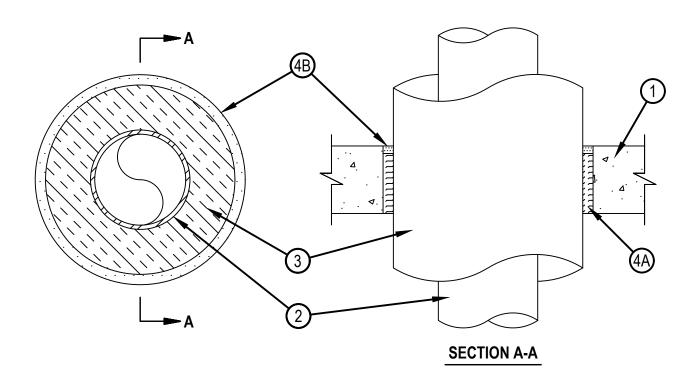


System No. C-AJ-5184

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Rating — 3 Hr	F Rating — 3 Hr
T Ratings — 1-3/4 and 2 Hr (See Item 2)	FT Ratings — 1-3/4 and 2 Hr (See Item 2)
	FH Rating — 3 Hr
	FTH Ratings — 1-3/4 and 2 Hr (See Item 2)



- 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 or 5 in. (127 mm) thick reinforced lightweight or normal weight concrete wall. Wall may also be constructed of any UL Classified Concrete Blocks*. Max diam of opening is 32 in. (813 mm).
 - 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 concentrically or eccentrically within the firestop system. Pipe or tubing to be rigidly supported on both sides of the wall assembly. The following types and sizes of metallic pipes or tubing may be used:
 - A. Steel Pipe Nom 24 in. (610 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
 - B. Copper Tubing Nom 6 in. (152 mm) diam (or smaller) Type L (or heavier) copper tubing.
 - C. Copper Pipe Nom 6 in. (152 mm) diam (or smaller) Regular (or heavier) copper pipe.

 When Through Penetrant A is used, the T, FT and FTH Rating is 2 hr. When Through Penetrant B or C is used, the T, FT and FTH Rating is 1-3/4 hr.



System No. C-AJ-5184

- 3. Pipe Covering Materials* Nom 3 in. (76 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. The annular space between the insulated through penetrant and periphery of opening shall be min 1/2 in. (13 mm) to max 1-1/2 in. (38 mm).
- INDUSTRIAL INSULATION GROUP L L C High Temperature Pipe Insulation 1200, High Temperature Pipe Insulation BWT or High Temperature Pipe Insulation Thermaloc
- 4. Firestop System The firestop system shall consist of the following:
 - A. Packing Material Min 4 in. (102 mm) thickness of min 4 pcf (64 kg/m3) mineral wool batt insulation firmly packed into opening as a permanent form. Packing material to be recessed from top surface of floor or both surfaces of wall to accommodate the required thickness of fill material.
 - B. Fill Void or Cavity Materials* Sealant Min 1/2 in. (13 mm) thickness of fill material applied within the annulus, flush with top surface of floor or both surfaces of wall.
 - HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC FS-ONE Sealant, FS-ONE MAX Intumescent Sealant, CP601S Sealant, CFS-S SIL GG Sealant or CFS-S SIL SL Sealant
- * Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

