

DUAL TARGET TABLE TOP SPUTTER COATER



MAIN FEATURES

- COMPLETELY PORTABLE STAND ALONE TABLE TOP MODEL
- DESIGNED FOR CO-SPUTTERING AND SEQUENTIAL LAYER DEPOSITION
- EXCELLENT INTERFACIAL PROPERTIES WITH GRADED LAYERS
- TARGET ASSEMBLY WITH EASILY REMOVABLE TARGET / BONDING PLATES WITH INDEPENDENT SHUTTER
- SPECIMEN HOLDER TO PROVIDE ROTATION AND DISTANCE ADJUSTMENT (FROM TARGET)*
- PULSED DC POWER SUPPLY FOR METALS AND REACTIVE SPUTTERING†
- TURBO MOLECULAR PUMP TO PROVIDE FAST AND CLEAN OILFREE HIGH VACUUM
- USER FRIENDLY FRONT PANEL COLOR LCD BASED TOUCH SCREEN HMI CONTROL
- PLC BASED PROCESS AUTOMATION WITH RECIPE MANAGEMENT‡
- SUBSTRATE HEATING FACILITY UP TO 250°C
- LOW FOOTPRINT WITH UNIVERSAL SINGLE PHASE INPUT POWER AND LIMITED UTILITIES REQUIREMENT
- “CE” CERTIFICATION

* Optional

† Possible only with additional Mass Flow Controller for Reactive gas

‡ With manual override



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Magnetron Sputtering Configuration

Confocal Magnetron Sputtering Cathode Configuration in Sputter-down mode. Round magnetron cathodes typically use standard 2" diameter target in clamp-on fashion. Cathode is equipped with independent shutter. Compact magnet plate makes use of rare earth magnets enabling high rates of deposition. The unit is provided with Pulsed DC power supply of 350 Watts/ 30 kHz. The cathode, however, is also compatible with RF power supply which can be supplied separately. Cathodes which can sputter magnetic materials such as Fe, Co etc. can be provided on requirement. Substrate stage is supplied with facilities such as rotation and heater. Electrical isolation can be provided for the purpose of biasing optionally. Identical configuration is also available with 3" diameter Cathodes.

Substrate Diameter: Sputter coater can handle samples up to 2 inch diameter. Type of substrate can be silicon wafer, glass, metal, ceramics etc. Large substrate table size for coating bigger samples can be provided on request which can be used with 3" diameter round cathodes.

Substrate Heating: Substrate heating is provided up to 250°C.

Substrate Rotation: Substrate table is provided with 5 – 30 rpm rotation facility with change of target to substrate distance.

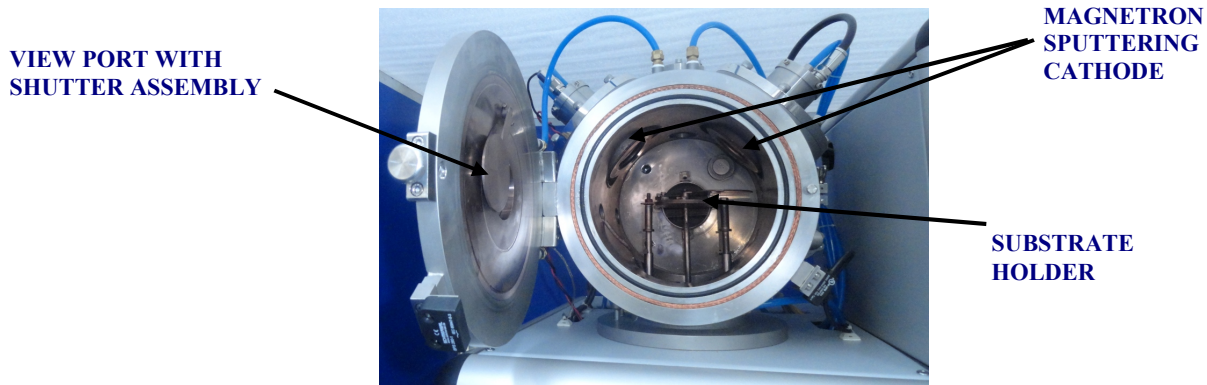


Image of Substrate Holder Assembly & Sputtering Assembly

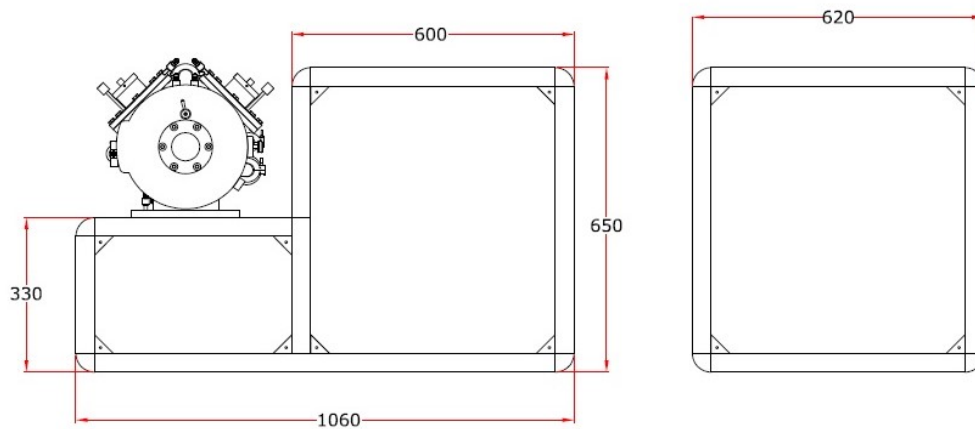


The system is operated through color LCD based touch screen (HMI) located on the front panel. The operation is in Manual as well as Auto mode. USB port on front panel provides data logging facility to record and download process parameters. Separate port is provided which can be utilized for software upgrades and remote maintenance. Installation and commissioning of equipment does not require elaborate set up in terms of utilities and space. The system is table top and does not require more space. It consumes low power (Single Phase) and a small water chiller can take care of all the cooling requirements. There is no requirement for compressed air.



Some additional Optional Items that are available with equipment are Quartz Crystal based Digital Thickness Monitor, RF Power Supply or additional Pulsed DC Power Supply, additional Mass Flow Controller for Reactive Gas etc. Requirement of any target materials can be addressed.

Schematic with dimensional details is given below[§]



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[§] All dimensions are in mm

