

V2T Monitoring Technology

Moisture has become a multibillion dollar problem in the roofing industry, and is a major cause of re-roofing in the United States. In order to help solve this problem, the V2T Roof System has created a way for their unique vents to utilize monitoring technology. This technology can tell you both when AND where you have a potential leak or other compromise in your roof. Having this information not only extends the life of your roof, but also lowers the cost of maintenance and ownership.

How does it work?



A sensor located inside the upper hemisphere of the vent transmits readings wirelessly to a data acquisition hub housed inside the building. Data is then transmitted from the hub over the internet to Virginia Tech for analysis. V2T can provide roof owners, consultants, and contractors with relevant moisture and pressure reports, keeping a roof in the best shape possible. The system is powered by solar cells with battery backup located on the V2T Vent.

The V2T vent system, uses the Venturi Principle from fluid mechanics to generate low pressure relative to the ambient pressure as air is smoothly compressed between two hemispherical domes. This low pressure is transferred under the roofing membrane creating suction that counteracts the uplifting force of the wind on the roof. When applied to a semi-permeable sub-roof, in addition to resisting membrane detachment, the vent has the potential to act as a [moisture drying strategy](#).

What can the monitor measure?

- » The drying effect of the V2T system
- » Moisture levels within the membrane
- » Pressure levels on the roof

The monitoring system is currently active and under continuous research at the University of Alabama's Russell Hall. This study demonstrates that the pressure generated in the vent is transferred under the membrane and to deck level at different distances from the vent and different depths of insulation. Acrysoft, a V2T strategic partner, designed the experiment and is collecting data from the roof on a regular basis. This study is only the beginning of what this monitoring technology will accomplish!

For more details on the monitoring capabilities [click here!](#) or Call us for more information!