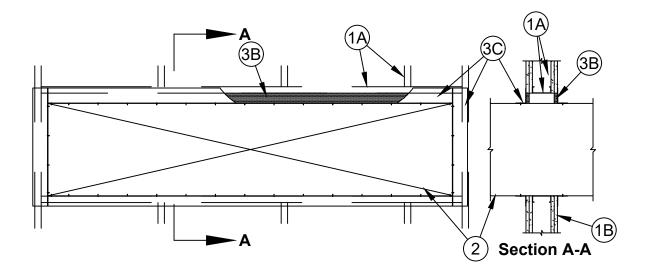


ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Ratings - 1 and 2 Hr (See Item 1)	F Ratings - 1 and 2 Hr (See Item 1)
T Rating - 1/2 Hr	FT Rating - 1/2 Hr
L Rating At Ambient - Less Than 1 CFM/sq ft	FH Ratings - 1 and 2 Hr (See Item 1)
L Rating At 400 F - Less Than 1 CFM/sq ft	FTH Rating - 1/2 Hr
	L Rating At Ambient - Less Than 5.1 L/s/m3
	L Rating At 204 C- Less Than 5.1 L/s/m3



- 1. **Wall Assembly -** The 1 or 2 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 W 400 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 min 3-1/2 in. (89 mm) wide steel channel studs spaced max 24 in. (610 mm) OC. Additional steel studs shall be used to completely frame the opening.
 - B. **Gypsum Board* -** 5/8 in. (16 mm) thick, 4 ft (1.22 m) wide with square or tapered edges. The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual Design in the UL Fire Resistance Directory. Max area of opening is 73.7 sq ft (6.85 m2) with a max dimension of 104 in. (2.64 m).

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 -** Max 100 in. by 100 in. (2.54 by 2.54 m) No. 26 gauge (or heavier) galv steel duct to be installed either concentrically or eccentrically within the firestop system. The space between the steel duct and periphery of opening shall be min 0 in. (0 mm, point contact) to max 2 in. (51 mm). Steel duct to be rigidly supported on both sides of the wall assembly.
- 2A. Coated Ducts* As an alternate to Item 2, max 60 by 60 in. (1524 by 1524 mm) steel duct coated with BW11 coating material. Duct sections shall be assembled using bolted flanges or SMACNA approved Transverse Joint Reinforcements. Annular space between duct and periphery of opening shall be shall be min 0in. (point contact) to max 2 in. (51 mm). Duct to be rigidly supported on both sides wall assembly.

FIRESPRAY INTERNATIONAL LTD - FLAMEBAR BW11 fire rated ductwork



- 3. Firestop System The firestop system shall consist of the following:
 - A. **Packing Material -** (Optional, Not Shown) Polyethylene backer rod, mineral wool batt insulation or fiberglass batt insulation friction fitted into annular space. 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 5/8 in. (16 mm) thickness of fill material applied within the annulus, flush with both surfaces of wall. Min 1/4 in. (6 mm) diam bead of fill material shall be applied at the point contact location between the steel duct and the gypsum board. For 2 hr Rated walls when LC150 or LE600 Sealant is used, fill material thickness installed to full depth of gypsum board layers on each side of wall assembly.
 - **SPECIFIED TECHNOLOGIES INC** SpecSeal Series SSS Sealant, SpecSeal LCI Sealant, SpecSealant, SpecSeal
 - C. Steel Retaining Angles Min No. 16 gauge (0.059 in. or 15 mm) galv steel angles sized to lap steel duct a min of 2 in. (51 mm) and to lap wall surfaces a min of 1 in. (25 mm). Angles attached to steel duct on both sides of wall with min No. 10 by 1/2 in. (13 mm) long steel sheet metal screws located a max of 1 in. (25 mm) from each end of steel duct and spaced a max of 6 in. (152 mm) OC.
 - * Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.



