

# Frequently Asked Questions

#### Q; You are new in the market, what about service, maintenance and spare parts?

- A; I started this business as I saw an opportunity in the market to provide, reliable, versatile and solid kilns at a price point that is more affordable than those prices set by some of the long-standing manufacturers. My intention is to be in it for the long haul!
  However, nothing is guaranteed, so here are a few pointers to consider;
  - 1. Kilns generally consist of a range of generic parts that are readily available from any kiln manufacturer, or kiln repair technicians. The bricks are generic, so is the element material as well as the contactors (they control the current from the control box to the element). The only unique item on our kiln is the controller. Our controller has been in production for 10 years and they are readily available. However, any controller can be connected to the kiln the controller is not specific to the kiln.
  - 2. We carry a full range of spare parts and are happy to supply as required. Elements can be wound by any kiln manufacturer to suit any of our kilns, provided they are given the electrical specifications (this will be on the specification plate attached to our kilns), the number of element grooves and the dimensions of the kiln. Alternatively, just provide them with the old element and they can wind to match!
  - 3. Fortunately, there are no moving parts in kilns! There is very little maintenance that is required. By taking care of the lining, particularly in loading and unloading, your kiln should last many, many years. There are a number of very experienced kiln technicians that can perform repairs if required.
  - 4. We offer a 1 year warranty on our kilns. This covers any fault in manufacture. Elements and thermocouples are excluded as their lifespan is use dependent (much like tyres on a car!).

## Q: How long will my elements last?

A: A kiln element is a piece of wire that is designed to resist the passage of electricity. As current flows down the wire, the resistance impedes the flow and so causes the wire to heat up. Element lifespan is primarily dictated by the temperature to which you fire. The higher the temperature, the shorter the lifespan. As a general rule, Kanthal A1 elements will last about 500-600 firings to 1150c, 200-250 firings to 1220c, 120-150 firings to 1280c and no more than 75 to 1300c (1300c being the **absolute maximum** safe operating temperature of our kilns). These numbers come from Graph 1. In "Electric kiln construction for Potters" by Robert Fournier – a great book to read if you are a kiln freak! (I think they are a bit optimistic!) They are a probably best case scenarios and are meant as a guide. They assume that elements just wear out. Unfortunately, impact to the elements in packing, glaze splatter or noxious gases will shorten the lifespan further. You may notice that as your elements age, the kiln fires more slowly or struggles to get to temperature. This is a known characteristic of Kanthal wire. It is vital that you keep the



element channels clear of debris at all times – a small piece of broken kiln brick or broken pot that jams up against an element can cause a local "over-heat" and burn out an element. Similar situations can occur with kiln wash or glaze getting onto elements. Our recommendation is that you carefully vacuum out all element channels before each firing and place glazed ware a minimum of 4cm from the elements – a little bit of care can make a big difference. An important feature of Kanthal wire is that after firing the wire will build up a layer of Aluminium oxide on its surface that protects it from attack by harmful gases. It will take 2-3 firings for this layer to build up. It is not a bad idea to therefore perform a couple of bisque firings with new elements (either a new kiln or replacement elements) prior to a glaze firing. The reason for this is that glazes will tend to liberate significantly more corrosive gas than does bisque ware. We NEVER recommend reduction firing in an electric kiln.

#### Q: Why do you use K-type thermocouples?

A: This is one for the techno crowd! There are a full range of thermocouples available. Different thermocouples are rated to different temperatures. The use for the vast majority of thermocouples is in industrial applications ie. smelting furnaces, continual heat treatment etc. Thermocouples will have two ratings. Firstly, maximum continuous operating temperature and secondly maximum operating temperature. In industrial applications the thermocouples are subjected to long periods of heat, this may be days. A K-type thermocouple has a maximum continuous operating temperature of 1100c, with a maximum short-term operating temperature of 1350c. Given that our kilns are only rated to 1300c and most people firing stoneware will fire to 1280c, there is only a short period of time (hours) that the thermocouple is in the 1100-1280c range. In this situation the K-type thermocouple is more than adequate. And that has been our experience in the many hundreds of kilns that have been fitted with K-thermocouples over the past 10 years. There are also R-type thermocouples. They are rated to 1600c for continuous use and 1750c! for short term use. R-type thermocouples are very well suited to high temperature applications. Their drawback is that they cost about 8 times the price of K-type thermocouples. This is due to the rare metals that are used in their construction – Platinum and Rhodium. We are more than happy to fit an R-type thermocouple to a kiln at your request, at additional cost – our controller is preprogrammed for K, R and S- type thermocouples.



## Q: Can I just plug my kiln into any power point?

- A: Yes, but only our FTS1.0 top-loader. To avoid boring you with pages of details (single phase, three phase, current, volts etc...), kilns require significant current to heat up, the larger the kiln, the more current it will require. Any kiln larger than our FTS1.0 will require the use of an upgraded power point. (Check out our resources section for a chart that shows what is required). Sometimes this is a very simple task, sometimes it can be a costly nightmare! We always advise you seek the advice of a registered electrician to ensure that you have access to adequate power to allow your kiln to perform as it should. If there is inadequate power, you kiln will be unable to reach higher temperatures, or take a looooong time to do so.
- Q: How much will it cost to fire my kiln?
- A: Please check out our calculation sheet in the resources section.
- Q: Why are your kilns so cheap? What's wrong with them?
- A: Our kilns are not "cheap"!. They are affordable!

They are manufactured by the largest kiln and furnace manufacturer in South Africa. A company with over 50 years' experience in kiln manufacture. I have been able import them at what I think is a fair market price. A kiln is a significant investment and many potters and ceramicists simply cannot afford the prices of some of the Australian made kilns (don't get me wrong, we have some very good kiln manufacturers in Australia producing excellent products – they will have their pricing structure, and I have mine). There is nothing wrong with our kilns. There are thousands of potters in South Africa using them as well as a few in NZ – Hungry Creek Art School in Auckland does.

If you have any other questions, drop us an email and we will get back to you as soon as we can.

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Fired Up Kilns works from the lands of the Wurundjeri Woi Wurrung and Bunurong peoples of the Kulin Nation and we pay our respects to their Elders, past, present and emerging.

