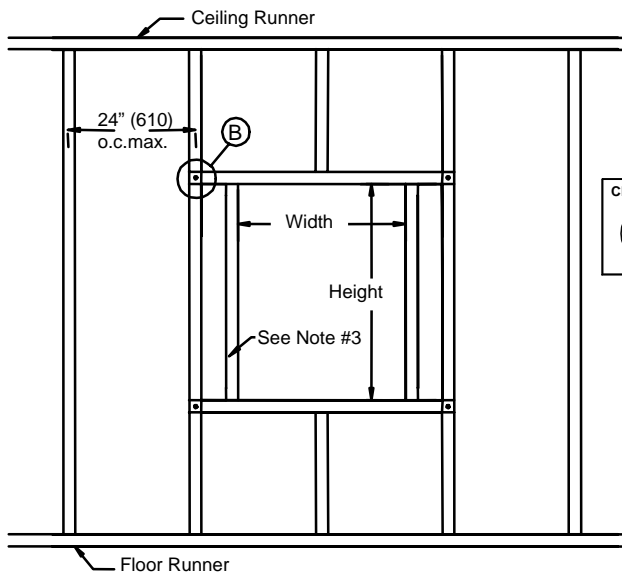
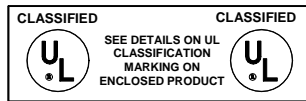


## FRAMING OPENINGS FOR FIRE DAMPER IN METAL, WOOD AND CONCRETE WALLS

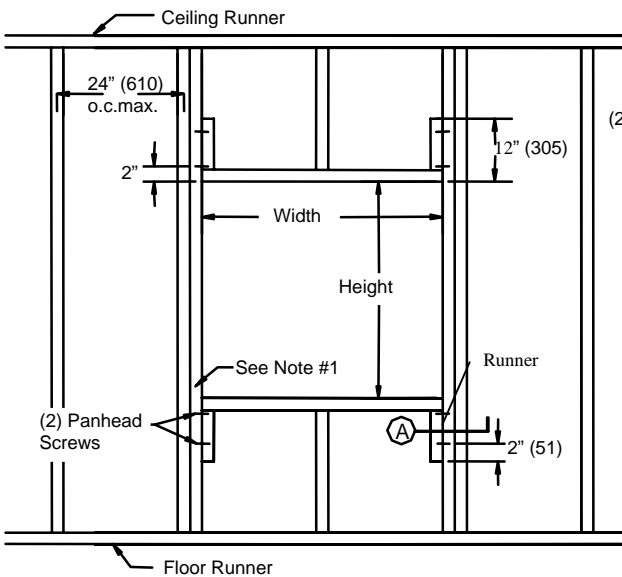


**Figure - 1 (Metal Studs)**



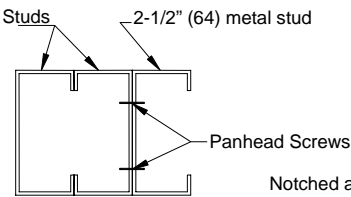
**NOTES:**

1. Single stud can be used on dampers with 36" x 36" (914 x 914) opening or smaller. (Fig-1.)
2. A single mounting angles may be used, please refer to single retaining angles installation instruction under separate sheet.
3. Framing studs next to the damper are not required to be full length if the spacing is less than the maximum stud spacing as shown in (Fig - 1.)
4. Gypsum panels screwed to all studs and runner flanges shall be 12" (305) oc. maximum surrounding opening.
5. All metal or wood studs shall be covered with gypsum wallboard.
6. Opening to be minimum 1/8" (3) per ft. larger than overall size of assembly. (min. 1/4" (6) larger than assembly.)
7. Double vertical studs are required for dampers larger than 36" x 36" (Fig - 2.)

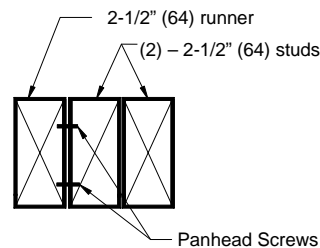


**Figure - 2 (Wood Studs)**

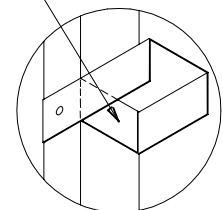
(2) - 2-1/2" (64) Studs



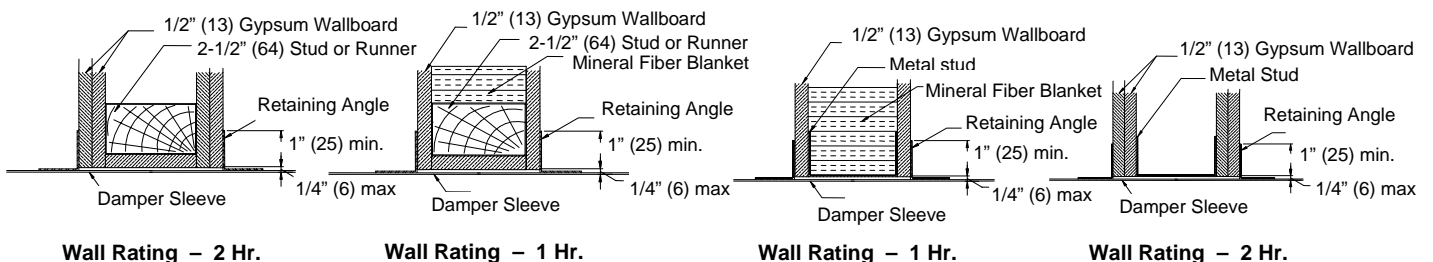
**SECTION - A**



**SECTION - A**



**DETAIL - B**



**Wall Rating - 2 Hr.**

**Wall Rating - 1 Hr.**

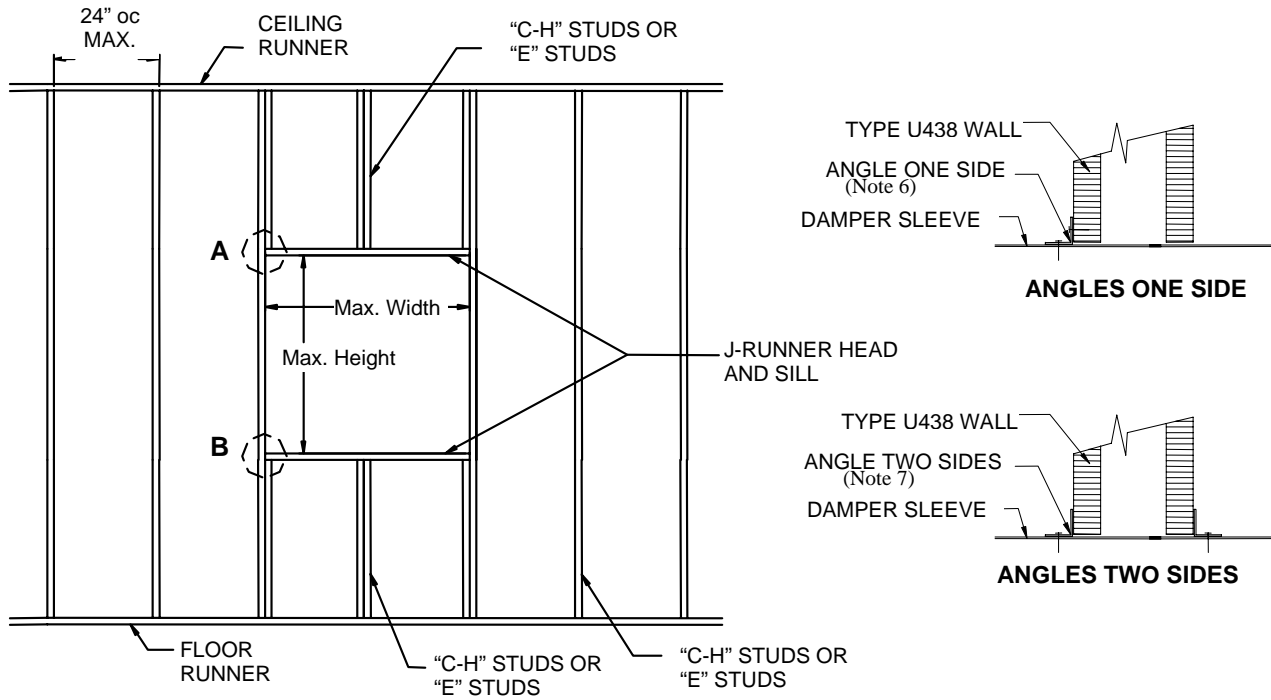
**Wall Rating - 1 Hr.**

**Wall Rating - 2 Hr.**

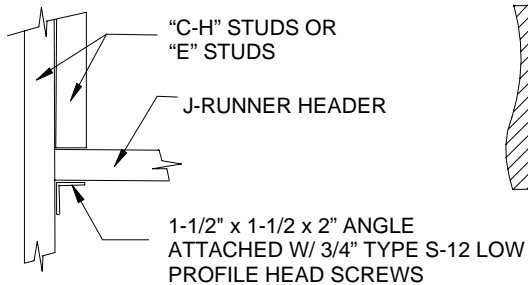
**WOOD STUD FRAMING**

**METAL STUD FRAMING**

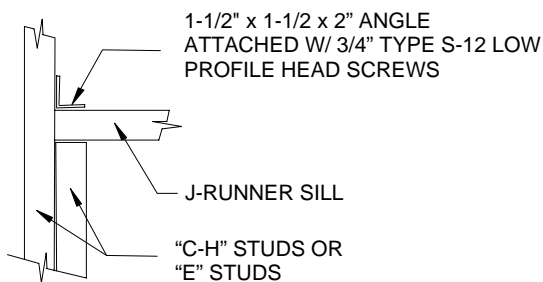
**SUPPLEMENT – FOR CURTAIN FIRE DAMPERS INSTALLED IN U438 FIRE RESISTANT WALL**



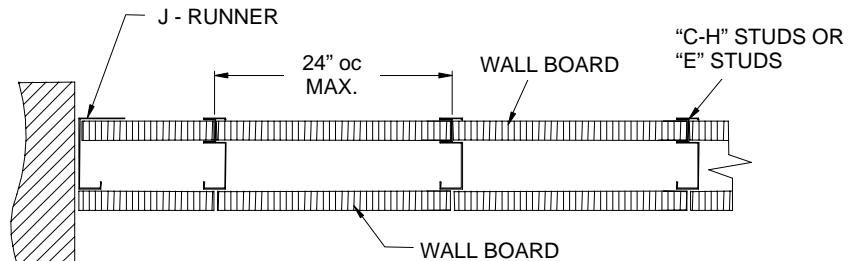
**ELEVATION**



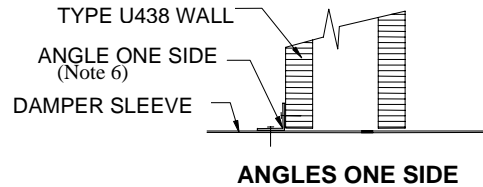
**HEADER - "A"**



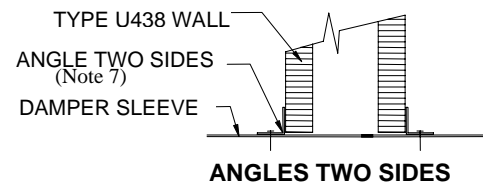
**SILL - "B"**



**PLAN VIEW**



**ANGLES ONE SIDE**



**ANGLES TWO SIDES**

**NOTES:**

1. The wall opening for two angle installations shall be minimum of 1/8" per foot larger than the overall size of damper assembly. Maximum opening shall not exceed 2" plus 1/8" per foot of the damper size. For one-angle installations the minimum opening shall be 1/8" per foot and no more than 1" total larger than the overall size of damper assembly.
2. Sleeve gauge minimum equal to gauge to duct assembly.
3. Mounting angles minimum 1-1/2" x 1-1/2" x 18 ga. galvanized steel fastened with #10 bolts and screws, 1/2" long welds or 3/16" rivets.
4. Maximum spacing fasteners 6", but not more than 3" from any end.
5. Up to 21" wide - minimum 2 connection per side. 21" and above - minimum 3-connection top and bottom.
6. 1-sided mounting angles to be fastened to wall & sleeve with #10 screws.
7. 2-sided mounting angles to be fastened to sleeve only with #10 screws.

