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HXD-1000TM (LCD)
Digital Micro Hardness Tester

Features

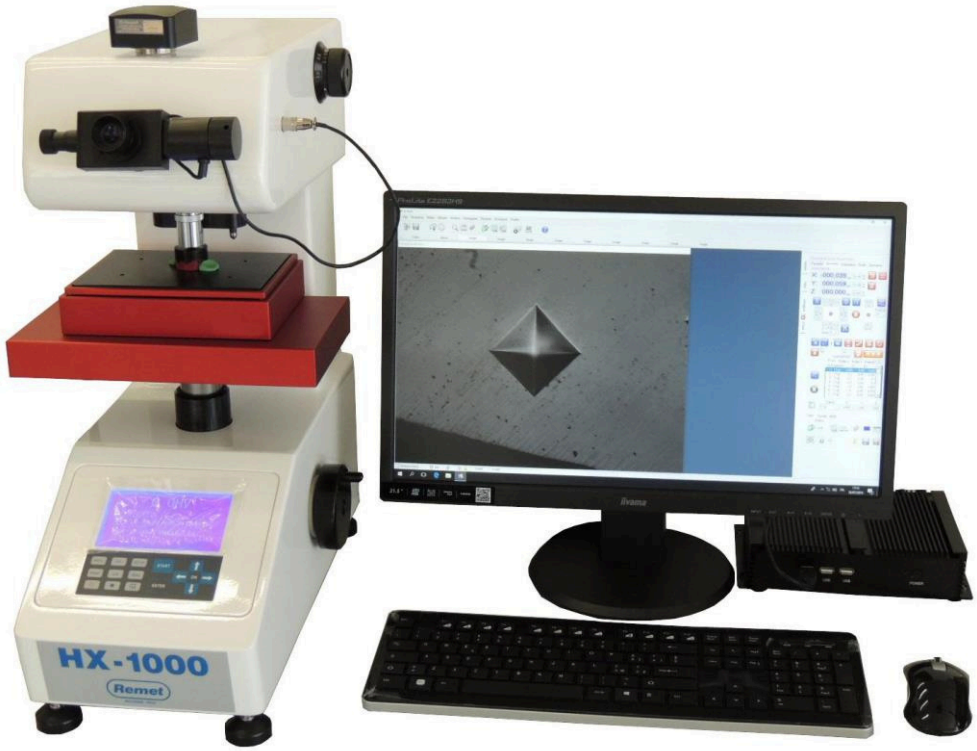
Novel design of control buttons and LCD display. Auto motorized turret. With the touch buttons and the LCD screen, it is easy and visual to set hardness scale (HV or HK), date; to select the force unit (gf or N), force duration; to adjust the background of LCD and the brightness of illuminating lamp; to operate the turret; to display and output diagonal lengths D1-D2, measured HV or HK hardness values, statistics (Max, Min, Ave, deviation), converted HRC HRA values, and etc.

MADE IN ITALY

MAIN SPECIFICATIONS

Type	**HXD-1000TM (LCD)**
Lens/Indenter switch	With Motorized Turret
Test force	9.807, 4.903, 2.942, 1.961, 0.9807, 0.4903, 0.2452, 0.0981 N 1000, 500, 300, 200, 100, 50, 25, 10 gf
Loading mode	Program-controlled application, duration and removal of load
Duration time	5 – 60 sec selectable, (In step of) 5 sec.
Measuring range	5 HV – 3000 HV
Microscope	Objective: 40x; 10x（For observation）, Eyepiece: 15x Total: 600x; 150x (for observation)
Min. detection	0.025μm
Optical path	Measurement / Photo switch
Data output	Display: Load, Duration time, Diagonal lengths, Hardness values, Min, Max, Average, Divergence, Standard deviations, converted HRC HRA values, and etc. A test result is provided with the built-in printer.
Max..test height	85 mm
Standard attachments	Objective 40x, 10x (Installed on tester) X-Y Worktable (Installed on tester) Vickers indenter (Installed on tester) Standard hardness block (700HV & 400HV) Sheet specimen clamp Thin cylinder clamp Parallel-jaw vice Built-in printer (Installed on tester)
Options	Knoop indenter Spare Vickers indenter Hardness test software, including - CD for software, - CCD digital camera & adaptor, - Connecting tube with optic, - Micro Dongle, - Manual & Installing Instruction
Power supply	220 VAC, 50 Hz
Dimensions	54 x 50 x 64 cm (Packing size)
Gross weight	Net 30kg, Gross 50 kg

HXD-1000TM (LCD) Digital Micro Hardness Tester with motorized 3D stage with autofocus and automatic software X-VICK3D



X-VICK3D **Software for the interactive and automatic measurement on 3 axes of the micro hardness test for Vickers - Knoop in a multi-document environment for Windows (x86 - x64) 10, 8, 7**

Acquisition of images in a high resolution multidocument environment up to 32.000x32.000

32-bit color pixels with TP-Series digital cameras.

Complete set of functions for image control; Autoexposure, AutoSize, MaxSpeed, Resolution, Focus; Self-calibration when the chosen resolution changes.

Automatic measurement functions

Simple and intuitive interface. All the commands for the execution of the profiles are present in a single panel; Total control of the microdurometer functions: lighting, load, times, turret rotation, impression generation; 3-axis movement control with software joystick or multimodal buttons with continuity or with fixed editable steps; Maximum travel speeds X, Y, Z selectable;

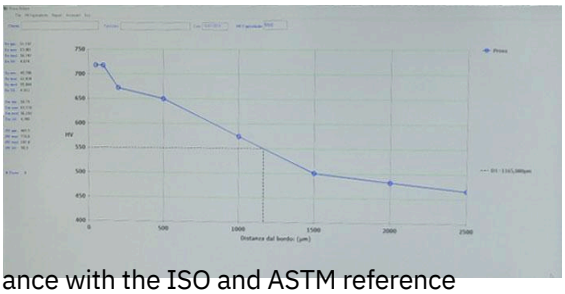
Creation of the execution tables of the profiles that can be recalled from the archive, modular with automatic mode (distance from the edge, load and steps in X and Y), or programmable from the keyboard or from the 3D position of the axes chosen by the operator.

Fully editable profile tables. Possibility to view the images at the chosen coordinates with possible modification of the position. Saving the profiles execution tables;

Automatic storage of X, Y coordinates and vertical axis (Z);

Functions of: Home, Place on the Edge Line, Place on the Test Points, Center Table, Place in the Center, Goal Security, Goal Selection, Step mode, Reverse Axis control, Autofocus with 4 selectable ranges (10, 25, 50 and 100 microns), Stop profile execution;

Programmable anti-backlash function
Lens collision protection;
Autofocus speed less than 5 seconds on 10 micron search range;
Programming of the direction and direction of execution of the impressions through goniometric reference;
Automatic memory for each target of Home positions;
Up to 20 calibration memories for as many objectives. Self-calibration when the zoom factor changes.
Fully automatic measurement of the hardness profile and effective thickness;
Fully automatic optimization of the live image;
High speed of measurement execution;
Automatic or manual search of the Impression Center;
Standard test loads selectable from 1g to 50 kg.
Automatic measurement even with multiple impressions in the field of view;
Possibility to execute one or more hardness profiles linked also with variable loads;
Possibility to rerun individual impressions within the profile;
Possibility to perform all or single measurements
on the impressions inside the profile;
Management of multiple profiles with determination of the statistical values of the respective results;
Graphs of multiple overlapping profiles (up to 9 profiles);



Profile display selectable;
Lines visible on the graph of the maximum and minimum acceptable hardness limits;
Selectable equivalent hardness intersection;
Editable results: Diagonals, Reverse hardness;
Verification of the form factor of the impression in accordance with the ISO and ASTM reference standards;
Possibility of correcting the vertices of the fingerprints by mouse with image zoom;
Verification of the distances between two adjacent impressions, in compliance with the ISO and ASTM reference standards.
Correction of the measured hardness values, according to the type of surface of the test specimen and in accordance with ISO and ASTM reference tables;
Highlighting of non-reference measurements in the table;
Showing results in Rockwell C.
Inserting markers and texts.
Manual measurements of thicknesses and coatings;
Send the "Heart" to the selectable report.
Export of data also in CSV format.
Image bar; Customizable icon bars.
Sending measurements on Microsoft Excel ® and Microsoft Word ® (Excel® and Word® both optional) and self-composition of a Report complete with graph and statistical results, customizable; Archiving of data, images in standard formats, profiles and documentation.
Online help in Italian and English languages.
Minimum requirement SW/HW
SO: Windows (x86 – x64) 10, 8, 7.
Report generator: Microsoft Office 2013 o earlier
VGA: 512 MByte di RAM - Res. Min.: 1280x900 pixel 32 bit col.
CPU: 3.0 GHz
Memory RAM: 4 GByte
DVD R/RW
Hard disc: 500MByte

XYZ806006 Motorized stage 3D XYZ travel 75x55x6mm

with integrated controller inside stage

Innovative XY stage with low thickness with integrated Z axel (Patent Pending) with integrated 6 axis controller. Unique cable for connection at computer by USB2 port and compact external power supply (24V 4A). So the knob of instrument for focusing is so available for any macro movement of stage for rapid and practice positioning of sample under the objective.
Stroke: 75 x 55 x 6mm (3” x 2” x 0.24”)
Max load of sample: 2 Kg
Pulse load capacity applicable for the hardness test: 10 Kg
Repeatability X,Y: +/- 2 micron; Z: +/- 0.1 micron
Resolution: 0.06 micron
Controller: 6 integrated axes with external power supply 24V 4A
Motors 2 phases type microsteps
Max speed: 20 mm/s
Material: aluminium
Surfaces: red anodized
Computer connection: single standard cable USB 2.0
Driver for MS Windows
None boards need to be added inside computer
Dimension: 280x160x70 mm
Weight: 3,5Kg

TP3100

3.1Mp USB2.0 CMOS digital camera

1/2 "3.1 Megapixel CMOS sensor - Scan: progressive
Resolution 2.048x1.536 pixels - Pixel size 3.2x3.2µm -
Saving images selectable at 2.048x1.536, 1.024x768, 680x510 pixels
Display images at speeds: 43fps (680x510) - 27fps (1,024x768)
- 8fps (2.048x1.536)
Sensitivity 1.0v / lux - exposure from 0.128 to 2.000ms - 10bit A / D conversion
Dynamic 61 dB
Signal-to-noise ratio 43 dB
Automatic or manual white balance
Automatic or manual exposure
USB 2.0 video output
Powered by USB cable
Working temperature -10 ° C to 60 ° C
Dimensions 60x60x40mm
USB2 cable supplied