

Work Station Use and Cleaning

Process:

Using plenums (also called work stations or chemical benches) for various chemistries, and cleaning after use.

Materials:

Plenum tops and labware to be used and cleaned.

Incompatible Materials:

- none -

Hazards, Exposure Actions and PPE:

Refer to chemical specific SOPs. Cleaning a plenum or labware of a chemical does not introduce significant additional hazards. DI spray guns might splatter contaminated cleaning water back at you, so make sure to wear appropriate eye protection.

Acceptable Locations For Use:

Any plenum may be cleaned in this way

Additional Process Notes:

Each plenum comes equipped with a DI faucet for washing, a DI spray gun for rinsing, and Nitrogen gun for drying samples. Many plenums additionally come equipped with a sink, dump rinser, a solvent strip bath, sunken chemical baths, plenum flushes and cleanroom squeegees.

Plenums are made of a high density polypropylene immune to all NCNC provided chemicals including aggressive acids, oxidizers and organics. So when you do spill or dribble chemicals onto the plenum, you can take your time to cautiously clean it. To clean a plenum, alternate between spraying the plenum with a DI water gun, and squeegeeing the rinse water down the holes in the front or back of the plenum. Water and small amounts of chemicals can be rinsed and squeegeed directly down the holes in the plenum top where they will flow to the sanitary sewer or NCNC's acid and base neutralizer depending on the location. When in doubt, four or five quick repetitions of spraying and squeegeeing will clear away most small spills or residues. For acids and bases, you can also use pH paper provided by NCNC to check the pH of your rinse water.

To maximize your safety from chemical residues, rinse off your plenum as above before using it each time. If confronted with questionable solids or residues you can use NCNC provided pH paper to determine the nature of the residue. For testing solid, dry samples, first wet the pH paper with DI water. For more information on pH paper and its uses, talk to NCNC lab staff.

To rinse off samples, use the DI water gun and hold the sample with a pair of tweezers over the sink or even over the plenum top if you intend to squeegee away the rinse water later. You can alternatively use the inset dump rinsers to rinse large numbers of wafers clean all at once. Dump rinsers are controlled by an On/Off button on the front face of the plenum. NCNC dump rinsers are programmed to rinse through three cycles when run.