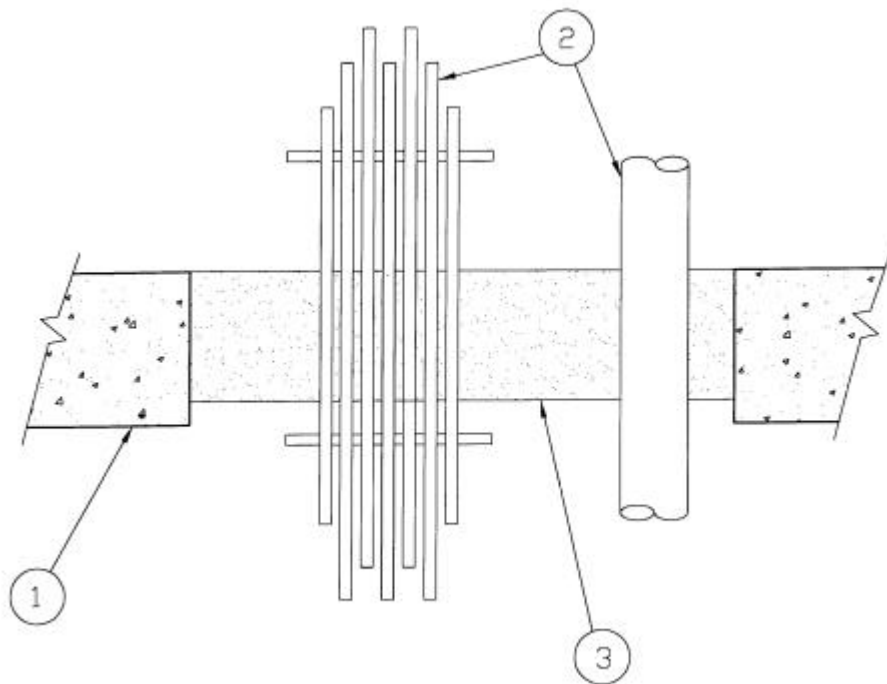


**SYSTEM No. SP422**  
**(For Horizontal Separation)**

**F Rating** – 2 h  
**FT, FH and FTH Ratings** – 0 h



**1. Floor Assembly** – Minimum depth or thickness as necessary for required grade of fire separation but not less than 114 mm normal-density ( $2400 \pm 50 \text{ kg/m}^3$ ) concrete. Minimum 204 mm thick hollow precast concrete floor having a fire resistance rating equal to or exceeding that of the system. Maximum size of opening 300 mm by 600 mm.

**2. Pipes, Cables and Cable Tray** – All penetrating items to be rigidly supported. The following types and sizes of pipes, cables and cable tray can be installed:

- (a) Maximum size 90 mm by 450 mm steel ladder cable tray spaced minimum 300 mm from perimeter of opening. 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 10 (ten) 500 MCM COREFLEX II RA90 XLPE FT4 cable (or smaller).
  - (ii) Individual or bundles of a maximum of 7 (seven) 24 AWG 100 pair telephone CSA Type IWC cables, maximum OD of 18 mm; minimum space of 13 mm between cable bundle and other penetrating items.
  - (iii) Individual or bundles of a maximum of 7 (seven) CAROL C1160 RG 11/U coaxial cables, maximum OD or 10.3 mm; minimum space of 13 mm between cable bundle and other penetrating items.
  - (iv) A maximum of one 55 mm OD 9 (or smaller), 1.75 mm minimum wall thickness, steel conduit.
- (b) Nominal 105 mm OD (or smaller), copper or steel pipe with 2.5 mm wall thickness spaced 25 mm from edge or opening and 50 mm minimum from other penetrating items.

SP422 continued...

(c) A maximum of one nominal 55 mm OD (or smaller), steel conduit with minimum 1.75 wall thickness centered in an opening (re-penetration only) within the mortar compound (Item 3a). Size of opening to be such that an annular space around penetrating item is 6.4 mm. Opening to be minimum 50 mm from other penetrating items.

• **3. Firestop System Components** – (Guide No. 40 U19.13).

(a) Type "A/D FIREBARRIER Mortar" compound prepared by mixing mortar powder with water at a ratio of 1 bag (7 kg) of powder to 2.5 kg of water in accordance with the manufacturer's instructions. The mortar compound is trowelled into the opening to a minimum thickness of 114 mm flush with top surface of floor assembly.

(b) Type "A/D FIREBARRIER Mineral Wool" to be compressed 33% minimum between pipe (Item 2c) and edge of opening within mortar to a minimum depth of 100 mm. Minimum 6.4 mm space to be left above mineral wool for sealant (Item 3c).

(c) Type "A/D FIREBARRIER Silicone Sealant" caulk or "A/D FIREBARRIER Silicone Sealant SL" applied to a minimum depth of 6.4 mm on top of mineral wool insulation (Item 3b) flush with the top surface of floor assembly.

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**4. Forming Material** (not shown) – Installed to prevent leakage of mortar compound while in liquid state. If left in place, will not affect assigned ratings.