



# K675X & K675XD High Resolution Large Chamber Sputter Coater

automatic operation with 300mm ø x 200mm H chamber - for oxidising and non-oxidising metals

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SPUTTER COATERS



## sequential coating with full digital control

K675X large chamber sputter coater



### K675X Sputter Coater

The K675X is a large chamber (300mm) fully automatic turbo pumped sputter coater that allows complete 200mm (8") wafers to be coated with oxidising and non-oxidising metals. The K675X has a triple magnetron target assembly which, together with a rotating sample table, ensures even deposition of large samples.

It is not possible to sequentially sputter three different metals from each of the three sputtering heads (for sequential coating of two metals, see the K675XD option). However, with the individual head selection option (EK4125) the operator can choose to sputter using all three of the heads or for economical sputtering of small samples a single head can be selected.

All sputtering parameters (current and sputtering time) can be pre-set. The K695X can sputter noble metals such as gold, and also targets such as Cr and Al that may need pre-cleaning to remove oxide layers. A triple shutter assembly is fitted to protect samples during the target cleaning stage.

### K675XD Dual head system for sequential coating

The K675XD version has two independently controlled sputtering heads and enables the deposition of two sequential coating materials without the need to break vacuum. The K675XD is suitable for samples up to 150mm (6") in diameter.

### Key Features & Benefits

- Three sputtering heads - even coating of large samples such as 8" wafers
- Turbo pumping system - fine grain sputtering of oxidising metals such as chromium
- Fully automatic control - easy to set up, easy to operate
- Menu-driven 'user' key inputs - easy operation by multiple users
- Peltier cooled sputter head - no cooling water required
- Fine coating (order of 0.5nm Cr grain size) - reproducible ultra high resolution coatings
- Rotating stage with full tilt facility - fully adaptable to a wide range of specimens
- 300mm diameter chamber - easy loading and unloading of samples such as 8" wafers

### Options

- K250 Carbon coating attachment (See K500X and K550X for information) **Note:** the K250 has a single carbon fibre or carbon rod source and is therefore suitable for coating small samples (up to 50mm/2"). For carbon coating larger samples see: SC7680 and evaporators
- K150X Film Thickness Monitor (FTM) (See K500X and K550X for information)
- EK4197 Rotate/oscillate sample stage Featuring rotary planetary style movement (see K575X "Options")
- EK4200 Rotate/tilt sample stage
- SC7605 Motorised carbon rod shaper For reproducible "stepped" profile rods
- SEM-Basic-1 Starter kit (Sample mounting stubs, boxes, mounting media and tweezers)

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



three target sputtering head

### PRODUCT SPECIFICATIONS

|                              |  |
|------------------------------|--|
| Supplied with                | 3 x TK8845 Cr targets, pump hose, operating manual and accessory pack, implosion guard   |
| Electrical                   | 230V 50Hz (8A max including pump), 115V 60Hz (16A max including pump)  |
| Specimen stage               | Adjustable for 6 and 8 inch wafers, spacing to target 60mm. Motor driven rotation and tilt (0°-90°)  |
| Targets                      | 3 x disc type Cr targets, 5mm x 0.2mm thick, bonded onto backing plates  |
| Additional targets & options | Please see the "Sputtering Target" table at the rear of this catalogue   |
| Weight & dimensions          | 450mm W x 500mm D x 300mm H (630mm H including chamber). Weight: 42Kg (unpacked)   |
| Vacuum pumping               | 60L/sec turbomolecular pump included. A 50L/min "backing" rotary pump is also needed (see: Emitech EK3175) An optional oil-free diaphragm pump is available for clean room use |
| Operating vacuum             | 1 x 10 <sup>-2</sup> to 1 x 10 <sup>-4</sup> mbar  |
| Sputter timer                | 0 to 4 minutes, typical deposition rate for Cr is 15nm/minute  |



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