



Commercial and Industrial

Acid Neutraliser for businesses

ESSENTIAL
FOR ENERGY
SAVINGS

CalDensate is an effective and economical way to remove acidic condensate for commercial condensing boilers.

NEW
UNIQUE
UNIVERSAL
DESIGN



BUY WITH CONFIDENCE. EFFECTIVE, ECONOMICAL & MONEY-SAVING

Introducing CalDensate

The solution to removing condensate acid

There are an estimated **17 million gas boilers** in the UK, with around 1.5 million new boilers installed each year with commercial boilers each producing a minimum of **4000 litres of acid a year**.

Following the Government's decision to require virtually all new boilers to be SEDBUK A rated boilers following the changes to Part L of the Building Regulations, these boilers are of a condensing nature which **produces a huge quantity of condensate** that is making its way into drains around the country.

A domestic condensing boiler from an average household will produce approximately 800 litres of acid per year at pH4. **A commercial boiler will produce a minimum of 4000 litres of acid per year at pH4.**

This is not a problem for the odd house or two but the amount of acid condensate put down the drain is thought to be growing at a rate in excess of **half a million of litres per week** as more and more condensing boilers are installed. It's conservatively thought that in 2 years time we could be adding in the region of **50 million litres of acid** at pH4 to our drains each week. The environmental consequences are potentially huge and, until now, little interest has been shown in addressing the problem.

Within most condensing boilers there is an internal siphon which holds approximately 100ml of condensate before being released down the discharge pipe and the result being that the discharge will have a frequency of every 3 minutes based on an A-rated boiler generating 2 litres of condensate per hour.

It is unlikely that condensate is never in the discharge pipework and is therefore imperative that this is **removed in a responsible way** and without contravening the Water Authorities guidelines. Most accept a level of 6.0 and 10.0 to be acceptable and therefore at 4.0 the **friendly solution of CalDensate provides the solution**.

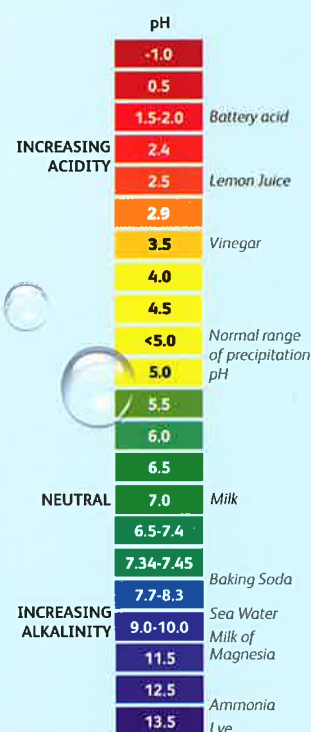
The **CalDensate** does not have the need for directional flow and can be **installed simply and easily** in any direction with a sloping angle of anything over 5 degrees.

To maintain the performance of the **CalDensate**, it is strongly recommended to replace the product when the media is exhausted.

If the unit is installed externally, adequate protection from frost and extreme weather conditions must be considered and dealt with accordingly. In situations where the external condensate drainage pipe is less than the nominal diameter, the pipe must be protected from frost and also be insulated against potential water damage.

Please refer to the current British Standards and manufacturer's boiler instructions as at all times.

The **CalDensate** is effective and economical due to the fact that the media is **biodegradable** and the design of the housing ensures that the need for "soakaway-style" products are not required - this is the **only product on the market place** that can cope with the large capacity of pH condensate of over 31000 litres prior to replacement.



Calmag's money-saving solution

There are a number of problems which occur when acidic water enters the water system. Simply installing the **CalDensate** will ensure that the pH is neutralised by means of the specially formulated media which is included in the product.

The **CalDensate** is effective and economical due to the fact that the media is biodegradable and the **product design is unique in offering this unique feature as opposed to the standard products that have been previously available, ie soakaway**.

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CalDensate

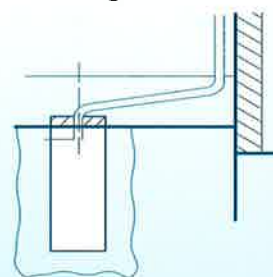
Benefits

- ✓ **Total acid protection**
- ✓ **Environmentally friendly**
– STOPS HARMFUL WASTE
- ✓ **Fits ALL condensing boilers, water heaters and pipework - UNIVERSAL**
- ✓ **Simple connections saving installation time**
- ✓ **Slimline product fits into confined spaces**
- ✓ **Suitable for high temperatures**
- ✓ **Eliminates the need for a soakaway**
- ✓ **Starts working instantly**
- ✓ **Maintains septic tanks and sewers**
– NO EFFECT ON BACTERIA
- ✓ **Discharge capacity of over 31000 litres – LONG LIFE**
- ✓ **No power consumption or electrical connections**
– SAVE TIME AND MONEY
- ✓ **Installed on new or existing installations**
- ✓ **Can be installed under the boiler or wall mounted – FLEXIBLE**
- ✓ **Uses ABS acid compatible material**
– robust and aesthetically pleasing

Advantage of using CalDensate

Advantages of using the **CalDensate** over the traditional soakaway products. No need to worry about:

- **Underground cables**
- **Space restrictions**
- **Time**
- **Listed buildings**
- **Hard ground, ie. frost**
- **Weather constraints**
- **Flower beds ruined**
- **Replacement**
- **Planning permission**
- **Paving stones**

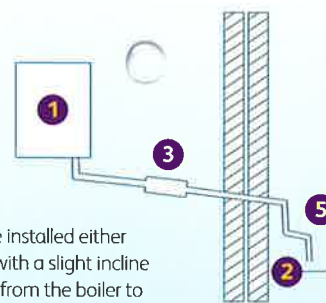


Typical Installation

- 1 **Boiler**
- 2 **Ground**
- 3 **In line acidic neutraliser CalDensate**
- 4 **External length of pipe 3m maximum**
- 5 **Open end of condensate drainage pipe**
- 6 **Nominal diameter 22mm**

Installation Tips

- Turn off the water supply if necessary.
- Turn off the boiler.
- The CalDensate should be installed either vertically or alternatively with a slight incline (approx. 5 degrees) away from the boiler to ensure that the acidic waste falls away naturally with gravity.
- Ensure that the installation takes into consideration the need to replace the unit in the future.



SPECIFICATION DETAILS:

Length: 545mm
Diameter: 69mm (maximum)
Material: Acid compatible – will not corrode
Fittings: Adapted for use with acidic water discharge
Maximum working pressure: 3 bar
Maximum temperature: 80°C
Flow and capacity rate: Based on condensate production rate of 1 litre per hour at pH 4.0, 20mg/l of media would be used. Unit holds 635g of media and therefore will cope with 31750 litres before replacement of the media is required.

POINTS TO CONSIDER:

- Limited free play in rigid pipework.
- Ensure that the unit is compact when the pipework has been cut.
- The condensate is usually discharged periodically in "slugs" by siphonic action.
- Is suitable for use with all types of condensate discharge overflow pipes.
- Always consult the boiler manufacturer's installation instructions.
- Fit in accordance with current standards.

Guaranteed confidence in water quality

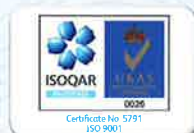
Calmag's **fresh, innovative approach** to water quality has led to the development of the most extensive and effective range of water treatment solutions within the UK water treatment industry – our products are designed with the **needs of our customers** in mind – the merchant, installer and consumer. Calmag's philosophy is based on providing products and services to meet the real needs of all our customers – we don't simply produce what we think you should buy - Calmag have the **unique design** and production capabilities to produce what you want - when you want it!

Beware of imitations!

There have been a number of instances when customers have been under the impression that they have bought a Calmag product but, in reality, have been supplied with an alternative and inferior product that fails to match the industry-leading performance and aesthetic appeal of ours. So we strongly advise customers to **ask for our product by name**. Other products may seem to offer similar qualities, but if it isn't Calmag, it simply won't perform to our standards.

There are **two key ways to check** that you've purchased a genuine Calmag product: they carry the **WRAS approval** on scale inhibitors, and **BuildCert** and **ESTr** approvals on a range of chemical inhibitors.

Calmag is a member of and in partnership with:



Acid Neutralisers



Water Softeners



Water Filtration



Powerflushing

For more information regarding all Calmag products and services please go to **www.calmagltd.com**

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* All figures are taken from various published figures