UL/cUL SYSTEM NO. HW-S-0160 TOP OF WALL JOINT: GYPSUM WALL ASSEMBLY ASSEMBLY RATING = 1-HR. OR 2-HR. HWS0160a.121125 L-RATING AT AMBIENT = LESS THAN 1 CFM / LIN FT L-RATING AT 400°F = LESS THAN 1 CFM / LIN FT **FRONT VIEW SECTION A-A** (5)6 MAX. 8" **SECTION B-B FRONT VIEW** <u>ب</u> (3) MAX. (2)(5) MAX. 8"

- 1. FLOOR OR ROOF ASSEMBLY (1-HR. OR 2-HR. FIRE-RATING):
 - A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR (MINIMUM 2-1/2" THICK) OVER METAL DECK (UL/cul classified D700 or D900 Series).
 - B. [NOT SHOWN] FLUTED STEEL ROOF DECK WITH SPRAY-APPLIED FIREPROOFING (UL/cUL CLASSIFIED P700 OR P900 SERIES).



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HWS 0160a

-1WS0160a.121125

UL/cUL SYSTEM NO. HW-S-0160 TOP OF WALL JOINT : GYPSUM WALL ASSEMBLY

ASSEMBLY RATING = 1-HR. OR 2-HR.
L-RATING AT AMBIENT = LESS THAN 1 CFM / LIN FT
L-RATING AT 400°F = LESS THAN 1 CFM / LIN FT

- 2. STRUCTURAL STEEL BEAM OR OPEN-WEB STEEL JOIST AS SPECIFIED IN THE INDIVIDUAL D700, D900, OR P700 SERIES FLOOR/ROOF-CEILING DESIGN. STEEL SUPPORT ORIENTED PARALLEL AND LOCATED 1" TO 8" FROM WALL.
- 3. UL/cul Classified Monokote (Type MK-6/HY, MK-6/HY es, MK-6s, Rg, MK-10HB) or (Type 300, Type 400) fireproofing sprayed to the thickness specified in the individual D700, D900, or P700 series design (see note no. 2 below) after installation of ceiling runner. Fireproofing to completely fill flutes above the structural steel support and above the ceiling runner (see note no. 3 below).
- 4. GYPSUM WALL ASSEMBLY (UL/cUL CLASSIFIED U400, V400, OR W400 SERIES) (1-HR. OR 2-HR. FIRE-RATING) (SEE NOTE NO. 5 BELOW).
- 5. CEILING RUNNER (MINIMUM 25 GA., WITH 2" TO 3" FLANGES) FASTENED TO UNDERSIDE OF DECK WITH STEEL FASTENERS OR WELDS (SPACED MAX. 24" O.C.) (SEE NOTE NO. 4 BELOW).
- 6. STEEL STUDS (MINIMUM 3-1/2" WIDE), CUT 1/2" TO 3/4" LESS IN LENGTH THAN ASSEMBLY HEIGHT, NESTING IN CEILING RUNNER WITHOUT ATTACHMENT.
- 7. MINIMUM 4" THICKNESS MINERAL WOOL SAFING (MIN. 4 PCF DENSITY) COMPRESSED 33% AND INSTALLED FLUSH WITH OR EXTENDING A MAX. 1-1/2" BELOW BOTTOM SURFACE OF FIREPROOFING ON STRUCTURAL STEEL MEMBER.
- 8. MINIMUM 5/8" OR 1-1/4" THICKNESS MINERAL WOOL SAFING (MIN. 4 PCF DENSITY) COMPRESSED 50% AND INSERTED INTO JOINT FLUSH WITH SURFACE OF WALL.
- 9. MINIMUM 1/8" (WET) THICKNESS HILTI CFS-SP WB FIRESTOP JOINT SPRAY TO COMPLETELY COVER MINERAL WOOL / FIREPROOFING AND TO OVERLAP A MINIMUM 1/2" ONTO GYPSUM AND MINIMUM 2" ONTO FIREPROOFING.

NOTES: 1. MAXIMUM WIDTH OF JOINT = 1-1/2".

- 2. WHEN STRUCTURAL STEEL SUPPORT CONSISTS OF OPEN-WEB STEEL JOISTS, 3/8" DIAMOND MESH EXPANDED STEEL LATH (1.7 TO 3.4 LB./SQ. YD.) SHALL BE INSTALLED TO COMPLETELY COVER ONE SIDE OF EACH JOIST. LATH SHALL BE SECURED WITH STEEL TIE WIRE AND COMPLETELY FILLED WITH FIREPROOFING.
- 3. AS AN ALTERNATE, FIREPROOFING IN THE FLUTES ABOVE THE CEILING RUNNER MAY BE APPLIED TO FOLLOW THE CONTOUR OF THE STEEL DECK. IN THIS CASE, MINERAL WOOL SAFING (MIN. 4 PCF DENSITY) TIGHTLY PACKED OR HILTI CP 777 SPEED PLUGS SHOULD BE INSTALLED TO COMPLETELY FILL VOID ABOVE CEILING RUNNER FLUSH WITH WALL OPPOSITE OF STEEL SUPPORT.
- 4. AS AN ALTERNATE TO CEILING RUNNER IN ITEM NO. 5, SLOTTED CEILING RUNNERS MAY BE USED. CONSULT THE UL FIRE RESISTANCE DIRECTORY FOR APPROVED MANUFACTURERS.
- 5. WHERE TOP OF WALL ASSEMBLY IS INACCESSIBLE ABOVE THE STRUCTURAL STEEL SUPPORT, THE GYPSUM BOARD ATTACHMENT SCREWS MAY BE OMITTED.



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