

The revolution  
in low-slope roofing



roof system

DIFFERENCES BETWEEN

**The V2T Technology &  
2001 Company (Kelly) Vents**

There are very few low slope vent systems available in the market place today. So, we are frequently asked about the differences between the V2T Roof System and the Kelly 2001 system. Here are 5 key differences between the two technologies:

## 1. Geometry

The first and most important difference is the geometry of the two systems. The Kelly system vents are Marathon style vents with one way valves that are positioned approximately 5' from the perimeter and are designed to transfer the negative pressure created by the vortex from the wind coming over the perimeter edge (the negative zone) underneath the membrane. This will accomplish an equalizing pressure under the membrane created by the negative zone vortex.



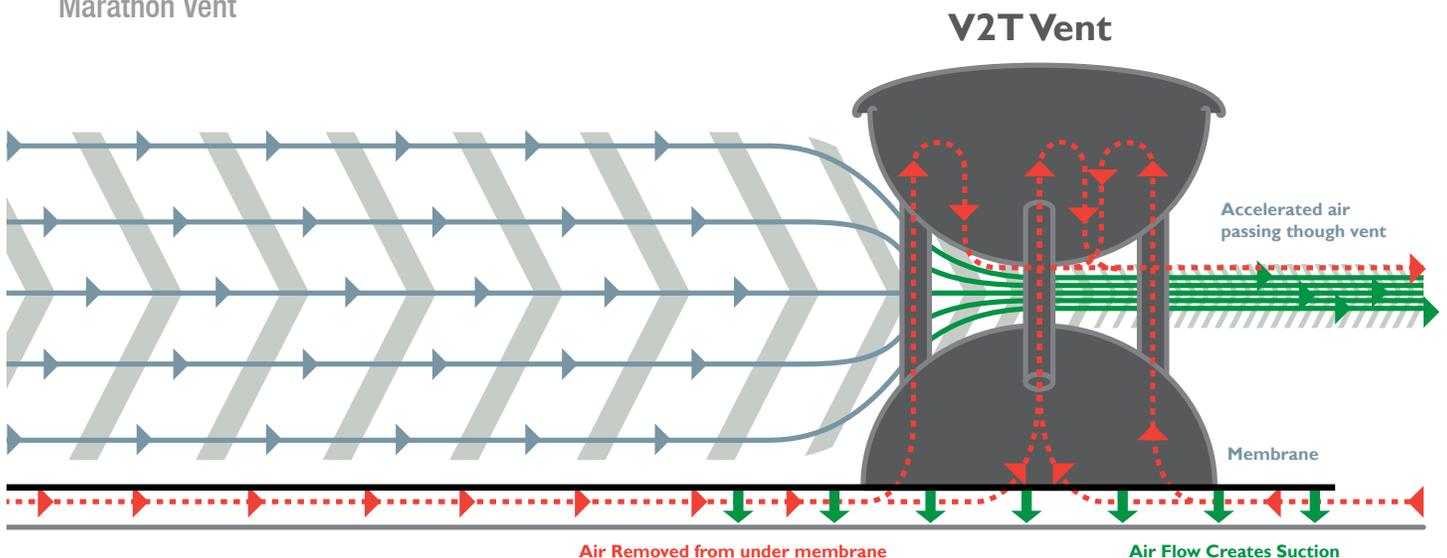
V2T Vent



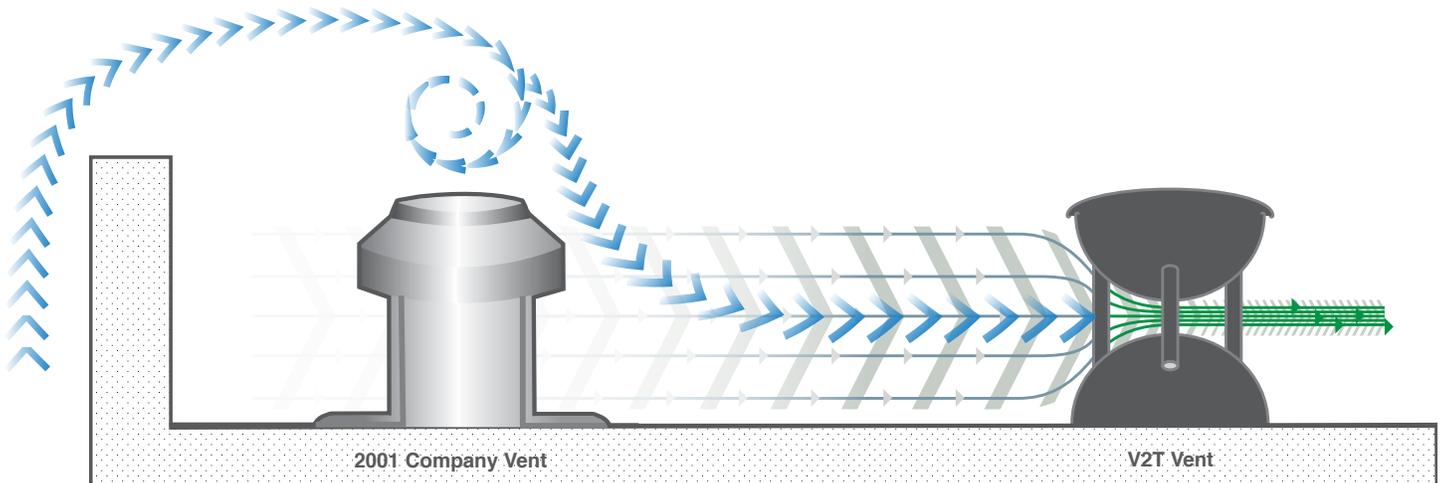
Marathon Vent

The V2T Vent Technology geometry has a vent design that utilizes the Venturi principle through the opposing two hemispheres that will accelerate the wind through the vent. This now creates a negative pressure that is greater than the uplift pressure that is being exerted on the roof. In most cases, these vents will be positioned approximately 20-25' from the perimeter where the wind coming over the perimeter will reconnect to the roof surface and be accelerated through the vent.

Under the membrane, we use an air distribution highway to transfer this negative pressure back to the perimeter edge. The significant difference between these two systems is the additional negative pressure generated by the V2T Vent Technology. In essence a 40 mph wind will generate a negative uplift pressure on the roof. Kelly will equalize the 40 mph pressures, while the V2T Vent Technology will accelerate this wind to greater than 40 mph and transfer this additional negative pressure generated under the membrane. The Kelly system is a passive system that simply transfers the negative pressure while V2T is an active system that generates greater negative pressures under the membrane than what is being exerted on the roof surface.



## 2. Vent Positioning & Principles of Operation



The second difference is the positioning and principles of operation of the two systems. Because Kelly system is designed to operate in the negative zone, the vents are best positioned on the perimeter edge. However, that makes the vents on the non-windward side far less effective, and potentially non-operational.

Because the V2T Vent Technology is engineered to be positioned in the interior of the roof, all vents on the roof are operational, which on average, presents a 400% increase in the functional vents on any given roof when using V2T.

## 3. Method of Installation

The Kelly System has requirements of securing the perimeter edge and penetrations with OSB board attached to the deck and adhering the membrane to the OSB board.

The V2T Vent Technology does not have these requirements. Although both systems require air seals at the perimeter and around penetrations, the methods of accomplishing this are different. The Kelly System requires the air seals at the deck level whereas the V2T Vent Technology in general does not.

## 4. Manufacturers' Warranties



The Kelly system is an independent system supported by 2001 Company and warranties are issued from 2001Company. The V2T Vent Technology is partnered with and supported by many of the major roof membrane manufacturers, such as Carlisle Syntec, Versico, and Flex who will issue warranties to the building owner's using the technology.

## 5. Technology for the future



The fifth difference is in the added technology capabilities. The V2T Vent Technology has the capability of installing a monitoring system in the vents which are equipped with sensors that can measure and wirelessly communicate, pressure, moisture, heat, wind speed or any other parameter that could be useful on the roof, in real time.

This sensor capability will allow contractors, manufacturers, building owners, and maintenance departments to see the performance of the roof. Whether V2T's drying effect, the roof's pressure profile, the heat gain or loss, or other actions on the roof can all trigger an alert and report condition changes which may signal problems such as a breach or leak in the roof.

**These are a few of the major differences among the two systems. There are others such as the drying effect difference of the two systems remember that all V2T Vents are operational across the roof as opposed to just the windward side vents on Kelly's system), the green/recycle advantages of no glued areas on V2T versus Kelley, and the versatility of using numerous manufacturers' materials and the benefits of the relationship with these manufacturer's versus just one.**

In general we believe that the V2T Vent Technology has a significant advantage in performance, installation, monitoring, environmental stewardship and cost than any other system on the market. To date, we have millions of square feet of roof in all climates that is providing these benefits to contractors, building owners, and manufacturers across the country.

To learn more about the V2T Roof System, visit us at [www.V2TRoofSystem.com](http://www.V2TRoofSystem.com).

If you have a specific job in mind, you can complete the [Job Evaluation Request Form](#) and we'll get back to you within 48 business hours.



roof system

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