


ULTRASONIC/LEEB HARDNESS TESTER CODE ISHU-470


DATA
OUTPUT

Application and features:

1. For steel, non-ferrous metal and alloy
2. Test surface hardening layers (carburized, nitriding, high frequency hardened, etc.) and plating (like chrome plating)
3. Suitable for thin wall or edge of workpieces
4. Suitable for small areas like arc, conical surface and other complex shapes
5. Suitable for small or light workpieces
6. Suitable for narrow spaces, like grooves and blind holes
7. Test large workpieces at any direction
8. Suitable for rough surfaces
9. Small test indentation
10. Test force and time are not affected by the operator
11. Quick test, only 2 seconds

Ultrasound hardness tester



Application and features:

1. Suitable for large and heavy workpieces, such as casting parts, molds, machine guides, etc.
2. For steel, non-ferrous metal and alloy
3. Based on Leeb (HLD), converted to Rockwell (HRC), Vickers (HV), Brinell (HB) and strength (Mpa)
4. Impact direction is adjustable
5. According to ASTM A956

Leeb hardness tester



main unit (included)



ultrasound probe A (included)



Leeb probe type D (included)

- Automatic detect the ultrasound probe or Leeb probe type D
- Memory of 1000 test results for browsing and output
- Automatic power off
- Anti-dust and waterproof



ultrasound probe to test flat surfaces (with the cover)



ultrasound probe to test cylinder surfaces (use V-groove on the cover)



ultrasound probe to test narrow areas (remove the cover)

APPLICATION OF ULTRASONIC HARDNESS TESTER AND LEEB HARDNESS TESTER

Application	Ultrasound	Leeb
Solid parts, molds, etc.	well suited	especially suited
Coarse grain materials, cast iron parts, etc.	not recommended	especially suited
Steel and aluminum cast alloys	suited sometimes	especially suited
HAZ with welds	especially suited	not recommended
Tubes: wall thickness > 10 mm	especially suited	especially suited
Tubes: wall thickness < 10 mm	especially suited	not recommended
Rough surfaces	not recommended	well suited
Thin workpieces	especially suited	not recommended
Difficult to access positions, like turbine blades, gears, etc.	especially suited	well suited



Graph display mode, show average value, relative range and test times



Histogram display mode, show average value, relative range and relative standard deviation



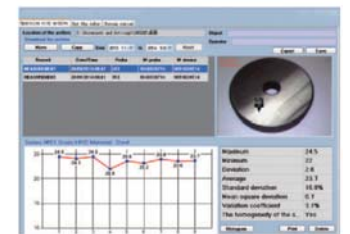
Statistics display mode, show maximum, minimum, deviation, average, relative range and test times

SPECIFICATION OF MAIN UNIT

Hardness scale	HV, HB, HRB, HRC, HS, HL, Mpa	
Resolution	1HV, 1HB, 1HRB, 0.1HRC, 1HS, 1HL, 1Mpa	
Accuracy of ultrasound test	HB	±10HB
	HV	±15HV
	HRC	±2HRC
Accuracy of Leeb test	HL	±6HL
Data output	USB	
Operating temperature	-20°C ~ +40°C	
Power supply	built-in rechargeable battery	
Dimension of main unit	160×80×40mm	
Weight of main unit	315g	



Smart display mode, can set tolerance, automatically reject the result when out of tolerance



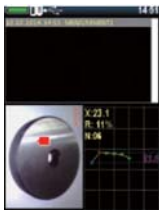
software (included), output data, make and print reports, screen capture, set screen colors of hardness tester

SPECIFICATION OF PROBE

Type	ultrasound A (standard)	ultrasound B (optional)	Leeb type D (standard)
Test force	50N	10N (small force)	-
Application	general use	plating	large and heavy workpieces
Maximum roughness of workpiece (Ra)	2.5µm	1.5µm	1.6µm
Minimum weight of workpiece (direct measurement)	0.1kg*	0.1kg*	5kg*
Minimum thickness of workpiece (direct measurement)	1mm*	1mm*	5mm*
Minimum radius of workpiece	5mm	5mm	30mm
Minimum thickness of surface hardening layer or plating	0.1mm	0.03mm	-
Minimum test area	Ø1mm	Ø1mm	Ø20mm
Dimension and weight of probe	140×Ø37mm, 271g	145×Ø37mm, 271g	148×Ø20mm, 100g

* If the weight or thickness of workpiece is less than required, the workpiece should be fixed or coupled on solid support.

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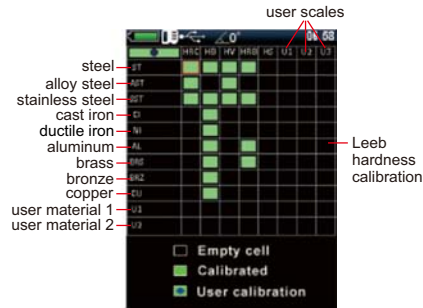
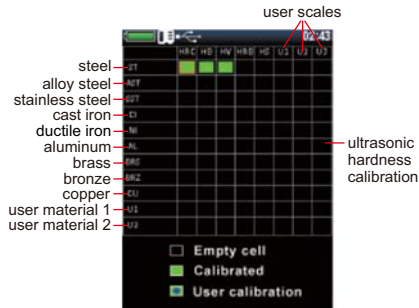


take a picture on the workpiece and get a report with testing result and picture, the report can be sent to computer



camera

back



STANDARD DELIVERY

Main unit	1pc
Ultrasonic probe A	1pc
Leeb probe type D	1pc
Hardness test block D	1pc
AC/DC adapter	1pc
USB cable and software	1pc

select the material and scale, use the corresponding standard hardness blocks or workpieces for calibration ("■" means the calibration is already made, calibration is needed before using other materials and scales)

OPTIONAL ACCESSORY

Ultrasonic probe B	ISHU-460-B
Leeb support rings	see details
Couplant	ISH-COUPPLANT