QUALITEST™

ADVANCED TESTING TECHNOLOGIES

ULTRASONIC PORTABLE HARDNESS TESTER

UCI SERIES

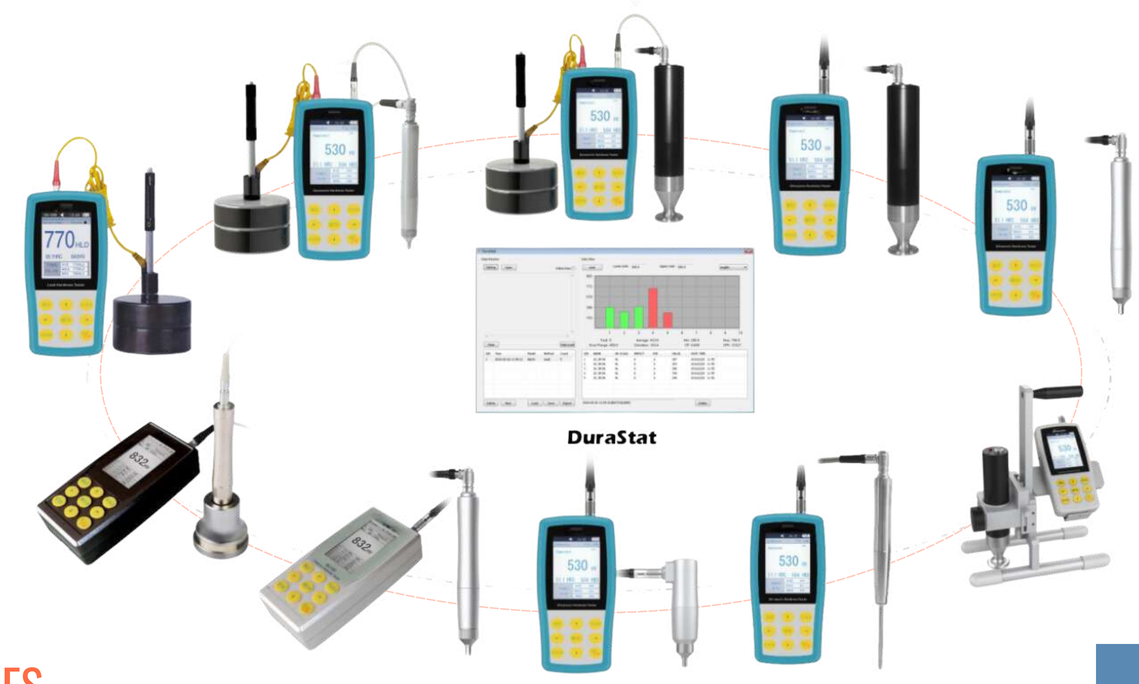
ULTRASONIC PORTABLE HARDNESS TESTER

UCI SERIES

Transforming the metal-processing industry for over 50 years, UCI Hardness Testing is a method of unparalleled precision and efficiency. Developed by Dr. Claus Kleesattel, this method, known as Ultrasonic Contact Impedance or modified Vickers, sets the benchmark for reliable hardness evaluation in the industry.

With **Qualitest's commitment to innovation**, our UCI Ultrasonic Portable Hardness Testers embody **enhanced reliability, rapid application, exceptional selectivity, and user-friendly operation,** ensuring they transcend their traditional applications and remain indispensable tools for modern manufacturing challenges.

Experience the future of hardness testing with Qualitest.



OVERVIEW
ULTRASONIC PORTABLE HARDNESS TESTER UCI SERIES

UCI Hardness Testing method offers enhanced reliability, rapid application, exceptional selectivity, and user-friendly operation. Components include a measurement probe (available in manual or motorized options) and a control unit for assessing, saving, and comparing measured values. **These testers provide testing flexibility, allowing tests in all directions, even in tight spaces or on challenging material geometries.** Additionally, some models offer optional Leeb Impact Device Integration, utilizing the Leeb rebound principle for secondary hardness measurement.

The measurement processes vary between manual and motorized options. Manual Measurement Process involves manual probe positioning and operation, with measurement speeds and data saving capabilities. Motorized Measurement Process utilizes a hand-held probe with an integrated motor for enhanced accuracy and consistency. These testers seamlessly integrate into production lines for quality assurance purposes, including the use of manual probes with special holders.

STANDARDS

ASTM-A1038-2005 DIN 50159-1-2008

UCI SERIES - PRODUCT CATEGORIES

UCI-1100H

UCI-3000H

UCI-3000M

UCI-3200R

UCI-3300C

UCI-3400T

UCI-4000

UCI-4100DH

LOWEST PRICE GUARANTEE ★★★★★ TOP SELLER QUALITEST

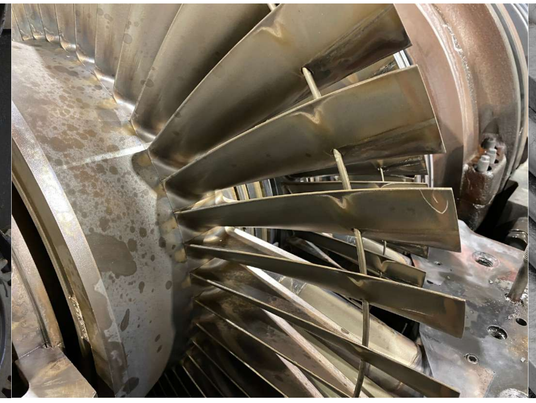
UCI-4100DM

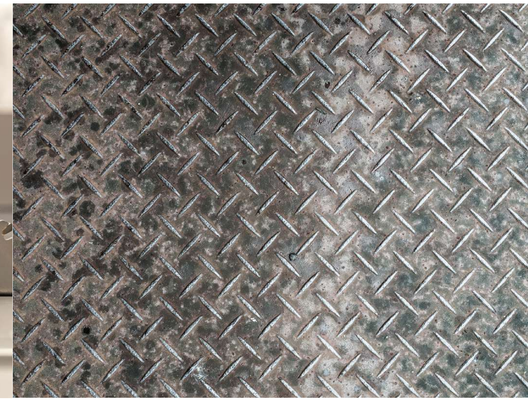
UCI - DuraStat

COMPATIBILITY COMPARISON

Item	Model Number										
	UCI-1100H	UCI-3000H	UCI-3000M	UCI-3200R	UCI-3300C	UCI-3400T	UCI-4000 (H2)	UCI-4000 (M2)	UCI-4000(M3)	UCI-4100DH	UCI-4100DM
Leeb Probe							✓	✓	✓	✓	✓
Ultrasonic Manual Probe	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓
Ultrasonic Motorized Probe		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

MATERIALS AND APPLICATIONS





Accurate hardness measurement is vital for assessing the durability and performance of various components, including flange edges, gear root stampings, molds, sheets, surface-hardened teeth, gear grooves, and taper parts.

Reliable hardness measurement ensures the quality of axes, thin-wall pipes, containers, and welded parts, crucial for their functionality and longevity.

Consistent hardness measurement is essential for maintaining quality standards in wheels, turbine rotors, and bit blades, ensuring reliability in automotive, power generation, and cutting applications.

Precise hardness measurement techniques are indispensable for evaluating the hardness characteristics of various components, including intricate bit blades, to ensure optimal performance and longevity.

Comprehensive hardness measurement methodologies analyze the hardness properties of ferrous metals, nonferrous metals, and alloys, ensuring robustness and reliability in manufacturing processes.

Measurement of certain aperture depths, deep dents, convex marks, and irregular planes is crucial for assessing the structural integrity and dimensional accuracy of components, enabling precise adjustments and meeting stringent quality standards.

PORTABLE ULTRASONIC DUROMETER HARDNESS TESTER

UCI-1100H

Experience advanced hardness assessment capabilities with the **Portable Ultrasonic Durometer - Hardness Tester UCI-1100H by Qualitest.** This innovative device utilizes ultrasonic technology, conforming to international standards ASTM A1038 and DIN50159, ensuring reliable and non-destructive results.

With rapid measurements in just 2 seconds and microscopic indentation, the UCI-1100H **guarantees superior efficiency**—60 times higher than conventional testers. Designed for accuracy and convenience, it features the UCI-1100H manual probe for convenient on-the-spot hardness testing.

Ideal for evaluating finished products such as molds, gears, shafts, rods, screws, and rails, its minimal contact indention ensures precise assessments.

Incorporating advanced features, including adherence to global standards, the UCI-1100H offers precise and efficient on-site hardness testing, elevating your testing capabilities in the field.

INSTRUMENT PARTS
UCI-1100H

FEATURES/ADVANTAGES
UCI-1100H

High Accuracy:

- Maintains precision with ±3% HV for HV measurements and ±1.5HR for HR measurements.
- Conforms to ASTM A1038 and DIN50159 standards.

Microscopic Indentation:

- Indentation size matches HV1 of micro hardness testing.
- Provides non-destructive evaluation; indentations are too small to observe.

Quick Measurement:

- Delivers hardness values in just 2 seconds.
- 60 times faster than conventional bench hardness testers.

TECHNICAL SPECIFICATIONS
UCI-1100H

Item	Technical Parameter
Product Name	Portable UCI Durometer
Model	UCI-1100H
Testing force	Manual 10N
Hardness Range	HV 80-1599; HRC 20-70;
Accuracy	±3% HV; HR:±1.5HR
Measuring Scales	HV/HRC
Language	English, Chinese
Data Output	RS232
Data Saving	20-group calibration data, 1000-group measurement data
Working Conditions	Temp: -10℃~50℃; Humidity: 30%~80%
Power Supply	Rechargeable lithium battery, battery 4.2V,4800mAh
Charger Input Voltage	100-240V AC 50/60Hz

Standard delivery
Accessories
UCI-1100H Main unit
Rockwell test block
USB Recharger
Carrying case
Operation Manual
Quality certificate
10N manual probe
Probe cable
USB cable
Packing list

PORTABLE ULTRASONIC HARDNESS TESTER
UCI-3000H

Elevate your hardness testing with the **Ultrasonic Hardness Tester - UCI-3000H by Qualitest.** This portable instrument **offers unmatched accuracy and versatility.** Equipped with a 3.2" color LCD screen, rapid measurement capabilities, and compatibility with various probes, it ensures precise evaluations on ferrous and nonferrous metals. Supporting Vickers, Rockwell, and Brinell scales, it serves as a versatile solution for industrial needs.

The UCI-3000H utilizes the ultrasonic contact impedance method, delivering reliable hardness testing results either on-site or in the laboratory. Its modular design accommodates portable probes HP-1K, HP-2K, HP-5K, and HP-10K, enabling testing on small forgings, cast materials, weld inspections, and more.

Capable of assessing the hardness of ferrous metals, nonferrous metals, and alloys, it provides HRA, HRB, HRC, HV, HBW, and HS hardness values efficiently, whether on the assembly line or in the lab. With user-friendly features and a rechargeable lithium battery, the UCI-3000H sets a new standard in on-site hardness testing, offering reliable results effortlessly.

Moreover, it can be upgraded with motorized probes such as MP-300, MP-500, MP-800, and MP-1000, extending its functionality similar to that of the UCI-3000M.

Elevate your hardness testing experience with this advanced and efficient solution, the UCI-3000M. Experience precision, reliability, and ease of use with every test, ensuring superior results and peace of mind in your hardness testing endeavors.

INSTRUMENT PARTS
UCI-3000H

FEATURES/ADVANTAGES
UCI-3000H

User-Friendly Operation:
- Large 3.2" Color Screen for clear results, with one-touch functionality for ease of use.

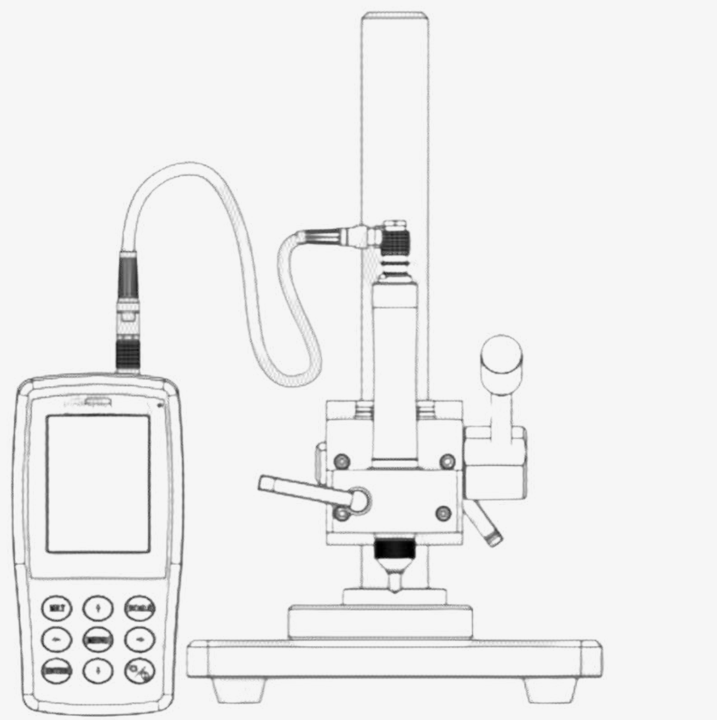
Microscopic Indentation:
- Offers precise assessments invisible to the naked eye.

Quick Measurement:
- Delivers results in just 2 seconds for efficient testing.

Wireless Printer Compatibility:
- Enables convenient printing and data transfer for documentation.

TECHNICAL SPECIFICATIONS
UCI-3000H

Item	Technical Parameter				
Product Name	Portable Ultrasonic Hardness Tester				
Model	UCI-3000H				
Optional probe	Manual Probe：10N、20N、49N、98N; Motorized Probe：2N、3N、5N、8N、10N				
Measuring Range	HBW:100-650; HV:100-1500; HRC:20-68; HRB:55-100; HRA:37-85; Mpa: 255-2180N/mm				
Measuring Accuracy (%)	Scales	<250HV	250~500HV	500~800Hv	>800HV
	HV0.1	6	7	8	9
	HV0.3	6	7	8	9
	HV0.8	5	5	6	7
	HV1	5	5	6	7
	HV5	5	5	5	5
	HV10	5	5	5	5
Hardness Scales	Vickers (HV); Rockwell C (HRC); Rockwell A (HRA); Rockwell B (HRB); Brinell (HBW)				
LCD	Color Screen				



TECHNICAL SPECIFICATIONS
UCI-3000H

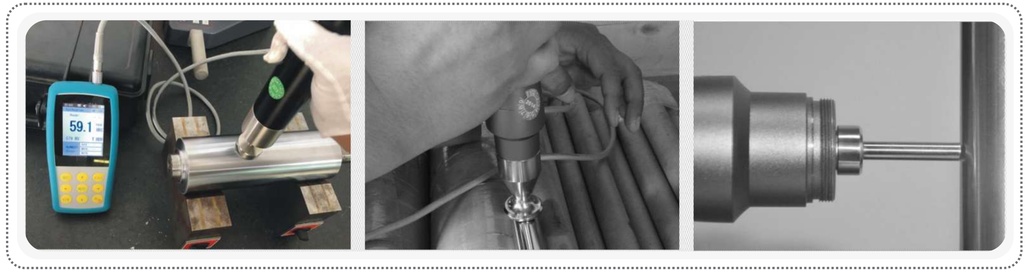
Item	Technical Parameter
Data Display	LCD Backlight, Adjustable
Language	English, German, Portugese, Turkish, Chinese
Data Output	RS232 Hyper Terminal/Bluetooth Printer
Printer Connection	Bluetooth
Data Storage	To save 1000-groups of measuring data and 20-groups of calibration data
Word input	Letters and numerals
Working Environment	Temperature: -10°C to 50°C Humidity: 30%-80% R.H.
Battery Voltage	Rechargeable lithium battery ; Voltage: 4.2V, 4800mAh
Recharger Voltage	100-240V AC 50/60Hz
Main unit Dimension and Weight	Main unit Dimension: 160 x 80 x 30mm (L x W x H); Manual Probe: Φ22×153mm ; Weight (No Probe): 0.5Kg
Packing Dimension and Weight	Packing Dimension 320 x 430 x 155mm (L x W x H); Packing Weight (Standard Delivery) 4.3Kg

Standard Delivery
Product Name
Instrument Main Body
Standard Rockwell Block
Charger
Calibration Certificate
20N Manual Probe
Probe Cable
USB Cable
Packing List
Shockproof Carrying Case
Allen Wrench
Operation Manual

PORTABLE ULTRASONIC HARDNESS TESTER
UCI-3000M

Elevate your hardness testing experience with the cutting-edge **Portable Ultrasonic Hardness Tester - UCI-3000M by Qualitest.** Offering unparalleled precision with ±3% HV, ±1.5HR, and ±3% HB accuracy, **this device ensures quick results in just 2 seconds,** setting it apart with its microscopic indentation feature.

Benefit from user-friendly operation and a 2-year warranty (excluding the probe). The UCI-3000M streamlines calibration with storage for up to 20 calibration data groups and accommodates up to 1000 data groups. It excels in measuring the hardness of chrome, copper plating, carburized layers, and nitriding layers, making it ideal for various applications, including coatings and platings.



Ideal for coatings and platings, the UCI-3000M measures hardness with precision, including chrome, copper plating, carburized layers, and nitriding layers. Its small indention makes it ideal for finished products such as molds, gears, shafts, and more.

Versatility is a key feature of the UCI-3000M, seamlessly accommodating both motorized and manual probes to ensure applicability across various scenarios and surface roughness conditions.

Aligned with global standards such as ASTM A1038-2005 and DIN50159-1-2008, it guarantees precise and reliable hardness testing, transforming your testing endeavors.

INSTRUMENT PARTS
UCI-3000M

FEATURES/ADVANTAGES
UCI-3000M

Precision and Efficiency: The Portable Ultrasonic Hardness Tester ensures ±3% HV, ±1.5HR, and ±3%HB accuracy, delivering quick results in just 2 seconds.

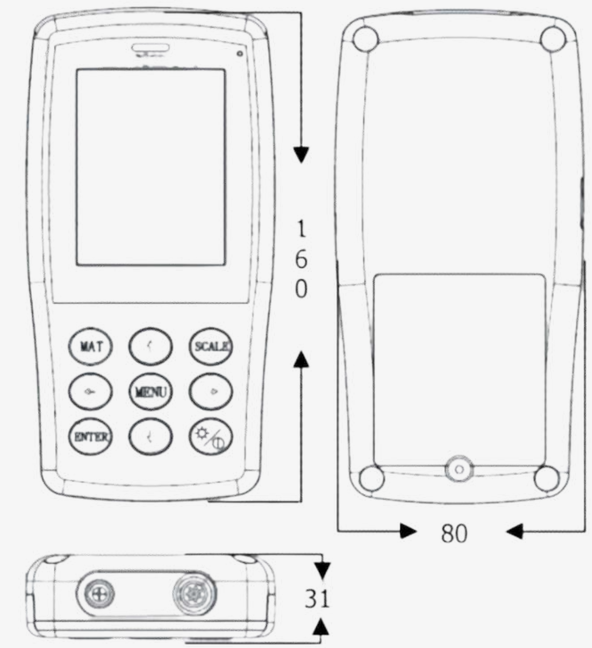
Enhanced Functionality: Equipped with microscopic indentation and a large LCD display, this tester offers advanced functionality for precise measurements.

User-Friendly Operation: Designed for ease of use, the tester requires minimal training and features an intuitive interface for effortless operation.

Reliability and Convenience: With a 2-year warranty (Probe excluded) and storage for up to 1000 data groups, it provides reliability and convenience. Additionally, it simplifies calibration with the ability to save calibration data for up to 20 groups.

TECHNICAL SPECIFICATIONS
UCI-3000M

Item	Technical Parameter				
Product Name	Motorized Ultrasonic Hardness Tester				
Model	UCI-3000M				
Optional probe	Motorized Probe：3N、5N、8N、10N; Manual Probe：10N、20N、49N、98N ;				
Measuring Range	HBW:100-650; HV:100-1500; HRC:20-68; HRB:55-100; HRA:37-85; Mpa: 255-2180N/mm				
Measuring Accuracy (%)	Scales	<250HV	250~500HV	500~800Hv	>800HV
	HV0.1	6	7	8	9
	HV0.3	6	7	8	9
	HV0.8	5	5	6	7
	HV1	5	5	6	7
	HV5	5	5	5	5
	HV10	5	5	5	5
Hardness Scales	Vickers (HV); Rockwell C (HRC); Rockwell A (HRA); Rockwell B (HRB); Brinell (HBW)				
LCD	Color Screen				



TECHNICAL SPECIFICATIONS
UCI-3000M

Item	Technical Parameter
Data Display	LCD Backlight, Adjustable
Language	English, German, Portugese, Turkish, Chinese
Data Output	RS232 Hyper Terminal/Bluetooth Printer
Printer Connection	Bluetooth
Data Storage	To save 1000-groups of measuring data and 20-groups of calibration data
Word input	Letters and numerals
Working Environment	Temperature: -10°C to 50°C Humidity :30%-80% R.H.
Battery Voltage	Rechargeable lithium battery ; Voltage :4.2V, 4800mAh
Charger Input Voltage	100-240V AC 50/60Hz
Main unit Dimension and Weight	Main unit Dimension :160 x 80 x 30mm (L x W x H); Manual Probe:Φ22×153mm ; Weight(No Probe): 0.5Kg
Packing Dimension and Weight	Packing Dimension 320 x 430 x 155mm (L x W x H) ; Packing Weight (Standard Delivery) 4.3Kg

Standard Delivery
Product Name
Instrument Main Body
Standard Rockwell Block
Charger
Calibration Certificate
10N Motorized Probe
Probe Cable
USB Cable
Packing List
Shockproof Carrying Case
Allen Wrench
Operation Manual

ROLLER ULTRASONIC HARDNESS TESTER
UCI-3200R

Discover unparalleled precision in hardness testing with the **Roller Ultrasonic Hardness Tester UCI-3200R by Qualitest**. This advanced portable tester **offers ±3% HV accuracy,** microscopic indentation visible only under a high-power microscope, and delivers rapid 6-second results.

Equipped with a large LCD display, it showcases measurements and key metrics for easy interpretation. With user-friendly operation, a 2-year warranty, and storage for 1000 data groups, the UCI-3200R complies with ASTM, DIN, and GB/T standards, ensuring unmatched accuracy and efficiency in your workshop.

Designed for the Rotogravure industry workshops, the Roller Ultrasonic Hardness Tester UCI-3200R utilizes the ultrasonic contact independence method for hardness tests on copper plating and chrome. Adhering to industry standards such as ASTM A1038-2005 and DIN50159-1-2008, it ensures reliable and precise testing in accordance with established guidelines.

For enhanced versatility, consider the 2N motorized probe option, particularly useful when dealing with chrome coating thicknesses less than 15um.

Elevate your workshop's hardness testing capabilities with the advanced features and precision of the Roller Ultrasonic Hardness Tester UCI-3200R. Achieve accurate and efficient hardness testing with its advanced technology, adherence to industry standards, and user-friendly design.

INSTRUMENT PARTS
UCI-3200R

FEATURES/ADVANTAGES
UCI-3200R

Accurate and Swift Measurements: Achieve perfect accuracy with deviations limited to ±3% HV, ±1.5HR, ±3%HB, while obtaining results in just 6 seconds, facilitating efficient testing processes.

Microscopic Indentation for Precise Measurements: Indentations are visible only under a high-power microscope, ensuring precise measurements.

Efficient Operation and Display: Obtain precise results effortlessly with a single press. The device features a sizable LCD display presenting comprehensive measurement details.

Reliable Data Management: Benefit from a 2-year warranty (excluding probe) and store up to 1000 groups of measurement data. Save and recall 20 groups of calibration data, streamlining the calibration process for enhanced efficiency.

TECHNICAL SPECIFICATIONS
UCI-3200R

Item	Technical Parameter				
Product Name	Roller Ultrasonic Hardness Tester				
Model	UCI-3200R				
Standard Probe	3N Motorized Probe				
Hardness Range	HV:20-1700;				
Accuracy (%)	Scale	< 250HV	250~500HV	500~800Hv	> 800HV
	HV0.3	±3%	±3%	±3%	±3%
Display Scales	Vickers (HV); Rockwell (HRA, HRB, HRC); Brinell (HB)				
Display Screen	3.2" Color LCD				
Statistics	Hardness value, Max, Min, Average, hardness conversion and Test Mode				
Language	English, German, Portuguese, Turkish, Chinese				

TECHNICAL SPECIFICATIONS
UCI-3200R

Item	Technical Parameter
Data Output	USB
Printer Connection	Bluetooth
Memory	To save 1000-groups of measuring data and 20-groups of calibration data
Word input	Letters and numerals
Working Environment	Temperature: -10°C to 50°C ; Humidity :30%-80% R.H.
Battery Voltage	Rechargeable lithium battery ; Voltage :4.2V, 4800mAh
Charger Input Voltage	100-240V AC 50/60Hz
Unit Dimension	Main unit Dimension :160 x 80 x 30mm (L x W x H);
Packing Dimension	Packing Dimension 320 x 430 x 155mm (L x W x H)
Net/Gross Weight	2Kg/8Kg

Standard Delivery
Product Name
Instrument Main Body
Testing Stand
USB Charger
3N Motorized Probe
Probe Cable
USB Cable
Shockproof Carrying Case
Allen Wrench
Operation Manual
Calibration Certificate

ELONGATED PROBE ULTRASONIC
HARDNESS TESTER - **UCI-3300C**

IDiscover unparalleled precision in hardness testing with the **Elongated Probe Ultrasonic Hardness Tester - UCI-3300C by Qualitest.**

Equipped with the advanced extended probe HP-1C, this specialized manual portable hardness tester **ensures precision in on-the-spot assessments,** particularly in challenging areas like deep holes in molds and gear teeth.

Compliant with industry standards ASTM A1038-2005 and DIN50159-1-2008, this device guarantees accuracy with deviations limited to ±3% HV, ±1.5HR, and ±3%HB.

Featuring a quick 2-second measurement and microscopic indentation visible through a high-power microscope, the UCI-3300C stands out for its user-friendly operation. Additionally, it boasts a large LCD display for comprehensive data presentation.

Backed by a 2-year warranty for the main unit, excluding the probe, and capable of storing up to 1000 groups of measurement data, this device ensures reliability and efficiency in hardness testing, even in confined spaces and challenging environments.

Invest in the UCI-3300C Elongated Probe Ultrasonic Hardness Tester from Qualitest to elevate your workshop's hardness testing capabilities and ensure accurate assessments across diverse applications, including confined spaces, grooves, and gear and deep hole specimens.

INSTRUMENT PARTS
UCI-3300C

FEATURES/ADVANTAGES
UCI-3300C

Accurate and Quick Measurements: Achieve precision with an accuracy of ±3% HV, ±1.5HR, ±3%HB, and obtain results in just 2 seconds.

Microscopic Indentation: Indentations are observable only through a high-power microscope, ensuring precise measurements.

User-Friendly Operation and Warranty: Easily operate the device after a short training period, and benefit from a 2-year warranty for the main unit (Probe excluded).

Efficient Data Management: Utilize the large LCD display to present measurement results and store up to 1000 groups of measurement data, streamlining data storage and calibration.

TECHNICAL SPECIFICATIONS
UCI-3300C

Item	Technical Parameter				
Product Name	Elongated Probe Ultrasonic Hardness Tester				
Model	UCI-3300C				
Probe	Standard 10N：HP-1C；Optional 20N：HP-2C				
Hardness Range (ASTM)	HRC：20-68；HRB：55-100；HRA：37-85； HBW：50-650; HV：100-1500；Mpa：255-2180N/mm				
Measuring Accuracy (%)	Scales	< 250HV	250~500HV	500~800Hv	> 800HV
	HV0.1	6	7	8	9
	HV0.3	6	7	8	9
	HV0.8	5	5	6	7
	HV1	5	5	6	7
	HV5	5	5	5	5
	HV10	5	5	5	5
Hardness Scales	Vickers(HV); Rockwell C (HRC); Rockwell A (HRA); Rockwell B (HRB); Brinell (HBW)				
LCD	Color Screen				

TECHNICAL SPECIFICATIONS
UCI-3300C

Item	Technical Parameter
Data Display	LCD Backlight, Adjustable
Language	English, German, Portugese, Turkish, Chinese
Data Output	RS232 Hyper Terminal/Bluetooth Printer
Printer Connection	Bluetooth
Data Storage	To save 1000-groups of measuring data and 20-groups of calibration data
Word input	Letters and numerals
Working Environment	Temperature: -10°C to 50°C Humidity :30%-80% R.H.
Battery Voltage	Rechargeable lithium battery ; Voltage :4.2V, 4800mAh
USB Charger Input Voltage	100-240V AC 50/60Hz
Main unit Dimension and Weight	Main unit Dimension :160 x 80 x 30mm (L x W x H); Manual Probe:Φ22×153mm ; Weight(No Probe): 0.5Kg
Packing Dimension and Weight	Packing Dimension 320 x 430 x 155mm (L x W x H) ; Packing Weight (Standard Delivery) 4.3Kg

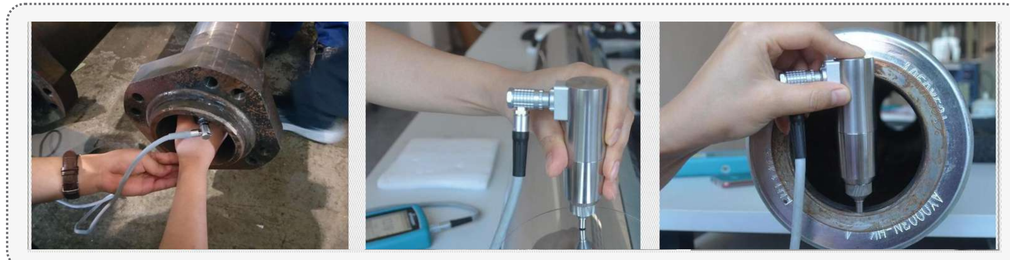
Standard delivery
Accessories
Instrument Main Body
Standard Rockwell Block
USB Charger
Calibration Certificate
10N Manual Short Probe
Probe Cable
USB Cable
Packing list
Shockproof Carrying Case
Allen Wrench
Operation Manual

SHORTENED PROBE ULTRASONIC
HARDNESS TESTER - **UCI-3400T**

Introducing the Cutting-Edge **Shortened Probe Ultrasonic Hardness Tester - UCI-3400T by Qualitest,** a top-tier manual portable tester for precise on-the-spot hardness testing.

Utilizing a shortened probe HP-1T and ultrasonic contact independence, this NDT tester **ensures unparalleled accuracy (±3% HV, ±1.5HR, ±3%HB) with results delivered in just 2 seconds.**

Witness microscopic indentation examination through the high-power microscope feature, while the large LCD display showcases measurement results.



User-friendly and backed by a 2-year warranty (excluding probe), the UCI-3400T boasts mass storage for up to 1000 groups of data and offers simple calibration with 20 groups for efficient recalibration. This specialized manual portable tester is designed for precise hardness testing on the spot.

Ideal for applications where contact indention is too small to observe, such as inner walls in engines, pressure vessels, and pipelines, the UCI-3400T conforms to ASTM A1038-2005 and DIN50159-1-2008 standards.

Upgrade your hardness testing capabilities with the UCI-3400T – the perfect blend of accuracy, convenience, and reliability. Invest in quality assurance for your engineering, manufacturing, and inspection needs.

INSTRUMENT PARTS
UCI-3400T

FEATURES/ADVANTAGES
UCI-3400T

Convenient Display and Operation: Easily navigate measurement results on the large LCD display. Operate the device effortlessly after minimal training for enhanced efficiency.

Accuracy and Speed: Achieve precise results in just 2 seconds with ±3% HV, ±1.5HR, and ±3%HB accuracy. Examine indentations with microscopic precision using a high-power microscope.

Reliability and Storage: Enjoy peace of mind with a 2-year warranty (Excludes Probe). Store up to 1000 groups of measurement data for comprehensive record-keeping.

Efficient Calibration: Streamline your calibration processes with the ability to effortlessly save 20 groups of calibration data. Ensures quick and accurate recalibration whenever necessary.

TECHNICAL SPECIFICATIONS
UCI-3400T

Item	Technical Parameter				
Product Name	Shortened Probe Ultrasonic Hardness Tester				
Model	UCI-3400T				
Standard Probe	10N：HP-1T				
Hardness Range(ASTM)	HRC：20-68；HRB：55-100；HRA：37-85； HBS：100-500；HV：100-1500；Mpa：255-2180N/mm				
Measuring Accuracy (%)	Scales	<250HV	250~500HV	500~800Hv	>800HV
	HV0.1	6	7	8	9
	HV0.3	6	7	8	9
	HV0.8	5	5	6	7
	HV1	5	5	6	7
	HV5	5	5	5	5
	HV10	5	5	5	5
Hardness Scales	Vickers(HV); Rockwell C (HRC); Rockwell A (HRA); Rockwell B (HRB); Brinell (HBW)				
LCD	Color Screen				

TECHNICAL SPECIFICATIONS
UCI-3400T

Item	Technical Parameter
Data Display	LCD Backlight, Adjustable
Language	English, German, Portugese, Turkish, Chinese
Data Output	RS232 Hyper Terminal/Bluetooth Printer
Printer Connection	Bluetooth
Data Storage	To save 1000-groups of measuring data and 20-groups of calibration data
Word input	Letters and numerals
Working Environment	Temperature: -10°C to 50°C Humidity :30%-80% R.H.
Battery Voltage	Rechargeable lithium battery ; Voltage :4.2V, 4800mAh
USB Charger Input Voltage	100-240V AC 50/60Hz
Main unit Dimension and Weight	Main unit Dimension :160 x 80 x 30mm (L x W x H); Manual Probe:Φ22×153mm ; Weight(No Probe): 0.5Kg
Packing Dimension and Weight	Packing Dimension 320 x 430 x 155mm (L x W x H) ; Packing Weight (Standard Delivery) 4.3Kg

Standard delivery
Accessories
Instrument Main Body
Standard Rockwell Block
USB Charger
Calibration Certificate
10N Manual Short Probe
Probe Cable
USB Cable
Packing list
Shockproof Carrying Case
Allen Wrench
Operation Manual

DYNASONIC LEEB / ULTRASONIC
HARDNESS TESTER - **UCI-4000**

Introducing the **Dynasonic Leeb / Ultrasonic Hardness Tester UCI-4000 by Qualitest** – a state-of-the-art solution engineered to revolutionize your hardness testing procedures. This advanced device seamlessly integrates ultrasonic contact independence (UCI) and dynamic rebound (Leeb) methods, offering unparalleled versatility across a wide range of materials. From delicate chrome coatings to robust carburized layers, the UCI-4000 **ensures precise and reliable hardness measurements, catering to diverse industrial applications.**

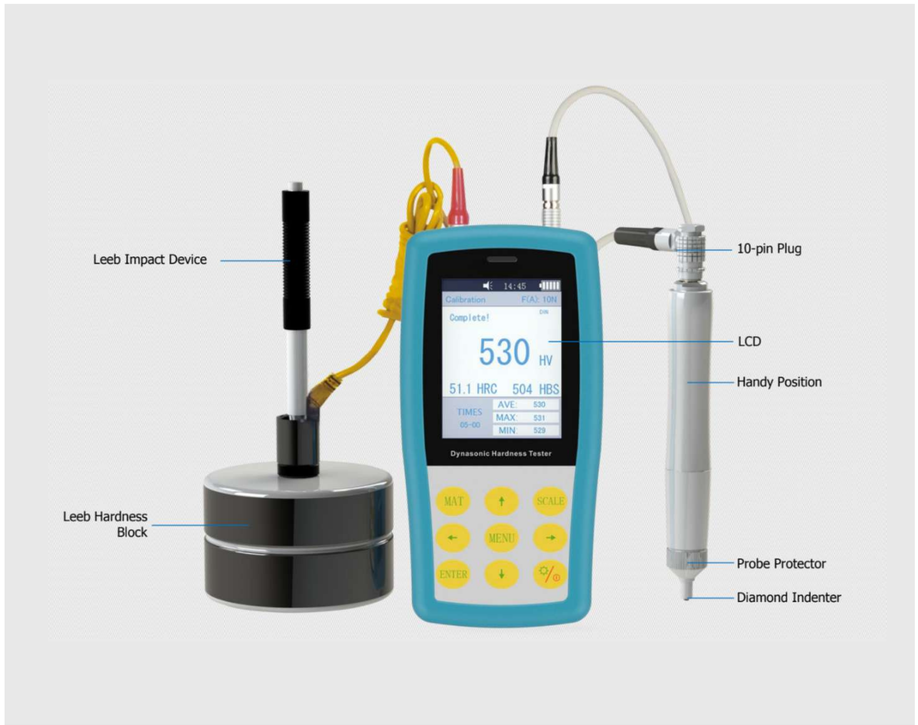
Designed with user convenience in mind, the UCI-4000 features a sleek and ergonomic design, complemented by a vibrant color screen display. This intuitive interface provides easy access to measurement results, allowing for efficient data interpretation and analysis.

Equipped with both UCI and Leeb methods in one compact instrument, it tackles the challenges of testing plating and coating hardness, as well as assessing coarse crystal materials found in casting processes. Versatile and adaptable, it seamlessly collaborates with UCI motorized and manual probes, along with the Leeb impact probe, ensuring precise hardness assessment across various metal applications.

By meeting industry standards like ASTM A1038-2005 and DIN50159-1-2008, the UCI-4000 underscores its commitment to accuracy and reliability, ensuring consistent and dependable results.

Experience the perfect blend of efficiency and precision with the Dynasonic Leeb / Ultrasonic Hardness Tester UCI-4000 by Qualitest – your trusted partner in hardness testing excellence.

INSTRUMENT PARTS
UCI-4000



FEATURES/ADVANTAGES
UCI-4000

Dual Functionality: Enjoy the convenience of utilizing both ultrasonic probe and Leeb impact device applications with a single instrument, enhancing testing flexibility and operational efficiency.

Robust Design: With a sturdy metal shell, the device ensures stability during testing and protects against electromagnetic interference, while its vibrant color screen display enhances visibility.

Reliability and Storage: Enjoy peace of mind with a 2-year warranty (Excludes Probe). Store up to 1000 groups of measurement data for comprehensive record-keeping.

Streamlined Calibration Management: Simplify calibration procedures with storage for up to 20 groups of calibration data, ensuring consistent, accurate measurements and optimizing testing workflows.

TECHNICAL SPECIFICATIONS
UCI-4000

Item	Technical Parameter	
Product Name	Portable Manual Universal Dynasonic Hardness Tester	Portable Motorized Universal Dynasonic Hardness Tester
Model	UCI-4000H	UCI-4000M
Ultrasonic Probe	Optional manual Probe: HP-1K, HP-2K, HP-5K, HP-10K; Optional Motorized Probe: MP-300, MP-500, MP-800, MP-1000	
Impact Devices	Standard delivery：D（optional DC,DL,D+15,C, G）	
Hardness Scales	Vickers (HV); Rockwell C (HRC); Rockwell A (HRA); Rockwell B (HRB); Brinell (HBW)	
Measuring Range	HV:50～1599; HRC:20～68; HB:76～650 HRB:41～105; HLD:170～960；	
Measuring Accuracy	HV:±3%HV; HRC:±1.5HRC; HB:±3%HB;HL: ±8HL	
Resolution	0.1HR, 1HV, 1HB, 1HLD,0.1HS	
Result Display	Measurement value, Max, Min, Ave, single mode, batch mode, etc.	
Data Storage	1000 group test results and 20 group calibration data	
Data Transfer	Bluetooth	

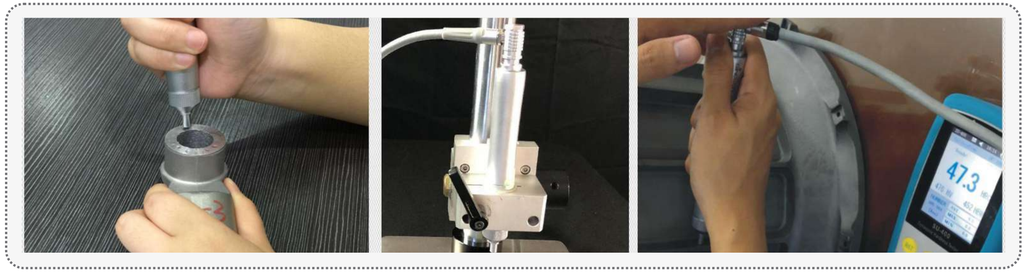
Item	Technical Parameter
Continuous Working Period	10h （turn off the back light）
Working Environment	Temperature: -10°C to 50°C Humidity :30%-80% R.H.
Battery Voltage	4.2V
Charge Mode	USB
Dimension	160x80x31mm
Weight	≤500g（probe not included）

Standard delivery	
Instrument Main Body	Leeb Hardness Block
2Kg Manual Probe HP-2K	Probe Cable
Impact Devices Type D	Accessories Box
Rockwell Hardness Block	USB Cable
Operation Manual	Packing List

PORTABLE MOTORIZED LEEB / ULTRASONIC
HARDNESS TESTER - **UCI-4100DH**

Introducing the **Portable Motorized Leeb/Ultrasonic Hardness Tester UCI-4100DH from Qualitest,** an advanced dual-mode instrument revolutionizing hardness assessments. Seamlessly integrating dynamic and static testing methods, it delivers rapid and precise evaluations across various materials. With universal probe compatibility, the UCI-4100DH **offers specialized measurements for coatings and platings, ensuring meticulous evaluations on finished products for on-site applications.**

Developed as a standout in versatility and portability, the UCI-4100DH utilizes both ultrasonic contact impedance (UCI) and dynamic rebound (Leeb) methods within a single instrument. It excels in assessing plating and coating hardness with its UCI capabilities and overcomes challenges in testing coarse crystal materials with its Leeb functionality.

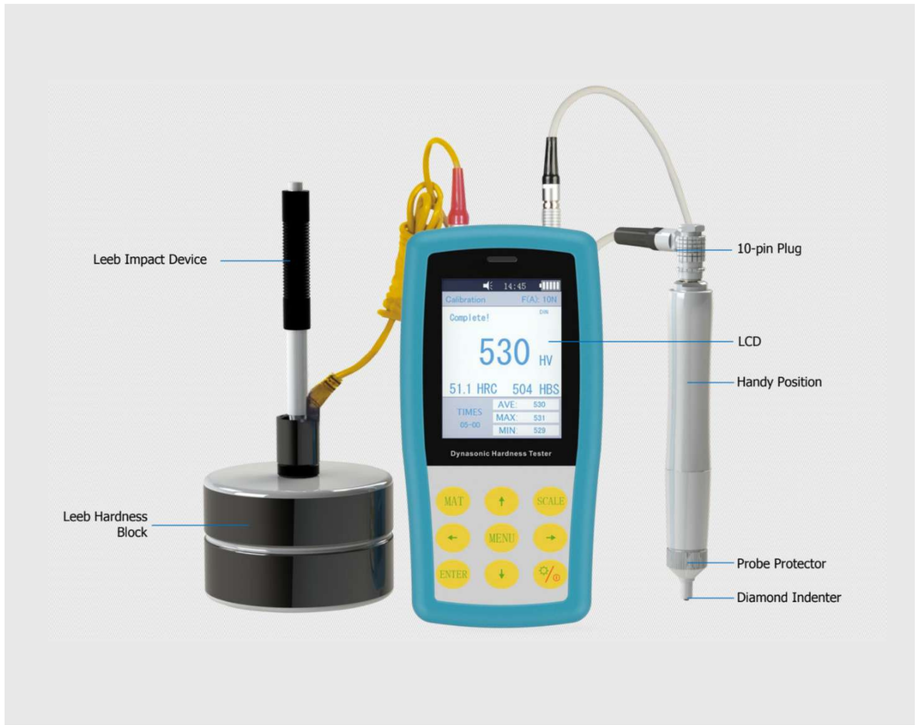


This instrument seamlessly integrates with both UCI manual probes and Leeb impact probes, enabling universal testing across fine and coarse crystal structures in the metal industry. Its UCI probe system delivers precise measurements of coatings and platings, including chrome, copper plating, carburized layers, and Nitriding layers.

For coarse materials like casting and forging, the UCI-4100DH's dynamic Leeb probe system is highly effective, providing precise hardness testing on finished products such as molds, gears, shafts, rods, screws, and rails for unparalleled precision.

Rely on the UCI-4100DH from Qualitest for reliable hardness assessments. Its advanced features and dual testing capabilities ensure accurate and comprehensive evaluations, meeting the rigorous demands of industrial quality control.

INSTRUMENT PARTS
UCI-4100DH



FEATURES/ADVANTAGES
UCI-4100DH

Versatile Methods & Compatibility: Integrates dynamic rebound and static testing methods, compatible with both UCI manual probes and Leeb impact probes, allowing for comprehensive material assessments across various types.

Specialized Coating Assessment: Offers a dedicated UCI probe system for accurate measurement of coating and plating hardness, including chrome, copper plating, carburized layers, and Nitriding layers.

Non-Destructive & Portable: Designed as a portable non-destructive testing (NDT) hardness tester for precise assessments on finished products, facilitating ease of use in various industrial settings and on-site applications.

User-Friendly Interface & Quality: Features an intuitive interface for straightforward operation and efficient data interpretation, built with durable materials to withstand rigorous industrial environments, ensuring long-term reliability.

TECHNICAL SPECIFICATIONS
UCI-4100DH

Item	Technical Parameter
Product Name	Portable Manual Ultrasonic Hardness Tester
Model	UCI-4100DH
Probe	Manual Probe 20N: HP-2K
Impact Devices	Optional delivery: D, DC, DL, D+15, C, G
Hardness Scales	HL, HV, HB, HRC, HRB, HRA, HS, etc.
Measuring Range	50~1500 HV; 20~68 HRC; 76~660 HB; 41~105 HRB; 170 ~960 HLD
Measuring Accuracy	HV: ±3%; HRC: ±1.5; HB: ±3%; HL: ±8
Resolution	0.1 HR, 1 HV, 1 HB, 1 HLD, 0.1 HS
LCD	3.2" Color Screen

Item	Technical Parameter
Data Display	Loading force, Testing-times, Testing result, Average, Maximum, Minimum, Deviation and Conversion scale.
Print Connection	Optional Bluetooth Thermal Printer Available
Data Storage	To save 1000-groups of measuring data and 20-groups of calibration data
Working Environment	Temperature: -10°C to 50°C ; Humidity: 30%-80% R.H.
Continuous Working Period	6h (with backlight off)
Operating Voltage	4.2V
Dimension	(160*80*31) mm
Weight	1.2 Kg

PORTABLE MOTORIZED LEEB / ULTRASONIC
HARDNESS TESTER - **UCI-4100DM**

Elevate your hardness testing capabilities with the Portable Motorized Leeb/Ultrasonic Hardness Tester UCI-4100DM from Qualitest North America. This cutting-edge dual-mode instrument seamlessly combines dynamic and static testing methods for swift and precise hardness assessments on a variety of materials. Universally compatible probes ensure specialized measurements for coatings, platings, castings, forgings, and more, making it an invaluable non-destructive testing (NDT) solution for finished products.

The UCI-4100DM Dynasonic Hardness Tester is a versatile portable instrument that utilizes ultrasonic contact impedance (UCI) and dynamic rebound (Leeb) techniques within a single device. This resolves the limitations of each method, allowing for comprehensive hardness testing. The instrument is designed for portability and durability, featuring a user-friendly interface ideal for on-site applications.

With its UCI probe system, the UCI-4100DM accurately measures the hardness of coatings and platings, including chrome, copper plating, carburized layers, and Nitriding layers. Meanwhile, the dynamic Leeb probe system is well-suited for measuring the hardness of coarse materials like castings and forgings.

As an NDT hardness tester, the UCI-4100DM is invaluable for assessing finished products like molds, gears, shafts, rods, and rails. Its minimal contact indention ensures accurate hardness testing across diverse industrial applications.

Upgrade your hardness testing capabilities today with the UCI-4100DM. Explore the possibilities and revolutionize your testing processes with Qualitest North America's innovative solution.

FEATURES/ADVANTAGES
UCI-4100DM

Versatile Testing Methods:
Seamlessly integrates dynamic rebound (Leeb) and static (UCI) hardness testing methods, catering to various materials and structures.

Precise Measurement Capability:
Enables precise assessment of coatings, platings, and coarse materials like castings and forgings using UCI and Leeb probe systems.

Non-Destructive Evaluation:
Ideal for non-destructive hardness evaluation of finished products such as molds, gears, shafts, and rails, ensuring product integrity.

Portable and Convenient:
Designed for on-site use, offering flexibility across industrial applications with its portable and user-friendly design.

Adaptable Probe Compatibility:
Accommodates both motorized UCI probes and impact Leeb probes, enhancing adaptability to different testing scenarios.

Efficiency and Reliability:
Streamlines testing with high accuracy, real-time data, and durable construction for lasting performance.

TECHNICAL SPECIFICATIONS
UCI-4100DM

Item	Technical Parameter
Product Name	Portable Motorized Ultrasonic Hardness Tester
Model	UCI-4100DM
Probe	Motorized Probe 20N: MP-2000
Impact Devices	Optional delivery: D, DC, DL, D+15, C, G)
Hardness Scales	HL, HV, HB, HRC, HRB, HRA, HS, etc.
Measuring Range	50~1500 HV; 20～68 HRC; 76～600 HB; 41～105 HRB; 170～960 HLD
Measuring Accuracy	HV: ±3%HV; HRC: ±1.5HRC; HB: ±3%HB; HL: ±8HL
Resolution	0.1HR, 1HV, 1HB, 1HLD, 0.1HS
LCD	3.2" Color Screen

Item	Technical Parameter
Data Display	Loading force, Testing-times, Testing result, Average, Maximum, Minimum, Deviation, and Conversion scale
Print Connection	Bluetooth
Data Storage	To save 1000 groups of measuring data and 20 groups of calibration data
Working Environment	Temperature: -10°C to 50°C; Humidity: 30%-80% R.H.
Continuous Working Period	6h (turn off the backlight)
Operating Voltage	4.2V
Dimension	(160*80*31) mm
Weight	1.2 Kg

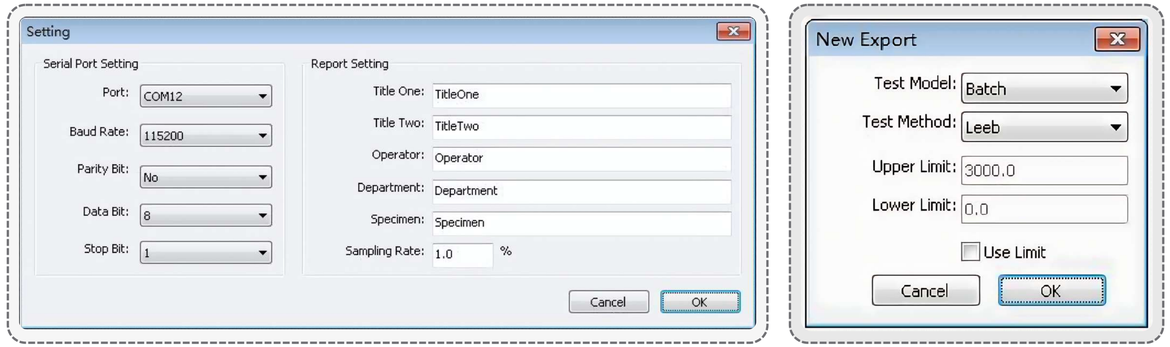
UCI DURASTAT
DATA STATISTICS SOFTWARE

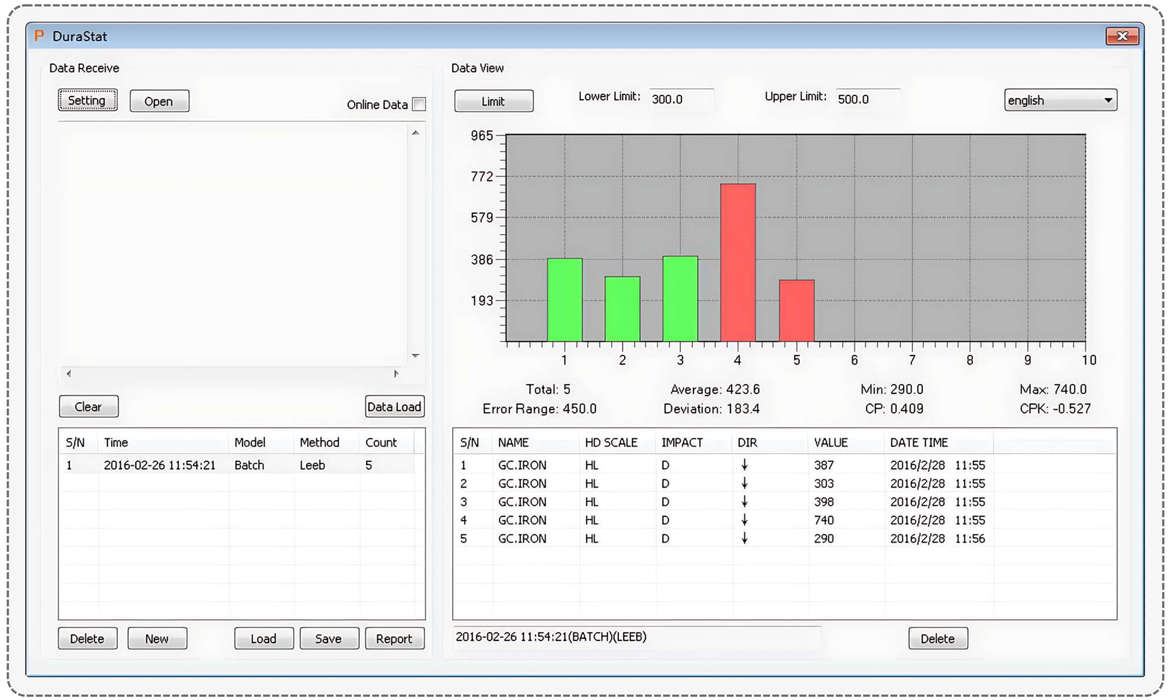
Introducing **UCI DuraStat,** the **advanced data statistics software** tailored for UCI hardness testers.

This cutting-edge software operates seamlessly on Windows OS via Bluetooth, USB, or COM port connections, ensuring a smooth link between your hardness tester and computer.

DuraStat empowers you to effortlessly read, process, and manage data, providing an array of features for an enhanced user experience. Optimize efficiency and accuracy in hardness testing with DuraStat, your ultimate solution for UCI data statistics.

Elevate your testing experience with seamless compatibility, comprehensive data management, visual analytics, and Excel integration.





FEATURES/ADVANTAGES
UCI DURASTAT

Universal Compatibility & Data Handling:
- DuraStat supports all Qualitest hardness testers and streamlines data import/export for enhanced workflow.

Comprehensive Management & Analytics:
- Track historical and current data effortlessly, with robust statistical analysis and visual displays for quick insights.

Abnormality Detection & Multilingual Support:
- Set limits to highlight anomalies and enjoy multilingual support for global accessibility.

Customizable Reports & Excel Integration:
- Tailor reports with user-defined headers and seamlessly integrate with Excel for easy sharing.

TitleOne
TitleTwo

Department:	Department				Date:	2016-2-26	
Specimen:	Specimen				Operator:	Operator	
Parameters:	Lower Limit	Upper Limit	Sampling Rate	Quantity	Test Model	Test Method	
	300	500	1.00%	5	Batch	Leeb	

S/N	NAME	HD SCALE	IMPACT	DIR	VALUE	DATE TIME	NG/Pass
1	GC.IRON	HL	D	↓	387	2016-2-28 11:55	Pass
2	GC.IRON	HL	D	↓	303	2016-2-28 11:55	Pass
3	GC.IRON	HL	D	↓	398	2016-2-28 11:55	Pass
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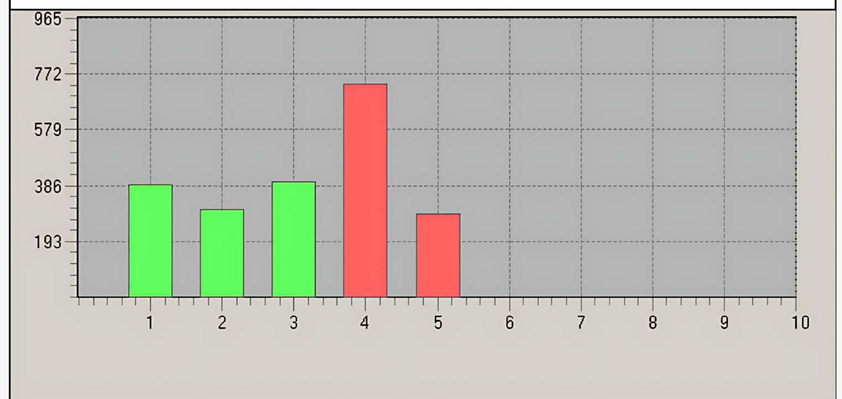

Total	Average	Min	Max	Deviation				
5	423.6	290	740	183.4				

QUALITEST™

ADVANCED TESTING TECHNOLOGIES

About Qualitest

Qualitest's range of advanced Portable Hardness Tester Instruments are designed to meet and exceed your quality control requirements to test the quality of various materials and components.

Portable Hardness Tester Instruments from Qualitest are built to last and they comply with major North American and International standards such as ASTM, ISO, DIN and others. The modern design of our machines ensures that your quality lab setup is ready for the future.

Our state-of-the-art Portable Hardness Tester Technologies include Portable Rebound-type Leeb Hardness Tester QualiTip Plus, Ultrasonic Portable Hardness Tester UCI Series, King Brinell Tester, Portable Hardness Tester - Magnetic Type QualiMag Series, QualiTip II-Plus Portable Hardness Tester – NEW Rebound-type Model by Qualitest, Leeb Portable Hardness Tester - Hartip 3000 Plus, METALTEST Wireless Hardness Tester, and more.

KEY QUALIBENEFITS

Best Price Guarantee: Qualitest is committed to delivering top-quality, competitive Ultrasonic Portable Hardness Tester at unbeatable prices. Our confidence in providing the highest value for your investment is backed by a price match guarantee.

Trusted Partner for Fortune 500 Companies: Join the ranks of Fortune 500 companies who choose Qualitest as their trusted vendor. Benefit from tailored solutions and proven excellence, gaining a strategic edge for business success.

Efficient Global Logistics: Enjoy quick delivery of standard products through our extensive network of worldwide distribution centers. Our high shipping volume enables us to offer the most competitive rates for global delivery.

Centralized Service & Support Coordination: Our central service department manages efficient customer service support directly or through our global QualiService authorized network, ensuring seamless assistance.

Exceeding Standards: Qualitest products are meticulously crafted to not only meet but surpass North American and global standards, ensuring uncompromised quality. Our dedication to excellence drives every aspect of our production process.

Qualitest Finance Packages: Explore affordable payment plans and flexible options through our QualiFinance program, making quality products and solutions accessible without compromising your budget.

USA | Canada | UAE | GCC | EU | Asia | Africa | Latin America

Contact us for your nearest regional sales office, service center or distributor.

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