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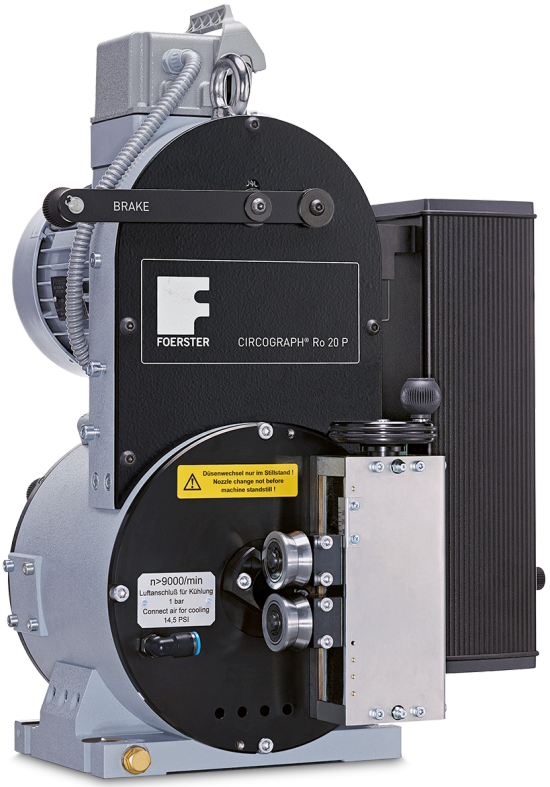
CIRCOGRAPH SENSOR SYSTEMS

Rotating sensor systems for maximum detection sensitivity



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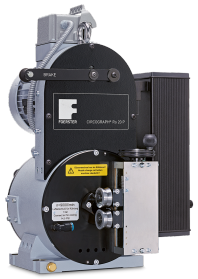

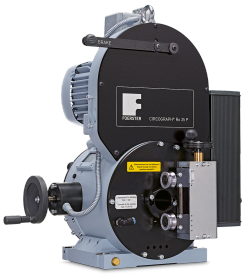

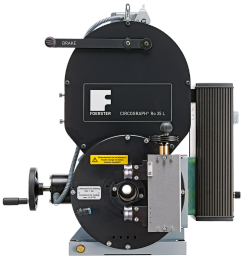

The right rotating head for every inspection task. The CIRCOGRAPH rotating sensor systems are designed for the reliable detection of longitudinal surface defects on bright products. Available in different sizes and configurations, they provide optimum inspection performance for tubes, bars and wire with diameters ranging from 2 to 130 mm.

During inspection, the probes rotate around the test material at high speed and scan the entire surface in a continuous spiral without contact. This enables reliable detection of even the smallest surface-breaking defects while maintaining high throughput rates and complete surface coverage.

Highly dynamic lift-off compensation ensures stable inspection results even on materials with varying geometries or eccentric guidance. Depending on the application, pin and levered versions are available to provide optimum sensor protection and maximum process reliability in demanding production environments.

YOUR ADVANTAGES AT A GLANCE

Maximum detection sensitivity: Reliably detects even the smallest longitudinal surface defects from approximately 30 µm.

Wide diameter range: Rotating heads for materials from 2 to 130 mm in diameter.

Continuous full-surface inspection: Spiral scanning ensures complete surface coverage without contact.

Reliable inspection under changing conditions: Dynamic lift-off compensation maintains stable signal evaluation even with varying material geometries.

Application-specific configurations: Different rotating head sizes, track widths and probe arrangements for optimum inspection performance.

Enhanced sensor protection: Optional levered versions protect probes from uncontrolled material ends during production.

High throughput: Inspection speeds of up to 3 m/s support efficient inline production.

Designed for industrial use: Robust construction for reliable long-term operation in demanding production environments.

TECHNICAL INFORMATION

DIAMETER RANGES:	— 2 – 20 mm (Ro 20 P) — 2 – 38.5 mm (Ro 35 P) — 5 – 35 mm (Ro 35 L) — 5 – 65 mm (Ro 65), — 10 – 130 mm (Ro 130)
MAXIMUM ROTATIONAL SPEED:	— stepless up to 18,000 rpm (Ro 20 P) — 4,500 / 9,000 rpm (Ro 35 P & Ro 35 L) — 3,000 / 6,000 rpm (Ro 65) — 1,500 / 3,000 (Ro 130)
PROBES:	— 2 at 180° angles, 1 sensor each (Ro 20 P) — 4 at 90° angles, 1 sensor each (Ro 35 P & Ro 35 L) — 2 at 180° angles, 2 sensor each (Ro 65) — 2 at 180° angles, 2 sensor each (Ro 130)
TRACK WIDTH	— 1.5, 2.5 or 5 mm (Ro 20 P, Ro 35 P) — 2.5 or 5 mm (Ro 35 L) — 2.5, 5 or 10 mm (Ro 65) — 2.5, 5 or 10 mm (Ro 130)
MAX. TEST SPEED (AT 100 % COVERAGE):	— 3 m/s (Ro 20 P, Ro 35 P, Ro 35 L) — 2 m/s (Ro 65) — 1 m/s (Ro 130)

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The FOERSTER Group is represented by subsidiaries and representatives in over 60 countries worldwide. You can find a complete overview on our website.

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