

HarvestRight Freeze Dryer SOP

Purpose:

To outline the steps required to safely operate the HarvestRight freeze dryer for laboratory freeze drying purposes.

For detailed instructions consult the manual and the manufacturer website:

<https://pim-resources.coleparmer.com/instruction-manual/03336-51-54-manual.pdf>

Steps:

1. Turn on the freeze dryer using the switch on the back
2. Login to a User account
3. Select a Profile by pressing the “Menu button, then select “Load Profile” and choose the profile you want to run. See the manual for manual operating instructions or how to create your own profile
4. Prepare the material that you want to freeze dry and place it on the trays
5. Close the acrylic door and turn the door latch clockwise as far as it will go, compressing the door against the rubber gasket. Visually check to make sure the door is sealed properly to the gasket. If the door is not latched tight, there will be a vacuum leak.
6. Close the drain valve. In the closed position, the drain valve is perpendicular to the hose. If the material profile is already selected, press and hold the “Start Profile” button
7. When the vacuum pump comes on then it should reduce the pressure in the vacuum chamber within about 10 minutes. If you can still open the door after 30 seconds turn off the vacuum pump, release the pressure in the vacuum chamber by opening the drain valve, open the door and check the cleanliness of the rubber gasket. Close the door again and turn the vacuum pump “on”. Wait for 1 minute and verify that the door cannot be opened.
8. At the end of the freeze dry cycle, the heaters will stay on at the last set point temperature until the profile is ended. Before the profile is either ended turn off the vacuum pump manually by tapping the “Vacuum” button. Once off, open the drain valve and check whether the product is completely freeze dried.
9. Turn off the freeze dryer using the switch on the back

PERSONAL PROTECTIVE EQUIPMENT (PPE)

- Nitrile gloves
- Safety Glasses/Goggles