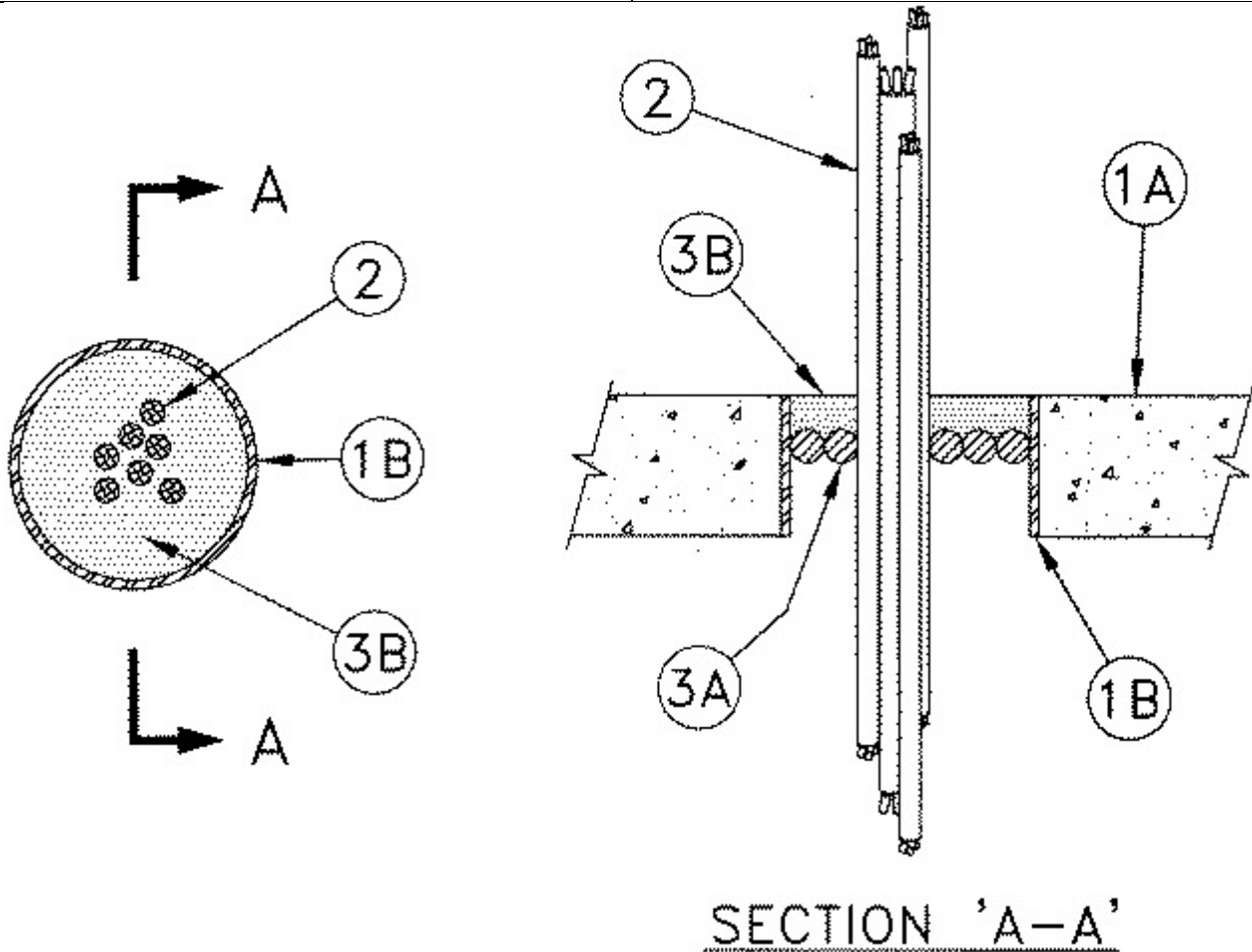




System No. C-AJ-3199

February 04, 2014

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Rating — 2 and 3 Hr (See Items 1A and 2)	F Rating — 2 and 3 Hr (See Items 1A and 2)
T Rating 0	FT Rating — 0 Hr
L Rating At Ambient — Less Than 1 CFM/sq ft	FH Rating — 2 and 3 Hr (See Items 1A and 2)
L Rating At 400 F — 1.4 CFM/sq ft	FTH Rating — 0 Hr
	L Rating At Ambient — Less Than 1 CFM/sq ft
	L Rating At 400 F — 1.4 CFM/sq ft



1A. **Floor or Wall Assembly** — Min 4-1/2 in. (114 mm) thick reinforced light weight or normal weight (100-150 pcf or 1600-2400 kg/m³) concrete. Wall may also be constructed of any UL Classified **Concrete Blocks***. Floor may also be constructed of any min 6 in. (152 mm) thick UL Classified hollow-core **Precast Concrete Units***. Max diam of opening is 6 in. (152 mm).

See **Concrete Blocks (CAZT) Precast Concrete Units (CFTV)** and categories in the Fire Resistance Rating Directory for names of manufacturers.

The F and FH Ratings of the firestop system are dependent upon the diam of the opening. If the diam of the opening or metallic sleeve (Item 1B) is 4-3/8 in. (111 mm) or less, the F and FH Ratings of the firestop system are 3 hr. If the diam of the opening or metallic sleeve is greater than 4-3/8 in. (111 mm), the F and FH Ratings of the firestop system are 2 hr.

1B. **Metallic Sleeve** — (Optional)- Max 6 in. (152 mm) diameter Schedule 10 (or heavier) steel pipe sleeve, cast or grouted into floor or wall assembly, flush with top surface of floor or both surfaces of wall assembly.

2. **Cables** — Aggregate cross-sectional area of cables in opening to be max 40 percent of the cross-sectional area of the opening. Cables installed in a bundle. The annular space between the cable bundle and the periphery of the opening shall be min 3/8 in. (10 mm) to max 1-3/16 in. (30 mm). Cables to be rigidly supported on both sides of floor or wall assembly. Any combination of the following types and sizes of cables may be used:

- A. Max 1/C - 750 MCM THHN power cable with PVC insulation and jacket.
- B. Max 72 conductors 62.5/125 fiber optic cable with PVC insulation and jacket.
- C. Max 7/C - No. 16 AWG power and control cables with rubber insulation and neoprene jacket.
- D. Max 400 pairs - No. 24 AWG telephone communication cable with PVC insulation and jacket.
- E. Max 1/C — 350 kcmil (or smaller) cable with PVC insulation and jacket or hypalon insulation and ethylene propylene rubber jacket.
- F. Max 16/C — No. 16 AWG (or smaller) cable with PVC insulation and jacket.
- G. Max 4/C — No. 12 AWG (or smaller) cable with rubber insulation and neoprene jacket.
- H. Max six, 3/C - No. 2/0 AWG (or smaller) copper conductors aluminum or steel jacketed **Metal Clad or Armored Cable+**.

When Items 2E, 2F, 2G or 2H are used, the F and FH Ratings of the firestop system are 2 hr. When Items 2A, 2B, 2C and 2D are only used, the F and FH Ratings of the firestop system are 3 hr.

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

A. **Packing Materials** — Nom 1 in. (25 mm) diam foam backer rod or min 4 pcf (64 kg/m³) mineral wool insulation, firmly packed into opening as a permanent form. Packing material to be recessed from top surface of floor or from both surfaces of wall to accommodate the required thickness of fill material.

B. **Fill, Void, or Cavity Materials*** — Caulk - Min 1 in. (25 mm) thickness of fill material applied within the annulus and interstices between cables, flush with top surface of floor or both surfaces of wall. When the floor is constructed of hollow-core precast concrete units, fill material shall be installed on both sides of the floor. When Item 2F is used only, the fill material may be applied within the annulus, flush with either the bottom or top surface of the floor or one surface of the wall. When Item 2F is used only and the floor is constructed of hollow-core precast concrete units, the fill material shall be installed on both sides of the floor.

RECTORSEAL — FlameSafe® FS1900, Metacaulk 1000, Metacaulk 350i, Biostop 350i or Biostop 500+

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

+Bearing the UL Listing Mark