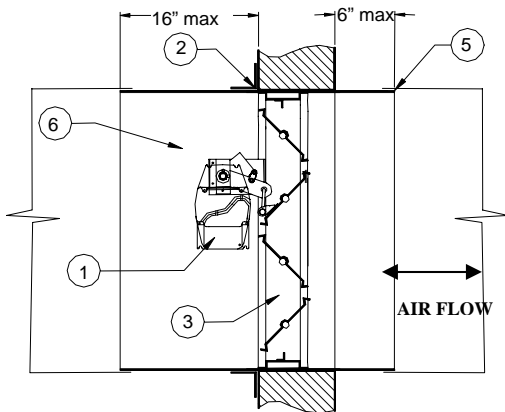
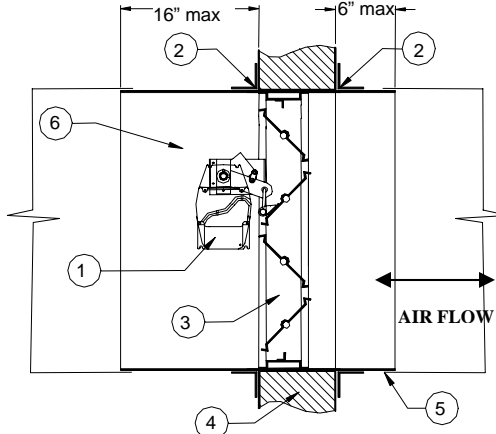


INSTALLATION INSTRUCTIONS FOR FIRE / SMOKE DAMPERS



One Angle Installation

Mounting angles may be installed on either side of wall



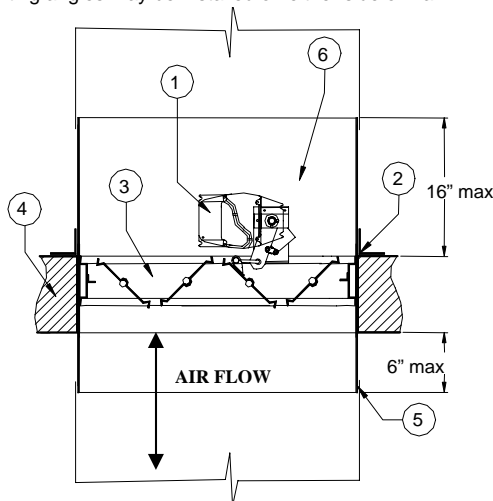
Two Angles Installation

- Models:**
- 771, 771-3
 - 772, 772-3
 - 772M, 772M-3
 - 781, 781-3
 - 782, 782-3

VERTICAL INSTALLATION

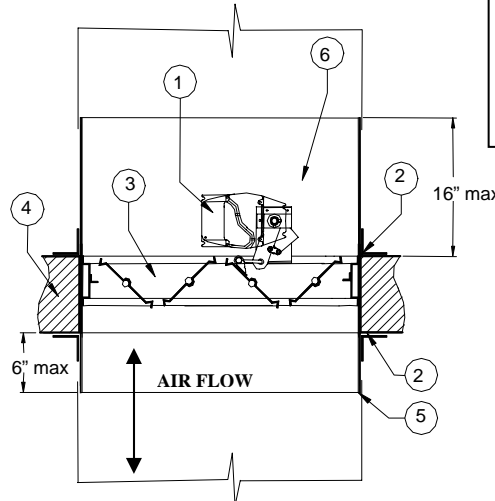
Item Description

- 1 – Actuator (external or internal)
Location may vary
- 2 – Mounting / retaining Angles
(All Around the perimeter)
- 3 – Damper Unit
- 4 – Wall / Floor Opening
(Concrete, Metal or Wood)
- 5 – Duct / Sleeve break-away connection
- 6 – Sleeve
- 7 – Caulking



One Angle Installation

Mounting angles may be installed on either side of wall



Two Angles Installation

HORIZONTAL INSTALLATION

Typical installation details

- (A) Retaining Angles: Minimum 1 1/2" x 1 1/2" x 0.054 (18ga) Retaining angles must overlap structural opening 1" minimum and cover corners of openings.
- (B) Clearance: 1/8" inch per linear foot both dimensions (see Note 1 below)
- (C) For two angles installation, secure retaining angles to sleeve only, 8" on centers with:
 - ◆ 1/2" long welds or
 - ◆ 1/4" Bolts and nuts, or
 - ◆ No. 10 steel screws, or
 - ◆ Minimum 1/16" steel rivets
- (D) For one angle installation, secure retaining angles to wall/floor opening, 8" on centers with:
 - ◆ 1/4" bolts and nuts, or
 - ◆ No. 10 sheet metal steel screws, or
 - ◆ Minimum 3/16" steel rivets

Notes:

Fire/Smoke damper sleeve clearance within wall opening.

1. 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. The sleeve may rest on the bottom of the opening, and need to be centered. (Fractional dimensions shall be taken as the next largest whole foot).

Example: A 30-inch x 24-inch fire damper sleeve is installed in a wall opening. The opening shall be 30-3/8 inches wide (1/8 inch x 3 feet) by 24-1/4 inches high (1/8 inch x 2 feet).

2. The sleeve is retained in the wall opening by the use of steel retaining angles (A). These must over-lap the edge of the framing by a minimum of one (1) inch over and beyond all the retaining angle would be 1-3/8 inches (good practice calls for an additional safety factor by making the angle in this case 1-1/2 inches wide).
3. The dimensions required for the opening shall be those remaining after the opening has been framed and fire resistive materials provided were required. The fire resistive materials shall be equal to the requirements for fire resistive materials used in the constructed wall so that a continuous rating exists at the wall penetration. The contractor erecting the wall is responsible for providing the fire resistive material and correct size openings to achieve the required clearance.
4. Dampers must be installed in accordance with these instructions to meet the requirements of UL 555 and UL 555S. The installation of the damper and all duct connections to the damper sleeve shall conform to the latest editions of NFPA 90A, Standard for the installation of Air Conditioning and Ventilating Systems, and the SMACNA Fire, Smoke and Radiation damper installation guide, and U.L. Classifications R7861.