

RotaQ

The New
Generation
of Rotary
Pumped
EM Coaters





Rotary Pumped Coating System

The RotaQ is an automated and versatile rotary pumped coater offering unparalleled ease of use. Recommended for sample preparation for the examination of specimens using Electron Microscopy (EM).

**Available in 3 configurations
based on your application needs**

RotaQ S

Sputter coater for noble metals. Au target offered as standard. Au/Pd, Ag, Pt, Pt/Pd, Pd available as options.

RotaQ E

Evaporation coater for carbon/metal evaporation. Carbon fibre source offered as standard.

RotaQ ES

Combined coater offering both sputter coating and carbon and metal evaporation. Au target and carbon fibre source available as standard. Au/Pd, Ag, Pt, Pt/Pd, Pd available as options.



SPECIALISTS IN ELECTRON MICROSCOPY SAMPLE PREPARATION

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Features

- ⇒ Recommended for low-medium magnification
- ⇒ Suitable for use with Tungsten/LaB₆ SEM and Benchtop SEM
- ⇒ Rapid cycle time for maximum sample throughput
- ⇒ Tilt stage design giving uniform coating of complex 3D structures
- ⇒ Film Thickness Monitor (FTM) to control deposition of coating
- ⇒ Intuitive and responsive touchscreen colour panel design
- ⇒ Multi-colour LED visual status indicator offering process updates
- ⇒ Pre-set recipes for standard protocols resulting in sample reproducibility
- ⇒ Customizable recipes for tailored applications
- ⇒ Easy and quick set-up of profiles
- ⇒ Multiple stage options based on application needs



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Standard Stage

Quorum provides a comprehensive selection of sample stages designed to meet a range of application needs. The adaptable stage configurations enable precise control, making them ideal for coating even the most delicate specimens with accuracy and care.



Tilt Stage (Extended)

Configuration: Available on the RotaQ S and ES



Tilt Stage

Configuration: Available on the RotaQ E and ES

Optional Stage



Rota Cota Stage (Extended)

Configuration: Available on the RotaQ and ES



Rota Cota Stage

Configuration: Available on the RotaQ S and ES

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RotaQ



4" Wafer Stage (Extended)

Configuration: Available on the RotaQ S and ES



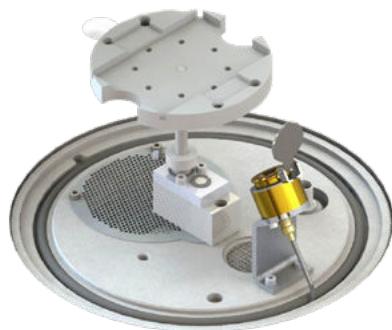
4" Wafer Stage

Configuration: Available on the RotaQ E and ES



Slide stage (Extended)

Configuration: Available on the RotaQ S and ES



Slide stage

Configuration: Available on the RotaQ E and ES



8 Place stub stage (Extended)

Configuration: Available on the RotaQ S and ES



8 Place stub stage

Configuration: Available on the RotaQ E and ES

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EM Applications

RotaQ S

Biological SEM Applications



E3100
Critical Point Dryer



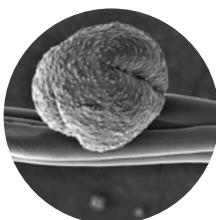
Sample
Mounting



Sputter
Head



RotaQ S
Coating



SEM
Imaging

RotaQ E

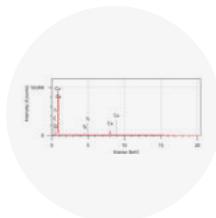
Material Applications



Carbon
Fibre Head



RotaQ E
Carbon Coating



Elemental
Analysis

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RotaQ

Coating Inserts



Sputter Head



Carbon Rod



Carbon Fibre



Glow Discharge

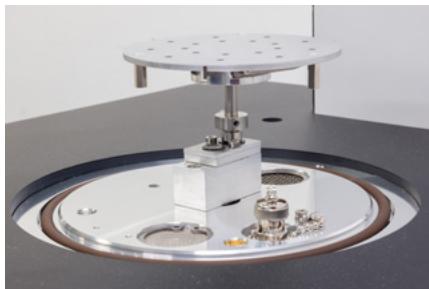


Metal Evaporation

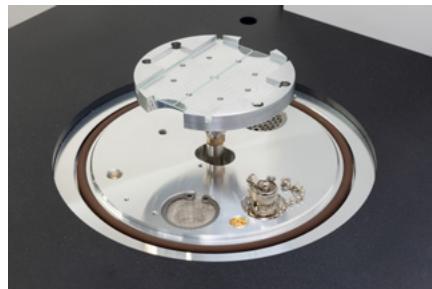
Stage Options



Rota Cota



4" Wafer Stage



Slide Stage

Specifications

Unit Weight	34 Kg (ES model)
Packed weight	48 Kg (ES model)
Instrument size	440 mm (W) x 556 mm (H) x 551 mm (D)
Instrument size with chamber open	440 mm (W) x 860 mm (H) x 551 mm (D)
Specimen stage	Short stage 65 mm (H) from chamber base, 50 mm Ø diameter Tall stage: 145 mm (H) from chamber base, 50 mm Ø diameter
Chamber size	150 mm Ø diameter, 220 mm (H)
Ultimate vacuum	6x10 ⁻³ mbar
Operational vacuum	1x10 ⁻¹ mbar
Vacuum gauge range	1013 – 1x10 ⁻⁴ mbar
User interface	Touch screen colour display
USB connectors	Back-up process log files and recipes easily achievable using a USB Sputter Coater

Sputter Coater (RotaQ S and RotaQ ES)

Sputter target	Target Disc style, 57 mm Ø diameter x 0.1 mm (thickness). Au target supplied as standard.
Specimen Stage	50 mm Ø diameter rotating stage
Deposition Current	10-150 mA
Deposition Rate	0.1-20 nm/min (e.g. for Au)
Sputter Timer	0-60 min

Evaporation Coater (RotaQ E and RotaQ ES)

Evaporation current (rod)	5-75 A (dependent on process)
Outgas current	1-40 A
Carbon source	3.2 mm rods or carbon fibre
Power supply	90 V – 240 V 50/60 Hz, 1350 W including pump

Vacuum specification verified using a Pfeiffer Duo 6 Rotary Pump

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