Active Ventilation Products, Inc., P.O. Box 1521, Newburgh, New York 12551-1521
PHONE: 800-247-3463; FAX: 845-562-8963; WEBSITE: www.roofvents.com

SECTION 07726

COMBINATION SKYLIGHT AND PASSIVE EXHAUST VENTILATOR

******* Active Ventilation Products, Inc. manufacturers passive and powered exhaust ventilators, tube skylights, and combination skylight and ventilator units.**

This guide can be used to prepare a specification for Aura Skylight Ventilator, a combination polycarbonate skylight and roof mounted, passive exhaust ventilator with no moving parts.

The specification section is organized by placing information in three standard parts:

PART 1 - GENERAL **Describes administrative and procedural requirements.**

PART 2 - PRODUCTS **Describes materials, products, and accessories to be incorporated into the construction project.**

PART 3 - EXECUTION **Describes how the products will be installed at the construction site.**

Throughout this product guide specification, references are made to other specification sections that might be contained in the project manual. These references are presented as examples and coordination reminders. For each project, these references will need to be revised to reflect actual sections being used.

Within the specification text, Imperial dimensions are presented first in brackets followed by System International Metric (SI) equivalents also in brackets. Depending on project requirements, either the Imperial or the SI metric equivalents will need to be deleted.

The specifier will need to edit this product specification for a specific project to reflect the options and applications being used. The guide section has been written so that most editing can be accomplished by deleting unnecessary requirements and options. Options are indicated by [ ]. Notes to assist the specifier in selecting options and editing the specification guide are printed in bold and indicated with ***. For final editing, all brackets and notes will need to be deleted from the guide.**

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PART 1 - GENERAL

1.1 SUMMARY

A. Section includes: Roof mounted combination skylight and passive exhaust ventilator with no moving parts including duct, adjustable ceiling vent and light diffuser assembly, [roof mounting flanges] [extension collars] [roof adapters].

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******* Aura Skylight Ventilator can be installed on asphalt shingle, clay and concrete tile, metal panel, and built-up and single ply membrane roofs. Select appropriate paragraph from the following to reflect project conditions. *******

B. Section 07310 - Shingles: Asphalt shingle roofing to receive skylight ventilator.

C. Section 07320 - Roof Tiles: [Clay] [Concrete] tile roof system to receive skylight ventilator.

D. Section 07410 - Metal Roof Panels: Metal roof system to receive skylight ventilator.

E. Section 07500 - Membrane Roofing: [Built-up] [Single ply] membrane roofing to receive skylight ventilator.

1.2 PERFORMANCE REQUIREMENTS

******* Amount of air exhausted by Aura Ventilator depends on wind speed and ventilator size. Refer to Active Ventilation Products literature for air quantities exhausted by specific models. *******

A. Skylight ventilator has been tested to exhaust air from [_____] [inches] [mm] diameter ventilator:

1. At [7.4 MPH] [11.9 KPH]: [_____] [CFM] [CMM].

2. At [9.8 MPH] [15.8 KPH]: [_____] [CFM] [CMM].

3. At [11 MPH] [17.7 KPH]: [_____] [CFM] [CMM].

1.3 SUBMITTALS

A. Provide in accordance with Section 01330 - Submittal Procedures:

1. Product data for skylight ventilator, ceiling vent and light diffuser assembly, [collar extensions] [roof adapters] [dampers]. Include data showing compliance with Paragraph 1.2.

2. Shop drawings: Indicate dimensions, construction, and installation details.

3. Manufacturer's installation and maintenance instructions.

4. Copy of warranty required by Paragraph 1.4 for review by Architect.

1.4 WARRANTY

A. Provide under provisions of Section 01780 - Closeout Submittals: Lifetime warranty to initial owner to cover defects in skylight ventilator materials and workmanship.

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PART 2 - PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

A. Active Ventilation Products, Inc.

1. Address:

P.O. Box 1521
Newburgh, New York 12551-1521

2. Telephone: 800-247-3463 or 845-565-7770

3. FAX: 845-562-8963

4. Website: www.roofvents.com

5. E-mail: roofvents@aol.com

B. Requests to use equivalent products of other manufacturers shall be submitted in accordance with Section 01630 - Product Substitution Procedures.

2.2 COMBINATION SKYLIGHT AND PASSIVE EXHAUST VENTILATORS

******* Various models of Aura Skylight Ventilator are manufactured by Active Ventilation Products, Inc. ranging in size from 4 to 48 inches (102 to 1219 mm) inside diameter. Model number refers to diameter of skylight ventilator. For example No. ASV-10 has 10 inches (254 mm) inside diameter. *******

A. Type: Roof mounted, circular, passive exhaust ventilator with skylight top connected by flexible tube to ceiling vent and light diffuser assembly; Aura Skylight Ventilator Model No. [ASV-4] [ASV-6] [ASV-8] [ASV-10] [ASV-12] [ASV-14] [ASV-16] [ASV-18] [ASV-20] [ASV-24] [ASV-30] [ASV-36] [ASV-42] [ASV-48] as manufactured by Active Manufacturing Products, Inc..

B. Materials:

******* Skylight ventilator frame is provided as mill finished aluminum or with powder paint coating. *******

1. Skylight frame: Spun aluminum with [electrostatically applied powder paint coating. Color selected from manufacturer's standard range.] [mill finish.]

2. Skylight ventilator frame: Heavy gauge aluminum with [electrostatically applied powder paint coating. Color selected from manufacturer's standard range.] [mill finish.]

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3. Skylight: Clear, ultraviolet resistant polycarbonate.

4. Ceiling vent assembly: Aluminum frame with electrostatically applied white powder paint coating and frosted polycarbonate light diffuser.

5. Duct: Flexible aluminum tube.

6. Upper and lower connection rings: Aluminum with mill finish.

C. Construction: Combination unit consisting of:

1. Skylight ventilator: Two concentric cylinders of slotted vertical vanes. Inside cylinder connects to collar and roof mounting flange. Top of vent is polycarbonate. Area between inside and outside cylinders is open on bottom. Skylight ventilators with moving parts or electrical operation are not acceptable.

2. Collar and roof mounting flange.

3. Duct joining skylight ventilator and ceiling assembly.

4. Ceiling assembly: Adjustable circular vent with louvers. Center of ceiling assembly is frosted polycarbonate circular light diffuser.

******* Aura Skylight Ventilator is wind driven without any moving parts. It is noiseless and maintenance free. It does not require electricity. *******

D. Operation: Ventilator is wind driven, noiseless, and maintenance free. Outside air moving against vanes of outer cylinder is directed to create circular air flow inside ventilator. Vanes of inner cylinder face in same direction as air movement created by outside cylinder. Air movement creates venturi effect which produces negative pressure and pulls air from within [building] [attic] [_____] expelling heat and moisture. Clear skylight top allows for entry of natural light.

******* Refer to Active Ventilation Products literature for ventilator dimensions, free vent area, duct size, and other attributes. Edit the following paragraphs to reflect selected model. *******

E. Size:

1. Inside diameter: [_____] [inches] [mm].

2. Outside diameter: [_____] [inches] [mm].

3. Ventilator height: [_____] [inches] [mm].

4. Duct and ceiling light diffuser: [_____] [inches] [mm] diameter.

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F. Net free vent area: [_____] [square inches] [square mm].

******* Various roof mounting flanges are provided to accommodate type of roofing system. Flanges are either square or round. Refer to Active Ventilation product literature for flange shape and size for specific models. Edit the following paragraph to reflect project requirements. *******

G. Roof mounting flange: [_____] [inches] [mm] [square] [diameter] flange fabricated from [[0.025 inch] [0.6 mm] aluminum and designed to accommodate [shingle] [membrane] roofing.] [dead soft aluminum and capable of being formed to [clay] [concrete] roof tiles.]

******* Aura Skylight Ventilator can be mounted directly on roof or one or more collar extensions can be added to provide a ventilator stack ranging in height from 1 to 18 inches (25 to 457 mm). Include the following paragraph if collar extensions are required. *******

H. Collar extensions: Equip skylight ventilator with extension collars to provide [_____] [inches] [mm] high stack.

******* Aura Skylight Ventilator can be installed on built-up, single ply, shingle, tile, and metal roofs. Both flat and pitched roofs are suitable substrates although adapters may be required for steep pitches and some roof profiles. Aura Skylight Ventilator can be used with or without a suspended ceiling. Contact Active Ventilation Products, Inc. for special mounting conditions. Edit the following paragraph for project conditions. *******

I. Roof adapters: Provide aluminum adaptor to accommodate [[_____] degrees roof pitch] [[_____] roof profile].

PART 3 - EXECUTION

3.1 PREPARATION

A. Coordinate provision of skylight ventilator with:

1. Roof system specified in Section [_____] - [_____] to ensure compatibility of substrate to receive skylight ventilator.

2. Ceiling system specified in [Section 09260 - Gypsum Board Assemblies] [Section 09510 - Acoustical Ceilings] to ensure proper mounting of ceiling vent assembly.

B. Examine site conditions and verify that structural supports and openings are properly sized, prepared, and ready to receive skylight ventilator.

3.2 INSTALLATION

A. Install in accordance with manufacturer's instructions and approved shop drawings. Coordinate with installation of roofing system, curbs, and flashings to ensure weathertightness.

B. Ceiling diffuser installation:

1. Accurately cut opening in ceiling using circular template. Coordinate location with skylight ventilator location.

2. Ensure wood blocking and supplemental supports are provided for support and attachment of ceiling vent assembly.

3. Assemble flexible duct and ceiling vent assembly with connector ring. Push duct through ceiling opening and securely anchor ceiling assembly and duct to blocking.

C. Locate skylight ventilator on roof as indicated on Drawings. Ensure opening does not conflict with roof framing members. Accurately cut opening in roof substrate using template and pilot hole.

******* Depending on type of roof system; nailers, rigid insulation, or rigid roof board may be required. *******

D. Install [preservative treated wood nailers] [rigid board roof insulation] [rigid roof board] as detailed on Drawings and approved shop drawings.

E. Pull flexible duct taunt through skylight ventilator opening. Cut off excess duct as required. Ensure duct is clear and light passage is direct. Attach to roof substrate with connector ring.

******* Include the following paragraph if <u>Aura Skylight Ventilator</u> is installed on asphalt shingle roof. *******

F. Roof mounting flange installation on shingle roof:

1. At location of opening, ensure roofing nails are removed. Roll back up-slope shingles.

2. Apply sealant to bottom of roof mounting flange and between roof shingles to receive skylight ventilator. Slide roof flange under up-slope shingles such that shingles cover one half of flange.

3. Anchor roof mounting flange securely to roof structure with 4 minimum fasteners per side. If head is removed, provide temporary cap over flange opening.

4. Install sealants to fasteners and shingle edges to achieve weathertightness.

******* Include the following paragraph if Aura Skylight Ventilator is installed on clay or concrete tile roof. *******

G. Roof mounting flange installation on [clay] [concrete] tile roof:

1. Prior to installation of roof tile, install lower flanged curb flashing to roof substrate over opening with appropriate fasteners.

2. Install sealants to fasteners and flashing edges to achieve weathertightness.

3. After roof tile is installed to level of skylight ventilator and covers down-slope side of lower flashing, push skylight ventilator mounting flange onto lower flashing.

4. Anchor up-slope side of dead soft aluminum roof mounting flange to roof substrate.

5. Install remaining tiles over up-slope portion of roof mounting flange. Form bottom portion of dead soft aluminum flange to profile of roof tiles.

6. If head is removed, provide temporary cap over roof mounting flange opening.

******* Include the following paragraph if Aura Skylight Ventilator is installed on metal panel roof system. *******

H. Roof mounting flange installation on metal panel roof:

1. Ensure openings are centered between ribs of metal roof panel and there is sufficient flat surface to accommodate roof mounting flange.

2. Apply butyl tape sealant to bottom of roof mounting flange around complete perimeter. Use nylon spacers between roof panel and flange to eliminate sealant migration due to compression.

3. Fasten roof mounting flange with self-tapping hex head coated fasteners with metal washer and neoprene sealing washer of size and spacing as recommended by manufacturer.

4. If head is removed, provide temporary cap over roof mounting flange opening.

******* Include the following paragraph if Aura Skylight Ventilator is installed as part of built-up membrane roofing system. *******

I. Roof mounting flange installation on built-up membrane roofing system:

1. Install roof mounting flange as part of built-up roof membrane. If head is

removed, provide temporary cap for flange opening.

2. Set mounting flange in plastic roofing cement.

3. Securely anchor flange to roof substrate with fasteners of type, size, and spacing recommended by manufacturer.

4. Install flexible base flashing over roof flange as part of roofing operation.

******* Include the following paragraph if Aura Skylight Ventilator is installed as part of single ply membrane roofing system. *******

J. Roof mounting flange installation on single ply membrane roofing system:

1. Install roof mounting flange as part of single ply membrane roofing. If head is removed, provide temporary cap for flange opening.

2. Trim corners of mounting flange to provide smooth radius without sharp points.

3. Apply butyl tape sealant or roofing mastic to bottom of roof mounting flange. Set mounting flange over roof opening onto single ply roof membrane.

4. Securely anchor flange to roof substrate with fasteners of type, size, and spacing recommended by manufacturer.

5. Install piece of single ply roofing over mounting flange. Secure with adhesive, heat welding, or other procedure as part of roofing operation.

K. After roof system installation is complete, remove temporary cap if head was removed, and install ventilator collar onto mounting flange. Attach with fasteners and apply sealant to collar and flange joint.

L. Wash exposed polycarbonate and aluminum surfaces with solution of mild detergent and warm water applied with soft, clean cloths. Do not use abrasive materials.

END OF SECTION