

§ 116.610 Ventilation ducts.

(a) For the purposes of this section, a ventilation duct includes any type of piping, chamber, or conduit used for ventilation.

(b) A ventilation duct, and materials incidental to its installation, must be made of noncombustible material.

(c) Combustibles and other foreign materials are not allowed within ventilation ducts. However, metal piping and electrical wiring installed in a metal protective enclosure may be installed within ventilation ducts, provided that the piping or the wiring does not interfere with the operation of fire dampers. Electrical wiring and piping may not be installed in an exhaust duct over a frying vat or grill.

(d) Suitable means, such as a manual damper, automatic damper, or vent cover, must be provided in an accessible location outside the space served by the ventilation duct for shutting off the passage of air through the ventilation duct in the event of fire.

(e) A ventilation duct must not serve more than one main vertical zone; penetrations of main vertical zones must be minimized.

(f) A ventilation duct penetrating an A-Class or B-Class fire control boundary must meet the following requirements:

(1) A ventilation duct must meet the same requirements relative to the passage of smoke and flame as the fire control boundary penetrated;

(2) A steel duct penetrating an A-Class fire control boundary must be of at least 11 USSG, and a steel duct penetrating a B-Class bulkhead or deck must be of at least 16 USSG;

(3) A duct penetrating a main vertical zone bulkhead must be fitted with an automatic fire damper at the main vertical zone bulkhead;

(4) A duct penetrating an A-Class fire control boundary and opening into a space formed by that boundary must be equipped with a fire damper;

(5) A steel duct that penetrates an A-Class fire control boundary other than a main vertical zone bulkhead, and does not open within the space formed by the boundary need not be fitted with a fire damper provided the duct is at least 11 USSG throughout that space;

(6) A duct penetrating an insulated fire control boundary must be fitted with insulation of the same type and thickness as the boundary penetrated for a distance of at least 305 millimeters (12 inches) on the insulated side of the boundary. A fire damper blade need not be insulated; and

(7) Ducts serving cargo spaces, machinery spaces, or vehicles spaces must be fitted with automatic fire dampers.

(g) Fire dampers, where required by this section, must comply with the following requirements:

(1) A fire damper and casing must be at least 11 USSG and not more than 3.2 millimeters (0.125 inch) gap between the blade and casing;

(2) A fire damper must close against the draft in the duct and be accessible for periodic inspection by means of a hinged or bolted plate in the duct and surrounding bulkhead or deck, if fitted;

(3) Fire damper springs, blades, and hinges must be of stainless steel construction or of steel suitably coated to prevent corrosion;

(4) Fire dampers must be capable of manual operation from outside the space served, be fitted with an indicator showing whether the damper is open or closed, and be marked with red letters of at least 12.7 millimeters (0.5 inches) in height stating "VENTILATION FIRE DAMPER"; and

(5) An automatic fire damper must meet the above requirements and must be designed to operate at 74°C (165°F) for normal locations and approximately 100°C (212°F) for locations such as galleys.

(h) A ventilation duct serving a stairtower must not serve another space.

[CGD 85-080, 61 FR 900, Jan. 10, 1996, as amended at 62 FR 51350, Sept. 30, 1997]

§ 116.620 Ventilation of machinery and fuel tank spaces.

In addition to the requirements of this subpart, ventilation systems for spaces containing machinery or fuel tanks must comply with the requirements of Part 119 of this chapter.