DIGITAL ROCKWELL HARDNESS TESTER

- *VALUE*
- *VERSATILITY*
- *PERFORMANCE*

BRH-150D

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DESCRIPTION:

BRH-150D digital Rockwell hardness tester has high level automation, stable and reliable performance, it is equipped with sophisticated sensors so that can test data more accurate; large digital LCD screen provide comprehensive data for quality control.

APPLICATION:

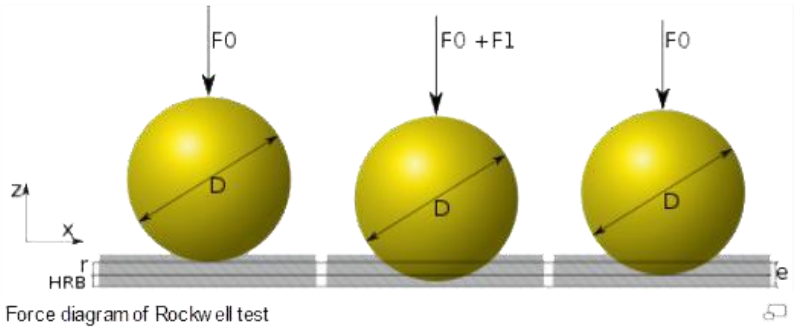
Hardened steel, quenched and tempered steel, annealing steel, bearing steel, strip steel, hardened steel sheet, hard alloy, etc.

FEATURES:

- The LCD screen will display hardness value, conversion value, test force, dwell time, indenter info. etc directly, indicator responses sensitively, show the hardness value accurately, the test value is more accurate than national standard;
- Automatic loading - dwell - unloading test force, easy operate
- Support English language, menu structure
- Built-in printer can print test result directly
- One-time casted molding shell, stable structure and it is not easy to be out of shape. It can work under harsh environment; the shell coating adopted car paint technology with white color. it has strong scratch resistance capability and still look bright as new after use many years;
- The screw rod adopts the fine grinding process, which ensures that the machine can be lifted smoothly and without eccentricity, make test accuracy higher and more stable.

WORKING PRINCIPLE OF ROCKWELL HARDNESS TEST:

The Rockwell scale is a hardness scale based on indentation hardness of a material. The Rockwell test determines the hardness by measuring the depth of penetration of an indenter under a large load compared to the penetration made by a preload. There are different scales, denoted by a single letter, that use different loads or indenters. The result is a dimensionless number noted as HRA, where A is the scale letter.



Force diagram of Rockwell test

Test range: (20～88) HRA

(20～100) HRB

(20～70) HRC

TECHNICAL SPECIFICATIONS:

Model No.	BRH-150D
Rockwell scale	HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRH, HRK
Conversion scale	HRA, HRB, HRC, HRD, HRF, HV, HK, HBW, H15N, H30N, H45N, H15T, H30T, H45T
Preliminary test force	10Kg(98N)
Total test force	60Kg (588N), 100Kg (980N), 150Kg (1471N)
Indication Resolution	0.1HR
Hardness value range	HRA:20-88, HRB:20-100, HRC:20-70, HRD:40-77, HRE:70-94, HRF:60-100, HRG:30-94, HRH:80-100, HRK:40-100, HRL:100-120, HRM:85-110, HRR:114-125
Hardness data read	LCD screen
Loading method	Automatic (Load, Dwell, Unload)
Dwell time	1-60S, each step 1 second
Data output	Built-in printer
Test space	Maximum height :230mm; Maximum throat depth:165mm
Machine Size / N.W	520X240x720mm (L×W×H); 70kg
Package Size / G.W	520*240*720mm; 100kg
Executive standard	GB/T230.2 , BSEN 6508, ASTM E18 , ISO 6508 , JJG112

STANDARD ACCESSORIES:

Item Name	Q'ty	Item Name	Q'ty
Rockwell hardness tester host	**1**	V-shaped testing table	**1**
Diamond Rockwell indenter	**1**	Spare fuse 2A	**2**
1.588mm diameter hard alloy steel ball indenter	**1**	Dust-proof cover	**1**
Standard hardness block	**3**	Accessory case	**1**
Weights A/B/C	**3**	Operating instruction	**1**
Large testing table	**1**	Quality certificate	**1**
Medium testing table	**1**	Warranty card	**1**

HARDNESS SCALE, FORCE, AND INDENTER RELATION:

Scale	Indenter	Preliminary test force (N)	Total test force (N)	Applications
A	Diamond indenter coning angle 120°0.2mm radius of top sphere	**98**	588	Horniness alloy, cementite steel
D			980	Thin steel, quenched case
C			1471	Quenched steel, thermal refined steel, cast steel
F	Diameter of steel ball 1.588mm (1/16 inch)		588	Anneal copper alloy, thin soft steel
B			980	Soft steel, aluminum alloy, copper alloy, casting
G			1471	Pearliest iron, copper, nickel, zinc, nickel alloy
H	Diameter of steel ball 3.175mm (1/8 inch)		588	
E			980	
K			1471	