

LEEB HARDNESS TESTER TH130/132/134



Features:

- » Impact size, easy operation
- » Wide measuring range in HLD, direct display of converted hardness values in HB, HRB, HRC, HRA, HV, HS
- High applicability, can be used for hardness testing of most metals
- Test at any angle even upside down »
- Optional printer TA250 available
- Easy measurement on large & heavy workpieces
- Measuring in confined spaces of large workpieces » TH130: integrated with D impact device for normal hardness testing
- TH132: integrated with C impact device for hardness testing on thin, light and face-hardened workpieces » TH134: integrated with DL impact device for hardness testing of deep grooves and mould-face (such as tooth surface) workpieces »
- Refer to page 8 for technical specifications of various impact devices

Technical Specification

	TH130	TH132	TH134
Impact device	D integrated	C integrated	DL integrated
Hardness scales	HLD, HB, HRC, HRA, HV, HS	HLD, HB, HRC, HV, HS	HLDL, HB, HRC, HRB, HV, HS
Measuring	See table in page 7		
Tolerance	+ 6HLD(760 + 30HLD)	12HLC	12HLDL
Memory	99 average readings	99 average readings	99 average readings
Output	RS232 to printer	RS 232 to printer	RS232 to printer
Surface Roughness of Work piece	< 1.6 (Ra)	< 0.4µm (Ra)	< 1.6µm (Ra)
Min. radius of Work piece (convex / concave)	Rmin = 50mm (with support ring Rmin=10mm)	Rmin = 11mm (with support rings)	Rmin = 10mm
Min. Work piece weight	2~5kg on stable support 0.05~2kg with compact coupling	0.5~1.5kg on stable support 0.02~0.5kg with compact coupling	2~5kg on stable support 0.05~2kg with compact coupling
Min. Work piece thickness with coupling	5mm	1mm	5mm
Min. Thickness of hardened layers	0.8mm	0.2mm	0.8mm
Indentation depth	See table in page 8		
Charging time	3h		
Continuous working	60 h		
Power	Rechargeable Li-ion batteries		
Operating temperature	0~4(XC		
Overall dimensions	155 x 24 x 55mm	155 x 24 x 55mm	210 x 24 x 55mm
Weight	180 g	175g	200g

Standard Delivery

- Main Unit 1
- Test block 1
- Charger 1
- Brush 1
- Connecting cable for TH130 1
- Protection pocket 1
- TIME certificate 1
- Instruction manual 1
- Warranty card 1

Optional Accessory

- Support rings (See page 9)
- Printer TA230 (see page 47)



TH134 needle impact device integrated

LEEB HARDNESS TESTER TH150/152/154



Features:

- Fashionable face and compact size
- Available of conversion among HL, HRB, HRC, HB, HV, HS
- Large LCD with backlight
- Memory up to 256 data
- Connecting with printer by RS232 Low battery indication
- Test at any direction, even upside down
- TH150: integrated with D impact device for normal hardness testing
- TH152: integrated with C impact device for hardness testing on thin, light and face-hardened workpieces
- TH154: integrated with DL impact device for hardness testing of deep grooves and mould-face (such as tooth surface) workpieces
- Refer to page 8 for technical specifications of various impact devices

Technical Specification

	TH150	TH152	TH154
Impact device	D integrated	C integrated	DL integrated
Hardness scales	HLD, HB, HRC, HRB, HV, HS	HLC, HB, HRC, HRB, HV, HS	HLDL, HB, HRC, HRB, HV, HS
Measuring range / materials	See table in page 7		
Tolerance	+ 6HLD(760 + 30HLD)	+ 12HLC	+ 12HLDL
Memory	256 average readings		
Output	RS232 to printer		
Surface Roughness of Work piece	< 1.6pm(Ra)	< 0.4pm(Ra)	< 1.6pm(Ra)
Min. radius of Work piece (convex/concave)	Rmin = 11mm (with support ring Rmin=10mm)	Rmin=11mm (with support ring)	Rmin = 50mm (with support ring Rmin=10mm)
Min. Work piece weight	2~5kg on stable support0.05~2kg with compact coupling	0.5~1.5kg on stable support0.02~0.5kg with compact coupling	2~5kg on stable support0.05~2kg with compact coupling
Min. Work piece thickness with coupling	5mm	1mm	5mm
Min. Thickness of hardened layers	0.8mm	0.2mm	0.8mm
Indentation depth	See table in page 8		
Continuous working	300 h (without backlight)		
Power	Batteries 3V Li-ion CR1/2 AA		
Operating temperature	0-4°C		
Dimensions	158 x 60 x 39mm	149 x 60 x 39mm	213 x 60 x 39mm
Weight	150 g	145g	170 g

Standard Delivery

- Main Unit 1
- Test block 1
- Brush 1
- Battery 3V Li CR1/2 AA 1
- Connecting cable 1
- TIME certificate 1
- Instruction manual 1
- Warranty card 1

Optional Accessory

- Support rings (See page 9)
- Printer TA230 (see page 47)



TH154 needle impact device

LEEB HARDNESS TESTER TH170



Features:

- USB communication interface Automatic
- identification of Impact test direction Memory of 270
- average readings in 9 files Upper and lower limit
- setting Automatically switch off Backlight for
- convenient use in darkness Battery capacity display
- AAA 1.5V battery Integrated calibration function

Technical Specification

Standard Impact Device	D integrated
Hardness scales	HLD, HB, HRC, HRB, HV, HS
Measuring range / materials	See table in page 7
Measuring direction	360°
Tolerance	± 6HLD(760 + 30HLD)
Memory	270 average readings in 9 group files
Output	USB2.0
Surface Roughness of Work piece	< 1.6µm(Ra)
Min. radius of Work piece (convex/concave)	Rmin = 50mm (with support ring Rmin= 10mm)
Min. work piece weight	2~5kg on stable support 0.05~2kg with compact coupling
Min. Work piece thickness with coupling	5mm
Min. Thickness of hardened layers	0.8mm
Indentation depth	See table in page 8
Continuous working time	150 h (without backlight)
Power	AAA 1.5V batteries (2pcs)
Operating temperature	0~40°C
Dimensions	155mm x 55mm x 25mm
Weight	166 g

Standard Delivery

- Main unit 1
- Test block 1
- Brush 1
- Battery AAA 1.5V 2
- Connecting cable 1
- TIME certificate 1
- Instruction manual 1
- Warranty card 1

Optional accessories

- Support rings (See page 9)

LEEB HARDNESS TESTER TH160



Features:

- Large LCD with back-light, showing all functions and parameters
- On-Board memory holds 240-1000 groups of data
- Automatic identification Impact Devices and test direction (Except G impact device) Time and date setting; auto-clock
- Integrated thermal printer, print all test results and histogram Li Battery , low voltage indication and sound alarm Upper / lower limits setting and sound alarm Software to connect with PC
- Direct display of hardness scales HRB, HRC, HRA, HV, HB, HS, HL
- Conversion to tensile strength (U.T.S.) for all metallic materials Wide measuring range
- Six Impact Devices are available for special applications

Technical Specification

Hardness scale	HL, HRC, HRB, HRA, HV, HB, HS
Memory	240-1000 groups (Impact times: 32-1)
Measuring range	See table in page 7
Tolerance	
Tensile strength U.T.S. range	374~2652 MPa
Statistics function	Average / Max / Min value calculation, limits setting and alarm
Standard Impact Device	D
Optional Impact Devices	DC/DL/C/D+15/G (See page 8)
Min. Radius of Workpiece (convex/concave)	Rmin = 50mm (with support ring Rmin= 10mm)
Max. Workpiece Hardness	See table in page 8
Min. Workpiece weight	
Min. Workpiece thickness	
Min. thickness of hardened surface	
Power	Rechargeable Li Battery
Continuous Working time	About 100h (without printing and backlight)
Charging time	2.5~4 hours
Operating temperature	0-4°C
Humidity	90%
Overall dimensions	230 x 90 x 46.5mm
Weight	420g (including Impact Device and printer)

Standard Delivery

- Main unit with removable printer 1
- Impact device type D 1
- Test block HLD 1
- Charger 1
- Brush 1
- Connecting cable 1
- TIME certificate 1
- Instruction manual 1
- Warranty card 1

Optional Accessory

- Printing paper
- Special Impact Devices (See page 8)
- Support rings (See page 9)
- Dataview software



Dataview for TH160

LEEB HARDNESS TESTER TH140



Features:

- Large LCD with backlight, showing all functions and parameters
- On-Board memory holds 48-350 groups of data
- Software to connect with PC
- Upper and lower limit and sound alarm
- Press HELP key can obtain operating tips in any displaying interface
- Direct display of hardness scales HRB, HRC, HRA, HV, HB, HS,HL
- Conversion to tensile strength (U.T.S)
- For all metallic materials
- Test at any angle, even upside down
- Removable printer included
- Wide measuring range
- Six Impact Devices are available for special application
- Battery indication and sound alarm

Technical Specification

Hardness scale	HL, HRC, HRB, HRA, HV, HB, HS
Memory	48-350 group (Impact times:32-1)
Measuring range	See table in page 7
Tolerance	
Tensile strength U.T.S. range	374~2652 MPa
Standard Impact Device	D
Optional Impact Devices	DC/D+15/G/C/DL (See page 8)
Min. Radius of Workpiece (convex/concave)	Rmin = 50mm (with special support ring Rmin= 10mm)
Max. Workpiece Hardness	See table in page 8
Min. Workpiece weight	
Min. Workpiece thickness	
Min. thickness of hardened layers	
Power	Rechargeable NiMH Battery, 5 x 1,2V 600mAh
Continuous Working time	About 50h, (without printing and backlight)
Charging time	2~3.5 hours
Operating temperature	0~4CfC
Humidity	90%
Overall dimensions	268 x 86 x 50mm
Weight	530 g (including Impact Device and printer)

Standard Delivery

Main unit	1
Impact device type D	1
• Test block HLD	1
Charger	1
Brush	1
Table support for main unit	1
Connecting cable	1
TIME certificate	1
Instruction manual	1
Warranty card	1

Optional Accessory

- Printing paper
- Special Impact Devices (See page 8)
- Support rings (See page 9)
- Dataview software



Dataview for TH140

LEEB HARDNESS TESTER HLN-11A



Features:

Wide measuring range, for all metallic materials Direct display of hardness scales HRB, HRC, HV, HB, HS, HL Conversion to tensile strength (U.T.S.) Test at any angle, even upside down

Removable printer included

Six Impact Devices are available for special applications Large LCD display showing all functions and parameters Battery low indication

Power charging indication on the keyboard by LED Fault indication in details (E1-E5)

Technical Specification

Hardness scales	HL, HRC, HRB, HV, HB, HS
Measuring range	See table in page 7
Tolerance	
Tensile strength U.T.S range	374~1999 MPa
Standard impact Device	D
Optional Impact Devices	DC/D+15/G/C/DL (See page 8)
Min. Radius of workpiece (convex / concave)	Rmin=50mm (with support ring Rmin=10mm)
Max. Workpiece Hardness	See table in page 8
Min. workpiece weight	
Min. Workpiece thickness	
Min. Thickness of hardened layers	
Power	Rechargeable NiMH batteries 5 x 1,2V 600mAh
Charging time	3 hours
Continuous working time	About 50h (without printing and backlight)
Operating temperature	0~40°C
Humidity	90%
Dimensions	268 x 86 x 50mm
Weight	615g (including impact device and printer)

Standard Delivery

Main unit	1
Impact Device type D	1
Test block HLD	1
Charger	1
Brush	1
Table support for main unit	1
TIME certificate	1
Instruction manual	1
Warranty card	1

Optional Accessory

Printing paper	
Special Impact Devices (See page 8)	
Support rings (See page 9)	