

# Ultrasonic Flaw Detector

## NOVOTEST UD3701

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

<b>Name</b>	<b>Ultrasonic Flaw Detector NOVOTEST UD3701</b>
<b>Photo</b>	
<b>Purpose</b>	<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> 
<b>Advantages</b>	<ul style="list-style-type: none"> <li>o Possibility to operate with EMAT and UT probes</li> </ul>

	<ul style="list-style-type: none"> <li>o Frequency range with continuously adjustable from 0.2 to 10MHz</li> <li>o <b>Two independently controlled gate (A and B)</b></li> <li>o Automatic or manual construction of the TCG curve (32 points)</li> <li>o Two types of representations of signals: detection and radio</li> <li>o <b>Build and handling A scan (optional B scan)</b></li> <li>o <b>Modes: envelope, freeze and display of the beam</b></li> <li>o Memory of results and settings, PC connection</li> <li>o User can look through archive of settings and results on the device</li> <li>o <b>Large 7 inch touch screen color display</b></li> <li>o Color schemes and interface settings</li> <li>o Soft upgrading by user</li> <li>o <b>Minimum weight: 1.7kg</b></li> </ul>
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<b>Standard set</b>	<ul style="list-style-type: none"> <li>o Ultrasonic flaw detector</li> <li>o UT-probes – 2 pcs</li> <li>o Cable Lemo-Lemo</li> <li>o Power supply and charger</li> <li>o Memory card</li> <li>o Calibration certificate</li> <li>o Operating manual</li> <li>o Case</li> </ul> 
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<b>Specification</b>	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
	<b>Detailed specifications of Ultrasonic Flaw Detector NOVOTEST UD3701</b>	
	Scan	Min: 0 – 6 $\mu$ s Max: 0 – 1000 $\mu$ s Step – 25 ns
	Exposition	From 0 $\mu$ s to 1000 $\mu$ s Step – 25 ns
	MAX length of tested material	up to 6000 mm (echo mode)
Velocity range	1000 – 9999 m/s	

Exposition in the prism	0 – 100 $\mu$ s Step – 25 ns
Damping	50 Ohm
Input impedance	50 Ohm / 600 Ohm
Probes pulse	RF pulse with amplitude of 100, 200 or 300V. 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; In dB relative to the reference signal; 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 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) 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) 2.7 kg with battery 6600 a / h (option)