

HANDY ESATEST X

portable hardness tester



www.ernsthardenstesters.com

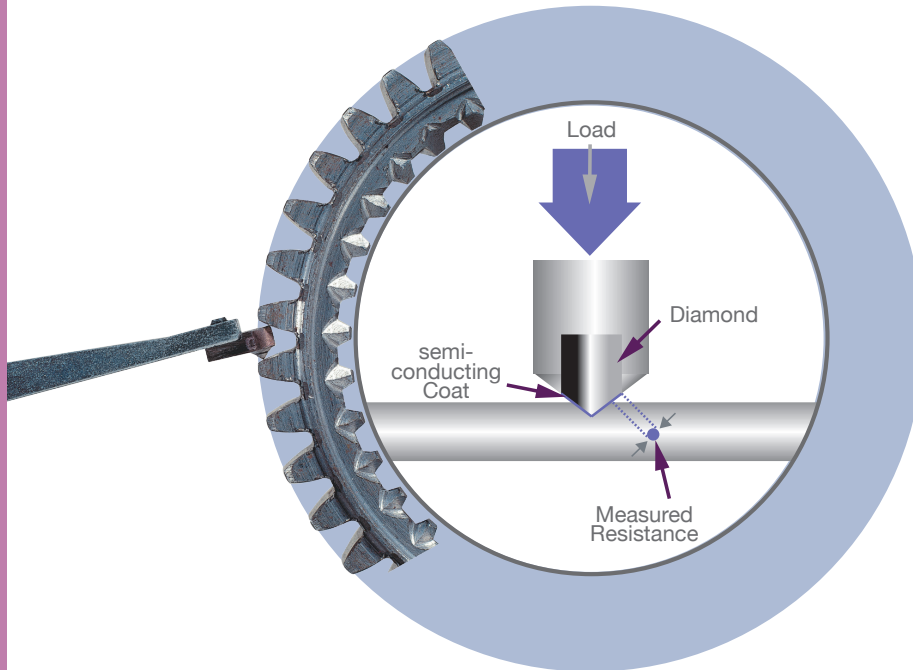
ERNST

HANDY ESATEST X | THE PRINCIPLE

(DIN 50158 conformity)

HANDY ESATEST X operates according to the ERNST patented ESATEST® principle of hardness determination through measure of electrical resistance.

HANDY ESATEST X, allows testing in difficult points, inaccessible until now.



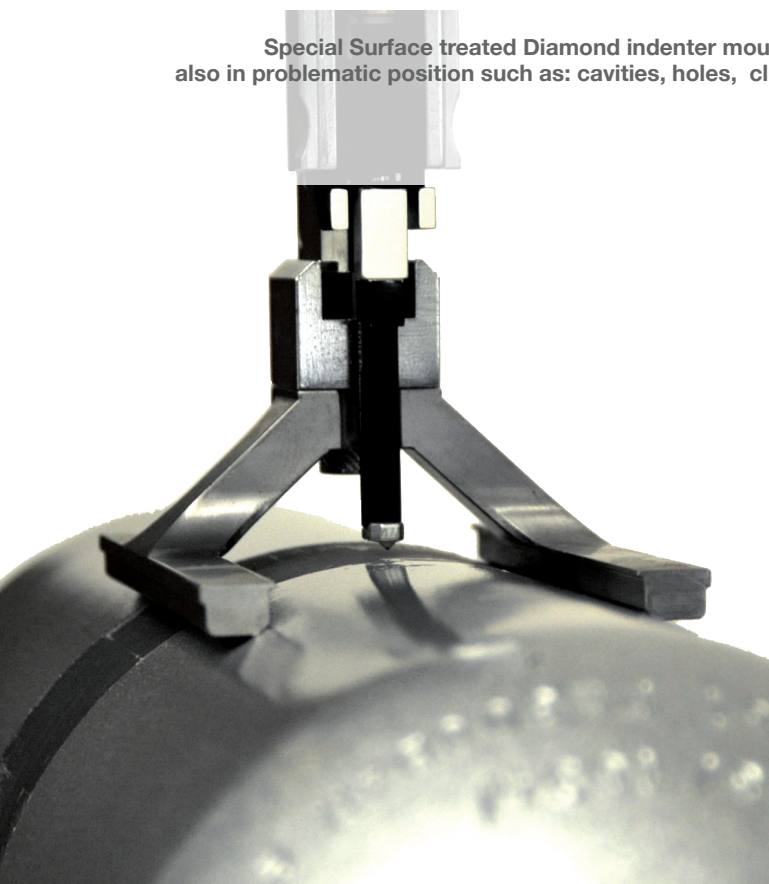
The diamond indenter can be compared to a little potentiometer, which, while gradually penetrating into the material, obtains all the data (load-hardness) during the whole phase of load application.

Thanks to the patented ESATEST® working principle it is now possible with a simple indentation to get all values corresponding to the different loads up to the maximum load applied thus allowing to get an indicative evaluation of the heat treatment status.

The measurement is not influenced by deflection or bending of the specimen.

Note: HANDY ESATEST X permits hardness testing of all types of metal without changing the penetrator.

Special Surface treated Diamond indenter mounted on a support able to carry out the hardness control also in problematic position such as: cavities, holes, clutches, gears, etc., whether in the vertical or horizontal position.



HANDY ESATEST X | INNOVATIONS

The battery charger has been developed for either directly charging the instrument or for the charging of additional battery packs.



The electronics of HANDY ESATEST X is provided with USB output.



STANDARD ACCESSORIES

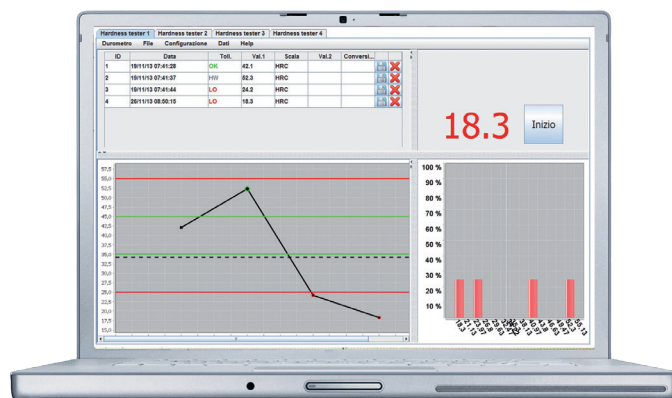
Handy Esatest X is delivered in its traditional polished wooden box complete with:

- 1 Vickers test block, calibrated at 1kgf and 10kgf
- 1 support for flat surfaces
- 1 support for round pieces
- 1 two points support
- 1 kit for non magnetic material keys
- 1 magnetic sensor cable
- 1 operation manual

ACCESSORIES ON REQUEST

- E-Datcapture software for statistics
- Additional battery pack
- Support for internal surfaces:
 - max depth 50mm
 - min diameter 15mm
- Rockwell test block
- Brinell test block
- Special scales
- Spare indenter
- Special anvils can be studied on request

Optional E-DATACAPTURE software expands the functionality of your hardness tester by allowing to capture and store the hardness testing data on a computer. Besides this, E-DATACAPTURE provides tolerance indicators, generates control limits and average values, provides scale conversion. E-DATACAPTURE generates X-bar, histograms and Cpk. It builds historical data file for an effective process control. E-DATACAPTURE is also available in a version permitting to connect up to 4 hardness testers simultaneously.



HANDY ESATEST X | TECHNICAL DATA

■ Operating principle:

ERNST ESATEST® patented method - measurement through electrical resistance

■ International standards:

DIN 50158 ESATEST principle

ASTM E-18 indirect method on certified test block

ISO 6507 indirect method on certified test block

ISO 6508 indirect method on certified test block

ISO 6506 indirect method on certified test block

■ Reading:

on LCD display 80mm x 30mm

■ Preload:

continuous preload application with acquisition of load values and electrical resistance in realtime

■ Test loads:

Progressive load application from 1kgf to 10kgf (9.81N to 98.1N)

■ Load application method:

Manual

■ Standard scales:

HV - HRC - HRB - HRA - Brinell HB30 - Z Nmm² - HRF

■ Other scales:

on request

■ Output interfaces

RS232, Mini USB

■ Minimum measurable diameter

Ø 5mm - it is possible to execute tests in small cavities using special indenters

■ Working area dimensions

2mm x 2mm

■ Selectable functions:

scales, tolerances, calibration, test load, stats, languages, display contrast, sequence, RS232, USB, files, materials, partial average, clock, auto off timer, prints

■ Power supply:

single phase from 100VAC - 240 VAC - 50/60 Hz with earthing or rechargeable batteries (8 hours duration)

■ Dimensions

case 44cm x 40cm x 16cm

■ Weight

mechanical part 690g - electronic part 870g

■ Operation temperature:

10°C-40°C

