

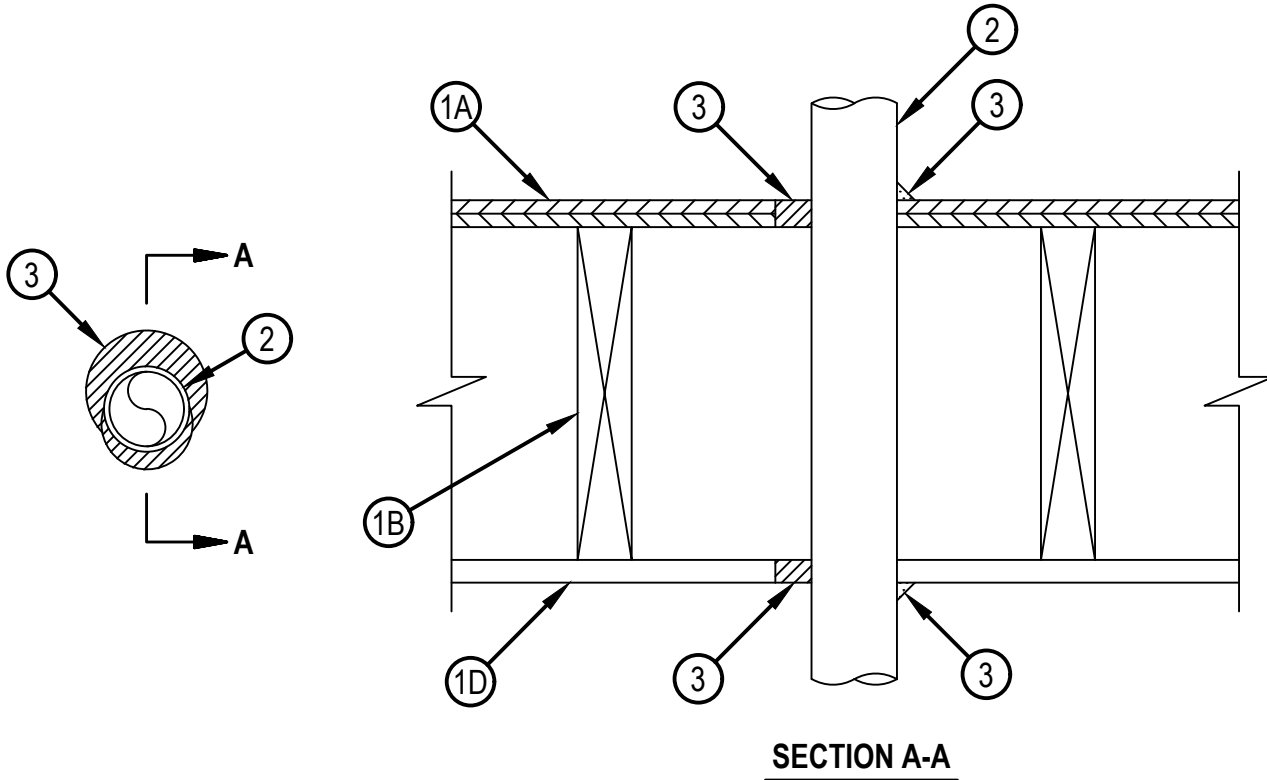


Classified by
Underwriters Laboratories, Inc.
to UL 1479

System No. F-C-2508

F Rating - 1 Hr
T Rating - 1 Hr

FC 2508



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 1 in. (25 mm) larger than the outer diam of through-penetrant (Item 3).
- B. Wood Joists — Nom 2 by 10 in. (51 by 254 mm) lumber joists spaced 16 in. (406 mm) OC with nom 1 by 3 in. (25 by 76 mm) lumber bridging and with ends firestopped. As an alternate to lumber joists, nom 10 in. (254 mm) 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. Optional) — Resilient galv steel furring installed perpendicular to wood joists (Item 1B) between gypsum board (Item 1D) and wood joists as required in the individual Floor-Ceiling Design.
- D. Gypsum Board* — Nom 4 ft (1.2 m) wide by min 1/2 in. (13 mm) thick as specified in the individual Floor-Ceiling Design. Diam of opening shall be 1 in. (25 mm) larger than the outer diam of through-penetrant (Item 3).



Hilti Firestop Systems

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2. Chase Wall — (Optional) - The through penetrant (Item 3) may be routed through a fire-rated or non-rated single, double or staggered wood stud/gypsum wallboard chase wall. The chase wall shall be constructed to include the following construction features:
- A. Studs — Nom 2 by 6 in. (51 by 152 mm) or double nom 2 by 4 in. (51 by 102 mm) lumber studs.
 - B. Sole Plate — Nom 2 by 6 in. (51 by 152 mm) (or larger) or parallel 2 by 4 in. (51 by 102 mm) lumber plates, tightly butted. Diam of opening shall be 1 in. (25 mm) larger than the outer diam of through-penetrant (Item 3).
 - C. Top Plate — The double top plate shall consist of two nom 2 by 6 in. (51 by 152 mm) (or larger) or parallel 2 by 4 in. (51 by 102 mm) lumber plates, tightly butted. Diam of opening shall be 1 in. (25 mm) larger than the outer diam of through-penetrant (Item 3).
 - D. Gypsum Board* — One or two layers of min 1/2 in. (13 mm) gypsum board.
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 in. (point contact) to a max as indicated in the table below. 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. Polypropylene (PP-R Pipe) — Nom 2 in. (63 mm OD) diam (or smaller) Aquatherm Greenpipe, PP-R plastic pipe (SDR 7.4 or 11) for use in closed (process or supply) piping systems.
 - B. Polypropylene (PP-RCT Pipe) — Nom 2 in. (63 mm OD) diam (or smaller) Aquatherm Bluepipe, PP-R plastic pipe (SDR 9,11 or 17.6) for use in closed (process or supply) piping systems.
 - C. Polypropylene (PP-RCT Pipe) — Nom 2 in. (63 mm OD) diam (or smaller) Niron PP-RCT pipe, by Nupi Americas (SDR 7.3, 9, 11 or 17) for use in closed (process or supply) piping systems.
 - D. Polypropylene (PP-RCT Pipe) — Nom 2 in. (63 mm OD) diam (or smaller) Aquatechnik NA Fusion-Tech PP-RCT pipe (SDR 7.4, 11 or 17.6) for use in closed (process or supply) piping systems.
 - E. Polypropylene (PP-RCT Pipe) — Nom 2 in. (63 mm OD) diam (or smaller) Uponor PP-RCT pipe (SDR 9 or 11) for use in closed (process or supply) piping systems.
 - F. Cross Linked Polyethylene (PEX) Tubing — Nom 2 in. (102 mm) diam (or smaller) SDR 9 PEX tubing for use in closed (process or supply) piping systems
 - G. Chlorinated Polyvinyl Chloride (CPVC) Pipe — Nom 2 in. (51 mm OD) diam (or smaller) schedule 40 or schedule 80 CPVC in a closed (process or supply) piping system
4. Fill, Void or Cavity Material* — Sealant — Min 3/4 in. (19 mm) thickness of fill material applied within the annulus, flush with top surface of floor, subfloor or sole plate. Min 1/2 in. (13 mm) thickness of fill material applied within the annulus, flush with bottom surface of ceiling or of lower top plate. Additional sealant applied for a min 1/4 in. (6 mm) crown bead at point contact.
- HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE MAX Intumescent Sealant

Penetrant (item 3)	Opening Size	Annular Space	Sealant depth (bottom surface of assembly) Item 4
3A, 3B, 3C, 3D, 3E	3-1/2"	0" to 1"	1/2"
3F	4"	0" to 1-9/16"	5/8"
3G	4"	0" to 1-7/8"	5/8"

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

