

### Economical Micro Vickers Hardness Tester 401MVA-P



401MVA can directly show test mode, test force, dwell time, test numbers on LCD screen, but need to input the diagonal line of the indentation to get hardness value. It also available to install optional Knoop indenter to measure Knoop hardness.

Support to equip optional CCD image automatic measuring system.

#### Application range:

Suitable for ferrous metal, non-ferrous metals, IC thin sections, coatings, ply-metals; glass, ceramics, agate, precious stones, thin plastic sections etc.; hardness testing such as that on the depth and the trapezium of the carbonized layers and quench hardened layers.

#### Technical Specification:

|                         |  |  |          |
|-------------------------|--|--|----------|
| Model                   | 401MVA-P   |  | 402MVA-P |
| Side Focusing Model     | 401MVA-Y   |  | 402MVA-Y |
| Test Force              | gf   | 10gf, 25gf, 50gf, 100gf, 200gf, 300gf, 500gf, 1000gf     |          |
|                         | N  | 0.098N, 0.246N, 0.49N, 0.98N, 1.96N, 2.94N, 4.90N, 9.80N |          |
| Test Range              | 1HV~2967HV   |  |          |
| Test Mode               | HV/HK  |  |          |
| Loading Method          | Automatic (Loading/Dwell/Unloading)                  |  |          |
| Turret                  | Manual Turret  | Automatic Turret   |          |
| Objective               | 10x (Observe), 40x (Measure)                         |  |          |
| Eyepiece                | 10x Reading Microscope                               |  |          |
| Total Magnification     | 100x, 400x   |  |          |
| Resolution              | 0.25 $\mu$ m   |  |          |
| Dwell Time              | 0~60s  |  |          |
| Light Source            | Halogen Lamp   |  |          |
| X-Y Test Table          | Size: 100x100mm; Travel: 25x25mm; Resolution: 0.01mm |  |          |
| Max. Height of Specimen | 100mm  |  |          |
| Throat                  | 90mm   |  |          |
| Power Supply            | AC220V/50Hz/1Ph                                      |  |          |
| Execute Standard        | ISO 6507, ASTM E384, JIS Z2244, GB/T 4340.2          |  |          |
| Dimension               | 405x290x480mm, Packing Dimension: 600x360x800mm      |  |          |
| Weight                  | Net Weight: 35kg, Gross Weight: 50kg                 |  |          |

#### Packing List:

|                                |        |                              |           |
|--------------------------------|--------|------------------------------|-----------|
| Instrument Main Body           | 1 set  | 10x Reading Microscope       | 1 pc      |
| Diamond Micro Vickers Indenter | 1 pc   | 10x, 40x Objective           | each 1 pc |
| Weights                        | 6 pcs  | Weight Axis                  | 1 pc      |
| Cross Test Table               | 1 pc   | Flat Clamping Test Table     | 1 pc      |
| Thin Specimen Test Table       | 1 pc   | Filament Clamping Test Table | 1 pc      |
| Horizontal Regulating Screw    | 4 pcs  | Level                        | 1 pc      |
| Instruction Manual             | 1 Copy | Halogen Lamp 12V/15~20W      | 1 pc      |
| Power Cable                    | 1 pc   | Screw Driver                 | 2 pcs     |
| Hardness Block 400~500 HV0.2   | 1 pc   | Hardness Block 700~800 HV1   | 1 pc      |

### Digital Micro Vickers Hardness Tester



Equips with digital measuring eyepiece, just press the eyepiece button after measuring the indentation length, it can automatically get the hardness value and shows on the screen.

Support Knoop hardness testing by install optional Knoop indenter, and support LCD video measuring device and CCD image automatic measuring system.

#### Application range:

Suitable for ferrous metal, non-ferrous metals, IC thin sections, coatings, ply-metals; glass, ceramics, agate, precious stones, thin plastic sections etc.; hardness testing such as that on the depth and the trapezium of the carbonized layers and quench hardened layers.

#### Technical Specification:

|                         |   |  |           |
|-------------------------|---|--|-----------|
| Model                   | 401MVAS-P   |  | 402MVAS-P |
| Side Focusing Model     | 401MVAS-Y   |  | 402MVAS-Y |
| Test Force              | gf  | 10gf, 25gf, 50gf, 100gf, 200gf, 300gf, 500gf, 1000gf     |           |
|                         | N   | 0.098N, 0.246N, 0.49N, 0.98N, 1.96N, 2.94N, 4.90N, 9.80N |           |
| Test Range              | 1HV-2967HV  |  |           |
| Loading Method          | Automatic (Loading/Dwell/Unloading)   |  |           |
| Turret                  | Manual Turret   | Automatic Turret   |           |
| Objective               | 10x (Observe), 40x (Measure)  |  |           |
| Eyepiece                | 10x   |  |           |
| Total Magnification     | 100x, 400x  |  |           |
| Resolution              | 0.0625 $\mu$ m  |  |           |
| Dwell Time              | 0~60s   |  |           |
| Light Source            | Halogen Lamp  |  |           |
| X-Y Test Table          | Size: 100 $\times$ 100mm; Travel: 25 $\times$ 25mm; Resolution: 0.01mm              |  |           |
| Max. Height of Specimen | 85mm  |  |           |
| Throat                  | 100mm   |  |           |
| Power Supply            | AC220V/50Hz/1Ph   |  |           |
| Execute Standard        | ISO 6507, ASTM E384, JIS Z2244, GB/T 4340.2   |  |           |
| Dimension               | 480 $\times$ 325 $\times$ 545mm, Packing Dimension: 600 $\times$ 360 $\times$ 800mm |  |           |
| Weight                  | Net Weight: 35kg, Gross Weight: 44kg  |  |           |

#### Packing List:

| Name                           | Qty   | Name                           | Qty       |
|--------------------------------|-------|--------------------------------|-----------|
| Instrument Main Body           | 1 set | 10x Digital Measuring Eyepiece | 1 pc      |
| Diamond Micro Vickers Indenter | 1 pc  | 10x, 40x Objective             | each 1 pc |
| Weights                        | 6 pcs | Weight Axis                    | 1 pc      |
| Cross Test Table               | 1 pc  | Flat Clamping Test Table       | 1 pc      |
| Thin Specimen Test Table       | 1 pc  | Filament Clamping Test Table   | 1 pc      |
| Horizontal Regulating Screw    | 4 pcs | Level                          | 1 pc      |
| Fuse 1A                        | 2 pcs | Halogen Lamp 12V, 15~20W       | 1 pc      |
| Power Cable                    | 1 pc  | Screw Driver                   | 2 pcs     |
| Hardness Block 400~500 HV0.2   | 1 pc  | Hardness Block 700~800 HV1     | 1 pc      |
| Anti-dust Cover                | 1 pc  | Usage Instruction Manual       | 1 copy    |

### Digital Micro Vickers Hardness Tester 401MVD



401MVD equips with digital measuring eyepiece, can automatically get the hardness value and shows on the large screen. It also can show the test mode, test force, indentation length, dwell time, test numbers, conversion scale, date and time.

Test results can be saved for reviewing or be printed out by the built-in printer, and with RS232 interface for connecting to the computer.

Available to measure Knoop hardness by install optional Knoop indenter.

Support optional LCD video measuring device and CCD image automatic measuring system.

#### Application range:

Suitable for ferrous metal, non-ferrous metals, IC thin sections, coatings, ply-metals; glass, ceramics, agate, precious stones, thin plastic sections etc.; hardness testing such as that on the depth and the trapezium of the carbonized layers and quench hardened layers.

#### Packing List:

| Name                         | Qty   | Name                         | Qty       |
|------------------------------|-------|------------------------------|-----------|
| Instrument Main Body         | 1 set | 10x Digital Eyepiece         | 1 pc      |
| Diamond Vickers Indenter     | 1 pc  | 10x, 40x Objective           | each 1 pc |
| Weights                      | 6 pcs | Weight Axis                  | 1 pc      |
| Cross Test Table             | 1 pc  | Flat Clamping Test Table     | 1 pc      |
| Thin Specimen Test Table     | 1 pc  | Filament Clamping Test Table | 1 pc      |
| Horizontal Regulating Screw  | 4 pcs | Level                        | 1 pc      |
| Fuse 1A                      | 2 pcs | Halogen Lamp 12V/15~20W      | 1 pc      |
| Power Cable                  | 1 pc  | Screw Driver                 | 2 pcs     |
| Hardness Block 400~500 HV0.2 | 1 pc  | Hardness Block 700~800 HV1   | 1 pc      |
| Anti-dust Cover              | 1 pc  | Usage Instruction Manual     | 1 copy    |

**Technical Specification:**

| Model                   |    | 401MVDS-Y  | 402MVDS-Y        |
|-------------------------|----|--|------------------|
| Test Force              | gf | 10gf, 25gf, 50gf, 100gf, 200gf, 300gf, 500gf, 1000gf (optional 2000gf)                       |                  |
|                         | N  | 0.098N, 0.246N, 0.49N, 0.98N, 1.96N, 2.94N, 4.90N, 9.80N (optional 19.6N)                    |                  |
| Test Range              |    | 1HV~2967HV   |                  |
| Test Mode               |    | HV/HK  |                  |
| Loading Method          |    | Automatic (Loading/Dwell/Unloading)  |                  |
| Turret                  |    | Manual Turret  | Automatic Turret |
| Conversion Scale        |    | HK, HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRK, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T, HS, HB |                  |
| Data Output             |    | Built-in Printer, RS232 Interface  |                  |
| Hardness Reading        |    | LCD Display, Data can be saved   |                  |
| Objective               |    | 10x (Observe), 40x (Measure)   |                  |
| Eyepiece                |    | 10x  |                  |
| Total Magnification     |    | 100x, 400x   |                  |
| Resolution              |    | 0.0625μm   |                  |
| Dwell Time              |    | 0~60s  |                  |
| Light Source            |    | Halogen Lamp   |                  |
| X-Y Test Table          |    | Size: 100×100mm; Travel: 25×25mm; Resolution: 0.01mm   |                  |
| Max. Height of Specimen |    | 85mm   |                  |
| Throat                  |    | 100mm  |                  |
| Power Supply            |    | AC220V/50Hz/1Ph  |                  |
| Execute Standard        |    | ISO 6507, ASTM E384, JIS Z2244, GB/T 4340.2  |                  |
| Dimension               |    | 480×325×545mm, Packing Dimension: 600×360×800mm  |                  |
| Weight                  |    | Net Weight: 40kg, Gross Weight: 50kg   |                  |



Flat Precision Clamp



Filament Clamp



Thin-Piece Clamp