

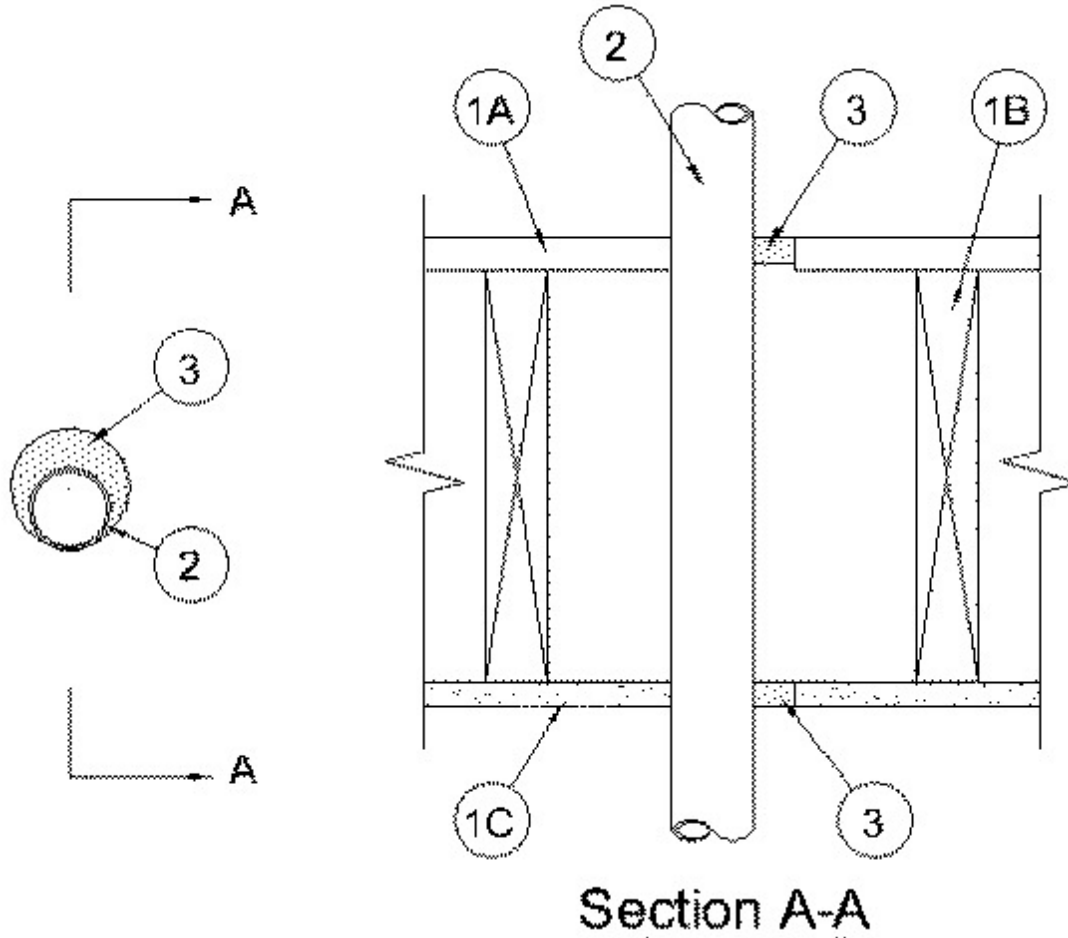


System No. F-C-2298

November 14, 2013

F Rating — 1 Hr

T Rating — 1 Hr



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 76 mm.

B. Wood Joists* — Nom 254 mm deep (or deeper) 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 1.2 m wide by 16 mm thick as specified in the individual Floor-Ceiling Design. Gypsum board nailed to wood joists. One-piece or two-piece 16 mm thick gypsum board or 19 mm thick plywood patch, min 102 mm longer and wider than the cutout in the flooring, screw-attached to bottom of flooring concentric with cutout by means of 32 mm long Type S steel screws spaced max 102 mm OC. Max diam of opening in gypsum board ceiling to be 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 51 by 102 mm (or larger) lumber studs.
- B. **Sole Plate** — Nom 51 by 102 mm (or larger) lumber plates. Max diam of opening is 76 mm.
- C. **Top Plate** — The double top plate shall consist of two 51 by 102 mm (or larger) lumber plates. Max diam of opening is 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 25 mm larger than the outside diam of the pipe or conduit such that the annular space is min 0 mm (point contact) to max 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 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 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 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 51 mm (or smaller) PVC conduit installed in accordance with Article 331 of the National Electrical Code (NFPA 70).
- E. **Acrylonitrile Butadiene Styrene (ABS) Pipe** — Nom 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 25 mm diam (or smaller) PEX pipe for use in closed (process or supply) piping systems.

3. Fill, Void or Cavity Materials* — **Caulk** — Min 16 mm thickness of Metacaulk 1000 or 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 16 mm of both fill materials, applied within the annulus, flush with surface of gypsum board ceiling. Min 13 mm bead at point contact. ABS pipe (item 2E) is limited for use with Metacaulk 1000 only.

RECTORSEAL — Metacaulk 1000 or MC150+

*Bearing the UL Classification Mark