

EDDY CURRENT INSPECTION BY ROTATING HEAD

RotoETscan

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APPLICATION

Often installed on production line or offline inspection station, the rotating head RotoETscan is dedicated to the control of cylindrical products such as tubes, bars and wires.

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MAIN ADVANTAGES

- High productivity due to high rotating speeds up to 6 m/s
- Test material temperatures of up to +80°C are allowed
- Contactless signal transmission
- Automatic gap compensation (clearance compensation)
- Very fast adjusting time
- Robust monobloc construction
- Minimum depth of detected defects: 30 µm
- Contactless with the inspected product
- Bearing temperature sensors
- Available in 2 or 4 channels
- Inspection results are displayed directly on ZeteMaster and an inspection report is created
- Filter of short defect
- In accordance with international standards such as ASTM, API, BS, AF, DIN, EN, SEP and others

USED FOR

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It is the most sensitive method for detecting surface or subsurface superficial longitudinal scratches/notches thanks to rotating probes.

PRODUCTS RANGE

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Several versions of the system are available covering the product diameter range from approx. **0.8 to 220 mm (1/32-8.7")**

STANDARD EQUIPMENT

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- Adjustable plate in diameter, 4 probes
- Input and output centering devices (manual or automatic closing)
- Protective guide to protect test head from damage

OTHER CONFIGURATIONS AVAILABLE

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- Adjustable plate with only 2 probes
- Cassette for fixed diameter (economical solution)
- Plate with centrifugal closing (automatic opening/closing on the product by centrifugal force)
- Digital display of the product diameter by laser measurement
- Roller guide to convey the product



ASSOCIATED SYSTEMS

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- **ZeteMaster** is available in different versions: standard (with touchscreen) or rackable
- Remote Assistance

Products range

Operating Principle

	TRVC	TR20	TR35	TR65	TR130	TR160	TR220
REFERENCES	5100VC	5100SP	5100SP	5100	5200	5300	5400
∅ range (mm)	0.8 to 10	4 - 25	5 - 35	6 - 65	14 - 130	20 - 160	40 - 220
∅ range (inch)	1/32 to 3/8	5/32 to 1	3/16 to 1.5	1/4 to 2.5	9/16 to 5	3/4 to 6.3	1.5 to 8.7
Rotational speed standard version (RPM)	9000 Option: up to 18000	8000 Option: up to 18000	7000 Option: 9000	3000 Option: 6000	3 000	2500	2000
Rotational speed centrifugal closure plate (RPM)		4000			2000	1600	1000

The product is translated through the rotating head, where two or four Eddy Current probes inside the head rotate around it at high speed and without physical contact. The probes scan the surface of the product along helical paths.

Whenever a probe passes over a crack, it generates a signal. The rotating system produces a series of consecutive signals, reliably indicating a flaw of a specific length. The defect signal are transmitted to the electronic system for analysis.

The inspection results are displayed on the instrument's screen as a time-based graph and/or a Lissajous figure. Defect signals can also be transmitted to a marking unit. At the conclusion of the inspection, the Production software generates a detailed inspection report.

