

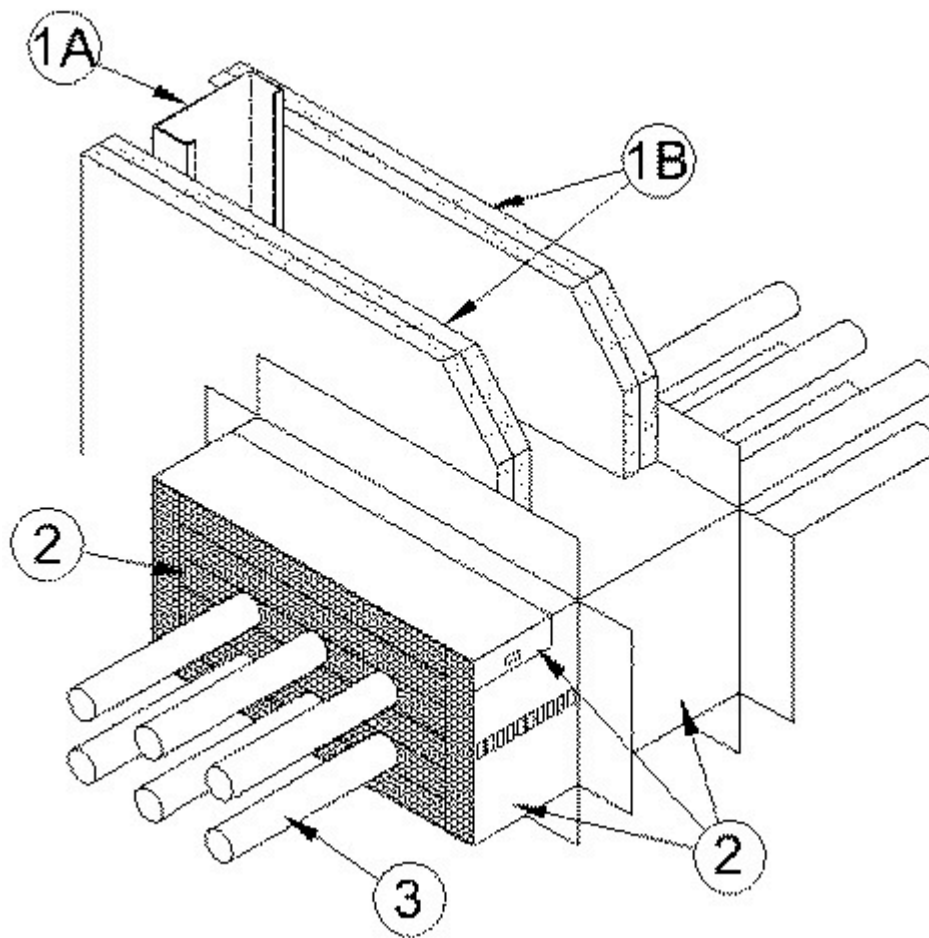
## Through-penetration Firestop Systems

### System No. W-L-3262

June 15, 2004

F Ratings — 1 and 2 Hr (See Item 1)

T Rating — 1 Hr



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 or 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 3-1/2 in. (89 mm) wide and spaced max 24 in. (610 mm) OC.

B. **Gypsum Board\*** — Thickness, type, number of layers and fasteners as specified in the individual Wall and Partition Design. Rectangular opening made in gypsum board on each side of wall assembly to be maximum 1/8 in. larger than height and width of two-piece steel sleeve (Item 2).

The hourly F and T Ratings of the firestop system are equal to the hourly fire rating of the wall assembly in which it is installed.

2. **Fill, Void or Cavity Materials\* - Fill Material Kit** — Fill material kit consists of a three-piece flanged steel sleeve with multiple nom 1 in. thick closed-cell foam rubber sheets. The three-piece sleeve consists of a nom 10 in. deep flanged insert frame which projects through the wall, a nom 4 in. deep flanged frame which fits over the end of the insert frame and a removable cover. The sleeves are provided with slots and dimples to lock the components together in walls of various thicknesses. All voids within the lined steel casing to be tightly-filled with closed-cell foam rubber sheets in accordance with the accompanying instructions.

**BEELE ENGINEERING B V** — FSP-CF24 and FSP-CF72 Kits

3. **Cables** — Aggregate cross-sectional area of cables to be max 12 percent of the cross-sectional area of the sleeved opening. Cables to be rigidly supported on both sides of the wall assembly. Any combination of the following types and sizes of copper conductor cables may be used:

A. Max 300 kcmil single-conductor power cable; cross-linked polyethylene insulation.

B. Max 3/C-No. 2/0 AWG multiconductor power and control cables; cross-linked polyethylene insulation, polyvinyl chloride jacket.

C. Max 7/C-No. 12 AWG multiconductor power and control cables; cross-linked polyethylene insulation, polyvinyl chloride jacket.

D. Max 300 pair No. 24 AWG copper conductor telecommunication cables with polyvinyl chloride (PVC) insulation and jacket.

E. Max four twisted pair No. 24 AWG copper conductor Category 5 or Category 6 data cables with polyvinyl chloride (PVC) insulation and jacket.

F. Multiple fiber optical communication cable jacketed with PVC and having a max OD of 3/8 in.

Cables to be spaced min one cable diameter apart in layers with a closed-cell foam rubber sheet (Item 2) between layers of cable. When max 25 pair telecommunication cables are used or when diam of cables is 3/8 in. or less, separation between cables in individual layers may be reduced to 0 in. (point contact). When category 5 or 6 data cables (item 3E) is used, cables may be bundled in maximum groups of ten cables per bundle. When diameter of cables is larger than 9/16 in. and when bundled cables are used, min 1 in. wide strips of closed-cell foam rubber sheet to be installed between individual cables or cable bundles in each layer of cables.

\*Bearing the UL Classification Mark