



## System No. W-L-2528

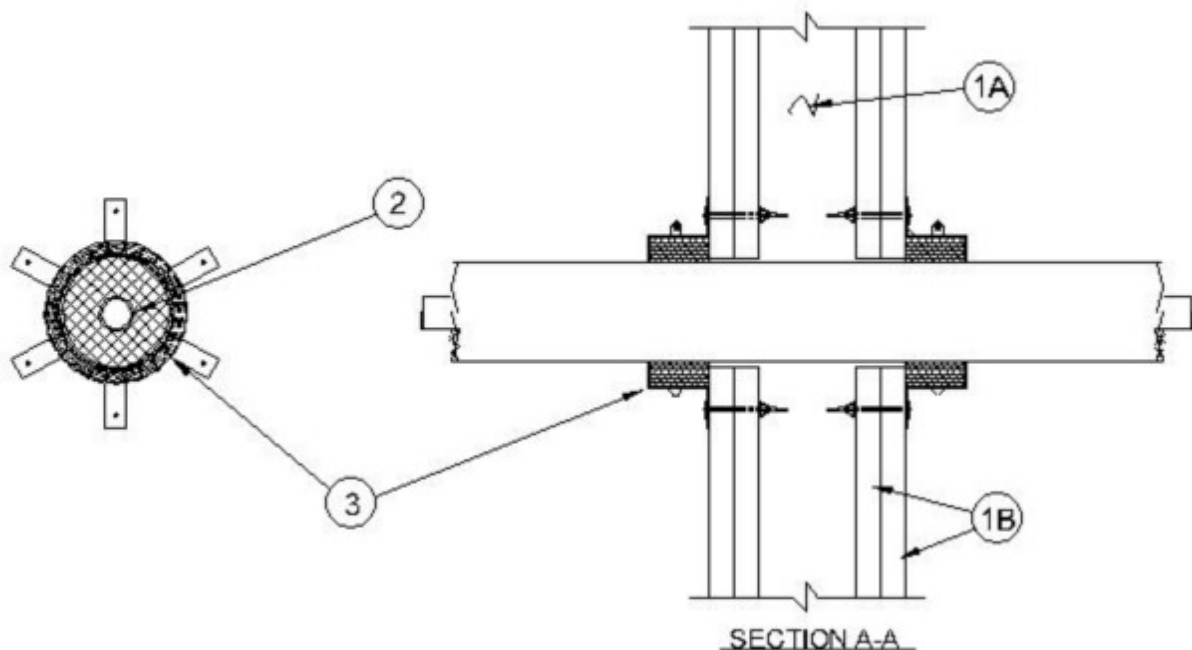
June 26, 2008

**F Rating** —1 or 2 Hr (See Item 1)

**T Rating** —0 or 2 Hr (See Item 1)

**L Rating at Ambient** - less than 1 CFM/ft<sup>3</sup> (See Item 3B)

**L Rating At 400° F** - Less than 1 CFM/ft<sup>3</sup> (See Item 3B)



**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 specified in the individual U300, U400 or V400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

**A. Studs** — Wall framing shall consist of either wood 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 2-1/2 in. (64 mm) wide and spaced max 24 in. (610 mm) OC.

**B. Gypsum Board\*** — Min 5/8 in. (16 mm) thick. The gypsum board type, thickness, number of layers and orientation shall be as specified in the individual U300, U400 or V400 Wall and Partition Design. Max diam of opening is 2 in. (51 mm).

**The hourly F Rating of the firestop system is equal to the hourly fire rating of the wall assembly in which it is installed. The hourly T rating is 0 or 2 for 1 or 2 hour rated constructions, respectively.**

**2. Through Penetrant** — One nonmetallic pipe, or tube to be installed eccentrically or concentrically within the firestop system. Annular space to be min 1/4 in. (6 mm) to max 3/8 in. (10 mm). Pipe or tube to be rigidly supported on both sides of the wall assembly. The following types and sizes of nonmetallic pipes and tubes may be used:

**A. Crosslinked polyethylene (PEX) Tubing** — Nom 3/4 in. (19 mm) diam (or smaller) UPONOR - WIRSBO AQUAPEX pre insulated crosslinked polyethylene (PEX) pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems. Pipe insulation is crosslinked closed cell foam with a nominal thickness of 1/2 in. (13 mm) (or smaller).

**B. Crosslinked polyethylene (PEX) Tubing** — Nom 3/4 in. (19 mm) diam (or smaller) UPONOR - WIRSBO AQUAPEX plus Red or Blue pre insulated crosslinked polyethylene (PEX) pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems. Pipe insulation is crosslinked closed cell foam with a nominal thickness of 1/2 in. (13 mm) (or smaller).

**C. Crosslinked polyethylene (PEX) Tubing** — Nom 3/4 in. (19 mm) diam (or smaller) UPONOR - WIRSBO hePEX plus pre insulated crosslinked polyethylene (PEX) pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems. Pipe insulation is crosslinked closed cell foam with a nominal thickness of 1/2 in. (13 mm) (or smaller).

**D. Crosslinked polyethylene (PEX) Tubing** — Nom 3/4 in. (19 mm) diam (or smaller) UPONOR - Pre sleeved WIRSBO AQUAPEX, AQUAPEX plus, or hePEX plus pre insulated crosslinked polyethylene (PEX) pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems. Pipe sleeve is a corrugated plastic sleeve between the tube and the insulation. Pipe insulation is crosslinked closed cell foam with a nominal thickness of 1/2 in. (13 mm) (or smaller).

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

**A. Firestop Device\*** — Galv steel collar lined with an intumescent material sized to fit specific diam of the through penetrant. Device to be installed around through penetrant in accordance with accompanying installation instructions. Device incorporates anchor tabs for securement to both surfaces of the wall by means of 1/8 in. diam by 2-1/2 in. (3.2 by 64 mm) long steel hollow wall anchors.

**RECTORSEAL** — Metacaulk Pipe Collar

**B. Fill void Cavity material\* -Sealant** — (Optional — Not Shown) Min 1/2 in. (13 mm) thickness of fill material applied within the annulus, flush with both surfaces of wall.

**RECTORSEAL** — METACAULK 1000 METACAULK 150+ or METACAULK 1200

**The L Rating only applies when Item 3B is used.**

\*Bearing the UL Classification Mark