

EDDY CURRENT ENCIRCLING COILS RANGE

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APPLICATION

These Eddy Current coils perform surface/sub-surface inspection of tubes, bars and wires made of non-ferromagnetic and ferromagnetic metals.

They are designed to be easily inserted into a CMS system to perform the inspection properly.

USED FOR

These coils detect short and transverse defects such as cracks, inclusions, slivers, laps...

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PRODUCTS RANGE

- Several size of the coils are available covering the product diameter range from approx. **0.1 to 230mm (0.004 to 9")**

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MAIN ADVANTAGES

- Fast and easy change
- Robust construction
- Wide range of profiles and diameters
- Unlimited inspection speed
- Differential and absolute control
- Excitation frequency: 5 kHz - 600 kHz
- Contactless inspection
- Can be combined with CMS accessories
- In accordance with international standards such as ASTM, API, BS, AF, DIN, EN, SEP and others
- CMS coils can be compatible with others Eddy Current brands

OTHER CONFIGURATIONS AVAILABLE

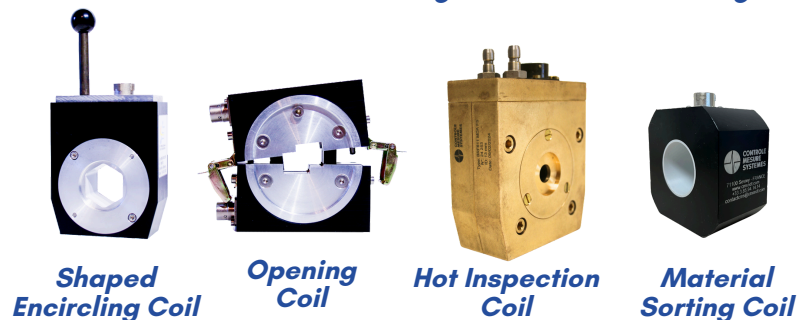
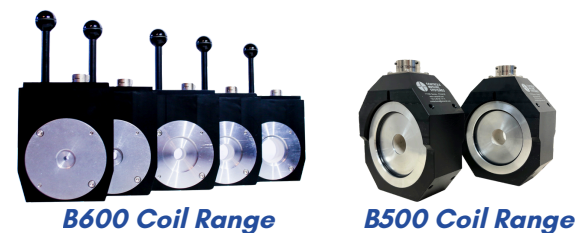
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- **Standard round encircling coil, two versions available B500 and B600:** for tubes, bars and wires inspection
- **Shaped encircling coil:** for hexagonal, oval shape, etc
- **Opening coil:** for wires or continuous products inspection (avoid cutting the product)
- **Hot inspection coil:** for hot rolling inspection (cooling system)
- Specific version for **material sorting**

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ASSOCIATED SYSTEMS

- Coil support
- Magnetizing unit



Operating Principle

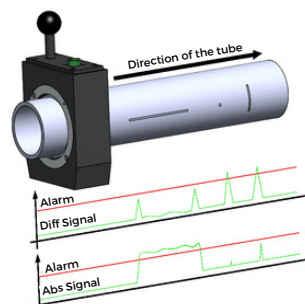
The product passes through an encircling coil during inspection.

This technique enables the inspection of products such as bars, tubes, or wires with circular, square, or hexagonal cross-sections.

When a flaw is present, the coil's impedance changes, indicating a defect.

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 end of the inspection, the production software generates a detailed inspection report.



3 ranges of frequencies are available :

- Low frequency from 5 to 150 kHz
- Middle frequency from 100 to 400 kHz
- High frequency from 300 to 600 kHz

Several kind of winding are available:

- Absolute
- Absolute + differential
- Absolute + Multi differential
- Bridge or drive pick-up function configuration are available