



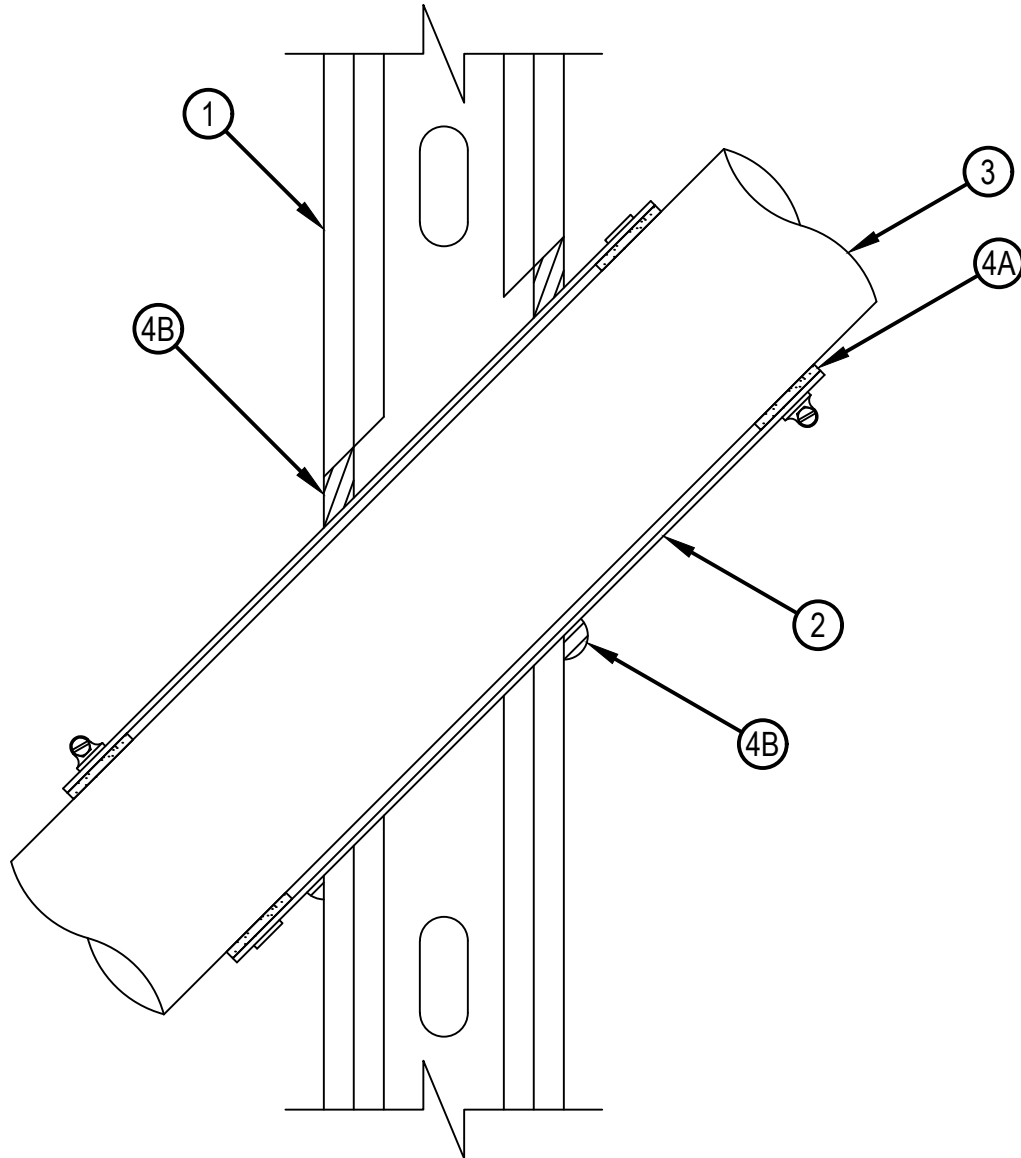
Classified by  
Underwriters Laboratories, Inc.  
to CAN/ULC-S115

# System No. W-L-2845

F Ratings — 1 and 2 Hr (See Item 1B)  
FT Ratings — 0 and 1 Hr (See Item 1B)  
FH Rating — 0 Hr  
FTH Rating — 0 Hr



WL 2845



Hilti Firestop Systems

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July 27, 2023

# System No. W-L-2845



WL 2845

System tested with a pressure differential of 50 Pa between the exposed and the unexposed surfaces with the higher pressure on the exposed side.

1. Wall Assembly —The 1 and 2 hr fire rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner described in the individual U400, V400 or W400 Series Wall and 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 64 mm (2-1/2 in.) wide and spaced max 610 mm (24 in.) OC.
  - B. Gypsum Board\* —The gypsum board type, thickness number of layers, fastener type and sheet orientation shall be specified in the individual Wall and Partition Design in the UL Fire Resistance Directory. Max dimensions of oval opening are 152 mm (6 in.) wide and 222 mm (8-3/4 in.) tall.

The F Rating of the firestop system is dependent upon the fire rating of the wall assembly in which is installed. The hourly FT Rating of the firestop system is 0 and 1 hr when installed in 1 and 2 hr rated walls, respectively.
2. Steel Sleeve —After to the installation of the through penetrant (Item 3) and wrap strip (Item 4A), nom 133 mm (5-1/4 in.) diam cylindrical sleeve fabricated from 0.4 mm (0.016 in., No 28 gauge) thick galv sheet steel and having a min 25 mm (1 in.) lap along longitudinal seam. Sleeve to extend 51 mm (2 in.) beyond each surface of wall. The sleeve shall be compressed around the pipe (Item 3) and wrap strip (Item 4A) using 13 mm (1/2 in.) wide stainless steel hose clamps fastened at the center of each wrap strip. The annular space between the sleeve the periphery of the opening shall be a min 0 mm (point contact) to max 38 mm (1-1/2 in.).
3. Through-Penetrants —One nonmetallic pipe to be installed concentrically or eccentrically within the firestop system. Pipe may be installed at an angle not greater than 45 degrees from perpendicular. Pipe to be rigidly supported on both sides of wall assembly. The following types and sizes of nonmetallic pipes may be used:
  - A. XFR Polyvinyl Chloride Pipe (XFR-PVC) — Nom 102 mm (4 in.) diam (or smaller) Schedule 40 PVC-XFR solid core pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.
4. Firestop System —The firestop system shall consist of the following:
  - A. Fill, Void or Cavity Material - Wrap Strip —Nom 4.8 mm (3/16 in.) thick by 44 mm (1-3/4 in.) wide intumescent wrap strip installed in two adjacent single-layer stacks with ends butted together on each side of the wall. Wrap strips are installed around the pipe such that the ends of the wrap strip closest to the wall is located 51 mm (2 in.) from the wall surface on each side.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 648-E Wrap Strip W45 1-3/4"
  - B. Fill, Void or Cavity Material - Sealant\* —Min 16 mm (5/8 in.) thickness of fill material applied within annulus between periphery of the opening and the steel sleeve, flush with each surface of wall. A min 13 mm (1/2 in.) bead of fill material shall be applied at the gypsum board and steel sleeve interface on the exterior of the wall.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — 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.