

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 FOR SURFACES

Designed for rapid crack and corrosion assessment. Its easy deployment, better PoD, length and depth sizing capabilities, data recording capacity, and consistent results help replace PT and MT.



REDDY FOR 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.



EDDYFI PRODUCT LINE

APPLICATIONS	<p>Surfaces</p> <ul style="list-style-type: none"> • Corrosion detection • Crack detection • Welds • Turbines • Castings • Etc. <p>Tubing</p> <ul style="list-style-type: none"> • Ferrous and non-ferrous 	<p>Surfaces</p> <ul style="list-style-type: none"> • Corrosion detection • Crack detection • Welds • Turbines • Castings • Etc. 	<p>Tubing</p> <ul style="list-style-type: none"> • Non-ferrous • Air conditioners • Chillers 	<p>Corrosion detection</p> <ul style="list-style-type: none"> • Corrosion under insulation (CUI) • Corrosion blisters and scabs • Flow-accelerated corrosion (FAC) • Corrosion under fireproofing (CUF) • Splash zone and underwater • Surface corrosion • Corrosion under coatings • Waterworks
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, MFL and ECT	ECT	Pulsed eddy current (PEC) Pulsed eddy current array (PECA)
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"> • Multi-technology instrument • Field-proven—hundreds of units in service 	<ul style="list-style-type: none"> • Dedicated surface inspection solution • Portable and rugged 	<ul style="list-style-type: none"> • Instant, automated reporting • Shortest complete inspection time in the industry 	<ul style="list-style-type: none"> • Accessible CUI integrity management solution • Most powerful and easy-to-use screening system on the market

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.

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Butt Weld Sharck Pencil Sharck High-Res. Sharck Spyne I-Flex Padded Semi-Flex Gear

TECA



APPLICATIONS	Welds and plates	Welds and plates	Pipes and plates
MATERIALS	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)	2.00×0.25 mm (0.08×0.01 in)
MAX. MEASURABLE CRACK DEPTH	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 %	±10 %
SCAN SPEED	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 2 mm (0.08 in)
COVERAGE	up to 53 mm (2.1 in)	7 mm (0.3 in)	71 mm (2.8 in)

ECA



APPLICATIONS	Smooth, curved surfaces	Smooth, curved surfaces	Welds	Smooth, curved surfaces	Gears
MATERIALS	Ferrous, non-ferrous	Ferrous, non-ferrous	Ferrous, non-ferrous	Ferrous, non-ferrous	Ferrous, non-ferrous
FAR-SURFACE CORROSION	✓	✓		✓	
SUBSURFACE DEFECTS	✓	✓		✓	
SURFACE-BREAKING DEFECTS	✓	✓	✓	✓	✓
LENGTH SIZING	✓	✓	✓	✓	✓
MIN. DETECTABLE CRACK LENGTH	0.5–1.5 mm (0.02–0.06 in)	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	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)		Up to 6 mm (0.24 in)	
COVERAGE	200 mm (8 in)	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)

Array Single-element GS Cladding Underwater Tank Floor ECT, RFT, NFT, MFL A/C DefHi NFA IRIS

PEC



APPLICATIONS	CUI, CUF, FAC	CUI, CUF, FAC	CUI, CUF, FAC	Corrosion under marine growth	Tank annular rings
SUPPORTED WALL THICKNESS	6–25 mm (0.25–1.00 in)	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	Aluminum, stainless steel, galvanized steel	Galvanized steel		
SUPPORTED LIFTOFF	25–102 mm (1–4 in)	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	46 mm (1.8 in)	35–100 mm (1.4–3.9 in)	62 mm (2.4 in)	62–100 mm (2.4–3.9 in)	35 mm (1.4 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)	70 °C (158 °F)
MAX. DIRECT CONTACT SURFACE TEMP. W/PROBE SHOE		120 °C (248 °F)			

TUBES



APPLICATIONS	Heat exchangers, fin-fan air coolers	Air conditioners	Heat exchangers	Fin-fan air coolers	All tubing apps
MATERIALS	Ferrous, non-ferrous	Non-ferrous	Non-ferrous	Ferrous	Ferrous, non-ferrous
DETECTABLE DEFECTS	Pitting, wall loss, cracks, volumetric	Pitting, wall loss, axial, circumferential	Axial, circumferential	Axial, circumferential	Volumetric
INSPECTION SPEED	0.3–1 m/s (1–3.3 ft/s)	1 m/s (3.3 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	✓	✓	✓	✓	✓
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