


# Ultrasonic Flaw Detector

## NOVOTEST UD3701

**NEW !!! 7 INCH TOUCH SCREEN !**


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| Name       | Ultrasonic Flaw Detector NOVOTEST UD3701   |
| Photo      |   |
| Purpose    | <p>Ultrasonic Flaw Detector NOVOTEST UD3701 is designed to detect defects, such as discontinuity and heterogeneity in objects, weld joints quality, to measure the depth and position of flaws, thickness measurements, measurements of velocity and attenuation of ultrasonic waves for different materials.</p> <p>Ultrasonic Flaw Detector NOVOTEST UD3701 has large 7 inch touch screen display and powerful, lightweight, portable and ergonomic impact-resistant metal casing, and is the best choice for expert ultrasonic testing. Ultrasonic Flaw Detector NOVOTEST UD3701 allows user to measure the thickness of products with high accuracy, the signal can be viewed in the form of A-scan and B-scans and has all the features of the full testing documentation.</p>  |
| Advantages | <ul style="list-style-type: none"> <li>○ Possibility to operate with EMAT and UT probes</li> </ul>   |

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|  | <ul style="list-style-type: none"> <li>Frequency range with continuously adjustable from 0.2 to 10MHz</li> <li><b>Two independently controlled gate (A and B)</b></li> <li>Automatic or manual construction of the TCG curve (32 points)</li> <li>Two types of representations of signals: detection and radio</li> <li><b>Build and handling A scan (optional B scan)</b></li> <li><b>Modes: envelope, freeze and display of the beam</b></li> <li>Memory of results and settings, PC connection</li> <li>User can look through archive of settings and results on the device</li> <li><b>Large 7 inch touch screen color display</b></li> <li>Color schemes and interface settings</li> <li>Soft upgrading by user</li> <li><b>Minimum weight: 1.7kg</b></li> </ul> |
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| <b>Standard set</b> | <ul style="list-style-type: none"> <li>Ultrasonic flaw detector</li> <li>UT-probes – 2 pcs</li> <li>Cable Lemo-Lemo</li> <li>Power supply and charger</li> <li>Memory card</li> <li>Calibration certificate</li> <li>Operating manual</li> <li>Case</li> </ul>  |
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| Specification | The range of measured depth (steel), mm                             | 6000  |
|               | The range of gain control   | 100 dB in 0.1 dB  |
|               | Temporary adjustment of gain (TCG)                                  | Range up to 70 dB, with the construction of the curve with 32 control points entered manually or from the control reflectors  |
|               | The control zone  | Two independent zones, start and change the width of the entire range of sweep  |
|               | Interrogator  | Customizable, with an amplitude of 350 V, with a variable length from 12.5 to 500 ns, 12.5 ns increments  |
|               | Memory  | Configuration with A-scan, limited the size of SD-card control protocols (signal envelope, the measurement, the parameters of the device, date, time and name of the protocol), limited the size of SD-card |
|               | Detailed specifications of Ultrasonic Flaw Detector NOVOTEST UD3701 |   |
|               | Scan  | Min: 0 – 6 μs<br>Max: 0 – 1000 μs<br>Step – 25 ns   |
|               | Exposition  | From 0 μs to 1000 μs<br>Step – 25 ns  |
|               | MAX length of tested material                                       | up to 6000 mm (echo mode)   |
|               | Velocity range  | 1000 – 9999 m/s   |

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|  | Exposition in the prism     | 0 – 100 $\mu$ s<br>Step – 25 ns   |
|  | Damping                     | 50 Ohm  |
|  | Input impedance             | 50 Ohm / 600 Ohm  |
|  | Probes pulse                | RF pulse with amplitude of 100, 200 or 300V.<br>With variable length from 25 to 500 ns, step – 25 ns  |
|  | Repetition frequency of SP  | Automatically controlled from 10 to 100Hz   |
|  | Amplifier                   | Wideband 0.4-20 MHz (-6 dB)   |
|  | Gain control range          | 115 dB, step – 1 dB   |
|  | Time control gain (TCG)     | Range up to 70 dB, 12 dB / $\mu$ s with the construction of the curve through 16 reference points, entered by hand or by the control reflectors                                 |
|  | Amplitude-Distance curve    | Drawing through 16 points, height adjustable  |
|  | Detection                   | Positive or negative half-wave, complete, the radio signal (at all range of scan), B-scan   |
|  | Cutoff                      | compensated, 0 – 90% of screen height   |
|  | Zone control                | Two independents areas, the beginning and width are change at all scan range; levels of limits are set from 0 to 100% of display height; individual logic of detection defects. |
|  | Automatic Alarm of defects  | Light logic of detection defect in zone for each zone individually and sound individual logic detection defect at the zone  |
|  | Time intervals measurement  | From 0 to a first signal in the zone or between signals in the zones to the front or to the maximum signal  |
|  | Measurement of amplitude    | In dB relative to threshold level in the zone;<br>In dB relative to the reference signal;<br>In dB relative to the amplitude-distance curve.                                    |
|  | Display                     | Colored, TFT 320 x 240 pixels 135 x 100 mm  |
|  | Memory                      | Limited of SD cards capacity  |
|  | Interface                   | USB, Bluetooth (optional)   |
|  | Connectors of probes        | 2 Lemo  |
|  | Battery                     | Li-on 4-7 a / h   |
|  | Battery life                | Up to 10 hours with the battery 4000 a / h<br>Up to 24 hours with the battery 6600 a / h (optional)   |
|  | External power supply       | Power supply 220V, 50Hz AC  |
|  | Supply voltage              | 15V 2A  |
|  | Operating temperature range | From -30 °C to +55 °C   |
|  | Dimensions (H x W x L)      | 140 mm x 210 mm x 55 mm with standard battery (4000 a / h)<br>140 mm x 210 mm x 85 mm with the battery 6600 a / h (optional)  |
|  | Weight                      | 1.7 kg with standard battery (4000 a / h)<br>2.7 kg with battery 6600 a / h (option)  |

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| <b>Available options</b> | <ul style="list-style-type: none"> <li>○ Additional EMAT or UT-probes</li> <li>○ Additional cables Lemo-Lemo</li> <li>○ Charger</li> <li>○ Bag for comfortable operating</li> <li>○ <u>Calibration blocks</u></li> </ul>  |
| <b>Warranty</b>          | Standard 3-year warranty. Extended warranty up to 5 years is also available   |
| <b>Payment</b>           | 100% in advance. TT, WU, PayPal, Credit card  |
| <b>Discounts</b>         | CIP, FCA etc. DHL, TNT, FedEx, UPS etc. Shipment - within 1 week  |
| <b>Delivery</b>          | Up to 36% for dealers   |



### **Company info:**

Our company **NOVOTEST** designs and manufactures instruments for NON-DESTRUCTIVE QUALITY TESTING. We are located in Ukraine, 5 Spasskaya str., Novomoskovsk.

**NOVOTEST** produces instruments for measuring a wide range of parameters and quality control for the majority of products:

- metal [hardness](#) of various types;
- [coatings thickness](#);
- ultrasonic [flaw detectors](#);
- ultrasonic [thickness gauges](#);
- instruments for [magnetic testing](#);
- [construction materials](#) quality monitoring instruments;
- [environmental control](#) equipment and many other devices.





## **Our benefits:**

- More than 10 years on NDT market;
- Leading manufacturer of NDT devices in Ukraine;
- Representative offices in more than 30 countries around the world;
- All our devices are covered by standard 3-year warranty. Extended warranty up to 5 years is also available;
- Powerful development center;
- Constant expansion of the product range;
- Manufacturing customized NDT systems;
- Solutions for non-standard NDT tasks;
- After-sales service and technical support;
- Individual approach for cooperation with dealers.