

**ASML STEPPER CERTIFICATION CHECKLIST**

How can a user hurt themselves? How can a user hurt the tool?

A qualified user should be able to:

1. Identify personal safety hazards associated with the tool and what precautions are taken to prevent an accident from occurring.
2. Identify hazards to the tool and what precautions are taken to prevent an accident from occurring.
3. Operate the tool safely and proficiently.
4. Recover from simple errors.
5. Demonstrate knowledge of the processes performed with the tool.
6. Know the appropriate uses of the tool.

**ASML STEPPER**

- Personal Safety Hazards
  - **Ultraviolet Light** - The ASML uses ultraviolet light as well as lasers, and should only be operated with all of the covers closed. Safety glasses should be worn at all times.
  - **Mechanical Hazards** - The ASML stepper has mechanical hazards. Do not operate with open covers and do not open any covers during operation.
- Hazards to the Tool
  - **Stage Damage** - Never open or service the wafer stage since serious damage to the tool can occur.
  - **Stuck Wafers** - Never manually remove stuck wafers from the system. Please contact the tool technician.
  - **Reticle Loading** - Reticle changing should only be done by a certified user. Use care not to touch the surface of the reticle. If alignment marks become obscured, the stepper will not be able to find them. Additionally the reticle pod must be correctly closed.
  - **Reticle Pod Placement** – Use care to support the reticle pod when placing it on the tool. If not properly clamped, the top can separate from the base and end up on the floor.
  - **Combi Reticle** - Do not remove the Combi reticle from the SMIF pod. It is fragile and expensive to replace.
  - **Contamination** - Wafers must have clean backs. This will keep the stage clean and prevent errors.
  - **Wafer Handler Damage** - Do not remove a carrier that is not fully raised.
- Operating Tool
  - Users should be able to:
    - Load a reticle
    - Load a cassette of wafers
    - Define and execute a job

## ***R·I·T SEMICONDUCTOR AND MICROSYSTEMS FABRICATION LABORATORY***

- Reservations – If not present at stated start time, tool is reserved for 15 minutes and is then considered open for general use.
  
- Simple Errors
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- Processes
  - A qualified user should be familiar with the process requirements for the resist that you will be using.
  
- Appropriate Tool Use
  - No backside coated wafers, only wafers with clean backs may be processed in this tool.
  - No polyimide or SU8 may be processed in this tool.