

**SHR-1500D Digital Rockwell Hardness Tester**
**Features:**

- Traditional dead weight system
- Automatic test cycle (loading, dwell, unloading)
- Supplied with 5.6 inch high resolution full color touch screen
- Direct display of indenter type, dwell time, test load, test scale & conversion scale
- 15 Rockwell scales selectable
- Hardness scales conversion available
- Test results storage in real time
- Automatic calculation of Max., Min. & Avg. value
- Built-in thermal printer for test results printout
- RS232 interface for PC connectivity

**Standard Compliance:** ISO 6508; ASTM E-18; JIS Z2245; GB/T 230.2

**Applications:**

Quenched steel; Tempered steel; Annealed steel; Cold and hard casting; Malleable cast iron; Hard alloy steel; Aluminum alloy; Copper alloy; Bearing steel etc.


**Specifications:**

Model	SHR-1500D
Preload	10kgf (98.07N)
Main Load	60kgf (558.4N), 100kgf (980.7N), 150kgf (1471N)
Indenter	Diamond Rockwell Indenter & Ball Indenter With Dia. 1.588mm
Loading Method	Automatic (loading/dwell/unloading)
Rockwell Test Scales Available	A, B, C, D, E, F, G, H, K, L, M, P, R, S, V
Hardness Scales Conversion	Vickers, Knoop, Brinell, Shore, Rockwell: A, B, C, D, E, F, G, K, 15N, 30N, 45N, 15T, 30T, 45T
Hardness Reading	Touch Screen Panel
Data Output	Built-in Thermal Printer; RS232 Interface
Resolution	0.1HR
Dwell Time	0-60 seconds
Max. Height Capacity	175mm
Throat	165mm
Power Supply	AC220V, 50Hz
Overall Dimension (L*W*H, mm)	Machine: 520 x 215 x 700; Packing Dimensions: 650 x 370 x 950
Weight	Net Weight: 78kg; Gross Weight: 100kg

**Standard Accessories:**

No.	Name	Qty.
1.	Machine	1 Set
2.	Diamond Rockwell Indenter	1 PC
3.	Ball Indenter With Dia. 1.588mm	1 PC
4.	Weights: A, B, C	3 PCS
5.	Large Flat Anvil	1 PC
6.	Middle Flat Anvil	1 PC
7.	V Type Anvil	1 PC
8.	Hardness Block 20~30 HRC	1 PC
9.	Hardness Block 60~70 HRC	1 PC

No.	Name	Qty.
10.	Hardness Block 80~100 HRB	1 PC
11.	Level Adjustable Feet	4 PCS
12.	Spirit Level / Level Gauge	1 PC
13.	Wrench	1 PC
14.	Screw Driver	1 PC
15.	Fuse 2A	2 PCS
16.	Anti-dust Cover	1 PC
17.	Power Cable	1 PC
18.	User Manual	1 PC

### SHR-1500DH Digital Rockwell Hardness Tester

#### Features:

- Extended workpiece accommodation (vertical: max. 400mm)
- Traditional dead weight system
- Automatic test cycle (loading, dwell, unloading)
- Direct display of indenter type, dwell time, test load, test scale & conversion scale
- 15 Rockwell scales selectable
- Hardness scales conversion available;
- Test results storage in real time
- Automatic calculation of Max., Min. & Avg. value
- Built-in stylus printer for test results printout
- RS232 interface for PC connectivity

**Standard Compliance:** ISO 6508; ASTM E-18; JIS Z2245; GB/T 230.2

#### Applications:

Quenched steel; Tempered steel; Annealed steel; Cold and hard casting; Malleable cast iron; Hard alloy steel; Aluminum alloy; Copper alloy; Bearing steel etc.



#### Specifications:

Model	SHR-1500DH
Preload	10kgf (98.07N)
Main Load	60kgf (558.4N), 100kgf (980.7N), 150kgf (1471N)
Indenter	Diamond Rockwell Indenter & Ball Indenter With Dia. 1.588mm
Loading Method	Automatic (loading/dwell/unloading)
Rockwell Test Scales Available	A, B, C, D, E, F, G, H, K, L, M, P, R, S, V
Hardness Scales Conversion	Vickers, Knoop, Brinell, Shore, Rockwell: A, B, C, D, E, F, G, K, 15N, 30N, 45N, 15T, 30T, 45T
Hardness Reading	LCD Display
Data Output	Built-in Stylus Printer; RS232 Interface
Resolution	0.1HR
Dwell Time	0-60 seconds
Max. Height Capacity	400mm
Throat	165mm
Power Supply	AC220V, 50Hz
Overall Dimension (L*W*H, mm)	Machine: 520 x 215 x 880; Packing Dimensions: 650 x 370 x 1140
Weight	Net Weight: 78kg; Gross Weight: 100kg

#### Standard Accessories:

No.	Name	Qty.
1.	Machine	1 Set
2.	Diamond Rockwell Indenter	1 PC
3.	Ball Indenter With Dia. 1.588mm	1 PC
4.	Weights: A, B, C	3 PCS
5.	Large Flat Anvil	1 PC
6.	Middle Flat Anvil	1 PC
7.	V Type Anvil	1 PC
8.	Hardness Block 20~30 HRC	1 PC
9.	Hardness Block 60~70 HRC	1 PC

No.	Name	Qty.
10.	Hardness Block 80~100 HRB	1 PC
11.	Level Adjustable Feet	4 PCS
12.	Spirit Level / Level Gauge	1 PC
13.	Wrench	1 PC
14.	Screw Driver	1 PC
15.	Fuse 2A	2 PCS
16.	Anti-dust Cover	1 PC
17.	Power Cable	1 PC
18.	User Manual	1 PC

**SHR-1500E Motorized Rockwell Hardness Tester**
**Features:**

The SHR-1500E adopts the mechanism of automatic loading and unloading of the test force, the test force is regulated by the load-change hand wheel. It can select the dwell time and is very easy to use. Besides setting zero to dial, there is no man-made error. The instrument has high sensitivity and stability.

**Standard Compliance:** ISO 6508; ASTM E-18; JIS Z2245; GB/T 230.2

**Applications:**

Quenched steel; Tempered steel; Annealed steel; Cold and hard casting; Malleable cast iron; Hard alloy steel; Aluminum alloy; Copper alloy; Bearing steel etc.

**Specifications:**


Model	SHR-1500E
Preload	10kgf (98.07N)
Main Load	60kgf (558.4N), 100kgf (980.7N), 150kgf (1471N)
Indenter	Diamond Rockwell Indenter & Ball Indenter With Dia. 1.588mm
Loading Method	Automatic (loading/dwell/unloading)
Hardness Reading	Dial
Resolution	0.5HR
Dwell Time	2-60 seconds
Max. Height Capacity	175mm
Throat	165mm
Power Supply	AC220V, 50Hz
Overall Dimension (L*W*H, mm)	Machine: 520 x 215 x 700; Packing Dimensions: 650 x 370 x 950
Weight	Net Weight: 78kg; Gross Weight: 100kg

**Standard Accessories:**

No.	Name	Qty.
1.	Machine	1 Set
2.	Diamond Rockwell Indenter	1 PC
3.	Ball Indenter With Dia. 1.588mm	1 PC
4.	Weights: A, B, C	3 PCS
5.	Large Flat Anvil	1 PC
6.	Middle Flat Anvil	1 PC
7.	V Type Anvil	1 PC
8.	Hardness Block 20~30 HRC	1 PC
9.	Hardness Block 60~70 HRC	1 PC

No.	Name	Qty.
10.	Hardness Block 80~100 HRB	1 PC
11.	Level Adjustable Feet	4 PCS
12.	Spirit Level / Level Gauge	1 PC
13.	Wrench	1 PC
14.	Screw Driver	1 PC
15.	Fuse 2A	2 PCS
16.	Anti-dust Cover	1 PC
17.	Power Cable	1 PC
18.	User Manual	1 PC

**SHR-1500M Manual Rockwell Hardness Tester**
**Features:**

The SHR-1500M is a popularly-used hardness testing instrument to measure the Rockwell hardness of the materials. No need for power supply, the speed of the test force loading is regulated by the buffer and the test force is regulated by the load-change hand wheel. It has easy operation and stable performance, therefore it is widely used.

**Standard Compliance:** ISO 6508; ASTM E-18; JIS Z2245; GB/T 230.2

**Applications:**

Quenched steel; Tempered steel; Annealed steel; Cold and hard casting;  
Malleable cast iron; Hard alloy steel; Aluminum alloy; Copper alloy;  
Bearing steel etc.


**Specifications:**

Model	SHR-1500M
Preload	10kgf (98.07N)
Main Load	60kgf (558.4N), 100kgf (980.7N), 150kgf (1471N)
Indenter	Diamond Rockwell Indenter & Ball Indenter With Dia. 1.588mm
Loading Method	Manual
Hardness Reading	Dial
Resolution	0.5HR
Max. Height Capacity	175mm
Throat	165mm
Power Supply	AC220V, 50Hz
Overall Dimension (L*W*H, mm)	Machine: 520 x 215 x 700; Packing Dimensions: 650 x 370 x 950
Weight	Net Weight: 78kg; Gross Weight: 100kg

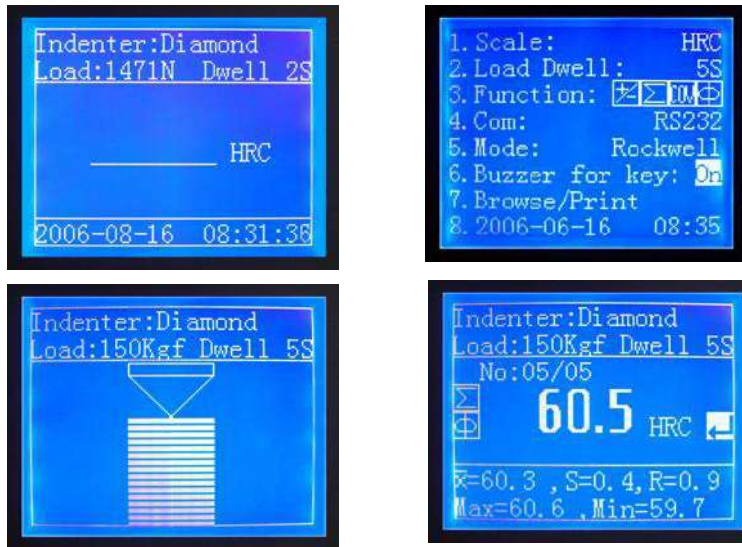
**Standard accessories:**

No.	Name	Qty.
1.	Machine	1 Set
2.	Diamond Rockwell Indenter	1 PC
3.	Ball Indenter With Dia. 1.588mm	1 PC
4.	Weights: A, B, C	3 PCS
5.	Large Flat Anvil	1 PC
6.	Middle Flat Anvil	1 PC

No.	Name	Qty.
7.	V Type Anvil	1 PC
8.	Hardness Block 20~30 HRC	1 PC
9.	Hardness Block 60~70 HRC	1 PC
10.	Hardness Block 80~100 HRB	1 PC
11.	Anti-dust Cover	1 PC
12.	User Manual	1 PC

**SHRA-1500/1500P Digital Rockwell Hardness Tester**
**Features:**

- Load cell, force feedback, closed-loop system
- Automatic test cycle (loading, dwell, unloading)
- 15 Rockwell scales selectable
- Hardness scale conversion available for HB, HV, HLD, HK &  $\sigma_b$  (tensile strength)
- Limit setting & warning
- Shape correction settings for curved surfaces
- Large test results storage (max. 500 groups) for recall & printout anytime
- RS232 interface for micro printer connection
- USB port for PC connection

**Standard Compliance:** ISO 6508-2, ASTM E18, BS EN ISO6508-2, GB/T230.2

**Specifications:**

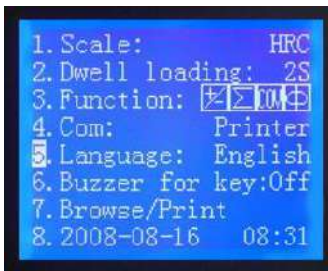
Model	SHRA-1500	SHRA-1500P
Preload	10kgf (98.07N)	
Main Load	60kgf (588.4N), 100kgf (980.7N), 150kgf (1471N)	
Load Cycle	3-8 seconds	
Dwell Time	2-50 seconds	
Resolution	0.1HR	
Operation	Menu Selectable; Membrane Keypad	
Loading Method	Automatic (loading/dwell/unloading)	
Rockwell Test Scales Available	A, B, C, D, E, F, G, H, K, L, M, P, R, S, V	
Hardness Scales Conversion	Vickers, Knoop, Brinell, Leeb	
Hardness Reading	High Definition Backlight LCD	
Data Statistics	Avg., Max., Min., S, R available	
Memory	Max. 500 groups of test results can be stored automatically.	
Data Output	RS232 Interface For Printer Connection; USB Port For PC Connection	
Printer	/	Built-in Micro Printer
Max. Height Capacity	200mm	
Throat	165mm	
Power Supply	AC, 220V/110V, 50~60Hz, 4A	
Overall Dimensions (L*W*H, mm)	550 x 200 x 720	
Weight	100kg	

**SHR-3000 Digital Rockwell Hardness Tester (Nose mounted design)**

**Features:**

- Unique design of nose mounted indenter, ideal for inside diameters & recesses testing
- Load cell, force feedback, closed-loop system
- Automatic test cycle (loading, dwell, unloading)
- 15 Rockwell scales selectable
- Hardness scale conversion available for HB, HV, HLD, HK &  $\sigma_b$  (tensile strength)
- Limit setting & warning
- Shape correction settings for curved surfaces
- Large test results storage (max. 500 groups) for recall & printout anytime
- RS232 interface for micro printer connection
- USB port for PC connection

**Standard Compliance:** ISO 6508-2, ASTM E18, BS EN ISO6508-2, GB/T230.2

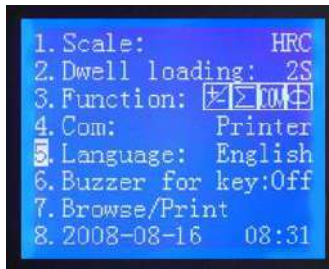


**Specifications:**

Model	SHR-3000
Preload	10kgf (98.07N)
Main Load	60kgf (588.4N), 100kgf (980.7N), 150kgf (1471N)
Dwell Time	2-50 seconds
Resolution	0.1HR
Operation	Menu Selectable; Membrane Keypad
Loading Method	Automatic (loading/dwell/unloading)
Rockwell Test Scales Available	A, B, C, D, E, F, G, H, K, L, M, P, R, S, V
Hardness Scales Conversion	Vickers, Knoop, Brinell, Leeb
Hardness Reading	High Definition Backlight LCD
Data Statistics	Avg., Max., Min., S, R available
Memory	Max. 500 groups of test results can be stored automatically.
Data Output	RS232 Interface For Printer Connection; USB Port For PC Connection
Max. Height Capacity	260mm
Throat	150mm
Power Supply	AC, 220V/110V, 50~60Hz, 4A
Overall Dimensions (L*W*H, mm)	710 x 210 x 830
Weight	90kg

**SHR-3000H Digital Rockwell Hardness Tester (Nose mounted design)**
**Features:**

- Unique design of nose mounted indenter, ideal for inside diameters & recesses testing
- Large workpiece accommodation (vertical: max. 450mm; horizontal: max. 200mm)
- Load cell, force feedback, closed-loop system
- Automatic test cycle (loading, dwell, unloading)
- 15 Rockwell scales selectable
- Hardness scale conversion available for HB, HV, HLD, HK & ob (tensile strength)
- Limit setting & warning
- Shape correction settings for curved surfaces
- Large test results storage (max. 500 groups) for recall & printout anytime
- RS232 interface for micro printer connection
- USB port for PC connection

**Standard Compliance:** ISO 6508-2, ASTM E18, BS EN ISO6508-2, GB/T230.2

**Specifications:**

Model	SHR-3000H
Preload	10kgf (98.07N)
Main Load	60kgf (588.4N), 100kgf (980.7N), 150kgf (1471N)
Dwell Time	2-50 seconds
Resolution	0.1HR
Operation	Menu Selectable; Membrane Keypad
Loading Method	Automatic (loading/dwell/unloading)
Rockwell Test Scales Available	A, B, C, D, E, F, G, H, K, L, M, P, R, S, V
Hardness Scales Conversion	Vickers, Knoop, Brinell, Leeb
Hardness Reading	High Definition Backlight LCD
Data Statistics	Avg., Max., Min., S, R available
Memory	Max. 500 groups of test results can be stored automatically.
Data Output	RS232 Interface For Printer Connection; USB Port For PC Connection
Max. Height Capacity	430mm (or 450mm)
Throat	200mm
Power Supply	AC, 220V/110V, 50~60Hz, 4A
Overall Dimensions (L*W*H, mm)	730 x 400 x 1000
Weight	160kg

**SHR-1500DX Digital Plastic Rockwell Hardness Tester**
**Features:**

- Traditional dead weight system
- Automatic test cycle (loading, dwell, unloading)
- Direct display of indenter type, dwell time, test load, test scale & conversion scale
- All plastic Rockwell scales selectable
- Hardness scales conversion available
- Test results storage in real time
- Automatic calculation of Max., Min. & Avg. value
- Built-in stylus printer for test results printout
- RS232 interface for PC connectivity

**Standard Compliance:** ISO 6508; ASTM E-18; JIS Z2245; GB/T 230.2

**Applications:**

Hard plastics; Hard rubbers; Aluminum; Tin; Copper; Soft steel; Synthetic resins and fricative materials etc.


**Specifications:**

Model	SHR-1500DX
Preload	10kgf (98.07N)
Main Load	60kgf (558.4N), 100kgf (980.7N), 150kgf (1471N)
Indenter	Ball Indenter: $\Phi$ 3.175mm, $\Phi$ 6.35mm, $\Phi$ 12.7mm
Loading Method	Automatic (loading/dwell/unloading)
Rockwell Test Scales Available	A, B, C, D, E, F, G, H, K, L, M, P, R, S, V
Hardness Scales Conversion	Vickers, Knoop, Brinell, Shore, Rockwell: A, B, C, D, E, F, G, K, 15N, 30N, 45N, 15T, 30T, 45T
Hardness Reading	LCD Display
Data Output	Built-in Stylus Printer; RS232 Interface
Resolution	0.1HR
Dwell Time	0-60 seconds
Max. Height Capacity	175mm
Throat	165mm
Power Supply	AC220V, 50Hz
Overall Dimension (L*W*H, mm)	Machine: 520 x 215 x 700; Packing Dimensions: 650 x 370 x 950
Weight	Net Weight: 78kg; Gross Weight: 100kg

**Standard Accessories:**

No.	Name	Qty.
1.	Machine	1 Set
2.	Ball Indenter With Dia. 3.175mm	1 PC
3.	Ball Indenter With Dia. 6.35mm	1 PC
4.	Ball Indenter With Dia. 12.7mm	1 PC
5.	Weights: A, B, C	3 PCS
6.	Large Flat Anvil	1 PC
7.	Middle Flat Anvil	1 PC
8.	V Type Anvil	1 PC
9.	Hardness Block 75~85 HRE	1 PC
10.	Hardness Block 100~110 HRM	1 PC

No.	Name	Qty.
11.	Hardness Block 110~120 HRL	1 PC
12.	Hardness Block 115~125 HRR	1 PC
13.	Level Adjustable Feet	4 PCS
14.	Spirit Level / Level Gauge	1 PC
15.	Wrench	1 PC
16.	Screw Driver	1 PC
17.	Fuse 2A	2 PCS
18.	Anti-dust Cover	1 PC
19.	Power Cable	1 PC
20.	User Manual	1 PC



**SHR-1500X Motorized Plastic Rockwell Hardness Tester**
**Features:**

The SHR-1500X adopts the mechanism of automatic loading and unloading of the test force, the test force is regulated by the load-change hand wheel. It can select the dwell time and is very easy to use. Besides setting zero to dial, there is no man-made error. The instrument has high sensitivity and stability.

**Standard Compliance:** ISO 6508; ASTM E-18; JIS Z2245; GB/T 230.2

**Applications:**

Hard plastics; Hard rubbers; Aluminum; Tin; Copper; Soft steel; Synthetic resins and fricative materials etc.

**Specifications:**


Model	SHR-1500X
Preload	10kgf (98.07N)
Main Load	60kgf (588.4N), 100kgf (980.7N), 150kgf (1471N)
Indenter	Ball Indenters: $\Phi 3.175\text{mm}$ , $\Phi 6.35\text{mm}$ , $\Phi 12.7\text{mm}$
Loading Method	Automatic (loading/dwell/unloading)
Hardness Reading	Dial
Resolution	0.5HR
Dwell Time	2-60 seconds
Max. Height Capacity	175mm
Throat	165mm
Power Supply	AC220V, 50Hz
Overall Dimension (L*W*H, mm)	Machine: 520 x 215 x 700; Packing Dimensions: 650 x 370 x 950
Weight	Net Weight: 78kg; Gross Weight: 100kg

**Standard Accessories:**

No.	Name	Qty.
1.	Machine	1 Set
2.	Ball Indenter With Dia. 3.175mm	1 PC
3.	Ball Indenter With Dia. 6.35mm	1 PC
4.	Ball Indenter With Dia. 12.7mm	1 PC
5.	Weights: A, B, C	3 PCS
6.	Large Flat Anvil	1 PC
7.	Middle Flat Anvil	1 PC
8.	V Type Anvil	1 PC
9.	Hardness Block 75~85 HRE	1 PC
10.	Hardness Block 100~110 HRM	1 PC

No.	Name	Qty.
11.	Hardness Block 110~120 HRL	1 PC
12.	Hardness Block 115~125 HRR	1 PC
13.	Level Adjustable Feet	4 PCS
14.	Spirit Level / Level Gauge	1 PC
15.	Wrench	1 PC
16.	Screw Driver	1 PC
17.	Fuse 2A	2 PCS
18.	Anti-dust Cover	1 PC
19.	Power Cable	1 PC
20.	User Manual	1 PC

**SHRS-450D Digital Superficial Rockwell Hardness Tester**
**Features:**

- Traditional dead weight system
- Automatic test cycle (loading, dwell, unloading)
- Direct display of indenter type, dwell time, test load, test scale & conversion scale
- 15 Rockwell scales selectable
- Hardness scales conversion available
- Test results storage in real time
- Automatic calculation of Max., Min. & Avg. value
- Built-in stylus printer for test results printout
- RS232 interface for PC connectivity

**Standard Compliance:** ISO 6508; ASTM E-18; JIS Z2245; GB/T 230.2

**Applications:**

Surface quenched steel; Surface heat treating and chemical treating materials; Copper alloy; Aluminum alloy, Sheet; Zinc layers, Chrome layers; Tin layers; Bearing steel and cold and hard casting etc.


**Specifications:**

Model	SHRS-450D
Preload	3kgf (29.42N)
Main Load	15kgf (147.1N), 30kgf (294.2N), 45kgf (441.3N)
Indenter	Diamond Rockwell Indenter & Ball Indenter With Dia. 1.588mm
Loading Method	Automatic (loading/dwell/unloading)
Rockwell Test Scales Available	15N, 30N, 45N, 15T, 30T, 45T, 15W, 30W, 45W, 15X, 30X, 45X, 15Y, 30Y, 45Y
Hardness Scales Conversion	Vickers, Brinell, Shore, Rockwell: A, B, C, D, E, F, G, K, 15N, 30N, 45N, 15T, 30T, 45T
Hardness Reading	LCD Display
Data Output	Built-in Stylus Printer; RS232 Interface
Resolution	0.1HR
Dwell Time	0-60 seconds
Max. Height Capacity	175mm
Throat	165mm
Power Supply	AC220V, 50Hz
Overall Dimension (L*W*H, mm)	Machine: 520 x 215 x 700; Packing Dimensions: 650 x 370 x 950
Weight	Net Weight: 78kg; Gross Weight: 100kg

**Standard Accessories:**

No.	Name	Qty.
1.	Machine	1 Set
2.	Diamond Rockwell Indenter	1 PC
3.	Ball Indenter With Dia. 1.588mm	1 PC
4.	Weights: A, B, C	3 PCS
5.	Large Flat Anvil	1 PC
6.	Middle Flat Anvil	1 PC
7.	V Type Anvil	1 PC
8.	Hardness Block 65~80 HR30N	1 PC
9.	Hardness Block 70~85 HR30T	1 PC

No.	Name	Qty.
10.	Hardness Block 80~90 HR15N	1 PC
11.	Level Adjustable Feet	4 PCS
12.	Spirit Level / Level Gauge	1 PC
13.	Wrench	1 PC
14.	Screw Driver	1 PC
15.	Fuse 2A	2 PCS
16.	Anti-dust Cover	1 PC
17.	Power Cable	1 PC
18.	User Manual	1 PC

**SHRS-450E Motorized Superficial Rockwell Hardness Tester**
**Features:**

The SHRS-450E adopts the mechanism of automatic loading and unloading of the test force, the test force is regulated by the load-change hand wheel. It can select the dwell time and is very easy to use. Besides setting zero to dial, there is no man-made error. The instrument has high sensitivity and stability.

**Standard Compliance:** ISO 6508, ASTM E-18, JIS Z2245, GB/T 230.2

**Applications:**

Surface quenched steel; Surface heat treating and chemical treating materials; Copper alloy; Aluminum alloy, Sheet; Zinc layers, Chrome layers; Tin layers; Bearing steel and cold and hard casting etc.

**Specifications:**


Model	SHRS-450E
Preload	3kgf (29.42N)
Main Load	15kgf (147.1N), 30kgf (294.2N), 45kgf (441.3N)
Indenter	Diamond Rockwell Indenter & Ball Indenter With Dia. 1.588mm
Loading Method	Automatic (loading/dwell/unloading)
Hardness Reading	Dial
Resolution	0.5HR
Dwell Time	2-60 seconds
Max. Height Capacity	175mm
Throat	165mm
Power Supply	AC220V, 50Hz
Overall Dimension (L*W*H, mm)	Machine: 520 x 215 x 700; Packing Dimensions: 650 x 370 x 950
Weight	Net Weight: 78kg; Gross Weight: 100kg

**Standard Accessories:**

No.	Name	Qty.
1.	Machine	1 Set
2.	Diamond Rockwell Indenter	1 PC
3.	Ball Indenter With Dia. 1.588mm	1 PC
4.	Weights: A, B, C	3 PCS
5.	Large Flat Anvil	1 PC
6.	Middle Flat Anvil	1 PC
7.	V Type Anvil	1 PC
8.	Hardness Block 65~80 HR30N	1 PC
9.	Hardness Block 70~85 HR30T	1 PC

No.	Name	Qty.
10.	Hardness Block 80~90 HR15N	1 PC
11.	Level Adjustable Feet	4 PCS
12.	Spirit Level / Level Gauge	1 PC
13.	Wrench	1 PC
14.	Screw Driver	1 PC
15.	Fuse 2A	2 PCS
16.	Anti-dust Cover	1 PC
17.	Power Cable	1 PC
18.	User Manual	1 PC

## SHRS-450M Manual Superficial Rockwell Hardness Tester

### Features:

The SHRS-450M is a popularly-used hardness testing instrument to measure the superficial Rockwell hardness of the materials. No need for power supply, the speed of the test force loading is regulated by the buffer and the test force is regulated by the load-change hand wheel. It has easy operation and stable performance, therefore it is widely used.

**Standard Compliance:** ISO 6508, ASTM E-18, JIS Z2245, GB/T 230.2

### Applications:

Surface quenched steel; Surface heat treating and chemical treating materials; Copper alloy; Aluminum alloy, Sheet; Zinc layers, Chrome layers; Tin layers; Bearing steel and cold and hard casting etc.



### Specifications:

Model	SHRS-450M
Preload	3kgf (29.42N)
Main Load	15kgf (147.1N), 30kgf (294.2N), 45kgf (441.3N)
Indenter	Diamond Rockwell Indenter & Ball Indenter With Dia. 1.588mm
Loading Method	Manual
Hardness Reading	Dial
Resolution	0.5HR
Max. Height Capacity	175mm
Throat	165mm
Power Supply	AC220V, 50Hz
Overall Dimension (L*W*H, mm)	Machine: 520 x 215 x 700; Packing Dimensions: 650 x 370 x 950
Weight	Net Weight: 78kg; Gross Weight: 100kg

### Standard Accessories:

No.	Name	Qty.	No.	Name	Qty.
1.	Machine	1 Set	7.	V Type Anvil	1 PC
2.	Diamond Rockwell Indenter	1 PC	8.	Hardness Block 65~80 HR30N	1 PC
3.	Ball Indenter With Dia. 1.588mm	1 PC	9.	Hardness Block 70~85 HR30T	1 PC
4.	Weights: A, B, C	3 PCS	10.	Hardness Block 80~90 HR15N	1 PC
5.	Large Flat Anvil	1 PC	11.	Anti-dust Cover	1 PC
6.	Middle Flat Anvil	1 PC	12.	User Manual	1 PC

## SHRA-450/450P Digital Superficial Rockwell Hardness Tester

### Features:

- Load cell, force feedback, closed-loop system
- Automatic test cycle (loading, dwell, unloading)
- 15 Superficial Rockwell scales selectable
- Hardness scale conversion available for HB, HV, HK & ob (tensile strength)
- Limit setting & warning
- Shape correction settings for curved surfaces
- Large test results storage (max. 500 groups) for recall & printout anytime
- RS232 interface for micro printer connection
- USB port for PC connection

**Standard Compliance:** ISO 6508-2, ASTM E18, BS EN ISO6508-2, GB/T230.2



### Specifications:

Model	SHRA-450	SHRA-450P
Preload	3kgf (29.4N)	
Main Load	15kgf (147.1N), 30kgf (294.3N), 45kgf (441.3N)	
Load Cycle	3-8 seconds	
Dwell Time	2-50 seconds	
Resolution	0.1HR	
Operation	Menu Selectable; Membrane Keypad	
Loading Method	Automatic (loading/dwell/unloading)	
Superficial Rockwell Test Scales Available	15N, 30N, 45N, 15T, 30T, 45T, 15W, 30W, 45W, 15X, 30X, 45X, 15Y, 30Y, 45Y	
Hardness Scales Conversion	Vickers, Knoop, Brinell	
Hardness Reading	High Definition Backlight LCD	
Data Statistics	Avg., Max., Min., S, R available	
Memory	Max. 500 groups of test results can be stored automatically.	
Data Output	RS232 Interface For Printer Connection; USB Port For PC Connection	
Printer	/	Built-in Micro Printer
Max. Height Capacity	200mm	
Throat	165mm	
Power Supply	AC, 220V/110V, 50~60Hz, 4A	
Overall Dimensions (L*W*H, mm)	550 x 200 x 720	
Weight	90kg	

**SHR-3100 Digital Superficial Rockwell Hardness Tester (Nose Mounted Design)**

**Features:**

- Unique design of nose mounted indenter, ideal for inside diameters & recesses testing
- Load cell, force feedback, closed-loop system
- Automatic test cycle (loading, dwell, unloading)
- 15 Superficial Rockwell scales selectable
- Hardness scale conversion available for HB, HV, HLD, HK &  $\sigma_b$  (tensile strength)
- Limit setting & warning
- Shape correction settings for curved surfaces
- Large test results storage (max. 500 groups) for recall & printout anytime
- RS232 interface for micro printer connection
- USB port for PC connection

**Standard Compliance:** ISO 6508-2, ASTM E18, BS EN ISO6508-2, GB/T230.2



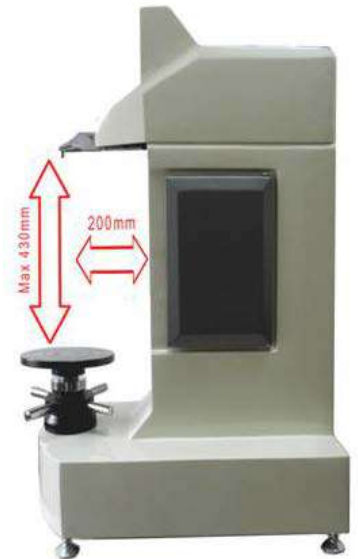
**Specifications:**

Model	SHR-3100
Preload	3kgf (29.4N)
Main Load	15kgf (147.1N), 30kgf (294.3N), 45kgf (441.3N)
Dwell Time	2-50 seconds
Resolution	0.1HR
Operation	Menu Selectable; Membrane Keypad
Loading Method	Automatic (loading/dwell/unloading)
Superficial Rockwell Test Scales Available	15N, 30N, 45N, 15T, 30T, 45T, 15W, 30W, 45W, 15X, 30X, 45X, 15Y, 30Y, 45Y
Hardness Scales Conversion	Vickers, Knoop, Brinell, Leeb
Hardness Reading	High Definition Backlight LCD
Data Statistics	Avg., Max., Min., S, R available
Memory	Max. 500 groups of test results can be stored automatically.
Data Output	RS232 Interface For Printer Connection; USB Port For PC Connection
Max. Height Capacity	260mm
Throat	150mm
Power Supply	AC, 220V/110V, 50~60Hz, 4A
Overall Dimensions (L*W*H, mm)	710 x 210 x 830
Weight	70kg

## SHR-3100H Digital Superficial Rockwell Hardness Tester (Nose Mounted Design)

### Features:

- Unique design of nose mounted indenter, ideal for inside diameters & recesses testing
- Large workpiece accommodation (vertical: max. 450mm; horizontal: max. 200mm)
- Load cell, force feedback, closed-loop system
- Automatic test cycle (loading, dwell, unloading)
- 15 Superficial Rockwell scales selectable
- Hardness scale conversion available for HB, HV, HLD, HK &  $\sigma_b$  (tensile strength)
- Limit setting & warning
- Shape correction settings for curved surfaces
- Large test results storage (max. 500 groups) for recall & printout anytime
- RS232 interface for micro printer connection
- USB port for PC connection



**Standard Compliance:** ISO 6508-2, ASTM E18, BS EN ISO6508-2, GB/T230.2



### Specifications:

Model	SHR-3100H
Preload	3kgf (29.4N)
Main Load	15kgf (147.1N), 30kgf (294.3N), 45kgf (441.3N)
Dwell Time	2-50 seconds
Resolution	0.1HR
Operation	Menu Selectable; Membrane Keypad
Loading Method	Automatic (loading/dwell/unloading)
Superficial Rockwell Test Scales Available	15N, 30N, 45N, 15T, 30T, 45T, 15W, 30W, 45W, 15X, 30X, 45X, 15Y, 30Y, 45Y
Hardness Scales Conversion	Vickers, Knoop, Brinell, Leeb
Hardness Reading	High Definition Backlight LCD
Data Statistics	Avg., Max., Min., S, R available
Memory	Max. 500 groups of test results can be stored automatically.
Data Output	RS232 Interface For Printer Connection; USB Port For PC Connection
Max. Height Capacity	430mm (or 450mm)
Throat	200mm
Power Supply	AC, 220V/110V, 50~60Hz, 4A
Overall Dimensions (L*W*H, mm)	730 x 400 x 1000
Weight	140kg

## SHR-560 Digital Rockwell & Superficial Rockwell Hardness Tester

### Features:

- Traditional dead weight system
- Automatic test cycle (loading, dwell, unloading)
- Direct display of indenter type, dwell time, test load, test scale & conversion scale
- All Rockwell & Superficial Rockwell scales selectable
- Hardness scales conversion available
- Automatic calculation of Max. , Min. & Avg. value
- Test results storage in real time
- Built-in stylus printer for test results printout
- RS232 interface for PC connectivity

**Standard Compliance:** ISO 6508; ASTM E-18; JIS Z2245; GB/T 230.2

### Applications:

Quenched steel; Tempered steel; Annealed steel; Cold and hard casting; Malleable cast iron; Hard alloy steel; Aluminum alloy; Copper alloy; Bearing steel etc. Surface quenched steel; Surface heat treating and chemical treating materials; Copper alloy; Aluminum alloy, Sheet; Zinc layers, Chrome layers; Tin layers etc.



### Specifications:

Model	SHR-560
Preload	3kgf (29.42N), 10kgf (98.07N)
Superficial Rockwell Main Road	15kgf (147.1N), 30kgf (294.2N), 45kgf (441.3N)
Rockwell Main Road	60kgf (558.4N), 100kgf (980.7N), 150kgf (1471N)
Indenter	Diamond Rockwell Indenter & Ball Indenter With Dia. 1.588mm
Loading Method	Automatic (loading/dwell/unloading)
Superficial Rockwell Test Scales Available	15N, 30N, 45N, 15T, 30T, 45T, 15W, 30W, 45W, 15X, 30X, 45X, 15Y, 30Y, 45Y
Rockwell Test Scales Available	A, B, C, D, E, F, G, H, K, L, M, P, R, S, V
Hardness Scales Conversion	Vickers, Knoop, Brinell, Shore, Rockwell: A, B, C, D, E, F, G, K, 15N, 30N, 45N, 15T, 30T, 45T
Hardness Reading	LCD Display
Data Output	Built-in Stylus Printer; RS232 Interface
Resolution	0.1HR
Dwell Time	0-60 seconds
Max. Height Capacity	175mm
Throat	165mm
Power Supply	AC220V, 50Hz
Overall Dimension (L*W*H, mm)	Machine: 520 x 215 x 740; Packing Dimensions: 650 x 370 x 980
Weight	Net Weight: 80kg; Gross Weight: 100kg

### Standard Accessories:

No.	Name	Qty.
1.	Machine	1 Set
2.	Diamond Rockwell Indenter	1 PC
3.	Ball Indenter With Dia. 1.588mm	1 PC
4.	Weights: 1, 2, 3, 4, 5	5 PCS
5.	Large Flat Anvil	1 PC
6.	Middle Flat Anvil	1 PC
7.	V Type Anvil	1 PC
8.	Hardness Block 20~30 HRC	1 PC
9.	Hardness Block 60~70 HRC	1 PC
10.	Hardness Block 80~100 HRB	1 PC

No.	Name	Qty.
11.	Hardness Block 65~80 HR30N	1 PC
12.	Hardness Block 75~85 HR30T	1 PC
13.	Level Adjustable Feet	4 PCS
14.	Spirit Level / Level Gauge	1 PC
15.	Wrench	1 PC
16.	Screw Driver	1 PC
17.	Fuse 2A	2 PCS
18.	Anti-dust Cover	1 PC
19.	Power Cable	1 PC
20.	User Manual	1 PC



## SHR-560Z Automatic Rockwell & Superficial Rockwell Hardness Tester

### Features:

- Load cell, force feedback, closed-loop system
- Automatic test cycle (loading, dwell, unloading)
- Automatic lifting test table
- Supplied with 5.6 inch high resolution full color touch screen
- Direct display of test scale, conversion scale, indenter type, test load & dwell time
- All Rockwell & Superficial Rockwell scales selectable
- Hardness scales conversion available
- Shape correction settings for curved surfaces
- Test results storage in real time
- Automatic calculation of Max., Min. & Avg. value
- Built-in thermal printer for test results printout
- RS232 interface for PC connectivity

**Standard Compliance:** ISO 6508; ASTM E-18; JIS Z2245; GB/T 230.2

### Applications:

Quenched steel; Tempered steel; Annealed steel; Cold and hard casting; Malleable cast iron; Hard alloy steel; Aluminum alloy; Copper alloy; Bearing steel etc. Surface quenched steel; Surface heat treating and chemical treating materials; Copper alloy; Aluminum alloy, Sheet; Zinc layers, Chrome layers; Tin layers etc.



### Specifications:

Model	SHR-560Z
Preload	3kgf (29.42N), 10kgf (98.07N)
Superficial Rockwell Main Road	15kgf (147.1N), 30kgf (294.2N), 45kgf (441.3N)
Rockwell Main Road	60kgf (558.4N), 100kgf (980.7N), 150kgf (1471N)
Indenter	Diamond Rockwell Indenter & Ball Indenter With Dia. 1.588mm
Loading Method	Automatic (loading/dwell/unloading)
Superficial Rockwell Test Scales Available	15N, 30N, 45N, 15T, 30T, 45T, 15W, 30W, 45W, 15X, 30X, 45X, 15Y, 30Y, 45Y
Rockwell Test Scales Available	A, B, C, D, E, F, G, H, K, L, M, P, R, S, V
Hardness Scales Conversion	Vickers, Knoop, Brinell, Shore, Rockwell: A, B, C, D, E, F, G, K, 15N, 30N, 45N, 15T, 30T, 45T
Hardness Reading	Touch Screen Panel
Data Output	Built-in Thermal Printer; RS232 Interface
Resolution	0.1HR
Dwell Time	0-99 seconds
Max. Height Capacity	320mm
Throat	150mm
Power Supply	AC220V, 50Hz
Overall Dimension (L*W*H, mm)	Machine: 535 x 330 x 890; Packing Dimensions: 820 x 460 x 1170
Weight	Net Weight: 80kg; Gross Weight: 100kg

### Standard Accessories:

No.	Name	Qty.
1.	Machine	1 Set
2.	Diamond Rockwell Indenter	1 PC
3.	Ball Indenter With Dia. 1.588mm	1 PC
4.	Large Flat Anvil	1 PC
5.	Middle Flat Anvil	1 PC
6.	V Type Anvil	1 PC
7.	Hardness Block 20~30 HRC	1 PC
8.	Hardness Block 60~70 HRC	1 PC

No.	Name	Qty.
9.	Hardness Block 80~100 HRB	1 PC
10.	Hardness Block 65~80 HR30N	1 PC
11.	Hardness Block 75~85 HR30T	1 PC
12.	Fuse 2A	2 PCS
13.	Anti-dust Cover	1 PC
14.	Power Cable	1 PC
15.	User Manual	1 PC
16.	Product Qualification Certificate	1 PC

## SHR-3200 Digital Rockwell & Superficial Rockwell Hardness Tester (Nose mounted design)

### Features:

- Unique design of nose mounted indenter, ideal for inside diameters & recesses testing
- Load cell, force feedback, closed-loop system
- Automatic test cycle (loading, dwell, unloading)
- All Rockwell & Superficial Rockwell scales selectable
- Hardness scale conversion available for HB, HV, HLD, HK &  $\sigma_b$  (tensile strength)
- Limit setting & warning
- Shape correction settings for curved surfaces
- Large test results storage (max. 400 groups) for recall & printout anytime
- RS232 interface for micro printer connection
- USB port for PC connection

**Standard Compliance:** ISO 6508-2, ASTM E18, BS EN ISO6508-2, GB/T230.2



### Specifications:

Model	SHR-3200
Preload	3kgf (29.4N), 10kgf (98.07N)
Main Load (Superficial Rockwell)	15kgf (147.1N), 30kgf (294.3N), 45kgf (441.3N)
Main Load (Rockwell)	60kgf (588.4N), 100kgf (980.7N), 150kgf (1471N)
Dwell Time	2-50 seconds
Resolution	0.1HR
Operation	Menu Selectable; Membrane Keypad
Loading Method	Automatic (loading/dwell/unloading)
Superficial Rockwell Test Scales Available	15N, 30N, 45N, 15T, 30T, 45T, 15W, 30W, 45W, 15X, 30X, 45X, 15Y, 30Y, 45Y
Rockwell Test Scales Available	A, B, C, D, E, F, G, H, K, L, M, P, R, S, V
Hardness Scales Conversion	Vickers, Knoop, Brinell, Leeb
Hardness Reading	High Definition Backlight LCD
Data Statistics	Avg., Max., Min., S, R available
Memory	Max. 400 groups of test results can be stored automatically.
Data Output	RS232 Interface For Printer Connection; USB Port For PC Connection
Max. Height Capacity	260mm
Throat	150mm
Power Supply	AC, 220V/110V, 50~60Hz, 4A
Overall Dimensions (L*W*H, mm)	710 x 210 x 830
Weight	95kg

## SHR-3200H Digital Rockwell & Superficial Rockwell Hardness Tester (Nose mounted design)

### Features:

- Unique design of nose mounted indenter, ideal for inside diameters & recesses testing
- Large workpiece accommodation (vertical: max. 450mm; horizontal: max. 200mm)
- Load cell, force feedback, closed-loop system
- Automatic test cycle (loading, dwell, unloading)
- All Rockwell & Superficial Rockwell scales selectable
- Hardness scale conversion available for HB, HV, HLD, HK &  $\sigma_b$  (tensile strength)
- Limit setting & warning
- Shape correction settings for curved surfaces
- Large test results storage (max. 400 groups) for recall & printout anytime
- RS232 interface for micro printer connection
- USB port for PC connection



**Standard Compliance:** ISO 6508-2, ASTM E18, BS EN ISO6508-2, GB/T230.2



### Specifications:

Model	SHR-3200H
Preload	3kgf (29.4N), 10kgf (98.07N)
Main Load (Superficial Rockwell)	15kgf (147.1N), 30kgf (294.3N), 45kgf (441.3N)
Main Load (Rockwell)	60kgf (558.4N), 100kgf (980.7N), 150kgf (1471N)
Dwell Time	2-50 seconds
Resolution	0.1HR
Operation	Menu Selectable; Membrane Keypad
Loading Method	Automatic (loading/dwell/unloading)
Superficial Rockwell Test Scales Available	15N, 30N, 45N, 15T, 30T, 45T, 15W, 30W, 45W, 15X, 30X, 45X, 15Y, 30Y, 45Y
Rockwell Test Scales Available	A, B, C, D, E, F, G, H, K, L, M, P, R, S, V
Hardness Scales Conversion	Vickers, Knoop, Brinell, Leeb
Hardness Reading	High Definition Backlight LCD
Data Statistics	Avg., Max., Min., S, R available
Memory	Max. 400 groups of test results can be stored automatically.
Data Output	RS232 Interface For Printer Connection; USB Port For PC Connection
Max. Height Capacity	430mm (or 450mm)
Throat	200mm
Power Supply	AC, 220V/110V, 50~60Hz, 4A
Overall Dimensions (L*W*H, mm)	730 x 400 x 1000
Weight	165kg