



# Installation Instructions For 5500 (D)SF (Sub-frame) Series Dampers Vertical & Horizontal Fire Dampers Static & Dynamic (D) Systems

Rated per UL555, UL File R6189

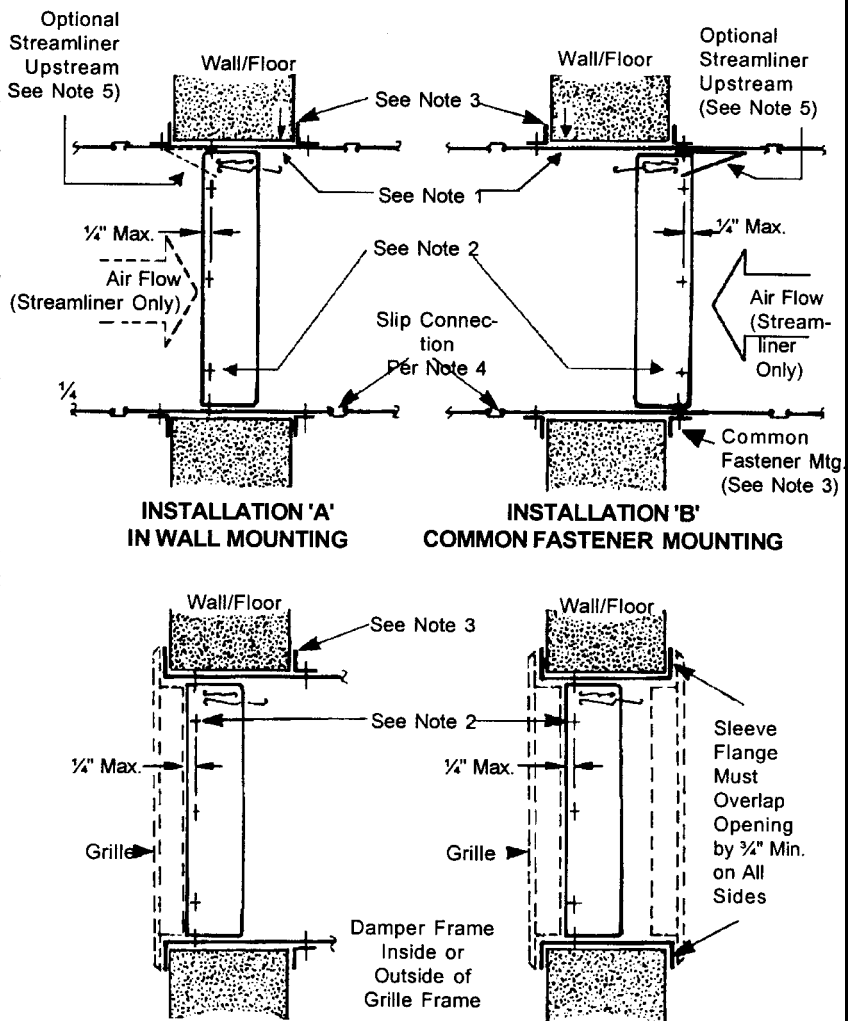
These Instructions Typify Both Horizontal And Vertical Installations Except As Noted,  
And Apply Also To Masonry And Drywall Construction (see also Sheet GENII-2)

**NOTES:**

1. Minimum clearance between the wall/floor opening and the damper/sleeve assembly shall be 1/8" per foot of width and height, with a minimum of 1/4" for any size. Mounting angles shall overlap opening by 3/4" minimum on all sides up to 18" and 1" over 18".
2. The damper frame may be fastened to the sleeve using any of the following: 3/16" steel rivets, #14 sheet metal screws, #8 bolts and nuts or 1/2" tack welds spaced at a maximum of 6" center to center for 1-1/2 hour rated dampers and 3" maximum center to center for 3 hour rated dampers. A minimum of one fastener per side must be used. On multiple section damper assemblies of 4 or more sections that also have a 4 corner interior joint, all the interior joining must use 2 rows of fasteners.
3. Mounting retainers optional on both sides of the wall/floor opening and must be used on all 4 sides of the damper/sleeve assembly (exceptions noted). Minimum mounting retainer size is 1"x1"x18 gauge up to 18" and 1-1/2"x1-1/2"x18 gauge for vertical dampers up to 72" width or height. 1"x1"x16 gauge and 1-1/2"x1-1/2"x16 gauge for horizontal dampers. 2"x2"x18 gauge is used for larger dampers. Mounting retainers are to be attached to the damper/sleeve assembly using any of the following: 3/16" steel rivets, #14 sheet metal screws, #8 bolts and nuts or 1/2" tack welds spaced at a maximum of 12" center to center for 1-1/2 Hour rated dampers and 6" maximum center to center for 3 hour rated dampers. A minimum of one fastener per side must be used. Fasteners must not interfere with blade operation.
4. As per UL555, for rigid joints the thickness of the sleeve shall be a minimum of .053 inch for uncoated steel and .056 inch for coated steel with dimensions not exceeding 24 inches in height or 36 inches in width, and a minimum of .067 inch for uncoated and .070 for coated steel for larger size dampers. EXCEPTION: This requirement does not apply when one or more UL approved breakaway joints are used as the connection between the sleeve and ducts. In this case, the sleeve thickness shall not be less than that required by the Standard for the Installation of Air-Conditioning and Ventilating Systems, NFPA 90A. For Ductmate Type connections, a modified 4 bolt system may be used. See Sheet GENII-3 for details.
5. Optional 26 Gauge metal formed streamliner for air flow function by manufacturer. Sandwich streamliner between damper and sleeve/duct using the mounting angel-sleeve-damper fasteners. When installed the streamliner will not interfere with the blade package.

**Instructions for Installations WITH Sleeves**

No additional sleeve is required when the damper is installed in duct of 20 gauge or less and a UL approved breakaway connection is used.



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