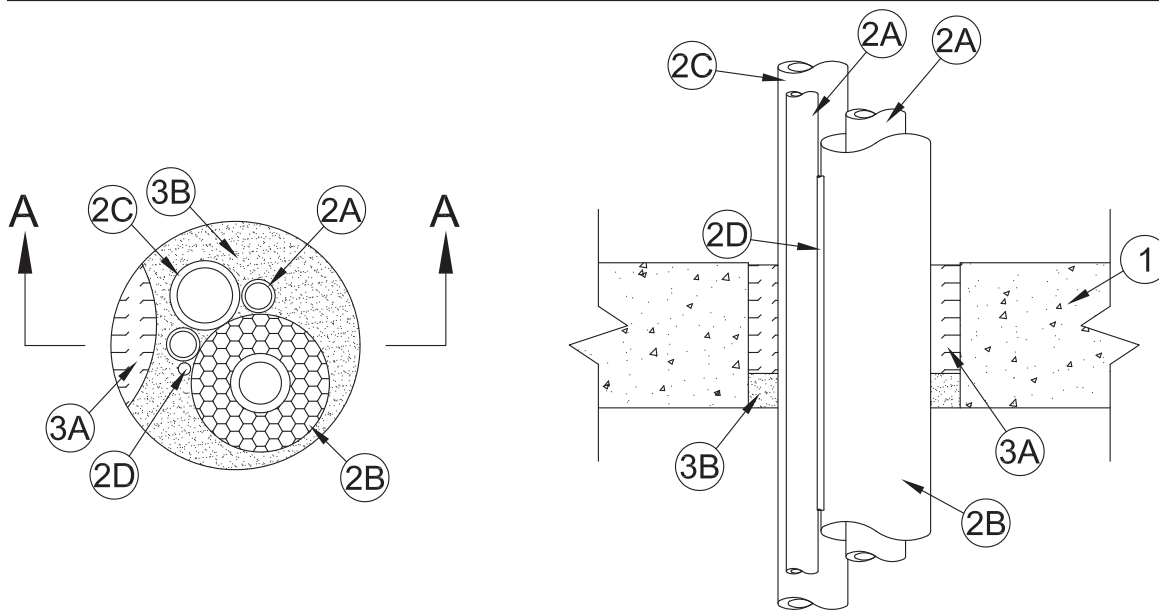


System No. C-AJ-8251

March 16, 2016

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Rating — 3 Hr	F Rating — 3 Hr
T Rating — 1/4 Hr	FT Rating — 1/4 Hr
	FH Rating — 3 Hr
	FTH Rating — 1/4 Hr



SECTION A-A

System tested with a pressure differential of 2.5 Pa between the exposed and the unexposed surfaces with the higher pressure on the exposed side.

- Floor or Wall Assembly** — Min 4-1/2 in. (114 mm) thick floor, or min 5-1/2 in. (140 mm) thick wall, of reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m³) concrete. Wall may also be constructed of any UL Classified **Concrete Blocks***. Floor may also be constructed of any min 6 in. (152 mm) thick hollow-core **Precast Concrete Units***. Max diam of opening is 4-1/2 in. (114 mm).

See **Concrete Blocks (CAZT)** or **Precast Concrete Units (CFTV)** categories in the Fire Resistance Directory for names of manufacturers.

- Air Conditioning (AC) Line Set** — One AC line set installed within opening. The AC line set consists of two metallic pipes or tubes (Item 2A), tubing insulation (Item 2B), one nonmetallic pipe (Item 2C) and two thermostat cables (Item 2D). The space between the AC line set and the periphery of the opening shall be min 1/4 in. (6 mm) to max 1-1/4 in. (32 mm). The AC line set penetrants shall be tightly bundled and rigidly supported on both sides of the floor or wall assembly.

A. Metallic Pipe — A max of three pipes or tubes to be installed in each AC line set. Two of the pipes may exceed nom 1/2 in. (13 mm) in diam. The following types and sizes of through metallic pipe may be used:

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

B. Tube Insulation — Plastics# — Nom 1/2 in. (13 mm) thick acrylonitrile butadiene/polyvinyl chloride (AB/PVC) flexible foam furnished in the form of tubing. The tube insulation shall be installed on one 1 in. (25 mm) diam (or smaller) pipe or tube in each single AC one of the metallic pipes (Item 2A).

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. Nonmetallic Pipe — A max of one nonmetallic drain pipe to be installed in each AC line set. The following types and sizes of nonmetallic pipe may be used:

- Polyvinyl Chloride (CPVC) Pipe** — Nom 1 in. (25 mm) diam (or smaller) Schedule 40 solid core PVC pipe.
- Chlorinated Polyvinyl Chloride (CPVC) Pipe** — Nom 1 in. (25 mm) diam (or smaller) SDR 13.5 CPVC pipe.

D. Cable — Two 8/C No. 12 AWG (or smaller) thermostat cables with polyvinyl chloride (PVC) insulation and jacket materials.

- Firestop System** — The firestop system shall consist of the following items:

A. Packing Material — Min 3-1/2 in. (89 mm) thickness of min 4 pcf (64 kg/m³) mineral wool batt insulation tightly packed into opening. Packing material to be installed flush with top surface of floor and recessed from bottom surface of floor to accommodate the required thickness of fill material. In walls, packing material to be recessed from both surfaces of wall to accommodate the required thickness of fill material.

A1. Forming Material* — As an alternate to the packing material in Item 3A, nom 3-1/2 in. (89 mm) wide strips of min 1/2 in. (13 mm) thick compressible mat to be stacked to a thickness greater than the width of the annular space and compression-fitted, edge-first, to fill the annular space to a min 3-1/2 in. (89 mm) depth. Forming material to be recessed from bottom surface of floor or from both surfaces of wall to accommodate the required thickness of fill material.

3M COMPANY 3M FIRE PROTECTION PRODUCTS — Fire Barrier Packing Material

System No. C-AJ-8251 *continued*

B. Fill, Void or Cavity Materials* — Min 1 in. (25 mm) thickness of fill material applied within the annulus, flush with bottom surface of floor or with both surfaces of wall.

3M COMPANY 3M FIRE PROTECTION PRODUCTS — IC 15WB+ Sealant, CP 25WB+ Sealant or FB 3000 WT Sealant. CP 25WB+ not suitable for use with CPVC pipes

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



Through Penetrations

Combos

8000 Series

Concrete

CAJ