MTI Furnace Quick Test

Once you receive MTI's furnace, please firstly follow the instruction below to do the quick test to see if the furnace works well or not:

1. Power:

Right connect the power cord (follow the related instruction in the operation manual and ask a licensed electrician to do the connection).

2. Thermocouple:

Slightly insert thermocouple into the hole on the back of the furnace till the mark line/label on the TC.

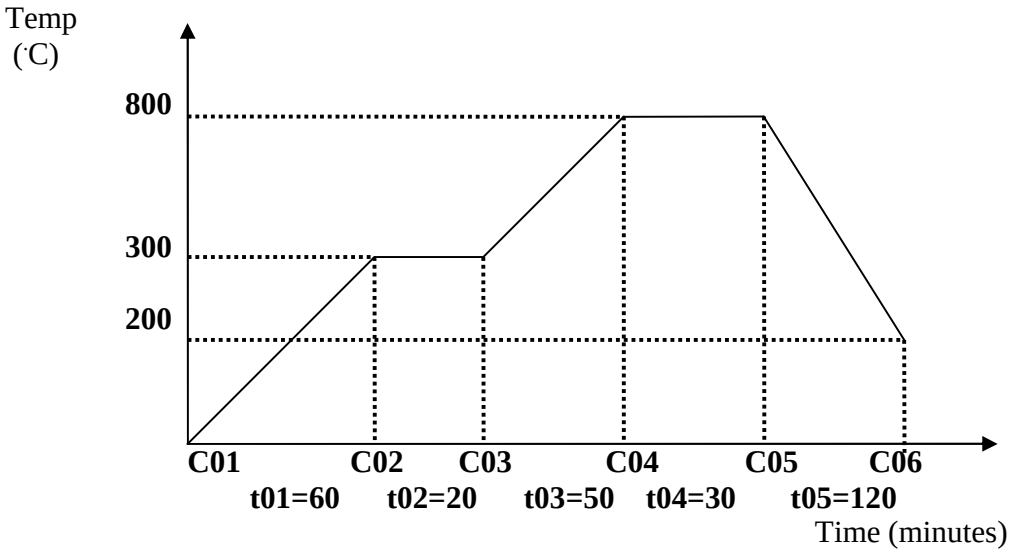
Note: Bad thermocouple insertion may lead to inaccurate temperature measurement and cause terrible damage to the furnace.

3. Main Power Switch:

Switch the lock knob to the right to power on the main circuit.

4. Temperature Controller:

MTI's technician has already set up a heating program in terms of the curve below:



Prompt	Input Data	Description
C 01	0	Initial Temperature
T 01	60	60 minutes from C01 to C02, heating rate 5 ℃/min
C 02	300	Temperature in first inflexion (target temperature in this segment and initial temperature in next segment)
T 02	20	20 minutes from C02 to C03, remain the temp
C 03	300	Temperature in second inflexion (target temperature in this segment and initial temperature in next segment)
T 03	50	50 minutes from C03 to C04, heating rate 10 ℃/min
C 04	800	Temperature in third inflexion (target temperature in this segment and initial temperature in next segment)
T 04	30	30 minutes from C04 to C05, remain the temp
C 05	800	Temperature in fourth inflexion (target temperature in this segment and initial temperature in next segment)
T 05	120	120 minutes from C05 to C06, cooling rate 5 ℃/min
C 06	200	Temperature in fifth inflexion (target temperature in this segment and initial temperature in next segment)
T 06	－121	Program finished, stop it, and cool the tube naturally

What you need to do is:
1. Push green button ‘Turn-on’.
2. Press down ⓥ for 3 seconds to run the program.
3. Wait until the program finishes and check whether it is working well, contact us if not.

5. Note
5-1. **If the heating element is MoSi2**, OPL value will limit Max. Output current when the temperature below 200 °C. Please select 16 first. If output current is too low or temp increases too slow, please increase the value gradually. The most suitable value in the current meter is 120 – 140 A in initial heating stage. It is also normal if there is a little larger gap for PV display to follow SV display.
5-2. In the case that you find temperature controller is not stable during running, you shall use ***“Auto-Tune”*** function to achieve the best setting result, please refer to the manual for the details of auto-tune.
5-3. Never cool down too fast at high temperature to protect the tube from cracking. Follow the program in the manual to cool down.
5-4. If you are using MTI’s furnace whose maximum temperature is over 1500 °C (ex. GSL/KSL-1600, 1700, 1800), please take out the shock-proof sponge in the top cover board before powering on the machine.