



Side Sputter System

Silicon Processing

Compound
Semiconductor

Flat Panels

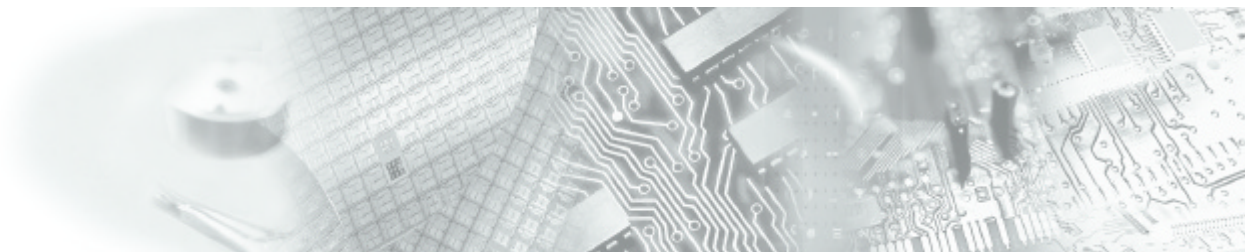
Spindle Coating

Precision Optics

Storage Media



This Side Sputter System may be used in a wide variety of sputtering applications. The pump is side mounted with high conductance valving and a variable orifice plate coupled in an extremely compact manner. The **chamber** (shown above) is constructed of 304 stainless steel, 24" in diameter and 19" high. Other sizes are available up to 40" in diameter. Sources are side mounted on Viton O-ring sealed flanges. Chamber sides are faceted allowing easy addition of feedthroughs as desired. A 4" viewport is installed in the front of the chamber. The system bottom plate is easily removable, Viton O-ring sealed and is entirely useable for mounting tooling and accessories. The top plate is Viton O-ring sealed and is supported by a hydraulic hoist allowing ample vertical travel. The vertical axis drum substrate tooling is mounted from the top plate. Substrate carriers are easily removed from the drum for substrate load and unload. The chamber is supported by a welded steel tube frame at a height that allows ease of operation and service. The pumping stack and all valving is enclosed but readily accessible for maintenance. A dual 19" instrument rack allows the positioning of all controls for convenient operation.



Side Sputter System

1 button process control

Low particulate generation

Easy to load and un-load

Compact design

Several fixture designs to choose from

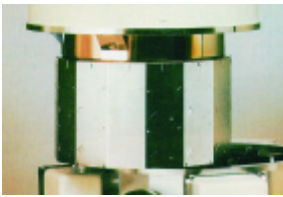
RF and/or DC sputter capability

All **valves and gauges** are electro-pneumatically actuated and all actuators are bellows sealed. Viton O-rings are used for all static seals. A complete set of gauging ports and sensors are provided. Rough vacuum is sensed by two Hastings-type thermocouple gauges and high vacuum is measured using Bayard-Alpert gauges mounted in the chamber and the cryopump. A metal sealed port is provided for the addition of the RGA of your choice.

SCT provides a standard PLC industrial **controller** with automatic valve sequencing, pressure readout and complete executive control of your process. The controller can sense both analog and digital signals and drive devices ranging from solenoids to motors to deposition instrumentation and power supplies.

All system **wiring** and workmanship conforms to OSHA and SEMI standards. Power wiring is conservative, fully interlocked and easy to service or modify. Actuator signal wiring is 24 volt or lower and all control logic uses industrial grade 12 volt signal levels for an exceptional degree of noise immunity.

SCT can custom configure your system with substrate carriers, sputter sources, power supplies and custom electronics.



Standard Substrate Fixturing - Vertical Axis Drum with RF Bias/Etch Capability

304 Stainless steel carriers. Easily removable for substrate loading. Variable speed control and optional programmable single pass mode.

Chamber Construction

Electropolished stainless steel; side pumped; 4" viewport; 2-3/4" metal sealed flange RGA port; 1" diameter feedthrough holes as quoted.

Top and Bottom Plate

Electropolished stainless steel . 70" thick; Viton O-ring sealed; source, tooling and feethrough holes as quoted.

Frame and Cabinetry

Welded steel tube frame; adjustable feet; formed steel panels; hinged front and rear doors; side panels hung with magnetic retainers, baked, textured enamel finish

Hoist

Heavy duty; hydraulic/electropneumatic control; fully interlocked; fail safe on power loss.

High Vacuum Pump

Cryogenic or turbomolecular pump for clean, high speed pumping.

Roughing Pump

A gas ballasted two-stage mechanical pump or dry pumps available. The mechanical pump is a direct drive type and is connected to the roughing manifold through a 1-1/2" diameter flexible stainless steel vacuum line. It is arranged for remote location.

Air

80 PSIG min.: 1/4" NPT

Power

208-240/380-440 VAC, 3 phase, 50/60 Hz service; master breaker; individual pump and accessory breakers; tapped primary 115 V, 10 Amp isolation/stepdown transformer for instrument power; convenience 115 V outlet strip.



SYSTEM CONTROL TECHNOLOGIES

322 Lindbergh Avenue
Livermore, California 94551 - USA
PH: (925) 373-9730
FX: (925) 373-9574
www.systemcontroltechnologies.com