



MH310

Portable Leeb hardness tester

Professional manufacturer, best quality with competitive price ●
 Recommended by the world UT NDT inspection association for training and examination ●
 Core technology with independent intellectual property rights, certificate of CE, GOST and etc.. ●



Product Overview

MH310 portable Leeb hardness tester, based on Leeb hardness measuring principle, quickly and easily on-site test the hardness of series metal materials, support free conversion between Leeb, Brinell, Rockwell hardness scale and others, It uses high-contrast segment LCD to display clear ,stable performance. integrated high-speed thermal printer ,which can print on-site measurements. It is widely used in annealing, tempering, quenching , quality control for the work piece; hardness testing for machine tool and automobile chassis ; on-site hardness testing of in-service non-removable parts; quality testing for hardware, forging, machine tools and special steels; quality control for batch production process and so on.Good quality and effective cost ,which is a wise choice for regular need of hardness testing .



Technical specifications

Technical Specifications	Technical Parameters
Measuring Range	(170 ~ 960) HLD Impact device D 760±30HLD,±6 HLD, 530±40HLD,±10 HLD Impact device DC 760±30HLDC,±6HLDC, 530±40HLDC,±10HLDC Impact device DL 878±30HLDL,±12HLDL, 736±40HLDL,±12 HLDL Impact device D+15766±30HLD+15,±12HLD+15, 544±40HLD+15,±12HLD+15 Impact device G 590±40HLG,±12HLG, 500±40HLG,±12HLG Impact device C 822±30HLC,±12 HLC, 590±40HLC,±12 HLC
Error And Repeatability Impact Direction	Vertically downward, oblique, horizontal, oblique, vertical upward, automatically identify. Steel and cast steel,Cold work tool steel,Stainless steel,Grey cast iron,Nodular cast iron, Cast aluminum alloys,BRASS(copper-zinc alloys),BRONZE(copper-aluminum/tin alloys), Wrought copper alloys.
Material	HL、HB、HRB、HRC、HRA、HV、HS
Hardness Scale	Width (57.5 ± 0.5) mm, diameter: 30mm, long-term imports of paper to ensure long-term data storage
Paper Roll	High-contrast Segment LCD
Display	100 measurement series.(Relative to average times 32 ~ 1)
Integrated Data Memory	6V(Ni-MH battery pack)
Battery	9V/500mA
Power Supply	2.5-3.5hours
Recharge Time	About 150 hours (with default brightness)
Standby Time	USB1.1
Communication Interface	

Features

- Based on the principle of Leeb hardness testing theory. It can measure many metallic material.
- One main unit can match to 6 impact devices.
- Support Steel ,when using D/DC sensor to test steel,it can show HB directly,no need to check manually.
- High-contrast Segment LCD , easy to use.
- Software calibration automatically.
- 100 groups (impact times 32 ~ 1) hardness measurements, each set of data includes single testing value, average value, measurement date / time, impact direction, frequency, material, hardness, and other information.
- Real-time display the remaining battery power, charging progress is displayed while charging.
- High brightness EL back-light display for easy use in dimly environment.
- Automatic sleep and shutdown and other power-saving features.
- Integrated thermal printer with the instrument as a whole, and quiet operation, fast print speeds, you can print the test report on-site.
- Equipped with PC software (optional), with functions of measurements transmission , value storage management, statistical analysis of the measured value, the print report of measured value, batch setting instrument parameters, to meet the higher requirements of quality for activities and management.
- Small size, portable, , stable and reliable performance, suitable for harsh environment field operations, prevent from vibration, shock and electromagnetic interference.
- Dimension:212mm×80mm×32mm.

Application fields

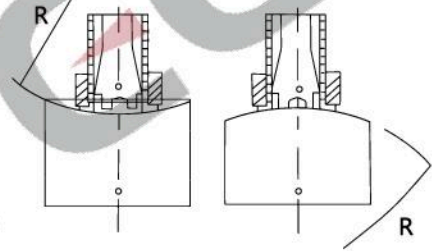
- Die cavity of molds.
- Bearings and other parts.
- Failure analysis of pressure vessel, steam generator and other equipment.
- Heavy work piece.
- The installed machinery and permanently assembled parts.



- Testing surface of a small hollow space.
- Requirements of formal original record for test results.
- Material identification in the warehouse of metallic materials.
- Rapid testing in large range and multi-measuring areas for large-scale work piece.

Application conditions

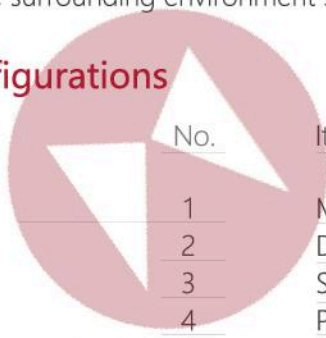
- Surface temperature can't be overheat, less than 120 °C.
- Surface roughness should not be too large, otherwise it will cause errors. The surface of the work piece must be exposed metallic luster, smoothing and polish, without oil.
- The specimens with 2-5kg or thin-walled specimens overhangs should be supported with some object in order to avoid the specimen deformation ,bending and movement caused by impact , for medium-sized work piece ,it shall be placed on a flat and hard surface, the sample must be placed absolutely smoothly, without any shake, for heavy samples more than 5kg, it can be measured directly without any support.
- Portable Leeb hardness tester has strict requirements for sample thickness , the minimum thickness shall comply with regulatory (see instructions).
- For work piece with hardened layer on surface,the depth of hardened layer should conform to regulatory.
- For lighter parts,please make it tightly coupled with support, two coupled surface must be flat and smooth, the coupling gel should not be too much, the direction of the test shall be perpendicular to the coupling plate; if the work piece is a large plate, pole or bending material, even if the weight and thickness is ok ,it may still cause deformation and instability, resulting in test values error, it should be reinforced or supported at the back of the test points.
- Magnetic of work piece should be less than 30 gauss.
- For artifact surface : The work piece surface is preferably flat. When the curvature radius R of measured surface is less than 30mm,the work pieces should be tested with the small support ring or the shaped support rings.



Working conditions

- Working temperature : - 10°C ~ + 50°C,
- Storage temperature : -30°C ~ + 60°C,
- Relative humidity : ≤90%,
- The surrounding environment should avoid of vibration, strong magnetic field, corrosive medium and heavy dust.

Configurations



No.	Item	Quantity	Remarks	
1	Main unit	1		
2	D type impact device	1		
3	Standard test block	1		
4	Power adapter	1		
Standard Configuration	5	Cleaning brush (A)	1	
	6	Small support ring	1	
	7	Ni-MH battery pack	1	In product
	8	Manual	1	
	9	Printer paper roll	1	
	10	ABS instrument package case	1	
Optional Configuration	1	Other type of impact devices		
	2	Other type of support rings		
	3	Cleaning brush (B)		For use with G type impact device
	4	USB communication cable		
	5	Data-pro software		



ABS handle case

Standard Leeb hardness block

Impact device D

Cleaning brush A



Printer paper roll

Power adapter

Main unit

Small supporting ring

