proceq

Solutions since 1954

Portable Non-Destructive Metal Testing Instruments

Metal testing portfolio

Equotip and flaw detection

		Equotip			Flaw detection
		Leeb	Portable Rockwell	UCI	
					
Oil & gas	Weld, base material & HAZ*			●	●
	Pressure vessels		●	●	●
	Flanges	●	●	●	●
	Pipes		●	●	●
	Wellhead equipment		●	●	●
Automotive	Engine blocks	●			●
	Shafts	●	●	●	●
	Panels		●		●
	Gears	●		●	●
	Brake systems		●		
Aerospace	Turbine blades		●	●	●
	Casings/housings		●		●
	Panels		●		●
	Cast objects	●			●
	Landing gears	●			●
Manufacturing & machinery	Rolls	●	●		●
	Coils	●	●	●	
	Bars/pipes	●		●	●
	Heat treatment/casting	●			●
	Wires		●		

*HAZ: Heat-Affected Zone

Future-proof solutions
Putting innovation first

Proceq manufactures superior quality portable non-destructive testing instruments for the metal industry. Since inventing the Leeb testing principle in 1975, Proceq has continued to develop solutions that have shaped the inspection industry for decades. The most recent technological advances include all-in-one solutions, e.g., in a patented UCI hardness probe, and the introduction of the Internet of Things (IoT) to support the user in both on-site assessment and rapid report generation.

Customers benefit from a variety of on-site and web-based training on solving inspection challenges. Training sessions and seminars take place all over the world in Proceq's training facilities as well as at customer facilities and include both classroom and hands-on sessions. They are designed to help users understand technical principles and get the most benefit from their investments in high-quality equipment.

Swiss solutions since 1954

Equotip Live

Built for Internet of Things (IoT) and Industry 4.0

Proceq Live

User-friendly, sophisticated mobile apps

The new Swiss-made Proceq Live devices are compatible with and connect wirelessly to any iPad, iPhone, or iPod touch using Bluetooth. Digital reporting, data sharing, and back-up are possible with the Equotip app, all while using highly secure cloud services. The unique Logbook feature records the key parameters associated with every test, including settings, time stamps, photos, site notes, and geolocation. Reports can be sent directly from the device on-site or the office, and all measurements are accessible through our web platform, live.proceq.com, from all over the world.

Equotip app and Proceq Live cloud

- Clean user interface and Logbook for full data traceability
- Continuous online back-up to prevent data loss
- Secure web platform live.proceq.com
- Centralized report template and profile management
- Available on Apple Watch

Download on the App Store

Above: Equotip Live Leeb D and Equotip Live UCI connected to an iPhone
Left: Unique Logbook feature on the Equotip app

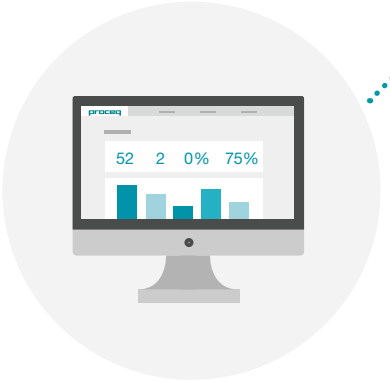
Proceq Live

Secure cloud-based ecosystem

Equotip Live Leeb D

Equotip Live UCI

Apps



Web platform

Collaboration

Export

Equotip portable hardness testing

Product applications

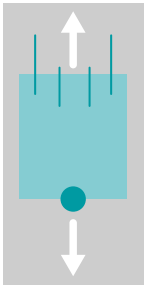
		Equotip Live		Equotip 550			Equotip Piccolo / Bambino 2
		UCI	Leeb D	UCI	Portable Rockwell	Leeb	
							
Standards	ASTM A956		●			●	●
	ISO 16895		●			●	●
	DIN 50159	●		●			
	ASTM A1038	●		●			
	DIN 50157				●		
Measurement scales	HB	●	●	●	●	●	●
	HV	●	●	●	●	●	●
	HRA	●		●	●	●	
	HRB	●	●	●	●	●	●
	HRC	●	●	●	●	●	●
	HR15N	●		●	●		
	HR15T	●		●	●		
	HMMRC				●		
	HS		●			●	●
	MPA	●	●	●	●	●	● 1
Applications	Standard to large objects	●	●	●	●	●	●
	Round objects	●	● 2	●	●	● 2	● 2
	Light objects	●		●	●	● 3	
	Very hard objects	●		●	●	● 4	
	Cast objects					● 5	
	Polished objects	●		●	●	● 3	
	Limited accessibility					● 6	● 7
	Thin objects				●		
	Heat treated surfaces	●		●			

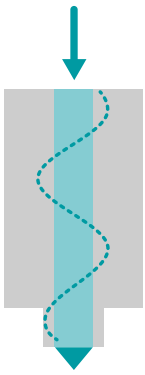
1 Equotip Piccolo 2 only. **2** In combination with support rings. **3** With impact device Leeb C. **4** With impact devices Leeb S and E. **5** With impact device Leeb G. **6** With impact devices Leeb DC and DL. **7** With impact device Leeb DL.

Equotip Leeb impact devices
Product applications

	 D/DC + Equotip Live + Equotip Piccolo/Bambino 2	 DL	 S	 E	 G	 C
Standard samples	●					
Difficult to access samples		●				
Extreme hardness ranges			●	●		
Large and heavy components					●	
Surface hardened components, coatings, thin samples						●

Measurement principles
Equotip Leeb, Portable Rockwell, UCI





Leeb
Fast and easy

Measurement of an impact body's velocity propelled by spring force against the surface of the test piece.

Portable Rockwell
Ideal for thin or light samples

Measurement of the indentation depth of a diamond forced into the test piece.

UCI
When accessibility is limited

Measurement of the frequency shift, which correlates to the indentation.

Equotip® 550

The all-in-one portable solution

Equotip 550 with touchscreen display unit (from left to right): Portable Rockwell probe, UCI probe, and Leeb impact devices

Equotip 550

Three testing methods – one solution

Equotip 550 is the most versatile all-in-one solution for portable hardness testing using dynamic Leeb, Portable Rockwell, and UCI. Features such as multi-probe connectivity, custom conversion curves, customizable reports and data export to PC, deliver unparalleled flexibility with all three testing methods.

1 Leeb – Fast and easy

Equotip 550 Leeb covers a wide range of applications of the Leeb principle, the fastest and easiest method to determine hardness, thanks to its seven different impact devices and 16 support rings. New features such as wizards, reporting, mapping and many more, make hardness testing even more convenient and cost-effective than ever before.

2 Portable Rockwell – Ideal for thin or light samples

Equotip 550 Portable Rockwell is a static hardness measurement solution which is highly appreciated for applications on thin or light samples. Furthermore, it can be used on almost all materials without special adjustments, which also makes it popular to use as a reference method for other measurement principles. A wide variety of accessories make it a very versatile solution.

3 UCI – When accessibility is limited

Equotip 550 UCI is well suited for applications where accessibility is limited, such as welds, HAZ, or difficult surface structures. UCI measurements are fast and easy. With the world premiere of our UCI probe with an adjustable test load from HV1 to HV10, a wide range of applications can be covered flexibly with a single probe for the first time.

Equotip® 550 Touchscreen unit

Built for demanding environments

Shockproof housing optimized for robustness

Ergonomically designed and shock-absorbing rubberized housing, which offers protection against dust and water splashes (IP 54).

Connectors and circuits protected against dust and voltage spikes

Specifically designed protective rubber caps for all connectors, fulfilling the directives for low voltage safety and electromagnetic compatibility (EMC).

Responsive touchscreen

For ease-of-use with the high-resolution display.

Customizable views

Arrange the display of information according to your needs.

Scratch-resistant durable touchscreen

Durable and scratch-resistant touchscreen thanks to Gorilla® Glass Technology. Less reflection on screen thanks to the optional antiglare foil.

Touchscreen display unit used with the Equotip 550 and 540 impact devices

Equotip 540

For dedicated single test methods

Equotip 540 enables regular, basic usage in hardness measurement without extensive reporting functionality. Offering essential features and a basic set of accessories, it supports portable hardness testing using either Leeb D or UCI.

Equotip Accessories

Accessories and test block portfolio

An extensive range of hardness test blocks are available with different hardness levels for regular on-site verification. Proceq also provides a unique measuring clamp, support feet, and rings, allowing tests to be carried out on various test sample geometries.

Equotip Piccolo/Bambino 2

Pocket-sized hardness testing

Equotip Piccolo 2 and Bambino 2 are both suited for on-site hardness checks of metals where the test indentation should be as small as possible. They are both supplied with a D impact device which can you can interchange with an optional DL impact device. You can use these for performing measurements in restricted areas. Equotip Piccolo 2 additionally offers user-defined hardness conversions, systematic real-time monitoring of hardness, and remote controlling of Equotip Piccolo 2 settings.

Flaw detection

Advanced portable ultrasonic instruments

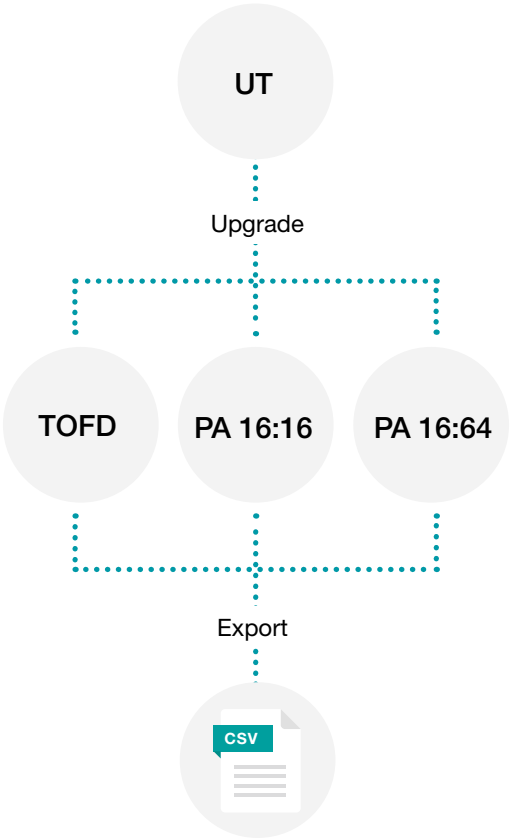
Industrial pipeline inspection with Proceq Flaw Detector 100

Proceq Flaw Detector 100

From basic UT to advanced Phased Array

Proceq's advanced ultrasonic flaw detectors and thickness gauges provide intuitive measurement solutions to ensure part integrity. Proceq Flaw Detector 100 is a flexible high-tech ultrasonic inspection instrument. The basic Ultrasonic Testing (UT) model can be upgraded with the Ultrasonic Time of Flight Diffraction (TOFD) and Phased Array (PA) modes anytime and anywhere, even on-site.

Applied standards and norms: Proceq Flaw Detector 100 meets or exceeds the minimum instrumentation and software requirements as specified in the relevant ASME, AWS, ISO and EN codes.



Zonotip

Ultrasonic thickness gauge

Zonotip measures the thickness of a wide range of materials, including ferrous and non-ferrous metals, polymers, composites, glass, ceramics, epoxies, and more. Zonotip+ also includes a smaller single-element transducer which is suitable for measuring in areas where access is limited. Zonotip+ enables you to characterize the output signals and minimize false readings from non-relevant echoes in the A-Scan mode.

Applied standards and norms: ASTM E 797, EN 15317

Portable ultrasonic solutions

Product applications

		Proceq Flaw Detector 100				Zonotip(+)
		UT	TOFD	PA 16:16	PA 16:64	
						
Applications	Pipeline welds	●	●	●	●	
	General component inspection	●		●	●	
	Complex geometries	●		●	●	
	Forgings and castings	●		●	●	
	Aircraft composites delamination	●		●	●	
	Corrosion mapping inspection	●	●	●	●	
	Thickness of materials	●	●	●	●	●
	Inspection under coatings	●	●	●	●	● [1]
Features	Setup and calibration wizards	●	●	●	●	●
	Data export in CSV	●	●	●	●	●
	3D beam tool	●	●	●	●	
	Automatic customizable PDF reports	●	●	●	●	
	A, B, C, True Top and End scans	●		●	●	
	Lateral wave straightening and removal		●			
	Sectoral scan			●	●	
	Linear scan				●	
	Channels	2 independent	2 independent	2 independent + 16	2 independent + 16:64	1 channel

1 Zonotip+ only.

Ordering information

Equotip

352 10 001	Equotip Piccolo 2 Hardness Tester, unit D
352 20 001	Equotip Bambino 2 Hardness Tester, unit D
356 20 002	Equotip 540 Leeb D
356 20 005	Equotip 540 UCI HV1- HV10
356 10 001	Equotip 550
356 10 002	Equotip 550 Leeb D
356 10 003	Equotip 550 Leeb G
356 10 004	Equotip 550 Portable Rockwell
356 10 007	Equotip 550 UCI HV1-HV10
356 10 021	Equotip 550 Portable Rockwell & Leeb D Kit
356 10 023	Equotip 550 Portable Rockwell & UCI Kit
356 10 024	Equotip 550 Leeb D & UCI Kit
356 00 600	Equotip Portable Rockwell Probe 50N*
358 10 011	Equotip Live Leeb D
358 10 012	Equotip Live Leeb D - Initial rental fee
358 99 003	Equotip Live Leeb D - Reporting feature
358 10 021	Equotip Live UCI HV1- HV10

*Probe can be connected directly to the PC (software included)

Zonotip

790 10 000	Zonotip
790 20 000	Zonotip+

Proceq Flaw Detector 100

792 10 000	Proceq Flaw Detector 100 (Lemo)
792 20 000	Proceq Flaw Detector 100 (BNC)
792 50 001	Software Upgrade to TOFD
792 50 002	Software Upgrade to PA 16:16
792 50 003	Software Upgrade to TOFD and PA 16:64
793 50 007	Software Upgrade CSV output
792 50 008	Software Upgrade Proceq FD Link Software

Service and warranty information

Proceq is committed to providing complete support for each testing instrument by means of our global service and support facilities. Furthermore, each instrument is backed by the standard Proceq 2-year warranty and extended warranty options for electronic components.

Standard warranty

- Electronic components of the instrument: 24 months
- Mechanical components of the instrument: 6 months

Extended warranty

When acquiring a new instrument, max. 3 additional warranty years can be purchased for the electronic portion of the instrument. The additional warranty must be requested at time of purchase or within 90 days of purchase.

Proceq AG
Ringstrasse 2
8603 Schwerzenbach
Switzerland
Tel.: +41 (0)43 355 38 00
Fax: +41 (0)43 355 38 12
info@proceq.com
www.proceq.com