Fiber vs. Brick?

Kilns are constructed in lots of configurations, but one thing remains true, your kiln must generate and hold heat. So with that understood, there are two refractory insulation materials that are used to construct an “oven” that generates and holds heat; fire brick and rigidized ceramic fiber. Both types of kilns will get the job done! Here’s the itchy truth about these materials.

Do I want a brick kiln?
Kilns made of brick will retain heat longer. That’s just the facts! The thicker the brick, the longer the brick will hold the heat. This can be good or bad, depending on your needs. A thicker brick will also help the kiln maintain temperature utilizing less energy. This is good if you are casting and working thick which requires long soaks, long annealing times, and slow cool downs. This is not so good if you are trying to produce a lot of work quickly and want to turn over multiple firings in a short time. Another consideration when choosing a brick kiln is durability, and cleanliness. A brick kiln is durable, but only if it stays put. If you are planning on moving your kiln around a lot, taking it to a friend’s house, or traveling with it, you will lessen the life of a brick kiln. Brick kilns are made in pieces that are cemented together, the more you jostle a brick kiln; the more you will weaken those seams and produce cracks, which eventually could compromise the integrity of the kiln’s body. Finally, an added concern is cleanliness. As it ages the lid of a brick kiln may show fatigue and become cracked. This is due to the expansion and contraction of the bricks when they are heated and then cooled numerous times. This action causes the bricks to flake off tiny pieces of kiln brick which could lodge on the surface of your pieces. Always remember to vacuum the lid of your kiln after firing with a soft bristle attachment. This will prevent what we call “lid spit.”

Do I want a fiber kiln?
Kilns made of rigidized fiber will heat and cool faster than brick kilns. A fiber kiln is great for producing lots of fused work quickly as you are not hanging around waiting for the bricks to lose their heat, allowing you to cycle kiln loads even faster. A fiber kiln is also a good choice as travel kiln, as it is light and usually constructed in one piece. Another benefit to a fiber kiln would be its weight. A lighter kiln may be necessary in buildings that have flooring load concerns, for example loft spaces, pier and beam construction, or elevated construction sheds, etc. If you plan to produce a lot of very thick work, a fiber kiln is not a good choice for you as it will naturally cool too quickly, requiring you to use more power to keep up the temperature requirements. A fiber kiln will remain cleaner due to its extruded construction, and lack of joint expansion.