

**Refer to:**

'Installation Instructions for Multi-blade Fire & Combination Fire Smoke Dampers' (Part #481318)

or

'Installation Instructions for Curtain Fire Dampers' (Part #481324) for additional details



## 1. GAUGES AND LENGTHS OF FIRE DAMPER SLEEVES

All fire smoke dampers must be installed in a steel sleeve of the required gauge and length. See Table 1 for required minimum sleeve gauges. Maximum sleeve thickness is 10 gauge (3.5 mm). Sleeve inside dimensions must equal damper outside dimensions.

### Multi-blade Fire and Combination Fire Smoke Dampers

Sleeves shall extend a maximum of 16 in. (406 mm) beyond the wall or floor on the actuator or manual quadrant side of the damper (see **Figure 1**). When an access door is incorporated as a part of the sleeve on the side opposite the actuator or manual quadrant, the sleeve shall also extend a maximum of 16 in. (406 mm) beyond the wall or floor. When there is no access door incorporated as part of the sleeve, the sleeve shall extend a maximum of 6 in. (152 mm) beyond the wall or floor on the side of the damper opposite the actuator or manual quadrant.

### Curtain Fire Dampers

Sleeves shall extend a maximum of 6 in. (152mm) beyond the wall or floor opening on each side (see **Figure 2**). When a factory mounted access door is installed as part of the sleeve, the sleeve may extend a maximum of 16 in. (406mm) beyond the wall or floor opening on the access door side.

## 2. ATTACHING FIRE DAMPERS SLEEVES

All four sides of the damper frame must be attached to the sleeve with one row of attachments on each side of the frame. Attachments must be spaced a maximum of 6 in. (152 mm) on centers and a maximum of 2 in. (51 mm) from corners. A minimum of 4 attachments (2 on each side of the frame) per side (16 per damper) are required. One of the methods of attachment shown below must be used.

- tack or spot welds
- #10 sheet metal screws
- ¼ in. (6 mm) bolts and nuts
- ⅜ in. (4.7 mm) steel pop rivets

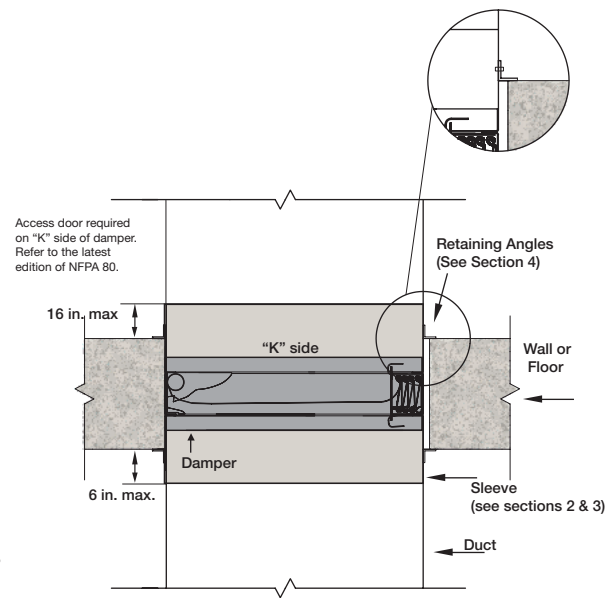
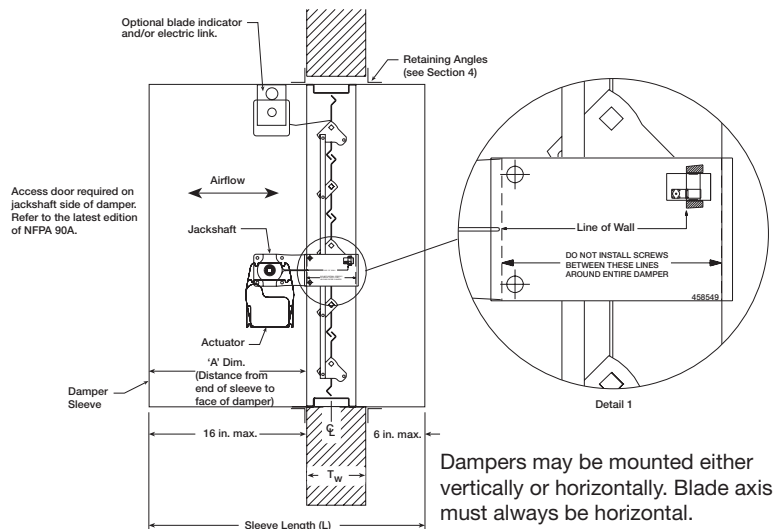


Figure 1: Combination Fire Smoke Damper

Figure 2: Curtain Fire Damper

Minimum Sleeve Thickness for Fire Dampers			
Type of Duct to Sleeve Connection	Duct	Duct Dimension in. (mm)	Sleeve Gauge
Rigid	Round	24 in. (610mm) max. diameter	16 (.060 in.) [1.5 mm]
	Rectangular	36 in. (914 mm) max. width or 24 in. (610mm) max. height	
Rigid	Round	over 24 in. (610mm) diameter	14 (.075 in.) [2 mm]
	Rectangular	over 36 in. (914 mm) width or over 24 in. (610mm) height	
Breakaway (or no duct)	Round or Rectangular	12 in. (305 mm) wide and under	26 (.018 in.) [.46 mm]
		13 in. - 30 in. (330 mm - 762 mm) wide	24 (.024 in.) [.6 mm]
		31 in. - 54 in. (787 mm - 1371 mm) wide	22 (.030 in.) [.76 mm]
		55 in. - 84 in. (1397 mm - 2134 mm) wide	20 (.036 in.) [.9 mm]
		85 in. (2159 mm) wide and over	18 (.048 in.) [1.2 mm]

Important Note: Sleeve thickness must not be less than the gauge of the connecting duct. UL Standard 555 requires all ducts to terminate at the fire damper sleeves or the damper frames.

Table 1: Minimum sleeve thickness for fire dampers.

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