



## XHEZC.SP341 Firestop Systems

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### Firestop Systems

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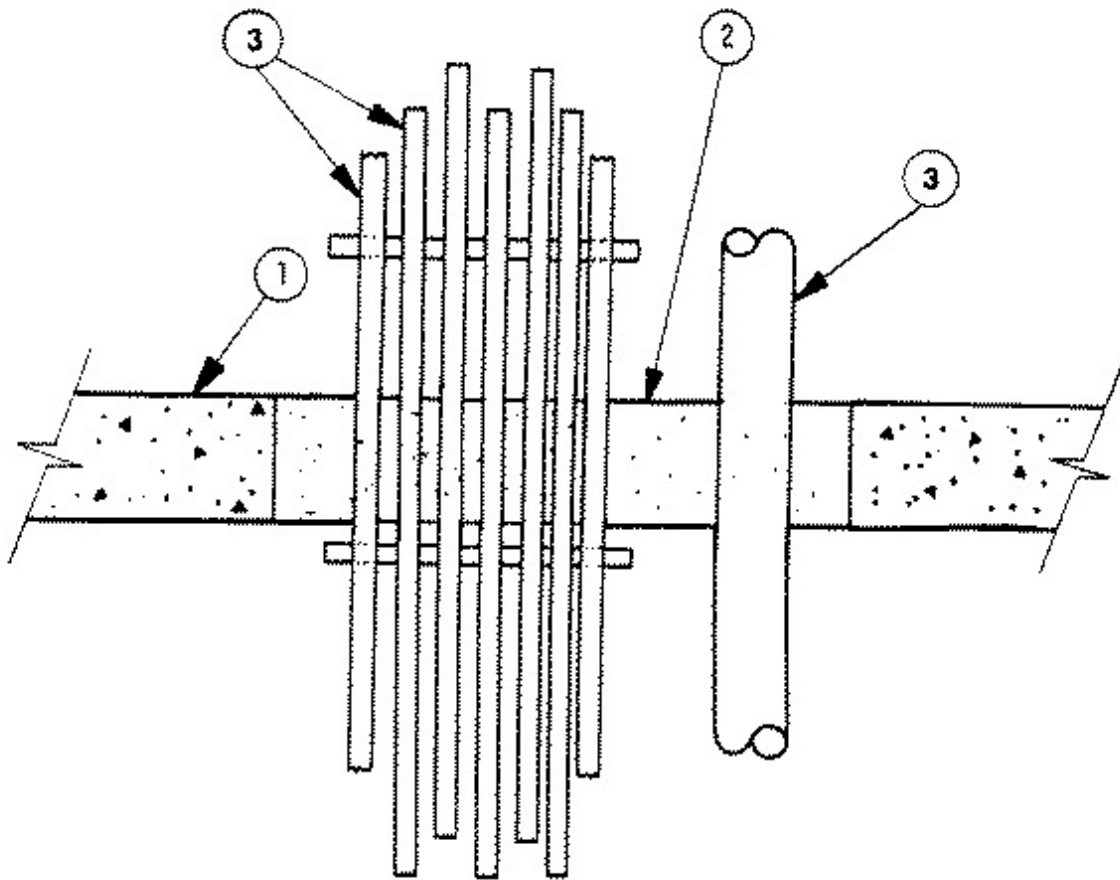
## System No. SP341

December 16, 2004

(For Horizontal or Vertical Separations)

F and FH Ratings - 3 h

FT and FTH Ratings - See Item 3



1. **Floor or Wall Assembly** — Minimum depth as necessary for required grade of fire separation and required depth for the installation of firestop system components in Item 2. Normal-density ( $2400 \pm 50 \text{ kg/m}^2$ ) or low-density ( $1760 \pm 50 \text{ kg/m}^2$ ) concrete. Maximum size of opening 1460 mm by 1525 mm. For opening in concrete block wall, concrete or mortar shall be used to create a solid surround to the opening.

2. **Firestop System Components** — XHJZC (XHJZC). Type "A/D FIREBARRIER Mortar" and "A/D FIREBARRIER Mineral Wool" installed as follows:

#### FOR HORIZONTAL INSTALLATIONS

(a) Minimum 114 mm thick concrete. "A/D FIREBARRIER Mortar" mixed with water in accordance with the manufacturer's instructions and trowelled in place to a minimum depth of 75 mm.

or

(b) Minimum 175 mm thick concrete. "A/D FIREBARRIER Mortar" installed to a minimum depth of 75 mm and flush with the bottom of the floor slab. Maximum 50 mm thick, ULC listed, polyurethane foam having a flame spread of 25 or less installed on top of mortar. "A/D FIREBARRIER Mineral Wool" insulation compressed 33% minimum and installed on top of polyurethane foam to a minimum depth of 50 mm.

or

(c) Minimum 175 mm thick concrete. "A/D FIREBARRIER Mineral Wool" insulation compressed 33% minimum and installed flush with the bottom of the slab to a depth of 50 mm. Maximum 50 mm thick, polyurethane foam, installed on top of FIREBARRIER Mineral Wool insulation. "A/D FIREBARRIER Mortar" installed to a minimum depth of 75 mm flush with the top of the floor slab.

#### FOR VERTICAL INSTALLATIONS

(d) Minimum 114 mm thick concrete wall. "A/D FIREBARRIER Mortar" mixed with water in accordance with manufacturer's instructions and trowelled in place to a minimum depth of 75 mm.

or

(e) Minimum 200 mm thick concrete or concrete block wall. "A/D FIREBARRIER Mortar" installed to a minimum depth of 75 mm on each side of the wall and flush with the wall faces. Maximum 50 mm thick, polyurethane foam installed between the layers of mortar.

#### A/D FIRE PROTECTION SYSTEMS INC

**3. Pipes, Cables and Cable Trays** — All penetrating items to be reliably supported above through-openings.

(a) Steel ladder cable tray, nominal 90 mm by 620 mm (maximum), spaced 25 mm (minimum) from perimeter of opening and other penetrating items. Maximum cable and conduit loading not to exceed 50% by area of cable tray and made up of the following groupings:

- (i) A maximum of 14 (fourteen) 500 MCM COREFLEX II RA90XLPE FT4 cables (or smaller).
- (ii) A maximum of 17 (seventeen) 6 AWG/4 90XLPE TECH HL FT4 cables.
- (iii) Individual or bundles of a maximum 7 (seven) 24 AWG, 100 pair telephone Type IWC cables, maximum 18 mm OD.
- (iv) Individual or bundles of a maximum 7 (seven) RG11/U FT1 coaxial cable. A minimum space of 13 mm between individual cables or bundles within the cable tray.
- (v) Maximum of 1 (one) 56 mm OD, 1.8 mm wall thickness steel conduit spaced 50 mm from cables.

(b) Nominal 90 mm OD (or smaller) Schedule 40 (or thicker) steel, cast or ductile iron pipe, spaced minimum 50 mm from other penetrating items. Pipe may be insulated with Pipe Insulation (Item 4).

(c) Nominal 80 mm OD (or smaller) copper, steel, cast or ductile iron pipe, or steel conduit, with minimum 1.38 mm wall thickness spaced 50 mm from other penetrating items. Pipe may be insulated with Pipe Insulation (Item 4).

Type of Penetrating Item	FT and FTH Ratings, h
Item 3a (i), (ii)	0
Item 3a (iii)	3/4
Item 3a (iv)	1
Item 3a (v)	0
Item 3b insulated	2
Item 3b non-insulated	0
Item 3c insulated or non-insulated	0
Without penetrating item	3

**4. Pipe Insulation** — (optional) (not shown) - Copper or steel pipes (Items 3(b) and 3(c) may be wrapped with minimum 25 mm thick ULC labelled pipe insulation with nominal 72 kg/m<sup>3</sup> density. No pipe insulation joints to be closer than 300 mm to floor or wall surface.

5. **Temporary Form** — (not shown) As required during placement of mortar (Item 2). Combustible forms, if left in place, will not detract from assigned ratings.

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