

PMMA spinner

## STANDARD OPERATING PROCEDURE

CORAL

Name: *PMMA spinner*

Model

Number: Cee 100

Location: 39-428 Heidelberg room

What it does: Programmable bench-top spin-coater

Introduction: This spin-coater and associated hotplate are primarily used for PMMA photoresist coating of samples that will use the SEBL facility in bldg.38. It's use has been broadened to include coating samples with cyclotene (BCB), HSQ, ZEP, polyimide etc. Various sample sizes and red/green process categories are supported.

Safety: Safety glasses are required at all times when working in the lab. All liquid materials and photoresists should be capped when not in use. Individual user's coating materials are not to be stored in the room. Keep all flammable and meltable materials away from the hotplate. Follow posted instructions about disposal of hazardous wastes.

Procedure: Review existing programs and select one that has parameters that meet your needs or modify an existing program. Always review a program to confirm the current parameters. At this time no one person or group "owns" any of the ten selectable programs.

This is a manual dispense operation. Pipettes are supplied. Please work with a minimum-sized source container. Source materials that require dilutions should be brought to the machine ready to dispense. There is no storage of source material in 39-428 except two types supplied by the MTL staff, (at this time Microchem PMMA495 A8 & PMMA950 A8.)

Engage CORAL from one of the workstations. CORAL interlocks the Cee-100 main power.

Press PROG key [ display reads: PROG MODE/ PROG# ?] Press program number you want, then ENTER. Continue to press ENTER as the values for VEL, RAMP RATE and TIME display for each step of the program. Step numbers start at 0 for some reason.

You may change a value with the number pads followed by ENTER. To complete programming press CLEAR-ENTER at the next VEL. To exit program without saving changes simply press RESET.

Prepare for spin-coating by readying your source material and a plastic pipette and performing any pre-bake the wafers require. Change the chuck if necessary with the hex wrench provided. Choose the program by pressing RUN-followed by PROG # - ENTER.

Load a wafer onto the spin chuck, close the lid and press START. Do not dispense your photoresist yet, the system will perform a three second wafer centering test and check chuck vacuum. At the end of this test the display will read [0 to RETEST / START].

If there are no errors, open the lid and secure it. Dispense the photoresist or coating material. Close the lid and press START.

The process will sequence automatically and display the rpm and time remaining. When complete an alarm will sound and the display will prompt you to unload the wafer. Remove the wafer to a cassette or to the bake hotplate.

Continue with your remaining wafers. When you have completed spincoating your wafers collect your used pipettes and any paper wipes you have used and remove them to the hazardous waste

bag.

Remove your coating material from the hood and, later, from the room.

You may leave the wafer chuck and bowl liner in place. Shut off the hotplate and remove foil and discard it in the hazmat collection bag.

Close the spinner lid and lower and close the sash of the hood.

Disengage the PMMA spinner in CORAL.

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