



## HEADWAY RESIST SPINNER



**LOCATION:** Aisle 1 Fume Hood

**PRIMARY TRAINER:** Jolene Jalota (2-4823, jolenec@ualberta.ca)

**SECONDARY TRAINER:** Stephanie Bozic (2-6724, sbozic@ualberta.ca)

### 1. OVERVIEW

The Headway Resist Spinner is a manual resist dispense system, used for EBL and SU-8 resists. Located in a fume hood, it enables various organic chemistries to be spin coated. There are interchangeable bowls for various resists and individual chucks for sample sizes from 4'' to small dies. The spinner allows for the spread, spin speeds, ramp rate and time to be adjusted, across a three step recipe.

RPM – Revolutions per Minute

RAMP – time (seconds) it takes to get to set RPM

*Accelerating from 1000 to 2000 rpm with RAMP value 4 = 250 rpm/s ramp speed*

Time – how long it remains at a set RPM

### 2. SAFETY PRECAUTIONS

The various spin on chemicals used with this spinner typically contain organic solvents. Precaution should be used to avoid inhalation of organic fumes. During the spinning procedure please ensure the fume hood sash is down or the spinner is covered to avoid splashing of chemicals.



If you are bringing any new materials into the NanoFab for use in your process, it is necessary to fill out a chemical import form (available on our website, <http://www.nanofab.ualberta.ca>) and supply an MSDS data sheet to Stephanie Bozic.

### 3. OPERATING INSTRUCTIONS

- 3.1 Get the appropriate bowl and chuck
  - For PMMA resists, bowl and chucks are located in the EBL room
  - For all other organic resists, bowl and chucks located on top of chemical storage cabinets
- 3.2 For thick resists and PDMS you must wrap the inside of the bowl with aluminum foil to ensure easy clean up and disposal in the organic solids waste under the fume hood when finished.
- 3.3 Turn on the spinner CDA (clean dry air) from the green valve knob. CDA should be pre-set.  
***INSURE CDA DOES NOT EXCEED 10 PSI!***
- 3.4 Turn on the Headway Spinner using switch on right hand back side.
- 3.5 To set individual recipes and parameters use Recipe #3.
- 3.6 Push “CHG PRE” button to change the presets on the system.
  - a. To change a parameter press the “ENT” button to access its value.
  - b. Use the “←” “→” buttons to change the cursor position.
  - c. Once the current cursor position is selected use the “+” “-“ to increase or decrease the digit value.
  - d. Press “ENT” to confirm new value and continue scrolling to another parameter.
  - e. To apply all changes and exit recipe editing mode press “MSG” button.
- 3.7 Once the spin parameters are set, press “START” button to activate program. Vacuum will engage upon activation of program.
- 3.8 When finished with spinner, **RINSE** bowl and chuck with acetone to remove waste.

### 4. TROUBLESHOOTING

If you encounter an unexpected error or require assistance please contact the primary or secondary trainer listed above. Should they not be available, please contact any staff member for assistance.

### 5. APPROVAL

**QUALIFIED TRAINER:** Jolene Jalota  
**TRAINING COORDINATOR:** Stephanie Bozic