



### System No. C-AJ-2645

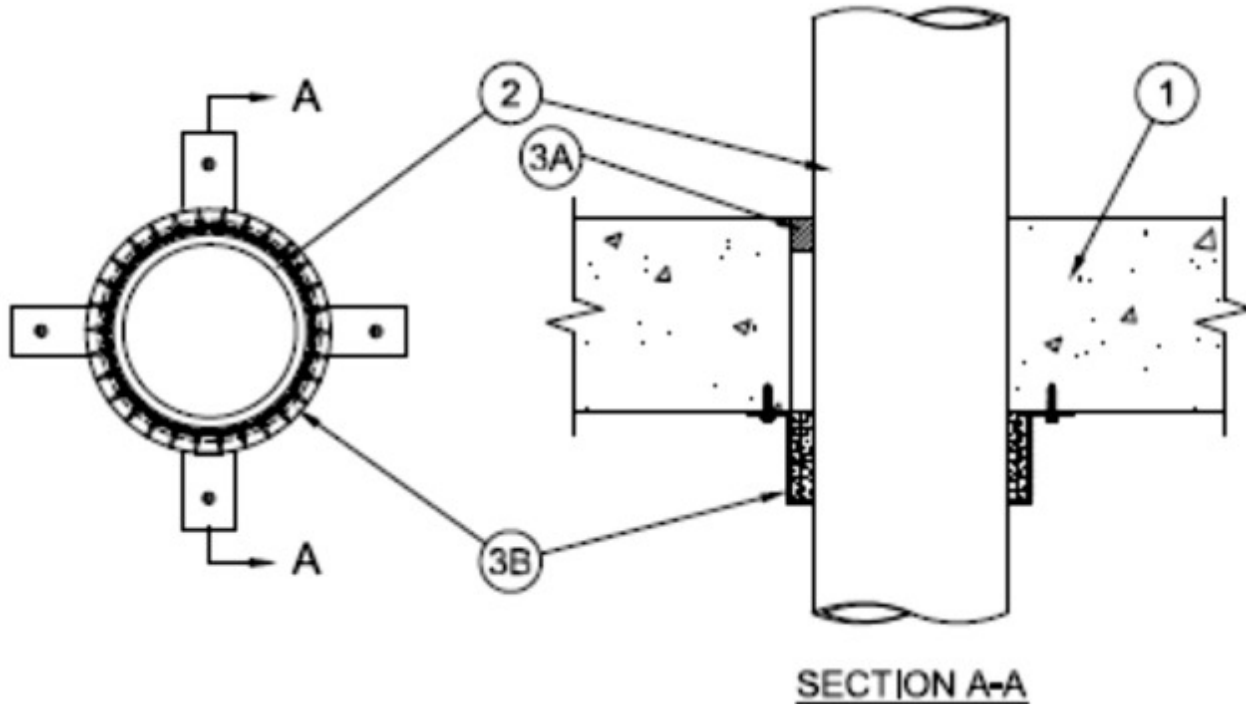
May 27, 2014

F Rating — 2 Hr

T Ratings—0 or 2 Hr( See Item 3)

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. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf 1600-2400 kg/m<sup>3</sup>) concrete. Wall may also be constructed of any UL Classified **Concrete Blocks**\*. Floor may also be constructed of any min 6 in. (152 mm) thick UL Classified hollow-core **Precast Concrete Units**\*. Max diam of opening is 5 in. (127 mm)

See **Concrete Block (CAZT)** and **Precast Concrete Units (CFTV)** categories in the Fire Resistance Directory for names or manufacturers.

2. **Through Penetrants** — Nom 4in. (102 mm) diam (or smaller). Schedule 40 solid core PVDF pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems. Pipe to be installed either concentrically or eccentrically within the firestop system. The annular space between the pipe and periphery of opening shall be min 0 in. (point contact) to max 1/2 in. (13 mm). Pipe to be rigidly supported on both sides of wall assembly.

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

A. **Fill, Void or Cavity Materials \* - Caulk** — (Optional) Min thickness of 1/2 in. (13 mm) of caulk applied within annulus, flush with both surfaces of wall assembly.

**RECTORSEAL** — Biostop 150+, 350i, 500+, 700, 750, FlameSafe FS3000, Metacaulk 1200, FS4000, FS1900, FS900

B. **Fill, Void or Cavity Material\* - Wrap Strip** — Layers of nom 1/4 in. (6 mm) thick by 2 in. (51 mm) wide intumescent wrap strip individually wrapped around the outer circumference of the pipe such that wrap strip is flush with both surfaces of wall or bottom surface of floor. Butted ends in successive layers shall be offset. Wrap strip secured with tape, wire or tie wire. Three

layers are to be used for nom 4 in. (102 mm) diam pipe two layers for nom 3 in. (76 mm) diam Pipe and one layer for nom 2 in. (51 mm) diam pipe

**RECTORSEAL** — Biostop Wrap Strip or FlameSafe Wrap Strip

**C. Steel Collar** — Collar fabricated from coils of precut min 0.016 in. thick (No. 28 gauge) galv steel available from fill material manufacturer. Collar shall be nom 2 in. (51 mm) deep with 1 in.(25 mm) wide by 1-1/2 in. (38 mm) long anchor tabs on 4 in. (102 mm) centers to secure to both surfaces of wall. In addition, collar contains retainer tabs, 1/2 in. (13 mm) wide by 3/4 in. (19 mm) long, located opposite the anchor tabs. Collar shall be wrapped over the wrap strip, overlapping min 1 in. The retainer tabs are folded 90 deg towards the pipe to maintain the annular space around the pipe and to retain the wrap strip. Collar secured to both surfaces of wall or bottom surface of floor at each anchor tab by means of 1/4 in. diam by 4 in. (6 by 102 mm) long steel anchors in conjunction with 1/4 in. by 5/8 in. (6 by 16 mm) diam washers.

**D. Firestop Device\*** — (As an alternate to Item 3B and 3C) Galv steel collar lined with an intumescent material sized to fit specific diam of the through penetrant. Device to be installed around through penetrant in accordance with accompanying installation instructions. Device incorporates anchor tabs for securement to both surfaces of the wall or bottom of floor by means of 1/4 in. diam by 4 in. (6 by 102 mm) long steel anchors.

**RECTORSEAL** — Biostop Pipe Collar or FlameSafe Pipe Collar

**T rating is 2 hr when Item 3A is used. Air leakage only applies when Item 3A is used.**

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

++Bearing the UL Listing Mark