

VWR Vacuum Oven

Important notes

- This vacuum oven is **ONLY** for drying absorbed volatiles. **NOT** for solutions or samples containing a **LARGE** amount of volatiles. Pumping large amounts of volatiles will damage the pump permanently. Please consult with Dr. Ponce about the best way to dry or pre-dry your sample.
- Samples containing **TOXIC** or **CORROSIVE** volatiles are not allowed in this Vacuum oven. Please consult with Dr. Ponce about the best way to dry this type of samples.
- If your intent is to use just the heating capabilities of this equipment, i.e., not under vacuum, please consult with Dr. Ponce about other more suitable options. It is hard to control the temperature in this oven.

Operation

- Using just the vacuum at room temperature:
 - Switch the valve to “closed” position
 - Turn ON the pump
 - Place sample(s) in the chamber on aluminum foil
 - Grease the red silicon door gasket
 - Close the door
 - Turn the valve to “evac” position
 - Check that vacuum gauge moves counterclockwise
 - You can walk away now
 - To remove your sample(s): turn the valve to “closed” position, then slowly to “vent” position. Allow air to fill the chamber to atmospheric pressure, only then you can attempt to open the door.
 - Turn OFF the pump
- Using the oven under vacuum at high temperature:
 - Switch the valve to “closed” position
 - Turn ON the pump
 - Place sample(s) in the chamber on aluminum foil
 - Place the thermometer so that the sensing element is in direct contact with the top shelf. The dial should be easily visible through the glass door.
 - Grease the red silicon door gasket
 - Close the door
 - Turn the valve to “evac” position

- Check that vacuum gauge moves counterclockwise
- Turn the power switch ON
- **Turn the temperature control knob to the desired position using the table below as a guide. NOTE: The final temperature may vary $\pm 10^{\circ}\text{C}$.**
- Check the temperature every 30 minutes until stabilizes
- If needed adjust the knob and check every 30 minutes until stabilizes at the desired temperature.
- You can walk away now
- To remove your sample(s): turn the valve to “closed” position, then slowly to “vent” position. Allow air to fill the chamber to atmospheric pressure, only then you can attempt to open the door.
- Turn the pump off

Setting	0	1	2	3	4	5	6	7	8	9	10
Oven temp. under vacuum ($^{\circ}\text{C}$)	30	75	90	105	120	140	160	180	195	210	240

WARNING

- The chamber of the unit is not designed for exposure to concentrated solvents, oils, concentrated acids or dilute sodium hydroxide.
- When operating in a vacuum, there is no transfer of heat from the evacuated chamber interior to objects within the chamber unless they are resting directly upon one of the shelves - do not put insulating material between a shelf and a vessel being heated. Also, be sure that a thermometer’s sensor element is in direct contact with the surface of the center shelf when taking a reading.
- Do not use in the presence of flammable or combustible materials or explosive gases. Do not use in the presence of pressurized or sealed containers - fire or explosion may result, causing death or severe injury.