

# MH100

## 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

MH100 series pocket hardness tester, also known as pen-type hardness tester, based on Leeb hardness measuring principle, quick and easy on-site test the hardness of series metal materials, support free conversion between Leeb, Brinell, Rockwell hardness scale and others, integrated compact design, small size, portable, highly integrated, stable and reliable performance, supporting data transfer and storage printing function. Widely used in failure analysis of metal processing and manufacturing, special equipment, permanent assembly, inspection and other fields. Particularly suitable for large parts and non-removable part of the site hardness testing. It is professional precision instrument to improve the pass rate of production and cost savings .

## Technical Specifications

Technical Specifications	Technical parameters
Measuring Range	( 170 ~ 960 ) HLD
Error and Repeatability	Impact device D 760±30HLD : ±6HLD, 530±40HLD : ±10HLD Impact device DL 736±40HLDL : ±12HLDL, 878±30HLDL : ±12HLDL
Impact Direction	Impact device C 822±30HLC : ±12 HLC, 590±40HLC : ±12 HLC
Material	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.
Hardness Scale	HL、HB、HRB、HRC、HRA、HV、HS
Display	High-contrast Segment LCD
Data Memory	100 measurement series. (Relative to average times 32 ~ 1)
Battery	3.7V (Built-in lithium polymer battery)
Power Supply	5V/500mA, Recharge time: 2.5-3.5 hours
Standby Time	About 200 hours ( with default brightness )
Communication Interface	USB1.1

## Features

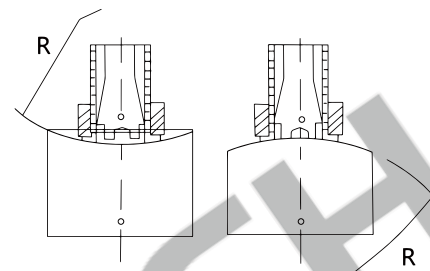
- Based on the principle of Leeb hardness testing theory. It can measure the Leeb hardness of all metallic materials.
- High-contrast Segment LCD, easy to use.
- Support Steel, when using D sensor to test steel, it can show HB directly.
- Software calibration automatically.
- 100 groups (impact times 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.
- USB interface to PC for data communication.
- Data processing software can do transmission measurements, the measured value storage management, statistical analysis of the measured value, the measured value of the print report and batch set the instrument parameters.
- Built-in lithium battery and rechargeable control circuit; it can work for not less than 200 hours; automatic sleep and automatic shutdown function.
- Integrated compact design, small size, portable, highly integrated, stable and reliable performance, suitable for harsh environment field operations, prevent from vibration, shock and electromagnetic interference.
- Dimension: 148mm×33mm×28mm.

## Applications 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.

## Series Products



## Other Supporting Rings

No	Type	Remarks	Sketch
1	Z10-15	For testing cylindrical outside surface R10 ~ R15	
2	Z14.5-30	For testing cylindrical outside surface R14.5 ~ R30	
3	Z25-50	For testing cylindrical outside surface R25 ~ R50	
4	HZ11-13	For testing cylindrical inside surface R11 ~ R13	
5	HZ12.5-17	For testing cylindrical inside surface R12.5 ~ R17	
6	HZ16.5-30	For testing cylindrical inside surface R16.5 ~ R30	
7	K10-15	For testing spherical outside surface SR10 ~ SR15	
8	K14.5-30	For testing spherical outside surface SR14.5 ~ SR30	
9	HK11-13	For testing spherical inside surface SR11 ~ SR13	
10	HK12.5-17	For testing spherical inside surface SR12.5 ~ SR17	
11	HK16.5-30	For testing spherical inside surface SR16.5 ~ SR30	
12	UN	For testing cylindrical outside surface, Radius adjustable R10 ~ ∞	

## Configurations

	NO.	Type	Sketch	Remarks
Standard Configuration	1	Main unit	1	D,C,DL available
	2	Standard test block	1	
	3	USB Communication cable	1	
	4	Power adapter	1	
	5	Cleaning brush (A)	1	
	6	Small support ring	1	
	7	lithium polymer battery	1	In the product
	8	Manual	1	
	9	ABS instrument package case	1	
	10	Data-pro software	1	
	11	Screw driver	1	
Optional Configuration	1	Other type of impact devices and support rings	1	

