

Hydraulic Brinell Hardness Tester



PHB-3000a Hardness Tester adopts hydraulic principle and applies 3000kgf test force by hand operation.

The central part of PHB-3000a is a small hydraulic system in which a release valve is used to control the test force. When the test force rises 3000kgf, the release valve will open and pressure will fall down, and it needs to apply the test force repeatedly 3-4 times to make the needle of the pressure gauge point to 3000kgf for 3-4 times.

Thus it is equivalent to the test condition of Brinell hardness testing method to hold 3000kgf test force with 10mm ball for 10-15 seconds, which complies with ASTM E110. The accuracy and performance can reach the level of hydraulic King Brinell hardness tester.

Features:

On-site Testing, can be used in workshop, simple operation, easy carrying, and testing hardness of large parts, convenient to test piece by piece.

Permanent Indentation, By 3000kgf and 10mm ball, the indentation is permanent for re-inspection.

High Reliability, It follows the Brinell hardness test method completely, the same as desk testers, reflecting the actual mechanical property of material or parts.

Wide Application Range, As long as clamped to the parts, it could test parts in any shapes and sizes.

Wide Testing Range, It could test various common metal materials by the combination of different test force, indenters and anvils, that is wide testing range.

Technical Parameters:

Test Force: 3000kgf(1000kgf, 750kgf, 500kgf optional)

Test Ball: 10mm Carbide test ball (5mm optional)

Test Range: 32-650HBW

Test Diameter: ≤ 500 mm

Indicator Error: Complies with ISO 6506, and ASTM E10

Repeatability Error: Complies with ISO 6506, and ASTM E10

Test Force Error: $\leq 1\%$ and

Complies with ISO 6506, and ASTM E10

Standard Delivery:

Main Unit

Handle

Brinell Hardness Block

Anvil (Flat, V-shape, Spot type)

20X Reading Microscope

10mm Carbide Alloy Ball

Application:

On-site test of steel products, nonferrous metal, casting, forgings, and semi-finished heat treatment parts.

Applied to large parts for desk testers to test. Replace leeb testers which are in low accuracy and reliability.

Indentation could be read by Brinell indentation measurement system and hardness value display directly.

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