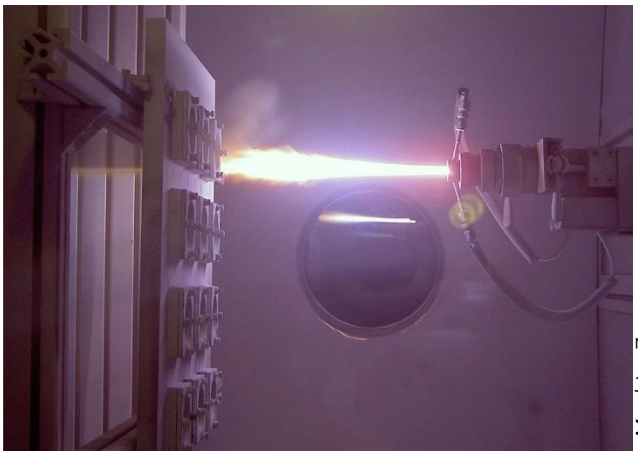
enovasense
BEHIND THE INVISIBLE

THICKNESS MEASUREMENT OF **METALLIC AND CERAMIC** COATINGS DEPOSITED BY **PLASMA SPRAY THERMAL PROJECTION**

- **Contactless** and **non destructive**
- Possible to measure high temperature parts
- High repetition rate for continuous following of the thickness
- Available for **metallic and ceramic** coatings
- Possible to measure inside cylinders
- Possible to measure before and after boring
- Automated storage and archiving of referenced measurement data
- Live communication stream of data to line controller



Matthias Zepper

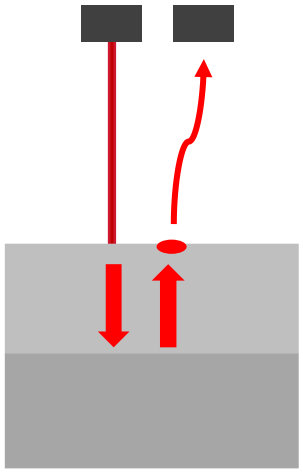
EXAMPLES OF APPLICATIONS

- Medical prothesis coatings (hydroxyapatite, titanium…)
- Aircraft engines coatings : turbine blades, compressor blades, sealing (nickel, zinc, copper, aluminium… alloys)
- Automotive cylinder bore spray coatings (iron on aluminium)
- Gaz and energy turbine blades coatings

REPEATABILITY

Range of thickness	0-50µm	50-300µm	300-1000µm
in µm	< 2 µm	<2 µm	<5µm
in % of measured value	<5%	<2%	<1%

INNOVATIVE LASER MEASUREMENT TECHNOLOGY



ADVANTAGES AND SAVINGS

- Nondestructive and fast measurement allows to improve precision, gain time and increase the number of data compared to cross section and profilometer measurements.
- When implemented inside the plasma chamber, allows to follow the thickness of the layer between different deposition steps.

Dimensions of a measuring head	l75 x L32 x h41 mm
Range of thickness available	0-1000µm
Repetition time	0,5s
Distance probe-part	40mm
Spot diameter	10mm

Polytec
POLYTEC GmbH
Tel: +49 (72 43) 604 1730
Polytec-Platz 1 - 7
Fax: +49 (72 43) 6 99 44
D -76337 Waldbronn
E-Mail: ot@polytec.de
GERMANY
www.polytec.de