

SECTION 07 72 00

TURBINE VENTILATORS

*****This is a CSI Three-Part Specification using CSI MasterFormat 2004-2010 Section Numbers and Titles. This specification must be edited to suit your particular project. Also, for your guidance in editing this master guide specification we have put in ****Notes**** below. You may 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:**

- 1. Turbine ventilators.**
 - 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. Section 09 91 13 - Exterior Painting
13. Section 09 91 23 - Interior Painting

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 - Specification for Aluminum and Aluminum-Alloy Sheet and Plate.
 2. ASTM B 221/B 221M - Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles and Tubes.

1.4 PERFORMANCE REQUIREMENTS

- A. General Performance: Turbine 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.: 15-0831.08 expires 12/22/2020.
 2. Texas Department of Insurance "Windstorm" Approved - Product Evaluation Report No.: RV-12.

1.6 ACTION SUBMITTALS

- A. Product Data: For turbine 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 roof turbine ventilator specified in this Section.

2. Method of attaching turbine ventilator to roof structure.
3. Other roof mounted items including mechanical and electrical equipment, ductwork, piping, and conduit.

1.8 CLOSEOUT SUBMITTALS

- A. **Operation and Maintenance Data:** For turbine 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 turbine 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 lifetime 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 TURBINE-STYLE GRAVITY VENTILATOR

- A. Model "BEB-14 Turbine Ventilator".
- B. **Description:** Externally braced, self-flashing roof-mounted turbine attic ventilator. (Adjustable to roof pitches up to 12/12) Aluminum, rivet at every connection; permanently lubricated upper and lower ball bearings; 21 air-foil curved vanes with rolled edges to deflect water.

C. Materials:

1. Aluminum: Conform to ASTM B 209 and ASTM B 221.

- a. Vanes: 0.019" aluminum coiled sheet.**
- b. Base: 0.024" aluminum coiled sheet.**
- c. Elbow: 0.0305" aluminum coiled sheet.**
- d. Rotor Band: 0.0305" aluminum coiled sheet.**
- e. Dome: 0.032" aluminum coiled sheet.**
- f. C-Brace: 0.125" x 0.500" aluminum extrusion.**
- g. Rotor Bracket: 0.125" x 0.500" aluminum extrusion.**
- h. Shaft: 0.500" diameter aluminum extrusion.**

2. Bearings: 100 Grade, 302 stainless steel ball bearings in fully machined raceways. Concentric to 0.0015". Provided with manufacturer's standard "DuPont Delrin" inner and outer bearing rings, "Turcon" seals, and self-lubricated "Turcite bearing cage.

D. Dimensions: Overall 22" x 22" x 20-3/8" with hole size of 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. Finish: 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. **Verify dimensions of roof openings for turbine ventilator.**
- D. **Proceed with installation only after unsatisfactory conditions have been corrected.**

3.2 INSTALLATION

- A. **General: Install turbine ventilator according to manufacturer's written instructions.**
 - 1. **Install turbine ventilator level, plumb, true to line and elevation, and without warping, jogs in alignment, excessive oil canning, buckling, or tool marks.**
 - 2. **Anchor turbine 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 turbine ventilators and fit them to substrates.**
 - 4. **Install turbine 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 turbine ventilator with bituminous coating where in contact with wood, ferrous metal, or cementitious construction.**
 - 2. **Underlayment: Where installing turbine 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 turbine ventilator for waterproof performance.**
- C. **Turbine 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 roof accessory 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 turbine ventilators that have been damaged or that cannot be successfully repaired by finish touchup or similar minor repair procedures.**

END OF SECTION