The new Q Plus series
Coating solutions

At Quorum Technologies, we understand that exacting sample preparation is the only way to provide you with clear imaging results. The NEW Q Plus series has been developed to provide optimal coating in a format that's easy to use and comes in a versatile range of products to meet your needs and budget. New features include; an intuitive and fast capacitive touch-screen, status LED illumination and an audio notification when the process is completed, USB port for upgrades and downloads of log files and, with the NEW Q150V Plus, the Q series offers users an ultimate vacuum of 1×10^{-6} mbar.

The Q Plus series is suitable for both sputter coating metals and evaporating carbon coating in SEM, FE-SEM and TEM applications. You can be assured, whatever your sample - the market leading Q Plus series has it covered.

Sputter & evaporation

Q150 Plus series

Q300 Plus series

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The Q Plus series is the latest version of Quorum's internationally acclaimed, market-leading range of coaters, which offer sputter and evaporation coating combined in one easy to use platform. They are increasingly used in high-resolution microscopy, where ultra-fine coating is a must.

The Q Plus series provides users with a versatile, effective and affordable choice of rotary or turbomolecular pumped coaters.
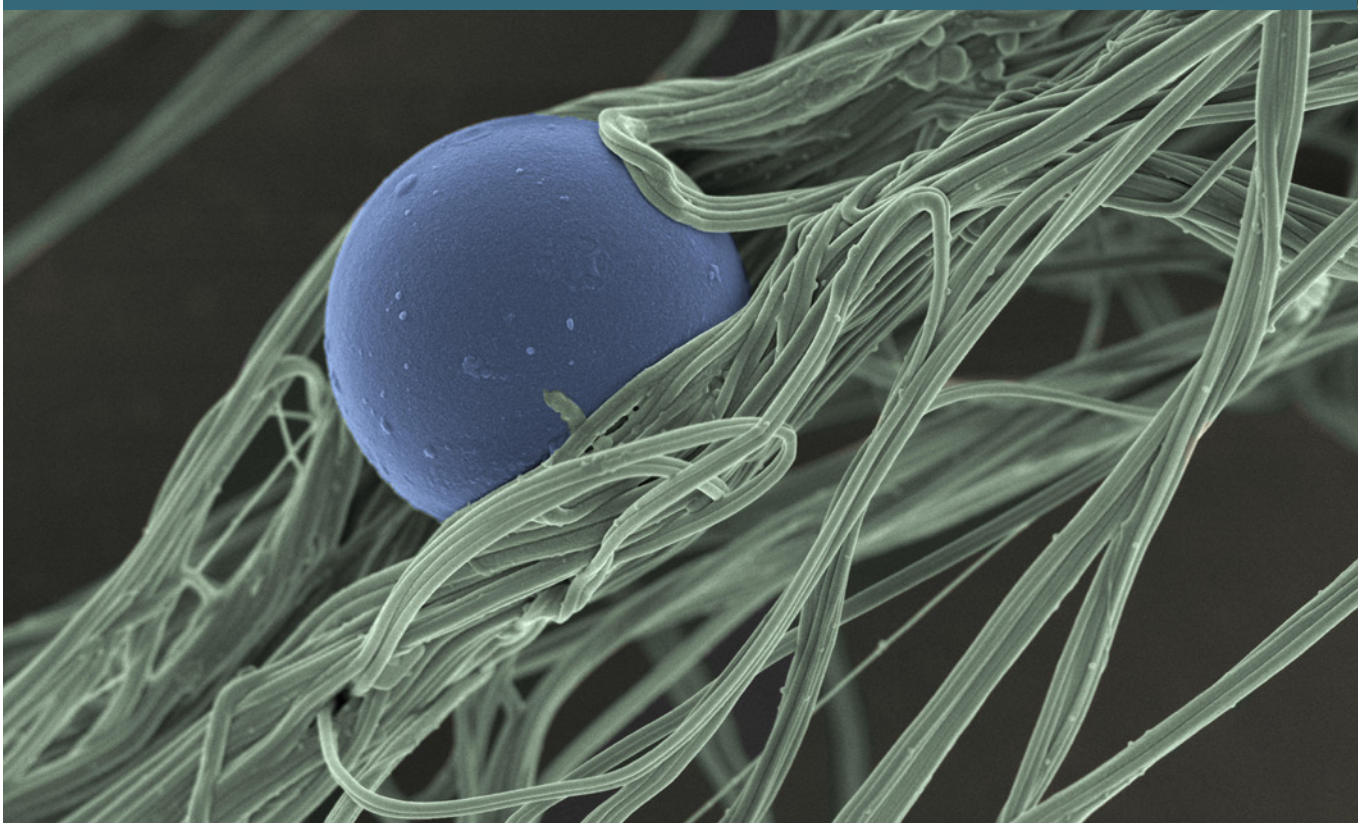
Our sputter coaters are suitable for oxidising and non-oxidising metals alike, while carbon evaporators use easy-change carbon rod and carbon cord inserts.

To offer improved ultra-fine sputtering and carbon coating Quorum have introduced the NEW **Q150V Plus**, which offers an ultimate vacuum of 1×10^{-6} mbar for superior results. The lower background pressure removes oxygen, nitrogen and water vapour from the chamber, avoiding chemical reactions during the sputter process, which could otherwise lead to impurities or defects in the coatings.

Similarly, lower scattering allows for high purity, amorphous carbon films of high density. The **Q150V Plus** offers users the capability to produce finer grain size and thinner coating for ultra-high-resolution applications. (above x 200 k magnification)

The **Q300 Plus** offers users a large-chamber option for specimens up to 200 mm (8in).

Algae spore in spider web, spore size 5 µm coated with 2 nm Cr followed by 1 nm Au mag x 8k
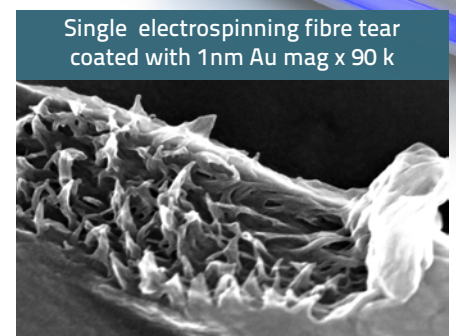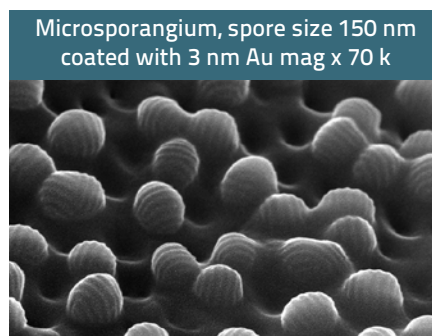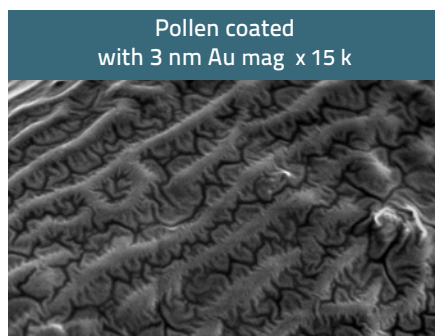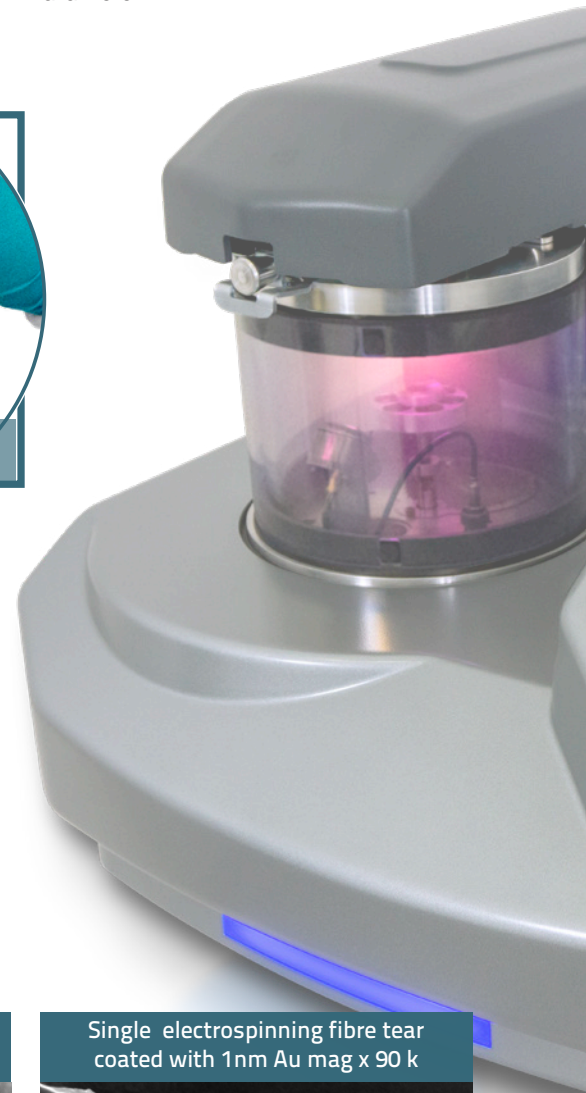
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Q Plus series benefits

- Super fine carbon coating for higher quality imaging using carbon rods and carbon cord
- Wide range of targets available: Au, Au/Pd, Cr, Pt, Pt/Pd, Pd, Cu, Ir, W, ITO, Al (other targets offered)
- New process status indicator with multi-colour LED sequence
- New software allows users to sort recipes per user according to recent use

- New processor with 16 GB of memory allows for more than 1000 recipes to be stored
- New intuitive operator software with responsive capacitive screen
- Interchangeable heads allows the user to configure the system as a sputter coater, evaporator or glow discharge system – all in one space saving format
- Large area of deposition with Q300 Plus up to 200 mm diameter

Status indication through multi-colour LED bar

New touch and swipe user interface

The best coverage

Versatile enough to suit a wide range of applications, the Q Plus series provides the best coating solution for your sample preparation needs. From rotary pumped systems for benchtop SEM specimens to turbomolecular pumping for high-resolution FE-SEM and TEM samples, our products deliver superior quality at an affordable cost of ownership.

Pollen coated with 3 nm Au mag x 15 k

Microsporangium, spore size 150 nm coated with 3 nm Au mag x 70 k

Single electrospinning fibre tear coated with 1nm Au mag x 90 k

The new Q Plus series
Coating solutions

Features	Q150R PLUS	Q150T PLUS	Q150V PLUS	Q300T T PLUS	Q300T D PLUS
New touch and swipe capacitive screen	✔	✔	✔	✔	✔
USB port for upgrades and download of log files	✔	✔	✔	✔	✔
Multiple-user profiles can be set up on one machine	✔	✔	✔	✔	✔
New software sorts recipes per user according to recent use	✔	✔	✔	✔	✔
16 GB of flash memory can store more than 1000 recipes	✔	✔	✔	✔	✔
Status indication through visual multi-colour LED	✔	✔	✔	✔	✔
Audio notification when process completed	✔	✔	✔	✔	✔
Create recipe sequences with simple copy, drag and drop operation	✔	✔	✔	✔	✔
Interchangeable stage options	✔	✔	✔	✔	
Interchangeable plug-in heads	✔	✔	✔		
Capable of achieving vacuum 2×10^{-3} mbar	✔	✔	✔	✔	✔
Capable of achieving vacuum 5×10^{-5} mbar		✔	✔	✔	✔
Capable of achieving vacuum 1×10^{-6} mbar			✔		
FTM control on carbon deposition as an option		✔	✔		
Three sputter heads for large area deposition of different materials				✔	
Single head selection for small samples				✔	✔
Multi-layer deposition of two materials					✔
Benefits	**Q150R PLUS**	**Q150T PLUS**	**Q150V PLUS**	**Q300T T PLUS**	**Q300T D PLUS**
Single system for sputter and carbon coating	✔	✔	✔		
Easy selection for frequently used recipes	✔	✔	✔	✔	✔
Easy configuration of head and stage options for different samples	✔	✔	✔		
Easy to see multi-colour status indicator light from a distance	✔	✔	✔	✔	✔
Ultra-fine grain size coating capability		✔	✔	✔	✔
Ultra-fine carbon coating for high-resolution applications using carbon rods			✔		
High purity depositions			✔		
Large area of depositions - up to 200mm diameter				✔	
Recommended Applications	**Q150R PLUS**	**Q150T PLUS**	**Q150V PLUS**	**Q300T T PLUS**	**Q300T D PLUS**
Low and medium magnifications	✔				
SE Signal boost (1 nm or less)	✔				
Table-top SEM coating	✔				
Elemental analysis	✔				
Copper metallisation of layers	✔				
High-resolution magnification SEM		✔			
Protective platinum layers for FIB		✔			
R&D of corrosion-, friction-, and wear- protective layers		✔	✔		
Protective layers on medical devices		✔	✔		
Carbon coating of replicas		✔	✔		
BSE imaging		✔	✔		
EDX, WDS, EBSD analysis		✔	✔		
Carbon coating of TEM grids			✔		
Ultra-high resolution magnification SEM			✔		
Nano-technology e.g. Zeolites, polymer nanobrushes			✔		
Wafer inspection				✔	
Multiple sample prep for SEM				✔	
Materials applications - ideal for multi-layer coatings					✔