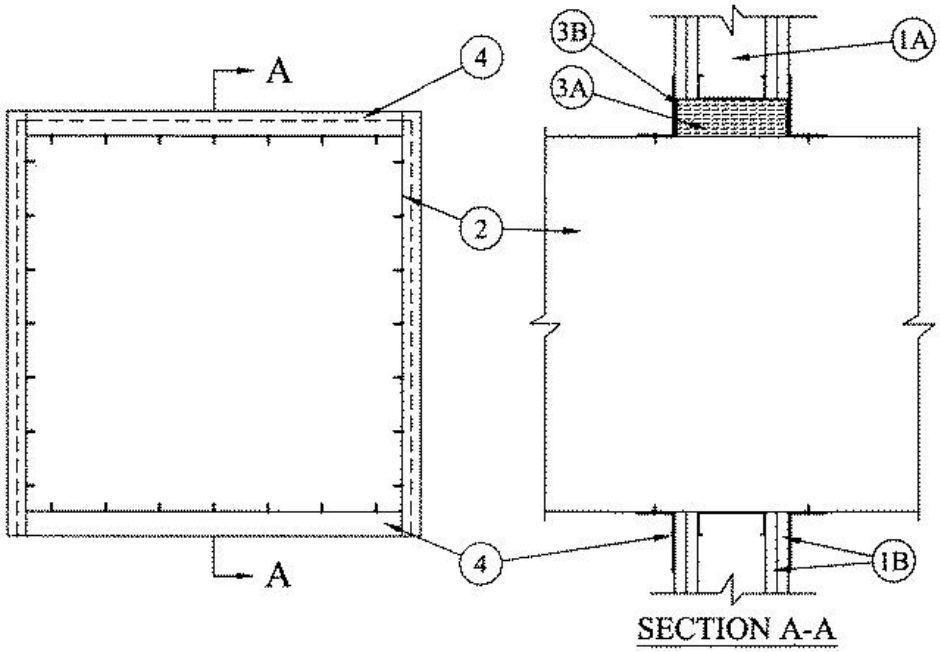
F Ratings — 1 and 2 Hr (See Item 1)
T Rating — 0 Hr
L Rating At Ambient — Less Than 1 CFM/sq ft (See Item 2)
L Rating At 400 F — Less Than 1 CFM/sq ft (See Item 2)



SECTION A-A

1. **Wall Assembly —** The 1 or 2 hr fire-rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300, U400 or V400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

A. **Studs —** Wall framing shall consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC. Steel studs to be min 3-1/2 in. (89 mm) wide and spaced max 24 in. (610 mm) OC. Additional framing members shall be used to completely frame around opening.

B. **Gypsum Board* —** Min 5/8 in. (16 mm) thick, 4 ft (1.22 m) wide with square or tapered edges. The gypsum board type, thickness, number of layers and orientation shall be as specified in the individual U300, U400 or V400 Series Wall and Partition Design. Max area of opening is 328 sq in. (0.21 m2) with a max width of 14-1/2 in. (368 mm) for wood studs. Max size of opening is 498 sq in. (0.32 m^2) with a max width of 22-5/8 in. (575 mm) for steel studs.
The hourly F Rating of the firestop system is equal to the hourly fire rating of the wall in which it is installed.

2. **Steel Duct —** Max 20 by 20 in. (508 by 508 mm) No. 24 gauge (or heavier) steel duct to be installed either concentrically or eccentrically within the opening. The annular space shall be min 0 in. (0 mm, point contact) to max 2 in. (51 mm). **L Ratings apply only when the min annular space between the through penetrant and the edge of the opening is equal to or greater than 1/4 in. (6 mm).** Duct to be rigidly supported on both sides of wall assembly.

3. **Firestop System —** The firestop system shall consist of the following:

A. **Packing Material —** Min 4-7/8 in. (124 mm) or 6-1/8 in. (156 mm) thickness of min 4 pcf (64 kg/m^3) mineral wool batt insulation firmly packed into opening as a permanent form for 1 or 2 hr fire-rated walls, respectively. Packing material to be installed flush with both surfaces of wall.

B. **Fill, Void or Cavity Material* — Coating —** Coating Min 1/8 in. (3.2 mm) wet thickness of fill material applied to completely cover the mineral wool packing material and to lap min 1/2 in. (13 mm) onto the wall surfaces and onto the steel duct around the entire periphery of the through opening on both sides of the wall.
RECTORSEAL — FlameSafe FS3000, Metacaulk 1200, 1500 or Biostop 750, 800 Spray

C. **Steel Retaining Angles —** Min No. 22 gauge galv steel angles sized to lap steel duct a min of 2 in. (51 mm) and to lap wall surfaces a min of 1-1/2 in. (38 mm) around entire perimeter of through opening on both sides of wall assembly. Angles attached to steel duct on both sides of wall with min No. 10 steel sheet metal screws spaced a max of 1 in. (25 mm) from each end of steel duct and spaced a max of 6 in. (152 mm) OC.

*,+ Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

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