The **DefHi™** probe is a high-definition, multiplexed eddy current probe designed to inspect non-ferromagnetic heat exchanger and condenser tubing. The probe uses electronic channel multiplexing to leverage, via timeslots, the physical inputs of an ECT test instrument and to accommodate up to 128 ECT channels. It is available in various configurations and sizes. This probe overcomes many of the downsides associated with conventional tube inspection techniques. It allows detecting and sizing circumferential cracks, a major limitation of bobbin probes. Moreover, the probe’s multichannel configuration retains the high acquisition speed of bobbin probes (much higher than rotating probes [RPC]) and still allows inspecting entire lengths of tube, including U-bends.

The DefHi probe provides a uniform and high-definition sensitivity for identification of defects in any orientation. This level of sensitivity cannot be achieved by other types of so-called “array probes”, categorized as *non-multiplexed* array probes, or even air conditioning (AC) probes. These probes are generally limited to a combination of bobbins and coils equal to the number of physical channels of the source ECT tester (usually 4 or 8), which results in suboptimal performance, simply because an insufficient number of coils cannot provide adequate definition.

Eddyfi’s patent-pending DefHi probe thus represents the utmost in ECT tubing inspection performance.

**KEY FEATURES & BENEFITS**

- One-Pass “Combination” Bobbin plus Array Probe
- Sizing of Circumferential Cracks and Axial Cracks¹
- Channel Multiplexer allows up to 128 Channels Resulting in Uniform Sensitivity
- Optimal Resolution with Oval-Coil Technology²
- U-Bend Capable, and Sensitivity Less Affected by Tube Expansion
- Convenient Analysis with Strip Chart for Bobbin and 2D/3D C-Scans for Array Imaging
- Rotating Probe Performance at Bobbin Speed in a Single Pass!

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1. — Advanced options only
Specifications

Coil Technology
- Eddyfi patent-pending Oval Pancake Coil Technology
- 1 row, for Circ. only
- 2 rows, for Circ. and Axial

Available sizes

<table>
<thead>
<tr>
<th>TUBE OD</th>
<th>EDDY CURRENT CHANNELS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>BOBBIN</td>
</tr>
<tr>
<td>12.70 mm (1/2&quot;)</td>
<td>2</td>
</tr>
<tr>
<td>15.87 mm (5/8&quot;)</td>
<td>2</td>
</tr>
<tr>
<td>19.05 mm (3/4&quot;)</td>
<td>2</td>
</tr>
<tr>
<td>22.22 mm (7/8&quot;)</td>
<td>2</td>
</tr>
<tr>
<td>25.40 mm (1&quot;)</td>
<td>2</td>
</tr>
<tr>
<td>Larger sizes</td>
<td>Custom</td>
</tr>
</tbody>
</table>

* Advanced options only

Material
Non-ferromagnetic. Experience on 300-series Stainless Steel, Inconel®, Copper/Nickel, Brass, Titanium

Maximum Test Speeds
1 m/s (40 in./s)

Poly Material
9 mm (3/8") Strong Nylon, Premium Non-Kinkable

Calibration Standard
Modified ASME Standard

Connector
Ectane™ 160-pin for Ectane option Amphenol® / ITT Cannon 41 pins

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