

Turbine Component Coatings: Thermal Spray

SAEBYR personnel have many years experience in all aspects of Thermal Spray Coating technologies. This applies both to Aero Engine and Power Generation turbine applications. We have been at the forefront of a number of OEM and 3rd Party facilities' coating provision programmes. Examples of specific expertise are detailed below:

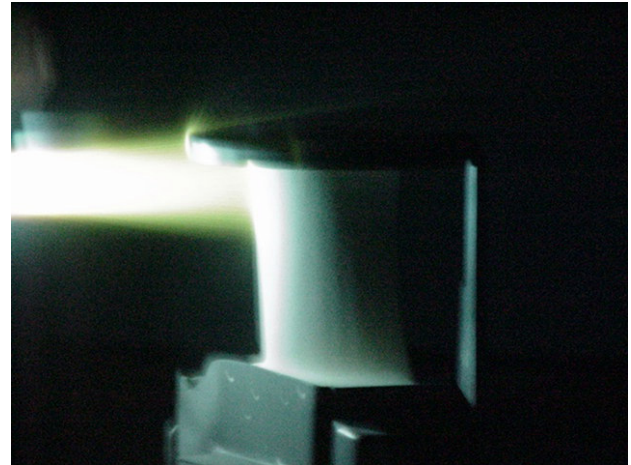
Thermal Spray:

Atmospheric & Low Pressure Plasma Spray, HVOF. MCrAlY bond coat, TBCs, Wear Coatings, Parent metal build-up.



- Undertaken process stability studies, for both APS and LPPS processes, prior to carrying out full process parameter optimisations.
- Implementation of incoming powder control mechanisms. Subsequently, setup spray parameter vs. powder characteristic correlations to maintain coating quality and deposit efficiency.
- Implementation of Thermography as an in-process quality assurance tool. This provided the operator

with a Go-NoGo decision prior to coating during the LPPS process.



- Implementation of simulation software to allow for "off-line" programming and evaluation of process changes-with respect to component coating thickness.

SAEBYR also provides the following as part of the customer service:

- Coating type selection / Coating upgrade selection.
- Compile coating specifications.
- Advise design personnel on manufacturing capabilities (Design For Manufacture)
- Full Laboratory analysis – including SEM/EDAX
- Performance testing of coatings (Thermal Cycle, Oxidation, Corrosion etc).

SAEBYR complements the process knowledge service with the ability to design and source any coating fixturing and component masking the customer may require.

SAEBYR Precision Technology Ltd is an engineering solution provider specialising in the Gas Turbine Component Industry. SAEBYR covers both the Aero Engine and Power Generation markets. We provide our customers with services, ranging from **Technical Consultation**, through defined **Projects**, to complete **Technical Outsourcing**.

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