Beams & Plasmas
Laboratory of vacuum technologies plus, LLC

Plasma-chemical etching unit NIKA-134

A small-sized unit designed for etching silicon wafers (Ø100 mm) is based on a 2013-500 series vacuum station (reduced-size chamber). One rack contains pumping, control, cooling, technological devices and power supplies.

Main technological devices:

- RF magnetron (original design);
- RF generator;
- Magnet system.
- Working flange - frontal, with an RF magnetron and a loading module
  8 plates Ø100 mm are processed at the same time.

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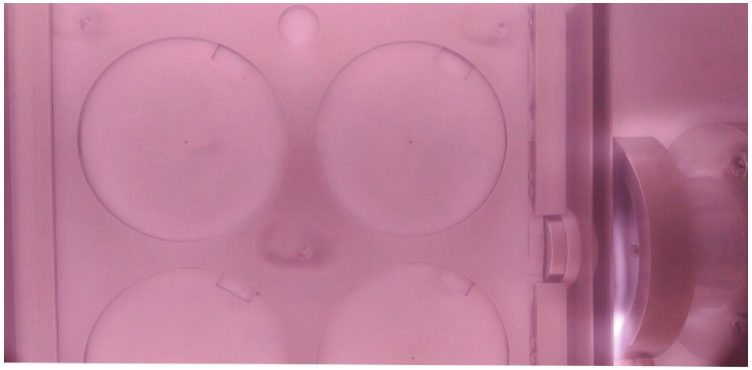
Layout and characteristics

RF generator

Parameters

Power	15 kW
Supply voltage	380V +10-15 %
Time to reach working vacuum	not more than 20 min.
Maximum current consumption by phase	31 A
Mass	no more than 650 kg
Ultimate vacuum	no more than 3×10^{-4} Pa
Working vacuum	1×10^{-3} Pa

RF magnetron



RF magnetron

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Layout