



THERMOSPRAY



SURFACE FINISHING SOLUTIONS

THERMOSPRAY



Thermospray operates in the field of "Thermal Spray" coatings (**HVOF**, **APS** and **WIRE SPRAY**) using the most modern and effective technologies available on the market today. Despite being a young company employs a team of collaborators with proven experience in the field of surface finishing and coating.

The offer covers a broad spectrum of solutions thanks to the collaboration with Cromostamp Italia, leading company since 1978 in hard chrome plating, with which constitutes a group composed of two production units with a total of 3200 square meters and a workforce of 26 people.

The coating of the surfaces allows to improve the characteristics of the mechanical components. The resistance to wear and corrosion, thermal insulation, electrical insulation and even the improvement of the aesthetic aspect are some of the specifications on which it is most often possible to operate.

The "Thermal Spray" technology permit to use a wide range of materials. The right choice for a specific application requires specific knowledge about the service environment and the characteristics of the coatings. Thermospray can produce coatings according to customer specifications or according to its own specifications and will be happy to provide you with all the technical support necessary to develop your application.



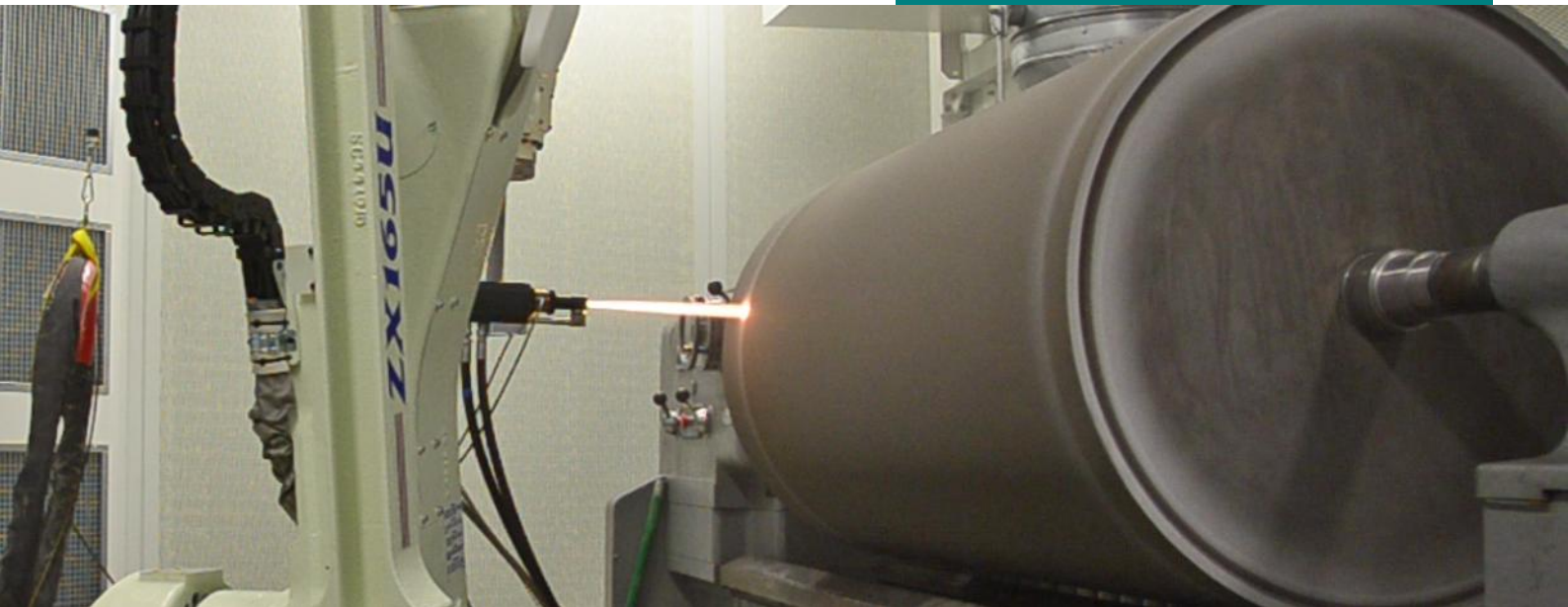
Coating cabin



HVOF and Plasma FST MP 50 Multi-Process System

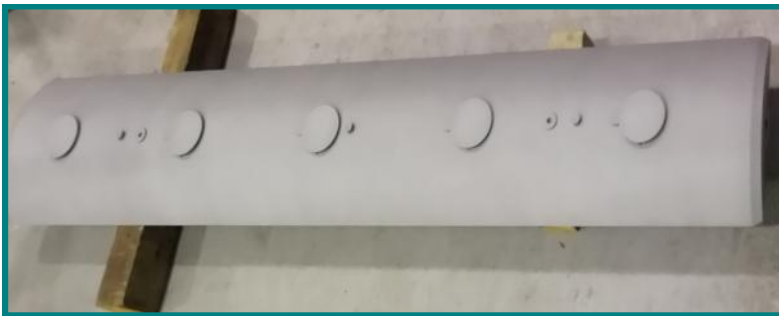


HVOF



HVOF

The coatings obtainable through HVOF technology show excellent characteristics including low porosity, high adhesion, resistance to wear and corrosion, high hardness and low friction coefficients. The wide variety of applicable materials (including pure metals, carbides, steels, self-melting alloys etc.) and their combinations allow to produce a virtually infinite range of coatings with peculiar characteristics according to the customer requests. Our systems for HVOF coatings are numerically controlled and subject to regular calibration by certified companies.



Mandrel segment HVOF coated



Continuous galvanizing line roll after coating



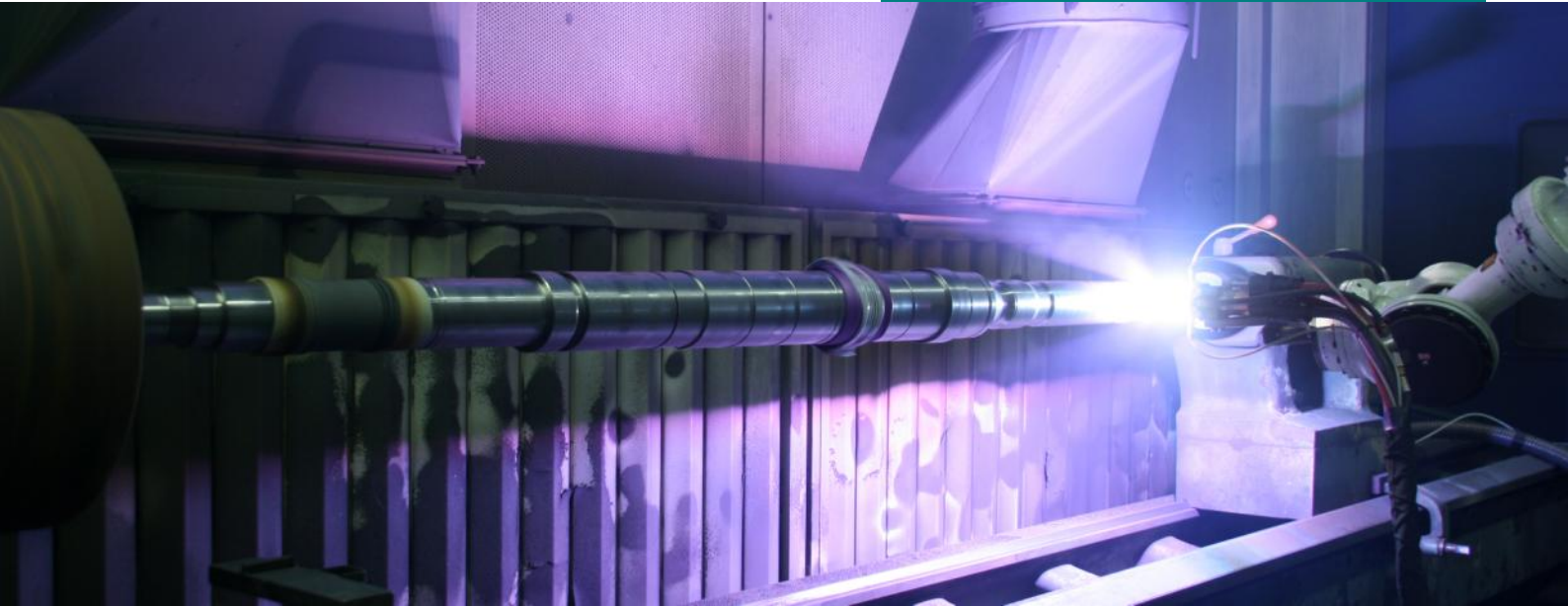
Electric rotors coated on the bearing seats and wear areas



Coating of a guide vane



APS

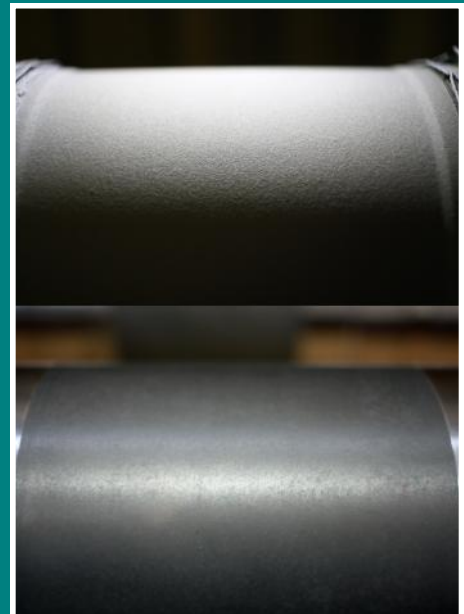


APS

The Air Plasma Spray generated by the ionization of a gas or a mixture of gases, including Argon Nitrogen and Hydrogen, reaches high temperatures (over 16000 ° C) allowing the reduction in the plastic state of ceramics (oxides), abrasible materials and metals with high melting point. The use of this technology is more frequent for the production of such coatings which may have, among others, characteristics of thermal insulation and electrical insulation. (In the image above coating of a pump shaft). Our systems for APS coatings are numerically controlled and regularly calibrated by certified companies.



APS coating on gear



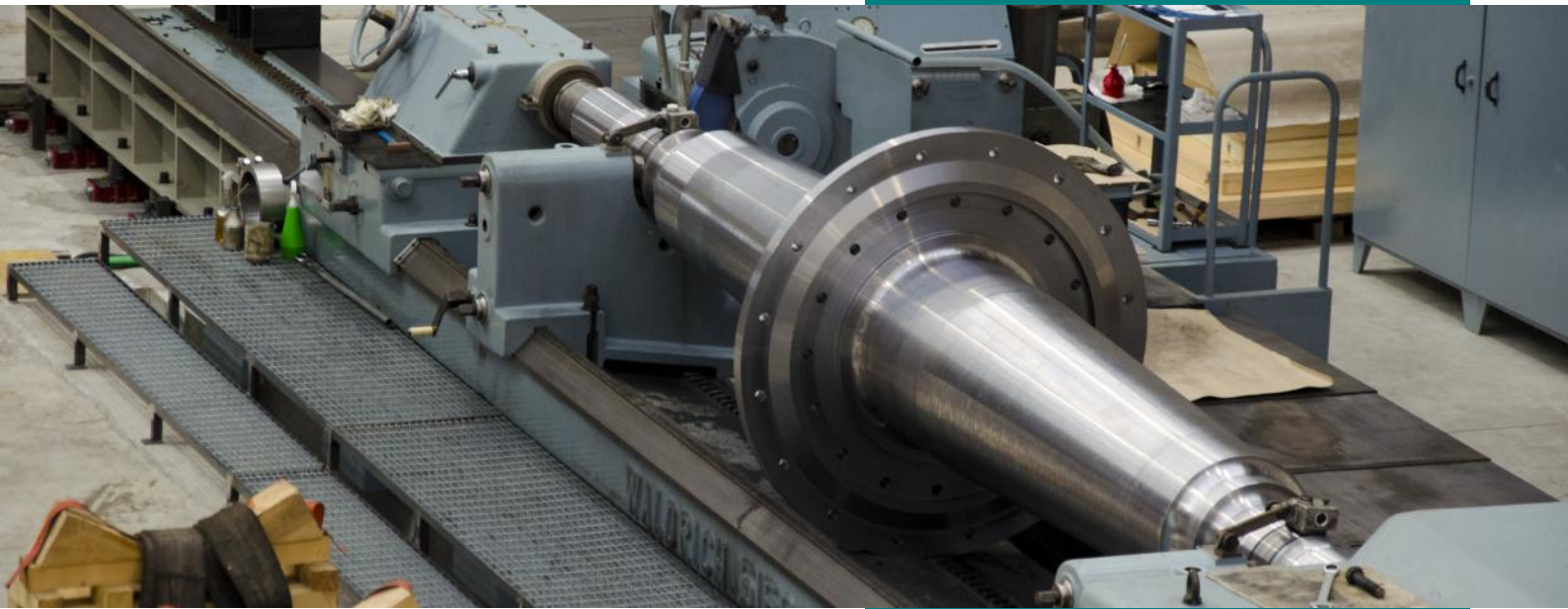
Ceramic coating, before and after grinding, on pump shaft bearing seat



Ceramic coated shafts



Services



THERMAL WIRE SPRAY

Use metals or metal alloys in the form of wires as feed-stock material. It is often used for the application of hard coatings for the restoration and dimensional reconstruction of surfaces and is well known for the application of anti-corrosive coatings, even on very large structures.

GRINDING

External cylindrical grinding up to the maximum dimensions of $\text{Ø}1.200 \times 11.000\text{mm}$ (up to $\text{Ø}1.500 \times 400\text{mm}$) and weight 25 tons. Conical, concave and convex grinding.

SURFACE FINISHING, POLISHING AND SANDBLASTING

Any required roughness value can be obtained through these operations up to grindable dimensions and beyond.

LABORATORY

The internal metallographic laboratory allows to provide the required certifications on all our products according to the current regulations on the type of production performed.



Thermal Wire Spray coating



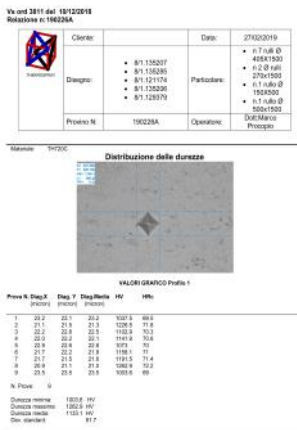
Roll grinding



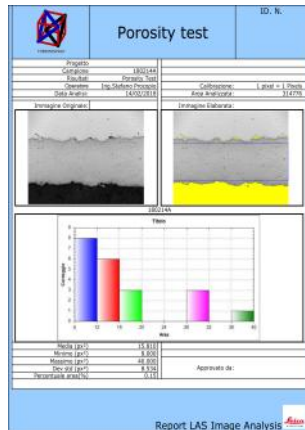
Metallographic laboratory



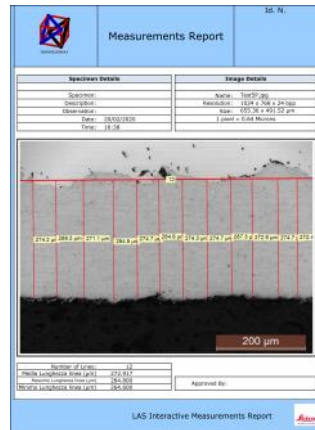
Inspection certificate examples



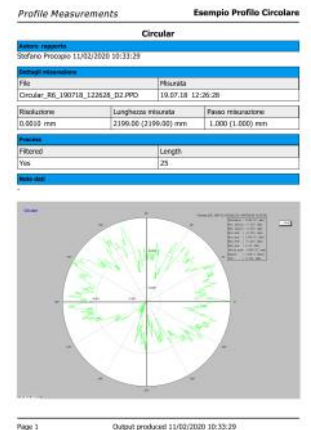
Micro hardness



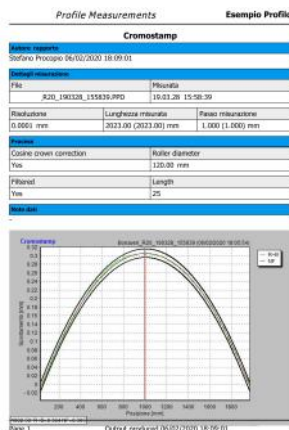
Porosity



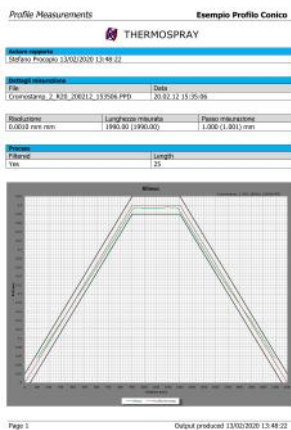
Thickness



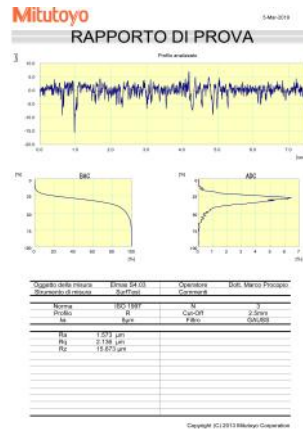
Run-out



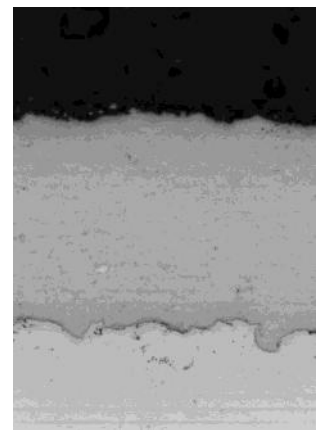
Convex Profile



Conical Profile



Roughness



Coating macrography



Thermal Wire Spray department



CNC Control system



Coating for bearings