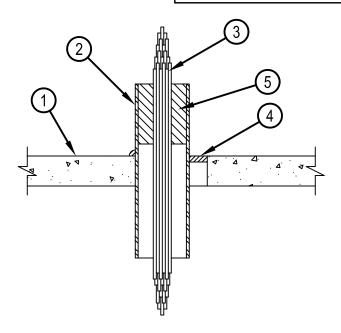


System No. C-AJ-3152

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Rating — 2 Hr	F Rating — 2 Hr
T Rating — 1/2 Hr	FT Rating — 1/2 Hr
	FH Rating — 2 Hr
	FTH Rating — 1/2 Hr



- 1. Floor or Wall Assembly Min 2-1/2 in.(64 mm) thick reinforced lightweight or normal weight (100-150 pcf) concrete. Wall may also be constructed of any UL Classified solid or filled Concrete Blocks*. Max diam of opening is 6 in. (152 mm).
 - See Concrete Blocks (CAZT) in the Fire Resistance Directory for names of manufacturers.
- 2. Steel Sleeve Nom 4 in. (102 mm) diam (or smaller) Schedule 40 (or heavier) steel sleeve. Sleeve installed to project 6 in. (152 mm) beyond each surface of floor or wall. Steel sleeve to be supported on the top side of the floor and both sides of wall. The annular space between sleeve and periphery of opening shall be min 0 in. (point contact) to max 1-1/2 in. (38 mm).
- 3. Cables Aggregate cross-sectional area of bundled cables in steel sleeve to be max 25 percent of the cross-sectional area of the sleeve. The annular space between the cable bundle and the periphery of the sleeve to be 1 in. (25 mm). Cables to be rigidly supported on both sides of the floor or wall assembly. Any combination of the following types and sizes of cables may be used.
 - A. Max 100 pair No. 24 AWG telephone cable with PVC insulation and jacket.
 - B. Multiple fiber optical communication cable jacketed with PVC and having a max OD of 1/4 in. (6 mm).
- 4. Fill, Void or Cavity Materials*-Sealant Min 1/2 in. (13 mm) thickness of fill material applied within the annulus between steel sleeve and periphery of the opening, flush with top surface of floor and both surfaces of wall. At point contact, a min 1/2 in. (13 mm) bead of fill material shall be applied at the concrete/sleeve interface on top surface of floor and both surfaces of wall.
- HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC FS-ONE Sealant or FS-ONE MAX Intumescent Sealant
- 5. Fill, Void or Cavity Materials* Fire blocks installed around cable bundle within steel sleeve with 5 in. (127 mm) dimension parallel to sleeve length and flush with top end of sleeve in floors and both ends of sleeve in walls.
- HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC FS 657 Fire Block or CFS-BL Firestop Block
- 6. Fill, Void or Cavity Materials* (Not Shown)- Sealant or putty fill material forced into interstices of cable bundle, voids within fire blocks and between blocks and steel sleeve to max extent possible, flush with top end of sleeve in floors and both ends of sleeve in walls.
- HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC CP618 Firestop Putty Stick or FS-ONE Sealant
- * Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

