SMART Evaporation PVD
Versatile Research Physical Vapor Deposition

SVT Associates, Inc.
• Leading manufacturer of thin film deposition equipment since 1990
• In-house laboratory for materials research and process development
• Established a diverse range of deposition components, systems, integrated sensors, and process control
• Developed strong combination of equipment manufacturing and process know-how
• Seven Applications Laboratory deposition systems producing world class materials
• Diverse system product line spanning the thin film deposition market
• Leading supplier with over 120 systems in the field

SMART Evaporation PVD
• The SVTA SMART (Scientific Materials and Applied Research Tool) Physical Vapor Deposition System is a unique research tool. Combining multiple deposition techniques in a single chamber allows researcher to continually develop complex materials for the future as well as simple processing techniques.
• The compact footprint preserves laboratory space.
• Optional in-situ monitoring tools provides the user with enhanced process feedback.
• Available load lock sample handling allow the SMART system to interface with other deposition or metrology tools.

Applications
• Multiple Technique Thin Film Deposition
• Ohmic Contact Deposition and Annealing
• Ion Beam Process (Etch and Deposition)
• Semiconductor Mask Preparation
• Metallization
SMART NanoTool PVD-Thermal and E-Beam Deposition Tool

SMART NanoTool T-01 and SMART NanoTool E-01:

BASE SYSTEM
Chamber and Vacuum Pumps
  12" Quick Access Door, 250l/s Turbo Pump

Deposition Sources
SMART NanoTool T-01
  Three Thermal Evaporation Boats with Shutters
SMART NanoTool E-01
  Water Cooled 4-Pocket Electron Beam Evaporator

Deposition Stage
SMART NanoTool T-01
  1" (25 mm) Sample Size, Continuous Rotation
SMART NanoTool E-01
  1" (25 mm) Sample Size, Heating to 800 °C, Continuous Rotation, z-Direction Translation

In-Situ Process Monitoring Tools
Quartz Crystal Deposition Rate Monitor

Gauges
Full Range Gauges

ADDITIONAL OPTIONS
Deposition Sources
  Thermal Evaporation Sources, Effusion Cells, Sputter Sources, E-Beam Evaporators

Deposition Stages
  Multiple Options Up to 3" Sample Size

Metrology Tools
  RHEED Packages

Vacuum Packages
  Ion Pumps, Turbo Pumps, Cryo Pumps, Gate Valves

Gauge Packages
  Multiple Gauge Packages Available

Gas Control Packages
  Mass Flow and Leak Valve Packages

Loadlock Package
  Loadlock, Docking and Transfer Configurations

AUTOMATION
Advanced Automation Packages Available