

## Brewer Science Cee 200 Spin Coater Operating Instructions

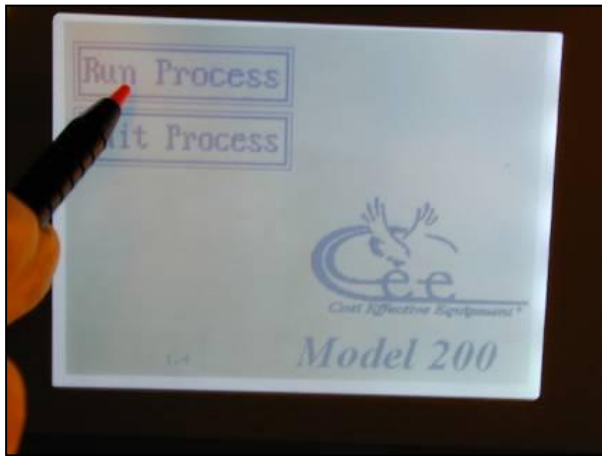
This machine is to be used by authorized personnel only. For training & consultation contact: Lab Manager, **Omid Mahdavi**, (520) 621-9849, [omidm@email.arizona.edu](mailto:omidm@email.arizona.edu)

**You MUST enter all necessary information in the Log Book for each use.**

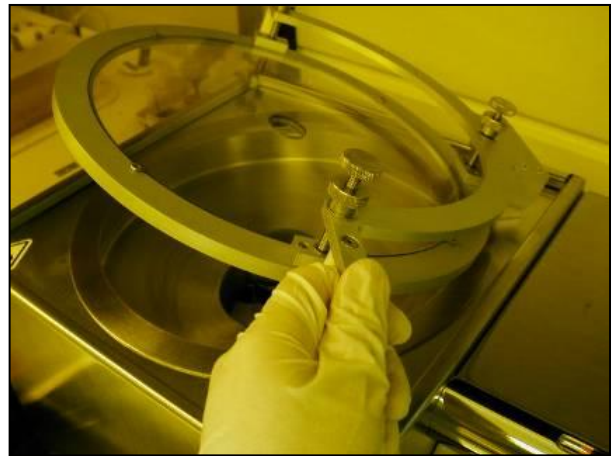
1. Make sure you have “Enabled” the tool on Coral.
2. Select “Run Process” on touchscreen. **Use touchscreen pen.** See [Figure 1](#).
3. Select “Load Recipe” on touchscreen. Select one of the given recipes to load. Press “Yes” to complete load of process recipe.
4. Open lid using the lever as depicted in [Figure 2](#).
5. Change spinner chucks if necessary. Two sizes are currently available. One is 1 ½” and the other is 2 ¼” diameter (See [Figure 5](#)). The wafer centering tools only work with the larger 2 ¼” spin chuck and this chuck can spin substrates 6” in diameter. Loosen the center screw on the chuck with the hex tool stored in a plastic bag next to the tool (See [Figure 6](#)). Be careful not to drop the screw in the resist drain! Remove and replace chuck and tighten screw.
6. Place/load wafer onto the spinner chuck and center:
  - If working with a 4” or 6” circular substrate/wafer, you can utilize a centering tool for a faster more accurate centering. You must have the larger 2 ¼” spin chuck mounted. There is a separate centering tool for the 4” and 6” substrates (See [Figures 7 and 8](#)). Using your left/right hand place the inner portion of the centering tool right below the upper lip of the spinner chuck. Place your wafer onto the spinner chuck such that the outer edge of the wafer sits flush with the lip on the outer edge of the centering tool. Carefully lower and remove the centering tool away. Refer to [Figures 3 & 4](#).
  - Close the lid carefully to minimize vibration and particle generation.
  - Select “Center” on touchscreen, vacuum will be turned on and the wafer will begin to spin at a speed of 30 rpm. Observe wafer to make sure it’s centered.
  - Open door and adjust wafer if needed for better centering. As you lift the lid the vacuum and spin will turn off. Make adjustment, close the lid and observe wafer for proper centering.
7. Apply coating material (photoresist, primer, etc.) using a pipette through the circular opening on top of the lid. Photoresist can also be applied by opening the lid, dispensing, and closing the lid. If you require a static dispense step, make sure that the recipe you use has such a step programmed in. Refer to step 1 of Test recipe in [Table 1](#). This is a 10 second static dispense step.
8. Select “Spin” on touch screen, this will begin the process as defined by the recipe. **DO NOT open lid until Process is complete!**
9. Audible alarm will notify you when process is complete. Select “OK” on touch screen to silence alarm. Unload/remove wafer.

**Table 1** – Example of Recipes on the Tool

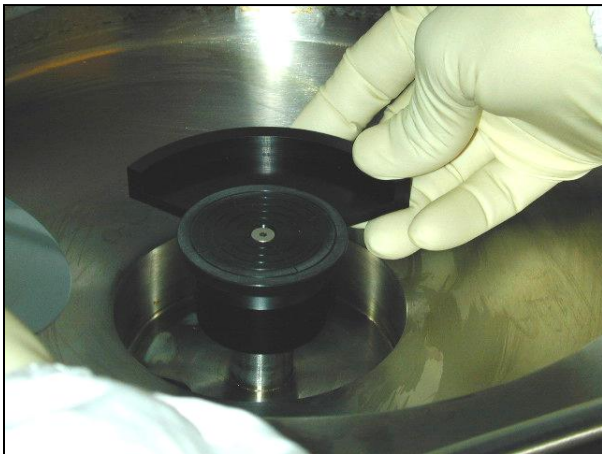
Recipe	Step	Speed (rpm)	Acceleration	Time in the step (sec)
Test	1	0	0	10
	2	500	500	5
	3	4000	1000	20
Prime	1	500	500	10
	2	1000	1000	20
Strip	1	2500	500	30



**Fig. 1** – Touchscreen pen to navigate



**Fig. 2** – Lifting / Closing the Lid



**Fig. 3** – 4” Centering Tool



**Fig. 4** – Centering a 4” wafer



**Fig. 5** – The 1 ½” and 2 ¼” spin chucks



**Fig. 6** – Changing the spin chuck



**Fig. 7** – 4” wafer centering tool



**Fig. 8** – 6” wafer centering tool