

TECHNICAL BULLETIN

Water Softeners and Scale Inhibitors installed with a Worcester Boiler.

We would offer the following advice when installing Worcester boilers with scale inhibitors or ion exchange water softeners.

Scale Inhibitors.

There are various types of scale inhibitor available; magnetic, electronic, electrolytic & Polyphosphate.

All of these are suitable to be used with Worcester appliances and require no further consideration.

The units must be maintained in accordance with the manufacturers' guidelines to ensure they continue to be effective.

Polyphosphate scale inhibitors do require the chemical to be replenished periodically; these units must not be confused with water softeners. They do not require a bypass or untreated line for filling heating systems.

Ion Exchange Water Softeners

Manufacturers' instructions and guidelines must be followed when installing a water softener; however an example is shown below (Fig1).

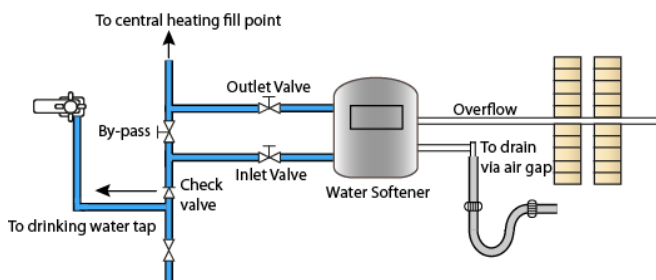


Fig 1.

The use of water softeners with Worcester boiler heating systems

Where a water softener is present within a dwelling, you must ensure that the heating system is filled with untreated water by either;

- ▶ A separate untreated supply which is connected prior to the water softener. (Fig 2.)
- ▶ By means of utilising the general bypass valve which is required at the water softener. (Fig 1.)

Note: A water softener must comply with BS 14743 (this states that there must be a 'a general bypass valve which enables the softening unit to be isolated from the mains, while maintaining water supply to the end user'. For installation requirements, refer to WRAS information and guidance Note number 9-08-01 "Information for the installation of ion exchange water softeners for systems supplying water for domestic purposes".

Note: A sealed system must be initially filled with unsoftened water. If an untreated supply is not installed to the system fill point, then the bypass at the water softener must be used. Inhibitor must be added at the recommended dosage rate.

Where an untreated supply is not provided to the boiler fill point, occasional topping up with softened water is permitted but inhibitor levels should be checked annually in accordance with the manufacturers instructions and BS7593.

If the system is ever drained or partially drained, then it must be refilled with unsoftened water and inhibitor replenished.

A label should be attached at the system fill point to advise of this requirement.

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Fig's 2 & 3 show examples of a sealed system and an open vent system.

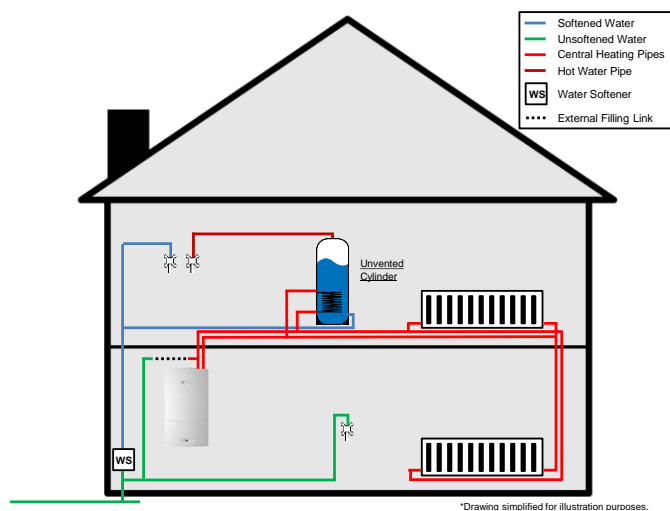


Fig 2. Greenstar system boiler with unvented hot water storage cylinder – Untreated water line to system fill point

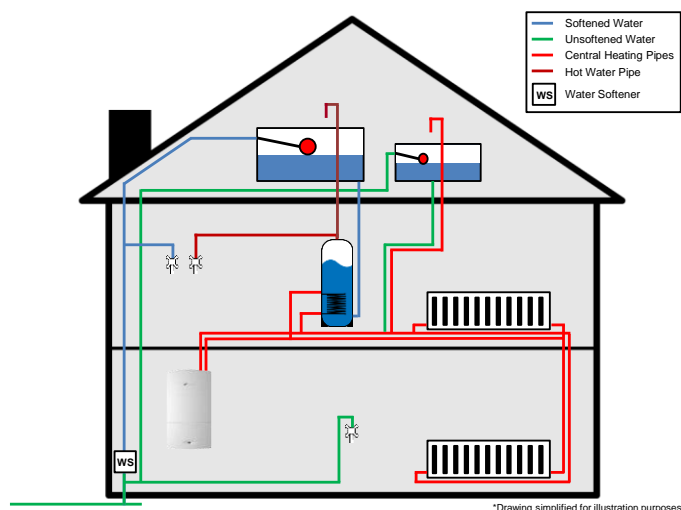


Fig 3. Greenstar regular boiler with open vented system – Untreated water line to system fill point

Note: The Fill & Expansion tank must be fed from an untreated supply.