

BAXI



BAXI Solar
Water Heating Systems

BAXI Solar Water

A photograph of a family of three—a man, a woman, and a young child—playing together outdoors. They are sitting on the ground, focused on playing with colorful toys. The man is on the left, the woman is on the right, and the child is in the center. The background shows a bright, sunny day with trees and a large, glowing sun in the upper right corner. The overall mood is warm and positive.

Solar energy is clean, free and abundant. It is the clear choice for environmental and energy minded people. Solar heating becomes even more compelling when you consider rising energy prices, depleting fossil fuels and growing conservation initiatives.

Baxi's commitment to finding alternative energy sources has fueled its development of an integrated solar heating system. The Baxi heating system may include Baxi Luna wall-hung boilers to ensure optimum performance and sustainable comfort.

Solar energy is the clear choice for building a better future.

Heating Systems

Maximum Use of the Sun's Energy

The Baxi integrated solar heating system maximizes the sun's energy by using high-performance selective, prismatic collectors.

The Baxi solar collectors are the right solution for any application – they can be used to provide domestic hot water, or supplement pool heating systems and low temperature space heating via heat exchangers.

A solar water heating system that maximizes the sun's energy typically provides up to 65% of the annual domestic hot water heating energy requirements for a single family home, depending upon geographic location.



Quality and Reliability

To ensure quality and reliability, Baxi system components are specifically designed for solar heating systems by leading solar equipment suppliers.

Baxi Integrated System

Baxi has designed the solar heating system to be easily integrated with its boilers. Another solution to ensure maximum comfort from Baxi.

Selective Prismatic Solar Collectors

Baxi flat plate collectors with prismatic glazing and highly selective coating offer the optimal combination of absorption efficiency (95%) and reflective losses (5%).

The solar glazing and absorber are housed in an aluminum frame with effective insulation and weather proof seal.

Automatic Shutdown

A built-in shutdown sensor eliminates the need for a dump tank. This capability is activated at high temperatures when there is less heat required than produced.

Indirect Storage Tanks

Baxi indirect storage tanks, designed to be integrated with the solar heating system, are supplied standard with dual serpentine coils.

Baxi tanks are available in several sizes, ranging from 48 gallons (180L) to 211 gallons (800L) in capacity.



Pump Station

The Baxi two-line pump station allows for the integration of the differential temperature controller.

The station includes pump, supply and return thermometers, flowmeter with scale, pressure relief valve with manometer, filling and flushing port and insulated enclosure.



Differential Controller

Baxi solar heating systems use a programmable differential temperature controller featuring an illuminated system monitoring display.

The display shows the system schematic and several system component symbols. It can be easily set up using the three front panel mounted buttons.

Display temperature readout can be in either °F or °C.



Heat Transfer Fluid

The fill kit is a propylene-glycol based, heat transfer fluid specifically formulated for solar heating systems.

It is mixed with distilled water in ratios from 40% to 75% by volume to achieve the freeze protection required.

Baxi Field Test Results

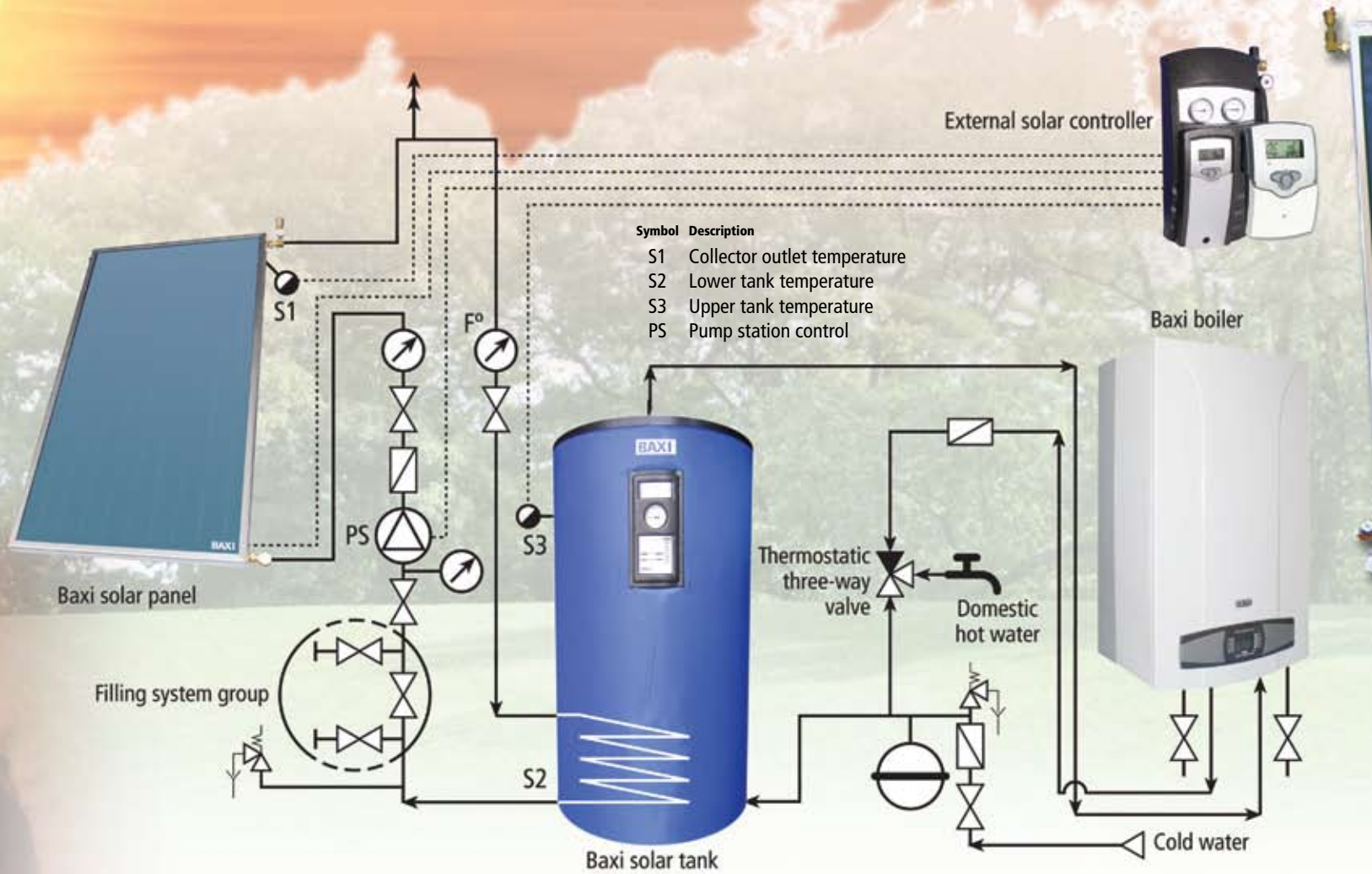
Green and Free Energy

In a field test conducted near Cooperstown, N.Y., a two-panel Baxi Solar Water Heating System was selected to heat a new energy efficient 4,000-square-foot passive solar home located near Cooperstown, New York.

The Baxi Luna 3 Comfort modulating combination heating and domestic hot water boiler was also integrated with the system to provide supplementary heat. The first wallhung boiler built with solar in mind, the boiler accepts pre-heated water from the solar storage tank, brings it quickly and economically up to demand, and then shuts off.

The homeowners of this solar field test report they used just 115 gallons of propane from June through December. During that period, neighbors with a similar sized home (built five years previously) say they used almost five times more fuel – just to heat their home.

Heating Systems



Baxi Integrated System

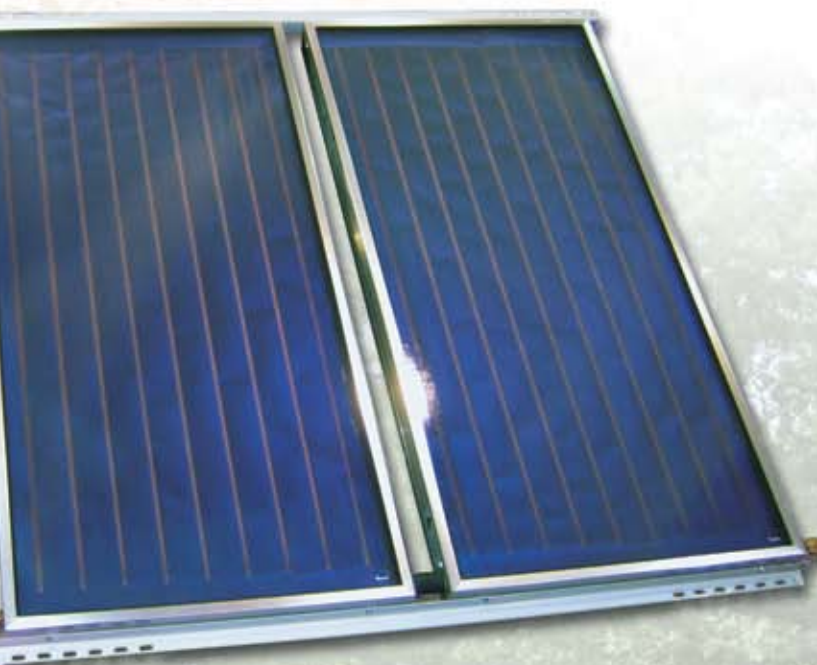
The Baxi integrated solar heating system includes the following components:

- ◆ Baxi selective prismatic solar collectors
- ◆ Pre-assembled pump station
- ◆ Manual filling pump (optional)
- ◆ Programmable 2-relay controller with temperature sensors
- ◆ Baxi dual-coil indirect storage tank, 48 gal (180L) to 211 gal (800L)
- ◆ Baxi 6.6 gal (25L) solar expansion tank
- ◆ 2.6 gal (10L) heat transfer fluid kit
- ◆ Quick-connect fittings and system components
- ◆ Roof mounting kits

Supplemental Boiler

The **Baxi Luna 3 Comfort** modulating wallhung boiler is solar system compatible; it economically accepts pre-heated water from a Baxi solar storage tank and brings the water temperature up to demand.

Baxi Solar Technical Notes



Collector Physical Data	Imperial	Metric
Total frame area	20.5 ft ²	1.90 m ²
Absorption area	19.1 ft ²	1.78 m ²
Aperture area	18.2 ft ²	1.69 m ²
Length	76.5 in	1942 mm
Frame width	38.6 in	980 mm
Depth	3.7 in	95 mm
Weight	75 lbs	34 kg
Water volume	0.357 USg	1.35 L
Max. working pressure	145 psi	10 bar
Stagnation temprature	356 °F	180 °C
Connection	1 in	25.4 mm
Collector Glazing Data		
Glass type	Tempered, low iron	
Absorption	95%	
Emission	5%	
Transmittance	94%	

Storage Tank Physical Data

Storage Capacity (USg/L)	47.6/180	79.3/300	106/400	132/500	211/800
Height (in/mm)	45.2/1149	47.6/1210	61.4/1560	73.2/1860	77.2/1960
Diameter (in/mm)	23.6/600	29.1/740	29.1/740	29.1/740	39.4/1000
Weight (lbs/kg)	187/85	240/109	392/178	444/202	574/261

BAXI

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