

PORTABLE HARDNESS TESTER MH310



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Applications:

- Die cavity of molds
- Bearings and other parts
- Failure analysis of pressure vessel, steam generator and other equipment
- Heavy workpiece
- 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 workpiece

Technical Specifications:

- Measuring range : HLD (170 ~ 960) HLD
- Measuring direction : 0°~360°
- Hardness scale : HL、HB、HRB、HRC、HRA、HV、HS
- Display : segment LCD
- Data memory : 100 groups max. (relative to impact times 32 ~ 1)
- Printing paper: width is (57.5±0.5) mm, diameter is 30mm.
- Battery pack: 6V NI-MH
- Battery charger: 9V/500mA
- Continuous working period : about 150 hours (without backlight, no printing)
- Communication interface : USB1.1

Keypad Definitions:

	Turn on/off the EL backlight		Data Save or Data Delete		Turn the instrument on/off
	Material Selection		Hardness/Strength switch		Plus or Up
	Hardness Scale Selection		Direction change		Minus or Down
	Manual Paper Feed		Impact Times set		
	Print data		Cancel or Exit		Data logging or Enter

Features:

- Large LCD with back-light, showing all functions and parameters. Portable design, the size of the instrument is only 20cm.
- Test at any angle, even upside down.
- Wide measuring range. It can measure the hardness of all metallic materials. Direct display of hardness scales HRB, HRC, HV, HB, HS, HL and three types of strength values immediately.
- 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.
- Low power design with relying on stable integrate circuit. Charging for three hours, it can use for two months.
- Integrate the original imported high speed thermal printer into the instrument with which it supports immediately printing function. The imported long lasting paper can save the data permanently.
- Battery information showing the rest capacity of the battery and the charge status.
- Auto power off to save energy. It can work continuously for at least 150 hours without EL and printing
- Seven impact devices are available for special application. It can identify the type of impact devices automatically and has user calibration function.
- Equipped with USB port for connecting with PC by Data proceeding software.
- Excellent after-sale service system for high quality products—two years' guarantee and all life maintenance. Easy to buy and comfortable to use.

Standard Configuration

- | | |
|------------------------|---|
| 1 Main Unit | 1 |
| 2 D type impact device | 1 |
| 3 Standard test block | 1 |
| 4 Cleaning brush (I) | 1 |
| 5 Small support ring | 1 |
| 6 Battery Charger | 1 |
| 7 Paper for printing | 1 |
| 8 Manual | 1 |
| 9 Instrument case | 1 |

Optional Configuration:

- Support rings (page)
- Special impact devices (page)
- PC software (page 2)
- Tool for impact ball
- Other type of block



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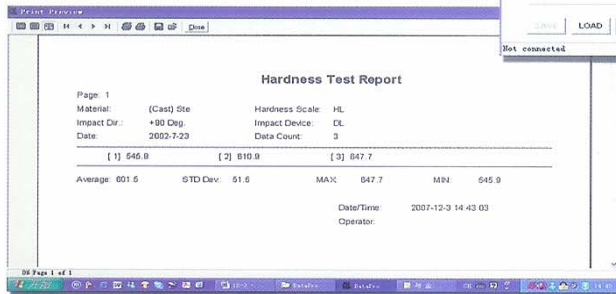
Features:

- MH320 is developed model of MH310, better in accuracy and stability.
- Beside all functions of MH310, it is more excellent in capacity (500 groups).
- Dot-matrix LCD with adjustable backlight
- High-speed thermal Printer
- Types of impact devices auto-identification
- Upper/lower limits setting and alarm
- Memory of 128 data and statistics functions
- Advanced arithmetic and software
- Improved keypad and menu arrangement
- Intelligent power charging circuit
- Extended testing range

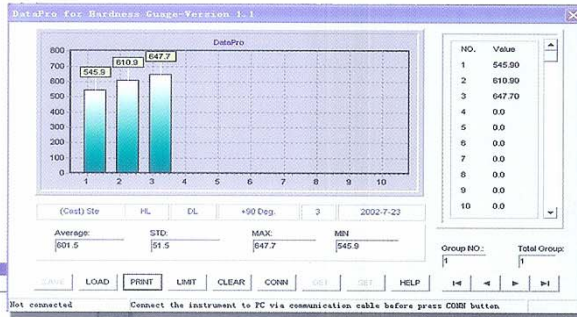
Main Display Interface :



Test Report Of A4 Size:



Date Proceeding Software :

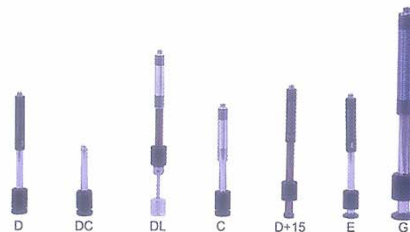


- Save: Save data from the tester
- Load: load data from the tester
- Print: Print the data out
- Limit: Preset the limitation
- Clear: Clear storage
- Connect(Disconnect): Set connection to PC
- Get: Get the data from the software storage
- Help: Answer your questions

Standard Configuration:

- | | |
|------------------------|---|
| 1 Main Unit | 1 |
| 2 D type impact device | 1 |
| 3 Standard test block | 1 |
| 4 Cleaning brush (I) | 1 |
| 5 Small support ring | 1 |
| 6 Battery Charger | 1 |
| 7 Paper for printing | 1 |
| 8 PC software | 1 |
| 8 Manual | 1 |
| 9 Instrument case | 1 |

Available Type Of Impact Device:



- DC: Test hole or hollow cylindrical;
- DL: Tests slender narrow groove or hole
- D+15: Test groove or reentrant surface
- C: Test small, light, thin parts and surface of hardened layer
- G: Test large, thick, heavy and rough surface steel
- E: Test super high hardness material

Measuring Range of MITECH Leeb Hardness Tester:

Material	Method	Impact device					
		D/DC	D/+15	C	G	E	DL
Steel and cast steel	HRC	20~68.5	19.3~67.9	20.0~69.5		22.4~70.7	20.6~68.2
	HRB	38~99.6			47.7~99.9		37.0~99.9
	HRA	59.1~85.8				61.7~88.0	
	HB	127~651	80~638	80~683	90~646	83~663	81~646
	HV	83~976	80~937	80~996		84~1042	80~950
	HS	32.2~99.5	33.3~99.3	31.8~102.1		35.8~102.6	30.6~96.8
Cold work tool steel	HRC	20.4~67.1	19.8~68.2	20.7~68.2		22.6~70.2	
	HV	80~898	80~935	100~941		82~1009	
Stainless steel	HRB	46.5~101.7					
	HB	85~655					
	HV	85~802					
Grey cast iron	HRC						
	HB	93~334			92~326		
	HV						
Nodular cast iron	HRC						
	HB	131~387			127~364		
	HV						
Cast aluminium alloys	HB	19~164		23~210	32~168		
	HRB	23.8~84.6		22.7~85.0	23.8~85.5		
BRASS (copper-zinc alloys)	HB	40~173					
	HRB	13.5~95.3					
BRONZE (copper-aluminium/tin alloys)	HB	60~290					
Wrought copper alloys	HB	45~315					

All Types of Support Rings:



Type	Remarks
Z10-15	For testing cylindrical outside surface R10~R15
Z14.5-30	For testing cylindrical outside surface R14.5~R30
Z25-50	For testing cylindrical outside surface R25~R50
HZ11-13	For testing cylindrical inside surface R11~R13
HZ12.5-17	For testing cylindrical inside surface R12.5~R17
HZ16.5-30	For testing cylindrical inside surface R16.5~R30
K10-15	For testing spherical outside surface SR10~SR15
K14.5-30	For testing spherical outside surface SR14.5~SR30
HK11-13	For testing spherical inside surface SR11~SR13
HK12.5-17	For testing spherical inside surface SR12.5~SR17
HK16.5-30	For testing spherical inside surface SR16.5~SR30
UN	For testing cylindrical outside surface, radius adjustable R10~∞