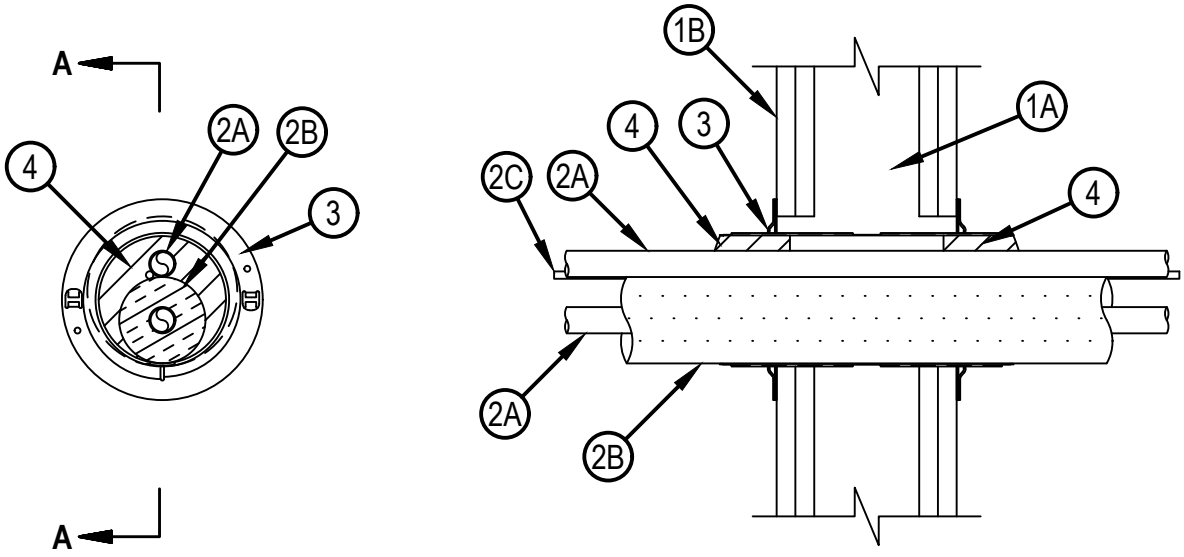
System No. W-L-8110

Classified by Underwriters Laboratories, Inc. to UL 1479 and CAN/ULC-S115

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 — 0 Hr	FT Rating — 0 Hr
	FH Ratings — 1 and 2 Hr (See Item 1)
	FTH Rating — 0 Hr



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 described within the individual U300, U400, V400 or W400 Series Wall or Partition Designs in the UL Fire Resistance Directory and shall incorporate 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 max 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.
   B. Gypsum Board* — Nom 5/8 in. (16 mm) thick gypsum board as specified in the individual Wall and Partition Design. Max diam of opening 5 in. (127 mm).
   The hourly F, FH Rating of the firestop system is dependent upon the hourly rating of the wall in which it is installed.
2. Air Conditioning (AC) Line Sets — AC line set consists of max two pipes or tubes (Item 2A), tubing insulation (Item 2B) and a thermostat cable (Item 2C). The AC line sets shall be rigidly supported on both sides of the wall assembly.
   A. Metallic Penetrants — A max of two pipes or tubes to be installed in each AC line set. The following types and sizes of through penetrants may be used:
      1. Steel Pipe — Nom 3/4 in. (19 mm) diam (or smaller) Schedule 5 (or heavier) steel pipe.
      2. Iron Pipe — Nom 3/4 in. (19 mm) diam (or smaller) cast or ductile iron pipe.
      3. Copper Pipe — Nom 3/4 in. (19 mm) diam (or smaller) Regular (or heavier) copper pipe.
      4. Copper Tube — Nom 3/4 in. (19 mm) diam (or smaller) Type L (or heavier) copper tube.
   B. Tube Insulation - Plastics# — Nom 1 in. (25 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 3/4 in. (19 mm) diam pipe or tube in each AC line set. The space between the insulated and uninsulated pipes or tubes 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 945VA may be used.
   C. 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.

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3. Firestop Device* — Firestop device consists of a corrugated steel tube with flanges and gasketing material. Device slid into wall such that ends project an equal distance from the approximate centerline of the wall assembly. Device flanges are spun clockwise onto device threads, over gasketing material butting tightly to both sides of wall. The annular space between the device and the periphery of the opening shall be min 0 in. (point contact) to max 1 in. (25 mm).
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CFS-SL SK 4" Firestop Sleeve
4. Fill, Void or Cavity Material* - Plug — Nom 4 in. (102 mm) plug sized for the firestop device (Item 3) friction fit within the sleeve flush with the end of the sleeve on both sides of the wall assembly. Plug cut to fit around the line set and installed tightly within the sleeve.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CFS-PL Firestop Plug

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