



MAGNATEST D

Magnetic induction testing of metallic materials in the automotive and aviation sectors at the highest level



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Processor-controlled compact unit with maximum performance. MAGNATEST D is the most commonly used system in the world for fully automatic magnetic induction testing of material properties in single coil absolute mode in the automotive sector. The combination of high excitation currents and complex evaluation electronic equipment detects even the smallest structural discrepancies. The test results are documented via test piece statistics, histogram, and test data export, which are displayed clearly on the touch display.

MAGNATEST D can be completed with an optional multiplexer for electronic switching in multi-coil operation. The unit also has a port for connecting it to superordinated quality management systems. The Magna-Claris software can also be used for the linear regression of a maximum of 250 calibration parts. This software can also calculate technological dimensions.

Harmonic wave evaluation

FOERSTER produces outstanding products for performant harmonic wave evaluations during structure testing. This makes it possible to reduce temperature and batch impacts as well as impacts of the test piece position and geometric component tolerances. The magnetization curve can be divided into carrier and harmonics (multiples of the carrier) using the Fourier transformation. The frequency spectra comprises all uneven frequencies, i.e. f1 (carrier), f3, f5, f7, etc. The evaluation of the harmonics provides additional information on the properties of the test material.

YOUR ADVANTAGES AT A GLANCE

Processor-controlled testing system

Single-coil absolute mode: Single coil absolute operation, therefore no comparison coil required

Optional differential mode: Optional adapter for two-coil differential operation

Constant magnetization: Load-independent induction current, therefore constant induction current intensity and constant magnetic field strength during the testing

High test sensitivity: High induction current intensity thus stimulation of higher harmonics and particularly high test sensitivity to the magnetic characteristics of the test material

Flexible frequency testing: Single frequency or multi-frequency testing, Harmonics analysis

Intuitive operator guidance: Simple operator guidance thanks to application-specific function buttons and high resolution TFT color screen

Standardized interfaces: Standardized interfaces for peripheral equipment (keyboard, mouse, printer, network, etc.)

TECHNICAL INFORMATION

EXCITATION FREQUENCY:	2 Hz to 128 kHz, 17 levels
THROUGHPUT:	depending on excitation frequency, approx. 10 items at 1 kHz
TEST RESOLUTION:	manual, external, internal, crosshairs
SORTING THRESHOLD:	circle, ellipse, rectangle (manual areas), box regression
SORTING PROCESS TESTING:	group analysis
STIMULATION:	mono-frequency, multi-frequency



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