

## 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 large metal parts. The D06 uses a unique indentation technique with auto-reload impact body feature. It provides one-hand test experience and constant indentation 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

- Spring-less 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 D
- 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 Brinell, Vickers, Rockwell, Superficial Rockwell, 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



### Spring-less auto-reload impact device mechanism

With spring-less auto-reload mechanism, the user can repeatedly perform the test without manually loading the impact device. This mechanism provides an easy hardness testing experience and benefits from steady indentation 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. It provides more flexibility for the user to perform the 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

We designed the impact device with a very robust and accurate velocity measurement system by which the user can perform accurate hardness test. This measuring system is accurate even in the environments where electromagnetic radiation is very high.

Technical Specifications	
Accuracy	± 0.5 % (referred to Leeb 800)
Repeatability accuracy	± 4 HL
Measuring range	200-960 HL
Battery type	5 AA rechargeable NiCd
Operating temperature	32-122 °F (0-50 °C)
Dimensions	7.5×39.5×20 in (190×100×40 mm)
Weight	15.9 oz (450 g)



### Accessories



Convex support ring



Standard hardness test block



Concave support ring



Coupling paste



Impact body wrench



Cleaning brush

### Standard package

D06 controller
D impactor device
Convex ring
Concave ring
User manual
Battery charger
Standard hardness test block
Coupling paste
Cleaning brush
Impact body wrench
Hardness conversion table
Spec sheet
Warranty letter
Certificates

### 1500 memory for data storage

The device has 1500 built-in memory in which hardness test's data such as part information and all the statistical calculations can be stored. These data are hardness scale, number of tests, minimum, average, maximum, range, code, and serial number.

### Data transfer

The device can transfer the measured hardness and their calculated statistical data to an external USB flash memory. The stored data is a text file and any text editor software such as Excel can retrieve them for further statistical analysis.



### Hardness testing in all directions

The device can perform the hardness test in any of the 0°, 45°, 90°, 135°, and 180° directions. The user only needs to select the test direction through the device menu and the device performs all other calculations, automatically.

### Same impact energy in all directions

Using this 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, i.e., flat, concave, can convex rings, hardness testing on almost any surface is possible. We designed these support rings to fit in majority of industrial applications.



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

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

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