



## JEOL SMART COATER

Thin film conductive coatings are effective in eliminating charging with non-conductive materials or enhancing secondary electron emission. JEOL's Smart Coater is a fully automated sputter coater that applies a fine grained gold or platinum (option) coating on samples for imaging in a scanning electron microscope.

This coater uses a low voltage discharge technique with a magnetron electrode for high efficiency, cold sputtering. Low voltage sputtering, as well as having the sample isolated from the electrode, minimizes sample damage.

JEOL's Smart Coater is simple to use with fully automated vacuum and sputtering. Insert your samples, turn the unit on and select the sputtering time. The chamber will evacuate and sputtering will begin automatically. When the unit is powered down, it vents to atmosphere.

Thickness of the coating is influenced by distance from target, distance from center of the stage as well as sputtering time. As a reference, listed below are basic coating conditions and resulting film thicknesses.

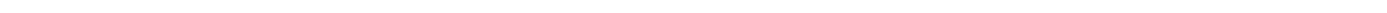


Gold (Au) Target:      Sample at 20mm (WD)  
   5nm at 1min, 10nm at 2min

Platinum (Pt) Target:    Sample at 20mm (WD)  
   4nm at 1min, 8nm at 2min

## BASIC SPECIFICATIONS

<b>Pressure</b>	4 Pa
<b>Chamber size</b>	86 mm (d) x 100 mm (h) ; hard glass
<b>Target size</b>	Au : 49.5 mm (d) x 0.1 mm (t) Pt : 49.5 mm (d) x 0.05 mm (t) [option]
<b>Target electrode</b>	20 mm (d)
<b>Sample stage size</b>	70 mm (d)
<b>Sample stage height</b>	adjustable to target (10 mm – 50 mm)
<b>Sputter time</b>	0.5 min / 1 min / 2 min (fixed)



## COMPOSITION

Sputter coater	1
Rotary pump (> 30 l/min)	1
Au target	1
Oil mist trap for RP	1
Vacuum hose	1 (2m long)
Power cable	1

## BASIC INSTALLATION REQUIREMENTS

Clean, dry, dust free surface with space of 300 mm x 300 mm

Temperature	15 – 30 °C
Humidity	less than 70%
Power	single phase 220V 50 Hz
Ground	grounding terminal (one, 100 Ω or less)
Sputter unit size/weight	203 mm (w) x 270 mm (d) x 325 mm (h), 6 kg
RP	120 mm (w) x 289 mm (d) x 163 mm (h) , 9.3 kg

Note : carbon coating is not available with this model.