



Assembly No. V-32 HNLJ.V-32 Ventilation Duct Assemblies

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- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
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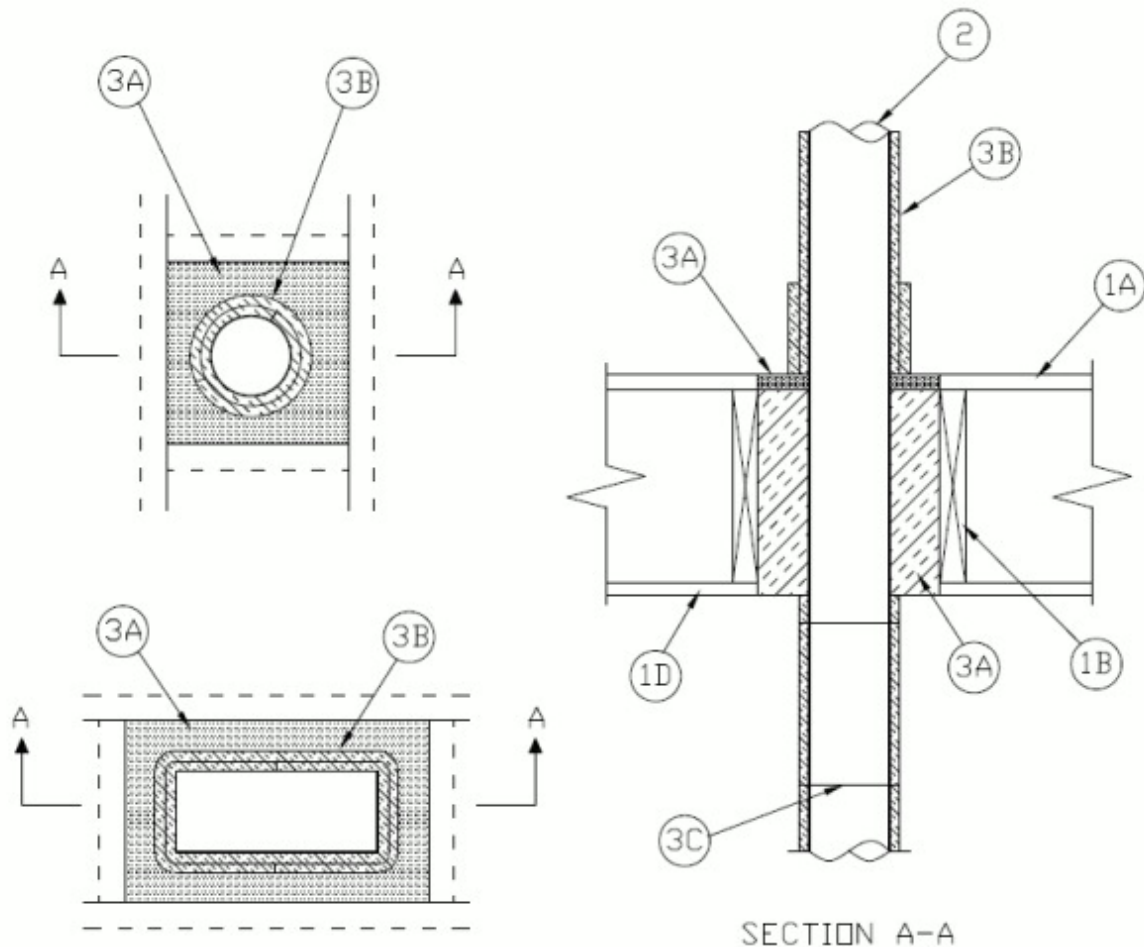
Ventilation Duct Assemblies

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Assembly No. V-32

October 29, 2013

Duct A	
Fire Resistance Rating	1 Hr



1. Floor-Ceiling Assembly — The 1 hr fire-rated solid or trussed lumber joist floor-ceiling assembly shall be constructed of the materials and in the manner specified in the individual L500 Series Floor-Ceiling Designs in the UL Fire Resistance Directory. The general construction details of the floor-ceiling assembly are summarized below:

A. Flooring System — Lumber or plywood subfloor with finish floor of lumber, plywood or **Floor Topping Mixture*** as specified in the individual Floor-Ceiling Design. Max area of floor opening is 150 in.² (0.098 m²) with a max 1.5 in. (38 mm) annular space between wrapped duct and framing members.

B. Wood Joists — Nom 10 in. (254 mm) deep (or deeper) lumber, steel or combination lumber and steel joists, trusses or **Structural Wood Members*** with bridging as required and with ends firestopped. Additional framing members installed to form a square enclosure around the perimeter of the opening in the floor and ceiling.

C. Furring Channels — (Where required - not shown) - Resilient galv steel furring installed perpendicular to wood joists between gypsum board and wood joists as specified in the individual Floor-Ceiling Design. Furring channels spaced max 24 in. (610 mm) OC. If furring channels are used within the assembly, additional furring channels to be installed around the periphery of the opening.

D. Gypsum Board* — Nom 4 ft (1.2 m) wide by 5/8 in. (15.9 mm) thick as specified in the individual Floor-Ceiling Design. Gypsum board secured to wood joists or furring channels as specified in the individual Floor-Ceiling Design. Max area of ceiling opening is 150 in.² (0.098 m²) with a max 1.5 in. (38 mm) annular space between duct and framing members.

2. Steel Air Duct — Max 7 in. (178 mm) diam by min 0.0157 in. (No. 30 gauge or 0.40 mm) thick galv steel air duct to be centered within the firestop system. Max one steel air duct to be installed within opening. Steel duct to be rigidly supported on top side of floor-ceiling assembly.

2A. Steel Air Duct — Max 10 x 4 in. (254 x 102 mm) rectangular by min 0.022 in. (no. 26 gauge or 0.56 mm) thick galv steel air duct to be centered within the firestop system. Max one steel air duct to be installed within opening. Steel duct to be rigidly supported on top side of floor-ceiling assembly.

3. Fire-resistive System — The fire resistive system shall consist of the following:

A. Firestop System — When the ventilation duct passes through a fire rated floor assembly, the through openings shall be firestopped in accordance with System No. F-C-7057.

B. Batts and Blankets* — 1/2 in. (13 mm) thick, 8 pcf (128 kg/m³) or nom 1-1/2 in.

(38 mm) thick, 6 pcf (96 kg/m³) with foil-scrim facers. The steel duct shall be wrapped with one layer of duct wrap installed with 1 in. (25 mm) transverse and longitudinal overlaps or tightly butted compression joints in accordance with the manufacturer's installation instructions A min 12 in. high collar consisting of an additional layer of 1/2 in. (13 mm) thick, 8 pcf (128 kg/m³) or nom 1-1/2 in. (38 mm) thick, 6 pcf (96 kg/m³) duct wrap, installed over the duct wrap flush with the top surface of the floor and extending upward. All seams and edges shall be sealed with min 3 in. (76 mm) wide pressure sensitive aluminum foil tape.

UNIFRAX I L L C — FyreWrap® DPS or FyreWrap® Elite 1.5

C. **Steel Tie Wire** — Min No. 18 Gauge (0.040 in. or 1 mm) galvanized steel wire formed into a loop on one end, with the other end passed through the loop, pulled hand tight and bent over. Tie wires spaced a max 12 in. (305 mm) OC.

*Bearing the UL Classification Mark

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