

Carlisle's Revolutionary Negative Pressure Vent Secured Roofing System

The fact that roofs need to offset wind forces is not a new concept. That's why Carlisle SynTec Systems is pleased to introduce the VacuSeal™ Vent Secured Roofing System. This revolutionary assembly uses special vents that harness the power of the wind to lock roof membranes in place. VacuSeal systems are quick and easy to install and save you money and labor by substantially reducing the amount of glue, ballast, or fasteners your project requires. This engineered system is designed to provide optimal performance while opening opportunities for retrofit and monolithic deck applications.

VACUSEAL Vent Secured Roofing Systems

HOW IT WORKS

It's all because of the Venturi Principle, in which a vacuum is created whenever the speed of the wind moves faster than air in surrounding areas. Each VacuSeal Vent is designed to create that vacuum and leverage its suction to pull air out from under membranes and lock vents into place. Uplift pressures are negated by the greater vacuum force created by each vent.

Accelerated air passing though vent Accelerated air passing though vent Membrane Air removed from under membrane Air flow creates suction

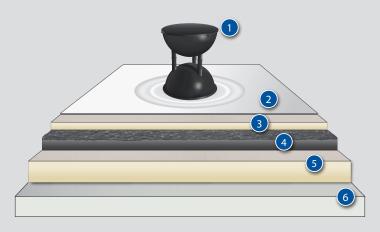
FEATURES AND BENEFITS

- » Reduces installation time and minimizes the need for traditional fastening methods
- » Negative pressure venting pulls air and moisture out from under the membrane to maintain insulation dryness and R-value
- » No cold-weather limitations for installation
- » No VOC's or odors
- » VacuSeal Vents are made from UV-resistant PVC, contain no moving parts, require no penetrations, and provide effective performance regardless of wind direction
- » UL Certified with uplift certification at 195 psf negative pressure





Re-Roof (Recover, No Tear-Off)



- 1 V2T Vent
- 2 Carlisle-Approved Membrane (EPDM, TPO or PVC)
- 3 0.5" Carlisle-Approved Cover Board
- 4 Existing Roof (To Remain)*
- 5 Existing Roof Insulation
- 6 Roof Deck

Review Carlisle specifications and details for complete installation information.

- * Existing Single-Ply Membrane
- Asphalt B.U.R. Smooth
- Asphalt B.U.R. Pea Graveled
- Modified Bitumen Smooth
- Modified Bitumen Granular

On re-roof (recover/no tear-off) projects, Carlisle allows direct application (no cover board required) over compatible, approved substrates. Existing roof must be securely attached. Contact Carlisle for additional information.

THE TESTS

NASA Wind Tunnel – The VacuSeal Vent Secured Roofing System was tested in a full-scale roof mock-up at the NASA Full Scale Tunnel at Langley Air Force Base. These wind tests confirmed that the VacuSeal technology held the roof membrane in place with wind speeds approaching Category 1 hurricane-force winds.

Underwriters Laboratory (UL) – The VacuSeal Vent Secured Roofing System is UL Certified with uplift certification at 195 psf negative pressure. VacuSeal achieved the maximum level on UL's static chamber test equipment – 278 psf – without failure.