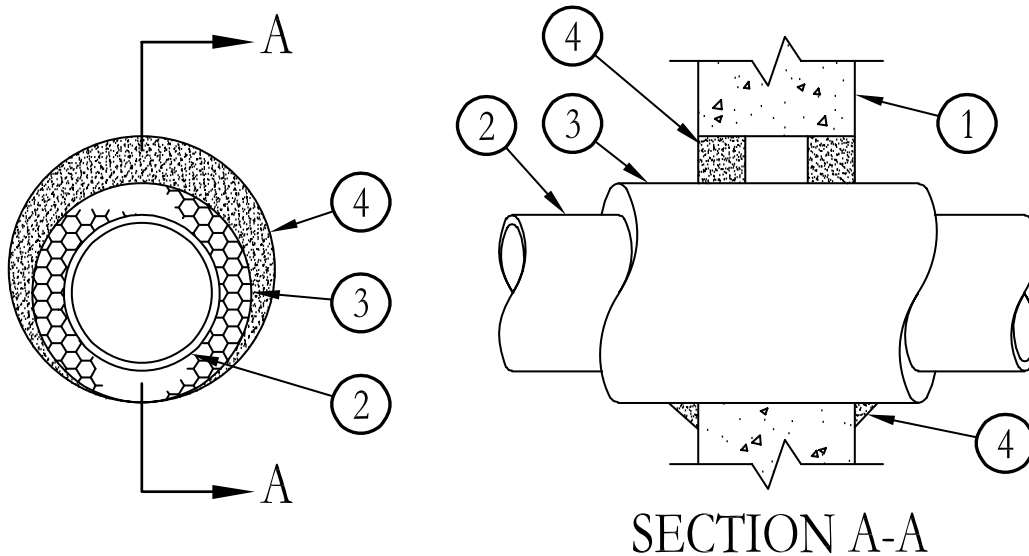


System No. W-J-5014

May 19, 2005

F Ratings – 1 and 2 Hr (See Item 4)

T Rating – 3/4 Hr



1. **Wall Assembly** – Min 4-1/2 in. (114 mm) thick lightweight or normal weight (100-150 pcf or 1600-2400 kg/m³) concrete. Wall may also be constructed of any UL Classified **Concrete Blocks***. Max diam of opening is 7 in. (178 mm).

See **Concrete Blocks** (CAZT) category in the Fire Resistance Directory for names of manufacturers.

2. **Through Penetrants** – One metallic pipe or tubing installed either concentrically or eccentrically within the firestop system. Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:
 - A. **Steel Pipe** – Nom 4 in. (102 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
 - B. **Copper Tubing** – Nom 4 in. (102 mm) diam (or smaller) Type L (or heavier) copper tubing.
 - C. **Copper Pipe** – Nom 4 in. (102 mm) diam (or smaller) Regular (or heavier) copper pipe.
3. **Pipe Insulation – Plastics#** – Nom 3/4 in. (19 mm) thick acrylonitrile butadiene/polyvinyl chloride (AB/PVC) flexible foam furnished in the form of tubing. The annular space between the insulated pipe and the edge of the through opening shall be min 0 in. (point contact) to max 1-1/4 in. (0 mm to 32 mm).
See **Plastics#** (QMFZ2) category in the Recognized Component Directory for names of manufacturers. Any Recognized Component tube insulation material meeting the above specifications and having a UL94 Flammability Classification of 94-5VA may be used.
4. **Fill, Void or Cavity Materials* – Caulk or Sealant** – Min thickness of 5/8 in. and 1-1/4 in. (16 mm and 32 mm) of caulk or putty for 1 and 2 hr rated wall assemblies, respectively, applied within annulus between pipe covering and periphery of the opening, flush with both surfaces of wall assembly. A min 1/2 in. (13 mm) diam bead of caulk shall be applied to the pipe covering/wall interface at the point contact location on both sides of wall.

3M COMPANY – IC 15WB+, CP 25WB+ caulk or FB-3000 WT sealant

5. **Packing Material** (Optional, not shown) – Mineral wool or fiberglass insulation or polyethylene backer rod 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 caulk fill material.

*Bearing the UL Classification Marking

This material was extracted and drawn by 3M Fire Protection Products from the 2007 edition of the UL Fire Resistance Directory. 