Thermal Spraying

Research and development in the field of thermally sprayed coatings, custom manufacturing and renovation of parts using thermal spray technology.

Our Services

- Application of protective coatings using thermal spraying methods
- Thermal sprayed coatings resistant to wear, abrasion, erosion, corrosion, high temperature etc. based on metal, alloy, superalloy, cermet and ceramic materials
- R&D and consultancy in the field of thermal sprayed coatings
- Tribologic testing of materials and coatings
- Testing of abrasion and erosion resistance of materials and coatings
- Adhesive tests of coatings

Technical equipment

- Thermal spraying of parts up to the length of 6000 mm, diameter of 1800 mm and weight of 6000 kg
- TAFA JP-5000 HP/HVOF spray system from TAFA Incorporated, (HP/HVOF method - High Pressure/High Velocity Oxygen Fuel)
- TAFA Model 9000 twin wire arc spray system from TAFA Incorporated
- 6P-II for flame spraying from GTV
- Equipment for the determination of abrasion resistance in compliance with ASTM G-65 (Dry Sand Rubber Wheel)
- Equipment for the determination of adhesion resistance in compliance with ASTM G-77 (Block on Ring)
- Equipment for the determination of erosion resistance of materials

References

- Doosan Škoda Power (CZ)
- GE Aviation Czech (CZ)
- SANBORN (CZ)
- Sigma Pumpy Hranice (CZ)
- Tribo Engineering (CZ)
- ŠKODA JS (CZ)
- AERO Vodochody AEROSPACE (CZ)
- United Energy Komořany (CZ)
- ŠKODA TS (CZ)
- PD-Refractories (CZ)
- Wikov Gear (CZ)
Spraying technologies in VZÚ Plzeň

- Development of high performance coatings for specific applications including multilayers
- Development of customized coatings based on analysis of operational environment
- Testing of mechanical, corrosion, tribological properties of coatings
- Administration support with R&D tax allowance and R&D public funding applications
- Project management
- Industrial scale application of a thermal sprayed coatings

Industrial application

- Providing complex outsourcing services of thermal spraying
- Pre-spraying procedures (degreasing, blasting, check of residual corundum, masking)
- Thermal spraying of coatings (HP/HVOF, flame, arc, plasma)
- Surface finishing (grinding, turning, milling)
- Heat treatment (tempering)