

# Consolar Thermal Heat Stores

for solar hot water and heating



These innovative thermal stores are new to the UK. Developed over 20 years of use in thousands of installations in Europe.

## Consolar heat store benefits

- maximise your use of free solar energy, using **SOLAR ENERGY, DAY and NIGHT**
- produce solar hot water and make a contribution to space heating
- solar hot water is available rapidly, due to the unique stratification system
- solar heat is available even on cloudy days, because of the high storage capacity and excellent insulation
- mains pressure hot water is heated on demand
- no risk of legionella infection
- low installation and maintenance costs
- long life, lightweight and eco-friendly construction
- choose from a range of thermal stores to suit your application

## What is a “thermal heat store” ?

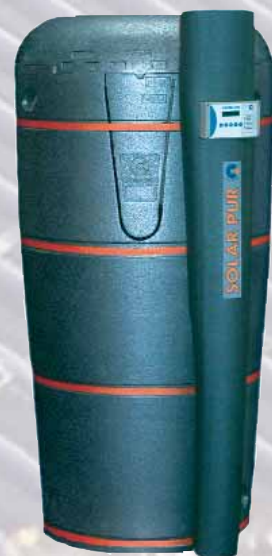
It is a means of storing heat energy that can subsequently be used for the production of hot water or contributing to space heating.

Solar energy is absorbed by collectors on the roof and used to heat a large volume of water within the store. Thick insulation makes sure the heat doesn't leak away and if required a boiler is used to top up the heat in the store. In addition to producing domestic hot water it can also help with space heating, particularly with low temperature systems like under floor heating.

Thermal stores are different to conventional hot water cylinders because the water is not used directly when you turn on a tap. Instead water is heated on demand by a highly efficient heat exchanger. This is similar to a combi-boiler but hot water is supplied without delay and at mains pressure. One Conus or Solar Pur store can provide enough hot water for 2 simultaneous showers. If a higher flow rate is required a bigger store can be used or two smaller stores connected in parallel.

The same principle applies to the Solus stores but the larger volumes are designed to buffer store large volumes of heat from a wood or oil burner.

Also available is the Coax range of highly efficient mains pressure (un-vented) solar hot water storage cylinders. These have a solar heat exchanger designed to pre-heat the cold water as it flows into the cylinder and excellent insulation to retain the captured solar energy.



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# Consolar Thermal Stores



## Conus 502

Type: Vented thermal store

Use: Domestic, single house, multiple flats

Heating source: Solar, oil and gas boilers, wood pellet stoves, any controlled or regulated heat source

Capacity: 500 litre

Size: 940 x 1865 (+ 80mm)

Construction: Polypropylene tank

## Solus range

Type: Sealed and pressurised thermal store (accumulator)

Use: Domestic, multiple housing units, commercial

Heating source: Solar, oil and gas boilers, wood pellet stoves, batch burning wood stoves.

Capacities: 550, 850, 1600, 2200 litres

Size: Varies with capacity

Construction: Steel

## Solar Pur

Similar to the Conus but a "drain-back" system without a solar heat exchanger. The water from the store circulates through the roof mounted solar collectors and drains back when there is no sunshine or the store can take no more heat. This avoids the use of an antifreeze solution and eliminates the possibility of overheating. It also increases the operational efficiency of the flat plate collectors.

Type: Vented thermal store

Use: Domestic, single house, multiple flats

Heating source: Solar, oil and gas boilers, wood pellet stoves, any controlled or regulated heat source

Capacity: 500 litres

Size: 940 x 1865 (+ 80mm)

Construction: Polypropylene tank

## Coax range

Type: Un-vented storage cylinder

Use: Domestic, single house, multiple flats

Heating source: Solar, oil and gas boilers, wood pellet stoves, any controlled or regulated heat source

Capacity: 390 litres

Size: 860 x 1870mm

Construction: Enamelled steel

## Collectors and Controllers

Greenshop Solar Ltd offer a range of collector options including Consolar vacuum tubes and Consolar flat panel collectors. It is possible to use the solar thermal stores with third party collectors and controllers.

We are UK distributors for Consolar vacuum tubes and flat panel collectors. The vacuum tubes are supplied as 1m<sup>2</sup> assemblies and are

compact, good looking and quick to install. They have a very low embodied energy from manufacture with a payback as low as 18 months.

We can supply a range of solar controllers and Consolar integrated heating management controllers to the UK market. The advantage of the Consolar controllers is that a single unit can be used to manage the thermal store, the boiler and the building heating system.



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