

## System No. W-L-5232

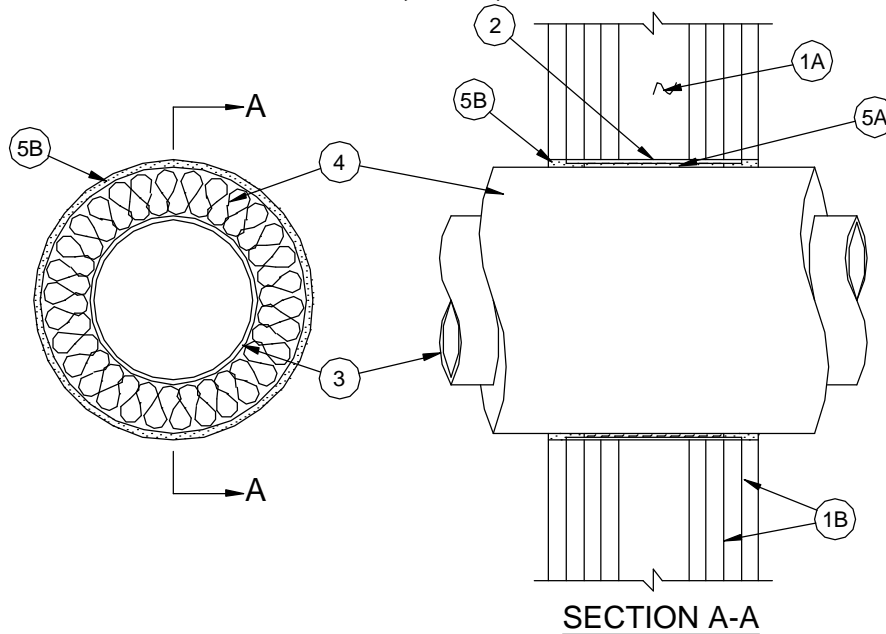
August 2008

F Ratings - 3 and 4 Hr (See Item 1)

T Ratings - 1-3/4 and 2-1/2 Hr (See Item 5)

L Rating at Ambient - Less Than 1 CFM/Sq Ft

(UL/cUL)



- Wall Assembly** — The 3 or 4 hr fire-rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner described in the individual U400 or V400 Series Wall or Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:
  - Studs** — Wall framing shall consist of steel channel studs. Steel studs to be min 1-5/8 in. (41 mm) wide for 4 hr rated walls and min 2-1/2 in. (64 mm) wide for 3 hr rated walls. Studs to be spaced max 24 in. (610 mm) OC.
  - Gypsum Board\*** — Multiple layers of min 1/2 in. (13 mm) thick gypsum board. The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U400 or V400 Series Design in the UL Fire Resistance Directory. Max diam of opening is 13 in. (330 mm).
- Steel Sleeve** — Cylindrical sleeve fabricated from min 0.013 in. (0.330 mm) thick (No. 30 gauge) to max 0.056 in. (1.42 mm) (No. 16 gauge) galv steel sheet and having a min 2 in. (51 mm) lap along the longitudinal seam. Length of sleeve to be nom 1 in. (25 mm) less than thickness of wall. Sleeve to be installed by coiling the sheet metal to a diam smaller than the through opening, inserting the coil through the opening and releasing the coil to let it uncoil against the circular cutouts in the gypsum board layers. Sleeve to be centered within thickness of wall.
- Through Penetrants** — One pipe or tube to be installed within the opening. Pipe or tube to be rigidly supported on both sides of wall assembly. The following types and sizes of pipes or tubing may be used:
  - Steel Pipe** — Nom 8 in. (203 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
  - Iron Pipe** - Nom 8 in. (203 mm) diam (or smaller) cast or ductile iron pipe.
  - Copper Tubing** — Nom 6 in. (152 mm) diam (or smaller) Type L (or heavier) copper tubing.
  - Copper Pipe** — Nom 6 in. (152 mm) diam (or smaller) Regular (or heavier) copper pipe.
- Pipe Covering\*** — Nom 1-1/2 in. (38 mm) thick hollow cylindrical heavy density (3.5 pcf (56 kg/cu meter)) glass fiber units jacketed on the outside 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. The annular space between the insulated pipe and the opening shall be min 1/4 in. (6 mm) to max 5/16 in. (8 mm).

See **Pipe Equipment Covering – Materials** – (BRGU) Category in the Building Materials Directory for names of manufacturers. Any pipe covering material 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.

5. **Firestop System** – The firestop system shall consist of the following:

- A. **Packing Material** – Min 3-1/2 in. (89 mm) thickness of min 4 pcf (64 kg/cu meter) mineral wool batt insulation firmly packed into the 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. **The T Rating is 1-3/4 hr when the mineral wool batt packing material is used.**
- A1. **Alternate Packing Material** – Min 3-1/2 in. (89 mm) thickness of ceramic blanket insulation firmly packed into the 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. **The T Rating is 2-1/2 hr when the ceramic blanket packing material is used.**

TREMCO INC – TREMstop FS Blanket

- B. **Fill, Void or Cavity Material\*** – Min 1 in. (25 mm) thickness of fill material applied within the annular space, flush with both surfaces of wall.

TREMCO INC – TREMstop Intumescent Acrylic, TREMstop IA+

\*Bearing the UL Classification Mark



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