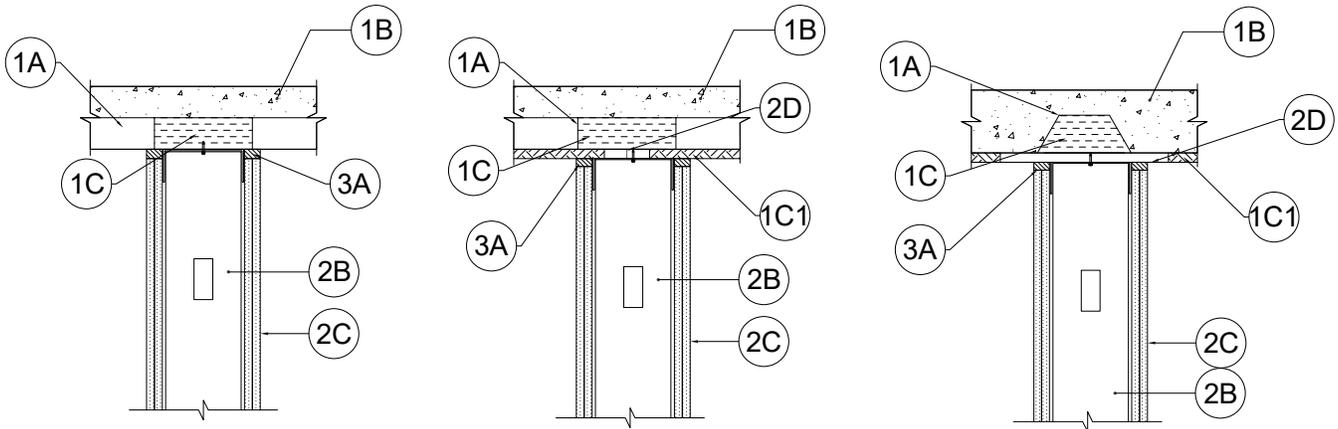


SYSTEM NO. HW-D-0514

ANSI/UL2079
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 CFM/Lin Ft
L Rating at 400°F - Less Than 1 CFM/Lin Ft



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 or 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. (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. **Spray-Applied Fire Resistive Material*** — As specified in the D700 or D900 Series Floor-Ceiling Design. After installation of ceiling runners (Item 3), the steel floor unit area immediately above the ceiling runner is to be completely filled with spray-applied fire resistive material. Material in flutes to extend 5/8 or 1-1/4 in. (16 or 32 mm) beyond each side of the ceiling runner so as to be approx flush with each surface of the finished wall. No Spray-applied material shall be applied to the flanges of the ceiling runner.

ISOLATEK INTERNATIONAL — Type 300

GCP APPLIED TECHNOLOGIES INC — Type MK-6/HY

- C1. **Spray-Applied Fire Resistive Material*** — (Required for Configurations B and C) - As specified in the D700 or D900 Series Floor-Ceiling Design. After installation of ceiling runners (Item 3), the steel floor unit area immediately above the ceiling runner is to be completely filled with spray-applied fire resistive material. Material in flutes to extend 5/8 or 1-1/4 in. (16 or 32 mm) beyond each side of the ceiling runner so as to be approx flush with each surface of the finished wall. No Spray-applied material shall be applied to the flanges of the ceiling runner.

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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 be constructed of the materials and in the manner described in the individual P700 or 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. 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.
- C. **Spray-Applied Fire Resistive Material*** — As specified in the P700 or P900 Series Floor-Ceiling Design. After installation of ceiling runners (Item 3), the steel deck unit area immediately above the ceiling runner is to be completely filled with spray-applied fire resistive material. Material in flutes to extend 5/8 or 1-1/4 in. (16 or 32 mm) beyond each side of the ceiling runner so as to be approx flush with each surface of the finished wall.

ISOLATEK INTERNATIONAL — Type 300

GCP APPLIED TECHNOLOGIES INC — Type MK-6/HY

SYSTEM NO. HW-D-0514

ANSI/UL2079
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 CFM/Lin Ft
L Rating at 400°F - Less Than 1 CFM/Lin Ft

C1. **Spray-Applied Fire Resistive Material*** — (Required for Configurations B and C) - As specified in the P700 or P900 Series Roof-Ceiling Design. After installation of ceiling runners (Item 3), the steel floor unit area immediately above the ceiling runner is to be completely filled with spray-applied fire resistive material. Material in flutes to extend 5/8 or 1-1/4 in. (16 or 32 mm) beyond each side of the ceiling runner so as to be approx flush with each surface of the finished wall. No Spray-applied material shall be applied to the flanges of the ceiling runner.

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

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 or item 2D steel attachment clips 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. (64 mm) wide. Studs cut 5/8 to 3/4 in. (16 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 slot.

B1. **Framing Members - Steel Studs*** — In lieu of Item B - Proprietary channel shaped studs, 2-1/2 in. wide spaced a max of 24 in. OC. Studs to be cut 5/8 to 3/4 in (16 to 19 mm) less than the 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.

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 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.

D. **Steel Attachment Clips** — (Required for Configurations B and C, Not for use on Configuration A) - Z-shaped clips formed of min 20 ga galv steel. Clips sized to extend through the thickness of the spray-applied fire resistive material on the bottom of the steel deck with 1-1/2 in. (38 mm) long upper and lower legs. Legs of clips fastened to bottom of the deck (prior to application of spray-applied fire-resistive materials) and top of ceiling runner with steel fasteners or welds. Clips spaced max 24 in. (610 mm) OC. For Configuration C the clips are to extend a min of 1-1/2 in. (38 mm) onto the valley of the deck on either side of the wall.

The hourly fire rating of the joint system is equal to the hourly fire rating of the wall.

SYSTEM NO. HW-D-0514

ANSI/UL2079
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 CFM/Lin Ft
L Rating at 400°F - Less Than 1 CFM/Lin Ft

3. **Joint System** — Max separation between bottom of floor and top of gypsum board (at time of installation) is 5/8 in. (16 mm) or 3/4 in. (19 mm) when 3A.1 is utilized, 1/2 in. (13 mm) when Item 3A.2 is utilized or 3/8 when Item 3A is utilized. The joint system is designed to accommodate a max 80 percent compression and or 30 percent extension from its installed width. When Item 3A6 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 3A7 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 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, 1000DL (CEMCO, MARINO/WARE)	3/8"	80% Comp 30% Ext
3A1	DDA (CEMCO)	3/4"	80% Comp 30% Ext
3A2	DDA-1 (CEMCO)	1/2"	80% Comp 30% Ext
3A3	HOTROD XL (CEMCO, MARINO/WARE, TRIM-TEX)	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. **Packing Material** — (Not Shown) - When 3A, 3A1, or 3A2 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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