

MIC 20

One instrument - two methods - numerous applications



With UCI and rebound hardness testing, the MIC 20 combines the two proven methods and therefore encompasses their complete application range.

- Universal applications: hardness testing of fine-grained materials having different masses and shapes or hardened surfaces (UCI testing) and on large, coarse-grained components, forgings and cast materials (rebound method)
- Use of the complete range of UCI probes equipped with Vickers diamonds and of rebound impact devices equipped with a tungsten carbide ball or a diamond tip
- Independence of both test methods from the measurement direction due to patented signal processing
- The easiest calibration and storage of calibration data, recallable in the corresponding application case
- Handy instrument provided with a large color screen; operation via keypad or touch screen
- Graphic display of a test series as a curve, histogram or table with statistics
- Straightforward data memory for convenient and structured saving of the measurement results.

TIV

Portable optical hardness tester



The TIV (Through Indenter Viewing), which is based on hardness testing according to Vickers, can “see through” the indenter – the Vickers diamond – by means of special optics and a CCD camera.

- As soon as the test load is reached, the diamond's indentation image is recorded and automatically evaluated; determination of the diagonals without detour is made via a microscope
- Independence of the test from the material: hardness measurement of steel and nonferrous metals, plastics, hard alloys, glass and ceramics without calibration
- Independence of the test from mass and geometry: measurement of hardness even on very thin test objects, such as coils, sheet metal and metal foils
- Direct checking and assessment of the quality of measurement by observing the “growing” indentation on the color display
- Handy instrument with a large color screen; operation via keypad or touch screen
- Graphic display of a test series as a curve, histogram or table with statistics.

GE
Inspection Technologies

An Overview of Mobile Hardness Testing

We give you the choice of quick and convenient on-site hardness testing:

Our product range comprises portable instruments using different test methods and a large number of probes or impact devices.

This opens up extensive application ranges – we have the right instrument for every case.



GE imagination at work

MIC 10

Small and lightweight UCI hardness testing



The MIC 10 enables quick and convenient on-site hardness testing according to the UCI method (Ultrasonic Contact Impedance) with a Vickers diamond as indenter.

- Suitable for fine-grained materials having almost any shape and size, especially for the determination of material properties within narrow tolerances
- Handheld probes (test loads from 10 N/1 kgf up to 98 N/ 10 kgf) having different oscillation rod lengths for measurements even on complicated geometries as well as motor probes (test load 1 N/0.1 kgf up to 8.6 N/ 0.9 kgf) for the optimized adaptation to the test task
- Automatic conversion of hardness value according to DIN 50 150 and ASTM E 140
- Display of a single value or average from a test series at the press of a button
- Two instrument versions: basic version MIC 10 and Data-Logger Version MIC 10DL provided with internal data memory in the instrument and an additional memory card for measurement data, automatic instrument settings and special report formats, equipped with an RS 232 interface.

DynaMIC

Rebound hardness tester - non-directional



The DynaMIC operates according to the dynamic rebound hardness testing method (standardized according to ASTM A 956), however, it has an identical instrument concept to the MIC 10.

- Suitable for testing large, coarse-grained components, forgings, and cast materials of all types
- Different impact devices depending on the application: Dyna D (3 mm tungsten carbide ball) for standard applications, Dyna G (5 mm tungsten carbide ball) for solid test objects, Dyna E (diamond test tip) for the hardness range beyond 650 HV
- Measurement of hardness independent of impact direction (without the input of any correction values) thanks to patented signal processing
- Automatic conversion of hardness value according to DIN 50 150 and ASTM E 140
- Two instrument versions: basic version DynaMIC and DataLogger version DynaMIC DL provided with an internal data memory in the instrument and an additional memory card for measurement data, automatic instrument settings, and special report formats, with an RS 232 interface.

DynaPOCKET

Pocket-sized rebound hardness tester



The rebound hardness tester DynaPOCKET contains a display and an evaluation unit, integrated into one instrument, ensuring compact design without any cables and characterized by its small size and light weight.

- Suitable for tests at almost any position, especially with difficult access due to the geometry; even on heavy, non-transportable components
- Easy and straightforward operation by means of only two keys
- Large and easy-to-read LCD with display of single value or average
- Digital substitute for the "Poldi hammer" with increased reliability and faster testing
- Measurement of hardness independent of impact direction (without the input of any correction values) thanks to patented signal processing
- The easiest calibration by means of nine material groups stored in the instrument
- Automatic conversion of hardness value according to DIN 50 150 and ASTM E 140.