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DUHT-187.5 Universal Hardness Tester (Rockwell, Brinell & Vickers)



Description:

Technical specifications

1. The Power Source and the Voltage: AC220V \pm 5%, 50-60 Hz
2. Time-delayed control: 0-60 seconds, adjustable
3. The Distance from the Indenter Center to the Instrument Body: 165mm
4. Overall Dimension (Length \times Width \times Height): 551 \times 260 \times 800 mm
5. The Net Weight of the Tester: 80kg (Approx)

Rockwell Hardness

6. Specifications of Rockwell Hardness

Testing force (N)	Initial Testing Force	98.07 (10kg)	Tolerance \pm 2.0%
	Total testing force	588.4 (60kg)	Tolerance \pm 1.0%
		980.7 (100kg)	



	1471 (150kg)			
Indenter	Diamond Cone Indenter			
	Φ1.5875mm Ball Indenter			
Scales	HRA	HRB	HRC	HRD
Max height of samples	175mm			

7. The Tolerance of Rockwell Hardness Display Value

Hardness Scale	Hardness Range of Standard Testing Blocks	The Max. Tolerance of Display Value	Repeatability
HRA	(20~≤75) HRA	±2HRA	≤0.02 (100-H) or 0.8 Rockwell Unit
	(>75~≤88) HRA	±1.5HRA	
HRB	(20~≤45) HRB	±4HRB	≤0.04 (130-H) or 1.2 Rockwell Unit
	(>45~≤80) HRB	±3HRB	
	(>80~≤100) HRB	±2HRB	
HRC	(20~≤70) HRC	±1.5HRC	≤0.02 (100-H) or 0.8 Rockwell Unit

a: H is average hardness value b: Confirm as higher value

Brinell Hardness

8. The Technical Specification of Brinell Hardness Tester

Testing force	294.2N (30kg)			Tolerance ±1.0%
	306.5N (31.25kg)			
	612.9N (62.5kg)			
	980.7N (100kg)			
	1839N (187.5kg)			
Indenter	φ2.5mm、φ5mm Ball Indenter			
Scales	HBW1/30	HBW2.5/31.25	HBW2.5/62.5	
	HBW5/62.5	HBW10/100	HBW2.5/187.5	
Eyepiece magnification	15×			
Objective	2.5× (resolution 0.5μm)、5× (resolution 0.25μm)			
Max Height of Sample	For 2.5×: Max Height is 95mm For 5×: Max height is 115mm			



9. The Tolerance and Repetition of Displayed Value for Brinell Hardness Tester

Hardness Block (HBW)	Tolerance (%)	Repeatability (%)
≤125	±3	3
125<HBW≤125	±2.5	2.5
>225	±2	2

Vickers Hardness

10. Technical Specifications of Vickers Hardness

Test force	294.2N (30kg)	Tolerance±1.0%
	980.7N (100kg)	
Indenter	Diamond Vickers Indenter	
Scale	HV30	HV100
Eyepiece magnification	15×	
Objective magnification	5× (Resolution 0.25μm)	
Max. Height of Specimen	115mm	

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

Tolerance of Displayed Value			Repetition of Displayed Value	
Hardness scale	Value of Hardness Block	Tolerance of Displayed Value	Value of Hardness Block	Repetition of Displayed Value
HV30	≤250HV	±3%	≤225HV	6%
HV100	300~1000HV	±2%	>225HV	4%