



(800) 231-3345 www.biofireshield.com

Copyright - 2008 Underwriters Laboratories Inc.

Reprinted from the 2008 Fire Resistance Directory with permission from Underwriters Laboratories Inc.

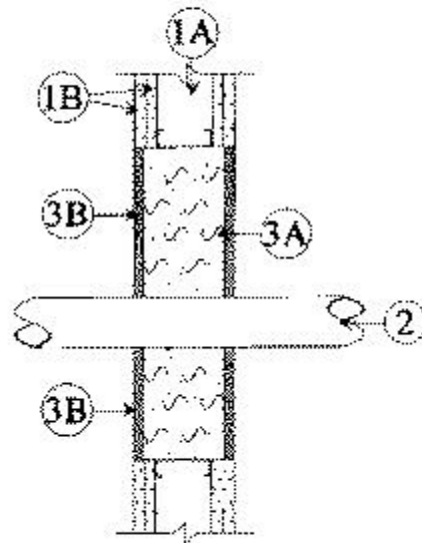
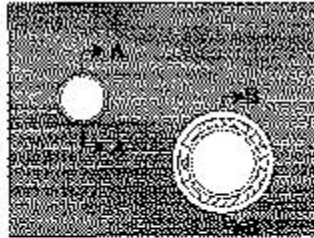


System No. W-L-8017

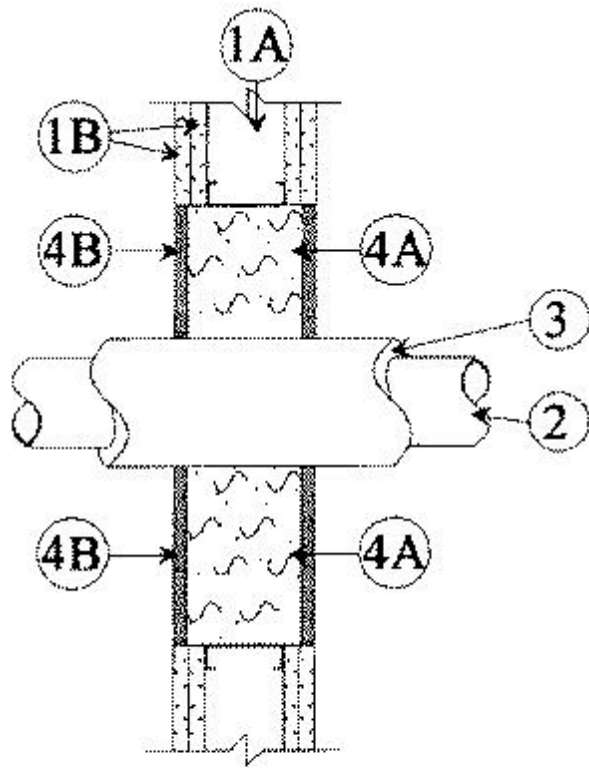
December 02, 1997

F Ratings — 1 & 2 Hr (See Item 1)

T Ratings — 0 & 1 Hr (See Item 2)



**FIRESTOP
CONFIGURATION A**



FIRESTOP CONFIGURATION B

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 specified in the individual U300 or U400 Series Wall and Partition Designs 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. lumber spaced 16 in. OC. Steel studs to be min 3-1/2 in. wide and spaced max 24 in. OC for 1 hr rated walls. Steel studs to be min 2-1/2 in. wide and spaced max 24 in. OC for 2 hr rated walls.

B. Gypsum Board* — One or two layers of nom 5/8 in. thick gypsum wallboard, as specified in the individual Wall and Partition Design. Max area of opening is 585 sq in. with max dimensions of 21 in. wide by 27-7/8 in high.

The hourly F Rating of the firestop system is equal to the hourly rating of the wall.

2. Through Penetrants — The total number of through penetrants is dependent on the size of the opening and types and sizes of the penetrants. Any combination of the penetrants described for the two firestop configurations below may be used provided that the following parameters relative to the annular spaces and the spacings between the pipes are maintained.

The T Ratings for the various configurations are shown below:

Firestop Config	T Rating Hr	Annular Space to Edge of		Min Spacing Between Configurations	
		Opening In.		Adjacent Config	Spacing In.
		Min	Max		
B	0	3-1/4	7	B	5-3/4
A	1	2	11-3/8	A	5-3/4

Firestop Configuration A

2. Through Penetrants — Metallic pipe, conduit or tubing installed within the firestop system. Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types of pipe, conduit or tubing may be used:

A. Steel Pipe — Nom 4 in. diam (or smaller) Schedule 5 (or heavier) steel pipe.

B. **Conduit** — Nom 4 in. diam (or smaller) electrical metallic tubing (EMT) or steel conduit.

C. **Copper Tubing** — Nom 3 in. diam (or smaller) Type L (or heavier) copper tubing.

D. **Copper Pipe** — Nom 3 in. diam (or smaller) Regular (or heavier) copper pipe.

3. **Firestop System** — The firestop system shall consist of the following:

A. **Packing Material** — Min 4 in. thickness of min 4 pcf mineral wool batt insulation tightly packed into opening as a permanent form. 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*** — **Caulk** — Min 3/8 in. thickness of fill material applied within the annular space between the pipe covering and the periphery of the opening, flush with both surfaces of wall.

RECTORSEAL — Biotherm 100

Firestop Configuration B

2. **Through Penetrants** — Metallic pipe, conduit or tubing installed within the firestop system. Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types of pipe, conduit or tubing may be used:

A. **Steel Pipe** — Nom 6 in. diam (or smaller) Schedule 30 (or heavier) steel pipe.

B. **Conduit** — Nom 4 in diam (or smaller) electrical metallic tubing (EMT) or steel conduit.

C. **Copper Tubing** — Nom 6 in. diam (or smaller) Type L (or heavier) copper tubing.

D. **Copper Pipe** — Nom 6 in. diam (or smaller) Regular (or heavier) copper pipe.

3. **Pipe Covering*** — Nom 1 or 1-1/2 in. thick hollow cylindrical heavy density (min 7.0 pcf) mineral fiber units with an all service jacket. Longitudinal joints sealed with metal fasteners or factory-applied self-sealing lap tape. Transverse joints secured with metal fasteners or with butt tape supplied with the product.

See Pipe and Equipment Covering-Materials (BRGU) category in the Building Materials Directory for names of manufacturers. Any pipe covering meeting the above specifications and bearing the UL Classification Marking with a Flame Spread Index of 25 or less and a Smoke Developed Index of 50 or less may be used.

4. **Firestop System** — The firestop system shall consist of the following:

A. **Packing Material** — Min 4 in. thickness of min 4 pcf mineral wool batt insulation tightly packed into opening as a permanent form. 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*** — **Caulk** — Min 3/8 in. thickness of fill material applied within the annular space between the pipe covering and the periphery of the opening, flush with both surfaces of wall.

RECTORSEAL — Biotherm 100

*Bearing the UL Classification Mark