DYNATEST SC
portable electronic hardness tester

The proper solution for any hardness control issue

ernst

DYNATEST SC - portable electronic hardness tester

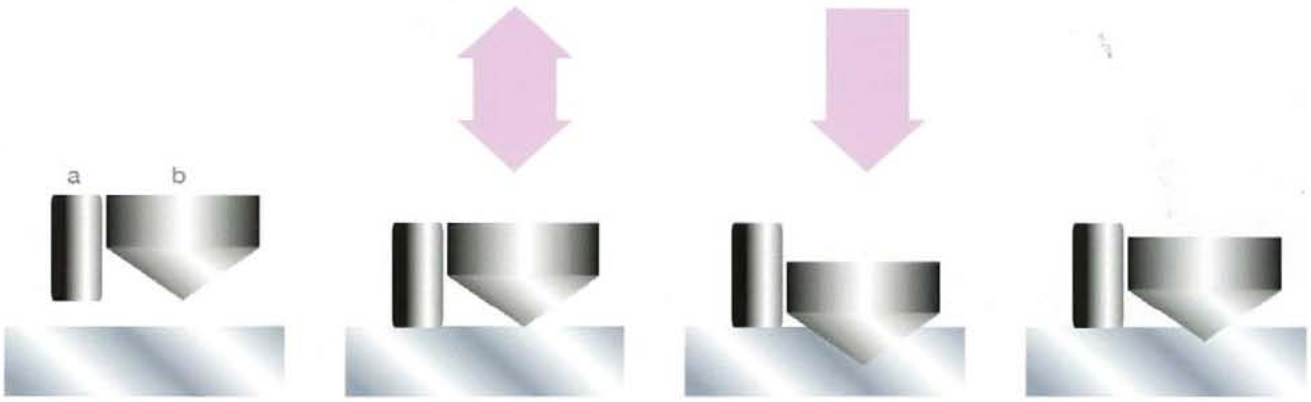
DYNATEST SC – THE PRINCIPLE

The purpose in studying and developing this instrument was to realize a portable hardness tester applying a heavy load, comparable to standard Rockwell loads.

Also very important was the fact that testing would not be influenced by any deflection, elasticity or mass of the work piece.

All this has been reached by developing a new dynamic system, which radically differs from the known ones where the test load, being given by an impact, is not precise but depends on the reaction it meets; for this reason, these systems can be used only for testing considerable masses free of deflection.

In DYNATEST SC, on the contrary, the load acts progressively on the indenter in a very short time and without any impact.



BEFORE TESTING
resting position (the indenter edge (a) stretches out from the penetrator shroud (b)

PRELOAD POSITION
the indenter draws back with a resistance equivalent to the preload value

LOADING
the load is applied

MEASURING
the load is removed, the penetrator displacement is readable from (a) to (b)

This new system makes use of the characteristics of an elastic component, which from load at zero progressively reaches the maximum load and then returns to zero. This component is previously compressed, and then during testing it acts on the penetrator. Thanks to this method, the test load is definite, as it is not produced by an impact but given by the characteristics of the elastic component. In this way, the test result is not influenced by any deflection of the work piece.

DYNATEST SC is not influenced by the conditions of the surface to be tested and can be used simply by pressing it on the test surface.

DYNATEST SC works according to the Rockwell principle with preload of 68 N (7 kp) and test load of more than 980 N (100 kp).
The difference of penetration between preload and load is processed by a microprocessor and displayed directly in Rockwell C hardness scale or in equivalent Brinell scale compared with test blocks.

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DYNATEST SC

Portable heavy load hardness tester 100kp (980,6N),
allows testing results comparable to those of a bench hardness tester.
Tests from flat to cylindrical surfaces.
Works in horizontal and vertical position.
Storage memory of 1000 test results.
Optional statistics software compatible with standard pc programs.

DYNATEST SC - FUNCTION KEYS

SCALE
To select the available hardness scales:
HRC - 1 HB/30 - 2 HB/30 - N/mm² - kg/mm²
DPTH

PRINT
Works when the hardness tester
is connected to a printer having different
prints-out.
Test certificate can be printed out in
5 different languages

MENU
Multifunction key to access different functions

CAL
To calibrate the hardness scale on different
hardnesses or materials

MODE
To display the instrument's status

TOL
To set up to 4 tolerance values in batch
testing

FILE
To gain access to the saved files (8)

ENTER
To confirm and save the selected values

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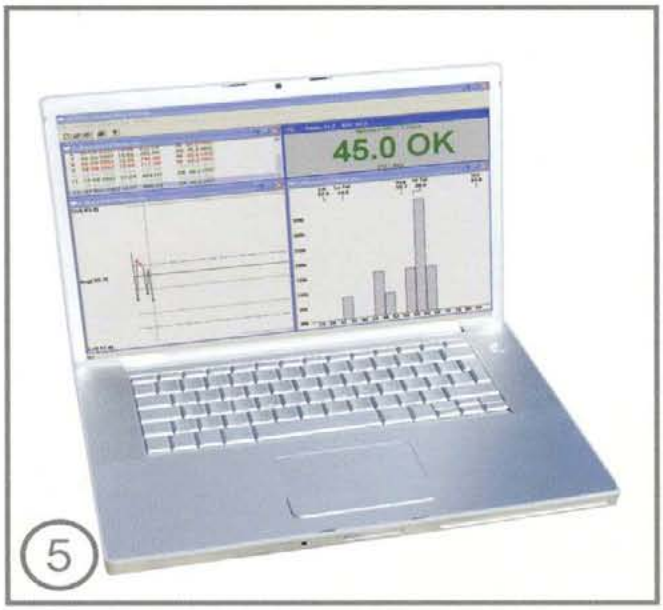
DYNATEST SC

Dynatest SC can work in different positions and is provided with different supports, easy interchangeable and adaptable to different test situations. Dynatest SC is particularly suited for use in foundries, in the building industry and in heat treatment plants. Suitable for cast iron, forged steel, roundbar-reinforced concrete and many other applications.



DATAVIEW32 (optional)

Captures and stores hardness testing data on a computer and generates files, which are compatible with standard pc programs. Provides tolerance indicators, generates control limits and average values, generates X-bar and R charts, histograms, CPk, etc. Provides scale conversion, minimum thickness values and round correction; builds historical data files with descriptive information for true process control.

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DYNATEST - TECHNICAL DATA

Type:	portable hardness tester DYNATEST SC
Working principle:	Rockwell
Reading:	on LCD backlit display 80x30mm
Test load:	more than 980 N (100 kp)
Preload:	68 N (7 kp)
Hardness scales:	HRC, 1 HB30 (diamond), 2 HB30 (1/16" ball) N/mm2, kp/mm2, DPTH (depth) Other scales on request
Electronics:	16 bit microprocessor, possibility to connect to peripherals
Memory size:	up to 1000 values can be saved in 8 different files
Functions availability:	scales, tolerances, language selection and statistics
Output:	RS 232
Power supply:	230 VAC, 50/60 Hz (on request 115 VAC, 50/60 Hz)
or eight-hour continuous operation rechargeable battery, included	
Operation temperature:	0-50° C
Gross weight of the instrument with wooden case:	kg 10.650
Dimensions of the case:	cm 44x40x16
Mechanical unit:	kg 1.900
Electronic box:	kg 0.780

CE conformity

DIN 50157 conformity

STANDARD ACCESSORIES

battery charger
diamond indenter
hard metal ball penetrator
test block (HRC, HB30)
3 anvils for flat surfaces
anvil for cylindrical surfaces
template

ACCESSORIES ON REQUEST

software Dataview 32
for data processing on PC,
statistics and certificates.
80-column printer
Additional hardness scales:
HB10/HB5 for light alloys,
HB30 for cast iron,
HV/HRB
SHORE/D
special anvils can be studied on request

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