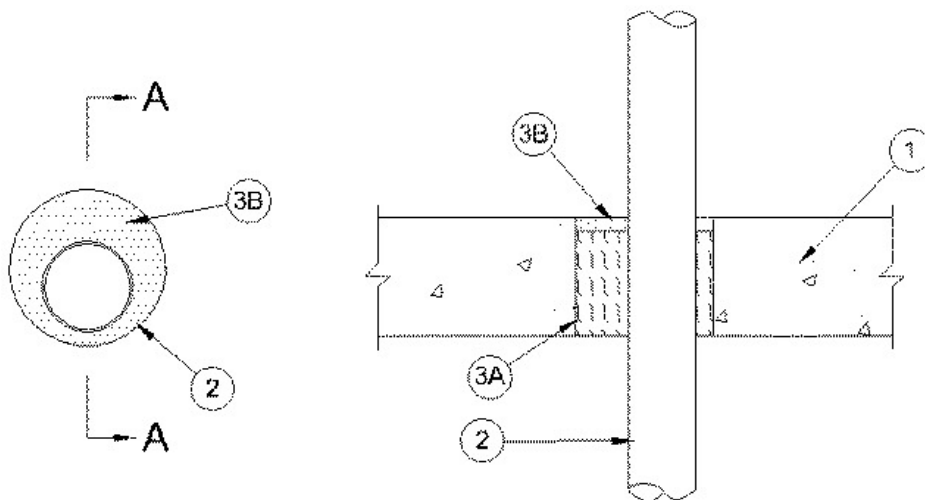


F Ratings — 1-1/2 Hr or 2 Hr (See Item 2)  
T Rating — 0 Hr



SECTION A-A

1. **Floor or Wall Assembly** — Min 4-1/2 in. (114 mm) reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m<sup>3</sup>) concrete floor or min 5 in. (127 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m<sup>3</sup>) concrete wall. Wall may also be constructed of any UL Classified **Concrete Blocks**\*. Max diam of opening is 4 in. (102 mm).

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

2. **Through Penetrants** — One nonmetallic pipe to be installed concentrically or eccentrically within the firestop system. The annular space shall be min 1/2 in. (13 mm) to max 1-5/8 in. (41 mm). Pipe to be rigidly supported on both sides of floor or wall assembly. The following types and sizes of nonmetallic pipes may be used:

A. **Acrylonitrile Butadiene Styrene (ABS) Pipe** — Nom 1-1/2 in. (38 mm) diam (or smaller) Schedule 40 cellular or solid core ABS pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems. When ABS pipe is used, F Rating is 1-1/2 hr.

B. **Polyvinyl Chloride (PVC) Pipe** — Nom 1-1/2 in. (38 mm) diam (or smaller) Schedule 40 solid core PVC pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems. When solid core PVC pipe is used, F Rating is 2 hr.

C. **Chlorinated Polyvinyl Chloride (CPVC) Pipe** — Nom 1-1/2 in. (38 mm) diam (or smaller) SDR 13.5 CPVC pipe for use in closed (process or supply) piping systems. When CPVC pipe is used, F Rating is 2 hr.

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

A. **Packing Material** — Min 4 in. (102 mm) thickness of min 4 pcf (64 kg/m<sup>3</sup>) 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 to accommodate the required thickness of fill material.

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

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

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