

General

The following supplement provides basic assembly installation instructions for the 1½ hour rated fire dampers, combination fire smoke dampers and CFS Series ceiling fire smoke dampers when mounted horizontally in UL Design I503. UL Design I503 is a 2 hour fire rated horizontal barrier made from steel studs and gypsum board. Load is limited to the dead weight of the assembly. Installation applies for horizontal mount dampers up to maximum size 48" x 48" (1219 x 1219). Single section size for each model may be different and is limited to the maximum size in the product specifications.

Warning

Read the installation instructions thoroughly before installing or servicing this equipment. Improper installation, adjustment, service or maintenance can cause property damage or injury.

Clearance

To make installation of the damper assembly into the floor opening easier, clearance between the damper sleeve and floor opening is recommended. However there is no minimum clearance requirement between the floor opening and damper sleeve.

Installation Guidelines

C&S dampers are designed to be trouble and hassle free under normal operation. The intent of a proper installation is to secure the damper assembly into the opening in such a manner as to prevent distortion and disruption of damper operation. The following items will aid in completing the damper installation:

- A. Retaining angles 20 gauge (1) minimum must be used to install the damper assembly into the floor opening. The leg of the retaining angle on the damper sleeve shall be a minimum 1¼" (32) and the leg of the retaining angle on the floor shall be long enough to overlap the floor by 1" (25) minimum and cover the clearance space between sleeve and floor opening.

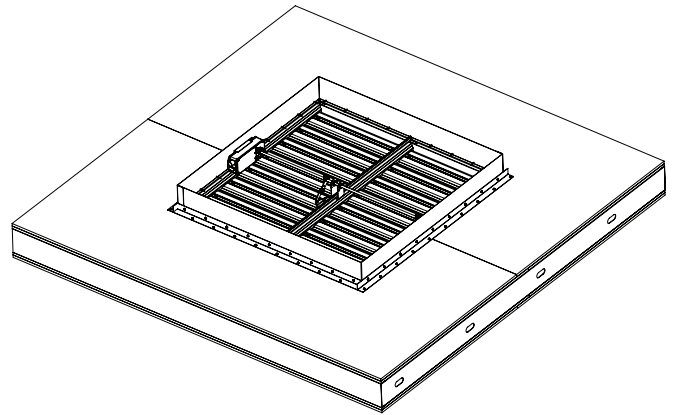
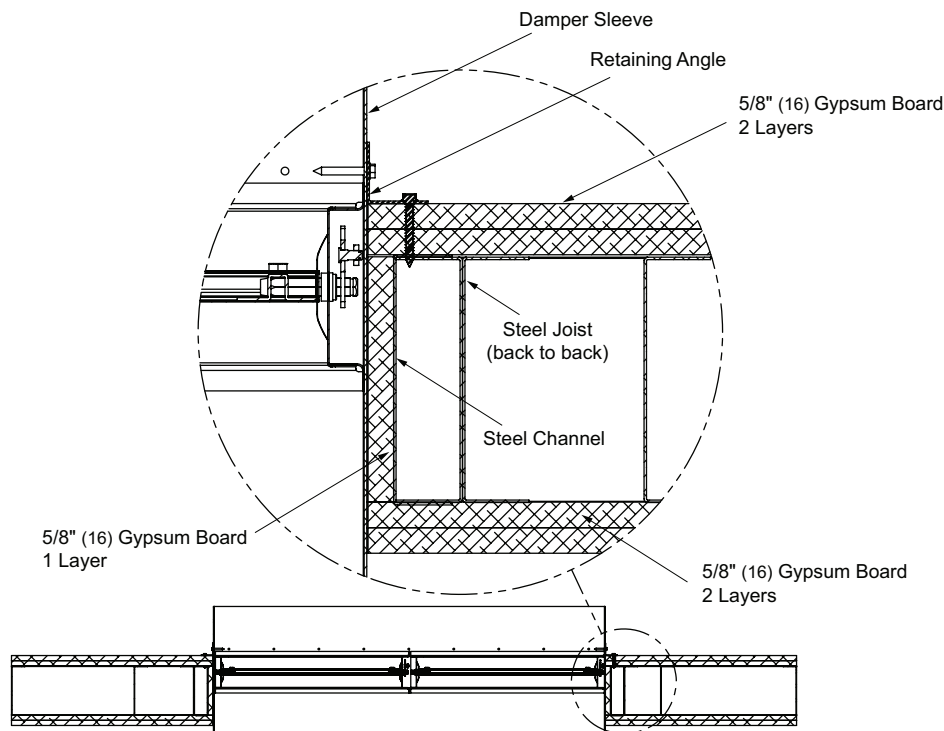


Figure 1

Figure 2



B. Retaining angles shall be attached to the sleeve using one of the following connections:

1. tack or spot welds
2. $\frac{3}{16}$ " (4.8) diameter steel rivets
3. #10 sheet metal screws
4. $\frac{1}{4}$ " (6) nuts and bolts

Two connections minimum are required and shall be at a maximum 2" (51) from the corners and at maximum 6" (152) on center.

C. Retaining angles shall be attached to the floor on each side with minimum 2 self-drilling Type S #10 steel screws $1\frac{7}{8}$ " (48) long, spaced 8" (203) maximum on center and maximum 6" (152) from the corners.

D. Retaining angles are required to be installed above the floor and are optional below the floor.

UL Design I503 Framing

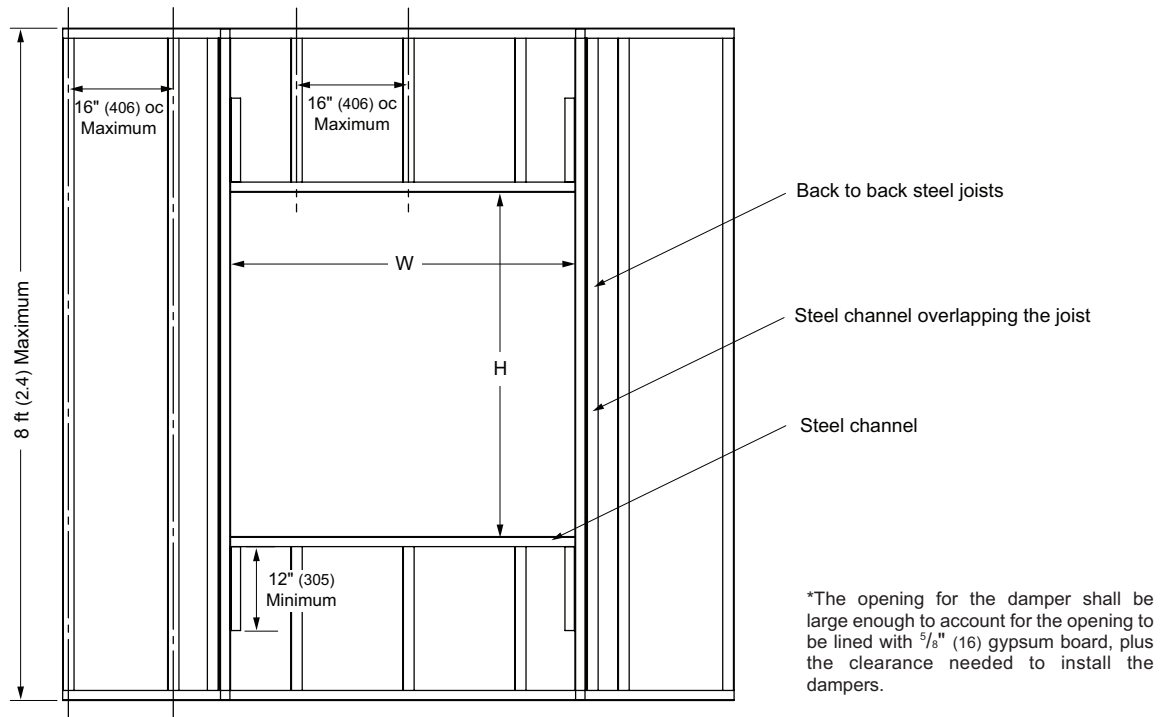


Figure 3

A. On the sides parallel to the steel joists, the damper shall be framed by 2 steel joists installed back to back with a steel channel overlapping the joist facing the damper sleeve. See Fig. 3.

B. On the side perpendicular to the steel joists, the damper shall be framed by steel channel as specified in the UL Design I503.

C. The opening shall be lined with $\frac{5}{8}$ " (16) gypsum board as specified in UL Design I503 that is screwed to the steel joist and steel channel with Type S steel screws minimum

$1\frac{7}{8}$ " (48) long spaced at 12" (305) maximum on center.