

# Acoustical Smoke Vent

## Installation Instruction, Operation and Maintenance

Item Number:

26376

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Date

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### Overview:

Acoustical smoke vents are designed and used to provide emergency smoke and heat ventilation used in theater applications, as required by International Building Code section 410 for Stages and Platforms. Prompt venting designed to work with safety curtains is vitally necessary to the safe evacuation of occupants and effective fire-fighting conditions. Acoustical smoke vent are used primarily above stages and platforms in performing arts theatres, school auditoriums, churches, casinos, etc.

Acoustical smoke vents are designed and are rated to a Sound Transmission Class (STC) of 45 and the Outdoor-Indoor Transmission Class (OITC) value of 37. ASTM: E90(99) and E1332(94) test procedures outline methodology to determine transmission loss values.

The following is a general instruction for installing, operating and maintaining smoke vent products. These are recommended general guidelines only. Locally accepted roofing and sealing practices and procedures should be followed to ensure the ultimate weather-ability of vents installed into the various different types of roofing systems used.

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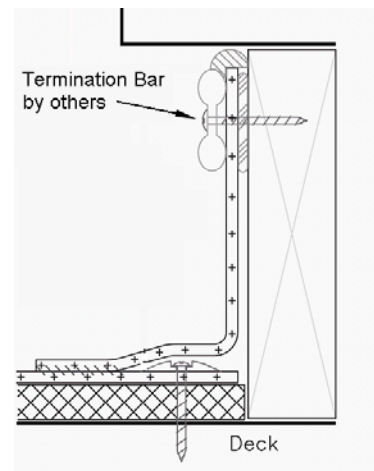
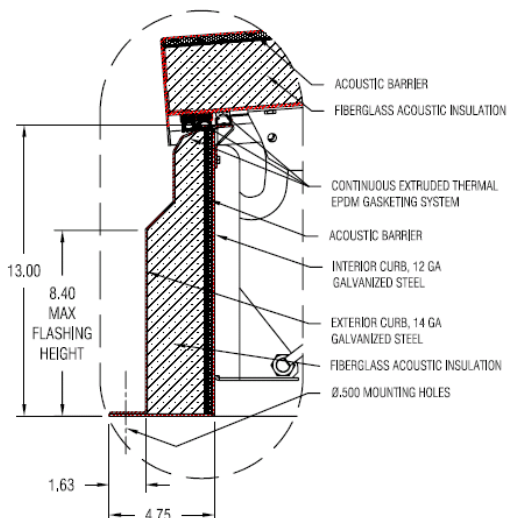
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### Installation:

**Important-** Prior to installing the smoke vent over the existing roof opening, be sure to remove the internal plastic twist tie used to temporarily keep the covers securely connected to the latch during shipping. These plastic twist ties hold the hooks on the door to the internal pyrolatch. The manual pull handles will not open the doors until these ties are removed. Use caution, since the doors are under spring pressure.

1. Place the smoke vent over the existing opening in the roof. The roof rough opening dimensions are equal to the vent dimensions as measure from the inside curb to inside curb. For example a 48" x 96" smoke vent will have a roof rough opening of 48" x 96".
2. Mark the pre-drilled 1/2" diameter holes from the mounting flange through to the roof deck or a concrete curb. Drill roof deck or concrete curb for installation of anchors or other fasteners, provided by others. Bolt or otherwise fasten roof hatch curb flange to roof deck using 3/8" bolts w/ washers.
3. Mount cant strips, by others, surrounding the roof curb. The size is to be determined by a roofing installer, based on the roofing material to be provided.
4. Install roofing material up to and surrounding the roof curb. Termination bars may be used to terminate roofing material to the curb. Lap and seal all joints in roofing material to provide a weather-tight seal.
5. Do not mount any features such as termination bars or grounding rods above the max flashing height of 8.4". This area is clearance space for the doors when in the open position. Damage will occur if there is any interference.
6. Finally, open the smoke vent doors by pulling the exterior manual pull handle. Remove the plastic shipping cones in each corner on the curb. The plastic cones are used to prevent gasket over-compression during shipping and must be removed to ensure a weather tight seal between the smoke vent lids and curbs. It may take two people to close the doors and ensure proper latch engagement



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### Operation

Vents are designed and built for years of dependable smoke venting. To meet the demands of an exterior application, the doors are manufactured from steel. The curb and cover are insulated and have a continuous extruded EPDM gasket that creates a weather resistant seal. The smoke vents come standard with a finished baked on powder coat paint that offers the best corrosion protection in the industry. It **does not** require field painting. If field painted, all components parts must be covered. Painted component parts, especially moving parts, will void the warranty.

**Pyrolatch:** Positive hold release mechanism designed to hold the covers closed. Manually released by pull cables or thermally released by fusible melt out link.

**Spring/Hinge:** Concealed, tamperproof, heavy-duty spring/hinge packs integrated with counter balance gas springs and shock absorber to automatically open covers against a 10psf snow load.

**Hold Open Arm:** Locking hold open arm automatically engages and locks when the door fully opens. Pull the red vinyl grip handle to unlock and safely close the door.

1. Smoke vents are designed to **open manually** via pull handles located on the exterior and interior of the smoke vent. Typically the internal pull cable is extended and rigged down to floor level.
2. Smoke vents are designed to **open thermally** when fusible links melt at link temperatures of 165F, 212F, 286F, 350F, etc. to work in coordination with sprinkler system.
3. Optional: Smoke vents are designed to **open electrically and thermally** with a received signal from a fire alarm or smoke detection signal. (24VDC or 115VAC McCabe Links)

### Maintenance:

-Vents should be manually operated in accordance with local fire safety precautions. At a minimum, the vents should be opened once a year to check proper component performance.

-Lubricate moving parts such as hinges and latches with a silicone spray lube as required to maintain a smooth opening and closing of the door. Do not over grease. Do not use regular a lubricating oil that can attract dust and grit.

-Non-moving parts can be cleaned with a mild soap or dishwashing detergent and water solution.

-Gaskets can be cleaned with a clean, damp, lint-free cloth. Do not apply mineral oils, vinyl dressings, or other lubricants to the gasket as they can cause the gasket to break down over time.

### Fusible link ambient temperature rating –

The fusible link should be specified with a temperature rating greater than the maximum ambient exposure temperature that will be seen at the installation. For example, an “ordinary” fusible link

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rated at 165 degrees F has a maximum ambient exposure temperature rating of 100 degrees F. If this fusible link is routinely exposed to ambient temperatures over 100 degrees F, it is liable to separate. Select a fusible link rated at 212 degrees F (or greater) for this type of application. See table below to find a fusible link temperature range compatible with an expected or measured ambient temperature. This is in accordance with UL guidelines.

Temperature classification	Temperature ratings		Maximum ambient temperature	
	Degrees F	(Degrees C)	Degrees F	(Degrees C)
Low	125 – 130	(51 – 54)	90	(32)
Ordinary	135 – 170	(57 – 77)	100	(38)
Intermediate	175 – 225	(79 – 107)	150	(66)
High	250 – 300	(121 – 149)	225	(107)
Extra high	325 – 375	(163 – 191)	300	(149)
Very extra high	400 – 475	(204 – 246)	375	(191)
Ultra high	500 – 575	(260 – 302)	475	(246)

**Fusible link inspection** – The following guidelines are recommended for facility managers or other end users of smoke vent products.

- Inspect fusible links at least annually for evidence of corrosion, stress/strain or build-up of particulate matter.
- Fusible links that have been painted must be replaced as soon as the condition is observed.
- Fusible links coated with paper dust, fiberglass hairs or similar particulate matter should be cleaned. If cleaning with air pressure does not remove such matter, replace the links or contact either the Authority Having Jurisdiction or the fusible link manufacturer for guidance.

-If any questions arise during the operation or maintenance of the products, please feel free to call our toll-free number for assistance, 1-800-547-2635.