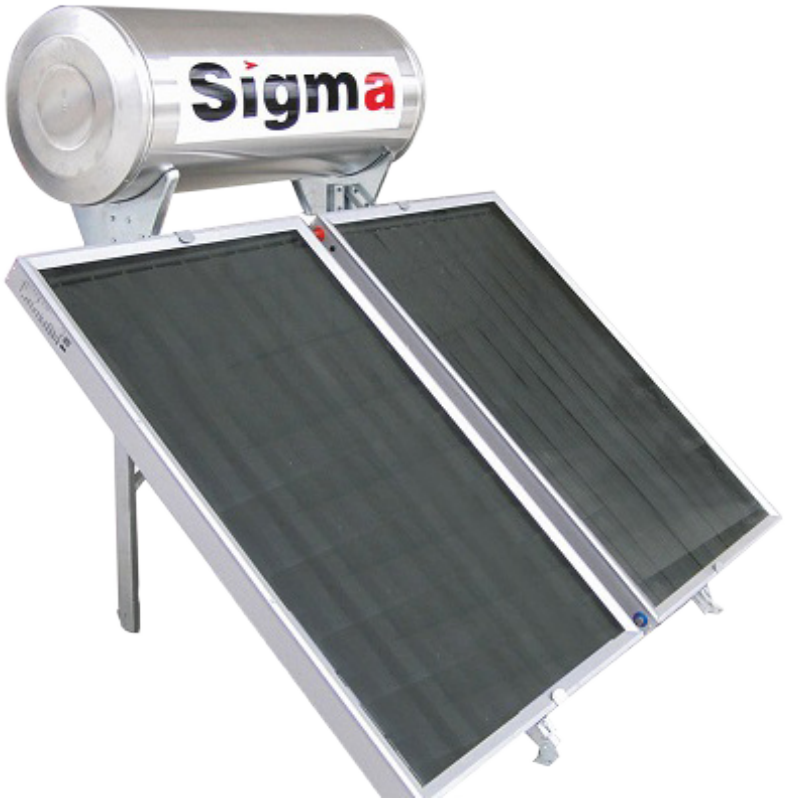
Sigma Energy

Standard Thermosiphonic System

Ultra high efficiency jacket, which surrounds the 80% of the storage tanks total area.
It includes the specific heat transfer liquid of the collectors (water with propylene glycol, SI-P90), transferring heat using the maximum surface, towards the inner tank.
The tank is equipped with an electric heating element of 4KW, which ensures that the hot water is available also during days of minimum sunshine.
The tanks insulation is high-density polyurethane of 45kg/m3 and 50mm thickness, CPC free.
Using this kind of high-density polyurethane, we succeed in achieving the highest system efficiency and heat storage during the year.
The polyurethane infusion, is done with a special pump, ensuring the precise injected quantity, along with the correct temperature of infusion.
Special scattered in the cold-water inlet, so that an optimum heat layer is maintained.
The heat scattered ensures that the cold water entering the tank not mixed directly with the already hot stored water. With this way, we secure the best heat layer inside the tank, therefore increasing the hot water availability at any given moment.



Thermosiphon systems

The thermosiphon systems are the most widespread systems in Southern European and African countries, as hi gh temperatures are not a limiting factor in terms of the place of installation of the boiler, which is not the case in Central and Northern European countries. The specific system consists of the collector, the boiler and the support base.

Safe use of clean water

The inside of the boiler has been coated with an inert material - a mixture of inorganic silicates - without chemical additives (enameled). The high firing temperature of 850ºC has formed a glass fiber surface, as a result of which the water inside the boiler is so clean that, apart from being used for bathing, it can also be used for domestic use. Absolutely safe for health, because it does not allow the growth of bacteria according to DIN 4753 Teil 3 & 6. The enameling process is certified with the enamel quality mark (DEV).

Peripheral alternator for maximum efficiency

Because the solar water heater works without forced circulation (circulator), the Sigma boiler uses a mantle type exchanger (rather than a coil) for maximum efficiency, which surrounds most of the tank.

Strong polyurethane insulation

Hot water, thanks to the strong 50 mm polyurethane insulation, which surrounds the entire tank, without carbon chloride. Polyurethane injection with a special mixing machine for a perfect result.

EN 12975-1
EN 12975-2
ISO 9001:2015

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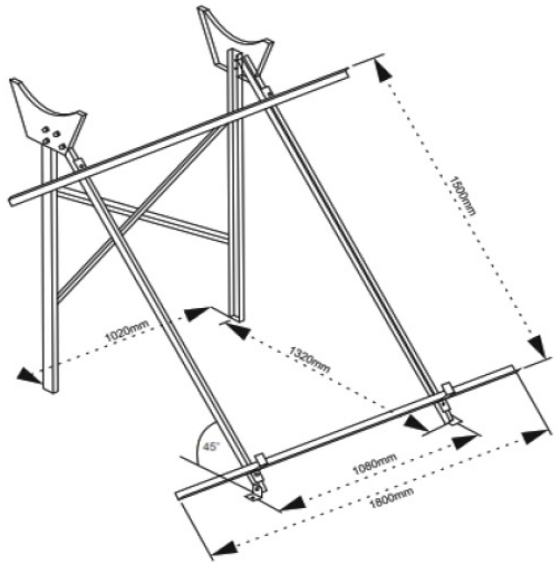
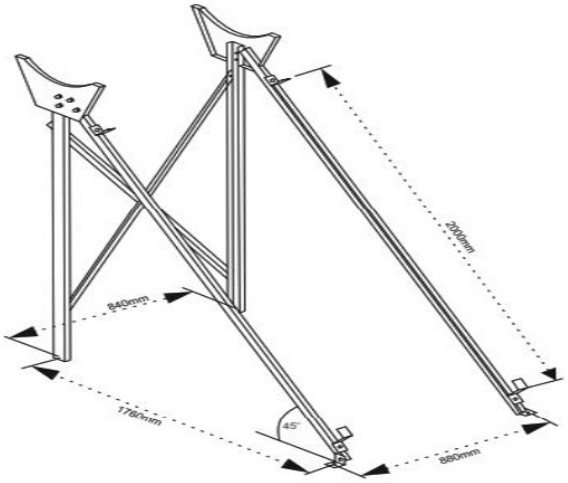
Specification

Dimension





Data

Model	SA 200/2	SA 300/3
Capacity	200 Liter	300 Liter
Suitable for	3-4 Person	5-6 Person
Collector area	2.0 m² (2m² x 1 Collector)	3 m² (1.5m² x 2 Collector)
Backup electric heater	3-4 Kw	
Casing	Pre-painted galvanized sheet 0.6mm, color RAL 9006	
Insulation	Polyurethane without CFC, p=40kg/m², thickness 50mm	
Boiler thickness	2.5mm	
Boiler protection	850° C with direct glazing	
Maximum working pressure, open loop	10 Bar	
Maximum working pressure,closed loop	3 Bar	
Jacket capacity in liquid (L)	4.9	5.8
Weight (kg)	65	90
Jacket capacity	11 Liter	21 Liter
Hot / Cold collector side	3/4” female thread	
Hot / Cold collector side	1/2” male thread	
Heat transfer medium	Special heat transfer medium which protects from corrosion and frost – pharmaceutical poly propylene glycol / water mixture	

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