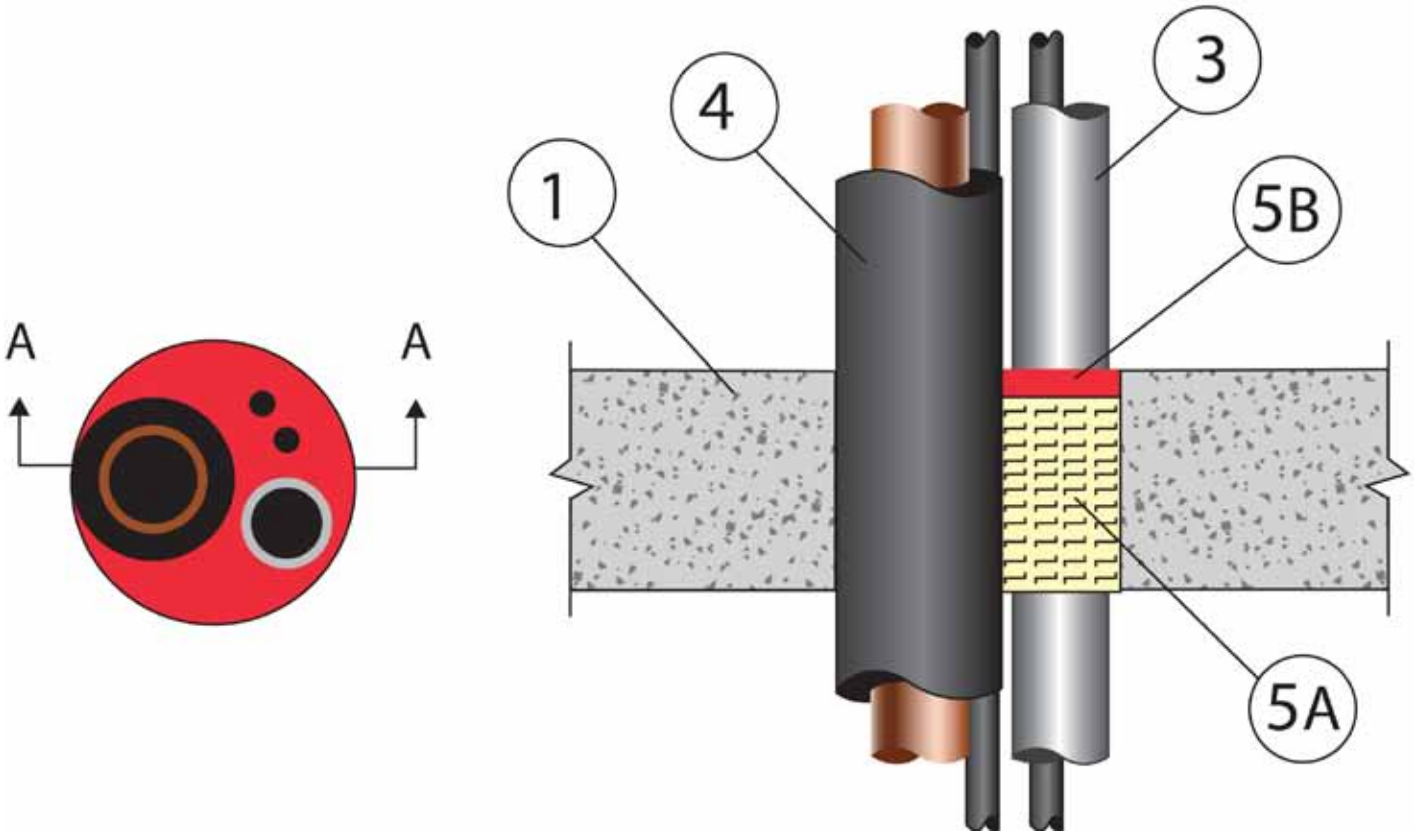
System No. C-AJ-8198

October 20, 2008

F Rating — 2 Hr

T Rating — 3/4 Hr



1. Floor or Wall Assembly — Min 4-1/2 in. (114 mm) thick reinforced 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 6 in. (152 mm).

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

2. Steel Sleeve — (Optional, Not Shown) - Cylindrical sleeve fabricated from 0.036 in. thick (No. 20 gauge) galv sheet steel and having a min 1 in. (25 mm) lap along the longitudinal seam. Steel sleeve to project max 2 in. (51 mm) beyond the top surface of the floor or both surfaces of the wall. Sleeve cast or grouted in the concrete floor or wall.

3. Through Penetrants — A max of two pipes, conduits or tubes and a max of two cable lengths to be installed within the opening. Annular space between the penetrants and the periphery of the opening shall be min 0 in. (point contact) to max 2 in. (51 mm). Penetrants to be rigidly supported on both sides of floor or wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:

A. Metallic Pipes — A max of two metallic pipes, conduits or tubing may be used. The following types and sizes may be used:

A1. Copper Tubing — Nom 2 in. (51 mm) diam (or smaller) Type L (or heavier) copper tubing.

A2. Copper Pipe — Nom 2 in. (51 mm) diam (or smaller) Regular (or heavier) copper pipe.

A3. Steel Pipe — Nom 2 in. (51 mm) diam (or smaller) Schedule 5 (or heavier) steel pipe.

A4. Conduit — Nom 2 in. (51 mm) diam (or smaller) electrical metallic tubing or rigid steel conduit.

B. Cables — A max of two cables may be used. One length of max 8/C No. 12 AWG power and control cable; XLPE or PVC insulation with XLPE or PVC jacket. One length of max 1/C No. 12 AWG power and control cable; XLPE or PVC insulation with XLPE or PVC jacket.

4. Tube Insulation - Plastics++ — Nom 3/4 in. (19 mm) thick acrylonitrile butadiene/polyvinyl chloride (AB/PVC) flexible foam furnished in the form of tubing. Required for copper tubes greater than 1 in. (25 mm) diam.

See Plastics (QMFZ2) category in the Plastics Recognized Component Directory for names of manufacturers. Any Recognized Component tube insulation material meeting the above specifications and having a UL94 Flammability Classification of 94-5VA may be used.

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

A. Packing Material — Min 4 in. (102 mm) thickness of min 4 pcf (64 kg/m3) mineral wool batt insulation tightly packed into opening as a permanent form. Packing material to be recessed from top surface of floor or from both surfaces of wall as required to accommodate the required thickness of fill material.

B. Fill, Void or Cavity Materials* - Caulk — Min 1/2 in. (13 mm) thickness of caulk applied within the annulus, flush with both surfaces of floor or wall. Min 1/4 in. (6 mm) diam bead of caulk shall be applied to the penetrant / surface interface at the point contact location on top of floor or both sides of wall.

FLAME TECH INC — Firestop-814+

***Bearing the UL Classification Mark**

++ Bearing the UL Recognized Component Mark