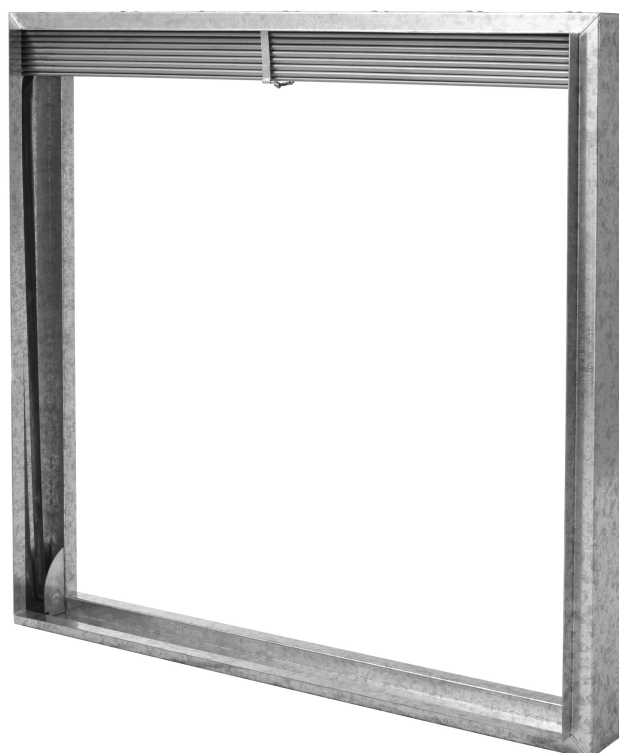


# INSTALLATION MANUAL

## FD 150 AH



## CURTAIN FIRE DAMPERS



## READ AND SAVE THESE INSTRUCTIONS

### 1. Type of Wall & Damper Orientation

Dampers to be installed vertically in masonry walls or gypsum / steel stud walls.

### 2. Expansion Clearance

The opening in the wall shall be larger than the damper / sleeve assembly to permit installation or expansion. For two angle installations the opening shall be a minimum of 1/8" per foot (3mm per 305mm) larger than the overall size of the damper / sleeve assembly. The maximum opening size shall not exceed 1/8" per foot (3mm per 305mm) plus 2" (51mm), nor shall the opening be less than 1/4" (6mm) larger than the damper / sleeve assembly.

### 3. Damper Sleeve

Sleeve thickness must be equal to or thicker than the duct connected to it. Sleeve gauge requirements are listed in the SMACNA Fire, Smoke and Radiation Damper Installation Guide for HVAC Systems and in NFPA90A.

Round duct dia. Or Rectangular duct width		Recommended sleeve thickness for breakaway joints	
inch	mm	gauge	mm
12 or less	305 or less	26	0.5
13 – 30	330 – 762	24	0.6
31 – 54	787 – 1372	22	0.8
55 – 84	1397 – 2134	20	0.9
85 or more	2159 or more	18	1.2

If a breakaway style duct/sleeve connection is not used, then sleeve shall be a minimum of 16 gauge (1.5mm) for dampers up to 36" (914mm) wide by 24" (610mm) high and 14 gauge (2.0mm) for dampers exceeding 36" (914mm) wide by 24" (610mm) high.

Damper sleeve shall not extend more than 6" (152mm) beyond the fire wall or partition unless damper is equipped with factory installed access door. Sleeve may extend up to 16" (406mm) beyond the fire wall or partition on sides equipped factory installed access door. Sleeve shall terminate at both sides of wall within dimensions as mentioned above.

### 4. Damper to Sleeve Connection

Damper is attached with sleeve by 1/2" (12mm) long welds spaced at 6" (152mm) o.c. max and 2" (50mm) from corners.

### 5. Mounting / Retaining Angles

Mounting angles (mild steel) shall be minimum of 1-1/2" x 1-1/2" x 1/8" steel (40 x 40 x 3.0 mm). Minimum 1" (25mm) overlap on all sides and corners. Mounting angles can also be joined together by welding at the edges to form a frame.

### 6. Mounting Angle to Sleeve Connection

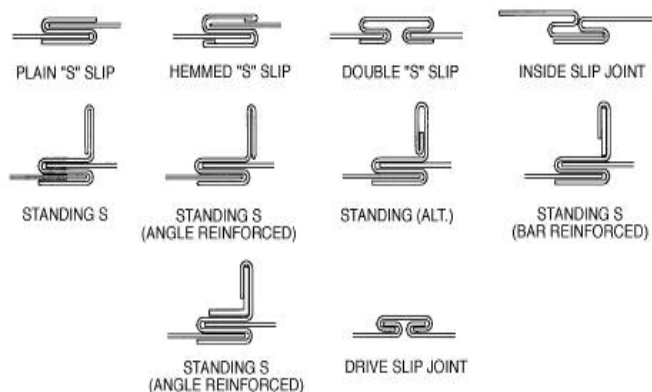
Mounting angles are attached to sleeve by a) 1/4" (6mm) x 16mm bolts & nuts OR b) 3/16" (5mm) x 16mm steel rivets or 1/2" (12mm) long welds spaced at 8" (203) o.c. max. and 1" (25mm) min. from corners.

### 7. Duct/Sleeve Connection

Connecting ducts shall not be continuous and shall terminate at sleeve on both sides of the damper.

#### a. Breakaway duct/sleeve connection

Rectangular ducts must use one or more of below mentioned (UL recognized breakaway joint):



#### b. Rigid duct/sleeve connection

If other duct to sleeve connections are used, the sleeve shall be a minimum of 16 gauge (1.5mm) for dampers up to 36" (914mm) wide by 24" (610mm) high and 14 gauge (2.0mm) for dampers exceeding 36" (914mm) wide by 24" (610mm) high.

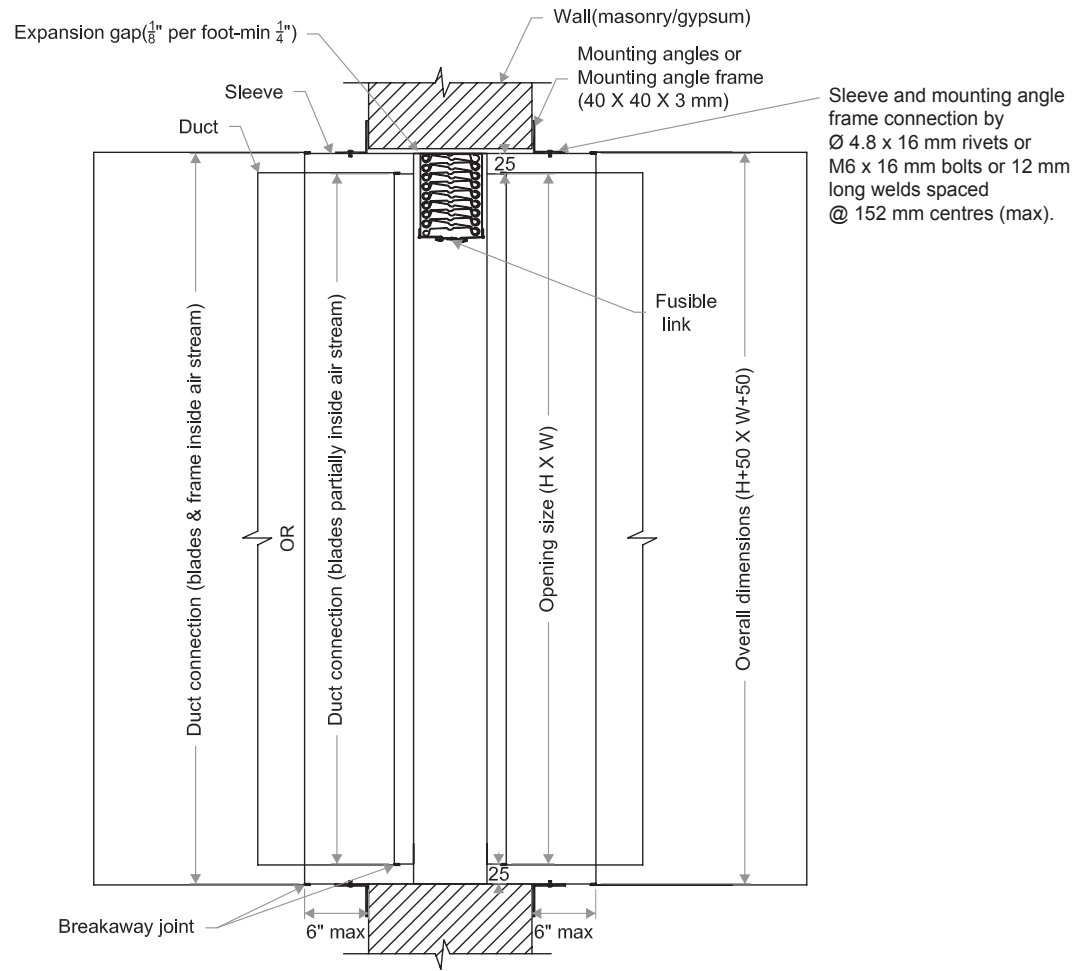
### 8. Multiple Sections Assembly

Multiple sections are created by joining single sections 2 wide (max.) x 2 high of single sections (max.) by 1/2" (12mm) long welds spaced at 8" (203mm) o.c. max and 2" (50mm) from corners. Joints to be covered by 18 ga. (1.2mm) metal strips on both sides that is attached to dampers by spot tack welding with 8" (203mm) o.c. Maximum overall size of multiple section is 72" x 72". Maximum overall size of single section is 36" x 36".

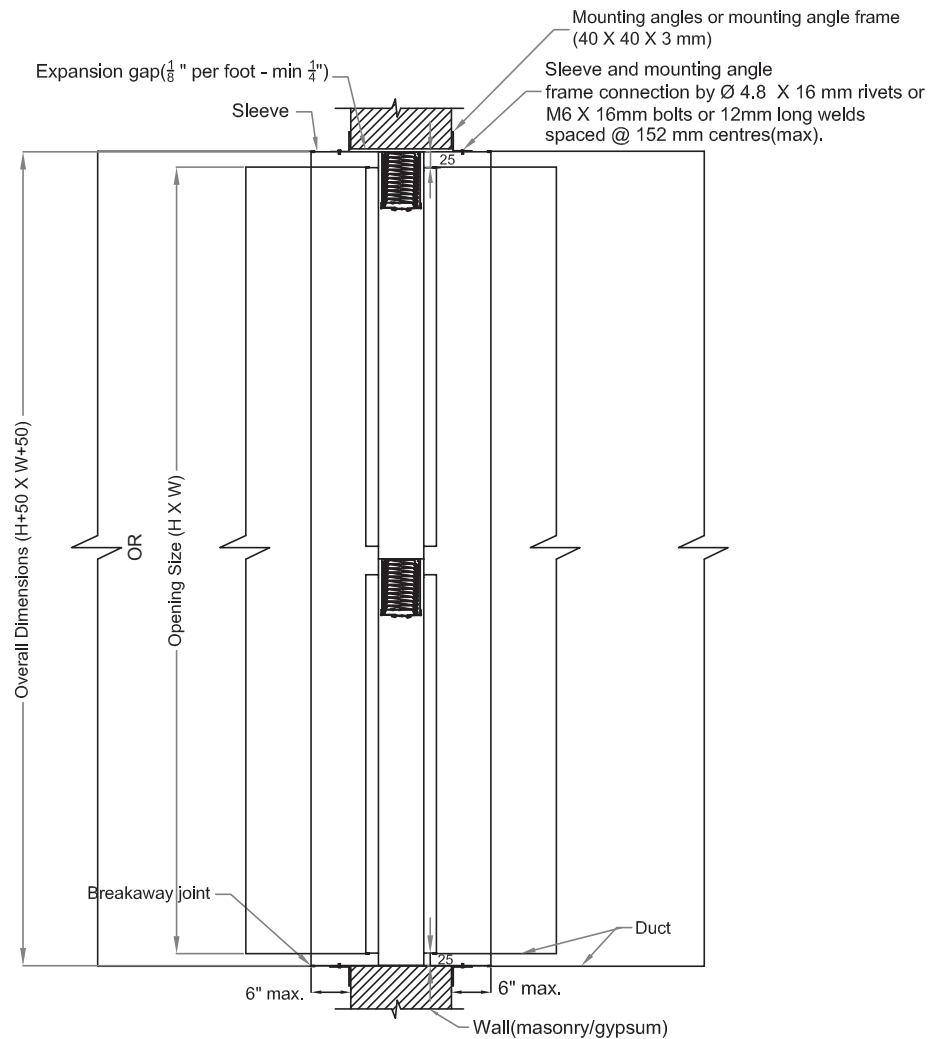
### 9. Installation & Maintenance

To ensure optimum operation and performance, the damper must be installed so it is square and free from racking. Each fire damper should be inspected, cleaned and tested on a regular basis and in accordance with the latest editions of NFPA 90A and local codes. Care should be exercised to ensure that such tests are performed safely and do not cause system damage.

## Single Section



## Multiple Section



NOTE: All dimensions are in millimeter.

## RECOMMENDED FRAMING FOR OPENINGS IN WOOD AND METAL STUD WALLS

### INSTRUCTIONS

1. Frame wall openings as shown in figure 1 or 2.
2. Double vertical studs are not required for openings 36"w x 36"h (914 x 914) or smaller.
3. All construction and fasteners must meet the requirements of the appropriate wall design and/or local codes.
4. Consult the authority having jurisdiction for other acceptable framing methods.

### NOTE

The Metal Stud Construction and Wood Stud Construction figures at the bottom of the page depict mounting angles installed on both sides of the partition. A single angle may be sufficient. Refer to the instructions for single angle installation requirements.

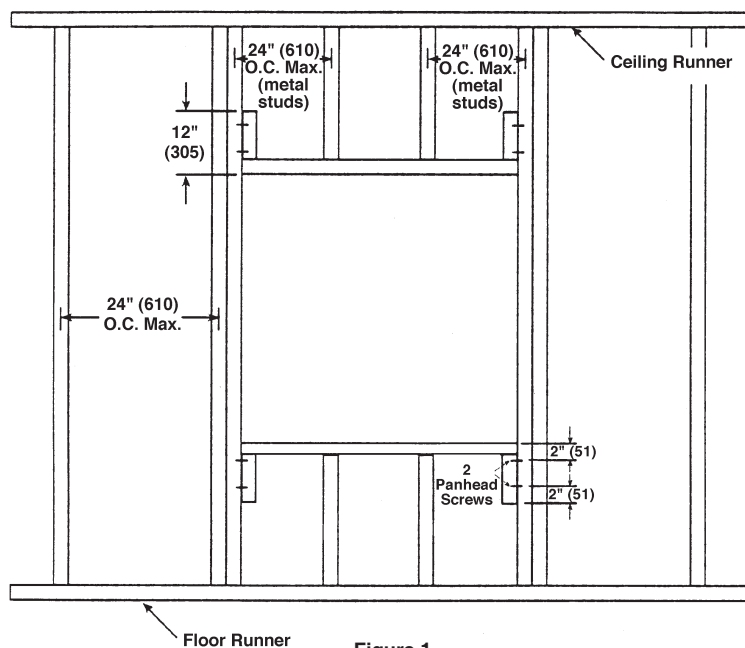


Figure 1

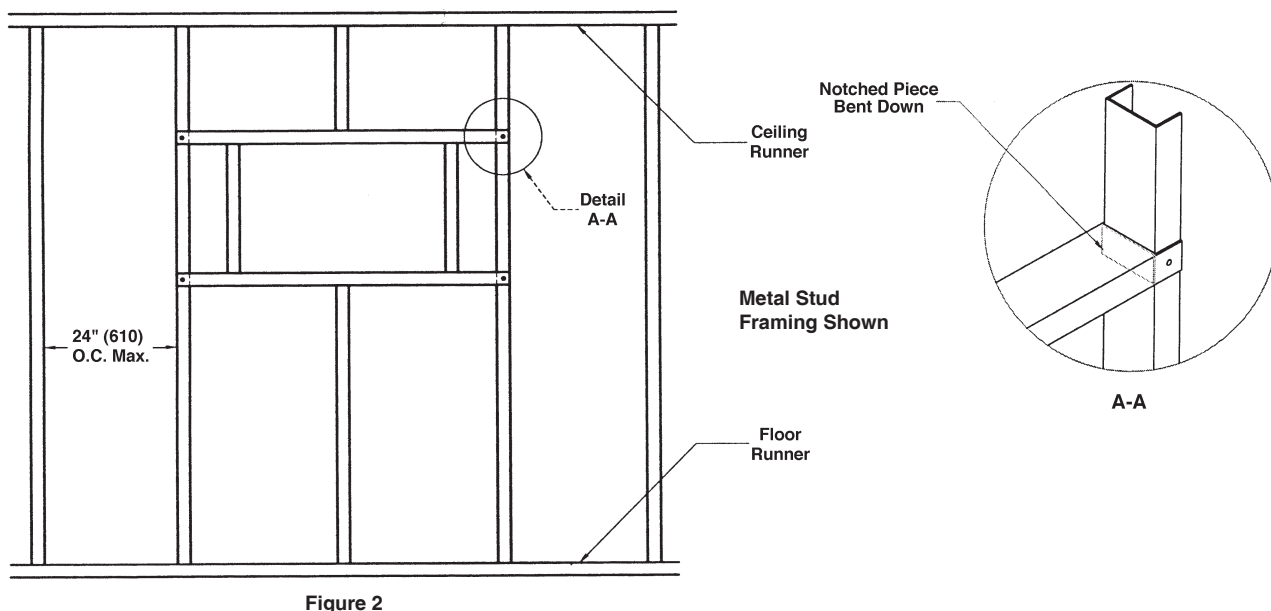
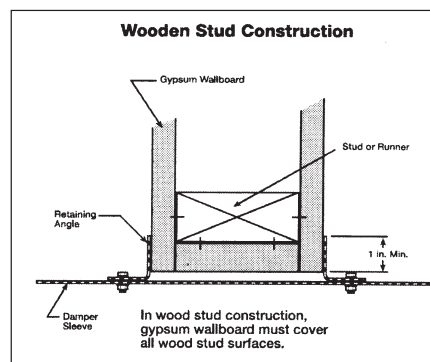
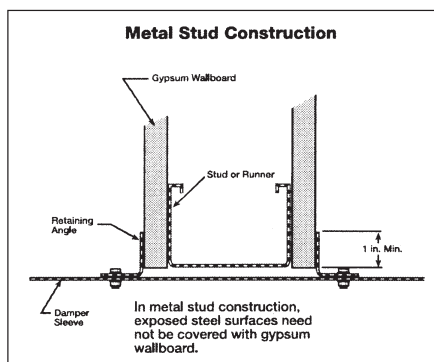


Figure 2



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