**CASE STUDY** 



# Discovering the fountain of finishes

Brasstech taps Vapor Tech to expand product finish offerings to meet consumer demand.

People expect a lot from their kitchen and bath fixtures. First, they need to look good now – and not fade in the future. Second, they must stand up to day-to-day use and regular cleanings. Finally, fixtures must complement a wide variety of kitchen and bath designs, as well as offer consumers the chance to show off their unique style.

As the premier supplier of finish offerings that "fit your lifestyle," Brasstech, Inc. saw increased customer demand for new products, colors, and styles. To grow market share and meet customer needs, the company sought to expand the metallic finishes offered in their lines of kitchen and bath fixtures.

# Exploring the options

After evaluating options for powder coating, lacquering, e-coating, and electroplating, Brasstech zeroed in on physical vapor deposition (PVD). The premier coating technology for plumbing fixtures, PVD is a method by which pure metals are combined with reactive gases to create hard, durable metallic colors.

Brasstech already used PVD in a niche capacity within their manufacturing process. However, their current PVD equipment couldn't accommodate an expansion of finishes nor did it have the capacity to process the volume of parts needed for finished products. The process development support required to introduce new colors and faucet designs was also unavailable.

For PVD to be feasible, Brasstech needed a new system from a different vendor – one that offered everything on their wish list:

 A single system capable of applying durable coatings to a variety of part sizes and geometries in a vast array of colors

- / Capacity to meet popular finish volume requirements
- / Easy-to-operate equipment with low maintenance requirements
- Attentive customer support and strong process development capabilities
- / Low operation and maintenance costs, as well as efficient use of consumables
- / Minimal changes to the manufacturing floor

The VT-1500 Low Temperature Arc Vapor Deposition (LTAVD) system from Vapor Tech easily rose to the top – thanks to its operational flexibility and superior process to PVD.

### Extreme versatility, incredible durability

LTAVD coatings have been used successfully for years to:

- / Increase the life of drill bits, industrial cutting tools, and plastic molds.
- / Improve wear resistance of metal valves in automotive engines.
- Enhance appearance and durability of consumer goods including jewelry, eyewear, appliances, and electronics.

## The ideal choice

Vapor Tech's proprietary PVD systems deposit durable, decorative, colorfast finishes on diverse materials - giving Brasstech a cost-effective way to repeatedly and reliably apply a quality surface finish. Additionally, although Brasstech products are all brass, LTAVD works on almost any substrate - including plastic, plastic/polycarbonate blends, and metals - a key consideration for plumbing products manufacturers.

Brasstech valued Vapor Tech's extensive installation base and experience with customers in similar markets. But even more important was their commitment to helping Brasstech understand costs, determine ROI, and effectively incorporate the system into their manufacturing process. Plus, a team of highly skilled service engineers and finishing experts are always available to provide process support, new ideas, and maintenance tips.

## Putting the VT-1500 to use

"Installation went like clockwork. The VT-1500 is so simple, we had five employees with no knowledge of PVD running the system right away." - Plant Manager, Brasstech, Inc.

The VT-1500 was up and running after only two weeks of process and maintenance training. Furthermore, unlike a plating line that requires operators with four-year degrees or extensive education to maintain plating chemistry,

Brasstech did not have to hire specialized personnel to operate Vapor Tech's system.

Through a simple touchscreen, operators track, store, and manage a range of recipes for color and performance. Plus, real-time system performance monitoring allows operators to proactively control the coating process - ensuring uniformity and consistency within batches and from batch to batch.

As another benefit, Vapor Tech's systems do not require additional permitting, environmental monitoring, or waste management equipment. Maintenance is fast and easy, as only periodic replacement of wear components and refurbishing of protective shielding are necessary. In the event parts, consumables, or support are needed,

#### Vapor Tech is ready, even on short notice.

A simple, reliable, flexible process that delivers high manufacturing yields across a range of materials, shapes, sizes, and durable metallic colors



## A steady stream of results

Since installing the VT-1500, PVD has become a prominent player in Brasstech's finishing process. One of the company's top three finishes was converted from a plated surface to the harder, more durable LTAVD finish from Vapor Tech.

To address customer demand head-on, the company significantly increased its metallic color options, while also supporting and matching legacy finishes. Most importantly, these colors are scratch resistant, discoloration resistant, and easy-to-clean - all important features customers expect from kitchen and bath fixtures.

On the operational front, Brasstech saw significant ROI without changing its overall manufacturing flow. Thanks in part to the VT-1500's large chamber volume – which was more than two times the size of the previous system with the same footprint – manufacturing yield increased 15 percent, and throughput grew by 350 percent.

Along with double-digit manufacturing cost savings, Brasstech was able to improve its manufacturing and design processes. While the company currently uses all brass, it now has the option to use lower-cost base materials and still achieve an attractive and uniform metallic finish that withstands the ultraviolet, chemical, abrasive, and corrosive environment found in kitchens and bathrooms.

"Before installing the VT-1500 from Vapor Tech, PVD was simply a niche surface finish. Now I like to use the LTAVD process wherever I can."

- Plant Manager, Brasstech, Inc.

#### About Brasstech, Inc.

Brasstech, Inc. is a company with two brands – Newport Brass and Ginger – that offer quality crafted kitchen and bath fixtures, accessories, lighting, and mirrors ranging from premium to luxury price points.

The successful growth of Newport Brass and Ginger from a modest family-owned business to recognized national brands is a result of employees striving for the best, maintaining the highest integrity, and offering quality-constructed consumer-driven product choices. As part of Masco, Brasstech continues to be a leader in the premium/luxury kitchen and bath industry by providing innovative, high-quality solutions that enhance and beautify living spaces.

#### **About Vapor Tech**

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

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