

"Reliable Family Run (Husband & Wife Formed)"

"Twice recommended by"Time Out" London in 2006"

"Finalist of the Training and Development Barking & Dagenham Business Awards 2008"

"Finalist of the "Best New Business" and "Entrepreneur of the year" Kingston Business Awards 2010"



Combination boilers and system boilers both carry pressure gauges and we're often asked about the pressure shown on these gauges. Any sealed central heating system needs an expansion vessel, a pressure gauge and a pressure relief safety valve.

If you heat water it expands. In an open vented central heating system (with a header tank) some of the water moves back up into the header tank. The expansion does not increase the overall volume of water by a huge amount (maybe 3 or 4 litres, depending on the size of the heating system) but it would be more than enough to burst the pipes if it had nowhere to go.

In a sealed system you have to allow for this expansion. This is done by adding an expansion vessel to the system pipework and it's often inside the boiler. The expansion vessel is just a chamber with a rubber diaphragm across the middle. One side of the expansion chamber is connected to the system pipework. The other side has a car tyre type valve so it can be pumped full of air.

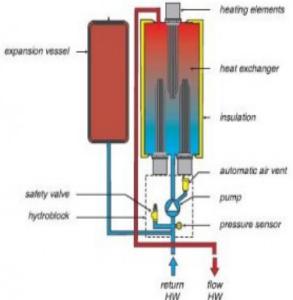
In manufacture the air side is pumped full of air, typically to about 1 bar (about 15 psi). This forces the diaphragm right across to the opposite wall of the chamber. When the central heating system is filled with water and pressurised (to about 1 bar) the water pushes the diaphragm back to about the middle

## **Electric boilers**

**Electric boilers** are closed containers that are used for water heating (for bath, shower, sink, other daily living needs). Electric boilers (electric storage water heaters) can be mounted in houses, flats, hotels, restaurants, shops, supermarkets, offices, pensions, etc. with central heating system or water heating vat.

## Benefits of electric boilers:

- Quick preparation of hot water.
- Precise water temperature control.
- Easy installation and connection.
- Protection against water overheat or freezing.
- Protection against corrosion.
- Economy of heat and money (hot water on demand).
- Safe exploitation.
- Comfortable, easy handling



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