



**KILNS BUILT TO LAST**

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## CHANGE IN THERMOCOUPLE PROTECTION TUBES (Sept 2020)

Your new kiln has our new thermocouple protection tubes installed. The new tubes are open and the tube protrudes past the tip of the exposed thermocouple. The tip of the thermocouple should be about ½” inset into the tube.



### Why this was changed:

When we first started using the closed end tubes we were able to get a very consistent thickness of the ceramic tube. This produced a known offset that we could program into the controls. The consistency is no longer to our standards and this makes it difficult to know the correct offset until after a kiln is being fired in use. This can cause excessive testing and work on the part of some customers.

**Advantages of the new open tubes:**

1. Protects the thermocouples from damage while loading the kiln.
2. Keeps the oxide dust from the thermocouple tip from getting into the kiln while firing. (Any dust should still be vacuumed when doing the normal cleaning of the kiln).
3. Protects thermocouples from excessive radiation error from the nearby hot elements.
4. Reduces zone control errors because the tips of all thermocouples are equally exposed to the heat of the kiln. Also ErrF errors should no longer happen because of the better response of the thermocouple.
5. **Thermocouple offset of 18 Deg F is no longer required.** (We are now setting this to "0" in the factory.)
6. Note: It is still possible to change thermocouple offset to balance heat output in the kiln.

**NOTE FOR CHANGING OVER TO THE NEW OPEN TUBE (For older kilns)**

1. Replace all tubes at one time. Talk to our office about special discounted pricing if you do this.
2. Change the thermocouple offset to "0" (Zero) on all two or three zones.

**FOR DYNATROL**

1. For a DynaTrol: <https://hotkilns.com/change-thermocouple-offset>

**FOR GENESIS**

1. Press MENU
2. Press 3-Adjustment
3. Press 2-TC Offset

**FOR ONE-TOUCH**

1. See page 10 and 11 of your One-Touch manual. You can access it here:  
<https://hotkilns.com/sites/default/files/pdf/one-touch-operation-deg-f-2016.pdf>