



## FCE-4000 Load Lock Evaporation System, fully upgraded

TES can modify any aspect of our remanufactured process tools to meet individual customer specifications

- Fast-cycle load lock electron beam evaporator.
- 4-pocket E-gun, 67cc per pocket with ferrofluidic drive.
- 14 KW electron beam power supply.
- 21,000 watt substrate heating array with motorized shutters.
- Ion Tech 5 cm ion source.
- 1250 watt RF biasing of the substrate dome.
- 5 KW DC biasing of the substrate dome.
- Gas distribution ring with down-stream pressure control.
- Fully automated one button process using a state-of-the-art PLC and color touch screen control system. PLC allows TES and customer maintenance staff to assist in remote diagnostics and testing through phone lines anywhere in the world.
- Extensive data logging and trending reports for real time analysis are used for process stability and vacuum performance evaluation.
- Inficon model IC-5 thickness controller with dual sensor heads.
- Soft start/stop rotation control.
- Soft roughing/venting.
- CTI-5000 cryo pump on the lower source chamber.
- Through the wall cleanroom installation.
- Motorized substrate dome lifting cart.

# TEMESCAL FCE-4000

(831) 429-8992 · 140 Sylvania Ave., Santa Cruz, CA 95060-2134 · FAX (831) 429-5015 · E-mail: [tesmail@temescal.com](mailto:tesmail@temescal.com)



· [www.temescal.com](http://www.temescal.com)

# TEMESCAL FCE-4000

- TES has redesigned and remanufactured this system with ease of maintenance as a priority. DeviceNet gauges, mass flow controllers, motor controllers, input modules, and fiber optic sensing units all have individual diagnostic indicator lamps to show current status. Each of these components has been conveniently placed for easy viewing and access for servicing. This allows the maintenance technician to readily view and diagnose the status of any module.

- The removable panels and covers on the system can be provided in electro-polished stainless steel or powder coated to match the facility color scheme, which reduces particulate contamination and improves and increases long-term appearance.

- A two-part training CD is provided, the first portion of which offers a detailed demonstration of system operation. The maintenance portion of the training CD provides visual and audio assistance in regular maintenance tasks, helping to clarify the written instruction and mechanical prints provided in the manual.

- The DeviceNet digital communication network is used between system components. This single cable, serial communication method simplifies the system design and reduces traditional wiring by over 75%. Built-in network diagnostics make troubleshooting, maintenance and upgrades quick and easy, reducing downtime and increasing productivity.

