



Rockwell Hardness Testers
Page 789-803



Micro-Vickers Hardness Testers
Page 804-809



Vickers Hardness Testers
Page 810-813



Brinell Hardness Testers
Page 814-815



Brinell Indentation Measuring
Systems
Page 816



Brinell/Rockwell/Vickers Hardness
Testers
Page 817



Brackets
Page 818



Leeb Hardness Testers
Page 819-828



Magnetic Rockwell Hardness Testers
Page 829-830



Magnetic Brinell/Rockwell Hardness
Testers
Page 830-831



Portable Rockwell Hardness Testers
Page 831



Pin Brinell Hardness Testers
Page 832



Hydraulic Brinell Hardness Testers
Page 833



Chain Type Hydraulic Brinell
Hardness Testers
Page 833



Aluminum Hardness Testers
Page 834-835



Aluminum Hardness Testers
Page 835



Shore Durometers
Page 836-839



Fruit Hardness Testers
Page 839



Hardness Test Blocks
Page 840-841



Concrete Strength Testers
Page 842

AUTOMATIC DIGITAL ROCKWELL/SUPERFICIAL ROCKWELL HARDNESS TESTERS CODE HDT-CRS200

BUILT-IN
BLUETOOTH

AUTOMATIC
OPERATION

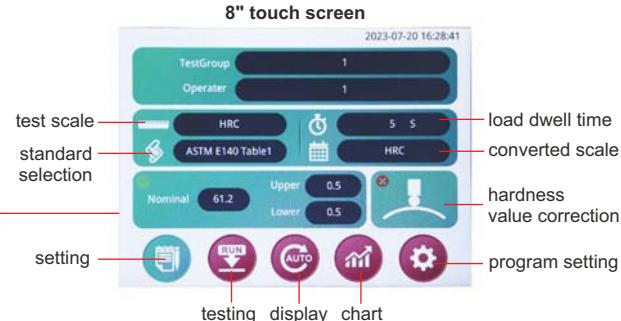
FORCE LOADING BY ELECTRIC
MOTOR (WITHOUT WEIGHTS)

TOUCH
SCREEN

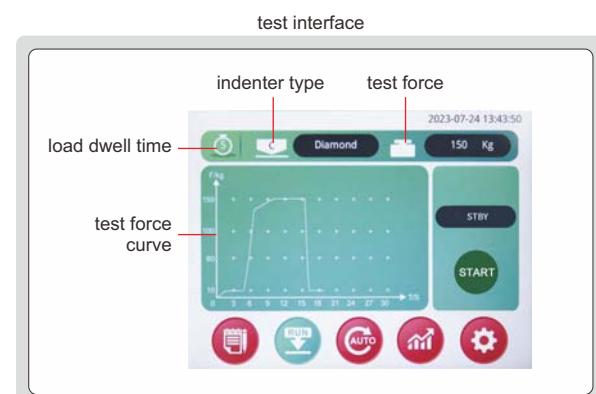
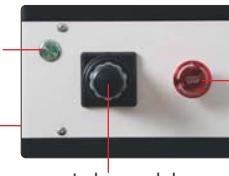
HIGH
ACCURACY

HIGH
EFFICIENCY

**INSPECTION
CERTIFICATE**



32



test result display interface

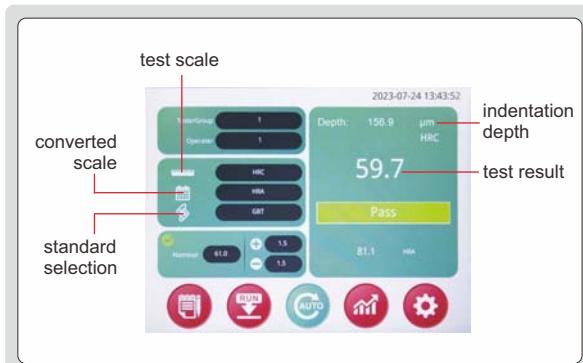
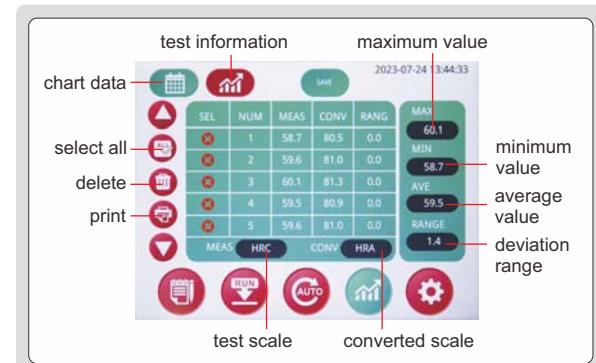


chart interface



To be continued

Continued from previous page



Ø58mm flat anvil
(included)



V-type anvil
(included)



bluetooth printer
(included)

SPECIFICATION

32

Measurement range	Rockwell: 20~88HRA, 20~100HRB, 20~70HRC Superficial RockWell: 70~91HR15N, 42~80HR30N, 42~70HR45N, 73~93HR15T, 43~82HR30T, 12~72HR45T
Hardness scale	with indenter included HRA, HRB, HRC, HRD, HRF, HRG, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T
	with optional indenter HRE, HRH, HRK, HRL, HRM, HRP, HRR, HRS, HRV, HR15W, HR30W, HR45W, HR15X, HR30X, HR45X, HR15Y, HR30Y, HR45Y
Preliminary test force	Superficial Rockwell: 29.4N (3kgf) Rockwell: 98N (10kgf)
Test force	Superficial Rockwell: 147N (15kg), 294N (30kg), 441N (45kg) Rockwell: 588N (60kg), 980N (100kg), 1471N (150kg)
Test force accuracy	±1%
Operational mode	automatic
Load control	automatic (load/dwell/unload)
Resolution	0.05HR
Load dwell time	0~99 second
Max. workpiece height	300mm
Max. testing width	200mm (from the center of indenter to the wall of main body)
Output	bluetooth printer, RS232
Power supply	220V, 50/60HZ
Dimension	555×400×1250mm
Weight	130kg

STANDARD DELIVERY

Main unit	1 pc
Diamond indenter	1 pc
Ø1.588mm carbide ball indenter	1 pc
Ø58mm flat anvil	1 pc
V-type anvil	1 pc
Hardness test block HRB20~30	1 pc
Hardness test block HRC60~70	1 pc
Hardness test block HRBW80~100	1 pc
Hardness test block HR30N60~85	1 pc
Hardness test block HR30TW70~85	1 pc
Bluetooth printer	1 pc
Hardness analysis software	1 pc

OPTIONAL ACCESSORY

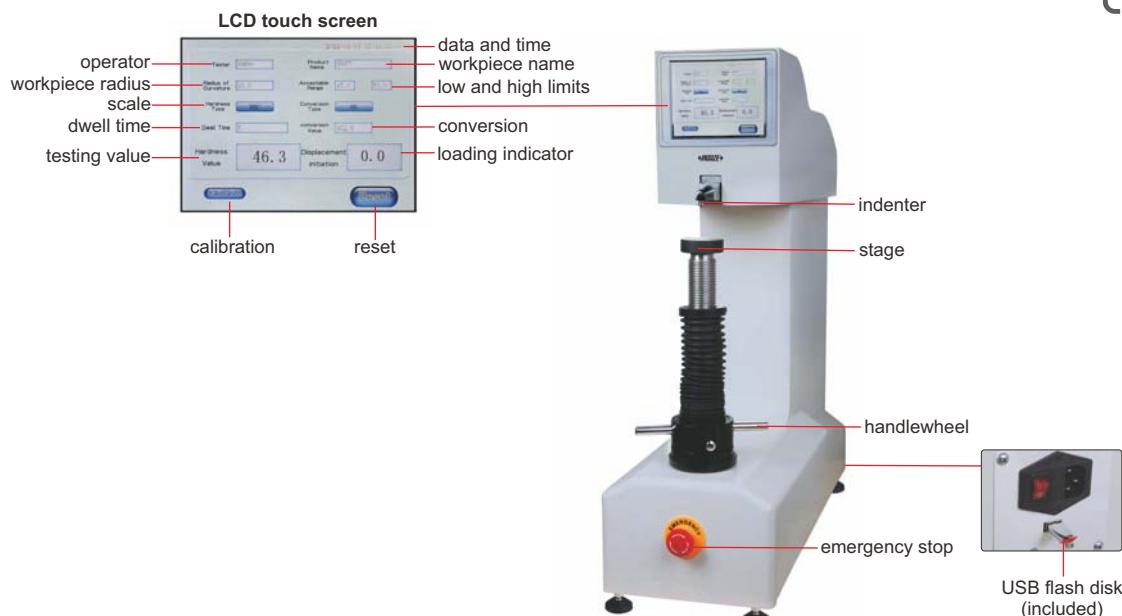
Hardness test block HRC20~30	HDT-B-HRC1
Hardness test block HRC60~70	HDT-B-HRC3
Hardness test block HRB80~100	HDT-B-HRB
Hardness test block HR15N78~88	HDT-B-HR15N2
Hardness test block HR30N55~73	HDT-B-HR30N2
Hardness test block HR30T73~82	HDT-B-HR30T
Desk	HDT-DESK1

DATA
OUTPUT

FORCE LOADING BY ELECTRIC
MOTOR (WITHOUT WEIGHTS)

MOTORIZED DIGITAL ROCKWELL HARDNESS TESTERS (DOLPHIN-NOSE TYPE)

INSPECTION
CERTIFICATE



32

ISHR-T100



Ø63mm flat anvil
(included)



Ø150mm flat anvil
(included)



level (included)



touch pen (included)



V-type anvil
(included)
for cylinders with
diameter Ø4~60mm



desk (optional)



small V-type anvil
(optional)
for cylinders with
diameter Ø2~4mm

- Dolphin-nose indenter to reach interior of pipe and groove
- Automatic testing after preliminary test force is loaded by hand
- LCD touch screen, easy operation
- Convert to other Rockwell scales, HV or HB automatically
- Tolerance testing
- Insert USB disk, save the testing results as Excel
- Self-compensation of the hardness value for curved workpiece
- Force loading by electric motor (without weights)
- The test force is selected automatically according to hardness scale
- According to ISO 6508



To be continued

Continued from previous page

SPECIFICATION

Code	ISHR-T100	ISHR-T200	ISHR-T300
Type	Rockwell	Superficial Rockwell	Rockwell and Superficial Rockwell
Hardness scale	with standard indenter	HRA, HRB, HRC, HRD, HRF, HRG	HR15N, HR30N, HR45N, HR15T, HR30T, HR45T
	with optional indenter	HRE, HRH, HRK, HRL, HRM, HRP, HRR, HRS, HRV	HR15W, HR30W, HR45W, HR15X, HR30X, HR45X, HR15Y, HR30Y, HR45Y
Preliminary test force	98N/10kgf for Rockwell		29.4N/3kgf for Superficial Rockwell 98N/10kgf for Rockwell 29.4N/3kgf for Superficial Rockwell
Test force	588N (60kg), 980N (100kg), 1471N (150kg)	147.1N (15kg), 294.2N (30kg), 441.3N (45kg), 441.3N (45kg)	147.1N (15kg), 294.2N (30kg), 441.3N (45kg), 588N (60kg), 980N (100kg), 1471N (150kg)
Stage elevation	manual		
Load control	automatic (load/dwell/unload)		
Load dwell time	0~99 second		
Resolution	0.1HR		
Output	USB		
Max. workpiece height	300mm		
Max. testing width	250mm (from the center of indenter to the wall of main body)		
Power supply	220V, 50/60Hz		
Dimension	720×260×840mm		
Weight	80kg		

32

STANDARD DELIVERY

Code	ISHR-T100	ISHR-T200	ISHR-T300
Main unit	1 pc	1 pc	1 pc
Ø63mm flat anvil	1 pc	1 pc	1 pc
Ø150mm flat anvil	1 pc	1 pc	1 pc
V-type anvil	1 pc	1 pc	1 pc
Diamond indenter	1 pc	1 pc	1 pc
Ø1.5875mm carbide ball indenter	1 pc	1 pc	1 pc
Hardness test block HRB88~95	1 pc	—	1 pc
Hardness test block HRC60~65	1 pc	—	1 pc
Hardness test block HRC20~30	1 pc	—	1 pc
Hardness test block 78~88HR15N	—	1 pc	1 pc
Hardness test block 55~73HR30N	—	1 pc	1 pc
Hardness test block 57~69HR30T	—	1 pc	1 pc
USB disk	1 pc	1 pc	1 pc
Level	1 pc	1 pc	1 pc
Touch pen	1 pc	1 pc	1 pc
Anti-dust cover	1 pc	1 pc	1 pc

OPTIONAL ACCESSORY

Hardness test block HRB88~100	HDT-B-HRB
Hardness test block HRC60~70	HDT-B-HRC3
Hardness test block HRC20~30	HDT-B-HRC1
Hardness test block 78~88HR15N	HDT-B-HR15N2
Hardness test block 55~73HR30N	HDT-B-HR30N2
Hardness test block 73~82HR30T	HDT-B-HR30T
Small V-type anvil	ISH-SMALLANVIL
Desk	HDT-DESK

MOTORIZED DIGITAL ROCKWELL/SUPERFICIAL ROCKWELL HARDNESS TESTERS

POPULAR MODEL

**INSPECTION
CERTIFICATE**

FORCE LOADING BY ELECTRIC MOTOR (WITHOUT WEIGHTS)

TOUCH SCREEN

BUILT-IN BLUETOOTH



Ø58mm flat anvil
(included)



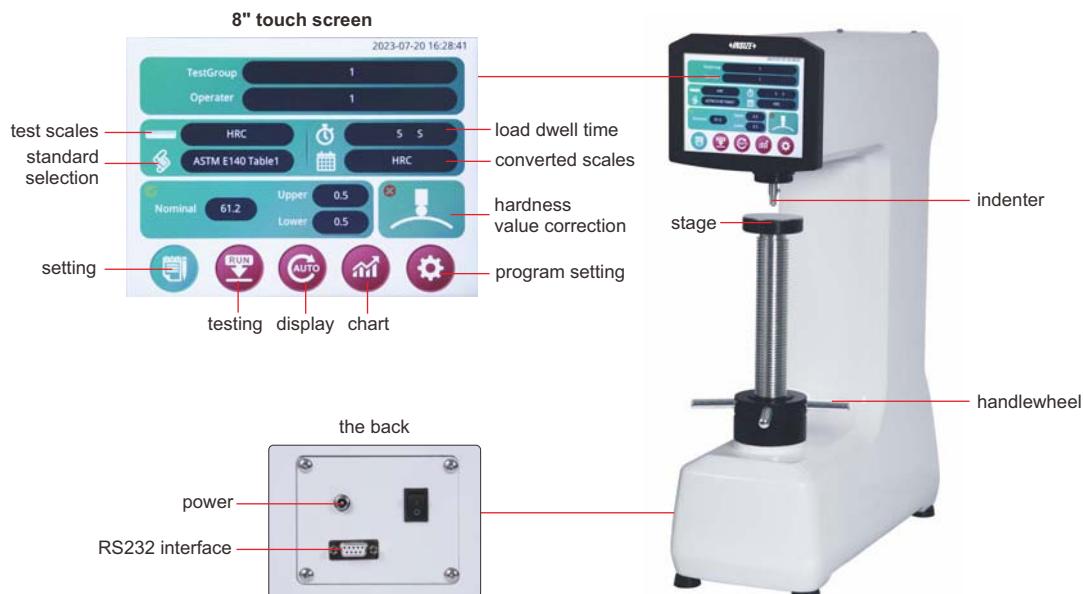
Ø150mm flat anvil
(included)



V-type anvil
(included)

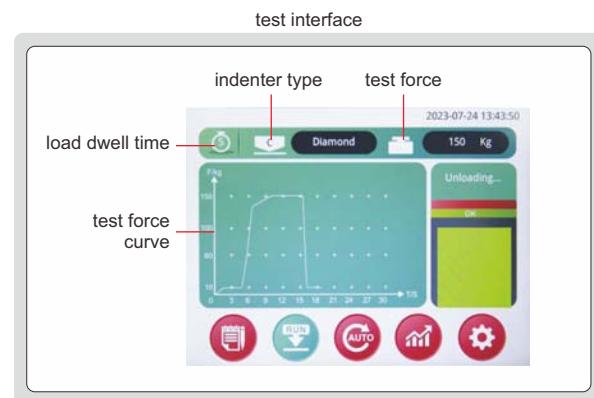


bluetooth printer
(included)



32

- Electronic loading test force, high accuracy of force value, and stable measurement value
- Touch screen operation and display, simple operation interface
- 15 types of Rockwell hardness scales can be tested
- Convertible to various hardness standards such as HB and HV
- 500 sets of storage
- With correction function, the hardness value can be corrected based on the size of the cylinders
- According to ISO 6508



test result display interface

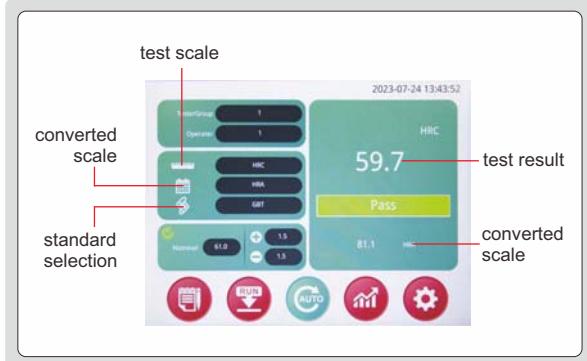
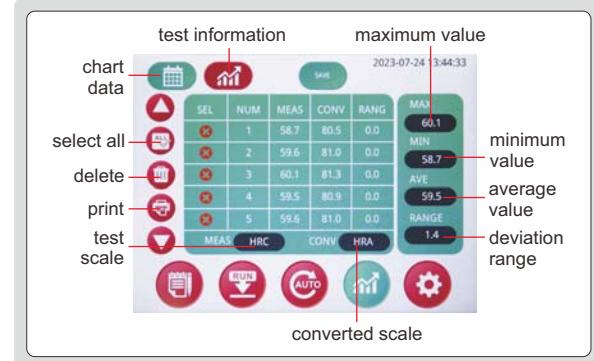


chart interface



To be continued

Continued from previous page

SPECIFICATION

Code	HDT-RT151	HDT-RT152	HDT-RT153
Type	Rockwell	Superficial Rockwell	Rockwell and Superficial Rockwell
Measurement range	20~88HRA, 20~100HRB, 20~70HRC	70~91HR15N, 42~80HR30N, 42~70HR45N, 73~93HR15T, 43~82HR30T, 12~72HR45T	Rockwell: 20~88HRA, 20~100HRB, 20~70HRC; Superficial RockWell: 70~91HR15N, 42~80HR30N, 42~70HR45N, 73~93HR15T, 43~82HR30T, 12~72HR45T
Hardness scale	with indenter included	HRA, HRB, HRC, HRD, HRF, HRG	HR15N, HR30N, HR45N, HR15T, HR30T, HR45T
	with optional indenter	HRE, HRH, HRK, HRL, HRM, HRP, HRR, HRS, HRV	HR15W, HR30W, HR45W, HR15X, HR30X, HR45X, HR15Y, HR30Y, HR45Y
Preliminary test force	98N/10kgf for Rockwell	29.4N/3kgf for Superficial Rockwell	98N/10kgf for Rockwell 29.4N/3kgf for Superficial Rockwell
Test force	588N (60kg), 980N (100kg), 1471N (150kg)	147N (15kg), 294N (30kg), 441N (45kg)	147N (15kg), 294N (30kg), 441N (45kg), 588N (60kg), 980N (100kg), 1471N (150kg)
Stage elevation	manual		
Load control	automatic (load/dwell/unload)		
Load dwell time	2~60 second		
Resolution	0.1HR		
Max. workpiece height	230mm		
Max. testing width	170mm		
Power supply	100~240V, 50/60Hz		
Dimension	475×200×700mm		
Weight	70kg		

32

STANDARD DELIVERY

Code	HDT-RT151	HDT-RT152	HDT-RT153
Main unit	1 pc	1 pc	1 pc
Diamond indenter	1 pc	1 pc	1 pc
Ø1.5875mm carbide ball indenter	1 pc	1 pc	1 pc
Ø58mm flat anvil	1 pc	1 pc	1 pc
Ø150mm flat anvil	1 pc	1 pc	1 pc
V-type anvil	1 pc	1 pc	1 pc
Hardness test block HRC20~30	1 pc	—	1 pc
Hardness test block HRC40~50	1 pc	—	—
Hardness test block HRC60~70	1 pc	—	1 pc
Hardness test block HRBW80~100	1 pc	—	1 pc
Hardness test block HRA80~90	1 pc	—	—
Hardness test block HR15N80~90	—	1 pc	—
Hardness test block HR30N60~85	—	1 pc	1 pc
Hardness test block HR30TW70~85	—	1 pc	1 pc
Bluetooth printer	1 pc	1 pc	1 pc
Anti-dust cover	1 pc	1 pc	1 pc

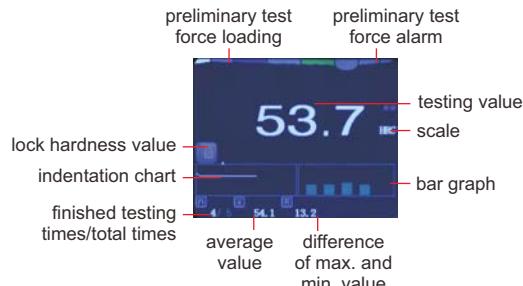
OPTIONAL ACCESSORY

Hardness test block HRC20~30	HDT-B-HRC1
Hardness test block HRC60~70	HDT-B-HRC3
Hardness test block HRB80~100	HDT-B-HRB
Hardness test block HR15N78~88	HDT-B-HR15N2
Hardness test block HR30N55~73	HDT-B-HR30N2
Hardness test block HR30T73~82	HDT-B-HR30T

**INSPECTION
CERTIFICATE**

**DATA
OUTPUT**

MOTORIZED DIGITAL ROCKWELL HARDNESS TESTER CODE ISH-MRD200



software flash disk
(included)

32

- Tolerance testing
- Set testing times (2~10) to have average value and the difference of max. and min. value
- Convert to other Rockwell scales, HV or HB
- Memory of 500 testing values for browsing and output
- Testing value can be sent to wireless printer automatically
- Calibration function compensates the testing value for high accuracy
- The hardness value of soft materials like plastic is not stable, the lock function can obtain the value automatically
- Display unit is automatic power off
- According to ISO 6508
- Keyboard signal, can be transmitted to Excel



Ø60mm flat anvil
(included)



Ø150mm flat anvil
(Included)



V-type anvil (included)
for cylinders with
diameter Ø4~60mm



small V-type anvil
(optional)
for cylinders with
diameter Ø2~4mm



wireless printer
(optional)



desk (optional)

SPECIFICATION

Hardness scale	HRA, HRB, HRC, HRD HRF, HRG (with standard indenters) HRE, HRH, HRK (with optional indenter)
Preliminary test force	98N
Test force	588N, 980N, 1471N
Stage elevation	manual
Load control	automatic (load/dwell/unload)
Load dwell time	1~99 second
Resolution	0.1HR
Output	wireless and USB
Memory	500
Max. workpiece height	170mm
Max. testing width	165mm (from the center of indenter to the wall of main body)
Power supply of the display unit	built-in rechargeable battery
Power supply	220V, 50/60Hz
Dimension	520×160×700mm
Weight	60kg

STANDARD DELIVERY

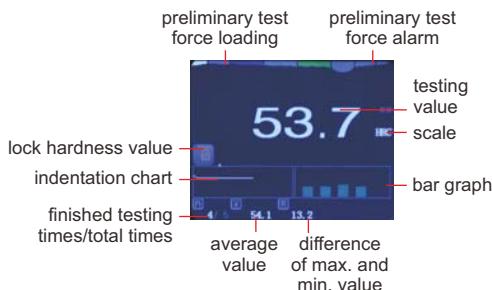
Main unit	1 pc
Ø60mm flat anvil	1 pc
Ø150mm flat anvil	1 pc
V-type anvil	1 pc
Diamond indenter	1 pc
Ø1.5875mm carbide ball indenter	1 pc
Hardness test block HRB88~95	1 pc
Hardness test block HRC60~65	1 pc
Hardness test block HRC20~30	1 pc
Anti-dust cover	1 pc
Software and USB cable	1 pc
AC/DC adapter	1 pc

OPTIONAL ACCESSORY

Wireless printer	ISH-DS-PRINTER
Ø3.175mm carbide ball indenter	ISH-EHK-INDENTER
Hardness test block HRB88~100	HDT-B-HRB
Hardness test block HRC60~70	HDT-B-HRC3
Hardness test block HRC20~30	HDT-B-HRC1
Small V-type anvil	ISH-SMALLANVIL
Desk	HDT-DESK

MANUAL DIGITAL ROCKWELL HARDNESS TESTER

CODE ISH-RD200

DATA
OUTPUTINSPECTION
CERTIFICATE

software flash disk (included)

- 32**
- Tolerance testing
 - Set testing times (2~10) to have average value and the difference of max. and min. value
 - Convert to other Rockwell scales, HV or HB
 - Memory of 500 testing values for browsing and output
 - Testing value can be sent to wireless printer automatically
 - Calibration function compensates the testing value for high accuracy
 - The hardness value of soft materials like plastic is not stable, the lock function can obtain the value automatically
 - Automatic power off
 - According to ISO 6508
 - Keyboard signal, can be transmitted to Excel



Ø60mm flat anvil (included)



Ø150mm flat anvil (included)



V-type anvil (included) for cylinders with diameter Ø4~60mm



small V-type anvil (optional) for cylinders with diameter Ø2~4mm



wireless printer (optional)



desk (optional)

SPECIFICATION

Hardness scale	HRA, HRB, HRC, HRD HRF, HRG (with standard indenters) HRE, HRH, HRK (with optional indenter)
Preliminary test force	98N
Test force	588N, 980N, 1471N
Stage elevation	manual
Load control	manual
Resolution	0.1HR
Output	wireless and USB
Memory	500
Max. workpiece height	170mm
Max. testing width	165mm (from the center of indenter to the wall of main body)
Power supply	built-in rechargeable battery
Dimension	520×160×700mm
Weight	60kg

STANDARD DELIVERY

Main unit	1 pc
Ø60mm flat anvil	1 pc
Ø150mm flat anvil	1 pc
V-type anvil	1 pc
Diamond indenter	1 pc
Ø1.5875mm carbide ball indenter	1 pc
Hardness test block HRB88~95	1 pc
Hardness test block HRC60~65	1 pc
Hardness test block HRC20~30	1 pc
Anti-dust cover	1 pc
Software and USB cable	1 pc
AC/DC adapter	1 pc

OPTIONAL ACCESSORY

Wireless printer	ISH-DS-PRINTER
Ø3.175mm carbide ball indenter	ISH-EHK-INDENTER
Hardness test block HRB88~100	HDT-B-HRB
Hardness test block HRC60~70	HDT-B-HRC3
Hardness test block HRC20~30	HDT-B-HRC1
Small V-type anvil	ISH-SMALLANVIL
Desk	HDT-DESK

MOTORIZED HIGH ROCKWELL HARDNESS TESTER CODE HDT-RM421


VIDEO


- According to ISO 6508

SPECIFICATION

Hardness scale	HRA, HRB, HRC, HRD, HRF, HRG
Preliminary test force	98N (10kg)
Test force	588N (60kg), 980N (100kg), 1471N (150kg)
Display	analogue
Stage elevation	manual
Load control	automatic (load/dwell/unload)
Load dwell time	1~60 second
Min. reading	0.5HR
Max. workpiece height	400mm
Max. testing width	160mm (from the center of indenter to the wall of main body)
Power supply	220V, 50/60Hz
Dimension	540×300×1030mm
Weight	140kg

STANDARD DELIVERY

Main unit	1 pc
Ø58mm flat anvil	1 pc
Ø150mm flat anvil	1 pc
V-type anvil	1 pc
Diamond indenter	1 pc
Ø1.5875mm steel ball indenter	1 pc
Ø1.5875mm steel ball	5 pcs
Level	1 pc
Hardness test block HRA80~84	1 pc
Hardness test block HRB88~100	1 pc
Hardness test block HRC20~30	1 pc
Hardness test block HRC35~55	1 pc
Hardness test block HRC60~70	1 pc
Anti-dust cover	1 pc

OPTIONAL ACCESSORY

Hardness test block HRA80~84	HDT-B-HRA
Hardness test block HRB88~100	HDT-B-HRB
Hardness test block HRC20~30	HDT-B-HRC1
Hardness test block HRC35~55	HDT-B-HRC2
Hardness test block HRC60~70	HDT-B-HRC3
Small V-type anvil	HDT-RW160-SV


level (included)

**V-type anvil (included)
for cylinders with
diameter Ø4~60mm**

**Ø150mm flat anvil
(included)**

**Ø58mm flat anvil
(included)**

**small V-type anvil
(optional) for
cylinders with
diameter Ø2~4mm**

MANUAL HIGH ROCKWELL HARDNESS TESTER

CODE HDT-RH411



VIDEO

32



level (included)

V-type anvil (included)
for cylinders with
diameter Ø4~60mmØ150mm flat anvil
(included)Ø58mm flat anvil
(included)small V-type anvil
(optional)
for cylinders with
diameter Ø2~4mm

- According to ISO 6508

SPECIFICATION

Hardness scale	HRA, HRB, HRC, HRD, HRF, HRG
Preliminary test force	98N (10kg)
Test force	588N (60kg), 980N (100kg), 1471N (150kg)
Display	analogue
Stage elevation	manual
Load control	manual
Min. reading	0.5HR
Max. workpiece height	400mm
Max. testing width	160mm (from the center of indenter to the wall of main body)
Dimension	540×300×1030mm
Weight	140kg

STANDARD DELIVERY

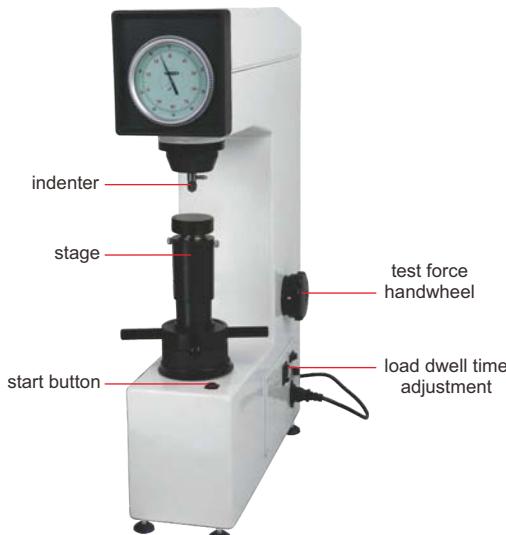
Main unit	1 pc
Ø58mm flat anvil	1 pc
Ø150mm flat anvil	1 pc
V-type anvil	1 pc
Diamond indenter	1 pc
Ø1.5875mm steel ball indenter	1 pc
Ø1.5875mm steel ball	5 pcs
Level	1 pc
Hardness test block HRA80~84	1 pc
Hardness test block HRB88~100	1 pc
Hardness test block HRC20~30	1 pc
Hardness test block HRC35~55	1 pc
Hardness test block HRC60~70	1 pc
Anti-dust cover	1 pc

OPTIONAL ACCESSORY

Hardness test block HRA80~84	HDT-B-HRA
Hardness test block HRB88~100	HDT-B-HRB
Hardness test block HRC20~30	HDT-B-HRC1
Hardness test block HRC35~55	HDT-B-HRC2
Hardness test block HRC60~70	HDT-B-HRC3
Small V-type anvil	HDT-RW160-SV



VIDEO



32

- According to ISO 6508



Ø60mm flat anvil
(included)



Ø150mm flat anvil
(included)



V-type anvil (included)
for cylinders with
diameter Ø4~60mm



small V-type anvil
(optional)
for cylinders with
diameter Ø2~4mm



desk (optional)

SPECIFICATION

Hardness scale	HRA, HRB, HRC, HRD, HRF, HRG
Preliminary test force	98N
Test force	588N, 980N, 1471N
Display	analogue
Stage elevation	manual
Load control	automatic (load/dwell/unload)
Load dwell time	1~99 second
Min. reading	0.5HR
Max. workpiece height	170mm
Max. testing width	165mm (from the center of indenter to the wall of main body)
Power supply	220V, 50/60Hz
Dimension	520×160×700mm
Weight	60kg

STANDARD DELIVERY

Main unit	1 pc
Ø60mm flat anvil	1 pc
Ø150mm flat anvil	1 pc
V-type anvil	1 pc
Diamond indenter	1 pc
Ø1.5875mm carbide ball indenter	1 pc
Hardness test block HRB88~95	1 pc
Hardness test block HRC60~65	1 pc
Hardness test block HRC20~30	1 pc
Anti-dust cover	1 pc

OPTIONAL ACCESSORY

Hardness test block HRB88~100	HDT-B-HRB
Hardness test block HRC60~70	HDT-B-HRC3
Hardness test block HRC20~30	HDT-B-HRC1
Small V-type anvil	ISH-SMALLANVIL
Desk	HDT-DESK

MOTORIZED ROCKWELL HARDNESS TESTER (BASIC TYPE)

CODE HDT-RA151



32

- According to ISO 6508



Ø58mm flat anvil
(included)



Ø150mm flat anvil
(included)



V-type anvil (included)
for cylinders with
diameter Ø4~60mm



level (included)



small V-type anvil
(optional)
for cylinders with
diameter Ø2~4mm



desk (optional)

SPECIFICATION

Hardness scale	HRA, HRB, HRC, HRD, HRF, HRG
Preliminary test force	98N
Test force	588N, 980N, 1471N
Display	analogue
Stage elevation	manual
Load control	automatic (load/dwell/unload)
Load dwell time	1~60 second
Min. reading	0.5HR
Max. workpiece height	170mm
Max. testing width	128mm (from the center of indenter to the wall of main body)
Power supply	220V, 50/60Hz
Dimension	500×225×640mm
Weight	65kg

STANDARD DELIVERY

Main unit	1 pc
Ø58mm flat anvil	1 pc
Ø150mm flat anvil	1 pc
V-type anvil	1 pc
Diamond indenter	1 pc
Ø1.5875mm steel ball indenter	1 pc
Level	1 pc
Hardness test block HRA80~88	1 pc
Hardness test block HRB85~95	1 pc
Hardness test block HRC20~30	1 pc
Hardness test block HRC35~55	1 pc
Hardness test block HRC60~70	1 pc
Anti-dust cover	1 pc

OPTIONAL ACCESSORY

Hardness test block HRA80~84	HDT-B-HRA
Hardness test block HRB88~100	HDT-B-HRB
Hardness test block HRC20~30	HDT-B-HRC1
Hardness test block HRC35~55	HDT-B-HRC2
Hardness test block HRC60~70	HDT-B-HRC3
Small V-type anvil	HDT-RW160-SV
Desk	HDT-DESK


VIDEO


- According to ISO 6508



Ø60mm flat anvil
(included)



Ø150mm flat anvil
(included)



V-type anvil (included)
for cylinders with
diameter Ø4~60mm



small V-type anvil
(optional)
for cylinders with
diameter Ø2~4mm



desk **(optional)**

SPECIFICATION

Hardness scale	HRA, HRB, HRC, HRD, HRF, HRG
Preliminary test force	98N
Test force	588N, 980N, 1471N
Display	analogue
Stage elevation	manual
Load control	manual
Min. reading	0.5HR
Max. workpiece height	170mm
Max. testing width	165mm (from the center of indenter to the wall of main body)
Dimension	520×160×700mm
Weight	60kg

STANDARD DELIVERY

Main unit	1 pc
Ø60mm flat anvil	1 pc
Ø150mm flat anvil	1 pc
V-type anvil	1 pc
Diamond indenter	1 pc
Ø1.5875mm carbide ball indenter	1 pc
Hardness test block HRB88~95	1 pc
Hardness test block HRC60~65	1 pc
Hardness test block HRC20~30	1 pc
Anti-dust cover	1 pc

OPTIONAL ACCESSORY

Hardness test block HRB88~100	HDT-B-HRB
Hardness test block HRC60~70	HDT-B-HRC3
Hardness test block HRC20~30	HDT-B-HRC1
Small V-type anvil	ISH-SMALLANVIL
Desk	HDT-DESK

MANUAL ROCKWELL HARDNESS TESTER (BASIC TYPE)

CODE HDT-RW160



POPULAR
MODEL



32

- According to ISO 6508



Ø58mm flat anvil
(included)



Ø150mm flat anvil
(included)



V-type anvil (included)
for cylinders with
diameter Ø4~60mm



level (included)



small V-type anvil
(optional) for
cylinders with
diameter Ø2~4mm



desk (optional)

SPECIFICATION

Hardness scale	HRA, HRB, HRC, HRD, HRF, HRG
Preliminary test force	98N (10kg)
Test force	588N (60kg), 980N (100kg), 1471N (150kg)
Display	analogue
Stage elevation	manual
Load control	manual
Min. reading	0.5HR
Max. workpiece height	170mm
Max. testing width	135mm (from the center of indenter to the wall of main body)
Dimension	466×238×630mm
Weight	70kg

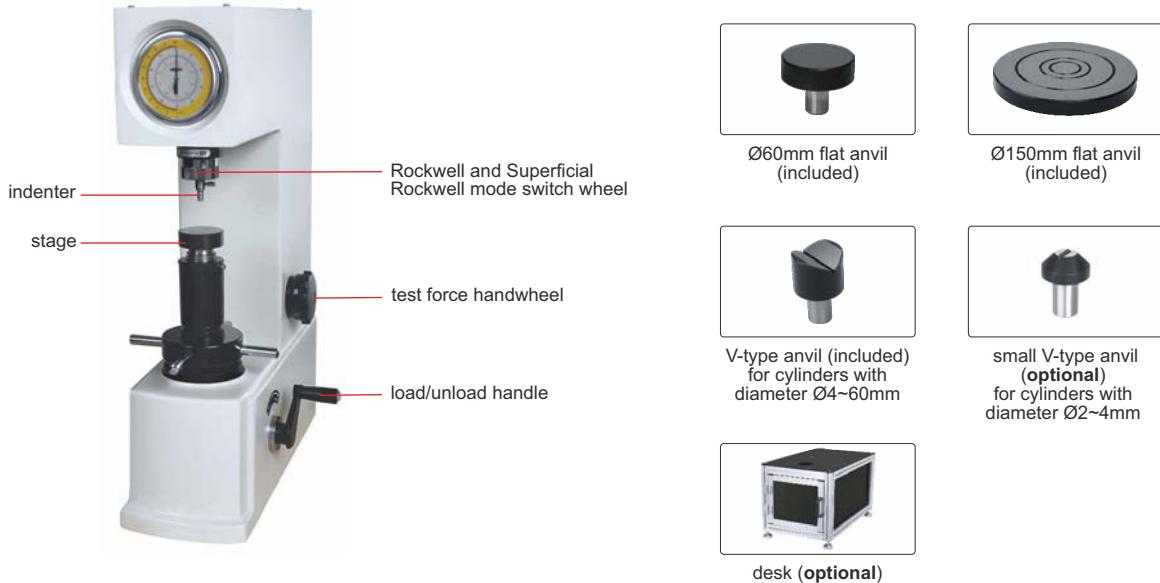
STANDARD DELIVERY

Main unit	1 pc
Ø58mm flat anvil	1 pc
Ø150mm flat anvil	1 pc
V-type anvil	1 pc
Diamond indenter	1 pc
Ø1.5875mm steel ball indenter	1 pc
Ø1.5875mm steel ball	5 pcs
Level	1 pc
Hardness test block HRA80~88	1 pc
Hardness test block HRB85~95	1 pc
Hardness test block HRC20~30	1 pc
Hardness test block HRC35~55	1 pc
Hardness test block HRC60~70	1 pc
Anti-dust cover	1 pc

OPTIONAL ACCESSORY

Hardness test block HRA80~84	HDT-B-HRA
Hardness test block HRB88~100	HDT-B-HRB
Hardness test block HRC20~30	HDT-B-HRC1
Hardness test block HRC35~55	HDT-B-HRC2
Hardness test block HRC60~70	HDT-B-HRC3
Small V-type anvil	HDT-RW160-SV
Desk	HDT-DESK

MANUAL ROCKWELL AND SUPERFICIAL ROCKWELL HARDNESS TESTER CODE HDT-RSR100


VIDEO


- According to ISO 6508

SPECIFICATION

Hardness scale	HRA, HRB, HRC, HRD, HRF, HRG, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T
Preliminary test force	29.4N/3kgf for Superficial Rockwell 98N/10kgf for Rockwell
Test force	147N/15kgf, 294N/30kgf, 441N/45kgf, 588N/60kgf, 980N/100kgf, 1471N/150kgf
Display	analogue
Stage elevation	manual
Load control	manual
Min. reading	0.5HR
Max. workpiece height	160mm
Max. testing width	140mm (from the center of indenter to the wall of main body)
Dimension	460×240×660mm
Weight	75kg

STANDARD DELIVERY

Main unit	1 pc
Ø60mm flat anvil	1 pc
Ø150mm flat anvil	1 pc
V-type anvil	1 pc
Diamond indenter	1 pc
Ø1.5875mm carbide ball indenter	1 pc
Hardness test block HRB88~95	1 pc
Hardness test block HRC60~70	1 pc
Hardness test block HRC20~30	1 pc
Hardness test block HRC20~30	1 pc
Hardness test block HR15N	1 pc
Hardness test block HR30N	1 pc
Hardness test block HR30T	1 pc
Anti-dust cover	1 pc

OPTIONAL ACCESSORY

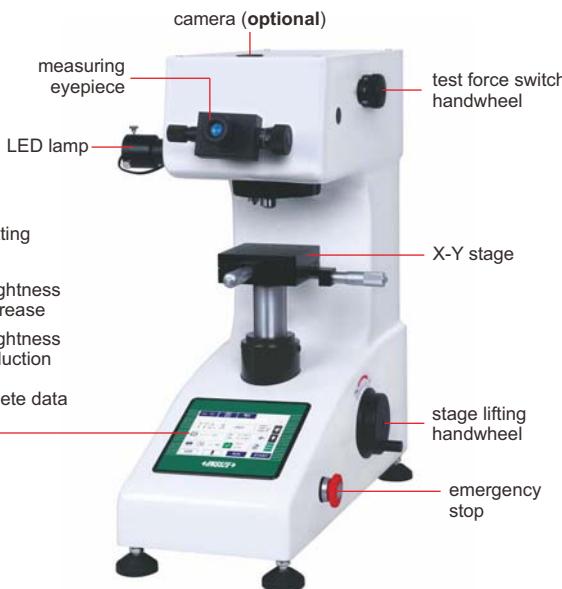
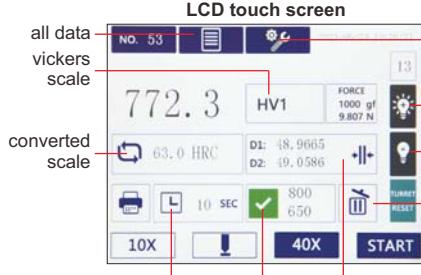
Hardness test block HRB88~100	HDT-B-HRB
Hardness test block HRC60~70	HDT-B-HRC3
Hardness test block HRC20~30	HDT-B-HRC1
Hardness test block 78~88HR15N	HDT-B-HR15N2
Hardness test block 55~73HR30N	HDT-B-HR30N2
Hardness test block 57~69HR30T	HDT-B-HR30T
Small V-type anvil	ISH-SMALLANVIL
Desk	HDT-DESK

DIGITAL MICRO-VICKERS HARDNESS TESTER (BASIC TYPE)

CODE HDT-MVE1300

MOTOR DRIVEN TURRET

TOUCH SCREEN



- Touch screen color LCD display
- Data storage and average value calculation
- Automatic switch between the indenter and objective lens
- According to ISO 6507



camera and measuring system (optional)



SPECIFICATION

Test force	0.098N (10gf), 0.245N (25gf), 0.49N (50gf), 0.98N (100gf), 1.96N (200gf), 2.94N (300gf), 4.9N (500gf), 9.8N (1kgf)
Vickers scales	HV0.01, HV0.025, HV0.05, HV0.1, HV0.2, HV0.3, HV0.5, HV1
Converted scales	HRA, HRB, HRC, HRD, HRF, HV, HK, HBW, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T
Range	5~3000HV
Length measurement resolution	0.5μm
Objective/indenter switch	motor driven turret
Stage lifting	manual
Load control	automatic (load/dwell/unload)
Load dwell time	1~60 second
Objective	10X, 40X
Eyepiece	10X
Total magnification	100X (for measurement or observation), 400X (for measurement)
Max. workpiece height	90mm
Max. testing width	95mm (from the center of indenter to the wall of main body)
X-Y stage	dimension: 100×100mm, travel range: 25×25mm
Power supply	220V, 50/60Hz
Dimension	510×290×570mm
Weight	40kg

STANDARD DELIVERY

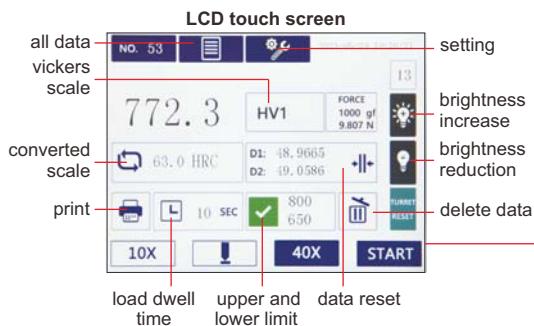
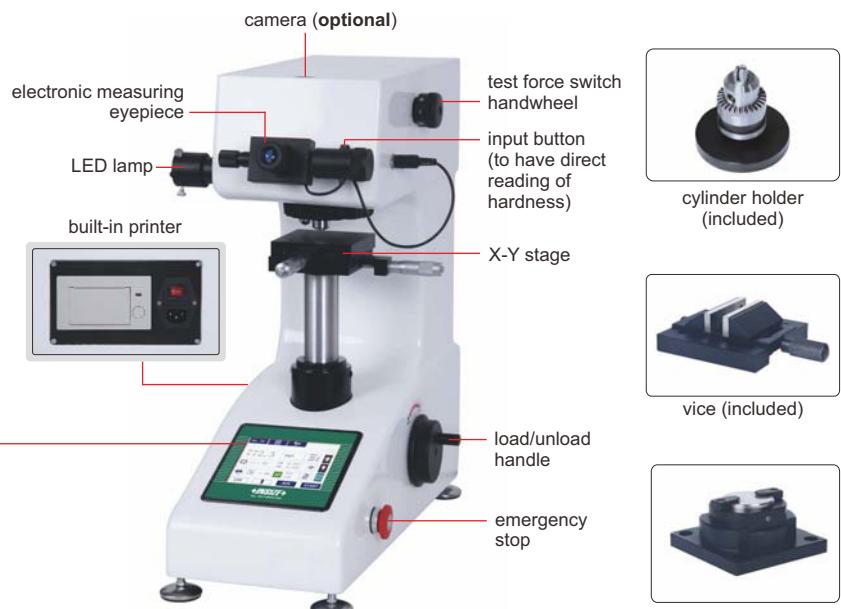
Main unit	1 pc
10X, 40X objective	1 pc of each
Micro vickers indenter	1 pc
Hardness test block 400~500HV0.2	1 pc
Hardness test block 700~750HV1	1 pc
Slice holder	1 pc
Vice	1 pc
Cylinder holder	1 pc
Anti-dust cover	1 pc

OPTIONAL ACCESSORY

Hardness test block 400~500HV0.2	HDT-B-HV02C
Hardness test block 700~750HV1	HDT-B-HV1F
Camera	HDT-MVH-CM
Measuring system (manual)	HDT-MVH-SW
Measuring system (automatic)	HDT-MVH-AW
Desk	HDT-DESK

**INSPECTION
CERTIFICATE**
**DIGITAL MICRO-VICKERS HARDNESS TESTER (STANDARD TYPE)
CODE HDT-MVH1100**

 PRESS INPUT BUTTON TO HAVE
DIRECT READING OF HARDNESS

**TOUCH
SCREEN**
**MOTOR DRIVEN
TURRET**

VIDEO

32

- Touch screen color LCD display
- Data storage and average value calculation
- Automatic switch between the indenter and objective lens
- According to ISO 6507

SPECIFICATION

Test force	0.098N (10gf), 0.245N (25gf), 0.49N (50gf), 0.98N (100gf), 1.96N (200gf), 2.94N (300gf), 4.9N (500gf), 9.8N (1kgf)
Vickers scales	HV0.01, HV0.025, HV0.05, HV0.1, HV0.2, HV0.3, HV0.5, HV1
Converted scales	HRA, HRB, HRC, HRD, HRF, HV, HK, HBW, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T
Range	5~3000HV
Length measurement resolution	0.025μm
Objective/indenter switch	motor driven turret
Stage lifting	manual
Load control	automatic (load/dwell/unload)
Load dwell time	1~60 second
Objective	10X, 40X
Eyepiece	10X
Total magnification	10X (for measurement or observation), 400X (for measurement)
Max. workpiece height	90mm
Max. testing width	95mm (from the center of indenter to the wall of main body)
X-Y stage	dimension: 100×100mm, travel range: 25×25mm
Data output	built-in printer
Power supply	220V, 50/60Hz
Dimension	510×290×570mm
Weight	40kg



camera (optional)

camera and measuring system (optional)


STANDARD DELIVERY

Main unit	1 pc
10X, 40X objective	1 pc of each
Micro vickers indenter	1 pc
Hardness test block 400~500HV0.2	1 pc
Hardness test block 700~750HV1	1 pc
Slice holder	1 pc
Vice	1 pc
Cylinder holder	1 pc
Anti-dust cover	1 pc

OPTIONAL ACCESSORY

Hardness test block 400~500HV0.2	HDT-B-HV02C
Hardness test block 700~750HV1	HDT-B-HV1F
Camera	HDT-MVH-CM
Measuring system (manual)	HDT-MVH-SW
Measuring system (automatic)	HDT-MVH-AW

DUAL TOUCH SCREEN DIGITAL MICRO-VICKERS HARDNESS TESTER (ADVANCED TYPE) CODE HDT-DMV90

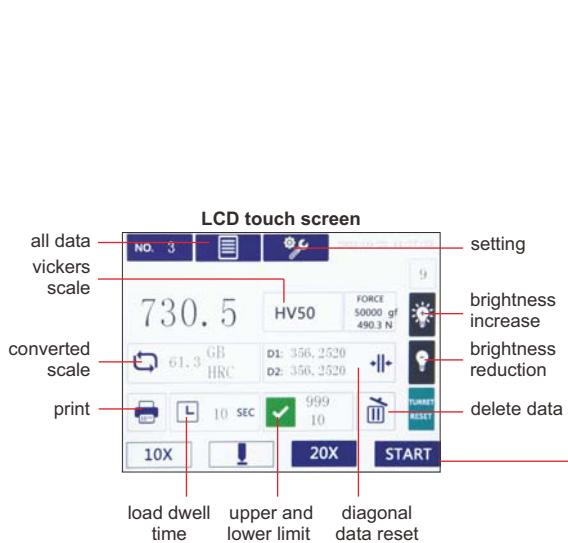


MOTOR DRIVEN TURRET

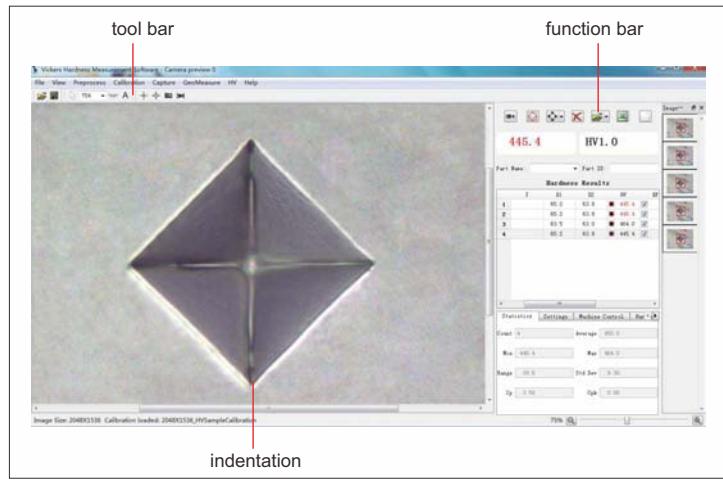
AUTOMATIC MEASUREMENT

INSPECTION
CERTIFICATE

32



vickers hardness measurement system (included)



cylinder holder (included)



vice (included)



slice holder (included)



desk (optional)

- Dual touch screen control, high-definition image measurement and analysis
- One click start, automatic pressing and automatic measurement
- The host and vickers hardness measurement system can be operated independently
- Automatic switch between the indenter and objective lens
- Data storage and average value calculation
- Can connect with wired and wireless networks to transmit data
- According to ISO 6507

To be continued

Continued from previous page

SPECIFICATION

Test force	0.098N (10gf), 0.245N (25gf), 0.49N (50gf), 0.98N (100gf), 1.96N (200gf), 2.94N (300gf), 4.9N (500gf), 9.8N (1kgf)
Vickers scales	HV0.01, HV0.025, HV0.05, HV0.1, HV0.2, HV0.3, HV0.5, HV1
Converted scales	HRA, HRB, HRC, HRD, HRF, HV, HK, HBW, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T
Range	5~3000HV
Length measurement resolution	0.01μm
Objective/indenter switch	motor driven turret
Stage lifting	manual
Load control	automatic (load/dwell/unload)
Load dwell time	1~60 second
Objective	10X, 40X
Eyepiece	10X
Total magnification	100X (for measurement or observation), 400X (for measurement)
Max. workpiece height	90mm
Max. testing width	95mm (from the center of indenter to the wall of main body)
X-Y stage	dimensions: 100×100mm, travel range: 25×25mm
Data output	built-in printer, USB
Power supply	220V, 50/60HZ
Dimension	500×420×480mm
Weight	42kg

STANDARD DELIVERY

Main unit	1 pc
Vickers hardness measurement system	1 pc
10X, 40X objective	1 pc of each
Micro vickers indenter	1 pc
Hardness test block 400~500HV0.2	1 pc
Hardness test block 700~750HV1	1 pc
Wireless keyboard	1 pc
Wireless mouse	1 pc
Vice	1 pc
Slice holder	1 pc
Cylinder holder	1 pc
Anti-dust cover	1 pc

OPTIONAL ACCESSORY

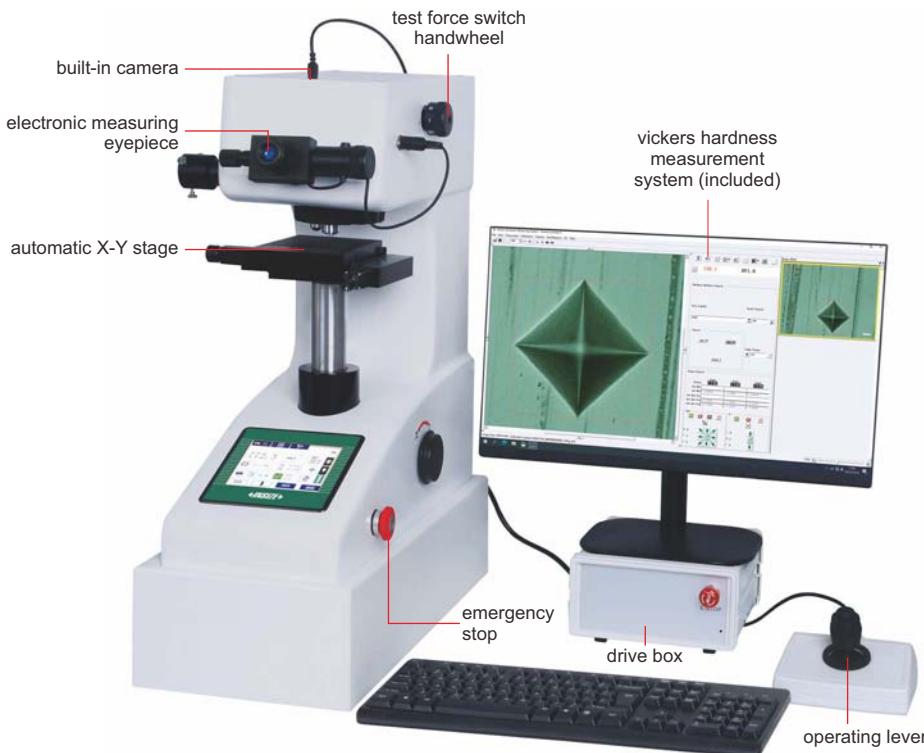
Hardness test block 400~500HV0.2	HDT-B-HV02C
Hardness test block 700~750HV1	HDT-B-HV1F
Desk	HDT-DESK
OFFICE software	7313-OFFICE

AUTOMATIC MICRO-VICKERS HARDNESS TESTER CODE HDT-AMV338

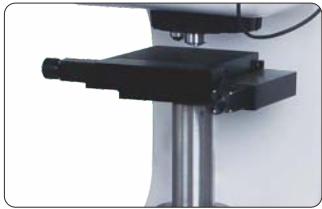
MOTOR DRIVEN TURRET

AUTOMATIC MEASUREMENT

Z-AXIS AUTOFOCUS



automatic X-Y stage



cylinder holder (included)



vice (included)



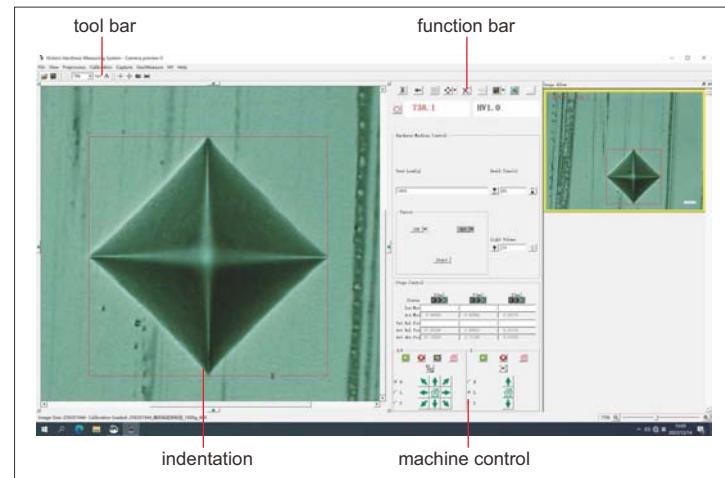
slice holder (included)



desk (optional)

- Suitable for micro-hardness determination of various metals and non-metal materials, effective depth and heat affected area measurement, especially suitable for measuring workpieces hardness gradient distribution curve and surface hardness after heat treatment, effective hardening layer depth
- Automatic switch between the indenter and objective lens
- Z-axis automatic focus, X, Y axis automatic movement, can be for multi-point continuous measurement
- Automatic moving table by built-in step motor, high positioning accuracy, good repeatability, fast moving speed, high efficiency
- Automatic moving table bidirectional movement, equipped with safety devices to avoid misoperation
- The software can control the hardness tester hardware operation, two-way communication with each other
- The image acquisition device has fast reaction speed, high automatic measurement accuracy and good repeatability
- The system can automatically generate Word or Excel test report, and the report template can be modified
- According to ISO 6507

vickers hardness measurement system (included)



To be continued

Continued from previous page

AUTOMATIC MEASUREMENT, CONTROL SYSTEM

Hardness tester control	1. automatic turret, automatic loading, automatic measurement 2. automatic display of test force, load dwell time, illumination brightness
Control automatic X-Y stage	software system controls automatic X-Y stage movement
Measurement mode	1. automatic mode: automatic loading, automatic measurement, automatic display of measurement results 2. manual measurement mode can be selected
Automatic measurement	about 0.3sec of one indentation
Measurement repeatability	±1% (700HV/500gf)
The smallest indentation that can be measured	about 5µm (automatic measurement)
Data output format/ edit functions	1. inspection reports can be customized according to customer requirements 2. the depth of hardened layer is shown in table form 3. output various measurement data, hardness table, hardening layer depth, maximum value, average value, minimum value, image with hardness value

AUTOMATIC X-Y STAGE

Drive motor	step motor
Drive control	movement control by software, speed is adjustable
Dimension	110×110mm
Maximum travel distance	50×50mm
Minimum travel distance	1µm
Movement speed	1~10mm/sec, speed can be adjusted
Displacement repetition accuracy	within 1µm

32

SPECIFICATION

Test force	0.098N (10gf), 0.245N (25gf), 0.49N (50gf), 0.98N (100gf), 1.96N (200gf), 2.94N (300gf), 4.9N (500gf), 9.8N (1kgf)
Vickers scales	HV0.01, HV0.025, HV0.05, HV0.1, HV0.2, HV0.3, HV0.5, HV1
Converted scales	HRA, HRB, HRC, HRD, HRF, HV, HK, HBW, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T
Range	5~3000HV
Length measurement resolution	0.01µm
Objective/indenter switch	motor driven turret
Stage lifting	manual
Focus mode	Z-axis autofocus
Load control	automatic (load/dwell/unload)
Load dwell time	1~60 second
Objective	10X, 40X
Eyepiece	10X
Total magnification	100X (for measurement or observation), 400X (for measurement)
Max. workpiece height	80mm
Max. testing width	110mm (from the center of indenter to the wall of main body)
Pixel	5M
Communication interface	RS232
Power supply	220V, 50/60HZ
Dimension	520×290×680mm
Weight	42kg

STANDARD DELIVERY

Main unit	1 pc
10X, 40X objective	1 pc of each
Micro vickers indenter	1 pc
Hardness test block 400~500HV0.2	1 pc
Hardness test block 700~750HV1	1 pc
Automatic X-Y stage drive box	1 pc
Vicekers hardness measurement system	1 pc
Computer	1 pc
Vice	1 pc
Slice holder	1 pc
Cylinder holder	1 pc
Anti-dust cover	1 pc

OPTIONAL ACCESSORY

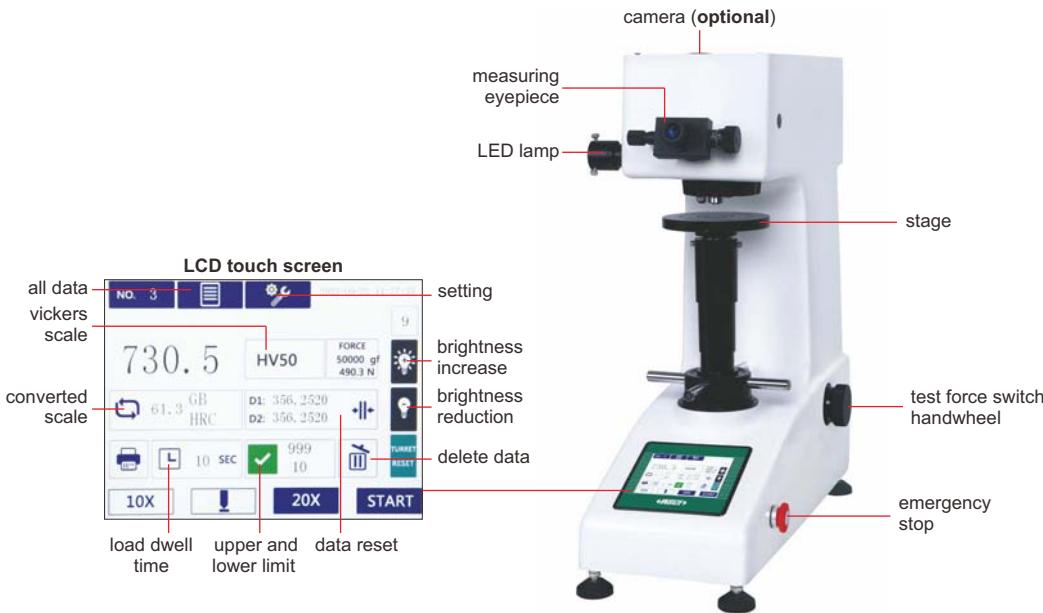
Hardness test block 400~500HV0.2	HDT-B-HV02C
Hardness test block 700~750HV1	HDT-B-HV1F
Desk	HDT-DESK
OFFICE software	7313-OFFICE

DIGITAL VICKERS HARDNESS TESTERS (BASIC TYPE)



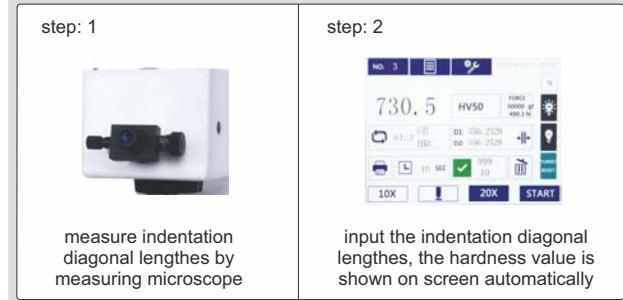
MOTOR DRIVEN TURRET

TOUCH SCREEN



HDT-VE56

- Touch screen color LCD display
- Data storage and average value calculation
- Automatic switch between the indenter and objective lens
- According to ISO 6507



Ø58mm flat anvil (included)



Ø150mm flat anvil (included)



V-type anvil (included)



desk (optional)



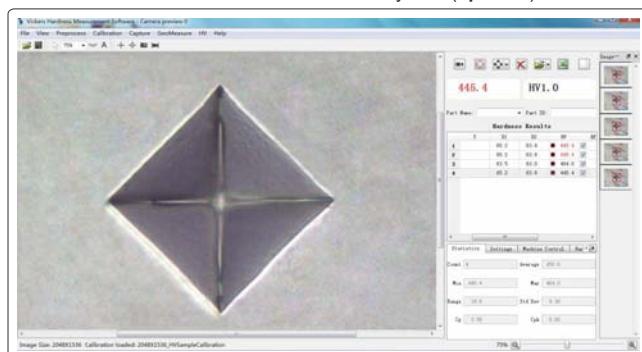
camera (optional)



To be continued

Continued from previous page

vickers hardness measurement system (optional)



32

SPECIFICATION

Code	HDT-VE03	HDT-VE14	HDT-VE35	HDT-VE56
Test force	0.3kgf, 0.5kgf, 1kgf, 2kgf, 3kgf, 5kgf	0.3kgf, 0.5kgf, 1kgf, 3kgf, 5kgf, 10kgf	1kgf, 3kgf, 5kgf, 10kgf, 20kgf, 30kgf	1kgf, 5kgf, 10kgf, 20kgf, 30kgf, 50kgf
Vickers scales	HV0.3, HV0.5, HV1, HV2, HV3, HV5	HV0.3, HV0.5, HV1, HV3, HV5, HV10	HV1, HV3, HV5, HV10, HV20, HV30	HV1, HV5, HV10, HV20, HV30, HV50
Converted scales	HRA, HRB, HRC, HRD, HRF, HV, HK, HBW, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T			
Range	8~3000HV			
Length measurement resolution	0.5μm			
Objective/indenter switch	motor driven turret			
Stage lifting	manual			
Load control	automatic (load/dwell/unload)			
Load dwell time	1~60 second			
Objective	10X, 20X			
Eyepiece	10X			
Total magnification	100X (for measurement or observation), 200X (for measurement)			
Max. workpiece height	175mm			
Max. testing width	135mm (from the center of indenter to the wall of main body)			
Power supply	220V, 50/60HZ			
Dimension	580×320×660mm			
Weight	55kg			

STANDARD DELIVERY

Main unit	1 pc
10X, 20X objective	1 pc of each
Vickers indenter	1 pc
Hardness test block 400~500HV10	1 pc
Hardness test block 700~750HV50	1 pc
Ø58mm flat anvil	1 pc
Ø150mm flat anvil	1 pc
V-type anvil	1 pc
Anti-dust cover	1 pc

OPTIONAL ACCESSORY

Hardness test block 400~500HV10	HDT-B-HV10D
Hardness test block 700~750HV50	HDT-B-HV50G
Desk	HDT-DESK
Vickers hardness tester camera	HDT-MVH-CM1
Measuring system (manual)	HDT-MVH-SW
Measuring system (automatic)	HDT-MVH-AW

DIGITAL VICKERS HARDNESS TESTERS (STANDARD TYPE)



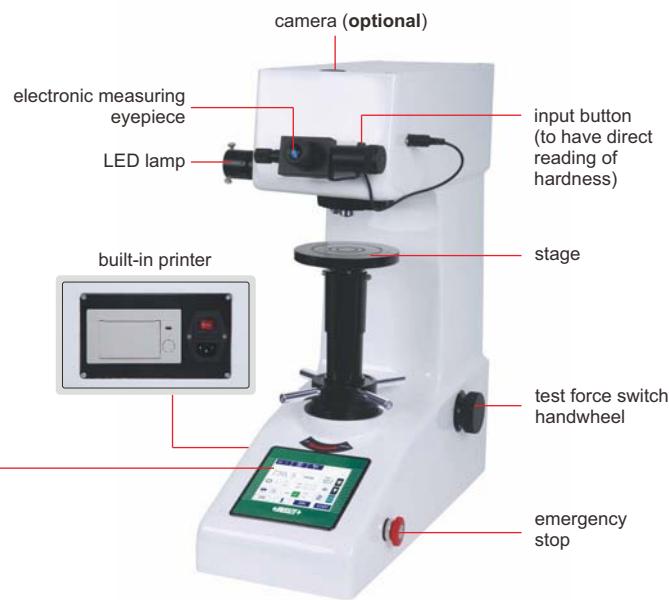
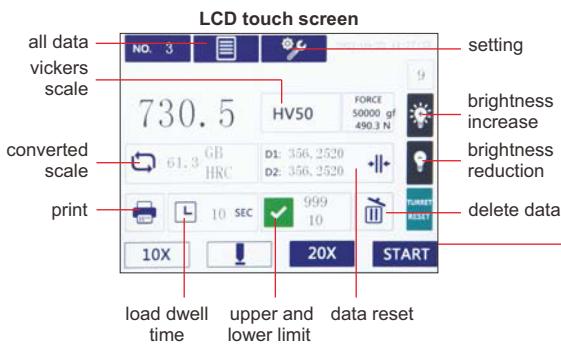
MOTOR DRIVEN TURRET

PRESS INPUT BUTTON TO HAVE DIRECT READING OF HARDNESS

TOUCH SCREEN

INSPECTION CERTIFICATE

32



HDT-VH51

- Touch screen color LCD display
- Data storage and average value calculation
- Automatic switch between the indenter and objective lens
- According to ISO 6507



Ø58mm flat anvil (included)



Ø150mm flat anvil (included)



V-type anvil (included)



desk (optional)



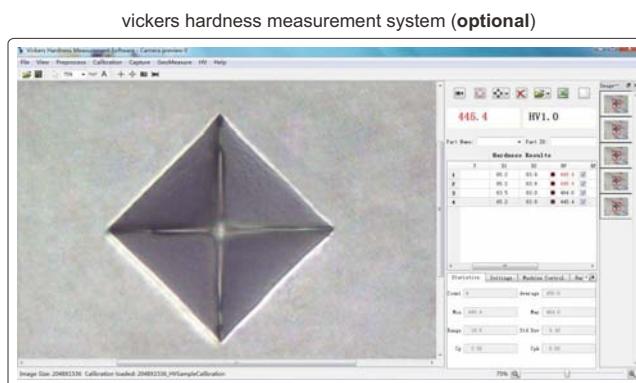
camera (optional)

camera and measuring system (optional)



To be continued

Continued from previous page



SPECIFICATION

Code	HDT-VH05	HDT-VH11	HDT-VH31	HDT-VH51
Test force	0.3kgf, 0.5kgf, 1kgf, 2kgf, 3kgf, 5kgf	0.3kgf, 0.5kgf, 1kgf, 3kgf, 5kgf, 10kgf	1kgf, 3kgf, 5kgf, 10kgf, 20kgf, 30kgf	1kgf, 5kgf, 10kgf, 20kgf, 30kgf, 50kgf
Vickers scales	HV0.3, HV0.5, HV1, HV2, HV3, HV5	HV0.3, HV0.5, HV1, HV3, HV5, HV10	Hv1, HV3, HV5, HV10, HV20, Hv30	Hv1, HV5, HV10, HV20, HV30, Hv50
Converted scales	HRA, HRB, HRC, HRD, HRF, HV, HK, HBW, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T			
Range	8~3000HV			
Length measurement resolution	0.125μm			
Objective/indenter switch	motor driven turret			
Stage lifting	manual			
Load control	automatic (load/dwell/unload)			
Load dwell time	1~60 second			
Objective	10X, 20X			
Eyepiece	10X			
Total magnification	100X (for measurement or observation), 200X (for measurement)			
Max. workpiece height	175mm			
Max. testing width	135mm (from the center of indenter to the wall of main body)			
Output	built-in printer			
Power supply	220V, 50/60HZ			
Dimension	580×320×660mm			
Weight	55kg			

STANDARD DELIVERY

Main unit	1 pc
10X, 20X objective	1 pc of each
Vickers indenter	1 pc
Hardness test block	2 pcs
Ø58mm flat anvil	1 pc
Ø150mm flat anvil	1 pc
V-type anvil	1 pc
Anti-dust cover	1 pc

OPTIONAL ACCESSORY

Hardness test block	page 840~841
Desk	HDT-DESK
Vickers hardness tester camera	HDT-MVH-CM1
Measuring system (manual)	HDT-MVH-SW
Measuring system (automatic)	HDT-MVH-AW

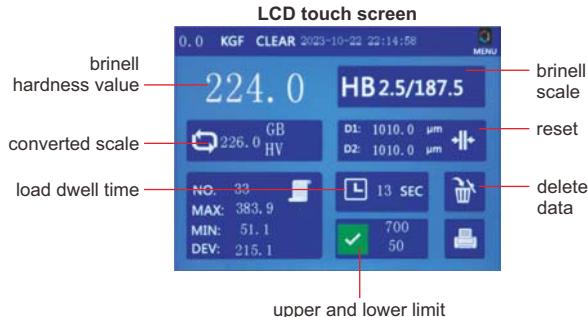
MOTORIZED DIGITAL BRINELL HARDNESS TESTER (BASIC TYPE)

CODE HDT-MBE320



TOUCH SCREEN

FORCE LOADING BY ELECTRIC MOTOR (WITHOUT WEIGHT)



step: 1

measure indentation diameter by measuring microscope

step: 2

input the diameters, the hardness value is shown on screen automatically

32

- Touch screen color LCD display
- Measure indentation diameter by measuring microscope, then input the diameters, the hardness value is shown on screen automatically
- Electric loading test force, without weights
- Casting case, structurally stable and not deformed
- According to ISO 6506



VIDEO



Ø78mm flat anvil
(included)



Ø200mm flat anvil
(included)



V-type anvil
(included)



desk (optional)



measuring
microscope
(included)

SPECIFICATION

Test force	62.5kgf, 100kgf, 125kgf, 187.5kgf, 250kgf, 500kgf, 750kgf, 1000kgf, 1500kgf, 3000kgf
Brinell scale	HBW2.5/62.5, HBW2.5/187.5, HBW5/62.5, HBW5/125, HBW5/250, HBW5/750, HBW10/100, HBW10/250, HBW10/500, HBW10/1000, HBW10/1500, HBW10/3000
Range	8~650HBW
Hardness resolution	0.1HBW
Stage elevation	manual
Load control	automatic (load/dwell/unload)
Load dwell time	0~60 second
Measuring microscope	magnification 20X
	resolution 0.01mm
Max. workpiece height	230mm
Max. testing width	140mm (from the center of indenter to the wall of main body)
Power supply	220V, 50/60Hz
Dimension	510×210×750mm
Weight	130kg

STANDARD DELIVERY

Main unit	1 pc
Ø78mm flat anvil	1 pc
Ø200mm flat anvil	1 pc
V-type anvil	1 pc
Ø2.5mm carbide ball indenter	1 pc
Ø5mm carbide ball indenter	1 pc
Ø10mm carbide ball indenter	1 pc
Hardness test block 100~200HBW2.5/187.5	1 pc
Hardness test block 90~200HBW10/1000	1 pc
Hardness test block 100~200HBW10/3000	1 pc
Measuring microscope	1 pc

OPTIONAL ACCESSORY

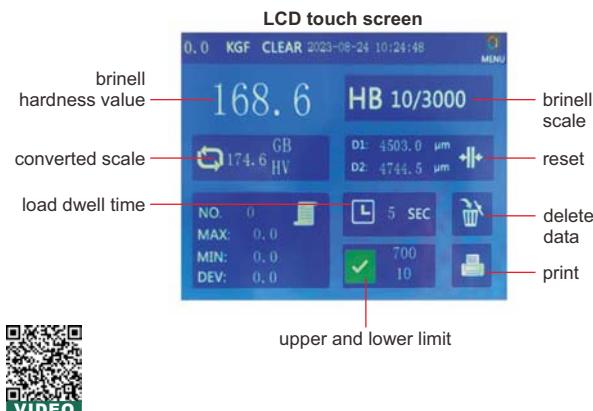
Hardness test block 100~200HBW2.5/187.5	HDT-B-HB25A1
Hardness test block 90~200HBW10/1000	HDT-B-HB10C1
Hardness test block 100~200HBW10/3000	HDT-B-HB10A1
Desk	HDT-DESK

TOUCH SCREEN

FORCE LOADING BY ELECTRIC MOTOR (WITHOUT WEIGHT)

MOTORIZED DIGITAL BRINELL HARDNESS TESTERS (STANDARD TYPE)

INSPECTION CERTIFICATE



- Touch screen color LCD display
- Measure the indentation with microscope, automatically calculate the hardness value and display it on the screen
- Electric loading test force, without weights
- Casting case, structurally stable and not deformed
- According to ISO 6506



Ø78mm flat anvil (included)



Ø200mm flat anvil (included)



V-type anvil (included)



desk (optional)

32

SPECIFICATION

Code	HDT-MB610	HDT-MB710
Turret rotation	manual	automatic
Test force	62.5kgf, 100kgf, 125kgf, 187.5kgf, 250kgf, 500kgf, 750kgf, 1000kgf, 1500kgf, 3000kgf	
Brinell scale	HBW2.5/62.5, HBW2.5/187.5, HBW5/125, HBW5/750, HBW10/100, HBW10/250, HBW10/500, HBW10/1000, HBW10/1500, HBW10/3000	
Range	8~650HBW	
Hardness resolution	0.1HBW	
Stage elevation	manual	
Load control	automatic (load/dwell/unload)	
Load dwell time	0~60 second	
Measuring microscope	magnification 20X resolution 0.1μm	
Max. workpiece height	200mm	
Max. testing width	135mm (from the center of indenter to the wall of main body)	
Data output	built-in printer, RS232	
Power supply	220V, 50/60Hz	
Dimension	510×210×750mm	
Weight	130kg	

STANDARD DELIVERY

Main unit	1 pc
Ø78mm flat anvil	1 pc
Ø200mm flat anvil	1 pc
V-type anvil	1 pc
Ø2.5mm carbide ball indenter	1 pc
Ø5mm carbide ball indenter	1 pc
Ø10mm carbide ball indenter	1 pc
Hardness test block 100~200HBW2.5/187.5	1 pc
Hardness test block 90~200HBW10/1000	1 pc
Hardness test block 100~200HBW10/3000	1 pc
Hardness test block 100~200HBW10/3000	1 pc

OPTIONAL ACCESSORY

Hardness test block 100~200HBW2.5/187.5	HDT-B-HB25A1
Hardness test block 90~200HBW10/1000	HDT-B-HB10C1
Hardness test block 100~200HBW10/3000	HDT-B-HB10A1
Desk	HDT-DESK

BRINELL INDENTATION MEASURING SYSTEM CODE ISHB-MSA



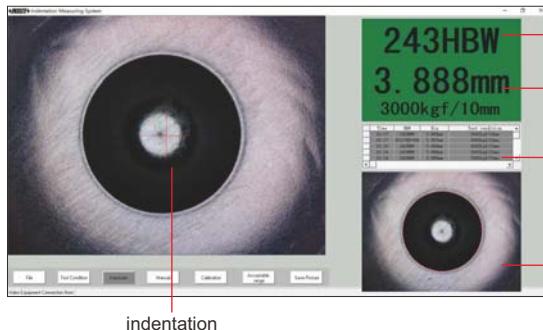
application



32

software flash disk
(included)

software (included)



- Connected to computer USB port
- Automatically measure the indentation
- Result saved to Excel automatically
- Tolerance testing
- Calibration with standard hardness blocks or standard indentation blocks

- result and scale
diameter of indentation
result list
picture

SPECIFICATION

Applicable Brinell indenter	Ø10mm, Ø7.26mm, Ø5mm, Ø4mm, Ø2.5mm						
Hardness range	16~650HB						
Range of indentation diameter	Ø0.6~6mm						
Test force	62.5, 100, 125, 187.5, 250, 500, 750, 1000, 1500, 3000kgf						
Hardness resolution	1HB						
Diameter measuring resolution	0.001mm						
Diameter measuring accuracy	<table border="1"> <tr> <td>Ø10mm ball indneter</td> <td>±0.4% (indentation diameter)</td> </tr> <tr> <td>Ø5mm ball indneter</td> <td>±0.8% (indentation diameter)</td> </tr> <tr> <td>Ø2.5mm ball indneter</td> <td>±1.2% (indentation diameter)</td> </tr> </table>	Ø10mm ball indneter	±0.4% (indentation diameter)	Ø5mm ball indneter	±0.8% (indentation diameter)	Ø2.5mm ball indneter	±1.2% (indentation diameter)
Ø10mm ball indneter	±0.4% (indentation diameter)						
Ø5mm ball indneter	±0.8% (indentation diameter)						
Ø2.5mm ball indneter	±1.2% (indentation diameter)						
Camera	<table border="1"> <tr> <td>sensor</td> <td>1/3.2" CMOS</td> </tr> <tr> <td>pixel</td> <td>2M (resolution 1600×1200)</td> </tr> <tr> <td>view filed</td> <td>8×6mm</td> </tr> </table>	sensor	1/3.2" CMOS	pixel	2M (resolution 1600×1200)	view filed	8×6mm
sensor	1/3.2" CMOS						
pixel	2M (resolution 1600×1200)						
view filed	8×6mm						
Dimension	170×54×54mm						
Weight	385g						



standard blocks for Ø5mm and Ø10mm indenters (included)

STANDARD DELIVERY

Main unit	1 pc
Software	1 pc
Ø5mm standard indentation block	1 pc
Ø10mm standard indentation block	1 pc

OPTIONAL ACCESSORY

Ø2.5mm standard indentation block	ISHB-MSA-BLOCK25
-----------------------------------	------------------

**INSPECTION
CERTIFICATE**
**BRINELL/ROCKWELL/VICKERS HARDNESS TESTER
CODE ISH-BRV**


Ø60mm flat anvil for Rockwell (included)



Ø150mm flat anvil for Rockwell (included)



Ø60mm flat anvil for Vickers and Brinell (included)



V-type anvil for Rockwell (included), for cylinders with diameter Ø4~60mm



V-type anvil for Vickers and Brinell (included)



small V-type anvil for Rockwell (optional), for cylinders with diameter Ø2~4mm



- According to ISO 6506, ISO 6507, ISO 6508

SPECIFICATION

Rockwell test load	98N preload, 588, 980, 1471N total load
Min. Rockwell reading	0.5HR
Brinell test load	306, 613, 1839N
Vickers test load	294N
Stage elevation	manual
Load control	manual
Magnification of microscope	37.5X/75X
Max. workpiece height	180mm
Max. testing width	200mm (from the center of indenter to the wall of main body)
Power supply	220V, 50/60Hz
Dimension	546×300×767mm
Weight	90kg

STANDARD DELIVERY

Main unit	1 pc
Ø1.5875mm carbide ball indenter	1 pc
Diamond Rockwell indenter	1 pc
Ø5mm Brinell indenter	1 pc
Ø2.5mm Brinell indenter	1 pc
Vickers indenter	1 pc
Ø60mm flat anvil for Rockwell	1 pc
Ø150mm flat anvil for Rockwell	1 pc
V-type anvil for Rockwell	1 pc
Ø60mm flat anvil for Vickers and Brinell	1 pc
V-type anvil for Vickers and Brinell	1 pc
Hardness test block HRB88~95	1 pc
Hardness test block HRC60~65	1 pc
Hardness test block HRC20~30	1 pc
Hardness test block 400~500HV30	1 pc
Hardness test block 180~300HBW2.5/187.5	1 pc
Anti-dust cover	1 pc

OPTIONAL ACCESSORY

Hardness test block HRB88~100	HDT-B-HRB
Hardness test block HRC60~70	HDT-B-HRC3
Hardness test block HRC20~30	HDT-B-HRC1
Hardness test block 400~500HV30	HDT-B-HV30D
Hardness test block 200~3000HBW2.5/187.5	HDT-B-HBW2.5/187.5
Small V-type anvil for Rockwell	ISH-SMALLANVIL
Desk	HDT-DESK

BALANCING BRACKET CODE ISH-BL01



application example



- 32**
- Suitable for hardness measurement of long strip specimens
 - By adjusting the counterweight, to ensure that the indenter is perpendicular to the specimen

SPECIFICATION

Sample diameter	<50mm
Test bench type	V-type anvil
Dimension	600×100×100mm
Weight	5kg

JACK LIFTING BRACKET CODE ISH-ST02



application example



- No need to hold the sample, fixing the sample can reduce measurement error

SPECIFICATION

Sample diameter	<50mm
Test bench type	V-type anvil
Adjusting the height	200mm (customizable)
Dimension	250×250×400mm
Weight	11kg

PORTABLE LEEB HARDNESS TESTER APPLICABLE MATERIAL AND HARDNESS RANGE OF 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				

BLUETOOTH DATA OUTPUT

INSPECTION
CERTIFICATE



HDT-CB320
(wired probe is included)

PORTABLE LEEB HARDNESS TESTERS

32



HDT-WL320
(wireless probe is included)

- Can use wired probes or wireless probes
- Dual-coil probe for high accuracy
- Universal testing angle, no need to set impact direction
- Based on Leeb (HLD), converted to Vickers (HV), Brinell (HB), Rockwell (HRC, HRA and HRB), Shore (HS) and tensile strength (σb)
- Dual value display, shows both Leeb and converted hardness
- Large 2.4" LCD display with backlight
- With a magnet on the back, the main unit can be attached on steel surfaces
- According to ASTM A956 and DIN 50156



connect to PC, upload the data to PC, print and send to Excel (software is included)



connect to
bluetooth printer (optional)



To be continued

Continued from previous page

SPECIFICATION

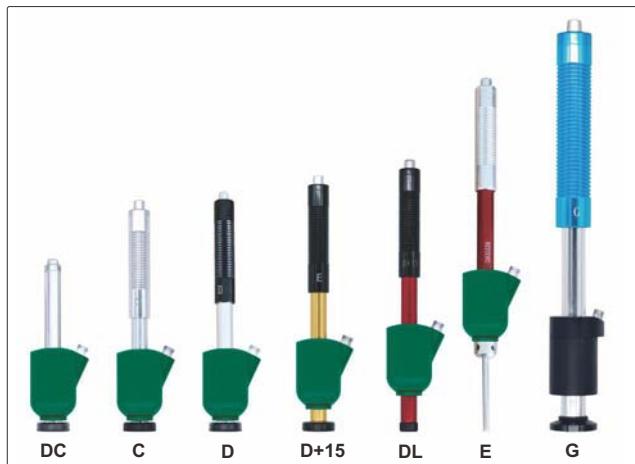
Code	HDT-CB320		HDT-WL320	
Probe included	wired probe D		wireless probe D	
Optional probes	wired (DC/C/D/D+15/DL/E/G), wireless (DC/C/D/DL/G)			
Resolution	1HLD/1HV/1HB/0.1HRC/0.1HRB/0.1HRA/0.1HS/1MPa			
Accuracy	$\pm 6\text{HLD}$ (when HLD=800)			
Output	USB			
Measuring range	HL 170-960/HRC 1.3-74.7/HRB 1.2-139.7/HB 28-1027/HV 45-1221 HS 4.0-112.1/HRA 1.3-88.5/MPa 118-3315N/mm ²			
Applicable materials	1. steel/cast steel 5. nodular cast iron 9. copper	2. alloy steel 6. cast aluminum 10. forging steel	3. stainless steel 7. brass 11. rolling steel	4. gray pig iron 8. bronze
Statistics	average/max./min./s.value			
Memory	999 data			
Working environment	-10°C~45°C			
Power supply	2xAA battery			
Dimension	145×68×28mm			
Weight	158g			

32

STANDARD DELIVERY

Code	HDT-CB320	HDT-WL320
Main unit	1 pc	1 pc
Wired probe D	1 pc	—
Wireless probe D	—	1 pc
Hardness test block D	1 pc	1 pc
Small support ring	1 pc	1 pc
Cleaning brush	1 pc	1 pc

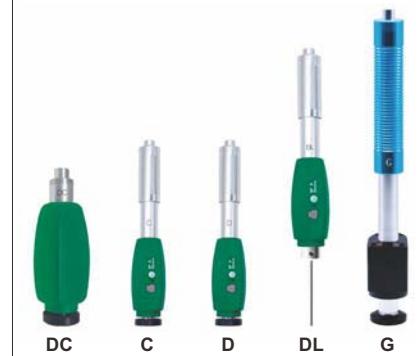
wired probes (optional)



OPTIONAL ACCESSORY

Wired probe	DC	HDT-CB320-DC
	C	HDT-CB320-C
	D	HDT-CB320-D
	D+15	HDT-CB320-D15
	DL	HDT-CB320-DL
	E	HDT-CB320-E
	G	HDT-CB320-G
Wireless probe	DC	HDT-WL320-DCW
	C	HDT-WL320-CW
	D	HDT-WL320-DW
	DL	HDT-WL320-DLW
	G	HDT-WL320-GW
Hardness test block D **	HDT-B-HLD3	
Hardness test block G *	HDT-B-HLG2	
Printer	ISH-LP200-PRINTER	
Support rings	page 829	

wireless probes (optional)



* Hardness test block G (HDT-B-HLG2) is for probe G

(HDT-CB320-G or HDT-WL320-GW)

** Hardness test block D (HDT-B-HLD3) is for all other probes

APPLICABLE WORKPIECE

Probes	DC	C	D	D+15	DL	E	G
Application	inner wall of small space	small or thin workpiece, coating layer	general use	deep groove	narrow slot or small hole	very hard material	casting or forging workpiece
Maximum roughness of workpiece (Ra)	2μm	0.4μm	2μm	2μm	2μm	2μm	7μm
Minimum weight of workpiece	direct measurement	5kg	1.5kg	5kg	5kg	5kg	15kg
	on solid support	2.5kg	0.5kg	2kg	2kg	2.5kg	5kg
	coupled on plate	0.05-2kg	0.02kg	0.05-2kg	0.1kg	0.1kg	0.1-2kg
Minimum thickness of workpiece	3mm	1mm	3mm	3mm	3mm	3mm	10mm


32

- 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



hardness test block D (included)



small support ring (included)



wireless printer (optional)

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
Power supply	3×AAA batteries
Dimension	150×84×28mm
Weight	200g

STANDARD DELIVERY

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

OPTIONAL ACCESSORY

Wireless printer	ISH-DS-PRINTER
Couplant	ISH-COUPANT
Support rings	page 829
Hardness test block D	HDT-B-HLD3

PORTRABLE LEEB HARDNESS TESTER (BUILT-IN BLUETOOTH) CODE ISH-PHB-B

BUILT-IN BLUETOOTH

DATA
OUTPUT

- 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 wireless module
- Automatic power off
- According to ASTM A 956
- Wired data transmission (keyboard signal):
USB cable connect to computer, press transmission button to send data
- Wireless data transmission (keyboard signal):
built-in Bluetooth module connect to computer or mobile phone,
press transmission button to send data

32



hardness test block D (included)



small support ring (included)



wireless printer (optional)



transmission button

SPECIFICATION

Min. reading	1HLD, 1HV, 1HB, 0.1HRC, 0.1HRB, 1HS, 1MPa	
Accuracy	$\pm 6\text{HLD}$ (when HLD=800)	
Display	Leeb (HLD), converted hardness, material, impact direction, test times, average value, date	
Output	bluetooth, USB	
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): 1.6 μm		
Power supply	3×AAA batteries	
Dimension	150×84×28mm	
Weight	200g	

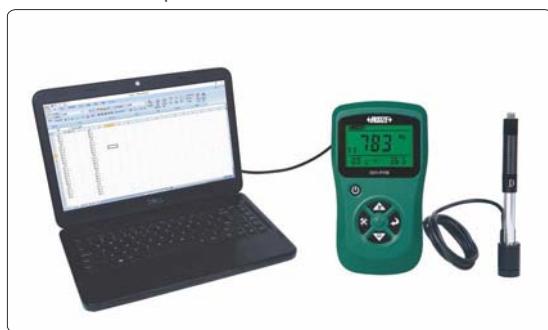
STANDARD DELIVERY

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

OPTIONAL ACCESSORY

Wireless printer	ISH-DS-PRINTER
Couplant	ISH-COUPPLANT
Support rings	page 829
Hardness test block D	HDT-B-HLD3

connected to computer by USB cable,
upload the data in real time



connected to computer by bluetooth module,
upload the data in real time





**DATA
OUTPUT**

**INSPECTION
CERTIFICATE**

- 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
- Tolerance testing
- Touch screen operation, large display with backlight
- Language: English, Chinese, Italian, German, French and Portuguese
- Automatic power off
- According to ASTM A 956



printer (included)

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	1 pc
Impact device D	1 pc
Printer	1 pc
Hardness test block D	1 pc
Small support ring	1 pc
Cleaning brush	1 pc
AC/DC adapter	1 pc
Software flash disk and USB cable	1 pc
Pen for touch screen	1 pc

OPTIONAL ACCESSORY

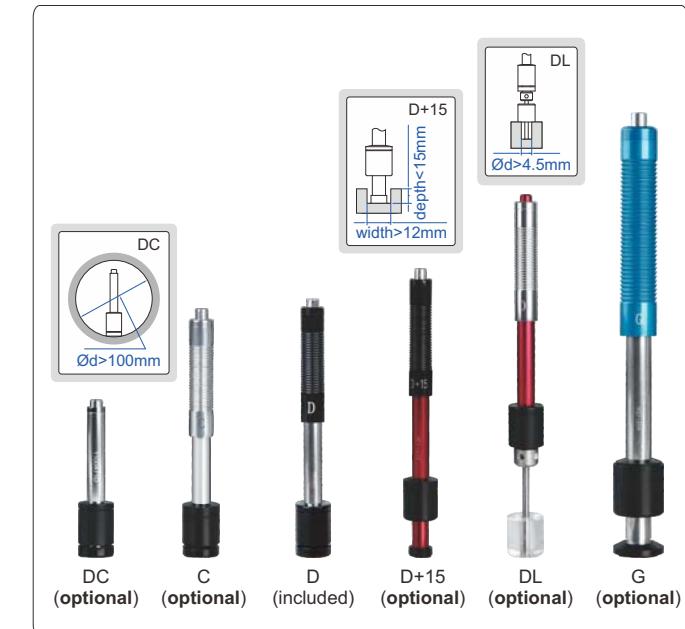
Impact device DC	ISH-SPHA-DC
Impact device C	ISH-SPHA-C
Impact device D+15	ISH-SPHA-D15
Impact device DL	ISH-SPHA-DL
Impact device G	ISH-SPHA-G
Hardness test block D*	HDT-B-HLD3
Hardness test block G*	HDT-B-HLG2
Couplant	ISH-COUPANT
Support rings	page 829

* Hardness test block G (HDT-B-HLG2) is for impact device G (ISH-SPHA-G).

Hardness test block D (HDT-B-HLD3) is for all other 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	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 TESTERS (BASIC TYPE)



POPULAR
MODEL

- Can change probes
- Dual-coil probe for high accuracy
- Universal testing angle, no need to set impact direction
- Based on Leeb (HLD), converted to Vickers (HV), Brinell (HB), Rockwell (HRC, HRB), Shore (HSD) and tensile strength (σ_b)
- Dual value display, shows both Leeb and converted hardness
- Large LCD display with backlight
- Can choose large font display and statistics display
- Automatically calculate maximum, minimum and average value
- Save 300 data
- Operation temperature: $-10^{\circ}\text{C} \sim 45^{\circ}\text{C}$
- According to ASTM A956, GB/T 17394

SPECIFICATION

32

Code	HDT-LP200	HDT-LP200B
Printer	not included	included
Resolution	1HLD/1HV/1HB/0.1HRC/0.1HRB/ 0.1HSD/1 σ_b	
Accuracy	$\pm 6\text{HLD}$ (when HLD=800)	
Measuring range	HL 170-960/HRC 17-70/HRB 13-109/ HB 20-655/HV 80-940/HSD 32-99.5/ $\sigma_b(\text{rm})$ 255-2639N/mm ²	
Power supply	2xAA battery	
Dimension	135×77×32mm	
Weight	240g	

STANDARD DELIVERY

Main unit	1 pc
Hardness test block D	1 pc
Small support ring	1 pc
Cleaning brush	1 pc
Impact device D	1 pc
Bluetooth printer (included in HDT-LP200B)	1 pc

OPTIONAL ACCESSORY

Impact device DC	HDT-LP200-DC
Impact device C	HDT-LP200-C
Impact device D+15	HDT-LP200-D15
Impact device DL	HDT-LP200-DL
Impact device G	HDT-LP200-G
Hardness test block D**	HDT-B-HLD3
Hardness test block G*	HDT-B-HLG2
Support rings	page 829

* Hardness test block G (HDT-B-HLG2) is for impact device G (HDT-LP200-G)

** Hardness test block D (HDT-B-HLD3) is for all other 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)	2μm	0.4μm	2μm	2μm	2μm	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	0.05kg	0.02kg	0.05kg	0.1kg	0.05kg
Minimum thickness of workpiece	3mm	1mm	3mm	3mm	3mm	10mm



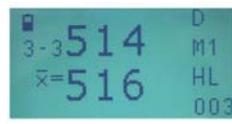
HDT-LP200



VIDEO



large font display



statistics display



PORTABLE LEEB HARDNESS TESTER (WITH WIRELESS PROBE)

CODE HDT-WP201

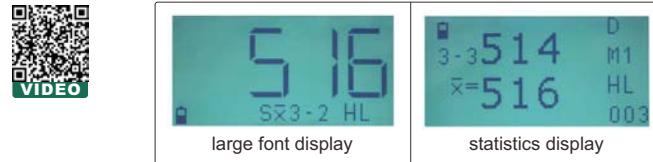
- Bluetooth digital probe
- Universal testing angle, no need to set impact direction
- Based on Leeb (HLD), converted to Vickers (HV), Brinell (HB), Rockwell (HRC, HRB), Shore (HSD) and tensile strength (σ_b)
- Dual value display, shows both Leeb and converted hardness
- Large LCD display with backlight
- Can choose large font display and statistics display
- Automatically calculate maximum, minimum and average value
- Save 300 data
- Operation temperature: -10°C~45°C
- According to ASTM A956, DIN 50156 GB/T 17394



32

SPECIFICATION

Resolution	1HLD/1HV/1HB/0.1HRC/0.1HRB/ 0.1HSD/1 σ_b
Accuracy	± 6 HLD (when HLD=800)
Measuring range	HL 170-960/HRC 17-69/HRB 13-101.7/ HB 20-655/HV 80-940/HSD 32-99.5/ σ_b (rm) 255-2180N/mm ²
Power supply	2xAA battery
Dimension	135×77×32mm
Weight	240g

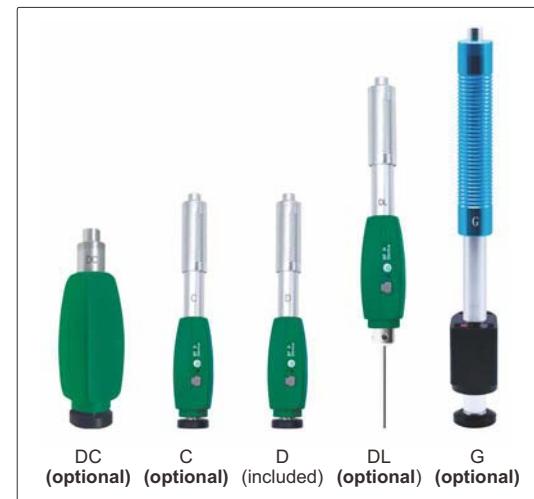


STANDARD DELIVERY

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

OPTIONAL ACCESSORY

Impact device DC	HDT-WL320-DCW
Impact device C	HDT-WL320-CW
Impact device DL	HDT-WL320-DLW
Impact device G	HDT-WL320-GW
Hardness test block D	HDT-B-HLD3
Bluetooth printer	ISH-LP200-PRINTER
Support rings	page 829



APPLICABLE WORKPIECE

Impact device	DC	C	D	DL	G
Application	inner wall of small space	small or thin workpiece, coating layer	general use	narrow slot or small hole	casting or forging workpiece
Maximum roughness of workpiece (Ra)	2μm	0.4μm	2μm	2μm	7μm
Minimum weight of workpiece	direct measurement	5kg	1.5kg	5kg	15kg
on solid support		2kg	0.5kg	2kg	5kg
	coupled on plate	0.05kg	0.02kg	0.05kg	0.5kg
Minimum thickness of workpiece	3mm	1mm	3mm	3mm	10mm

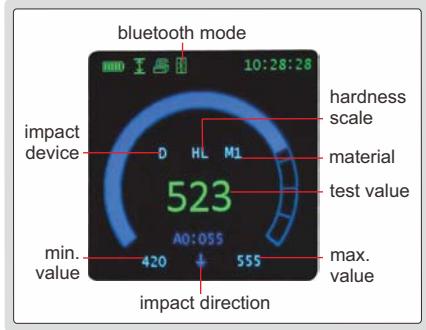
PEN-TYPE LEEB HARDNESS TESTER (ADVANCED TYPE) CODE HDT-L410

DATA
OUTPUTHIGH
ACCURACYDL PROBE IS
OPTIONAL

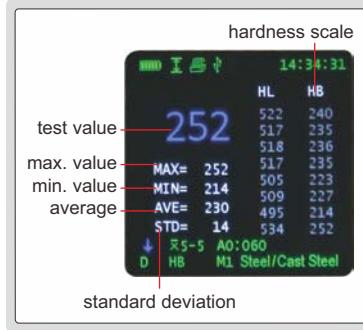
- 32**
- Metal housing
 - HD TFT 320x320 display
 - Impact device D
 - Based on Leeb (HLD), converted to Vickers (HV), Brinell (HB), Rockwell (HRC, HRA and HRB), Shore (HS) and tensile strength (SGM)
 - Four display modes
 - Automatic direction correction
 - Tolerance testing
 - Automatic power off, automatic calculation of statistics
 - Dual value display, shows both Leeb and other conversion values
 - 31 files can be saved, each containing 100 measurement data
 - Connected to PC software via USB or Bluetooth 2.0
 - Connected with printer via Bluetooth
 - Operation temperature: -20°C~70°C
 - According to ASTM A956, DIN 50156, GB/T 17394



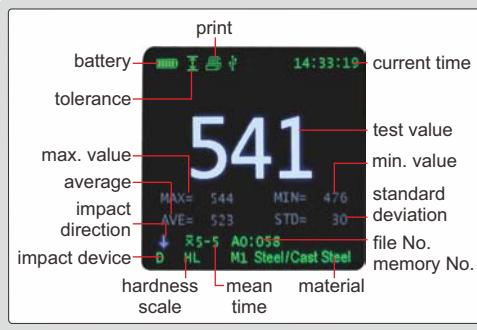
dynamic ring display



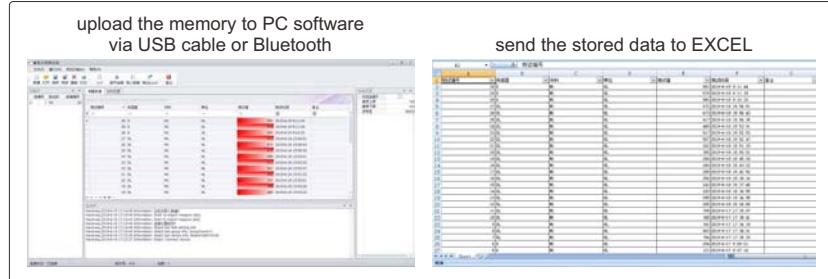
statistic display



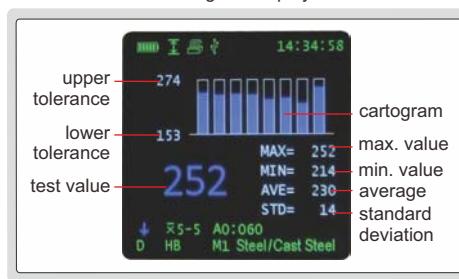
can choose large font display



software (included), upload the memory to PC, print and send to EXCEL



histogram display

**SPECIFICATION**

Resolution	1HLD, 1HV, 1HB, 0.1HRC, 0.1HRB, 0.1HRA, 0.1HS, 1SGM						
Accuracy	±4HLD (when HLD=800)						
Output	USB and bluetooth						
Applicable workpiece	<table border="1"> <tr> <td>minimum weight</td> <td>5kg (direct measurement)</td> </tr> <tr> <td></td> <td>2kg (on solid support)</td> </tr> <tr> <td></td> <td>0.05kg (coupled on plate)</td> </tr> </table>	minimum weight	5kg (direct measurement)		2kg (on solid support)		0.05kg (coupled on plate)
minimum weight	5kg (direct measurement)						
	2kg (on solid support)						
	0.05kg (coupled on plate)						
	minimum thickness: 5mm						
	minimum radius of curved surface: 30mm						
	maximum roughness (Ra): 2μm						
Power supply	built-in 3.7V rechargeable battery						
Dimension	148×44×22mm						
Weight	115g						

STANDARD DELIVERY

Main unit	1 pc
Hardness test block D	1 pc
Small support ring	1 pc
Cleaning brush	1 pc
AC/DC adapter	1 pc
Software flash disk and USB cable	1 pc

OPTIONAL ACCESSORY

Printer	HDT-L410-PRINTER
Support rings	page 829
Hardness test block D	HDT-B-HLD3
DL probe	HDT-L410-DL

**DATA
OUTPUT**

**DL PROBE IS
OPTIONAL**

**INSPECTION
CERTIFICATE**

PEN-TYPE LEEB HARDNESS TESTER (STANDARD TYPE) CODE HDT-B430

DL probe can be
installed (optional)



software flash disk
(included)



hardness test
block D (included)



small support ring
(included)



wireless printer
(optional)

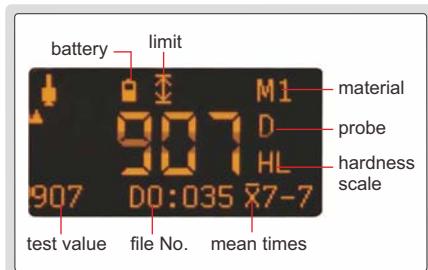


DL probe can be
installed (optional)

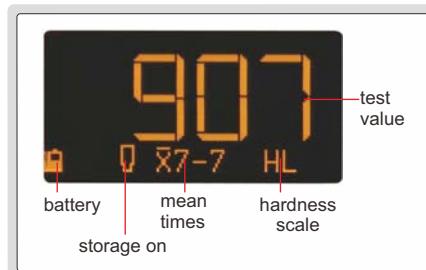
- Impact device D is included
- High contrast OLED display
- Based on Leeb (HLD), converted to Vickers (HV), Brinell (HB), Rockwell (HRC, HRA and HRB), Shore (HS) and tensile strength (σ_b)
- Dual value display, shows both Leeb and other conversion values
- No need to set the testing direction
- 31 files can be saved, each containing 100 measurement data
- Automatically calculate maximum, minimum, average value
- Connected to PC software via USB or Bluetooth
- Connected with printer via Bluetooth
- Operation temperature: -20°C~45°C
- According to ASTM A956, DIN 50156 GB/T, 17394

32

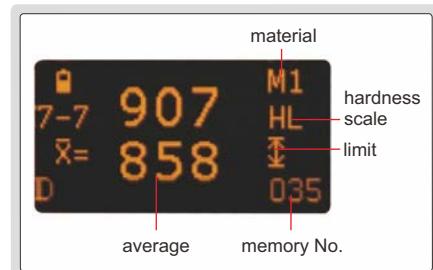
standard display



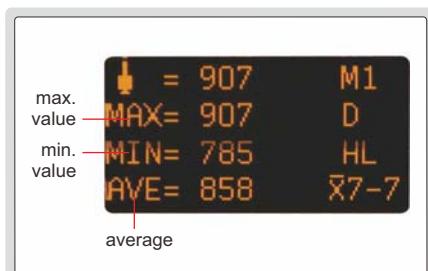
big character display



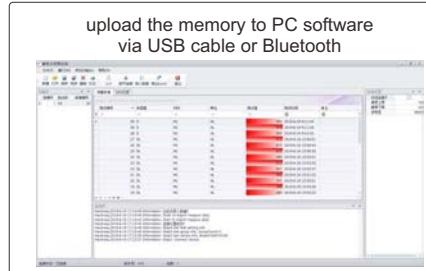
average display



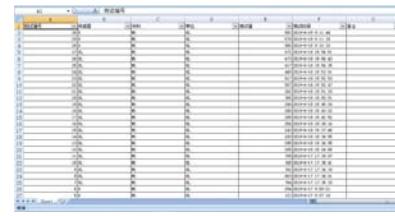
statistical parameter display



software (included), upload the memory to PC, print and send to EXCEL



send the stored data to EXCEL



SPECIFICATION

Resolution	1HLD, 1HV, 1HB, 0.1HRC, 0.1HRB, 0.1HRA, 0.1HSD, 16b
Accuracy	±6HLD (when HLD=800)
Measuring range	HLD170-960, HRC17-70, HRB13-109, HB20-655, HV80-940 HSD32-99.5, HRA30-88, σ_b (rm) 255-2180N/mm ²
Applicable workpiece	minimum weight 0.05kg (coupled on plate)
	minimum thickness: 5mm
	minimum radius of curved surface: 30mm
	maximum roughness (Ra): 2μm
Output	USB and bluetooth
Power supply	built-in 3.7V rechargeable battery
Dimension	148×44×28mm
Weight	110g

STANDARD DELIVERY

Main unit	1 pc
Hardness test block D	1 pc
Small support ring	1 pc
Cleaning brush	1 pc
AC/DC adapter	1 pc
Software flash disk and USB cable	1 pc

OPTIONAL ACCESSORY

Printer	ISH-LP200-PRINTER
Support rings	page 829
Hardness test block D	HDT-B-HLD3
DL probe	HDT-L410-DL

PEN-TYPE LEEB HARDNESS TESTER (BASIC TYPE)

CODE HDT-L411

DATA
OUTPUTINSPECTION
CERTIFICATE

software flash disk (included)



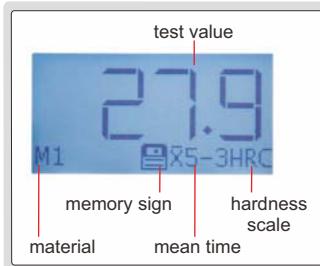
hardness test block D (included)



small support ring (included)

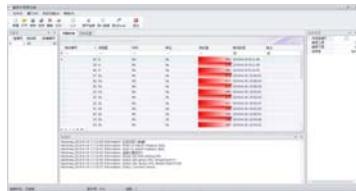


can choose large font display

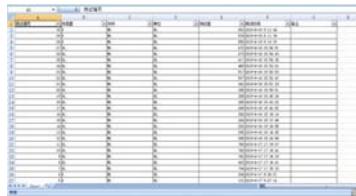


software (included), upload the memory to PC, print and send to EXCEL

upload the memory to PC software via USB cable



send the stored data to EXCEL



- Impact device D
- Universal testing angle, no need to set impact direction
- Dual-coil probe, high accuracy
- Based on Leeb (HLD), converted to Vickers (HV), Brinell (HB), Rockwell (HRC, HRA and HRB), Shore (HS) and tensile strength (SGM)
- Dual value display, shows both Leeb and converted hardness
- High contrast digital LCD display
- Can choose large font display
- Automatically calculate maximum, minimum, average value
- Connected to PC via USB
- Save 999 data
- Operation temperature: -20°C~45°C
- According to ASTM A956, DIN 50156, GB/T 17394

SPECIFICATION

Resolution	1HLD, 1HV, 1HB, 0.1HRC, 0.1HRB, 0.1HRA, 0.1HS, 1SGM										
Accuracy	±6HLD (when HLD=800)										
Output	USB										
Measuring range	HL100-960, HRC1-74.7, HRB1.2-140, HB28-1027, HV45-1230, HS4-112, HRA7-88.5, SGM (rm) 118-3315N/mm ²										
Applicable workpiece	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td rowspan="3" style="width: 20%;">minimum weight</td> <td>5kg (direct measurement)</td> </tr> <tr> <td>2kg (on solid support)</td> </tr> <tr> <td>0.05kg (coupled on plate)</td> </tr> <tr> <td colspan="2">minimum thickness: 5mm</td> </tr> <tr> <td colspan="2">minimum radius of curved surface: 30mm</td> </tr> <tr> <td colspan="2">maximum roughness (Ra): 2μm</td> </tr> </table>	minimum weight	5kg (direct measurement)	2kg (on solid support)	0.05kg (coupled on plate)	minimum thickness: 5mm		minimum radius of curved surface: 30mm		maximum roughness (Ra): 2μm	
minimum weight	5kg (direct measurement)										
	2kg (on solid support)										
	0.05kg (coupled on plate)										
minimum thickness: 5mm											
minimum radius of curved surface: 30mm											
maximum roughness (Ra): 2μm											
Power supply	1xAAA battery										
Dimension	148×45×21mm										
Weight	105g										

STANDARD DELIVERY

Main unit	1 pc
Hardness test block D	1 pc
Cleaning brush	1 pc
AAA battery	1 pc
Small support ring	1 pc
Software flash disk and USB cable	1 pc

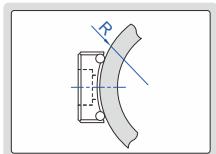
OPTIONAL ACCESSORY

Support rings	page 829
Hardness test block D	HDT-B-HLD3

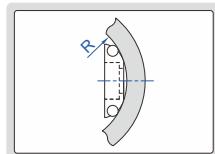


SUPPORT RING SET FOR PORTABLE LEEB HARDNESS TESTER CODE ISH-PH-SP9

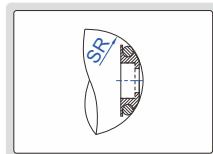
type A



type B



type C

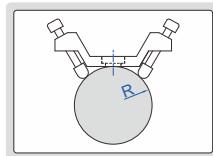
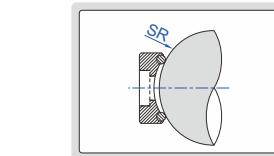
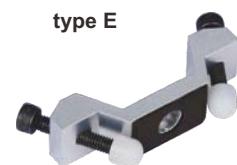
**SPECIFICATION**

Type	Applicable workpieces	Range (mm)	Quantity
A	cylindrical outside surface	R10-15	3 pcs
		R14.5-30	
		R25-50	
B	cylindrical inside surface	R11-13	3 pcs
		R12.5-17	
		R16.5-30	
C	spherical inside surface	SR11-13	3 pcs
		SR12.5-17	
		SR16.5-30	
D	spherical outside surface	SR10-15	2 pcs
		SR14.5-30	
E	cylindrical outside surface	R>10	1 pc

type D



type E



DIGITAL MAGNETIC ROCKWELL HARDNESS TESTER CODE ISHR-D121

flat anvil for test block
(included)

- Apply to large and heavy steel or iron workpieces
- With statistic function, display average, maximum and minimum values
- Convert to HV, HB and tensile strength
- According to ISO 6508, ASTM E18

**SPECIFICATION**

Hardness scale	HRA, HRB, HRC
Preliminary test force	10kg
Test force	60kg, 100kg, 150kg
Load control	manual
Min. reading	0.1HR
Flat workpiece requirement	length>190mm, width>60mm, thickness>5mm
Cylinder or tube workpiece requirement	length>200mm, diameter>Ø50mm, wall thickness>8mm
Power supply	3×AA batteries
Dimension	245×105×230mm
Weight	5.3kg

STANDARD DELIVERY

Main unit	1 pc
Flat anvil	1 pc
Diamond indenter	1 pc
Ø1.5875mm carbide ball indenter	1 pc
Hardness test block HRB85~95	1 pc
Hardness test block HRC60~70	1 pc
Hardness test block HRC20~30	1 pc

MAGNETIC ROCKWELL HARDNESS TESTER CODE ISHR-M111

- Apply to large and heavy steel or iron workpieces
- According to ISO 6508, ASTM E18



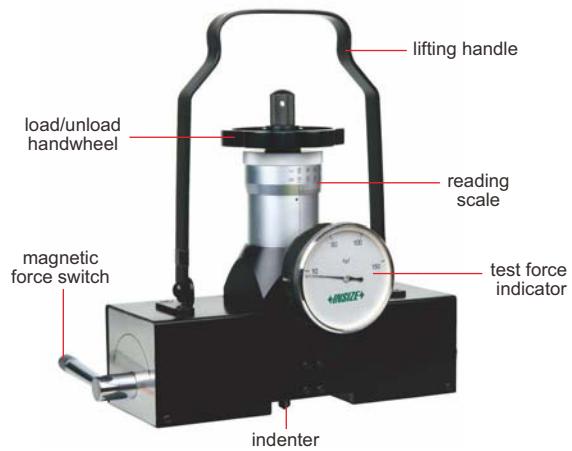
flat anvil for test block (included)



supports for cylinder or tube workpieces (included)



magnifier with LED (included)



32

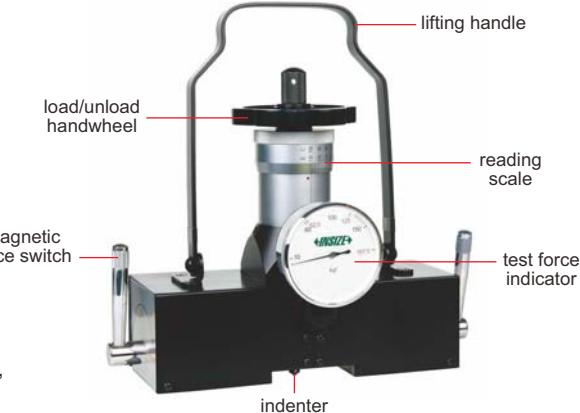
SPECIFICATION

Hardness scale	HRA, HRB, HRC, HRD, HRF, HRG
Preliminary test force	10kg
Test force	60kg, 100kg, 150kg
Load control	manual
Min. reading	1HR
Flat workpiece requirement	length>180mm, width>60mm, thickness>5mm
Cylinder or tube workpiece requirement	length>180mm, diameter>Ø50mm, wall thickness>8mm
Dimension	220×70×220mm
Weight	4.7kg

STANDARD DELIVERY

Main unit	1 pc
Diamond indenter	1 pc
Ø1.5875mm carbide ball indenter	2 pcs
Hardness test block HRB85~95	1 pc
Hardness test block HRC60~70	1 pc
Hardness test block HRC20~30	1 pc
Flat anvil	1 pc
Support	4 pcs
Magnifier with LED	1 pc

MAGNETIC BRINELL/ROCKWELL HARDNESS TESTER CODE ISHR-B141



- Apply to large steel or iron workpieces
- According to ISO 6508, ASTM E18



flat anvil for test block (included)



supports for cylinder or tube workpieces (included)



magnifier with LED (included)



measuring microscope (included)

SPECIFICATION

Rockwell scale	HRA, HRB, HRC, HRD, HRF, HRG
Brinell measuring range	20~650HBW
Rockwell test force	10kg preload, 60kg, 100kg, 150kg total load
Brinell test force	62.5kg, 125kg, 187.5kg
Load control	manual
Min. Rockwell reading	1HR
Measuring microscope	40X, graduation 0.01mm
Flat workpiece requirement	length>180mm, width>60mm, thickness>5mm
Cylinder and tube workpiece requirement	length>180mm, diameter>Ø50mm, thickness>8mm
Dimension	220×70×220mm
Weight	4.7kg

STANDARD DELIVERY

Main unit	1 pc
Flat anvil	1 pc
Support	4 pcs
Diamond Rockwell indenter	1 pc
Ø1.5875mm carbide ball indenter	1 pc
Ø2.5mm Brinell indenter	1 pc
Hardness test block HRB85~95	1 pc
Hardness test block HRC60~70	1 pc
Hardness test block HRC20~30	1 pc
Brinell test block	1 pc
Measuring microscope	1 pc
Magnifier with LED	1 pc



PORTABLE BRINELL AND ROCKWELL HARDNESS TESTER CODE ISBR-H181

- Apply to huge or medium-size workpieces
- According to ISO 6506, ISO 6508, ASTM E10, ASTM E18



flat anvil
(included)



V-type anvil
(included)



measuring
microscope
(included)



SPECIFICATION

Rockwell hardness scale	HRA, HRB, HRC
Brinell test range	16~650HBW
Rockwell preliminary test force	10kgf
Rockwell total test force	60kgf, 100kgf, 150kgf
Brinell test force	62.5kgf, 125kgf, 187.5kgf
Load control	manual
Min. reading	rockwell 0.5HR brinell 0.005mm (indentation diameter)
Max. workpiece thickness	75mm
Max. testing width	100mm (from the center of indenter to the main body)
Dimension	510×380×180mm
Weight	2.3kg

STANDARD DELIVERY

Main unit	1 pc
Diamond indenter	1 pc
Ø1.5875mm carbide ball indenter	1 pc
Ø2.5mm carbide ball indenter	1 pc
Ø5mm carbide ball indenter	1 pc
Hardness test block HRBW88~95	1 pc
Hardness test block HRC20~30	1 pc
Hardness test block HRC60~65	1 pc
Hardness test block 200~300HBW2.5/187.5	1 pc
Flat anvil	1 pc
V-type anvil	1 pc
Measuring microscope	1 pc

32

PORTABLE ROCKWELL HARDNESS TESTER CODE ISHR-P151



anvil extension for thin
workpieces (included)



flat anvil (included)



V-type anvil (included)



- According to ISO 6508, ASTM E18

SPECIFICATION

Hardness scale	HRA, HRB, HRC, HRD, HRF, HRG
Preliminary test force	10kg
Test force	60kg, 100kg, 150kg
Load control	manual
Min. reading	1HR
Max. workpiece thickness	25mm
Max. testing width	25mm (from the center of indenter to the main body)
Dimension	240×70×160mm
Weight (with base)	2.5kg

STANDARD DELIVERY

Main unit	1 pc
Diamond indenter	1 pc
Ø1.5875mm carbide ball indenter	2 pcs
Hardness test block HRB88~95	1 pc
Hardness test block HRC60~65	1 pc
Hardness test block HRC20~30	1 pc
Flat anvil	1 pc
V-type anvil	1 pc
Base	1 pc
Anvil extension	1 pc
Magnifier	2 pcs

331

PIN BRINELL HARDNESS TESTER CODE ISHB-P101



- Measure Brinell hardness of large and heavy workpieces
- 1580kg test force and Ø7.26mm ball indenter, equal to 3000kg test force and Ø10mm ball indenter
- Static and impact test modes
- According to ISO and ASTM standard



32

SPECIFICATION

Measuring range	100~350HBW (with Ø7.26mm indenter, included) 350~650HBW (with Ø4mm indenter, optional)
Test force	1580kg
Accuracy	static test: ±3% impact test: ±5%
Measuring microscope	20X, graduation 0.01mm
Max. workpiece height of static test	150mm
Max. testing width of static test	80mm (from the center of indenter to the clamp)
Dimension	195×60×350mm
Weight	4.2kg

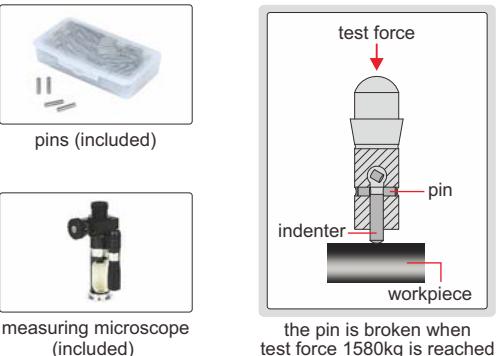
STANDARD DELIVERY

Static test clamp	1 pc
Impact test handle	1 pc
Flat anvil	1 pc
V-type anvil	1 pc
Ø7.26mm indenter	1 pc
Hardness test block	1 pc
Pin	250 pcs
Measuring microscope	1 pc

OPTIONAL ACCESSORY

Ø4mm indenter	ISHB-P101-INDENTER
Pin (250 pcs)	ISHB-P101-PIN

HAMMER IMPACT BRINELL HARDNESS TESTER CODE HDT-PB350



- Measure Brinell hardness of large and heavy workpieces
- 1580kg test force and Ø7.26mm ball indenter, equal to 3000kg test force and Ø10mm ball indenter

SPECIFICATION

Measuring range	100~350HBW (with Ø7.26mm indenter, included) 350~650HBW (with Ø4mm indenter, optional)
Test force	1580kg
Accuracy	±5%HBW
Repeatability	±5%HBW
Measuring microscope	20X, graduation 0.01mm
Dimension	200×50×100mm
Weight	0.8kg

STANDARD DELIVERY

Main unit	1 pc
Ø7.26mm indenter	1 pc
Hardness test block	1 pc
Pin	250 pcs
Pin removal tool	1 pc
Measuring microscope	1 pc

OPTIONAL ACCESSORY

Ø4mm indenter	ISHB-P101-INDENTER
Pin (250 pcs)	ISHB-P101-PIN

HYDRAULIC BRINELL HARDNESS TESTER CODE ISHB-H131



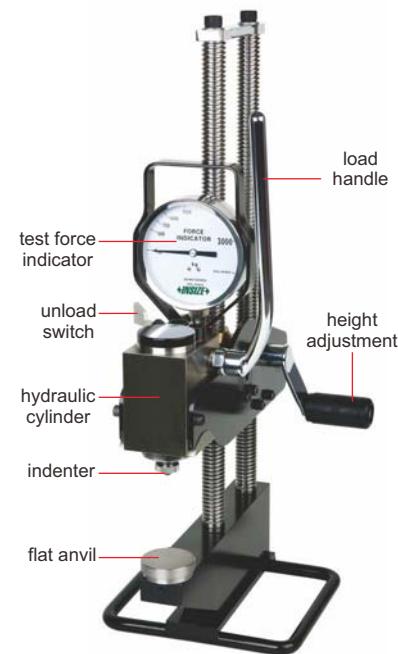
- According to ISO 6506, ASTM E10

SPECIFICATION

Measuring range	16~650HBW
Test force	3000kg
Indenter	Ø10mm carbide ball
Measuring microscope	20X, graduation 0.01mm
Max. workpiece height	350mm
Max. testing width	90mm (from the center of indenter to the column)
Dimension	270×225×570mm
Weight	13.8kg

STANDARD DELIVERY

Main unit	1 pc
Flat anvil	1 pc
V-type anvil	1 pc
Spherical anvil	1 pc
Ø10mm carbide ball	2 pcs
Brinell test block	2 pcs
Measuring microscope	1 pc



32



CHAIN TYPE HYDRAULIC BRINELL HARDNESS TESTER CODE ISHB-C161

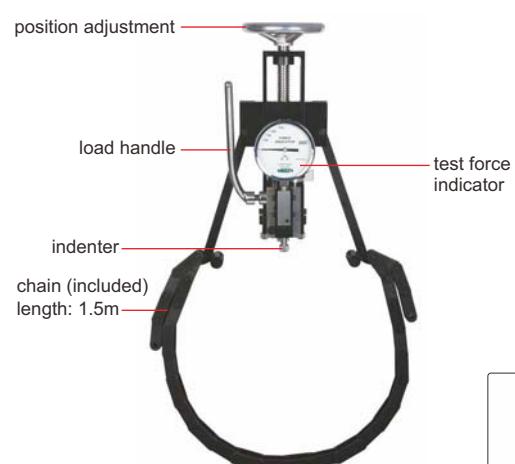
- To measure the hardness of cylinders or tubes
- According to ISO 6506, ASTM E10

SPECIFICATION

Measuring range	32~650HBW
Workpiece diameter range	Ø150~Ø500mm
Test force	3000kg
Indenter	Ø10mm carbide ball
Measuring microscope	20X, graduation 0.01mm
Dimension	270×225×570mm
Weight	14.5kg

STANDARD DELIVERY

Main unit	1 pc
1.5m chain	1 pc
Ø10mm carbide ball	2 pcs
Brinell test block	2 pcs
Measuring microscope	1 pc



833

ALUMINUM HARDNESS TESTERS



VIDEO

32



- To measure the hardness of soft metal such as aluminum alloy, copper, brass, soft steel, etc.
- According to ASTM B647-84 (2000)

SPECIFICATION

Code	ISHW-L20	ISHW-L20A	ISHW-L20B	ISHW-B70	ISHW-B75	ISHW-B92
Application	for aluminum alloy general use	for aluminum alloy thick workpiece	for aluminum alloy small tube	for hard aluminum alloy and hard brass	for soft brass and copper	for soft steel and cold-rolled steel
Thickness requirement of flat workpiece	0.6~6mm	0.6~13mm	0.6~8mm	0.6~6mm	0.6~6mm	0.6~6mm
Internal diameter requirement of tube workpiece	>Ø10mm	>Ø10mm	>Ø6mm	>Ø10mm	>Ø10mm	>Ø10mm
Wall thickness requirement of tube workpiece	0.6~6mm	6~13mm (internal diameter Ø10~23.3mm) 0.6~6mm (internal diameter >Ø23.3mm)	0.6~8mm	0.6~6mm	0.6~6mm	0.6~6mm
Hardness range	0~20HW					
Min. reading	1HW					
Accuracy	±0.5HW (at 5~17HW)					
Dimension	205×30×85mm					
Weight	500g					

STANDARD DELIVERY

Main unit	1 pc
Spare indenter	1 pc
Hardness test block	1 pc
Wrench	1 pc

ALUMINUM HARDNESS TESTERS (BASIC TYPE)

- To measure the hardness of soft metal such as aluminum alloy, copper, brass, soft steel, etc.
- According to ASTM B647-10 (2016)



STANDARD DELIVERY

Main unit	1 pc
Spare indenter	1 pc
Hardness test block	1 pc
Wrench	1 pc

32

SPECIFICATION

Code	ISHW-H10	ISHW-H11	ISHW-H12	ISHW-H13	ISHW-H14	ISHW-H15
Application	for aluminum alloy general use	for aluminum alloy thick workpiece	for aluminum alloy small tube	for hard aluminum alloy and hard brass	for soft brass and copper	for soft steel and cold-rolled steel
Thickness requirement of flat workpiece	0.6~6mm	0.6~13mm	0.6~8mm	0.6~6mm	0.6~6mm	0.6~6mm
Internal diameter requirement of tube workpiece	>Ø10mm	>Ø10mm	>Ø6mm	>Ø10mm	>Ø10mm	>Ø10mm
Wall thickness requirement of tube workpiece	0.6~6mm	6~13mm (internal diameter Ø10~23.3mm) 0.6~6mm (internal diameter>Ø23.3mm)	0.6~8mm	0.6~6mm	0.6~6mm	0.6~6mm
Hardness range	0~20HW					
Min. reading	1HW					
Accuracy	±0.5HW (at 5~17HW)					
Dimension	205×30×95mm					
Weight	500g					

ALUMINUM HARDNESS TESTER CODE ISHB-B300

- To measure the hardness of workpieces made of pure aluminum, aluminum alloy, fiber reinforced plastic, hard plastic, etc.
- According to ASTM B648-00, ASTM D2853-07



SPECIFICATION

Hardness range	0~100HBa (equal to 25~150HBW)
Min. reading	1HBa
Accuracy	±2HBa (at 42~52HBa) ±1HBa (at 84~88HBa)
Min. workpiece thickness	0.8mm
Dimension	142×65×90mm
Weight	500g

STANDARD DELIVERY

Main unit	1 pc
Spare indenter	2 pcs
Hardness test block	2 pcs
Wrench	1 pc



DIGITAL SHORE DUROMETERS



32



- According to ISO868, ISO7619, ASTM D 2240
- Average and peak (max.) mode
- Dwell time is adjustable
- Tolerance testing
- 500 memories
- Wireless connection to printer
- Handhold use or work with test stand (code **ISH-DS-STANDA**)
- Automatic power off



software flash disk (included)



calibration block (included)



printer (optional)

SPECIFICATION

Code	ISH-DSA	ISH-DSD	ISH-DSOO
Unit	Shore A	Shore D	Shore OO
Test material	soft plastic, soft rubber, etc.	hard plastic, hard rubber, etc.	very soft plastic, rubber, sponge, textile, etc.
Measuring range	0~100HA *	0~100HD *	0~100HOO
Resolution	0.1HA	0.1HD	0.1HOO
Accuracy	±1HA	±1HD	±1HOO
Indenter protrusion	2.5mm		
Output	wireless and USB		
Power supply	built-in rechargeable battery		
Dimension	153×50×29mm		
Weight	170g		

* Use **ISH-DSD** when measuring result is higher than 90HA
Use **ISH-DSA** when measuring result is lower than 20HD

STANDARD DELIVERY

Main unit	1 pc
Calibration block	1 pc
Software and USB cable	1 pc
AC/DC adapter	1 pc

OPTIONAL ACCESSORY

Printer	ISH-DS-PRINTER
Test stand	ISH-DS-STANDA

TEST STAND FOR DIGITAL SHORE DUROMETERS CODE ISH-DS-STANDA

- For digital shore durometers (code **ISH-DSA**, **ISH-DSD** and **ISH-DSOO**)
- Perform repeatable hardness measurement due to fewer possibilities of human error or measurement variations
- Special structure for stable loading
- Weight block A (included) is for **ISH-DSA**, weight block D (**optional**) is for **ISH-DSD**, remove weight block for **ISH-DSOO**



weight block D
(optional)
for ISH-DSD



32

SPECIFICATION

Stage diameter	Ø115mm
Max. workpiece height	45mm
Max. testing width	63mm (from test point to the column)
Dimension	Ø195×370mm
Weight	5.61kg

STANDARD DELIVERY

Test stand	1 pc
Weight block A (for ISH-DSA)	1 pc

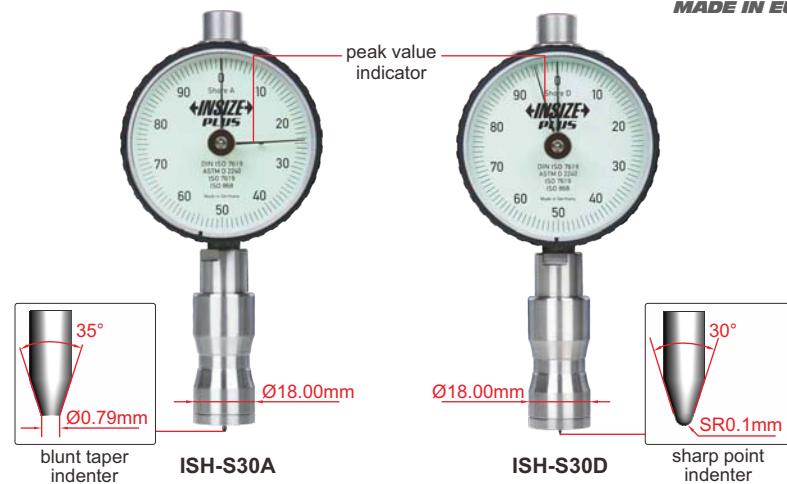
OPTIONAL ACCESSORY

Weight block D (for ISH-DSD)	ISH-DS-W4
------------------------------	-----------



VIDEO

- According to ISO868, ISO7619, ASTM D 2240
- With peak value indicator
- Handhold use or work with test stand (code **ISH-OS2**)



SPECIFICATION

Code	ISH-S30A	ISH-S30D
Scale	Shore A	Shore D
Test material	soft plastic, soft rubber, etc.	hard plastic, hard rubber, etc.
Measuring range *	0~100HA	0~100HD
Graduation	1HA	1HD
Accuracy	±0.5HA	±0.5HD
Indenter protrusion	2.5mm	
Weight	184g	

* Use ISH-S30D when measuring result is higher than 90HA
Use ISH-S30A when measuring result is lower than 20HD

SHORE DUROMETERS

INSIZE PLUS
MADE IN EUROPE

TEST STAND FOR SHORE DUROMETERS

CODE ISH-OS2

INSIZE PLUS
MADE IN EUROPE

- For shore durometers (code **ISH-S30A** and **ISH-S30D**)
- Perform repeatable hardness measurement due to fewer possibilities of human error or measurement variations
- Special structure for stable loading
- 1kg weight block (included) is for **ISH-S30A**,
4kg weight block (**optional**) is for **ISH-S30D**

SPECIFICATION

Stage diameter	Ø98mm
Max. workpiece height	180mm
Max. testing width	115mm (from test point to the column)
Dimension	Ø200×500mm
Weight	18kg

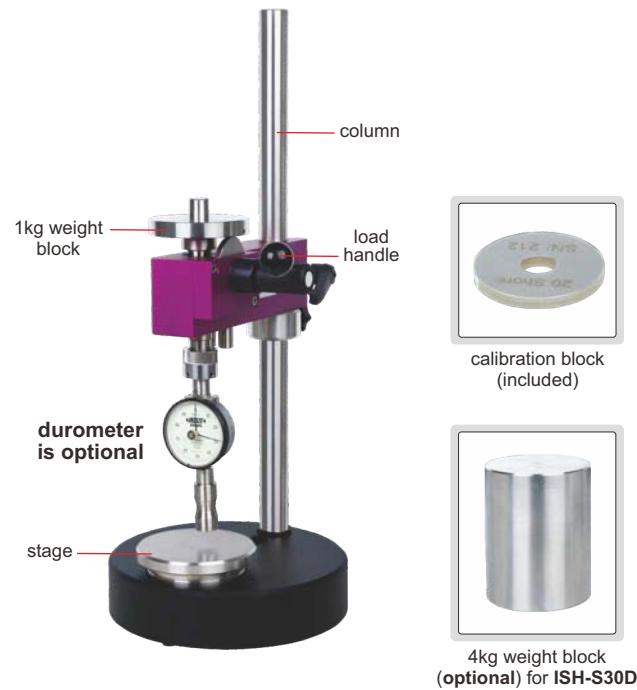
32

STANDARD DELIVERY

Test stand	1 pc
1kg weight block (for ISH-S30A)	1 pc
Calibration block	1 pc

OPTIONAL ACCESSORY

4kg weight block (for ISH-S30D)	ISH-OS2-W4
---	------------

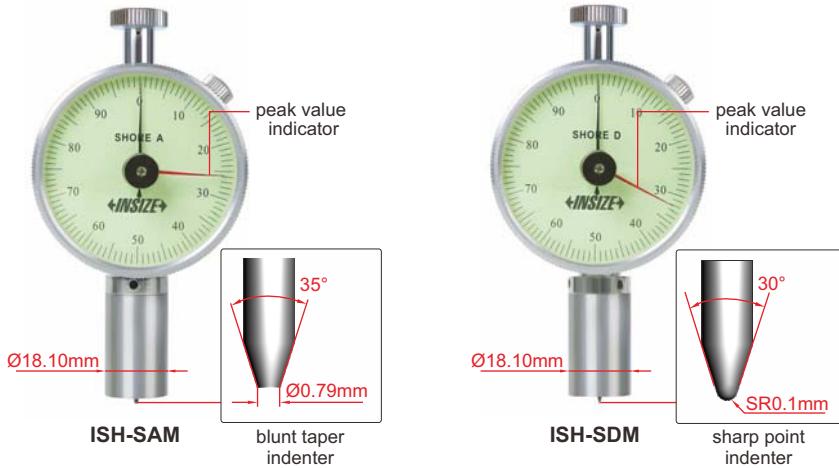


SHORE DUROMETERS



calibration block (optional)

- According to ISO868, ISO7619, ASTM D 2240
- With peak value indicator
- Optional accessory:
test stand **ISH-STAC** and **ISH-STD**



SPECIFICATION

Code	ISH-SAM	ISH-SDM
Scale	Shore A	Shore D
Application	nature rubber, soft elastomer, etc.	hard rubber, plastic, hard elastomer, etc.
Measuring range*	10~90HA	20~90HD
Graduation	1HA	1HD
Indenter protrusion	2.5mm	
Dimension	115×60×25mm	
Weight	160g	

* Use **ISH-SDM** when measuring result is higher than 90HA
Use **ISH-SAM** when measuring result is lower than 20HD

OPTIONAL ACCESSORY

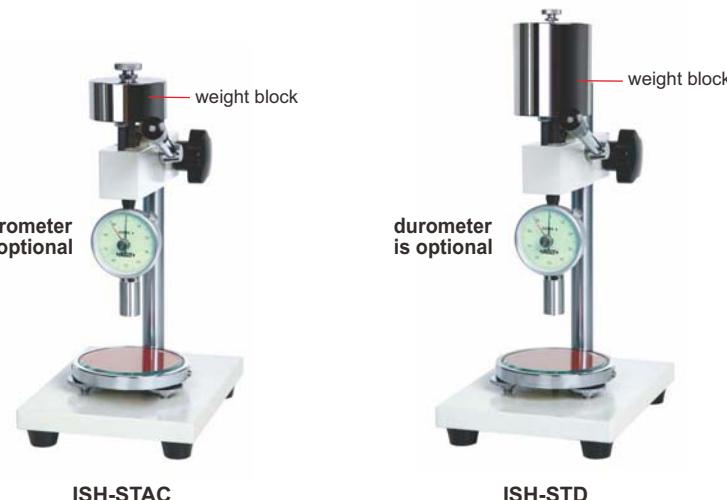
Calibration block	ISH-DS-BLOCK
-------------------	--------------





TEST STANDS FOR SHORE DUROMETERS

- For shore durometers (code **ISH-SAM** and **ISH-SDM**)
- Perform repeatable hardness measurement due to fewer possibilities of human error or measurement variations



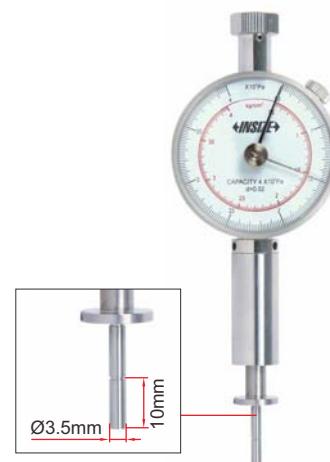
32

SPECIFICATION

Code	ISH-STAC	ISH-STD
Applicable durometer	ISH-SAM	ISH-SDM
Stage diameter	Ø100mm	Ø100mm
Max. workpiece height	75mm	75mm
Max. testing width	65mm (from test point to the column)	65mm (from test point to the column)
Weight block	1kg	5kg

FRUIT HARDNESS TESTER

- Measure the hardness of apples, pears, strawberries and grapes, etc.
- The degree of ripeness can be judged by measuring the hardness of the fruit



9643-4

SPECIFICATION

Code	Range	Graduation	Accuracy	Probe diameter	Probe depth	Dimension	Weight
9643-4	0.5-4kg/cm ² (0.5-4×10 ⁵ Pa)	0.02kg/cm ² (0.02×10 ⁵ Pa)	±2%	Ø3.5mm	10mm	151×55×30mm	0.2kg

HARDNESS TEST BLOCKS

INSPECTION
CERTIFICATE

Rockwell



Vickers



Brinell



Leeb



Micro-Vickers



Knoop



Ultrasonic



Shore

- Supplied with manufacturer inspection certificate

Rockwell hardness test blocks

Code	Type	Hardness
HDT-B-HRA	HRA	80-84
HDT-B-HRB	HRB	88-100
HDT-B-HRC1	HRC	20-30
HDT-B-HRC2	HRC	35-55
HDT-B-HRC3	HRC	60-70
HDT-B-HRD1	HRD	40-47
HDT-B-HRD2	HRD	55-63
HDT-B-HRD3	HRD	70-75
HDT-B-HRE	HRE	107-114
HDT-B-HRF	HRF	105-114
HDT-B-HRG1	HRG	57-82
HDT-B-HRG2	HRG	80-94

Rockwell superficial hardness test blocks

Code	Type	Hardness
HDT-B-HR15N1	HR15N	70-77
HDT-B-HR15N2	HR15N	78-88
HDT-B-HR15N3	HR15N	89-91
HDT-B-HR30N1	HR30N	42-54
HDT-B-HR30N2	HR30N	55-73
HDT-B-HR30N3	HR30N	74-80
HDT-B-HR45N1	HR45N	20-31
HDT-B-HR45N2	HR45N	32-61
HDT-B-HR45N3	HR45N	63-70
HDT-B-HR15T	HR15T	88-93
HDT-B-HR30T	HR30T	73-82
HDT-B-HR45T	HR45T	58-72

Leeb hardness test blocks

Code	Type	Hardness
HDT-B-HLD1	HLD	490-570
HDT-B-HLD2	HLD	590-670
HDT-B-HLD3	HLD	750-830
HDT-B-HLG1	HLG	460-540
HDT-B-HLG2	HLG	550-630

Vickers hardness test blocks

Code	Type	Hardness
HDT-B-HV5A	HV5	175-200
HDT-B-HV5B	HV5	200-300
HDT-B-HV5C	HV5	300-400
HDT-B-HV5D	HV5	400-500
HDT-B-HV5E	HV5	500-600
HDT-B-HV5F	HV5	600-700
HDT-B-HV5G	HV5	700-750
HDT-B-HV10A	HV10	175-200
HDT-B-HV10B	HV10	200-300
HDT-B-HV10C	HV10	300-400
HDT-B-HV10D	HV10	400-500
HDT-B-HV10E	HV10	500-600
HDT-B-HV10F	HV10	600-700
HDT-B-HV10G	HV10	700-750
HDT-B-HV30A	HV30	175-200
HDT-B-HV30B	HV30	200-300
HDT-B-HV30C	HV30	300-400
HDT-B-HV30D	HV30	400-500
HDT-B-HV30E	HV30	500-600
HDT-B-HV30F	HV30	600-700
HDT-B-HV30G	HV30	700-750
HDT-B-HV50A	HV50	175-200
HDT-B-HV50B	HV50	200-300
HDT-B-HV50C	HV50	300-400
HDT-B-HV50D	HV50	400-500
HDT-B-HV50E	HV50	500-600
HDT-B-HV50F	HV50	600-700
HDT-B-HV50G	HV50	700-750
HDT-B-HV100A	HV100	175-200
HDT-B-HV100B	HV100	200-300
HDT-B-HV100C	HV100	300-400
HDT-B-HV100D	HV100	400-500
HDT-B-HV100E	HV100	500-600
HDT-B-HV100F	HV100	600-700
HDT-B-HV100G	HV100	700-750

Continued from previous page

Micro-Vickers hardness test blocks

Code	Type	Hardness
HDT-B-HV005A	HV0.05	200-300
HDT-B-HV005B	HV0.05	300-400
HDT-B-HV005C	HV0.05	400-500
HDT-B-HV005D	HV0.05	500-600
HDT-B-HV005E	HV0.05	600-700
HDT-B-HV005F	HV0.05	700-750
HDT-B-HV01A	HV0.1	200-300
HDT-B-HV01B	HV0.1	300-400
HDT-B-HV01C	HV0.1	400-500
HDT-B-HV01D	HV0.1	500-600
HDT-B-HV01E	HV0.1	600-700
HDT-B-HV01F	HV0.1	700-750
HDT-B-HV02A	HV0.2	200-300
HDT-B-HV02B	HV0.2	300-400
HDT-B-HV02C	HV0.2	400-500
HDT-B-HV02D	HV0.2	500-600
HDT-B-HV02E	HV0.2	600-700
HDT-B-HV02F	HV0.2	700-750
HDT-B-HV03A	HV0.3	200-300
HDT-B-HV03B	HV0.3	300-400
HDT-B-HV03C	HV0.3	400-500
HDT-B-HV03D	HV0.3	500-600
HDT-B-HV03E	HV0.3	600-700
HDT-B-HV03F	HV0.3	700-750
HDT-B-HV05A	HV0.5	200-300
HDT-B-HV05B	HV0.5	300-400
HDT-B-HV05C	HV0.5	400-500
HDT-B-HV05D	HV0.5	500-600
HDT-B-HV05E	HV0.5	600-700
HDT-B-HV05F	HV0.5	700-750
HDT-B-HV1A	HV1	200-300
HDT-B-HV1B	HV1	300-400
HDT-B-HV1C	HV1	400-500
HDT-B-HV1D	HV1	500-600
HDT-B-HV1E	HV1	600-700
HDT-B-HV1F	HV1	700-750

Knoop hardness test blocks

Code	Type	Hardness
HDT-B-HK005A	HK0.05	200-300
HDT-B-HK005B	HK0.05	400-500
HDT-B-HK005C	HK0.05	700-800
HDT-B-HK01A	HK0.1	200-300
HDT-B-HK01B	HK0.1	400-500
HDT-B-HK01C	HK0.1	700-800
HDT-B-HK02A	HK0.2	200-300
HDT-B-HK02B	HK0.2	400-500
HDT-B-HK02C	HK0.2	700-800
HDT-B-HK03A	HK0.3	200-300
HDT-B-HK03B	HK0.3	400-500
HDT-B-HK03C	HK0.3	700-800
HDT-B-HK05A	HK0.5	200-300
HDT-B-HK05B	HK0.5	400-500
HDT-B-HK05C	HK0.5	700-800
HDT-B-HK1A	HK1	200-300
HDT-B-HK1B	HK1	400-500
HDT-B-HK1C	HK1	700-800

Brinell hardness test blocks

Code	Type	Hardness
HDT-B-HB10A1	HBW10/3000	100-200
HDT-B-HB10A2	HBW10/3000	200-300
HDT-B-HB10A3	HBW10/3000	300-400
HDT-B-HB10A4	HBW10/3000	400-500
HDT-B-HB10A5	HBW10/3000	500-600
HDT-B-HB10A6	HBW10/3000	600-650
HDT-B-HB10B1	HBW10/1500	100-200
HDT-B-HB10B2	HBW10/1500	200-300
HDT-B-HB10B3	HBW10/1500	300-400
HDT-B-HB10B4	HBW10/1500	400-500
HDT-B-HB10B5	HBW10/1500	500-600
HDT-B-HB10B6	HBW10/1500	600-650
HDT-B-HB10C1	HBW10/1000	90-200
HDT-B-HB10C2	HBW10/1000	200-300
HDT-B-HB10C3	HBW10/1000	300-400
HDT-B-HB10C4	HBW10/1000	400-450
HDT-B-HB10D1	HBW10/500	90-200
HDT-B-HB10D2	HBW10/500	200-300
HDT-B-HB10D3	HBW10/500	300-400
HDT-B-HB10D4	HBW10/500	400-450
HDT-B-HB25A1	HBW2.5/187.5	100-200
HDT-B-HB25A2	HBW2.5/187.5	200-300
HDT-B-HB25A3	HBW2.5/187.5	300-400
HDT-B-HB25A4	HBW2.5/187.5	400-500
HDT-B-HB25A5	HBW2.5/187.5	500-600
HDT-B-HB25A6	HBW2.5/187.5	600-650
HDT-B-HB25B1	HBW2.5/62.5	90-200
HDT-B-HB25B2	HBW2.5/62.5	200-300
HDT-B-HB25B3	HBW2.5/62.5	300-400
HDT-B-HB25B4	HBW2.5/62.5	400-450
HDT-B-HB5A1	HBW5/750	100-200
HDT-B-HB5A2	HBW5/750	200-300
HDT-B-HB5A3	HBW5/750	300-400
HDT-B-HB5A4	HBW5/750	400-500
HDT-B-HB5A5	HBW5/750	500-600
HDT-B-HB5A6	HBW5/750	600-650
HDT-B-HB5B1	HBW5/250	90-200
HDT-B-HB5B2	HBW5/250	200-300
HDT-B-HB5B3	HBW5/250	300-400
HDT-B-HB5B4	HBW5/250	400-450

Shore hardness test blocks

Code	Type	Hardness*
HDT-B-SA	SA	6 pcs/set (30, 40, 50, 60, 70, 80)
HDT-B-SD	SD	3 pcs/set (15, 30, 90)

*The actual value may be slightly different when delivered

Ultrasonic hardness test blocks

Code	Type	Hardness
HDT-B-HRCU1	HRC	20-30
HDT-B-HRCU2	HRC	35-55
HDT-B-HRCU3	HRC	60-70
HDT-B-HV5U1	HV5	200-300
HDT-B-HV5U2	HV5	400-500
HDT-B-HV5U3	HV5	700-750
HDT-B-HB10U1	HBW10/1000	90-200
HDT-B-HB10U2	HBW10/3000	200-300
HDT-B-HB10U3	HBW10/3000	400-500

CONCRETE STRENGTH TESTERS

DATA
OUTPUT

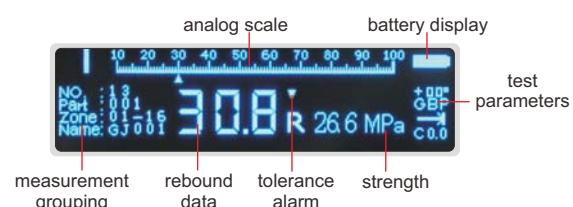
CST-D101

CST-D102



CST-D102 separable

- 32**
- Measure the strength of general building components, bridges and various concrete components (slabs, beams, columns, bridges, etc.)
 - Angle, test surface, pumping, carbonization depth and other parameters can be customized according to the requirements
 - The rebound body can be used for 2000 times
 - USB data transmission
 - The software can automatically generate the test report, and the strength curve can be customized and stored in the tester
 - Storage and reading of 1000 test data
 - According to JGJ/T23-2011, the curve of rebound meter can be customized to calculate the compressive strength of concrete



SPECIFICATION

Code	CST-D101	CST-D102
Display	OLED display	
Range	10-70N/mm ²	
Accuracy	±1R	
Parameter	MPa, N/mm ² , Kgf/mm ²	
Impact energy	2.207J, for testing common buildings or bridge structures	
Output	USB	
Structure	one body, non-separable	separable, the digital display unit can be reused
Memory	1000 data	
Operation temperature	-40°C~60°C	
Power supply	built-in rechargeable battery	
Dimension	280×75×60mm	
Weight	1.1kg	

STANDARD DELIVERY

Main unit	1 pc
Sander	1 pc
Power adapter	1 pc
Software and USB cable	1 pc

OPTIONAL ACCESSORY

Rebound body (for CST-D102)	CST-D102-REBOUND
Digital display unit (for CST-D102)	CST-D102-DISPLAY
Calibration block	CST-D-BLOCK



software (included) for uploading and storing data, printing and importing/exporting strength curves

--	--