



Thin-Film Deposition /'THin , film depə'ziSH(ə)n/

A vacuum process using an energy source to vaporize material and deposit—atom by atom—an ultra-thin layer onto a part's surface. The coating can change the component's surface properties including the color, wear resistance, or friction coefficient.

Easily customize coatings to change the color, durability, or other characteristics of a surface

VaporTech physical vapor deposition (PVD) and plasma-enhanced chemical vapor deposition (PE-CVD) thin-film coatings are designed to enhance the look, feel, function, and durability of your products. These coatings aren't simply metal layers, they are compound materials that combine metal, nitrogen, oxygen, carbon, or other elements into a coating that can be customized to be harder than case-hardened steel, more scratch-resistant than hard chrome, and range from a rich black to an amazing choice of beautiful colors. With coating thicknesses from nanometers to micrometers, high-tolerance parts can be coated with minimal effect on critical dimensions.



PE-CVD vacuum deposition systems.

VAPORTECH THIN-FILM HARD COATING SYSTEMS



Thin-Film Deposition Systems

VaporTech offers multiple systems for your yield, capacity, and specific coating performance needs. Systems are available in multiple sizes to coat small or large volumes of metal or plastic parts.

All systems include a vacuum chamber, pumping system, and power supplies that drive the deposition process. Load a batch of parts into the vacuum chamber and press a button to run a fully automated process recipe. After the system applies a thin-film coating, parts can go directly to assembly or packaging.



VT-Series[™]

VaporTech **VT-Series** coating systems utilize a unique, centrally mounted coating source with parts that rotate around the perimeter of a large, actively cooled chamber. This design provides:

- Excellent color uniformity throughout the chamber for beautiful coatings in decorative applications.
- Even coating deposition rates throughout the chamber for control of coating thickness.
- Some of the lowest coating temperatures in the industry, suitable for both metal and plastic parts.
- The ability to coat large parts up to 122 cm (48 inches).
- Multiple system sizes ideal for both high- and lowvolume applications.
- Capability of depositing diamond-like carbon (DLC) coatings using a plasma-enhanced chemical vapor deposition process (PE-CVD).

Cadence[™]Systems

VaporTech **Cadence** coating systems excel at quickly depositing functional coatings that dramatically improve your product's wear resistance, reduce friction, increase heat resistance, and improve product life for many industrial and consumer products. This system provides:

- A compact size easy for smaller manufacturing operations to use and maintain.
- High deposition rates that shorten coating times.
- Multiple coating sources to further increase deposition rates or deposit composite materials.
- VaporTech unique RAAMS[™] technology, a high-energy process that improves coating structure, hardness, and wear-resistance compared to traditional sputtering systems.

The Best Service Before, During, and After System Installation

We understand that investing in an in-house coating system is no small matter. Without quality services, you won't experience the efficiency, runtime, and quality you need to increase your products' value and return on investment. That's why VaporTech customizes coatings specifically for your applications, simplifies equipment integration, trains your staff, and helps keep equipment operating reliably for years to come. Our service team has successfully supported installations in North America, Europe, and Asia for more than 20 years. We look forward to helping your company make the most of your equipment investment with:

- Coating optimization programs.
- Assistance with equipment integration.
- Technical support.
- On-site maintenance, upgrades, and repairs.
- Parts and consumables.

About VaporTech

VaporTech designs, builds, and services thin-film deposition systems that are used to improve products around the world. We're committed to what we do, because we understand that a product's finish communicates its quality in an instant – and impacts how customers view a brand. We know that a finish that stands the test of time emphasizes a brand's commitment to quality and value.

Our team of scientists and engineers helps customers apply beautiful and durable hard coatings that enhance and differentiate home hardware, medical devices, industrial tooling, consumer electronics, and many other products. We are located in beautiful Longmont, Colorado, and support our customers globally.



Is VaporTech equipment the right investment for your organization?

Call us today to find out.

303.652.8500

www.vaportech.com vtsales@vaportech.com

Vapor Technologies, Inc. 6400 Dry Creek Parkway Longmont, Colorado 80503 USA



