

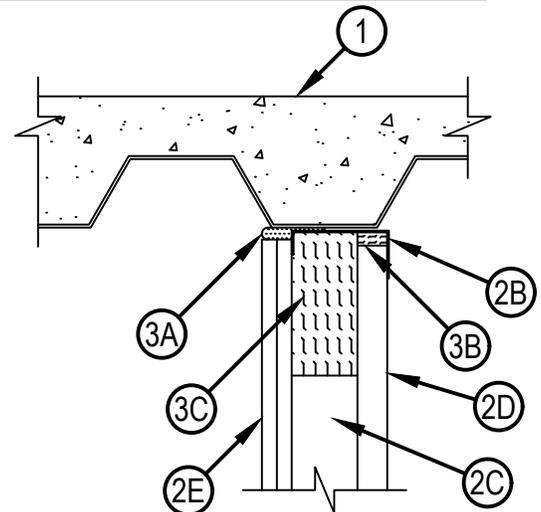
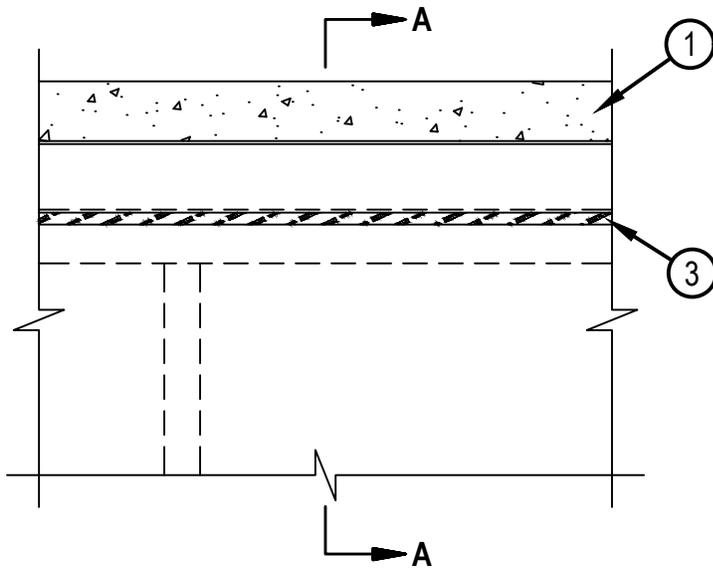


Classified by
Underwriters Laboratories, Inc.
to UL 2079 and CAN/ULC-S115

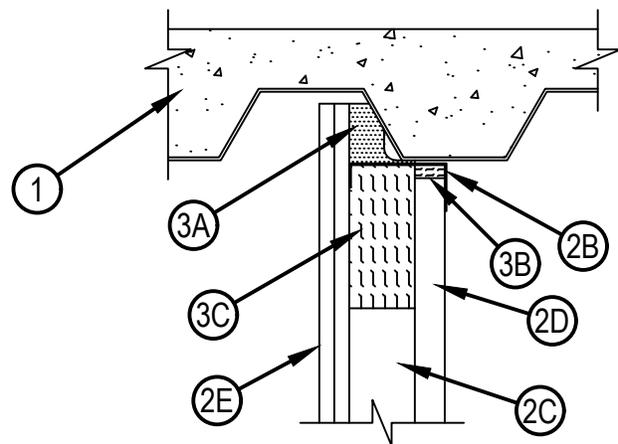
System No. HW-D-0882

ANSI/UL2079	CAN/ULC S115
Assembly Ratings — 1 and 2 Hr (See Item 2)	F Rating — 1 and 2 Hr (See Item 2)
Nominal Joint Width — 1/2 In.	FT Rating — 1 and 2 Hr (See Item 2)
Class II or III Movement Capabilities — 50% Compression or Extension	FH Rating — 1 and 2 Hr (See Item 2)
L Rating at Ambient — Less than 1 CFM/Lin Ft	FTH Rating — 1 and 2 Hr (See Item 2)
L Rating at 400°F — Less than 1 CFM/Lin Ft	Nominal Joint Width - 13 mm
	Class II or III Movement Capabilities — 50% Compression or Extension
	L Rating at Ambient — Less than 1.55 L/s/m
	Rating at 204°F — Less than 1.55 L/s/m

HWD 0882



**SECTION A-A
CONFIGURATION A**



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CONFIGURATION A**



Hilti Firestop Systems

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November 20, 2019

System No. HW-D-0882

HWD 0882

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. 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 Form Units* — Max 3 in. (76 mm) deep galv fluted floor units.
- B. Concrete — Min 2-1/2 in. (64 mm) thick reinforced (100-150 pcf or 1600-2400 kg/m³) concrete, as measured from the top plane of the floor units.

Configuration A

2. Shaft Wall Assembly — The 1 hr or 2 hr fire rated gypsum board/steel stud shaft wall assembly shall be constructed of the materials and in the manner described in the individual U400, V400 or W400 Series Wall and Partition Design in the UL Fire Resistance Directory and shall include the following construction features:

- A. Floor and Wall Runners — (Not Shown) - J-shaped runner, equal in width to steel studs (Item 2C), with unequal legs of 1 in. (25 mm) and 2 in. (51 mm), fabricated from 20 MSG galv steel. Runners positioned with short leg toward finished side of wall. Runners attached to floor with steel masonry anchors, steel fasteners or welds located not greater than 2 in. (51 mm) from ends and not greater than 24 in. (610 mm) OC.
- B. Ceiling Runner — Ceiling runner of wall assembly shall consist of J-shaped runner, equal in width to steel studs (Item 2C), with unequal legs of min 1 in. (25 mm) and 2 in. (51 mm), fabricated from 20 MSG galv steel. Ceiling runner installed parallel to direction of fluted steel deck, centered under the valley of the deck and secured to steel deck valleys with steel masonry anchors or steel fasteners spaced max 24 in. (610 mm) OC after installation of the Top Track Seal (Item 3A).
- C. Steel Studs — C-H or -T shaped studs, min 4 in. (102 mm) wide, fabricated from min 20 MSG galv steel, cut to lengths 1/2 in. (13 mm) less than floor to ceiling height and spaced max 24 in. (610 mm) OC.
- D. Gypsum Board* — Nom 1 in. (25 mm) thick gypsum board liner panels. Panels cut 3/4 in. (19 mm) less in length than floor to ceiling height. Vertical edges inserted in H-shaped section of C-H or -T studs. At the ends of the assembly, the free edge of the end panels are attached to the long leg of vertical J-runners (Item 2A) with 1-5/8 in. (41 mm) long Type S steel screws spaced max 12 in. (305 mm) OC.
- E. Gypsum Board* — Nom 5/8 in. (16 mm) thick Type C gypsum board applied in one or two layers for 1 hr and 2 hr fire rated assemblies, respectively, in accordance with the individual Wall and Partition Design except that a maximum 1/2 in. high gap shall be maintained between the top edge of the gypsum board and the bottom plane of the floor assembly. The screws attaching the gypsum board layers to the C-H studs shall be located 3-1/2 to 5-1/2 in. (89 to 140 mm) below the bottom plane of the floor. No gypsum board attachment screws are to penetrate 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 the bottom of steel floor unit and top of gypsum board on finished side of wall at time of installation is 1/2 in. (13 mm). The joint system is designed to accommodate a max 50 percent compression or extension from its installed width. The joint system consists of the following:

- A. Fill, Void or Cavity Material* — Top Track Seal — Factory supplied foam seal installed over the ceiling runner (Item 2B) on finished side of wall prior to attachment to underside of steel floor unit in accordance with the installation instructions. Butt joints in the Top Track Seal shall be compressed min 1/2 in. (13 mm).

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CFS-TTS MD OS Firestop Top Track Seal

- B. Forming Material* — Min 4 pcf (64 kg/m³) mineral wool batt insulation cut into 1 in. (25 mm) wide by 1-1/2 in. (38 mm) thick strips. Mineral wool to be compressed 50 percent in thickness and installed edge first into gap between top of gypsum liner panel and ceiling runner.

INDUSTRIAL INSULATION GROUP L L C — MinWool-1200 Safing

JOHNS MANVILLE — Safing

ROCK WOOL MANUFACTURING CO — Delta Board or Delta -8

ROCKWOOL MALAYSIA SDN BHD — Type Safe

ROCKWOOL — Type Safe

THERMAFIBER INC — Type SAF

- C. Forming Material* — Min 4 pcf (64 kg/m³) mineral wool batt insulation cut into 6 in. (152 mm) wide pieces with a thickness equal to the width of the ceiling runner. Mineral wool to be compressed in thickness and installed edge first between 1 in. (25 mm) leg of ceiling runner and gypsum liner panel.

INDUSTRIAL INSULATION GROUP L L C — MinWool-1200 Safing

JOHNS MANVILLE — Safing

ROCK WOOL MANUFACTURING CO — Delta Board or Delta -8

ROCKWOOL MALAYSIA SDN BHD — Type Safe

ROCKWOOL — Type Safe

THERMAFIBER INC — Type SAF



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Configuration B

2. Shaft Wall Assembly — The 1 hr or 2 hr fire rated gypsum board/steel stud shaft wall assembly shall be constructed of the materials and in the manner described in the individual U400, V400 or W400 Series Wall and Partition Design in the UL Fire Resistance Directory and shall include the following construction features:
- A. Floor and Wall Runners — (Not Shown) - J-shaped runner, equal in width to steel studs (Item 2C), with unequal legs of 1 in. (25 mm) and 2 in. (51 mm), fabricated from 20 MSG galv steel. Runners positioned with short leg toward finished side of wall. Runners attached to floor with steel masonry anchors, steel fasteners or welds located not greater than 2 in. (51 mm) from ends and not greater than 24 in. (610 mm) OC.
 - B. Ceiling Runner — Ceiling runner of wall assembly shall consist of J-shaped runner, equal in width to steel studs (Item 2C), with unequal legs of min 1 in. (25 mm) and 2 in. (51 mm), fabricated from 20 MSG galv steel. Ceiling runner installed parallel to direction of fluted steel deck, offset under the valley of the deck to extend a max of 1 in. (25 mm) into area of flute and secured to steel deck valleys with steel masonry anchors or steel fasteners spaced max 24 in. (610 mm) OC after installation of the Top Track Seal (Item 3A).
 - C. Steel Studs — C-H or -T shaped studs, min 4 in. (102 mm) wide, fabricated from min 20 MSG galv steel, cut to lengths 1/2 in. (13 mm) less than floor to ceiling height and spaced max 24 in. (610 mm) OC.
 - D. Gypsum Board* — Nom 1 in. (25 mm) thick gypsum board liner panels. Panels cut 3/4 in. (19 mm) less in length than floor to ceiling height. Vertical edges inserted in H-shaped section of C-H or -T studs. At the ends of the assembly, the free edge of the end panels are attached to the long leg of vertical J-runners (Item 2A) with 1-5/8 in. (41 mm) long Type S steel screws spaced max 12 in. (305 mm) OC.
 - E. Gypsum Board* — Nom 5/8 in. (16 mm) thick Type C gypsum board applied in one or two layers for 1 hr and 2 hr fire rated assemblies, respectively, in accordance with the individual Wall and Partition Design except that a maximum 1/2 in. (13 mm) high gap shall be maintained between the top edge of the gypsum board and the steel deck immediately above. The screws attaching the gypsum board layers to the C-H studs shall be located 3-1/2 to 5-1/2 in. (89 to 140 mm) below the bottom plane of the floor. No gypsum board attachment screws are to penetrate 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 the top of the gypsum board on finished side of wall and the steel floor unit above at time of installation is 1/2 in. (13 mm). The joint system is designed to accommodate a max 50 percent compression or extension from its installed width. The joint system consists of the following:
- A. Fill, Void or Cavity Material* — Top Track Seal — Factory supplied foam seal installed over the ceiling runner (Item 2B) on finished side of wall prior to attachment to underside of steel floor unit in accordance with the installation instructions. Top Track Seal to be pushed upwards into flute as drywall runs past. Butt joints in the Top Track Seal shall be compressed min 1/2 in. (13 mm).
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CFS-TTS MD OS Firestop Top Track Seal
 - B. Forming Material* — Min 4 pcf (64 kg/m³) mineral wool batt insulation cut into 1 in. (25 mm) wide by 1-1/2 in. (38 mm) thick strips. Mineral wool to be compressed 50 percent in thickness and installed edge first into gap between top of gypsum liner panel and ceiling runner.
INDUSTRIAL INSULATION GROUP L L C — MinWool-1200 Safing
JOHNS MANVILLE — Safing
ROCK WOOL MANUFACTURING CO — Delta Board or Delta -8
ROCKWOOL MALAYSIA SDN BHD — Type Safe
ROCKWOOL — Type Safe
THERMAFIBER INC — Type SAF
 - C. Forming Material* — Min 4 pcf (64 kg/m³) mineral wool batt insulation cut into 6 in. (152 mm) wide pieces with a thickness equal to the width of the ceiling runner. Mineral wool to be compressed in thickness and installed edge first between 1 in. (25 mm) leg of ceiling runner and gypsum liner panel.
INDUSTRIAL INSULATION GROUP L L C — MinWool-1200 Safing
JOHNS MANVILLE — Safing
ROCK WOOL MANUFACTURING CO — Delta Board or Delta -8
ROCKWOOL MALAYSIA SDN BHD — Type Safe
ROCKWOOL — Type Safe
THERMAFIBER INC — Type SAF

* 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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