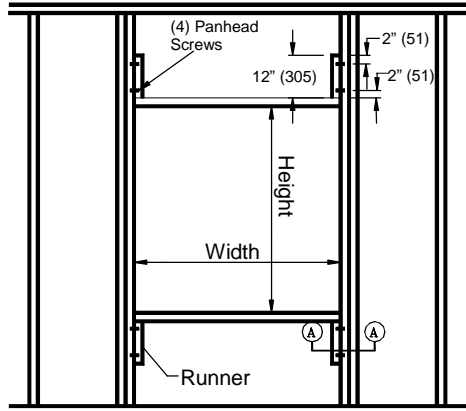
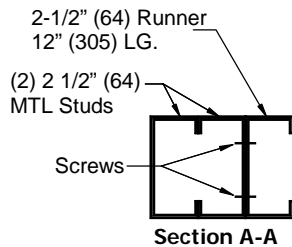


Installation Instructions Models – 471 & 472

Design Features – U.L. Rated for dynamic closure & leakage CLASS I & CLASS II @ 250° F (121°C) or 350° F (177°C), Meets NFPA 90A & UL 555 & UL 555S, Seismic and fragility tested.



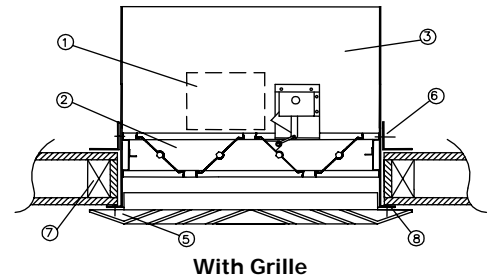
Typical Framing for Corridor Damper Installation



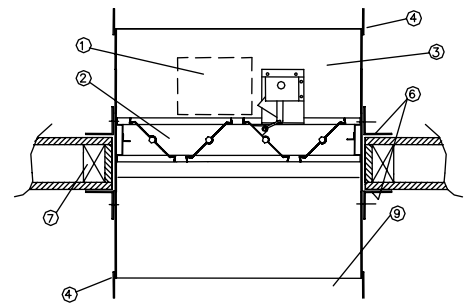
Section A-A

Typical Installation Instructions

- A. The standard mounting position of the top retaining angles (6) may vary on overall thickness of the ceiling and dependent upon materials being used.
- B. If retaining angles are to be factory mounted, the type "X" gypsum wallboard thickness must be specified to ensure factory mounted angles are installed in the correct position, that way the sleeve flange is flush with the ceiling.
- C. Fasten (6) to (3) with 1/4" (6) bolts and nuts, 3/16" (5) steel pop rivets or welding. Angles do not overlap and are not fastened at corners.
- D. Retaining angles must overlap with wall opening with a minimum of 1" (25) on all sides.
- E. All fastening to be @ 8" (203) o.c. on all sides.
- F. Ducted installation shall terminate at sleeve of damper with break-away connection. Secure damper with 1/4" (6) dia. bolts and nuts, #10 (M5) sheet metal screws, 3/16" (5) pop rivets or welding. All fastening @ 8" (203) o.c.
- G. All installation shall be made in accordance with the SMACNA standards and NFPA 90A.
- H. Caulk joints and connections continuously with sealant, i.e. Dow Corning RTV #732 or GE RTV #108.
- I. After installation make sure damper and operator are working properly.
- J. Refer to manufacturers technical specification for electric and pneumatic operators.
- K. 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.



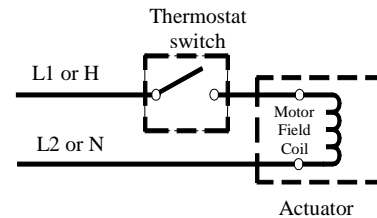
With Grille



Duct Installation

KEY TO DRAWINGS –

- (1) Actuator- location may vary
- (2) Damper assembly
- (3) 18 ga. (1.3) galv. Sleeve x 16" (406) long
- (4) Break-away connection
- (5) Diffuser or grille (by others)
- (6) 1 1/2" x 1 1/2" (38 x 38) 18 ga. (1.3) retaining angles. If ducted installation top and bottom angle is required
- (7) Wood framing members (1) hour resistance. Metal studs are optional.
- (8) 1" (25) sleeve flange
- (9) Ducted installation



Typical Electrical Wiring Diagram