

Eddyfi Technologies
Beyond current

Technical
Specifications

# PECA HIGH RESOLUTION PROBE

## Assess remaining wall thickness under corrosion scabs and blisters. Safely.

**Eddyfi Technologies offers a dedicated PECA™ solution to assess the remaining wall thickness through corrosion scabs and blisters. With a specialized high-resolution sensor, scan accessory, and advanced algorithm, the PECA-HR scab kit enables safe in-service inspection of corrosion layers - without surface preparation.**

### ACQUISITION OF TOP-QUALITY DATA AT UNRIVALLED SPEED

The patent-pending Pulsed Eddy Current Array (PECA) probe enables detection of the smallest possible defects with PEC technology within an adequate range of wall thickness and liftoff for scab assessment. The probe uses an array of dual sensors capable of spatial triangulation and can detect indications up to two times smaller than conventional PEC solutions.

With 75mm (3in) of coverage and an encoded, dynamic-scanning mode, typical scabs can be inspected in less than a minute! The array design generates clean, compelling C-scans and improved signal-to-noise ratio. The probe, combined with advanced real-time processing, a dedicated scab mode and a new scab mat, provides top-quality data at unrivalled speed.

**Pulsed Eddy Current Array (PECA) is the most reliable option for the inspection of critical structures with scab corrosion.**



## FEATURES

- An array of dual sensors capable of spatial triangulation
- Dual sensor coil design
- High-resolution acquisitions
- 75mm (3in) coverage in a single pass
- Two acquisition modes: grid and encoded dynamic scanning
- Software with advanced real-time processing and a dedicated scab mode
- Semi-rigid scab mat for constant liftoff during acquisition

## HIGH-PERFORMANCE PECA SOLUTION

Since PEC technology does not require surface preparation, the assessment of the remaining ligament can be performed while the asset is in service. Moreover, the technique does not use radiation, providing a safe work environment.

## PECA-HR WITH LYFT KIT ENABLES THE FOLLOWING

- Best estimation of the remaining ligament under scale corrosion, surface-forming scabs and blisters
- Detection of the smallest possible defects with PEC technology within an adequate range of wall thickness and liftoff
- Top-quality data acquisition at high-productivity rates: typical scabs can be inspected in less than a minute
- Safe assessment of the remaining wall thickness over scabs while the asset is in-service. No need for surface preparation, no radiation

## BENEFITS OF USING PECA FOR SCAB ASSESSMENT

- Unaffected by surface preparation
- Enables in-service inspections
- Safe work environment, no radiation
- Full coverage of the surface under test

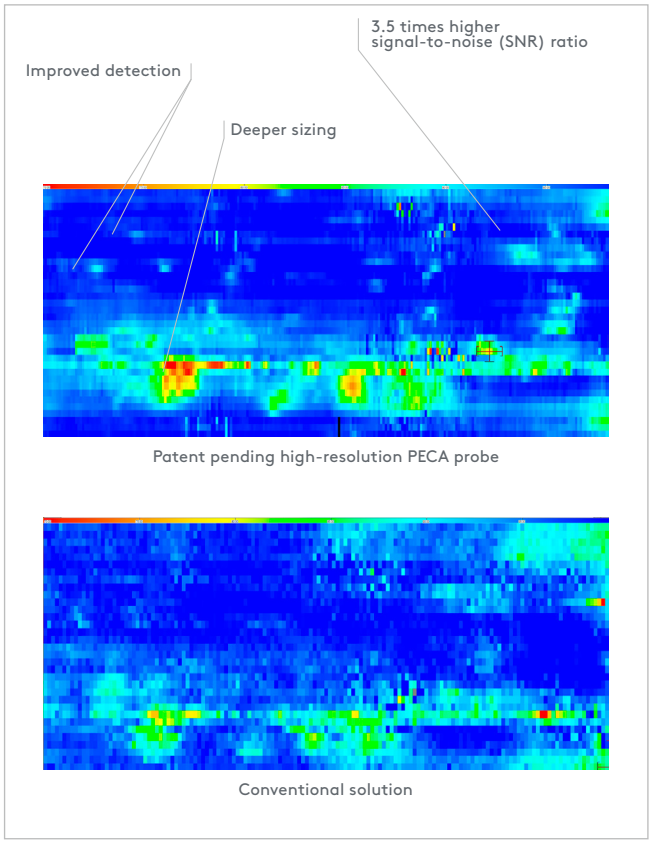



**Figure 2:** Comparison of PECA probe scan and conventional solution scan.




**Figure 1:** Annotated breakdown of the PECA high-resolution probe.

# SPECIFICATIONS

| GENERAL | |
|---|---|
| **Dimensions (W×H×D)** | 112×66×87mm (4.4×2.6×3.4in) |
| **Weight** | 0.9kg (2lb) |
| **Casing** | Small array |
| **Number of channels** | 6 channels, 3 patent pending dual sensors |
| **Total coverage** | 75mm (3in) |
| **Wall thickness** | 3–19mm (0.12–0.75in) |
| **Insulation/Coating thickness (liftoff)** | 0–50mm (0–2in) |
| **Weather jacket thickness** | Not supported |
| **Outer diameter range** | 152mm (6in) to flat surfaces |
| **Encoder** | 16.04counts/mm (407.44counts/in) |
| **Cable** | 5m (16.4ft) |

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