



XHEZ.C-AJ-8045 Through-Penetration Firestop Systems

[Previous Page](#)
[Page Bottom](#)
[Questions?](#)

Through-Penetration Firestop Systems

Guide Information

System No. C-AJ-8045

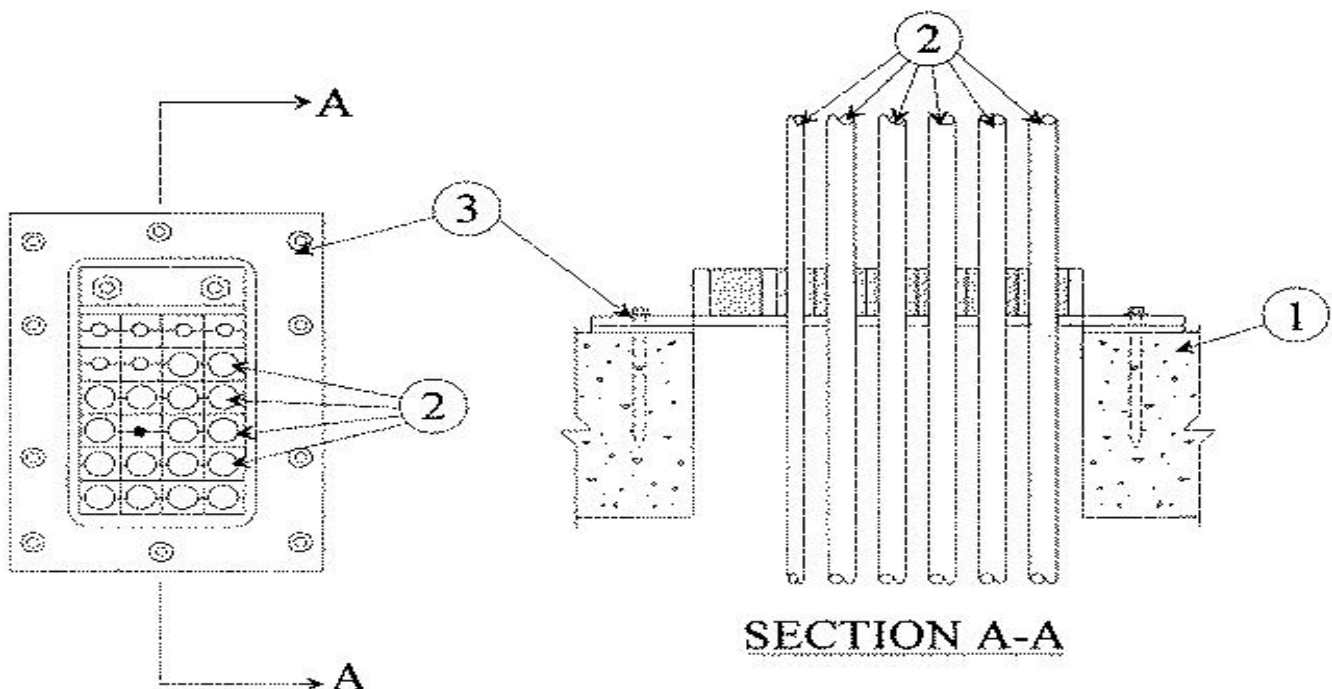
December 12, 1998

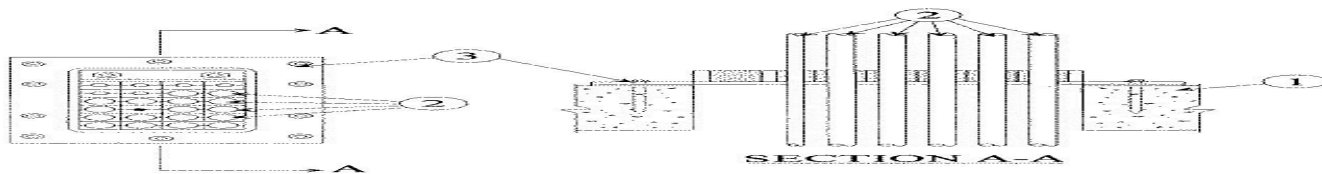
F Ratings — 2 and 3 Hr (See Item 3)

T Rating — 0 Hr

L Rating at Ambient — Less Than 1 CFM/Sq Ft

L Rating at 400 F — Less Than 1 CFM/Sq Ft





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 40 sq in. with max dimension of 8-1/2 in.

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

2. **Through Penetrants** Various types of cables, pipe, conduit or tubing may be used as described below. Cables, pipe, conduit or tubing to be rigidly supported on each side of floor or wall assembly.

- A. Max 3/C with Ground — No. 8 AWG (or smaller) cable with cross-linked polyethylene insulation and PVC jacket.
- B. Max 3/C with Ground — No. 6 AWG (or smaller) cable with cross-linked polyethylene insulation and PVC jacket.
- C. Nom 1/2 in. diam (or smaller) Schedule 10 (or heavier) steel pipe.
- D. Nom 1/2 in. diam (or smaller) electrical metallic tubing or steel conduit.

3. **Firestop Device*** Firestop device consists of a rectangular steel frame, insert modules, stay plates and compression unit consisting of top-packing and compression plate or ROX Wedge. The firestop device shall be installed on top surface of the floor and on both surfaces of the wall assembly in accordance with the accompanying installation instructions. The steel frame of the firestop device shall be secured to the top surface of the floor and on both surfaces of the wall assembly by means of 3/8 in. diam by 2-1/4 in. long steel expansion anchors and steel washers spaced a max 3-1/2 in. OC. Two continuous min 1/4 in. diam beads of silicone RTV sealant shall be applied as a gasket between the device frame mounting flange and the floor or wall surface. The sealant beads shall be recessed in approx 1/2 in. and 2 in. from the perimeter of the device frame mounting flange such that the continuous beads bracket the line of fasteners along each side of the device.

The annular space between the through penetrants and the periphery of the steel frame shall be filled with insert modules. The sheets of the module halves are removed one by one until a gap of 0 to 1 mm is formed between the two module halves. During the installation of the insert modules, thin metal stay plates shall be used to separate each row of insert modules and retain the insert modules within the steel frame. After installation of the modules, the bolts of the compression unit are tightened to form an effective seal around the through penetrants and insert modules. The firestop device may consist of one or more size frames ganged or grouped together in accordance with the accompanying

installation instructions. The hourly F Ratings for the firestop devices are dependent upon the type of compression unit used and the use of a gasket. In order to achieve a 3 h F Rating, the compression unit shall consist of the ROX Wedge. Any other compression unit will result in a 2 h F Rating. Within each firestop device, any combination of the penetrating items can be used up to its max percent fill or max number as described below:

Penetrating Item	Max % Fill of Cable (a)	Max No. of Pipe Conduit or Tube
A	4.6	—
B	14.6	—
C	—	1

(a)

Percent fill of cables is based upon total cross sectional area of cable divided by the area within the steel frame.

NMP CORP — ROX SF-2, ROX SF-4 or ROX SF-6

ROXTEC INTERNATIONAL AB — ROX SF-2, ROX SF-4 or ROX SF-6

*Bearing the UL Classification Marking

[Previous Page](#)

[Page Top](#)

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[Questions?](#)

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