

## Flexible Eddy Current Array Probe for Weld Inspections



### KEY FEATURES & BENEFITS

- Fast and easy inspection of irregular surfaces
- “One-pass” inspection of weld beads as well as transition and heat-affected zones
- Flexible design to fit variable weld beads, and to reduce lift-off
- Detect cracks in all orientation and weld surface discontinuities
- Good complement to UT or PA inspections
- High-wear material ensures probe durability
- Optional encoder for accurate sizing and positioning of indications
- Computer-based data records and reports for audit trails
- Compatible with Ectane™, MS5800™, and TC7700™

For NDT on weld surfaces, eddy current array (ECA) has become a hot topic. Eddyfi’s flexible eddy current array (ECA) probes allow you to complement UT inspection, reduce inspection time and improve flaw detection, all the while providing you with a full record of inspection.

Eddyfi’s array probes offer many advantages when used in lieu of magnetic particles, liquid-penetrant, or single element eddy current (ECT) probes. They offer simple “one-pass” inspections on weld beads as well as transition and heat-affected zones.

Their proprietary flexible design allows them to conform to weld surfaces, where they can detect surface cracks in any orientation. They can be customized to take into consideration weld material (ferritic or non-ferritic) and roughness as well as the various types of defects to be detected.

ECA probes transmit their data to an acquisition system where they are analyzed and stored. Eddyfi offers Ectane™ surface array and multi-technology tube inspection instruments as well as Magnifi™ data acquisition and analysis software.

For more information, please visit our website at [www.eddyfi.com](http://www.eddyfi.com).

## Specifications

### EXAMPLES OF AVAILABLE PROBE MODELS<sup>1</sup>

	EFI-PRB-FLEX-WELD-5	EFI-PRB-FLEX-WELD-10
Surface coverage	40 mm	58 mm
Maximum weld height	5 mm	10 mm
Frequency range	100 – 600 kHz	
Weld material <sup>2</sup>	Stainless steel	
Minimum detectable axial crack <sup>3</sup> (L × W × D) (in mm)	0.75 × 0.25 × 0.75	1.25 × 0.25 × 0.75
Minimum detectable transverse crack <sup>3</sup> (L × W × D) (in mm)	0.75 × 0.25 × 0.75	1.25 × 0.25 × 0.75
Minimum detectable pit <sup>3</sup> (φ × D) (in mm)	0.75 × 0.75	1.5 × 0.75
Coil array technology	Transmit/Receive	
Coil diameter	2 mm	3 mm
Coil type	Pancake	
Instrument compatibility	Ectane™, MS5800™, or TC7700™	

<sup>1</sup> Custom probes available upon request.

<sup>2</sup> Probe can be used with other non-ferromagnetic metals, but performance will vary.

<sup>3</sup> Actual performance can vary depending on weld surface condition and material composition.



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**Eddyfi is the newest company in the field of non-destructive testing (NDT) equipment.** It was created following the organizational realignment of Zetec Canada's eddy current (ECT) activities. Today, Eddyfi works with key eddy current experts formerly from Zetec and R/D Tech. It focuses on providing complete high-end solutions for the surface inspection of critical components in several major industries such as nuclear and power generation. Eddyfi develops the industry's best performing and most reliable testers, scanners, probes, and acquisition and analysis software. Its products are designed specifically for inspections that require permanent data recording and offline analysis. Eddyfi has the expertise, engineering, and manufacturing flexibility to supply the integrated and specially-made solutions that make customers safer, more efficient and more profitable.

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