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# MVicky-1000T

## Touch Screen Micro Vickers Hardness Tester

Video


## Contact us

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# Features and Applications

The digital micro Vickers hardness tester is a high-tech product integrating optics, mechanics, and electronics. It features a high-definition touch screen for display and operation. With its novel, aesthetically pleasing design, it offers excellent intuitiveness, operability, and reliability. The machine employs an automatic switching device between the indenter and objective lens for automatic positioning, making it an ideal product for testing micro Vickers hardness.

## Product Features

- High-definition touch screen display and operation.
- Automatic switching device and positioning between indenter and objective lens.
- The instrument adopts precise mechanical design, is controlled by cpu for the testing process electrically, and utilizes a high-definition optical measurement system optically, enhancing the testing accuracy of the hardness tester
- Micro vickers and knoop hardness options available.
- Selection of all microhardness scales
- Conversion between various hardness scales.
- Pre-setting of test force dwell time.
- Adjustment of measurement light source intensity.
- After measuring the indentation diagonal length and pressing the input button, the hardness value is displayed on the screen, along with prompts for the number of hardness tests performed, etc.
- Built-in printer for printing hardness test results

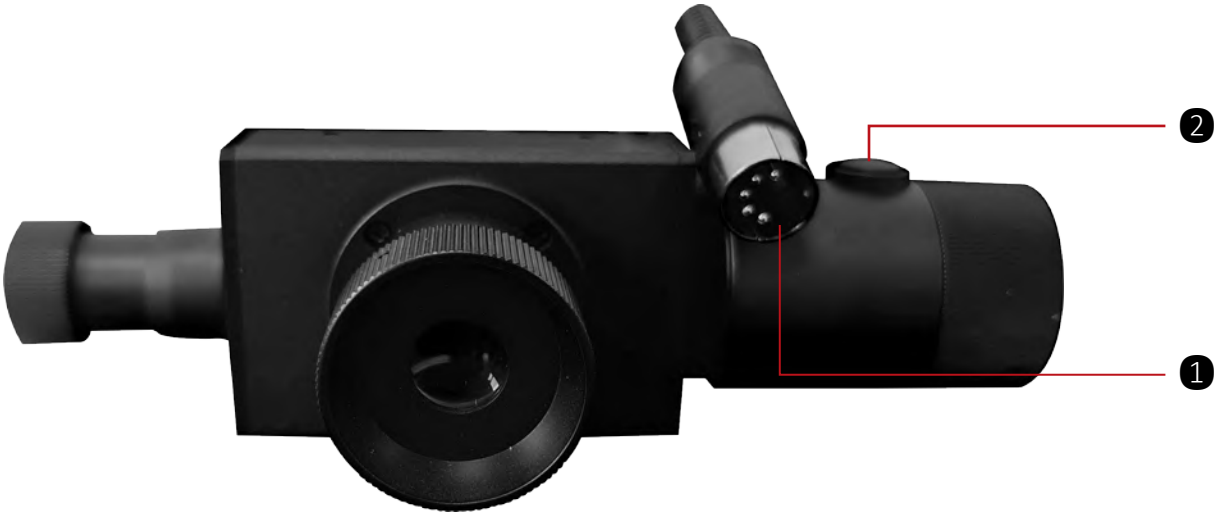

## Product Application

- Hardness testing of various metal materials such as steel, aluminum alloys, copper alloys, etc
- Enables users to understand the hardness properties of materials, thereby assessing their machinability and service performance.
- Applicable for hardness testing of non-metallic materials such as ceramics, glass, rubber, etc.

# Product Details


**1. Halogen light source** **2. Eyepiece interface** **3. Eyepiece** **4. Automatic turret**
**5. Indenter** **6. X-Y test stage** **7. X-axis handwheel** **8. Elevating lead screw**
**9. Touch screen**

# Product Details




**1. Eyepiece interface** **2. Input button**

After measuring the indentation diagonal length, press the input button to record the data. Both horizontal and vertical directions need to be recorded once.

Adjust the movement of the test stage in the X-axis direction via the X-axis handwheel.
The elevating lead screw adopts a worm gear structure for more stable lifting.

# Product Details


**1. Load change handwheel** **2. Emergency stop switch** **3. Handwheel**

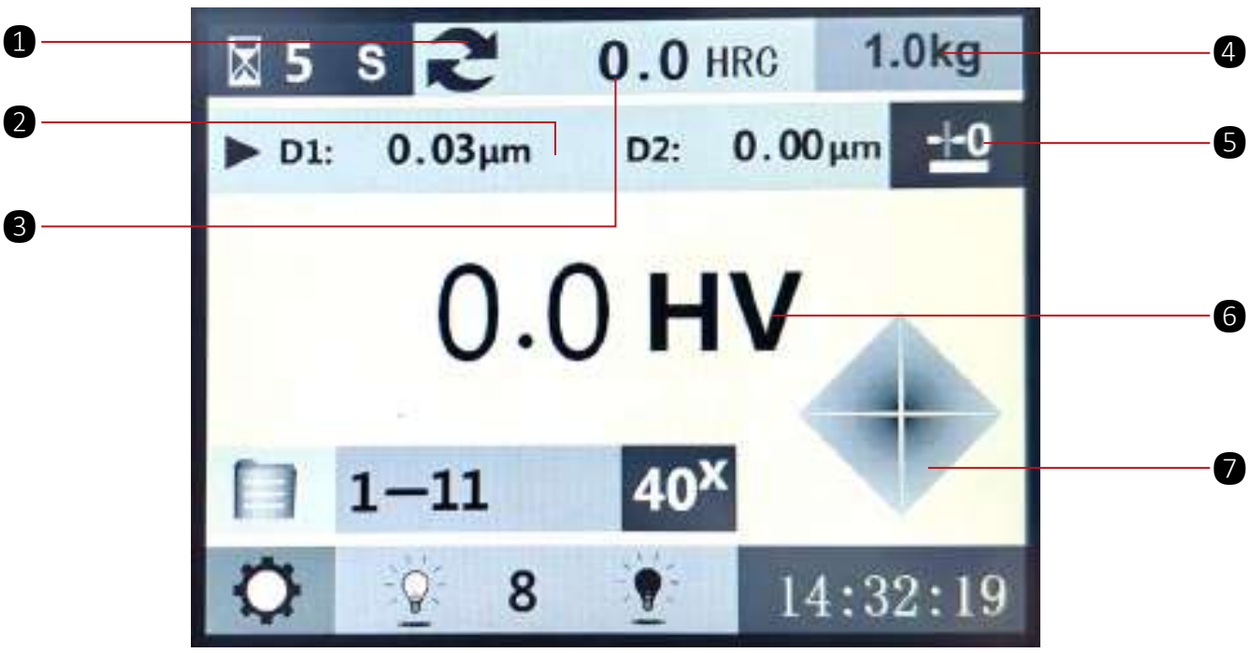
# Product Details


Adjust the height of the lead screw via the handwheel.
Adjust the test force magnitude via the load change handwheel.
Emergency stop switch

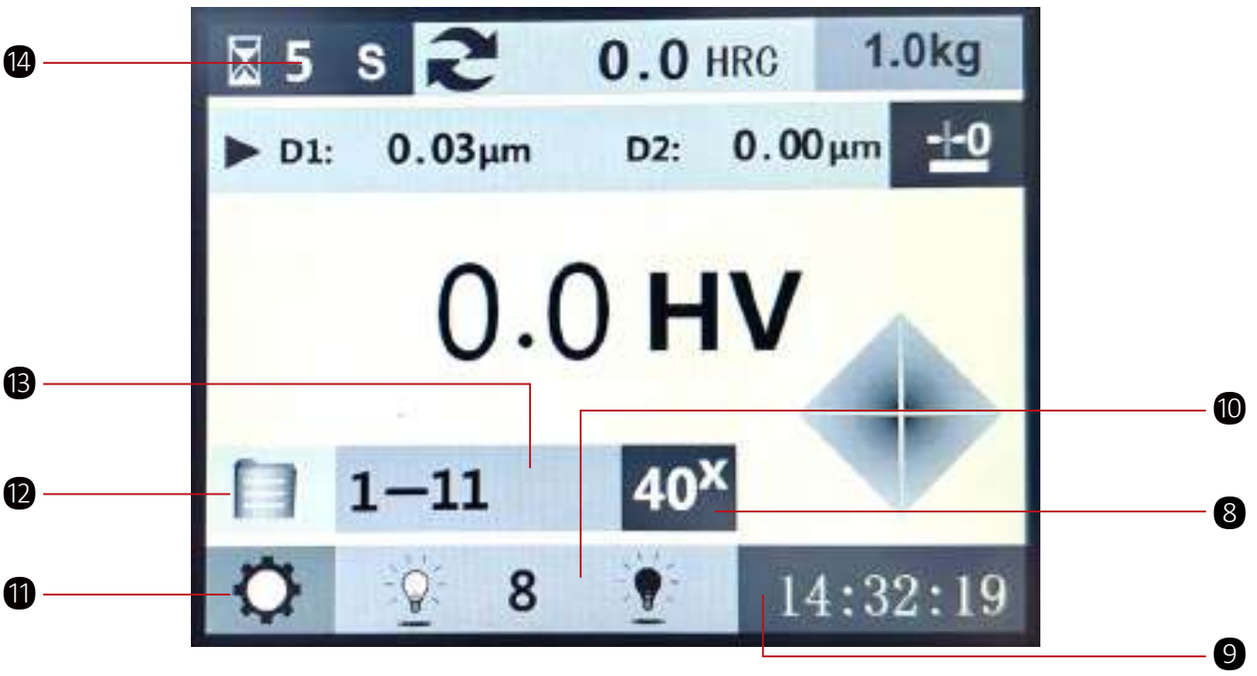
Printer: Printed data includes maximum value, minimum value, average value, and time.


1.Power： AC220V/50~60Hz 2. External DB9 interface 3. Power switch

# Operation Interface




**1. Hardness conversion** **2. Measure diameter** **3. Hardness conversion value**
**4. Current load** **5. Eyepiece zeroing** **6. Hardness value** **7. Start**

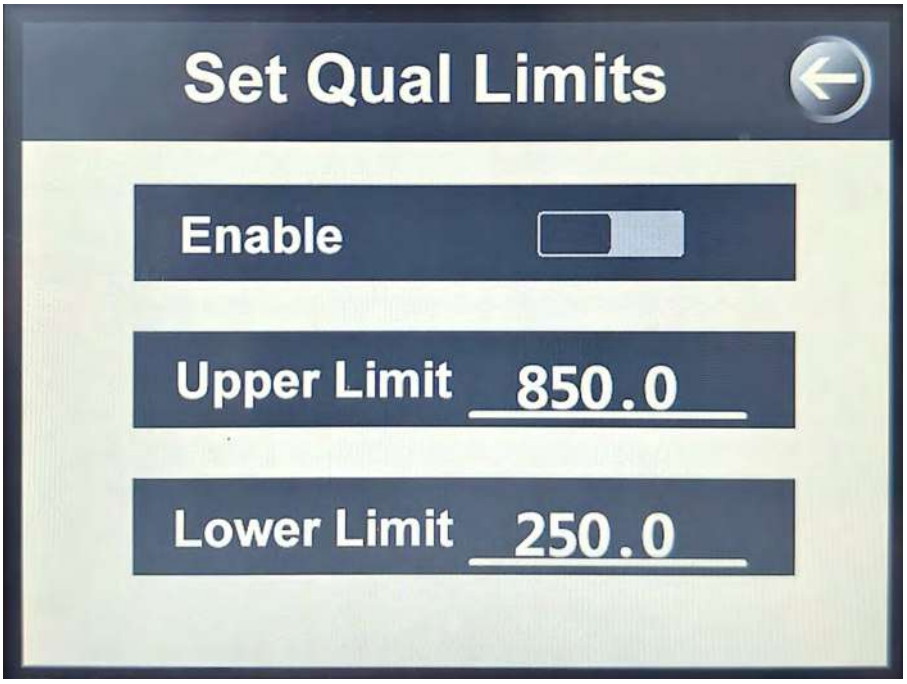



**8. Turret conversion** **9. Time display** **10. Brightness adjustment**
**11.Settings** **12. Folder** **13.Number of measurements** **14. Dwell time**

- Hardness conversion can be switched to Knoop hardness
- Load force dwell time 0~60s (in 5s increments).
- Zeroing operation is required before measurement to ensure accuracy of results.
- Turret selection: 10x objective, 40x objective, and indenter.

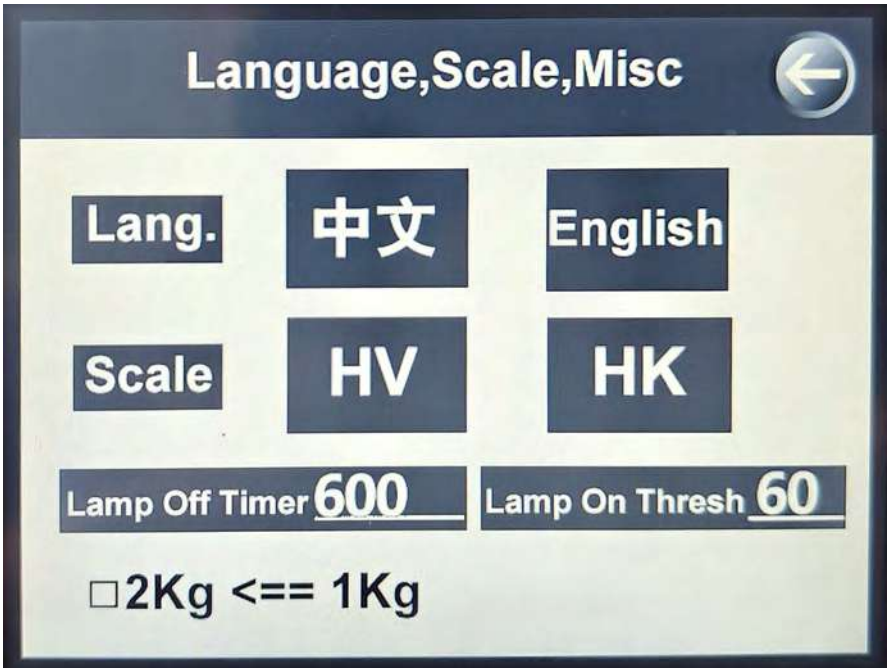
# Operation Interface


Set time and date.
Set language, scale, and other settings.




Set upper and lower limits

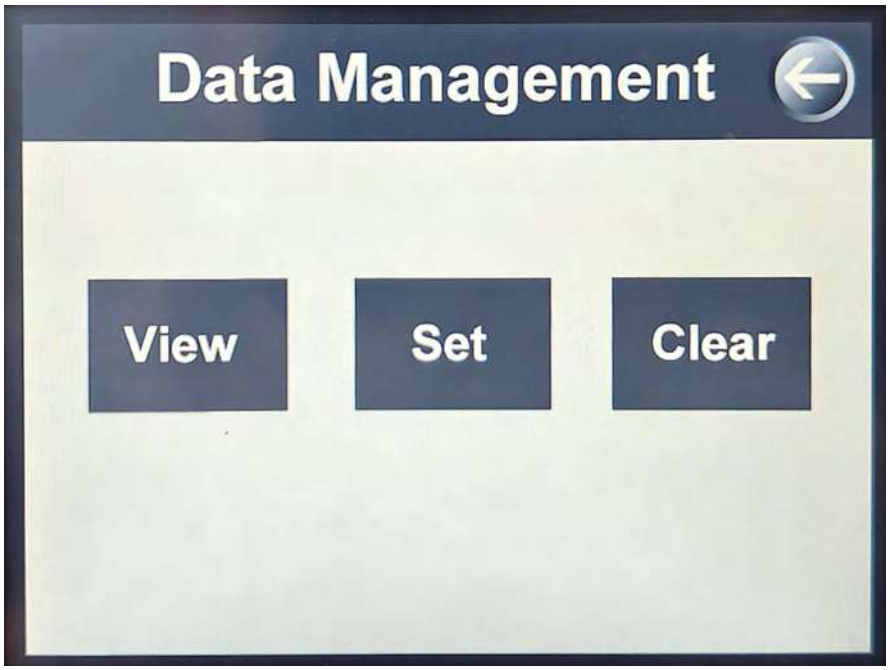
# Operation Interface



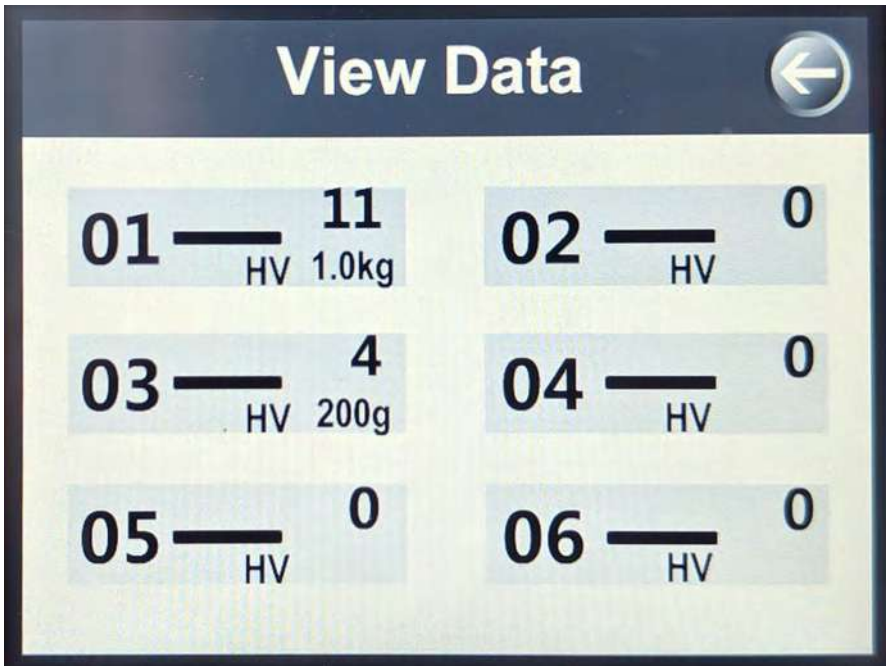

Select the display language, Chinese and English are optional, and other languages can be customized
2 types of rulers to choose from, HV, HK
Set the time to turn off the light source and the light source brightness threshold


Set the dwell time, with 5 seconds as a unit, ranging from 0 to 60 seconds, and the default is 5 seconds.

# Operation Interface

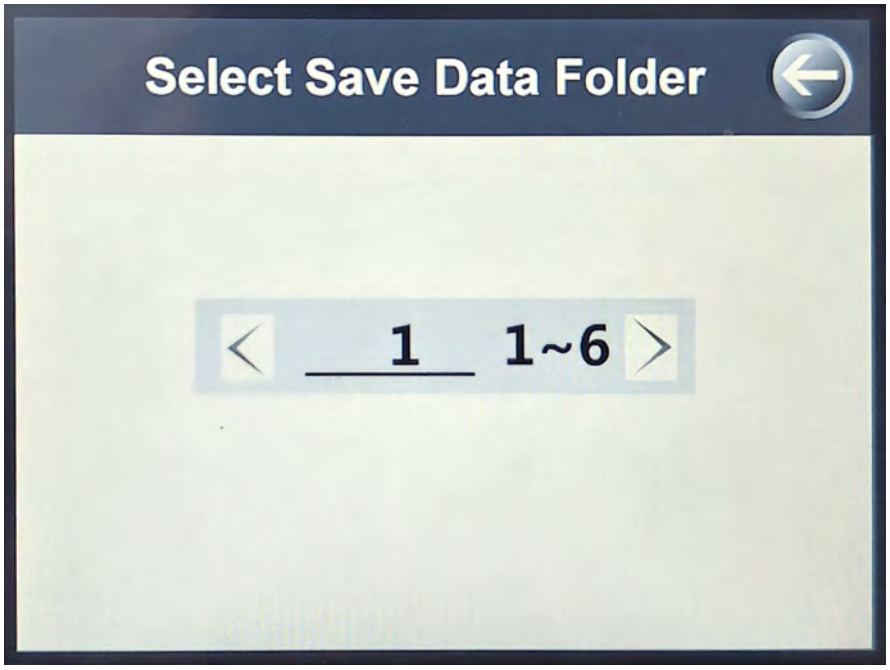



Data management: view, set, and clear data

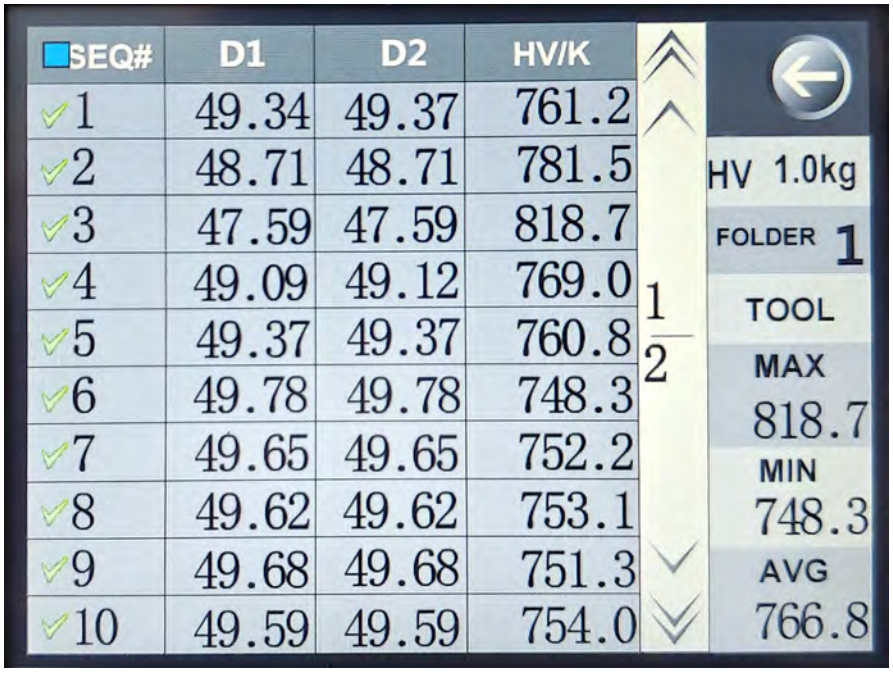



Select different folders to view data in the corresponding folder

# Operation Interface

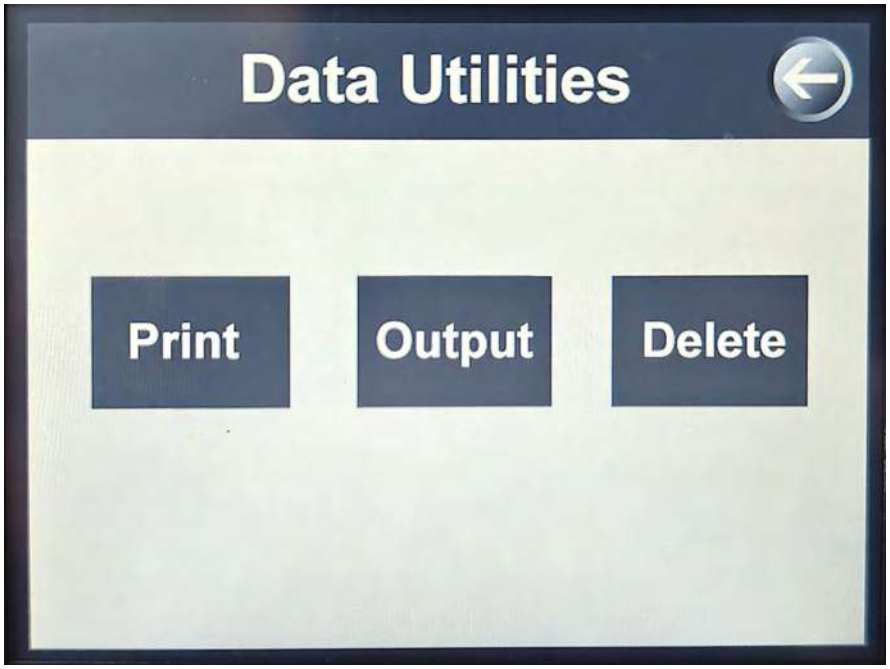



Select Folder to Save Data

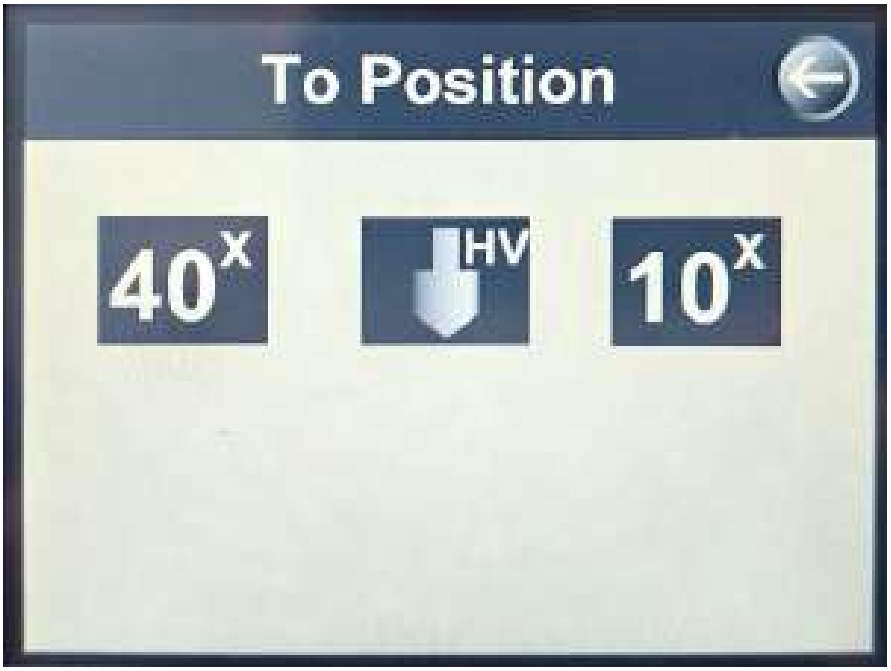



View recorded test data

# Operation Interface

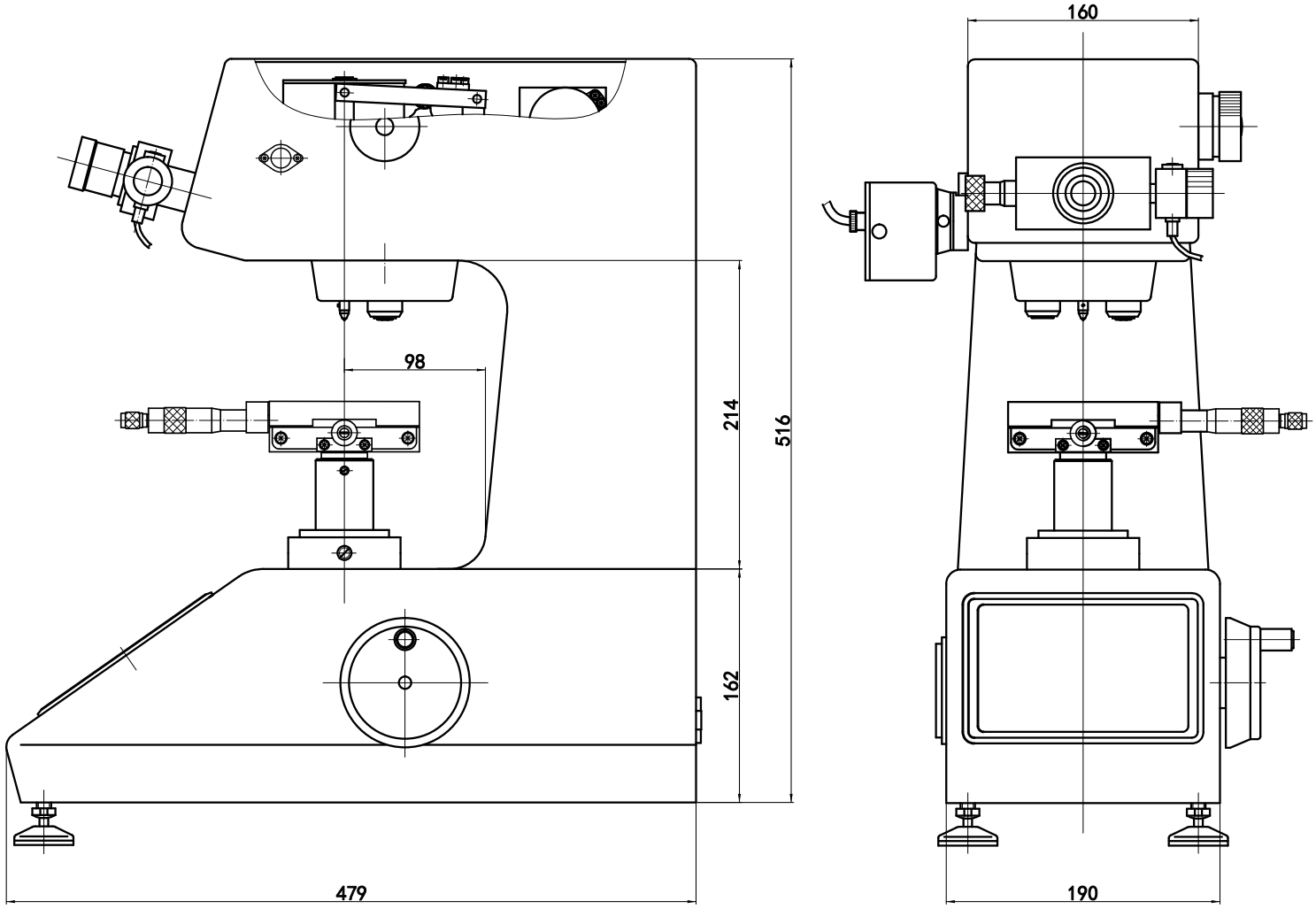



Process test data, including Print, Output, and Delete




Selectable sequentially: 40x objective, indenter, 10x objective

# Product Dimensions



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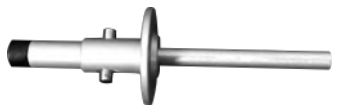
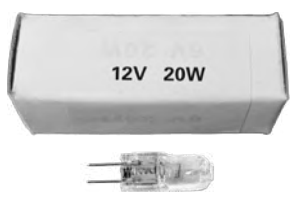
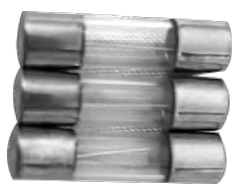
# Technical Specification

| | |
|---|---|
| **Name** | Touch Screen Micro Vickers Hardness Tester |
| **Model** | MVicky-1000T |
| **Test Force** | 0.098N、0.245N、0.49N、0.9807N、1.961N、2.942N、4.903N、9.807N |
| | 10gf、25gf、50gf、100gf、200gf、300gf、500gf、1kgf |
| **Indenter** | Diamond Indenter |
| **Test Force Application Method** | Automatic application and removal of test force |
| **Indenter And Objective Lens** | Automatic switching |
| **Test Force Dwell Time** | 0~60s (in 5s increments) |
| **Eyepiece** | 10X |
| **Objective Lens** | 10X 40X |
| **Total Magnification** | 100X 400X |
| **Resolution** | 0.06μm |
| **X-Y Test Stage** | Size:100x100 mm |
| | Travel:25x25mm |
| | Resolution:0.01mm |
| **Maximum Sample Height** | 90mm |
| **Indenter Center To Outer Wall** | 100mm |
| **Working Conditions** | Within room temperature range (23±5)°C |
| | Placed horizontally on a stable base |
| | In a vibration-free environment, free from corrosive media |
| | Indoor relative humidity not exceeding 65% |
| **Power Supply** | AC220 V/50~60 Hz |
| **Net Weight** | 31KG |
| **Dimensions (L X W X H)** | 480x325x545mm |

# Standard Delivery

| Name | Specification | Qty | Photo |
|---|---|---|---|
| **Machine Mainframe** | | 1 |  |
| **Micro Indenter** | | 1 |  |
| **Objective Lens** | 10X、40X | each1 |  |
| **Measuring Eyepiece** | 10X | 1 |  |
| **Weights** | | 6 |  |
| **Weight Shaft** | | 1 |  |
| **X-Y Test Stage** | | 1 |  |
| **Flat Clamping Stage** | | 1 |  |
| **Thin Specimen Clamping Stage** | | 1 |  |
| **Fine Wire Clamping Stage** | | 1 |  |

# Standard Delivery

| Name | Specification | Qty | Photo |
|---|---|---|---|
| **Leveling Screws** | | 4 |  |
| **Spirit Level** | | 1 |  |
| **Halogen Lamp** | 12V、15~20W | 1 |   |
| **Spare Fuse** | 1A/250V<br>5X20mm | 3 |  |
| **Power Cord** | | 1 |  |
| **Screwdriver** | | 1 |  |
| **Hex Key** | | 2 |  |
| **Dust Cover** | | 1 |  |
| **Microhardness Blocks** | HV0.2、HV1 | each1 |  |
| **Hardness Tester User Manual** | | 1 | |
| **Certificate Qualification** | | 1 | |
| **Product Qualification Certificate** | | 1 | |
| **Accessories Box** | | |   |

# Optional Delivery

| | |
|---|---|
| **Optional Accessories** | Knoop indenter |
| | CCD image processing system |
| | Vickers measurement software |
| | Low-value HV1 Vickers standard hardness block (around 200) |
| | Medium-value HV1 Vickers standard hardness block (around 500) |
| | High-value HV1 Vickers standard hardness block (around 700)<br>(Standard hardness blocks for other Vickers scales are optional) |