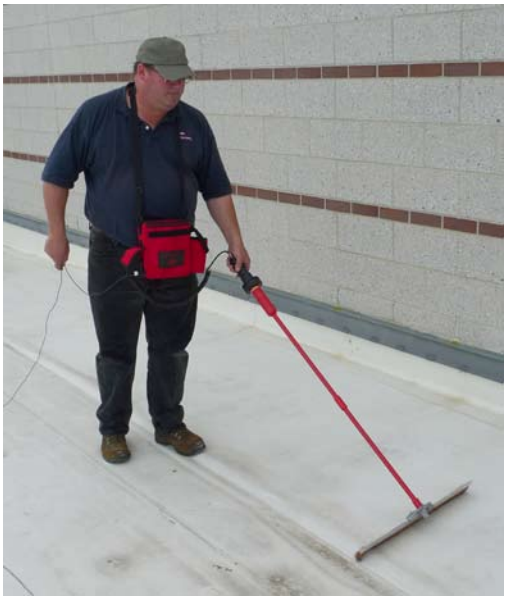
# VECTOR MAPPING

**Membrane Integrity Testing & Electronic Leak Detection**

## High Voltage Electronic Leak Detection



Electronic vector mapping is a cutting edge technology that is redefining the art of leak detection and quality assurance in low-slope roofing systems and many types of waterproofing applications. Vector mapping pinpoints breaches in the roof membrane by tracing the flow of an electric current across the membrane surface. Already Europe's most widely-used method for detecting roof leaks, vector mapping is rapidly being adopted by manufacturers, contractors, and specifiers in the United States.

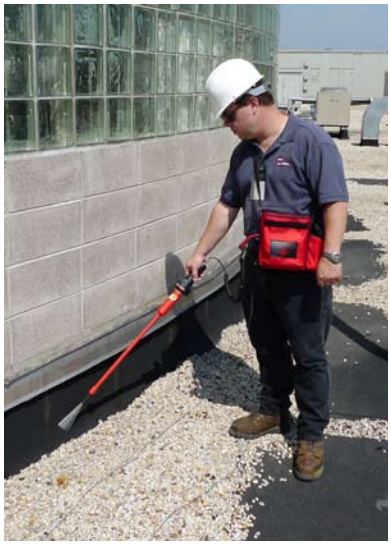
### Vector Mapping Is Ideal For:

- Quality assurance testing of new roofs
- Verifying green roof membranes prior to installing overburden
- Pinpointing leaks in existing roof membranes
- Warranty verification

Vector mapping eliminates the dangers and potential damage inherent in traditional flood testing. Unlike the interpretive process of water, flood, infrared, or nuclear testing, vector mapping detects membrane faults directly. It is ideal for quality and warranty assurance needs, for verification of waterproofing membranes, and for leak detection in all low-slope roofing systems in which the membrane is not electrically conductive and the deck can be electrically grounded. Even pinhole leaks invisible to the naked eye can be pinpointed, so repairs can be made on the spot and immediately retested to ensure watertight results.

### High Voltage Method

High Voltage Electronic Leak Detection (ELD) is performed on dry horizontal and/or vertical surfaces using a very small current at relatively high voltage for safe and reliable testing. One lead from the portable current generator (charger) is grounded to the roof or structural deck (either metal or concrete). The other lead is attached to one of several available electrode brushes made with highly conductive metal bristles. As the technician "sweeps" the brush electrode over the surface of the membrane or flashing, electricity will flow through any breach or gap, completing an electrical circuit between the brush and the roof or structural deck. Where there are no faults in the waterproofing system, the membrane or flashing acts as an insulator and prevents the flow of current to the deck.



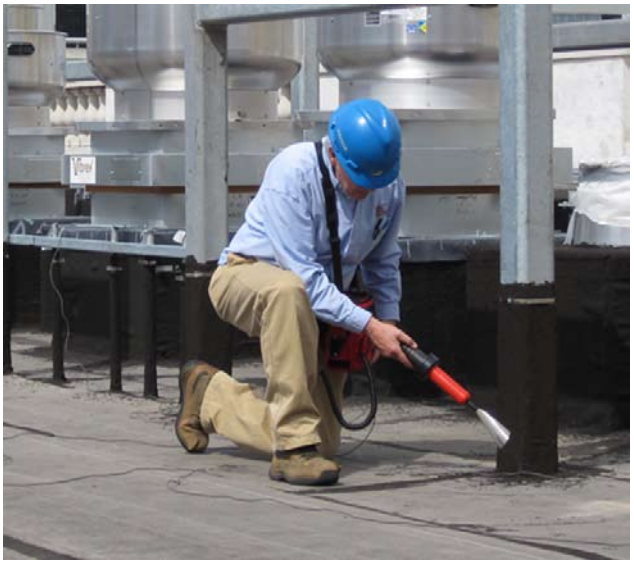
High voltage vector mapping (dry testing) is ideal for testing flashings and other vertical surfaces.

# VECTOR MAPPING

## Membrane Integrity Testing & Electronic Leak Detection

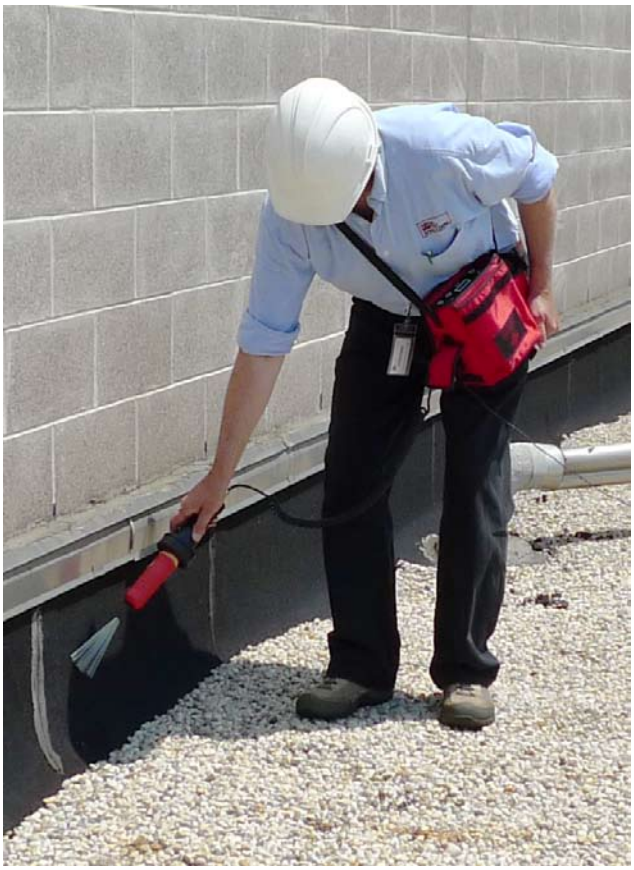
### High Voltage ELD Benefits:

- Pinpoints membrane defects for efficient repair
- Repairs can be immediately re-tested
- Detects all breaches, even pinhole and capillary action leaks
- Less expensive, faster, safer, and more reliable than flood testing
- Sloped roof systems and flashings can be efficiently tested
- Enables direct (non-interpretive) detection of membrane breaches
- Suitable for both horizontal and vertical surfaces



### High Voltage ELD applications:

- Insulated and non-insulated low-slope roof systems (excluding metal-coated and carbon black EPDM membranes)
- Flashings
- Green roofs
- Plaza decks
- Quality Assurance
- Warranty Verification
- Membrane integrity testing
- Pools, parking garages, liners
- Other waterproofing membranes & coatings



For more information about vector mapping or any of our other nondestructive testing services, please contact your Infra-red Analyzers representative.

IR ANALYZERS
Vector Mapping

Nationwide service since 1984

www.iranalyzers.com • 800-879-1964 • info@iranalyzers.com