



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

System No. HW-D-0155

F Rating — 2 Hr
FT Rating — 2 Hr
FH Rating — 2 Hr
FTH Rating — 2 Hr

Nominal Joint Width—3/4 In.

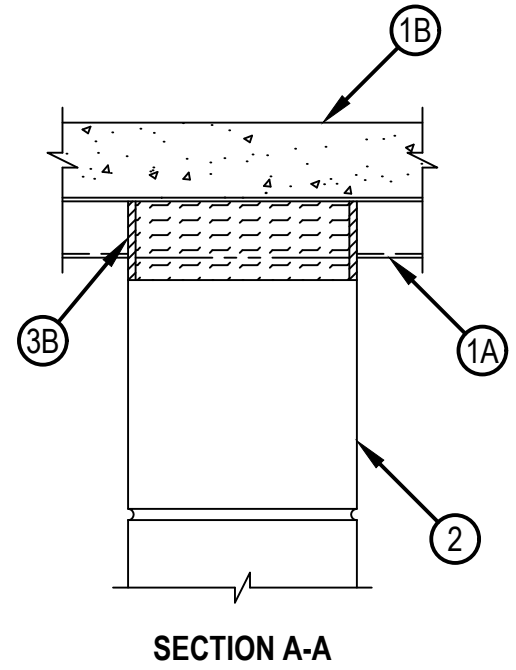
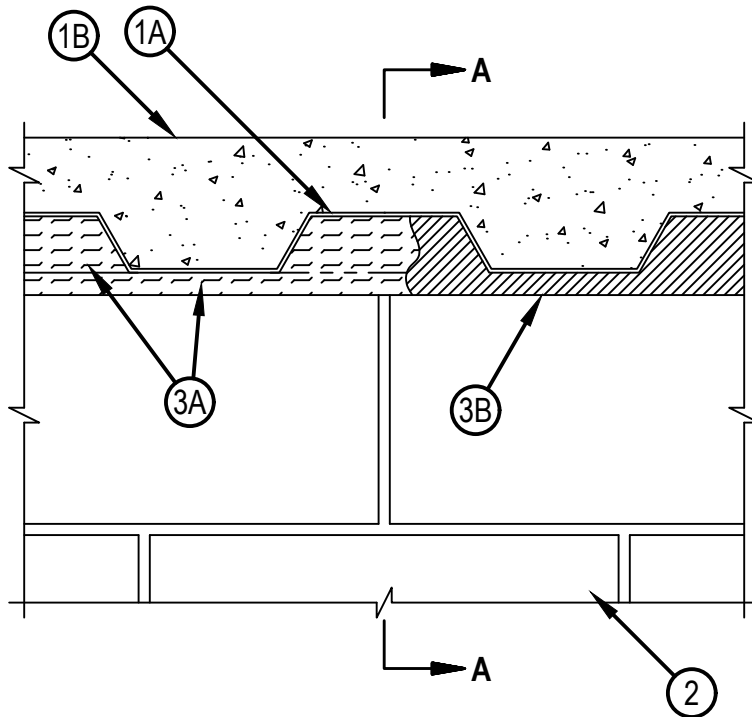
L Rating At Ambient — Less Than 1 CFM/Lin Ft

L Rating At 400°F — Less Than 1 CFM/Lin Ft

Class II Movement Capabilities—17% Compression Or Extension



HWD 0155



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November 15, 2021

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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 Floor-Ceiling Design in the Fire Resistance Directory and shall include the following construction features:
 - A. Steel Floor and Form Units* — Max 2 in. (51 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 — Min 5 in. (127 mm) thick steel reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m³) concrete. Wall may also be constructed of an UL Classified Concrete Blocks*.

See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufactures.
3. Joint System — Max separation between bottom of floor or roof and top of wall is 3/4 in. (19 mm). The joint system is designed to accommodate a max 17 percent compression or extension from its installed width. The joint system consists of a forming material and a fill material between the top of the wall and the bottom of the floor or roof, as follows:
 - A. Forming Material* — Nom 4 pcf (64 kg/m³) density mineral wool batt insulation cut approx 20 percent wider than the flutes, with a length approx equal to the overall thickness of the wall. Pieces stacked as needed and then compressed 20 percent in thickness and inserted into the flutes of the steel deck. The mineral wool batt insulation shall be recessed 1/4 in. (6 mm) from wall surfaces. Additional nom 4 pcf (64 kg/m³) mineral wool batt insulation shall be cut into strips to fill the gap between the top of the wall and bottom of the steel deck. The width of the strips shall be equal to the total thickness of the wall less 1/2 in. The strips of mineral wool are compressed 50 percent in thickness and firmly packed into the gap between the top of the wall and bottom of the steel deck, recessed 1/4 in. (6 mm) from wall surfaces.
 - A1. Forming Material*—Plugs — (Optional-Not Shown) Performed mineral wool plugs, formed to the shape of the fluted floor units, friction fit to completely fill the flutes. The plugs shall be recessed 1/4 in. (6 mm) from 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 bottom of steel floor units.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP777 Speed Plugs
 - B. Fill, Void or Cavity Material* - Sealant — Min 1/4 in. (6 mm) thickness of fill material installed on each side of the wall in the flutes of the steel deck between the top of the wall and the bottom of the steel deck, flush with each surface of the wall.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP606 Flexible Firestop Sealant

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