Glass Campus

Selecting a Kiln

Deciding what kiln to buy can be as difficult a decision as what kind of car to buy. What do you want it for? Do you want it to play with as a hobby or do you aspire to become a professional? Do you expect to do only small pieces like jewelry or large platters and panels? Before you part with your money, take some time to carefully consider all the options.

What Size?

If you ask a glass artisan, “What size kiln should I get?” many will answer, “The biggest one you can afford”. Why? They’re assuming if you start with a small kiln you will inevitably want a bigger one so why not start with a big kiln?

Is that assumption valid? Sometimes, but not always. Although it’s common for people to economize and buy a kiln that ends up being too small for their needs, it’s just as common for beginners to start off with a kiln that’s too big for their needs. If you have a big kiln, you will want to fill it whenever you fire it. That creates an incentive to put together mixed loads that perhaps shouldn’t have been mixed but instead fired separately. If you want to make big pieces, you’ll need a kiln big enough to fire them, but if you plan to make small pieces, maybe it’s better to have a kiln just large enough to fire those small pieces. Maybe that the size of kiln you chose should be determined by the largest piece you expect to make.

The idea that a large kiln will allow you to fire a lot of small pieces each time is usually more theory than reality. Large kilns cool slower so take longer to complete a firing. You can usually only do one firing each day. Smaller kilns heat and cool quicker so can more likely complete two firings

each day. If you buy a small kiln and later decide it's inadequate, you can buy a larger on. You could sell your small kiln but if you keep it you'll probably keep using it just as often as you do the bigger one. There will always be times when you want to fire something that doesn't justify using the larger kiln. The other consideration is that larger kilns usually require 240 volt power supply. If you don't already have a 240 volt plug available, it can be expensive installing the wiring for one for your kiln.

I believe the most versatile kiln to start off with is the largest one you can get that runs on 120 volts.

What Kind?

A kiln is a kiln is a kiln. They are all basically a toaster on steroids. Electric elements apply heat and soft porous bricks hold the heat. They may have more or less extra features, but they are all essentially the same. Shop around for the best deal you can find. You'll hear many people tell you, "My Zippydoodad Fusemaster is the best" but you're just hearing personal brand preference. There's no important difference between Ford and Chev and there's no important difference between makes of kilns. It isn't the make of kiln that makes any difference - it's the features in the kiln.

Features

- **Elements** - Ceramic kilns usually have side elements only. These can be used for glass but don't work as well as kilns with top elements. Some glass kilns have top elements only. These work well for fusing, but for casting don't distribute the heat as evenly or as quickly as side elements will. The best kilns are those with both top and side elements.

- **Power supply** - Do you want a 240 volt kiln or do you prefer the convenience of a 120 volt kiln that can be plugged in almost anywhere you want?

- **Brick or ceramic fiber?** – Each has advantages and disadvantages. A brick kiln takes longer to heat and longer to cool. The faster heating and cooling rates of a fiber kiln allows you to complete firings faster. Molten glass will stick to kiln bricks but not to ceramic fiber. Kiln bricks often shed particles that can become imbedded in molten glass. Fibre damages very easily.

- **Controller** – Although a kiln will work as well with only a pyrometer and switch as it will with a digital controller, working without a controller makes it likely you'll have a lot of failures. A controller is the best possible investment for a glass kiln. It allows you to program the firing schedule, then leave the kiln unattended knowing it will perform the firing schedule you programmed into it. A simple 3 key controller will perform just as well as elaborate more expensive ones but more expensive controllers are easier to use and

can store more schedules in memory. There are controllers available now that can be operated from your cell phone.

- **Adjustable top elements** - If you want to "stack" loads on multiple levels in your kiln, a kiln with top elements will be hotter on the top level than the bottom level. Because they have only side elements, ceramic kilns are usually better for firing multiple levels. Some glass kilns have top elements that can be adjusted to reduce the amount of top heat provided so your kiln relies mostly on side element heat.

- **Shape** – A round kiln costs less to build and provides more even heat distribution but a square kiln has more space.

- **Depth** – Because glass is usually fired only on a single level and not with multiple levels of shelves the way pottery is, glass kilns are more shallow than pottery kilns. Unless custom ordered, the deepest glass kiln made is 13 in. The most common depths are 6 in, 9 in and 13 in. Deeper kilns will allow you to do projects like vases and drops that require depth but cost more to fire.

- **Add on ring** - Fusing and slumping shallow forms work best with a shallow kiln that will ensure even heat distribution, but there might be times when you want to fire something that requires a deeper kiln. You can start by buying a deeper kiln, but an alternative is to select a shallow kiln that has a blank ring that can be added to make your kiln deeper for the times you want a deeper kiln.

Consider the Options

What features are important to you? It's a good idea to take some time to carefully consider what you want now and allow for what you might want in the future - then shop around for the best deal you can get for the kiln that best satisfies your wants.