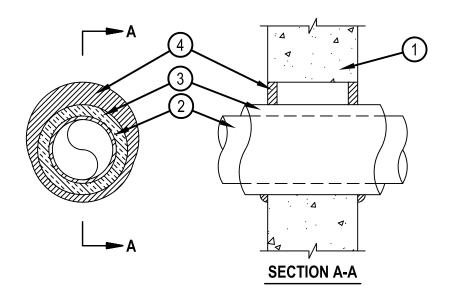


## System No. W-J-5041

| ANSI/UL1479 (ASTM E814)                     | CAN/ULC S115                                |
|---|---|
| F Ratings — 1 and 2 Hr (See Item 1)         | F Ratings — 1 and 2 Hr (See Item 1)         |
| T Ratings — 0, 3/4 and 1 Hr (See Item 3)    | FT Ratings — 0, 3/4 and 1 Hr (See Item 3)   |
| L Rating At Ambient — Less Than 1 CFM/sq ft | FH Ratings — 1 and 2 Hr (See Item 1)        |
| L Rating At 400 F — Less Than 1 CFM/sq ft   | FTH Ratings — 0, 3/4 and 1 Hr (See Item 3)  |
|   | L Rating At Ambient — Less Than 1 CFM/sq ft |
|   | L Rating At 400 F — Less Than 1 CFM/sq ft   |



- 1. Wall Assembly Min 3-3/4 in. (95 mm) and 5 in. (127 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m³) concrete required for F and FH Ratings of 1 and 2 Hr, respectively. Wall may also be constructed of any UL Classified Concrete Blocks\*. Max diam of opening is 7-1/2 in. (191 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 centered within the firestop system. Pipe or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes or tubing may be used:
  - A. Steel Pipe Nom 4 in. (102 mm) diam (or smaller) Schedule 40 (or heavier) steel pipe.
  - B. Copper Tubing Nom 2 in. (51 mm) diam (or smaller) Type L (or heavier) copper tubing.
  - C. Copper Pipe Nom 2 in. (51 mm) diam (or smaller) regular (or heavier) copper pipe.
- 3. Tube Insulation—Plastics+ Min 1/2 in. (13 mm) to max 1 in. (25 mm) thick acrylonitrile butadiene/polyvinyl chloride (AB/PVC) flexible foam furnished in the form of tubing. An annular space of min 0 in. (point contact) to max 1-1/2 in. (38 mm) is required within the firestop system. The T, FT and FTH Ratings are 1 hr when the 1 in. (25 mm) thick tube insulation is used and 3/4 hr when the 3/4 in. (19 mm) thick tube insulation is used. When tube insulation thickness is less than 3/4 in. (19 mm), the T, FT and FTH Ratings are 0 Hr.
  - 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 UL 94 Flammability Classification of 94-5VA may be used.
- 4. Fill, Void or Cavity Material\*—Sealant Min 5/8 in. (16 mm) thickness of fill material applied within the annulus, flush with both surfaces of wall. At the point contact location between pipe covering and wall, a min 1/2 in. (13 mm) diam bead of fill material shall be applied at the pipe covering/wall interface on both surfaces of wall
  - HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC FS-ONE Sealant or FS-ONE MAX Intumescent Sealant
- \* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

