

**INSULATED STEEL PIPE THROUGH CONCRETE FLOOR/WALL OR BLOCK WALL**

F-RATING = 2-HR.

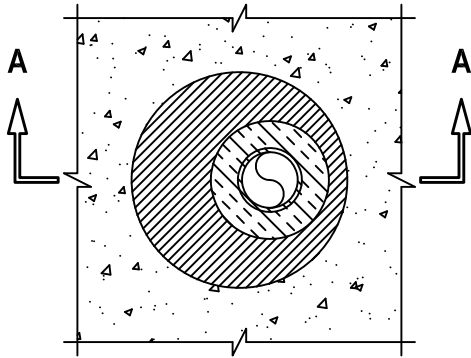
T-RATING = 2-HR.

L-RATING AT AMBIENT = 4 CFM / SQ FT

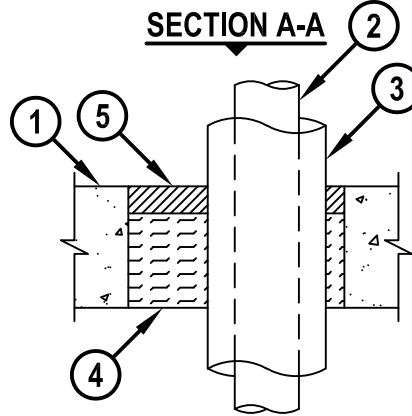
L-RATING AT 400° F = LESS THAN 1 CFM / SQ FT

W-RATING = CLASS I (SEE NOTE NO. 5 AND NO. 6 BELOW)

**TOP VIEW**



**SECTION A-A**



1. CONCRETE FLOOR OR WALL ASSEMBLY (2-HR. FIRE-RATING) :
  - A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR (MINIMUM 4-1/2" THICK).
  - B. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE WALL (MINIMUM 5" THICK).
  - B. ANY UL/cUL CLASSIFIED CONCRETE BLOCK WALL.
2. MAXIMUM 2" NOMINAL DIAMETER STEEL PIPE (SCHEDULE 40 OR HEAVIER).
3. MAXIMUM 1" THICK GLASS-FIBER PIPE INSULATION.
4. MINIMUM 4" THICKNESS MINERAL WOOL (MIN. 4 PCF DENSITY) TIGHTLY PACKED AND RECESSED TO ACCOMMODATE FIRESTOP SEALANT.
5. MINIMUM 1/2" DEPTH HILTI FS-ONE MAX INTUMESCENT FIRESTOP SEALANT, HILTI CP 606 FLEXIBLE FIRESTOP SEALANT, HILTI CFS-S SIL GG FIRESTOP SILICONE SEALANT, OR HILTI CFS-S SIL SL FIRESTOP SILICONE SEALANT.

- NOTES :**
1. MAXIMUM DIAMETER OF OPENING = 8".
  2. ANNULAR SPACE = MINIMUM 11/16", MAXIMUM 3-1/16".
  3. MINIMUM 1/2" DEPTH HILTI FS-ONE MAX INTUMESCENT FIRESTOP SEALANT, HILTI CP 606 FLEXIBLE FIRESTOP SEALANT, OR HILTI CFS-S SIL GG FIRESTOP SILICONE SEALANT IS REQUIRED ON BOTH SIDES OF A WALL ASSEMBLY.
  4. L-RATING ONLY APPLIES WHEN HILTI FS-ONE MAX INTUMESCENT FIRESTOP SEALANT IS USED.
  5. FOR W-RATING, AN ADDITIONAL PVC JACKET (48" WIDE x 20 OR 30 MIL THICK) MUST BE INSTALLED AT A POINT 36" TO 40" ABOVE THE TOP SURFACE OF THE FLOOR, EXTENDING DOWN INTO OR THROUGH THE OPENING.
  6. W-RATING APPLIES ONLY WHEN HILTI CFS-S SIL GG FIRESTOP SILICONE FIRESTOP SEALANT OR HILTI CFS-S SIL SL FIRESTOP SILICONE SEALANT IS USED.



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Sheet	1 of 1
Scale	9/64" = 1"
Date	Oct. 12, 2016

Drawing No.  
**CAJ**  
**5048m**