



UniGen Universal Hardness Tester – Rockwell, Vickers & Brinell Hardness Testing System

Standards: [EN ISO 6508](#), [ISO 6506](#), [ASTM E92](#), [ISO 6507](#), [ASTM E-18](#), [JIS Z 2245](#), [GB/T 230.2](#), [ASTM E10-12](#), [JIS Z 2243](#), [GB/T 231.2](#), [JIS Z 2244](#), [GB/T 4340.2](#)



ULTIMATE USER-FRIENDLINESS



LEADING DEPENDABILITY AND RELIABILITY



STRICT COMPLIANCE WITH INDUSTRY STANDARDS



STOCKED CONSUMABLES AND SPARES



TRUSTED AFTER SALES TECHNICAL SUPPORT



LIFETIME PRODUCT SUPPORT ADVANTAGE

Description

NextGen's UniGen is a versatile all-in-one Universal Hardness Testing System. The unit is specifically designed to offer industry leading user-friendliness combined with a robust built for accurate and repeatable Vickers/Knoop, Rockwell and Brinell Hardness testing measurement results. The unit comes standard with an 8" LCD touch screen, CCD Camera, state-of-art automatic measuring software, and the full scope of NIST Certified consumables for all 3 testing methods, providing the ultimate Turnkey Solution for your facilities hardness testing requirements. Continue reading in our blog publication.



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Main Features

- Equipped Brinell, Rockwell, Vickers test methods;
- Large touch-screen interface for ease of operation;
- Closed loop system with the highest accuracy load cell avoiding the need to install weights;



- Automated test force correction and force compensated to ensure the a high level of accuracy;
- Meets all up-to-date industry strands and conversions;
- Rockwell hardness testing function has an auto-correct curvature radius;
- Password protection for setup parameters;
- Large samples and testing information capacity;
- Supplied with a disc to save data to EXCEL format for ease of editing and processing;
- Modular design for easy maintenance;



Watch Video



Watch the UniGen Universal Hardness Tester – Rockwell, Vickers & Brinell Hardness Testing System product video.

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Technical Specifications

Universal Hardness Testing System - UniGen Series	
Brinell Scale	HBW1/5, HBW2.5/6.25, HBW1/10, HBW2.5/15.625, HBW1/30, HBW2.5/31.25, HBW2.5/62.5, HBW10/100, HBW5/125, HBW2.5/187.5
Rockwell Scales	HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRH, HRK, HRL, HRM, HRP, HRR, HRS, HRV
Vickers Scale	HV5, HV10, HV20, HV30, HV40, HV50, HV60, HV80, HV100, HV120
Test force	Rockwell: 60kgf(588N), 100kgf(980N), 150kgf(1471N); Initial test force:10kgf(98N); Brinell: 5kgf(49N), 6.25kgf(61.25N), 10kgf(98N), 15.625kgf(153.125N), 30kgf(294N), 31.25kgf(306.25N), 62.5kgf(612.5N), 100kgf(980N), 125kgf(1225N), 187.5kgf(1837.5N) Vickers: 5kgf(49N), 10kgf(98N), 20kgf(196N), 30kgf(294N), 40kgf(392N), 50kgf(490N), 60kgf(588N), 80kgf(784N), 100kgf(980N), 120kgf(1176N)
Indication accuracy	Brinell: 8-650HB (δ /%) \pm 2.5; Rockwell: \pm 0.1HR; Vickers: \pm 2
Repeatability	Brinell: 8-650HB (Hcf/%) \leq 3.0; Rockwell: 0.5HR; Vickers: \leq 2.5
Hardness range	Brinell: 8-650HBW; Rockwell: 20-100HR; Vickers: 8-2900HV
Force error	< 0.5%
Holding Time	0-60s
Minimum measuring unit	0.1 μ m
Allowed maximum sample size (test space)	Vertical: 220mm (for Rockwell); 150mm (for Vickers & Brinell test mode); Horizontal: 200mm
Magnification	Eyepiece: 15X, 2.5X (for Brinell), 5X (for Vickers) (10X, 20X for optional) Total magnification: 37.5X, 75X
Hardness read	Touch Screen LCD display, USB Flash Disk



Universal Hardness Testing System - UniGen Series

Power supply	AC220V, 50-60Hz
Implementation of the standards	ISO 6508, ASTM E-18, JIS Z2245, GB/T 230.2 ISO 6506, ASTM E10-12, JIS Z2243, GB/T 231.2 ISO 6507, ASTM E92, JIS Z2244, GB/T 4340.2
Dimensions	Machine size: 22x13.8x31.5-inches / 560x350x800mm Packing size: 28.75x17.7x35.8-inches / 730x450x910mm
Weight	N/W: 155lbs / 70kg G/W: 219lbs / 99kg



Main Interface

Operator:

Sample:

Range: To:

Load(kg):

Dwell Time(S):

D1: D2:

HBW:

Conversion:

Measurement scale for the Brinell

1/5	2.5/6.25	1/10
2.5/15.625	1/30	2.5/31.25
2.5/62.5	10/100	5/125
2.5/157.5		

Operator:

Sample:

Curvature:

Range: To:

Hardness type:

Conversion type: Value:

Dwell Time(S):

Hardness value:

Measurement scale for the Rockwell

HRA	HBB	HRC	HBD
HRE	HRC	HRC	HRI
HRA	HRI	HSM	HBP
HRR	HRS	HRY	

Operator:

Sample:

Range: To:

Load(kg):

Dwell Time(S):

D1: D2:

HV:

Conversion:

Measurement scale for the Vickers

5	10	20
30	40	50
60	80	100
120		

Calibration

Identification:

Load(kg):

Pulse count: X: Y:

Hardness value:

Calibration

Scale:

Standard hardness value: Measured:

Low:

Medium:

High:



Standard Accessories

Part Name	Quantity	Name	Quantity
15X eyepiece	1	Brinell indenter diameter of 2.5mm, 5mm, carbide ball	1 each
Vickers Indenter	1	Rockwell 1.588 carbide ball indenter	1
Rockwell Diamond indenter (NIST Certified)	1	Objective Lens 2.5 x, 5x	1 each
Hardness block Vickers x1, Rockwell x3, and Brinell x2	5pcs	Exterior lighting	1
Power line	1	Large, medium, V-test sets	1 each
Sliding test sets	1	U disk (with an operations manual)	1
Fuse 2A	2	Adjustable level screws	4
Dust proof cover	1	Accessory Box	1

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