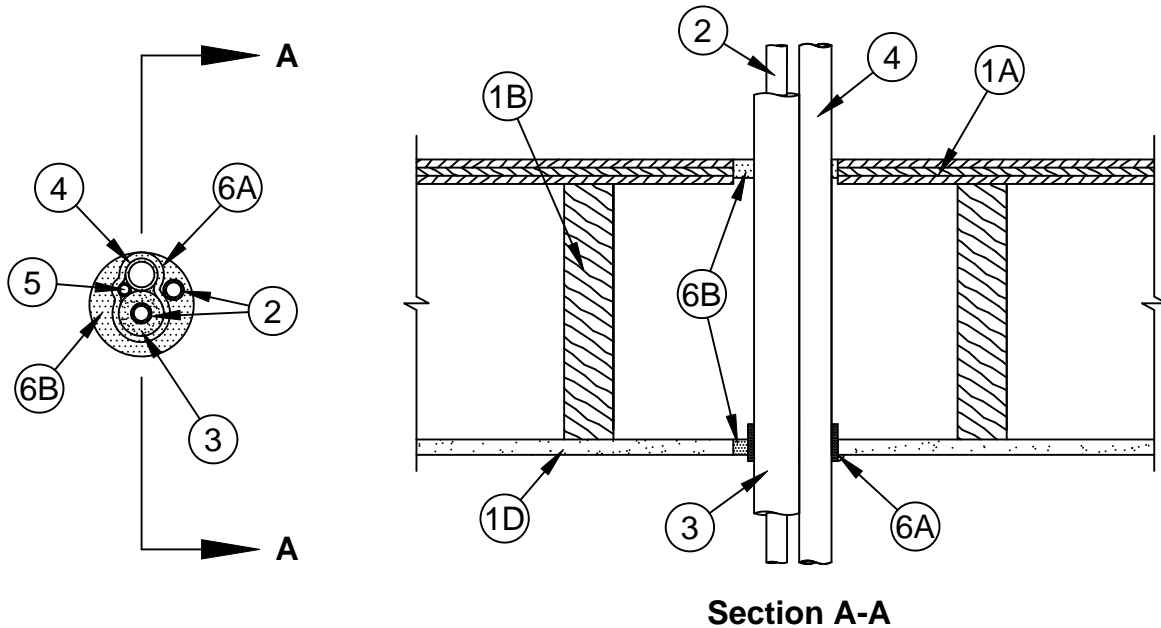


System No. F-C-8011

F Rating - 1 Hr
T Rating - 3/4 Hr



Section A-A

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 individual L500 Series Floor-Ceiling Designs in the UL Fire Resistance Directory, as 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 floor opening is 5 in.
 - B. **Wood Joists** - Nom 2 by 10 in. lumber joists spaced 16 in. OC with nom 1 by 3 in. lumber bridging and with ends firestopped. As an alternate to lumber joists, nom 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 1 B) between wallboard (Item 1D) and wood joists as required in the individual Floor-Ceiling Design.
 - D. **Gypsum Board*** - Nom 4 ft wide by 5/8 in. thick as specified in the individual Floor-Ceiling Design. Wallboard secured to wood joists or furring channels as specified in the individual Floor-Ceiling Design. Max diam of ceiling opening is 5 in.
- 1.1 **Chase Wall** - (Not Shown) The through penetrants (Items 2 through 5) shall 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 2 by 6 in. or double nom 2 by 4 in. lumber studs.
 - B. **Sole Plate** - Nom 2 by 6 in. or parallel 2 by 4 in. lumber plates, tightly butted.
 - C. **Top Plate** - The double top plate shall consist of two nom 2 by 6 in. or two sets of parallel 2 by 4 in. lumber plates, tightly butted. Max diam of opening is 3-1/2 in.
 - D. **Gypsum Board*** - Thickness, type, number of layers and fasteners shall be as specified in individual Wall and Partition Design.



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2. **Through Penetrant** - One or more metallic pipes, conduits or tubing to be installed within the firestop system. Pipes, conduits or tubing to be spaced min 0 in. (point contact) to max 1 in. from the other penetrants (Items 4 and 5). The space between the pipes, conduits or tubing and the periphery of the opening shall be min 1/4 in. to max 1 in. Pipes, conduits or tubing to be rigidly supported on both sides of floor-ceiling assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:
 - A. **Steel Pipe** - Nom 3/4 in. diam (or smaller) Schedule 10 (or heavier) steel pipe.
 - B. **Conduit** - Nom 3/4 in. diam (or smaller) steel electrical metallic tubing or 3/4 in. diam galv steel conduit.
 - C. **Iron Pipe** - Nom 3/4 in. diam (or smaller) cast or ductile iron pipe.
 - D. **Copper Pipe or Tube** - Nom 3/4 in. diam (or smaller) Regular (or heavier) copper pipe or Type L (or heavier) copper tube.
3. **Tube Insulation - Plastics#** - Nom 1/2 in. thick acrylonitrile butadiene/polyvinyl chloride (AB/PVC) flexible foam furnished in the form of tubing. Tube insulation to be installed on one or more of the metallic pipes or tubes (Item 2). Insulated pipe or tubing shall be spaced min 0 in. (point contact) to max 1 in. from the other through-penetrants (Item 2, 4 and 5). The annular space between insulated pipe or tubing and periphery of opening shall be a min 1/4 in. to a max 1 in.
4. **Nonmetallic Through Penetrants** - One nonmetallic pipe or conduit to be installed within the firestop system. Pipe or conduit shall be spaced a min 0 in. (point contact) to max 1 in. from the insulated through penetrants and min 1/2 in. to max 1 in. from non-insulated through penetrants. The annular space between pipe or conduit and the periphery of the opening shall be min 1/4 in. to max 1 in. Pipe or conduit to be rigidly supported on both sides of the floor-ceiling assembly. The following types and sizes of nonmetallic pipes or conduits may be used:
 - A. **Polyvinyl Chloride (PVC) Pipe** - Nom 1-1/4 in. 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. **Rigid Nonmetallic Conduit+** - Nom 1-1/4 in. diam (or smaller) Schedule 40 PVC conduit installed in accordance with Article 347 of the National Electrical Code (NFPA No. 70).
 - C. **Chlorinated Polyvinyl Chloride (CPVC) Pipe** - Nom 1-1/4 in. diam (or smaller) SDR17 CPVC pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.
5. **Cables** - Max of four 4 pair No. 18 AWG (or smaller) cable with PVC insulation and jacket materials. Cables to be spaced min 0 in. (point contact) to max 1 in. from the other through-penetrants (Items 2 through 4). The annular space between the cable and periphery of opening shall be min 1/4 in. to max 1 in. Cables to be rigidly supported on both sides of floor-ceiling assembly.
6. **Firestop System** - The firestop system shall consist of the following:
 - A. **Fill, Void or Cavity Material* - Wrap Strip** - Nom 1/4 in. thick intumescent material faced on both sides with a plastic film, supplied in 1-1/2 in. wide strips. One wrap strip tightly-wrapped around perimeter of penetrants and securely restrained with steel tie wire. Wrap strip recessed into ceiling opening such that 1/4 in. protrudes from the bottom face of the gypsum board ceiling. When optional chase wall is used, the wrap strip may be omitted.

SPECIFIED TECHNOLOGIES INC - SpecSeal RED Wrap Strip

- B. **Fill, Void or Cavity Material* - Sealant** - Min 3/4 in. thickness of fill material applied within the annulus flush with the top surface of the floor or sole plate. Min 5/8 in. thickness of fill material applied within annulus, between the wrap strip and the periphery of the opening, flush with bottom surface of ceiling or installed between the grouped penetrant and periphery of opening in top plate of chase wall. Additional fill material forced into interstices between grouped penetrants to max extent possible. At wrap strip/gypsum board ceiling interface, apply min 1/4 in. daim bead of fill material.

SPECIFIED TECHNOLOGIES INC - SpecSeal Series SSS Sealant or SpecSeal LCI Sealant

* Bearing the UL Classification Marking

+ Bearing the UL Listing Mark

Bearing the UL Recognized Component Mark



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