

XHBN.HW-D-0324 - Joint Systems

Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Certified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered Certified.

XHBN - Joint Systems

XHBN7 - Joint Systems Certified for Canada

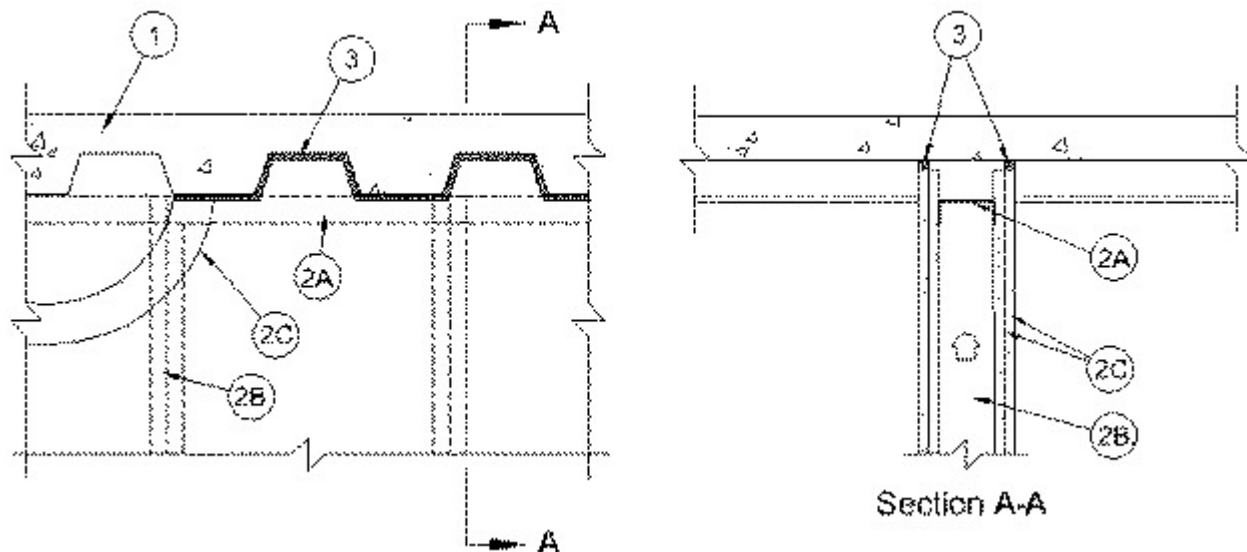
See General Information for Joint Systems

See General Information for Joint Systems Certified for Canada

System No. HW-D-0324

September 26, 2019

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 - 3/4 In.	FT Ratings — 1 and 2 Hr (See Item 2)
Class II Movement Capabilities — 17% 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 - 3/4 In.
	Class II Movement Capabilities — 17% Compression or Extension
	L Rating At Ambient — Less Than 1 CFM/lin ft
	L Rating At 400 F — Less Than 1 CFM/lin ft



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 D700 or 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.

C. **Spray-Applied Fire Resistive Materials*** — (Optional)—(Not Shown)—Prior to the installation of the steel ceiling runners and fill material (Items 2A and, 3, respectively) the steel floor units may be sprayed with type and thickness of fire resistive material indicated in the individual D700 Series design.

GCP APPLIED TECHNOLOGIES INC — Type MK-6-HY

2. Wall Assembly — The 1 or 2 h fire rated gypsum board/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 secured to valleys of steel floor units with steel fasteners or by welds spaced max 24 in. (610 mm) OC. The use of welds to secure the ceiling runner may only be used prior to the installation of the optional spray-applied 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 flanges sized to accommodate steel studs (Item 2B). Slotted ceiling runner installed perpendicular to direction of fluted steel floor units and secured to valleys with steel fasteners spaced max 24 in. (610 mm) OC.

CALIFORNIA EXPANDED METAL PRODUCTS CO — CST

BRADY CONSTRUCTION INNOVATIONS INC, DBA SLIPTRACK SYSTEMS — SLP-TRK

MARINO/WARE, DIV OF WARE INDUSTRIES INC — Type SLT

A2. **Light Gauge Framing*-Vertical Deflection Ceiling Runner** — As an alternate to the ceiling runners in Item 2A and 2A1, vertical deflection ceiling runner to consist of galv steel channel with slotted vertical deflection clips mechanically fastened within runner. Slotted clips, provided with step bushings, for permanent fastening of steel studs. Flanges sized to accommodate steel studs (Item 2B). Vertical deflection ceiling runner installed perpendicular to direction of fluted steel floor units and secured to valleys with steel fasteners spaced max 24 in. (610 mm) OC.

B. **Studs** — Steel studs to be min 3-1/2 in. (89 mm) wide. Studs cut 1/2 in. (13 mm) to 3/4 in. (19 mm) less in length than assembly height with bottom nesting in and resting on the floor runner and with top nesting in ceiling runner without attachment. When slotted ceiling runner is used, steel studs secured to slotted ceiling runner with No. 8 by 1/2 in. (13 mm) long wafer head steel screws at midheight of slot on each side of wall. When vertical deflection ceiling runner is used, steel studs secured to slotted vertical deflection clips, through bushings, with steel screws at midheight of each slot. Stud spacing not to exceed 24 in. (610 mm) OC.

C. **Gypsum Board*** — One or two layers of 5/8 in. (16 mm) thick gypsum board on each side of wall. Wall to be constructed as specified in the individual Wall and Partition Design, except that the gypsum board is cut to fit the contour of the steel floor units or spray-applied fire resistive material with a max 3/4 (19 mm) in. gap. The screws attaching the gypsum board to the studs at the top of the first layer shall be located 4 in. (102 mm) from the steel floor unit valleys. The screws attaching the second layer to the steel studs shall be located 3-1/2 in. (89 mm) from the valleys of the steel floor units.

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

3. **Fill, Void or Cavity Material* - Sealant** — **Max separation between bottom of floor or roof units and top of gypsum board at time of installation is 3/4 in. (19 mm). The joint system is designed to accommodate a max 17 percent compression or extension from its installed width.** A 5/8 in. (16 mm) thickness of fill material installed within the annulus between top of gypsum board and bottom of floor units or spray-applied fire resistive material flush with surface of board on both sides of the wall.

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

4. **Forming Material** — (Optional, Not Shown) - Mineral wool insulation, fiberglass batt insulation or polyurethane/polyethylene foam backer rod. Forming material to be recessed from both surfaces of the 2 hr fire rated wall to accommodate the required thickness of fill material.

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.**

Last Updated on 2019-09-26

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