

Solar Electric Xcel Heat Bank Pack

An Advanced Heat Bank thermal store, capable of providing electric central heating and mains pressure hot water, complete with solar panels, header tank, and all controls factory fitted and wired to store. Just add pipework for a totally renewable, maintenance free solution.

- Mains Pressure Hot Water up to 9 bar.
- Fully Vented System.
- Solar and Electric Ready.
- Options for Solid Fuel and Heat Pumps.
- Fully Pre-Fabricated for quick reliable installation.
- No Annual Maintenance Requirements.
- Glycol Free, Maintenance Free, Solar Operation.



The Full Kit:

The Solar Panels included in the pack have been carefully selected for the best balance of performance, reliability, appearance and price. The Feed and Expansion Tank is fully assembled and insulated, further saving installation time.

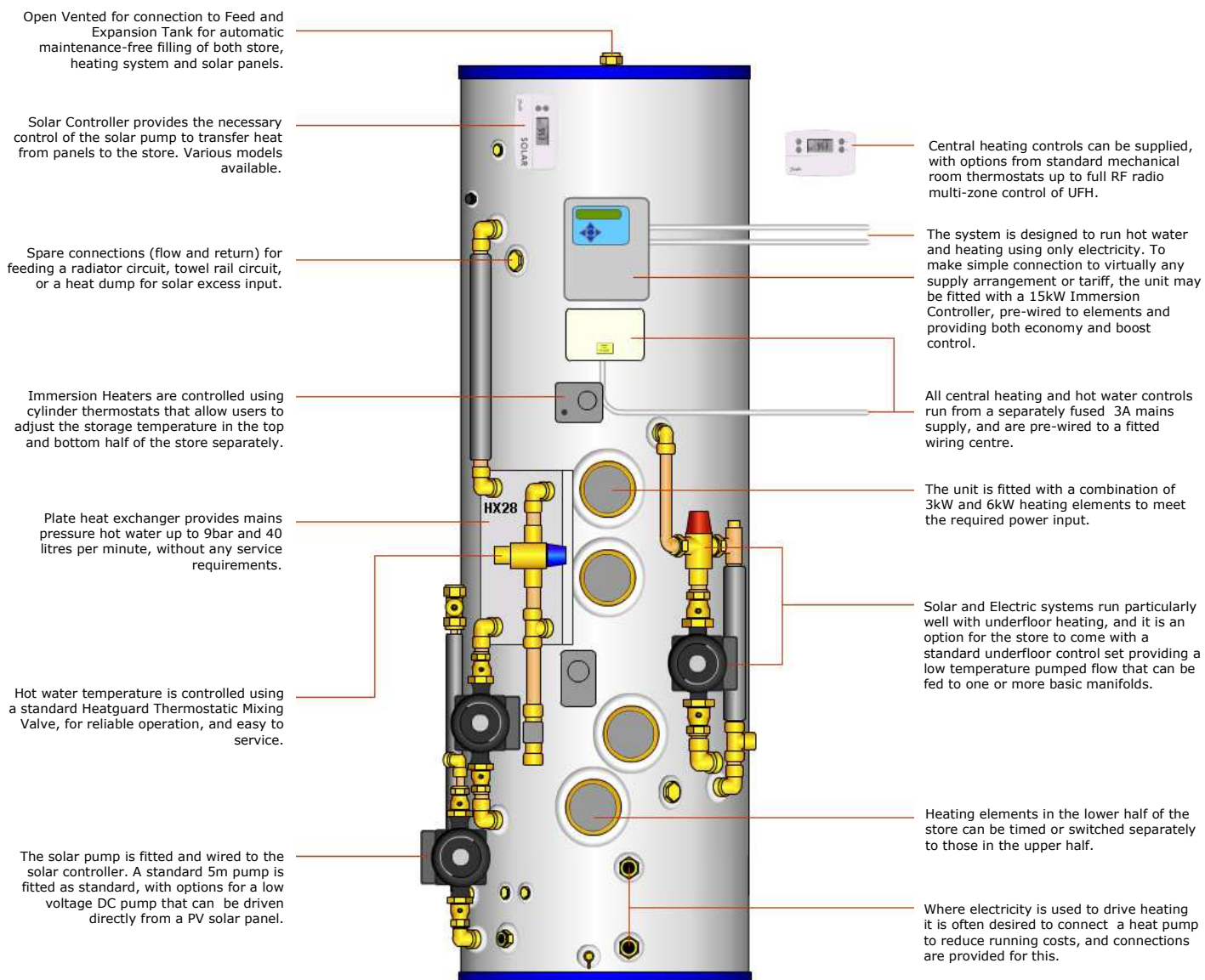
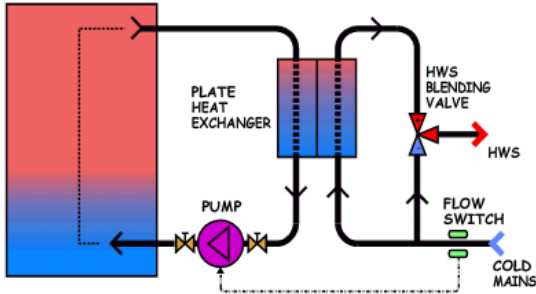
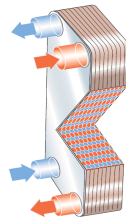


Plate Heat Exchanger

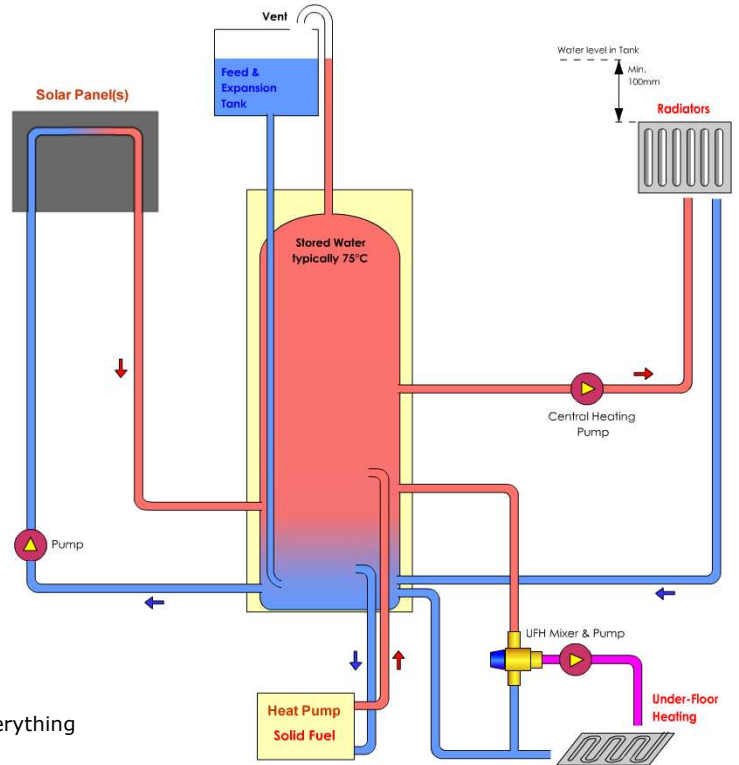
Technology:

Mains pressure hot water is heated through a plate heat exchanger that pulls heat from the stored hot water. The Solar-PHE itself is unpressurised, overcoming all safety and servicing demands that arise from a pressurised store.



System Integration:

Although it sounds complicated, combining multiple heat sources with multiple heat loads, the use of a thermal store simplifies everything considerably. The single feed and expansion tank is used to feed all the circuits, removing the need for any separate filling loops, pressure relief, or expansion vessels. Everything automatically fills, and there is only one discharge (from the feed tank), making the system more user friendly and removing the possibility of panels running dry. This approach is also more efficient, without the need for a solar coil or heat exchanger, allowing a large number of panels to be connected without causing problems. Overheat protection can be provided by either stopping the solar pump, or dumping heat to radiators or the underfloor heating. Frost protection can be provided by either the solar controller (starting the pump) or by allowing gravity circulation back to the panel during freezing conditions.



Solar Options:

The alternative options for solar include the use of a PV pump for direct connections to an PV electric solar panel, that allows solar to operate power-free. Units can also be supplied with a coil and pressurised solar circuit for glycol systems.

STANDARD OPTIONS

DHW Heat Exchanger	160 kW
Solar Assembly	Direct Fed
Thermostatic DHW Mixer	22mm
Solid Fuel Connections 28mm	
Twin Heating Circuits	22mm
Immersion Heater	(4x3kW) 12 kW

ADDITIONAL OPTIONS

Immersion Heaters	12kW to 24kW
Immersion Heater Controller	15kW, 30kW
Thermostatic DHW Mixer	28mm
Temperature Gauge	
Solar Coil, and Sealed System Controls	
PV Solar Pump	
Secondary Return Pump	15-14, 15-50
Heating Pump Grundfos	15-60, 25-55, 25-80
Modulating Heating Pump	
Underfloor Heating Valve	22, 28mm
Programmer	One, Two Channel
Programmable Room Thermostat	TP5000, TP7000
RF Radio Communication with Room Thermostat(s)	1, 2, 3 Zone
Overheat Thermostatic Switch (wired to heating)	

Wood Burner Connection:

Connection to wood burners, or similar, is made directly to the store in larger diameter 28mm fittings. The store is typically positioned higher than the wood burner so that the heat rises into the store under thermo-syphon (gravity) action, without the need for further controls.



STANDARD SIZES (COPPER)

CAPACITY	DIAMETER	HEIGHT
210 ltr	530mm	1600mm
250 ltr	530mm	1850mm
250 ltr	530mm	1600mm
250 ltr	530mm	1350mm
300 ltr	580mm	1850mm
300 ltr	680mm	1500mm
330 ltr	580mm	2000mm
350 ltr	680mm	1700mm
400 ltr	680mm	1850mm
450 ltr	680mm	2000mm