



The damper may be mounted in the vertical (dynamically rated at 2000 fpm) or horizontal (dynamically rated at 3000 fpm) position with the damper blades running horizontally. Airflow can be from either direction. When mounted in the vertical position, the damper can only be mounted in a fire barrier constructed of masonry/concrete or metal framed gypsum wallboard materials. When mounted in the horizontal position, the damper can only be mounted in a fire barrier constructed of masonry/concrete materials.

Installation Instructions:

1. General: These instructions illustrate the approved method of mounting the 2652 round curtain fire damper into a square or rectangular framed opening incorporating a retaining plate on only one side of the opening. The installation of the damper and all duct connections to the damper sleeve shall conform to NFPA-90A and the SMACNA Fire, Smoke and Radiation Damper Installation Guide. All duct connections shall also conform to UL555.

This installation is approved for use when all of the following conditions are met:

- A. The damper is mounted vertically in a rated wall assembly.
- B. The wall is rated for less than 3 hours.
- C. The maximum damper size is 12" diameter.
- D. The wall framing must be masonry/concrete or steel.
- E. The closed blades must be within the fire rated barrier.

Note: The retaining plate can be both sides of the opening but is only required on only one side.

2. Multiple Panel / Multiple Section Assembly: Not available.

3. Sleeves: Sleeves are required for the proper installation of fire rated dampers, but need not be factory mounted. Sleeves shall be the same gauge or heavier as the duct to which it is attached. Gauges shall conform to SMACNA or ASHRAE duct standards. A field supplied sleeve is attached to the damper with 3/16" diameter steel rivets, 1/4" diameter steel bolts, #10 steel sheet metal screws, or 1/2" long welds. Fasteners shall be staggered on each side of the damper frame on 8" maximum centers. The sleeve shall not extend more than 6" beyond the fire barrier unless the sleeve includes an access door. If the sleeve includes an access door, the sleeve may extend up to a maximum of 16" beyond the fire barrier.

4. Expansion Clearance: The opening in the wall for the fire rated damper shall be sized to provide expansion between the sleeve and the opening. The clearance between the opening frame and the outside of the damper assembly must be between 1/4" and 2" total. The damper can be located anywhere in the opening and need not be centered. The retaining plate must still overlap head framing on all sides by at least 1".

Example: A 10" diameter damper is to have a framed opening at least 10.25" and a maximum opening of 12". The damper can rest on the sill of the opening with all of the expansion clearance.



- 5. Damper Orientation:** Damper blades should be as horizontal as possible but can be as much as 30° above or below the horizontal. The damper can be positioned so that the airflow is from either direction.
- 6. Retaining Plates** The retaining plate must be a minimum of 20-GA galvanized steel. The plate must overlay the wall framing by a minimum of 1" on each side such that the retaining plate attachment screws fasten into the wall framing. A minimum of 6 fasteners are required, one in each corner and one at each retaining plate splice. In masonry/concrete constructions, 3/16" diameter "tapcon" or equal fasteners with a minimum of 1" penetration are required. In metal framed openings, fine thread drywall screws with a minimum of 1" penetration into the framing are required.

Retaining plate halves must be attached using one of the following methods:

 1. The plate halves overlap a minimum of 1" and are fastened directly to one another. A minimum of 1 #10 steel or stainless sheet metal screw fastener at each end is required.
 2. The plate halves are joined by a splice plate, so that it overlaps each half a minimum of 1". A minimum of 2 #10 steel or stainless steel sheet metal screw fasteners per plate at each end are required.
- 7. Clip Angles:** A minimum of three equally spaced 1" X 1" x 20-GA steel clip angles 1/2" long connect the damper to the retaining plate. Fasteners used to mount the damper to the plate must be a minimum #10 steel. Fasteners must not interfere with blade closure.
- 8. Caulking:** Caulk shall be one of the following: Dow Corning RTV732, Silco Sil-Bond RTV 4500, General Electric IS808, or Novagard RTV300. Caulking is allowed between the retaining angles and the damper sleeve, and between the face of the floor or wall construction. Caulking is not allowed between the damper sleeve and the wall inside the opening.
- 9. Duct Connections:** All connection ducts shall not be continuous, but shall terminate at the fire damper sleeve. Duct connections can be rigid or a 4" Drawband connection can be used. For rigid type duct connections, the sleeve shall be a minimum of 16-GA. Duct connections shall conform to SMACNA or ASHRAE duct standards.
- 10. Maintenance:** Dampers shall be maintained at intervals as stated in NFPA 90A and 92A. Local codes or building conditions may require more frequent inspections and maintenance. A duct access door is to be located on one side of each damper for periodic inspection and maintenance.