

# INSTRUMENTS

## Ectane 2

The leading multi-technology instrument for surface and tubing applications is designed to be the most versatile, reliable, and powerful EC platform on the market.



## Reddy Surface

This turnkey ECA system is designed to perform critical surface inspections. Its fast and easy deployment, better PoD, length and depth sizing capabilities, data recording capacity, and consistent results help replace PT and MT.



## Reddy Tubing

Designed specifically for AC and tubing inspections, the system is compatible with all air-conditioner and ECT probes on the market without the need for adapters and the integrated software enables on-the-fly reporting.



## Lyft

Reinventing PEC, the solution is designed for CUI and other critical applications. Often superior to radiography/stripping because it does not require access to both sides or surface preparation, and has no health hazards, making it much more cost efficient.



APPLICATIONS	<p>Surfaces</p> <ul style="list-style-type: none"><li>• Corrosion detection</li><li>• Crack detection</li><li>• Welds</li><li>• Turbines</li><li>• Castings</li><li>• Etc.</li></ul> <p>Tubing</p> <ul style="list-style-type: none"><li>• Ferrous and non-ferrous</li></ul>	<p>Surfaces</p> <ul style="list-style-type: none"><li>• Corrosion detection</li><li>• Crack detection</li><li>• Welds</li><li>• Turbines</li><li>• Castings</li><li>• Etc.</li></ul>	<p>Tubing</p> <ul style="list-style-type: none"><li>• Non-ferrous</li><li>• Air conditioners</li><li>• Chillers</li></ul>	
TYPICAL BATTERY AUTONOMY	8 hours	6–8 hours	6–8 hours	6–8 hours
SUPPORTED INSPECTION TECHNOLOGIES	ECT, ECA, TECA, RFT, NFT, NFA, MFL, IRIS	ECA, TECA	ECT	Pulsed eddy current (PEC)
DATA ACQUISITION	Up to 50 000 samples/s	Up to 50 000 samples/s	Up to 50 000 samples/s	Up to 75 mm/s (3 in/s)
SMARTMUX ECA CHANNELS	64, 128, 256	32, 64, 128		
ECT PROBE INPUTS	8	4	4	
ECT FREQUENCY RANGE	5 Hz–10 MHz	5 Hz–10 MHz	5 Hz–10 MHz	
IRIS TURBINE SPEED	Up to 100 RPS			
NOMINAL WALL THICKNESS				Up to 100 mm (4 in)
LIFTOFF TOLERANCE				Up to 300 mm (12 in)
SETUP TECHNOLOGY				SmartPULSE
UNDERSIZING COMPENSATION				Compensated wall thickness (CWT) tool
SUPPORTED WEATHER JACKETS				Stainless steel up to 1.5 mm (0.06 in) Aluminum up to 1 mm (0.04 in) Galvanized steel up to 1 mm (0.04 in)
SUPPORTED PART GEOMETRY				From 25 mm (1 in) OD to flat
AUTOMATIC REPORTING		✓	✓	✓
UNIQUE FEATURES	<ul style="list-style-type: none"><li>• Multi-technology instrument</li><li>• Field-proven—hundreds of units in service</li></ul>	<ul style="list-style-type: none"><li>• Dedicated surface ECA inspection solution</li><li>• Portable and rugged</li></ul>	<ul style="list-style-type: none"><li>• Instant, automated reporting</li><li>• Shortest complete inspection time in the industry</li></ul>	<ul style="list-style-type: none"><li>• Accessible CUI integrity management solution</li><li>• Most powerful and easy-to-use screening system on the market</li></ul>

# EDDYFI PRODUCT LINE



Eddyfi  
Technologies



# THE EDDYFI LINE PROBES





## THE BEST EM TESTING PRODUCTS—BAR NONE

The Eddyfi product line focuses mainly on high-performance advanced electromagnetic solutions for the inspection of critical components and assets. Eddyfi products are the industry's best performing and most reliable test instruments, acquisition and analysis software, as well as standard and—more importantly—specialized surface array and tubing probes.


Eddyfi line products constantly propel the limits of electromagnetic testing to new heights in an attempt to respond to your ever-changing inspection challenges.

The information in this document is accurate as of its publication. Actual products may differ from those presented herein.  
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## PEC

	Standard	For GS Cladding	Underwater	Tank Floor
				
APPLICATIONS	CUI, CUF, FAC	CUI, CUF, FAC	Corrosion under marine growth	Tank annular rings
SUPPORTED WALL THICKNESS	Up to 102 mm (4 in)	Up to 38 mm (1.5 in)	Up to 102 mm (4 in)	Up to 25 mm (1 in)
SUPPORTED CLADDING	Aluminum, stainless steel, galvanized steel	Galvanized steel		
SUPPORTED LIFTOFF	0–305 mm (0–12 in)	13–153 mm (0.5–6 in)	0–300 mm (0–12 in)	0–13 mm (0–0.5 in)
FOOTPRINT AT MIN. LIFTOFF	35–100 mm (1.38–3.94 in)	62 mm (2.44 in)	62–100 mm (2.44–3.94 in)	35 mm (1.38 in)
WATERTIGHTNESS			100 m (330 ft)	
BLADE LENGTH				400 mm (15.75 in)
MAX. DIRECT CONTACT SURFACE TEMPERATURE	70 °C (158 °F)	70 °C (158 °F)	70 °C (158 °F)	70 °C (158 °F)
MAX. DIRECT CONTACT SURFACE TEMP./W PROBE SHOE	120 °C (248 °F)			






## TECA

	Butt Weld Sharck	Fillet Weld Sharck	Pencil Sharck	High-Res. Sharck
				
APPLICATIONS	Welds and plates	Welds	Welds and plates	Pipes and plates
MATERIALS	Ferrous	Ferrous	Ferrous	Ferrous
SURFACE-BREAKING CRACKS	✓	✓	✓	✓
LENGTH & DEPTH SIZING	✓	✓	✓	✓
DETECTABLE DEFECTS (L×D)	3.0×0.5 mm (0.12×0.02 in)	3.0×0.5 mm (0.12×0.02 in)	3.0×0.5 mm (0.12×0.02 in)	2.00×0.25 mm (0.08×0.01 in)
MAX. MEASURABLE CRACK DEPTH	7 mm (0.28 in)	7 mm (0.28 in)	7 mm (0.28 in)	3 mm (0.12 in)
SIZING ACCURACY	±2 mm (0.08 in) ±10–20 %	±2 mm (0.08 in) ±10–20 %	±2 mm (0.08 in) ±10–20 %	±10 %
SCAN SPEED	Up to 200 mm/s (8 in/s)	Up to 200 mm/s (8 in/s)	Up to 200 mm/s (8 in/s)	Up to 600 mm/s (24 in/s)
LIFTOFF TOLERANCE	Up to 3 mm (0.12 in)	Up to 3 mm (0.12 in)	Up to 3 mm (0.12 in)	Up to 2 mm (0.08 in)
COVERAGE	53 mm (2.1 in)	30 mm (1.2 in)	7 mm (0.3 in)	71 mm (2.8 in)

## ECA

	I-Flex	Padded	Semi-Flex	Gear
				
APPLICATIONS	Smooth curved surfaces	Welds	Smooth curved surfaces	Gears
MATERIALS	Ferrous & non-ferrous	Ferrous & non-ferrous	Ferrous & non-ferrous	Ferrous & non-ferrous
FAR-SURFACE CORROSION	✓		✓	
SUBSURFACE DEFECTS	✓		✓	
SURFACE-BREAKING DEFECTS	✓	✓	✓	✓
LENGTH SIZING	✓	✓	✓	✓
MINIMUM DETECTABLE CRACK LENGTH	0.5–1.5 mm (0.02–0.06 in)	0.5–1.0 mm (0.02–0.04 in)	0.5 mm (0.02 in)	5 mm (0.20 in)
FREQUENCY RANGES	0.6–800 kHz	50–800 kHz	0.6–800 kHz	0.25–1 MHz
PENETRATION (STAINLESS STEEL/ALUMINUM)	Up to 6 mm (0.24 in)		Up to 6 mm (0.24 in)	
COVERAGE	34–128 mm (1.34–5.04 in)	34–58 mm (1.34–2.28 in)	34–128 mm (1.34–5.04 in)	50–112 mm (2.0–4.4 in)

## TUBES

	ECT	DefHi	RFT	NFT, MFL	NFA	IRIS
						
APPLICATIONS	Heat exchangers	Heat exchangers	Heat exchangers	Fin-fan air coolers	Fin-fan air coolers	All tubing apps
MATERIALS	Non-ferrous	Non-ferrous	Ferrous	Ferrous	Ferrous	Both
DETECTABLE DEFECTS	Pitting, general wall loss, axial	Axial, circumferential	Pitting, general wall loss, volumetric	Pitting, general wall loss, circumferential	Axial, circumferential	Volumetric
INSPECTION SPEED	1 m/s (3.3 ft/s)	1 m/s (3.3 ft/s)	0.3 m/s (1 ft/s)	1 m/s (3.3 ft/s)	0.3 m/s (1 ft/s)	0.1 m/s (4 in/s)
SEALED	✓	✓	✓	✓	✓	✓
REPLACEABLE PARTS		✓		✓	✓	✓
SIZING CAPABILITIES	✓	✓	✓	Detection only	✓	✓
COMPATIBLE WITH COMPETITION	✓		✓	✓		✓
HIGH DURABILITY	✓	✓	✓	✓	✓	✓
C-SCAN IMAGING		✓			✓	✓

## PROBOT

INSPECTION TECHNOLOGY	ECT, ECA, RFT, NFT, NFA, MRPC, MFL, IRIS
INSPECTION SPEEDS	0–2.5 m/s (0–8 ft/s)
WEIGHT	23 kg (50 lb)
DESIGNED TO IP65	✓
SINGLE OPERATOR	✓
POLY DIAMETER RANGE	6.35–9.53 mm (0.25–0.38 in)
ENCODED DATA	2× for higher speed control
DATA SYNCHRONIZATION	All-in-one, linked to Ectane/Magnifi
AUTOMATION	Automated sequences controlled /w probe gun