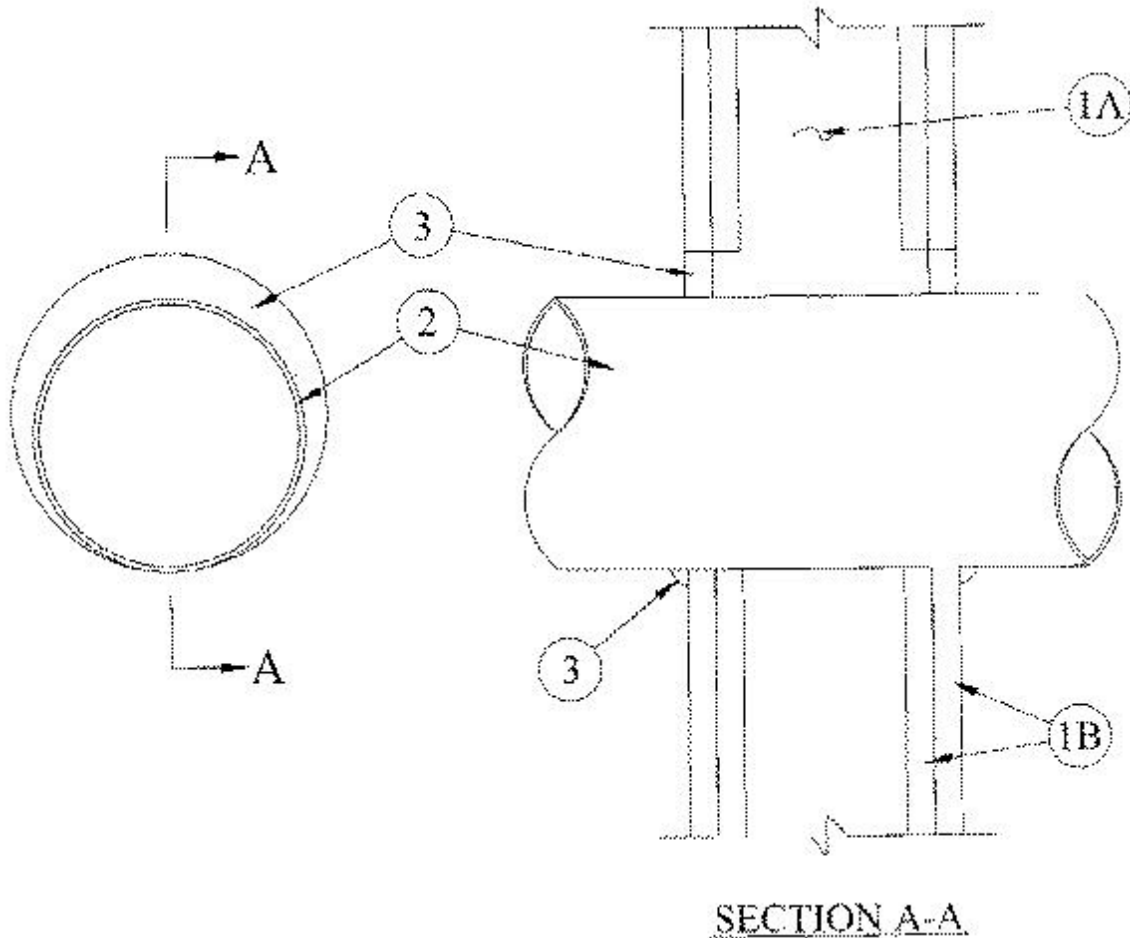




### System No. W-L-7046

July 15, 2014

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Ratings — 1 and 2 Hr (See Item 1)	F Rating — 1 and 2 Hr (See Item 1)
T Rating — 0 Hr	FT Rating — 0 Hr
L Rating At Ambient — Less Than 1 CFM/sq ft	FH Rating — 1 and 2 Hr (See Item 1)
L Rating At 400 F — Less Than 1 CFM/sq ft	FTH Rating — 0 Hr
W Rating — Class 1 (See Item 2B)	L Rating At Ambient — Less Than 1 CFM/sq ft
	L Rating At 400 F — Less Than 1 CFM/sq ft



**1. Wall Assembly** — The 1 or 2 hr fire-rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300, 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 may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC with nom 2 by 4 in. (51 by 102 mm) lumber end plates and cross braces. Steel studs to be min 3-5/8 in. (92 mm) wide and spaced max 24 in. (610 mm) OC.

**B. Gypsum Board\*** — 5/8 in. (16 mm) thick, 4 ft (1.2 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 diam of opening as shown in table below.

**The hourly F Rating of the firestop system is equal to the hourly fire rating of the wall assembly in which it is installed.**

**2. Through Penetrant** — One nom 4 in. (102 mm) diam (or smaller) No. 30 MSG (or heavier), or one nom 6 in. (152 mm) diam (or smaller) No. 28 MSG (or heavier), or nom 20 in. (508 mm) diam (or smaller) No. 22 MSG (or heavier) steel vent duct to be installed either concentrically or eccentrically within the firestop system (see table below). The annular space between duct and periphery of opening shall be min 0 in. (point contact) to max value shown in table below. Duct to be rigidly supported on both sides of wall assembly.

**3. Packing Material** — (not shown). Nom 1 in. (25 mm) foam backer rod firmly packed into the opening as a permanent form in 2 hr fire-rated wall assemblies to prevent leakage of fill material during installation. Packing material to be recessed from both surfaces of wall to accommodate the required thickness of fill material.

**3. Fill, Void or Cavity Materials\* — Sealant** — Min 5/8 in. (16 mm) thickness of fill material applied within annulus, flush with both surfaces of wall. At the point contact location between through penetrant and gypsum board, a min 3/8 in. (10 mm) diam bead of fill material shall be applied at the gypsum board/through penetrant interface on both surfaces of wall.

<b>Max Diam of Through Opening In. (mm)</b>	<b>Max Duct Diam In. (mm)</b>	<b>Min Duct Thickness MSG</b>	<b>Annular Space In. (mm)</b>	<b>Sealant</b>
5 (127)	4 (102)	30	0 to 7/8 (0 to 22)	FS 1900, Metacaulk 1000, Metacaulk 350i, Biostop 350i or Biostop 500+
7 (178)	6 (152)	28	0 to 1 (0 to 25)	FS 900+, Metacaulk MC 150+, Biostop BF 150+
22 (559)	20 (508)	22	0 to 2 (0 to 51)	FS 900+, Metacaulk MC 150+, Biostop BF 150+

**RECTORSEAL** — FlameSafe® FS 1900, FlameSafe® FS900+, Metacaulk MC 150+, Metacaulk 1000, Metacaulk 350i, Biostop BF 150+, Biostop 350i or Biostop 500+

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