VaporTech PVD Coating Machines

Bringing coating processes in-house simplifies production and significantly reduces per-part coating costs. In addition, in-house coating adds value to your products by providing control over product appearance, durability, and performance.

Many of our customers report a rapid return on investment, predictable operating costs, ease of use, and—often most important—adaptability. Our systems can apply many types of coatings to a variety of part types, sizes, and geometries. Our coating recipes are custom-created to meet your exact needs.

VaporTech systems offer compelling benefits, especially for products that require different properties, such as a steel cog that needs to be hard and durable, a scalpel, which has to retain an extremely sharp edge, or a faucet, which must be available in a wide choice of colors. Our systems feature a compact footprint and are easy to use and maintain.

Vapor Technologies (VaporTech) manufactures thin-film coating equipment and develops custom coatings (PVD, CVD, and DLC) to use with our systems. We are located in Longmont, Colorado, and have been serving clients worldwide for more than two decades.

Learn more today!

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Longmont, CO 80503 USA

www.vaportech.com

VaporTech

VT-Series & CADENCE
Thin-Film Coating Systems
VT-Series™ thin film coating systems are designed to meet your manufacturing needs. The series includes 4 machines designed to work for the smallest to the largest applications. VT-Series chambers are designed to ensure consistency and maximum control of your product’s finish. System capacity up to 122cm, accommodates your largest parts.

Our lower-temperature process increases your choices of base materials—including steel, brass, zinc, and prepared plastics—and gives you multi-part systems a common finish and appearance. We can custom-design coatings to meet your specifications for color and function. If you use multiple types of coatings (for example, both chrome and diamond-like carbon [DLC] coatings), you can apply them using the same chamber. A lower temperature process suitable for metal and plastic parts.

Benefits of Cadence systems:

- Deposit thick coatings in a short process.
- Can be configured for rapid coating deposition.
- Improve coating properties over other magnetron sputtered coatings.
- Increase efficiency using the simple graphic interface with automated recipes built in.
- Improve ROI with better, faster in-house coatings.
- Create more durable coatings.

Cadence Systems

When you need your products to perform, Cadence systems—with our proprietary RAAMS™ technology—improve coating structure, hardness, and wear resistance compared to traditional sputtering systems. Our high energy process shortens coating times, and multiple coating sources further increase deposition rates of composite materials.

Available Coatings

<table>
<thead>
<tr>
<th>Product Code</th>
<th>System Code</th>
<th>Description</th>
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Perfect for

- Durable decorative and DLC applications for smaller operations.
- Functional, durable/decorative finishes for smaller operations.
- Applications include home hardware, plumbing, sporting equipment, tools and tooling, medical devices, automotive components, and other consumer products.
- System footprint: 3.8m x 1.2m.
- Thicknesses: 0.25 to 2.5μm.

VT-500i System

VT-1000i System

VT-1500i System

VT-3000i System

VaporTech System Comparison

VT-Series System Comparison

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VaporTech System Comparison

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Our lower-temperature process increases your choices of base materials—including steel, brass, zinc, and prepared plastics—and gives you multi-part systems a common finish and appearance. We can custom-design coatings to meet your specifications for color and function. If you use multiple types of coatings (for example, both chrome and diamond-like carbon [DLC] coatings), you can apply them using the same chamber. A lower temperature process suitable for metal and plastic parts.

Benefits of Cadence systems:

- Excellent color uniformity & deposition rates throughout the chamber.
- Multiple coating technologies in a single system.
- Improved ROI with better, faster in-house coatings.
- Easy-to-use graphic interface with automated recipes built in.
- Ideal design for large parts up to 122cm long.
- Multiple size systems, multiple processes per system.

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Benefits of Cadence systems:

- Excellent color uniformity & deposition rates throughout the chamber.
- Multiple coating technologies in a single system.
- Improved ROI with better, faster in-house coatings.
- Easy-to-use graphic interface with automated recipes built in.
- Ideal design for large parts up to 122cm long.
- Multiple size systems, multiple processes per system.

Perfect for

- Durable decorative and DLC applications for smaller operations.
- Functional, durable/decorative finishes for smaller operations.
- Applications include home hardware, plumbing, sporting equipment, tools and tooling, medical devices, automotive components, and other consumer products.
- System footprint: 3.8m x 1.2m.
- Thicknesses: 0.25 to 2.5μm.
VT-Series Thin Film Coating Systems

VT-Series coating systems are designed to meet your manufacturing needs. The series includes 4 machines designed to work for the smallest to the largest applications. VT-Series machines are designed to ensure consistency and maximum control of your product's finish. System capacity of up to 122m, accommodates your largest parts.

The lower-temperature process increases your choices of base materials—including steel, brass, zinc, and prepared plastics—and apply them using the same chamber.

In both chrome and diamond-like carbon (DLC) coatings, you can give multi-material parts a common finish and appearance. We can custom-design coatings to meet your specifications for color and function. If you use multiple types of coatings (for example, both chrome and diamond-like carbon), you can use the same chamber using the same system.

These systems provide:
- Excellent color uniformity & deposition rates throughout the chamber.
- Even coating deposition rates throughout the chamber.
- A lower-temperature process suitable for metal and plastic parts.
- Ideal design for large parts up to 122m long.
- Multiple size systems, multiple processes per system.
- Multiple coating technologies in a single system.
- Easy-to-use graphic interface with automated recipes built in.
- Improved ROI with better, faster in-house coatings.
- Even coating deposition rates throughout the chamber.

Benefits of Cadence systems:
- Deposit thick coatings in a short process.
- Can be configured for rapid coating deposition.
- Improve coating properties over other magnetron sputtered coatings.
- Increase efficiency using the simple graphic interface with automated recipes built in.
- Improve R2D with better, faster-in-house coatings.
- Create more durable coatings.

VT-Series coating systems are designed for small-batch manufacturing operations. Even with its compact size, the system can coat large parts. The smaller footprint, lower maintenance, and competitive price make it suitable for an even broader range of applications.

VT-500i System
- DESCRIPTION: The VT-500i is the smallest unit, designed for small-batch manufacturing operations.
- Applications: Home hardware, plumbing products, sports equipment, firearms, tools and coating service providers.
- Coating Technologies: Cathodic arc (LTAVD vapor deposition (PECVD))
- Coating Area Per Batch: 0.7m²
- System Footprint (LxW): 3.3m x 1.2m
- Coating Technologies: Cathodic arc (LTAVD vapor deposition (PECVD))
- Complex: Easy to operate and maintain.
- Available Coatings: Pure, alloyed, or reacted chromium, titanium, chromium, or carbon in a wide range of colors.
- Number of racks: 1
- Back Size: 45cm x 20.3cm
- Perfect for: Durable/decorative and DLC applications for smaller operations.

VT-1000i System
- DESCRIPTION: The VT-1000i coating system shares almost the same footprint as the VT-500i but with approximately twice the size. The compact design can deposit a broad range of durable decorative and functional PVD finishes on metal or plated parts, including ceramic parts.
- Applications: Home hardware, plumbing products, sports equipment, firearms, tools and coating service providers.
- Coating Technologies: Cathodic arc (LTAVD vapor deposition (PECVD))
- Coating Area Per Batch: 4.7m²
- System Footprint (LxW): 4.3m x 1.6m
- Coating Technologies: Cathodic arc (LTAVD vapor deposition (PECVD)), Plasma-enhanced chemical vapor deposition (PECVD)
- Complex: Easy to operate and maintain.
- Available Coatings: Pure, alloyed, or reacted chromium, titanium, chromium, or carbon in a wide range of colors.
- Number of racks: 2
- Back Size: 45cm x 20.3cm
- Perfect for: Functional, durable/decorative and DLC applications for large operations.

VT-3000i System
- DESCRIPTION: The VT-3000i is the largest VT-Series coating system designed for high-production coating applications. It is designed for high-temperature processes with 100m long in order to deposit coatings.
- Applications: Home hardware, plumbing products, sports equipment, firearms, tools and coating service providers.
- Coating Technologies: Cathodic arc (LTAVD vapor deposition (PECVD)), Plasma-enhanced chemical vapor deposition (PECVD), Magneton Spectrally Enhanced R2D (MSE R2D)
- Coating Area Per Batch: 100m x 25.4cm
- System Footprint (LxW): 3.8m x 3.6m
- Complex: Easy to operate and maintain.
- Available Coatings: Pure, alloyed, or reacted chromium, titanium, chromium, or carbon in a wide range of colors.
- Number of racks: 4
- Back Size: 45cm x 20.3cm
- Perfect for: Functional coatings for smaller operations.

VaporTech System Comparison

Our compact systems are easy to integrate, use, and maintain. With approximately 6 times the throughput of the VT-500i but with approximately the same footprint, the ideal size can be used in a compact chamber. The compact design can deposit a broad range of durable decorative and functional PVD finishes on metal or plated parts, including ceramic parts.

Benefits of Cadence systems:
- Create more durable coatings.
- Improve ROI with better, faster in-house coatings.
- Improve coating properties over other magnetron sputtered coatings.
- Even coating deposition rates throughout the chamber.
- Multiple size systems, multiple processes per system.
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