

## Service Information

Curtiss-Wright Surface Technology's (CWST) proprietary plasma spray surface coatings offer surface treatment and surface finishing options which enable customers to create high-performance components for specialized products in the automotive and other industries.

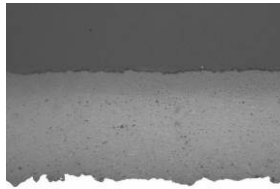
### Applications

CWST air plasma spray technology can impart properties unobtainable by base metal selection alone, on automotive products including:

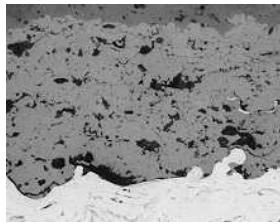
- Thermal:
  - Thermal barrier coating for complex piston bowl geometries valve faces and cylinder heads
  - Exhaust manifolds
- Electrical Insulation:
  - Electrical casing housings
  - Cover plates
  - Fuel injectors



*Typical Components coated with Thermal Barrier Coating (TBC)*



*Typical Microstructure of High Dielectric Alumina Coating*



*Typical Microstructure of Porous Thermal Barrier Coating (TBC)*

### Benefits

CWST air plasma spray technology has various benefits, on automotive products including:

- Thermal
  - Reduced heat loss
  - Retain high exhaust gas temperatures
  - Reduce ramp up times for after-treatment exhaust systems
  - Reduce component fatigue

- Electrical Insulation
  - Durable, and able to conform to configurations
  - Temperature resistant up to 500°C.

### Additional Information

Along with potentially improving thermal protection and insulation, CWST air plasma spray coatings can also benefit component design.

**Curtiss-Wright Surface Technology's** (CWST) and the affiliated companies of Metal Improvement Company provide surface treatments for demanding industrial applications including specialty coatings, shot peening, laser peening and heat treating from 68 facilities located in North America, Europe and Asia. Curtiss-Wright Surface Technologies is a wholly-owned subsidiary of the **Curtiss-Wright Corporation** (NYSE: CW), a diversified global provider of highly engineered products and services in the areas of metal treatment, motion control and flow control. The company applies its capabilities in the aerospace, agricultural, automotive, chemical processing, general industrial, marine, medical, military, mining and power generation markets.

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