

Instruments for non-destructive testing of metal

Equotip 3 Portable Metal Hardness Tester

Equotip is the most established and trusted brand for portable metal hardness testing. The measuring principle was invented by Proceq in 1975. Equotip uses the well accepted dynamic Leeb hardness testing principle. An impact body with a hard-metal test tip is propelled by spring force against the surface of the test piece. Surface deformation takes place when the impact body hits the test surface, which results in loss of kinetic energy. This energy loss is detected by comparison of impact and rebound velocities, v_i and v_r , measured at a specific distance from the surface immediately before and after the impact.

The powerful Equotip 3 indicating device is easy to operate and meets all customer needs in terms of statistics, data analysis and reporting.

Equotip 3 Impact Devices

Equotip 3 Impact Devices address most users' requirements regarding size, preparation and hardness of work pieces. The different impact energies, probe sizes, test tip geometries, and indenters suit particular application needs.



an emerging application

The Automation Package

Not only do Equotip testers offer quick tests by hand, but Equotip 3 can also be remote-controlled. The Equotip 3 Automation Package facilitates the integration of hardness tests into quality management systems.

Production engineers set up the Equotip 3 on the production floor, and quality staff maintains and operates the instrument as part of the production system from the control centre. Device settings are controlled via the PqRemote software.

The measurement data is automatically transmitted to the quality system database. Hardness results are analyzed instantaneously and used to decide whether individual parts can be accepted or have to be rejected. Additional follow-up analyses can be done to optimize production processes and to identify and rectify sources of error.

Equotip Piccolo 2 / Bambino 2 Portable Metal Hardness Tester

The Equotip Piccolo 2 / Bambino 2 integrate the display and impact device in one unit. They follow the same Leeb hardness principle. The standard D test tip can be exchanged with an optional DL test tip for testing in restricted areas.

Metal heat treatment allows mechanical properties to be changed to make the metal harder, stronger and more resistant to impact. The Piccolo 2 / Bambino 2 can be used to monitor and document the strengthening of high integrity metal components, for example in the automotive industry.



proceq

Instruments for non-destructive testing of metal

Equostat 3 Unmatched Metal Hardness Testing

The Equostat 3 works well in outdoor, factory and lab environments, and has only very few requirements on test piece geometries. The Equostat 3 probe can be connected directly to a laptop or PC, on which live user guidance dialogs and the hardness readings are displayed. Alternatively, the probe plugs into the Equotip 3 indicating device to combine the Rockwell principle of Equostat 3 with the Leeb rebound principle of Equotip. Thanks to its very shallow penetration depth, the Equostat 3 is particularly well situated to examine the hardness of smaller, thin components and surface layers.



Zonotip Ultrasonic Thickness Gauge



The Zonotip and the Zonotip+ (with additional features) are designed to measure the thickness of ferrous and non-ferrous metals as well as parts made from polymers, glass, ice, and other materials with a low ultrasonic attenuation. The product's measuring range on steel is from 0.8 mm to 300 mm. The patented algorithm of automatic adaptation to the surface curvature and roughness make measurements for instance on corroded surfaces possible, without the need for specific adjustments. The Zonotip's large, high-contrast color display ensures easy real-time visual control of the inspection process.

Head Office

Proceq SA
Ringstrasse 2
CH-8603 Schwerzenbach
Switzerland
Phone: +41 43 355 38 00
info@proceq.com
www.proceq.com

Subject to change without notice.
All information contained in this documentation is presented in good faith and believed to be correct. Proceq SA makes no warranties and excludes all liability as to the completeness and/or accuracy of the information. For the use and application of any product manufactured and/or sold by Proceq SA explicit reference is made to the particular applicable operating instructions.

proceq