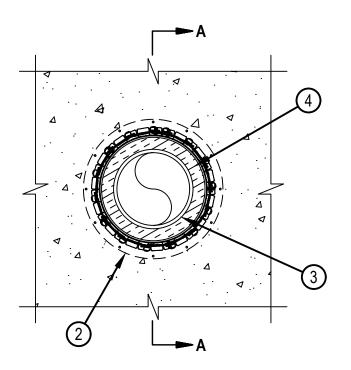
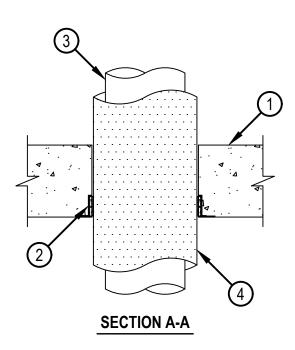


## System No. F-A-5077



F Rating — 2 Hr
FT Ratings — 1 and 1-3/4 Hr (See Item 3)
FH Rating —0 and 2 Hr (See Item 4)
FTH Ratings — 0 and 1-3/4 Hr (See Item 4)





- 1. Floor or Wall Assembly Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) concrete floor.
- 2. Firestop Device\* Cast in place firestop device permanently embedded during the concrete pour or grouted into the concrete assembly in accordance with the accompanying installation instructions. Device to be sized for nom diam of through penetrant except as noted below. HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC CFS-CID M 8", CFS-CID M 10"
- 3. Through Penetrants One metallic pipe to be installed within the firestop system. Pipe to be rigidly supported on both sides of the floor assembly. The following types and sizes of the metallic pipes may be used:
  - A. Copper Tubing Nom 6 in. (152 mm) diam (or smaller) Type L (or heavier) copper tubing.
  - B. Copper Pipe Nom 6 in. (152 mm) diam (or smaller) Regular (or heavier) copper pipe.
  - C. Steel Pipe Nom 8 in. (203 mm) diam (or smaller) Schedule 40 (or heavier) steel pipe.
  - D. Iron Pipe Nom 8 in. (203 mm) diam (or smaller) cast or ductile iron pipe.

The metallic penetrant and pipe covering shall be sized as follows:



Nom Pipe Diam In.	Pipe Type (Item 3)	Device Type and Size	Nom Pipe Covering Thickness In. (mm)	FT Ratings, Hr
6 (152 mm)	All	CFS-CID M 10"	2 (51 mm)	1
4 (102 mm)	All	CFS-CID M 8"	2 (51 mm)	1
8 (203 mm)	Steel, Iron	CFS-CID M 10"	1 (25 mm)	1-3/4
6 (152 mm)	Steel, Iron	CFS-CID M 8"	1 (25 mm)	1-3/4

- 4. Pipe Covering\* Nom 1 or 2 in. (25 or 51 mm) thick hollow cylindrical heavy density (min 3.5 pcf) glass fiber units jacketed on the outside with an all service jacket. See Table above. Longitudinal joints sealed with metal fasteners or factory-applied self-sealing lap tape. Transverse joints secured with metal fasteners or with butt strip tape supplied with the product.
  - When 2 in. (51 mm) thick pipe covering is used, FH and FTH Rating is 0 hr.
  - See Pipe and Equipment Covering Materials\* (BRGU) category in 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.
- 4A. Pipe Covering Materials\* As an alternate to the pipe covering (Item 4), nom 1 or 2 in. (25 or 51 mm) thick unfaced mineral fiber pipe insulation sized to the outside diam of pipe or tube. Pipe insulation secured with nom 16 AWG steel wire spaced max 12 in. (305 mm) OC. INDUSTRIAL INSULATION GROUP L L C High Temperature Pipe Insulation 1200, High Temperature Pipe Insulation BWT or High Temperature Pipe Insulation Thermaloc
- \* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

