

# HEAT & SMOKE VENT INSPECTION AND MAINTENANCE PACKET

A firefighter is positioned on a tall, silver metal aerial ladder, spraying a powerful stream of water into a large fire. The fire is intense, with thick, dark smoke billowing upwards and filling the background. The firefighter is wearing full protective gear, including a helmet and oxygen tank. The ladder extends from the bottom left towards the top right of the frame.

Fire protection for your warehouse and industrial properties. Shedding light on the importance of proper routine inspection and maintenance of your heat and smoke vents as per NFPA 204.

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Presented by: **Skyco**  
SKYLIGHTS

# Introduction

Heat and Smoke Vents are designed for emergency smoke and heat ventilation and may incorporate translucent domes for natural daylighting. They are life saving devices and should be inspected routinely to ensure they operate in the event of a fire. The following pages outline proper smoke vent inspection and maintenance as per NFPA 204. This informational packet serves as guidance for facilities manager and building owners.

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- Inspection & Maintenance Details (Press Release)
- Smoke Vent Inspection Form
- New Smoke Vent Info Sheet





## Inspecting and Maintaining Heat and Smoke Vents

In a recent [Roofing Market Survey](#) conducted by Skyco Skylights, “the vast majority of commercial roofers estimated 40 to 60% of commercial low-slope roofs are due for re-roof or significant maintenance.” Over half of those roofs have outdated skylights and smoke vents in desperate need of replacement.

Fire Marshals and Fire Inspectors are now utilizing the NFPA 204 Standard for Smoke and Heat Venting, which is referenced in the International Building Code (IBC) and International Fire Code (IFC). [Smoke vents](#) are a life-safety device for occupants and fire fighters, designed to automatically release the smoke, heat, and hot gases from a burning building in the event of a fire.

Specifically, the NFPA 204, Chapter 12, Inspection and Maintenance Section is the section that Fire Marshals and Fire Inspectors are now following, which provides mandatory guidelines for annual smoke vent inspections.

As per NFPA 204 Standard for Smoke and Heat Venting, “Smoke and heat venting systems and mechanical smoke exhaust systems shall be inspected and maintained in accordance with Chapter 12 [Inspection and Maintenance].” Proper inspection and maintenance is paramount for building owners and facility managers, otherwise fines and/or replacement may be costly.

The following is an outline of scheduling, inspection and maintenance of existing smoke vents as per NFPA 204.

**Requirements:** Mechanically opened vents shall be provided with manual release device. Typically, a cord and handle is used to manually activate smoke vent. This will be used to facilitate the inspection and/or for Fire Fighters to ventilate a burning building quick and safe.

**Inspection Schedule:** Annual inspection schedules for each smoke vent shall be written out detailed with dates and procedures. Any special mechanisms, such as gas shocks, shall be inspected individually each year or as specified by the manufacturer.

### Details to Note

- Changes in appearance
- Damage to any components
- Fastening security
- Weather tightness
- Adjacent roofing and flashing condition
- Any deficiencies
- Any other pertinent items

### Inspection Actions and Details

- Doors shall be activated by pulling on manual release. Latches should immediately release smoothly and open moving through its designed travel. Doors should open fully without assistance or interruption which would indicate a faulty piston, sticking weather seal, or corroded bearings.
- With doors open, inspect the restraining cable system. Cabling should have ample tension and no frays. Observation shall be made of the whip and travel path of cable, noting any possible obstruction that would delay release of the doors. Any interference shall be corrected by removing obstruction and noted immediately.
- All operating levers, latches, hinges and weather-sealed surfaces shall be examined to determine conditions, such as deterioration and accumulation of foreign materials. An operational test shall be performed after removal or correction of any issues.
- Inspect the fusible link to determine the date and temperature rating stamped on each fusible link. Fusible links have a life expectancy of 5 years. If during the inspection the fusible link is 5 years or older, it must be replaced with a new fusible link with the identical temperature rating.



- Temperature setting shall be set at a temperature that does not interfere with any sprinkler or first response systems. i.e. Temperature must be set higher than temperature response setting for sprinklers so sprinklers can engage as designed.

**Reporting:** Upon completion of the inspection, an inspection report shall be provided to the Facilities Manager, and maintained on file by the local Fire Inspector. Each vent shall also have an inspection tag attached, indicating date, who inspected and results of inspection.

**Vent Inspection Tag**

Number of Vents: \_\_\_\_\_

Date: \_\_\_\_\_

By: \_\_\_\_\_

Found Satisfactory

Repair in Progress

<p><b>Smoke Vent Inspection Form</b></p> <p>Building Equipment Summary: _____</p> <p>Smoke Vent Locations: _____          _____          _____          _____</p> <p>Total number of vents: _____</p> <p>Type:</p> <p><input type="checkbox"/> Single Door Vent</p> <p><input type="checkbox"/> Dual Door Vent</p> <p>Releasing Mechanism:</p> <p><input type="checkbox"/> Fusible Link</p> <p><input type="checkbox"/> Motor</p> <p><input type="checkbox"/> Other</p> <p><input type="checkbox"/> Fusible link replaced</p> <p>Date of link replacement: _____</p> <p>Fusible links are to be replaced if painted or show unusual buildup or discoloration. They are good for approximately 5 years.</p>	<p>Inspection Checklist:</p> <p>Overall Condition (Inside &amp; Outside): (Check if satisfactory)</p> <p><input type="checkbox"/> Door seals in tack, no leaks</p> <p><input type="checkbox"/> Hinges clean, no problematic paint or rust</p> <p><input type="checkbox"/> Door panels clean, no rust</p> <p><input type="checkbox"/> Area is clear to allow air passage</p> <p><input type="checkbox"/> No foreign restraints or cable installed</p> <p><input type="checkbox"/> Fusible link clean and within date</p> <p><input type="checkbox"/> Hardware examined and in good condition</p> <p><input type="checkbox"/> Cables or chains properly tensioned and are not stretched</p> <p><input type="checkbox"/> Guides, bearings, springs and hinges well lubricated</p> <p><input type="checkbox"/> Doors satisfactorily operated to full open position</p> <p><input type="checkbox"/> Hang inspection tag at location</p> <p>Comment of service provided or needed:          _____          _____          _____</p> <p>Complete new form and hang if repair performed</p> <p>Service provided by: _____</p> <p style="text-align: right;">Date: _____</p>
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**Maintenance:** It's highly advised to consult a skylight and smoke vent professional when it comes to any maintenance on units. Manufacturers like [Skyco Skylights](#) in Costa Mesa, CA are able to direct maintenance on various items to address. In most cases, a new unit is the best and safest option. If you choose to perform maintenance on your units always make sure every item works 100% and do not conflict with other parts. It should be noted that dome only change outs on smoke vents may void the UL Listing and create unintentional liability for the building owner.

Smoke vents are life saving devices. A regular, diligent inspection and upkeep program is needed to ensure the units perform as designed. It is up-to building owners and facilities managers to keep their units in working shape. Inspectors will periodically check in and issue orders to replace or fix. If you have any questions or concerns about the state of your smoke vents please contact Skyco Skylights at 949-629-4090.

[Skyco Skylights](#) is an industry leading industrial and custom structural skylight manufacturer located in Costa Mesa, CA. offering a full range of products including Industrial Skylights, UL Listed Smoke Vents, Custom Structural Skylights, Photovoltaic Skylights & Canopies, rooftop safety and security products. Each product comes with a 10 year warranty. For additional information, call 949-629-4090 or email [info@SkycoSkylights.com](mailto:info@SkycoSkylights.com)

# Smoke Vent Inspection Form

## Inspection Checklist:

Building Equipment Summary:

Overall Condition (Inside & Outside):

Smoke Vent Locations:

(Check if satisfactory)

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- Door seals in tack, no leaks
- Hinges clean, no problematic paint or rust
- Door panels clean, no rust
- Area is clear to allow air passage
- No foreign restraints or cable installed
- Fusible link clean and within date
- Hardware examined and in good condition
- Cables or chains properly tensioned and are not stretched
- Guides, bearings, springs and hinges well lubricated
- Doors satisfactorily operated to full open position
- Hang inspection tag at location

Total number of vents: \_\_\_\_\_

Type:

- Single Door Vent
- Dual Door Vent

Comment of service provided or needed:

Releasing Mechanism:

- Fusible Link
- Motor
- Other
  
- Fusible link replaced

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Date of link replacement: \_\_\_\_\_

Complete new form and hang if repair performed

Fusible links are to be replaced if painted or show unusual buildup or discoloration. They are good for approximately 5 years.

Service provided by:

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Date: \_\_\_\_\_

# Skyco

## SKYLIGHTS

Lighter, stronger performance

Fire protection and natural daylighting go hand in hand



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949-629-4090

# Skyco SKYLIGHTS

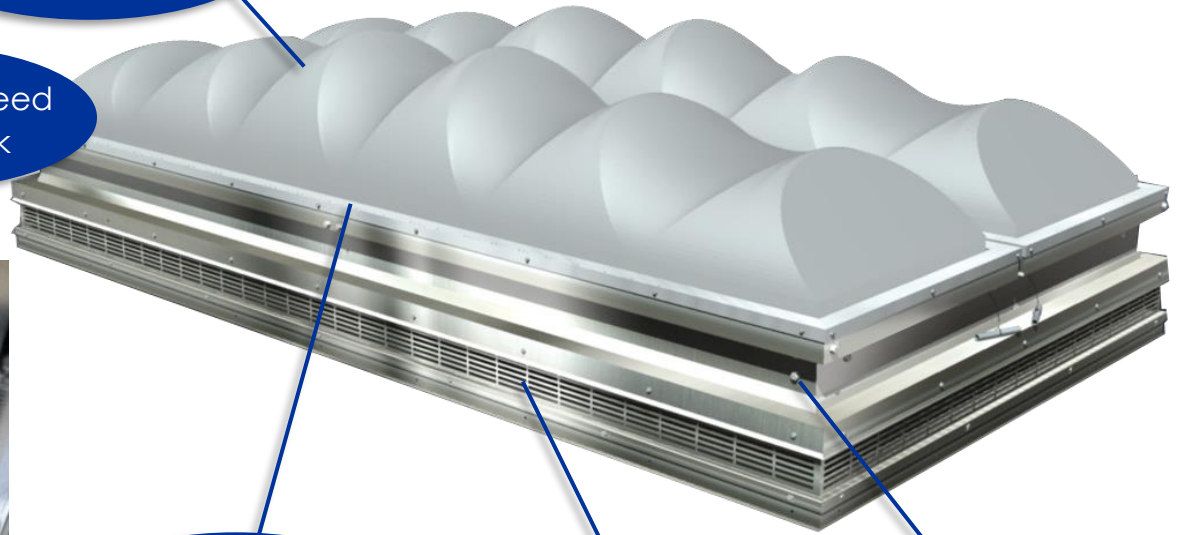
Polycarbonate domes with unique Skywave design

Dampening speed control shock

Advanced capping system

Extreme weather rated VORTEX Venting Base (optional)

Leak-free fasteners with Neoprene washers



## Details:

- UL No. E472388
- Meets standards for Int. Fire Code and CA Fire Code
- 800 lbs. Impact Test
- Light weight - 146 lbs. (without optional VORTEX base)
- High wind rated
- Curb Mounted or Self Flashing Available
- 10 Year Pass Through Warranty

## VORTEX Venting Base (optional):

- Extreme weather rated design
- Neoprene washers
- Rain shield comes standard
- Superior intake and exhaust
- Optional: Dust Filter or Insect Screen



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