

## DATA SHEET

# Digital Rebound Test Hammer



Rebound test hammer digital model 58-C0181/DGT with accessories

## General description

The rebound number determined by this method can be used to assess the uniformity of concrete in situ, to delineate zones or areas of poor quality or deteriorated concrete in structures.

This NDT test method is not intended as an alternative for the compressive strength determination of concrete, but with suitable correlations already saved in the instrument, it provides an estimate of the in situ compressive strength.

The hammer may be used for comparative testing, referenced against a concrete with known strength or against a concrete verified as conforming to a particular strength class.

The rebound hammers measure the rebound of an anvil impacting a plunger in contact with the concrete surface.

With this advanced instrument the rebound value is calculated with an innovative technology taking into account the anvil speed before and after the impact.

This new working principle is equivalent to the traditional measurement of maximum spring length after the impact, but it provides the following benefits:

- higher accuracy and stability of the readings not affected by wear and tear
- setting of the impact angle no longer required
- a check of the device reliability can be performed during each impact, even without the calibration anvil.

## Main features

- **Test procedure conforming to EN 12504-2 and ASTM C805**
- **Measuring range: from 10 to 100 N/mm<sup>2</sup>**
- **Allows to generate customized test procedure**
- **Storage capacity 2 Mb**
- **Saves, displays and downloads data to PC via USB port**
- **PC software included**
- **Integrated rechargeable lithium ion battery of 1600 mAh and multi-voltage / multi-frequency battery charger**
- **Measurement and indication of the exact instrument tilting angle by triaxial inclinometer**
- **Multiple correlations between rebound index and compressive strength selectable by the user**

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- **These correlations can be also customized**
- **Automatic conversion of rebound index to equivalent compression strength in MPa, N/mm<sup>2</sup>, kg/cm<sup>2</sup>, psi**
- **Calculation of averages and standard deviations; discard of non-significant values**
- **Immediate verification of compliance to the Standard in use**
- **Battery life under continuous operation more than 10 hours**

### Standards

- EN 12504-2
- ASTM C805

### Specifications

Impact energy: 2.207 Nm

Measuring range: from 10 to 100 N/mm<sup>2</sup>

High-contrast graphic display 128x64 pixel and 6 keys membrane keyboard

Results are displayed as numerical and graphical format

USB port and PC software

Case dimensions: 280x100x390 mm

Weight: approx. 2 kg

The instrument is provided complete with: multi-voltage / multi-frequency battery charger and suitable cable; USB cable for PC connection; PC software; abrasive stone; user manual and carrying case.

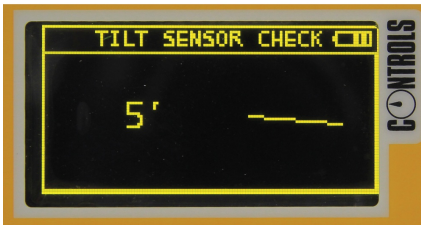


Example of digital hammer screen display - Main menu

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Example of digital hammer screen display - Selectable Standard

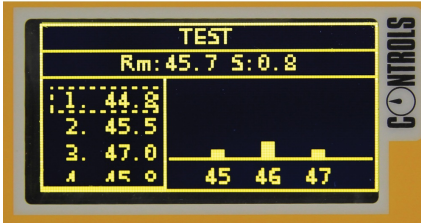


Example of digital hammer screen display - Measurement and indication of the exact instrument tilting angle by triaxial inclinometer

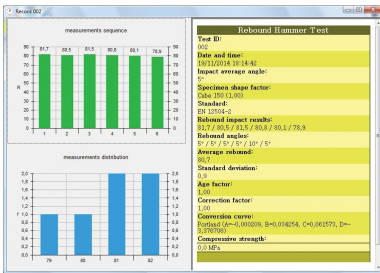


Example of digital hammer screen display - Test setup

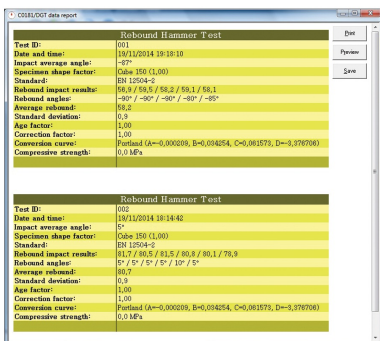
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Example of digital hammer screen display - Test results displayed as numerical and graphical format

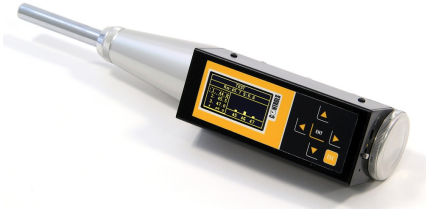


Detail of test report downloadable to PC via dedicated software



Detail of test report downloadable to PC via dedicated software

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Rebound test hammer digital model 58-C0181/DGT



Rebound digital test hammer supplied complete with case (model 58-C0181-DGT)

## Products

### 58-C0181/DGT

User programmable digital concrete hammer with microprocessor and memory. 110-230V, 50-60Hz, 1Ph.

## Accessories and consumables

### 58-C0184

Calibration anvil for concrete test hammer type -N- and -NR-