



SUPERIOR THERMAL BATTERY PERFORMANCE

Forget everything you think you know about thermal storage tanks. Our Thermal Tank was custom-designed to be the most flexible, high-performing, and durable solution in the market.



MODULAR DESIGN

Made of modular EPP foam components and other non-corrosive elements, our tank ships efficiently and assembles in minutes. Easily installs in difficult to reach spaces and tight mechanical rooms.

MANY CONFIGURATION OPTIONS

The Thermal Tank is available in 350, 500, and 700 gallons. Several tanks can be combined to provide larger thermal storage volumes. The tank can be combined with various energy sources for ambient, solar, or waste energy capture. It can also serve as a component of a traditional system, providing additional storage and buffer capacity.

HIGH PERFORMANCE

With an R18 energy retention value, the temperature loss in our Thermal Tank is less than 4 degrees F per day. A single 350 gallon tank stores 54 kwh of thermal energy and can provide up to 1400 gallons of hot water per day when coupled to a heat pump.

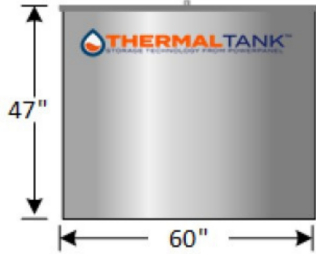
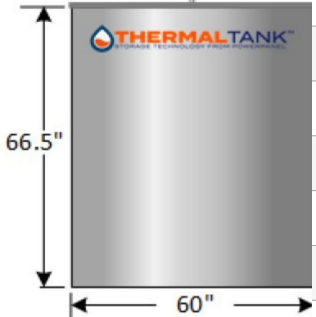
LONGEVITY

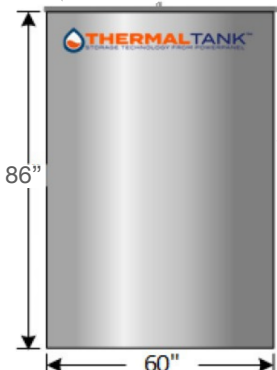
The Thermal Tank is non-corrosive and unpressurized. Its lifespan exceeds traditional tanks by 3x. All components can be replaced individually and fully recycled. The water in our tank is a working fluid, similar to a battery, which never leaves the tank. A high performance heat exchanger transfers the energy to the load side. No minerals are introduced to the tank after a one-time fill.

FINANCIAL BENEFITS

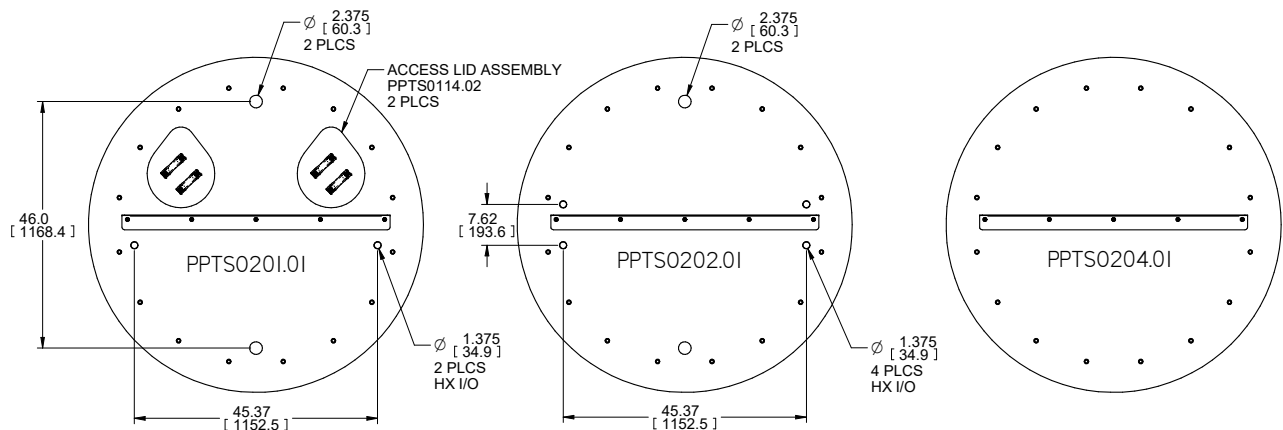
Our competitive product cost paired with high performance and longevity makes the Thermal Tank an attractive investment with short payback periods. The increased thermal storage in a hot water system allows our clients to lower operating costs, avoid peak rate cycles, and lower demand charges.

SPECIFICATIONS: **THERMAL TANK**TM ENERGY STORAGE TECHNOLOGY

Storage Type		Atmospheric Unpressurized
Storage Media		Water
350 GAL [1350 LITER] TES		
	Reference Part Number	PPTS0115.03
	Storage Volume	350 gallons [1350 Liters]
	Diameter	60 inches [1.524 m]
	Overall Height	49.6 inches [1.259 m]
	Dry Weight (no fluid)	130 lbs [60.0 kgs]
	Weight (filled with water)	3,089 lbs [1,402 kgs]
Floor Loading (filled with water)		157.4 lbs per sq ft [769 kgs per m2]
Shipping (single unit)		48 x 48 x 54 inch tall palletized box - 230 lbs
Shipping (volume purchases)		55 units per 40 foot ISO Container - 7,000 lbs
350 Energy Storage		
Energy Storage per Deg C Temperature Delta		1.56 kWh [5,353 BTU]
Energy Storage @ 35 Deg C Temp Delta		54.6 kWh [186,350 BTU]
Temperature loss per 24 hours (free convection)		2.1 Deg C [3.8 Deg F]
500 GAL [1900 LITER] TES		
	Reference Part Number	PPTS0177.01
	Storage Volume	500 gallons [1,900 Liters]
	Diameter	60 inches [1.524 m]
	Overall Height	69.1 inches [1.755 m]
	Dry Weight (no fluid)	162 lbs [73.5 kgs]
	Weight (filled with water)	4,351 lbs [1,973 kgs]
Floor Loading (filled with water)		221.7 lbs per sq ft [1082 kgs per m2]
Shipping (single unit)		48 x 96 x 54 inch tall palletized box - 300 lbs
Shipping (volume purchases)		37 units per 40 foot ISO Container - 7,100 lbs
500 Energy Storage		
Energy Storage per Deg C Temperature Delta		2.21 kWh [7,535 BTU]
Energy Storage @ 35 Deg C Temp Delta		77.0 kWh [263,720 BTU]
Temperature loss per 24 hours (free convection)		1.6 Deg C [3.0 Deg F]

700 GAL [2650 LITER] TES	
	Reference Part Number
	PPTS0182.01
	Storage Volume
	700 gallons [2,650 Liters]
	Diameter
	60 inches [1.524 m]
	Overall Height
	88.6 inches [2.250 m]
Dry Weight (no fluid)	
204 lbs [92.5 kgs]	
Weight (filled with water)	
6,046 lbs [2,743 kgs]	
Floor Loading (filled with water)	
308 lbs per sq ft [1504 kgs per m2]	
Shipping (single unit)	
48 x 96 x 54 inch tall palletized box - 360 lbs	
Shipping (volume purchases)	
25 units per 40 foot ISO Container - 7,200 lbs	
700 Energy Storage	
Energy Storage per Deg C Temperature Delta	
3.08 kWh [10,509 BTU]	
Energy Storage @ 35 Deg C Temp Delta	
108.0 kWh [263,720 BTU]	
Temperature loss per 24 hours (free convection)	
1.3 Deg C [2.4 Deg F]	

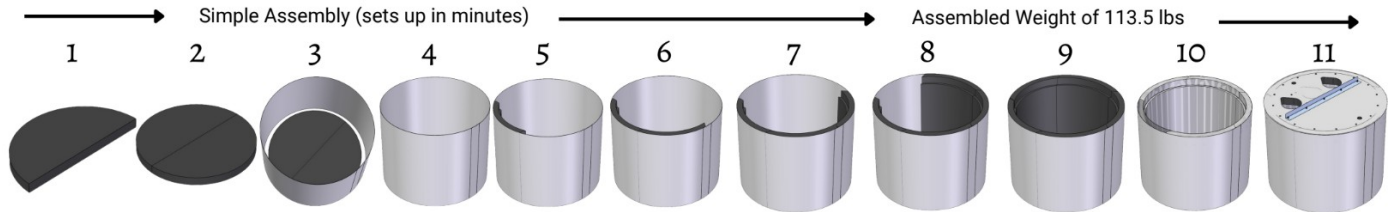
Lid Configurations



Download Thermal 2-D and 3-D CAD files at:
thermalenergyhq.com/thermal-tanks/

SPECIFICATIONS:

Working Environment	
Min Ambient Environmental Temperature	- 40 Deg C [- 40 Deg F]
Max Ambient Environmental Temperature	+65 Deg C [+150 Deg F]
Min Working Fluid Temperature (chilled water)	+ 3 Deg C [+38 Deg F]
Max Working Fluid Temperature (hot water)	+ 93 Deg C [+200 Deg F]
Material	
Structure and Insulation (Sidewalls and Ends)	Expanded Polypropylene Foam (EPP)
	Nominal Insulation Value = R18
Outer hoop and Tank Cover	GAF Evergard 80 mil [2 mm] TPO Roofing Membrane]
	TPO = ThermoPlastic Olefin
	UL Listed, FM Approved, Miami-Dade County Product Control Approved, State of Florida Approved, CRRC Rated, Title 24 Compliant, ENERGY STAR® Certified, ASTM D6878.
Liner	40 mil High Temperature PVC



Certifications



Berry Act Compliant



LISTED

**Alternative Energy Storage Tank
MH67621**

List of Country and Patent are:	
US8381939	CA2752673
CNZL201800170163	EP2398719
FR2398719	DE6020100397947
JP5686746	KR101617817

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