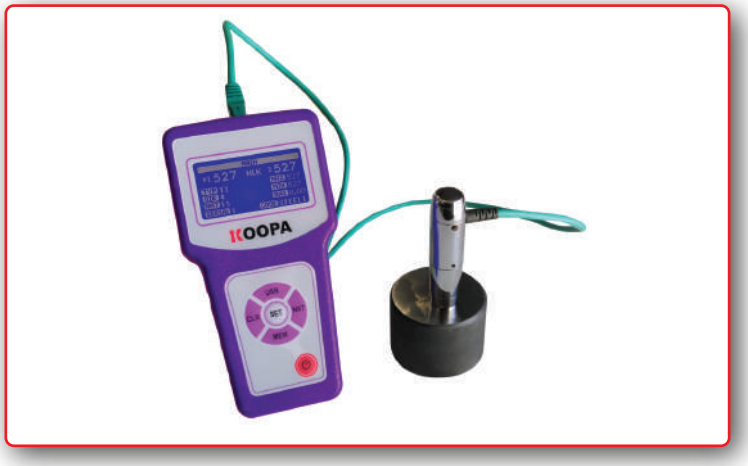
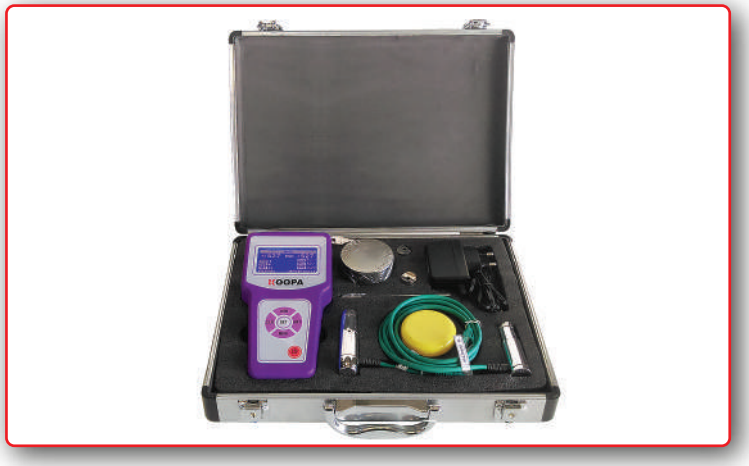
# Digital Portable Hardness Tester D06 for Metals

Koopa D06 is a state-of-the-art digital portable hardness tester designed to test the hardness of metal parts. The D06 uses a unique impact technique with auto-reload impact body feature. It provides one-hand test experience and constant impact energy in all directions. D06 measures the hardness in Leeb scale and converts the results to the most popular hardness scales such as Rockwell, Brinell, Vickers, and Shore. The user can separately calibrate the hardness measurement for different materials in three hardness ranges, i.e., low, medium, and high.





## Unique features

- Auto-reload impact device mechanism
- One hand test experience
- Software user calibration
- High accuracy in magnetic-radiated environments

## Features

- 3000 tests with fully-charged battery
- Plug and play impact device
- Auto power-off
- USB port
- 1500 built-in memory
- Same indentation energy in all directions
- Hardness testing of 8 widely-used materials, i.e., LS, HS, GG, 3G, AL, BS, BG, and CU
- Automatic conversion to Rockwell, Superficial Rockwell, Brinell, Vickers, Shore, and tensile strength
- Designed based on ISO 16859 and ASTM A956 standards
- Hardness testing conversion using DIN 50150 and ASTM E140 standards
- Automatic statistical calculation such as maximum, average, minimum, and range
- Auto angle compensation function

### Auto-reload impact device mechanism

With auto-reload impact mechanism, the user can repeatedly perform the test without manually loading the impact device. This patented impact mechanism provides an easy hardness testing experience. It benefits from steady impact energy for the entire device lifetime.

### One-hand test experience

The impact device is automatically loaded after each test and does not need the user to manually load it with two hands after each test. It provides more flexibility for the user to perform hardness testing on non-easily accessible surfaces.

### Software user calibration

The user can calibrate the device for each test material through the menu on three hardness ranges, i.e., low, medium, and high. This feature provides flexibility and accuracy for the user to calibrate the device based on a specific application.

### High accuracy in electromagnetic-radiated environments

The impact device is designed with a very robust and accurate velocity measurement system by which very accurate hardness testing can be performed. This measuring system is accurate even in the environments where electromagnetic radiation is very high.

**Sari, Iran**
+98 (11) 3336-6282



Revision: 2021.06.19.

| Technical Specifications | |
|---|---|
| Accuracy | ± 0.5 % (referred to Leeb 800) |
| Repeatability accuracy | ± 4 HL |
| Measuring range | 200-900 HL |
| Battery type | 5 AA rechargable NiCd |
| Operating temperature | 0-50 °C |
| Dimensions | 200x100x40 mm |
| Weight | 450 g |

## Accessories

Convex support ring

Concave support ring


Coupling paste


Standard hardness test block

Impact body

## Standard package

| |
|---|
| D06 Controller |
| Impactor device D |
| User manual |
| Battery charger |
| Standard hardness test block |
| Coupling paste |
| Cleaning brush |
| Impact body wrench |

## 1500 memory for data storage

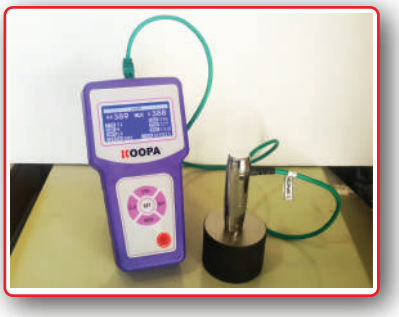
The device has a built-in memory in which 1500 hardness tests with all their statistical calculations can be stored. The statistical data for the test is hardness scale, number of tests, minimum, average, maximum, range, code, and serial number.


## Data transfer

Measured hardness and their calculated statistical data can be transferred to an external USB flash memory, The device stores the data as a text file that can be retrieved on a computer in any text editor software such as excel.

## Hardness testing in all directions

The test can be done in any of the 0°, 45°, 90°, 135°, and 180° directions. The user only needs to select the test direction in the menu and all other calculations will be performed by the device, automatically.




## Same impact energy in all directions

Using the patented impact mechanism, the impact energy and velocity are the same in all directions. It results the same hardness value measurement without any need to hardness compensation.

## Hardness testing on flat, concave, and convex surfaces

Using three different support rings, hardness testing of almost any surface is possible. These support rings have been designed in such a way that they fit in majority of industrial applications.

| Applicable materials | | | |
|---|---|---|---|
| LS | Low Alloy Steel | AL | Aluminum |
| HS | High Alloy Steel | BS | Brass |
| GG | Grey Cast Iron | BZ | Bronze |
| 3G | Ductile Cast Iron | CU | Copper |

| Methods | | | |
|---|---|---|---|
| HRA | Rockwell A | HV | Vickers |
| HRB | Rockwell B | HB | Brinell |
| HRC | Rockwell C | HSc | Shore Scleroscope |
| HR15N | Superficial Rockwell | MPa | Tensile Strength |

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## Optional Components


T3 Impact device

Superficial or light pieces hardness testing

Funnel head and impact body

Hardness testing of gearwheel's indents

Nut head

Hardness testing of nuts

Screw head

Hardness testing of screws


Hardness Test Block

Leeb hardness test blocks in various ranges

Impact body