

Sentinel Condensafe+

Condensate neutraliser for domestic condensing boilers

To effectively and safely neutralise acid waste from condensing boilers ready for discharge to drain, a Condensafe+ should be fitted in-line to the condensate discharge pipe.

- **Failsafe bypass channel**

Condensate flow cannot be blocked and backed up to the boiler, thus ensuring the boiler does not flame-out

- **Compatible with both constant (trickle) and periodic (siphon) modes of condensate discharge**

Fits all types of domestic condensing boilers

- **Easy-to-replace cartridge**

Simple to change during the yearly boiler service without the need to replace the whole unit

- **Neutralised condensate can be sent to drain**

Eliminates the need for a specialised soakaway to be built

22mm
compression
connectors

Dimensions (inc. fittings)
Height: 265mm
Width: 190mm

Replace refill
cartridge
every year

70kW
Suitable for
boilers up to 70kW
new heat input



The Sentinel System

Lifetime protection for heating and hot water systems using the best practice process of...



CLEAN
WITH
APPROPRIATE
CLEANER



PROTECT
WITH X100
INHIBITOR



MAINTAIN
WITH
TEST KIT

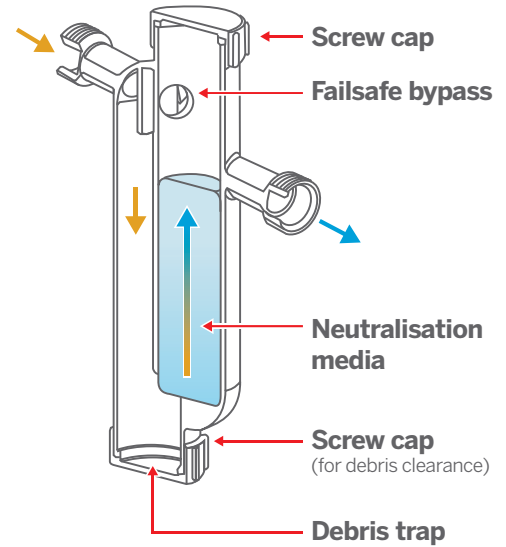
Description

In condensing boilers, high efficiency is achieved by using waste heat from the hot flue gases to pre-heat the water in the boiler instead of just being exhausted through the flue. However, in doing so the flue gases are cooled and an acidic condensate is formed which is often simply discharged into the normal domestic drain. An average domestic condensing boiler may produce 800 litres of acid per year at about pH 4.0, which adds up to millions of litres of acid discharged nationwide and the trend is growing. Today, guidance in many countries requires that effluent is discharged to municipal sewers and water courses at between pH 6.5 and pH 10.0. This is to protect micro-organisms used in the biological purification processes in the septic tank or in the local water treatment plant, to lessen damage to the infrastructure of the drainage system and to help protect the environment as a whole. However, the effect of acidic condensate discharge is usually overlooked and needs to be addressed.

Operation

Sentinel Condensafe+ is an in-line unit containing a special medium that will neutralise the acidic waste from condensing boilers. Its innovative design* incorporates several unique features;

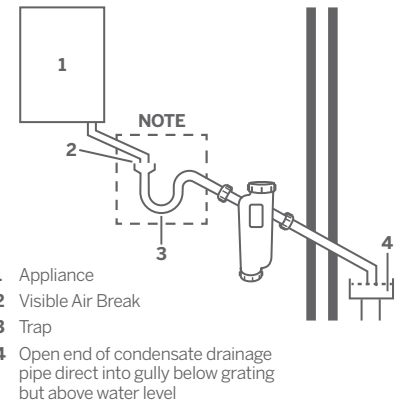
- The flow of condensate through the unit is manipulated to achieve optimum contact with the medium ensuring effective neutralisation.
- The unit does not restrict either the flow of condensate nor air through the discharge pipe and therefore is compatible with both constant (trickle) and periodic (siphon) modes of condensate discharge.
- The unit also incorporates a trap to capture any debris washed into it from upstream with easy screw-cap access at its base to allow occasional cleaning.
- In the unlikely event of flow being restricted by debris in the unit, Condensafe+ has a failsafe bypass channel ensuring that condensate flow cannot be blocked and backed up to the boiler.
- The neutralisation medium within the unit is contained in its own neutraliser bag. During the yearly boiler service, this neutraliser can be easily extracted and replaced by a refill bag via a second screw-cap access point at the top of the unit. This means that, unlike some other products, the entire unit does not have to be replaced when the neutralisation medium is exhausted.



The boiler installation should be in accordance with the manufacturer's installation instructions and should comply with BS 6798. Condensafe+ is suitable for condensing boilers up to nominal 70kW net heat input. A typical arrangement is shown schematically

Important note: Visible air break (2) and trap (3) are not required if there is a suitable trap for the installation type incorporated within the boiler (BS 6798). Condensafe+ neutralising material eventually becomes exhausted. To maintain optimum performance of the unit, the replaceable neutraliser bag should be renewed during each annual boiler service.

*Condensafe+ is the subject of UK Patent GB2465662. Condensafe+ is also protected by European Community Design registration number 001052765-0001



- 1 Appliance
- 2 Visible Air Break
- 3 Trap
- 4 Open end of condensate drainage pipe direct into gully below grating but above water level

The use of Sentinel water treatment is endorsed by the industry's major international manufacturing companies*



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