



# INSTALLATION INSTRUCTIONS FOR FIRE DAMPERS

IN DRYWALL TYPE CONSTRUCTION 1 HOUR AND 2 HOUR RATED



UL CLASSIFIED  
(SEE COMPLETE  
MARKING ON PRODUCT)

Refer to figures 1, 2 and 3 for details of opening preparation and fire damper installations in wood stud and steel stud 1 hr. and 2 hr. rated walls.

See notes 2 and 3 for joint detail.

Damper shall be secured to sleeve with # 10 sheet metal screws 6" on center, 1/4" diameter nuts and bolts, welding, 3/16" steel pop rivets or clinching (toggle).

Angles shall be a minimum of 1-1/2" x 1-1/2" x 16 gauge and may be of a unit type construction.

Fasten to sleeve with 1/4" diameter nuts and bolts, welding 8" on center, # 8 sheet metal screws 8" on center, or 3/16" steel pop rivets. (See **NOTE 4** for clearance and overlap).

### NOTES

1. Sleeves shall be of the SAME GAUGE or heavier as the duct to which it is attached. Gauges shall conform to SMACNA or ASHRAE duct standards. Collars shall extend approximately 3" on either side of wall or floor to facilitate the joining of the collar to the duct. In cases where the width of the retaining angle is such that it would inhibit joining the collar to the duct, the collar may extend approximately 2" beyond the edge of the angles. See Note 3.
2. The following duct-sleeve connections may be used on all systems.
 

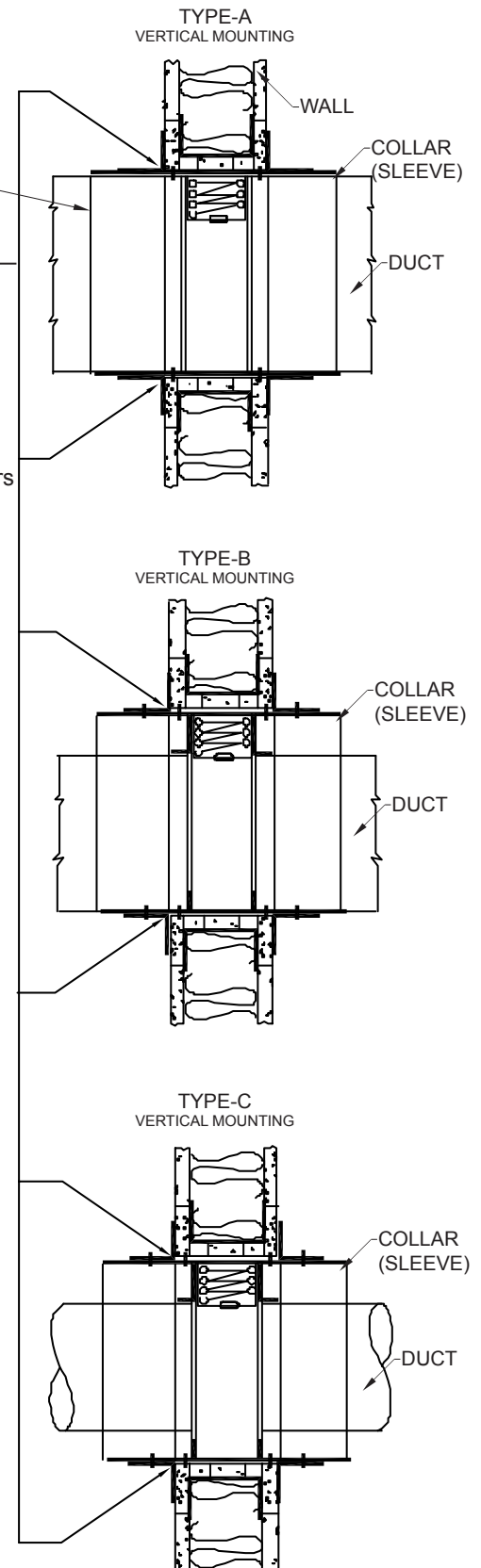
• Inside slip	• Angle slip
• Plain "S" slip	• Double "S" slip
• Hemmed "S" slip	• Cup slip
• Bar slip • Drive slip	• Alternate bar slip (standing slip)
• Pocket lock	• Reinforced bar slip (cleat)

Refer to separate "Breakaway Connection" sheet for further information.

- 2 A. Duct-sleeve connections may be of the rigid or fixed type when fire dampers are installed in sleeves that are 16 ga. up to 36" W x 24" H or 14 ga. for size exceeding 36" W x 24" H.
3. When the duct work terminates at the damper, retaining angles on the opposite side of the opening may be reversed providing the size of the opening is increased by an amount equal to twice the combined thickness of the angle and the height of the screw or bolthead to maintain expansion clearance. (See **NOTE 4**) In this case the collar at the open end may be made flush with the edge of the retaining angle.
4. Clearance between the sleeve and wall/floor opening shall be a maximum 1/8" per foot on height and width of sleeve to a maximum of 1-1/2" (e.g. damper 47-3/4" x 47-3/4", collar 48" x 48", opening 49-1/2" x 49-1/2"). Minimum clearance shall be 1/4". Perimeter angles shall overlap the wall/floor by a minimum of 1".
5. As with all joints, contractor must seal duct-collar connection in field, after installation.

### IMPORTANT

- Do Not Cast Damper In Place
- Do Not Fasten Retaining Angles Or Damper Directly To Wall
- Cycle Damper After Installation To Insure Free Movement
- Do Not Install Damper Out Of Square Or Out Of Flat
- Install Damper In Plane Of Fire Separation



# DETAIL OF OPENING PREPARATION AND FIRE DAMPER INSTALLATION WALL RATING - 1 HR.

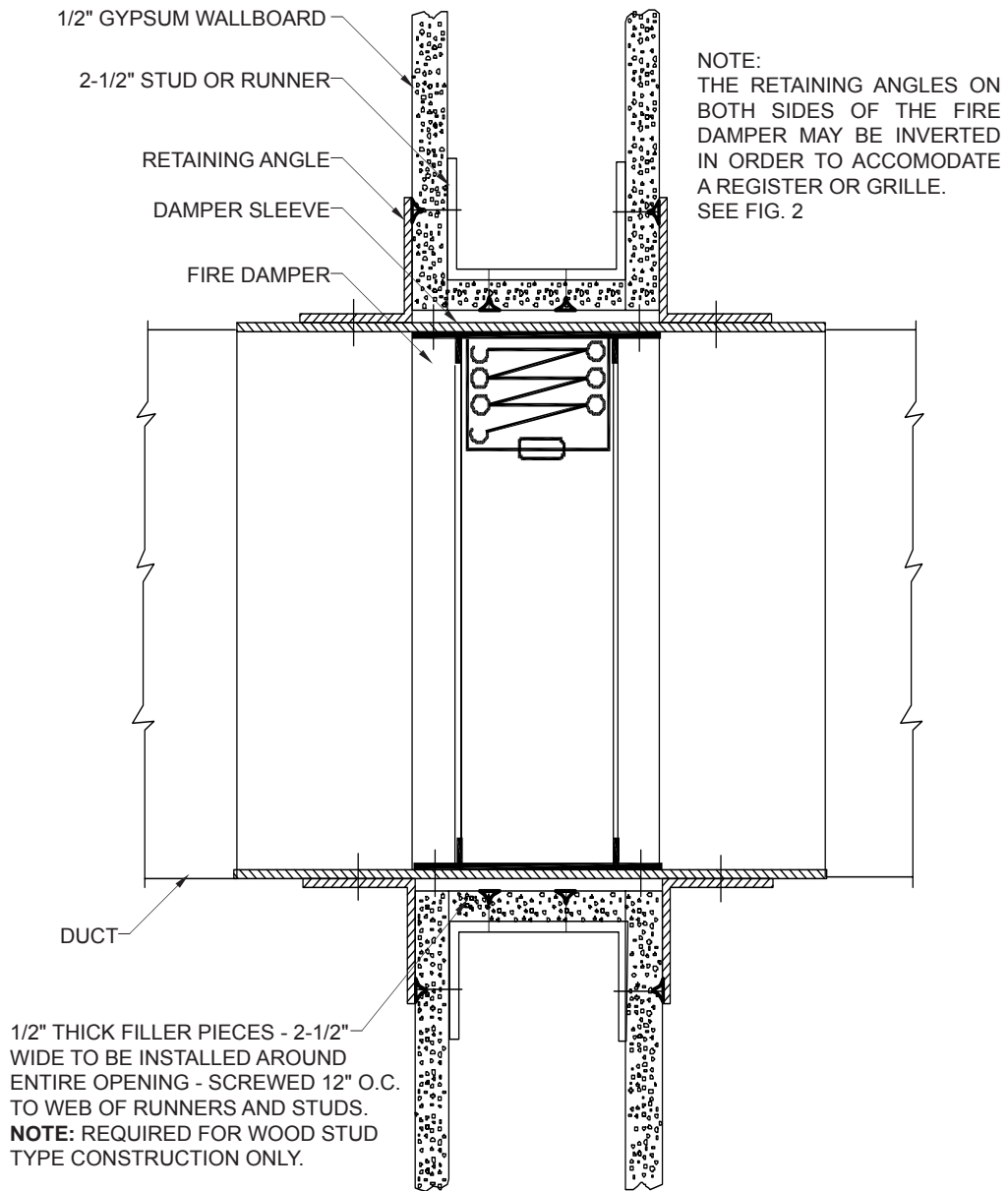
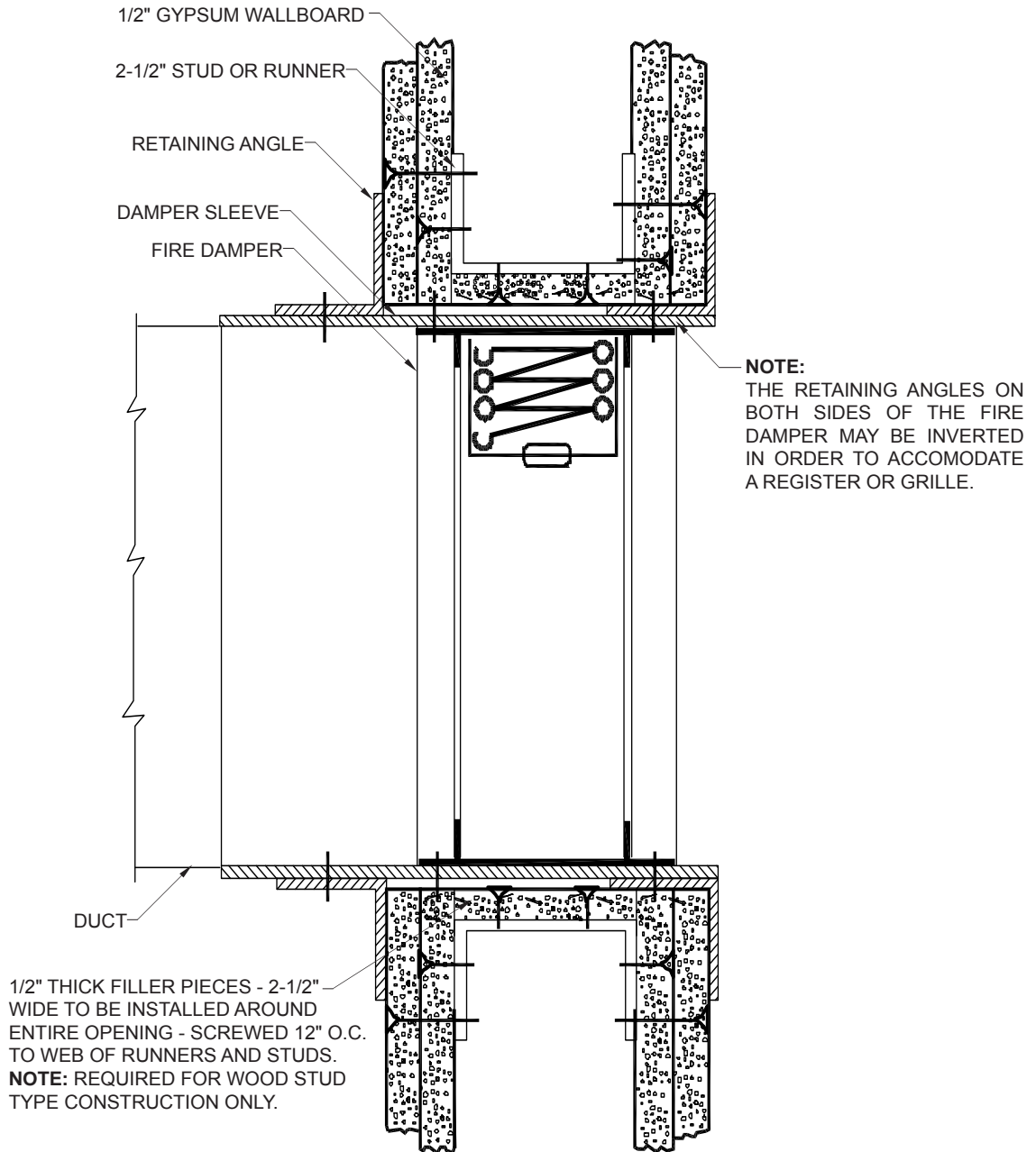


FIG. 1

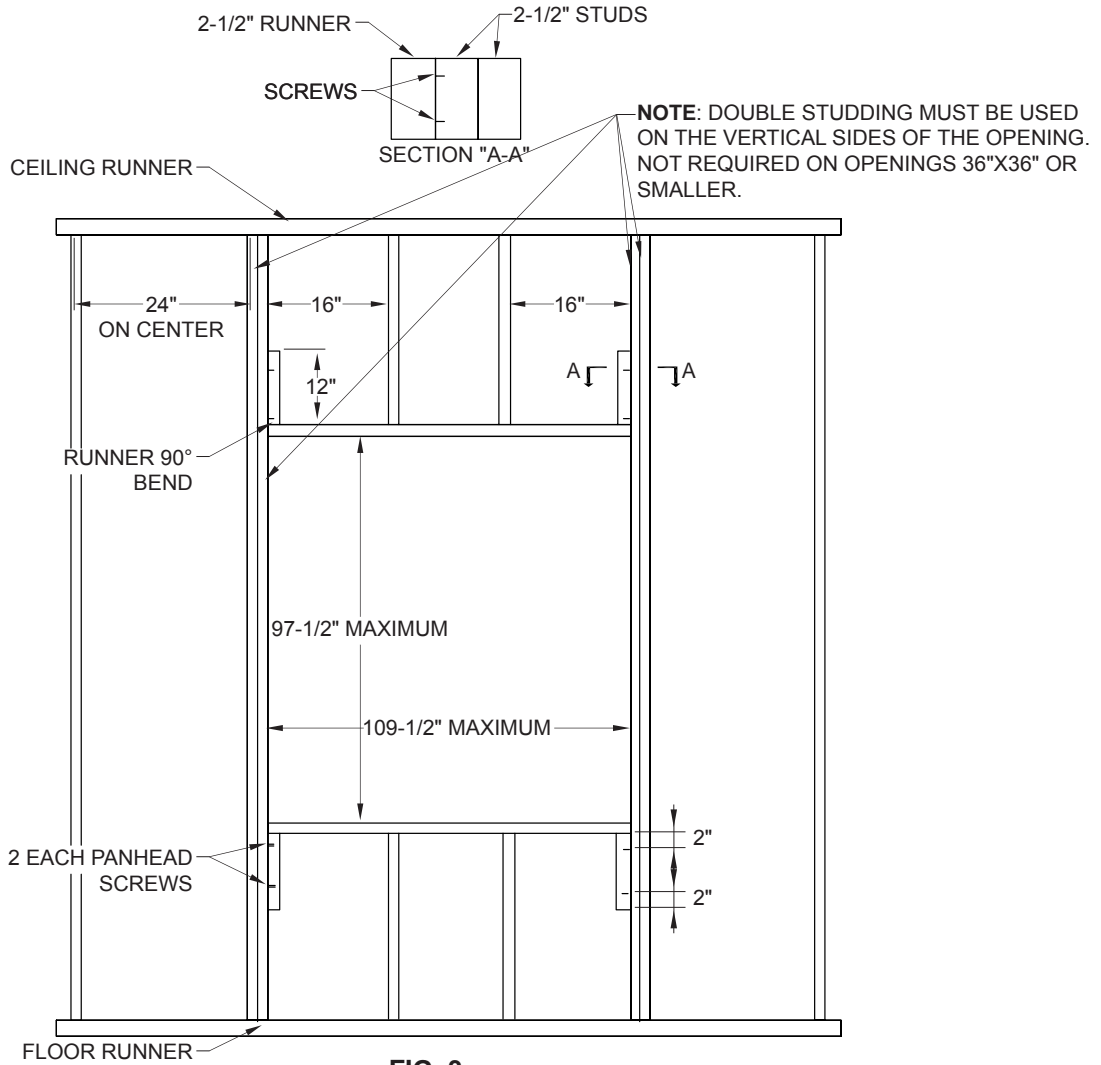
**DETAIL OF OPENING PREPARATION AND FIRE DAMPER INSTALLATION  
WALL RATING - 2 HR.**



**FIG. 2**

## METAL OR WOOD STUD FRAMING FOR FIRE DAMPERS IN WALLBOARD PARTITIONS

**NOTE:** Gypsum Wallboard screwed to all stud and runner flanges. 12" O.C. maximum, surrounding opening



**FIG. 3**

MAXIMUM SIZE TABLE								
MODEL	Single Section				Multiple Section			
	Vertical		Horizontal		Vertical		Horizontal	
	Max. Width	Max. Height	Max. Width	Max. Height	Max. Width	Max. Height	Max. Width	Max. Height
<b>MFD</b>	60	60	40	40	120	120	80	40
<b>MFD3</b>	48	48	40	40	-	-	80	40
<b>MDFD</b>	36	36	18	18	-	-	36	36
<b>MDFD3</b>	36	36	18	18	-	-	36	36
<b>MFDS</b>	48	48	48	48	-	-	-	-
<b>MFDS3</b>	48	48	48	48	-	-	-	-
<b>MDFDS</b>	36	36	18	18	-	-	36	36
<b>MDFDS3</b>	36	36	18	18	-	-	36	36
<b>MFDUS</b>	48	48	-	-	-	-	-	-
<b>MFDUS3</b>	48	48	-	-	-	-	-	-

**NOTE:** For maximum single section sizes refer to maximum size table. For openings larger than given for single section, multiple dampers are required. For openings larger than given in multiple sections a 12" wide brick or reinforced mullion must be provided between adjacent assemblies.