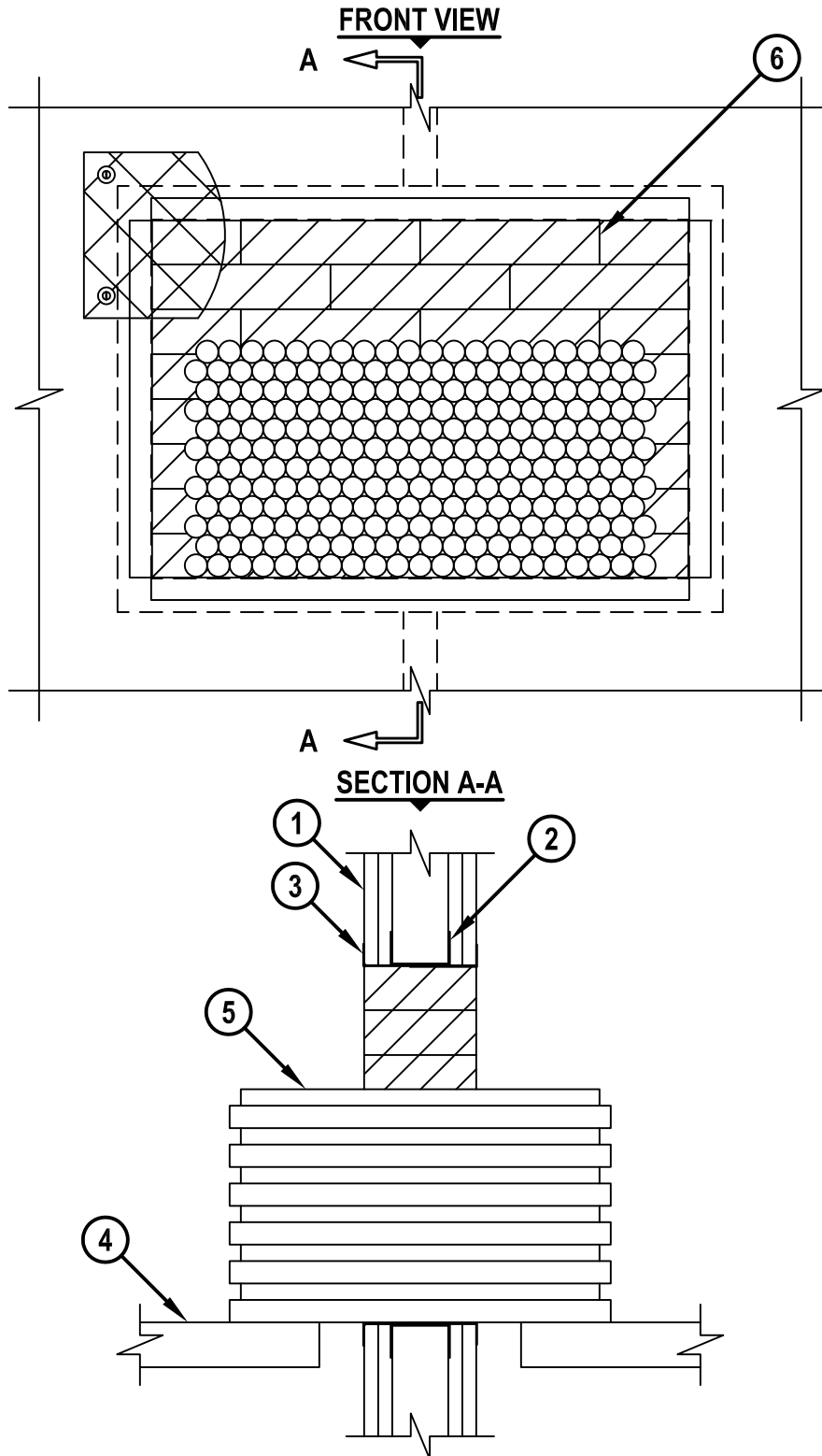


UL/cUL SYSTEM NO. W-L-3185
CABLE BUNDLE THROUGH GYPSUM WALL ASSEMBLY

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

WL3185f.020916



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

Sheet	1 of 2
Scale	1/8" = 1"
Date	Feb. 09, 2016

Drawing No.

**WL
3185f**

Saving Lives through Innovation and Education

CABLE BUNDLE THROUGH GYPSUM WALL ASSEMBLY

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

WL3185f.020916

1. GYPSUM WALL ASSEMBLY (UL/cUL CLASSIFIED U300, U400, V400, OR W400 SERIES) (1-HR. OR 2-HR. FIRE-RATING) (2-HR. SHOWN).
2. WOOD STUDS TO CONSIST OF NOMINAL 2" x 4" LUMBER. STEEL STUDS TO BE MINIMUM 2-1/2" WIDE. OPENING TO BE COMPLETELY "FRAMED-OUT".
3. [OPTIONAL] MINIMUM 1" x 3" x 0.039" ZINC COATED, OR PAINTED, STEEL ANGLES FRICTION FITTED TO FRAME ALL FOUR SIDES OF OPENING ON EACH SIDE OF WALL. STEEL FASTENERS MAY BE USED TO SECURE ANGLE TO WALL.
4. MAXIMUM 20" WIDE STEEL CABLE RACK MAY BE CONTINUOUS OR DISCONTINUOUS THROUGH WALL ASSEMBLY (SEE NOTE NO. 4 BELOW).
5. CABLES TO BE A COMBINATION OF ANY OF THE FOLLOWING :
 - A. MAXIMUM 750 KCMIL SINGLE CONDUCTOR POWER CABLE WITH PVC JACKET.
 - B. MAXIMUM 300 PAIR NO. 24 AWG TELEPHONE CABLE WITH PVC JACKET.
 - C. MAXIMUM 1/2" DIAMETER FIBER-OPTIC CABLE (24 FIBER).
6. HILTI CFS-BL FIRESTOP BLOCK (2" THICK x 8" WIDE x 5" DEEP, REFERENCE : FRONT VIEW) FIRMLY PACKED AND CENTERED WITHIN THE OPENING.

- NOTES :**
1. MAXIMUM AREA OF OPENING = 384 SQ. IN., WITH A MAXIMUM DIMENSION OF 24".
 2. ANNULAR SPACE = MINIMUM 0", MAXIMUM 8".
 3. CABLES TO FILL MAXIMUM 35% OF CROSS-SECTIONAL AREA OF OPENING.
 4. FOR WALLS CONSTRUCTED OF STEEL STUDS LARGER THAN 3-5/8", FIRESTOP BLOCKS SHALL BE INSTALLED 8" DEEP, RECESSED UP TO A MAXIMUM 1/2" FROM OUTER WALL SURFACES.
 5. WHEN STEEL CABLE RACK PENETRATES WALL, THE T-RATING IS 0-HR.
 6. APPLY HILTI FS-ONE MAX INTUMESCENT FIRESTOP SEALANT, HILTI CP 618 FIRESTOP PUTTY STICK, HILTI CP 620 FIRE FOAM, OR HILTI CP 660 FIRESTOP FOAM INTO ANY VOID THAT MAY EXIST (AROUND PENETRANTS, INTO INTERSTICES OF CABLES, OR BETWEEN FIRESTOP BLOCKS), TO MAXIMUM EXTENT POSSIBLE.
 7. WHEN ANNULAR SPACE EXCEEDS 4" TO THE PERIPHERY, A NOMINAL 2" x 2" STEEL WIRE MESH (16 GA.) SHALL BE ATTACHED TO BOTH SIDES OF THE WALL BY MEANS OF 1/4" HILTI TOGGLER BOLTS WITH 1-1/2" DIAMETER FENDER WASHERS (SPACED MAX. 8" C/C) OR ATTACHED TO STEEL STUDS WITH STEEL SCREWS AND 1-7/16" DIAMETER FENDER WASHERS (SPACED MAX. 6" C/C). STEEL WIRE MESH SHALL BEGIN MAXIMUM 2-1/2" FROM THE PENETRANT AND OVERLAP MINIMUM 3" BEYOND THE PERIPHERY OF THE OPENING.



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

Sheet	2 of 2
Scale	-
Date	Feb. 09, 2016

Drawing No.

**WL
3185f**