

UL/cUL SYSTEM NO. HW-D-0876

**TOP OF WALL JOINT : GYPSUM WALL ASSEMBLY**

ASSEMBLY RATING = 1-HR. OR 2-HR.

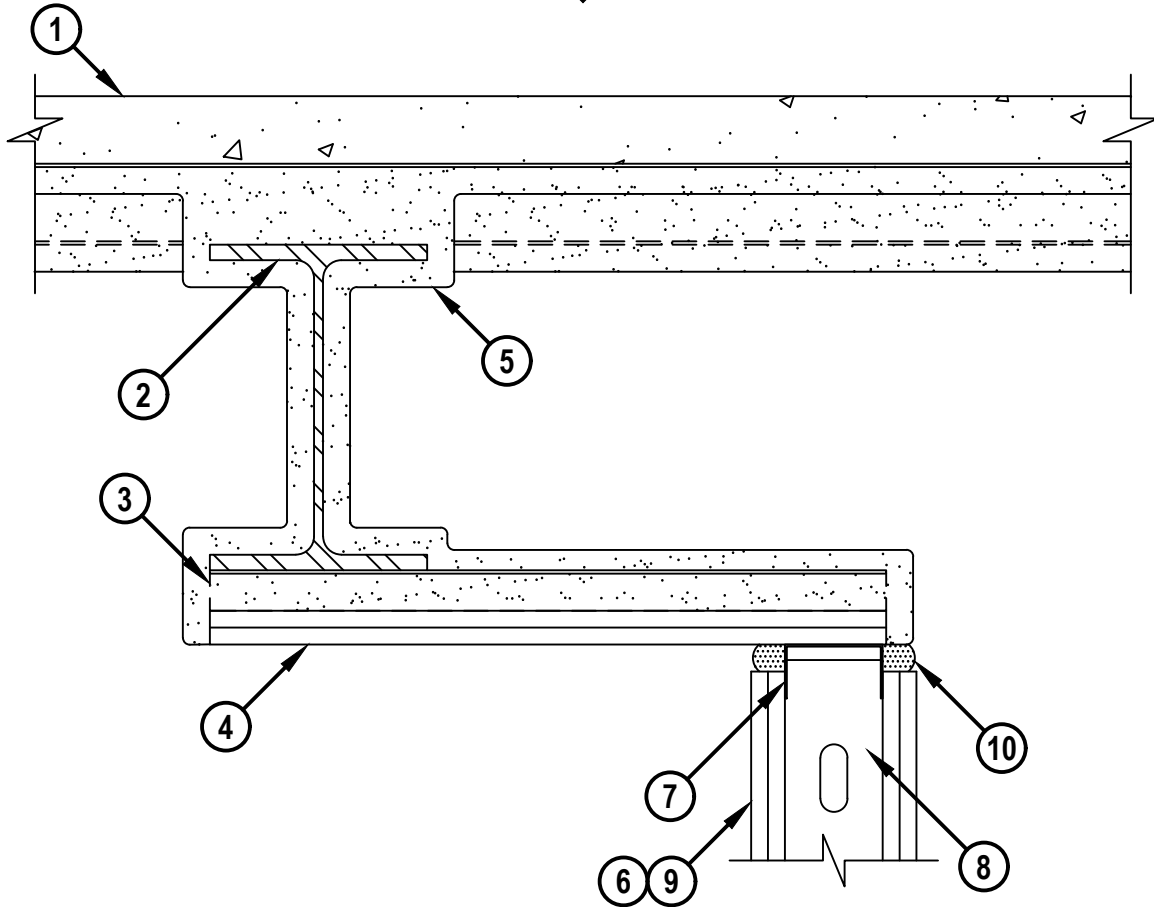
L-RATING AT AMBIENT = 1 CFM / LIN FT

L-RATING AT 400°F = LESS THAN 1 CFM / LIN FT

CLASS II AND III MOVEMENT CAPABILITIES - SEE TABLE BELOW

HW0876e.102224

**CROSS-SECTIONAL VIEW**



HILTI, Inc.  
Plano, Texas USA (800) 879-8000

Sheet	1 of 3
Scale	9/64" = 1"
Date	Oct. 22, 2024

Drawing No.  
**HWD  
0876e**

*Saving Lives through Innovation and Education*

UL/cUL SYSTEM NO. HW-D-0876

**TOP OF WALL JOINT : GYPSUM WALL ASSEMBLY**

ASSEMBLY RATING = 1-HR. OR 2-HR.

L-RATING AT AMBIENT = 1 CFM / LIN FT

L-RATING AT 400°F = LESS THAN 1 CFM / LIN FT

CLASS II AND III MOVEMENT CAPABILITIES - SEE TABLE BELOW

HW0876e.102224

1. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR (MINIMUM 2-1/2" THICK) OVER METAL DECKING (UL/cUL CLASSIFIED D900 SERIES) (1-HR. OR 2-HR. FIRE-RATING).
2. STEEL BEAM, AS SPECIFIED IN THE INDIVIDUAL D900 SERIES, ORIENTED PARALLEL TO AND MAXIMUM 12" FROM WALL ASSEMBLY.
3. MINIMUM 1" WIDE PAINTED OR GALVANIZED Z-SHAPED CLIPS OR CHANNELS (MIN. 16 GA.) SIZED TO EXTEND THROUGH THE THICKNESS OF FIREPROOFING, WITH 1-1/2" UPPER AND LOWER LEGS (SPACED MAX. 16" O/C). LEG OF CLIP FASTENED TO BOTTOM OF BEAM WITH STEEL FASTENERS OR WELDS (SPACED MAXIMUM 16" O/C) PRIOR TO INSTALLATION OF FIREPROOFING. CLIPS TO EXTEND FROM STEEL SUPPORT BEAM FLUSH WITH NON-BEAM FACE OF WALL.
4. TWO LAYERS OF 5/8" THICK GYPSUM BOARD (GLASS MAT FACED - MOISTURE RESISTANT) APPLIED TO BOTTOM OF STEEL ATTACHMENT CLIPS. BOARDS CUT TO LENGTH OF STEEL CLIPS AND SECURED TO EACH CLIP. BASE LAYER ATTACHED TO THE CLIPS USING 1" LONG TYPE S BUGLE-HEAD STEEL SCREWS (SPACED MAX. 12" O/C), MAXIMUM 1" FROM EACH END. OUTER LAYER ATTACHED TO CLIPS USING 1-5/8" LONG TYPE S BUGLE-HEAD STEEL SCREWS (SPACED MAXIMUM 12" O/C), MAXIMUM 1" FROM EACH END. BUTTED JOINTS ARE CENTERED OVER CLIPS AND JOINTS IN BASE AND OUTER LAYERS TO BE OFFSET. JOINTS AND SCREW HEADS IN OUTER LAYER COVERED WITH TWO COATS OF JOINT COMPOUND.
5. UL/cUL CLASSIFIED MONOKOTE TYPE MK-6/HY (MANUFACTURED BY GCP APPLIED TECHNOLOGIES) OR TYPE 300 (MANUFACTURED BY ISOLATEK, INT.) FIREPROOFING SPRAYED ON STEEL BEAM AND DECK (AS APPLICABLE) TO THE THICKNESS SPECIFIED IN THE INDIVIDUAL D700 OR D900 SERIES DESIGN. FIREPROOFING TO COMPLETELY FILL FLUTES ABOVE THE STRUCTURAL STEEL BEAM, COVER FURRING MEMBER TO THE MINIMUM THICKNESS OF MATERIAL REQUIRED ON THE FLANGES OF STEEL BEAM AND COMPLETELY FILLING THE SPACE BETWEEN THE CLIPS ABOVE THE WALL (SEE NOTE NO. 2 BELOW).
6. GYPSUM WALL ASSEMBLY (UL/cUL CLASSIFIED U400, V400, OR W400 SERIES) (1-HR. OR 2-HR. FIRE-RATING) (2-HR. SHOWN).
7. CEILING RUNNER (MIN. 25 GA., FLANGE HEIGHT OF CEILING RUNNER SHALL BE MINIMUM 1/4" GREATER THAN MAXIMUM EXTENDED JOINT WIDTH) SECURED TO Z-SHAPED CLIPS WITH STEEL FASTENERS AT MAXIMUM 24" OC (SEE NOTE NO. 1 BELOW).
8. STEEL STUDS (MINIMUM 3-5/8" WIDE) CUT 1/2" TO 1" LESS IN LENGTH THAN ASSEMBLY HEIGHT WITH BOTTOM NESTING IN CEILING RUNNER WITHOUT ATTACHMENT.
9. 5/8" OR 1-1/4" THICKNESS GYPSUM WALLBOARD AS SPECIFIED IN THE INDIVIDUAL UL DESIGN. TOP ROW OF SCREWS SHALL BE INSTALLED INTO STUD 3-1/2" TO 5-1/2" BELOW THE BOTTOM EDGE OF THE CEILING RUNNER.
10. HILTI CFS-TTS MD OS OR CFS-TTS MD 600 TOP TRACK SEAL INSTALLED OVER CEILING RUNNER PRIOR TO ATTACHING TO Z-SHAPED CLIPS, THROUGH GYPSUM BOARD, WITH 2" LONG STEEL FASTENERS AT MAXIMUM 16" C/C SPACING.



Hilti Firestop Systems

HILTI, Inc.  
Plano, Texas USA (800) 879-8000

Sheet	2 of 3
Scale	-
Date	Oct. 22, 2024

Drawing No.

**HWD  
0876e**

*Saving Lives through Innovation and Education*

UL/cUL SYSTEM NO. HW-D-0876

**TOP OF WALL JOINT : GYPSUM WALL ASSEMBLY**

ASSEMBLY RATING = 1-HR. OR 2-HR.

L-RATING AT AMBIENT = 1 CFM / LIN FT

L-RATING AT 400°F = LESS THAN 1 CFM / LIN FT

CLASS II AND III MOVEMENT CAPABILITIES - SEE TABLE BELOW

HW0876e.102224

MAX NOM JOINT WIDTH	MAX MOVEMENT CAPABILITIES		MAX MOVEMENT
7/8"	COMPRESSION	86%	3/4"
	EXTENSION	83%	5/8"
1"	COMPRESSION	62%	5/8"
	EXTENSION	50%	1/2"
1-1/2"	COMPRESSION	92%	1-3/8"
	EXTENSION	0%	0"

AS AN ALTERNATIVE TO THE MOVEMENT PERCENTAGES ABOVE, THE JOINT SYSTEM MAY MOVE FREELY WITHOUT RESTRICTION TO THE PERCENTAGE OF MOVEMENT WITHIN THE RANGE OF A MIN 1/8" TO MAX 1-1/2" JOINT WIDTH.

NOTES : 1. AS AN ALTERNATE TO CEILING RUNNER IN ITEM 3, SLOTTED CEILING RUNNERS MAY BE USED. CONSULT THE UL FIRE RESISTANCE DIRECTORY FOR APPROVED MANUFACTURERS.  
2. THE TOTAL THICKNESS OF FIREPROOFING APPLIED TO EACH SIDE OF THE STEEL BEAM WEB SHALL BE MINIMUM 13/16" THICKNESS FOR 1-HR. ASSEMBLY RATING AND MINIMUM 1-3/8" THICKNESS FOR A 2-HR. ASSEMBLY RATING, WHEN USING MONOKOTE TYPE MK-6/HY, AND MINIMUM 11/16" THICKNESS FOR A 1-HR. ASSEMBLY RATING AND MINIMUM 1-1/2" THICKNESS FOR A 2-HR. ASSEMBLY RATING WHEN USING TYPE 300.



Hilti Firestop Systems

HILTI, Inc.  
Plano, Texas USA (800) 879-8000

Sheet 3 of 3

Scale -

Date Oct. 22, 2024

Drawing No.

**HWD  
0876e**

*Saving Lives through Innovation and Education*