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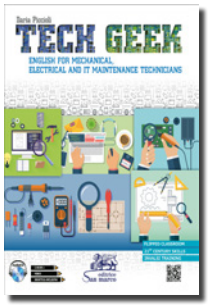
TECH GEEK
English for mechanical, electrical and IT maintenance technicians



Most common water heating systems

Open vented systems were generally used in the past. There is an expansion tank fitted high up which feeds the water down the 'cold feed' into the central heating system. The water level in the tank expands as the system warms up the water. There is usually a safety pipe called 'expansion pipe' fitted just above the tank.

Sealed systems are largely used today, as they are easier to install and they have less tendency to develop problems at a later date. Instead of using a tank and an expansion pipe, this system uses an 'expansion vessel', a 'safety blow-off valve', and a 'filling loop'.

In **one-pipe systems** water is pumped through a single pipe under all the radiators, then back to the boiler for re-heating. Hot water, which is lighter, rises into each radiator at one side, while cool water, which is heavier, falls back into the same pipe on the opposite side of the radiator. The movement of water is governed by gravity. The last radiator is always cooler as the water has already given out most of its heat in the rest of the radiators. Though these systems were popular in the past, some of them are still working.

Two-pipe systems are more modern and employ a circulating pump to move the water under pressure. Hot water is pumped from the boiler through one pipe (flow) to each radiator, which then gives up its heat to the air, while the cooled water is pumped back to the boiler through a second pipe (return). Each radiator has its own circuit, that is one pipe connected into the flow and another into the return.

ACTIVITIES

1 *Summarise the text.*