

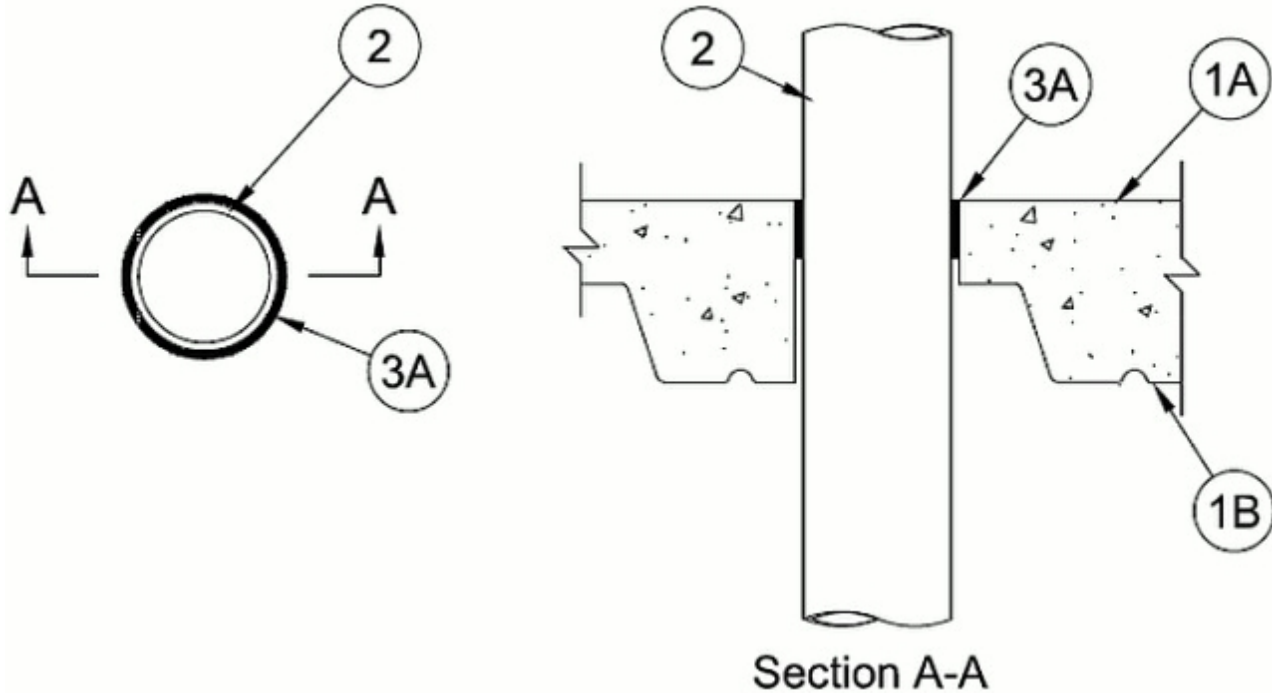


System No. F-A-2227

October 29, 2013

F Rating — 2 Hr

T Rating — 3/4 Hr



1. **Floor Assembly** — The fire-rated unprotected concrete and steel floor assembly shall be constructed of the materials and in the manner specified in the individual D900 Series designs in the UL Fire Resistance Directory and as summarized below:

A. **Normal Weight Concrete** — Min 2-1/2 in. (64 mm) thickness of lightweight or normal weight (100-150 pcf or 1600-2400 kg/m³) concrete topping as measured over the crests of the steel floor units.

B. **Steel Floor and Form Units*** — Composite or noncomposite 3 in. (76 mm) deep fluted galv units as specified in the individual Floor-Ceiling design. For nom pipe diam of 1 in. (25 mm) or less, the diam of opening core-drilled through floor assembly to be 2 in. (51 mm) greater than nom pipe diam. For nom pipe diam exceeding 1 in. (25 mm), the diam of opening core-drilled through floor assembly to be 1-1/2 in. (38 mm) greater than nom pipe diam.

2. **Through Penetrants** — One nonmetallic pipe to be installed either concentrically or eccentrically within the firestop system. The annular space between pipe and periphery of opening shall be min 1/4 in. (6 mm) to max 3/4 in. (19 mm) or 1-1/2 in. (38 mm) for max pipe diam of nom 2 in. or 1 in. (51 or 25 mm) respectively. Pipe to be rigidly supported on both sides of floor assembly. The following types and sizes of nonmetallic pipes may be used:

A. **Polypropylene (PP) Pipe** — Nom 2 in. (51 mm) diam (or smaller) Aquatherm Greenpipe SDR 7.4 with Faser PP pipe for use in closed (process or supply) piping systems.

B. **Polypropylene (PP) Pipe** — Nom 2 in. (51 mm) diam (or smaller) Aquatherm Greenpipe SDR 11 PP pipe for use in closed (process or supply) piping systems.

C. **Polypropylene (PP) Pipe** — Nom 2 in. (51 mm) diam (or smaller) Aquatherm Bluepipe or Climatherm SDR 11 with Faser PP pipe for use in closed (process or supply) piping systems.

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

A. Fill, Void or Cavity Materials * - Caulk — Min 2 in. (51 mm) thickness of caulk applied within annulus, flush with top surface of floor.

RECTORSEAL — Metacaulk 1000, Metacaulk 350i, Biostop 350i, Biostop 500+

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