are a number of ways to design the connection of your SunMaxx solar hot water storage tank(s).

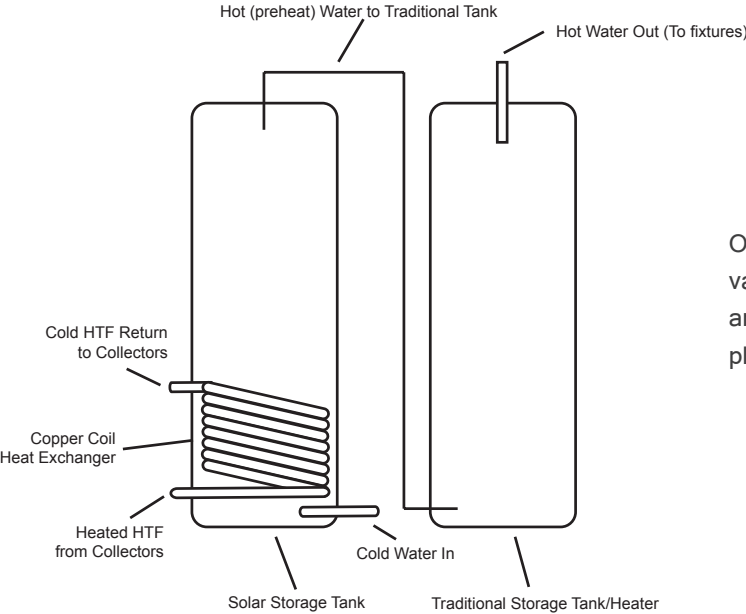
Single Tank with Electrical Backup



Solar Storage Tank w/ Boiler Backup, (2) Heat Exchangers



Solar Preheat Tank with Traditional Tank/Heater



Our solar hot water storage tanks can be connected in a variety of system sizes and configurations, including in series and parallel. For additional connection options and diagrams, please see the SunMaxx Technical Manual.





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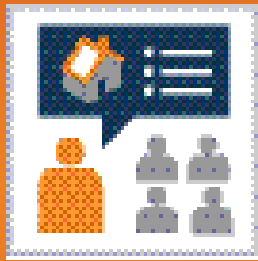
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Complete solar thermal training
and education



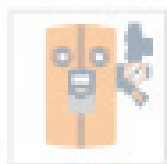
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