

## Firing Your Enthusiasm On A Shoestring

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Not everyone's budget will stretch to a shiny new kiln, especially when you are just starting out, and buying a used kiln can be quite a daunting prospect. The used market presents an opportunity for real bargains but, as with anything in life, there can be pitfalls - so let's explore what to consider when choosing a used kiln. We can break this down into the five "C"s:

### Construction

One of the main quirks of the pre-owned market is that, due to supply and demand, smaller top loading kilns generally cost more than their larger front loading cousins on a £/litre basis. Frontloading kilns tend to be more robust in their construction but, whilst improving longevity, this does add extra bulk and weight making them more difficult to move - especially where steps or uneven ground need to be traversed.

Angle-iron construction offers superior levels of durability when compared with the alternative folded metal or 'monocoque' construction technique, which is cheaper to manufacture but is often prone to serious problems caused by corrosion.

Toploading kilns tend to be much lighter and easier to manoeuvre than frontloaders. Circular kilns take their strength from the wedge shaped bricks forming the circular chamber and the stainless steel band that holds them tightly in place. They therefore tend to be a better bet than oval shaped kilns which tend to get "sloppy" and flex more readily as they age.

### Chamber Condition

The condition of the brick chamber is by far the most critical aspect of a used kiln as it will dictate how well the kiln fires. Be on the look-out for broken brickwork (especially element channels) and large gaps at door seals. Front loading door seals tend to be worst near the hinge side, but can be checked quickly by trapping a piece of cardboard in the door. You shouldn't be able to move this with the door clamped up.

Brickwork can be repaired but this process is not inexpensive. Small cracks are fairly common and shouldn't cause any significant change in firing efficiency. The colour of the brickwork is important and, should you find a kiln with a honey-coloured brick or bricks that seem deformed/curved at the joints, then walk away as this kiln has likely been overfired in its lifetime.

There are dangers in buying older kilns (pre-1980's) as they may contain asbestos-bearing insulation. Avoid fibre lined kilns that are generally very cheap to buy. Older examples may contain potentially carcinogenic fibres that can be breathed in when dislodged. Even modern "body-soluble" refractory fibres can, when exposed to the direct heat of the kiln chamber, denature into a potentially harmful form when breathed in, and so care should always be taken.

### **Connection (power & phase)**

Larger kilns will demand more power than smaller kilns, so always check with your electrician that your supply will cope. Three-phase kilns will usually be cheaper than single-phase examples and not all kilns can be converted from one wiring pattern to the other.

### **Control**

Try to buy a kiln with a controller that you will be happy with, as upgrades to the control gear can cost hundreds of pounds and, in some cases, can be more expensive than the used kiln itself. Most 13 amp kilns (even ancient ones) can be upgraded with a modern aftermarket controller and thermocouple for around £400.

### **Consumables**

As it is difficult to assess the life left in the kiln's elements just from a photo, it is safest to assume that you will require a new set very soon and to factor this along with labour costs into your budget.

### **Not every bargain is a bargain...**

Don't be afraid to walk away from a deal. The market is currently full of kilns, both very good and very bad. If you are able to make repairs yourself then a used kiln is a very simple piece of equipment and you should generally be able to fix almost anything that goes wrong. If you are

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going to be reliant on others to help, then this can be a very expensive exercise and you might want to consider heading back to the safety of the new kiln market.

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