

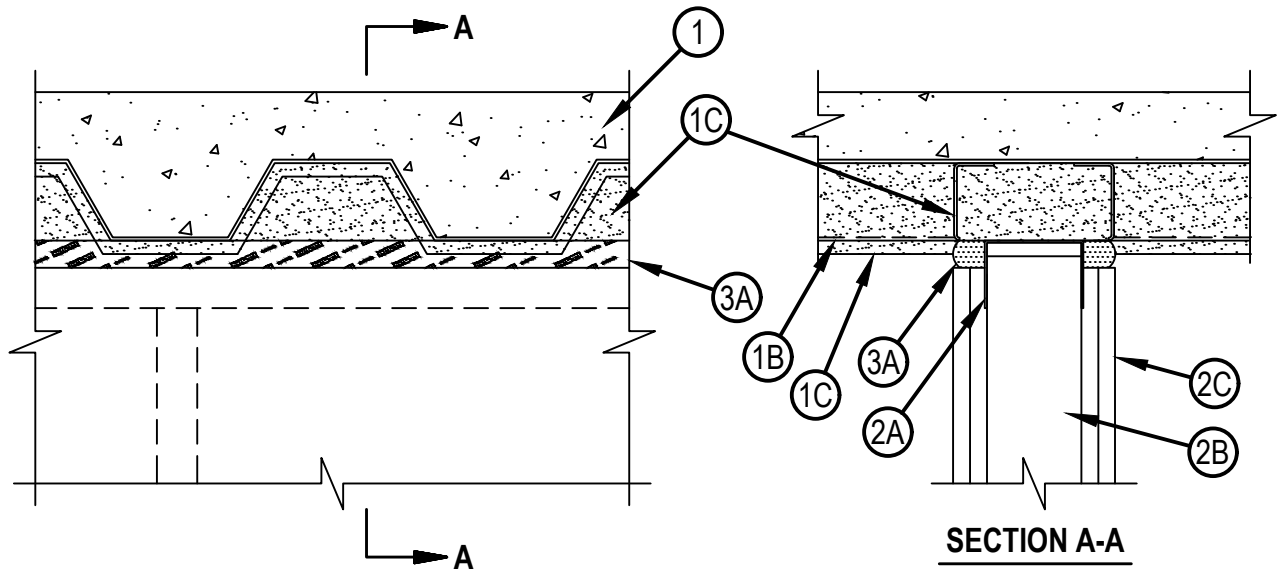


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Underwriters Laboratories, Inc.  
to UL 2079 and CAN/ULC-S115

# System No. HW-D-0923

HWD 0923

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 Widths — 7/8, 1 or 1-5/8 In (See Item 3)	FT Ratings — 1 and 2 Hr (See Item 2)
Class II or III Movement Capabilities — 62% Compression or Extension, 86 Compression or Extension or 92% Compression only (See Item 3-Table 1)	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 Widths – 22, 25 or 41 mm (See Item 3)
	Class II or III Movement Capabilities — 62% Compression or Extension, 86 Compression or Extension or 92% Compression only (See Item 3-Table 1)
	L Rating at Ambient — Less than 1.55 L/s/m
	L Rating at 204°F — Less than 1.55 L/s/m



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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 D700 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 fluted floor units.
  - B. Concrete — Min 2-1/2 in. (64 mm) thick reinforced (100-150 pcf or 1600-2400 kg/m<sup>3</sup>) concrete, as measured from the top plane of the floor units.
  - C. Spray-Applied Fire Resistive Materials\* — After installation of the steel ceiling runners and Fill, Void or Cavity Material (Item 3A), the steel floor units shall be sprayed with the thickness of material specified in the individual D700 Series Design. Spray-applied fire resistive material shall completely fill the flutes above and extending the width of the wall.
    - GCP APPLIED TECHNOLOGIES INC — Type MK-6/HY, MK-6/HY ES, MK-6s, MK-10HB, RG
    - ISOLATEK INTERNATIONAL — Types 300 or 400
2. Wall Assembly — The 1 or 2 h fire-rated gypsum board /steel stud wall assembly shall be constructed of the materials and in the manner specified 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 min No. 25 gauge 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, or parallel to and centered under valley of fluted deck, and secured to valleys with steel masonry anchors or steel fasteners spaced max 24 in. (610 mm) OC. Secure ceiling runner prior to installation of the spray-applied fire resistive material.
    - A1. Light Gauge Framing\* — Slotted Ceiling Runner — As an alternate to the ceiling runner in Item 2A, slotted ceiling runner to consist of galv steel channel with slotted min 2-1/2 in. (64 mm) flanges and sized to accommodate steel studs (Item 2B). Slotted Ceiling runner installed perpendicular to direction of fluted steel deck, or parallel to and centered under valley of fluted deck, and secured to valleys with steel masonry anchors, steel fasteners or welds spaced max 24 in. (610 mm) OC. Secure ceiling runner before the spray-applied fire resistive material is used.
      - CEMCO, LLC — CST
      - CLARKDIETRICH BUILDING SYSTEMS — Types SLT, SLT-H
      - MARINO/WARE, DIV OF WARE INDUSTRIES INC — Type SLT
      - METAL-LITE INC — The System
      - SCAFCO STEEL STUD MANUFACTURING CO — Slotted Track
      - TELLING INDUSTRIES L L C — True-Action Deflection Track
  - B. Studs — Steel studs to be min 3-5/8 in. (92 mm) wide. Studs cut 3/4 in. (19 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. When slotted ceiling runner (Item 2A1) is used, steel studs secured to slotted ceiling runner with No. 8 by 1/2 in. (13 mm) long wafer head steel screws at mid-height of slot on each side of wall. Stud spacing not to exceed 24 in. (610 mm) OC.
  - C. Gypsum Board\* — For 1 hr assembly, one layer of 5/8 in. (16 mm) thick gypsum board is required in the individual Wall and Partition Design. For 2 hr assembly, two layers of 5/8 in. (16 mm) thick gypsum board is required in the individual Wall and Partition Design. Any overspray of fireproofing shall be removed from fill, void or cavity material where gypsum board overlaps product. The screws attaching the gypsum board to studs at the top of the wall shall be located 2-1/2 in. (64 mm) to 4-1/2 in. (114 mm) below the bottom edge of the ceiling runner.

The hourly ratings of the joint system are dependent on the hourly rating of the wall.



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3. Joint System — Max separation between the bottom of steel floor unit, or spray-applied fire resistive material, and top of wall (Item 2C) is 7/8 in. (22 mm), 1 in (25mm), or 1-5/8 in (41mm). See Item 3-Table 1 for more details. The joint system consists of the following:

A. Fill, Void or Cavity Material\* — Top Track Seal — Factory supplied foam seal installed over the ceiling runner (Item 2A) prior to attachment to underside of steel floor unit in accordance with the installation instructions. Top Track Seal compressed min 1/2 in. (13 mm) at seam.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CFS-TTS MD OS or CFS-TTS MD 600 Firestop Top Track Seal

Table 1

Max Nom Joint Width, In. (mm)	Max Movement Capabilities, (% of nominal)		Max Movement, in. (mm)
	Compression	Extension	
7/8 (22)	Compression	86%	3/4 (19)
	Extension	86%	3/4 (19)
1 (25)	Compression	62%	5/8 (16)
	Extension	62%	5/8 (16)
1-5/8 (41)	Compression	92%	1-1/2 (38)
	Extension	0%	0

As an alternative to the movement percentages above, the joint system may move freely without restriction to the percentage of movement within the range of a min 1/8 in. (3 mm) to max 1-5/8 in. (41 mm) joint width.

\* 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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