

Why settle for snapshots
when you can see
THE BIG PICTURE?

THE SOLUTION

Elop Insight enables smart and unparalleled efficiency of scanning for a large variety of concrete structures, such as bridges, dams, tunnels and buildings. With real time, 3D videos, models and images, it simply and accurately reveals the internal state of concrete structures, giving you immediate and actionable insight.

By coupling our unique data insight with a scalable cloud-based system, we provide richer, more insightful data. Data is easy to access, interpret, analyse and share, helping you to inspect, manage and proactively monitor infrastructure health.

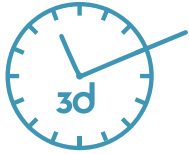
ELOP Insight gives you the big picture so that you can keep concrete structures safe, sustainable and financially viable.





Unparalleled efficiency

Elop Insight is intuitive and easy to use. An ergonomic and durable design ensures simple, reliable collection of data, with both vertical and horizontal scanning, and unique rolling technology enables considerably more efficient inspection of larger volumes than is possible with most other existing technologies.



Real-time 3D visualisation

Ultrasound sensors transmit and receive acoustic signals, a signal processing algorithm then maps and creates a real-time 3D visualisation of the subsurface construction on the scanner screen, showing defects such as cracks, air pockets, voids, delamination and rebars in real-time. Information is instantly shared via the cloud.



Flexible data collection

A range of user-friendly options and settings improve data quality, flexibility and efficiency. For example, you can quickly scan large areas with lower resolution, then increase scanning accuracy when defects are detected. Other features include – visualisation, image manipulation, scan-stitching, battery monitoring, filters, etc. – in short all you need, for optimal productivity.



Scalable cloud-based application

Data is sent to a scalable, cloud-based application. All stakeholders can access this data, including 3D-videos, models and images, as well as all historic data, reports, etc. in one place. Data is easy to access, interpret and analyse for everybody. Complex data is visualised as heatmaps for experts, but translated into unique 3D visual images that are easy for everyone to understand and analyse.



A collaborative solution

Elop Insight is a fully collaborative solution. By digitalising, automating and presenting complex data in a 3D visualisation, insight is easily available and understandable for everyone involved in the process. Real-time visualisation of data simplifies processes and makes inspection more dynamic – it's like you have a whole team of experts on-site.

Applications

- Voids, non-vertical cracks, and delamination detection
- Detection and visualisation of the rebars of the diameter +20 mm
- Bonding assessment within structure
- Thickness measurement and backwall detection
- Honeycombing detection
- Inspection of the fiber reinforced concrete
- Fast structural imaging/reconstruction of large areas
- Quality assessment of the concrete structure
- Location of the grouting defects in the tendon ducts
- Evaluation of the pre-cast elements
- Presence of hollow pipes
- Integrity of tunnels
- Integrity of dams
- Nuclear power plants
- Investigation of the presence of other than metal and empty space foreign inclusions

Visualisation on-the-fly and for analysis

Live 3D visualisation

B-scan

C-scan

D-scan

Upload scans to cloud

Imaging features

Depth range Up to 50 cm

Speed of scanning Up to 50 cm/s

Resolution < 1 cm

Scanning modes

High speed

High resolution

Surface scans Seamless stitching

Cloud web portal features

Access from any device (ipad, tablet, mobile, PC)

Create unlimited assets & inspections

3D concrete visualiation - Heat map & realistic view

Analysis - Measure and mark elements and defects on the scan

Asset Health Portfolio - Complete archive of previous scans and inspection reports

Customised reporting - create inspection reports from scans and data in webportal, share via link.

Probe

Number of channels	8
Frequency range	100 kHz center frequency (range 50 up to 200 kHz)
Dimensions	295 x 200 x 150 mm (without handles)
Weight	7 kg
Min. contact pressure	10 kg
Battery type	50 Wh , 2.5 A, flight safe
IP rating	54
Operating Temperature	-10 C up to 50 C
Operating humidity	90% RWH

Ergonomics

Dry coupling continuous contact measurement

Modular design

Rugged, drop-proof enclosure

Adjustable handles

Easily replaceable batteries

Elop Insight Display

CPU	Elcore i5, 1.2 GHz (3.3 GHz with turbo boost)
Screen	7" LED-backlight, high-brightness (2-700 nits) screen with capacitive touch, outdoor viewable, 1280x800, 10 finger capacity
Weight	540 g
Operating system	Windows 10
Connectivity	USB 3.0, Audio-Jack, DC-in, SD Slot
Storage	Up to 256 GB
User interface language	English

Processing unit

NVIDIA, GTX1050

Accessories

Rugged processing tablet, backpack for processing tablet, rugged transport suitcase, handle for scanning close to the wall, EI scanner battery, EI scanner battery charger



Keeping concrete structures safe,
sustainable and financially viable

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