

Heating Advice - Types of Boilers

Condensing Boilers

Simply put condensing boilers convert more energy to heat resulting in higher efficiencies reducing energy costs & greenhouse gasses. New condensing boilers are over 90% efficient compared to 70-80% efficiency for conventional, non-condensing boilers. This is achieved by a highly effective heat exchanger within the flue which captures heat from the exhaust gasses which would have otherwise been lost. Typically condensing boilers are more expensive but this extra cost is recouped through the reduction in heating bills.

Types of Condensing Boilers

Combi Boiler heats hot water on demand and is used widely, not quite as efficient as a regular or system condensing boiler but they can be cheaper to install. A Regular Boiler is also known as a traditional or conventional boiler and consists of separate controls, a cistern & hot water tank. A System Boiler is similar to a Regular Boiler but with an important difference, the boiler contains an expansion vessel which means the feed and expansion/header tank is not required in the loft, saving space.

Combination (Combi) Boilers

Accounting for over half of new domestic boiler installations, high efficiency condensing combi boilers are a great space saving solution to that of a regular or system condensing boiler.

Combis work by heating hot water on demand, which removes the need for a hot water tank in the airing cupboard, this provides good efficiency in smaller properties, as the water is only heated as and when required.

A conventional boiler will require a cold-water tank in the loft, combi boilers take their feed direct from the mains supply, which saves yet more space, no hot water or cold water tank, as a result of this less pipework is required which generally means lower installation costs. A combi boiler also handles the central heating system, hence the name Combination Boiler.

It's important to seek professional advice on which boiler is best suited to your requirements, in general a Combi Boiler is a good choice if you live in a flat or wish to convert your loft into a living area. If you have more than a couple of bathrooms or mains water pressure is low then a conventional boiler is probably more suited, but remember, get professional advice.

- An Instantaneous Combi Boiler heats hot water on demand and is used widely, not quite as efficient as a condensing type boiler but they can be cheaper to install.
- A Condensing Instantaneous Combi Boiler is a good compromise between a standard combi & combi condensing boiler above as they are more efficient.
- A Combi Storage Boiler is a type of hybrid boiler to provide faster hot water. The boiler has a hot water reservoir within a storage tank to give more consistent hot water delivery but is dependent upon the size of water store.
- CPSU (Combined Primary Storage Unit) is similar to a combi storage boiler above, however, a CPSU boiler holds a larger amount of water which provides much greater flow rate to taps & radiators heating them quickly

Conventional Boilers

A regular central heating system consists of a boiler unit, separate controls, a feed tank, expansion cistern & a hot water cylinder usually in the airing cupboard. If you're intending to replace an older boiler it's more than likely that it will be a regular type system, this differs between a system boiler or combi boiler system as it takes up most space out of all 3 but it's probably the most efficient.

It's important to seek professional advice on which boiler is best suited to your requirements, in general a regular boiler is a good choice if you have no space constraints & have a large family wishing to take hot water from several different sources at once, but remember, get professional advice, a company like British Gas can offer this for free.

Energy efficiency is the key to any reduction in heating costs & greenhouse gasses and one way of achieving this is by installing new style thermostatically controlled radiators. This allows you to set each individual radiator to a temperature suitable for the room, for instance you may want to set a bedroom or spare room lower than that of the bathroom.

Each radiator is fitted with a thermostatic valve (TRV) which controls the flow of water effectively regulating the temperature. It's important not to put a TRV on a radiator in the same room as the main thermostat as this can fool the system into thinking the house is at a lower temperature than it really is and try to heat the system when not required. When used correctly TRVs are a great way to reduce energy & heating costs.

Comparison Table

FACTORS TO CONSIDER

SUITABLE BOILER

Your loft is converted or you wish to convert it.

Combi

You have no loft or roof space, live in a flat or bungalow.

Combi

You have more than 2 bathrooms.

System or Regular

You experience low mains water pressure.

System or Regular

You've an old boiler & want to upgrade existing conventional boiler to a high efficiency boiler.

System, Regular or Combi

You have many people in your home & need hot water on demand.

Combi

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