

*This guide obtains just brief information. In case you need detailed instructions, read the Wetbench manual. It is recommended to read the **Safety Instruction and Basic Troubleshooting** manual prior to your work.*

Lithographic wetbench for coating SUSS

Quick Guide

Spin-coater LabSpin6:

1. Start the machine by pressing the **Green button** on the left side of the monitor (or **Acknowledge Tool On** button on the electronics cabinet) – **MACHINE SHOULD BE ALWAYS ON**
2. Please choose a suitable sample holder and insert it onto the rotation shaft of the spin-coater carefully.
3. Place the sample onto the holder and center it precisely.
4. Click on the **Functions** button (lower right touchscreen) and activate the vacuum to check if it is sufficient – should be smaller than -0,5 bar (white value).
5. Select a spin-coating procedure – two approaches are possible:
 - **Quickstart:** Select time, speed, and acceleration by touching the display on the respective value and typing the new value. Only 1 step is possible.
 - **Recipe:** Select the double-down arrow button to go to the end of the Recipe list.
 - Select the Number, then click Edit.
 - Create steps in your Recipe, and define time, speed, and acceleration for each step.
 - Click Save, the Recipe will be saved.
 - Go to the previous menu and touch the screen in the column Name. Here you can set the name for your new Recipe.
 - NEVER erase or edit recipes from number 100 (created by CEITEC Nano staff). Those are standard recipes for standard resists
6. Apply the resist on the substrate with the pipette. Two options are possible:
 - When the Lid is opened – Start the Recipe (or Quickstart), then apply the resist, and close the lid. The process will start automatically.
 - When the Lid is closed – apply the resist through the hole in the center of the cover, then Start the Recipe (in case you will use the resist during the first step, Start the Recipe and then apply the resist through the hole).
7. After spin-coating: open the cover, remove the sample, and clean the sample holder, rotation shaft, process bowl, and outer ring with acetone or IPA soaked wipe carefully.
8. Reassemble the parts of the coater after the cleaning.

Vapour primer VP8:

1. Start the machine by pressing the **Green button** on the left side of the monitor (or **Acknowledge Tool On** button on the electronics cabinet) – **MACHINE SHOULD BE ALWAYS ON**
2. Push the button **Heating On** on the electronics cabinet.
3. Press **Init** on the lower-left touchscreen to initialize the tool.

4. Insert the substrate under the cover. Go to **Recipe** – use the Recipe to create HMDS adhesion-promoting film. Press Start – wait until the integrated hot plates are heated to predefined temperature, then the Recipe will be automatically executed (chamber is locked during the process).
5. After the acoustic signal, wait minimally 10 seconds, then open the cover and remove the substrate. After that, close the lid.
6. Start the standby recipe to decrease the temperature of the hot plates to 100 °C.

Hot plate(s) HP8:

1. Start the hot plate by pressing the **Grey button** next to it.
2. Select the baking procedure on the upper touchscreen – 2 approaches are possible:
 - Quickstart (can be used for small samples, e.g., pieces of the wafer – Select time and temperature by touching the display on respective values. Only 1 step is possible.
 - Recipe (preferred for larger substrates):
 - Select Number in the Recipe list, then click Edit.
 - Create steps in your Recipe, and define temperature, ramp, time, and Outputs for each step (Outputs – vacuum applied to hold the substrates, and/or nitrogen purging of the baking chamber).
 - Click Save, the Recipe will be saved.
 - Go to the previous menu and touch the screen in the column Name. Here you can set the name for your Recipe.
3. Put the substrate on the pins (in case of at least 2 inch wafer; for smaller ones use supporting a wafer or put directly onto the plate if the sample is clean).
4. Start the Recipe, wait until the plate is heated to the desired temperature, and press Start again (pins will move down, then the countdown will start, vacuum or nitrogen will be applied if chosen, pins will move up at the end, and the substrate is released).
 - Using Quickstart: Start the program, wait until the plate is heated, then put the sample on the plate, and press Start again to launch the countdown (in this case, it is better to use some stop clock).
5. Remove the substrate.
6. Shutdown the hot plate by pressing the **Black button** located next to it.

Dos & Don'ts:

- Always close the cover of the hot plate when doing the baking. The exhaust is then much more efficient.
- Use only PTFE or PEEK tweezers when manipulating samples on the hot plate.
- Clean the inner parts of the spin-coater thoroughly with acetone or IPA soaked wipe after every spin-coating session, including rotation shaft. The outer cover should be cleaned only with IPA.