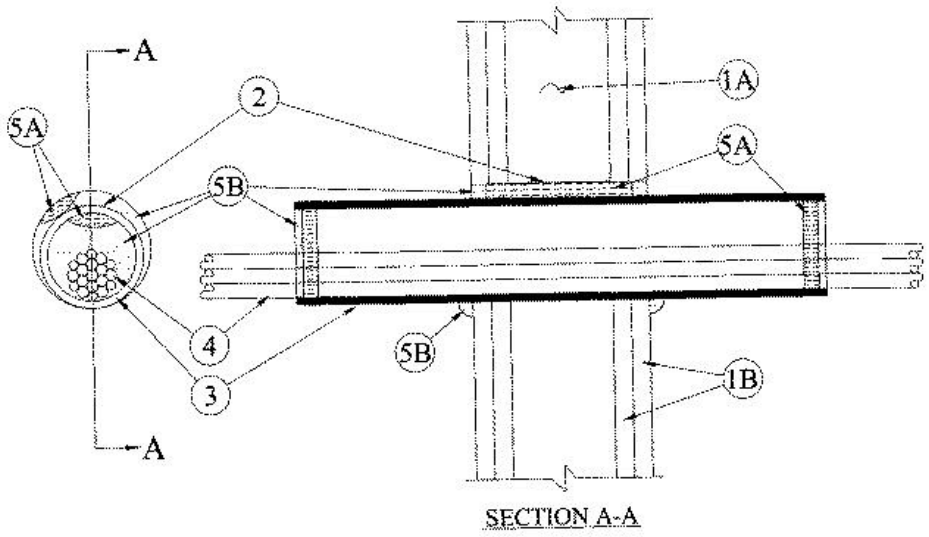
F Ratings — 1 and 2 Hr (See Item 1)
T Ratings — 1, 1-1/4 and 2 Hr (See Item 5)



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 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 shall consist of either wood 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.

B. **Gypsum Board* —** Min 5/8 in. thick, 4 ft wide with square or tapered edges. The gypsum wallboard type, thickness, number of layers and orientation shall be as specified in the individual U300 or U400 Wall and Partition Design. Max diam of opening is 4 in.
The hourly F Rating of the firestop system is equal to the hourly fire rating of the wall assembly in which it is installed.

2. **Steel Wire Mesh —** Cylindrical sleeve fabricated from No. 8 steel wire mesh and having a min 2 in. lap along the longitudinal seam. Length of steel mesh to be 1/2 in. less than thickness of wall. Steel wire mesh to be centered and formed to fit periphery of through opening.

3. **Nonmetallic Sleeve —** Nom 3 in. diam (or smaller) Schedule 40 solid core polyvinyl chloride pipe. Sleeve installed to project 6 in. beyond each surface of wall. The annular space between nonmetallic sleeve and periphery of opening shall be min 0 in. (point contact) to max 1/2 in.

4. **Cables —** Aggregate cross-sectional area of bundled cables to be max 24 percent of the cross-sectional area within the nonmetallic sleeve (Item 3). Cables to be rigidly supported on both sides of wall assembly. Any combination of the following types and sizes of copper conductor cables may be used:

A. Max 25 pr No. 24 AWG telephone cables with polyvinyl chloride (PVC) insulation and jacket.

B. Max 4 pr No. 24 AWG telephone cables with PVC insulation and jacket.

C. Max 2/C with ground No. 12 AWG Type NM nonmetallic sheathed (Romex) cable with PVC insulation and jacket.

D. Max 4 pr No. 24 AWG category 5 computer cables.

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

A. **Packing Material —** Min 3-3/4 or 5 in. thickness of min 4 pcf mineral wool batt insulation firmly packed into opening around outside of sleeve as a permanent form for 1 or 2 hr rated wall, respectively. Min 1 in. thickness of min 4 pcf mineral wool batt insulation also packed within each end of nonmetallic sleeve around cable bundle as a permanent form. Packing material to be recessed from both surfaces of wall and ends of sleeve as required to accommodate the required thickness of fill material.

B. **Fill, Void or Cavity Materials* — Caulk —** Min 1/2 in. thickness of fill material applied within annulus around outside of sleeve, flush with both surfaces of wall. Min 1/4 in. thickness of fill material also applied within each end of nonmetallic sleeve around cable bundle, flush with end of sleeve. At point contact locations, a min 1/4 in. diam bead of fill material shall be applied to the wall/nonmetallic sleeve and nonmetallic sleeve/cable interfaces on both sides of wall.
RECTORSEAL — Metacaulk 1000

C. **Packing Material —** (Not Shown) — As an alternate to the steel wire mesh (Item 2) and the mineral wool batt insulation (Item 5A), foam backer rod may be packed into the opening around outside of sleeve and within each end of nonmetallic sleeve around cable bundle as a permanent form. Packing material to be recessed from both surfaces of wall and ends of sleeve as required to accommodate the required thickness of fill material. In 1 hr fire rated wall assemblies, steel wire mesh (Item 2) and mineral wool batt insulation (Item 5A), along with foam backer rod around outside of the sleeve, may all be omitted. **When foam backer rod is used in 2 hr fire rated wall assemblies, the T Rating is 1-1/4 hr. When the steel wire mesh and mineral wool batt insulation are used in 2 hr fire rated wall assemblies, the T Rating is 2 hr. In all cases, in 1 hr fire rated wall assemblies, T Rating is 1 hr.**

*,+ Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

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