ANTI-WEAR AND ANTI-CORROSION COATINGS BY ELECTROSPARK DEPOSITION AND ELECTROPHORESIS

Innovations and Benefits - Application of anti-corrosion and anti-wear metal coatings by Elettrospark Deposition and process automation. Improvement of the anti-corrosion properties of polymer coatings deposited by electrophoresis, through the use of nanocharges. Use of low cost and easy scalability techniques.

Use - Anti-corrosion and anti-wear coatings to improve the performance of low quality materials and components. Metal alloy depositions with new formulations, which can be optimized for use in highly corrosive environments. Coatings of components and mechanical parts with complex geometries. Repair of components with worn and damaged surfaces.

Applications and ongoing Activities - Prototyping of internal components of public transport vehicles (RINNOVA Regional Project). Coatings based on Tungsten Carbide and Stellite on steel pump and turbocharger components (SMATI Project).



1) ElectroSpark Deposition system with motorized stage



2) Detail of the ElettroSpark Deposition system





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