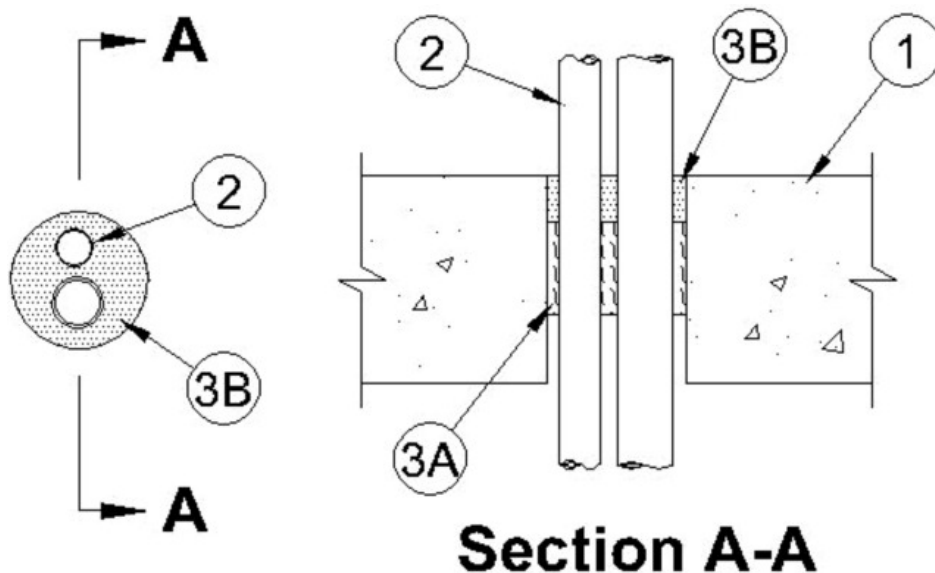


ANSI/UL1479 (ASTM E814)
F Ratings - 3 Hr
T Rating - 0 Hr



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. Floor may also be constructed of any min 6 in. (152 mm) thick hollow-core **Precast Concrete Units***. Wall may also be constructed of any UL Classified **Concrete Blocks***. Max diam of opening is 3 in. (76 mm). See **Concrete Blocks** (CAZT) and **Precast Concrete Units** (CFTV) categories in the Fire Resistance Directory for names of manufacturers.

2. Through Penetrants — Nom 1 in. diam (or smaller) SDR 9 cross linked polyethylene (PEX) tubing for use in closed (process or supply) piping systems. A max of two through penetrants may be included in the opening. Of the two through penetrants, only one through penetrant shall have a nom diam greater than 3/4 in. (19 mm). The space between the through penetrants shall be nom 3/8 in. (10 mm). The annular space between the through penetrants and periphery of opening shall be min 1/2 in. (13 mm) to max 3/4 in. (19 mm). Through penetrants to be rigidly supported on both sides of floor or wall assembly.

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

A. Packing Material — Min 2 in. (51 mm) thickness of min 4 pcf (64 kg/m³) mineral wool batt insulation firmly packed into opening as a permanent form. Packing material to be recessed from top surface of floor or from both surfaces of wall or precast concrete unit floors as required to accommodate the required thickness of fill material.

B. Fill, Void or Cavity Material* — Sealant — Min 1 in. (25 mm) thickness of fill material applied within the annulus, flush with top surface of floor or flush with both surfaces of wall or precast concrete unit floor. Additional fill material to be installed such that a min 1/4 in. (6 mm) crown is formed around the through penetrants.

RECTORSEAL — FlameSafe FS 900+, FlameSafe FS1900, FlameSafe FS1901, FlameSafe FS1905, FlameSafe FS1929 Sealant, [Metacaulk MC 150+](#), [Metacaulk 1000](#), [Metacaulk 350i](#), Biostop BF [150+](#), Biostop 350i or Biostop 500+

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

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