

### SECTION 07 72 36 SMOKE VENTS

#### GENERAL

#### SUMMARY

Section includes:

Smoke Vents **SafeMAX™ Series** Automatically operated smoke vents for emergency heat and smoke removal installed on or in roofing system indicated on drawings and specified herein. Includes related hardware and attachments.

Related Sections: [Insert applicable specifications sections]

#### REFERENCES

Galvanized Steel Sheet: ASTM A 653M with zinc coating

Aluminum Sheet: ASTM B209

Insulation: Manufacturer's standard rigid polyisocyanurate board

Aluminum Extrusion: 6061-T6 aluminum.

Steel Angle: ASTM A36-94 steel frame, structural.

General: Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products"

#### SUBMITTALS

Shop Drawings: Indicate configuration and dimensions, show components, adjacent construction, required clearances and tolerance and other affected work.

Vent Units: Show types, elevations, thickness of metals, and full size profiles.

Hardware: Show materials, finishes, locations of fasteners, types of fasteners, locations and types of operating hardware, and details of installation.

Product Data: Manufacturer's technical data for each type of vent, including setting drawings, templates, finish requirements, and details of anchorage devices.

Manufacturer's Installation Instructions: Indicate installation requirements and rough openings.

Contract Closeout Submittals

Installation, Operating and Maintenance manuals

#### QUALITY ASSURANCE

Qualifications:

Manufacturer/Installer: Company specializing in manufacturing and installation of components specified in this Section with minimum of 5 years documented experience.

Regulatory Requirements:

For location of automatic smoke vents, refer to International Building Codes for venting requirements based on occupancy.

Underwriters Laboratories Inc, UL 793 Listed for Heat and Smoke Vents

Reference only; NFPA 204 for sizing, location and design constraints.

#### DELIVERY, STORAGE, AND HANDLING

Deliver materials to Project site ready use.

Exercise proper care in handling of Work so as not to disrupt finished surfaces.

Store materials under cover in a dry and clean location off the ground.

#### WARRANTY

Provide manufacturer's standard 5 year warranty. All smoke vents shall be free from manufacturing defects in materials and workmanship for a period of five (5) years from the date of shipment. Should a product fail to function in

normal use within this period, manufacturer shall furnish a new part at no charge. Special finishes, and other special equipment (if applicable) shall be warranted by the manufacturer of those products.

### PRODUCTS

#### MANUFACTURER

Babcock-Davis

9300 73<sup>rd</sup> Ave N.  
Brooklyn Park, MN 55428

#### SAFEMAX SERIES SMOKE VENTS

##### Galvanized Steel Automatic Smoke Vents

Cover and liner: 14 gauge (0.075 inch) galvanized steel cover with 1 inch Polyisocyanurate insulation (R=6) and 22 gauge (0.0299 inch) galvanized steel cover. The cover is stiffened to support 40psf live load.

Curb: 14 gauge (0.075 inch) galvanized steel with 14 gauge (0.075 inch) counterflash with EZ tab, quick flashing system. Secured to curb is 1 inch rigid Polyisocyanurate insulation at curb perimeter, R=6.

Finish: TGIC Polyester Powder Coat Paint, Standard Color TGIC Gray meets or exceeds AAMA 2604 performance

Options: Select special colors from color chart, or custom match.

Latch: Positive hold zinc plated steel rotary latch assembly designed to hold covers closed against 90 pounds per square foot uplift force. Latch released manually via internal and external pull handles with cables. Latch also released automatically by UL 33 Listed fusible melt-out link at standard temperature of 165F. [specify other 210F, 280F, 286F, 360F, 370F, 420F]. Covers closed from the outside at rooftop level.

Optional electrical opening with torque motor actuator [Specify; 24VDC/AC, 110/220VAC].

Springs: Gas spring with integrated damper designed to open vent covers automatically against 10 pounds per square foot wind or snow load when released.

Hinge: Stainless steel heavy duty pintle hinges.

Hold Open Arm: Automatic hold open arm with grip handle release to hold and lock covers open.

Hardware: EPDM gasket seal, inside and outside manual release cables.

UL Listing: Smoke Vent to have official UL793 label.

Acceptable Product: SafeMAX Series Model BSVSG [L x W]

##### Aluminum Smoke Vents

Cover and liner: 11 gauge (0.090 inch) aluminum cover with 1 inch Polyisocyanurate insulation (R=6) and 18 gauge (0.040 inch) aluminum cover liner. The cover is stiffened to support 40psf live load.

Curb: 11 gauge (0.090 inch) aluminum with 11 gauge (0.090 inch) counterflash with EZ tab, quick flashing system. Secured to curb is 1 inch rigid Polyisocyanurate insulation at curb perimeter, R=6.

Finish: Mill Finish standard

Kynar Options: Select special colors from color chart, or custom match with warranty [specify; 10yr, 20yr]

Latch: Positive hold zinc plated steel rotary latch assembly designed to hold covers closed against 90 pounds per square foot uplift force. Latch released manually via internal and external pull handles with cables. Latch also actuated and released automatically by UL 33 Listed fusible melt-out link at standard temperature of 165F. [specify other 210F, 280F, 286F, 360F, 370F, 420F] Covers closed from the outside at rooftop level.

Optional electrical opening with torque motor actuator [Specify; 24VDC/AC, 110/220VAC].

Springs: Gas spring with integrated damper designed to open vent covers automatically against 10 pounds per square foot wind or snow load when released.

Hinge: Stainless steel heavy duty pintle hinges.

Hold Open Arm: Automatic hold open arm with grip handle release to hold and lock covers open.

Hardware: EPDM gasket seal, inside and outside manual release cables.

UL Listing: Smoke Vent to have official UL793 label.

Acceptable Product: SafeMAX Series Model BSVSA [L x W]

### OPTIONS & ACCESSORIES

Burglar Bars; ½" diameter 6"x12" spacing welded to inside smoke vent curb.

Safety Railings; 1 ¼" ID sch 40 A53 Grade B galvanized steel pipe with alloy cast fittings and set screw hold.

### EXECUTION

### EXAMINATION

Verification of Conditions: Examine areas and conditions under which Work is to be performed and identify conditions detrimental to proper or timely completion.

Verify that deck, curbs, roof membrane, base flashing, and other items affecting Work of this Section are in place and positioned correctly.

Verify tolerances and correct improper conditions.

Do not proceed until unsatisfactory conditions have been corrected.

### INSTALLATION

Install roof accessory items and components per manufacturer's instructions.

Coordinate installation of components of this Section with installation of roof deck, roof structure, roofing membrane, and base flashing.

Coordinate installation of sealant and roofing cement with Work of this Section to ensure water tightness.

Separate metal from incompatible metal or corrosive substrates, including wood, by coating concealed surfaces, at locations of contact, with bituminous coating or providing other permanent separation.

Flange Seals: Unless otherwise indicated, set flanges of accessory units in a thick bed of roofing cement to form a seal.

### FIELD QUALITY CONTROL

Smoke Vent Testing: Test for proper operation after installation by one or all of the operational methods:

Melting fusible link for inside at smoke vent level recommend using hand held propane tank torch. Replace fusible link from automatic latching mechanism, then close vents from the exterior at the roof top level.

Pull internal and/or external manual pull handles, then close vents from the exterior at the roof top level.

If applicable; open the vents using an electrical signal for fire alarm, push button or other, then close vent from the exterior at the roof top level.

Do not paint the internal mechanisms, especially moving parts such as spring/dampers, rotary latches and especially the fusible links. Painting any of these components may damage the vents and will void the warranty.

### ADJUSTING

Adjust movable parts for smooth operation.

Operational Units: Test-operate units with operable components. Clean and lubricate joints and hardware. Adjust for proper operation.

### CLEANING

Clean exposed surfaces per manufacturer's written instructions. Touch up damaged metal coatings.

END OF SECTION