



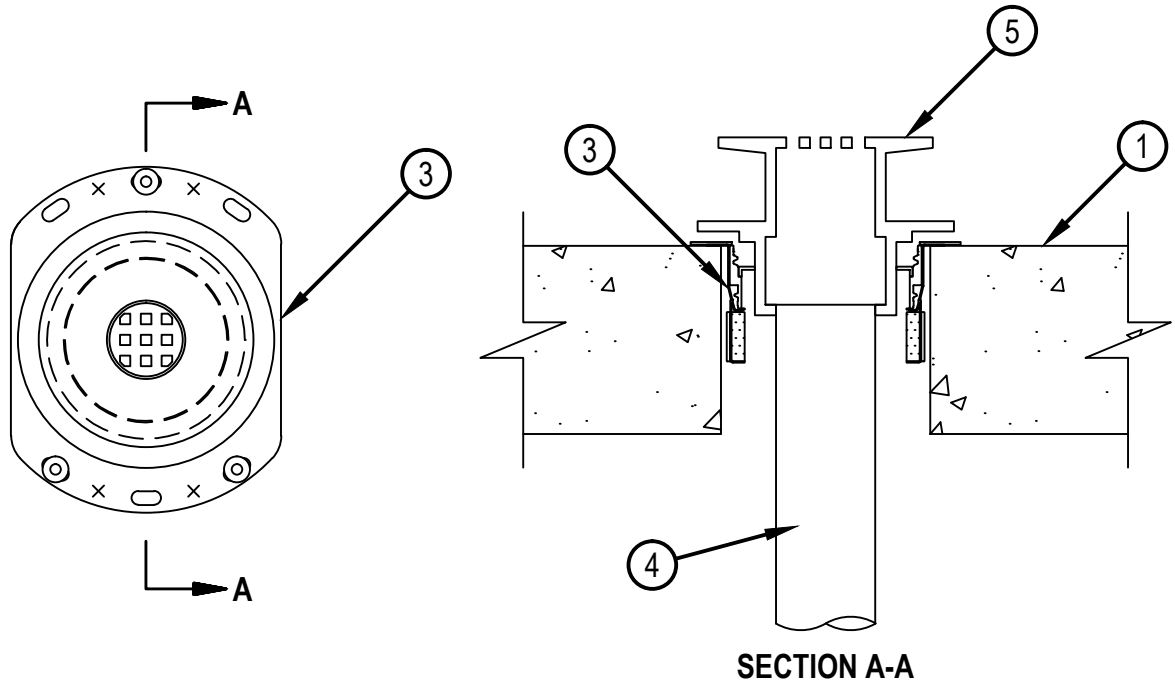
Classified by
Underwriters Laboratories, Inc.
to UL 1479

System No. F-A-2230

F Rating — 2 Hr

T Rating — 0 Hr

FA 2230



1. Floor Assembly — Min 4-1/2 in. (114 mm) to max 8 in. (203 mm) thick lightweight or normal weight (100-150 pcf or 1600-2400 kg/m³) concrete floor assembly. Diam of opening is 5 in. (127 mm).
- 1A. Floor Assembly — (Optional, Not Shown) — The fire rated concrete and steel deck floor assembly shall be constructed of the materials and in the manner specified in the individual D700, D800 or D900 Series designs in the UL Fire Resistance Directory and as summarized below:
 - A. Concrete — Min 4-1/2 in. (114 mm) to max 8 in. (203 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m³) concrete, as measured over crest of fluted steel deck.
 - 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.
2. Metallic Sleeve — (Optional, Not Shown) - Nom 5 in. (127 mm) diam Schedule 10 (or heavier) steel sleeve cast or grouted into floor assembly, flush with floor surfaces.
- 2A. Sheet Metal Sleeve — (Optional, Not Shown) - Nom 5 in. (127 mm) diam, min 26 ga galv steel and having a min 2 in. (51 mm) lap along the longitudinal seam, and may extend a max of 4 in. (102 mm) below the bottom of the floor and flush with the top surface of the concrete floor. Sleeve installed by coiling the sheet steel to a diam smaller than the through opening, inserting the coil through the openings and releasing the coil to let it uncoil against the opening.
3. Firestop Device* — Drop-in firestop device installed in core-drilled or sleeved opening in concrete floor assembly in accordance with accompanying installation instructions. The firestop device flange should be secured to the top surface of the floor with three 1/4 in. (6 mm) diam by min 1-1/4 in. (32 mm) long steel expansion bolts or screw anchors (installed in a triangular fashion through holes provided). As alternates to the anchors specified above, Hilti 1/4 in. (6 mm) diam by 1-1/4 in. (32 mm) long KWIK-CON II+ concrete screw anchor, Hilti 1/4 in. (6 mm) diam by 1-3/4 in. (45 mm) long KWIK-BOLT 3 steel expansion anchor or Hilti 1/4 in. (6 mm) by 3/4 in. (19 mm) long Metal HIT Anchor may be used. In addition, four 11/16 in. (18 mm) long Hilti X-GH P18 MX steel fasteners may be installed through the steel flange, two on each side. HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CFS-DID 3"MD
4. Drain Piping — Nom 2 in. (51 mm) diam Schedule 40 solid core or cellular core Polyvinyl Chloride (PVC) drain piping cemented into bottom of shower/floor drain. Drain piping rigidly supported at underside of floor with suitable hangers.
5. Shower/Floor Drain Fitting — Polyvinyl chloride (PVC) shower fitting with chromed steel shower drain or floor drain strainer sized to accommodate drain pipe. PVC body cemented to nonmetallic drain pipe (Item 4).

*Bearing the UL Classification Mark



Hilti Firestop Systems

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