



Leica EM SCD005

Cool Sputter Coater

Precious Metal Sputtering and Carbon Evaporation

Living up to Life

Sputter Coating

Sputter coating is the process of covering a sample with a very thin layer of metal to improve contrast and make it electrically conductive for SEM analysis.

The Leica EM SCD005 produces very fine-grained, quality conductive films using precious metals: gold, gold/palladium, iridium, silver and platinum. Even large samples such as wafers and compact discs for industrial processes can be coated.



Single and Multiple Carbon Thread Evaporation

The carbon thread evaporation method is a further feature of the Leica EM SCD005. This process is known as “flash evaporation” of a carbon thread. In a matter of seconds, the thread heats up, flashes off carbon and breaks. Carbon atoms condense on the sample, coating it evenly with a thin carbon film. The Leica EM SCD005 offers single and multiple carbon thread evaporation for the production of conductive carbon films for X-ray microanalysis (EDX, WDX) and carbon reinforcement films on collodion or formvar coated specimen support grids.



EM QSG100 Quartz Crystal Film Thickness Monitor

The Leica EM QSG100 is a quartz crystal film thickness monitoring system which ensures highest reproducibility of sputtered or evaporated layers by precisely measuring film thickness and coating rates.

Key Features

The quick fastening system allows fast and simple replacement of foil targets. Removable anode ring for optimal plasma distribution.



Argon pressure and sputter current parameters can be adjusted during processing for better control of the coating rate.

Stepless height adjustable rotating specimen table for correct film deposition.

Various vacuum chamber sizes are easily exchangeable and accommodate different sample preparation processes. Even large samples such as compact discs and wafers can be evenly sputter coated.

Removable glass vacuum chamber for easy cleaning and visibility. No cross-contamination between applications.

Integrated planar magnetron system with electron deflection for uniform and reproducible metal coatings.

The two stage rotary vane vacuum pump (5m³/h or 10m³/h) with oil mist filter guarantees clean, fast processing cycles.



All operating parameters are displayed digitally for quick evaluation of the process. The sputter parameters are not lost when the unit is turned off.

Integrated 3 digit programmable timer with process termination for reproducible coatings.

Argon purge control for clean vacuum conditions.

Triple safety concept with vacuum switch, sputter arm detection and implosion interlock safety shield.



EM QSG100 quartz crystal film thickness monitor measures precise layer thickness and coating rates. One can observe and then terminate the sputtering process once the desired film thickness has been reached.

Operating instructions printed on the unit for easy use.

Simple, Safe Sample Preparation

A wide selection of accessories allow the EM SCD005 to be quickly equipped for a variety of preparation processes:

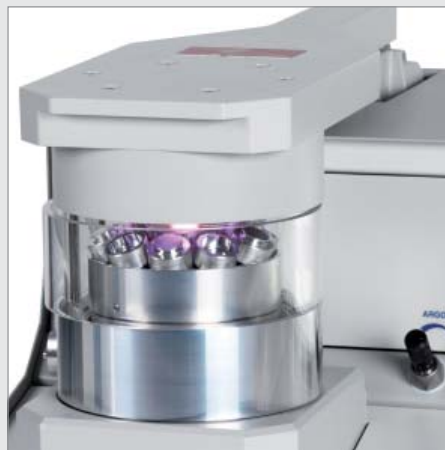
- Fine-grained sputter coatings for SEM using gold, gold/palladium, iridium, silver and platinum
- Conductive coatings on large scale samples (wafers, compact discs, etc)

- Multiple layer systems
- Conductive carbon films on specimens for X-ray microanalysis (EDX, WDX)
- Carbon reinforcement films on collodion or formvar coated specimen support grids



Rotary Stage:

For uniform coatings of highly fissured specimen surfaces.



SEM specimen mounts and stubs:

Manufactured for a wide variety of electron microscopes.

All modules are easily exchangeable



Special Vacuum Chamber:

Optimal for large samples such as wafers and compact discs.



The CEA035 Carbon Evaporation Accessory module is easy to mount either with a single or multiple carbon thread evaporation flange. The carbon thread is covered during the degassing process by a shutter which protects the specimen from damaging heat and impure carbon coating. A standard height adjustable table ensures specimens of varying sizes are set at the optimum distance from the carbon evaporation source. Excellent for preparing films for X-ray microanalysis or carbon reinforcement films for TEM specimen support grids.

Serving Your Coating Needs

Leica Microsystems manufactures an array of high quality sputtering systems.
Ask your local representative about Leica Microsystems' complete product portfolio.

Leica EM SCD050
Super Cool Sputter Coater



Leica EM SCD500
High Vacuum Sputter Coater



Leica EM MED020
Modular High Vacuum Coating System



“With the user, for the user”

Leica Microsystems

Leica Microsystems operates globally in four divisions, where we rank with the market leaders.

• Life Science Division

The Leica Microsystems Life Science Division supports the imaging needs of the scientific community with advanced innovation and technical expertise for the visualization, measurement, and analysis of microstructures. Our strong focus on understanding scientific applications puts Leica Microsystems' customers at the leading edge of science.

• Industry Division

The Leica Microsystems Industry Division's focus is to support customers' pursuit of the highest quality end result. Leica Microsystems provide the best and most innovative imaging systems to see, measure, and analyze the microstructures in routine and research industrial applications, materials science, quality control, forensic science investigation, and educational applications.

• Biosystems Division

The Leica Microsystems Biosystems Division brings histopathology labs and researchers the highest-quality, most comprehensive product range. From patient to pathologist, the range includes the ideal product for each histology step and high-productivity workflow solutions for the entire lab. With complete histology systems featuring innovative automation and Novocastra™ reagents, Leica Microsystems creates better patient care through rapid turnaround, diagnostic confidence, and close customer collaboration.

• Surgical Division

The Leica Microsystems Surgical Division's focus is to partner with and support surgeons and their care of patients with the highest-quality, most innovative surgical microscope technology today and into the future.

The statement by Ernst Leitz in 1907, “with the user, for the user,” describes the fruitful collaboration with end users and driving force of innovation at Leica Microsystems. We have developed five brand values to live up to this tradition: Pioneering, High-end Quality, Team Spirit, Dedication to Science, and Continuous Improvement. For us, living up to these values means: **Living up to Life.**

Active worldwide

Australia:	North Ryde	Tel. +61 2 8870 3500	Fax +61 2 9878 1055
Austria:	Vienna	Tel. +43 1 486 80 50 0	Fax +43 1 486 80 50 30
Belgium:	Groot Bijgaarden	Tel. +32 2 790 98 50	Fax +32 2 790 98 68
Canada:	Richmond Hill/Ontario	Tel. +1 905 762 2000	Fax +1 905 762 8937
Denmark:	Herlev	Tel. +45 4454 0101	Fax +45 4454 0111
France:	Rueil-Malmaison	Tel. +33 1 47 32 85 85	Fax +33 1 47 32 85 86
Germany:	Wetzlar	Tel. +49 64 41 29 40 00	Fax +49 64 41 29 41 55
Italy:	Milan	Tel. +39 02 574 861	Fax +39 02 574 03392
Japan:	Tokyo	Tel. +81 3 5421 2800	Fax +81 3 5421 2896
Korea:	Seoul	Tel. +82 2 514 65 43	Fax +82 2 514 65 48
Netherlands:	Rijswijk	Tel. +31 70 4132 100	Fax +31 70 4132 109
People's Rep. of China:	Hong Kong	Tel. +852 2564 6699	Fax +852 2564 4163
Portugal:	Lisbon	Tel. +351 21 388 9112	Fax +351 21 385 4668
Singapore		Tel. +65 6779 7823	Fax +65 6773 0628
Spain:	Barcelona	Tel. +34 93 494 95 30	Fax +34 93 494 95 32
Sweden:	Kista	Tel. +46 8 625 45 45	Fax +46 8 625 45 10
Switzerland:	Heerbrugg	Tel. +41 71 726 34 34	Fax +41 71 726 34 44
United Kingdom:	Milton Keynes	Tel. +44 1908 246 246	Fax +44 1908 609 992
USA:	Bannockburn/Illinois	Tel. +1 847 405 0123	Fax +1 847 405 0164

and representatives in more than 100 countries