



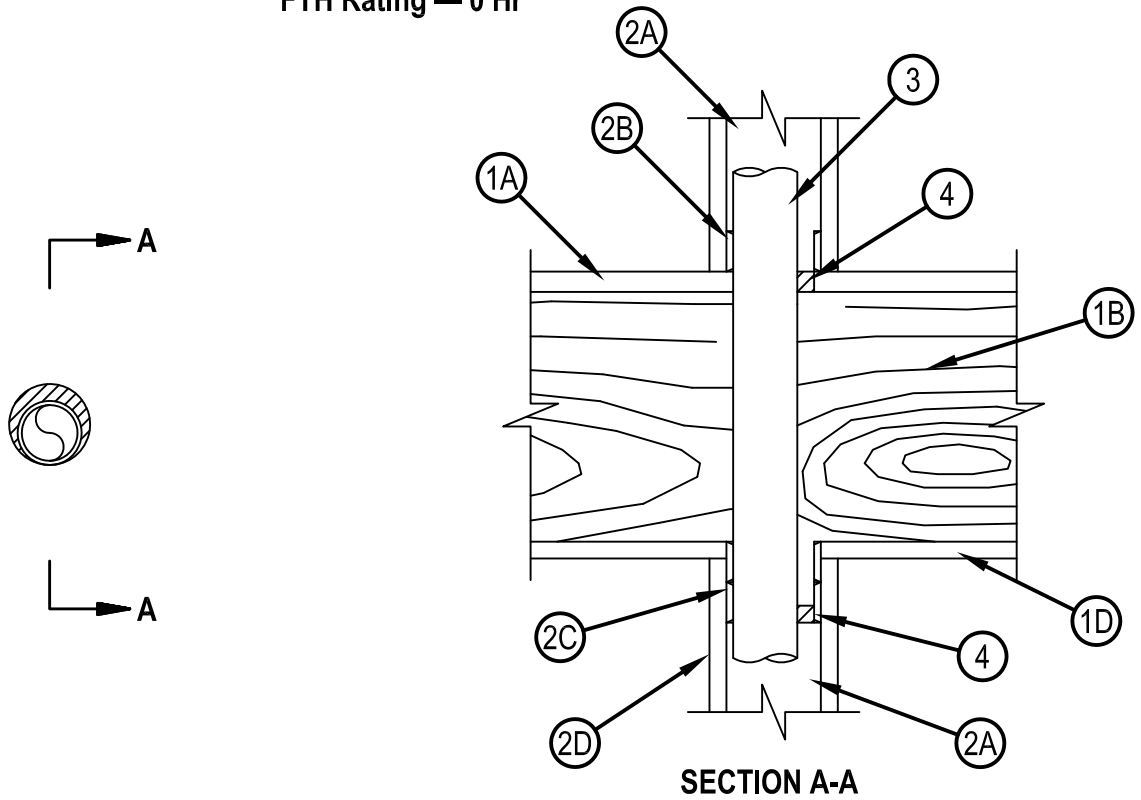
Classified by
Underwriters Laboratories, Inc.
to CAN/ULC-S115

System No. F-C-2378

F Rating — 1 Hr
FT Rating — 0 Hr
FH Rating — 1 Hr
FTH Rating — 0 Hr



FC 2378



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.

1. Floor-Ceiling Assembly — The fire-rated solid or trussed lumber joist floor-ceiling assembly shall be constructed of the materials and in the manner specified in 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. Diam of opening shall be 25 mm (1 in.) larger than the nom diam of through-penetrant (Item 3).
 - B. Wood Joists — Nom 51 mm (2 in.) by 254 mm (10 in.) lumber joists spaced 406 mm (16 in.) OC with nom 25 mm (1 in.) by 76 mm (3 in.) lumber bridging and with ends firestopped. As an alternate to lumber joists, nom 254 mm (10 in.) deep (or deeper) lumber, steel or combination lumber and steel joists, trusses or Structural Wood Members* with bridging as required with ends firestopped.
 - C. Furring Channels — (Not shown) — Resilient galv steel furring installed perpendicular to wood joists (Item 1B) between wallboard (Item 1D) and wood joists as required in the individual Floor-Ceiling Design.
 - D. Gypsum Board* — Nom 1.2 m (4 ft) wide by 16 mm (5/8 in.) thick as specified in the individual Floor-Ceiling Design. Diam of opening shall be 25 mm (1 in.) larger than the nom diam of through-penetrant (Item 3).
2. Chase Wall — (Optional) - The through penetrant (Item 3) may be routed through a 1 hr fire-rated single, double or staggered wood stud/gypsum wallboard chase wall constructed of the materials and in the manner specified in the individual U300 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:
 - A. Studs — Nom 51 mm (2 in.) by 102 mm (4 in.) lumber studs.
 - B. Sole Plate — Nom 51 mm (2 in.) by 102 mm (4 in.) lumber plates. Diam of opening shall be 25 mm (1 in.) larger than the nom diam of through-penetrant (Item 3).
 - C. Top Plate — The double top plate shall consist of two nom 51 mm (2 in.) by 102 mm (4 in.) lumber plates. Diam of opening shall be 25 mm (1 in.) larger than the nom diam of through-penetrant (Item 3).
 - D. Gypsum Board* — Thickness, type, number of layers and fasteners shall be as specified in individual Wall and Partition Design.



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3. Through Penetrants — One nonmetallic pipe to be installed either eccentrically or concentrically within the firestop system. The annular space between the through penetrant and the periphery of the opening shall be a min 0 mm (point contact) to a max of 16 mm (5/8 in.) Pipe to be rigidly supported on both sides of the floor-ceiling assembly. The following types and sizes of nonmetallic pipes may be used.

A. Polyvinyl Chloride (PVC) Pipe — Nom 51 mm (2 in.) diam (or smaller) Schedule 40 cellular or solid core PVC pipe for use in closed (process or supply) piping systems.

B. Acrylonitrile Butadiene Styrene (ABS) Pipe — Nom 51 mm (2 in.) diam (or smaller) Schedule 40 cellular or solid core ABS pipe for use in closed (process or supply) piping systems.

C. Chlorinated Polyvinyl Chloride (CPVC) Pipe — Nom 51 mm (2 in.) diam (or smaller) SDR17 CPVC pipe for use in closed (process or supply) piping systems.

D. Chlorinated Polyvinyl Chloride (CPVC) Pipe — Nom 51 mm (2 in.) diam (or smaller) SDR 11 CPVC for use in closed (process or supply) piping systems.

IPEX INC — AquaRise

E. Crosslinked Polyethylene (PEX) — Nom 25 mm (1 in.) diam SDR 9 tube for use in closed (process or supply) piping systems.

4. Fill, Void or Cavity Material* — Sealant — Min 19 mm (3/4 in.) thickness of fill material applied within the annulus, flush with top surface of floor or sole plate. Min 16 mm (5/8 in.) thickness of fill material applied within the annulus, flush with and flush with bottom surface of ceiling or lower top plate..

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE Sealant or FS-ONE MAX Intumescent Sealant

* 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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