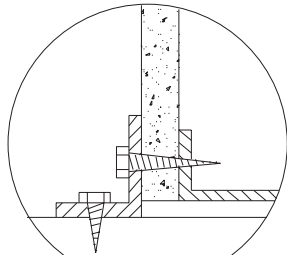
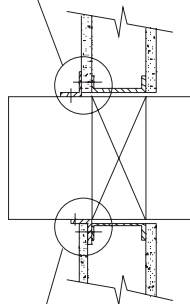


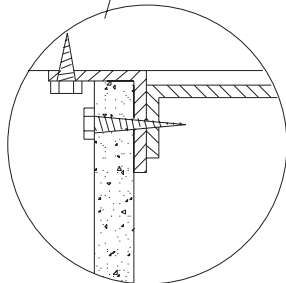
**Detail 1A**  
**Angle over**  
**drywall.**



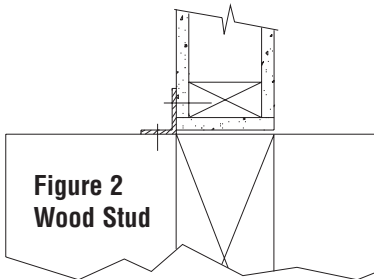
**Figure 1**  
**Metal Stud**



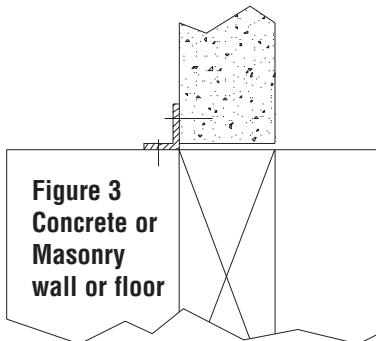
**Detail 1B**  
**Angle under**  
**drywall.**



**Figure 2**  
**Wood Stud**



**Figure 3**  
**Concrete or**  
**Masonry**  
**wall or floor**



**NOTES:**

1. For the maximum sizes listed below, all Nailor 1 1/2 hour labeled curtain, multi-blade and combination fire/smoke dampers may be installed using single-side retaining angles in lieu of the conventional two-sided retaining angle method. Retaining angles may be field fabricated or factory supplied and may be installed in metal/wood stud or masonry walls and concrete floors.
2. Install dampers in accordance with the appropriate damper installation instruction sheet in conjunction with this supplement. Replace conventional two-sided retaining angles with single-sided retaining angles as appropriate. Retaining angles may be installed on either side for vertical partition installations, but must be installed on the top side for a floor installation. Retaining angles must be attached to both the sleeve and the wall or floor.
3. Single-sided retaining angles shall be a minimum of 1 1/2" x 1 1/2" x 16 ga. (38 x 38 x 1.61) steel for metal stud, masonry walls or concrete floors. For wood stud partitions, retaining angles shall be a minimum of 2" x 1 1/2" x 16 ga. (51 x 38 x 1.61) steel. For metal stud partitions only, the single-side retaining angle may be directly attached to the metal stud prior to the installation of the drywall. See Detail 1B.
4. Attach the 1 1/2" (38) leg of the retaining angles to the damper sleeve using 1/2" (13) long welds, 1/4" (6) diameter bolts and nuts, 3/16" (5) diameter steel rivets or #8 sheet metal screws, 6" (152) o.c.. Secure the retaining angles to the structural members of a vertical drywall wall using drywall screws. In the case of wood stud construction (see Figure 2), the screws should be a minimum of 2 1/2" (64) long, with minimum 1 1/4" (32) penetration into framing. In the case of masonry walls or concrete floors (see Figure 3), use 1/4" (6) masonry anchors 1 1/2" (38) minimum length, with minimum 1 1/4" (32) penetration into wall or floor. All fasteners to be on a maximum of 12" (305) o.c. with a minimum of two fasteners per side, top, and bottom.
5. No firestop caulking is required on this product.

Underwriters' Laboratories file #R9492.

Also conforms to NFPA 90A and NFPA 92A.

Maximum sizes: 96" W x 36" H (2438 x 914) or  
 36" W x 96" H (914 x 2438).



Dimensions are in inches (mm).



**Houston, Texas**  
Tel: 281-590-1172  
Fax: 281-590-3086

**Las Vegas, Nevada**  
Tel: 702-648-5400  
Fax: 702-638-0400

**Toronto, Canada**  
Tel: 416-744-3300  
Fax: 416-744-3360

**Calgary, Canada**  
Tel: 403-279-8619  
Fax: 403-279-5035