

NanoStructured Coatings Co.



Nanostructured Coatings Co.
The Products & Specification

Nanostructured Coatings Co. is the owner and manufacturer of the Sputter & Vacuum Coaters.

NANOSTRUCTURED COATING CO.

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High Vacuum, Single Magnetron Target Desk Sputter Coater DST1-300:

The magnetron desk sputter coater model DST1-300 is a coating system with ability to coat semiconductors, dielectrics and metals (oxidizing and non-oxidizing). Uniform thin films with fine-grain sizes are formed in a fast cycle time.



The large chamber DST1-300 with a 2, 3, or 4 inches magnetron, water-cooled cathode is ideally suitable for coating large specimens with diameters of up to 15 cm, or multiple smaller specimens over a similar diameter.

The unlimited sputtering time makes it suitable for deposition of thick layers.

The system is equipped with 600W DC power supply, 300 W RF power supply (optional) with auto matching box. The system can deposit wide ranges of materials on different surfaces for thin film applications such as Micro & Nano electronic and SEM sample preparation.

Features

- High vacuum turbo pump (Leybold).

Pumping Speed:	90 l/s	350 l/s
Ultimate Pressure:	7×10^{-6} Torr	7×10^{-7} Torr

- Two stage rotary vane as a backing pump.
- Full range vacuum gauge (Leybold).
- High precision quartz crystal thickness monitor.
- DC power supply 600W.
- Intuitive touch screen to control the coating process and rapid data input.
- User friendly software that can be updated via network.
- Controls coating rate to achieve finer grain structures.
- Manual or automatic Timed and Thickness sputtering.
- Able to record and plot coating parameters graphs.
- Equipped with electronic shutter.
- Easy-to-change specimen stages (rotation stage as standard).
- Two-year warranty.

Clean Vacuum

The vacuum chamber is Cylindrical Pyrex with 300 mm OD and 200 mm H. The DST1-300 is fitted with an internally mounted 90 l/s turbo molecular pump, backed by a two stage rotary vane pump. It introduces clean vacuum without oil contamination which normally exists with ordinary diffusion pump.

Touch Screen Control

DST1-300 is equipped with a 7" colored touch screen and full automatic control and data input that can be operated by even inexperienced users. The vacuum, current and deposition information can be observed as digital data or curves on the touch screen. Information of the last 300 coating can also be saved in the history page.

Applications

- Metal, Semiconductor and Dielectric Films.
- Nano & Microelectronic.
- Solar cell applications.
- Optical components coating.
- Thin film sensors.
- Magnetic thin film devices.
- Computer memory applications.
- Fine grain structural deposition for SEM & FE-SEM sample preparation.

Specification

- Controls the rate of sputtering to achieve finer grain structure.
- Automatically controls the power of sputtering independent of pressure.
- Two precision Mass Flow Meter (MFC) for fine control of the vacuum pressure.
- Able to record and plot coating parameter graphs.
- Transfers curves and deposition process data by USB port to PC.
- Utilities: 220V-240V, 50/60HZ- 16A.
- Shipping Weight: 50kg

Options and Accessories

- Substrate bias voltage.
- RF generator and auto matching box
- Substrate heater 500 C.
- Quartz crystal sensor.
- Vacuum cylindrical spare glass chamber.
- One source thermal evaporation system.
- Sputtering targets.
- Sealing gaskets.