# **7**00LSHOP

#### NDT EQUIPMENT / COATING THICKNESS - CAR PAINT

#### **COATING THICKNESS GAUGE / CAR PAINT TESTING BS-100S**



PART	DESCRIPTION
BS-100S	This coating thickness gauge is "Economic model" and can be mainly used to measure the thickness of paint coatings. It is used for nondestructive coating thickness measurement of non-magnetic coatings, e.g. paint, enamel, chrome on steel, and insulating coatings, e.g. paint and anodizing coatings on non-ferrous metals.

#### **BS-100S - TRAITS**

- · Economical Model
- · Easy to do zero calibration
- · Auto shut down
- · Low battery indication



#### **COATING THICKNESS GAUGE / CAR PAINT TESTING BS-770**



PART	BS-770
Measuring range	0~2000um
Accuracy	±(2.5%+1µm)
Resolution	0.1μm(0~99.9μm) , 1μm(□100μm)
Power supply	Two 1.5V AAA batteries
Readings memory	3 reading
Unit	μm, mm, mils
Size / Weight / Case material	114mmX53mmX25mm / 80g / ABS
Standards / Certificates	CE, ROHS, ISO 2178, 2360, GB / T 4956- 2003, 4957-2003
Storage environment	Temperature: -20~60°C
Operation environment	Temperature: -20~60°C





High accuracy and stability

- · 128X128 dot matrix LCD display and menu interface
- LCD can be rotated to be used easily
- · LCD shows mean, maximum, minimum and standard deviation
- · User can set alarm limit and red backlight indication
- · Readings can be stored, recalled and deleted
- · Easy to do zero calibration and support multi-point calibration
- · Connect with PC via USB and download readings
- · Multiple languages supported
- · Up to 5 measurement groups supported
- . Device with internal F/N probe ,CD, manual, 2 batteries, USB cable, ferrous and non-ferrous metal, 5 foils. Automatically detect the substrates type (F or N )
- Red backlight indication when alarm happen
- · LCD rotated 180°
- . Product is manufactured in china under inspection of  ${\tt Blackestone\mbox{-}TOOLSHOP}$







#### NDT EQUIPMENT / COATING THICKNESS - CAR PAINT

#### COATING THICKNESS GAUGE / CAR PAINT TESTING BS-777



#### **BS-777 - TRAITS**

- Double principles in one, ruby probe
- 2.4 inch color screen
- With Bluetooth and APP function
- Car or general mode
- High resolution 0.1μm
- High accuracy  $\pm$ (2%+1 $\mu$ m)
- $\bullet$  Measuring range is  $0^{\sim}2000\mu m$  (other ranges can be customized)
- Statistic analysis of data
- Standardized menu interface
- Display a curve, bar chart or trend chart
- USB to computer
- Support zero calibration and multi-point calibration
- External probe is optional (EC-777E)
- Maximum measuring rate : 2 readings / s
- Backlight Adjustable
- Automatic rotation
- Sound volume adjustable
- $\bullet$  Red LED alarm, blue and green LED status reminder
- Auto shut down
- Low battery protection



The coating thickness gauge can nondestructive measure the thickness of non-conductive coatings on metal surfaces and non-ferromagnetic  $\frac{1}{2} \left( \frac{1}{2} \right) = \frac{1}{2} \left( \frac{1}{2} \right) \left( \frac{1}{2} \right)$ 

metal coatings on ferromagnetic metals (e.g. iron, nickel, cobalt, etc.), including measuring the thickness of iron, stainless steel surface paint or

galvanized layer, measuring the thickness of aluminum, copper surface paint or plastic film.

PART	BS-777
Probe type	Internal probe
Measuring principle	Fe: Magnetic induction ; NFe: Eddy currents
Measuring range	0~2000μm
Accuracy	±(2%+1µm)
Resolution	0.1μm(0~100μm) ; 1μm(>100μm)
Unit	μm, mm, mils, inch
Calibration	Zero calibration and multi - point calibration
Statistic	Number of readings, Max, Min, Mean, sample standard deviation, coefficient of variation, number below limit, number above limit
Chart	Curve, bar chart or trend chart
Readings memory	10X13X10 measurement data
Probe trigger mode	Mechanical trigger, trigger force: 0.4~0.8N
Minimum curvature radius	Convex 5mm ; Concave 25mm
Minimum measuring area	Diameter 15mm
Minimum thickness of substrate	Fe: 0.20mm ; NFe: 0.03mm
Maximum measuring rate	2 readings / s
Display	2.4 inch color screen
Bluetooth & APP	Supporting
Operation environment	Temperature: -10~50°C; Humidity: 20~90%RH (Noncondensing)
Storage environment	Temperature: $-20^{\circ}60^{\circ}C$ ; Humidity: $20^{\circ}90\%$ RH (Noncondensing)
Power supply	$2\ pcs\ 1.5V\ AA\ alkaline\ batteries$ ; $2\ pcs\ 1.2V\ AA\ rechargeable\ batteries$
Protection class	IP40
Size	146X76X32mm
Weight	137 Grams
Standards / Certificates	CE, ROHS, ISO 2178, 2360, GB / T 4956-2003, 4957-2003, JJG-818-2005
Warranty	12- Months * by Blackestone –TOOLSHOP



### PROFESSIONAL NDT EQUIPMENT / COATING THICKNESS GAUGE

#### **COATING THICKNESS GAUGE BS 6102**



The instrument is a type of portable measuring gauge, capable of measuring rapidly, nondestructively, and precisely the thickness of coating and cladding material. It is suitable for on site as well as for laboratory uses. Via the using of different probes, many sorts of measuring can be satisfied by the gauge. It can be applied comprehensively to manufacturing, metal processing and chemical profession as well as to commercial inspection. It is indispensable for the major of materials protection.

PART	BS-6102
Measuring range	$0\text{-}1250\mu\text{m},$ depends on probes, MAX 10mm for the probe F10.
Working principle	Magnetic & Eddy
Substrate	FE / NFE base
Resolution	0.1µm
Display	128x64 LCD with backlight
Accuracy	±2%H+1um Note: H is thickness reading
Memory	5 files x 100 values
Unit switch	Metric (µm) Imperial (mil)
Working temperature	Operation Temp. : -10~50°C Storage Temp. :- 30~70°C
Power	AA battery 2pcs
Weight	340g
Size	126*67*32mm

#### **BS-6102 - TRAITS**

- Two thickness measuring methods adopted, the gauge can be applied to thickness measuring of non-magnetic coating on magnetic metal substrate as well as non-conductive coating on non-magnetic metal substrate;
- Multi type probe can be used (F1,F1/90,F10,N1,N1/90°,N10)
- 2 measuring modes are available: continuing measuring mode (CONTINUE) and single measuring mode (SINGLE)
- 2 operation modes are available: direct mode (DIRECT) and batch mode (A-B)
- 5 statistic values: mean value (MEAN), max. Value (MAX), min. Value (MIN), numbers of measuring (NO.), standard deviation (S.DEV)
- 2 methods can be used to calibrate the gauge, and the system error of the probe can be corrected by use of basic calibrating method
- Storage function: 500 measuring values can be stored
- Deletion function: delete the single questionable data occurring in measuring, as well as all of the data in memory area to perform the new measuring
- Limit can be set: capable of alarming automatically for measuring values out of limit; and a batch of measuring values can be analyzed via histogram
- Capable of communication with PC: measuring values and statistic values can be sent to PC to perform the further process for data
- Indication of low voltage
- Buzzing indication in the course of operation
- With the function of error warning, error warning can be carried out through display or buzzing

#### **BS-6102 standard supply**

Description	QTY
Main unit	1
Probe (Fe or NFe)	1
Calibration piece + Zeroing plate	5+1
AA battery (Non-	none, the flight is not permitted
aviation)	
aviation) Operating manual	1
,	1



### PROFESSIONAL NDT EQUIPMENT / ULTRASONIC THICKNESS GAUGE

ULTRASONIC THICKNESS GAUGE BS 5101 Ultrasonic Thickness Gauge measuring with ultrasonic wave, is applicable for measuring the thickness of any material in which ultrasonic wave can be transmitted and reflected back from the other face.

> The gauge can provide quick and accurate measurement to various work pieces such as sheets of board and processing parts. Another important application of the gauge is to monitor various pipes and pressure vessels in production equipment, and monitor the thinning degree during using. It can be widely used in petroleum, chemical, metallurgy, shipping, aerospace, aviation and other fields.







#### BS-5101 - TRAITS

Capable of performing measurements on a wide range of material, including metals, plastic, ceramics, composites, epoxies, glass and other ultrasonic wave well-conductive materi-

PART	BS-5101
Measuring range	(0.75~600)mm(Steel)
Velocity Range	(1000~9999) m/s
Resolution	0.01mm
Display	128*64 LCD with LED backlight, Color display
Measuring Accuracy	$\pm$ (0.5%H+0.04mm);H is thickness value
Storage	3000 values of saved data
Working time	More than 50 hours (LED backlight off)
Power	AA 1.5V batteries 4pcs / USB port
Weight	245g
Size	160mm*78mm*33 mm

- Can collocate variety different frequencies, wafer sizes of probes
- Sound Velocity Calibration function as a known thickness
- Coupling status indicator showing the coupling status
- EL backlight, and convenience to use under dark environment
- Have the battery indicator function, can real-time display the remaining power
- Auto sleep and auto power off function to conserve battery life
- Smart, portable, high reliability, suitable for bad environment, resist to vibration, shock and electromagnetic interference

#### **Primary Theory**

The digital ultrasonic thickness gauge determines the thickness of a part or structure by accurately measuring the time required for a short ultrasonic pulse generated by a transducer to travel through the thickness of the material, reflect form the back or inside surface, and be returned to the transducer. The measured two-way transit time is divided by two to account for the down-and-back travel path, and then multiplied by the velocity of sound in the material. The result is expressed in the well-known relationship:

#### **BS-5101 standard supply**

Description	QTY
Name	QTY
Main Body	1 set
Standard Probe (5MHz,D10mm)	1 pc
Couplant	1 pc
ABS Case	1 pc
Product Certificate	1 pc
Warranty Card	1 pc
Manual	1 pc
1.5V AA size battery	2 pcs



Where:

H-Thickness of the test piece.

V-Sound Velocity in the material.

t-The measured round trip transit time.

Name	Model	Fre	Dia	Testing Range	Min.area f	Application
Large diameter probe	N02	2.5	14mm	3.0mm~400.0mm(steel) Below 40mm(Gray Iron )	20mm	casting work piece
Large range probe	N02	2	14mm	3.0mm~600.0mm(steel) Below 100mm(Gray Iron )	20mm	casting work piece
Standard probe	N05/90°	5	10mm	1.0mm~230.0mm(steel)	Ф20mm*3.0mm	General bent probe
Micro-diameter probe	N07	7	6mm	0.28mm~80.0mm(steel)	Ф15mm*2.0mm	thin work piece
High Temperature Probe	HT5	5	14mm	3~200mm (steel)	30mm	high temperature

#### PROFESSIONAL NDT EQUIPMENT / ULTRASONIC THICKNESS GAUGE

## (THROUGH COATING)

ULTRASONIC THICKNESS GAUGE, BS 5103 Ultrasonic Thickness Gauge measuring with ultrasonic wave, is applicable for measuring the thickness of any material in which ultrasonic wave can be transmitted and reflected back from the other face.



The gauge can provide quick and accurate measurement to various work pieces such as sheets of board and processing parts. Another important application of the gauge is to monitor various pipes and pressure vessels in production equipment, and monitor the thinning degree during using. It can be widely used in petroleum, chemical, metallurgy, shipping, aerospace, aviation and other fields.



Through coating measurement for gauging thickness of a painted object without removing the nonmental coating

#### BS-5103 - TRAITS

Capable of performing measurements on a wide range of material, including metals, plastic, ceramics, composites, epoxies, glass and other ultrasonic wave well-conductive materi-

PART	BS-5103
Measuring range	(0.75~600)mm(Steel), (Through Coating :3-25mm)
Velocity Range	(1000~9999) m/s
Resolution	0.01mm
Display	128*64 LCD with LED backlight
Measuring Accuracy	$\pm$ (0.5%H+0.04mm);H is thickness value
Measurement cycle	Single point measurement 6 times/per
Storage	40 values of saved data
Working time	More than 50 hours (LED backlight off)
Power	AA 1.5V batteries 4pcs / USB port
Weight	245g, SIZE: 145mm*74mm*32 mm

- Can collocate variety different frequencies, wafer sizes of probes
- Sound Velocity Calibration function as a known thickness
- Coupling status indicator showing the coupling status
- EL backlight, and convenience to use under dark environment
- Have the battery indicator function, can real-time display the remaining power
- Auto sleep and auto power off function to conserve battery life
- Smart, portable, high reliability, suitable for bad environment, resist to vibration, shock and electromagnetic interference

#### **Primary Theory**

The digital ultrasonic thickness gauge determines the thickness of a part or structure by accurately measuring the time required for a short ultrasonic pulse generated by a transducer to travel through the thickness of the material, reflect form the back or inside surface, and be returned to the transducer. The measured two-way transit time is divided by two to account for the down-and-back travel path, and then multiplied by the velocity of sound in the material. The result is expressed in the well-known relationship:

#### **BS-5103 standard supply**

Description	QTY
Name	QTY
Main Body	1 set
Standard Probe (5MHz,D10mm)	1 pc
Couplant	1 pc
ABS Case	1 pc
Product Certificate	1 pc
Warranty Card	1 pc
Manual	1 pc
1.5V AA size battery	2 pcs



Where:

H-Thickness of the test piece.

V-Sound Velocity in the material.

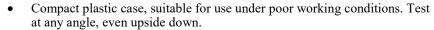
t-The measured round trip transit time.

Name	Model	Fre	Dia	Testing Range	Min.area f	Application
Large diameter probe	N02	2.5	14mm	3.0mm~400.0mm(steel) Below 40mm(Gray Iron)	20mm	casting work piece
Large range probe	N02	2	14mm	3.0mm~600.0mm(steel) Below 100mm(Gray Iron )	20mm	casting work piece
Standard probe	N05/90°	5	10mm	1.0mm~230.0mm(steel)	Ф20mm*3.0mm	General bent probe
Micro-diameter probe	N07	7	6mm	0.28mm~80.0mm(steel)	Ф15mm*2.0mm	thin work piece
High Temperature Probe	HT5	5	14mm	3~200mm (steel)	30mm	high temperature

## **Z**OOLSHOP

#### PROFESSIONAL NDT EQUIPMENT / HARDNESS TESTERS

#### **PORTABLE HARDNESS TESTER, BS 7100**



- Wide measuring range. It can measure the hardness of all metallic materials. Direct display of hardness scales HRB, HRC, HV, HB, HS, HL
- Large screen (segment LCD), showing all functions and parameters. With EL background light.
- Large capacity memory could store 100 groups information.
- Data pro Software to connect with PC via RS232 port. Micro printer support



Measuring Range	(170-960)HLD,(17.9-69.5)HRC,(19-651)HB,(80-1042)HV, (30.6-102.6)HS,(59.1-88)HRA,(13.5-101.7)HRB,also can customized
Impact Directions	360° (↓∇↗↘ۈ→←↑)
Accuracy	±6HLD
Display	segment LCD
Memory	Max. 100 groups (relative to impact times 32~1)
Work Voltage	3V(2 AA size alkaline battery)
Communication interface	RS232
Hardness Scale	HL、HB、HRB、HRC、HRA、HV、HS
Weight	0.6kg
Continuous Working Period	about 100 hours (With backlight off)

- Die cavity of molds
- Bearings and other parts
- Failure analysis of pressure vessel, steam generator and other equipment
- Heavy work piece
- The installed machinery and permanently assembled parts.
- Testing surface of a small hollow space
- Material identification in the warehouse of metallic materials
- Rapid testing in large range and multi-measuring areas for large-scale work piece

#### **BS-7100 standard supply**

No.	Item	Qty
1	Main unit	1
2	D type impact device +cable	1
3	Standard test block	1
4	Cleaning brush (I)	1
5	Small support ring	1
6	Alkaline battery	2
7	Manual	1
8	Package case	1







#### PROFESSIONAL NDT EQUIPMENT / HARDNESS TESTERS

#### **PORTABLE HARDNESS TESTER, BS 7102**





Measuring Range	HLD(170-960),HRC(17.9-69.5),HB(19-651),HV(80-1042),HS (30.6-102.6),HRA(59.1-88),HRB (13.5-101.7),also can customized
Impact Directions	Up, down, horizontal, slanting up, slanting down
Measuring Materials	Steel and cast steel, alloy tool steel, stainless steel, gray cast i ron, nodlar cast iron, cast aluminum alloy, copper zinc alloys (brass), an alloy of copper and tin, copper (bronze), forged steel
Standards	ASTM A956、DIN50156-1、GB/T17394-1998
Hardness Scales	HL、HB、HRB、HRC、HRA、HV、HS.
Tensile Strenght	374 to 2652 N/m 2
Display	240*320 TFT large display, showing all functions
Memory	600 groups max.(relative to impact times 32~1)
Work Voltage	9V/500mA.
Interface Port	USB2.0
Dimensions	210 * 85 * 45mm (host).
Weight	0.6kg (host).
Continuous Working Period	about 150hours(With backlight off, no printing)

- Die cavity of molds
- Bearings and other parts
- Failure analysis of pressure vessel, steam generator and other equipment
- Heavy work piece
- The installed machinery and permanently assembled parts
- Testing surface of a small hollow space
- Material identification in the warehouse of metallic materials

#### **BS-7102 standard supply**

Main unit, D type impact device with cable, Std. test block, cleaning brush, charger, data pro soft ware, communication cable, paper for printer, and a package case.

#### **Features**

Support "forged steel (Steel)" material, when using the D/DC impact device test "forged" sample, can read HB value directly, without the need for manual checking table.

Wide measuring range. It can measure the hardness of all metallic materials. Direct display of hardness scales HRB, HRC, HRA, HV, HB, HS, HL and three types of strength values(MPA) immediately.

Seven impact devices are available for special application. Automatically identify the type of impact devices.

Large capacity memory could store 600 groups (Relative to average times32~1) information including single measured value, mean value, testing data, impact direction, impact times, material and hardness scale etc.

Upper and lower limit can be preset. It will alarm automatically when the result value exceeding the limit.

Battery information indicates the rest capacity of the battery and the charge status.

User calibration function.

USB port with the PC humanity multi-functions data proceeding software.

Original imported high speed thermal printer support the immediate printing function. It can save data permanently. Li rechargeable battery as the power source. Charge circuit integrated inside the instrument. Continuous working period of no less than 150 hours (EL off and no printing).

Auto power off to save energy.

Industrialized housing design, sturdy, compact, portable, high reliability, suitable for harsh operating environment, vibration, shock and electromagnetic interference.



#### PROFESSIONAL NDT EQUIPMENT / HARDNESS TESTER

#### **BARCOL HARDNESS TESTER BS-934-1**



Standard Durometro Barcol Hardness Tester Impressor is an indentation hardness tester. The operation is easy, quick and almost non-destructive. The test is as simple as one press. It is a convenient tool for testing the hardness of aluminum, aluminum alloys and fiber reinforced plastics, which conforms to American Standard ASTM B648.

Standard Durometro Barcol Hardness Tester is mainly used to test the hardness of aluminum and aluminum alloys, to test the hardness of other soft metals and glass fibre reinforced plastic products. It can also be used to test the hardness of extra large, extra wide, extra thick work pieces, and to test the hardness of boards, belt materials, section materials, forgings and castings etc.

Standard Durometro Barcol Hardness Tester is commonly used as supplement of Webster Hardness Testers. It is usually used when test the hardness of pure aluminum, low hard aluminum alloys and extra large, extra thick materials.

#### **Features**

- 1. Standard Durometro Barcol Hardness Tester Impressor is a portable indentation hardness tester.
- 2. Single hand operation, operating experience required can test any operating experience which is reachable in any site
- 3. Wide valid testing range equivalent to Brinell hardness 25-150HBW, used to test the hardness of all kinds of aluminum from very soft aluminum to very hard alloys.
- 4. Barcol impressor has a wide range of application. Model 934-1 can be used to test aluminum and aluminum alloys, copper and copper alloys, glass fiber reinforced plastics, rigid plastics, etc. The improved type can be used to test lead, tin and other soft metal, and flexible plastics, rubber, felt, leather, and so on.
- 5. With 100 scales, our Barcol Impressor is of higher sensitivity than commonly used Webster hardness testers in aluminum alloy industry.
- 6. It could finish the testing work on one side of the work piece, without trouble of moving or supporting the work piece. Due to this feature, the hardness tester can be used to test extra large, extra thick work pieces and assembly parts.
- 7. By use of the conversion table, the test results can be easily converted to HB, HR, HV and HW. Standard Durometro Barcol Hardness Tester meets the requirement of ASTM B648-2000 standard.

PART	BS-934-1
Testing Range	0~100HBa (25~150HBW)
Resolution	0.5HBa
	Indenter 26° pan head cone, head face diameter 0.176mm
Error	≤±1~2HBa
Indication Error	Hardness range 45~55HBa ±2HBa Hardness range 84~88HBa ±1HBa
Repeatability Error	Hardness range 45~55HBa ±2.5HBa Hardness range 84~88HBa ±1.5HBa
Resolution	0.5HBa
Weight	0.5kg



#### PROFESSIONAL NDT EQUIPMENT / HARDNESS TESTER

#### WEBSTER HARDNESS TESTER

Webster Hardness Tester is an instrument that can promptly on-site test the hardness of aluminum alloy material, including section bar, tubes, plates, aluminum parts, and hardness of other soft mental. It is such an instrument convenient in usage, with a simple "clamp" and direct result-reading, that it always receives good feedback of high efficiency and strong stability.

Webster Hardness Tester is the best choice for mechanical testing on aluminum alloy material, it is conform to Chinese nonferrous standard YS/T420-2004 and US standard ASTM B647-84(2000).

#### **Using Scope**

Especially suitable in production site, sales site or construction site for quickly testing on bulk products with non-destructive quality inspection piece by piece.

Besides aluminum alloy material, it is also suitable to test red copper, brass, soft copper etc.

- Indenter: Re-engineered with advanced material and new production technology manufactured, higher hardness, long service life, good interchangeability
- Indicator Hand: High strength indicator hand, less likely to be bent by long-term using or mis-operation;
- Dial Glass: High strength, high toughness, uneasy to be broken or scratched;
- Handle: Forged aluminum alloy handle with fine anodized finishing, high resistance to abraision and stain;
- Hardness Blocks: Tested by standard Rockwell hardness tester, attached with test report;
- Good Stability: Stable full scale point, stable calibration point, indicator never glides;
- Easy Conversion: Results can be converted to Vickers, Rockwell and Brinell.





PART	APPLICABLE MATERIALS	HARDNESS RANGE	SPECIMEN SIZE/MM
BSW-20	Aluminum Alloy	25 –110 HRE 58-131 HV	Thickness 0.4-6 Inner diameter > 10
BSW-20A	Aluminum Alloy	25 –110 HRE 58-131 HV	Thickness 0.4 - 13 Inner diameter > 10
BSW-20B	Aluminum Alloy	25 –110 HRE 58-131 HV	Thickness 0.4-8 Inner diameter > 6
BSW-B75B	Brass in hard or half hard state, super hard, aluminum alloy	63-105 HRF	Thickness 0.4 –8 Inner Diameter >6
BSW-BB75	Soft brass , pure copper	18-100 HRE	Thickness 0.4 –6 Inner Diameter >10
BSW-B92	Cold rolled steel sheet, stainless steel	50-92 HRB	Thickness 0.4 –6 Inner Diameter >10



#### PROFESSIONAL NDT EQUIPMENT / SURFACE ROUGHNESS

#### SURFACE ROUGHNESS TESTER BS-462, TOUCH SCREEN

#### **Features**

- New design: Users-friendly system and intuitive menu navigation
- Measurement mode: general measuring and Splittype measuring (take off sensor) can be selected
- Multi-direction measurement such as lateral and upside
- DSP chip controlled achieves high accuracy and fast testing speed
- 3.5-inch LCD touch screen, digital and colour graphic display with backlight
- Touch screen & button operation are both available
- Rechargeable Li-ion battery allows you to make on-site measurements( > 50 hours continuously)
- Multi-functions: Bluetooth printing, Operation by APP, operate indications, Automatic sleep/shutdown and etc.
- Calculation results, assessed profiles, bearing and amplitude curves can be displayed, Easy to connect with computer and printer.









Operation by APP

Split Type Measuring

General Measuring

Technical Parameters		
M	odel	BS462
Measuring range		160μm( -80μm ~ +80μm)/
Maximum dri	ve stroke length	20mm (0.78 inch)
Reso	olution	0. 001μm
Roughness parameters		Ra,Rz,Rq,Rt, Rp,Rv,R3z,R3y,Rz(JIS),Rs,Rsk,Rsm,Rku,Rmr; Ry; Rmax, Rc, RPc, Rk, Rpk, Rvk, Mr1, Mr2
Sta	ndard	ISO,ANSI,DIN,JIS
Graphics		Curves, roughness profile, direct profile
Filtering methods		RC,PC-RC, Gauss, D-P
Sample length (Ir)		0.25,0.8,2.5mm
Evaluation length (In)		Ln= lr×n n=1~5
	Measuring principle	Displacement differential inductor (Inductive)
	Stylus	Stylus Diamond,90°,5µm radius of stylus
Standard Sensor	Stylus force	<4mN
Standard Sensor	Lead head	Cemented carbide, sliding direction radius 40mm
	Sliding speed	Ir=0.25, Vt=0.135mm/s; Ir=0.8, Vt=0.5mm/s; Ir=2.5, Vt=1mm/s; Return Vt=1mm/s
Indication error		≤ ±7%
Indication variability		< 6%
Memory		100 groups (data and graphic)
Power supply		3300mAh Rechargeable Li-ion battery
Dimension (mm)		Main body:64*53*160 Sensor dirver: 23*27*115
Weight		About 380g (Main body)
Operation environment		Temperature:- 20°C~40°C,Humidity:<90% RH
Storage/transportation environment		Temperature:- 40°C~60°C,Humidity:<90% RH

## **T**OOL SHOP

### PROFESSIONAL NDT EQUIPMENT / SURFACE ROUGHNESS

#### HIGH PRECISION SURFACE ROUGHNESS TESTER BS-462, TOUCH SCREEN

On-site Measurement & Application









- Bracket of Sensor
- Multi-direction Test
- Measure the roughness of various of surface

LCD touch screen









• On-site Measurement

•Touch screen & button operation

### Application

- It can measure the roughness of various machined parts, such as plane surface, bevel surface, outer cylindrical surface, curved surface, small hole, groove and car axle etc.
- Application for Surface roughness measurement of metal and non-metal parts and workpiece, including a variety of machining parts, machining manufacturing, testing, commodity inspection departments, it is especially suitable for on-site inspection of large workpiece and production lines and the inspection, measurement, commodity inspection and other departments of the outbound verification, no damage to the workpiece.

Roughness Measuring Range			
Parameters	Display range	Parameters	Display range
Ra,Rq	0.005μm ~ 30μm	Rz,R3z,Ry,Rt,Rp,Rm	0.02μm ~ 320μm
Sk	0 ~ 100%	S,Sm	1mm

#### STANDARD SUPPLY

STANDAND SOLLE			
Main unit	1	Cable for driver	2
Std, sensor	1	Supporting platform	1
Calibration	1	platiolili	
block		Power charger	
Height bracket	1	Warranty card	1
Manual & Cer- 1 tificate		C€ F© I	so
Sensor driver	1	→ ← ← ← ← ← ← ← ← ← ← ← ← ← ← ← ← ← ← ←	(ware

#### 

Display in various parameter

LCD

C(Rt) Rmr 0 Rev 100× 15% 19.1% 10% 23.0% 20.6% 20% 30.4%

Assesses and display curves



### PROFESSIONAL NDT EQUIPMENT / SURFACE ROUGHNESS

#### HIGH PRECISION SURFACE ROUGHNESS TESTER BS-432

#### **Features**

 $\label{thm:continuous} \mbox{Five optional sensors for measuring special shaped work-pieces.}$ 

DSP chip controlled achieves high accuracy and fast testing speed.

Matrix LCD screen displays all parameters and data.

13 parameters and 4 filtering methods: RC, PC-RC, GAUSS and D-P.

High quality with ISO/ DIN/ CE/ JIS/ FCC standards.

Memory: 100 groups of measuring data.

Power supply: 3.7V rechargeable Li-ion battery.

Standard Sensor: diamond stylus with radius  $5\mu m,$  force 4mN(0.4gf), and angle  $90^\circ$ 

Available PC software for data management and Excel reports.

Optional printer connecting by USB.

PART	BS-934-1
Testing Range	0~100HBa (25~150HBW)
Resolution	0.5HBa
	Indenter 26° pan head cone, head face diameter 0.176mm
Error	≤±1~2HBa
Indication Error	Hardness range 45~55HBa ±2HBa Hardness range 84~88HBa ±1HBa
Repeatability Error	Hardness range 45~55HBa ±2.5HBa Hardness range 84~88HBa ±1.5HBa
Resolution	0.5HBa
Weight	0.5kg

