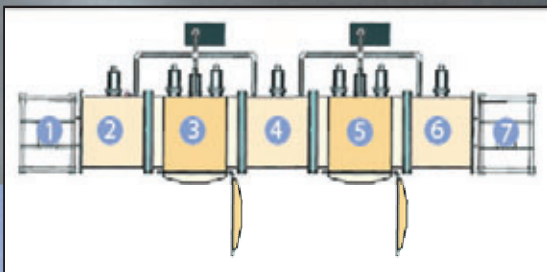


ADVANTAGE™

In-line Coating Systems

PRECISION OPTICAL COATING SYSTEMS

Advancing From Batch Coating
To In-line Production



- (1) Substrate loading area
- (2) Load lock
- (3) First deposition chamber
- (4) Buffer area
- (5) Additional deposition area
- (6) Unload lock
- (7) Unload staging area

VPT's ADVANTAGE in-line precision optical coating systems transport fully loaded substrate fixtures through a load lock system to the deposition chamber(s) and then through the unload lock to a staging area where the completed parts are removed.

The ADVANTAGE puts the essential (but unproductive) pump-down, pre-heat, and venting sequences where they belong: in dedicated chambers running in parallel with the actual deposition process. The load and unload chambers can be mounted in either an up or down location depending on process needs.

ADVANTAGE™

In-line Coating Systems

Flexible Configurations:

ADVANTAGE systems are each carefully tailored to support your specific coating application and production requirements. Configuration options include Thermal Evaporation, Electron Beam Evaporation, Ion Assisted Electron Beam, and Sputtering. Both crystal and automated optical monitoring are available for high accuracy and tight coating specifications. Substrate fixturing is available in single rotation, planetary and calotte. All systems are designed to maximize coating uniformity and production throughput.

ADVANTAGE systems will support a wide range of coating applications but are most cost-effective for processes whose deposition time (excluding pump-down, heat, cool, and vent time) is approximately one hour or less. Utilizing the PC / PLC based control systems that are standard in all VPT coaters, user-friendly graphical interface screens allow easy process downloads to the ADVANTAGE system for completely automated coating runs.

Load Lock Chamber	64 inches by 64 inches by 30 inches with automated fixture transport system and substrate pre-heat capability Custom sizes are also available
Process Chamber (s)	64 inches by 64 inches by 64 inches Full opening door. Custom sizes are also available
Buffer Chamber	Required only for some applications based upon process needs
Unload Lock Chamber	64 inches by 64 inches by 30 inches Substrate fixture drive \ transport system Gas-quench cooling capability. Custom sizes are also available
High Vacuum Pumping	Multiple configurations available
Substrate Heating	Front side quartz lamp assembly(s) Back side heating available in some configuration
Deposition Sources	Single and Multi-pocket Electron Beam source(s) High current Thermal source(s) Magnetron Sputtering source(s)
IAD Sources	End-Hall Ion Source Package
Layer Thickness Monitoring	Physical - Quartz crystal (quantity and locations as needed) Optical – VPT VLOM1 Optical Monitoring System
Control Systems & Automation	PC / PLC platform with RSView 32 HMI operator interface VPT's DesignLink process control software package
Process Development	Turn-key Coating Processes available

Many more details available at www.vptec.com



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