Create high-quality products & higher profits with in-house coating solutions.

Traditionally, many manufacturers have outsourced their surface finishing processes. This approach adds significant complexity and costs and slows production as products sent to a third-party coating vendor must be packaged, shipped, received, and inspected.

If you, like manufacturers across a variety of industries, are searching for financial, operational, and product improvement throughout your operations, one relatively simple solution addresses both quality and efficiency. That solution is adding PVD coating equipment into your manufacturing operations. 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 full control over product appearance, durability, and performance.

Vapor Technologies, Inc.
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VaporTech equipment creates high-performance, functional, and durable/decorative surface finishes via thin-film physical vapor deposition (PVD), chemical vapor deposition (CVD), and diamond-like carbon (DLC) coatings.
Improve Quality & Efficiency

Getting results with PVD coating equipment

**COMPELLING benefits**

**Precise**
Preservation of surface features, such as sharp edges, and corporate markings

**Efficient**
Shorter lead times and reduced production costs

**Durable**
Increased product hardness, strength, and durability, better corrosion resistance

**High quality**
More control over manufacturing processes

**Eco-friendly**
Environmentally friendly processes

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 coatings 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.

When you work with VaporTech, we help you improve processes and product quality and create differentiated, durable, and high-quality products. VaporTech’s coating systems can lower costs, improve the manufacturing processes—and ultimately, help you develop better end products.

### Examples of coatings and features

<table>
<thead>
<tr>
<th>MATERIALS</th>
<th>Hardness (HV)*</th>
<th>Rigidity/Modulus GPa*</th>
<th>Color range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chromium nitride (CrN)</td>
<td>2200</td>
<td>300</td>
<td>Light gray</td>
</tr>
<tr>
<td>Zirconium oxide (ZrO)</td>
<td>1700</td>
<td>225</td>
<td>Stainless steel</td>
</tr>
<tr>
<td>Zirconium nitride (ZrN)</td>
<td>2500</td>
<td>400</td>
<td>Gray to brass</td>
</tr>
<tr>
<td>Zirconium oxy carbide (ZrOC)</td>
<td>2300</td>
<td>300</td>
<td>Gray to bronze</td>
</tr>
<tr>
<td>Titanium nitride (TiN)</td>
<td>2800</td>
<td>500</td>
<td>Gold</td>
</tr>
<tr>
<td>Diamond-like carbon (VT-DLC)</td>
<td>2200</td>
<td>165</td>
<td>Dark gray</td>
</tr>
<tr>
<td>304 stainless steel</td>
<td>166</td>
<td>193</td>
<td>Stainless steel</td>
</tr>
</tbody>
</table>

**About us**
For more than 25 years, companies in a variety of industries have relied on VaporTech’s industry-leading coating technologies to ensure their products feature premium surface finishes and functional surface finishes. VaporTech is a subsidiary of Masco Corporation.