SECTION 07 72 36

HEAT AND SMOKE VENTS

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\*\* NOTE TO SPECIFIER \*\* Milcor, a registered trademark of Hart & Cooley LLC; roof hatches, access doors and roofing products.
This section is based on the products of Milcor, a registered trademark of Hart & Cooley LLC, which is located at:
5030 Corporate Exchange Blvd.
Grand Rapids, MI 49512
Toll Free Tel: 800-624-8642
Email: info@milcorinc.com
Web: <https://www.milcorinc.com/heat-smoke-vents>

 [ [Click Here](http://www.arcat.com/arcatcos/cos46/arc46645.html) ] for additional information.
Hart and Cooley LLC brings over 105 years of experience in the manufacturing of a broad range of products.
Easy Complete Opening: Hart and Cooley LLC hatch covers open easily to 90 degrees. Operation is assisted by enclosed torsion bar or torsion coil spring operators. Automatic hold-open arms keep doors securely open.
Unobstructed Opening: The clear hatch opening is virtually unobstructed, with only a narrow hold-open arm at one corner and the torsion bar or spring mounted out of the way in the cover or frame.
Complete Seal: Heavy, closed cell, rubber gaskets factory-applied to the units provide a barrier to weather penetration and drafts. Latching devices with inside and outside handles hold hatches tightly closed.

1. GENERAL
	1. SECTION INCLUDES
		1. Factory-fabricated automatic heat and smoke roof vents.
	2. RELATED SECTIONS

\*\* NOTE TO SPECIFIER \*\* Delete any sections below not relevant to this project; add others as required.

* + 1. Section 07 50 00 - Membrane Roofing.
		2. Section 07 60 00 - Flashing and Sheet Metal.
		3. Section 07 72 13 - Manufactured Curbs.
	1. REFERENCES

\*\* NOTE TO SPECIFIER \*\* Delete references from the list below that are not actually required by the text of the edited section.

* + 1. ASTM International (ASTM):
			1. ASTM A36-93a - Standard Specifications for Structural Steel.
			2. ASTM A123 - Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.
			3. ASTM A143 - Standard Practice for Safeguarding Against Embrittlement of Hot-Dip Galvanized Structural Steel Products and Procedure for Detecting Embrittlement.
			4. ASTM A153 - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware.
			5. ASTM A384 - Standard Practice for Safeguarding Against Warpage and Distortion during Hot-Dip Galvanizing of Steel Assemblies.
			6. ASTM A653 - Standard Specifications for Steel Sheet, Zinc Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvanized) by the Hot-Dip Process.
			7. ASTM B209-14 - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate.
			8. ASTM B308 - Standard Specification for Aluminum-Alloy 6061-T6 Standard Structural Profiles.
			9. ASTM C208/C209 - Standard Specification for Cellulosic Fiber Insulating Board.
			10. ASTM C591-13 - Standard Specification for Unfaced Preformed Rigid Cellular Polyisocyanurate Thermal Insulation.
			11. ASTM D4549-11 - Standard Classification System and Basis for Specification for Polystyrene and Rubber-Modified Polystyrene Molding and Extrusion Materials (PS).
		2. IBC 2015 - 2015 International Building Codes.
	1. SUBMITTALS
		1. Submit under provisions of Section 01 30 00.
		2. Product Data: Manufacturer's data sheets on each product to be used, including:
			1. Preparation instructions and recommendations.
			2. Storage and handling requirements and recommendations.
			3. Installation methods.
		3. Samples: Manufacturer to provide, upon request, sized to represent material adequately.
	2. QUALITY ASSURANCE
		1. Manufacturer Qualifications: Heat and smoke vents must be manufactured by a company with a minimum of 5 years' experience in the production and sales of heat and smoke vents.
		2. Installer Qualifications: A firm having at least 3 years' experience in installing heat and smoke vents.
		3. Materials: For each type of material required to complete the work of this section, provide primary materials which are the products of a single manufacturer.
		4. Manufacturer's Representative: Arrange to have trained representative of the manufacturer on site periodically to review installation procedures.
	3. PRE-INSTALLATION MEETINGS
		1. Pre-Installation Conference: A pre-application conference shall be held to establish procedures and to review conditions, installation procedures and coordination with other related work. Meeting agenda shall include review of the special details.
	4. DELIVERY, STORAGE, AND HANDLING
		1. Store products per manufacturers' instructions in unopened packaging until ready for installation. Store products under cover and elevated above grade.
	5. PROJECT CONDITIONS
		1. Work should be performed only when existing and forecasted weather conditions are within the limits established by the manufacturer.
		2. Verify that other trades with related work are complete before installing roof vents.
		3. Mounting surfaces shall be straight and secure; substrates shall be of proper width.
		4. Observe all appropriate OSHA safety guidelines for this work.
		5. Waste Disposal: This material is not defined as hazardous by the Resource Conservation and Recovery Act. It is the product users' responsibility to determine at the time of disposal. Dispose of in accordance with all federal, state, and local regulations.
	6. WARRANTY
		1. Manufacturer's Standard Limited Warranty: The Manufacturer warrants all goods sold to be free from defects in workmanship, but limits liability to five years from date of shipment and expressly to the replacement of goods not complying with this warranty; or, at our election, a credit to original purchaser for the original purchase price paid less 1/60th of the price for each month elapsed from the original invoice date to the date of claim against this warranty.
		2. Electric motors, special finishes and any other optional special components required shall be warranted separately by the manufacturers of those products.
1. PRODUCTS
	1. MANUFACTURERS
		1. Acceptable Manufacturer: Milcor, a registered trademark of Hart & Cooley LLC, which is located at: 5030 Corporate Exchange Blvd.; Grand Rapids, MI 49512; Toll Free Tel: 800-624-8642; Email: info@milcorinc.com; Web: <https://www.milcorinc.com/heat-smoke-vents>

\*\* NOTE TO SPECIFIER \*\* Delete one of the following two paragraphs; coordinate with requirements of Division 1 section on product options and substitutions.

* + 1. Substitutions: Not permitted.
		2. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00.
			1. Submittals shall specify manufacturer's model number, and other pertinent identification, and attest that the alternate material is in compliance with all specification requirements.
	1. HEAT AND SMOKE VENTSxcsse5uo
		1. Heat and Smoke Vents: Provide Milcor Heat and Smoke Vents.

\*\* NOTE TO SPECIFIER \*\* Delete models not required.

* + - 1. Model: Milcor Model U-LP.
			2. Model: Milcor Model U-LPA.
			3. Model: Milcor Model U-LPAG.

\*\* NOTE TO SPECIFIER \*\* Insert heat and smoke vent size.

* + 1. Size:
			1. Width: \_\_\_\_\_.
			2. Length (Hinge Side): \_\_\_\_\_.
		2. Curbs: One-piece curb and frame with integral cap flashing, continuous center channel, 3-1/2 inches (89 mm) wide mounting flanges with pre-drilled holes.

\*\* NOTE TO SPECIFIER \*\* Delete materials not required.

* + - 1. Material, Model U-LP: Galvanized steel, 14 gauge, 0.070 inch (1.78 mm) thick.
			2. Material, Model U-LPAG: Galvanized steel, 14 gauge, 0.070 inch (1.78 mm) thick.
			3. Material, Model U-LPA: Aluminum, 0.125 inch (3 mm) thick.
			4. Insulation: 1 inch (25 mm) fiberboard.
			5. Height: 12-1/2 inches (318 mm).
		1. Metal Covers: Flush, insulated, hollow metal construction.

\*\* NOTE TO SPECIFIER \*\* Delete materials not required.

* + - 1. Material, Model U-LP:
				1. Outer Cover: Galvanized steel, 14 gauge, .070 inch (1.78 mm) thick.
				2. Liner: 14 gauge, .070 inch (1.78 mm) thick.
			2. Material, Model U-LPA:
				1. Outer Cover: Aluminum, 0.10 inch (1.78 mm) thick.
				2. Liner: 0.10 inch (2.5 mm) thick.
			3. Material, Model U-LPAG:
				1. Outer Cover: Aluminum, 0.10 inch (1.78 mm) thick.
				2. Liner: 0.10 inch (2.5 mm) thick.
			4. Insulation: 2 inch (51 mm) rigid foam.
			5. Gasket: Polyurethane foam gasket adhered to cover, continuous around cover perimeter.
		1. Operation:
			1. Covers automatically spring open to approximately 90 degrees in the event of fire, actuated by the parting of a single UL-listed 165 degrees F (74 degrees C) fusible link, automatically locking in the fully open position.
			2. Covers are of double-leaf construction, with each leaf equipped with sufficient torsion spring operators to open against a maximum 10 psf (0.5 kPa) snow or wind load.
			3. Unit's Gas Springs: Dampened allowing covers to open at a safe and controlled speed.
			4. Covers: Will not open when subjected to an uplift pressure of 90 psf (4.3 kPa).
				1. Covers latch automatically. Closing covers automatically resets the manual release mechanisms.
			5. Vents: Allow covers to be released manually from inside or outside without disturbing the fusible link assembly.
		2. Performance:
			1. Fire Safety: Complies with requirements of Class "A" burning brand test (UL 790).
			2. UL Tested: Tested and listed by Underwriter's Laboratories, Inc. (UL 793).
			3. Insulated Covers: Thermal transmittance value of U equal to 0.093 to reduce heat loss or gain and to prevent condensation.
1. EXECUTION
	1. INSPECTION
		1. Verify heat and smoke vent installation will not disrupt other trades. Verify that the substrate is dry, clean, and free of foreign matter. Report and correct any defects prior to any installation.
		2. Verify correct unit is supplied by comparing packing slip and box label that product is per specification.
	2. SURFACE PREPARATION
		1. Refer to manufacturer's product literature for surface preparation requirements. Surfaces should be structurally sound, free of voids, spalls, loose aggregate, and sharp ridges. Remove dust, dirt, debris, or any other foreign materials.
	3. INSTALLATION
		1. Submit product design drawings for review and approval to the Architect/Specifier before fabrication.
		2. Installer shall check as-built conditions and verify the manufacturer's roof hatch details for accuracy to fit the applications prior to fabrication. The installer shall comply with the roof hatch manufacturer's installation instructions.
		3. The installer shall furnish mechanical fasteners consistent with the roof requirements.
	4. CLEANING AND PROTECTION
		1. Product requires no spill or leak containment. Dispose of damaged material in accordance with all governmental regulations.
		2. Protect completed work from subsequent construction activities as recommended by manufacturer.

END OF SECTION