

UL/cUL SYSTEM NO. W-J-8016

MULTIPLE PENETRATING ITEMS THROUGH CONCRETE WALL OR CONCRETE BLOCK WALL ASSEMBLY

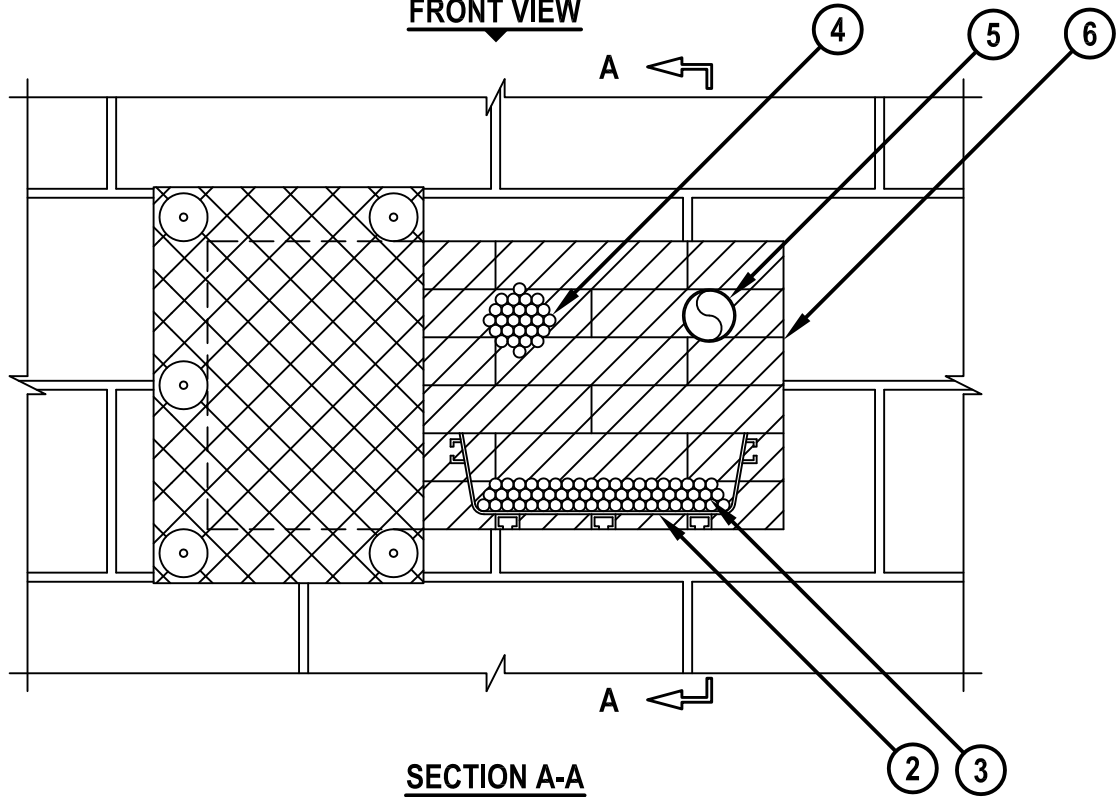
F-RATING = 2-HR.

T-RATING = 1/2-HR., 1-HR., 1 1/2-HR., OR 2-HR.

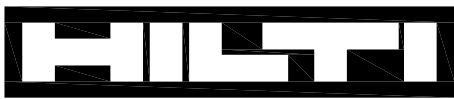
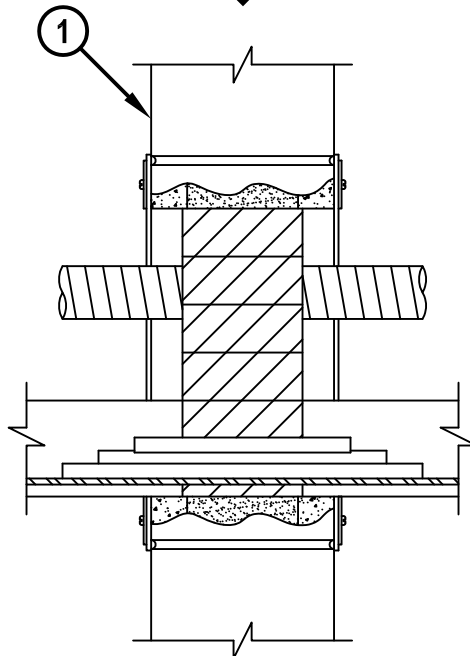
NOTE : TESTED WITH A 2.5 Pa PRESSURE DIFFERENTIAL

WJ8016e.020916

FRONT VIEW



SECTION A-A



Hilti Firestop Systems

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

Sheet 1 of 2

Scale 1/8" = 1"

Date Feb. 09, 2016

Drawing No.

**WJ
8016e**

Saving Lives through Innovation and Education

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1. CONCRETE WALL ASSEMBLY (2-HR. FIRE-RATING) :
 - A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE WALL (MINIMUM 5" THICK).
 - B. ANY UL/cUL CLASSIFIED SOLID OR FILLED CONCRETE BLOCK WALL.
2. MAXIMUM 12" x 4" FIBER OPTIC CABLE TRAY (ABS) WITH OPTIONAL COVER PLATE (SEE NOTE NO. 2 BELOW).
3. MAXIMUM 1/2" DIAMETER FIBER OPTIC CABLES WITH PVC JACKET MAY BE INSTALLED WITHIN CABLE TRAY. CABLES TO FILL MAX. 40% OF CROSS-SECTIONAL AREA OF FIBER OPTIC TRAY.
4. MAXIMUM 3" DIAMETER CABLE BUNDLE TO CONSIST OF ANY OF THE FOLLOWING :
 - A. MAXIMUM 100 PAIR NO. 24 AWG TELEPHONE CABLES WITH PVC JACKET.
 - B. MAXIMUM 7/C NO. 12 AWG POWER CABLES WITH PVC JACKET.
 - C. MAXIMUM 1/2" DIAMETER FIBER OPTIC CABLES WITH PVC JACKET.
5. MAXIMUM 2" NOMINAL DIAMETER FIBER OPTIC RACEWAY (PVC).
6. HILTI CFS-BL FIRESTOP BLOCK (2" THICK x 8" WIDE x 5" DEEP, REFERENCE : FRONT VIEW) FIRMLY PACKED AND CENTERED WITHIN THE OPENING OR FLUSH WITH ONE SIDE.

ANNULAR SPACE	MINMIUM	MAXIMUM
BETWEEN RECTANULAR FIBER OPTIC TRAY (ABS) AND PERIPHERY OF OPENING	0"	12"
BETWEEN CABLE BUNDLE AND PERIPHERY OF OPENING	1-3/4"	-
BETWEEN ROUND FIBER OPTIC RACEWAY (PVC) AND PERIPHERY OF OPENING	2"	-
BETWEEN ADJACENT PENETRANTS	3-1/2"	-

- NOTES :
1. MAXIMUM AREA OF OPENING = 288 SQ. IN., WITH A MAXIMUM DIMENSION OF 24".
 2. WHEN OPTIONAL COVER PLATE IS USED, FIRESTOP BLOCKS SHALL BE PLACED WITHIN THE FIBER OPTIC CABLE TRAY TO FILL VOID.
 3. 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, BETWEEN CABLES AND CABLE TRAY, OR BETWEEN FIRESTOP BLOCKS), TO MAXIMUM EXTENT POSSIBLE.
 4. WHEN ANNULAR SPACE EXCEEDS 4", A NOMINAL 2" x 2" STEEL WIRE MESH (16 GA.) SHALL BE ATTACHED TO BOTH SIDES OF THE WALL WITH 1/4" DIAMETER x 1" LONG STEEL CONCRETE ANCHORS AND 1-1/2" DIAMETER FENDER WASHERS SPACED MAXIMUM 8" C/C. STEEL WIRE MESH SHALL BEGIN MAXIMUM 2-1/2" FROM THE PENETRANT AND OVERLAP MINIMUM 3" BEYOND THE PERIPHERY OF THE OPENING.



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