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**Aerovent Guide Specification
HVAC Fiberglass Gravity Ventilators: Model AMA**

**Aerovent AMA Series, Square Fiberglass Relief Roof Ventilators** are molded of tough, chemical resistant polyester resins and heavy-weave glass cloth. All products are designed for simple installation and maintenance. The resulting products deliver superior performance, with minimal downtime and maintenance and the best full life value of any ventilation product available.

The simple, two-piece fiberglass housing is strong and efficient, never needs painting and remains unaffected by weather and most chemicals. The molded-in beige color and low silhouette make it inconspicuous from the street.

**Application**

The Fiber-Aire® Series AMA can be used for three different ventilation applications:

To provide relief for positive pressure.

To provide gravity exhaust of heat and smoke.

To provide air intake supply.

The Fiber-Aire Series AMA ventilators are often used in conjunction with air make-up units and unit ventilators, as well as duct weather caps to match other Fiber-Aire powered units on the roof.

Sizes (square throat): 6 to 60 inches (152 mm to 1,524 mm)

Airflow: Up to 40,000 CFM (67,959 m3/hour)

Static Pressure: Up to 1 inches wg (248 Pa)

Aerovent is a leading designer and manufacturer of high quality industrial air moving equipment. Aerovent has extensive industry experience and years of active research, offering customers flexibility in fan design and construction along with superior service and state-of-the-art technology. With an unmatched variety of axial impellers and centrifugal fan wheels, every fan is built to the customer’s specific needs. This comprehensive selection of products and materials makes Aerovent the ideal choice for a diverse range of industry applications, including: Pulp & Paper, Automotive, Metal & Minerals, Mining, Power Generation, Agricultural, Marine and Water Treatment.

Aerovent occupies over 1,000,000 sq. ft. of manufacturing space in the U.S. Headquarters are located in Minneapolis, Minnesota, which houses the management, sales and marketing, accounting, human resources, material management, engineering personnel, as well as a state-of-the-art AMCA accredited testing lab.

We recommend you consult with your Aerovent Sales Representative, who can be contacted through: Aerovent, Minneapolis MN; (763) 551-7500; email: aerovent\_sales@aerovent.com; [www.aerovent.com](http://www.tcf.com).

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SECTION 23 37 23 – HVAC GRAVITY VENTILATORS

1. GENERAL
	* + 1. SUMMARY
				1. Section includes square fiberglass HVAC gravity ventilators.
			2. REFERENCE STANDARDS
				1. ASTM International (ASTM): [www.astm.org](http://www.astm.org):

ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials

* + - 1. ACTION SUBMITTALS
				1. Product Data: Include the following:

Rated capacities and operating characteristics.

Furnished specialty components.

Specified accessories.

Dimensioned standard drawings indicating dimensions, weights, and attachments to other work.

Specifier: If Contractor will be required to provide engineering drawings and calculations for vibration, seismic, or high wind design, insert requirements here.

* + - 1. INFORMATIONAL SUBMITTALS
				1. Source quality-control reports.
				2. Field quality-control reports.
				3. ISO-9001 certificate.
			2. CLOSEOUT SUBMITTALS
				1. Operation and Maintenance Data: Include routine maintenance, adjustment requirements, safety information, and troubleshooting guide.
			3. QUALITY ASSURANCE
				1. Manufacturer Qualifications: Approved ISO 9001-compliant manufacturer listed in this Section with minimum 10 years' experience in manufacture of similar products in successful use in similar applications, and with an ASME NQA-1 compliant Program.

Specifier: Retain paragraph below if Owner allows substitutions but requires strict control over qualifying of substitutions.

Approval of Comparable Products: Submit the following in accordance with project substitution requirements, within time allowed for substitution review:

Product data, including certified independent test data indicating compliance with requirements.

Project references: Minimum of 5 installations not less than 5 years old, with Owner contact information.

Sample warranty.

Substitutions following award of contract are not allowed except as stipulated in Division 01 General Requirements.

Approved manufacturers must meet separate requirements of Submittals Article.

* + - 1. COORDINATION
				1. Coordinate sizes and locations of supports required for ventilators.
				2. Coordinate sizes and locations of roof curbs.
			2. FIELD CONDITIONS
				1. Handling and Storage: Handle and store ventilator units in accordance with manufacturer's published instructions. Examine units upon delivery for damage. Store units protected from weather.
			3. WARRANTY

Specifier: Consult Aerovent for available special Project-specific warranties.

* + - * 1. Manufacturer's Warranty: Manufacturer's standard form in which manufacturer agrees to furnish replacement components for ventilator units that demonstrate defects in workmanship or materials under normal use within warranty period specified.

Warranty Period: 12 months from startup or 18 months from shipment by manufacturer, whichever first occurs.

1. PRODUCTS
	* + 1. MANUFACTURER
				1. Basis-of-Design Manufacturer: Provide ventilator units manufactured by **Aerovent**, Minneapolis MN; (763) 551-7500; email: aerovent\_sales@aerovent.com; website: [www.aerovent.com](http://www.tcf.com).
				2. Source Limitations: Obtain fiberglass HVAC gravity roof ventilators from a single manufacturer.
			2. PERFORMANCE REQUIREMENTS
				1. Airflow Performance Ratings: [Project site elevation-based] [Sea level elevation-based].
			3. HVAC GRAVITY ROOF VENTILATORS
				1. HVAC Gravity Roof Ventilators: Square fiberglass units, configured for curb cap mounting, and relief of for rooftop applications.

Basis of Design Product: **Aerovent, Model AMA**.

Permanently attach nameplate displaying serial number and unit information.

* + - * 1. Capacities, Characteristics, and Configuration: Refer to Drawing schedule.
				2. Housing: Heavy gauge fiberglass construction of curb cap base, and top cap. Include fiberglass additives to limit flame spread rating to 25, when tested in accordance with ASTM E84.

Provide 1/2 by 1/2 inch (13 by 13 mm) PVC coated wire bird screen built into top cap.

* + - * 1. Accessories:

Specifier: When backdraft dampers are required, select one of the following two paragraphs. If both types of dampers are required on various units, coordinate with fan schedule on drawings to indicate which damper type is associated with each fan.

For the following paragraph, the standard material is PVC. Aluminum is optional.

Backdraft Damper, Gravity Type: [PVC] [Aluminum] construction, parallel-blade type. Adjust backdraft damper to close when fan is not running.

Backdraft Damper, Motorized Type: Aluminum construction, parallel-blade type. Adjust backdraft damper to close when fan is not running.

Specifier: Retain the following paragraph for motorized backdraft dampers, and select required voltage for actuator power.

Backdraft damper actuator suitable for [115] [208] [230] [460] [575] VAC.

Specifier: When required, select insulation option in the following paragraph.

Roof Curb: Canted, 12 inches (305 mm) high, vented [with 1-1/2 inch (38 mm) thick insulation]. Fabricate roof curb of fiberglass with wood nailer.

1. EXECUTION
	* + 1. EXAMINATION
				1. Examine areas to receive roof ventilators. Notify Engineer regarding conditions that may adversely affect installation, operation, or maintenance of ventilators. Proceed with installation once conditions are in accordance with manufacturer's published instructions.
			2. PROTECTION
				1. Protect adjacent construction and finished surfaces during installation and testing.
			3. INSTALLATION
				1. Install ventilators in accordance with Contract documents and manufacturer's published instructions.
				2. Install ventilators with adequate clearances for service and maintenance.

Specifier: Coordinate duct installation and specialty arrangements with schematics on Drawings and with requirements specified in duct systems. If Drawings are explicit enough, these requirements may be reduced or omitted.

* + - * 1. Duct Connections: Drawings indicate general arrangement of ducts and duct accessories. Where indicated on Drawings, [install factory-furnished companion flanges and] make final duct connections with flexible connectors. Flexible connectors are specified in Division 23 section "Air Duct Accessories."

Install connecting ducts with adequate clearances for service and maintenance.

Specifier: Retain the following paragraph when electrical connections are required, like for backdraft dampers with electric actuators.

* + - * 1. Electrical Connections: Connect wiring in accordance with NFPA 70 and Division 26 section "Low-Voltage Electrical Power Conductors and Cables."

Ground and bond equipment according to Division 26 section "Grounding and Bonding for Electrical Systems."

* + - * 1. Equipment Identification: Label units according to Division 23 section "Identification for HVAC Piping and Equipment."
			1. FIELD QUALITY CONTROL

Specifier: Select option in paragraph below to define the party responsible for final tests and inspections to be performed.

* + - * 1. [Owner will retain] [Contractor shall retain] qualified testing agency to perform field tests and inspections.

Specifier: Retain first paragraph below to describe tests and inspections to be performed.

* + - * 1. Tests and Inspections:

Verify that unit is secured to supports [, and that duct and electrical connections are complete. Verify proper installation of actuators and disconnect switches.]

Verify that cleaning and adjusting are complete.

Verify that automatic dampers, and fire and smoke dampers in connected ductwork systems are in fully open position.

* + - * 1. Submit test and inspection reports.
			1. ADJUSTING AND CLEANING
				1. Adjust, clean, and maintain installed roof ventilator units in accordance with manufacturer's published instructions.

END OF SECTION