



# Profometers

## Full Flexibility:

- Upgrade anytime between cover meter and corrosion analysis instruments
- Easily switch the probes of the combined instrument
- New technologies will be added to further increase application range

## High productivity:

- Easy and immediate data interpretation with 2D grid and statistical views
- Dual-core processor for fast data acquisition
- Dedicated software for efficient custom reporting

## User friendliness:

- Profometer touchscreen with illustrative display and assisted workflow
- On-site post processing of the measured data
- Rugged housing for harsh environments



## Profometer 6 Cover Meters:

- Advanced cover meters and rebar locators based on the eddy current pulse induction principle
- Assisted scan of any surface regardless of its size and geometry
- Universal probe and detachable ruggedized cart with wireless path measuring system
- Complies with international standards BS, DIN, DGZfP, SN, SS, DBV

## Profometer Corrosion:

- Most versatile half-cell potential solution
- Proceq's unique wheel electrodes allow the fastest and most efficient on site testing
- Compatible with existing Canin and most third party electrodes
- Complies with international standards ASTM, RILEM, DGZfP, SIA, UNI, JGJ/T, JSCE



### Revolutionary Profometer Touchscreen:

- To be on-site in harsh environments, including the carrying strap, integrated stand and sunshield cover.
- High resolution color touchscreen with the best measuring and analysis of the data for the entire working day. (Battery life >8hr)
- Dual core processor with diverse communication and peripheral interfaces.

### Artificial Intelligence (AI) Cover Estimation:

The Profometer 630/650 AI models have a new artificial intelligence cover estimation feature that is based on a self-learning algorithm that has the ability to estimate cover for two layer rebar configurations. Providing the most accurate cover readings for standard orthogonal two layer rebar configurations with 90% probability that first layer cover measurements are within a 2 mm accuracy.

### Cover Calibration:

The cover calibration features allows your Profometer to be calibrated on-site. To do so, measure the cover to an exposed rebar and enter the value into the Profometer AI. The data will be used to optimize the cover measurements over the whole measurement area. Only one reference cover value needs to be entered and this flexible feature is independent of the rebar geometry and cover depth.

- Both features are included in the Profometer 630/650 AI models.
- Existing Profometer 630/650 users can simply purchase an upgrade kit to enable these features.

## Profometer 600

The Profometer 600 is the perfect instrument for contractors that need to avoid damages to the reinforcement steel when drilling, coring or cutting. It also covers the need of inspection engineers to locate rebars and to assess concrete cover values and rebar sizes for spot checks.

### Locate Mode:

This mode allows you to precisely detect the rebar location and direction as well as measure the cover and the rebar diameter.

- Visual assistance for speed and signal strength control.
- Settings accessible on the measurement screen.
- Spot Probe for areas with congested arrangements.
- Detects inclined rebars.

### Statistics & Snapshot Views:

The statistics view shows a graphical overview of the distribution of the cover measurements. The snapshot view provides the cover for each rebar with the diameter displayed as a number.

- Graphical display measured value and minimum cover set.
- Easy inspection of the measured values.
- Change settings before and after storage.
- Reopen stored files to continue measurements.
- Export the data to a PC with the Profometer-Link software.

## Profometer 630 AI

The Profometer 630 AI enhances the application range of the Profometer 600 with the Single-Line, Multi-Line and Area Scan Modes with an extensive choice of statistical views. It also increases productivity for engineers and inspection companies that are in charge of assessing the conformity of concrete cover of a new structure.

### Single-Line Scan:

- A linear scan of the cover across the first layer of rebar over a long distance with or without the diameter measurement.
- Measures over long distances.
- Signal curve gives the option to the user to manually verify and confirm the rebar position delivering an improved resolution.
- Zoom in to scale.
- Display with cover curve or signal strength curve.

### Multi-Line Scan:

Multiple linear scans across the first layer of rebars over a rectangular area. Cover, diameter and signal strength spectrum are all shown in this one view. Each line can be viewed individually in the Single-Line view.

- Color classification
- Signal strength spectrum for further evaluation.

### Area Scan:

The Area scan provides a grid display with a simplified view of the measured cover data. It is best made for a combination with potential field measurements.

- Individual grid size can be chosen.
- Use in combination with Profometer Corrosion half-cell potential measurements for corrosion analysis.



## Profometer 650 AI

The Profometer 650 AI extends the features of the Profometer 630 AI with the Cross-Line Scan measuring mode and analysis functions.

### Cross-Line Scan:

The 2-D Cross-Line Scan extends the Multi-Line Scan with the combining scans in the X- and Y-directions.

- Measures the first and second layers of the rebar, arranged in a rectangular mesh.
- The signal strength spectrum can be viewed in addition to the cover and diameter.



## Profometer Cover Meter

### Technology:

The Profometer 6 instruments use eddy current pulse induction technology to detect rebars. Generating a magnetic field the multiple coil arrangement in the probe are periodically charged by current pulses. The magnetic field is made in the opposite direction. The change in voltage can be utilized for the measurement.

Advanced signal processing allows localization of a rebar, determination of the cover and estimation of the diameter.

This method is not affected by non-conductive materials: concrete, wood, plastics and bricks. Although, any kind of conductive materials that are within the magnetic field will have an impact on the measurement.

## Profometer Link

The Proceq Profometer Link PC tool is included with all Profometer 6 Cover Meter and Profometer Corrosion units. It is an integrated suite that enables the user to process the data coming from the rebar detection / concrete cover as well as corrosion potential measurement. The units can be connected to the PC via USB. The software is fully compatible with Windows 7, 8 and 10.

- All features available on the touchscreen unit are also implemented on the PC
- Create custom reports with exported graphs and charts
- Support for the merging of several corrosion scans into a single graph
- Picture and table export (csv files) for further processing, combined data evaluation and reporting on any third party software

## Profometer Corrosion



### Technology:

A half-cell method is used to identify active corrosion of rebars that are based on electro chemical properties of reinforced concrete. All of the Proceq electrodes are based on a Copper/Copper Sulphate half-cell. Specific applications or customer preferences can require different reference electrodes, which is way the Profometer Corrosion voltage input range allows the connection of Silver/Silver Chloride electrodes.

The standard cable supplied with the Proceq rod electrode can be connected to the most third party electrodes allowing full compatibility of the system. Finding the hot spots involves the measuring of the localized negative values of the half-cell potential. If using a rod electrode you need to define a grid fine enough not to miss any local negative peak, while the wheel electrode on the Profometer Corrosion ensures a new level of accuracy. The wheel system is fast enough to measure the electrical potential along its linear paths, and ensures the most negative measured value will always be recognized and stored with its associated location.

### Profometer Corrosion Overview

The Profometer Corrosion represents the most advanced corrosion instrument in the market due to the half-cell method. In addition to the basic rod electrode, the use of Proceq's, and the four wheel electrodes enable the highest on site productivity on large areas.

### Corrosion Scan:

- Intuitive user friendly interface for data acquisition
- Buttons indicate measuring path direction
- Optimized workflow for rod and wheel measurements
- Customizable text can be entered for the specific locations
- Flexible features enable the mapping of any irregular geometry
- Improved digital filtering to remove the effect of external noise

### Statistical Views:

- Immediate on site data interpretation
- Customizable Distribution, Cumulative Distribution, Chipping Graph Views
- Predefined ASTM compliant layout