

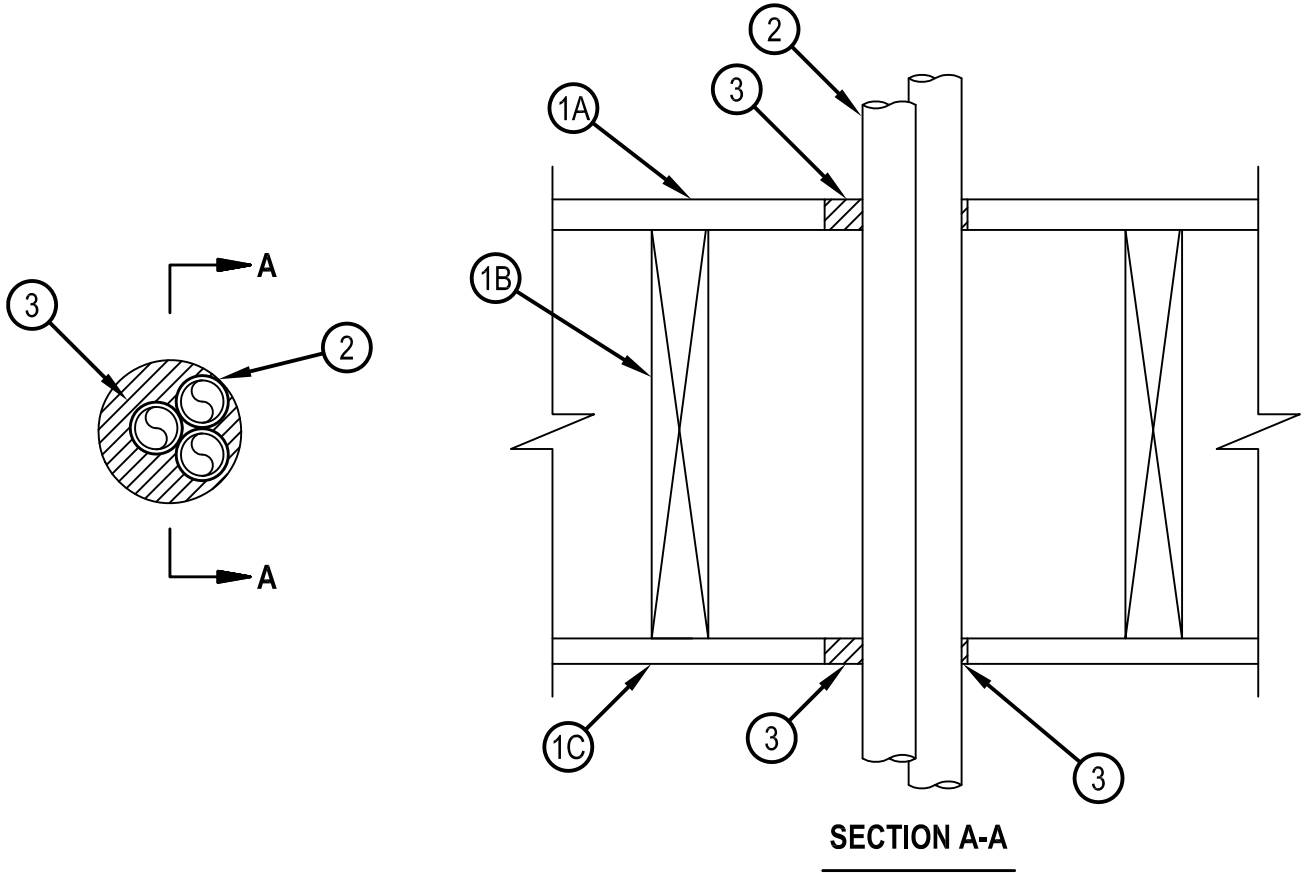


Classified by  
Underwriters Laboratories, Inc.  
to UL 1479 and CAN/ULC-S115

# System No. F-C-1147

FC 1147

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**

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 3-1/2 in. (89 mm).
  - B. Wood 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 and with ends firestopped.
  - C. Gypsum Board\* — Min 5/8 in. (16 mm) thick as specified in the individual Floor-Ceiling Design. Gypsum board secured to wood joists or furring channels as specified in the individual Floor-Ceiling Design. Max diam of opening shall be 3-1/2 in. (89 mm).



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1A. Chase Wall — (Optional, Not Shown) — The through penetrants (Item 2) may be routed through a 1 hr fire rated single, double or staggered wood stud/gypsum board chase wall. Depth of chase wall stud cavity to be min 1/2 in. (13 mm) greater than diameter of opening cut in sole and top plates to accommodate the through penetrant (Item 2). 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), 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 4 in. (51 by 102 mm), 2 by 6 in. (51 by 152 mm) or parallel 2 by 4 in. (51 by 102 mm) lumber plates, tightly butted. Max diam of opening shall be 3-1/2 in. (89 mm).
  - C. Top Plate — The double top plate shall consist of two nom 2 by 4 in. (51 by 102 mm), two nom 2 by 6 in. (51 by 152 mm) or two sets of parallel 2 by 4 in. (51 by 102 mm) lumber plates, tightly butted. Max diam of opening shall be 3-1/2 in. (89 mm).
  - D. Gypsum Board\* — Thickness, type, number of layers and fasteners shall be as specified in the individual Wall and Partition Design.
2. Through-Penetrant — Max three flexible metal pipe or conduit installed concentrically or eccentrically within opening. The annular space between penetrants and between penetrants and periphery of opening shall be min of 0 in. (point contact) to max 1-1/4 in. (32 mm). Penetrants to be rigidly supported on both sides of floor-ceiling assembly. The following types and sizes of penetrants may be used:

- A. Flexible Steel Conduit+ — Nom 1 in. diam (or smaller) flexible steel conduit.  
See Flexible Metal Conduit (DXUZ) category in the Electrical Construction Material Directory for names of manufacturers.
- B. Through Penetrating Product\* — Flexible Metal Piping — The following types of steel flexible metal gas piping may be used:
  - 1. Nom 1 in. diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.  
OMEGA FLEX INC
  - 2. Nom 1 in. (25 mm) diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.  
GASTITE, DIV OF TITEFLEX
  - 3. Nom 1 in. (25 mm) diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.  
WARD MFG L L C
- 3. Fill, Void or Cavity Materials\*-Sealant — Min 3/4 in. (19 mm) thickness of sealant applied within the annulus flush with the top surface of the floor or sole plate. Min 5/8 in. (16 mm) thickness of sealant applied within the annulus flush with the bottom surface of gypsum board or lower top plate. At point contact locations, 1/2 diam bead of sealant applied at interface of penetrant and periphery of opening top surface of floor and lower surface of ceiling.  
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 606 Flexible Firestop Sealant or FS-One Sealant or FS-ONE MAX Intumescent Sealant.

\* 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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