

U.S. Fire Administration / National Fire Academy

Coffee Break Training

Topic: Heat and Smoke Vent Testing

Learning objective: The student shall be able to describe two methods for acceptance testing fusible-link operated smoke and heat vents.

Roof-top smoke and heat vents are a common sight on factory and industrial buildings, big box retail stores, hazardous occupancies, and above stages in large theaters.

During transportation and installation, damage can occur that prevents the vents from opening after they have been installed. Vents may bind, not fully open, or have their controls installed incorrectly. Roofers or other contractors working in the area may have damaged the vents during construction.

Vents should be tested in accordance with the manufacturers' recommendations before the fire code official accepts them for service. The installing contractor should provide manufacturer's testing criteria, or you may be able to obtain it from the manufacturer on the World Wide Web.



The manufacturer of the vents in this illustration requires that the vents be released manually from the roof-top pull handle, and automatically by melting the fusible link that holds the vent closed. The manufacturer provides a replacement link for this test.

Successful tests should be documented in the occupancy file. Failures should be documented and corrected.