

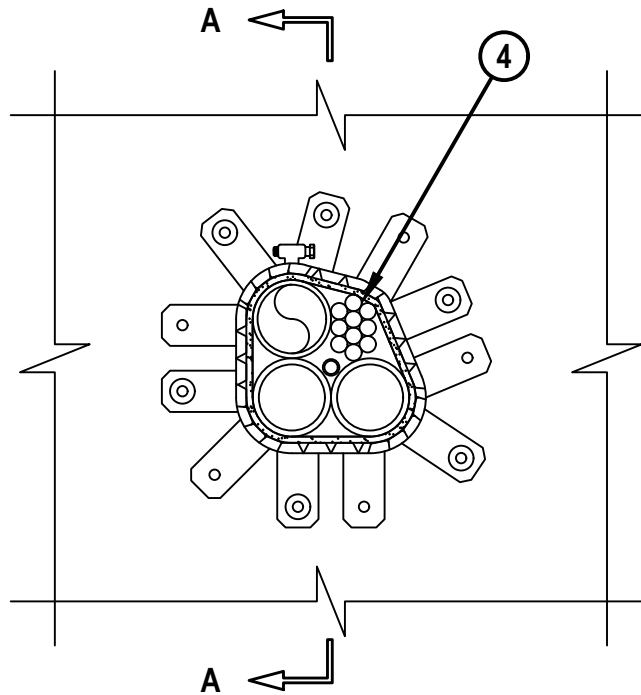
UL/cUL SYSTEM NO. W-L-8082

MULTIPLE PENETRATING ITEMS THROUGH GYPSUM WALL ASSEMBLY

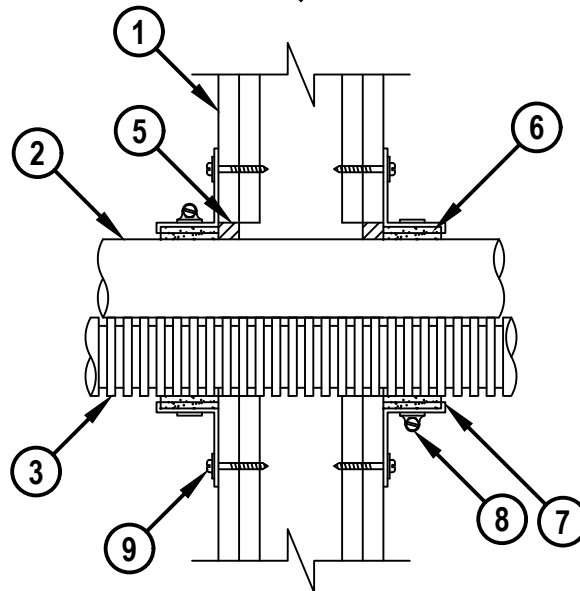
F-RATING = 1-HR. OR 2-HR.
T-RATING = 0-HR. OR 3/4-HR.

WL8082c.030823

FRONT VIEW



SECTION A-A



HILTI, Inc.
Tulsa, Oklahoma USA (800) 879-8000

Sheet	1 of 2
Scale	1 1/64" = 1"
Date	Mar. 08, 2023

Drawing No.
WL
8082c

Saving Lives through Innovation and Education

MULTIPLE PENETRATING ITEMS THROUGH GYPSUM WALL ASSEMBLY

F-RATING = 1-HR. OR 2-HR.
T-RATING = 0-HR. OR 3/4-HR.

WL8082c.030823

1. GYPSUM WALL ASSEMBLY (UL CLASSIFIED U300, U400 OR V400 SERIES) (1-HR. OR 2-HR. FIRE-RATING) (2-HR. SHOWN) TO INCLUDE THE FOLLOWING CONSTRUCTION FEATURES :
 - A. [NOT SHOWN] WOOD STUDS TO CONSIST OF NOMINAL 2" x 4" LUMBER (SPACED MAXIMUM 16" OC). STEEL STUDS TO BE MINIMUM 3-1/2" WIDE (SPACED MAXIMUM 24" OC).
 - B. NOMINAL 5/8" THICK GYPSUM WALLBOARD. TYPE, NUMBER OF LAYERS, AND SHEET ORIENTATION AS SPECIFIED IN THE INDIVIDUAL UL DESIGN.
2. ONE OR MORE OF THE FOLLOWING PIPES, IN ANY COMBINATION, MAY BE INSTALLED WITHIN THE OPENING :
 - A. MAXIMUM 2" NOMINAL DIAMETER STEEL PIPE (SCHEDULE 5 OR HEAVIER).
 - B. MAXIMUM 2" NOMINAL DIAMETER CAST IRON PIPE.
 - C. MAXIMUM 2" NOMINAL DIAMETER STEEL CONDUIT OR EMT.
3. MAXIMUM 2" NOMINAL DIAMETER ENT (MAX. QTY. = 2) (SEE NOTE NO. 5 BELOW).
4. MAXIMUM 2" DIAMETER CABLE BUNDLE TO CONSIST OF ANY OF THE FOLLOWING :
 - A. MAXIMUM 200 PAIR NO. 24 AWG TELEPHONE CABLE WITH PVC JACKET.
 - B. MAXIMUM 1/C NO. 500 KCMIL COPPER CONDUCTOR POWER CABLE XLPE JACKET.
 - C. MAXIMUM 3/C NO. 8 AWG COPPER CONDUCTOR METAL CLAD CABLE.
 - D. MAXIMUM RG/U COAXIAL CABLE.
 - E. MAXIMUM 4 PAIR NO. 24 AWG COPPER CONDUCTOR DATA CABLE WITH PVC JACKET.
5. MINIMUM 5/8" DEPTH HILTI FS-ONE MAX OR FS-ONE INTUMESCENT FIRESTOP SEALANT (SEE NOTE NO. 4 BELOW).
6. HILTI CP 648E WRAP STRIP (NOMINAL 3/16" THICK x 1-3/4" WIDE) CONTINUOUSLY WRAPPED AROUND THE OUTER CIRCUMFERENCE OF THE PENETRANTS, COVERING TWO TIMES, WITH ENDS BUTTED AND HELD IN PLACE WITH TAPE.
7. HILTI 1-3/4" RETAINING COLLAR WRAPPED AROUND WRAP STRIP, OVERLAPPING MINIMUM 1".
8. HILTI RETAINING COLLAR CLAMP FASTENED AT MID-HEIGHT OF RETAINING COLLAR.
9. EVERY OTHER TAB OF RETAINING COLLAR SECURED TO WALL WITH 1-1/2" LONG STEEL DRYWALL OR LAMINATE SCREWS IN CONJUNCTION WITH MINIMUM 3/4" DIAMETER STEEL WASHERS.

NOTES :

1. MAXIMUM DIAMETER OF OPENING = 4".
2. ANNULAR SPACE = MINIMUM 0", MAXIMUM 1".
3. PENETRATING ITEMS NOT TO EXCEED 66% OF THE CROSS-SECTIONAL AREA OF OPENING.
4. ADDITIONAL HILTI FS-ONE MAX OR FS-ONE INTUMESCENT FIRESTOP SEALANT FORCED INTO GROUPED PENETRANT INTERSTICES TO MAXIMUM EXTENT POSSIBLE.
5. CANADIAN F, FT, FH, AND FTH-RATINGS DO NOT APPLY WHEN THIS PENETRANT IS USED (ITEM 3).

 Hilti Firestop Systems	HILTI, Inc. Tulsa, Oklahoma USA (800) 879-8000	Sheet 2 of 2	Drawing No. WL 8082c
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