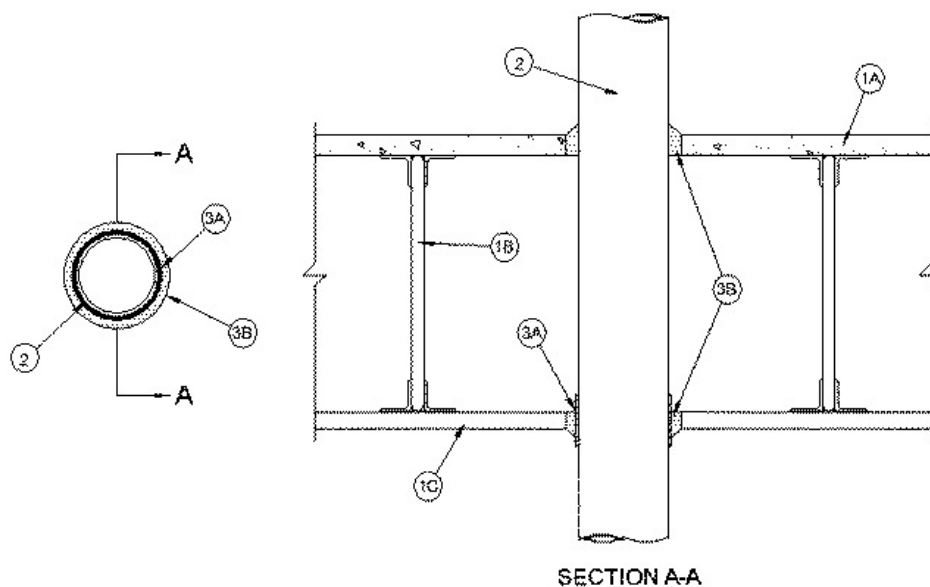


F Rating — 1 Hr
T Rating — 0 Hr
L Rating at Ambient - Less than 1 CFM/sq ft
L Rating at 400° F - Less than 1 CFM/sq ft



1. Floor-Ceiling Assembly — The 1 hr fire-rated concrete and steel joist Floor-Ceiling assembly shall be constructed of the materials and in the manner described in the individual G500 Series Design in the UL Fire Resistance Directory, as summarized below:

A. **Concrete Floor** — Normal weight or lightweight (100-150 pcf or 1600-2400 kg/m³) concrete over metal lath or steel deck as specified in the individual G500 Series Design. Max diam of floor opening is 3 in. (76 mm).

B. **Joists** — Steel joists or **Structural Steel Members*** as specified in the individual G500 Series Design.

C. **Gypsum Board*** — Min 5/8 in. (16 mm) thick, screw-attached to furring channels as specified in the individual G500 Series Design. Max diam of ceiling is 3 in. (76 mm).

2. Through Penetrants — One nonmetallic pipe or conduit to be centered within the firestop system. The annular space between pipe or conduit and periphery of the opening to be a nom 5/16 in. (8 mm). Pipe or conduit to be rigidly supported on both sides of floor-ceiling assembly. The following types and sizes of nonmetallic pipes or conduits may be used:

A. **Polyvinyl Chloride (PVC) Pipe** — Nom 2 in. (51 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.

B. **Rigid Nonmetallic Conduit+** — Nom 2 in. (51 mm) diam (or smaller) Schedule 40 solid core PVC conduit installed in accordance with the National Electrical Code (NFPA No. 70).

C. **Chlorinated Polyvinyl Chloride (CPVC) Pipe** — Nom 2 in. (51 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 2 in. (51 mm) diam (or smaller) Schedule 40 solid core ABS pipe for use in closed (process or supply) or vented (drain, waste or vent) piping system.

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

A. **Fill, Void or Cavity Material* — Wrap Strip** — Nom 1/4 in. (6 mm) thick intumescent material faced on both sides with a plastic film, supplied in 1 in. (25 mm) wide strips. One layer of wrap strip is wrapped around the through-penetrant at its egress from bottom surface of the ceiling with ends butted and held in place with masking tape. The bottom edge of the wrap strip shall extend 1/4 in. (6 mm) below the ceiling.

RECTORSEAL — FlameSafe Wrap Strip, [Metacaulk Wrap Strip](#), Biostop Wrap Strip

B. **Fill, Void or Cavity Material* — Sealant** — Min 3/4 in. (19 mm) thickness of fill material applied within annulus on top surface of floor. Min 5/8 in. (16 mm) thickness of fill material applied within annulus on bottom surface of ceiling. Additional fill material to be installed such that a min 3/8 in. (10 mm) crown is formed around the penetrating item on top surface of floor

and bottom surface of ceiling.

RECTORSEAL — FS1900 Sealant, [Metacaulk 1000](#), [Metacaulk 350i](#), Biostop 500+, Biostop 350i

*,+ 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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