



## Changing Elements in a Front Loading Kiln

Element replacement should be carried out by an electrically competent person.

We recommend fitting a full new set of elements and a new contactor when elements are reaching the end of their life. Fitting odd elements as and when the elements expire, is false economy. Putting a new element in with old can be compared to putting a new battery in with old, where the new battery must produce more power because of the failing of the others, thus the life drastically decreases.

We design our kilns to make element changing simple for a competent person.

### Removing the old elements

1. Unplug or isolate all power to the kiln. Check with a tester that the kiln has no power to it.
2. Remove the panel to allow access to the element connections (get in touch with us and send a picture for further advice).
3. Make a diagram or take a photo of the wiring, so that you understand what wire goes where when reconnecting.
4. Unscrew electrical connection block where the element tail goes into and the connector adjoining the next element. Undo all connectors. Pull free tails and snip with cutters.
5. From inside kiln chamber you'll need to pull element free (opposite to where you've just cut.) You may need to remove old pins from the element/brickwork first. Once, you've done this, remove the element. Make sure all 'tails' are removed.
6. If you've had a burnt-out element (molten element) or there is any shale in the brickwork groove, this needs to be removed prior to fitting the new element. The groove should be scraped clear and then vacuumed. If the element has melted into the brickwork, it is imperative this is removed. If left in the brickwork it can damage the new element if not break it on first firing. Clean the grooves thoroughly.
7. You should now have a clean kiln, with no elements in.

### Fitting the new elements

The new element may need adjustment to fit snugly into the chamber and groove. Long pin nose pliers are the best to do this job. The hair pin or U of the element may need to be opened up or closed a bit using the pin nose pliers, to fit snugly in the groove, with the drop down fitting outermost to the kiln. The element wire at this stage is very ductile, but once fired loses this flexibility.



1. First push the tails of the element through the small holes from the inside the kiln into the electrical chamber.
2. Rest the element in the grooves, but do not connect over the end of the groove. The elements should be just short of the groove, so they can be sprung into position after connection.
3. Reconnect the tails to the relevant connectors.
4. You can, once all the connections are soundly connected, spring the elements into their final position. Carefully pull, equally, on both sides of the element and gently hook around the groove support.
5. You can now pin the elements in place, if the old pins are clean, these are fine to re-use, alternatively, you can order some from us or use any excess element wire you may have to make your own. It must be element wire that you use, anything else will melt.
6. Check all wiring is safe and secure and away from hot surfaces when replacing the electrical box. Check no wires are compressed or trapped.
7. The kiln can then be reconnected or turned on at the isolator.
8. Perform the relevant electrical tests on the kiln.

**Important things to note:**

The elements are flexible until they have been fired, after this they are extremely fragile.