Pundit® 250 Array
Ultrasonic Imaging Scanner
Deep scanning of concrete and fibre reinforced concrete

**Thickness measurements**
Thick concrete elements and tunnel linings

**Localization of defects**
Voids, honeycombing and depth and extent of delaminations

**Detection of objects**
Pipes and tendon ducts beyond the rebar layer

Intuitive output – more than just graphs or values!

Rapid identification of suspect areas

Test object

Rebar detection in near field

Accurate depth measurement >1m
A Quantum Leap in Ultrasonic Pulse Echo Testing

Effective
- High quality images of defects, rebars and tendon ducts
- Superior near field performance
- Highly durable ceramic tips
- No couplant required due to dry point contact technology

Time saving
- Real-time B-scan visualization
- Image optimization before saving a scan
- Panorama B-scans for rapid identification of suspect areas
- Scan several meters in less than a minute
- Lightweight and compact design for increased accessibility and faster scans

Versatile
- Single handed positioning
- Double handle upgrade for increased control
- Upgrade to 16 channels to double the scan width
- Raw data export
High Resolution Imaging
Optimize Live Image Before Saving

Real-time B-scan

Cursors for depth and horizontal displacement information

A-scan with envelope function for accurate echo identification

Spot check with immediate visualization of the backwall

Panorama B-scan

Imaging of individual rebars and pipes

Back wall with multiple echoes for accurate pulse velocity determination

1.2 meter fibre reinforced concrete scanned in only 20 seconds
Pundit Array Transducer
Rugged, Lightweight and Scalable

Display for status information and immediate feedback

Integrated laser for guided measurements

Removable battery pack with rechargeable AA batteries

Fast charging including LED indicator

Buttons to control main scanning functions
Double Handle Upgrade
For Additional Control

- Buttons on both handles
- Optimize gain settings and trigger a measurement
The technology

The Pundit 250 Array is based on the ultrasonic multi-channel pulse echo technology using 8 channels. One channel transmits and the echoes are received by the other seven channels. Each channel transmits in turn.

A complete measurement consists of 28 A-scans. These are used to compute and display a B-scan in real-time using the Synthetic Aperture Focusing Technique (SAFT). Coupling two transducers results in a 16 channel aperture processing a total of 240 A-scans per measurement cycle.

Technical specifications

<table>
<thead>
<tr>
<th>Pundit Array Transducer</th>
<th>Pundit Touchscreen</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gain</strong></td>
<td><strong>Display</strong></td>
</tr>
<tr>
<td>0 to 80 dB</td>
<td>7” colour display 800 x 480 pixels</td>
</tr>
<tr>
<td><strong>Analog bandwidth</strong></td>
<td><strong>Memory</strong></td>
</tr>
<tr>
<td>15 to 100 kHz</td>
<td>Internal 8 GB flash memory</td>
</tr>
<tr>
<td><strong>Nominal transducer frequency</strong></td>
<td><strong>Regional settings</strong></td>
</tr>
<tr>
<td>50 kHz shear wave</td>
<td>Metric and imperial units and multi-language and timezone supported</td>
</tr>
<tr>
<td><strong>Range / resolution</strong></td>
<td><strong>Power input</strong></td>
</tr>
<tr>
<td>0 to 1000 µs / 1 µs</td>
<td>12 V +/-25 % / 1.5 A</td>
</tr>
<tr>
<td><strong>Pulse voltage</strong></td>
<td><strong>Battery</strong></td>
</tr>
<tr>
<td>+/-150 V</td>
<td>3.6 V, 14 Ah</td>
</tr>
<tr>
<td><strong>Pulse shape</strong></td>
<td><strong>Battery lifetime</strong></td>
</tr>
<tr>
<td>Square wave</td>
<td>&gt; 8 h (in standard operating mode)</td>
</tr>
<tr>
<td><strong>Pulse delay</strong></td>
<td><strong>Humidity</strong></td>
</tr>
<tr>
<td>8 to 200 ms</td>
<td>&lt; 95 % RH, non condensing</td>
</tr>
<tr>
<td><strong>Number of channels</strong></td>
<td><strong>Operating temperature</strong></td>
</tr>
<tr>
<td>8 (with upgrade option to 16)</td>
<td>-10 to +50 °C</td>
</tr>
<tr>
<td><strong>Battery lifetime</strong></td>
<td><strong>IP classification</strong></td>
</tr>
<tr>
<td>&gt; 7 h</td>
<td>IP 54</td>
</tr>
<tr>
<td><strong>Dimensions</strong></td>
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</tr>
<tr>
<td>240 x 273 x 153 mm</td>
<td>250 x 162 x 62 mm</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td><strong>Weight</strong></td>
</tr>
<tr>
<td>~ 3 kg</td>
<td>~ 1.5 kg (incl. battery)</td>
</tr>
</tbody>
</table>

Master training on ultrasonic testing

Proceq master training courses take place at the Proceq training facilities in Schwerzenbach (Switzerland), Pittsburgh (USA) and Singapore and include classroom lectures and hands-on sessions. The training sessions require a technical background or prior experience with the respective NDT products. Please contact our website or your local Proceq representative.
Ordering Information
Flexible and Future-Proof

Upgrades

- to 16 channel
  - Upgrade Kit to Pundit 250 Array
    - consisting of Pundit Array transducer, Pundit 250 Array software, Pundit Array cable 12-pin 1.5m, Pundit Array contact tester, 6x Rechargeable AA NiMH batteries, calibrated tape, DVD with software, documentation, carrying strap and carrying case

- to dual handle
  - Upgrade Kit for existing Pundit 200 users
    - consisting of Pundit Array transducer, Pundit 250 Array software, Pundit Array contact tester, 6x Rechargeable AA NiMH batteries, calibrated tape, DVD with software, documentation, carrying case

Upgrades

- Upgrade Kit to Pundit 250 Array
  - consisting of Pundit Array transducer, Pundit 250 Array software, Pundit Array cable 12-pin 1.5m, Pundit Array contact tester, 6x Rechargeable AA NiMH batteries, calibrated tape, DVD with software, documentation, carrying case

Accessories

- 327 30 337 Pundit Array Transducer Battery Pack Complete
- 327 30 384S Rechargeable AA NiMH battery (Set of 6)
- 327 01 071S Calibrated Tape (Set of 5)

Service and Support
Proceq is committed to providing the best support and service available in the industry through the Proceq certified service centers worldwide. This results in a complete support for the Pundit by means of our global service and support facilities.

Warranty Information
Each instrument is backed by the standard Proceq warranty and extended warranty options.

- Electronic portion of the instrument: 24 months
- Mechanical portion of the instrument: 6 months

Subject to change without notice. All information contained in this documentation is presented in good faith and believed to be correct. Proceq SA makes no warranties and excludes all liability as to the completeness and/or accuracy of the information. For the use and application of any product manufactured and/or sold by Proceq SA explicit reference is made to the particular applicable operating instructions.
Market Leader
Proceq SA, founded 1954 in Switzerland, is the global leader in portable measurement solutions for the non-destructive testing of material properties of metal, concrete, rock, paper and composites.

Worldwide Local Support
Our team of dedicated experts are available to advise you on our instruments and their applications. In addition you may take further benefits from our instructional videos, evaluation tools, online webinars and of course our live seminars globally.

Swiss Made
Proceq instruments are developed, designed and manufactured in Switzerland. Since 1994, Proceq has been certified to the ISO 9001 standards that guarantee highest quality of processes, products and services.

Experience
Proceq has been a proud innovator in the field of portable non-destructive testing, developing solutions that have conquered the inspection industry for decades. Most famous brands are Equotip®, Schmidt®, Pundit®, Profometer® and Carboteq®.