

# SYSTEM SOLUTIONS

## Evaporator Systems



*ISE PVD 1000 Series*

*Innovative Systems Engineering* Evaporator Series is engineered to have unprecedented versatility and robustness. A unique combination of modular Hardware and Process Control Design has produced systems with unsurpassed integrated features. Simplicity in Design, Ease of Operation, and Unmatched Reliability make it an excellent choice for a Wide Range of Coating and other applications.

**Configuration and Size** is driven by our customer's requirements, and therefore *ISE* offers standard functional designs that are configurable.

**Chamber Designs** include but are not limited to: Box, Top or Side Load; Load Lock/Cassette to Cassette; Multiple Chambers/In-Line; and Isolated Source Chamber Section to Substrate Section.

**Fixtures/Planetary** can be standard Single or Multiple Knudsen; Flat Two Axis Counter Rotation with In-Situ adjustable Source to Substrate; Distance, Deposition Incidence Angle, and Angular Control Flip with Manual or Stepper Control.

**Process Flexibility** is evident in our Systems. One or a combination of Processing Sources may be configured in our System. Multiple Electron Beam with Multiple Pocket Configuration; Ion Beam; Thermal Evaporation [Boat, Wire]; Knudsen Cells; and/or Magnetrons; Plasma [Clean, Etch, Deposition]. Process Sources can be any commercial or *ISE* Designed Source.

**Instrumentation and Diagnostics** may be any commercially available or *ISE* Designed System. Typical Configurations utilizes Inificon or Maxtek Source & Substrate Rate Control, Spectra Optical Monitoring/Control of Reflectance and/or Transmission Properties, and Device

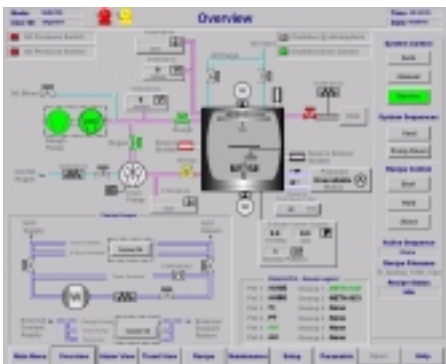


Warminster PA  
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Optimization Software by "The Thin Film Center".

**Vacuum Performance** has a typical Base Pressure of  $8 \times 10^{-8}$  torr for a clean, dry, and empty chamber overnight. Pumpdown from atmosphere to  $8 \times 10^{-7}$  torr in 30 minutes.

**Process Control** and Automation is the Trademark of all ISE Systems. ISE's automation package ISEWare™ provides real-time monitoring and control of the actual process via a Touch Control Screen depicting a graphical representation of the process.



Overview of Process

ISEWare™ operates on Windows NT platform, providing necessary data access, and communications that overcome compatibility and connectivity issues.

ISE Systems provide our customers with Plant Wide Connectivity and Remote Access to the System via Internet for process monitoring and diagnostic purposes.

The ISEWare™ is configured to provide recipe management, alarm management, security, real-time/historical trending, data collection, maintenance and analysis tools.



Data Collection and Viewer

ISEWare™ allows the user to store, and retrieve production data, process data, and test measurements from our local data repository for analysis.

**Process Development and Support** is available to all of our customers, whether it is a new process or an existing process. Our experienced staff is available to help maximize your system's performance.

Of course ISE supports options. ISE also welcomes other configurations that may assist their customers with development of next generation processes and/or products.

## Options:

- Water Vapor Cryogenic Pump
- RGA/Optical Monitoring and other In-Situ Diagnostics
- Multiple Crystal Sensor
- Substrate Heating
- Cold/Hot Water Loop Cycling
- Remote Access
- Manufacturing Execution System [MES] Interface
- Device Net Interface
- GEMS/SECS Interface
- Bar Code Scanner