

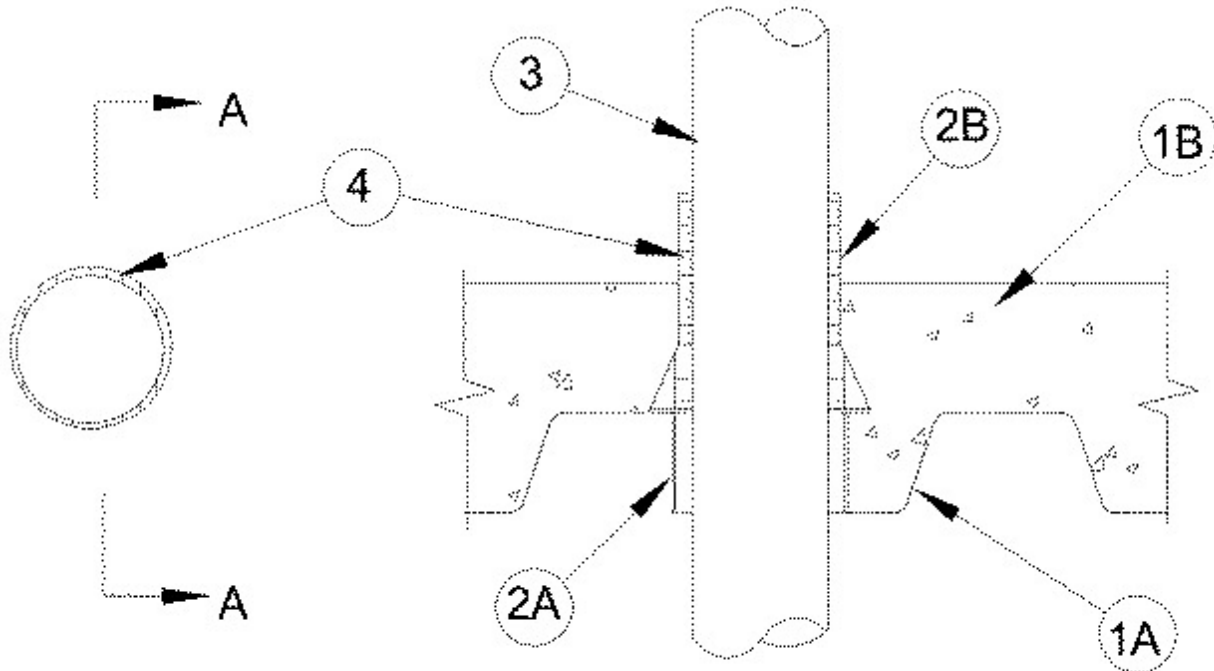
System No. F-A-1076

November 28, 2007

F Rating - 2 Hr

T Ratings - 1/4 and 1/2 Hr (See Item 3)

W Rating - Class 1 (See Item 5)



Section A-A

1. **Floor Assembly** — The fire-rated unprotected concrete and steel deck 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. **Concrete** — Min 2-1/2 in. (64 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m³) concrete.

B. **Steel Floor and Form Units*** — Composite or noncomposite max 3 in. (76 mm) deep fluted galv units as specified in the individual Floor-Ceiling design.

2. **Firestop Devices*** — The firestop devices are cast in place and permanently embedded during concrete placement in accordance with accompanying installation instructions.

A. **Metal Deck Adapter Kit** — Nom 2-1/2 in. (64 mm) or 4 in. (102 mm) adapter kit installed through opening in deck and secured to deck with four steel sheet metal screws in accordance with installation instructions. Adapter kit consists of a cardboard concrete form of the same size as the firestop device (Item 2B).

B. **Firestop Device*** — Nom 2-1/2 in. (64 mm) or 4 in. (102 mm) device, snapped into top of metal deck adapter in accordance with accompanying installation instructions. The device shall extend min 2 in (51 mm) up to a max of 5-1/2 in. (140 mm) above top surface of floor.

RECTORSEAL — Biostop Cast -in- Place Firestop Device

3. Through Penetrants — One metallic pipe, tubing or conduit installed within the firestop system. Penetrant to be rigidly supported on both sides of floor assembly. The penetrant size shall be max 2-1/2 in. (64 mm) for the nom 2-1/2 in. (64 mm) device. The penetrant size shall be max 4 in. (102 mm) for the nom 4 in. (102 mm) device. A min 1/2 in. (13 mm) annular space shall be maintained between the penetrant and the device. The following types of metallic penetrants may be used:

- A. **Steel Pipe** — Schedule 5 (or heavier) steel pipe.
- B. **Iron Pipe** — Cast or ductile iron pipe.
- C. **Conduit** — Steel conduit or steel electrical metallic tubing.
- D. **Copper Tubing** — Type L (or heavier) copper tubing.
- E. **Copper Pipe** — Regular (or heavier) copper pipe.

The T Rating is 1/2 Hr for penetrants A, B or C. The T Rating is 1/4 Hr for Penetrants D and E.

4. Packing Material — Optional - Min 3-1/2 in. (89 mm) thickness of min 4 pcf (64 kg/m³) mineral wool batt insulation firmly packed into the annular space between the penetrant and device as a permanent form. The packing material is to be recessed 1-1/2 in. (38 mm) below the top surface of the floor and extend upward 2 in. (51 mm) above the top surface of the floor. When optional caulk (Item 5) is used, packing material to be recessed from top of device to accommodate the required thickness of caulk.

5. Fill, Void or Cavity Material* — Caulk — (Optional, Not Shown) - Min 1/4 in. (6 mm) thickness for 2-1/2 in. (64 mm) and 4 in. (102 mm) CIP device and min 3/8 in. (10 mm) thickness for 6 in. (102 mm) CIP device. Caulk applied within device, flush with top surface of device.

RECTORSEAL — Biotherm 100, Biotherm 200SL or Biostop 750 with 2-1/2 in. (64 mm) CIP device only.

W Rating only applies when the optional caulk is used.

*Bearing the UL Classification Mark