

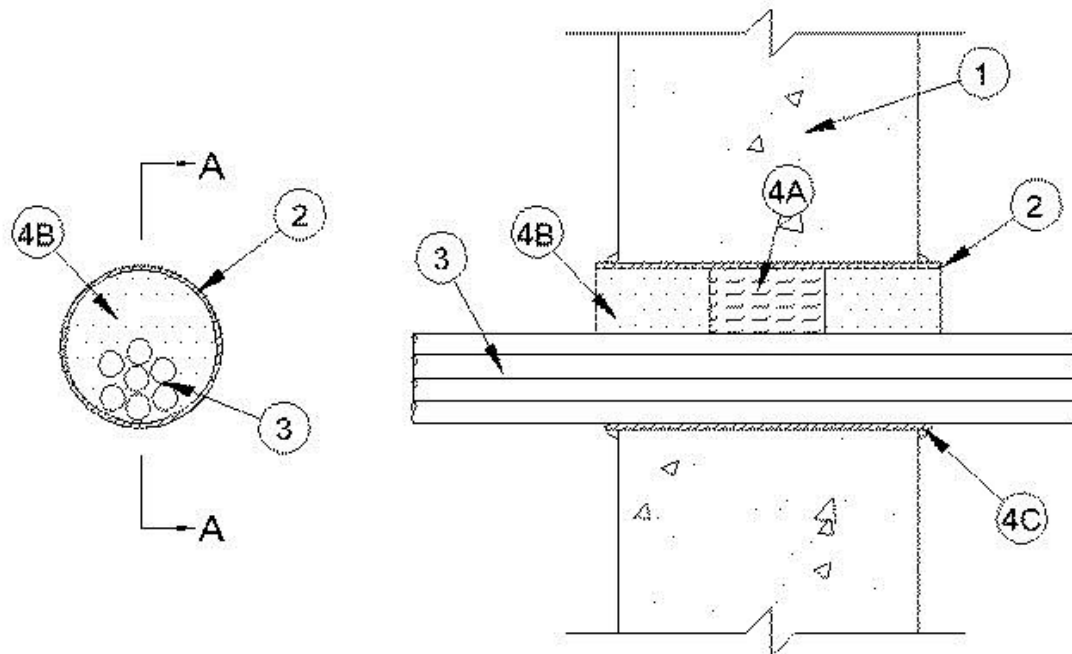
Through-penetration Firestop Systems

System No. W-J-3153

November 13, 2013

F Rating — 2 Hr

T Rating — 0 Hr



Section A-A

1. **Wall Assembly** — Min 6 in. (152 mm) thick lightweight or normal weight (100-150 pcf or 1600-2400 kg/m³) concrete. Wall may also be constructed of any UL **Classified Concrete Blocks***. Max diam of opening is 3 in. (76 mm).

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

2. **Metallic Sleeve** — Cylindrical sleeve fabricated from min 0.034 in. (0.86 mm) thick galv sheet steel and having a min 1/2 in. (13 mm) lap along the longitudinal seam. Length of steel sleeve to be equal to the thickness of the wall plus a min 1/2 in. (13 mm), such that when installed, the ends of the steel sleeve extend a min 1/4 in. (6 mm) to a max 1 in. (25 mm) beyond each surface of the wall. Sleeve installed by coiling the sheet steel to a diam smaller than the through opening, inserting the coil through the opening and releasing the coil to let it uncoil against the circular openings in the concrete.

3. **Cables** — Aggregate cross-sectional area of cables in opening to be max 34 percent of the aggregate cross-sectional area of the opening. The annular space between the cable bundle and the

periphery of the opening shall be min 0 in. (0 mm, point contact) to max 1-1/4 in. (32 mm). Cables to be rigidly supported on both surfaces of the wall assembly. Any combination of the following types and sizes of cables may be used:

- A. Max 4 pair No. 24 AWG copper conductor Cat5e or Cat 6 telephone cable with polyvinyl chloride (PVC) insulation and jacket materials.
- B. Max 12 core No. 26 AWG shielded multi coax cable with foam high density polyethylene insulation and PVC jacket.
- C. Max 1/C No. 8 AWG copper conductor cable with PVC insulation and nylon jacket materials.
- D. Max 100 pair No. 24 AWG copper conductor telephone cable with PVC insulation and jacket materials.
- E. Max RG/6 (or smaller) coaxial cable with fluorinated ethylene (FE) or PVC insulation and jacket materials.
- F. Max 7/C No. 12 AWG copper conductors with PVC insulation and jacket materials.

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

- A. **Packing Material** — Min 2 in. (52 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 from both surfaces of wall as required to accommodate the required thickness of fill material.
- B. **Fill, Void or Cavity Materials* - Foam** — Min 2-1/4 in. (57 mm) thickness of fill material applied within the annulus on both sides of mineral wool insulation. Foam installed flush with both ends of steel sleeve.

ACCUMETRIC L L C — Boss 813 FR Expanding Foam

C. **Fill, Void or Cavity Material* - Sealant** — Min 1/4 in. (6 mm) diam bead of fill material applied at the steel sleeve/concrete interface on both sides of wall.

ACCUMETRIC L L C — Boss 814 Sealant or Boss 816 Sealant

*Bearing the UL Classification Mark