

## Engineer convinced SMART VENT gives best hydrostatic relief during flooding

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[www.concretemonthly.com](http://www.concretemonthly.com)

After his home was completely destroyed during Hurricane Katrina, A.J. Scardino, an engineer and expert in safety control work and loss analysis, set out to rebuild a virtually indestructible home. Extensive research led him to begin construction on an insulating concrete form (ICF) home.

ICF's blend insulation and design adaptability with the strength and indestructibility of concrete. ICF is better than plain concrete as it gives you two built-in layers of foam insulation. Hydration is controlled as concrete is poured into insulated forms, making curing unique as it does not dry out too fast and become brittle.

Vertically placed steel rebar is used for additional strength. The forms are joined together with metal or plastic ties to make the required wall height and length, and corners are constructed with special corner blocks to maintain shape, making curing unique. All walls tie in together as an interlocked part of the system. The resulting walls create a true monolithic structure that is soundproof and super-insulated with no cold joints, making the structure much less vulnerable, stronger and more durable. The lower section of walls can withstand hurricane force winds indefinitely with ratings of 300 miles per hour.

Finding it mandatory to have hydrostatic relief on any structure subject to flooding, Scardino set out to find foundation flood vents that would meet the ICC Residential Code criteria and his quest to use only the most indestructible material in his building.

"I searched every available device for hydrostatic relief," Scardino said. "I was unequivocally convinced that SMART VENT ([www.smartvent.com](http://www.smartvent.com)) was the only choice. Nothing came even close. It is the only vent to meet all codes. You cannot take a block out of your structure and think you have ventilation, as many folks are doing. This will not help at all".

His many years as an engineer, specializing in loss analysis and safety control coupled with what he has learned while rebuilding makes him an expert on hydrostatic relief. It has also led him to an induction into the Safety and Health Hall of Fame. "You must equalize pressure. If you have tens of thousands of gallons of water pressing against your house, your house will implode and collapse right under you."

All SMART VENT products are certified engineered openings providing an automatic entry and exit of floodwaters that release hydrostatic pressure yielded upon foundations during flooding. The indestructible vents have two patented floats that automatically release with rising water and open the bi-directional flood door rotating it out of the path of flood water, providing the required 3-inch diameter of completely unobstructed open area for flood water to enter and exit.

SMART VENT Foundation Flood Vents features include all stainless steel construction that meet or exceed flood and corrosion resistance code requirements, easy to clean stainless steel mesh screens that keep unwanted pests from invading and weather-stripped insulated doors that minimize heat and air conditioning loss. Additionally, each SMART VENT protects 200 square feet of home, versus only 60 square feet per each non-compliant vent used, thus requiring 2/3 less vents-increasing the aesthetic appearance of a home dramatically.