C379
C-THRUE
GROUND PENETRATING RADAR (GPR) FOR NON-DESTRUCTIVE TESTING

C-thrue is an **all-in-one Ground Penetrating Radar (GPR) for accurate scanning and real time analysis of concrete structures**. Construction and service companies as well as civil and structural engineers can now improve the way they **locate rebars, voids, post-tension cables, cavities, conduits**, and any other objects buried in the structure before cutting or drilling into the concrete.

C-thrue is an easy-to-use and robust solution to **see through concrete structures and reveal true data that lead to optimal decision-making**. The solution is suited for all construction sites and operations including building renovation, overpasses, monuments, bridges and tunnels surveys, as well as for detailed analysis of the original engineering project and comparison with the as-built structure.

Carrying case

Reference grid

Telescopic handle

MAIN APPLICATIONS

- Rebar extension: reconstruct rebar mesh to extend existing buildings
- Locate post-tension cable and deeper objects
- Safe drilling (coring): on site detection of concrete structure to identify safe drilling areas
- Finding anomalies and tracking objects: delamination, voids, cables, etc.

The equipment comprises the C-thrue Concrete Scanner, a telescopic handle for surveys on hard-to-reach areas, a positioning reference grid and a carrying case.

CLEARER AND FASTER SURVEYS
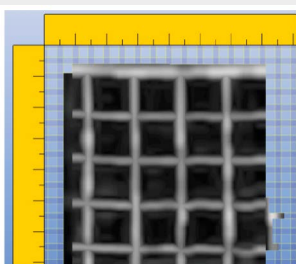
Standard GPR visualisation:
single rebar mesh, no visualisation of deeper layers
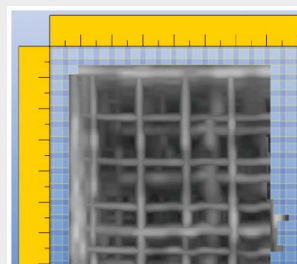
C-thrue visualisation:
dual antenna polarisation allows the optimal detection of both first and deeper levels of objects

C-thrue Concrete Scanner

Capacitive, multi-touch display (7 inches)

Start & Stop button

Ergonomic handle with dead men's switch

USB device

Battery

Three Lasers (on front, left, and right sides)

Four wheel-encoders

MAIN FEATURES

▌ Clearer and faster surveys: detection of both first and second levels of rebars thanks to the system's double polarisation.

▌ Safe drill in the surveyed structure: rebar/void automatic insight capabilities that improve safety before cutting or drilling into the concrete.

▌ Fully-visible, multi-touch display: data displayed on the screen are never obscured by the handle or the user's hand.

▌ Simplified data interpretation: optimal decision-making supported by visualisation of acquired data in 3D models.

▌ Increased data accuracy: eliminate manual, error-prone paper grids with an automatic positioning and navigation system.

▌ Advanced data visualization: augmented reality for 3D data visualisation and sharing across operators – in real time or intervals after acquisition.

▌ Automated data acquisition and analysis: automatic detection of the first layer of rebars and result exportation.

▌ Flexibility everywhere: lightweight, compact, drop resistant and transportable system for every user operations and construction sites.

SYSTEM SPECIFICATIONS

- Antenna Center Frequency: 2.0 GHz
- Number of Antennas: 4
- Antenna Polarisation: Horizontal and Vertical
- Number of Radar Channels: 2
- Scan Interval: Up to 10 scans/cm
- Depth Range: Up to 80 cm (up to 31.5 in.)
- Display modes: B-Scan and C-scan (radar tomography)
- Positioning system: "Virtual Pad" (based on 3 High safety, Class 1 laser sensors with reflective bars)
- AC Power: Conduits Detection EM sensor integrated (50/60 Hz)
- Battery: Li-ion battery, 15V, 3.2Ah, 3-hour runtime
- Data Storage: 32 GB
- Connectivity: USB, Wi-Fi