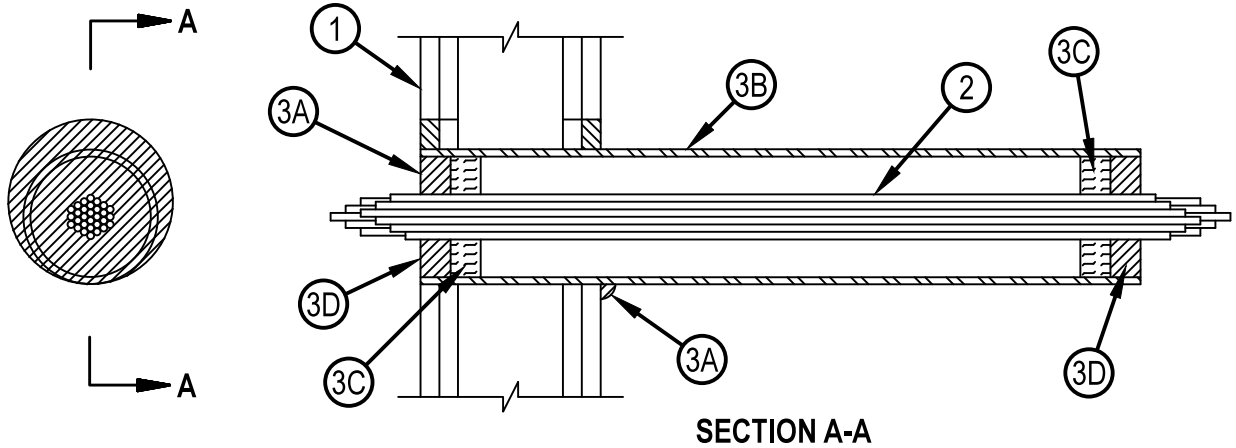


System No. W-L-3112

WL 3112

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 Hr	FT Rating — 0 Hr
	FH Rating — 1 and 2 Hr (See Item 1)
	FTH Rating — 0 Hr



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 2-1/2 in. (64 mm) wide and spaced max 24 in. (610 mm) OC.
 - B. Gypsum Board* — 5/8 in. (16 mm) thick, 4 ft (122 cm) wide with square or tapered edges. The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual Wall and Partition Design in the UL Fire Resistance Directory. Max diam of opening is 5-1/2 in. (140 mm).

The hourly F, FH rating of the firestop system is equal to the hourly fire rating of the wall assembly in which it is installed.
 2. Cables — Aggregate cross-sectional area of cables in steel sleeve to be 36 percent of the aggregate cross-sectional area of the sleeve. Cables to be rigidly supported on both sides of wall assembly. Any combination of the following types and sizes of copper conductor cable may be used:
 - A. Max 300 kcmil single conductor Type MTW, THHN, THWN or AWM power cables; cross-linked polyethylene (XLPE) insulation.
 - B. Max 4 pair No. 24 AWG telephone cable intended for plenum applications.
 - C. Max 3/C No. 12 AWG with polyvinyl chloride (PVC) insulation and jacket.
 3. Firestop System — The firestop system shall consist of the following:
 - A. Fill, Void or Cavity Material* — Sealant or Putty — Min 5/8 in. (16 mm) thickness of fill material applied within the annulus, flush with both sides of wall. At point contact, a min 1/2 in. (13 mm) bead of fill material shall be applied at sleeve/wall interface when sleeve extends beyond surface of wall.
 HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE Sealant, FS-ONE MAX Intumescent Sealant or CP618 Firestop Putty Stick
 - B. Steel Sleeve — Nom 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing (EMT) or Schedule 5 steel pipe. The annular space between steel sleeve and periphery of opening shall be min 0 in. (point contact) to max 1 in. (25 mm). Sleeve may extend up to 18 in. (457 mm) beyond the wall surfaces. When sleeve extends more than 4 in (102 mm) beyond surface of wall, sleeve to be rigidly supported.
 - C. Packing Material — Min 1 in. (25 mm) thickness of min 4.0 pcf (64 kg/m³) mineral wool batt insulation firmly packed into each end of sleeve as a permanent form. Packing material to be recessed from each end of sleeve as required to accommodate the required thickness of fill material.
 - D. Fill, Void or Cavity Material* — Putty — Min 1 in. (25 mm) thickness of fill material applied within the sleeve, flush with both ends.
 HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP618 Firestop Putty Stick
- * Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.