SURF-X™
Flexible Eddy Current Array Probes
ULTIMATE FLEXIBILITY
Introducing the Surf-X family of flexible Eddy Current array probes. Featuring unique multiple coil sets and proprietary X-PROBE™ technology, Surf-X array probes can quickly and accurately test a wide range of materials and geometries.

With interchangeable electronics module, cable, detachable encoder and coil sets, Surf-X array probes provide flexibility and cost efficiencies like never before.

**FEATURES & BENEFITS**

**Save Time and Money**
- Electronics module, cable and detachable encoder can be used interchangeably and re-used with any subsequent Surf-X array probe coil sets
- Field interchangeable coil sets easily adapt to different materials and surface geometries at the inspection site
- Detachable handles to accommodate different applications and complex geometries
- Preset test configurations
- Ability to revise filters to optimize results

**Fast Inspection, No Chemicals**
- **Chemical Testing Replacement:**
  Surface array probes are a cost-effective, chemical free replacement for Liquid Penetrant Testing (PT) and Magnetic Particle Testing (MT)
- **Single Sensor Probe Replacement:**
  The surface array option can reduce inspection time by up to 95% versus traditional pencil probes

**Accurate, High Quality Results**
- Better coverage vs. traditional handheld probes
- Rotatable Encoder is standard, providing easy identification of flaw locations and dimensions
- Position indicators on the probe help with alignment and ensure the entire area of interest is inspected
- Patented and proven X-PROBE technology-based coil set delivers added dependability and accuracy
- Operates in absolute and multiple modes of driver pickup

For a lower total cost, excellent data quality and reduced inspection time compared to other methods, consider Surf-X array probes from Zetec.

**Inspect Complex Geometries with Ease**
Interchangeable Surf-X Coil Sets

A key advantage of the Surf-X array probe family is the highly flexible design featuring interchangeable multiple coil sets. With Surf-X array probes, users in the field can change a coil set in less than a minute enabling the probe to easily adapt to different materials and surface geometries at the inspection site.

Surf-X Weld Array Probe: Innovative and patent pending mix of array and +point™ coils. The +point coils find indications in the hard to inspect weld toes while the array coils quickly inspect the remaining weld and heat affected zones. Handles have been designed to make inspecting butt and t-welds a breeze.

Surf-X Flex Array Probe: Flexible probe allowing detailed inspection on all materials and many geometries. Ideal for testing rows of flush rivets, replacing handheld probes. Replace your die penetrant testing on helicopter spars, train wheels or mining drums.

Wear Surface Options

All Surf-X interchangeable coil sets come with three wear surface options:

- **No wear surface** for inspecting small indications on smooth materials.
- **Cloth wear surface** for protecting the array coils on smooth or polished surfaces. Ideal for airplane skins or smooth curved surfaces.
- **Super fabric** for protecting array coils on rough surfaces like Butt and T-Welds.
Versatile Electronics Module and Cable
The Surf-X array probe’s electronics module and cable design offers breakthrough inspection efficiencies. These components can be used interchangeably across probe coil sets delivering material cost savings after initial purchase.
With subsequent Surf-X array probe purchases, the module and cable can be re-used saving time and money.

Detachable Encoder
Surf-X array probes come with a highly versatile, detachable encoder that can connect in multiple locations on both the handle and electronics module providing maximum versatility when it comes to dealing with multiple positions as you probe.
For cost efficiency, the encoder can be used and re-used interchangeably with all Surf-X array probe coil sets.

Complete Eddy Current Array Inspection Solution
A Surf-X array probe is a fast, accurate, chemical-free alternative to penetrant testing (PT) that, when used with the Zetec MIZ®-21C handheld eddy current array instrument, is one of the most cost-effective portable surface array solutions on the market.
Recently updated, the Zetec MIZ-21C is a sealed unit with increased operating temperature range, increased internal memory storage, off-the-shelf battery charging and more.
## Probe Options to Meet Your Specific Needs

<table>
<thead>
<tr>
<th>Surf-X T &amp; Butt Weld Probe</th>
<th>Surf-X Flexible Probe</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Applications</strong></td>
<td>High crown t &amp; butt welds</td>
</tr>
<tr>
<td><strong>Materials</strong></td>
<td>Ferrous, non-ferrous</td>
</tr>
<tr>
<td><strong>Subsurface</strong></td>
<td>Non-ferrous</td>
</tr>
<tr>
<td><strong>Surface</strong></td>
<td>Ferrous, non-ferrous</td>
</tr>
<tr>
<td><strong>Freq Range</strong></td>
<td>50 - 2800kHz</td>
</tr>
<tr>
<td><strong>Penetration</strong></td>
<td>0.25&quot; (6.3mm)</td>
</tr>
<tr>
<td><strong>Coverage 32 coil 2x16</strong></td>
<td>1.7&quot; (43mm)</td>
</tr>
<tr>
<td><strong>Coil diameter</strong></td>
<td>0.079&quot; (2mm) 2+points</td>
</tr>
<tr>
<td><strong>Bend radius</strong></td>
<td>0.5&quot; (12.7mm)</td>
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## General Specifications

- **Shipping Dimensions:** 10in. x 8in. x 6in. (25.4cm x 20.3cm x 15.2cm)
- **Shipping Weight:** < 2 lbs (0.9kg)
- **Operating Temperature:** -10°C to 50°C (14°F to 122°F)
- **Storage Temperature:** -20°C to 70°C (-4°F to 158°F)

**Recommended Eddy Current Instrument**

MIZ®-21C Array: (PN 111A903-00)
Ordering Information

Complete Probe Electronics Module, Encoder & Coil Set

Zetec holds ISO 9001 and ISO/IEC 17025 certifications

Mode (MIZ-21C) | Model Description | Electronics Module Coil Count | PN Suffix | Wear Surface | PN Suffix/Tape | Cable Length ft | PN Suffix
---|---|---|---|---|---|---|---
XPSWC | Flexible Array Weld | 32 | Sxx | None | x00/x0000 | 6 | 06
XPSFC | Flexible Array | 64 | Mxx | Cloth | x01/x0001 | 13 | 13
 | | 128 | Lxx | Super Fabric | x02/x0002 | 33 | 33

Electronics Module

<table>
<thead>
<tr>
<th>Component</th>
<th>Cable Length</th>
<th>PN</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MIZ-21C 32 Coil</td>
<td>6ft (2m)</td>
<td>SURFXCEM-S00-06</td>
<td>SURF-X Electronics Module MIZ-21C 32 Coil</td>
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<tr>
<td></td>
<td>13ft (4m)</td>
<td>SURFXCEM-S00-13</td>
<td></td>
</tr>
<tr>
<td></td>
<td>33ft (10m)</td>
<td>SURFXCEM-S00-33</td>
<td></td>
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</table>

Detachable Encoder

<table>
<thead>
<tr>
<th>Component</th>
<th>PN</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Detachable Encoder</td>
<td>SURFXEN-001</td>
<td>Detachable Encoder with 18&quot; USBM Cord</td>
</tr>
</tbody>
</table>

Interchangeable Coil Sets (32 Coil)

<table>
<thead>
<tr>
<th>Wear Surface</th>
<th>T &amp; Butt Weld</th>
<th>Flexible</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>SURFXW-S00</td>
<td>SURFX-S00</td>
</tr>
<tr>
<td>Cloth</td>
<td>SURFXW-S01</td>
<td>SURFX-S01</td>
</tr>
<tr>
<td>Super Fabric</td>
<td>SURFXW-S02</td>
<td>SURFX-S02</td>
</tr>
</tbody>
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Zetec: A Leading Supplier of Probes Worldwide

For 50 years, Zetec has manufactured over 10,000 probe designs to meet the changing needs of the nondestructive testing (NDT) market. We are a leading supplier of probes worldwide covering most applications and techniques. With world-class manufacturing facilities, Zetec probes deliver the best results for our customers.