Hardness testing

HV 0.1 to HBW 10/3000

Product overview

EMCO TEST

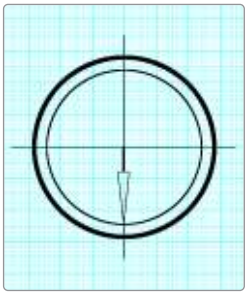
YOUR FACTOR OF SAFETY.


Discover
the world of hardness testing.

Large production range.

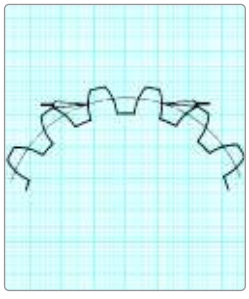
Further info at www.emcotest.com

N6	N7	N4	N3D G3/N3A	DuraJet
Intest hardness tester for Ø 36–110 mm insertion depth up to 400 mm	Tooth flank hardness tester Tooth measurement width up to 140 (N7F) or 700 mm (N7P) External teeth modul 2–10 (N7F) / 3-35 (N7P)	Portable hardness tester 147-1840 N (15-187.5 kgf) Span width: 0 - 20/145/235/335 mm Rockwell EN ISO 6508, ASTM E-18 Plastic test EN ISO 2039 HBD and HVD-methods	Rockwell hardness tester with dial gauge 147-1840 N (15-187.5 kgf) Rockwell EN ISO 6508, ASTM E-18 Plastic test EN ISO 2039 HBD and HVD-methods	Rockwell hardness tester with external touch screen panel 49-1840 N (5-187.5 kgf) Rockwell EN ISO 6508, ASTM E-18 Plastic testing EN ISO 2039 HBT and HT-methods



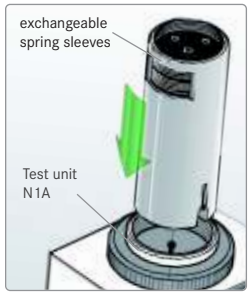
Drilling

The testing machine is positioned in the drilling and fixed by clamping action. The test load is applied via hand lever. Subsequently the reading is taken from the dial gauge in HRC values.



Tooth flanks

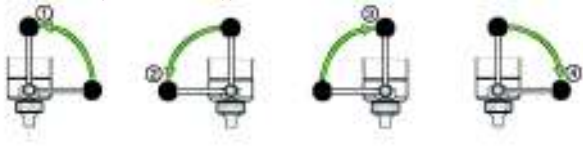
The tester is positioned on the tooth flanks and is clamped on the designated test point. After the clamping the application of the test load follows by means of a hand lever. Subsequently the result of the measurement is taken from the dial gauge in HRC values.



Exchangeable

The N1A test unit with exchangeable spring sleeves is used for different loads. (Spring sleeves with different loads).

Schemat. sequence of the load application



Dial gauge

Three coloured scales are printed on the clock-face. The hardness value is read off the corresponding scale according to the chosen test method and test load (display accuracy 0.5).

Touch screen

The clearly structured and well-lit touch screen display can be operated using fingers or the screen pin provided. The menu is kept simple and is available in various languages. Users are able to choose between "Quick-Test" mode for beginners and the "Test" mode for advanced users which includes further settings.

M1C

Micro- and low-load hardness tester
0.98 - 306 N (0.1 - 31.25 kgf)
Vickers EN ISO 6507, ASTM E-92
Knoop EN ISO 4545
Brinell EN ISO 6506, ASTM E-10
Rockwell EN ISO 6508, ASTM E-18
HVD and HBD- methods

M4C-E / M4R-Jom

Hardness tester for multiple testing
9.8 - 2450 N (1 - 250 kgf)
29 - 7350 N (3 - 750 kgf)
Vickers EN ISO 6507, ASTM E-92
Knoop EN ISO 4545
Brinell EN ISO 6506, ASTM E-10
Rockwell EN ISO 6508, ASTM E-18
HVD and HBD-methods

M4R G3

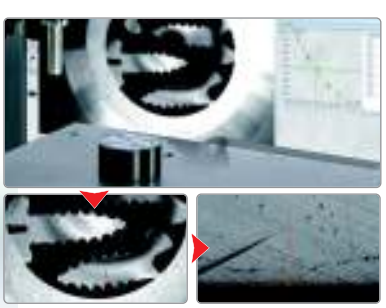
Rockwell hardness tester
9.8 - 2450 N (1 - 250 kgf)
Rockwell EN ISO 6508, ASTM E-18
Plastic test EN ISO 2039
HBD and HVD-methods

M4C G3

Fully automatic image analysis
9.8 - 2450 N (1 - 250 kgf)
29 - 7350 N (3 - 750 kgf)
Vickers EN ISO 6507, ASTM E-92
Brinell EN ISO 6506, ASTM E-10
Rockwell EN ISO 6508, ASTM E-18
Knoop EN ISO 4545
Plastic test EN ISO 2039
HVD and HBD-methods

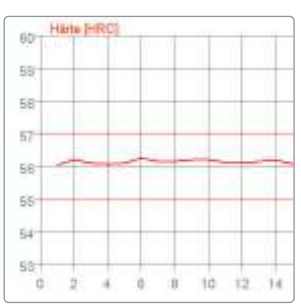
Intuitive operation

ecos has been specially developed by EMCO-TEST as integrated software for hardness testing machines with network and host connections. To ensure the clearly defined and well structured storage of hardness testing data administration of measurement results is managed using the approved Windows® Explorer principle. Test report can be displayed clearly with all relevant information.



Keep track

A special overview camera has been designed to help keep track of tests with several test points and progression rows. With the aid of this unique technique an overview image of the complete run is created - approx. 40 x 50 mm (M1C) resp. 100 x 140 mm (M4) - in which all test rows can be created clearly. The image can be customised as required by means of digital zoom and can be integrated into the test report.



Repeating precision

The M4R G3 is distinguished by the high repetition precision of HRC ±0,2. Basis to this high precision is the principle of electronically controlled and permanently monitored load application. According to this the test load is applied directly, whereby a force excess or shortfall is ruled out.

USB-stick & Direct printing

All machines of the 3rd generation are equipped as standard with 1 x RS232, 1 x RJ45 (Ethernet) and 2 x USB-interface. Hence a USB-printer can be connected directly or e.g. all measurement data can be stored directly in a USB stick. Data evaluation can take place at your desk.

M4U G3

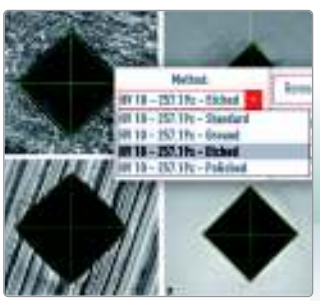
Mat screen with ruler
9.8 - 2450 N (1 - 250 kgf)
29 - 7350 N (3 - 750 kgf)
Vickers EN ISO 6507, ASTM E-92
Brinell EN ISO 6506, ASTM E-10
Rockwell EN ISO 6508, ASTM E-18
Knoop EN ISO 4545
Plastic test EN ISO 2039
HVD and HBD-methods

Change of test methods within 2 sec.

The numerous test methods can be stored in the software and selected as required. In combination with the 5-fold measurement turret the correct indentor is automatically swivelled into position. The indentation is measured with the corresponding lens.

M5C G3

Fully automatic image analysis
196 - 29430 N (20 - 3000 kgf)
Vickers EN ISO 6507, ASTM E-92
Brinell EN ISO 6506, ASTM E-10
Rockwell EN ISO 6508, ASTM E-18
HVD and HBD-methods



Reproducibility

Each surface reflects light differently, so one important precondition for automatic image analysis of hardness impressions is optimal lighting and contrast. This ensures a material is always tested under the same conditions, regardless of who is operating the system, and guarantees the highest degree of reproducibility.

M5U G3

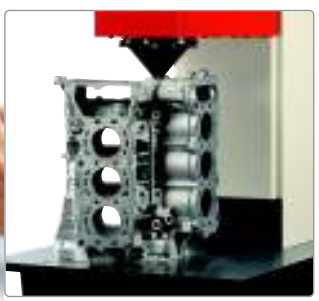
Mat screen with ruler
196 - 29430 N (20 - 3000 kgf)
Vickers EN ISO 6507, ASTM E-92
Brinell EN ISO 6506, ASTM E-10
Rockwell EN ISO 6508, ASTM E-18
HVD and HBD-methods

LCD touch-screen

All G3 machines are equipped with an 8.4" (C-version) or 6,2" (U-version) display enabling clear, logic and simple operation. All adjustments to test method, work piece surface, tolerance limits, statistics, manual 2nd test and user level management are united clearly in the ecos Compact software.

V4/V5 G3

Fully automatic image analysis
9.8 - 2450 N (1 - 250 kgf)
29 - 7350 N (3 - 750 kgf)
196 - 29430 N (20 - 3000 kgf)
Vickers EN ISO 6507, ASTM E-92
Brinell EN ISO 6506, ASTM E-10
Rockwell EN ISO 6508, ASTM E-18
Plastic test EN ISO 2039
HVD and HBD-methods



Large workpieces

With the machines of the V-series, testing of large or heavy parts on the fixed testing platform 800 x 600 mm is no problem at all. With this new development the test unit is traversed to the work piece by means of a motor. A testing height up to 730 mm and a throat depth of 400 mm also enables the testing of bulky parts in a very short time.

Satisfied customers worldwide.

In cooperation with trained contractual partners in over 40 countries EMCO-TEST guarantees expert advice and support for needs evaluation, purchasing decisions and use of our high quality hardness testing machines.

EMCO-TEST Prüfmaschinen GmbH
5431 Kuchl-Salzburg/Austria • Brennhoflehen-Kellau 174
Tel. +43 62 44 20 4 38 • Fax +43 62 44 20 4 38-8
office@emcotest.com • www.emcotest.com

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