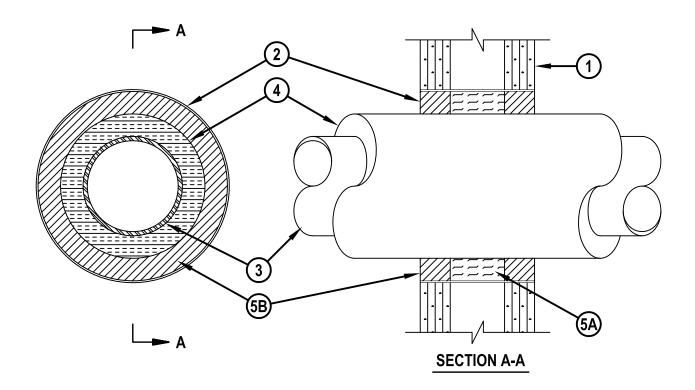


## System No. W-L-5073

| ANSI/UL1479 (ASTM E814) | CAN/ULC S115          |
|-------------------------|-----------------------|
| F Rating — 4 Hr         | F Rating — 4 Hr       |
| T Rating — 1-1/2 Hr     | FT Rating — 1-1/2 Hr  |
|                         | FH Rating — 4 Hr      |
|                         | FTH Rating — 1-1/2 Hr |



- 1. Wall Assembly The fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U400, V400 or W400 Series Wall and Partition Designs in the Fire Resistance Directory and shall include the following construction features:
  - A. Studs Wall framing shall consist of channel shaped steel studs, min 3-5/8 in. (92 mm) wide, fabricated from min 25 MSG galv steel, spaced max 24 in. (610 mm) OC.
  - B. Gypsum Board\* Four layers of nom 1/2 in. (13 mm) thick gypsum wallboard as specified in Design No. U435. Max diam of opening is 18-1/2 in. (470 mm).
- 2. Steel Sleeve Cylindrical sleeve fabricated from min 0.035 in. (0.89 mm) thick (No. 20 gauge) galv steel sheet and having a min 2 in. (51 mm) lap along the longitudinal seam. Length of sleeve to be equal to thickness of wall. Sleeve to be installed by coiling the sheet metal to a diam smaller than the through opening, inserting the coil through the openings and releasing the coil to let it uncoil against the circular cutouts in the gypsum wallboard layers



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- 3. Through Penetrants One metallic pipe or tubing to be installed concentrically 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 12 in. (305 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.
- 4. Pipe Covering\* Nom 1-1/2 in. (38 mm) thick hollow cylindrical heavy density (3.5 pcf or 56 kg/m3) glass fiber units jacketed on the outside with an all service jacket. Longitudinal joints sealed with metal fasteners or factory-applied self-sealing lap tape. Transverse joints secured with metal fasteners or with butt tape supplied with the product. The annular space between the insulated pipe and the steel sleeve shall be min 1-1/4 in. (32 mm) to max 1-1/2 in. (38 mm).
  - See Pipe Equipment Covering Materials (BRGU) Category in the 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.
- 5. Firestop System The firestop system shall consist of the following:
  - A. Packing Material Min 3-5/8 in. (92 mm) thickness of min 4 pcf (64 kg/m3) mineral wool batt insulation firmly packed into the opening as a permanent form. Packing material to be recessed from both surfaces of wall as required to accommodate the required thickness of fill material.
  - B. Fill, Void or Cavity Material\* Sealant Min 2 in. thickness applied within steel sleeve, flush with 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.

