

System No. F-A-8055

System tested with a pressure differential of 2.5 Pa between the exposed and the unexposed surfaces with the higher pressure on the exposed side.

1. Floor Assembly — The fire rated unprotected concrete and steel floor assembly shall be constructed of the materials and in the manner specified in the individual D900 Series designs in the UL Fire Resistance Directory and as summarized below:

A. Concrete — Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) concrete.

- B. Steel Floor and Form Units* Max 3 in. (76 mm) deep galv steel fluted units as specified in the individual Floor-Ceiling Design.
- 2. Firestop Device* Cast in place firestop device platform installed prior to concrete placement in floor assembly. The CFS-CID MD PLT firestop device platform is screwed to the fluted deck with one fastener at each corner in accordance with manufacturer installation instructions. The firestop device platform is sized for nominal 2 and 3 in. (51 and 76 mm) deep fluted decks.
- HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC CFS-CID MD PLT W2" and W3"
- 3. Firestop Device* Cast in place firestop device installed over firestop device platform (Item 2) prior to concrete placement in floor assembly. The CFS-CID MD Firestop Device is set onto and screwed to the device platform in accordance with manufacturer installation instructions. The firestop device is sized for the diameter of the through penetrant and for the height of the concrete topping over the fluted deck. The device shall be used with Hilti provided extension to accommodate the installation. Device is to project max 2 in. (51 mm) above the top surface of the concrete. HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC CFS-CID MD P 3"/2.5" and 4"/2.5"; CFS-CID MD P 3"/4" and 4"/4"; CFS-CID MD

M 3"/2.5" and 4"/2.5"; CFS-CID MD M 3"/4" and 4"/4", CFS-CID MD PX 3"/2.5" and 4"/2.5" and CFS-CID MD PX 3"/4" and 4"/4"

- 4. Through Penetrants Pipes, tubing or cable to be bundled within the device. The annular space between penetrants and the device is min 0 in. (point contact) to max 3/4 in. (19 mm). Penetrants to be rigidly supported on both sides of floor assembly. The following types and sizes of penetrants may be used.
- 4A. Metallic Pipes A max of four pipes or tubes installed within the device. Of the four metallic penetrants, a max of two may have a nom diam greater than 1/2 in. (13 mm). The following types and sizes of metallic pipes, conduits or tubing may be used:
 - A. Steel Pipe Nom 1 in. (25 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
 - B. Iron Pipe Nom 1 in. (25 mm) diam (or smaller) cast or ductile iron pipe.
 - C. Conduit Nom 1 in. (24 mm) diam (or smaller) steel electrical metallic tubing or 1 in. (25 mm) diam (or smaller) steel conduit.
 - D. Copper Pipe Nom 1 in. (25 mm) diam (or smaller) Regular (or heavier) copper pipe.
 - E. Copper Tube Nom 1 in. (25 mm) diam (or smaller) Type L (or heavier) copper tube.

4B. Nonmetallic Pipes — A max of one nonmetallic pipe or conduit may be used. The following types and sizes of nonmetallic pipes or conduits may be used:

- A. Polyvinyl Chloride (PVC) Pipe Nom 1-1/4 in. (32 mm) diam (or smaller) Schedule 40 solid core PVC pipe for use in vented (drain, waste or vent) or closed (process or supply) piping systems.
- B. Chlorinated Polyvinyl Chloride (CPVC) Pipe Nom 1-1/4 in. (32 mm) diam (or smaller) SDR 13.5 CPVC pipe for use in closed (process or supply) piping systems.

4C. Cables — A max of two of the following:

- A. 4 pair No. 8 AWG (or smaller) thermostat cables with PVC insulation and jacket.
- B. Max 3/C No. 12 AWG with ground with polyvinyl chloride jacketed steel glad Type MC cable.
- C. Max 1/C 750 kcmil (or smaller) copper conductor cable with polyvinyl chloride (PVC) insulation and jacket.
- D. Max 7/C No. 12 AWG with polyvinyl chloride (PVC) insulation and jacket.
- 5. Tube Insulation Plastics# Nom 3/4 in. (19 mm) thick acrylonitrile butadiene/polyvinyl chloride (AB/PVC) flexible foam furnished in the form of tubing. The tube insulation shall be installed on all metallic penetrants (Item 4A) having a nom diam greater than 1/2 in. (13 mm).
 See Plastics (OME72) esteepenie the Plastics Receptized Component Directory for participations. Any Receptized Component tube

See Plastics (QMFZ2) category in the Plastics Recognized Component Directory for names of manufacturers. Any Recognized Component tube insulation meeting the above specifications and having a UL 94 Flammability Classification of 94-5VA may be used.

- 6. Packing Material Min 2 in. (51 mm) thickness of min 4 pcf (64 kg/m3) mineral wool batt insulation firmly packed within top of device above smoke seal gasket, flush with the top of device.
- * 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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