



HIGH VACUUM, SINGLE MAGNETRON TARGET DESK SPUTTER COATER DST1-170

The High Vacuum, Single Magnetron Target Desk Sputter Coater DST1-170 is configured as a Desk Sputter Coater, specifically designed for Scanning Electron Microscope (SEM) sample preparation. DST1-170 is versatile, capable of depositing a wide range of materials, including gold (Au), platinum/palladium (Pt/Pd) alloy, silver (Ag), chromium (Cr), tungsten (W), iridium (Ir), and more.

DST1-170 excels in producing high-quality, uniform films with fine grain sizes. These films are ideal for specimens that demand high-resolution and high-quality characterization, such as FE-SEM, EDS/WDS, TEM, and EBSD applications. Equipped with a 2-inch magnetron cathode and an 80-watt switching DC power supply, DST1-170 is suitable for various research and thin film applications.

APPLICATIONS

- Achieving fine-grain structural deposition for SEM and FE-SEM sample preparation
- Nano and microelectronic applications
- Solar cell manufacturing
- Coating of optical components
- Thin film sensor development

FEATURES

- High vacuum turbomolecular pump with a capacity of 90 L/S (Leybold)
- Two-stage rotary vane vacuum pump serving as a backing pump
- Full-range vacuum gauge (Leybold)
- ISO-KF 63 butterfly valve
- DC power supply rated at 80 watts

- Quartz crystal thickness monitor with a precision of 1 nanometer and a resolution of 1 Ångström
- Intuitive touchscreen interface for easy coating process control and rapid data input
- User-friendly software with network update capability
- Control functionality to adjust coating rate for achieving finer grain structures
- Offers both manual and automatic timed and thickness sputtering options
- GLAD (Glancing Angle Deposition) Sputtering capability
- Plasma Cleaning functionality
- Ability to record and plot coating parameter graphs
- Equipped with an electronic shutter
- Easily interchangeable specimen stages, with a rotation stage included as standard
- Backed by a two-year warranty
- Vac Coat Products are globally covered by both public and product liability insurance, ensuring protection in case of property damage or personal injury caused by Vac Coat systems.

Clean Vacuum of Desk Sputter Coater

The vacuum chamber is made of cylindrical Pyrex. The DST1-170 is equipped with an internally mounted 90 L/s turbomolecular pump, supported by a 4m³/h two-stage rotary vane pump. This configuration ensures a clean vacuum environment, free from the oil contamination typically associated with standard diffusion pumps.

Desk Sputter Coater Desk Sputter Coater

Touch Screen Control

The DST1-170 features a 7-inch color touchscreen interface with full automatic control and user-friendly data input, making it accessible even for inexperienced users. Users can easily operate the system through the touchscreen, where vacuum levels, current, and deposition information can be viewed as digital data or displayed as curves. Additionally, the system can store information on the last 300 coatings, which can be accessed on the history page for reference.

TECHNICAL SPECIFICATIONS

- Ultimate Vacuum: Less than 7×10^{-7} Torr
- Precise control of sputtering rate for achieving finer grain structures
- Independent power control of sputtering, regardless of pressure
- Electronic leak valve for Argon gas
- Capability to record and plot coating parameter graphs
- Convenient data transfer of curves and deposition process data via USB port to PC
- Power requirements: 220V-240V, 50/60Hz, 16A
- Shipping Weight: 36 kilograms

Options and Accessories:

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



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