

# ENVIRONMENTAL ROOFING COMPONENTS

## *ERC Wind Vent Roof Systems Informational Booklet*



Daytona Beach, FL

## Powerful, Innovative & Environmentally Friendly

Commonly, there are three main ways to attach a roof: mechanically, adhesion, or ballasting. Environmental Roofing Components offers an alternative, innovative, way to attach a roof. Simply put, ERC Wind Vent Systems reverse uplift, and use the wind to strengthen the roof's attachment rather than damaging the system. Harder winds = stronger roof.

The powerful ERC Wind Vent Systems thrive in environments with high winds. The photo above is of an ERC Wind Vent Roof in Daytona Beach, FL. In 2016 Hurricane Matthew heavily damaged and tore off several adjacent roofs, but the ERC Wind Vent Roof survived with only minor damage from debris.

The field of an ERC Wind Vent System is loose-laid similar to a ballasted roof. Thus, these systems use far less materials compared to roofs attached by other methods. Combining the lightweight design and roof drying capabilities makes ERC Wind Vent Systems ideal for roof recoveries. Overall, an eco-friendly system that consumes less materials, and reduces landfill waste by avoiding tear-offs.



**Removes Moisture**



**Eco-Friendly**



**Cost Efficient**



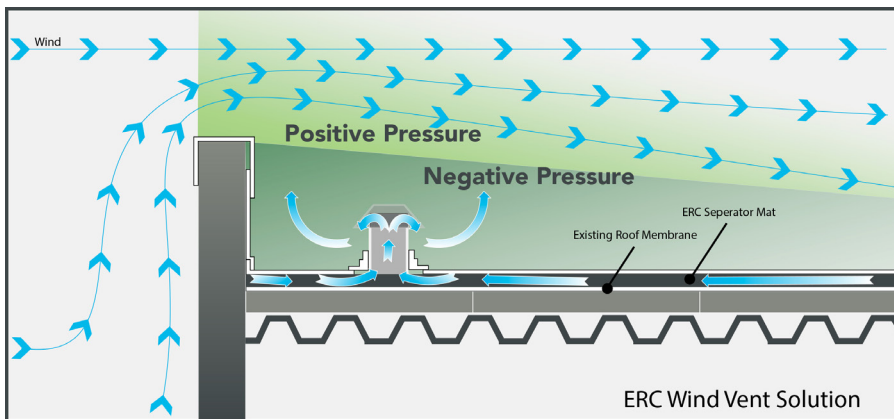
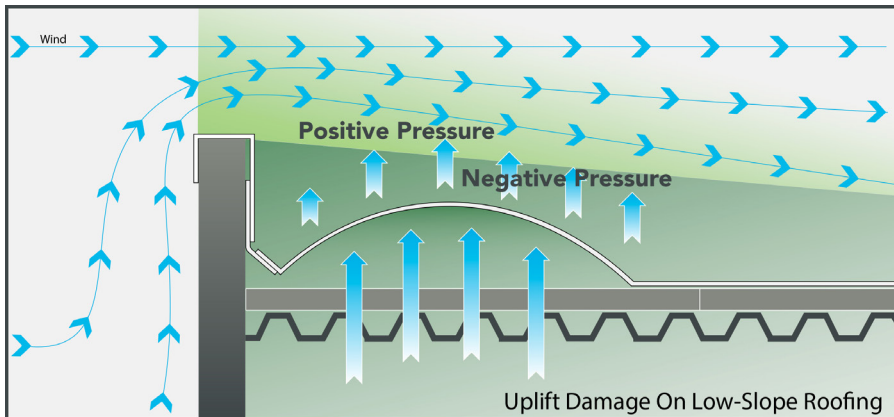
**Tornado & Hurricane Resistant**



**Time Efficient**

# How it Works

Uplift occurring on a roof is best explained by the Bernoulli's Principle. Bernoulli's principle states that an increase in the speed of a fluid occurs simultaneously with a decrease in static pressure or a decrease in the fluid's potential energy. In regards to roofing, the kinetic energy of the wind increases above a roof at the expense of pressure. For non-wind vent roofing system the negative pressure would lead to damage or even the tear off of a roof system.



ERC Wind Vent Valves redirect the force of the pressure from pulling upward on the roof system to vacuuming air and moisture out from the roof system. The moisture mitigation abilities of ERC Wind Vent Systems make them exceptional options for recovery systems. When other systems would require full tear-offs, Wind Vent offers an alternative solution that can be backed by a warranty.



Wind Vent Valve photo taken above the Holiday Inn Riverview in Charleston, SC

## Proven Performance

Environmental Roof Components has performed small scale wind uplift tests in an accredited laboratory as approved and monitored by Underwriter's Laboratory. We have received approvals from the "UL" laboratory via an official TGIK listing that outlines the anticipated uplift performance of our wind vent attached roof assemblies for various deck structures. Our current Underwriters Laboratory TGIK listing is: TGIK.R38388

**120 PSF**

*15/32" min. APA rated plywood*

**130 PSF**

*Steel Deck min. 22 MSG*

**150 PSF**

*Lightweight Concrete/Gypsum*

**195 PSF**

*7/16" min. APA rated sheathing*

**285 PSF**

*Structural Concrete*



# The ERC ADVANTAGE

ERC's Corporate team has been designing, installing, inspecting, and working with wind vent technology since its invention in 1974. This makes ERC the most experienced wind vent technology company in the industry. Thousands of our Wind Vented Roofs have been hit by tornados and hurricanes, but not one has failed to this day. Our products go through stringent testing by diagnostic centers and insurance companies to ensure they meet or exceed the high demands of today's building codes.

ERC will be with you from start to finish. Here are just a few of the extra steps we provide to our customers:

- Free roof walkover and assistance in evaluating your current roofing condition
- Assistance in specifications and details
- Assistance in working with your current specifier or plant engineer

We guarantee our roof systems and their performances. We offer the following warranties:

1. "No Dollar" Limit Warranties - (NDL type) - Various lengths - 20-, 25-, and 30-year periods
2. Roof Drying Warranty
3. Specific Wind Speed Warranties - Various warranty wind speeds offered depending on deck type - 60 MPH up to 200 MPH

## Dry A Wet Roof

The ability of a liquid to evaporate is primarily driven by air pressure - it doesn't always need heat. If it did, we'd have a serious problem every time it rained. Anything that causes more air molecules to cram into a square inch increases air pressure. That may include other water molecules (humidity), pollutants, or wind patterns that push molecules around in the atmosphere (like the Jet Stream). Likewise, things like airflow can also reduce air pressure. That's why, for example, evaporation occurs if it's cold outside but also windy.

Wind Vented roofing systems harness air pressure and movement to encourage evaporation. Combining this with a heat source creates weather like patterns within the saturated roof deck on a miniature scale.



### Conventional Re-Roofing

- Mandatory Wet Roof Removal
- New Insulation Required
- Adhered Single-Ply Membrane
- Max Wind Speed Rider - 90 MPH\*\*
- No Roof Drying Warranty
- Material Lead Time 10-12 Months\*\*\*
- Construction Duration 3 Months

### ERC Wind Vent Roofing

- Optional Wet Roof Removal (No Tear-Off Required)\*
- Only Coverboard or Separator Mat Required
- Wind Vent Attached Membrane
- Wind Warranties Up To 200 mph\*
- Roof Drying Warranty Offered
- Material Lead Time 1-2 Months
- Construction Duration 1 Month

\*Typical re-roofing of wet/damaged roof assembly.

\*\* Typical Roof Warranties noted. ERC Warranties are structural deck dependent.

\*\*\* Lead Times as provided from various suppliers as of 11/15/21



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