



# A TRUSTED PARTNER IN THIN FILM DEPOSITION AND ETCH





Our systems enable the world's most innovative products with our proprietary ion plasma technology and thin film engineering. We are the only supplier big enough to offer standard platforms and proprietary subsystems, yet small enough to offer solutions customized to your needs.

At Denton Vacuum, we know what you need: innovative technology solutions with high uptime and expected performance. That is why we provide robust, scalable, and manufacturing-friendly platforms based on real-world production needs.

Denton Vacuum deposition and etch solutions utilize advanced, proprietary technologies to support the evolving needs of the opto-electronics, semiconductor, and electronic display industries.

# SYSTEMS HIGHLIGHT

SPECIALTY SEMICONDUCTORS			
	Sensors	<ul><li>Bulk Acoustic Wave</li><li>Surface Acoustic Wave</li></ul>	<ul><li>MEMS</li><li>Humidity</li></ul>
	Power Devices	<ul><li>Amplifiers</li><li>Switches</li></ul>	• Diodes
*	Energy	<ul><li>Superconductors</li><li>Flexible Batteries</li></ul>	<ul><li>Multilayer Capacitors</li><li>Fuel Cell Diodes</li></ul>
OPTO-ELECTRONICS			
	Lasers	<ul><li>3D Sensing</li><li>LDIR – Auto</li></ul>	Medical Communication
	IR Detectors	<ul><li>Night Vision</li><li>Industrial Sensors</li></ul>	<ul><li> Marine Imaging</li><li> Traffic Management</li></ul>
=	Specialty Optics	<ul><li>Waveguides</li><li>Optical DLC</li></ul>	<ul><li>Lithography – EUV</li><li>Curved Optics</li></ul>
YIELD IMPROVEMENT			
<b>MANN</b>	Sample Coating	<ul> <li>Failure Analysis</li> </ul>	<ul> <li>Compositional Analysis</li> </ul>
	Delayering	<ul><li>Failure Analysis</li><li>Compositional Analysis</li></ul>	<ul><li>Counterfeit Detection</li><li>Reverse Engineering</li></ul>
DISPLAYS			
	Displays	<ul><li>Touch Screens</li><li>AR/VR Glasses</li></ul>	<ul><li>Micro-Displays</li><li>Flexible Displays</li></ul>

Denton Vacuum is proud to have over 60 years of innovation in thin film. We introduced the first commercial chemical optical coatings in North America and developed a reputation for large-area coating and custom engineering.

Today, our technology is in use around the world.

# **OUR GLOBAL PRESENCE CONSISTS OF:**

- 53,000 Square Foot Factory and Application Center in US
- China Sales and Service Office in Beijing
- Expanding Sales and Service Resources in South China, Europe and Southeast Asia



# **INFINITY ION BEAM**



- Bias Target Sputtering
- Bias Substrate Etching
- Low Volume Production
- R&D
- Single Substrate Load Lock
- Cassette Load Lock

# PHOENIX IN-LINE TOOL



- Linear Ion Source
- OMS
- PEM (Linear Magnetrons)
- High Volume Manufacturing
- Large Area Substrates
- Load Locks
- Magnetron Sputtering & PIB-CVD

# **VERSA CLUSTER TOOL**



- Automation
- Substrate Handling
- Mixed Modules
- Wafers & Small Substrates
- Load Locks

- High Volume Manufacturing
- Magnetron Sputtering & PIB-CVD
- Ion Beam Deposition & Etch

### **DISCOVERY SPUTTERING**



- PEM
- Dual Collimation
- 3D Parts
- Low Volume Production
- No Load Lock
- Single Substrate Load Lock
- Cassette Load Lock

# **VOYAGER PIB-CVD**



- Ion Source
- OMS
- PEM (Magnetrons)
- Low Volume Production

# **INTEGRITY EVAPORATION**



- Ion Source
- OMS
- Spit Free Source
- Batch Production
- Planetary Fixtures
- Single Rotation
- Flip Fixtures

R&D

• Wafers & 3D Substrates

# YOUR DEDICATED PARTNER

At Denton Vacuum, we understand the unique drivers that shape your market. As your partner, we develop a system configuration that fits your product development, R&D, or production process to achieve outstanding operational efficiency and ROI.

# THE ADVANTAGES OF PARTNERING WITH DENTON VACUUM:

- Proprietary Process Capabilities
- Production-Proven Platforms
- Comprehensive Service and Support
- Focus on Customer Return on Investment

### **ABOUT DENTON VACUUM**

Denton Vacuum provides innovative deposition and etch equipment solutions built on standard platforms for any production level, from pilot production to high volume manufacturing. With a long history of innovation in thin film deposition and etch technologies, we provide production proven systems for a variety of applications, including laser and IR detectors, AR/VR and flexible display, delayering, precision optics, and superconductors to match customer needs.

Learn how a partnership with Denton can help your business. Contact us today!



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