



Should I purchase a kiln?

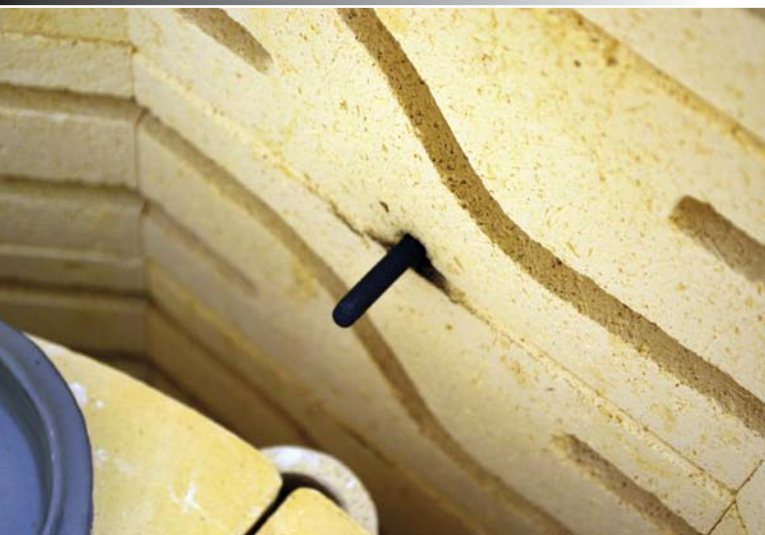
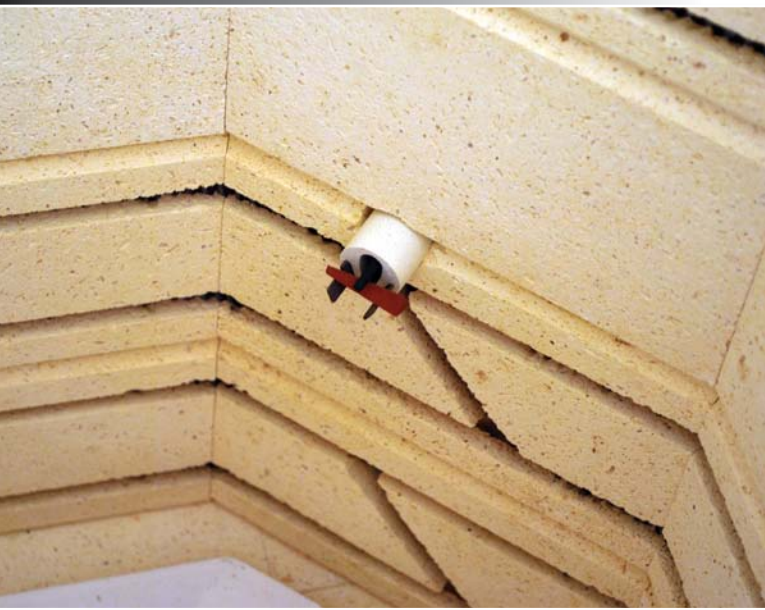
By Michael Harbridge



Making the decision to purchase your very own kiln is a big deal. Most people have a lot of questions and can be overwhelmed by all the different manufacturers, sizes, and options available with today's modern kilns. Here are some important considerations and questions to ask yourself which may make the decision easier.

I purchased my first kiln when I was 12 years old. I saved up \$150 to buy a used kiln from a local studio. It was small, but it was the perfect size for firing everything I needed. Well, at least for about six months — then I upgraded to a brand-new kiln nearly double in size. Within another year, I upgraded to one of the largest kilns available. That all started 33 years ago, and over the years I've purchased and sold well over 2,000 kilns. Not all for personal use, but as a dealer and distributor for many of the kiln companies still building ovens today.

Personally, I've owned over a hundred kilns from various manufacturers in all different sizes, starting back in the day when kilns weren't automatic and digital. You had to sit by the kiln and watch through the peephole plug for a cone on the shelf to bend to let you know it was time to turn off the kiln. The first automation came with a kiln sitter, where a little clay cone sat in a special holder, and when it got to a certain temperature, the cone bent, causing a weight to drop, triggering a button to turn off the kiln. How crazy is that?



That automated technology still exists today, and some people still use kilns with a kiln sitter. However, it makes up a small portion of overall current kiln sales. Digital and electronic kilns dominate the market. They've come a long way over the years. Some of those first electronic controllers had minor issues and were costly to replace. But they've been around so long and been tweaked so much that they can do nearly anything artists need. And they are very reliable.

The basic makeup of a kiln hasn't changed much since the first kiln I purchased. Most are made with firebrick walls, bottom, and lids, elements for generating heat, and some form of controller to make everything work. It's honestly a pretty simple machine to understand and very safe to use in a home, school, or studio. However, even with a simple machine, stupid things can happen. I've seen all kinds of crazy things over the years when I've gone to do kiln repairs. And I'll also be the first to admit that I'm done some dumb things and learned from them.

Let's talk first about who you are and whether you should purchase a kiln of your own. Then it's time to look at what kind of kiln will best suit your needs. One of the biggest mistakes I've seen people make over the years is purchasing a kiln that wasn't right for them — for example, one so small that they quickly outgrew it or one so large they never had enough to fill it, so they rarely ever fired.

1. I do fired arts for fun

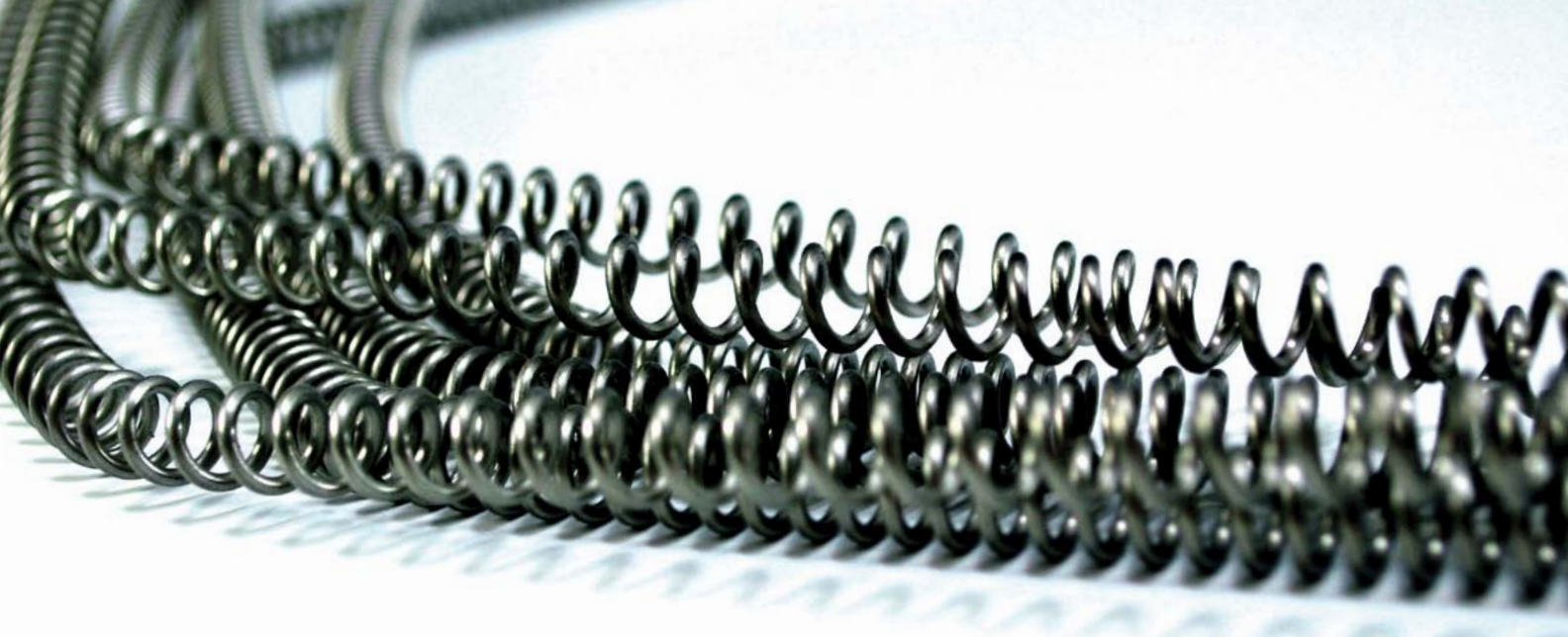
You're like me when I started out. I just wanted to make stuff and play around and experiment. Having my own kiln allowed me to try things I might not have done if I been paying someone else to fire my ware. In the back of your head, you might be thinking that down the road you might start selling things to support your fired-arts hobby or even turn it into a secondary income. But for now, you just love making all these things and can't get enough.

2. I have to travel to have items fired

This has become a more common concern. With fewer studios out there, it's sometimes necessary to have your own kiln because you have to travel great distances to have ware fired. This limits the amount of ware you produce and maybe puts you on the fence as to whether you want to continue or find a new hobby. It's simply not convenient to spend time traveling to drop items off, wait a week, and go back to get them. Having your own kiln would make life whole lot easier.

3. I'd like to make money doing this

This is one of the most common reasons people buy a kiln. But before you get too excited, make sure that's possible. Don't just turn to family and friends and ask their advice. I hate to tell you this, but your mother is obligated to tell you your creations are beautiful and would sell. It started when you were a small child and your crayon pictures got hung on the refrigerator. They were precious. Most family and friends won't be entirely honest for fear of hurting your feelings. Go to someone — or better, several people — you don't know and ask their opinions. Consider going into a few consignment shops with other artwork or a store that sells something similar to what you plan to make and sell. In short, do your homework and family does not count.



4. I want to open a studio

This is great! The more studios we have, the more awareness it creates for fired arts. But let's be honest here! Do you know anything about running a business? Just because you like to work with ceramics or glass and may be really good at it, doesn't mean you will be successful with a business. You need a good business plan, financial backing, and the specialized knowledge needed to run a business. Many business owners discover they spend most of their time running the business side and have little time for creating and having fun with what they love to do. Make certain you are ready to make that commitment and talk to others who have similar businesses and learn from them.

5. I'm a teacher and want to add fired arts to my program

Art teachers are great! You're showing the next generation of artists the world of fired arts (among other things). But — what do you know about kilns and firing methods? I give art teachers all the credit in the world for doing what they do. But they are covering all art forms, not just kiln-related. You've made the first step by reading this article. Read on and learn! Many teachers get thrown into a classroom and many have never operated a kiln. Even if they've taken ceramics courses, they were not likely loading and firing a kiln personally. Find a supplier who will be there to support you as you learn about kiln use. Have someone who can service your kiln when needed, because your school's maintenance staff probably knows even less about kilns. I've gone into schools where kilns had been taken apart because the maintenance guy thought he could figure it out.

6. I have a kiln and want to add a different type

Maybe you have a ceramics kiln but want to add a glass kiln (or vice versa). This shows you're branching out and trying new things. Some glass projects can be fired in ceramic kilns, but most glass kilns are limited to a maximum temperature of about 1,700 degrees Fahrenheit. If you have the wherewithal, adding a second kiln of the appropriate type is your best option — and there are also kilns designed to fire both ceramics and glass.

7. I collect kilns

This may sound silly, but I've known people and studio settings with numerous kilns. When I ask the owners if they really use them all, they sometimes respond no, but they either can't bear to part with old ones or for some reason think they need more kilns. If this describes you, take a look at the kilns you currently have. Do you ever use them all at the same time? Are you looking to purchase new and upgrade older models? If you're upgrading, consider selling the old ones rather than hanging on to them "just in case" the new one breaks down.

8. I need to upgrade

Depending on the age of your current kilns, it may be time to replace them. Kilns can last 30 years or more with regular maintenance and replacement of some key parts as needed — with proper care, you shouldn't need to replace them often. But if you have a kiln without a digital controller or even a kiln sitter, you may want to think about it. I replace my kilns every 10 years and budget it into my business plan, tucking money away every year so I can continue to make this investment in my business.

9. I want to do alternative firings

Perhaps you plan to do raku firing or specialized methods requiring kilns that lift, run on gas rather than electricity, or have additional features.

10. What is this thing?

This may sound crazy, but sometimes people inherit kilns and think they've struck gold. But if the kiln has been in a storage shed for years, housing mice and other critters, the kiln sitters and other components might be rusting and corroding, making the kiln less safe. And still, I see people listing kilns for sale on Craigslist with inaccuracies and ridiculous asking prices. The scary part is that other people may buy them thinking, "Grandma used to do this stuff and made money, so I'll buy this lot of molds from the '70s and kiln that may or may not be safe and figure it all out." And then follow by going into an online chat room to ask complete strangers how to use the kiln and molds. I'm not kidding. If this is you, please talk to someone who knows about kilns and have the kiln serviced.



Which Kiln?

Regardless of which of the above categories you see yourself in, you'll want to answer all the following questions to narrow your search for the perfect kiln.

What do you plan to fire? Are you working with clay, glass, metal clay, or other fired materials? Be sure to get a kiln appropriate for your media. Glass kilns generally have heating elements in the lid to give more even heat coverage, while ceramic kilns have them in the sides. Ceramic kilns can reach hotter temperatures than most glass kilns (though some ceramic kilns only designed to fire certain types of clay — if you plan to fire porcelain or other high-fire bodies, you need a kiln that has the appropriate temperature range. Some methods will make a front-loading kiln easier to use than a top-loading one.

Do you plan to create large items or small items? Many people purchase a kiln larger than they need because while they plan to make mostly small items, they may occasionally make some larger shapes. Before you jump to a larger kiln, think about how often you'll fire large items. Would you be better off taking those few large items a year to a studio or friend to fire rather than spend a thousand dollars more on a kiln? Of course, if you plan to create a lot of large items, then go for the larger kiln.

Keep in mind that kilns capable of firing both glass and ceramics are an option. Even if you don't do both now, will you in the future? Should you get a kiln capable of firing both in anticipation? Will that let you save the expense of buying a second kiln in the future?

Gas or electric? Both electric and gas kilns come in many shapes, sizes, and price ranges. Some electric kilns plug into standard outlets; others need special wiring. Smaller gas kilns can be more portable and ideal for specialized firings like raku. Electric kilns with electronic controllers can be programmed to specific temperatures with holds and more advanced firing methods.

How much space do you have? Kilns need space. Don't place a large kiln in a small closet-size space. Even with a kiln vent, the room will get overly warm. Storage rooms containing combustible materials are *not* a good location. Try to place a kiln in an enclosed space with a window or ventilation. Watch out for open areas where smoke alarms or detectors may be present. Heat-activated sprinkler systems should also be avoided.

What are your power options? Do you have 208 volts or 240 volts? Do you require single phase or three phase? Be sure to purchase a kiln that's compatible with your power limitations. Smaller kilns can operate on standard 120 volt household service. It's so important you get this right, because ordering a kiln with the wrong electrical system can be costly. Most people don't realize the problem until the kiln won't fire properly. At that point, the kiln has been used and can't be returned or sold as new. Converting a kiln can be costly and time-consuming.

Try to locate the kiln as close as possible to the power source, otherwise you'll have the added expense of running additional wiring. Always be sure to run the proper gauge of wire. Not following the guidelines can result in blown fuses or dangerously hot wiring.

What's your budget? Determine what you can afford to spend, not just on the kiln, but for kiln furniture (shelves and posts), vent, other options, wiring, room modifications, and any other options you choose. The actual firing cost for a large kiln compared to a smaller one is not a huge difference in most cases.

New or used? Can you afford a new kiln? New kilns come with a warranty and a little more assurance that the kiln is in good working order. You never know what you'll get with a used kiln. Know the history — kilns that have been sitting in a garage or storage unit for years may have hidden problems. Rust, corrosion, or controls that have been used in years could be a problem down the road. Remember, this is a device capable of heating to thousands of degrees. Do you want to risk safety? Always know the history of the kiln.

Will it fit through doors? This is not something you want to discover after the kiln arrives. This happened to me once — even disassembling the kiln wouldn't let it fit through the doorway, so we had to rip out the outside door and make it wider, a costly



surprise. Many kilns are built in sections that can snap together, making them easy to move and set up. But that particular kiln I ordered was all one piece and only the lid could be removed.

What are my options? Take a close look at all the available options. A manual kiln with a kiln sitter will require you to turn switches from low to medium to high over a period of several hours. Automatic kilns let you set the controllers to make those adjustments automatically, and the kiln sitter turns the kiln off. Digital kilns can be programmed to go to certain temperatures at predetermined rates or programs you enter.

Some digital kilns have zone control, with multiple probes monitoring the temperature in the different zones of the kiln. Such kilns heat more evenly by turning on elements in the cooler areas and automatically adjusting so each section is around the same temperature.

Upgrades like better relays (which control the power going to elements) or thermocouples are an option, along with lid switches to cut power when raking glass or removing hot ware when raku firing. But these and other extra features add to the final cost. Skutt has a cool option which can link your kiln to a computer, delivering many reports and can even link to your phone so you can check kiln progress when you're not near the kiln.

Lids on larger kilns are heavy, and most manufacturers have added mechanisms or springs to make them easier to open and close. Some are standard; others cost extra, but lid lifts are worth every extra penny in my book.

Kiln venting. Adding a kiln vent is something you really should consider. It not only removes fumes and heat, it can give better results with many fired colors. Digital kilns can be hooked right up to the kiln controller and programmed to turn on and turn off at predetermined temperatures.

Some vents draw air through the kiln and pull right from the chamber; other units are a hood above the kiln drawing heat and fumes out after they leave the kiln. Both have advantages, and some people use both types of vents, depending on their setup and needs. I have vents on each of my kilns, as well as a room vent to remove heat in the summer months. The overhead vent stays off in the winter when I *want* that extra heat.

Future plans? Think ahead to what you might do. You don't want to buy more kiln than you really need, but look ahead a little to what you might do and buy accordingly. You don't want to discover a month after you purchase your first kiln that you need something completely different.

Kiln brand. People always ask about my favorite brand of kiln. Honestly, I can't say much bad about any kiln manufacturer. Each one offers features that take them one step ahead of a competitor. I always tell people to talk to friends and others who have kilns to see what they like or don't like. It used to be that some had sectional kilns and others didn't. Today many make sectional kilns, making them easy to service and move. But so many factors go into what makes a good kiln. If you need service, that's very important. Does the kiln maker have helpful staff you can talk to? Do they offer a warranty and for how long? Do your homework and figure out the best fit for you based on kiln size, features, ease of use, warranty and service.

Service. You hope with a new kiln you won't need service, but it can happen. Who will service your kiln while it's under warranty? Most warranties require the kiln be shipped back to the manufacturer for work. How practical is that? Buying through a reputable supplier can make a difference when you need work done. It's easy to get a deal online. But if something goes wrong, who will help? It's rare to have something go wrong during the warranty period. But what about five years from now? Can you replace elements if needed? Will you need someone?

All these considerations may seem overwhelming at first. Don't let this discourage you from taking that step to kiln ownership. It will open up a whole new world of experimentation.

Kiln manufacturers have great websites, with many resources to help guide you through the selection process. If you need specs for an electrician, those are all available. Do your research and try to find a local supplier you are comfortable working with and who will be there when you have questions or need service. A kiln is a long-term investment — you want to be happy about it and sure that it will fulfill your needs. It's not about what the supplier has in stock and needs to move.

Michael Harbridge has been teaching fired-arts workshops for more than 35 years and is the educational arts manager for Royal & Langnickel Brush and the creator of clay puzzling. He can be contacted by mail at P.O. Box 108, Iola, WI 54945, by phone at (715) 281-6450, or by e-mail at info@claypuzzling.com. Visit his website at www.claypuzzling.com.