EOTECHNICAL

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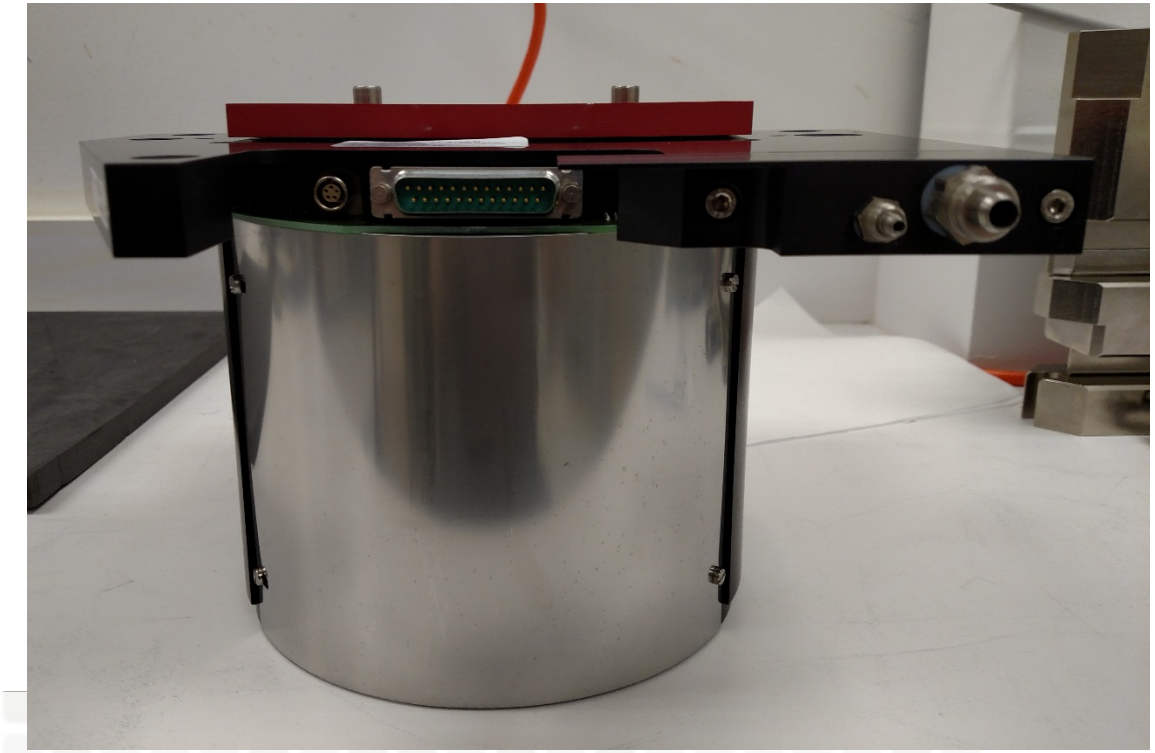
R-PIN REBUILD



The R-PIN is a critical component in ensuring adequate reticle removal and placement. To ensure repeatability, components which contribute to precise linear motion must be in top working order. In the end, final calibrations and adjustments must be made to ensure reliable operation.

R-PIN REBUILD

Initial Visual Inspection

- Remove covers and inspect.
- Manually move stage range of motion and assess for irregularities and roughness.

Perform Diagnostics Tool Test

- Tests are initially performed outside of the tool to confirm no major issues.
- Perform low level diagnostics and record findings.
- Check motion positions.
- Assess reticle pins and record values.
- Evaluate for irregular movements and noise.

R-PIN REBUILD

Part Disassembly

- Disconnect fittings and disassemble boards, motors, hoses, etc.
- Remove lead-screw assembly.
- Take out pin assembly.
- Remove linear bearings.

Sub-Components

- Clean and replace/repair the lead-screw assembly.
- Review condition of the linear bearing assembly and address as required.
- Replace motor.
- Check and setup Pin Tilt assembly.
- Reassembly, Test and adjust as necessary.

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Tool Test / Qualification

- Out-of-tool test preliminary functionality test.
- Install and perform initial test setup.
- Perform reticle pin servo diagnostics.
- Run R-Pin takeover level calibration.
- Perform endurance test for over 200 reticle cyles.

Final Assembly

- Reinstall all covers.
- Wipe down unit.

Packaging:

- Final Cleanroom QA
- Wrap/Final packaging

R-PIN REBUILD

Contact EO Technical Solutions for your full wafer handling rebuild services where we diagnose and test on fully function ASML 5500 tools.