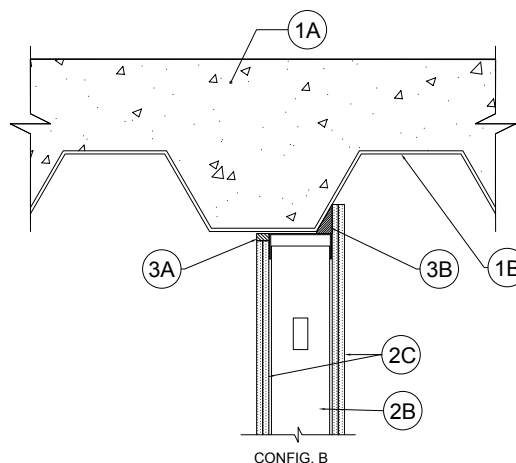
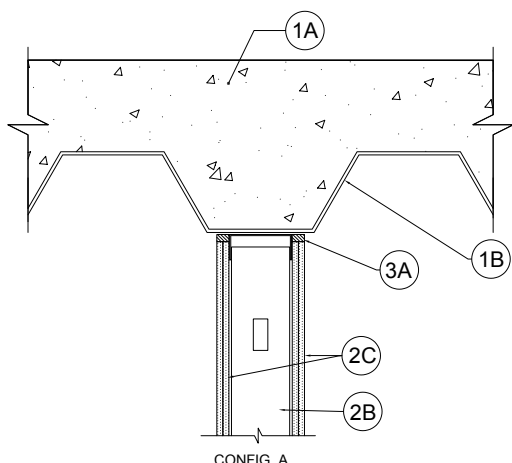


SYSTEM NO. HW-D-0620

CAN/ULC S115
Assembly Ratings - 1 and 2 Hr

Nominal Joint Width - See Chart, Section 3
Class II or III Movement Capabilities - See Chart, Section 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** — The fire-rated fluted steel deck/concrete floor assembly shall be constructed of the materials and in the manner described in the individual D900 Series 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. deep galv steel fluted floor units.
 - B. **Concrete** — Min 2-1/2 in thick reinforced normal or lightweight concrete, as measured from the top plane of the floor units.
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. The wall is to be constructed in parallel to the flutes of the deck and centered under the valley of the deck 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). Legs are to be min 1/4 in. (6 mm) longer than the maximum joint width. 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 or 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 3 5/8 in. (92 mm) wide. Studs cut 5/8 to 3/4 in. (16 to 19 mm) or 1-1/4 to 1-1/2 in. (32 to 38 mm) less in length than assembly height for the 5/8 in. or 1 in. (16 or 25 mm) nominal joint width, respectively, 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, 3-5/8 in. wide spaced a max of 24 in. OC. Studs to be cut 5/8 to 3/4 in (16 to 19 mm) or 1-1/4 to 1-1/2 in. (32 to 38 mm) less in length than assembly height for the 5/8 in. or 1 in. (16 or 25 mm) nominal joint width, respectively, 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

SYSTEM NO. HW-D-0620

CAN/ULC S115
Assembly Ratings - 1 and 2 Hr

Nominal Joint Width - See Chart, Section 3
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L Rating at Ambient - Less Than 1.55 L/s/m
L Rating at 203°C - Less Than 1.55 L/s/m

Resistance Directory except that a max 5/8 in. (16 mm) or 1 in. (25 mm) gap shall be maintained between the top of the gypsum board and the bottom of the floor assembly for the 5/8 in. or 1 in. (16 or 25 mm) joint, respectively. 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 3/8, 1/2, 5/8 in. 3/4 (16 to 19 mm). The joint system is designed to accommodate a max 80 percent compression and or 30percent extension from its installed width. When item 3A.1 is used max nominal width is 1/2 in. (13 mm). When item 2A.1 is used max nominal width is 3/4 in. (19 mm). When Item 3A2 is used the joint will accommodate 100 percent compression and extension from nominal 3/8 in. (10 mm) installed width. When item 3A8 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.

Item	Product	Max Gap	Movement
3A	FAS Track 1000 (CEMCO, MARINO/WARE)	3/8"	80% Comp 30% Ext
3A	FAS Track 1000DL (CEMCO, MARINO/WARE)	3/8"	80% Comp 30% Ext
3A1	DDA (CEMCO)	1/2"	80% Comp 30% Ext
3A2	DDA-1 (CEMCO)	3/8"	100% Comp 100% Ext
3A3	HOTROD XL (CEMCO, MARINO/WARE)	3/4"	80% Comp 30% Ext
3A4	HOTROD Type-X (CEMCO)	3/4"	80% Comp 30% Ext
3A5	HOTROD Type-X (CEMCO)	1/2"	75% Comp 25% Ext
3A6	Fire Gasket 1 (CEMCO, MARINO/WARE, TRIM-TEX)	1/2"	100% Comp 100% Ext
3A6	Fire Gasket 1 (CEMCO, MARINO/WARE, TRIM-TEX)	1"	100% Comp 0% Ext
3A7	Fire Gasket 1.5 (CEMCO, MARINO/WARE, TRIM-TEX)	3/4"	100% Comp 100% Ext
3A7	Fire Gasket 1.5 (CEMCO, MARINO/WARE, TRIM-TEX)	1-1/2"	100% Comp 0% Ext
3A8	Fire Gasket 0.5 (CEMCO, MARINO/WARE, TRIM-TEX)	1/4"	100% Comp 100% Ext
3A8	Fire Gasket 0.5 (CEMCO, MARINO/WARE, TRIM-TEX)	1/2"	100% Comp 0% Ext

- B. **Forming Material*** — Min 2 in. (51 mm) thick min 4 pcf (64 kg/m3) mineral wool batt insulation compressed 30 percent in thickness, installed between deck and gypsum liner board.
- C. **Fill, Void or Cavity Material*** — **Sealant** — (Not Shown) -Sealant may be used to seal any gaps at end joints between ceiling runners, and gaps above ceiling runner, to attain L Ratings.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP672 Firestop Spray or CFS-SP WB. Firestop Joint Spray
SPECIFIED TECHNOLOGIES INC — SpecSeal AS200 Elastomeric Spray
UNITED STATES GYPSUM CO — Type AS

- D. **Packing Material** — (Not Shown) - When Item 3A or 3A1 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.**

The appearance of a company's name or product in this database does not in itself assure that products so identified have been manufactured under UL's Follow-Up Service. Only those products bearing the UL Mark should be considered to be Certified and covered under UL's Follow-Up Service. Always look for the Mark on the product.

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