

## Sputter Coater

### Sample insertion

1. Lift the lid off the vacuum chamber
2. Carefully remove the glass cylinder and lay it on its side where it won't roll off the counter. This prevents messing up the vacuum grease on the top and bottom rims
3. Place your specimens on the central area of the pedestal, not the raised ring around the periphery
4. Replace the glass cylinder and close the lid

### Control vacuum

1. CLOSE the vent toggle valve (down)
2. CLOSE the increase/decrease needle valve (clockwise). Be sure the high voltage control switch is OFF and the high voltage dial is at 0
3. TURN the main power switch ON
4. Wait 15 – 20 min. to create a vacuum in the vacuum chamber
5. OPEN the increase/decrease needle valve (3 full turns counter clockwise) to increase the air flow in the vacuum chamber

### Coating

1. High voltage switch should be OFF; set high voltage dial to 9
2. Press the high voltage switch ON
3. Allow about 10 seconds for the instrument to stabilize and the vacuum chamber to outgas
4. Use the needle valve to ADJUST the current so that the current meter reads 10 milliamps:
  - if the current is too high, turn the needle valve toward decrease (clockwise)
  - if the current is too low, turn the needle valve toward increase (counter clockwise)
5. Coat specimens for 2 to 3 minutes
6. While coating, touch up the current flow if necessary, to keep the meter at 10 milliamps
7. After coating, turn high voltage switch OFF and set dial back to 0

### Sample removal

1. TURN main power OFF
2. Immediately OPEN the air inlet toggle valve (lift)
3. Open the lid
4. Remove the glass cylinder (lay it on its side where it won't roll)
5. Remove your specimen to a safe storage container

### Shut down

1. CLEAN THE CYLINDER inside with a paper towel wet with absolute EtOH or acetone
2. Check that the vacuum seals are clean and greased and reassemble the machine
3. Do not pump down, leave it under atmospheric pressure, close increase/decrease needle valve (clockwise)
4. Sign out 'Sputter Coater Logbook'.