

Hardness Testers - Measuring Quality

AXE440-B

Rockwell, surface Rockwell,
Plastic & Carbon tests



Testing of metals and plastics without limits

Fields of application

Designed to perform Rockwell, Surface Rockwell, Plastic & Carbon tests, and to generate Vickers and Brinell indentations.

Being able to rely on one single tool that can guarantee **repeatable and reproducible results on different materials is a valuable advantage** to your production

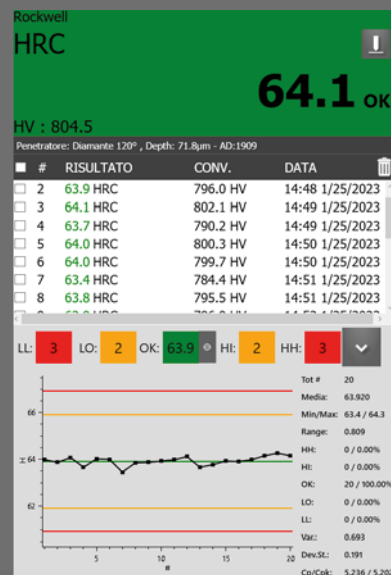


This is why with AXE440 all **Plastic & Carbon Test** scales are executable, in addition to Rockwell and Surface Rockwell scales: its extensive **range of scales from 0.3 Kgf to 250Kgf** is in fact so wide that it can be used to execute multiple hardness scales.

Fully automatic test cycle

The instrument is operated and the hardness value is determined through the front touch display. It only takes **3 steps** to start and finish the test:

- 1 Press the START button to start the test cycle
- 2 The indenter automatically searches for the test sample with a motorised 50 mm run
- 3 The final hardness value is returned directly on the display with all the analysis data that were indicated during the setting up of the test



Patented intelligent self-compensation system

This is a system that guarantees all the benefits associated with the **insensitivity of the test to dust and dirt, and most of all to the failure of the test sample.**

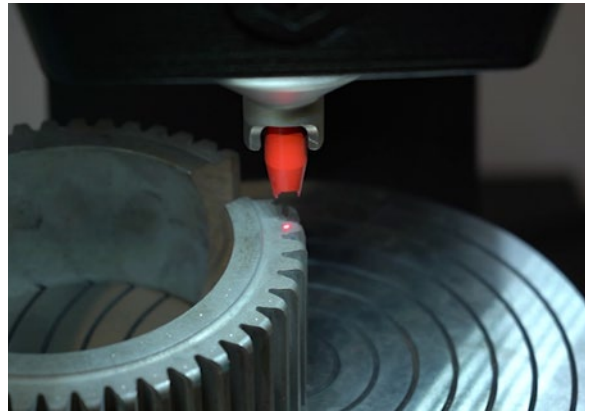
This system allows the depth measurement to be taken on axis with the indenter, making the **results more repeatable.**

1 AXIOTEK patented laser system

We have installed a unique laser centring system at the base of the indenter: L.I.S.A® (Laser Indicator System Axiotek), which makes it possible to identify the exact point where the indentation will be generated.

It is a valuable aid for:

- measurement of parts with complex and irregular geometry, such as gear teeth;
- strict control of the distances between indentations, in full compliance with the reference standards



2 The precision of Closed Loop technology

Forces are applied electronically by the load cell with Closed Loop control system – frequency of 1000 pulses per second with high sampling rate electronics (20 bits at 1kHz).

This ensures extreme accuracy, eliminating the problems associated with hardness testers with a calibrated mass based measuring system. The selection of the load is automatic, through the front panel.

3 Motorised indenter stroke

Thanks to the 50 mm motorised stroke, the test cycle is simplified and improved through increased reproducibility. The hardness tester also follows the workpiece in the event of structural bending.



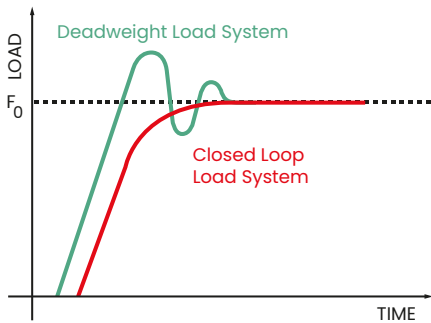
Full compliance with the reference standards

We have designed the AXE440 to be your right-hand man in any test condition, even the most extreme, ensuring full adherence and compliance with the relevant standards, including ISO 6506-2, ISO 6507-2, ISO 6508-2, ISO 2039-1, ISO 2039-2, ASTM E-18, ASTM E10, ASTM E92 and ASTM D785.



Software and connectivity

The AXE440 software was developed and put into operation by our own research and development department to ensure **maximum attention and precision during Rockwell hardness testing activities.**



Controlled load time and return stroke setup thanks to the management of the force through the load cell, each phase of the test cycle is fully monitored and assessed, making the test cycle more reproducible.



We give great importance to **full compliance with the relevant standards.** stage of the test cycle meets all standards

From beginning to end.

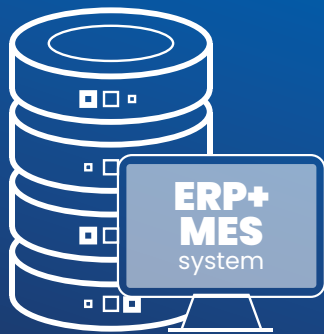
Also when you need to **convert the final value to other scales:** we have even included them here as selectable parameters. So that you can **work with full confidence even during this final stage.** The chosen scales will then appear on the statistical report.



7" FULL HD HIGH

DEFINITION DISPLAY

- Touch screen
- Result resolution: 0.01 IRHD



Connectivity

4.0



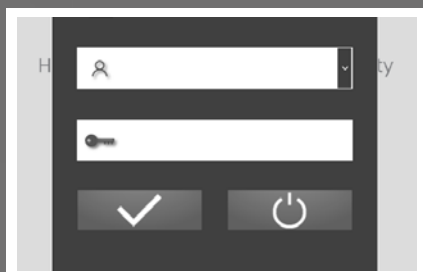
The software ensures **two-way integration and communication (export and import) between data exchange systems.**

Complete control over production is therefore ensured thanks to an active communication between hardness tester and:

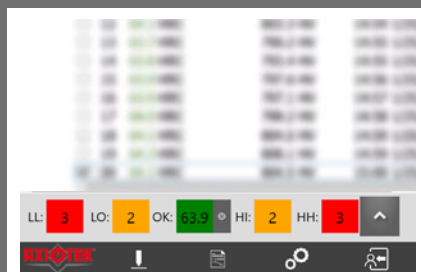
- ⊙ **Corporate ERP** (any administration or process software)
- ⊙ **corporate MES** (Manufacturing Execution System) used for managing production orders, quality control and process automation

The returned reference values are precise and accurate, tailored to your needs.

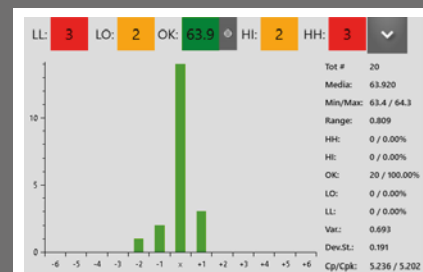
It is indeed possible to:



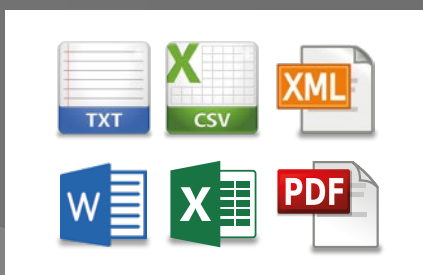
Create personal hierarchical access profiles that store and retrieve recorded work sessions for the individual users, with different levels of authority depending on the type of user (admin, user etc.)



Set in advance scales, tolerances and other test cycle setting parameters



Create, edit and customise histograms, diagrams and standard deviations of the test statistics



Export and print the final test report in the format of your choice (.txt - .word - .pdf - .csv - .xml)




Obtain the data and all the details of the sample to be analysed by scanning its barcode using the barcode scanner



Create customisable statistical test reports with your company data and job-specific details

ACCESSORIES AND SERVICES AVAILABLE ON REQUEST

	Calibration specimen kit
	anvil set: flat, reversible and 'V' anvil
	manual XY with mechanical ratchet
	XY table with digital indicators
	Instrument support table
	Annual instrument calibration
	Accredia-certified ISO 17025 calibration of our laboratory LAT No.316
	Training course for the use of the instrument



LAT N° 316



TEST LOADS

0.3 Kg - 250 Kg

STANDARD TESTS

Rockwell
HRA -HRB-HRC-HRD-HRE-HRF-HRH-HRK

Superficial Rockwell
HR15N - HR30N- HR45N- HR15T- HR30T- HR45T
HR15W-HR30W-HR45W-HR15X-HR30X-HR45X-
HR15Y-HR30Y-HR45

Plastic test (ISO2039-2 and ASTM)
HRK-HRE-HRL-HRM-HRP-HRR-HRS-HRV

Carbon test
HR10/20-HR5/20-HR10/40-HR5/40-HR10/60-
HR 5/60- HR10/100-HR5/100-HR10/150-
HR5/150-HR5/7-HR2.5/7

Vickers*
HV0.3-HV0.5-HV1-HV2-HV3-HV5-HV10- HV
20- HV30- HV50-HV60-HV100

Knoop*
HK0.5-HK1-HK3-HK5

OPTIONAL TESTS

Plastic test (ISO2039-1)
49N - 132N - 258N - 961N

Brinell*
HBW2,5/62,5 - HBW2,5/187,5 - HBW5/125 -
HBW5/250 - HBT2,5/62,5 - HBT2,5/187,5 -
HBT5/125 - HBT5/250

**indentation generation only*



TEMPERATURE RANGE

From 10°C to 35°C

POWER SUPPLY

115/230VAC - 50÷60Hz

DATA OUTPUT

USB, Ethernet

SOFTWARE

PC monitor: 7"
Microsoft Windows 10®



TOLERABLE WEIGHT

150 Kg

NET WEIGHT

80 Kg



OPERATION MODE

Automatic

STANDARD COMPLIANT

ISO 6506-2, ISO 6507-2, ISO 6508-2, ISO 2039-1,
ISO 2039-2, ASTM E-18, ASTM E10, ASTM E92 and
ASTM D785

USEFUL AREA

218 mm

HANDWHEEL MOVEMENT

200 mm

DEPTH CAPACITY

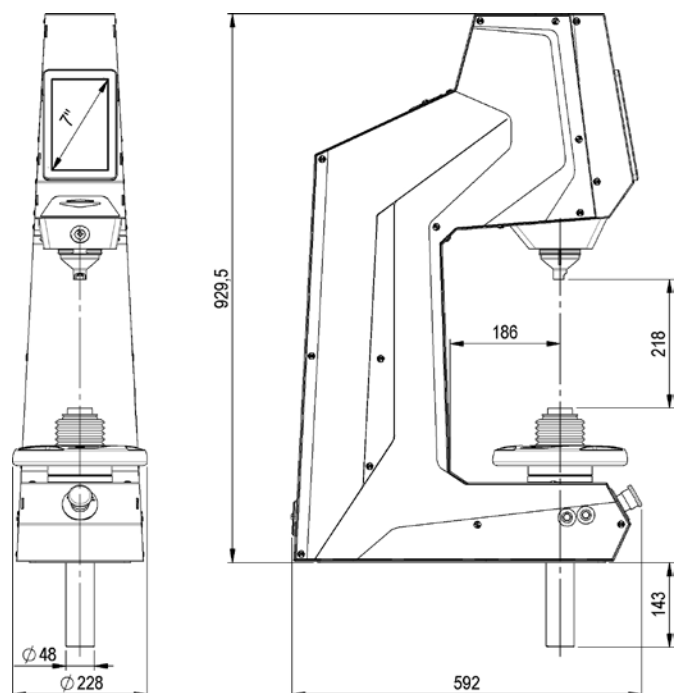
186 mm

VERTICAL STROKE

50 mm

INSTALLATION

Not necessary: AXE440 is ready to be used



Service & Maintenance

Built around your needs

Our generational **experience based on more than 60 years of work** in the field allows us to answer any of your questions or concerns.

Our highly **strategic geographical location allows us to support you in the maintenance of your instrument**, offering you spare parts completely made in Italy, and therefore with prompt delivery.

Why choose us?

- ◉ We guarantee **100% Italian quality**
- ◉ We believe in **true innovation**: listening to your needs and making an hardness tester that can meet them.
- ◉ We promote an **empathic design**, which ensures functionality and harmony in the interaction with measuring instruments.
- ◉ **We are pragmatic and result-oriented**: what we design and produce is the result of years of study, research and experimentation
- ◉ **We love to accompany you step by step**, listening and advising you what better embraces your needs



LAT N° 316

Calibration center | ISO 17025

The products are not covered by accreditation



WHERE WE ARE

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