



# THE VT-SERIES COATING SYSTEMS

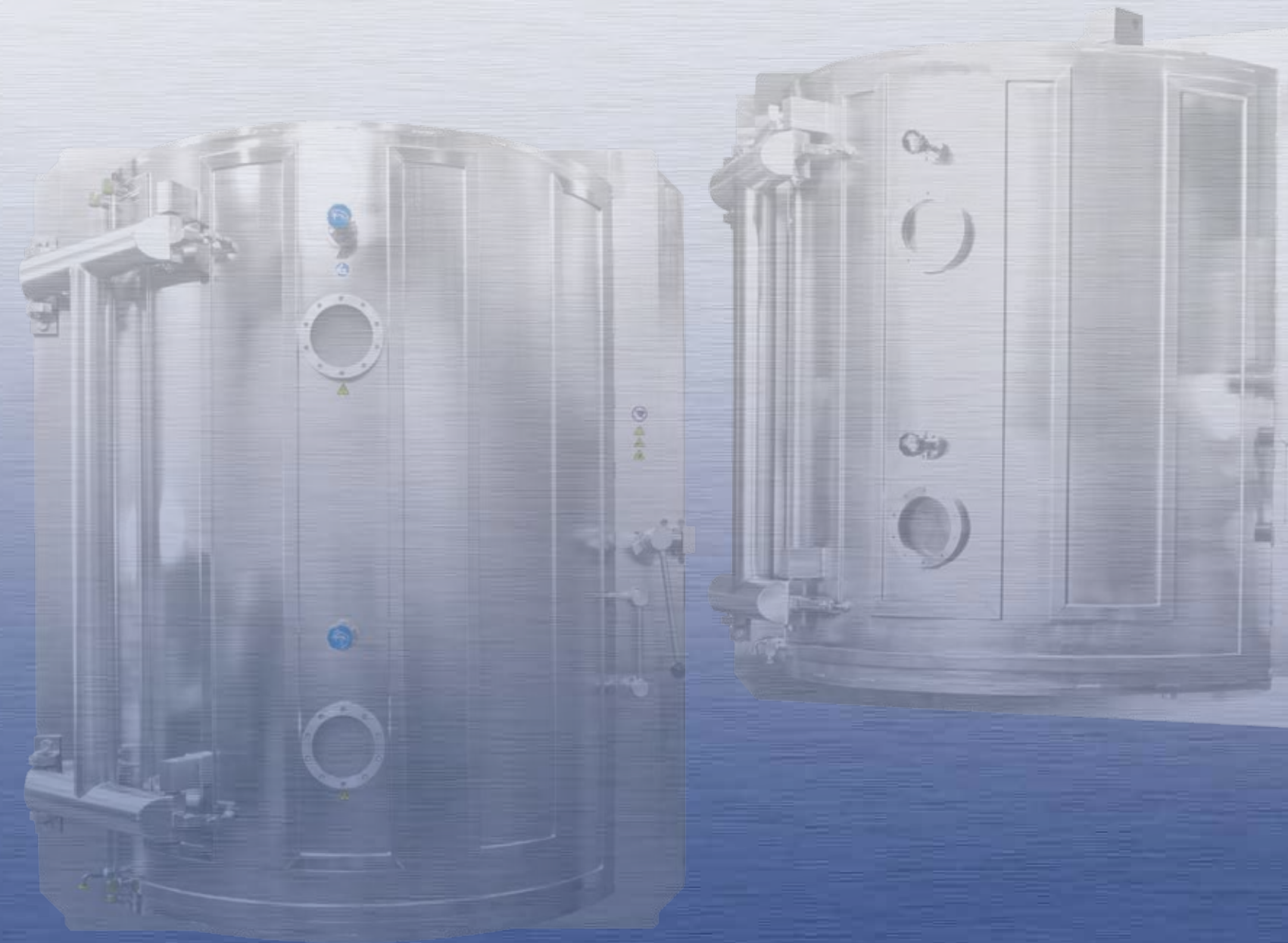
Low Temperature Arc Vapor Deposition

## FEATURES AND BENEFITS OF THE VT-3000 & VT-1500

- » Low temperature process ..... Coat heat-sensitive substrates — plastics, zinc
- » High temperature process ..... Coat hardened steel and carbides
- » Proprietary central source technology..... Uniform deposition/efficient coating zone
- » LTAVD, PECVD (DLC), and Magnetron Sputtering (option)..... Multiple coating technologies available in a single system
- » Integrated recipe manager..... Broad range of recipes for color/performance
- » Clamshell chamber door..... Efficient access for load/unload, service and cleaning
- » Multiple gas delivery system..... Broad range of coating processes
- » Automated controls ..... Simple operation, set and walk away
- » Datalogger..... Monitor coating processes locally or remotely
- » Production tested..... Ready to produce consistent, high quality production batches

## The Standard of Excellence

For applications where the need for superior coating quality and consistency meet high production volume requirements, Vapor Tech's VT-Series is the solution of choice. A center-mounted arc source ensures high throughput and consistent quality. Low Temperature Arc Vapor Deposition (LTAVD) extends the range of applications to include plastics and other low temperature materials. Whenever consistently high coating quality, high throughput and reliability are essential, the VT-Series offers an unbeatable combination of features and performance.



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VAPOR TECH LTAVD  
The Standard of Excellence  
for Superior Coating Quality



## VAPOR TECH LTAVD SYSTEMS

- » Proven industry workhorse
- » Low temperature process (LTAVD)
- » Wide range of materials and coatings
- » High throughput capacity



**VT-3000** Designed with high volume OEMs and coating service centers in mind. Features high throughput design and high volume capacity delivering lower part costs.



**VT-1500** Designed for OEM product manufacturers. Features large chamber diameter and industry standard volume capacity with optimum parts loading.

## VAPOR TECH VT-SERIES

### When high coating quality and production capacity are essential, Vapor Tech VT-Series delivers

The VT-Series produces LTAVD coatings that other PVD systems can't match. Vapor Tech offers advanced surface technology with the manufacturing consistency you need to give your products a competitive edge.

Every aspect of the VT-Series coating systems has been refined to deliver proven, high volume production. The VT-Series features a unique configuration with a center-mounted arc source for highly efficient and reliable processes. Easy-to-use system automation provides flexibility to customize Vapor Tech LTAVD coatings for your product requirements.

Vapor Tech's process experts work closely with you to integrate VT-Series systems and coatings into your manufacturing environment. The result is your products perform better and look great, giving you a competitive advantage.

### Summary Specifications

	VT-3000	VT-1500
<b>System dimensions</b>	160"/4.05m W x 315"/8.00 m D x 237"/6.00m H	160"/4.05m W x 233"/5.91m D x 198"/5.05m H
<b>System weight</b>	28,000#/12,701kg	24,000#/10,895kg
<b>Coating chamber type</b>	304 stainless steel — water cooled	
<b>Coating zone</b>	48"/1.22m high	32"/0.81m high
<b>Substrate carousel</b>	46.75"/1.16m diameter	
<b>Turntable configuration</b>	2-axis planetary	
<b>Number of fixtures</b>	16 positions x 8" or 8 positions x 12"	
<b>Loading capacity</b>	1600 pounds	
<b>Coating technologies</b>	LTAVD, PECVD (DLC), Magnetron Sputtering	
<b>Coating temperature range</b>	50°C – 300°C	
<b>Controls</b>	PLC: Vapor Tech recipe software Interface: Touch screen computer, available with remote connectivity	

Vapor Tech LTAVD Systems Deliver High-Performance Coating Solutions for Manufacturers Across a Variety of Industries and Applications



## ADVANCED LTAVD COATINGS

### Low Temperature Arc Vapor Deposition (LTAVD) Coatings

Vapor Tech coatings look great and perform even better. Our coating systems incorporate a proprietary center-mounted arc source design that ensures consistency of the coatings and maximum control over coating uniformity and properties. LTAVD coating enables the option to coat on a wide variety of materials such as steel, brass, zinc or prepared plastic, allowing products that use more than one material while sharing a common finish and appearance. Vapor Tech PVD coatings have many applications ranging from durable, decorative finishes to specialized high performance coatings.

### High Quality Durable Coatings with Accurate Colors

Vapor Tech systems produce unique coatings that can't be achieved with other PVD systems. VT-Series systems produce a full spectrum of PVD metallic colors from chrome through black and golds, brasses, nickel and bronze. The combination of high quality, manufacturing proven equipment in conjunction with Vapor Tech's proprietary process expertise insures coatings that perform well and look great on your products.

### Functional Coatings

Vapor Tech systems produce superior functional coatings. For cutting tools, tribological applications and many other functional applications, Vapor Tech coatings have attributes that ensure optimal performance, durability and useful life.

### The Vapor Tech Advantage

Vapor Tech VT-Series coating systems ensure a combination of superior mechanical properties and outstanding appearance that increase the value of your products. Whether your applications demand high functional performance coatings or great looking durable decorative finishes, Vapor Tech coatings get the job done.

### Benefits and Characteristics of LTAVD Coatings

- » Durable, long-lasting, highly resistant to wear
- » Hard coatings that are not easily damaged
- » Thin coatings that do not alter textures and critical features
- » Consistent color meets color tolerance standards
- » Repeatable, high quality coating improves yields as well as adherence to appearance and performance standards
- » Variety of material options, compounds and colors for a wide range of finishes to meet customer requirements

## CHARACTERISTICS OF TYPICAL COMPOUNDS DEPOSITED WITH A VAPOR TECH DEPOSITION SYSTEM

Metals/Compounds	Hardness (Hv)	Modulus (GPa)	Color Range
304 Stainless Steel (reference material)	166	193	Stainless Steel
Chromium (Cr)	330	260	Silver
Chromium Nitride (CrN)	2200	300	Light Grey
Zirconium (Zr)	260	100	Grey
Zirconium Oxide (ZrO)	1700	225	Stainless Steel
Zirconium Nitride (ZrN)	2500	400	Grey to Brass
Zirconium OxyCarbide (ZrOC)	2300	300	Dark Grey to Bronze
Titanium (Ti)	290	115	Grey
Titanium Nitride (TiN)	2800	500	Brownish Gold