



# ECT PROBES

## Electromagnetic Testing Probes

The UCOMAX tube probe range offers a diverse selection of high-performance solutions for tube inspections, combining lightweight design with durable construction for a variety of testing methods. These probes support eddy current (EC), remote field, magnetic flux leakage, and IRIS ultrasound techniques, and are suitable for both ferromagnetic and non-ferromagnetic tube applications.

The eddy current bobbin probes are compact, affordable, and designed for durability, with coils shielded by a plastic sleeve and stainless-steel wear guides at both ends for enhanced protection. These probes are perfect for inspecting heaters, coolers, and heat exchangers.

### Features:

- Durable and lightweight design.
- Economical and cost-effective solution.
- Protective plastic sleeve covering the coils.
- Stainless steel wear guides at both the front and rear.
- Ideal for inspecting heat exchangers, coolers, heaters, and more.



## MFL Probes

### Content:

The magnetic flux leakage probes feature an advanced high-saturation optimized magnetic design and interchangeable wear rings for enhanced wear resistance. These probes are well-suited for inspecting air-cooler tubing with aluminum fins and detecting circumferential cracks.

### Features:

- Advanced high-saturation optimized magnetic design.
- Enhanced wear resistance with replaceable wear rings.
- Capable of detecting external volumetric defects.
- Ideal for air-finned cooler applications.







## Saturated ECT Probes

Saturated Magnetic Probes feature an ultra-durable design with a hardened steel wear surface, ensuring a long operational life even in the most demanding environments. They are specifically engineered to reduce permeability noise in mildly ferritic materials such as Monel, 3RE60, SEA-CURE, and 400-series stainless steel.

### Recommendations

These probes are suitable only for the inspection of mildly ferritic tubes with a thickness of less than 1.5 mm. They may not achieve adequate magnetic saturation in other applications.

## Features

- Ultra-Durable Construction for dependable operation in tough conditions.
- Hardened Steel Wear Surface offers extended service life in harsh environments.
- Designed to Suppress Permeability Noise in mildly ferritic materials like Monel, 3RE60, nickel, SEA-CURE, Duplex, and 400-series stainless steel.



## NFT Probes

The near-field probes are designed for effective inspection of carbon steel fin-fan tubes, offering exceptional detection of internal corrosion, erosion, and axial cracking. They provide high-quality amplitude-based signals, allowing for quick and straightforward data analysis without the need for a reference probe or extension.

### Features:

- Perfect for inspecting carbon steel fin-fan tubes.
- Outstanding capability to detect internal corrosion, erosion, and axial cracking.
- Not suitable for detecting outer diameter (OD) defects.
- Eliminates the need for a reference probe or extension.
- Delivers high-quality, amplitude-based signals.
- Simplifies and accelerates data analysis.





## RFET Probes

The remote field probes are equipped with a preamplifier and feature enhanced wear resistance, a thicker casing, improved differential response, and better signal-to-noise ratio (SNR). Designed for detecting irregularities like pitting, corrosion, and erosion in ferromagnetic tubing, these probes are available in below mentioned configurations.

### Single Exciter Probes

#### Features:

- Features a robust 32 dB
- preamplifier for enhanced signal clarity.
- Upgraded casing with increased
- thickness for superior wear resistance.
- Optimized differential response for improved accuracy.
- Effectively detects defects like pitting, corrosion, and erosion in ferromagnetic tubing.

### Dual Exciter Probes

#### Features:

- Integrated 32 dB preamplifier for enhanced signal amplification.
- Selectable single or dual exciter operation via the software interface.
- Optimized differential response and superior signal-to-noise ratio.
- Improved sensitivity to pitting when using dual exciter mode.
- Enhanced detection of irregularities near the support plate.
- Upgraded casing with increased thickness for greater wear resistance.



## Flexible ECT Probes

The eddy current flexible probes are constructed with durable stainless steel and equipped with a titanium protective cover for the coils. They are optimized for inspecting tight U-bends with curvature radii as small as 50 mm (2 inches).

### Recommendations

TEG probes are suitable for inspecting tight U-bends with curvature radii down to 51 mm (2 inches). These probes are designed to inspect one-half of the U-bend (90°) from each side of the tube.

### Features

Durable stainless steel construction for long-lasting performance.

Titanium protective cover ensures coil protection.

Capable of inspecting tight U-bends with a curvature radius as small as 50 mm (2 inches).







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