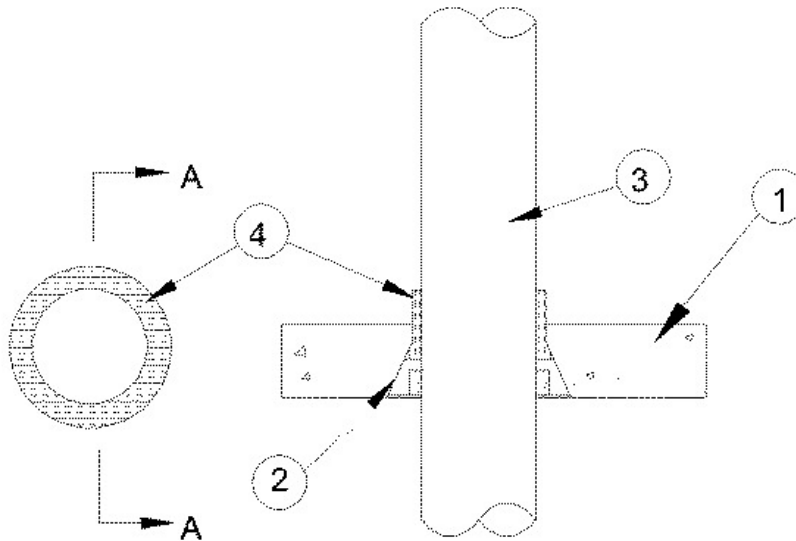


**F Rating - 2 Hr**  
**T Ratings - 1/4 and 1/2 Hr (See Item 3)**  
**W Rating - Class 1 (See Item 5)**



## Section A-A

**1. Floor Assembly** — Min 2-1/2 in. (64 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m<sup>3</sup>) concrete.

**2. Firestop Devices\*** — Cast in place firestop device permanently embedded during concrete placement 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. The devices are provided in two sizes, nom 2-1/2 in. (64 mm) and nom 4 in. (102 mm) sizes.

**RECTORSEAL** — Biostop or [Rectorseal 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** — **For Penetrants smaller than nominal device size** — Min 3-1/2 in. (89 mm) thickness of min 4 pcf (64 kg/m<sup>3</sup>) 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. (152 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.



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**W Rating only applies when the optional caulk is used.**

\*,+ 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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