

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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Desk Sputter & Carbon Coater - DSCR



The Desk SEM Coater model DSCR is a compact coating system included both of sputter and so carbon coater. This system is able to sputter noble metals such as gold (Au), palladium (Pd), platinum (Pt) and gold/palladium (Au/Pd) on non-conductive or poorly conductive specimens and so able to coat carbon film on the samples.

The device is a rotary pumped coater configured for DC sputtering and carbon fiber coating (thread) with interchangeable heads in one instrument.

DSCR is a versatile machine for scanning electron microscope sample preparation.

In order to observation of the non-conductive or poorly conductive specimens by scanning electron microscope, their surface conductivity should be increased during the sample preparation step before SEM microscopy.

Sputtering deposition and carbon evaporation are standard mechanisms to sample preparation for electron microscopy.

The full automat option allows easy use of the system even for beginner operators. The user friendly software with graphical sections simplifies perception of the deposition information.

Features

- Easy to operate
- Intuitive touch screen to control the coating process and rapid data input
- User friendly software to both full-automatic and semi-automatic control
- Easy loading and unloading of specimens
- Repeatable film thickness depositions
- Precise reproducible coatings
- High resolution fine coating (order of 2nm Gold grain)
- Low voltage sputtering
- No cooling system is required
- Carbon coating in both flash and pulse mode
- Dual carbon fiber for thicker layer deposition
- Two-year warranty
- CE conformity

Applications

The Desk Sputter Coater model DSCR is a Scanning Electron Microscope (SEM) sample preparation system equipped with a rotary pump to achieve vacuum less than 50 mTorr which is a suitable vacuum range for noble metals sputter coating and carbon fiber evaporation coating.

For sputtering deposition of oxidizing metals, field emission SEM (FE-SEM), SEM EDX, and for TEM application, please see the DST1, DSCT and DCT.

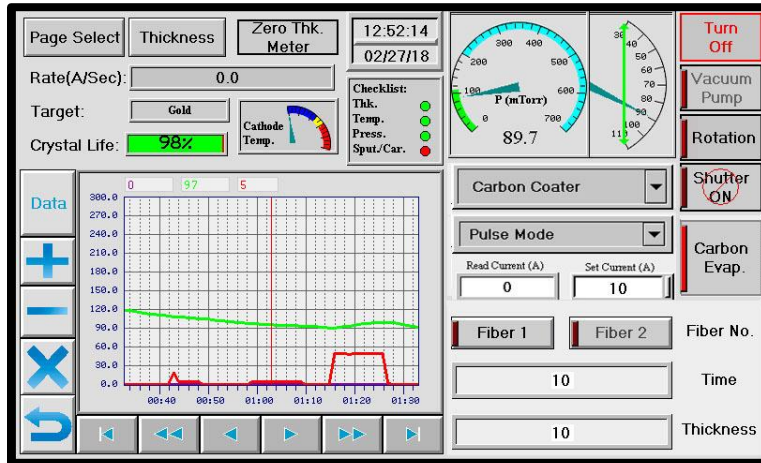
Carbon coating head

The device is equipped with an interchangeable head to carbon coating purpose. The ability of loading two carbon fibers with diameter of 0.8 mm, allows coating thicker carbon film if it's required.



Touch screen control with colorful display

DSCR, the Desk SEM Coater, 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.

Specification

- Two-stage, direct drive 4m³/h, rotary vane pump
- 170 mm OD x 140 mm Pyrex cylinder chamber.
- Dimensions: 45 Cm H x 50 Cm W x 37 Cm D.
- 2 inches magnetron cathode.
- Ultimate Vacuum: Less than 50 millitorr.
- Planetary sample rotation
- Thermocouple vacuum gauge
- Quartz crystal thickness monitor with precision of 1nm
- Electrical control shutter

- Automatic venting valve
- Saving the last 300 coatings that carried out
- Utilities: 220V-240V, 50/60HZ- 10A.
- 80 Watt DC switching power supply.
- Transfer the curves and sputtering process data by USB port to PC.
- Shipping Weight: 42Kg.

Sample Stages



The DSCR can be equipped with different sample stage configurations depending on the user requirements. The sample stages are rotatable with adjustable height and can be changed easily.

The rotary planetary sample stage is a good choice for uniform coating of porous specimens.



Options and Accessories

The Desk Sputter/Carbon Coater has the following options and accessories:

- Carbon rod evaporation head
- High current power supply for carbon rod
- Quartz crystal sensor
- Planetary sample rotation
- Spare glass vacuum chamber
- Sputtering targets
- Carbon fiber
- Sealing gaskets