

Frequently Asked Questions – H&C B-Vent

How do I know what size B-vent to use?

Several variables need to be considered to determine the proper size of a venting system. These include, but are not limited to, air supply, connector type, BTU input of the appliance, lateral offset and height of the vent system. To assist you in designing a proper system, download our "Gas Vent, Chimney Sizing & Application Guide". This guide covers single and multiple appliance venting and proper chimney sizing. It has a complete set of easy-to-use sizing tables, the same tables used in the National Fuel Gas Code. Included in the guide are common definitions, examples, tips on what you should and should not do and many illustrations to help you along the way.

What are the airspace clearances to combustibles and what are the temperature limits?

1" clearance is required per our UL listing for all installations. The temperature limit is approx 550 deg F for use with gas-fired equipment (natural or propane) that do NOT create a positive pressure in the vent pipe or condense.

What Class or Category of pipe is B-vent?

The Category is actually applied to the appliance. B-vent is ONLY allowed on Category 1 appliances unless the appliance manufacturer has specifically certified a particular B-vent system to be used alternatively.

Can B-vent terminate horizontally?

No. Per the sizing tables, all orientations must terminate vertically with a UL listed rain cap, otherwise the appliance may not vent properly. However, sometimes it is permissible to vent a Category 1 appliance horizontally with B-vent if a certified flue gas exhaust fan (Exhausto, Tjerlund, Field Controls) is mounted on the exterior wall to pull the flue gases out.

Can you use sheet metal screws in B-vent?

Generally, NO, Hart & Cooley does not want sheet metal screws used in the assembly or installation of our Type B gas vent. Screws can generate serious noise problems that adversely affect the perceived performance and value of our product. They are not needed to secure a connection because the connection is already UL listed as it is designed. However, there are exceptions that we allow screws and that is for connections of single-wall pipe to the B-vent. Fold back the outer wall locking tabs that can act like an access "door" to secure the aluminum inner wall and single wall pipe together using 1/4" stainless screws.

What causes noisy B-vent?

Often, noise in Type B gas vent is caused by the relative movement of parts in the system with adjacent parts, with part of the structure, or because of additions or changes to the parts and/or system. If installed according to Hart & Cooley's installation instructions, the Type B gas vent is designed to accommodate the expansion and contraction due to heating and cooling which occurs within the system. Some common causes of noise in a system could be: screws used in the assembly of the gas vent system; contact with any part of the structure; roof flashing attached to the vent pipe; any means of support other than the listed Hart & Cooley support assembly. [Click Here for More Information](#)

Is Hart & Cooley B-Vent Fire Rated?

No, Hart & Cooley's Type B gas vent does not have a fire rating. Neither do any of our competitors. The standard for developing fire ratings is ASTM E84. The test method provides a consistent, repeatable test method to report flame spread and smoke development for building materials in response to heat and flame. Results may be used as elements of a fire risk assessment. Underwriter's Laboratories specify the materials that we use for building our B-vent in their Standard 441 for gas vents. These materials have no ability to ignite or to support or sustain combustion. There is no contribution to the fuel supply. Since there is nothing that can burn, the flame spread rating is "0". Since there is no flame, the smoke density development rating is "0". Hart & Cooley requires the use of our RSA support in the ceiling above a connected appliance. This support is also a fire stop at that location. UL specifies this to be so. We have been selling this UL listed system and having it installed through partitions in buildings that require fire rated assemblies since 1959 without a problem. UL condones this application. UL has not encouraged us to test with fire rated assemblies since the test would show consumption and degradation of building materials surrounding the B-vent while leaving the metal vent components in place.

Do you have Material Data Safety Sheets (MSDS) for your products?

No, because Hart & Cooley products meet the definition of an "article", they are not subject to the OSHA Hazard Communication Standard. Therefore, Material Safety Data Sheets are not required. Under Section 1910.1200 (b)(5) of the OSHA Hazard Communication Standard an article is defined as any manufactured item:

- (1) which is formed to a specific shape or design during manufacture,
- (2) which has end-use functions dependent in whole or in part upon its shape or design during end-use, and
- (3) which does not release, or otherwise result in exposure to, a hazardous chemical under normal conditions of use.

Can I paint my B-vent?

Yes, you can paint exposed b-vent to match the color of the siding or roof shingles. Follow these simple guidelines:

Scuff and clean the surface to be painted with steel wool. Clean dust, oils and fingerprints off the surface using a household degreaser cleaner.

Locate a reputable paint manufacturer/supplier (Rustoleum, Sherwin Williams) to review their recommendations for painting galvanized steel that could get to possibly 250 degrees F at the extreme.

I have another Question

Visit our Tech Corner for additional resources that cover a variety of topics or

Contact our Product Application Engineer, Keith Page at 616-656-8315 or e-mail at: keith.page@hartcool.com