Sawatec LSM-200 for polyimide User Manual

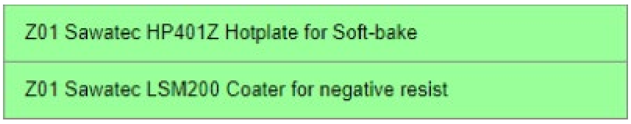
Version of 2024-11-26.

1. Introduction

This user manual explains how to operate the Sawatec LSM-200 manual coater and the free-to-use Präzitherm hotplates for the coating and softbake polyimide (PI) films.

2. Login

- Login on "Z01 Sawatec LSM200" or "Z01 Sawatec HP401Z" with CAE on zone 01 accounting computer.



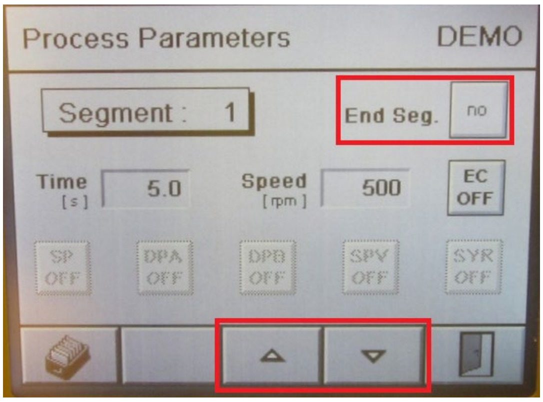
Z01 Sawatec HP401Z Hotplate for Soft-bake

Z01 Sawatec LSM200 Coater for negative resist

3. Sawatec LSM-200 operation

- First, users should edit the spin profile recipe according to the SU-8 or PI runcards.
- Recipe edition is accessed through the Sawatec touch-sensitive panel by pressing the following very intuitive ☺ sequence:

- Next, users will be able to edit the **Time [s]** and **Speed [rpm]** of all segments. Up/Down arrows are used to cycle through the segments.



Process Parameters DEMO

Segment : 1

End Seg. no

Time [s] 5.0

Speed [rpm] 500

EC OFF

SP OFF

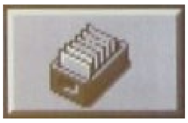
DPA OFF

DPB OFF

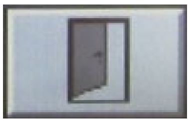
SPV OFF

SYR OFF

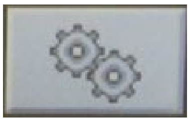
- For the last step (usually segment N°8), make sure to activate End Seg. YES so that following segments are ignored.
- After edition, users can save (and later load) the recipe, with a name and description, by pressing this icon:



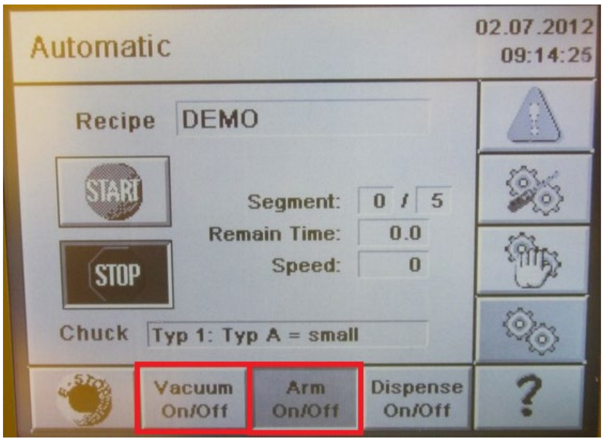
- After edition, users can go back in the menus with the "door" icon:



- Next, users will access the menu to start the spin-coating process with:



- Before going further, always check that the "Arm" button is ON (greyed out) so that the cover glass will cover the bowl during spin-coating.



Automatic 02.07.2012 09:14:25

Recipe DEMO

Segment: 0 / 5

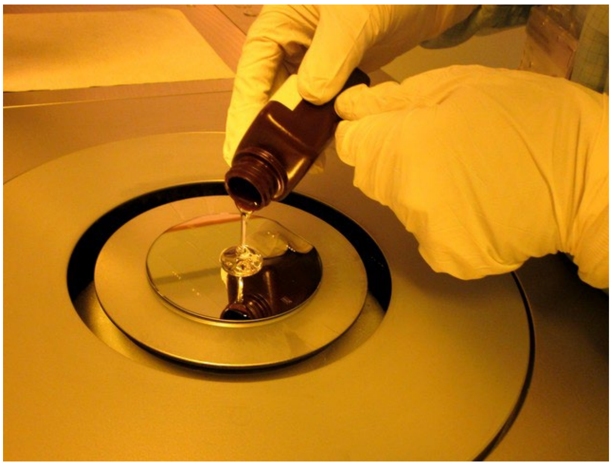
Remain Time: 0.0

Speed: 0

Chuck Typ 1: Typ A = small

- It is recommended to activate the "Vacuum" and check that the wafer chuck vacuum is close to -0.8 Bar.

- The PI resists are dispensed directly from the bottle. The resist pool should be approximatively 5cm diameter.



- Make sure that the cover glass is not obstructed by any objects and start the process:

- Wait for process completion. The cover glass will move back to standby position. The wafer is then ready to be transferred to the hotplate.

4. Präzitherm hotplate operation

- Before transferring wafers to the hotplate, always double check that the actual temperature is not too high (from previous processes).
- For polyimide baking, a “fast” softbake process at 65° and 105° is generally sufficient, before performing full curing in the Heraeus T6060 in Zone 11.
- Softbake duration: 3 minutes @ 65°C, and 3 minutes @ 105°C.
- Clean the working place properly.
- When done, logout with CAE on zone 06 accounting computer.