

HARDNESS TESTING



Hardness in materials refers to their resistance to indentation, a critical aspect evaluated through various established test methods. The primary goal of hardness testing is to assess material durability and suitability for intended applications, ensuring they meet required performance standards and contribute to the quality and reliability of end products in manufacturing.



Leeb hardness testers offer versatile applications, measuring the hardness of ferrous and nonferrous materials. Their wide measuring range allows conversion to various scales like Rockwell B & C, Vickers, Brinell, and Shore. While unsuitable for thin parts, they excel in inspecting metals like stainless steel, cast iron, aluminum, and more. Additionally, they aid in assessing die cavities, machinery, conducting failure analysis, material identification in warehouses, and surface detection in small spaces, facilitating efficient and comprehensive hardness testing across diverse industrial settings.

The Leeb hardness test, part of the four major industry standards along with Rockwell, Vickers, and Brinell tests, is a non-destructive method specifically suited for inspecting large workpieces over 1 kg.

Metallic materials' hardness is assessed using ISO 16859 and ASTM A956 standards. The Leeb hardness testing method measures hardness based on energy loss from an impact body hitting metal, with a faster rebound indicating higher hardness, quantified as the Leeb rebound hardness unit HL.