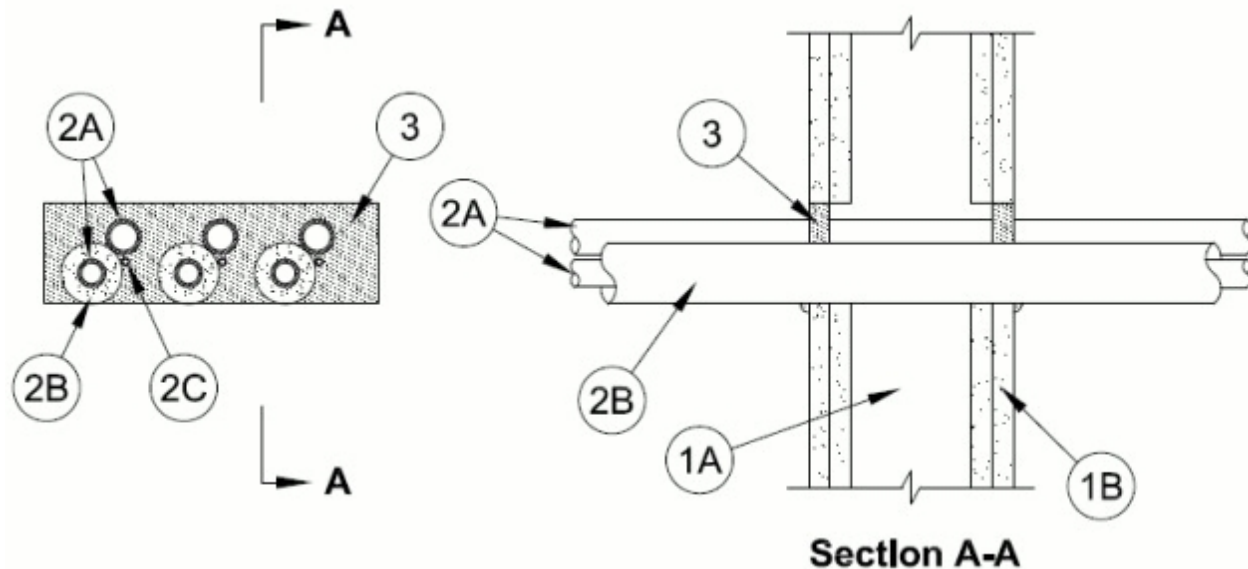


System No. W-L-8108

June 08, 2017

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Ratings — 1 and 2 Hr (See Item 1)	F Ratings — 1 and 2 Hr (See Item 1)
T Rating — 3/4 Hr	FT Rating — 3/4 Hr
L Rating At Ambient — Less Than 1 CFM/ft ²	FH Ratings — 1 and 2 Hr (See Item 1)
L Rating At 400 F — Less Than 1 CFM/ft ²	FTH Rating — 3/4 Hr
	L Rating At Ambient — Less Than 5.1 L/s/m ²
	L Rating At 400 F — Less Than 5.1 L/s/m ²



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 Design in the UL Fire Resistance Directory and shall include the following construction features:

A. Studs — Wall framing may 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 3-1/2 in. (89 mm) wide and spaced max 24 in. (610 mm) OC.

B. Gypsum Board* — Thickness, type, number of layers and fasteners as specified in the individual Wall and Partition Design. Max area of opening is 30 sq in. (0.019 m²) with a max dimension of 10 in. (254 mm).

The hourly F Rating of the firestop system is equal to the hourly fire rating of the wall assembly in which it is installed.

2. Air Conditioning (AC) Line Set — One or more AC line sets installed eccentrically or concentrically within opening. Each AC line set consists of two pipes or tubes (Item 2A), tubing insulation (Item 2B) and a thermostat cable (Item 2C). The space between the AC line sets shall be min 1/2 in. (13 mm) to max 3/4 in. (19 mm). The space between the AC line sets and the periphery of the opening shall be min 0 in. (point contact) to max 1 in. (25 mm).

2A. Through Penetrant — A max of two pipes or tubes to be installed in each AC line set. Of the two pipes or tubes, only one may have a nom diam greater than 1/2 in. (13 mm) Annular space between pipes or tubing and periphery of opening shall be min 0 in. (point contact) to max 1-1/2 in. (38 mm). Pipes or tubing to be rigidly supported on both sides of the wall assembly. The following types and sizes of through penetrants may be used:

A. Steel Pipe — Nom 1 in. (25 mm) diam (or smaller) Schedule 5 (or heavier) steel pipe.

B. **Iron Pipe** — Nom. 1 in. (25 mm) diam (or smaller) cast or ductile iron pipe.

C. **Copper Pipe** — Nom 1 in. (25 mm) diam (or smaller) Regular (or heavier) copper pipe.

D. **Copper Tube** — Nom. 1 in. (25 mm) diam (or smaller) Type L (or heavier) copper tube.

2B. **Tube Insulation - Plastics#** — Nom 3/4 in. (19 mm) thick acrylonitrile butadiene/polyvinyl chloride (AB/PVC) flexible foam furnished in the form of tubing. The tube insulation may be installed on one max 1/2 in. (13 mm) diam pipe or tube in each AC line set. The annular space between the penetrating item and the periphery of the opening shall be min 0 in. (point contact) to max 1/2 in. (13 mm). The space between the pipes or tubing within each AC line set shall be 0 in. (point contact).

See **Plastics** (QMFZ2) category in the Plastics Recognized Component Directory for names of manufacturers. Any Recognized Component tube insulation meeting the above specifications and having a UL 94 Flammability Classification of 94-5VA may be used.

2C. **Cable** — One 4 pair No. 18 AWG (or smaller) thermostat cable with polyvinyl chloride (PVC) insulation and jacket materials may be installed with each AC line set. Cable to be spaced min 0 in (point contact) to max 1/2 in. (13 mm) from the other penetrants in each line set. The space between the cable and the periphery of the opening shall be min 0 in. (point contact) to max 1/2 in. (13 mm). Cable to be rigidly supported on both sides of wall assembly.

3. **Fill, Void or Cavity Material* - Sealant** — Min 5/8 in. (16 mm) thickness of fill material applied within annulus, flush with both surfaces of wall assembly. At point contact location, min 1/4 in. (6 mm) diam bead of fill material applied at through penetrant/gypsum board interface on both surfaces of wall. Additional fill material forced into grouped penetrant interstices to max extent possible.

RECTORSEAL — Metacaulk 1000, Metacaulk 350i, Metacaulk MC 150+, Biostop 500+, Biostop 350i, Biostop BF 150+, FlameSafe1900, FlameSafe900+

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

Bearing the UL Recognized Component Marking