Cressington
sputter coater *108auto*

Cressington 108 Sputter Coaters are ideal for routine sample preparation. Compact, economical and simple to operate, they offer rapid pumpdown times, fine-grain coatings and negligible sample heating. Cool, fine-grain sputtering is achieved with a very efficient dc magnetron head. A quick-change target method allows a range of metals to be used. The safety interlocked sputtering supply is fully variable and setting the sputter current is not influenced by vacuum level.

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Illustrated:-

sputter coater 108auto;
thickness controller MTM-20

The Cressington 108auto sputter coater offers the choice of manual or automatic operation. The specification also includes automatic vent (with a choice of vent gas) and argon purge control.In automatic mode the coater can be controlled in two ways. The digital timer can be used to give repeatable coatings or the (optional) **MTM-20** controller can be used to terminate the sputtering process at the desired thickness.The sputter current is set on a digital programmer and is not dependent on the argon gas pressure in the sputtering chamber. Pressure adjustments and current adjustments are carried out separately.

Pumping System

The modular desktop design combines sputter control unit, pumping system and thickness monitor into an area of only 16" x 24" (42cm x 60cm). The desktop pumping system is fully integrated using a quick release all metal coupling system. The compact high speed rotary pump (30sec to 0.1mb) is mounted on an anti-vibration table with a desktop base.The pumping system can be easily extended into a dual pumping system to accomodate the Cressington Sputter Coater along side a Cressington Carbon Coater.

Thickness Monitors

All Cressington sputter coaters have a thickness monitor feedthrough port. Two types of high resolution thickness monitors are available. Each monitor has a 4 digit LED display, push button zero, and crystal lifetime check. Resolution is better than 0.1nm for any material.

specification

Automatic sputter coater

Chamber size	120mm Ø x 120mm high (4.75" x 4.75")
Sputter head	Low voltage planar magnatron Quick target change Wrap-around dark-space shield
Sputter target	Gold fitted as standard (Au/Pd or Pt optional) 57mm Ø x 0.1mm thick
Sputter supply	Microprocessor based Safety interlocked Current control independent of vacuum Digitally selectable current (10, 20, 30 or 40mA)
Sample table	Holds 12 SEM ½" stubs Height adjustment through 60mm
Analogue metering	Vacuum, Atm - 0.001mb Current, 0 - 50mA
Control method	Automatic operation of gas purge and leak functions Automatic process sequencing Full manual override Digital timer, 5 - 300 seconds with pause Automatic vent
Thickness monitoring	Optional, MTM-10
Thickness control	Optional, MTM-20 with termination facility
Dimensions	Width 420mm (16.5"), Depth 295mm (11.6"), Height 287mm (11.3")
Weight	11Kg (24.3 lbs)
Power	45 VA max (excluding rotary pump)

Pumping system

Rotary Pump	High speed, direct drive 2-stage
Pumping speed	2.5/3.0 m^3/hr (50/60Hz) Pumpdown time to 0.1mb is 30/25 sec.
Desktop system	Vacuum pump is mounted on desktop compatible anti-vibration table All metal vacuum coupling system
Dimensions	Width 330mm (13.0"), Depth 215mm (8.5"),

	Height 210mm (8.3"), 270mm (10.6") with filter
Weight	15Kg (33.2 lbs)
Power	130 VA

Services required

Supply	100 - 120 or 200 - 240 VAC, 50/60Hz (specify on order)
Power	175 VA max.
Argon gas	Purity, min. 99.9% Pressure, regulated 7 - 8 psi (0.5 - 0.6 bar) Hose connection, 6.0mm (¼")