System No. HW-D-0774
XHBN7.HW-D-0774
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.

XHBN - Joint Systems

XHBN7 - Joint Systems Certified for Canada

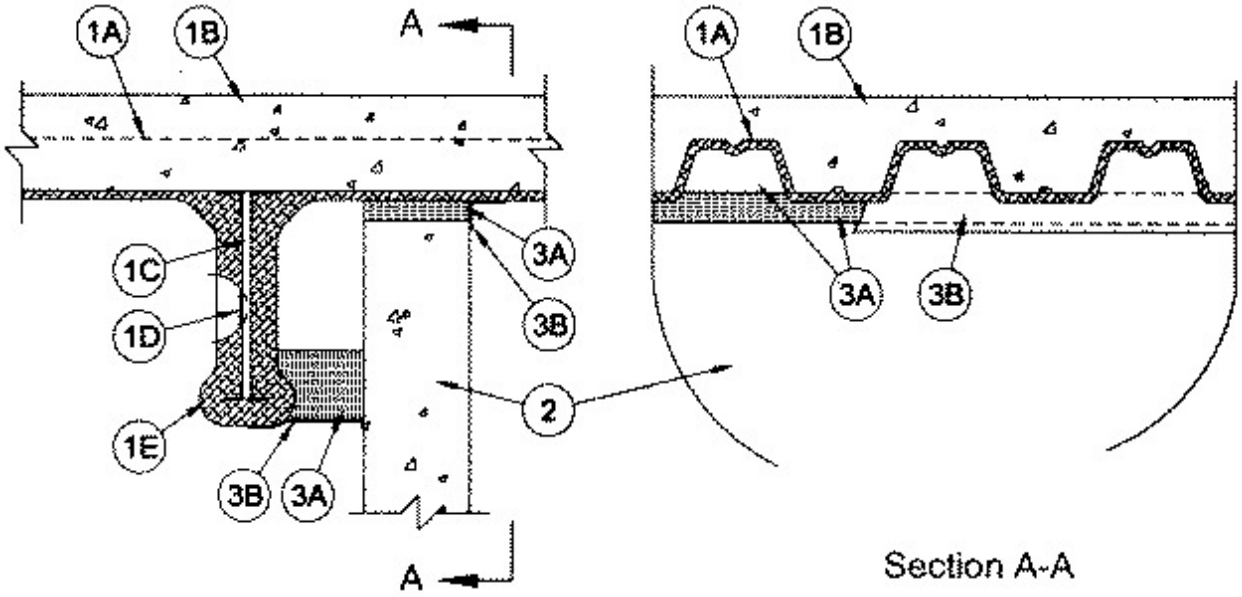
See General Information for Joint Systems

See General Information for Joint Systems Certified for Canada

System No. HW-D-0774

June 06, 2016

ANSI/UL2079	CAN/ULC S115
Assembly Rating — 2 Hr	F Rating —2 Hr
Nominal Joint Width — 1 In.	FT Rating —2 Hr
Class II or III Movement Capabilities — 12.5% Compression or Extension	FH Rating —2 Hr
	FTH Rating —2 Hr
	Nominal Joint Width — 1 In
	Class II or III Movement Capabilities —12.5% Compression or Extension



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 Series 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 Floor 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. **Structural Steel Support —** Steel beam or open-web steel joist, as specified in the individual D700 Series Floor-Ceiling Design, used to support steel floor units. Structural steel support oriented parallel to and min 2 in. (51 mm) to max 6 in. (152 mm) from wall assembly.

D. **Steel Lath —** When structural steel support (Item 1C) consists of open-web steel joists, 3/8 in. (10 mm) diamond mesh expanded steel lath having a nom weight of 1.7 to 3.4 lb per sq yd (0.9 to 1.8 kg/m2) shall be installed to completely cover one side of each joist which is located within 6 in. (152 mm) of wall assembly. The lath shall be secured with steel tie wire and shall be fully covered with spray applied fire resistive material.

E. **Spray-Applied Fire Resistive Material* —** Steel floor units and structural steel supports to be sprayed with the thickness of material specified in the individual D700 Series Design. The flutes of the steel floor units above the structural steel supports shall be filled with spray-applied fire resistive material. The spray-applied fire resistive material in the flutes above the wall shall be applied to follow the contour of the steel floor units.

GCP APPLIED TECHNOLOGIES INC — Type MK-6/HY, MK-6/HY ES, MK-6s, RG

1A. **Roof Assembly —** (Not Shown) — As an alternate to the floor assembly (Item 1), 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 P700 Series Roof-Ceiling Design in the UL Fire Resistance Directory. The hourly fire rating of the roof assembly shall be equal to or greater than the hourly fire 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 —** Mineral and Fiber Board* — Min 3/4 in. (19 mm) thick boards applied in one or more layers directly over steel roof deck or over gypsum board sheathing laid atop steel roof deck.

C. **Roof Covering* —** Hot-mopped or cold-application materials compatible with mineral and fiber board insulation.

D. **Structural Steel Support —** Steel beam or open-web steel joist, as specified in the individual P700 Series Roof-Ceiling Design, used to support steel floor units. Structural steel support oriented parallel to and min 2 in. (51 mm) to max 6 in. (152 mm) from wall assembly.

E. **Steel Lath —** When structural steel support (Item 1D) consists of open-web steel joists, 3/8 in. (10 mm) diamond mesh expanded steel lath having a nom weight of 1.7 to 3.4 lb per sq yd (0.9 to 1.8 kg/m2) shall be installed to completely cover one side of each joist which is located within 6 in. (152 mm) of wall assembly. The lath shall be secured with steel tie wire and shall be fully covered with spray applied fire resistive material.

F. **Spray-Applied Fire Resistive Material* —** Steel roof deck and structural steel supports to be sprayed with a thickness of spray applied fire resistive material as specified in the individual P700 Series Roof-Ceiling design. The flutes of the steel deck above the structural steel supports

shall be filled with spray-applied fire resistive material. The spray-applied fire resistive material in the flutes above the wall shall be applied to follow the contour of the steel roof deck.

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2. **Wall Assembly —** Min 6 in. (152 mm) thick steel-reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) structural concrete. Wall may also be constructed of any UL Classified Concrete Blocks*.

See **Concrete Blocks** (CAZT) category in the Fire Resistance Directory for names of manufacturers.

3. **Joint System —** Max separation between bottom plane of spray-applied fire resistive material on the steel floor unit and the top of the concrete wall (at time of installation of joint system) is 1 in. (25 mm). Separation distance between spray applied fire resistive material on structural support member and surface of wall is min 1 in. (25 mm) to max 4 in. (102 mm). The joint system is designed to accommodate a max 12.5 percent compression or extension from its installed width as measured between the bottom plane of the spray-applied fire resistive material on the steel floor unit and the top of the concrete wall. The joint system shall consist of forming and fill materials, as follows:

A. **Forming Material* —** Nom 4 pcf (64 kg/m3) density mineral wool batt insulation. Sections of mineral wool batt cut to a width of 4 in. (102 mm) and stacked to attain a thickness which is 50 percent greater than the width of the linear gap between the spray applied fire resistive material on the structural steel member and the surface of the wall assembly. Stacked sections of mineral wool compressed 33 percent in thickness and installed cut edge first into linear gap until the bottom edge is flush with the bottom surface of the spray applied fire resistive material on the structural steel member. On the opposite side of the wall, sections of mineral wool batt insulation cut to the width of the wall inserted edge-first between the top of the wall and the spray-applied fire resistive material on the valleys of the steel deck, compressed approx 50 percent in thickness beneath each valley and flush with the wall surface. Additional pieces of mineral wool batt cut to the shape of the steel deck flute, stacked to a min 6 in. (152 mm) thickness and installed in the flutes above the wall flush with the wall surface.

ROCK WOOL MANUFACTURING CO — Delta Board

B. **Fill, Void or Cavity Material* — Sealant —** Min 1/8 in. (3.2 mm) wet thickness or 1/16 in. (1.6 mm) dry thickness of fill material spray or brush applied over the forming material on each side of the wall. Fill material to overlap a min of 1/2 in. (13 mm) onto the wall surface and a min of 2 in. (51 mm) onto the spray-applied fire resistive material on each side of the wall.

A/D FIRE PROTECTION SYSTEMS INC — A/D FIREBARRIER Spray Acrylic

*** 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 2016-06-06