



The Willis Solasyphon

OPERATING MANUAL

How to get the most from your Solar Thermal System

As with all solar thermal installations it is important to adjust your hot water heating controls in order to achieve the maximum benefit from your Willis Solasyphon.

Most homes have their peak hot water use in the evening for preparation of the evening meal and for a bath or shower before bed and/or the following morning. During the day there is generally a lower demand with a smaller peak at lunch time.

It is important to ensure that you always have sufficient hot water to satisfy this demand, but by setting your boiler controls to suit your water consumption you can make better fuel savings.

Experience shows the best way to ensure this is to adjust your boiler time clock to heat your hot water once a day just prior to the peak evening demand. Leave enough time for the cylinder to be replenished ready for the next peak demand the following morning. (this will also ensure pasteurisation of the cylinder).

The following morning the time clock should be adjusted to hold off the boiler from heating the domestic hot water. In this way the hot water storage cylinder will be depleted after the morning time demand, leaving the Hot Water Storage Cylinder "solar ready" to receive the maximum benefit from your solar thermal system during the solar day.

In the evening, (after the solar day) the hot water storage cylinder should have received the maximum available solar benefit throughout the day. When the time clock tries to bring on the boiler, the cylinder thermostat will detect any solar gain and the boiler will only be required to "top up" the cylinder to meet the thermostat set point (usually about 60°C).

The Solasyphon works in a way that is very compatible with this control strategy as it heats small amounts of water extremely rapidly then thermosyphons it to the top of the cylinder where it stratifies ready for immediate use. Within five minutes of the sun striking the collector the Solasyphon is starting to accumulate solar heated water at the top of the cylinder. This process will continue as long as the sun is shining until the cylinder is full of solar heated water.

These recommendations are intended as a general guide and may need to be fine tuned to meet particular customer requirements. Your installer will be able to advise you how to adjust your controls in order to optimise your solar thermal system performance.