HOW TO ESTIMATE THE VOLUME OF A WATER SYSTEM

The following guide to estimating system volumes has been developed, based on field experience. Commercial systems (pressurised):

Multiply the boiler output rating in kWs by the figure detailed below (for the relevant type of system) to give an estimate of the total system volume. Allow an additional 10% (multiply by 1.1) for open vented systems of all types.

Useful conversion factors:

Systems comprising perimeter heating, convectors, etc.	6 litres/kW
Ventilation systems (air handling units, fan coils, etc.)	8 litres/kW
Steel panel radiators	11 litres/kW
Cast iron radiators	14 litres/kW
'Distant' heating systems in large sprawling buildings	20 litres/kW
Underfloor heating	23 litres/kW

Domestic systems:

All small and microbore domestic installations	6 litres/kW

- The domestic system volume can be estimated by counting the number of single panel radiators in a property and multiplying by 10
- Remember to count double panel radiators as two single panels
- It is also important to consider thermal stores, which can add up to 100 litres to system capacity