SECTION 235123 - GAS VENTS

Revise this Section by deleting and inserting text to meet Project-specific requirements.

Verify that Section titles referenced in this Section are correct for this Project's Specifications; Section titles may have changed.

1. GENERAL
	* + 1. RELATED DOCUMENTS

Retain or delete this article in all Sections of Project Manual.

* + - * 1. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
			1. SUMMARY
				1. Section Includes:

Listed double-wall vents.

* + - 1. SUBMITTALS
				1. Submittals for this section are subject to the re-evaluation fee identified in Article 4 of the General Conditions.
				2. Manufacturer’s installation instructions shall be provided along with product data.
				3. Submittals shall be provided in the order in which they are specified and tabbed (for combined submittals).
				4. Product Data: For each type of product.

Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for product.

* + - * 1. Shop Drawings: For vents.

Include plans, elevations, sections, and attachment details.

Include details of equipment assemblies. Indicate dimensions, weights, loads, required clearances, method of field assembly, components, and location and size of each field connection.

Detail fabrication and assembly of hangers and seismic restraints.

Retain "Welding certificates" paragraph below if retaining "Welding Qualifications" paragraph in "Quality Assurance" Article.

* + - * 1. Sample Warranty: For special warranty.
			1. QUALITY ASSURANCE

Retain "Welding Qualifications" Paragraph below if shop or field welding is required. If retaining, also retain "Welding certificates" Paragraph in "Informational Submittals" Article. The American Welding Society (AWS) states that welding qualifications remain in effect indefinitely unless welding personnel have not welded for more than six months or there is a specific reason to question their ability.

* + - * 1. Certified Sizing Calculations: Manufacturer shall certify venting system sizing calculations.
1. PRODUCTS

Manufacturers and products listed in SpecAgent and Masterworks Paragraph Builder are neither recommended nor endorsed by the AIA or Deltek. Before inserting names, verify that manufacturers and products listed there comply with requirements retained or revised in descriptions and are both available and suitable for the intended applications. LISTED TYPE B AND BW VENTS

* + - * 1. [Manufacturers:](http://www.specagent.com/Lookup?ulid=6198) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

[American Metal Products](http://www.specagent.com/Lookup?uid=123456962103).

[Cleaver-Brooks](http://www.specagent.com/Lookup?uid=123456962110).

[FAMCO](http://www.specagent.com/Lookup?uid=123456962111).

[Hart & Cooley Inc](http://www.specagent.com/Lookup?uid=123456962100).

[Heatfab Saf-T Vent](http://www.specagent.com/Lookup?uid=123456962109).

[Industrial Chimney Company](http://www.specagent.com/Lookup?uid=123456962101).

[LSP Products Group](http://www.specagent.com/Lookup?uid=123456962102).

[M&G DuraVent, Inc.; a member of the M&G Group](http://www.specagent.com/Lookup?uid=123456962114).

[Metal-Fab, Inc](http://www.specagent.com/Lookup?uid=123456962112).

[Schebler Co. (The)](http://www.specagent.com/Lookup?uid=123456962104).

[Security Chimneys International](http://www.specagent.com/Lookup?uid=123456962153).

[Selkirk Corporation](http://www.specagent.com/Lookup?uid=123456962108).

[Tru-Flex Metal Hose Corp](http://www.specagent.com/Lookup?uid=123456962106).

[Van-Packer Company, Inc](http://www.specagent.com/Lookup?uid=123456962107).

Approved equivalent.

* + - * 1. Description: Double-wall metal vents tested according to UL 441 and rated for 480 deg F continuously for Type B or 550 deg F continuously for Type BW; with neutral or negative flue pressure complying with NFPA 211.
				2. Construction: Inner shell and outer jacket separated by at least a 1/4-inch airspace.
				3. Inner Shell: [**ASTM B209, Type 1100 aluminum**] [**ASTM B209, Type 3003 aluminum**] [**ASTM B209, Type 3105 aluminum**] [**ASTM A666, Type 430 stainless steel**].
				4. Outer Jacket: [**Galvanized**] [**Aluminized**] steel.
				5. Accessories: Tees, elbows, increasers, draft-hood connectors, terminations, adjustable roof flashings, storm collars, support assemblies, thimbles, firestop spacers, and fasteners; fabricated from similar materials and designs as vent-pipe straight sections; all listed for same assembly.

Retain one of first four "Termination" subparagraphs below or insert type to suit Project. Use caution because many systems are tested with specific terminations.

Termination: Stack cap designed to exclude minimum 90 percent of rainfall.

Termination: Round chimney top designed to exclude minimum 98 percent of rainfall.

Termination: Exit cone with drain section incorporated into riser.

Termination: Antibackdraft.

Termination: <**Insert termination**>.

* + - 1. LISTED TYPE L VENTS

* + - * 1. [Manufacturers:](http://www.specagent.com/Lookup?ulid=6199) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

[American Metal Products](http://www.specagent.com/Lookup?uid=123456962123).

[FAMCO](http://www.specagent.com/Lookup?uid=123456962115).

[Heatfab Saf-T Vent](http://www.specagent.com/Lookup?uid=123456962116).

[Industrial Chimney Company](http://www.specagent.com/Lookup?uid=123456962121).

[LSP Products Group](http://www.specagent.com/Lookup?uid=123456962122).

[M&G DuraVent, Inc.; a member of the M&G Group](http://www.specagent.com/Lookup?uid=123456962127).

[Metal-Fab, Inc](http://www.specagent.com/Lookup?uid=123456962117).

[Schebler Co. (The)](http://www.specagent.com/Lookup?uid=123456962124).

[Security Chimneys International](http://www.specagent.com/Lookup?uid=123456962184).

[Selkirk Corporation](http://www.specagent.com/Lookup?uid=123456962118).

[Simpson Dura-Vent Co., Inc](http://www.specagent.com/Lookup?uid=123456962119).

[Tru-Flex Metal Hose Corp](http://www.specagent.com/Lookup?uid=123456962120).

[Van-Packer Company, Inc](http://www.specagent.com/Lookup?uid=123456962125).

Approved equivalent.

* + - * 1. Description: Double-wall metal vents tested according to UL 641 and rated for 570 deg F continuously or 1700 deg F for 10 minutes; with neutral or negative flue pressure complying with NFPA 211.
				2. Construction: Inner shell and outer jacket separated by at least a [**1/4-inch**] [**1-inch**] [**2-inch**] [**4-inch**] airspace filled with high-temperature, [**ceramic-fiber**] [**mineral-wool**] insulation.
				3. Inner Shell: ASTM A666, [**Type 304**] [**Type 316**] stainless steel.
				4. Outer Jacket: [**Galvanized**] [**Aluminized**] [**Stainless**] steel.
				5. Accessories: Tees, elbows, increasers, draft-hood connectors, terminations, adjustable roof flashings, storm collars, support assemblies, thimbles, firestop spacers, and fasteners; fabricated from similar materials and designs as vent-pipe straight sections; all listed for same assembly.

Retain one of first three "Termination" subparagraphs below or insert type to suit Project. Use caution because many systems are tested with specific terminations.

Termination: Stack cap designed to exclude 90 percent of rainfall.

Termination: Round chimney top designed to exclude 98 percent of rainfall.

Termination: Exit cone with drain section incorporated into riser.

Termination: <**Insert termination**>.

* + - 1. LISTED SPECIAL GAS VENTS

* + - * 1. [Manufacturers:](http://www.specagent.com/Lookup?ulid=6200) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

[Heatfab Saf-T Vent](http://www.specagent.com/Lookup?uid=123456962128).

[Metal-Fab, Inc](http://www.specagent.com/Lookup?uid=123456962129).

[Security Chimneys International](http://www.specagent.com/Lookup?uid=123456962134).

[Selkirk Corporation](http://www.specagent.com/Lookup?uid=123456962130).

[Z-Flex; a division of the Novaflex Group](http://www.specagent.com/Lookup?uid=123456962131).

Approved equivalent.

* + - * 1. Description: Double-wall metal vents tested according to UL 1738 and rated for 480 deg F continuously, with positive or negative flue pressure complying with NFPA 211.
				2. Construction: Inner shell and outer jacket separated by at least a 1/2-inch airspace.
				3. Inner Shell: ASTM A959, Type 29-4C stainless steel.
				4. Outer Jacket: [**Aluminized**] [**Stainless**] steel.
				5. Accessories: Tees, elbows, increasers, draft-hood connectors, terminations, adjustable roof flashings, storm collars, support assemblies, thimbles, firestop spacers, and fasteners; fabricated from similar materials and designs as vent-pipe straight sections; all listed for same assembly.

Retain one of first three "Termination" subparagraphs below or insert type to suit Project. Use caution because many systems are tested with specific terminations.

Termination: Stack cap designed to exclude minimum 90 percent of rainfall.

Termination: Round chimney top designed to exclude minimum 98 percent of rainfall.

Termination: Exit cone with drain section incorporated into riser.

Termination: <**Insert termination**>.

1. EXECUTION
	* + 1. EXAMINATION
				1. Examine areas and conditions for compliance with requirements for installation tolerances and other conditions affecting performance of work.
				2. Proceed with installation only after unsatisfactory conditions have been corrected.
			2. APPLICATION
				1. Listed Type B and BW Vents: Vents for certified gas appliances.
				2. Listed Type L Vent: Vents for low-heat appliances.
				3. Listed Special Gas Vent: Condensing gas appliances.
			3. INSTALLATION OF LISTED VENTS
				1. Coordinate installation of roof curbs, equipment supports, and roof penetrations. These items are specified in Section 077200 "Roof Accessories."
				2. Comply with minimum clearances from combustibles and minimum termination heights according to product listing or NFPA 211, whichever is most stringent.

Retain first paragraph below if specifying positive-pressure vents.

* + - * 1. Seal between sections of positive-pressure vents according to manufacturer's written installation instructions, using sealants recommended by manufacturer.
				2. Support vents at intervals recommended by manufacturer to support weight of vents and all accessories, without exceeding appliance loading.
				3. Lap joints in direction of flow.
			1. CLEANING
				1. After completing system installation, including outlet fittings and devices, inspect exposed finish. Remove burrs, dirt, and construction debris, and repair damaged finishes.

END OF SECTION 235123