ERNST
HTD1500 - HTD4000

case depth analysis

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ernst

HTD 1500

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

ACCESSORIES ON REQUEST
Additional software for round correction
Set of three metal indenters
Set of three fuses
Flat anvil 200 mm Ø
V-anvil 200 mm Ø for rounds 60 to 150 mm Ø
hardness block for calibration 400 HV
Vice for round specimens 10 mm to 60 mm Ø max
Special fixture designed on customer samples

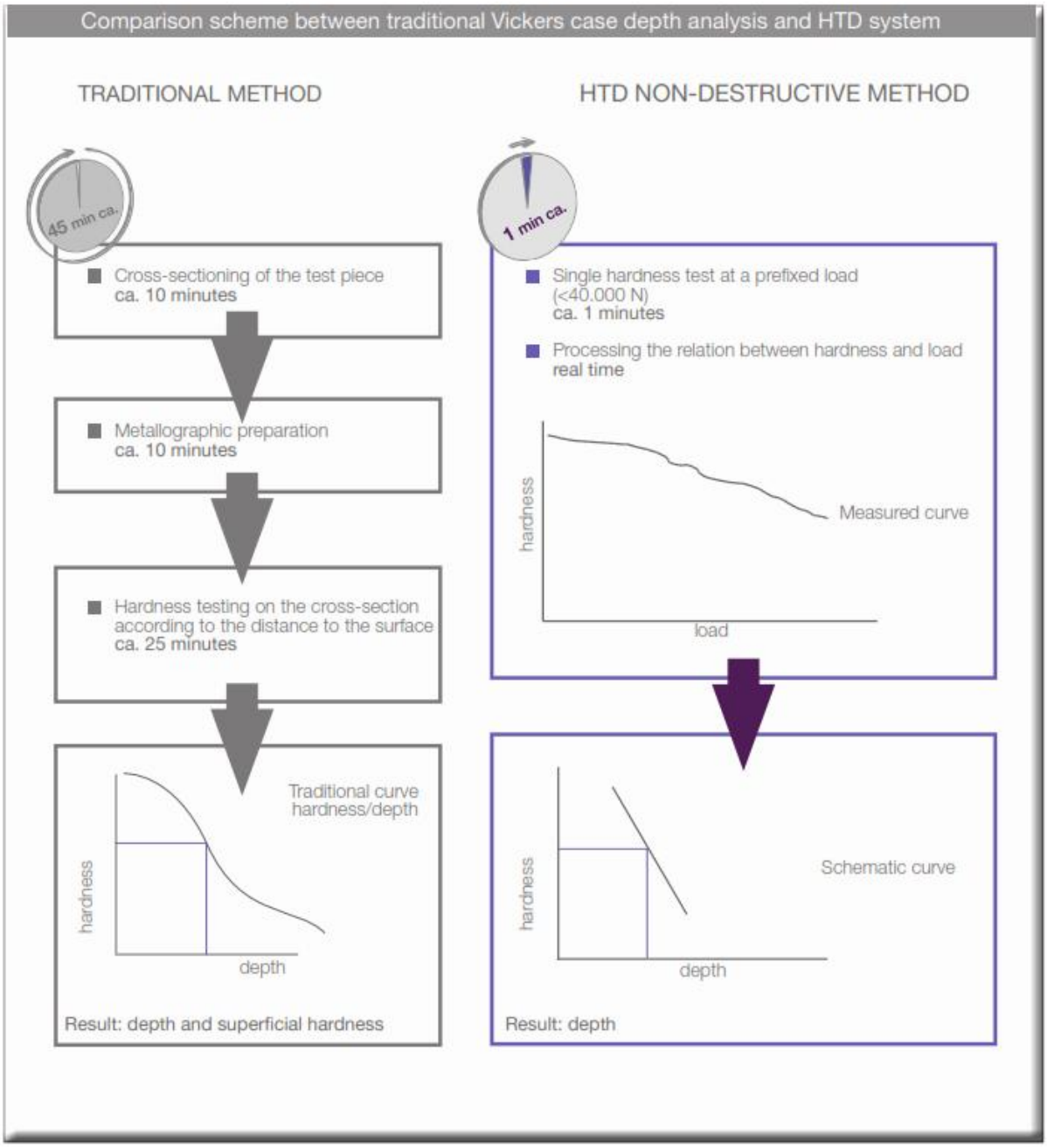
HTD 4000

STANDARD ACCESSORIES
Hard metal indenter
Special block for case depth 0.75mm / 550HV
Hardness test block 600HV nominal
Flat anvil 120 mm ø
Set of fuses, tools, vynil cover, accessories box
Bench support

OPTIONAL ACCESSORIES
Additional software for round correction
Set of three hard metal indenters
Set of three bushes
Flat Anvil 200 mm Ø
V-Anvil 200 mm Ø for rounds 10-150 mm Ø
Calibration Test block 400HV
Calibration Test block 800HV
Case depth block 0.5mm/550HV
Case depth block 1.5mm/550HV
Vice for round specimens 10-60 mm Ø max
Special fixture designed on customer's samples

HTD1500 - HTD4000 - The Innovation

absolute innovation in case depth analysis
saves up to 90% of time compared to the traditional method
allows non distructive testing

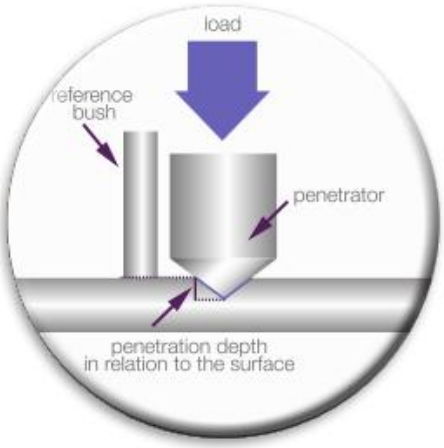


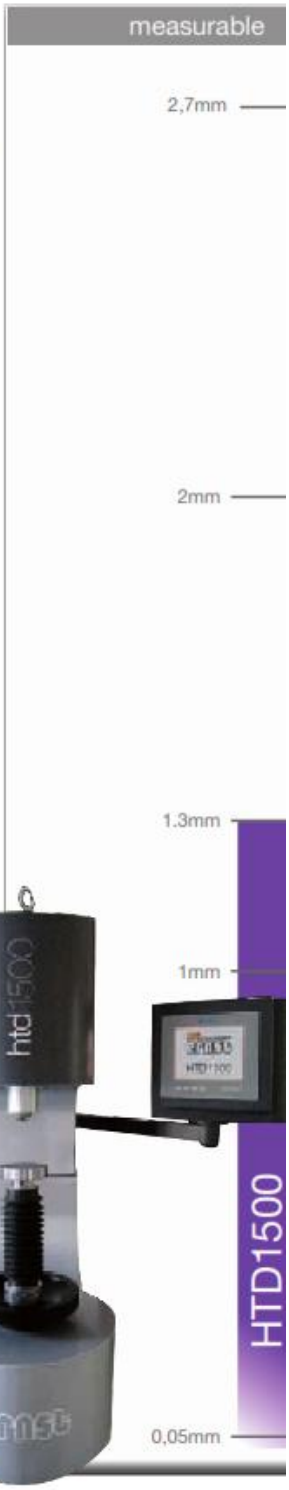
HTD1500 - HTD4000

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 aquisition**, without influences due to bending or deflection of the test piece

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 treatement 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.

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





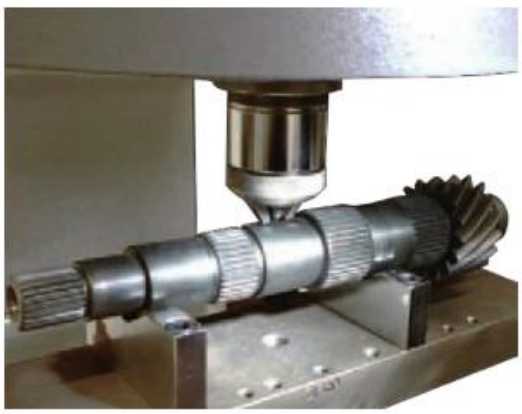
HTD1500 - HTD4000 - Technical data:

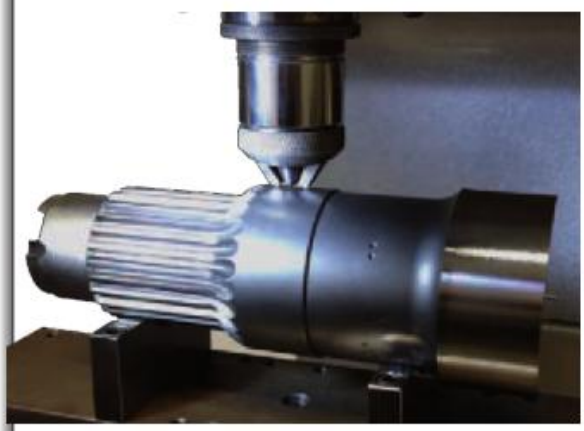
Test principle	Load and indentation referring to the surface of the test piece
Working principle	Evaluation of the load-indentation curve with tested and modifiable algorithm for several types of material and case depth
Test load	HTD1500 from N981 to N14715 (100kgF - 1500kgF) HTD4000 from N981 to N39240 (100kgF - 4000kgF)
Indenter	Hard metal
Stand capacity	D 335mm - H 315mm
Test range	HTD1500 from 0.05mm to 1.3mm case depth HTD4000 from 0.4 to 2.7mm case depth depth
Test tolerance	±5%
Test duration	30-60 sec. depending on the selected load
Display result	mm
Electronics	Industrial PC with Windows platform
Output	USB, serial, Centronics, Ethernet, PS/2
Security	IP65
Hardness calibration	with test block
Power supply	115-230 Vac 50/60 Hz
Temperature working condition	10-50°C
Dimensions	L 370mm (900mm ca. with PC) x H 1200mm x D 850mm
Weight	450 kg ca.

HTD1500 - HTD4000

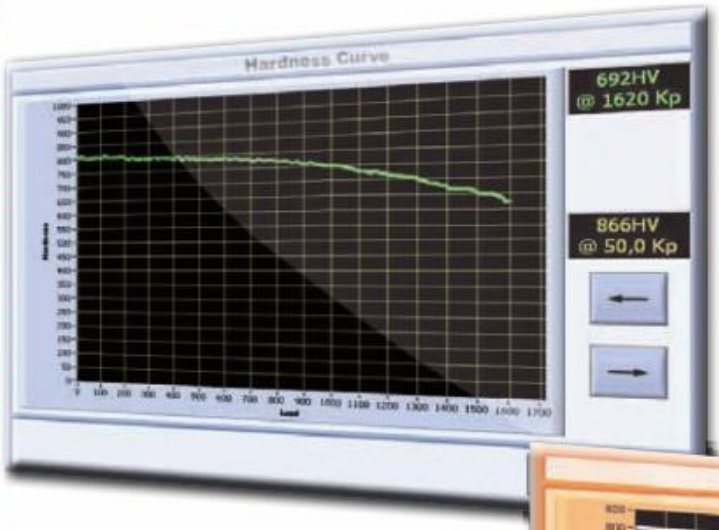
case depth

HTD4000



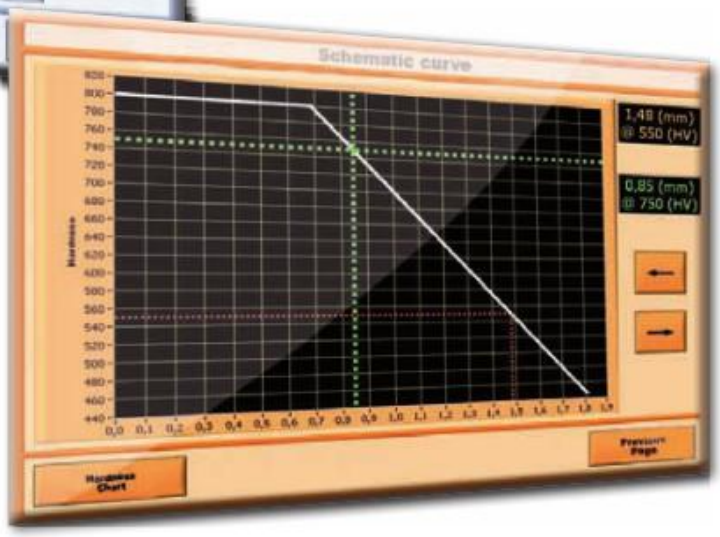


HTD1500 - HTD4000 - Software

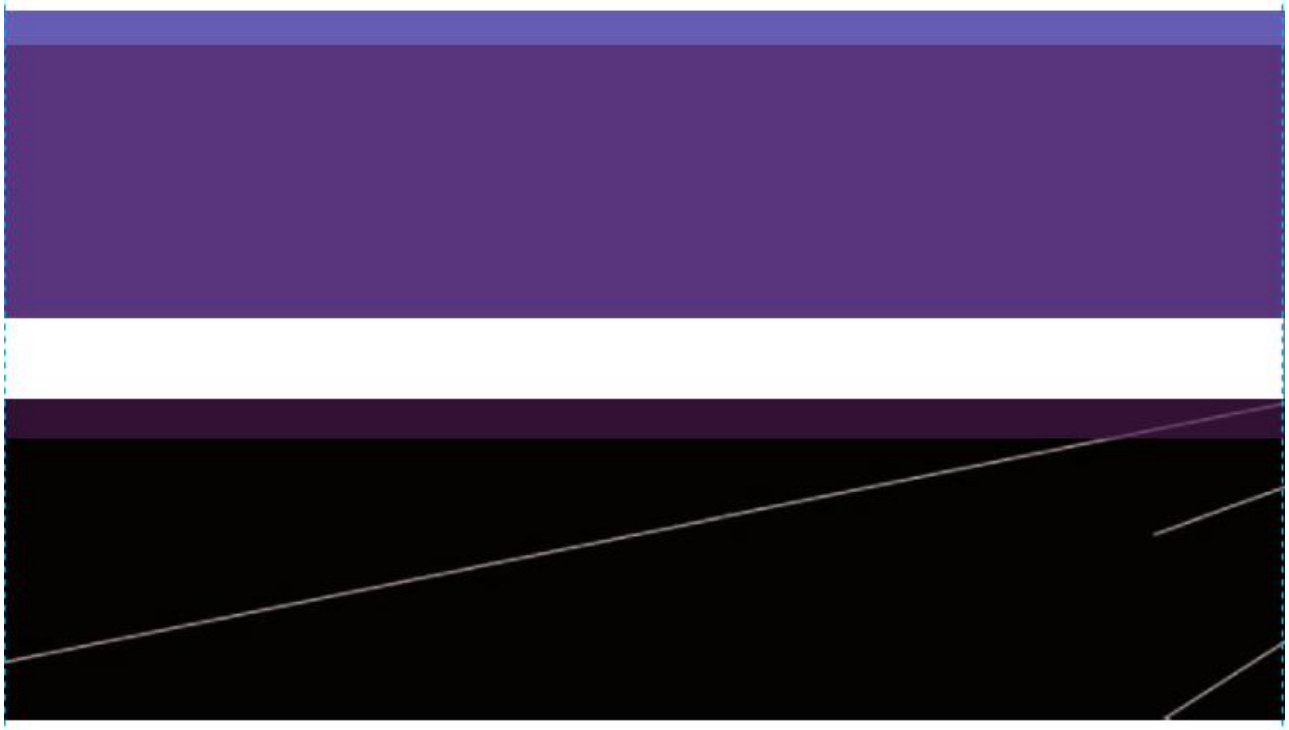


The hardness curve is obtained by the continuous acquiring of hardness data with constantly increasing applied load

A special algorythm 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



Employing Windows platform permitted to improve the calculation potential, consequently to obtain more accurate and reliable results.
HTD Series allows, thanks to its userfriendly interface, the HTD-series enureseasy data input and quick recall of files, statistics and charts, and allows to send the results to a printer or to a network at any time



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