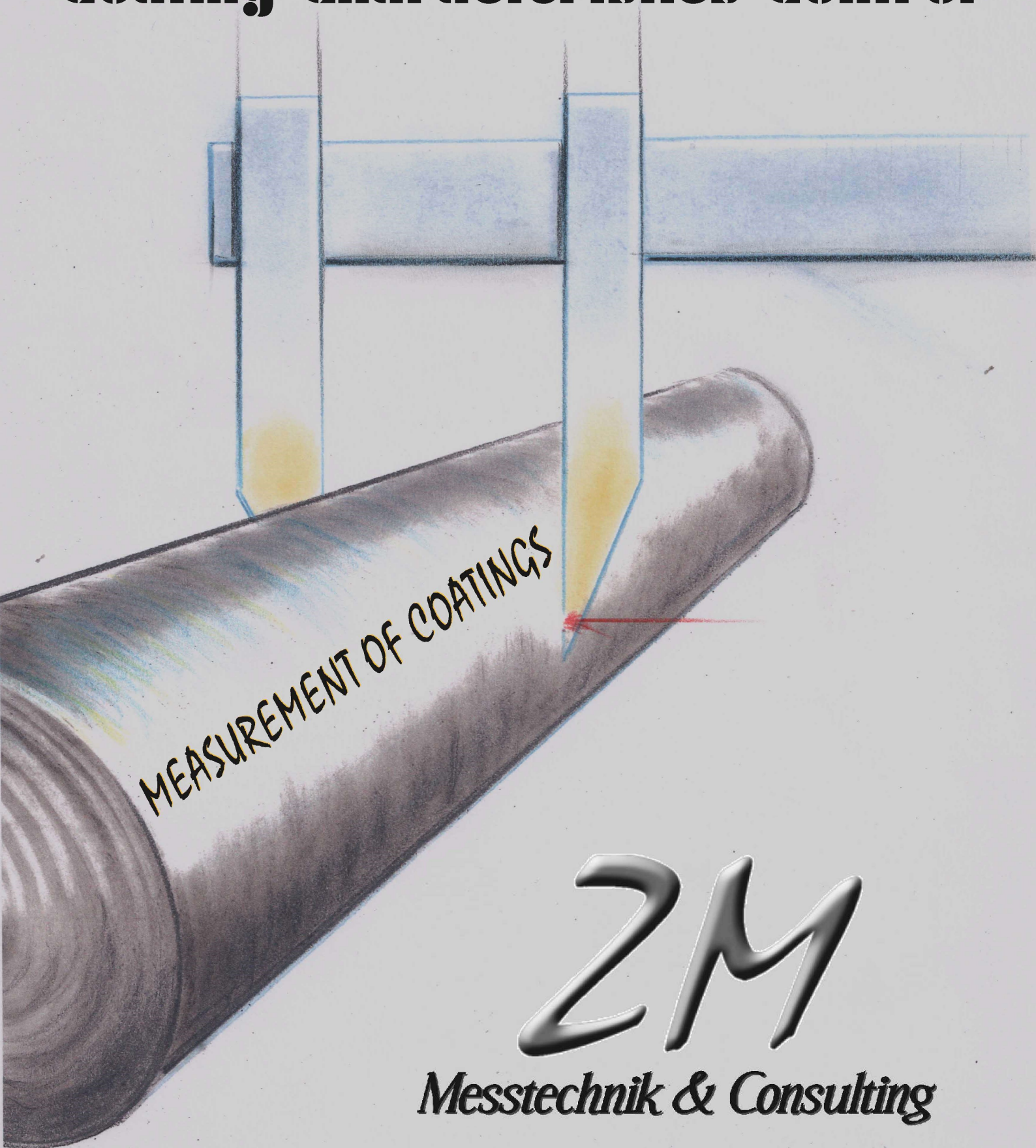


Optical

Coating-Characteristics-Control



MEASUREMENT OF COATINGS

ZM

Messtechnik & Consulting

OC³ Optical Coating-Characteristics-Control

Thermal spraying is a well-established technique for producing high quality coatings on all kinds of materials. To qualify significant coating properties such as coating thickness or surface roughness the process has to be stopped.

In addition to the cost-intensive loss of time, the process interruption is not very desirable.

The innovative OC³ measuring system starts at exactly this point: By using line-laser-triangulation, a series of coating parameters during the coating process are determined with high accuracy.

Measured layer parameters:

- | | | |
|------------------------------|-------------------------------------|--------|
| - layer application | <input checked="" type="checkbox"/> | Online |
| - layer roughness Rz (10-50) | <input checked="" type="checkbox"/> | Online |
| - coating layer gap | <input checked="" type="checkbox"/> | Online |
| - component deformation | <input checked="" type="checkbox"/> | Online |

For disc-shaped components for example brake discs it is also possible to determine coating defects like small pin holes. Due to the high resolution required for this however the measurement can only run in a downstream measurement i.e. no longer online.

- | | | |
|------------------|-------------------------------------|---------|
| -coating defects | <input checked="" type="checkbox"/> | Offline |
|------------------|-------------------------------------|---------|



Features of the OC³:

- process control for serial production (24/7)
- for all layer systems made of metal and ceramic
- Online determination of essential layer parameters
- Offline pin hole detection with position information
- designed for integration into existing coating plants (PLC compatible)
- clear and easy to use
- two operating levels: User / Administrator
- result and data backup (component logging)

Application areas:

- all thermal coating processes
- all laser cladding processes (including EHLA)
- planar surfaces
- rotationally symmetrical components (disks, cylinders)

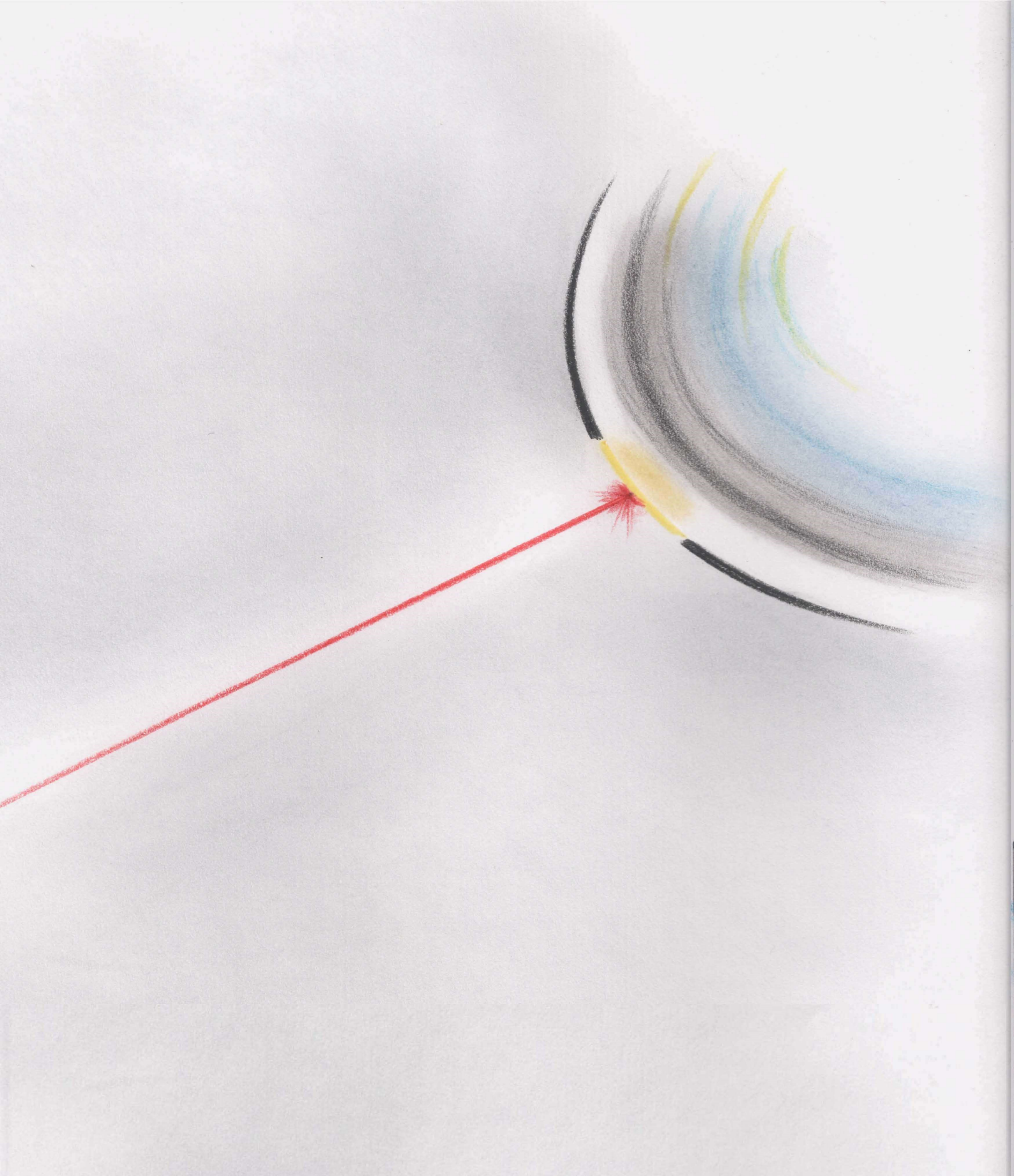
Characteristics and technical data:

system:

- robust measuring system for dusty atmospheres
- measuring accuracy max.: $\pm 3,5\mu\text{m}$
- laser protection class: 2, $<100\text{mW @ } 450\text{nm}$
- touchscreen operation
- operating system of the communication PC: Windows 10

interface:

- supply: 24V DC @ 500mA
- network: 1Gbit/100Mbit
- incremental encoder, counting frequency max.: 200kHz



Protecting the environment is important to us! This Flyer is printed on recycled paper.

Zierhut Messtechnik GmbH
www.zierhut-messtechnik.de
phone: +49(0)173 568 3232