DEC SCANNER

MOISTURE DETECTOR
FOR ROOFING

TRAMEX
Innovation in moisture detection

The Tramex Dec Scanner is a mobile non-destructive impedance scanner designed for the instant surveying of moisture conditions in roofing and waterproofing systems per ASTM D7954.

Why should testing be done ?

Excess moisture in a roofing system can affect its performance, reducing thermal resistance values and energy efficiency, raising energy costs and eventually causing structural damage and system failure.

FEATURES

- Non-destructive impedance moisture scanner.
- Three ranges of sensitivity enabling the inspection of a variety of roof membranes and insulation thicknesses.
- Ergonomic, easy-reach and easy to operate control panel.
- Leak tracing, problem sourcing and an instantaneous and clear indication of roof condition.
- Fast and precise readings over large roof areas in a short time frame.
- Work in normal daylight hours.
- Faster and more user friendly than nuclear meters.
- Easy and safe to use with no regulatory restrictions or operating license required.
- Dependable solid state circuitry and rugged molded body for long-term reliability.
- Battery powered - 2 x 9 Volt PP3.

Product order code: DS2

PRODUCT DESIGN

The Dec Scanner detects and evaluates the moisture conditions within roofing systems by non-destructively measuring the electrical impedance. A low frequency electronic signal is generated, transmitted into the material under test via one of the two electrodes incorporated in the rubber electrode mat, and received by the second electrode. The strength of this signal varies in proportion to the amount of moisture in the material under test. The Dec Scanner determines the strength of the current and converts this to a comparative moisture content value. By moving the Dec Scanner across a roof surface in a regular pattern, a continuous reading is obtained, and areas that contain moisture can be readily identified.

OPERATING PROCEDURE

Moisture detection testing can be done at the time of installation for warranty auditing and quality control, as part of an ongoing maintenance program, or prior to re-roofing or repair of damaged roofs. The Dec Scanner is a durable but lightweight instrument that is easily transported to the roof surface. Having determined a known acceptably dry area, one of three sensitivity ranges is selected, and the Dec Scanner is ready to use. Without causing any damage to the roof surface, the Dec Scanner is moved over the tested area. The Dec Scanner gives continuous moisture condition readings, from which a moisture map of the surface can be drawn up, and leaks traced to their source.

SPECIFICATIONS

Size:	762mm x 400mm x 158mm (30"W x 15¾"D x 6¼"H)
Scanning area:	609mm x 394mm (24"W x 15.5"D)
Carry case:	940mm x 508 mm x 305mm (38"W x 20"D x 12"H)
Weight: Dec Scanner	9.95 Kg (24.6 lbs)
Weight: Carry Case	9.9 Kg (21.9 lbs)
Total Weight: Dec Scanner in Carry Case	21.1 Kg (46.5 lbs)
Outer packaging carton weight:	2 Kg (4.4 lbs)
Total shipping weight:	23.1Kg (51 lbs)
Dimensional shipping weight:	30 Kg (66 lbs)
Display:	Analogue
Measuring Range:	0 to 100 Comparative
Max. depth of penetration:	152 mm (6")
Power Supply:	2 x 9 Volt PP3 Batteries (included)

Limitations: Some EPDM, Butyl rubber roofing and other conductive roofing.

HOW IT WORKS

DEC SCANNER

Roof

Transmit Electrode — Alternating Electric Field — Receive Electrode
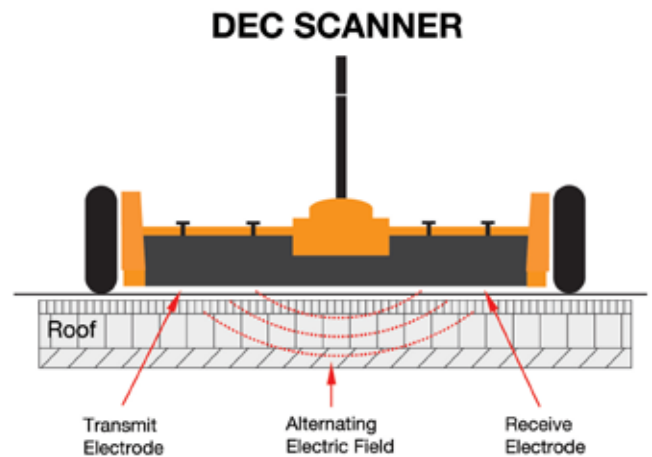
RANGE SELECTION

The Dec Scanner has an integrated and adjustable calibration ability allowing for precise comparative readings. There are 3 Ranges, and they should be selected as best suits the surface under test, for example:

- **Range 1** - Most suitable for single-ply and thin roof coverings such as PVC, Hypalon and other smooth surfaces where insulation is wet and moisture is close to the surface.

- **Range 2** - Most suitable for multi-ply built-up and modified systems, mineral surfaced felts, and other smooth or gravel surfaces where insulation is less wet and moisture is below the surface.

- **Range 3** - Most suitable for thicker roof coverings such as mastic asphalt, thick gravel and stone surfaced roofing.