HUMMER 8 Series SPUTTERING SYSTEMS

Siemens S7-200 “Touch-Panel” Control Package

HUMMER SERIES
8.1 DC, 8.2 RF, 8.3 DC/RF

QUARTZING
CV DOT MATRIX
FAILURE ANALYSIS
MATERIALS RESEARCH

SEMICONDUCTOR RESEARCH
MICROELECTRONICS RESEARCH
RENEWABLE ENERGY RESEARCH

HUMMER 8.3
Shown with optional water chiller
Anatech Hummer 8 Series

Performs sputter coating, a cold process in which ions impacting a metal source dislodge metal atoms. The atoms disperse throughout the process chamber to uniformly coat irregularly shaped specimens without thermal damage. Sputter coating produces high quality coatings whose thickness is repeatable and easily controlled. Cold, fast sputter rates require less time, giving you more time for microscope examinations.

STANDARD BENEFITS / FEATURES
High sputter rate of metals with DC power and/or sputter insulators with RF power supply.
Operator safety assured with interlocks for vacuum and power
Automatic slow venting at termination of process.
Stainless steel chamber
Siemens control package
Pass word protected control package
Sample stage accommodates up to an 8-inch (200-mm) substrate or multiple smaller substrates.
Stage rotates and adjusts 2" vertically.
A two-stage direct drive rotary pump assures rapid pump-down.
Easy access to pump oil fill and drain ports simplify maintenance.
Turbo High Vacuum pump is internal to the cabinet.

OPTIONS
Wide selection of targets
Multiple Sources
DC and RF power upgrades
Water chillers
Thickness monitors
Pneumatic source shutters
High vacuum 3-position throttle valve
Oxygen service preparation
Cryo pump

PLATING WITH A HUMMER™
Depending on the metal source installed, Hummers can deposit thin films of gold, gold/palladium, silver, platinum and other metals or insulators. To use a different metal source, simply pull out one, and push in another. The HUMMER top plate lifts off for easy target change and maintenance.
The stage accepts many sizes of substrates up to 200 mm. The stage rotates under the sputter head(s) to achieve uniformity over a 200-mm diameter substrate. The cool, Omni directional shower of secondary ions and neutrals produces finer-grain deposits than thermal coating processes. When processing is finished, a solenoid controlled vent valve slowly brings the process chamber to atmospheric pressure, preventing turbulence. This also assures that oil cannot migrate from pump to process chamber, as can happen with manually vented systems.

RUGGED, RELIABLE DESIGNS
Hummer systems are built to deliver many years of faithful service. Since that first system made in 1970, more than 5000 Hummers have been installed all over the world.
Vacuum connections are made and checked for leakage during manufacture, assuring vacuum integrity and allowing you to start working sooner because little assembly is required. Safety interlocks protect both operator and equipment.
Anatech USA backs Hummer products with excellent customer service and support. A full line of spare parts is available for product maintenance.

SPECIFICATIONS
Power requirements - 190-220 VAC, 50/60 Hz, 20 Amps
Power output - 1500 watts DC power supply
300 watt RF generator with auto-matching network
Dimensions - 26" D x 21" W x 48" H (cabinet)

CALL ANATECH USA TODAY TO DISCUSS YOUR APPLICATION
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