UL Product iQ™

XHBN.HW-D-0587 - 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

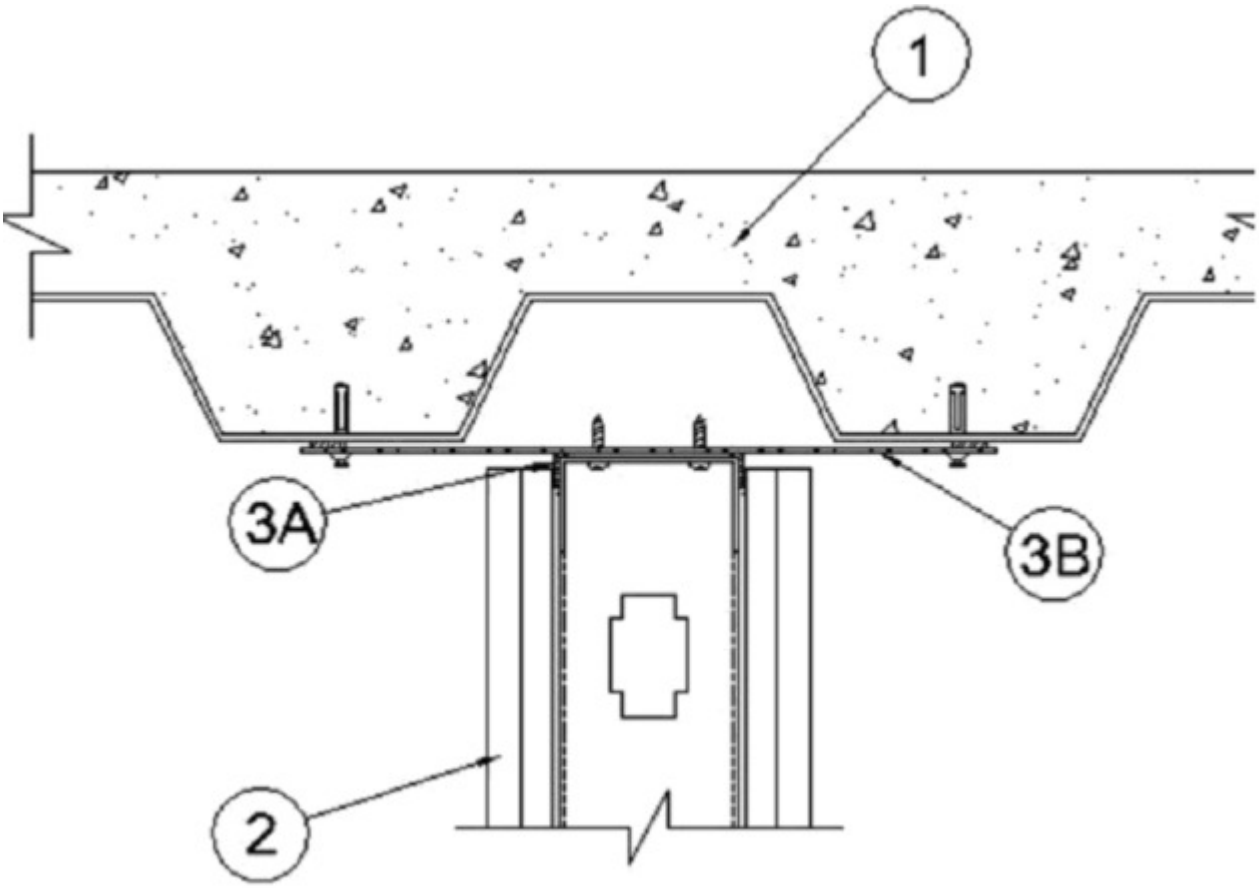
See General Information for Joint Systems

See General Information for Joint Systems Certified for Canada

System No. HW-D-0587

November 23, 2011

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 In.	FT Ratings — 1 and 2 Hr (See Item 2)
Class II or III Movement Capabilities — 100% Compression or Extension	FH Ratings — 1 and 2 Hr (See Item 2)
L Rating at Ambient — Less than 1 or 2.1 CFM/Lin Ft (See Item 3)	FTH Ratings — 1 and 2 Hr (See Item 2)
L Rating at 400°F — Less than 1 or 1.33 CFM/Lin Ft (See Item 3)	L Rating at Ambient — Less than 1 or 2.1 CFM/Lin Ft (See Item 3)
	L Rating at 400°F — Less than 1 or 1.33 CFM/Lin Ft (See Item 3)



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 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 lightweight or normal weight (100-150 pcf or 1600-2400 kg/m^3) concrete, as measure 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 shall by constructed of the materials and in the manner described in the individual P900 Series Roof-Ceiling designs 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 —** Roof insulation to consist of min 2-1/4 in. (57 mm) thick poured insulating concrete, as measured from the top plane of the roof deck.

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. The ceiling runners are provided with a fill, void or cavity material and are described in Item 3. Ceiling runner attached to steel strap (Item 3B) with steel fasteners spaced a max 24 in. (610 mm) OC.

A1. **Framing Members - Floor and Ceiling Runner* —** Not shown - In lieu of Item A — For use with Item 2C, proprietary channel shaped runners, 3-5/8 in. wide attached to floor and ceiling with fasteners 24 in. OC max.
CALIFORNIA EXPANDED METAL PRODUCTS CO — ViperTrack™

MARINO/WARE, DIV OF WARE INDUSTRIES INC — ViperTrack™

B. **Studs —** Steel studs to be min 3 5/8 in. (92 mm) wide. Studs cut 1-1/4 to 1-1/2. (32-38 mm) less in length than assembly height with bottom nesting in and secured to floor runner.

B1. **Framing Members - Steel Studs* —** In lieu of Item B - Proprietary channel shaped studs, 3-5/8 in. wide spaced a max of 24 in. OC. Studs to be cut 1-1/4 to 1-1/2 in (32-38 mm) less than the assembly height with bottom nesting in and secured to floor runner. For direct attachment of gypsum board only.
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 5/8 in. (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 1 in. (25 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 of joint system) is 1 in. (25 mm). The joint system is designed to accommodate a max 100 percent compression or extension from its installed width.

A. **Fill, Void or Cavity Material* —** Min 20 ga U-shaped track having 3 in. (76 mm) legs with nom2-1/2 in. (64 m) wide intumescent strip affixed to the top of both legs overlapping 1/4 in. (6 mm) over the corner on to back web of track. Gypsum board to overlap a min of 1 in. (25 mm) over the intumescent strip. Track attached to steel strap with steel fasteners or welds spaced a max 24 in. (610 mm) OC. Track can be centered under flutes or offset on strap.
CALIFORNIA EXPANDED METAL PRODUCTS CO — FAS Track DL2

A1. **Fill, Void or Cavity Material* (Not shown) —** As an alternate to 3A. Nom 20 ga U-shaped track having 3 in (76 mm) legs with a nom 2-1/2 in. (64 mm) wide intumescent strip affixed to the top of the leg overlapping on to top surface a min of 1/4 in. (6 mm) facing the finished side of wall. Gypsum board to overlap a min of 1 in. (25 mm) over the intumescent strip. Track to be secured to bottom side of floor assembly with min 1 in. (25 mm) long steel masonry or powder actuated fasteners spaced at a max of 24 in. (610 mm) OC. with steel fasteners or welds spaced max 24 in. (610 mm) OC
CALIFORNIA EXPANDED METAL PRODUCTS CO — FAS SHAFT Track DL2

When using FAS Track DL2 the L Rating at ambient and at 400 °F is less than 1 CFM/ft^2. When using SHAFT Track DL2 the L Rating at Ambient is 2.1 CFM/ft^2 and the L Rating at 400°F is 1.33 CFM/ft^2.

B. **Steel Straps* —** A continuous length of 20 ga galv steel strap with a nom 1/2 (13 mm) wide intumescent strip affixed to the edges to span the flute and overlap the adjacent valleys of fluted floor units by 1-1/2 in. (38 mm). The steel strip is to be fastened to floor assembly with the intumescent strips in contact with the bottom of deck using min 1-1/4 in. long steel fastener spaced 12 in. (305 mm) O.C on both valleys. When wall length exceeds length of strap, straps are to be tightly butted and fastened a max 2 in. (51 mm) from ends.
CALIFORNIA EXPANDED METAL PRODUCTS CO — FAS Strap

* 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 2011-11-23