System No. HW-D-0470
XHBN7.HW-D-0470
Joint Systems Certified for Canada

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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.

XHBN7 - Joint Systems Certified for Canada

See General Information for Joint Systems Certified for Canada

System No. HW-D-0470

October 21, 2011

F Ratings - 1 and 2 Hr (See Items 2 and 3)

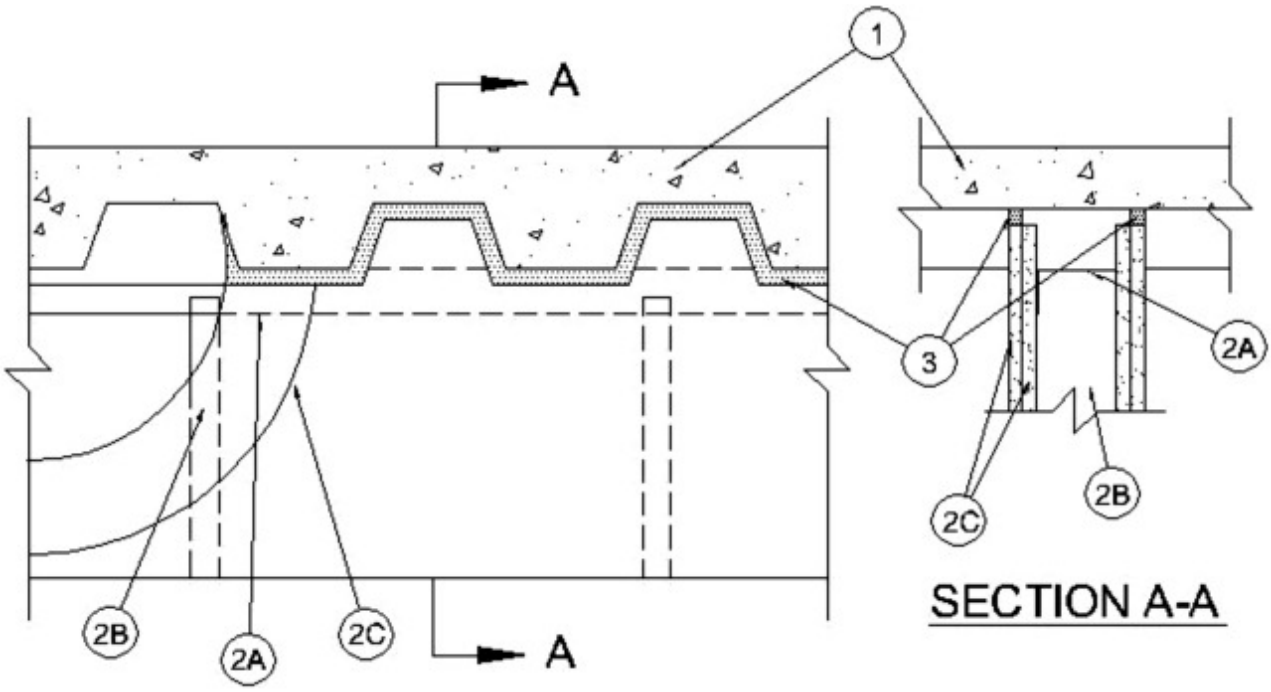
FT Ratings — 1 and 2 Hr (See Items 2 and 3)

FH Ratings — 1 and 2 Hr (See Items 2 and 3)

FTH Ratings — 1 and 2 Hr (See Items 2 and 3)

Nominal Joint Width - 1/2 in. (13 mm)

Class II and III movement capabilities - 25 % compression or extension (See Items 2 and 3)



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 Floor-Ceiling Design in the UL 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 concrete, as measured from the top plane of the floor units.

C. **Spray-Applied Fire Resistive Material* — (Optional / Not Shown) —** After installation of the ceiling runner (Item 2A), steel floor units to be sprayed with the thickness of material specified in the individual D700 Series Design.

GCP APPLIED TECHNOLOGIES INC — Type MK-6/HY

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 assembly shall be constructed of the materials and in the manner described in the individual P900 or P700 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 roof deck.

C. **Spray-Applied Fire Resistive Material* — (Optional / Not Shown) —** After installation of the ceiling runner (Item 2A), steel deck to be sprayed with the thickness of material specified in the individual P700 Series Roof-Ceiling Design.

GCP APPLIED TECHNOLOGIES INC — Type MK-6/HY

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 and 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 and ceiling runners of wall assembly shall consist of galv steel channels sized to accommodate steel studs. Ceiling runner to be provided with min 1-1/4 in. (32 mm) flanges. Ceiling runner secured to steel floor units or roof deck with steel fasteners or welds spaced max 12 in. (305 mm) OC.

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 is secured to bottom of steel floor units or roof deck with steel fasteners or by welds spaced max 24 in. (610 mm) OC.

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

A2. **Light Gauge Framing* — Vertical Deflection Ceiling Runner —** As an alternate to the ceiling runners in Items 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 secured to bottom of steel floor units or roof deck with steel fasteners or by welds spaced max 24 in. (610 mm) OC.

THE STEEL NETWORK INC — VertiTrack VTD250, VTD362, VTD400, VTD600 and VTD800

A3. **Light Gauge Framing* —Vertical Deflection Clip —** (Optional) Steel clips can be used in conjunction with steel studs (Item 2B) or ceiling runner (Item 2A). Clips installed over the top of studs and inserted within the ceiling runner. Clip shall be secured to the ceiling runner with No. 8 self drilling, self tapping steel fasteners through holes provided within the clip. Clip may be secured to the stud with No. 6 pan head steel screw through holes provided within the clip. As an alternate, the legs of the clip may be installed over the top of the stud without attachment in accordance with manufacturer's installation instructions.

FLEX-ABILITY CONCEPTS L L C — Three Legged Dog Deflection Clip

B. **Studs —** Steel studs to be min 3-5/8 in. (92 mm) wide. Studs cut 1/2 in. to 3/4 in. (13 to 19 mm) less in length than assembly height with the bottom nesting in and resting on floor runner and with the 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 midheight of slot on each side of wall. When vertical deflection ceiling runner (Item 2A2) is used, steel studs secured to slotted vertical deflection clips, through the bushings, with steel screws at midheight of each slot. 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) and 1-1/4 in. (32 mm) on each side of wall for 1 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 the gypsum board is cut to follow the contour of the steel floor units or roof deck with a nom 1/2 in. (13 mm) gap maintained between the gypsum board and the steel floor units or roof deck or spray applied fire resistive material (Item 1C). In addition, the top row of screws shall be installed into the steel studs 1/2 to 1 in. (13 to 25 mm) below the bottom edge of the ceiling runner flange.

The hourly fire rating of the joint system is dependent on the hourly rating of the wall assembly in which it is installed. The movement capability of the joint system is Class II and III except that when the vertical deflection clip (Item 2A3) is used, the movement capability is Class II only. The movement capability of the joint system is limited to compression only when spray applied fire resistive material (Item 1C) is used on the steel floor unit or deck.

3. **Joint System —** Max separation between bottom of steel floor units or roof deck or spray applied fire resistive material and top of wall is 1/2 in. (13 mm) The joint system is designed to accommodate a max 25 percent compression or extension from its installed width, except that when spray applied fire resistive material (Item 1C) is used on the steel floor unit or deck, the joint system is designed to accommodate max 25 percent compression only.

The joint system consists of the following:

A. **Forming Material* —** (Optional) — (Not shown) — Nom 3 in. (76 mm) thick, min 4 pcf (64 kg/m^3) density mineral wool batt insulation cut into strips to fill the gap between the top of the ceiling runner and bottom of the steel floor units or roof deck or spray applied fire resistive material (Item 1C). Mineral wool cut into strips having a width equal to ceiling runner and length approximately 2-1/2 in. (64 mm) longer than flute bottom length, then compressed into flute cavity.

B. **Forming Material —** (Optional) — (Not shown) — In 2 Hr fire rated wall assemblies, foam backer rod friction fit into joint opening and recessed a min 5/8 in. from each surface of wall.

C. **Fill, Void or Cavity Material* — Sealant —** Min 5/8 in. (16 mm) thickness of fill material applied within joint opening on both sides of wall, flush with each surface of gypsum board. For 1 hr systems or in 2 hr systems where forming material (Item 3B) is not used, optional bond breaker tape may be applied to ceiling runner on each side of wall.

A/D FIRE PROTECTION SYSTEMS INC — A/D FIREBARRIER Acrylic 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 2011-10-21