

1. Floor or Wall Assembly -- Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) concrete floor or min 5 in. (127 mm) thick lightweight or normal weight concrete wall. Wall may also be constructed of any UL Classified Concrete Blocks*. Max diam of opening is 8 in. (203 mm).

See Concrete Blocks (CAZT) or Precast Concrete Units (CFTV) categories in the Fire Resistance Directory for names of manufacturers.

- 2. Steel Sleeve -- (Optional) Nom 8 in. (203 mm) diameter (or smaller) Schedule 10 (or heavier) steel pipe sleeve installed flush with both surfaces of floor or wall assembly.
- 3. Through Penetrant -- One metallic pipe or tube to be installed eccentrically or concentrically within the firestop system. Pipe or tube to be rigidly supported on both sides of the floor or wall assembly. The following types and sizes of metallic pipes and tubes may be used:
 - A. Steel Pipe -- Nom 3 in. (76 mm) diam (or smaller) Schedule 5 (or heavier) steel pipe.
 - B. Iron Pipe -- Nom 3 in. (76 mm) diam (or smaller) cast or ductile iron pipe.
 - C. Copper Pipe -- Nom 3 in. (76 mm) diam (or smaller) Regular (or heavier) copper pipe.
 - D. Copper Tube -- Nom 3 in. (76 mm) diam (or smaller) Type L (or heavier) copper tube.
- 4. Pipe Insulation Foamed Plastic* -- Nom 2 in. (51 mm) thick polyisocyanurate foamed plastic units jacketed with an all service jacket. Longitudinal joints sealed with self-sealing lap tape. Transverse joints secured with butt tape. Annular space shall be min 1/4 in. (6 mm) to max 5/8 in. (16 mm). See Foamed Plastic (BRYX) category in the Building Materials Directory for names of manufacturers. Any foamed plastic pipe covering material meeting the above specifications and bearing the UL Classification Marking with a Flame Spread Index of 25 or less may be used.
- 5. Band Clamp -- Nom 1/2 (13 mm) wide stainless steel band clamp with worm gear tightening mechanism. Band clamp to be secured around pipe insulation 1-1/2 in. (38 mm) above top surface of floor or 1-1/2 in. (38 mm) from both surfaces of wall.
- 6. Firestop System -- The firestop system shall consist of the following:
 - A. Packing Material -- Min 4 pcf (64 kg/m3)mineral wool batt insulation compressed and tightly packed to min 4 in. (102 mm) thickness. Packing material recessed from top surface of floor or both surfaces of wall as required to accommodate fill material (Item 6B).
 - B. Fill, Void or Cavity Material* Sealant -- Min 1/2 in. (13 mm) thickness of fill material applied within annulus, flush with top surface of floor or both surfaces of wall.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC -- FS-One Sealant

*Bearing the UL Classification Mark

