

# Dynavac

## INLINE Thin Film Deposition



The flawless performance you expect

*From Dynavac, the most respected name in vacuum deposition systems*

[www.dynavac.com](http://www.dynavac.com)

# INGENUITY THAT DRIVES YOUR BUSINESS FORWARD

Dynavac has been designing, manufacturing and supporting thin film deposition 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.



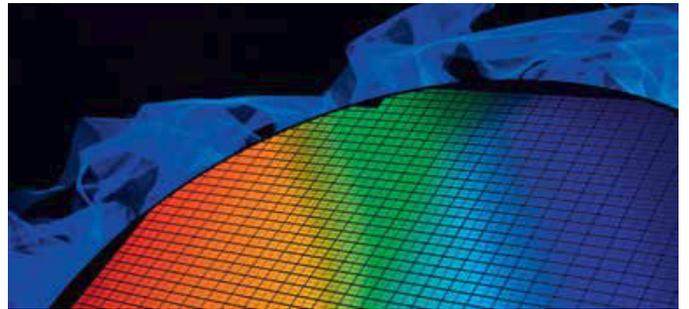
## **Maximum throughput. Consistent quality. Minimal downtime.**

Dynavac's Inline systems offer the highest performance and lowest cost solution for a variety of thin film deposition requirements.

## **Engineering Expertise That Ensures Your Success**

When you partner with Dynavac, you work directly with scientists and engineers with hands-on experience with your application.

- Perform initial process development and produce coatings to provide assurance before your equipment is delivered.
- Design and fabricate custom fixtures to meet your specific application needs.
- Provide flexible control system architecture customizable for your production requirements.



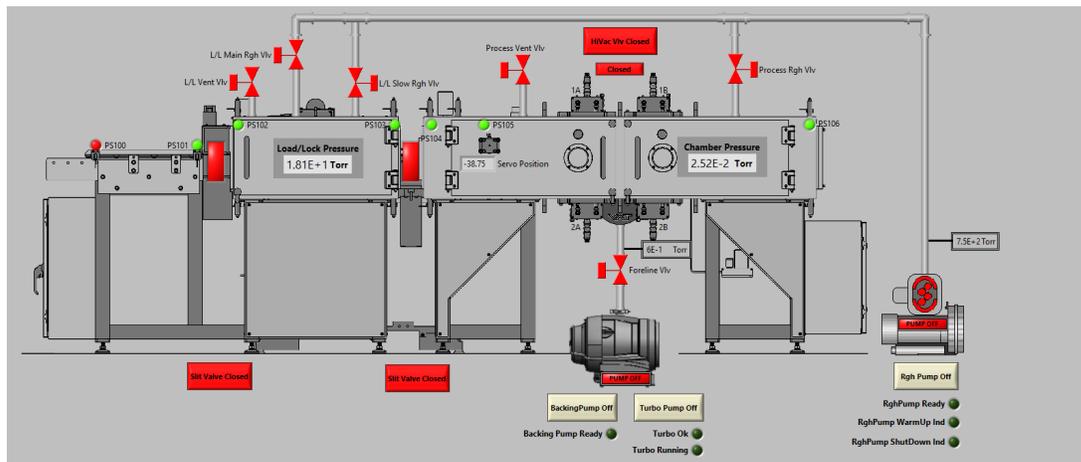
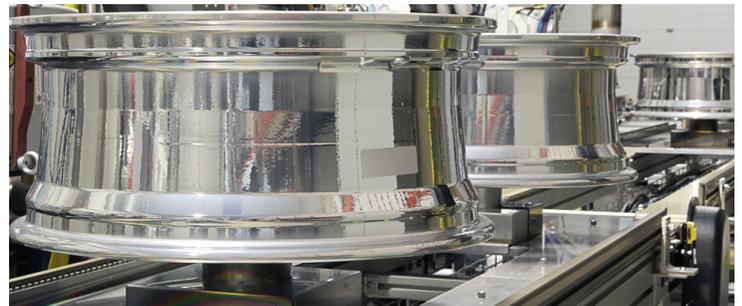
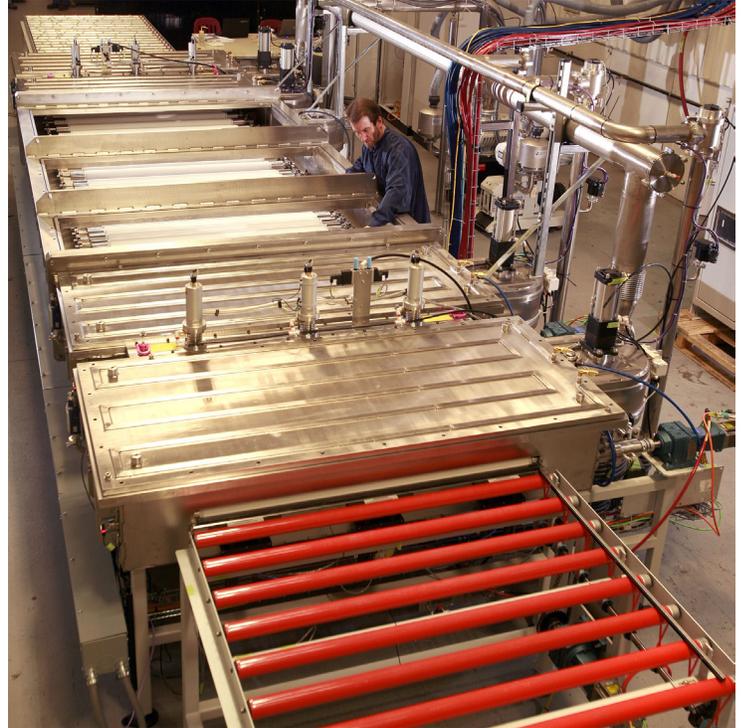


## Inline System Features

- Modular vacuum chambers for scalability
- Sputtering, evaporation, or ion-assisted deposition
- Fully automated production
  - Material handling systems
  - Integrated control systems
- Low cost of ownership
- Custom engineered fixtures to handle a wide range of substrate types and sizes

## Applications

- Anti-reflection coatings
- Transparent conductive-oxide coatings
- Substrate metalization
- EMI shielding coatings
- Decorative coatings
- Substrate pre-post treatments (Plasma and thermal)



# SPECIFICATIONS

## Vacuum Chambers

- Modular and flexible multi-chamber design
- High-duty chamber isolation valves

## Material Handling

- Tray, pallet or roller based conveyor systems to accommodate a variety of substrate geometries
  - Flat/rigid
  - Flexible
  - Three dimensional
- Accurate control and sensing to ensure precise positioning throughout system

## Pumping System

- High vacuum: cryopumps, turbopumps and diffusion pumps
- Rough: single or multistage mechanical pumps
- Water vapor pumping systems

## Process

- | Substrate Treatment   | Deposition methods   |
|---|--|
| <ul style="list-style-type: none"><li>▪ Heat</li><li>▪ Plasma</li><li>▪ Cooling</li></ul> | <ul style="list-style-type: none"><li>▪ Magnetron sputtering</li><li>▪ Electron beam evaporation</li><li>▪ Ion assisted deposition</li></ul> |

## System Control

- Fully automated system and process control
- Supervisory control system with HMI interface
- Enhanced data logging and trending capabilities
- Remote login feature
- Integrated quartz crystal monitoring
- Residual gas analyzer
- Plasma emission monitor

## System Commissioning

- Systems fully assembled and tested prior to shipment
- Installation, start-up and post-installation support

**Dynavac**

*40 Years of Innovation*

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