



HIGH-VACUUM, DOUBLE-MAGNETRON TARGET SPUTTER COATER/ THERMALEVAPORATOR- DST2-TG



The High-Vacuum, Double-Magnetron Target Sputter Coater/ ThermalEvaporator-DST2-TG, or Double Target Turbo Pumped Sputter Coater and Thermal Evaporator, is a cutting-edge coating system that seamlessly merges thermal evaporation and sputter coating into a single compact desktop unit. This versatile technology offers remote system control through a convenient Wi-Fi connection, allowing users to manage operations effortlessly via a user-friendly touch screen or their PC.

APPLICATIONS

The DST2-TG, a state-of-the-art Magnetron Desk Sputter Coater, comes with a spacious chamber (300 mm diameter) and two 2" diameter water-cooled cathodes, making it ideal for extended deposition periods. This versatile system serves as a single platform for sputtering, carbon fiber deposition, and metal evaporation.

Specifically designed for glove box use, the desk sputter coater can effectively sputter semiconductors, dielectrics, and metal targets. Users have the flexibility to install sputtering cathodes and thermal evaporation boats interchangeably or simultaneously, providing access to a total of three deposition sources.

Moreover, carbon deposition is achievable through the utilization of carbon fiber, expanding the range of available deposition materials.

Desk Sputter Coater

This highly precise vacuum coating system is designed to be semi/fully automated, featuring a user-friendly 7" colored touch-screen panel for controlling and adjusting the deposition process data. The intuitive software interface simplifies the operation. Users can also access the control panel window on their PC through a Wi-Fi connection.

The system allows for monitoring vacuum levels and coating sequence information, which can be displayed as digital data or curves on the touch screen. Additionally, the last 300 coatings are saved and accessible in the system's history page.

Desk Sputter Coater

Product: DST2-TG Touch Screen Vacuum Coater The sputter coater and thermal evaporator for glove box applications can be enhanced with optional facilities, including:

- RF power supply with an auto-adjustable matching box to minimize reflected power in the RF sputtering process.
- Plasma cleaner for effectively removing organic matter from the substrate surface before thin film deposition.

Desk Sputter Coater

FEATURES

- Fusion of a sputter coater and thermal evaporator designed for glovebox mounting
- Equipped with a built-in turbomolecular pump for efficient vacuum performance
- Spacious chamber with a diameter of 30 cm and a height range of 20-25 cm
- Target installation made easy and swift; no target holder required
- Enhanced heat conduction facilitated by targets with backing plates
- Sample holder designed for rotation, promoting even coating
- KF40 feedthroughs mounted on the glovebox for power supplies (DC, RF, high current), vacuum pump hose, water cooling, argon/reactive gas connections, and electrical connections
- Precise gas injection control through Mass Flow Controllers (MFCs)
- Incorporates two high-precision quartz crystal thickness sensors for accurate monitoring of film thickness
- Vac Coat Products are globally covered by comprehensive public and product liability insurance, providing assurance against property damage or personal injury resulting from the use of Vac Coat systems.

Automation Features:

- **Semi-Fully Automatic Coating Process (Optional):** The system offers the flexibility of automated or semi-automated coating processes, allowing users to choose the level of automation based on their needs.
- **Efficient Data Entry and Storage:** Rapid data entry for deposition process parameters, enhancing workflow efficiency. Secure storage of deposition process data for easy retrieval and reference.
- **Remote Process Control:** Deposition process can be controlled and monitored remotely via a PC through a Wi-Fi connection, offering convenience and flexibility.
- **Coating Recipe Storage:** Capability to store coating recipes, enabling the replication of specific deposition processes for consistent and repeatable results.
- **Electronic Shutters:** Incorporation of electronic shutters for precise control over the coating process and to manage substrate exposure during the deposition.
- **Automated Cathode Selection:** Automated selection of cathodes, streamlining the process and ensuring optimal deposition conditions based on material requirements.

Optional Facilities:

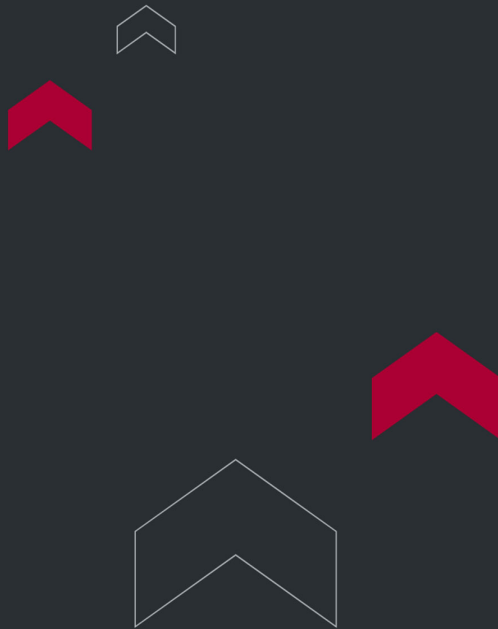
- **RF Sputtering for Deposition of Non-Conducting Targets (Optional):** Integration of RF sputtering capability to facilitate the deposition of non-conducting targets, expanding the range of materials that can be coated.
- **Plasma Cleaner (Optional):** Option to include a plasma cleaner for effective removal of organic matter from the substrate surface before thin film deposition, ensuring a clean substrate for superior coating quality.

THEORY & METHOD

Designed to operate within a high vacuum environment, this system is primed for depositing a wide array of materials, making it a go-to choice for diverse coating applications. The double magnetron target desk sputter coater offers the flexibility to switch seamlessly between evaporation and sputtering deposition, facilitating the creation of intricate multilayer coatings.

Experience the epitome of efficiency and precision with the DST2-TG—an all-in-one solution that revolutionizes coating processes within a glove box setting.

Glove box systems create a secure environment for delicate materials, preventing exposure to air, moisture, and unwanted interactions. The DST2-TG high-vacuum coating system integrated with a glove box ensures safe and clean handling of substrates before or after the deposition process, all within an inert gas atmosphere. This setup provides a precisely controlled chamber environment, enabling precise deposition of ultra-pure thin layers in high vacuum conditions.



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