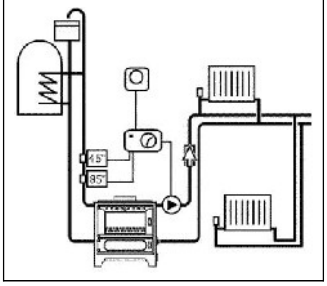
Wood Safety Kit

The Wood Safety Kit enables most stoves or cookers to work on sealed central heating systems, ie. without any open cistern in the loft. Even appliances that were originally designed with open vented systems in mind can be directly integrated into a modern central heating system with the Wood Safety Kit. Although we refer to "wood" and "stove" in this document, the Kit also works for any solid fuel range cooker or multifuel stove too. One caveat though: check that your appliance has a **thermostatic air control** linked to its own boiler jacket, then you're ready to enjoy the advantages of using your stove or cooker integrated into your sealed system:

- Lower running costs with some householders even obtaining wood delivered for free
- The wood used is from a renewable source so it's better for the environment
- Even a power cut doesn't stop you producing hot bath water and heating up some radiators
- Use the stove as a backup boiler throughout oil/gas shortages or if the other boiler fails
- It's safe, reliable and provides a wonderful atmosphere in the living room

This kit even allows you to put a stove boiler & a combi onto the same heating circuit.


This older vented system is incompatible with combis

Background

Traditionally stove installation manuals show "open vented" pipe work and cisterns, such as the one on the right. However open vented systems are now obsolete as they are susceptible to breakdowns, sludge, and are often noisy. All modern combis, system boilers, heat pumps or solar collectors use pressurised "sealed systems" which cannot be directly connected to traditional open vented systems. This problem has now been fixed.

What An Installer needs to do

First, you use the Wood Safety Kit to convert your stove for a sealed system.

Secondly, you add a safety radiator upstairs to ensure it can operate during a power cut without overheating.

Thirdly, you link up the stove to any other boiler following any of dozens of plans that are published by high quality manufacturers such as Dunsley, Viessmann & Esse. However, by popular demand the Wood Safety Kit now also includes a **free sample diagram** showing the pipe work of how to connect a gas/oil combi boiler to a wood stove boiler. If you use this plan, you will still need to add your own arrangement of thermostats & timers to suit the property in question. Just to make it even easier, the kit includes **60 days free telephone support** to the installer as well as 12 months statutory warranty.

The stove can now heat all the radiators and, if you have a hot water cylinder, then the bath water too.

Commissioning

The Wood Safety Kit is supplied with complete instructions for your local qualified heating engineer to follow, but if you would like Advance Heating to carry out the commissioning & certification, please ask.

Applicability and Price

Your stove should come from a high quality manufacturer who provides excellent back up and documentation, and then contact us to confirm that the model you've chosen is suitable. We will then issue you with a proforma invoice and within 10 working days of receiving payment the custom built Wood Safety Kit will be delivered within the UK at a price of £610 +vat.

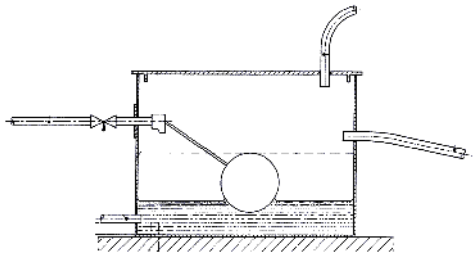
If you need help beyond the Wood Safety Kit and the free sample pipework diagram, we can also take on custom design of your entire heating and hot water system with pumps, controls and heat leak radiator. This will be configured to meet UK Building Regulations and the technical requirements of all hardware involved.

---

* The Dunsley Heat "Yorkshire Wood Stove Boiler" is the only stove boiler certified by Defra in 2011 for use in a smokeless zone. Whichever stove or cooker you use will require a 190mm space around the boiler connections for the Wood Safety Kit. However we can provide a Yorkshire stove boiler, modified at no extra cost to require only 140mm space at the back - please ask for current delivery times.

www.advanceheating.co.uk E:advanceheating@gmail.com
16 Broomfield Rd, Coventry, CV5 6JX. Tel: 024 7667 9286
VAT No: 892162314

Comparison of Sealed & Open Systems.

Sealed System - Stove & Wood Safety Kit	Traditional Open Vent System for Stove
No cistern is needed in the attic or bedroom.	Ball Cock & Water Cistern in Roof Space 
The existing central heating circuit is used for the stove. Mains cold water supply provides safety against any overheating.	Open Vented: A cold water cistern in the loft would provide low pressure water to the stove via a ball cock valve. Heated water cannot then be directly pumped through the central heating circuit, but its energy must be transferred via two pumps and a thin plate copper heat exchanger. Should the stove overheat, steam is ejected up a vent pipe into the cistern, from where an overflow pipe allows excess water to run into the garden under its own weight.
One heating circuit, not two.	Open Vented: The property would have two heating circuits, each with its own facilities for filling up, draining down, and safety mechanisms. Both need maintenance.
No oxygen gets in to cause sludge or lime scale.	Open Vented: The open cistern would permit oxygen ingress, that would rust and causes sludge in the stove, pump, valves, one living room radiator, and the thin plate heat exchanger.
The system is checked for leaks using the pressure gauge.	Open Vented: Small leaks often go unnoticed, leading to excessive oxygen ingress, covert water damage to the property, but also limescale within the stove.
No open cisterns to leak, freeze, boil over or run dry.	Open Vented: The cistern in the loft would be susceptible to frost, leaks, spilling over, buckling due to excessive temperatures, and the ball cock valve jamming open or jamming closed.
Quieter pipes, valves and pumps - your system runs more efficiently & reliably.	Open Vented: Low pressure water generates cavitation noise when moving across the trailing edge of pump impellors, or other sharp edges at speed.
Heat is transferred directly from the stove to the radiators	Open Vented: An extra pump is required to drive the heat exchanger, costing more to buy and for consumed electricity. Over 10% efficiency would be lost in transferring heat to the radiators via a copper plate heat exchanger as sludge builds up over time.
Sealed systems are safer.	Open Vented: Cisterns are hard to configure correctly to safety regulations, and in practice they rarely

www.advanceheating.co.uk E:advanceheating@gmail.com
16 Broomfield Rd, Coventry, CV5 6JX. Tel: 024 7667 9286
VAT No: 892162314