



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:** 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.
- 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 opening diameter is to be 1/4" larger than the outside diameter of the sleeve. When 1" retaining angles are used, the opening diameter shall be a maximum of 3/4" larger than the sleeve outside dimension. Opening differences larger than 3/4" will require a proportionally larger retaining angle leg overlapping the opening.
- 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 Angles:** Secure steel mounting angle rings to the sleeve only, so as to frame both faces of the opening. Mounting angle rings shall be a minimum of 1" X 1" X 20-GA. Fasten rings to the sleeve using the same means as required for fastening the damper to the sleeve. For installations requiring flush mounting, angle rings may be mounted facing into the opening. Ends of rings can be welded or unwelded. Mounting angle rings are typically supplied by others.
- 7. 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 or floor inside the opening.
- 8. 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.
- 9. 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.