

HTD 1500 & 4000

CASE DEPTH
ANALYSIS

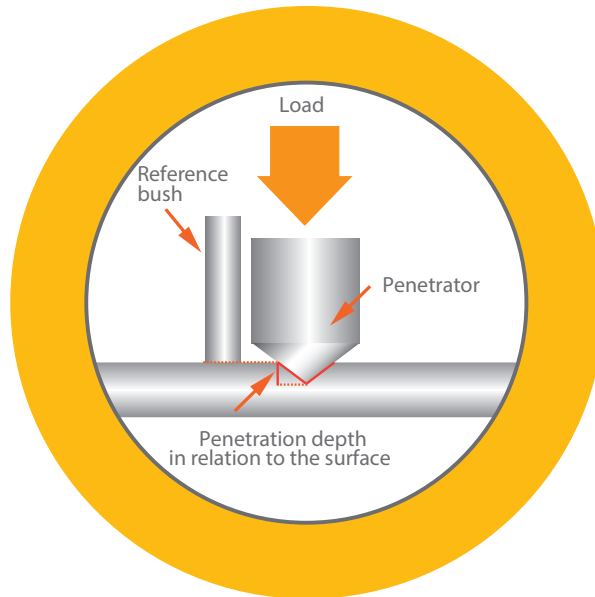


www.ernsthardnesstesters.com

ERNST

HTD1500 and HTD4000 have been developed using a principle based on the processing of the hardness curve in relation to the applied load in continuous acquisition, without influences due to bending or deflection of the test piece.

Thanks to the reference bush testing is not affected by bending or deflection of the test piece



The hardness curve is obtained by the continuous acquiring of hardness data with constantly increasing applied load. A special algorithm developed by ERNST processes the information obtained by the hardness-curve in order to deliver the value of the case depth and the schematic curve of the hardened surface layer.

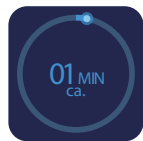
HTD1500 and HTD4000 are capable of verifying case depth up to 1.3mm (HTD1500) and 2.7mm (HTD4000). This range of instruments has been expressly built in response to the requests of the heat treatment industry and its end users. It is equipped with a big stand to enable testing of large work pieces having overall dimensions of up to 315mm height and 315mm depth.

HTD1500 and HTD4000 have been designed to operate under extreme conditions. The Tungsten carbide indenter is expected to last up to 2500-3000 tests, depending on the hardness of the test piece and on the maximum load being used.

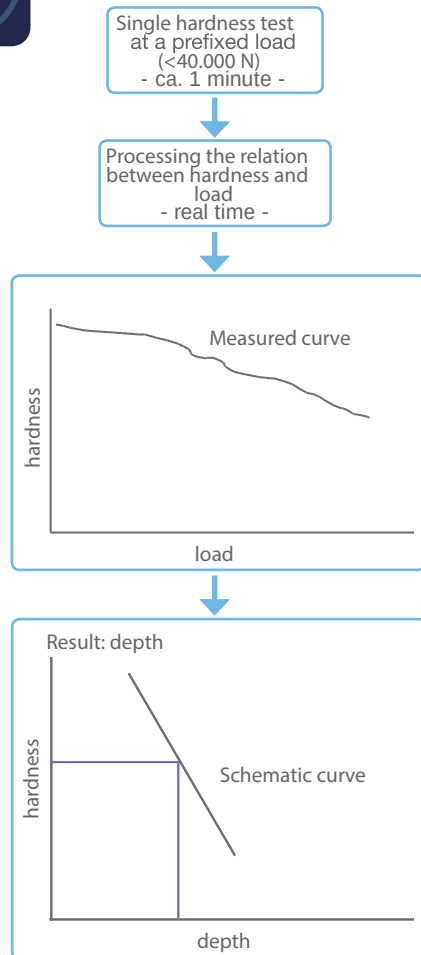
The use of windows platform allowed to improve the calculation potential, consequently to obtain more accurate and reliable results.



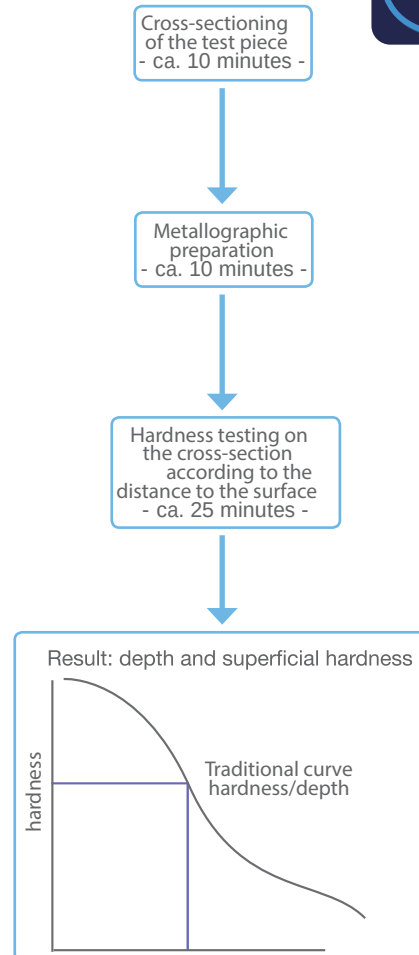
Absolute innovation in case depth analysis saves up to 90% of time compared to the traditional method and allows non destructive testing



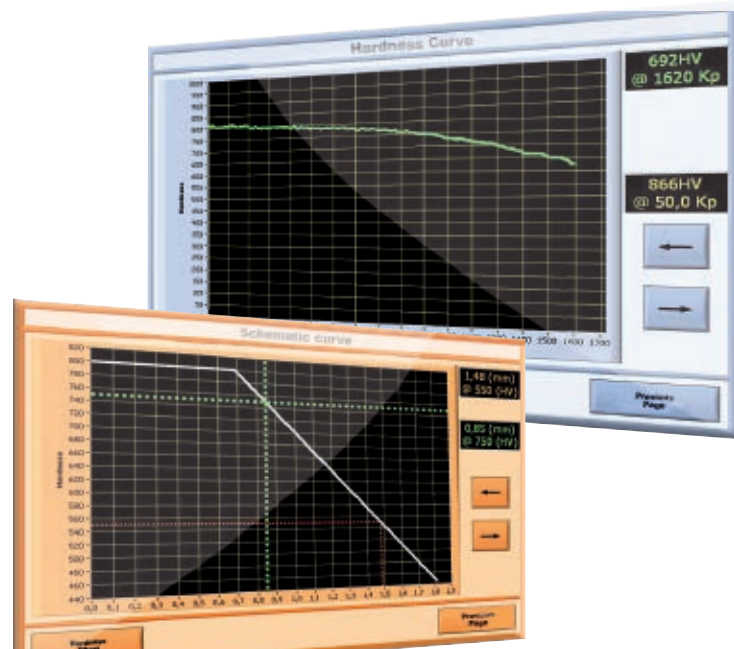
HTD NON-DESTRUCTIVE METHOD



TRADITIONAL METHOD



Thanks to its user-friendly interface, HTD Series allows easy data input and quick recall of files, statistics and charts. Allows to send the results to a printer or to a network at any time and allows displaying the hardness curve at different loads.



HTD1500 & HTD4000 | TECHNICAL DATA

■ Operating principle:

Load-penetration curve evaluation and tested algorithm

■ Reading:

direct reading of case depth on touchscreen display 8.4" - schematic curve with determined case depth value - statistics and curve comparison

■ Preload:

continuous application and real time detection of load and indentation parameters

■ Test loads:

HTD1500 from N981 to N14715 (100kgF - 1500kgF)

HTD4000 from N981 to N39240 (100kgF - 4000kgF)

■ Load application method:

automatic with predetermined load value according to case depth

■ Standard scales:

Reference HV scale

■ Output interfaces

USB, serial, Centronics, Ethernet, PS/2

■ Minimum measurable diameter

Ø 10mm

■ Working area dimensions

stands capacity 335-315 mm (depth-height)

■ Storage:

high memory capacity according to the industrial PC in use

■ Selectable functions:

load selection - language - calibration - hardness measure - case depth - hardness curve schematic curve - reference - tolerances - penetrator type - sequence - file - scale - stats print - histogram

■ Power supply:

110-240 Vac 50/60 Hz

■ Dimensions

L 370mm (900mm ca. with PC) x H 1200mm x D 850mm

■ Weight

450 kg ca.

■ Operation temperature:

10°C-50°C

■ Precision:

±5%

STANDARD ACCESSORIES

Hard metal indenter
Special block for case depth 0.75 mm – 550 HV
Hardness test block for calibration
600 HV nominal
Flat anvil 120 mm Ø
Set of fuses, tools
vinyl cover
accessories box
Bench support



Showroom Querétaro:
Bussines Park Sendero Advance
Prolongación Boulevard Bernardo Quintana #248,
Nave 27, Col. Felipe Carrillo Puerto, Querétaro, Qro.
C.P. 76138
Teléfono: [442] 340 0250, 340 0251

ACCESSORIES ON REQUEST

Additional software for round correction
Hard metal indenters
Bushes
Flat Anvil 200 mm Ø
V-Anvil 150 mm Ø for rounds up to 200 mm Ø
Calibration Test block 400HV
Calibration Test block 800HV
Case depth block 0.5mm/550HV
Case depth block 1.5mm/550HV (just for model HTD4000)
Vice for round specimens 10-60 mm Ø max
Special fixture designed on customer's samples

Please feel free to contact us for more detailed information on our products and company

Call us or send us your contact data per fax or mail – we shall be pleased to get in touch with you immediately

Or just use the QR code for more information via the internet.

