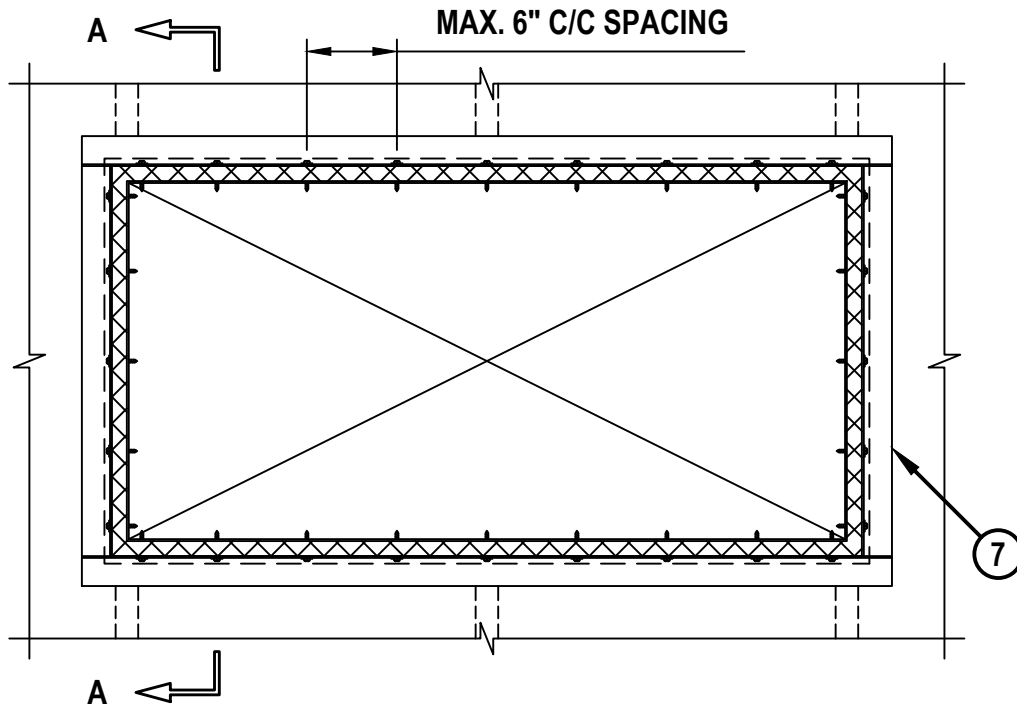


UL/cUL SYSTEM NO. W-L-7151

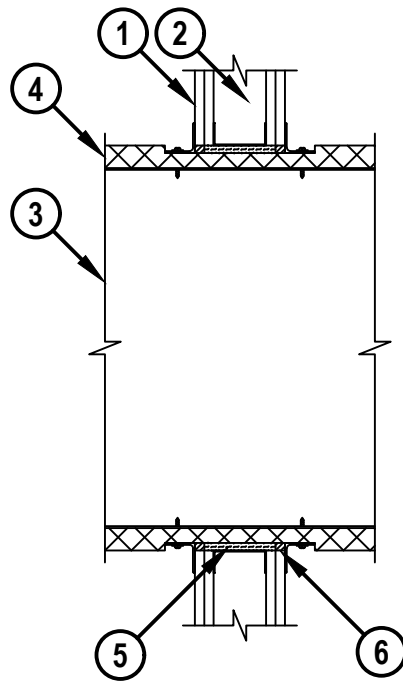
INSULATED SHEET METAL DUCT THROUGH GYPSUM WALL ASSEMBLY

F-RATING = 1-HR. OR 2-HR.
T-RATING = 0-HR., 1-HR., OR 2-HR.

FRONT VIEW



SECTION A-A



WL7151j.091322



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Sheet	1 of 2
Scale	5/64" = 1"
Date	Sep. 13, 2022

Drawing No.

**WL
7151j**

Saving Lives through Innovation and Education

INSULATED SHEET METAL DUCT THROUGH GYPSUM WALL ASSEMBLY

F-RATING = 1-HR. OR 2-HR.
T-RATING = 0-HR., 1-HR., OR 2-HR.

WL7151j.091322

1. GYPSUM WALL ASSEMBLY (UL/cUL CLASSIFIED U300, U400, V400, OR W400 SERIES) (1-HR. OR 2-HR. FIRE-RATING) (2-HR. SHOWN).
2. [NOT SHOWN] WOOD STUDS TO CONSIST OF NOMINAL 2" x 4" LUMBER. STEEL STUDS TO BE MINIMUM 3-1/2" WIDE. OPENING TO BE FRAMED OUT WITH STUD MATERIAL.
3. MAXIMUM 60" x 36" RECTANGULAR SHEET METAL DUCT CONSTRUCTED IN ACCORDANCE WITH SMACNA STANDARDS.
4. MAXIMUM 2" THICK GLASS-FIBER DUCT INSULATION (MIN. 3/4 PCF) WITH FOIL-SCRIM-KRAFT FACING (SEE NOTE NO. 2 BELOW). JOINTS SEALED WITH ALUMINUM FOIL TAPE.
5. MINIMUM 3-1/2" THICKNESS MINERAL WOOL (MIN. 4 PCF DENSITY) TIGHTLY PACKED, RECESSED TO ACCOMMODATE SEALANT.
6. MINIMUM 5/8" DEPTH HILTI FS-ONE MAX INTUMESCENT FIRESTOP SEALANT.
7. STEEL RETAINING ANGLE (SEE NOTES NO. 3 AND 4, AND TABLE BELOW).

MAXIMUM DUCT DIMENSION	DUCT THICKNESS	MAX. INSULATION THICKNESS (ITEM 4)	ANNULAR SPACE (MIN. - MAX.)	PACKING MATERIAL (ITEM 5) REQUIRED	ANGLE (ITEM 7 REQUIRED)	T-RATING
24 IN. **	24 GA. (OR HEAVIER)	1-1/2"	1/4" TO 1"	NO	NO	0
25" BY 45"	24 GA. (OR HEAVIER)	2"	1/4" TO 3-1/2"	YES	NO	1 OR 2 (SAME AS WALL RATING)

NOTE ** INDICATES THAT WHEN MAX. 1-1/2" THICK INSULATION IS USED, STEEL ANGLES ARE OPTIONAL ON THOSE SIDES OF THE DUCT THAT DO NOT EXCEED THE DIMENSION SPECIFIED.

NOTES : 1. MAXIMUM SIZE OF OPENING [FOR STEEL STUD FRAMING] = 63" x 39".
MAXIMUM SIZE OF OPENING [FOR WOOD STUD FRAMING] = 14-1/2" x 14-1/2".
2. INSULATION TO BE COMPRESSED MINIMUM 50% SUCH THAT THE ANNULAR SPACE = MINIMUM 1/4", MAXIMUM 3-1/2".
3. AFTER SEALING SPACE BETWEEN DUCT AND GYPSUM WALL ASSEMBLY WITH HILTI FIRESTOP SEALANT, FASTEN STEEL ANGLE (MIN. 18 GA. OR 16 GA. WHEN DUCT DIMENSION EXCEEDS 48") TO DUCT, THROUGH INSULATION, WITH 3/4" LONG NO. 8 SHEET METAL SCREWS SPACED 6" C/C. STEEL ANGLE TO OVERLAP DUCT MINIMUM 2" AND GYPSUM WALL ASSEMBLY BY MINIMUM 1". ANGLE DOES NOT HAVE TO BE FASTENED TO GYPSUM WALL ASSEMBLY.



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