

077236
SMOKE VENTS

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes: This section specifies automatic smoke vents.
- B. Related Requirements:
 - 1. Section [077113 – Manufactured Curbs] for installation of smoke vents on custom sloped curbs to provide level mounting surfaces for smoke vents at sloped roof structures.
 - 2. Division [26 – Electrical] for rough-in and connection of thermal electric fire link.
 - 3. [].

1.2 REFERENCES

- A. Reference Standards:
 - 1. Factory Mutual Insurance Company (FM): FM Approval Standard for Heat and Smoke Vents – Class Number 4430.
 - 2. UL LLC (UL): UL 793 Standard for Automatically Operated Roof Vents for Smoke and Heat.
 - 3. Electrical Testing Lab (ETL): UL 60691 Standard for Thermal-Links – Requirements and Application Guide.

1.3 SUBMITTALS

- A. Product Data: Manufacturer’s standard specifications, descriptive literature, and certifications, including:
 - 1. Spec-Data product sheets.
 - 2. Catalog cut sheets.
 - 3. [Wiring diagrams.]
 - 4. Blank warranty form.
 - 5. [].
- B. Shop Drawings: Graphic information specifically prepared for this project, including:
 - 1. Dimensioned plans, elevations, and construction details indicating full extent of work complete with requirements for custom designed products, and installations with multiple units ganged together with bridge splices.
 - 2. Verified field dimensions.
 - 3. [].
- C. Manufacturer’s Written Instructions, including:
 - 1. Delivery, storage, and handling.
 - 2. Preparation and Installation.
 - 3. Maintenance.
 - 4. [].
- D. Warranty: Fully executed, issued in [Owner’s] name, and registered with manufacturer, including:
 - 1. Manufacturer’s [5-year] limited warranty covering defects in materials and workmanship of smoke vent unit.
 - 2. [].

1.4 QUALITY ASSURANCE

- A. Manufacturer’s Turn-Key Service: Including assistance with product selection, custom product design, fabrication and installation of work required for this project.
- B. Installer: Specialized in installation of work required for this project.



1.5 DELIVERY, STORAGE AND HANDLING

- A. Deliver, store and handle smoke vents in accordance with manufacturer's written instructions.
- B. Deliver smoke vents in manufacturer's original packaging with identification labels intact; store in dry, protected, and well-ventilated area; inspect products upon receipt; report any damage to carrier and note extent of any damage on carrier's bill of lading.
- C. Remove packaging materials from site and dispose of at appropriate recycling facilities.
- D. _____].

PART 2 PRODUCTS

2.1 PRODUCTS

- A. Manufacturer: Moffitt Corporation; 1351 13th Avenue South; Suite 130; Jacksonville, FL 32250; Phone: 800-474-3267; Fax: 904-246-8333; Email: sales@moffittcorp.com ; Website: www.moffittcorp.com
 1. Single Source Responsibility: Provide components and materials specified in this section from a single manufacturer.
 2. Substitutions: In accordance with [Contract Conditions] [Section 012500 – Substitution Procedures] [No substitutions permitted].
 3. Product: Moffitt Firex; automatic smoke vent; meeting UL 793; designed to remain closed against wind uplift force of 40 lb./ft² (195 kg/m²); and open with snow, wind, or combination environmental load of 10 lb./ft² (49 kg/m²).
 4. Height: 15 ¾ inches (400 mm) in closed position; installed without curb.
 5. Operation: Operation: When triggered by UL Listed fusible link, lids automatically open to 90-degree locked position by spring-shock absorber system; springs are held in tension while lids are in normal closed and latched position; shock absorbers control rate of opening in accordance with UL 793.
 6. Installation Method: [With curb] [Without curb].
- B. Model:
 1. FX-44: 48 × 48 inches (1219 × 1219 mm) open size; 16 ft² (1.49 m²) area; 345 pounds (156 kg) unit weight.
 2. FX-45: 48 × 60 inches (1219 × 1524 mm) open size: 20 ft² (1.86 m²) area; 380 pounds (172 kg) unit weight.
 3. FX-46: 48 × 72 inches (1219 × 1829 mm) open size: 24 ft² (2.23 m²) area; 415 pounds (188 kg) unit weight.
 4. FX-47: 48 × 84 inches (1219 × 2134 mm) open size: 28 ft² (2.60 m²) area; 450 pounds (204 kg) unit weight.
 5. FX-48: 48 × 96 inches (1219 × 2438 mm) open size: 32 ft² (2.97 m²) area; 485 pounds (220 kg) unit weight.
 6. FX-55: 60 × 60 inches (1524 × 1524 mm) open size: 25 ft² (2.32 m²) area; 425 pounds (193 kg) unit weight.
 7. FX-56: 60 × 72 inches (1524 × 1829 mm) open size: 30 ft² (2.79 m²) area; 465 pounds (211 kg) unit weight.
 8. FX-57: 60 × 84 inches (1524 × 1524 mm) open size: 35 ft² (3.25 m²) area; 520 pounds (236 kg) unit weight.
 9. FX-58: 60 × 96 inches (1524 × 1524 mm) open size: 40 ft² (3.72 m²) area; 540 pounds (245 kg) unit weight.
 10. FX-66: 72 × 72 inches (1829 × 1829 mm) open size: 36 ft² (3.35 m²) area; 525 pounds (238 kg) unit weight.
 11. FX-67: 72 × 84 inches (1829 × 2134 mm) open size: 42 ft² (3.90 m²) area; 545 pounds (247 kg) unit weight.
 12. FX-68: 72 × 96 inches (1829 × 2438 mm) open size: 48 ft² (4.46 m²) area; 565 pounds (256 kg) unit weight.
 13. FX-69: 72 × 108 inches (1829 × 2743 mm) open size: 54 ft² (5.02 m²) area; 590 pounds (268 kg) unit weight.
- C. Components:
 1. Base: 14-inch (356 mm) high, [14-gauge, 0.0747-inch (1.897 mm) thick G90 galvanized steel, mill finish] [11-gauge, 0.090-inch thick (2.286 mm) aluminum, mill finish] with 3½ inch (89 mm) mounting flange; all welded construction.
 2. Lids: 3-inch (76 mm) thick; double lid bi-parting design; [[16-gauge, 0.050-inch thick (1.27 mm) aluminum, mill finish with double wall construction and [laminated honeycomb insulation] [clear polycarbonate panels]] [[16-gauge, 0.0598-inch thick (1.52 mm) G90 galvanized steel, mill finish with [standard laminated honeycomb insulation] [optional clear polycarbonate panels]].
 3. Hinges: Heavy-duty; zinc plated steel butt hinges with ¼ inch (6 mm) diameter knurled, brass retainer pin.
 4. Shock absorbers: Heavy-duty, hydraulic type.
 5. Latch: Proprietary; 10-gauge, 0.1345 inch (3.42 mm) thick G90 galvanized steel mechanism with 3 tensioning plated springs designed to retain lids in closed position, sealed against wind uplift pressure, and releasable manually, automatically triggered by breaking-apart of UL Listed fusible link, or other approved method.
Specifier Note: Select standard fusible link, or optional thermal electric resettable fire link for release device.
 6. Thermal electric resettable fire link; bimetal; 165 degrees F (74 degrees C); [24V AC/DC] [120V AC]; ETL Listed.



7. Lid Seals: Extruded EPDM rubber gaskets around lid perimeters.
- D. Performance:
 1. Wind uplift resistance: 40 lb./ft² (195 kg/m²) in accordance with UL 793 and FM 4340.
 2. Maximum snow, wind, or combination environmental load: 10 lb./ft² (49 kg/m²) in accordance with UL 793 and FM 4340.

2.2 ACCESSORIES

- A. Burglar Bars: Steel bars hot-dipped galvanized; welded construction; attached to roof curb with mechanical fasteners and stitch welded in accordance with AWS D1.1/1.1M.
- B. Bridge splices: Used to connect multiple units; [16-gauge, 0.0598-inch (1.52 mm) thick G90 galvanized steel, mill finish] [14-gauge, 0.063-inch (1.61 mm) aluminum, mill finish]; custom designed to meet roof opening requirements; attached to curb assembly and smoke vents with mechanical fasteners.

PART 3 EXECUTION

3.1 EXAMINATION

Specifier Note: Specify actions required to prepare the surface, area, or site for incorporation of the section's primary products. Describe requirements for exposure or removal of existing assemblies, components, products, or materials.

- A. Verify that conditions of work previously installed under other sections or contracts are acceptable for installation of smoke vents in accordance with manufacturer's written instructions.
 1. Notify [Architect] of unacceptable conditions upon discovery.
 2. Proceed with preparation and installation only after unacceptable conditions have been corrected.
- B. [_____].

3.2 PREPARATION

Specifier Note: Specify preparatory work required prior to installation/application/erection of primary products.

- A. Prepare mounting locations for installation of smoke vents in accordance with manufacturer's written instructions, ICC/ANSI guidelines and approved submittals.
- B. [_____].

3.3 INSTALLATION

- A. Install smoke vents in accordance with manufacturer's written instructions, and approved submittals.
- B. [_____].

3.4 CLEANING

Specifier Note: Specify protection methods completed after installation, but prior to acceptance by the owner.

Protection of surrounding areas and surfaces during application or installation is included under PART 3, Preparation.

- A. Clean-up waste and debris daily during installation.
- B. Upon completion, remove surplus materials, remaining debris, tools, and equipment.
- C. Collect recyclable waste and dispose of as directed.
- D. [_____].

3.5 PROTECTION

- A. Protect installed product from damage during construction.
- B. Repair damage to adjacent materials caused by installation of smoke vents.
- C. [_____].

3.6 ATTACHMENTS

Specifier Note: Schedules are sometimes placed in the specifications rather than on drawings. Include schedules that indicate item/element/product/equipment, location, and other coordinating data.

- A. Smoke Vent Schedule.
- B. [_____].

END OF SECTION

