

Kiln Corner

Preventive Kiln Maintenance

by Arnold Howard

Though Arnold Howard works for Paragon Industries, L.P., the information here applies to all brands of glass kilns. Feel free to send questions for this column no matter what brand of kiln you own.

What spare kiln parts do you recommend keeping on hand?

List all the repairs that you have made on your kilns in the last five years. Compile a spare parts list from those repairs. Be sure to keep the labels attached to the parts so you will know what to order when you need another part. Heating elements with missing labels may be difficult to sort out, too, if you have more than one kiln or if your kiln takes more than one type of element. When you replace a part, keep notes that may help you if you ever replace that same part in the future.

What routine kiln maintenance do you recommend?

Perform the following preventive maintenance after every six to ten firings.

1. Make sure the kiln is centered on the stand and that the stand is stable. Before every firing, remove flammable materials from around the kiln.
2. Vacuum the kiln including the element grooves. Also vacuum the floor, shelves, and walls of the firing room. Static electricity can build up around a vacuum nozzle, especially in dry weather. Static can damage electronics, so before vacuuming, turn off the kiln and disconnect the power. Keep the vacuum nozzle at least two inches away from the digital controller, the switch box, and the thermocouple tip that extends into the firing chamber. (The thermocouple is the small rod that measures temperature.) Use a soft brush nozzle to vacuum the kiln. You can also use a hard plastic nozzle as long as it does not touch the firebricks. Vacuum the element grooves, the inner surface of the kiln lid or roof, and the underside of the kiln shelves.
3. As you vacuum the kiln, examine the firing chamber for glass particles that have become embedded in the firebricks or ceramic fiber. Dig these out with a screwdriver or small putty knife. Otherwise the particles will embed themselves deeper during the next firing.
4. Check the kiln wash on the kiln's firebrick bottom for cracks and bare spots in the coating. Remove any embedded glass. Reapply kiln wash on the bare spots.
5. Check the power cord and wall outlet for heat damage. Has the cord touched the side of the kiln during firing? This could damage the cord insulation. Replace a cord set and wall outlet that show any signs of heat damage.
6. Make sure the elements are not bulging out of the grooves and repair if necessary.
7. On the kiln downdraft vent, check the aluminum vent duct for leaks.
8. For digital kilns, make sure the thermocouple extends far enough into the kiln. (for 1/4" wide, 1"; for 1/8" wide, 5/8").



Vacuum the kiln after every six to ten firings or as often as needed to eliminate dust in the firing chamber.



The thermocouple should extend into the firing chamber by four times its diameter.

Arnold Howard writes instruction manuals and advertisements for Paragon Industries, L.P. His hobbies are glass fusing and karate. He also enjoys studying history and watching classic movies. You can reach Arnold at ahoward@paragonweb.com with questions for future columns. Sign up for his kiln newsletter at www.paragonweb.com.



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