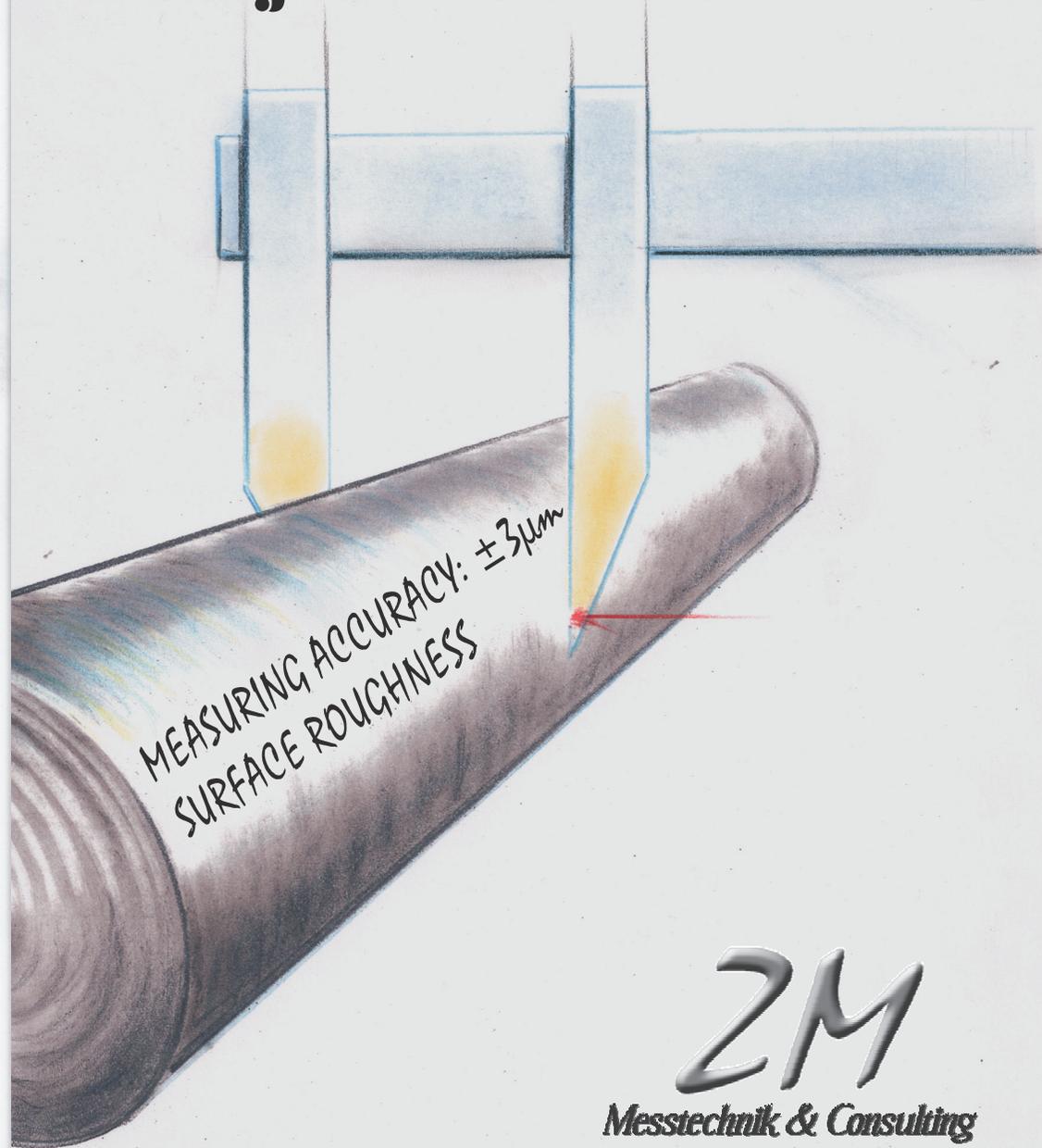


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Optical Coating-Characteristics-Control



ZM
Messtechnik & Consulting

OC³ Optical Coating-Characteristics-Control



Thermal spraying is a well-established technique for producing high quality coatings on each kind of component. For a qualification of significant coating characteristics as coating thickness or the surface roughness the process has to be stopped.

This is a waste of time and money.

The innovative OC³ measuring system solves this problem: By using laser triangulation the applied coating is measured with high accuracy and displayed during the coating process. When the coating process has reached the desired layer thickness, the user is being automatically notified. As the measuring system features a real time trigger function it is also applicable for rotary targets (i.e. print roll, cylinder coating etc.).

When the substrate has grind to a halt, the surface roughness is being measured.

Characteristics of the OC3 measuring system:

- Measuring of layer thickness while coating process is running (layer by layer), measuring accuracy $\pm 3 \mu\text{m}$
- Coating is automatically stopped when the desired layer thickness is reached
- Saves time and money
- Measuring of surface roughness (RZ_{10-50})
- Applicable for all bond coatings and top coatings (metals, alloys, ceramics, plastics and composites ceramics)
- Applicable for all surface structures (porous, dense, thick, thin)
- Applicable for all spray systems (HVOF, Plasma, Coldgas, Wire etc.)
- Applicable for all basic substrates

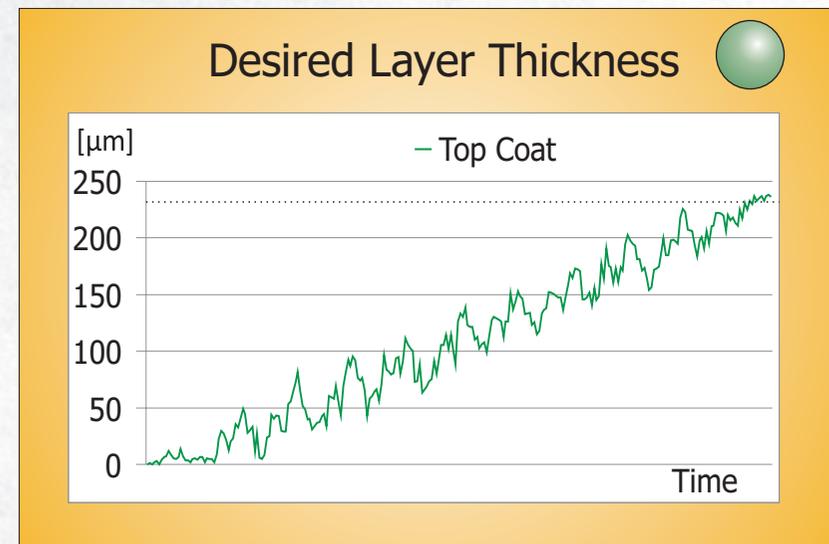
Application area:

Technical specifications:

- Thermal spraying

System features:

- Measuring system in a robust metal case (IP65)
- OC³ software: Clearly represented, on-line
- Touchscreen industry panel PC (incl. interface)
- A complete accessories kit (10 m connecting cable, inductive trigger, PLC connection)
- Measuring range (length x width x height) 35mm x 15mm x 5mm
- Laser safety class 2b



Typical trend for coating thickness versus time