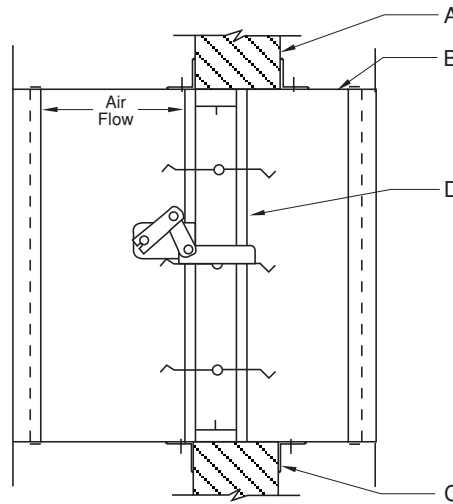
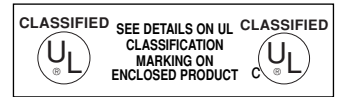


The following installation details apply to model **FD-320**



Vertical Mount

- A. Concrete or masonry fire partition shown. The opening shall be a minimum of 1/4" (6) with a maximum of 3/4" (19) larger than the overall damper and sleeve assembly size. When openings are larger than 3/4" (19), but less than 6" (152) the mounting angles must be a minimum of 16 gauge (1.5) and must be tall enough to overlap the opening by a minimum of 1" (25). Damper must be installed with leading edge of closed blade within the partition.
- B. For rigid type duct connections, the sleeve shall be a minimum of 16 gauge (1.5) for dampers up to 36" wide by 24" high (914 x 610) and 14 gauge (1.9) for larger units. When lighter gauge sleeves are used, one or more of commonly used breakaway style connections are required. Refer to Sleeve Termination Supplemental Installation Instructions for further details. In no case will the sleeve gauge be less than the duct gauge to which it is connected. Damper sleeve shall not extend more than 6" (152) beyond the rated partition unless an access door or Smoke Detector is installed in the sleeve which then permits the extension to be a maximum of 16" (406).
- C. Mounting angles shall be a minimum of 1-1/2" x 1-1/2" x 16 gauge (38 x 38 x 1.5). Fastening or welding angles together at the corners is not required. The angles shall be attached to the sleeve, not the partition, with 3/16" (4.8) diameter steel rivets, Quick-Lock Joints, welds, No. 10 (M5) bolts or sheet metal screws at 8" (203) o.c. maximum. A minimum of two connections per side, top and bottom. Mounting angles shall overlap the wall a minimum of 1" (25). A minimum 3/4" x 20 gauge (19 x 1) flange termination may be used in lieu of mounting angles. Refer to Sleeve Termination Supplemental Installation Instructions for further details. Ensure that attachment device does not interfere with the operation of the damper and the free movement of the damper blades. Note: If optional sealing between the retaining angle (or flange) leg and the surface of the partition, wall, or floor, and/or between the retaining angle leg and the surface of the damper sleeve is required, the following sealants may be used: Dow-Corning 732 or GE RTV 108 or SCS 1201 RTV. These sealants should be applied such that they do not intrude into the annular space between the outside surface of the damper sleeve and the opening of the partition, wall, or floor, into which the damper/sleeve is being installed.
- D. When joining multiple sections or fastening the damper to the sleeve, the damper shall be fastened with 3/16" (4.8) diameter steel rivets, Quick-Lock Joints, welds, No. 10 (M5) bolts or sheet metal screws at 8" (203) o.c. maximum. A minimum of two connections per side, top and bottom.

DUCT SIZES	GALVANIZED STEEL	STAINLESS STEEL
	VERTICAL	VERTICAL
Maximum Single Section	36" x 48" (914 x 1219)	36" x 48" (914 x 1219)
Maximum Multiple Section	108" x 96" (2743 x 2438)	N/A
Minimum	6" x 6" (152 x 152)	6" x 6" (152 x 152)

Note:
Annular space between damper sleeve and wall opening shall not be filled with firestop materials such as fill, void or cavity materials.

Underwriter's Laboratories file #R14981. The product is also listed by CSFM File # 3225-1404:105.

Information is subject to change without notice or obligation.

NOTE: Dimensions in parentheses () are millimeters.