NauMetrics
Precision Measuring Instruments

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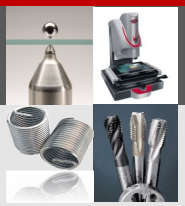

AUTOMATIC BRINELL HARDNESS TESTER

KHB-3000A

Contact to desktop PC or Contact to laptop PC.

The Brinell hardness testing creates the largest indentation comparing all other hardness testing methods. It is able to reflect the comprehensive features of the material, and is unaffected by the microstructure and inhomogeneous of the specimen. So it with high precision and widely used in industry such as metallurgy, forging, casting, unhardened steel and nonferrous metals, as well as in the laboratories, universities , and scientific research institutes.

KHB-3000A Tester conforms to:

ISO6506 Metallic Materials-Brinell Hardness Test

ASTM E-10 Test Method for Brinell Hardness of Metallic Materials

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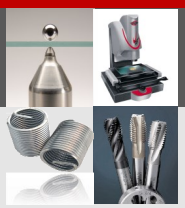


Specification:

Innovative closed-loop technology. The tester incorporates the latest load cell technology. The test load is applied via a closed-loop control unit with a load cell, a DC motor and an electronic measurement and control unit. The result is highly accurate measurements at all test loads up to 0.5%. The common load overshoot or undershoot as known from traditional dead weight, or open-loop, systems is eliminated. The absence of mechanical weights not only eliminates friction problems but also makes the equipment less sensitive to misalignments caused by vibrations.

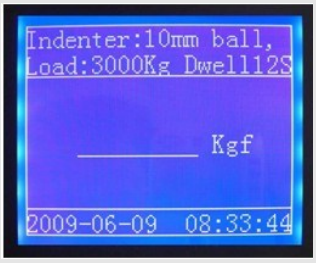
The whole weight of the tester is 50% less than the traditional dead weights type tester.

Test load selection by keyboard and LCD screen. No need of handling heavy weights or cleaning the messy oil.

Fully automatic test cycles. The hardness Tester features a fully automatic test cycle, load application, holding, unloading, is performed fully automaticly. This greatly improves reproducibility of test results since operator influence is eliminated.

Selectable dwell times by screen. The indenter, load, and other test informations are showing clearly on the large LCD screen.

The directions for 0.102F/D2 ratios selecting according to the materials and hardness range can be showing on the screen.



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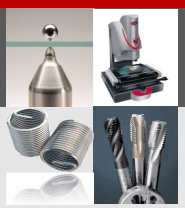
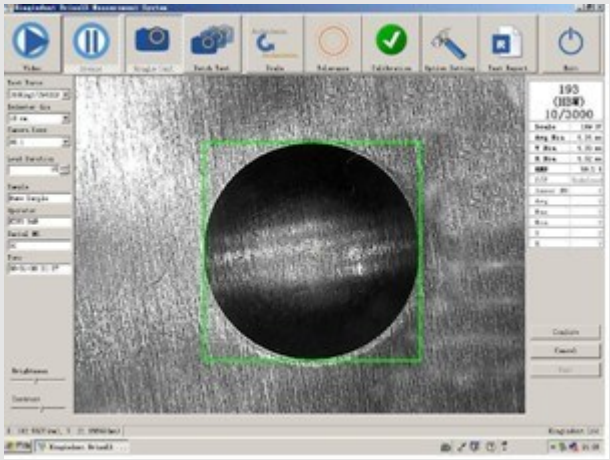
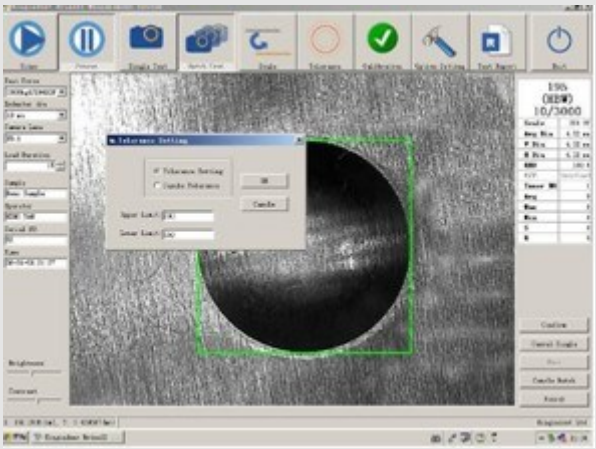


Equipped with the special Brinell indention measure system which can measure the Brinell indention accurately, quickly, reliably. It is a new measuring method by using CCD camera to capture the indention image, instead of reading diameter from optical microscope by operator then calculating the test value.

The KHB-3000A tester can connect any PC with USB port and runing the SPC software, then the special software supplying simplest operation as following.



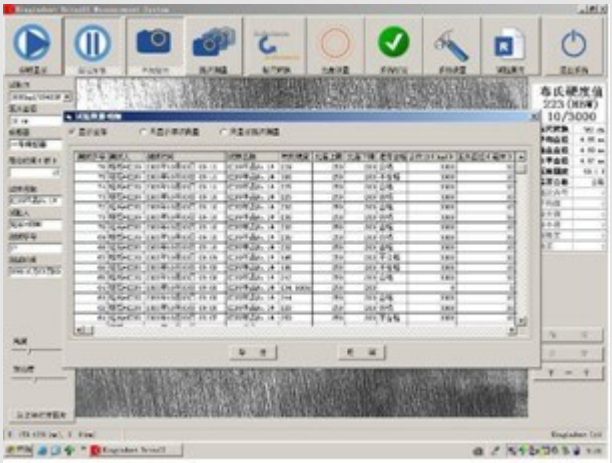


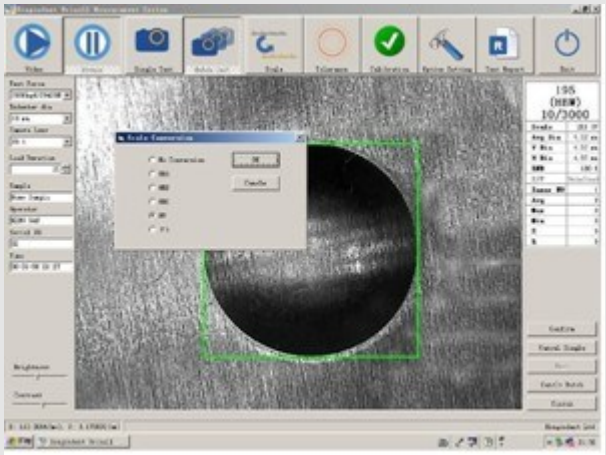
Both single testing and batch testing mode are available

Tolerance setting, distinguishing and alarming

Statistics values such as Max, Min, Avg, R and S are available

Convert test result to other scales, such as HRC,HRB,HRA,HV, mb





All test results and indention images are saved automatically

Test report created in Microsoft EXCEL format, can be edit, copy, print as you will

Software update freely

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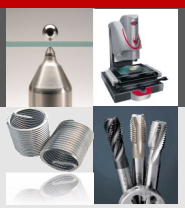

Technical data:

Loads : 3000kgf (29400N), 1500Kgf (14700N), 1000Kgf (9800N), 750Kgf （7355N） , 500Kgf (4900N), 250Kgf (2452N), 187.5Kgf (1839N), 125Kgf (1226N), 100Kgf (980N), 62.5Kgf （612.9N)		
Load dwell duration: 2s~99s, can be set and stored		
Tungsten Carbide Ball indenter: 10mm		
Measuring range: 3.18HBW~658HBW		
Accuracy of indention measureing: ±0.5%		
Accuracy of Brinell Hardness Value:		
Hardness Range(HBW)	Error (%)	Repeatability(%)
≤ 125	± 2.5	≤3.0
125＜HBW≤225	± 2.0	≤2.5
＞ 225	±1.5	≤2.0
Max measurable height 200 mm		
Max measurable depth: 140 mm		
Dimensions: 530mm×260mm×750mm		
Power supply: 220/110 V, 50/60 Hz, 4A		
Weight: 120kg		
Standard blocks: 125-350HBW10/3000, 125-350HBW10/1000		

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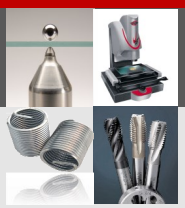

Standard configuration			
Host machine	1	Software disc	1
Standard block125-350HBW10/3000	1	USB Key	1
Standard block125-350HBW10/1000	1	USB Cable	1
Φ10mm Tungsten Carbide Ball indenter	1	Power supply wire	1
Mounting screws for indenter	1	Dust cover	1
Screwdriver for indenter mounting	1	Flat anvil, 80mmx185mm	1
Optional accessories:			
"V" shape anvil, 80mmx185mm		Standard blocks of other value	
Φ5mm Tungsten Carbide Ball indenter		Φ2.5mm Tungsten Carbide Ball indenter	
Φ10mm Tungsten Carbide Ball		Φ5mm Tungsten Carbide Ball	
Φ2.5mm Tungsten Carbide Ball			