



iVicker-5T-10T-30T-50T Digital Automatic Turret Vickers Hardness Tester



Contact us

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Feature and Application

Product Feature

- Equipped with an 8-inch color LCD touch screen for easy operation.
- 8 levels of test force: 0.01 kgf, 0.025 kgf, 0.05 kgf, 0.1 kgf, 0.2 kgf, 0.3 kgf, 0.5 kgf, 1 kgf.
- Closed-loop loading control system ensures precise force application.
- Automatic loading and unloading of test force.
- Supports both Vickers and Knoop hardness testing methods (Knoop indenter optional).
- Supports hardness conversion function.
- External halogen light source with adjustable brightness, mounted on the left side of the unit.
- Equipped with 10× micrometer eyepiece, combined with 10× and 20× objectives, providing total magnifications of 100× and 200×.
- Measurement results displayed directly upon completion of indentation size measurement.
- 3-position automatic turret, fitted with 1 Vickers diamond indenter and 2 objectives (10× and 20×).
- Supplied with 3 specimen stages: $\phi 150$ mm stage; $\phi 75$ mm stage; $\phi 75$ mm V-shaped stage.
- Lifting column adopts screw rod design for smooth and stable elevation.
- Built-in energy-saving mode; light source automatically turns off after 10 minutes of inactivity.
- Built-in thermal printer for quick data printout.
- Compliant with standards: GB/T 4340; ISO 6507; ASTM E384, etc.

Product Application

- Materials Science.
- Hardness testing of various metallic materials (e.g., steel, aluminum alloys, copper alloys, etc.) and non-metallic materials (e.g., ceramics, glass, rubber, etc.). By understanding the hardness properties of materials, their processability and service performance can be evaluated.
- Manufacturing and Processing Industries.
- Used for hardness inspection of workpieces to ensure product quality complies with standards.
- Research on Mechanical Properties of Materials.
- Employed in the measurement of mechanical parameters such as elastic modulus, Poisson's ratio, etc.



Product Structure



1. Micrometer Eyepiece

2. Micrometer Eyepiece Interface/Adapter

3. Automatic Turret

4. Testing Stage

5. Lifting Rod

6. Lifting Handwheel

7. Screen

8. Emergency Stop Button

9. Leveling Screws

Product Structure



1. Light Source

2. Printer

3. Power Switch

4. Power Socket

5. USB Port

6. RS232 Port

Product Detail



- Halogen light source with high brightness and adjustable light intensity.

- 10× micrometer eyepiece; indentation size is measured via the left and right knobs.



- 3-position automatic turret – enables automatic switching between indenters and objectives.
- Equipped with one Vickers diamond indenter and two sets of objectives.

Product Detail



- Lifting rod adopts a lead screw (or ball screw) design, ensuring smooth and stable vertical movement, which is manually controlled via the handwheel at the base.
- Maximum specimen height: 175 mm.
- Throat depth (or throat clearance): 125 mm.

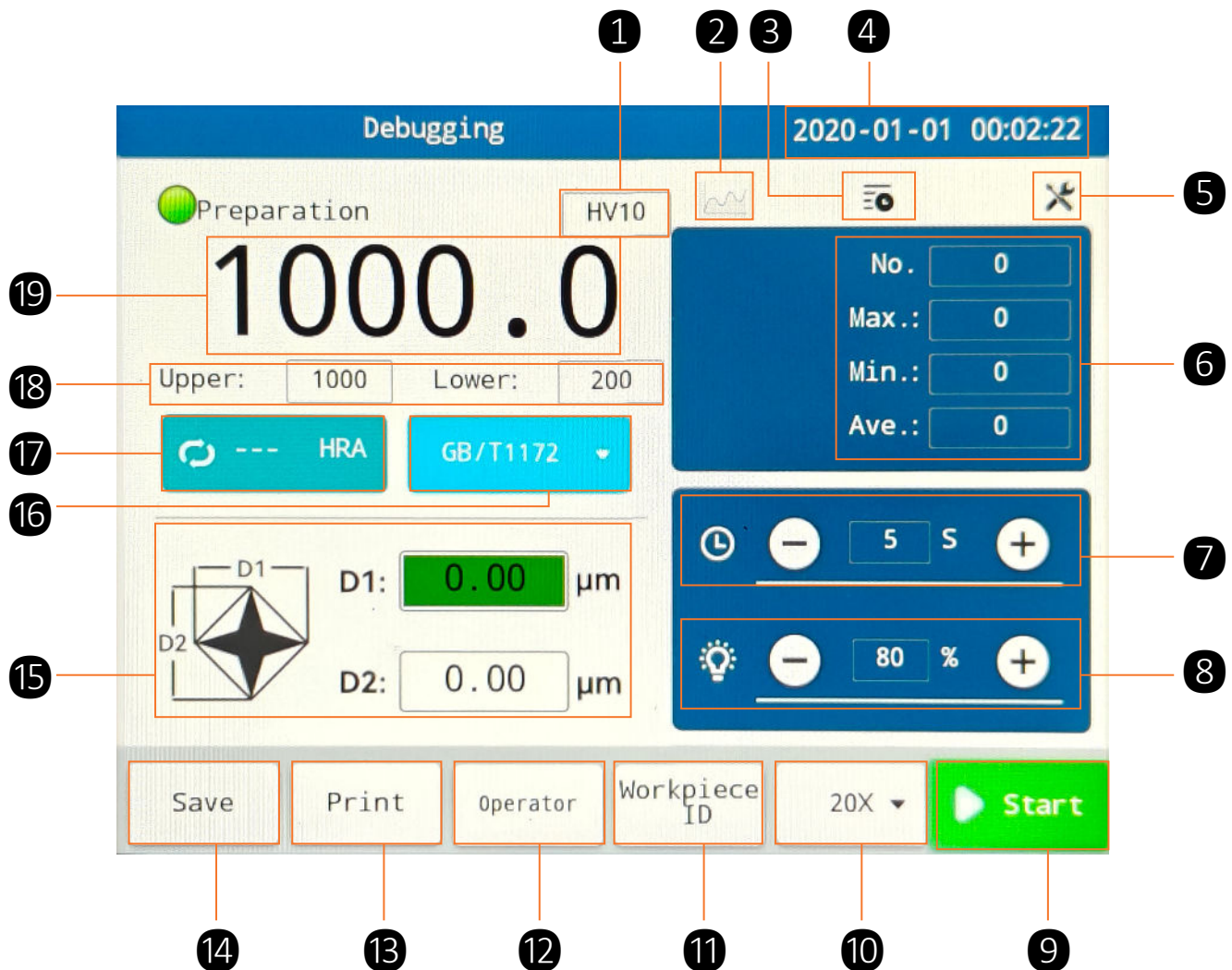
- Standard supplied 3 stages:
 - φ150 mm flat testing stage (or specimen table / anvil)
 - φ75 mm flat testing stage
 - φ75 mm V-shaped testing stage



- Built-in thermal printer – enables convenient and fast output of test data

Screen Interface

Main Interface



1. Test force

2. Force-time curve

3. Historical data

4. Date and time

5. Settings

6. Statistics

7. Dwell time

8. Brightness adjustment

9. Start

10. Objective/Indenter

11. Specimen name

12. Operator

13. Print

14. Save

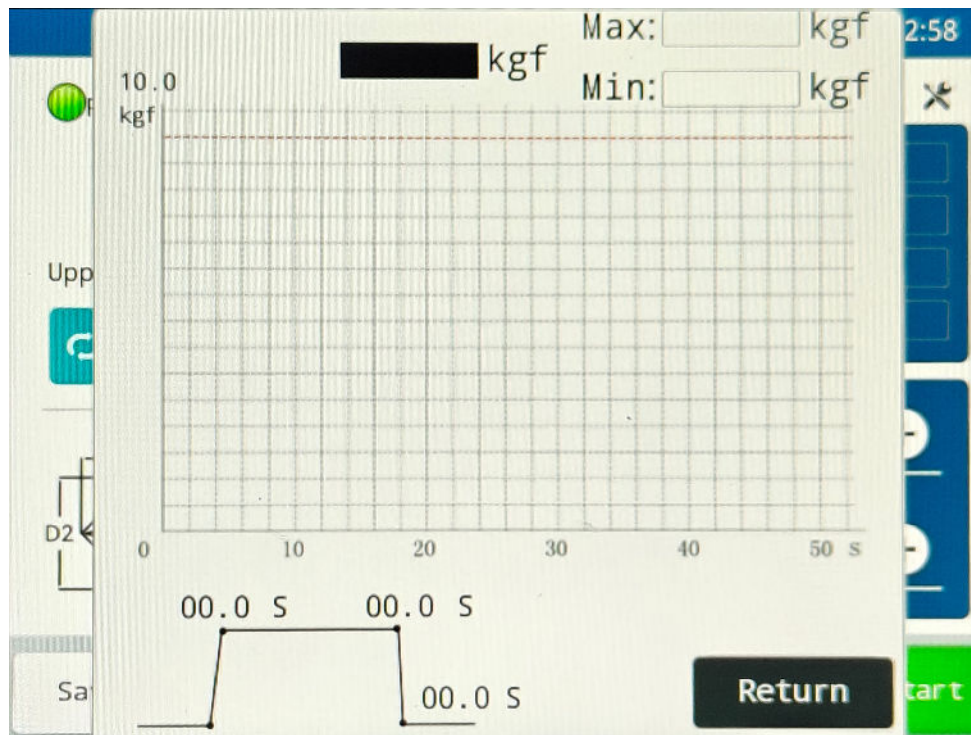
15. Indentation size

16. Conversion standard

17. Hardness conversion

18. Upper and lower limits

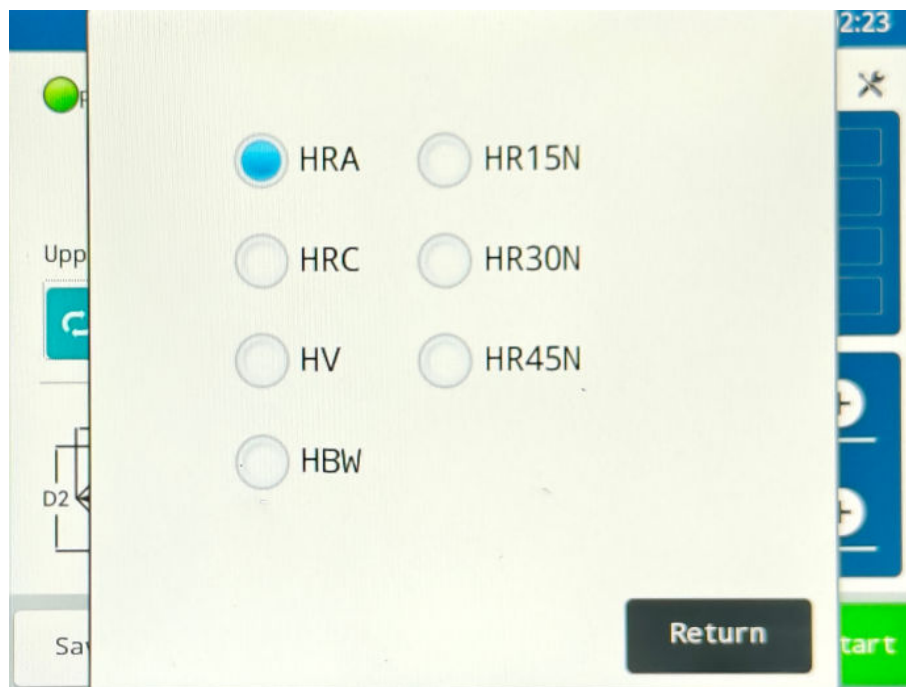
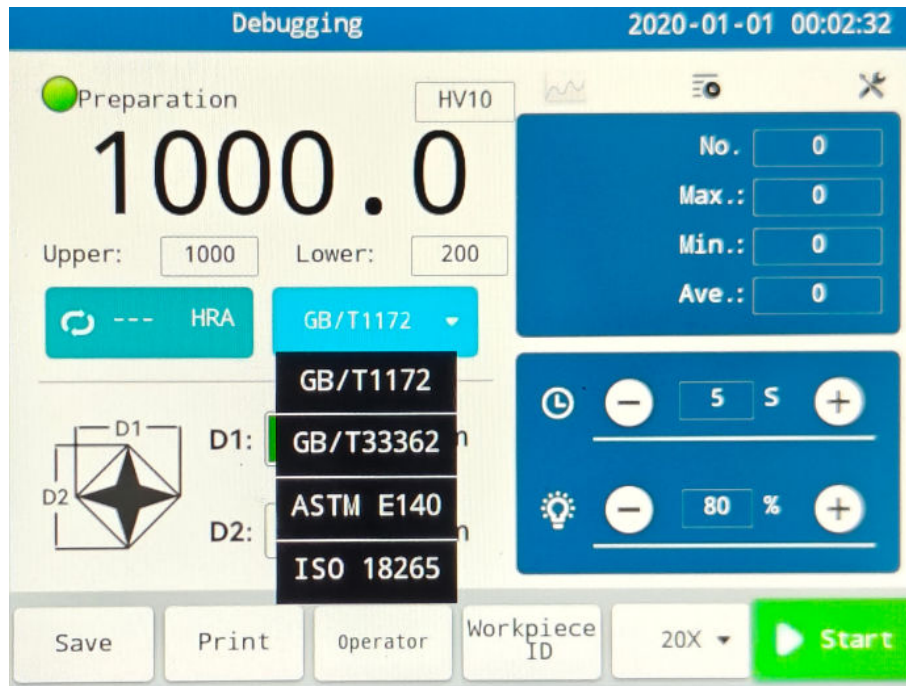
19. Hardness value



- Email:mikrosize@mikrosize.com

Software Interface

Hardness Scale Conversion



- Supports 4 hardness conversion standards: GB/T 1172; GB/T 33362; ASTM E140; ISO 18265.
- Different standards support different conversion scales.

Software Interface

Historical Data

Time		Test ruler		Hold time	
2020/01/01		00:56		HV50	
Operator		Workpiece ID		5 S	

(0)	HV50	HRA		HV50	HRA
1	753.4	82.4	6	476.6	74.5
2	751.6	82.3	7	477.6	74.5
3	751.7	82.3	8	478.0	74.5
4	747.1	82.2	9	750.8	82.3
5	750.5	82.3	10	748.7	82.2

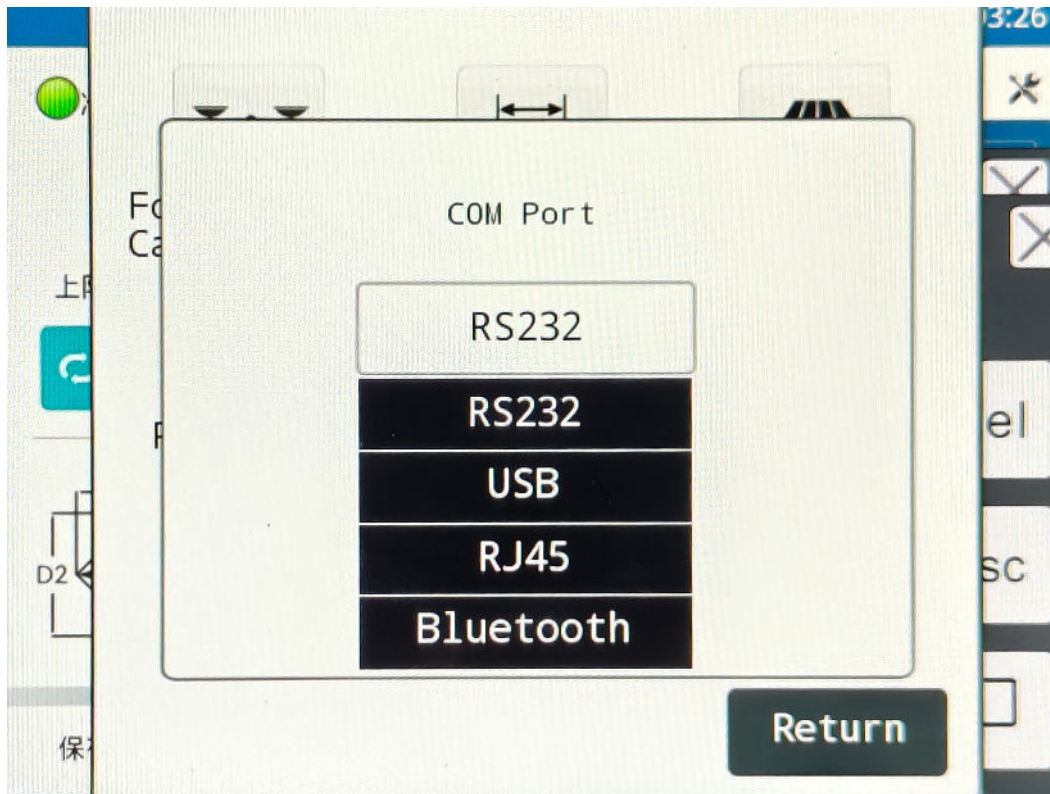
Up
Down

Max.	Min.	Ave.	S
753.4	476.6	668.60	13195.18 %

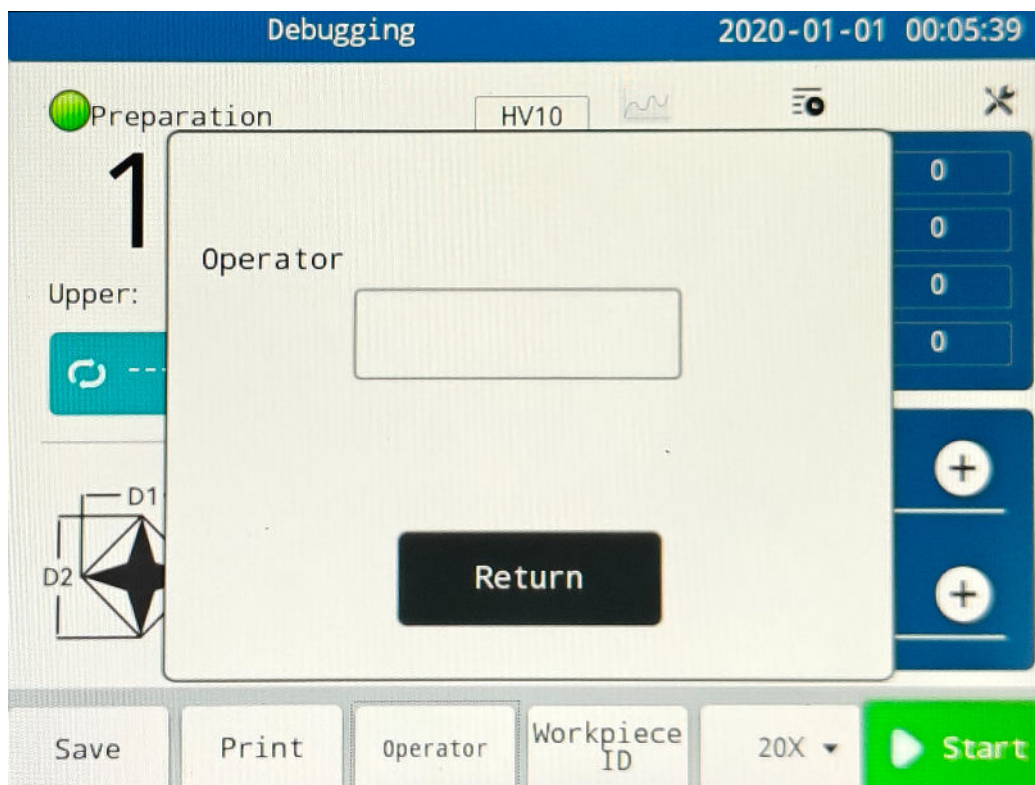
Del
Export
Print
Return

- Supports viewing of historical data, including test date and time, selected test force, dwell time, maximum/minimum/average values, and individual test results for each measurement.
- Data can be printed out or exported to a USB flash drive and PC.

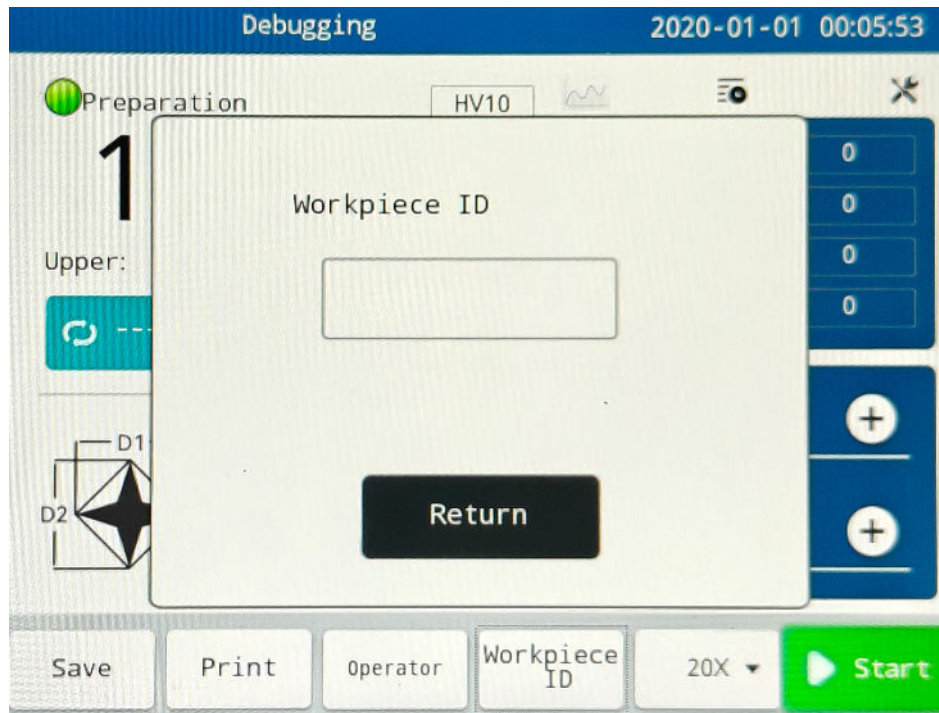
Software Interface



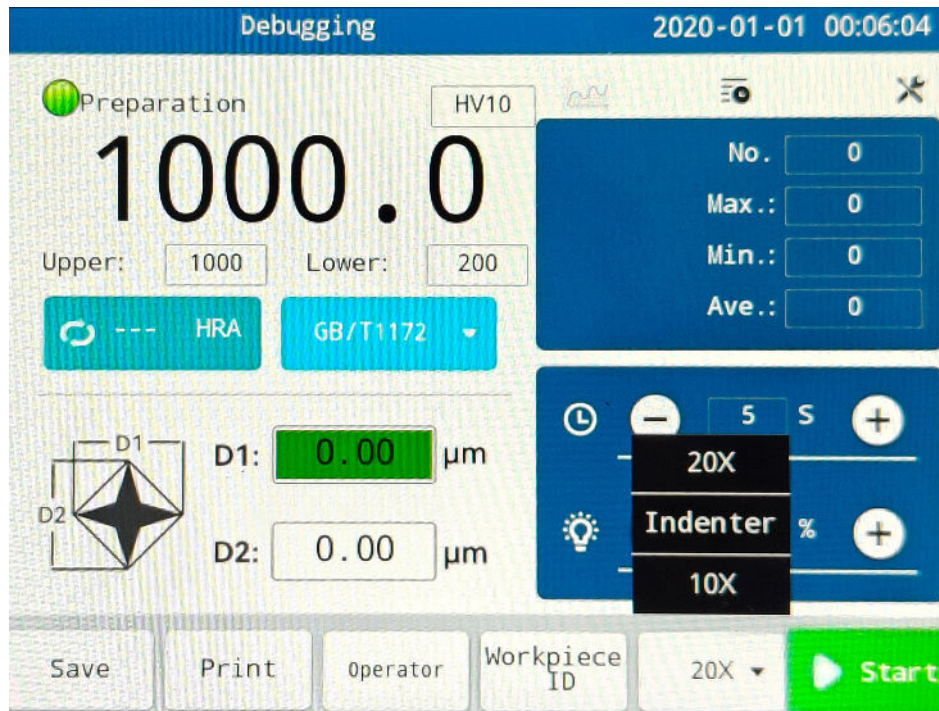
- Supports 4 types of serial connections: RS232, USB, RJ45, Bluetooth.



Software Interface

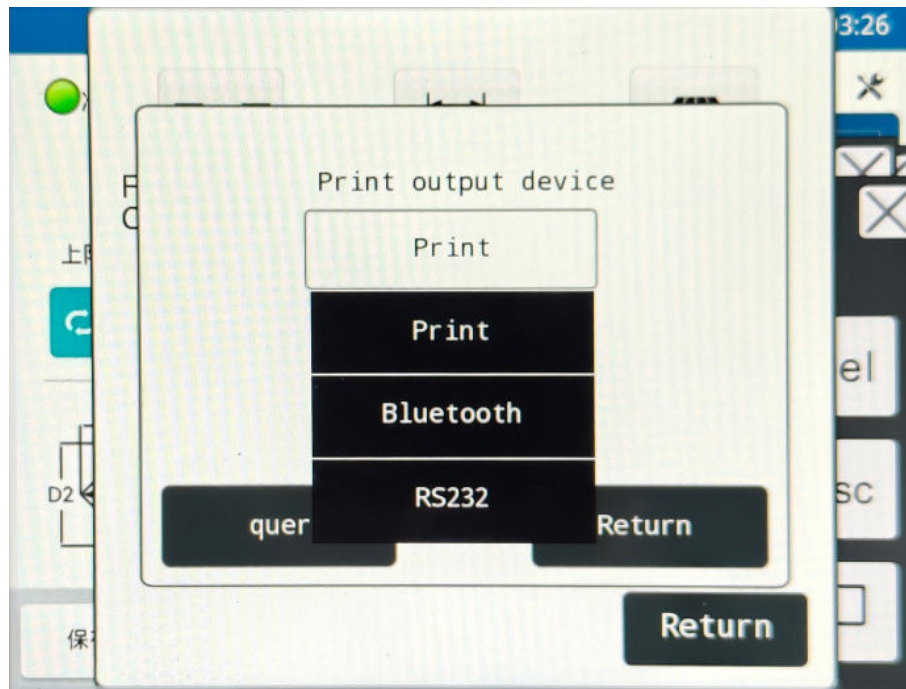


- Supports naming and numbering of specimens.
- Supports setting operator name.



- 3-position automatic turret with automatic switching between objectives and indenters.

Software Interface



- Supports 3 printing modes: Print, Bluetooth, RS232.



- Language:
- Supports 5 languages: Chinese, English, Russian, Turkish, French.

Technical Specification

Name		Digital Automatic Turret Vickers Hardness Tester
Model		iVicker-5T-10T-30T-50T
Test Force	iVicker-5T	0.1kgf、0.2kgf、03kgf、0.5kgf、1kgf、2kgf、2.5kgf、3kgf、5kg
	iVicker-10T	0.1kgf、0.2kgf、03kgf、0.5kgf、1kgf、2kgf、2.5kgf、3kgf、5kg、10kgf
	iVicker-30T	0.3kgf、0.5kgf、1kgf、2kgf、2.5kgf、3kgf、5kg、10kgf、20kgf、30kgf
	iVicker-50T	0.5kgf、1kgf、2kgf、2.5kgf、3kgf、5kg、10kgf、20kgf、30kgf、50kgf
Hardness Testing Range		5HV~3000HV
Testing Modes		HV/HK
Scale Conversion		HRA、HRB、HRC、HRD、HRE、HRF、HV、HK、HBW、HR15N、HR30N、HR45N、HR15T、HR30T、HR45T
Test Force App. & Ctrl.		Fully Automatic (Loading/Dwell/Unloading)
Indenter & Obj. Switch		Automatic

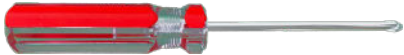
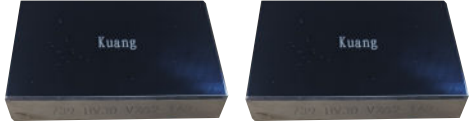
Technical Specification

Indenter Size		Diamond Vickers Indenter
Micrometer Eyepiece		10X
Objectives	iVicker-5T	10X、 40X
	iVicker-10T/ 30T/50T	10X、 20X
Total Magnification		100X、 400X (MHVS-5A) 100X、 200X (MHVS-10A/30A/50A)
Max. Sample Height		175mm
Indenter Ctr. to Wall Dist.		125mm
Reading Method		Automatic input of indentation length; Hardness value displayed on LCD screen.
Power Supply		AC220V, 50Hz
Dimensions (LxWxH)		320mm*580mm*650mm
Net Weight		55KG

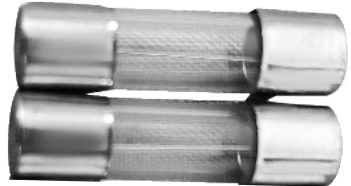
Standard Delivery

Name	Qty	Photo
Mainframe	1pc	
Vickers Indenter	1pc	
2 sets of Objectives	each 1pc	
10X Digital Micrometer Eyepiece	1pc	
φ150 mm Testing Stage	1pc	
φ75 mm Testing Stage	1pc	

Standard Delivery

Name	Qty	Photo
φ75 mm V-shaped Testing Stage	1pc	
Spirit Level (Leveling Bubble)	1pc	
Screwdriver	1pc	
Leveling Screws	4pcs	
Standard Vickers Hardness Test Blocks	2pcs	
Power Cord	1pc	

Standard Delivery

Name	Qty	Photo
Fuse	2pcs	
Dust Cover	1pc	
Instruction Manual	1copy	
Product Certificate	1copy	
Warranty Card	1copy	

Optional Delivery

Optional

Vickers indenter

Knoop indenter

Standard Vickers hardness test block

Standard Knoop hardness test block

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