Beams & Plasmas
Laboratory of vacuum technologies plus, LLC

Magnetron sputtering unit NIKA-133

The small-sized sputtering unit is based on a 2013-500 series vacuum station (reduced-size chamber).
One unit contains pumping and control facilities.
The vacuum unit provides the deposition of three conductive layers with ionic cleaning of silicon wafers Ø100 mm in one cycle .

Technological devices:

- three magnetrons (D100), each magnetron is equipped with a rotating screen;
- Ion source (IBS-145);
- водоохлаждаемый стол.

6 plates Ø100 mm are processed at the same time.
The working cycle after the chamber is closed is switched on automatically: pumping out, cleaning, sequential spraying of three metals.
All processes are automated. A reliable interlocking system allows you to avoid accidental errors, to protect personnel and equipment.

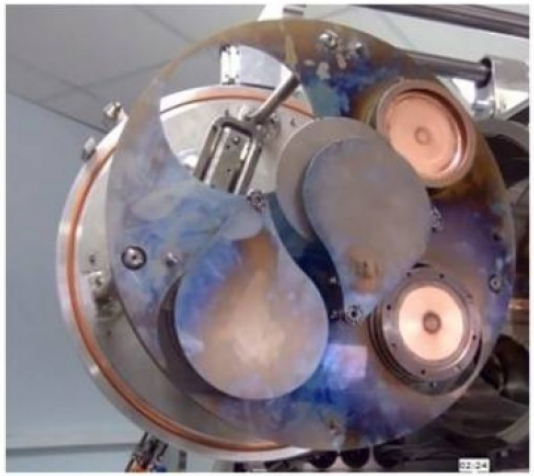
Beams & Plasmas
Laboratory of vacuum technologies plus, LLC

Magnetron sputtering unit NIKA-133

Layout and characteristics

IBS-145 – Ion Source - 1 pc.

D100 - Magnetron – 3 pc.



Technological devices

Parameters

Power	17 kW
Supply voltage	380V +10-15 %
Time to reach ultimate vacuum	no more than 2 h.
Number of gas injection channels	3
Maximum current consumption by phase	32 A
Mass	no more than 900 kg
Service area (length x width)	4018 × 5415 mm
Ultimate vacuum	no more than 3×10^{-4} Pa
Working vacuum	2×10^{-3} Pa
Dimensions(length x width x height)	1618x1415x2053 mm