



User Guide



How to get the most from
your solar water heating system



FILSOL SOLAR

About Solar Water Heating

The Benefits

A Filsol solar water heating system is designed to save you money and help the environment by converting the natural sunlight that hits the solar panels into heat in your hot water cylinder.

The solar water heating system will work alongside your boiler to provide you with free, clean energy to heat a significant amount of your total hot water requirements throughout the year.

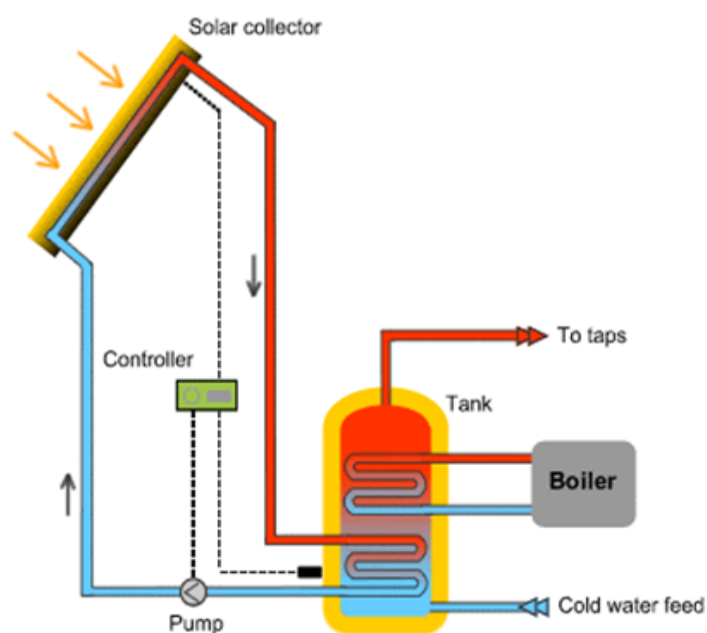
The key benefits of the system are as follows:

- **Hot water throughout the year.** The solar system works all year round, and can be expected to provide most of your hot water between April and September. Solar heated water will also be provided throughout the winter months although you will need to use your boiler more during this period;
- **Cut your water heating bills.** Sunlight is free, so once the system is installed you can expect to see reductions in your water heating bills over the course of the year;
- **Cut your carbon footprint.** Solar water heating is a green, renewable heating system and will help you to reduce the carbon dioxide emissions from your home.

How it works?

Solar panels (or collectors) are fitted to your roof where they soak up and retain heat from the sun's rays. A liquid is pumped through the solar panel which absorbs the heat and carries it to the cylinder. This heat is then transferred to the water in the cylinder which it warms up throughout the day for later use as required. A simple plumbing system of pipes connects the cylinder to both the solar collectors and your hot water supply.

The hot water cylinder is designed so that the boiler can only heat the top section of the cylinder, whereas the solar panels can heat the whole cylinder.



The solar water heating system is designed to operate in conjunction with your boiler to provide you with continuous hot water as you need it. On days where there is not enough light, the solar panel will warm the cylinder, and the boiler will raise the temperature to the setting on the cylinder thermostat. On days with plenty of light, the solar panels can heat up the whole cylinder. Either way, your hot water supply will not be affected and you can continue to use hot water in the usual way. The solar water heating system will operate automatically and requires no action from you to make it work.

Depending on the amount of hot water you use, the solar system should provide 50-60% of your hot water averaged over the course of the year.



Using Solar Water Heating

Getting the most out of your solar system

Do not turn it off.

The solar controller will only switch on the pump when there is energy that can be collected in the solar panel. The electricity used by the system each year is a tiny fraction of the hot water that it provides. Do not switch the controller off to save electricity—you may forget to switch it back on and miss out on free solar heated water.

Use your boiler timer.

To achieve the biggest savings from your solar system you should use the boiler timer programmer to heat your water just before you use it. This gives the solar panel more cold water in the cylinder to heat up during daylight hours. Wherever possible avoid using your boiler to heat your water during the daytime.

For households using most of its hot water in the morning and evening, the ideal situation is to have the boiler set to heat water in the evening. With a well-insulated hot water cylinder, a further heat input from the boiler in the morning may not be needed.

Safety

The solar water heating system is designed to shut down if the temperature inside the cylinder reaches the pre-set safety temperature of the thermostat. When this happens, the circulation pump automatically de-activates and the fluid in the panels and pipe work automatically drains back into a 'Flowback' reservoir, thereby preventing the system from overheating.

When the temperature in the cylinder falls below the pre-set temperature again, the system controller automatically activates the circulation pump, the fluid is pumped back into the panels, and the solar system will continue to heat the water in the cylinder.

The safety features that are built in to the design of your system mean that you can leave your solar system working if you are away from home reassured that there will be no problems associated with overheating.

Maintenance

Filsol solar water heating systems usually require very little maintenance and rarely go wrong. In the unlikely event that there is a problem, your hot water supply will not be interrupted as your boiler will continue to operate in the normal way.

The solar panels on the roof will self-clean through normal rainfall. The casing of the control unit can be cleaned with a damp cloth if you wish.

The solar system is equipped with a digital display unit which lets you know that the system is operating well. The User Manual provided with your system explains what the information on the display unit means, as well as detailing information on basic system checks that can be carried out.

If you think that there is a problem with your solar water heating system consult the User Manual or call Filsol's technical support team on 01269 860229.