

**E-mail question** from a homeowner who is trying to solve **a cold basement.**

***Question: Why can't I use a regular universal inline motorized damper (HAC) to control the cold air coming from my combustion air duct?***

I developed a motorized damper for the control of combustion air for the furnace over 30 years ago and I was of the opinion that what was required was a damper that opened when the fire came on and closed when the fire stopped. The Gas Code, however, specified that this damper was to be tested to a safety standard and carry a CSA label as proof of proper operation and certification. This Standard specified that, among many other things, the damper was to be equipped with an end switch that proved the damper to be open to supply fresh air before the fire burned and also that the damper was to open by gravity should the power or electrical wiring fail (Fail-Safe-Open). It's common knowledge that the **lack of fresh air for a fire produces deadly carbon monoxide fumes** (The Silent Killer). As a result, safety regulations were put in place for the supply of fresh air for the furnace fire and if an automatic control damper was used, it had to be certified. These regulations are still in effect today. The National Gas Code for Canada B149-1 in clause 8.5.5 states that: "An automatic air damper installed in the (combustion) air supply within a dwelling shall be certified". The Hoyme combustion air damper (HOM series) has been manufactured to International CSA standards and is certified for the control of this combustion air for Canada and the US.

Today, high efficiency furnaces are installed that eliminates the need for the conventional combustion air duct. There are, however, hundreds of thousands of homes that have **not** been converted to high efficiency furnaces and still have the open combustion air duct allowing cold air to continually flow in. In Western Canada, this conventional combustion air duct is usually equipped with a cheap so called '**bucket or air trap**' fastened to the end of the duct that simply does not work and scientifically cannot stop the flow of cold air at any time. To the installer: **Remove the bucket and install a combustion air damper. Do this and you will have a friend for life.** We know, because we have been in this business since 1984, making thousands of friends over the years and continuing to add new friends each year.

***Where is the Universal HAC damper used if it's not used for combustion Air?***

The present Building Code asks for fresh air to be brought into the building envelope, usually via a duct leading into the return plenum. Again, during winter months, this cold air continually flows into the plenum causing discomfort to the homeowner, wastes energy and places a strain on heating parts. In this case, it's not the combustion air damper (HOM) but the inline universal air damper (HAC) that provides comfort and energy savings. This damper is Internationally CSA certified for multiple uses of air control including fresh air, zoning and venting.

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