SECTION 07 72 00

ELECTRICAL POWER ATTIC EXHAUST VENTILATOR

This is a CSI Three-Part Specification using CSI MasterFormat 2004-2010 Section Numbers and Titles. This specification must be edited to delete types of roof accessories not required on a particular project. Also, for your guidance in editing this master guide specification we have put in **Notes** in asterisks' and italicized to help guide you in your product selection. You can then delete these notes once editing is completed.

This section is based on the Lomanco Incorporated line of roofing ventilation. For more information on Lomanco Inc. products and availability, or for the name of your local Lomanco, Inc. representative, contact us at the following: Lomanco, Incorporated, 2101 West Main Street, P.O. Box 519, Jacksonville, Arkansas 72076, 1-800-643-5593 phone, (501) 982-1258 fax; or visit our website at: www.lomanco.com.

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

Note: Delete roof accessories not used in project.

1. Electrically powered attic exhaust ventilators. ***Note: Electrically powered attic exhaust vents must be used in conjunction with adequate intake vents for proper operation; CSA Certified model available for Canada. Please note to work with certified electrician to install this ventilator in compliance with manufacturer's written instructions for proper operation***

2. Accessories.

B. Related Sections:

***Note: Coordinate sections listed below with actual project requirements. ***

1. **Section 07 31 13 - Asphalt Shingles**
2. **Section 07 41 00 - Standing Seam Metal Roofing**
3. **Section 07 51 13 - Built-Up Asphalt Roofing**

4. **Section 07 52 13 - Modified Bituminous Membrane Roofing**
5. **Section 07 53 23 - EPDM Roofing**
6. **Section 07 54 19 - PVC Roofing**
7. **Section 07 54 23 - TPO Roofing**
8. **Section 07 61 00 - Sheet Metal Roofing**
9. **Section 07 60 00 - Sheet Metal Flashing and Trim**
10. **Section 07 71 00 - Roof Specialties**
11. **Section 07 90 00 - Joint Sealants**
12. **Mechanical; Division 22.**
13. **Electrical; Division 26.**

1.3 REFERENCE STANDARDS

Note: Delete unnecessary references not used in project.*

A. American Society for Testing and Materials:

1. **ASTM B 209/B 209M - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate.**

2. **ASTM A 123/A 123M - Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.**

B. National Fire Protection Association:

1. **NFPA 70 - National Electrical Code.**

C. Institute of Electrical and Electronics Engineers:

1. **IEEE C2 - National Electric Safety Code.**

D. Underwriters Laboratories Inc.:

1. **UL 507 - Electric Fans.**

1.4 PERFORMANCE REQUIREMENTS

A. General Performance: Electrically powered attic exhaust ventilators shall withstand exposure to weather and resist thermally induced movement without failure, rattling, leaking, or fastener disengagement due to defective manufacture, fabrication, installation, or other defects in construction.

1.5 QUALITY ASSURANCE

A. Certifications:

1. Passed Miami-Dade County test requirements for structural uplift and wind driven rain infiltration. Miami-Dade County Approved - NOA No.: 11-0602.02 expires 08/017/2016.

2. Texas Department of Insurance "Windstorm" Approved - Product Evaluation Report No.: RV-22.

B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

C. Comply with NFPA 70.

D. Comply with IEEE C2, "National Electrical Safety Code."

E. Comply with UL 507, "Electric Fans".

1.6 ACTION SUBMITTALS

A. Product Data: For electrically powered attic exhaust ventilator indicated.

B. Sample: For each exposed product and for each color and texture specified, prepared on Samples of size to adequately show color.

1.7 INFORMATIONAL SUBMITTALS

A. Coordination Drawings: Roof plans, drawn to scale, and coordinating penetrations and roof-mounted items. Show the following:

1. Size and location of electrical powered attic exhaust ventilator specified in this Section.
2. Method of attaching electrical powered attic exhaust ventilator to roof or building structure.
3. Other roof mounted items including mechanical and electrical equipment, ductwork, piping, and conduit.

B. Product Certificates: For specified electrical power attic exhaust ventilator, from manufacturer.

1.8 CLOSEOUT SUBMITTALS

A. Operation and Maintenance Data: For electrical powered attic exhaust ventilator specified, include in operation and maintenance manuals.

1.9 DELIVERY, STORAGE AND HANDLING

A. Store materials in a dry, well-ventilated, weathertight place.

1.10 COORDINATION

Note: Coordinate with your project roofing requirements. *

A. Coordinate layout and installation of electrical powered attic exhaust ventilator with roofing membrane and base flashing and interfacing and adjoining construction to provide a leakproof, weathertight, secure, and noncorrosive installation.

B. Coordinate dimensions with rough-in information or Shop Drawings of equipment to be supported.

1.11 WARRANTY

A. Manufacturer's standard limited 5-year warranty for materials and workmanship.

PART 2 - PRODUCTS

2.1 MANUFACTURER

A. Basis of Design: Lomanco, Incorporated, 2101 West Main Street, P.O. Box 519, Jacksonville, Arkansas 72076, 1-800-643-5593 phone, (501) 982-1258 fax, www.lomanco.com is specified.

2.2 ELECTRICALLY POWERED ATTIC EXHAUST VENTILATOR

A. Model "LOMANCOOL 2000TH Power Ventilator".

B. Description: Pan-Style, self-flashing, roof mounted, electrically powered attic exhaust ventilator with one-piece dome, one-piece base, and one-piece continuous rain shield. Brackets riveted to rain shield and base, dome attached to brackets with screws, and screen is secured in place around rain shield and covers vent opening.

C. Materials and Components:

1. Aluminum: Conform to ASTM B 209/ B209M.

a. Base: 0.032" aluminum coiled sheet.
b. Rain Shield: 0.019" aluminum coiled sheet.
c. Dome: 0.032" aluminum coiled sheet.
c. Fan Blade: 0.039" aluminum coiled sheet.
d. Panel Mounting Brackets: 0.061" aluminum coiled sheet.
h. Shaft: 0.500" diameter aluminum extrusion.

2. Galvanized Steel: Conform to ASTM A123/A 123M.

a. Bracket: 0.061" galvanized coiled sheet.
b. Fan Blade: 0.036" galvanized coiled sheet.

3. Motor: 1/10th HP, thermally protected shaded pole type motor. 1100 RPM, 120 Volts, 3.4 amps.

4. Fan Blade: 5 blade design, stamped and formed as one-piece; comply with UL 507.

5. Thermostat/Humidistat Combo: Adjustable thermostat and humidistat combo, factory set to 85°F and 60% RH. (Includes a "push to test" switch)

6. Screen: Manufacturer's standard, 8x8 galvanized grill cloth.

D. Dimensions: Overall 20" x 23" x 7-3/4", Opening Size - 14".

2.3 FINISHES:

A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.

B. Appearance of Finished Work: Noticeable variations in same piece are not acceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

C. Manufacturer's standard "Valspar Super Flex" polyester coating with minimum 0.8 top coat and minimum 0.3 wash coat. Colors Available: Brown, White, Black, Weathered Bronze and Milled finished aluminum.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, to verify actual locations, dimensions, and other conditions affecting performance of the Work.

B. Verify that substrate is sound, dry, smooth, clean, sloped for drainage, and securely anchored.

C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

A. General: Install electrical powered attic exhaust ventilators according to manufacturer's written instructions.

1. Install ventilators level, plumb, true to line and elevation, and without warping, jogs in alignment, excessive oil canning, buckling, or tool marks.

2. Anchor ventilators securely in place so they are capable of resisting indicated loads.

3. Use fasteners, separators, sealants, and other miscellaneous items as required to complete installation of ventilators and fit them to substrates.

4. Install ventilator to resist exposure to weather without failing, rattling, leaking, or loosening of fasteners and seals.

B. Metal Protection: Protect metals against galvanic action by separating dissimilar metals from contact with each other or with corrosive substrates by painting contact surfaces with bituminous coating or by other permanent separation as recommended by manufacturer.

1. Coat concealed side of ventilator with bituminous coating where in contact with wood, ferrous metal, or cementitious construction.

2. Underlayment: Where installing ventilator directly on cementitious or wood substrates, install a course of felt underlayment and cover with a slip sheet, or install a course of polyethylene sheet.

3. **Bed flanges in thick coat of asphalt roofing cement where required by manufacturer of ventilator for waterproof performance.**

C. Electrically Powered Attic Exhaust Ventilator Installation: Verify that ventilators operate properly and have unrestricted airflow. Clean, lubricate, and adjust operating mechanisms.

Note: Coordinate type of sealant required with project requirements. *

D. Seal joints with elastomeric or butyl sealant as required by electrical powered attic exhaust ventilator manufacturer. Comply with requirements of Section 07 90 00 - Joint Sealants.

3.3 REPAIR AND CLEANING

Note: Retain paragraph below for galvanized-steel surfaces. *

A. Galvanized Surfaces: Clean field welds, bolted connections, and abraded areas and repair galvanizing according to ASTM A 780.

Note: Retain paragraph below for primed surfaces. Coordinate section numbers with your project requirements*

B. Touch up factory-primed surfaces with compatible primer ready for field painting according to Section 09 91 13 - Exterior Painting and Section 09 91 23 - Interior Painting.

C. Clean exposed surfaces according to manufacturer's written instructions.

D. Clean off excess sealants.

E. Replace electrical power attic exhaust ventilators that have been damaged or that cannot be successfully repaired by finish touchup or similar minor repair procedures.

END OF SECTION