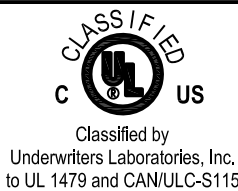
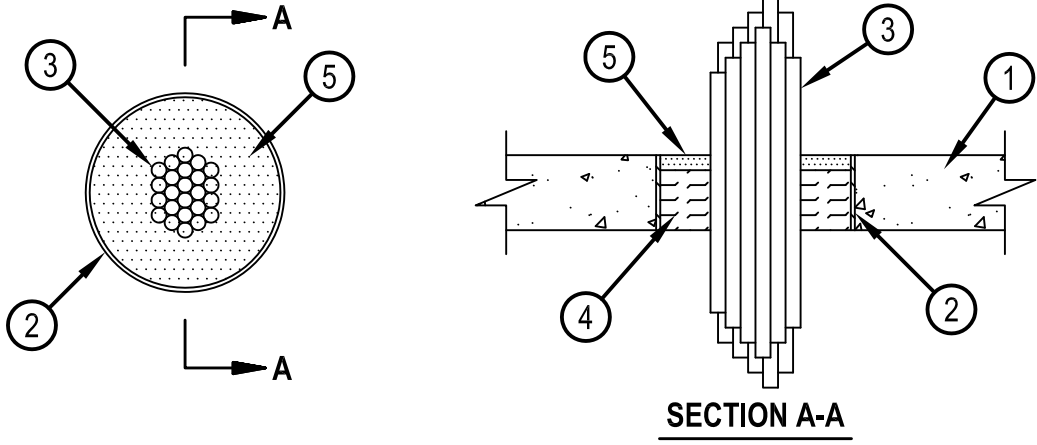


System No. C-AJ-3095



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



1. Floor or Wall Assembly — Min 2-1/2 in. (64 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600 2400 kg/m³) concrete floor or min 3 in. (76 mm) thick reinforced lightweight or normal weight concrete wall. Wall may also be constructed of any UL Classified Concrete Blocks*. Max diam of opening is 6 in. (152 mm).
See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.
 2. Sleeve — (Optional) — Nom 6 in. (152 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe cast or grouted into floor or wall assembly, flush with floor or wall surfaces or extending a max 3 in. (76 mm) above the floor or both surfaces of the wall. If the steel sleeve extends above the floor or both surfaces of the wall, the T Rating of the firestop system is 0 Hr.
 3. Cables — Aggregate cross-sectional area of cables in opening to be min 25 percent to max 45 percent of the aggregate cross-sectional area of the opening. Cables to be rigidly supported on both sides of floor or wall assembly. Any combination of the following types and sizes of metallic conductor or fiber optic cable may be used:
 - A. Max 500 kcmil single copper conductor power cable with thermoplastic insulation and polyvinyl chloride (PVC) jacket. When single copper conductor power cable is used, T, FT and FTH Rating is 0 hr.
 - B. Max 350 kcmil single conductor power cables with either aluminum or copper conductors and cross-linked polyethylene (XLPE) insulation. When single aluminum conductor power cable is used, T Rating is 0 hr. When single copper conductor power cable is used, T, FT and FTH Rating is 1/2 hr.
 - C. Max 300 pair No. 24 AWG copper conductor telecommunication cables with polyvinyl chloride (PVC) insulation and jacket material. When telecommunication cable is used, T, FT and FTH Rating is 0 hr.
 - D. Max three copper conductor No. 6 AWG cable with polyvinyl chloride (PVC) insulation and jacket material. When multi-conductor power cable is used, T Rating is 0 hr.
 - E. Max 7/C copper conductor No. 12 AWG multiconductor power and control cables with PVC or cross-linked polyethylene (XLPE) insulation and PVC jacket. When multiconductor power and control cable is used, T, FT and FTH Rating is 3/4 hr.
 - F. Multiple fiber optical communication cables jacketed with PVC and having a max outside diam of 1/2 in. When fiber optic cable is used, T, FT and FTH Rating is 3/4 hr.
 - G. Max 3/C copper conductor No. 12 AWG with Bare aluminum ground, polyvinyl chloride (PVC) insulated steel, Metal-clad cable+. When MC cable is used, T, FT and FTH Rating is 0 hr.
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January 14, 2015

H. Max 3/C with ground 2/0 AWG copper conductor SER cable with cross-linked polyethylene (XLPE) insulation and polyvinyl chloride (PVC) jacket. When SER cable is used, T, FT and FTH Rating is 0 hr.

I. Max RG/U coaxial cable with polyethylene (PE) insulation and polyvinyl chloride (PVC) jacket having a max outside diameter of ½ in. When coaxial cable is used, T Rating is 0 hr.

J. Fire Resistive Cables* - Max 1-1/4 in. (32 mm) diam single conductor or multi conductor Type MI cable. A min 1/8 in. (3 mm) separation shall be maintained between MI cables and any other type of cable. When Fire Resistive Cables *are used, T, FT and FTH Rating is 0 hr.

K. Through Penetrating Product* — Any Cables, Metal-Clad Cable+ or Armored Cable+ currently Classified under the Through Penetrating Products category.

See Through Penetrating Product (XHLY) category in the Fire Resistance Directory for names of manufacturers.

4. Packing Material — Min 2 in. (51 mm) thickness of min 4 pcf (64 kg/m³) mineral wool batt insulation firmly packed into opening as a permanent form. Packing material to be recessed 1/2 in. (13 mm) from top surface of floor or from both surfaces of wall to accommodate the fill material. If the steel sleeve (Item 2) extends above the top of the floor, the packing material shall be flush with the bottom surface of the floor.

5. Fill, Void or Cavity Material* — Sealant — Min 1/2 in. (13 mm) thickness of fill material applied within the annulus, flush with top surface of floor or with both surfaces of wall.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — 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.

