

**MANUAL PROCESSING BENCH 2 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.

**Wet Etch Bench**

▪ **Personal Safety Hazards**

- Hazardous Chemicals -Read and understand the MSDS for the chemical being used.
- Safety Glasses are mandatory at all times in the lab.
- When using this bench safety gloves, chemical apron and a face shield are required, in addition to your safety glasses.
- It is imperative that all spills be cleaned up immediately because of the number and variety of materials used at this bench. Please see a staff member for assistance in cleaning up spills.
- The temperature-controlled baths are capable of heating chemicals to high temperatures which creates an additional burn hazard.
- Keep sash down when processing chemicals.

▪ **Hazards to the Tool**

- No metals or metal etchants may be processed in the heated tank or rinse tank.
- No solvents may be processed in the heated tank.
- No HF, buffered oxide etch or pad etch may be used in the heated tank.
- Tank Breakage –The heated etch tanks are breakable. Carefully place wafers in them and never bang a cassette on the side.
- Fire –Never attempt to heat a process tank that is not filled.
- Operate the bench controls with clean gloves only. The chemicals used will cause damage.
- Do not drain chemicals that are hotter than 30C.

▪ **Operating Tool**

- Users should be able to:
  - Turn on the bench and heat up the tank.
  - Process wafers.
  - Shut down the bench.
- Reservations – If not present at stated start time, tool is reserved for 15 minutes and is then considered open for general use.

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

- **Simple Errors**
  - Incorrect liquid level
  - Level detector not bubbling
  - Lost or broken wafer
  
- **Processes**
  - A qualified user should be familiar with the process that will be done in the tank.
  
- **Appropriate Tool Use**
  - This tool is intended for Piranha cleaning, decontamination cleaning of silicon wafers, SC1 and SC2 cleaning.
  - Solvents are not allowed in this tank.
  - No metal etchants or wafers with metals are allowed in the heated tank.
  - No HF or mixtures containing it.
  - Someone must be in lab while the hotpot is in use.
  - Only Teflon wafer cassettes are allowed.