



TECHNIQA

SURFACE ENGINEERING FZE LLC



HVOF - ARC SPRAY - FLAME SPRAY - PLASMA - TSA - TSZ

Thermal Spray Systems

TECNIQA provides application of factory and site-based specialist coatings to the Oil, Gas, Water and Power Industries. The arc spray application of exotic metal coatings is rapidly becoming more and more popular world-wide for the long-term protection of steel surfaces against extreme marine, high temperature and corrosive chemical environments, especially for areas where extended life to first maintenance is essential.

Features

- Extreme Corrosion Resistance
- Excellent Chemical Resistance
- High Temperature Resistance
- Extremely Durable – Extended Service Life

Applications

- Splash Zone Area Jacket Legs/ Riser Pipe
- Splash Zone Area Conductors/Clamps/Casing
 - External Steel Flare Booms
 - External Demethanizer Column
 - External Pipe Spools
- External Structure Exposed to Marine Environments



Oil and Gas Applications

Oil & Gas

Components in the Oil, Gas and Petrochemical industries often are exposed to wear mechanisms as well as chemical attack and erosion. Failure of components can lead to massive financial losses. We are all aware of the terrible consequences that result from large oil spills and the associated ecological impact. Reliability therefore is a critical factor. This is especially true in continuous production operations. By using thermal sprayed coatings specific beneficial properties can be added to the surface. This results in improved reliability, long life, and reduced time.

Typical Thermal Sprayed Components in the Oil & Gas / Petrochemical Industry

- Sleeves
- Bearings and bearing bushes
 - Extruders
- Hydraulic plungers
 - Pump shafts
 - Compressor rods
 - Rotors
- Chemical and corrosive protection
- Thermal sprayed aluminium (TSA) against corrosion under insulation (CUI)
 - Seals - Gate & Ball Valves and seats
 - Lip seal seats
 - O-ring seal seats
 - Mechanical seals
 - Transformer Casings/Boxes



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Thermal spray

Thermal Metal Spray Systems are applied on a well-prepared surface and installed by a qualified crew, using the right equipment. All **TECNIQA** staff are qualified Applicators and re-tested every 6 months.

An Aluminium, Zinc, Monel, or other exotic metal wire, is fed into the arc spray unit, heated up to a molten substance then atomized and fused onto the surface. Once the metal spray is applied, the system is normally topcoated with a sealer coat to seal off the pores of the metallic spray.

TECNIQA is associated with some of the world's leading manufacturers of high-performance coatings. Some typical examples of systems are listed below, though we are not limited to using only these systems, as in many cases the client's specification is the driving fact

TECNIQA brings unrivalled levels of innovation, experience and expertise in corrosion engineering and contracting. We have in-depth knowledge of the industry, our customers' day-to-day challenges and the environmental, health and safety standards in the marketplace.



Project Housing



Dewatering pumps and parts, Volute, T-Piece, Reflux Body, Impellers, Shafts, coated with Aluminium and Zinc for serious corrosion, wear and tear.



A petrochemical pump rotor, about 21 feet long (7 m). A Mono style pump rotor coated for wear and corrosion resistance. The flutes vary 1/2 - 3/4" (12.7 - 19 mm) between top and bottom.



Coating of compressor rods for compressing gases or liquids in oilfields being coated with 86 - 10 - 4 tungsten carbide - cobalt chrome. It has a hardness of 1350 Vickers. After spraying it was ground to a mirror finish for less friction.



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Project Housing



TECNIQA coated shafts for vertical down hole pumps. They are 1.5" (38 mm) in diameter by 8.5 ft. (2.6 m) long. 8 areas 3" (76 mm) long will be coated with 1310V Tungsten Carbide - 10 Nickel for wear and corrosion protection. The coating is built up to 15 mils (0.4 mm) thick and then groundback to 10 mils (0.25 mm) finished thickness.



TECNIQA coatings on the Drive Sub for down-hole drilling. 1275H Nickel Self-Fluxing Alloy is applied for build-up if the repair is over 0.040" (1 mm) thick. 1310V Tungsten Carbide - 10 Nickel is applied for wear and corrosion protection. The coating is built up to 15 mils (0.4 mm) thick and then groundback to 10 mils (0.25 mm) finished thickness.



TECNIQA applies coatings in all areas, Splash-zone Area of Riser Pipes / Jacket Legs / Conductors, External Pipe Spools / Valves / Fittings / Bends and External Flare Booms. Bridges, Tankers, Ship Decks, Piping, Steel Tanks, Auger Screws of all sizes. TST can apply up to any thickness depending on the client's needs



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Project Housing



TECNIQA specializes in all Vessel Coatings, Inner and Outer Wall Coatings on all Tanks, Dewatering Tanks, Fuel Tanks and Transformers .TSA/TSZ Coatings are applied for
Corrosion, Wear and Tear.



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Project Housing



TECNIQA specializes in all Marine Applications, Tank Linings, Anti-Corrosion, Exhaust Stacks, Steam Pipes, Ship Decking, High Abrasion Areas, Chain Lockers, Process Equipment, Ballast Areas, Portable Water Tanks, Fuel Tanks, Super Structures of any Vessels, All Anchor Areas, Bow Thrusters, Ship Decks, Ballast Tanks, Heat Exchangers.





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Cement Plants

Acid / Alkali Tanks
Additive Hoppers
Baghouse Doors
Chemical Dosing Tanks
Clinker Hopper / Chutes
Clinker Silo
Condensers
Conveyor Structures
Cyclone Ducts
Duct Work
Gypsum Hopper / Chutes
Gypsum Silo

Jetty Structure
LRS Tanks
Preheater Structures
Pumps
Raw Mill Fans / Casings
Raw Water Tanks
RCC Foundation Protection
SEPAX Fan Casings
Ship Loader
Water Tanks
Substation Structures





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