

1901 South Kilbourn Avenue Chicago, Illinois 60623 Telephone: 773/521-1900 Outside Illinois: 800/368-8368 FAX: 773/521-5613

INSTALLATION INSTRUCTIONS . Model #5500-series 1-1/2—2 hour Rated Fire Dampers & 3-hour Rated Fire Dampers For Static and Dynamic Systems, UL File # R10975

Vent Products Model #5500-series fire rated dampers are to be installed in fire rated walls, metal studs, wood studs, partitions in masonry or concrete floors as applicable.

Dampers shall be installed in accordance with these instructions and to meet the requirements of UL 555. The installation of the dampers 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 or ASHRAE standards.





TYPE - B Vertical / Horizontal Mount 2-sided Mounting Angle



TYPE - C Vertical / Horizontal Mount 2-sided Mounting Angle



TYPE - A Vertical / Horizontal Mount 1-sided Mounting Angle







1-sided Mounting Angle

Typical Installation

- Mounting angles shall be minimum of 1-1/2 x 1-1/2 x 16 gauge fasten to sleeve only with 1/4" diameter nuts and bolts or welding @ 8"oc, or #10 sheet metal screws @ 8" oc, or 3/16" steel pop-rivets. See #2 for clearance and overlap. Angles shall not be fastened or welded to each other at the corners. All bots, nuts and rivets shall be steel.
- Dampers shall have a clearance of 1/8" per foot on height and width, and angles shall increase in size proportionately so that there will be a minimum of 1" of overlap on the partition. Opening shall not be less than 1/4" larger for any size damper and sleeve assembly. Duct shall not be continuous, but shall terminate at the sleeve or frame.
- Breakaway connection. Sleeve and duct connections may be used on all systems with a standard 18 gauge sleeve with the following; angle slip, bar slip, double "S" slip, hemmed "S" slip, inside slip joints, Plain "S" slip, reinforced bar slip, and standard "S" slip.
- 4. Standard 18 gauge sleeve. If sleeves are to be field supplied, they shall be 10 to 20 gauge galvanized steel and of the same gauge or heavier than the duct to which it is attached. Gauges shall conform to SMACNA or ASHRAE standards. The final sleeve assembly shall have the inner dimensions equal to the damper's outer dimensions. If not using one of the above sleeve and duct connections, sleeve shall be a minimum of 16 gauge for dampers up to 36"wide x 24" high. If either dimension is exceeded, 14 gauge sleeves will be required.
- 5. Length of sleeve and or collars extending beyond wall or floor opening shall not exceed 6 inches on each side of wall or floor. (per UL555).
- Installation for type "C" oval, rectangular and round, the wall sleeve must be 18 gauge or heavier. Damper position stops with screw, bolt or weld. Do not pierce damper frame.
- 7. For 3-hour fire rated damper shall be mounted for vertical application only.



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2-sided Mounting Angles

1-sided Mounting Angle



Notes:

- Wall opening for two angle installation 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 installation the minimum opening shall be 1/8" per foot and no more than 1" total larger than the overall size of damper assembly.
- Mounting angles shall be minimum of 1-1/2 x 1-1/2 x 16 gauge galvanized steel fastened with #10 screws, 1/4" diameter nuts and bolts and 1/2" long welds or 3/16" rivets.
- 3. Maximum spacing fasteners 6", but no more than 3" from any end.
- 4. Sleeve gauge minimum equal to gauge to duct assembly.
- 5. 21" wide below -minimum of 2 connection per side. Above 21" width minimum of 3-connection top and bottom.
- 6. 1-sided mounting angles to be fastened to wall and sleeve with #10 screws.
- 7. 2-sided mounting angles to be fastened to sleeve only with #10 screws.

Legend:

- A. Metal Stud
- B. 1/2" Gypsum Wallboard
- C. Damper Sleeve
- D. Mounting Angle
- E. Mineral Fiber Blanket
- F. Damper Assembly
- G. Masonry / Concrete wall or floor



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Legend:

- A. Metal Stud
- B. 1/2" Gypsum Wallboard
- C. Damper Sleeve
- D. Mounting Angle
- E. Mineral Fiber Blanket
- F. Damper Assembly
- G. Wood Stud
- H. U438 Fire Resistant Wall





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Fire Damper w/ Grille or Shaft Mount

Legend:

- 1. Rated Fire Damper Model #5500-series
- 2. Grille supplied by others
- 3. Galvanized sleeve with 3/4" flange
- 4. Secure damper to sleeve 8" on center with:
 - 1/2" long welds
 - 1/4" bolts and nuts in holes provided
 - #10 steel screws
 - 3/16" steel rivets
- 5. Clearance of 1/8" per linear foot on both sides
- 6. Fusible Link

Note:

No angles required on the back side of sleeve.

MAINTENANCE:

This operation and maintenance instructions should serve as standard basis for all curtain fire rated dampers manufactured by Vent Products model # 5500-series.

All fire dampers require routine maintenance procedures in order for the dampers to operate as intended in any case in which fire may occur within the building. Periodic testing of all parts linked to the dampers is essential to maintaining a working damper. Check all spring, blades, fusible link and etc. are functioning properly and that nothing is preventing blades from operating. Be sure to check that nothing is blocking or hindering air way passage. In any case where the damper is difficult to remove and / or impossible to test due to size and accessibility Vent Products 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. According to NFPA 80, periodic testing of all years begin 1 year after installation date and followed every 4 years proceeding.

- 1. Check the interior and exterior sides of the dampers for any major defects or material disintegration, rust, wear, corrosion, or any signs of damage that prevent proper functioning of damper
- 2. Make sure all items linked to damper are in good condition, such as closure spring and fusible links. If any part is inoperable, repair or replace it immediately.
- 3. Damper blades should be visually checked through their complete cycle for defects, binding or misalignment. Check blades and see that they are fully closed.
- 4. Move blade package back to its open position and replace the fusible link.

TESTING PROCEDURE:

- 1. With the fusible link intact, heat or remove the link with a temperate heat source. Allow blade package to drop. Be sure to keep hands out of path of blades and blade package.
- 2. After testing procedure check that all blades are completely closed. 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 of periodic routine.