

***CURTISS -
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**Surface Technologies Division
FW Gartner**



**Advanced Coating &
Cladding Technologies**

www.fwgts.com

Thermal Spray Coatings

FW Gartner Thermal Spraying is a Business Unit of the Surface Technologies Division of Curtiss-Wright providing thermal spray and surface engineering technology to extend the service life of components and systems operating in severe service environments including the latest in HVOF Technology, Laser Cladding, PTA Cladding and QA/QC Inspection and Laboratory Testing. Approvals include ISO 9001:2008.



Surface Technologies is a Division of Curtiss-Wright (NYSE: CW) a global innovative company that delivers highly engineered, critical function products and services to the commercial, industrial, defense and energy markets. Building on the heritage of Glenn Curtiss and the Wright brothers, Curtiss-Wright has a long tradition of providing reliable solutions through trusted customer relationships. The company employs approximately 10,000 people worldwide.

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Since the foundation of the company in 1923, FW Gartner Thermal Spraying is a name that has become synonymous with quality, integrity and innovation at every stage of our growth and development.

After four generations of family ownership, the company was acquired by Curtiss-Wright Surface Technologies (www.cwst.com) in 2012. FW Gartner is now poised for further growth both domestically through our US and Houston-based customers and globally, essentially wherever our clients might require our unique range of technologies and extensive experience.

Our constant efforts to strive for excellence in all areas of thermal spray and surface engineering technology provides our customers with unique access to a portfolio of niche technologies that can dramatically extend the service life of components and systems operating in the most severe service environments. Our expertise and experience ranges from the design and implementation phase of a new component, through to potential reclamation often multiplying the usable service life many times over. This was fundamental to our success in the twentieth century...and it continues today.

Thermal Spraying

For more than 90 years, FW Gartner has been at the forefront of technology developments in surface engineering as coating and overlay applications have progressed to become an integral part of many industries. As an early adopter of unique and state of the art scientific concepts, FW Gartner has assembled a comprehensive range of automated HVOF, HVOF, Plasma, Arc Wire, Combustion Powder, Rod and Wire (including Spray and Fuse) spraying equipment. With this extensive assortment of equipment, we are uniquely equipped to meet the continually evolving needs of our customers across a broad range of industries and applications.

Latest Generation HVOF Technology

High Velocity technology has evolved considerably in the past 25 years. Since the earliest generation oxygen fuel systems (Jet Kote, Diamond Jet, JP-5000), we have



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utilized its unique capabilities to continually develop new and innovative coating solutions. To complement our multiple robotic HVOF cells we have installed the latest generation of High Velocity Air Fuel technology.

An integral part of the broad portfolio of coating processes, our HVAF systems provide a unique mix of low operating cost, high material throughput, and high coating quality. With spray rates of up to 65lb/hr for Carbides, and a unique ID torch capable of applying coatings into bores as small as 8", HVAF provides an alternate path for application development opportunities.

Machine and grind/ CNC Manufacturing

Machining and grinding are offered as a supplementary and often complimentary service to our surfacing technologies. Increasingly our customers are requiring turnkey solutions in order to minimize downtime and eliminate duplication of efforts. FW Gartner can restore original dimensions to OEM parts after coating, achieve any surface finish requirement, or manufacture a new component as required. We operate an extensive manufacturing facility with considerable CNC machining experience and capacity for high-accuracy work across a wide range of sizes, geometries, and materials.

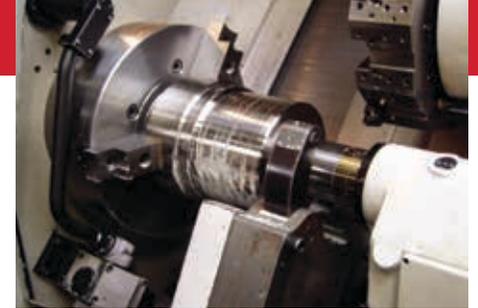
With our focus on supporting the specific needs of our customers, we also offer complete grinding and spherical mate lapping services for metal seated ball valves of line sizes ranging from 0.5" through to 16".

Laser Cladding

Laser processing for cladding and surface modification is rapidly becoming the preferred process for the application of high quality metallurgically bonded overlays for wear protection and dimensional restoration. The infinitely controllable heat input and minimal HAZ (Heat Affected Zone) allow for the repair and protection of substrate materials that would otherwise be deemed un-repairable. Employing a combination of automation, optimized operating parameters, and experienced engineering staff, overlays can be applied encompassing properties that are equivalent to, or in some cases superior to, wrought bulk material.

PTA Cladding

Plasma Transferred Arc (PTA) hardfacing is a versatile method of depositing high-quality metallurgically fused deposits on virtually all ferrous metals and most nickel based alloys. Soft, medium and high hardness materials/alloys, and carbide composites can be deposited on a variety of substrates



to achieve optimized properties including mechanical strength, wear, corrosion and creep resistance. PTA hardfacing has several significant advantages over traditional welding processes such as torch brazing (Oxygen Fuel Welding) and Gas Tungsten Arc Welding (GTAW).

QA/QC Inspection and Laboratory

Directed by our ISO9001 (2008) quality system, ASME, ASM and multiple OEM customer specific specifications we continually strive for qualitative excellence. Component inspections, dimensional reports, along with on-site NDT as required, are all an integral part of how we ensure we are always meeting our customer's most stringent requirements. Additionally, our fully equipped and staffed on-site metallographic laboratory ensures immediate support to any coating and overlay development as well as daily production quality requirements. It further reinforces our unremitting quest for excellence.

Our valued customers represent a diverse range of industries:

- Oil & Gas, from exploration to refining
- Industrial Gas Turbine and power generation
- Mining and materials processing
- Rotating and reciprocating equipment
- Maritime and industrial infrastructure
- Valves of all types and sizes

For further information, or to request a quotation, please visit our website www.fwgts.com, send us an e-mail info@fwgts.com, give us a call 713 225 0010, or just come and see us at our Pearland, TX facility.

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FW GARTNER THERMAL SPRAYING - Established In 1923

25 Southbelt Industrial Dr., Houston, Texas 77047

- toll free: 888-439-4872 ● phone: 713-225-0010 ● fax: 713-229-9841
- email: info@fwgts.com ● www.fwgts.com

