



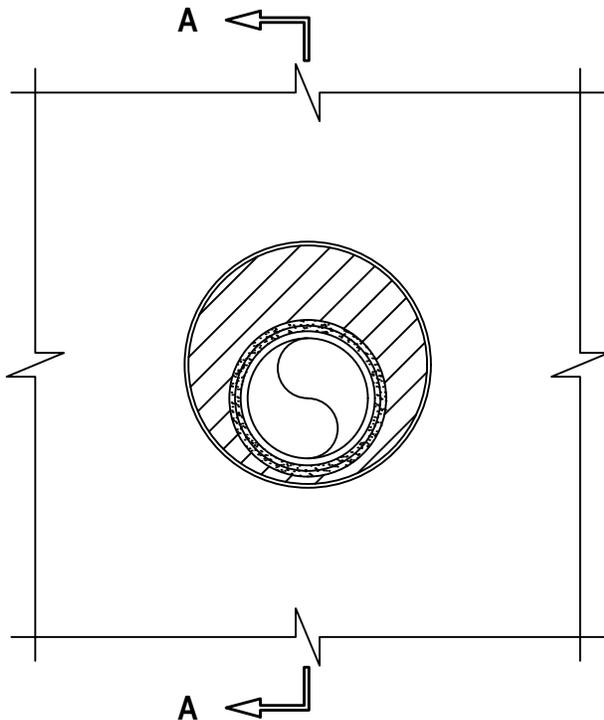
Classified by
Underwriters Laboratories, Inc.
to UL 1479 and CAN/ULC-S115

System No. W-L-2842

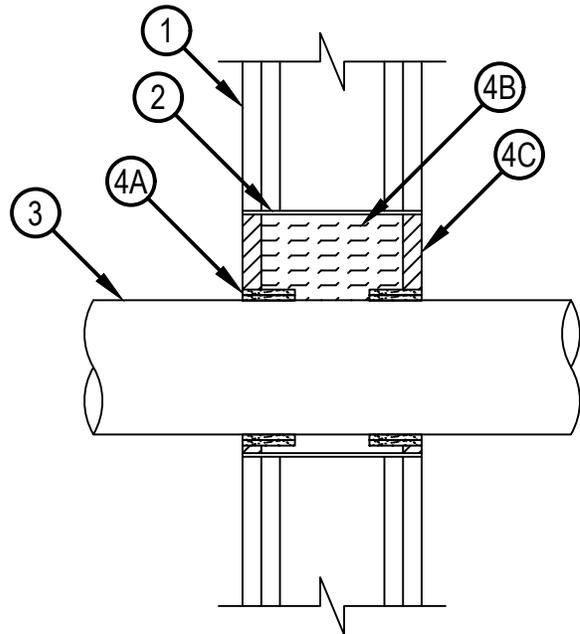
WL 2842

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Rating — 1 and 2 Hr (See Item 1)	F Rating — 1 and 2 Hr (See Item 1)
T Rating — 0, 1/4, 1, and 2 Hr (See Item 3)	FT Rating — 0, 1/4, 1, and 2 Hr (See Item 3)
	FH Rating — 1 and 2 Hr (See Item 1)
	FTH Rating — 0, 1/4, 1, and 2 Hr (See Item 3)

FRONT VIEW



SECTION A-A



Reproduced by HILTI, Inc. Courtesy of
Underwriters Laboratories, Inc.
May 12, 2023

System No. W-L-2842

WL 2842

System tested with a pressure differential of 2.5 Pa between the exposed and the unexposed surfaces with the higher pressure on the exposed side

1. Wall Assembly — The 1 or 2 hr fire-rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300, U400, V400 or W400 Series Wall or Partition Design in the UL Fire Resistance Directory and shall include the following construction features:

- A. Studs — Wall framing shall consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced max 16 in. (406 mm) OC. Steel studs to be min 3-5/8 in. (92 mm) wide and spaced max 24 in. (610 mm) OC.
- B. Gypsum Board* — The gypsum board type, thickness number of layers, fastener type and sheet orientation shall be specified in the individual Wall and Partition Design in the UL Fire Resistance Directory. Max diam of opening is 8 in. (203 mm).
The F and FH Ratings are 1 and 2 hr for 1 and 2 hr rated assemblies, respectively.

2. Steel Sleeve — Cylindrical sleeve fabricated from min 0.012 in. (0.31 mm) thick (No. 30 gauge) galv steel sheet and having a min 1 in. (25 mm) overlap. Sleeve to be installed flush with each surface of the wall assembly.

3. Through Penetrants — One nonmetallic pipe to be installed within the opening. The annular space between the through penetrant and periphery of the opening shall be min 1/2 in. (13 mm) to max 3 in. (76 mm). Pipe to be rigidly supported on both sides of wall assembly. The following types and sizes of pipes may be used:

- A. Polyvinyl Chloride (PVC) Pipe — Nom 4 in. (102 mm) diam (or smaller) Schedule 80 or 40 cellular or solid core PVC pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.
- B. Chlorinated Polyvinyl Chloride (CPVC) Pipe — Nom 4 in. (102 mm) diam (or smaller) Schedule 80 or 40 cellular or solid core CPVC pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.

When Polyvinyl Chloride (PVC) Pipe is used, the T, FT and FTH Ratings are 1 and 2 hr for 1 and 2 hr rated assemblies, respectively. When Chlorinated Polyvinyl Chloride (CPVC) Pipe is used, the T, FT and FTH Ratings are 0 and 1/4 Hr for 1 and 2 hr rated assemblies, respectively.

4. Firestop System — The firestop system shall consist of the following:

- A. Fill, Void or Cavity Material* — Wrap Strip — Nom 3/16 in. (5 mm) thick by 1-3/4 in. (44 mm) wide intumescent wrap strip. The wrap strip is continuously wrapped around the outer circumference of the penetrant min two times (see table below) and slid into annular space flush with the wall surface. Wrap strips are installed on each surface of the wall.

Product Designation	Max Pipe Size, in. (mm)	Number of Layers
CP648-E W45/1-3/4"	4 (102)	2

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP-648E Wrap Strip

- B. Packing Material — Min 4 pcf (64 kg/cu meter) mineral wool batt insulation tightly packed to fill sleeved opening. Packing material to be recessed 1/2 in. (13 mm) from both surfaces of wall to accommodate the required thickness of fill material.
- C. Fill, Void or Cavity Material* - Sealant — Min 1/2 in. (13 mm) thickness of fill material applied within the annulus, flush with both surfaces of wall.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — 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.

