



# **Dual Function SMART VENT®** Superior Flood Protection and Natural Air Ventilation

#### ICC-ES Evaluated and FEMA Accepted Foundation Flood Vents

- Potential savings on homeowner's NFIP premiums
- Preserves aesthetic beauty of a home by requiring 2/3 less vents
- Each vent certified to protect 200 sq. ft. of your home
- Code Compliant, FEMA accepted, ICC-ES Evaluated
- All Stainless Steel construction meets or exceeds flood and corrosion resistance code requirements
- Patented automatic floats release bi-directional flood door
- Temperature controlled louvers automatically open in warm weather and close in cold weather

#### One 16" x 8" vent is certified to cover 200 square feet of enclosed area for flood protection and 51 square inches for ventilation

SMART VENT® models are certified to provide flood protection and ventilation. This model is used for a home with a crawl space or any enclosed area that desires natural air ventilation and flood protection. All stainless steel construction resists weather and pest.





| Model #:           | 1540-510                       |
|--------------------|--------------------------------|
| Installation Type: | Masonry Wall                   |
| Style:             | louvered                       |
| Dimensions:        | 16" x 8"                       |
| Rough Opening:     | 16¼″ x 8¼″ (one block, or CMU) |
| Finish:            | Stainless Steel (Standard)     |
|                    |                                |

#### Available Powder Coat Colors For Special Order:



#### **Optional Accessories:**

Fire Damper, Interior Trim Flange & Inner Sleeve, Rain Shield

#### Other Models Available: Insulated FLOOD VENT,

Overhead Garage Door Model, Stacked and Quad Configurations, Models for Wood Studded Wall Applications and Pour in Place Buck Systems.

#### There's more online at www.smartvent.com

Dealer Locator, Installer Locator, Cad Drawings, Installation Instructions, Technical Specifications, Frequently Asked Questions, Videos, Testimonials, Resource Library Database, Insurance Forms.



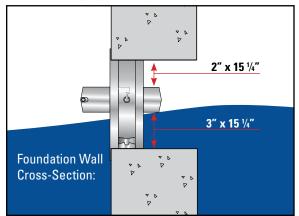
Rapidly rising floodwater can put extreme pressure on the foundation walls causing improperly vented structures to buckle and collapse. SMART VENTS® quickly and efficiently equalize the pressure and minimize damage.

#### How it works:

Flood Protection: The SMART VENT® door is latched closed until flood water enters. Entering flood water lifts the patented internal floats which unlatches and rotates the door open. This allows the flood water to automatically enter and exit through the frame opening, relieving the pressure from your foundation walls.

Ventilation: A bimetal coil (like a thermostat, no electricity is needed) automatically opens and closes the ventilation louvers as temperature changes. They will be closed when it is freezing outside and open when it is warm outside to provide natural ventilation.

Important note: SMART VENT<sup>®</sup> does not rely on the louvers to let floodwater in and out. Regardless of the louvers' position, opened or closed, when floodwater flows into the door, the internal floats release the door to rotate open to relieve the hydrostatic pressure. The louvers and pest screen are rotated out of the path of the floodwater. The temperature-controlled louvers are for ventilation purposes only.



# How does one SMART VENT<sup>®</sup> provide so much coverage?

You may have heard that FEMA requires that flood openings provide one square inch of opening per one square foot of enclosed area, referring to dimensions of the opening in proportion to the space to be vented. This is only partially correct. FEMA's regulations and guidelines do state that a non-engineered flood vent solution must (among other requirements) provide one square inch of opening per square foot of enclosed area to be vented. However; all SMART VENT® products are ICC-ES certified engineered openings. They have been designed, engineered, tested, rated, and certified to provide flood relief so efficiently that only one unit is needed for 200 square feet of enclosed area. It would be our pleasure to contact your code official, surveyor, or insurance agent if they require more information.

#### Insulated FLOOD VENT - Model: 1540-520



## **High Efficiency Insulated Flood Vent** Superior Automatic Flood Protection

#### ICC-ES Evaluated and FEMA Accepted Foundation Flood Vents

- Potential savings on homeowner's NFIP premiums
- Preserves aesthetic beauty of a home by requiring 2/3 less vents
- Each vent certified to protect 200 sq. ft. of your home
- Code Compliant, FEMA accepted, ICC-ES Evaluated
- All Stainless Steel construction meets or exceeds flood and corrosion resistance code requirements
- Patented automatic floats release bi-directional flood door
- Great for conditioned or sealed crawl spaces

# One 16" x 8" vent is certified to cover 200 square feet of enclosed area for flood protection

The insulated flood vent model is certified to provide insulated flood protection only. This model is used for a garage or conditioned space, where flood protection is required but ventilation is NOT desired. The flood door is constructed of solid stainless steel wrapped around an insulating foam core.





| Model #:           | 1540-520                       |
|--------------------|--------------------------------|
| Installation Type: | Masonry Wall                   |
| Style:             | Insulated                      |
| Dimensions:        | 16" x 8"                       |
| Rough Opening:     | 16¼" x 8¼" (one block, or CMU) |
| Finish:            | Stainless Steel (Standard)     |
|                    |                                |

#### Available Powder Coat Colors For Special Order:



#### **Optional Accessories:**

Fire Damper, Interior Trim Flange & Inner Sleeve, Rain Shield

Other Models Available: SMART VENT® Dual Function Ventilating Flood Vent, Overhead Garage Door Model, Stacked and Quad Configurations, Models for Wood Studded Wall Applications and Pour in Place Buck Systems.

#### There's more online at www.smartvent.com

Dealer Locator, Installer Locator, Cad Drawings, Installation Instructions, Technical Specifications, Frequently Asked Questions, Videos, Testimonials, Resource Library Database, Insurance Forms.

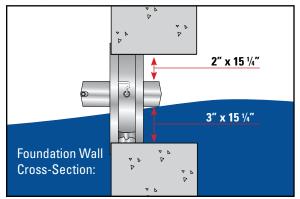


Rapidly rising floodwater can put extreme pressure on the foundation walls causing improperly vented structures to buckle and collapse. SMART VENTS® quickly and efficiently equalize the pressure and minimize damage.

## Insulated FLOOD VENT - Model: 1540-520

#### How it works:

Flood Protection: The FLOOD VENT door is latched closed until floodwater enters. Entering floodwater lifts the patented internal floats which unlatches and rotates the door open. This allows the flood water to automatically enter and exit through the frame opening, relieving the pressure from your foundation.



#### **Use Fewer Vents**

Preserve the aesthetic beauty of a home by requiring 2/3 fewer vents. Each SMART VENT<sup>®</sup> protects 200 sq/ft of enclosed area vs. 60 sq/ft for non-compliant vents.



# How does one of your vents provide so much coverage?

You may have heard that FEMA requires that flood openings provide one square inch of opening per one square foot of enclosed area, referring to dimensions of the opening in proportion to the space to be vented. This is only partially correct. FEMA's regulations and guidelines do state that a non-engineered flood vent solution must (among other requirements) provide one square inch of opening per square foot of enclosed area to be vented. However; all SMART VENT® products are ICC-ES certified engineered openings. They have been designed, engineered, tested, rated, and certified to provide flood relief so efficiently that only one unit is needed for 200 square feet of enclosed area. It would be our pleasure to contact your code official, surveyor, or insurance agent if they require more information.



## Insulated FLOOD VENT - Wood Wall Model: 1540-570



## **High Efficiency Insulated Flood Vent** Superior Automatic Flood Protection Designed for Installation Between Studs



#### ICC-ES Evaluated and FEMA Accepted Foundation Flood Vents

- Potential savings on homeowner's NFIP premiums
- Preserves aesthetic beauty of a home by requiring 2/3 less vents
- Each vent certified to protect 200 sq. ft. of your home
- Code Compliant, FEMA accepted, ICC-ES Evaluated
- All Stainless Steel construction meets or exceeds flood and corrosion resistance code requirements
- Patented automatic floats release bi-directional flood door

# One 14 <sup>1</sup>/<sub>2</sub>" x 8 <sup>1</sup>/<sub>2</sub>" vent is certified to cover 200 square feet of enclosed area for flood protection

The Wood Wall Flood Vent is designed to fit between studs spaced on 16" centers. One vent covers 200 square feet of enclosed area, and it is an easy retrofit. This vent only comes in an insulated model.



## Insulated FLOOD VENT - Wood Wall Model: 1540-570



#### Available Powder Coat Colors For Special Order:



#### **Optional Accessories:**

Fire Damper, Interior Trim Flange

**Other Models Available:** SMART VENT<sup>®</sup> Dual Function Ventilation 16" x 8" Flood Vent, Insulated 16" x 8" FLOOD VENT, Overhead Garage Door Model, Stacked and Quad Configurations, Models for Wood Studded Wall Applications and Pour in Place Buck Systems.

#### There's more online at www.smartvent.com

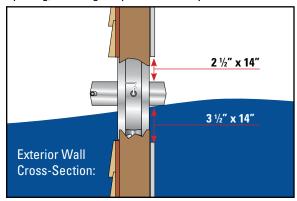
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Rapidly rising floodwater can put extreme pressure on the foundation walls causing improperly vented structures to buckle and collapse. SMART VENTS® quickly and efficiently equalize the pressure and minimize damage.

#### How it works:

Flood Protection: The FLOOD VENT door is latched closed until flood water enters. Entering flood water lifts the patented internal floats which unlatches and rotates the door open. This allows the flood water to automatically enter and exit through the frame opening, relieving the pressure from your foundation.



#### **Use Fewer Vents**

Preserve the aesthetic beauty of a home by requiring 2/3 fewer vents. Each SMART VENT® protects 200 sq/ft of enclosed area vs. 60 sq/ft for non-compliant vents.



# How does one SMART VENT<sup>®</sup> provide so much coverage?

You may have heard that FEMA requires that flood openings provide one square inch of opening per one square foot of enclosed area, referring to dimensions of the opening in proportion to the space to be vented. This is only partially correct. FEMA's regulations and guidelines do state that a non-engineered flood vent solution must (among other requirements) provide one square inch of opening per square foot of enclosed area to be vented. However, all SMART VENT<sup>®</sup> products are certified engineered openings. They have been designed, engineered, tested, rated, and certified to provide flood relief so efficiently that only one unit is needed for 200 square feet of enclosed area. It would be our pleasure to contact your code official, surveyor, or insurance agent if they require more information.



SMART VENT<sup>®</sup> Overhead Door - Model: 1540-514 Insulated Flood Vent - Model: 1540-524, 1540-574



# **Overhead/Garage Door Flood Vent** Dual Function SMART VENT<sup>®</sup> and Insulated FLOOD VENT

### ICC-ES Evaluated and FEMA Accepted Foundation Flood Vents

- Potential savings on homeowner's NFIP premiums
- Preserves aesthetic beauty of a home by requiring 2/3 less vents
- Each vent certified to protect 200 sq. ft. of your home
- Code Compliant, FEMA accepted, ICC-ES Evaluated
- All Stainless Steel construction meets or exceeds flood and corrosion resistance code requirements
- Patented automatic floats release bi-directional flood door
- Temperature controlled louvers on dual function models automatically open in warm weather and close in cold weather

# One 16" x 8" vent is certified to cover 200 square feet of enclosed area for flood protection

The Overhead Door Model can be installed into a standard garage door, providing 200 square feet of flood protection per vent. A typical garage (less than 600 sq/ft) requires only three vents in total to become compliant with the NFIP requirements and building codes. Two sizes are available depending on the size of the panel.



#### SMART VENT® Overhead Door - Model: 1540-514 Insulated FLOOD VENT - Model: 1540-524, 1540-574



#### 1540-524, 1540-574 Insulated Flood Vent

| Installation Type:                              | Overhead Garage Doors         |  |  |
|---|-------------------------------|--|--|
| Style:  | Louvered or Insulated         |  |  |
| 2 5   | Sizes Available:              |  |  |
| Dimension:                                      | 16" x 8" (1540-514, 1540-524) |  |  |
| Rough Opening:                                  | 16" x 8" (cut through door)   |  |  |
| Dimension:                                      | 14 ½" x 8 ½" (1540-574)       |  |  |
| Rough Opening:                                  | 14 ½" x 8 ¾"                  |  |  |
| Finish:   | Powder Coated Painted White   |  |  |
| Available Powder Coat Colors For Special Order: |                               |  |  |







Other Models Available: SMART VENT® Dual Function Ventilating Flood Vent, Insulated FLOOD VENT, Overhead Garage Door Model, Stacked and Quad Configurations, Models for Wood Studded Wall Applications and Pour in Place Buck Systems.

#### There's more online at www.smartvent.com

Dealer Locator, Installer Locator, Cad Drawings, Installation Instructions, Technical Specifications, Frequently Asked Questions, Video, Testimonials, Resource Library Database, Insurance Forms.



Overhead garage doors require flood protection too. Hydrostatic pressure caused by rapidly rising flood waters can easily destroy the average garage door.

#### Choose the correct model:

Along with the options for size, we also offer two model choices. The first is a dual function model that will give you automatic flood protection along with automatic ventilation. This model only comes in 16" x 8" size. The second is our Insulated model that seals out the cool or warm air, but opens as flood water rises. This model comes in both sizes.

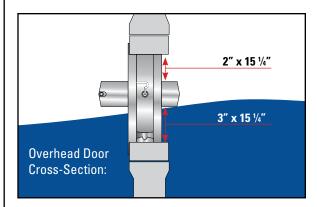
#### Retrofitting

Easy installation (all hardware is included) makes this model ideal to retrofit into an existing garage door. A stainless steel frame cleanly installs into the door with only four (supplied) stainless steel screws and nuts.

#### How it works:

Flood Protection: The SMART VENT® door is latched closed until flood water enters. Entering flood water lifts the patented internal floats which unlatches and rotates the door open. This allows the flood water to automatically enter and exit through the frame opening, relieving the pressure from your foundation walls.

Ventilation: A bimetal coil (like a thermostat, no electricity is needed) automatically opens and closes the ventilation louvers as temperature changes. They will be closed when it is freezing outside and open when it is warm outside to provide natural ventilation.



## **SMART VENT® Combination Models**



## Stacked, Quad and Custom Flood Vents SMART VENT<sup>®</sup> Combination Models Multiply Protection

Combination models come standard in a stacked and a quad configuration. Each configuration is available in a dual function (ventilation and flood protection), or insulated (flood protection only) style. Stacked models are twice as efficient as a single unit and are generally used to provide protection in larger dwellings or where adequate wall space is not available. Quad configurations are an excellent solution for larger commercial projects and are not normally used in residential dwellings. Four vents provide 800 square feet of coverage into a single opening.

#### How it works:

Flood Protection: The SMART VENT® door is latched closed until flood water enters. Entering flood water lifts the patented internal floats which unlatches and rotates the door open. This allows the flood water to automatically enter and exit through the frame opening, relieving the pressure from your foundation walls. Ventilation: On dual function models, a bimetal coil (like a thermostat, no electricity is needed) automatically opens and closes the ventilation louvers as temperature changes. They will be closed when it is cold outside and open when it is warm outside to provide natural ventilation.

Important note: Dual Function models do not rely on the louvers to let flood water in and out. Regardless of the louvers' position, opened or closed, when flood water flows into the door, the internal floats release the door to rotate open to relieve the hydrostatic pressure. The louvers and pest screen are rotated out of the path of the flood water. The temperature controlled louvers are for ventilation purposes only.



## **SMART VENT® Combination Models**

Standard Finish:

Stainless

Available Powder Coat Colors For Special Order:

White

Wheat

Gray

Black

### **SMART VENT® Combination Models**

SMART VENT® Models are certified to provide flood protection AND ventilation. These models are used for a home with a crawl space or built on a pony wall that requires seasonal ventilation of the crawl space AND protection from flooding. All stainless steel construction resists weather and pests.



| Model #:           | 1540-511             |  |
|--------------------|----------------------|--|
| Installation Type: | Masonry              |  |
| Style:             | Louvered             |  |
| Dimensions:        | 16″ x 16″            |  |
| Rough Opening:     | 16¼″ x 16 ¾″         |  |
|                    | (two blocks, or CMU) |  |

One  $16'' \times 16''$  vent certified for 400 sq. ft. of enclosed area for flood, and 102 sq. in. for ventilation



| Model #:                     | 1540-550                  |
|------------------------------|---------------------------|
| Installation Type:           | Masonry                   |
| Style:                       | Louvered                  |
| Dimensions:                  | 32″ x 16″                 |
| Rough Opening:               | 33″ x 16 ¾″               |
|                              | (four blocks, or CMU)     |
| One 32" v 16" unit cortified | for 200 sa ft of analosad |

One 32" x 16" unit certified for 800 sq. ft. of enclosed area for flood, and 204 sq. in. for ventilation

\*Some assembly of frames required

## Flood Vent Combination Models

Flood Vent Models are certified to provide insulated flood protection only. These models are used for a garage or conditioned space, where flood protection is required but ventilation is NOT desired. The flood door is constructed of solid stainless steel wrapped around an insulating foam core.





One 16"  $\times$  16" vent certified for 400 sq. ft. of enclosed area for flood



| One 32" x 16" unit certified for 800 sq. ft.<br>of enclosed area for flood |                       |  |
|--|-----------------------|--|
|  | (four blocks, or CMU) |  |
| <b>Rough Opening</b> :   | 33″ x 16 ¾″           |  |
| Dimensions:  | 32″ x 16″             |  |
| Style:   | Insulated             |  |
| Installation Type:   | Masonry               |  |
| Model #:   | 1540-560              |  |
|  |                       |  |

Optional accessories for all models:

Fire Damper, Interior Trim Flange, Inner Sleeve and Pour in Place Buck Kits

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## SMART VENT<sup>®</sup> Pour-in-Place Vinyl Buck



## **SMART VENT<sup>®</sup> Pour-in-Place Vinyl Buck** Vinyl buck insert for poured foundation walls

ES

The SMART VENT<sup>®</sup> Pour-in-Place Vinyl Buck is made of high strength PVC. Each wall buck accepts SMART VENT<sup>®</sup> models 1540-510, 1540-511, 1540-550 and FLOOD VENT models 1540-520, 1540-521, 1540-560 flood vents. Fully assembled units are shipped ready to install with a protective film and wood bracing that protects the buck and flood vent when the wall is poured.

The SMART VENT<sup>®</sup> Pour-in-Place Vinyl Buck comes in several widths to accommodate most standard wall thicknesses.

| SMART VENT <sup>®</sup> VINYL BUCK |        |        |                      |
|------------------------------------|--------|--------|----------------------|
| Model #                            | Width  | Height | Depth                |
| 1540-805.50                        | 18 5/8 | 10 5/8 | 5 1/2"               |
| 1540-807.25                        | 18 5/8 | 10 5/8 | 7 1/4″               |
| 1540-808N                          | 18 5/8 | 10 5/8 | 7 1/2" (Nominal 8)   |
| 1540-808F                          | 18 5/8 | 10 5/8 | 7 7/8" (Full 8)      |
| 1540-809.25                        | 18 5/8 | 10 5/8 | 9 1/4″               |
| 1540-810N                          | 18 5/8 | 10 5/8 | 9 1/2" (Nominal 10)  |
| 1540-810F                          | 18 5/8 | 10 5/8 | 9 7/8" (Full 10)     |
| 1540-811.25                        | 18 5/8 | 10 5/8 | 11 1/4"              |
| 1540-812N                          | 18 5/8 | 10 5/8 | 11 1/2" (Nominal 12) |
| 1540-812F                          | 18 5/8 | 10 5/8 | 11 7/8" (Full 12)    |

#### **Recommended Installation Instructions**

Step 1: The SMART VENT<sup>®</sup> Pour-in-Place Vinyl Buck should be properly located between the masonry wall forms (plum

and level) and secured with reversible fastener into the wood nailing blocks. In the event that the fasteners can not be applied through the face of the forms, alternative approved fastening measures should be taken.



Step 2: The form cavity is filled with concrete encasing the buck. After the foundation is cured, the forms are stripped, revealing the Masonry Wall Buck.

The wood block support system and protective film can be left in place until the foundation is backfilled.



#### **Color Options:**

The SMART VENT<sup>®</sup> Pour-in-Place Vinyl Buck is available in white only. SMART VENT<sup>®</sup> and FLOOD VENT inserts are available in a standard stainless steel finish or one of these special order colors:



## SMART VENT<sup>®</sup> Pour-in-Place Vinyl Buck

#### SMART VENT® STACKED VINYL BUCK

| Item / Model #      | Width   | Height | Depth                |
|---------------------|---------|--------|----------------------|
| 1540-805.50 (Stack) | 18 5/8" | 19″    | 5 1/2"               |
| 1540-807.25 (Stack) | 18 5/8″ | 19″    | 7 1/4″               |
| 1540-808N (Stack)   | 18 5/8" | 19″    | 7 1/2" (Nominal 8)   |
| 1540-808F (Stack)   | 18 5/8" | 19″    | 7 7/8" (Full 8)      |
| 1540-809.25 (Stack) | 18 5/8" | 19″    | 9 1/4″               |
| 1540-810N (Stack)   | 18 5/8" | 19"    | 9 1/2" (Nominal 10)  |
| 1540-810F (Stack)   | 18 5/8" | 19″    | 9 7/8" (Full 10)     |
| 1540-811.25 (Stack) | 18 5/8" | 19″    | 11 1/4"              |
| 1540-812N (Stack)   | 18 5/8" | 19"    | 11 1/2" (Nominal 12) |
| 1540-812F (Stack)   | 18 5/8" | 19"    | 11 7/8" (Full 12)    |
| 1540-800-2" (Stack) | 18 5/8" | 19″    | 2" Extension         |

#### SMART VENT® QUAD VINYL BUCK

| Item / Model #     | Width   | Height | Depth                |
|--------------------|---------|--------|----------------------|
| 1540-805.50 (Quad) | 33 3/8" | 19″    | 5 1/2"               |
| 1540-807.25 (Quad) | 33 3/8" | 19″    | 7 1/4″               |
| 1540-808N (Quad)   | 33 3/8" | 19″    | 7 1/2" (Nominal 8)   |
| 1540-808F (Quad)   | 33 3/8" | 19″    | 7 7/8" (Full 8)      |
| 1540-809.25 (Quad) | 33 3/8″ | 19"    | 9 1/4″               |
| 1540-810N (Quad)   | 33 3/8" | 19″    | 9 1/2" (Nominal 10)  |
| 1540-810F (Quad)   | 33 3/8" | 19″    | 9 7/8" (Full 10)     |
| 1540-811.25 (Quad) | 33 3/8″ | 19"    | 11 1/4″              |
| 1540-812N (Quad)   | 33 3/8" | 19″    | 11 1/2" (Nominal 12) |
| 1540-812F (Quad)   | 33 3/8″ | 19"    | 11 7/8" (Full 12)    |
| 1540-800-2" (Quad) | 33 3/8" | 19″    | 2" Extension         |

Stacked Model



Shown with wood block support system and protective film.



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Side View

## **SMART VENT® Accessories**



## The SMART VENT<sup>®</sup> Option and Accessory System Can Accommodate Any Installation Application

### **1-Fire Damper**

SMART VENT<sup>®</sup> manufactures two UL-certified Fire Damper models. A masonry installation model *(1540-530)* and a wood wall installation model *(1540-537)*. These fire dampers are certified to provide two hours of fire resistance. It is intended to be used in a situation in which fire proofing is required on a wall in which flood venting is installed, usually in a garage or vestibule.

A fusible link holds a galvanized steel door in place. At 165°F (73.9°C), the link melts to permit the door to drop, blocking the path of the fire. Compatible with SMART VENT® and FLOOD VENT models - The Fire Damper can safely be installed in the same cavity for either of the flood protection models, without interfering in their operation. Trim flange and inner sleeve are required for installation.

### **2-Interior Trim Flange and Inner Sleeve Kit**

The Trim Flange unit fits into the rough opening to provide a clean finished look on the interior wall. Trim flanges are available for use with standard masonry flood vents (1540-533) and SMART VENT<sup>®</sup> Wood Wall Models (4" depth 1540-573 and 9" depth 1540-573-9) come standard in white.

The stainless steel sleeve lining is available in a 7 inch sleeve that can expand up to 12 inches, and a 10 inch sleeve that can expand up to 15 inches.

### **3-Rain Shield**

In areas of severe rain or harsh conditions, the Rain Shield will provide maximum protection for your vent.



