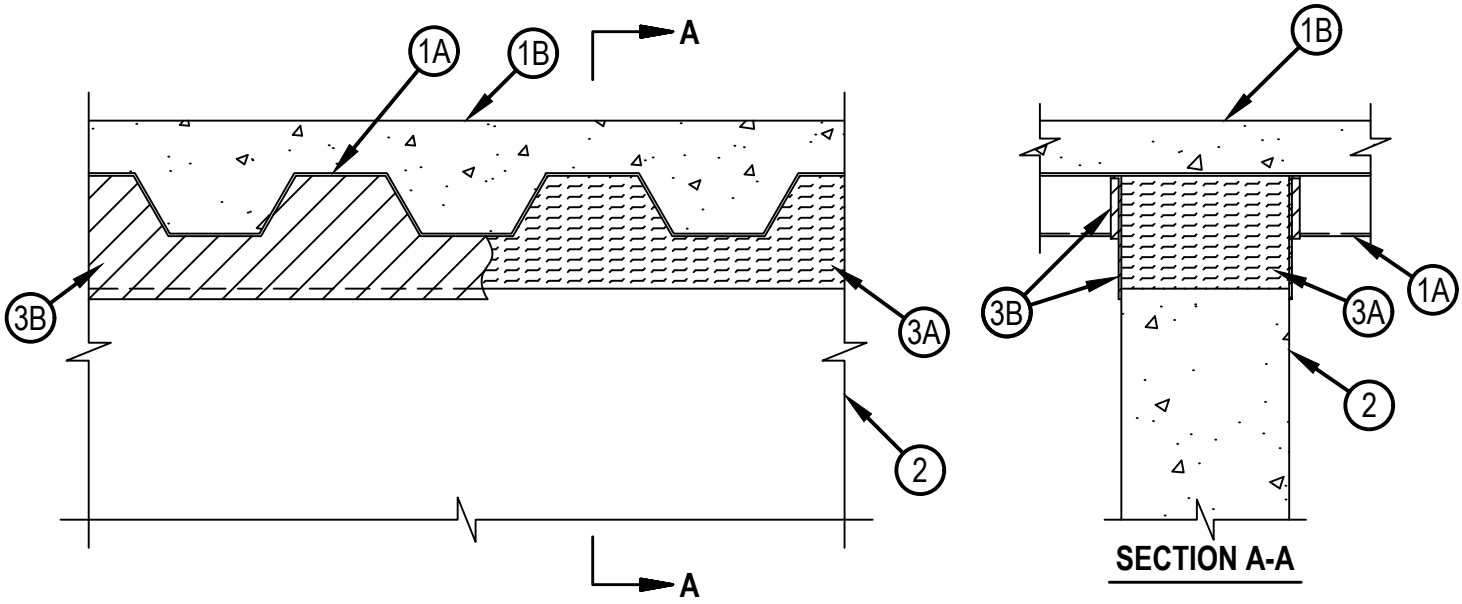
Classified by
Underwriters Laboratories, Inc.
to UL 2079 and CAN/ULC-S115

# System No. HW-D-1069

| ANSI/UL2079 | CAN/ULC S115 |
|---|---|
| Assembly Rating — 2 Hr | F Rating — 2 Hr |
| Nominal Joint Width - 1-1/2 In. or 2-1/2 In. (See Item 3) | FT Rating — 2 Hr |
| Class II Movement Capabilities - 40% or 50% Compression or Extension (See Item 3) | FH Rating — 2 Hr |
| | FTH Rating — 2 Hr |
| | Nominal Joint Width - 1-1/2 In. or 2-1/2 In. (See Item 3) |
| | Class II Movement Capabilities - 40% or 50% Compression or Extension (See Item 3) |




1. Floor Assembly — The fire rated fluted steel floor unit/concrete floor assembly shall be constructed of the materials and in the manner described in the individual D900 Series Floor-Ceiling Design in the Fire Resistance Directory and shall include the following construction features:
   A. Steel Floor and Form Units* — Max 3 in. (76 mm) deep galv steel fluted floor units.
   B. Concrete — Min 2-1/2 in. (64 mm) thick reinforced concrete, as measured from the top plane of the floor units.

1A. Roof Assembly — (Not Shown) — As an alternate to the floor assembly, a fire rated fluted steel deck roof assembly may be used. The roof assembly shall be constructed of the materials and in the manner described in the individual P900 Series Roof-Ceiling Design in the UL Fire Resistance Directory. The hourly rating of the roof assembly shall be equal to or greater than the hourly rating of the wall assembly. The roof assembly shall include the following construction features:
   A. Steel Roof Deck — Max 3 in. (76 mm) deep galv steel fluted roof deck.
   B. Roof Insulation — Min 2-1/4 in. (57 mm) thick poured insulating concrete, as measured from the top plane of the floor units.

2. Wall Assembly — Wall can be constructed perpendicular or parallel to direction of fluted deck. Min 6 in. (152 mm) thick steel reinforced lightweight or normal weight (100-150 pcf or 1600 -2400 kg/m$^3$) structural concrete. Wall may also be constructed of any UL Classified Concrete Blocks*.
   See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.

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3. Joint System — Max separation between bottom of floor units and top of concrete wall at time of installation is 2-1/2 in. (64 mm). The joint system is designed to accommodate a max 40 percent compression or extension from its installed width. When nominal joint width is 1-1/2 in. (or less), the joint system is designed to accommodate a max 50% compression or extension from its installed width. The joint system shall consist of the following:

   A. Forming Material* — Nom 4 pcf (64 kg/$m^3$) forming material with width equal to thickness of wall compressed 50 percent in thickness and inserted cut-edge first into gap between bottom of steel floor or roof deck and top of wall. Additional pieces of mineral wool friction-fit to completely fill the flutes of the steel floor or roof deck above the wall.
   ROCK WOOL MANUFACTURING CO — Delta Board
   THERMAFIBER INC — Type SAF

   A1. Forming Material* — Plugs — As an alternate to Item 3A, preformed mineral wool plugs, formed to the shape of the fluted floor units, friction fit to completely fill the flutes above the wall. The plugs shall be flush with both wall surfaces. Additional forming material, described in Item 3A, to be used in conjunction with the plugs to fill the gap between the top of the wall and the bottom of the steel floor units.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP777 Speed Plugs

   B. Fill, Void or Cavity Material* — Sealant — Min 1/16 in. (1.6 mm) dry thickness (min 1/8 in. or 3.2 mm wet thickness) of fill material sprayed on each side of the wall to completely cover mineral wool forming material and to overlap a min of 1/2 in. (13 mm) onto wall surface and steel deck on both sides of wall.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP672 Firestop Spray or CFS-SP WB Firestop Joint Spray

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