

ITS Solar *HomePro* Series Systems

The very popular ITS Solar *HomePro* series is the Flagship series of residential solar water heaters. These systems feature excellent value for money, high return on investment, environmental saving and easy installation. ITS Solar *HomePro* series of solar water heating systems consists of the following 4 main components:

i. ITS-58/1800-xx evacuated tube solar collector.



The ITS 58/1800-xx Evacuated Tube Heat Pipe solar collector series are one of the most efficient and also most beautiful solar collectors available. It is manufactured from quality materials under ISO9001:2000 quality standards and boasts with the Solar Keymark EN12975 certification issued in Germany. The collectors are available in 12 pipe, 18 pipe, 24 pipe and 30 pipe variants to match the client's specific energy requirements. The very high efficiency and durability (life expectancy of

more than 30 years) ensures that these collectors provide the best return on investment. The ITS-58/1800-xx series solar collectors comes with a 10 year warrantee.

ii. SR868C8 solar system controller.



The SR868C8 solar system controller is packed with value adding features. Not only is it capable of controlling multiple geyser with East West facing solar panels, it also functions as a top range geyser element timer with temperature triggered timing windows. This function alone can save you between 20 - 40% on your electricity bill. The controller can also control a hot water circulation loop to ensure instantaneous hot water on tap. The SR868C8 has a blue backlit LCD display to enable the user to monitor the system performance.

iii. RS15/6 hot water circulation pump.

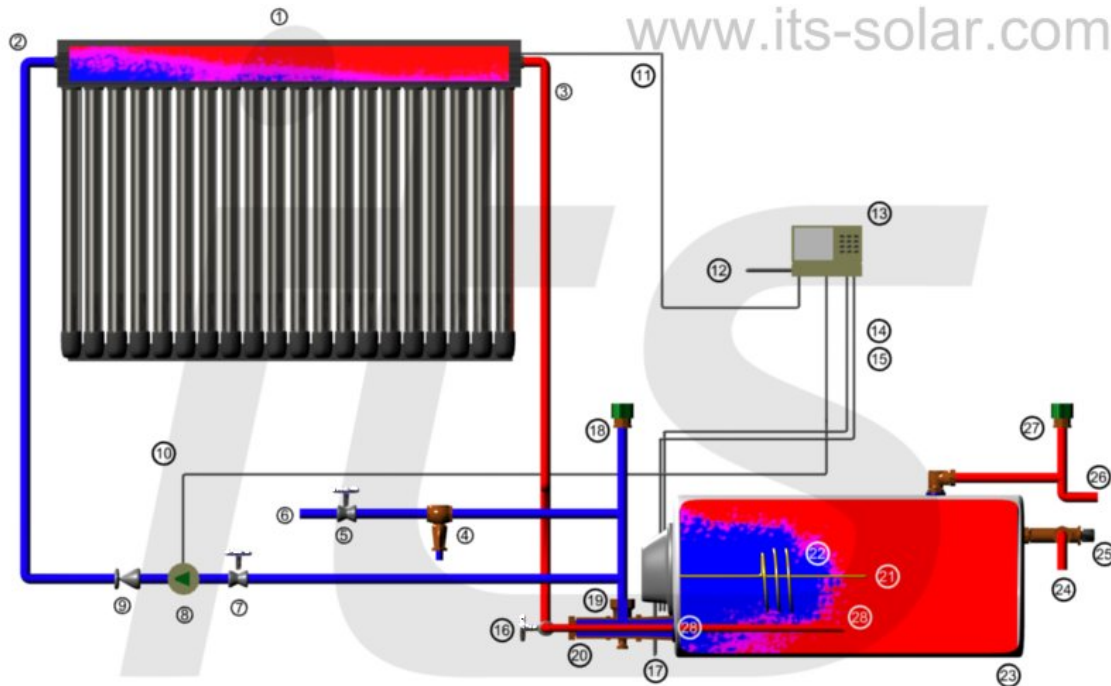
The Wilo RS15/6 is a high quality, maintenance free, 3 speed hot water circulation pump. It has a 6m zero-hoisting depth, draws very little power and runs extremely quiet.

iv. Solar geyser or converted existing geyser.

There are many solar geysers available on the market. Geyser sizes range from 100L to thousands of liters and can be of the direct or indirect type. Most of them feature excellent durability and low thermal losses. We are able to advise and supply you with the right one for your individual needs. If you have an existing geyser we are able to convert it to a solar geyser using a special conversion valve.

How does the ITS *HomePro* Series work?

The system diagram below shows how the system fits together. Only the solar collector needs to be outside.



The ITS-58/1800-xx evacuated tube solar collector (number 1 in the schematic) converts solar radiation into heat and heats the relative small volume of water in the collectors heat exchange manifold. When the controller (number 13 in the schematic) detects that the water in the collector heat exchange manifold is 8 °C warmer than the water in the geysers the hot water circulation pump (number 8 in the schematic) is activated. The pump will force the warmer water from the collector into the geysers and replace it with cooler water from the geysers. When the heat exchanger manifold of the collector has dropped to below 4 °C above the geysers temperature the circulation pump is stopped. The solar collector will now heat this water to 8 °C above the geysers temperature and the controller will activate the circulation pump again. This cycle is continued all day long until the geysers has reached its user defined maximum permitted temperature or the sun has gone down.

The solar controller also takes control over the geysers element. If it should happen that there is not enough solar energy available to heat the geysers the controller can activate the geysers electric element to boost the temperature. The controller allows the user to specify times and temperatures when the controller would be allowed to activate the geysers element. This function results in further electricity savings since the geysers element will never activate unless it is absolutely needed.

Final Remarks

The ITS *HomePro* Series of solar water heating systems provides the best long term investment value. On average it will repay itself at least 10 times during its lifespan. If initial cost is of concern, please inquire about the ITS *HomeStandard* and ITS *HomeSyphon* series of solar systems.

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