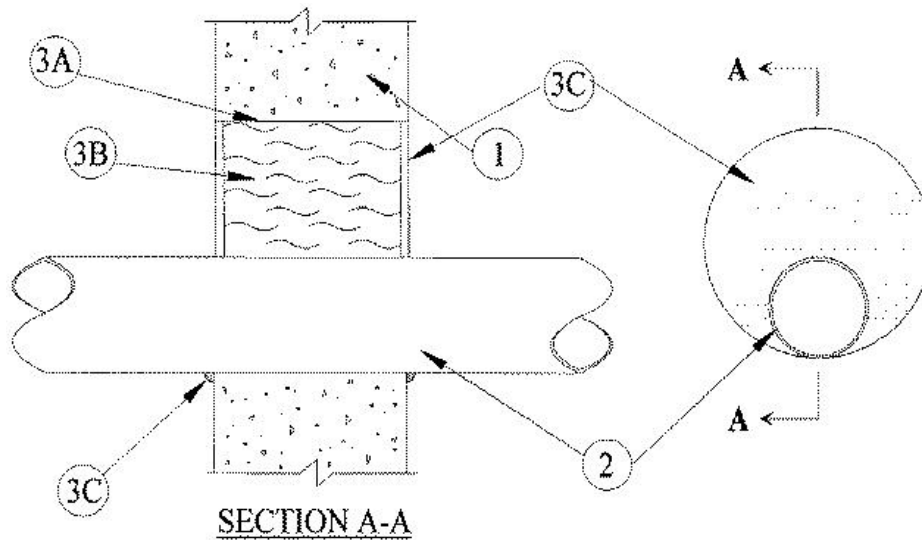


F Rating — 2 Hr  
 T Ratings — 0 and 1/4 Hr (See Item 2)



**1. Wall Assembly** — Min 5 in. thick reinforced lightweight or normal weight (100-150 pcf) concrete. Wall may also be constructed of any UL Classified Concrete Blocks\*. Diam of circular through opening to be min 3/8 in. to max 2-3/4 in. larger than diam of through penetrants (Item 2).  
 See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.

**2. Through-Penetrants** — One metallic pipe or tubing to be installed either concentrically or eccentrically within the firestop system. Pipe tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes or tubing may be used:

**A. Steel Pipe** — 1-7/8 in. diam (or smaller) by 0.125 (or heavier) steel pipe. The annular space shall be 0 to max 2-3/4 in. The T rating is 1/4 hr when steel pipe is used.

**B. Copper Tubing** — Nom 4 in. diam (or smaller) Type L (or heavier) copper tubing. The annular space shall be min 0 to max 3 in. The T rating is 0 hr when copper tubing is used.

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

**A. Steel Wire Mesh** — No. 8 steel wire mesh having a min 1 in. lap along the longitudinal seam. Length of steel wire mesh to be 4-3/4 in., centered and formed to fit periphery of through opening.

**B. Packing Material** — Min 4-1/2 in. thickness of flexible urethane sheet firmly packed into opening as a permanent form. Packing material to be recessed from both surfaces of wall as required to accommodate the required thickness of fill material.

**C. Fill, Void or Cavity Material\* — Caulk** — Min 1/4 in. thickness of fill material applied within the annulus, flush with both surfaces of wall. At the point contact location between pipe and wall, a min 1/2 in. diam bead of caulk shall be applied to the wall/pipe interface on both surfaces of wall assembly.

**RECTORSEAL** — [MC-150 Caulk](#)

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

Reprinted from the Online Certifications Directory with permission from UL. ©UL LLC