Aton H_2O……Just add water

An innovative new drain back solar water heating system

No planned maintenance
As the system doesn't require antifreeze and has no expansion vessel no planned maintenance is required.

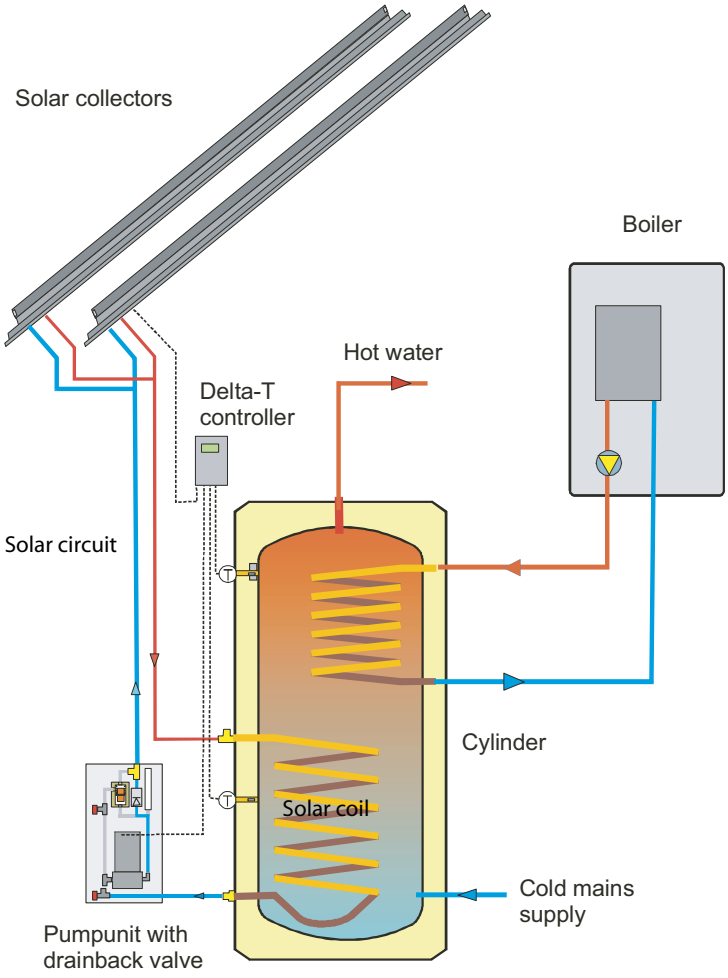
No Antifreeze
As all the fluid in the solar circuit drains back into the solar coil you can run the system with plain tap water. Water is a more efficient heat transfer medium than antifreeze. Plus it doesn't need to be changed every few years like antifreeze.

No summer overheating problems
Once the cylinder is up to its maximum safe temperature the system will drain back making it impossible for the solar panels to put any more heat into the cylinder. This does away with the need for large expansion vessels, safety valves, heat dump radiators & call outs to recharge the system.

100% solar option
The very low power DC pump uses so little electricity that you can run the entire system from a small PV. However, with the mains adaptor the electrical power consumption costs less than £1 per year

Easy installation
Pre-plumbed drain back unit, compression fittings & flexible micro bore pipe work means no soldering or pipe bending is required.
All DC components means there is no mains wiring required.

Drain back unit attaches discretely to the side of solar cylinder



How does it work?

1. The Delta-T controller detects when the solar collectors are hotter than the bottom of the hot water cylinder and turns the pump on.
2. The pump circulates water around the solar circuit, transferring heat between the collectors and the heat exchange coil at the bottom of the hot water cylinder.
3. The heat rises from the bottom of the cylinder to the top where it can be drawn off by the taps, shower etc.
4. When the controller detects that the cylinder has reached its maximum allowed temperature or that there is no longer sufficient solar energy it turns the pump off.
5. The pipe work between the collector and cylinder is always plumbed in with a gradient. This means that whenever the pump is off, the water will naturally drain down from the collectors, due to gravity. This prevents overheating or frost damage.
6. The water drains from the collectors and pipe work into the solar coil of the cylinder. We use small diameter pipe work so the volume of water in the system is low. We use a long, large diameter solar coil, which has sufficient volume to store enough fluid for even very long pipe runs. This does away with the need for an external drain back vessel & ensures none of the heat is wasted.

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