

Moisture Vapor Tracking for Roofing and Waterproofing

Leak Detection Installed in the Insulation Layer of the Envelope

Gaussan™ VST is a unique, always-on leak detection system that monitors any significant change of the vapor content in the roofing envelope. Unlike passive systems that measure only relative humidity at given points in the roofing or waterproofing envelope, Gaussan™ VST is active and determines moisture changes throughout the extent of the envelope.

This is important, as moisture and leakage can come from multiple sources within and around the roofing envelope, including damage to the membrane itself, penetrations and expansion joints, and walls and other impinging structures. Certain building usage patterns also cause high humidity at the roof deck level, affecting the performance of the roofing envelope.

Gaussan™ VST is an important addition to new and existing roofs that have insulation below the primary membrane and which can have a vapor barrier or retarder on the deck. This system provides early warning for on-demand manual systems such as Gaussan™ HV and LV, and can complement our other real-time systems such as Gaussan™ SST, EST and LST.

Gaussan™ VST at a Glance

- Early warning of moisture buildup inside the building envelope
- Ideal for retrofitting an electronic leak detection system into existing roofs
- Monitors moisture incursion from all building elements in and around the roofing envelope including condensation at the vapor barrier or deck.
- Can be used in conjunction with other Smartex leak monitoring systems



Smart sensors can be designed to measure any combination of water vapor, temperature and conductivity inside and outside the roofing envelope and to constantly transmit these data to the system computer for analysis. If the roofing envelope experiences moisture intrusion from whatever source and the rate of change in the water vapor in the envelope increases at a predetermined level, the computer triggers an alarm.

The quantity and configuration of Gaussan™ VST sensors determine the area of the roof where leakage is occurring and the amount of resolution to determine the location of the leak. Gaussan™ VST works with and can support other Gaussan™ leak monitoring systems.



Technical Testing Technologies, Inc.
Specialized Testing Solutions