

NON RESIDENTIAL SYSTEM

CLOSED CIRCUIT PUMP SYSTEM



Description

The Heat Store system is a Closed Circuit Pumped unit, suitable for mains pressure connection and that consists of a potable storage cylinder with a certain volume and a closed circuit system.

The Heat Store has Vitreous Enamelled cylinders each with a storage capacity of 300 litres for the potable circuit. The potable cylinders shall be encased in a steel jacket containing the closed circuit system

'M' Collector

Aperture (heating)	1.86	m ²
Area	1940	mm
Length	1020	mm
Width	77	mm
Height		
Absorber Surface	Chrome Black	
Absorber Material	Copper	
Riser Material	Copper	
Number of Risers	6	
Capacity	4.0	litres
Weight (full)	44.0	kg
Weight (empty)	40.0	kg
Working Pressure	1000	kPa
Tray Material	0.7mm	Aluminium - Marine Grade
Tray Insulation	55mm polyester blanket	
Collector Glass	3.0mm	Tempered Glass
		Low Iron

Flat Roof Installation: for flat roof installations use the Variable Pitch Frame, where the inclination can be set to 15°, 20°, 25°. Refer to section 13-5 to 13-6 for more details on Variable Pitch Frames.

Cyclone, Hurricane or Typhoon Prone Areas: refer to Section 13-7 to 13-10 for more details on Cyclone rated frames.

Inclination: for self cleaning of glass, a minimum angle of 10° is recommended.

Shading: the collectors should be free from shading.

Clearance: the collectors should be free from any obstructions on all sides for a minimum distance of 500mm.

Auxiliary Boost Electric (Optional)

Power Supply: Must comply with local electrical codes, and be three phase 415 volts AC, 45 amps minimum per phase.

Type	Immersion Copper Sheath		
Supply Voltage	220-240VAC		
Rating (kW)	4.8		
	2500J	3500J	6500J
No. of Elements	4	7	10
Total (kW)	19.2	33.6	48
Recovery:			
30C Rise	550 l/hr	960 l/hr	1,375 l/hr
40C Rise	400 l/hr	720 l/hr	1,030 l/hr
50C Rise	330 l/hr	575 l/hr	825 l/hr

Auxiliary Boost Gas (Optional)

Gas Supply: must comply with local gas codes and have operating pressure of 1.0kPa with Natural Gas and 2.75kPa with LPG.

Gas connections are 20mm

Supply Voltage	220-240VAC		
	2500J	3500J	6500J
Burner Rating	275 MJ/hr	345 MJ/hr	420 MJ/hr
Output	61 kW	78 kW	93 kW
Recovery:			
30C Rise	1,765 l/hr	2,185 l/hr	2,685 l/hr
40C Rise	1,325 l/hr	1,640 l/hr	2,015 l/hr
50C Rise	1,060 l/hr	1,310 l/hr	1,610 l/hr

Storage Cylinder

Weight (full)	3,550	kg
Weight (empty)	1,050	kg
Overall Dimensions:		
Length	2,800	mm
Width	1,570	mm
Height	1,570	mm
Total Capacity:	2,500	litres
Potable Circuit	1,200	litres
Closed Circuit	1,300	litres
Working Pressure:		
Closed Circuit	90	kPa
Potable Circuit	850	kPa

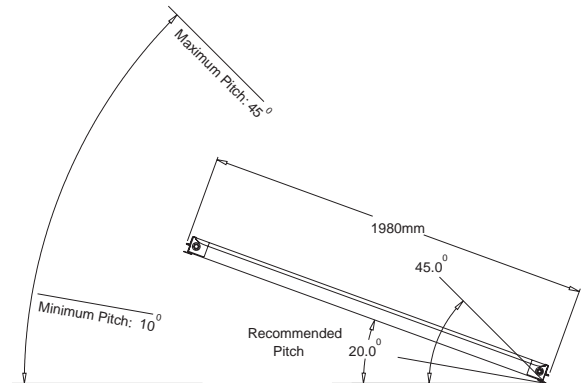
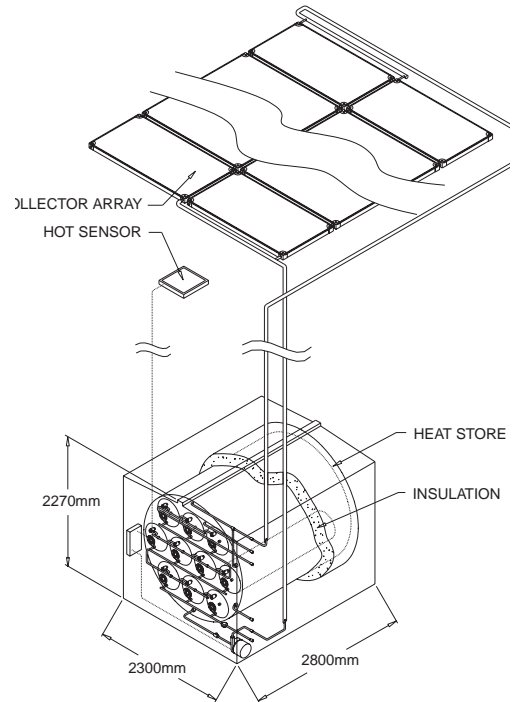
Potable Cylinder:

Material	2.5mm Steel
Lining	Ceramic Lining
Anode	20mm Magnesium Steel Core
Insulation	80mm Polyurethane Pressure Injected Zero CFC
Outer Jacket	5.00mm Steel
Outer Panels	0.8mm Colorbond

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Model	2500J Tank System	3500J Tank System	6500J Tank System
Number of Collectors			
Storage Capacity	litres		
	US Gal		
Delivery Capacity	litres		
- Solar	US Gal		
Boost Recovery	litres		
4.8kW (40C rise)	US Gal		
Weight - Empty	kg		
	lbs		
Weight - Full	kg		
	lbs		
A - Length of System (Top to Bottom)	mm		
	inches		
B - Height of Tank (roof to top of tank)	mm		
	inches		
C - Width of System	mm		
	inches		
Working Pressure	kPa		
	psi		



Water Connection Specification

Potable Water Connections	Suitable for Mains Pressure
Cold Water Expansion Valve (not supplied)	850 kPa
Maximum Mains Supply Pressure:	680 kPa
With Cold Water Expansion Valve	800 kPa
Without Cold Water Expansion Valve	1000 kPa
Temperature & Pressure Relief Valve (supplied)	99C
Water Connections	Hot & Cold 20mm 3/4"

Temperature & Pressure Relief Valve

This valve is set to relieve at 1,000 kPa and/or when the water temperature reaches 99C. It is supplied with the system and must be fitted or the warranty will be void.

Cold Water Relief Valve

This valve is not supplied with the Hot Water system. It is a legal requirement in some areas that a Cold Water Relief Valve is fitted, so please consult your local plumbing code. It is a condition of the warranty that a Cold Water Relief Valve is fitted as standard where the water saturation index exceeds +0.4

Anode

The correct anode type for the water supply being used must be fitted in the water heater. The unit comes standard with a Magnesium Anode that is suitable for water supplies with a Total Dissolved Solids of 40-600mg/l.

Orientation Chart & Guide

Refer to Section 2-9 for details on orientation of the Solahart systems. Generally it is recommended that the system faces the equator, at an angle equal to the local latitude.

1. The system should face the equator. In the Northern hemisphere, the system should face South and in the Southern hemisphere, the system should face North.
2. If the roof is facing between 45° East or 45° West install the system on the pitch of the roof.
3. If the roof is facing between 45° and 135°, install the system on a Fixed Pitch Frame on a side pitch.
4. If the roof is facing between 135° and 122°, install the system on a Fixed Pitch Frame on a reverse pitch.
5. If the roof is facing between 225° and 270°, it is preferable to add an extra collector instead of installing on a Fixed Pitch Frame on a side pitch.
6. If the roof is facing between 270° and 315°, install the system on a Fixed Pitch Frame on a side pitch.