

MH180 LEEB HARDNESS TESTER

1. Overview

1.1 Advantages

- Wide measuring range. Based on the principle of Leeb hardness testing theory. It can measure the Leeb hardness of all metallic materials.
- Large screen LCD, showing all functions and parameters. With EL background light.
- Seven impact devices are available for special application. Automatically identify the type of impact devices.
- Test at any angle, even upside down.
- Direct display of hardness scales HRB, HRC, HV, HB, HS, HL
- Large memory could store 100 groups (Relative to average times 32~1) information including single measured value, mean value, impact direction, impact times, material and hardness scale etc.
- Battery information showing the rest capacity of the battery.
- User calibration function.
- Software to connect to PC via RS232 port. Micro printer support.
- Compact plastic case, suitable for use under poor working conditions
- Continuous working period of no less than 100 hours with two alkaline batteries(AA size); Auto power off to save energy.
- Outline dimensions: 150x74x32 mm
- Weight: 245g

1.2 Main Application & Testing Range

1.2.1 Main Application

- 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
- Material identification in the warehouse of metallic materials
- Rapid testing in large range and multi-measuring areas for large-scale work piece

1.2.2 Testing Range

Testing range refer to Table 1 and Table 2 in the Appendix.

1.3 Technical Specifications

- Error and repeatability of displayed value see Table1-1 below.

Table 1-1

No.	Type of impact device	Hardness value of Leeb standard hardness block	Error of displayed value	Repeatability
1	D	760±30HLD 530±40HLD	±6 HLD ±10 HLD	6 HLD 10 HLD
2	DC	760±30HLDC 530±40HLDC	±6 HLDC ±10 HLDC	6 HLD 10 HLD
3	DL	878±30HLDL 736±40HLDL	±12 HLDL	12 HLDL
4	D+15	766±30HLD+15 544±40HLD+15	±12 HLD+15	12 HLD+15
5	G	590±40HLG 500±40HLG	±12 HLG	12 HLG
6	E	725±30HLE 508±40HLE	±12 HLE	12 HLE
7	C	822±30HLC 590±40HLC	±12 HLC	12 HLC

- Measuring range: HLD (170~960) HLD
- Measuring direction: 0~360°
- Hardness Scale: HL、HB、HRB、HRC、HRA、HV、HS
- Display: segment LCD
- Data memory: max. 100 groups (relative to impact times 32~1)
- Working power: 3V (2 AA size alkaline batteries)
- Continuous working period: about 100 hours (With backlight off)
- Communication interface: RS232

1.4 Configuration

Table 1-2

	No.	Item	Quantity	Remarks
Standard Configuration	1	Main unit	1	
	2	D type impact device	1	With cable
	3	Standard test block	1	
	4	Cleaning brush (I)	1	
	5	Small support ring	1	
	6	Alkaline battery	2	AA size
	7	Manual	1	
	8	Instrument package case	1	

	9			
Optional Configuration	11	Cleaning brush (II)	1	For use with G type impact device
	12	Other type of impact devices and support rings		Refer to Table 3 and Table 4 in the appendix.
	13	DataPro software	1	
	14	Communication cable	1	
	15	Micro Printer	1	
	16	Print cable	1	

1.5 Working Conditions

Working temperature: 0°C ~ +40°C ;

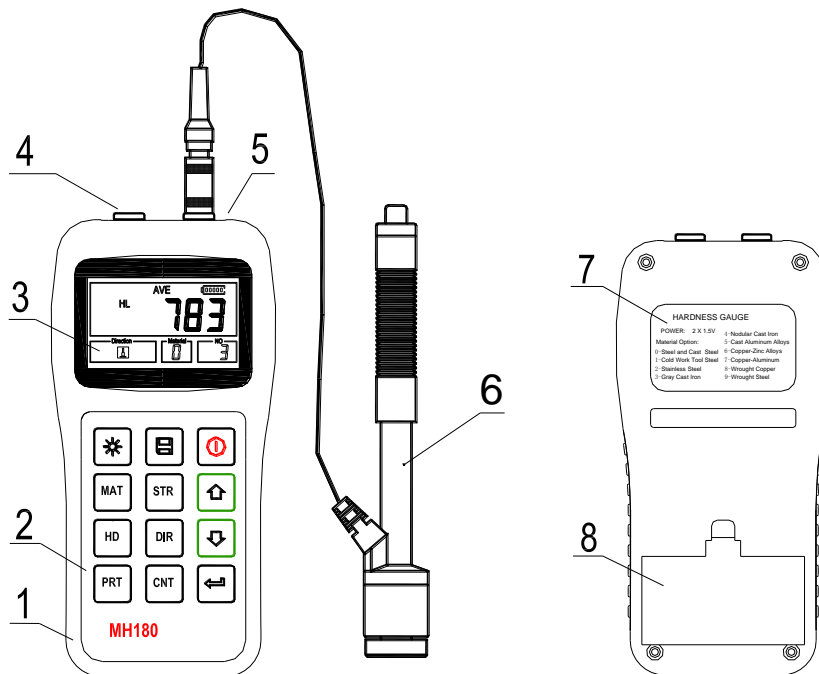
Storage temperature: -30°C ~ +60°C

Relative humidity: ≤90% ;

The surrounding environment should avoid of vibration, strong magnetic field, corrosive medium and heavy dust.

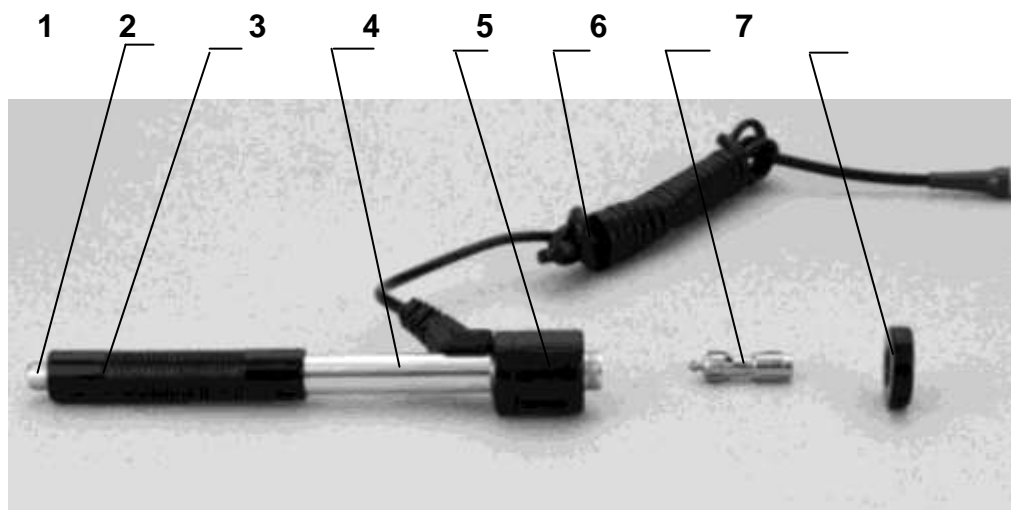
2 Structure Feature & Testing Principle

2.1 Structure Feature



1. Main unit 2. Keypad 3. LCD display 4. Socket of RS232
5. Socket of impact device 6. Impact device 7. Label 8. Battery cover

2.1.1 D Type Impact Device



- 1 Release button 2 Loading tube 3 Guide tube 4 Coil unit
5 Connection cable 6 Impact body 7 Support ring

2.1.2 Different Types of Impact Device

