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Centrotherm Eco Systems

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PART 1 GENERAL

1.1 SCOPE

- A. The provisions of Section _____, Mechanical General specifications apply to all work in this Section
- B. This Section includes all specifications relating to the furnishing and installing of Single Wall Positive Pressure Vent Systems for Condensing Heating Appliances.

1.2 SUBMITTALS

Submit the following items in accordance with Section _____:

- A. Catalog Cuts/Diagrams/Descriptions
- B. Sizing calculations
- C. Installation instructions
- D. Installation drawings
- E. Copy of product warranties

1.3 CODES AND APPLICABLE STANDARDS

*All products furnished under this Section shall conform to the requirements of The National Fuel Gas Code, ANSI Z223.1/NFPA-54 where applicable and shall comply with and be listed to **UL-1738**, the US Standard for Venting Systems for Gas-Burning Appliances, Categories II, III, and IV and **ULC-S636-95**, the Canadian Standard for Type BH gas vent systems. These requirements cover venting systems intended for venting Category II or IV gas-burning appliances as defined by the Standard for Gas-Fired Central Furnaces (except Direct-Vent Central Furnaces), ANSI Z21.47 and the National Fuel Gas Code, NFPA 54. Venting systems covered by these requirements are intended to be used with Category II, III, and IV appliances that have been installed in accordance with NFPA 54, and with codes such as the BOCA National Mechanical Code, the Standard Mechanical Code, the Uniform Mechanical Code, and local codes. Components coming in direct contact with products of combustion shall carry the appropriate **UL/cUL** labels.*

1.4 WARRANTIES

The manufacturer shall warrant the Positive Pressure Vent System against defects in material and workmanship for a period of 10 years from the date of the original installation. Any portion of the vent repaired or replaced under the warranty shall be warranted for the remainder of the original warranty period.

PART 2 PRODUCTS

2.1 POSITIVE PRESSURE VENT

- A. The vent shall be of the single wall, factory-built type, designed for use in conjunction with Category II, or IV condensing gas fired appliances, condensing oil fired appliances or as specified by the heating equipment manufacturer.



- B. Maximum continuous flue gas temperature shall not exceed 230 degrees F (110 degrees C).
- C. Vent shall be listed for a maximum positive pressure rating of 20" w.c.
- D. The vent system shall be continuous from the appliance's flue outlet to the vent termination outside the building. All systems components shall be UL/cUL listed and supplied by the same manufacturer.
- E. The vent shall be constructed from Flame Resistant Polypropylene, with a min. wall thickness of:

<u>Diameter</u>		<u>Wall thickness extruded pipes</u>			
<u>Diameter (mm)</u>	<u>diameter (inch)</u>	<u>min (mm)</u>	<u>max (mm)</u>	<u>min (inch)</u>	<u>max (inch)</u>
DN 60	2"	1.7	2.2	0.0669	0.0866
DN 80	3"	1.8	2.4	0.0709	0.0945
DN 110	4"	2.4	3.2	0.0945	0.1260
DN 125	5"	2.7	3.7	0.1063	0.1457
DN 160	6"	2.9	4.5	0.1142	0.1772
DN 200	8"	3.5	4.5	0.1378	0.1772
DN 250	10"	3.3	4.7	0.1299	0.1850
DN 315	12"	4.2	5.8	0.1654	0.2283

- F. All systems components such as vent supports, roof or wall penetrations, terminations, appliance connectors and drain fittings required to install the vent system shall be UL/cUL listed and provided by the vent manufacturer.
- G. All systems components shall include a factory- installed gasket in their female-end to render the vent air and water tight when the male/female ends are pushed together as per manufacturer's instructions. Vent systems requiring field installed sealants or compounds shall not be acceptable.
- H. Vent layout shall be designed and installed in compliance with manufacturer's installation instructions and all applicable local codes.

2.2 AVAILABLE MANUFACTURERS

Vent shall be InnoFlue® manufactured by Centrotherm.

PART 3 EXECUTION

3.01 VENT SYSTEM LAYOUT

- A. The vent system shall be routed for zero clearance to combustibles as specified by the manufacturer.
- B. Vent Installation shall conform to the manufacturer's installation instructions, its UL/cUL listing and state/local codes
- C. The vent system and breechings shall be inspected and cleaned before the final connection to the appliances.

3.02 MECHANICAL EQUIPMENT

- A. If dampers or fans are installed in conjunction with the vent system, such equipment shall be supported independently from the vent system. Protect vent system from twisting or movement due to fan torque or vibration.