

DESK CARBON COATER - DCR



Desk Carbon Coater - DCR is a compact carbon fiber coating system designed for sample preparation for use in scanning electron microscopy (SEM), transmission electron microscopy (TEM), and X-ray analysis (EDX) applications.

APPLICATIONS

- **Scanning Electron Microscopy (SEM)** – Produces thin, uniform conductive carbon coatings to prevent charging on non-conductive samples.
- **Transmission Electron Microscopy (TEM)** – Prepares specimens with precise carbon coatings for high-resolution imaging.
- **X-ray Analysis (EDX/EDS)** – Provides carbon films that minimize interference, improving elemental detection accuracy.
- **Material Science Research** – Enables reliable coating for porous, polymeric, or fragile samples needing uniform conductivity.
- **Nanotechnology and Advanced Materials** – Supports precise sample preparation for microstructural and surface characterization.
- **Academic and Industrial Laboratories** – Ensures repeatable, controlled coatings with stored coating history for quality assurance.
- **Quality Control and R&D** – Facilitates accurate testing by reducing charging effects and enhancing analytical performance.

FEATURES

- Quartz crystal monitoring system for real-time thickness measurement with 1nm precision
- Offers both pulsed and flash carbon fiber coating modes

- Intuitive touchscreen interface for easy control and monitoring of the coating process, with rapid data input capability
- User-friendly software that can be updated via the network
- Capable of recording and plotting coating parameter graphs
- Equipped with easily interchangeable specimen stages (rotation stage included as standard)
- Backed by a two-year warranty for peace of mind
- CE conformity ensures compliance with safety standards
- Vac Coat Products are globally covered by both public and product liability insurance, providing protection in case of property damage or personal injury caused by Vac Coat systems.

DCR Options and Accessories

The Carbon Coating System offers the following options and accessories:

- Quartz crystal sensor
- Optional Sample Planetary Rotation System
- Spare vacuum glass cylindrical chamber
- Carbon fiber
- Sealing gaskets

Pulsed Carbon Fiber Evaporation

The desk vacuum carbon coating system, known as DCR, is capable of performing pulsed carbon fiber evaporation. Short pulses enable more precise deposition and significantly reduce the amount of debris typically associated with conventional carbon deposition methods.

Touch Screen Control with Colorful Display

The desk carbon coater features a 7-inch color touchscreen interface, offering full automatic control and data input capabilities that are user-friendly, even for inexperienced users. Users can easily operate the system through this touchscreen. The vacuum level, current, and deposition information can be monitored as digital data or displayed as curves on the touchscreen. Additionally, the system stores information on the last 300 coatings, which can be accessed in the history page for reference.

Desk Sputter Coater

Desk Sputter Coater

Sample Holder

The DCR can be customized with various sample stage configurations to meet the specific needs of users. These sample stages are designed to be rotatable with adjustable height, allowing for easy customization. The rotary planetary sample stage is particularly well-suited for achieving uniform coating on porous specimens and is recommended for such applications.

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TECHNICAL SPECIFICATIONS

- Two-stage, direct drive rotary vane pump with a 4 m³/h capacity
- Ultimate vacuum: Less than 50 millitorr
- Chamber dimensions: 170 mm outer diameter (OD) x 140 mm Pyrex cylinder
- Power supply: 0-25A switching pulsed DC power supply
- Dimensions: 450 mm (height) x 500 mm (width) x 370 mm (depth)
- Power requirements: 220V-240V, 50/60Hz, 10A
- Features a rotational sample holder with adjustable tilt and height
- Optional sample holder with planetary rotation
- Electronic shutter for added convenience
- Offers both manual and full automatic control options
- Precision electronic leak valve for fine control of vacuum pressure
- Real-time plots display coating parameters
- Easy transfer of coating data plots via the USB port to a PC
- Shipping weight: 46 kilograms
- Includes Plasma Cleaning functionality



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