

QCoat

Quorum

RotaQ



# The New Generation of Rotary Pumped EM Coaters



**SPECIALISTS IN ELECTRON MICROSCOPY SAMPLE PREPARATION**

**E: SALES@QUORUMTECH.COM • T: +44 (0) 1323 810981 • W: QUORUMTECH.COM**



## 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.



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## Features

- ⇒ Recommended for low-medium magnification
- ⇒ Suitable for use with Tungsten/LaB<sub>6</sub> 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**

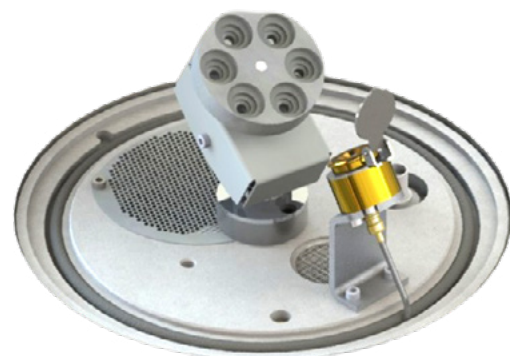
Configuration: Available on the RotaQ E and ES

## Optional Stage



**Rota Cota Stage (Extended)**

Configuration: Available on the RotaQ and ES

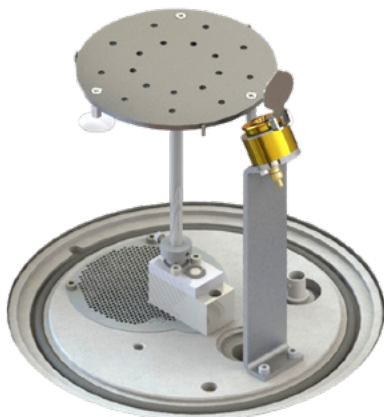


**Rota Cota Stage**

Configuration: Available on the RotaQ S and ES

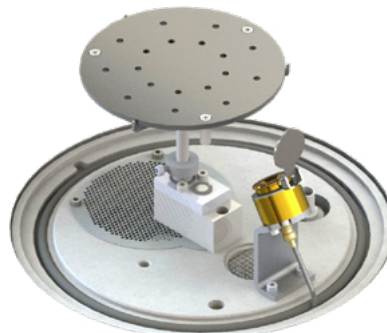
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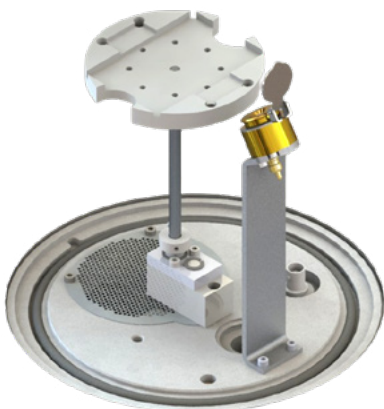
## **4" Wafer Stage (Extended)**

Configuration: Available on the RotaQ S and ES



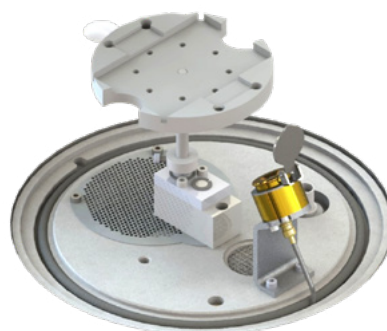
## **4" Wafer Stage**

Configuration: Available on the RotaQ E and ES



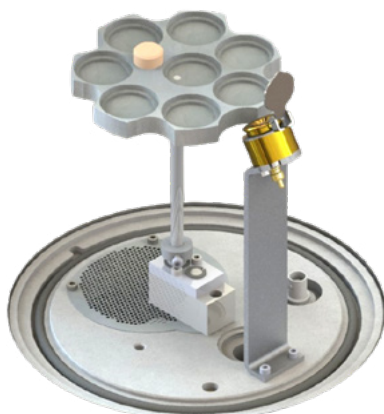
## **Slide stage (Extended)**

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



## EM Applications

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### RotaQ S

#### Biological SEM Applications



€3100  
Critical Point Dryer



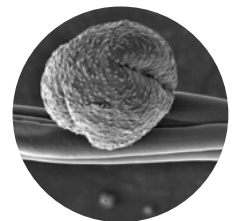
Sample  
Mounting



Sputter  
Head



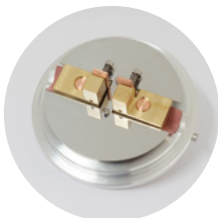
RotaQ S  
Coating



SEM  
Imaging

### RotaQ €

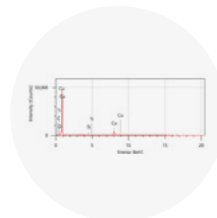
#### Material Applications



Carbon  
Fibre Head



RotaQ €  
Carbon Coating



Elemental  
Analysis

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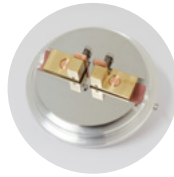
## Coating Inserts



Sputter Head



Carbon Rod



Carbon Fibre



Glow Discharge

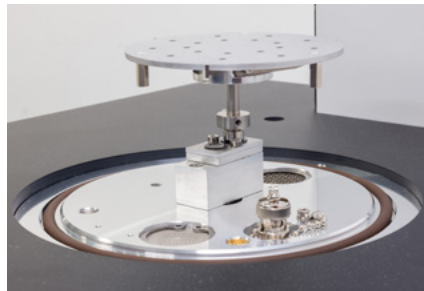


Metal Evaporation

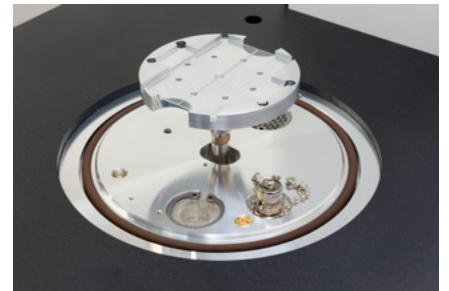
## Stage Options



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	$6 \times 10^{-3}$ mbar
Operational vacuum	$1 \times 10^{-1}$ mbar
Vacuum gauge range	1013 – $1 \times 10^{-4}$ 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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**Quorum Technologies**

Judges House  
Lewes Road  
Laughton  
East Sussex  
BN8 6BN  
United Kingdom

**T:** +44 (0) 1323 810981

**E:** [sales@quorumtech.com](mailto:sales@quorumtech.com)

**W:** [www.quorumtech.com](http://www.quorumtech.com)

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**AVS**

Australian Vacuum Services

**Distributed by Australian Vacuum Services in Australia**

**Australian Vacuum Services**

Western Sydney Startup Hub (Building C104)  
5 Fleet Street  
North Parramatta  
NSW 2151

**T:** 0423 613 086

**E:** [info@australianvacuumservices.com](mailto:info@australianvacuumservices.com)

**W:** <https://australianvacuumservices.com>

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