



Multi-Cathode Sputter Deposition System

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The SYSKEY Technology of vacuum system is designed for research, development and pre-production application in all branches of science and industry. Our company offers many years of experience and expertise in vacuum technology, so that we can provide you with a fully tailored system for your specific requirements

Exclusive Agent in China Mainland:
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Multi-Cathode Sputter Deposition System

Applications

The Magnetron sputter is used for Physical Vapor Deposition of thin-film, Metallic and oxides multi-layer system. our sputter system is designed for R&D activities, development and pre-production application in all branches of science and industry.

Applications:

- Materials research
- Thin film research
- Pilot production

4 Cathodes

Our team keep developing new designs and improving the previous ones. We identify the best features in competing products and integrate them into ours.



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Multi-Cathode Sputter Deposition System

6 Cathodes



System Features



We are not only effort to provide accurate and reliable reproducibility equipments but also make inexpensive equipments

Applications:

- Stainless deposition chamber
- Multi-cathode DC/RF magnetron sputtering
- +/- 5% or better uniformity
- RF, DC or pulsed DC cathode power supplies
- Planetary substrate rotation system
- Automated process operation
- Substrate size up to 6"
- 10^{-6} torr in 30 minutes
- Sputter "up" and "down" configurations
- High vacuum pressure $\leq 10^{-8}$
- Substrate heating available 500°C



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Substrate Holder



The sputter system substrate holder can be continuously rotation during sputter deposition for maximum film thickness uniformity and option substrate water-cooled to prevent heat build-up and substrate damage during long substrate runs.

The substrate holder is fully insulated to allow the application RF power or DC bias for sputter-etch substrate cleaning and bias sputtering during deposition.

The planetary substrate designed to be provide maximum film thickness uniformity.

Sputtering Gun



The magnetron sputter cathodes provide high deposition rate and excellent target utilization. The target source can be scaled up to 6 (inch) and fitted as upward or downward sputtering available.



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High Vacuum Valve

The evaporate system is use high quality valve to ensure the system safety.

Main Valve — HVA fast reacting gate valve

Vacuum range: Atmosphere to 7.5×10^{-9} Torr
Helium Leak Rate : 7.5×10^{-11} Torr l/s
Minimum Life Cycle > 500,000

High vacuum valve — SMC XLA series

Vacuum range: Atmosphere to 7.5×10^{-9} Torr
Helium Leak Rate : 1×10^{-10} Torr l/s
Minimum Life Cycle > 1 Million

Throttle Valve

High speed motor and gear/driver assembly provides fast response to a given set point to quickly achieve desired pressure and increase system throughput.

Speed (open/close) : 1.7 sec

Resolution : 1/12,000

Differential Pressure : 1 ATM

External leakage at shaft seal: 1×10^{-8} sccm/sec He

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Software Control



The Control system is easy-to-use graphical system and provides plenty of functionality for building customer applications. The vacuum system software provides authority manage, process control, data base link, auto service, remote monitor with "soft" valve interlocks. Also software includes chart and graph control for you to display the waveforms acquired from data acquisition device.

Available options include:

- Authority manage
- Automatic process control
- Data logging and history search
- Multi-layer
- Real time trend graphing
- Safety interlocks and alerts