

UL/cUL SYSTEM NO. W-L-7319
METAL DUCT THROUGH GYPSUM WALL ASSEMBLY

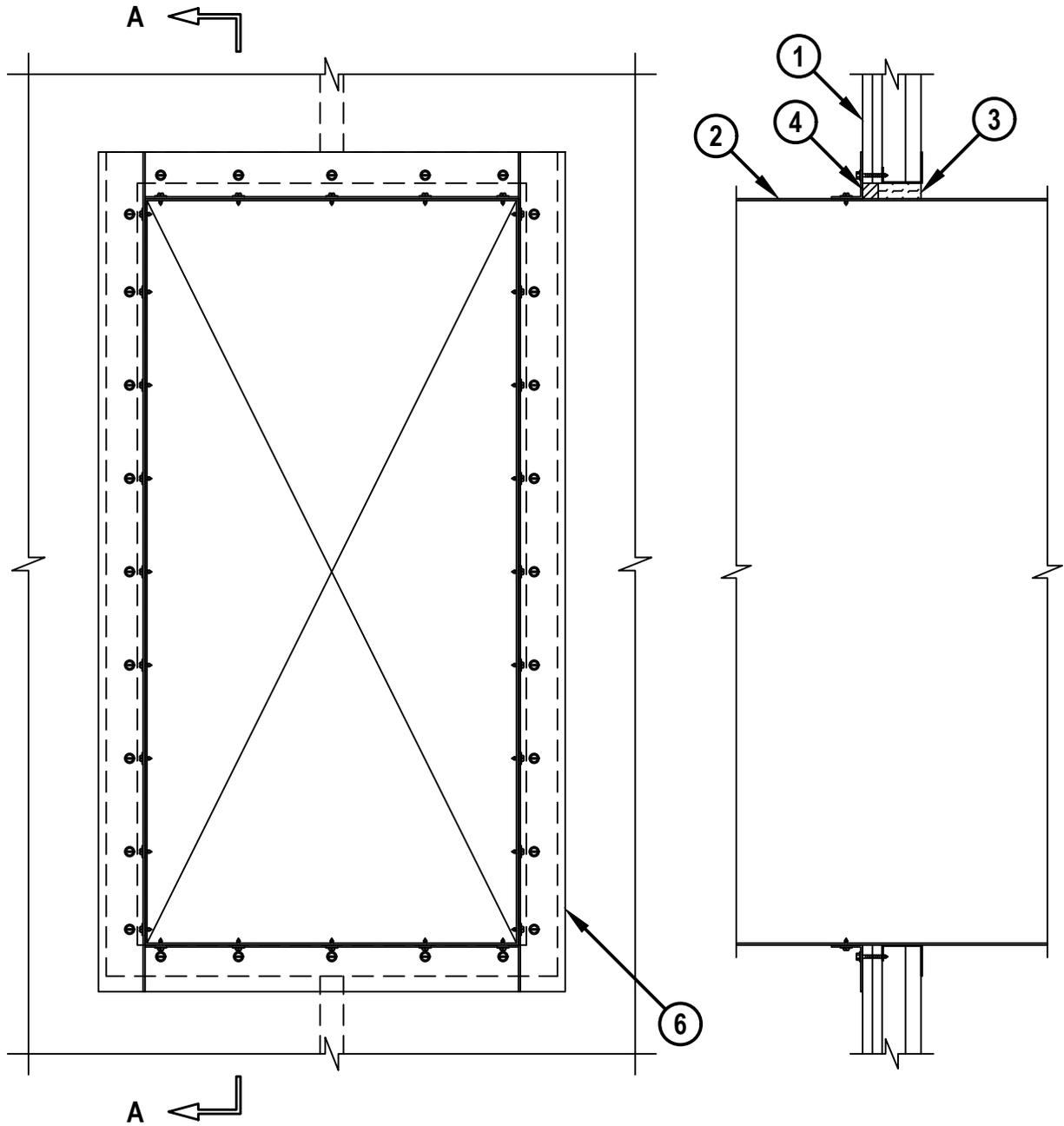
F-RATING = 1-HR. OR 2-HR.

T-RATING = 0-HR.

WL7319b.052721

FRONT VIEW

SECTION A-A



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

Sheet	1 of 2
Scale	3/32" = 1"
Date	May 27, 2021

Drawing No.
**WL
7319b**

Saving Lives through Innovation and Education

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METAL DUCT THROUGH GYPSUM WALL ASSEMBLY

F-RATING = 1-HR. OR 2-HR.
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1. GYPSUM SHAFT WALL ASSEMBLY (UL/cUL CLASSIFIED U400, V400, OR W400 SERIES) (1-HR. OR 2-HR. FIRE-RATING) (2-HR. SHOWN).
 - A. [NOT SHOWN] "C-T" OR "C-H" SHAPED STEEL STUDS (MINIMUM 1-1/2" WIDE x 2-1/2" DEEP, MIN. 25 GA.) SPACED MAXIMUM 24" C/C. ADDITIONAL STUD MEMBERS SHALL BE USED TO FRAME THE OPENING.
2. PENETRATING ITEM TO CONSIST OF ONE OF THE FOLLOWING :
 - A. MAXIMUM 24" x 48" SHEET METAL DUCT (MIN. 24 GA.).
 - B. MAXIMUM 24" x 40" SHEET METAL DUCT (MIN. 24 GA.) WITH BW11 COATING MATERIAL (FLAMEBAR BW11 FIRE RATED DUCTWORK BY FIRESPRAY INTERNATIONAL, LTD.).
3. MINIMUM 2-1/8" OR 2-3/4" THICKNESS MINERAL WOOL (MIN. 4 PCF DENSITY) TIGHTLY PACKED AND RECESSED ON ONE SIDE, FOR 1-HR. OR 2-HR. FIRE-RATED WALLS RESPECTIVELY.
4. MINIMUM 1" DEPTH HILTI FS-ONE MAX INTUMESCENT FIRESTOP SEALANT FLUSH WITH FINISHED SIDE OF WALL.
5. [NOT SHOWN] MINIMUM 1/2" BEAD HILTI FS-ONE MAX INTUMESCENT FIRESTOP SEALANT APPLIED AT POINT OF CONTACT ON FINISHED ONE SIDE OF WALL (THE SAME SIDE WHERE ITEM 4 IS APPLIED), PRIOR TO INSTALLATION OF STEEL ANGLES.
6. AFTER SEALING SPACE BETWEEN DUCT AND WALL ASSEMBLY WITH HILTI FIRESTOP SEALANT, FASTEN STEEL ANGLES (L2 x 3 x MIN. 18 GA.) TO DUCT, WITH 3" LEG OVERLAPPING ONTO WALL SURFACE, WITH NO. 10 STEEL SHEET METAL SCREWS SPACED MAXIMUM 1" FROM ENDS AND MAXIMUM 6" OC. ANGLES TO BE SECURELY ATTACHED TO STEEL DUCT AND BUTTED TIGHTLY TO WALL SURFACE. STEEL ANGLE INSTALLED AROUND PERIMETER OF DUCT ON ALL SIDES. SECOND LEG OF STEEL ANGLE TO THEN BE FASTENED INTO WALL THROUGH STUD MATERIAL AROUND PERIMETER OF THE DUCT, AT EACH LOCATION WHERE THE FIRST LEG IS FASTENED TO THE DUCT, USING NO. 10 STEEL SCREWS.

NOTES : 1. MAXIMUM AREA OF OPENING IS 1225 SQ. IN., WITH A MAXIMUM DIMENSION OF 49".
2. ANNULAR SPACE = MINIMUM 0", MAXIMUM 1".
3. AS AN ALTERNATE TO THE ABOVE SHAFT WALL ASSEMBLY, A 1-HR. OR 2-HR. GYPSUM WALL ASSEMBLY MAY BE USED (U400, V400, OR W400 SERIES). STEEL STUDS TO BE MINIMUM 2-1/2" WIDE.
4. WHEN SYSTEM IS INSTALLED IN A STANDARD WALL ASSEMBLY, MINERAL WOOL SHOULD BE INSTALLED FLUSH WITH EITHER SIDE OF WALL AND RECESSED FROM OTHER SIDE TO ACCOMMODATE SEALANT.



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