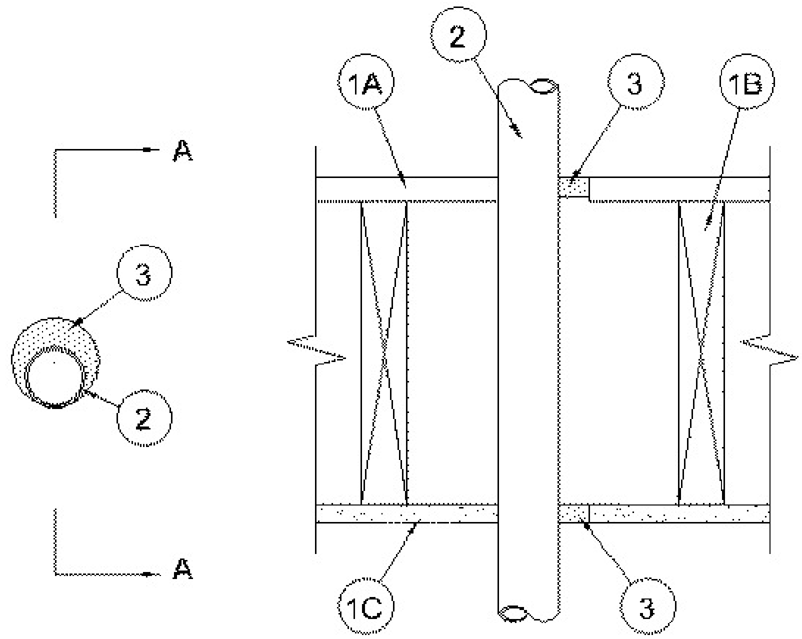
ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Rating — 1 Hr	F Rating — 1 Hr
T Rating — 1 Hr	FT Rating — 1 Hr
	FH Rating — 1 Hr
	FTH Rating — 1 Hr



Section A-A

System tested with a pressure differential of 50 Pa between the exposed and the unexposed surfaces with the higher pressure on the exposed side.

1. **Floor-Ceiling Assembly —** The 1 hr fire-rated solid or trussed lumber joist floor-ceiling assembly shall be constructed of the materials and in the manner specified in the individual L500 Series Floor-Ceiling Designs in the UL Fire Resistance Directory. The general construction features 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. Max diam of opening shall be 3 in. (76 mm).

B. **Wood Joists* —** Nom 2 by 10 in. (51 by 254 mm) lumber, steel or combination lumber and steel joists, trusses or **Structural Wood Members*** with bridging as required and with ends firestopped.

C. **Gypsum Board* —** Nom 4 ft. (1.2 m) wide by 5/8 in. (16 mm) thick as specified in the individual Floor-Ceiling Design. Gypsum board nailed to wood joists. One-piece or two-piece 5/8 in. (16 mm) thick gypsum board or 3/4 in. (19 mm) thick plywood patch, min 4 in. (102 mm) longer and wider than the cutout in the flooring, screw-attached to bottom of flooring concentric with cutout by means of 1-1/4 in. (32 mm) long Type S steel screws spaced max 4 in. (102 mm) OC. Max diam of opening in gypsum board ceiling to be 5 in. (127 mm).

1.1 **Chase Wall — (Optional, Not Shown) —** The through penetrant (Item 2) may be routed through non-fire rated or fire rated single, double or staggered wood stud/gypsum board 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 2 by 4 in. (51 by 102 mm) (or larger) lumber studs.

B. **Sole Plate —** Nom 2 by 4 in. (51 by 102 mm) (or larger) lumber plates. Max diam of opening is 3 in. (76 mm).

C. **Top Plate —** The double top plate shall consist of two 2 by 4 in. (51 by 102 mm) (or larger) lumber plates. Max diam of opening is 3 in. (76 mm).

D. **Gypsum Board* —** Thickness, type, number of layers and fasteners shall be as specified in individual Wall and Partition

Design.

2. **Through Penetrant —** One nonmetallic pipe or conduit to be installed either concentrically or eccentrically within the firestop system. Diam of opening in flooring, top plates and sole plates of optional chase wall shall be 1 in. (25 mm) larger than the outside diam of the pipe or conduit such that the annular space is min 0 in. (point contact) to max 5/8 in. (16 mm). Pipe or conduit to be rigidly supported on both sides of floor-ceiling assembly. The following types and sizes of nonmetallic pipes or conduits may be used:

A. **Polyvinyl Chloride (PVC) Pipe —** Nom 2 in. (51 mm) diam (or smaller) Schedule 40 solid core PVC pipe for use in closed (process or supply) or vented (drain, waste or vent) piping system.

B. **Polyvinyl Chloride (PVC) Pipe —** Nom 2 in. (51 mm) diam (or smaller) thin-walled PVC pipe for use in closed (process or supply) or vented (drain, waste or vent) piping system. Pipe wall thickness shall be a min 2.4 mm.

C. **Chlorinated Polyvinyl Chloride (CPVC) Pipe —** Nom 2 in. (51 mm) diam (or smaller) ADR 13.5 CPVC pipe for use in closed (process or supply) piping system.

D. **Rigid Electrical Non-Metallic Conduit (RNMC) —** Nom 2 in. (51 mm) (or smaller) PVC conduit installed in accordance with the National Electrical Code (NFPA 70).

E. **Acrylonitrile Butadiene Styrene (ABS) Pipe —** Nom 2 in. (51 mm) diam (or smaller) Schedule 40 cellular or solid core ABS pipe for use in closed (process or supply) or vented (drain, waste or vent) piping system.

F. **Cross Linked Polyethylene (PEX) Pipe —** Nom 1 in. (25 mm) diam (or smaller) PEX pipe for use in closed (process or supply) piping systems.

3. **Fill, Void or Cavity Materials* — Caulk —** Min 5/8 in. (16 mm) thickness of Metacaulk 1000 and 350i or 3/4 in. (19 mm) of MC150+ fill material applied within annular space around perimeter of through penetrant flush with surface of floor or optional top and sole plates. Min 5/8 in. (16 mm) of fill material, applied within the annulus, flush with surface of gypsum board ceiling. Min 1/2 in. (13 mm) bead at point contact. ABS pipe (item 2E) is limited for use with Metacaulk 1000, and 350i only.
RECTORSEAL — Metacaulk 1000, Metacaulk 350i, or MC150+

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