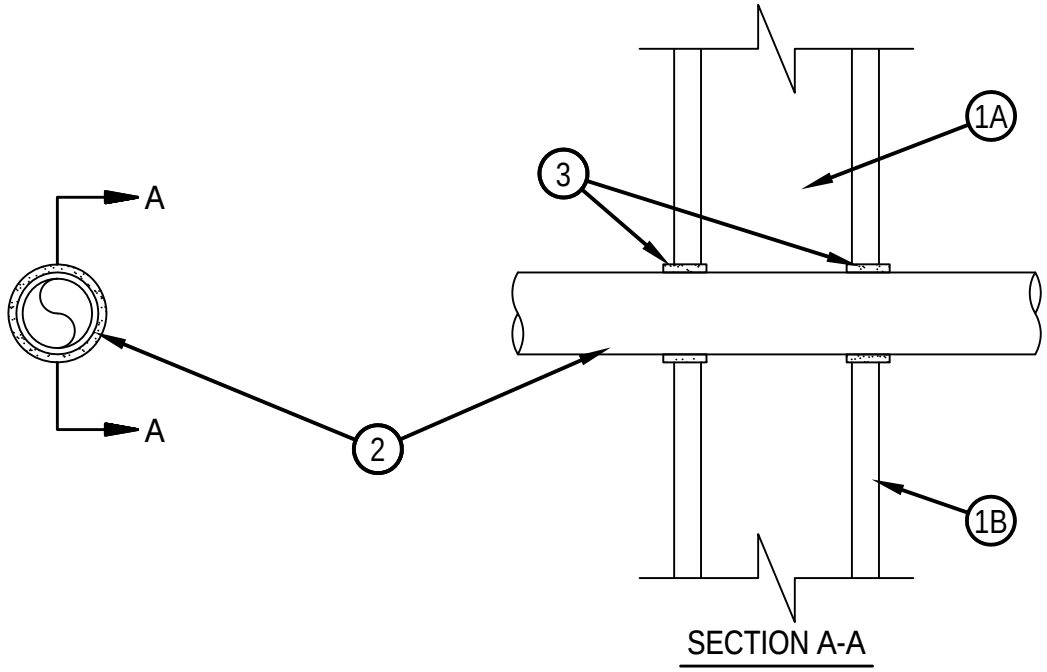
Classified by
Underwriters Laboratories, Inc.
to CAN/ULC-S115

CANADA ONLY

WL 2019

System No. W-L-2019

F Rating -- 1 Hr
FT Ratings -- 3/4 and 1 Hr (See Item 2)
FH Rating -- 1 Hr
FTH Ratings -- 3/4 and 1 Hr (See Item 2)



SECTION A-A

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 hr fire-rated steel stud/gypsum board wall assembly shall be constructed of the materials and in the manner specified in the individual U300 or U400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:
   A. Studs -- Wall framing may consist of wood studs or steel channel studs. Wood studs to consist of nom 51mm by 102 mm (2 by 4 in.) lumber spaced 16 in. OC. Steel studs to be min 89 mm (3-1/2 in.) wide and spaced max 610 mm (24 in. OC.)
   B. Gypsum Board -- Min 10 mm (5/8 in.) thick, 1.22 m (4 ft) wide with square or tapered edges. The gypsum board type, thickness, number of layers and orientation shall be as specified in the individual U300 or U400 Wall and Partition Design. Max diam of opening is 64 mm (2-1/4 in.)
2. Through Penetrant -- One nonmetallic pipe or tube to be installed within the firestop system with a nom 6 to 8 mm (3/16 to 5/16 in.) annular space. Pipe or tube to be rigidly supported on both sides of wall assembly. The following types and sizes of nonmetallic pipe or tube may be used:
   A. Polyvinyl Chloride (PVC) Pipe -- Nom 38 mm (1-1/2 in.) diam (or smaller) Schedule 40 cellular or solid core PVC pipe for use in vented (drain, waste or vent) piping systems. When PVC pipe is used, the FT and FTH Ratings are 3/4 hr.
   B. Cross Linked Polyethylene (PEX) Tubing -- Nom. 25 mm (1 in.) diam (or smaller) SDR-9 PEX tubing for use in vented (drain, waste or vent) piping systems. When PEX tubing is used, the FT and FTH Ratings are 1 hr.
3. Fill, Void or Cavity Material* - Wrap Strip -- Nom 5 mm (3/16 in.) thick by 25 mm (1 in.) wide intumescent wrap strip. The wrap strip is wrapped once around the outer circumference of the pipe, secured with tape and slid into annular space such that the ends extend a max of 6 mm (1/4 in.) beyond the surface of the wall. Wrap strips are installed on each surface of the wall.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC -- CP648-E W25/1" Wrap Strip
   A. Fill, Void or Cavity Material* -- Wrap Strip -- (As an alternate to the wrap strip in Item 3 on nom 38 mm diam pipes only) - Nom 5 mm (3/16 in.) thick by 38 mm (1-1/2 in.) wide intumescent wrap strip. One layer of intumescent wrap strip is tightly wrapped around the pipe with ends butted and held in place with integrated tape. Slide wrap strip into annular space such that the ends extend a max of 6 mm (1/4 in.) beyond the surface of the wall. Wrap strips are installed on each surface of the wall.
      HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC -- CP648-S-1.5" US

*Bearing the UL Classification Mark

Hilti Firestop Systems