

NanoStructured Coatings Co.



Nanostructured Coatings Co.
The Products & Specification

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

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High Vacuum, Single Magnetron Target Desk Sputter Coater DST1-170:

The magnetron desk sputter coater model DST1-170 is a compact coating system with ability to coat metals (oxidizing and non-oxidizing). Uniform thin films with fine-grain sizes are formed in a fast cycle time.

The DST1-170 is equipped with a magnetron cathode with diameter of 2 inches.



The DST1-170 is configured as a sputter coater suitable for Scanning Electron Microscope (SEM) sample preparation. A wide range of materials could be deposited by DST1-170 such as gold (Au), platinum/palladium (Pt/Pd) alloy, silver (Ag), chromium (Cr), tungsten (W), iridium (Ir) and etc.

This high vacuum coater offers high quality uniform films with fine grain sizes which are suitable for specimens that require high resolution and high quality characterization such as FE-SEM, EDS/WDS, TEM, and EBSD.

The DST1-170 with a 2" magnetron cathode, 80 W switching DC power supply, could be used for research and different thin film applications.

Features

- High vacuum turbo pump 90 l/s (Leybold)
- Two stage rotary vane vacuum pump as a backing pump
- Full range vacuum gauge (Leybold)
- ISO-KF 63 butterfly valve
- DC power supply 80 W
- Quartz crystal thickness monitor with precision of 1nm and resolution of 1 Å
- 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. The DST1-170 is fitted with an internally mounted 90 l/s turbo molecular pump, backed by a 4m³/h two stage rotary vane pump. It introduces clean vacuum without oil contamination which normally exists with ordinary diffusion pump.



Touch Screen Control

DST1-170 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

- Fine grain structural deposition for SEM & FE-SEM sample preparation
- Nano & Microelectronic
- Solar cell applications
- Optical components coating
- Thin film sensors

Specification

- Ultimate Vacuum: Less than 7×10^{-7} Torr.
- Controls the rate of sputtering to achieve finer grain structure.
- Automatically controls the power of sputtering independent of pressure.
- Electronic leak valve for Argon gas.
- 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: 36kg.

Options and Accessories

- Quartz crystal sensor.
- Planetary sample rotation.
- Spare glass chamber.
- Sputtering targets.
- Sealing gaskets.