

Premium Closed Loop Micro/Macro Vickers, Knoop, Brinell Hardness Tester EW-150 Series

High-end Vickers/Knoop/Brinell hardness testers with low and high forces ranging from HV0.02 to HV50. The EW-150 series features state of the art Closed Loop, Load Cell, and Force feedback technology for a reliable fast measurement procedure.



Features

TURRET SYSTEM:

- Fully automatic 4 position turret for Micro Vickers / Macro Vickers or Knoop measurements
- Featuring 3 objectives at choice, all 3 objectives can be used for measuring and observation

INDENTERS:

- Vickers 136°
- Knoop 172.5° x 130°
- Brinell 1 & 2.5mm

EYEPIECE:

- Electronic eyepiece microscope with precision encoder providing 15x magnification

OBJECTIVES:

- 5x for 75x magnification
- 10x for 150x magnification
- 20x for 300x magnification
- 40x for 600x magnification

STAGES:

- Manual X-Y stage
- ESE-View Video Measuring System

Available load configurations:

EW-150/1	Vickers/Knoop	1Kgf - 30Kgf
EW-150/2	Micro/Macro Vickers/Knoop	20gf - 30Kgf
EW-155/1	Vickers/Knoop	1Kgf - 50Kgf
EW-155/2	Micro/Macro Vickers/Knoop	100gf - 50Kgf

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TECHNICAL SPECIFICATION

Test force selection	Electronic, Closed Loop, Load Cell, Force feedback system, indication in Kgf or N. Test force selectable over menu operation
Test procedure	Automatic, loading/dwell/unloading
Hardness value	5 digits
Loading speed	Variable, depending on selected force
Turret	4 positions over 360°, fully automatic, memorised start position, option for 2 indenters and 2 objectives or 1 indenter and 3 objectives
Test force accuracy	< +/-1% for force from 100gr to 30kg, < +/-1,5% for force below 100gr
User display	Length of diagonals, hardness value, converted value, test force, online statistics
Display resolution	0.1 HV, HK and HB
Hardness conversion	Rockwell, Rockwell Superficial, Brinell, Leeb & Tensile
Standardisation	EN, ISO 6507, EN ISO 6506, EN ISO 4545, ASTM E-384, ASTM E-10-08, ASTM E-384
Statistics	Total test, max, min, average, range, standard deviation, all in real time after each test
Control panel	Start test, stop test, light intensity, dwell time, print, clear, menu operation for date, time, scale and load settings, language
Firmware	V2.01, German, English, French (standard), V2.02, English, Italian, Spanish
Memory	Memory for 20 test results, with INNOVAVIEW software unlimited results
Data output	RS-232 Bi-Directional
Loading mechanism	Fully automatic, Closed Loop, Force feedback, loading, dwell, unloading
Dwell time setting	Default 5 seconds, user defined 0 to 60 seconds
Printer	Built in, silent high speed thermal printer
Eyepiece microscope	Bright dual line filar eyepiece with 15x magnification, 0.1µm reading
Light source	Halogen 12V, 30 watt, green filter, dimmable
Optical path	2 way, eyepiece / camera
Vertical Range	165mm (maximum specimen height)
Horizontal Range	135mm (from centre line)
Stage dimensions	100x100mm, travel 20x20mm, and reading 0.01mm
Operating temperature	5°C to 40°C (+/-20° for force 25gr and 50gr)
Humidity	10% to 90% non condensing
Dimensions	220 x 540 x 650mm
Weight	51Kg
Power	220V/110V, 50/60Hz, single phase

Standard Delivery

- Main unit
- Manual X-Y stage
- Flat anvil 60mm
- Objectives 5x, 10x, 20x or 10x, 20x, 40x
- Digital eyepiece 15x
- Built in thermal printer
- RS232 data output
- 4 adjustable feet
- Spare halogen lamp
- Installation & user manual
- ESEWAY certificate
- Set of work piece fixtures, vice, chuck, clamp

Optional Accessories

- ESE-View video measuring system
- Certified indenters & test blocks
- Solid tester table & storage cabinet