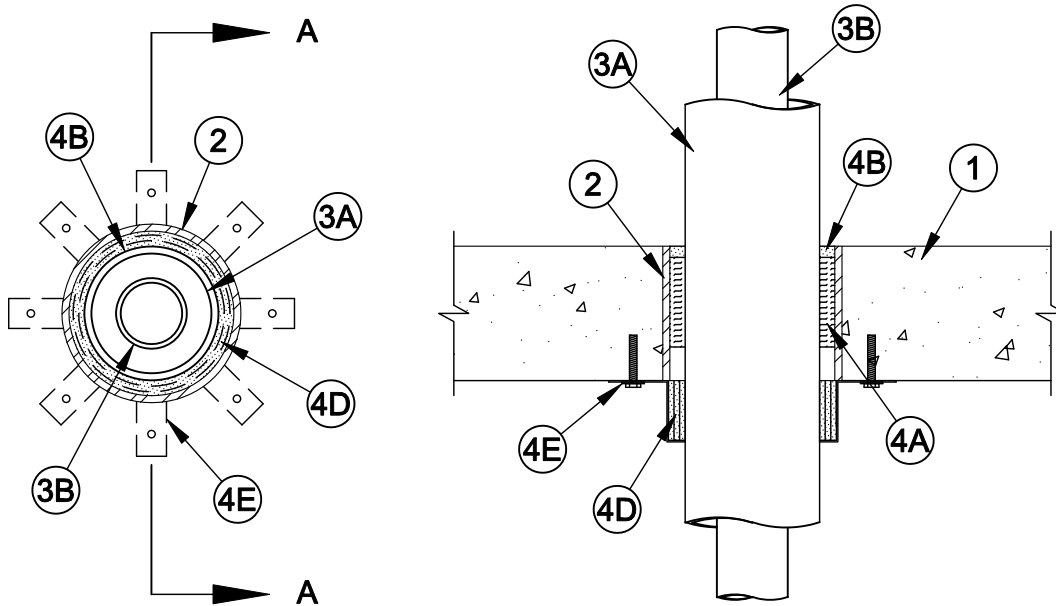




System No. C-AJ-2146

F Rating - 2 Hr
T Rating - 1-1/2 Hr



Section A-A

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 UL Classified hollow-core **Precast Concrete Units**. Wall may also be constructed of any UL Classified **Concrete Blocks***. Max diam of opening is 6 in. (152 mm).

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

2. **Metallic Sleeve** - (Optional) - Nom 6 in. (152 mm) diam (or smaller) Schedule 10 (or heavier) steel sleeve cast or grouted into floor or wall assembly, flush with floor or wall surfaces.
3. **Through Penetrants** - One nonmetallic pipe installed within another nonmetallic pipe centered within the firestop system. The annular space between the outer pipe and the metallic sleeve shall be nom 3/4 in. (19 mm). The inner pipe shall be centered within the outer pipe. Nonmetallic spacers shall be used to maintain the inner pipe within the center of the outer pipe at a distance no closer than 10 in. (254 mm) from the bottom of the floor or both surfaces of the wall surfaces. The nom diam of the inner pipe shall be one half the nom diam of the outer pipe. The outer pipe to be rigidly supported on both sides of floor or wall assembly. The nonmetallic pipe described in Item A shall be used for the outer pipe and the nonmetallic pipe described in Item B shall be used for the inner pipe.
 - A. **Polypropylene (PP) Pipe** - Nom 4 in. (102 mm) diam (or smaller) SDR 32 PP pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.
 - B. **Polypropylene (PP) Pipe** - Nom 2 in. (51 mm) diam (or smaller) SDR 11 PP pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.



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C-AJ-2146
PAGE 1 OF 2

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

- A. **Packing Material** - Min 3 in. (76 mm) thickness of min 4 pcf (64 kg/m³) mineral wool batt insulation firmly packed into opening. 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.
- B. **Fill, Void or Cavity Material*** - Sealant - Min 3/8 in. (10 mm) thickness of fill material applied within the annulus, flush with top surface of floor or with both surfaces of wall.

SPECIFIED TECHNOLOGIES INC - SpecSeal Series SSS Sealant or SpecSeal LCI Sealant

- C. **Aluminum Foil Tape** - (Not Shown) - Nom 3 mil (0.08 mm) thick pressure sensitive aluminum foil tape wrapped around the outer circumference of the outer nonmetallic pipe with a 1 in. (25 mm) wide overlap along its perimeter joint. Foil tape shall abut against the bottom surface of the concrete floor or both surfaces of the wall and extend min 3 in. (76 mm) below the bottom surface of the concrete floor or both surfaces of the wall.
- D. **Fill, Void or Cavity Material* - Wrap Strip** - Nom 1/8 or 3/16 in. (3.2 or 4.8 mm) thick intumescent material faced on both sides with a plastic film, supplied in 2 in. (51 mm) wide strips. Three layers of wrap strip are individually wrapped around the through-penetrant with the ends butted and held in place with masking tape. Butted ends in successive layers may be aligned or offset. The edge of the wrap strips shall abut the surface of the concrete floor or wall. In floor assemblies, the wrap strips are installed on the bottom side of the concrete floor. In wall assemblies, the wrap strips are installed on each side of the concrete wall.

SPECIFIED TECHNOLOGIES INC - SpecSeal BLU Wrap Strip or SpecSeal BLU2 Wrap Strip

- E. **Steel Collar** - Collar fabricated from coils of precut 0.016 in. (0.4 mm) thick (No. 30 MSG) galv sheet steel available from wrap strip manufacturer. Collar shall be nom 2 in. (51 mm) deep with 1 in. (25 mm) wide by 2 in. (51 mm) long anchor tabs for securement to the concrete floor or wall. Retainer tabs, 3/4 in. (19 mm) wide tapering down to 3/8 in. (10 mm) wide and located opposite the anchor tabs, are folded 90 degree toward through-penetrant surface to maintain the annular space around the through-penetrant and to retain the wrap strips. Steel collar wrapped around wrap strips and through penetrant with a 1 in. (25 mm) wide overlap along its perimeter joint. Steel collar tightened around wrap strips and through penetrant using min 1/2 in. (13 mm) wide by 0.028 in. (0.7 mm) thick stainless steel hose clamp installed at midheight of the collar. Collar secured to concrete surface with 1/4 in. (6 mm) diam by min 1-1/4 in. (32 mm) long steel concrete screws in conjunction with min 1 in. (25 mm) diam steel fender washers. Two fasteners symmetrically located, are required for nom 1-1/2 in. (38 mm) and 2 in. (51 mm) diam through penetrants. Three fasteners symmetrically located, are required for nom 2-1/2 in. (64 mm) and 3 in. (76 mm) diam through penetrants. Four fasteners symmetrically located, are required for nom 3-1/2 in. (89 mm) and 4 in. (102 mm) diam through penetrants. In floor assemblies, one collar is used on the bottom side of the concrete floor. In wall assemblies, a collar is used on each side of concrete wall.

*Bearing the UL Classification Mark



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C-AJ-2146
PAGE 2 OF 2