A NON-DESTRUCTIVE, STRESS MEASUREMENT DEVICE FOR QUALITY ASSURANCE AND PLANT HEALTH MONITORING.

- Non-destructive
- Applicable to most engineering materials
- Easy to use
- Sub-surface measurements: 0.5 – 6mm deep
- Fast results: 10s/point
- Ultra-portable: 1 briefcase weighing < 10kg
APPLICATIONS:

- “Hot-spot” identification, e.g. weld repairs, machine burn
- Incident prevention, e.g. uneven loads, stress concentrations
- Manufacturing process quality, e.g. PWHT, autofrettage, repairs
- Remote measurements, e.g. pipeline pigs
- Residual stress mapping
- Static and dynamic loads, e.g. bridge loads
- Surface treatment quality, e.g. shot-peening, hardening
- Timelapse measurements, e.g. through life inspections

VURSA Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ultrasound wave type</td>
<td>Critically refracted longitudinal (Lcr)</td>
</tr>
<tr>
<td>Uniaxial probe dimensions &amp; weight</td>
<td>58mm × 17mm × 32mm, 50g</td>
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<tr>
<td>Control box dimensions &amp; weight</td>
<td>325mm × 260mm × 115mm, 5kg</td>
</tr>
<tr>
<td>Range of gauge lengths</td>
<td>5mm – 40mm</td>
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<tr>
<td>Range of gauge widths</td>
<td>3mm – 10mm</td>
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<tr>
<td>Range of depths measured</td>
<td>0.5mm – 6mm</td>
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<tr>
<td>Time per measurement</td>
<td>&lt; 10 s/point</td>
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<tr>
<td>Software</td>
<td>VURSAsoft – adaptable to requirements</td>
</tr>
<tr>
<td>Power requirements</td>
<td>100 - 240V, 1.3A max, 50/60Hz</td>
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</tbody>
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Options:

- Probe heads:
  - Arrays,
  - Biaxial stress measurement,
  - Depth specific,
  - Material specific,
  - Shaped to suit component,
  - Waterproof.
- Probe applicator:
  - Magnetic, Suction Cup, Clamp, Adhesive,
  - XYZ Table, Robotic Arm.