

Product Notification:

Vitodens 100-W

Vitodens 200-W

Vitodens 222-F/242-F

Date: 15/11/2010

Subject: Frozen condensate pipes

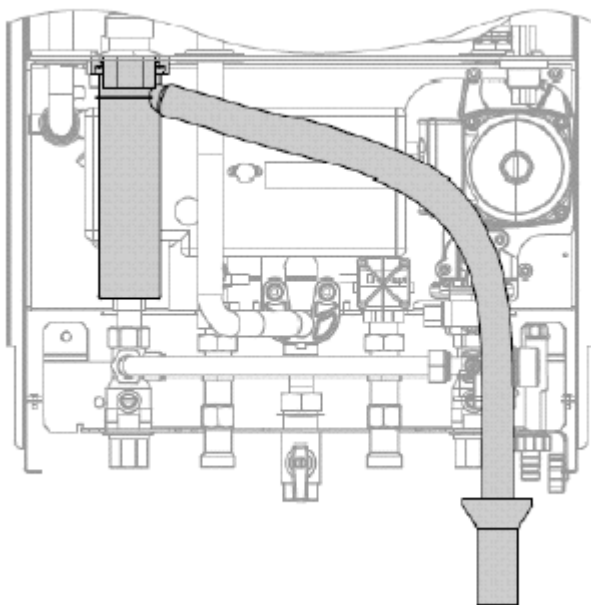
During recent winters the UK has experienced prolonged spells of extremely cold weather (down to -20°C in some areas during 2009/10). This resulted in a significant increase in the number of calls to boiler manufacturers and heating installers from householders with condensing (high efficiency) boilers where the condensate drainage pipe had frozen, causing temporary boiler shut down. In the vast majority of cases, problems occurred where the condensate drainage pipe was located externally for some part of its length.

Viessmann boilers also suffered from inadequately routed condensate drain pipes and a frozen condensate pipe causes the boiler to lock out. The error code is 'F4' – no flame signal. The condensate pipe will only freeze if the outside temperature drops below 0°C .

On very cold nights the boiler can produce condensate equivalent to 12 litres per day! A particularly large amount of condensate is produced if the boiler starts up from cold or if the boiler temperature is less than 60°C .

These type of service visits are normally not covered under warranty.

The heating industry is introducing some guidance to householders and installers advising them of how to prevent freezing condensate pipes in the future. Our instructions are clear and to the point.



Connect the condensate drain with a slope and a pipe vent to the public sewer.

Observe the Building Regulations.

Where the condensate drain pipe is routed outside, it must have a diameter of at least 30 mm and must be protected against frost through sufficient lagging of the pipe. Avoid excessive pipe runs at the outside wall.

Industry guidelines on condensate drainage pipe installation

During recent winters the UK has experienced prolonged spells of extremely cold weather (down to -20°C in some areas during 2009/10). This resulted in a significant increase in the number of calls to boiler manufacturers and heating installers from householders with condensing (high efficiency) boilers where the condensate drainage pipe had frozen, causing temporary boiler shut down. In the vast majority of cases, problems occurred where the condensate drainage pipe was located externally for some part of its length.

In view of the possibility that UK weather patterns will show more “extremes” in the future due to the effects of global climate change, it has been agreed that the following additional guidelines should be issued, clarifying the existing recommendations on location/routing of condensate drainage pipework during boiler installation. All other technical requirements for condensate drainage pipe installation given in British Standard BS 6798:2009, or in the boiler manufacturers installation instructions, should be followed.

Additional guidance on the routing of condensate drainage pipe:

In order to minimise the risk of freezing during prolonged cold spells, the following methods for routing of the condensate drainage pipe should be adopted:

1. Wherever possible, the condensate drainage pipe should be routed so that the condensate drains away from the boiler under gravity and should be terminated at a suitable **internal** foul water discharge point such as an internal soil and vent stack, internal kitchen or bathroom waste pipe, washing machine waste pipe etc.
2. Where “gravity discharge” to an internal termination is not physically possible, or where very long internal runs of drainage pipe would be required to reach a suitable gravity discharge point, condensate may be removed using a proprietary condensate pump, of a specification recommended by the boiler or condensate pump manufacturer. The pumps outlet pipe should discharge to an internal foul water discharge point, as specified by the manufacturer – e.g. the internal soil and vent stack, internal kitchen or bathroom waste pipe, washing machine waste pipe etc.

As an alternative to the above, the use of an externally run condensate drainage pipe terminating at a suitable foul water discharge point, or purposed-designed soakaway, may be considered **provided suitable measures are taken to prevent freezing** – such as the use of a proprietary trace heating kit, installed according to the kit manufacturers or suppliers instructions. Any manufacturer recommendations on increased pipe diameter should also be followed.

NOTES:

1. Where a new or replacement boiler is being installed, access to an internal condensate discharge point (gravity or pumped) should be one of the factors initially considered in determining boiler location, alongside issues such as flue position, convenience of pipework runs etc.
2. Separate guidance will be issued for householders who experience frozen condensate drains – this may result in requests for alterations to existing condensate drainage pipework, in which case the guidance above should be followed.