

MIDLAND METROLOGY LTD

uRock-45

Digital Superficial Rockwell Hardness Tester



Product Feature & Application

Product Features

uRock-45CL Closed loop system. High accuracy load cell instead of dead weights.

8" touch screen interface for user to directly select the hardness scale and test force and displays hardness value, conversion scale, test force, dwell time etc.

Automatic correction of high, medium and low hardness numbers.

Automatically applies the initial test force and the main test force.

Automatic testing process: Automatic load-dwell-unload and automatic hardness value.

Curve display: test force and displacement depth.

Powerful data processing function, including HR, HB, HV and other hardness scale conversions.

Qualified range can be set. Automatic alarm will sound when over the limit. The testers name, sample name and other information can be stored.

With the USB interface, test data can be saved in u-flash directly in EXCEL format. Easy to edit and process.

Protective device for indenter as an optional extra. (Testing sample size should be over 15mm.)



**uRock-45WL
(Weights Loading)**



**uRock-45CL (Closed
Loop)**

Product Application

Industrial production and inspection of product quality Ferrous and nonferrous metals, hardened steel, tempered steel, annealed steel, sheet of various thicknesses, carbide materials, powder metallurgy materials, hardness and thermal spray coating.

Operation Interface

Tester

Product Name

Radius of Curvature

Range To

Hardness Type

Conversion Type Conversion Value

Dwell Time(S)

Hardness Value

Measurement Scale

| | | |
|--|--|--|
| <input type="button" value="HR15N/D"/> | <input type="button" value="HR30N/D"/> | <input type="button" value="HR45N/D"/> |
| <input type="button" value="HR15T/1.588"/> | <input type="button" value="HR30T/1.588"/> | <input type="button" value="HR45T/1.588"/> |
| <input type="button" value="HR15W/3.175"/> | <input type="button" value="HR30W/3.175"/> | <input type="button" value="HR45W/3.175"/> |
| <input type="button" value="HR15X/6.35"/> | <input type="button" value="HR30X/6.35"/> | <input type="button" value="HR45X/6.35"/> |
| <input type="button" value="HR15Y/12.7"/> | <input type="button" value="HR30Y/12.7"/> | <input type="button" value="HR45Y/12.7"/> |

Please choose the right indenter for the scale you choosed.

Explanation

| | | |
|---|--|---------------------------------------|
| <input type="button" value="HRA/60/D"/> | <input type="button" value="HR15N/D"/> | <input type="button" value="Return"/> |
|---|--|---------------------------------------|

Scale/Force/Indentor Scale/Force/Indentor

Calibration

Scale:

Standard Hardness Value : Measured:

| | | |
|--------|----------------------|----------------------|
| Low | <input type="text"/> | <input type="text"/> |
| Medium | <input type="text"/> | <input type="text"/> |
| High | <input type="text"/> | <input type="text"/> |

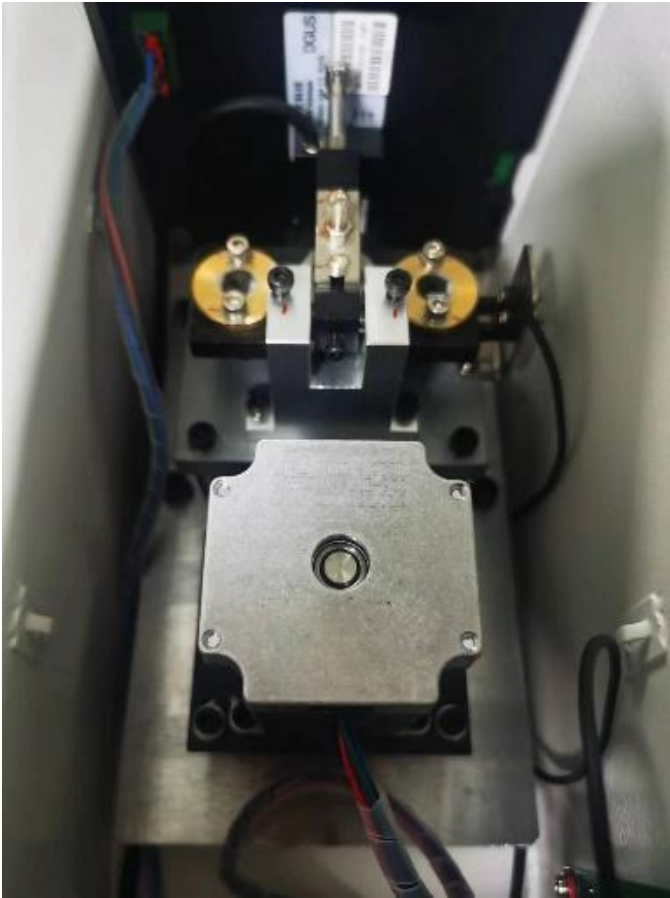
Force Calibration

Standard: kg

Measured: kg

User Friendly

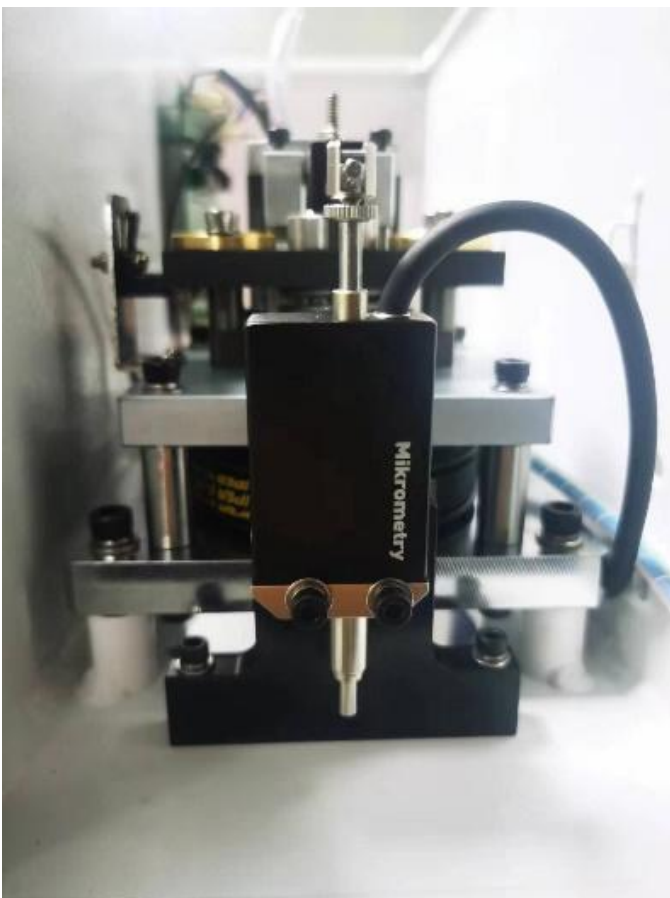
uRock-150CL is with Closed loop control system and high precision load cell structure. Automatically applies the initial test force and the main test force. Automatic testing process: loading - dwell - unloading.



Electronic Motorized Loading



Load Cell



Displacement Sensor



Displacement Sensor

Data Output & Indentor Protective

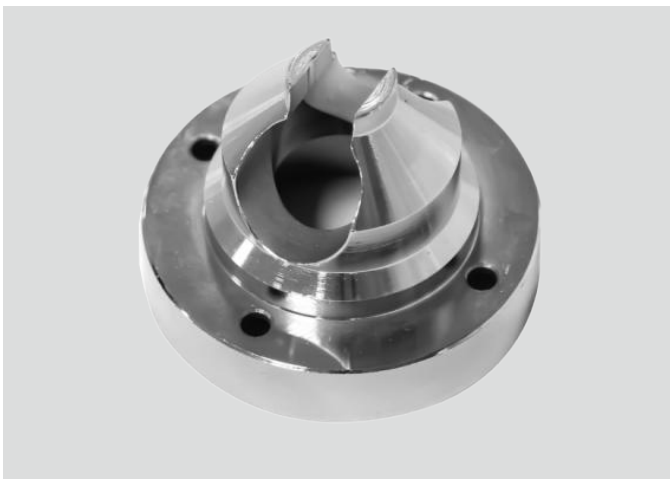
With USB interface, test data can be saved in U-flash directly in Excel format. Easy to edit and process. Indenter protective device for optional purchase.



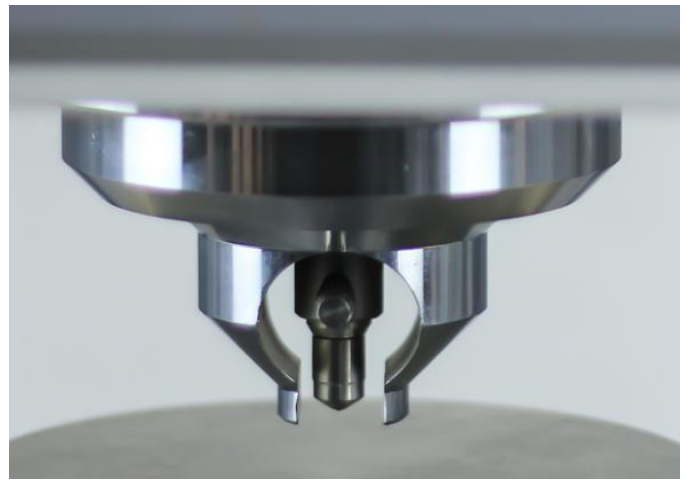
USB Interface



USB Interface

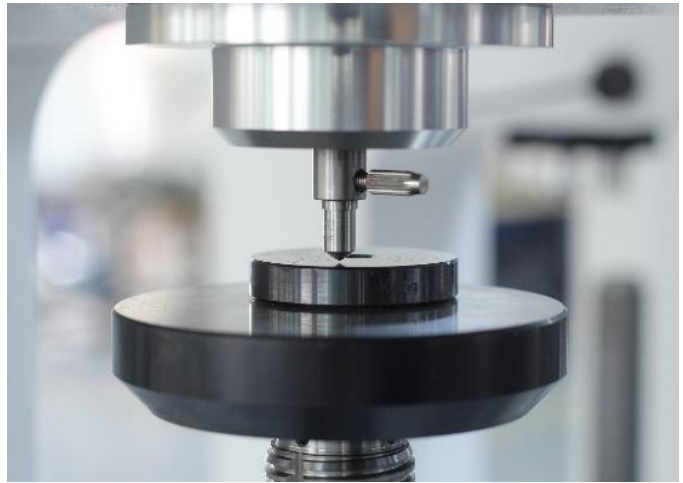


Indenter Protective Device



Indenter Protective Device

More Detailed Photos



Ordering Information



**uRock-45WL Weights Loading
Superficial Rockwell Hardness**



**uRock-150CL Closed Loop
Superficial Rockwell Hardness Tester**

Technical Specification

| Model | uRock-45WL | uRock-45CL |
|-----------------------------|---|-----------------------------|
| Loading Method | Weights Loading | Closed Loop |
| Initial Test Torce | 3.0Kgf(29.4N) | |
| Main Test Torce | 15kgf(147.1N) | 30kgf(294.2N) 45kgf(441.3N) |
| Hardness Scale | HR15N, HR30N, HR45N, HR15T, HR30T, HR45T, HR15W, HR30W, HR45W, HR15X, HR30X, HR45X, HR15Y, HR30Y, HR45Y | |
| Conversion scale | HRA, HRB, HRC, HRD, HRE, HRF, HV, HBW, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T | |
| Rockwell Test Range | HR15N:70-94 HR30N:42-86 HR45N:20-77 HR15T:67-93 HR30T:29-82 HR45TW:10-72 | |
| Executive Standards | BSEN 6508, ISO 6508, ASTM E18, GB/T230 | |
| Dwell time | 0-99s | |
| Hardness Resolution | 0.1 HR | |
| Error of Test Force | < 1% | |
| Data Reading | LCD Touch Screen | |
| Data Output | USB-flash in Excel Format | |
| Conversion Scale | Rockwell, Brinell and Vickers | |
| Test Height | 220mm | |
| Test Throat | 200mm | |
| Machine Dimensions | 560 x 220 x 750 mm | |
| Net Weight | 70kg | |
| Gross Weight & Packing Size | 780x470x940mm / 90kg | |
| Power Supply | AC220 + 5%, 50 ~ 60 HZ | |

Packing List

| Name | Quantity | Name | Quantity |
|---------------------------|----------|--------------------------|----------|
| Diamond Rockwell Indenter | 1 | 1.5875 mm Ball Indenter | 1 |
| Regulating Screw | 4 | 150mm Test Anvil | 1 |
| HR15N Hardness Block | 1 | 55mm Test Anvil | 1 |
| HR30N Hardness Block | 1 | 40mm V-type Test Anvil | 1 |
| HR30T Hardness Block | 1 | Dust-proof Plastic Cover | 1 |
| Power Line | 1 | Instruction Manual | 1 Copy |
| USB Flash Disk | 1 | Product Certificate | 1 Copy |
| Touch Pen | 1 | 2A Fuse | 2 |



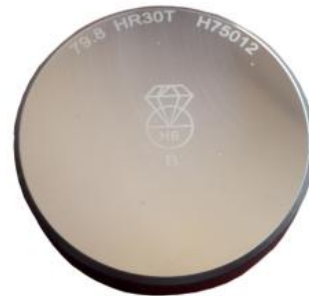
1.5875mm Ball Indentor



Diamond Rockwell Indentor



150mm Flat Test Anvil



Hardness Block



55mm Flat Test Anvil



40mm V-shape Test Anvil