

cUL SYSTEM NO. W-J-8043

MULTIPLE PENETRATING ITEMS THROUGH CONCRETE OR BLOCK WALL ASSEMBLY

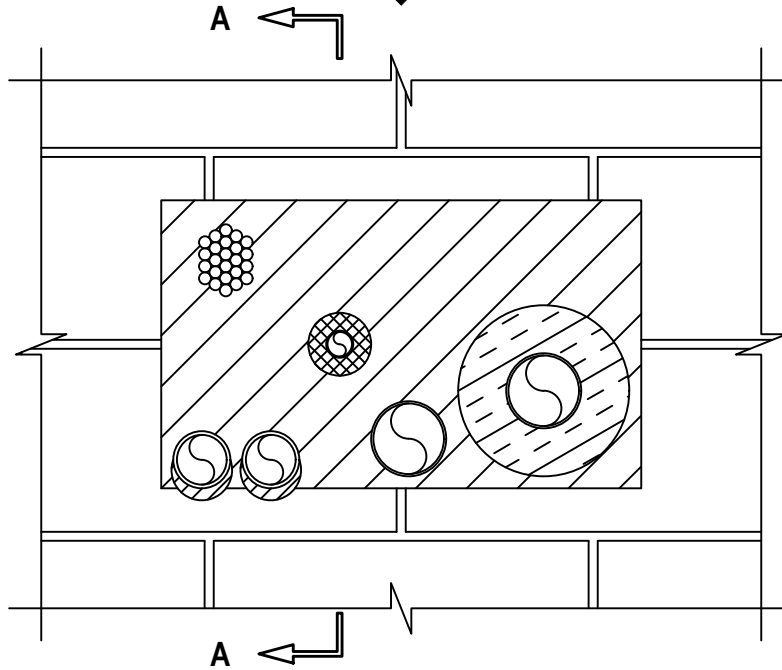
F-RATING = 2-HR.

FT-RATING = 0-HR., 1/2-HR., 3/4-HR., 1-1/2-HR., OR 2-HR.

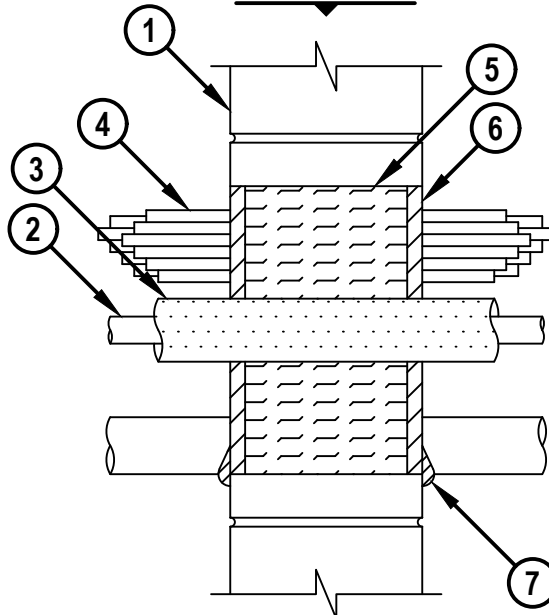
FH-RATING = 2-HR.

FTH-RATING = 0-HR., 1/2-HR., 3/4-HR., 1-1/2-HR., OR 2-HR.

FRONT VIEW



SECTION A-A



SYSTEM TESTED WITH A PRESSURE DIFFERENTIAL OF 2.5 Pa BETWEEN THE EXPOSED AND UNEXPOSED SURFACES WITH THE HIGH PRESSURE ON THE EXPOSED SIDE.



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

Sheet	1 of 2
Scale	1/8" = 1"
Date	Oct. 06, 2017

Drawing No.

cUL
WJ8043a

Saving Lives through Innovation and Education

cUL WJ8043a.100617

MULTIPLE PENETRATING ITEMS THROUGH CONCRETE OR BLOCK WALL ASSEMBLY

F-RATING = 2-HR.

FT-RATING = 0-HR., 1/2-HR., 3/4-HR., 1-1/2-HR., OR 2-HR.

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1. CONCRETE WALL ASSEMBLY (2-HR. FIRE-RATING) :
 - A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE WALL (MINIMUM 6" THICK).
 - B. ANY UL/cUL CLASSIFIED CONCRETE BLOCK WALL.
2. ONE OR MORE OF THE FOLLOWING PIPES, AND IN ANY COMBINATION MAY BE INSTALLED WITHIN THE OPENING :
 - A. MAXIMUM 4" NOMINAL DIAMETER STEEL PIPE (SCH 10 OR HEAVIER).
 - B. MAXIMUM 4" NOMINAL DIAMETER CAST OR DUCTILE IRON PIPE.
 - C. MAXIMUM 3" NOMINAL DIAMETER COPPER PIPE OR TUBING.
 - D. MAXIMUM 3" NOMINAL DIAMETER STEEL CONDUIT OR EMT.
 - E. MAXIMUM 2" NOMINAL DIAMETER PVC PLASTIC PIPE (SCH 40) (CELLULAR OR SOLID CORE) (CLOSED PIPING SYSTEM).
 - F. MAXIMUM 2" NOMINAL DIAMETER CPVC PLASTIC PIPE (SDR 13.5) (CLOSED PIPING SYSTEM).
3. [OPTIONAL] ONE OR MORE METALLIC PIPES MAY BE INSULATED WITH THE FOLLOWING TYPES OF PIPE INSULATION :
 - A. MINIMUM 1" TO MAXIMUM 2" THICK GLASS-FIBER PIPE INSULATION (3.5 PCF DENSITY).
 - B. MINIMUM 1/2" TO MAXIMUM 3/4" THICK AB/PVC PIPE INSULATION.
4. ONE MAXIMUM 3" DIAMETER CABLE BUNDLE CONSISTING OF ANY OF THE FOLLOWING :
 - A. MAXIMUM 25 PAIR NO. 24 AWG TELEPHONE CABLE WITH PVC JACKET.
 - B. MAXIMUM 7/C NO. 12 AWG COPPER CONDUCTOR POWER CABLE WITH PVC JACKET.
 - C. MAXIMUM 1/2" DIAMETER FIBER-OPTIC CABLE WITH PVC JACKET.
 - D. MAXIMUM 3/C NO. 8 AWG, WITH BARE ALUMINUM GROUND, STEEL METAL CLAD CABLE.
 - E. MAXIMUM 3/C (WITH GROUND) NO. 8 AWG NONMETALLIC SHEATHED CABLE (ROMEX) WITH PVC JACKET.
 - F. MAXIMUM 1/2" DIAMETER RG/U COAXIAL CABLE WITH PVC JACKET.
 - G. MAXIMUM 3/4" DIAMETER COPPER GROUND CABLE WITH OR WITHOUT PVC JACKET.
 - H. MAXIMUM 1-1/4" DIAMETER SINGLE OR MULTI-CONDUCTOR MINERAL-INSULATED COPPER-CLAD CABLE.
5. MINIMUM 4-3/4" THICKNESS MINERAL WOOL (MIN. 4 PCF DENSITY) TIGHTLY PACKED AND RECESSED TO ACCOMMODATE SEALANT.
6. MINIMUM 5/8" DEPTH HILTI FS-ONE MAX INTUMESCENT FIRESTOP SEALANT.
7. MINIMUM 1/2" BEAD HILTI FS-ONE MAX INTUMESCENT FIRESTOP SEALANT APPLIED AT POINT OF CONTACT.

NOTES : 1. MAXIMUM AREA OF SQUARE, RECTANGULAR, OR CIRCULAR OPENING IS 240 SQ. IN. WITH A MAXIMUM DIMENSION OF 20".
 2. ANNULAR SPACE BETWEEN PENETRANTS AND PERIPHERY OF OPENING = MINIMUM 0", MAXIMUM 20".
 3. ANNULAR SPACE BETWEEN PENETRANTS = MINIMUM 1", MAXIMUM 20".



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