

**INSTALLATION INSTRUCTION SUPPLEMENT**

Refer to:  
 'Installation Instructions for FD, DFD, SSFD, & KFD Models'  
 (Part #452763)  
 or  
 'Installation Instructions for FSD-XXX, DFD-XXX, SSFSD-XXX & CFSD-XXX Series Fire & Combination Fire Smoke Dampers' (Part #461336)  
 or  
 'Installation Instructions for FD & DFD 150X Series Curtain Fire Dampers' (Part #453946) for additional details.

**UL** **US** **1 1/2 Hour Fire Dampers and FSD Series**  
**1 1/2 Hour Combination Fire Smoke Dampers-Vertical Mount**

**"UL CLASSIFIED (see complete marking on product)"**  
**"UL CLASSIFIED to Canadian safety standards (see complete marking on product)"**  
 Standards UL 555 & 555S  
 Classifications Filed at UL under Listing #R13317

These instructions apply to 1 1/2 hour rated combination fire smoke dampers and curtain fire dampers mounted in masonry, block, or metal or wood stud walls. Specific requirements in these instructions are mandatory. These instructions meet the requirements of UL 555.

Installation shall comply with the requirements of NFPA 90A (Standard for the Installation of Air Conditioning and Ventilating Systems) and UL Classification R13317.

Dampers up to a maximum size of 80 in. W x 50 in. H (2032mm x 1270mm), 50 in. W x 80 in. H (1270mm x 2032mm), or 40 in. W x 100 in. H (1016mm x 2540mm) may be installed as illustrated below.

Fire damper and sleeve assemblies 80 in. W x 50 in. H (2032mm x 1270mm), 50 in. W x 80 in. H (1270mm x 2032mm), or 40 in. W x 100 in. H (1016mm x 2540mm) and smaller only require retaining angles on one side of the partition. Retaining angles must be attached to the sleeve and the partition. Larger damper assemblies require retaining angles on both sides of the partition. Retaining angles must be attached to the sleeve.

- Retaining angles must be a minimum of 16 gauge steel and have a minimum of 1 1/2 in. x 1 1/2 in. (38mm x 38mm) legs (except wood stud).

For metal stud partitions only, the single-side mounting angle may be directly attached to the metal stud prior to the installation of the drywall.

- Retaining angles must be attached to the sleeve using one of the methods shown below:
  - tack or spot welds
  - #10 sheet metal screws
  - 1/4 in. (6mm) nuts and bolts
- Retaining angles must be attached to the partition using one of the methods shown below:
  - Drywall screws of a length such that the screw engages the steel stud/track by 1/2 in. (13mm) (steel framing).
  - Drywall screws of a length such that the screw engages the wood stud by 1 3/4 in. (44mm) (wood framing).
  - Steel anchors or self tapping concrete screws penetrating masonry or block 1 1/4 in. (31mm).
- A minimum of two connections per side, top, and bottom, 12 in. (305mm) O.C. maximum for openings of 48 in. W x 36 in. H (1219mm x 914mm) and less, and 6 in. (152mm) O.C. for openings 80 in. W x 50 in. H (2032mm x 1270mm), 50 in. W x 80 in. H (1270mm x 2032mm), and 40 in. W x 100 in. H (1016mm x 2540mm) or less.
- Retaining angles must overlap the partition a minimum of 1 in. (25mm).

A = Damper  
 B = Retaining Angle  
 C = Screws

