

**Support Mullions for use in Oversize Openings**

These installation instructions apply to the fabrication and construction of generic support mullions. Support mullions are necessary whenever static fire dampers are installed into a vertical opening that is larger than the largest UL rated size for that damper. The mullions allow construction of a fire barrier that is larger than the maximum available size.

The opening must not exceed 120 in. (3048mm) high, but can be any width provided a vertical support mullion is used a maximum of every 120 inches (3048mm).

To properly use support mullions they must be fabricated and installed according to the following instructions.

**Application**

Generic steel mullions can be used to separate vertically mounted galvanized steel fire dampers in wall openings larger than the UL permitted multiple damper assembly size. Mullions can either be used vertically, horizontally or both to split up a vertical wall opening requiring use of a damper having a 1½ hour fire resistance rating. Maximum mullion span is 120 in. (3048mm) plus expansion allowance when used either horizontally or vertically.

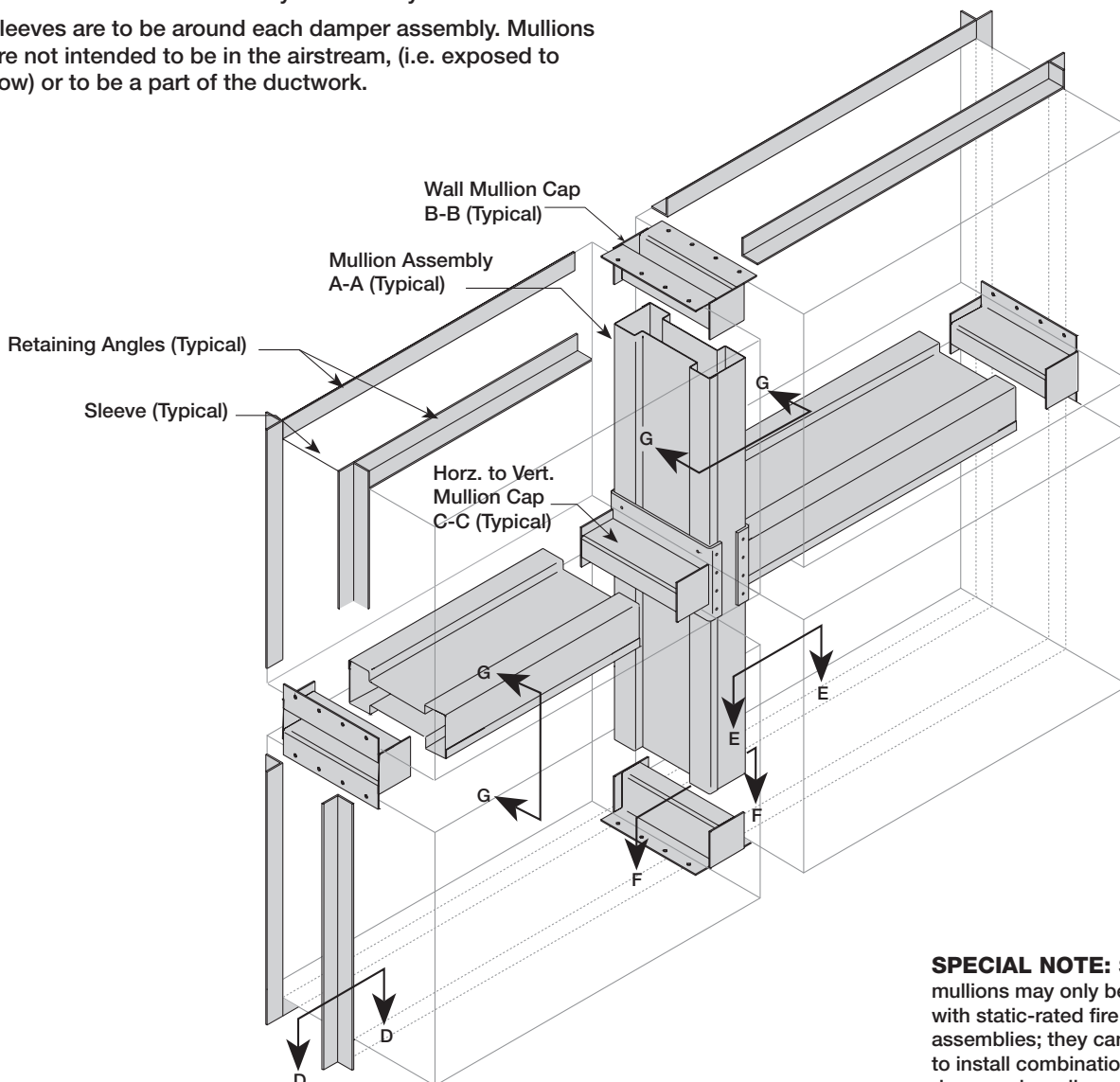
Sleeves are to be around each damper assembly. Mullions are not intended to be in the airstream, (i.e. exposed to flow) or to be a part of the ductwork.

**Wall Opening**

Steel mullions are intended for use in a concrete block or solid concrete wall.

Hollow concrete blocks are to be filled with concrete (minimum 3500 psi) to permit proper mullion anchoring.

Wall thickness is to be 7 in. (178mm) minimum, 12 in. (305mm) maximum.

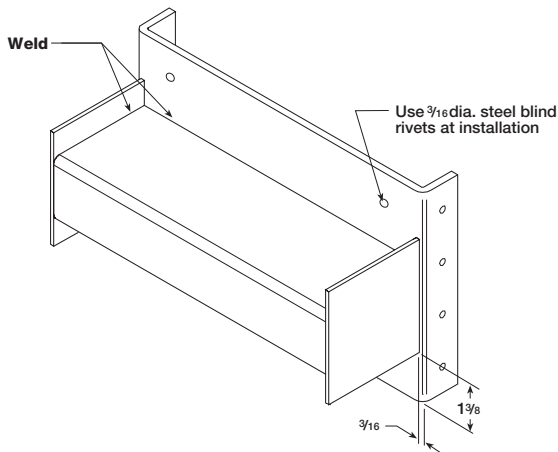
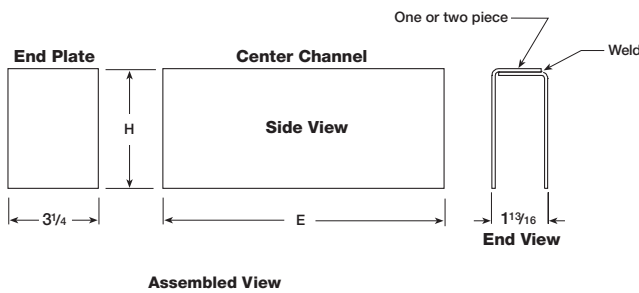
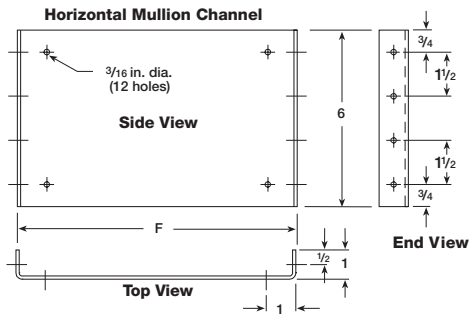


**SPECIAL NOTE:** Support mullions may only be used with static-rated fire damper assemblies; they cannot be used to install combination fire-smoke dampers in wall openings that exceed the maximum UL-approved size for the fire-smoke damper model being installed.



**NOTE:** If the center channel is to be made from two pieces, weld them together with an 1/8 in. (3mm) fillet weld.

4. Shear the end plates to the dimensions required.
5. Weld the end plates to the center channel with 1/8 in. (3mm) fillet welds completely around the top edges of the center section.



## Mullion Installation

Before the static fire dampers are installed into the wall the mullions must first be anchored into the wall. The fire dampers may then be installed into the mullion assembly.

To correctly attach the mullions to the wall follow these steps:

1. Anchor wall mullion caps to wall using 1/4-20 x 5/16 in. long flat head steel bolts and 3/8 in. (9.5mm) diameter by 1 in. (25mm) long concrete expansion anchors (Hilti). If steel lintels are present, use two 1 in. (25mm) long welds on each side of mullion caps.

*Note: End caps must be inserted into the ends of the mullions before they are anchored to the wall.*

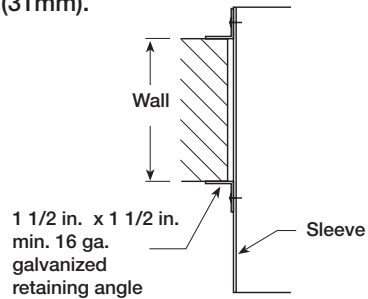
2. Anchor horizontal mullion caps to vertical mullion caps with 3/16 in. (4.7mm) diameter steel blind rivets in 12 places.

*Note: Mullion caps must be inserted into the ends of the mullions before they are anchored to the vertical mullions or wall.*

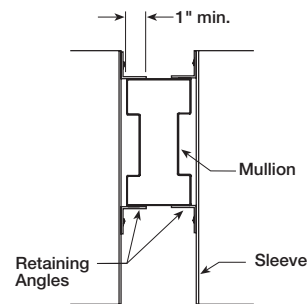
## Static Fire Damper Installation

Galvanized steel static fire dampers must be UL classified for 1 1/2 hour fire resistance. They must be installed in galvanized steel sleeves and be retained by minimum 1 1/2 in. x 1 1/2 in. (38mm x 38mm), 16 ga. (1.5mm) retaining angles on each side of the wall. Retaining angles must overlap mullions or wall by 1 in. (25mm) minimum. Fasten to sleeve using 1/4 in. (6mm) dia. bolts, 3/16 in. (4.7mm) steel rivets, welding, or #10 sheet metal screws. All must be attached 6 in. (152mm) on centers, 2 in. (51mm) maximum from corners. Do not fasten retaining angles to the wall or mullions. Mullions must be free to float.

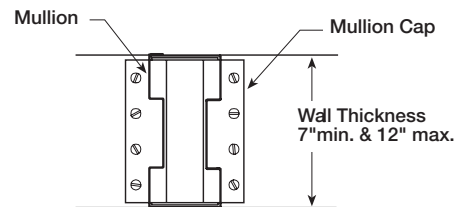
Total expansion clearance between sleeve and wall/mullion of 1/8 in. (3mm) per foot of wall opening or mullion span should be allowed. Maximum clearance is 1 1/4 inches (31mm).



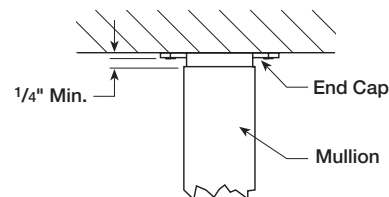
### Detail D-D



### Detail E-E



### Detail F-F



### Detail G-G



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