

These instructions are for installing vertical mount fire and combination fire smoke dampers in a fire resistant ventilation duct (UL Ventilation duct Assembly HNLN.V-5)

**Refer to:**

'Installation Instructions for FD, DFD, DFD X series, and FD X series Fire Damper Models' (Part #481324)

or

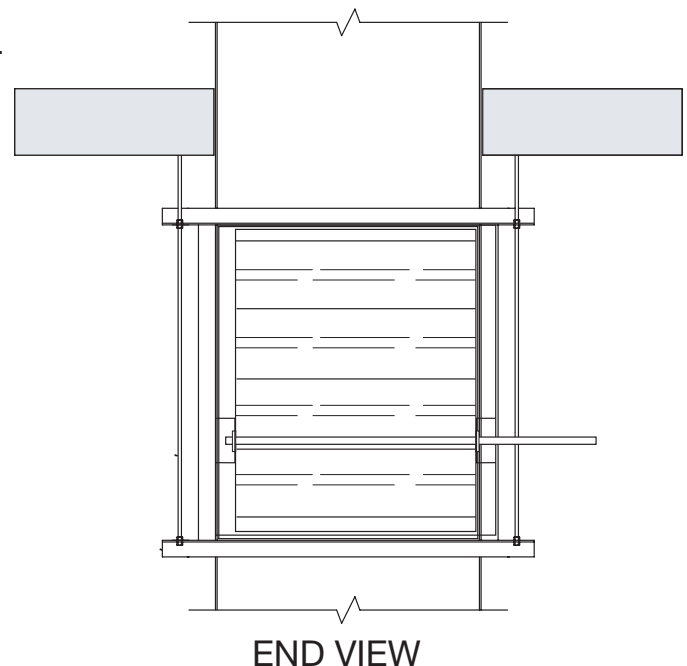
'Installation Instructions for FSD-XXX, DFD-XXX, and SSFSD-XXX Series Fire & Combination Fire Smoke Dampers' (Part #481318)

or

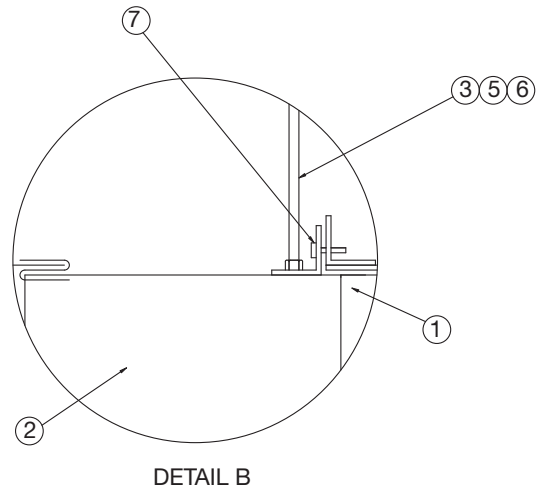
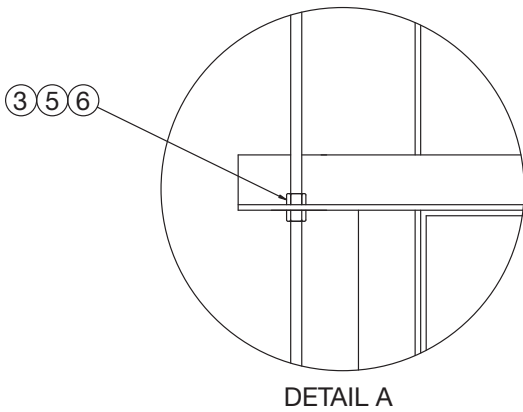
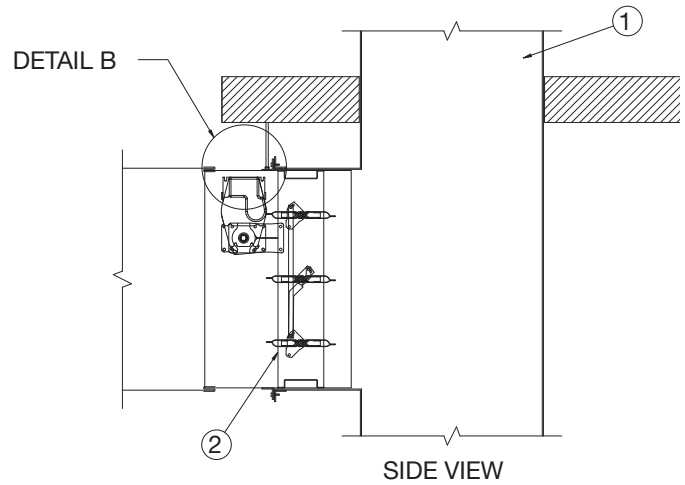
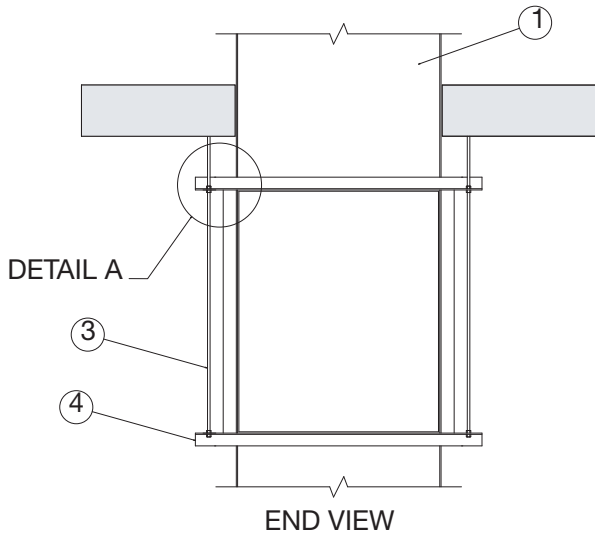
"Installation Instructions for OFSD, ODFD, OFD, and OSSFD Series Dampers" (Part #461337) for additional details.



- 1) The damper sleeve must slip inside the fire resistant duct spool. Damper sleeve assembly will be ¼ in. (6 mm), ½ in. (13 mm) maximum, smaller than duct spool size.
- 2) Damper is to be supplied with factory mounted sleeve. Sleeve gauge will be minimum of 16 ga. (1.5 mm) for dampers up to 36 in. wide x 24 in. (914 mm x 610 mm) high and 14 ga. (2 mm) for dampers exceeding 36 in. wide x 24 in. high (914 mm x 610 mm).
- 3) Mounting angles need to be the following sizes:
  - 1½ in. x 1½ in. x ¼ in. up to 24 in. (38 mm x 38 mm x 6 mm up to 610 mm)
  - 2 in. x 2 in. x ¼ in. over 24 in. up to 32 in. (51 mm x 51 mm x 6 mm over 610 mm up to 813 mm)
  - 2½ in. x 2½ in. x ¼ in. over 32 in. up to 40 in. (64 mm x 64 mm x 6 mm over 813 mm up to 1016 mm)
  - 3 in. x 3 in. x ¼ in. above 40 in. (76 mm x 76 mm x 6 mm above 1016 mm)
- 4) Mounting angle fasteners:
  - #10 bolts or screws
  - ⅜ in. (4.7 mm) steel rivets
  - ½ in. (13 mm) long welds
- 5) Mounting Angle Fasteners Spacing:
  - Mounting angles to dampers, space fasteners on 6 in. (152 mm) on center.
  - Mounting angle to spool flange, space fasteners on 12 in. (305 mm) on center.
  - Minimum 2 fasteners per side
- 6) Hanger rods:
  - ⅝ inch threaded rod anchored to the floor above and attached to the mounting angles through hole in the angles and secured with hex nut and washer (Items 5 & 6). Anchor to masonry per assembly No. V-5.
- 7) Duct to Damper Sleeve Connection:
  - See the fire damper or the combination fire smoke installation instructions for breakaway, flanged, or non-breakaway connections.



Item	Description
1	Fire resistant ventilation duct (UL HNLN Assembly No. V-5)
2	Fire damper or combination fire smoke damper
3	Hanger rods in accordance with assembly no. V-5
4	Mounting angles (see instruction #3)
5	3/8 in. (10 mm) hex nuts
6	3/8 in. (10 mm) flat washer
7	Mounting angle fasteners (see instructions #4)



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