

TECH TALK

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Fusible-link Dampers

by Dave Fetters

Most of us understand what a fuse is, at least as it relates to electricity—a safety device that fails and interrupts the circuit if the current becomes too great. An old-style fuse would melt an encapsulated wire or metal strip due to heat build-up as the current exceeded the fuse's rating. The fuse will no longer conduct electricity after failing. Today, however, most of us have circuit breakers. We are going to apply this concept of an old-style fuse to a register damper.

One form of a **fusible link** is a set of overlapping metal tabs with holes at each end for attachment purposes that will separate into two pieces at a preset temperature. These over-

lapping tabs are held together with precision solder that is temperature-specific. A **fusible-link damper** is the result of mounting a fusible link to the damper of a register. The end result is a register damper that is fully operational as one would expect, but has the added benefit of closing if the temperature becomes too hot.

Specifically, Hart & Cooley's fusible link is about an inch long with a standard temperature rating of 165°F or an optional link with a 212°F rating. We use these on only some of our steel multi-shutter equipped registers like the 661 or 682. When the air temperature passing over the link approaches the

rated temperature of the link, the link will open (fail), allowing a spring-loaded mechanism to slam the damper shut and hold it shut. The register is reusable by installing a replacement link.

The links we use are Underwriters Laboratories-listed components. This means only the link has a UL listing. **Our use of one of these fusible links on a register does not transfer a listing of any kind to the damper.** These fusible-link registers are not fire dampers and cannot pass the UL requirements for listing. They should never be substituted for a listed fire damper.

The 661 and 682 in limited sizes with metal handle are the only fusible-link (FL) registers that we offer.



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