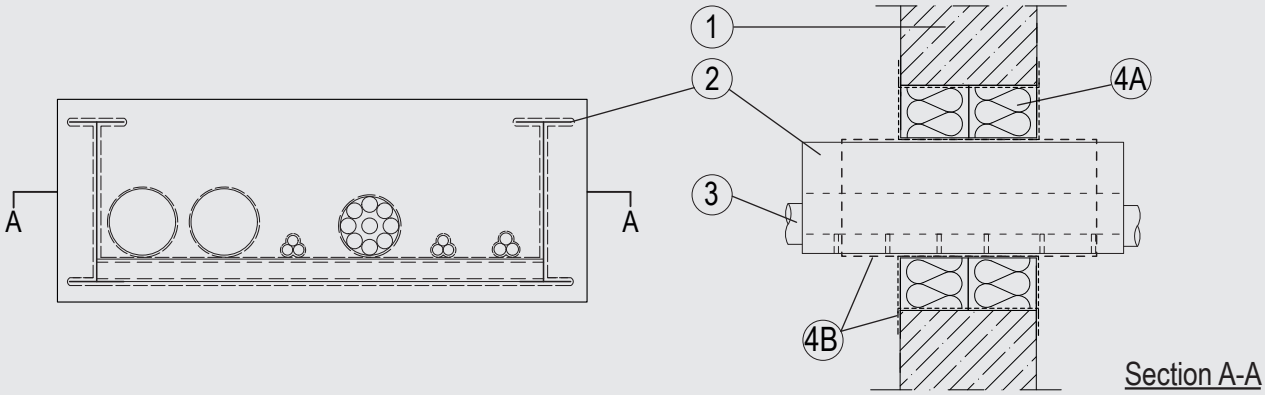
Through-penetration Firestop Systems

System No. W-J-4089

ANSI/UL1479 (ASTM E814)	CAN / ULC S115
F Rating — 3 Hr	F Rating – 3 Hr
T Rating — 1/2 Hr	FT Rating – 1/2 Hr
	FH Rating – 3 Hr
	FTH Rating – 1/2 Hr



Section A-A

1. Wall and Floor Assembly

Min 4-1/2 in. (115 mm) thick lightweight or normal weight (100-150 pcf or 1600-2400 kg/m^3) concrete. Wall may also be constructed of any UL Classified Concrete Blocks*. Opening shall be rectangular with max dimensions of 23-1/2 in. (600 mm) by 7-7/8 in. (200 mm).

See Concrete Blocks (CAZT) in the Fire Resistance Directory for names of manufacturers.

2. Cable Tray*

Nom 19-5/8 in. (500 mm) wide by max 6-3/8 in. (163 mm) deep open-perforated or solid sheet cable tray with side rails formed of min 1/8 in. (2,3 mm) thick aluminium. The annular space between the cables trays and the periphery of the opening to be a min 3/4 in. (18 mm) to a max 2 in. (50 mm). Cable trays to be rigidly supported on both sides of the wall assembly.

3. Cables

Aggregate cross-sectional area of cables in cable tray not to exceed 13 percent of the cross-sectional area of the cable tray based on a max 2-3/4 in. (68 mm) cable loading depth within the tray. Cable bundles of different types shall be separated by min 1 in. (25 mm). Any combination of the following types and sizes of cables may be used:

A. Max 3/C 15.3 mm diam (or smaller), copper conductor cable with PVC insulation and PVC jacket.

B. Max 5/C No. 15 AWG (1.5 mm) diam (or smaller), copper conductor cable with EPR insulation and Rubber jacket.

C. Max 5/C No. 15 AWG (1.5 mm) diam (or smaller), copper conductor cable with XPLE insulation and EVA jacket.

D. Max 20/C No. 19 AWG (0.6 mm) diam (or smaller), copper conductor telecommunication cables PE jacket.

E. Max 5/C No. 15 AWG (1.5 mm) diam (or smaller), copper conductor cable with PVC insulation and PVC jacket.

4. Firestop System

The Firestop System shall consist of the following:

A. Packing material — Nom 2-3/8 in. (60 mm) thick mineral wool boards min 9.3 pcf (150 kg/m^3) firmly packed into the opening of the wall as a permanent form. Packing material to be installed flush with both surfaces of wall.

B. Fill, Void or Cavity Material* — Min 1/16 in. (2 mm) dry film thickness to be applied inside the aperture before installation and over the full surface of the mineral wool boards, and overlapping onto the wall by min 3/4 in. (20 mm). Min 1/32 in. (1 mm) dry film thickness to be applied over the surface of the cables and tray to a min length of 7-7/8 in. (200 mm) from both faces of the board.

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

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