

**SECTION 235100
BREECHINGS, CHIMNEYS AND STACKS**

PART 1 GENERAL**1.01 SUMMARY**

- A. This Section includes the following:
 - 1. Listed double-wall flue vents

1.02 SUBMITTALS

- A. Product Data: For the following:
 - 1. Double Wall Flue Venting Materials
 - 2. Guy wires and connectors.
 - 3. Draft Calculations
- B. Shop Drawings: For vents, breechings, chimneys, and stacks. Include plans, elevations, sections, details, and attachments to other work.
 - 1. Detail equipment assemblies and indicate dimensions, weights, loads, required clearances, methods of field assembly, components, hangers and location and size of each field connection.
- C. Warranty: Special warranty specified in this Section.

1.03 QUALITY ASSURANCE

- A. Source Limitations: Obtain listed system components through one source from a single manufacturer.
- B. Certified Sizing Calculations: Manufacturer shall certify venting system sizing (draft) calculations.

1.04 COORDINATION

- A. Coordinate installation of roof curbs, equipment supports, and roof penetrations. These items are specified in Division 07 Section "Roof Accessories" and/or shown on the architectural drawings.

1.05 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of venting system that fail in materials or workmanship within specified warranty period. Failures include, but are not limited to, structural failures caused by expansion and contraction.
 - 1. Warranty Period: 12 years from date of Substantial Completion.

PART 2 PRODUCTS**2.01 LISTED DOUBLE WALL FLUE VENTS (CONDENSING BOILERS)**

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. Heat-Fab, Inc.
 - 2. Metal-Fab, Inc. Corr-Guard Model CG
 - 3. Schebler Chimney Systems
- B. 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.
- C. Construction: Inner shell and outer jacket separated by at least a 1-inch airspace.
- D. Inner Shell: ASTM A 959, Type AL29-4C stainless steel.
- E. Outer Jacket: Mirror Polished Aluminized or Stainless steel.
- F. 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.

1. Termination: Inverted cone type rain cap.

2.02 GUYING AND BRACING MATERIALS

- A. Cable: Three galvanized, stranded wires of the following thickness:
 1. Minimum Size: 1/4 inch in diameter.
 2. For ID Sizes 4 to 15 Inches: 5/16 inch.
 3. For ID Sizes 18 to 24 Inches: 3/8 inch.
 4. For ID Sizes 27 to 30 Inches: 7/16 inch.
 5. For ID Sizes 33 to 36 Inches: 1/2 inch.
 6. For ID Sizes 39 to 48 Inches: 9/16 inch.
 7. For ID Sizes 51 to 60 Inches: 5/8 inch.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Examine areas and conditions for compliance with requirements for installation tolerances and other conditions affecting performance of work.
 1. Proceed with installation only after unsatisfactory conditions have been corrected.

3.02 APPLICATION

- A. Listed Type B and BW Vents: Vents for certified gas appliances.
- B. Listed Special Gas Vent: Condensing gas appliances.

3.03 INSTALLATION OF LISTED VENTS AND CHIMNEYS

- A. Locate to comply with minimum clearances from combustibles and minimum termination heights according to product listing or NFPA 211, whichever is most stringent.
- B. Seal between sections of positive-pressure vents and grease exhaust ducts according to manufacturer's written installation instructions, using sealants recommended by manufacturer.
- C. Support vents at intervals recommended by manufacturer to support weight of vents and all accessories, without exceeding appliance loading.
- D. Lap joints in direction of flow.
- E. Join sections with acid-resistant joint cement to provide continuous joint and smooth interior finish.
- F. Erect stacks plumb to finished tolerance of no more than 1 inch out of plumb from top to bottom.

END OF SECTION 235100