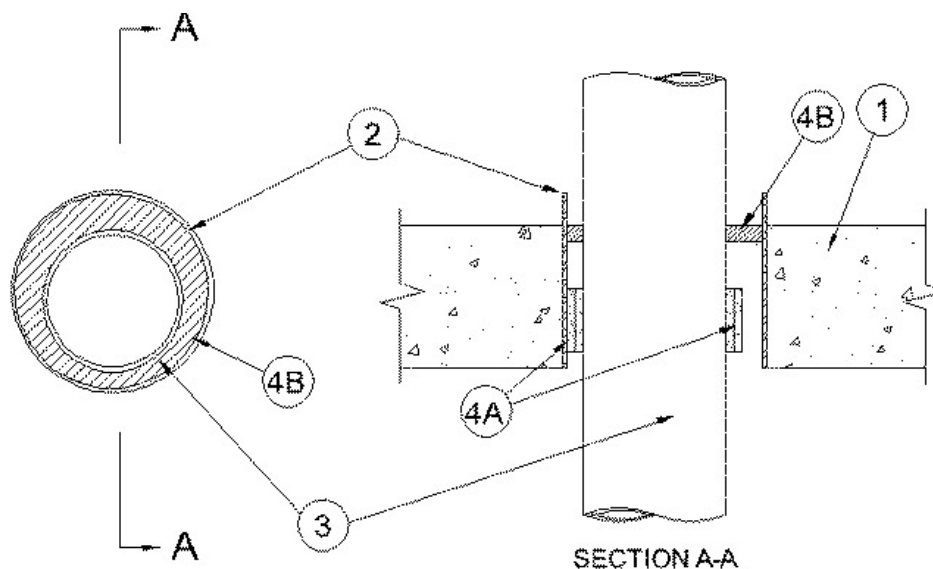


F Rating — 1 Hr
T Rating — 1/4 Hr



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/cu meter) concrete. Wall may also be constructed of any UL Classified **Concrete Blocks***. Max diam of opening is 6 in. (152 mm).

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

2. Steel Sleeve — (Optional) - Nom 6 in. (152 mm) diam cylindrical sleeve fabricated from 0.127 in. (3 mm) thick (No. 10 gauge) sheet steel cast or grouted into floor or wall assembly. Length of steel sleeve to be 1-1/2 in. (38 mm) or 3 in. (76 mm) more than the overall thickness of the floor or wall, respectively, such that the end of the sleeve projects 1-1/2 in. from top surface of the floor or each surface of wall. Steel sleeve required for concrete block construction.

3. Through Penetrant — Nom 4 in. (102 mm) diam (or smaller) Schedule 40 cellular core acrylonitrile butadiene styrene (ABS) pipe installed concentrically or eccentrically within the firestop system. Annular space between penetrant and edge of sleeve shall be min 1/2 in. (13 mm) to max 1 in. (25 mm). Pipe to be rigidly supported on both sides of floor or wall assembly.

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

A. Fill, Void or Cavity Materials* - Wrap Strip — Nom 1/4 in. thick intumescent material supplied in 2 in. wide strips. Min two layers of wrap strip individually wrapped tightly around the nonmetallic penetrant with ends butted and held in place with masking tape. Butted ends in successive layers shall be offset. The wrap strip shall be recessed max 1 in (25 mm) from the bottom surface of floor or with both surfaces of wall assembly.

RECTORSEAL — [Metacaulk Wrap Strip](#)

B. Fill, Void or Cavity Material* — Caulk — Min 1/2 in. (13 mm) thickness of fill material applied within the annulus, flush with top surface of floor or with both surfaces of wall assembly.

RECTORSEAL — 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.

Reprinted from the Online Certifications Directory with permission from UL. ©UL LLC