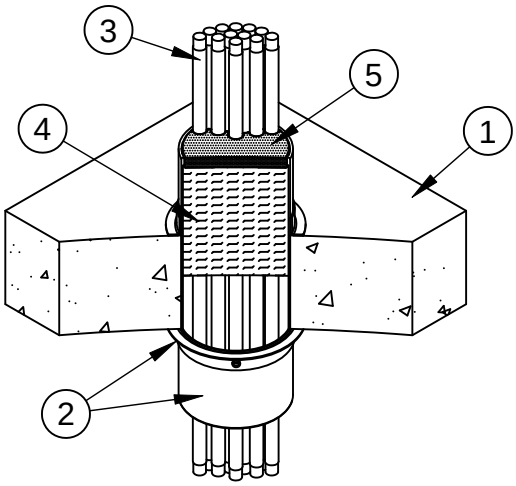
System No. F-A-3029

F Rating - 3 Hr

T Rating - 0 Hr



1. **Floor Assembly -** Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) concrete. Floor may also be constructed of min 6 in. thick hollow-core **Precast Concrete Units***. Max diam of opening is 4-1/2 in. (114 mm).

   See **Precast Concrete Units** (CAZT) category in the Fire Resistance Directory for names of manufacturers.

2. **Firestop Device* -** Steel sleeve device centered within opening and installed in accordance with the accompanying installation instructions. Steel sleeve device secured in place by means of steel escutcheon plates installed with gasketing material supplied with product. Steel escutcheon plates installed on both sides of floor and secured to device by means of steel screws provided with device. As an option, device may be cast into floor assembly. Steel sleeve device provided in nom 1, 2 and 4 in. (25, 51 and 102 mm) sizes. The min and max opening diameters for each device are tabulated below:

Device Size	Min Opening Diam	Max Opening Diam
1 in. (25 mm)	1.12 in. (28 mm)	1.25 in. (32 mm)
2 in. (51 mm)	2.38 in. (60 mm)	2.50 in. (64 mm)
4 in. (102 mm)	4.50 in. (114 mm)	4.50 in. (114 mm)

   When device is cast in place, the gasketing and escutcheon plates are optional.

   SPECIFIED TECHNOLOGIES INC - FS100, FS200, FS201, FS400 and FS401 SpecSeal Ready-Sleeves

3. **Cables -** Aggregate cross-sectional area of cables in sleeve to be max 48 percent of the cross-sectional area of the sleeve. Tight bundle of cables to be installed in the steel sleeve. The annular space within the sleeve shall be a min of 0 in. (0 mm, point contact) to a max of 2 in. (51 mm). Cables to be rigidly supported on both sides of the floor assembly. Any combination of the following types and sizes of cables may be used:

   A. Max 400 pair No. 24 AWG (or smaller) copper conductor cable with polyvinyl chloride (PVC) jacketing and insulation.

   B. Max 3/C No. 2/0 AWG (or smaller) aluminum or copper conductor service entrance cable with PVC insulation and jacket.

   C. Max 3/C No. 2/0 AWG (or smaller) copper conductor PVC jacketed aluminum clad or steel clad TECK 90 cable.

   D. Max 3/C No. 8 AWG (or smaller) nonmetallic sheathed (Romex) cable with copper conductors, PVC insulation and jacket.

   E. Max 1/C 1000 kcmil (or smaller) copper conductor power cable with XLPE or PVC insulation and XLPE or PVC jacket.

   F. Max RG59/U (or smaller) coaxial cable with fluorinated ethylene insulation and jacketing.

   G. Max 62.5/48 fiber optic cable with PVC insulation and jacketing.

   H. Max 4 pair No. 24 AWG (or smaller) copper conductor data cable with PVC insulation and jacket.

3A. **Through Penetrating Product* -** (Not Shown) - Max 4/C No. 2/0 AWG (or smaller) steel or aluminum **Armored Cable+ or Metal Clad Cable+** with copper or aluminum conductors. Diam of cable bundle (Item 3) including armored cable not to exceed 4 in. (102 mm). Through penetrating product to be rigidly supported on both sides of a floor assembly.

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4. **Packing Material -** Min 4 pcf (64 kg/m3) mineral-wool batt insulation tightly packed into sleeve to fill device to min 3 in. (76 mm) depth with min 2 in. (51 mm) of the packing material depth within the confines of the floor thickness. Packing material recessed from top edge of device as required to accommodate fill material (Item 5).

5. **Fill, Void or Cavity Material* - Putty -** Min 1/2 in. (13 mm) thickness of fill material applied atop mineral wool packing material (Item 4) flush with top edge of device (Item 2). At point contact location, apply min 3/8 in. (10 mm) diam bead of fill material at grouped cable/steel sleeve interface on top surface of floor.

SPECIFIED TECHNOLOGIES INC - SpecSeal Putty

*Bearing the UL Classification Mark