



Regate HVOF Services

Nothing in an HVOF system is more crucial than its ability to produce high-quality coatings. Each of our systems is engineered to produce ultra-dense coatings at a rapid rate by generating exceptionally high particle velocity. We also have liquid-fueled and gaseous-fueled high-pressure equipment to help you get the best coating results.

Spray and Fuse Coatings

Sprayweld, Vacuum Fusing & Heat Treating

- Hard coating with a high bond strength hardnesses up to RC 62
- Resistance to heat, cold, corrosion, and galling
- Can be used on new or used parts
- Can be applied up-to .095" thick
- Lower cost
- Base metal restored to customer spec

High-Pressure Coating

Applications and Properties

- Can be applied to finished parts (new & used)
- Gates, seats, stems, pistons, mandrels, and washpipes
- Resistant to heat, cold, corrosion, and galling
- No heat treatment needed
- Very hard surface: RC 70
- High bond strength at 12,000+ PSI

HVOF Spraying Materials

- Tungsten Carbide
- Tungsten Carbide-Cobalt-Chrome
- Tungsten Carbide-Nickel Superalloy
- Chromium Carbide
- Stainless Steel



What is HVOF?

A thermal spray technique in which a fuel and oxygen are combined, fed into a combustion chamber, and ignited is known as High Velocity Oxygen Fuel (HVOF) coating. The gas created in the combustion chamber has a very high temperature and pressure, and it is ejected at supersonic speeds through a nozzle.

Powder is injected into a high-velocity gas stream and driven toward the coating substrate. As a result, the coating has a low porosity and a high binding strength to the substrate material, making it wear and corrosion resistant.

The high velocity of the particles provides kinetic energy, which is more essential than temperature in the HVOF spraying process. One of the advantages of the HVOF spraying method is that these dense and hard coatings can be applied at low temperatures.

HVOF Benefits

Frac components are subjected to a large amount of tensile stress due to flexing and sliding wear. An HVOF coating protects items and outperforms chromium plating in terms of wear and corrosion resistance. When compared to conventional thermal spray methods, this is just one of the many advantages of the HVOF process.

HVOF coatings are ideal for preventing wear and corrosion on items that are prone to harm. Spraying HVOF coatings on hydraulic frac valves and ancillary parts is a great illustration of how this process may be employed.

**Contact a Performance
Advisor Today**

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