

Installation guide for CFS-TTS MD

Hilti Firestop Top Track Seal for metal deck

Top Track Seal CFS-TTS MD is a firestop, smoke and sound seal for rated head-of-wall joints between top track and gypsum to corrugated metal deck slabs and metal roof decks. This guideline covers different installation situations of rated wall systems. Should a specific installation situation deviate from a listing please reach out to the Hilti Fire Protection Engineering team to see if an engineering judgement is possible.

CONTENTS

- Track is perpendicular to flute – Page 2-3
- Track is parallel to flute – Page 4
- Track is cantilevered to flute – Page 5
- Track runs diagonal across fluting – Page 6
- Corner intersections - parallel & perpendicular – Page 7-8
- Track is parallel under I- Beam with Z-Clips – Page 9
- Wall around fireproofed beam / bar joist – Page 10-11
- Wall running parallel or offset to beam and perpendicular to flutes – Page 12-13
- Pipe or cast-in device intersecting track perpendicular – Page 14
- Pipe or cast-in device intersecting track parallel – Page 15
- Shaft wall – Page 16
- Rated wall to the underside of a Non-rated metal roof deck – Page 17
- Non-fireproofed beam running perpendicular to flutes – Page 18

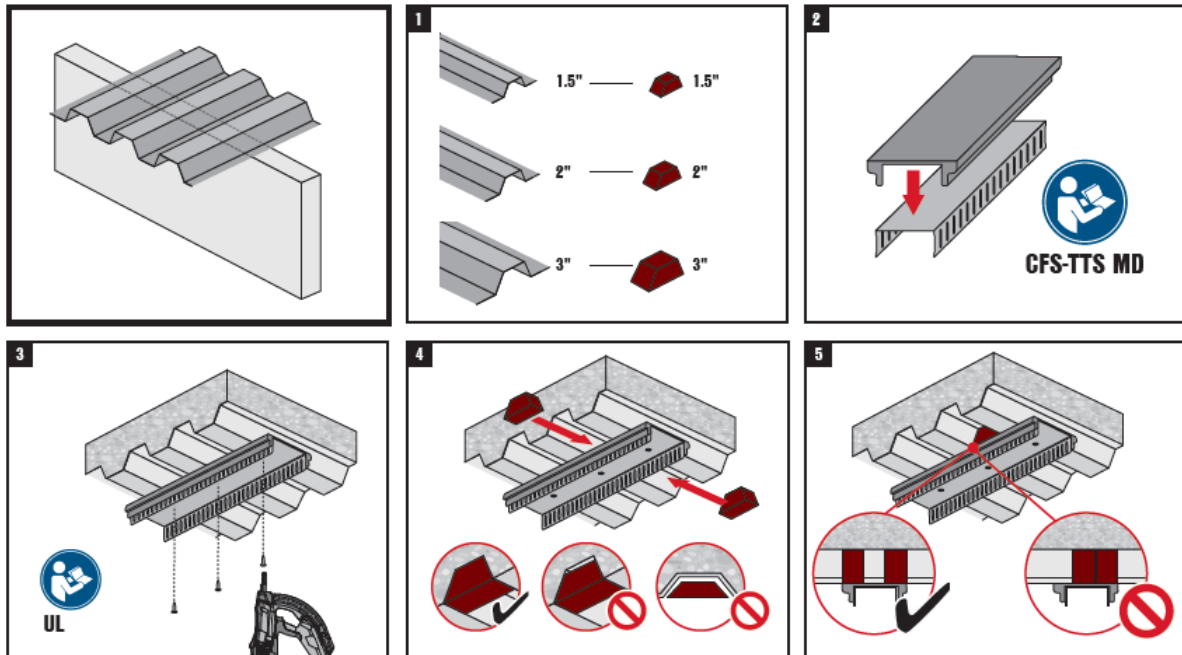
TECHNICAL SUPPORT

There will always be situations when a current UL-listed system doesn't accommodate your particular application. When that happens, bring your questions to the Hilti firestop experts.

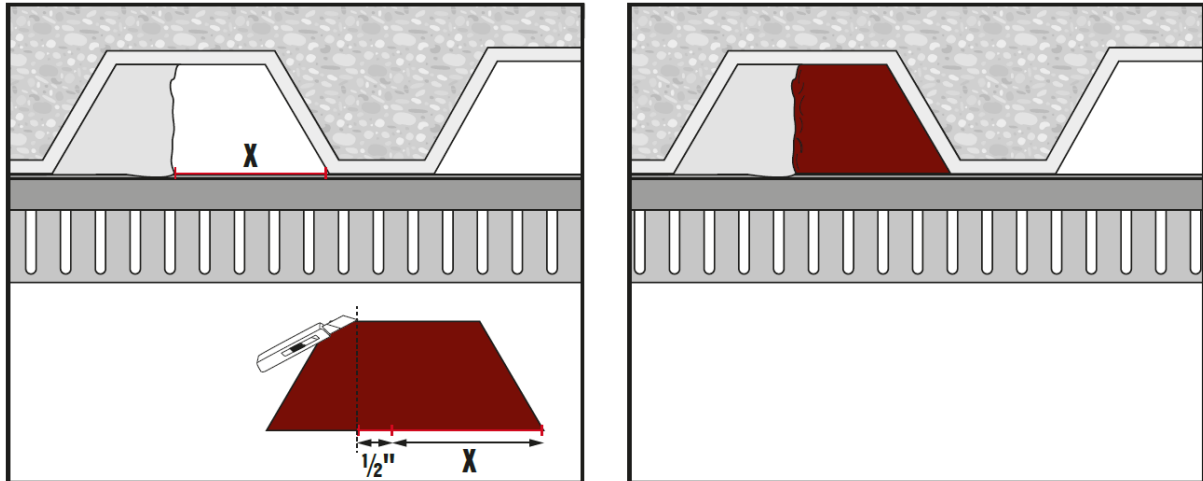
To request an Engineering Judgment, please download the Engineering Judgment Request Form at: <https://www.hilti.com/>. Once you have saved the completed file, please send the completed EJ request form to: usfirestopeng@hilti.com

TRACK IS PERPENDICULAR TO FLUTE

- Please read the UL listing HW-D-0871
- Insert Hilti CFS-TTS MD Plug 1.5", 2" or 3" flush with CFS-TTS MD OS & 600



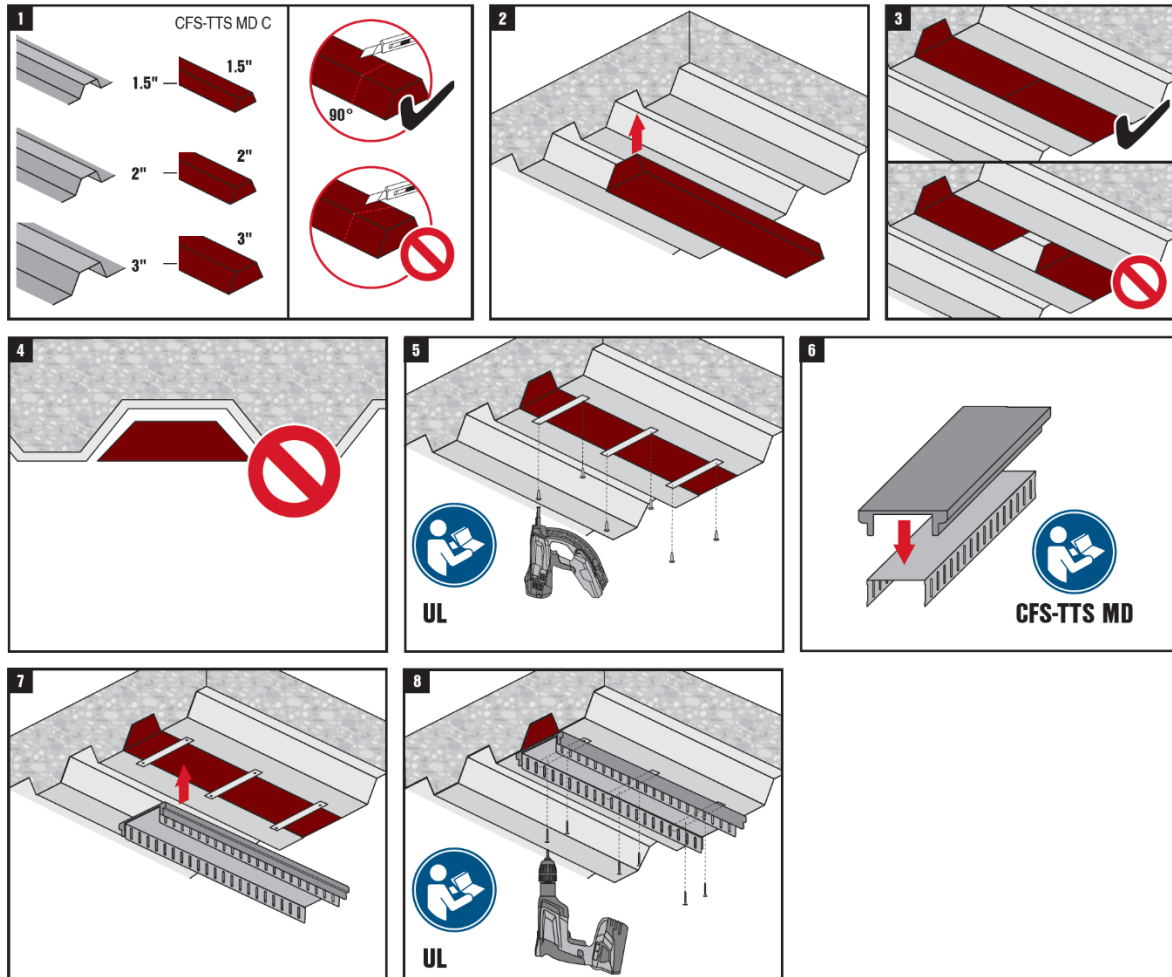
- Overspray (e.g. Monokote) in the flute (e.g. close to beams) should be scraped off before the installation of the plugs and ensure a tight fit
- If the flute opening is not allowing a full plug to be installed the plug should be cut down with a minimum of $\frac{1}{2}$ " oversize of the addressable opening. Please ensure that no mineral wool is exposed, using aluminum foil tape. An installation on both sides is still required. Please read the UL listing HW-D-0871.



- The product also works on rated metal decks already protected with cementitious spray (e.g. Monokote). If the metal deck needs to be fully protected with cementitious fireproofing, installing Z-clips prior to spraying would allow the combination of the top-tracks and Hilti CFS-TTS MD system. All flutes need then to be filled with fireproofing. Please refer to the UL listing HW-D-0871 for walls running perpendicular to flute for further details.

TRACK IS PARALLEL TO FLUTE

- Please read the UL listing HW-D-0873
- Insert Hilti CFS-TTS MD Covers 1.5", 2" or 3" supported by steel straps before installing CFS-TTS MD OS & 600

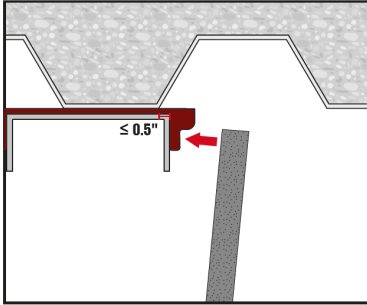


- The product also works on rated metal decks already protected with cementitious spray (e.g. Monokote). If the metal deck needs to be fully protected with cementitious fireproofing, installing Z-clips prior to spraying would allow the combination of the top-tracks and Hilti CFS-TTS MD system. All flutes need then to be filled with fireproofing. Please refer to the UL listing HW-D-0872 for walls running parallel to flute for further details.

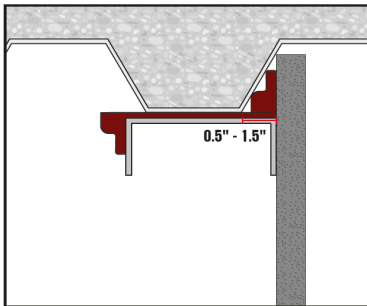
TRACK IS CANTILEVERED TO FLUTE

- Please read the UL listing HW-D-0872

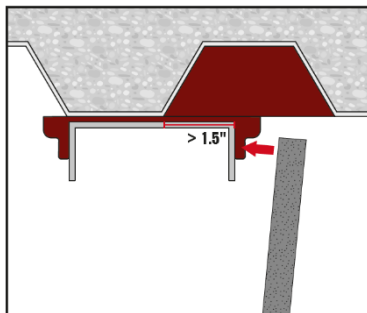
a) Offset $\leq 0.5''$ - CFS-TTS MD OS & 600



b) Offset $0.5'' - 1.5''$ - CFS-TTS MD OS & 600

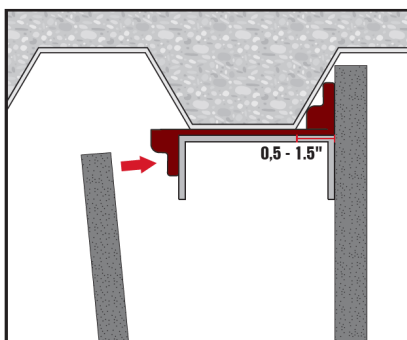


c) Offset $> 1.5''$ - CFS-TTS MD OS & 600 + CFS-TTS MD C



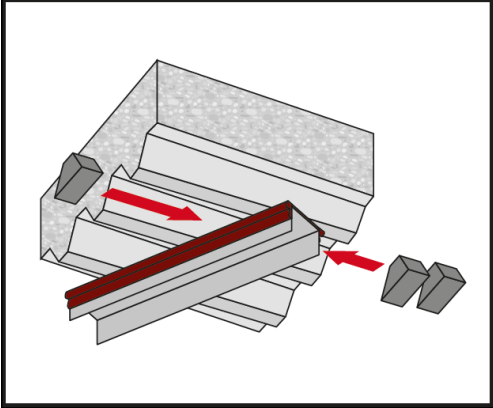
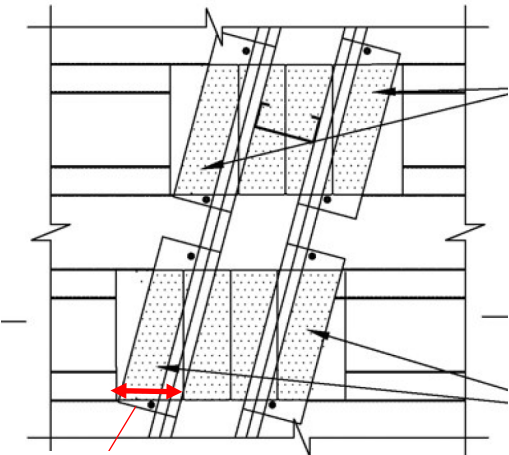
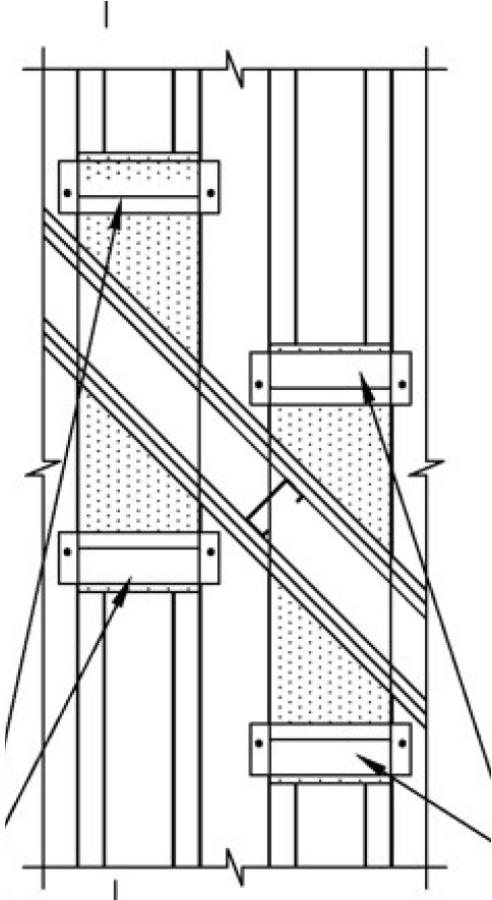
- Install flute cover according to the instructions given in listing (HW-D-0873)

Please note that depending on track width and deck dimensions an offset situation can also occur on both sides of the track.



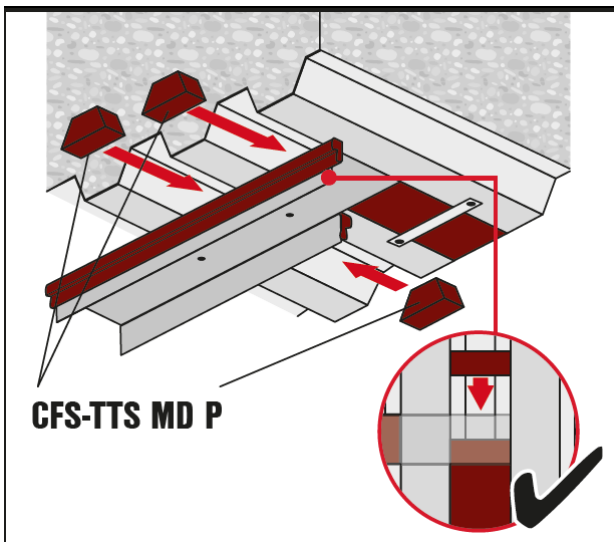
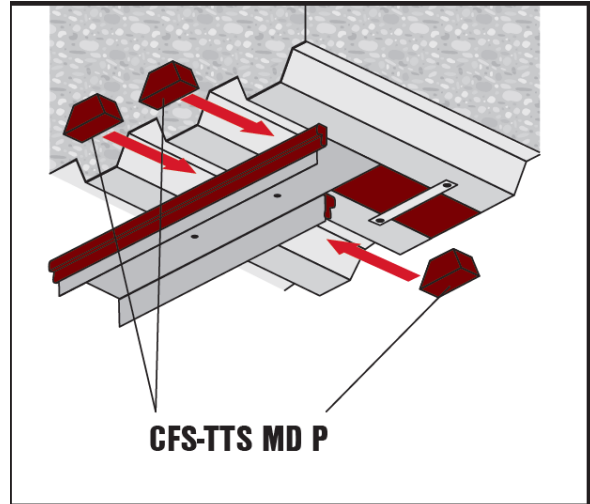
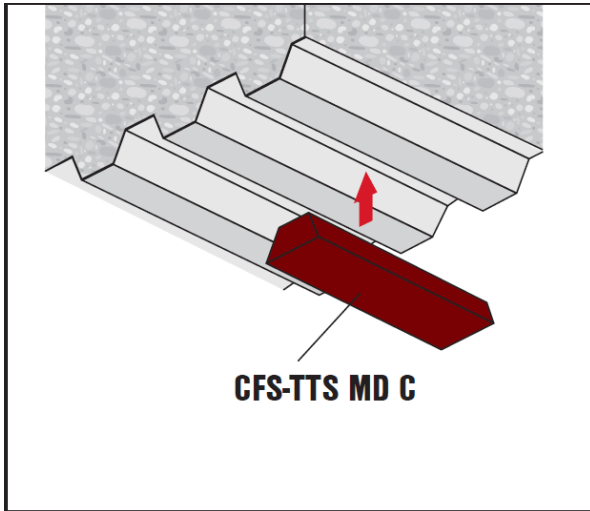
TRACK RUNS DIAGONAL ACROSS FLUTING

- Please read the UL listing HW-D-0907

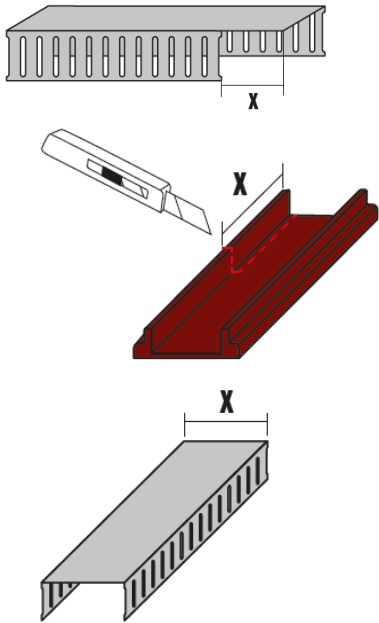
<p>a) CFS-TTS MD P</p>	<p>b) CFS-TTS MD P + CFS-TTS MD C</p>
  <p>$\geq 2 \frac{1}{2}''$ Bottom View</p> <p>Flute plugs to extend a minimum $2 \frac{1}{2}''$ (64mm) beyond the ceiling runner. The width of the strap should be adjusted as such that it properly supports the plug. Plugs should always be installed in a 90° angle, perpendicular to the flute.</p>	<p>Where steel straps are used, flute plugs to extend max $\frac{1}{2}$ in. (13 mm) beyond steel straps at both sides of wall.</p>  <p>Bottom View</p>

CORNER INTERSECTIONS - PARALLEL & PERPENDICULAR

- Please read the UL listing HW-D-0871 (track perpendicular to flute) and the listing HW-D-0873 (track parallel to flute) and follow the instructions below to address corners.

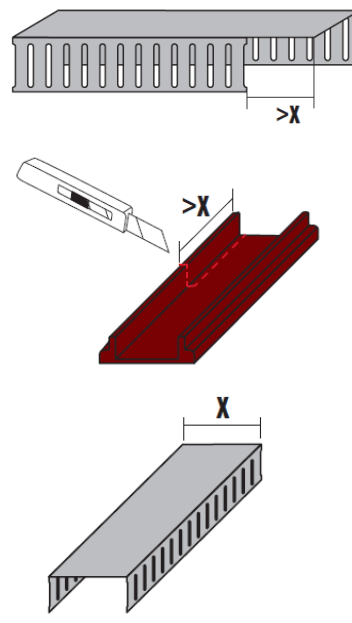


a)

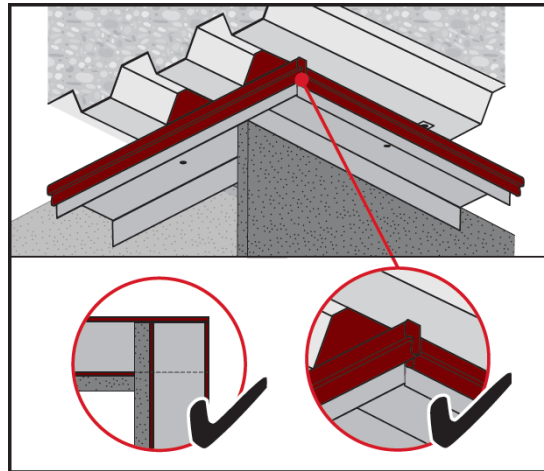
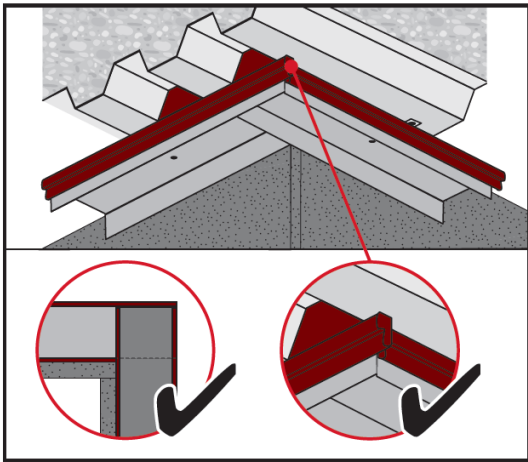


x - please leave space to accommodate track

b)



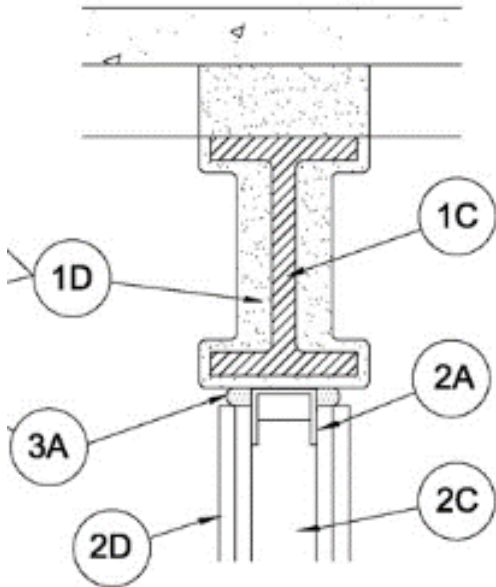
$>x$ required, please leave space to accommodate track with TTS MD and board



TRACK IS PARALLEL UNDER I-BEAM WITH Z-CLIPS

a) Gaps between track and beam filled with cementitious spray

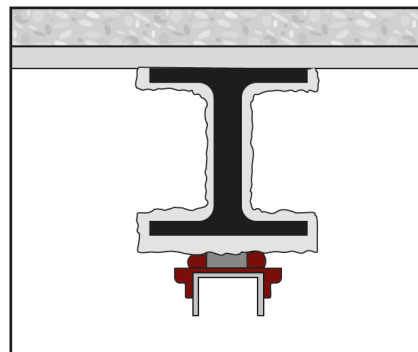
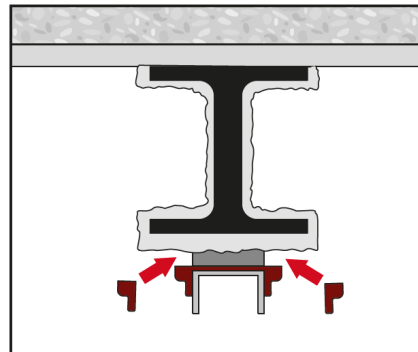
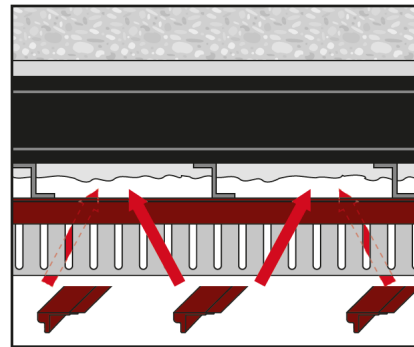
- Please read the UL listing HW-D-0875



b) Gaps with width up to 1/2" between track and beam:

(when void created by the Z-clips is not fully filled with cementitious fireproofing)

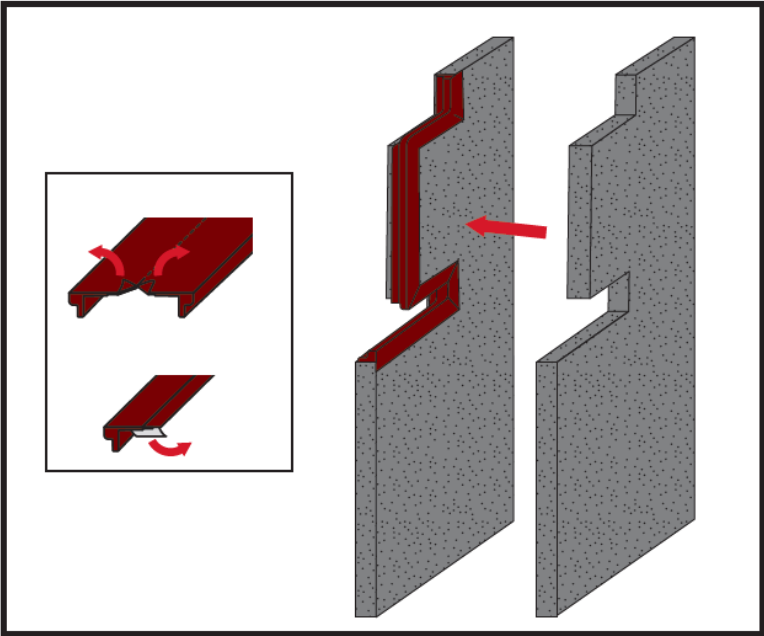
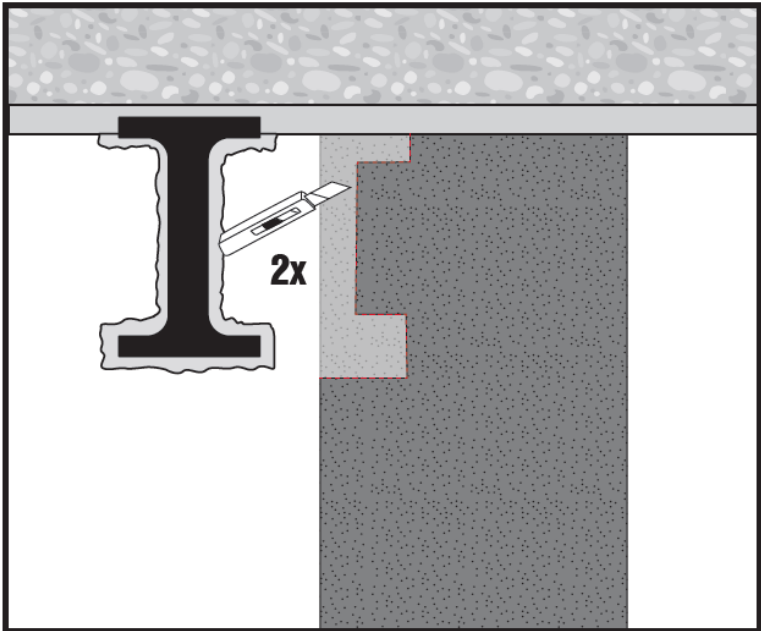
- Compress CFS-TTS MD OS into gap on both sides of wall flush with track
- Please request an EJ from our Hilti Fire Protection Engineering team for this installation situation

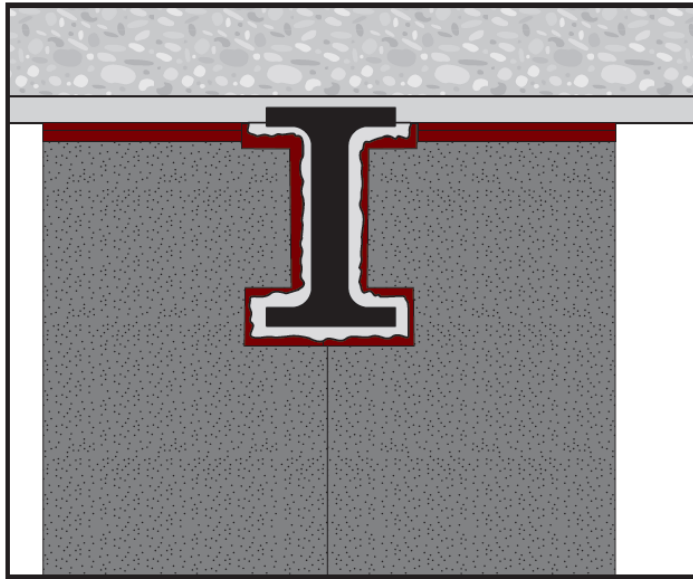


WALL AROUND FIREPROOFED BEAM / BAR JOIST

a) Around beam/bar joist using CFS-TTS MD OS

Please read the UL listing HW-D-0874

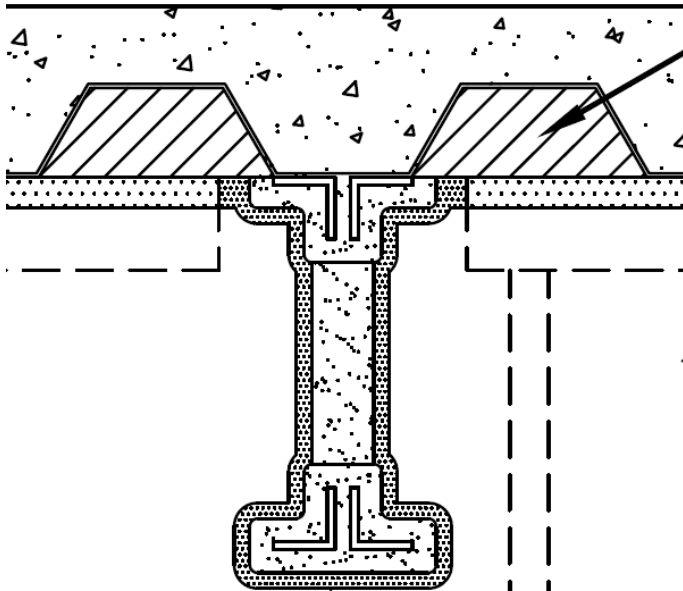




- For a one-hour wall with only one layer of drywall on each side, please request an EJ from our Hilti Fire Protection Engineering team for this installation situation

b) Around beam/bar joist using CFS-S SIL GG

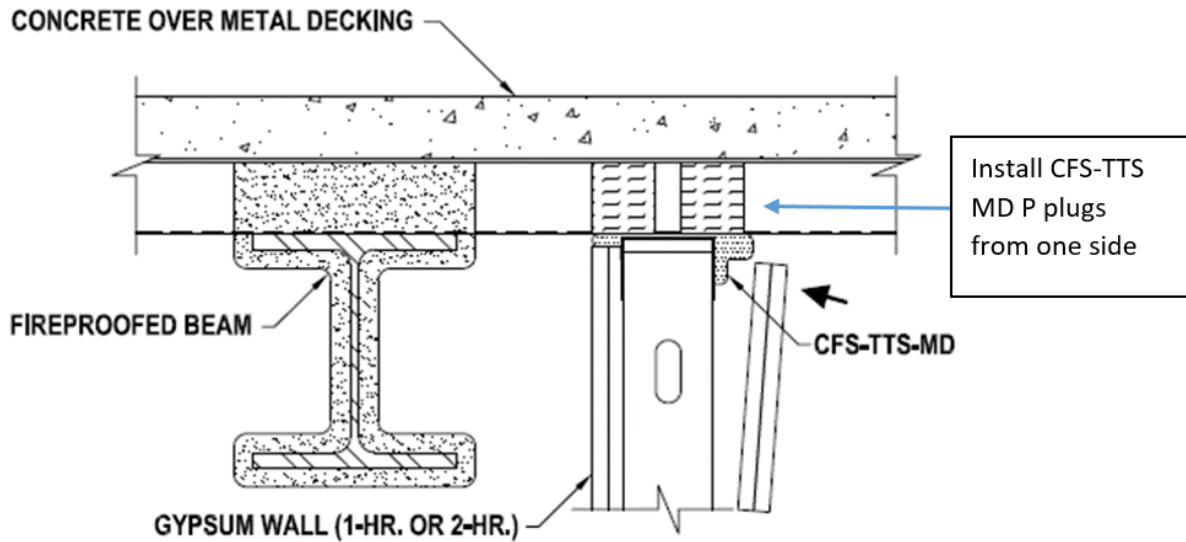
- Please read the UL listing HW-D-0886
- Instead of using CFS-TTS MD OS to seal the joint around a fireproofed beam or bar joist, one could also use sealant installed at a depth of gypsum $5/8''$ or $1-1/4''$ of Hilti silicone sealant CFS-S SIL GG in up to a $3/4''$ maximum annular space



WALL RUNNING PARALLEL OR OFFSET TO BEAM AND PERPENDICULAR TO FLUTES

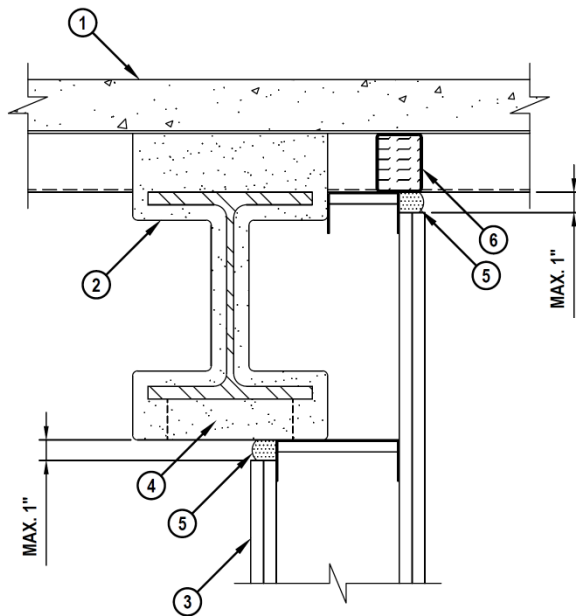
a) Wall running parallel to beam

- Please read the UL listing HW-D-0884
- CFS-TTS MD P plugs can be installed from one side (non-beam facing side)



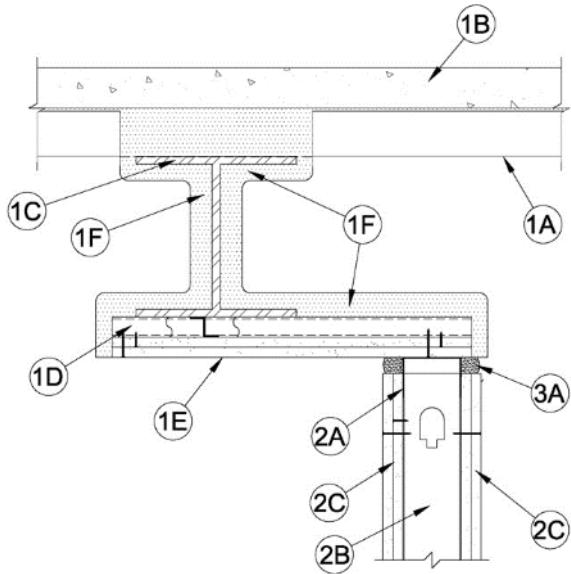
b) Wall running offset to beam up to deck

- Please request an EJ from our Hilti Fire Protection Engineering team for this installation situation

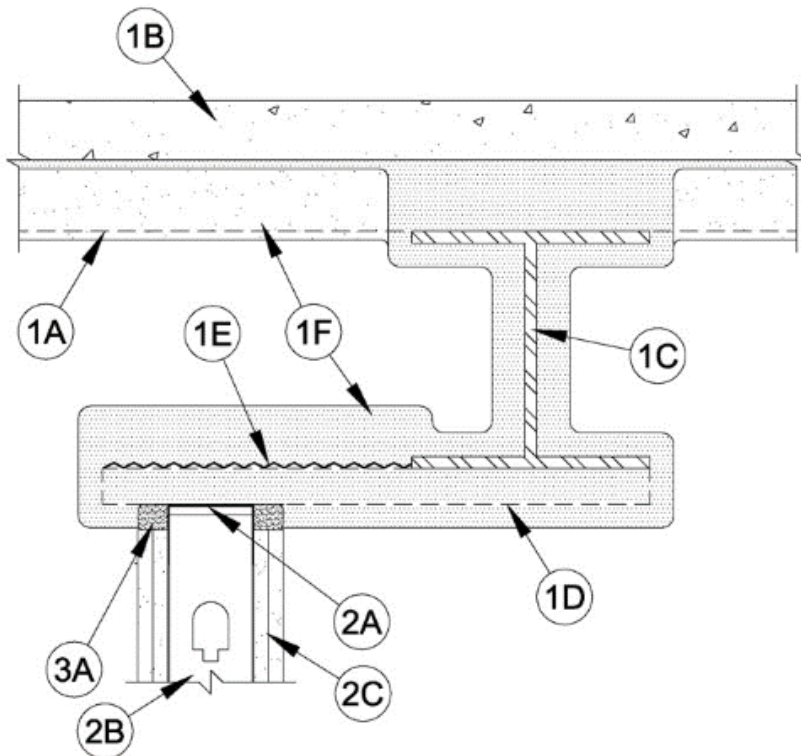


c) Wall running offset to beam (extended base of the beam)

- Please read the UL listing HW-D-0876

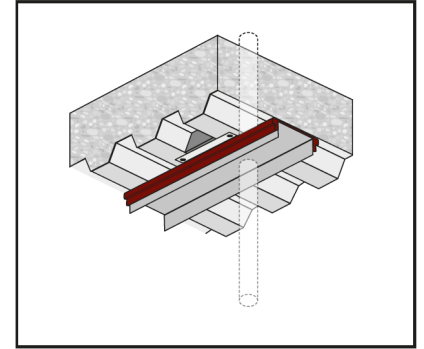
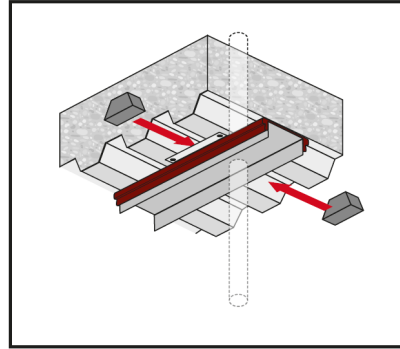
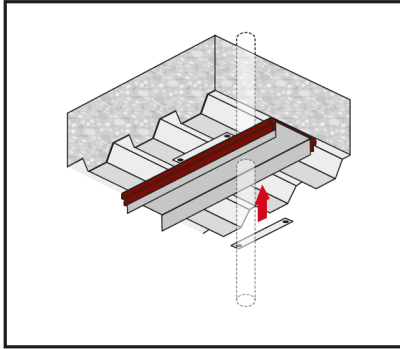


- Or UL listing HW-S-0134



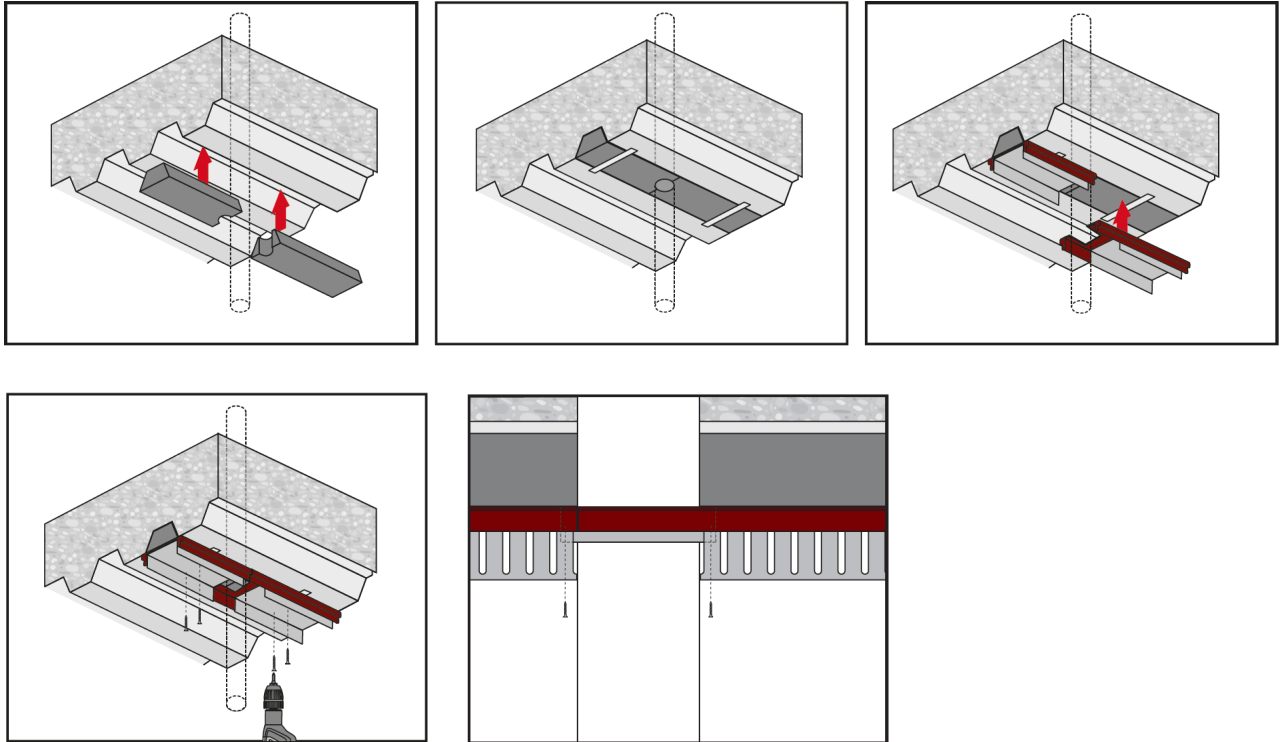
PIPE OR CAST-IN DEVICE INTERSECTING TRACK PERPENDICULAR

- Please read the UL listing HW-D-0871
- Please use min. 20ga steel plates butted against ceiling runner at both sides of wall to span the flute and support the projected flute plug
- If the pipe type is CPVC please contact pipe manufacture for compatibility



PIPE OR CAST-IN DEVICE INTERSECTING TRACK PARALLEL

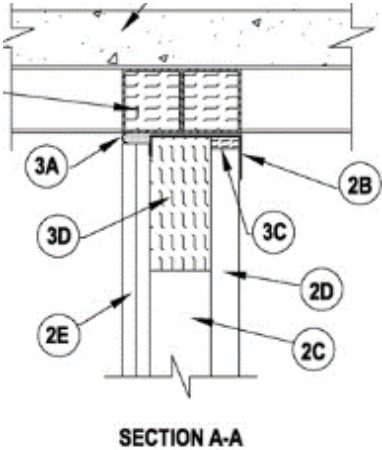
- Please request an EJ from our Hilti Fire Protection Engineering team for this installation situation
- If the pipe type is CPVC please contact pipe manufacture for compatibility



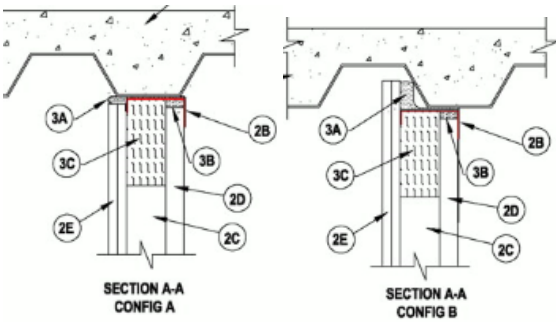
SHAFT WALL

- Please read the UL listings HW-D-0881, HW-D-0882, HW-D-0883

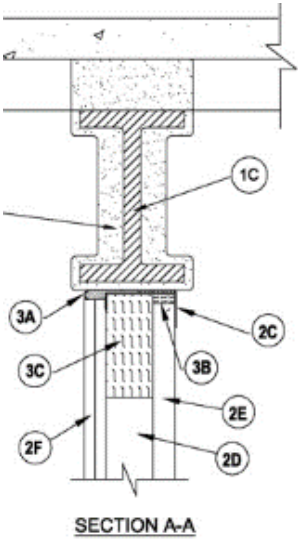
HW-D-0881



HW-D-0882



HW-D-0883

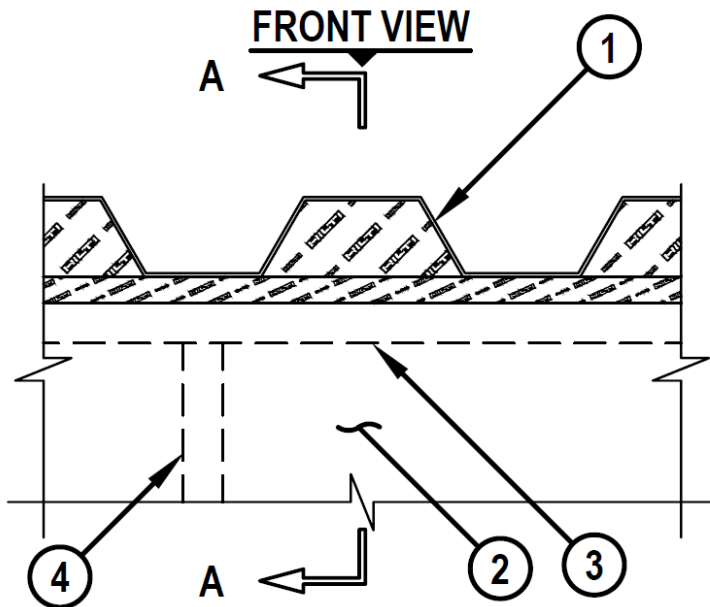


- For 2 1/2" shaft walls please request an EJ from our Hilti Fire Protection Engineering team

RATED WALL TO THE UNDERSIDE OF A NON-RATED METAL ROOF

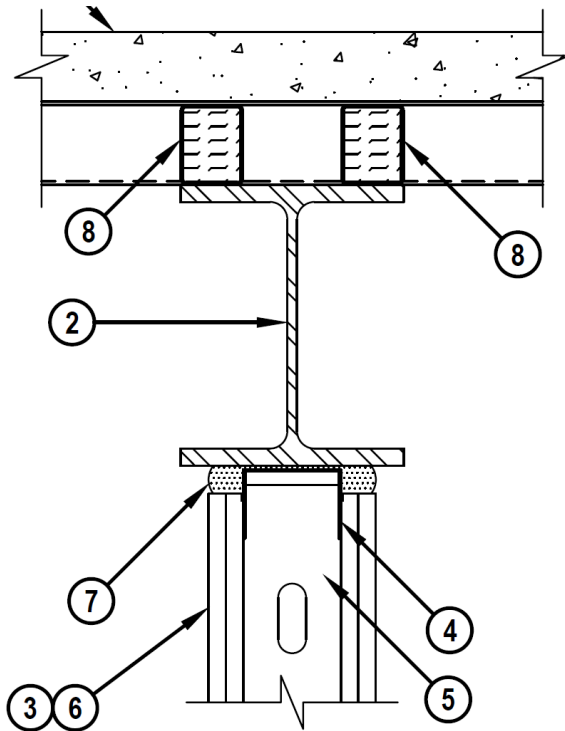
DECK

- Please request an EJ from our Hilti Fire Protection Engineering team for this installation situation
- Below picture refers to a min. 20 GA non fire-rated metal roof deck assembly



NON-FIREPROOFED BEAM RUNNING PERPENDICULAR TO FLUTES

- Please request an EJ from our Hilti Fire Protection Engineering team for this installation situation
- The fire rating of the assembly is dependent upon the performance of the steel I-beam under fire conditions



Hilti Firestop
Saving lives
through innovation
and education

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