



## System No. C-AJ-2092

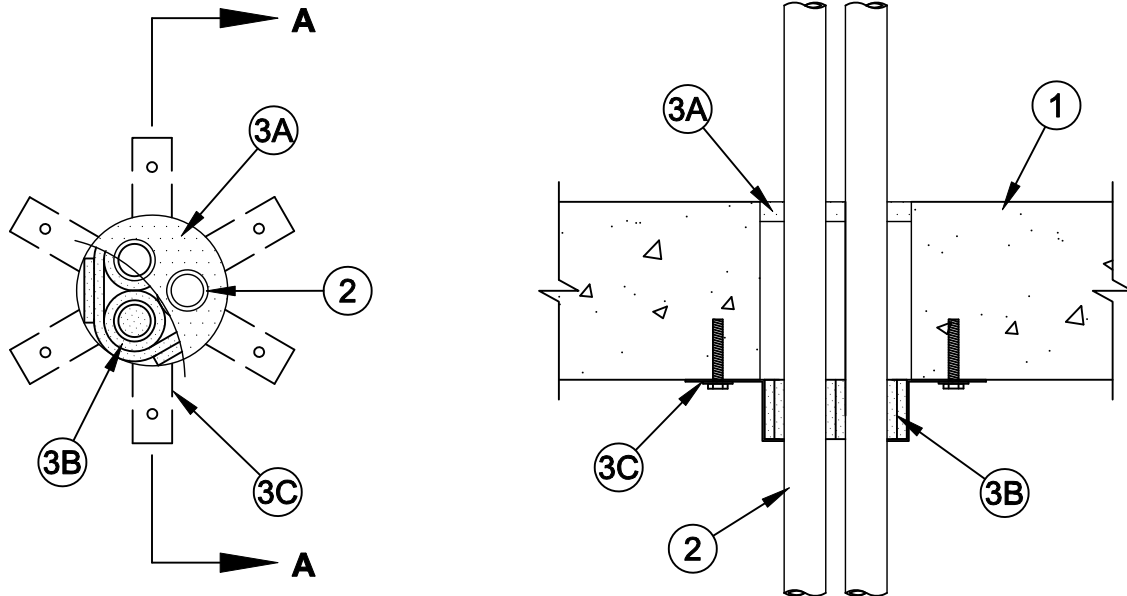
F Rating - 3 Hr

T Rating - 3 Hr

L Rating At Ambient - Less Than 1 CFM/sq ft

L Rating At 400 F - Less Than 1 CFM/sq ft

W Rating - Class 1 (See Item 3A)



**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/m<sup>3</sup>) concrete. Floor may also be constructed of any 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 3-1/2 in. (89 mm).

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

2. **Through Penetrants** - A max of three pipes or conduits to be installed within opening. The space between pipes or conduits shall be min 1/2 in. (13 mm) to max 3/4 in. (19 mm). The space between pipes or conduits and periphery of opening shall be min 1/2 in. (13 mm) to max 3/4 in. (19 mm). Pipe or conduit to be rigidly supported on both sides of the floor or wall assembly. The following types and sizes of nonmetallic pipes or conduits may be used:
  - A. **Polyvinyl Chloride (PVC) Pipe** - Nom 1 in. (25 mm) diam (or smaller) Schedule 40 PVC pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.
  - B. **Rigid Nonmetallic Conduit+** - Nom 1 in. (25 mm) diam (or smaller) Schedule 40 or 80 PVC conduit installed in accordance with Article 347 of the National Electrical Code (NFPA No. 70).
  - C. **Chlorinated Polyvinyl Chloride (CPVC) Pipe** - Nom 1 in. (25 mm) diam (or smaller) SDR 13.5 CPVC pipe for use in closed (process or supply) piping systems.
  - D. **Acrylonitrile Butadiene Styrene (ABS) Pipe** - Nom 1 in. (25 mm) diam (or smaller) Schedule 40 solid or cellular core ABS pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.



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E. **Fire Retardant Polypropylene (FRPP) Pipe** - Nom 1 in. (25 mm) diam (or smaller) Schedule 40 FRPP pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.

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

A. **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 and both surfaces of wall. After the installation of the wrap strip/steel collar assembly (Item Nos. 3B and 3C), additional caulk applied within the voids between the wrap strip/penetrant bundle and steel collar to max extent possible.

**SPECIFIED TECHNOLOGIES INC** - SpecSeal Series SSS Sealant, SpecSeal LCI Sealant, Pensil 300 Sealant or SpecSeal Series SIL300 Sealant for floors or walls and Pensil 300 S/L Sealant or SpecSeal Series SIL300SL Sealant for floors only.

**W Rating applies only when Pensil 300, SpecSeal Series SIL300, Pensil 300 S/L or SpecSeal Series SIL300SL Sealants are used.**

B. **Fill, Void or Cavity Material\* - Wrap Strip** - Nom 1/8 in. (3.2 mm) or 3/16 in. (4.8 mm) thick intumescent material faced on both sides with a plastic film and supplied in 2 in. (51 mm) wide strips or 1/4 in. (6 mm) thick intumescent material faced on both sides with a plastic film, supplied in 1-1/2 in. (38 mm) wide strips. Single layer of wrap strip shall be wrapped around each penetrant with butted ends and held in place with masking tape. A second layer of wrap strip shall be wrapped around the penetrant bundle and secured together by means of No. 18 AWG steel tie wire. After installation of the steel collar (Item 3C), additional pieces of wrap strip are installed within the annular space between the wrap strip/penetrant assembly and the steel collar. The upper edge of the wrap strips shall abut the bottom surface of the concrete floor. 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, SpecSeal BLU2 Wrap Strip or SpecSeal RED Wrap Strip

C. **Steel Collar** - Collar fabricated from coils of precut 0.016 in. (0.4 mm) thick galv sheet steel available from wrap strip manufacturer. Collar shall be 1-1/2 in. (38 mm) or 2 in. (51 mm) deep with min four 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 1/4 in. (6 mm) wide and located opposite the anchor tabs, are folded 90 degree toward pipe surface to maintain the annular space around the pipe and to retain the wrap strips. Steel collar wrapped around wrap strips and pipe with a 1 in. wide overlap along its perimeter joint and secured together by means of three No. 8 by 3/8 in. (10 mm) long steel screws. As an alternate to the steel screws, the steel collar can be secured together by means of a 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 1-3/4 in. (45 mm) long concrete wedge anchors in conjunction with min 1/4 in. (6 mm) by 1-1/4 in. (32 mm) diam steel fender washers. 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 the concrete wall.

+Bearing the UL Listing Mark

\*Bearing the UL Classification Marking



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