

HBRV-187.5 Motorized Brinell Rockwell & Vickers Hardness



The picture is for reference only

1. Hardness is one of the important mechanic characteristics of the material while the Hardness Testing is the most quickly and economic testing method, as well as an important method to judge the quality of the metal material or its component parts. The mechanic characteristics of most metal materials such as the strength, tiredness, wriggling and wearing out can be tested out approximately through its hardness testing.
2. The Motorized Brinell Rockwell & vickers hardness tester, a multi-functional hardness tester with Brinell, Rockwell & Vickers 3 kinds of testing methods and 7 steps testing force will meet the needs of many kinds of hardness measurement. The instrument is adopted automatic shifter to load, dwell and unload testing force, therefore the operation for this instrument is simple, easy and quickly.

Technical specifications

1. The Initial Test Force: 98.07N (10Kg); Tolerance: $\pm 2.0\%$
2. The Tolerance of Total Test Force: $\pm 1.0\%$

- 2.1 The Test Force of Brinell Hardness: 294.2N(30kg), 306.5N (31.25kg), 612.9N (62.5kg), 980.7N(100kg), 1893N(187.5kg)
- 2.2 The Test Force of Rockwell Hardness: 588.4N (60kg), 980.7N (100kg), 1471N(150kg)
- 2.3 The Test Force of Vickers Hardness: 294.2N (30Kg), 980.7N (100Kg)
3. The Indenter Specifications:
 - 3.1 The diamond Rockwell indenter
 - 3.2 The diamond Vickers indenter
 - 3.3 The $\phi 1.5875$ mm, $\phi 2.5$ mm, $\phi 5$ mm ball indenter
4. The Power Source and the Voltage: AC220V $\pm 5\%$, 50-60 HZ
5. Time-delayed control: 2-60 seconds, can be adjusted
6. The Distance from the Indenter Central Point to the Instrument Body: 165mm.
7. The Max. Height of the Specimen:
 - 7.1 The Max. Height of the Specimen for Rockwell Hardness: 170mm
 - 7.2 The Max. Height of the Specimen for Brinell & Vickers Hardness: 140mm
8. The Amplification of Objective: 37.5 $\times$; 75 $\times$
9. The Overall Dimension of Hardness Tester(Length $\times$ Width $\times$ Height): 520 $\times$ 215 $\times$ 700mm
10. The Total Weight of the Tester: 78kg

Rockwell Hardness

11. The Tolerance of Rockwell Hardness Display Value

Hardness Scale	Hardness Range of The Standard Testing Blocks	The Max. Tolerance of Hardness Display Value
HRA	20 $\sim$ $\leq$ 75HRA	± 2 HRA
	$>75 \sim \leq 88$ HRA	± 1.5 HRA
HRB	20 $\sim$ $\leq$ 45HRB	± 4 HRB
	$>45 \sim \leq 80$ HRB	± 3 HRB
	$>80 \sim \leq 100$ HRB	± 2 HRB
HRC	20 $\sim$ $\leq$ 70HRC	± 1.5 HRC

Brinell Hardness

12. The repetition and tolerance of displayed Value for Brinell hardness tester

Hardness Value of Standard Testing Blocks (HBW)	Tolerance of Displayed Value (%)	Repetition of Displayed Value (%)
≤ 125	± 3	≤ 3
$125 < \text{HBW} \leq 225$	± 2.5	≤ 2.5
> 225	± 2	≤ 2

Vickers Hardness

13. The Tolerance and Repetition of Displayed Value for Vickers Hardness Tester

Tolerance of Displayed Value			Repetition of Displayed Value	
Hardness Scale	Displayed Value of Hardness Test Block	Tolerance of Displayed Value	Displayed Value of Hardness Test Block	Repetition of Displayed Value
HV30	≤ 250 HV	$\pm 3\%$	≤ 225 HV	6%
HV100	300 $\sim$ 1000HV	$\pm 2\%$	> 225 HV	4%





MACHINERY DIRECTIVE ATTESTATION OF CONFORMITY

Technical file of the company mentioned below has been inspected and audit has been completed successfully.

2006/42/EC Machinery Directive Annex VIII has been taken as references for these processes.

Company Name : **JINAN HENSGRAND INSTRUMENT CO., LTD.**
Company Address : NO.4915, WEST JINGSHI ROAD, JINAN, CHINA
Related Directives and Annex : **2006/42/EC Machinery Directive/Annex VIII**
Related Standards : **EN ISO 12100:2010, EN 60204-1:2018**
Product Name : **TESTING MACHINE**
Report No and Date : TCF-JHIC230128-MD
Product Brand/Model/Type : WDS-1, WDS-2, WDS-3, WDS-5, WDS-10, WDS-20, WDS-30, WDS-50, WDS-100, WDS-200, WDS-300, WDS-500, WDW-1, WDW-2, WDW-3, WDW-5, WDW-10, WDW-20, WDW-30, WDW-50, WDW-100, WDW-200, WDW-300, WDW-500, WDW-600, WDW-1000, WE-300, WE-600, WE-1000, WE-2000, WEW-300, WEW-600, WEW-1000, WEW-2000, WAW-300, WAW-600, WAW-1000, WAW-2000, WAW-3000, WAW-5000, WAW-6000, LAW-1000, JB-300B, JBS-300, JBW-300, JB-500B, JBS-500, JBW-500, JBW-750, CST-50, VU-2Y, VU-1S, DWC-40, DWC-60, DWC-80, DWC-100, DWC-196, YES-2000, YES-300, YAW-1000, YAW-300, YAW-2000, YAW-3000, YAW-5000, NDS-200, NDS-500, NDS-1000, NDS-2000, NDW-200, NDW-500, NDW-1000, NDW-2000, NDW-3000, NDW-5000, NDW-10000, HEZ-3, HEZ-6, HEZ-10, JWJ-10, TLS, TLW, HST-P50, HST-P100, HST-P200, HST-P300, RDJ, NDT, DWTT, GBW-60, GW-50, HST, XNR-400

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