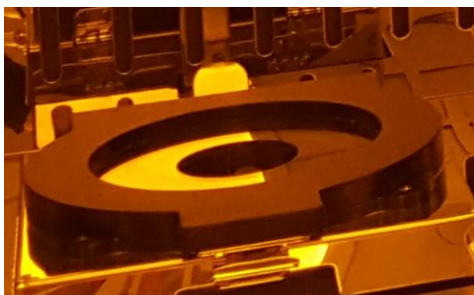




FS5.0 Series Spin Processor Standard Operating Procedure



These instructions are intended for reference only and do not replace proper training and certification. In addition, recipe optimization is always needed per process and sample needs.

Based on the spinner manuals by ReynoldsTech, edited by Dr. Nava Ariel-Sternberg

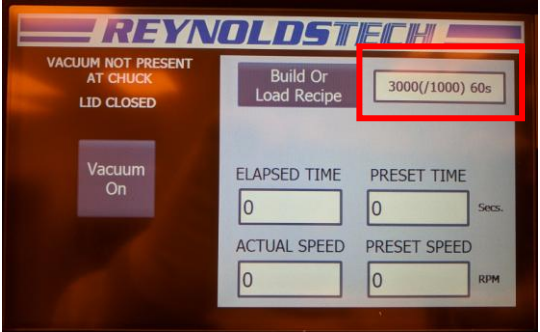

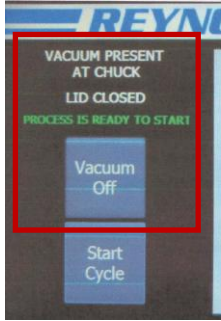




<p>1. BADGER:</p> <p>Enable the litho hood in badger.</p> <ul style="list-style-type: none"> • Spinner 1: for DUV resists • Spinner 2: for i-line resists • Spinner 3: for LOR and SU8 															
<p>2. LOAD or BUILD a RECIPE:</p> <p>Press: “build or load recipe”. The recipe window will open. There are typical recipes under Recipe_1. Do not edit Recipe_1.</p> <p>You can create your own recipes under Recipe_2 to Recipe_5. Choose the recipe and type a name for Recipe Record Name. For every step, insert ramp rate, velocity in rpm, and time in seconds (up to 20 steps are available).</p>	<table border="1" data-bbox="917 966 1453 1291"> <thead> <tr> <th>Entry Name</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>Step #1 Ramp Rate</td> <td>0</td> </tr> <tr> <td>Velocity</td> <td>0</td> </tr> <tr> <td>Time</td> <td>0</td> </tr> <tr> <td>Step #2 Ramp Rate</td> <td>0</td> </tr> <tr> <td>Velocity</td> <td>0</td> </tr> <tr> <td>Time</td> <td>n</td> </tr> </tbody> </table>	Entry Name	Value	Step #1 Ramp Rate	0	Velocity	0	Time	0	Step #2 Ramp Rate	0	Velocity	0	Time	n
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<p>3. SAVE and DOWLOAD RECIPE:</p> <p>Once the recipe is complete click on: “save” and “download” to download it to the controller. Go back to the main screen by clicking on “Main Screen”.</p>															






<p>4. LOAD WAFER ON CHUCK:</p> <p>On the main screen, you can check the name of the recipe you loaded.</p> <p>Using tweezers place your wafer or a chip on the vacuum chuck and center it as much as possible. Variable sizes of chucks are available. Do not use bigger chucks than your samples in order to prevent getting resists and solvents into the vacuum lines. Do not take chucks out of the clean room.</p> <p>Press “vacuum on” on the screen to turn on the chuck vacuum. If the vacuum is not “on” the cycle will not start. The vacuum indicator on the HMI will blink green if the vacuum is on.</p>	  
<p>5. POUR RESIST: Pour a small quantity of the photoresist on the center of the wafer.</p> <p>It is recommended to start the recipe with a slow rate to spread the resist on the wafer. (optional)</p> <p>Press “start cycle” from the main menu to start the cycle.</p>	





<p>6. REMOVE SUBSTRATE and CLEAN: After the cycle is complete press “vacuum off” and the substrate will be released.</p> <p><i>Clean the chuck and the spinner bowl with Acetone (for spinner 1&2) or EBR PG (for spinner 3).</i></p> <p>You may use aluminum foil to cover the bowl of the spinner prior to spinning to reduce the level of cleaning required. If you have done so, please remove the aluminum foil at the end of your session and place it in the solid waste bin.</p>	
<p>7. BADGER: Disable the litho hood on Badger.</p>	