

UL/cUL SYSTEM NO. W-L-7155

# SHEET METAL DUCT THROUGH GYPSUM WALL ASSEMBLY

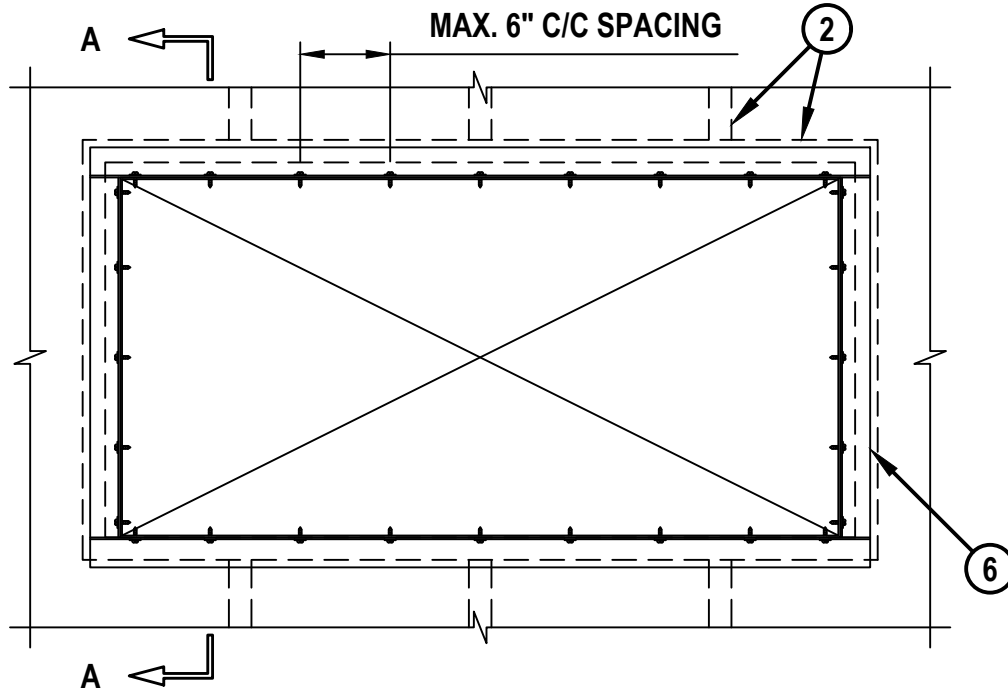
F-RATING = 1-HR. OR 2-HR.

T-RATING = 0-HR.

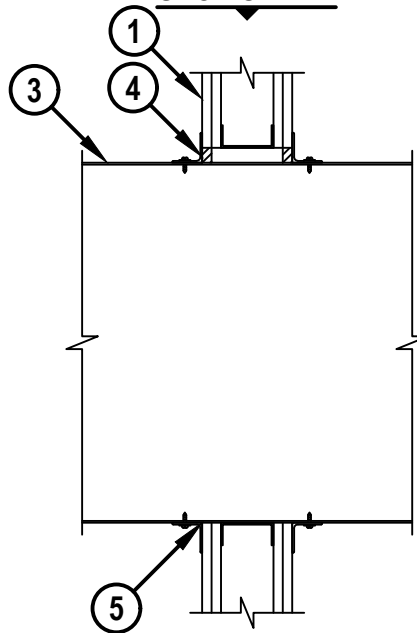
L-RATING AT AMBIENT = LESS THAN 1 CFM / SQ FT

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

## FRONT VIEW



## SECTION A-A



WL7155f.013018



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

Sheet	1 of 2
Scale	5/64" = 1"
Date	Jan. 30, 2018

Drawing No.

**WL  
7155f**

*Saving Lives through Innovation and Education*

**SHEET METAL DUCT THROUGH GYPSUM WALL ASSEMBLY**

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

T-RATING = 0-HR.

L-RATING AT AMBIENT = LESS THAN 1 CFM / SQ FT

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

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1. GYPSUM WALL ASSEMBLY (UL/cUL CLASSIFIED U400 OR V400 SERIES) (1-HR. OR 2-HR. FIRE-RATING) (2-HR. SHOWN).
2. STEEL STUDS TO BE MINIMUM 3-1/2" WIDE. OPENING TO BE FRAMED OUT WITH STUD MATERIAL.
3. PENETRATING ITEM TO CONSIST OF ONE OF THE FOLLOWING :
  - A. MAXIMUM 100" x 100" RECTANGULAR SHEET METAL DUCT (CONSTRUCTED AND REINFORCED IN ACCORDANCE WITH SMACNA CONSTRUCTION STANDARDS).
  - B. MAXIMUM 40" x 40" RECTANGULAR SHEET METAL DUCT (CONSTRUCTED AND REINFORCED IN ACCORDANCE WITH SMACNA CONSTRUCTION STANDARDS) WITH BW11 COATING MATERIAL (FLAMEBAR BW11 FIRE RATED DUCTWORK BY FIRESPRAY INTERNATIONAL, LTD.).
4. MINIMUM 5/8" DEPTH HILTI FS-ONE MAX INTUMESCENT FIRESTOP SEALANT, HILTI CP 606 FLEXIBLE FIRESTOP SEALANT, OR HILTI CFS-S SIL GG FIRESTOP SILICONE SEALANT.
5. [NOT SHOWN] MINIMUM 1/4" BEAD HILTI FS-ONE MAX INTUMESCENT FIRESTOP SEALANT, HILTI CP 606 FLEXIBLE FIRESTOP SEALANT, OR HILTI CFS-S SIL GG FIRESTOP SILICONE SEALANT APPLIED AT POINT OF CONTACT, PRIOR TO ATTACHMENT OF STEEL ANGLE.
6. STEEL RETAINING ANGLE (SEE NOTE NO. 3 AND TABLE BELOW).

MAXIMUM DUCT DIMENSION	DUCT THICKNESS	ANNULAR SPACE MIN. - MAX.	MINERAL WOOL REQUIRED	RETAINING ANGLE REQUIRED
24 IN.	24 GA. (OR HEAVIER)	1/2" - 1"	MINIMUM 3-3/4" THICKNESS FOR 1-HR. MINIMUM 5" THICKNESS FOR 2-HR.	NO

**NOTES :**

1. MAXIMUM SIZE OF OPENING = 104" x 102".
2. ANNULAR SPACE = MINIMUM 0", MAXIMUM 2".
3. AFTER SEALING SPACE BETWEEN DUCT AND GYPSUM WALL ASSEMBLY WITH HILTI FIRESTOP SEALANT, FASTEN STEEL ANGLE (MIN. 18 GA. FOR DUCTS 48" x 24" OR SMALLER, OTHERWISE MIN. 16 GA.) TO DUCT WITH MINIMUM NO. 10 SHEET METAL SCREWS (SPACED MAXIMUM 1" FROM EACH END OF STEEL DUCT AND SPACED MAXIMUM 6" C/C). STEEL ANGLE TO OVERLAP DUCT BY MINIMUM 2" AND GYPSUM WALL ASSEMBLY BY MINIMUM 1". ANGLE DOES NOT HAVE TO BE FASTENED TO GYPSUM WALL ASSEMBLY.
4. [OPTIONAL] POLYETHYLENE BACKER ROD, MINERAL WOOL, OR GLASS-FIBER BATT INSULATION MAY BE USED AS BACKING MATERIAL FOR FIRESTOP SEALANT (EXCEPT WHERE REQUIRED IN TABLE ABOVE).



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