

# SYMPHONY®

INNOVATIVE DESIGN HARMONIZES THIN FILM TECHNOLOGY AND EQUIPMENT AT ITS BEST



 **TECPORT**

## Symphony Delivers That Precise Combination.

Companies across the globe are looking for innovative ways to reduce costs while continuing to provide their customers superior products and services. Tecport provides the precise combination of thin film technology and systems integration that enables manufacturers to reduce cost, to increase production capability, and to create the competitive advantage needed to survive in today's aggressive marketplace.

Symphony realizes the customer's vision of functionality and features that bring value to production.

- Flexible evaporation techniques.
- Integration of the most sophisticated and time-tested instruments by industrial leaders.
- Advanced yet simplified software design to satisfy the most demanding engineer, and yet still provide a very user friendly interface for the beginning technician.
- Complete process automation, remote control, trending, data analysis and recovery.



**SYMPHONY 9**



**SYMPHONY 15**

## MODELS

**SYMPHONY 7**  
750mm diameter

**SYMPHONY 9**  
900mm diameter

**SYMPHONY 10**  
1050mm diameter

**SYMPHONY 12**  
1200mm diameter

**SYMPHONY 15**  
1500mm diameter

## SYMPHONY ADVANTAGE

### SERVICE AND SUPPORT

Our motto "We serve to serve again." expresses our relentless drive for customer service - providing preventive maintenance and repair, training and technology support, process development, and continuously building a world wide service network of qualified technicians and engineers.

### DELIVERY

Shipping time is 12 weeks ARO, unrivaled by other manufacturers in the industry.

### TROUBLE FREE COMMISSIONING

During commissioning, Tecport will not only satisfy the equipment specifications and integrity, but also will assist our customers in process development and fine tuning system parameters. By the end of commissioning, our customers are equipped with the training and process setup to start production immediately.

## GENERAL SPECIFICATIONS

### CHAMBER

304L Stainless Steel Construction

### ULTIMATE PRESSURE

10<sup>-7</sup> Torr Range

### SUBSTITUTE FIXTURE

Dome, Flat Planetary

### EVAPORATION MONITORING

Crystal Monitor, Optical Monitor

### PROCESS CONTROL

Symphony's user friendly operating software, OPUS, provides process control, data logging, recipe builder, report generation, and remote access capabilities.

### EVAPORATION TECHNIQUES

Thermal Resistance Evaporation, Electron Beam Evaporation, Ion Assisted Deposition (IAD), Ion Beam Sputtering (IBS), High Density Plasma Assisted Deposition (PAD)

### PUMPING SYSTEM

Diffusion Pump, Cryogenic Pump, Turbo Pump  
Rotary Pump / Booster Pump  
Pumping time < 15 min to 3 x 10<sup>-5</sup> Torr

### SUBSTRATE HEAT

Quartz Halogen Heater with PID Temperature Control System

### CRYOGENIC REGENERATOR

Meissner Trap, Coil, 10HP compressor, T < -130 C, pumping speed up to 200,000 l/sec

### PRESSURE GAUGE CONTROL

High Pressure: Penning Gauge, Ion Gauge  
Low Pressure: Pirani Gauge, Convector Gauge

### UTILITY

Electrical: 208/240/50Hz/60Hz/ 50kW 3-phase  
Water: 30 GPM, Delta 40 PSI @ 21°C  
Air: Compressed air @ 85-125 PSI