

Hardness testing



Impact

Portable hardness tester

- measures in most hardness scales:
- Rockwell C (HRC), Rockwell B (HRB)
- Rockwell A (HRA), Vickers (HV)
- Brinell (HB), Shore (HS), Leeb (HL)
- tests at any position, even up-side-down

Application

The portable hardness tester Impact is designed for the universal use in the laboratory or in workshops. It is easy to use with a very low tolerance of $\pm 1.5\%$. The measuring principle uses the difference between the impact and rebound speed of a small impact body. This impact body bounds on the surface of a metal piece by the force of a spring.

Typical application

- Heavy individual parts or machine parts
- Testing in a production line
- Material identification
- Measurements on parts with difficult access

Preconditions to measure

- Minimum measuring area 10 mm x 10 mm.
- Minimum curvature radius 30 mm (without adapter). With adapter the minimum curvature is 11 mm.
- Parts of less than 5 kg and thin parts must be placed on a solid base.
- Parts of less than 2 kg have to be placed on a solid base using the coupling liquid.

Technical data

- Dimension of the gauge: length x width x height = 150 mm x 22 mm x 53 mm
- Weight: 175 g
- Tolerance: $\pm 1.5\%$
- Statistics: mean value, number of readings
- Operating temperature: 0°C to 50°C

Measuring range

- HRC 20 to 68
- HRB 13 to 100
- HRA 59 to 86
- HB 30 to 680
- HV 80 to 970
- HS 32 to 100
- HL 200 to 900



Hardness testing on a hardened work-piece

Hardness testing of metallic parts, e.g.

- Steel, casting steel, cold-work tool steel, stainless steel
- Cast iron (grey cast iron, nodular cast iron) aluminium cast alloy, brass, bronze, copper forging

Delivery

- Impact D: standard model for most of the hardness measurements
- Impact C: especially for very thin and sensitive parts
- Gauge, measuring standard (steel piece), main unit, case

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