

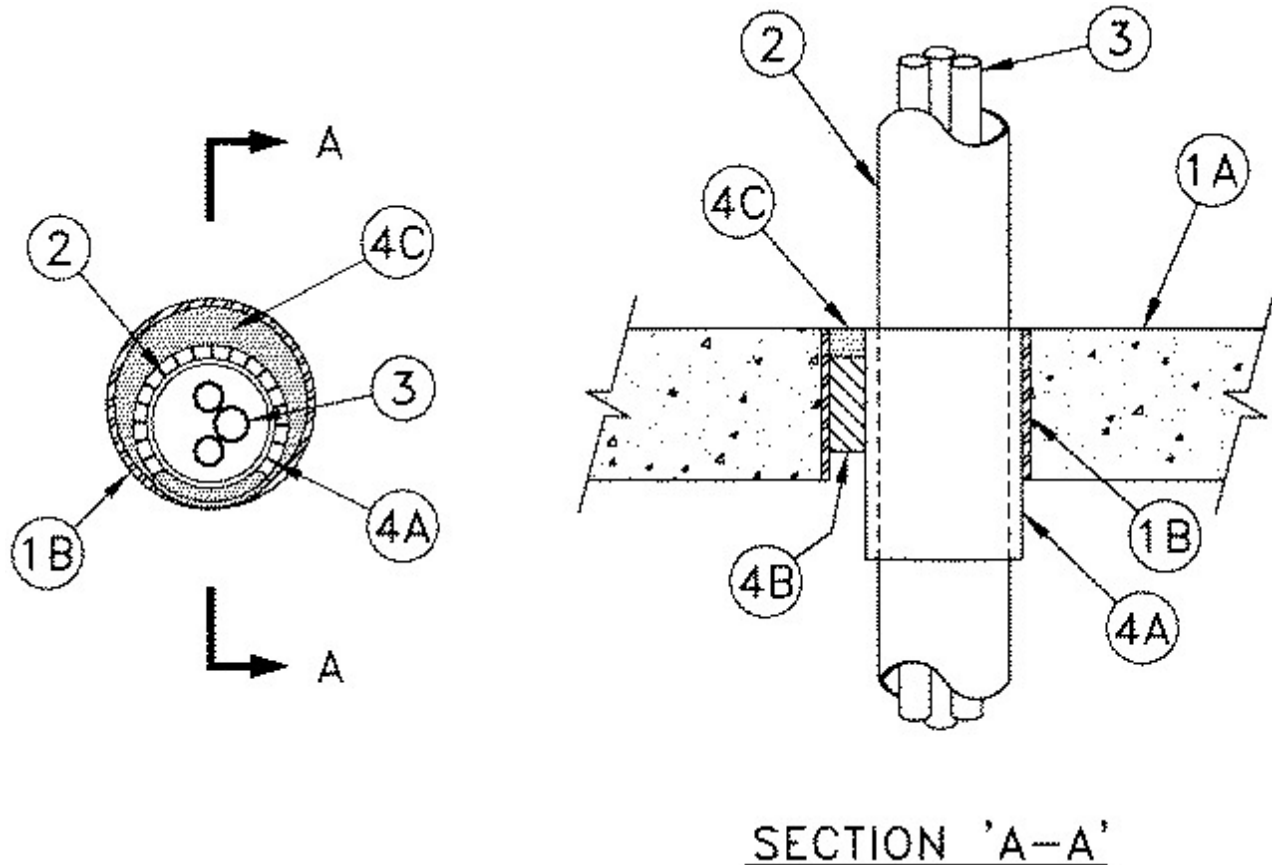


System No. C-AJ-2379

March 09, 2011

F Rating - 3 Hr

T Rating - 2 Hr



1A. **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 UL Classified hollow-core **Precast Concrete Units***. Wall may also be constructed of any UL Classified **Concrete Blocks***. Max diam of opening is 6-1/2 in. (165 mm).

See **Concrete Blocks (CAZT)** and **Precast Concrete Units (CFTV)** categories in Fire Resistance Directory for names of manufacturers.

1B. **Metallic Sleeve** — (Optional) - Nom 6 in. (152 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe cast or grouted into floor or wall, flush with floor or wall surfaces.

2. **Through Penetrant** — One nonmetallic pipe to be installed either concentrically or eccentrically within the firestop system. The annular space between pipe, and the periphery of the opening shall be minimum 1/2 in. (13 mm) to 1-3/8 in. (35 mm) maximum. Pipe to be rigidly supported on both sides of floor or wall assembly. The following types and sizes of nonmetallic pipes may be used:

Polyvinyl Chloride (PVC) Pipe — Nom 4 in. (102 mm) diam Schedule 40, cellular or solid core PVC pipe for use in closed (process or supply) piping systems.

3. **Nonmetallic Pipe** — A pipe bundle consisting of max two 1 in. (25 mm) diam and one 2 in. (51 mm) diam nonmetallic pipes to be installed concentrically within the PVC through penetrant. The following types and sizes of nonmetallic pipes may be used:

A. **Polyvinylidene Fluoride (PVDF) Pipe** — Nom 2 in. (51 mm) diam PVDF pipe for use in closed (process or supply) piping systems.

B. Polyvinylidene Fluoride (PVDF) Pipe — Nom 1 in. (25 mm) diam PVDF pipe for use in closed (process or supply) piping systems.

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

A. Firestop Device* — Galv steel sleeve lined with an intumescent material, sized to fit the specific diam of the through penetrant. Device to be wrapped around outer circumference of through penetrant and installed through the annular space of the opening. The device may be secured together by means of min 1/2 in. (13 mm) wide by 0.028 in. (0.71 mm) thick stainless steel hose clamps or min 1/8 in. (3.2 mm) diam by 1/2 in. long steel pop rivets spaced max 4 in. (102 mm) OC. In floors, the device shall be installed flush with the top surface and extend a min 2 in. (51 mm) below the bottom surface of the floor. In walls, the device shall extend equally beyond each surface of the wall.

RECTORSEAL — FlameSafe® Intumescent Sleeve, Metacaulk Intumescent Sleeve or Biostop Intumescent Sleeve

B. Packing Materials — Min 4 in. (102 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 as required to accommodate the required thickness of fill material. When the floor is constructed of hollow-core precast concrete units, packing material shall be recessed from both surfaces of floor to accommodate the required thickness of fill material.

C. Fill, Void, or Cavity Materials*- Sealant — 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. When the floor is constructed of hollow-core precast concrete units, fill material shall be installed symmetrically on both sides of floor, flush with both floor surfaces. A 1/4 in. (6 mm) diam bead of the sealant shall be applied along the point of contact of the device (Item 4A) with the periphery of the opening at top surface of floor or both surfaces of wall and hollow-core precast concrete units.

RECTORSEAL — FlameSafe® FS900+, MC150+ or BF-150+ Sealant

*Bearing the UL Classification Mark