

## SECTION 15575

### BREECHINGS, CHIMNEYS, AND STACKS

#### PART 1 - GENERAL

##### 1.01 SECTION INCLUDES

- A. Fabricated boiler breeching.
- B. ASTM A167 - Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet, and Strip.
- C. ASTM A525 - Steel Sheet, Zinc-Coated (Galvanized) by the Hot-Dip Process, General Requirements.
- D. ASTM A527 - Steel Sheet, Zinc-Coated (Galvanized) by the Hot-Dip Process, Lock-Forming Quality.
- E. ASTM A569 - Steel, Sheet and Strip, Carbon (0.15 Maximum Percent) Hot-Rolled Commercial Quality.
- F. NFPA 31 (ANSI Z95.1) - Standard for the Installation of Oil Burning Equipment.
- G. NFPA 211 - Standard for Chimneys, Fireplaces, Vents, and Solid Fuel-Burning Appliances.
- H. SMACNA - HVAC Duct Construction Standards - Metal and Flexible.
- I. UL 103 - Standard for Factory Built Low Heat Chimneys.
- J. UL 378 - Standard for Draft Equipment.
- K. UL 641 - Standard for Low Temperature Venting Systems.
- L. UL 959 (ANSI Z181.1) - Medium Heat Appliance Factory Built Chimneys.

##### 1.02 DEFINITIONS

- A. Breeching: Vent Connector.
- B. Chimney: Vertical shaft enclosing at least one vent for conducting flue gases outdoors.
- C. Vent Connector: That part of a venting system that conducts the flue gases from the flue collar of an appliance to a chimney or vent, and may include a draft control device.
- D. Vent: that portion of a venting system designed to convey flue gases directly outdoors from a vent connector or from an appliance when a vent connector is not used.

##### 1.03 DESIGN REQUIREMENTS

- A. Factory built breeching used for venting natural draft appliances shall comply with NFPA 211 and be UL listed and labeled.

##### 1.04 SUBMITTALS FOR REVIEW

- A. Section 01300: Procedures for submittals.

- B. Shop Drawings: Indicate general construction, dimensions, weights, support and layout of vent, breechings and chimney systems. Submit layout drawings indicating plan view and elevations where factory built units are used.
- C. Product Data: Provide data indicating dimensional details of components, weights and connection requirements.

#### 1.05 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing the Products specified in this section with minimum three years experience.
- B. Installer Qualifications: Company specializing in performing the work of this section with minimum three years experience.
- C. Design stacks under direct supervision of a Professional Structural Engineer experienced in design of this Work and licensed at the place where the Project is located.

#### 1.06 REGULATORY REQUIREMENTS

- A. Conform to NFPA 31 (ANSI Z95.1) for installation of natural gas burning appliances and equipment.

### PART 2 - PRODUCTS

#### 2.01 TYPE B DOUBLE WALL GAS VENTS

- A. Manufacturers:
  - 1. Selkirk Metalasbestos.
  - 2. Ampco.
  - 3. Metal Fab.
  - 4. Van-Packer.
  - 5. VIP.
- B. Fabrication: Inner pipe of sheet aluminum, and outer pipe of galvanized sheet steel, tested in compliance with UL441.

### PART 3 - EXECUTION

#### 3.01 INSTALLATION

- A. Install in accordance with manufacturer's instructions.
- B. Install in accordance with NFPA 31.
- C. Install vent with a minimum of joints. Align accurately at connections, with internal surfaces smooth.
- D. Support vent from building structure, rigidly with suitable ties, braces, hangers and anchors to hold to shape and prevent buckling. Support vertical vents at 12 foot spacing (or as recommended by the manufacturer), to adjacent structural surfaces. Refer to SMACNA HVAC Duct Construction Standards - Metal and Flexible for equivalent duct support configuration and size.
- E. Install concrete inserts for support of vent in coordination with formwork.
- F. Pitch vent with positive slope up from fuel-fired equipment to chimney.

- G. Coordinate installation of dampers and cleanouts.
- H. Maintain UL listed minimum clearances from combustibles. Assemble pipe and accessories as required for complete installation.
- I. Clean vent during installation, removing dust and debris.
- J. At appliances, provide slip joints permitting removal of appliances without removal or dismantling of breeching.
- K. Provide minimum length of vent to connect appliance to chimney.
- L. The gas vent shall terminate above the roof surface with a listed weather cap not less than 3 ft higher than any portion of the building within 10 feet.
- M. A gas vent passing through a roof shall extend through the entire roof flashing, roof jack, or roof thimble and be terminated with a listed termination cap.
- N. Manufacturer's field verification
  - 1. A factory approved manufacturer's representative shall witness the installation of the entire vent system and shall submit a letter certifying that the installation is in compliance with the manufacturer's recommendations.

END OF SECTION