

Dynavac

OPTICAL COATING SYSTEMS Thin Film Deposition



The flawless performance you expect

From Dynavac, the most respected name in vacuum deposition systems

www.dynavac.com

AN UNMATCHED RECORD OF PERFORMANCE

Dynavac has been designing, manufacturing, and supporting precision optical coating systems for over 40 years. Our customers are in a wide range of industries, but they share the same expectation: top-quality performance and consistent results, process after process, year after year.

In facilities around the world, you will find systems in operation, handling some of the most sophisticated optical coating challenges. That means you can be confident in the performance of your Dynavac system, and the backing of a company that can meet your needs now and in the future.





A Total Platform to Ensure Your Success

Your Dynavac precision coating system is part of a complete platform of resources and services available to support you from initial design through everyday operation. Our reputation is based upon uncompromising quality and a commitment to customer service and support.

Expert engineers design the system that meets your application needs

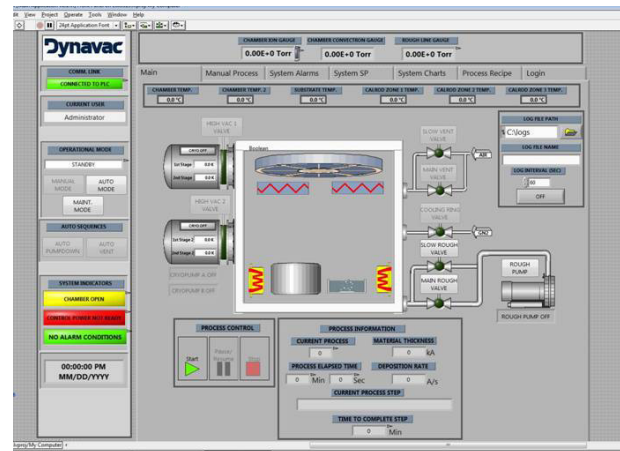
Your Dynavac team includes some of the most experienced engineering professionals in the industry. Working with an engineer who has experience with your industry or application can save you valuable time. No matter how complex the coating challenge—anti-reflective, high reflectors, edge filters, polarizers, beam splitters—we can design a system that achieves the results you expect.

Thin film technology lab: Your Dynavac engineering team can help you determine the right thin film deposition technologies for your application, including electron beam evaporation, ion beam assisted evaporation, thermal evaporation, and sputtering. In thin film technology lab, we can perform initial process development and produce proof-of-concept coatings so you can be certain of the results long before your system is delivered to you.

Substrate fixturing: Choose from single rotation (flat or dome), planetary rotation (flat or variable angle), or we can custom engineer and fabricate fixturing to meet your specific application needs.

Automated process control: Working closely with your team, we will customize the process control interface to your production requirements. Our PC/PLC-based system with HMI interface provides fully automated control and management of the coating process, including process recipe design, data logging, trending, and report generation. Remote access is incorporated into the system architecture so you can monitor and control the coating system from any location

Thin film coating measurement: You can choose between crystal and optical monitoring for thin film coating measurement. Dynavac's Spectrum-Pro Optical Monitoring System is a valuable tool for producing complex, repeatable coatings with a high degree of accuracy. Its advanced design provides end-point detection permitting full, fractional, and absolute layer termination. Our optical monitor is seamlessly integrated with our process control package to create a unified process control, design, and measurement environment for system operators.



User Interface Screen



Spectrum-Pro Optical Monitor Screen

SPECIFICATIONS

Vacuum Chambers

- Available from 30" (760mm) to 120" (3M) Other sizes and configurations available

Rough Vacuum Pumping

- Rotary Vane
- Roots Blower
- Dry Pump

High Vacuum Pumping

- Cryogenic Pump
- Diffusion Pump
- Turbomolecular Pump
- Meissner Coil

Substrate Tooling

- | | |
|----------------------|--|
| Single Rotation | Planetary Mechanism |
| ▪ Flat callote | ▪ Multi-planet, dual rotation configurations |
| ▪ Segmented fixture | ▪ Custom-engineered tooling |
| ▪ Domed fixture | ▪ Loading carts/systems for large optics |
| ▪ Flipping mechanism | |

Deposition Sources

- Single or multi-pocket electron beam sources
- High current thermal evaporation sources
- Magnetron cathode – DC, pulsed DC and RF

Ion Sources

- End-Hall ion source with hollow-cathode neutralizer or filament RF ion source with hollow-cathode neutralizer

Substrate Heating System

- Front-side quartz heating system
- Back-side Calrod heating system

Layer Thickness Control

- Quartz crystal control
- Dynavac Optical Monitoring System

Control System

- PC/PLC based with Lab/VIEW HMI Package

For utility requirements and floor layout requirements, please contact a Dynavac representative

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40 Years of Innovation

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