

THICKNESS GAUGE UT-3M-EMA

DURABLE METAL HOUSING

WORKS WHERE CONVENTIONAL UT FAIL

MEASUREMENTS WITHOUT COUPLANT AND SURFACE PREPARATION

ENHANCED PROTECTION AND BATTERY CAPACITY AVAILABLE ON REQUEST



WEB interface for data transferring



EMAT Thickness Gauge NOVOTEST UT-3M-EMA can be equipped with probes for operation on surfaces heated to a temperature of 600 °C, which makes this device the best, and in some cases, the only possible solution.

The electromagnetic-acoustic thickness gauge (EMAT) allows users to measure the thickness of metal products with one-side access without using couplant and through a substantial gap of up to 6 mm. This significantly reduces the material and labor required for the measurement process.

SPECIFICATIONS

Measurement thicknesses range for steel	0.6 – 300 mm (and more, depending on the probe type and object characteristics)
Coating thickness or air gap range	Up to 6 mm (depending on the object characteristics)
Measurement accuracy	±(0.01h + 0.05)
Measurement resolution	0.01 mm / 0.0001 inch
Measurement units	mm (m/s) / inch (inch/μs)
Probes temperature measurement ranges:	- Standard probe: -20 to +50°C - High-temperature probe: -20 to +250°C (depending on the conditions and measurement and cooling cycle – up to +600°C)
Ultrasound velocity adjustment range	1000 – 9999 m/s
Data Streaming function (optionally)	Real-time data (measured value) streaming from the device to a PC via cable connection.
Measurement modes	AUTO / MANUAL
Special modes	B SCAN / CONTROL
Data storage	Device - 2GB SD card (~6500 measurements)
Data transfer	PC: - Web interface – NOVOTEST.INFO
Languages	English, Ukrainian, Russian
Dimensions and weight of electronic unit	165×90×50 mm / 0.3 kg
Power supply / Charging	Built-in Li-ion battery / 5V USB
Batteries life	8 h
Operating environment	Temperature: -20°C ~ 50°C, Humidity: <95% R.H. at 35°C

EMAT ACCESSORIES

EMAT PROBES – STANDARD AND HIGH TEMPERATURE



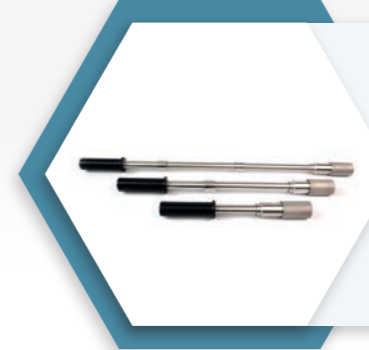
NOVOTEST offers two EMAT probe options: the standard ST-20 and the high-temperature HT-20. Both have identical measurement capabilities, including a range of **0.6 to 300.0 mm** and the ability to measure through coatings up to **6 mm** thick. For typical applications, the ST-20 is recommended. The HT-20, with its ceramic shield, is designed for use on hot surfaces up to **600°C**, such as pipelines and furnace components.

SCANNING TROLLEY FOR EMAT ST-20 PROBE



The scanning trolley is a mechanical fixture designed for smooth and consistent movement of the EMAT ST-20 probe across large metal surfaces. It is **ideal for inspecting** tanks, pipelines, and flat structures where manual scanning is inefficient or unstable. The trolley improves positioning accuracy and signal stability, increasing productivity during thickness mapping and B-Scan inspections.

HT-20 PROBE HANDLE (FOR HIGH-TEMPERATURE OBJECTS)



Handles for the HT-20 probe are available in lengths of **300 mm**, **450 mm**, and **600 mm**. They provide thermal and mechanical protection for the operator's hands and cable, ensuring safe and efficient operation on high-temperature surfaces.

CABLES FOR EMAT PROBES



The standard coaxial cable ensures stable data transmission and durability for regular industrial use. For high-temperature applications, a **1.8 m heat-resistant cable** is available to protect the probe during measurements on hot surfaces.

PROTECTIVE POUCH WITH STRAPS



A durable soft pouch with adjustable straps protects the UT-3M-EMAT device from **dust, moisture, and mechanical damage** during transportation and on-site work.