FACTSHEET

Hot water cylinders

Simple steps to save energy, reduce heat loss and keep stored hot water safe in homes with hot water cylinders.

Do you have a hot water cylinder?

If your home stores hot water in a cylinder, rather than heating water instantly with a combi boiler, there are a few simple things you can do to make it work better. A thermostat, a good cylinder jacket and pipe insulation can help keep water hot for longer, reduce wasted energy and make your home more efficient.

Why it matters

- **Lower energy waste:** your boiler or immersion heater does not need to reheat water as often.
- **Warmer water for longer:** better insulation slows heat loss from the cylinder and nearby pipes.
- **Better comfort:** hot water is available when you need it without overheating the tank.
- **Improved safety:** the right thermostat setting helps reduce the risk of harmful bacteria while avoiding unnecessary scalding risks.

Cylinder thermostats

A cylinder thermostat controls the temperature of the water stored in your hot water cylinder. It tells the boiler when to heat the water and when to stop, so you do not spend money heating water to a higher temperature than you need.

The thermostat is usually fitted about a third of the way up the cylinder. If the water temperature drops below the setting, the boiler comes on. Once the stored water reaches the set temperature, the boiler switches off again. This helps prevent unnecessary reheating and reduces wasted energy.

For most domestic hot water cylinders, the usual recommended thermostat setting is between 60°C and 65°C. This is hot enough to help control harmful bacteria such as Legionella, while avoiding the extra energy waste and scalding risk that can come from setting the cylinder much higher.

- **Do** check that your cylinder thermostat is set correctly.

- **Do not** turn the cylinder up very high to make water heat faster. The heat-up speed depends on the heating system, not the thermostat setting.
- **Do** ask a qualified professional if your thermostat is missing, damaged, loose, or difficult to access.
- **Take extra care** in homes with children, older people or anyone at higher risk of scalding.

Insulating your hot water cylinder

Many of our homes in the Calder Valley still have older or poorly insulated hot water cylinders. A cylinder jacket wraps around the tank and helps keep heat inside. Heat loss from the tank can be reduced by over 75%, meaning hot water stays warmer for longer and less energy is needed to top it back up.

If your cylinder already has a jacket, check whether it fully covers the tank and whether it is thick enough. Current public energy advice recommends a jacket of at least 80mm thick. If your jacket is thin, damaged or does not go all the way around the cylinder, replacing it may be a quick and low-cost improvement.

Simple cylinder jacket checklist

- Is the cylinder covered all the way around?
- Is the top covered where possible without blocking controls or pipework?
- Is the jacket at least 80mm thick?
- Are the thermostat, immersion heater controls and labels still accessible?
- Is the jacket secure, dry and in good condition?

Insulating hot water pipes

Water pipe insulation, often called lagging, is a low-cost way to reduce heat loss from exposed hot water pipes. It is usually available from DIY and hardware shops in different sizes. If your pipes are easy to reach, lagging can often be fitted as a simple DIY job: measure the pipe diameter and length, choose the right size, cut the foam to fit and secure it neatly around the pipe.

Focus first on pipes close to the cylinder, especially in colder spaces such as lofts, cellars, garages and cupboards. If pipework is difficult to reach, very hot, damaged, close to electrics, or part of an unfamiliar system, ask for professional help before starting.

When to get help

- You are not sure whether you have a hot water cylinder or a combi boiler.
- Your cylinder does not appear to have a thermostat.

- Your hot water is much too hot, not hot enough, or changes temperature unexpectedly.
- The cylinder, pipes or controls look damaged, damp, loose or unsafe.
- You are unsure how to fit insulation without covering important controls.

If in doubt, do not adjust wiring, remove covers or interfere with boiler controls. A heating engineer, plumber or qualified adviser can help you understand what is safe and suitable for your home.

Need advice?

Warmth Works can help residents understand practical ways to keep homes warmer, use less energy and feel more confident about home energy improvements. Visit one of our drop-in advice and information sessions or look out for Warmth Works events taking place across Todmorden and the Calder Valley.

Together, we can create warmer homes, stronger communities and a clean energy Calder Valley.