

**CALCULATING VENTS REQUIRED FOR STANDARD AND FIRE & ICE® ATTIC VENTS**

**Step 1**

**Validate Local Building Code Requirements**

Most local building codes require compliance with either the 1/150 method or 1/300 method exception (refer to local code). These methods dictate that one (1) square foot of ventilation is provided for every 150 or 300 square feet of attic floor space. Compliance with attic ventilation code requirements should always be verified at the local governing level.

**Step 2**

**Determine Total Square Feet of Attic Floor Space**

Length of Attic \_\_\_\_\_ 60  
X

Width of Attic \_\_\_\_\_ 20  
(repeat process for all attic areas)

= (a) \_\_\_\_\_ (a) 1200  
square feet of attic space

**Step 3**

**Calculating Ventilation Requirements**

(a) \_\_\_\_\_ / 300 (exception method) (a) 1200/300

= (b) \_\_\_\_\_ (b) 4  
square feet of code required ventilation

**Step 4**

**Convert Square Feet to Square Inches**

(b) \_\_\_\_\_ x 144 (b) 4 x 144

= (c) \_\_\_\_\_ (c) 576  
square inches of code-required ventilation

**Step 5**

**Determine Adequate Number of O'Hagin's Vents**

(c) \_\_\_\_\_ / NFVA\* for selected vent (see chart below) (c) 576/98.75

= (c) \_\_\_\_\_ (number of vents required) = 6 vents

\*Net Free Ventilation Area  
(Figures based on independent evaluation reports)

**Manufacturer's Recommendations:**

O'Hagin patented Balanced Ventilation System utilizes O'Hagin vents placed strategically within the field of roofing material both high (near the ridge for exhaust) and low (near the eave for intake). This strategic high and low placement of O'Hagin vents allows the balanced system to fully optimize both wind and thermal effects to provide superior passive ventilation throughout the attic. Additionally, placement of O'Hagin vents both high and low should provide an equal, balanced rate of ventilation performance in each area. The calculations above do not include any potential NFVA value provided by alternative ventilation methods that may be present in any specific structural design.

**\*NET FREE VENTILATION AREA**

(Figures based on independent evaluation reports)

<b>Vents for Tile Roofs</b>	<b>MODEL: FLAT</b> NFVA: 98.75 sq. in. (637.1 sq. cm.)	<b>MODEL: S</b> NFVA: 97.50 sq. in. (629.0 sq. cm.)	<b>MODEL: M</b> NFVA: 86.25 sq. in. (556.5 sq. cm.)
<b>Vents for Slate, Shake or Composition Roofs</b>	<b>MODEL: TAPERED LOW-PROFILE</b> NFVA: 72.0 sq. in. (464.5 sq. cm.)		

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**FREE TECHNICAL SUPPORT SERVICES**

For your planning, design, installation, post-installation and customer education needs, O'Hagin offers a range of free services:

**Free Architectural/Design Support Services**

- Prompt analysis of provided roof plans, or other architectural drawings in electronic or other format. This analysis calculates the number of vents needed based on known local building codes and offers specific recommendations for placement – AutoCAD, PDF or other format.
- Consultation services on an individual or group basis.

**Free Custom Product Design**

- Custom ventilation system designs to match unique roofing or architectural challenges.
- One-on-one assistance to discuss your needs and create the right solution for your job.

**Free Installation Instruction**

- Training for your field crews on how to install our products.
- Instruction in English or Spanish to ensure a high degree of knowledge for all your employees.

**Free Pre- and Post-Installation Support**

- Meetings with builders, consultants, building code officials, or other members of your design and construction team.
- Support regarding any aspect of our products before or after installation.

**ADDITIONAL INFORMATION**

**Approvals**

- O'Hagin Mfg. is a recognized leader in attic ventilation testing and design. The Company holds local and national approvals including:
  - ICC-ES Legacy Report, 9650-A (for tile vents only)
  - Class A fire rated
  - Accepted for use by many local fire officials for installation in Wildland Urban Interface (WUI) zones
  - Miami-Dade County Product Control Approved

For complete testing information, call our Customer Service Team toll free at (877) 324-0444.

**Instructions**

- Complete step-by-step installation instructions in English and Spanish are available on our website at [www.ohagin.com](http://www.ohagin.com), or by calling our Customer Service Team toll free at (877) 324-0444.

O'Hagin vents are manufactured and protected under one or more of the following patents (other U.S. and foreign patents are pending): D456,531; D457,234; D458,391; D458,392; D469,889; D479,885; D504,172; D512,774; D549,316; 6,050,039; 6,129,628; 6,354,051; 6,390,914; 6,447,390; 6,491,579



Phone (877) 324-0444 • Fax (707) 872-3630

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**Profile Specific Attic Vents**  
for Tile, Real Slate, Shake and  
Composition Shingle Roof Applications

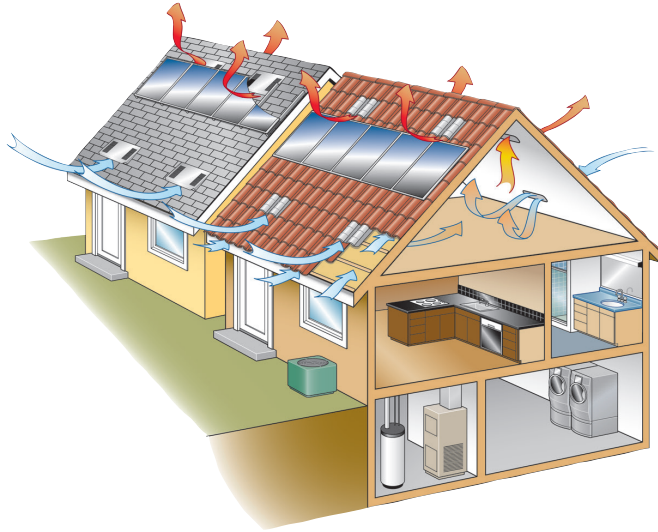


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## BENEFITS OF ATTIC VENTILATION



- **VALIDATE THE WARRANTY** Most manufacturers of roofing products require adequate attic ventilation to validate their warranties.
- **FITS WITH SOLAR SYSTEMS** Low-profile design is compatible with most panel installations and fits under most rack mount systems.
- **EXTEND THE ROOF'S LIFE** Ventilation protects attic insulation and rafter cavities from moisture, thereby reducing the risk of mold and dry rot.
- **MAINTAIN CURB APPEAL** When painted to match, O'Hagin attic ventilation systems are designed to blend into surrounding roofing material.
- **ENHANCES ABOVE-SHEATHING VENTILATION (ASV)** Increases airflow and can increase energy savings in cool roof systems.
- **CONSERVE ENERGY** O'Hagin attic vents are completely passive, reducing energy costs related to heating and cooling.
- **REMOVE TRAPPED GASES** Proper attic ventilation facilitates the removal of hot, trapped gases and fumes, a major cause of indoor air pollution, allergies and related health problems.
- **REDUCE MOISTURE BUILDUP** Proper attic ventilation reduces moisture buildup from indoor water sources.

For more information, contact our Customer Service Team.



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## STANDARD LINE OF ATTIC VENTS

The O'Hagin whole roof ventilation system encourages superior air movement by exhausting air from the upper vents causing a natural vacuum effect that draws air in through the eave vents (intake). Increased wind speeds and/or increased attic temperatures accelerate this vacuum effect, providing a cooler, drier attic space when you need it the most. As a passive ventilation system, our vents work without motors or moving parts.

Using patented designs, O'Hagin vents are manufactured to seamlessly blend form and function – providing superior airflow without detracting from the aesthetics of the roof. We produce over 180 different designs (profiles) that match, as closely as possible, the surrounding roofing material chosen for your project, including vents that match most tile and composite roofing material manufacturers from around the world.

O'Hagin attic vents are manufactured using standard finish 26 gauge, G90 galvanized steel, .032-inch aluminum or 16 oz. copper, with select vents available in pre-painted galvanized steel.

## FIRE & ICE® LINE OF ATTIC VENTS

O'Hagin Mfg. now offers its standard line of attic vents installed with an optional **FIRE & ICE®** feature, making them resistant to flames, embers, wind-driven rain and snow. This new patent-pending feature is a stainless steel, corrosion-resistant interior matrix which offers protection of the attic space, yet still provides the same superior airflow and architecturally-compatible features as our standard line of attic vents.

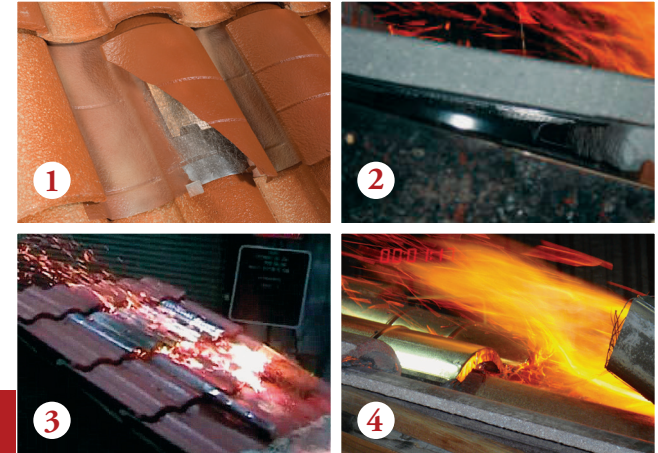
### FIRE & ICE® Features Include:

- Low-profile design for tile, slate and composition shingle roof applications
- Class A fire-rated vent\*
- Flame and ember resistant\*
- Withstands peak temperatures of 1472°F
- Complies with Wildland Urban Interface Code requirements and accepted for use by many local fire officials for installation in Wildland Urban Interface (WUI) zones
- Resists entry of wind-driven rain and snow into attic space\*
- Interior stainless-steel matrix system
  - corrosion-resistant, stainless steel
  - same Net Free Ventilation Area (NFVA) as the standard line of attic vents
- Easy to install
  - no tile cutting on most profiles
  - no toxic lead flashing required
- May be used in place of under-eave and soffit vents
  - superior airflow
  - balanced airflow
  - decreased construction costs
- Easy retrofit
- Optional 1/8-inch mesh throughout vent

\*Quantified by independent laboratory testing and report

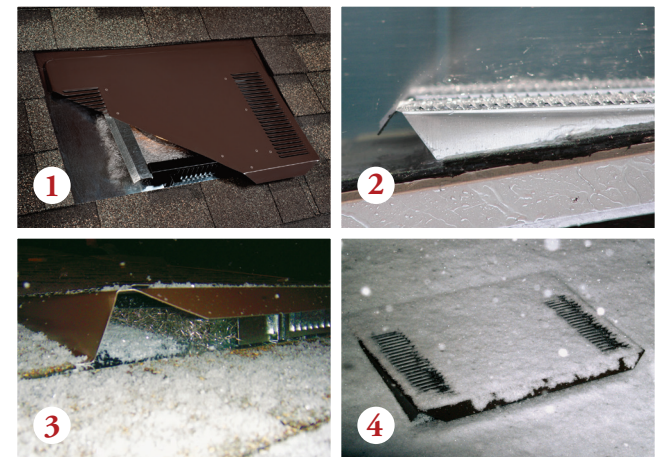
## FIRE & ICE® ATTIC VENTS PERFORMANCE TESTING

### Photos of O'Hagin's FIRE & ICE® Vent During Fire Test



1. Installed O'Hagin secondary vent (cover) with portion of vent cut away to illustrate stainless-steel matrix and highlight flame and ember resistant airway into attic space; 2. Cut-away side view of batten cavity during flame and ember test illustrating vent resistance to flame and ember penetration into batten cavity and interior attic; 3.-4. Flame and ember test performed on all O'Hagin's **FIRE & ICE®** Vent profiles for tile illustrating flame and ember properties that protect the interior attic.

### Photos of O'Hagin's FIRE & ICE® Vent During Wind-Driven Rain and Snow Test



1. Installed O'Hagin's new **FIRE & ICE®** Tapered Low-Profile Vent cut away to show snow-resistant, stainless-steel matrix; 2. Tapered Low-Profile **FIRE & ICE®** Vent during FBC TAS 100(A)-95 Attic Vent Testing for wind-driven rain and snow; 3.-4. Photos of new O'Hagin's **FIRE & ICE®** Tapered Low-Profile Vent taken during wind-driven snow demonstration in the Sierra Nevada at 7,200 ft. elevation — illustrating protection of airway from snow intrusion or build-up by patent-pending stainless-steel matrix while providing superior airflow.