

Choosing A Kiln To Meet Your Needs

When it comes to choosing a kiln that will meet your needs, it is important to have some idea about the kind of work you will want to do. For example, are you primarily looking for a kiln to anneal beads (referred to as “annealers” or annealing kilns) or do you want a kiln that will slump, drape and fuse glass as well?

Perhaps you need a kiln that can provide the kind of heat required for glass casting (between 1500F and 1700F), or maybe you will want a kiln with more depth in order to create taller pieces, like vases. Knowing (more or less) where your interest(s) lie will be most helpful in selecting a kiln that will meet those needs.

Size

Let’s consider kiln size first. Smaller, “table-top” sized kilns are well suited for hobbyists and those with limited “studio” space and are also ideal for making small pieces; i.e., saucers and sushi plates, coasters and votive candle holders, jewelry pieces and annealing beads. Typically, smaller, shallower kilns operate on regular “household current” (120V) and usually have only side firing elements (which are more than sufficient given the relatively small amount of interior space that needs to be heated).

Larger, deeper kilns will have both top (lid) and side firing elements in order to maintain uniform temperatures throughout the kiln and will therefore operate on 240V. Like any large appliance (i.e., your washing machine) a kiln that operates on 240V will require the services of an electrician in order to run the appropriate wiring from your breaker box to a special outlet that can support the electrical demands of the kiln (both in volts and amperage).

Kiln Shelf and Kiln Shape

When evaluating a kiln’s size as it relates to size of the pieces you want to create, please bear in mind that the kiln shelf (where you will place your glass pieces) is always about 1.5 inches smaller than the interior measurement of the kiln and will sit on kiln posts roughly one inch above the kiln floor. Add to that the thickness of the shelf itself (typically about 3/8ths of an inch) and your glass projects will be sitting about 1.5 inches off the floor. Therefore, a kiln with an interior width of 11 inches and a depth of 6 inches, will give you about 9.5 inches of shelf space on which to fire your glass and will allow you to slump or drape a piece of glass between 3.5 to 4 inches deep. Also remember that most kilns are hexagons or octagons; in other words, they aren’t perfectly square or round and therefore an 8 inch square plate mold will NOT fit inside your 11 inch wide hexagonal kiln, so matter how hard you might wish it would!

While you can fire directly on a kiln’s floor (provided the floor has been properly prepared with kiln wash and another “barrier” medium like ThinFire paper), we strongly recommend using the kiln shelf, as the shelf ensures the even heating and cooling of your glass by allowing the air inside the kiln to circulate over, under and around your glass which is the ideal scenario for a successful firing.

Manual vs. Programmable Controllers

Manual Controllers

Although we have a number of larger, fully programmable kilns, we love our little manual kilns! The heating and cooling of a manual kiln is managed completely by the operator (that's YOU!), which means that you will be setting and adjusting the temperature using a dial (called an infinity switch), that allows you to control the heat inside the kiln. The infinity switch looks a lot like the dial you might find on your stovetop, and indeed you will use the settings on the infinity switch to control the temperature inside a manual kiln in the same way you would heat soup on your stove.



Located next to the infinity switch is the pyrometer which looks just like a thermometer. The pyrometer delivers information regarding the approximate temperature inside the kiln, via the thermocouple (a heat sensing element that is visible when you look inside your kiln).



GS BEAD ANNEALER 120v 13a



A manual kiln will require more of your attention than a programmable kiln as you will need to make periodic adjustments to the infinity switch in order to control the heating or cooling of the kiln. But, contrary to some of the "wisdom" circulating the Internet or offered by self-described "experts", a manual kiln is not difficult to use, and when firing small items, does not require that much more time or effort than a fully programmable kiln.

Programmable Controllers

A kiln with a programmable controller will run through any firing schedule automatically, once you enter the desired program using the controller's keypad. Information is entered into the programmable controller via the key pad; much like you would program your microwave oven to defrost or re-heat a meal. Because you are able to enter all the data into the kiln's controller at one time, you will not have to keep checking on the kiln's internal temperature in order to make adjustments. Most programmable controllers will allow you to program and save quite a number of your favorite firing schedules and the fabulous AF3P "One Smart Controller" found on most of our Jen-Ken kilns has numerous pre-programmed schedules for every operation from annealing to fusing, and even Precious Metal Clay!



If you are a bead maker (also known as lampworker) you will need to anneal your beads at specific temperatures and therefore would be well advised to consider a kiln with a fully programmable controller as this will allow you to set the kiln to the ideal annealing temperature for the glass you are working with, and have the kiln maintain that temperature for whatever length of time is recommended by the manufacturer for proper annealing.

For those of you who are having trouble deciding which type of kiln (manual or programmable) will meet your needs, we offer this advice: If you are on a tight budget, will be firing small items (i.e., jewelry pieces), and consider fusing your "hobby" (as opposed to an income producing venture), you may want to consider a manual kiln. On the other hand, if it is your hope or intent to start a small business making fused glass

pieces, and you expect to use your kiln on a fairly regular basis, or if you want to anneal beads as well as fuse glass, you will want to consider a programmable kiln because it will allow you to set and hold precise temperatures and will "free" you to get on with other things while your glass is fusing and/or annealing.

Flip Door Kilns

Some kilns feature a flip door which allows quick and easy placement of beads on mandrels or glass pieces on puntys, fresh from the flame and into a hot kiln (which is ideal for proper annealing). A flip door adds very little (about \$50.00) to the base cost of a kiln, but can be a big asset for those artists who want to anneal beads and fuse glass too. Our Jen-Ken flip door kilns come with a retro-fitted kiln brick that sits inside the door when you are using the kiln to fuse in order to maximize the kiln's ability to reach and maintain higher fusing temperatures.



Take-A-Part Kilns

Some kilns are "take-a-part" or stacking kilns with separate "collars" or segments that sit on top of each other in whatever configuration may be required to anneal beads, fuse flat, or drape glass to form deeper vessels like vases. Having a take-a-part kiln can save time (shorten a firing schedule) when using the just the basic three collars to fuse flat, and can also offer you the ability to fuse deep (slumping a deeper bowl) or draping a vase simply by adding another segment. The extra segment or collar may also feature a flip door; another handy feature for those who make beads and want to fuse! The hallmark of take-a-part kilns is their ability to give the artist greater choice; you can literally build the kiln best suited for your project!



As authorized distributors for Jen-Ken Kilns, we carry the entire line of their fabulous glass kilns and annealers, and although we list only the most popular models on our website, we are always pleased to provide details and pricing on any size or type of kiln that you may need! Please e-mail us at twolassesglass@yahoo.com with questions and if you would like to speak with us in person, just send us your phone number in an e-mail along with the best time of day to reach you!