SUPPLEMENTARY INSTALLATION INSTRUCTIONS
3-SIDED RETAINING ANGLE • UL/ULC CLASSIFIED DAMPERS
1 1/2 HR LABEL • VERTICAL MOUNT
MODEL SERIES: (D) 0100, 0200, 0300, 1200, 1220, 1250, 1270

NOTES:

1. These instructions meet the requirements of UL 555 and apply to 1 1/2 hour rated combination fire smoke dampers and fire dampers mounted in masonry, block, or metal stud walls. This installation method may also be utilized in wood stud walls in applications where the angle on the bottom side of the damper is omitted. Specific requirements in these instructions are mandatory.

   The installation shall comply with the requirements of NFPA 90A (Standard for the Installation of Air Conditioning and Ventilating Systems) and UL File R9492.

   Maximum Damper Size

   Dampers up to the following sizes may utilize this installation method:

   Installations omitting the retaining angle from the top.

   - 36" wide x 48" high (914 x 1219)

   Installation omitting the retaining angle from either side of the damper.

   - 36” wide x 36” high (914 x 914)

   Installation omitting the retaining angle from the bottom of the damper.

   - 96" wide x 36" high (2438 x 914)
   - 36" wide x 96" high (914 x 2438)

2. **Expansion Clearance Requirements**

   On the side of the damper without a retaining angle there shall be no expansion clearance between the damper sleeve and wall opening.

   On the three sides of the damper that do have a retaining angles there are no minimum clearance requirements between the wall opening and the damper sleeve. However, to facilitate installation, clearances between the wall opening and the damper sleeve are recommended.

3. **Retaining Angle Requirements**

   Installations utilizing this method only require retaining angles on one side of the wall. When using the installation method described in this supplement retaining angles are only required on three of the four sides of the damper.

4. **Requirements For Side Without Retaining Angle**

   A) When the retaining angle is omitted from the bottom of the damper (Figure 1), the following requirements apply:

   1. In the case where the damper sits directly on a concrete floor slab, the bottom retaining angle is not required if the damper sleeve is fastened directly to the slab/base of the opening using 1/4" (6) masonry anchors 1 1/2" (38) minimum length, with minimum 1 1/4" (32) penetration into the floor. For steel stud walls, fasteners shall be #10 x 1 1/2" (38) sheet metal screws.

   2. Ensure fasteners are placed in 3" (76) increments from the center of the damper and no more than 2" (51) from the corner.

   B) When the retaining angle is omitted from the top of the damper (Figure 2), the following requirements apply:

   1. The damper shall be shimmed tight up against the top of the wall opening (Figure 3). Shims must be left installed as shown in figure 3 and 4 and made of steel for multiple section installations.

   2. On the top side of the damper sleeve fasteners shall be run up through the sleeve into the steel stud or block wall. For steel stud walls fasteners shall be #10 x 1 1/2" (38) sheet metal screws. For masonry or block walls fasteners shall be 1/4" x 1 1/2" (6 x 38) self-tapping concrete screws.

   3. Ensure fasteners are placed in 3" (76) increments from the center of the damper and no more than 2" (51) from the corner.

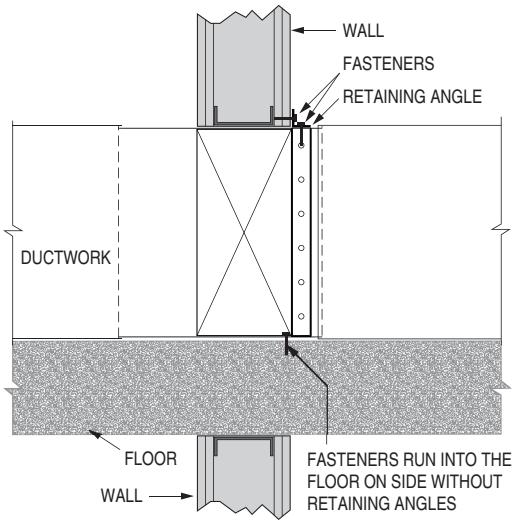

Figure 1: Retaining angle omitted from bottom side of the damper (retaining angles only on one side of the damper

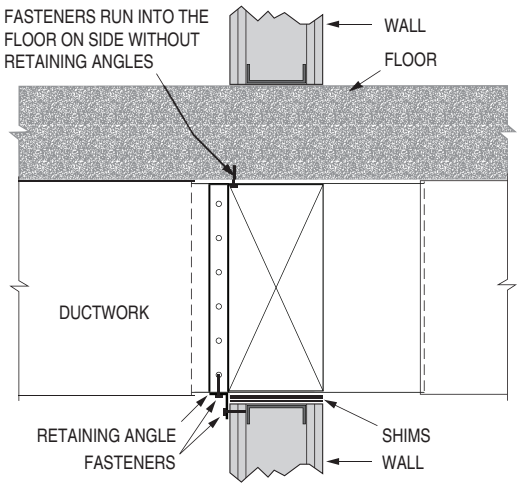

Figure 2: Retaining angle omitted from top side of the damper (retaining angles only on one side of the damper)

Dimensions are in inches (mm).

C) When the retaining angle is omitted from either side (one side only) of the damper the following requirements apply:

1. Damper shall be placed tight up against the side of the wall opening that has no retaining angle.

2. On the side with no retaining angle, fasteners shall be run through the damper sleeve into the steel stud or block wall. For steel stud walls fasteners shall be #10 x 1 1/2 in. (38) sheet metal screws. See Figure 5. For masonry or block walls fasteners shall be 1/4 in. x 1 1/2 in. (6 x 38) self-tapping concrete screws.

3. Fasteners shall be no more than 2 in. (51) from the corners and then every 3 in. (76) on center.

5. **Requirements For Sides With Retaining Angles**

Retaining angles for dampers must be a minimum of 20 ga. (1.0). The leg of the retaining angle on the damper sleeve shall be a minimum of 1 1/4" (32). It is acceptable for the retaining angles to be installed either such that the leg on the sleeve goes away from the wall or in towards the wall. The leg of the retaining angle on the wall shall be long enough to cover the annular space and overlap the wall by at least 1" (25).

Retaining angles must be attached to both the sleeve and the partition.

- Attachment to the sleeve shall be made with: tack or spot welds, #10 (3/4" [19] max.) sheet metal screws, or 1/4" (6) nuts and bolts.
- Attachments to the partition shall be made using one of the following methods:

- Drywall screws of a length such that the screw engages the steel stud/track by 1/2" (13) (steel framing). On metal stud partitions the retaining angle may be attached directly to the metal stud prior to the installation of the drywall.
- Drywall screws of a length such that the screw engages the wood stud by 1 3/4" (45) (wood framing).
- Steel anchors or 1/4" (6) self-tapping concrete screws of a length such that the screw penetrates the masonry or block 1 1/4" (32).

- The following applies to the attachment of the retaining angles to both the sleeve and the partition:

- There shall be a minimum of two attachments per side
- There shall be an attachment no more than 2" (51) from each corner and then a maximum of every 3" (76) on center.

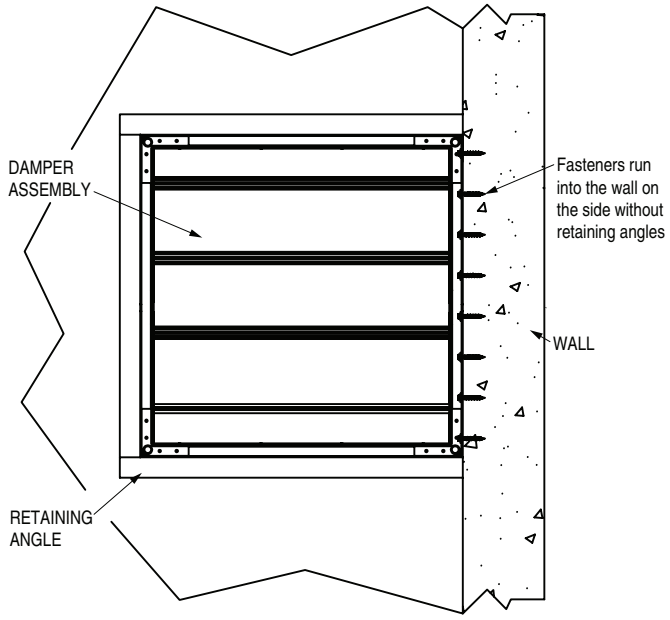

Figure 3: Retaining angle omitted from either side of the damper (retaining angles only on one side of the damper)

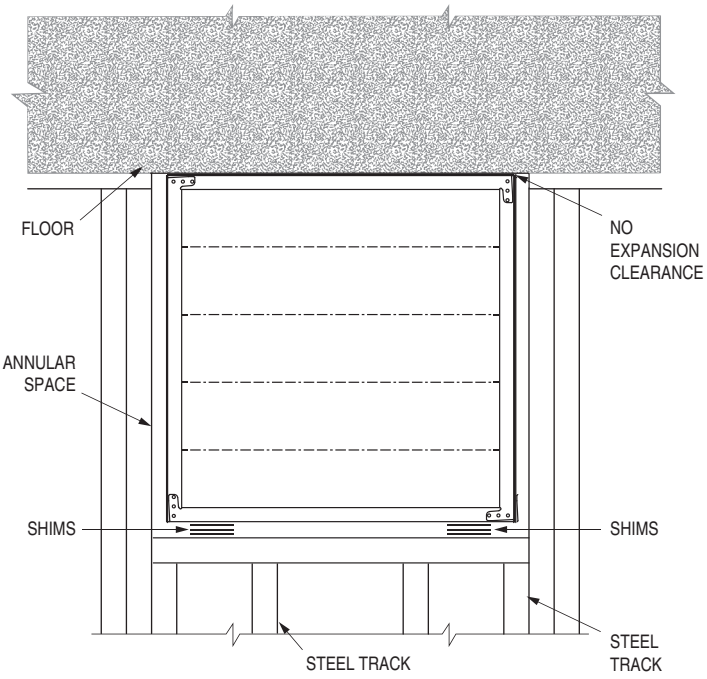

Figure 4: Shims installed underneath damper to push tight up against the above surface.

Dimensions are in inches (mm).

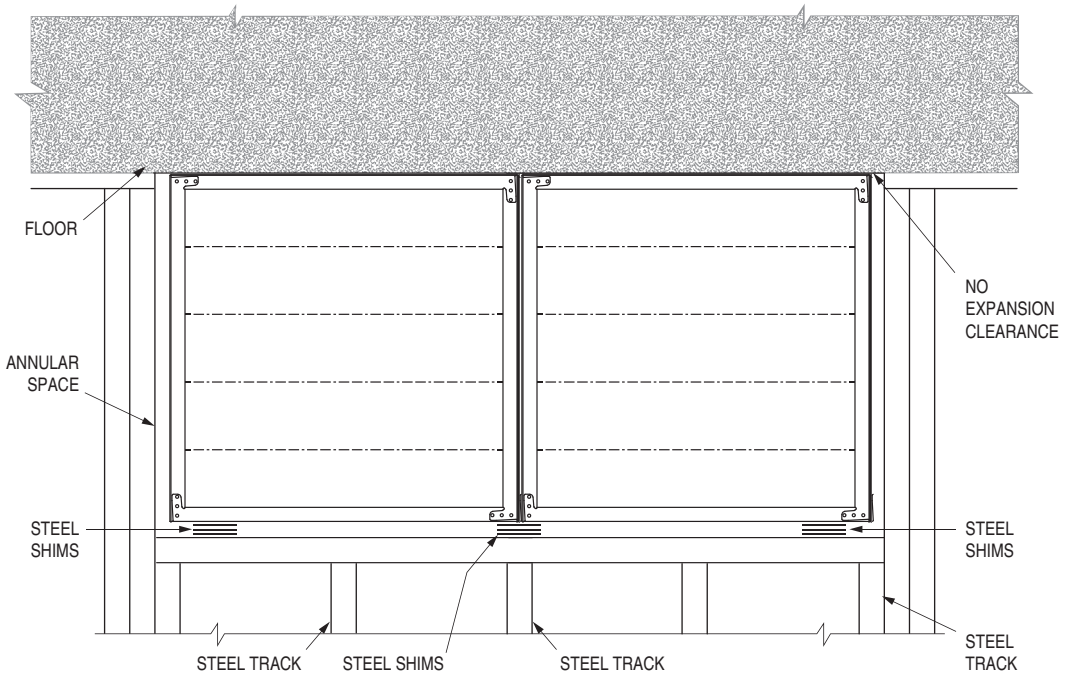

Figure 5: Steel shims installed and left underneath multi-section damper to push tight up against the above surface.

Dimensions are in inches (mm).

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