

Through-penetration Firestop Systems

System No. W-L-5280

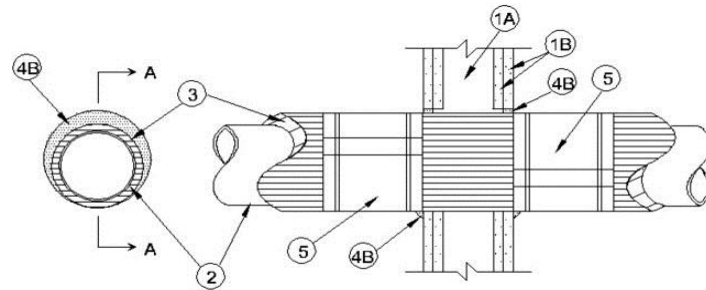
April 11, 2008

F Ratings — 1 and 2 Hr (See Item 1)

T Ratings — 0, 3/4, 1 and 1-1/2 Hr (See Item 1)

L Rating at Ambient — Less than 1 CFM/sq ft

L Rating at 400° F — Less than 1 CFM/sq ft



SECTION A-A

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 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 be 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 wallboard 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 18 in. (457 mm) for steel stud walls. Max diam of opening is 14-1/2 in. (368 mm) for wood stud walls.

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 as shown in the table below:

Rating of Wall Hr	Penetrant Diam/Type	F Rating Hr	T Rating Hr	Sealant
2	6 in. (152 mm) copper, steel or iron	2	1	Boss 816
1	6 in. (152 mm) copper, steel or iron	1	0	Boss 816

2. Through Penetrant — One metallic pipe to be installed either concentrically or eccentrically within the firestop system. Pipe to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes may be used:

- A. **Steel Pipe** — Nom 10 in. (254 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
 - B. **Iron Pipe** — Nom 10 in. (254 mm) diam (or smaller) cast or ductile iron pipe.
 - C. **Copper Tubing** — Nom 6 in. (152 mm) diam (or smaller) Type L (or heavier) copper tubing.
3. **Through Penetrating Product*** — **Cellular Glass Insulation** — Nom 3 in. (76 mm) thick cellular glass units sized to the outside diam of the through-penetrant and supplied in nom 24 in. (610 mm) long half sections or nom 18 in. (457 mm) long segments. Pipe insulation installed on pipe in accordance with the manufacturer's instructions. The annular space between insulated pipes and periphery of opening shall be min 0 in. (point contact) to max 1-1/4 in. (32 mm).

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4. **Firestop System** — The firestop system shall consist of the following:
- A. **Forms** — (Not Shown) — Used to prevent the leakage of fill material during installation in 2 hr fire-rated assemblies. Forms to be rigid sheet material or polyurethane backer rod, cut to fit the contour of the insulated through penetrant and friction fitted into the opening on both sides of wall. Forms to be recessed from both surfaces of wall as required to accommodate the required thickness of fill material.
 - B. **Fill, Void or Cavity Materials*** — **Sealant** — Min 5/8 in. (16 mm) thickness of fill material applied within the annulus flush with both surfaces of wall. After installation of the metal jacket (Item 5), min 3/8 in. (10 mm) diam bead of fill material shall be applied to the metal jacketing/fill material interface on both sides of wall.

ACCUMETRIC L L C — Boss 816

*Bearing the UL Classification Mark