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Underwriters Laboratories, Inc.  
to UL 1479 and CAN/ULC-S115

# System No. C-AJ-8095

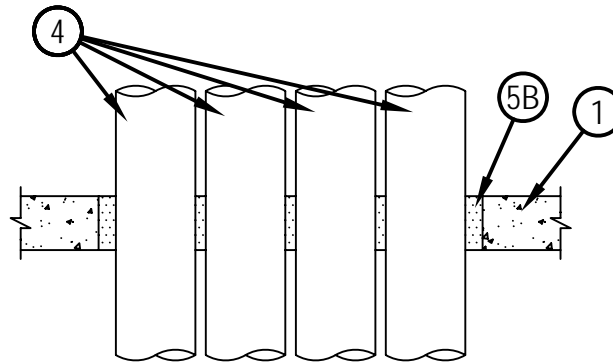
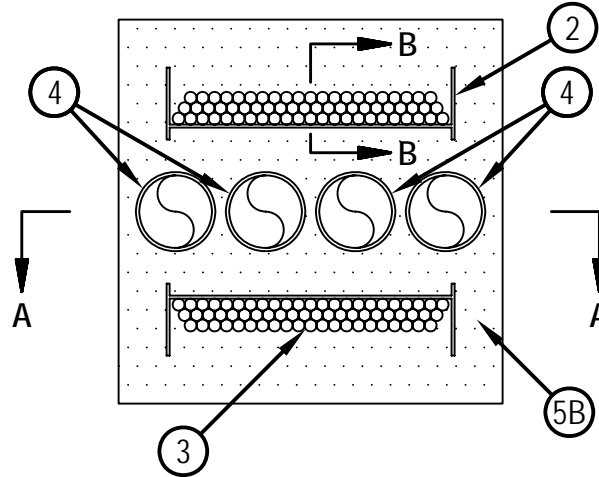
F Rating — 4 Hr

T Rating — 0 Hr

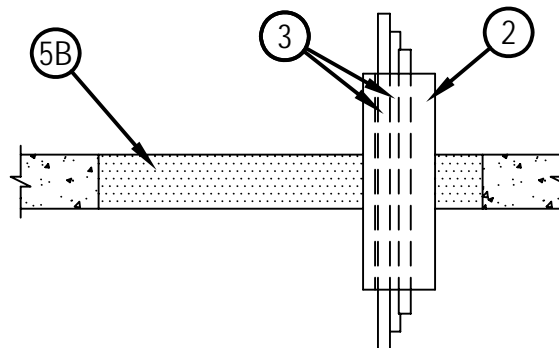
L Rating At Ambient — 14 CFM/sq ft

L Rating At 400 F — 14 CFM/sq ft

CAJ 8095



SECTION A-A



SECTION B-B



**Hilti Firestop Systems**

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## System No. C-AJ-8095

F Rating — 4 Hr

T Rating — 0 Hr

L Rating At Ambient — 14 CFM/sq ft

L Rating At 400 F — 14 CFM/sq ft

CAJ 8095

1. Floor or Wall Assembly — Min 4-1/2 in. thick reinforced lightweight or normal weight (100-150 pcf) concrete. Wall may also be constructed of any UL Classified Concrete Blocks\*. Max area of opening is 1024 sq in. with max dimension of 32 in.  
See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.
2. Cable Tray+ — A max of two cable trays may be installed within the opening. Annular space between cable tray and periphery of opening shall be min of 2 in. Cable trays shall be spaced a min of 5 in. apart and rigidly supported on both sides of the floor or wall assembly. The following types of cable trays may be used:
  - A. Max 24 in. wide by max 6 in. deep open ladder cable tray with channel-shaped side rails formed of min 0.050 in. thick (No. 18 MSG) galv steel and with 7/8 in. wide by 7/8 in. deep rungs spaced 9 in. OC.
  - B. Max 24 in. wide by max 6 in. deep open ladder cable tray with channel-shaped side rails formed of min 0.073 in. thick aluminum and with 1 in. wide by 1 in. deep rungs spaced 9 in. OC.
3. Cables — Aggregate cross-sectional area of cables in cable tray to be max 27 percent of the cross-sectional area of the cable tray based on the full loading depth within the cable tray. Any combination of the following types and sizes of copper conductor cables may be used:
  - A. Max 1/C 500 kcmil power cable with nylon jacket.
  - B. Max 1/C 300 kcmil power cable with nylon jacket.
  - C. Max 25 pair No. 24 AWG (or smaller) polyvinyl chloride (PVC) insulated and jacketed telephone cables.
  - D. Max 3/C W/Ground No. 12 AWG cable with PVC insulation and jacket.
  - E. Multiple 2 lead fiber optical communication cable jacketed with PVC and having a max outside dimension of 0.12 x 0.24 in.
4. Through-Penetrants — A max of 4 pipes, conduits or tubing to be installed within the opening. The space between pipes, conduits or tubing shall be min 2-1/2 in. The space between pipes, conduits or tubing and periphery of opening shall be min 2-1/2 in. The space between pipes, conduits or tubing and cable trays shall be min 5 in. Pipe, conduit or tubing to be rigidly supported on both sides of floor or wall assembly. The following type and sizes of metallic pipes, conduits or tubing may be used:
  - A. Steel Pipe — Nom 26 in. diam (or smaller) Schedule 10 (or heavier) steel pipes.
  - B. Iron Pipe — Nom 15 in. diam (or smaller) cast or ductile iron pipe.
  - C. Conduit — Nom 4 in. diam (or smaller) steel electric metallic tubing.
  - D. Conduit — Nom 6 in. diam (or smaller) rigid steel conduit.
  - E. Copper Tubing — Nom 6 in. diam (or smaller) Type L (or heavier) copper tubing.
  - F. Copper Pipe — Nom 6 in. diam (or smaller) Regular (or heavier) copper pipe.
5. Firestop System — The firestop system shall consist of the following:
  - A. Forms — (Not Shown) — Used as a form to prevent leakage of fill material during installation. Forms to be a rigid sheet material, cut to fit the contour of the penetrating items and located where necessary for installation of fill material. Forms to be removed after fill material has cured.
  - B. Fill, Void or Cavity Material\*—Mortar — Min 4-1/2 in. thickness of fill material applied within the annulus. Mortar to be forced into interstices of cables to max extent possible. Mortar is mixed at a rate of 2-1/2 parts dry mix to one part water by volume in accordance with the fill material manufacturer's installation instructions.  
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP637 Mortar

\*Bearing the UL Classification Mark



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