

## XHBN.HW-D-0515 - 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

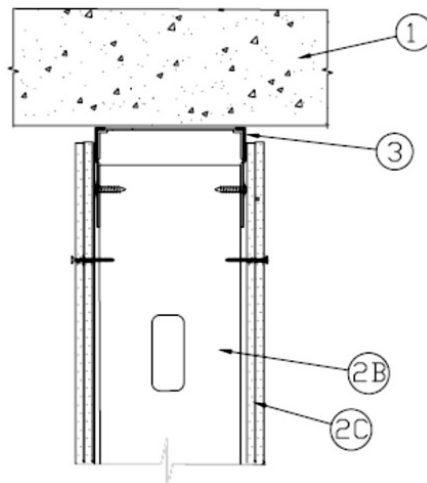
[See General Information for Joint Systems](#)

[See General Information for Joint Systems Certified for Canada](#)

#### System No. HW-D-0515

June 05, 2020

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 — 1/4, 3/8, 1/2, 3/4, 1, and 1-1/2 In. (See Item 3)	FT Ratings — 1 and 2 Hr (See Item 2)
Class II or III Movement Capabilities — 80% Compression and or 30% Extension or 80% Compression only or 100% compression and extension (See Item 3)	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 — 6, 10, 13, 19, 25 or 38 mm (see Item 3)
	Class II or III Movement Capabilities — 80% Compression and or 30% Extension or 80% Compression only or 100% compression and extension ( See Item 3)
	L Rating at Ambient — Less than 1.55 L/s/m
	L Rating at 203°C — Less than 1.55 L/s/m



1. **Floor Assembly** — Min 4 1/2 in. (114 mm) thick steel reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m<sup>3</sup>) structural concrete. Floor may also be constructed of any min 6 in. thick UL Classified hollow-core **Precast Concrete Units\***.  
See **Precast Concrete Units** (CFTV) category in the Fire Resistance Directory for names manufacturers.

**The hourly fire rating of the floor assembly shall be equal or greater than the hourly fire rating of the wall assembly.**

2. **Wall Assembly** — The 1 or 2 hr fire rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner described in the individual U400 or V400 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 runners of wall assembly shall consist of min No. 25 ga galv steel channels sized to accommodate steel studs (Item 2B). Floor runner to be provided with min 1-1/4 in. (32mm) legs. Ceiling runners are provided with a fill, void or cavity material and are described in Item 3A.

A1. **Light Gauge Framing\* — Slotted Ceiling Track** — (Not Shown) - As an alternate to the Item 2A, a ceiling track consisting of galv steel channel with slotted flanges may be used when Item 3A.1 fill material is utilized. Slotted ceiling track sized to accommodate steel studs (Item 2B). Legs are to be min 1/4 in. (6 mm) longer than the maximum joint width. Attached to steel deck with steel fasteners or welds spaced max 24 in. (610 mm) OC.

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

**CALIFORNIA EXPANDED METAL PRODUCTS CO** — CST, CST 325

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

B. **Studs** — Steel studs to be min 2-1/2 in. (64 mm) wide. Studs cut 1/2 to 3/4 in. (13 to 19 mm) less in length than assembly height with bottom nesting in and secured to floor runner. Steel studs nested in non-slotted ceiling runner without attachment or secured to slotted ceiling runner with No. 8 by 1/2 in. (13 mm) long wafer head steel screws at mid-height of exposed slot.

B1. **Framing Members - Steel Studs\*** — In lieu of Item B - Proprietary channel shaped studs, 2-1/2 to 3-5/8 in. (64 to 92 mm) wide spaced a max of 24 in. (610mm) OC. Studs to be cut 1/2 to 3/4 in (13 to 19 mm) less than the assembly height with bottom nesting in and secured to floor runner. For direct attachment of gypsum board only. Steel studs nested in non-slotted ceiling runner without attachment or secured to slotted ceiling runner with No. 8 by 1/2 in. (13 mm) long wafer head steel screws at mid-height of exposed slot.

**CALIFORNIA EXPANDED METAL PRODUCTS CO** — ViperStud™

**MARINO/WARE, DIV OF WARE INDUSTRIES INC** — ViperStud™

C. **Gypsum Board\*** — Gypsum board sheets installed to a min total 5/8in. (16 mm) or 1 1/4 in. (32 mm) thickness on each side of wall for 1 and 2 hr fire rated assemblies, respectively. Wall to be constructed as specified in the individual U400 or V400 Series Design in the UL Fire Resistance Directory except that a max 5/8 in. (16 mm) gap shall be maintained between the top of the gypsum board and the bottom of the floor assembly. The screws attaching the gypsum board to the studs along the top of the wall shall be located 4 to 5 in. (102 to 127 mm) down from deck at time of installation. No gypsum board attachment screws shall be driven into 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 of floor and top of gypsum board (at time of installation) is 3/4 in. (19 mm). The joint system is designed to accommodate a max 80 percent compression and or 30 percent extension from its installed width of 1/2 in. (13 mm) or less. The joint system is designed to accommodate 80% compression only from 3/4 in. (19 mm) installed width. When Item 3A1 is used the joint will accommodate 100 % compression/extension for nominal 1/2 in. (12 mm) gaps or compression only for nominal 1 in. (25 mm) gaps. When Item 3A2 is used the joint will accommodate 100% compression/ extension for nominal 3/4 in. (19 mm) gaps or compression only for 1-1/2 in. (38 mm) gaps. When item 3A3 is used the joint will accommodate 100% compression/ extension for nominal 1/4 in. (6mm) gaps or compression only for 1/2 in. (12mm) gaps.

A. **Fill, Void or Cavity Material\*** — Min 25 ga composite steel angle with one 5/8 in. (16 mm) leg and one 1-1/4 in (32 mm) leg with a strip of intumescent strip affixed along the inside 1-1/4 in (32 mm) leg. Steel angle is friction fit between the top web of the ceiling runner and the concrete deck.

**CALIFORNIA EXPANDED METAL PRODUCTS CO** — DDA-1 (Deflection Drift Angle)

A1. **Fill, Void or Cavity Material\*** — (Not Shown) -For nominal 1/2 in. (12 mm) gaps 100% compression/ extension or 1-1/2 in. (38 mm) compression only. As an alternate to DDA-1 (Item A1) a composite corrugated vinyl profile with a 2 in. (50 mm) wide leg and a 3/8 in. (10 mm) bubble gasket along the upper edge. A 5/8 in. (16 mm) wide intumescent strip affixed along the inside 1-1/2 in. (38 mm) leg. Composite vinyl profile is attached to the leg of the ceiling runner/track with 1/2 in. (13 mm) No. 8 framing screws or adhesively attached with double sided foam tape.  
**CALIFORNIA EXPANDED METAL PRODUCTS CO** — Fire Gasket 1

**MARINO/WARE, DIV OF WARE INDUSTRIES INC** — Fire Gasket 1

**TRIM-TEX INC** — Trim Tex-Fire Gasket 1

A2. **Fill, Void or Cavity Material\*** — (Not Shown) -For nominal 3/4 in. (19 mm) gaps 100% compression/extension or 1-1/2 in. (38 mm) compression only. As an alternate to DDA-1 (Item A1) a composite corrugated vinyl profile with a 2 in. (50 mm) wide leg and a 3/8 in. (10 mm) bubble gasket along the upper edge. A 1 in. (25 mm) wide intumescent strip affixed along the inside 1-1/2 in. (38 mm) leg. Composite vinyl profile is attached to the leg of the ceiling runner/track with 1/2 in. (13 mm) No. 8 framing screws or adhesively attached with double sided foam tape.  
**CALIFORNIA EXPANDED METAL PRODUCTS CO** — Fire Gasket 1.5

**MARINO/WARE, DIV OF WARE INDUSTRIES INC** — Fire Gasket 1.5

**TRIM-TEX INC** — Trim Tex-Fire Gasket 1.5

A3. **Fill, Void or Cavity Material\*** — (Not Shown) - For nominal 1/4 in. (6mm) gaps 100% compression/ extension or 1/2 in. (12mm) compression only. As an alternate to DDA-1 (Item A) a composite corrugated vinyl profile with a 1-1/8 in. (28 mm) wide leg and a 1/4 in. (6 mm) bubble gasket along the upper edge. A 1/4 in. (6 mm) wide intumescent strip affixed along the inside 1-1/8 in. (28 mm) leg. Composite vinyl profile is attached to the leg of the ceiling runner/track with 1/2 in. (12 mm) No. 8 framing screws or adhesively attached with double sided foam tape.  
**CALIFORNIA EXPANDED METAL PRODUCTS CO** — Fire Gasket 0.5

B. **Fill, Void or Cavity Material\* — Sealant** — (optional) -Sealant may be used to seal any gaps between ceiling runners or item 3A and the concrete slab.  
**UNITED STATES GYPSUM CO** — Type A5

C. **Packing Material** — (Not Shown) - When Item 3A is used, a continuous length of open cell polyurethane foam with a nominal diameter of 1/8 in. (3.2 mm) greater than the max width of the joint. The foam shall have a nominal density of 1.7 pcf. The foam is to be placed in the joint above the top edge of the drywall between the concrete slab. Any splices are to be tightly butted. A layer of tape and joint compound can then be applied over the open cell foam.

**\* 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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