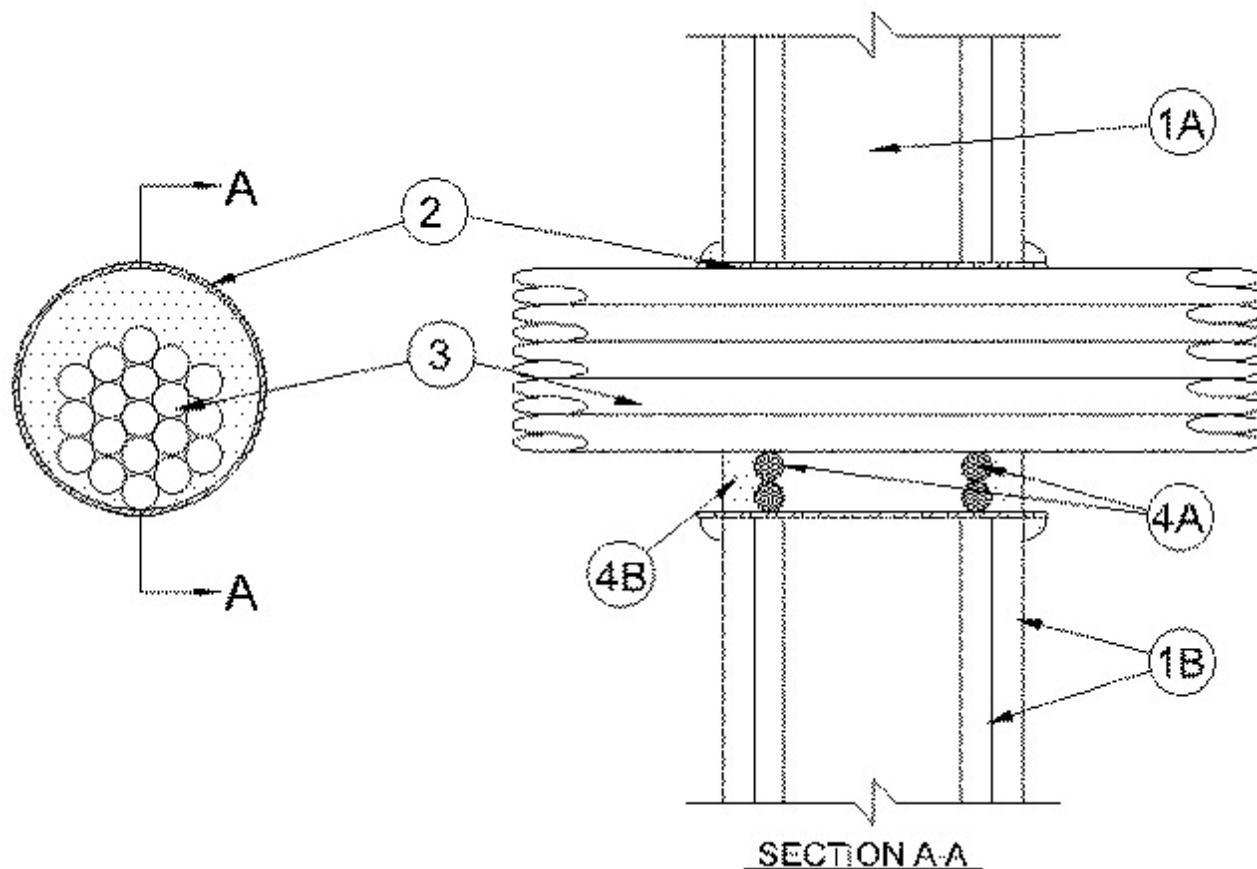


System No. W-L-3235

January 31, 2017

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Ratings — 1 and 2 Hr (See Item 1)	F Ratings — 1 and 2 Hr (See Item 1)
T Ratings — 0 and 1/2 Hr (See Items 1 and 2)	FT Ratings — 0 and 1/2 Hr (See Items 1 and 2)
	FH Ratings — 1 and 2 Hr (See Item 1)Hr
	FTH Ratings — 0 and 1/2 Hr (See Items 1 and 2)



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 specified in the individual U300, U400, V400 or W400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

A. Studs — Wall framing may 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 16 in. (406 mm) OC. Steel studs to be min 3-1/2 in. (89 mm) wide and spaced max 24 in. (610 mm) OC.

B. Gypsum Board* — One or two layers of nom 5/8 in. (16 mm) thick gypsum board as specified in the individual Wall and Partition Design. Max diam of opening is 4 in. (102 mm).

The hourly F and FH Ratings of the firestop system are equal to the hourly fire rating of the wall assembly. The T, FT and FTH Rating is 0 and 1/2 for 1 and 2 Hr assemblies, respectively.

2. Steel Sleeve — (Optional) — Max 4 in. (102 mm) diam sleeve fabricated from min 0.018 in. (0.46 mm) thick (28 gauge) galv sheet steel and floor or wall assembly, inserted opening and allowed to uncoil against the circular cutouts. Sleeve to be installed flush with or extending max 1 in. (25 mm) beyond each surface of the wall assembly.

2A. **Steel Sleeve** — (Optional) - As an alternate to Item 2, max 4 in. (102 mm) Schedule 5 (or heavier) steel pipe, rigid steel conduit or EMT, friction-fit into wall assembly, flush with or extending a max 4 in. (102 mm) beyond each surface of the floor or wall assembly.

When steel sleeve is used, T, FT and FTH Ratings are 0 hr.

3. **Cables** — Aggregate cross-sectional area of cables to be min 25 percent to max 64 percent of the aggregate cross-sectional area of the opening. Cables to be tightly bundled and rigidly supported on both sides of wall assembly. The annular space between the cables and the periphery of opening shall be min 0 in. (point contact) to max 2 in. (51 mm). Any combination of following types and sizes of copper conductor cables may be used:

A. Max 2/C with ground, No. 12 AWG MC (BX) cable with polyvinyl chloride (PVC) insulation on conductors inside a steel armored jacket.

B. Max 3/C with ground, No. 12 AWG (or smaller) nonmetallic sheathed (Romex) cable with copper conductors, PVC insulation and jacket.

C. Max 8/C No. 12 AWG (or smaller) Type SOW-A P-123-70-MSHA.

D. Max 25 pair, No. 24 AWG (or smaller) copper conductor telephone cable with XLPE/PVC insulation, with or without PVC jacket.

E. Max RG6 (or smaller) television coaxial cable CATVX.

F. Max 4 pair, No. 24 AWG (or smaller) copper conductor data cable with Hylar insulation and jacketing.

G. Max 1/C, No. 18 AWG (or smaller) Type MTW or THHN or THWN or gas & oil res II 600V (UL) or AWM VW-1 power cable.

H. Max 1/C, No. 14 AWG (or smaller) Type MTW or THHN or THWN or gas & oil res II 600V (UL) or AWM VW-1 power cable.

I. Max 1/C, No. 10 AWG (or smaller) Type THHN or THWN gasoline & oil resistant II 600V VW-1 E116364 (UL) power cable.

J. Optical Fiber Cable max 62.5/125 Type UFNR.

K. Max 3/C, No. 4/0 with ground, AWG aluminum Triple E Alloy AA8176 Type SE cable Style U Type XHH-W-2 CDRS E32071 (UL) service entrance cable.

L. Max 3/C, No. 18 AWG with ground and shield E120910.

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

A. **Fill, Void or Cavity Material* - Caulk** — Min 1/2 in. (13 mm) thickness of fill material applied within the annulus, flush with both surfaces of wall. When steel sleeve is not used or when steel sleeve is flush with the wall surfaces, a min 1/4 in. (6 mm) diam bead of caulk shall be applied at interface of cables and periphery of opening at point contact location on both surfaces of wall. When steel sleeve is used, a bead of caulk is applied to the steel sleeve/gypsum board interface on both sides of wall. When sheet metal sleeve (Item 2) is used, fill material to be installed flush with both surfaces of wall within the sleeve. When rigid steel sleeve (Item 2A) is used, fill material may be installed flush with both ends of sleeve in walls.

RECTORSEAL — MC 150+, Metacaulk 1000

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