



System No. W-L-2166

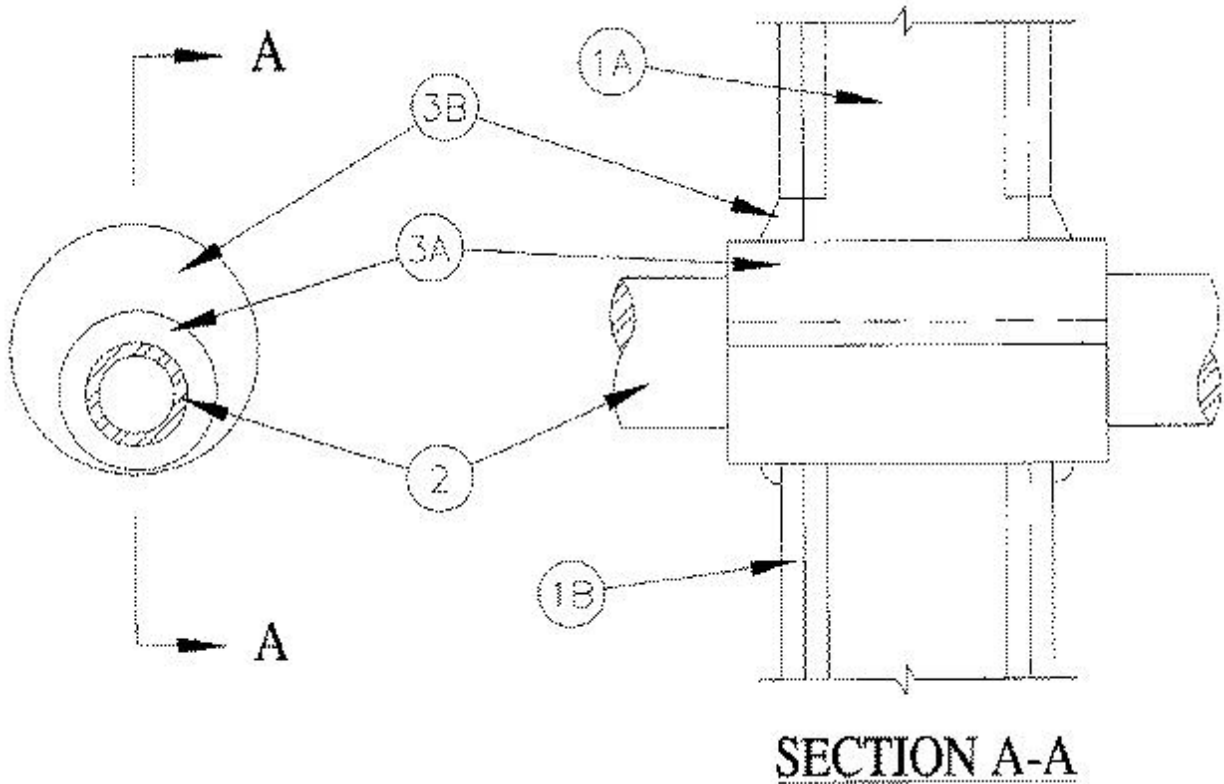
March 10, 2011

F Ratings — 1 and 2 Hr (See Item 3)

T Ratings — 0 and 1 Hr (See Item 3)

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 or V400 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. 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 U300, U400 or V400 Series Design in the UL Fire Resistance Directory. Max diam of opening is 6 in. (152 mm).

The hourly F and T Ratings of the firestop system are dependent on the hourly fire rating of the wall assembly in which it is installed and type of through penetrant as shown in Item 3.

2. Through Penetrants — One nonmetallic pipe or conduit to be installed either concentrically or eccentrically within the firestop system. The required annular space within the firestop system is dependent upon the nom diameter of the through penetrant as shown in Item 2A. Pipe or conduit to be rigidly supported on both sides of the wall assembly. The following types and sizes of nonmetallic pipes or conduit may be used:

A. **Polyvinyl Chloride (PVC) Pipe** — Nom 4 in. (102 mm) diam (or smaller) Schedule 40 cellular or solid core PVC pipe for use in closed (process or supply) or vented (drain, waste, or vent) piping systems.

B. **Chlorinated Polyvinyl Chloride (CPVC) Pipe** — Nom 4 in. (102 mm) diam (or smaller) SDR 13.5 CPVC pipe for use in closed (process or supply) piping systems.

C. **Rigid Nonmetallic Conduit (RNC)+** — Nom 4 in. (102 mm) diam (or smaller) Schedule 40 PVC conduit installed in accordance with the National Electrical Code (NFPA No. 70).

D. **Acrylonitrile Butadiene Styrene (ABS) Pipe** — Nom 4 in. (102 mm) diam (or smaller) Schedule 40 cellular or solid core ABS pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.

E. **Flame Retardant Polypropylene (FRPP) Pipe** — Nom 4 in. (102 mm) diam (or smaller) Schedule 40 FRPP pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.

2A. **Through Penetrating Product*** — Glass Pipe — As an alternate to Item 2, nom 4 in. (102 mm) diam (or smaller) glass pipe for use in closed (process or supply) or vented (drain, waste, or vent) piping systems. One pipe to be installed concentrically or eccentrically within the firestop system. Pipe to be rigidly supported on both sides of the wall assembly. Pipe connections to be located a min 3 in. (76 mm) from wall surfaces.

The required annular space is dependent upon the nom diam of the through penetrant as shown in the table below.

Nom Diam of Through Penetrant, In . (mm)	Min and Max Annular Space, In. (mm)
2 (51)	1/4, 1-1/8 (6, 29)
3 (76)	1/2, 1 (13, 25)
4(102)	1/2, 1 (13, 25)

3. **Firestop System** — The hourly F and T Ratings of the firestop system are dependent on the hourly fire rating of the wall assembly in which it is installed and type of through penetrant as tabulated below:

Rating of Wall Hr	Type of Penetrant	F Rating Hr	T Rating Hr
2	PVC pipe	2	1-1/2
2	CPVC pipe	2	1-1/2
2	RNC	2	1-1/2
2	ABS pipe	2	1-1/2
2	FRPP pipe	2	0
2	Glass pipe	2	1/2
1	PVC pipe	1	0
1	CPVC pipe	1	0
1	RNC	1	0
1	ABS pipe	1	0
1	FRPP pipe	1	0
1	Glass pipe	1	0

The firestop system shall consist of the following:

A. **Firestop Device** — Galv steel sleeve lined with an intumescent material sized to fit the specific diam of the through penetrant. Device to be wrapped around outer circumference of through penetrant and installed through the annular space of the opening in accordance with the installation instructions provided with the product. The device shall extend a min 1 in. (25 mm) beyond each surface and shall be secured to the penetrant with 3/4 in. (19 mm) wide by 0.007 in. (0.18 mm) thick glass cloth electrical tape continuously wrapped twice around the

outer circumference of through penetrant, spaced a max 2 in. (51 mm) OC.

RECTORSEAL — FlameSafe® Intumescent Sleeve, Metacaulk Intumescent Sleeve or Biostop Intumescent Sleeve

B. Fill, Void or Cavity Material* - Sealant — Min 5/8 in. (16 mm) thickness of fill material applied within annulus, flush with both surfaces of wall. Additional fill material to be installed such that a min 1/4 in. (6 mm) thick crown is formed around the firestop device on both sides of the wall.

RECTORSEAL — FS900, FS901, FS903, FS903CG, FS905, FS905CG, FS929, FST901, FST903, FST905, FS900+, FS901+CG, FS905+CG, FS929+, FS955+CG, MC-150+ or BF-150+

+Bearing the UL Listing Mark

*Bearing the UL Classification Marking

Last Updated on 2011-03-10

XHEZ.W-L-2166 W-L-2166 XHEZ 224 215 R11636/00NK36913 NO NO AFT 208 230 613495002 BASICUS SYSTEM Active system revised YES 20110310 20110310 613495002 613495002 secure text/sgml 224 215 01982 Lam 37042 Erickson 218 219 221 222 NO NO

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