



MIT-SCAN-T2

Measuring Device to Accurately and Non-Destructively Determine the Thickness of Asphalt Concrete or Concrete Pavements During Construction



MIT-SCAN-T2

Accurately measures the thickness of asphalt concrete and concrete layers during construction

Accurate thickness measurements for road pavement layers for highway, municipal and airport pavements is critical to ensure compliance with the thickness design and the longevity of the pavements. MIT-SCAN-T2 is an innovative measuring device that can non-destructively and accurately measure the thickness of pavement layers during construction without the requirement for coring. Low cost per test.

Efficient and user friendly

The MIT-SCAN-T2 has been designed as a simple and easy to use device. Using only one hand, the operator uses the device to locate reflectors that are placed randomly on the base or paving layer surface. The MIT-SCAN-T2 device is then used to measure the thickness of the pavement above the reflector. It has a short test time and a long battery life.

The device has been evaluated and officially approved by the German BASt Bundesanstalt für Straßenwesen (Federal Highway Research Institute).

The device is being used for training under the US FHWA's Concrete Pavement Technology Program.

Accurate and cost-effective

- provides immediate and accurate readings with high precision within the measurement range of 0 to 0.5 m (0 to 20 in)
- the device can be used for measurements with all commercially available reflectors
- no need for time-consuming on-site calibration

New applications

- measurement on freshly placed asphalt and concrete as well as milled surfaces
- measurements on bridges
- only gauge on the market that provides on-site analysis including reflector evaluation
- data logger mode for surface evaluation (recording of layer thickness profiles)
- alternative use of resilient and cost-effective MIT circular reflector plates

SUCCESSFULLY USED BY ROAD AGENCIES, CONTRACTORS AND INDEPENDENT TESTING AND INSPECTION ORGANIZATIONS

Within a few seconds the measuring device is fully assembled and ready for use. Operating the MIT-SCAN-T2 is simple due to its comfortable and intuitive user interface.

① Data input

Quick input of all construction site relevant data through clear user interface. All measurement data are thus readily available for further processing with analysis programs.

② Search

The device is moved in a meandering motion 50 to 100 mm (2 to 4 in) above the pavement surface. This procedure enables quick location of the reflector within a corridor of up to 2 m (6ft) width.

③ Measurement

The measurement is conducted by passing the device over the reflector. Measurement results are immediately analyzed and displayed.



Practical

Ergonomic control element positioned in the center of the lightweight handheld device.



Clear user interface

Full graphic display, user friendly and with intuitive menu prompting.



Comfortable use

Quick ready-to-use assembly and disassembly of the device, secure storage in sturdy case for transportation.

MIT-SCAN-T2 FEATURES AT A GLANCE

- immediate detection of metals nearby the reflectors that may interfere with the measurements
- the reflector can be quickly located
- the reflector is only roughly passed over for measurements, centering the reflector is unnecessary, sources of error are thus avoided
- automatic on-site calibration
- applicable for hot asphalt, wet pavements, milled surfaces and bridges
- evaluation of testing site and reflectors
- alternative use of robust and compact MIT circular reflector plates

STANDARDS

- 73/23/EEC: Low Voltage Directive
- 89/336/EEC: EMC Directive on electromagnetic compatibility
- European Standard EN 61010
- European Standards EN 50081, EN 50082, EN 5011
- IEC Standard IEC 100-4

MIT-SCAN-T2 – TECHNICAL SPECIFICATIONS

Measurement range	0 to 0.5 m (0 to 20 in) depending on the type of reflector
Accuracy	± (0.5% of measurement value + 1 mm (³ / ₆₄ in))
Resolution (on a scale)	0.1 cm (0.04 in)
Asphalt temperature	up to 110 °C (230 °F)
Ambient temperature	-10 °C to +50 °C (14 °F to 122 °F)
Memory capacity	up to 16,000 test results
PC connection	PC interface, data transfer to MS office/Excel or an accounting software*
Power supply	NiMH battery 12V/2AH
Battery life	8 hours or approx. 1,000 measurements
Charge time	1.5 hours
Dimensions	Device: 42 cm x 139 cm x 19 cm (17 in x 55 in x 8 in), Carrying case: 87 cm x 45 cm x 26 cm (35 in x 18 in x 11 in)
Weight	Device: 3.0 kg net (6.6 lbs), Device kit with accessories: 12.6 kg (27.8 lbs) Total: 15.6 kg (34.4 lbs)

*ElmaDick®

DELIVERY PROGRAM

Basic measuring system

- Measurement sensor in middle section
- Interface with implemented microcontroller firmware
- Plug-in type charger for mains operation, 230 V
- Rechargeable battery 12V/2AH
- Carrying strap
- Headphones
- Instruction manual
- Carrying case

Accessories

- Calibration procedure
- Charging unit for mobile use via 12V car battery,
- Connecting cable for data communication with a PC
- PC data transfer software, single user license
- External printer with charging unit and thermal printer paper
- Expendable items (MIT circular reflector plates)

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