ICC-ES Listing Report
ESL-1445

Reissued August 2025

This listing is subject to renewal August 2026.

CSI: DIVISION: 08 00 00—OPENINGS
Section: 08 95 00—Vents

Product Certification System:

The ICC-ES product-certification system includes evaluating reports of tests of standard manufactured product, prepared by accredited testing laboratories and provided by the listee, to verify compliance with applicable codes and standards. The system also involves factory inspections, and assessment and surveillance of the listee's quality system.

Product: VULCAN VENT®

The Vulcan Vent® consists of a patented aluminum honeycomb core with 0.20 inch (5 mm) cells, Type 304 Stainless Steel woven mesh, and a proprietary intumescent coating. The vent frame and flange include a $^1/_8$-inch (3.18 mm) wire cloth, and are comprised from minimum 26 GA G90 galvanized steel sheet metal, minimum 26 GA G90 galvanized perforated steel, 9020 Aluminum, minimum 12 oz. Copper, and minimum 26 GA Stainless Steel. The vents come in various widths and lengths and can also be custom sized. See Table 1 for details.

Listee: VULCAN TECHNOLOGIES, INC.

Evaluation: Vulcan Vent® models and sizes listed in Table 1 were evaluated based on a tested non-bearing floor/ceiling assembly consisting of building-material components described in the Assembly Section. The tested assembly evaluated the ability of the Vulcan Vent® products to protect a penetration and not compromise the integrity of a fire-resistance-rated assembly when tested to the following standard (modified):

- CAN/ULC-S101-14, Standard Methods of Fire Endurance Tests of Building Construction and Materials, Underwriter Laboratories of Canada.

Assembly: The floor/ceiling assembly consists of the following components as described below:

1. **WOOD JOISTS—**2-by-10 Douglas fir studs. The joists are fastened to rim joists at each end with four 16d nails. Two 2-by-4 wood bearing plates are stacked and fastened to the rim joists to give clearance for drywall installation. The joists must be spaced 16 inches (406.4 mm) on center, with 8-inch (203 mm) spacing for the exterior gaps.

2. **SUBFLOOR—**The plywood subfloor is nominally $^1/_2$ inch (12.7 mm) thick. A bead of construction adhesive is placed on top of the wood joists. The subfloor panels are then positioned at right angles to the joists. The subfloor must be secured to the joists with 8d nails spaced at 8 inches (203.2 mm) on center. The mass of the subfloor is 1.5 lb/ft^2 (7.32 kg/m^2).

3. **FINISHED FLOOR—**The finished floor consists of tongue-and-groove plywood with a nominal thickness of $^5/_8$ inch (15.88 mm). The finished floor must be secured with 8d nails spaced 8 inches (203.2 mm) on center. The mass of the finished floor is 1.5 lb/ft^2 (7.32 kg/m^2).

4. **CEILING—**The ceiling is lined with USG Type X gypsum board with a nominal thickness of $^5/_8$ inch (15.88 mm). The average board density used in the assembly is 2.2 lb/ ft^2 (10.74 kg/m^2). Panels must be installed perpendicular to the underside of the joists and are fastened with 6d drywall nails spaced 6 inches (152.4 mm) on center and located at maximum 1 inch (25.4 mm) from the side joints and $^3/_8$ inch (9.53 mm) from the end joints. All exposed joints and nail heads are taped and covered with two layers of dry mix joint compound.

5. **VULCAN VENT®—**A 6-inch (152.4 mm) by 14-inch (355.6 mm) Vulcan Vent® flange front. The Vulcan Vent® VFS614 is nominally 7 inches (177.8 mm) long by 15 inches (381 mm) wide and has a vented area of nominally $4^1/_2$ inches (114.3 mm) long by $12^1/_2$ inches (317.5 mm) wide. The vent includes screw holes spaced $14^1/_2$ inches (391.2 mm) apart used to fasten the vent to the joists. A hole must be cut into the gypsum layer to allow the vent to be installed with No. 10 screws at angles to ensure the screw goes through the gypsum board and fastens to the joist. The perimeter of the vent must be lined with a $^1/_8$ inch (3.18 mm) thick and $^3/_4$ inch (19.05 mm) wide intumescent fire door seal. On the unexposed side of the assembly, the vent is surrounded by the subfloor and finished floor.

Findings: The Vulcan Vent® models listed in Table 1, when used as a component of a fire-resistance-rated assembly, meet the one-hour fire-resistance-rated requirements, based on observations during the test for ignition time, burn-through time, temperatures on the unexposed side, and comparison of the standard time-temperature area under the curve; and are based on testing described as a modified version of CAN/ULC-S101 without application of a superimposed load as required by Clause 11.4 of CAN/ULC-S101. The applicable section of the following code editions is as follows:

- *National Building Code of Canada*® 2020 and 2015
  Applicable Sections: Volume 1- Division B: Section 3.1.7.

Identification:

1. Packaging of the Vulcan Vent® carries a label indicating the manufacturer's name and address, the product name, and the listing report number (ESL-1445), and the ICC-ES Listing Mark, as applicable.
2. The report holder's contact information is the following:

   VULCAN TECHNOLOGIES, INC.
   8 COMMERCIAL BOULEVARD, SUITE E
   NOVATO, CALIFORNIA 94949
   (415) 459-6488
   www.vulcantechnologies.com
   info@vulcantechnologies.com

Installation: The Vulcan Vent® shall be installed in accordance with the Vulcan Technologies, Inc. published installation instructions and applicable codes.

Conditions of Listing:

1. The listing report addresses only conformance with the standards and code sections noted above.
2. Approval of the product's use is the sole responsibility of the local code official.
3. The listing report applies only to the materials tested and as submitted for review by ICC-ES.
4. The Vulcan Vent® is produced under a quality control program with inspections by ICC-ES.
5. The Assembly Section describes the assembly (or assemblies) using Vulcan Vent® does meet the requirements for the one-hour fire-resistance-rated test, based on testing as described in the Findings section.

TABLE 1—VULCAN VENT® MODELS AND SIZES[1,2]

MODEL	SIZES	NFVA (in^2)
VSC (Vulcan Continuous Soffit/Inspection/Ridge Vents)	75120 (0.75 inches by 120 inches)	38.800
	15120 (1.5 inches by 120 inches)	75.600
	1120 (1 inch by 120 inches)	50.400
	2120 (2 inches by 120 inches)	100.800
	25120 (2.5 inches by 120 inches)	126.000
	3120 (3 inches by 120 inches)	151.200
	35120 (3.5 inches by 120 inches)	176.400
	4120 (4 inches by 120 inches)	201.600
	5120 (5 inches by 120 inches)	252.000
	6120 (6 inches by 120 inches)	302.400
	418 (4 inches by 18 inches)	30.240
	436 (4 inches by 36 inches)	60.480
	472 (4 inches by 72 inches)	120.960
	618 (6 inches by 18 inches)	45.360
	636 (6 inches by 36 inches)	90.720
	672 (6 inches by 72 inches)	181.440
VE (Vulcan Eave Vents)	3514 (3.5 inches by 14 inches)	25.570
	5514 (5.5 inches by 14 inches)	46.039
	7514 (7.5 inches by 14 inches)	66.502
	3522 (3.5 inches by 22 inches)	41.318
	5522 (5.5 inches by 22 inches)	74.371
	7522 (7.5 inches by 22 inches)	107.425
VER (Vulcan Eave Vents, Round)	2 (2 inches)	1.543
	2M (2 inches)	1.962
	3 (3 inches)	3.450
	3M (3 inches)	4.657
	4 (4 inches)	6.230
	4M (4 inches)	8.498
	6M (6 inches)	19.621
VG (Vulcan Gable Vents)	148 (14 inches by 8 inches)	36.281
	1412 (14 inches by 12 inches)	55.687
	1418 (14 inches by 18 inches)	92.812
	1424 (14 inches by 24 inches)	130.781
VDHR (Vulcan Dormer Vents)	918 (9 inches by 18 inches)	46.875
	1224 (12 inches by 24 inches)	86.453
VDLR (Vulcan Dormer Vents)	419 (4 inches by 19 inches)	62.054
VFS (Foundation/Soffit Vents)	414 (4 inches by 14 inches)	23.875
	614 (6 inches by 14 inches)	42.975
	814 (8 inches by 14 inches)	62.075
	422 (4 inches by 22 inches)	40.110
	622 (6 inches by 22 inches)	72.198
	822 (8 inches by 22 inches)	104.286
VM (Vulcan Matrix)	1224 (12 inches by 24 inches)	220.032
	1424 (14 inches by 24 inches)	256.704
	2424 (24 inches by 24 inches)	440.064
	4824 (48 inches by 24 inches)	880.128
VSB (Subbase Flashings)	1212 (12 inches by 12 inches)	113.328
	8586 (8.5 inches by 8.5 inches)	56.861
	7519 (7.5 inches by 19 inches)	112.147

For **SI:** 1 inch = 25.4 mm

[1]Available flange types: **FF** (Flange Front), **FB** (Foam Back), **FC** (Fiber Cement), **R** (Retro), **SL** (Single Leg), **M** (Mesh), **RT** (Reverse Tab), **S** (Stucco), **SMCXX** (Stucco Milcor), **IF** (Inspection Flange), **RV** (Ridge Vent).
[2]NFVA = Net Free Ventilation Area and is based on the manufacturer's method of calculation.