



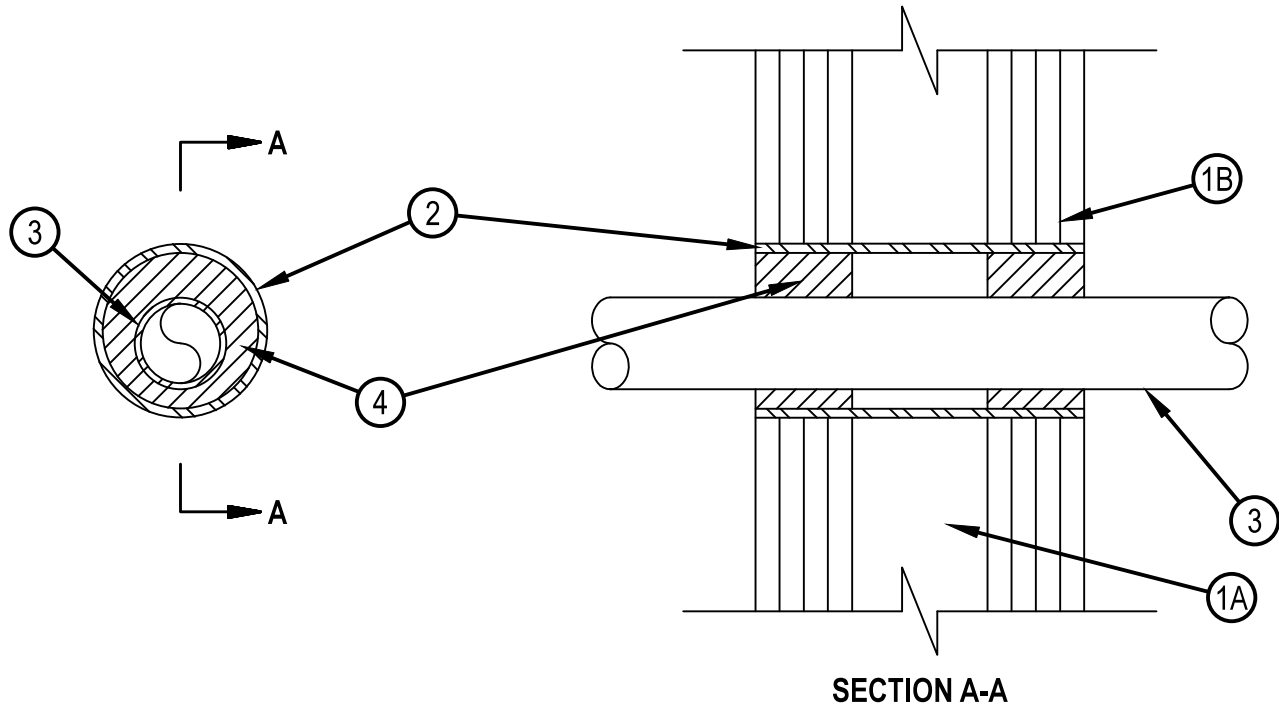
Underwriters Laboratories, Inc.  
to UL 1479

## System No. W-L-2184

F Rating — 4 Hr

T Rating — 2 Hr

WL 2184



1. Wall Assembly — The 4 hr fire rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner described in the individual U400, V400 or W400 Series Wall or Partition Design in the UL Fire Resistance Directory and shall include the following construction features:
    - A. Studs — Wall framing shall consist of steel channel studs. Steel studs to be min 3-1/2 in. (89 mm) wide by 1-3/8 in. (35 mm) deep channels spaced max 24 in. (610 mm) OC.
    - B. Gypsum Board\* — The gypsum wallboard type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U400 Series Design in the UL Fire Resistance Directory. Max diam of opening is 4 in. (102 mm)
  2. Steel Sleeve — Nom 4 in. (102 mm) diam (or smaller) Schedule 40 (or heavier) steel pipe sleeve friction fit in nom 4 in. (102 mm) diam circular opening cut through gypsum wallboard layers. Length of steel sleeve to be equal to thickness of wall.
  3. Through-Penetrant — One nonmetallic pipe, conduit or tubing installed either concentrically or eccentrically within the firestop system. The annular space between pipe and steel sleeve shall be min of 1/2 in. (13 mm) to a max 1 in. (25 mm). Pipe to be rigidly supported on both sides of wall assembly. The following types and sizes of nonmetallic pipes may be used:
    - A. Polyvinyl Chloride (PVC) Pipe — Nom 2 in. (51 mm) diam (or smaller) cellular or solid core Schedule 40 (or heavier) pipe for use in closed (process or supply) piping systems.
    - B. Chlorinated Polyvinyl Chloride (CPVC) Pipe — Nom 2 in. (51 mm) diam (or smaller) SDR 17 CPVC pipe for use in closed (process or supply) piping systems.
  4. Fill, Void or Cavity Material\*—Sealant — Min 2 in. (51 mm) thickness of fill material applied within annulus, 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.



Hilti Firestop Systems

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January 22, 2015