

How to Calibrate MTI Tube furnace

Temperature displaying on the controller panel (Now, we call it T1) and of sample inside furnace (Now, we call it T2) may be different because thermal couple connected with controller is located in outside tube. In order to achieve accurate temperature inside tube during heating, you shall calibrate tube furnace and then set temperature off (related function SC in the controller panel). Please follow the steps below:

1. Must put porous ceramic blocks (included as accessory in package) in two ends of tube before heating.
2. Buy or use another thermo-couple with enough length (25" from center of furnace to one of tube end).
3. Please drill hole on the block (by a screw driver), and insert a thermo-couple tube through block, then make sure thermal couple is in the center of furnace tube.
4. Connect the thermo-couple to a precise temperature meter (see www.mtixtl.com at the section of [furnace accessories](#)).
5. Follow the general heating process described in Operation Manual to heat furnace to desired temperature and hold for 1 hour, then record difference of temperature (Now, we call it T) between T1 and T2, as $T=T2-T1$.

Note: Always, T2 is minuend and T1 is subtrahend and T may be positive or negative.

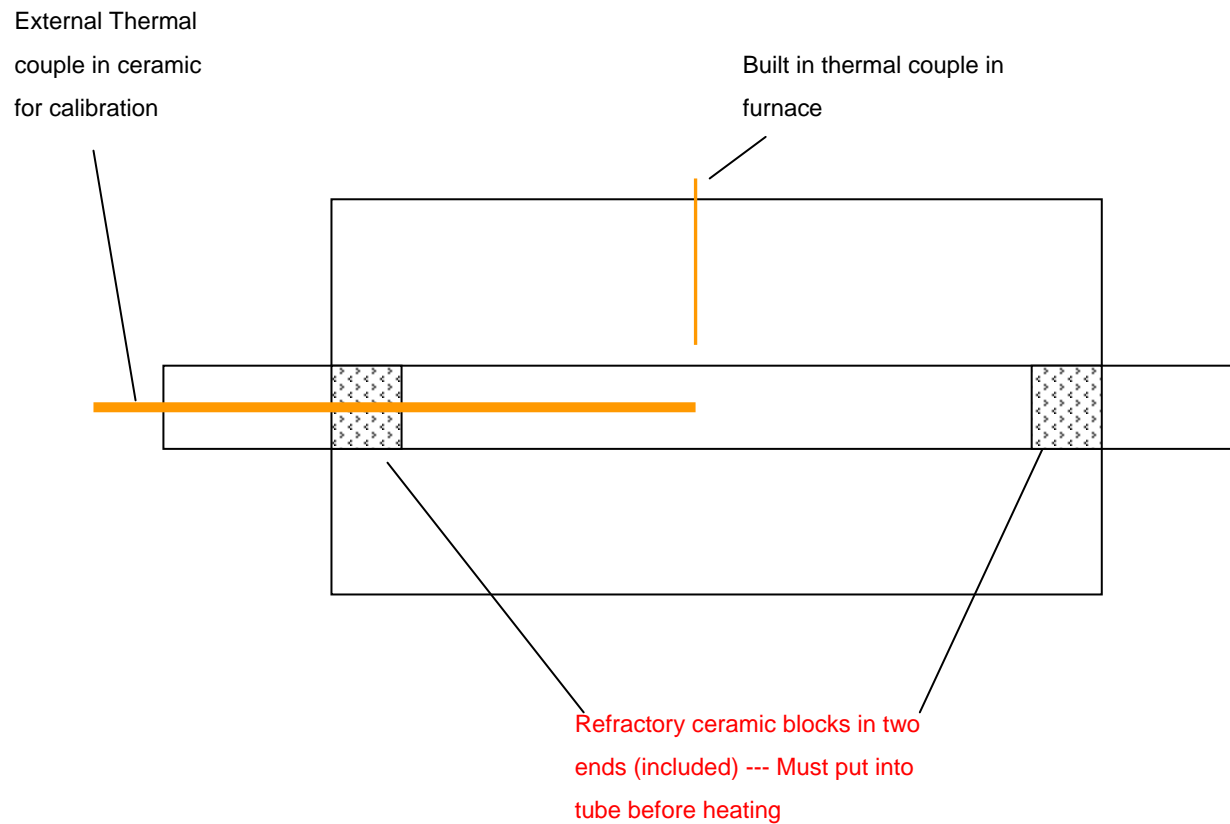


Figure 1. Planform of the furnace when do the above steps





6. Set temperature off in your controller
 - a) From the function parameter state called "Loc", change its value from "0" to "808" so that you can enter the specific parameters setting state.
 - b) Press the button  until the controller panel display the function "SC" as shown in the Figure 2 below:



Figure 2

- c) Using button  and  to input the value of T (if T is negative, make the number be 0, then, continue to use  to get the negative value.
- d) Make sure the value get saved, then end the specific parameters setting and get back to the normal mode.

We suggest that keep the parameters setting if the desired temperation will not change every time you do the work; reversely, if the desired temperation changes obviously, please do this calibration before starting your work.