



Wood Stoves

Wood stoves are great because:

- They make an excellent centrepiece for a room.
- They are very efficient - often 80% efficient compared to 20-30% for an open fire. So you need less fuel for the same amount of heat.
- Burning wood from renewable sources instead of coal gas or oil helps cut your carbon footprint
- They can save you money - particularly if you use oil heating and have a cheap or free source of wood.

Before buying your stove:

Heat Output

The first question is how much heat you need. It's tempting to purchase the largest that will fit in your room so you can burn large logs. However, if it's too large you'll overheat or have to reduce the air flow to the stove – burning fuel inefficiently and with more smoke.

Heat output is measured in kilowatts (kW). A normal double radiator (e.g. 600mm x 900 mm) gives out about 1.5kW. The 'stove heat calculator' at StovesAndFires.com will give you a rough idea of what you may want given the size of the room you'll be heating. An estimate in kW is (volume of the room in meters cubed) / 14.

Stoves range in size from roughly 3kW to 15kW.

Fuel Type

If you want to be able to burn both wood and coal, you need a multi-fuel stove. If it's just wood, a wood burning stove should meet your needs.

NB It's not a good idea to burn wood and coal at the same time because wood burns best on a bed of ash with air from above, coal best with air from below.



Smokeless zone

Cambridge has a smokeless zone which covers the city centre, west and south west areas - details from www.cambridge.gov.uk -- look for 'smoke control area'. Within the zone either:

- a) You must burn an authorised smokeless fuel (see <http://smokecontrol.defra.gov.uk/fuels.php>) – such as anthracite. Note that wood is not authorised! Or:
- b) Your heating appliance must be certified exempt for your chosen fuel – a exhaustive list of these appliances is here:

<http://smokecontrol.defra.gov.uk/appliances.php?country=e>).

If you break the law you may be fined up to £1000.

Where to put it

You may need to make some alterations to the room. Building Regulations (google for: Building Regulations Approved Document J) specify you need a non-flammable hearth 125mm (5") thick, and a fireproof finish to any walls within range. Stoves with heat output above 5kW require permanently open air vents to allow air in from the outside.

Suppliers

We recommend you talk in detail with at least 3 stove suppliers. Explain your requirements and make sure you understand what they think is best for you and why. Look in your Yellow Pages / Thompson Local under 'Fireplaces'. Here are three who install locally

- [Ivet and Reed](http://www.ivettandreed.co.uk), www.ivettandreed.co.uk
- [Fireplaces](http://www.fireplaces.co.uk), www.fireplaces.co.uk
- [Opulence](http://www.opulence.kk5.org), www.opulence.kk5.org

Make sure the installer is an accredited HETAS engineer (www.hetas.co.uk). Poor installation can lead to a multitude of problems including poisonous carbon monoxide fumes.

How much will it cost?

At a minimum, small stoves start around £500, but you probably also need to budget for a flue to line your chimney – this will at least double the cost. It's not difficult to spend £2500 on a decent stove and full installation.

Do I need a chimney liner?

A chimney liner (e.g. flexible stainless steel or pumice concrete) is usually recommended. It will increase the efficiency of your stove, stop smoke leaking out through cracks in your chimney and reduce the risk of a chimney fire if tar and soot deposits build up.

Chimney liners are installed from the top of the chimney – i.e. from the roof. Usually roof ladders are sufficient but if your roof is unsuitable a cherry picker is the next cheapest option, if you have access. Scaffolding is the most expensive. Check this when talking to your stove supplier.

You can also insulate your chimney by pouring vermiculite insulation down the chimney between the liner and the main chimney. Some argue this keeps the gasses in the liner hot, improving efficiency and the draw of air through the stove etc, others argue that insulation is unnecessary – you may want some heat to spread into the chimney above the fire, warming the rooms above.

Do I want 'airwash' or 'clean burn'?

Two common stove features are 'airwash' and 'clean burn', also referred to as a secondary and tertiary air supply. With Airwash there is an additional flow of air drawn down over the window at the front, reducing the build up of dirty tar on the window.

'Clean burn' can be achieved in different ways. Normally the air entering the firebox is pre-heated by being drawn over hot channels in the stove. This improves the efficiency of the stove, ensuring any flammable wood gasses are burnt, rather than going up the chimney, and hence saves fuel.

Most good quality stoves will have these features.

Maintenance

You'll need to empty the ash from the cold stove regularly, clean the glass occasionally (newspaper dampened in vinegar cleans the glass well) and get the flue swept once a year. Fireboard/firebricks and bird/rain cowls may need to be replaced every 3- 8 years.

Fuel sources

Can I burn waste paper?

Dry newspaper, waste paper, cardboard etc are ideal for starting the fire, but if burnt in any great quantity they produce a lot of ash. There are lots of places with instructions on how to make paper 'logs' such as: www.instructables.com/id/Intro_1/e and <http://woodstoves.newarchaeology.com/makelogs.php>

Can I burn waste timber?

Be wary of painted wood, and creosoted fence posts etc because they generate noxious fumes when burnt. Also they leave sticky deposits in the chimney making it hard to sweep and could reduce the life of your liner. You may want to use your stove like an industrial incinerator but it's not recommended!

Where can I get firewood

It's best to buy local if possible. You can find suppliers near your postcode from:

- www.nef.org.uk/logpile/fuelsuppliers/index.htm
- www.stovesonline.co.uk/services/firewood-suppliers.html

For pellets or kindling made from reclaimed wood try <http://cambridgewoodworks.org.uk/>

Also, look out for neighbours who are clearing out old or dead trees. If you see tree surgeons its worth asking them too. It's likely you'll have to do some work - sawing, splitting and stacking.

NB. If you get green wood you will need space for it to season (dry out).

Storing your wood

The best place is under cover in an open sided store where natural ventilation can dry it for one or preferably two

summers. A reasonable estimate is that wood under cover dries at an inch a year. So 4" diameter logs (2" radius) take 2 years.



(Pictures from Cathy Parker – thanks Cathy!)