

## DIGITAL ROCKWELL HARDNESS TESTER

### HR150A



- ◆ Manual loading control
- ◆ The hardness scale can be converted to HV and HB
- ◆ With USB interface, for transferring data



Small flat anvil



Large flat anvil



V-type anvil



PR100 printer (optional)

#### SPECIFICATION

|                  |                                             |
|------------------|---------------------------------------------|
| Load force       | 10kgf (98N)                                 |
| Total load force | 60kgf (588N), 100kgf (980N), 150kgf (1471N) |
| Stage elevation  | manual                                      |
| Loading control  | manual                                      |
| Resolution       | 0.1HR                                       |
| Max. test height | 170mm                                       |
| Max. throat      | 150mm                                       |
| Dimension        | 466×250×618mm                               |
| Weight           | 65kg                                        |

#### INCLUDED ACCESSORIES

|                                 |      |
|---------------------------------|------|
| Main unit                       | 1pc  |
| Ø1.5875mm ball carbide indenter | 1pc  |
| Diamond indenter                | 1pc  |
| Flat anvil                      | 2pcs |
| V-type anvil                    | 1pc  |
| Rockwell test block             | 3pcs |
| Dustproof cover                 | 1pc  |

#### OPTIONAL ACCESSORIES

|                  |       |
|------------------|-------|
| Wireless printer | PR100 |
|------------------|-------|



## HR150C

## DIGITAL ROCKWELL HARDNESS TESTER

- ◆ Motorized loading control
- ◆ The hardness scale can be converted to HV and HB
- ◆ With USB interface, for transferring data



Small flat anvil



Large flat anvil



V-type anvil



PR100 printer (optional)



### SPECIFICATION

|                  |                                             |
|------------------|---------------------------------------------|
| Load force       | 10kgf (98N)                                 |
| Total load force | 60kgf (588N), 100kgf (980N), 150kgf (1471N) |
| Stage elevation  | manual                                      |
| Loading control  | auto                                        |
| Loading time     | 1-99s                                       |
| Resolution       | 0.1HR                                       |
| Max. test height | 255mm                                       |
| Max. throat      | 160mm                                       |
| Dimension        | 487×265×726mm                               |
| Weight           | 73kg                                        |

### INCLUDED ACCESSORIES

|                                 |      |
|---------------------------------|------|
| Main unit                       | 1pc  |
| Ø1.5875mm ball carbide indenter | 1pc  |
| Diamond indenter                | 1pc  |
| Flat anvil                      | 2pcs |
| V-type anvil                    | 1pc  |
| Rockwell test block             | 3pcs |
| Dustproof cover                 | 1pc  |

### OPTIONAL ACCESSORIES

|                  |       |
|------------------|-------|
| Wireless printer | PR100 |
|------------------|-------|



## MICRO-VICKERS HARDNESS TESTER

## HVS1000M



- ◆ For measuring the hardness of the thin, small workpiece or coating
- ◆ Automatic turret
- ◆ The hardness scale can be changed to Rockwell scales



Camera interface (optional)



Camera (optional)



Measuring software (optional)

### SPECIFICATION

|                     |                                                          |
|---------------------|----------------------------------------------------------|
| Test load           | 0.01, 0.025, 0.05, 0.1, 0.2, 0.3, 0.5, 1kgf              |
| Unit                | HV0.01, HV0.025, HV0.05, HV0.1, HV0.2, HV0.3, HV0.5, HV1 |
| Stage elevation     | manual                                                   |
| Loading control     | automatic (loading/dwell/unloading)                      |
| Loading time        | 5~60s (step: 5s)                                         |
| Objective           | 10X (observation), 40X (measurement)                     |
| Eyepiece            | 15X                                                      |
| Total magnification | 150X (observation), 600X (measurement)                   |
| Max. test height    | 80mm                                                     |
| Max. throat         | 95mm                                                     |
| X-Y stage           | size: 100×100mm                                          |
|                     | travel range: 25×25mm                                    |
|                     | graduation: 0.01mm                                       |
| Dimension           | 405×290×480mm                                            |
| Weight              | 25kg                                                     |

### INCLUDED ACCESSORIES

|                    |          |
|--------------------|----------|
| Main unit          | 1pc      |
| 10X, 40X objective | 1pc each |
| Indenter           | 1pc      |
| Test block         | 2pcs     |
| Slice holder       | 1pc      |
| Vice               | 1pc      |
| Cylinder holder    | 1pc      |
| Level              | 1pc      |
| Dustproof cover    | 1pc      |

### OPTIONAL ACCESSORIES

|                    |         |
|--------------------|---------|
| Camera             | 1300KPA |
| Camera interface   | HVS-AD  |
| Measuring software | HVS-SW  |



## RBV150

## ROCKWELL/BRINELL/VICKERS HARDNESS TESTER

- ◆ For Rockwell, Brinell and Vickers testing
- ◆ Rockwell testing value gets from screen, and the Brinell and Vickers hardness gets from table in the operation manual



Small flat anvil



Large flat anvil



Small V-type anvil



Medium flat anvil



Small V-type anvil



### SPECIFICATION

|                         |                                                          |
|-------------------------|----------------------------------------------------------|
| Load force for Rockwell | Preload force : 98N, Total load force : 588, 980, 1471 N |
| Rockwell resolution     | 0.5HR                                                    |
| Load force for Brinell  | 306, 613, 1839N                                          |
| Load force for Vickers  | 294N                                                     |
| Stage elevation         | manual                                                   |
| Loading control         | manual                                                   |
| Max. test height        | 180mm                                                    |
| Max. throat             | 200mm                                                    |
| Dimension               | 546×300×767mm                                            |
| Weight                  | 90kg                                                     |

### INCLUDED ACCESSORIES

|                                  |     |
|----------------------------------|-----|
| Main unit                        | 1pc |
| Ø1.5875mm ball carbide indenter  | 1pc |
| Diamond indenter for Rockwell    | 1pc |
| Ø5mm ball indenter for Brinell   | 1pc |
| Ø2.5mm ball indenter for Brinell | 1pc |
| Indenter for Vickers             | 1pc |
| Small flat anvil for Rockwell    | 1pc |
| Large flat anvil for Rockwell    | 1pc |

|                                             |     |
|---------------------------------------------|-----|
| V-type anvil for Rockwell                   | 1pc |
| Medium flat anvil for Brinell and Vickers   | 1pc |
| Medium V-type anvil for Brinell and Vickers | 1pc |
| HRC hardness test block                     | 1pc |
| HRB hardness test block                     | 1pc |
| Brinell hardness test block                 | 1pc |
| Vickers hardness test block                 | 1pc |
| Dustproof cover                             | 1pc |



## PORTABLE HARDNESS TESTER

## HL100



- ◆ Large LCD display with backlight
- ◆ Based on HL scale, converted to other hardness scales (HV, HB, HRC, HRB, HS) and tensile strength MPa
- ◆ With wireless printer
- ◆ Can set impact direction
- ◆ With average value calculation function
- ◆ Automatic power off
- ◆ Conforms to the standard ASTM A956-02



Wireless printer (included)



Support ring (12pcs/set, optional)

### SPECIFICATION

|                                  |                                           |
|----------------------------------|-------------------------------------------|
| Resolution                       | 1HLD, 1HV, 1HB, 0.1HRC, 0.1HRB, 1HS, 1MPa |
| Accuracy                         | ±6HLD/0.6HRC (HLD=800)                    |
| Min. workpiece weight            | 5kg (directly)                            |
|                                  | 2kg (on solid support)                    |
|                                  | 0.1kg (coupled on large plate)            |
| Min. workpiece thickness         | 5mm                                       |
| Min. workpiece diameter          | 22mm                                      |
| Max. workpiece surface roughness | 1.6μm (Ra)                                |
| Power                            | 3 x AAA batteries                         |
| Dimension                        | 150 × 80 × 24mm                           |

### INCLUDED ACCESSORIES

|                     |     |
|---------------------|-----|
| Main unit           | 1pc |
| Wireless printer    | 1pc |
| Test block          | 1pc |
| Small support ring  | 1pc |
| Brush               | 1pc |
| Charger for printer | 1pc |

### OPTIONAL ACCESSORIES

|                          |       |
|--------------------------|-------|
| Support ring (12pcs/set) | HL-SP |
|--------------------------|-------|



## HL200

## PORTABLE HARDNESS TESTER

- ◆ Touch screen, with backlight
- ◆ Based on HL scale, converted to other hardness scales (HV, HB, HRC, HRB, HS) and tensile strength Mpa
- ◆ With wireless printer
- ◆ Can set impact direction
- ◆ Memory : 500
- ◆ Low and high limits with judgement
- ◆ Automatic power off
- ◆ Conforms to the standard ASTM A956-02



Wireless printer (included)



Support ring (12pcs/set, optional)



### SPECIFICATION

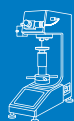
|                                  |                                           |
|----------------------------------|-------------------------------------------|
| Resolution                       | 1HLD, 1HV, 1HB, 0.1HRC, 0.1HRB, 1HS, 1MPa |
| Accuracy                         | ±6HLD/0.6HRC(HLD=800)                     |
| Min. workpiece weight            | 5kg (directly)                            |
|                                  | 2kg (on solid support)                    |
|                                  | 0.1kg (coupled on large plate)            |
| Min. workpiece thickness         | 5mm                                       |
| Min. workpiece diameter          | 22mm                                      |
| Max. workpiece surface roughness | 1.6μm(Ra)                                 |
| Power                            | Rechargeable battery                      |
| Dimension                        | 135×83×24mm                               |

### INCLUDED ACCESSORIES

|                              |          |
|------------------------------|----------|
| Main unit                    | 1pc      |
| Wireless printer             | 1pc      |
| Test block                   | 1pc      |
| Small support ring and brush | 1pc each |
| USB cable and software       | 1pc      |
| Charger                      | 2pcs     |

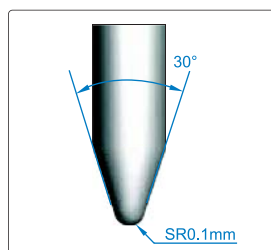
### OPTIONAL ACCESSORIES

|                          |       |
|--------------------------|-------|
| Support ring (12pcs/set) | HL-SP |
|--------------------------|-------|

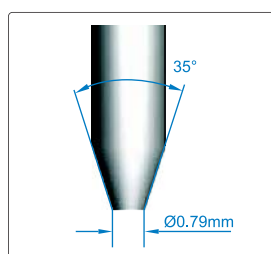


## DIGITAL SHORE HARDNESS TESTER

## SERIES HS



HS5D indenter



HS1A indenter



HS1A

- ◆ Conforms to ISO868, ISO7619, ASTM D 2240
- ◆ Testing time is adjustable
- ◆ With average calculation function



Standard block (included)



Stand (optional)

### SPECIFICATION

| Code                | HS1A                                | HS5D                            |
|---------------------|-------------------------------------|---------------------------------|
| Scale               | Shore A                             | Shore D                         |
| For material        | soft plastic, rubber, leather, etc. | hard plastic, hard rubber, etc. |
| Measuring range     | 20~90HA                             | 20~90HD                         |
| Resolution          | 1HA                                 | 1HD                             |
| Accuracy            | ±0.5HA                              | ±0.5HD                          |
| Indenter protrusion | 2.5mm                               |                                 |
| Power               | rechargeable battery                |                                 |
| Weight              | 180g                                |                                 |

### INCLUDED ACCESSORIES

|                |     |
|----------------|-----|
| Main unit      | 1pc |
| Standard block | 1pc |
| Charger        | 1pc |

### OPTIONAL ACCESSORIES

|                |          |
|----------------|----------|
| Printer        | PR100    |
| Stand for HS1A | HS-1A-ST |
| Stand for HS5D | HS-5D-ST |



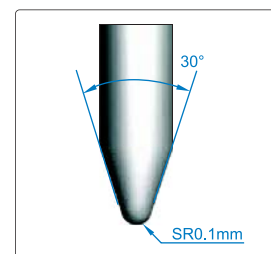
## SERIES HSM

## SHORE HARDNESS TESTER

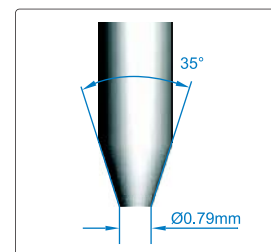
- ◆ Conforms to ISO868, ISO7619, ASTM D2240
- ◆ With peak value indicator



HSM1A



HSM5D indenter



HSM1A indenter



HSM-1A-ST



HSM-5D-ST

### SPECIFICATION

| Code                | HSM1A                               | HSM5D                           |
|---------------------|-------------------------------------|---------------------------------|
| Scale               | Shore A                             | Shore D                         |
| For material        | soft plastic, rubber, leather, etc. | hard plastic, hard rubber, etc. |
| Measuring range     | 20 ~ 90HA                           | 20 ~ 90HD                       |
| Graduation          | 1HA                                 | 1HD                             |
| Accuracy            | ±1HA                                | ±1HD                            |
| Indenter protrusion | 2.5mm                               |                                 |
| Weight              | 500g                                |                                 |

### OPTIONAL ACCESSORIES

|                |           |
|----------------|-----------|
| Stand for HS1A | HSM-1A-ST |
| Stand for HS5D | HSM-5D-ST |

