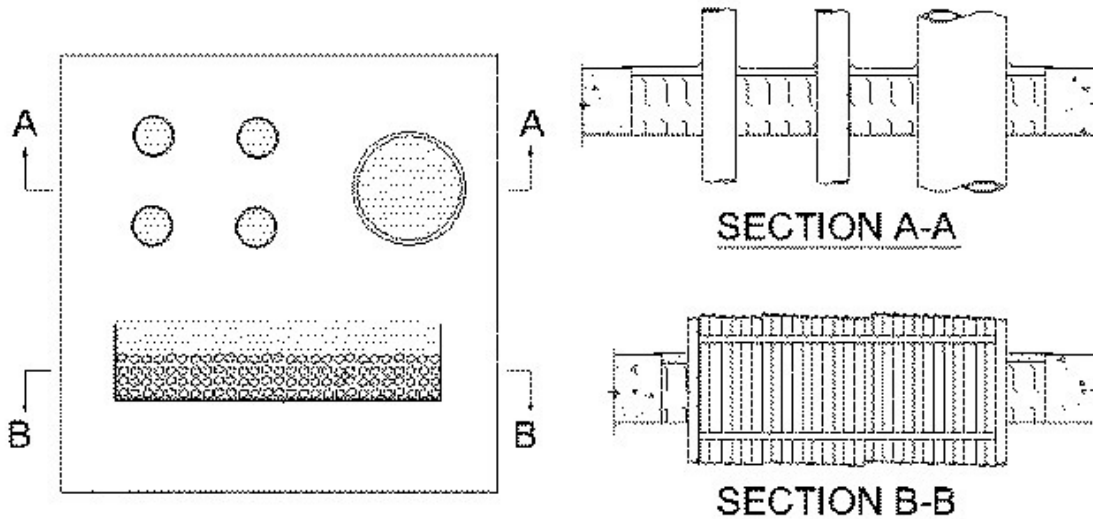


System No. C-AJ-8221

July 25, 2005

F Rating — 2 Hr

T Rating — 0 Hr



1. **Floor or Wall Assembly** — Min 4-1/2 in. thick reinforced lightweight or normal weight (100-150 pcf) concrete. Wall may also be constructed of any UL Classified **Concrete Blocks***. Max area of opening is 900 sq in. with max dimension of 30 in.

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

2. **Cable Tray+** — One 24 in. wide by 4 in. deep open ladder cable tray with channel-shaped side rails formed of min. 0.091 in. galv steel or aluminum with nom 1 in. diam rungs spaced 9 in. OC. may be installed within the opening. Annular space between cable tray and periphery of opening shall be min of 1 in. to a max of 6 in. Cable tray shall be rigidly supported on both sides of the floor or wall assembly.

3. **Cables** — Aggregate cross-sectional area of cables in cable tray to be max 41 percent of the cross-sectional area of the cable tray based on the full loading depth of 4 in. Any combination of the following types and sizes of copper conductor cables may be used:

- A. Max 750 MCM power cables; THHN or THWN jacketed.
- B. Max 8C, No.12 AWG multiconductor power and control cables with polyethylene insulation and polyvinyl chloride jacket.
- C. Max 300 pair No. 24 AWG copper conductor communication cable with polyvinyl chloride insulation and jacket material.
- D. Multiple fiber optical communication cable jacketed with polyvinyl chloride.
- E. Max 25 pr/24 AWG telephone cable with polyethylene insulation and polyvinyl chloride jacket.

4. **Through-Penetrants** — A max of five pipes, conduits or tubing to be installed within the opening. The space between pipes, conduits or tubing shall be min 2 in. to max 5 in. The space between pipes, conduits or tubing and periphery of opening shall be min 2 in. to a max of 5 in. The space between pipes, conduits or tubing and cable tray shall be min 2 in. to max 5 in. Pipe, conduit or tubing 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. **Steel Pipe** — Nom 10 in. diam (or smaller) Schedule 10 (or heavier) steel pipe.

B. **Iron Pipe** — Nom 10 in. diam (or smaller) cast or ductile iron pipe.

C. **Conduit** — Nom 4 in. diam (or smaller) steel electrical metallic tubing.

D. **Conduit** — Nom 6 in. diam (or smaller) rigid steel conduit.

E. **Copper Tubing** — Nom 6 in. diam (or smaller) Type L (or heavier) copper tubing.

F. **Copper Pipe** — Nom 6 in. diam (or smaller) Regular (or heavier) copper pipe.

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

A. **Packing Material** — Min 4-1/2 in. thickness of 4.0 pcf mineral wool firmly packed into opening as a permanent form, flush with top surface of floor or both surfaces of wall.

B. **Fill, Void or Cavity Materials* - Caulk** — Min 1/16 in. thickness of fill material applied over mineral wool on top surface of floor or both surfaces of wall. Fill material to overlap 1/2 in. onto penetrants and floor or wall surfaces. Additional fill material to be forced into interstices of cables to max extent possible.

EVERKEM DIVERSIFIED PRODUCTS INC — Firestop-814+

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