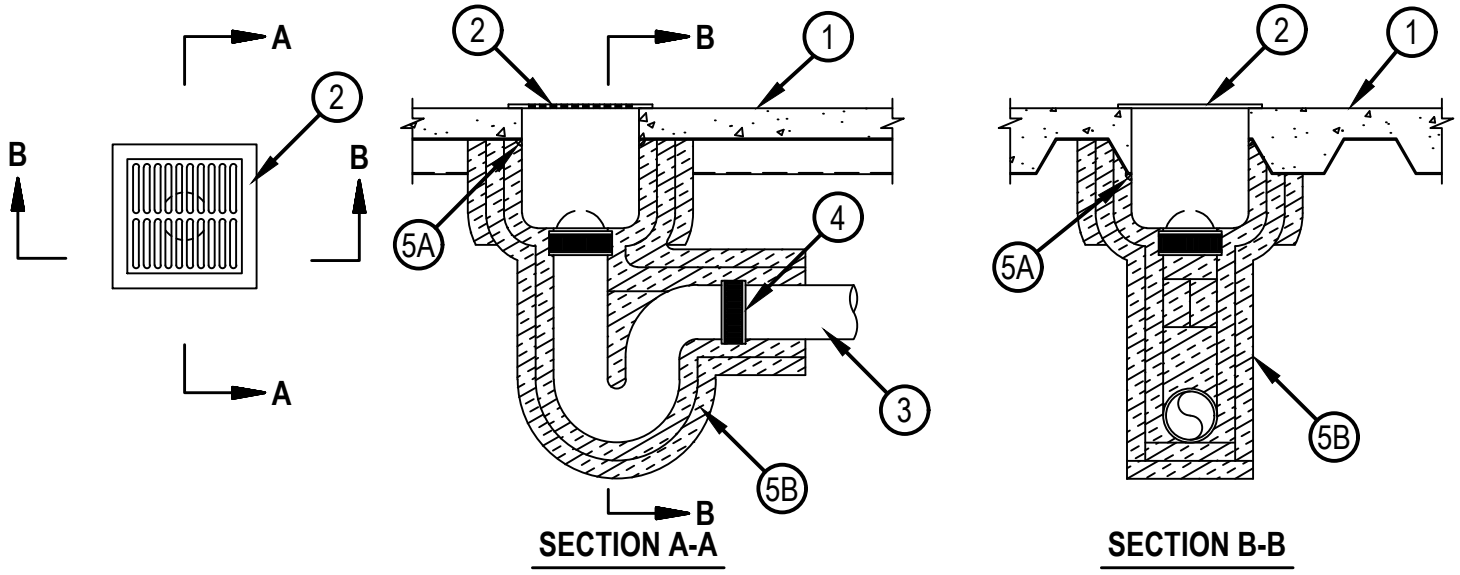
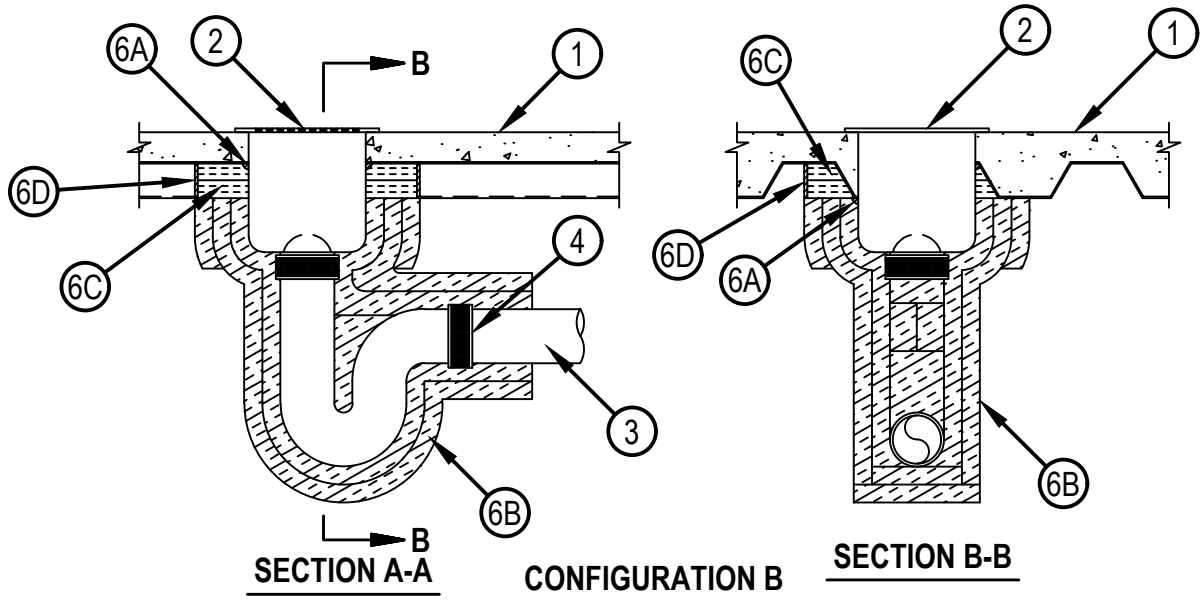
# System No. F-A-1137

Classified by
Underwriters Laboratories, Inc.
to UL 1479 and CAN/ULC-S115

| ANSI/UL1479 (ASTM E814) | CAN/ULC S115 |
|---|---|
| F Rating — 2 Hr | F Rating — 2 Hr |
| T Rating — 2 Hr | FT Rating — 2 Hr |
| L Rating At Ambient — Less Than 1 CFM/ft² | FH Rating — 2 Hr |
| L Rating At 400 F — 4 CFM/sq ft | FTH Rating — 2 Hr |
| | L Rating At Ambient — Less Than 5.1 L/s/m² |
| | L Rating At 204°C — 5.4 L/s/m² |




**CONFIGURATION A**




**CONFIGURATION B**

# System No. F-A-1137



1. Floor or Wall Assembly — The fire rated protected or unprotected concrete and steel floor assembly shall be constructed of the materials and in the manner specified in the individual D700 or D900 Series designs in the UL Fire Resistance Directory and as summarized below:
   A. Concrete — Min 2-1/2 in. (64 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) concrete.
   B. Steel Floor and Form Units* — Composite or non-composite max 3 in. (76 mm) deep galv steel fluted units as specified in the individual Floor-Ceiling Design.
   C. Spray-Applied Fire Resistive Material* — (Optional. Not Shown.) - Steel floor units may be sprayed with the type and thickness of fire resistive material indicated in the individual D700 Series Design.
      UNITED STATES MINERAL PRODUCTS CO, DBA ISOLATEK INTERNATIONAL — Type 300
      GCP APPLIED TECHNOLOGIES INC — MK-6/HY+
2. Floor Sink and Grate — Max 12 in. wide by 12 in. long by 10 in. (305 by 305 by 254 mm) deep cast iron waste drain floor sink permanently embedded during concrete pour or grouted into concrete floor assembly. Cast iron floor grating to be installed at top of sink. Metal dome strainer may be used in sink drain. Sink flanges to bear on top plane of floor assembly.
3. Iron Pipe — Nom 4 in. (102 mm) diam (or smaller) cast or ductile iron pipe to be secured to outlet of floor sink with no-hub coupling and to be rigidly supported beneath floor away from floor sink with suitable hangers.
4. Compression Coupling — Nom 4 in. (102 mm) diam (or smaller) compression type high pressure pipe coupling with elastomeric plastic and a stainless steel shield. Coupling to be secured to pipe with stainless steel hose clamps at any point beyond the bottom of floor.

Firestop Configuration A

5. Firestop System — The firestop system shall consist of the following:
   A. Fill, Void or Cavity Materials*- Sealant — Min 1/2 in. (13 mm) bead of fill material applied around periphery of floor sink at interface with bottom surface of floor.
      HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE Sealant or FS-ONE MAX Intumescent Sealant
   B. Duct Wrap Materials* — Two layers of nom 1-1/2 in. (38 mm) thick faced or unfaced duct wrap to be tightly wrapped around sink and drain pipe. Top ends of both layers of duct wrap shall be cut to contour of the fluted deck and extend a minimum of 24 in. (610 mm) beyond the bottom (valley) of the fluted floor. An additional layer of nominal 1-1/2 in. (38 mm) thick duct wrap (faced or unfaced) tightly wrapped around the first two layers, cut to contour of the fluted deck and extending down beyond bottom (valley) of fluted deck min 6 in. (152 mm). The exposed duct wrap layers are held in position using nom 16 ga steel wire ties spaced max 8 in. (203 mm) on center and max 1 in. (25 mm) from bottom valley of fluted deck or from ends of layers.
      THERMAL CERAMICS INC — FireMaster FastWrap XL, FireMaster FastWrap+ or Pyroscat DuctWrap XL
      UNIFRAX I L L C — FyreWrap Duct Insulation or FyreWrap Duct 1.5 Insulation

Firestop Configuration B

6. Firestop System — The firestop system shall consist of the following:
   A. Fill, Void or Cavity Materials*- Sealant — Min 1/2 in. (13 mm) bead of fill material applied around periphery of floor sink at interface with bottom surface of floor.
      HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE Sealant
   B. Duct Wrap Materials* — Two layers of nom 1-1/2 in. (38 mm) thick faced or unfaced duct wrap to be tightly wrapped around sink and drain pipe flush with bottom (valley) of fluted floor deck. Both layers of duct wrap shall extend a minimum of 24 in. (610 mm) beyond the bottom of floor .An additional layer of nominal 1-1/2 in. (38 mm) thick duct wrap (faced or unfaced) tightly wrapped around the first two layers flush with bottom of fluted floor deck and extending down min 6 in. (152 mm). Exposed duct wrap layers are held in position using nom 16 ga steel wire ties spaced max 8 in. (203 mm) on center and max 1 in. (25 mm) from ends of layers.
      THERMAL CERAMICS INC — FireMaster FastWrap XL, FireMaster FastWrap+ or Pyroscat DuctWrap XL
      UNIFRAX I L L C — FyreWrap Duct Insulation or FyreWrap Duct 1.5 Insulation
   C. Duct Wrap Materials* — Additional pieces of nom 1-1/2 in. (38 mm) thick faced or unfaced duct wrap are cut to contour and friction fit to fill the space between duct wrap layers (Item 5B) and fluted deck. In the exposed fluted area, duct wrap is recessed 1/4 in. (6 mm) from outer duct wrap layer (Item 5B) to accommodate the fill material (Item 5D).
      THERMAL CERAMICS INC — FireMaster FastWrap XL, FireMaster FastWrap+ or Pyroscat DuctWrap XL
      UNIFRAX I L L C — FyreWrap Duct Insulation or FyreWrap Duct 1.5 Insulation
   D. Fill, Void or Cavity Materials*- Sealant — Min 1/4 in. (6 mm) thickness of fill material applied over the duct wrap within exposed fluted area (Item 5C), between top of duct wrap layer (Item 5B) and bottom of fluted deck, flush with the outer layer of the duct wrap (Item 5B).
      HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE Sealant, FS-ONE MAX Intumescent Sealant

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