



Critical Point Drying with the Tousimis Samdri-795

1. Turn on the unit with the switch on the right side. The green VENT light will turn on.
2. Turn on the CO₂ tank.
3. Adjust the **PURGE** timer to desired PURGE time.
 - a. Each number equals 5 minutes. Example: #1 = 5min, #2 = 10min, #9 = 45min...
4. Let the unit warm up 3-5 minutes prior to use.
5. Remove the lid from the chamber and add enough ethanol to cover your sample.
6. Place the sample in the chamber and replace the lid
 - a. Make sure to tighten the 3 knurled nuts by hand- all 3 should be evenly tightened
 - i. **DO NOT OVER TIGHTEN!**
7. Press the **COOL** button and the green COOL light will come on. Wait until the temperature reads 10 degrees C or lower.
8. Press the **FILL** button to fill the chamber with CO₂. The pressure gauge should read about 800 psi.
9. After 2 minutes the machine will go to **PURGE** and the PURGE light will come on. The ethanol will collect in a beaker through the tubing on the left side of the unit.
10. At the end of the PURGE time the machine will switch to **HEAT**. The pressure and temperature will gradually increase. Pressure should stabilize at 1250-1300 psi. Wait until the temperature exceeds 31 degrees C.
11. When the pressure has reached **1250 psi and temperature exceeds 31 degrees C**, allow the specimens to stay at this "critical point" for **four minutes**.
12. At the end of the four minutes press **BLEED**. The pressure should drop to 400 psi in about 10 minutes.
13. Push **VENT** and wait until the gauge reaches "0".
14. Unscrew the nuts, lift off the lid (be very careful not to scratch the quartz window), and remove your samples.

If you are doing another run return to STEP 4.

If you are finished...

15. Replace the lid and the three nuts
16. Turn off the CPD with the toggle switch on the right side of the case
17. Close the CO₂ tank
18. **Sign the book and enter the new weight of the CO₂ tank.**