

# High Velocity Oxy Fuel (HVOF) Thermal Coatings

HVOF coatings have been used for over forty years across many industrial sectors to create very hard, dense coatings with low compressive strengths. HVOF coatings have been specifically developed to increase the service life of new metallic components as well as repair parts that have suffered from corrosion, erosion and wear.

Surface Technology operates fully automated spray booths to ensure a high-quality finish, proven to extend component life well beyond that of the original specification.

The HVOF process utilises a fuel gas and oxygen torch that propels a carefully mixed amount of powder onto the substrate at high velocities. The molten powder then sets and solidifies in a fraction of a second to form the specified coating.

## BENEFITS

- Versatility in the choice of coatings - options include Tungsten Carbide, Tungsten Cobalt, Nickel Chrome and Chrome Carbide
- Improved component protection against wear, corrosion, fatigue, oxidation and high temperatures
- Enables components to perform in harsh chemical environments and higher or lower temperature ranges
- The thickness of the coating is easily controlled, meaning the process can even be used to restore the dimensions of a worn part or incorrectly machined component
- Our advanced robotic application technology enables a uniform coating to be achieved on complex shaped and multifaceted components
- The bond that is formed can withstand extreme mechanical loads and severe wear situations

## TYPICAL APPLICATIONS

- Valve gates and seats
- Ball valves
- Pump impellers and internals
- Landing gear
- Mandrels
- Rock drill internals
- Subsea infrastructure components
- Jet engine components