

along with carbides. Plasma spray coatings can be optimized for controlled levels of porosity making this process the ideal choice as a thermal barrier coating for critical applications operating in severe service environments.

The unique characteristics of each thermal spray process are taken into account during the design or optimization phase of a new application. Understanding the combination of kinetic and thermal energy, and its interaction with the material to be sprayed, allows for tailoring and optimization of the coating to provide the best possible property set from a given material.



Repair and overhaul

As well as new manufacture, we also offer both component repair and refurbishment of gas and steam turbine components. These services range from 'tip repair' of compressor blades and vanes, repairs to combustion/ flame tubes, replacement honeycomb seals, specialised welding, fabrication and strip, inspection (including laboratory reports), braze/welds repair and re-coating of turbine blades, vanes and NGVs.'

Desirable features of Thermal spray:

- Controlled porosity and oxide content
- Low residual stress
- Stable phases
- Perfect interface

Thermal spray experience

Curtiss-Wright Surface Technologies has a wealth of expertise in thermal spray technology and currently operates in excess of 55 booths internationally. Our new thermal spray facilities in the UK have been installed with the latest equipment and technology including multi-axis robotic equipment which enables the transferability of tooling designs and remote programming. This allows best practices to be shared easily within the group and also offers commercial benefits to customers by reducing development and validation times.

In addition, our new facilities have also been designed for application development, parameter studies, coatings qualification and prototype work. Our coatings experts work directly with customers to diagnose problems and devise solutions.

One stop shop

Alongside our thermal spray coating capabilities we also provide a wide range of highly engineered surface treatments, enabling us to offer our customers the full advantages of a one stop surface engineering shop improving logistics and turnaround times.

Our full range of services includes:

- Controlled shot peening
- Shot peen forming
- Laser peening
- Engineered coatings
- Thermal spray
- C.A.S.E.™ super finishing
- Material testing services

We believe in working in partnership with our customers to solve their complex challenges and improve the life and performance of their products.

KEY BENEFITS

- Protect critical components against wear, corrosion, fatigue, oxidation and high temperatures.
- The bond strength can withstand severe wear, thermal shock and fatigue conditions.
- Coating thickness of the coating is highly controlled allowing restoration of worn parts.
- Temperature of the bulk substrate can be maintained at 150°C or less.
- Versatility in the choice of coating materials – metals, ceramics, alloys, polymers and carbides.
- The use of robotics means that even complex shapes achieve a uniform coating.

EUROPEAN CORPORATE OFFICE

Metal Improvement Company Curtiss-Wright

Hambridge Lane, Newbury
Berkshire RG14 5TU, UK

- T: +44 (0)1635 279621
- E: eurosales@cwst.com
- W: www.cwst.co.uk

USA COMPANY HQ

Metal Improvement Company Curtiss-Wright

80 Route 4 East, Suite 310
Paramus, New Jersey 07652, USA

- T: +1 (201) 843 7800
- E: info@cwst.com
- W: www.cwst.com

PARENT COMPANY HQ

Curtiss-Wright Corporation

13925 Ballantyne Corporate Place
Suite 400, Charlotte, NC 28277

- T: +1 (973) 541 3700
- F: +1 (973) 541 3699
- W: www.curtisswright.com