R-Evolution
Ultrasonic array roller probe

R-Evolution is an ultrasonic array probe housed in a light-weight water-filled roller, delivering fast immersion quality C-scan inspections in the palm of your hand.

Designed to minimise operator fatigue, it is small and light making it ideal for use on large areas and particularly overhead inspections.

Benefits
- Lightweight and ergonomic - <1kg
- High resolution with high frequencies - up to 10MHz
- Self-normalises on curved components
- Two guidance lasers mark the outer extents of the array
- Compatible with Tracer for dual-axis, large area inspections
- Indexing and start/pause buttons to interface with compatible instruments

Applications
Typical applications for R-Evolution include:
- **Aerospace** - In-service C-scans, Bond Inspection, Delamination or defect detection in composites
- **Wind Energy** - Blade spar, leading and trailing edge bond inspection
- **Pipelines and Vessels** - Corrosion mapping, Bond testing on overlapping joints

Ergonomic in design, R-Evolution contains an ultrasonic array probe, mounted in a small diameter, water-filled roller. With its durable thin tyre, high frequency probes can be used to give excellent near surface resolution enabling the inspection of thin components.

R-Evolution’s buggy self-normalises on curved surfaces ensuring the array is perpendicular without adjustment. Additionally, the array angle can be easily fine-tuned externally.

The buggy handle features two line lasers for guidance and buttons that can be configured with appropriate instruments to start, stop or increment scans.
R-Evolution has a single axis encoder for inspecting C-scan strips or can be attached to the Phoenix Tracer for a versatile and portable large area C-scan inspection system.

### Order Information

<table>
<thead>
<tr>
<th></th>
<th>5MHz 64 elements 0.8mm pitch</th>
<th>10MHz 64 elements 0.8mm pitch</th>
<th>Lasers</th>
</tr>
</thead>
<tbody>
<tr>
<td>AE-REVLTN-5-64-HNDL</td>
<td>●</td>
<td></td>
<td>●</td>
</tr>
<tr>
<td>AE-REVLTN-10-64-HNDL</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>AE-REVLTN-5-64</td>
<td>●</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AE-REVLTN-10-64</td>
<td></td>
<td>●</td>
<td></td>
</tr>
</tbody>
</table>

### Options and Accessories

- Available with handle featuring laser guidance and start/increment buttons or blank handle
- Spare replacement tyres
- Encoder splitter cable to enable lasers to operate whilst connected to Tracer

### Kit

- Array roller probe (specify frequency and instrument when ordering)
- Self-normalising buggy with laser guidance or blank handle
- Integrated encoder (specify instrument when ordering)
- Tyre filling accessories
- Water spray bottle
- Protective carry case

---

**Phoenix Inspection Systems Limited**, Dalton House, 40 Hardwick Grange, Warrington, WA1 4RF, United Kingdom

**t:** +44 (0) 1925 826000  |  **f:** +44 (0) 1925 838788  |  **e:** sales@phoenixisl.com  |  **www.phoenixisl.com**

Phoenix Inspection Systems Limited is a Nova Instruments company. For further information visit www.novaic.com

Phoenix Inspection Systems Limited has a policy of continuous development therefore reserves the right to change products, specifications and pricing without forward notice. Actual products may differ from those presented herein. The information in this data sheet is accurate at time of publication.