

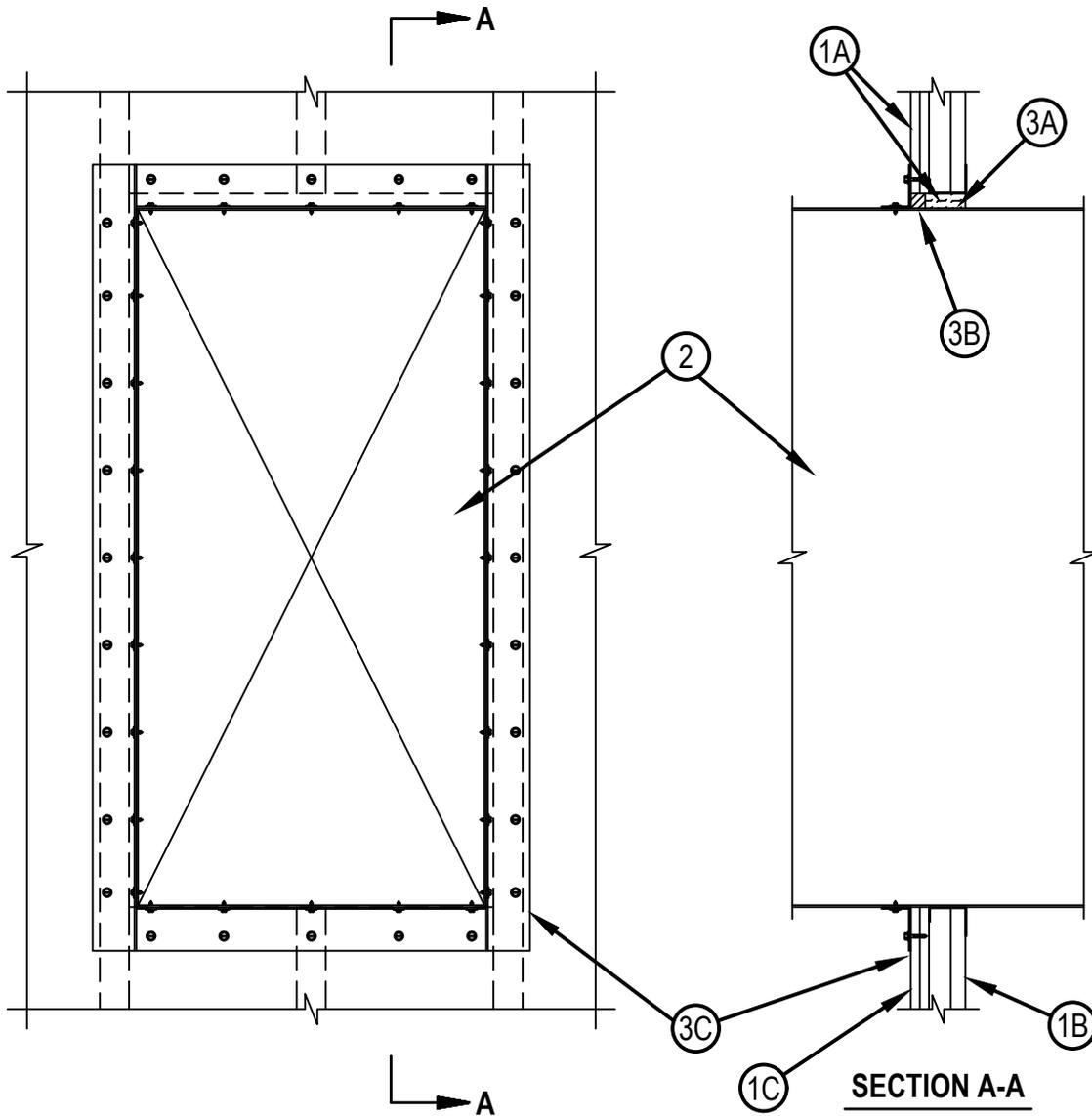


Classified by
Underwriters Laboratories, Inc.
to UL 1479 and CAN/ULC-S115

System No. W-L-7319

WL 7319

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Ratings - 1 and 2 Hr (See Items 1 and 1A)	F Ratings - 1 and 2 Hr (See Items 1 and 1A)
T Rating - 0 Hr	FT Rating - 0 Hr
	FH Ratings - 1 and 2 Hr (See Items 1 and 1A)
	FTH Rating - 0 Hr



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January 27, 2021

1. Wall Assembly — The 1 or 2 hr fire-rated gypsum board/stud shaft 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 UL Fire Resistance Directory and shall incorporate the following construction features:
 - A. Steel Studs — "C-H" or "C-T" shaped studs, min 2-1/2 in. (64 mm) wide, fabricated from min No. 20 gauge galv steel, spaced max 24 in. (610 mm) OC. Additional members shall be used to frame the opening.
 - B. Gypsum Board* — Min 1 in. (25 mm) thick, 24 in. (610 mm) wide gypsum liner panels installed vertically. The gypsum board type, fastener type and sheet orientation shall be as specified in the individual Wall and Partition Design. Max size of opening is 1225 sq in. (412 cm²) with max dimension of 49 in. (203 mm).
 - C. Gypsum Board* — Min one or two layers of 5/8 in. (16 mm) thick Type C gypsum board, for 1 and 2 hr rated walls respectively. The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual Wall and Partition Design. Max size of opening is 1225 sq in. (412 cm²) with max dimension of 49 in. (203 mm).The hourly F and FH Ratings of the firestop system are equal to the hourly fire rating of the wall assembly in which it is installed.
 - 1A. Wall Assembly — (Not Shown) As an alternate to the above wall assembly, the 1 or 2 hr fire rated gypsum board/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 UL Fire Resistance Directory and shall include the following construction features:
 - A. Studs — Wall framing to consist of steel channel studs. Steel studs to be min 2-1/2 in. (64 mm) wide and spaced max 24 in. (610 mm) OC. Additional members shall be used to frame the opening.
 - B. Gypsum Board* — Min one or two layers of 5/8 in. (16 mm) thick Type C gypsum board, for 1 and 2 hr rated walls respectively. The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual Wall and Partition Design. Max size of opening is 1225 sq in. (412 cm²) with max dimension of 49 in. (203 mm).The hourly F and FH Ratings of the firestop system are equal to the hourly fire rating of the wall assembly in which it is installed.
 2. Steel Duct — Nom 24 in. by 48 in. (610 by 1219 mm) (or smaller) No 24 gauge (or heavier) galv steel duct to be installed either concentrically or eccentrically within the firestop system. The annular space shall be min 0 in. (point contact) to max 1 in. (25 mm). Duct to be rigidly supported on both sides of the wall assembly.
 - 2A. Through-Penetrants — Coated Ducts* — As an alternate to Item 2, rectangular steel air duct supplied coated with BW11 coating material. Max 24 by 40 in. (610 by 1016 mm) duct size. One duct to be installed within the firestop system with an annular space of min 0 in. (point contact) to max 1 in. (25 mm). Reinforcement stiffener or transverse joint with bolted flanges shall be located approximately at the mid depth of the annular space. Duct to be rigidly supported on both sides of the wall assembly. Duct sections shall be assembled using bolted flanges or SMACNA approved Transverse Joint Reinforcements.
- FIRESPRAY INTERNATIONAL LTD — FLAMEBAR BW11 FIRE RATED DUCTWORK**
3. Firestop System — The firestop system shall consist of the following:
 - A. Packing Material — Min 2-1/4 in. or 2-3/4 in. (57 or 70 mm) thickness of min 4 pcf (64 kg/m³) mineral wool batt insulation firmly packed into opening on one side of the wall as a permanent form for 1 and 2 hr walls, respectively. Packing material to be recessed from the finished side of wall to accommodate the required thickness of fill material. In alternate wall assembly, packing material to be flush with either side of the wall and recessed from the other side of the wall to accommodate the required thickness of fill material.
 - B. Fill, Void or Cavity Material — Sealant* — Min 1 in. (25 mm) thickness of fill material applied within opening, flush with the finished side of wall or with either surface of wall in the alternate wall assembly. Min 1/2 in. (13 mm) bead of fill material shall be applied at the point contact locations at finished side of wall, or at sealant side of wall in the alternate wall assembly, prior to installing the steel retaining angles (Item 3C).

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE MAX Intumescent Sealant

 - C. Steel Retaining Angles — Nom 2 by 3 in. (51 by 76 mm) by 18 ga steel angles to be installed around four sides of duct with the 3 in. (76 mm) leg of angles installed flush against finished side of the wall. The 2 in. (51 mm) legs of the angles shall be attached to the steel duct on finished side of wall with min No. 10 self-drilling, self-tapping steel screws spaced max 6 in. (152 mm) OC and max 1 in. from ends of duct. The 3 in. (76 mm) legs of the angles shall be attached to the finished side of wall with min No. 10 self-drilling, self-tapping steel screws spaced max 6 in. (152 mm) OC and max 1 in. from ends of duct. In the alternate wall assembly, the angles shall be installed on the sealant side of the wall.

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

