



**N3D G3**  
**N3A**

**Rockwell hardness  
testing machine**

**EMCO-TEST**  
YOUR FACTOR OF SAFETY.

# High efficiency – low cost.

Customised test loads and easy handling.



N3D G3



N3A



## Rockwell

acc. to EN ISO 6508, ASTM E-18

HRA	HRL	HR 15-T	HR 15-Y
HRB	HRM	HR 30-T	HR 30-Y
HRC	HRP	HR 45-T	HR 45-Y
HRD	HRR	HR 15-W	
HRE	HRS	HR 30-W	
HRF	HRV	HR 45-W	
HRG	HR 15-N	HR 15-X	
HRH	HR 30-N	HR 30-X	
HRK	HR 45-N	HR 45-X	



## Plastic test

acc. to EN ISO 2039

49.03 N	132.9 N	357.9 N	961 N



## HVD, HBD

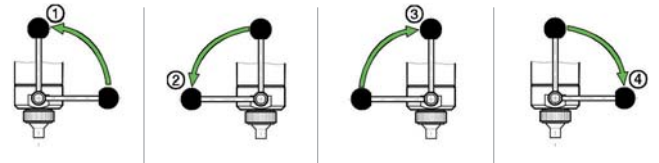
Depth measurement

HVD 30	1/30	2.5/62.5	5/62.5
HVD 100	2.5/31.5	2.5/187.5	



## Easy operation.

Load application by means of 180° lever  
(pre- and main load step).



- 1 Application of pre-load
- 2 Application of main load
- 3 Application of 2nd pre-load
- 4 Back to initial position

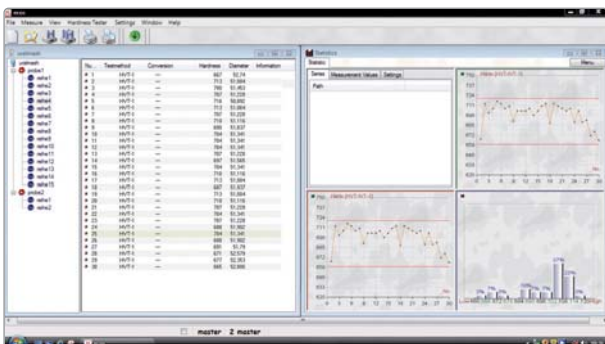


## Digital and convenient.

The three free selectable test methods and conversions stored as standard in the tester for maximum flexibility. The reading is shown on the backlit LCD screen after the test. Selection of 5 language versions (GE, EN, IT, FR, SP). Machine power supply via mains adaptor or via USB interface (laptop).



Tolerance limits can also be stored in the tester. Readings designated with LOW, HIGH or OK accordingly. This is a big advantage, particularly for serial part testing. The system immediately detects the parts to be removed. Furthermore, it is also possible to test cylindrical and spherical work pieces. When the diameter is entered the hardness value adapts corresponding to the convex surface.

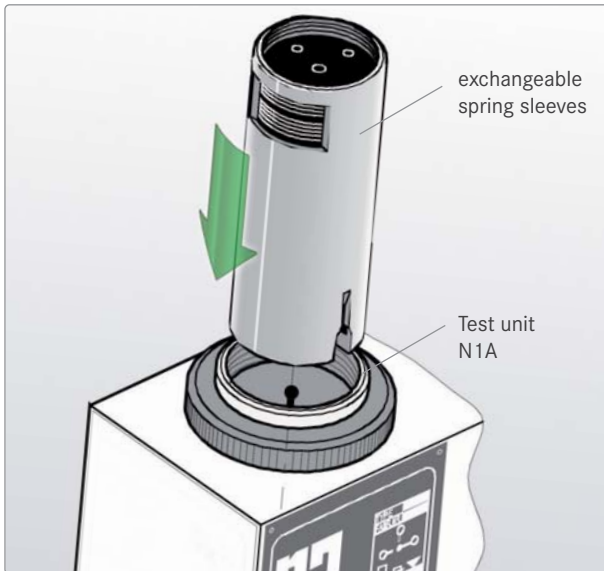


## Data export and data management.

All hardness values can be imported into EMCO-TEST software ecos via RS232 or USB interface and easily managed. It is possible to generate voluminous and meaningful statistics to be printed out as an A4 report. Data can also be transferred directly to an excel document via USB.

# Approved technology.

Changeable spring sleeve system for variable test loads.



## Variable test loads.

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

Spring sleeve N2H	Test load 15 kgf
Spring sleeve N2C	Test load 30 kgf
Spring sleeve N2G	Test load 31.25 kgf
Spring sleeve N2L	Test load 45 kgf
Spring sleeve N2E	Test load 60 kgf
Spring sleeve N2B	Test load 62.5 kgf
Spring sleeve N2F	Test load 100 kgf
Spring sleeve N2A	Test load 150 kgf
Spring sleeve N2D	Test load 187.5 kgf



## Several test loads combined.

Four load adjustable test units available. Required test load selected via lever.

Test unit N1U*	Selectable test loads 30/150/187.5 kgf
Test unit N1R	Selectable test loads 60/100/150 kgf
Test unit N1S	Selectable test loads 15/30/45 kgf
Test unit N1P	Selectable test loads 5/13.5/36.5/98 kgf

\*For N3D G3 only



## Dial gauge.

N3A hardness tester measurement readings via analogue dial gauge. Three coloured scales printed on the clock-face. Hardness value read on corresponding scale according to chosen test method and test load (accuracy 0.5).

# Accessories.

Complete accessory catalogue at [www.emcotest.com](http://www.emcotest.com)

All N3 hardness testing machine accessories at [www.emcotest.com](http://www.emcotest.com): various penetrators, special nose cones, plane and V-anvils, spring sleeves, load adjustable test units, spindle-bellow, data cable, test blocks and a good deal more.



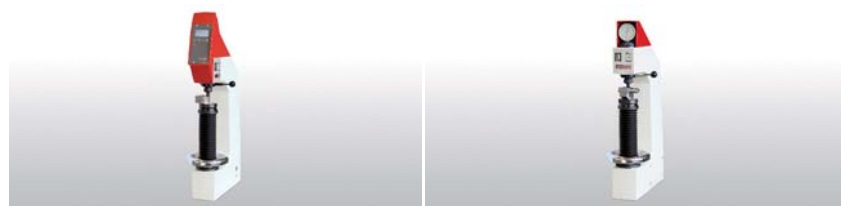
Penetrators



Plane anvils and v-anvils

# Technical data.

All basic data at a glance.



N3D G3

N3A

	N3D G3	N3A
Measurement readings	Digital	Analogue via dial gauge
Height adjustment:	Hand wheel	Hand wheel
Test height (N 1A unit and spring sleeves):	285 mm	285 mm
Test height (with load adjustable test unit):	230 mm	230 mm
Throat depth:	170 mm	170 mm
Max. work piece weight:	20 kg	20 kg
Dimensions w x h x d:	205 x 830 x 470 mm	205 x 920 x 470 mm
Basic machine weight:	35 kg	35 kg
Data interface:	1x RS232, 1x USB	-
Power supply:	110/230~1/N/PE	-
USB mains adaptor:	5 V DC	-
Max. power consumption:	5 W	-
Room temperature:	5 - 40°	5 - 40°



# Satisfied customers worldwide.

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



**M1C series**

Micro low load hardness testing machine  
 Loads from 0.1 to 31.25 (kgf)



**M4C series**

Universal hardness testing machine  
 Loads from 1 to 750 (kgf)



**M5C series**

Universal hardness testing machine  
 Loads from 20 to 3000 (kgf)



**V series**

For heavy work pieces  
 Loads from 20 to 3000 (kgf)



**VR5C series**

Incl. pre-test milling.  
 Loads from 60 to 3000 (kgf)

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