

# MAINTENANCE PLAN

Typ: **Spin Modul SM-150**

**C = check    R = retighten    CL = clean    A = adjust    G = grease    CR = change / replace**

	daily	weekly	monthly	semiannually	annually
<b>Carry out the work according to the user manual</b>					
<b>Pot</b>		<b>CL</b>			
Spin bowl and protection bowl		CL/CR			
exhaust		C			
drain		C		CL	
<b>Drive - chuck</b>				<b>C</b>	
slackness				C	
you have to change the O-rings, if you will do a bigger cleaning and disassembling				CR	
O-Ring / collet of the chucks		G			
Vacuum gauge-glass	C			CL	
<b>Manual mode: check of the systems</b>				<b>C</b>	
tightness of the magnetic valves				C	
tightness of the manostats				C	
tightness of the manometer				C	
tightness of the fittings or tubes				C	
<b>Electrical functions</b>				<b>C</b>	
cutout of the supply				C	
power supply 24VDC, measurement of the voltage				C	
<b>Others</b>				<b>C</b>	
control of all screws and nuts				C	
checking the tolerance and the noise of the engine, if necessary: repair				C	

## Cleaning instruction

### Initial situation

If the spin coater is not needed for a longer time, it has to be completely cleaned. The following components must be cleaned:

- Spin chucks and splash guard ring
- Process bowl
- Cover inside and start / stop buttons
- Vacuum inspection glass under the AC servo-motor
- Remove and dispose the used bowl protector



<p><b>Spin coater cleaning preparation</b>          The spin coater is usually after a coating process in the automatic mode, therefore it has to be first changed in the manual mode.</p> <p>Then use the power On / Off switch to turn on the engine and set the speed to approximately 100-200 rpm.</p> <p>To clean the process pot, the suction must be switched on to suck the solvent and the residues into the drain.</p>	
<p><b>Primary cleaning of the spin chuck</b>          While pressing the +button, gently spray <b>isopropanol</b> on the edge of the spin chuck to remove the photoresist roughly. Caution: Avoid that isopropanol flow in the vacuum grooves and center hole on the chuck (red area).</p> <p>Then increase the speed to approximately 3000-4000 rpm to dry the chuck. Press power off - enter in standby mode and remove the spin chuck.</p>	
<p><b>Final cleaning of the spin chuck</b>          Cleaning the front and backside of the spin chuck with <b>acetone</b> and then with <b>isopropanol</b>. Use <b>TechniCloth Wipers TX 609</b>.</p> <p>Then blow off the spin chuck with nitrogen (N2) and place it in the chuck holder under the spin coater.</p>	
<p><b>Cleaning of the splash guard ring</b>          Remove the splash guard ring from the Spin Coater and clean it also with <b>TechniCloth Wipers TX 609</b>, <b>acetone</b> and finally with <b>isopropanol</b>.</p>	
<p><b>Cleaning of the process bowl and cover</b>          Cleaning of the process bowl with TechniCloth Wipers TX 609, acetone and finally with isopropanol. The cover glass may only be cleaned with isopropanol.</p> <p>Grease the chuck holder (green area) with "<b>GLISSEAL laboratory grease</b>". Attention: Don't clean the green area with acetone or isopropanol!</p>	
<p><b>Check and clean the vacuum inspection glass</b>          The vacuum inspection glass under the servomotor has to be checked regularly. In case the inspection glass is full with photoresist, it must be emptied and cleaned with acetone. Overfilling can cause damage to the servo-motor (stick and impact speed and acceleration).</p>	