

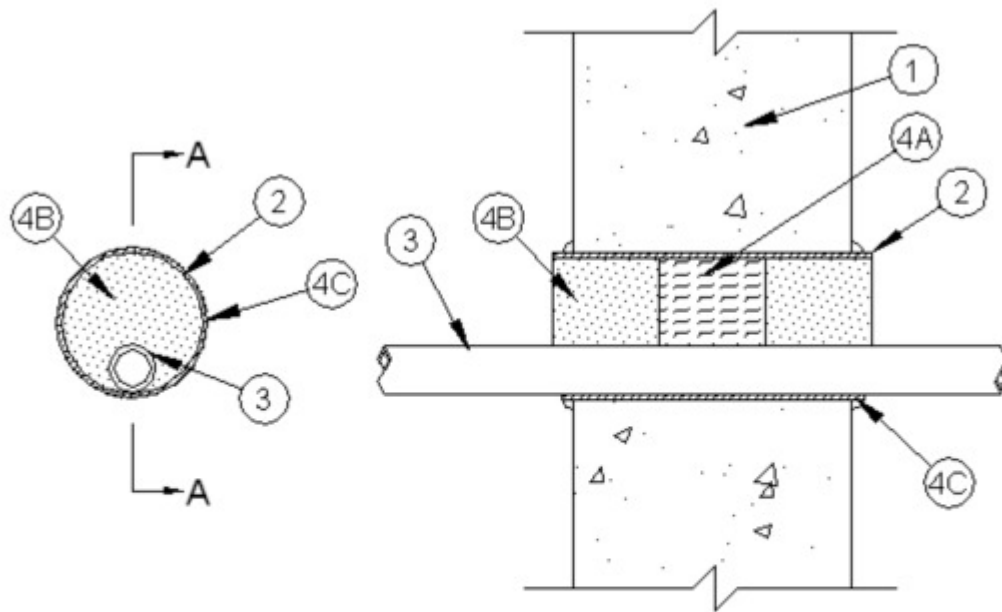
Through-penetration Firestop Systems

System No. W-J-1213

July 07, 2008

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 nom 0.034 in. (0.86 mm) thick (or lighter) 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. **Through Penetrant** — One metallic pipe, tubing or conduit to be installed concentrically or eccentrically within opening. The annular space between the through penetrant and the periphery of opening shall be min 0 in. (0 mm, point contact) to max 2 in. (51 mm). Through penetrant to be rigidly supported on both sides of wall assembly. The following types and sizes of through penetrants may be used:

A. **Steel Pipe** — Nom 3/4 in. (19 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.

B. **Iron Pipe** — Nom 3/4 in. (19 mm) diam (or smaller) cast or ductile iron pipe.

C. **Copper Tubing** — Nom 3/4 in. (19 mm) diam (or smaller) Type L (or heavier) copper tube.

D. **Copper Pipe** — Nom 3/4 in. (19 mm) diam (or smaller) Regular (or heavier) copper pipe.

E. **Conduit** — Nom 3/4 in. (19 mm) diam (or smaller) electric metallic tubing (EMT) or rigid steel conduit.

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 816

*Bearing the UL Classification Mark