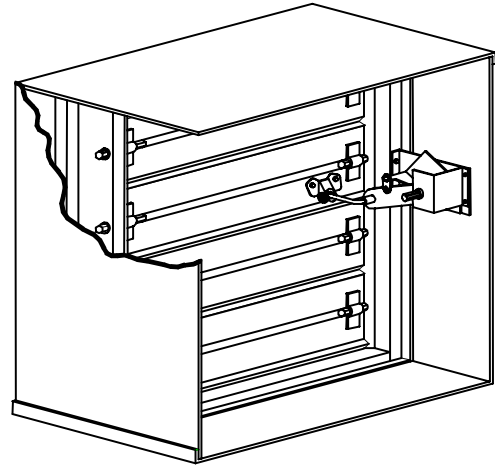
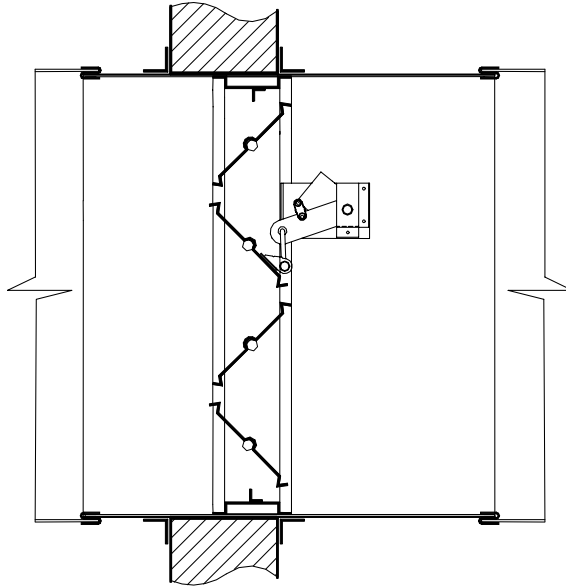


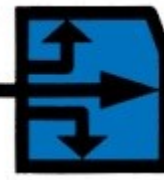
Blade Fire Damper Model D - 175 / series Masonry or Concrete Wall Installation Instructions



1. Angles: 1-1/2" x 18ga. Typical. Fasten to sleeve with 1/4" diameter nuts and bolts, 3/16" steel pop rivets, or welding. All fastenings to be 8" on centers on all four sides. Angles are not fastened at corners. *Note: Angles must overlap the wall a minimum of 1", - increase the angle size if necessary.
2. Duct run shall terminate at sleeve or frame of damper. Secure damper to sleeve with 1/4" diameter nuts and bolts, #10 sheet metal screws, 3/16" pop rivets, or welding. All fastenings to be on 8" centers.
3. Clearance requirements between sleeve and wall or floor shall be minimum of 1/8" per foot of width and height of sleeve. The maximum size of opening shall be 2" larger in width or height than the allowed minimum size.
4. The following duct collar connections may be on all systems:

◆ Inside Slip	◆ Angle Slip
◆ Plain "S" Slip	◆ Double "S" Slip
◆ Hemmed "S" Slip	◆ Cup Slip
◆ Bar Slip	◆ Drive Slip
◆ Alternate Bar Slip	◆ Pocket Slip
5. The sleeve gauge shall be at least equal to the gauge of the duct, as specified by SMACNA duct connection standards and NFPA 90A, when one or more of the above sleeve connections are used. If other duct connections are used, the sleeve shall be a minimum of 16ga. for dampers up to 36" W x 24"H and 14ga. for dampers over 36"W x 24"H. (See SMACNA Fire Damper instruction guide book). If sleeves are field supplied, they shall be 10 to 24-gauge steel. The inner dimensions of the sleeve are to be equal to the outer dimensions of the damper. The length of the sleeve or the duct collar extends beyond the wall, shall not exceed 6 inches on either side, or 16 inches on the side supplied with an access door.
6. Minimum and Maximum Size UL classified:

Minimum size: 8" W x 6" H (203 x 152)
Maximum size: Static system: 36" W x 48" H (914 x 1219)
Dynamic system: 36" W x 36" H (914 x 914)



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

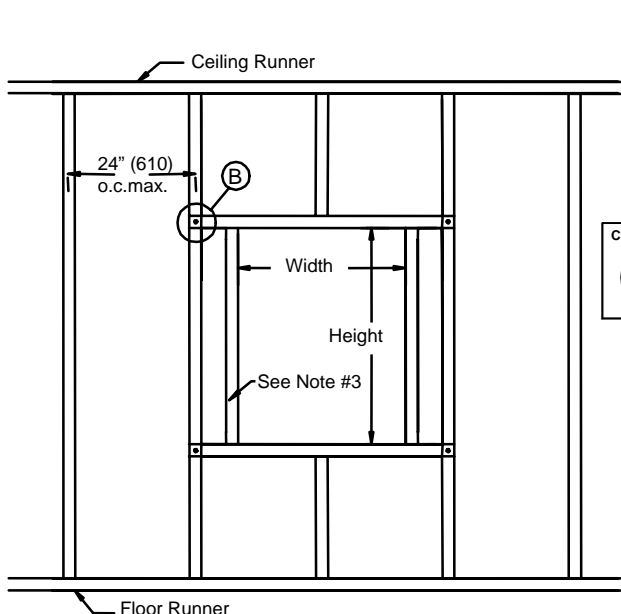
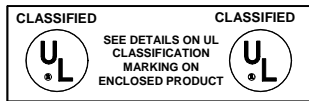


Figure - 1 (Metal Studs)



- 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.)

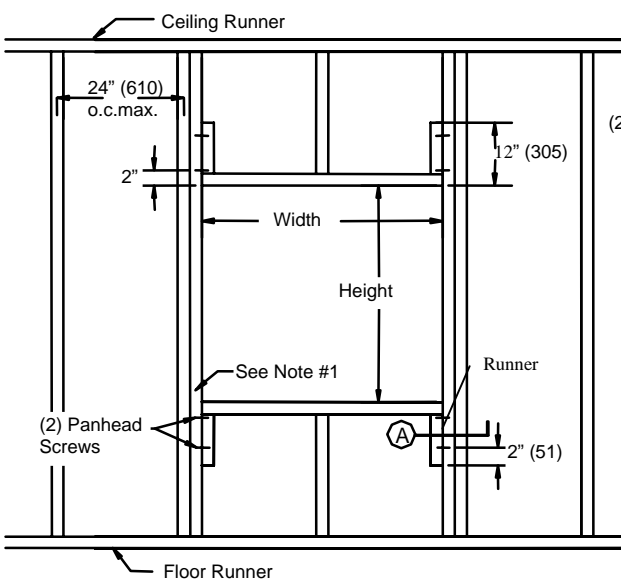
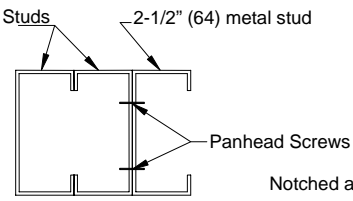
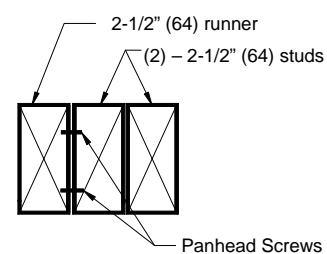


Figure - 2 (Wood Studs)

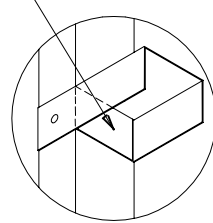
(2) - 2-1/2" (64) Studs



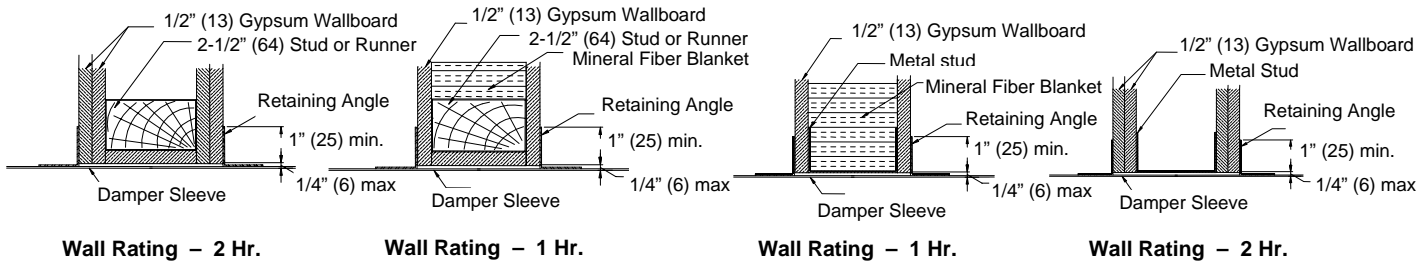
SECTION - A



SECTION - A



DETAIL - B



Wall Rating - 2 Hr.

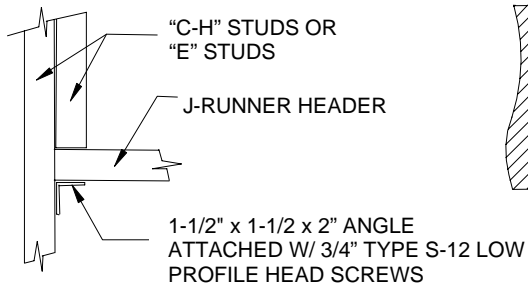
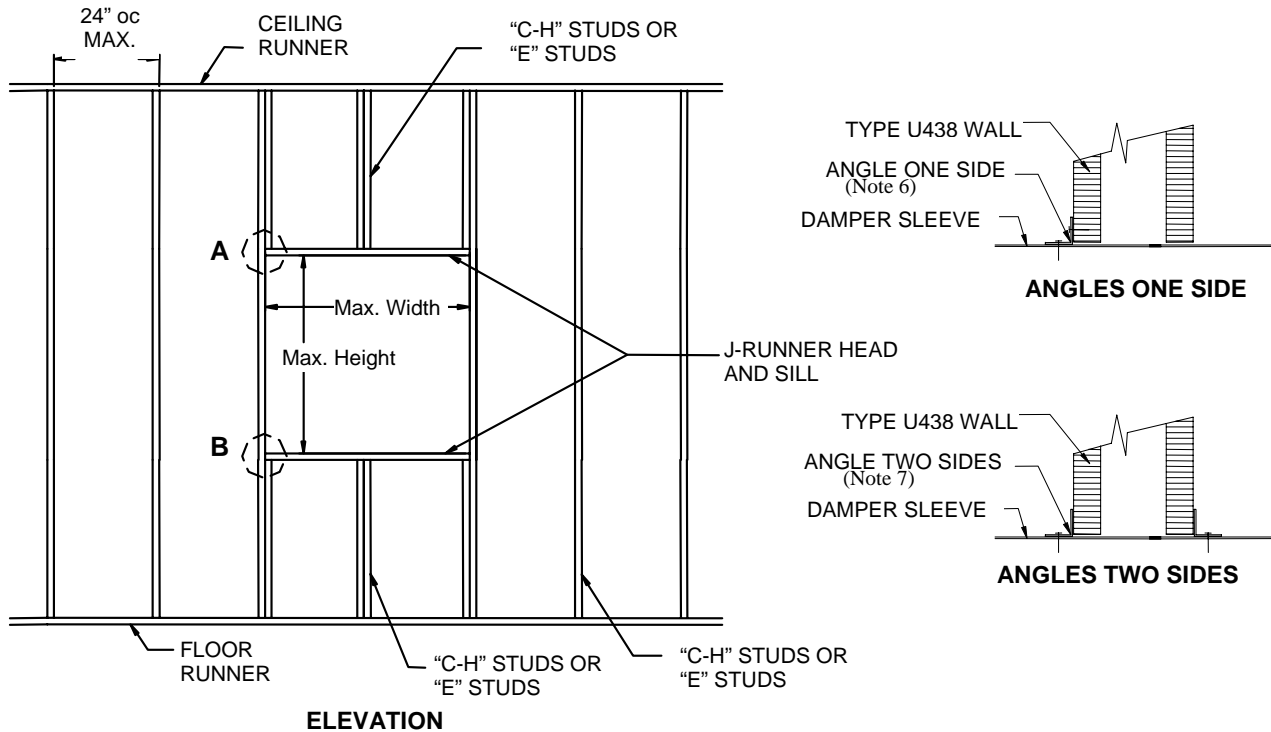
Wall Rating - 1 Hr.

Wall Rating - 1 Hr.

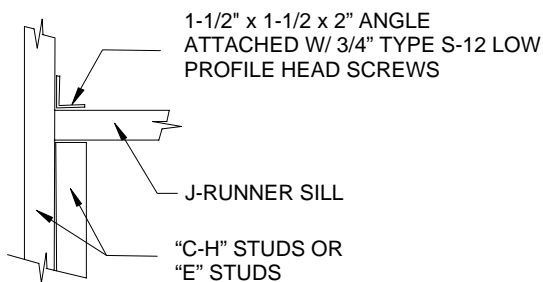
Wall Rating - 2 Hr.

WOOD STUD FRAMING

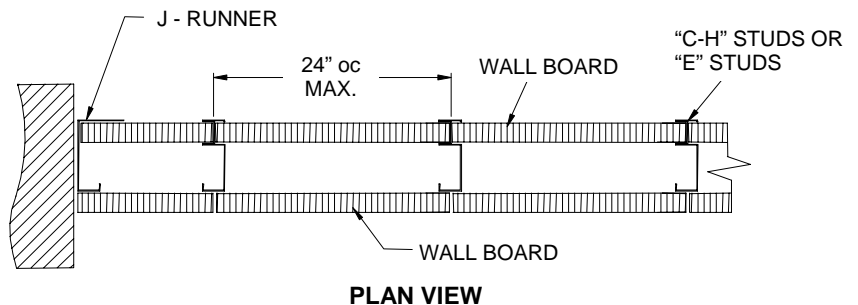
METAL STUD FRAMING



HEADER - "A"



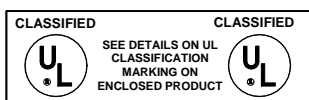
SILL - "B"



PLAN VIEW

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.





FIRE DAMPERS

This operation and maintenance instructions should not serve as a standard basis for all damper products and other manufacturers, but for Safeair-Dowco damper products.

All back-draft and fire dampers require routine maintenance procedures in order for dampers to operate as intended in any case in which fire and smoke may occur within the building. Periodic testing of all parts linked to the damper is essential to maintaining a working damper. Check that all actuators, blades, fans, etc. are functioning properly and that nothing is preventing blades or controls from operating. Be sure to check that nothing is blocking or hindering air way passage. According to NFPA 80, periodic testing of all years begin 1 year after installation date and followed every 4 years proceeding.

In any case where the damper is difficult to remove and/or impossible to test due to size and accessibility Safeair-Dowco recommends a complete examination for damper to be square and plumb and blade to have no obstructions. Check also that nothing hinders or prevents full operation of blades and airflow.

MAINTENANCE:

1. Check interior and exterior sides of dampers for any major defects or material disintegration, rust, wear, corrosion, or any signs of damage that may prevent proper functioning of damper.
 - a. In serious damage contact Safeair-Dowco <http://safeair-dowco.com/contact.php>
2. Make sure all items linked to damper are in good condition, such as closure spring and fusible links. If part is inoperable, repair or replace part.
3. Damper blades, Shafts, bearings, pivot points etc. should be cleaned and lubricated with a light spray oil. Any and all access should be removed.
 - a. *Use silicone based lubricant and not petroleum based lubricant.*
 - b. *Dampers with non-mettalic or carbon sleeve bearings do not require lubrication*
4. Blades should be visually checked through their complete cycle for defects, binding or misalignment. Check blades and see that they are fully closed when operated.
 - a. *Damper should be operated under normal airflow conditions.*
5. Move blade package back to its open position and replace the fusible link.
6. If in any case actuators, blades or linkage is not properly functioning, contact Safe-Air Dowco at our given inquiry page located above to be further assisted.

TESTING PROCEDURE:

1. With the fusible link intact, heat or remove the link with a temperate heat source. Allow blade package to drop.
 - a. **(Be sure to keep hands out of path of blades and blade package)**
2. After testing procedure check that all blades are completely closed.
 - a. *Damper should be operated under normal airflow conditions.*
3. Record date of testing procedure and label on a sheet.
4. Repeat testing procedure on a set periodic routine.