

Description

The equipment is a set of four chemical sections interconnected in a manufacturing line. The line makes it possible to carry out an automatic comprehensive chemical procedure on wafers from monocrystalline silicon. The procedure typically consists of etching sequences in chemical baths and rinsing with demineralized water.

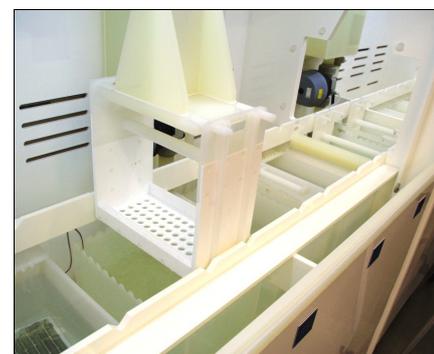
Silicon wafers in a standard handling basket are placed by the operator into a input drawer in the first section on the left side of the equipment under the control panel. As soon as a technological procedure (recipe) is chosen for the relevant dose, the equipment will take the dose over and ensure automatic performance of the recipe. Control parameters of chemical processes are mainly represented by the composition of the chemical used, temperature, process time and by the use of an ultrasonic source, if necessary. The process times and cycling for water renewal are the main adjustable values for rinses.

Transfer of the bin with the manufacturing dose is ensured by an automatic built-in horizontal manipulator. The dose is moved through the individual sections from left to right in course of the process sequence.

Having the wet processes been finished, the bin with the wafers is transported into a dryer, where the dose is dried out with hot filtered circulating air. An operator will remove a finished dose from the dryer .

Features and options:

- The equipment is designed from chemically resistant materials and applicable for use in clean rooms.
- There are 5 etching tubs and 8 rinse tubs in total in the wet sections. Versions of the tubs differ according to the chemicals used for etching, versions of individual rinses differ as well.
- The wet sections have access from behind to replace and replenish chemicals. The access is blocked with covers while the equipment is in operation.
- A box to wash canisters is also built in the rear part of the equipment. Washing is an automatic routine and takes place also under a blocked cover only.
- The dryer is in a stainless steel version and is equipped with electric heating, HEPA filtration and circulation which is ensured by a ventilator with a radial impeller wheel and with a jet tube.
- The line is controlled by an PLC with a 15" touch screen and with application software. Users with defined access levels may choose recipes and adjust parameters.



Basic technical data:

Length:	6,470 mm
Width:	1,180 mm
Height:	2,390 mm
Weight:	2,120 kg
Power supply:	3 NPE 400/230 V AC 50 Hz