

Training Guide for Polos SPIN 150i infinite spin coater

Research Instrumentation Center

Updated 05/08/2023 by Na Gou

The Polos SPIN 150i spin coater is a process tool for typical spin process applications of wafers and other substrates. It is suitable for coating, cleaning, rinse/dry, developing, etching, and other process. It can fit Wafers up to 6", and square substrates up to 4"x 4", and it is equipped with N2 diffuser for N2 purge during process.

*if you are working with pretty dirty samples or samples with high toxicity, please inform the RIC staff before operation, you can have your own bowl liner and lid liner, please bring them with you every time you operate.

Operate the instrument

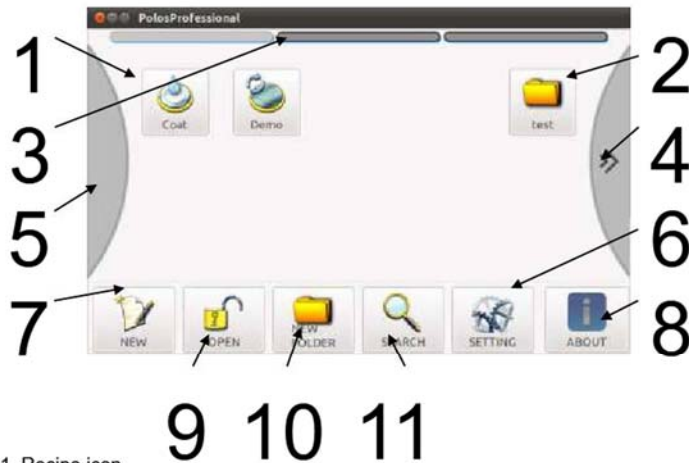
1. Power on the instrument

- a. If you are working with liquid, please turn on the N2 gas for motor purge and make sure it is 20-50kPa, this maintains an overpressure in the drive shaft bearing to protect against liquid ingress.
- b. Turn on the vacuum pump.
- c. Power on the instrument by push the power switch at the back of the instrument, then take the stylus pen from the holder.
- d. When unit is powering up, following screen will appear, wait until loading bar on page bottom completed before performing any operation.



2. Home screen

Home screen includes the following contents,



1. Recipe icon
2. Folder icon
3. Pages sliding bar (Optional)
4. Next page button (Optional)
5. Previous page button (Optional)
6. Access parameter editing menu
7. Create new recipe
8. Open information screen
9. Release lid lock
10. Create new folder
11. Access search function

*for safety reason the lid lock mechanism is always activated. Touch the unlock button (9) in order to release it and allow to open the lid. As soon as the lid unlocked a countdown begins (5s), after which the lid is automatically locked again.

3. Operation

A. Create new recipe

Creating a new recipe or editing an existing recipe will open the edit screen, modification will not be saved until proper procedure is performed.

a. Edit the header



Following parameter may be edited:
 "icon2.png" – symbol for the recipe
 "name of recipe"
 "comment"

“A-Type”& “vacuum required” – set by type of chuck, can affect the maximal speed and maximal acceleration

“counts of cycles” – how many time the recipe will be repeated.

b. Edit a step



Touch a step button to edit the step, parameter can be edit includes:

Spin time

Direction – clockwise, counter clockwise

Spin speed – between 0 – 12,000rpm

Spin acceleration: between 0 - 51,270rpm/s

Touch the “Save as” button to save the recipe.

B. Execute a recipe

- Touch any recipe icon to open the run screen.
- Click button “OPEN” to open the lid.
- Place and center the substrate on the holder.
- Click button “VAC ON” to activate vacuum.
- Close the lid, then load sample through the syringe hole.
- Click button “START” to execute the recipe. Recipe can be abort or suspend by click the corresponding buttons.

C. Operation in a folder

To open a folder, touch the folder symbol, it opens and show the recipes inside. Each folder can contain many pages, however is not possible to create a folder inside another one.

To move a recipe or a folding, press long on a recipe/folder symbol, selected item will appear at the bottom of the screen, go to the target place where you want to move the recipe, click the target position, then click “EXIT Edit”.