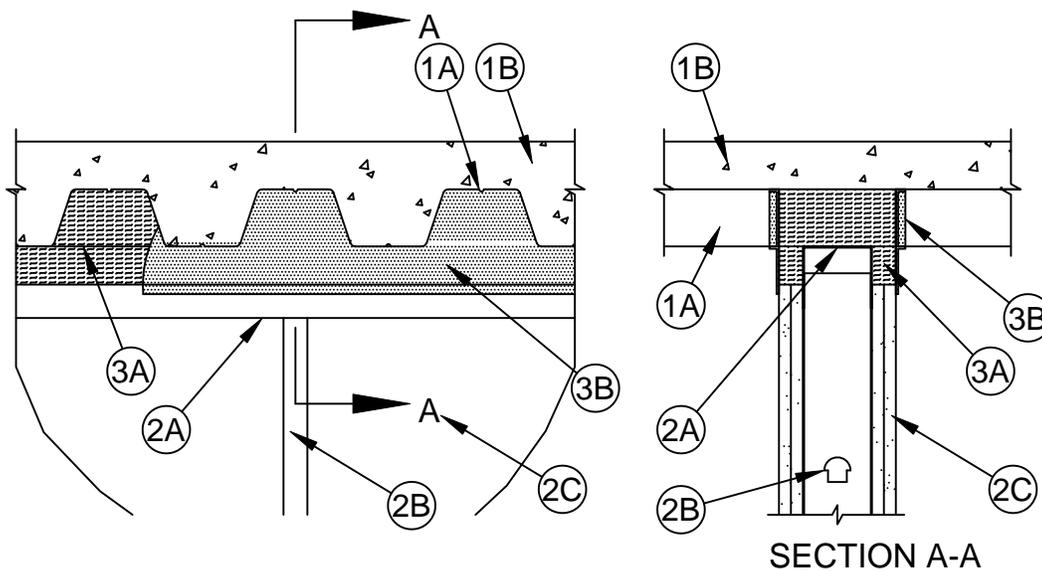


## System No. HW-D-0809



ANSI/UL2079	CAN/ULC S115
Assembly Ratings - 1 and 2 Hr (See Item 2)	F Ratings - 1 and 2 Hr (See Item 2)
Nominal Joint Width - 2 In.	FT Ratings - 1 and 2 Hr (See Item 2)
Class II Movement Capabilities - 50% Compression or Extension	FH Ratings - 1 and 2 Hr (See Item 2)
L Rating At Ambient - Less Than 1 CFM/lin ft	FTH Ratings - 1 and 2 Hr (See Item 2)
L Rating At 400 F - Less Than 1 CFM/lin ft	Nominal Joint Width - 51 mm
	Class II Movement Capabilities - 50% Compression or Extension
	L Rating At Ambient - Less Than 1.55 L/s/m
	L Rating At 204 C - Less Than 1.55 L/s/m



1. **Floor Assembly** - The fire-rated fluted steel deck/concrete floor assembly shall be constructed of the materials and in the manner described in the individual D900 Series Floor-Ceiling Design in the UL Fire Resistance Directory. The hourly fire rating of the floor assembly shall be equal to or greater than the hourly fire rating of the wall assembly. The floor assembly 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 (Item 1), 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 steel roof deck.



**Specified Technologies Inc. 210 Evans Way Somerville, NJ 08876**

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2. **Wall Assembly** - The 1 hr or 2 hr fire-rated gypsum board/steel stud wall assembly shall be constructed of the materials and in the manner described in the individual U400, V400 or W400 Series Wall and Partition Design in the UL Fire Resistance Directory and shall include the following construction features:

- A. **Steel Floor and Ceiling Runners** - Floor and ceiling runners of wall assembly shall consist of galv steel channels sized to accommodate steel studs (Item 2B). Flange height of ceiling runner shall be min 1/4 in. (6 mm) greater than max extended joint width. Ceiling runner installed perpendicular to direction of fluted steel deck and secured to valleys of deck with steel masonry anchors or welds spaced max 24 in. (610 mm) OC.
- B. **Studs** - Steel studs to be min 3-1/2 in. (89 mm) wide. Studs cut 1-1/4 in. to 1-1/2 in. (32 to 38 mm) less in length than assembly height with bottom nesting in and resting on floor runner and with top nesting in ceiling runner without attachment. Stud spacing not to exceed 24 in. (610 mm) OC.
- C. **Gypsum Board\*** - Gypsum board sheets installed to a min total thickness of 5/8 in. (16 mm) or 1-1/4 in. (32 mm) on each side of wall for 1 hr and 2 hr fire-rated assemblies, respectively. Wall to be constructed as specified in the individual Wall and Partition Design in the UL Fire Resistance Directory, except that a max 2 in. (51 mm) gap shall be maintained between the top of the gypsum board and the bottom of the steel deck. The screws attaching the gypsum board to the studs along the top of the wall shall be located 1-1/2 in. (38 mm) below the bottom of the ceiling runner.

**The hourly fire rating of the joint system is equal to the hourly fire rating of the wall.**

3. **Joint System** - Max separation between bottom plane of floor or roof and top of gypsum board at time of installation of joint system is 2 in. (51 mm). The joint system is designed to accommodate a max 50 percent compression or extension from its installed width. The joint system consists of forming material and a fill material as follows:

- A. **Forming Material\*** - Min 4 pcf (64 kg/m<sup>3</sup>) mineral wool batt cut to the shape of the steel deck flute and compressed and installed into the flutes above the ceiling channel with ends projecting flush with the wall surfaces. The mineral wool batt pieces are to be cut to a height 1 in. (25 mm) greater than the overall height of the flutes and to a length equal to the overall thickness of the wall assembly. Additional sections of mineral wool batt insulation are compressed 50 percent in thickness and installed cut edge first to completely fill the gap above the top of the gypsum board, flush with both surfaces of wall.

**INDUSTRIAL INSULATION GROUP L L C** - MinWool 1200 Safing

**JOHNS MANVILLE** - Safing

**ROCK WOOL MANUFACTURING CO** - Delta Board

**ROCKWOOL MALAYSIA SDN BHD** - SAFE

**ROCKWOOL** - SAFE

**THERMAFIBER INC** - SAF

- 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 spray applied on each side of the wall in the flutes of the steel floor or roof deck and between the top of the wall and the bottom of the steel floor or roof deck and overlapping a min 1/2 in. (13 mm) onto gypsum board and onto steel deck on both sides of wall.

**SPECIFIED TECHNOLOGIES INC** - SpecSeal AS200 Elastomeric Spray

\* 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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