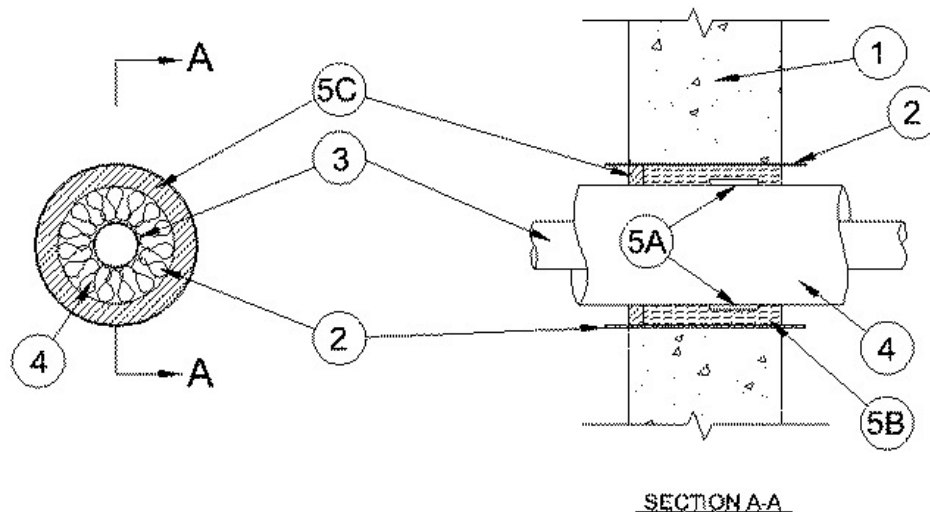


F Rating — 2 Hr
T Rating — 1/2 Hr



1. **Wall Assembly** — Min 3-3/4 in. (95 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600 - 2400 kg/m³) concrete wall. Wall may also be constructed of any UL Classified **Concrete Blocks***. Max diam of opening is 6 in. (152 mm). See **Concrete Blocks** (CAZT) category in the Fire Resistance Directory for names of manufacturers.
2. **Steel Sleeve** — (Optional) - Cylindrical sleeve fabricated from min 0.019 in. (0.49 mm) thick (28 gauge) galv sheet steel and having a min 1 in. (25 mm) lap along the longitudinal seam. Steel sleeve to be 2 in. (51 mm) longer than the thickness of wall such that, when installed, the ends of the sleeve will project 1 in. (25 mm) beyond each surface of the wall. Sleeve installed by coiling the sheet steel to a diam smaller than the opening, inserting the coil through the opening and releasing the coil. Steel sleeve required for concrete block construction.
3. **Through Penetrants** — One metallic pipe, tubing or conduit installed within the firestop system. Penetrant to be rigidly supported on both sides of wall assembly. The following types of metallic pipes or conduits may be used:
 - A. **Steel Pipe** — Nom 2 in. (102 mm) schedule 5 (or heavier) steel pipe.
 - B. **Iron Pipe** — Nom 2 in. (102 mm) cast or ductile iron pipe.
 - C. **Copper Tubing** — Nom 2 in. (102 mm) Type L (or heavier) copper tubing.
 - D. **Copper Pipe** — Nom 2 in. (102 mm) Regular (or heavier) copper pipe.
4. **Pipe Covering*** — Nom 1-1/2 in. thick hollow cylindrical heavy density (min 3.5 pcf) glass fiber units jacketed on the outside with an all service jacket. Longitudinal joints sealed with metal fasteners or factory-applied self-sealing lap tape. Transverse joints secured with metal fasteners or with butt tape supplied with the product. A nom annular space of min 1/4 in. to max 3/4 in. (7 to 19 mm) is required within the firestop system.
See **Pipe and Equipment Covering - Materials** (BRGU) category in the Building Materials Directory for names of manufacturers. Any pipe covering material meeting the above specifications and bearing the UL Classification Marking with a Flame Spread Index of 25 or less and a Smoke Developed Index of 50 or less may be used.
5. **Firestop System** — The firestop system shall consist of the following:
 - A. **Fill, Void or Cavity Materials* - Wrap Strip** — Nom 1/4 in. thick intumescent material supplied in 1 in. wide strips. Min 1 layer of wrap strip wrapped tightly around the pipe covering material, held in position with tape and recessed 1/2 in (13 mm) from one side of the wall.
RECTORSEAL — [Metacaulk Wrap Strip](#)
 - B. **Packing Material** — Min 4 pcf mineral wool batt insulation tightly packed into the sleeve flush with the surface of the wall with the wrap strip and recessed 5/8 in. (16 mm) from the surface of the wall opposite the wrap strip to accommodate the required thickness of fill material.
 - C. **Fill, Void or Cavity Material* — Caulk** — Min 5/8 in. (16 mm) thickness of caulk applied within annulus, flush with the surface of wall opposite the wrap strip.
RECTORSEAL — 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.

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