

Non-contacting roundness measurement for rollers

In the production of tapes and foils the high speeds of up to 2700 m/min that are used today lead to an increased vibration tendency in the roller stands. Even smallest μ m-range irregularities in the rolling contour lead to cross-grooves on the rolled material and thus clearly reduce the quality of the product. For quality assurance a high-precision roundness measuring system for rollers is required, in which an eddy-current sensor measures the surface contour of the roller. Ambient conditions like dust or oil must not affect the measurements. With computer support the angular position of roundness errors and the accumulation and periodicity of circularity errors can be documented.

Technical details

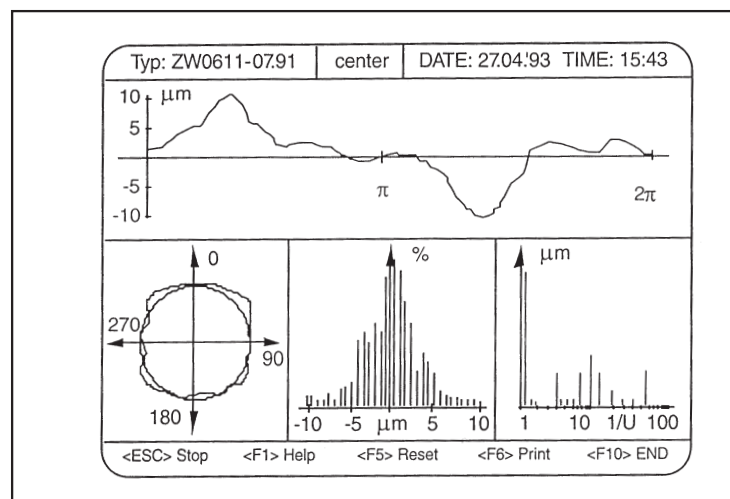
- Measuring range: 1000 μ m
- Accuracy: 0,2 %
- Resolution: 1 μ m
- Band width: 10 kHz (-3dB)

Ambient conditions

- Temperature: approx. 24 °C
- Surrounding: industry hall, dust, oil

Reasons for choosing the system

The eddy-current sensors measure reliably, accurately, and without contact. They are non-wearing and require no maintenance. Dirt, dust, moisture, oil, and dielectric materials in the measuring gap are not detected



Visualization of the measuring results