



Help Before Buying

There are many different uses for a kiln, therefore the following notes can only be a general guide. There are four basic questions you should consider before buying a kiln. Buying a kiln is always a compromise between access, budget and size.

How wide are your doors?

What power supply have you got available?

How much can you afford?

What are you intending to make and fire?

What size do you want, or what size do you think you want?

Much will depend on what you are going to use your kiln for. Is it

- for a hobby
- a little bit more than a hobby as you hope to sell some of what you produce
- for teaching and you need to fire your students work
- to make money from selling your work

To give advice is not easy, but we do have long experience in matching the correct size of kiln to your situation. We want you to buy the kiln that is right for you.

Our basic advice is, do not buy too small, but think very carefully before buying a larger one, but always, buy a complete kiln. A Kiln complete with kiln furniture (the shelves and shelf supports that will hold the pots) and most importantly of all, a temperature controller. This is the electronic device that will allow you flexibility in the rise and fall of temperature, turn the kiln off or hold it at whatever temperature you set.

Accessibility

You'll need a tape measure, a piece of paper and pencil and a camera if possible to email pictures.

We have a list of pointers in working out what's do-able and what is going to cause issues.

- Paving - Is the approach to the even or crazy paved etc...Stones or gravel. We can place boards over this surface to make sure it doesn't dig in
- Stairs - For obvious reasons need to be mentioned, but a sense of scale is also good.
- Will it fit through the doors again you don't won't to ignore this, double check all door widths and any tricky corners immediately before or after.
- Is there a lift would be nice, but again internal dimensions would be useful
- Is it on a hill again gravity is not our friend



- Timing... parking/ease of - If there are any convenient spaces for access and delivery, and also restricted access
- Is the width between the radiator/down pipes/steps less than the door width, check corridors for narrow points and obstacles
- Do any guttering or steps impede the kilns thoroughfare
- Check to see if there are any areas that will require solutions to traverse
- Cambers on the path need to be wider as the kiln leans - If one side starts to sink into soft turf bad things will happen
- You need the right size for you - Needless to say the area it is going to be placed needs to be considered

Let us start with small kilns.

There are many kilns that will operate from a 13amp plug (similar to any of your domestic appliances), If you want your small kiln to be capable of all temperatures, the largest internal size you can get will be approximately a 13"cube/330mm cube. For a realistic example of this measurement, I suggest you cut out 5 pieces of cardboard 13" x 13" (330mm x 330mm), put 1 down flat, 2 standing up at each side, 1 at the back and then 1 on top. You will now have a box of similar inside dimensions as your kiln. Please note that the outside size will be much larger, a minimum of another 8" (205mm) in every direction.

Many people will request a large kiln, when in reality, a small kiln fired frequently will suffice. For example, what is the size of the largest piece of work you will want to produce, will it be taller or wider than these dimensions when complete? You can fire a piece of work that nearly touches all of the sides and the top. You may have to fire one piece at a time but a small kiln is not costly to fire. To those who make larger pots, I ask can you produce more than 1 large pot per day? You can easily fire one every day. I get 46 standard 3.5" beakers in such a kiln at one firing to biscuit or we will fire up to 10" x 12" diameter plates at a single firing. A small kiln if fired frequently will perform more than one task. It will fire the pots, dry the next batch to be fired, and if in the right position, will warm the potter. I jest not! A small kiln will give off as much warmth as any storage heater. A proper kiln is perfectly safe to put on a table or stand in the house, in the studio or workroom. If you are making pots, unless each piece is very small, I would recommend a kiln with an internal size of 13" x 13" x 13" (330mm x 330mm x 330mm) or if a top loading kiln - 15.75" x 13.5" or 400mm x 343mm.

We recommend the Rohde Ecotop 43 for this purpose.

Remember, if you want a larger kiln, the next sizes up will require a 30amp supply. This is similar to your cooker supply. I would recommend that you ask a private electrician if this is feasibly possible and what it would cost to run an additional power supply to the

proposed site. If you have any problems please telephone us, there are several suggestions we can make.



Please note, if you are firing to lower temperatures we can confidently manufacture a kiln for you of larger internal dimensions on a lower power supply.

Please, If you are capable of having a 45amp or 60amp supply (on single phase) obviously you could have a larger kiln. Our life now and for the past 50 years has been pottery kilns and our aim is to supply you with the kiln that is ideal for you. We receive many requests from people for large kilns, who unfortunately do not have access to a 3 phase electricity supply, this is not a problem, we can make quite a large kiln on a single phase electrical supply (normal household power).

Another common problem frequently encountered by us, is the ability to custom make a kiln which will allow an easy delivery through a very narrow entrance space, without losing any valuable insulation. This is not a problem for us.

Where am I going to put the kiln? Will it be safe?

A kiln is basically a box built to contain very high temperatures. Even at china painting temperatures, which are comparatively low, the chamber inside the kiln is going to be red hot. The bricks and other insulation contain the heat thus allowing the outside of the kiln to remain at a reasonable temperature. The sides of the kiln, at full temperature, will be far too hot to hold your hand against, therefore the kiln needs to be approximately 305mm(12") away from any wall although it can be closer to a brick, plaster or stone wall. Although hot it will be quite safe to fire on a piece of wooden furniture or a table as we always ensure that the kiln has feet and a considerable air space underneath. It is quite safe to place a kiln in a wooden shed, provided enough space is left around and especially above the kiln and sensible precautions are taken. Please, be careful never to stack anything very close, within 305mm(12"), of the kiln and certainly never stack anything (other than pots which are drying out) on top of the kiln. If you use your kiln only occasionally it can be very easy to forget to move things away from the top or sides.

A top loading kiln will usually be on wheels so it can be pulled out into a larger open space to fire, but it can be stored under a table or shelf when cool. If space is at a premium, or you do not wish to have the kiln in the house, then a garage, shed, or lean-to conservatory will be fine. Many kilns are situated in cellars.

Make a list of your queries and telephone us. We will be glad to help you. Again, please check all doorways, and any other possible obstacles that we may have to encounter during delivery, from the parking of our van to the installation site of your kiln, please ensure that they are wide enough - make a note of the narrowest doorways. Earlier I said that the kiln will be at least 200mm(8") - 330mm(13") larger than the inside dimensions.



We have the capability to manufacture a well-insulated kiln that will pass through a doorway with internal dimensions plus as little as 153mm(6"). Without cutting down on insulation.

Please do not have any fears about your kiln. It is the most necessary item in your work in pottery and we are always here to help you. You have absolute control over your kiln. If in any doubt you can, and must always, switch it off.

For what purpose do you require your kiln?

Are you going to use it to fire china and porcelain that you have painted or to put ceramic transfers on? Are you going to fire pots you have made, be they thrown, hand built, cast or sculpted? Are you manufacturing or putting transfers on tiles? Are you fusing, slumping, gilding or annealing glass? Do you want to use it to melt precious metals in crucibles or use it as a burn out unit for lost wax casting? Do you want to heat treat and stress relieve metals in it?

A kiln has so many uses. If you keep it clean inside and take care of its brickwork and elements it can be used for all of these things.

What temperature do I need to fire to?

If we have the privilege to sell you a kiln, we can help you with temperatures and programmes for your controllers. If you are china painting you will probably be firing to about 780°C. If making pots, the first firing will be approximately 1000°C or maybe over 1100°C and the second firing anything up to 1280°C. Glass will be dependent on the process, from 600°C - 980°C. Full instructions come with the kiln and someone from Northern Kilns will usually demonstrate the kiln plus controller before or after delivery. It will take time and the experience of several firings to discover just what is the correct temperature and ideal firing time for your process to enable you to get the best results. Keep a record of your firings, especially what temperature you set and what the results were. Remember, if it feels much hotter than previous firings, or has been on a lot longer than usual, switch it off.

How much is it going to cost to run?

Of course this is dependent on many factors. Size, temperature fired to, power supply etc. May I give you an example, on a 3 KW (13 amp) kiln. A Rohde Ecotop 43 fired to biscuit/bisque will cost approximately £2.40. A Rohde Ecotop 43 fired to 1220°C with a 20 minute soak/dwell will cost approximately £4.00. An electric kiln can be the most

economical to run, certainly the easiest to control. A gas kiln is usually much more expensive initially and is also a lot more difficult to master.



Do I want a front loader or a top loader?

This is not an easy question to answer. There are situations where a top loader is better and similarly with a front loader. I shall explain the difference. A front loader is similar to your oven - you load it from the front. Ours are usually supplied on an in built stand. If put at the correct height it is easy to see to load your pottery. It can be moved but does tend to be more permanently sited.

The top loader is loaded from the top. Unlike the front loader, once loaded you can only see what is on the top shelf. The advantage of the top loader (on the smaller models) is that when not in use they can be wheeled underneath a table thus saving space. The top loader will have a stainless steel wrap finish, whilst the front loader will have a paint spray finish. The cost difference, as you increase in size between the two formats is due to the fact that the front loaders have a substantial steel frame, therefore a higher construction cost.

How am I going to be able to assess the temperature? How can I control it?

The answer is, always buy a kiln complete with a temperature controller fitted. All of our prices include the controller and furniture set.

How long is it going to take to get to temperature and how long to cool down? How soon can I get my pots out?

Obviously this depends on what temperature you are firing to. Here are some ideas -

If making pottery, the first firing is usually to about 1000°C and an ideal firing is no faster than 100°C per hour therefore taking approximately 10 hours and it will usually take at least another 12 plus hours to cool down.

Glaze firing to 1150°C. This can go as fast as the kiln can rise, so may only take 8 hours (approximately), but it will certainly take 12 hours to cool down.

A china decorating firing to 800°C Once again there are different ideas but I, personally, think the firing should be no faster than 4 to 5 hours and can take 10 to 12 hours to cool down. When the kiln reaches temperature it will be red hot inside. Please note the outside casing of the kiln will be very hot - too hot to touch. Never open the kiln door until it is properly cool. Opening the kiln whilst it is too hot will certainly crack the pots and is also very bad for the kiln. If your patience doesn't last, you can open the door ever such a little, only when the kiln is below 200°C, but it is far better to let it cool down naturally all the way.



Do I need an extractor fan?

Much depends on what you are firing. In making pottery some clays give off a slightly unpleasant vapour at higher temperatures. If you are firing ceramic transfers onto pots or tiles the cover coat has to be burnt off and does smell. The oils you mix your colours in china painting have to be burnt off. Lustres give off unpleasant vapours. All of these need considering. However, if you can have your kiln in an area where you can open a window, that will be satisfactory. Larger kilns are a different matter. I would recommend that you buy and use your kiln and then see if natural ventilation needs a further extractor fan. With a small kiln I do not really think that it is necessary.

Do I want gas or electric?

An electric kiln is easier to use, as cheap to run, easier to control, does not need a vent or a chimney to the outside and is certainly cheaper to buy. A gas kiln is usually a larger piece of equipment (to achieve the same internal size) because you have to allow space for the flames. You also need a collection canopy, flue and air inlet.

How do I take care of it?

Your kiln is the most important tool so please take care of it. It makes sense to have it serviced, if possible, once a year. Keep it clean inside, take care not to damage the elements. In the course of use the brickwork may show cracks. Do not worry about this, do not repair these cracks. If you think about it the inside of the kiln is at red heat, so the face of the bricks are very, very hot and yet the back of that same brick is much cooler. The whole kiln expands a tiny bit when hot and contracts when cool.

The kiln must breathe. If an element looks as if it is about to come out of its groove, put it back in very carefully. Elements are the main part of the kiln, yet alas, are very fragile. I have asked you to keep a record of how your firings perform, maybe a good idea is to record how many firings you have done. Elements, like tyres on a car, wear out and need replacing. A kiln is basically a simple device, yet it benefits from being looked after.

What about delivery? Will it just be delivered to my front door? Surely these things are heavy? How do I learn how to use it?

If we should sell you a kiln, it is our policy, where possible, to deliver your kiln ourselves. We care about our kilns, great care has gone into their production. We care even more about you, our customer. We deliver to where you would like the kiln located, plug it in, (if larger we wire it in, providing you have a suitable isolator switch ready, close to where the kiln is going) and we demonstrate how to load it, how to operate your controller and how to fire it. We regularly put our kilns upstairs or in cellars. Obviously we need to know where you want your kiln sited prior to delivery.

Will it be guaranteed? What about service, maintenance, parts?



All our kilns are completely manufactured by us at our own works in Pilling. All our kilns carry a full 12 months guarantee. We can supply parts, service and maintenance for every kiln we have ever made (going back 50 years) along with many other makes.

Where am I going to buy my kiln from? Will it be complete? What extras do I need?

We will be very happy to sell you one of our kilns. It will be our pleasure to spend time discussing which the best kiln is for you. We have various sizes in stock. We can also just as easily, make special one-offs. Our kilns are of a very high quality, offer excellent value for money, yet are very competitively priced. They are totally complete.

We are very experienced in teaching in many areas of ceramics, glass etc. We have a Studio Pottery running alongside our kiln production, therefore we can offer you a helping hand in “How do I do.....?” or “Where can I getfrom?” or “Who supplies the most reliable and best priced.....?” There are many more things you may want to know about buying a kiln. Make a list of them and then telephone us, we will be happy to spend time answering any queries. We do not know all the answers, but we have a lifetime of experience to share with you.