

# K500X & K550X Automatic Sputter Coaters

fully automatic with 165mm chamber - for non-oxidising metals



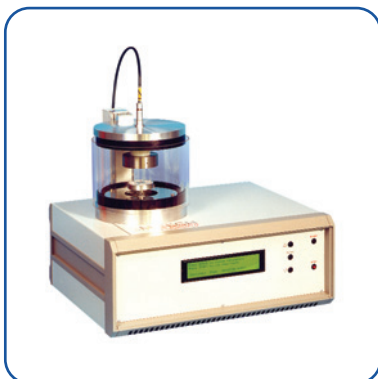
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SPUTTER COATERS



## digital control - 1 button operation



K550X sputter coater

### K500X and K550X Sputter Coaters

The K500X and K550X are industry standard digitally controlled sputter coaters, ideally suited for SEM and other coating applications. The K550X includes a rotating, tilting specimen stage as standard, whilst the K500X comes with a static sample stage. Both K500X and K550X have 165mm diameter chambers and can accommodate a range of specimens and stubs, which together with pre-selectable parameters and fully automatic control, gives defined and repeatable film thickness deposition. A routine cycle time for sputter coating SEM samples with conductive coating (5-15 nm) of gold will typically be less than four minutes. The K500X and K550X are designed to sputter non-oxidising metals (such as Au, Pt, Ag, Pd etc.) A gold sputtering target is fitted as standard.

### Pumping

Requires a 50L/min rotary pump with oil mist filter (see product specifications below).

### Key Features & Benefits

- Menu driven operation - intuitive operation: easy to set up, easy to run
- Low voltage sputtering - cool sputtering conditions
- High resolution fine coating - giving precise reproducible coatings
- Carbon coating option - sputtering and SEM carbon evaporation in one system
- Film Thickness Monitor (FTM) option - repeatable film thickness control

### Options

#### K250 Carbon coating attachment

The K250 consists of a power supply and coating head assembly for carbon fibre or carbon rod evaporation (select at time of ordering). The K250 uses low voltage, high current electrodes between which the carbon fibre is located (or a spring tensioned device for carbon rods). A source shutter protects specimens during the preliminary "out-gassing" of the carbon source. Power is then applied to the electrodes causing the carbon to evaporate.



K550X sputter coater

#### K150X Film Thickness Monitor (FTM)

Comprising an external control unit with oscillator and an internally mounted crystal holder with quartz crystal. Deposition of metal on to the quartz crystal changes the frequency of crystal oscillation; this 'modification' being used to determine the thickness of the metal film which is shown as a digital display.



K150X FTM

#### EK4165 Tilt and oscillate specimen stage

Replaces the standard rotating, tilting specimen stage to give a dynamic movement in two directions.



EK4165 stage

See: [www.quorumtech.com](http://www.quorumtech.com) for full technical specification and additional details.

### PRODUCT SPECIFICATIONS

Supplied with	TK8842 gold target, pump hose and connectors, operating manual and accessory pack, implosion guard
Electrical	230V / 50Hz (10A max including pump), 116V 60Hz (16A max including pump)
Specimen stage	6 concentric stub holes. K550X: Motor driven rotation and tilt facility 0°-90°. Note: the K500X has a static stage
Target	Disc type, 60mm and 0.1mm thick, bonded onto an aluminium backing plate
Additional targets	Please see the "Sputtering Target" table at the rear of this catalogue
Weight & dimensions	450mm W x 350mm D x 175mm H, glass work chamber: 165mm D x 125mm H. Weight: 24Kg (unpacked)
Vacuum requirements	50L/min. or greater (see: Emitech EK317). Range: to 10 <sup>-2</sup> mbar
Carbon coating option	Supplied as standard with carbon a fibre head (rod head available) and comprising: 25V 0-50A PSU, protection shutter and accessory kit including carbon fibre, cleaning brush etc.



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