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Our Sister Concern : RELIEF SERVICE CENTRE

Repairs, Removal of Jaw Error, Bore Gauge Extension, Instrument Modifications & Spares

Quotation

105 Metal Hardness Tester

Make	Time	Time	Time	Time	Time	ITI	M & W
Model	TH 170 / 130 / 150	TH 132	TH 5100 (TH 130/150/170)	TH 160	TH 180	130	MHT-1
Rs.	Disconti...	52500	45100	94600	43700	49990	32000
Catalog	Page - 3,4	Page - 3,4	Page - 3,4			Page No.- 6,7	Page No.- 9

105 - 1 Portable Hardness Tester Insize Make

Model	ISHL-P100	ISH-PHA-P	ISH-SPHA-P	ISH-SPHD	ISH-PHB
Rs.	44003	87221	118144	107687	90428
Catalog	Page - 11	Page - 11	Page - 13	Page - 14	Page - 14

105 - 2 Optional Work piece for Portable Hardness Tester Insize Make

Model (ISH - SPHA)	DC	C	D	D + 15	DL	G
Rs.	46186	52499	Included	145510	145510	145510
Catalog	Page - 13					

105 - 3 Support Rings For Portable Hardness Tester Insize Make

Model (ISH)	R1015	R14530	R2550	R1113	R12517	R16530	SR1113	SR12517	SR16530	SR1015	SR14530	RUN
Type	A	A	A	B	B	B	C	C	C	D	D	E
Rs.	2608	2608	2608	2608	2608	2608	2608	2608	2608	2608	2608	2608
Catalog	Page - 13											

Only Insize Products - *** Warranty -12 Months, Certificate - No

105 - 4 Metal Hardness Tester - Metrix+ @ With 10% Discount

	Model	Rs	Catalog
1	Metal Hardness Tester HL-HRC-HRB-HRA-HB-HV-HS	MI 970	38600
2	Metal Hardness Tester Integrated Probe HL-HRC-HRB-HRA-HB-HV-HS	'HARDMASTER'	36000
3	Metal Hardness Tester HL-HRC-HRB-HRA-HB-HV-HS	130	48600
4	Curvature Ring Set For HARDMASTER		10000

Terms & Conditions –

- Goods offered - Subject to Prior Sale
- Price Validity: "15 Days from Date of Quotation"
- C.S.T 2% extra against form C. Otherwise 5% without form C For Out of Gujarat Sales only.
- VAT 5% extra for Sales within Gujarat. Prices Ex-Godown Ahmedabad.
- Payment against Proforma Invoice, Packing, Forwarding & Freight extra.
- **Bank Detail** – Kotak Mahindra Bank Ltd.
- **Branch** – Shivranjini
- **Bank IFSC Code** - KKBK 0000 810
- **Bank Account No.** 08102 00000 2689
- Note - While making payment online do mention your Company's name.
- TIN NO 24070901229 , CST No. 24570901229
- We are looking forward to your valued orders.

TIME MAKE

PORTABLE HARDNESS TESTER

>>TH130/132/134



TH130 / TH5100



TH132



TH134 / TH5104

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 TA230 available
- Easy measurements on large & heavy workpieces
- Measuring for 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 tooth surface

Technical Specification

	TH130 / TH5100	TH132	TH134 / TH5104
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
Accuracy	±6HLD(760 ±30HLD)	±12HLC	±12HLDL
Memory	99 average readings		
Output	RS232 to printer		
Average Surface Roughness of Work piece	1.6μ (Ra)	0.4μ (Ra)	1.6μ (Ra) Diameter = 2.8mm
Max. Work piece Hardness	900HLD	960HLC	950HLDL
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 coupled	5mm	1mm	5mm
Min. Thickness of hardened layers	0.8mm	0.2mm	0.8mm
Indentation depth	Impact Devices data	Impact Devices data	Impact devices data
Continuous working time	60 h	60 h	60 h
Power	Rechargeable Li-Polymer batteries	Rechargeable NiMH battery	rechargeable NiMH battery
Operating temperature	0~40℃	0~40℃	0~40℃
Overall dimensions	155×24×55mm	155×24×55mm	210×24×55mm
Weight	180 g	175g	200g

Standard delivery

- Main unit
- Test block with HLD value
- Charger
- Brush
- Protection pocket
- TIME certificate
- Instruction manual
- Warranty card

Optional accessories

- Printer TA230
- Support rings



Time TH170 / TH5100 Portable Hardness Tester



Item Code: TH-170 / TH5100

USB communication interface, Automatic identification of Impact test direction, Memory of 270 average data in 9 group files, Upper and lower limit setting. Other features are as follows:

- Automatically switch off
- Back light for convenient use in darkness
- Software calibration
- Battery capacity display
- AAA 1.5V battery
- Computer software available.



Integrated Portable Hardness Tester TH130



Materials & Measuring Range TH130 (HL:200-900)

Material	HRC	HRB	HRA	HB	HV	HS
Steel & cast steel	20-68	60-100	59-86	93-674	83-976	32-100
Cold work tool st.	20-67				80-898	
Stainless steel	20-62	46-100		85-655	85-802	
Grey cast iron				93-334		
Nodular cast iron				131-387		
Cast aluminum alloys				27-159		
Copper/Zinc alloys (brass)		13-95		40-173		
CuAl/CuSn alloys (bronze)				60-290		
Wrought copper alloys				45-315		

Support Rings

On curved surfaces having a radius of under 30mm, effective positioning on the workpiece is facilitated by the use of support rings (set of 7). The appropriate support ring is screwed on to the end of the impact device in place of the standard flat support ring. The set includes support rings suitable for bar/tube and grooves up to a radius of 11mm. Special support rings for convex or concave surfaces can be manufactured.

TH130 comes complete with a testblock, plastic case, charger and instruction manual.



Portable hardness tester ITI – 130

Large memory
Palm size for narrow space
Manual or automatic shut down
LCD with back light

Applications

- * Die cavity of molds
- * Inspection of bearing and other mass produced parts on a production line
- * Failure analysis of pressure vessel, steam generator and other equipment
- * Inspection of installed machinery, permanent parts of assembled systems and heavy work pieces.
- * 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

Main Features

- * Palm size for narrow space.
- * Test at any angle, even upside down.
- * **Direct display of hardness scales HRB, HRC, HV, HB, HS, HL.**
- * Large memory could store 250 groups including single measured value, impact direction, material and hardness scale etc.
- * User recalibration function allowed.
- * Can communicate with PC computer for statistics and printing by cable.
- * Manual or automatic shut down.
- * Low battery indication.

Typical Applications

- * Die cavity of molds
- * Inspection of bearing and other mass produced parts on a production line
- * Failure analysis of pressure vessel, steam generator and other equipment
- * Inspection of installed machinery, permanent parts of assembled systems and heavy work pieces.
- * 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

Testing Features

- * Small in size for narrow space.
- * Test at any angle, even upside down.
- * Direct display of hardness scales HRB, HRC, HV, HB, HSD, HL.
- * Memory could store 50 groups including single measured value, impact direction, material and hardness scale etc.
- * User recalibration function allowed.
- * Can communicate with PC computer for statistics and printing by the optional cable.
- * Manual or automatic shut down.
- * Low battery indication.

Technical Specifications

- * Display: Large LCD with back light
- * Accuracy: Display error $\pm 0.8\%$ at LD=970
- * Measuring range: 170-970L
- * Conversion: HL-HRC-HRB-HB-HV-HSD
- * Materials: 9 different common materials
- * Memory: 50 Groups Including Single
- * Impact device: D Will handle the majority of hardness testing applications.
- * Power supply: 2x1.5V AA size battery
- * Dimension: 146×65×36mm
- * Weight: 130g (not including batteries)
- * Working temperature : - 10°C ~ + 50°C
- * Storage temperature : - 30°C ~ + 50
- * Standard Accessories: Impact Device D, Test Block, Small Ring, Cleaning Brush, Manual & Carry Case.
- * Optional Accessories: RS 232C+ Software, Support Ring Set, Irregular Impact Device, B Nylon Brush,





Typical Applications & Testing Features:

- * Die cavity of molds.
- * Inspection of bearing and other mass produced parts on a production line.
- * Failure analysis of pressure vessel, steam generator and other equipment.
- * Inspection of installed machinery, permanent parts of assembled systems and heavy work pieces.
- * 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.
- * Palm size for narrow space.
- * Test at any angle, even upside down.
- * Direct display of hardness scales HRB, HRC, HV, HB, HSD, HL.
- * Large memory could store 250 groups including single measured value, impact direction, material and hardness scale etc.
- * User recalibration function allowed.
- * Can communicate with PC computer for statistics and printing by the optional cable.
- * Manual or automatic shut down.
- * Low battery indication.

Model Specification	Metrix+ "HARD MASTER"	Metrix+ 130
Display	14mm LCD with back light	Matrix LCD 128*64dot Back light
Measuring Range	200~900L	170-960HLD
Accuracy	Display error $\pm 0.8\%$ at LD=900	$\pm 10\text{HLD}$
Test Direction	360°(plumb down,down,horizontal,indined up, plumb up)	
Conversion	HL-HRC-HRB-HRA-HB-HV-HS	
Materials	9 different common materials	
Impact Device	D Will handle the majority of hardness testing	
Memory	250 data can be stored	500 data can be stored
PC Connectivity	RS 232C	USB
Re-Calibration	Allowed	Allowed
Power	2 X 1.5V "AAA" Battery	4 X 1.5 "AA" Alkaline Battery
APO	√	√
Low Battery Indication	√	√
Weight & Dimension	146*65*36mm 130g.	150*80*38mm 360g.
Operating Temperature	0°C ~ + 50°C	0°C ~ + 50°C
Storage Temperature	-20°C ~ + 60°C	-20°C ~ + 70°C
Accessories Include	D type Impact Device, Standard Leeb Hardness Block, A nylon Brush, Support ring, PC Interface Data cable, software CD, Manual & Aluminum Carry case	
Optional Accessories	B Nylon Brush, Irregular Type Impact Device and Support ring	

M&W MAKE

Portable Metal Hardness Tester

MHT-1



Accuracy: Display error $\pm 0.8\%$ at HLD=900
Measuring range: 200-900HLD
Conversion: HLD-HRC-HRB-HB-HV-HSD
Materials: 9 different common materials
Memory: 250 data can be stored and re-readable

Impact device: D Will handle the majority of hardness testing applications.

Working temperature: $0^{\circ}\text{C} \sim +40^{\circ}\text{C}$

Storage temperature: $-30^{\circ}\text{C} \sim +60^{\circ}\text{C}$;

Relative humidity: $\leq 90\%$

Standard Accessories:

Main unit.....	1pcs
Standard test block.....	1pcs
Small support ring.....	1pcs
Manual.....	1pcs
Carrying case.....	1pcs
Cleaning brush.....	1pcs

Optional Accessories:

1. RS232C or USB cable+Software
2. Other type of impact devices and support rings
3. Impact body

Portable Metal Hardness Tester



- Measuring Range : (170-960) HLD, (17-68) HRC, (19-651)HB, (80-976)HV
- Hardness unit : HL,HB,HRC, / HRA,HV,HS
- Display : Matrix LCD (128*64dot)

Portable Metal Hardness Tester

Product Code	Mfg. Code
191471119	MHT - 1

INSIZE MAKE

PORTABLE LEEB HARDNESS TESTER CODE ISHL-P100

ATTENTION:
BASIC MODEL



hardness test block D (included)



small support ring (included)

- Supplied with impact device D
- Set measurement times (1~32) to have average value
- Based on Leeb(HLD), converted to Vickers(HV), Brinell(HB), Rockwell(HRC and HRB), Shore(HS) and tensile strength(MPa)
- Memory of 100 measurement values for browsing
- Automatic power off

SPECIFICATION

Min. reading	1HLD, 1HV, 1HB, 0.1HRC, 0.1HRB, 1HS, 1MPa	
Accuracy	±8HLD (when HLD=760±30)	
Display	Leeb, conversion hardness, material, impact direction, test times, average value, time	
Applicable workpiece	minimum weight	5kg
		2kg (on solid support)
		0.1kg(coupled on plate)
	minimum thickness: 5mm	
	minimum radius of curved surface: 11mm	
Power supply	3×AAA batteries	
	3×AAA batteries	
Dimension	155×72×27mm	
Weight	280g	

STANDARD DELIVERY

Main unit	1pc
Impact device D	1pc
Hardness test block D	1pc
Small support ring	1pc
Cleaning brush	1pc

OPTIONAL ACCESSORY

Couplant	ISH-COUPPLANT
Hardness test block D	ISHL-P100-BLOCK
Support rings	

APPLICABLE MATERIAL AND HARDNESS RANGE FOR IMPACT DEVICE D

Material	HLD	HV	HB	HRC	HRB	HS	Tensile strength(MPa)
Steel & cast steel	300-900	81-955	81-654	20-68	38-100	32-100	375-2639
Tool steel	300-840	80-898		20-67			
Stainless steel	300-800	85-802	85-655		46-101		
Cast iron	360-650		93-334				
Cast aluminum alloy	170-570		19-164		23-84		
Brass	200-550		40-173		13-95		
Bronze	300-700		60-290				
Copper	200-690		45-315				

PORTABLE HARDNESS TESTER

CODE ISH-PHA*



- Supplied with impact device D
- Based on Leeb(HLD) , converted to Vickers(HV), Brinell(HB), Rockwell(HRC and HRB), Shore(HS) and tensile strength(MPa)
- Connected with printer via bluetooth
- LCD display with backlight
- Automatic power off
- According to ASTM A956



SPECIFICATION

Min. reading	1HLD, 1HV, 1HB, 0.1HRC, 0.1HRB, 1HS, 1MPa	
Accuracy	±6HLD(when HLD=800)	
Display	Leeb(HLD), converted hardness, material, impact direction, test times, average value, date	
Output	bluetooth	
Applicable workpiece	minimum weight	5kg
		2kg (on solid support)
		0.1kg(coupled on plate)
	minimum thickness: 5mm	
	minimum radius of curved surface: 11mm	
	maximum roughness(Ra): 1.6μm	
Power supply	3×AAA batteries	
Dimension	150×80×24mm	
Weight	200g	

STANDARD DELIVERY

Main unit	1pc
Impact device D	1pc
Printer	1pc
Hardness test block	1pc
Small support ring	1pc
Cleaning brush	1pc
AC/DC adapter	1pc

OPTIONAL ACCESSORY

Support rings	page S10
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APPLICABLE MATERIAL AND HARDNESS RANGE FOR IMPACT DEVICE D

Material	HLD	HV	HB	HRC	HRB	HS	Tensile strength(MPa)
Steel & cast steel	300-900	81-955	81-654	20-68	38-100	32-100	375-2639
Tool steel	300-840	80-898		20-67			
Stainless steel	300-800	85-802	85-655		46-101		
Cast iron	360-650		93-334				
Cast aluminum alloy	170-570		19-164		23-84		
Brass	200-550		40-173		13-95		
Bronze	300-700		60-290				
Copper	200-690		45-315				

* Add suffix on code No. to devote AC voltage and plug (refer to page V1)



DATA
OUTPUT

PORTABLE LEEB HARDNESS TESTER CODE ISH-SPHA

- Based on Leeb (HL), converted to Vickers (HV), Brinell (HB), Rockwell (HRC and HRB), Shore (HS) and tensile strength (MPa)
- Connected with printer via bluetooth
- Connected with computer via USB port
- Up to 800 test results can be saved
- Low and high limits with judgement
- Touch screen operation, large display with backlight
- Language: English, Chinese, Italian, German, French and Portuguese
- Automatic power off
- According to ASTM A 956



included



printer



hardness test block D



small support ring

SPECIFICATION

Min. reading	1HL, 1HV, 1HB, 0.1HRC, 0.1HRB, 1HS, 1MPa
Accuracy	±6HL (when HL=800)
Display	Leeb(HL), converted hardness, material, impact direction, test times, average value, deviation, time
Output	bluetooth and USB
Power supply	built-in rechargeable battery
Dimension	135×83×24mm
Weight	350g

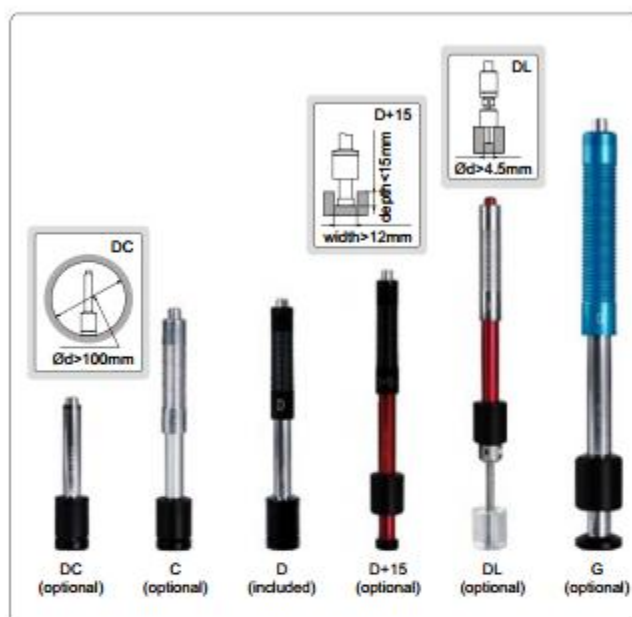
STANDARD DELIVERY

Main unit	1pc
Impact device D	1pc
Printer	1pc
Hardness test block D	1pc
Small support ring	1pc
Cleaning brush	1pc
AC/DC adapter	1pc
USB cable and software disc	1pc
Pen for touch screen	1pc

OPTIONAL ACCESSORY

Impact device DC	ISH-SPHA-DC
Impact device C	ISH-SPHA-C
Impact device D+15	ISH-SPHA-D15
Impact device DL	ISH-SPHA-DL
Impact device G	ISH-SPHA-G
Hardness test block D *	ISH-BHLD
Hardness test block G *	ISH-BHLG
Couplant	ISH-COUPPLANT
Support rings	see details

* Hardness test block G (ISH-BHLG) is for impact device G (ISH-SPHA-G).
Hardness test block D (ISH-BHLD) is for all others impact devices.



APPLICABLE WORKPIECE

Impact device	DC	C	D	D+15	DL	G
Application	inner wall of small space	small or thin workpiece, coating layer	general use	deep groove	narrow slot or small hole	casting or forging workpiece
Maximum roughness of workpiece (Ra)	1.6µm	0.4µm	1.6µm	1.6µm	1.6µm	7µm
Minimum weight of workpiece	direct measurement	5kg	1.5kg	5kg	5kg	15kg
	on solid support	2kg	0.5kg	2kg	2kg	5kg
	coupled on plate	0.1kg	0.02kg	0.1kg	0.1kg	0.5kg
Minimum thickness of workpiece	5mm	1mm	5mm	5mm	5mm	10mm



PORTABLE LEEB HARDNESS TESTER CODE ISH-SPHD

- Impact device D
- Based on Leeb (HLD), converted to Vickers (HV), Brinell (HB), Rockwell (HRC and HRB), Shore (HS) and tensile strength (MPa)
- Automatic direction correction
- Connected with printer via bluetooth
- Connected with computer via USB port
- Up to 500 test results can be saved
- According to ASTM A 956

SPECIFICATION

Min. reading	1HLD, 1HV, 1HB, 0.1HRC, 0.1HRB, 1HS	
Accuracy	±6HLD (when HLD=800)	
Output	USB and bluetooth	
Applicable workpiece	minimum weight	5kg (direct measurement) 2kg (on solid support) 0.1kg (coupled on plate)
	minimum thickness	5mm
	minimum radius of curved surface	30mm
	maximum roughness (Ra)	1.6µm
Power supply	built-in rechargeable battery	
Dimension	147×35×22mm	
Weight	65g	

included



STANDARD DELIVERY

Main unit	1pc
Printer	1pc
Hardness test block D	1pc
Small support ring	1pc
Cleaning brush	1pc
AC/DC adapter	1pc
USB cable and software disc	1pc

OPTIONAL ACCESSORY

Couplant	ISH-COUPPLANT
Support rings	see details
Hardness test block D	ISH-BHLD

APPLICABLE MATERIAL AND HARDNESS RANGE FOR IMPACT DEVICE D

Material	HLD	HV	HB	HRC	HRB	HS
Steel & cast steel	300-900	81-955	81-654	20-68	38-100	32-100
Tool steel	300-840	80-898		20-67		
Stainless steel	300-800	85-802	85-655		46-101	
Cast iron	360-650		93-334			
Cast aluminum alloy	170-570		19-164		23-84	
Brass	200-550		40-173		13-95	
Bronze	300-700		60-290			
Copper	200-690		45-315			

PORTABLE LEEB HARDNESS TESTER CODE ISH-PHB



- Based on Leeb (HLD), converted to Vickers (HV), Brinell (HB), Rockwell (HRC and HRB), Shore (HS) and tensile strength (MPa)
- Memory of 99 measurement values for browsing
- Set measurement times (1-9) to have average value
- Connected with printer via bluetooth
- Automatic power off
- According to ASTM A 956

SPECIFICATION

Min. reading	1HLD, 1HV, 1HB, 0.1HRC, 0.1HRB, 1HS, 1MPa	
Accuracy	±6HLD (when HLD=800)	
Display	Leeb (HLD), converted hardness, material, impact direction, test times, average value, date	
Output	bluetooth	
Applicable workpiece	minimum weight	5kg 2kg (on solid support) 0.1kg (coupled on plate)
	minimum thickness	5mm
	minimum radius of curved surface	30mm
	maximum roughness (Ra)	1.6µm
Power supply	3×AAA batteries	
Dimension	150×84×28mm	
Weight	200g	

STANDARD DELIVERY

Main unit	1pc
Impact device D	1pc
Hardness test block D	1pc
Small support ring	1pc
Cleaning brush	1pc

OPTIONAL ACCESSORY

Wireless printer	ISH-DS-PRINTER
Couplant	ISH-COUPPLANT
Support rings	see details
Hardness test block D	ISH-BHLD

APPLICABLE MATERIAL AND HARDNESS RANGE FOR IMPACT DEVICE D

Material	HLD	HV	HB	HRC	HRB	HS	Tensile strength (MPa)
Steel & cast steel	300-900	81-955	81-654	20-68	38-100	32-100	375-2639
Tool steel	300-840	80-898		20-67			
Stainless steel	300-800	85-802	85-655		46-101		
Cast iron	360-650		93-334				
Cast aluminum alloy	170-570		19-164		23-84		
Brass	200-550		40-173		13-95		
Bronze	300-700		60-290				
Copper	200-690		45-315				

SUPPORT RINGS FOR PORTABLE HARDNESS TESTER

type A



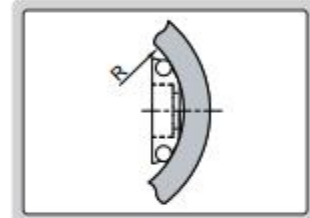
ISH-R1015



type B



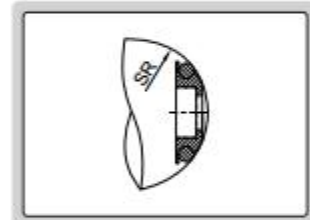
ISH-R1113



type C



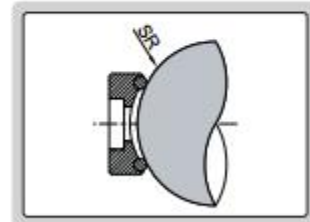
ISH-SR1113



type D



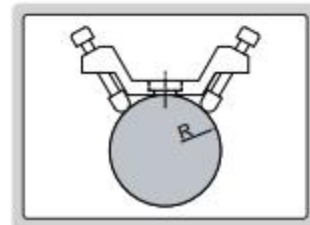
ISH-SR1015



type E



ISH-RUN



SPECIFICATION

Code	Type	Applicable workpiece	Range (mm)
ISH-R1015	A	cylindrical outside surface	R10 - 15
ISH-R14530			R14.5 - 30
ISH-R2550			R25 - 50
ISH-R1113	B	cylindrical inside surface	R11 - 13
ISH-R12517			R12.5 - 17
ISH-R16530			R16.5 - 30
ISH-SR1113	C	spherical inside surface	SR11 - 13
ISH-SR12517			SR12.5 - 17
ISH-SR16530			SR16.5 - 30
ISH-SR1015	D	spherical outside surface	SR10 - 15
ISH-SR14530			SR14.5 - 30
ISH-RUN	E	cylindrical outside surface	R > 10

New Generation Technology Portable Digital Hardness Tester - ITI-130

Fully Automatic
Flexible, Rigid And Rapid The
Most Ability
The Least Restriction
Monolith, Yellow Parts



ITI-130

This device is built after two decades research and experience and disappears more limitations of conventional leeb devices and has developed portable hardness tester power range .

This device has new ability by electromagnetic shooting and infrared velocity measurement and eliminates mechanical parts.

Applications:

Hardness testing of raw material
Hardness testing of heavy and light pieces
Hardness testing of metal pipes and CNG tanks N.D.T Testing
Hardness testing of welding joints
Hardness testing at production process
Hardness testing of building structures and fuel pipes

Properties:

Hardness test without complex setting
Capability of testing more Alloys
Showing hardness result on HLD-HRC-HRB-HB-HV-HSC
Memory for 3000(approx.)test and USB port transferring
Calibration by standard block and user
Software user calibration
Small and light weight with Poly Carbonate rigid case

Technical Specification:

Measuring Direction	360°
Display	LCD
Data Memory	500 Readings Approx.
Battery Pack	800~1600 mAH Li-ion 3.7V
Battery Charger	USB type
Continuous working period	3000-4000 Test Approx.
Communication Interface	USB1

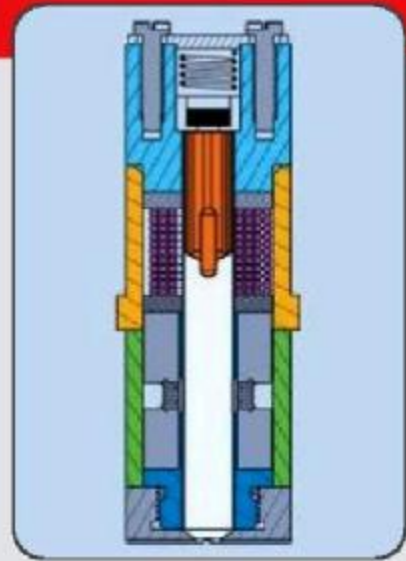




Monolith Operation



Probe Separating ability



ITI-130 probe

Indenter 1.5 gr	Indenter 2.5 gr	Properties
H 30mm* x W 60mm* x L 170 mm		Dimention
+4 HLD (0.5% at 800 HLD)		Measurement Accuracy
Li-Polymer 1Ah 3.7 V 5000 test by full charge		Battery & Consumption
+1 HLD Resolution		
200 gm*		Weight
15mm (Flat)	22mm (Flat)	Mini work Piece Thickness
5mm (pipe)	15mm (Pipe)	Mini work Piece Weight
Mini Thickness with Support		0.5mm

Low Alloy Steel	200-900 Leeb	80-647 Brinell 80-940 Vickers 41-99.5 Rockwell B 0-68.0 Rockwell C
High Alloy Steel	300-840 Leeb	80-898 Vickers 20.4-67.1 Rockwell C
Cast Iron	360-650 Leeb	93-334 Brinell
GGG	400-658 Leeb	25-198 Brinell
Brass	200-550 Leeb	40-173 Brinell
Copper	200-690 Leeb	45-315 Brinell

Compare Table:

	Conventional Leeb	ITI-130
Test Speed	Few Seconds	Sub Second
Work Piece Weight	1000 grm Mini.	200 grm Mini.
Work Piece Thickness	30 mm Mini.	15 grm Mini. (4mm)* Pipe Form
Prob Dimensions	More Bigger	15*45mm
Operation	Handy	Automatic
Indenter Durability	Approx 3000 tests	1 Lakh Tests Approx.
Error in Magnetic Piece	Yes	No
User Calibration	No	Yes
Battery Charging Time	4-5 hrs	30 mini to 1 hrs.



Accessories:

Standard reference block
Battery charger
convex and concave Heads and cleaning brush Hand bag
Manuals
Equation table (ASTM - A956)
Software CD
Calibration Certificate

Technical Specifications & Designs are subject to change without any prior notice