

Table 10.1.: Components of Smoke Control and HVAC Systems

ITEMS	REQUIREMENTS
8. FIRE DAMPERS	<u>2. FIRE RATING OF FIRE DAMPERS</u> <ul style="list-style-type: none"> i. A 3-hour rated damper is required for 3 hour or greater fire resistance rated wall or assembly. ii. A 90 minutes rated damper is required for less than a 3 hour rated fire resistance rated wall or assembly.
	<u>3. AREAS WHERE FUSIBLE LINK TYPE FIRE DAMPERS ARE REQUIRED</u> <ul style="list-style-type: none"> i. Ducts and air-transfer openings penetrating walls or partitions having a fire resistance rating of 2 or more hours. ii. Ducts and air-transfer openings penetrating shaft walls having a fire resistance rating of 1 or more hours. iii. Ducts and air-transfer openings penetrating floors that are required to have protected openings where the duct is not protected by a shaft enclosure. iv. Air-transfer openings that occur in walls or partitions that are required to have a fire-resistive rating of 30 minutes or more. v. See Figure 10.9. for illustration. Also see Chapter 1, Section 2.15. for damper details.
	<u>4. AREAS WHERE FUSIBLE LINK TYPE FIRE DAMPERS ARE NOT REQUIRED</u> <ul style="list-style-type: none"> i. HVAC duct branching serving apartments, dwelling units, health care sleeping units, class rooms, detention and correction cells, shall not require fire dampers. ii. Ducts serving a smoke control system and such a system requires logical duct distribution and duct isolations to achieve a smoke control strategy. iii. In floors that do not require protected floor openings. iv. In a duct system serving only one floor and used only for the exhaust of air to the outside and not penetrating a wall or partition having a required fire resistance rating of 2 hours or more or passing entirely through the system and contained within its own dedicated shaft. v. Where branch ducts connect to enclosed exhaust risers in which the airflow is upward, and steel subducts at least 22 in. (560 mm) in length are carried up inside the riser at each inlet. vi. A fusible link type fire damper shall not be required for the following locations: <ul style="list-style-type: none"> a. Clothes Dryer Exhaust Ducts b. Hazardous Fume Exhaust Duct c. Stairwell Pressurization Ducts d. Smoke Extraction Ducts e. Laundry and Trash Chutes
	<u>5. AREAS WHERE MOTORIZED SMOKE AND FIRE DAMPERS (MSFD) ARE REQUIRED</u> <ul style="list-style-type: none"> i. Main HVAC ducts and air-transfer openings penetrating main 1 hour or more fire rated shaft of the building, branching out to serve each floor. ii. Entire smoke control ducts, as required by the smoke management strategy.