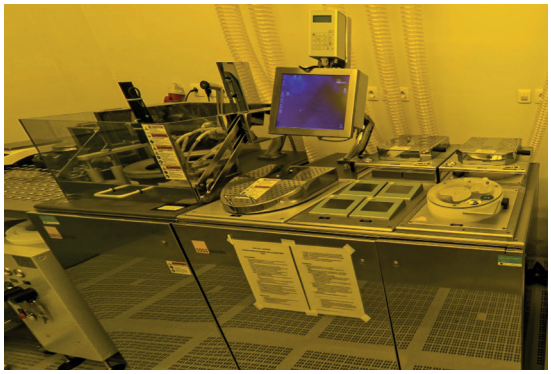
Resist coating and development system

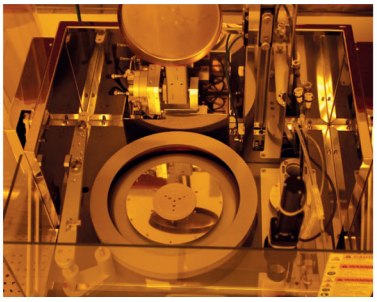
SUSS MicroTec RCD8

DESCRIPTION

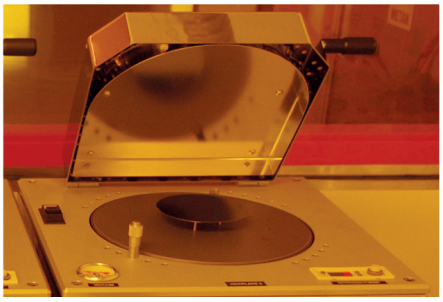
SÜSS MicroTec system consists of RCD8 semi-automatic Resist Coat and Develop Platform, manual LabSpin6 spin coater platform, two manual hot plates HP8 and vapor primer VP8. The RCD8 is a tool which can be converted from a spin coater with the GYRSET® closed cover coating technology without backside contamination to a developer within a few minutes. Furthermore, square substrates and pieces can be coated all the way to the corners with a homogeneous thickness of resist. Spin coating is the process of evenly coating a spinning substrate with a solution. The solution (lithographic resist) is dispensed at the center of the wafer. Subsequent acceleration as well as the rotation speed and the time allotted to the individual steps ensure that a homogeneous thickness of layer remains after excess resist is spun off. Alongside the process parameters, the physical properties of the solution or resist determine the thickness of the applied film. Developing is the process of selective removing of resist after exposure.



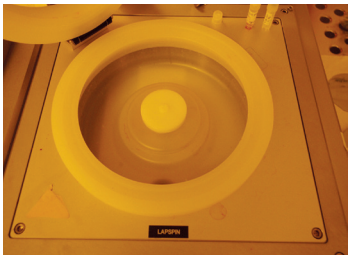
RCD8 Platform



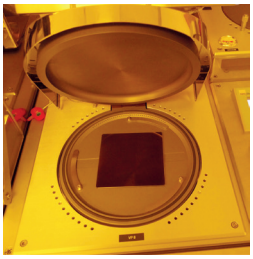
Hot plate HP8



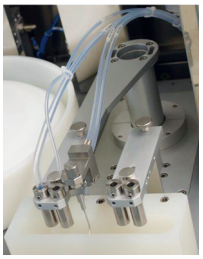
Spin coater LabSpin6



Vapor primer VP8



Dispense arm



LabSpin6 platform is manual coater system that has been designed for a variety of lithographic chemicals. The speed of LabSpin6 is 100–8 000 rpm with acceleration up to 4 000 rpm/sec. Process bowl is made of polypropylene and bowl cover is made of safety glass.

For a uniform and stable vapor priming of the substrates, dehydration of the surface by high temperature baking (up to 200 °C) is needed. Applying HMDS by Vapor primer to dehydrated wafers is one common method for achieving the surface hydrophobicity.

SPECIFICATION

General	
Substrate Size	2" to 8" (200 mm) round, 2" to 6" square
Substrate Handling	manual, lift pins
User Interface	SUSS MMC Tool Control on Windows 7, PC with touch screen control
Max. # of Recipes	unlimited
Max. # of Process Steps	50
Utilities	400 V, 16 A, 50 Hz, vacuum not needed, produced internally by N_2
Module: Open Bowl coater	
Spin Speed Max	10 000 rpm ± 1 rpm (with safety hood)
Spin Acceleration	1–7 000 rpm/s
Module: Gyrset® Coater	
Spin Speed Max	3 000 rpm ± 1 rpm with GYRSET®
Spin Acceleration	1–3 000 rpm/s
Module: Puddle Developer	
Waste	individual drain connection
Bowl Material	polyethylene
Nozzles	optional dispense arm with 3 lines
Module: Hotplate (HP8)	
Controller	via MMC Tool Control of RCD8 or separate controller
Temp. Range	60–250 °C (± 0.5 °C < 120 °C; ± 1 % ≥ 120 °C)
Options	nitrogen purge

MORE INFO

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Web: http://nano.ceitec.cz/resist-coating-and-development-system-suss-microtec-rcd8-suss-rcd8/