

Technical Bulletin

Installation Advice: External condensate drain pipes

Protection against freezing

Whilst Worcester Bosch will always advise best practice when installing external runs of condensate drain pipe, the installation should be subject to a risk assessment to ascertain the level of protection against freezing that is required, and the condensate drain pipe protected accordingly.

The guidance in manuals has been revised periodically; the guidance contained in this bulletin can be applied to all Worcester Greenstar appliances.

The following guidance should be observed when considering the risk of freezing:

Greenstar CDi Classic and Greenstar I ErP boilers have a siphonic trap that discharges a similar volume of condensate to the CondenseSure siphon accessory. The boilers mentioned and also any other Greenstar appliance fitted with a CondenseSure siphon have a much reduced risk of condensate drain pipes freezing and will not require the same level of protection as boilers with a low volume condensate trap.

External condensate drain pipes installed in Geographical and exposed areas that are subject to prolonged periods of sub-zero temperatures must always be installed with additional protection such as weather and UV resistant pipe lagging or trace heating depending upon the level of risk.

Greenstar CDi Classic and Greenstar I ErP boilers or appliances with a CondenseSure siphon will provide protection against freezing for 48 hours at -15°C without insulation if the following criteria is met.

All external condensate drain pipes must:

- Fall continuously away from the boiler at a minimum 52mm/m (3°).
- Increase to 32mm diameter pipe before they pass through an external wall.
- Where applicable: Terminate below drain covers and within air breaks to prevent wind chill at the outlet of the pipe.

External pipe runs should be kept as short as possible and fall as steeply as possible. They should not exceed 3m and the number of bends should be kept to a minimum.

If there is no option other than to use an external pipe run that exceeds 3m, then additional protection such as insulation or trace heating must be provided.

We advise that all external condensate drain pipes installed on boilers with a low volume trap must be insulated with weather and UV resistant pipe insulation.

Whilst it is always our intention to fully assist, it is essential to recognise that all information given by the company in response to an enquiry of any nature is provided in good faith and based upon the information provided with the enquiry. We recommend that advice should always be checked with your installer or contract partner. Consequently, the company cannot be held responsible for any liability relating to the use or repetition of such information or part thereof. In addition, whilst making every reasonable effort to monitor the performance and quality of our supply, installation and service network, we do not accept responsibility for the workmanship or operation of any third party company that the company may have promoted either in conversation, e-mail, or other communication. Similarly, the views and opinions expressed in communication with individuals within the company may not reflect that of the business as a whole.

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