

Oxford Ion Mill Operating Instructions

The following are the only screens under the Oxford logo that the user is allowed to access without prior staff approval: Recipes, Chamber 1, Chamber 2, Chamber 3, and Pumping.

Do not attempt to run anything other than the authorized 6" platters on Chamber 2.

Ensure that ALL the screws for the clips on the platter are properly tightened down.

Ensure your sample is sufficiently secure, if it falls off in the tool we will not recover it.

Do not use Kapton tape, Crystal bond, or any other contaminants in the tool (double sided copper tape is ok).

Do not run the Platen drive rotation faster than 10rpms without prior staff approval.

Temperature setting from 10-300 degrees Celsius only (default setting is 120C)

Neutralizer current needs to be set 20-25% higher than the beam current.

In your recipes, the RF Generator is always set to 200watts in the program, (will autotune to the appropriate setting while running).

Always physically verify the load lock wafer status prior to moving the transfer arm.

1. Select the Oxford logo on the top left portion of the software to access the drop-down menu and select "Pumping".
2. Physically verify that the load lock is empty, and the tool is ready for use.
3. On the pumping screen in the software select "Stop" followed by "Evacuate" on the load lock.
4. Once vented, open the load lock and load your platter with your properly secured sample onto the centering station.
5. Close the load lock chamber and select "Stop" followed by "Evacuate" on the load lock on the software pumping screen.
6. You will be prompted to enter a wafer name, enter your group name followed by your initials, then select "Ok".
7. Once the load lock has successfully pumped down, select your wafer on the software and then select Chamber 2 as the transfer path you would like your platter to take.
8. Once the transfer is complete, select the Oxford logo on the upper left portion of the software to access the Oxford menu and select "Recipes".
9. On the Recipes screen select "Load" (upper center portion of the screen).
10. The software will ask you if you would like to over-write the current recipe, select "Yes", this is only over-writing the recipe in the queue, not in the library.
11. Find the appropriate recipe in the pop-up screen and mouse click on it, then select "Ok".
12. In the software select "Run Now" (upper left portion of the screen).
13. The "Run Now" prompt should become grayed out indicating that your recipe has successfully started.
14. Select the Oxford logo on the upper left portion of the software to access the Oxford menu and select "Chamber 2".
15. Monitor your process to ensure that it is running properly.
16. Once your recipe is complete select the Oxford logo on the upper left portion of the screen and select the "Pumping" screen.
17. Physically verify that the load lock is empty.
18. On the software select your platter in chamber 2 and then select the load lock to complete the transfer of the platter into the load lock.
19. Once the transfer is complete select "Stop" and then the "Vent" option on the load lock.
20. Once vented, recover the platter with your part, close the load lock and select "Stop" then "Evacuate" on the software under the load lock, to place the load lock under vacuum.
21. The software will once again prompt you to name/designate your wafer. Select "Cancel", this will indicate to the software that there is no wafer in the load lock.
22. Fill out the logbook.