



Eddy Current **SURFACE ARRAY SOLUTION**

INTEGRATED SOLUTION ENHANCED CAPABILITY



The Zetec Eddy Current Surface Array Solution is specifically designed to solve the challenges power generation, oil and gas, and aerospace companies face everyday.

From detecting extremely small defects to inspecting non-flat surfaces and covering a wide area in a single pass, **Zetec delivers.**

Our powerful, and integrated eddy current array technologies deliver the results you can count on.



The complete Eddy Current Surface Array Solution

ENGINEERED TO WORK BETTER TOGETHER

Best-performing total solution

The Zetec MIZ-200 Eddy Current Array Instrument combined with Velocity Acquisition and Analysis Software and the Surface Array Flex Probe is an integrated solution engineered to work better together. This complete solution delivers inspection results you can depend on.

Highest performance

- Highest signal-to-noise ratio
- 128 truly independent channels

Most dependable and accurate

- Proprietary X-Probe coil array sensing technology

Fastest surface inspection

- Fast and versatile channel, driving, sensing, and multiplexing technology

SURFACE ARRAY FLEX PROBE

The Surface Array Flex Probe enables you to reduce inspection time and improve flaw detection while receiving a full record of inspection. The probe offers simple “one-pass” inspections of the weld bead, transition zone, and heat-affected zone. The unique flexible surface design and proprietary X-Probe coil technology allow the probe to conform to the weld surface where it can detect pitting and surface cracks in any orientation.

Quick and accurate inspections

An array of eddy current coils utilizing proprietary X-Probe technology provides wide inspection coverage in a single pass and can detect both longitudinal and transverse defects

- **Reduces inspection time by 95%** compared to a handheld pencil probe
- **Offers inspection coverage up to 2 inches in a single pass** of weld bead, transition zone, and heat-affected zone
- Detects longitudinal, transverse, and off-axis cracks as short as 0.020 inches
- Detects sub-surface defects as deep as 0.039 inches
- Optional encoder for accurate sizing and positioning of defects

Handles multiple surface applications

Thanks to the flexible, durable pad, the eddy current coils can conform to surface variations such as curvatures and weld beads

- Flexible pad wraps around **weld beads** up to 0.197 inches tall
- Detects surface and sub-surface defects in **irregular non-ferromagnetic** surfaces as well as surface defects in **smooth ferromagnetic** surfaces
- **Durable pad toughness tested on over 8,000 feet** of stainless steel smooth weld surface without failure
- Detects **corrosion under paint** without stripping and repainting
- **Surface preparation is not necessary** as compared to penetrant inspection methods
- **No chemical usage or environmental concerns** as compared to magnetic particle or penetrant inspection methods

Inspection confidence in demanding environments

MIZ-200 EDDY CURRENT ARRAY INSTRUMENT

The MIZ-200 eddy current array testing instrument can handle the most demanding environments with ease.

Greater inspection accuracy

- Industry leading signal-to-noise ratio improves probability of detection
- Enhanced capabilities for inspecting a greater variety of materials

Better reliability, lower replacement costs

- The rugged cast aluminum case is designed to withstand the bumps and drops that inevitably happen in inspection environments
- The sealed and fanless unit will withstand dust and water — no moving parts or exposed openings
- Utilize and take advantage of new probe technologies today and in the future

More Productivity

The MIZ-200 boasts improvements over the competition with innovative features including:

- Large Surface Array
- Improved Signal Processing
- Built-in Probe Pusher Control
- Support for a Wide Range of Probes

Easy to use, anywhere

- Fully portable, lightweight, battery operated
- Automatically recognizes the probe type connected to it and configures its internal multiplexer accordingly



Advanced analysis and reporting

VELOCITY™ SOFTWARE

Velocity PC Software is the most efficient tool you can use for data acquisition, analysis and management. It's easy to use, offering improved analysis data filtering capabilities.

- Proven and customizable: developed from decades of experience to solve the specific challenges faced by oil and gas and power generation companies
- Easy to use: intuitive user interface
- Powerful: extensive analysis and filter capabilities



Specifications

Surface Array Flex Probe specifications

- Maximum weld bead height: 0.197 in. (5 mm)
 - Minimum detectable crack (L x W x D):
0.020 in. x 0.004 in. x 0.020 in. (0.5 mm x 0.1 mm x 0.5 mm)
 - Maximum penetration depth: 0.039 in. (1 mm)
(Stainless Steel)
 - Non-ferromagnetic surface and sub-surface inspection
 - Ferromagnetic surface inspection
 - Smooth weld inspection including crown, toe,
and heat affected zone
 - Power plant turbine rotor inspection
 - Aircraft fuselage, wing crack, and corrosion crack
and corrosion inspection
 - Inspection for corrosion under paint
- General specifications**
- Shipping dimensions (typical):
20 in. x 15 in. x 5 in. (51 cm x 38 cm x 13 cm)
 - Shipping weight: < 10 lbs (4.5 kg)
 - Operational temperature:
40°F to 113°F (4°C to 45°C)
 - Recommended storage temperature:
55°F to 75°F (13°C to 24°C)

MIZ-200 specifications

Dimensions (H x L x W)	4.2 in. x 11.7 in. x 12.8 in. (10.7 cm x 29.7 cm x 32.5 cm)
Weight	14.7 lb (6.7 kg) with batteries
Battery	8 h (typical), hot swappable
Battery type	Lithium-ion rechargeable
Power	115/230 VAC and self switching
Computer interface	LAN 10/1000 Base T
Operating temperature	23°F to 113°F (-5°C to 45°C)
Storage temperature	-4°F to 140°F (-20°C to 60°C)
Probe inputs	8
Number of frequencies	160
Encoder inputs	2

FOR MORE INFORMATION ABOUT THE EDDY CURRENT SURFACE ARRAY SOLUTION, OR OTHER ZETEC PRODUCTS,
CONTACT US AT info@zetec.com OR VISIT www.zetec.com.



Zetec holds ISO 9001
and ISO/IEC 17025
certifications

