

2026
2027

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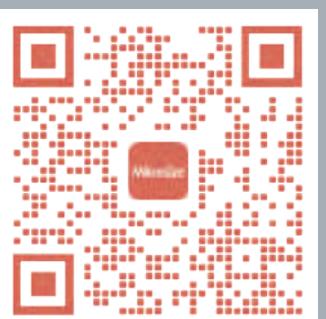


Mikrosize Makes Testing & Measuring More Precise and Easier
Welcome to Contact Mikrosize for Distribution Relationship

Anhui Mikrosize Precision Instrument Co.,Ltd

A-4035 RuiFeng Business Expo , Wuhu City, China.

Web: www.mikrosize.com Email: mikrosize@mikrosize.com



MikroSize®

MEASURING & TESTING

2026-2027/CATALOGUE

CATALOGUE



PORTABLE INSTRUMENT

ABOUT



Mikrosize Focus on Measuring and Testing.

Mikrosize Products Cover the Measuring & Testing needs of Industry:

- Measuring Geometric Dimensions & Form and Position Tolerances
- Metallographic Analysis
- Hardness Measurement
- Inspection of Surface and Interior of Workpieces
- Tensile, Pushing Force and Torque Testing



Mikrosize is Dedicated to Making Measuring and Testing More Precise and Easier.

Mikrosize is Doing Service for Worldwide Customers.

PAGE 1-50



Ultrasonic Flaw Detector



Ultrasonic Thickness Gauge



Coating Thickness Gauge



Vibration Tester



Force Gauge



Electric Testing



Tachometer



Wind Speed Meter

Spectrophotometer



Portable XRF Spectrum Analyzer



Ultrasonic Test Block



Ultrasonic Flaw Detector Probe



Thickness Gauge Accessories

PAGE 52-120



02

OPTICAL INSTRUMENT

Metallographic Microscope

Video Microscope

Stereo Microscope

Toolmakers Microscope



Mounting Press Consumables

Grinding Polishing Consumables

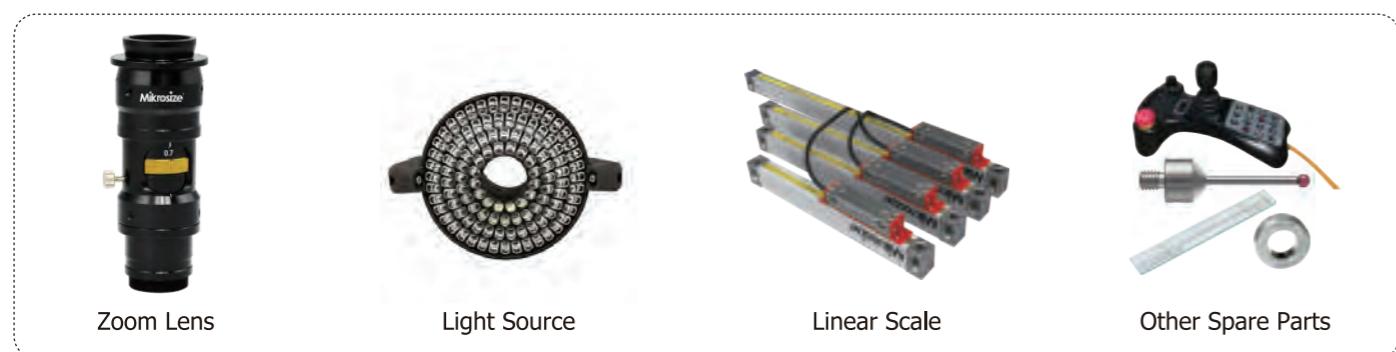


Manual Video Measuring System

Semi-auto Video Measuring System

CNC Video Measuring System

Profile Projector



Zoom Lens

Light Source

Linear Scale

Other Spare Parts

PAGE 123-182



Cutting

Mounting Press

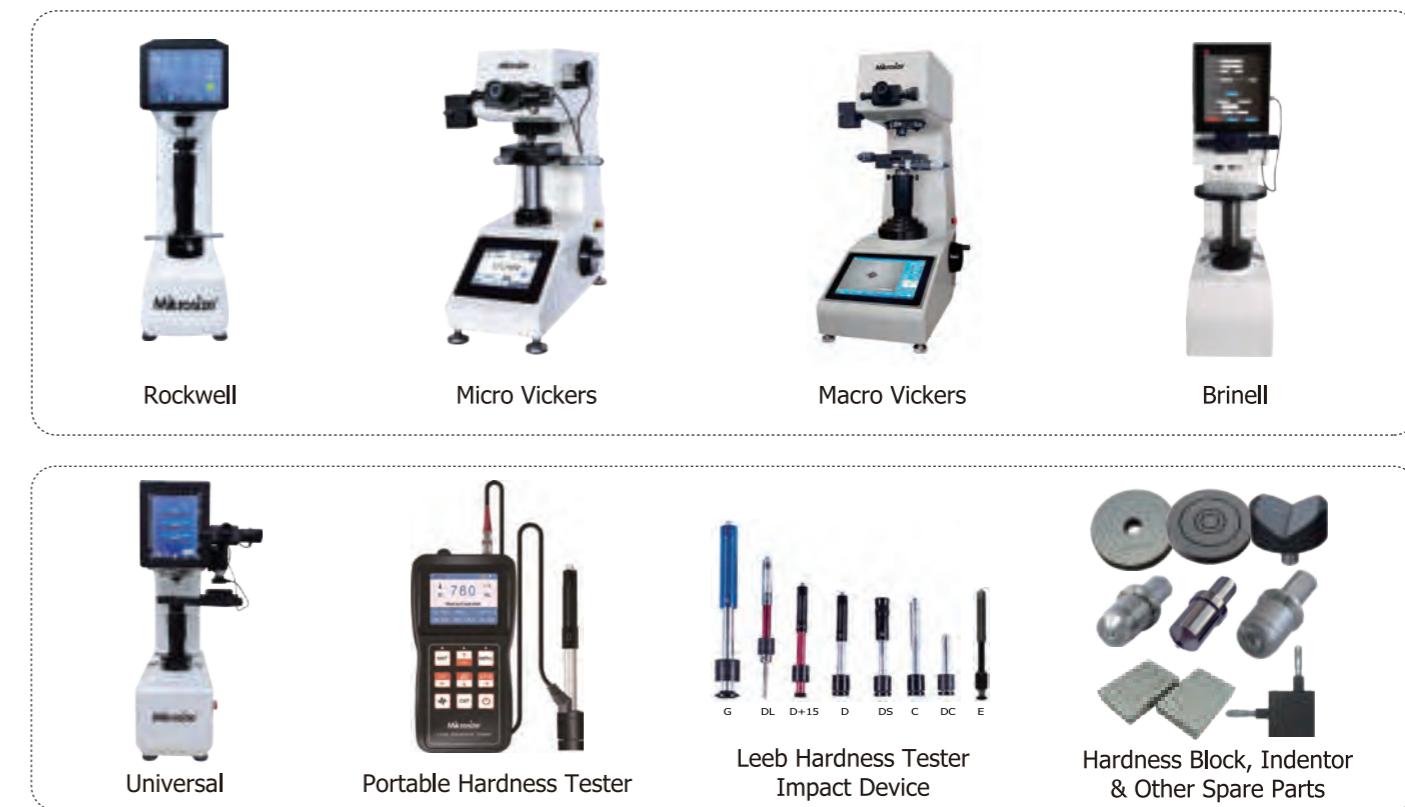
Grinding Polishing

Cutting Consumables

03

METALLOGRAPHIC EQUIPMENT

PAGE 184-266



Rockwell

Micro Vickers

Macro Vickers

Brinell



Universal

Portable Hardness Tester

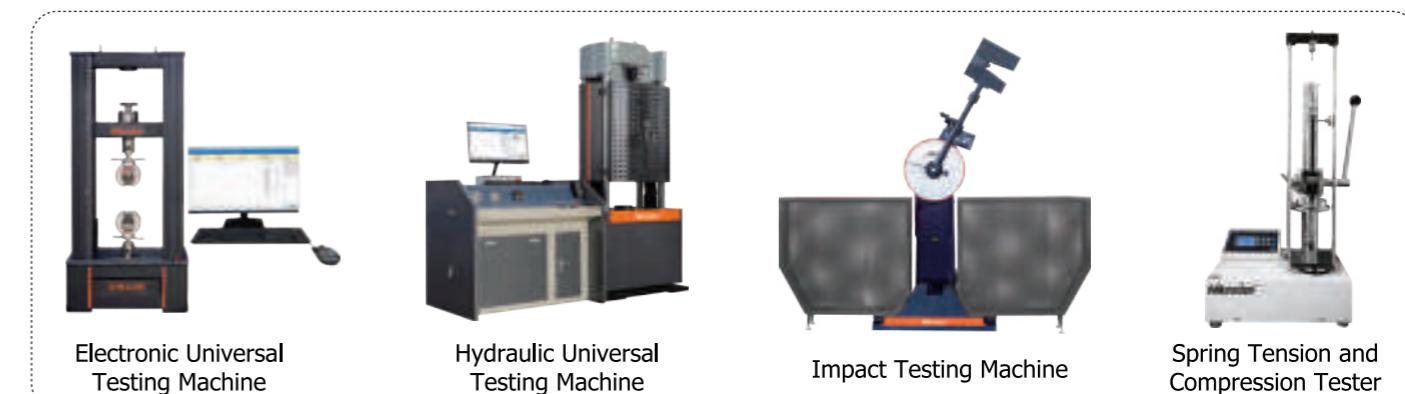
Leeb Hardness Tester Impact Device

Hardness Block, Indentor & Other Spare Parts

PAGE 270-329

04

HARDNESS TESTER



Electronic Universal Testing Machine

Hydraulic Universal Testing Machine

Impact Testing Machine

Spring Tension and Compression Tester

PAGE 270-329



Cutting

Mounting Press

Grinding Polishing

Cutting Consumables

05

FORCE TESTER

05

FORCE TESTER

PAGE 256-300



Single Column Electronic Universal Testing Machine



Touch Screen Single Column Electronic Universal Testing Machine



Touch Screen Single Column Electronic Universal Testing Machine



Dual-Column Universal Material Testing Machine (Bench Type)



Dual Columns Electronic Universal Testing Machine



Computerized Dual-column Servo Tensile Testing Machine



Dual Columns Electronic Universal Testing Machine



High and Low Temperature Electronic Universal Testing Machine



Insertion Extraction Force Plug Testing Machine



Automatic Load Displacement Curve Tester



Fixture



Extensometer

PAGE 331-335



MS1000KF General Electronic Balance



MS2003GH Electronic Balance



MS63B Electronic Balance



MS602L Electronic Balance



MS21D Electronic Balance

06

ELECTRONIC BALANCE

PAGE 337-354

ROUGHNESS, CONTOUR AND ROUNDNESS TESTER



Roughness and Contour Measuring Instrument



Roundness and Cylindricity Measuring Instrument

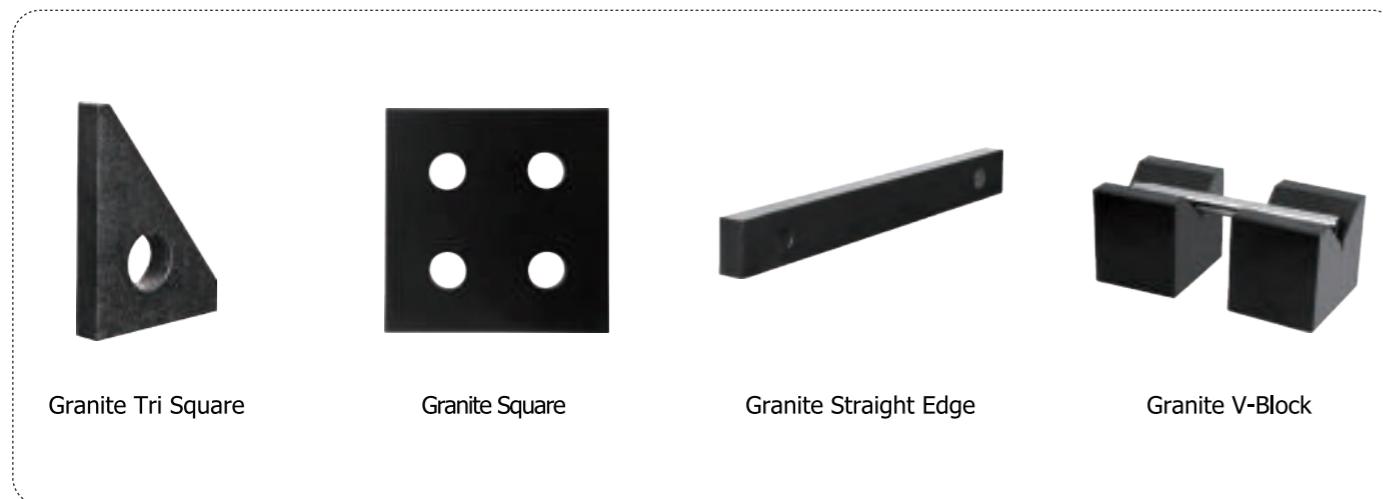


Portable Roughness Tester

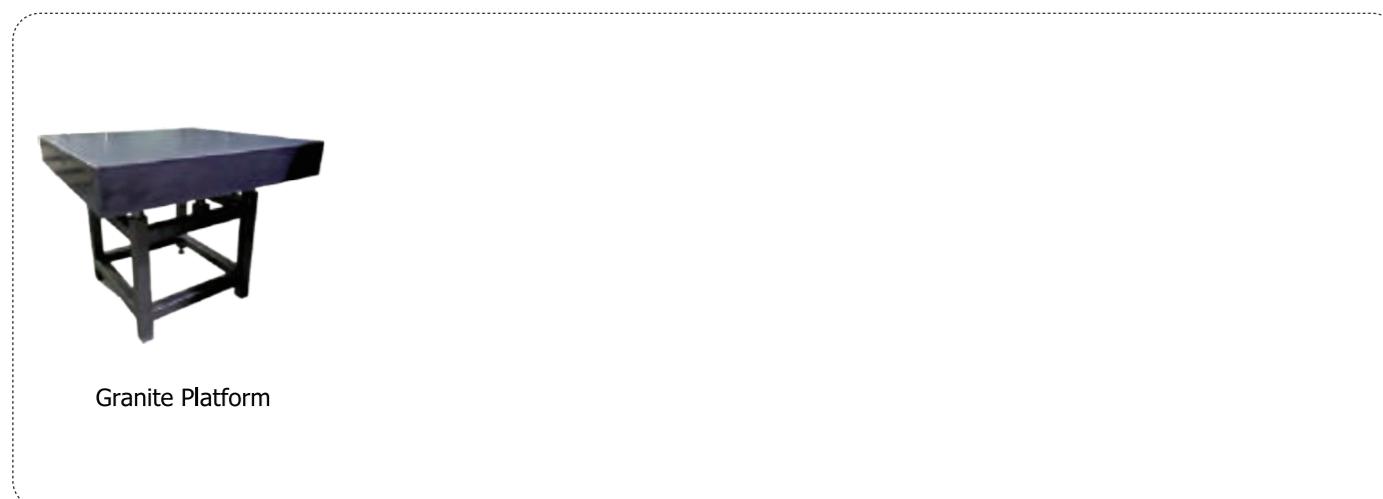
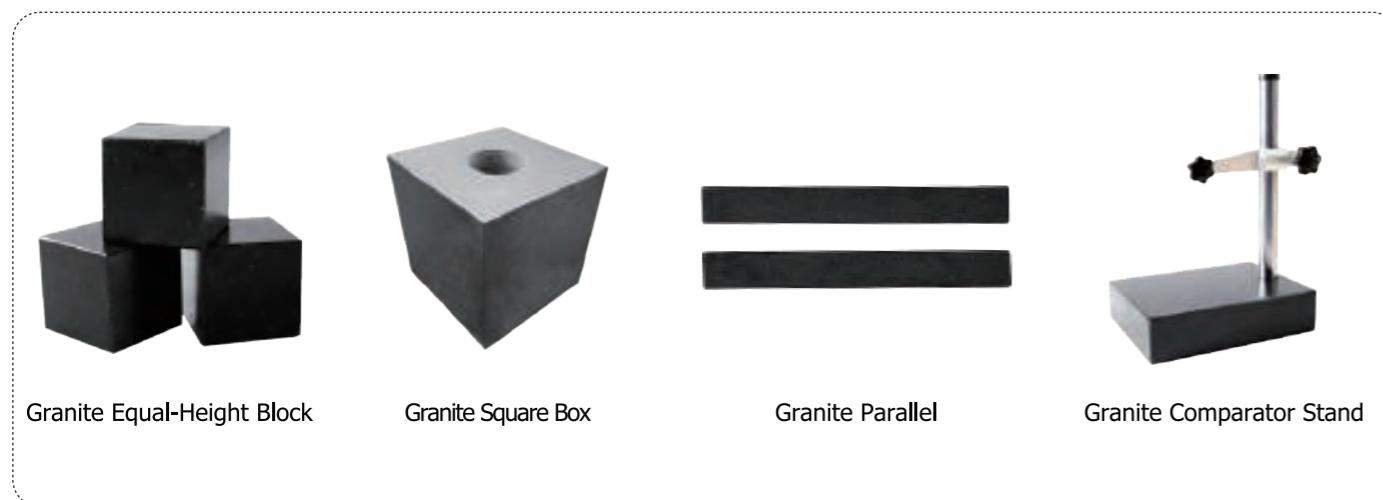


Standard Sensor

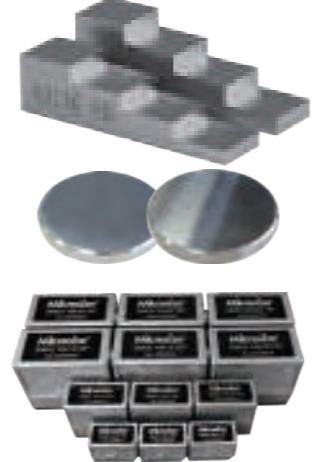
GRANITE SET-UP TOOLS



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Product	Name	Page
	Ultrasonic Flaw Detector	3
	Vibration Tester	26
	Ultrasonic Thickness Gauge	16
	Force Gauge	29
	Coating Thickness Gauge	20
	Electric Testing	30

Product	Name	Page
	Digital High-Precision Tachometer	34
	Portable XRF Spectrum Analyzer	38
	Wind Speed Meter	35
	Ultrasonic Test Block /Ultrasonic Flaw Detector Probe	40
	Spectrophotometer	36
	Thickness Gauge Accessories	47

ULTRASONIC FLAW DETECTOR(COLORFUL TYPE)

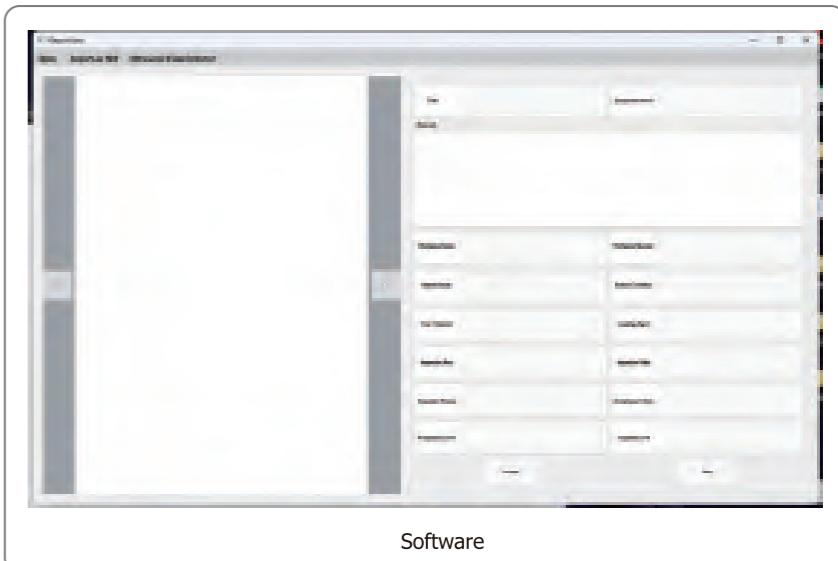
CODE:iFlaw-100



01



Shuttle key
Menu Key
Basic Menu
Calibration Menu
Curve Menu
B-scan Menu
System Menu



Software



ULTRASONIC FLAW DETECTOR(COLORFUL TYPE) CODE:iFlaw-100

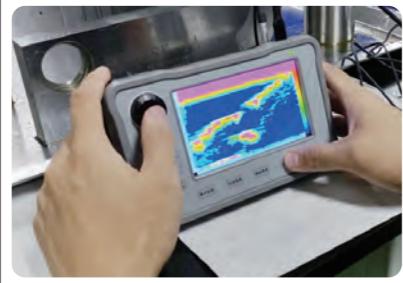
01



DAC Curve



AVG Curve



B-scan Image



Gate Setting

STANDARD DELIVERY

Main Unit	1 pc
Probe (High Precision Straight Probe, Angle Probe)	Each
Probe Cable	1 pc
Charger	1 pc
Power Cable	1 pc
Sd Card(8g)	1 pc



Probe Line



B-scan trolley

SD Card (16G, 32G, 64G)
Probe (High-precision Straight Probe, Angle Probe)

Power Line

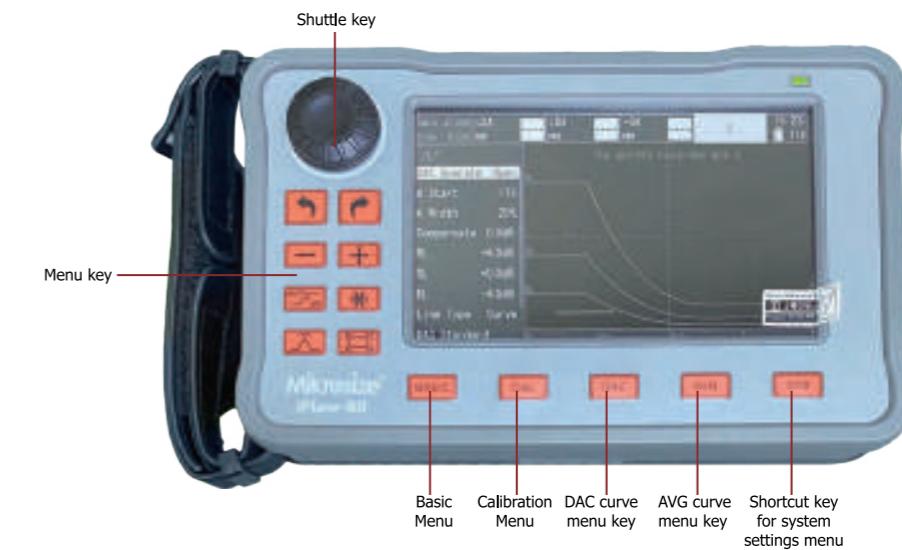
TECHNICAL SPECIFICATION

Bandwidth	0.1MHz~20MHz
Gain	120dB, Pace 0.1dB, 0.6dB, 1dB, 2dB, 6dB
Wave Filter	Broadband,1M,1.25M,2.5M,5M,10M,15M,1M-5M
Sampling Rate	Hardware Sampling Rate 100MSPS, Equivalent Sampling Rate 400MSPS
Detection Mode	Full Wave, Positive Half Wave, Negative Half Wave, RF, Envelope
Detection Range	20 Meters (Longitudinal Wave Carbon Steel),Pace 100mm, 10mm, 0.1mm
Sound Velocity Range	250~16000m/s
Pulse Mode	Sharp Pulse, Square Wave, Dual-square Wave
Pulse Voltage	25V~300V, 25V Pace
Pulse Width	0ns~500ns Continuously Adjustable,10ns Pace
Emission Damping	Strong(100Ω),Weak(1000Ω)Adjustable
Pulse Frequency	Automatic Or Manual, Automatic Range(200Hz-1KHz), Manual Range(0-10KHz)
Probe Channel	200 Groups, Supporting Operations Such As Creating, Previewing, Deleting, Renaming, Overwriting, And Restoring
Gate Alarm	Gate A And B Alarm, Lost Wave/Incoming Wave
Gate Mode	Independent Gate A, Gate B
Measurement Mode	Peak, Front Edge, J Front Edge
Quantitative Mode	DAC Curve, AVG(DGS)Curve
Flaw Detection Standards	AWS D1.1/D1.5, NB/T 47013, GB/T 29712, GB/T 11345
Saving Content	Single Frame, Multi-frame Recording (≤ 500 Frames), Screenshot, B-scan Screenshot
Auxiliary Functions	Professional B-scan, Automatic Gain, Peak Memory, Waveform Freezing, Channel Management, Gate Alarm, Gate Expansion, Automatic Gate, Full Screen Touch, Virtual Keyboard, Color Half Span, Quick Screenshot, Flaw Reports, Channel Import/Export
Display Screen	High Definition 5.0 Inch 800×480 IPS_LCD
Probe Interface	Dual LEMO-00 C5
Output Interface	Type-C1, MINI USB
Input Interface	Type-C2(B ScanTrolley)
B-scan Imaging	Supports Up To 700 Sets Of A-scan Synthesis, With The Highest Resolution φ 2mm
Data Storage	16GB SD Card
Charger	65W_PD Fast Charging ,Standard Type-c Interface(100~240V, 50~60Hz)
Size	183mm×113mm×45mm
Weight	700g, Including Battery But Not Rubber Sleeve
Language	English, Russian or Any Other Customized Languages
Unit	Metric System, Imperial System
Battery	7.4V 8000mAh Lithium Battery, 12 Hours Of Battery Using Life
Operation Temperature	-10°C~55°C
Relative Humidity	(20~95)%RH
Resolution Ratio	30dB(Metrological Performance Requirements: ≥26dB)
Dynamic Range	35dB(Metrological Performance Requirements: ≥26dB)
Sensitivity Margin	55dB(Metrological Performance Requirements: ≥42dB)
Vertical Linearity	1.20%(Metrological Performance Requirements: ≤6%)
Horizontal Linearity	0.15%(Metrological Performance Requirements: ≤2%)

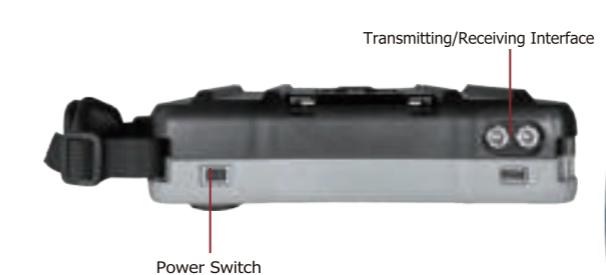
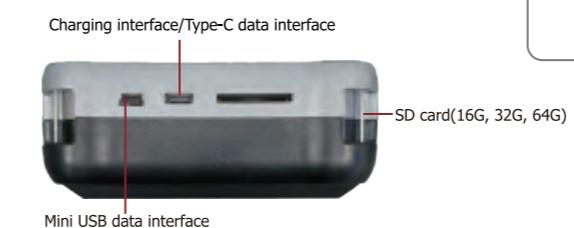
ULTRASONIC FLAW DETECTOR (B & W TYPE) CODE:iFlaw-80



VIDEO



- Lightweight and suitable for one-handed operation.
- PD65W fast charge + 12 hours long battery using life.
- 5.0-inch IPS high-definition display with a brand new UI interface.
- Support full-screen touch, quick gesture operation, virtual keyboard, easy to use.
- With DAC, AVG, automatic gain, peak memory, color half-span, and other professional functions.
- Including Chinese and English switching, data export to SD card, online upgrade, screen capture and many other practical functions.



ULTRASONIC FLAW DETECTOR (B & W TYPE)

CODE:iFlaw-80

01



DAC Curve



AVG Curve



Data Storage



Gate Setting

STANDARD DELIVERY

Main Unit	1 pc
Probe (High-precision Straight Probe, Angle Probe)	2 pcs
Probe Cord	2 pcs
Charger	1 pc
Power Cord	1 pc
Sd Card(8g)	1 pc
Conversion Plug (USB To C)	1 pc

OPTIONAL DELIVERY

SD Card(16g, 32g, 64g)	FD-SD16/32/64
Power Bank	FD-PB

TECHNICAL SPECIFICATION

Bandwidth	0.1MHz~20MHz
Gain	120dB, Pace 0.1dB, 0.6dB, 1dB, 2dB, 6dB
Wave Filter	Broadband, 1m, 1.25m, 2.5m, 5m, 10m, 15m, 1m-5m
Sampling Rate	Hardware Sampling Rate 100MSPS, Equivalent Sampling Rate 400MSPS
Detection Mode	Full Wave, Positive Half Wave, Negative Half Wave, RF, Envelope
Detection Range	20 Meters (Longitudinal Wave Carbon Steel), Pace 100mm, 10mm, 0.1mm
Sound Velocity	250~16000m/s
Pulse Mode	Sharp Pulse, Square Wave, Dual-square Wave
Pulse Voltage	25V~300V, 25V Pace
Pulse Width	0ns~500ns Continuously Adjustable, 5ns Pace
Emission Damping	Strong, Weak Adjustable
Pulse Frequency	Automatic Or Manual, Automatic Range(200Hz-1KHz), Manual Range(0-10KHz)
Probe Channel	200 Groups, Supporting Operations Such As Creating, Previewing, Deleting, Renaming, Overwriting, And Restoring
Gate Alarm	Gate A And B Alarm, Lost Wave/Incoming Wave
Gate Mode	Independent Gate A, Gate B
Measurement	Peak, Front Edge, J Front Edge
Mode	
Quantitative Mode	DAC Curve, AVG(DGS) Curve
Flaw Detection	AWS D1.1/D1.5, NB/T 47013, GB/T 29712, GB/T 11345
Standards	
Saving Content	Single Frame, Multi-frame Recording (≤ 500 Frames), Screenshot, Flaw Detection Report
Auxiliary Functions	Automatic Gain, Peak Memory, Waveform Freezing, Channel Management, Gate Alarm, Gate Expansion, Automatic Gate, Full Screen Touch, Virtual Keyboard, Color Half Span, Quick Screenshot, Channel Import/Export
Display Screen	5.0 Inch 800×480 IPS_LCD
Probe Interface	Dual LEMO-00 C5
Output Interface	Type-C1, Mini USB
Charger	30W_PD Fast Charging, Standard Type-C Interface(100~240V, 50~60Hz)
Size	183mm×113mm×45mm
Weight	700g, Including Battery But Not Rubber Sleeve
Language	English, Russian or Other Customized Languages
Unit	Metric System, Imperial System
Battery	7.4V 8000mAh Lithium Battery, 12 Hours Of Battery Life
Resolution Ratio	30dB(Metrological Performance Requirements: ≥26dB)
Dynamic Range	35dB(Metrological Performance Requirements: ≥26dB)
Sensitivity Margin	55dB(Metrological Performance Requirements: ≥42dB)
Vertical Linearity	1.2%(Metrological Performance Requirements: ≤6%)
Horizontal Linearity	0.15%(Metrological Performance Requirements: ≤2%)



Probe Line



Power Line



SD Card (16G, 32G, 64G)



Conversion Plug (USB To C)

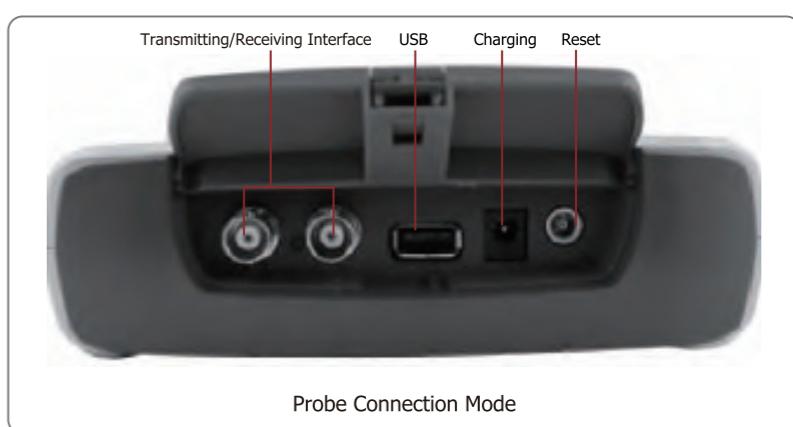


Probe (High-precision Straight Probe, Angle Probe)

ULTRASONIC FLAW DETECTOR(HIGH SOUND VELOCITY)

CODE:iFlaw-1500

01



ULTRASONIC FLAW DETECTOR(HIGH SOUND VELOCITY)

CODE:iFlaw-1500

01



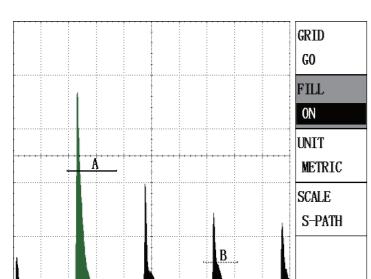
Display Mode



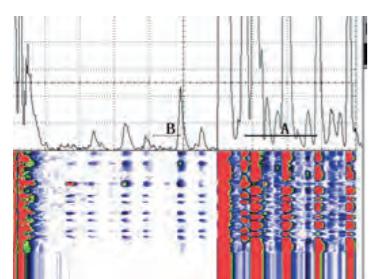
Calibration Interface



Gate Setting



Fill Mode



B-Scan Image

TECHNICAL SPECIFICATION

Filter Band	0.2~35 MHz
Total Gain Amount	120 dB (With 0.1dB, 1dB, 2dB, 6dB Incremental Values)
Hardware Real-time Sampling	High-resolution 10-bit AD Converter, Sampling Rate 320MHz, Waveform Highly Preserved
Detection Range	15meters(Steel,Longitudinal Wave),Transmission30meters(Expandable)
Sound Velocity Range	(100~20000)m/s
Dynamic Range	≥38dB
Pulse Amplitude	100V, 200V, 300V, 400V, 500V, Selectable In Steps, Suitable For A Wide Range Of Probes
Pulse Width	Continuously Adjustable In The Range Of (0.03~0.51)μs To Match Different Frequency Probes
Probe Impedance	50Ω, 100Ω, 150Ω, 400Ω Selectable, To Meet Different Sensitivity And Resolution Requirements
Probe Types	Straight Probe, Inclined Probe, Dual-crystal Probe, Penetration Probe, Crawling Wave Probe, Surface Wave Probe
Repetition Rate	10-3000Hz Adjustable
Receiving Waveform	Positive Half-wave, Negative Half-wave, Full Wave, Rf Waveform
Gate	Incoming Wave Gate, Lost Wave Gate; Single Gate, Dual Gate
Gate Reading	Single Gate And Dual Gate Reading Modes Available
Alarm	Buzzer Alarm, LED Light Alarm
Connector	BNC/LEMO Optional
Vertical Linear Error	≤1.5%
Horizontal Linear Error	≤0.1%
Digital Rejection	(0~80)%, No Effect On Linearity And Gain
Resolution	>40dB (5P14)
Sensitivity Margin	>66dB (Deep 200mm Φ2 Flat-Bottomed Hole)
Power Requirements	AC Mains 100-240 VAC, 50-60 Hz
Working Temperature	Operating Temperature -10°C to 50°C Storage Temperature -30°C to 50°C
Dimensions	260mm×175mm×60mm

STANDARD DELIVERY

Main Unit	1 pc
High-precision Straight Probe	1 pc
High-precision Angle Probe	1 pc
Probe Connection Wire	2 pcs
9V Power Adapter	1 pc
Ultrasonic Flaw Detector Mobile App	1 pc
Instrument Strap	1 pc



High-precision Straight Probe

OPTIONAL DELIVERY

Standard Test Blocks	FD-TB
Other Types Of Probes	Appendix
Other Probe Cables	FD-PC
Coupling Agents	FD-CP
Bluetooth Printer	FD-BP



High-precision Angle Probe



Probe Connection Wire



9V Power Adapter



Coupling Agents

- Measures thickness of metals, plastics, ceramics, glass, etc., which conduct ultrasound well.
- Equipped with various dual-crystal probes of different frequencies and sizes.
- Improves accuracy by measuring sound velocity with known thickness.
- Has coupling status indication and EL backlight display for low-light use.
- Portable, easy to operate, with real-time battery power indication.
- Power-saving features include automatic sleep and shutdown.
- Compact, reliable, resistant to vibration, impact, and electromagnetic interference.
- USB interface for connecting to external data processing software.
- Audible and visual alarm for measurements beyond set limits.
- Powered by 4 AAA batteries, lasts 250 hours without backlight.
- Enhanced model adds communication for data exchange with PC, supporting real-time communication as a small online instrument (requires dedicated probe).

ULTRASONIC THICKNESS GAUGE

CODE:iThick-220



VIDEO



STANDARD DELIVERY

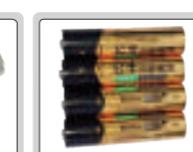
Main Unit	1 pc
Standard Probe(5MHz)	1 pc
Couplant	1 bottle
Abs Instrument Case	1 pc
Aaa Size Alkaline Batteries	4 pcs
Data Cable	1 pc



Standard Probe(5MHz)



Couplant



AAA Size Alkaline Batteries



Data Cable

OPTIONAL DELIVERY

Large Diameter Probe(2.5MHz)	TP0214400
Large Range Probe(2MHz)	TP0214600
Micro-diameter Probe(7MHz)	TP0706080
High Temperature Probe(5MHz)	HTP0514200
High Temperature Couplant	TG-HTC



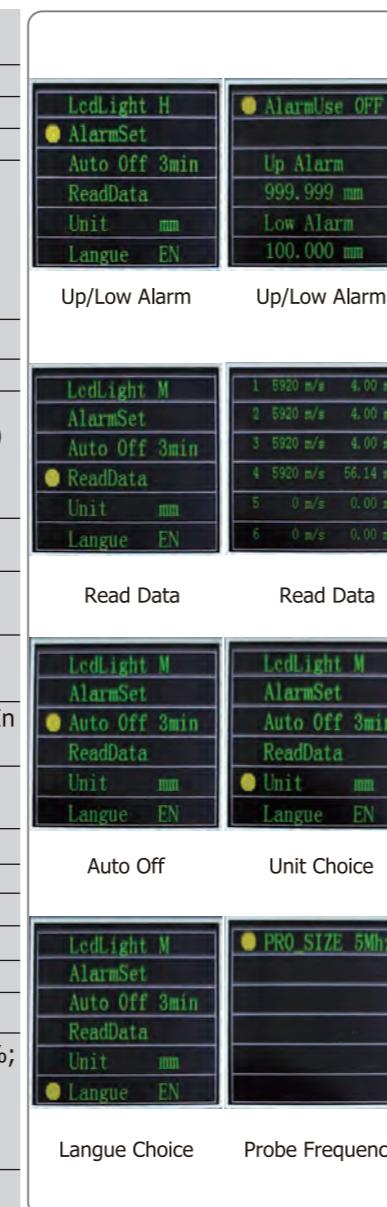
ULTRASONIC THICKNESS GAUGE

CODE:iThick-220

01

TECHNICAL SPECIFICATION

Measuring Range	0.75~600mm(Determined By The Probe)
Resolution	0.01mm
Measuring Unit	Optional mm/inch
Languages	English or Other Customized Languages
Measuring Precision	When The Measuring Range Is 0.75~99.99, The Resolution Is 0.01, And The Allowable Error Is $\pm 3\% h + 0.04$. When The Measuring Range Is 100.0~600.0, The Resolution Is 0.1, And The Allowable Error Is $\pm 5\% h + 0.04$. Note: H Is The Measured Thickness
Sound Speed Adjustment	1000~9999 m/s
Calibration Function	Features Probe Zero Point And Two-point Calibration Functions
Data Storage	Capable Of Storing 3000 Sets Of Thickness Measurement Data (Measurement Values And Sound Velocity Values Only) And 3000 Sets Of Parameter Datasets (Including Measurement Values, Instrument Settings, And Other Parameters)
Communication Interface	USB
Audible and Visual Alarm	Upper And Lower Limit Prompts (Can Be Set According To The Thickness Of The Workpiece Being Measured)
Minimum Thickness Capture Capability	Capable Of Capturing Minimum Thickness Value
Measuring Cycle	6 Times/second In Single Point Measurement, 20 Times/second In Scanning Mode
Lower Limit For Pipe Measurement	$\Phi 20\text{mm} \times 3.0\text{ mm}$ (5Mhz Probe); $15\text{mm} \times 2.0\text{ mm}$ (7Mhz Probe)
Indication Error	Less Than $\pm 0.1\text{mm}$
Calibration	4.0 mm(Steel)
Power Source	AAA Alkaline Battery 1.5V (4 Pieces)
Working Time	Continuous Operation Up To 250 Hours (Without Backlight)
Net Weight	245g
Working Environment	Operating Temperature -20°C to +50°C Storage Temperature: -30°C to +70°C Relative Humidity $\leq 90\%$; The Surrounding Environment Should Be Free From Intense Vibration, Strong Magnetic Fields, Corrosive Media, And Severe Dust.
Dimensions	145mmx74mmx32mm



Main Interface



Backlight



Sound Velocity & Thickness Switch

ULTRASONIC THICKNESS GAUGE(CROSS COATING MEASURING)

CODE:iThick-200



01

- Adopting the principles of interface echo and bottom echo difference (IE) thickness measurement and pulse reflection (PE) ultrasonic measurement, it has "PE、IE、Testing" three measurement modes to accurately measure thickness through coatings;

- The display resolution is 0.01mm, with an error limit of 0.4% H (where H is the thickness of the workpiece), high accuracy .

- Equipped with zero point calibration and sound velocity calibration functions, it can automatically correct system errors and also measure sound velocity through known thickness of blocks;

- It can store complete measurement information, including thickness values, sound velocity, and time information, store 500 sets of measurement results; The LCD display has adjustable contrast and LED backlight display, which can clearly display measurement content in various lighting environments, such as thickness value, coupling status, power status, calibration status, sound velocity, time, etc;

- Powered by two No. 5 alkaline batteries, it can work continuously for up to 5 hours (without backlight) and has a battery level indicator function.

- Continuous 2-minute (adjustable) automatic shutdown, and also equipped with a switch button for easy user operation;

- Settings including: Measurement units (metric and imperial), scanning modes (on and off), beep notification, flashing alarms, probe parameters, restore default settings, send data to the computer, delete files, delete all data, contrast, system time, standby time, etc, also view version information.

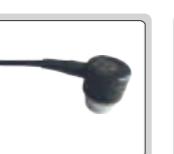


STANDARD DELIVERY

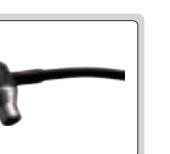
Main Unit	1 pc
Probe	TP0510300
Couplant	1 pc
Dry Battery	2 pcs
Instrument Case	1 pc



TP0510300



TP0217508



TP0706035

OPTIONAL DELIVERY

Cast Iron Probe	TP0217508
Small Crystal Tube Probe	TP0706035
High Temperature Probe	HTP0315480



HTP0315480



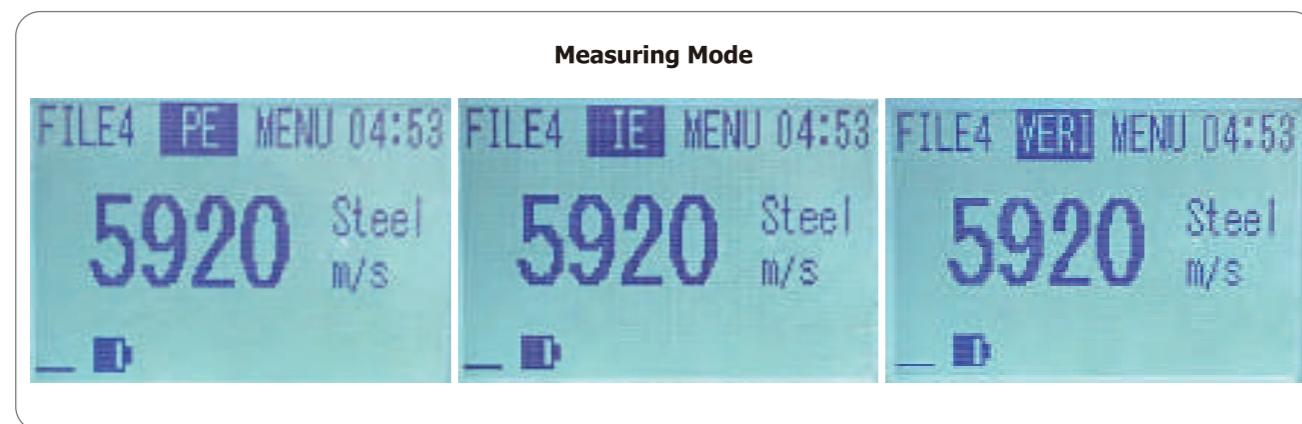
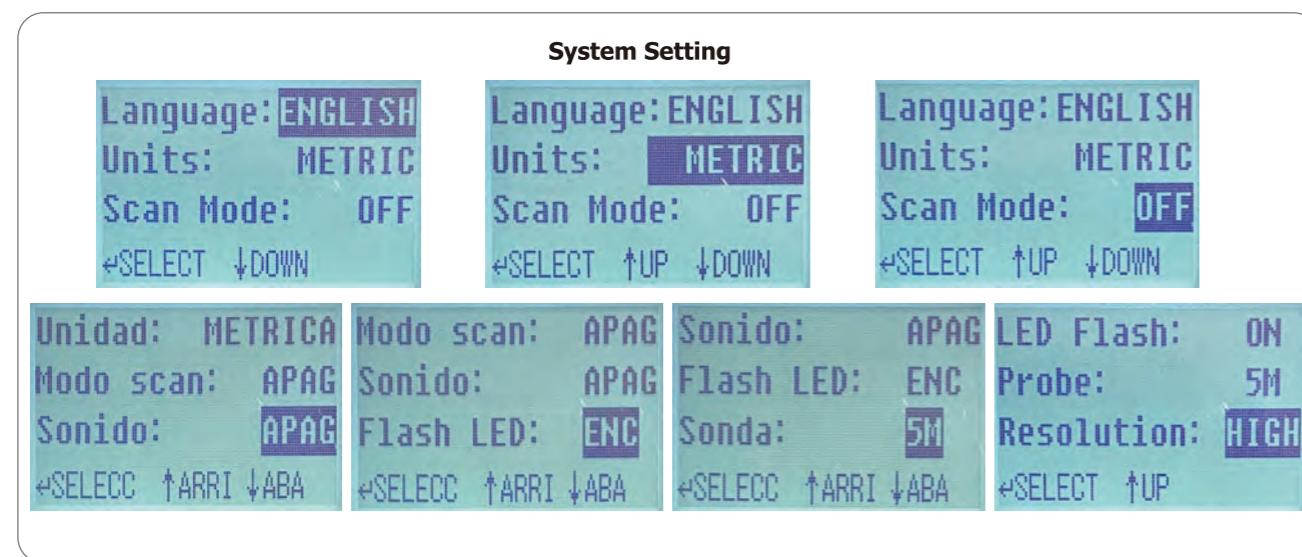
Coupling Agent

ULTRASONIC THICKNESS GAUGE(CROSS COATING MEASURING) CODE:iThick-200

01

TECHNICAL SPECIFICATION

Working Principle	Ultrasonic
Traversed Coating	IE Mode Can Traverse Through 1500um Coating
Measuring Mode	PE/IE
Measuring Range	0.75~300mm
Precision	$H < 10\text{mm} \pm 0.05\text{mm}$ $H \geq 10\text{mm} \pm (0.05\text{mm} + H/100)\text{mm}$
Probe Size	Standard Delivery 10mm
Resolution	0.1/0.01mm Optional
Touch Screen	2.0 " FSTN, 128 * 64 Dot Matrix, LED Backlight
Measuring Material	Steel, Iron, Glass, Plastic, Aluminum, Etc
Sound Velocity	1000~9999m/s
Storage	500 Groups Of Data
Measuring Unit	Metric/Imperial
Language	English Or Other Customized Languages
Working Temperature	0~50°C
Ambient Humidity	Relative Humidity Less Than 90%
Power Supply	2*1.5V AA Battery
Product Dimensions	150*71*33mm
Net Weight	160g



ULTRASONIC THICKNESS GAUGE(WITH A/B-SCAN) CODE:iThick-4000

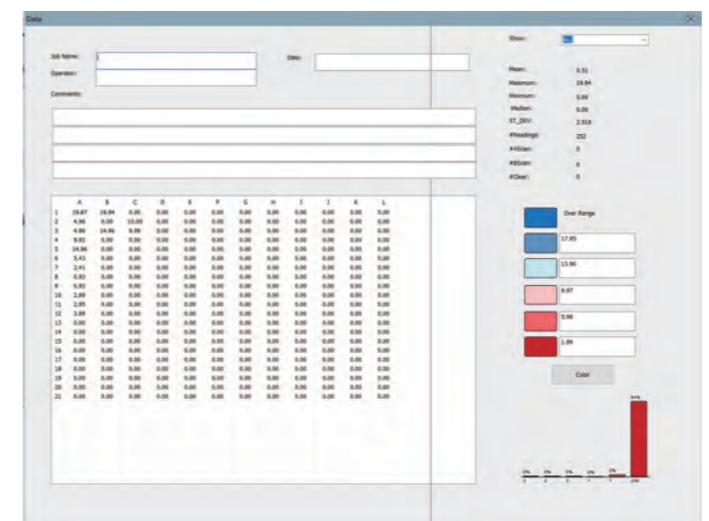
01



VIDEO



- Simple and easy-to-use single level parameter configuration menu
- A-scan snapshot function: Users can directly see the ultrasound signal waveform on the screen, which is used to verify whether the thickness reading is correct, analyze the causes of problems, and help users find solutions ;
- When the probe is coupled with the workpiece, the thickness value is displayed in white font
- Thickness alarm: The alarm thickness limit can be set, and the thickness reading color can be dynamically changed when an alarm is triggered;
- Max/min value mode: Capture the maximum and minimum values during the measurement process;
- Difference mode: Obtain the difference between the current measured thickness value and the nominal thickness, as well as the percentage of the difference to the nominal thickness;
- Supports two thickness units: millimeters and inches;
- Large capacity data storage function: can store 100000 thickness values (optional);
- Can penetrate the coating on the surface of the workpiece and directly measure the substrate thickness of the workpiece (optional);
- User selectable measurement resolution metric X. XX and X. X, The imperial system is X. XXX and XXX;
- Multi-languahe system
- Standby time up to 35 hours.



TP0510400



TP0217508



TP0707100



TP0508150



TP1006025



HTP0315480

ULTRASONIC THICKNESS GAUGE(WITH A/B-SCAN)

CODE:iThick-4000

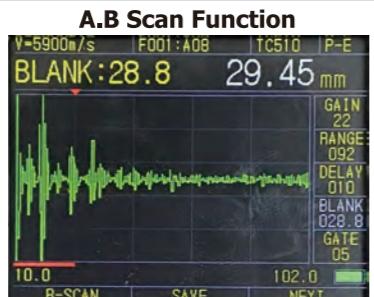
01

TECHNICAL SPECIFICATION

Display Screen	2.4QVGA (320x240) Color OLED Screen, Contrast Ratio 10000:1
Working Principle	Ultrasonic Pulse/Echo/Echo Method by Using Dual Crystal Probe
Measuring Range	0.5 to 508 Millimeters (0.025 to 20.00 Inches) Depending on the Probe Used, the Material Being Tested, and the Surface Condition
Measuring Resolution	0.01mm or 0.1mm(0.001in or 0.01in)
Unit	mm/inch
Display Mode	Thickness Value Mode, Minimum/Maximum Value Capture Mode, Difference/Reduction Rate Mode
V Path Correction	Automatic V-sound Path Correction to Compensate for the Nonlinearity of the Dual Crystal Probe
Measuring Update Rate	4Hz/s, 8Hz/s, 16Hz/s Optional
Range of Material Sound Velocity	500-9999m/s, 0.0179-0.3937in/us
Language	Chinese/English/French or Any Other Customized Languages
Alarm Set	Max/Min Value Alarm, Dynamically Change Thickness Reading Color When Alarm Occurs
Power Supply	Two 1.5V AA Batteries
Operation Time	More than 35 Hours
Instrument Turn Off	Optional Automatic Shutdown after 5, 10, and 20 Minutes of Inactivity, or Manual Shutdown
Dimensions	151mmx76mmx37mm(HxWxD)
Net Weight	280g



A.B Scan Function



A.B Scan Function



A.B Scan Function

Menu Function

CONFIGURATION	
GRID FILE	001
MEASURE MODE	P-E
VIEW MODE	NORMAL
PROBE SETUP	TC510
MINIMUM ALARM	0.15
SELECT	

Measure Mode

CONFIGURATION	
GRID FILE	001
MEASURE MODE	P-E
VIEW MODE	NORMAL
PROBE SETUP	TC510
MINIMUM ALARM	0.15
SELECT	

View Mode

CONFIGURATION	
GRID FILE	001
MEASURE MODE	P-E
VIEW MODE	NORMAL
PROBE SETUP	TC510
MINIMUM ALARM	0.15
SELECT	

Probe Setup

CONFIGURATION	
GRID FILE	001
MEASURE MODE	P-E
VIEW MODE	NORMAL
PROBE SETUP	TC510
MINIMUM ALARM	0.15
SELECT	

Minimum Alarm

CONFIGURATION	
MEASURE MODE	P-E
VIEW MODE	NORMAL
PROBE SETUP	TC510
MINIMUM ALARM	0.15
MAXIMUM ALARM	254.00
SELECT	

Maximum Alarm

CONFIGURATION	
VIEW MODE	NORMAL
PROBE SETUP	TC510
MINIMUM ALARM	0.15
MAXIMUM ALARM	254.00
NOM. THICKNESS	12.70
SELECT	

NOM. Thickness



- Equipped with a high-frequency single-crystal probe, it can achieve ultra-thin component measurement functionality;
- Utilizes "echo-echo" ultrasonic thickness measurement technology to achieve thickness measurement through coatings;
- Display resolution is 0.001mm, with a measuring range of 0.15~20mm;
- The LCD display has adjustable contrast, featuring a 128*64 dot matrix LCD screen with LED backlighting for use in various lighting conditions;
- USB interface allows for data transfer to a computer;
- Upper computer software is available for convenient data reading.

TECHNICAL SPECIFICATION

Measuring Range	0.15~20mm
Velocity Range	(1000~9999) m/s
Measurement Mode	EE/IE
Be Able to Pass Through the Coatings	IE Mode Can Pass Through 1mm Coating
Measuring Accuracy	H<10mm±0.005mm H≥10mm±(0.005mm+H/100) mm
Storage Capacity	500 Sets Of Data
Measurable Materials	Steel, Iron, Glass, Plastic, Aluminum, etc
Display Screen Size	2.4 "FSTN, LED Backlight
Measurement Units	Metric/Imperial
Language	Chinese/English/Spanish
Power Supply	2*1.5V Dry Battery
Net Weight	220g
Dimensions	151*76*33mm
Working Temperature	0~50°C
Working Humidity	<90%



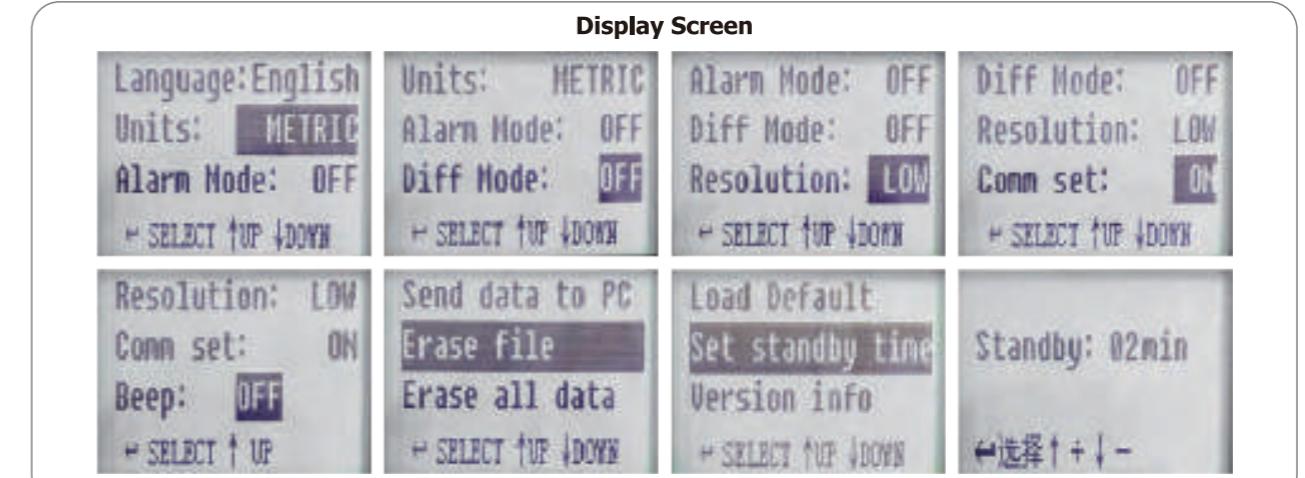
Coupling Agent

STANDARD DELIVERY

Main Unit	1 pc
15m Single Crystal Probe	TP1507025
Coupling Agent	1 bottle
Instrument Case	1 pc



TP1507025



ULTRASONIC THICKNESS GAUGE(WITH A/B-SCAN, LARGE RANGE)

CODE:iThick-7000

01



VIDEO



Screwdriver



Coupling Agent

Model	TP0510400	TP1514320	TP1507025
Type	Double Crystal 5M	Single Crystal 5M	Single Crystal 15M
Frequency	5MHz	5MHz	15MHz
Diameter of Contact Area	10mm	20mm	6.35mm
Measuring Range	1~400.0mm	4~3200.0mm	0.15~25.0mm
Allowable Contact Temperature	-10~70°C	-10~70°C	-10~70°C



- Offers A-scan, B-scan, and numerical display modes with regular, differential, and max/min capture for versatile measurements.
- Features automatic ranging, freeze, E-blanking, gain, and other functions for enhanced accuracy and convenience.
- Thickness alarm changes color and sounds buzzer when limits are exceeded; probe coupling prompt displays white font and buzzer when coupled.
- Bandwidth: 1MHz~20MHz, gain: 72dB, adjustable averaging, multiple update rates, filters, probe types, modes; effective range: 0.15~3200mm.
- Stores 520 files with 252 sets each, totaling 130,000 sets, in grid format for easy access.
- Adapts to various environments with functions like auto shutdown, buzzer alarm, computer communication, and backlight adjustment.
- Keyboard with 9 clear keys for easy operation; menu interface for parameter adjustments.
- Includes Data View software for data statistics, analysis, archiving, and report printing.

STANDARD DELIVERY

Main Unit	1 PC
Alkaline Battery	2 PCS
Coupling Agent	1 Bottle
Screwdriver	1 PC
Instrument Case	1 PC

OPTIONAL DELIVERY

Software	TG-SW
USB Cable	TG-USB
Double Crystal 5M Probe	TP0510400
Single Crystal 5M Probe	TP1514320
Single Crystal 15M Probe	TP1507025

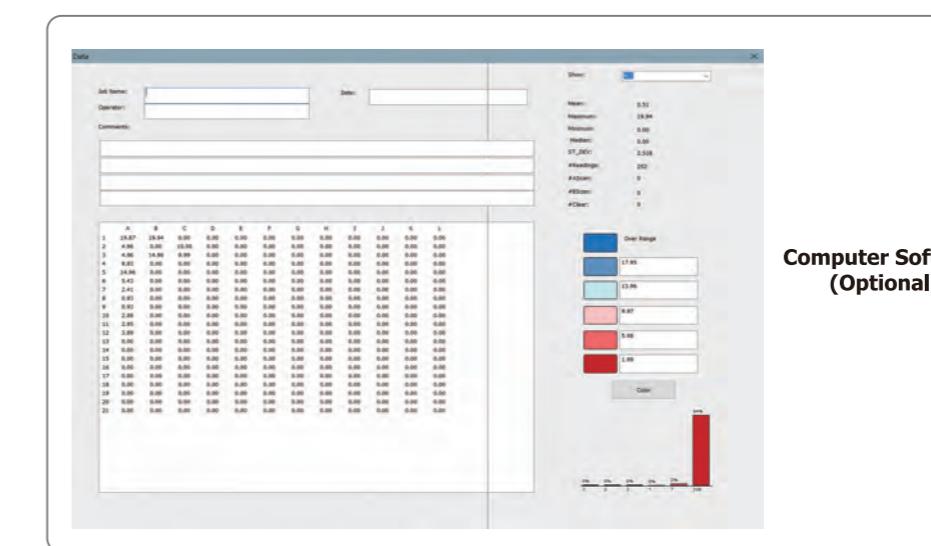
ULTRASONIC THICKNESS GAUGE(WITH A/B-SCAN, LARGE RANGE)

CODE:iThick-7000

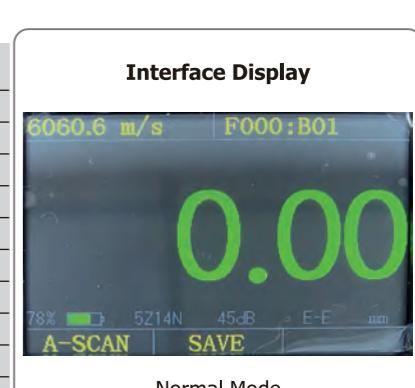
01

TECHNICAL SPECIFICATION

Bandwidth	1MHz~20MHz
Receiving Gain	72dB, Step Pace 1dB, 6dB
Average	Average Number Of Times 0 To 64 Automatically Adjusted
Update Rate	4Hz, 8Hz, 16Hz
Filter	Broadband, 5m, 10m, 15m
Probe Type	Single Crystal, Double Crystal
Pulse Mode	Square Waves, Two-sided Waves
Transmit Voltage	25V~300V, 25V Step Pace
Pulse Width	25ns~300ns, 5ns Step Pace
Pulse Frequency	400Hz~3200Hz Auto-adjustment
Specialized Function	A-Scan, B-Scan
Calibration Mode	Automatic Zero Point Calibration, Automatic Sound Velocity Calibration
View Mode	Normal, Difference, Maximum Value Capture
Measuring Range	0.15~3200mm(Longitudinal Wave Carbon Steel)
Detection Mode	Full Wave, Positive Half Wave, Negative Half Wave, RF, Invert to RF
Measurement Mode	P-E(Pulse-Echo), E-E(Echo-Echo), I-E(Interface-Echo), ME-E(Multiple echo)
Detection Range	0X-25mm(Steel), 1X-100mm(Steel), 2X-200mm(Steel), 3X-400mm(Steel), 4X-800mm(Steel), 5X-1600mm(Steel), 6X-3200mm(Steel)
Data Storage	520 Files Can Be Saved, Each File Can Record 252 Sets Of Thickness Values, For A Total Of 130,000 Sets.
Auxiliary Functions	Auto Gain, Auto Range, Auto Blanking E, Auto Freeze, Auto Average, Auto Shutdown (Hibernation), Buzzer Alarm, Upper Computer Communication, Backlight Adjustment
Unit	Metric System, English System
Language	English or Other Customized Languages
Probe Interface	Dual LEMO-00 C5
Net Weight	228g, No Battery
Battery	Two 1.5V AA Batteries
Output Interface	MINI USB, Data Export To The Host Computer
Dimensions	153mm×76mm×37mm
Display Screen	2.4-inch 320×240 IPS_LCD
Working Temperature	-10°C~55°C



Computer Software (Optional)



Normal Mode



Difference Mode



Maximum Value Capture Mode



A-Scan Interface



B-Scan Interface

ELECTROMAGNETIC ULTRASONIC THICKNESS GAUGE

CODE:iThick-E20



- **Multifunctional Integration:** Featuring A-scan mode, B-scan mode, numerical display mode, and other functions, it can meet various measurement requirements.
- **Non-contact Measurement:** No acoustic coupling agent is required, eliminating the impact of coupling agents on measurements.
- **Compact Size:** Convenient for portability and use in various working environments.
- **High-precision Measurement:** With a measurement accuracy of $\pm 0.01\text{mm}$, it provides accurate measurement results.
- **Capable of Measuring Multiple Materials:** It can measure the thickness of various metals or magnetically permeable materials, such as aluminum, copper, iron, carbon steel, cast steel, alloy steel, stainless steel, titanium alloy, etc.
- **Measurement Modes:** Single echo (I-E) and double echo (E-E) modes; **Search Modes:** leading edge-leading edge, peak-peak, peak-leading edge; **Rectification Modes:** RF, inverted RF, full wave, envelope, negative half-wave, positive half-wave, etc.
- **Storage Capacity:** Can store up to 100,000 thickness values in a grid file format for easy retrieval and selection of storage locations. Data can be imported into a computer via USB communication and can be subjected to statistics, analysis, archiving, report printing, and other operations in the host computer software.
- **Auxiliary and Correction Functions:** Equipped with multiple auxiliary and correction functions such as automatic freeze, automatic gain, automatic sleep, A-Scan, thickness B-scan, digital filtering, automatic range, waveform filling, waveform translation, suppression adjustment, backlight adjustment, buzzer, and other auxiliary functions.

STANDARD DELIVERY

Main Unit	1 pc
Probe	Optional
Couplant	1 bottle
3.7V Rechargeable Batteries	4 pcs
Charging Data Cable	1 pc
Charging Plug	1 pc
Instrument Case	1 pc



The image shows four probe components arranged in a 2x2 grid. The top row contains two probes: 'ETP044232' on the left and 'EHTP043340' on the right. Both are long, thin, black probes with a textured, ribbed handle at the top. The bottom row contains two cylindrical probes: 'ETP044060' on the left and 'ETP041336' on the right. These are shorter and thicker than the top probes, with a ribbed texture across their entire length.

OPTIONAL DELIVERY

Normal Temperature Probe	ETP044232
High Temperature Probe	EHTP043340
Large Diameter Probe	ETP044060
Small Diameter Probe	ETP041336



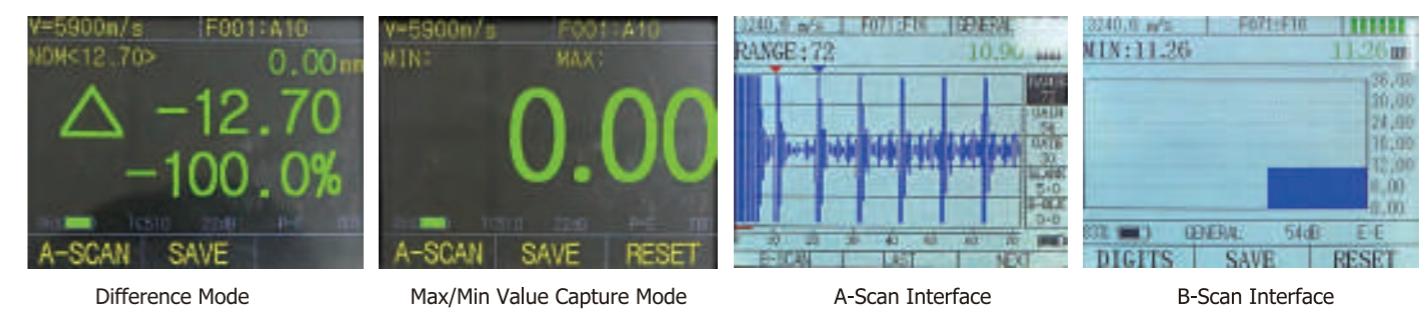
Comparison of Large Diameter Probe and Normal Temperature Probe

ELECTROMAGNETIC ULTRASONIC THICKNESS GAUGE

CODE:iThick-E20

01

Technical Specification	
Sampling Rate	100MSPS
Bandwidth	1~10MHz
Gain	96dB, With a Step of 1dB
Transmit Voltage	±600V (Non-adjustable)
Transmit Pulse Width	25~300ns, With a Step of 5ns
Transmit Frequency	100~1000Hz, With a Step of 100Hz
Measurement Accuracy	±0.01mm
Sound Velocity Range	400~9999m/s
Effective Measuring Range	1.0~2000mm
Averaging Level	Low, Medium, High
Lift-off Distance	6mm (Aluminum), 5mm (Carbon Steel), 4mm (Stainless Steel)
Measurement Range	Carbon Steel - 1X
Measurement Types	Molybdenum, Copper, Iron, Carbon Steel, Cast Steel, Alloy Steel, Stainless Steel, Titanium Alloy, and Other Metallic Materials
Measurement Channels	Thin, Standard, Thick
Review Modes	Normal, Difference, Peak Capture
Measurement Modes	Single Echo (1-E), Dual Echo (E-E)
Search Modes	Leading Edge-Leading Edge, Peak-Peak, Peak-Leading Edge
Rectification Modes	RF, Phase-Inverted RF, Full Wave, Envelope, Negative Half-Wave, Positive Half-Wave
Data Storage	Can Save 520 Files, Each File Can Record 252 Sets Of Thickness Values, Totaling 130,000 Sets
Auxiliary Functions	Automatic Freeze, Automatic Gain, Automatic Sleep, A-Scan, Thickness B-Scan, Digital Filtering, Automatic Range Waveform Fill, Waveform Shift, Reject Adjustment, Backlight Adjustment, Buzzer
Correction Functions	Gate Adjustment, Blanking Adjustment, Gain Adjustment, Sound Velocity Calibration, Zero Calibration, High Temperature Compensation
Units	Metric, Imperial
Languages	Simplified Chinese, English
Communication	Full-speed USB 2.0
Charger	5V2A, Standard MINI-USB Interface
Display Screen	High-definition 2.4-inch 320x240 IPS LCD
Probe Interface	LEMO-0B 2P
Weight (Bare Machine)	250 Grams, Excluding Battery
Dimensions	153mm x 76mm x 37mm
Battery Life	Two 3.7V 1000mAh Lithium-ion Batteries, Providing Up To 5 Hours Of Operation



Difference Mode	Max/Min Value Capture Mode	A-Scan Interface	B-Scan Interface																																																								
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Screen Display Menu Interface

COATING THICKNESS GAUGE(SEPARATE-TYPE) CODE:iCoat-320

01



VIDEO

VIDEO



Thickness Value
Probe Type
Measuring Mode
Working Mode

Keyboard

STANDARD DELIVERY

Main Unit	1
Probe	1(F1 or N1)
Calibration Foils	5 PCS
Zero Plate	1(Iron or Aluminum)
Instrument Case	1



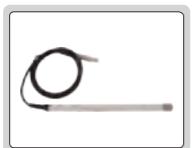
Probe



Calibration Foils



Zero Plate

F1
(Iron-Based Probe)F1/90°
(Right-Angle Probe)F10
(Large Range Probe)N1
(Aluminum-Based Probe)

OPTIONAL DELIVERY

F1 (Iron-based Probe)	CTP01250F00
F1/90° (Right-angle Probe)	CTP01250F90
F10 (Large Range Probe)	CTP10000F10
N1 (Aluminum-based Probe)	CTP01250N00

- Uses magnetic and eddy current methods to measure non-magnetic coating on magnetic metals and non-conductive coating on non-magnetic metals.
- Compatible with 10 probe types (F400, F1 series, F5, F10, N400, N1 series, CN02, N10).
- Offers Continuous and Single measurement modes.
- Provides Direct and Group operation modes.
- Includes Mean, Max, Min, Number of Tests, and S.DEV statistical parameters.
- Supports single-point and two-point calibration for error correction.
- Stores up to 495 measurement values, with deletion function.
- Automatically alerts for out-of-limit measurements.
- Power undervoltage indication and audible operational prompts.
- Displays errors on-screen and with beeps.
- Manual and automatic shutdown modes.
- Connects to a computer for data download, storage, and printing.
- Comes with a carrying strap for easy, secure handling.



Operation Process



Back

Side

Bottom

TECHNICAL SPECIFICATION

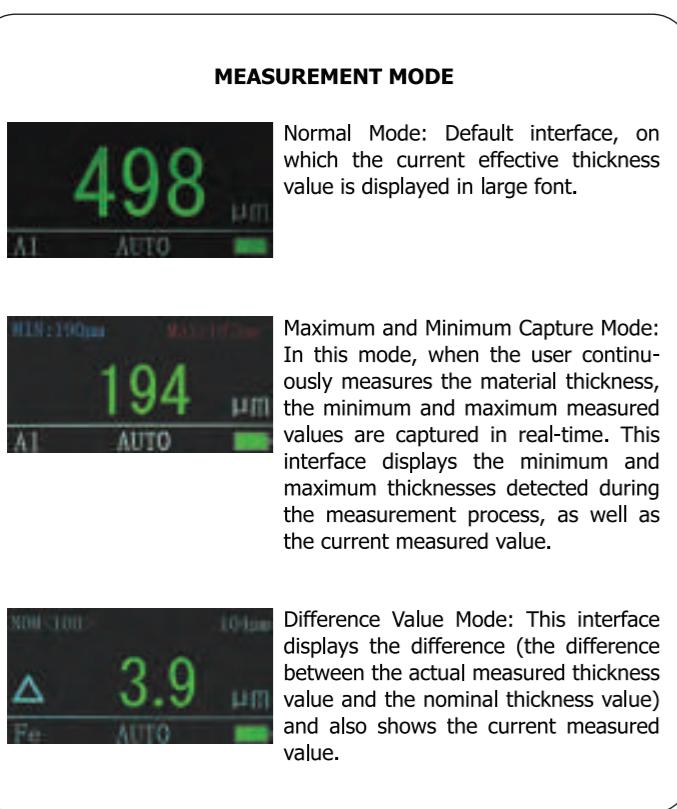
Probe Model	F1	F1/90°	F10	N1
Operating Principle	Magnetic			Eddy Current
Substrate Material	Magnetic Metal (Steel, Iron Etc.)			Non-magnetic Metal Substrate (Copper, Aluminum, Zinc, Tin Etc.)
				Non-conductive Coating (Enamel, Rubber, Paint, Plastic And Etc.)
Coating Material	Non-magnetic Coating (Aluminum, Chromium, Copper, Enamel, Rubber, Paint Etc.)			
Measuring Range (μm)	0~1250	0~10000	0~1250	
Low Range Resolution (μm)	0.1	10	0.1	
Accuracy	One-point Calibration (μm)	±(3%H+1)	±(3%H+10)	±(3%H+1.5)
	Two-point Calibration (μm)	±((1~3)%H+1)	±((1~3)%H+10)	±[(1~3)%H+1.5]
Measuring Conditions	Min Curvature Radius	1.5mm	Flatten	10mm
	Diameter of the Min Area	Φ7mm	Φ7mm	Φ40mm
	Critical Thickness of Substrate	0.5mm	0.5mm	2mm
Operating Environment				
Temperature: 0°C~40°C				
Humidity: 20%~90%RH				
No Strong Magnetic Field				
Power Supply				
2×1.5V AA (Size 5)				
Dimensions				
125mm×70mm×31mm				
Net Weight				
About 400g				

Note: H—Nominal Value

01

COATING THICKNESS GAUGE(INTEGRATED-TYPE) CODE:iCoat-100

01



- The precision of touch measurement is good.
- No calibration is required, only zero adjustment is needed.
- Wide measuring range and high resolution.
- The measurement speed can reach 0.2 seconds per measurement.
- Integrated structure, small size and light weight.
- It can quickly and automatically identify magnetic and non-magnetic substrates.
- The instrument has the function of identifying iron powder putty layers and galvanized iron layers.
- This instrument is equipped with functions of automatic hibernation and shutdown to achieve power-saving.
- The wear resistance of the zirconia probe ensures the long-term effective use of the instrument.
- Adopting two thickness measurement methods, namely Hall effect and eddy current, it can nondestructively measure the thickness of non-magnetic coatings on magnetic metal substrates (such as steel, iron, alloys, and hard magnetic steel, etc.) (such as aluminum, chromium, copper, zinc, enamel, rubber, paint, powder, etc.) and the thickness of non-conductive coatings on non-magnetic metal substrates (such as copper, aluminum, zinc, tin, etc.) (such as enamel, rubber, paint, plastic, etc.).

STANDARD DELIVERY

Host	1 pc
Ferrous	1 pc
Aluminum Base	1 pc
AAA Battery	2 pc
Standard Diaphragm	1 pc
Instruction Manual	1 copy
Warranty Card	1 copy
Certificate of Conformity	1 copy
Instrument Package	1 pc



Ferrous



Aluminum Base



AAA Battery



Standard Diaphragm

TECHNICAL SPECIFICATION

Resolution	Auto (0.1μm/1μm/0.01μm)
Measurement Range	0-3500μm
Measurement Accuracy	0-100μm: $\leq \pm(1\%H+2\mu m)H$ is the standard value. 100-1000μm: $\leq \pm(2\%H+2\mu m)H$ is the standard value. 1000-3500μm: $\leq \pm(3\%H+3\mu m)H$ is the standard value
Measurement Interval	0.2s
Substrate Indication	Iron, Aluminum, Iron - Zinc, Iron Powder Putty
Minimum Measurement	Φ=25mm
Minimum Radius of Curvature	Convex Surface: 5mm / Concave Surface: 25mm
Minimum Substrate Thickness	Fe: 0.2mm/NFe: 0.05mm
Probe Type	Built-in Integral Type
Measurement Principle	Iron: Hall Effect / Aluminum: Eddy Current
Probe Tip	Zirconium Oxide
Viewing Mode	Normal/ Maximum and Minimum/ Difference
Measurement Mode	Continuous / Single
Auxiliary Function	Automatic Shutdown, Theme Switching, Backlight Adjustment, Screen Rotation, Metric-Inch Switching
Unit	um/mm
Display Screen	320x170 IPS LCD Display Screen
Power Supply Mode	2 AAA Alkaline Batteries
System Language	Chinese/English
Host Size	112mmx63mmx29mm
Operating Energy Consumption	20 millamps, 60 milliwatts
Operating Temperature Range	-20°C-50°C
Storage Temperature Range	-30°C-60°C
Weight (Including Battery)	85g

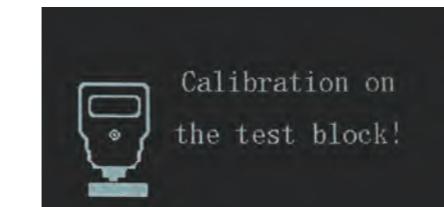


USER-FRIENDLY

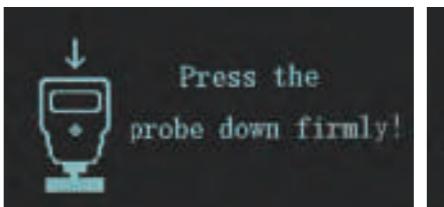
Short press the switch button, and the content on the display screen can be flipped 180°, which is convenient for users to use in different places.



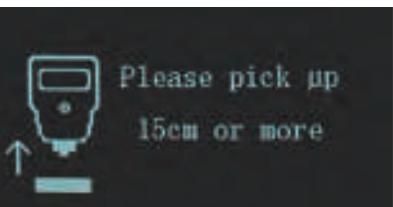
ZERO ADJUSTMENT



Calibration on the test block!



Press the probe down firmly!



Please pick up 15cm or more

No calibration is required, only zero adjustment is needed. The zero adjustment steps are simple. Just place the instrument on the standard block, press the probe firmly, and the instrument will automatically zero.

COATING THICKNESS GAUGE (SEPARATE-TYPE, LARGE RANGE)

CODE:iCoat-200

01



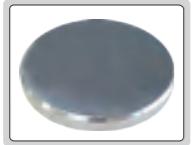
Probe
Screen
Average Value
Standard Deviation
Button
Mikrosize®
COATING THICKNESS GAUGE

STANDARD DELIVERY

Main Unit	1 pc
Iron Plate or Aluminum Plate	1 pc
Calibration Foils	5 pcs
Package Case	1 pc
No.5 Alkaline Battery (1.5V)	2 pcs
Probe	Optional



Calibration Foils



Aluminum Plate



Iron Plate



F1



FN



N1



- Both magnetic and eddy current thickness measurement methods, it can measure the thickness of non-magnetic coatings on magnetic metal substrates and non-conductive coatings on non-magnetic metal substrates.
- Two Measuring Methods: Continuous and single measurement methods
- Three measuring modes: The high-precision measuring mode can take the average of multiple measurements and automatically filter suspicious data to ensure more accurate and stable measurement values; The fast measurement mode can achieve real-time scanning function;
- Equipped with temperature compensation function: The leading real-time temperature compensation technology can automatically compensate for measurement errors caused by changes in ambient temperature and probe temperature, making measurements more accurate;
- Five statistical values: Mean, Maximum , Minimum , Number of Tests , and Standard Deviation ;
- Zero point calibration, single point calibration, or two-point calibration methods can be used to calibrate the instrument, and basic calibration and temperature coefficient calibration methods can be used to correct the systematic errors of the measuring probe.

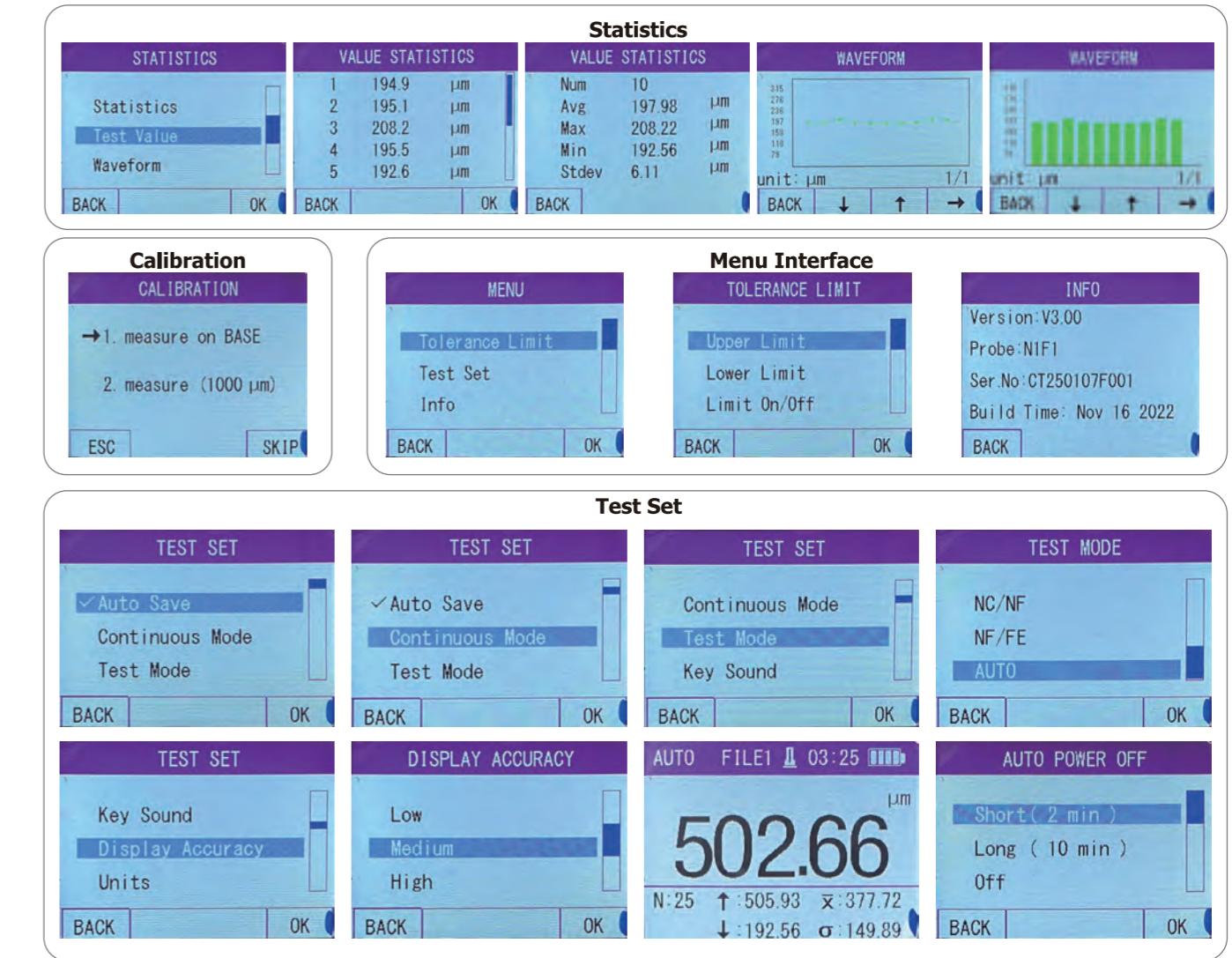
COATING THICKNESS GAUGE (SEPARATE-TYPE, LARGE RANGE)

CODE:iCoat-200

01

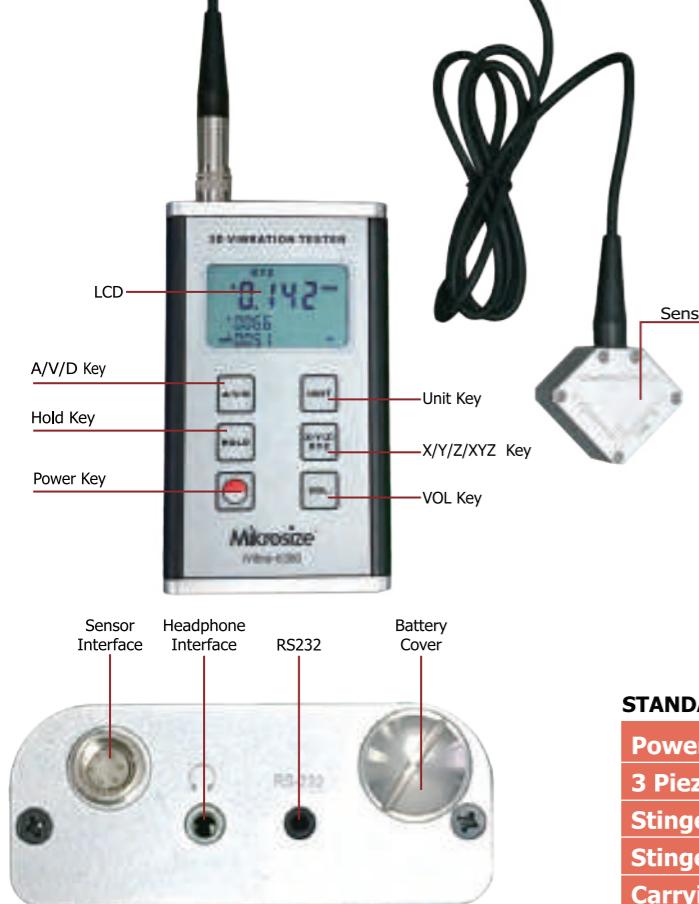
TECHNICAL SPECIFICATION

Probe Type	F	N
Measuring Range	0~1500μm	0~1500μm Copper plated grid 0~40μm
Working Principle	Magnetic	Eddy
Resolution	0.1μm	
Accuracy	±(3%H+1)μm	±(3%H+1.5)μm
Test Conditions	Zero-point Calibration Two-point Calibration Minimum radius of curvature Minimum area diameter Matrix critical thickness	±[(1~3)%H+1]μm ±[(1~3)%H+1.5]μm Convex 3mm Φ7mm 0.5mm 0.3mm
Using Environment		Temperature: 0 °C~40 °C Humidity: 20% Rh~90% Rh No Strong Magnetic Field Environment
Power Supply	2*AA Alkaline batteries	
Weight	About 240g	
Dimensions	151×76×38mm	



3-AXIS VIBRATION TESTER (SEPARATE-TYPE) CODE:MS-6380

01



STANDARD DELIVERY

Powerful Rare Earth Magnet	1 pc
3 Piezoelectric Accelerometers In 1 Sensor	1 pc
Stinger Probe (Cone)	1 pc
Stinger Probe (Ball)	1 pc
Carrying Case	1 pc



Powerful Rare Earth Magnet



3 Piezoelectric Accelerometers In 1 Sensor



Stinger Probe (Ball)



Stinger Probe (Cone)

OPTIONAL DELIVERY

Headphones for Use as Electronic Stethoscope	VT-HPH
Cable and Software for Rs232c or USB	VT-SW
Bluetooth	VT-BT

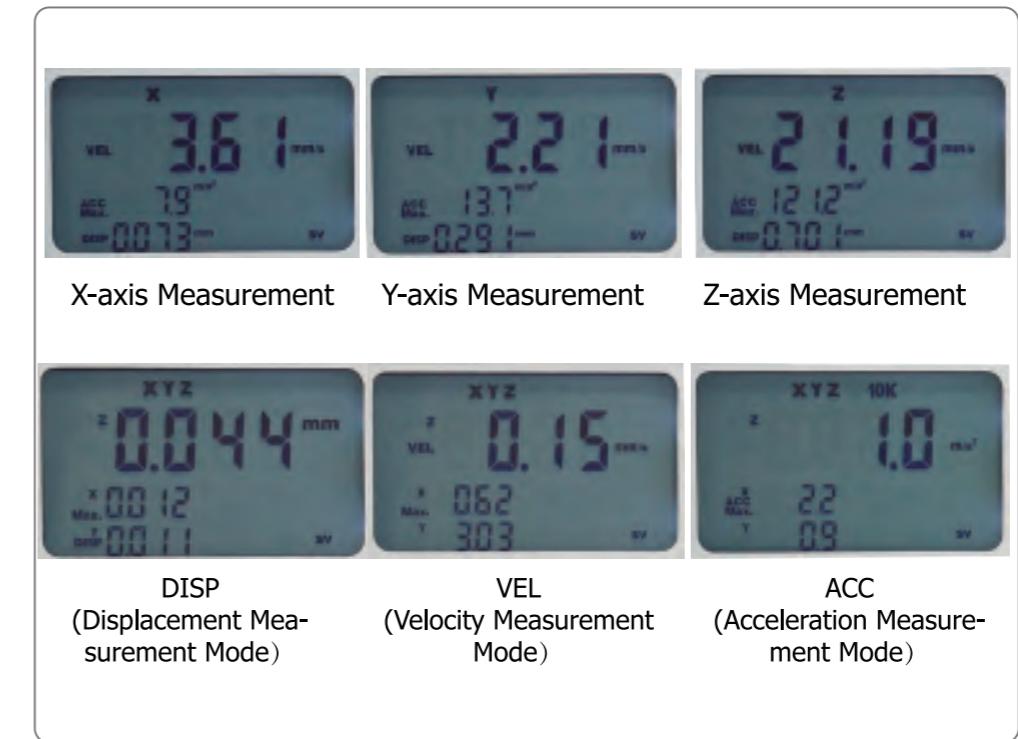


TECHNICAL SPECIFICATION

Model	MS-6380
Vibration Sensor	3-Axis Piezoelectric Accelerometer
Display	4 Digit LCD Backlit
Axial Vibration	Any One Axis Of X , Y, Z Or 3 Axes Of XYZ
Accuracy	±(5%n+2) Digits
Measurement	Displacement
Range	0.001-4.000mm Equivalent Peak-Peak; 0.04-160.0 mil
	Acceleration
	0.1-400.0 m/s Equivalent Peak; 0.3-1312 ft/s; 0.0-40g
	Velocity
	0.01-400.0 mm/s True RMS; 0.04-16.00 inch/s
Frequency	Displacement
Range	10Hz. ~ 1kHz.
	Acceleration
	10Hz. ~ 10kHz
	Velocity
	10Hz. ~1kHz.
Analogue Output	AC Output 0~2.0V Peak Full Scale (Load Resistance: Above 10k)
	With Max. Value Hold And Low Battery Indication
	Metric/ Imperial Conversion
Pc Interface	RS232C (Cable And Software Is Not Included)
Power Off	Manual Off At Any Time Or Auto Power Off Is Enabled By User
Operating Conditions	Temperature 0-50 °C
	Humidity Below 95% RH
Power Supply	2x1.5vAA (UM-3)Battery
Size	130x70x30mm
Weight	305g (Not Including Batteries)

3-AXIS VIBRATION TESTER (SEPARATE-TYPE) CODE:MS-6380

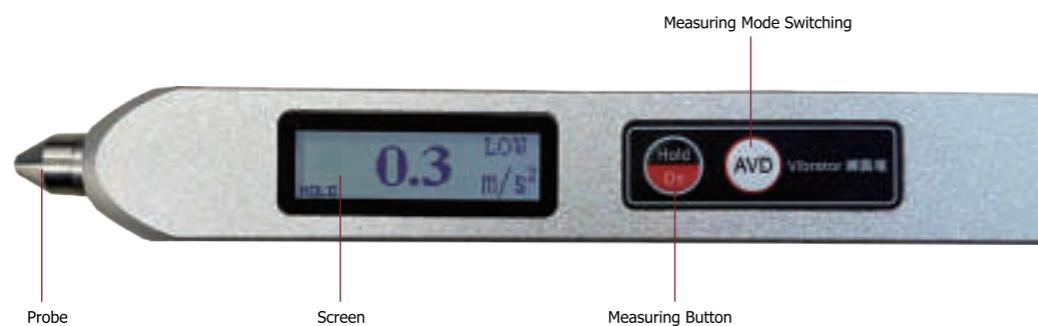
01



PEN TYPE PORTABLE VIBRATION TESTER

CODE:iVibra-100

01



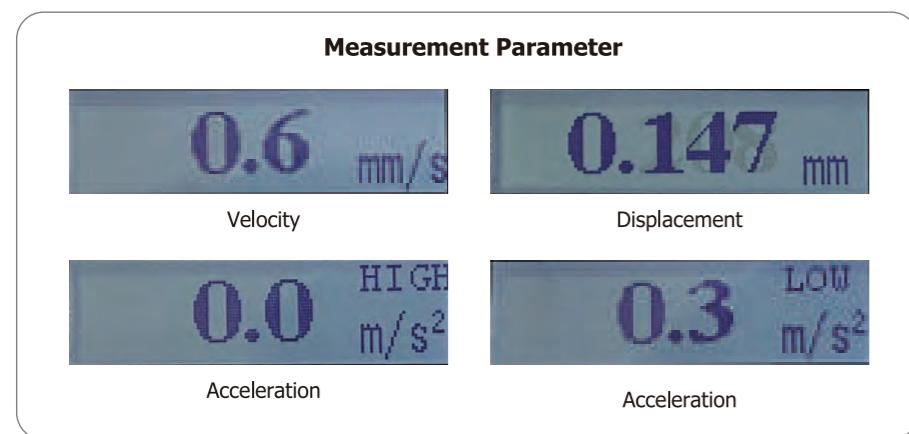
STANDARD DELIVERY

Main Unit	1 pc
Neck Strap	1 pc
LR44 Battery	1 pc
Screwdriver	1 pc
Leather Case	1 pc
Package Case	1 pc

- Dot matrix LCD display with AVD display function and high-frequency acceleration display function, capable of conducting simple fault diagnosis;
- Compact size with a robust casing, offering excellent electromagnetic interference resistance;
- Powered by two LR44 batteries for ultra-low power consumption;
- All operations can be completed with just two buttons, simple and easy to understand;

TECHNICAL SPECIFICATION

Measurement Parameters	Acceleration, Velocity, Displacement
Measurement Range	Acceleration:0.1m/s ² -290.0m/s ² (Peak Value) Velocity:0.1mm/s-290.0mm/s(Valid Value) Displacement:0.001mm-2.900mm(Peak-Peak Value)
Frequency Range	Acceleration:10Hz~1kHz(LO), 1kHz~15kHz(HI) Velocity:10Hz~1kHz Displacement:10Hz~500Hz
Measurement Error	±5%±2
Display	LCD Display
Battery	Two LR44 Button Batteries
Working Hours	Continuous Work For About 4 Hours,intermittent Use About 300 Times
Use Environment	Temperature: 0°C~40°C Relative Humidity<85%
Size	152×22×16mm
Weight	90g



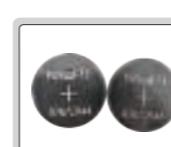
Leather Case



Screwdriver



Neck Strap



LR44 Battery



- High-clarity LCD screen for intuitive results
- Automatic orientation recognition
- Supports multiple languages
- Measures in N, gf, kgf, ozf, lbf
- Uses rechargeable Ni-MH batteries
- USB & multi-function ports for printer/computer connection
- Multiple measurement modes
- Over-limit buzzer alarm
- Stores 1000 test data entries
- Includes various measurement adapters
- Handheld or fixed-position use

STANDARD DELIVERY

Main Unit	1 pc
Charger	1 pc
Hook	1 pc
Extension Shaft	1 pc
Flat Tip	1 pc
Conical Tip	1 pc
Chisel Tip	1 pc
Notched Tip	1 pc
USB Cable	1 pc



Hook



USB Cable/Charger



Flat Tip



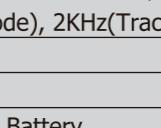
Extension Shaft



Conical Tip



Chisel Tip



Notched Tip

DIGITAL FORCE GAUGE

CODE:iForce



OPTIONAL DELIVERY

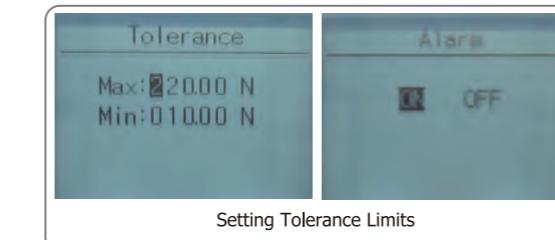
Printer	FG-P
Test Stand	FG-ST



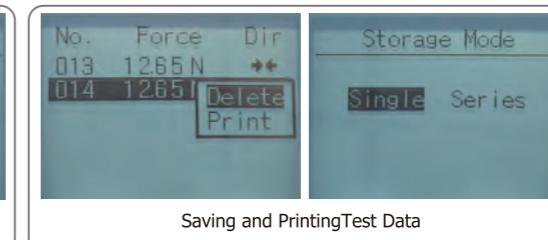
Test Stand

TECHNICAL SPECIFICATION

Model	iForce-1K iForce-2K iForce-5K iForce-10K iForce-20K iForce-50K iForce-100K
Force Range	1Kgf 2Kgf 5Kgf 10Kgf 20Kgf 50Kgf 100Kgf
Accuracy	±0.2%F.S
Units	N; kgf; lbf; ozf; gf; mN
Display	160*128 With Back-light Matrix LCD
Overload Capacity	120%F.S
Detect Modes	Tracking, Peak, Auto Peak, The Best Peak, etc.
Sampling Frequency	16KHz(ADC), 8KHz(Peak Mode), 2KHz(Tracking Mode)
Data Storage	1000 Messages
Temperature Effect	<0.03%F.S/°C
Power	3.6VDCNi-MH Rechargeable Battery
Supplier/Adapter	USB/BM Supplier, 110~240VAC
Ports	USB, RS232
Environment	-10~40°C, 20~80%RH
Dimensions	160*73*34mm
Net Weight	0.7kg



Setting Tolerance Limits



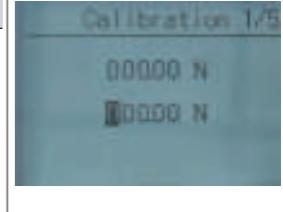
Saving and Printing Test Data



Data Display Mode



Interface Display



Calibration Function

DIGITAL MULTIMETER

CODE:MS86

01



- The functions are comprehensive, capable of measuring various parameters such as AC and DC voltages, currents, and resistances. It also includes auxiliary functions like unit display and data retention.
- Using an 8-bit microprocessor and a dual-integration A/D conversion circuit, the measurement accuracy is high and the performance is stable and reliable.
- Equipped with a 22mm high LCD display, the readings are clear and presented in 3 1/2 digits. It supports automatic polarity and unit display.
- It features automatic/manual range conversion, automatic power-off function, etc. The operation is convenient and it is applicable to various scenarios.
- The design features maximum/minimum value display, alarm functions, etc., meeting various measurement requirements and being highly practical.
- It features overload protection and other safety designs, in compliance with IEC1010 standards. It is safer and more reliable to use.



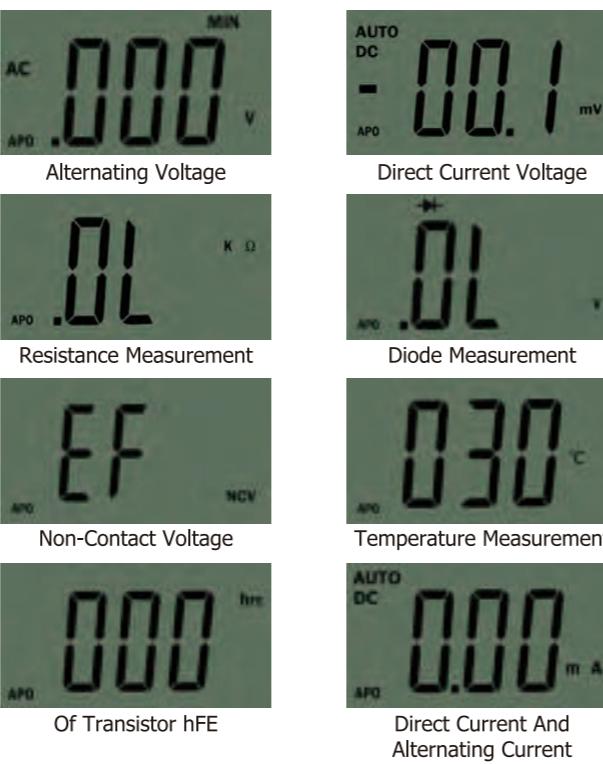
STANDARD DELIVERY

Host Machine	1 pc
Tp01 Thermocouple	1 pc
Table Pen	1 pc
User Manual	1 pc
Certificate Of Conformity	1 pc
Shockproof Sleeve	1 pc
1.5v Battery	2 pcs
Packaging Box	1 pc



TECHNICAL SPECIFICATION

Display Mode	LCD
Maximum Display	2000,3 1/2 Digit Automatic Polarity Display And Unit Display
Measurement Method	With Microprocessor Analog-To-Digital Converter (Adc+Mcu)
Sampling Rate	About Three Times Per Second
Excessive Range	Display "OL"
Display	(0-40)°C,Relative Humidity<80%
Work Environment	(-10 To 50)°C,Relative Humidity<80%
Storage Environment	Two 1.5V batteries ("AAA" type 7# batteries)
Power Supply	170mm×86mm×35mm
Size	Approximately 290g (Including The Battery)



- Using a constant current source and a precise digital bridge, four-wire measurement can accurately measure resistances above 0.01 mΩ. It is applicable for various conductors and contact resistance detection.
- It features portability and a wide measurement range, with backlight display. It comes with a shoulder strap for convenient two-handed operation, and is suitable for contact resistance detection in various scenarios.
- It has various function keys such as power switch and range selection. The LCD display is clear. The zero adjustment knob ensures zero value correction before measurement.
- Three-and-a-half-inch LCD display, sampling rate approximately 3 times per second, low battery indication, suitable for a wide range of operating and storage environments.
- Multiple measurement ranges are available. Different ranges have different accuracy and resolution. The measurement accuracy is clearly guaranteed and the calibration period lasts up to one year.
- Equipped with data retention and backlight functions, there are standardized instructions for preheating and other operations before use. The troubleshooting methods are simple and easy to follow.

STANDARD DELIVERY

Ms480c Digital Milliohm Meter	1 pc
Four-Wire Test Probe	1 pc
User Manual	1 pc
Product Certificate Of Conformity	1 pc
Back Strap	1 pc
5# Battery (1.5v)	6 pcs



TECHNICAL SPECIFICATION

Display	Three And A Half-Digit Liquid Crystal Display, Maximum Reading "1999"
Sampling Rate	About 3 Times Per Second
Temperature Coefficient	0.15 X Specified Accuracy/°C (<18°C Or >28°C)
Altitude	Less Than 2000 Meters
Operating Environment	Indoor Use, Pollution Level 2
Operating Environment	15°C To 55°C, Relative Humidity<75%Rh
Storage Environment	40°C To 60°C, Relative Humidity<90%Rh
Power Supply	Section 6: 1.5v "Aa" Battery Or External Dc 9v Adapter Power Supply
Power Consumption	120mA
Fuse	150mA/60V Self-Recovering Fuse
Dimensions Of The Shape	176(L)x116(W)x63(D)mm
Weight	580g (including battery)



DIGITAL GROUND RESISTANCE TESTER

CODE:MS4105A

01



- The safety design complies with the IEC 61010-1 CAT.II 600V standard. It features multiple warning protections to prevent personal injury and equipment damage.
- The measurement functions are diverse, capable of measuring grounding resistances ranging from 0 to 1999 Ω and grounding voltages ranging from 0 to 199.9 V, meeting the needs of various scenarios.
- Equipped with LCD backlight display, low battery indication and LED warning light, the reading is clear and the status is intuitive.
- By using a small test current (up to 3mA), the RCD will not be triggered, ensuring a safe and stable measurement process.

Supports 3-line precise measurement and 2-line simple measurement, adaptable to different grounding environments, with flexible measurement methods.

- It has good adaptability to the environment, a wide range of working temperature and humidity, a small size and light weight, and is convenient to carry and use.

TECHNICAL SPECIFICATION

Name	MS4105A Digital Ground Resistance Tester
Standard	Iec 61010-1 Cat.ii
Display	Lcd Screen,Maximum Display "1999"
Ground Resistance Measurement Range	0-1999 Ω
Ground Voltage Measurement Range	0-199.9v
Working Temperature And Humidity Range	-10°C To 50°C,80% Or Less
Storage Temperature And Humidity Range	-20°C To 60°C,75% Or Less
Size	176*166*62.5mm
Weight	Approximately 580 grams (including the battery)

STANDARD DELIVERY

15-Meter Red Line	1 pc
10-Meter Yellow Line	1 pc
5-Meter Green Line	1 pc
Auxiliary Grounding Stake	2 pcs
User Manual	1 pc
Product Certificate Of Conformity	1 pc
5# Battery (1.5v)	6 pcs
Back Strap	1 pc
Packaging Bag	1 pc



10-Meter Yellow Line



5-Meter Green Line



Auxiliary Grounding Stake



15-Meter Red Line



Back Strap



Packaging Bag



5# Battery (1.5v)

SOLAR RADIATION MEASURING INSTRUMENT

CODE:MS-107

01



- The measurement function is diverse, capable of measuring solar radiation, film effectiveness, etc., and can also assist in determining the optimal angle of the solar panel. It has a wide range of applicable scenarios and is highly practical.

- The display is clear and intuitive, supporting unit switching and data retention, with precise peak tracking function, and the operation is convenient and easy to master.

- The performance is stable and reliable, with high precision and minimal error over a long period of use. It also provides clear indications for overload and low voltage conditions, ensuring measurement safety.

- The design is lightweight and portable, with moderate size and light weight. It is equipped with a cloth bag for easy carrying and is suitable for various indoor and outdoor environments.

- Maintenance is simple and hassle-free. The battery replacement process is straightforward.

- Cleaning only requires a dry soft cloth. Storage instructions for long-term use are clearly stated.

- Compliant with safety standards, meeting the safety standards for electronic measuring instruments, with strong electromagnetic compatibility, and having multiple protective measures in place.

TECHNICAL SPECIFICATION

Battery Life	About 100 hours
Precision	$\pm W/m^2 [+3 BTU/(ft^2 \times h)]$
Working Temperature	Relative humidity: 50% - 40%, relative humidity lower than 80%
Storage Temperature	Relative humidity: -10°C to 60°C, relative humidity less than 70%
Monitor	Three-and-a-half-inch liquid crystal display, with the maximum reading capacity of 1999
Sampling Time	Approximately 0.25 seconds
Resolution	1W/m ² BTU/(ft ² x h)
Accuracy	$\pm <3$ per year
Range	1999 W/m ² , 634 BTU/(ft ² x h)
Size(Mm)	100x60x27
Weight	About 300g

STANDARD DELIVERY

Host	1 set
Battery	1 pc
Instrument Bag	1 pc
Instruction Manual	1 pc



Battery



Instrument Bag



DIGITAL HIGH-PRECISION TACHOMETER

CODE:MS6236

01



- Integrating advanced technologies such as microcomputers and optoelectronics, it can measure rotational speed, linear speed, and linear length through contact or non - contact methods, offering diverse functions and leading - edge technology.
- It has a wide measurement range and high resolution, is equipped with a large - screen backlit LCD, enabling clear and error - free readings, and can be used normally in any lighting environment.
- It can automatically store the maximum value, minimum value, last value and 96 consecutive values, which is convenient for data collection and recording. It also has a low voltage prompt function.
- The contact accessories and photoelectric accessories are convertible (patented technology). The linear speed sensor is equipped with a groove, which is convenient for measuring linear objects, enabling the tachometer to be used for multiple purposes.
- The linear design fits the palm. The shell is made of sturdy ABS plastic, with a delicate and durable structure. It is easy to operate and suitable for long - term use.

STANDARD DELIVERY

Portable Leather Box	1 pc
Reflective Strip	600mm
Instruction Manual	1 pc
Desiccant	1 pc
Screw Pack	1 pc
Linear Speed Measurement Accessories	1 pc
RPM Measurement Accessories	3 pcs



TECHNICAL SPECIFICATION

Screen	5-digit 18mm Yellow-Green Backlit LCD Display
Measurement Accuracy	$\pm(0.05\% + 1 \text{ digit})$
Sampling Time	0.8 Seconds (Over 60 Revolutions per Minute)
Range Selection	Automatic Switching Time Base: 6MHz Quartz Crystal Oscillator
Effective Distance	50mm - 500mm (Photoelectric Type)
Size	210x74x37mm
Power Supply	4 x 1.5V SIZE Batteries or External 6V DC Regulated Power Supply
Power Consumption	Approximately 65mA



Contact Rotational Speed Mode

Contact Linear Speed Mode



Photoelectric/Contact Dual Type

- It has strong adaptability to multiple scenarios and is widely applied in industrial hvac, environmental monitoring, maritime firefighting and other fields, meeting the multi-parameter collection requirements such as wind speed and flow rate in different scenarios.

- The measurement parameters are comprehensive and diverse, including wind speed, flow rate, beaufort wind scale, wave height and temperature. It also supports multiple unit switching, covering various measurement requirements.

- It has the functions of data storage and retrieval, capable of storing multiple sets of data and allowing users to browse and delete them through buttons. It also supports rs232c interface for data transmission and management.

- The operation is convenient and user-friendly, equipped with clear status indicators and intuitive buttons. It supports maximum value retention and automatic shutdown settings, reducing the entry barrier for use.

- The measurement accuracy and range are both included, the resolution for parameters such as wind speed and temperature is 0.1. The range coverage is wide, enabling precise measurement under different air flow intensities.

- The structure is durable and easy to maintain. It adopts a sturdy design to be suitable for long-term use. The battery replacement is convenient. When the device is left idle for a long time, removing the battery can protect it.



OPTIONAL DELIVERY

Rs232c Data Cable	WS-DC
Software	WS-TS

STANDARD DELIVERY

Main Unit	1 set
Impeller	1 pc
Portable Box	1 pc
Aaa Battery	4 pcs
Instruction Manual	1 pc
Warranty Card	1 pc
Certificate Of Conformity	1 pc



Main Unit

Impeller



Portable Box

Aaa Battery

SPECTROPHOTOMETER CODE:iColor-T407

01



The interface is clearly marked. The TYPE-C interface has the functions of charging, communication and printing, and is easy to use.

Equipped with an independent power switch and a caliber switching switch to prevent accidental operation, and the switching logic is clear.

The standard whiteboard is dirt-resistant and stable. The correction box design makes cleaning and storage easy, ensuring the accuracy of the measurement benchmark.

Supports average measurement function (2 to 99 times), allowing for the acquisition of multi-point average data, which is more in line with the true coloration of uneven samples.

The system settings are comprehensive, supporting features such as automatic saving of measurements and adjustment of screen backlight duration, and are suitable for different usage habits.

STANDARD DELIVERY

Host Machine	1 pc
Calibration Box	1 pc
Type-C Data Cable	1 pc
Power Adapter	1 pc
Measurement Caliber Kit	1 pc
Wristband	1 pc
Protective Cover	1 pc
Cleaning Cloth	1 pc
Operation Manual	1 pc
Certificate	1 pc
Warranty Card	1 pc
Instrument Box	1 pc



- Using planar grating spectrometry and silicon photodiode array sensors, the optical resolution is less than 10nm, and the measurement is precise and stable.
- Supports multi-caliber switching of 8mm, 4mm, and 1×3mm (for some models). The platform and tip diameter can be selected, and it is compatible with samples of different sizes.
- 3.5-inch TFT true-color capacitive touch screen, with intuitive operation and support for multiple languages including simplified Chinese and English.
- It is equipped with a 5000mAh lithium battery, which enables 8500 measurements within 8 hours. The battery life is very strong and it is equipped with a universal TYPE-C charging port.
- It can store 500 standard samples and 20,000 test data samples. It supports both USB and Bluetooth communication modes, making data management very convenient.
- It features dual measurement modes of SCI/SCE, supports a standard observer angle of 2°/10°, and offers 41 selectable observation light sources, suitable for various measurement scenarios.
- The design is ergonomic, equipped with a wristband fixing column to prevent accidental falling, and the outer protective design can reduce accidental bumps and injuries.
- Supports camera framing positioning and stable film positioning. The measurement is precise. It is easy for beginners to operate.



TECHNICAL SPECIFICATION

Model	iColor-T407 Plus	iColor-T407
Optical Geometry	D/8 (diffused illumination,8-degree viewing angle) SCI & SCE; Include UV & Exclude UV.	
Conform to Standards	CIENO.15,GB/T3978,GB2893,GB/T18833,1S07724-1,ASTME1164,DIN5033 Teil7	
Light Source	Combined Full Spectrum LED Lamp, UV Lamp	
Integrating Sphere Size	Φ40mm	
Spectroscopic Method	Plane Grating	
Sensor	Large-area silicon photodiode array (40 pairs of dual columns)	
Wavelength Range	360~780nm	400~700nm
Wavelength Interval	10nm	
Reflectance Range	0~200%	
Measuring Apertures	Five Apertures: 8mm Platform+ 8mm Tip+ 4mm Platform +4mm Tip+1*3mm	Three Apertures:8mm Platform +4mm Platform+1*3mm
Locating Method	Cross Locating+Camera Locating	
Whiteboard Calibration	Non-contact automatic whiteboard Calibration	
Color Spaces	CIE LAB, XYZ, Yxy, LCh, CIE LUV, s-RGB, HunterLab, Bxy, DIN Lab99 Munsell(C/2)	
Color Difference Formula	ΔE*ab, ΔE*uV, E*94, ΔE*cmc(2:1), ΔE*cmc(1:1), ΔE*00, DINAE99, ΔE(Hunter)	
Other Colorimetric Index	Spectrum Reflectance Rate, WI(ASTM E313-00, ASTM E313-73,CIE/ISO, AATCC, Hunter, TaubeBergerStensby), YI(ASTM D1925, ASTM E313-00, ASTM E313-73), Metamerism Index Mt, Staining Fastness, Color Fastness, Strength (dye strength, tinting strength), Opacity 8-degree Gloss, 555 index, Blackness (My, dM), Color density CMYK(A.T.E.M), Tint(ASTM E313-00, Munsell (Some functions are realized through the computer)	
Observer Angle	2°/10°	
Illuminants	D65, A, C, D50, D55, D75, F1, F2(CWF), F3, F4, F5, F6, F7(DLF), F8, F9, F10(TPL5), F11(TL84), F12(TL83/U30), B, U35, NBF, ID50, ID65, LED-B1, LED-B2, LED-B3, LED-B4, LED-B5, LED-BH1, LED-RGB1, LED-V1, LED-V2, LED-C2, LED-C3, LED-C5, Light source can be customized(a total of 41 kinds of light sources, some of which are realized through the host computer/APP)	
Displayed Data	Spectrogram/values, Samples chromaticity Values, Color Diference Values/Graph, PASS/FAIL Result, Color Simulation, Color Offset	
Measuring Time	About 1.5s	
Repeatability	Chromaticity Value: MAV/SCI, within ΔE*ab 0.02 Spectral reflectance: MAV/SCI, standard deviation within 0.07% (400~700nm)	Chromaticity Value: MAV/SCI, within ΔE*ab 0.022 Spectral reflectance: MAV/SCI, standard deviation within 0.07% (400~700nm)
Inter-instrument Error	MAV/SCI, ΔE*ab within 0.18	MAV/SCI, ΔE*ab within 0.2
Display Accuracy	0.01	
Measurement Mode	Single measurement,average measurement (2-99 times)	
Data Storage	APP mass storage	
Accuracy Guarantee	Guarantee passing the Grade 1 metrology	
Dimension	Length X Width X Height=114 X 70 X 208mm	
Weight	About 435g(Calibration Base not included)	
Battery	Lithium battery, 3.7V,5000mAh,8500 times measurements within 8 hours	
Illuminant Life Span	More than 1.5million measurements in 10 years	
Display	TFT True Color 3.5inch, Capacitive Touch Screen	
Data Port	USB, Bluetooth®	
Data Storage	500 pcs standard samples, 20000 pcs samples (one piece of data can include SCI+SCE at the same time), APP/PC mass storage	
Software Support	Andriod, IOS, Windows, Wechat APPlet, Harmony OS.	
Language	Simplified Chinese,Traditional Chinese, English	

01

PORTABLE XRF SPECTRUM ANALYZER CODE:iSpectro-F5000

01



- Lightweight and portable, robust and durable, featuring a unique ergonomic design.
- Utilizes the principle of X-ray fluorescence spectrometry for analysis.
- Weight typically does not exceed 1.4kg (approximately 1.46kg with battery), available in various sizes.
- High-power, high-performance X-ray tube as the excitation source, with multiple target materials to choose from.
- Voltage of 35KV/50KV (partially adjustable), with multiple optional filters and automatic adjustment capabilities.
- Detector is a Si-pin/SDD, with a cooling temperature of -35°C and a resolution of \leq 135eV.
- High-performance processor, running on the Windows CE operating system.
- Strong data processing capabilities, equipped with a high-capacity memory card and multiple transmission methods.
- Color high-resolution TFT industrial-grade touchscreen.
- Capable of analyzing multiple elements from Mg to Pu, with more than 30 elements included as standard.
- Non-contact detection capability of 0.5mm, protecting the test window.
- Uses imported lamps and sensors, with a lamp lifespan of over 2000 hours and capable of more than 720,000 detections.
- Fast detection speed, providing results in just a few seconds to enhance work efficiency. Simple and intuitive operation, with one-touch operation to minimize human error.
- Non-destructive testing, preserving the integrity of samples.
- High detection accuracy, approaching laboratory-level precision.

STANDARD DELIVERY

Main Unit	1 pc
Window Protective Film	1 pc
Lithium-ion Battery	1 pc
Power Adapter	1 pc
Charging Dock	1 pc
316 Calibration Clip	1 pc
Stylus Pen	1 pc
Instrument Case	1 pc



Top of the Instrument and its Radiator

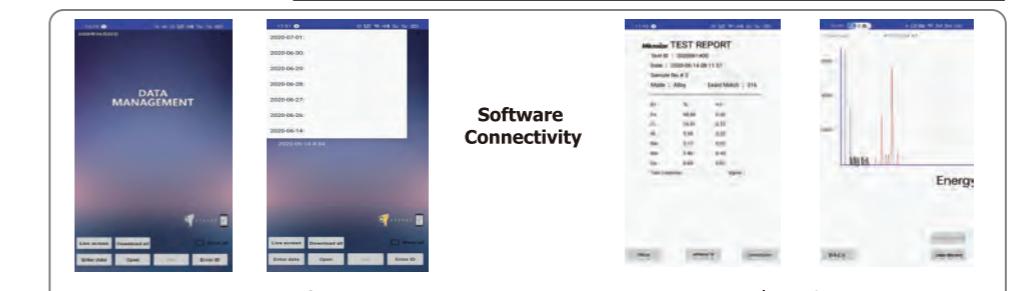
Battery Compartment



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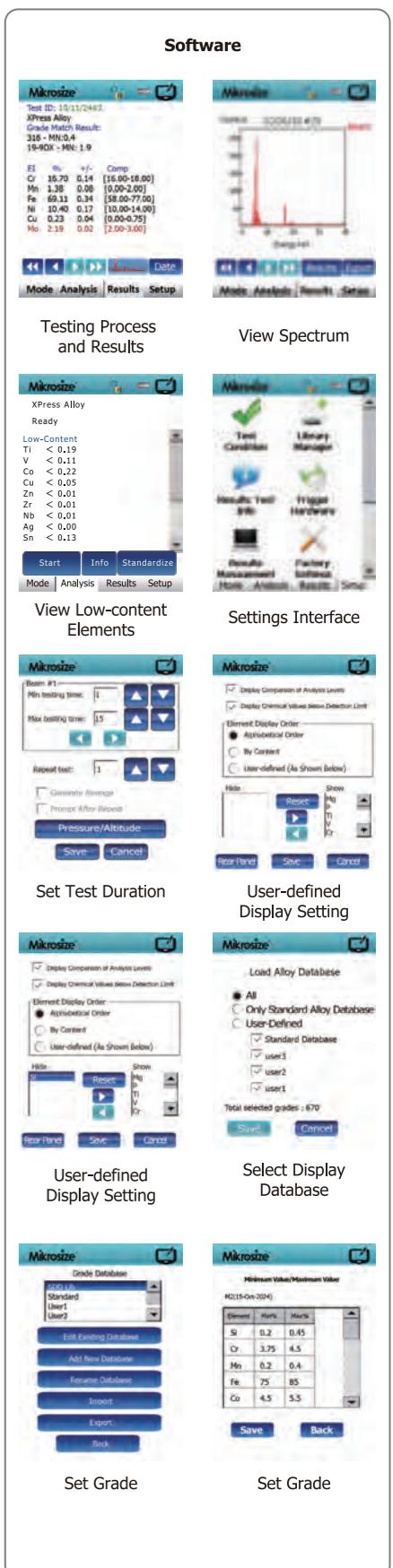
TECHNICAL SPECIFICATION

Model	MS-F5000
Brand	Mikrosizer
Weight	Main Body:1.27kg,With Battery:1.46kg
Dimensions	233mmx84mmx261mm(LxWxH)
Excitation Source	High-power High-performance Miniature X-ray Tube
Target	Au,Ag,W,Ta,Pd
Voltage	35KV/50KV
Filter	A Variety Of Selectable Filters,automatically Adjusted For Different Objects
Detector	Si-pin/SDD
Cooling System	Peltier Effect Semiconductor Refrigeration System
Standard	Stainless Steel 316
Power Supply	Lithium Battery \times 2/6800mAh
Processor	High Performance Pulse Processor
Operating System	Windows CE System
Data Transmission	USB,Bluetooth,WiFi,Hotspot
Software Standard	Alloy Plus 3.0
Mode	SD Mass Storage Card,(Memory Expandable)
Data Processing	High-resolution TFT Industrial-grade Color Hd Touches Screen For Ergonomics,Sturdy,Dust-proof,Waterproof,Clearly Visible To Any Light Conditions
Display	Integrate Body Design,Sturdy,Waterproof,Disproof,Antifreeze,Anti-vibration,Can Be Used Normally In Harsh Environments
Shape Design	"One-button"Operation,Software Automatic Time Lock,Automatic Stop Test Function;
Safe Operation	Judge X-ray Automatically Within 2 Seconds There Is No Sample In Front Of Test Window
Smart System	Intelligently Identify Atmospheric Pressure And Correct It
Correction	The Instrument Has Been Calibrated Before Leaving The Factory;the Instrument Has A Built-in Calibration Curve For Accurate Testing For Specific Samples .
Result Report	The Instrument Is Equipped With Standard Usb,bluetooth,wifi,can Directly Customize Thereport Format And Excel Format To Download Detection Data And Its X-ray Spectrum(User Can Customize The Report According To The Application)
Analysis Element	Mg,Al,Si,P,S,Ti,V,Cr,Mn,Fe,Co,Ni,Cu,Zn,W,Hf,Ta,Re,Pb,Bi,Zr,Nb,Mo,Ag,Sn,Sb,Pd,Cd,Ti,Th
Protective Device	Military-grade High-strength Three-proof Box;the Instrument Comes With A Test Window Protection Cover To Prevent Accidental Damage
Accessories	5 Test Windows Protective Film,original Power Adapter And Charging Device
Annex	Operating Instructions,factory Inspection Reported



Connecting Software

Viewing Test Results And Spectrograms



39

STANDARD TEST BLOCK FOR ULTRASONIC FLAW DETECTORS

01



CSK-IA



LS-I,II



CS-2



CSI



CS-1-5



DB-P

Type	Execution Standard	Introduction
CSK-IA	NB/T47013-2015	Primarily Used For Calibrating The Transverse Wave Angle Beam Probe Of Ultrasonic Flaw Detectors, Including The Measurement Of Parameters Such As The Leading Edge Distance, K-value (Tangent Of The Refraction Angle), And Acoustic Beam Deflection Angle.
LS-I,II	DL/T694-2012	Mainly Used For Performance Testing And Calibration Of Ultrasonic Flaw Detection Equipment. It Assists Flaw Detection Personnel In Determining Critical Parameters Such As The Sensitivity And Resolution Of Flaw Detection Equipment.
CS-2	NB/T47013-2015	Used For Calibrating Single-crystal Normal Probes.
CSI Standard Test Block for Single Crystal Straight Probe	JB/T 4730-2005	Used For Calibrating The Combined Performance Of Ultrasonic Flaw Detectors And Single-crystal Normal Probes To Ensure That The Instrument And Probe Can Accurately Detect Defects In Workpieces.
CS-1-5	JB/T 8428-2015	Used For Measuring The Sensitivity Margin Of The Combined Performance Of Normal Probes And Instruments, Adjusting Flaw Detection Sensitivity, Determining Defect Sizes, And Assessing Performance Indicators Such As The Vertical Linearity Of The Instrument And Its Shape.
DB-P Ultrasonic Standard Test Blocks	NB/T47013-2015 ZB Y232-84	Primarily Used For Calibrating Probes Of Ultrasonic Flaw Detectors, Adjusting Detection Sensitivity, And Creating Distance-amplitude Curves.

STANDARD TEST BLOCK FOR ULTRASONIC THICKNESS GAUGE

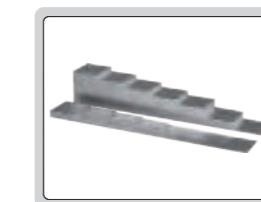
01



4-Step



5-Step



7-Step



Standard Specification Blocks

Type	Execution Standard	Introduction
4-Step/5-Step/7-Step Thickness Step Test Blocks	GB/T 11344-2008	Primarily Used For Calibrating Ultrasonic Thickness Gauges. By Measuring Parameters Such As The Ultrasonic Echo Time From Different Thickness Steps On The Test Blocks, The Measurement Accuracy And Precision Of The Thickness Gauge Can Be Adjusted And Verified. This Ensures That The Gauge Can Accurately Measure The Thickness Of Workpieces In Actual Inspections.
Standard Specification Blocks for Ultrasonic Thickness Gauge	JJF1126-2008	Primarily Used For Calibrating The Accuracy And Precision Of Ultrasonic Thickness Gauges When Measuring The Thickness Of Pipes. By Measuring The Wall Thickness Of Standard Cylindrical Pipe Test Blocks, The Measurement Parameters Of The Thickness Gauge Can Be Adjusted And Verified.

STANDARD TEST BLOCK FOR ULTRASONIC TESTER



CSII



CSK-IIA

Type	Execution Standard	Introduction
CSII Ultrasonic Test Block	NB/T47013-2015	This Test Block Is Suitable For The Detection Of Carbon Steel And Low-alloy Steel Forgings With A Thickness Less Than 45mm Using Dual Crystal Straight Probes, As Well As For The Radial Detection Of Carbon Steel And Low-alloy Steel Bolt Blanks With A Diameter Of M36 Or Larger Using Dual Crystal Straight Probes.
CSK-IIA Ultrasonic Test Block	NB/T47013-2015	This Test Block Is Suitable For The Ultrasonic Detection Of Type I Welded Joints With A Workpiece Thickness Range Of 6mm To 200mm Using Angle Probes And Straight Probes.

STANDARD TEST BLOCK FOR ULTRASONIC TESTER

01



Comparison Block



CSII



DZ-1



CSK-IVA



CSK-IIIA



PAUT



GS Series Standard Test Block

Type	Execution Standard	Introduction
Comparison Block for Ultrasonic Testing	NB/T47013-2015	This Test Block Is Suitable For The Ultrasonic Detection Of Butt Joints In Pressure-bearing Equipment Made Of Aluminum And Aluminum Alloy, As Well As Titanium, With Thickness Greater Than Or Equal To 8mm~80mm
CSII Ultrasonic Test Block	JB/T4730-2005	This Test Block Is Suitable For The Ultrasonic Detection Of Raw Materials, Components, And Welded Joints Used In Pressure-bearing Equipment Made Of Metallic Materials. It Is Also Applicable For The Ultrasonic Detection Of Metallic Pressure-bearing Equipment In Service, And Can Be Referenced For The Ultrasonic Detection Of Supporting Parts And Structural Parts Related To Pressure-bearing Equipment.
DZ-1 Ultrasonic Testing Block for Straight Probe Blind Zone	NB/T47013-2015	This Test Block Is Suitable For Workpieces With A Thickness Of ≤40mm.
CSK-IVA Ultrasonic Comparison Test Block	NB/T47013-2015 JB/T4730-2005	This Test Block Is Suitable For The Ultrasonic Detection Of Type I Welded Joints With A Workpiece Thickness Range Of 200 To 500mm Using Angle Probes And Straight Probes.
CSK-IIIA Ultrasonic Standard Flaw Detection Test Block	NB/T47013-2015	This Test Block Is Suitable For The Preparation Of Distance-amplitude Curves When Detecting Welded Joints With A Thickness Range Of 8mm To 120mm Using Angle Probes.
Phased Array Ultrasonic Testing (PAUT) Block	ISO 19675	This Test Block Is Suitable For The Ultrasonic Detection Of Type IIi Welded Joints With A Workpiece Thickness Range Of 4mm To 50mm Using Angle Probes.
GS Ultrasonic Test Block	NB/T47013-2015	This Test Block Is Suitable For Testing The Blind Zone Of Straight Probes.

ULTRASONIC FLAW DETECTOR PROBE

01



Angle Probe

Frequency	2MHz														
	Crystal Size (mm)			8x9			14x14			18x18			20x22		
Angle	45°	60°	70°	45°	60°	70°	45°	60°	70°	45°	60°	70°			
Wave Freq.Errors	≤ 10%														
Surplus Sensitivity(dB)	≥ 70	≥ 68	≥ 64	≥ 70	≥ 66	≥ 62	≥ 72	≥ 70	≥ 64	≥ 72	≥ 68	≥ 66			
Initial Wave of Wide(mm)	≤ 22	≤ 22	≤ 21	≤ 22	≤ 22	≤ 21	≤ 22	≤ 22	≤ 22	≤ 22	≤ 22	≤ 22			
Resolution(dB)	≥ 34	≥ 32	≥ 32	≥ 32	≥ 30	≥ 30	≥ 34	≥ 32	≥ 32	≥ 34	≥ 32	≥ 28			
Beam Deflection	≤ ±1°														
Forefront Distance(mm)	≤ 11.5			≤ 12.5			≤ 21	≤ 22	≤ 18.5	≤ 21	≤ 20.5	≤ 19.5			
Measured K Value	±0.5°														
Standard	EN12668-2														



Angle Probe

Frequency	4MHz													
	Crystal Size (mm)			8x9			14x14			18x18			20x22	
Angle	45°	60°	70°	45°	60°	70°	45°	60°	70°	45°	60°	70°		
Wave Freq.Errors	≤ 10%													
Surplus Sensitivity(dB)	≥ 64	≥ 66	≥ 64	≥ 67	≥ 66	≥ 64	≥ 64	≥ 64	≥ 60	≥ 64	≥ 64	≥ 60		
Initial Wave Of Wide(mm)	≤ 13	≤ 13	≤ 13	≤ 14	≤ 14	≤ 14	≤ 12	≤ 14	≤ 14	≤ 12	≤ 14	≤ 14		
Resolution(dB)	≥ 32	≥ 35	≥ 32	≥ 34	≥ 32	≥ 32	≥ 30	≥ 30	≥ 30	≥ 30	≥ 30	≥ 30		
Beam Deflection	≤ ±1°													
Forefront Distance(mm)	≤ 11.5	≤ 13	≤ 12	≤ 12	≤ 25	≤ 23	≤ 23	≤ 25	≤ 23	≤ 23	≤ 25	≤ 23		
Measured K Value	±0.5°													
Standard	EN12668-2													

ULTRASONIC FLAW DETECTOR PROBE

01



Angle Probe

Frequency	5MHz		
Crystal Size (mm)	8x9		
Angle	45°	60°	70°
Wave Freq.Errors	≤ 10%		
Surplus Sensitivity(dB)	≥ 68	≥ 66	≥ 62
Initial Wave of Wide(mm)	≤ 12	≤ 12	≤ 12
Resolution(dB)	≥ 32	≥ 32	≥ 32
Beam Deflection	≤ ±1°		
Forefront Distance(mm)	≤ 11.5		
Measured K Value	±0.5°		
Standard	EN12668-2		



Normal Straight Probe

Frequency	0.5Mhz	1Mhz
Crystal size (mm)	Φ20	
Wave Freq.Errors	≤ 10%	
Surplus Sensitivity(dB)	≥ 32	≥ 38
Initial Wave of Wide(mm)	≤ 30	≤ 26
Resolution(dB)	≥ 28	≥ 22
Beam Deflection	≤ ±1°	
Standard	EN12668-2	



Normal Straight Probe

Frequency	2MHz				
Crystal Size (mm)	Φ6	Φ10	Φ14	Φ20	Φ24
Wave Freq.Errors	≤ 10%				
Surplus Sensitivity(dB)	≥ 18	≥ 34	≥ 44	≥ 54	≥ 54
Initial Wave of Wide(mm)	≤ 21	≤ 21	≤ 21	≤ 21	≤ 21
Resolution(dB)	≥ 18	≥ 18	≥ 22	≥ 26	≥ 26
Beam Deflection	≤ ±1°				
Standard	EN12668-2				



Normal Straight Probe

Frequency	4MHz				
Crystal Size (mm)	Φ6	Φ10	Φ14	Φ20	Φ24
Wave Freq.Errors	≤ 10%				
Surplus Sensitivity(dB)	≥ 26	≥ 42	≥ 50	≥ 54	≥ 56
Initial Wave of Wide(mm)	≤ 14	≤ 14	≤ 14	≤ 14	≤ 14
Resolution(dB)	≥ 26	≥ 26	≥ 28	≥ 26	≥ 30
Beam Deflection	≤ ±1°				
Standard	EN12668-2				

ULTRASONIC FLAW DETECTOR PROBE

01



Double-crystal Normal Probe

Frequency							2MHz															
Crystal Size (mm)	Φ6	Φ10	Φ14	Φ20	Φ24	Φ10	Φ24	Crystal Size (mm)	Φ6	Φ10	Φ14	Φ20	Φ24	Crystal Size (mm)	Φ6	Φ10	Φ14	Φ20	Φ24			
Focus Distance	10mm							Focus Distance	20mm													
Wave Freq.Errors	≤ 10%																					
Surplus Sensitivity(dB)	≥ 42	≥ 60	≥ 60	≥ 64	≥ 66	≥ 54	≥ 64	Surplus Sensitivity(dB)	≥ 42	≥ 60	≥ 60	≥ 64	≥ 66	≥ 54	≥ 64	Surplus Sensitivity(dB)	≥ 42	≥ 60	≥ 60	≥ 64	≥ 66	≥ 54
Initial Wave of Wide(mm)	≤ 14	≤ 14	≤ 14	≤ 14	≤ 14	≤ 14	≤ 14	Initial Wave of Wide(mm)	≤ 14	≤ 14	≤ 14	≤ 14	≤ 14	≤ 14	≤ 14	Initial Wave of Wide(mm)	≤ 14	≤ 14	≤ 14	≤ 14	≤ 14	≤ 14
Resolution(dB)	≥ 26	≥ 32	≥ 28	≥ 32	≥ 30	≥ 32	≥ 32	Resolution(dB)	≥ 26	≥ 32	≥ 28	≥ 32	≥ 30	≥ 32	≥ 32	Resolution(dB)	≥ 26	≥ 32	≥ 28	≥ 32	≥ 30	≥ 32
Beam Deflection	≤ ±1°																					
Standard	EN12668-2																					



Double-crystal Normal Probe

Frequency							4MHz															
Crystal Size (mm)	Φ6	Φ10	Φ14	Φ20	Φ24	Φ10	Φ24	Crystal Size (mm)	Φ6	Φ10	Φ14	Φ20	Φ24	Crystal Size (mm)	Φ6	Φ10	Φ14	Φ20	Φ24			
Focus Distance	10mm							Focus Distance	20mm													
Wave Freq.errors	≤ 10%																					
Surplus Sensitivity(dB)	≥ 40	≥ 58	≥ 56	≥ 60	≥ 60	≥ 56	≥ 60	Surplus Sensitivity(dB)	≥ 40	≥ 58	≥ 56	≥ 60	≥ 60	≥ 56	≥ 60	Surplus Sensitivity(dB)	≥ 40	≥ 58	≥ 56	≥ 60	≥ 60	≥ 56
Initial Wave of Wide(mm)	≤ 8	≤ 8	≤ 8	≤ 8	≤ 8	≤ 8	≤ 8	Initial Wave of Wide(mm)	≤ 8	≤ 8	≤ 8	≤ 8	≤ 8	≤ 8	≤ 8	Initial Wave of Wide(mm)	≤ 8	≤ 8	≤ 8	≤ 8	≤ 8	≤ 8
Resolution(dB)	≥ 32	≥ 32	≥ 32	≥ 34	≥ 32	≥ 32	≥ 34	Resolution(dB)	≥ 32	≥ 32	≥ 32	≥ 34	≥ 32	≥ 32	≥ 34	Resolution(dB)	≥ 32	≥ 32	≥ 32	≥ 34	≥ 32	≥ 32
Beam Deflection	≤ ±1°																					
Standard	EN12668-2																					



TP0212200



TP0506060



TP0508225



TP0510250



TP0706060



TP1004030



HTP0510250
HTP0510350
HTP0510500

Code	Thickness Measurement Range	Crystal Diameter	Frequency	Operating Temperature
TP0212200	1-200mm	Φ12mm	2MHz	-10°C~60°C
TP0506060	1-60mm	Φ6mm	5MHz	-10°C~60°C
TP0508225	1-225mm	Φ10mm	5MHz	-10°C~60°C
TP0510250	1-250mm	Φ10mm	5MHz	-10°C~60°C
TP0706060	0.8-60mm	Φ6mm	7MHz	-10°C~60°C
TP1004030	0.75-30mm	Φ4mm	10MHz	-10°C~60°C
HTP0510250	2-220mm	Φ10mm	5MHz	-10°C~250°C
HTP0510350	2-220mm	Φ10mm	5MHz	-10°C~350°C
HTP0510500	2-220mm	Φ10mm	5MHz	-10°C~500°C

The Probe for iThick-200 Ultrasonic Thickness Gauge



TP0510300



TP0217508



TP0706035



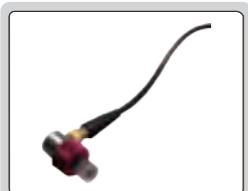
HTP0315480

Code	Thickness Measurement Range	Crystal Diameter	Frequency	Operating Temperature
TP0510300	1-300mm	Φ10mm	5MHz	-10°C~70°C
TP0217508	4-508mm	Φ17mm	2MHz	-10°C~70°C
TP0706035	0.75-35mm	Φ6mm	7MHz	-10°C~70°C
HTP0315480	4-80mm	Φ15mm	5MHz	-20°C~480°C

ULTRASONIC FLAW DETECTOR PROBE

The Probe for iThick-700 Ultrasonic Thickness Gauge

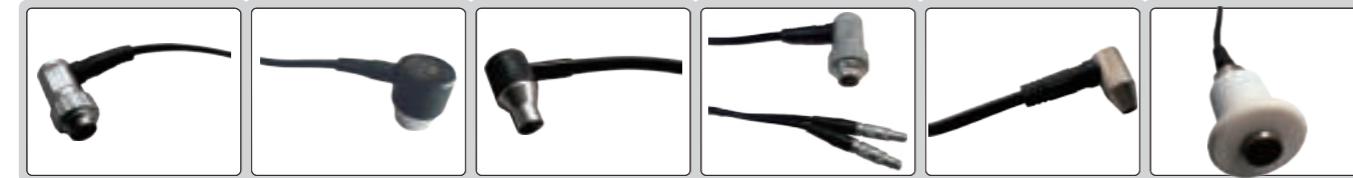
01



TP1507025 Single Crystal 15M Probe

Code	Thickness Measurement Range	Crystal Diameter	Frequency	Operating Temperature
TP1507025	0.15-25mm	Φ7.5mm	15MHz	-10°C~70°C

The Probe for iThick-4000 Ultrasonic Thickness Gauge



TP0510400
Double Crystal
5M Probe

TP0217508
Cast Iron
Probe

TP0707100
Small-diameter
Pipe Probe

TP0508150
Small-diameter
Pipe Probe

TP1006025
Micro Probe

HTP0315480
High Temperature
Probe

Code	Thickness Measurement Range	Crystal Diameter	Frequency	Operating Temperature
TP0510400	1-300mm	Φ10mm	5MHz	-10°C~70°C
TP0217508	4-508mm	Φ17mm	2MHz	-10°C~70°C
TP0707100	0.6-100mm	Φ7mm	7MHz	-10°C~70°C
TP0508150	0.8-150mm	Φ8mm	5MHz	-10°C~70°C
TP1006025	0.5-25mm	Φ6mm	10MHz	-10°C~70°C
HTP0315480	4-80mm	Φ15mm	5MHz	-20°C~480°C

The Probe for iThick-7000 Ultrasonic Thickness Gauge



TP1507025
Single Crystal 15M Probe



TP0510400
Double Crystal 5M Probe



TP1514320
Single Crystal 5M Probe

Code	Thickness Measurement Range	Crystal Diameter	Frequency	Operating Temperature
TP1507025	0.15-25mm	Φ7.5mm	15MHz	-10°C~70°C
TP0510400	1.5-400mm	Φ10mm	5MHz	-10°C~70°C
TP1514320	4-3200mm	Φ14mm	15MHz	-10°C~70°C

COATING THICKNESS GAUGE PROBE

01



F1



F1/90°



F10

Probe Model	F1	F1/90°	F10
Code	CTP01250F00	CTP01250F90	CTP10000F10
Operating Principle	Magnetic		
Substrate Material	Magnetic Metal (Steel, Iron Etc.)		
Coating Material	Non-magnetic Coating(Aluminum, Chromium, Copper, Enamel, Rubber, Paint Etc.)		
Measuring Range (μm)	0~1250	0~10000	
Low Range Resolution (μm)	0.1	10	
Accuracy	One-Point Calibration (μm) ±(3%H+1)	Two-Point Calibration (μm) ±((1~3)%H+1)	One-Point Calibration (μm) ±(3%H+10)
Measuring Conditions	Min Curvature Radius (mm) 1.5	Flatten	10
	Diameter of The Min Area (mm) Φ7	Φ7	Φ40
	Critical Thickness of Substrate (mm) 0.5	0.5	2

COATING THICKNESS GAUGE PROBE



FN

Probe Model	FN
Code	CTP01250FN0
Measuring Range (μm)	0~1250
Low Range Resolution (μm)	0.1
Accuracy	One-Point Calibration (μm) ±(3%H+1) Two-Point Calibration (μm) ±((1~3)%H+1)

COATING THICKNESS GAUGE PROBE

01



N1

Coating Thickness Gauge Probe

Probe Model	N1	
Code	CTP01250N00	
Operating Principle	Eddy Current	
Substrate Material	Non-magnetic Metal Substrate(Copper, Aluminum, Zinc, Tin Etc.)	
Coating Material	Non-conductive Coating (Enamel, Rubber, Paint, Plastic And Etc.)	
Measuring Range (μm)	0~1250	
Low Range Resolution (μm)	0.1	
Accuracy	One-Point Calibration (μm)	±(3%H+1.5)
	Two-Point Calibration (μm)	±[(1~3)%H+1.5]
Measuring Conditions	Min Curvature Radius (mm)	3
	Diameter of The Min Area (mm)	Φ5
	Critical Thickness of Substrate(mm)	0.3

COATING THICKNESS GAUGE REFERENCE BLOCK



Coating Thickness Gauge Reference Block



Coating Thickness Gauge Calibration Test Piece(Set)



Coating Thickness Gauge Calibration Test Piece

Code	Parameter
CTG-FLB	Ferrous Metal Based, Thickness:7mm, Diameter:39mm
CTG-ALB	Aluminium Base, Thickness:7mmDiameter:39mm
CTG-CAB1	Thickness:50μm, Standard Error:1%
CTG-CAB2	Thickness:101μm, Standard Error:1%
CTG-CAB3	Thickness:249μm, Standard Error:1%
CTG-CAB4	Thickness:504μm, Standard Error:1%
CTG-CAB5	Thickness:991μm, Standard Error:1%

Product	Name	Page
	Metallographic Microscope	52
	Video Microscope	57
	Stereo Microscope	61
	Toolmakers Microscope	68
	Manual Video Measuring System	70
	Semi-auto Video Measuring System	72
	CNC Video Measuring System	82
	Profile Projector	86
	Zoom Lens	88
	Light Source	95
	Linear Scale	106
	Other Spare Parts	113

METALLOGRAPHIC MICROSCOPE (ADVANCED TYPE)

CODE:iMetal-40UP



TECHNICAL SPECIFICATION

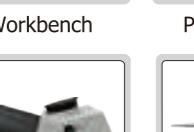
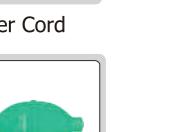
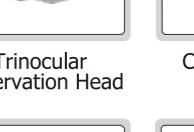
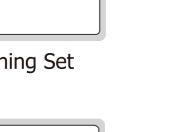
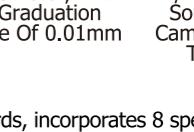
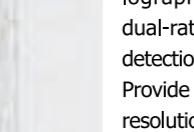
Name	Metallographic Microscope
Optical System	Infinite distance chromatic aberration correction optical system
Optical Magnification	50X-500X(Optional 1000X)
Digital Magnification Factor	150X-1500X(21.5-inch monitor) combined with a 100X objective lens, the magnification can reach 3000X(Optional magnification 100X*digital magnification 30X)
Industrial Camera	5 million pixels, 1/1.8-inch color Sony industrial chip (optional 6.3 million and 20 million pixels)
Observation Tube	Inverted image, infinite distance hinge three-way eyepiece, interpupillary distance adjustment: 50mm - 76mm, two-stage light transmission ratio binoculars: 3 days = 100:0
Eyepiece	High magnification and wide field eyepiece SWH10X-H/23mm, with adjustable viewing angle
Objective Lens	Infinite long working distance bright-dark field half-complex achromatic metallographic objective 5X NA 0.15 WD 14.8
	Infinity long working distance bright-dark field half-complex achromatic metallographic objective 10X NA 0.30 WD 8.5
	Infinite long working distance bright-field and dark-field half-complex achromatic metallographic objective 20X NA 0.40 WD 11.9
	Infinite long working distance bright-field and dark-field half-complex achromatic metallographic objective 50X NA 0.75 WD 3.0
	Infinity long working distance bright-field and dark-field half-complex achromatic metallographic objective 100X NA 0.90 WD 1.0 (optional)
Nosepiece	Manual five-hole objective turret / Electric bright-field and dark-field 5-hole converter (with DIC slot), with physical buttons and dual control via software
Rack	Transmissive reflection frame, low-hand position coarse-fine coaxial focusing mechanism. Coarse adjustment travel 35mm, fine adjustment accuracy 0.001mm. Equipped with a regulating tension device to prevent sliding and a random upper limit position device. It is equipped with a 100-240V wide-voltage system and adopts digital dimming. It also has functions for setting and resetting the light intensity.
Workbench	4-inch worktable, platform area 310*240mm, moving range: 100mm X 100mm mechanical platform, X and Y directions are coaxially adjustable
Collimator	Swing-out type achromatic collimating mirror (N.A. 0.9)
Reflective Lighting Device	Ambient and shadow field reflective lighting device, with variable aperture diaphragm, field diaphragm, adjustable center position, with filter slot, with polarizer/linearizer slot
Lamp Chamber	5W adjustable LED lighting chamber, suitable for both transmission and reflection, with a preset center.
Video Interface	Photography and video accessory: 0.65X, C-type interface
Polarization Component	Polarizer plate, 360° rotating polarizing plate

- Equipped with an infinite-distance chromatic aberration correction system and a semi-reversed objective lens, combined with multiple observation modes and a high-resolution camera, the imaging is clear and sharp, with both details and contrast.
- The differential interference function can convert minute height differences into three-dimensional relief images, enabling precise detection of hidden defects such as LCD conductive particles and wafer scratches.
- The Mikrosize software supports automatic measurement, image stitching and report generation.
- The dual-control design of the electric objective lens turntable enhances the detection efficiency.
- The ergonomic frame is equipped with a wide-voltage system, a 4-inch loading platform and a long working distance objective lens, which is suitable for various industrial samples and environments.
- The objective lens, camera pixels, observation tube, etc. can be selected as needed. It supports post-processing function upgrades to meet the customized requirements in various fields such as semiconductors and materials.

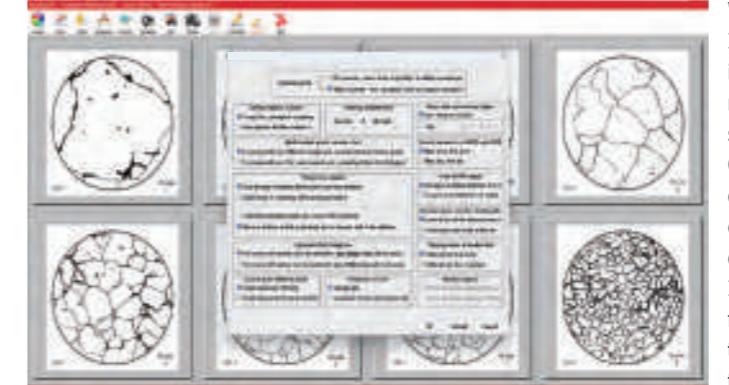
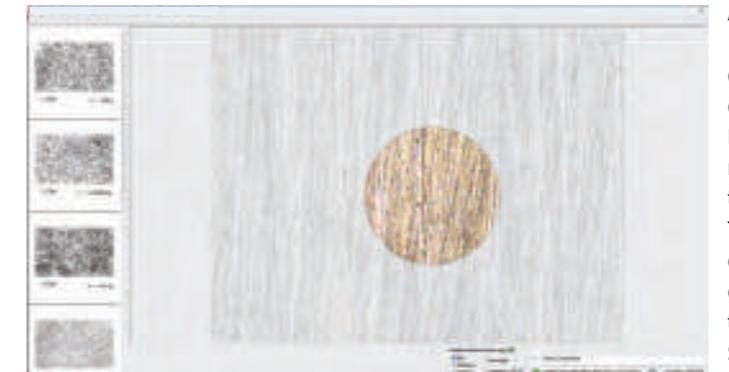
METALLOGRAPHIC MICROSCOPE (ADVANCED TYPE)

CODE:iMetal-40UP

STANDARD DELIVERY

Host Frame	1 pc	
SWH10X-H/23mm Eyepiece	2 pcs	
Lighting Fixture	1 pc	
Objective lens	1 pc	
Nosepiece	1 pc	
Lamp Chamber	1 pc	
Workbench	1 pc	
Glass Workbench	1 pc	
0.65x C-Type Camera Interface	1 pc	
Polarization Component	1 pc	
Trinocular Observation Head	1 pc	
500,000 Units Of 1/1.8-Inch Color Sony Industrial Camera With Chip Technology	1 pc	
Instruction Manual	1 pc	
Mikrosize Microscopic Analysis Software	1 pc	
Hexagonal Wrench Set	1 pc	
High-Precision Micrometer, With A Graduation Value Of 0.01mm	1 pc	
HP Printer	1 pc	
Cleaning Set	1 pc	
Dust Cover	1 pc	
Power Cord	1 pc	

METALLOGRAPHIC SOFTWARE ANALYSIS AND MEASUREMENT



Adheres to multiple national standards, incorporates 8 specialized metallographic analysis modules, supports comparison and automatic dual-rating modes, and takes into account both the authority of metal detection and different precision requirements.

Provide three calibration methods, which can automatically calculate the resolution. Combined with the calibration verification function, it ensures the accuracy of microscopic measurement data and reduces errors.

The geometric measurement tools are diverse, including 8 types such as distance and angle, and can conduct multi-dimensional measurements of the material's microstructure, meeting both qualitative and quantitative requirements.

Supports full-process report management. You can customize the report format, input information, save it in a dedicated format or export it as a Word file, and it is compatible with archiving and sharing.

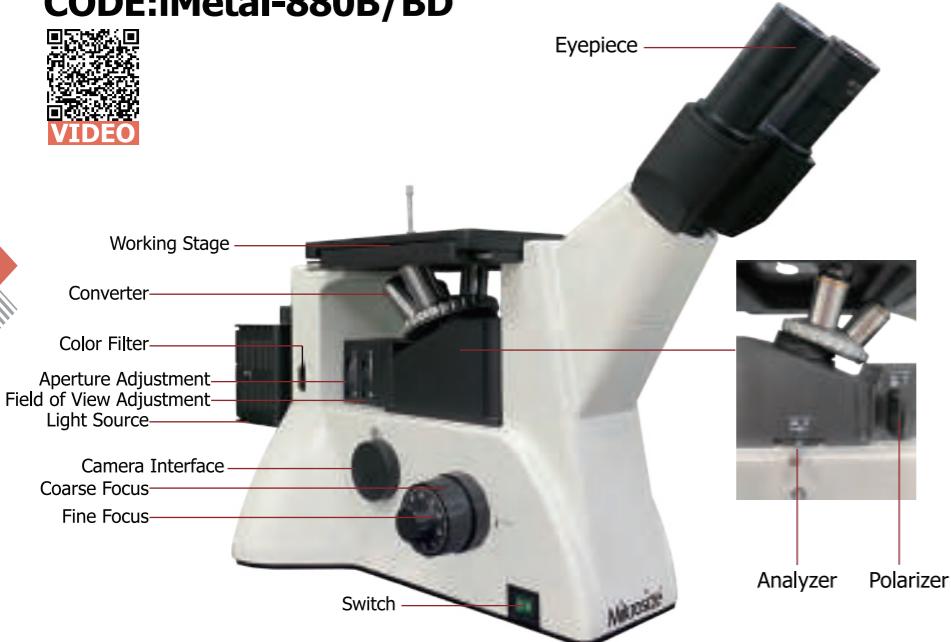
It features image confocal technology and three-dimensional optical imaging capabilities, which can enhance image clarity, create a three-dimensional effect, and also enable image stitching to expand the analysis scope.

Compatible with multiple systems and over 30 types of hardware, the core functions are integrated in the toolbar, providing a usage guide, etc., which lowers the operational threshold and is suitable for different devices.

It allows setting the margins and printer parameters, supports fixed-scale printing, enables editing of the header and footer, ensures the standard format of the paper report, and is convenient for verification and archiving.

INVERTED METALLOGRAPHIC MICROSCOPE (BASIC TYPE)

CODE:iMetal-880B/BD



02

STANDARD DELIVERY

Microscope Mainframe	1 set
Light Source	1 pc
WF 10X/22 Eyepiece(Anti-Fungus)	2 pcs
Binocular Set	1 pc
Objective Lens 10x/0.25	1 pc
Objective Lens 20x/0.40	1 pc
Objective Lens 50x/0.70	1 pc
Objective Lens 100x/0.85	1 pc
Circular Ring Stage	1 pc
Filter Lens	1 pc
Hex Wrench	3 pcs
Polarization Analyzer	1 pc
Polarizer	1 pc
Power Cord	1 pc
Screwdriver	1 pc
Elastic Clip and Lever	1 pc
Fuse	1 pc
Anti-dust Cover	1 pc

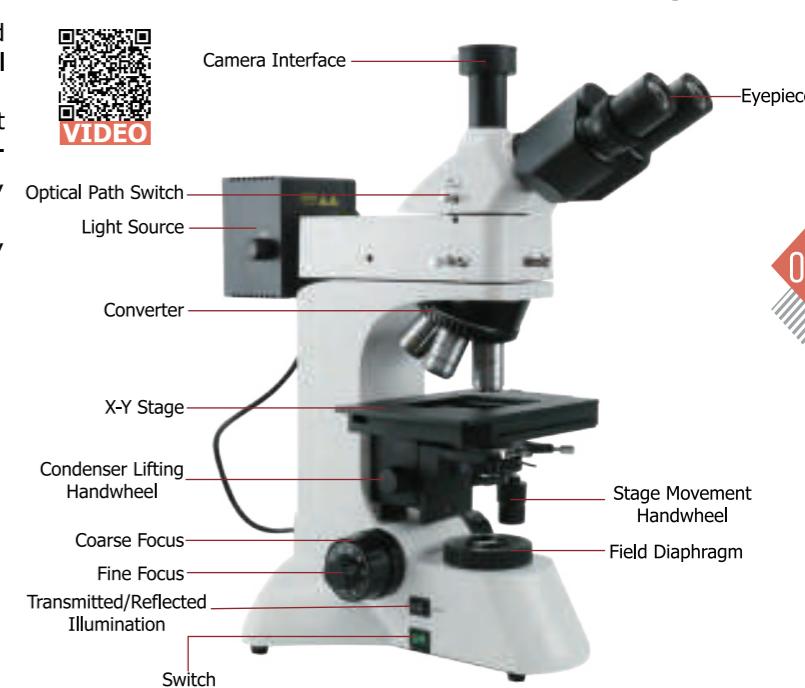
OPTIONAL DELIVERY

Dividing Eyepiece 10X (Φ22mm)	MS-DVE10X
Bright Objective	PL5X
	MS-OB5X
	PL40X
	MS-OB40X
	PL60X
	MS-OB60X
	PL80X
	MS-OB80X
Bright/Dark Objective	PL40X
	MS-OBD40X
	PL60X
	MS-OBD60X
	PL80X
	MS-OBD80X
	PL100X (Oil)
	MS-OBD100X
CCD Adaptor	0.5X
	MS-CCD05
	1X
	MS-CCD1
Software	Camera Software
	MS-V-CS
	Metallography
	MS-MGP-AS
	Analysis Software

- The infinite optical system and modular design facilitate system upgrades and enable multiple observation functions;
- The modular functional design allows easy system upgrades to enable multiple functions such as polarization observation and dark field observation;
- The compact and stable high-rigidity body effectively prevents vibration interference during microscope operation and ensures the accuracy of observation and analysis;
- The ideal ergonomic design is convenient and comfortable to operate and has a wider operating space.

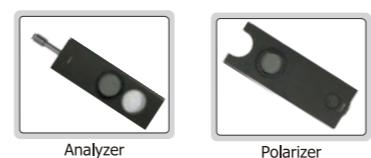
UPRIGHT METALLOGRAPHIC MICROSCOPE (BASIC TYPE)

CODE:iMetal-530B/BD



02

- The iMetal-530B/BD upright transmitted and reflected microscope is adopting an excellent infinite distance optical system and modular functional design concept.
- It can provide excellent optical performance and product system upgrades, achieve transmitted and reflected synchronized or independent illumination, polarizing observation, dark field observation and other functions.
- The product has the characteristics of beautiful appearance, easy operation, clear images, etc.



STANDARD DELIVERY

Mainframe	1 set
Transmission and Reflected Light	1 set
Source Group	
Eyepiece Tube	1 pc
Triple Interface	1 pc
Infinite Plan Achromatic Bright and Dark Field Objective:	Each 1 pc
PL5x, PL10 x, PL20 x, PL40 x	
Wide Field Eyepiece: WF 10 x	1 pc
Color Filters: (Yellow, Green, Blue, Frosted)	Each 1 pc
Polarizing Device	1 pc
Anti-dust Cover	1 pc
Fuses	1 pc
Halogen Lamp	1 pc

TECHNICAL SPECIFICATION

Model	iMetal-530B(Bright Field)				iMetal-530BD(Bright Field/Dark Field)							
Illumination	6V/30W (Transmitted)		6V/30W (Reflected)		12V/30W (Transmitted)		12V/50W (Reflected)					
Infinity Plan Achromatic Objective Lens	5X(B)	10X(B)	40X(B)	60X(B)	5X(BD)	10X(BD)	20X(BD)	40X(BD)				
Working Distance	26.1mm	5.0mm	3.98mm	1.22mm	8.05mm	7.86mm	7.20mm	3.00mm				
Numerical Aperture	0.12	0.25	0.60	0.75	0.12	0.25	0.40	0.60				
Magnification	50X~600X				50X~400X							
Nosepiece	Five Holes (Inward Ball Positioning)											
Eyepiece(Large field of view)	10X(Field:Φ22mm)											
Working Stage	X-Y Double Layer Movement											
Interpupillary Distance Adjustment Range	Dimension:210×140mm											
Diopter Adjustment	Movement Distance75×50mm											
Power Supply	53-75mm											
Machine Dimension	±5 Dioptr (One Eyepiece Adjustable)											
Net Weight	220V,50/60HZ											
	L*W*H(456×280×498mm)											
	11kg											

PORTABLE METALLOGRAPHIC MICROSCOPE

CODE:iMetal-1040



STANDARD DELIVERY

Machine Mainframe	1 set
LED Coaxial Light Sources	1 pc
10X, 40X Objective	Each 1 pc
10X Eyepiece	1 pc
Charger	1 pc
Aluminum Packaging Box	1 pc

OPTIONAL DELIVERY

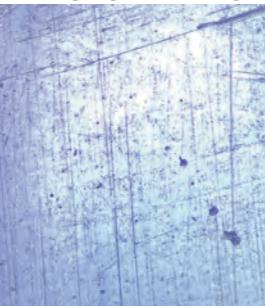
CCD Camera	MS-C100
CCD Adaptor	MS-CCD
Computer	Dell
Metallography Analysis Software	MS-MGP-AS



TECHNICAL SPECIFICATION

Model	iMetal-1040
Eyepiece	Plan Eyepiece 10X Φ 18mm
Objective	Achromatic Objective 10X NA0.25 WD7.3mm Metallographic Objective 40X NA0.65 WD0.5mm
Magnification	100X, 400X
Focusing Range	Coarse Handwheel Focusing Range: 23mm Fine Handwheel Focusing Range: 1.5mm
Machine Dimension	320*240*110mm
Packing Dimension	380*300*150mm
Net Weight	3kg
Gross Weight	4.5kg
Light Source	LED Coaxial Light Source
Voltage	220V 50/60Hz
Packing Box	Aluminium Box

Imaging Advantage



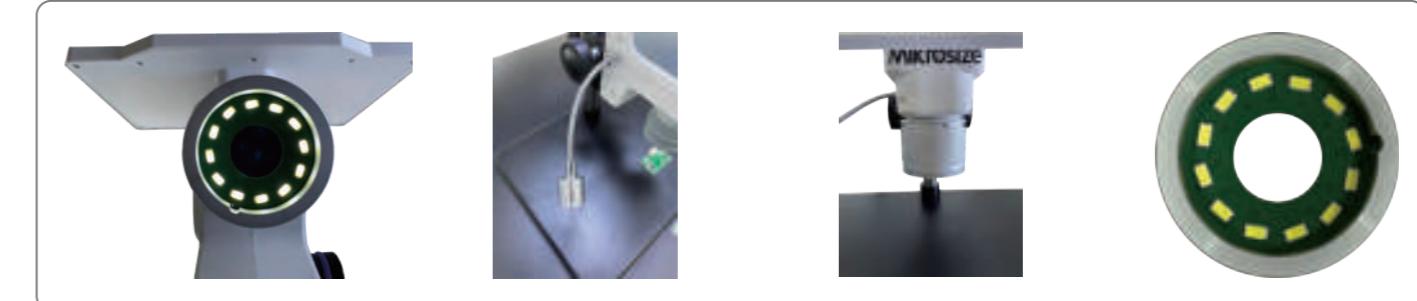
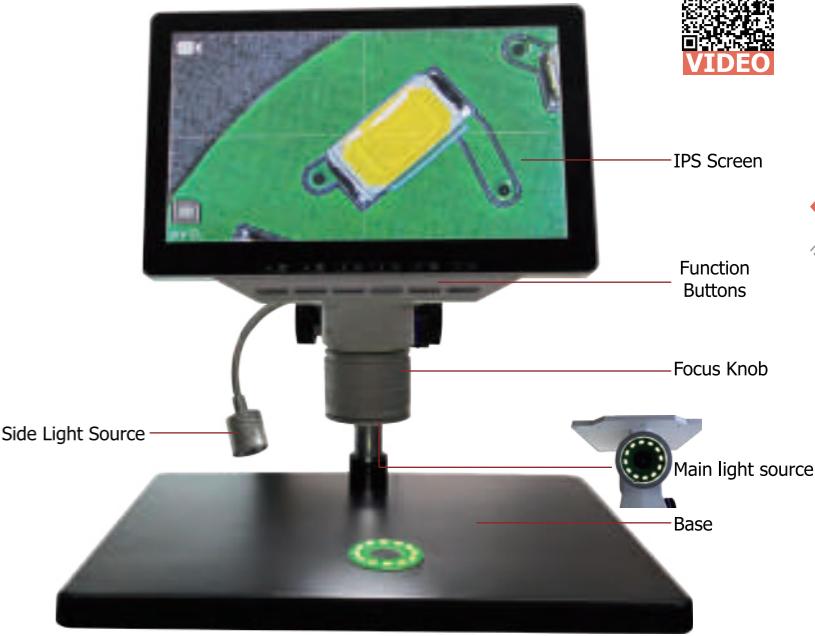
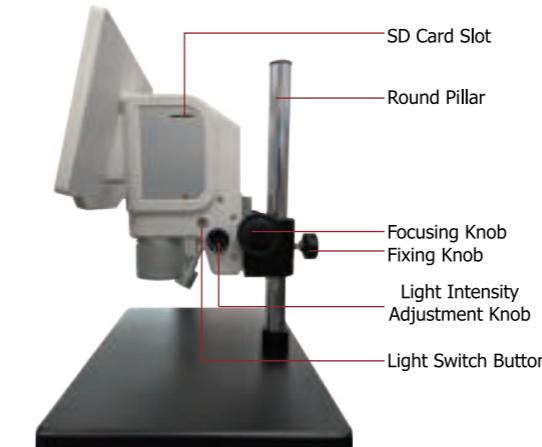
- 10X achromatic objective lens helps reduce chromatic aberration and make the color of the image more realistic and natural;
- Built-in vertical lighting source ensures that the light can fully illuminate the sample surface;
- Coaxial LED lighting can provide uniform and stable light.

VIDEO

- With built-in vertical lighting source, coaxial LED lighting, adjustable brightness, can work continuously for 48 hours;
- Magnetic two-dimensional moving and self-rotating 360° workbench, convenient for on-site sampling;
- It can be used with camera and metallographic analysis software;
- With coarse and fine focusing hand wheel, more precise focusing;
- Light weight, easy to carry and use.

DIGITAL VIDEO MICROSCOPE

CODE:iVideo-106



- High resolution screen: adopts 10.6 inch IPS LCD, resolution is up to 1366 * 768, can present extremely clear microscopic image details;
- The widescreen display ratio of the IPS screen provides a wider field of view to observe a larger area of microscopic samples;
- IPS technology ensures the screen has excellent color restoration ability, and can accurately present the real color of microscopic samples;
- Users can see the image on the screen from different views clearly, instead of color distortion or image blur;
- With 1200w photo pixels, can take high quality micro images; video resolution of 1080p / 60 fps, can record the smooth micro dynamic process;
- The automatic exposure function can automatically adjust the exposure time according to the illumination condition of the sample to ensure the moderate brightness of the image; the automatic white balance function can correct the color deviation of the image and make the image color more real;
- Support video mode, photo mode and playback mode, and can be switched through simple key operation;
- Using HDMI video interface, can be connected to the projector, display and other equipment, convenient to display micro images on a larger screen;
- SD card storage (32G)



Column



Basement



Fixed Knob



Spare Illumination

Inner Hexagon Spanner



Power Adapter

DIGITAL VIDEO MICROSCOPE

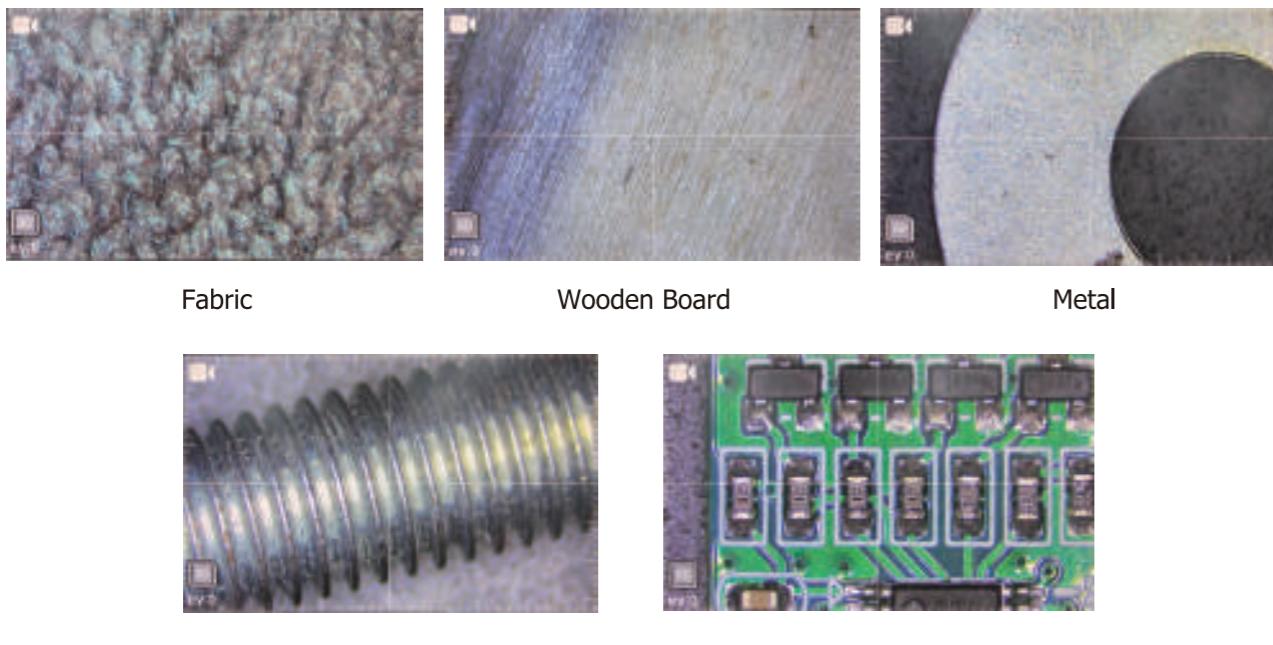
CODE:iVideo-106

TECHNICAL SPECIFICATION

LCD Screen	Size	10.6 Inch IPS
	Resolution	1366*768
Digital Parameters	Wide Dynamic Range	Achieve
	Pixel	1200w
	Video Resolution/Frame Rate	1080p/60fps
	Video Output Format	HDMI
	Function	Automatic Exposure, Exposure Offset, Automatic White Balance, Photography, Recording, Storage
	Storage Method	SD Card (Maximum Memory 32GB)
	Measurement Function	Support
	External Devices Available	Projector, Monitor
Optics Parameters	Eyepiece Lens	0.5X
	Objective Lens Kind	Continuous Zoom Lens
	Objective Lens Zoom Magnification	0.7X~4.5X
	Magnification	44.5X
	Total Magnification	15.5X~100X
Platform Parameters	Lighting Method	Upper Illumination, Side Illumination, LED Continuous Adjustable Illumination
	Focusing Range	42mm
	Working Distance	88mm
	Column	Round Pillar
	Bracket Size	380mm*260mm*20mm
Power Supply Method		DC12V

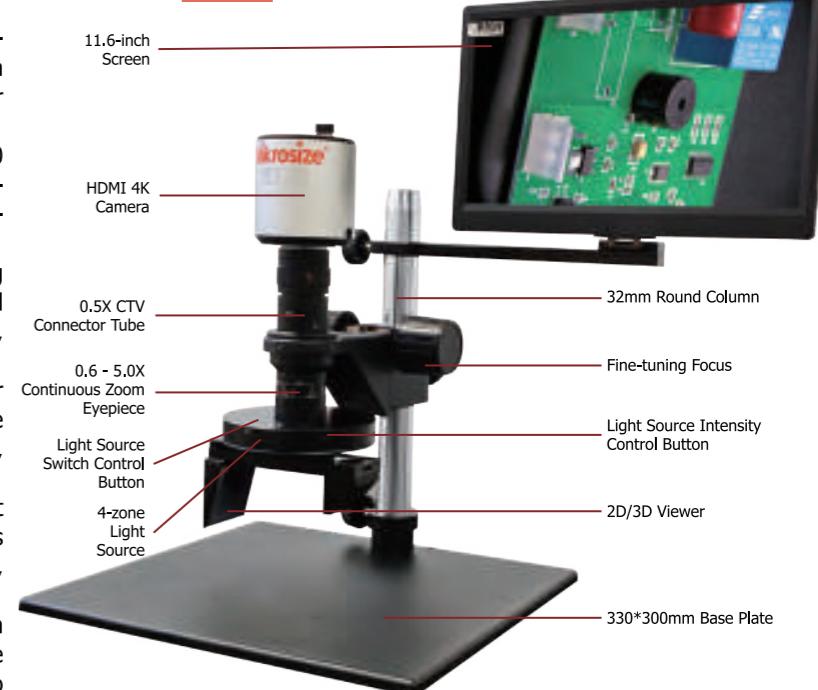
02

SAMPLE INSPECTION



3D VIDEO MICROSCOPE

CODE:iVideo-0325 FA



02

- Equipped with a 0.6 - 5.0X continuous zoom lens, it supports one-click switching between 2D/3D observation modes. In 3D mode, it can rotate 360° for comprehensive inspection.
- Equipped with a 4K Ultra HD industrial camera, featuring built-in fully automatic focusing function, with a maximum resolution of 3840×2160, the image is clear and detailed.
- Supports HDMI direct connection display and USB3.0 computer connection, compatible with mouse operation, integrating multiple functions such as photography, video recording, measurement, etc. into one unit.
- Offer a wide range of measurement tools, covering 18 types of measurements such as length, angle, and area. •The measurement accuracy reaches 0.01μm, meeting the requirements of precise detection.
- Supports custom setting of grid lines, allowing for the saving of 8 preset schemes. It also features image comparison and four-screen comparison functions, facilitating multi-sample analysis.
- Equipped with four-zone light sources and a light source controller, the brightness can be adjusted. It is suitable for observing samples of different materials, reducing the interference from reflections.
- The body structure is stable. The large 330×300mm base plate ensures it stays put when placed. The operation process is visible, so it's easy for newbies to get the hang of it.

HDMI 4K CAMERA

Ultra-high-definition detail capture: With a 4K resolution and a 1/1.8-inch CMOS sensor, the pixel count is 4 times that of 1080P, enabling precise presentation of microscopic defects as small as 0.01mm, providing a reliable basis for inspection.

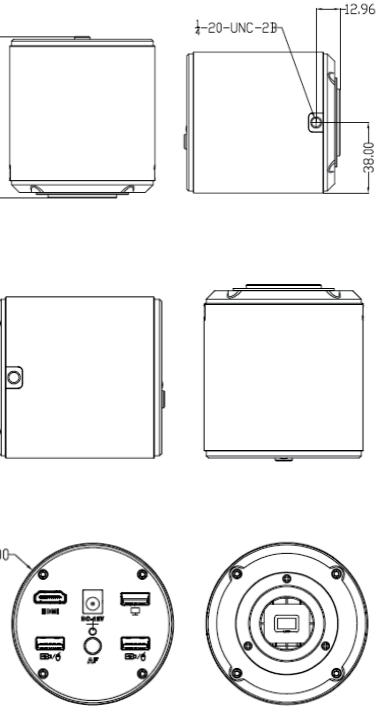
Plug-and-play efficient operation: HDMI direct connection to the monitor is driver-free. combined with mouse control, it enables quick output of real-time images upon startup. Novices can get started immediately, and it is suitable for real-time detection requirements in production lines.

Multi-mode intelligent focusing: supports automatic, manual, and single-shot focusing. It enables precise focusing by framing an area, taking into account both rapid imaging and 3D structure detection, significantly enhancing operational efficiency.

Dual-interface scenario adaptation: HDMI is for real-time on-site observation, while USB 3.0 is for deep analysis on a computer. it is cross-platform compatible and caters to both quality inspection and laboratory analysis requirements.

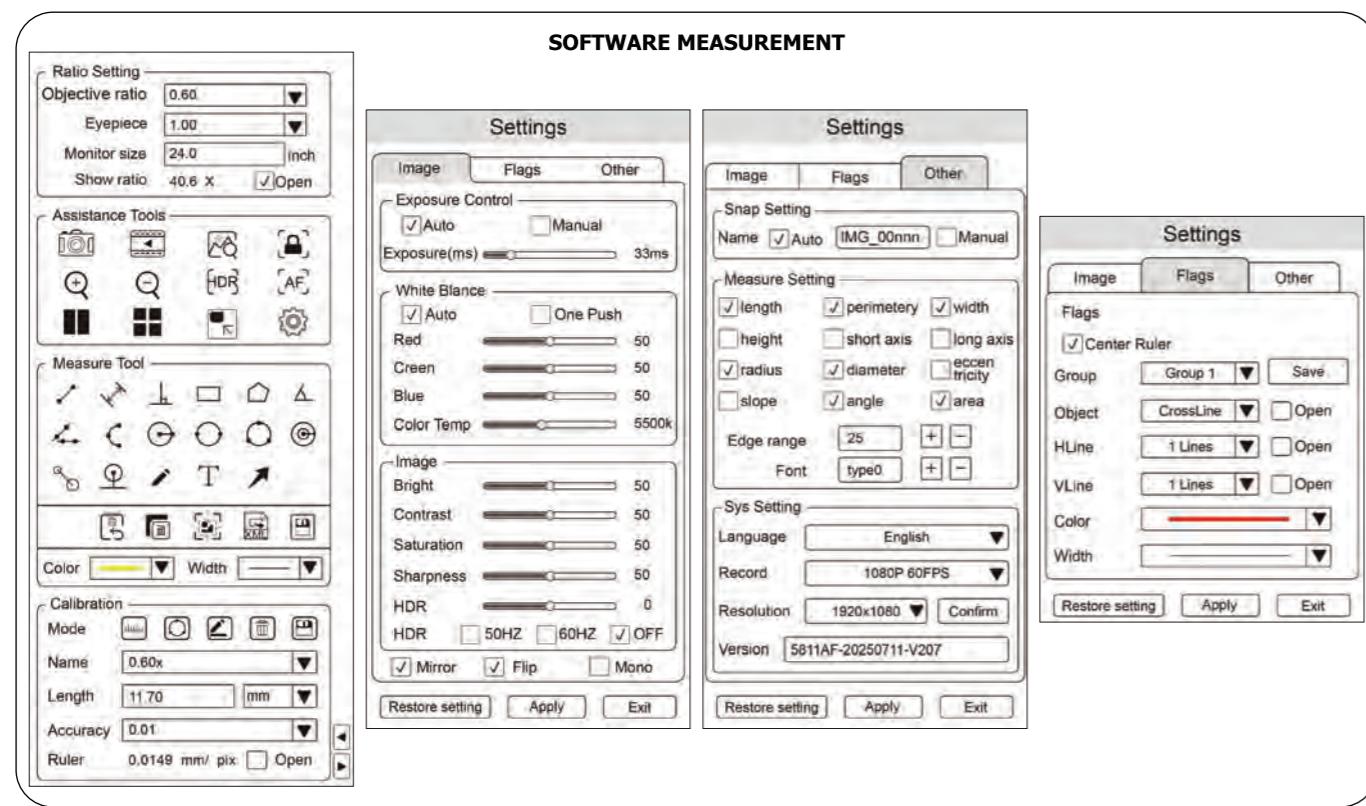
Stable imaging in complex environments: the wide dynamic range technology balances the details of light and dark, combined with four-zone light sources, reduces reflections and noise, and is suitable for the detection of multiple material samples.

Full-process function integration: synchronously supports 4K video recording, 18 types of measurements, image comparison, and data can be directly archived and exported, achieving the integration of "observation - analysis - recording".



3D VIDEO MICROSCOPE

CODE:iVideo-0325 FA



TECHNICAL SPECIFICATION

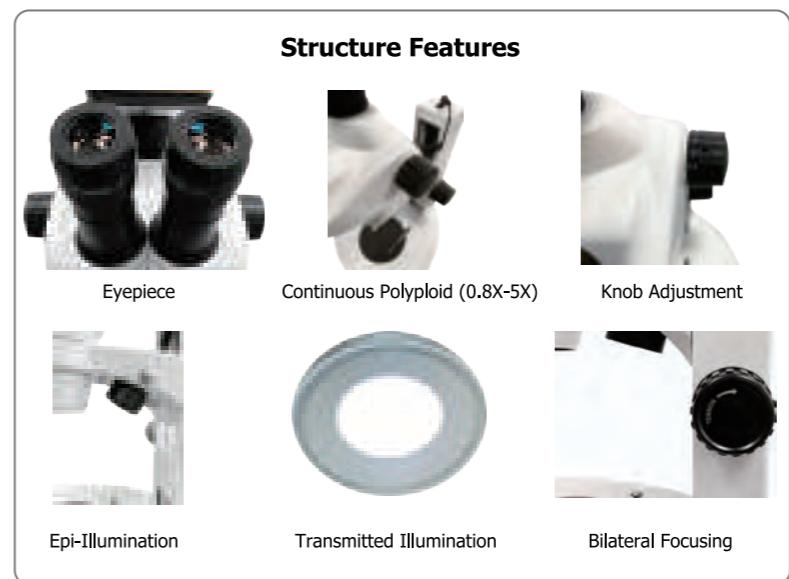
Optical System	0.6 - 5.0X continuous zoom lens, 0.5X CTV adapter tube
Observation Mode	2D planar observation, 3D stereoscopic observation (360° rotation)
Camera Parameters	4K Ultra HD, 1/1.8 CMOS, resolution 3840×2160
Focus Mode	Auto focus, Manual focus, Single-shot focus
Measurement Accuracy	≤0.01μm
Measurement Function	18 types of measurements including length, angle, area, radius, etc.
Interface Type	HDMI, USB 3.0, USB 2.0 (for mouse), DC - 12V
Light Source System	4-zone adjustable light source, with the controller integrated onto the light source.
Show Support	Compatible with 24-inch and larger monitors, with the maximum display ratio of 456.2X.
Body Size	Base plate: 330×300mm (The height of the stand is suitable for the lens adjustment range)
Work Environment	Working temperature: 20% - 80%; Storage temperature: 0°C - 35°C
Power Supply Specifica-	DC-12V power supply
Support Language	Simplified Chinese, Traditional Chinese, English

STANDARD DELIVERY

Main Unit (Including Lens And Camera)	1 pc
11.6-Inch Screen	1 pc
HDMI Cable	1 pc
USB 3.0 Data Cable	1 pc
DC-12V 1A Power Adapter	2 pcs
DC-12V 2A Power Adapter	1 pc
Mouse	1 pc
Operation Manual	1 pc
Certificate of Conformity	1 pc
Warranty Card	1 pc



- Continuous zoom ratio 1:6.3
- Anti static function: zoom lens tube, 10X eyepiece, auxiliary objective lens, it is very useful when observing samples that require anti-static (such as semiconductor chips). If this function is used, the microscope can be grounded through the ground socket behind the stand).
- Sealing function: zoom lens tube and 10X eyepiece making it convenient to use the microscope in environments with high humidity such as oil vapor and water vapor.
- Ergonomic design ensures longer and more comfortable operation for operators.
- High definition, large viewfield, long working distance, various magnification and accessories for choose



STEREO MICROSCOPE

CODE:iStereo-211VT



STANDARD DELIVERY

10x Eyepiece	2 pcs
Glass Plate	1 pc
Black And White Board	Each 1 pc
Zoom Lens Tube	1 set
Transmission Rack	1 set
Mainframe	1 pc



10x Eyepiece

OPTIONAL DELIVERY

Eyepiece	PL15X/Φ15mm	MS-E10X
	PL20X/Φ10mm	MS-E20X
	PL25X/Φ9mm	MS-E25X
	PL30X/Φ8mm	MS-E30X
Auxiliary Objective Lens	0.3X	MS-OB03X
	0.5X	MS-OB05X
	0.7X	MS-OB07X
	0.75X	MS-OB075X
	1.5X	MS-OB105X
	2X	MS-OB2X
CCD Adaptor	0.5X	MS-CCD05
	1X	MS-CCD1
CCD Camera		MS-CCD01
Instrument Base		MS-211BS

Auxiliary objective lens	WD (mm)	Eyepiece			
		10XΦ22	15XΦ16	20XΦ12.5	30XΦ7
/	115	8-50X Φ27.5-4.4	12-75X Φ20-3.2	16-100X Φ15.6-2.5	24-150X Φ8.8-1.4
0.5X	211	4-25X Φ55-8.8	6-38.5X Φ40-6.4	8-50X Φ31-2.5	12-75X Φ17.6-2.8
2X	43.5	16-100X Φ13.8-2.2	24-150X Φ10-1.6	32-200X Φ7.8-1.3	48-300X Φ4.4-0.7

*Abbreviation: Viewfield (Eyepiece + Auxiliary Objective Lens + Polypliod Body)



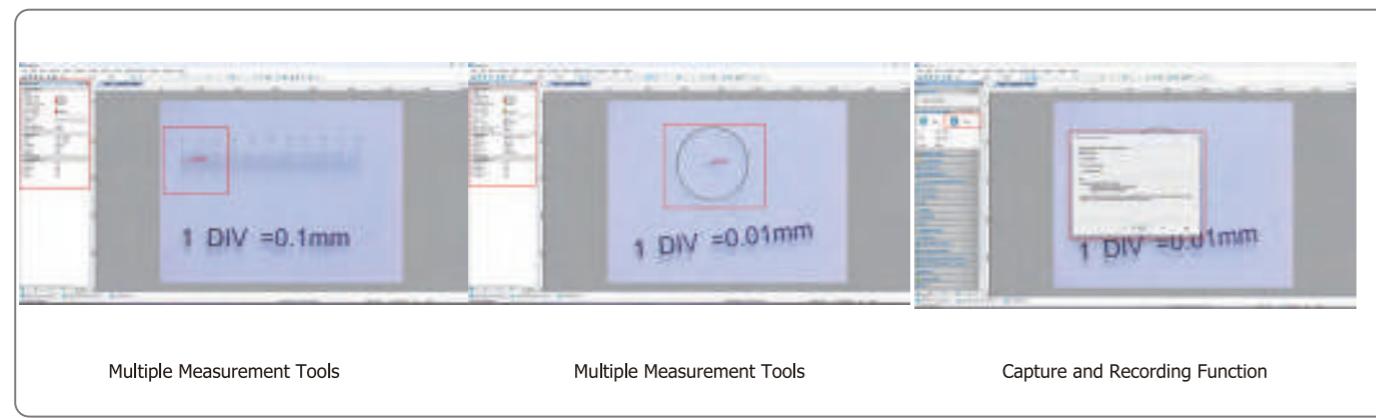
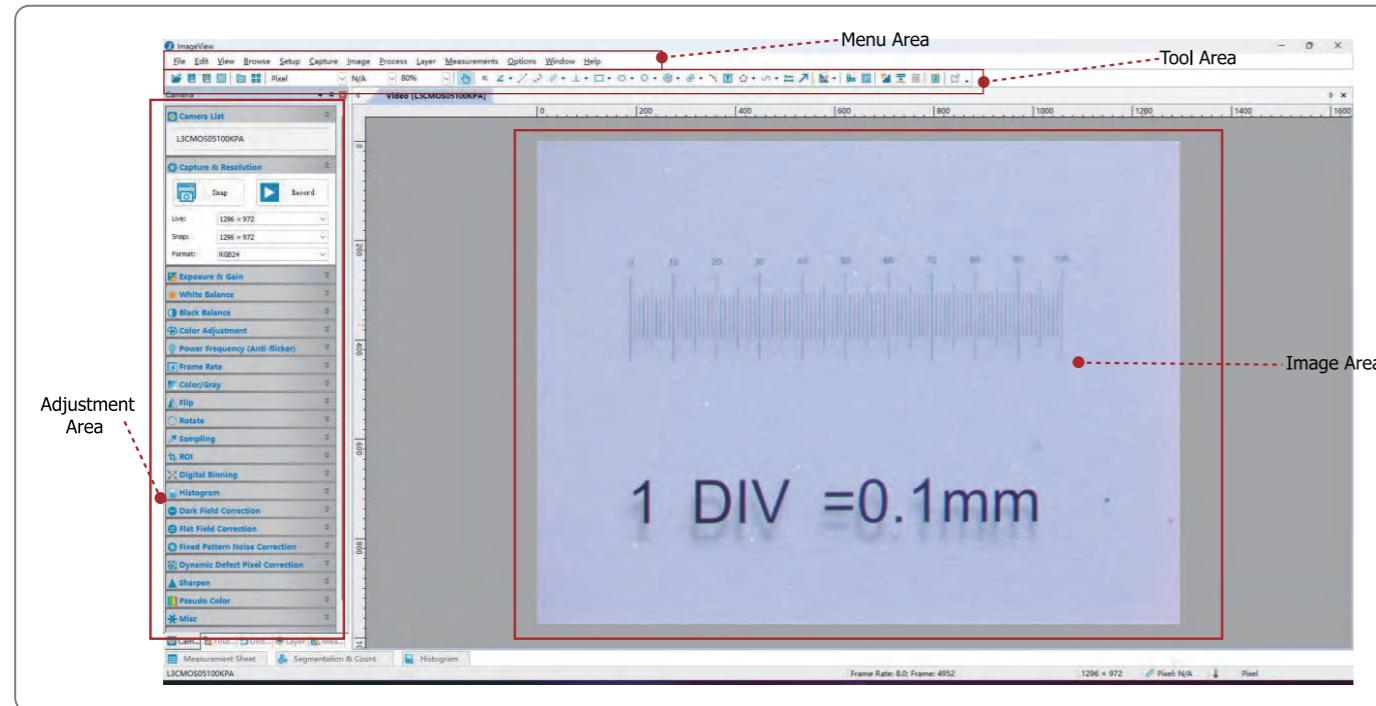
STEREO MICROSCOPE

CODE:iStereo-211VT



02

- This model can equip with CCD camera to connect PC software, which can realize high-quality image acquisition, real time display and dynamic observation, rich image processing functions.also can realize simple 2D measurement function, measure the size of objects in images (length, width, diameter, area.angle).
- The main functions of the software used include basic functions such as image acquisition and display.measurement annotation, image processing, 3D reconstruction and analysis, data statistics and analysis as well as specific functions such as multi-channel analysis for color or fluorescence images.
- Some software also has extension functions such as extended focus and extended exposure; the ability to generate Word reports and print them



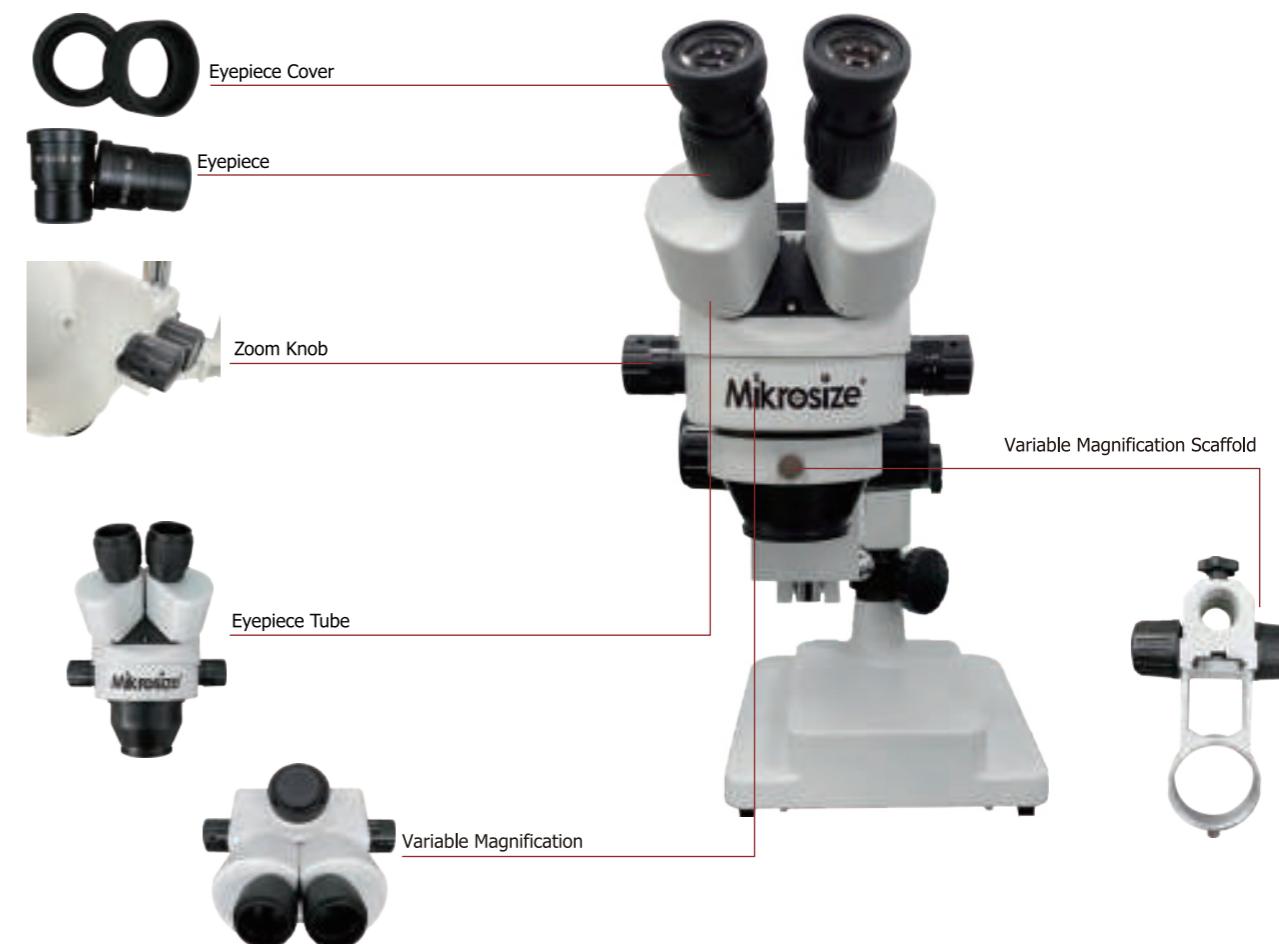
LONG ARM SUPPORT STEREO MICROSCOPE(DOUBLE ROD)

CODE:iStereo-165D



02

- Flexible bracket design: double-rod long arm structure, flexible adjustment in X and Y directions, wide operating range, suitable for a variety of complex observation environments;
- Excellent optical effect: presents clear upright three-dimensional images with strong stereoscopic effect, one-time focusing and continuous zooming, large field of view and depth of focus, and can clearly observe all levels of objects;
- Convenient operation function: The binocular tube can be rotated 360° and positioned arbitrarily, and the long working distance facilitates the operation of large objects;
- Rich accessory configuration: different eyepieces, objective lenses and various illumination systems can be selected to meet the diverse observation needs in biology, industry, teaching and other fields;
- Can be connected to an external camera to observe on the computer screen;
- Module and combination series design to expand the scope of application;



LONG ARM SUPPORT STEREO MICROSCOPE(DOUBLE ROD)

CODE:iStereo-165D

TECHNICAL SPECIFICATION

Eyepiece	Standard Configuration: 10X/20mm, Large Field of View, Wide Angle, High Eye Point
Optional Eyepiece	WF10/20mm,WF15/15mm,WF20/10mm,WF25/9mm,WF30/8mm
Observation Head	45° Tilt, 360° Rotation, Interpupillary Distance 54-76mm; Bilateral Dipter Adjustment (± 5)
Objective	0.7X-4.5X Continuous Zoom, Objective Zoom Ratio 6.4:1 Ensures Image Plane Parfocality
Auxiliary Objective	Optional 0.3X, 0.5X, 0.7X, 0.75X, 1.5X, 2X
Focus Bracket	The Focus Bracket Hand Wheel Is Adjustable In Tightness And Has a Lifting Range of 50mm
Base	Double-arm Universal Bracket, Other Bases Can Be Optional
Net Weight	22kg
Illumination	Optional Various Fluorescent and LED Ring Lights

TECHNICAL SPECIFICATION

Eyepiece	Standard Configuration		Auxiliary Objective 0.5X		Auxiliary Objective 1.5X		Auxiliary Objective 2X	
	Working Distance	100mm	Working Distance	165mm	Working Distance	45mm	Working Distance	30mm
	Magnification	View Field	Magnification	View Field	Magnification	View Field	Magnification	View Field
10X/20mm	7X	28.6mm	3.5X	57.1mm	10.5X	19mm	14X	14.3mm
	45X	4.4mm	22.5X	8.9mm	67.5X	3mm	90X	2.2mm
15X/15mm	10.5X	21.1mm	5.25X	42.8mm	15.75X	14.3mm	21X	10.7mm
	67.5X	3.3mm	33.75X	6.7mm	101.25X	2.2mm	135X	1.7mm
20X/10mm	14X	14.3mm	7X	28.6mm	21X	9.5mm	28X	7.1mm
	90X	2.2mm	45X	4.4mm	135X	1.5mm	180X	1.1mm
25X/9mm	17.5X	12.9mm	8.85X	25.4mm	26.2X	8.6mm	35X	6.4mm
	112.5X	2.0mm	56.3X	4.0mm	168.8X	1.3mm	225X	1.0mm
30X/8mm	21X	11.4mm	10.5X	22.9mm	31.5X	7.6mm	42X	5.7mm
	135X	1.8mm	67.5X	3.6mm	202.5X	1.2mm	270X	0.9mm

STANDARD DELIVERY

Base	1 pc
Column	1 pc
Double Rod Bracket	1 pc
Eyepiece	1 pc
Variable Magnification	1 pc
Zoom Bracket	1 pc
Eyepiece Cover	1 pc

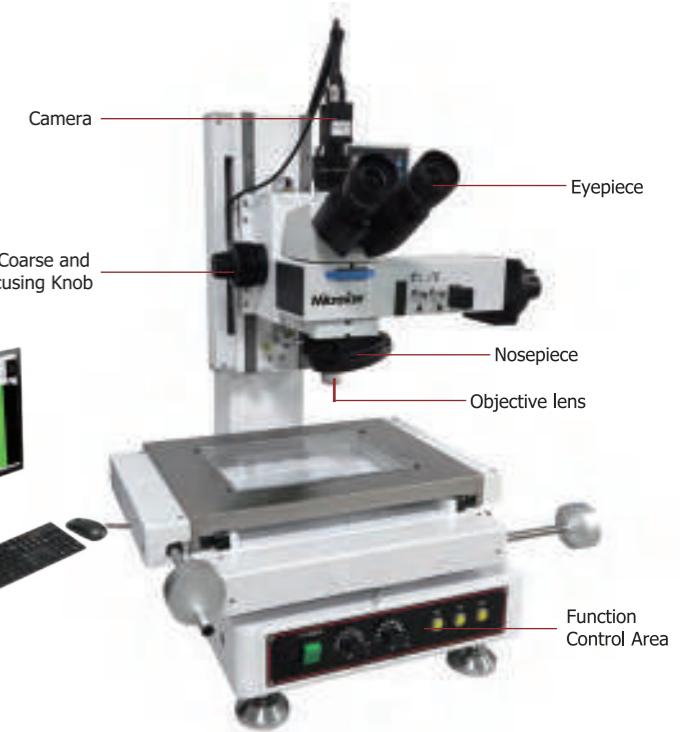


OPTIONAL DELIVERY

Eyepiece	PL15X/Φ15mm	MS-E10X
	PL20X/Φ10mm	MS-E20X
	PL25X/Φ9mm	MS-E25X
	PL30X/Φ8mm	MS-E30X
Auxillary Objective Lens	0.3X	MS-OB03X
	0.5X	MS-OB05X
	0.7X	MS-OB07X
	0.75X	MS-OB075X
	1.5X	MS-OB105X
	2X	MS-OB2X
CCD Adaptor	0.5X	MS-CCD05
	1X	MS-CCD1
CCD Camera		MS-CCD01
Instrument Base		MS-165BS
Illumination	Fluorescent Lamp	MS-IFL
	LED Ring Lamp	MS-IRL

TOOLMAKERS MICROSCOPE (BASIC TYPE)

CODE:iVision



iVision Toolmakers Microscope has significant advantages and wide applications. Its Z-axis coarse and fine adjustment focusing is stable, the software automatically finds the edge and the operation is simple. The sub-pixel subdivision technology improves the image resolution, and the light source adjustment is convenient and accurate. The workbench made of aviation aluminum and cast iron has stable performance and is not easy to deform. This measuring instrument is widely used in many industries such as hardware, electronics, and molds. It can conduct precise detection of the size, shape, and position tolerance of workpieces, meeting the needs of part inspection, profile measurement, and process control.

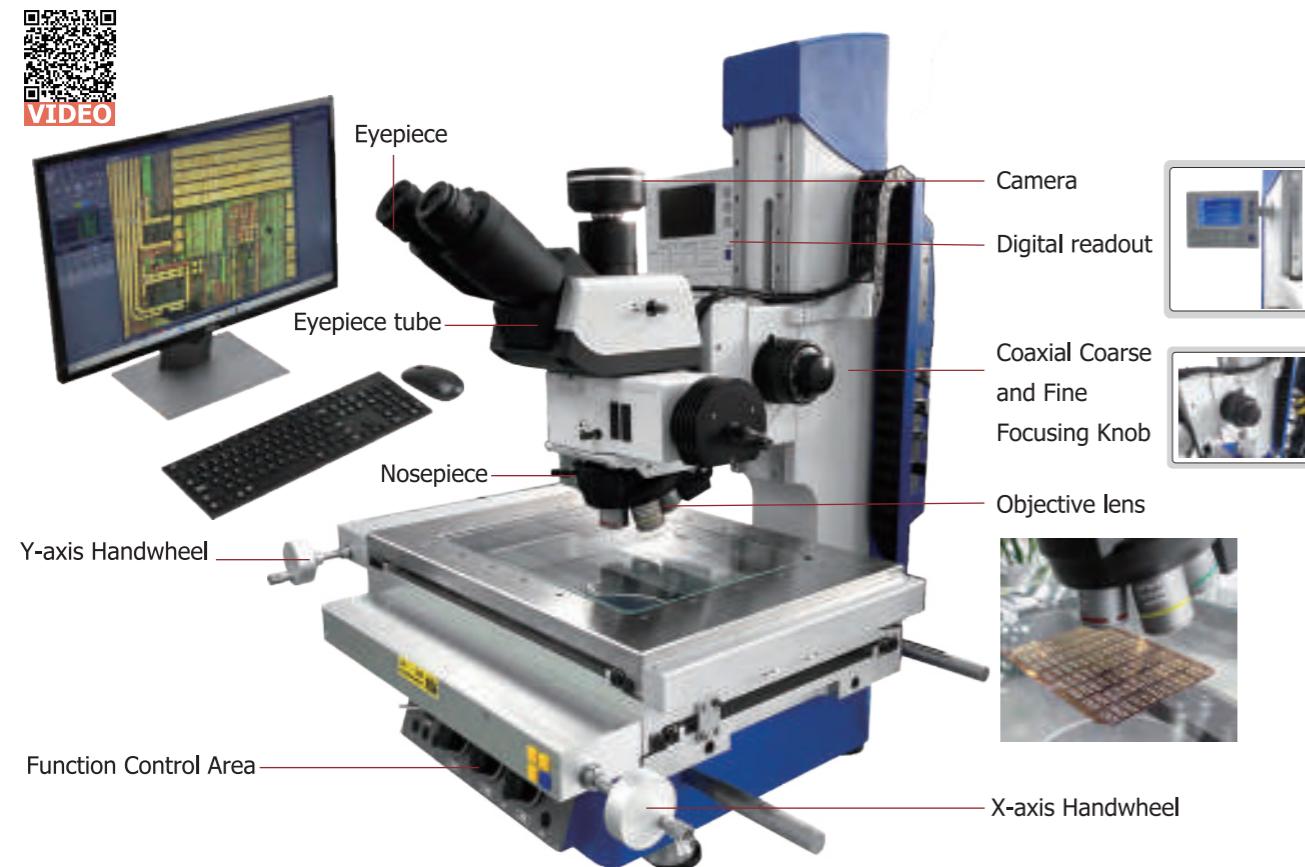
TECHNICAL SPECIFICATION

Model	iVision-2010	iVision-3020	iVision-4030
X*Y Motion Range(mm)	200*100	300*200	400*300
Z-axis Motion Range (mm)	150	150	150
External Dimensions(mm)	700×820×850	750×520×1180	950×650×1050
Net Weight(kg)	120	180	240
Workbench Load-bearing Capacity	30Kg		
Image Sensor	Optional		
Metallographic Lens	Optional		
Accuracy(um)	X/Y:2.0+L/200μm		
Minimum Display Unit(mm)	0.0001		
Light Source	Surface light:LED coaxial light source	Bottom light source:LED parallel light source	
Software	Mikromea-M 2.5D Manual Measuring Software		
Working Environment	Temperature:22°C±2°C Humidity:30~80% Vibration:<0.002mm/s,<15Hz		
Power	220V/50Hz		

STANDARD DELIVERY

Name	Specification	Qty	OPTIONAL DELIVERY
Mainframe	Cast Iron Workbench	1pc	CCD Camera MS-CCD
Data Box	Customized	1pc	Metallographic Lens MS-L
Grating Scale	0.1um Metal-Patch Grating Scale	3pcs	Software Mikromea
Guide rail	HIWIN Linear Guide Rails from Taiwan	1pc	Objective Lens: 2X/0.055 WD9.8、2.5X/0.08 WD9.2、
X/Y-axis Transmission	X and Y lead screws with fine adjustment	2pcs	Infinite Conjugate 5X/0.10 WD20.1、
Z-axis Transmission	Both coarse and fine adjustment	1pc	Planachromatic 10X/0.28 WD15.50、
Measuring Software	Mikrosize	1pc	Apochromatic 20X/0.40 WD8.0、40X/0.60 WD2.9、
			Objective(Mm) 50X/0.6 WD2.3、100X/0.75 WD3.2

TOOLMAKERS MICROSCOPE(PRACTICAL TYPE) CODE:uVision



- The light splitting ratio of the trinocular eyepiece tube is 100:0. It is equipped with a variety of observation methods and can be flexibly switched to meet different observation requirements.
- It is equipped with a variety of high-performance objective lenses, such as the Plan-S-APO series, which can provide high imaging quality and accurately restore details.
- An electric converter can be optionally equipped, with an electric motor installed at the rear.
- It supports manual coarse/fine focusing, and there is a green semi-circle for auxiliary focusing, which makes the operation convenient. The focusing is fast and precise.
- The 6-megapixel CCD camera is equipped with a USB3.0 interface, enabling efficient image acquisition and fast data transmission, which is convenient for data processing.
- The LED cold light source provides illumination with stable brightness, reduces heat generation, offers a clear and bright observation field of view, and extends the service life of the device.

STANDARD DELIVERY

Name	Qty
Main Unit	1pc
Eyepiece Tube	1pc
5-hole Nosepiece	1pc
CCD Camera(600W)	2pcs
10X/25 Eyepiece(One of them is equipped with a crosshair)	1pc
Optical Path For Bright And Dark Fields	1pc
LM PIan S-APO:5X BD DIC N.A0.15 WD=14.8	1pc
LM PIan S-APO:10X BD DIC N.A0.30 WD=8.5	1pc
LM PIan S-APO:20X BD DIC N.A0.40 WD=11.9	1pc
LM PIan S-APO:50X BD DIC N.A0.55 WD=8.7	1pc
Digital Readout	1pc
Polarizer	1pc
Analyzer	1pc

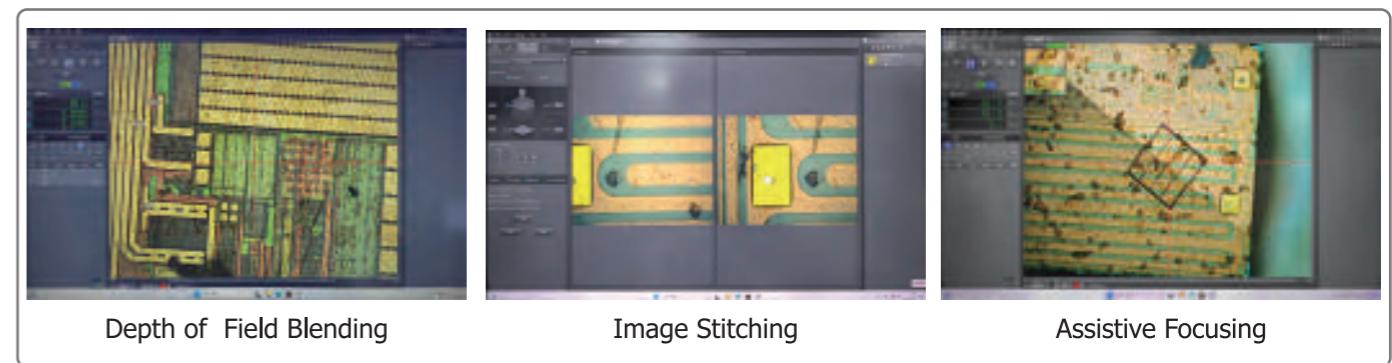
OPTIONAL DELIVERY

LM PIan S-APO:100X BD DIC N.A0.80 WD=3.1	/
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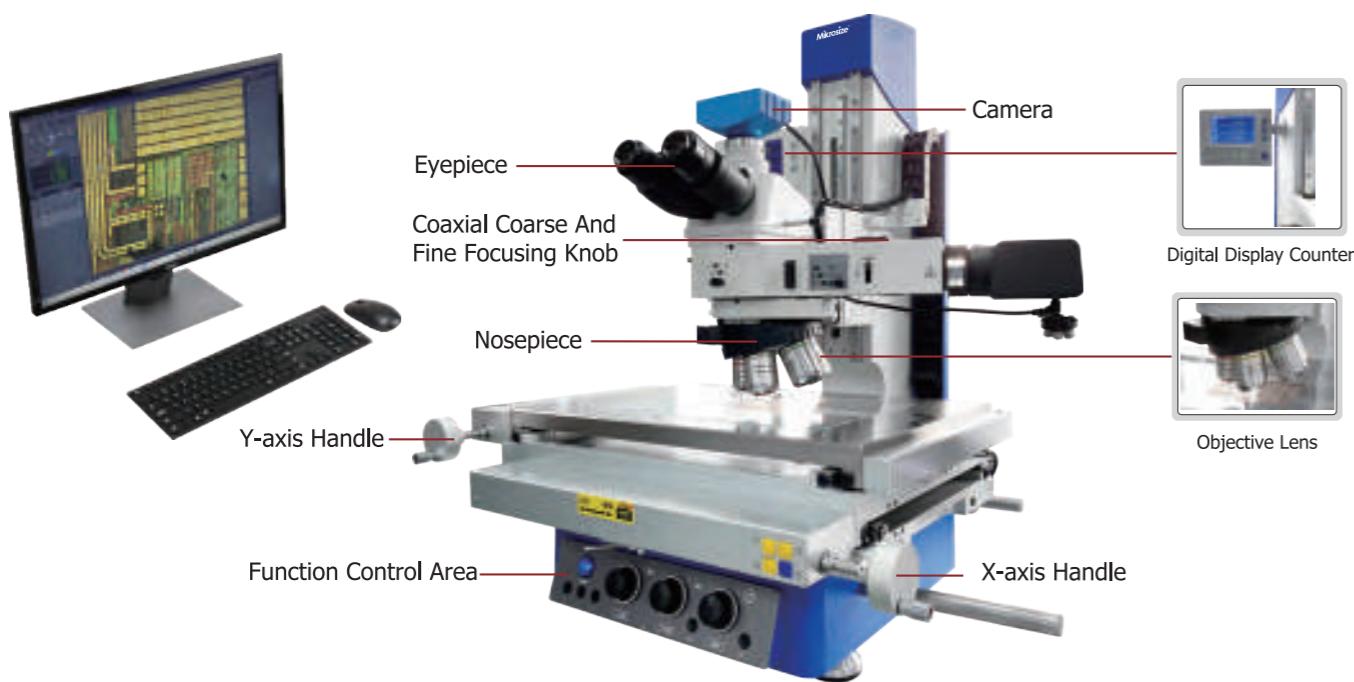
TECHNICAL SPECIFICATION

Model	uVision-2015	uVision-3020	uVision-4030
Stroke(mm)	200*150	300*200	400*300
Observation tube	Trinocular Observation tube. The light splitting ratio is 100:0, and the interpupillary distance is adjustable from 50mm to 75mm.		
Methods of observation	BF/DF/PO/DIC(Optional)		
Eyepiece	10X/25(One of them is equipped with a crosshair)		
Objective lens	Plan semi-apochromatic objective lens for bright and dark field	Plan S-APO:5X BD DIC N.A0.15 WD=14.8 Plan S-APO:10X BD DIC N.A0.30 WD=13.6 Plan S-APO:20X BD DIC N.A0.40 WD=11.9 Plan S-APO:50X BD DIC N.A0.55 WD=8.7 Plan S-APO:100X BD DIC N.A0.80 WD=3.1	Plan S-APO:100X BD DIC N.A0.80 WD=3.1
Focusing system	Manual coarse/fine focusing (Electric focusing is optional)		
Auxiliary focusing	The green semi-circle is optional		
Nosepiece	Manual Nosepiece;a 5-hole converter for bright and dark fields, with a DIC slot (an encoded Nosepiece is optional). (An electric Nosepiece is optional)		
Resolution	X,Y,Z 0.1μm		
CCD Camera	A 6-megapixel camera with a CCD chip and USB 3.0 interface (A 12-megapixel camera is optional)		
Camera interface	0.65X C		
Software	Take photos, save images, conduct measurements; perform depth-of-field fusion and image stitching		
Light source	Transmitted Illumination: Illuminated by an LED parallel - light cold light source Epi-illumination: Illuminated by an LED coaxial cold light source		
Working stage (mm)	Size of the metal platform:500*350 Size of the glass platform:350*250		
Stroke(mm)	X:200,Y:150,Z:200		
Measurement accuracy	2.8+L/100μm		
Measurement height	175mm		
Digital readout	RS232		



TOOLMAKERS MICROSCOPE(ADVANCED TYPE) CODE:MVision

02



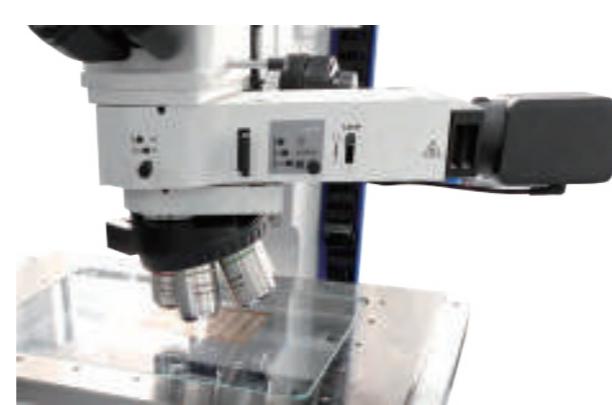
- The trinocular tube has a beam splitting ratio of 100:0. When paired with a variety of observation methods, it can be flexibly switched to meet different observation requirements.
- It is equipped with a variety of high-performance objective lenses, such as the TU plan Fluor series, which can provide high-quality imaging and accurately restore details.
- It supports manual coarse and fine focusing. The fine adjustment grid value is 2μm. There is a built-in black rectangular auxiliary focusing function, which makes the operation convenient, enabling fast and accurate focusing.
- The 6-megapixel CCD camera is equipped with a USB3.0 interface, enabling efficient image acquisition and fast data transmission, which is convenient for data processing.
- Illuminated by an LED cold light source, it features stable brightness, reduced heat generation, providing a clear and bright observation field of view, and extending the service life of the equipment.
- It has the function of switching between bright field and dark field. The bright field can clearly present the surface morphology of the sample, and the dark field can highlight the subtle structures.

STANDARD DELIVERY

Name	Qty
Main Unit	1pc
Eyepiece Tube	1pc
5-Hole Nosepiece	1pc
CCD Camera(600W)	2pcs
10X/23 Eyepiece(One Of Them Is Equipped With A Crosshair)	1pc
TU plan Fluor 5X/0.15 WD23.0	1pc
TU plan Fluor 10X/0.3 WD13.0	1pc
TU plan Fluor 20X/0.40 WD11.0	1pc
TU plan Fluor 50X/0.55 WD8.5	1pc
Digital Readout	1pc
Polarizer	1pc
Analyzer	1pc
Power Cord	1pc

OPTIONAL DELIVERY

TU Plan Fluor 100X/0.8 WD4.0	/
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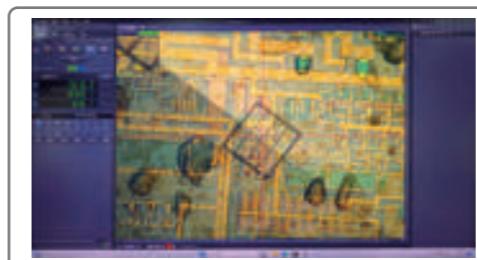


TOOLMAKERS MICROSCOPE(ADVANCED TYPE) CODE:MVision

02

TECHNICAL SPECIFICATION

Model	MVision-2015	MVision-3020	MVision-4030
Stroke(mm)	200*150	300*200	400*300
Eyepiece tube	Triple eyepiece tube with a beam splitting ratio of 100:0. The interpupillary distance is adjustable from 50mm to 75mm.		
Observation method	BF/DF/PO/DIC(Optional)		
Eyepiece	10X/23(One of them has a cross hair)		
Objective lens	Flat-field semi-apochromatic bright and dark field TU plan Fluor 5X/0.15 WD23.0 TU plan Fluor 10X/0.3 WD13.0 TU plan Fluor 20X/0.40 WD11.0 TU plan Fluor 50X/0.55 WD8.5 TU plan Fluor 100X/0.8 WD4.0		
Focusing system	Manual coarse/fine focusing (electric focusing is optional), with a fine adjustment value of 2μm per division.		
Auxiliary focusing	Built-in auxiliary focusing - black rectangle		
Nosepiece	Manual Nosepiece; Bright and dark field 5-hole converter with DIC slot (optional coded Nosepiece) (optional electric Nosepiece)		
Resolution	X,Y,Z:0.1μm		
CCD Camera	6-megapixel camera with CCD chip and USB 3.0 interface (12 - megapixel camera is optional)		
Camera interface	0.65X C-mount interface		
Software	Take photos, save them, and conduct measurements; achieve depth of field fusion and image stitching.		
Illuminant	Transmitted Illumination: Illuminated by LED parallel light cold light source. Epi-illumination: Illuminated by LED coaxial light cold light source.		
Working platform(mm)	Size of the metal platform:500*350 Glass size:350*250 Load-bearing capacity:25KG		
Travel(mm)	X:300,Y:200,Z:200(Customized Travel)		
Measurement accuracy	2.8+L/100μm		
Height measurement	180mm		
Counter	RS232		



Assistive Focusing

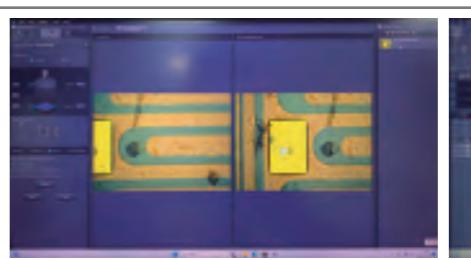
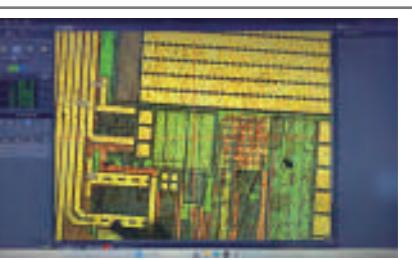


Image Stitching

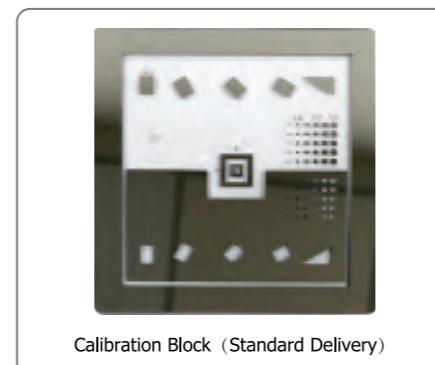


Depth of Field Blending

MANUAL VIDEO MEASURING SYSTEM CODE:VMA



- Powerful Measuring Software with auto tracing-edge function, multi-output report
- Sub-pixel subdivision technology improves the ability of image boundary resolution.
- The surface cold light source can be used to measure the complex workpiece.
- With laser pointer, easy to find the specific location of the measured workpiece.
- Stable Granite workbench with "00" Grade.
- German Made High Precision Polish Rod and Bearing
- High Resolution Video System
- Renishaw Measuring Probe is optional for simple 3D purpose.



Calibration Block (Standard Delivery)

STANDARD DELIVERY

Mainframe/Dell PC System	1 set
Zoom Lens 0.7X—4.5X	1 pc
LED Light Source	1 pc
RS-100 Data Processor	1 pc
1/3" CCD Camera	1 pc
Mikrosize Measuring Software	1 pc
Linear Scale	1 pc
Calibration Block/Capture Card	1 pc
Z axis High Precision Linear Guide Rail	1 pc
100mm Length Block(3D)	1 pc
Renishaw Probe(3D)	1 pc

OPTIONAL DELIVERY

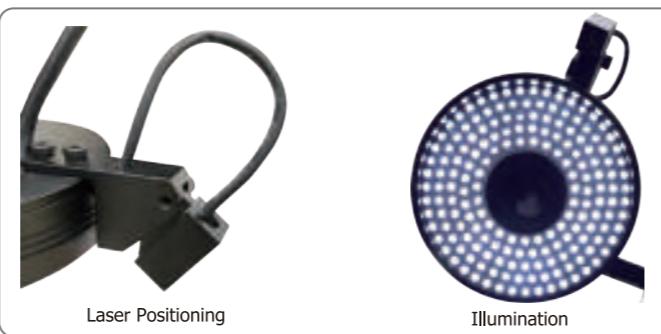
0.5x Auxillary Objective Lens	MS-OB05X
2x Auxillary Objective Lens	MS-OB2X
Coaxial Optical Lens	MS-COX



0.5X Auxiliary Objective 2X Auxiliary Objective Coaxial Optical lens



Renishaw Probe(3D Model)



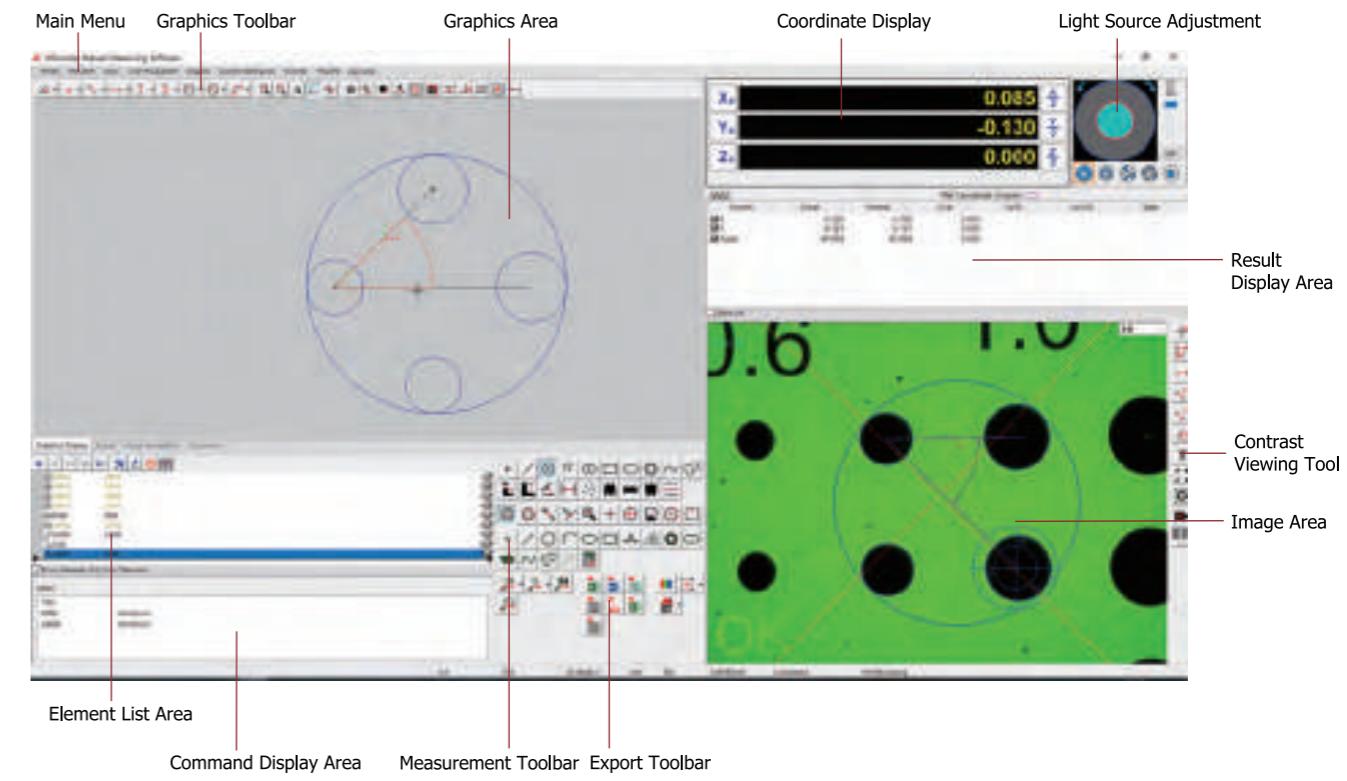
Laser Positioning

Illumination

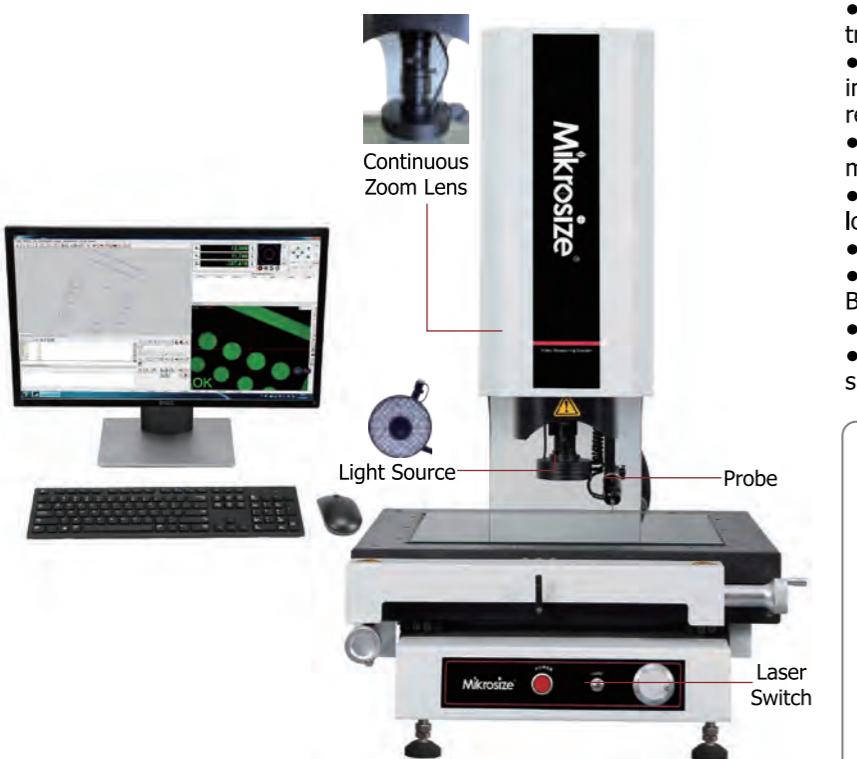
TECHNICAL SPECIFICATION

2.5D Model	VMA-2010	VMA-3020	VMA-4030
3D Model	VMA-2010P	VMA-3020P	VMA-4030P
X,Y-axis Travel Distance(mm)	200X100	300x200	400x300
Z-axis Travel Distance(mm)		200	
Dimensions (mm)	600X500X920	750x520x980	1000x620x990
Net Weight(KG)	120	150	180
X,Y-axis Accuracy(μm)	2.5+L/200		
Loading Weight of Working Stage		25kg	
Image Sensor	TEO 1/3"Colorful CCD Camera		
Objective Lens	Manual Position Zoom Lens		
Video Total Magnification	Optic Zoom Lens:0.7~4.5x, Objective Lens:20~148x		
Resolution	0.5μm		
Working Distance(Standard)	92 mm		
Object View	8.1mm~1.3mm		
Movement System	X,Y-axis:Polish Rod, Z-axis:T-type Screw Rod		
Data Processor	RS-100		
Illumination	Surface:8-division LED Cold Light Contour:Adjustable 256-grades LED Cold Illumination		
Measuring Software	Mikromea-M 2.5D Manual Measuring Software		
Working Environment	Temperature: 20°C±2°C, Temperature Variation<2°C/hr, Humidity:30~80% Vibration<0.002g,15Hz		
Power Source	AC 100~220V, 50/60HZ, 10A		

Measuring Software(Standard Delivery)



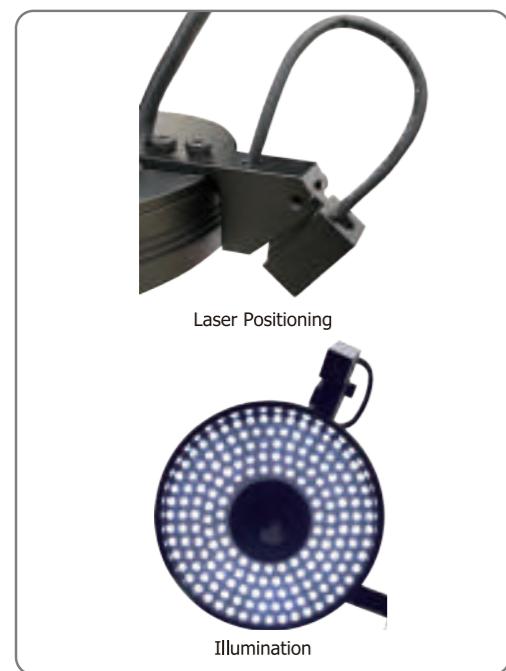
SEMI-AUTO VIDEO MEASURING SYSTEM CODE:VMA-F



- Z-axis Auto Focus.
- Powerful Measuring Software with auto tracing-edge function, multi-output report.
- Sub-pixel segmentation technology improves the ability of image boundary resolution.
- The surface cold light source can be used to measure the complex workpiece.
- With laser pointer, easy to find the specific location of the measured workpiece.
- Stable Granite workbench with "00" Grade.
- German Made High Precision Polish Rod and Bearing.
- High Resolution Video System.
- Renishaw Measuring Probe is optional for simple 3D purpose.

OPTIONAL DELIVERY

0.5x Auxiliary Objective Lens	MS-OB05X
2x Auxiliary Objective Lens	MS-OB2X
Coaxial Optical Lens	MS-COX
Auto Zoom Lens	MS-AZL



Coaxial Optical Lens



2X Auxiliary Objective



0.5X Auxiliary Objective

STANDARD DELIVERY

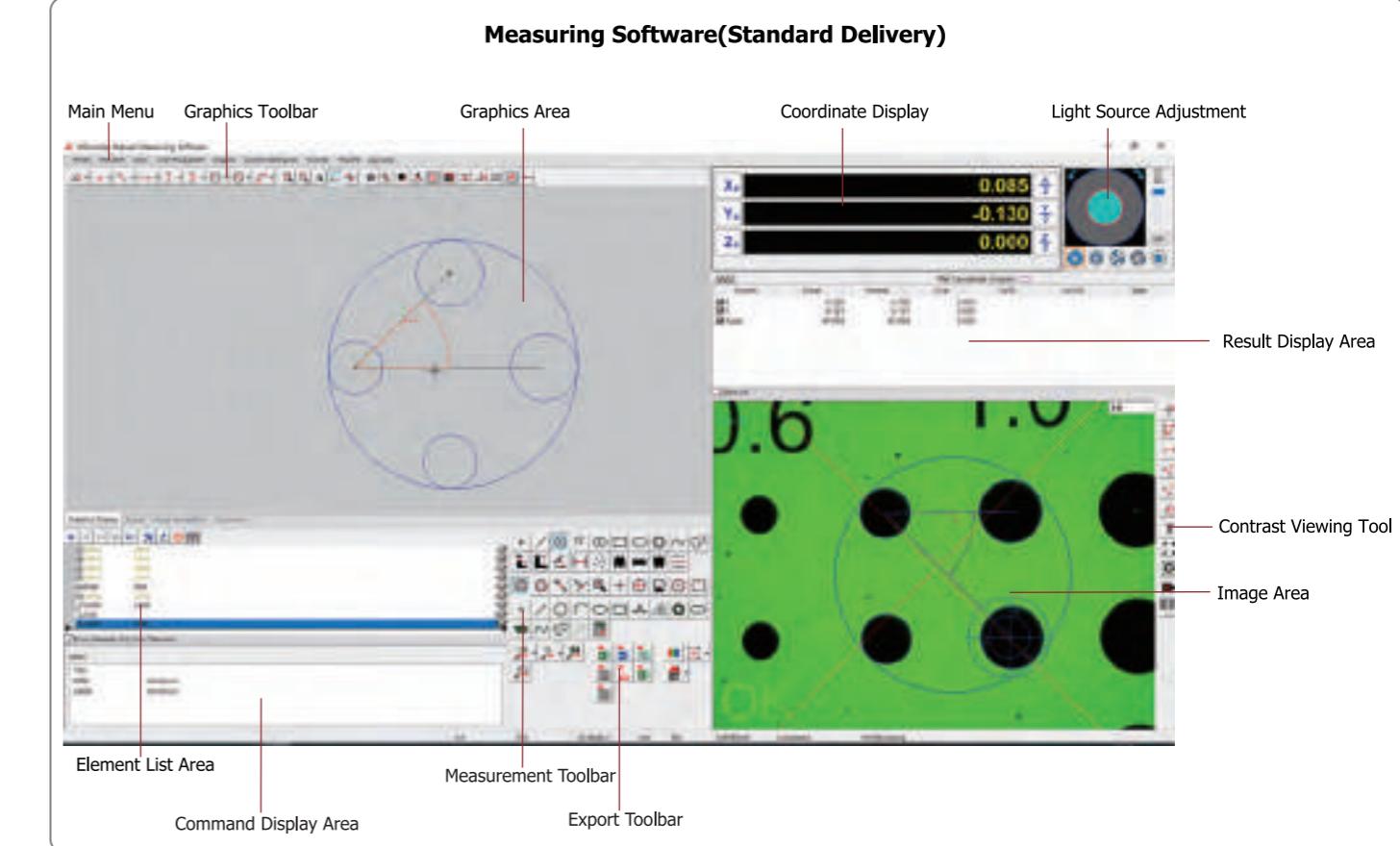
Mainframe/Dell PC System	1 set
RS-100 Data Processor	1 pc
Linear Scale	1 pc
Z axis High Precision Linear Guide Rail	1 pc
Zoom Lens 0.7X—4.5X	1 pc
1/3" CCD Camera	1 pc
Calibration Block	1 pc
Capture Card	1 pc
100mm Length Block(3D)	1 pc
LED Light Source	1 pc
Mikrosize Measuring Software	1 pc
Renishaw Probe(3D)	1 pc



TECHNICAL SPECIFICATION

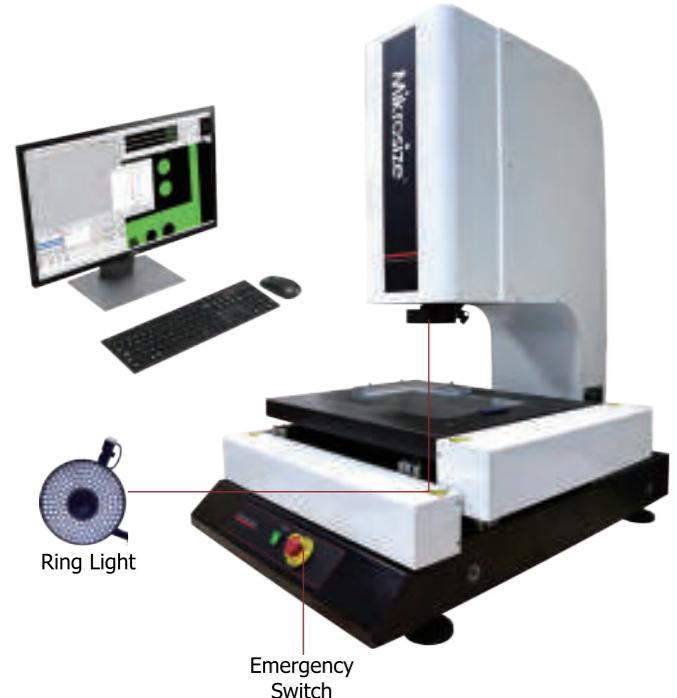
Product Name	Semi-auto Video Measuring System			
2.5D Model	VMA-2010F	VMA-3020F	VMA-4030F	VMA-5040F
3D Model	VMA-2010FP	VMA-3020FP	VMA-4030FP	VMA-5040FP
X,Y-axis Travel Distance(mm)	200X100	300x200	400x300	500x400
Z-axis Travel Distance(mm)			200	
Dimensions (mm)	600X500X920	750x520x980	1000x620x990	1100x950x1660
Net Weight(KG)	120	150	180	360
X,Y-axis Accuracy	2.5+L/200μm			
Z-axis	Auto Focus			
Loading Weight of Working Stage	25kg			
Image Sensor	TEO 1/3"Colorful CCD Camera			
Objective Lens	Manual Position Zoom Lens			
Video Total Magnification	Optic Zoom Lens:0.7~4.5x, Objective Lens:20~148x			
Resolution	0.5 μm			
Working Distance(Standard)	92 mm			
Object View	8.1mm~1.3mm			
Movement System	X,Y-axis:Polish Rod, Z-axis:T-type Screw Rod,Servomotor			
Data Processor	RS-100			
Illumination	Surface:8-division LED Cold Light			
Measuring Software	Contour:Adjustable 256-grades LED Cold Illumination			
Working Environment	Mikromea-F 2.5D Semi-auto Measuring Software			
Power Source	Temperature: 20°C±2°C, Temperature Variation<2°C/hr, Humidity:30~80%			
	Vibration<0.002g,15Hz			
	AC 100~220V, 50/60HZ, 10A			

Measuring Software(Standard Delivery)



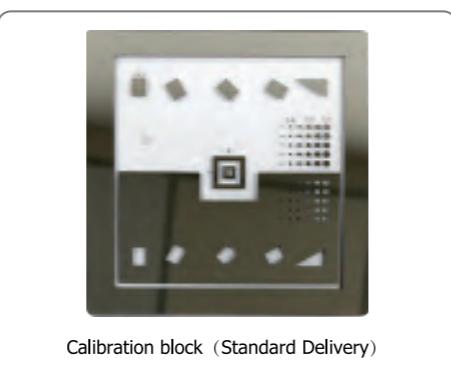
CNC AUTO VIDEO MEASURING SYSTEM(BENCH TYPE)

CODE:VME/VMK



02

- CNC fully auto close loop control, auto measurement; Integrative Design , convinient for measuring;
- 00" Grade Stable and Reliable Marble base , Ensuring high measure speed, accuracy and precision
- Precision Linear Guide and Grinding Ball Screw, AC servo motor ensures accuracy
- High precision linear scale, resolution of the grating ruler is 0.5um, high accuracy, great stability;
- Manual/Auto zoom lens and 1 /2" color high resolution CCD camera;
- Programmable 5 Ring, 8-division LED Surface illumination controlled by software and with memory function
- Contour parallel LED illumination, can realize 256 grade brightness adjustment intelligently;
- Optional imported touch probe, realize 3D measurement;



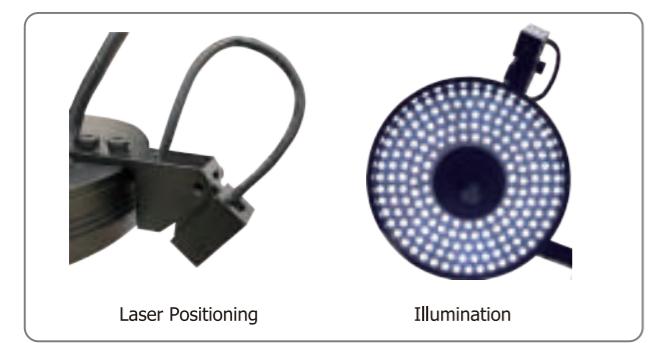
Calibration block (Standard Delivery)

OPTIONAL DELIVERY

0.5x Auxiliary Objective Lens	MS-OB05X
2x Auxiliary Objective Lens	MS-OB2X
Coaxial Optical Lens	MS-COX
Laser Displacement Sensor	MS-LASER



0.5X Auxiliary Objective 2X Auxiliary Objective Coaxial Optical Lens



Laser Positioning Illumination

STANDARD DELIVERY

Measuring Software	1 pc
Mainframe/Dell PC System	1 set
Linear Scale/Calibration Block	1 pc
CCD Camera/Video Capture Card	1 pc
Scale Transfer / Movement Control Card	1 pc
100mm Length Block(3D)	1 pc
Manual Coaxial Zoom Lens(VME)	1 pc
Auto Coaxial Zoom Lens(VMK)	1 pc
48-Division LED Illumination	1 pc
Renishaw Probe MCP-K2(3D)	1 pc



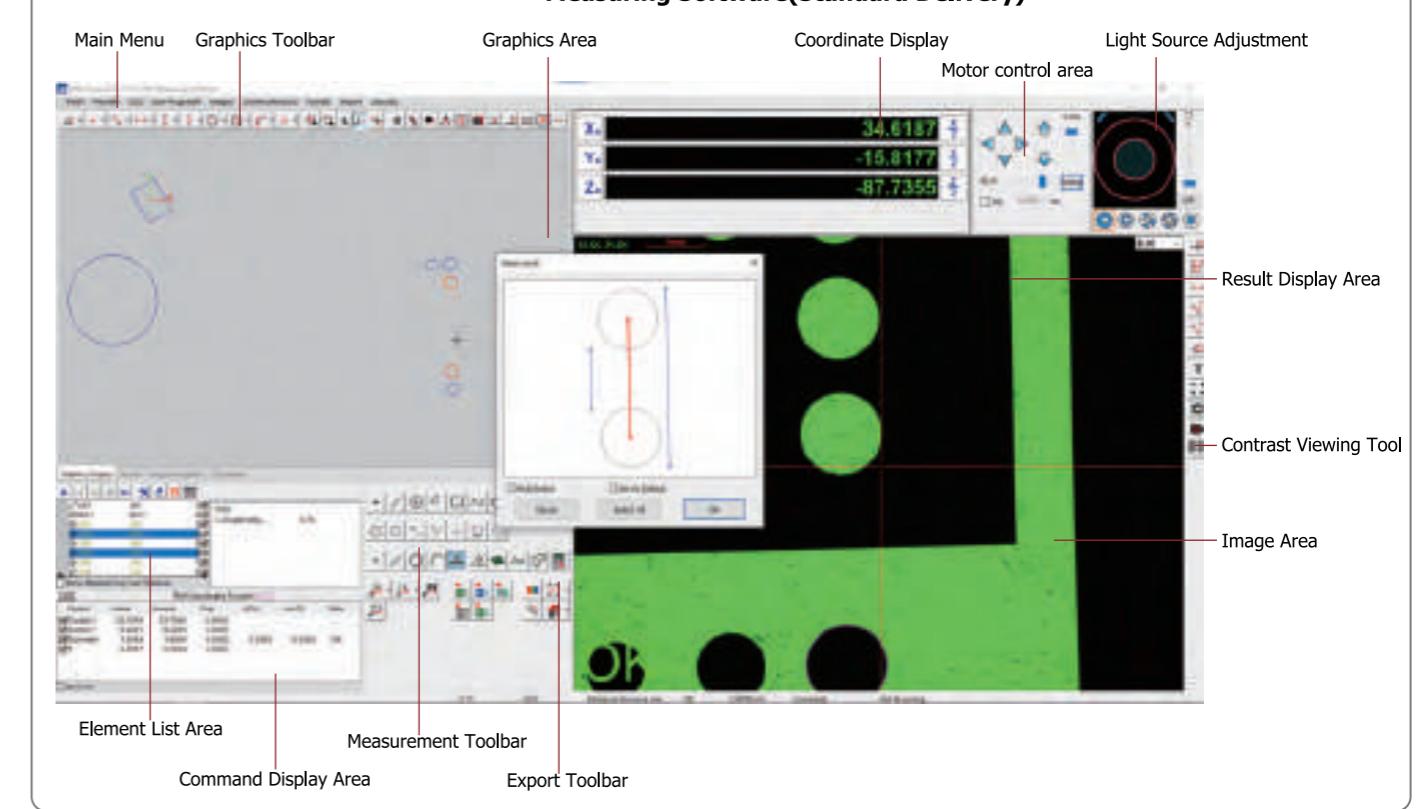
CNC AUTO VIDEO MEASURING SYSTEM(BENCH TYPE)

CODE:VME/VMK

TECHNICAL SPECIFICATION

Model	Manual Zoom Lens	VME-3020	VME-4030
	Auto Zoom Lens	VMK-3020	VMK-4030
2.5D Model		VME-3020/VMK-3020	VME-4030/VMK-4030
3D Model		VME-3020P/VMK-3020P	VME-4030/VMK-4030
X,Y-axis Travel		300x200mm	400x300mm
Z-axis Travel		200mm	
Dimensions(mm)		750X520X980	1000x620x990
Max.load Capacity		25Kg	25Kg
Net Weight		240Kg	280Kg
X/Y/Z 3-axis Linear Scale(2.5D)		Resolution:0.5μm	
Accuracy(um)		E1(x/y)=2.5+L/200	
Repeatability		2μm	
Movement System		X,Y,Z-axis:Screw Rod	
Movement Control		CNC Auto Servo Movement Control	
Video System		1/2" color CCD Camera	
		Auto Coaxial Zoom Lens	
Object View(Standard)		Optical Magnification:0.7-4.5x; Video Magnification:20-148x	
Speed(mm/s)		Working Distance(Standard): 92mm	
Illumination	Contour Surface	11.1~1.7mm	
		X,Y-axis:200 Z-axis:50	
3D Measuerment		Adjustable 256-grade LED Parallel Illumination	
Measuring Software		Adjustable 256-grades 5-Ring & 8-Division LED Cold Illumination	
Working Environment		3D Module and UK Renishaw Touch Probe	
Power Source		Mikromea-CNC 2.5D CNC Measuring Software	
		Temperature: 20°C±2°C, Temperature Variation<2°C/hr, Humidity:30~80%	
		AC 100~220V 50/60HZ 10A	

Measuring Software(Standard Delivery)

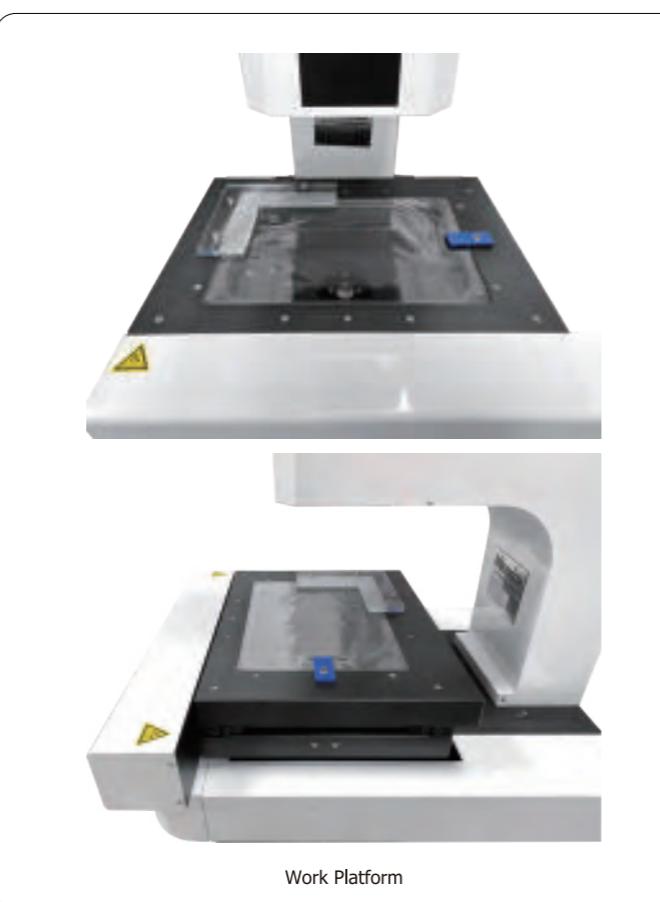
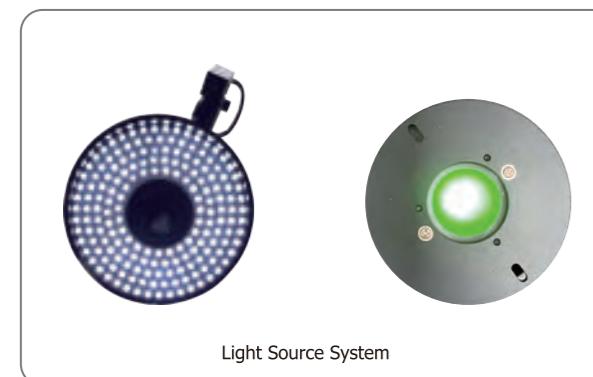


CNC VIDEO MEASURING SYSTEM(FLOOR TYPE) CODE:VMC/VMU



STANDARD DELIVERY

Instrument Mainframe	1 set
Dell Computer Mainframe	1 pc
Computer Screen	1 pc
Keyboard	1 pc
Mouse	1 pc
HDMI Cable	1 pc
Network Port Conversion Interface	1 pc
USB Dongle	1 pc
Calibration Block	1 pc
Network Cable	1 pc
Software CD	1 pc
Working Cupboard	1 pc



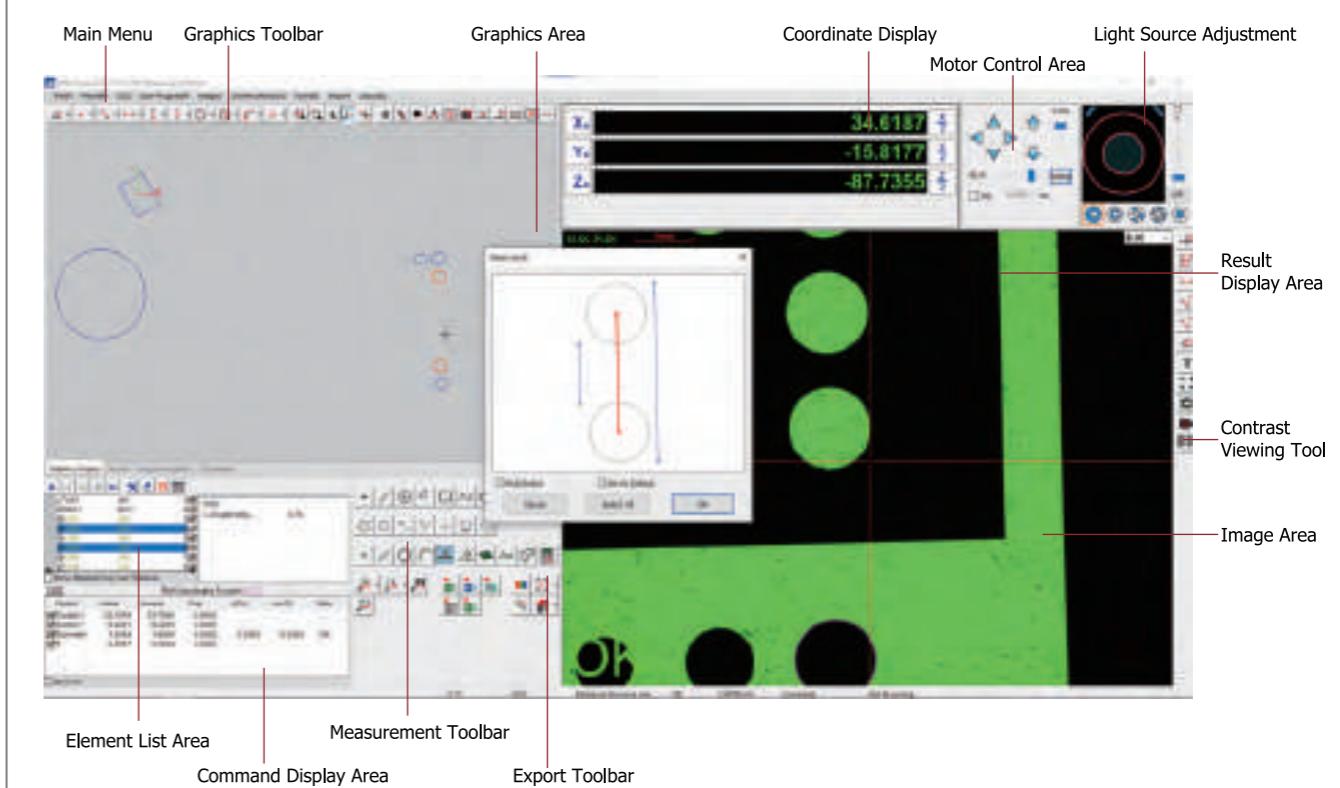
- Integrated man-machine engineering design of the whole machine for convenient operation and measurement; Adopting high-precision "00" grade blue granite worktable and column, which are characterized by high precision, corrosion resistance, high strength, no stress deformation, ensuring the machine has high stability;
- X, Y, Z three-axis CNC full-automatic precise control for accurate positioning, the transmission adopts precision linear guide rails and grinding-grade ball screws to ensure the accuracy of the motion system;
- The imaging system adopts imported high-quality optical components, which are coated with multiple layers of optical films, with minimal optical attenuation, ensuring clear and distortion-free image quality;
- Programmable 5-ring 8-zone LED surface light source and parallel LED contour light source system, intelligently realizing 256-level brightness adjustment;
- Independently developed measurement software with functions like fast focusing, automatic edge finding, and diversified output reports, enabling online SPC data processing and analysis, allowing setting of automatic measurement tasks to efficiently complete batch detection.

CNC VIDEO MEASURING SYSTEM(FLOOR TYPE) CODE:VMC/VMU

TECHNICAL SPECIFICATION

Model	2.5D Model	VMC-3020	VMC-4030	VMC-5040	VMU-3020	VMU-4030	VMU-5040
	3D Model	/	/	300x200mm	400x300mm	500X400mm	
X,Y-axis Travel							
Z-axis Travel							200mm
Instrument Dimensions (L*W*H mm)	660x770x1580	960x739x1667	860x1160x1620	750x520x980	1000x620x990	1300x750x1000	
Maximum Load Capacity	25KG						
Net Weight	240KG	280KG	450KG	240Kg	280Kg	360Kg	
X/Y/Z Three-Axis Grating Scales (2.5D)	Resolution: 0.5μm						
Accuracy(um)	E1(x/y)=2.5+L/200						E1(x/y)-2.5+L/100
Motion System	X,Y,Z Axes:Lead Screws						
Motion Control	CNC Auto Servo Movement Control						
Video System							
Hikvision 1/2' color CCD camera							
Manual coaxial zoom lens							
Optical magnification: 0.7-4.5x; video magnification: 20-148x							
Working distance (standard): 92mm							
Object View (Standard)	11.1~1.7mm						
Speed (mm/s)	X, Y Axis: 200 Z Axis: 50						
Illumination	Contour Light	Adjustable 256-level LED parallel illumination					
	Surface Light	256-level adjustable 5-ring 8-zone LED cold illumination					
3D Measurement	3D module and renishaw (UK) contact probe						
Measurement Software	Mikromea-cnc 2.5d CNC measurement software						
Working Environment	Temperature: 20°C ± 2°C, temperature variation < 2°C/hour, humidity: 30~80%						
Power Supply	AC 100~220V 50/60HZ 10A						

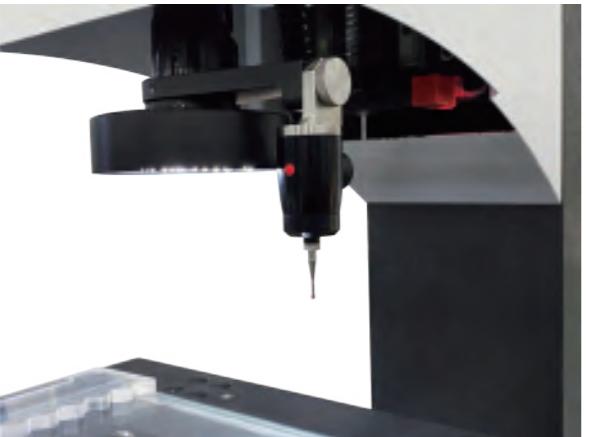
Measuring Software(Standard Delivery)



CNC AUTO VIDEO MEASURING SYSTEM(ADVANCED TYPE) CODE:VMM



INSTRUMENT ACCESSORY



- With the help of the high-precision sensing of the probe, users can measure the contours and dimensions of complex workpieces more accurately, achieving a qualitative improvement in measurement accuracy.
- It can quickly complete the measurement of multiple parts without frequent manual intervention, greatly improving the inspection efficiency.
- The measurement data of the probe and the image data of the instrument are effectively integrated. Through the analysis of the instrument's data processing system, a more comprehensive and accurate workpiece inspection report is generated.



0.5X Auxiliary Objective



2X Auxiliary Objective



Coaxial Optical lens

CNC AUTO VIDEO MEASURING SYSTEM(Advanced Type) CODE:VMM

TECHNICAL SPECIFICATION

Product Name		
2.5D Model	VMM-3020	VMM-4030
3D Model	VMM-3020P	VMM-4030P
3D Measuerment		
Working Stage	X,Y-axis Travel	300x200mm
	Z-axis Travel	200mm(For Focusing and Auxiliary Measurement)
	Driver Type	Lead-screw Drive for X,Y,Z-axis
Digital Measuring System		
Linear Resolution:X,Y,Z-axis 0.1μm		
Precision:X,Y-axis≤(2.0+L/200)μm, Z-axis≤(4.0+L/200)μm		
1/2" High-resolution CCD Color Camera		
0.7~4.5X Electric Motorized Zoom Lens 6.5:1		
Total Video Magnification is 20~180X(customizable)		
Optical:0.7~4.5X, Video:28~182X		
Video System		
Magnification		
Illumination	Surface	LED Circular Cold Light Source with Lamp Beads Made in USA5 Rings and 8 Zones, With Each Section Independently Controllable.
	Contour	LED Circular Cold Light Source with Lamp Beads Made in USA Brightness Can be Adjusted in 256 Levels.
Stage Max load Capacity		
50kg		
Movement Speed		
X,Y-axis:380mm/s Z-axis: 100m/s		
Working Distance		
108mm		
Movement Control		
CNC Servo Motion Control System		
Software		
Mikromea-CNC 2.5D CNC Measuring Software		
Temperature: 20°C+2°C;		
Humidity: 30%-80%		
Vibration < 0.002g, < 15Hz.		
Working Environment		
Power Supply		
AC 100~220V 50/60HZ , SINGLE pHASE 700W		
Machine Dimension(L*W*H)		
660x560x960mm		
1000x620x990mm		
1300x750x1000mm		
Machine Net Weight		
240kg		
280kg		
360kg		

STANDARD DELIVERY

Product Name	Product Name	Product Name
Mikrosize Measuring Software	Hikvision CCD Color Camera/Video Capture Card	Auto Coaxial Zoom Lens
Mainframe/Dell PC System	Scale Transfer /Movement Control Card	48 -Division LED Illumination
0.5um Linear Scale/Calibration Block	100mm Length Block(3D)	Renishaw Probe MCP-K2(3D)
Joystick	Slide Rail	X,Y,Z-axis Motor

CNC AUTO VIDEO MEASURING SYSTEM(FIXED GANTRY)

CODE:VMH



02

STANDARD DELIVERY

Mainframe with Optical Glass	1 set
Moving Control System with Joystick	1 pc
Linear Scale	3 pcs
Linear Guide	3 pcs
Ball Screw	3 pcs
Motor	3 pcs
Camera	1 pc
Zoom Lens	1 pc
Surface Illumination	1 pc
Calibration Board	1 pc
Computer	1 pc
Software	1 pc
Renishaw Probe MCP-K2(3D)	1 pc



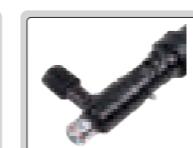
Calibration Block
(Standard Delivery)



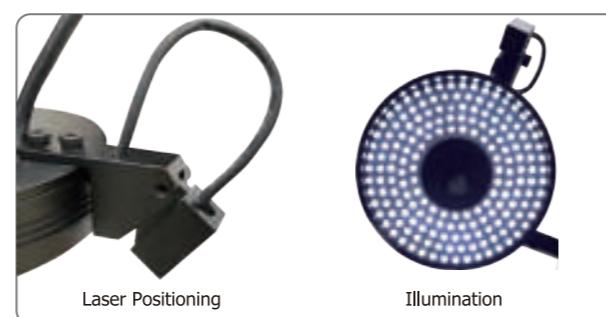
Renishaw Probe(3D Model)

OPTIONAL DELIVERY

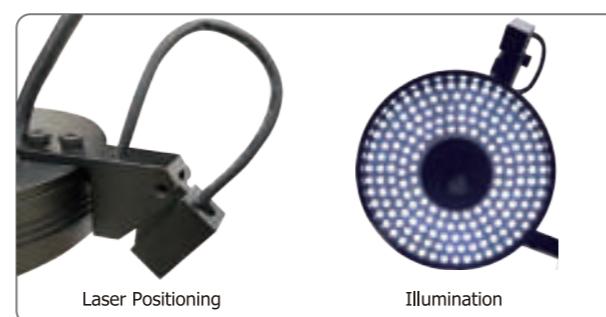
0.5x Auxilliary Objective Lens	MS-OB05X
2x Auxilliary Objective Lens	MS-OB2X
Coaxial Optical Lens	MS-COX
Laser Displacement Sensor	MS-LASER



0.5X Auxilliary Objective 2X Auxilliary Objective Coaxial Optical Lens



Laser Sensor (Optional)

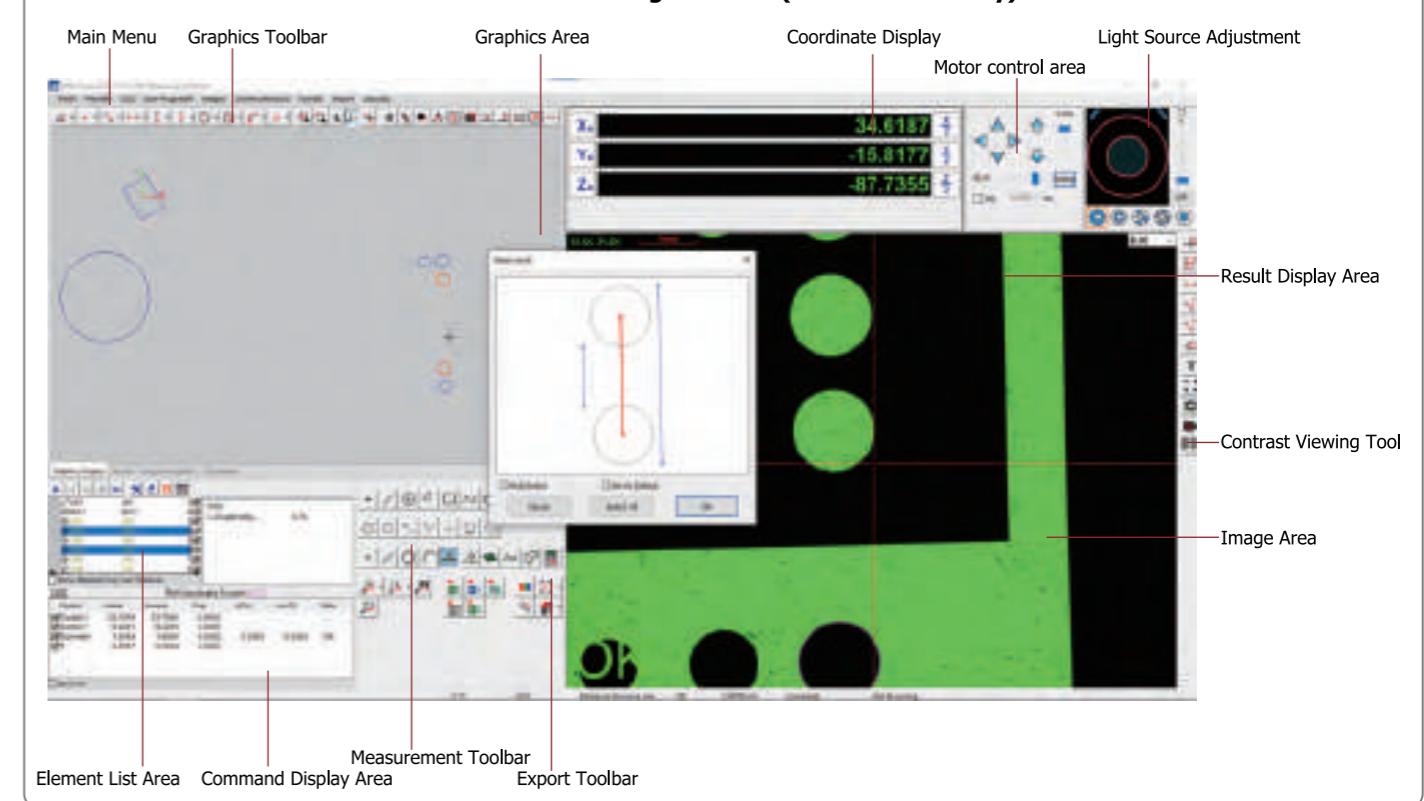


Laser Positioning Illumination

TECHNICAL SPECIFICATION

Product Name	Fixed Gantry Type Automatic Video Measuring Machine		
Model Number	VMH332	VMH 442	VMH 552
X/Y-axis Travel	300x300mm	400x400mm	500x500mm
Z-axis Travel	200mm		
X/Y/Z Linear Scale	Resolution: 0.1μm		
Guidance Mode	High-precision P-grade , Double-Track Linear Guide		
Operation Mode	Joystick <input type="checkbox"/> Controller, Mouse Operation, Automatic Detection Program		
Probe System	Renishaw MCP Probe Change System (Optional)		
Measurement Accuracy	XY-axis: 2+L/200(μm)		
Repeatability	Z-axis: 3.5+L/100(μm)		
Video System	±1.5um		
Illumination	1/2" Color CCD Camera		
Working Environment	6.5X Automatic Zoom Lens		
Measuring Software	Optical Magnification: 0.7X-4.5X, Video Magnification: 20X~190X		
Load Capacity	Contour: LED Parallel Contour Illumination		
Power Supply	Surface: 5-ring 8-division 0~256 Grade Continue Adjustable		
Machine Dimension(L×W×H)	Temperature: 20°C±2°C, Temperature Change<2°C/hr,		
Package Size(L×W×H)	Humidity: 30% – 80%RH, Vibration<0.002g, <15HZ		
Instrument Weight	Mikrosize		
	30Kg		
	AC110V/60Hz, 220V/50Hz		
	1137*848*1650mm	1240*948*1650mm	1457*1048*1650mm
	1550*1080*1800mm	1550*1080*1800mm	1900*1280*1800mm
	480	580	680
			850

Measuring Software(Standard Delivery)



CNC AUTO VIDEO MEASURING SYSTEM(MOVING GANTRY) CODE:VMG



- Moving gantry structure,measuring specimen fixed on stage.
- CNC fully auto close loop control, auto measurement.
- Precise "00"grade "JINANQING"marble base and pillar ensures corrosion resistant, and working stability.
- Automatic zoom lens with electronic position, easily to change magnification.
- CNC fully automatic precisely control X-Y-Z-axis movement.
- Linear scale, resolution is 0.1um, high accuracy, great stability.
- Precise linear guide, grinding ball screw and AC servo motor, ensure accuracy stability of system position.
- Programmable 5-ring 8-division LED surface illumination, contour parallel LED illumination, 256 grade brightness adjustment intelligently.
- Mikrosize measuring software, with fast focus, auto Edge finding, diverse reports output. SPC data analysis on line. Auto measuring can be set.
- High definition color industry camera, ensure clear observation and stable measurement.



STANDARD DELIVERY

Measuring Software	1 pc
Mainframe/Dell PC System	1 set
Linear Scale/Calibration Block	1 pc
CCD Camera/Video Capture Card	1 pc
Scale Transfer /Movement Control Card	1 pc
100mm Length Block(3D)	1 pc
Motorized Coaxial Zoom Lens	1 pc
8-Division LED Illumination	1 pc
Renishaw Probe(3D)	1 pc



Calibration Block
(Standard Delivery)

OPTIONAL DELIVERY

0.5x Auxilliary Objective Lens	MS-OB05X
2x Auxilliary Objective Lens	MS-OB2X
Coaxial Optical Lens	MS-COX
Laser Displacement Sensor	MS-LASER



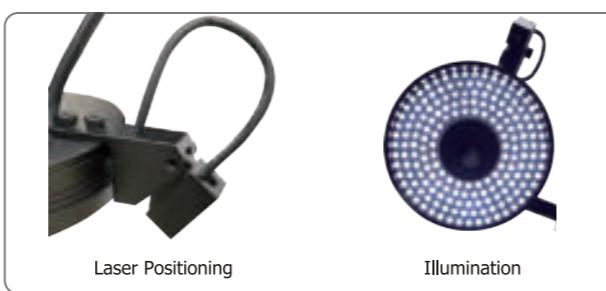
0.5X Auxiliary Objective



2X Auxiliary Objective



Laser Sensor (Optional)



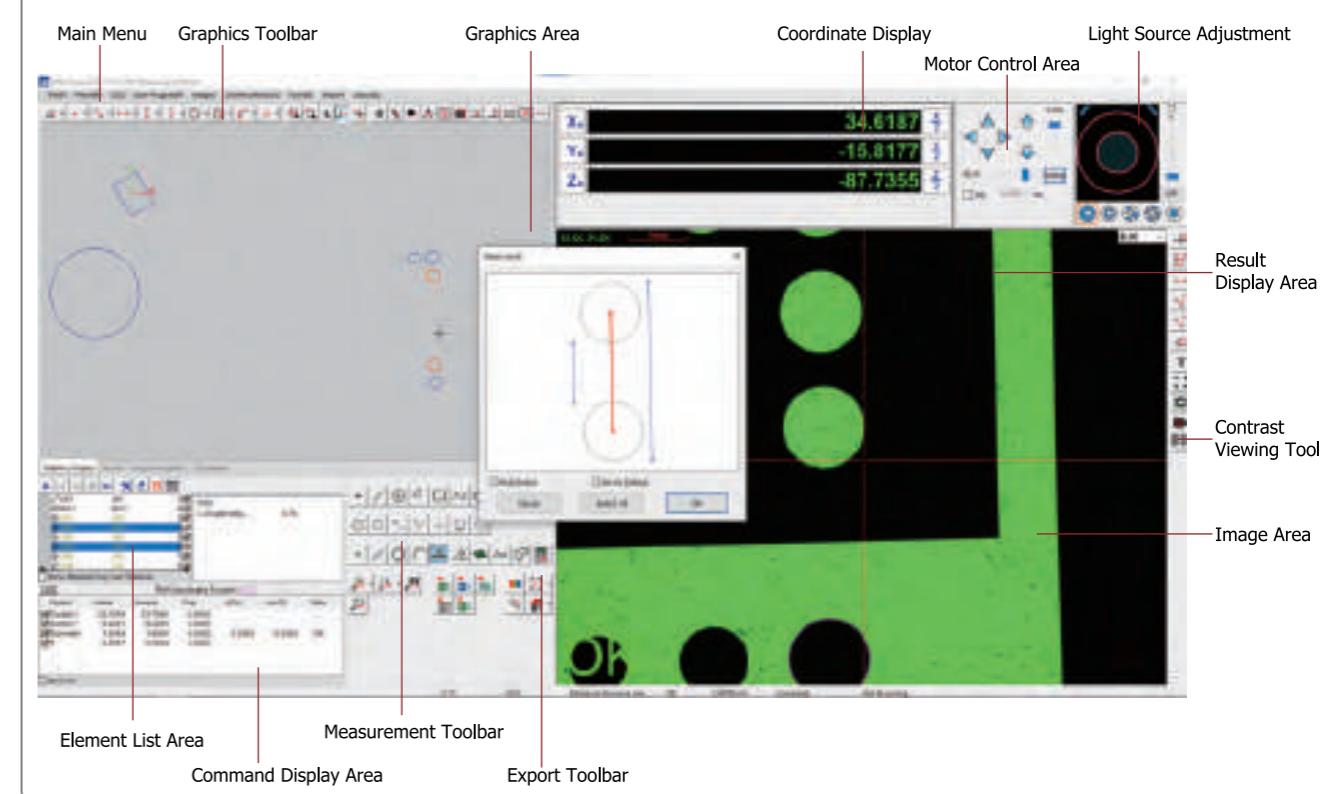
02

02

TECHNICAL SPECIFICATION

Product Name	Fully Auto Video Measuring System	
2.5D Model	VMG-8010	VMG-1012
3D Model	VMG-8010P	VMG-1012P
Stage Travel(mm)X/Y/Z	800x1000x200	1000x1200x200
Machine Dimensions(mm)	1890X1362X1620	2090X1562X1620
Accuracy(μm)	$E1(X/Y)=(3.5+L/100)$, L=Length to Be Measure in mm	
Load weight of worktable	30kg	
Net Weight(KG)	1000	1200
Optical System	1/2" Color CCD Camera	
Image Sensor	Auto Coaxial Zoom Lens	
Objective Magnification	Optic:0.7x~4.5x, Video:20x~148x	
Working Distance	92mm(Standard)	
Object field of view	11.1~1.7mm(Standard)	
Resolution	0.5μm	
Driving System	X,Y,Z-axis Screw Driving	
Movement Control	CNC-servo Movement Control System	
Speed	X.Y-axis	300(mm/s)
	Z-axis	50(mm/s)
Illumination	Contour Surface	Adjustable 256-grade LED Cold Illumination
		Adjustable 256-grades 5-Ring & 8-Division LED Cold Illumination
Measuring Software	Mikrosize	
Working Environment	Temperature: 20°C±2°C, Temperature Variation<2°C/hr, Humidity:30~80% Vibration<0.002g, 15Hz	
Power Source	AC 100~220V 50/60HZ 10A	

Measuring Software(Standard Delivery)



VERTICAL MEASURING PROFILE PROJECTOR CODE:iProjec-V12

02

- High-precision optical system: It is equipped with a high-quality objective lens, which provides clear and sharp imaging. Under transmitted light illumination, the contour measurement error is less than 0.08%, and the magnification ratio is accurate and reliable.
- Precise coordinate measurement: The digital display resolution of the X and Y coordinates reaches 0.0005 mm. The indication error of coordinate measurement is only $(3 + L/200) \mu\text{m}$, where L is the measured length, ensuring high measurement accuracy.
- Stable Z-axis design: The Z-axis lifting adopts the guide rail transmission method, which greatly enhances the stability and durability of the projector body and ensures stability without shaking during measurement.
- Durable workbench: The metal tabletop measures 340×152mm, and the glass tabletop measures 196×96mm. Made of sturdy materials, it can bear various workpieces and is not prone to wear.
- High-quality projection screen: The projection screen has a size of $\Phi 312\text{mm}$, with a usable range of more than $\Phi 300\text{mm}$. It is engraved with a crosshair pattern and has a rotation range of 0-360°, which facilitates positioning and multi-angle measurement.
- Reliable lighting component: Both the transmitted light and reflected light use 24V/150W halogen lamps, equipped with forced air cooling. The lighting is stable and the heat dissipation performance is excellent, ensuring a stable measurement environment.



STANDARD DELIVERY

Name	Qty	Unit
8A fuse	5	pcs
Halogen lamps (64640)	2	pcs
Halogen lamps (13629)	1	pc
Power cable	1	pc
Rotary fastening Plug	4	pcs
Foot switch	1	pc
10X Objective lens	1	pc
Machine Instruction Manual	1	pc
DRO300 Instruction Manual	1	pc
Dust-proof cover	1	pc
Surface lens	1	pc
Light shield	1	pc



- It is equipped with a light shield, which can effectively block the excessive strong light and scattered light generated during the operation of the projector. During the measurement process, it prevents the direct irradiation of strong light on the eyes, reducing the irritation and damage of the light to the eyes.

OPTIONAL DELIVERY

Name	Code
Objective Lens-20X-50X-100X	iProjec-VOB
Rotary Table	iProjec-VRT
Arc Film (With Film Clips)	iProjec-VAF
Glass Line Ruler	iProjec-VLR
V-Groove Fixture	iProjec-VVF
Edge Finder	iProjec-VEF
Measuring Software	iProjec-VSF
Working Cupboard	iProjec-VWC

TECHNICAL SPECIFICATION

Model	iProjec-V12-1550	iProjec-V12-2010	iProjec-V12-2515
X,Y-axis Travel(mm)	150*50	200*100	250*150
Z-Axis Travel(mm)	100mm(Focusing)		
Precision	X/Y-axis: $\leq 3 + L/200(\mu\text{m})$		
Projector Screen Size(mm)	$\Phi 312\text{mm}$,Used range $>\Phi 300\text{mm}$ (with the meter line)		
Screen rotary range	0°~360°		
Rotation Angle Resolution	1'or 0.01°		
Magnification	10X(Standard),20x,50X,100X(Optional)		
Power	110V/220V(AC),50/60HZ, Total power-=400w		
Data Processing System	DP300, supporting English, Chinese, can be used to measure and gather the data of 2D dimensions of point, line.circle, angle, distance and so on at ease.		
Cold	Forced air cooling		
Illumination	The illumination of transmission and reflection: 24V/150W-halogen lamp		
Dimension	788*524*1152mm	770*550*1120mm	770*550*1120mm
Net Weight	122kg	125kg	162kg



HORIZONTAL MEASURING PROFILE PROJECTOR

CODE:iProjec-H12/H16/H24

- High-precision optical system: Equipped with high-quality objective lenses, it can produce sharp and clear images, and the magnification ratio is accurate, ensuring the accuracy of dimensional measurement and meeting the requirements of precise measurement.
- Precision worktable: Processed from aviation aluminum alloy, it has a large measurement range and is lightweight. The digital display resolution of the X and Y coordinates reaches 0.0005mm, and the positioning accuracy is extremely high.
- Stable guide rail transmission: The lifting transmission of the worktable adopts imported V-shaped linear guide rails, which run smoothly, reduce vibration deviation, and ensure the stability and accuracy during the measurement process.
- High-quality lighting components: The intensity of the transmitted illumination can be continuously adjusted. The reflected illumination utilizes optical fiber transmission, featuring high and stable illuminance, which provides a clear field of vision for precise measurement.
- Sturdy and durable structure: The overall structure has strong versatility, a reasonable design, and high-quality materials. It is resistant to interference and wear, and can maintain high precision even after long-term use.
- Advanced digital display system: The coordinate indication value error is $\leq 3+L/200$. Equipped with an advanced digital display system, the readings are intuitive and accurate, effectively improving the measurement accuracy and efficiency.



VIDEO



Auxiliary light source: It can illuminate the sample from different angles to make observation more efficient

HORIZONTAL MEASURING PROFILE PROJECTOR

CODE:iProjec-H12/H16/H24

TECHNICAL SPECIFICATION

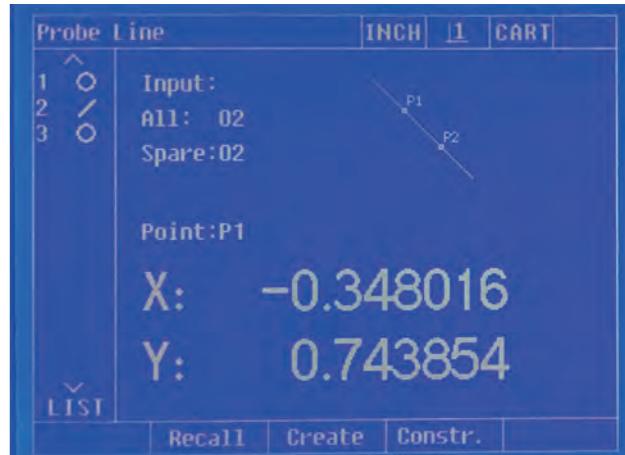
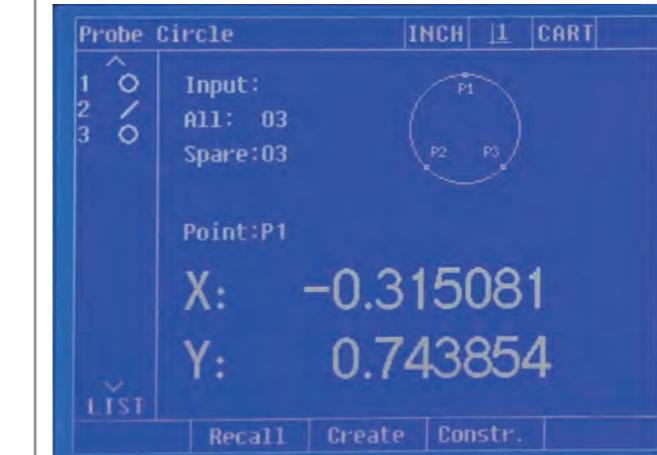
Model	iProjec-H12	iProjec-H16	iProjec-H24
X,Z-axis Travel(mm)	200*100	300*150	300*150
Y-axis Travel(mm)	75(Focusing)	125(Focusing)	125(Focusing)
Precision	X/Y-axis $\leq 3+L/200(\mu\text{m})$		
Projector Screen Size(mm)	$\Phi 330$	$\Phi 425$	$\Phi 615$
Projector Screen Rotation	0-360°		
Range			
Rotation Angle Resolution	1' or 0.01°		
Magnification	10X(Standard),20X, 50X, 100X(Optional)		
Power Source	110V/220V (AC),50/60HZ,Total 400W		
Digital Readout	Supports English, can be used for measuring and collecting two-dimensional data such as points, lines, circles, angles, distances, etc., and is easy to operate		
Cooling Method	Forced air cooling (3-axis fan)		
Illumination	Transmission and reflection lighting: 24V/150W halogen lamp		
Machine Size(mm)	1114*756*9964	1360*580*1170	1611*761*1409
Instrument Accessory	Mini-printer(Standard),Measuring Software(Optional)		

STANDARD DELIVERY

Name	Qty
8A fuse	5 Pcs
Halogen lamps (64640)	2 Pcs
Halogen lamps (13629)	1 Pc
Power cable	1 Pc
Rotary fastening Plug	4 Pcs
Foot switch	1 Pc
10X Objective lens	1 Pc
Instruction Manual	1 Pc
DRO300 Instruction Manual	1 Pc
Dust-proof Cover	1 Pc

OPTIONAL DELIVERY

Name	Code
Objective lens -20X -50X -100X	iProjec-HOB
Rotary Table	iProjec-HRT
Arc Film (With Film Clips)	iProjec-HAF
Glass Line Ruler	iProjec-HLR
Fixture V-Groove	iProjec-HVF
Edge Finder	iProjec-HEF
Measuring Software	iProjec-HSF
Working Cupboard	iProjec-HWC



Software control interface: Simple and efficient to operate, enabling quick measurement

VARIABLE ZOOM LENS

02



LZ-650121 Electric Motorized Coaxial



LZ-650104 Electric Motorized



LZ-63100 Continuous fixed Zoom



LZ-63107-M3 Fixed-step Zoom + Coaxial



LZ-63102-M12A Fine-tuning lens



LZH-6805-K High resolution

Electric Motorized	LZ-650121 Electric Motorized coaxial
	LZ-650104 Electric Motorized
Manual	LZ-63100 Continuous fixed Zoom
	LZ-63107-M3 Fixed-step Zoom + Coaxial
Electric Motorized & Manual	LZ-63102-M12A Fine-tuning lens
	LZH-6805-K High resolution

ELECTRIC MOTORIZED ZOOM COAXIAL LENS 6.5:1 CODE:LZ-650121

6.5X Electric Magnification Coaxial Lens with a magnification ratio of 6.5:1. It allows for a fine adjustment of 3mm. The magnification range is from 0.7X to 4.5X. It supports a maximum sensor size of 2/3". The working distance (WD) is 80±2mm.

- The main lens has a small field of view and can be used for fast and accurate measurement.
- The navigation lens has a large field of view (35.8mm * 26.9mm) and is used for quickly finding the target.
- Excellent optical performance, high resolution, low distortion, and a high numerical aperture (N.A. value).
- It has a compact structural design, making it easy to integrate and install.



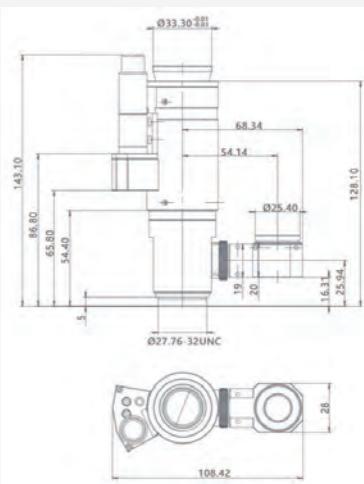
02

Coaxial epi-illumination:

- It adopts the incidence of infinite parallel light, enabling shadowless illumination.
- The coaxial epi-illumination structure can make the distribution of incident light more uniform.

Electric variable magnification:

- High - speed variable magnification and high - precision repeated positioning; Imported DC servo motors are adopted.
- The electric control system realizes single-axis or dual-axis control through a 9-pin RS-232 serial port.
- It can maintain mechanical stability in harsh vibration environments.



Type	Electric Motorized + Coaxial Zoom Lens							
	0.7X~4.5X							
Optical Magnification Ratio	80±2mm							
Working Distance (WD)	0.7X	1.0X	1.5X	2.0X	2.5X	3.0X	3.5X	4.0X
Optical Magnification	0.68	0.185	0.7	1.075	0.8	0.75	0.7	0.81
Telecentricity (°)	1.9	0.952	0.44	0.29	0.23	0.16	0.13	0.12
Depth of Field (DOF) (mm)	0.03	0.04	0.063	0.07	0.085	0.085	0.095	0.095
N.A.	11.7	12.7	11.95	14.4	15.3	17.6	18.5	20.8
F.NO.	11.18	7.99	5.59	4.79	4.79	3.95	3.95	3.95
Resolution (μm)	0.06	0.02	0.01	0.03	0.003	0.002	0.03	0.03
TV Distortion(%)	2/3"							
Sensor Size	C - type							
Connector	Electric variable magnification							
Zooming method	\							
Focus adjustment	\							

ELECTRIC MOTORIZED ZOOM LENS

CODE:LZ-650104

6.5X Electric Magnification Coaxial Lens with a magnification ratio of 6.5:1, allowing for fine - tuning of 3mm, with a magnification range from 0.7X to 4.5X. It supports a maximum sensor size of 2/3", and the working distance (WD) is 80±2mm.

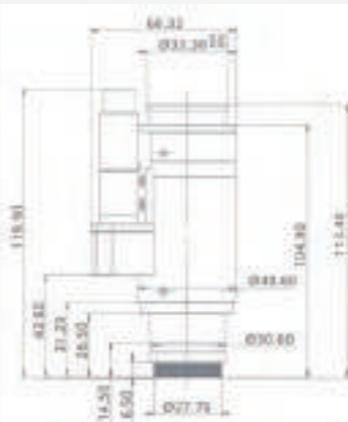
- The main lens has a small field of view and can be used for rapid and precise measurement.
- The navigation lens has a large field of view (35.8mm * 26.9mm) and is used for quickly finding the target.
- It has excellent optical performance, high resolution, low distortion, and a high numerical aperture (N.A.) value.
- It has a compact structural design, making it easy to integrate and install.



Electric variable magnification:

- It features a high-speed variable magnification rate and high-precision repetitive positioning. An imported DC servo motor is adopted.
- It features a high-speed variable magnification rate and high-precision repetitive positioning. An imported DC servo motor is adopted.

It can maintain mechanical stability even in harsh vibration environments.



Type	Electric Motorized Zoom lens								
Optical Magnification Ratio	0.7X~4.5X								
Working Distance (WD)	80±2mm								
Optical Magnification	0.7X	1.0X	1.5X	2.0X	2.5X	3.0X	3.5X	4.0X	4.5X
Telecentricity (°)	0.68	0.185	0.7	1.075	0.8	0.75	0.7	0.81	0.87
Depth of Field (DOF) (mm)	1.9	0.952	0.44	0.29	0.23	0.16	0.13	0.12	0.1
N.A.	0.03	0.042	0.06	0.07	0.07	0.085	0.085	0.085	0.085
F.NO.	11.6	12.1	12.5	14.2	17.8	17.6	20.5	23.5	26.5
Resolution (μm)	11.18	7.99	5.59	4.79	4.79	3.95	3.95	3.95	3.95
TV Distortion(%)	0.019	0.035	0.002	0.003	0.004	0.001	0.001	0.002	0.002
Sensor Size	2/3"								
Connector	C - type								
Zooming method	Electric variable magnification								
Focus adjustment	\								

MANUAL 6.5X CONTINUOUS ZOOM LENS

CODE:LZ-63100

6.5X Electric Magnification Coaxial Lens with a magnification ratio of 6.5:1, allowing for fine - tuning of 3mm, with a magnification range from 0.7X to 4.5X. It supports a maximum sensor size of 2/3", and the working distance (WD) is 90±2mm.

- With a professional optical path design, the optical magnification is in the range of 0.7X - 4.5X, and the zoom ratio is 6.5:1.
- Based on a 2/3" camera, it can achieve large-field-of-view observation.
- It has a compact structural design, which makes it easy to integrate and install.

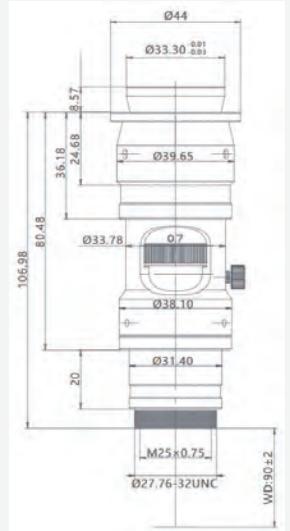


Coaxial Episcopic Illumination:

- It adopts infinite parallel light incidence, which can achieve shadowless illumination.
- The coaxial episcopic illumination structure can make the distribution of incident light more uniform.

Fixed-step magnification:

- With a mechanical positioning structure, it has superior magnification repeatability and stability.
- It can achieve mechanical positioning in 15 segments.
- It is made of high-hardness alloy materials, featuring a long service life. The mechanical structure is designed to be robust and reliable.



Type	Continuous Fixed Zoom Lens								
Optical Magnification Ratio	0.7X~4.5X								
Working Distance (WD)	90±2mm								
Optical Magnification	0.7X	1.0X	1.5X	2.0X	2.5X	3.0X	3.5X	4.0X	4.5X
Depth of Field (DOF) (mm)	1.9	0.952	0.44	0.29	0.23	0.16	0.13	0.12	0.1
N.A.	0.03	0.042	0.06	0.07	0.07	0.085	0.085	0.085	0.085
F.NO.	11.6	12.1	12.5	14.2	17.8	17.6	20.5	23.5	26.5
Resolution (μm)	11.18	7.99	5.59	4.79	4.79	3.95	3.95	3.95	3.95
TV Distortion(%)	0.019	0.035	0.002	0.003	0.004	0.001	0.001	0.002	0.002
Sensor Size	2/3"								
Connector	C - type								
Zooming method	Manual zooming								
Focus adjustment	\								

MANUAL 6.5X FIXED-POSITION ZOOM LENS

CODE:LZ-63107-M3

This 6.5X fixed-position zoom lens has a zoom ratio of 6.5:1, allowing for a fine adjustment of 3mm. Its magnification range is from 0.7X to 4.5X. It supports a maximum sensor size of 2/3", and the working distance is 90±2mm.

- With a professional optical path design, the optical magnification is 0.7X - 4.5X, and the zoom ratio is 6.5:1.
- Based on a 2/3" camera, it is capable of achieving large-field-of-view observation.
- It has excellent optical performance, high resolution, low distortion, and a high numerical aperture (N.A.) value.
- It features a compact structural design, making it easy to integrate and install.

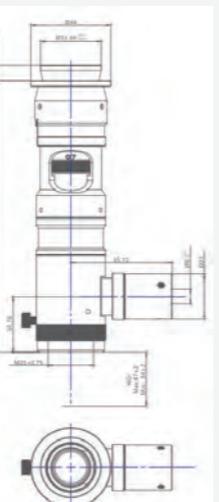


Fixed-step magnification:

- High-precision zooming and high-precision repeatability.
- It can achieve mechanical positioning in 6 segments and 9 segments respectively.
- It is made of high-hardness alloy materials, which ensures a long service life. The mechanical structure is designed to be robust and reliable.

Fine adjustment device:

- It has a seamless combination and allows for large-scale internal focusing ranging from 0mm to 3mm.
- It features precise curve smoothness and an excellently combined design of optics.
- It has a zero-clearance precise fit, enabling positioning at any position without affecting the imaging effect.



Type	Fixed-step Zoom + Coaxial lens								
Optical Magnification Ratio	0.7X~4.5X								
Working Distance (WD)	90±2mm								
Optical Magnification	0.7X	1.0X	1.5X	2.0X	2.5X	3.0X	3.5X	4.0X	4.5X
Depth of Field (DOF) (mm)	1.9	0.952	0.44	0.29	0.23	0.16	0.13	0.12	0.1
N.A.	0.03	0.042	0.06	0.07	0.07	0.085	0.085	0.085	0.085
F.NO.	11.6	12.1	12.5	14.2	17.8	17.6	20.5	23.5	26.5
Resolution (μm)	11.18	7.99	5.59	4.79	4.79	3.95	3.95	3.95	3.95
TV Distortion(%)	0.019	0.035	0.002	0.003	0.004	0.001	0.001	0.002	0.002
Sensor Size	2/3"								
Connector	C - type								
Zooming method	Manual variable magnification								
Focus adjustment	Fine adjustment of 3mm								

This 6.5X fixed-position zoom lens has a zoom ratio of 6.5:1, allowing for a fine adjustment of 3mm. Its magnification range is from 0.7X to 4.5X. It supports a maximum sensor size of 2/3", and the working distance is 90±2mm.

- With professional optical path design, the optical magnification is in the range of 0.7X to 4.5X, and the zoom ratio is 6.5:1.
- Based on a 2/3" camera, it can achieve large-field-of-view observation.
- It has a compact structural design, making it easy to integrate and install.

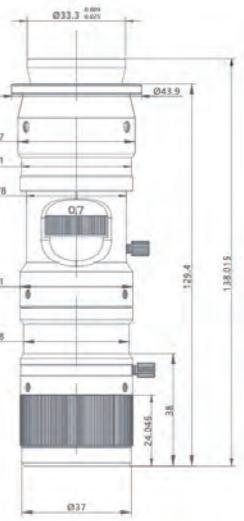


Fixed-step magnification:

- It has a mechanical positioning structure, boasting superior magnification repeatability and stability.
- It can achieve mechanical positioning in 15 segments.
- It adopts high-hardness alloy materials, ensuring a long service life. The mechanical structure is designed to be sturdy and reliable.

Fine adjustment device:

- It can be used in narrow spaces. For workpieces at different heights, one can achieve clear focusing just by adjusting the fine-tuning structure, without the need to change the original working distance of the lens.
- A fine-tuning structure with a range of 12mm can be provided.



Type	12mm fine-tuning lens							
Optical Magnification Ratio	0.7X~4.5X							
Working Distance (WD)	90±2mm							
Optical Magnification	0.7X	1.0X	1.5X	2.0X	2.5X	3.0X	3.5X	4.0X
Depth of Field (DOF) (mm)	1.9	0.952	0.44	0.29	0.23	0.16	0.13	0.12
N.A.	0.03	0.042	0.06	0.07	0.07	0.085	0.085	0.085
F.NO.	11.6	12.1	12.5	14.2	17.8	17.6	20.5	23.5
Resolution (μm)	11.18	7.99	5.59	4.79	4.79	3.95	3.95	3.95
TV Distortion(%)	0.019	0.035	0.002	0.003	0.004	0.001	0.002	0.002
Sensor Size	2/3"							
Connector	C - type							
Zooming method	Manual variable magnification							
Focus adjustment	Fine adjustment of 12mm							

MANUAL & ELECTRIC MOTORIZED HIGH RESOLUTION

CODE:LZH-6805-K

This 6.5X electric magnification coaxial lens has a zoom ratio of 6.5:1, with an optical magnification range of 0.7X to 4.5X. It supports a maximum sensor size of 1", and the working distance (WD) is 88±2mm.

- With a professional optical path design, the optical magnification is 0.7X - 4.5X, and the zoom ratio is 6.5:1.
- Based on a 1" camera, it is possible to achieve large-field-of-view observation.
- It features a compact structural design, making it easy to integrate and install.



Coaxial Epi-illumination:

- It adopts infinite parallel light incidence, enabling shadowless illumination.
- The Coaxial Epi-illumination structure can make the distribution of incident light more uniform.

Electric variable magnification:

- It has a high-speed variable magnification speed and high-precision repetitive positioning. An imported DC servo motor is adopted.
- The electric control system realizes single-axis or dual-axis control through a 9-pin RS-232 serial port.
- It can maintain mechanical stability in a harsh vibration environment.

Type	6.5X 1-inch High-resolution Zoom Lens								
Optical Magnification Ratio	0.7X~4.5X								
Working Distance (WD)	88±2mm								
Optical Magnification	0.7X	1.0X	1.5X	2.0X	2.5X	3.0X	3.5X	4.0X	4.5X
Depth of Field (DOF) (mm)	2.04	1.05	0.50	0.30	0.20	0.15	0.11	0.09	0.07
N.A.	0.028	0.038	0.053	0.066	0.079	0.09	0.101	0.112	0.122
F.NO.	12.46	13.13	14.14	15.16	15.86	16.71	17.35	17.84	18.32
Resolution (μm)	11.98	8.83	6.33	5.08	4.25	3.73	3.32	3.00	2.75
TV Distortion(%)	<0.02	<0.02	<0.02	<0.02	<0.02	<0.03	<0.04	<0.05	<0.06
Sensor Size	1"								
Connector	C - type								
Zooming method	Manual and Electric								
Total length	264mm								

SURFACE LIGHT SOURCE



UWC6008

UWC6016



UWC6032



UWC6045(O)

UWC6045(N)



UWC6100

UWC6200

SURFACE LIGHT SOURCE CODE:UWC6008



02

- This light source features independent lighting control for 5 rings, 8 zones, and 40 directions, providing as many as 40 illumination angles.
- It is connected and used with the RS232 interface (with a built-in 12V power supply) of the UWC series CNC controller.
- It can illuminate from as many as 40 directional angles in 5 rings and 8 zones, meeting the lighting requirements of the vast majority of products.
- It serves as a visual inspection light source for imaging instruments and the like. It features an integrated design of the light-emitting disc and the control board.
- It adopts RS232 communication. The advanced design technology enables the cable to reach a length of up to 20 meters, making it suitable for use with various machines with different stroke lengths.
- It provides an API function interface, enabling easy integration in software programming.
- It can be connected to the RS232 interfaces of UWC4000i, UWC4000P, UWC3500 and UWC5000. The wiring is convenient, and it does not occupy the COM resources of the computer.
- It can be equipped with a special "heightening ring" to adjust the distance between the light source and the product.
- It has the function of setting the brightness level and can be matched with different objective lenses and cameras.
- It provides illumination angles within a focal length range of 40mm to 150mm simultaneously, and can offer lighting for objective lenses with various focal lengths.
- It is powered by an industrial-grade high-quality switching regulated power supply: 12VDC + 0.2V @ 1.8A.
- It is possible to install the ACC10 ring-shaped light source anti-collision device.

The outer diameter is 111mm, the thickness is 32mm, and the height of the focusing ring is 40mm (maximum).

SURFACE LIGHT SOURCE CODE:UWC6016



02

The UWC6016 is a soft light programmable light source with 2 rings, 8 zones and 16 directions. It is particularly suitable for the lighting needs of products with highly reflective surfaces, such as the inspection of glass, metal machined surfaces, jewelry, etc. It has independently adjustable lighting angles of 45 degrees and 90 degrees, which can meet the surface lighting requirements of most products.

- The UWC6016 comes with its own dimming board and uses RS232 communication. It can be connected to the UWC controller or the COM port of a computer for use.
- It has an integrated structure of the light-emitting disc and the control board, featuring a unique and stable overall structural design.
- It provides 16 main illumination angles in 2 rings and 8 zones. By cooperating with a customized heightening ring, it can achieve lighting at multiple horizontal included angles, and can deal with surface lighting for surfaces with characteristics such as different "chamfers", "step differences", "weak edges", and those close to a "mirror surface".
- Each partition can be continuously adjusted in 200 levels, and the maximum output current can be set in 16 gears.
- It has high brightness stability, no flickering, and the gray value of the image edge is stable, ensuring the repeatability accuracy of the edge-finding function in the measurement software.
- It adopts RS232 communication, has strong anti-interference ability, and is suitable for use with large, medium and small machines.
- It provides an API function interface, making software programming integration simple and convenient.
- With advanced LED brightness control technology and sophisticated manufacturing processes, it ensures the reliable operation of the product over an extended period of time.
- It has a constant current control output for one path of bottom light (0-100mA) and one path of coaxial light (0-100mA), as well as the control for one path of laser indicator.
- It uses high-quality LED with a high color temperature, no color difference. The spectrum distribution is close to that of sunlight, featuring a long lifespan and minimal light decay.
- A soft light diffuser can be optionally configured to further enhance the flexibility of the illumination. A focusing ring is optional, which can be adapted to different lens focal lengths.

The outer diameter is 100mm, the thickness is 24mm, and the working distance is 35mm.

SURFACE LIGHT SOURCE CODE:UWC6032



02

The UWC6032 is a programmable light source with 4 rings, 8 zones and 32 directions. It has 32 emission angles and certain low-angle lighting capabilities. It can be directly connected to the RS232 interface of the UWC controller.

- The 32-direction programmable light source uses a mold to position the emission angle of each LED, ensuring the consistency of measurement accuracy.
- It has a small and round shape, which is delicate, beautiful and easy to install.
- It is equipped with 112 medical-grade LEDs, which increases the brightness by 55% compared with the UWC4003, while the outer diameter only increases by 1mm.
- High-quality plug-in cold light LED beads are used, which have small light decay and a long lifespan. They can reduce the heat-induced deformation of thin and light workpieces under illumination. Warm light (pure white light) is also optional.
- It is equipped with an advanced built-in light source control card, ensuring stable brightness without flickering.
- The focal lengths of commonly used zoom lenses differ by approximately 12mm. For the short focal length lens, the upper end of the mounting ring can be cut off to achieve focal length matching.
- The compact laser indicator installation component is easy to adjust. It can be selected as single or double, and there are 32 directions available for selection.
- The illumination angles of the four rings are respectively: 45.5, 51.5, 58.5, and 66 degrees (the included angle with the surface of the product), and the optimal focal length is 38mm.
- The power supply voltage of UWC6032: 12.5 ± 0.25 VDC@980mA, and the power supply current should not be less than 2A.
- The outer diameter is 88mm, the thickness is 28mm, and the maximum height of the focusing ring is 40mm.

SURFACE LIGHT SOURCE CODE:UWC6045(OLD MODEL)



02

The UWC6045 is an anti-collision light source with 40 directions and a laser indicator. It is a standard light source for mid-to-high-end imaging instruments. This light source is divided into 5 rings, 8 zones, and has independent lighting control for 40 directions, providing as many as 40 illumination angles.

- The UWC6045 is used by connecting it to the RS232 interface (with a built-in 12V power supply) of the UWC series CNC controller.
- It has illumination from as many as 40 directional angles in 5 rings and 8 zones, which can meet the lighting requirements of the vast majority of products.
- It serves as a visual inspection light source for imaging instruments and the like. It features an integrated design of the light-emitting disc and the control board.
- It adopts RS232 communication. The advanced design technology enables the cable to be as long as 20 meters, making it suitable for use with various machines of different stroke lengths.
- It provides an API function interface, which enables easy integration in software programming.
- It can be connected to the RS232 interfaces of UWC4000i, UWC4000P, UWC3500 and UWC5000. The wiring is convenient and it does not occupy the COM resources of the computer.
- It can be equipped with the special "heightening ring" of UWC6045 to adjust the distance between the light source and the product.
- It has the function of brightness level setting, which can be matched with different objectives and cameras.
- It simultaneously provides illumination angles within the focal length range of 40mm to 150mm, and can provide illumination for objectives with various focal lengths.
- It is powered by an industrial-grade high-quality switching regulated power supply: 12VDC + 0.2V@1.8A.
- It can be equipped with the ACC10 annular light source anti-collision device.
- The outer diameter is 111mm, the thickness is 32mm, and the maximum height of the focusing ring is 40mm.

SURFACE LIGHT SOURCE CODE:UWC6045(NEW MODEL)



02

The UWC6045 is an anti-collision light source with 40 directions and dual laser indicators. It is a standard light source for mid-to-high-end imaging instruments. This light source is divided into 5 rings, 8 zones, and has independent lighting control for 40 directions, providing as many as 40 illumination angles.

- The UWC6045 is used by connecting it to the RS232 interface (with a built-in 12V power supply) of the UWC series CNC controller.
- With a round and novel appearance, it is more agile, more aesthetically pleasing, of a higher grade, and more practical.
- The LED surface is in the shape of the Temple of Heaven, which minimizes the obstruction of the operator's field of vision and conforms to ergonomics.
- With as many as 40 illumination angles in 5 rings and 8 zones, it can meet the lighting requirements of the vast majority of products.
- The outermost ring provides illumination at an ultra-low angle of 37 degrees. Compared with the 45.5-degree angle of the old version of the 6045, it has a significantly better low-angle lighting effect and can partially replace the application of the UWC6100.
- It is equipped with a built-in strain gauge type anti-collision mechanism. The trigger detection at 25 grams of force is more sensitive. Whether it is a collision of the lamp shade or the lamp beads, it can be detected and withdrawn more promptly. It has high detection reliability and has little impact on the workpiece.
- The hidden dual laser indicators are easy to adjust and do not affect the installation of other sensors, perfectly realizing the indication of the visual field center and the focusing indication.
- It comes standard with a focal length adjustment cylinder. By loosening the set screw on the side, the sleeve can be extended and retracted, enabling compatibility with zoom lenses of different focal lengths.
- The installation flange has pre-reserved M3 screw holes, and a lifting mechanism can be added to achieve a perfect combination of probe/CCD measurement.
- The brightness level can be set from 1 to 16, which is adaptable to products with different reflectance rates, lenses with different transmittance rates, and CCDs with different light sensitivities.
- It is directly connected to the RS232 interface of the controller, which is simple and reliable.
- The power supply voltage is 12.5 ± 0.25 VDC at 1400mA, the rated power is 18W, and the power supply current is not less than 2A.
- The new five - ring has emission angles of 37, 45, 53, 62, and 72 degrees (angle with the product surface), and the optimal focal length is 35mm.
- The outer diameter is 119mm, the thickness is 32mm, and the maximum height of the focusing ring is 40mm.

SURFACE LIGHT SOURCE CODE:UWC6100



02

The UWC6100 is a four-color electric lifting programmable light source with 3 rings, 8 zones, 4 colors, and 96 channels. It is an internationally top-notch solution for imaging measurement light sources. With three main illumination angles of 0 degrees, 45 degrees, and 90 degrees, it uses RGBW four-color wide-angle LEDs in conjunction with a programmable lifting mechanism to provide soft and uniform illumination beams without dead angles within a 180-degree dome. It not only meets the lighting requirements for characteristic parts such as surface contours, chamfers, inner R angles, and step differences of the vast majority of machined parts, hardware, and plastic parts, but also realizes programmable and fully automatic detection at different lighting heights for the same workpiece, solving the problem that fixed light sources cannot take into account both high and low lighting positions.

- The UWC6100 supports stroboscopic lighting, providing lighting support for efficient flying shot measurement.
- The integrated mechanism of the light-emitting disc, control board and lifting controller features a unique and stable overall structural design.
- It provides 24 main illumination angles in 3 rings and 8 zones. With the cooperation of the lifting control, it can realize lighting at any included angle ranging from 0 to 87 degrees, and the "dome light" illumination can be programmed.
- Its emission angle of 0-30° can present "chamfers, cutting edges", "step differences", "weak edges", "bottoms of grooves", - contours that are nearly "mirror-like", and surface contours of translucent workpieces (such as ceramics, light-colored plastics, and silicone rubber) with high contrast in the measurement software.
- Each partition is equipped with four colors of LEDs, namely red, green, blue, and white, with an adjustment range of 0-1024. Through RGB mixing, it can produce up to one billion kinds of lighting color temperatures, which almost completely cover various colors in nature. It can provide the best color temperature lighting according to the optical characteristics of different products.
- Each partition can be continuously adjusted from 0 to 200 levels in the software, and the maximum output current can be set in 5 gears.
- It has high brightness stability and no flicker, ensuring the stability of the gray value at the image edge and guaranteeing the repeated edge-finding accuracy of the measurement software.
- It can operate in the stroboscopic mode and the continuous lighting mode, which can be switched by software to realize flying shot detection.
- It has a built-in lifting motor controller and does not rely on other motion controllers. The high and low positions of the ring-shaped light source can be programmatically controlled through the detection software.
- There are three models available for selection, including the red single-color model, the white single-color model, and the red-green-blue-white four-color model.
- A soft light cover is optional, which can meet the measurement requirements of the surface of workpieces with high surface finish and avoid the influence of spot-shaped bright spots on the measurement accuracy.
- A navigation camera is optional (the installation holes for the camera have been reserved).
- It is directly connected to the RS232 interface of the controller, which is simple and reliable.
- The power supply voltage is 12.5 ± 0.25 VDC at 5A, the rated power is 62W, and the power supply current is not less than 8A.
- The emission angles of the three rings are respectively: 0 degrees, 45 degrees, and 90 degrees. The optimal focal length is 0-60mm (the distance between the edge of the lampshade and the product).
- The outer diameter is 125mm, the thickness is 33mm, and the working distance is 0-60mm.

SURFACE LIGHT SOURCE CODE:UWC6200



02

The ring-shaped light source adopts a unique illumination structure, achieving a diffused illumination effect with high brightness and high uniformity. It provides different illumination angles and color combinations, which can better highlight the three-dimensional information of objects. It is one of the widely used light sources in the machine vision industry. With a high-density LED array, it features high brightness, and there are various compact designs available, saving installation space.

- The ring-shaped light source provides illumination at different angles, which can highlight the three-dimensional information of objects.
- It can effectively solve the problem of shadows caused by diagonal illumination.
- It has a unique heat dissipation structure, a high-density LED array, and features high brightness.
- The surrounding surface adopts a knurling design, which expands the heat dissipation area and ensures the service life of the light source.
- A diffuser plate is optional, which can make the light spread evenly.

The color (wavelength) of the light wave	White light: 6000-7500K Blue light: 460-475nm Green light: 520-530nm Red light: 620-630nm Infrared light: 810-940nm Ultraviolet light: 365-405nm
Matching controller	Analog controller, digital controller, stroboscopic controller
Operating environment	Temperature: 0-50°C, Humidity: 20-85% without condensation
Optional accessories	Light source extension cable

BOTTOM LIGHT SOURCE



RL-W

RL-R

RL-B

RL-G



GRL-W

GRL-R

GRL-B

GRL-G

RING LIGHT SOURCE-RL

- The ring light source is formed by an array of high-brightness LEDs through optimized structural design. It has stable performance and is easy to install. When it is directly applied to the measured object at different illumination angles and color combinations, it can avoid the phenomenon of illumination shadows and highlight the imaging features. It can also be used in combination with a diffuser plate to make the light more uniform and soft.

Peak Wavelength	Red: 620-630 nm; Green: 525 nm; Blue: 470 nm; White: 5000 K - 8000 K (color temperature);			
Operating Environment	The ambient temperature is around 25 degrees Celsius, and the operating temperature is within 35 degrees Celsius.			
Expected Service Life	The red and white light sources can be continuously lit for 30,000 hours, and the light decay is 50% (during normal continuous lighting for one year, the light decay is 8-15%). The blue and green light sources can be continuously lit for 30,000 hours, and the light decay is 60% (during normal continuous lighting for one year, the light decay is 10-18%).			



**PARAMETER TABLE OF RING LIGHT SOURCE MODEL
(K REPRESENTS THE UPGRADED VERSION)**

Model	Angle(°)	Inner diameter(mm)	Power(W)		Brightness(LX)			
			W/G/B	R	W	G	B	R
MS-RL4265K	65	18	1.9	1.3	175K	157K	20K	68K
MS-RL5260K	60	28	2.9	1.9	155K	140K	18K	75K
MS-RL5390K	90	28	2.5	1.9	80K	72K	6K	14K
MS-RL6030K	30	22	2.9	1.9	156K	140K	16K	62K
MS-RL6060K	60	33.5	3.5	1.9	120K	108K	14K	42K
MS-RL7390K	90	36	5.7	3.8	135K	121K	18K	50K
MS-RL7430K	30	40	3.8	2.5	120K	108K	14K	50K
MS-RL7460K	60	35	5.7	3.8	135K	121K	15K	66K
MS-RL9030K	30	50	7.6	5.1	110K	99K	14K	44K
MS-RL9045K	45	46	9.5	5.7	175K	157K	20K	65K
MS-RL9070K	70	44	9.5	5.7	138K	124K	15K	55K
MS-RL10090K	90	40	11.1	6.7	175K	157K	18K	76K
MS-RL12030K	30	80	11.1	6.7	75K	67K	8K	33K
MS-RL12060K	60	60	19.0	11.4	170K	153K	15K	72K
MS-RL12070K	70	65	13.3	8.9	110K	99K	14K	50K
MS-RL12090K	90	76	10.5	7.0	130K	117K	17K	52K
MS-RL13220K	20	96	11.4	11.4	77K	68K	9K	35K
MS-RL15030K	30	102	16.8	10.1	77K	68K	9K	35K
MS-RL15060K	60	110	14.3	8.6	150K	153K	16K	70K
MS-RL15090K	90	40	33.3	20.0	133K	118K	19K	54K
MS-RL18030K	30	132	25.7	17.1	84K	75K	9K	26K
MS-RL18060K	60	126	17.1	12.0	95K	85K	10K	40K
MS-RL18090K	90	130	18.1	12.7	136K	120K	20K	56K
MS-RL20820K	20	162	15.2	12.0	33K	30K	3K	15K
MS-RL3275	75	10	1.6	1.0	194	175K	15K	22K
MS-RL4090	90	24	1.0	0.6	30K	27K	2K	8K
MS-RL4860	60	26	2.9	1.9	170K	152K	18K	63K
MS-RL5030	30	25	1.9	1.3	102K	92K	18K	45K
MS-RL5045	45	20	3.8	2.5	189K	170K	26K	85K
MS-RL5060	60	22.5	2.9	1.9	140K	126K	19K	65K
MS-RL5090	90	25	2.9	1.6	65K	59K	5K	13K
MS-RL5460	60	23.5	2.9	2.9	195K	175K	35K	78K
MS-RL5480	80	26	2.9	2.9	158K	142K	4K	65K
MS-RL5590	90	24	2.5	1.6	90K	81K	11K	30K
MS-RL6000	0	30	1.6	1.0	42K	37K	3K	5K
MS-RL6090	90	30	3.2	3.2	85K	77K	10.0K	44K
MS-RL6675	75	46	2.5	1.9	45K	40K	7K	18K
MS-RL7030	30	30	5.4	5.4	456K	410K	37.0K	108K
MS-RL7090	90	36	4.8	3.5	110K	99K	13K	47K
MS-RL7500	0	46	1.9	1.3	41K	35K	2K	4K
MS-RL9090	90	39	7.9	5.1	150K	135K	18K	53K
MS-RL9600	0	60	2.2	1.6	28K	25K	6K	7K
MS-RL12045	45	60	21.9	21.9	165K	149K	14K	76K
MS-RL12050	50	80	13.6	8.6	110K	99K	11K	52K
MS-RL12080	80	65	12.0	12.0	112K	102K	16K	55K
MS-RL14045	45	100	17.1	17.1	121K	109K	15K	38K
MS-RL14600	0	104	3.8	2.5	8K	7K	1.5K	13K
MS-RL15000	0	50	3.8	3.8	44K	40K	3K	11K
MS-RL17200	0	130	4.8	2.9	46K	41K	4K	12K
MS-RL20860	60	155	19.0	11.4	80K	72K	10K	33K
MS-RL23100	0	175	7.0	3.8	11K	10K	2K	5K
MS-RL24020	20	194	32.9	32.9	64K	58K	12K	26K
MS-RL24030	30	194	32.5	22.8	65K	59K	11K	27K
MS-RL35030	30	300	36.7	21.5	89K	80K	16K	35K

BOTTOM LIGHT SOURCE

HIGH-BRIGHTNESS RING LIGHT SOURCE-GRL

● The high-brightness ring light source adopts high-power LEDs evenly arranged. Its brightness is more than three times that of the conventional ring light source. It emits light stably and has a long lifespan. The size can be customized according to the actual needs of customers.



Peak Wavelength
Red: 620-630 nm; Green: 525 nm; Blue: 470 nm; White: 5000 K - 8000 K (color temperature);

Operating Environment
The ambient temperature is around 25 degrees Celsius, and the operating temperature is within 35 degrees Celsius.

Expected Service Life
The red and white light sources can be continuously lit for 30,000 hours, and the light decay is 50% (during normal continuous lighting for one year, the light decay is 8-15%).
The blue and green light sources can be continuously lit for 30,000 hours, and the light decay is 60% (during normal continuous lighting for one year, the light decay is 10-18%).

**PARAMETER TABLE OF HIGH-BRIGHTNESS RING LIGHT SOURCE MODEL
(K REPRESENTS THE UPGRADED VERSION)**

Model	Inner diameter(mm)	Number of LED rows	Power(W)		Brightness(LX)			
			W/G/B	R	W	G	B	R
MS-GRL7390K	36	1	10	6	254K	229K	46K	51K
MS-GRL10090K	40	2	20	12	250K	220K	45K	48K
MS-GRL12090K	76	1	15	11	240K	216K	43K	96K

LINEAR SCALE

TECHNICAL SPECIFICATION

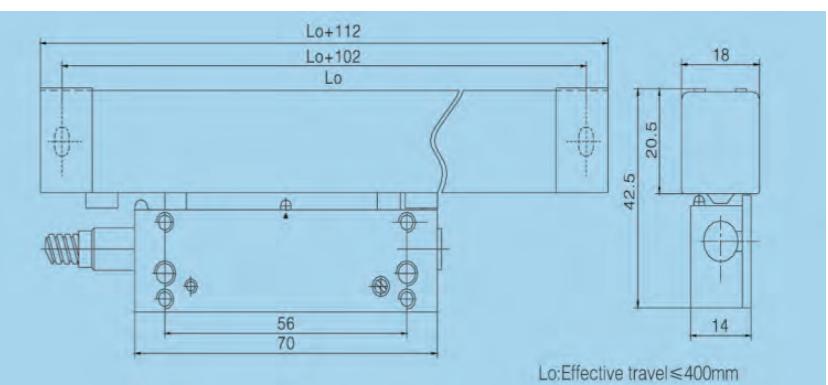
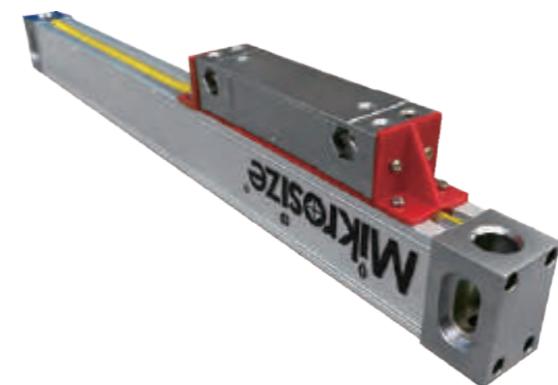
Model	MLS-400 MLS-600	MLS-1000	MLS-3100
Optional Grating Pitch	20μm(0.020mm),10μm(0.010mm)		
Optional Grating Measurement System	Transmission infrared optical measurement system; infrared wave length:880nm;		
Numerical Reading Head	Vertical five bearing roller system		
Rolling System	45°five bearing roller system		
Resolution	1μm 5μm	1μm 5μm	1μm 5μm
Effective Range	50~600mm 50~400mm(MLS-400)	50~1000mm	50~3100mm
Repeatability Accuracy	±1μm ±5μm	±1μm ±5μm	±1μm ±5μm
Maximum Working Speed	20m/min(1μm);60m/min(5μm)		
Output Signal	TTL;RS422;~1VPP		
Power Supply	5V±5%DC		
Environment	Temperature:-10~45°C;Humidity≤90%		



● Milling machines, drilling machines, lathes, grinders, CNC machines, injection molding machines, machining centers, electrical discharge machining machines

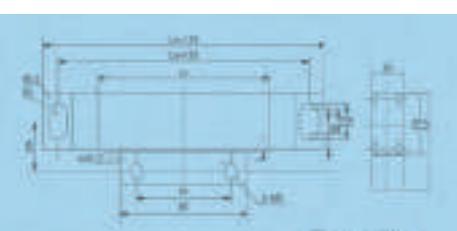
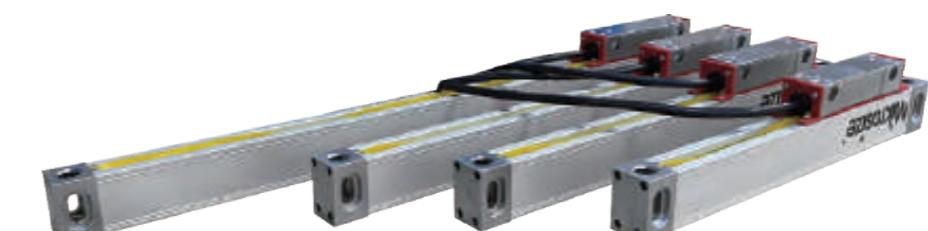
MLS-400

Model	Resolution	Effective range	Maximum working speed	Accuracy	
				Standard	High-Precision
MLS-4001	1μm	50~400mm	20m/min	±5μm	±3μm
MLS-4005	5μm	50~400mm	60m/min	±5μm	±3μm



MLS-600

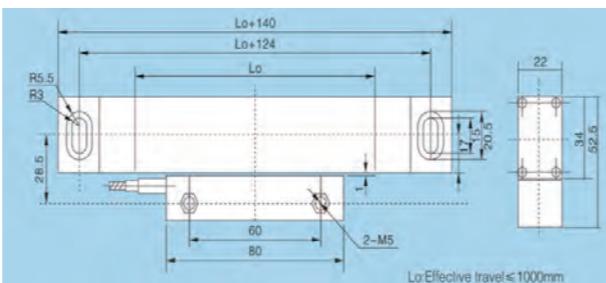
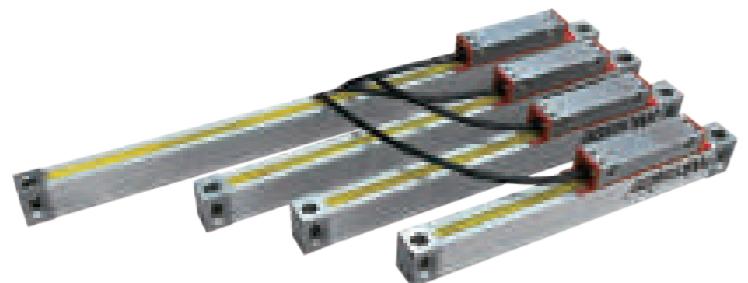
Model	Reso- lution	Effective range	Maximum working speed	Accuracy			
				50~500mm	510~600mm	Standard	High-Precision
MLS-6001	1μm	50~600mm	20m/min	±5μm	±3μm	±8μm	±5μm
MLS-6002	2μm	50~600mm	60m/min	±5μm	±3μm	±8μm	±5μm
MLS-6001	0.5μm	50~600mm	10m/min	±5μm	±3μm	±8μm	±5μm
MLS-60002	0.2μm	50~600mm	10m/min	±5μm	±3μm	±8μm	±5μm
MLS-60001	0.1μm	50~600mm	10m/min	±5μm	±3μm	±8μm	±5μm



LINEAR SCALE
CODE:MLS-1000/3100

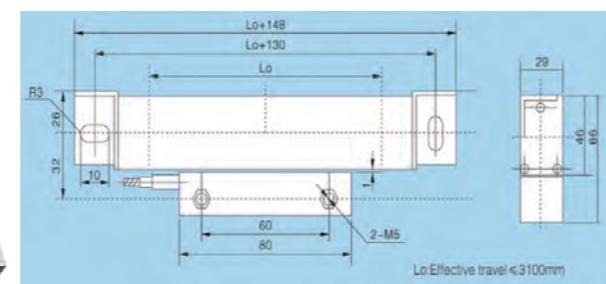
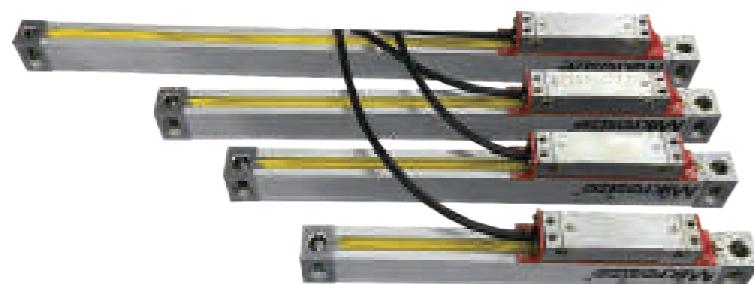
MLS-1000

Model	Reso- lution	Effective range	Maximum working speed	Accuracy			
				50~500mm		510~1000mm	
				Standard	High-Precision	Standard	High-Precision
MLS-10001	1μm	50~1000mm	20m/min	±5μm	±3μm	±8μm	±5μm
MLS-10002	2μm	50~1000mm	60m/min	±5μm	±3μm	±8μm	±5μm
MLS-100005	0.5μm	50~1000mm	10m/min	±5μm	±3μm	±8μm	±5μm
MLS-100002	0.2μm	50~1000mm	10m/min	±5μm	±3μm	±8μm	±5μm
MLS-100001	0.1μm	50~1000mm	10m/min	±5μm	±3μm	±8μm	±5μm



MLS-3100

Model	Reso- lution	Effective range	Maximum working speed	Accuracy							
				50~500mm		510~1000mm		1010~2000mm		510~1000mm	
				Stan- dard	High- Preci- sion	Stan- dard	High- Preci- sion	Stan- dard	High- Preci- sion	Stan- dard	High- Preci- sion
MLS-31001	1μm	50~3100mm	20m/min	±5μm	±3μm	±8μm	±5μm	±30μm	±20μm	±50μm	±34μm
MLS-31005	5μm	50~3100mm	60m/min	±5μm	±3μm	±8μm	±5μm	±30μm	±20μm	±50μm	±34μm



Model	Length(mm)	Width(mm)	Thickness(mm)	Division value(mm)	Accuracy(μm)
MSL01-100	100	30	5	0.1,0.5,1	1
MSL01-200	200	30	5	0.1,0.5,1	1
MSL01-300	300	30	5	0.1,0.5,1	1
MSL01-400	400	30	5	0.1,0.5,1	1
MSL01-500	500	30	5	0.1,0.5,1	1
MSL01-600	600	30	5	1	3
MSL01-700	700	30	5	1	3
MSL01-800	800	30	5	1	5-8
MSL01-1000	1000	30	5	1	8-10



- High precision: It is accurate to micrometers (μm) and is used for measuring tools and precision machine tools. The precision is absolutely exact.
- Strong stability: It has a low coefficient of thermal expansion and excellent corrosion resistance, and can be used in various harsh environments.
- Resistant to scratching: With high-quality glass material, it has good physical properties, extremely high hardness and a high level of scratch resistance.
- High transparency: There are extremely few bubbles and impurities, and it is transparent and uniform as a whole.

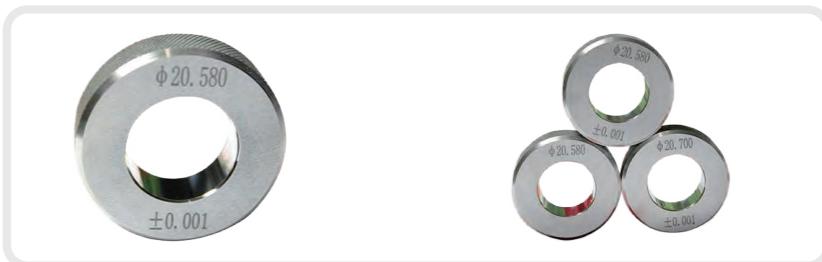
LINE SCALE RULER SECOND-CLASS GLASS LINEAR SCALE RULEL

Model	Length(mm)	Width(mm)	Thickness(mm)	Division value(mm)	Accuracy(μm)
MSL01-10-GB	46	30	5	0.01	1
MSL01-100-GB	130	30	10	1	1
MSL01-200-GB	230	30	10	1	2.5
MSL01-300-GB	330	30	15	1	2.5
MSL01-400-GB	430	30	15	1	3
HBL01-500-GB	530	30-35	15-25	1	3.5
HBL01-600-GB	630	30-35	15-25	1	8-10
HBL01-1000-GB	1030	30-35	15-25	1	10-15



- The engraved lines are located between the two layers of glass and will not be worn out.
- High precision: Precise to micrometers (μm), it is applied to measuring tools and precision machine tools, and the accuracy is absolutely spot-on.
- It has strong stability: With a low coefficient of thermal expansion and excellent corrosion resistance, it can be used in various harsh environments.
- Scratch-resistant: The glass material is of high quality, with good physical properties, extremely high hardness and excellent scratch resistance.
- High transparency: There are very few bubbles and impurities, and it is uniformly transparent throughout.

RING GAUGE FOR MEASURING INSTRUMENT CODE:MS-WS/TS/CM



White Steel Ring Gauge(MS-WS)



Tungsten Steel Ring Gauge(MS-TS)



Ceramic Ring Gauge(MS-CM)

WHITE STEEL RING GAUGE(MS-WS)

- The roundness can reach 0.0005mm, and the surface roughness is Ra0.025. The accuracy of the ring gauge can reach 0.0005mm, and a national metrology certificate can be provided.
- The material selected is SKD11 produced by Hitachi in Japan, and it has undergone cryogenic treatment to enhance its stability.

**The diameter of the ring gauge
(tolerance):**
Standard tolerance: ±0.001mm
Highest precision: ±0.0005mm



RING GAUGE FOR MEASURING INSTRUMENT

02

TUNGSTEN STEEL RING GAUGE(MS-TS)

- The roundness can reach 0.0005mm, and the surface roughness is Ra0.025. The accuracy of the ring
- It is made of tungsten steel material and has undergone special heat treatment. With a hardness of HRA91, it features high hardness and wear resistance, is not prone to deformation, and has extremely high precision.

The diameter of the ring gauge (tolerance):

Standard tolerance: $\pm 0.001\text{mm}$

Highest precision: $\pm 0.0005\text{mm}$



CERAMIC RING GAUGE(MS-CM)

- The roundness can reach 0.0005mm, and the surface roughness is Ra0.025. The accuracy of the ring gauge can reach 0.0005mm, and a national metrology certificate can be provided.
- The ceramic ring gauge is non-conductive, non-magnetic, resistant to high temperatures, and anti-static.

The diameter of the ring gauge (tolerance):

Standard tolerance: $\pm 0.001\text{mm}$

Highest precision: $\pm 0.0005\text{mm}$



HC2-A—Fully Automatic Coordinate Measuring Machine Joystick



HC2-B—Fully Automatic Optical Measuring Instrument Joystick



HC3—Optical Measuring Instrument Joystick

- HC2/HC3 is an industry-specific industrial joystick specially developed for high-end optical measuring instruments and coordinate measuring machines. It is used in combination with the UWC4000P, UWC3500 and Hotar controllers.

JOYSTICK FOR MEAURING INSTRUMENT CODE:HC

02

● HC2 is an industry-specific industrial joystick specially developed for high-end optical measuring instruments and coordinate measuring machines. It is used in combination with the UWC4000P, UWC3500 and Hotar controllers.

Functional Features:

- It is specially developed for applications in optical measuring instruments and coordinate measuring machines, and features an ergonomic design.
- It uses a Hall-type joystick handle, which is non-contact, has a long service life, and a small dead - zone range.
- It adopts rubber-buffered buttons, which have a long service life and high reliability. There are four magnetic suckers and rubber pads at the bottom, ensuring stable and reliable placement.
- The LCD screen can display the coordinates of the probe holder, the speed ratio, abnormal codes, and the status of the pressure valve, emergency stop, etc.
- Blind pressing can be achieved through the "Braille" raised icons on the buttons, enabling one's eyes to focus on the measuring probe and the workpiece being measured.
- The buttons with switch attributes are all equipped with indicator lights.
- With an ergonomic design, the convex bumps at the bottom of the previous generation joystick are removed, making the feel more comfortable when operated with both hands.
- The lead wires have two outlet methods: outlet from the head (for optical measuring instruments) and outlet from the tail (for coordinate measuring machines), and you can choose according to different application scenarios.
- The "acceleration key" is designed at the position accessible by the thumb, which is especially suitable for the rapid movement of the coordinate measuring machine.
- The coordinate measuring machine version adopts a force feedback type joystick handle, which is more suitable for two-handed operation.
- It is directly connected to the Joystick interface of the UWC series controllers. The reporting frame rate is as high as 150, resulting in less control delay.

HC2-A—Fully Automatic Coordinate Measuring Machine Joystick



HC2-B—Fully Automatic Optical Measuring Instrument Joystick



HC3—Optical Measuring Instrument Joystick



RENISHAW PRECISION PROBE



M2 Ø3

M2 Ø4

M2 Ø5

M3 Ø1.5



M3 Ø2

M4 Ø1

M4 Ø6

M4 Ø6

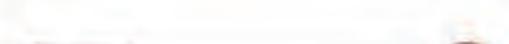


M5 Ø1

M5 Ø2

M5 Ø6

RENISHAW PRECISION PROBE

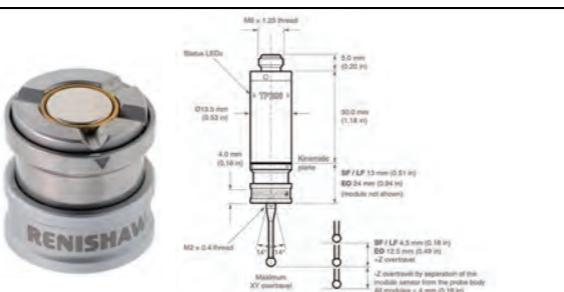
M2 Ø3 mm ruby measuring sphere, tungsten carbide probe rod, length 50 mm, effective working length 47 mm	
M2 Ø4 mm ruby measuring sphere, tungsten carbide probe rod, length 30 mm, effective working length 30 mm	
M2 Ø5 mm ruby measuring sphere, tungsten carbide probe rod, length 20 mm, effective working length 20 mm	
M3 Ø1.5 mm ruby measuring sphere, tungsten carbide probe rod, length 20 mm, effective working length 12.5 mm	
M3 Ø2 mm ruby measuring sphere, tungsten carbide probe rod, length 30 mm, effective working length 22.8 mm	
M4 Ø1 mm ruby measuring sphere, tungsten carbide probe rod, length 20 mm, effective working length 10 mm	

RENISHAW PRECISION PROBE

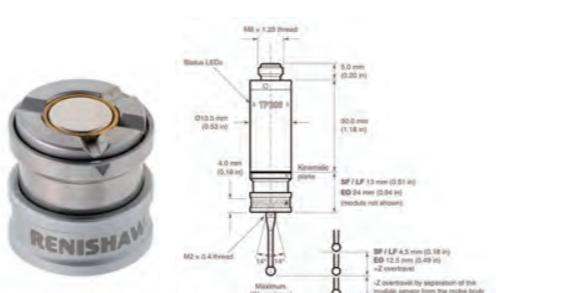
M4 Ø6 mm ruby measuring sphere, tungsten carbide probe rod, length 50 mm, effective working length 40.7 mm	
M4 Ø6 mm ruby measuring sphere, carbon fiber probe rod, length 100 mm, effective working length 88.5 mm	
M5 Ø1 mm ruby measuring sphere, tungsten carbide probe rod, length 30 mm, effective working length 5 mm	
M5 Ø2 mm ruby measuring sphere, tungsten carbide probe rod, length 30 mm, effective working length 21 mm	
M5 Ø6 mm ruby measuring sphere, carbon fiber probe rod, length 50 mm, effective working length 39.5 mm	

RENISHAW PROBE MODULE

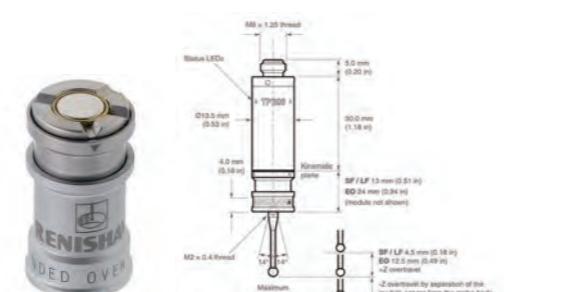
TP200 Standard Force Measuring Probe Module - SF



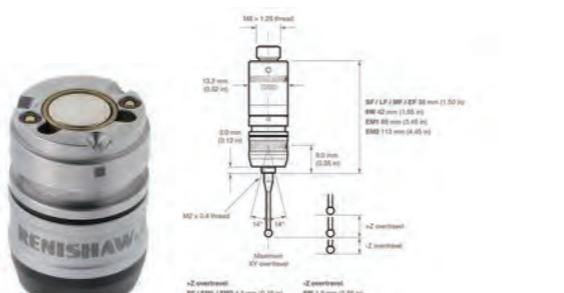
TP200 Low Force Measuring Probe Module - LF



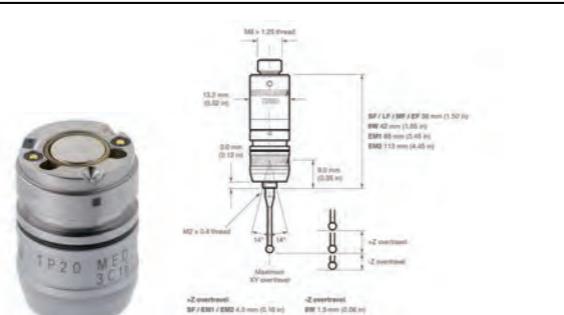
TP200 EO Probe Module



TP20 Standard Force Measuring Module



TP20 Medium Force Measuring Module



TP20 Enhanced Force Measuring Module



TP20 Low Force Measuring Module



TP20 Six-direction Probe Head Module



EM1 Standard Force Module (50 mm Extension)



EM2 Standard Force Module (75 mm Extension)



RENISHAW PROBE MODULE

02	SM25-1 Scanning Module Assembly	
02	SM25-2 Scanning Module Assembly	
02	SM25-3 Scanning Module Assembly	
02	SM25-4 Scanning Module Assembly	
02	SM25-5 Scanning Module Assembly	
02	TM25-20 Trigger Probe Module Adapter Assembly	

MEASURING MACHINE COMPOSITE FIXTURE

Name	Qty	Code	
Elastic Pressing Plate	4	MS-100-S100	
Short Steel Wire Pressing Plate	4	MS-100-S101	
Long Steel Wire Pressing Plate	4	MS-100-S102	
Short Pressing Plate Support Rod	8	MS-100-S103	
Long Pressing Plate Support Rod	3	MS-100-S104	
Support Rod with Diameter 6*5mm	3	MS-100-S0605	
Support Rod with Diameter 6*10mm	6	MS-100-S0610	
Support Rod with Diameter 6*25mm	6	MS-100-S0625	
Support Rod with Diameter 9*5mm	3	MS-100-S0905	
Support Rod with Diameter 9*10mm	6	MS-100-S0910	
Support Rod with Diameter 9*20mm	6	MS-100-S0920	
Support Rod with Diameter 9*25mm	6	MS-100-S0925	
Support Rod with Diameter 12*10mm	6	MS-100-S1210	
Support Rod with Diameter 12*25mm	6	MS-100-S1225	
Support Rod with Diameter 6*10mm (Flat Head)	4	MS-100-S0610F	
Support Rod with Diameter 9*10mm (Flat Head)	4	MS-100-S0910F	
Support Rod with Diameter 12*10mm (Flat Head)	4	MS-100-S1210F	
Adjustable Height Support Rod with Diameter 9mm	2	MS-100-S1009	
Spherical Support Rod with Diameter 6mm	2	MS-100-S106	
Male Connector of Commutation Square	2	MS-100-F100	
Elastic Bracket Locking Screw	2	MS-100-F101	
Right Angle Positioning Block	1	MS-100-F102	
Sliding Connection Plate	4	MS-100-F103	
Commutation Square	1	MS-100-F104	
Commutation Square Base	1	MS-100-F105	
Elastic Bracket	1	MS-100-F106	
M4-M8 Conversion Rod	4	MS-100-F107	
Transparent Sliding Connection Plate	8	MS-100-F108	
M3 Wrench	1	MS-100-F109	
Firmware Tray	1	MS-100-F110	
M4×10 Screw	20	MS-100-F111	
Packing Box	1	MS-100-P100	

Product	Name	Page	Product	Name	Page
	Cutting	123		Cutting Consumables	151
	Mounting Press	143		Mounting Press Consumables	156
	Grinding Polishing	149		Grinding Polishing Consumables	168

MANUAL/AUTO PRECISION METALLOGRAPHIC CUTTER

CODE:MCut-30



03

- MCut-30 manual/auto precision cutting machine adopts the Stepper motor which drives the belt to control the cut-off wheel to achieve effective speed.
- With touch screen control, clear display, and reasonable function.
- The cutting feed can be controlled by cut-off wheel propulsion or by cutting table propulsion according to the different materials or personal habits, also it can automatically finish cutting according to set parameters.
- With built-in independent stainless steel circulating filter cooling water tank, combined with 80% water and 20% cutting fluid, it can effectively avoid the sample surface heat and prevent rail and ball screw rust.
- The machine has safety protection function for opening the cover. The working area is totally enclosed and has a transparent cover for observation during cutting.
- The cutting table can be equipped with different clamping tools which can be freely disassembled and cleaned.



Vertical Clamp

STANDARD DELIVERY

Machine Mainframe	1 set
Diamond cut-off wheel	1 pc
Cutting Fluid	1 bottle
Spanner	Each 1 pc
Inner Hexagon Spanner	1 pc
Vertical Clamp Spanner	1 pc
Power Cable	1 pc
Outlet Water Pipe	1 pc
Inlet Water Pipe	1 pc



Diamond cut-off wheel



Cutting Fluid

OPTIONAL DELIVERY

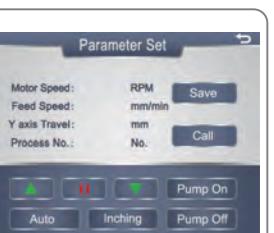
CBN Cut-off Wheel	CBN-M
Aluminum Oxide Cut-off Wheels	A060/A050/A030
External Water Tank	MS-WT
Cutting Fluid	CF-1L/CF-4L



Welcome Interface



Main Interface



Parameter Set

METALLOGRAPHIC PRECISION CUTTER (LOW SPEED)

CODE:uCut-40



VIDEO

- Workpieces up to 40 x 50 mm.
- High-precision tabletop machine.
- Low speed protects against heat deformation.
- Accuracy of +0.01 mm. 100-175mm (4-7") CBN and diamond cut-off wheels.
- A small, low-speed, automatic precision cutting machine for sectioning small and delicate materialographic workpieces that can't tolerate the heat generated by high-speed cutting.
- uCut-40 is designed with speed and efficiency in mind. The simple design means it only takes a few minutes to setup a cut, and the machine can be set to stop automatically once the cut is done, unguarded processing can be realized and giving you more time to work on other tasks.
- The gravity feed design allows for sectioning of various material types, with high accuracy and reproducibility, easy to operate and the feeding speed of cutting sample is fine-tuned to minimize sample damage.
- Simple and intuitive operation menu.
- Closed transparent protective cover and safety switch provide protection for operators, easy to observe.
- Closed loop control cutting to prevent overloading to burn motor, circuit, etc.
- Ultra-thin cut-off wheel, such as 0.4mm thick diamond cut-off wheel, using the micrometer screw, with accuracy of 0.01 mm, to achieve precision cutting, make it ideal for small pieces that require high precision.
- 7 pieces of different sample fixture to meet the cutting requirements of different samples.
- Large size circuit board table cutting device (optional), convenient for wafer material, circuit board, glass and other large size sample cutting.
- Sintered diamond cut-off wheel, easily precision cutting for glass, circuit, board rock, and other solid materials.

03

STANDARD DELIVERY

Diamond Cut-off Wheel	1 pc
Single Saddle Fixture	1 pc
Double Saddle Fixture	1 pc
Irregular Fixture	1 pc
Mounting Fixture (30mm)	1 pc
Mounting Fixture (40mm)	1 pc
Tear-shape Fixture	1 pc
Counterweight Components	1 set
Flat Fixture	1 pc
Cutting Fluid 200 ml	1 bottle
Wrench 13-15, 14-17	Each 1pc
Micrometer	1 pc
Hexagon Wrench (2.5mm)	1 pc
Hexagon Wrench (4.0mm)	1 pc
Hexagon Wrench (5.0mm)	1 pc
Hexagon Wrench (6.0mm)	1 pc
Power Cord	1 pc

OPTIONAL DELIVERY

CBN Cut-off Wheel	CBN-M
Aluminum Oxide Cut-off Wheels	A060/A050/A030
Cutting Fluid	CF-1L/CF-4L
Table Cutting Device	MS-TCD

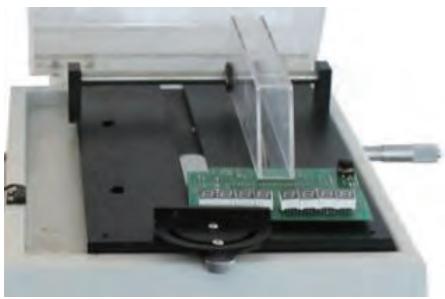
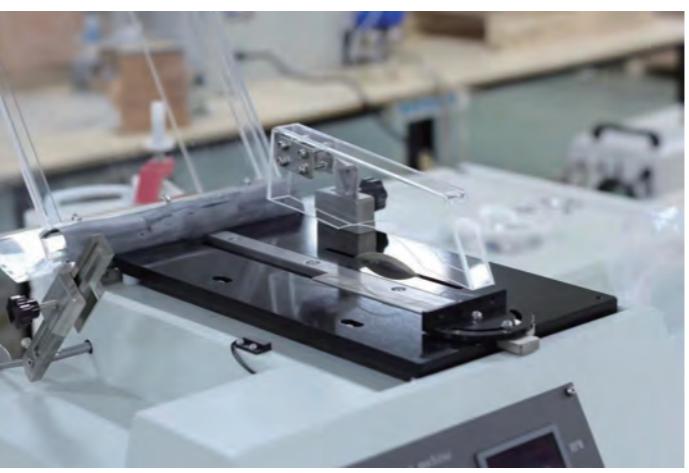


Table Cutting Device (Optional)



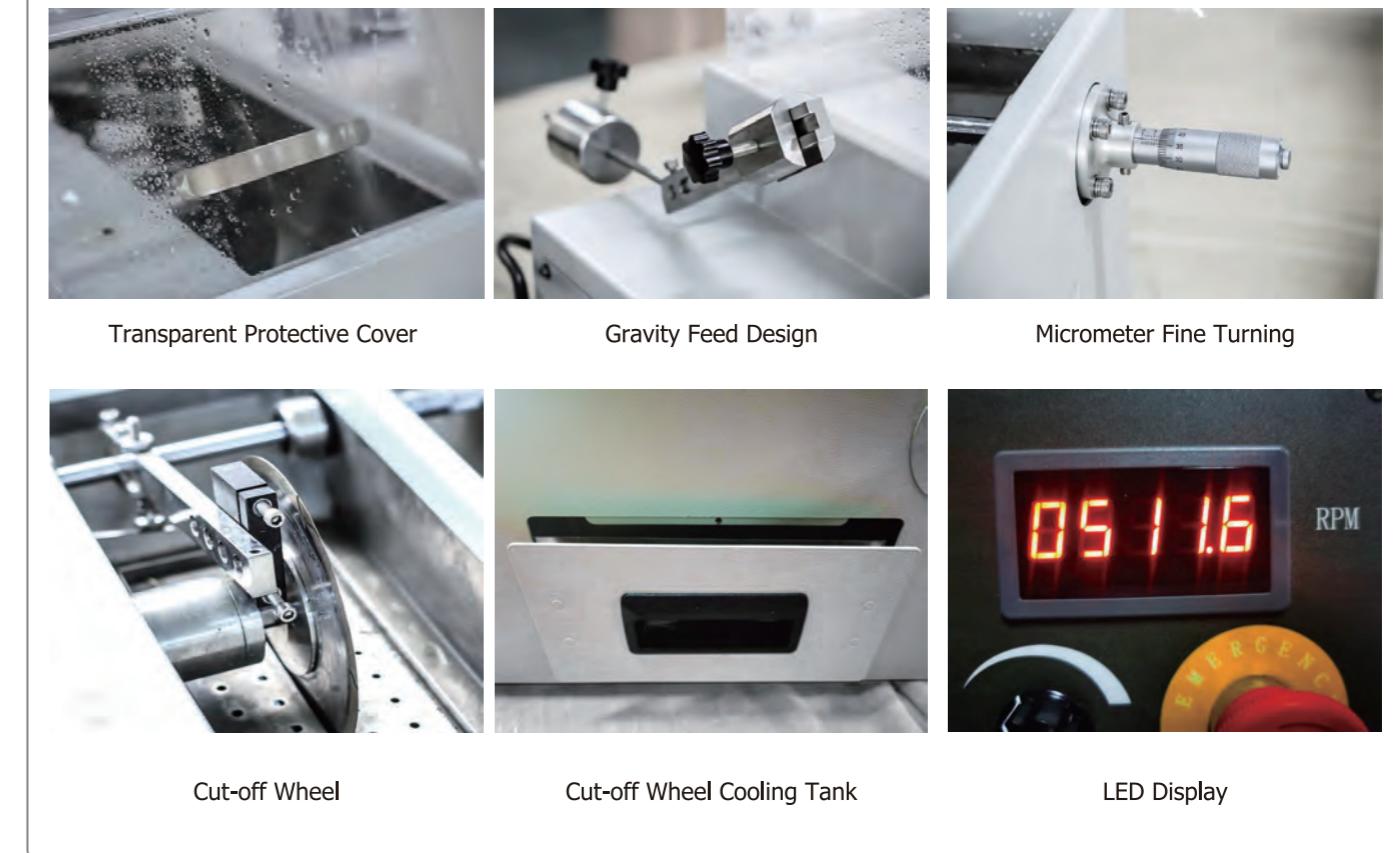
TECHNICAL SPECIFICATION

Model	uCut-40
Product Name	Metallographic Precision Cutting Machine
Cutting Capacity	40x50mm/1.6"x2.0"
Brushless DC Motor	Power: 550W Speed: 0-1500rpm
Control	Touch Pad & Turn Knob
Recirculation Cooling Tank	800ml/0.22gallons
Specimen Holder Arm	Balance Weight: 550g/ 20 Ounces
Surrounding Temperature	Cutting Weight: 250g/9 Ounces
Humidity	5-40°C/-13-131°F
Cut-off wheel	Less Than 95% RH Non-condensing
Cutting Positioning Accuracy	Standard Diamond Cut-off Wheel
Built-in Cooling System	150x12.7x0.43mm (6")
Display	0.01 mm
Emergency Brake	Automatic Circulating Cooling Of Cutting Fluid (Cutting Disc Drives Water Circulating Cooling Of Flume)
Power Supply	LED Digital Display
Overall Dimensions	Emergency Stop Switch
Weight	AC100-240V/ 50-60HZ
	520 x 430 x 390 mm (20.5x17x15")
	33kg (72.6lbs)

03

METALLOGRAPHIC PRECISION CUTTER (LOW SPEED)

CODE:uCut-40



METALLOGRAPHIC PRECISION CUTTER (HIGH SPEED)

CODE:uCut-60



VIDEO

Transparent Window



03

STANDARD DELIVERY

Open End Spanner (22-24, 17-19)	Each 1
6mm Inner Hexagon Wrench	1 pc
5mm Inner Hexagon Wrench	1 pc
Power Cord	1 pc
Ø200mm Diamond Cut-off Wheel	1 pc
Cooling System	1 set
1L Cutting Fluid	1 bottle
Hose Hoops 13 To 19	2 pc
Hose Hoops 40-63	2 pc
External Water Tank	1 pc

OPTIONAL DELIVERY

CBN Cut-off Wheel	CBN-M
Aluminum Oxide Cut-off Wheels	A060/A050/A030
Cutting Fluid	CF-4L



Diamond Cut-off Wheel



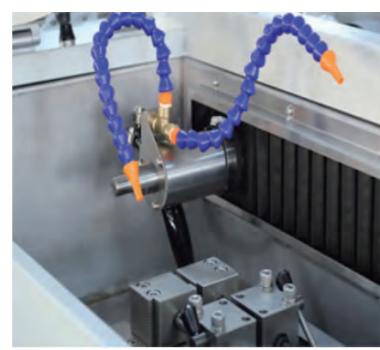
External Water Tank



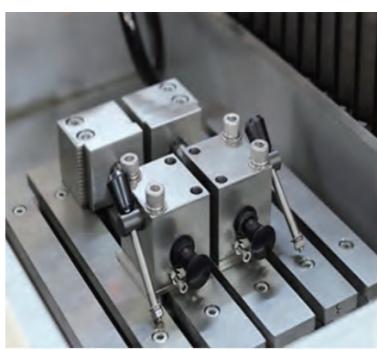
Cutting Fluid



Closed Loop Control Spindle



Cutting Chamber



Quick Fixture

TECHNICAL SPECIFICATION

Cut-off Wheel	Standard Size Ø200 x 32 x 0.9mm, Diamond/CBN/Resin
Spindle Speed	500-3000r/min (Optional 500-5000r/min) Adjustable
Feeding Speed	0.01- 3 mm/s
Manual Feeding Speed	0-5mm/s
Backward Speed	0-5mm/s
Impact Cutting Distance	0.1- 2 mm
Cutting Stroke (Y-axis)	200mm
X-stage Movement(uCut-60X)	Precision:0.01mm, Range:40mm
Maximum Cutting Diameter	Ø60 mm
Cutting Table Size	216x240mm(X*Y)
Maximum Clamping Length Of Fixture	150mm
Maximum Clamping Width Of Fixture	215mm
Servo Motor	1.5 kw
Usage Method Data	12 Kinds Can Be Stored
Power Supply	AC220V 50HZ
Mainframe Dimensions	750 * 870 * 455 mm
Net Weight	126KG



Water Inlet/ Outlet



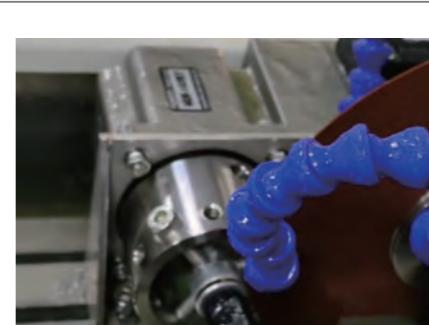
Safety Switch



Operation Interface



Optional X-axis Multiplicity Cutting



R-axis Rotating



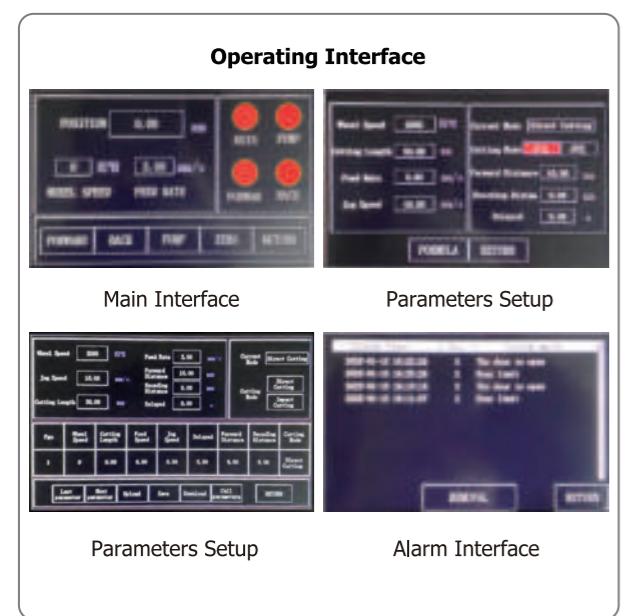
uCut-60R R-axis Precision Cutter

METALLOGRAPHIC PRECISION FLAT CUTTING MACHINE

CODE:iCut-40P



03



STANDARD DELIVERY

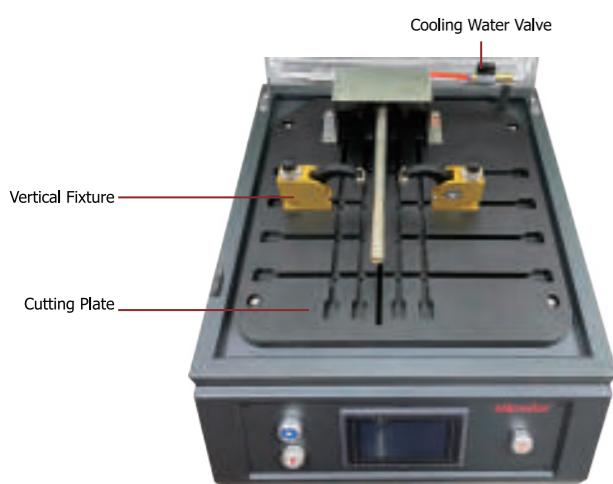
Mainframe	1 set
Outlet Pipe	1 pc
Inlet Pipe	1 pc
Wrench	1 pc
Allen Wrench	1 pc
Water Pump	1 pc
Cutting Fluid	1 pc
Diamond Cut-off Wheel	1 pc
Water Tank	1 pc

OPTIONAL DELIVERY

CBN Cut-off Wheel	CBN-M
Aluminum Oxide Cut-off Wheels	A060/A050/A030
Cutting Fluid	CF-1L/CF-4L
Quick Fixture	MS-QF
Vertical Fixture	MS-VF

TECHNICAL SPECIFICATION

Cutting Method	Straight Line, Pulse
Display	5 Inch Touch Screen
Impact Cutting Distance	0.1-2mm/s
Max Cutting Capacity	40mm
Manual Y-axis Movement Speed	0.01-15mm/s
Auto Cutting Speed	0.01~3.00mm/s (Adjustable Step Size 0.01)
Cut-off Wheel Rotation	500~3000r/min
Max Travel	Y-axis 200mm
Cut-off Wheel Size	200*32*1mm
Power	600W
Power Source	200V 50Hz
Dimensions	530*600*410mm
Net Weight	80KG



•Generous and smooth body, providing a good working platform. And it adopts high torque and high-power servo motors and stepless variable speed control system, with high and stable working efficiency. It is a flat cutting machine developed for flat samples;
 •Good visibility and cutting capacity, minimizing operation difficulty. It has a large transparent protective cutting chamber, which allows for intuitive observation of the cutting process. It is easy to use and is a high-quality precision cutting machine suitable for scientific research institutions and enterprises
 •Touch screen display, adjusting and controlling high-precision spindle speed, spindle cutting movement speed, and cutting distance, making it easier to use and operate. It has automatic cutting function, reducing operator fatigue and ensuring consistency of the sample cutting machine

METALLOGRAPHIC ABRASIVE CUTTING MACHINE(MANUAL)

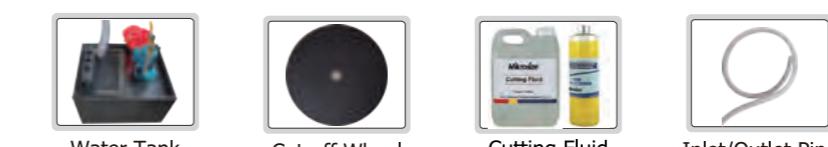
CODE:iCut-80M & iCut-100M



03

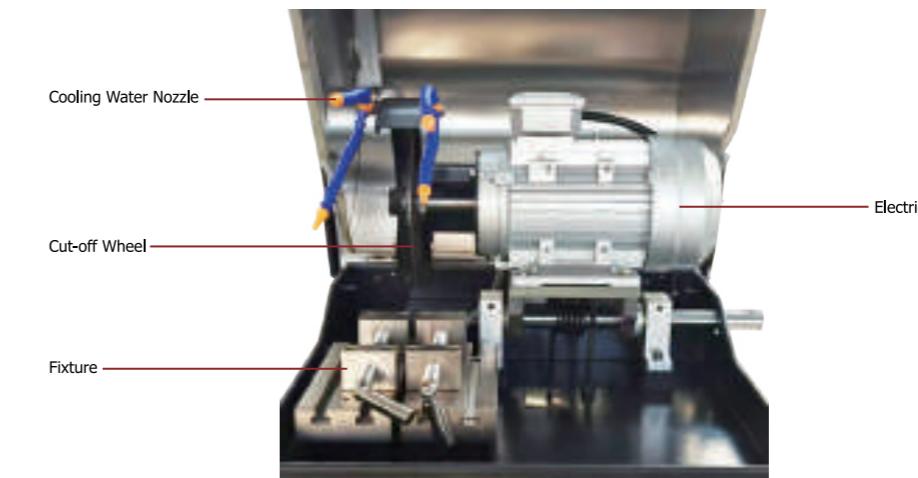
•The outer shell is made of stainless steel;
 •Equipped with a large observation window;
 •LED lighting is installed in the cutting room to achieve effective lighting of all areas of the entire cutting room; it increases the brightness and clarity of the workroom;
 •Highly wear-resistant grinding wheel cutting discs are used, with neat cuts and good cutting effects;
 •Equipped with multiple cooling water spray nozzles with adjustable directions to ensure effective cooling of the cutting part;
 •Bilateral quick clamp.

TECHNICAL SPECIFICATION	
Product Name	Metallographic Abrasive Cutting Machine
Model	iCut-80M iCut-100M
Cutting Capacity	80mm 100mm
Spindle Speed	2800rpm
Power	3kw
Input Voltage	Three Phase 380V 50HZ
Cut-off Wheel	250*2*32mm 300*2*32mm
Machine Dimension	650*715*545mm 680*800*631mm
Net Weight	117kg 135kg



STANDARD DELIVERY	
Machine Mainframe	1 set
Water Tank (Including Pump)	1 pc
Cut-off Wheel 250*2*32mm	1 pc
Pipe Clamp 30mm	1 pc
Wrench 36mm	1 pc
Wrench 30-32mm	1 pc
Inlet Pipe	1 pc
Outlet Pipe	1 pc

OPTIONAL DELIVERY	
Aluminum Oxide Cut-off Wheels	A060/A050/A030
Cutting Fluid	CF-1L/CF-4L
Vertical Fixture	MS-VF



MANUAL METALLOGRAPHIC CUTTER (CUTTING CAPACITY: 85MM)

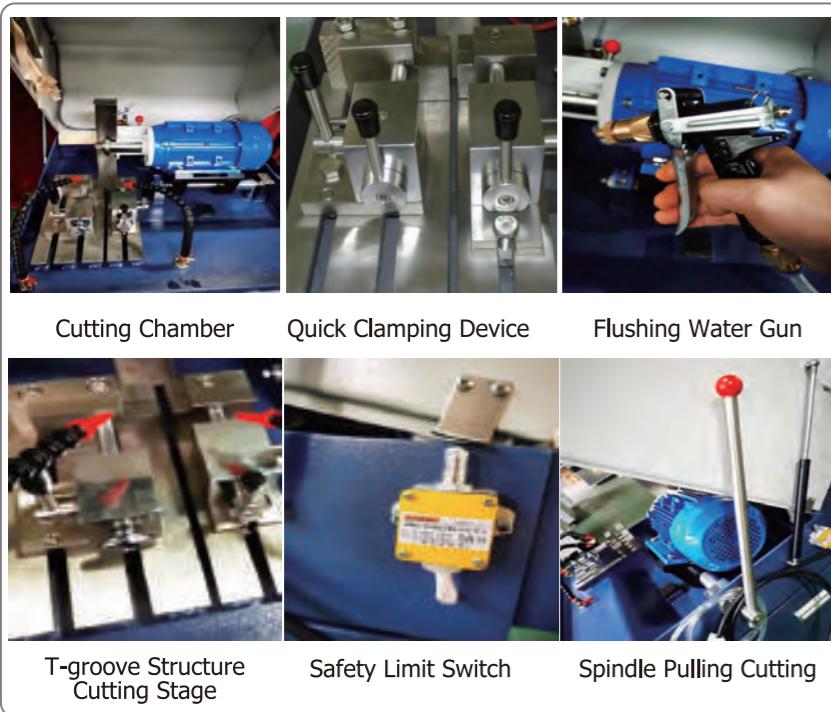
CODE:MCut-85



- High motor rotating speed and powerful cutting ability.
- Double-sided clamp device, fix sample firmly.
- Main parts of the clamp and cutting table are all made of stainless steel.
- Cutting chamber adopts closed structure with safety limit switch.
- An opening window in the left cover used for cutting long strip samples.
- Transparent organic glass window and built-in LED lamp for observation.
- Equipped with circulating cooling water system, the sample surface after cutting is bright and flat without burns.

TECHNICAL SPECIFICATION

Model	MCut-85
Cutting Method	Manual
Cut-off Wheel	Φ300×2×Φ32mm
Max. Cutting Capacity	85×85mm
Spindle Speed	2800r/min
Electromotor Power	3kW
Cutting Stage	204×240mm, T-slot 12mm
Clamping Device	Quick Clamp, Jaw Height 60mm
Power Supply	380V, 50Hz, 10A, Three-phase Four-wire
Dimensions	730×700×540mm (750×730×1200mm floor type)
Net Weight	125kg(180kg floor type)
Water Tank Capacity	60L
Pump Flow	25L/min
Water Tank Dimensions	565×360×600mm
Water Tank Weight	27kg



STANDARD DELIVERY

Machine Mainframe	1 set
Water Tank	1 set
Cut-off Wheel	2 pcs
Cutting Fluid	1 bottle
Spanner	Each 1 pc
Inner Hexagon Spanner	Each 1 pc
Water Inlet Pipe	2 pcs
Water Outlet Pipe	1 pc

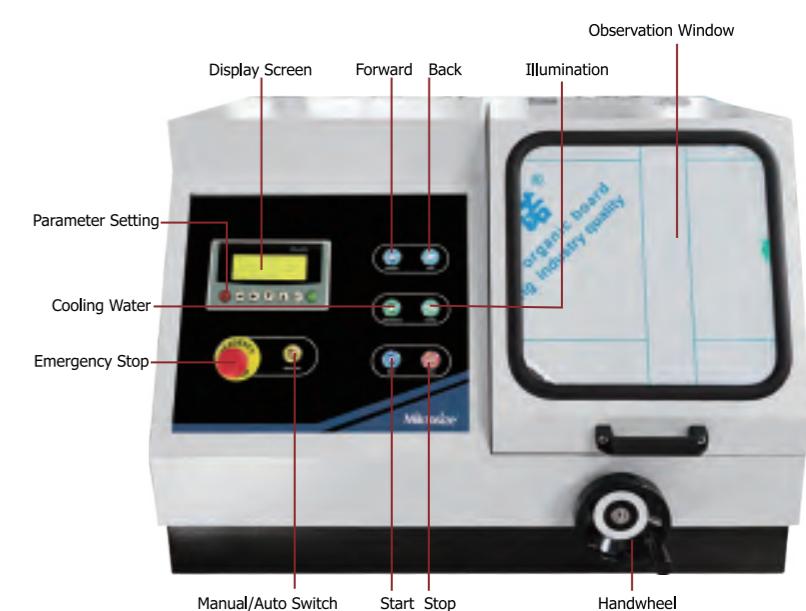


OPTIONAL DELIVERY

Aluminum Oxide Cut-off Wheels	A060/A050/A030
Cutting Fluid	CF-1L/CF-4L
Vertical Fixture	MS-VF

METALLOGRAPHIC AUTOMATIC CUTTING MACHINE

CODE:iCut-80A



- Stainless steel housing
- Extra-large cutting chamber
- Manual/automatic dual cutting mode
- Enclosed cutting
- Automatic 3-channel cooling system to avoid damage to samples due to overheating
- Pattern programming is more suitable for batch cutting sampling
- Automatic reset function of the cutting knife after sampling
- Real-time tracking and display of feed depth (LCD digital display)
- Arbitrary setting of feed stroke (0-200mm)

STANDARD DELIVERY

Machine Mainframe	1 set
Water Tank (including water pump)	1 pc
Cut-off Wheel 350*2.5*32mm	2 pcs
Pipe Clamp	4 pcs
Wrench 24-27mm	1 pc
Wrench 36mm	1 pc
Inlet Pipe	1 pc
Outlet Pipe	1 pc

OPTIONAL DELIVERY

Aluminum Oxide	A060/A050/
Cut-off Wheels	A030
Cutting Fluid	CF-1L/CF-4L
Vertical Fixture	MS-VF



TECHNICAL SPECIFICATION

Product Name	Metallographic Automatic Cutting Machine
Model	iCut-80A
Cutting Chamber Housing	Steel Plate
Cutting Capacity	80mm (Pipe)
Feed Depth Tracking	LCD Digital Display
Platform Y-axis Movement	275mm
Cutting Table Dimensions	310X280mm
Cutting Disc Specifications	350X2.5X32mm
Clamping Table Specifications	The Fixture Is Divided Into Left And Right, With A Central Cutting Edge.
Cutting Method	Manual/ Automatic
Feeding Method	Adjustable (Manual, Automatic)
Cutting Speed	0.1-2.5mm/s, Automatic Cutting Mode Can Be Selected: Intermittent Cutting (Metal Workpiece) And Continuous Cutting (Non-metal Workpiece)
Feed Distance	Arbitrary Setting (0-200mm)
Reset Method	Automatic Reset
Cooling System	Automatic (Water Cooling 3 Channels)
Water Tank Capacity	50L
Spindle Speed	2150rpm
Motor Power	3kW
Machine Type	Desktop
Machine Dimension	900×790×600mm
Power Supply	380V
Gross Weight	150KG

Others: Special Workpieces Can Be Customized (Disc Fixture, Rack Fixture, Universal Fixture)



MANUAL / AUTO ABRASIVE METALLOGRAPHIC CUTTER

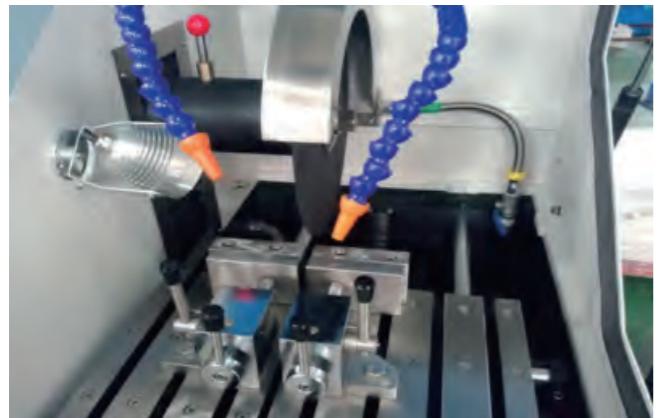
CODE:MCut-90A



03

STANDARD DELIVERY

Machine Mainframe	1 set
Water Tank	1 set
Cut-off Wheel	2 pcs
Cutting Fluid	1 bottle
Spanner	Each 1 pc
Water Inlet Pipe	1 pc
Water Outlet Pipe	1 pc
Fan Pipe	1 pc
Fan	1 pc



Cutting Chamber



Horizontal Clamping Vice

Water Tank

Vertical Clamping Vice



Cut-off Wheel

Cutting Fluid

OPTIONAL DELIVERY

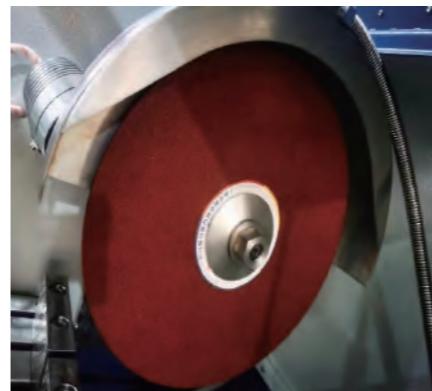
Aluminum Oxide Cut-off Wheels	A060/A050/A030
Cutting Fluid	CF-1L/CF-4L
Vertical Fixture	MS-VF

MANUAL / AUTO ABRASIVE METALLOGRAPHIC CUTTER

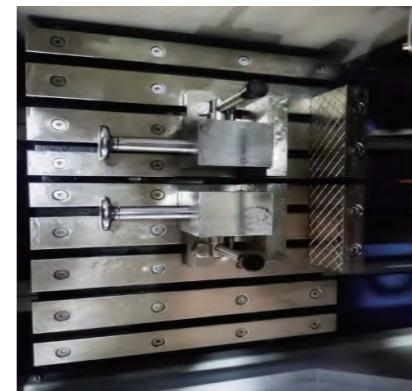
CODE:MCut-90A

TECHNICAL SPECIFICATION

Product Name	Manual /Auto Abrasive Metallographic Cutter
Model	MCut-90A
Cutting Method	Manual/Automatic, Y Axis Table Feeding
Cutting Mode	Continuous Cutting, Pulse Cutting
Feeding Speed	Manual / Automatic 1~240mm/min
Cut-off Wheel	Ø300×2×Ø32mm
Max. Cutting Capacity	Ø90mm
Y Axis Travel	260mm
X Axis Travel	40mm
Z Axis Travel	50mm
Spindle Speed	500~3000r/min
Electromotor Power	4kW
Cutting Table	435×300mm, T-slot 12mm
Clamping Vise	Quick Clamp, Jaw Height 60mm
Display and Control	10 inch Touch screen
Power Supply	380V, 50Hz, 12A, Three-phase Five-wire
Dimensions	910×935×1350mm
Net Weight	430kg
Water Tank Capacity	80L
Pump Flow	50L/min
Water Tank Dimensions	610×550×680mm
Water Tank Weight	85kg



Cut-off Wheel



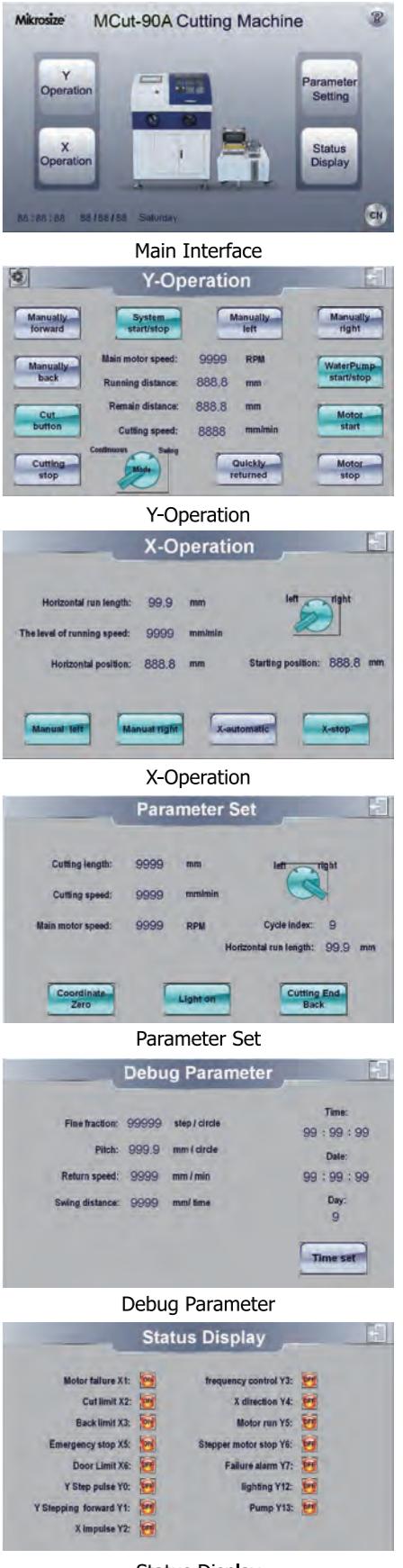
Quick Clamping Vise



LED Illumination Inside Cutting Chamber



Water Cooling System



Status Display

METALLOGRAPHIC AUTO ABRASIVE CUTTING MACHINE

CODE:iCut-100A



- Stainless steel housing
- Extra-large cutting chamber
- Manual/automatic dual cutting mode
- Enclosed cutting
- Automatic 3-channel cooling system to avoid damage to samples due to overheating
- Pattern programming is more suitable for batch cutting sampling
- Automatic reset function of the cutting knife after sampling
- Real-time tracking and display of the feed depth (LCD digital display)
- The feed stroke can be set arbitrarily (0-200mm)

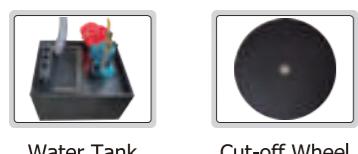
TECHNICAL SPECIFICATION

STANDARD DELIVERY

Machine Mainframe	1 set
Water Tank	1 pc
Cut-off Wheel 350×2.5×32mm	2 pcs
Outlet Pipe Ø32×1.5m	1 pc
Inlet Pipe Ø25×1.5m	1 pc
Hose Clamp	4 pcs
Wrench 24-27mm	1 pc
Wrench 36mm	1 pc

OPTIONAL DELIVERY

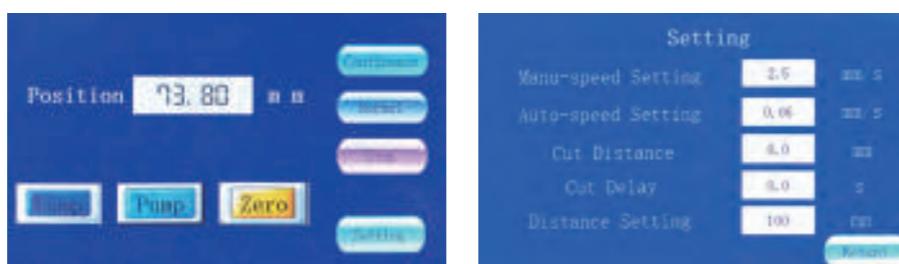
Aluminum Oxide Cut-off Wheels	A060/A050/A030
Cutting Fluid	CF-1L/CF-4L
Vertical Fixture	MS-VF



Water Tank Cut-off Wheel



Cutting Fluid Inlet/Outlet Pipe



Special Workpieces Can Be Customized: Disc Fixture, Rack Fixture, Universal Fixture

ABRASIVE METALLOGRAPHIC AUTOMATIC CUTTING MACHINE

CODE:iCut-110A/120A/130A



STANDARD DELIVERY

Machine Mainframe(with clamp)	1 set
Water Tank (with water pump)	1 pc
Cut-off Wheel 400×4×32mm	2 pcs
Clamp	1 pc
Outlet Pipe	1 pc
Inlet Pipe	1 pc
Pipe Hoop	2 pcs
Wrench	3 pcs

OPTIONAL DELIVERY

Aluminum Oxide Cut-off Wheels	A060/A050/A030
Cutting Fluid	CF-1L/CF-4L
Vertical Fixture	MS-VF



Cut-off Wheel External Water Tank Cutting Fluid



Machine Illumination



Cutting Chamber



Clamp

ABRASIVE METALLOGRAPHIC AUTOMATIC CUTTING MACHINE

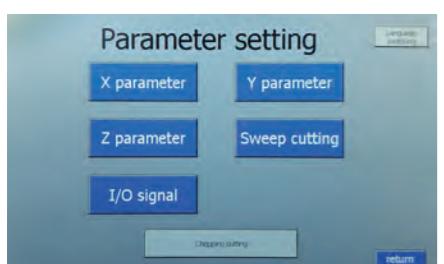
CODE:iCut-110A/120A/130A

TECHNICAL SPECIFICATION

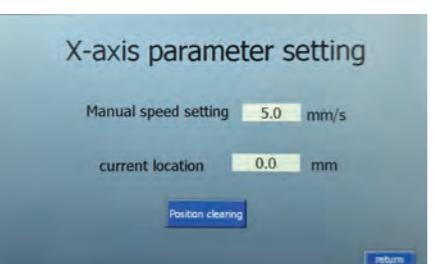
Product Name	Abrasive Metallographic Cutting Machine		
Model	iCut-110A	iCut-120A	iCut-130A
Max Cutting Diameter	φ110 mm	φ120 mm	φ130 mm
Cutting Method	Chop cutting, flat push cutting, sweep cutting		
Cutting Speed	0.01-1mm/s (adjustment step 0.01)		
Reset Mode	Automatic		
Control System	Siemens PLC 7"touch LCD screen		
Rotation Speed	2800rpm		
Max Stroke	Z-axis 130mm; Y-axis 200mm; X-axis 100mm		
Working Table Size	128*320mm, 180*320mm		
Cutting Disc	350*2.5*32mm		
Motor	4KW		
Voltage	AC380V±10%, 50-60Hz		
Machine Dimension	1350*1100*1750mm (L×W×H)		
Packing Size	1450*1200*1850mm		
Net Weight	707.5kg		
Gross Weight	727.5kg		

03

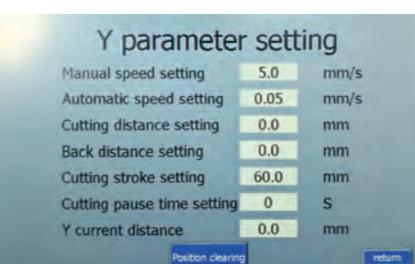
Operation Interface



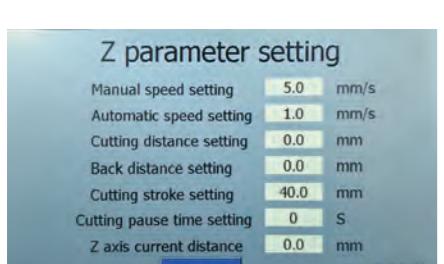
Parameter Setting



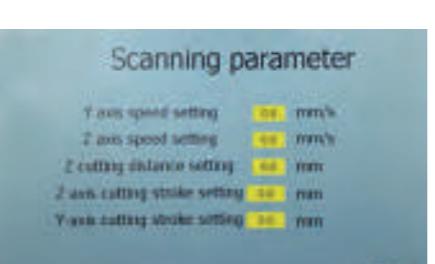
X-axis Parameter Settings



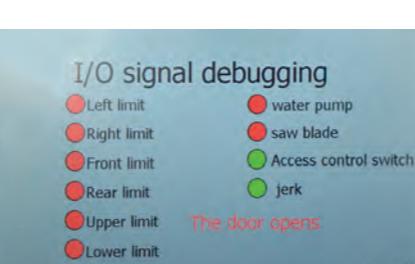
Y-axis Parameter Settings



Z-axis Parameter Settings

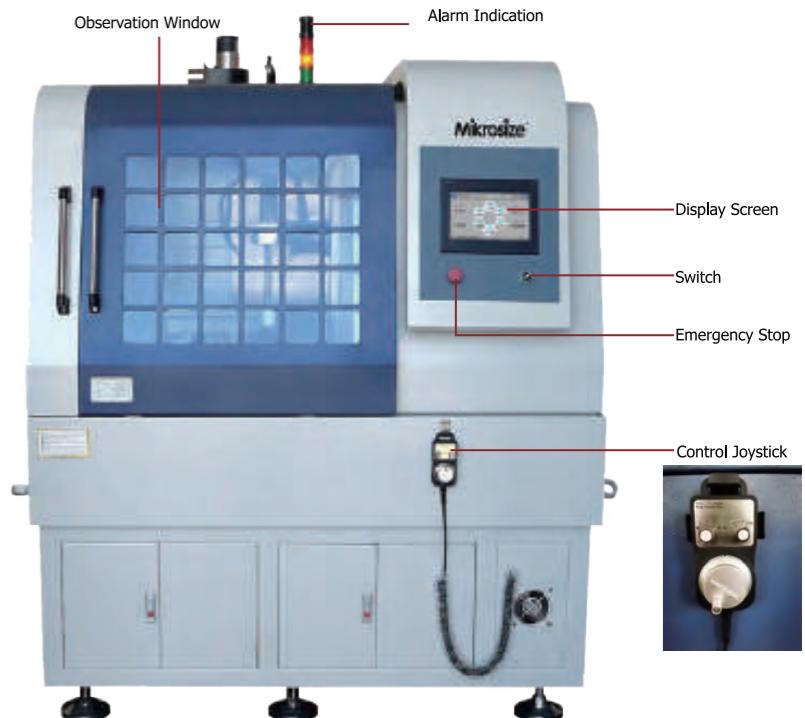


Scanning and Cutting Parameter Settings



I/O Signal Debugging Interface

- PLC controlled automatic metallographic cutting machine. Mitsubishi brand control system and servo motor.
- X, Y, Z axis controlled automatically and precisely.
- Intelligent cutting speed according to material's hardness, to achieve the fastest cutting efficiency.
- Frequency conversion controls cutting speed.
- Electro- handwheel, for automatic control.
- Touch screen displays various cutting data.
- Infrared precise positioning.
- 4 cutting modes: swing cutting, continuous cutting, reciprocating cutting, variable speed cutting.
- Cutting speed for solid steel cylinder can reach 10mm/min.
- Electro-mechanical separation design to facilitate cutting chamber cleaning and spindle motor security.
- Large observation window for cutting chamber installed, LED lights equipped inside.
- Ventilation fan ensures the efficient flow discharge of various steam and smoke caused by cutting.
- Ergonomics design, low noise, easy to operate, beautiful appearance, safety use.
- Vertical machine, mainly composed of upper safety cover, middle frame, right sliding door, side door, underside frame including electrical box, tool box inside, clamping fixture, rinsing tap, independent cooling water tank.
- Stepper speed, ABB 7.5KW frequency conversion motor directly connected to the cut-off wheel.
- Sliding door and hinged door is more convenient for you to place the large sample in the right position from three directions (up, front and left).



03

STANDARD DELIVERY

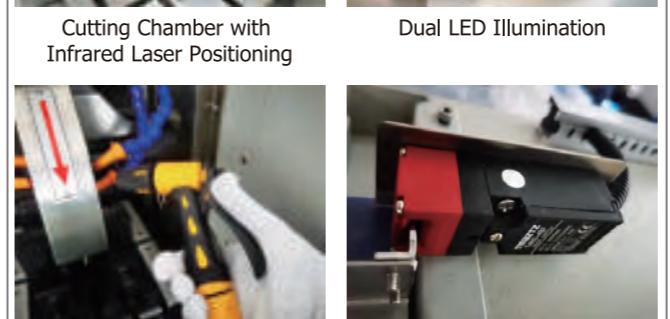
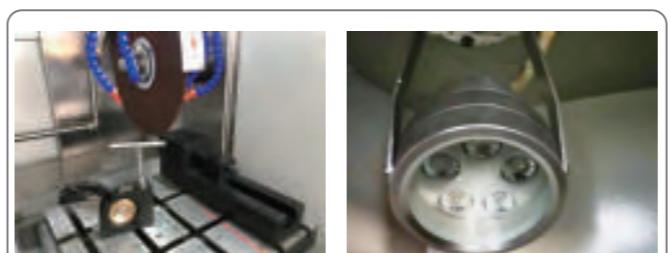
Machine Mainframe	1 set
Water Tank	1 set
Clamping Device	1 set
Spanner	2 pcs
Cut-off Wheel	2 pcs
Water Pipe	Inlet 1 pc, Outlet 1 pc



Water Tank
(Standard Delivery)

OPTIONAL DELIVERY

Aluminum Oxide Cut-off Wheels	A060/A050/A030
Cutting Fluid	CF-1L/CF-4L
Vertical Fixture	MS-VF



X,Y,Z-axis Controlled Automatically and Precisely



Cutting Fluid



Resin Cut-off Wheel

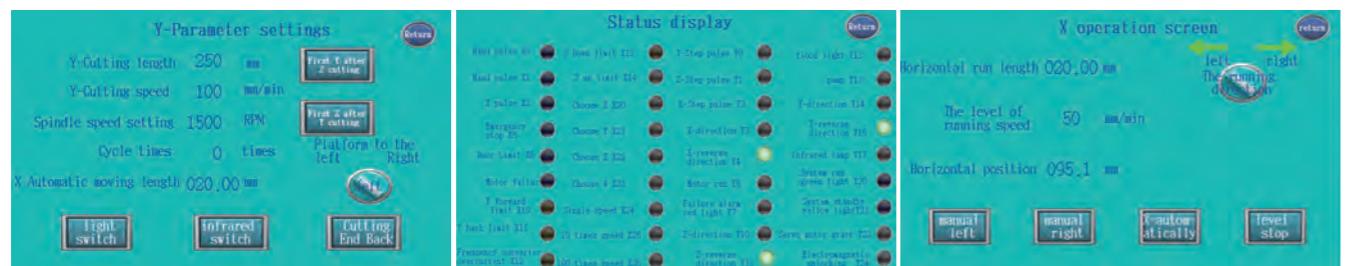
AUTO METALLOGRAPHIC ABRASIVE CUTTER

CODE:MCut-100A/120A/200A/300A

TECHNICAL SPECIFICATION

Auto Metallographic Abrasive Cutter			
Product Name	MCut-100A	MCut-120A	MCut-200A
Model	MCut-100A	MCut-120A	MCut-200A
Cutting Capacity (mm)			
100x100 120x120 200x150 300x150			
Function			
Automatic Gas Exhaust System, Alarm System, Dual LED Lighting, Infrared Laser Positioning			
Manual / Automatic X/Y/Z- Axis Linkage			
Control System			
10 Inch Touch Screen / Operating Handle-wheel			
Cut-off Wheel Dimension (mm)	Ø350xØ32x2.5	Ø380xØ32x2.8	Ø400xØ32x3
Cutting Feeding Speed	Ø400xØ32x3		
1~200mm/min			
X*Y Cutting Table Dimension (mm)	410x350	450x350	485x400
Y-axis Travel (mm)	250	250	300
Z-axis Travel (mm)	160	200	230
X-axis Travel (mm)	140	100	100
Clamp Opening (mm)	100	120	200
Spindle Motor (Frequency Conversion)	380V,50HZ,4kw	380V,50HZ,5.5kw	380V,50HZ,7.5kw
Power (Speed)	500-2800r/min	500-2800 r/min	500-2800 r/min
Feeding Motor	Servo Motor	Servo Motor	Servo Motor
Machine Dimensions (mm) (LxWxH)	1200*1100*1800	1450x1000x1850	1550x1100x1900
Net Weight (kg)	1700	1800	2200
Machine Power Supply	2500		
Water Tank	Volume (L)	80	120
	Dimension (mm)	610x550x680	700x630x800
	Weight (kg)	85	100
	Pump Flow (L/min)	50	100
3 Phases, 5 Lines 380V 50HZ			

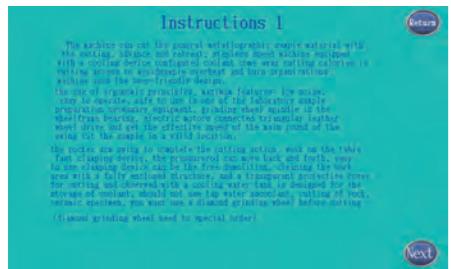
Touch Screen Interface



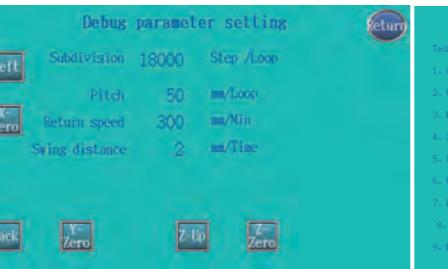
Y-parameter Settings

Status Display

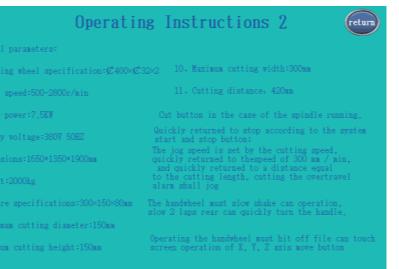
X Operation Screen



Instructions 1



Debug Parameter Setting



Operating Instructions 2

AUTO METALLOGRAPHIC MOUNTING PRESS(HYDRAULIC PRESSURE)

CODE:iPress-2HA/4HA



iPress-2HA

STANDARD DELIVERY

Machine Mainframe	1 set
Mounting Powder	1 bottle
Thermocouple	1 pc
Plastic Spoon	1 pc
Inlet Pipe	1 pc
Outlet Pipe	1 pc
Pipe Hoop	2 pcs
Filter	1 pc

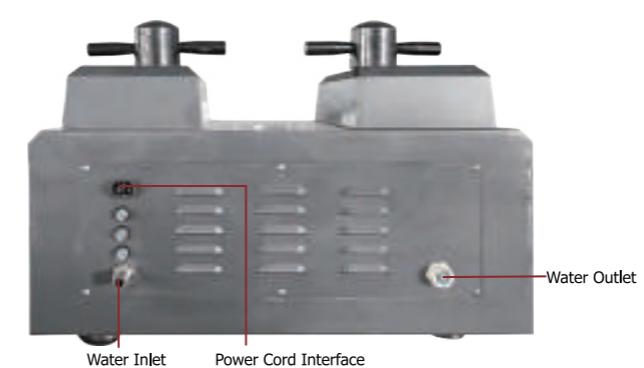


Sample Support Clip



Mounting Powder

- Multi-function mounting.
- Hydraulic control, the cylinder adopts special process design to achieve automatic heating and pressurization, automatic cooling and automatic shutdown after pressing and forming.
- Easy to operate, the inlay process is completed in about 5 minutes (except for transparent acrylic).
- Chinese and English interfaces can be switched.
- Parameters can be adjusted and displayed.
- 10 sets of data can be stored, and parameters such as temperature, time, and pressure can be displayed during operation.
- The cooling method is water cooling.



iPress-4HA



AUTO METALLOGRAPHIC MOUNTING PRESS(HYDRAULIC PRESSURE)

CODE:iPress-2HA/4HA

TECHNICAL SPECIFICATION

Product Name	Metallographic Automatic Hydraulic Mounting Press	
Model	iPress-2HA	iPress-4HA
Mounting Diameter	$\Phi 22\text{mm}$, $\Phi 30\text{mm}$, $\Phi 45\text{mm}$	
Heater	220V 1600W ($\Phi 22\text{mm}$, $\Phi 30\text{mm}$) /2000W($\Phi 45\text{mm}$)	
Sample Preparation Pressure	0-10MPa	
Heating Temperature Range	35-300°C	
Sample Preparation Time	About 6min	
Cooling Mode	Water cooling	
Machine Dimension	435*610*430mm	650*700*560mm
Net Weight	52KG	100KG
Gross Weight	64KG	111.5KG

03

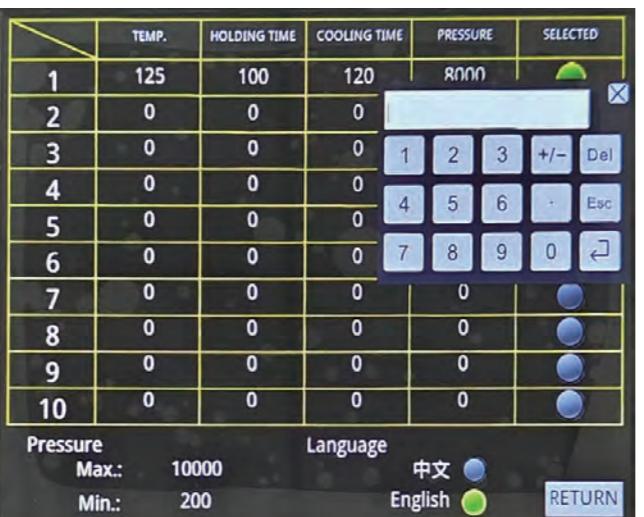
Operation Interface



Main Interface



Parameters Setting



Pre-setting Interface

AUTO METALLOGRAPHIC MOUNTING PRESS(MECHANICAL PRESSURE)

CODE:MPress-1MA



VIDEO

- Automatic motorized mechanical pressure metallographic sample mounting press adopts.
- Program controlled mounting process realizes the one-key operation of heating, loading, holding, cooling and unloading process.
- Gear motor with stable pressure.
- Audible and visual alarm function.
- Water cooling system.
- With stable and reliable performance.



Bakelite Powder in Different Color



Mounting Clamp



Conductive Mounting Material



Transparent Sample



Thermoplastic Mounting Material

TECHNICAL SPECIFICATION

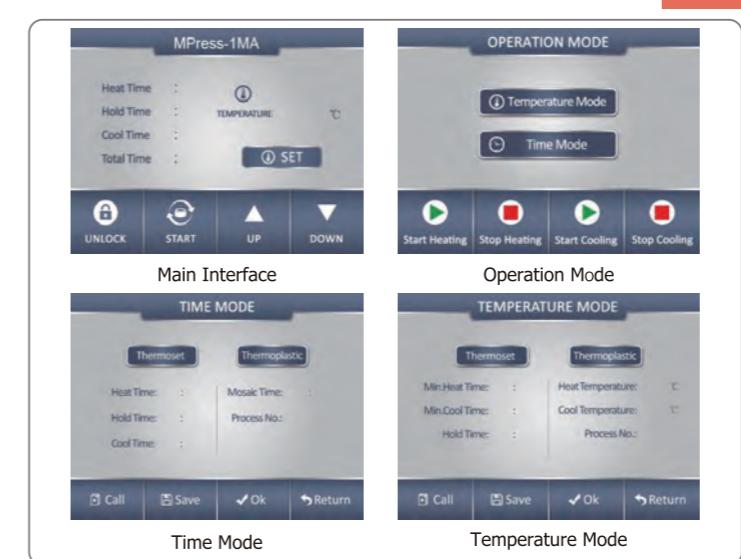
Model	MPress-1MA
Product Name	Auto Metallographic Mounting Press
Pressure Method	Motorized Mechanical
Mould Diameter	$\phi 25\text{mm}$, $\phi 30\text{mm}$, $\phi 40\text{mm}$ (Choose One)
Cavity Height	89mm
Heating Power	$\phi 25\text{mm}/\phi 30\text{mm}:900\text{W}$; $\phi 40\text{mm}:1.2\text{kW}$
Pressure	130bar
Electromotor Power	120W
Heating Temperature	50~180°C (The Default Is 120°C)
Heating Time	1~7min (The Default Is 5min30s)
Hold Time	30s~7min (The Default Is 1min)
Cooling Time	1~30min (The Default Is 2min20s)
Cooling Method	External Water Source Cooling
Power Supply	220V, 50Hz, 10A
Machine Dimensions	463×402×430mm
Net Weight	50kg

STANDARD DELIVERY

Machine Mainframe	1 set
Water Inlet Pipe	1 pc
Water Outlet Pipe	1 pc
Water Inlet Filter Screen	1 pc
Hoop	1 pc
Bakelite Powder	1 bottle
Measuring Cup	1 pc
Funnel	1 pc

OPTIONAL DELIVERY

Resin Hot Mounting Powder	PR-B/G/R
Conductivity Hot Mounting Powder	GCB
Edge Protection Hot Mounting Powder	EPB
Transparent Hot Mounting Powder	TM
Sample Support Clip	CLIP-2826S

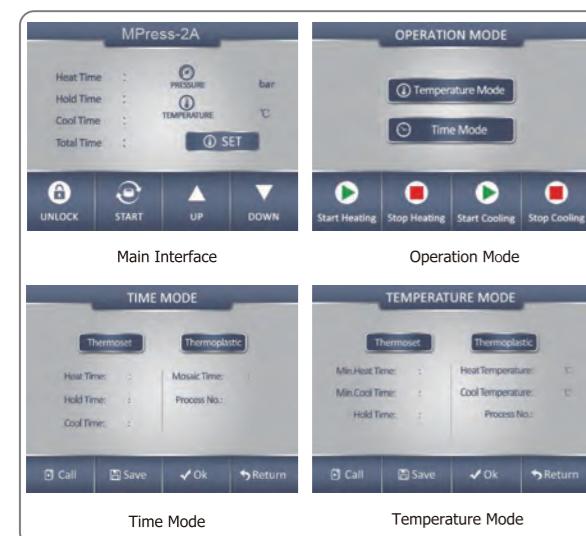


METALLOGRAPHIC AUTO MOUNTING PRESS(HYDRAULIC PRESSURE)

CODE:MPress-A



MPress-2A Auto Mounting Press (Dual)



TECHNICAL SPECIFICATION

Product Name	Metallographic Auto Mounting Press	
Model	MPress-1A	MPress-2A
Mounting Head	Single	Dual
Mould Diameter	Ø25mm, Ø30mm, Ø40mm (Choose one)	
Cavity Height	108mm, Effective 60mm	
Heating Power	Ø25mm/Ø30mm 1.2kW; Ø40mm 1.6kW	
Pressure	150bar (Equivalent To 15Mpa, 150kgf/cm ² , Not Adjustable)	
Heating Temperature	50~180°C (The Default Is 120°C)	
Hold Time	Adjustable (The Default Is Ø40mm 1min30s, Ø25mm/Ø30mm 1min)	
Cooling Method	External Water Source Cooling	
Power Supply	220V, 50Hz, 10A	
Machine Dimensions	520×480×520mm	650×600×550mm
Net Weight	60Kg	105kg

- Advanced hydraulic water-cooling automatic mounting press makes quickly sample mounting.
- Program controlled mounting process, realizing the one-key operation of heating, loading, holding, cooling and unloading.
- Audible and visual alarm function after sample mounted.
- Safe cooling and mounting separation design.
- High definition touch screen, displaying by curve of real-time pressure, temperature.
- Powerful hydraulic pump makes the mounted sample more compact.
- Special rotary locking design makes operation more convenient.

MPress-1A Auto Mounting Press (Single)



STANDARD DELIVERY

Machine Mainframe	1 set
Rotary Handle	1 pc
Upper Mould Block	1 pc
Pump Breathing Cap	1 pc
Water Inlet Pipe	1 pc
Water Outlet Pipe	1 pc
Water Inlet Filter Screen	1 pc
Hoop	1 pc
Bakelite Powder	1 bottle
Measuring Cup	1 pc
Funnel	1 pc

OPTIONAL DELIVERY

Resin Hot Mounting Powder	PR-B/G/R
Conductivity Hot Mounting Powder	GCB
Edge Protection Hot Mounting Powder	EPB
Transparent Hot Mounting Powder	TM
Sample Support Clip	CLIP-2826S

AUTO METALLOGRAPHIC MOUNTING PRESS (HYDRAULIC PRESSURE)

CODE:MPress-2HA



- MPress-2HA is an advanced hydraulic water-cooling automatic sample mounting press.
- Controlled by the one-chip computer program, which realizes the one-key operation of heating, loading, holding, cooling and unloading process.
- The sample mounting is automatically completed without operator on duty.
- The machine adopts hydraulic pump with higher pressure, which makes the sample more compact.
- Lengthened cavity and so two samples can be completed at the same time divided by middle block.
- Unique cold and heat separation design Plus emergency stop button makes it more safe and stable.
- Dual control of high-definition touch screen and physical keys, various mounting scheme can be saved.
- With water cooling system, it can finish two samples mounting in 7 minutes at the soonest.

TECHNICAL SPECIFICATION

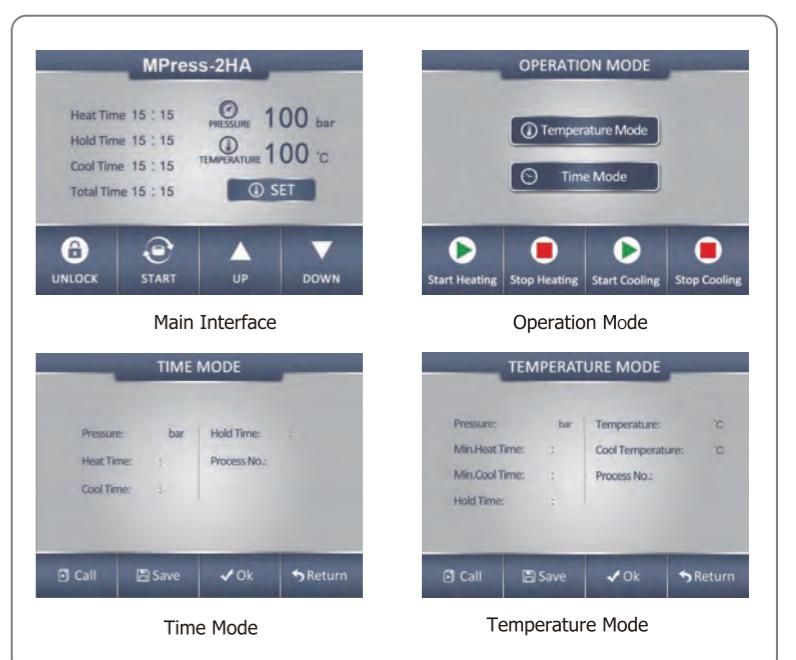
Model	MPress-2HA
Product Name	Automatic Metallographic Mounting Press
Mould Diameter	Ø25mm, Ø30mm, Ø40mm (Choose one)
Cavity Height	140mm, Effective 85mm, Mounting Two Samples At The Same Time
Heating Power	Ø25mm: 1KW; Ø30mm 1.8KW; Ø40mm 2.4KW
Pressure	50~200bar (150bar Ex-factory Set, Equivalent To 15Mpa, 150kgf/cm ²)
Heating Temperature	50~180°C (120°C Ex-factory Set)
Heating Time	1~7min (4min30s Ex-factory Set)
Dwell Time	30s~7min (1min Ex-factory Set)
Cooling Time	1~30min (2min Ex-factory Set)
Total Time	7min30s For Two Samples Ø30mm, 9min For Two Samples Ø40mm
Cooling Method	External Water Source Cooling
Power Supply	220V, 50Hz, 10A
Machine Dimensions	530×510×480mm
Net Weight	60Kg

STANDARD DELIVERY

Machine Mainframe	1 set
Middle Mould Block	1 pc
Water Inlet Pipe	1 pc
Water Outlet Pipe	1 pc
Water Inlet Filter	1 pc
Hoop	1 pc
Bakelite Powder	1 bottle
Measuring Cup	1 pc
Inner Hexagon Spanner	1 pc
Brush	1 pc

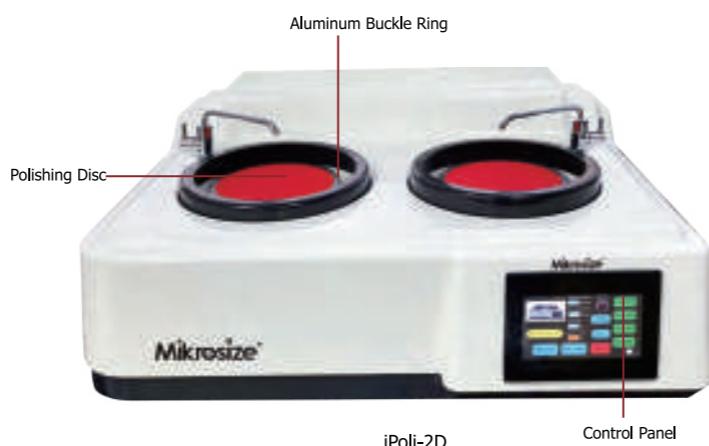
OPTIONAL DELIVERY

Resin Hot Mounting Powder	PR-B/G/R
Conductivity Hot Mounting Powder	GCB
Edge Protection Hot Mounting Powder	EPB
Transparent Hot Mounting Powder	TM
Sample Support Clip	CLIP-2826S



MANUAL METALLOGRAPHIC GRINDER POLISHER

CODE:iPoli-D



STANDARD DELIVERY

Machine Mainframe	iPoli-1D-200M iPoli-2D-200M
Water Shield	1 pc
Velvet Polishing Cloth Φ203mm (Non-adhesive)	2 pcs
Abrasive Paper Φ203mm	2 pcs
Plastic Cover	iPoli-1D-200M: 1 pc /iPoli-2D-200M: 2 pcs
Inlet Pipe	1 pc
Outlet Pipe	1 pc
Ground Screw	2 pcs
Aluminum Buckle Ring Φ203mm	iPoli-1D-200M: 1 pc /iPoli-2D-200M: 2 pcs
Polishing Disc Φ203mm	iPoli-1D-200M: 1 pc /iPoli-2D-200M: 2 pcs



Velvet Polishing Cloth
Φ203mm(Non-adhesive)



Abrasive Paper
Φ203mm



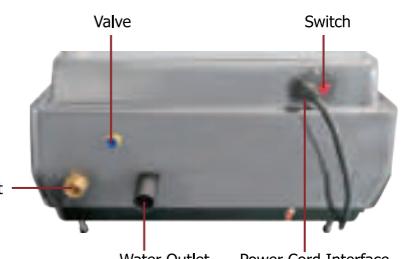
Control Interface

TECHNICAL SPECIFICATION

Product Name	Metallographic Manual Grinding Polishing Machine	
Model	iPoli-1D-200M	iPoli-2D-200M
Disc Type	Single Disc	Dual Discs
Polishing Disc	Φ203mm (Customized Φ230mm, Φ250mm)	
Diameter		
Polishing Disc	50-1000 rpm stepless speed	Regulation 150/300/600/800 rpm four constant speed
Rotation Speed		
Control Method	Single disc/Single control	Dual disc/Single control
Voltage Supply	220V 50HZ	
Power Supply	550W	
Motor	YSS7124,550W	
Machine Dimension	500*910*475mm	860*660*355mm
Net Weight	41kg	70Kg
Gross Weight	47kg	84kg

AUTO METALLOGRAPHIC GRINDER POLISHER

CODE:iPoli-SC-250A



Abrasive Paper
Φ250mm



Oil-Water Separator



Central Sample Holder

STANDARD DELIVERY

Machine Mainframe	1 set
Polishing Cloth Φ250mm	2 pcs
Abrasive Paper Φ250mm	4 pcs
Grinding Disc Φ250mm	1 pc
Aluminum Retaining Ring Φ250mm	1 pc
Outlet Pipe	1 pc
Inlet Pipe	1 pc
Pressure-Resistant Hose Φ8*3000mm	1 pc
Oil-Water Separator	1 pc
Magnetic Disc	1 pc
Anti-Adhesion Disc	3 pcs
Leveling Feet	4 pcs
Power Cable	1 pc
Anti-dust Cover	1 pc
Water Shield	1 pc
Central Sample Holder	1 pc
Single Sample Holder	1 pc
Plastic Cover	1 pc
Central Clamping Device	1 pc

OPTIONAL DELIVERY

Silicon Carbide Abrasive Paper	SC-A
Aluminum Oxide Abrasive Paper	AO-WA
Polishing Cloth	VC/WC/SC/CC/NC/FC/SPC-A
Monomorph Diamond Suspension	DSM
Polycrystal Diamond Suspension	DSP
Aluminum Oxide Suspension	AOS
Silicon Suspension	SOP



Dual Disc

AUTO METALLOGRAPHIC GRINDER POLISHER

CODE:iPoli-SC-250A

TECHNICAL SPECIFICATION

Product Name	Auto Metallographic Grinding Polishing Machine	
Model	iPoli-1SC-250A	iPoli-2SC-250A
Disc Type	Single	Dual
Polishing Disc Diameter	Ø250mm (Customized Ø230mm, Ø300mm)	
Polishing Disc Rotation Speed	50-1000 Rpm Stepless 300/600/900 Rpm(Three Constant Speed) Adjustable Clockwisely or Counterclockwisely	
Grinding Disc Steering Position		
Grinding Head Speed	5-150 Rpm Stepless	5-150 Rpm Stepless
Sample Holder Qty	6 Pcs	6 Pcs
Loading Range	0.4-0.7Mpa	
Polishing Sample Diameter	Ø30mm(Customized Ø22-Ø45mm)	Ø30mm(Customized Ø22-Ø45mm)
Control Method	Single Disc/single Control	
Voltage Supply	AC220V 50Hz	
Power Supply	1.1KW	
Machine Dimension	550*760*640mm	735*570*590mm
Net Weight	60kg	100kg
Gross Weight	82kg	102kg
Sample Preparation Time	0-3000 S	
Sample Pressure	Single Force:20-70N, Centr Force:0-300N	

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METALLOGRAPHIC MANUAL GRINDER POLISHER

CODE:MPoli-230M



VIDEO

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- Single-chip microcomputer controlled grinding and polishing machine.
- ABS material shell is beautiful in appearance, anti-corrosion and durable.
- Strong large support chassis design ensures the precision rotary balance.
- Stepless speed or four speeds control and rotational direction changeable.
- DC brushless motor has long service life, low noise and powerful motor brings strong power for efficient grinding polishing experience.
- Spindle leak-proof design ensures the bearing without damage.
- With cooling water, adjustable tube direction for wet grinding.
- With washing function at the bottom of the grinding disc to prevent the accumulation and precipitation of grinding materials.
- Only need to change the abrasive paper and polishing cloth, it can complete various sample grinding, fine grinding and polishing process.



MPoli-1-230M Dual Discs



Water and Electricity System

Single-chip Microcomputer Controlled



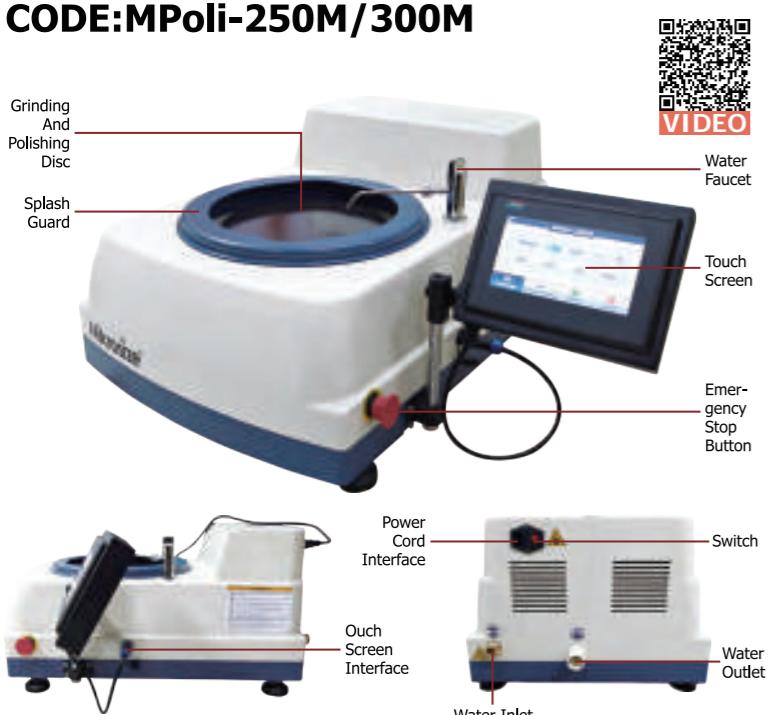
TECHNICAL SPECIFICATION

Model	MPoli-1-230M	MPoli-2-230M
Disc Diameter	230mm	230mm
Abrasive Paper Diameter	230mm	230mm
Speed	Stepless Speed 50~1400r/min, or Four Speeds 300, 600, 900, 1400r/min	Stepless Speed 50~1400r/min, or Four Speeds 300, 600, 900, 1400r/min
Rotational Direction	Clockwise or Counter-clockwise	Clockwise or Counter-clockwise
Electromotor	DC Brushless Motor, 220V, 600W	DC Brushless Motor, 220V, 600W
Control and Display	Keyboard Operation, LED Display, With Washing Function	Keyboard Operation, LED Display, With Washing Function
Power Supply	220V, 50Hz, 6A	220V, 50Hz, 8A
Machine Dimensions	420×660×330mm	757×660×330mm
Net Weight	30kg	57kg

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MANUAL METALLOGRAPHIC GRINDER POLISHER (TOUCH SCREEN)

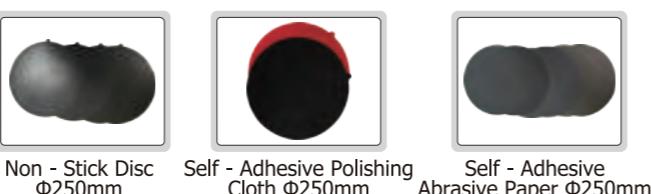
CODE: MPoli-250M/300M



- 7 - inch LCD touch screen.
- The machine body is integrally formed with ABS material, which is corrosion - resistant and durable.
- It adopts a servo motor, with low noise and strong power.
- Grinding disc has four - level fixed speeds and supports stepless speed regulation, with a speed range of 50 - 1000 r/min.
- The rotation direction is adjustable, and it can be switched between clockwise and counterclockwise directions at any time.
- Equipped with a magnetic disc. With a Teflon non - stick disc, rapid disc replacement can be achieved.
- Equipped with a cooling water pipe, the direction can be rotated and adjusted.
- Electromagnetic water valve allows for controlling water on and off through the touch screen.

STANDARD DELIVERY

Machine Mainframe	1 set
Grinding And Polishing Disc $\Phi 254\text{mm}$	1 set
Magnetic Disc $\Phi 250\text{mm}$ (Already Adhered To The Grinding Disc)	1 set
Non - Stick Disc $\Phi 250\text{mm}$	4 sets
Self - Adhesive Abrasive Paper $\Phi 250\text{mm}$	6 sets
Self - Adhesive Polishing Cloth $\Phi 250\text{mm}$	2 sets
Water Inlet Pipe	1 set
Water Outlet Pipe	4 pcs
Water Inlet Filter	1 copy
Allen Wrenches 3mm;5mm	1 copy
Instruction Manual	1 copy
Product Certificate	1 copy



TECHNICAL SPECIFICATION

Name	Metallographic grindingpolishing machine			
Measurement Unit	MPoli-1-250M MPoli-1-300M MPoli-2-250M MPoli-2-300M			
Disc Type	Single disc			
Grinding Polishing Disc Diameter	254mm	300mm	254mm	300mm
Abrasive Paper Diameter	250mm	300mm	250mm	300mm
Rotation Speed	Stepless speed regulation 50 - 1000 r/min			
Rotation Direction	Switchable clockwise and counterclockwise			
Motor	Servo motor, 220V, 1.5kW			
Display And Operation	7 - inch high - definition LCD touch screen Automatic water - out function			
Input Power Supply	Single - phase 220V, 50Hz, 8A			
Machine Overall Dimensions	800×800 ×360mm	800×800 ×360mm	1200×800 ×360mm	1200×800 ×360mm
Net Weight	50kg	57kg	85kg	95kg



METALLOGRAPHIC AUTO GRINDER POLISHER

CODE: MPoli-250A/300A



- Single-chip microcomputer control,ABS material body.
- Stepless speed control,support rotational direction.
- The grinding head with single force pressure and central force pressure
- Both auto and manual grinding and polishing processes.
- 7 inch colorful touch screen, easy operation, intuitive data display
- Time and speed can be set, automatically controlled watering system,
- Special self-adaptive design grinding disc makes the sample and grinding disc fit perfectly, which effectively solve the multi-faceted phenomenon and ensures consistency of grinding surface.
- Automatic locking function of grinding head,
- Magnetic grinding disc supports for fast disc replacing. Teflon painted wheel holder makes no residue of changing abrasive paper and polishing cloth.
- DC brushless motor with long service life and low noise brings strong power
- It can store ten procedures, set different parameters for different samples.
- Semi-rotating grinding disc and inner lighting system, easy to take and place the samples.

STANDARD DELIVERY

Machine Mainframe	1 set
Grinding Head	1 pc
Single Force Sample Holder	1 pc
Sample Leveling Plate	1 pc
Grinding and Polishing Disc	1 pc
Magnetic Disc	1 pc
Teflon Pad	4 pcs
Abrasive Paper	6 pcs
Polishing Cloth	2 pcs
Water Inlet Pipe	1 pc
Water Outlet Pipe	1 pc
Water Inlet Filter	1 pc
Air Pipe	1 pc
Head Connection Cable	2 pcs
Inner Hexagon Spanner	Each 1 pc

OPTIONAL DELIVERY

Silicon Carbide Abrasive Paper	SC-A
Aluminum Oxide Abrasive Paper	AO-WA
Polishing Cloth	VC/WC/SC/CC /NC/FC/SPC-A
Monomorph Diamond Suspension	DSM
Polycrystal Diamond Suspension	DSP
Aluminum Oxide Suspension	AOS
Silicon Suspension	SOP



METALLOGRAPHIC AUTO GRINDER POLISHER

CODE: MPoli-250A/300A

TECHNICAL SPECIFICATION

Model	MPoli-1-300A	MPoli-1-250A	MPoli-2-300A	MPoli-2-250A
Platen Diameter	300mm	250mm	300mm	250mm
Abrasive Paper Diameter	300mm	250mm	300mm	250mm
Platen Disc Type	Magnetic	Magnetic	Magnetic	Magnetic
Platen Disc Speed	Stepless 100~1000r/min			
Platen Disc Direction	Clockwise or Counter-Clockwise			
Platen Disc Motor	DC Brushless Motor, 220V, 1.2kW			
Head Motor	200W Stepper Motor			
Head Lock	Automatic			
Water Outlet	Automatic			
Head Disc Speed	Stepless 20~120r/min			
Timing Set	0~99min			
Program Storage	10 Saved Steps			
Sample Holder Qty.	6 pcs			
Sample Holder	Standard:Φ25mm, Φ30mm, Φ40mm (Choose one) Customized Different Sizes And Shapes			
Pressure Method	Single Pressure Or Central Pressure			
Single Sample Force	0~50N			
Central Sample Force	0~160N			
Control Panel	7 Inch Touch Screen			
Power Supply	220V, 50Hz, 8A	220V, 50Hz, 12A		
Machine Dimensions	800×800×760mm	1200×800×760mm		
Net Weight	96kg	96kg	134kg	134kg



CUTTING

Cutting is usually the first step in metallographic sample preparation. Depending on the size and shape of the sample, it is determined whether and how cutting is required. As far as the quality of the cut surface is concerned, it is important to have as few damaged layers as possible in order to speed up the subsequent sample preparation process.

These are a few of our hot selling metallographic cutting machines.



Cut-off Wheel

AO60 Cut Off Wheels

Application: For cutting extremely hard ferrous metals(HRC>50), like special ductile cast iron, bearing steel, alloy structural steel, high-speed steel, high vanadium high-speed steel, stainless steel, alloy steel, carbon steel, and high hardness easy sintering workpiece.



Technical Specification

Color: Brownish Red Hardness: Soft

Consumption Speed: Fast

Material: Aluminum Oxide Bond: Resin

Specification(mm)(Diameter*Thickness*Arbor): 152×0.6×12.7, 200×1.0×32, 230×1.2×32, 250×1.5×32,

250×2.0×32, 300×1.5×32, 300×2.0×32, 350×2.5×32, 400×3.0×32, 450×3.5×32

Package: 10PCS

AO50 Cut Off Wheels

Application: For cutting Medium hard ferrous metals(HRC 38~50), like ductile cast iron, malleable cast iron, high phosphorus cast iron, alloy cast iron, bronze and unhardened steel, etc.



Technical Specification

Color: Brownish Red Hardness: Medium

Consumption Speed: Medium

Material: Aluminum Oxide Bond: Resin

Specification(mm)(Diameter*Thickness*Arbor): 152×0.6×12.7, 200×1.0×32, 230×1.2×32, 250×1.5×32,

250×2.0×32, 300×1.5×32, 300×2.0×32, 350×2.5×32, 400×3.0×32, 450×3.5×32

Package: 10PCS

Cut-off Wheel

AO30 Cut Off Wheels

Application: For cutting soft ferrous metals(HRC<38), like soft metal parts copper, aluminum and alloy.



Technical Specification

Color: Brownish Red Hardness: Hard

Consumption Speed: Slow

Material: Aluminum Oxide Bond: Resin

Specification(mm)(Diameter*Thickness*Arbor): 152×0.6×12.7, 200×1.0×32, 230×1.2×32, 250×1.5×32,

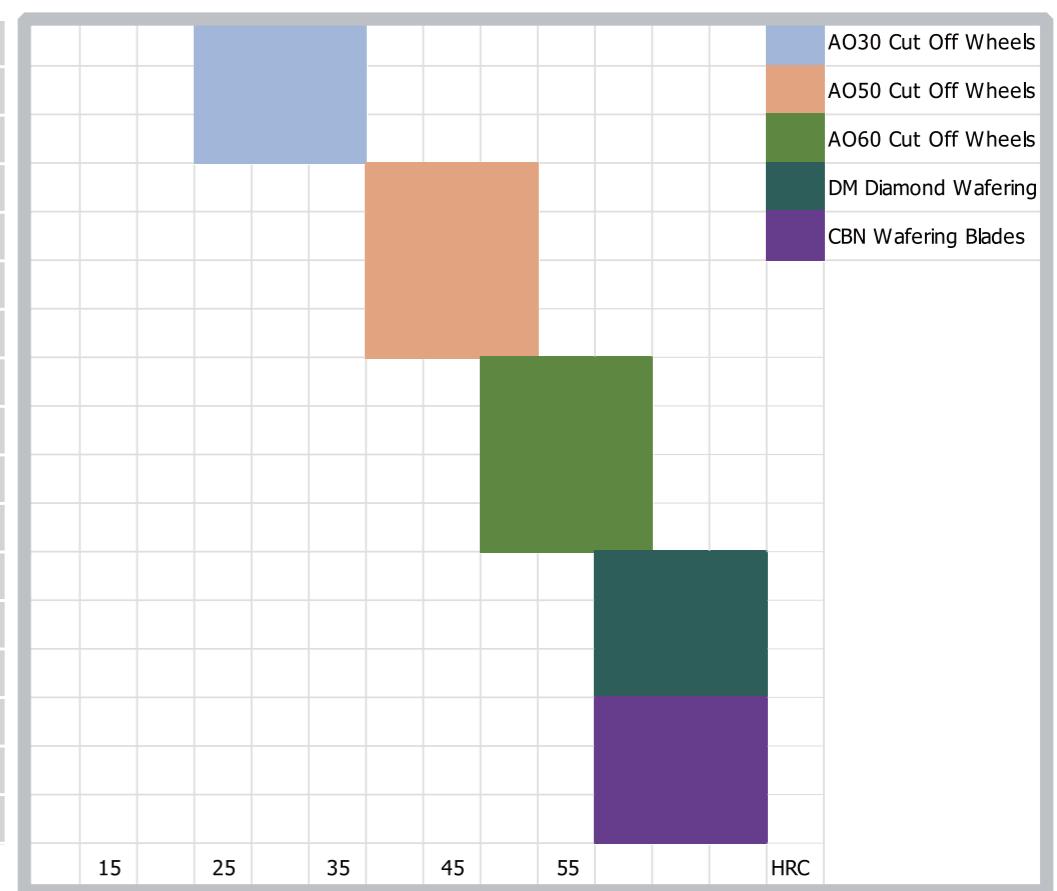
250×2.0×32, 300×1.5×32, 300×2.0×32, 350×2.5×32, 400×3.0×32, 450×3.5×32

Package: 10PCS

Recommend of Cut Off Wheels

Choosing the right cut off wheels can ensure the quality of sampling reduce time and cost, find the sample of the Y-axis, and choose the Wheels. When the hardness value is unknown, you can select the cutting blade according to the material description on the left in the table below.

Non-Ferrous Metals
Stainless Steel
Soft Ferrous Metals
Ductile Cast Iron
Malleable Cast Iron
Alloy Cast Iron
Bronze
Tungsten Carbide Steels
Hardened Steel
Carburised Steel
Hard Ferrous Metals
High Hardness Steel
Ceramics
Silicon Carbide Glass
Brittle Materials
Non-metallic Minerals
Sintered Materials



Cut-off Wheel

DM Diamond Wafering

Application: For very hard or brittle materials, glass ceramics, stone. This series of cutting precision is relatively high, diamond cutting blades can cut ultra-hard materials such as cemented carbide, ceramics and so on.

Features: The saw blade is made of edge sintering technology, with high accuracy and long blade life.



Technical Specification

Blade Material: Diamond Particle

Bond: Stainless Steel

Specification(mm)(Diameter*Thickness*Arbor): 100×0.3×12.7, 125×0.4×12.7, 150×0.5×12.7, 175×0.7×12.7, 200×0.9×22, 200×0.9×32, 254×0.9×32, 300×1.5×32, 350×2.0×32

Package: 10PCS

CBN Wafering Blades

Application: Used for cutting samples of extremely hard metals and hard alloys, non-metallic minerals, glass, ceramics, brittle and brittle materials, etc.

Features: The saw blade is made of edge sintering technology, with high accuracy and long blade life.



Technical Specification

Blades Material: CBN

Bond: Stainless Steel

Specification(mm)(Diameter*Thickness*Arbor): 100×0.3×12.7, 125×0.4×12.7, 150×0.5×12.7, 175×0.7×12.7, 200×0.9×22, 200×0.9×32, 254×0.9×32, 300×1.5×32, 350×2.0×32

Package: 10PCS

Guidelines for Wafering Cutting Various Materials



Most wafer cutting is done at speeds between 50 rpm and 5000 rpm with loads varying from 10-1000 grams. Generally, harder specimens are cut at higher loads and speeds (e.g. ceramics and minerals) and more brittle specimens are cut at lower loads and speeds (e.g. electronic silicon substrates). It is interesting to note that the cutting efficiency for sectioning hard/tough ceramics improves at higher speeds and higher loads.

Item	Characteristic	Speed (rpm)	Load (grams)
Silicon Substrate	Soft / Brittle	<300	<100
Gallium Arsenide	Soft / Brittle	<200	<100
Boron Composites	Very Brittle	500	250
Ceramic Fiber Composites	Very Brittle	1000	500
Glasses	Brittle	1000	500
Minerals	Friable / Brittle	>1500	>500
Alumina Ceramic	Hard / Tough	>1500	>500
Zirconia (PSZ)	Hard / Tough	>1500	>800
Silicon Nitride	Hard / Tough	>3500	>800
Metal Matrix Composites	Hard / Tough	>3500	>500

Cutting Fluid

Cutting Fluid

Application: The product is specially developed for grinding wheel cutting of metallographic samples, with cooling, lubricating and anti-rust properties:

When cutting, it reduces the temperature of the sample in order to minimize the sample being affected by heat;

Produces a cleaning and anti-rust effect on the sample;

Increases the lubrication performance and improves the surface finish of the sample, which can simultaneously improve the life of the cutting blade;

Preventing the cutter from being corroded;

The product is odorless, non-polluting, environmentally safe products;

The solution is clear and transparent, free of mineral oil and nitrite.

Usage: Mix with 20 times water when using.



Technical Specification

Specification: Cutting Fluid

Package: 1L/bottle, 4L/bottle



03

MOUNTING

Metallographic Mounting is a technique used in the preparation of samples for metallographic analysis, including the following methods: hot mounting, using a hot mounting machine with hot mounting powder; cold mounting, using a cold mounting machine with a cold mounting agent; and other methods, such as vacuum mounting machines, light-curing mounting machines and so on.

These are a few of our hot selling metallographic Mounting Press.



MPress-1MA



iPress-2HA/4HA



uPress-VCD



iPress-1M

Hot Mounting Powder



Introduction: In order to obtain the best results, the samples should be cleaned before mounting, without oil or other contaminants on the surface, to ensure the best adhesion of the resin to the sample. Hot Mounting, as the name suggests, is the embedding of the sample in the resin by means of hot pressing and is particularly suited to laboratories that have a constant need for sample preparation with flat surfaces, regular dimensions, easy handling, short time-consuming and economical.

Hot Mounting Powder Comparison Chart

Name	PR Mounting Powder	GC Mounting Powder	EP Mounting Powder	TM Mounting Powder
Heat time	4~6 mins	4~6 mins	4~6 mins	25 mins
Cooling time	2~3 mins	4~6 mins	2~3 mins	15 mins
Pressure	100~300 bar	100~300 bar	100~150 bar	150 bar
Heat TEMP	150~180 °C	150~180 °C	140~180 °C	140±5 °C
Hardness	85~90 Shore D	90~92 Shore D	90~93 Shore D	85~87 Shore D

*Date is based on the diameter of 30 mm heating mold, for reference only.

PR-B/G/R Phenolic Resin Hot Mounting Powder

Application: For routine applications suit for most products.



Material: Phenolic resin, bakelite powder.

Technical Specification

Color: Black, Green, Red

Package: 500g/Bottle, 2000g/Bottle, 4000g/Bottle, 18000g/Bottle

GCB Graphite Conductivity Hot Mounting Powder

Application: Suitable for conductive samples such as: for electron microscopy, electrolytic polishing, SEM analysis.



Features: Excellent conductive, voltage loss almost eliminated completely.

Technical Specification

Color: Black

Package: 500g/Bottle, 2000g/Bottle, 4000g/Bottle, 18000g/Bottle

Hot Mounting Powder

EPB Edge Protection Hot Mounting Powder

Application: Samples with high edge requirements.

Features: Black color, extremely low shrinkage. Tightly combined with the sample, with high hardness, good abrasion resistance.

Technical Specification

Color: Black

Package: 500g/Bottle, 2000g/Bottle, 4000g/Bottle, 18000g/Bottle



TM Transparent Acrylic Acid Hot Mounting Powder

Features: Transparent and very clear. Allows easy sample observation.

Application: Complete embedding solution for thin layers, top layer for specimen labeling.

Technical Specification

Color: White Powder

Package: 500g/Bottle, 2000g/Bottle, 4000g/Bottle, 18000g/Bottle



Guidance for Hot Mounting Compound

Before sample mounting process, the grease on the sample needs to be removed so that the mounting resin can perfectly adhere to the surface of the sample. If burrs are generated during the cutting process, you can use sandpaper to remove the burrs on the edge of the sample.

Problem	Causes	Solutions
Bulge	Less cooling time	Increase the cooling times
Primer cracks	Oversized Coated part according to the chosen mounting mould	Reduce the size of the sample or increase the size of the mounting mould
	Inadequate mounting resins	Choose less shrinkage resins
Shrinkage	Insufficient heating time	Increase the temperature during the heating time
	Insufficient pressure	Increase the mounting pressure
"Smoke" visible	Wrong pressure choice	Increase pressure only during cooling cycle
	Too much resin than sample dimension	Reduce resin quantity or mold dimension
	Insufficient heating time	Increase the heating time
Resins grains visible	Insufficient pressure	Increase the pressure during the mounting cycle
	Insufficient heating time	Increase the heating time

Cold Mounting Agent

Introduction: Metallographic Cold Mounting does not need heating, pressure, which is suitable for mounting samples that cannot be heated and places without mounting machine, saving equipment investment and energy consumption, and at the same time, there is no need to worry about the softening of samples due to high mounting temperature and the change of internal structure due to heating. It is especially suitable for the mosaic of micro-slice samples in electronic industry.



CM5801 Cold Mounting Acrylic King

Application: Suitable for the metal working industry.

Features: Acrylic series, semi transparent. Minimal odor, environmentally friendly and safe.

Technical Specification

Curing Temperature and Time: 25°C, 25minutes

Color: Semi Transparent

Package: 1000g Powder + 500ml Liquid + Φ30mm Cold Mounting Mold 1PC + Plastic Cup, Mixing Rod Each 40PCS+Spoon 1PC



CM5802 Cold Mounting Acrylic King

Application: Suitable for the metal working industry.

Features: Acrylic series, full transparent. Minimal odor, environmentally friendly and safe.

Technical Specification

Curing Temperature and Time: 25°C, 25minutes

Color: Full Transparent

Package: 1000g Powder + 800ml Liquid + Φ30mm Cold Mounting Mold 1PC + Plastic Cup, Mixing Rod Each 40PCS + Spoon 1PC

Cold Mounting Agent

CM5803 Cold Mounting Crystal King

Features: Transparent as crystal.

Application: Suitable for all kinds of materials, especially for PCB, SMT and other electronic industries.



Technical Specification

Curing Temperature and Time: 25°C, 30minutes

Color: Crystal Transparent

Package: 1000ml Resin Liquid + 50ml Curing Agent + Φ30mm Cold Mounting Mold 1PC+ Plastic Cup, Mixing Rod Each 40PCS

03

CM5804 Cold Mounting Quick Epoxy Resin King

Features: Epoxy resin, fast curing, completely transparent, odorless.

Application: Suitable for all kinds of materials, especially for PCB, SMT and other electronic industries.



Technical Specification

Curing Temperature and Time: 25°C, 40minutes

Color: Yellow Transparent

Package: 4000ml Resin Liquid + 2000ml Curing Agent + Φ30mm Cold Mounting Mold 2PCS + Plastic Cup, Mixing Rod Each 80PCS

CM5805 Low Viscosity Epoxy Resin King

Features: Epoxy resin, extremely low viscosity, good permeability, completely transparent, odorless.

Application: Suitable for all kinds of materials, especially for PCB, SMT and other electronic industries.



Technical Specification

Curing Temperature and Time: 25°C , 3~4 hours

Color: Full Transparent

Package: 1000ml Resin Liquid + 300ml Curing Agent/4000ml Resin Liquid + 1200ml Curing Agent+ Φ30mm Cold Mounting Mold 2PCS + Plastic Cup, Mixing Rod Each 80PCS

Cold Mounting Agent

CM5806 Low Heating Epoxy Resin King

Features: Epoxy resin, extremely low viscosity, good permeability, completely transparent, odorless.

Application: Suitable for all kinds of materials, especially for PCB, SMT and other electronic industries.



Technical Specification

Curing Temperature and Time: 25°C , 20~24 hours

Color: Blue Transparent

Package: 1000ml Resin Liquid + 300ml Curing Agent/4000ml Resin Liquid + 1200ml Curing Agent + Φ30mm Cold Mounting Mold 2PCS + Plastic Cup, Mixing Rod Each 80PCS

03

CM5807 Conductive Epoxy Resin King

Features: Epoxy resin, with small shrinkage, less heat generation, completely transparent, and odorless.

Application: Suitable for all kinds of materials, especially electrolysis, electron microscope observation and other conductive applications.



Technical Specification

Curing Temperature and Time: 25°C , 3~4 hours

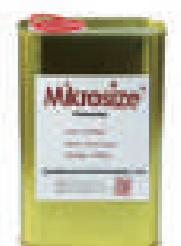
Color: Transparent

Package: 1000ml Resin Liquid + 300ml Curing Agent + 300g Conductive Material +Φ30 Cold Mounting Mold 1PC + Plastic Cup, Mixing Rod Each 40PCS

CM5808 Photocuring

Features: Epoxy resin, Suitable for internal stress sensitive materials, with extremely high transparency and excellent fluidity.

Application: Suitable for all kinds of materials, especially for PCB, SMT and other electronic industries.



Technical Specification

Curing Time: 20 minutes

Color: Transparent

Package: 1000ml Resin Liquid +Φ30 Cold Mounting Mold 1PC + Plastic Cup, Mixing Rod Each 40PCS

Cold Mounting Mold



Depending on the shape and size of the sample, mounting molds of different diameters and shapes can be selected. Large mounting mold to meet the needs of inlaying large samples, small mounting mold to save cold mounting material, the use of multiple molds, can be used at the same time to mounting multiple samples using rubber elastic mold. The product is mainly used in PCB factories for metallographic slicing analysis, playing a role in carrying slices. Its characteristics are high transparency, beautiful and practical, and saving cold mounting materials.

CMB Circular Cold Mounting Mold

Features: Smooth inner wall easy to release mold, can be used repeatedly, high temperature resistance, flexible.

Application: This product can withstand temperatures up to 130°C and is used in physical laboratories for mounting metallographic section samples.



Technical Specification

Color: Blue

Material: Silicone Rubber

Package: 12PCS/Case

Size	Inner Height
Φ20mm	18mm
Φ25mm	18mm
Φ30mm	18mm
Φ40mm	21mm
Φ50mm	24mm

CMB Rectangle Cold Mounting Mold

Features: Smooth inner wall easy to release mold, can be used repeatedly, high temperature resistance, flexible.

Application: This product can withstand temperatures up to 130°C and is used in physical laboratories for mounting metallographic section samples.



Technical Specification

Color: Blue

Material: Silicone Rubber

Package: 6PCS/Case

Size	Inner Height
55x20mm	22mm
70x40mm	22mm
100x50mm	22mm

Cold Mounting Mold

CMT Transparent Cold Mounting Mold

Application: Reusable cold mounting.



Technical Specification

Color: Transparent

Material: Silicone Rubber

Package: 12PCS/Case

Size	Inner Height
Φ20mm	18mm
Φ25mm	18mm
Φ30mm	18mm
Φ40mm	21mm
Φ50mm	24mm

CMT Transparent Cold Mounting Mold

Application: Reusable cold mounting.

PCS/Case



Technical Specification

Color: Transparent

Material: Silicone Rubber

Package: 6PCS/Case

Size	Inner Height
55x20mm	22mm
70x40mm	22mm
100x50mm	22mm

Cold Mounting Mold

POM Cold Mounting Mold

Product Description: Hard material, with bottom cover, reusable.



03

Technical Specification

Color: White/Blue

Material: POM

Package: 12PCS/Case

Color	Size	Inner Height
White	25mm	20mm
White	30mm	25mm
White	32mm	27mm
Blue	25mm	20mm
Blue	30mm	25mm
Blue	32mm	27mm

CCM Rectangle Crystal Cold Mounting Mold

Application: Used by PCB factory carrying slices during metallographic analysis.



Features: High transparency, beautiful and practical, saving cold mounting materials.

Technical Specification

Color: Transparent

Material: Polystyrene

Size: 24x10x18mm

Package: 300PCS/Wrap

Cold Mounting Mold

CCM Square Crystal Cold Mounting Mold

Application: Used by PCB factory carrying slices during metallographic analysis.

Features: High transparency, beautiful and practical, saving cold mounting materials.



Technical Specification

Color: Transparent

Material: Polystyrene

Size: 24x24x20mm

Package: 200PCS/Wrap

CCM Circular Crystal Cold Mounting Mold

Application: Used by PCB factory carrying slices during metallographic analysis.



Features: High transparency, beautiful and practical, saving cold mounting materials.

Technical Specification

Color: Transparent

Material: Polystyrene

Size: Semi-lattice 30x18mm

Full-lattice 30x18mm

Package: 100PCS/Wrap

Mounting Sample Support Clip



Features:

(1) It is using to fix the sample in metallographic analysis process.
 (2) The experiment is simple. Make sure the sample in the mold has been fixed up by the clip then add curing agent and epoxy resin or acrylic powder in proportion.
 (3) Make sure the sample is placed vertically and avoid the data inaccurate caused by the inclination of the sample in the glue filling process. It is also convenient for in-depth scientific analysis of samples.
 (4) Product specification is complete, a wide variety. There are three types: Transparent rolling type, SUS rolling type, black triangle type.
 (5) Position the sample vertically to observe the cross section.

Application:

Vertically stand the thin sample to observe the cross section.

CLIP-2826P



Technical Specification

Color: Transparent
 Material: Plastic
 Package: 100PCS/Case

CLIP-2826Ω



Technical Specification

Color: Transparent, Black, White
 Shape: Ω
 Material: Plastic
 Package: 100PCS/Case

CLIP-2826S



Technical Specification

Material: Stainless Steel
 Size: 22mm
 Package: 100PCS/Case

SMR Mold Release Agent

SMR Mold Release Agent

Application: Suitable for both hot and cold mounting release.

Function: Spray can packaging, evenly spray to the mold surface.



Technical Specification

Material: Paraffin and PDMS
 Package: 420ml/Bottle



SMR Mold Release Agent

Application: Suitable for both hot and cold mounting release.

Function: Spray can packaging, evenly spray to the mold surface.

Technical Specification

Material: Paraffin and PDMS
 Package: 200ml/Bottle



03

Grinding and Polishing

Metallographic grinding and polishing is a technology of material surface treatment and metallographic analysis, which is mainly applied to metal materials, ceramic materials, photoelectric materials, plastics and other fields. The metallographic grinding and polishing machine grinds and polishes the surface of the specimen by means of a high-speed rotating grinding wheel or abrasive disk to achieve the desired flatness and finish. This process aims to eliminate impurities, cracks, scratches and other defects on the surface of the specimen and improve the quality and accuracy of the material.

These are a few of our hot selling Metallographic Grinding Polishing Machine.



Abrasive Paper

SC Silicon Carbide Abrasive Paper/ SC-A Silicon Carbide Abrasive Paper

Introduction: The metallographic special abrasive paper is made of selected silicon carbide abrasive with uniform particle size and excellent grinding effect, and the water-resistant metallographic abrasive paper is manufactured by electrostatic sanding process, which is characterized by uniform distribution of abrasive grains, sharpness of grinding and durability. Thus, the sample can be removed quickly and the deformation layer is shallow, and the effect is especially obvious for high hard or harder materials. All rough and fine grinding processes can be water-abrasive.

Features: It can be used both wet and dry, and is especially suitable for precision polishing and grinding of painted surfaces, precision instruments, metals, composite materials, automobile manufacturing and repair, and electronic devices.

Application: Suitable for grinding hard materials such as ceramics, glass and cemented carbide.



Technical Specification

Bond: Latex Paper

Adhesive: No/Yes

Grinding Material: Black Silicon Carbide

Abrasive Grade: P60, P80, P120, P180, P220, P240, P320, P400, P500, P600, P800, P1000, P1200, P1500, P2000, P2500, P3000, P4000

Diameter(mm): Φ 200/230/250/300mm

Package: 50PCS/Wrap(For P60,P80,P120), 100PCS/Wrap

GSC-Green Silicon Carbide Abrasive Paper

Application: Widely used in the grinding process of PCB/PCBA, semiconductor, metal and material analysis, the sanding and polishing of crafts, using high-fine nano-process sandpaper, can be sanded to a mirror surface for samples.

Features: Super fine green silicon carbide abrasive, from imported sand planting technology and special bonding resin, soft texture, wet and dry, wear-resistant, not easy to fall off the sand.



Technical Specification

Bond: Latex Paper

Adhesive: No/Yes

Grinding Material: Green Silicon Carbide

Abrasive Grade: 120#, 180#, 240#, 320#, 400#, 600#, 800#, 1000#, 1200#, 1500#, 2000#, 2500#, 3000#, 4000#, 5000#, 7000#

Diameter(mm): Φ 200/220/230/250/300mm

Package: 100PCS/Wrap

Abrasive Paper

AO-W Aluminum Oxide Abrasive Paper

Features: Good waterproof, durable long lasting life.

Application: Suitable for grinding soft materials such as wood and metal, and has advantages for surface processing that requires smoother surface processing, such as optical lenses and coatings.



Technical Specification

03

Bond: Latex Paper

Adhesive: No/Yes Waterproof: Yes

Material: Aluminum Oxide

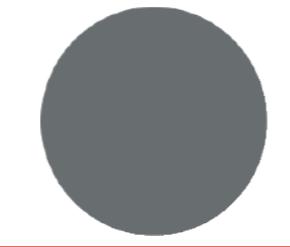
Abrasive Grade: 180#, 240#, 320#, 400#, 600#, 800#, 1000#, 1200#

Diameter(mm): Φ 200mm/ Φ 230mm

Package: 100PCS/Wrap

AO-D Aluminum Oxide Dry Abrasive Paper

Application: Suitable for grinding soft materials such as wood and metal, and has advantages for surface processing that requires smoother surface processing, such as optical lenses and coatings.



Bond: Latex Paper

Adhesive: No/Yes Waterproof: No

Material: Aluminum Oxide

Abrasive Grade: W50(1), W40(0), W28(01), W20(02), W14(03), W10(04), W7(05), W5(06), W3.5(07)

Diameter(mm): Φ 200mm/ Φ 230mm

Package: 100PCS/Wrap

DG Diamond Grinding Disk

Diamond grinding disks are disk type abrasives used on grinding machines, which have the advantages of even grain size, good flatness, good sharpness, good solidification strength, no lines, no skipping, no sand loss, and wear-resistant.

DG Diamond Grinding Disk



Features: Extremely durable for very fast grinding speed. Recommended for hard metal, ceramics, concrete, glass and minerals.

Application: Widely used in cemented carbide, ceramics, glass products, gemstones, high-strength alloys and other materials.

Technical Specification

03

Grinding Material: Diamond

Bond Material: Nickel

Abrasive Grade: 80 μ m, 50 μ m, 30 μ m, 9 μ m

Diameter(mm): 250mm

Package: 1PC

Reference for the Selection of Common Sample Materials and Abrasive Grain Sizes

Material	Rough Grinding	Fine Grinding
Ceramics, Zirconia, Alumina	P180/P240 Abrasive Paper	30 μ m Grinding Disk or P400 Abrasive Paper
Hard Metals, Synthetic Materials	P180/P240 Abrasive Paper	30 μ m Grinding Disk or P400 Abrasive Paper
Soft Steel, Austenitic Stainless Steel, Ferritic Steel	P180/P240 Abrasive Paper	P400/P800 Abrasive Paper
Nonferrous Metals, Cast Aluminum	P240/P400 Abrasive Paper	P800/P1200 Abrasive Paper
Titanium Alloy	P240/P400 Metallographic Abrasive Paper	30 μ m Grinding Disk or P800/P1200 Abrasive Paper
Magnesium Alloy	P240/P400 Metallographic Abrasive Paper	P800/P1200 Abrasive Paper
Cast iron, Ductile Iron, Gray Cast Iron	80 μ m Grinding Disk or P180/P240 Abrasive Paper	50 μ m Grinding Disk or P400/P800 Abrasive Paper
Hard and Medium Hard Steel	80 μ m Grinding Disk or P180/P240 Abrasive Paper	50 μ m Grinding Disk or P400/P800 Abrasive Paper
Porous Ceramics	50 μ m Grinding Disk	30 μ m Grinding Disk
Stainless Steel	P180/P240 Abrasive Paper	P400/P800 Abrasive Paper
Aluminium Alloy	P240/P400 Abrasive Paper	P800/P1200 Abrasive Paper

Polishing Cloth

Polishing Cloth

Introduction: A series of metallographic polishing fabrics developed and produced specifically for rough and fine polishing during metallographic sample preparation. Suitable for various models and Specifications of metallographic polishing machines both domestically and internationally, especially for semi-automatic or fully automatic metallographic polishing machines.

The metallographic polishing fabric series consists of multiple layers such as polishing layer, storage abrasive layer, and protective layer, among which the most important layer is the polishing fabric layer that is truly used for polishing. This layer is made of high-quality fabrics with high strength, different pile lengths and textures, suitable for metallographic polishing. Thus, this polishing fabric has excellent polishing effect and a long service life.

03



Product Description:



Velvet: Long fluff silk, for stainless steel high precision material or aluminium, copper, magnesium soft material, for Diamond suspension: 0.5~5μm.



Flocked: Short fluff cotton, for stainless steel, electronic circuit board, soft metal, for Diamond suspension: 1~3μm.



Canvas: Without fluff cotton, for stainless steel rough polishing, for Diamond suspension: 5~14μm.



Silk: Without fluff, for structures such as graphite or inclusions, for Diamond suspension: 0.5~3.5μm.



Woolen: Thickened navy fabric, woolen pressed products, used for steel materials, for Diamond suspension: 3~5μm.



Nylon: Chemical fiber products, rough polishing of steel materials, for Diamond suspension: 7~20μm.

Technical Specification

Material: Velvet, Flocked, Silk, Woolen, Canvas, Nylon

Diameter(mm): Φ200/220/230/250/300mm

Packing: 10PCS/Wrap

Adhesive: No/Yes

Polishing Cloth

Product Description:



Synthetic fiber: Long nap, for all materials rough polishing, with 2.5~10μm Diamond or Aluminum Oxide.



Synthetic fiber(flocked): For all materials rough polishing and Ceramics, crystals and other materials, with 1~3.5μm Diamond Suspension or Aluminum Oxide Suspension



Woolen(pressing product): For all materials rough polishing, with 1~5μm Diamond Suspension or Aluminum Oxide Suspension



Cotton(with short fluff): For all materials rough polishing, with 1~3.5μm Diamond Suspension or Aluminum Oxide Suspension



Chamois: Applied to non-ferrous metals, glass, silicon and other materials, with 0.05~3μm Diamond Suspension or Aluminum Oxide Suspension or Silicon Suspension



High Precision Chemical Fiber Material: (Damping Fabric) Suitable for non-ferrous metals, glass, silicon, with 0.05~3μm Diamond Suspension or Aluminum Oxide Suspension or Silicon Suspension



Cashmere: Suitable for iron, copper, magnesium and zinc, with 0.5~3.5μm Diamond Suspension or Aluminum Oxide Suspension



Imported polished velvet: Suitable for non-ferrous metals, glass, silicon, with 0.05~3μm Diamond Suspension or Aluminum Oxide Suspension or Silicon Suspension



Leather: Suitable for non-ferrous metals, glass, silicon, with 0.05~3μm Diamond Suspension or Aluminum Oxide Suspension or Silicon Suspension

Technical Specification

Diameter(mm): Φ200/220/230/250/300mm(Can be customized, 3-1040mm)

Packing: 10PCS/Wrap

Adhesive: No/Yes

Polishing Cloth

Synthetic Polymer Adhesive Polishing Cloth

Product Description:

No-fluff, multi-void, used with Diamond, Alumina Oxide, Silicon dioxide suspensions(0.02~1μm), suitable for the final fine polishing (especially for simultaneous mechanical-chemical polishing) of a wide range of materials (especially very soft materials such as titanium, copper, silver, other non-ferrous metals, glass, silicon and other materials.)



Technical Specification

Material: Synthetic Polymer

Diameter(mm):Φ200/220/230/250/300mm

Packing: 10PCS/Wrap

Adhesive: No/Yes

Anti-stick Disk

ASD Anti-stick Disk

Features: The surface adopts a special anti stick coating, and adhesive sandpaper or polishing cloth can be pasted on this disk, making it easy to replace and leaving no residual adhesive. Can be reused.



Function: It can also have adhesive on the back, used to directly fix this disk to any grinding or polishing disk.

Technical Specification

Size: Φ 203/220/230/250/300mm

Package: 5PCS/Box

Magnetic Disk

MD Magnetic Disk

Function Upper surface: With magnetism, connected by magnetism with anti sticking disk.

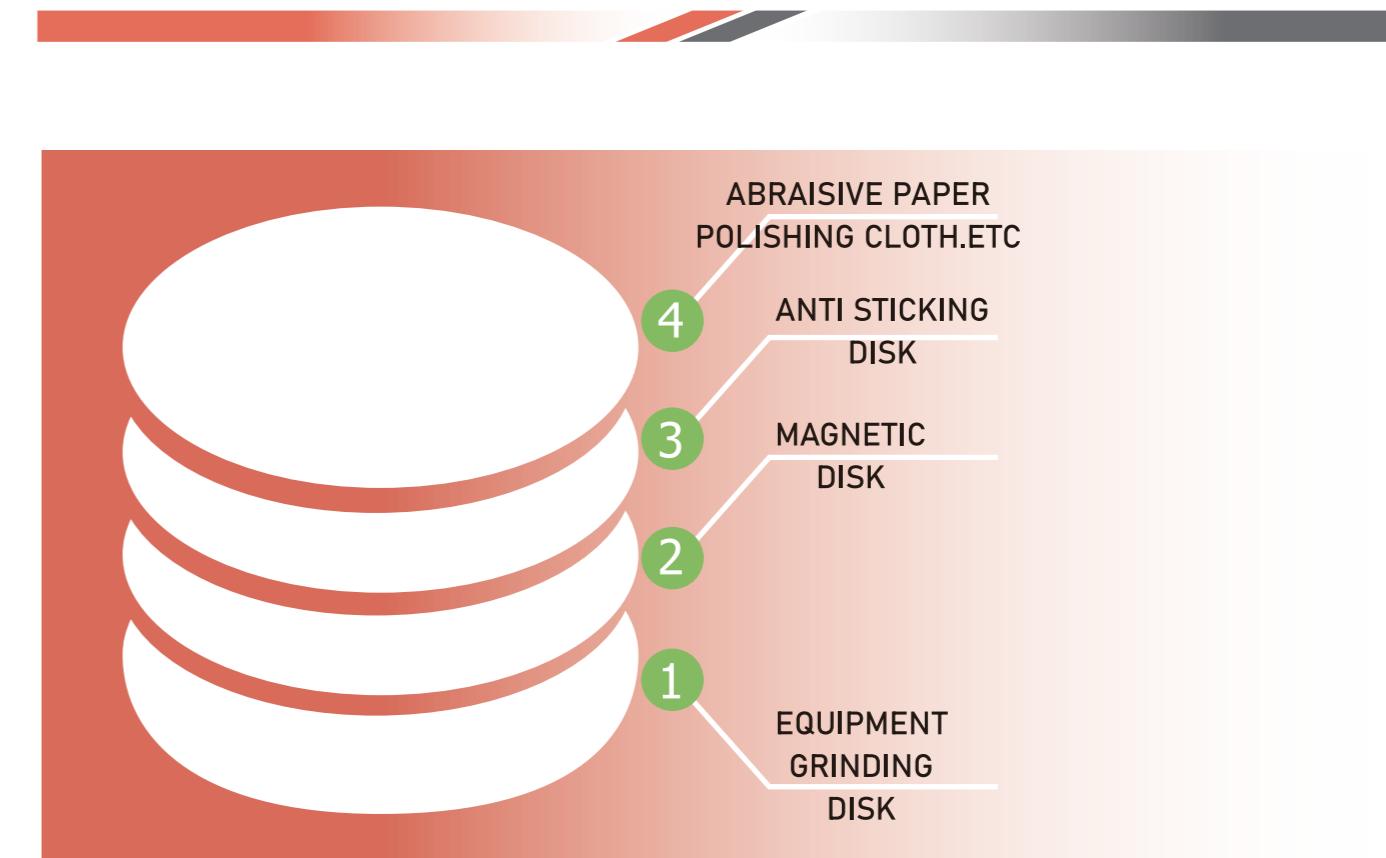


Function Lower surface: Connected to aluminum or iron plates on polishing machines/pre-grinding machines with non drying adhesive.

Technical Specification

Size: Φ 203/220/230/250/300mm

Package: 5PCS/Box



Usage:

1. Clean the surface of the aluminium/iron disk of the polishing machine of residual glue, oil, foreign matter, etc.;
2. Use the adhesive backing on the lower surface of the magnetic disk to bond the magnetic disk to the aluminium/iron disk of the grinding and polishing machine.
3. Use the self adhesive polishing cloth/abrasive paper to bond the polishing cloth/abrasive paper to the non-stick disk.
4. If the polishing cloth or abrasive paper needs to be replaced, remove the polishing cloth or abrasive paper from the anti-sticky disk through the notch of the anti-sticky disk.
5. If the polishing cloth or abrasive paper can be used again, but need to change the abrasive paper grain size or the type of polishing cloth, remove the anti-adhesive disk (with polishing cloth or abrasive paper on it) from the notch of the magnetic disk, and replace it with another anti-adhesive disk (with other Specifications of polishing cloth or abrasive paper on it).

Polishing Agent

DSM Monomorph Diamond Suspension Polishing Agent

Function: Uniform distribution of diamonds by pressure spraying.

Application: It is applicable for all kinds of materials.



Technical Specification

Material: Diamond+Water

Abrasive Grade: 0.05μm, 0.25μm, 0.25μm, 0.5μm, 1μm, 1.5μm, 2.5μm, 3μm, 3.5μm, 5μm, 6μm, 7μm, 9μm, 10μm, 14μm, 15μm, 20μm, 28μm, 40μm

03

Packing: 420ml/Bottle

Net Weight: 280g

DSP Polycrystal Diamond Suspension Polishing Agent

Function: Uniform distribution of diamonds by pressure spraying.

Application: It is applicable for all kinds of materials.



Technical Specification

Material: Diamond+Water

Abrasive Grade: 0.25μm, 0.5μm, 1μm, 1.5μm, 2.5μm, 3μm, 3.5μm, 5μm, 6μm, 7μm, 9μm, 10μm, 14μm, 15μm, 20μm

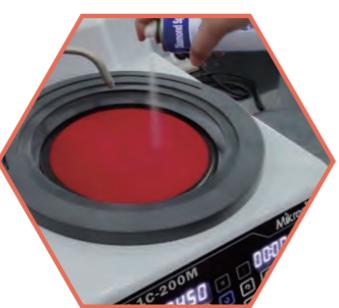
Packing: 420ml/Bottle

Net Weight: 280g

Usage:



① Shake gently before use and spray out.



② Spray evenly on the polishing cloth.



③ Then can be polished.

Polishing Agent

DSM Monomorph Diamond Suspension

Product Features:

- Raw materials comply with environmental protection requirements.
- Non-toxic, non-flammable water-based materials.
- Does not contain harmful components to the human body.
- Rapid removal rate.
- Long-lasting durability.
- Excellent lubricity.

Application: Suitable for various materials.

Technical Specification

Material: Diamond+Water

Abrasive Grade: 0.05μm, 0.25μm, 0.5μm, 1μm, 1.5μm, 2.5μm, 3μm, 3.5μm, 5μm, 6μm, 7μm, 9μm, 10μm, 14μm, 15μm, 20μm, 28μm, 40μm

03

Packing: 500ml/Bottle, 4000ml/Bottle



DSP Polycrystal Diamond Suspension

Product Features:

- High removal rate and toughness with self-sharpening properties;
- Less likely to cause surface scratches compared to Monomorph diamond;
- Better suited for grinding surfaces made of materials with varying hardness;
- Fast removal rate;
- Long-lasting wear resistance;
- Excellent lubrication;
- Diamond suspension makes sample preparation better, faster, and more economical;
- All raw materials meet environmental protection requirements, are non-toxic, water-based, non-flammable, and free of harmful substances to humans



Application: Water based polycrystalline diamond polishing Suspension can provide better polishing surface and improve polishing efficiency at the same particle size, especially suitable for polishing special metal materials such as aluminum, aluminum magnesium alloys, titanium alloys, etc.

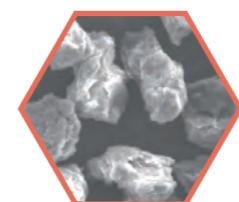
Technical Specification

Material: Diamond+Water

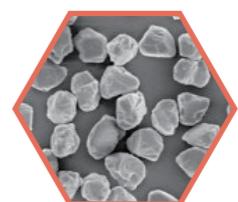
Abrasive Grade: 0.1μm, 0.25μm, 0.5μm, 1μm, 1.5μm, 2.5μm, 3μm, 3.5μm, 5μm, 6μm, 7μm, 9μm, 10μm, 14μm, 15μm, 20μm

Packing: 500ml/Bottle, 4000ml/Bottle

Composed of spherical microcrystal aggregates, with microcrystal sizes ranging from 3 to 10 μm.



Polycrystal Diamond



Monomorph Diamond

Polishing Agent

DPP Diamond Polishing Paste

Application: Suitable for manual precision polishing or low hardness samples.



Technical Specification

Material: Diamond

Abrasive Grade: 0.5μm, 1μm, 1.5μm, 2.5μm, 3μm, 3.5μm, 5μm, 6μm, 7μm, 9μm, 10μm, 14μm, 15μm, 20μm, 28μm, 40μm

Packing: 5g/PC

03

DPM Monomorph Diamond Polishing Powder

Application: It is suitable for metallographic and petrographic grinding and polishing, as well as for grinding and precision polishing of high gloss surfaces of various ferrous and non-ferrous metals, ceramics, composite materials, as well as gemstones, instruments, optical glass and other products.



Technical Specification

Material: Monomorph Diamond

Abrasive Grade: 0.25μm, 0.5μm, 1μm, 1.5μm, 2.5μm, 3μm, 3.5μm, 6μm, 7μm, 10μm, 14μm, 20μm, 28μm, 40μm

Packing: 100Karat/Wrap

DPP Polycrystal Diamond Polishing Powder

Application: It is suitable for metallographic and petrographic grinding and polishing, as well as for grinding and precision polishing of high gloss surfaces of various ferrous and non-ferrous metals, ceramics, composite materials, as well as gemstones, instruments, optical glass and other products.



Technical Specification

Material: Polycrystal Diamond

Abrasive Grade: 0.25μm, 0.5μm, 1μm, 1.5μm, 2.5μm, 3μm, 3.5μm, 6μm, 7μm, 9μm, 10μm, 14μm, 15μm, 20μm

Packing: 100Karat/Wrap

Polishing Agent

AOP Aluminum Oxide Polishing Powder

Application: Grinding and Polishing of soft materials, such as stainless steel and aluminum alloy etc.



Technical Specification

Material: Aluminum Oxide Powder

Abrasive Grade: 0.05μm, 0.5μm, 0.3μm, 1μm, 1.5μm, 2.5μm, 3.5μm, 7μm, 10μm, 14μm, 20μm, 28μm, 40μm

Packing: 500g/Bottle

03

AOS Aluminum Oxide Suspension

Application: Suitable for metallographic and lithological grinding and polishing, and high smoothness surfaces of various black and non-ferrous metals, ceramics, composite materials, as well as gemstones, instruments, optical glass and other products. Ultra fine abrasives can achieve the desired ultra precision polishing surface.



Technical Specification

Material: Aluminum Oxide Particle+Water

Abrasive Grade: 0.05μm, 0.3μm, 0.5μm, 1μm, 1.5μm, 2.5μm, 3.5μm, 7μm, 10μm, 14μm, 20μm, 28μm, 40μm

Packing: 500ml/Bottle, 1000ml/Bottle, 4000ml/Bottle



SOP Silicon Oxide Suspension

Application: Suitable for final Precision Polishing of samples, mainly used for high purity metals and alloys, minerals, ceramics, polymers and other soft and tough specimens.

Technical Specification

Material: Silicon Particle+Water

Abrasive Grade: 0.02μm, 0.04μm, 0.05μm

Packing: 500ml/Bottle, 1000ml/Bottle, 4000ml/Bottle

Polishing Agent

Cerium Oxide Suspension

Application: For fine polishing of glass, silicon wafers, crystals and optical accessories.



Technical Specification

Material: Cerium Oxide Particle

Abrasive Grade: 0.5μm, 1μm, 3μm, 6μm, 9μm

Packing: 500ml/Bottle, 1000ml/Bottle, 5000ml/Bottle

Chromium Oxide Suspension

Application: For precision polishing of steel, aluminium, copper, etc.



Technical Specification

Material: Chromium Oxide Particle

Abrasive Grade: 0.5μm, 1μm, 3μm, 6μm, 9μm

Packing: 500ml/Bottle, 1000ml/Bottle, 5000ml/Bottle

Silicon Carbide Suspension

Application: For fine polishing of steel, semiconductors and crystals.



Technical Specification

Material: Silicon Carbide Particle

Abrasive Grade: 0.5μm, 1μm, 3μm, 6μm, 9μm

Packing: 500ml/Bottle, 1000ml/Bottle, 5000ml/Bottle

Boron Nitride Suspension

Application: For fine polishing of glass, silicon wafers, crystals and optical accessories.



Technical Specification

Material: Boron Nitride Particle

Abrasive Grade: 0.25μm, 0.5μm, 1μm, 3μm, 6μm, 9μm

Packing: 500ml/Bottle, 1000ml/Bottle, 5000ml/Bottle

Polishing Lubricants

Reference for the Selection of Common Sample Materials and Abrasive Grain Sizes

Material	Rough Polishing	Fine Polishing
Ceramics, Zirconia, Alumina	Velvet with 3.5μm	Velvet with 1.5μm
Hard metals, Synthetic Materials	Woolen or Velvet with 5μm	Velvet with 3.5μm
Soft Steel, Austenitic stainless Steel,	Woolen or Velvet 3.5μm	Velvet with 1.5μm
Ferritic Steel		
Nonferrous Metals, Cast Aluminum	Velvet with 3.5μm	Velvet or Silk with 1μm
Titanium Alloy	Woolen or Canvas with 3.5μm	Velvet with 1μm or 0.5μm (0.3μm or 0.05μm silicon)
Magnesium Alloy	Velvet with 3.5μm	Silk with 1μm Synthetic Polymer with 0.05μm
Cast iron, Ductile Iron,	Canvas with 5μm	Silk with 2.5μm
Gray Cast Iron		
Hard and Medium Hard Steel	Woolen or Canvas with 5μm	Velvet with 2.5μm
Porous Ceramics	Velvet with 2.5μm	Silk with 1μm or 0.5μm
Stainless Steel	Woolen or Velvet with 5μm	Velvet with 1μm
Aluminium Alloy	Velvet with 2.5μm	Silk with 1μm or 0.5μm(0.3μm or 0.05μm alumina)

*Velvet with 3.5μm/Means Velvet polishing cloth with 3.5μm polishing agent.

Polishing Lubricants & Storage Cabinet

Introduction:

- The metallographic polishing lubricant is specifically designed for lubrication and cooling during the fine grinding and polishing stages of metallographic sample preparation. It boasts excellent lubrication and cooling properties, particularly effective for grinding and polishing non-ferrous metals and softer ferrous metals.
- When used in conjunction with our company's metallographic-specific polishing series products, such as the diamond grinding and polishing series and metallographic polishing fabrics, samples polished with this lubricant exhibit clean surfaces and minimized deformation of the metallographic structure. This significantly reduces interference with the true metallographic structure during sample preparation.
- It is suitable for various models and Specifications of metallographic polishers, both domestic and international. It is especially effective for semi-automatic or fully automatic metallographic polishing machines. Compared to similar products from abroad, its performance is fully equivalent.

PL-B/R Polishing Lubricants

Application: Polishing Lubricant is used to enhance polishing performance of diamond suspensions, compounds, sprays and films. It reduces friction and increase the life of polishing clothes. It can be applied manually or used with automatic dispenser. Suitable for precision grinding and polishing processes of all materials.



Usage Instructions:

- For Semi-Automatic or Fully Automatic Metallographic Polishing Machine: Pour the liquid into the designated bottle in the polisher. Then, follow the operating instructions of the polishing machine for proper use.
- For Manual Polishing Machine: It is recommended to pour the liquid into a soft plastic bottle with a nozzle, such as a wash bottle. During polishing, start the polishing machine and gently squeeze the soft plastic bottle to spray the lubricant onto the polishing cloth. Ensure the entire effective polishing cloth surface is wetted before beginning the polishing process.
- When Increased Polishing Resistance is Felt: Add an appropriate amount of lubricant as needed.

Application: Suitable for precision grinding and polishing processes of all materials.

Application: Suitable for grinding and polishing processes of soft materials.

Technical Specification

Color: Blue, Red

Package: 1L/bottle, 4L/bottle

MS Storage Cabinet

Application: Used to store abrasive paper of different grades and polishing cloths containing abrasive polishing materials of different grades for reuse next time.



Features:

- Metal construction with compartment PP material, durable and easy to clean;
- Transparent door with lock to prevent dust from falling in;
- Eight compartments can be used to store 8 kinds of abrasive paper or polishing cloths separately;
- Each compartment can be withdrawn separately, easy to place and access the polishing disks.

Product	Name	Page
	Rockwell	184
	Universal	225
	Portable Hardness Tester	229
	Leeb Hardness Tester Impact Device	240
	Hardness Block, Indentor & Other Spare Parts	241
	Brinell	211

TOUCH SCREEN ROCKWELL HARDNESS TESTER(CLOSED LOOP)

CODE:iRocky-150CL



OPTIONAL DELIVERY

Small V-shape Test Anvil	VTA-S
Setting Table	VR-T
Rockwell Indentor Protector	RIP
1.588 Steel Ball	RSB-1.588
3.175mm Steel Ball Indentor	RSI-3.175
3.175 Steel Ball	RSB-3.175
6.35mm Steel Ball Indentor	RSI-6.35
6.35mm Steel Ball	RSB-6.35
12.7mm Steel Ball Indentor	RSI-12.7
12.7mm Steel Ball	RSB-12.7
Rockwell Hardness Block	HRA/E/F/H/L/M/R/S



- Loading cell instead of dead weight, improving loading accuracy, more stable loading forces ;
- Smart shape design, 8 inch touch screen operating, fast and sensitive friendly for users, All settings on screen, intuitive and humanized.
- Bluetooth linked to computer, analyzed and managed data through dedicated hardness software(optional)
- Powerful data processing capabilities, calculating and analyzing maximum, minimum, and average values, etc
- Multiple Rockwell hardness scales can be selected on the touch screen and multiple hardness scales such as HV and HB can be converted.
- The operation interface is simple, with a user-friendly interface for setting parameters, System independently stores 500 sets of data;
- Compliant with the latest ISO, ASTM, GB and other standards hardness conversion
- Dwelling time and loading time can be set, hardness value can be corrected.
- 60/100/150kg selectable test forces for rockwell scales.
- Big test space: 230x170mm

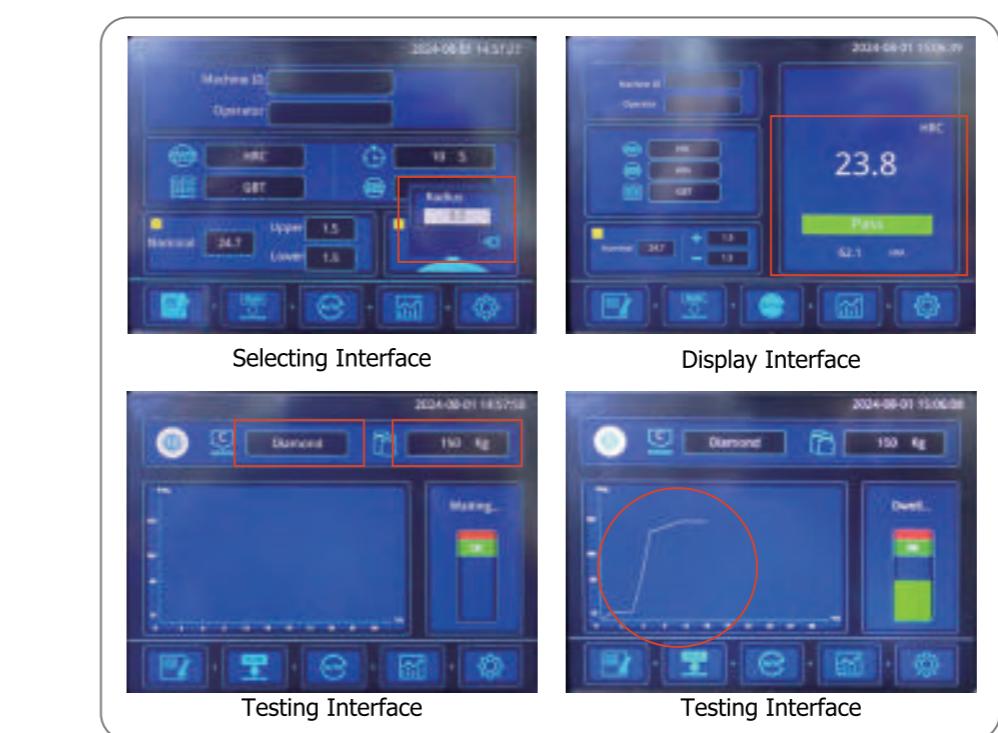
STANDARD DELIVERY

Machine Mainframe	1 set
Diamond Rockwell Indentor	1 pc
Φ1.5875mm Ball Indentor	1 pc
Φ150mm Flat Test Anvil	1 pc
Φ60mm Flat Test Anvil	1 pc
Φ40mm "V"-shape Test Anvil	1 pc
Portable Printer	1 pc
Inner Hexagon Spanner	2 pcs
Anti-dust Cover	1 pc
Screw Driver	1 pc
Level Adjusting Feet	4 pcs
Rockwell Block 20-30HRC	1 pc
Rockwell Block 40-50HRC	1 pc
Rockwell Block 80-88HRC	1 pc
Rockwell Block 60-62HRC	1 pc
Rockwell Block 90-95HRB	1 pc
Power Adaptor	1 pc
Power Cord	1 pc
Gradienter	1 pc



TECHNICAL SPECIFICATION

Product Name	Digital Touch Screen Rockwell Hardness Tester
Model No	iRocky-150CL
Initial Test Force	98.07N(10kg), ±2.0%
Total Test Force	588.4N(60kg), 980.7N(100kg), 1471N(150kg); ±1.0%
Indentor	Diamond Rockwell Indentor, Φ1.5875mm Ball Indentor
Test Range	20-95HRA, 10-100HRB, 10-70HRC
Hardness Display	8 inch Touch Screen(Optional Computer)
Hardness Resolution	0.1HR
Hardness Scale	HRA, HRD, HRC, HRFW, HRBW, HRGW, HRHW, HREW, HRKW, HRL, HRM, HRP, HRR, HRS, HRV
Conversion Scale	HV, HK, HRA, HRBW, HRC, HR15N, HR30N, HR45N, HR15TW, HR30TW, HR45TW, HBW
Data Output	Touch Screen/Portable Printer/RS232
Loading Method	Initial Test Force: Manual Loading Main Test Force: Auto Loading, Dwelling, Unloading
Power Supply	AC110V/220V±5%, 50~60Hz
Dwelling Time	2~60s Adjustable
Test Height	230mm
Test Throat	170mm
Machine Dimension	475×200×700mm(L×W×H)
Net Weight	70kg

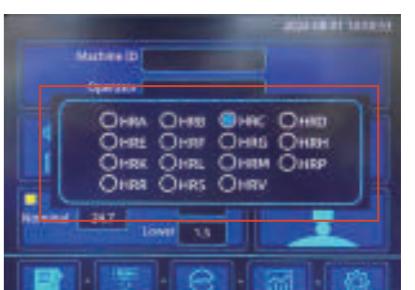


TOUCH SCREEN ROCKWELL HARDNESS TESTER(CLOSED LOOP)

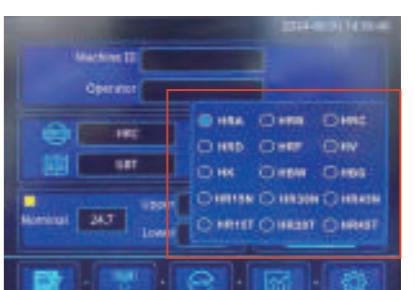
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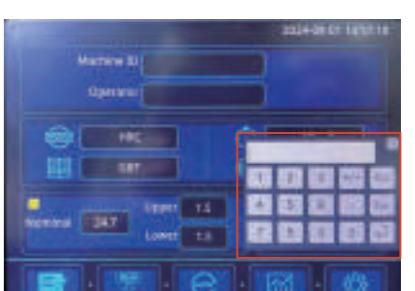
Different Test Standard



Different Hardness Scale



Different Conversion Scale



Dwelling Time

TOUCH SCREEN SUPERFICIAL ROCKWELL HARDNESS TESTER

CODE:iRocky-45CL



OPTIONAL DELIVERY

Small V-shape Test Anvil	VTA-S
Setting Table	VR-T
Rockwell Indentor Protector	RIP
1.588 Steel Ball	RSB-1.588
3.175mm Steel Ball Indentor	RSI-3.175
3.175 Steel Ball	RSB-3.175
6.35mm Steel Ball Indentor	RSI-6.35
6.35mm Steel Ball	RSB-6.35
12.7mm Steel Ball Indentor	RSI-12.7
12.7mm Steel Ball	RSB-12.7
Rockwell Hardness Block	HR45N/15T/30T/45T/15Y/50Y/45Y



- Electronic loading test force instead of weight force to improve the force accuracy of force values and ensure more stable measurement
- 8 inch touch screen operation and display, user-friendly interface to complete instrument settings;
- Bluetooth connection to computer, analyzing and managing data through dedicated hardness software;
- Powerful data processing capabilities, including calculating and analyzing maximum, minimum, and average values
- It can convert multiple hardness such as HB and HV, users select hardness scale through touch screen operation
- The operation interface is simple, with a user-friendly setting parameters, independently stores 500 sets of data
- Compliant with the latest ISO, ASTM, GB and other standards
- The initial load dwelling time and loading time can be freely set, with functions of hardness value correction

STANDARD DELIVERY

Mainframe	1 pc
Φ1.588mm Ball Indenter	1 pc
Φ60mm Flat Anvil	1 pc
Hardness Block 65-80HR30N	1 pc
Hardness Block 80-90HR15N	1 pc
Wrench	2 pcs
Portable Printer	1 pc
Anti-dust Cover	1 pc
Diamond Rockwell Indentor	1 pc
Φ150mm Flat Anvil	1 pc
Φ40mm V-shape Anvil	1 pc
Hardness Block 70-85HR30TW	1 pc
Power Adaptor	1 pc

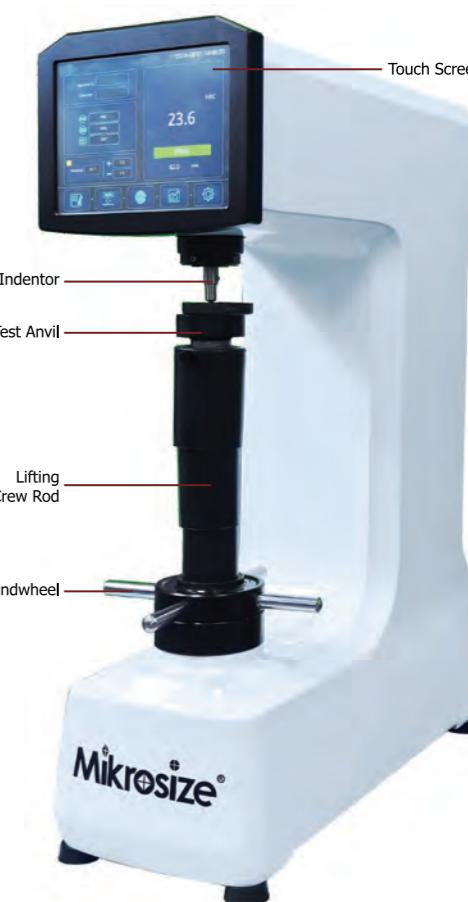


TECHNICAL SPECIFICATION

Test Force	15kg, 30kg, 45kg
Test Range	71-94HR15N, 42-86HR30N, 20-77HR45N, 67-93HR15T, 29-82HR30T, 10-72HR45T
Indentor	Diamond Rockwell Indentor φ1.588mm Steel Ball Indentor
Test Space	Test Height: 230mm Test Throat: 170mm
Loading Method	Initial Test Force: Manual Main Test Force: Automatic (Loading-Dwelling-Unloading)
Hardness Scale	HR15T, HR30T, HR45T, HR15N, HR30N, HR45N, HR15W, HR30W, HR45W, HR15X, HR30X, HR45X, HR15Y, HR30Y, HR45Y
Conversion Scale	HV, HK, HRA, HRBW, HRC, HRD, HREW, HRFW, HRGW, HRKW, HR15N, HR30N, HR45N, HR15TW, HR30TW, HR45TW, HS, HBW
Display	8 inch Touch Screen
Hardness Resolution	0.1HR
Power Supply	110/220V, 50/60HZ

TOUCH SCREEN FULLY ROCKWELL HARDNESS TESTER

CODE:iRocky-150/45CL



- Electronic loading test force instead of weight force to improve the force accuracy of force values and ensure more stable measurement
- A total of 6 test forces can be selected, covering Rockwell, Surface Rockwell and Plastic Rockwell scales.
- Supports conversion between multiple hardness values.
- Adopt 8-inch color touch screen, fast response speed, no delay operation sensitive.
- The maximum test height is 230mm and the test throat is 170mm.
- Hardness test results can be printed out.

STANDARD DELIVERY

Mainframe Machine	1 set
Diamond Rockwell Indenter	1 pc
Φ1.5875mm Ball Indenter	1 pc
Φ58mm V-shape Test Anvil	1 pc ea.
Φ150mm Test Anvil	1 pc
Φ58mm Test Anvil	1 pc
Gradienter	1 pc
Power Adapter	1 pc
Printer	1 set
Level Adjusting Feet	4 pcs
20-30HRC Rockwell Hardness Block	1 pc
65-80HR30N Superficial Rockwell Block	1 pc
80-90HR15N Superficial Rockwell Block	1 pc
60-65HRC Rockwell Hardness Block	1 pc
70-85HR30TW Superficial Rockwell Block	1 pc



Diamond Indentor Gradienter Level Adjusting Feet Test Anvil

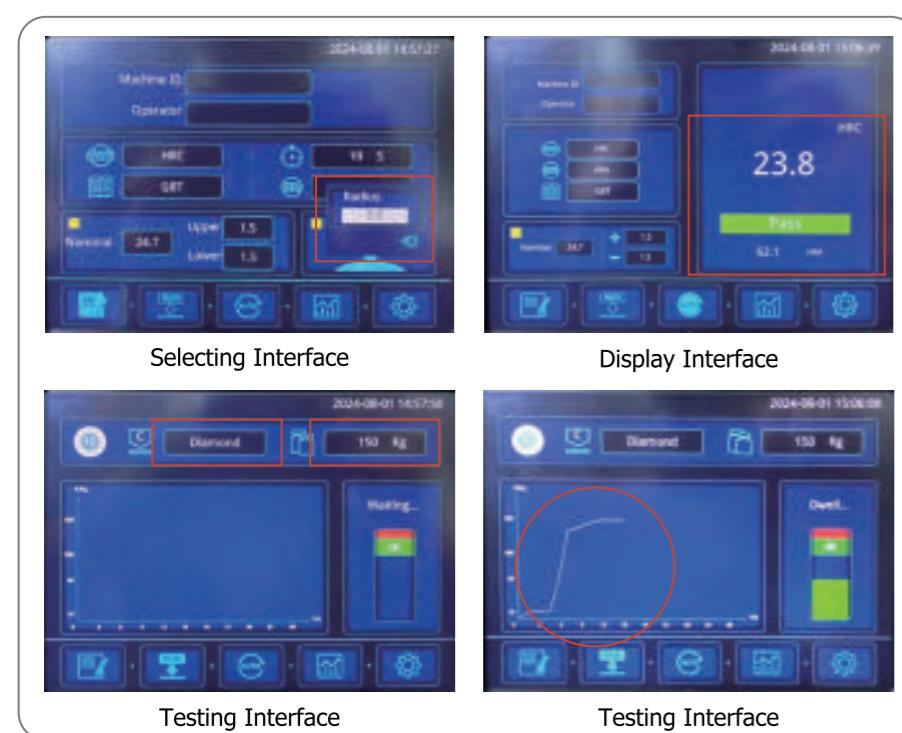


TOUCH SCREEN FULLY ROCKWELL HARDNESS TESTER

CODE:iRocky-150/45CL

TECHNICAL SPECIFICATION

Product Name	Touch Screen Fully Rockwell Hardness Tester
Initial test force	29.42N (3kg) ,98.07N (10kg) tolerance ± 2.0%
Total Test Force	147.1N (15kg), 294.20N (30kg), 441.30N (45kg), 588.4N (60kg), 980.7N (100kg), 1471N (150kg) tolerance ± 1.0%
Hardness scales	HRA,HRB,HRC,HRD,HRE,HRF,HRG,HRH,HRK,HRL,HRM,HRP,HRR, HRS,HRV,HR15N,HR30N,HR45N,HR15T,HR30T,HR45T,HR15W, HR30W,HR45T,HR15X,HR30X,HR45X,HR15Y,HR30Y,HR45Y
Conversion Scales	ASTM:HRC,HV,HBS,HBW,HHK,HRA,HRD,15N,30N,45N,Sclero DIN:HRA,HRB,HRC,HRD,HRF,HV,HK,HBW, HBS,HR15N,HR30N,HR45N,HR15T,HR30T,HR45T GBT:HV,HBS,HRA,HRB, HRC,HRD,HRE,HRF,HRG,HRK,15N,30N,45N,15T,30T,45T
Indenter	Diamond Rockwell Indenter, $\Phi 1.5875\text{mm}$ Ball Indenter
Power Supply	AC220V±5%,50~60Hz
Dewelling Time	Adjustable From 2 To 60 Seconds
Test Height	230mm
Test Throat	170mm
Machine Dimensions	475*200*700mm
Net Weight	70kg



AUTO DIGITAL FULLY ROCKWELL HARDNESS TESTER

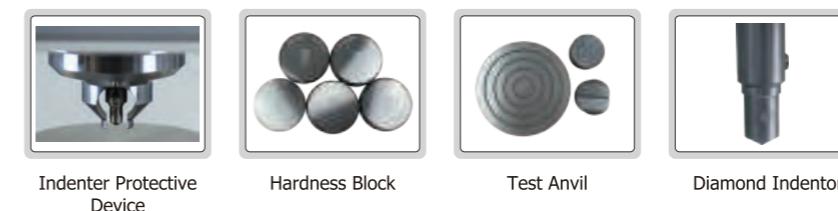
CODE:uRocky-150/45A



- Test Anvil automatic lifting, without manual rotation of hand-wheel.
- Press the start button, the test anvil rises automatically, test sample will be loaded and unloaded automatically, and the hardness value will be displayed automatically.
- Closed loop control system, high precision load cell.
- 8" touch screen for user directly select the hardness scale and test force and displays hardness value, conversion scale, test force, dwell time, etc.
- With all kinds of rockwell hardness scales HRA HRB HRC etc and high resolution 0.1HR.
- Automatic correction of high, medium and low hardness numbers, Automatic correction of load, with the force accuracy increased by dynamometer.
- Automatically apply the initial test force and main test force, Automatic loading-Dwell - Unloading, automatic display hardness value.
- Curve display: test force, displacement depth change curve, real-time test force value curve.
- Powerful data processing function, including: HR, HB, HV and other hardness-scale conversion.
- Qualified range can be set, automatic alarm over the limit, tester's name, sample name and other information can be input.
- With USB/RS232 interface, test data can be saved in U-flash directly in Excel format.
- Indenter protective device equipped (testing sample size should be over 15mm)

STANDARD DELIVERY

Diamond Rockwell Indenter	1 pc
Regulating Screw	4 pcs
Hardness Block (HRC high and low, HRB)	3 pcs
Hardness Block (HR15, HR30N, HR30T)	3 pcs
2A Fuse	2 pcs
USB Flash Disk	1 pc
Power Line	1 pc
Touch Pen	1 pc
1.5875mm Ball Indenter	1 pc
150mm Test Anvil	1 pc
55mm Test Anvil	1 pc
40mm V-type Test Anvil	1 pc
V-shaped Test Anvil	1 pc



OPTIONAL DELIVERY

Rockwell Indenter Protector	RIP
Small V-shape Test Anvil	VTA-S
Setting Table	VR-T
1.588 Steel Ball	RSB-1.588
3.175mm Steel Ball Indentor	RSI-3.175
3.175 Steel Ball	RSB-3.175
6.35mm Steel Ball Indentor	RSI-6.35
6.35mm Steel Ball	RSB-6.35
12.7mm Steel Ball Indentor	RSI-12.7
12.7mm Steel Ball	RSB-12.7
Rockwell Hardness Block	HRA/E/F/H/L/M/R /S/45N/15T/45T/ 15Y/50Y/45Y



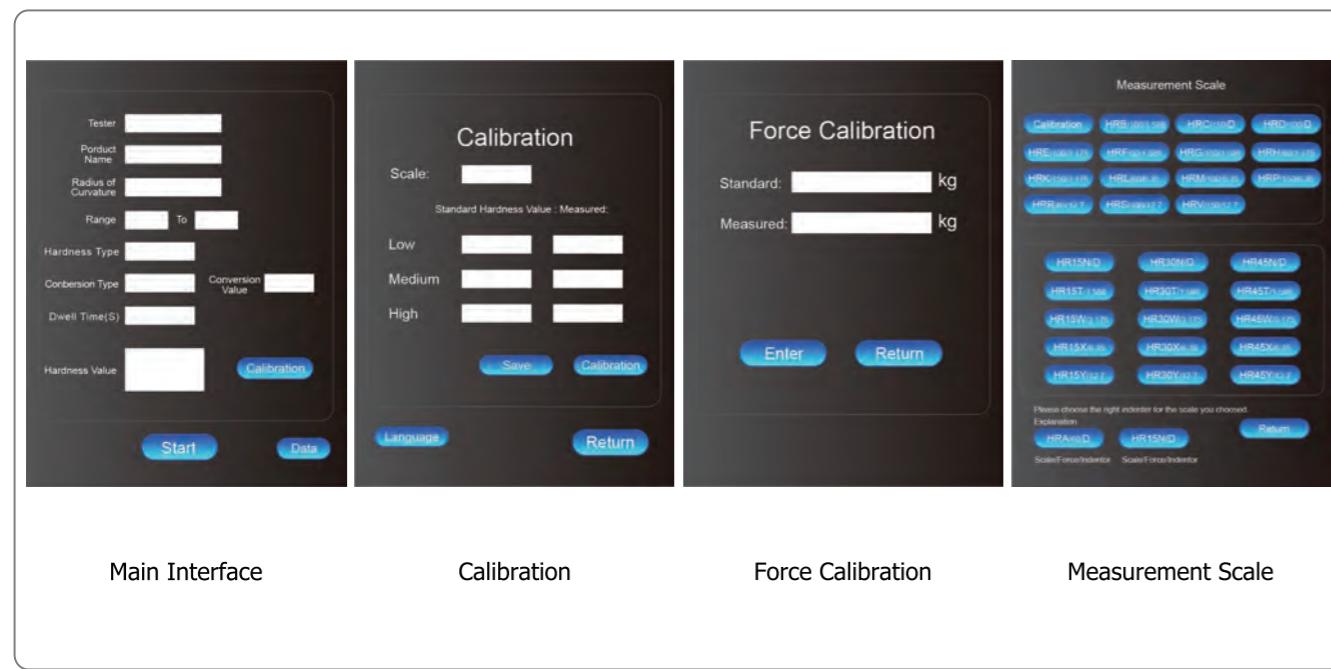
AUTO DIGITAL FULLY ROCKWELL HARDNESS TESTER

CODE:uRocky-150/45A

TECHNICAL SPECIFICATION

Model	uRocky-150/45A
Product Name	Auto Digital Fully Rockwell Hardness Tester
Initial Test Force(error < 0.5%)	Rockwell: 10 Kgf (98.07N) Superficial Rockwell: 3.0kgf(29.4N)
Main Test Force(error < 0.5%)	15kgf(147.1N) ,30kgf(249.2N), 45kgf(441.3N) 60kgf(588N),100kgf(980N),150kgf(1471N)
Hardness Scale	HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRH, HRK, HRL, HRM, HRR, HRP, HRS, HRV 15N, 15T, 15W, 15X, 15Y, 30N, 30T, 30W, 30X, 30Y, 45N, 45T, 45W, 45X, 45Y
Conversion scale	HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRH, HRK, HRL, HRM, HRR, HRP, HRS, HRV 15N, 15T, 15W, 15X, 15Y, 30N, 30T, 30W, 30X, 30Y, 45N, 45T, 45W, 45X, 45Y
Hardness Test Range	HRA:20-88, HRB:20-100, HRC:20-70, HRD:40-77, HRE:70-100, HRF:60-100, HRG:30-94, HRH:80-100, HRK:40-100, HRL:100-120 HRM:85-115, HRR:114-125 HR15N: 70-94, HR30N: 42-86 HR45N: 20-77, HR15T: 67-93 HR30T: 29-82, HR45T: 1-72
Executive Standards	BSEN 6508, ISO 6508, ASTM E18, GB/T230, JJG112
Dwell Time	0-99s
Hardness Resolution	0.1 HR
Hardness Reading	LCD Touch Screen
Data Output	USB Flash Disk
Data Save	The Measured Values Are Saved In USB Flash In Excel Format
Test Height	300mm
Test Throat	200mm
Machine Dimension	560 * 280 * 850 mm
Net Weight	80kg
Power Supply	AC220 + 5%, 50 ~ 60 hz

04



Main Interface

Calibration

Force Calibration

Measurement Scale

DOLPHIN NOSE ROCKWELL HARDNESS TESTER

CODE:uRocky-DN



VIDEO

- Extended horizontally designed indenter can test the parts that are unable to be measured by general hardness tester, such as ring and tube, with the minimum test inner diameter of 25mm.
- Closed loop control system, high precision load cell in stead of dead weights, working directly after connecting with electric power.
- Touch screen for user directly select the hardness scale, test force and displays hardness value, conversion scale, test force, dwell time, etc.
- Semi-automatic type, initial test force loading manually, then main force loading by motor (loading main force, dwell, unload automatically), greatly improved working efficiency.
- With all kinds of rockwell hardness scales HRA, HRB, HRC etc and high resolution 0.1HR.
- Automatic correction of high, medium and low hardness value on touchscreen.
- Automatic correction of load, with the force accuracy increased by dynamometer.
- Automatically apply the initial test force and the main test force. eAutomatic testing process: Automatic loading - Dwell - Unloading, and automatic display hardness value.
- Curve display: test force, displacement depth change curve, real-time test force value curve.
- Powerful data processing function, including: HR, HB, HV and other hardness scale conversion.
- Qualified range can be set, automatic alarm over the limit, tester's name, sample name and other information can be input.
- Operator can set up a password for the machine to protect setup parameters, safely keep test information and setted parameters.
- With USB interface, test data can be saved in U-flash directly in Excel format, easy to edit and process.
- Machine adopted modular design, easy maintenance.

STANDARD DELIVERY

Diamond Rockwell Indentor	1 pc
Regulating Screw	4 pcs
Hardness Block (HRC high and low, HRB)	3 pcs
Hardness Block (HR15, HR30N, HR30T)	3 pcs
2A Fuse	2 pcs
USB Flash Disk,	1 pc
Power Line	1 pc
Touch Pen	1 pc
1.5875mm Ball Indentor	1 pc
150mm Test Anvil	1 pc
55mm Test Anvil	1 pc
40mm V-type Test Anvil	1 pc



Brinell Block



Test Anvil



Rockwell Indentor

OPTIONAL DELIVERY

Small V-shape Test Anvil	VTA-S
Setting Table	VR-T
1.588 Steel Ball	RSB-1.588
3.175mm Steel Ball Indentor	RSI-3.175
3.175 Steel Ball	RSB-3.175
6.35mm Steel Ball Indentor	RSI-6.35
6.35mm Steel Ball	RSB-6.35
12.7mm Steel Ball Indentor	RSI-12.7
12.7mm Steel Ball	RSB-12.7
Rockwell Hardness Block	HRA/E/F/H/L/M/R /S/45N/15T/45T/ 15Y/50Y/45Y

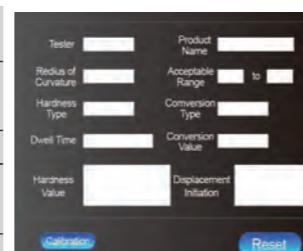


DOLPHIN NOSE ROCKWELL HARDNESS TESTER

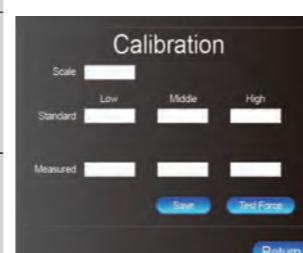
CODE:uRocky-DN

TECHNICAL SPECIFICATION

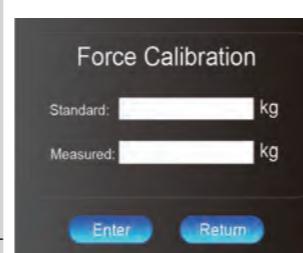
Model	uRocky-150DN	uRocky-45DN	uRocky-150/45DN
Product Name	Dolphin Nose Rockwell Hardness Tester	Dolphin Nose Superficial Rockwell Hardness Tester	Dolphin Nose Twin Rockwell Hardness Tester
Initial Test force (error <0.5%)	10Kgf(98.07N)	3.0kgf(29.4N)	Rockwell: 10Kgf(98.07N) Superficial Rockwell: 3.0kgf(29.4N)
Total Test force (error <0.5%)	60kgf(588N) 100kgf(980N) 150kgf(1471N)	15kgf (147.1N) 30kgf (294.2N) 45kgf (441.3N)	Rockwell: 60kgf(588N) 100kgf(980N) 150kgf(1471N) Superficial Rockwell: 15kgf (147.1N) 30kgf (294.2N) 45kgf (441.3N)
Hardness Scale	HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRH, HRK, HRL, HRM, HRR, HRP, HRS, HRV	15N, 15T, 15W, 15X, 15Y, 30N, 30T, 30W, 30X, 30Y, 45N, 45T, 45W, 45X, 45Y	Rockwell: HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRH, HRK, HRL, HRM, HRR, HRP, HRS, HRV Superficial Rockwell: 15N, 15T, 15W, 15X, 15Y, 30N, 30T, 30W, 30X, 30Y, 45N, 45T, 45W, 45X, 45Y
Conversion Scale	HRA, HRB, HRC, HRD, HRF, HV, HK, HBW, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T		
Hardness Range	HRA:20-88, HRB:20-100, HRC:20-70, HRD:40-77, HRE:70-100, HRF:60-100, HRG:30-94, HRH:80-100, HRK:40-100, HRL:100-120, HRM:85-115, HRR:114-125	HR15N: 70-94, HR30N: 42-86, HR45N: 20-77, HR15T: 67-93, HR30T: 29-82, HR45T: 10-72	Rockwell: HRA:20-88, HRB:20-100, HRC:20-70, HRD:40-77, HRE:70-100, HRF:60-100, HRG:30-94, HRH:80-100, HRK:40-100, HRL:100-120, HRM:85-115, HRR:114-125 Superficial Rockwell: HR15N: 70-94, HR30N: 42-86, HR45N: 20-77, HR15T: 67-93, HR30T: 29-82, HR45T: 10-72
Executive Standards	BSEN 6508, ISO 6508, ASTM E18, GB/T230		
Dwell Time	0-99s		
Hardness resolution	0.1 HR		
Data Display	Touch LCD		
Data Save	The Measured Values Are Saved On USB Flash Drive In Excel Format		
Test Height	300mm		
Test Throat	250mm		
Machine Dimension	720 * 260 * 840 mm		
Net Weight	80kg		
Power Supply	AC220 + 5%, 50 ~ 60 hz		



Main Interface



Calibration



Force Calibration



Measurement Scale

- Fully automatic Rockwell hardness tester achieves full automatic control of the hardness testing process.
- The loading system uses high-precision force value sensors and a central controller to form a closed-loop system, achieving precise control of the test force value.
- The depth measurement system uses high-precision displacement sensors, which can achieve a hardness value resolution of 0.1HR.
- The loading test stage is fixed, and hardness testing is carried out by the up and down movement of the indenter.
- The fixed test platform can eliminate the coaxiality error caused by the traditional screw up and down rotation, improve the testing accuracy and repeatability, and increase the stability and work efficiency.
- Adopting a high-speed and precise step control system to achieve high-precision and fast testing;
- New design, mobile head structure, using high-precision guide rails to control the precise movement of the head;
- High definition touch screen operation, menu style interface, intuitive display. Configure a wireless printer to facilitate printing and saving of test results.

OPTIONAL DELIVERY

Small V-shape Test Anvil	VTA-S
Setting Table	VR-T
3.175mm Steel Ball Indentor	RSI-3.175
3.175 Steel Ball	RSB-3.175
6.35mm Steel Ball Indentor	RSI-6.35
6.35mm Steel Ball	RSB-6.35
12.7mm Steel Ball Indentor	RSI-12.7
12.7mm Steel Ball	RSB-12.7
Rockwell Hardness Block	HRE/F/H/L/M/R/S /45N/15T/45T/15 Y/50Y/45Y



FULLY AUTOMATIC FULL ROCKWELL HARDNESS TESTER

CODE:MRocky-150/45A



STANDARD DELIVERY

Machine Mainframe	1 set
Wireless Printer	1 pc
Small Test Stage	1 pc
V-shape Test Stage	1 pc
Diamond Rockwell Indentor	1 pc
φ1.5875mm Ball Indentor	1 pc
φ1.5875mm Ball	5 pcs
HRA Hardness Block	1 pc
HRB Hardness Block	1 pc
HRC Hardness Block	3 pcs
HR15N Hardness Block	1 pc
HR30N Hardness Block	2 pcs
HR30T Hardness Block	1 pc

FULLY AUTOMATIC FULL ROCKWELL HARDNESS TESTER

CODE:MRocky-150/45A

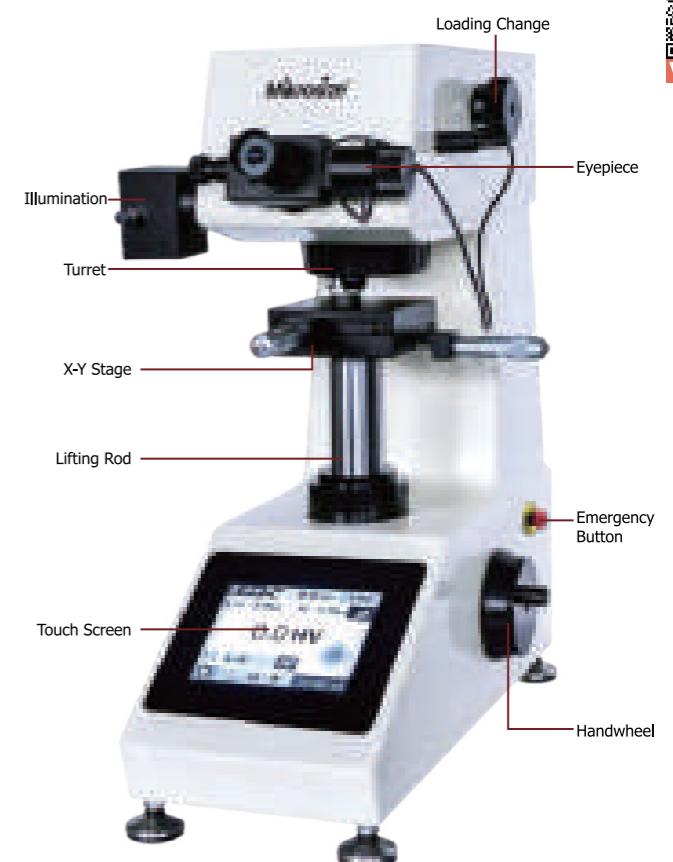
TECHNICAL SPECIFICATION

Name	Specification
Control system	Precision step control system
Dwelling time	1-60S
Initial test force	10kgf(98.07N)
	3kgf(29.4N)
Total test force	60, 100, 150kgf (588.4, 980.7, 1471N)
	15, 30, 45kgf (147.1, 294.2, 441.3N)
Indentor	Diamond Rockwell Indentor,Φ1.5875mm Steel Ball Indentor
Test Height	280mm
Test Throat	170mm
Hardness Scale	HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRH, HRK, HRL, HRM, HRP, HRR, HRS, HRV, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T, HR15X, HR30X, HR45X, HR15Y, HR30Y, HR45Y, HR15W, HR30W, HR45W
Conversion Scale	HRA;HRB;HRC;HRD;HRF;HRG;HRH;HRK;HRL;HRM;HRP;HRR;HRS;HRV;HR15N;HR30N;HR45N;HR15T;HR30T;HR45T
Hardness Reading	LCD Touch Screen
Hardness Resolution	0.1HR
Data Output	Built-in Blue Teeth, RS-232, USB
Power Supply	AC220V, 50Hz /110V, 60Hz
Machine Dimension	400*855*620mm
Net Weight	180KG



TOUCH SCREEN MICRO VICKERS HARDNESS TESTER(ADVANCED TYE)

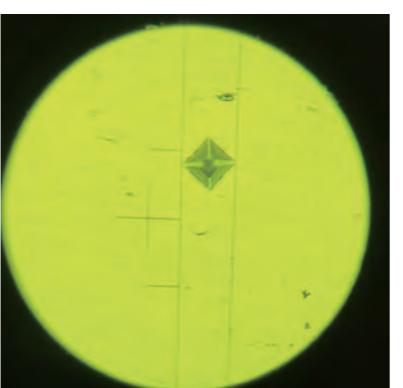
CODE:MVicky-1000T



- High-definition touch screen display and operation.
- Automatic switching turret, automatic positioning.
- Precise mechanical design, controlled by the CPU electrically, and high-definition optical measurement system is used optically to improve the test accuracy.
- Testing mode both micro vickers and knoop.
- Selected all micro vickers scales, and converted hardness scales.
- Preset test force load dwelling time.
- Adjustable illumination brightness.
- The diagonal length of the indentation automatically entered after digital encode button pushed, the hardness value is automatically displayed on the screen, and the number of hardness tests is prompted.
- Built-in printer, test result can be printed out.

STANDARD DELIVERY

Machine Mainframe	1 set
Diamond Micro Vickers Indenter	1 pc
X-Y Test Table	1 pc
Thin Specimen Clamp	1 pc
Hardness Block 400~500 HV0.2	1 pc
Weights	6 pcs
Horizontal Adjusting Screw	4 pcs
Fuse 1A	2 pcs
Power Cord	1 pc
10X Digital Measuring Eyepiece	1 pc
10X, 40X Objective Lens	1 pc ea.
Flat Clamp	1 pc
Filament Clamp	1 pc
Hardness Block 700~800 HV1	1 pc
Weight Axis	1 pc
Level	1 pc



Knoop Indenter	KDI
15x Digital Eyepiece	DEP-15
20x Digital Eyepiece	DEP-20
Objective Lens 5X	Lens-5
Objective Lens 20X	Lens-20
Objective Lens 50X	Lens-50
Digital X-Y Stage	DXY
Sample Flattener	VCF
Setting Table	VR-T
Vicker Testing Software	uVision-V
Molting Sample Clamp	MSC-1/2/4
Vickers Hardness Block	HV0.05/0.1/0.3/0.5



Eyepiece



Flat Clamp



Thin Specimen Clamp



Filament Clamp



X-Y Test Table



Level



Micro-hardness Blocks

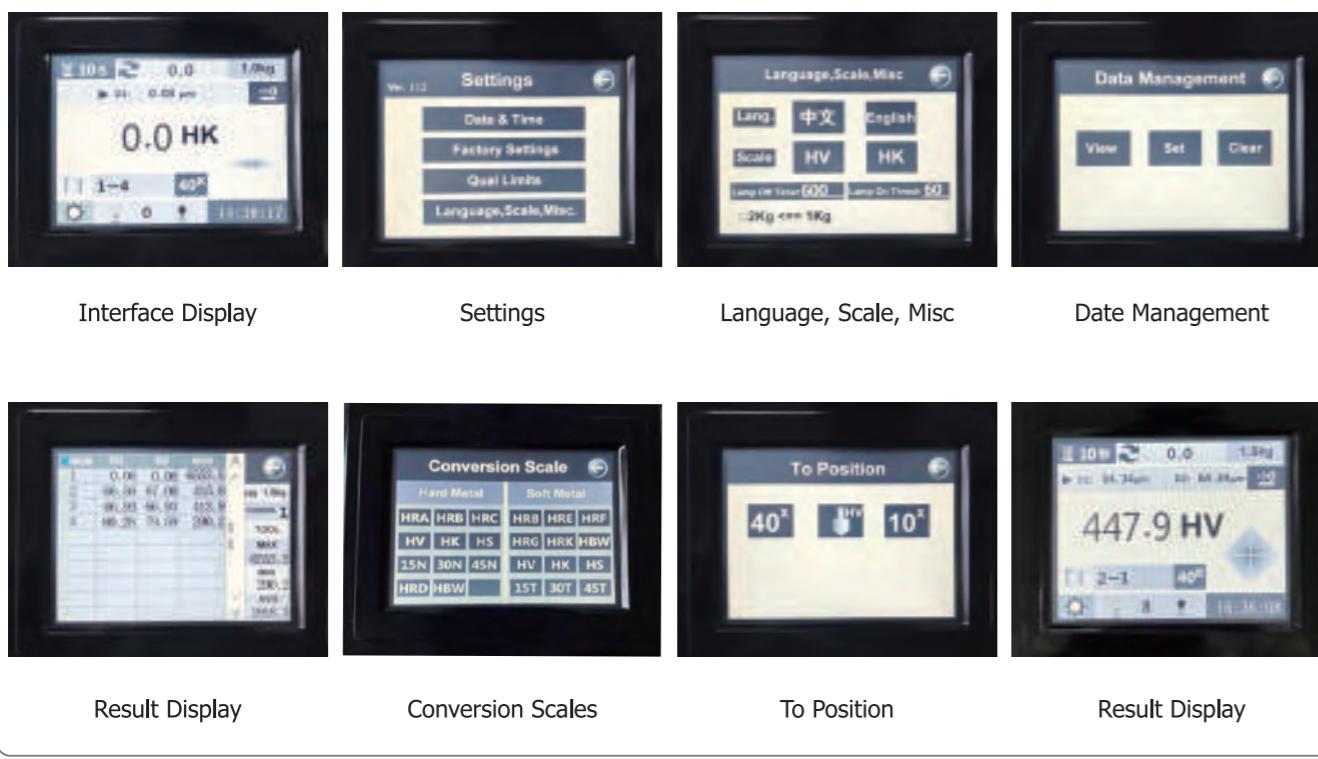
TOUCH SCREEN MICRO VICKERS HARDNESS TESTER(ADVANCED TYPE)

CODE: MVicky-1000T

TECHNICAL SPECIFICATION

Product Name	Touch Screen Micro Vickers Hardness Tester
Model	MVicky-1000T
Test Force	0.098N(10gf)、0.245N(25gf)、0.49N(50gf)、0.9807N(100gf)、1.961N(200gf)、2.942N(300gf)、4.903N(500gf)、9.807N(1kgf)
Loading Method	Auto Loading , Dwelling, Unloading
Turret	Auto
Dwelling Time	0~60s(every 5 seconds as one unit)
Eyepiece	10x
Objective	10x(observation) , 40x(measurement)
Total Magnification	100x(observation) , 400x(measurement)
X-Y Test Anvil	Size: 100x100 mm,Travel: 25x25mm,Resolution:0.01mm
Test Height	90mm
Test Throat	100mm
Net Weight	31kg
Machine Dimension	480x325x545mm (LxWxH)
Power Supply	AC110/220 V/50~60 Hz
Working Environment	In the range of (23±5) °C at room temperature. Placed horizontally on a solid foundation. No corrosive media around it in a vibration-free environment. Indoor relative humidity is not more than 65%.

04

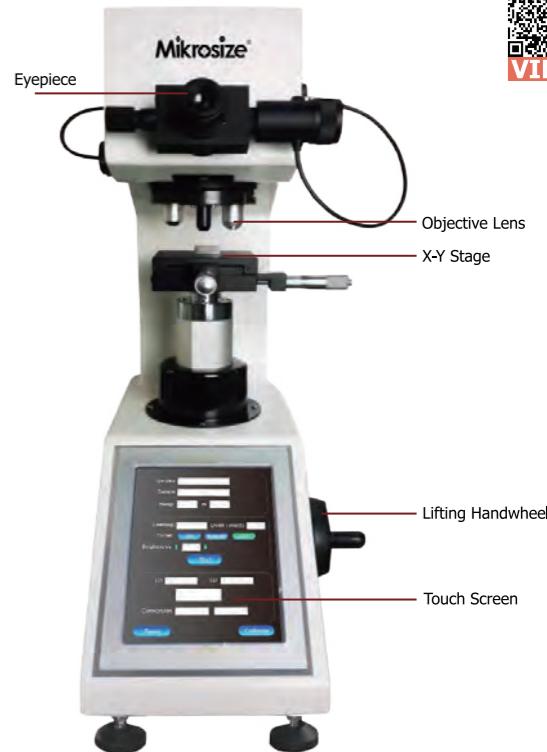


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TOUCH SCREEN MICRO VICKERS HARDNESS TESTER(PRACTICAL TYPE)

CODE: uVicky-1

CODE: uVicky-1

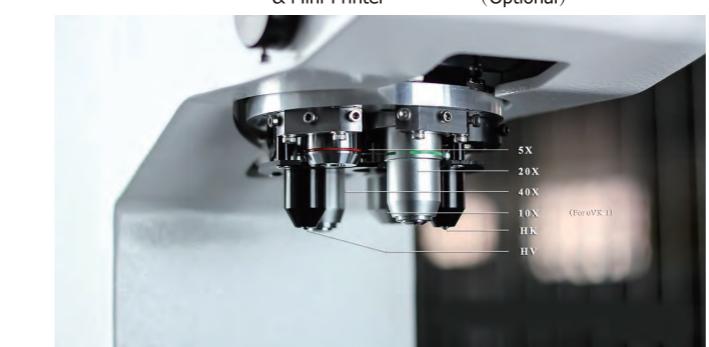


04

- 8" Touch screen ,menu structure.
- Optical cross guide rail guidance ensures guidance accuracy.
- High precision worm gear rod with high transmission ratio ensure more precise force transmission and achieve stable continuous lifting.
- Dual optical path, one optical path for eyepiece system, another path for CCD camera, both path can working in the same time.
- LED illumination for long service life , adjustable brightness .
- Test setting parameters is protected by password.
- It can be calibrated according to the standard hardness block or length scale
- Eyepiece structure with digital encoder, and the touch screen directly displays the hardness value and D1 and D2 values.
- With lens 5x/10x/20x/40x can used for measurement, suitable to test widely hardness range of materials from most soft to very hard.
- With hardness conversion function, from HV can convert to HRA, HRB, HRC, HBW, etc.
- With HV & HK Vickers and Knoop hardness testing capabilities.
- It can be equipped with a built-in camera (optional)
- RS-232 interface connected to computer for data output, testing result can be saved in USB (optional) in EXCEL format. bulut-in mini-printer to print testing data.
- With micro vickers indentor smart cover to protect indenter collision by test sample or other parts.
- OK/NG judgement function.
- 1 micro vickers indentor,4 objective lens totally 5 position hardness testing machine is realized.
- English language operation as standard, other languages can be customized.
- Auto load selection by touch screen instead of manual loading selection which makes force change more smoothly.(optional)

OPTIONAL DELIVERY

Knoop Indentor	KDI
15x Digital Eyepiece	DEP-15
20x Digital Eyepiece	DEP-20
Objective Lens 5X	Lens-5
Objective Lens 20X	Lens-20
Objective Lens 50X	Lens-50
Digital X-Y Stage	DXY
Sample Flattener	VCF
Setting Table	VR-T
Vicker Testing Software	uVision-V
Molting Sample Clamp	MSC-1/2/4
Vickers Hardness Block	HV0.05/0.1/0.3/0.5



STANDARD DELIVERY

Weight Shaft	1 pc
Eyepiece	1 pc
X-Y Test Anvil	1 pc
Gradienter	1 pc
Power Cord	1 pc
Diamond Micro Vickers Indenter	1 pc
Printing Paper	1 pc
Screwdriver	2 pc
Weight	6 pcs
HV0.2 Hardness Block	1 pc
HV1 Hardness Block	1 pc
Spare Fuse (2A)	2 pcs
Flat/Thin Specimen/Filament Clamp	Each 1 pc
Touch Pen	1 pc
Level Adjustment Screw	4 pcs
Diamond Vickers Indenter	1 pc



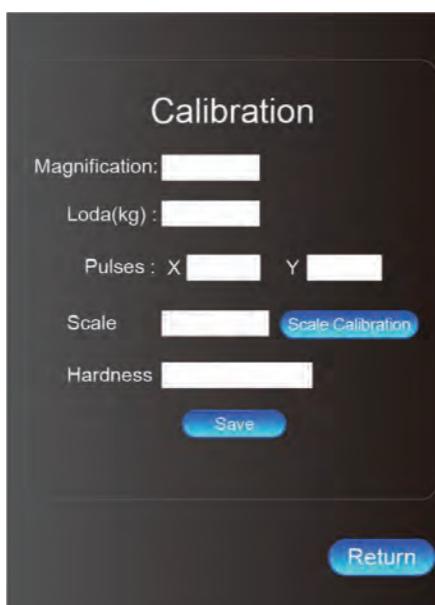
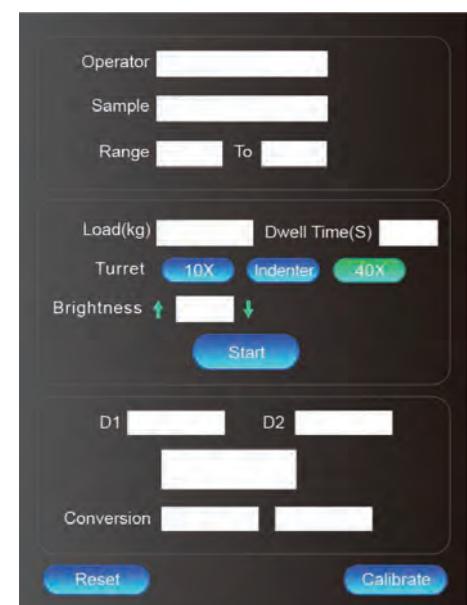
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TOUCH SCREEN MICRO VICKERS HARDNESS TESTER(PRACTICAL TYPE)

CODE:uVicky-1

TECHNICAL SPECIFICATION

Product Name	uVicky-1 Micro Vickers Hardness Tester			
Model	uVicky-1M-2	uVicky-1A-2	uVicky-1A-3	uVicky-1A-4
Turret	Manual	Auto	Auto	Auto
Built-in Mini Printer	Yes	Yes	Yes	Yes
Data Statistic Function	Yes	Yes	Yes	Yes
Objective	10X(Observe&Measure) 40X(Observe&Measure)	10X(Observe&Measure) 40X(Observe&Measure)	10X(Observe&Measure) 20X(Observe&Measure) 40X(Observe&Measure)	5X(Observe&Measure) 10X(Observe&Measure) 20X(Observe&Measure) 40X(Observe&Measure)
Eyepiece	10X digital eyepiece with built-in encoder			
Total Magnification	100X(Observe&Measure) 400X(Observe&Measure)	100X(Observe&Measure) 400X(Observe&Measure)	100X(Observe&Measure) 200X(Observe&Measure) 400X(Observe&Measure)	50X(Observe&Measure) 100X(Observe&Measure) 200X(Observe&Measure) 400X(Observe&Measure)
Test Force	10gf (0.098N), 25gf (0.245N), 50gf (0.49N), 100gf (0.98N), 200gf (1.96N), 300gf (2.94N), 500gf (4.9N), 1000gf (9.8N)			
Hardness Scale	HV0.01, HV0.025, HV0.05, HV0.1, HV0.2, HV0.3, HV0.5, HV1			
Conversion Scale	HRA, HRB, HRC, HRD, HRF, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T, HV, HK, HBW			
Loading Speed	$\leq 50\mu\text{m/sec}$			
Indentor	Standard Rectangular Pyramid Diamond Indenter ($136^\circ \pm 0.5^\circ$)			
Objective lens center and indenter center	Coincidence accuracy error < 1um (objective lens center position can be adjusted)			
Measurement Resolution	0.01 μm			
Data Display / Output	8 "Touch Screen Display, Can Store 20 Test Results, USB drive, Built-in Printer and RS-232 Interface			
Hardness Test Range	8~2900HV			
Loading Method	Automatic (loading, dwell, unloading)			
Dwell Time	1-99s(each step is 1 second)			
Test Space	Test height: 100mm(Vertical); Test Throat: 130mm(Horizontal)			
X-Y Test Anvil	Dimension: 100*100mm, Movement: 25*25mm, Moving Resolution Ratio: 0.01mm			
Illumination	LED Cold light source (can be continuous use for 24 hours, no heat generate ensure stable working, servicing life can reach 100,000 hours)			
Machine Size&N/W	540*260*650mm, 50kg			
Package Size&G/W	710*420*627mm, 68kg			
Power supply	AC220V+5%, 50-60Hz(110V is available)			
Executive Standards	GB/T4340, ASTM E384 & E92, EN-ISO 6507, JIS B-7734			



MICRO VICKERS AND KNOOP HARDNESS TESTER

CODE:uVK-1



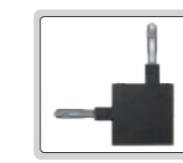
- HV & HK Vickers and Knoop hardness testing capabilities.
- Lens 5x/10x/20x/40x can be used for measurement, suitable to test widely hardness range of materials from most soft to very hard.
- 1 micro vickers indentor, 1 knoop indentor and 4 objective lens totally 6 position hardness testing machine is realized.
- Vickers and Knoop hardness values can be measured simultaneously.
- 8"Touch screen, menu structure, and digital eyepiece with built-in encoder, by clicking encoder button, the diagonal length of indentation D1, D2 and hardness value automatically calculated.
- Lifting mechanism guided by optical cross rail ensures guiding accuracy. Rack and pinion force transmission realizes fast and stable force transmission.
- High precision worm gear rod with high transmission ratio ensures more precise force transmission and achieves stable continuous lifting.
- Auto-turret, Auto test point locating accurately.
- Dual optical path, one optical path for eyepiece system, another path for CCD camera, both paths can work at the same time.
- LED illumination for long service life. Brightness of the light source can be adjusted.
- Test setting parameters are protected by password.
- It can be calibrated according to standard hardness blocks or length scales, and the hardness can be corrected automatically according to high, medium and low hardness values.
- With hardness conversion function, from HV can convert to HRA, HRB, HRC, HBW, etc.
- It can be equipped with a built-in camera (optional) to make the image clearer.
- RS-232 interface connected to computer for data output, testing result can be saved in USB (optional) in EXCEL format. Built-in mini-printer to print testing data.
- With micro vickers indentor smart cover to protect indentor collision by test sample or other parts.
- OK/NG judgement function.
- English language operation as standard, other languages can be customized.
- Auto load selection by touch screen instead of manual loading selection (optional).
- Test setting parameters are protected by password.
- Optional maximum test force 2kg.

STANDARD DELIVERY

Weight Shaft	1 pc
Eyepiece	1 pc
X-Y Test Anvil	1 pc
Gradienter	1 pc
Power Cord	1 pc
Diamond Vickers Indenter	1 pc
Knoop Indenter	1 pc
Printing Paper	1 pc
Screwdriver	2 pc
Weight	6 pcs
Micro Hardness block(HV0.2/HV1)	Each 1 pc
Spare Fuse (2A)	2 pcs
Touch Pen	1 pc
Level adjustment screw	4 pcs



Brinell Block



Test Anvil



Rockwell Indentor



Built-in Camera



RS-232 Interface & Mini-Printer



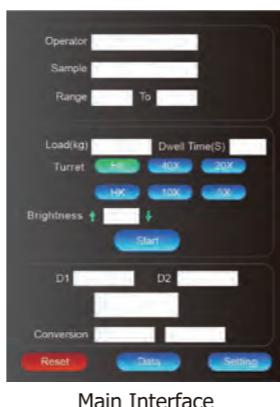
Flattening Device
(Optional)

MICRO VICKERS AND KNOOP HARDNESS TESTER

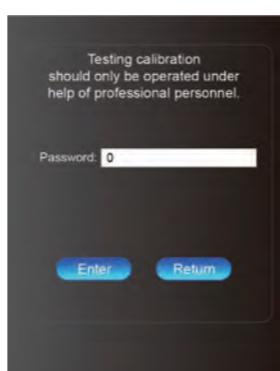
CODE:uVK-1

TECHNICAL SPECIFICATION

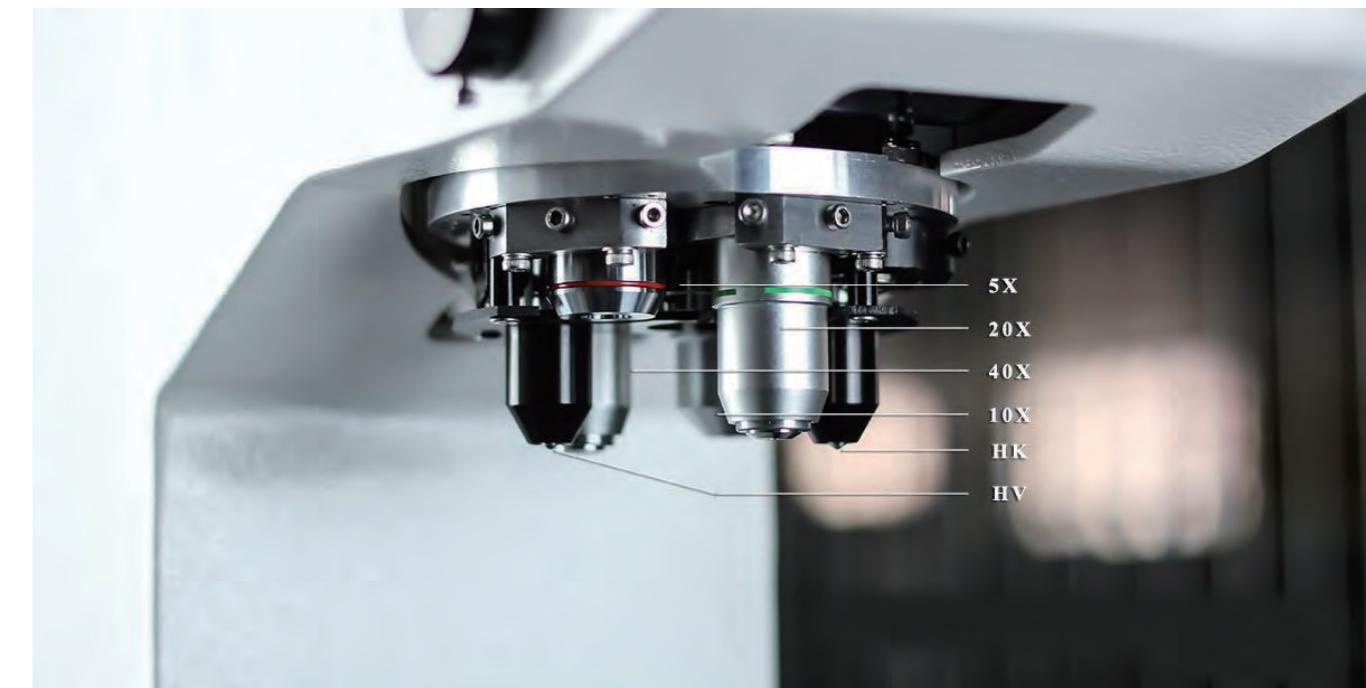
Product Name	uVK-1 Micro Vickers and Knoop Hardness Tester		
Model	uVK-1A-4	uVK-1A-5	uVK-1A-6
Turret	Auto	Auto	Auto
Built-in Mini Printer	Yes	Yes	Yes
Data Statistic Function	Yes	Yes	Yes
Objective	10X(Observe&Measure) 40X(Observe&Measure)	10X(Observe&Measure) 20X(Observe&Measure) 40X(Observe&Measure)	5X(Observe&Measure) 10X(Observe&Measure) 20X(Observe&Measure) 40X(Observe&Measure)
Eyepiece	10X digital eyepiece with built-in encoder		
Total Magnification	100X(Observe&Measure) 400X(Observe&Measure)	100X(Observe&Measure) 200X(Observe&Measure) 400X(Observe&Measure)	50X(Observe&Measure) 100X(Observe&Measure) 200X(Observe&Measure) 400X(Observe&Measure)
Test Force	10gf (0.098N), 25gf (0.245N), 50gf (0.49N), 100gf (0.98N), 200gf (1.96N), 300gf (2.94N), 500gf(4.9N), 1000gf (9.8N)		
Hardness Scale	HV0.01, HV0.025, HV0.05, HV0.1, HV0.2, HV0.3, HV0.5, HV1		
Conversion Scale	HRA, HRB, HRC, HRD, HRF, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T, HV, HK, HBW		
Loading Speed	$\leq 50\mu\text{m/sec}$		
Indentor	HV: Rectangular Pyramid Diamond Indentor($136^\circ \pm 0.5^\circ$) HK: Rectangular Pyramid Diamond Indentor($172^\circ 30' / 130^\circ$)		
Objective lens center and indenter center	Coincidence accuracy error $< 1\mu\text{m}$ (objective lens center position can be adjusted)		
Resolution	$0.01\mu\text{m}$		
Data Display /Output	8 "Touch Screen Display, Can Store 20 Test Results, Built-in Printer and RS-232 Interface, Optional USB Flash Drive		
Hardness Test Range	8~2900 HV/HK		
Loading Method	Automatic (loading, dwell, unloading)		
Dwell Time	1-99s(each step is 1 second)		
Test Space	Test height: 100mm (Vertical), Test Throat: 130mm(Horizontal)		
X-Y Test Anvil	Dimension: 100*100mm, Movement:25*25mm, Moving Resolution Ratio:0.01mm		
Illumination	LED Cold light source (can be continuous use for 24 hours, no heat generate ensure stable working, servicing life can reach 100,000 hours)		
Machine Size&N/W	540*260*650mm,50kg		
Package Size&G/W	710*420*627mm ,68kg		
Power supply	AC220V+5%, 50-60Hz(110V is available)		
Executive Standards	GB/T4340.2, GB/T 18449.2, ASTM E92		



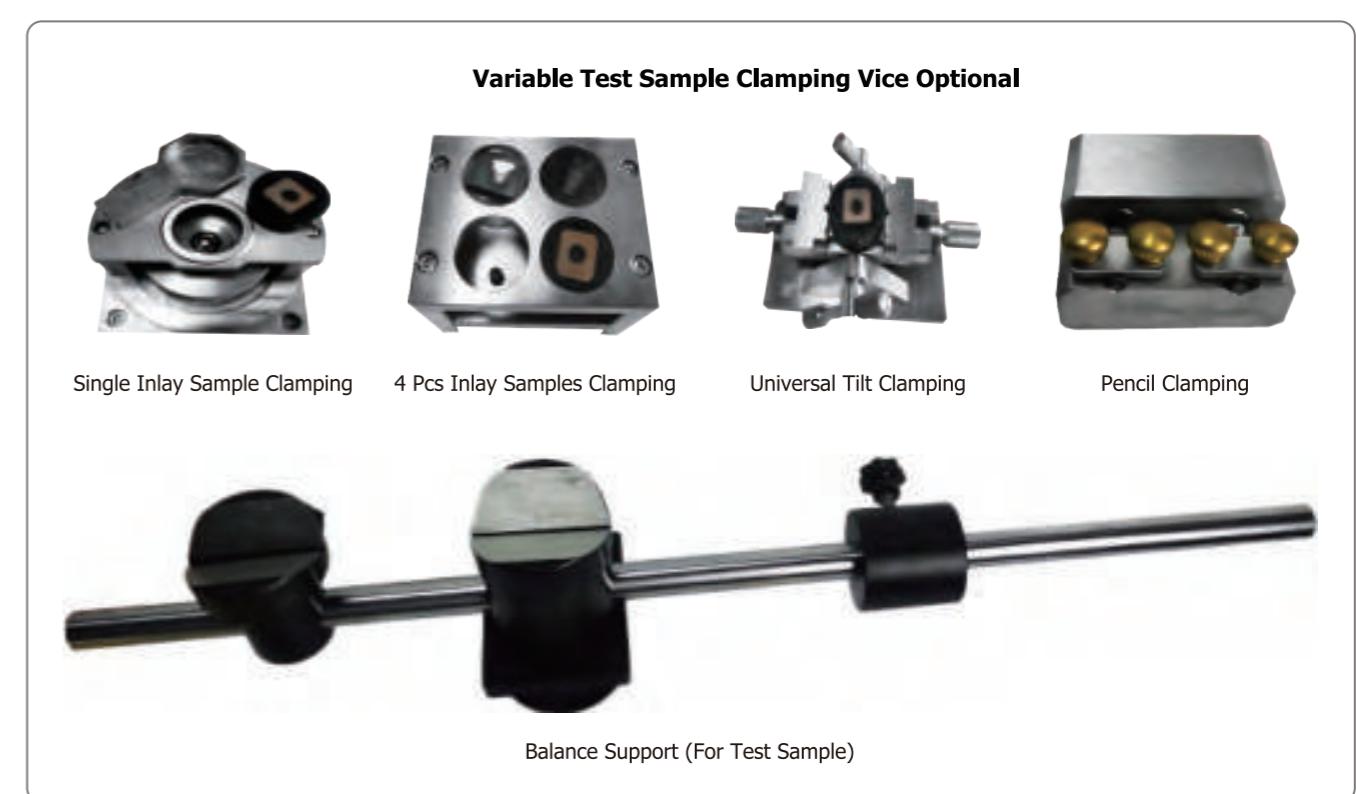
Hardness Calibration



Password Protection



uVicky-2A-4 auto turret micro vickers hardness tester is with 5x/10x/20x/40x objective lens for measuring, plus micro vickers indentor, totally 5 positions, knoop indentor can be added to realize it as 6 positions micro vickers/knoop hardness tester, advanced design hardness testing machine.



FULLY AUTO MICRO VICKERS & KNOOP HARDNESS TESTER

CODE:uVicky-AI



STANDARD DELIVERY

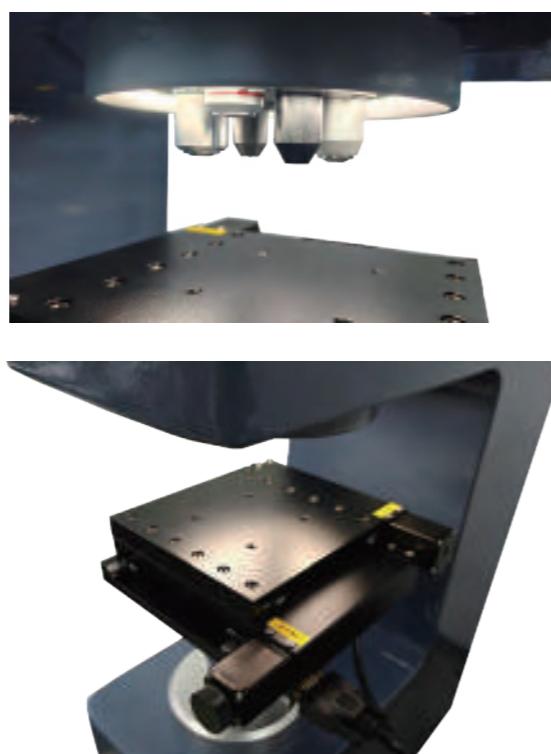
Machine Mainframe	1 set
Computer (with software)	1 set
Weights and Weight Shafts	1 set
Auto XY Stage	1 pc
Feet Adjusting Screw	4 pcs
HV0.2/HV1 Vickers Hardness Blocks	3 pcs
HK1 Knoop Hardness Blocks	1 pc
Spare Fuse (2A)	2 pcs
Gradienter	1 pc
Anti-dust Cover	1 pc
Powder Cord	1 pc
Hex Wrench	1 pc
USB	1 pc
Flat Clamp	1 pc
Thin Specimen Clamp	1 pc
Filament Clamp	1 pc
Universal Tilting Clamping	1 pc
4-position Sample Holder	1 pc



- Built-in light source, camera, focus, and switching force mechanism.
- Hardness value automatically measured, no manual positioning required, and precise automatic measurement. The new algorithm can detect indentations on surfaces that are not smooth or have scratches.
- Multi-station precision, automatic turret.
- HV/HK pressure heads, multiple objective lens configurations.
- Ultra-high precision X/Y stage, repeat positioning accuracy: 1 micron, maximum travel range up to 200mm.
- Z-axis automatic control, with optical cross guide rail lifting mechanism. Z-axis movement step size: 0.04 micron.

OPTIONAL DELIVERY

Vickers Hardness Block	HV0.05/0.1/0.3/0.5
Knoop Hardness Block	HK0.05/0.1/02/0.3/0.5
Mounting Sample Clamp	MSC
Vickers Sample Flattener	VCF
Setting Table	VR-T



TECHNICAL SPECIFICATION

LOADS AND APPLICATIONS	uVicky-1AI	uVicky-10AI	uVicky-50AI
Model	uVicky-1AI	uVicky-10AI	uVicky-50AI
Load range (main loads)	10 gf - 1 kgf	0.3-10 kgf	0.5-50 kgf
Auto change load	Yes	Yes	Yes
Vickers capability	Yes	Yes	Yes
Knoop capability	Yes	-	-
Brinell capability(Optional)	-	Yes	Yes
STAGES AND TURRETS			
XY-stage	Automatic	Automatic	Automatic
XY-stage Size (mm)	150x150	150x150	150x150
XY-stage travel Max size: 200 x200mm	50x50	50x50	50x50
XY-Stage repeatability (um)	1	1	1
Test height (mm)	160	160	160
Test throat (mm)	170	170	170
Motorized Z-axis	Yes	Yes	Yes
Z-axis step length (um)	0.08	0.08	0.08
Motorized turret	Yes	Yes	Yes
Turret positions	3 (6)	3 (6)	3 (6)
Weight(kg)	45	45	45
Size, L*W*H(mm) (not include PC)	450 * 205 * 650		
CAMERAS AND OPTICS			
Objective Lens	10X,40X (2.5X, 5X, 20X, 50X)	10X, 20X (2.5X, 5X, 40X, 50X)	10X, 20X (2.5X, 5X, 40X, 50X)
Evaluation camera resolution	12 MP	12 MP	12 MP
Panorama camera	Optional	Optional	Optional
Overview cam sample max. size(mm)	40 * 30	40 * 30	40 * 30
Panorama camera resolution	12 MP	12 MP	12 MP
Auto illumination	Yes	Yes	Yes
Stage illumination	Optional	Optional	Optional
Laser guider	Optional	Optional	Optional
SOFTWARE			
Automatic measurement of hardness values	Yes	Yes	Yes
CHD measurement	Yes	Yes	Yes
Edge detection	Optional	Optional	Optional
Mapping module	Optional	Optional	Optional
Welding module	Optional	Optional	Optional
Kc fracture measurement	Yes	Yes	Yes
Report editor	Yes	Yes	Yes
Data export	Yes	Yes	Yes
OS operating system	Win 10	Win 10	Win 10
WiFi	Yes	Yes	Yes
Blue tooth	Optional	Optional	Optional

FULLY AUTO MICRO VICKERS & KNOOP HARDNESS TESTER

CODE:uVicky-AI

MACRO VICKERS HARDNESS TESTER(PRACTICAL TYPE)

CODE:uVicky-5/10/30/50/100/120



- Closed loop with high accuracy load cell, loading - dwell -unloading automatically.
- With load automatic correct function, greatly improved test accuracy and get calibration more easy.
- 8" Touch screen interface with menu structure, easy to operate.
- Any three of the 5X,10X,20X, and 40X objective lenses are installed to ensure the indentation of different sizes can meet the standard size in the field of view, At the same time, a wide range of sample profile scanning can be carried out with low magnification.
- All the three objective lenses can realize measurement function.
- 11 test forces, to meet all the test forces in the range of the standard force value is optional.
- Auto turret and accurately automatic positioning of test point,
- It can be calibrated according to the standard hardness block or length scale, and the hardness can be modified automatically according to the high, middle and low hardness values.
- Test setting parameters are protected by password.
- LED illumination, long life, Built-in camera, clearer image (optional).
- English and other languages for choice.
- With RS-232 interface, on-line with computer (optional).
- Test data can be saved to USB flash disk as EXCEL format,
- Dual optical path, one optical path for eyepiece system, another path for CCD camera, both path can working in the same time, no need switch optical path rod.
- OK/NG judgement function. With hardness conversion function, from HV hardness value canconvert to HR, HB, etc. With HV/HK test function.

STANDARD DELIVERY

10X Eyepiece	1 pc
Vickers Hardness Block	2 pcs
U disk	1 pc
Power Cable	1 pc
Hexagon Socket Wrench (2.5mm)	1 pc
Large, Medium Flat Test Anvil	Each 1pc
V-shaped Test Anvil	1 pc
Spare Fuse (2A)	2 pcs
Dust Cover	1 pc
Touch Pen	1 pc
Adjust Feet Screw	4 pcs
Vickers Diamond Indentor	1 pc



Vickers Hardness Block

Flat Test Anvil

Vickers Diamond Indentor



10X Eyepiece

U disk

V-shaped Test Anvil



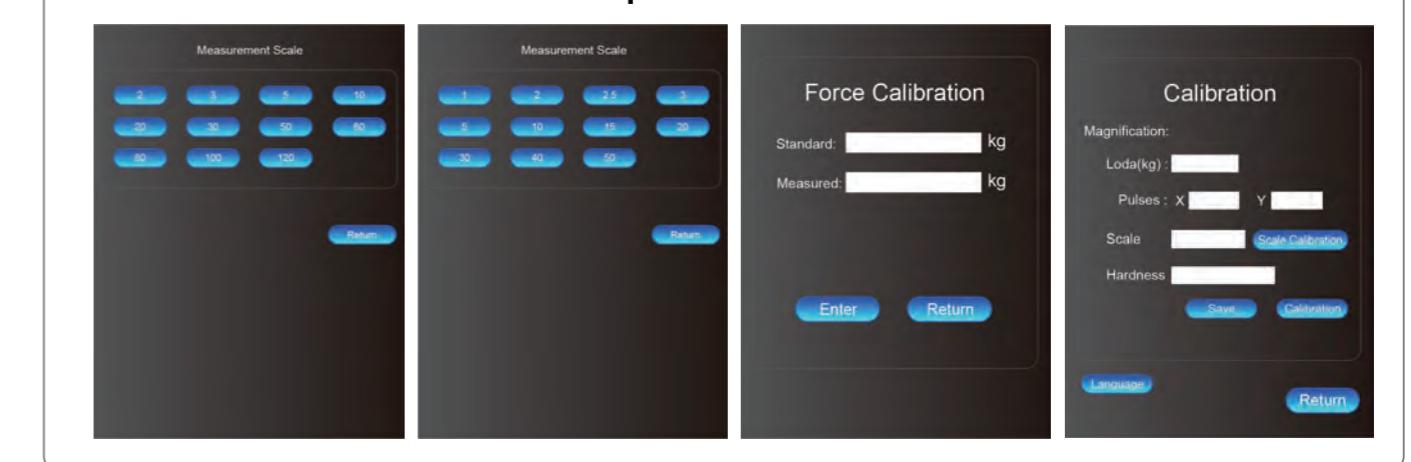
MACRO VICKERS HARDNESS TESTER(PRACTICAL TYPE)

CODE:uVicky-5/10/30/50/100/120

TECHNICAL SPECIFICATION

Model	uVicky-5	uVicky-10	uVicky-30	uVicky-50	uVicky-100	uVicky-120
Objective Lens	uVicky-5Q	uVicky-10Q	uVicky-30Q	uVicky-50Q	uVicky-100Q	uVicky-120Q
	10X/20X (uVicky-5/10/30/50/100/120)			10X/20X/40X(uVicky5Q/10Q/30Q/50Q/100Q/120Q)		
	Both Lens for Observe&Measure			All Three Lens for Observe&Measure		
Eyepiece				10X Digital Eyepiece with Built-in Encoder(15X Optional)		
Measuring Magnification	100X/200X(uVicky-5/10/30/50/100/120)			100X/200X/400X(uVicky5Q/10Q/30Q/50Q/100Q/120Q)		
Customized Magnification	Yes	Yes	Yes	Yes	Yes	Yes
Test Force	0.3Kgf 0.5Kgf 1.0Kgf 2.0Kgf 2.5Kgf 3.0Kgf 5.0Kgf	0.3Kgf 0.5 Kgf 1.0 Kgf 2.0 Kgf 2.5 Kgf 3.0 Kgf 5.0 Kgf	0.5 Kgf 1.0 Kgf 2.0 Kgf 2.5 Kgf 3.0 Kgf 5.0 Kgf	1.0 Kgf 2.0 Kgf 2.5 Kgf 3.0 Kgf 10.0Kgf 20.0Kgf	2.0Kgf 3.0Kgf 5.0Kgf 10.0Kgf 20.0Kgf	2.0Kgf 3.0Kgf 5.0Kgf 10.0Kgf 20.0Kgf
Customized Test Force	Yes	Yes	Yes	Yes	Yes	
Test Force Standard						Yes
Closed Loop System	Yes	Yes	Yes	Yes	Yes	
Minimum Unit of Test						0.01 μ m
Precision Standard						JJG260-91,JISB7725,JISB7734,GB/T3430.2-99,ASTME-384,ISO6507-2,ISO4546
Conversion Scale						HRA, HRB, HRC, HRD, HRF, HV, HK, HBW, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T
Conversion Standard						GB1172-99, ASTM
Turret	Auto	Auto	Auto	Auto	Auto	
Hardness Test Range						8~2900HV
Loading Method						Automatic Loading-Dwelling-Unloading
Dwelling Time						1~99s
Test Space						Test Height:180mm, Test Throat: 160mm
Data Output						8" Touch Screen, Built-in Printer, RS232 Interface, Saved to U-disk in Excel Format (Measuring Software Optional)
Weight&Dimension						Machine Net Weight : 55Kg , Machine Dimension:580x190x700mm
Power Supply						Package Gross Weight:78Kg, Package Dimension: 800*470*800mm
						AC220V ± 5%, 50 to 60 HZ(110V is Available)

Operation Interface



TOUCH SCREEN MACRO VICKERS HARDNESS TESTER(ADVANCED TYPE)

CODE: MVicky-10/50



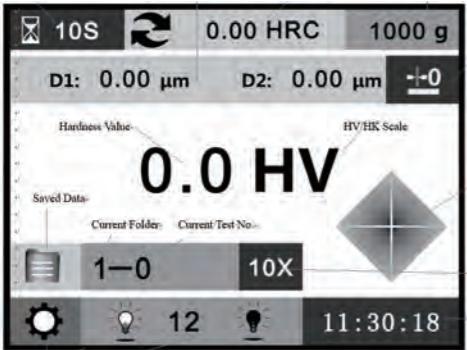
- Touch Screen macro vickers hardness tester adopts the high resolution color touch screen, easy to operate, display backlight adjustable with energy-saving mode.
- Directly show the test force, indentation diagonal, dwell time, test numbers, conversion scale, date and time.
- Automatically get hardness value on screen, test results can be saved in real time with automatic calculation of maximum, minimum and average value, data can be arbitrary deleted and printed out,
- With RS232 interface for connecting to the computer.

STANDARD DELIVERY

Instrument Main Body	1 set
Diamond Vickers Indenter	1 pc
X-Y Test Stage	1 pc
Horizontal Regulating Screw	4 pcs
Fuse1A	2 pcs
Inner Hexagon Spanner 2.5mm	1 pc
Hardness Block 700~800 HV1	1 pc
10x Digital Measuring Eyepiece	1 pc
10x, 20x 40x Objective	Each 1 pc
Level	1 pc
Halogen Lamp12V, 15~20W	1 pc
Screw Driver	1 pc
Hardness Block 700~800 HV10	1 pc

TECHNICAL SPECIFICATION

Product Name	Touch Screen Macro Vickers Hardness Tester
Model	MVicky-10T/50T
Test Force(10Z) kgf	0.3kgf, 0.5kgf, 1kgf, 2kgf, 2.5kgf, 3kgf, 5kgf, 10kgf
N	2.94N, 4.90N, 9.80N, 19.6N, 24.5N, 29.4N, 49N, 98N
Test Force(50Z) kgf	0.5kgf, 1kgf, 2kgf, 2.5kgf, 3kgf, 5kgf, 10kgf, 20kgf, 30kgf, 50kgf
N	4.90N, 9.80N, 19.6N, 24.5N, 29.4N, 49N, 98N, 196N, 294N, 490N
Test Mode	HV/HK
Test Range	1HV~2967HV
Hardness Resolution	0.1HV
Loading Method	Automatic (Loading/Dwell/Unloading)
Turret Rotating	Automatic
Data Output	Built-in Printer, RS232 Interface
Hardness Reading	Color Touch Screen, Data can be saved
Conversion Scale	HK, HRA, HRBW, HRC, HRD, HREW, HRFW, HRGW, HRKW, HR15N, HR30N, HR45N, HR15TW, HR30TW, HR45TW, HS, HBW
Indenter	10x Digital Measuring Eyepiece
Objective	10X, 40X(10Z), 10X, 20X(50Z)
Total Magnification	100x, 400x(10Z), 100x, 200x(50Z)
Effective Field of View	10x: 800μm, 40x: 200μm
Min. Measuring Unit	110x: 0.25μm, 40x: 0.06μm
Dwell Time	0~60s
Light Source	Halogen Lamp
X-Y Test Table	Size: 100x100mm; Travel: 25x25mm; Resolution: 0.01mm
Test Height	170mm
Test Throat	130mm
Power Supply	AC220V, 50Hz
Executive Standard	ISO 6507, ASTM E92, JIS Z2244, GB/T 4340.2
Dimension	Machine: 530x280x630mm, Package: 620x450x760mm
Weight	Net Weight: 35kg, Gross Weight: 47kg



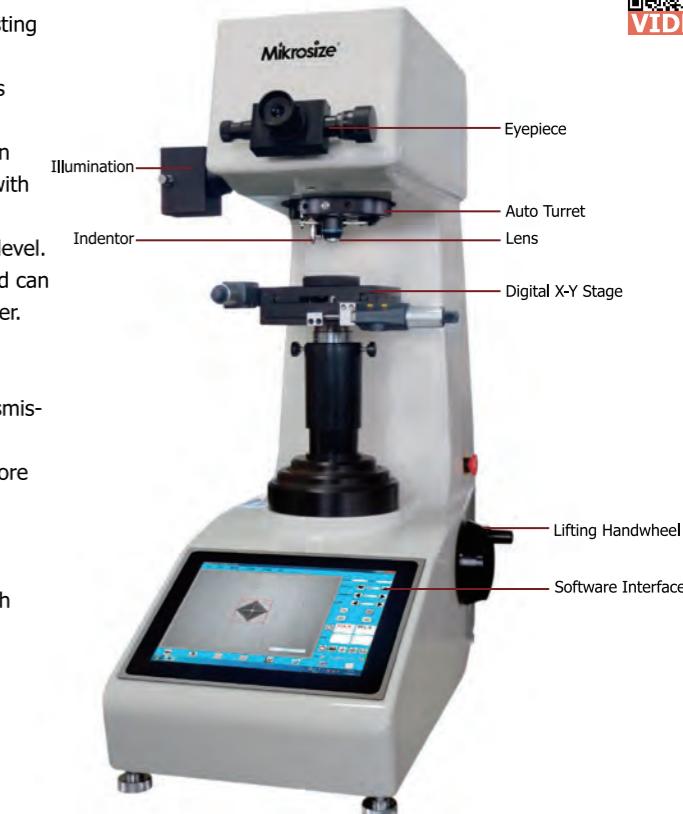
- New generation of Micro/Macro Vickers hardness tester.
- Integrated design of hardness tester and panel computer, all the testing parameters can be selected on the panel computer.
- Touch screen makes operation quickly and conveniently and displays clearly and intuitively.
- With CCD image acquisition system, it can show dynamic indentation image, lock the image and automatically get vickers hardness value with high precision.
- The hardness tester with complete functions reaches the advanced level.
- With Windows operating system, it has all functions of computer and can be connected to the output devices such as external screen and printer.
- Automatic recognition and shifting between the objective and the indenter; Macro Vickers machine with 3 objectives.
- The lifting screw adopts worm and gear structure with smooth transmission.
- With digital X-Y test anvil, it makes positioning and measurement more precise.
- Auto test force loading, dwell and unloading.
- With function of hardness scale conversion.
- Automatically save the measuring data, generate the hardness-depth curve and save as WORD or EXCEL document.

OPTIONAL DELIVERY

Knoop Diamond Indentor	KDI
15x Digital Eyepiece	DEP-15
20x Digital Eyepiece	DEP-20
5x Objective Lens	Lens-5
Analogue X-Y Stage	AXY
Digital X-Y Stage	DXY
Mounting Sample Clamp	MSC
Vickers Sample Flattener	VCF
Setting Table	VR-T
Vickers Testing Software	uVision-V
HV Vickers Hardness Block	HV



Filament Clamp, Diamond Vickers Indenter, Thin Specimen Clamp



STANDARD DELIVERY

Instrument Main Body	1 set
10x,40x Objective (Micro Vickers)	Each 1 pc
10x,20x,40x Objective (Macro Vickers)	Each 1 pc
Digital X-Y Test Anvil	1 pc
Thin Specimen Clamp	1 pc
Hardness Block 400~500 HV0.2 (Micro Vickers)	1 pc
10x Eyepiece	1 pc
Diamond Vickers Indenter	1 pc
Hardness Block 400~500 HV5 (Macro Vickers)	1 pc
Flat Clamp	1 pc
Filament Clamp	1 pc
Hardness Block 700~800 HV1	1 pc
Weights (Micro Vickers)	6 pcs
Horizontal Adjusting Screw Feet	4 pcs
Fuse 1A	2 pcs
Power Cable	1 pc
Anti-dust Cover	1 pc
Mouse	1 pc
Weight Axis	1 pc
Level	1 pc
Halogen Lamp 12V, 15~20W	1 pc
Screw Driver	2 pc
U-flash disk	1 pc

INTELLIGENT SEMI-AUTO VICKERS HARDNESS TESTER

CODE: MVision-1/10/30/50

TECHNICAL SPECIFICATION

Product Name	Intelligent Semi-Auto Vickers Hardness Tester			
Model	MVision-1	MVision-10	MVision-30	MVision-50
Test Force	10gf, 25gf, 50gf, 100gf, 200gf, 300gf, 500gf, 1000gf	0.2kgf, 0.3kgf, 0.5kgf, 1kgf, 2kgf, 2.5kgf, 3kgf, 5kgf, 10kgf, 20kgf, 30kgf	0.3kgf, 0.5kgf, 1kgf, 2kgf, 2.5kgf, 3kgf, 5kgf, 10kgf, 20kgf, 30kgf	0.5kgf, 1kgf, 2kgf, 2.5kgf, 3kgf, 5kgf, 10kgf, 20kgf, 30kgf
Test Range	1HV~2967HV			
Test Mode	HV/HK			
Loading Method	Automatic (Loading/Dwell/Unloading)			
Turret	Automatic Shifting			
Micro Computer	CPU: Intel I5, Memory: 4G, SSD: 240G			
CCD Pixel	1.30 Mega Pixel			
Conversion Scale	HV, HK, HRA, HRBW, HRC, HRD, HREW, HRFW, HRGW, HRKW, HR15N, HR30N, HR45N, HR15TW, HR30TW, HR45TW, HS, HBW			
Hardness Reading	Automatic Display on Touch Screen			
Data Output	WORD or EXCEL Report with Curve Chart			
Objective	10x, 40x	10x, 20x, 40x	10x, 20x, 40x	10x, 20x, 40x
Effective Field of View	10x: 680μm, 40x: 170μm	10x: 680μm, 20x: 340μm, 40x: 170μm	10x: 680μm, 20x: 340μm, 40x: 170μm	10x: 680μm, 20x: 340μm, 40x: 170μm
Min. Measuring Unit	10x: 0.1μm, 40x: 0.025μm	10x: 0.1μm, 20x: 0.05μm, 40x: 0.025μm	10x: 0.1μm, 20x: 0.05μm, 40x: 0.025μm	10x: 0.1μm, 20x: 0.05μm, 40x: 0.025μm
Dwell Time	0~60s			
Illumination	Halogen Lamp			
Digital X-Y Test Anvil	Size: 120x120mm, Travel: 25x25mm, Resolution: 0.001mm			
Test Height	170mm			
Test Throat	130mm			
Power Supply	AC220V, 50Hz			
Executive Standard	ISO 6507, ASTM E384, JIS Z2244, GB/T 4340.2			
Machine Dimension	560x335x675mm			
Net Weight	Net Weight: 48kg			



High Precision Force Sensor



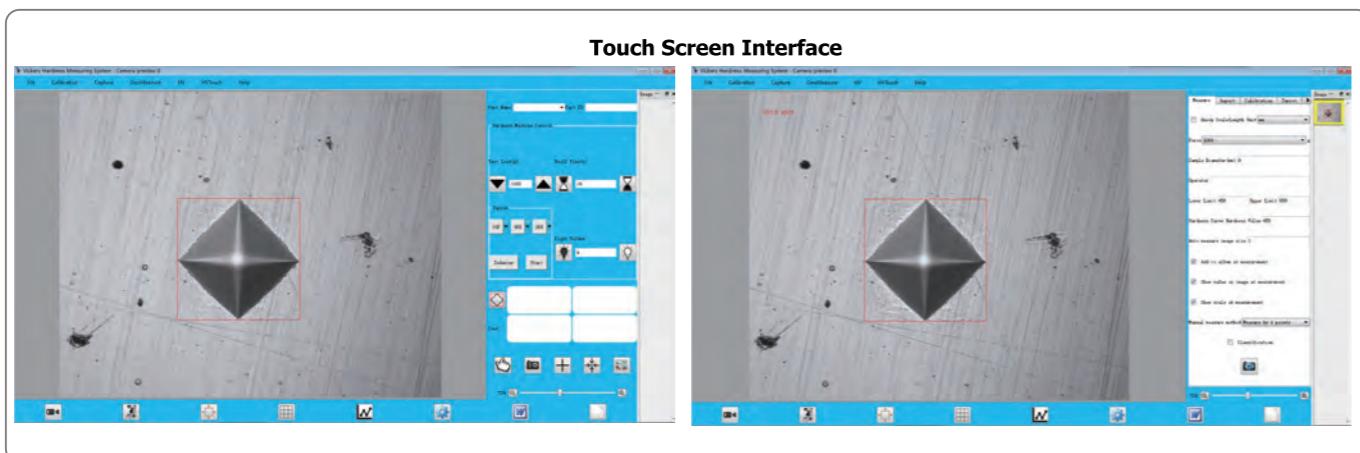
Built-in CCD Image Capture System



Digital X-Y Test Anvil



USB/VGA/Network Interface



ELECTRONIC TOUCH SCREEN BRINELL HARDNESS TESTER

CODE: uBrin-3000E

uBrin-3000E

- Touch screen panel, menu structure, easy operation. Closed-loop control, with high accuracy load cell, test force from 62.5kgf to 3000kgf, high repeatability and stability,
- 20x portable brinell indentation measurement microscope.
- Automatic load - dwell - unload main test force.
- Based on depth measurement method to fast determination of hardness, directly display brinell hardness value on touch screen
- For 500 -- 3000 kg, the accuracy of the force is less than 0.5%.
- The test force is directly selected, and force value is automatically changed the test parameters.
- The minimum measurement time less than 15s, high working efficiency.
- Built-in hardness value calculation system, after the end of hardness measurement, input the values of D1 and D2, no need to check hardness calculating table.
- Included: BRM-3 brinell reading microscope with light source specially used measuring the indentation size of Brinell hardness.
- Better than ASTM E-10-08 and GB/T231.2 required accuracy.

uBrin-3000EV

- Based on uBrin-3000E, uBrin-3000EV is equipped with uVision-PB Portable Automatic Brinell Hardness Measurement System.
- Automatic process by software to get hardness value display.
- With all brinell hardness software function including hardness conversion etc.
- Easy to save test result in computer.

OPTIONAL DELIVERY

Setting Table	BST
Φ2.5/5/10mm Brinell Steel Ball	BSB
HBW2.5/62.5 Brinell Hardness Block	HBW2.5/62.5
HBW5/250 Brinell Hardness Block	HBW5/250
HBW5/750 Brinell Hardness Block	HBW5/750
HBW10/1500 Brinell Hardness Block	HBW10/1500



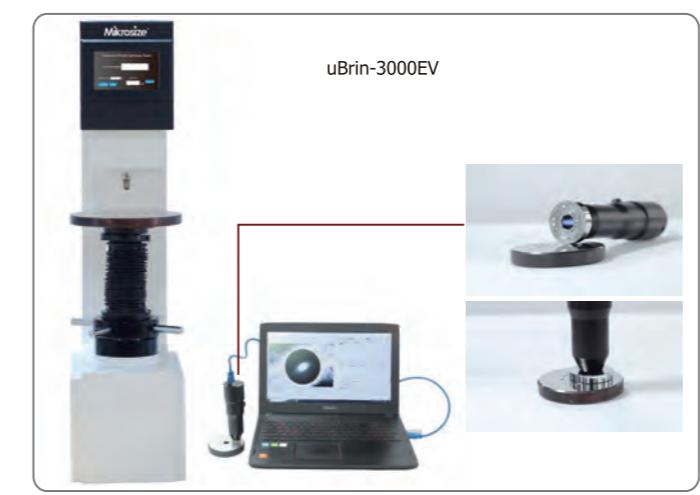
Ball Indentor



Test Anvil

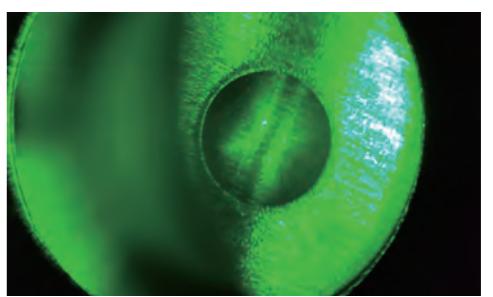


Brinell Block



STANDARD DELIVERY

BRM-3 Reading Microscope with Light Source	1 pc
Brinell Ball Indentor Ø2.5mm	1 pc
Brinell Ball Indentor Ø5mm	1 pc
Brinell Ball Indentor Ø10mm	1 pc
Brinell Hardness Block HBW10/3000	1 pc
Brinell Hardness Block HBW10/1000	1 pc
Brinell Hardness Block HBW2.5/187.5	1 pc
uVision-PB Portable Automatic Brinell Hardness Measurement System (Without Computer) (uBrin-3000EV)	1 pc
Φ200mm Test Anvil	1 pc
Φ60mm Test Anvil	1 pc
Φ80mm V-shape Test Anvil	1 pc
Power Cord/ Dust Proof Cover	Each 1 pc
Touch Screen Pen / Fuses 2A	1 pc



VIDEO



ELECTRONIC TOUCH SCREEN BRINELL HARDNESS TESTER

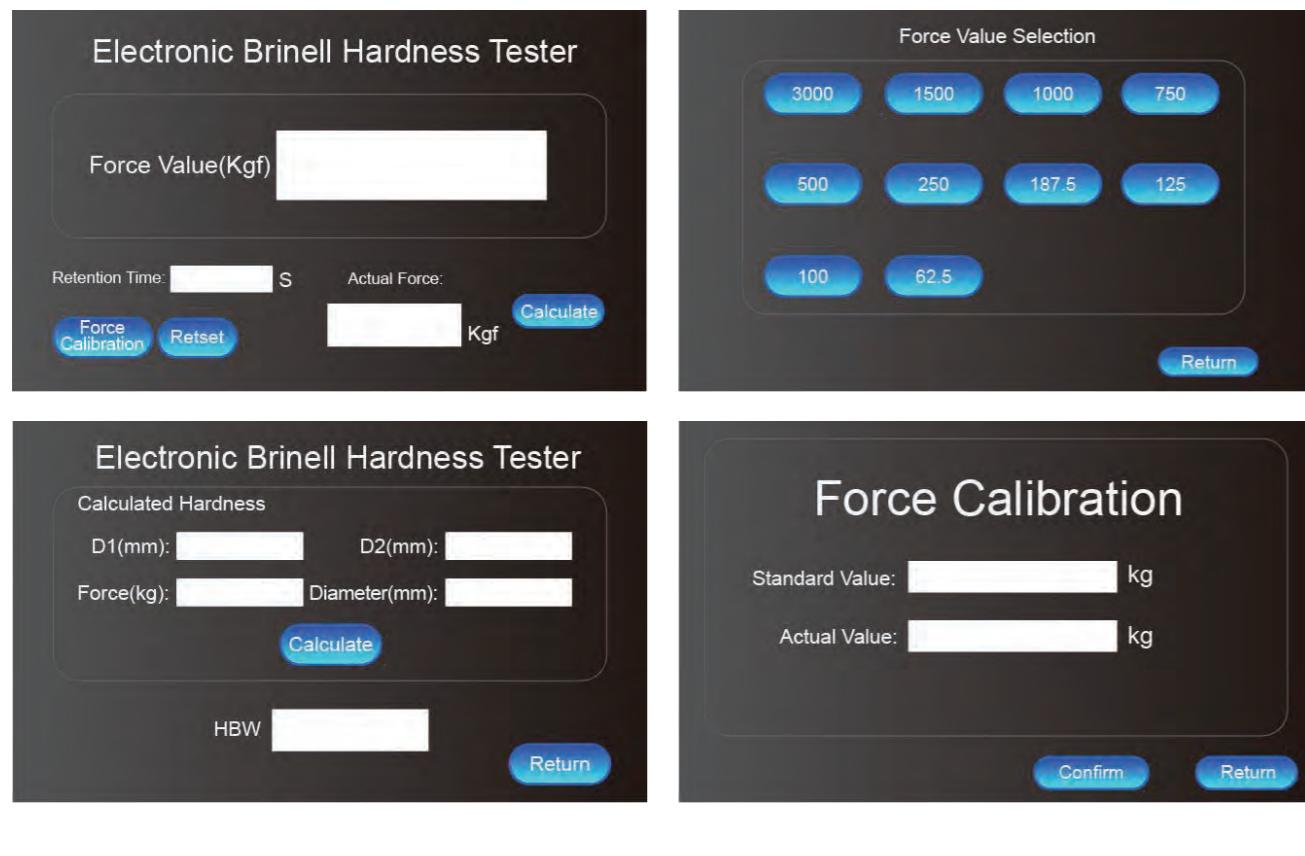
CODE:uBrin-3000E

TECHNICAL SPECIFICATION

Model	uBrin-3000E	uBrin-3000EV
Product Name	Electronic Brinell Hardness Tester	Electronic Vision Brinell Hardness Tester
Data Display&Output	LCD touch screen	LCD touch screen /Computer
Test Force Kg N	62.5kgf, 100kgf, 125kgf, 187.5kgf, 250kgf, 500kgf, 750kgf, 1000kgf, 1500kgf, 3000kgf 612.9N, 980.7N, 1226N, 1839N, 2452N, 4903N, 7355N, 9807N, 14710N, 29420N	
Brinell Scale	HBW2.5/62.5, HBW2.5/187.5, HBW5/62.5, HBW5/125, HBW5/250, HBW5/750, HBW10/100, HBW10/1500, HBW10/3000, HBW10/250, HBW10/500, HBW10/1000	
Test Force Accuracy	62.5 ~ 250Kgf≤1%, 500 ~ 3000Kgf≤0.5%	
Reading Microscope	Resolution :0.01 mm (The minimum reading of microdrum) Magnification: 20x	
Ball Diameter (mm)	Φ2.5mm/Φ5mm/Φ10mm	
Test Space	Test Height: 230mm Test Height:155mm	
Executive Standards	BSEN 6506, ISO 6506, ASTM E10, GB/T231	
Loading Method	Automatic (Loading/Dwell/Unloading)	
Dwell Time	1-99S (1 second / step)	
Hardness Resolution	0.1 HBW	
Hardness Test range	3.18-653HBW	
Power Supply	AC220V±5%, 50-60Hz	
Dimension	Machine: 540*190*750mm, Package: 730*450*980mm	
Weight	Net weight: 100kg, Gross weight: 130kg	

04

Operation Interface



The screenshots show the user interface of the Electronic Brinell Hardness Tester. The top-left screen displays the main menu with input fields for Force Value (Kgf), Retention Time (S), and Actual Force (Kgf). The top-right screen shows a 'Force Value Selection' menu with options: 3000, 1500, 1000, 750, 500, 250, 187.5, 125, 100, and 62.5. The bottom-left screen shows calculated hardness values (D1, D2, Force, Diameter, HBW) and a 'Calculate' button. The bottom-right screen shows a 'Force Calibration' interface with input fields for Standard Value and Actual Value, and buttons for 'Confirm' and 'Return'.

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MANUAL DIGITAL BRINELL HARDNESS TESTER

CODE:uBrin-3000M



04

uBrin-3000M-M/uBrin-3000M-A:

- Closed-loop control system
- Automatically compensate for each test force. Auto loading and unloading, target test force range: 62.5Kgf to 3000Kgf.
- Eyepiece with digital encoder, D1 and D2 values display on LCD directly. Measuring indentation automatically, no need to focus
- Hardness value display on screen, and with hardness conversion function. Touch screen interface, menu structure interface, more information display.
- Save more samples and test information. Support to set a password for protection
- Auto calibration according to the standard block or length scale, loading automatic corrected, much more accuracy
- Auto test force calibration by standard dynamometer. Large test space: 155*200mm (Depth * Height)
- Vickers and Rockwell hardness values can be converted, with 12 kinds of measurement scale
- With USB interface, all data can be saved in the U disk as EXCEL format, easy edit and process
- Support upgrade to full automatic Brinell hardness tester

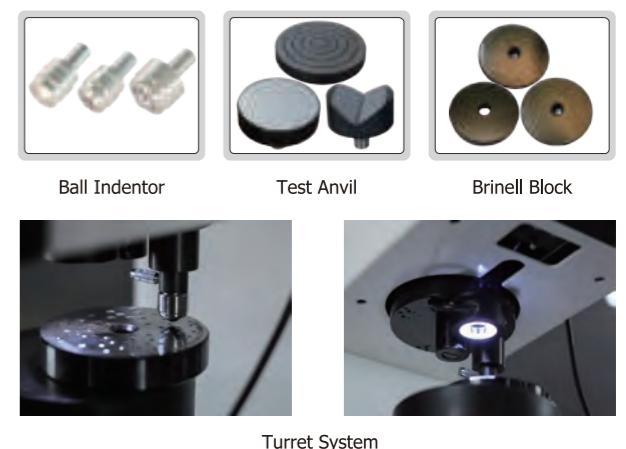
uBrin-3000M-V:

- Based on uBrin-3000M-M/A, uBrin-3000M-V is with dual optical path system-built-in camera. Eyepiece and camera both can be connected.
- Indentation measurement can be both done by eyepiece or computer automatically. Industrial touch screen computer monitor
- Computerized control system for loading, single sample test, batch sample test, hardness scale conversion, alarm for unqualified test result etc.
- Integrated hardness tester, image process system, hardness measurement software system and industrial touch screen computer system in one, more scientific and concise structure, and more easier operation.
- Double touch screen. Double insurance of stable working performance. On front touch screen panel can do testing and measurement by machine independently; On side touch screen panel can do automatic measure or manual measure by software. Even one of the screen was damaged, the machine still can run normally.
- On side panel touch screen can control machine turret. Press 'start' key on side touch screen, machine will automatically work and indentation will display on screen directly. Side touch screen panel can connect with internet through WiFi, and can work together with keyboard and mouse.
- On test report can display indentation image, hardness curve, hardness value, conversion value, test force, dwell time, Max. - Min data, average data, etc.



OPTIONAL DELIVERY

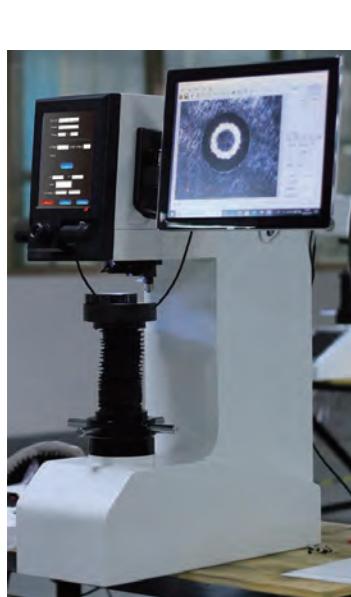
Brinell Testing Software	uVision-B
Portable Brinell Testing Software	uVision-PB
Setting Table	BST
Φ2.5/5/10mm Brinell Steel Ball	BSB
HBW2.5/62.5 Brinell Hardness Block	HBW2.5/62.5
HBW5/250 Brinell Hardness Block	HBW5/250
HBW5/750 Brinell Hardness Block	HBW5/750
HBW10/1500 Brinell Hardness Block	HBW10/1500



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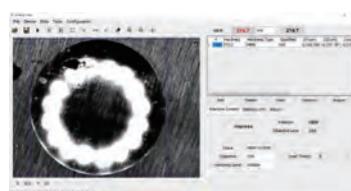
MANUAL DIGITAL BRINEL HARDNESS TESTER

CODE:uBrin-3000M



04

uBrin-3000M-V

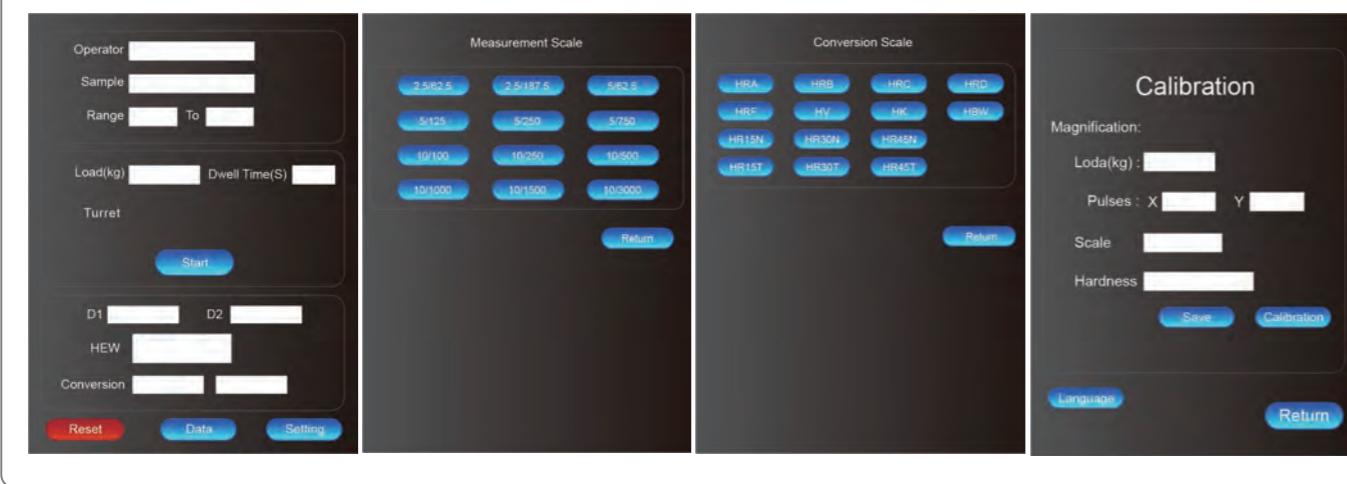


Brinell Software

TECHNICAL SPECIFICATION

Model	uBrin-3000M-M	uBrin-3000M-A	uBrin-3000M-V
Turret	Manual	Auto	Auto
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		
Test Force	62.5kgf(612.9N), 100kgf(980.7N), 125kgf(1226N), 187.5kgf(1839N), 250kgf(2452N), 500kgf(4903N), 750kgf(7355N), 1000kgf(9807N), 1500kgf(14710N), 3000kgf(29420N)		
Test Force Accuracy	0.1%		
Test Force Precision	62.5 ~ 250kgf≤1% 500 ~ 3000kgf≤0.5%		
Test Range	8-650HBW		
Camera(uBrin-3000M-V)	Industrial 5 Millions Pixels		
Eyepiece	20X (Optional: 10X, 15X, 30X)		
Indention Measuring	Manual	Manual	Manual/Auto
Data Output	LCD/USB	LCD/USB	LCD/USB/Computer
Calibration Method	Standard Block/Length Scale		
Computer(uBrin-3000M-V)	Industrial 15 "- resistance screen Core i5 quad core/4G/64G/wifi win10		
Measuring Device Resolution	0.1um	0.1um	0.1um
Hardness Resolution	0.1HBW	0.1HBW	0.1HBW
Dwell Time	0 ~ 99S		
Data Storage	Results Saved in U disk as Excel Format		
Test Height	200mm(Customized Optional)		
Test Throat	155mm		
Executive Standard	BSEN 6506, ISO 6506, ASTM E10, GB/T231, JIS Z2243		
Machine Dimension	550×210×800mm		
Weight	110kg		
Power Supply	AC220+5%,50~60Hz		

Operation Interface



DIGITAL BRINELL HARDNESS TESTER

CODE:iBrin-3000CL



VIDEO

Touch Screen, Eyepiece Interface, Eyepiece

Turret, Brinell indentor, Test Anvil

lifting Rod, Handwheel



Printer

OPTIONAL DELIVERY

Brinell Testing Software	uVision-B
Portable Brinell Testing Software	uVision-PB
Setting Table	BST
Φ200mm Brinell Flat Anvil	BFA-200
HBW2.5/62.5 Brinell Hardness Block	HBW2.5/62.5
HBW5/250 Brinell Hardness Block	HBW5/250
HBW2.5/187.5 Brinell Hardness Block	HBW2.5/187.5
HBW5/750 Brinell Hardness Block	HBW5/750
HBW10/1500 Brinell Hardness Block	HBW10/1500

- Touch screen control, simple operating interface, with good reliability and intuitiveness,
- High precision sensor are used to ensure the accuracy of the testing
- Micro controller controls the stepper motor to achieve automatic loading and unloading functions, improving the efficiency and stability of testing
- Reasonable design structure, beautiful appearance,
- Suitable for testing brinell hardness of annealed and normalized workpieces cast parts, non-ferrous metals, various softer components, or untempered steels parts
- Strictly implement standards to ensure the accuracy and reliability of test results



Test Anvil

Brinell Indenter

Hardness Block



Measuring Eyepiece

Hardness Alloy Ball

STANDARD DELIVERY

Mainframe	1 set
Measuring Eyepiece	1 pc
Φ150mm Test Anvil	1 pc
Φ78mm Test Anvil	1 pc
78mm V-shape Test Anvil	1 pc
Φ10mm Hard Alloy Brinell Indenter	1 pc
Φ5mm Hard Alloy Brinell Indenter	1 pc
Φ2.5mm Hard Alloy Brinell Indenter	1 pc
Brinell Hardness Block HB10/3000, HB10/1000	2 pcs
Hard Alloy Steel Ball 2.5/5/10mm	Each 1 pc

DIGITAL BRINELL HARDNESS TESTER

CODE:iBrin-3000CL

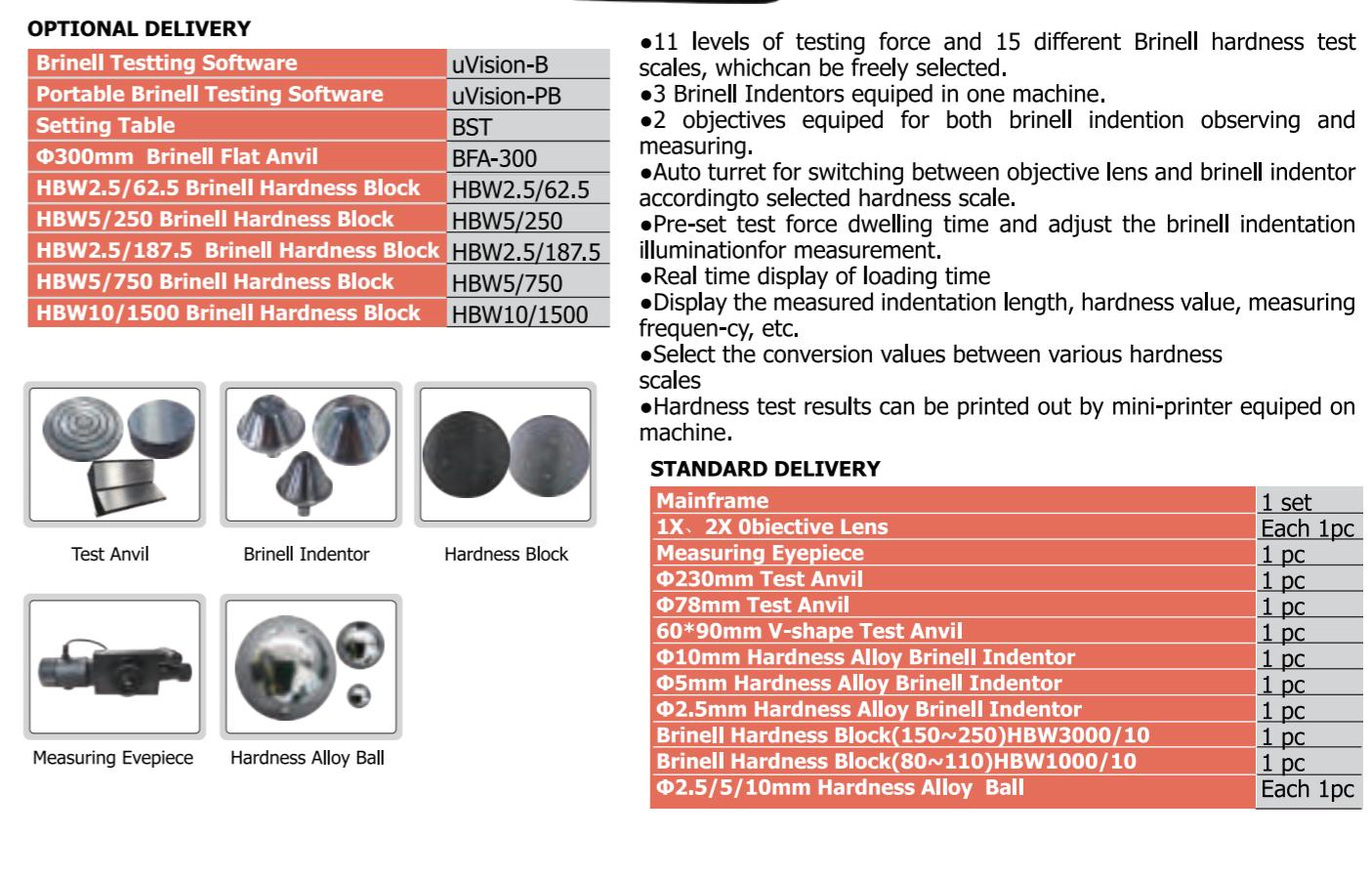
TECHNICAL SPECIFICATION

Name	Digital Brinell Hardness Tester	
Model	iBrin-3000CLM	iBrin-3000CLA
Turret	Manual	Auto
Test Range		8~650HBW
Test Force	62.5kgf, 100kgf, 125kgf, 187.5kgf, 250kgf, 500kgf, 750kgf, 1000kgf, 1500kgf, 3000kgf	612.9N, 980.7N, 1226N, 1839N, 2452N, 4903N, 7355N, 8907N, 14710N, 29420N
Hardness Scale	HBW2.5/31.25, 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	
Conversion Scale	HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRH, HRK, HS, HV, HK, HBW, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T	
Indentor Size	Φ2.5mm, Φ5mm, Φ10mm	
Optical System	Eyepiece:20x ;Objective:1x ;Total Magnification 20x	
Test Height	280mm	
Test Throat	150mm	
Dwelling Time	0~99s	
Power Supply	AC220V,50HZ	
Machine Dimension	230*600*920mm	
Net Weight	130kg	



DIGITAL BRINELL HARDNESS TESTER(3 INDENTORS+2 LENS)

CODE:iBrin-3000CLD

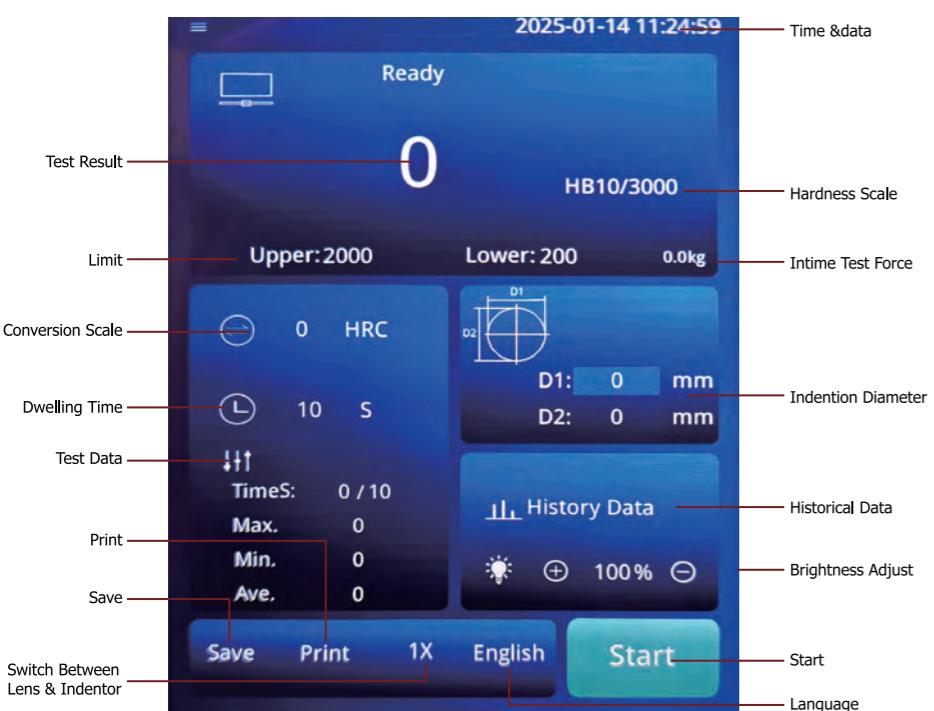


DIGITAL BRINELL HARDNESS TESTER(3 INDENTORS+2 LENS)

CODE:iBrin-3000CLD

TECHNICAL SPECIFICATION

Name	Digital Auto-turret Brinell Hardness Tester
Model	iBrin-3000CLD
Test Range	8~650HBW
Test Force	31.25kgf, 62.5kgf, 100kgf, 125kgf, 187.5kgf, 250kgf, 500kgf, 750kgf, 1000kgf, 1500kgf, 3000kgf 306.45N, 612.9N, 980.7N, 1226N, 1839N, 2452N, 4903N, 7355N, 8907N, 14710N, 29420N
Hardness Scale	HBW2.5/31.25, HBW2.5/62.5, HBW2.5/187.5, HBW5/31.25, HBW5/62.5, HBW5/125, HBW5/250, HBW5/750, HBW10/100, HBW10/125, HBW10/250, HBW10/500, HBW10/1000, HBW10/1500, HBW10/3000
Loading Method	Auto Loading/Dwelling/Unloading
Main Test Force	2~8
Dwelling Time (s)	0~99 Adjustable
Test Height (mm)	270
Test Throat (mm)	190
Turret	Automatic
Indentation Measuring	Digital Reading Microscope
Measuring Eyepiece	20X
Objective Lens	1X, 2x
Data Display	8 Inch Industrial Colorful Touch Screen
Indentor	Φ2.5mm, Φ5mm, Φ10mm Installed Together
Data Output	Built-in Mini-printer, RS232 Interface to Computer
Hardness Conversion	HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRH, HRK, HS, HV, HK, HBW, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T
Illumination	LED Adjustable
Optical Path Conversion	Automatic
Machine Dimension	1000X595X350 mm (L*W*H)
Net Weight (kg)	150
Power Supply	AC220, 50Hz



INTELLIGENT SEMI-AUTO BRINELL HARDNESS TESTER

CODE:iBrin-3000SA

- Closed loop electronic loading ,no need to install dead weights
- 10 inches Large touch screen, easy to use, simple to operate
- CMOS directly captures indentation image
- Selectable 10 levels of testing force and 15 brinell hardness test scales.
- Brinell indentor and objective lens installed in turret for brinell testing.
- Automatic turret switching according to brinell hardness scale selection.
- The brinell test forces dwelling time can be pre-set and the illumination for indentation measurement can be adjusted;
- Real time display of test force loading time
- Display the measured indentation length, hardness value, measurement frequency, etc;
- The test results can be converted to various hardness scales
- Built in printer for data output.
- With communication interfaces: USB, RS232, WLAN, RJ45LAN



STANDARD DELIVERY

Mainframe	1 pc
Φ230mm Test Anvil	1 pc
Φ78mm Test Anvil	1 pc
60*90mm V-shape Test Anvil	1 pc
Φ2.5mm Brinell Indentor	1 pc
Φ5mm Brinell Indentor	1 pc
Φ10mm Brinell Indentor	1 pc
Φ2.5mm, Φ5mm, Φ10mm	Each 1 pc
Hard Alloy Ball	pc
HBW10/3000 Hardness Block	1 pc
HBW10/1000 Hardness Block	1 pc
1X Objective Lens	1 pc
2X Objective Lens	1 pc

OPTIONAL DELIVERY

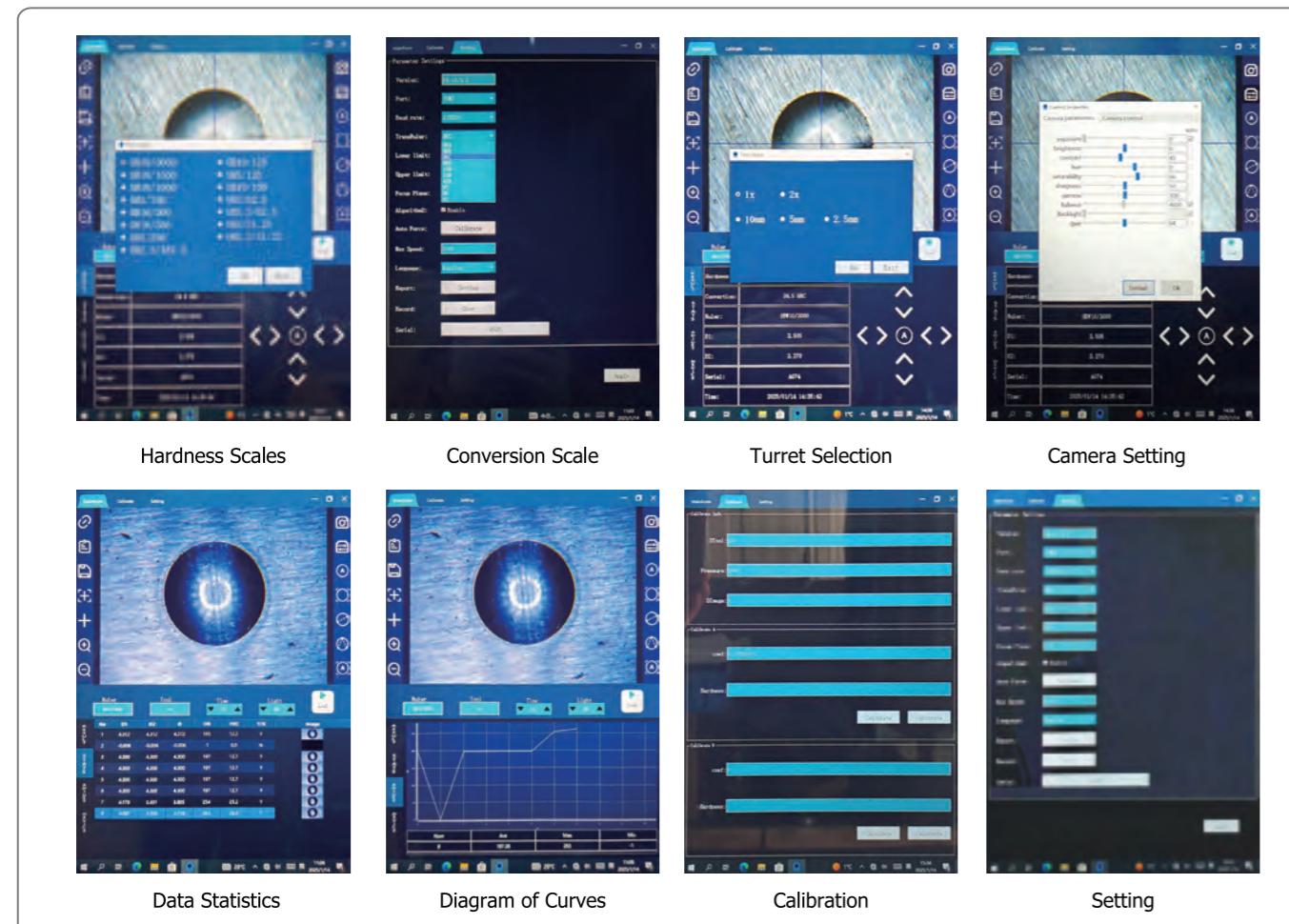
Setting Table	BST
Brinell Hardness Block	HBW2.5/62.5
Brinell Hardness Block	HBW5/250
Brinell Hardness Block	HBW2.5/187.5
Brinell Hardness Block	HBW5/750
Brinell Hardness Block	HBW10/1500

INTELLIGENT SEMI-AUTO BRINELL HARDNESS TESTER

CODE:iBrin-3000SA

TECHNICAL SPECIFICATION

Name	Intelligent Semi-auto Brinell Hardness Tester	
Model	iBrin-3000SA2(1 Indentor+1 Objective Lens)	iBrin-3000SA3(1 Indentor+2 Objective Lens)
Optical Magnification	Camera Lens 20X, Objective Lens 1X	Camera Lens 20X, Objective Lens 1X, 2X
Test Force	62.5kgf, 100kgf, 125kgf, 187.5kgf, 250kgf, 500kgf, 750kgf, 1000kgf, 1500kgf, 3000kgf 612.9N, 980.7N, 1226N, 1839N, 2452N, 4903N, 7355N, 8907N, 14710N, HBW2.5/31.25,	
Hardness Scales	HBW2.5/62.5, HBW2.5/187.5, HBW5/31.25, HBW5/62.5, HBW5/125, HBW5/250, HBW5/750, HBW10/100, HBW10/125, HBW10/250, HBW10/500, HBW10/1000, HBW10/1500, HBW10/3000	
Conversion Scales	HRA, HRB, HRC, HRD, HRF, HV, HK, HBW, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T	
Test Range	8~650HBW	
Loading Method	Automatic Loading/Dwelling/Unloading	
Test Height	280x150mm (Height x Throat)	
Main Test Force Loading	5~8s Time	
Dwelling Time	0~99s	
Turret	Automatic	
Indentor Size (mm)	Φ2.5, Φ5, Φ10 One Installed in Turret	
Indentation Measuring	±0.8% Repeatability	
Data Display	Industrial Touch Screen	
Data Output	Output Report in WORD and EXCEL Formats, Printable Output	
Illumination	LED	
Communication interface	USB, RJ45LAN, WLAN, RS232	
Machine Dimensions	230*600*920mm	
Power Supply	AC220V/110V±5%, 50~60Hz	
Net Weight	130KG	



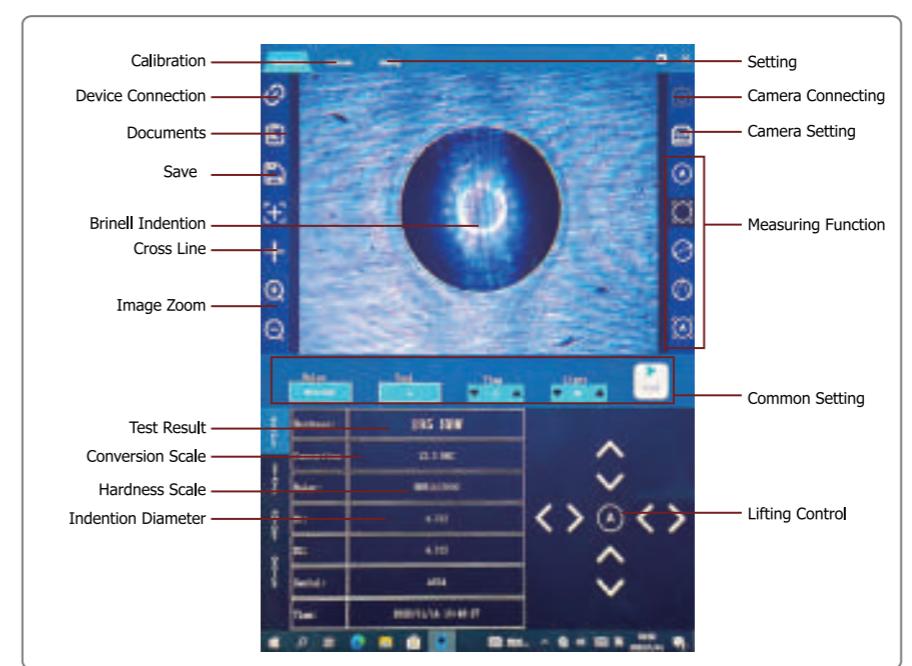
INTELLIGENT SEMI-AUTO BRINELL HARDNESS TESTER

CODE:MBrin-3000SA



VIDEO

- Sensor loading, Big Touch Screen Operating.
- CMOS directly captures indentation images
- 11 levels of testing force and 15 Brinell hardness test scales, which can be freely selected;
- Auto turret is equipped with three brinell ball indentors, all of which can automatically participate in testing;
- Two objective lenses and three indenters are installed in the same turret and can both participate in the measurement of indentation diameter;
- Automatically switch between objective lens and indentors based on the selected hardness scale;
- Pre-set the test force dwelling time and adjust the indentation light source for measurement;
- Real time display of loading time
- Display the measured indentation length, hardness value, measurement frequency, etc;
- The test results can be converted between various hardness scales
- The hardness test results can be printed out by printer
- Equipped with multiple communication interfaces: USB, RS232, WLAN, RJ45LAN



STANDARD DELIVERY	
Mainframe	1 pc
Φ2.5mm Brinell Indentor	1 pc
Φ5mm Brinell Indentor	1 pc
Φ10mm Brinell Indentor	1 pc
Big Test Anvil	1 pc
Small Test Anvil	1 pc
V-shape Test Anvil	1 pc
1X、2X Objective Lens	Each 1 pc
Brinell Hardness Block	2 pcs

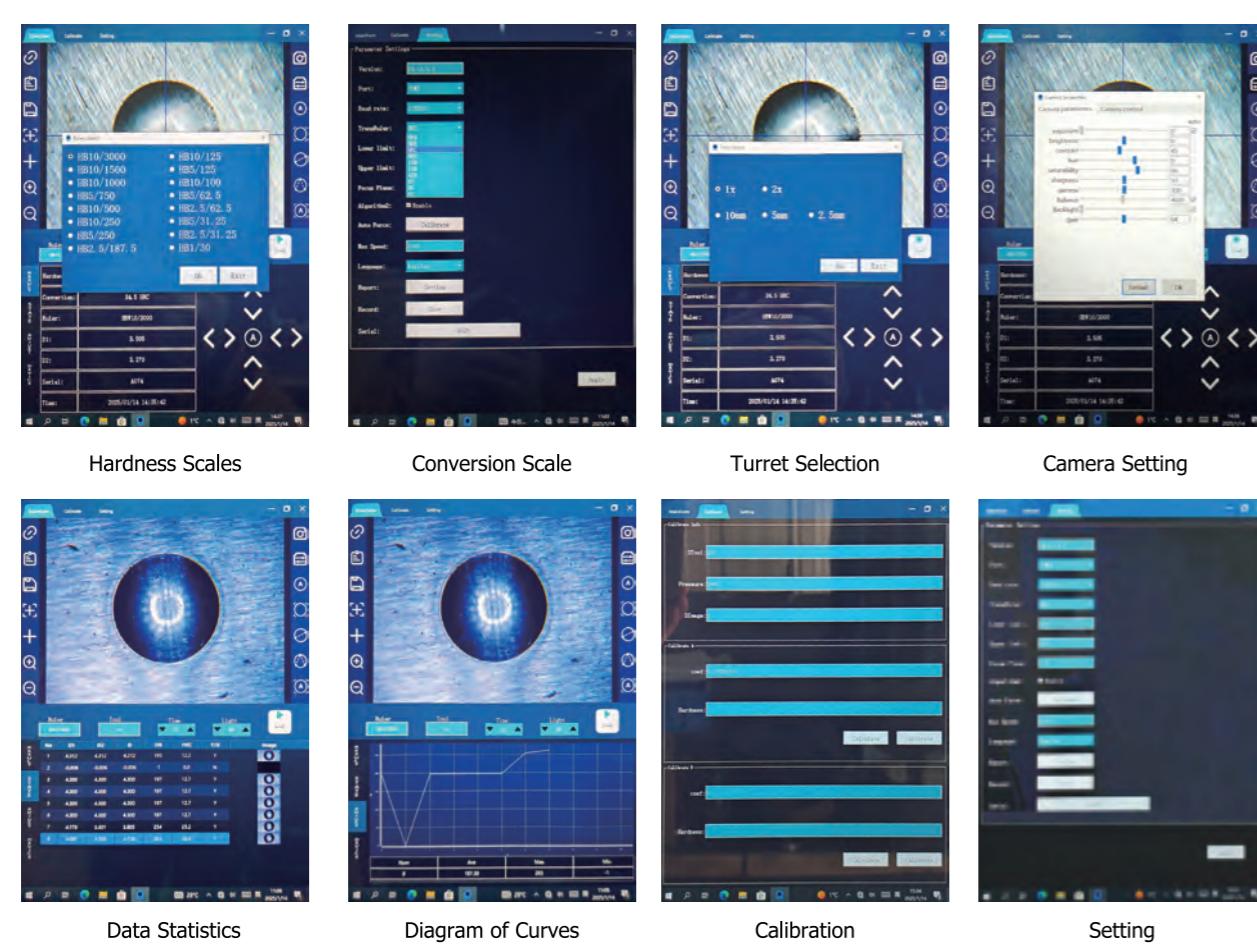
OPTIONAL DELIVERY	
Setting Table	BST
Φ300mm Brinell Flat Anvil	BFA-300
Φ400mm Brinell Flat Anvil	BFA-400
Hardness Block	HBW2.5/62.5
Hardness Block	HBW5/250
Hardness Block	HBW2.5/187.5
Hardness Block	HBW5/750
Hardness Block	HBW10/1500

INTELLIGENT SEMI-AUTO BRINELL HARDNESS TESTE

CODE:MBrin-3000SA

TECHNICAL SPECIFICATION

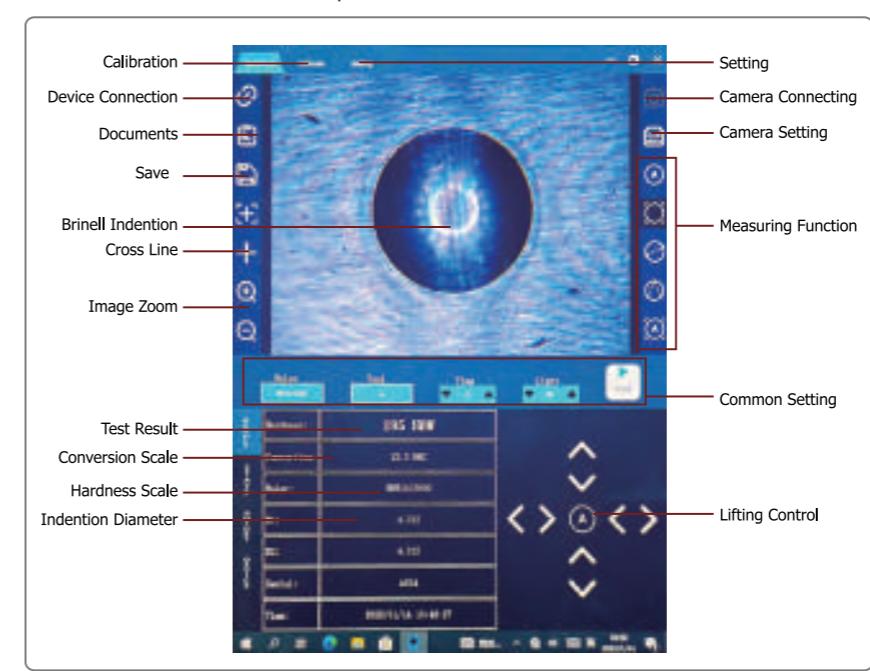
Name	Semi-auto Brinell Hardness Tester
Model	iBrin-3000SA5
Test Force	31.25kg、62.5kg、100kg、125kg、187.5kg、250kg、500kg、750kg、1000kg、1500kg、3000kg 306.45N、612.9N、980.7N、1226N、1839N、2452N、4903N、7355N、9807N、14710N、29420N
Hardness Scales	HBW2.5/31.25、HBW2.5/62.5、HBW2.5/187.5、HBW5/31.25、HBW5/62.5、HBW5/125、 HBW5/250、HBW5/750、HBW10/100、HBW10/125、HBW10/250、HBW10/500、HBW10/1000、 HBW10/1500、HBW10/3000
Conversion Scales	HRA、HRB、HRC、HRD、HS、HV、HK、HBW、HR15N、HR30N、HR45N
Test Range	8~650HBW
Loading Method	Automatic Loading/Dwelling/Unloading
Test Height	280x220mm (Height x Throat)
Main Test Force Loading	5~8s Time
Dwelling Time	0~99s
Turret	Automatic
Optical Magnification	Objective Lens: 1X、2X, Camera: 20X, Total: 20X、40X
Indentor Size (mm)	Φ2.5、Φ5、Φ10 All Installed in Turret
Indentation Measuring	±0.8% Repeatability
Data Display	Industrial Touch Screen
Data Output	Output Report in WORD and EXCEL Formats, Printable Output
Illumination	LED
Communication interface	USB、RJ45LAN、WLAN、RS232
Machine Dimensions	1000*595*350mm
Power Supply	AC220V/110V±5%， 50~60Hz
Net Weight	210KG



INTELLIGENT FULLY AUTOMATIC BRINELL HARDNESS TESTER

CODE:MBrin-3000A

- Closed loop electronic loading ,no need to install dead weights
- 12.1 inches Large touch screen, easy to use, simple to operate
- CMOS directly captures indentation image
- Selectable 12 levels of testing force and 16 brinell hardness test scales.
- 4 Brinell indentors installed in turret for automatic brinell testing
- Two objective lens installed in turret for brinell indentation measurement.
- Automatic turret switching according to brinell hardness scale selection.
- The brinell test forces dwelling time can be pre-set and the illumination for indentation measurement can be adjusted;
- Real time display of test force loading time
- Display the measured indentation length, hardness value, measurement frequency, etc;
- The test results can be converted to various hardness scales
- Built in printer for data output.
- With communication interfaces: USB、RS232、WLAN、RJ45LAN



Mainframe	1 pc
Φ1/2.5/5/10mm Brinell Indentor	Each 1pc
Φ1/2.5/5/10mm Hard Alloy Ball	Each 1pc
480*230mm Test Anvil	1 pc
90*110mm V-shape Test Anvil	1 pc
Φ110mm Test Anvil	1 pc
1X、2X Objective Lens	1 pc
Brinell Hardness Block	Each 1pc
HBW10/3000、HBW10/1000	

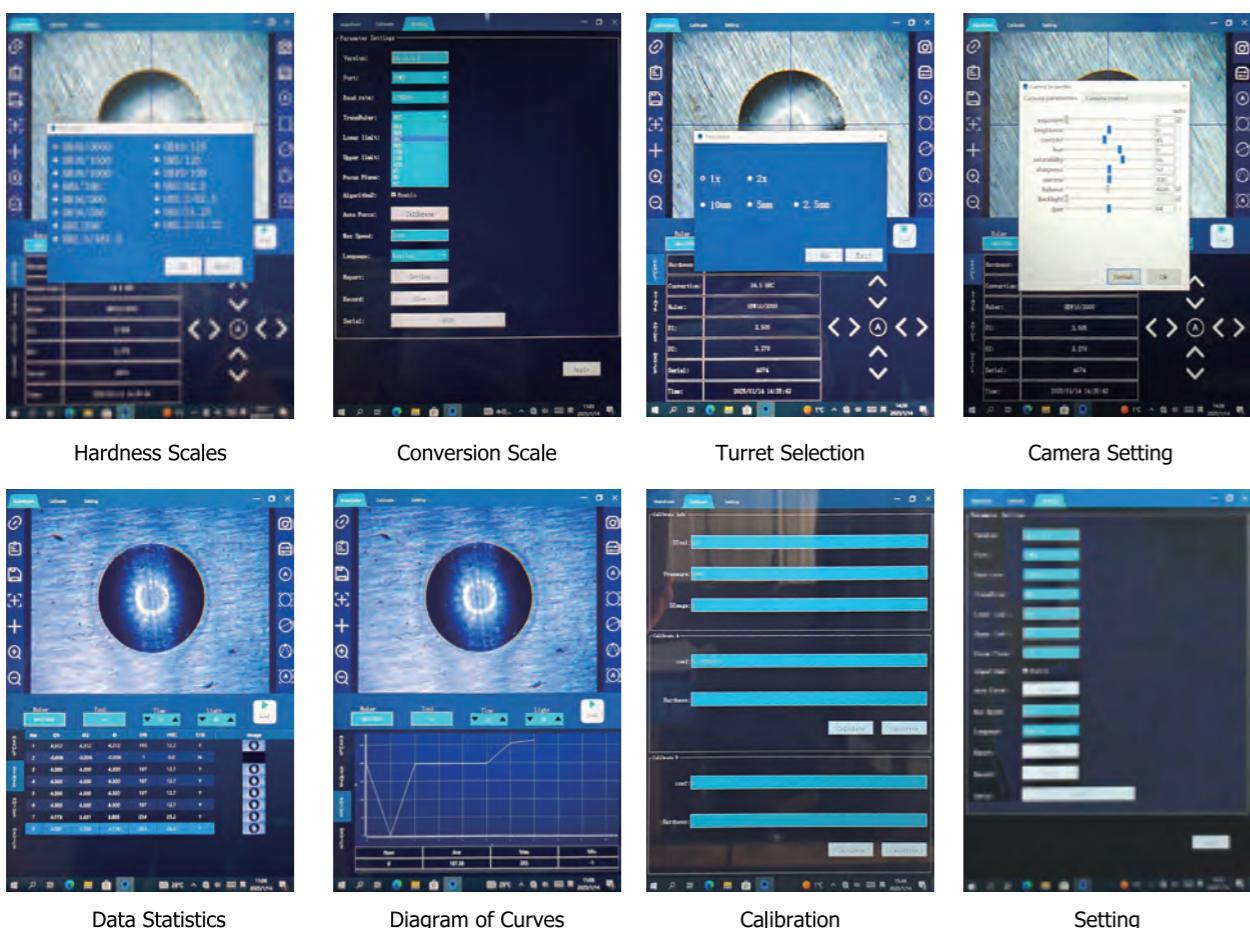
Setting Table	BST
Φ300mm Brinell Flat Anvil	BFA-300
Φ400mm Brinell Flat Anvil	BFA-400
Hardness Block	HBW2.5/62.5
Hardness Block	HBW5/250
Hardness Block	HBW2.5/187.5
Hardness Block	HBW5/750
Hardness Block	HBW10/1500

INTELLIGENT FULLY AUTOMATIC BRINELL HARDNESS TESTER

CODE:MBrin-3000A

TECHNICAL SPECIFICATION

Name	Intelligent Fully Automatic Brinell Hardness Tester (4 Indentors+2 Objective Lens)
Model	MBrin-3000A
Test Force	30kg, 31.25kg, 62.5kg, 100kg, 125kg, 187.5kg, 250kg, 500kg, 750kg, 1000kg, 1500kg, 3000kg 294.2N, 306.45N, 612.9N, 980.7N, 1226N, 1839N, 2452N, 4903N, 7355N, 9807N, 14710N, 29420N
Hardness Scales	HBW1/30, HBW2.5/31.25, HBW2.5/62.5, HBW2.5/187.5, HBW5/31.25, HBW5/62.5, HBW5/125, HBW5/250, HBW5/750, HBW10/100, HBW10/125, HBW10/250, HBW10/500, HBW10/1000, HBW10/1500HBW10/3000
Conversion Scales	HRA, HRB, HRC, HRD, HS, HV, HK, HBW, HR15N, HR30N, HR45N
Test Range	8~650HBW
Loading Method	Automatic Loading/Dwelling/Unloading
Test Height	280x220mm (Height x Throat)
Main Test Force Loading	5~8s Time
Dwelling Time	0~99s
Turret	Automatic
Optical Magnification	Objective Lens: 1X, 2X, Camera: 20X, Total: 20X, 40X
Indentor Size (mm)	Φ1, Φ2.5, Φ5, Φ10 All Installed in Turret
Indentation Measuring	±0.8% Repeatability
Data Display	12.1-inch Industrial Touch Screen
Data Output	Output Report in WORD and EXCEL Formats, or Printer
Illumination	LED
Communication interface	USB, RJ45LAN, WLAN, RS232
Machine Dimensions	1000*595*350mm
Power Supply	AC220V/110V±5%, 50~60Hz
Net Weight	210KG

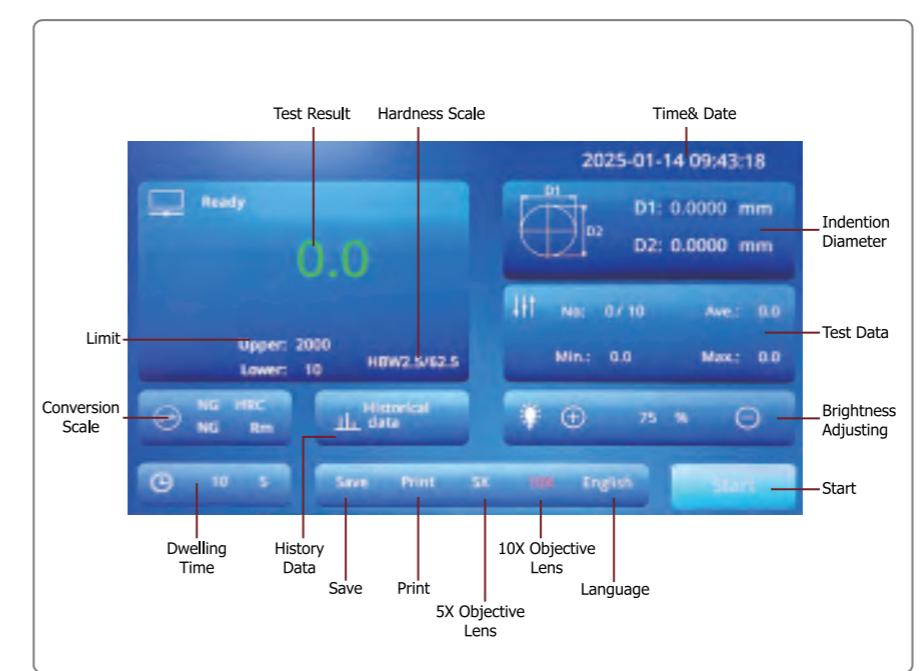


- Closed loop electronic loading, equipped with high-precision sensor and measurement systems
- LCD touch screen
- Fully automatic operation of loading, dwelling, and unloading of test force
- Automatic turret is equipped with 2 lenses and 1 indentor.
- Displaying in English language or any other customized languages
- Built in thermal printer
- Equipped with RS232 and USB interfaces, it can connect to computers and printers
- After the indentation size measurement is completed, the hardness value is automatically output
- Adjustable light source



STANDARD DELIVERY

Mainframe	1 pc
10X Eyepiece	1 pc
Φ150mm Test Anvil	1 pc
Φ58mm Test Anvil	1 pc
Φ58mm V-shape Test Anvil	1 pc
1mm Hard Alloy Indentor	1 pc
Φ2.5mm Hard Alloy Indentor	1 pc
Hard alloy ball Φ1mm; Φ2.5mm	Each 1pc
HBW2.5/62.5 Hardness Block	1 pc
HBW1/10 Hardness Block	1 pc



OPTIONAL DELIVERY

Setting Table	BST
Φ200mm Brinell Flat Anvil	BFA-200
Φ80mm Brinell Flat Anvil	BFA-80
20x Brinell Digital Eyepiece	BDE-20
Φ5mm Brinell Steel Ball	BSB-5
Φ5mm Brinell Hardness Indenter	BHI-5

DIGITAL LOW LOAD BRINELL HARDNESS TESTER

CODE:iBrin-62.5

TECHNICAL SPECIFICATION

Name	Digital Low Load Brinell Hardness Tester
Model	iBrin-62.5
Test Range	8~650HBW
Test Force	1kgf, 1.25kgf, 2.5kgf, 5kgf, 6.25kgf, 7.8125kgf, 10kgf, 15kgf, 15.625kgf, 20kgf, 25kgf, 30kgf, 31.25kgf, 62.5kgf
Hardness Scale	HBW1/1, HBW1/1.25, HBW1/2.5, HBW1/5, HBW1/10, HBW1/15, HBW1/30, HBW2/20, HBW2.5/6.25, HBW2.5/7.8125, HBW2.5/15.625, HBW2.5/31.25, HBW2.5/62.5, HBW5/25, HBW5/31.25, HBW5/62.5
Conversion Scale	HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRH, HRK, HS, HV, HK, HBW, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T
Loading Method	Auto Loading/Dwelling/Unloading
Turret	Automatic
Indentor	Φ1mm, Φ2.5mm (OptionalΦ2mm, Φ5mm)
Eyepiece	10X
Objective Lens	5X, 10X
Optical Magnification	50X, 100X
Test Height	175mm
Test Throat	125mm
Reading Method	Automatically input indentation length; LCD screen displays hardness value
Power Supply	AC220V, 50Hz
Machine Dimension	320mm*580mm*620mm
Net Weight	65KG



DIGITAL UNIVERSAL HARDNESS TESTER

CODE:iBRRV-187.5/250



VIDEO



- Adopt 8-inch touch screen, rich display content, easy operation.
- Ready to use after power on, no need to install weights.
- Electronic loading, closed-loop force control, high precision, to ensure the stability and repeatability of test results.
- Three methods of Brinell, Rockwell and Vickers hardness test.
- Automatic hardness conversion.
- Equipped with high-precision optical system, can clearly present the indentation to ensure the accuracy of measurement.
- With large storage space, it can store a large amount of measurement data, and can be easily retrieved and printed. Users can view historical test data at any time, conduct data analysis and comparison, and provide strong support for quality control and research work.

OPTIONAL DELIVERY

Small V-shape Test Anvil	VTA-S
Rockwell Indentor Protector	RIP
3.175mm Steel Ball Indentor	RSI-3.175
6.35mm Steel Ball Indentor	RSI-6.35
12.7mm Steel Ball Indentor	RSI-12.7
Rockwell Hardness Block	HRE/F/H/L/M/R/S
Brinell Testing Software	uVision-B
Portable Brinell Testing Software	uVision-PB
Setting Table	BST
HBW Brinell Hardness Block	HBW
20x Digital Eyepiece	DEP-20
Mounting Sample Clamp	MSC
Vickers Sample Flattener	VCF
Setting Table	VR-T
Vickers Testing Software	uVision-V
HV Vickers Hardness Block	HV



Diamond Indentor



Ball Indentor

STANDARD DELIVERY

Machine Mainframe	1 set
Digital Eyepiece 15*	1 pc
Microscope Stand	1 pc
External Lighting	1 pc
2.5X, 5X, 10X Objectives	1 pc ea.
Φ150mm Test Anvil, Φ58mm Test Anvil/V-shape Test Anvil	3 pcs
Slide Test Anvil	1 set
Diamond Rockwell Indenter	1 pc
Diamond Vickers Indenter	1 pc
Φ1.5875mm Carbide Ball Indenter	1 pc
Φ2.5mm,Φ5mm Carbide Ball Indenter	2 pcs
Φ1.5875mm Carbide Ball	5 pcs
HRA Rockwell Hardness Block	1 pc
HRB Rockwell Hardness Block	1 pc
HRC Rockwell Hardness Block	3 pcs
Standard Vickers Hardness Block	1 pc
Standard Brinell Hardness Block	1 pc
Gradienter	1 pc



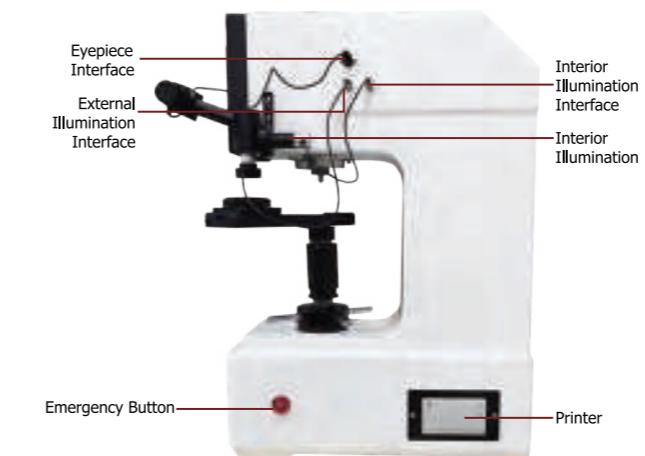
Test Stage



Hardness Block



Objective Lens



DIGITAL UNIVERSAL HARDNESS TESTER

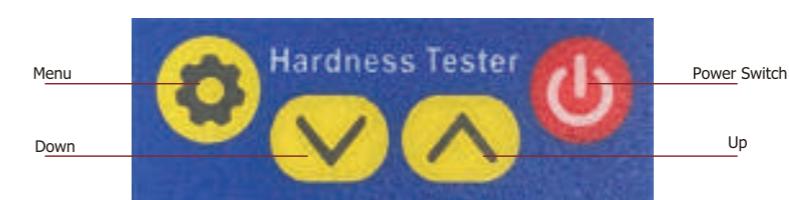
CODE:iBRRV-187.5/250

TECHNICAL SPECIFICATION

Product Name	Digital Universal Hardness Tester	Digital Universal Hardness Tester
Model	iBRRV-187.5	iBRRV-250
Initial Test Force	Rockwell: 10kgf(98.07N) , Superficial Rockwell: 3kgf(29.4N)	
Total Test Force	Rockwell: 588.4, 980.7,1471N (60, 100, 150Kgf) Brinell: 49, 98, 153.2, 306.5,612.9, 1226, 1839, 2452N (5, 10, 15.625, 30, 31.25,62.5, 125, 187.5Kgf) Vickers: 49.03, 98.07, 196.1, 294.2, 490.3, 980.7N (5, 10, 20, 30, 50, 100, 120Kgf)	Brinell: 49, 98, 153.2, 306.5,612.9, 1226, 1839, 2452N (5, 10, 15.625, 30, 31.25,62.5, 125, 187.5Kgf,250kgf)
Force Error	<0.5%	
Hardness Scale	Rockwell: HRA, HRB, HRC, HRD, HRF, HRE, HRG, HRH, HRK, HRL, HRM, HRP, HRR, HRS, HRV Superficial Rockwell: HR15N, HR30N, HR45N, HR15T, HR30T, HR45T, HR15X, HR30X, HR45X, HR15Y, HR30Y, HR45Y, HR15W, HR30W, HR45W Brinell: HBW1/5 HBW1/10 HBW1/30 HBW2.5/15.625 HBW2.5/31.25 HBW2.5/62.5 HBW2.5/6.25 HBW2.5/187.5 HBW5/62.5 HBW5/125 HBW10/100 Vickers: HV5, HV10, HV20, HV30, HV40, HV50, HV60, HV80, HV100, HV120 Knoop: HK3, HK5, HK10, HK20, HK30, HK40, HK50, HK60, HK80, HK100, HK120	Brinell: HBW1/5 HBW1/10 HBW1/30 HBW2.5/15.625 HBW2.5/31.25 HBW2.5/62.5 HBW2.5/6.25 HBW2.5/187.5 HBW5/62.5 HBW5/125 HBW10/100
Hardness Conversion Scale	HRA, HRB, HRC, HRD, HRF, HV, HK, HBW, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T	
Hardness Range	Rockwell: 20-88HRA, 20-100HRB, 20-70HRC Brinell: 5-650HBW Vickers: 8-2900HV	
Hardness Resolution	0.1HBW, 0.1HR,0.1HV	
Indication Accuracy	Brinell: $\pm 2.5\text{H}$, Rockwell: $\pm 0.1\text{HR}$, Vickers: $\pm 2 \text{HV}$	
Repeatability	Brinell: $\leq 3.0\text{HB}$, Rockwell: $\leq 0.5\text{HR}$, Vickers: $\leq 2.5\text{HV}$	
Magnification	Eyepiece: 15X, Objective:2.5X(for Brinell), 5X(for Brinell and Vickers)10X(forVickers) Total Magnification:Brinell:37.5X, 75X Vickers: 75X,150X	
Dwelling Time	0~90s Adjustable	
Test Throat	160mm	
Test Height	Rockwell 180mm; Brinell, Vickers165mm	
Data Output	LCD display, U disk, Built-in mini printer	
Executive Standards	ISO 6508, ASTM E-18, JIS Z2245, GB/T 230.2 ISO 6506, ASTM E10-12, JIS Z2243, GB/T 231.2ISO 6507, ASTM E92, JIS Z2244, GB/T 4340.2	
Power	AC110V/220V+5%, 50-60Hz	
Machine Dimension	550×230×750mm	
Net Weight	80kg	
Gross Weight	130kg	



- Intelligent and user-friendly, compact and portable, with an integrated design devoid of connecting cables, enhancing reliability;
- Industrial-grade high-brightness OLED display, visible even under direct sunlight, suitable for various lighting conditions;
- High-precision measurement circuit ensuring an indication error of $\pm 0.5\%$ (HLD=800) and indication repeatability of 0.8%;
- Supports multiple hardness scales: HL, HV, HRC, HRB, HB, HS;
- Capable of storing 270 sets of hardness measurement data, each set including average value and hardness scale;
- USB charging, compatible with most digital product interfaces such as smartphones;
- When testing "forged steel" samples with a D-type impact device, the HB value can be directly read without manual table lookup;
- Pre-set upper and lower hardness limits with automatic alarms when out of range, facilitating users' batch testing needs.



PEN TYPE LEEB HARDNESS TESTER

CODE:iLeeb-150

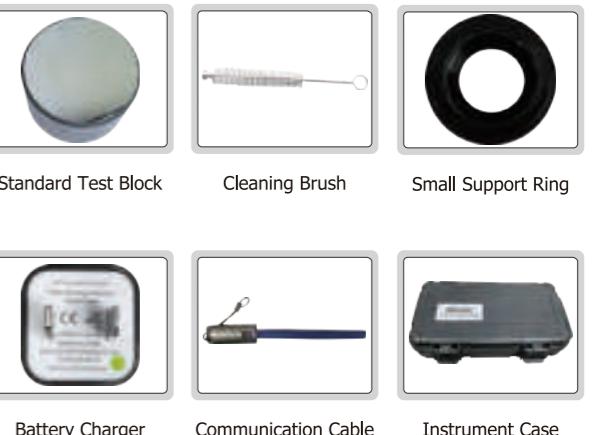


VIDEO



STANDARD DELIVERY

Main Unit	1 pc
Standard Test Block	1 pc
Cleaning Brush	1 pc
Small Support Ring	1 pc
Battery Charger	1 pc
Communication Cable	1 pc
Instrument Case	1 pc



PEN TYPE LEEB HARDNESS TESTER

CODE:iLeeb-150

TECHNICAL SPECIFICATION

Measuring Range	(170-960) HLD, (17.9-69.5) HRC, (19-683) HB, (80-1042) HV, (30.6- 102.6) HS, (59.1-88) HRA, (13.5-101.7) HRB
Measuring Directions	Testing Direction:360 Vertical,Tilt down, Level,Slope,Vertical Up
Hardness Scale	HL, HB, HRB, HRC, HV, HS
Display Resolution	±0.5%(HLD =800)
Repeatability Of Indication	0.8%(HLD =800)
Impact Device: D/DL	Impact Energy: 11mJ Impact Mass: 5.5g/7.2g
Indication Error	±0.5%
Display	Industrial Grade 128 × 64 Graphic Dot Matrix OLED Liquid Crystal
Power Supply	Rechargeable Li Battery
Working Time	20 Hours
Dimensions	148mm×30mm×30mm



- The probe is automatically recognized, enabling plug-and-play functionality (unlike other brands that require probe insertion before powering on).
- It features a high-performance ARM Cortex-M4 processor for fast processing speed.
- Unique full-scale display allows all scales to be viewed at a glance on the main interface, eliminating the need to consult tables or switch screens.
- Leeb hardness impact waveform display helps assess test validity and impact device status, such as probe wear or dirt in the casing.
- Can store up to 100 groups of hardness data (32 to 1 impacts per group), including measurement values, averages, direction, material, hardness system, and more.
- Equipped with a USB interface and standard upper-computer data processing software.
- Supports Bluetooth printing with an optional Bluetooth printer.
- Suitable for testing various metal materials based on Leeb hardness principles.
- Powered by 2 AA alkaline batteries, providing over 50 hours of continuous use with auto-sleep and auto-shutdown functions.
- Compact, portable, and highly reliable, designed for harsh environments and resistant to vibration, shock, and electromagnetic interference.

STANDARD DELIVERY

Main Unit	1 pc
D Type Impact Device	1 pc
Standard Test Block	1 pc
Brush	1 pc
Supporting Ring	1 pc
AA Battery	2 pc
Instruction Manual	1 copy
Instrument Case	1 pc

OPTIONAL DELIVERY

Other Impact Device	G/DL/D+15/DS/C/DC/E
Software	LH-SW
Cable	LH-CB
Printer	LH-PT



LEEB HARDNESS TESTER

CODE:iLeeb-300

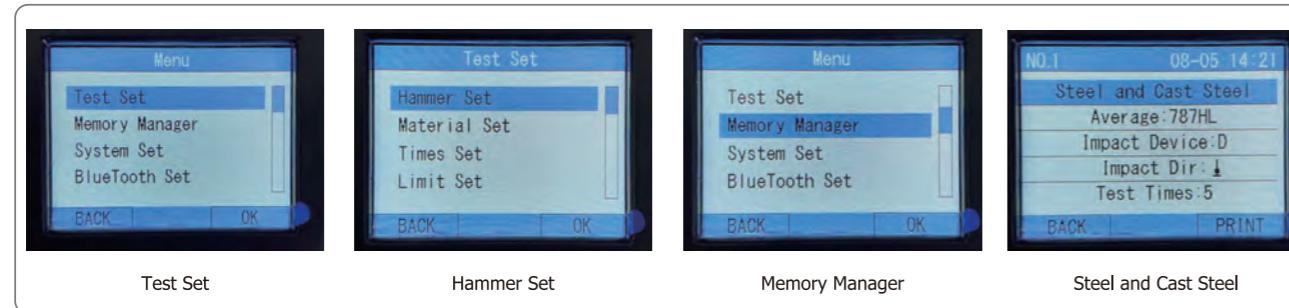


LEEB HARDNESS TESTER

CODE:iLeeb-300

TECHNICAL SPECIFICATION

Measurement Range	HLD (170 ~ 960)
Measurement Direction	Support Vertical Downward, Oblique Downward, Horizontal, Oblique Upward And Vertical Upward
Hardness Scales	Leeb(HL), Brinell (HB), Rockwell B (HRB), Rockwell C (HRC), Vickers (HV), Shore (HS)
Standard Impact Device	Impact Device of Type D
Optional Impact Device	D/ C /DC / D+15 / DL/ E/ G
Display	Color Screen
Data Memory	Up to 100 Groups (Impact Times 32 ~ 1)
Power Supply	3V (Two AA Size Alkaline Batteries In Series)
Interface Port	USB
Measuring Materials	Steel And Cast Steel, Alloy Tool Steel, Cast Aluminum Alloy, Gray Cast Iron, Nodular Cast Iron, Stainless Steel, Copper Zinc Alloy (Brass), Copper Tin Alloy (Bronze), Pure Copper
Hardness Scales	Leeb(HL), Brinell (HB), Rockwell B (HRB), Rockwell C (HRC), Vickers (HV), Shore (HS)
Working Time	Low Brightness For About 15 Hours;high Brightness For About 7 Hours
Dimensions	150×76×37 mm
Weight	245g
Working Environment	Operating Temperature: -10°C ~ +50°C Storage Temperature: -30°C ~ +60°C Relative Humidity: ≤90% No Strong Vibrations, No Intense Magnetic Fields, No Corrosive Media, And No Severe Dust In The Surrounding Area.



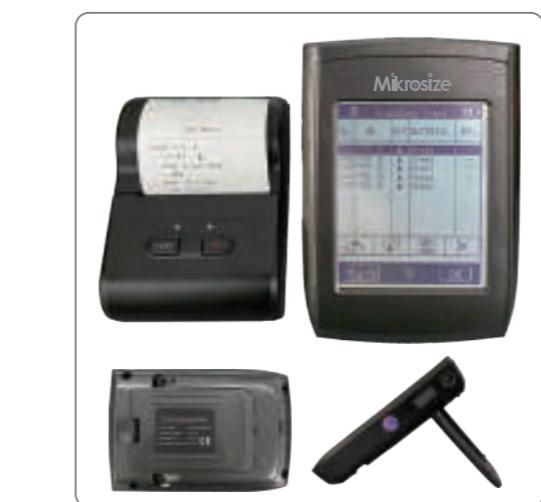
- Compact design for easy portability and usage;
- Multiple interfaces and buttons facilitate device connection, operation, and control;
- A variety of impact devices cater to different measurement needs, with a powerful digital display unit;
- A large touchscreen LCD clearly displays a wealth of information including impact device type, material, conversion value, impact direction, hardness value, statistical information, statistical points, backlight, and more, providing convenience for user viewing and operation;
- A broad hardness display range (0-999HLD) with accuracy (± 6 HL) that meets conventional measurement requirements; a data storage capacity of up to 500 measurement data points allows for the recording of numerous measurement results;
- Comprehensive testing functionality, from instrument preparation, specimen preparation, to the testing process, data browsing, and report printing, with standardized operations and complete procedures at each stage;
- Versatile setting functions, with settings on the main interface, menu, calibration, etc., covering measurement, printing, storage management, and more.

STANDARD DELIVERY

Main Unit	1 pc
D Type Impact Device	1 pc
Standard Test Block	1 pc
Charging Plug	1 pc
Communication Cable	1 pc
Cleaning Brush	1 pc
Small Support Ring	1 pc
Instrument Case	1 pc
Mini Printer	1 pc



Instrument Case Mini Printer



TECHNICAL SPECIFICATION

HI Display Range	0~999HLD
Accuracy	± 6 HL
Unit Display	Large LCD, Backlight, Touch Screen
Unit Material	Shock Resistant ABS Plastic
Internal Data Storage	500 Measured Value
Resolution	1 HL; 1 HV; 1 HB; 0.1 HRC; 0.1 HRB; 1 HSD; 1 MPa
Battery Type	Rechargeable Ni-MH Battery
Operating Temperature	0°C~+50°C (32°F~122°F)
Storage Temperature	-10°C~+60°C (14°F~140°F)
Humidity	90 % Max.
Dimension	130 x 87 x 28 mm (5.1 x 3.3 x 1.1 inches)
Net Weight	240g



D Type Impact Device Standard Test Block Charging Plug Communication Cable

OPTIONAL DELIVERY

Other Impact Device	G/DL/D+15/DS/C/DC/E
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Operation Interface Tensile Scale Conversion

LEEB HARDNESS TESTER

CODE:iLeeb-210



04

SHORE HARDNESS TESTER

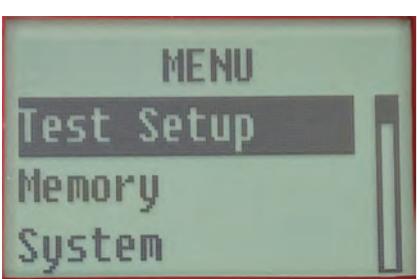
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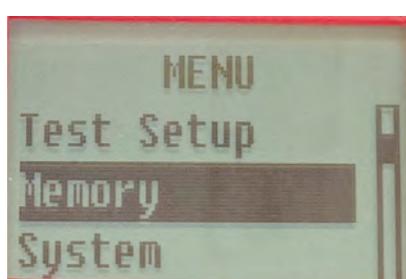
- Multiple Measurement Types: Adapts to various hardness ranges (A, C, D, B, OO, DO types), suitable for soft rubber to rigid plastics.
- Precise Measurement: Accuracy $\leq \pm 1H$, complying with GB/T531, ISO7619, ASTM D2240 for accurate hardness testing.
- Easy Operation: Simple interface with clear functions (power/back, confirmation, up keys) for easy start-up and use.
- Convenient Data Management: Stores 500 sets of readings, with browsing, deletion, and computer upload functions.
- Flexible Test Settings: Multiple modes (average, maximum value, timer), customizable test counts, tolerances, and error elimination for diverse testing needs.

STANDARD DELIVERY

Main Unit	1 pc
Charger	1 pc
Cable	1 pc
Standard Thickness Block	1 pc
Instrument Case	1 pc



Setting Interface



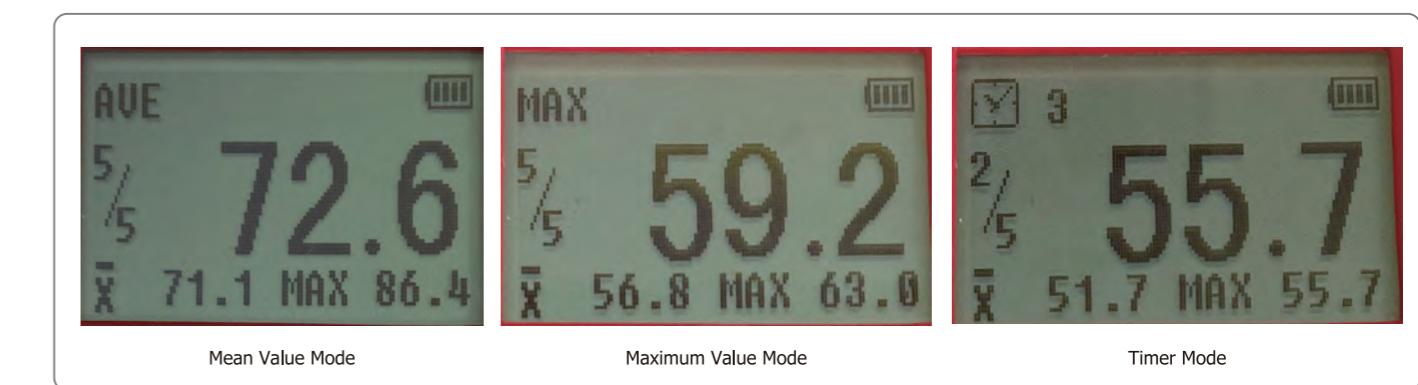
Storage Function



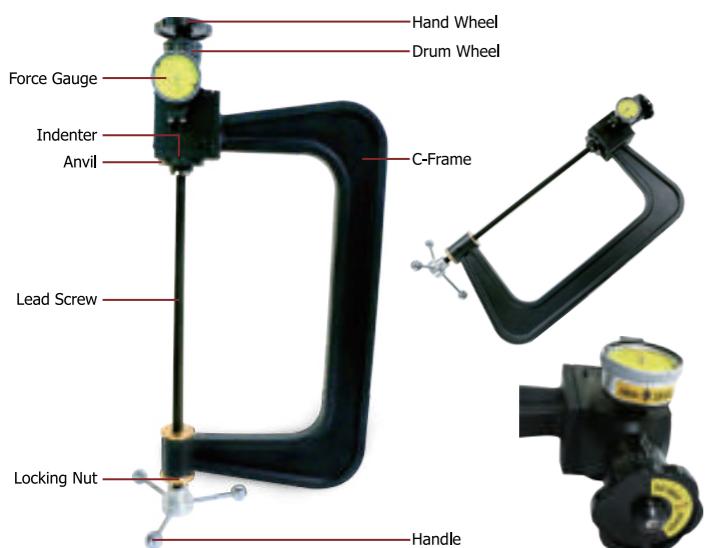
TECHNICAL SPECIFICATION

Accuracy	$\leq \pm 1H$
Resolution	0.1H
Measuring Mode	AVE, MAX, Timing
Display	128*64 Dot Matrix LCD with Backlight
Memory	500 Readings
Communication	USB to PC
Power	Ni-MH Chargeable Battery
Operating Environment	-10 to 40°C, 20 to 80%RH
Dimensions	150X50.5X29mm
Weight	170g

Indenter	A		Soft Vulcanized Rubber, Natural Rubber, Nitriles, Thermoplastic Elastomers, Flexible Polyacrylics And Thermosets, Wax, Felt, And Leathers
	C		Medium-hard Rubber, Thermoplastic Elastomers, Medium-hard Plastics, And Thermoplastics
	D		Hard Rubber, Thermoplastic Elastomers, Harder Plastics, And Rigid Thermoplastics
	B		Moderately Hard Rubber, Thermoplastic Elastomers, Paper Products, And Fibrous Materials
	E (Asker C)		Soft Rubber, Sponges, And Foam Elastomer Material, And Film Coil And Winding (Textile Yarn Spindle)
	OO		Soft Rubber, Thermoplastic Elastomers, Very Soft Plastics And Thermoplastics, Medium-density Textile Windings
	O		Extremely Soft Rubber, Thermoplastic Elastomers, Sponge, Extremely Soft Plastics And Thermoplastics, Foams, Low-density Textile Windings, Human And Animal Tissue
	DO		Moderately Hard Rubber, Thermoplastic Elastomers, And Very Dense Textile Windings



PORTABLE C-TYPE ROCKWELL HARDNESS TESTER CODE:iRocky-150C



- Strong portability, compact structure, operated by hand for on-site hardness testing
- C-type structural design allows the workpiece to be "clamped" into the frame without reserving extra space, and can directly detect the plane and curved surface of plates, pipes, bars, etc. (with special anvil)
- The dial has a large test distance, reducing human operation errors; hardness reading wheel has clear values for easy reading; it is accurate, convenient and good repeatability
- After clamping on workpiece, hardness test can be carried out without moving the workpiece; the test operation is fast, convenient and non-destructive
- The test speed is fast; it is equipped with both V-shaped and flat worktables, which can detect flat and round bar workpieces without replacing the worktable
- Equipped with a diamond cone indenter and a 1.588mm indenter, which can measure different hardness; special anvils can be customized according to the workpiece to test various parts with complex shapes.

TECHNICAL SPECIFICATION

Name	Portable C-Type Rockwell Hardness Tester
Model	iRocky-150C
Rockwell Initial Test Force	10kgf
Rockwell Total Test Force	60kgf, 100kgf, 150kgf
Force Application Method	Screw Force Application
Indenter	120° Diamond Cone $\Phi 1.588\text{mm}$ Cemented Carbide Ball
Test Conditions	9 Rockwell Hardness Scales Including HRC, HRB, HRA, Etc.
Resolution	0.5HR
Accuracy	Conforms to GB/T230, ISO 6508
Application Range	All Common Metals, Including Steel, Forged Steel, Cast Iron, Copper, Copper Alloys, Aluminum, Aluminum Alloys, Cemented Carbides, Etc.

STANDARD DELIVERY

Main Machine	1 set
Diamond Indenter	1 piece
$\Phi 1.588\text{mm}$ Ball Indenter	1 piece
Flat Anvil	1 piece
V-Shaped Anvil	1 piece
Rockwell Hardness Blocks	5 pieces
Instrument Case	1 piece
Instruction Manual	1 copy
Warranty Card	1 copy
Calibration Certificate	1 copy
Certificate Of Conformity	1 copy

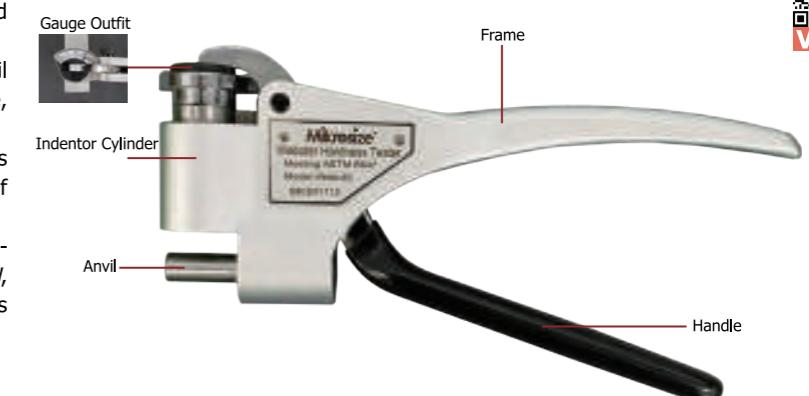
OPTIONAL DELIVERY

Rockwell Hardness Blocks: HRC (high), HRC (medium), HRC (low), HRA, HRB	150C-HB
Diamond Indenter: 120° Cone	150C-DI
Cemented Carbide Ball Indenter: $\Phi 1.588\text{mm}$	150C-CBI
Steel Ball Indenter: $\Phi 1.588\text{mm}$	150C-SBI



Diamond Indenter $\Phi 1.588\text{mm}$ Ball Indenter Flat Anvil Rockwell Hardness Blocks

- Lightweight and Portable: With its small size and light weight (only 0.5KG), it is easy to carry and suitable for on-site testing;
- Easy to Operate: Place the sample between the anvil and indenter, press down the handle to read the value, and there are minimal requirements for operators;
- Non-destructive Testing: The testing process does not damage the workpiece, allowing direct testing of finished or semi-finished products;
- Measurement Range and Accuracy: The measurement range is 0-20HW with an accuracy of 0.5HW, meeting the hardness measurement needs of various materials;

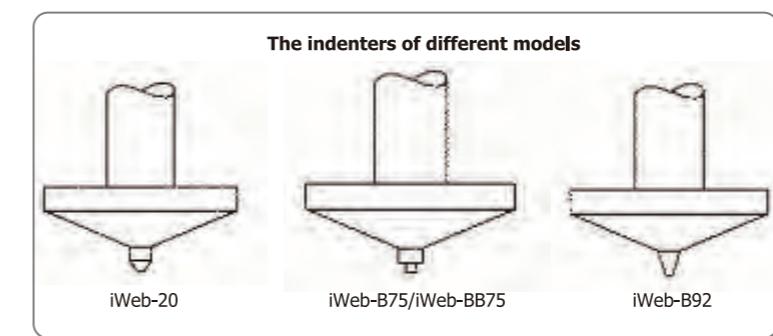
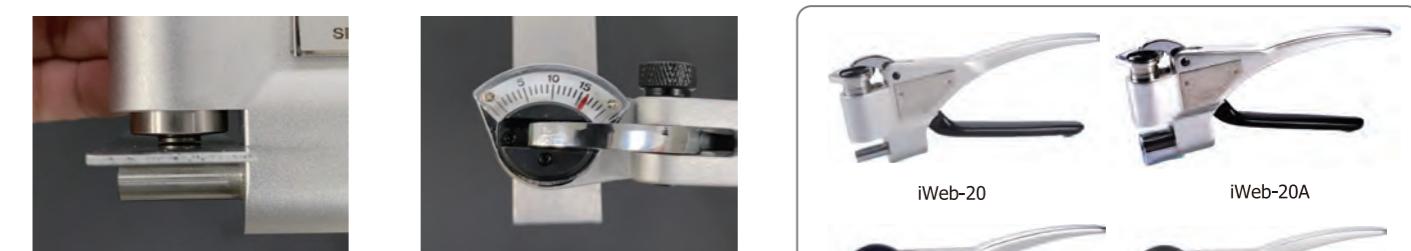


TECHNICAL SPECIFICATION

Model	Applicable Materials	Hardness Range	Range	Accuracy
iWeb-20	Aluminum Alloy	25~110 HRE	0-20HW	0.5HW
iWeb-20a		58~131 HV		
iWeb-20b				
iWeb-B75	Hard or Semi-hard Brass, Ultra-hard Aluminum Alloy	63~105 HRE		
iWeb-B75b	Soft Naval Brass, Red Brass(Copper)	18~100 HRE		
iWeb-BB75	Cold-rolled Steel Plate, Stainless Steel	50~92 HRB		
iWeb-B92				

STANDARD DELIVERY	
Main Unit	1 pc
Hardness Block	1 pc
Spare Indenter	1 pc
Calibration Wrench	1 pc
Small Screwdriver	1 pc
Instrument Case	1 pc

OPTIONAL DELIVERY	
Spare Indenter	W-IT
Standard Webster Hardness Block	HWA
Dial Cover Glass	W-DCG



SMALL PORTABLE ROCKWELL HARDNESS TESTER

CODE:MSR-150P



VIDEO

- Small in size and light in weight. Compared with traditional desktop Rockwell hardness testers, portable hardness testers are significantly smaller in size, making them convenient for mobile use in non-laboratory environments such as workshops and outdoors.
- The dial has a large testing distance, which reduces operational errors in step-by-step testing. The hardness reading wheel has clear values, facilitating reading; it is accurate, convenient, and has good repeatability.
- After clamping the instrument on the workpiece and securing it, the hardness test can be performed without moving the workpiece; the test operation is fast, convenient, and non-destructive.
- The testing speed is fast. The hardness tester is equipped with both V-shaped and flat workbenches, which can test flat and round bar workpieces without replacing the workbench.
- Two replaceable indenters: equipped with a diamond cone indenter and a 1.588mm indenter, which can measure different hardnesses; special anvils can be customized according to the workpiece to test various parts with complex shapes.
- Design standards: meet GB/T230, ISO 6508, ASTM E18, ASTM E110 and other standards.

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TECHNICAL SPECIFICATION

Name	Small Portable Rockwell Hardness Tester
Model	MSR-150P
Rockwell Initial Test Force	10kgf
Rockwell Total Test Force	60kgf, 100kgf, 150kgf
Force Application Method	Screw force application
Indenter	120° diamond cone, Ø1.588mm cemented carbide ball
Test Conditions	9 scales :HRC, HRB, HRA, HRD, HRE, HRF, HRG, HRH, HRK.
Resolution	0.5HR
Accuracy	Conforms to GB/T230, ISO 6508
Application Range	All commonly used metals, including steel, forged steel, cast iron, copper, copper alloys, aluminum, aluminum alloys, cemented carbides, etc.

STANDARD DELIVERY

Main Unit	1 set
Diamond Indenter	1 piece
Ø1.588mm Ball Indenter	1 piece
Rockwell Hardness Block	5 piece
Instrument Case	1 piece
Instruction Manual	1 copy
Warranty Card	1 copy
Qualification Certificate	1 copy
Calibration Certificate	1 copy



Diamond Indenter Ø1.588mm Ball Indenter Rockwell Hardness Block Instrument Case

OPTIONAL DELIVERY

Rockwell hardness blocks: HRC (high), HRC (medium), HRC (low), HRA, HRB	PR-HB
Diamond indenter: 120° cone	PR-D
Steel ball indenter: Ø1.588mm	PR-BI



CHAIN HYDRAULIC BRINELL HARDNESS TESTER

CODE:MHB-3000C



VIDEO

- The loading method is stable and reliable, with a hydraulic loading system that can provide uniform and stable test force.
- Adopting a chain transmission mechanism, which has the advantages of large force transmission and stable operation, and can maintain precise displacement control under high loads.
- On-site testing without sampling. It can test large, assembled, inconveniently moved and non-cuttable workpieces of various materials, sizes and shapes, and can test in any direction, including upper, lower, side, and even inverted testing can get accurate results.
- The instrument uses 1000kg force and 10mm ball. The permanent indentation left after testing can be re-inspected at any time, and the existence of the indentation indicates that the workpiece has been tested for hardness.
- The calibration accuracy of the test force reaches $\pm 1\%$ of the rated load, and the hardness test accuracy is the same as that of the desktop machine.
- Multiple test forces and multiple ball indenters can be used. It has a wide test range, reaching 16~650HBW.
- The test conditions and accuracy comply with the standards: GB/T231.1, ISO6506, ASTM E10.

TECHNICAL SPECIFICATION

Name	Chain Hydraulic Brinell Hardness Tester
Model	MHB-3000C
Test Force	1000kg (3000kg, 750kg, 500kg optional)
Hardness Scales	10/1000HBW、10/500HBW(10/3000HBW、5/750HBW are optional; the indenter of the corresponding size must be selected)
Indenter	10mm cemented carbide ball (5mm ball optional)
Measuring Method	20X illuminated reading microscope
Loading Method	Hydraulic drive
Measuring Range	16~650HBW
Test Workpiece Diameter	$\geq 300\text{mm}$
Indication Error	$\leq \pm 3\%$, in line with GB/T231.2
Indication Repeatability	The deviation of multiple measurements of the same workpiece is $\leq \pm 2\%$, in line with GB/T231.2
Weight	15kg

OPTIONAL DELIVERY

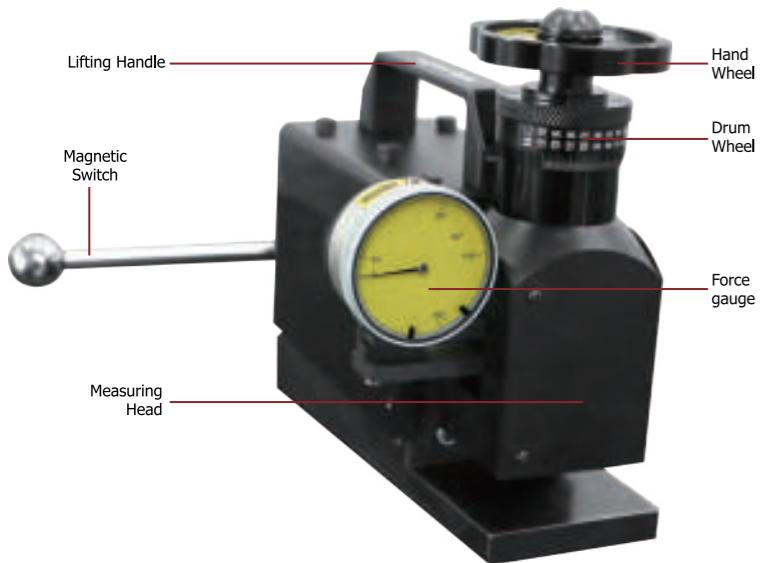
Standard Brinell Hardness Block (High Value)	HB-BH
Standard Brinell Hardness Block (Low Value)	HB-BL
10mm Cemented Carbide Ball	HB-CB10
5mm Cemented Carbide Ball	HB-CB05
Indenter Sleeve	HB-IS
Rechargeable Angle Grinder	HB-AG
Brinell Hardness Automatic Indentation Reader	HB-IR



Force Application Rod High-Value Standard Brinell Hardness Block Low-Value Standard Brinell Hardness Block 20x Illuminated Microscope Spare Cemented Carbide Ball Small Hexagon Socket Wrench 1.5m Chain Ratchet Wrench

MAGNETIC HARDNESS TESTER

CODE: iMagR / iMagB / iMagBR



TECHNICAL SPECIFICATION

Name	Magnetic Hardness Tester		
Model	iMagR-150	iMagB-187.5	iMagBR-187.5
Maximum Magnetic Attraction Force	>350kgf		
Force Application Method	Screw force application		
Rockwell Preliminary Test Force	10kgf	/	
Rockwell Total Test Force	60, 100, 150kgf (588.4, 980.7, 1471N)	/	60, 100, 150kgf (588.4, 980.7, 1471N)
Brinell Test Force	/	62.5, 187.5kgf (612.9, 1839N)	62.5, 187.5kgf (612.9, 1839N)
Test Scales	HRA, HRC, HRD, HRB, HRF, HRG	HBW2.5/187.5, HBW2.5/62.5	HRA, HRCHRD, HRB, HRF, HRG HBW2.5/187.5, HBW2.5/62.5
Rockwell Measurement Range	20-95HRA, 10-100HRB, 20-70HRC		
Brinell Measurement Range	100-650 HBW		
Indication Error	±1%, Conforms to GB/T230, GB/T231		
Repeatability Error	Conforms to GB/T230, GB/T231		
Rockwell Hardness Resolution	1HR		
Brinell Test Force Error	≤±1%, conforms to GB/T231.2		
Brinell Cemented Carbide Indenter	Φ2.5mm		
Rockwell Indenter	120° diamond indenter, 1.588mm cemented carbide ball		
Overall Dimensions	249x131x 171(mm)		
Net Weight	13KG		

STANDARD DELIVERY

Main Machine	1 set
Force Application Rod	1 piece
High-Value Standard Brinell Hardness Block	1 piece
Low-Value Standard Brinell Hardness Block	1 piece
20x Illuminated Reading Microscope	1 piece
Spare Cemented Carbide Ball	2 pieces
Small Hexagon Socket Wrench	1 piece
1.5m Chain	2 pieces
Ratchet Wrench	1 piece
Instruction Manual	1 copy
Certificate Of Conformity	1 copy
Warranty Card	1 copy
Calibration Certificate	1 copy

OPTIONAL DELIVERY

Brinell Hardness Indentation Optical Measurement System	uVision-PB
Rockwell Hardness Blocks With Various Hardness Values	iMag-RB
Brinell Hardness Blocks With Various Hardness Values	iMag-BB

DIGITAL MAGNETIC AUTOMATIC ROCKWELL HARDNESS TESTER

CODE: iMag-AR150

- The dial has a large testing distance, reducing manual operation errors. The hardness reading wheel has clear values for easy reading.
- One-way magnetizing switch, no need for two-hand operation, convenient and fast.
- The contact surface between the indenter and the workpiece can be observed from multiple angles; it can measure thin and light workpieces of any length (within the allowable thickness for hardness values).
- Two replaceable indenters: equipped with a diamond cone indenter and a 1.588mm indenter, which can measure different hardnesses; supports custom-made bracket tooling according to the workpiece.
- Uses a magnetic chuck to attach the intelligent hardness tester to steel parts for hardness testing. No need to move the parts; one-sided contact with the part completes the test, with no requirements on the shape and size of the part.
- Simple and fast test operation: one-key automatic measurement, automatic display of hardness value, reducing human operation errors and improving test efficiency.
- Users can calibrate the instrument's measurement error with standard hardness blocks at any time to ensure high measurement accuracy during long-term use.
- Wide operating temperature range: usable within 0~50°C.
- Equipped with a touch screen operation panel, simple and intuitive to operate, easy to get started quickly.
- Supports hardness value conversion function, can set upper and lower limits for hardness testing, and has different test scales optional.
- Supports connection to a Bluetooth printer (optional) for timely printing and output of test data, and supports inserting a USB flash drive to export data.
- Supports two display languages: Chinese and English.
- The design of test conditions, indication error, and repeatability error complies with GB/T230.2, ISO6508.2, and ASTM E18.



TECHNICAL SPECIFICATION

Name	Digital Magnetic Automatic Rockwell Hardness Tester
Model	iMag-AR150
Initial Test Force	10kgf (98.07N)
Total Test Force	60kg, 100kg, 150kg 588.4N, 980.7N, 1471N
Hardness Scales	HRA, HRB, HRC
Test Range	20~88 HRA, 20~100 HRB, 20~70 HRC
Indenter	Diamond indenter, Φ1.588mm ball indenter
Resolution	0.1HR
Indication Error	≤±1.5HR, complying with GB/T230.2
Repeatability Error	≤±0.8HR, complying with GB/T230.2
Operating Temperature	0~50°C
Overall Dimensions (L×W×H)	205mm*115mm *267mm
Part Size	Plane: 195mm×60mm (area), 9mm (thickness); Cylindrical surface: 110mm (diameter), 200mm (length), 9mm (thickness)
Weight	6.2kg

STANDARD DELIVERY

Main Unit	1 set
Base	1 piece
Diamond Indenter	1 piece
Φ1.588mm Ball Indenter	1 piece
Standard Rockwell Hardness Blocks	5 pieces
Charger	1 piece
Instrument Case	1 piece
Instruction Manual	1 copy
Qualification Certificate	1 copy
Calibration Certificate	1 copy
Warranty Card	1 copy

OPTIONAL DELIVERY

Bluetooth Printer	iMag-ABP
Various Adapters	iMag-AA
Diamond Indenters	iMag-ADI
Φ1.588mm Ball Indenters	iMag-ABI
Various Standard Rockwell Hardness Blocks	iMag-ARB

LEEB HARDNESS TESTER IMPACT DEVICE



Impact Device	Type D	Type DC	Type DL	Type DS	Type D+15	Type C	Type G	Type E
Impact Energy	11mJ	11mJ	11mJ	11mJ	11mJ	2.7mJ	90mJ	11mJ
Mass of Impactor	5.5g	5.5g	7.2g	5.5g	7.8g	3.0g	20g	5.5g
Ball Tip Hardness	1600HV	1600HV	1600HV	1600HV	1600HV	1600HV	1600HV	5000HV
Ball Tip Diameter	3mm	3mm	3mm	3mm	3mm	3mm	5mm	3mm
Ball Tip Material	Tungsten Carbide	Tungsten Carbide	Tungsten Carbide	Tungsten Carbide	Tungsten Carbide	Tungsten Carbide	Tungsten Carbide	Diamond
Diameter of Impact Device	20mm	20mm	6mm	20mm	20mm	20mm	30mm	20mm
Length of Impact Device	147mm	86mm	202mm	138mm	162mm	141mm	254mm	155mm
Weight of Impact Device	75g	50g	60g	70g	80g	75g	250g	80g
Maximum Hardness of Test Specimen	940HV	940HV	950HV	940HV	940HV	1000HV	650HB	1200HV
Average Surface Roughness Ra of Test Specimen	1.6um	1.6um	1.6um	1.6um	1.6um	0.4um	6.3um	1.6um
Direct Measurement Possible	>5kg	>5kg	>5kg	>5kg	>5kg	>1.5kg	>15kg	>5kg
Requires Stable Support	2~5kg	2~5kg	2~5kg	2~5kg	2~5kg	0.5~1.5kg	5~15kg	2~5kg
Requires Dense Coupling	0.05~2kg	0.05~2kg	0.05~2kg	0.05~2kg	0.05~2kg	0.02~0.5kg	0.5~5kg	0.05~2kg
Dense Coupling	5mm	5mm	5mm	5mm	5mm	1mm	10mm	5mm
Minimum Depth of Hardened Layer	≥0.8mm	≥0.8mm	≥0.8mm	≥0.8mm	≥0.8mm	≥0.2mm	≥1.2mm	≥0.8mm
Application Range of Impact Device	Routine Measuring	Measuring Inside Bores Or Cylindrical Surfaces	Narrow, Elongated Or Holes	Inline Inspection On Production Lines (Loading And Releasing Are Completed In One Operation)	Measuring Grooves Or Recessed Surfaces	Measuring Small, Thin, And Lightweight Components As Well As Surface Hardened Layers	Measuring Large, Thick, And Relatively Rough Cast And Forged Parts.	Measuring Materials With High Hardness.

04

HARDNESS TESTING BLOCK



HRA Standard Rockwell Hardness Block
Specification: 60-70HRA
Shape: Ring-shaped
Material: Alloy steel
Surface: Matt finish
Uniformity: ±0.5HRA
Roughness: Ra=0.02um
Dimension: Φ60×Φ10×10mm
Weight: 0.2kg



HRA Standard Rockwell Hardness Block
Specification: 70-85HRA
Shape: Ring-shaped
Material: Alloy steel
Surface: Matt finish
Uniformity: ±0.5HRA
Roughness: Ra=0.02um
Dimension: Φ60×Φ10×10mm
Weight: 0.2kg



HRB Standard Rockwell Hardness Block
Specification: 85-95HRB
Shape: Ring-shaped
Material: Alloy steel
Surface: Matt finish
Uniformity: ±0.5HRB
Roughness: Ra=0.02um
Dimension: Φ60×Φ10×10mm
Weight: 0.2kg



HRB Standard Rockwell Hardness Block
Specification: 60-70HRB
Shape: Ring-shaped
Material: Alloy steel
Surface: Matt finish
Uniformity: ±0.5HRB
Roughness: Ra=0.02um
Dimension: Φ60×Φ10×10mm
Weight: 0.2kg



HRB Standard Rockwell Hardness Block
Specification: 45-55HRB
Shape: Rectangular
Material: Copper
Surface: Shiny finish
Uniformity: ±0.5HRB
Dimension: 60×40×10mm
Weight: 0.2kg



HRB Standard Rockwell Hardness Block
Specification: 30-40HRB
Shape: Rectangular
Material: Copper
Surface: Shiny finish
Uniformity: ±0.5HRB
Dimension: 60×40×10mm
Weight: 0.2kg



HRC Standard Rockwell Hardness Block
Specification: 60-70HRC
Shape: Ring-shaped
Material: Alloy steel
Surface: Matt finish
Uniformity: ±0.5HRC
Roughness: Ra=0.02um
Dimension: Φ60×Φ10×10mm
Weight: 0.2kg



HRC Standard Rockwell Hardness Block
Specification: 50-55HRC
Shape: Ring-shaped
Material: Alloy steel
Surface: Matt finish
Uniformity: ±0.5HRC
Roughness: Ra=0.02um
Dimension: Φ60×Φ10×10mm
Weight: 0.2kg

HARDNESS TESTING BLOCK



HRC Standard Rockwell Hardness Block
 Specification: 40-50HRC
 Shape: Ring-shaped
 Material: Alloy steel
 Surface: Matt finish
 Uniformity: ± 0.5 HRC
 Roughness: Ra=0.02um
 Dimension: $\Phi 60 \times \Phi 10 \times 10$ mm
 Weight: 0.2kg



HRC Standard Rockwell Hardness Block
 Specification: 30-35HRC
 Shape: Ring-shaped
 Material: Alloy steel
 Surface: Matt finish
 Uniformity: ± 0.5 HRC
 Roughness: Ra=0.02um
 Dimension: $\Phi 60 \times \Phi 10 \times 10$ mm
 Weight: 0.2kg



HR15Y Standard Superficial Rockwell Hardness Block
 Specification: 70-80HR15Y
 Shape: Rectangular
 Material: Aluminum
 Surface: Shiny finish
 Uniformity: ± 0.5 HR15Y
 Dimension: 60x40x10mm
 Weight: 0.2kg



HR30Y Standard Superficial Rockwell Hardness Block
 Specification: 70-80HR30Y
 Shape: Rectangular
 Material: Copper
 Surface: Shiny finish
 Uniformity: ± 0.5 HR30Y
 Dimension: 60x40x10mm
 Weight: 0.2kg



HRC Standard Rockwell Hardness Block
 Specification: 20-30HRC
 Shape: Ring-shaped
 Material: Alloy steel
 Surface: Matt finish
 Uniformity: ± 0.5 HRC
 Roughness: Ra=0.02um
 Dimension: $\Phi 60 \times \Phi 10 \times 10$ mm
 Weight: 0.2kg



HRF Standard Rockwell Hardness Block
 Specification: 90-100HRF
 Shape: Ring-shaped
 Material: Alloy steel
 Surface: Matt finish
 Uniformity: ± 0.5 HRF
 Roughness: Ra=0.02um
 Dimension: $\Phi 60 \times \Phi 10 \times 10$ mm
 Weight: 0.2kg



HR45Y Standard Superficial Rockwell Hardness Block
 Specification: 80-100HR45Y
 Shape: Rectangular
 Material: Copper
 Surface: Shiny finish
 Uniformity: ± 0.5 HR45Y
 Dimension: 60x40x10mm
 Weight: 0.2kg



HRA Standard Rockwell Hardness Block
 Specification: 88-90HRA
 Shape: Ring-shaped
 Material: Hard metal
 Surface: Shiny finish
 Uniformity: ± 0.5 HRA
 Roughness: Ra=0.02um
 Dimension: $\Phi 45 \times 8$ mm
 Weight: 0.2kg



HRF Standard Rockwell Hardness Block
 Specification: 80-90HRF
 Shape: Rectangular
 Material: Copper
 Surface: Shiny finish
 Uniformity: ± 0.5 HRF
 Dimension: 60x40x10mm
 Weight: 0.2kg



HRH Standard Rockwell Hardness Block
 Specification: 80-120HRH
 Shape: Rectangular
 Material: Copper
 Surface: Shiny finish
 Uniformity: ± 0.5 HRH
 Dimension: 60x40x10mm
 Weight: 0.2kg



HRA Standard Rockwell Hardness Block
 Specification: 90-94HRA
 Shape: Ring-shaped
 Material: Hard metal
 Surface: Shiny finish
 Uniformity: ± 0.5 HRA
 Roughness: Ra=0.02um
 Dimension: $\Phi 45 \times 8$ mm
 Weight: 0.2kg



HRC Standard Magnetic Rockwell Hardness Block
 Specification: 60-70HRC
 Shape: Ring-shaped
 Material: Alloy steel
 Surface: Shiny finish
 Uniformity: ± 0.5 HRC
 Roughness: Ra=0.02um
 Dimension: $\Phi 50 \times 10$ mm
 Weight: 0.2kg



HRS Standard Rockwell Hardness Block
 Specification: 100-120HRS
 Shape: Rectangular
 Material: Copper
 Surface: Shiny finish
 Uniformity: ± 0.5 HRS
 Dimension: 60x40x10mm
 Weight: 0.2kg



HR15Y Standard Superficial Rockwell Hardness Block
 Specification: 80-100HR15Y
 Shape: Rectangular
 Material: Copper
 Surface: Shiny finish
 Uniformity: ± 0.5 HR15Y
 Dimension: 60x40x10mm
 Weight: 0.2kg



HRC Standard Magnetic Rockwell Hardness Block
 Specification: 35-55HRC
 Shape: Ring-shaped
 Material: Alloy steel
 Surface: Shiny finish
 Uniformity: ± 0.5 HRC
 Roughness: Ra=0.02um
 Dimension: $\Phi 50 \times 10$ mm
 Weight: 0.2kg



HRC Standard Magnetic Rockwell Hardness Block
 Specification: 20-30HRC
 Shape: Ring-shaped
 Material: Alloy steel
 Surface: Shiny finish
 Uniformity: ± 0.5 HRC
 Roughness: Ra=0.02um
 Dimension: $\Phi 50 \times 10$ mm
 Weight: 0.2kg

HARDNESS TESTING BLOCK



HRC Standard Magnetic Rockwell Hardness Block
Specification: 60-70HRC
Shape: Rectangular
Material: Alloy steel
Surface: Matt finish
Uniformity: ± 0.5 HRC
Roughness: Ra=0.02um
Dimension: 80×30×10mm
Weight: 0.2kg



HRC Standard Magnetic Rockwell Hardness Block
Specification: 35-55HRC
Shape: Rectangular
Material: Alloy steel
Surface: Matt finish
Uniformity: ± 0.5 HRC
Roughness: Ra=0.02um
Dimension: 80×30×10mm
Weight: 0.2kg



HRE Standard Plastic Rockwell Hardness Block
Specification: 70-94HRE
Shape: Rectangular
Material: Copper
Surface: Shiny finish
Uniformity: ± 0.5 HRE
Dimension: 60×40×10mm
Weight: 0.2kg



HRL Standard Plastic Rockwell Hardness Block
Specification: 100-120HRL
Shape: Rectangular
Material: Copper
Surface: Shiny finish
Uniformity: ± 0.5 HRL
Dimension: 60×40×10mm
Weight: 0.2kg



HRC Standard Magnetic Rockwell Hardness Block
Specification: 20-30HRC
Shape: Rectangular
Material: Alloy steel
Surface: Matt finish
Uniformity: ± 0.5 HRC
Roughness: Ra=0.02um
Dimension: 80×30×10mm
Weight: 0.2kg



HRB Standard Magnetic Rockwell Hardness Block
Specification: 85-95HRB
Shape: Rectangular
Material: Alloy steel
Surface: Matt finish
Uniformity: ± 0.5 HRB
Roughness: Ra=0.02um
Dimension: 80×30×10mm
Weight: 0.2kg



HRM Standard Plastic Rockwell Hardness Block
Specification: 85-100HRM
Shape: Rectangular
Material: Copper
Surface: Shiny finish
Uniformity: ± 0.5 HRM
Dimension: 60×40×10mm
Weight: 0.2kg



HRR Standard Plastic Rockwell Hardness Block
Specification: 114-125HRR
Shape: Rectangular
Material: Copper
Surface: Shiny finish
Uniformity: ± 0.5 HRR
Dimension: 60×40×10mm
Weight: 0.2kg



HRC Standard Rockwell Hardness Block
Specification: 20-70HRC
Shape: Rectangular
Material: Alloy steel
Surface: Matt finish
Uniformity: ± 0.5 HRC
Dimension: 60×40×10mm
Weight: 0.2kg



HRA Standard Rockwell Hardness Block
Specification: 60-70HRA
Shape: Rectangular
Material: Alloy steel
Surface: Matt finish
Uniformity: ± 0.5 HRA
Dimension: 60×40×10mm
Weight: 0.2kg



HR15N Standard Superficial Rockwell Hardness Block
Specification: 88-92HR15N
Shape: Ring-shaped
Material: Alloy steel
Surface: Shiny finish
Uniformity: ± 0.5 HR15N
Roughness: Ra=0.02um
Dimension: $\Phi 60 \times \Phi 10 \times 10$ mm
Weight: 0.2kg



HR30N Standard Superficial Rockwell Hardness Block
Specification: 74-82HR30N
Shape: Ring-shaped
Material: Alloy steel
Surface: Shiny finish
Uniformity: ± 0.5 HR30N
Roughness: Ra=0.02um
Dimension: $\Phi 60 \times \Phi 10 \times 10$ mm
Weight: 0.2kg



HRA Standard Rockwell Hardness Block
Specification: 70-85HRA
Shape: Rectangular
Material: Alloy steel
Surface: Matt finish
Uniformity: ± 0.5 HRA
Dimension: 60×40×10mm
Weight: 0.2kg



HRB Standard Rockwell Hardness Block
Specification: 85-95HRB
Shape: Rectangular
Material: Alloy steel
Surface: Matt finish
Uniformity: ± 0.5 HRB
Dimension: 60×40×10mm
Weight: 0.2kg



HR30N Standard Superficial Rockwell Hardness Block
Specification: 45-55HR30N
Shape: Ring-shaped
Material: Alloy steel
Surface: Shiny finish
Uniformity: ± 0.5 HR30N
Roughness: Ra=0.02um
Dimension: $\Phi 60 \times \Phi 10 \times 10$ mm
Weight: 0.2kg



HR45N Standard Superficial Rockwell Hardness Block
Specification: 45-55HR45N
Shape: Ring-shaped
Material: Alloy steel
Surface: Shiny finish
Uniformity: ± 0.5 HR45N
Roughness: Ra=0.02um
Dimension: $\Phi 60 \times \Phi 10 \times 10$ mm
Weight: 0.2kg

HARDNESS TESTING BLOCK



HR15T Standard Superficial Rockwell Hardness Block
Specification: 85-91HR15T
Shape: Ring-shaped
Material: Alloy steel
Surface: Shiny finish
Uniformity: ± 0.5 HR15T
Roughness: Ra=0.02um
Dimension: $\Phi 60 \times \Phi 10 \times 10$ mm
Weight: 0.2kg



HR30T Standard Superficial Rockwell Hardness Block
Specification: 70-80HR30T
Shape: Ring-shaped
Material: Alloy steel
Surface: Shiny finish
Uniformity: ± 0.5 HR30T
Roughness: Ra=0.02um
Dimension: $\Phi 60 \times \Phi 10 \times 10$ mm
Weight: 0.2kg



HBW2.5/62.5 Standard Brinell Hardness Block
Specification: 75-125HBW2.5/62.5
Shape: Ring-shaped
Material: Alloy steel (>100HBW) /Aluminum(<100HBW)
Surface: Matt finish
Uniformity: $\pm 3\%$ HBW2.5/62.5
Roughness: Ra=0.28um
Dimension: $\Phi 64 \times \Phi 10 \times 10$ mm
Weight: 0.85kg



HBW10/3000 Standard Brinell Hardness Block
Specification: 250-350HBW10/3000
Shape: Ring-shaped
Material: Alloy steel
Surface: Matt finish
Uniformity: $\pm 2\%$ HBW10/3000
Roughness: Ra=0.28um
Dimension: $\Phi 90 \times \Phi 12 \times 16$ mm
Weight: 0.85kg



HR45T Standard Superficial Rockwell Hardness Block
Specification: 54-72HR45T
Shape: Ring-shaped
Material: Alloy steel
Surface: Shiny finish
Uniformity: ± 0.5 HR45T
Roughness: Ra=0.02um
Dimension: $\Phi 60 \times \Phi 10 \times 10$ mm
Weight: 0.2kg



HBW10/3000 Standard Brinell Hardness Block
Specification: 150-250HBW10/3000
Shape: Ring-shaped
Material: Alloy steel
Surface: Matt finish
Uniformity: $\pm 2\%$ HBW10/3000
Roughness: Ra=0.28um
Dimension: $\Phi 90 \times \Phi 12 \times 16$ mm
Weight: 0.85kg



HBW5/750 Standard Brinell Hardness Block
Specification: 250-350HBW5/750
Shape: Ring-shaped
Material: Alloy steel
Surface: Matt finish
Uniformity: $\pm 2\%$ HBW5/750
Roughness: Ra=0.28um
Dimension: $\Phi 90 \times \Phi 12 \times 16$ mm
Weight: 0.85kg



HBW2.5/187.5 Standard Brinell Hardness Block
Specification: 250-350HBW2.5/187.5
Shape: Ring-shaped
Material: Alloy steel
Surface: Matt finish
Uniformity: $\pm 2\%$ HBW2.5/187.5
Roughness: Ra=0.28um
Dimension: $\Phi 64 \times \Phi 10 \times 10$ mm
Weight: 0.85kg



HBW5/750 Standard Brinell Hardness Block
Specification: 150-250HBW5/750
Shape: Ring-shaped
Material: Alloy steel
Surface: Matt finish
Uniformity: $\pm 2\%$ HBW5/750
Roughness: Ra=0.28um
Dimension: $\Phi 90 \times \Phi 12 \times 16$ mm
Weight: 0.85kg



HBW2.5/187.5 Standard Brinell Hardness Block
Specification: 150-250HBW2.5/187.5
Shape: Ring-shaped
Material: Alloy steel
Surface: Matt finish
Uniformity: $\pm 2\%$ HBW2.5/187.5
Roughness: Ra=0.28um
Dimension: $\Phi 64 \times \Phi 10 \times 10$ mm
Weight: 0.85kg



HBW1/30 Standard Brinell Hardness Block
Specification: 150-250HBW1/30
Shape: Ring-shaped
Material: Alloy steel
Surface: Shiny finish
Uniformity: $\pm 2\%$ HBW1/30
Roughness: Ra=0.28um
Dimension: $\Phi 60 \times \Phi 10 \times 10$ mm
Weight: 0.2kg



HBW10/3000 Standard Brinell Hardness Block
Specification: 150-250HBW10/3000
Shape: Ring-shaped
Material: Alloy steel
Surface: Shiny finish
Uniformity: $\pm 2\%$ HBW10/3000
Roughness: Ra=0.28um
Dimension: $\Phi 90 \times \Phi 12 \times 16$ mm
Weight: 0.85kg



HBW10/1000 Standard Brinell Hardness Block
Specification: 75-125HBW10/1000
Shape: Ring-shaped
Material: Alloy steel(>100HBW) /Aluminum(<100HBW)
Surface: Matt finish
Uniformity: $\pm 2\%$ HBW10/1000
Roughness: Ra=0.28um
Dimension: $\Phi 90 \times \Phi 12 \times 16$ mm
Weight: 0.85kg



HBW5/250 Standard Brinell Hardness Block
Specification: 75-125HBW5/250
Shape: Ring-shaped
Material: Alloy steel(>100HBW) /Aluminum(<100HBW)
Surface: Matt finish
Uniformity: $\pm 3\%$ HBW5/250
Roughness: Ra=0.28um
Dimension: $\Phi 64 \times \Phi 10 \times 10$ mm
Weight: 0.85kg



HBW10/1500 Standard Brinell Hardness Block
Specification: 150-250HBW10/1500
Shape: Ring-shaped
Material: Alloy steel
Surface: Shiny finish
Uniformity: $\pm 2\%$ HBW10/1500
Roughness: Ra=0.28um
Dimension: $\Phi 90 \times \Phi 12 \times 16$ mm
Weight: 0.85kg



HBW5/750 Standard Brinell Hardness Block
Specification: 150-250HBW5/750
Shape: Ring-shaped
Material: Alloy steel
Surface: Shiny finish
Uniformity: $\pm 2\%$ HBW5/750
Roughness: Ra=0.28um
Dimension: $\Phi 90 \times \Phi 12 \times 16$ mm
Weight: 0.85kg

HARDNESS TESTING BLOCK



HBW2.5/187.5 Standard Brinell Hardness Block
Specification: 150-250HBW2.5/187.5
Shape: Ring-shaped
Material: Alloy steel
Surface: Shiny finish
Uniformity: $\pm 2\%$ HBW2.5/187.5
Roughness: Ra=0.28um
Dimension: $\Phi 64 \times \Phi 10 \times 10$ mm
Weight: 0.85kg



HBW10/1500 Standard Brinell Hardness Block
Specification: 75-125HBW10/150
Shape: Ring-shaped
Material: Alloy steel (>100HBW) /Aluminum(<100HBW)
Surface: Shiny finish
Uniformity: $\pm 2\%$ HBW10/1500
Roughness: Ra=0.28um
Dimension: $\Phi 90 \times \Phi 12 \times 16$ mm
Weight: 0.85kg



HBW10/1000 Standard Brinell Hardness Block
Specification: 30-65HBW10/1000
Shape: Ring-shaped
Material: Aluminum
Surface: Shiny finish
Uniformity: $\pm 2\%$ HBW10/1000
Roughness: Ra=0.28um
Dimension: $\Phi 90 \times \Phi 12 \times 16$ mm
Weight: 0.85kg



HBW5/250 Standard Brinell Hardness Block
Specification: 30-65HBW5/250
Shape: Ring-shaped
Material: Aluminum
Surface: Shiny finish
Uniformity: $\pm 3\%$ HBW5/250
Roughness: Ra=0.28um
Dimension: $\Phi 64 \times \Phi 10 \times 10$ mm
Weight: 0.85kg



HBW10/1000 Standard Brinell Hardness Block
Specification: 75-125HBW10/1000
Shape: Ring-shaped
Material: Alloy steel (>100HBW) /Aluminum(<100HBW)
Surface: Shiny finish
Uniformity: $\pm 2\%$ HBW10/1000
Roughness: Ra=0.28um
Dimension: $\Phi 90 \times \Phi 12 \times 16$ mm
Weight: 0.85kg



HBW5/250 Standard Brinell Hardness Block
Specification: 75-125HBW5/250
Shape: Ring-shaped
Material: Alloy steel (>100HBW) /Aluminum(<100HBW)
Surface: Shiny finish
Uniformity: $\pm 3\%$ HBW5/250
Roughness: Ra=0.28um
Dimension: $\Phi 64 \times \Phi 10 \times 10$ mm
Weight: 0.85kg



HBW2.5/62.5 Standard Brinell Hardness Block
Specification: 30-65HBW2.5/62.5
Shape: Ring-shaped
Material: Aluminum
Surface: Shiny finish
Uniformity: $\pm 3\%$ HBW2.5/62.5
Roughness: Ra=0.28um
Dimension: $\Phi 64 \times \Phi 10 \times 10$ mm
Weight: 0.85kg



HBW10/1000 Standard Brinell Hardness Block
Specification: 30-65HBW10/1000
Shape: Rectangular
Material: Aluminum
Surface: Shiny finish
Uniformity: $\pm 2\%$ HBW10/1000
Roughness: Ra=0.28um
Dimension: $\Phi 90 \times \Phi 12 \times 16$ mm
Weight: 0.85kg



HBW2.5/62.5 Standard Brinell Hardness Block
Specification: 75-125HBW2.5/62.5
Shape: Ring-shaped
Material: Alloy steel (>100HBW) /Aluminum(<100HBW)
Surface: Shiny finish
Uniformity: $\pm 3\%$ HBW2.5/62.5
Roughness: Ra=0.28um
Dimension: $\Phi 64 \times \Phi 10 \times 10$ mm
Weight: 0.85kg



HBW10/3000 Standard Brinell Hardness Block
Specification: 250-350HBW10/3000
Shape: Ring-shaped
Material: Alloy steel
Surface: Shiny finish
Uniformity: $\pm 2\%$ HBW10/3000
Roughness: Ra=0.28um
Dimension: $\Phi 90 \times \Phi 12 \times 16$ mm
Weight: 0.85kg



HBW5/250 Standard Brinell Hardness Block
Specification: 30-65HBW5/250
Shape: Rectangular
Material: Aluminum
Surface: Shiny finish
Uniformity: $\pm 3\%$ HBW5/250
Roughness: Ra=0.28um
Dimension: $\Phi 64 \times \Phi 10 \times 10$ mm
Weight: 0.85kg



HBW2.5/62.5 Standard Brinell Hardness Block
Specification: 30-65HBW2.5/62.5
Shape: Rectangular
Material: Aluminum
Surface: Shiny finish
Uniformity: $\pm 3\%$ HBW2.5/62.5
Roughness: Ra=0.28um
Dimension: $\Phi 64 \times \Phi 10 \times 10$ mm
Weight: 0.85kg



HBW5/750 Standard Brinell Hardness Block
Specification: 250-350HBW5/750
Shape: Ring-shaped
Material: Alloy steel
Surface: Shiny finish
Uniformity: $\pm 2\%$ HBW5/750
Roughness: Ra=0.28um
Dimension: $\Phi 90 \times \Phi 12 \times 16$ mm
Weight: 0.85kg



HBW2.5/187.5 Standard Brinell Hardness Block
Specification: 250-350HBW2.5/187.5
Shape: Ring-shaped
Material: Alloy steel
Surface: Shiny finish
Uniformity: $\pm 2\%$ HBW2.5/187.5
Roughness: Ra=0.28um
Dimension: $\Phi 64 \times \Phi 10 \times 10$ mm
Weight: 0.85kg



HBW10/3000 Standard Brinell Hardness Block
Specification: 150-600HBW10/3000
Shape: Rectangular
Material: Alloy steel
Surface: Matt finish
Uniformity: $\pm 2\%$ HBW10/3000
Roughness: Ra=0.28um
Dimension: $100 \times 80 \times 16$ mm
Weight: 0.85kg



HBW5/750 Standard Brinell Hardness Block
Specification: 150-600HBW5/750
Shape: Rectangular
Material: Alloy steel
Surface: Matt finish
Uniformity: $\pm 2\%$ HBW5/750
Roughness: Ra=0.28um
Dimension: $100 \times 80 \times 16$ mm
Weight: 0.85kg

HARDNESS TESTING BLOCK



HBW10/1000 Standard Brinell Hardness Block
Specification: 75-125HBW10/1000
Shape: Rectangular
Material: Alloy steel
Surface: Matt finish
Uniformity: $\pm 2\%$ HBW10/1000
Roughness: Ra=0.28um
Dimension: 100×80×16mm
Weight: 0.85kg



HBS5/750 Hammer type Brinell Strip
Specification: 175-225HBS5/750
Shape: Rectangular
Material: Alloy steel
Surface: Matt finish
Uniformity: $\pm 2\%$ HBW5/750
Roughness: Ra=0.28um
Dimension: 12×12×150mm
Weight: 0.85kg



HA Shore Hardness Block
Specification: 3 pcs
Shape: Square
Material: Rubber
Surface: Matt finish
Uniformity: $\pm 1\%$ A
Roughness: Ra=0.02um
Dimension: 50×50×7mm
Weight: 0.05kg



HV3 Standard Macro Vickers Hardness Block
Specification: 700-800HV3
Shape: Ring-shaped
Material: Alloy steel
Surface: Shiny finish
Uniformity: $\pm 3\%$ HV3
Roughness: Ra=0.02um
Dimension: $\Phi 60 \times \Phi 10 \times 10$ mm
Weight: 0.2kg



HBS10/3000 Portable Brinell Hardness Block
Specification: 150-250HBS10/3000
Shape: Rectangular
Material: Alloy steel
Surface: Matt finish
Uniformity: $\pm 2\%$ HBW10/3000
Roughness: Ra=0.28um
Dimension: 75×75×22mm
Weight: 0.85kg



HWA Standard Webster Hardness Block
Specification: 8-12HWA
Shape: Rectangular
Material: Aluminum
Surface: Matt finish
Uniformity: ± 0.5 HWA
Roughness: Ra=0.02um
Dimension: 25×150×1.5mm
Weight: 0.85kg



HV5 Standard Macro Vickers Hardness Block
Specification: 700-800HV5
Shape: Ring-shaped
Material: Alloy steel
Surface: Shiny finish
Uniformity: $\pm 3\%$ HV5
Roughness: Ra=0.02um
Dimension: $\Phi 60 \times \Phi 10 \times 10$ mm
Weight: 0.2kg

HV10 Standard Macro Vickers Hardness Block
Specification: 700-800HV10
Shape: Ring-shaped
Material: Alloy steel
Surface: Shiny finish
Uniformity: $\pm 2\%$ HV10
Roughness: Ra=0.02um
Dimension: $\Phi 60 \times \Phi 10 \times 10$ mm
Weight: 0.2kg



HWA Standard Webster Hardness Block
Specification: 14-18HWA
Shape: Rectangular
Material: Aluminum
Surface: Matt finish
Uniformity: ± 0.5 HWA
Roughness: Ra=0.02um
Dimension: 25×150×1.5mm
Weight: 0.85kg



HBa Standard Barcol Hardness Block
Specification: 82-88HBa
Shape: Ring-shaped
Material: Aluminum
Surface: Matt finish
Uniformity: ± 0.5 HBa
Roughness: Ra=0.02um
Dimension: $\Phi 29 \times 1$ mm
Weight: 0.85kg



HV30 Standard Macro Vickers Hardness Block
Specification: 700-800HV30
Shape: Ring-shaped
Material: Alloy steel
Surface: Shiny finish
Uniformity: $\pm 2\%$ HV30
Roughness: Ra=0.02um
Dimension: $\Phi 60 \times \Phi 10 \times 10$ mm
Weight: 0.2kg



HV50 Standard Macro Vickers Hardness Block
Specification: 700-800HV50
Shape: Ring-shaped
Material: Alloy steel
Surface: Shiny finish
Uniformity: $\pm 2\%$ HV50
Roughness: Ra=0.02um
Dimension: $\Phi 60 \times \Phi 10 \times 10$ mm
Weight: 0.2kg



HBa Standard Barcol Hardness Block
Specification: 42-55HBa
Shape: Ring-shaped
Material: Aluminum
Surface: Matt finish
Uniformity: ± 0.5 HBa
Roughness: Ra=0.02um
Dimension: $\Phi 29 \times 1$ mm
Weight: 0.85kg



HA Shore Hardness Block
Specification: 7 pcs
Shape: Square
Material: Rubber
Surface: Matt finish
Uniformity: $\pm 1\%$ A
Roughness: Ra=0.02um
Dimension: 50×50×7mm
Weight: 0.15kg



HV5 Standard Macro Vickers Hardness Block
Specification: 400-600HV5
Shape: Ring-shaped
Material: Alloy steel
Surface: Shiny finish
Uniformity: $\pm 3\%$ HV5
Roughness: Ra=0.02um
Dimension: $\Phi 60 \times \Phi 10 \times 10$ mm
Weight: 0.2kg



HV10 Standard Macro Vickers Hardness Block
Specification: 400-600HV10
Shape: Ring-shaped
Material: Alloy steel
Surface: Shiny finish
Uniformity: $\pm 2\%$ HV10
Roughness: Ra=0.02um
Dimension: $\Phi 60 \times \Phi 10 \times 10$ mm
Weight: 0.2kg

HARDNESS TESTING BLOCK



HV30 Standard Macro Vickers Hardness Block
Specification: 400-600HV30
Shape: Ring-shaped
Material: Alloy steel
Surface: Shiny finish
Uniformity: $\pm 2\%$ HV30
Roughness: Ra=0.02um
Dimension: $\Phi 60 \times \Phi 10 \times 10$ mm
Weight: 0.2kg



HV5 Standard Macro Vickers Hardness Block
Specification: 175-225HV5
Shape: Ring-shaped
Material: Alloy steel(>180HV5) or Aluminum(<180HV5)
Surface: Shiny finish
Uniformity: $\pm 3\%$ HV5
Roughness: Ra=0.02um
Dimension: $\Phi 60 \times \Phi 10 \times 10$ mm
Weight: 0.2kg



HV5 Standard Macro Vickers Hardness Block
Specification: 400-600HV5
Shape: Rectangular
Material: Alloy steel
Surface: Shiny finish
Uniformity: $\pm 3\%$ HV5
Roughness: Ra=0.02um
Dimension: 60x40x10mm
Weight: 0.2kg



HV10 Standard Macro Vickers Hardness Block
Specification: 400-600HV10
Shape: Rectangular
Material: Alloy steel
Surface: Shiny finish
Uniformity: $\pm 2\%$ HV10
Roughness: Ra=0.02um
Dimension: 60x40x10mm
Weight: 0.2kg

HV5 Standard Macro Vickers Hardness Block
Specification: 800-850HV5
Shape: Rectangular
Material: Alloy steel
Surface: Shiny finish
Uniformity: $\pm 3\%$ HV5
Roughness: Ra=0.02um
Dimension: 60x40x10mm
Weight: 0.2kg



HV3 Standard Macro Vickers Hardness Block
Specification: 700-800HV3
Shape: Rectangular
Material: Alloy steel
Surface: Shiny finish
Uniformity: $\pm 3\%$ HV3
Roughness: Ra=0.02um
Dimension: 60x40x10mm
Weight: 0.2kg



HV30 Standard Macro Vickers Hardness Block
Specification: 400-600HV30
Shape: Rectangular
Material: Alloy steel
Surface: Shiny finish
Uniformity: $\pm 2\%$ HV30
Roughness: Ra=0.02um
Dimension: 60x40x10mm
Weight: 0.2kg



HV5 Standard Macro Vickers Hardness Block
Specification: 175-225HV5
Shape: Rectangular
Material: Alloy steel(>180HV5) or Aluminum(<180HV5)
Surface: Shiny finish
Uniformity: $\pm 3\%$ HV5
Roughness: Ra=0.02um
Dimension: 60x40x10mm
Weight: 0.2kg

HV5 Standard Macro Vickers Hardness Block
Specification: 700-800HV5
Shape: Rectangular
Material: Alloy steel
Surface: Shiny finish
Uniformity: $\pm 3\%$ HV5
Roughness: Ra=0.02um
Dimension: 60x40x10mm
Weight: 0.2kg



HV10 Standard Macro Vickers Hardness Block
Specification: 700-800HV10
Shape: Rectangular
Material: Alloy steel
Surface: Shiny finish
Uniformity: $\pm 2\%$ HV10
Roughness: Ra=0.02um
Dimension: 60x40x10mm
Weight: 0.2kg



HV5 Standard Macro Vickers Hardness Block
Specification: 75-150HV5
Shape: Rectangular
Material: Aluminum
Surface: Shiny finish
Uniformity: $\pm 3\%$ HV5
Roughness: Ra=0.02um
Dimension: 60x40x10mm
Weight: 0.2kg



HV5 Standard Macro Vickers Hardness Block
Specification: 60-70HV5
Shape: Rectangular
Material: Aluminum
Surface: Shiny finish
Uniformity: $\pm 3\%$ HV5
Roughness: Ra=0.02um
Dimension: 60x40x10mm
Weight: 0.2kg

HV30 Standard Macro Vickers Hardness Block
Specification: 700-800HV30
Shape: Rectangular
Material: Alloy steel
Surface: Shiny finish
Uniformity: $\pm 2\%$ HV30
Roughness: Ra=0.02um
Dimension: 60x40x10mm
Weight: 0.2kg



HV50 Standard Macro Vickers Hardness Block
Specification: 700-800HV50
Shape: Rectangular
Material: Alloy steel
Surface: Shiny finish
Uniformity: $\pm 2\%$ HV50
Roughness: Ra=0.02um
Dimension: 60x40x10mm
Weight: 0.2kg



HV5 Macro Vickers Hardness Block
Specification: 1300-1500HV5
Shape: Ring-shaped
Material: Hard metal
Surface: Shiny finish
Uniformity: $\pm 3\%$ HV5
Roughness: Ra=0.02um
Dimension: $\Phi 45 \times 8$ mm
Weight: 0.2kg



HV5 Macro Vickers Hardness Block
Specification: 1500-1700HV5
Shape: Ring-shaped
Material: Hard metal
Surface: Shiny finish
Uniformity: $\pm 3\%$ HV5
Roughness: Ra=0.02um
Dimension: $\Phi 45 \times 8$ mm
Weight: 0.2kg

HARDNESS TESTING BLOCK



HRC Ultrasonic Hardness Block
Specification: 60-70HRC
Shape: Ring-shaped
Material: Alloy steel
Surface: Shiny finish
Uniformity: ± 0.5 HRC
Roughness: Ra=0.02um
Dimension: $\Phi 90 \times 16$ mm
Weight: 0.85kg



HV5 Ultrasonic Hardness Block
Specification: 700-800HV5
Shape: Ring-shaped
Material: Hard metal
Surface: Shiny finish
Uniformity: ± 3 HV5
Roughness: Ra=0.02um
Dimension: $\Phi 90 \times 16$ mm
Weight: 0.85kg



HV0.1 Standard Micro Vickers Hardness Block
Specification: 400-600HV0.1
Shape: Square
Material: Alloy steel
Surface: Shiny finish
Uniformity: ± 3 HV0.1
Roughness: Ra=0.02um
Dimension: 25 \times 25 \times 8mm
Weight: 0.05kg



HV0.1 Standard Micro Vickers Hardness Block
Specification: 175-225HV0.1
Shape: Square
Material: Alloy steel(>180 HV0.1) or Aluminum(<180 HV0.1)
Surface: Shiny finish
Uniformity: ± 3 HV0.1
Roughness: Ra=0.02um
Dimension: 25 \times 25 \times 8mm
Weight: 0.05kg



HV1 Standard Micro Vickers Hardness Block
Specification: 800-850HV1
Shape: Square
Material: Alloy steel
Surface: Shiny finish
Uniformity: ± 3 HV1
Roughness: Ra=0.02um
Dimension: 25 \times 25 \times 8mm
Weight: 0.05kg



HV1 Standard Micro Vickers Hardness Block
Specification: 700-800HV1
Shape: Square
Material: Alloy steel
Surface: Shiny finish
Uniformity: ± 3 HV1
Roughness: Ra=0.02um
Dimension: 25 \times 25 \times 8mm
Weight: 0.05kg



HV0.05 Standard Micro Vickers Hardness Block
Specification: 175-225HV0.05
Shape: Square
Material: Alloy steel(>180 HV0.05) or Aluminum(<180 HV0.05)
Surface: Shiny finish
Uniformity: ± 3 HV0.05
Roughness: Ra=0.02um
Dimension: 25 \times 25 \times 8mm
Weight: 0.05kg



HV0.1 Standard Micro Vickers Hardness Block
Specification: 75-150HV0.1
Shape: Square
Material: Aluminum
Surface: Shiny finish
Uniformity: ± 3 HV0.1
Roughness: Ra=0.02um
Dimension: 25 \times 25 \times 8mm
Weight: 0.05kg



HV0.5 Standard Micro Vickers Hardness Block
Specification: 700-800HV0.5
Shape: Square
Material: Alloy steel
Surface: Shiny finish
Uniformity: ± 3 HV0.5
Roughness: Ra=0.02um
Dimension: 25 \times 25 \times 8mm
Weight: 0.05kg



HV0.3 Standard Micro Vickers Hardness Block
Specification: 700-800HV0.3
Shape: Square
Material: Alloy steel
Surface: Shiny finish
Uniformity: ± 3 HV0.3
Roughness: Ra=0.02um
Dimension: 25 \times 25 \times 8mm
Weight: 0.05kg



HV0.1 Standard Micro Vickers Hardness Block
Specification: 60-70HV0.1
Shape: Square
Material: Aluminum
Surface: Shiny finish
Uniformity: ± 3 HV0.1
Roughness: Ra=0.02um
Dimension: 25 \times 25 \times 8mm
Weight: 0.05kg



HV1 Standard Micro Vickers Hardness Block
Specification: 700-800HV1
Shape: Ring-shaped
Material: Alloy steel
Surface: Shiny finish
Uniformity: ± 3 HV1
Roughness: Ra=0.02um
Dimension: $\Phi 25 \times 8$ mm
Weight: 0.05kg



HV0.2 Standard Micro Vickers Hardness Block
Specification: 700-800HV0.2
Shape: Square
Material: Alloy steel
Surface: Shiny finish
Uniformity: ± 3 HV0.2
Roughness: Ra=0.02um
Dimension: 25 \times 25 \times 8mm
Weight: 0.05kg



HV0.2 Standard Micro Vickers Hardness Block
Specification: 400-600HV0.2
Shape: Square
Material: Alloy steel
Surface: Shiny finish
Uniformity: ± 3 HV0.2
Roughness: Ra=0.02um
Dimension: 25 \times 25 \times 8mm
Weight: 0.05kg



HV0.5 Standard Micro Vickers Hardness Block
Specification: 700-800HV0.5
Shape: Ring-shaped
Material: Alloy steel
Surface: Shiny finish
Uniformity: ± 3 HV0.5
Roughness: Ra=0.02um
Dimension: $\Phi 25 \times 8$ mm
Weight: 0.05kg



HV0.3 Standard Micro Vickers Hardness Block
Specification: 700-800HV0.3
Shape: Ring-shaped
Material: Alloy steel
Surface: Shiny finish
Uniformity: ± 3 HV0.3
Roughness: Ra=0.02um
Dimension: $\Phi 25 \times 8$ mm
Weight: 0.05kg

HARDNESS TESTING BLOCK



HV0.2 Standard Micro Vickers Hardness Block
Specification: 700-800HV0.2
Shape: Ring-shaped
Material: Alloy steel
Surface: Shiny finish
Uniformity: $\pm 3\%$ HV0.2
Roughness: Ra=0.02um
Dimension: $\Phi 25 \times 8$ mm
Weight: 0.05kg



HV0.2 Standard Micro Vickers Hardness Block
Specification: 400-600HV0.2
Shape: Ring-shaped
Material: Alloy steel
Surface: Shiny finish
Uniformity: $\pm 3\%$ HV0.2
Roughness: Ra=0.02um
Dimension: $\Phi 25 \times 8$ mm
Weight: 0.05kg



HV0.1 Standard Micro Vickers Hardness Block
Specification: 400-600HV0.1
Shape: Ring-shaped
Material: Alloy steel
Surface: Shiny finish
Uniformity: $\pm 3\%$ HV0.1
Roughness: Ra=0.02um
Dimension: $\Phi 25 \times 8$ mm
Weight: 0.05kg



HV0.1 Standard Micro Vickers Hardness Block
Specification: 175-225HV0.1
Shape: Ring-shaped
Material: Alloy steel(>180HV0.1) or Aluminum(<180HV0.1)
Surface: Shiny finish
Uniformity: $\pm 3\%$ HV0.1
Roughness: Ra=0.02um
Dimension: $\Phi 25 \times 8$ mm
Weight: 0.05kg



HV0.05 Standard Micro Vickers Hardness Block
Specification: 175-225HV0.05
Shape: Ring-shaped
Material: Alloy steel(>180HV0.1) or Aluminum(<180HV0.1)
Surface: Shiny finish
Uniformity: $\pm 3\%$ HV0.05
Roughness: Ra=0.02um
Dimension: $\Phi 25 \times 8$ mm
Weight: 0.05kg



HV1 Standard Micro Vickers Hardness Block
Specification: 1300-1500HV1
Shape: Ring-shaped
Material: Hard metal
Surface: Shiny finish
Uniformity: $\pm 3\%$ HV1
Roughness: Ra=0.02um
Dimension: $\Phi 25 \times 7$ mm
Weight: 0.1kg



HV1 Standard Micro Vickers Hardness Block
Specification: 1500-1700HV1
Shape: Ring-shaped
Material: Hard metal
Surface: Shiny finish
Uniformity: $\pm 3\%$ HV1
Roughness: Ra=0.02um
Dimension: $\Phi 25 \times 7$ mm
Weight: 0.1kg



HK1 Standard Knoop Hardness Block
Specification: 700-800HK1
Shape: Square
Material: Alloy steel
Surface: Shiny finish
Uniformity: $\pm 3\%$ HK1
Roughness: Ra=0.02um
Dimension: $25 \times 25 \times 8$ mm
Weight: 0.1kg



HK0.5 Standard Knoop Hardness Block
Specification: 700-800HK0.5
Shape: Square
Material: Alloy steel
Surface: Shiny finish
Uniformity: $\pm 3\%$ HK0.5
Roughness: Ra=0.02um
Dimension: $25 \times 25 \times 8$ mm
Weight: 0.1kg



HK0.3 Standard Knoop Hardness Block
Specification: 700-800HK0.3
Shape: Square
Material: Alloy steel
Surface: Shiny finish
Uniformity: $\pm 3\%$ HK0.3
Roughness: Ra=0.02um
Dimension: $25 \times 25 \times 8$ mm
Weight: 0.1kg



HK0.2 Standard Knoop Hardness Block
Specification: 700-800HK0.2
Shape: Square
Material: Alloy steel
Surface: Shiny finish
Uniformity: $\pm 3\%$ HK0.2
Roughness: Ra=0.02um
Dimension: $25 \times 25 \times 8$ mm
Weight: 0.1kg



HK0.2 Standard Knoop Hardness Block
Specification: 400-600HK0.2
Shape: Square
Material: Alloy steel
Surface: Shiny finish
Uniformity: $\pm 3\%$ HK0.2
Roughness: Ra=0.02um
Dimension: $25 \times 25 \times 8$ mm
Weight: 0.1kg



HK0.1 Standard Knoop Hardness Block
Specification: 400-600HK0.1
Shape: Square
Material: Alloy steel
Surface: Shiny finish
Uniformity: $\pm 3\%$ HK0.1
Roughness: Ra=0.02um
Dimension: $25 \times 25 \times 8$ mm
Weight: 0.1kg



HK0.1 Standard Knoop Hardness Block
Specification: 175-225HK0.1
Shape: Square
Material: Alloy steel(>180HV0.1) or Aluminum(<180HV0.1)
Surface: Shiny finish
Uniformity: $\pm 3\%$ HK0.1
Roughness: Ra=0.02um
Dimension: $25 \times 25 \times 8$ mm
Weight: 0.1kg

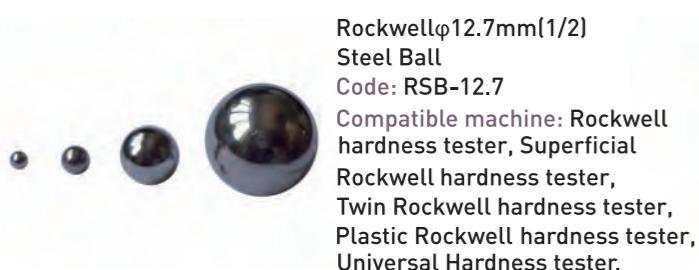


HK0.05 Standard Knoop Hardness Block
Specification: 175-225HK0.05
Shape: Square
Material: Alloy steel(>180HV0.05) or Aluminum(<180HV0.05)
Surface: Shiny finish
Uniformity: $\pm 3\%$ HK0.05
Roughness: Ra=0.02um
Dimension: $25 \times 25 \times 8$ mm
Weight: 0.1kg



HLD Standard Leeb Hardness Block D Type
Specification: 750-830HLD
Shape: Ring-shaped
Material: Alloy steel
Surface: Shiny finish
Uniformity: ± 5 HLD
Roughness: Ra=0.03um
Dimension: $\Phi 90 \times 55$ mm
Weight: 2.75kg

HARDNESS TESTING INDENTER



Rockwell ϕ 12.7mm(1/2)
Steel Ball
Code: RSB-12.7
Compatible machine: Rockwell
hardness tester, Superficial
Rockwell hardness tester,
Twin Rockwell hardness tester,
Plastic Rockwell hardness tester,
Universal Hardness tester.



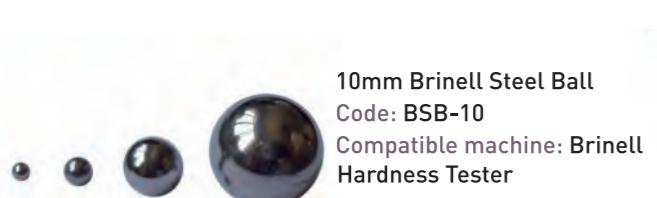
10mm Brinell
Hardness Indenter
Code: BHI-10
Compatible machine: Brinell
Hardness Tester



1mm Brinell Steel Ball
Code: BSB-1
Compatible machine: Brinell
Hardness, Low Load Brinell
Hardness Tester



Vickers Diamond Indentor
Code: VDI
136° Diamond Indentor
(Micro Vickers)
136° Diamond Indentor
(Macro Vickers)
Application: Micro/Macro
Vickers Hardness Tester



10mm Brinell Steel Ball
Code: BSB-10
Compatible machine: Brinell
Hardness Tester



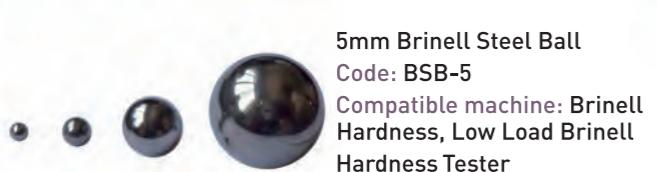
5mm Brinell
Hardness Indenter
Code: BHI-5
Compatible machine: Brinell
Hardness, Low Load Brinell
Hardness Tester



Knoop Diamond Indentor
Code: KDI
172°30'&136° Diamond Indentor
Application: Knoop Hardness Tester



BRM-3 Reading microscope
(with light source)
Code: BRM-3
Specially used to measure the
indentation size of Brinell hardness.
Total magnification: 20X
Eyepiece micrometer range: 0-6mm
Maximum field of view of eyepiece: 9mm
Effective measuring range: 0-6mm
Minimum graduation value of eyepiece
micrometer drum: 0.01mm
Measurement accuracy: ± 0.01 mm
Light source: LED green light
Supply voltage: 4.5V
Compatible machine: Brinell Hardness,
Low Load Brinell Hardness Tester



5mm Brinell Steel Ball
Code: BSB-5
Compatible machine: Brinell
Hardness, Low Load Brinell
Hardness Tester



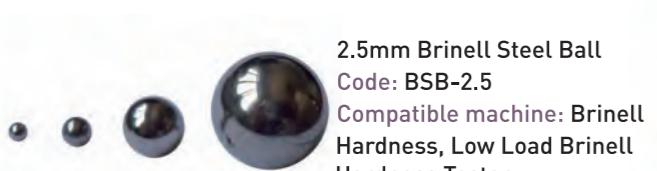
2.5mm Brinell Hardness
Indenter
Code: BHI-2.5
Compatible machine: Brinell
Hardness, Low Load Brinell
Hardness Tester



20x Brinell Digital Eyepiece
Code: BDE-20
Magnification: 20x
Compatible machine: Brinell
Hardness, Low Load Brinell
Hardness Tester



Ø60mm Brinell V-Shape Anvil
Code: BVA-60
Size: Ø60mm
Compatible machine: Brinell
Hardness, Low Load Brinell
Hardness Tester



2.5mm Brinell Steel Ball
Code: BSB-2.5
Compatible machine: Brinell
Hardness, Low Load Brinell
Hardness Tester



1mm Brinell Hardness
Indenter
Code: BHI-1
Compatible machine: Brinell
Hardness, Low Load Brinell
Hardness Tester



Ø80mm Brinell Flat Anvil
Code: BFA-80
Size: Ø80mm
Compatible machine: Brinell
Hardness, Low Load Brinell
Hardness Tester



Ø200mm Brinell Flat-Anvil
Code: BFA-200
Size: Ø200mm
Compatible machine: Brinell
Hardness, Low Load Brinell
Hardness Tester

HARDNESS TESTING OTHER SPARE PARTS



Brinell Hardness Tester
Setting Table
Code: BST
Size: Customized
Application: Brinell hardness tester



Rockwell Indentor Protector
Code: RIP
Compatible machine: Rockwell Hardness tester



Vickers 20x Digital Eyepiece
Code: DEP-20
Magnification: 20x
Compatible machine: Vickers Hardness tester



50x Objective
Code: Lens-50
Magnification: 50x
Compatible machine: Vickers Hardness tester



Balance Support (For Long Test Sample)
Code: BS
Application: Rockwell Hardness tester



Ø60mm Rockwell Flat Anvil
Code: RFA-60
Size: Ø60mm
Compatible machine: Rockwell Hardness tester



40x Objective
Code: Lens-40
Magnification: 40x
Compatible machine: Vickers Hardness tester



20x Objective
Code: Lens-20
Magnification: 20x
Compatible machine: Vickers Hardness tester



Ø150mm Rockwell Flat-Anvil
Code: RFA-150
Size: Ø150mm
Compatible machine: Rockwell Hardness tester



Ø300mm Rockwell V-Shape Anvil
Code: RVA-300
Size: Ø300mm
Compatible machine: Rockwell Hardness tester



10x Objective
Code: Lens-10
Magnification: 10x
Compatible machine: Vickers Hardness tester



Vickers 1x Vickers CCD adapter
Code: VCA
Magnification: 1x
Compatible machine: Vickers Hardness tester



Vickers 10x Digital Eyepiece
Code: DEP-10
Magnification: 10x
Compatible machine: Vickers Hardness tester



Vickers 15x Digital Eyepiece
Code: DEP-15
Magnification: 15x
Compatible machine: Vickers Hardness tester



Ø40mm Vickers V-Shape Anvil
Code: VVA-40
Size: Ø40mm
Compatible machine: Vickers Hardness tester



Ø60mm Vickers Flat Anvil
Code: VFA-60
Size: Ø60mm
Compatible machine: Vickers Hardness tester

HARDNESS TESTING OTHER SPARE PARTS



Ø150mm Vickers Flat Anvil
Code: VFA-150
Size: Ø150mm
Compatible machine:
Vickers Hardness tester



Vickers Analogue X-Y Anvil
Code: AXY
Size: 100×100mm
Movement range: 25×25mm
Reading: Analogue display
Compatible machine:
Vickers Hardness tester



Vickers Thin-Piece Clamp
Code: TPC-1
Compatible machine:
Vickers Hardness tester



Vickers Thin-Piece Clamp
Code: TPC-2
Compatible machine:
Vickers Hardness tester



Vickers Digital X-Y Anvil (unidirection)
Code: DXY-1
Size: 100×100mm
Movement range: 25×25mm
Reading: Digital display
Compatible machine:
Vickers Hardness tester



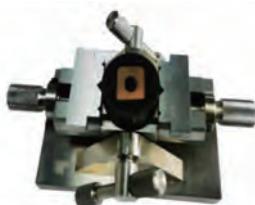
Vickers Digital X-Y Anvil (bidirection)
Code: DXY-2
Size: 100×100mm
Movement range: 25×25mm
Reading: Digital display
Compatible machine:
Vickers Hardness tester



Vickers Filament Clamp
Code: FLC
Compatible machine:
Vickers Hardness tester



Vickers Flat Precision Clamp
Code: FPC
Compatible machine:
Vickers Hardness tester



Vickers Molting Sample Clamp
Code: MSC-1
Compatible machine:
Vickers Hardness tester



Vickers Molting Sample Clamp
Code: MSC-2
Compatible machine:
Vickers Hardness tester



Vickers & Rockwell Hardness
Tester Setting Table
Code: VR-T
Size: 620×350×460mm(L×W×H)
Application: Rockwell hardness
tester, Vickers hardness tester



Vickers Mounting Sample Clamp
Code: MSC-4
Application:
Vickers Hardness tester



Vickers Sample flattener
Code: VCF
Compatible machine:
Vickers Hardness tester

HARDNESS TESTING SOFTWARE


Brinell Hardness Testing Software

Code: uVision-B

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

Meet Standard: BSEN 6506, ISO 6506, ASTM E10, GB/T231

Measuring Range: 15.9-650HBW

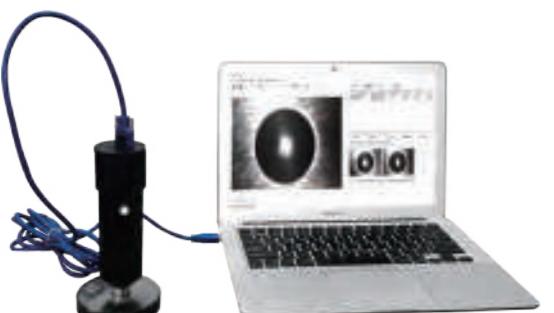
Measurement Resolution: 0.0001mm

Hardness Resolution: 0.1 HBW

Digital Imaging: 5 million digital camera

Calibration Method: Standard Hardness Block/Length Scale

Support Language: English or Customized



Portable Brinell Hardness Testing Software

Code: uVision-PB

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

Application Brinell Indenter: 2.5mm/4mm/5mm/7.26mm/10mm

Executive Standards: BSEN 6506, ISO 6506, ASTM E10, GB/T231

Measuring Range: 15.9-650HBW

Indentation Diameter Range: 0.6~6mm

Measurement Resolution: 0.0001mm

Hardness Resolution: 0.1 HBW

Digital Imaging: 6.3 million industrial-grade digital camera

Power Supply: USB power supply

Calibration Method: Standard Hardness Block/Length Scale

Support Language: English or Customized



Micro/Macro Vickers Hardness Testing Software

Code: uVision-V

Measurement: Manual/Automatic Measuring for Indentation/Length/Angle

Function: Auto Focus/Turret Control/Dwelling Time Control/Brightness Adjustable/Data

Logging/Hardness Conversion/Geometric Measurement/multi-point measurement

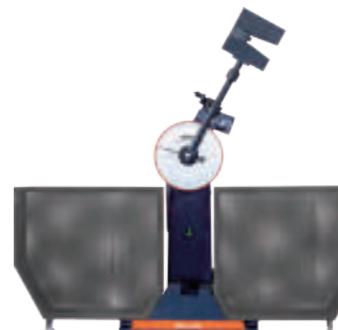
Calibration: Automatic by Standard Hardness Block/Length Scale

Camera: 5 Million Pixels

Measuring Range: 0~2967HV

Support Language: English or Customized

Packing List: Camera/CCD Adaptor/USB Flash Disk/Encryption Dog

Product	Name	Page
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	Insertion Extraction Force Plug Testing Machine	280
	Spring Tension and Compression Tester	282
	Microcomputer Controlled Charpy Impact Testing Machine	277
	Impact Specimen Notch Projector	284

	Product	Name	Page		Product	Name	Page		Product	Name	Page		Product	Name	Page
	286	Single Column Electronic Universal Testing Machine			291	Dual-Column Universal Material Testing Machine (Bench Type)			297	Dual Columns Electronic Universal Testing Machine			304	Automatic Load Displacement Curve Tester	
	287	Touch Screen Single Column Electronic Universal Testing Machine			293	Dual Columns Electronic Universal Testing Machine			299	High and Low Temperature Electronic Universal Testing Machine			306	Fixture	
	289	Touch Screen Single Column Electronic Universal Testing Machine			295	Computerized Dual-column Servo Tensile Testing Machine			302	Insertion Extraction Force Plug Testing Machine			329	Extensometer	

COMPUTER CONTROLLED ELECTRONIC UNIVERSAL TESTING MACHINE

CODE:UTM-E100/E200/E300



VIDEO

- The main machine adopts a rigid floor-standing gantry frame structure, which is composed of an upper crossbeam, a movable crossbeam and a work-bench connected by columns and ball screws, ensuring stability and reliability.
- The movable crossbeam is processed from a single casting, which ensures it can bear sufficient force without deformation.
- It can conduct both tensile and compression tests simultaneously, with the upper part serving as the tensile test space and the lower part as the compression test space.
- Driven by a servo motor, it is equipped with a high-precision sensor, a dedicated independent controller and measurement and control software, enabling precise control of the equipment.
- Equipped with a magnetic handheld control box, facilitating users to operate the equipment from a distance.
- The dedicated software has multiple functions to meet the needs of different users. It also features a modular and open design. In addition to providing common standards such as GB, ASTM, DIN, ISO and JIS, users can design calculation formulas according to their own requirements.
- The software can generate real-time curves in multiple modes, including force-time, stress-time, strain-time, displacement-time, etc.
- The software can automatically calculate parameters such as maximum force, average force, maximum deformation, tensile strength and yield strength.
- It provides customizable test report templates for users, supporting report export in multiple formats: Word, PDF and Excel.
- The software is compatible with multiple Windows operating systems: Windows 7, Windows 10 and Windows 11.
- Maximum test force: 100kN.
- Test speed range: 0.001 - 500mm/min.
- Multiple units are available.
- Force units: KN, N, kgf, lbf.
- Displacement units: mm, cm, dm, m, in, ft, mil.
- It can automatically return to the initial position after the test is completed.
- Equipped with multiple protection devices, including mechanical travel switches, emergency stop switches and overload protection.
- Standard tensile and compression fixtures are provided, and custom fixtures can be made according to user needs.
- It complies with the following execution standards: GB/T 2611, GB/T 16491, GB/T 16825, GB/T 228, ISO 527, ASTM D3574, DIN 53357, JIS K6854, etc.

STANDARD DELIVERY

Host Frame	1 set
AC Servo Control System	1 set
Ball Screw	1 set
Synchronous Pulley	1 set
Synchro Belt	1 set
100kN Load Cell	1 set
Control System	1 set
English Operation Software	1 set
Handheld Unit Controller	1 set
HP Computer	1 set
HP Printer	1 set
Manual Wedge Tensile Grip	1 set
Flat Jaw: 0-7mm	1 set
Round Jaw: Φ4-9mm; Φ9-14mm	1 set
Φ100mm Compression Test Grip	1 set
Instruction Manual	1 copy
Certificate of Qualification	1 copy
Calibration Certificate	1 copy
Warranty Card	1 copy



Ball Screw



Synchronous Pulley



Synchro Belt



100kN Load Cell



Control System



Flat Jaw :0-7mm



AC Servo Control System



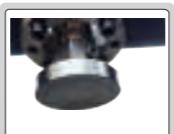
HP Computer



HP Printer



Handheld Unit Controller



Φ100mm Compression Test Grip

OPTIONAL DELIVERY

3-point Bending Fixture	UTM-EBF
Electronic Extensometer	UTM-EET
USA Epsilon Extensometer	UTM-EPE
Large Deformation Extensometer	UTM-ELE
Fixtures Of Other Models	/

COMPUTER CONTROLLED ELECTRONIC UNIVERSAL TESTING MACHINE

CODE:UTM-E100/E200/E300

TECHNICAL SPECIFICATION

Name	Computer Controlled Electronic Universal Testing Machine		
Model	UTM-E100	UTM-E200	UTM-E300
Max Load	100kN	200kN	300kN
Load Accuracy	Grade 1 (Optional Grade 0.5)		
Testing Range	2%~100%F.S (Optional 0.4%~100%F.S)		
Load Resolution	1/500000FS		
Test Control Mode	3 closed loop control, stress, strain and displacement		
Deformation Measuring Range	0.2%~100%FS		
Deformation Accuracy	$\leq \pm 0.5\%$	$\leq \pm 1\%$	
Displacement Accuracy	$\leq \pm 0.5\%$	$\leq \pm 1\%$	
Displacement Resolution	0.01mm		
Control Mode	Force closed loop control, deformation closed loop control, displacement closed loop control		
Force Control Controls The Speed Range	0.001%~5% FS/s		
Constant Force Control Accuracy	When the rate is < 0.05%FS/s, it is within $\pm 2\%$ of the set value; When the rate is $\geq 0.05\%$ FS/s, it is within $\pm 0.5\%$ of the set value		
Deformation Control Controls Speed Range	0.001%~5% FS/s		
Constant Deformation Control Accuracy	When the rate is < 0.05%FS/s, it is within $\pm 2\%$ of the set value; When the rate is $\geq 0.05\%$ FS/s, it is within $\pm 0.5\%$ of the set value		
Max. Tensile Testing Space	650mm	550mm	
Max. Compression Testing Space	550mm		
Test Width	400mm	600mm	500mm
Crosshead Speed Range	0.001-500mm/min	0.001~180mm/min	
Overall Dimensions (L*W*H)	800*500*1941mm	1045*650*2300mm	1050*650*2300mm
Power Supply	1P 220V $\pm 10\%$, 50-60HZ, 1KW	1P 220V $\pm 10\%$, 50-60HZ, 2.5KW	1P 220V $\pm 10\%$, 50-60HZ, 2.5KW
N.W.	About 500kg	About 1500kg	

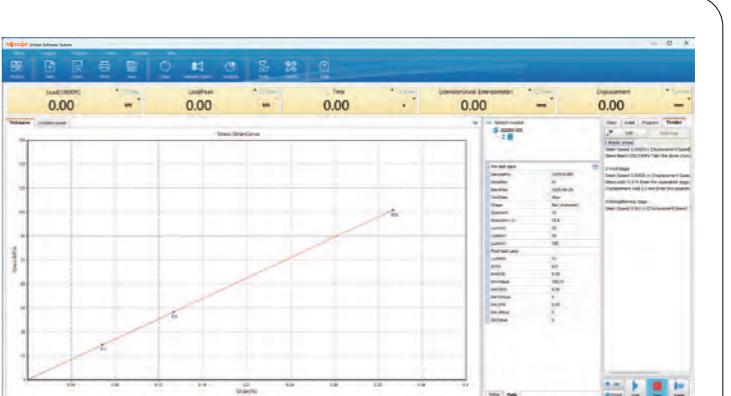


Standard tensile fixtures are provided for testing plates. Jaw openings of other sizes and V-shaped jaws for rods are optional.

Due to the large experimental force, a rotating locking method is adopted to ensure stable clamping.

The fixture can be quickly replaced by pulling out the lower pin. All fixtures have the same pin size, making fixture replacement convenient.

Optional fixtures include bending fixtures, peeling fixtures, puncture fixtures, etc. Custom fixtures of other models are also available according to user needs.



The independently developed software used with the testing machine has rich functions to meet various user needs. Its interface layout is reasonable and the operation logic is clear, making it easy for users to understand and operate.

COMPUTERIZED ELECTRO-HYDRAULIC SERVO HYDRAULIC UNIVERSAL TESTING MACHINE

CODE:UTM-H300/H600/H1000



- Suitable for tension, compression, bending and shear tests of metals and non-metals (including composite materials).
- Adopts electro-hydraulic servo closed-loop control, which can accurately control the flow of hydraulic oil through the servo valve and apply load through the oil cylinder.
- Oil cylinder lower-mounted main machine, with tension test space on the upper part and compression/bending test space on the lower part.
- The motor drives the lead screw to rotate to control the lifting of the crossbeam, so as to adjust the tension and compression space.
- Equipped with a special electro-hydraulic servo oil source control cabinet, with indicating instruments, control buttons and emergency stop buttons.
- Built-in controller, which can realize constant speed test force, constant speed displacement, constant speed strain, constant speed load cycle and other tests.
- Equipped with a wired remote control box, which can control the opening and closing of the fixture to clamp the sample.
- Four-column and two-lead screw design, with stable structure and high rigidity, which can meet high-strength testing requirements.
- Equipped with a metal wire protective cover to prevent splashes from causing harm to experimenters when the sample breaks.
- It has multiple protection functions such as overload and overpressure emergency stop protection, as well as mechanical limit devices.
- Cooperating with special measurement and control software, it can realize real-time measurement and display of experiments, real-time control, data processing, result output and other functions.
- The software supports multiple operating systems such as Win7, Win10 and Win11.
- The software has the function of automatically judging sample breakage and will stop automatically.
- The report template is editable and supports multiple output formats.
- After the test, it can return to the initial position manually or automatically at high speed.
- A variety of optional fixtures are available. In addition to the standard tension and compression fixtures, fixtures can be customized according to user needs.
- Supports the use with extensometers (optional).
- The design meets the standards: ASTM E4, ISO 7500-1, EN 10002-2, BS 1610, DIN 51221, etc.

STANDARD DELIVERY

Host Frame	1 set
Hydraulic Automatic Wedge Tensile Grip	1 set/each
Φ160mm Compression Fixture	1 set
3-Point Bending Fixture	1 set
Safety Screening	1 set
Control Cabinet	1 set
Oil Box	1 set
Servo Motor And Drive System	1 set
Plunger Pump	1 set
Hydraulic Integrated Valve Block	1 set
Pressure Gage	1 set
High-Pressure Oil Pipe	1 set
Magnetic Exchange Valve	1 set
Measure and Control Software	1 set
Control System	1 copy
Load Cell	1 set
Hand-Held Controller	1 set
Displacement Sensor	1 set
HP Computer	1 set
HP Printer	1 set
Instruction Manual	1 copy
Warranty Card	1 copy
Product Certificate	1 copy
Calibration Certificate	1 copy

OPTIONAL DELIVERY

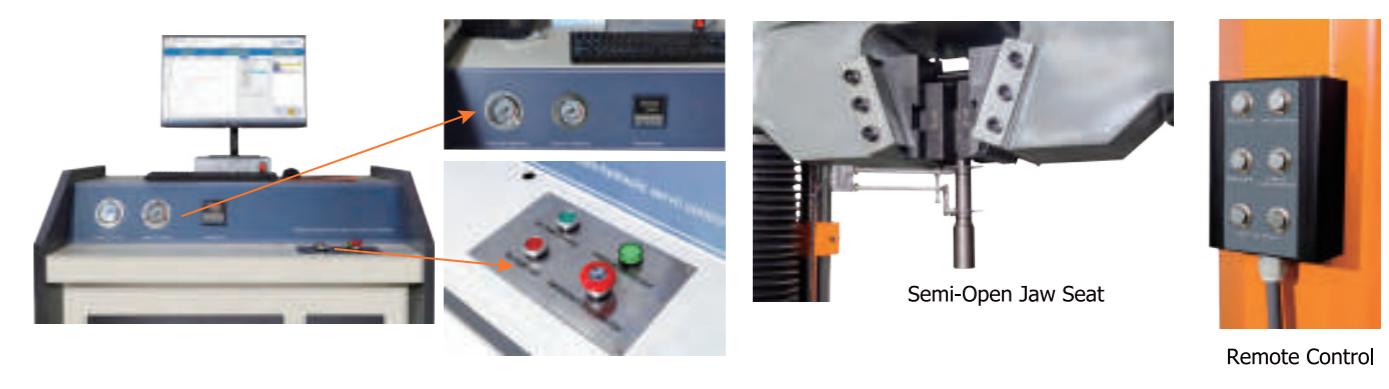
Electronic Extensometer	UTM-HET
Other Force Sensors With Different Ranges	UTM-HFS
Other Fixtures Of Various Models	UTM-HF
Load Cell	
High-Pressure Oil Pipe	
3-Point Bending Fixture	
Hydraulic Automatic Wedge Tensile Grip	
Plunger Pump	
Φ160mm Compression Fixture	
Main Unit	
Servo Motor And Drive System	
Hydraulic Integrated Valve Block	
Main Unit	
Magnetic Exchange Valve	
Displacement Sensor	
Hand-Held Controller	

COMPUTERIZED ELECTRO-HYDRAULIC SERVO HYDRAULIC UNIVERSAL TESTING MACHINE

CODE:UTM-H300/H600/H1000

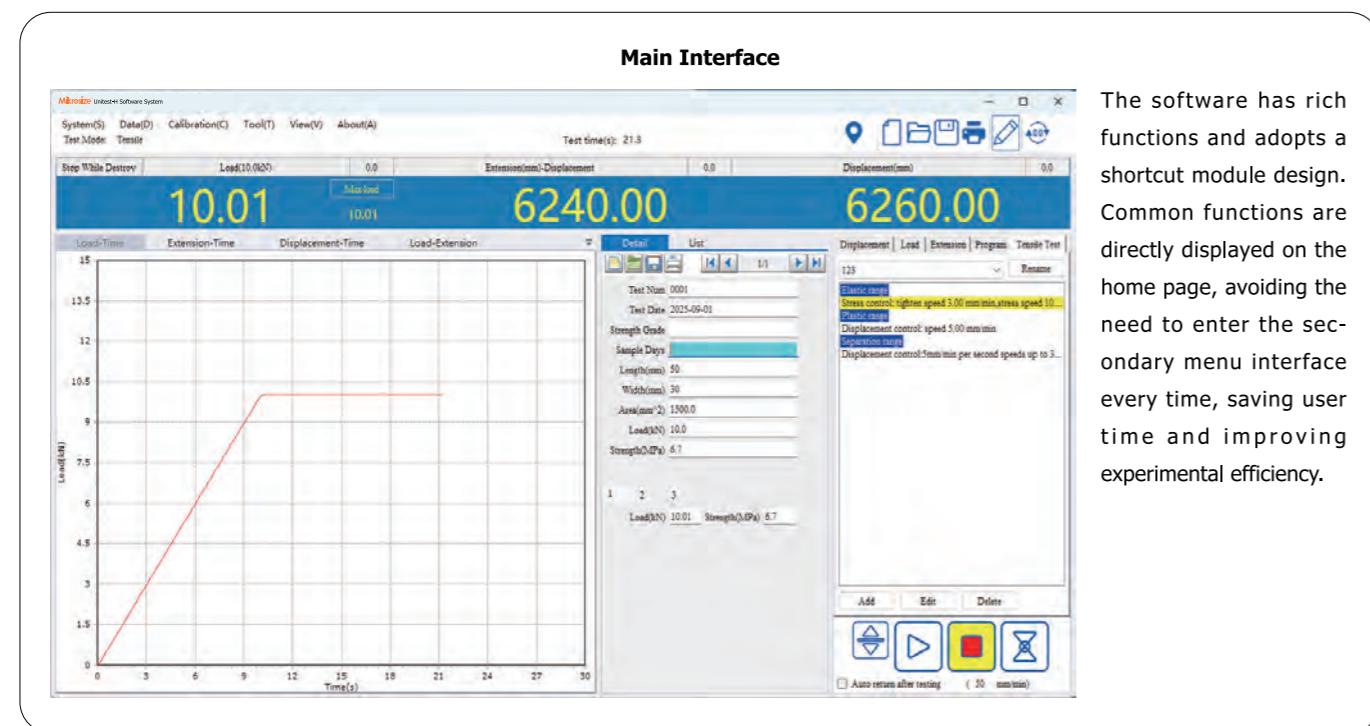
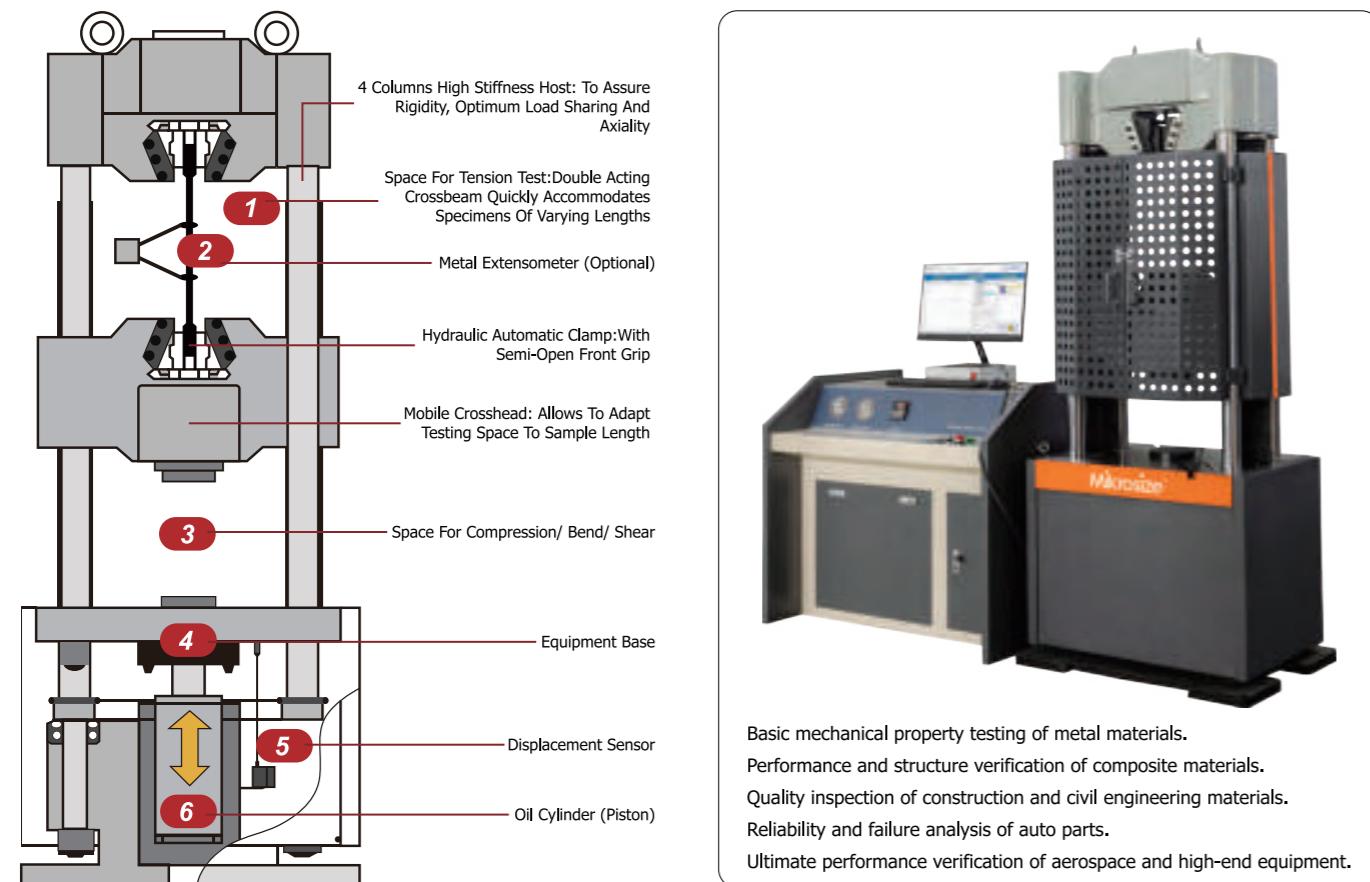
TECHNICAL SPECIFICATION

Name	Computerized electro-hydraulic Servo hydraulic universal testing machine		
Model	UTM-H300	UTM-H600	UTM-H1000
Number of Columns	4 (2 columns and 2 screws)	6 (4 columns and 2 screws)	
Load Capacity	300KN/30000kgf	600KN/60000kgf	1000KN/100000kgf
Calibration Standard	Class 1 (optional class 0.5)		
Testing load Accuracy	±1% (optional ±0.5%)		
Load Measuring Range	1%~100%F.S		
Load Resolution	1/500,000 of FS		
Displacement Resolution	0.001mm		
Displacement Accuracy	≤±0.5% of indicating value		
Deformation Measuring Range	1%~100%FS		
Deformation Resolution	1/±500000fs of the max deformation		
Deformation Accuracy	≤±0.5% of indicating value		
Overload Protection	≥5% of full range		
Max. Tensile Testing Space	550mm	600mm	650mm
Max. Compression Testing Space	500mm	550mm	550mm
Distance Between Two Columns	400mm	450mm	550mm
Max. Piston Stroke	200mm	250mm	250mm
Testing Speeds	0~80mm/min	0~80mm/min	0~80mm/min
Cross Beam Adjustment for Max Speed	About 200 mm/min	About 200 mm/min	About 200 mm/min
Control Mode	Force closed loop control, deformation closed loop control, displacement closed loop control		
Force Control Controls The Speed Range	0.001%~5%FS/s		
Deformation Control Controls Speed Range	0.001%~5%FS/s		
Clamping Mode	Built-in wedge type hydraulic automatic clamping		
Round Specimen Clamping Dia. Range	70*70mm	80*80mm	80*80mm
Round Specimen Clamp-Dia. Range	Φ4-Φ10mm,Φ10-Φ20mm (Optional:Φ20-Φ32mm)	Φ13-Φ26,Φ26-Φ40mm (Optional:Φ6-13mm)	Φ13-Φ26(Optional:Φ26-Φ40mm;Φ6-13mm)
	0~15mm	0~15mm (Optional:15~30mm)	0~15mm (Optional:15~30mm)
Compression Plate Dimensions	Φ160mm	Φ160mm	Φ160mm
Load Frame Dimension (L*W*H)	730*590*1900mm	780*650*2000mm	900*660*2150mm
Oil Power Dimension (L*W*H)	1250*1000*1000mm	1250*1000*1000mm	1250*1000*1000mm
Power Supply	3P 380V±10%,50-60HZ,2.3kW	3P 380V±10%,50-60HZ,2.3kW	3P 380V±10%,50-60HZ,2.3kW
N.W.	1400kg	1400kg	1780kg
Operating Temperature	0 to +38°C (+32 to +100°F)		
Humidity Range	10% to 90% non-condensing		



COMPUTERIZED ELECTRO-HYDRAULIC SERVO HYDRAULIC UNIVERSAL TESTING MACHINE

CODE:UTM-H300/H600/H1000



COMPUTERIZED ELECTRO-HYDRAULIC SERVO HYDRAULIC UNIVERSAL TESTING MACHINE

CODE:UTM-H2000/H3000

- Suitable for tension, compression, bending and shear tests of metals and non-metals (including composite materials).
- Adopts electro-hydraulic servo closed-loop control, which can accurately control the flow of hydraulic oil through the servo valve and apply load through the oil cylinder.
- Oil cylinder lower-mounted main machine, with tension test space on the upper part and compression/bending test space on the lower part.
- The motor drives the lead screw to rotate to control the lifting of the crossbeam, so as to adjust the tension and compression space. Equipped with a special electro-hydraulic servo oil source control cabinet, with indicating instruments, control buttons and emergency stop buttons.
- Built-in controller, which can realize constant speed test force, constant speed displacement, constant speed strain, constant speed load cycle and other tests.
- Equipped with a wired remote control box, which can control the opening and closing of the fixture to clamp the sample.
- Four-column and two-lead screw design, with stable structure and high rigidity, which can meet high-strength testing requirements.
- Equipped with a metal wire protective cover to prevent splashes from causing harm to experimenters when the sample breaks.
- It has multiple protection functions such as overload and overpressure emergency stop protection, as well as mechanical limit devices.
- Cooperating with special measurement and control software, it can realize real-time measurement and display of experiments, real-time control, data processing, result output and other functions.
- The software supports multiple operating systems such as Win7, Win10 and Win11.
- The software has the function of automatically judging sample breakage and will stop automatically.
- The report template is editable and supports multiple output formats.
- After the test, it can return to the initial position manually or automatically at high speed.
- A variety of optional fixtures are available. In addition to the standard tension and compression fixtures, fixtures can be customized according to user needs.
- Supports the use with extensometers (optional).
- The design meets the standards: ASTM E4, ISO 7500-1, EN 10002-2, BS 1610, DIN 51221, etc.



STANDARD DELIVERY

Host Frame	1 set
Hydraulic Automatic Wedge Tensile Grip	1 set/each
Φ160mm Compression Fixture	1 set
3-Point Bending Fixture	1 set
Safety Screening	1 set
Control Cabinet	1 set
Oil Box	1 set
Servo Motor And Drive System	1 set
Plunger Pump	1 set
Hydraulic Integrated Valve Block	1 set
Pressure Gage	1 set
High-Pressure Oil Pipe	1 set
Magnetic Exchange Valve	1 set
Measure and Control Software	1 set
Control System	1 copy
Load Cell	1 set
Hand-Held Controller	1 set
Displacement Sensor	1 set
HP Computer	1 set
HP Printer	1 set
Instruction Manual	1 copy
Warranty Card	1 copy
Product Certificate	1 copy
Calibration Certificate	1 copy

	Load Cell		High-Pressure Oil Pipe		3-Point Bending Fixture		Hydraulic Automatic Wedge Tensile Grip		Plunger Pump
	Φ160mm Compression Fixture		Main Unit		Servo Motor And Drive System		Hydraulic Integrated Valve Block		
	Displacement Sensor		Magnetic Exchange Valve		HP Computer		HP Printer		
	Hand-Held Controller								

COMPUTERIZED ELECTRO-HYDRAULIC SERVO HYDRAULIC UNIVERSAL TESTING MACHINE

CODE:UTM-H2000/H3000

TECHNICAL SPECIFICATION

Name	Computerized electro-hydraulic Servo hydraulic universal testing machine	
Model	UTM-H2000	UTM-H3000
Number of Columns	6 (4 columns and 2 screws)	
Load Capacity	2000KN/20000kgf	3000KN/30000kgf
Calibration Standard	Class 1	
Testing load Accuracy	±1%	
Load Measuring Range	1%~100%FS	
Load Resolution	1/500,000 of FS of FS	
Displacement Resolution	0.01mm	
Displacement Accuracy	≤±1% of Indicating Value	
Deformation Measuring Range	1%~100%FS	
Deformation Resolution	1/±500000FS of the max deformation	
Deformation Accuracy	≤±1% of Indicating Value	
Overload Protection	≥5% of Full Range	
Max. Tensile Testing Space	800mm	900mm
Max. Compression Testing Space	750mm	900mm
Distance Between Two Columns	600mm	720mm
Max. Piston Stroke	250mm	
Testing Speeds	0-50mm/min	
Cross Beam Adjustment for Max Speed	About 120 mm/min	
Control Mode	Force closed loop control, deformation closed loop control, displacement closed loop control	
Force Control Controls The Speed Range	0.001%~5%FS/s	
Deformation Control Controls Speed Range	0.001%~5%FS/s	
Clamping Mode	Built-in wedge type hydraulic automatic clamping	
Round Specimen Clamping Dia. Range	120*120mm	
Round Specimen Clamping Dia. Range	Φ30-Φ55mm(Optional: Φ15-30mm;Φ55-70mm)	Φ45-Φ80mm
	10-40mm(Optional:40-70mm)	10-40mm
Compression Plate Dimensions	Φ200mm	Φ200mm
Load Frame Dimension (L*W*H)	1120*920*3000mm	1200*950*3150mm
Oil Power Dimension (L*W*H)	1250*1000*1000mm	1250*1100*1100mm
Power Supply	3P 380V±10%,50-60HZ,3.2kW	3P 380V±10%,50-60HZ,5kW
N.W.	7500kg	9000kg
Operating Temperature	0 to +38° C (+32 to +100° F)	
Humidity Range	10% to 90% non-condensing	



Professional microcomputer control measurement and control system, used to connect the computer and the testing machine, and realize the control of the testing machine on the computer through the measurement and control system.

Each part has a special interface, which is on the back of the measurement and control box, and the types are different to avoid control failure caused by wrong connection.



The software has rich functions and adopts a shortcut module design. Common functions are directly displayed on the home page, avoiding the need to enter the secondary menu interface every time, saving user time and improving experimental efficiency.

MICROCOMPUTER CONTROLLED CHARPY IMPACT TESTING MACHINE

CODE:ITM-A300/A450/A750



Equipped with a pointer-type dial, the results are displayed directly, and the experimental results can be read directly, with a minimum resolution of ≥ 0.5J. The results can be compared with the microcomputer display results.

The pendulum adopts a circular design, which can reduce energy loss caused by air resistance. The anvil is processed with special materials and special technology, featuring impact resistance and wear resistance.

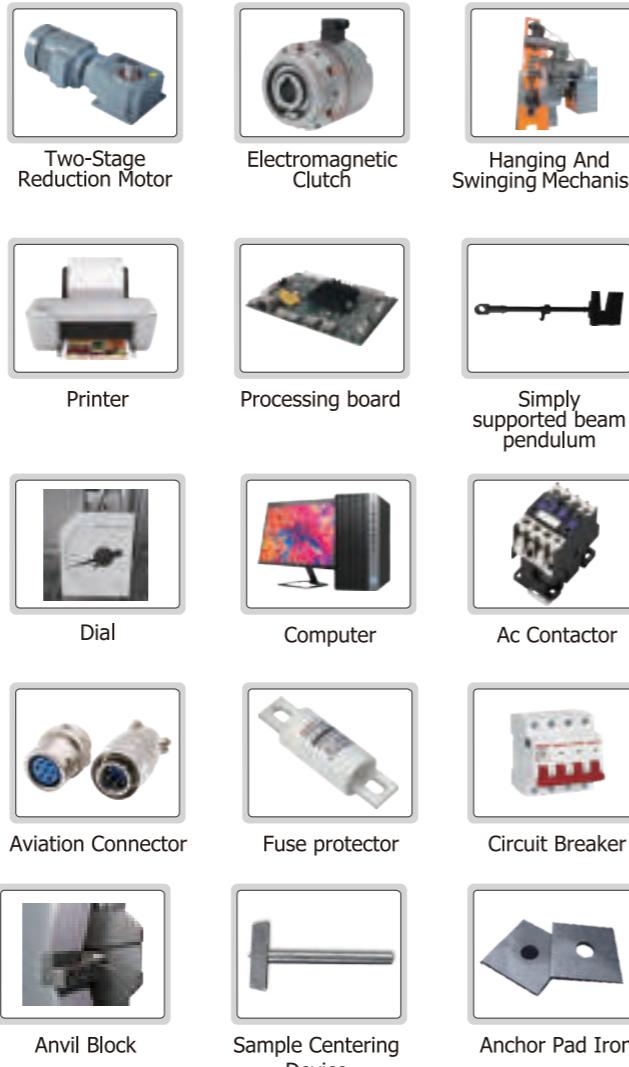
- Integrated design of main machine and base, with overall casting and processing, high rigidity and good stability.
- Double-support frame structure, with the pendulum spindle supported by a simply supported beam.
- The front and rear bearing holes are symmetrical to ensure the accurate distance from the pendulum axis to the striking point.
- The pendulum rod is made of thick-walled seamless steel pipe, featuring high rigidity and no deformation.
- The circular hammer body of the pendulum is accurately designed using 3D software, with a precise center of gravity. The circular structure effectively reduces the energy loss caused by air resistance during impact.
- The impact blade is made of special materials, having high hardness, small deformation and impact resistance.
- Equipped with two types of impact blades with specifications of 2mm and 8mm (optional), which are fixed by screw compression and easy to replace.
- A two-stage reduction motor is used as the power for lifting the hammer, with large torque, no slippage and low noise.
- Imported electromagnetic clutch is adopted, which engages and disengages quickly without slippage.
- Controlled by a microcomputer, it automatically measures and records, and automatically controls the entire experimental process of pendulum lifting, hanging and releasing.
- The pendulum hanging is controlled by the system according to the preset angle, with accurate positioning to ensure the constant initial impact energy.
- The pendulum hanging device adopts a hydraulic buffer mechanism, which enables stable pendulum hanging without jitter, avoiding impact and damage to the pendulum hanging mechanism.
- Electrically driven pendulum release for impact ensures that the initial impact energy and initial velocity are not affected.
- After the impact is completed, the remaining energy is used to automatically hang the pendulum again to prepare for the next impact.
- A high-precision photoelectric encoder is used to determine the test angle, improving the test accuracy of impact energy.
- The initial energy level can be adjusted by replacing the pendulum, expanding the application range.
- Three energy display methods: microcomputer display, dial, and LCD screen (optional), and the results can be compared with each other.
- Equipped with a safety pin, which automatically pops up after the pendulum rises to the predetermined position to prevent accidents caused by the falling of the pendulum.
- Equipped with a fully enclosed protective cover, which is safe and beautiful; equipped with an access control switch, and impact can only be carried out after the door is closed properly.
- The software has an automatic calibration function, which can test the energy loss caused by friction and air resistance.
- Sample recovery device (optional): after the impact is completed, the broken samples are transported to different recovery devices through a recovery belt.
- Automatic feeding function (optional): samples are directly pushed to the appropriate position of the equipment, and subsequent experiments can be carried out directly.
- Applicable standards: GB/T 2611, JB/T 7406.1, GB/T 3808, GB/T 229, JJG 145, ISO 148, ASTM E23, GB/T 18658, JB/T 6147.

MICROCOMPUTER CONTROLLED CHARPY IMPACT TESTING MACHINE

CODE:ITM-A300/A450/A750

STANDARD DELIVERY

Main Engine	1 set
Dial	1 block
Two-Stage Reduction Motor	1 set
Electromagnetic Clutch	1 set
Hanging And Swinging Mechanism	1 set
Insurance Institution	1 set
Safety Device	1 set
Ac Contactor	4 set
Circuit Breaker	1 set
Fuse Protector	1 set
Aviation Connector	3 set
Computer	1 set
Printer	1 set
Processing Board	1 set
Special Measuring Software.	1 copy
Simply Supported Beam Pendulum	1 set
2mm Impact Blade	1 set
Anvil block	1 set
Jaw	2 pieces
Span Aligner	1 set
Sample Centering Device	1 set
Anchor Pad Iron	4 blocks
Anchor Nut Bolt	4 pieces
Instruction Manual	1 copy
Certificate of Qualification	1 copy
Calibration Certificate	1 copy
Warranty Card	1 copy

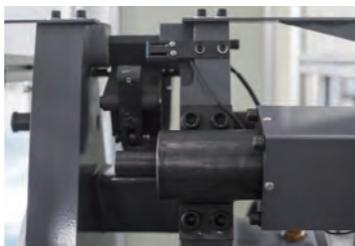


OPTIONAL DELIVERY

Sample Recovery Device	AIT-IK
Notch Projector	iProjec-50
Low-Temperature Tank	AIT-TT
Hydraulic Broaching Machine For Impact Sample Notches (Double Blades)	AIT-HB
Standard Impact Samples	AIT-IS



Equipped with a span aligner and a sample centering hammer to ensure that the sample is placed at the preset standard test position and eliminate test errors caused by sample deviation.



The pendulum hanging device adopts a hydraulic buffer mechanism, and the equipment will automatically pop up the safety pin after pendulum hanging to prevent the pendulum from falling accidentally.

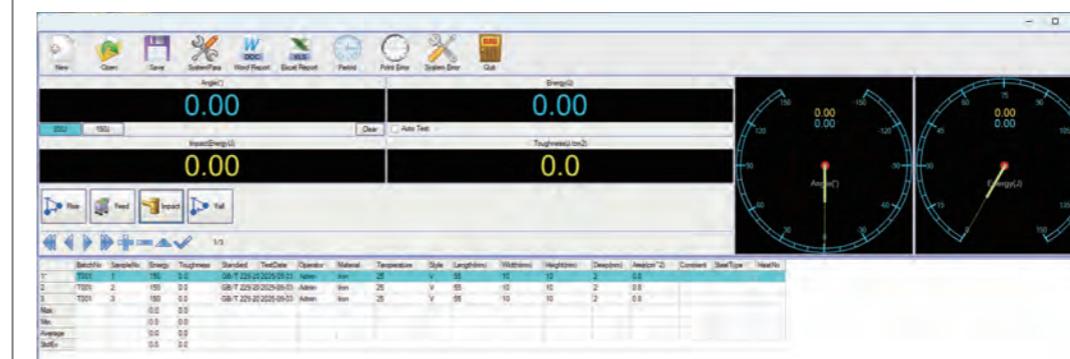
MICROCOMPUTER CONTROLLED CHARPY IMPACT TESTING MACHINE

CODE:ITM-A300/A450/A750

TECHNICAL SPECIFICATION

Name	Microcomputer controlled charpy impact testing machine		
Model	ITM-300	ITM-450	ITM-750
Max Impact Energy	300J	450J	750J
Test Range			20%-80%FS
Pendulum Pre-Lifting Angle	150°		
Distance From Pendulum Axis To Striking Center.	750mm	800mm	750mm
Pendulum Hammer Weight	214.3594 N	321.5391 N	535.8985 N
Pendulum Moment	160.7696 N.m	241.1543 N.m	401.9239 N.m
Impact Velocity	5.24m/s		
Anvil Span	40mm		
Radius Of Anvil Fillet	R1-1.5mm		
Angle Of Inclination Of Anvil	11°±1°		
Impact Edge Angle	30°±1°		
2mm Impact Edge Curvature Radius	2mm-2.5mm		
8mm Impact Edge ShoulderAngular Radius	0.1mm-1mm		
Width Of 8mm Impact Edge	4mm ±0.05mm		
Impact Edge Width	10mm-18mm		
Thickness Of Impact Knife	16mm		
Meet The Sample Specification	10×10×55mm,10×7.5×55mm,10×5×55mm,10×2.5×55mm		
Angle Measurement Mode	Optoelectronic encoder		
Angle Accuracy	0.06°		
Digital Angular Resolution	0.015°		
Digital Energy Resolution	0.12J		
Minimum Resolution Of Dial	≥0.5J		
Energy Display Mode	Dial, computer display		
Main Engine	Install protective net 2220×900 ×2220 mm (L*W*H)		
Electric Cabinet	90× 620× 830 mm (L*W*H)		
Main Engine	About 1500kg	About 1500kg	About 1650kg
Electric Cabinet	About 100kg		
Power Of Motor	0.55kW		
Power Supply	Three-phase 380V±10%, 50Hz		
Operational Environment	No vibration and dust; room temperature (15-25°C); humidity < 70%		

Main Interface



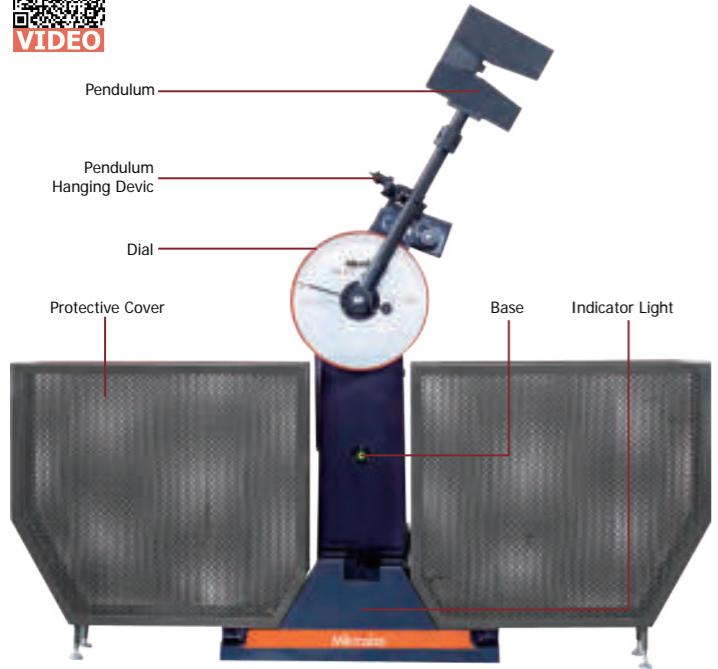
Self-developed special software for impact testing machines, which can control the equipment to conduct experiments through the software, including: pendulum starting, automatic feeding (optional), impact, and pendulum dropping.

SEMI-AUTOMATIC CHARPY IMPACT TESTING MACHINE

CODE:ITM-SA300/SA500



VIDEO



STANDARD DELIVERY

Host Frame	1 set
150J and 300J Pendulum	2 sets
Dial	1 set
Manual Box	1 set
Safety Screening	1 set
Safety Mechanism	1 set
Motor	1 set
Fastening Wrench	1 set
Anchor Bolt	4 pcs
Instruction Manual	1 copy
Certificate of Qualification	1 copy
Calibration Certificate	1 copy
Warranty Card	1 copy



150J and 300J Pendulum



Dial



Host Frame



Manual Box



Safety Screening



Safety Mechanism

OPTIONAL DELIVERY

150J Simply Supported Beam Pendulum	SAIT-BP
300J Simply Supported Beam Pendulum	
450J Simply Supported Beam Pendulum	
750J Simply Supported Beam Pendulum	
Impact Knives Of Different Sizes (2mm, 8mm)	SAIT-IK
Notch Projector	iProjec-50
Low-Temperature Tank	SAIT-TT
Hydraulic Broaching Machine For Impact Sample Notches (Double Blades)	SAIT-HB
Standard Impact Samples	SAIT-IS



Motor



Fastening Wrench



Anchor Bolt

- The main machine adopts a single supporting column structure and a cantilever-type pendulum hanging method.

- The impact knife is installed and fixed with screws for easy replacement.

- The sample is supported in a simply supported beam manner.

- The equipment is equipped with a safety pin to prevent the pendulum from falling accidentally.

A wire protective net is equipped to prevent foreign objects from splashing and causing harm during the experiment.

- The equipment is controlled semi-automatically. Except for the need to manually place the sample, the pendulum lifting, pendulum hanging, impacting, and pendulum releasing are all electrically controlled.

After breaking the sample, the remaining energy can be used to automatically lift the pendulum, preparing for the next experiment, which is suitable for continuous impact experiments.

- Equipped with a manual control box, allowing experimenters to control the equipment's actions from a relatively long distance, further ensuring personnel safety.

- The pendulum adopts a detachable design, which is convenient for replacing pendulums with different impact energies and expanding the application range of the equipment.

- The C-type pendulum design can reduce the frictional energy loss caused by air resistance.

Equipped with a sample centering device to ensure the accurate placement of the sample and eliminate test errors caused by sample deviation.

- The experimental data is read using a dial pointer, with an accuracy of 0.5J.

Can be matched with a low-temperature tank (optional) for low-temperature impact experiments.

- The equipment meets the standards of ISO 14556, ASTM E23, ISO 148, etc.

TECHNICAL SPECIFICATION

Name	Semi-automatic Charpy Impact Testing Machine	
Model	ITM-300B	ITM-500B
Max Impact Energy	150J,300J	250J,500J
Storage Temperature	10%-90%FS	
Pendulum Pre-Lifting Angle	150°	
Distance From Pendulum Axis To Striking Center	750mm	800mm
Pendulum Moment	150J M=80.3848N·m 300J M=160.7695N·m	250J M=133.9746N·m 500J M=267.9492N·m
Impact Speed	5.2m/s	5.4m/s
Anvil Span	40mm	
Radius Of Anvil Fillet	R1-1.5mm	
Standard Sample Size	10×10×55mm,10×7.5×55mm,10×5×55mm,10×2.5×55mm	
Load Frame Dimension	Install protective net 2200×650 ×1900 mm (L*W*H)	
Power Supply	3P 380V±10%,50-60HZ,2kW	
N.W.	500kg	650kg
Operating Temperature	0 to +38° C (+32 to +100° F)	
Humidity Range	10% to 90% non-condensing	



Equipped with a pointer-type dial, the results are displayed directly, and the experimental results can be read directly, with a minimum resolution of ≥0.5J.



A standard wire protective cover is equipped to prevent splashes generated during the experiment from causing harm to experimenters or the surrounding area.



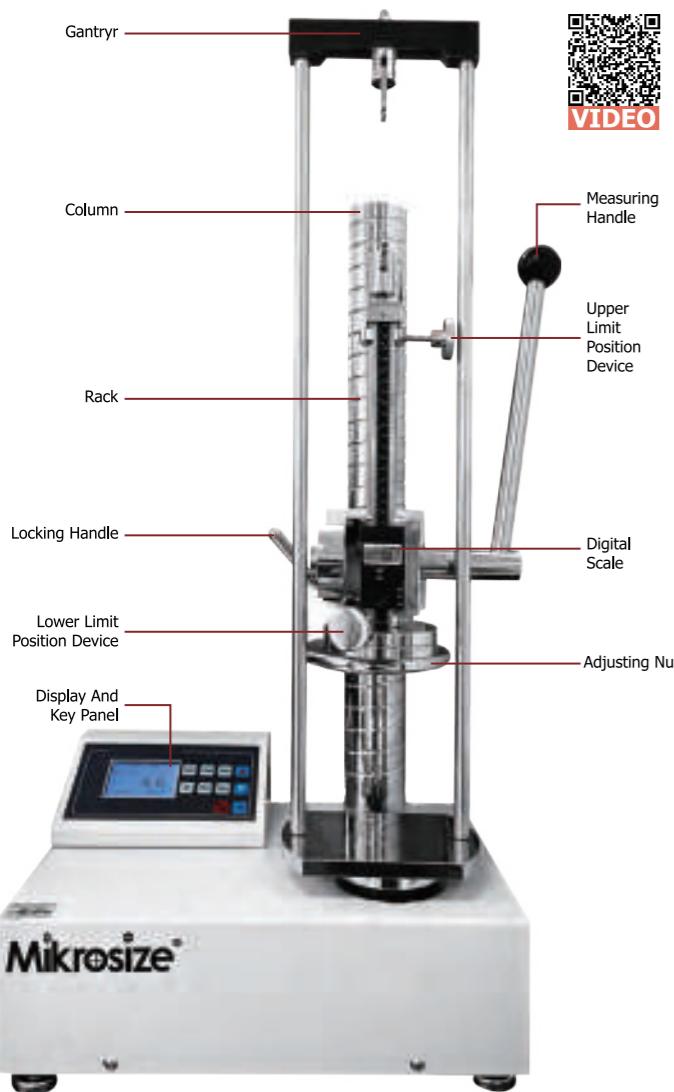
Pendulum hanging device: after the pendulum is lifted, the safety pin pops out and cooperates with the pendulum hanging device to lock the pendulum, preventing the pendulum from falling accidentally. Controlled by electricity and equipped with a mechanical interlock device, the pendulum will be released only when the impact button on the manual control box is pressed.



The pendulum adopts a replaceable design, and the application range of the equipment can be expanded by replacing the pendulum. The pendulum adopts a C-type design, which can reduce the energy loss caused by air friction resistance.

SPRING TENSION AND COMPRESSION TESTER

CODE:MST-2000



- Color screen display and beep prompts for key presses
- Supports tension and compression testing of springs
- Maximum measurable free length of springs: 200mm
- Pressure plate diameter: 108mm
- Three measurement modes: real-time measurement mode, peak measurement mode, auto peak mode
- Upper and lower limit values can be set; the device buzzer will sound a prolonged alarm when test results exceed the limit values
- Minimum save value can be set; data below this value cannot be saved
- Minimum peak value can be set; data below this value will not be displayed
- Automatic shutdown function, adjustable from 1-99 minutes
- Equipped with a digital scale to display spring deformation, with two units available: mm and inch
- High precision and high resolution, with a minimum resolution of 0.1n
- Three measurement units, freely switchable: n, kg, lb
- Gravity acceleration can be set for higher measurement and conversion accuracy
- Can store up to 99 groups of test data, which can be directly viewed, stored, and deleted on the device
- Stored measurement data can be printed out, including maximum value, minimum value, and average value
- Can connect to pc via usb interface for synchronous testing function; the computer synchronously displays the test force curve and force measurement records during the test process
- Executive standards: jb/t 7796; iso 7500-1:2018

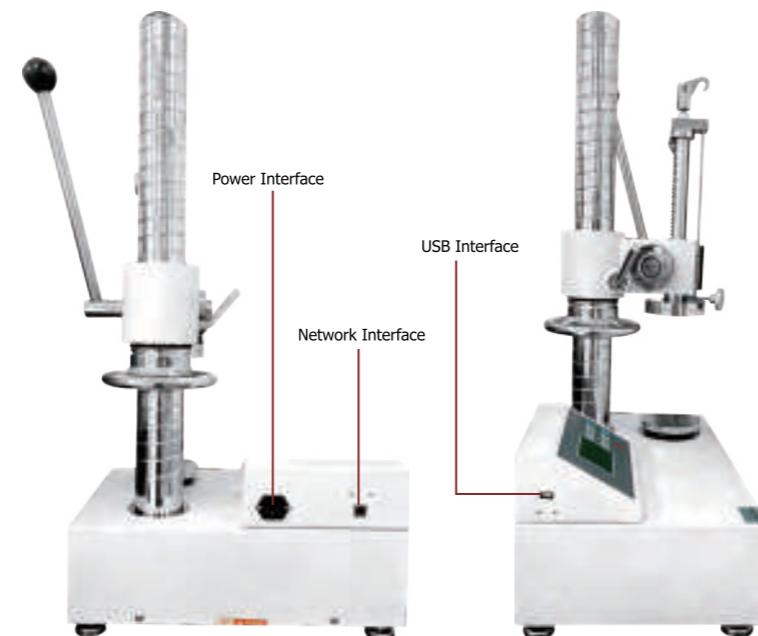
STANDARD DELIVERY

Gantry	1
Measuring Handle	1
Button Battery	1
Power Cord	1
USB Cable	1
Cd (Including Data Export Software)	1
Warranty Card	1
Certificate Of Conformity	1
Instruction Manual	1



Gantry

Measuring handle



SPRING TENSION AND COMPRESSION TESTER

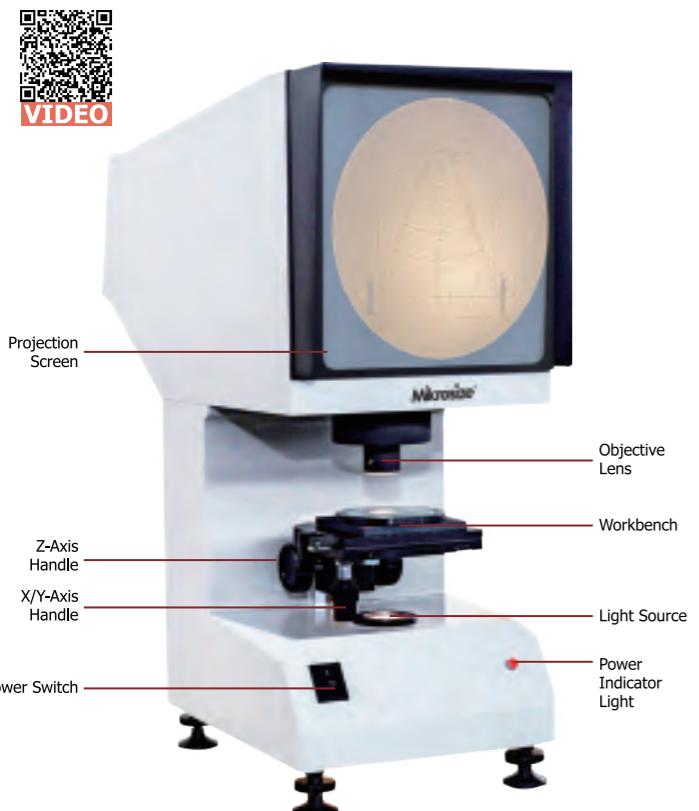
CODE:MST-2000

TECHNICAL SPECIFICATION

Name	Spring Tension and Compression Tester				
Model	MST-10		MST-20	MST-30	MST-50
Maximum Test Load	N	10	20	30	50
	Kg	1	2	3	5
	Lb	2.2	4.5	6.5	11
Minimum Resolution	N	0.001			
	Kg	0.0001			
	Lb	0.0001			
Pressure Plate Diameter	34mm		48mm		
Maximum Length Of The Spring	80mm		150mm		
Displacement Scale Stroke	60mm		90mm		
Dimensions(L*W*H)mm	490*280*300				570*280*300
Net Weight	14.5kg				
Model	MST-100	MST-150	MST-200	MST-300	MST-500
Maximum Test Load	N	100	150	200	300
	Kg	10	15	20	30
	Lb	22	33	45	65
Minimum Resolution	N	0.01			
	Kg	0.001			
	Lb	0.001			
Pressure Plate Diameter	48mm				
Maximum Length Of The Spring	150mm				
Displacement Scale Stroke	90mm				
Dimensions(L*W*H)mm	570*280*300				
Net Weight	18kg				
Model	MST-1000	MST-2000	MST-3000	MST-5000	
Maximum Test Load	N	1000	2000	3000	5000
	Kg	100	200	300	500
	Lb	220	450	650	1100
Minimum Resolution	N	0.1			
	Kg	0.01			
	Lb	0.01			
Pressure Plate Diameter	108mm				
Maximum Length Of The Spring	200mm				
Displacement Scale Stroke	150mm				
Dimensions(L*W*H)mm	790*610*320				
Net Weight	67kg				79kg
Scale Division Value	0.01mm				
Accuracy	±1% (10%-100% of full range)				
Power Supply	AC 220V~50Hz				
Operating Temperature	10°C~30°C				
Storage Temperature	-27°C~70°C				
Relative Humidity	15%~80%RH				

IMPACT SPECIMEN NOTCH PROJECTOR

CODE:iProjec-50



TECHNICAL SPECIFICATION

Diameter Of The Projection Screen	200×200mm
Workbench Size	Workbench size 110×125mm Workbench diameter 90mm Diameter of the workbench glass 70mm
Workbench Travel Distance	Vertical ±10mm Horizontal ±10mm Lift and lower ±10mm
Rotation Range Of The Workbench	0~360°
Instrument Magnification Factor	50X
Objective Lens Magnification	2.5X
Projection Objective Magnification	20X
Light Source (Halogen Lamp)	12V/100W
Power Supply	220V/50Hz
Dimensions Of The Shape	515×224×603mm
Weight	20kg

The iProjec-50 impact specimen notch projector is designed based on the requirements of domestic users and in accordance with standards such as GB/T 229. It is used to check the accuracy of V-shaped and U-shaped notches. By comparing the enlarged projected notch outline with the standard sample diagram on the projection screen, it determines whether the notch processing is qualified. It also complies with international standards such as the American standard and the European standard. It features simple operation, intuitive inspection, and high efficiency, and is widely used in physical and chemical laboratories of various industries and in various testing scenarios.

- Complying with national standards and user requirements, it is designed in accordance with GB/T229-2007, specifically for inspecting the V and U notch shapes, precisely meeting the quality inspection needs for metal impact test specimens.

- Using the optical projection method, the outline of the notch is enlarged and projected onto the screen. It is then compared with the standard sample diagram on the screen. The detection process is intuitive and makes it easy to determine whether the sample is qualified.

- The operation process is simple and does not require complex professional skills. Staff members can get started with it after a brief training and can quickly carry out the sample notch detection work.

- The detection efficiency is high, and the single detection time is short. It can quickly complete the screening of individual or batch samples, and is suitable for high-frequency detection scenarios in enterprises, laboratories, etc.

- The workbench is highly adjustable, with travel ranges in both the vertical and horizontal directions, as well as for elevation. It can also rotate 360 degrees and precisely locate different test specimen notch positions.

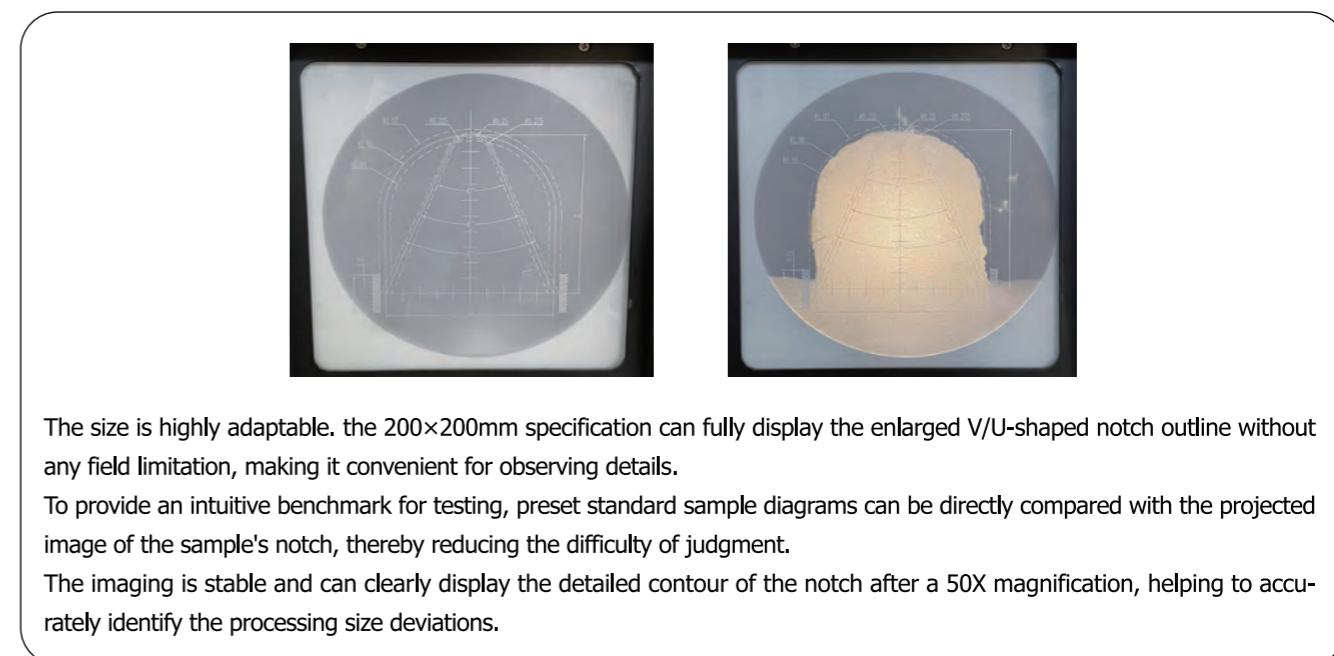
- Equipped with backup halogen lamps and a base adjustment button, it can handle sudden failures of the light source, ensuring the continuous operation of the equipment. It also allows for leveling the instrument to ensure precise detection.

STANDARD DELIVERY

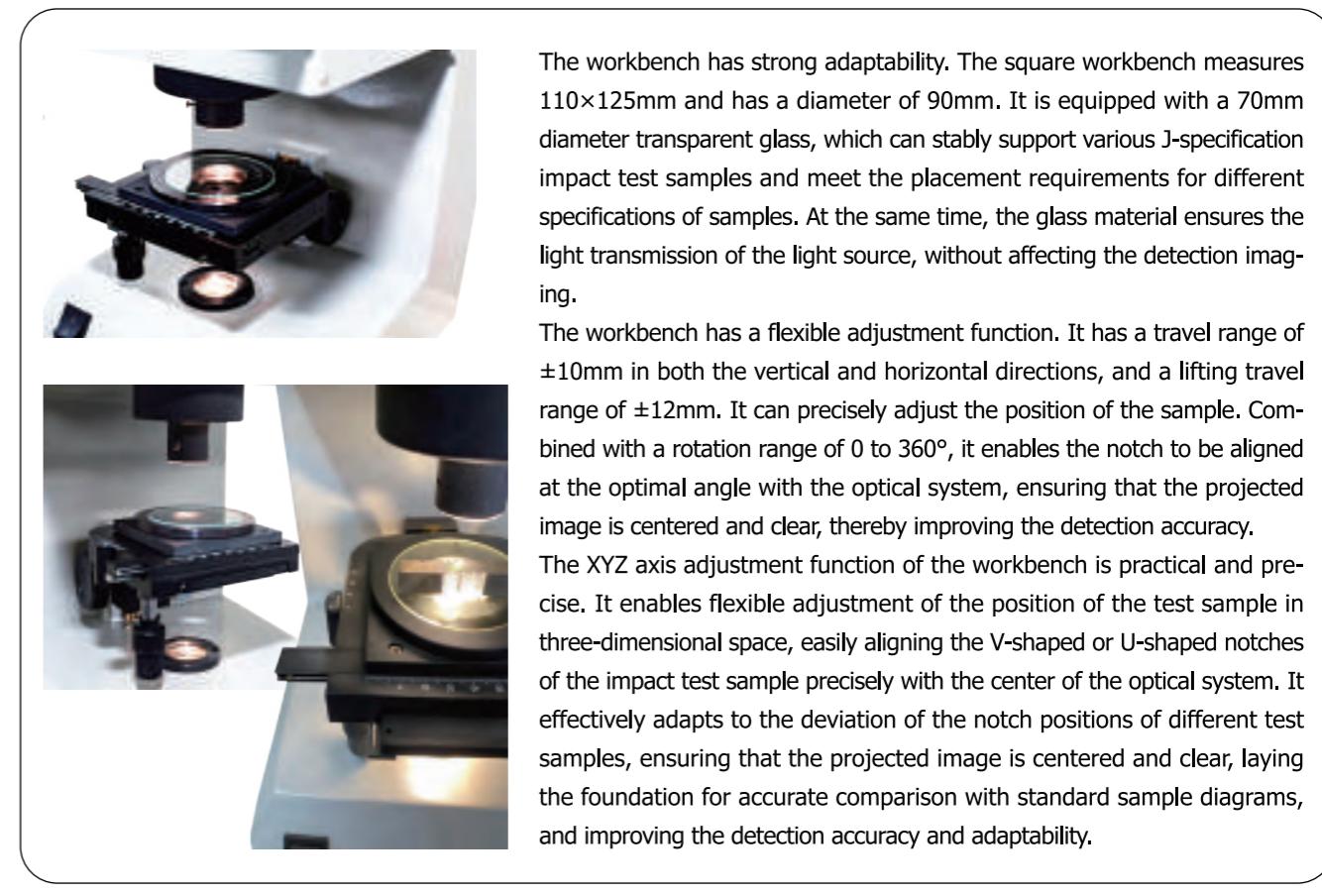
Projector Main Unit	1 set
Base Adjustment Knob	4 piece
Power Cord	1 piece
Halogen Tungsten Lamp	2 piece
Flat Glass	1 piece



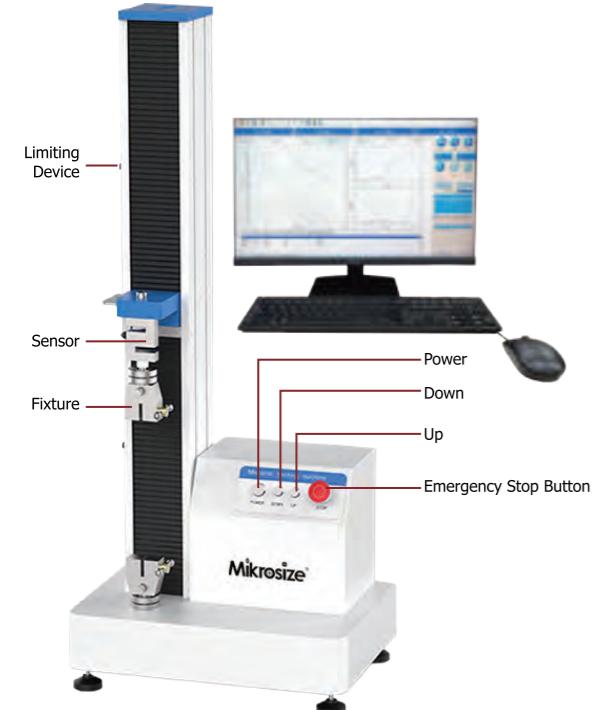
PROJECTION SCREEN



WORKBENCH



SINGLE COLUMN ELECTRONIC UNIVERSAL TESTING MACHINE CODE:UTM-SC



- Wide range of application, powerful, compact structure, easy to operate;
- High measurement accuracy;
- Adoption of high speed, low vibration and low noise motor drive;
- Multilingual switching;
- Flexible report viewing and printing capabilities;
- Auto-returning;
- Multiple curve modes (optional): e.g. Stress - Strain, Force - Displacement, Force - Time, Strength - Time, etc.
- Multiple test mode function: with tensile, flexural, compressive, folding, tearing, peeling, elongation and other test modes.
- Multiple protection devices.

STANDARD DELIVERY

Machine Mainframe	1 set
Power Cord	1 pc
Software	1 pc
Fixture	1 pc
Horizontal Adjustable Feet	4 pcs



Three-Point Bending Fixture



Peeling Fixture



Large Wave Fixture



Plastic Film Fixture



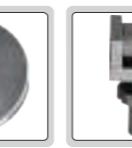
Four-Point Bending Fixture



Tensile Fixture



Compression Fixture



Eccentric Wheel Fixture



Four-Point Bending Fixture (Large Range)

OPTIONAL DELIVERY

Small Deformation Metal Extensometer	MS-UTM-SE
Large Deformation Metal Extensometer	MS-UTM-LE
Various Fixtures	MS-UTM-FT

TECHNICAL SPECIFICATION

Model	UTM-SC						
Subdivision Model	UTM-SC-5	UTM-SC-10	UTM-SC-20	UTM-SC-50	UTM-SC-100	UTM-SC-200	UTM-SC-500
Capacity KN	0.05	0.1	0.2	0.5	1	2	5
KG	5	10	20	50	100	200	500
lb	11	22	44	110	220	440	1102
Testing Class	Class 1 (Can Be Change To Class 0.5)						
Force Accuracy	Within $\pm 1\%$ of The Indicated Value (Can Be Change To 0.5%)						
Speed Accuracy	Within $\pm 1\%$ of The Indicated Value (Can Be Change To 0.5%)						
Speed Range	0.01-500mm/min						
Displacement Accuracy	Within $\pm 1\%$ of The Indicated Value (Can Be Change To 0.5%)						
Large Deformation	1000mm(Optional)						
Large Deformation Resolution	Within $\pm 1\%$ of The Indicated Value (Can Be Change To 0.5%)						
Measuring Height	Standard Model: 500mm Heightened Model: 1000mm						
Power Supply	220V/AC/50Hz; (Can Be Selected By Country :110v.ac/60hz)						
Weight	Net Weight: 65Kg						
Dimension	Standard: L*W*H:450mm*400mm*1190mm Heightened: L*W*H:450mm*400mm*1580mm						

TOUCH SCREEN SINGLE COLUMN ELECTRONIC UNIVERSAL TESTING MACHINE

CODE:UTM-TSC



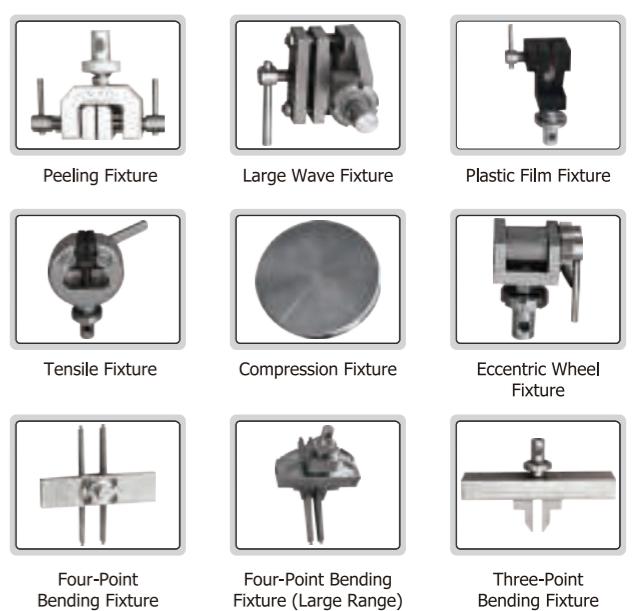
- Wide range of application, powerful, compact structure, easy to operate;
- High measuring accuracy;
- Adoption of high speed, low vibration and low noise motor drive;
- Multi-language switching;
- Flexible report viewing and printing capabilities;
- Auto-returning;
- Multiple curve modes (optional): e.g. Stress - Strain, Force - Displacement, Force - Time, Strength - Time, etc.
- Multiple test mode function: with tensile, flexural, compressive, folding, tearing, peeling, elongation and other test modes;
- Multiple protection devices;
- Optional large deformation displacement tracker (heightened model): can meet specific testing needs;
- Optional upgrade to connect to a PC to use the advanced version of the test software with more features.

STANDARD DELIVERY

Mainframe Machine	1 set
Power Cord	1 pc
Fixture	1 pc
Horizontal Adjustable Feet	4 pcs



Small Deformation Metal Extensometer	MS-UTM-SE
Large Deformation Metal Extensometer	MS-UTM-LE
Various Fixtures	MS-UTM-FT
Testing Software	MS-UTM-SW
Computer	DELL

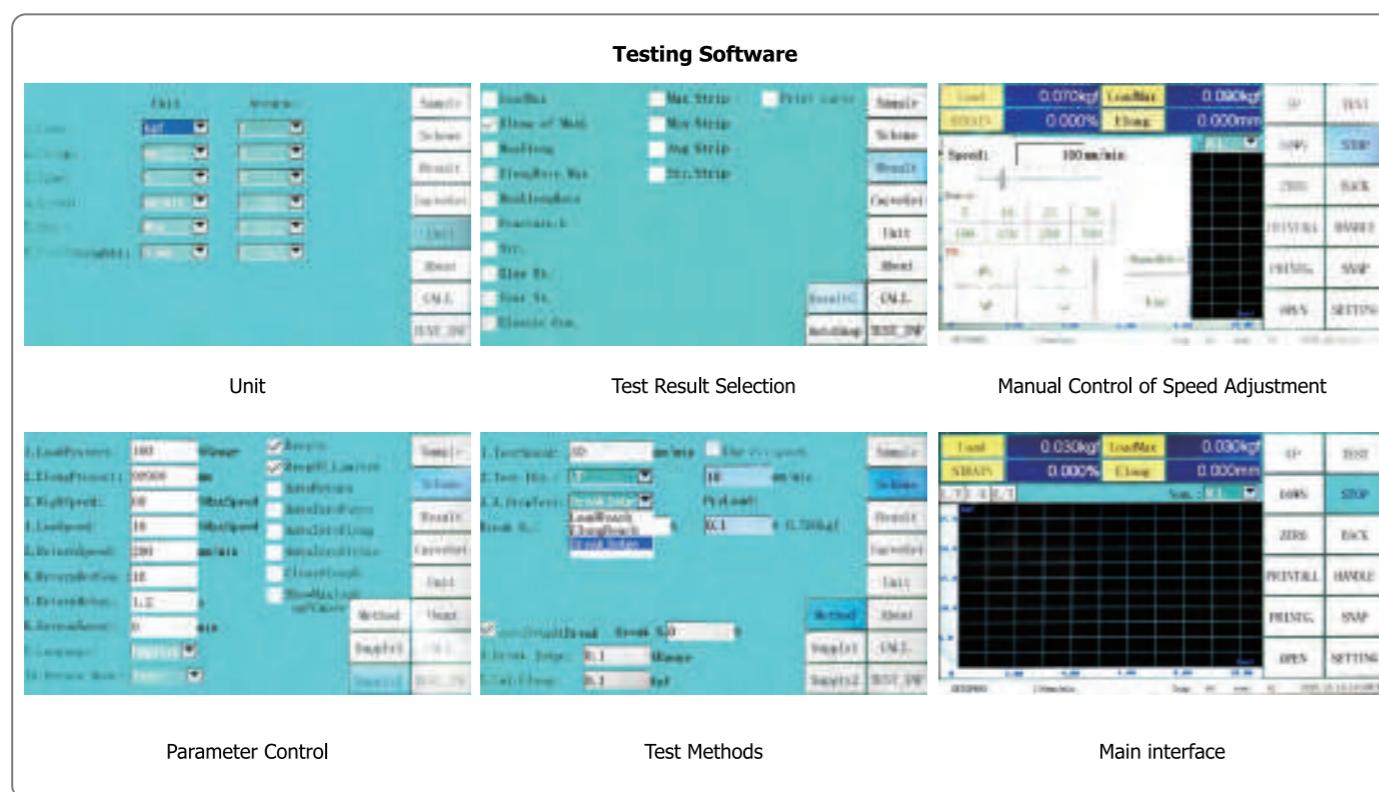


TOUCH SCREEN SINGLE COLUMN ELECTRONIC UNIVERSAL TESTING MACHINE

CODE:UTM-TSC

TECHNICAL SPECIFICATION

Model	UTM-TSC						
Subdivision Model	UTM-TSC-5	UTM-TSC-10	UTM-TSC-20	UTM-TSC-50	UTM-TSC-100	UTM-TSC-200	UTM-TSC-500
Capacity KN	0.05	0.1	0.2	0.5	1	2	5
KG	5	10	20	50	100	200	500
lb	11	22	44	110	220	440	1102
Testing Machine Class	Class 1						
Effective Force Measurement Range	0.4%~100%FS						
Force Accuracy	Within $\pm 1\%$ of The Indicated Value						
Force Value Resolution	1/300000						
Displacement Resolution	0.001mm						
Displacement Accuracy	Within $\pm 1\%$ of The Indicated Value						
Deformation Measuring Range	2%~100%FS						
Precision of Deformation Indication	Within $\pm 1\%$ of The Indicated Value						
Maximum Test Speed	500mm/min,1000mm/min(optional)						
Minimum Test Speed	0.1mm/min						
Speed Accuracy	Within $\pm 1\%$ of The Indicated Value						
Measuring Height	Test Stroke Without Fixture :920mm;						
Fixture Configuration	Configure According To Customer Requirements						
Return Mode	Manual or Automatic Options, Automatic Return After The End of The Test or Manual Return To The Initial Position						
Overload Protection	Reach 100% Maximum Load, Automatic Machine Stop Protection						
Power Supply	220V.AC/50Hz; (110V.AC/60Hz)						
Weight	Net Weight: About 50KG Gross Weight: About 73KG						
Dimension	Mainframe: L* W* H:450mm*400mm*1160mm Package: L* W* H:550mm*500mm*1400mm						



TOUCH SCREEN SINGLE COLUMN ELECTRONIC UNIVERSAL TESTING MACHINE

CODE:UTM-TSH

- Wide range of application, powerful, compact structure, easy to operate;
- High measurement accuracy;
- Adoption of high speed, low vibration and low noise motor drive;
- Multilingual switching;
- Flexible report viewing and printing capabilities;
- Auto-returning;
- Multiple curve modes (optional): e.g. Stress - Strain, Force - Displacement, Force - Time, Strength - Time, etc.
- Multiple test mode function: with tensile, flexural, compressive, folding, tearing, peeling, elongation and other test modes.
- Multiple protection devices.
- Optional large deformation displacement tracker (heightened model): can meet specific testing needs.
- Optional upgrade to connect to a PC to use the advanced version of the test software with more features.



OPTIONAL DELIVERY

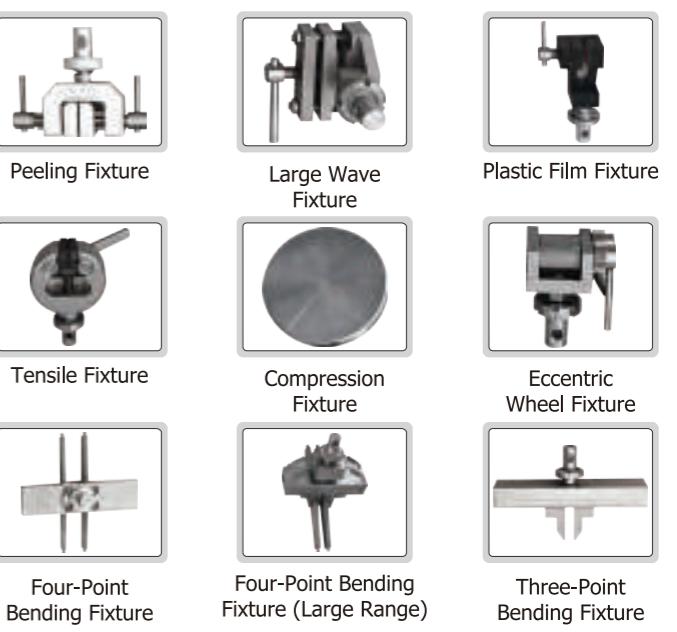
Small Deformation Metal Extensometer	MS-UTM-SE
large Deformation Metal Extensometer	MS-UTM-LE
Various Fixtures	MS-UTM-FT
Testing Software	MS-UTM-SW
Computer	DELL

STANDARD DELIVERY

Mainframe Machine	1 set
Power Cord	1 pc
Software	1 pc
Fixture	1 pc
Horizontal Adjustable Feet	4 pc



Extensometer(Optional)

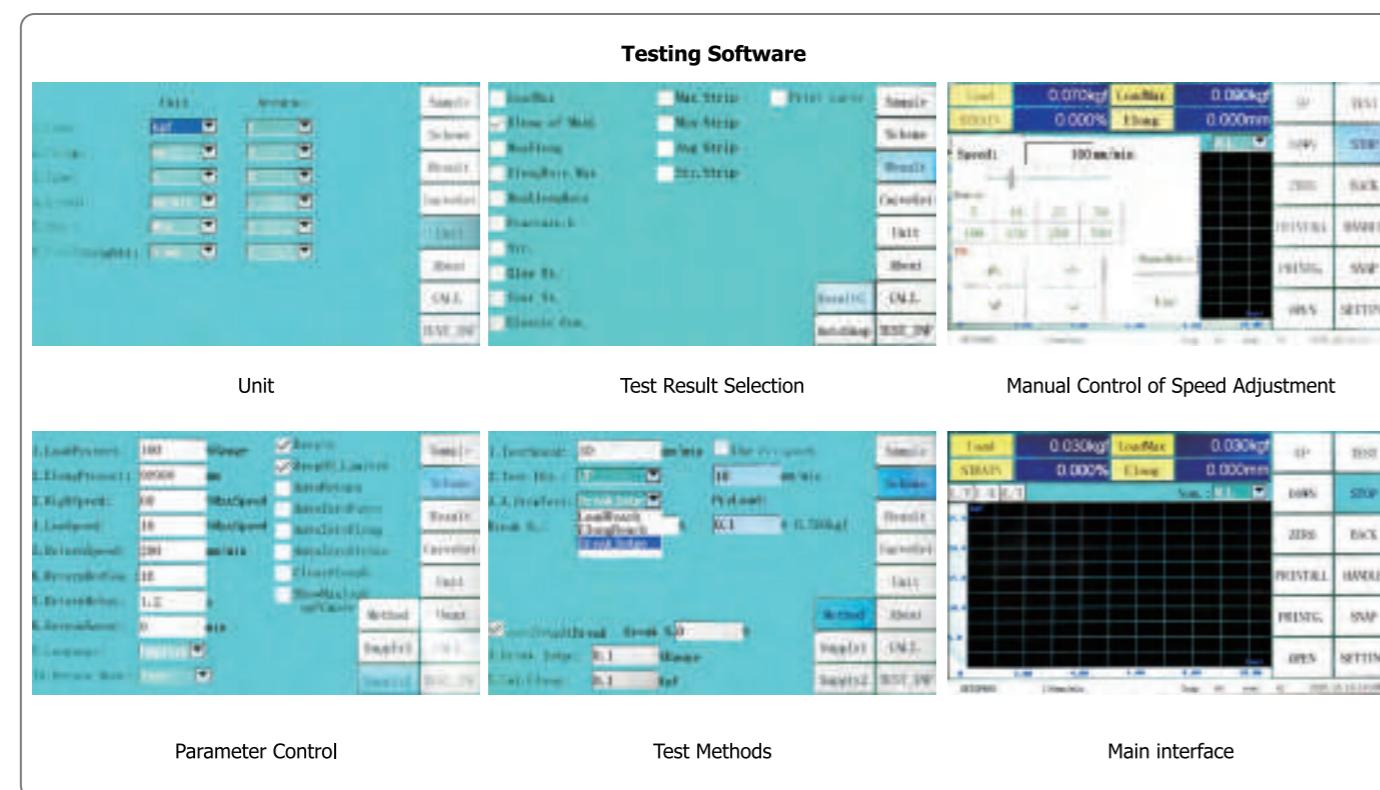


TOUCH SCREEN SINGLE COLUMN ELECTRONIC UNIVERSAL TESTING MACHINE

CODE:UTM-TSH

TECHNICAL SPECIFICATION

Model	UTM-TSH							
Subdivision Model	UTM-TSH-5	UTM-TSH-10	UTM-TSH-20	UTM-TSH-50	UTM-TSH-100	UTM-TSH-200	UTM-TSH-500	
Capacity	KN	0.05	0.1	0.2	0.5	1	2	5
	KG	5	10	20	50	100	200	500
	lb	11	22	44	110	220	440	1102
Testing Class	Class 1 (Can Be Change To Class 0.5)							
Force Accuracy	Within $\pm 1\%$ of The Indicated Value (Can Be Change To 0.5%)							
Speed Accuracy	Within $\pm 1\%$ of The Indicated Value (Can Be Change To 0.5%)							
Speed Range	0.1-500mm/min							
Displacement Accuracy	Within $\pm 1\%$ of The Indicated Value (Can Be Change To 0.5%)							
Measuring Height	1000mm							
Large Deformation	1000mm							
Measuring Range								
Large Deformation Resolution	Within $\pm 1\%$ of The Indicated Value (Can Be Change To 0.5%)							
Power Supply	220v.ac/50hz; (Can Be Selected By Country :110V.AC/60Hz)							
Weight	Net Weight: 80Kg							
Dimension	L*W*H:450mm*350mm*1570mm							



DUAL-COLUMN UNIVERSAL MATERIAL TESTING MACHINE(BENCH TYPE)

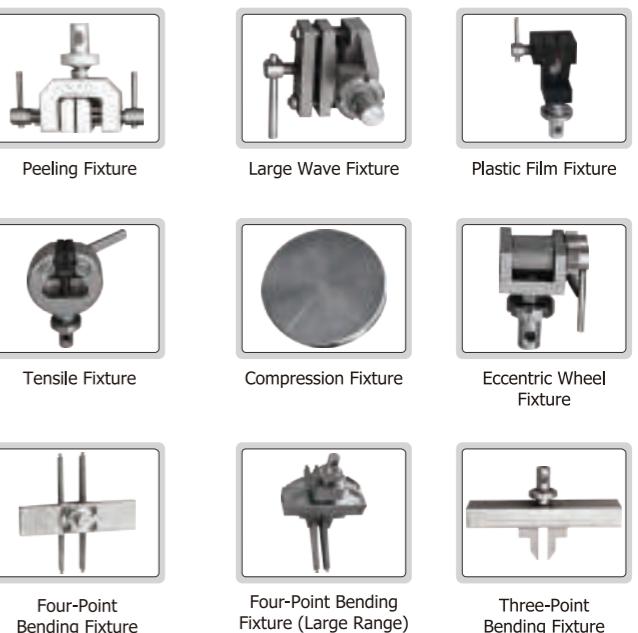
CODE:UTM-TDC

- Color touch - screen for easy and convenient operation.
- Can be connected to computer and used with software for more functions.
- Driven by a stepper motor
- Class 1 testing machine.
- C3 - grade high - precision load cell.
- Gantry -type dual - column high - rigidity design for durability.
- Maximum capacity: 10KN.
- Test speed: Maximum 500mm/min. Minimum 0.1mm/min
- Multiple units available: Force:g, Kg, Ib, N, KN Displacement:inch, cm, mm
- With the function of automatically returning to the initial position after the test.
- In addition to the standard tensile fixture, other types of fixtures can be customized.
- The software provides curve graphs, data tables, and test reports, all of which can be printed.
- Automatically calculates maximum force, minimum force, average force, maximum deformation, elongation rate, strength, etc.
- With multiple curve modes such as stress-strain, force-displacement, force -time, and strength - time.
- With test mode functions for tension, bending, compression, tearing, peeling, elongation rate, etc.
- Equipped with multiple protection devices including mechanical travel switches, emergency stop switches, overload limit protection, and break - point stop protection.
- Standards complied with: GB/T 2611, GB/T 16491, G/T 1040, ISO 527, GB/T 8804, GBT9341, GB/T 12160, GBT 16825



OPTIONAL DELIVERY

Small Deformation Metal Extensometer	MS-UTM-SE
Large Deformation Metal Extensometer	MS-UTM-LE
Various Fixtures	MS-UTM-FT
Instrument Base	MS-UTM-B



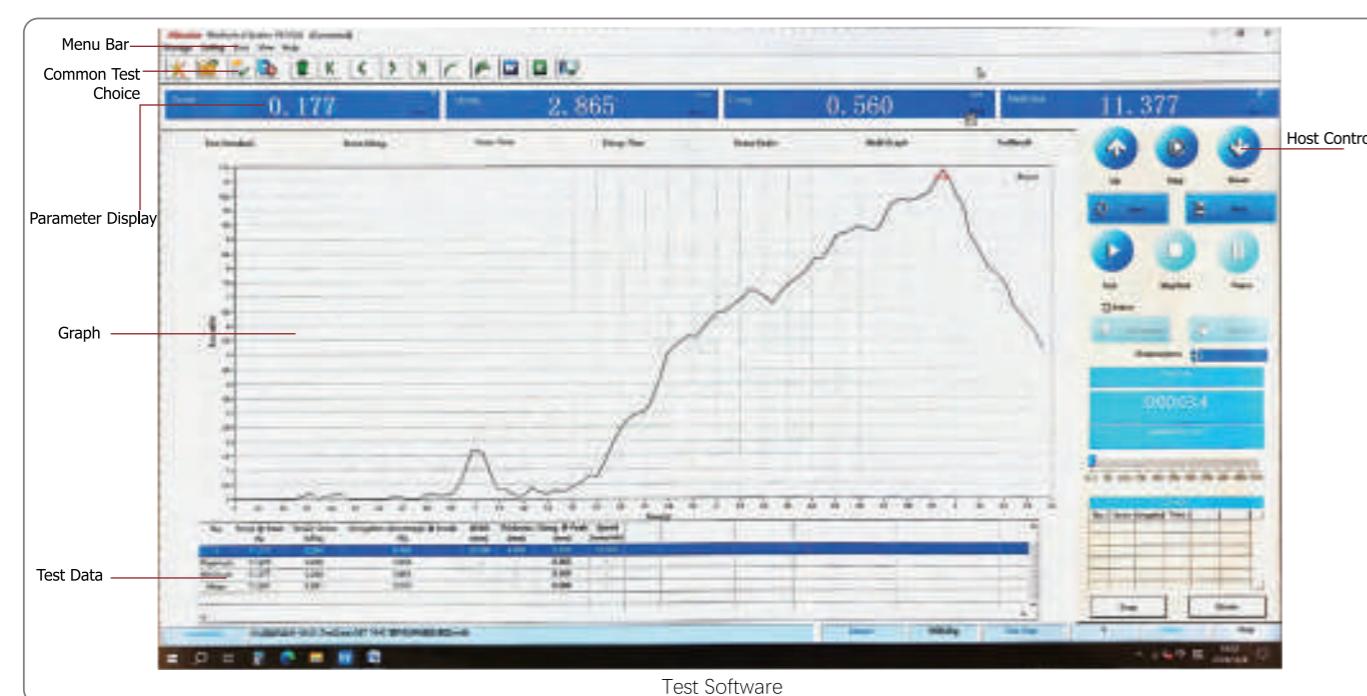
STANDARD DELIVERY

Mainframe Machine	1 set
Power Cord	1 pc
Test Software Program CD 1	1 pc
Data Cable	1 pc
Fixture	1 pc
Computer	1 pc
Printer	1 pc

DUAL-COLUMN UNIVERSAL MATERIAL TESTING MACHINE(BENCH TYPE)

CODE:UTM-TDC

Model	UTM-TDC
Subdivision Model	UTM-TDC-5 UTM-TDC-10 UTM-TDC-20 UTM-TDC-50 UTM-TDC-100 UTM-TDC-200 UTM-TDC-500 UTM-TDC-1000
Capacity KN	0.05 0.1 0.2 0.5 1 2 5 10
KG	5 10 20 50 100 200 500 1000
lb	11 22 44 110 220 440 1102 2204
Testing Machine Class	Class 1
Force Unit	g, Kg, Lb, N, KN
Displacement Unit	Inch, cm, mm
Effective Test Force	0.4%~100%FS
Force Accuracy	Within $\pm 1\%$ of Indication Value
Force Resolution	1/300000
Displacement Accuracy	Within $\pm 1\%$ of Indication Value
Displacement Resolution	0.001mm
Deformation Measurement Rang	2%~100%FS
Deformation Indication Accuracy	Within $\pm 1\%$ of the indicated value
Maximum Test Speed	500mm/min
Minimum Test Speed	0.1mm/min
Speed Accuracy	Within $\pm 1\%$ of the indicated value
Crossbeam Stroke	No -fixture test stroke: 920mm
Measuring Width	320mm
Fixture Configuration	Configured according to customer requirements
Return Method	Manual, Automatic
Stop Method	1. Automatically stop at the maximum fracture value 2. Stop when the upper and lower limit safety settings are reached
Safety Device	1. Mechanical travel switch protection 2. Emergency stop switch for emergency braking
Overload Protection	When reaching 100% of the maximum load, the machine automatically stops for protection
Power Supply Voltage	220V.AC/50Hz (Can be selected as 110V.AC/60Hz according to the country)
Machine Size/weight	L*W*H:650mm*400mm*1220mm About 70Kg
Packaging Size/Weight	L*W*H:700mm*450mm*1350mm About 90Kg



DUAL COLUMNS ELECTRONIC UNIVERSAL TESTING MACHINE

CODE:UTM-DC

- Fully computer-controlled testing machines, international speed control technology.
- International brands components, making the machine with long-term high reliability, stability, and precision, as well as smooth operation and a long lifespan.
- Used for material testing with loads below 50 KN and covers a wide range of testing functions for most products, making it an ideal mechanical testing instrument for factories, research institutes, and quality inspection agencies.
- Fully digital, closed-loop (force, deformation, displacement) control system with adaptive PID algorithms achieves fully digital closed-loop control of force and displacement, allowing automatic switching between control loops and ensuring smooth transitions without impact when switching between different modes.



OPTIONAL DELIVERY

Small Deformation Metal Extensometer	MS-UTM-SE
large Deformation Metal Extensometer	MS-UTM-LE
Various Fixtures	MS-UTM-FT
Instrument Base	MS-UTM-B
Protection Door	MS-UTM-PB



Peeling Fixture



Large Wave Fixture



Plastic Film Fixture



Tensile Fixture



Compression Fixture



Eccentric Wheel Fixture



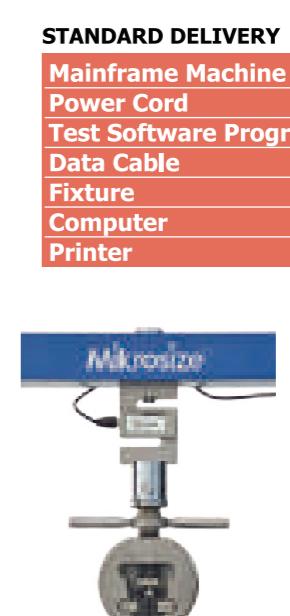
Four-Point Bending Fixture



Four-Point Bending Fixture (Large Range)



Three-Point Bending Fixture



Force Value Sensor



Mainframe Machine	1 set
Power Cord	1 pc
Test Software Program CD 1	1 pc
Data Cable	1 pc
Fixture	1 pc
Computer	1 pc
Printer	1 pc

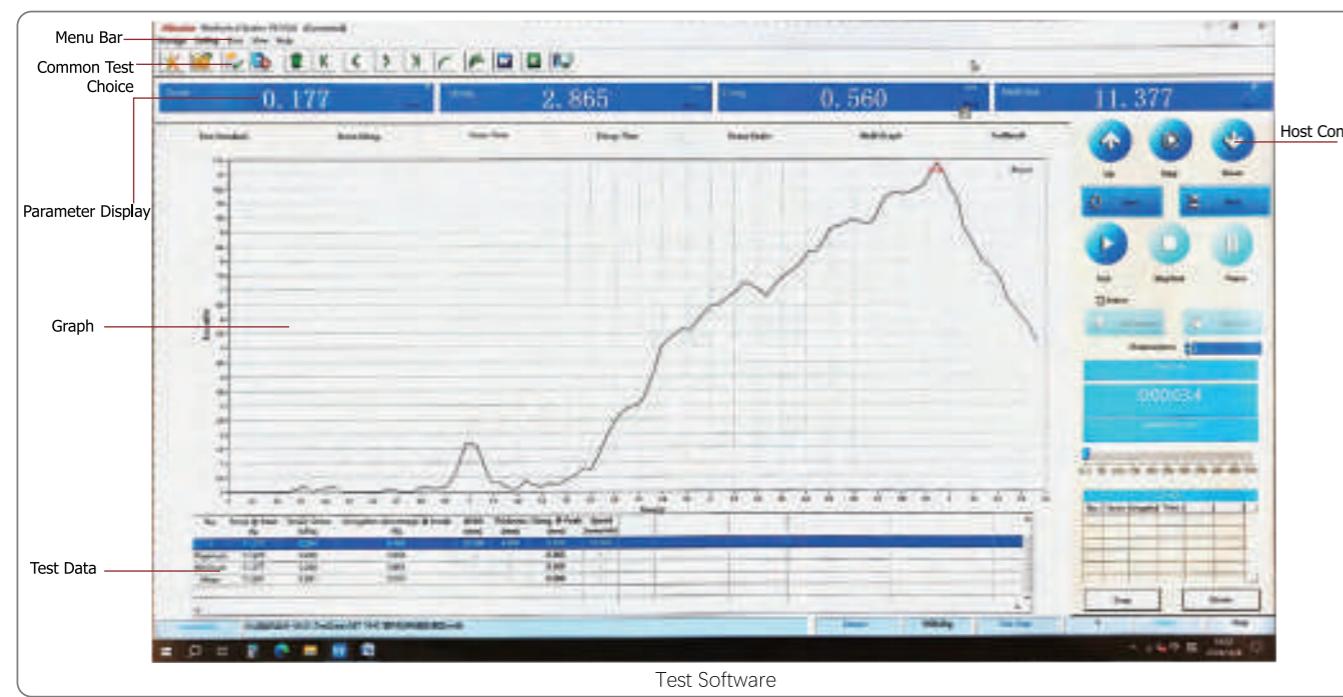


DUAL COLUMNS ELECTRONIC UNIVERSAL TESTING MACHINE

CODE:UTM-DC

TECHNICAL SPECIFICATION

Model	UTM-DC								
Subdivision Model	UTM-DC-5	UTM-DC-10	UTM-DC-20	UTM-DC-50	UTM-DC-100	UTM-DC-200	UTM-DC-500	UTM-DC-1000	UTM-DC-2000
Capacity	0.05	0.1	0.2	0.5	1	2	5	10	20
	KN								
	KG	5	10	20	50	100	200	500	1000
	lb	11	22	44	110	220	440	1102	2204
Test Force Unit	G,Kg,Lb,N,KN								
Displacement Unit	Inch/cm/mm								
Testing Class	Class 0.5								
Effective Force Range	0.4%~100%FS								
Force Accuracy	Within $\pm 0.5\%$ of The Indicated Value								
Force Resolution	1/500000								
Displacement Resolution	$\leq 0.05\mu\text{m}$								
Displacement Accuracy	Within $\pm 0.5\%$ of The Indicated Value								
Deformation Range	0.2%~100%FS								
Deformation Indication	Within $\pm 0.5\%$ of The Indicated Value								
Large Deformation Indication	Within $\pm 0.5\%$ of The Indicated Value (Optional)								
Max Test Speed	500mm/min; The Maximum Value is 1000mm/min(Optional)								
Min Test Speed	0.01mm/min								
Speed Accuracy	Within $\pm 1\%$ of The Indicated Value								
Measuring Width	Test Stroke Without Fixture: 1330mm; Test Stroke With Fixture: 800mm								
Effective Width	420mm,650mm(Optional)								
Fixture Configuration	A Group of Tensile Fixtures								
Return Mode	Manual or Automatic, Automatic Return After The End of The Test or Manual Return To The Initial Position								
Stop Method	1.The Maximum Breaking Value of Automatic Stop 2.The Upper And Lower Limits of Safety Setting Stop								
Safety Device	1.Mechanical Stroke Switch Protection 2.Emergency Stop Switch Emergency Braking								
Overload Protection	Over 10% of The Maximum Load, The Machine Automatically Protects								
Power Supply	220V.AC/50HZ; 110V.AC/60HZ								
Weight	Net Weight: About 165KG Gross Weight: About 200KG								
Dimension	Mainframe: L* W* H: 750mm*500mm*1650mm Package: L* W* H: 850mm*600mm*1800mm								



COMPUTERIZED DUAL-COLUMN SERVO TENSILE TESTING MACHINE

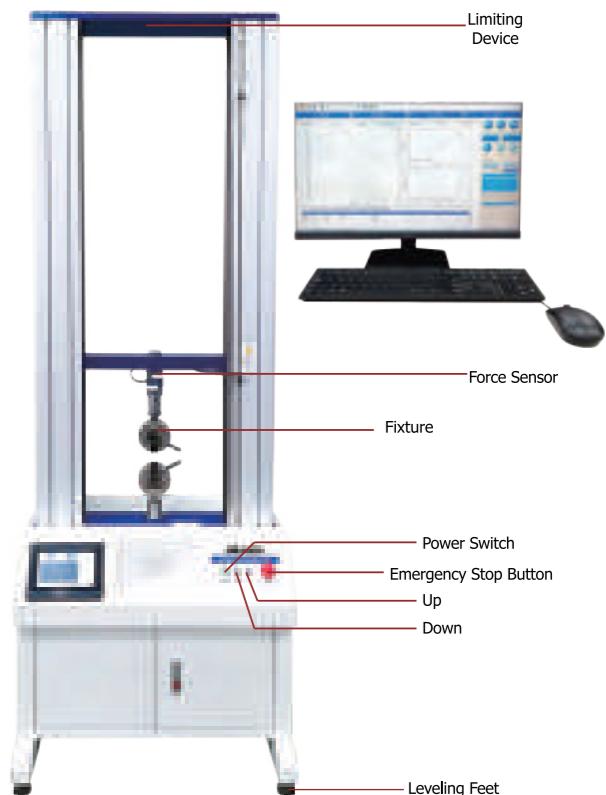
CODE:UTM-FDC

- Fully computer-controlled testing machines, international speed control technology.

- International brands components, making the machine with long-term high reliability, stability, and precision, as well as smooth operation and a long lifespan.

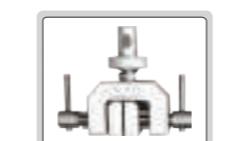
- Used for material testing with loads below 50 KN and covers a wide range of testing functions for most products, making it an ideal mechanical testing instrument for factories, research institutes, and quality inspection agencies.

- Fully digital, closed-loop (force, deformation, displacement) control system with adaptive PID algorithms achieves fully digital closed-loop control of force and displacement, allowing automatic switching between control loops and ensuring smooth transitions without impact when switching between different modes.



OPTIONAL DELIVERY

Small Deformation Metal Extensometer	MS-UTM-SE
Large Deformation Metal Extensometer	MS-UTM-LE
Various Fixtures	MS-UTM-FT
Protection Door	MS-UTM-PB



Peeling Fixture



Large Wave Fixture



Plastic Film Fixture



Tensile Fixture



Compression Fixture



Eccentric Wheel Fixture



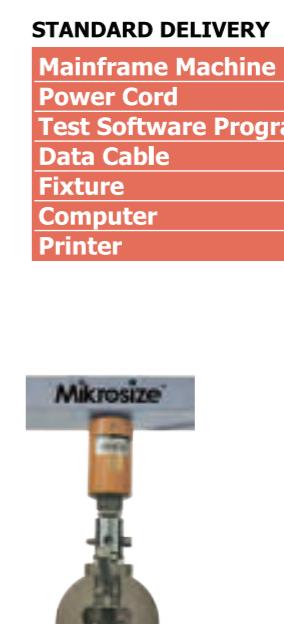
Four-Point Bending Fixture



Four-Point Bending Fixture (Large Range)



Three-Point Bending Fixture



Force Value Sensor



Extensometer (Optional)

STANDARD DELIVERY

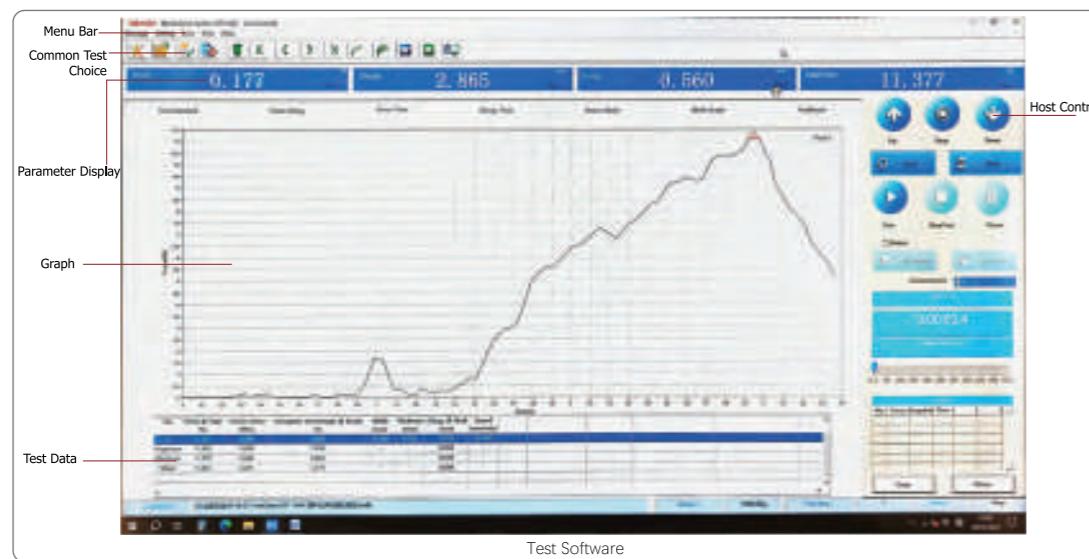
Mainframe Machine	1 set
Power Cord	1 pc
Test Software Program CD 1	1 pc
Data Cable	1 pc
Fixture	1 pc
Computer	1 pc
Printer	1 pc

COMPUTERIZED DUAL-COLUMN SERVOTENSILE TESTING MACHINE

CODE:UTM-FDC

TECHNICAL SPECIFICATION

Model	UTM-FDC										
Divided Models	UTM-FDC -5 -10 -20 -50 -100 -200 -500 -1000 -2000 -3000 -5000										
KN	0.05	0.1	0.2	0.5	1	2	5	10	20	30	50
Test Foce	5	10	20	50	100	200	500	1000	2000	3000	5000
KG	11	22	44	110	220	440	1102	2204	4409	6613	11023
Test Force Unit Switch	G, Kg, Lb, N, KN										
Displacement Unit Switch	Inchcmmm										
Test Level	Level 1										
Effective Force Range	0.4%~100%FS										
Test Force Precision	Within +1% of Indicated Value										
Test Force Resolution	1/500000										
Displacement Resolution	≤0.05um										
Displacement Precision	Within +1% of Indicated Value										
Deformation Test Range	0.2%~100%FS										
Deformation Precision	Within +1% of Indicated Value										
Large Deformation Test Range	1000mm(Optional)										
Large Deformation Resolution	0.01mm(Optional)										
Large Deformation Error	Within +1% of Indicated Value(Optional)										
Max Test Speed	500mm/min; Optional 1000mm/min										
Min Test Speed	0.1mm/min										
Speed precision	Within +1% of Indicated Value										
Standard Test Height	Without Clamp:1330mm;With clamp:800mm										
Test Width	Standard:420mm; Optional:650mm										
Clamps	A Set of Tensile Clamps, Other Clamps Optional										
Return Mode	Manual/Auto										
Shutdown Mode	Automatic Shutdown at the Maximum Breaking Value.Shutdown due to Upper and Lower Limit Safety Settings										
Safety Device	Mechanical Travel Protection; Emergency Stop Button										
Overloading Protection	Automatically Protect If loading exceeds the Maximum Load by 10%										
Power Supply	220VAC/ 50Hz										
Mainframe Dimension/Weight	Without Working Cupboard: L*w*H:750mm*500mm*1650mm/165KG With Working Cupboard:L*w*H:750mm*500mm*2050mm/185KG										
Package Dimension/Weight	Without Working Cupboard:L*W*H:850mm*600mm*1800mm/200KG With Working Cupboard:L*w*H:850mm*600mm*2250mm/210KG										



DUAL COLUMNS ELECTRONIC UNIVERSAL TESTING MACHINE

CODE:UTM-DCH

- Fully computer-controlled testing machines, international speed control technology.
- International brands components, making the machine with long-term high reliability, stability, and precision, as well as smooth operation and a long lifespan.
- Used for material testing with loads below 50 KN and covers a wide range of testing functions for most products, making it an ideal mechanical testing instrument for factories, research institutes, and quality inspection agencies.
- Fully digital, closed-loop (force, deformation, displacement) control system with adaptive PID algorithms achieves fully digital closed-loop control of force and displacement, allowing automatic switching between control loops and ensuring smooth transitions without impact when switching between different modes.



STANDARD DELIVERY

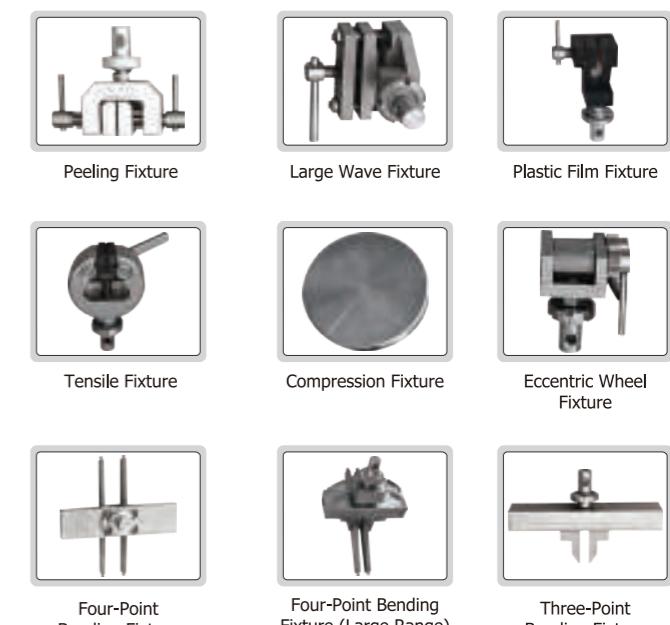
Mainframe Machine	1 set
Power Cord	1 pc
Test Software Program CD 1	1 pc
Data Cable	1 pc
Fixture	1 pc
Computer	1 pc
Printer	1 pc

OPTIONAL DELIVERY

Small Deformation Metal Extensometer	MS-UTM-SE
large Deformation Metal Extensometer	MS-UTM-LE
Various Fixtures	MS-UTM-FT
Instrument Base	MS-UTM-B



Extensometer(Optional)



DUAL COLUMNS ELECTRONIC UNIVERSAL TESTING MACHINE

CODE:UTM-DCH

TECHNICAL SPECIFICATION

Model	UTM-DCH								
Subdivision Model	UTM-DCH-5	UTM-DCH-10	UTM-DCH-20	UTM-DCH-50	UTM-DCH-100	UTM-DCH-200	UTM-DCH-500	UTM-DCH-1000	UTM-DCH-2000
Capacity KN	0.05	0.1	0.2	0.5	1	2	5	10	20
KG	5	10	20	50	100	200	500	1000	2000
Ib	11	22	44	110	220	440	1102	2204	4408
Unit Switching	G,Kg,Lb,N,KN								
Displacement Unit Switching	Inch/cm/mm								
Testing Machine Class	Class 0.5								
Effective Force Measurement Range	0.4%~100%FS								
Force Accuracy	Within +0.5% of The Indicated Value								
Force Value Resolution	1/500000								
Displacement Resolution	≤0.05um								
Displacement Accuracy	Within ±0.5% of The Indicated Value								
Deformation Measuring Range	0.2%~100%FS								
Precision of Deformation Indication	Within +0.5% of The Indicated Value								
Large Deformation Indication Error	Within ±0.5% of The Indicated Value (Optional)								
Maximum Test Speed	500mm/min;The Maximum Value is 1000mm/min(Optional)								
Minimum Test Speed	0.01mm/min								
Speed Accuracy	Within ±1% of The Indicated Value								
Measuring Width	Test Stroke Without Fixture:1330mm; Test Stroke With Fixture:800mm								
Effective Width	420mm,650mm(optional)								
Fixture Configuration	A Group of Tensile Fixtures								
Return Mode	Manual or Automatic Options, Automatic Return After The End of The Test or Manual Return To The Initial Position								
Stop Method	1.The Maximum Breaking Value of Automatic Stop 2.The Upper And Lower Limits of Safety Setting Stop								
Safety Device	1.Mechanical Stroke Switch Protection 2.Emergency Stop Switch Emergency Braking								
Overload Protection	Over 10% of The Maximumload,the Machine Automatically Protects								
Power Supply	220VAC/50HZ;(110VAC/60HZ Can Be Selected By Country)								
Weight	Net Weight: About 185KG Gross Weight: About 220KG								
Dimension	Mainframe:L*W*H:800mm*550mm*1700mm Package:L*W*H:900mm*650mm*1800mm								

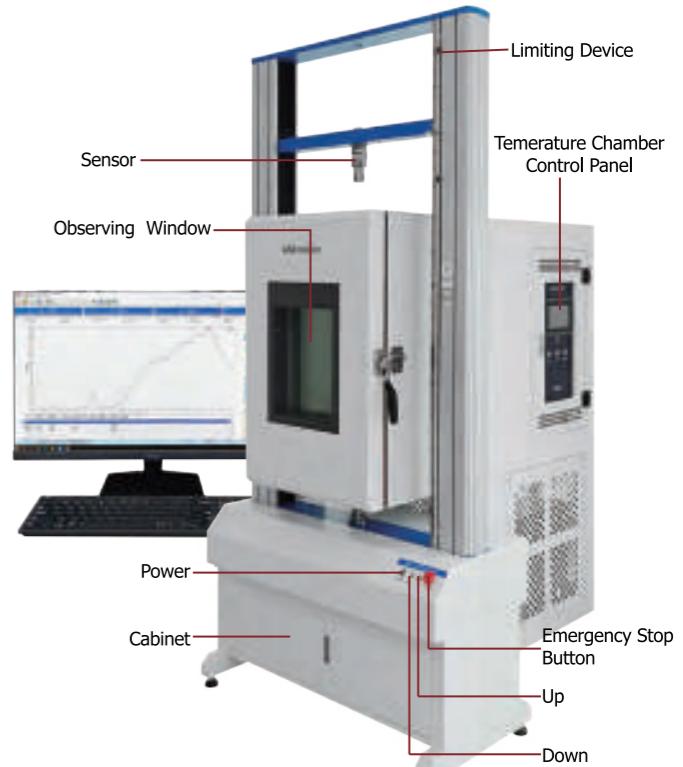
Testing Software



HIGH AND LOW TEMPERATURE ELECTRONIC UNIVERSAL TESTING MACHINE

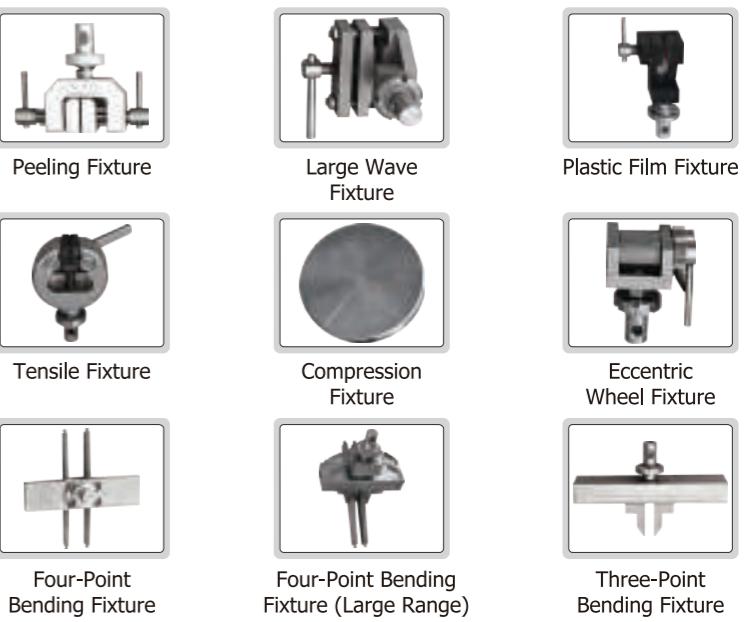
CODE:UTM-DCT

- Wide range of applicable standards.
- Tester class 0.5, high measurement accuracy.
- Wide range of test speed: 0.01-500mm/min, (optional max. 1000mm/min).
- Rich fixture configuration: equipped with a set of film stretching fixtures, 180-degree peeling fixtures, and other optional fixtures.
- The return method has both manual and automatic options.
- The stopping methods include automatic stopping at the maximum breaking value and stopping at the upper and lower safety settings.
- Perfect safety protection devices: with mechanical travel switch protection, emergency stop switch emergency braking; overload protection function.
- High and low temperature test chamber with excellent performance, using compressor refrigeration.
- It adopts digital AC servo speed control system and servo motor drive with high speed control precision and stable performance.
- Control and data processing software based on Windows operating platform and database technology, realizing the screen display of test data and curves, easy to operate, can be set up in a variety of control modes, in line with a variety of standards of data processing, processing results can be conveniently stored and post-processing.



STANDARD DELIVERY

Mainframe	1 set
Film Stretching Fixture	1 pc
180 Degree Stripping Fixture	1 pc
Power Cord	1 pc
Test Software Program CD	1 pc
Data Cable	1 pc



HIGH AND LOW TEMPERATURE ELECTRONIC UNIVERSAL TESTING MACHINE

CODE:UTM-DCT

UNIVERSAL TESTING MACHINE TECHNICAL SPECIFICATIONS

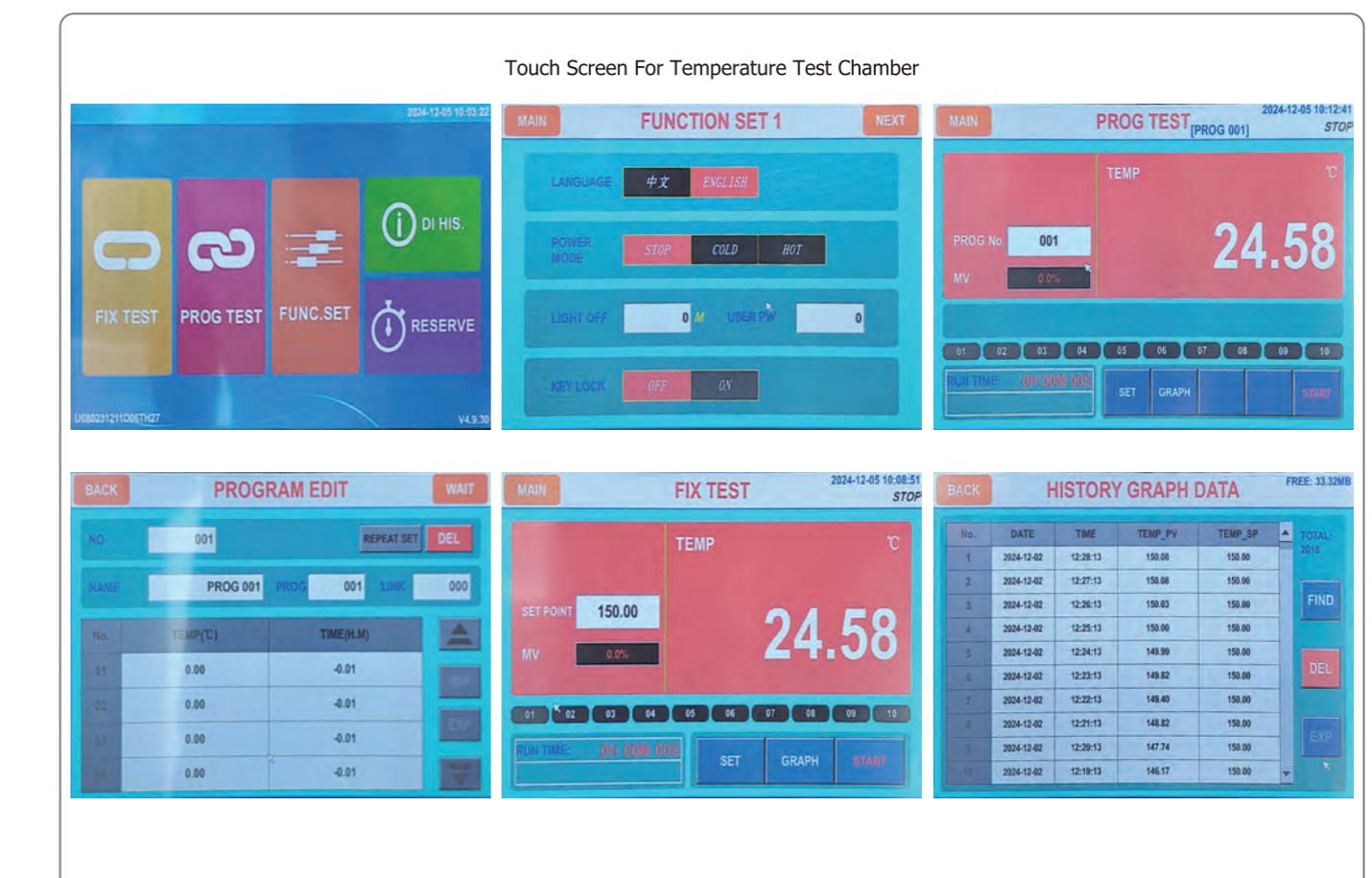
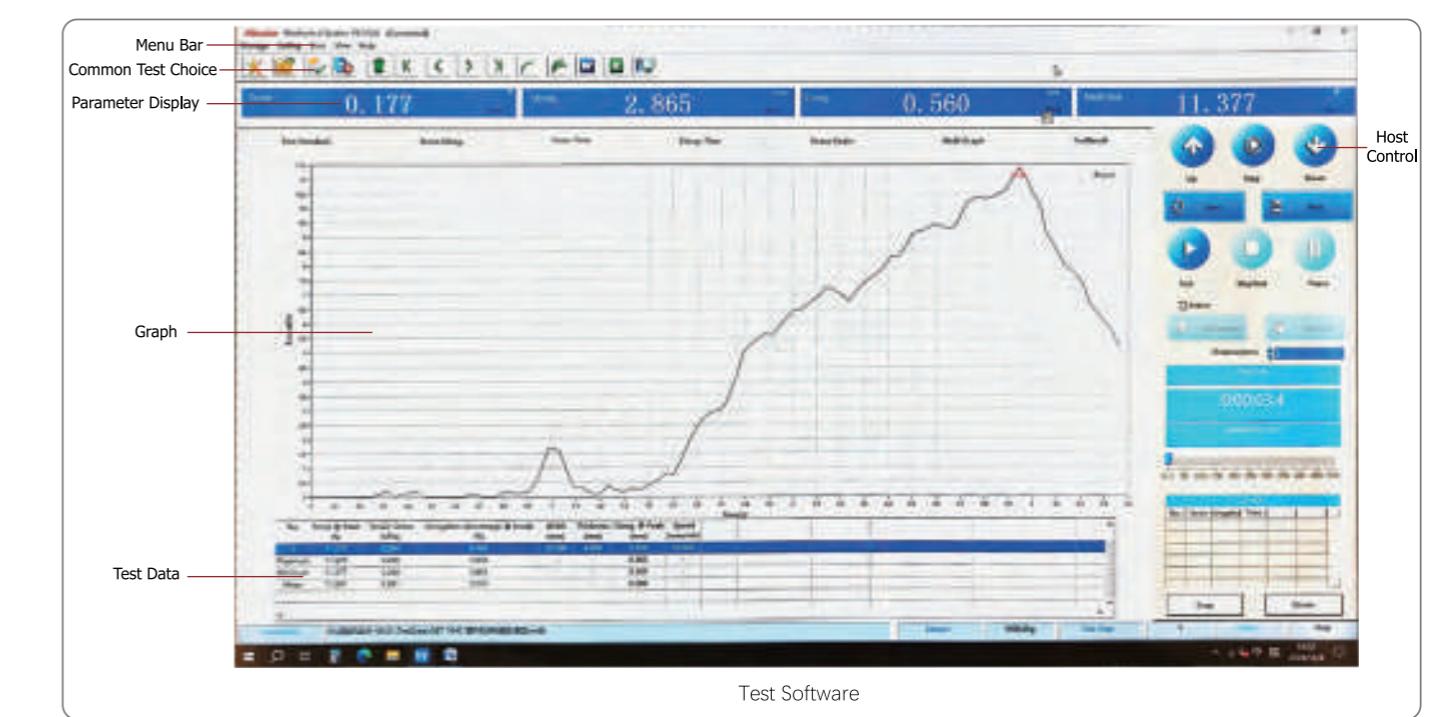
Product Name	Microcomputer Controlled High and Low Temperature Electronic Universal Testing Machine		
Model	UTM-DCT		
Subdivision Model	UTM-DCT-500	UTM-DCT-1000	UTM-DCT-2000
Capacity KN	5	10	20
KG	500	1000	2000
lb	1102	2204	4408
Sensor	America		
Servo Motor	Panasonic of Japan		
Unit Switching	G, Kg, Lb, N, KN		
Displacement Unit Switching	Inch/cm/mm		
Testing Machine Class	Class 0.5		
Effective Force Range	0.2%~100%FS		
Force Accuracy	Within $\pm 0.5\%$ of The Indicated Value		
Force Resolution	1/500000		
Displacement Resolution	$\leq 0.05\mu\text{m}$		
Displacement Accuracy	Within $\pm 0.5\%$ of The Indicated Value		
Deformation Range	0.2%~100%FS		
Deformation Indication	Within $\pm 0.5\%$ of The Indicated Value		
Large Deformation	1000mm (Optional)		
Measuring Range			
Large Deformation Resolution	0.01mm (Optional)		
Large Deformation Indication	Within $\pm 0.5\%$ of The Indicated Value (Optional)		
Maximum Test Speed	500mm/min,1000mm/min(Optional)		
Minimum Test Speed	0.01mm/min		
Velocity Accuracy	Within $\pm 0.5\%$ of The Indicated Value		
Measuring Height	Test Stroke Without Fixture: 1330mm; Test Stroke With Fixture: 800mm		
Effective Width	750mm		
Fixture Configuration	One Set of Film Stretching Fixture, One Set of 180 Degree Stripping Fixture		
Return Mode	Manual or Automatic		
Stop Method	1.The Maximum Break Value Automatic Stop 2.The Upper And Lower Limit Safety Setting Stop		
Safety Device	1.Mechanical Stroke Switch Protection 2.Emergency Stop Switch Emergency Braking		
Overload Protection	Over 100% Of The Load, The Machine Automatically Protects		
Power Supply	220V.AC/ 50HZ; (110V.AC/60HZ Can Be Selected By Country)		
Mainframe size/ weight	Model With Base: L* W* H:800mm*750mm*2100mm/About 205KG		

HIGH AND LOW TEMPERATURE TEST CHAMBER TECHNICAL SPECIFICATIONS

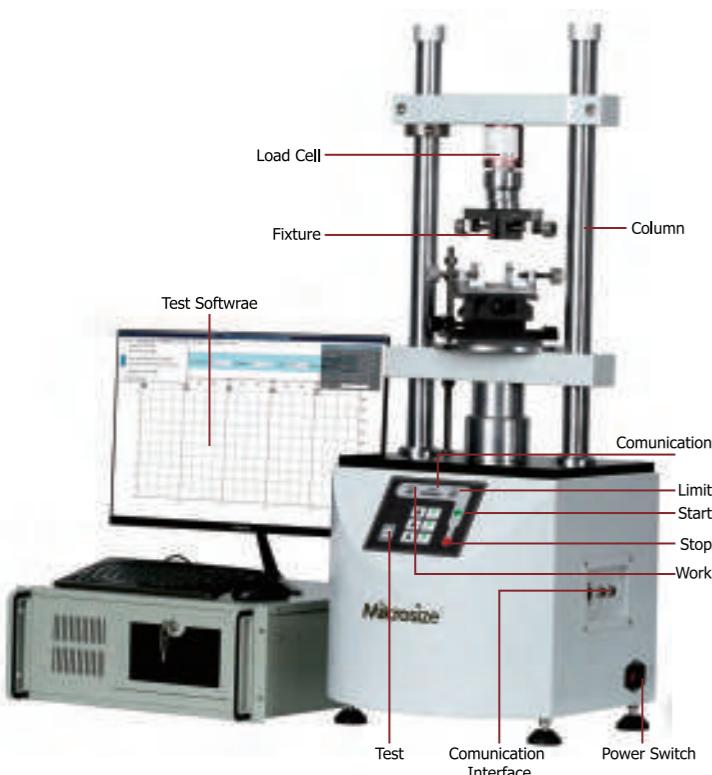
Test Chamber Size	400×400×700 (mm) (D×W×H) (Can Be Customized)
External Size	600×1380×1640 (mm) (D×W×H) (Can Be Customized)
Temperature Range	-20°C~+150°C
Temperature Change	Warming: -20°C~+150°C 1~3°C/MIN Colding: 0°C~+20°C 1°C/MIN
Control Accuracy	$\leq \pm 1\text{°C}$
Temperature Fluctuation	$\leq 2\text{°C}$
Temperature Uniformity	$\leq 2\text{°C}$
Humidity Range	20%~98%R.H.
Humidity Fluctuation	$\pm 3\text{%R.H.}$
Hole Diameter of Test Chamber	Φ80

HIGH AND LOW TEMPERATURE ELECTRONIC UNIVERSAL TESTING MACHINE

CODE:UTM-DCT



INSERTION EXTRACTION FORCE PLUG TESTING MACHINE CODE:MS-1305D

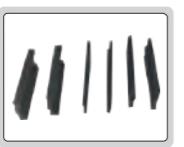


STANDARD DELIVERY

Machine Mainframe	1 set
Computer	1 pc
19inch Computer Monitor	1 pc
USB Mouse, Keyboard	Each 1 pc
Resistance Test Connecting Wire And Fixture Nozzle	1 pc
Test Software	1 pc
Load Cell (Tecsis Made In Germany)	1 pc
Multifunctional Fixture	3 pcs
X-Y Movement Stage	1 pc
Full Row Connector Fixture	2 pcs
Single Hole Centering Fixture	1 pc
Single Hole Fixture	1 pc
Single Pin Holding Force Fixture	1 pc
Impedance Testing System	1 pc



Full Row Connector Fixture



Multifunctional Fixture



Single Hole Fixture



Single Hole Centering Fixture



X-y Movement Stage



Single Pin Holding Force Fixture

OPTIONAL DELIVERY

Computer	MS-PTC
Various Load Cells	MS-PTLC
Various Fixtures	MS-PTM-FT

INSERTION EXTRACTION FORCE PLUG TESTING MACHINE CODE:MS-1305D



Main Interface of Software

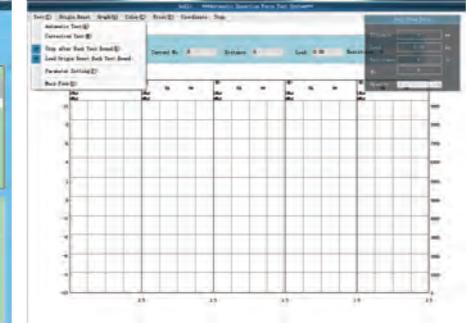
TECHNICAL SPECIFICATION

Maximum Loading	5kgf, 20kgf, 50kgf, 100kgf, 200kgf.
Test Height	150mm
Minimum Adjusting Movement	0.01mm
Load Cell Accuracy	0.02%
Test Speed	0-300mm/min
X/Y-axis Movement Range	0-75mm
Transmission Structure:	Ball Screw
Driving Motor	Servo Motor (Panasonic Made in Japan)
Machine Dimension	400mm*300mm*1050mm (W*D*H)
Net Weight	65Kg
Power Source	AC220V

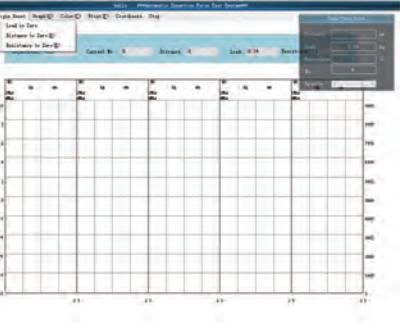
Testing Software



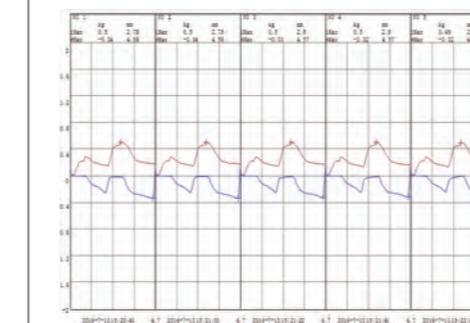
Main Interface of Software



Testing Interface of Software



Testing Interface of Software



Curve Diagram of Force-movement

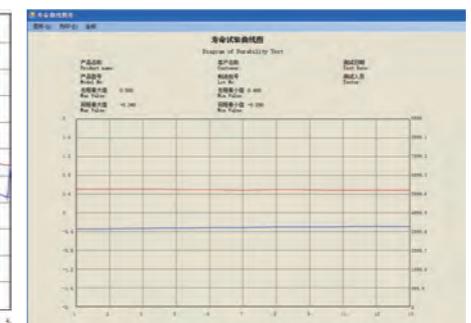
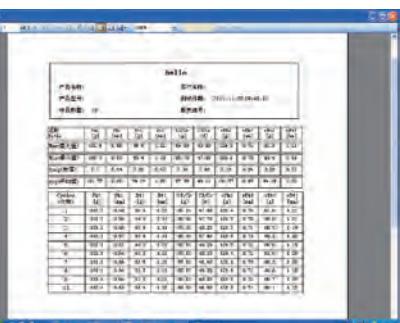


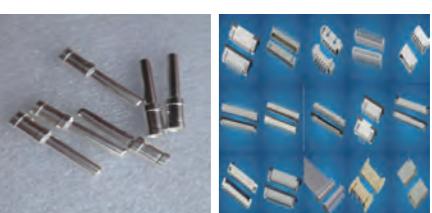
Diagram of Durability Test



Test Report

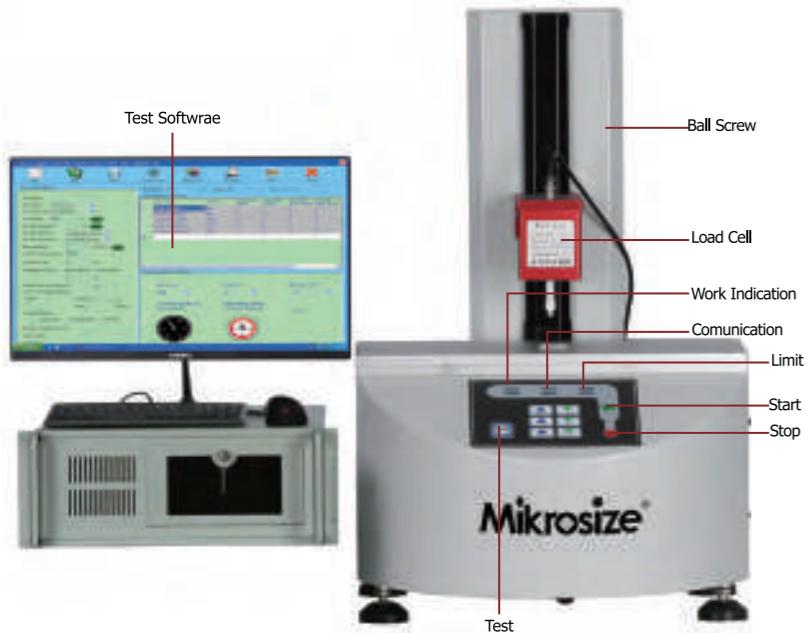


Tested Products Example



AUTOMATIC LOAD DISPLACEMENT CURVE TESTER

CODE:MS-1305R



STANDARD DELIVERY

Mainframe	1 set
Computer	1 pc
19 Inch Computer Monitor	1 pc for Each
USB Mouse. Keyboard	1 pc
Panasonic Motor	1 pc
Ball Screw	1 pc
Windows System Plugging Control Operation Software	1 pc
Micro Ohm Test Module And Dedicated Connection Line	3 pcs
High-precision Load Cell (2KG)	1 pc
Dedicated Data Communication Cable	1 pc
Probe(Φ2, Φ4, Φ6, Φ8, Φ10)	5 pcs

Probe With diameters of 2, 4, 6, 8, and 10mm for each



OPTIONAL DELIVERY

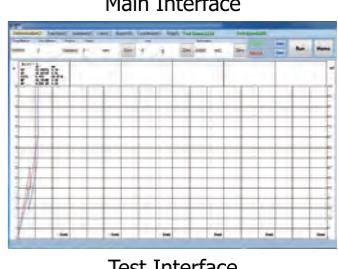
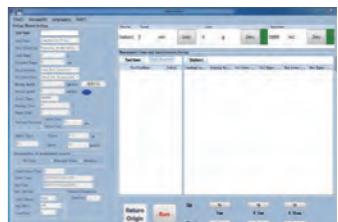
Computer	MS-PTC
Various Load Cells	MS-PTLC
Various Probes	MS-PTM-PB

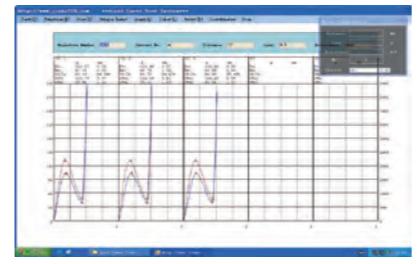
- Curve graph reports and text reports is specified with Mikrosize title. Automatically generate EXCEL and CPK.
- Impedance test can detect the force and displacement of the conduction point while testing the force value and displacement value.
- Double-layer protection for more effectively protect the load cells of vulnerable and valuable parts.
- The analog-to-digital signal conversion uses a data capturing card. The load and displacement analog signals distinguishes and converts each other, with stronganti-interference.
- Optimize the load collection mechanism, and the force collection accuracy and speed are greatly improved 10 times quicker than the ordinary version. The minimum accuracy is 0.01g.
- The shortcut mode of cross tracking, that is, after double-clicking the tested curvegraph, the enlarged graph will automatically pop up, and cross tracking can be performed.
- Add the number of test groups for the measurement items "Determining the loadbased on the displacement" and "Finding the displacement based on the load" to 5 groups, and the report can also import 8 groups of data accordingly;
- The curve coordinate can be set as the number of load displacement corre-sponding to the XY of each small grid and the total number of subdivided small grids.
- "Resistance value of conduction point" and "Resistance value of disconnection point" can capture the resistance value at the moment of conduction and disconnection.
- With the "waveform data" function. With group testing function.



TECHNICAL SPECIFICATION

Product Model	MS-1305R
Product Name	Automatic Load Displacement Curve Tester
Drive Serve Motor	Panasonic Servo Motor and Drive System
Transmission	Ball Screw
Max Test Load	50Kg
Max Test Displacement	100mm
Minimum Test Displacement	0.01mm
Test Speed Range	0-100mm/min
Machine Size	400*290*650mm(W*D*H)
Net Weight	22Kg
Power Supply	AC220V
Net Weight of Control System	20Kgf
Load Cell	5kg, 2kg, 1kg(Accuracy of 0.1%FS)
Minimum Value of Load Cell	0.01g/0.1g
Maximum Value of Micro ohm Module	300mΩ
Probe Specifications	With Diameters of 2, 4, 6, 8, And 10mm for Each



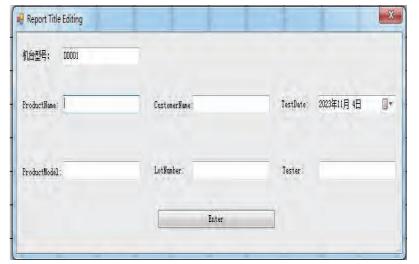


PDF Data Report

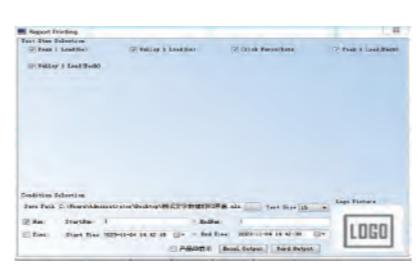


Testing Software Interface

Can simultaneously test dynamic impedance



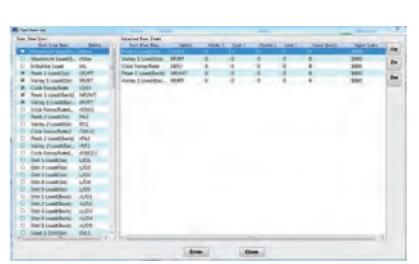
Report Group Editing



Data Storage



Data Storage

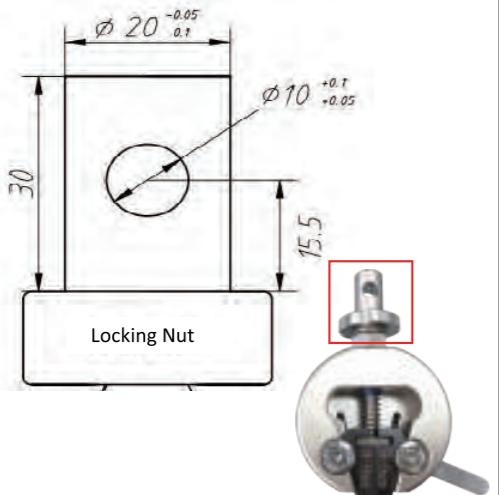
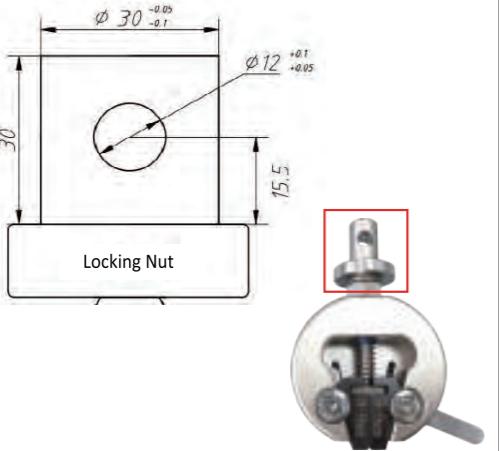


Test Interface

Tested Products Example



Fixture for Universal Testing Machine

Model	Fixture Name	Photo/Figure	Application
MS-2T	2T Standard Fixture Joint	 	<ul style="list-style-type: none"> Standard fixture joint for 2T and below range
MS-5T	5T Standard Fixture Joint	 	<ul style="list-style-type: none"> Standard fixture joint for 5T range
MS-1A	1T Hand operated wedge-shape d tensile fixture	 	<ul style="list-style-type: none"> Hand-operated self-clamping type. Used for tensile tests of plastics, metals, etc., with a range ≤ 10KN. The width of the clamping piece is 25mm, and it can hold specimens with a thickness of 0 - 7mm. It has only flat jaws.

Fixture for Universal Testing Machine

Model	Fixture Name	Photo/Figure	Application
MS-1B	2T Hand operated wedge-shape d tensile fixture (Circular shape)	 	<ul style="list-style-type: none"> Hand-operated self-clamping type. Used for tensile tests of plastics, metals, etc., with a range ≤ 20KN. The width of the flat clamping piece is 30mm, and it can hold specimens with a thickness of 0 - 7mm. It has only flat jaws.
MS-1C	2T Hand operated wedge-shape d tensile fixture (Angular shape)	 	<ul style="list-style-type: none"> Hand-operated self-clamping type. Used for tensile tests of plastics, metals, etc., with a range ≤ 20KN. The width of the flat clamping piece is 30mm, and it can hold specimens with a thickness of 0 - 7mm. It has only flat jaws.
MS-1D	5T Hand operated wedge-shape d tensile fixture (Circular shape)	 	<ul style="list-style-type: none"> Hand-operated self-clamping type. Used for tensile tests of plastics, metals, etc., with a range ≤ 50KN. Optional jaws: <ul style="list-style-type: none"> Flat jaws: 0 - 7mm, 7 - 14mm, 14 - 21mm; V-shaped jaws: Ø4 - 9mm, Ø9 - 14mm, Ø14 - 21mm. The width of the clamping piece is 35mm. Flat jaws are used to hold flat specimens, and V-shaped jaws are used to hold round bar specimens.

Fixture for Universal Testing Machine

Model	Fixture Name	Photo/Figure	Application
MS-1E	5T rotary type wedge-shaped tensile fixture (Circular shape)		<ul style="list-style-type: none"> Clamped by rotating the handle. Used for tensile tests of hard plastics, metals, etc., with a range $\leq 50\text{KN}$. Optional jaws: <ul style="list-style-type: none"> Flat jaws: 0 - 7mm, 7 - 14mm, 14 - 20mm; V-shaped jaws: $\Phi 4 - 9\text{mm}$, $\Phi 9 - 14\text{mm}$, $\Phi 14 - 21\text{mm}$. The width of the clamping piece is 35mm. Flat jaws are used to hold flat specimens, and V-shaped jaws are used to hold round bar specimens.
MS-1F	10T rotary type Hand operated wedge-shaped tensile fixture (Circular shape)		<ul style="list-style-type: none"> Clamped by rotating the handle. Used for tensile tests of metals, etc., with a range $\leq 100\text{KN}$. Optional jaws: Flat jaws: 0 - 7mm, 7 - 14mm, 14 - 20mm. The width of the clamping piece is 40mm.
MS-1G	Plastic profile modeling tensile fixture		<ul style="list-style-type: none"> Used for tensile tests of thick plastic specimens such as pipes. The range is $\leq 20\text{KN}$, and it is suitable for ISO standard dumbbell-shaped specimens.

Fixture for Universal Testing Machine

Model	Fixture Name	Photo/Figure	Application
MS-2A	Single eccentric wheel fixture		<ul style="list-style-type: none"> Self-clamping type. Used for tensile tests of soft rubber plastics such as rubber and silicone. The width of the clamping piece is 50mm, and it can hold a 4mm-thick specimen.
MS-2C	Dual eccentric wheel fixture		<ul style="list-style-type: none"> Self-clamping type. Used for tensile tests of soft rubber plastics such as rubber, silicone, and wire sheaths. The width of the clamping piece is 35mm, and the clamping thickness is 4mm.
MS-2D	Hand held tensile fixture		<ul style="list-style-type: none"> Self-clamping type. Used for tensile tests of soft rubber plastics such as rubber and silicone. The clamping piece is 20*40mm, and it can hold a 5mm-thick specimen.

Fixture for Universal Testing Machine

Model	Fixture Name	Photo/Figure	Application
MS-2E	Lever tensile fixture		<ul style="list-style-type: none"> • Self-clamping type. • Used for tensile tests of soft rubber plastics such as rubber and silicone. • The clamping piece is 25*45mm, and it can hold a 5mm-thick specimen.
MS-2F	Reverse eccentric wheel fixture		<ul style="list-style-type: none"> • Self-clamping type. • Used for tensile tests of wire sheaths and other soft rubber plastics. • The width of the clamping piece is 30mm, and the clamping thickness is 5mm.
MS-2G	Powerful clamp fixture		<ul style="list-style-type: none"> • Clamping force adjustable type. Used for tensile and peeling tests of rubber, silicone, leather, shoe materials, etc. • The clamping piece specifications are 40mm in width, 15mm in height, and have R1 arc teeth.

Fixture for Universal Testing Machine

Model	Fixture Name	Photo/Figure	Application
MS-3A MS-3B	Three point bending fixture		<ul style="list-style-type: none"> • Used for three-point bending property tests of plastics. • The short-span is 150mm (MS-3A), and the long-span is 250mm (MS-3B). • The width of the pressure point and the fulcrum is 50mm. • The conventional pressure point arc is R5mm, and the conventional fulcrum arc is R5mm. • Optional fulcrum arc R2mm is available.
MS-3C	Three point bending fixture with dial indicator		<ul style="list-style-type: none"> • Used for three-point bending property tests of plastics or other materials. The span is 250mm. • The width of the pressure point and the fulcrum is 50mm. • The pressure point arc is R5mm, the fulcrum arc is R5mm, and the fulcrum arc is R2mm. • It is equipped with 2 sets of fulcrums.
MS-3D	Glass four point bending fixture		<ul style="list-style-type: none"> • Used for four-point bending tests of glass materials. • The width of the test specimen can be 200MM. The radius of the pressure point and the support point is R3. • The upper fixture span is ≤ 100mm, and the lower fixture span is ≤ 150mm.

Fixture for Universal Testing Machine

Model	Fixture Name	Photo/Figure	Application
MS-3E	Ceramic three-point and four point bending fixture		<ul style="list-style-type: none"> Used for three-point and four-point bending tests of fine ceramics. The span is adjustable. The radius of the pressure point and the fulcrum is 2.5mm, and the width is 30mm. It is equipped with a guiding device.
MS-4A	2T compression fixture		<ul style="list-style-type: none"> Used for compressive strength tests of non-metallic materials or products with low hardness. The range is ≤ 20KN, and the diameter of the pressure plate is 120mm.
MS-4B	5T compression fixture		<ul style="list-style-type: none"> Used for compressive strength tests of metals, ceramics, or materials with high hardness. The range is ≤ 50KN, the diameter of the pressure plate is 80mm, and the pressure plate is hardened.

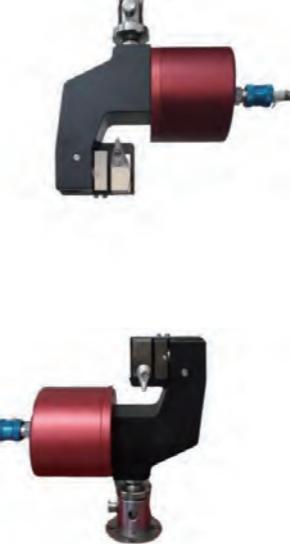
Fixture for Universal Testing Machine

Model	Fixture Name	Photo/Figure	Application
MS-4C	10T compression fixture		<ul style="list-style-type: none"> Used for compressive strength tests of metals, ceramics, or materials with high hardness. The range is ≤ 100KN, the diameter of the pressure plate is 60mm, and the pressure plate is hardened.
MS-4D	Ring stiffness fixture		<ul style="list-style-type: none"> Used for ring stiffness tests and flattening tests of thermoplastic plastic pipes. The fixture area is 300*300mm.
MS-5A	100N pneumatic fixture		<ul style="list-style-type: none"> Used for tensile/tearing tests of films, papers, etc. The range is ≤ 100N. The clamping piece specifications are 30mm in width * 40mm in height (adhesive surface), and the clamping thickness is 5mm.

Fixture for Universal Testing Machine

Model	Fixture Name	Photo/Figure	Application
MS-5B	100N pneumatic fixture (widen type)		<ul style="list-style-type: none"> Used for tensile/tearing tests of films, papers, etc. The range is $\leq 100N$. The clamping piece specifications are 55mm in width * 30mm in height (adhesive surface), and the clamping thickness is 5mm.
MS-5C	500N pneumatic fixture		<ul style="list-style-type: none"> Used for tensile/tearing tests of films, papers, etc. The range is $\leq 500N$. The clamping piece specifications are 55mm in width * 30mm in height (adhesive surface), and the clamping thickness is 8mm.
MS-5D	1KN pneumatic fixture		<ul style="list-style-type: none"> Used for tensile/tearing tests of cloth, non-woven fabrics, and plastic films. The range is $\leq 1KN$. The clamping piece specifications are 2525, 2550, 25*80mm, and it can hold specimens with a thickness of 8mm. The clamping pieces are available with adhesive surfaces and metal patterns.

Fixture for Universal Testing Machine

Model	Fixture Name	Photo/Figure	Application
MS-5E	2KN pneumatic fixture		<ul style="list-style-type: none"> Used for tensile/tearing tests of cloth, non-woven fabrics, and plastic films. The range is $\leq 2KN$. The clamping piece specifications are 2525, 2550, 25*80mm, and it can hold specimens with a thickness of 8mm. The clamping pieces are available with adhesive surfaces and metal patterns.
MS-5F	2KN Pneumatic yarn clamp		<ul style="list-style-type: none"> Used for tensile tests of single-strand and multi-strand yarns. The range is $\leq 2KN$.
MS-5G	5KN Pneumatic clamp		<ul style="list-style-type: none"> Used for tensile/tearing tests of cloth, non-woven fabrics, leather, and plastic sheets. The range is $\leq 5KN$. The clamping piece specifications are 2525, 2550, 25*80mm, and it can hold specimens with a thickness of 6mm. The clamping pieces are available with adhesive surfaces and metal patterns.

Fixture for Universal Testing Machine

Model	Fixture Name	Photo/Figure	Application
MS-5H	5KN Pneumatic packaging tape fixture		<ul style="list-style-type: none"> Used for tensile tests of plastic-steel tapes and packing tapes. The range is ≤ 5KN.
MS-5J	50KN Pneumatic wedge fixture		<ul style="list-style-type: none"> Pneumatically clamped. Used for tensile tests of hard plastics, metals, etc., with a range ≤ 50KN. Optional jaws: Flat jaws: 0 - 7mm, 7 - 14mm, 14 - 20mm; V-shaped jaws: Φ4 - 9mm, Φ9 - 14mm, Φ14 - 21mm. The width of the clamping piece is 35mm. Flat jaws are used to hold flat specimens, and V-shaped jaws are used to hold round bar specimens.
MS-6A	Aluminum material small fixture		<ul style="list-style-type: none"> Used for tensile tests of non-metallic materials such as plastic sheets, mask ear straps, and thin electronic wires. The range is ≤ 500N. The clamping piece specifications are 30mm in width, 30mm in height, the clamping thickness is 6mm, and it has R1 arc teeth.

Fixture for Universal Testing Machine

Model	Fixture Name	Photo/Figure	Application
MS-6B	Aluminum material adhesive small fixture		<ul style="list-style-type: none"> Used for tensile tests of non-metallic materials such as plastic sheets, mask ear straps, and thin electronic wires. The range is ≤ 500N. The clamping piece specifications are 30mm in width, 30mm in height, the clamping thickness is 6mm, and it has R1 arc teeth.
MS-6C	Steel material small fixture		<ul style="list-style-type: none"> Used for tensile tests of materials such as plastic films and papers. The range is ≤ 200N. The clamping piece specifications are 30mm in width, 30mm in height, the clamping thickness is 6mm, and the clamping piece is adhesive.
MS-6D	New adhesive aluminum fixture		<ul style="list-style-type: none"> Used for tensile tests of materials such as plastic sheets and thin electronic wires. The range is ≤ 1KN. The clamping piece specifications are 30mm in width, 30mm in height, the clamping thickness is 6mm, and it has R1 arc teeth.

Fixture for Universal Testing Machine

Model	Fixture Name	Photo/Figure	Application
MS-6E	New adhesive aluminum fixture (widen type)		<ul style="list-style-type: none"> Used for tensile tests of plastic films, papers, copper foils, aluminum foils, etc. The range is $\leq 500N$. The clamping piece specifications are 65mm in width, 25mm in height, the clamping thickness is 5mm, and it has adhesive flat jaws.
MS-6F	C-type adhesive steel fixture		<ul style="list-style-type: none"> Used for tensile tests of plastic films, papers, copper foils, aluminum foils, etc. The range is $\leq 1KN$. The clamping piece specifications are 32mm in width, 25mm in height, the clamping thickness is 5mm, and it has adhesive flat jaws.
MS-7A	Bilateral adjustable aluminum fixture (Adhesive tape peeled off at 180 °)		<ul style="list-style-type: none"> Used for tensile tests of papers, films, soft plastics, etc., and 180° peeling tests of adhesive tapes. The range is $\leq 1KN$. The clamping piece specifications are 30×40mm, the clamping thickness is 13mm, and it has R1 arc teeth.

Fixture for Universal Testing Machine

Model	Fixture Name	Photo/Figure	Application
MS-7B	Bilateral adjustable steel fixture		<ul style="list-style-type: none"> Used for tensile shear tests of adhesives and tensile tests of other materials. The range is $\leq 5KN$. The clamping piece is 55mm wide and 30mm high. It can hold specimens with a thickness of 30mm. The tooth shape is diamond pattern.
MS-7C	Bilateral adjustable steel fixture (lengthening type)		<ul style="list-style-type: none"> Used for tensile shear tests of adhesives, tensile tests of composite boards, and tensile tests of other materials. The range is $\leq 5KN$. The clamping piece is 55mm wide and 30mm high. It can hold specimens with a thickness of 50mm. The tooth shape is reverse serrated with reticulated pattern.
MS-7D	Stretching and shearing fixture		<ul style="list-style-type: none"> Used for tensile shear tests of adhesives, tensile tests of composite boards, and tensile tests of other materials. The range is $\leq 10KN$. The clamping piece is 52mm wide and 45mm high. It can hold specimens with a thickness of 30mm. The tooth shape is reverse serrated with reticulated pattern.

Fixture for Universal Testing Machine

Model	Fixture Name	Photo/Figure	Application
MS-8A	Fabric and leather tensile fixture	 	<ul style="list-style-type: none"> Used for tensile tests of fabrics, melt - blown fabrics, leathers, etc. The clamping piece specifications are 55mm in width and 25mm in height. It can hold specimens with a thickness of 18mm. The tooth shape is R2 arc.
MS-8B	Non metallic large ripple fixture	 	<ul style="list-style-type: none"> Used for tensile tests of soft plastics, PVC, wire sheaths, woven bags, fabrics, etc. It can hold specimens with a thickness of 10mm and has R3 arc teeth. The clamping piece is 55mm wide and 30mm high.
MS-8C	Non metallic large ripple fixture (widen type)	 	<ul style="list-style-type: none"> Used for tensile tests of soft plastics, PVC, woven bags, fabrics, etc. It can hold specimens with a thickness of 10mm and has R3 arc teeth. The clamping piece is 105mm wide and 30mm high.

Fixture for Universal Testing Machine

Model	Fixture Name	Photo/Figure	Application
MS-9A	Thin film puncture fixture (large hole)	 	<ul style="list-style-type: none"> Used for puncture resistance tests of films, papers, etc. The needle diameter is 1.0mm. The inner hole of the lower fixture is 50mm.
MS-9B	Thin film puncture fixture (small hole)	 	<ul style="list-style-type: none"> Used for puncture resistance tests of films, papers, etc. The needle diameter is 1.0mm. The inner hole of the lower fixture is 10mm. Suitable for samples with a small area.
MS-9C	Cloth steel ball breaking fixture	 	<ul style="list-style-type: none"> Used for steel ball bursting strength tests of textiles. The diameter of the steel ball of the upper fixture can be selected as 25mm or 38mm. The inner hole of the lower fixture is 45mm.

Fixture for Universal Testing Machine

Model	Fixture Name	Photo/Figure	Application
MS-9D	Geotextile top piercing fixture		<ul style="list-style-type: none"> Used for steel ball bursting strength tests of textiles. The diameter of the steel ball of the upper fixture can be selected as 25mm or 38mm. The inner hole of the lower fixture is 45mm ...
MS-10A	20KN flat belt tensile fixture		<ul style="list-style-type: none"> Used for top bursting and piercing tests of geotextiles. The diameter of the upper fixture for top bursting is 50mm, and the inner hole diameter of the lower fixture for top bursting is 150mm. The diameter of the upper fixture for piercing is 8mm, and the inner hole diameter of the lower fixture for piercing is 45mm. The height of the support rod of the lower fixture is 150mm.
MS-10B	50KN flat belt tensile fixture		<ul style="list-style-type: none"> Used for tensile tests of soft braided belts, packing belts, etc. The range is ≤ 20KN. It can hold belts with a width of 50mm and a thickness of 8mm.

Fixture for Universal Testing Machine

Model	Fixture Name	Photo/Figure	Application
MS-10C	Package tape tensile fixture		<ul style="list-style-type: none"> Used for tensile tests of plastic - steel tapes and plastic packing tapes. The range is ≤ 5KN. It can hold tapes with a width of 22mm and a thickness of 2mm.
MS-11A	Coiling tensile fixture		<ul style="list-style-type: none"> Used for tensile tests of non - metallic thin wires such as fishing lines and badminton racket strings. It can hold wires with a diameter of 3mm, and the diameter of the winding wheel is 30mm.
MS-11B	Non metallic wire tensile fixture		<ul style="list-style-type: none"> Used for tensile tests of non-metallic thin wires. The range is ≤ 1KN. It can hold wires with a diameter of 3mm, and the diameter of the winding wheel is 30mm.

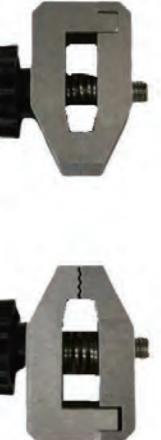
Fixture for Universal Testing Machine

Model	Fixture Name	Photo/Figure	Application
MS-11C	Metal thin wire tensile fixture		<ul style="list-style-type: none"> Used for tensile tests of thin metal wires. The range is $\leq 5\text{KN}$. It can hold wires with a diameter of 4mm.
MS-11D	braided rope tensile fixture		<ul style="list-style-type: none"> Used for tensile tests of braided ropes. The range is $\leq 20\text{KN}$. The diameter of the winding wheel is 80mm, and the tooth shape of the clamping piece is R3 arc teeth.
MS-12A	90 degree peeling fixture		<ul style="list-style-type: none"> Used for 90-degree peeling tests of adhesive tapes and adhesive papers. The steel plate is 50mm wide and 150mm long, and the quantity can be selected. The surface of the steel plate is mirror-finished.

Fixture for Universal Testing Machine

Model	Fixture Name	Photo/Figure	Application
MS-12B	Circular initial adhesion fixture		<ul style="list-style-type: none"> Used to test the ring initial adhesion of adhesive papers, adhesive tapes, and self-adhesive products. The width is 24mm. It is equipped with one mirror-finished steel plate. It needs to be used in conjunction with the upper fixture.
MS-12C	Floating roller stripping fixture		<ul style="list-style-type: none"> Used for testing the peeling strength of high-strength adhesives. The diameter of the upper fixture roller is 25mm, and the width of the clamped specimen is 30mm. Refer to GB/T 7122.
MS-12D	Roller peeling fixture		<ul style="list-style-type: none"> Used for peeling tests of the adhesion force of composite boards. The diameter of the drum is 100mm, the width is 100mm, and the diameter of the convex circle is 125mm.

Fixture for Universal Testing Machine

Model	Fixture Name	Photo/Figure	Application
MS-13A	Terminal tensile turntable fixture		<ul style="list-style-type: none"> Used for testing the pulling force of terminals that are easier to hold and larger than the wires. Suitable for wire diameters of 3 - 12mm. The outer diameter of the turntable is 95mm and it can rotate. It needs to be used in conjunction with the lower fixture.
MS-13B	Large cable terminal tensile fixture		<ul style="list-style-type: none"> Used for testing the pulling force of terminals. The maximum wire diameter is 32mm, and the fixture is adjustable.
MS-13C	Micro sharp beak tensile fixture		<ul style="list-style-type: none"> Used for testing the pulling force of thin wires, terminals, and solder joints. The width of the jaw is 20MM, and the thickness of the fixture is 3mm.

Fixture for Universal Testing Machine

Model	Fixture Name	Photo/Figure	Application
MS-13D	Insertion and extraction force fixture		<ul style="list-style-type: none"> Used for testing the insertion and extraction forces of terminals, connectors, USB plugs, etc. The clamping piece is 50mm wide and 30mm high, and it can hold specimens with a thickness of 45mm. The lower fixture is equipped with a cross table.
MS-13E	Connector tension fixture		<ul style="list-style-type: none"> Used for testing the pulling force between wires and connectors. The width of the clamping piece of the lower fixture is 50mm, the inner height is 80mm, and the maximum opening is 80mm.
MS-13F	Adjustable small terminal tensile fixture		<ul style="list-style-type: none"> Used for testing the pulling force of small terminals. The opening is adjustable, and the maximum opening is 8mm. It needs to be used in conjunction with the lower fixture.

Fixture for Universal Testing Machine

Model	Fixture Name	Photo/Figure	Application
MS-14A	Leather double-sided tearing fixture	 	<ul style="list-style-type: none"> Used for double-sided tearing tests of leather specimens. The width of the hanging buckle is 10mm.
MS-15A	Bending hook tensile fixture		<ul style="list-style-type: none"> Used for testing the pulling force of products such as tension springs. The hook diameter can be selected as 6mm or 8mm.

Extensometer for Universal Testing Machine

Model	Name	Gauge Length	Deformation Range	Relative Error of Deformation Indication
MS-LD		Customize (Minimum 10mm)	Maximum 1000mm	1%
MS-SD	Axial Extensometer	10mm、20mm、25mm、50mm、80mm、100mm	5~25mm	$\leq 25: \pm 0.5\%;$ $> 25: \pm 1\%$
	Radial Extensometer	5mm、10mm、12.5mm、15mm、20mm、25mm	$\leq 3mm$	$\leq 15: \pm 0.5\%;$ $> 15: \pm 1\%$

Product	Name	Page	Product	Name	Page
	MS1000KF General Electronic Balance	331		MS602L Electronic Balance	334
	MS2003GH Electronic Balance	332		MS21D Electronic Balance	335
	MS63B Electronic Balance	333			

- Utilizes high-stability sensors + high-precision ad conversion chip + microcontroller intelligent control.
- Supports linear calibration (multi-point calibration) to ensure full-range accuracy.
- Unit conversion across 8 units: g, lb, ct, oz, tl, ozt, dwt, gn
- Counting function with preset base quantity (10-500pcs) for automatic item counting.
- Percentage mode for quick mass comparison between items and a reference.
- One-key tare function.
- Switchable backlight.
- Equipped with rs232 interface (9600bps baud rate); data frames include sign, value, and unit.
- Printing function with three modes (manual/auto/continuous), compatible with external devices (optional bluetooth printer).
- Dual power supply (ac adapter standard / battery optional) with low-voltage indicator
- Anti-interference design: minimizes impact from vibration, airflow, strong light, and static electricity.
- Overload protection with alert to prevent sensor damage
- Self-diagnosis with error codes and troubleshooting guide.
- Complies with the gb/t 26497-2011 industry standard for electronic balances.

TECHNICAL SPECIFICATION

Name	Electronic Balance
Model	Ms1000kf
Pan	165×165 mm (304 Stainless Steel)
Display	Lcd With White Backlight (95×25 Mm) (Led Optional)
Units	G, Oz, Ct, Lb, Tl, Ozt, Dwt, Gn
Functions	Counting,%, Full Range Tare, Over-Load Protection, Low-Battery Indicator
Speed	2s
Value Stable Time	0.5
Certificate	Ce, Iso, Rohs,C-Tick
Readability	1g
Capacity	0-1kg (0-1000g)
Repeatability	≤1g
Linearity	≤2g
Material Breakdown	Abs House, Iron Stainless, Aluminium Sensor
L×W×H	260×180×70 mm
Power	Ac(Rechargeable Battery Optional)



STANDARD DELIVERY	
Machine Mainframe	1 set
Electronic Balance	1 set
Power Cord	1 pc
Packing Size	49*36*18cm
Packaging Weight	7kg



OPTIONAL DELIVERY	
Draft Shield	EB-DS
Standard Calibration Weights	EB-CW
Printer	EB-P
Rechargeable Battery	EB-RB
Display (Lcd/Led Optional)	EB-D
Weighing Pans In Different Sizes & Shapes (Square/Round Optional)	EB-WP
Tri-Color Warning Light	EB-WL



ELECTRONIC BALANCE

CODE:MS-GH



VIDEO



STANDARD DELIVERY

Machine Mainframe	1 set
Electronic Balance	1 set
Power Cord	1 pc
Packing Size	49*36*18cm
Packaging Weight	7kg

TECHNICAL SPECIFICATION

Name	MS2003GH Electronic Balance			
Outline Dimension	350*210*360mm			
Lcd Display Size	110*30mm			
Model	MS2003GH	MS5003GH	MS10003GH	MS20003GH
Parameters	200g/1mg	500g/1mg	1000g/1mg	2000g/1mg
Repeatability	<=2mg	<=2mg	<=2mg	<=2mg
Linearity	<=3mg	<=3mg	<=3mg	<=3mg
Gh Type: External Cal				
N Type: Internal Cal				
Overall Dimensions:35*21*36				
Weighing Pan Dimensions:Φ8cm/9cm/13cm				

- Capacitive inductive keys, light touch can control the balance, even if the user is wearing gloves, it can operate smoothly, avoid sample residues from corroding the keys, and extend the service life of the product;
- When calibrating a precision balance, the inductive keys can effectively prevent vibration caused by direct contact with the balance keys with hands, making calibration more accurate;
- High-precision weight unit, with a precision of up to 0.001g;
- Large backlit LCD display, side concave mask decoration, angular edge bevel highlight treatment, flat matte decoration, beautiful appearance, full of the times;
- Full aluminum base, with a bottom thickness of 3.8mm, exceeding the thickness of ordinary plastic bases; the sensor part is separately sealed and shielded for installation, with stable and reliable performance;
- The whole series has external calibration/full-automatic internal calibration optional, can be equipped with a 4.3-inch color touch screen, and can add a density kit;
- The whole series is equipped with rs232 port as standard; optional 485 port, bluetooth transmission, local area network transmission, 4g transmission, storage battery, dry battery, lower hook weighing and other functions.



- Intelligent design, composed of high-stability sensors, high-precision analog-to-digital conversion integrated circuits, and a single-chip microcomputer, with a variety of practical functions such as unit conversion, counting, percentage, RS232 communication, dynamic weighing, AC/DC dual use, and memory function, which can meet the weighing needs in different scenarios;
- Simple to operate with clear operating procedures, easy to perform functions from power-on, calibration to weighing, tare, etc.;
- Rich display functions, the display can clearly show weighing data, units, calibration status and other information, and has a backlight function;
- Diverse and configurable functions: Not only has basic weighing capabilities, but also allows for zero tracking and automatic tare function settings, as well as various advanced operations such as unit conversion, counting, percentage calculation, and printing functions;

TECHNICAL SPECIFICATION

Model	Parameter	Remark
MS64B	6Kg/0.1g	
MS104B	10Kg/0.1g	
MS154B	15Kg/0.1g	
MS204B	20Kg/0.1g	
MS304B	30Kg/0.1g	
MS63B	6Kg/1g	
MS103B	10Kg/1g	
MS153B	15Kg/1g	
MS203B	20Kg/1g	
MS303B	30Kg/1g	

The display instrument angle is adjustable.
Standard size: 31*22cm
Extended size: 35*25cm
Optional small instrument
Overall dimensions: 32*30*35cm



STANDARD DELIVERY

Host	1 set
Electronic Balance Pan	1 pc
Rs232 Data Cable	1 pc
Power Cord	1 pc



Host

Rs232 Data Cable



Power Cord



Electronic Balance Pan

ELECTRONIC BALANCE

CODE:MS-L



TECHNICAL SPECIFICATION

Model	Parameter	Remark
MS603L	60kg/1g	
MS1003L	100kg/1g	
MS1503L	150kg/1g	
MS602L	60kg/10g	Optional rechargeable battery
MS1002L	100kg/10g	Optional 4 wheels
MS2002L	200kg/10g	Can be equipped with a small instrument
MS3002L	300kg/10g	Size: 50*40 cm



STANDARD DELIVERY

Host	1 set
Electronic Balance Pan	1 pc
Rs232 Data Cable	1 pc
Power Cord	1 pc



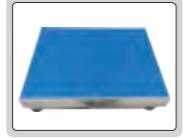
Host



Rs232 Data Cable



Power Cord



Electronic Balance Pan

- Intelligent design, composed of high-stability sensors, high-precision analog-to-digital conversion integrated circuits, and a single-chip microcomputer, with a variety of practical functions such as unit conversion, counting, percentage, RS232 communication, dynamic weighing, AC/DC dual use, and memory function, which can meet the weighing needs in different scenarios;
- Simple to operate with clear operating procedures, easy to perform functions from power-on, calibration to weighing, tare, etc.;
- Rich display functions, the display can clearly show weighing data, units, calibration status and other information, and has a backlight function;
- Diverse and configurable functions: Not only has basic weighing capabilities, but also allows for zero tracking and automatic tare function settings, as well as various advanced operations such as unit conversion, counting, percentage calculation, and printing functions;

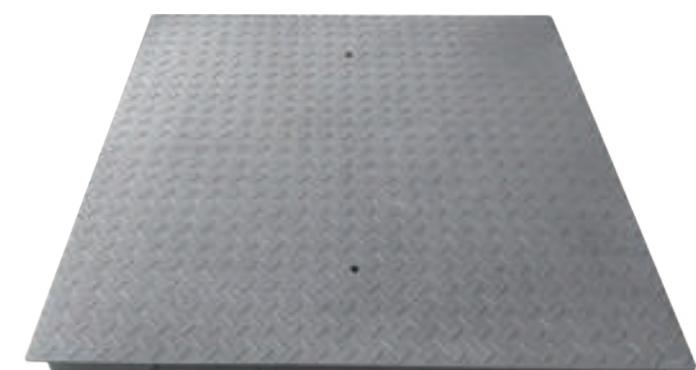
- Intelligent design, composed of high-stability sensors, high-precision analog-to-digital conversion integrated circuits, and a single-chip microcomputer, with a variety of practical functions such as unit conversion, counting, percentage, RS232 communication, dynamic weighing, AC/DC dual use, and memory function, which can meet the weighing needs in different scenarios;
- Simple to operate with clear operating procedures, easy to perform functions from power-on, calibration to weighing, tare, etc.;
- Rich display functions, the display can clearly show weighing data, units, calibration status and other information, and has a backlight function;
- Diverse and configurable functions: Not only has basic weighing capabilities, but also allows for zero tracking and automatic tare function settings, as well as various advanced operations such as unit conversion, counting, percentage calculation, and printing functions;



VIDEO

ELECTRONIC BALANCE

CODE:MS-D



TECHNICAL SPECIFICATION

Model	Parameter	Remark
MS12D	1t/0.01kg	
MS21D	2t/0.1kg	
MS31D	3t/0.1kg	
Optional	Small Instruments	Pan: 100*100cm
		Can be equipped with MS-B or MS-L header
		RS232,RS485 or USB
		Take A Pole Meter



STANDARD DELIVERY

Host	1 set
Electronic Balance Pan	1 pc
Rs232 Data Cable	1 pc
Power Cord	1 pc



Host



Rs232 Data Cable



Power Cord



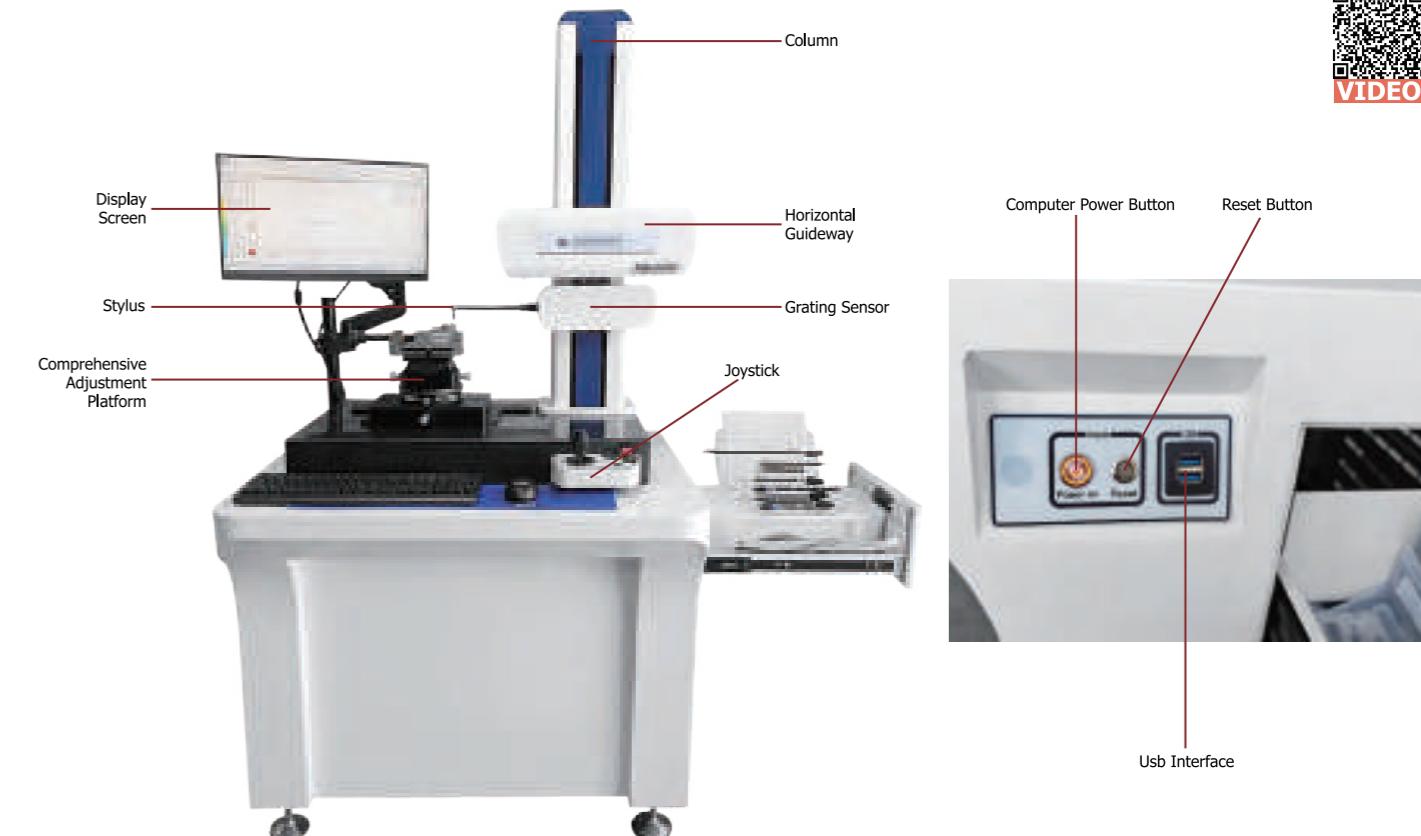
Electronic Balance Pan

ROUGHNESS AND CONTOUR MEASURING INSTRUMENT

CODE: MRC-100-150-200



Product	Name	Page	Product	Name	Page
	Roughness and Contour Measuring Instrument	337		Portable Roughness Tester	346
	Roundness and Cylindricity Measuring Instrument	340		Roughness Waviness Tester	351
	Portable Surface Roughness Tester	343		Surface Roughness Tester Sensor	354

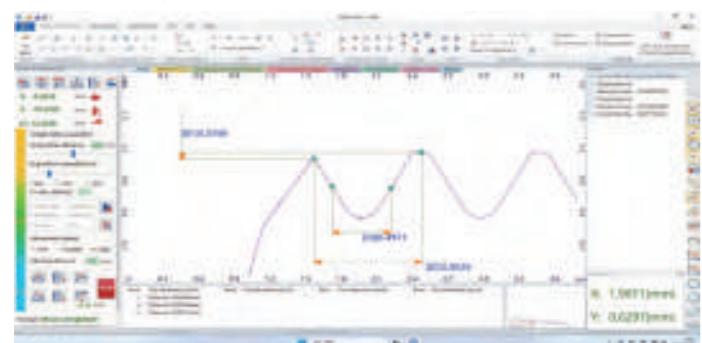


- Cartesian coordinate form measuring instrument.
- Simultaneous measurement of roughness and profile without sensor replacement.
- The mechanical part adopts precision linear guideway as the measurement reference, ensuring measurement accuracy and long service life.
- Horizontal guideway offers air-bearing guideway and friction guideway options.
- Precision digital sensors and precision grating displacement sensors measure displacements in X and Z directions, guaranteeing the accuracy of workpiece profile measurement.
- High-precision grating sensor with a maximum range of 60mm meets most measurement needs.
- Resolution up to $0.001\mu\text{m}$ and minimum sampling interval of $0.01\mu\text{m}$.
- Standard column stroke of 450/500mm, with custom strokes available.
- Equipped with high-performance self-developed software, featuring user-friendliness and high measurement efficiency, with operation highly compatible with CAD drawing software
- The software can process various seal groove shapes (angles, chamfer R, groove depth, groove width); straightness and convexity of busbars for shaft workpieces; radius of curvature and center position of various arcs, etc.
- Supports continuous dimensioning, datum dimensioning, and arbitrary insertion points.
- Enables free rotation of graphics and coordinates.
- Automatic saving of raw data for convenient multiple dimensioning.
- When the capture function is activated, automatically generates and captures feature points such as intersections, circle centers, line midpoints, endpoints, arc intersections, arc midpoints, and tangent points.
- Software compatible with Windows XP, Windows 7, Windows 10, and Windows 11 operating systems.
- One-click switch between Chinese and English for the software.
- Automatic software calibration, supporting automatic measurement and dimensioning.
- Features automatic probe contact, lifting, and retraction functions to prevent probe damage.
- Built-in highly integrated circuit board with all interfaces integrated on a single board for easy maintenance.
- Four-axis joystick control for convenient operation.
- Supports profile measurement, roughness measurement, raw profile measurement, and waviness measurement functions.
- Equipped with USB interfaces.
- Magnetic suction probe rod for quick and easy overall replacement.
- Complies with industry standards such as JB/T 11271-2012, ISO 25178-601, ISO 21920, and UNI EN ISO 12179.

ROUGHNESS AND CONTOUR MEASURING INSTRUMENT

CODE:MRC-100-150-200

SOFTWARE FUNCTIONS



It is equipped with powerful software that can work with CAD software to control equipment operation and adjust parameters.

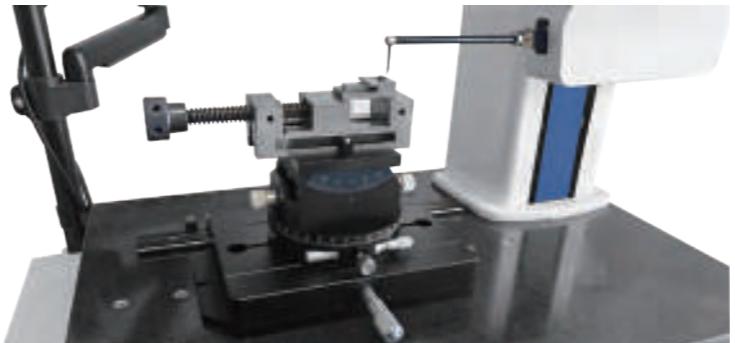
The contour map obtained after measurement can be processed with data annotation via the software, including contour parameters (radius, included angle, distance, etc.), roughness parameters, waviness parameters, and more. The data can also be exported to Excel or CAD.

TECHNICAL SPECIFICATION

Name	Roughness and contour measuring instrument					
Model	MRC-100	MRC-150	MRC-200			
Horizontal Guideway Type	Friction guideway/Air-bearing guideway					
Climbing Angle	Rise 77°, Decline 88°					
Measuring Speed	0.02mm~4.0mm/s					
Measuring Range	X-axis (Horizontal Guideway)	100mm	150mm	200mm		
	Z1-axis (Sensor)	±20mm	±25mm	±30mm		
	Z-axis (Column)	450mm	500mm	500mm		
	Minimum Inner Hole	6mm (Smaller inner diameter can be measured by replacing the small stylus)				
Contour Accuracy	Linear Accuracy X	± (0.8+0.02L) μ m	L: Measuring distance			
	X-axis Resolution	0.01 μ m				
	Linear Accuracy Z1	± (0.8+0.02H) μ m	H: Measuring height			
	Z1-axis Resolution	0.01 μ m				
	Angle	≤1'				
	Arc	≤± (0.8+R/12) μ m	R: 0.5mm~10mm			
	Arc Pt	≤0.5 μ m				
	Straightness	0.6 μ m/100mm				
Roughness Accuracy	Indication Error	± (5nm+0.05A)	A: Standard value			
	Residual Noise	≤0.005 μ m				
	Z1 (Sensor) Range	±3mm				
	Resolution	0.1 μ m				
	Indication Repeatability	±3%				
	Cut-off Wavelength	0.025、0.08、0.25、0.8、2.5、8mm				
	Evaluation Length	λc *1、2、3、4、5、6、7、8				
	Roughness Parameters	Ra, Rq, Rz(Ry), Rz(DIN), R3z, Rz(jis), Rp, Rv, Rt, Rsk, Rsm, Rc, Rpm, Rku, Rdq, Roc, Mr1, Mr2, Rpk, Rvk, Rk, Rdc, A1, A2, Rx, AR, Rcp, Rmax, Rz-ISO				
	Waviness Parameters	wt, wa, wp, wv, wq, wc, wku, wsk, w, wx, wz, wsm, wdc, wte, wmr, Aw, c(wmr), wmr(c), wdq				
	Original Profile Parameters	Pt, Pa, Pp, Pv, Pq, Pc, Pku, Psk, Pdq, Psm, Pdc, Pmr, Pz, Pmr				
Compressed Air (Required for air-bearing guideway, provided by user)	Air pressure 0.4MPa, consumption 0.1m ³ /min; Air supply 0.6MPa, 0.25m ³ /min					
Power Supply	AC 220V-240V, 50HZ; Separate ground wire, maximum power 500W					
Environmental Requirements	Normal temperature, humidity 20~80%RH; No condensation, no obvious vibration source					
Product Dimensions (Length Width Height)	1400*725*1740mm					
Packaging Dimensions (Length Width Height)	960*960*1950mm					
Product Weight	270kg					
Total Packaging Weight	300kg					

ROUGHNESS AND CONTOUR MEASURING INSTRUMENT

CODE:MRC-100-150-200



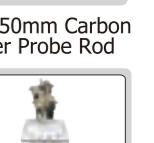
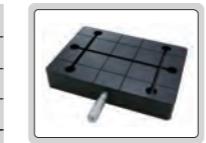
During measurement, the workpiece is clamped on the fixture of the workbench. The angle workbench cooperates with the vice to ensure stable clamping and accurate measurement even for special-shaped workpieces.

Use the joystick to move the guideway, column, probe rod, etc., to position the sensor and workpiece appropriately for measurement.

It can control four-axis movement, and skilled operators can complete workpiece measurement with one hand.

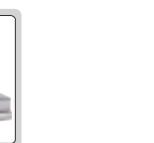
STANDARD DELIVERY

Machine Mainframe	1 set
Large Planar Workbench	1 piece
Angle Adjustment Workbench	1 piece
Vice	1 piece
3*24 Single-Cut Stylus	1 piece
3*24 Roughness Stylus	1 piece
1*6 Single-Cut Stylus	1 piece
1*6 Roughness Stylus	1 piece
Φ8*150mm Carbon Fiber Probe Rod	1 piece
Calibration Standard Parts	1 set
Lenovo Computer	1 piece
Printer	1 piece
Filtration System(Equipped with air-bearing guideway)	1 set
Software	1 set
Qualification Certificate	1 copy
Warranty Card	1 copy
Calibration Certificate	1 copy
Instruction Manual	1 copy



OPTIONAL DELIVERY

2D Planar Workbench	RC-2DT
Two-way Vice	RC-TV
Special Fixture for Rings	RC-FR
Special Fixture for Bearings	RC-FB
Precision Sine Vice	RC-SV
Comprehensive Adjustment Platform 1	RC-AP



ROUNDNESS AND CYLINDRICITY MEASURING INSTRUMENT

CODE:MRC-300M-400M-500M-500A



VIDEO

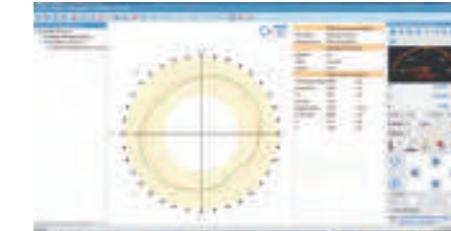


- Adopts high-precision aerostatic spindle as the reference, which is wear-free and maintains long-term accuracy.
- Uses the radius measurement method with workpiece rotation.
- Can measure roundness, cylindricity, straightness, runout, total runout, taper, diameter, concentricity, coaxiality, flatness, parallelism, perpendicularity, eccentricity and other parameters of various regular and irregular annular workpieces.
- Can analyze surface waviness (W_c , W_p , W_v , W_t , W_a , W_q), conduct spectrum analysis and wave height analysis.
- Can measure the cross-sectional ellipticity and longitudinal profile of piston outer circles (optional).
- Column stroke options include 400/500/700mm, with support for customization of larger strokes.
- Self-centering and leveling worktable, available in manual or automatic versions.
- The spindle can bear 30kg, and customization for larger loads is supported.
- Equipped with an air filter as standard.
- Four roundness evaluation methods: Minimum Zone Method, Least Squares Method, Minimum Circumscribed Circle Method, Maximum Inscribed Circle Method.
- Roundness filter ranges: 1-500, 1-150, 1-50, 1-15, 15-500.
- Waviness filter ranges: 3-16, 17-100.
- Data collection uses imported precision circular gratings with an accuracy of up to $0.0125\mu\text{m}$, collecting 14,400 points per circle, ensuring high accuracy and stability.
- The measurement software is a CA system-based software running on Windows operating systems, supporting WinXP, Win7, Win10 and Win11.
- Partial arcs can also be measured and processed.
- Automatically identifies contour interruptions, and has the function of automatically or manually eliminating gaps and abnormal points.
- SPC statistical analysis: conducts statistical analysis on a large number of measurement data and provides graphical analysis reports.
- Can set process requirements to judge measurement parameters, improving the visibility of quality control.
- Supports single or multiple measurement data printing on the same page.
- Equipped with a $\Phi 2\text{mm}$ ruby probe as standard; ruby probes of different specifications can be optionally configured.
- Complies with industry standards such as JJG 429, ISO 1101 and ISO 12180.

ROUNDNESS AND CYLINDRICITY MEASURING INSTRUMENT

CODE:MRC-300M-400M-500M-500A

SOFTWARE FUNCTIONS



Independently developed roundness and cylindricity measurement software with rich functions. Can measure parameters such as roundness, cylindricity, straightness, runout, total runout, concentricity, coaxiality, flatness, parallelism, perpendicularity, surface waviness (W_c , W_p , W_v , W_t , W_a , W_q), spectrum analysis, wave height analysis and eccentricity of various regular and irregular annular workpieces.

TECHNICAL SPECIFICATION

Name		Roughness and contour measuring instrument					
Model		MRC-300M	MRC-400M	MRC-500M	MRC-500A		
Measuring Range	Maximum Workpiece Rotation Diameter	320mm	420mm				
	Maximum Measurement Diameter	270mm	370mm				
	Maximum Measurement Height	300mm	400mm	500mm	500mm		
	Maximum Measurement Depth	100mm (determined by probe rod length)					
	Maximum Load-Bearing Capacity	25kg	40kg	60kg	30kg		
	Radial Error	$(0.025+4H/10000) \mu\text{m}$		H: Measurement height from the platform			
Worktable	Axial Error	$(0.025+4X/10000) \mu\text{m}$		X: Measurement radius			
	Table Diameter	$\Phi 200\text{mm}$			$\Phi 280\text{mm}$		
	Adjustment Range	Eccentricity adjustment: $\pm 3\text{mm}$; Level adjustment: $\pm 1^\circ$					
	Adjustment Method	Manual			Automatic		
Straightness	Rotation Speed	0~12rpm					
		0.3 $\mu\text{m}/100\text{mm}$			0.2 $\mu\text{m}/100\text{mm}$		
Grating	Column Grating Resolution (Optional)	0.05/0.1/0.5/1 μm					
	Horizontal Guide Rail Grating Resolution (Optional)	0.05/0.1/0.5/1 μm					
Parallelism Between Spindle And Z-Axis		1.5 $\mu\text{m}/300\text{mm}$	2 $\mu\text{m}/400\text{mm}$	2.5 $\mu\text{m}/500\text{mm}$	2.5 $\mu\text{m}/500\text{mm}$		
Horizontal Stroke		250mm		270mm			
Sensor	Measuring Range	$\pm 500\mu\text{m}$					
	Resolution	0.005 μm					
	Probe Shape	$\Phi 2\text{mm}$ ruby ball probe ($\Phi 1\text{mm}$ 、 $\Phi 0.5\text{mm}$ probes optional)					
	Measuring Force	1~12g					
Data Collection		Imported grating, 14,400 points/circle					
Magnification		Arbitrary up to 200,000x maximum					
Optional Modules		Bearing waviness/harmonic analysis/RTA spectrum analysis					
Air Supply Pressure		0.45~0.8Mpa					
Air Supply Flow Rate		$\geq 0.2 \text{ m}^3/\text{min}$					
Power Supply		AC 220V $\pm 10\%$ 50Hz					
Environmental Requirements		Temperature (T): 10~30°C; Relative humidity (RH): <85%					
Product Dimensions (L*W*H)		960*650*1550mm					
Packaging Dimensions (L*W*H)		1000*750*1650mm					
Product Weight		240kg					
Total Packaging Weight		290kg					

ROUNDNESS AND CYLINDRICITY MEASURING INSTRUMENT

CODE:MRC-300M-400M-500M-500A

STANDARD DELIVERY

Machine Mainframe	1 set
Self-Centering And Levelin Worktable	1 set
Precision Three-Jaw Chuck	1 piece
Air Filtration System	1 piece
Computer	1 unit
Printer	1 unit
Measurement Software	1 set
Ellipse Standard Part	1 piece
Cylinder Standard Part	1 piece
Φ2mm Ruby Probe	1 piece
Qualification Certificate	1 copy
Warranty Card	1 copy
Calibration Certificate	1 copy
Instruction Manual	1 copy



OPTIONAL DELIVERY

3D Adjustment Table	RC-3DT
Quick Centering Tooling	RC-QCT
Centering Tooling	RC-CT
Steel Ball Fixture	RC-SBF
Other Standard Parts	/
Other Probes	/



DETAIL DISPLAY



SURFACE ROUGHNESS TESTER (INTEGRATED-TYPE,50UM RANGE)

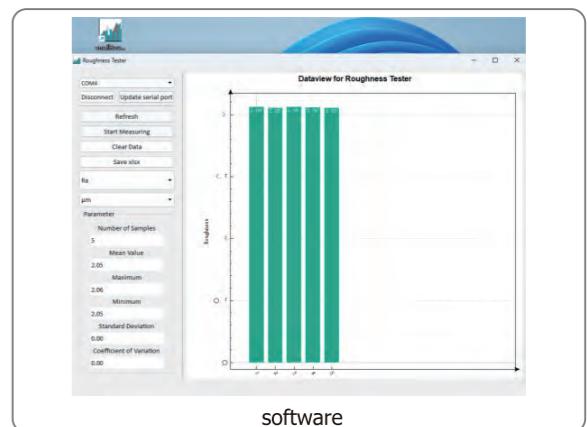
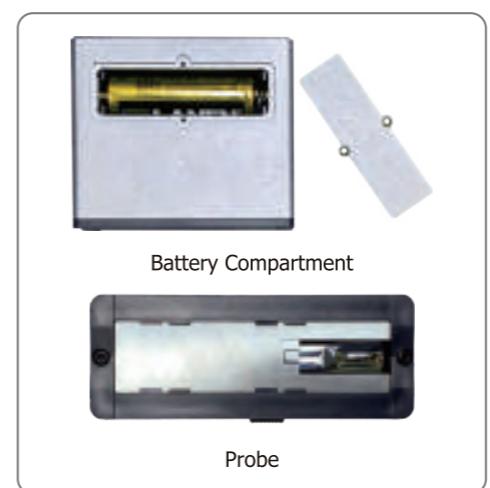
CODE:iSurfa-100



VIDEO



- Designed with durable aluminum die, it has excellent anti-electromagnetic interference and modern aesthetics.
- Pocket-sized, integrating sensor and main body.
- Low-power ARM processor enhances measurement and calculation speed.
- 1.14" IPS TFT LCD with high brightness and no dead angle, suitable for various environments.
- Long-lasting with an AA battery.
- Bluetooth adapter for communication with smartphones.
- Stores 500 measurement data groups.
- Real-time battery power monitor with charging reminders.
- Automatic shutdown and low-power design ensure long field use.
- Protective door on sensor probe ensures accuracy and safety.



TECHNICAL SPECIFICATION

Measuring Range(μm)	Ra,Rq: 0.05~10.0 Rz,Rt: 0.1~50
Parameter(μm)	Ra,Rz,Rq,Rt
Travel Length(mm)	5.6
Sample Length(mm)	0.25,0.80,2.50
Evaluation Length(mm)	1.25,4.0
Display Error	±10%
Display Variability	<12%
Stylus Radius and Angle	90°(+5°,-10°)
Stylus Radius	10μm±1 μm
Measuring Force of Probe	≤0.016N
Force Change Rate	≤800N/m
Sensor Guide Pressure	≤0.5N
Battery	One 1.5V AA Dry Battery
Dimensions	73mm×28mm×62mm
Net Weight	220g
Working Environment Conditions	Temperature: -20°C~40°C Relative Humidity: < 90% No Vibration And Corrosive Medium Around

STANDARD DELIVERY

Main Unit	1 pc
Calibration Block	1 pc
Instrument Case	1 pc
Screwdriver	1 pc

OPTIONAL DELIVERY

Bluetooth Adapter	SRT-BA
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SURFACE ROUGHNESS TESTER (INTEGRATED-TYPE,160UM RANGE) CODE:iSurfa-360



STANDARD DELIVERY

Roughness Sensor	1 pc
Height-Adjustable Support Bracket	1 pc
Sensor Protective Cover	1 pc
Calibration Test Block	1 pc
Test Block Support	1 pc
Charger	1 pc
Usb Charging Cable	1 pc
Screwdriver	1 pc
User Manual	1 pc
Certificate Of Conformity	1 pc
Warranty Card	1 pc
Instrument Box	1 pc



Roughness Sensor Height-Adjustable Support Bracket Sensor Protective Cover Calibration Test Block

OPTIONAL DELIVERY

Thermal Printer	SRT-TP
Surface Sensor	SRT-CS
Deep Groove Sensor	SRT-DGS
Small Hole Sensor	SRT-SH



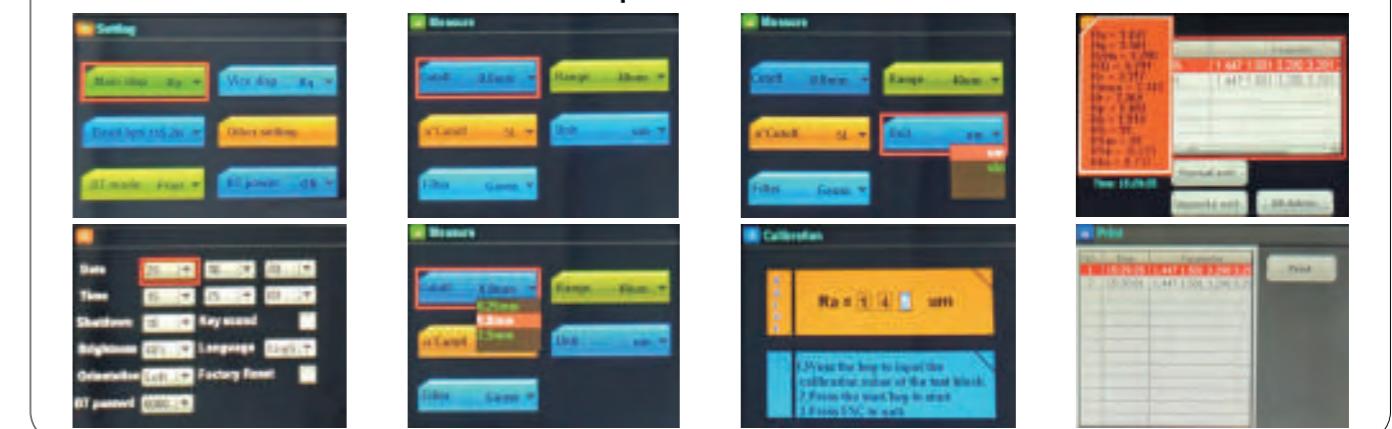
Instrument Box User Manual Certificate Of Conformity Warranty Card

SURFACE ROUGHNESS TESTER (INTEGRATED-TYPE,160UM RANGE) CODE:iSurfa-360

TECHNICAL SPECIFICATION

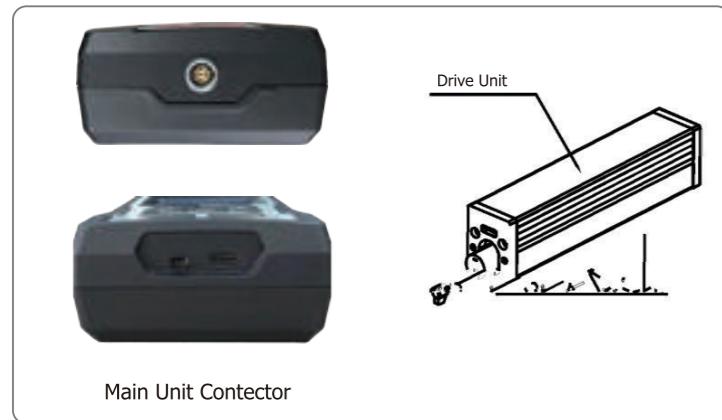
Measurement Range	Z-axis (vertical)	160um
	X-axis (horizontal)	17.5mm (0.71 inch)
Resolution	Z-axis (vertical)	0.001um±20um 0.002um±40um 0.004um±80um
Measurement Items	Parameters	Ra Rz==Ry(JIS) Rq Rt==Rmax Rp Rv R3z R3y Rz(JIS) Rs Rsk Rku Rsm Rmr RPc Rk Rpk Rvk Mr1 Mr2
	Standard	ISO 4287 international standard; ANSI B46.1 American standard; DIN 4768 German standard; JIS B601 Japanese standard
	Graphics	Supporting rate curve, roughness, original contour, filtering waveform
Filter	RC,PC-RC,Gauss,D-P	
Sampling length (Lr)	0.25,0.8,2.5mm	
Evaluation length (Ln)	Ln= lr×n n=1~5	
Measure The Run Length	3L-7L	
Sensor	Measurement Principle	Displacement-type differential inductor
	Contact Pin	Natural diamond, with a 90-degree cone angle and a 5-micron tip radius
	Force Measurement	<4mN
	Guide Head	Hard alloy, sliding direction radius 40mm
	Sliding Speed	lr=0.25, Vt=0.135mm/s lr=0.8, Vt=0.5mm/s lr=2.5, Vt=1mm/s Return Vt = 1 mm/s
Indication Accuracy	0.001um	
Indication Error	±(5nm + 0.1A) A: Standard value of Ra for multi-line template parameters	
Indication Variation	No more than 3%	
Remainder Of The Outline	No more than 0.010 micrometers	
Power Supply	Built-in lithium-ion rechargeable battery, charged by a DC5V, 800mA charger	
Dimensions Of The Shape	141×55×40mm	
Weight	About 400 grams	
Work Environment	Temperature: -20°C ~ 40°C Humidity: < 90% RH	
Storage And Transportation Environment	Temperature: -40°C ~ 60°C Humidity: < 90% RH	
Optional Accessories	Surface sensor, small hole sensor, deep groove sensor, extension rod, adapter rod, micro printer, 200mm measurement platform, 300mm marble measurement platform	

Operation Interface

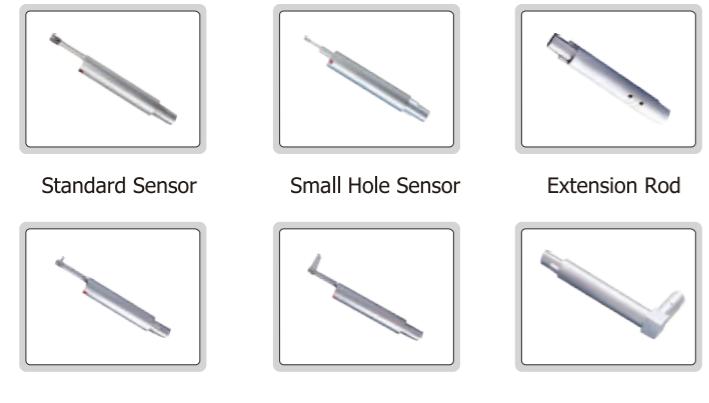


SURFACE ROUGHNESS TESTER(SEPARATE-TYPE, 160UM RANGE)

CODE:iSurfa-520



Main Unit Connector



07



Curved Surface Sensor

Deep Groove Sensor

Adapter Rod

- Standards: ISO, DIN, ANSI, JIS
- Multi-parameters: Ra, Rz, Rq, Rq (duplicate entry, likely a typo for another parameter such as Rp or Rsm), Rt, Rp, Rv, R3z, R3y, Rz(JIS), Rs, Rsk, Rsm, Rku, uRc, Ry, Rmax, Rmr
- Large Measuring Range: 160μm
- Color Display Screen with Capacitive Touch Interface
- Rich Display Information: Displays all parameters and graphical representations
- Connectable to PC and Printer
- Printing Capability: Can print all parameters or any user-defined parameters
- 6000mAh Lithium-ion Battery

STANDARD DELIVERY

Main Unit	1 pc
Sensor	1 pc
Calibration Block	1 pc
Block Bracket	1 pc
Extension Cable	1 pc
Touch Pen	1 pc
Charger	1 pc
Usb Charging Cable	1 pc
Instrument Case	1 pc

OPTIONAL DELIVERY

Curved Surface Sensor	SRT-CS
Small Hole Sensor	SRT-SH
Deep Groove Sensor	SRT-DGS
Extension Rod	SRT-ER
Adapter Rod	SRT-AR
Marble Platform	SRT-MP
Small Platform	SRT-SP
Lift Drive Unit Stand	SRT-ST

SURFACE ROUGHNESS TESTER(SEPARATE-TYPE, 160UM RANGE)

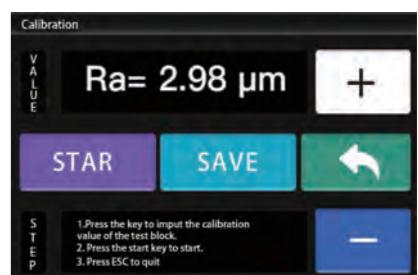
CODE:iSurfa-520

TECHNICAL SPECIFICATION

Measurement Range	The Z Axis (Vertical):320μm;The X axis (Horizontal):17.5mm
Resolution Ratio	0.01μm/±20μm
The Z Axis (Vertical)	0.02μm/±40μm
	0.04μm/±80μm
Measure- ment Item	Parameter
	Ra,Rz,Rq,Rt,Rc,Rp,Rv,R3z,R3y,Rz(JIS),Ry,Rs,Rsk,Rku,Rmax-,Rsm,Rmr,RPc,Rk,Rpk,RvkMr1,Mr2
	ISO4287,ANSI B46.1,DIN4768,JISB601
	Primary Profile, Roughness Profile, Load Curves
Filter	RC,PC-RC,Gauss,D-P
The Sampling Length(l_r)	0.25,0.8,2.5mm
Assessment Length(l_n)	l _n =l _r ×n n=1~5
Sensor	Principle The Displacement Differential Inductance Stylus Natural Diamond, 60B Cone Angle, 2μm Tip Radius Dynamometry <4mN Skid Ruby,Longitudinal Radius 40mm Taxiing Speed Ir=0.25, Vt=0.135mm/s Ir=0.8, Vt=0. 5mm/s Ir=2.5, Vt=1mm/s Back, Vt=1mm/s
	0.001um
Accuracy	No More Than 10%
Indication Error	No More Than 6%
Indication Variability	6000mAh Lithium Battery,Charger :DC5V
Power Supply	161*80*40mm
Size	Display Unit
(L*W*H)	Drive Unit 22*26*114mm
Net Weight	About 320g
Working Environment	Temperature:-20°C~40°C,Humidity:<90%RH
Store And Transportation	Temperature:-40°C~60°C ,Humidity:<90%RH

RECOMMENDED SAMPLING LENGTH TABLE

Ra(μm)	Rz(μm)	Sampling Length λc(mm)
>5~10	>20~40	2.5
>2.5~5	>10~20	
>1.25~2.5	>6.3~10	
>0.63~1.25	>3.2~6.3	0.8
>0.32~0.63	>1.6~3.2	
>0.25~0.32	>1.25~1.6	
>0.20~0.25	>1.0~1.25	
>0.16~0.20	>0.8~1.0	
>0.125~0.16	>0.63~0.8	
>0.1~0.125	>0.5~0.63	
>0.08~0.1	>0.4~0.5	
>0.063~0.08	>0.32~0.4	
>0.05~0.063	>0.25~0.32	
>0.04~0.05	>0.2~0.25	
>0.032~0.04	>0.16~0.2	
>0.025~0.032	>0.125~0.16	0.25
>0.02~0.025	>0.1~0.125	



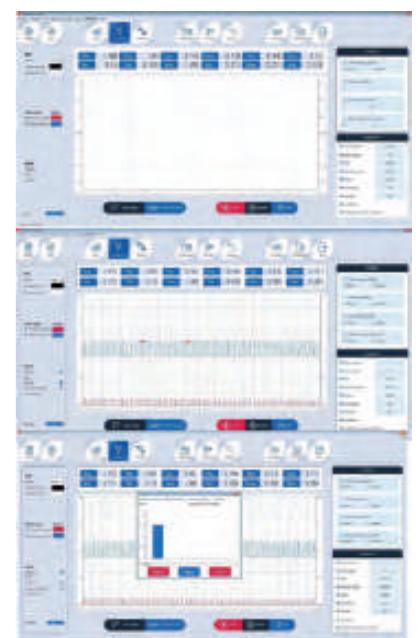
Calibration Interface



Parameter Setting



Measurement Parameter



Dataview of Software

SURFACE ROUGHNESS TESTER(INTEGRATED-TYPE,320UM RANGE)

CODE:iSurfa-220



- Multi parameter measurement
- High precision inductive sensor;
- RC, PC-RC, GAUSS, D-P Four filtering methods
- ISO, DIN, ANSI, JIS four standards
- LCD Displays all parameters and graphic
- ARM processors greatly improve measuring speed;
- Built in lithium-ion rechargeable battery and charging control circuit, high capacity, no memory effect, continuous working time more than 20 hours
- Built in Bluetooth communication module, in print mode, it can connect to a Bluetooth printer to print and save data;
- The Bluetooth communication module can switch to data transmission mode and wirelessly connect with Android data terminals such as mobile phones;
- Type-C USB interface, can be used as a charging interface and PC communication interface
- Automatic shutdown, memory, and various prompt instructions
- Built in intelligent reset circuit

STANDARD DELIVERY

Main Unit	1 pc
Sensor	1 pc
Standard Block	1 pc
Sensor Protection Cover	1 pc
Instrument Case	1 pc
Standard Charger (5V2A)	1 pc
Data Cable	1 pc

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OPTIONAL DELIVERY

Surface Sensor	SRT-SS
Ostiole Sensor	SRT-OS
Measurement Stage	SRT-MS
Groove Sensor	SRT-GS
Deep Groove Sensor	SRT-DGS
Extension Pole	SRT-EP
Bluetooth Printer	SRT-BP



SURFACE ROUGHNESS TESTER(INTEGRATED-TYPE,320UM RANGE)

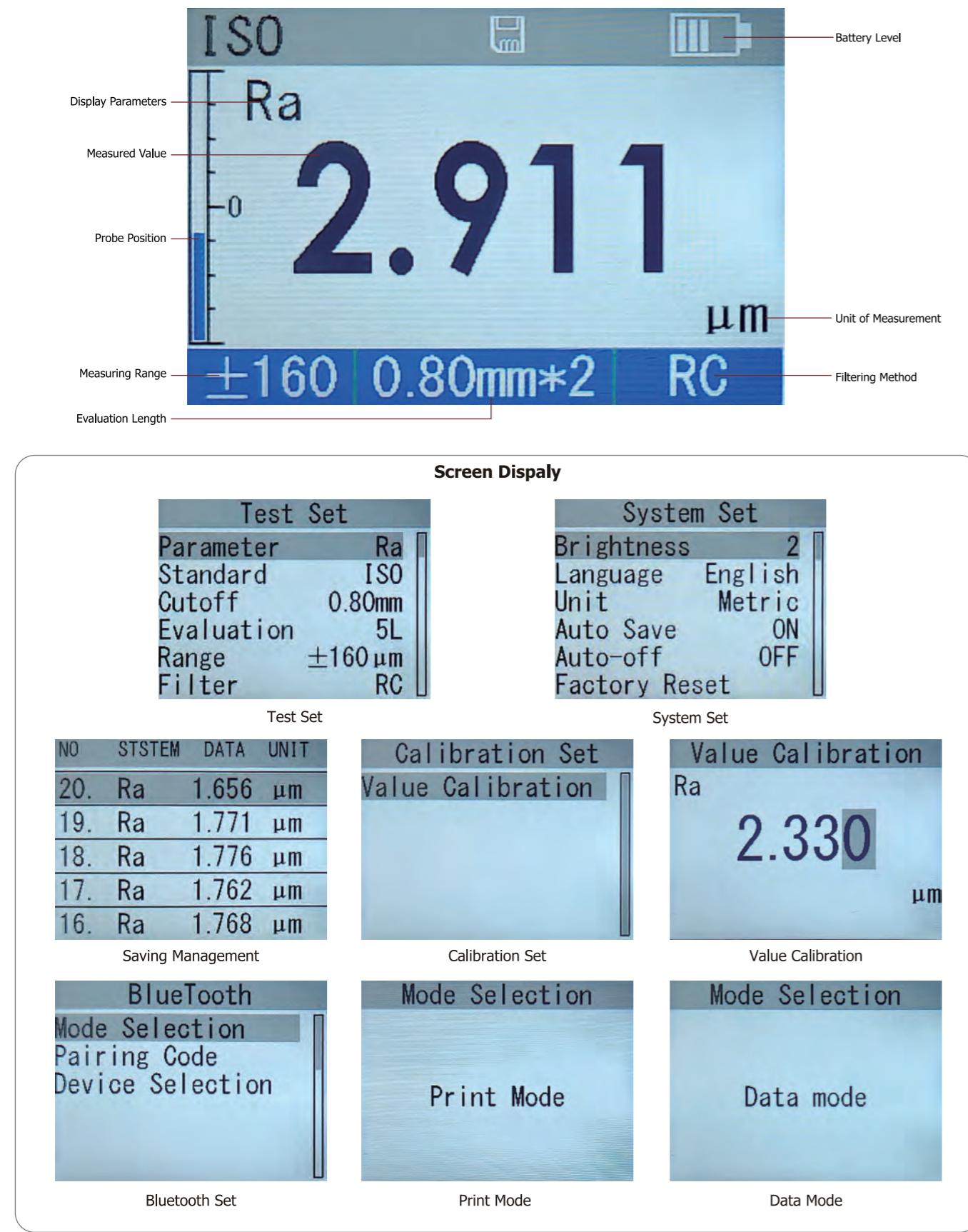
CODE:iSurfa-220

TECHNICAL SPECIFICATION

Model	iSurfa-220	
Sensor	Measuring Principle	Inductive
	Measuring Range	320μm
	Probe Radius	5μm
	Probe Material	Diamond
	Probe Touch Force	4mN(0.4gf)
	Probe Angle	90°
	Longitudinal Radius Of Guide Head	45mm
Drive Parameters	Max Travel	17.5mm/0.7inch
	Drive Speed	Sample Length= 0.25mm Vt=0.5mm Sample Length= 0.8mm Vt=0.75mm/s Sample Length= 2.5mm Vt=1mm/s Returning Speed Vt=1.5mm/s
Indication Error	Less than 10%	
Indication Variability	Less than 4%	
Display Content	Menu	Measurement Settings, System Settings, Storage Management, Calibration Settings, Bluetooth Settings, And Product Information
	Parameters	ISO, DIN, ANSI, JIS Four Standards Roughness Parameters
	Graph	Filter Contour Graph And TP Curve
	Reminder Information	Measurement, Menu Reminder, Error, Battery Level, And Shutdown
Contour and Filter	Contour	Filter
	Filter Contour	RC
		PC-RC
		Gauss
	Unfiltered Contour	D-P
Cut Length/Sampling Length	0.25mm, 0.8mm, 2.5mm Optional	
Evaluation Length	(1~5)L Optional	
Roughness Parameters and Display Range	Parameters	Display Range
	Ra, Rq	0.005μm~32μm
	Rz, R3z, Ry, Rt, Rp, Rm, Rk, Rpk, Rvk	0.02μm~320μm
	Mr1, Mr2	0~100%
	S, Sm	1mm
	tp	0~100%
Measuring Range and Resolution	Measuring Range	Resolution
	±40μm	0.02μm
	±80μm	0.04μm
	±160μm	0.04μm
Power Supply	1 Lithium-ion Rechargeable Battery	
Work Environment	Temperature	0~40°C
	Humidity	<90%RH
Transportation And Storage Environment	Temperature	-40°C~60°C
	Humidity	<90%RH
Dimensions and Net Weight	156x55x46.5xmm, About 400g	
Connecting to PC	Type-C USB Cable	
Connecting to Printer	Bluetooth Connecting To The Printer, As Long As The Pairing Code Of The Roughness Tester Is Set To Match The Printer Pairing Code.	

SURFACE ROUGHNESS TESTER(INTEGRATED-TYPE,320UM RANGE)

CODE:iSurfa-220



ROUGHNESS WAVINESS TESTER

CODE:iSurfa-300



STANDARD DELIVERY

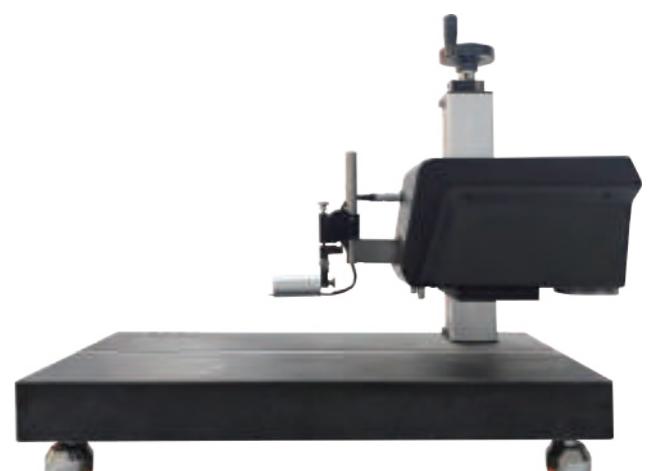
Main Unit	1 pc
Sensor	1 pc
Charger	1 pc
Standard Probe	1 pc
Standard Block	1 pc
Instrument Case	1 pc



OPTIONAL DELIVERY

Micro-adjustment Platform	FAS
Angular Platform	AS909025
Cross Slide Stage	CS9090
Flat Fixture	MS-FF
Marble Measuring Stand	MMS-502505
L-Shaped Block	LSB
Marble Anti-Vibration Stand	MAS-654055
Marble Equal-Height V-Block	MEV

- High precision large stroke guide rail, with a length of up to 30mm
- Sensor range $\pm 500 \mu m$
- The all-in-one machine is easy to carry and comfortable to operate
- Complete parameters, including 5 measurement types and multiple national standards
- No guide head measurement provides more accurate feedback on the morphology of the machined surface
- The measuring probe can be directly replaced, making the replacement operation convenient and enabling measurement in different scenarios
- The sensor can be switched vertically in the same direction as the guide rail, and the depth measurement groove can be made from the side without being limited by the depth of the measuring probe and groove
- English language and other customized languages
- Convenient data storage, can be directly stored in the built-in memory of the machine
- Analysis and calculation including multiple filtering methods can be freely combined to meet requirements
- Support automatic multiple calibration of standard blocks, greatly reducing errors in calibration

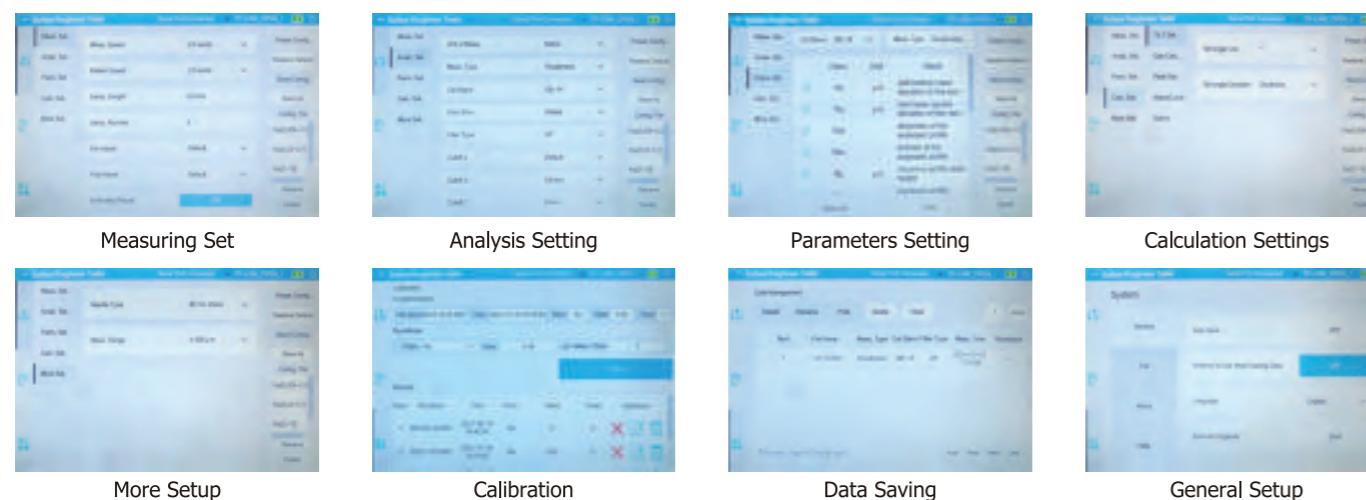


ROUGHNESS WAVINESS TESTER

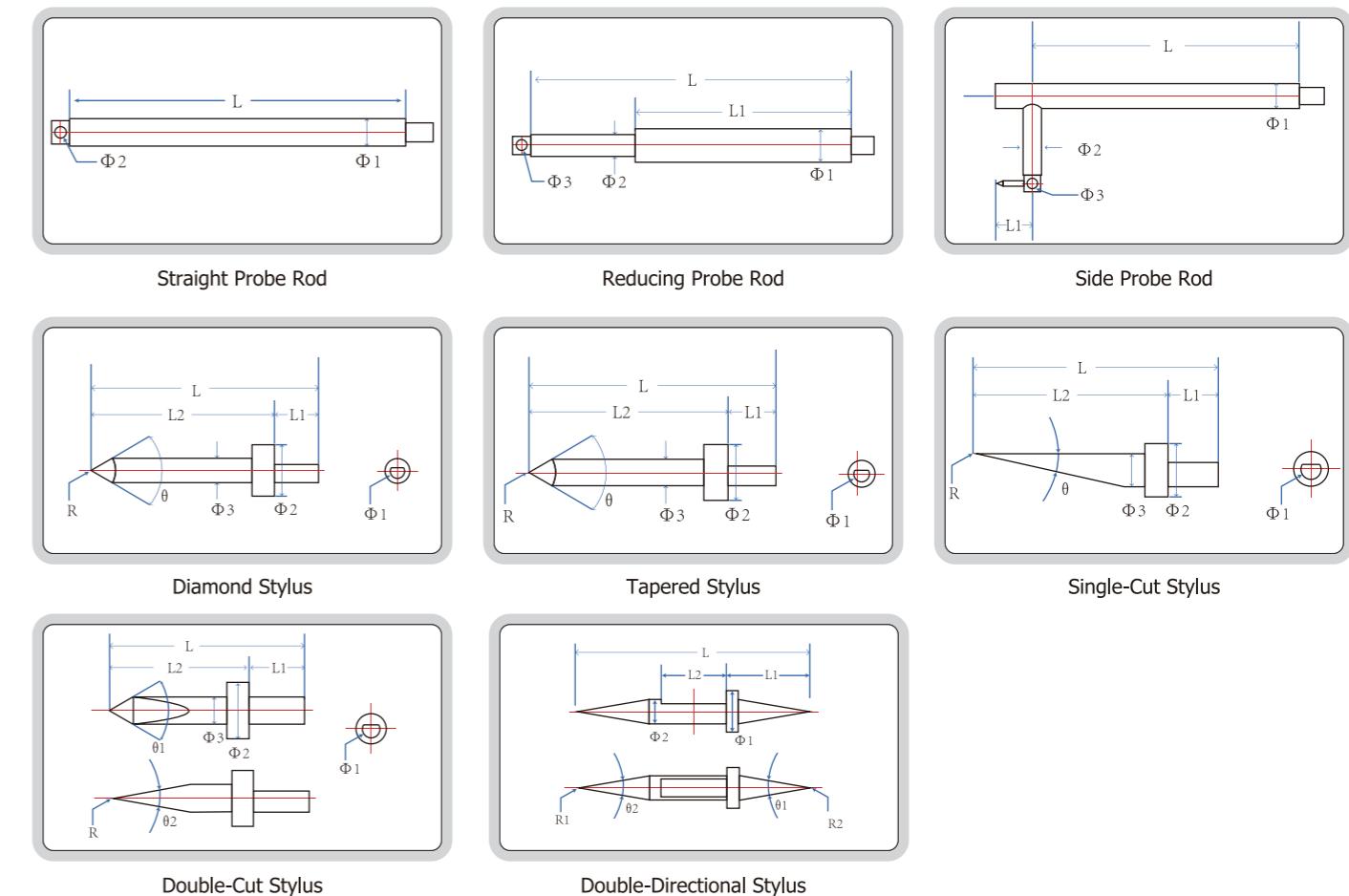
CODE:iSurfa-300

TECHNICAL SPECIFICATION

Model	iSurfa-300	
Range	X Direction:300mm/Z Direction: $\pm 500\mu\text{m}$	
Resolution	X Direction:0.0016 μm / $\pm 50\mu\text{m}$ -0.016 μm / $\pm 500\mu\text{m}$	
Straightness	1 μm /30mm	
Parameters	Roughness Profile	Ra75,Rq,Rp,Rv,Rc,Rt,S,R3z,PPI,Ra,Rsk,Rku,Ry,Sm,RΔa,RΔq,Rz,Pc,Rλa,RAq,Ir,RSm,Rz94,RPc,RS,Rz,I,Rpm,HSC
	Waviness Profile	WCA, WCC-q, WCC-p, WCC-v, WCC-m, WCC2Sm, WCA, WC-q, WC2p, WC-v, WCM, WC2Sm, WC-t, Wa, Wq, Wsk, Wku, Wp, Wv, Wz, Wc, Wt, WSm, WΔq, WPC
	Primary Profile	Rsk, Rku, Rmax, Sm, Δa, Δq, Rz, λa, λq, Ir, TILT A, AVH, Hmax, Hmin, AREA, Rz,J, Pa, Pq, Psk, Pku, Pp, Pv, Pc,I, Pt, PSm, PΔq, Ppc, Pc
	Abbott Curve	Rk,Rpk,Rvk,Mr1,Mr2,V0,K,A1,A2
	Motif	NCRX,AR,R,Rx,NR,CPM,SR,SAR,AW,W,Wx,Wte,NW,SW,SAW,Rke,Rpk,Rvke,Mr1,Mr2,V0,K
Evaluation Curve	Roughness profile,Waviness profile,Primary profile,Abbott curve,Motif	
Characteristic Curve	Abbott curve (Rmr(c),Rmr2(c),Rδc(c),tp(c),tp2(c),Htp(c)),Amplitude frequency analysis curve,amplitude distribution curve	
Form Remove	Global, first half, second half, center, 2 points, curve	
Filter Type	Gaussian,FFT,PC,DP,2RC	
Filter Wave Length	λs	0, 2.5, 8, 25 μm
	λc	0.08, 0.25, 0.8, 2.5, 8mm
	λf	0.8, 2.5, 8, 25mm
Evaluation Length	Sampling length \times number of samples (sampling length has standard mode and custom mode)	
Measurement and Return Speed	0.05mm/s, 0.10mm/s, 0.50mm/s, 1.00mm/s, 2.00mm/s	
Sensor	Model	Standard Universal Type
	Sensing Method	Differential Inductance
	Range	$\pm 500\mu\text{m}$
	Stylus	5 μm R diamond 90°
	Contact Force	0.4~0.75mN (Adjustable)
Display Part	10-inch color IPS touch screen	
Data Output	PDF/WIFI printing	
Power Supply	AC220V $\pm 10\%$ Built-in rechargeable battery (AC adapter charging) 3 hours charging time	
Power Consumption	30VA	
Weight	Net:3Kg Gross:10Kg	
Dimension	Main Unit 350(L) \times 116(W) \times 146(H)	



ROUGHNESS AND CONTOUR MEASURING INSTRUMENT PROBE



Name	Model	Material	L	L1	L2	φ1	φ2	φ3	θ	R	θ2
Straight Probe Rod	S8151	Carbon Fiber	150	-	-	8	2	-	-	-	-
Straight Probe Rod	S8152	Carbon Fiber	150	-	-	8	3	-	-	-	-
Reducing Probe Rod	S8152	Carbon Fiber	150	125	-	8	2	1	-	-	-
Side Probe Rod	N815152	Carbon Fiber	150	15	-	8	8	3	-	-	-
Diamond Stylus	D3001	Diamond	24	8	16	2.2	5	3	60	0.002/0.005	-
Tapered Stylus	N3001	Cemented Carbide	24	8	16	2.2	5	3	24	0.025	-
Single-Cut Stylus	SP2003	Cemented Carbide	21	6	15	1.5	4	2	12	0.025	-
Single-Cut Stylus	SP3001	Cemented Carbide	24	8	16	2.2	5	3	12	0.025	-
Double-Cut Stylus	DC2001	Cemented Carbide	12	4	8	1.5	4	2	60	0.025	20
Double-Directional Stylus	B3001	Cemented Carbide	28	10	8	5	3	20	20	0.025	20

SURFACE ROUGHNESS TESTER SENSOR



Standard Sensor



Small Hole Sensor



Extension Rod



Extended Probe



Curved Surface Sensor



Deep Groove Sensor



Adapter Rod

Standard Sensor	SRT-SS	Suitable for measuring the surface roughness of planes and shafts. When measuring the inner surface roughness of holes, it can be used for holes with a diameter greater than 6mm, with a maximum depth of 22mm. (Included in the standard equipment package.)
Small Hole Sensor	SRT-SH	Capable of measuring the surface roughness of holes with a diameter greater than 2mm, with a maximum depth of 9mm. It can also be used for measuring planes and cylindrical surfaces.
Curved Surface Sensor	SRT-CS	Designed for measuring the surface roughness of concave and convex curved workpieces with a radius of curvature greater than 3mm. It can also be used for suitable planes and cylindrical surfaces in conjunction with a measuring platform.
Deep Groove Sensor	SRT-DGS	Applicable for measuring the surface roughness of grooves with a width greater than 3mm and a depth less than 10mm, or steps with a height less than 10mm. It can also be used for measuring planes and cylindrical surfaces when used with a measuring platform.
Extended Probe	SRT-EP	For measuring the surface roughness within grooves that have a width greater than 1mm and a depth less than 13mm.
Extension Rod	SRT-ER	Can extend the length of various sensors by 50mm. It is beneficial for measuring deep holes and can be equipped with two extension rods if necessary.
Adapter Rod	SRT-AR	Enables lateral movement of the measuring mechanism for surface roughness measurement.



Standard Sensor



Small Hole Sensor



Extension Rod



Extended Probe



Curved Surface Sensor



Deep Groove Sensor



Adapter Rod

Product	Name	Page	Product	Name	Page
	Granite Tri Square	356		Granite Square Box	358
	Granite Square	356		Granite Parallel	358
	Granite Straight Edge	357		Granite Comparator Stand	358
	Granite V-Block	357		Granite Platform	359
	Granite Equal-Height Block	357			

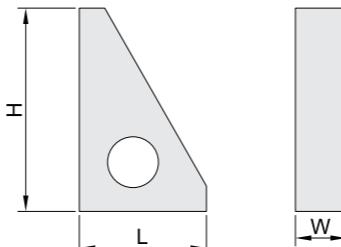
GRANITE SET-UP TOOLS

GRANITE TRI SQUARE

Used for measuring the squareness of parts, machine tool spindles, and various components. It's processed with circular holes to reduce weight and facilitate handling.



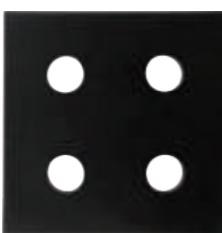
TRI161040



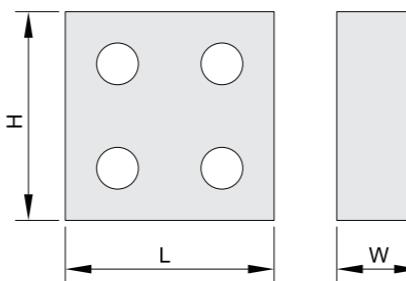
Model	Dimension (H*L*W)	Perpendicularity between Measuring Surface and Datum Surface (µm)		Flatness or Perpendicularity Measurement (µm)		Flatness or Straightness of Datum Surface (µm)	
		Accuracy 00	Accuracy 00	Accuracy 00	Accuracy 00	Accuracy 00	Accuracy 00
TRI161040	160*100*40mm	2	4	1	2	1	1
TRI251625	250*160*25mm	2.5	5	1	2	1	2
TRI302050	300*200*50mm	3.0	5	1	2.5	1	2
TRI402550	400*250*50mm	3.5	7	1	2.5	1	2
TRI403050	400*300*50mm	3.5	7	1	2.5	1	2
TRI503550	500*350*50mm	4.0	8	1.5	2.5	1	2.5
TRI634063	630*400*63mm	4.5	9	1.5	3	1	2.5
TRI805080	800*500*80mm	5	10	2.0	4	1.5	3
TRI106380	1000*630*80mm	6	12	2.5	5	1.5	3

GRANITE SQUARE

Used for measuring the squareness of parts, machine tool spindles, and various components.



S101040



Model	Dimension (L*H*W)	Flatness and Straightness of Measuring Surface(µm)			Perpendicularity between Adjacent Measuring Surfaces (µm)			Parallelism between Opposite Measuring Surfaces (µm)		
		000	00	0	000	00	0	000	00	0
S101040	100*100*40mm	0.4	0.7	1.4	0.7	1.5	3.0	0.8	1.5	3.0
S202050	200*200*50mm	0.4	0.9	1.8	0.9	2.0	4.0	1.0	2.0	4.0
S303030	300*300*30mm	0.6	1.1	2.3	1.3	2.6	5.2	1.3	2.6	5.5
S404040	400*400*40mm	0.6	1.3	2.6	1.5	3.0	6.0	1.5	3.0	6.0
S505050	500*500*50mm	0.8	1.5	3.0	1.8	3.5	7.0	1.8	3.5	7.0
S606060	600*600*60mm	0.9	1.8	3.5	2.1	4.2	8.3	2.1	4.2	8.3

GRANITE STRAIGHT EDGE

Applied for straightness and flatness measurement.



SE401050



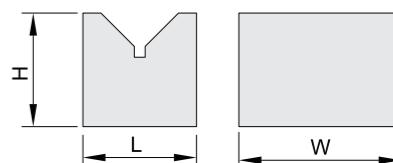
Model	Dimension (L*H*W)	Straightness Tolerance of Working Surface (µm)		Parallelism Tolerance between Upper and Lower Working Surfaces (µm)		Perpendicularity between Side Surface and Working Surface (µm)	
		Accuracy 0	Accuracy 00	Accuracy 0	Accuracy 00	Accuracy 0	Accuracy 00
SE401050	400*100*50mm	1.6	1.6	2.4	3.9	8	13
SE631050	630*100*50mm	2.1	3.5	3.2	5.3	10.5	18
SE801050	800*100*50mm	2.6	4.5	4.0	6.5	13	22
SE101050	1000*100*50mm	3.0	5.0	4.5	4.7	15	25
SE101260	1000*120*60mm	3.0	5.0	4.5	4.7	15	25
SE121050	1200*100*50mm	3.2	5.5	5.0	8.5	17	28
SE121260	1200*120*60mm	3.2	5.5	5.0	8.5	17	28
SE151560	1500*150*60mm	4.4	7.4	6.6	11.1	22	37
SE201580	2000*150*80mm	5.4	9.0	8.1	13.5	27	45
SE202010	2000*200*100mm	5.4	9.0	8.1	13.5	27	45
SE303020	3000*300*200mm	8.0	11.5	10	20	35	60

GRANITE V-BLOCK

Used for measuring the coaxiality, concentricity, alignment, and runout of rotating parts.



V636390



Model	Dimension (L*H*W)	Flatness of Working Surface (µm)		Symmetry of V-Groove to Both Side Surfaces (µm)		Height Difference of V-Groove to Bottom Surface for Each Set of V-Blocks (µm)	
		Grade0	Grade1	Grade0	Grade1	Grade0	Grade1
V636390	63*63*90mm	1.5	3	8	16	5	10
V101090	100*100*90mm	2	4	8	16	5	10
V161690	160*160*90mm	2.5	5	10	20	5	10
V202090	200*200*90mm	3.5	7	13	25	5	15

GRANITE EQUAL-HEIGHT BLOCK

Used for heightening, leveling, and establishing height applications.



EH161040



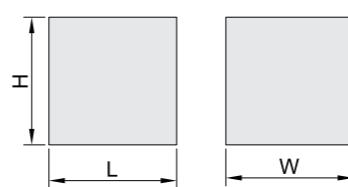
Model	Dimension (L*H*W)	Parallelism of Upper and Lower Surfaces (µm)		Flatness of Working Surface (µm)		Perpendicularity of Side Surface (µm)	
		Accuracy 00	Accuracy 0	Accuracy 00	Accuracy 0	Accuracy 00	Accuracy 0
EH161040	160*100*40mm	2	4	1	2	1	2
EH251525	250*160*25mm	2.5	5	1	2	1	2
EH302050	300*200*50mm	3	6	1	2.5	1	2.5
EH402550	400*250*50mm	3.5	7	1.5	2.5	1.5	3

GRANITE SET-UP TOOLS

GRANITE SQUARE BOX

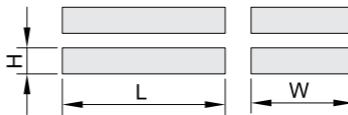
Used for squareness and parallelism inspection, and can serve as a 90° absolute measurement datum.

Model	Dimension (L*W*H)	Parallelism(μm)		Flatness(μm)		Perpendicularity(μm)	
		Accuracy 00	Accuracy 0	Accuracy 00	Accuracy 0	Accuracy 00	Accuracy 0
SB101010	100*100*100mm	1	2	2	1	2	1
SB151515	150*150*150mm	1.5	3	2	1	3	1.5
SB202020	200*200*200mm	2	4	3	1.5	4	2
SB303030	300*300*300mm	3	6	3	1.5	6	3
SB404040	400*400*400mm	4	8	4	2	8	4
SB505050	500*500*500mm	5	10	5	2.5	10	5



GRANITE PARALLEL

Can replace equal-height blocks for measuring the parallelism of parts.

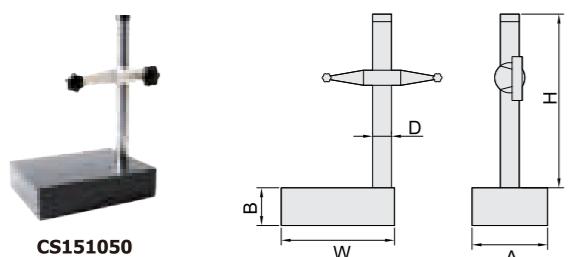


P106316

Model	Dimension (L*W*H)	Flatness of Working Surface (μm)		Parallelism between Two Working Surfaces (μm)		Perpendicularity between Working Surface and Side Surface (μm)		Heightening Degree of Each Pair of Parallel Rails (μm)	
		Accuracy 00	Accuracy 0	Accuracy 00	Accuracy 0	Accuracy 00	Accuracy 0	Accuracy 00	Accuracy 0
P106316	100*63*16mm	1.5	3	1.5	3	5	10	1.5	3
P164025	160*40*25mm	1.5	3	1.5	3	5	10	1.5	3
P254025	250*40*25mm	2	4	2	4	10	20	2	4
P406340	400*63*40mm	4	8	4	8	15	30	4	8
P631063	630*100*63mm	6	12	6	12	20	40	6	12

GRANITE COMPARATOR STAND

Marble comparison measuring tables, height gauges, indicator bases, measuring seats, and micrometer stands are used for high-precision measurement. The rod is made of high-quality 45# steel chrome-plated rod, and the collet is made of aluminum alloy through mold opening. The accessories have high precision and stable clamping force.

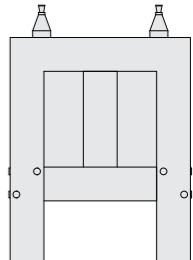


Model	Dimension (A*W*B)	Arm Length	Column Diameter-D	Column Height-H	Hole Alignment-L
CS101550	100*150*50mm	140mm	25mm	280mm	80mm
CS152050	150*200*50mm	140mm	25mm	280mm	80mm
CS203050	200*300*50mm	180mm	26mm	280mm	132mm

Model	Dimension (mm)	Unit	Weight(kg)
CS151050	150*100*50	Set	4.5
CS151550	150*150*50		5.5
CS201550	200*150*50		6.5
CS302050	300*200*50		11
CS303050	300*300*50		15.5
CS403050	400*300*50		20
CS404050	400*400*50		26
CS604010	600*400*100		75
CS302580	300*250*80		20
CS403080	400*300*80		31

GRANITE PLATFORM

Made of natural granite, featuring high hardness, stable dimensions, and little influence by temperature.



Optional accessory: Platform stand.

Accuracy	
Grade 000	1* (1+d/1000) μm
Grade 00	2* (1+d/1000) μm
Grade 0	4* (1+d/1000) μm
Grade 1	8* (1+d/1000) μm

Model	Dimension(mm)	Special Grade Accuracy	Weight (kg)	Optional Stand
GP151050	150*100*50	2.5	3	None
GP151550	150*150*50	2.5	3.5	
GP201650	200*160*50	2.5	6	
GP302050	300*200*50	3.0	12	
GP303050	300*300*50	3.0	16	
GP403050	400*300*50	3.0	20	
GP303080	300*300*80	3.0	22	
		6.0		
GP403080	400*300*80	3.0	32	
GP403010	400*300*100	3.0	38	
		6.0		
GP404050	400*400*50	4.0	26	
		7.0		
GP404080	400*400*80	4.0	40	901
		7.0		701
GP404010	400*400*100	4.0	52	902
		7.0		702
GP504010	500*400*100	4.0	70	903
		7.0		703
GP505010	500*500*100	4.0	85	904
		7.0		704
GP604010	600*400*100	4.0	82	905
		7.0		705
GP604510	600*450*100	4.0	92	906
		7.0		706
GP634010	630*400*100	4.0	92	907
		7.0		707
GP605010	600*500*100	4.0	90	940
		8.0		742
GP606010	600*600*100	4.0	100	908
		8.0		708

GRANITE SET-UP TOOLS

GRANITE PLATFORM

Model	Dimension(mm)	Special Grade Accuracy	Weight (kg)	Optional Stand
GP706010	700*600*100	4.0	126	909
		8.0		709
GP805010	800*500*100	4.0	135	939
		8.0		740
GP806010	800*600*100	4.0	144	910
		8.0		710
GP906010	900*600*100	4.5	175	911
		9.5		711
GP808010	800*800*100	4.5	192	912
		9.0		712
GP808015	800*800*150	4.5	288	913
		9.0		713
GP106315	1000*630*150	4.5	300	914
		9.0		714
GP107515	1000*750*150	4.5	370	915
		9.0		715
GP108015	1000*800*150	4.5	390	916
		10		716
GP109015	1000*900*150	4.5	405	917
		10		717
GP101015	1000*1000*150	5.0	470	918
		10		718
GP128015	1200*800*150	5.0	455	919
		10		719
GP129015	1200*900*150	5.0	500	920
		10.5		720
GP121015	1200*1000*150	6.0	560	921
		11		721
GP158015	1500*800*150	6.0	540	922
		11		722
GP151015	1500*1000*150	6.0	700	923
		11		723
GP151215	1500*1200*150	7.0	850	924
		12		724
GP151020	1500*1000*200	6.0	930	925
		11		725
GP151220	1500*1200*200	7.0	1100	926
		12		726
GP201020	2000*1000*200	7.0	1250	927
		14		727
GP151520	1500*1500*200	7.0	1400	928
		14		728
GP181520	1800*1500*200	8.0	1620	929
		15		729
GP201025	2000*1000*250	8.0	1560	930
		16		730
GP201520	2000*1500*200	7.0	1850	930
		14		731

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