

# PVD Products provides a wide variety of high quality magnetron sputter deposition systems to meet customers' thin film deposition requirements.

Our systems use PVD's Titan Magnetron sputter sources with our field proven fully modular magnetic array. Systems come with complete pumping stations, vacuum gauges, power distribution box, frame, electronic racks, water and air manifolds, and safety interlocks.

Our systems can be operated manually or via computer control. Substrate rotation stages include heating to temperatures of 950°C or higher in certain applications. Cooling stages are also available. Heaters and manipulators can be designed for non-standard substrate shapes and sizes.

# Magnetron Sputter Deposition Systems



## **Magnetron Sputter System Interior**

PVD sputtering system with 5 Titan con-focal magnetrons with tilt & pneumatic shutters



### Load Locked Magnetron Sputter/e-beam System

Includes three 3" Titan magnetrons with in-situ tilt, UHV three pocket e-beam evaporator and RF biased substrate heater. Includes metrology suite with RGA, RHEED, and in-situ ellipsometry.

Systems can be configured for sputter-up, down, or sideways with confocal or normal incidence source arrangements. Systems options include tiltable magnetrons, RF bias, multiple power supplies and DC, RF and RF/DC switching, load locks, quartz crystal rate monitors, fully automated computer control with full data acquisition, and metrology tools such as RHEED, ellipsometry, and in-situ stress measurements.

We can provide a standard or fully customized system depending on your application.

# **MAGNETRON SYSTEMS**



# **Dual Head Facing Magnetrons**

Low energy film growth. Includes motorized rotation for computer controlled multi-layer film growth.



## **UHV Sputter System**

Four magnetrons on linear Z-stages, 1200°C substrate heater, integrates into DESY Synchrotron beam line.



#### Sputter-Down Box Style Chamber

Four 2" Titan Magnetrons, 100 mm RF biased 850°C substrate heater, load lock and full computer control.



**Sputter-Down System** 150 mm wafers, three 3" Titan Magnetrons, 850°C heater, load lock and full computer control.

# **PVD Products**

Fueled by creative problem-solving, our team of experienced engineers and technicians is passionate about finding the best solution to your unique deposition system demands. We provide end-to-end support, from design through installation and continuing maintenance.