Frequently Asked Questions – Flex Duct

What is the difference between AIR DUCTS and AIR CONNECTORS?
Air ducts must pass 15 tests of the UL181 Standard for Safety for Factory Made Air Ducts and Air Connectors. However, air connectors are required to pass only 12 of the 15 tests. Therefore, most models codes and the National Fire Protection Association (NFPA) require that air connectors shall not be installed in lengths greater than 14 feet. An installer may NOT increase this length by using a splice between 14' sections of air connectors. The installed length of Air Duct is not restricted.

Can Flexible Air Ducts or Connectors be used to vent clothes dryers?
No. The International Mechanical Code & Residential Code state that "Exhaust ducts for domestic clothes dryers shall be constructed of metal and shall have a smooth interior finish...." Additionally, most if not all appliance manufacturers also state this in their installation instructions. Often, the clothes dryer warranty is void if it is not vented properly. None of our flexible duct products can be used to vent clothes dryers.

Can Flexible Duct be exposed to ultraviolet sunlight?
No, even though our black jacket offering has some inherent UV resistance we do not recommend the use of our product to be used in direct sunlight and cannot guarantee the longevity associated with that application. We also do not recommend installing our flex duct core near UV lights installed inside ductwork. Install the flex duct so that it is not in the direct path of the light rays, by adding an extension sleeve of metal before attaching the flex duct or moving it farther away from the line of sight of the UV light.

Can Flexible Duct and Air Connector be used for bathroom/shower exhaust fans?
Yes. We recommend that you use insulated flex duct in longer vent run applications to assist in keeping the humidity from condensing inside the duct and to help prevent the pooling of water, which can damage the core. When using air connector, there is no limit in length for bathroom exhaust compared to when using air connector in HVAC applications (14 feet max). The national codes, currently, do not have any reference to bathroom exhaust requirements to state otherwise.

Does Flexible Duct inhibit mold growth?
Yes. Per the UL181 test standard, the flex duct must be inoculated with mold mycelia & spores and inhibit the inoculated area to grow over a period of 60 days. This test is done in a closed vessel without light and the vessel atmosphere is saturated with water vapor.

Can I use the same size flexible duct as I would use for round sheet metal?
Yes and No. Yes, if the appliance can overcome the increased static pressure and still deliver the required CFM needed to condition the space. No, if the appliance CFM delivery is limited and was determined by using round sheet metal, therefore requiring you to increase the flex diameter by one or two sizes. Use our flexible duct excel calculator in the left-hand menu to see the differences in static pressure between round sheet metal and flexible duct. As always, use a large radius when making bends in flex duct.

Can screws be used to fasten flexible duct core?
Hart & Cooley does not recommend screws be used to fasten the polyester core of the air ducts because they weaken the polyester. Polyester is a very strong material as long as there are no holes or tears in it. As soon as a tear or hole is introduced, it's strength drops. To maintain our UL approval status, our air ducts must pass a tension test (25 pounds hanging from one end of the duct), a torsion test (one end rotated 180° or to 25 foot-pounds whichever comes first) and then a leakage test. In all of these tests, both ends must be connected to collars per our installation instructions. Flexible duct connected with screws would not pass these tests.

Are flexible Air Ducts plenum rated?
Yes. Per the 2006 Int'l Mech Code Section 602.2.1.

Must I use UL-Listed Duct Tape, Mastics and Clamps?
Yes. Our installation instructions are in full compliance with UL and ADC standards. As such, only duct tapes, mastics and non-metallic clamps that are listed and labeled according to the UL-181 standard can be used. Metallic clamps are also allowed. The use of beaded sheet metal fittings is also required.
Duct tape must be marked "UL181B-FX". (established October 20, 1995)
Mastics must be marked "UL-181B-M". (established October 20, 1995)
Non-metallic clamps must be marked "UL-181B-C". Limited to 6" w.g. positive pressure. (established May 15, 2004.)

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.

I have another Question
Visit our Tech Corner for additional resources that cover a variety of topics or contact our Product Application Engineer, Phil Maier at 616-656-8377 or e-mail at:
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