

**METAL PIPE THROUGH CONCRETE FLOOR/WALL OR BLOCK WALL**

F RATING = 3-HR.

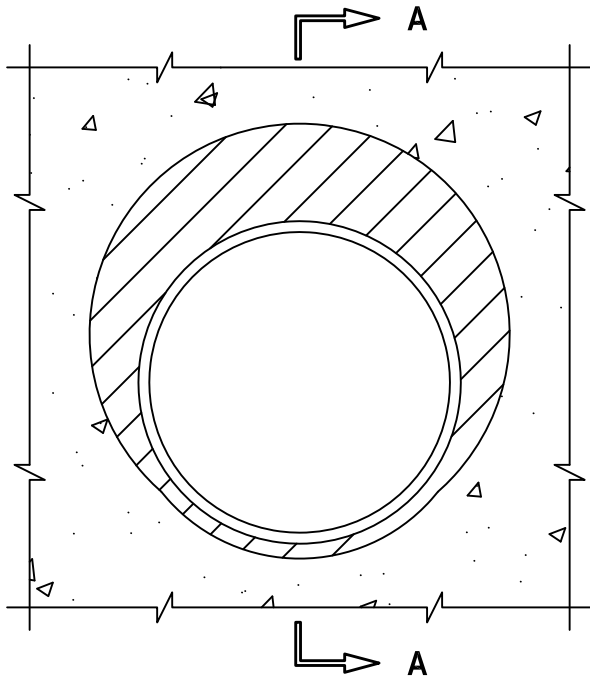
T RATING = 1/4-HR.

L RATING AT AMBIENT = LESS THAN 1 CFM / SQ FT

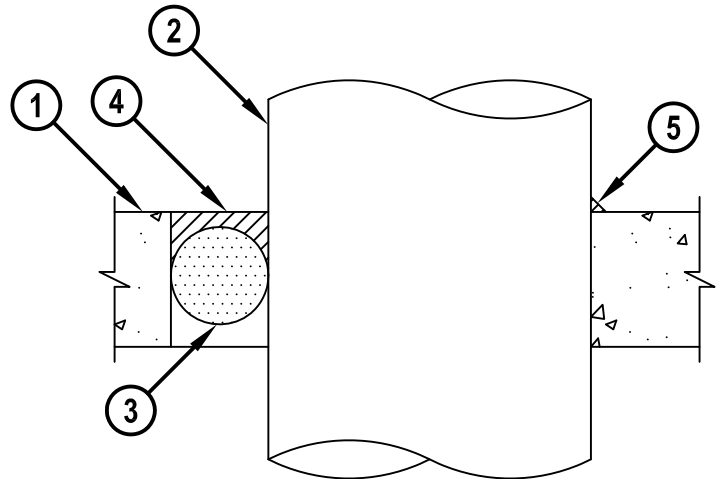
L RATING AT 400°F = 4 CFM / SQ FT

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**TOP VIEW**



**SECTION A-A**



1. CONCRETE FLOOR OR WALL ASSEMBLY (3-HR. FIRE-RATING) :
  - A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR OR WALL (MINIMUM 4-1/2" THICK).
  - B. ANY UL/cUL CLASSIFIED CONCRETE BLOCK WALL.
2. PENETRATING ITEM TO BE ONE OF THE FOLLOWING :
  - A. MAXIMUM 10" NOMINAL DIAMETER STEEL PIPE (SCHEDULE 10 OR HEAVIER).
  - B. MAXIMUM 4" NOMINAL DIAMETER COPPER PIPE.
  - C. MAXIMUM 4" NOMINAL DIAMETER STEEL CONDUIT.
  - D. MAXIMUM 4" NOMINAL DIAMETER EMT.
3. BACKER ROD, HILTI CF-AS CJP ALL SEASONS CRACK AND JOINT INSULATING FOAM, HILTI CF 812 WINDOW AND DOOR PRO LOW-PRESSURE FILLER FOAM, OR MINERAL WOOL TO BE USED AS A BACKER.
4. MINIMUM 1/2" DEPTH HILTI FS-ONE MAX INTUMESCENT FIRESTOP SEALANT.
5. MINIMUM 1/2" BEAD HILTI FS-ONE MAX INTUMESCENT FIRESTOP SEALANT APPLIED AT POINT OF CONTACT.

**NOTES :** 1. MAXIMUM DIAMETER OF OPENING = 14".  
 2. ANNULAR SPACE = MINIMUM 0", MAXIMUM 3-1/4".  
 3. MINIMUM 1/2" DEPTH HILTI FS-ONE MAX INTUMESCENT FIRESTOP SEALANT IS REQUIRED ON BOTH SIDES OF A WALL ASSEMBLY.



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|-------|---------------|
| Sheet | 1 of 1        |
| Scale | 5/32" = 1"    |
| Date  | Apr. 13, 2016 |

Drawing No.

**CAJ  
1154m**