



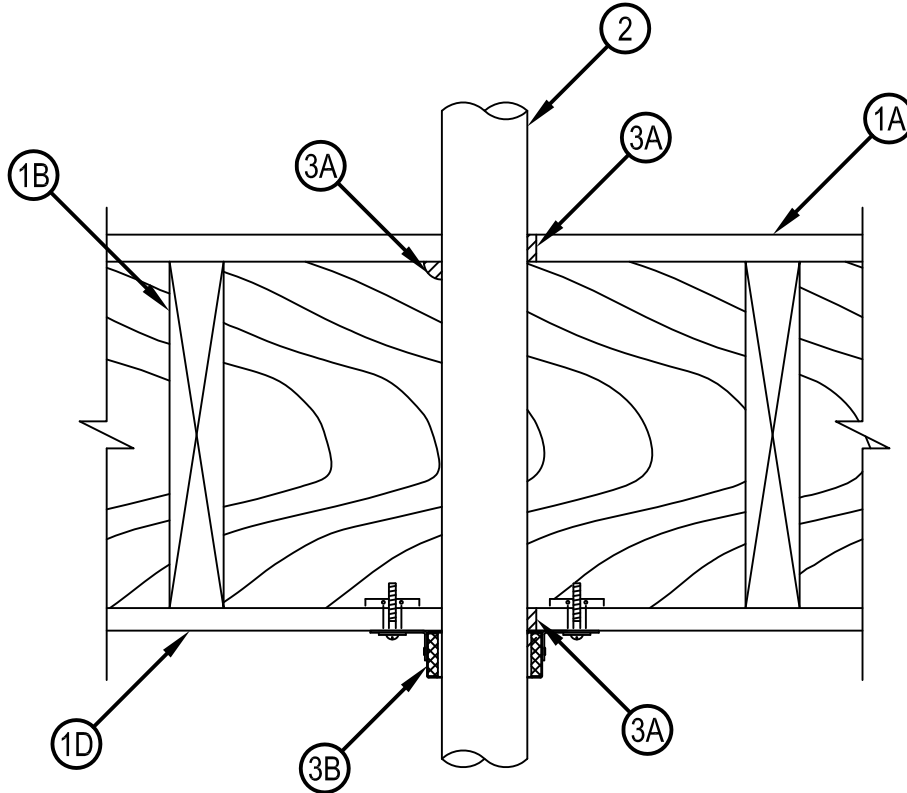
Classified by
Underwriters Laboratories, Inc.
to UL 1479

System No. F-C-2128

F Rating - 1 Hr and 2 Hr

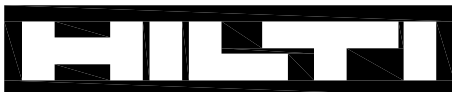
T Rating - 1 Hr and 2 Hr

FC 2128



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. The 2 hr fire-rated wood joist floor-ceiling assembly shall be constructed of the materials and in the manner specified in Design No. L505, L511 or L536 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. Max diam of opening is 3 in. (76 mm).
- B. Wood Joists — For 1 hr fire-rated floor-ceiling assemblies, 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 and with ends firestopped. For 2 hr fire-rated floor-ceiling assemblies, 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.
- 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 4 ft (1.2 m) wide by 5/8 in. (16 mm) thick as specified in the individual Floor-Ceiling Design. Max diam of ceiling opening is 3 in. (76 mm).



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- 1.1 Chase Wall — (Not shown, Optional) — The through penetrants (Item 2) may be routed through a 1 or 2 hr fire-rated single, double or staggered wood stud/gypsum board chase wall having a fire rating consistent with that of the floor-ceiling assembly. The chase wall shall be 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) lumber studs.
 - B. Sole Plate — Nom 2 by 4 in. (51 by 102 mm) lumber studs. Max diam of opening is 3 in. (76 mm).
 - C. Top Plate — The double top plate shall consist of two nom 2 by 4 in. (51 by 102 mm) 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 Penetrants — One nonmetallic pipe to be installed approx midway between wood joists and installed either eccentrically or concentrically within the firestop system. Diam of openings hole-sawed through flooring system and through gypsum board ceiling to be max 3 in. (76 mm). The annular space between the through penetrant and the periphery of the opening shall be a min. 0 in. (point contact) to a max of 5/8 in. (16 mm). 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 2 in. (51 mm) diam (or smaller) Schedule 40 cellular or solid core PVC pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.
 - B. 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 systems.
 - C. Chlorinated Polyvinyl Chloride (CPVC) Pipe — Nom 2 in. (51 mm) diam (or smaller) SDR17 CPVC pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.
3. Firestop System — The firestop system shall consist of the following:
- A. Fill, Void or Cavity Material* — Sealant — Min 3/4 in. (19 mm) thickness of fill material applied within the annulus on top surface of floor or sole plate. Additional fill material to be installed such that a 1/2 in. (13 mm) bead is formed around the penetrating item on the underside of the flooring system at point contact location. Min 5/8 in. (16 mm) thickness of fill material applied within annulus on underside of gypsum board ceiling or lower top plate.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE Sealant or FS-ONE MAX Intumescent Sealant.
 - B. Firestop Device* — Galvanized steel collar lined with an intumescent material sized to fit the specific diam of through-penetrant. Device shall be installed around the through-penetrant in accordance with the accompanying installation instructions. Device incorporates anchor tabs for securement to bottom surface of gypsum board ceiling by means of 1/8 in. (3 mm) diam by 3 in. (76 mm) long toggle bolts or to lower top plate with 1-1/2 in. (38 mm) long wood screws.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP643 50/1.5"N or CP643 63/2"N Firestop Collar

* 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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