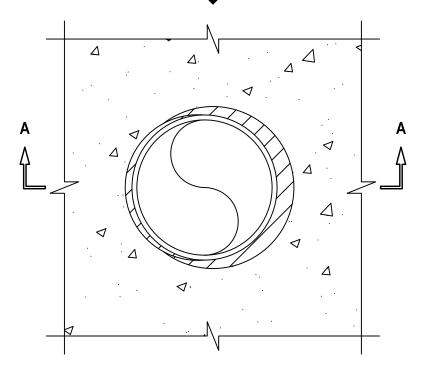
### **UL/cUL SYSTEM NO. C-AJ-1149**

## METAL PIPE THROUGH CONCRETE FLOOR/WALL OR BLOCK WALL ASSEMBLY

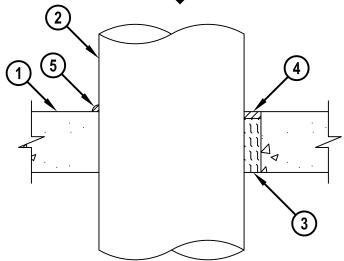
F-RATING = 2-HR. T-RATING = 0-HR.

L-RATING AT AMBIENT = LESS THAN 1 CFM / SQ FT L-RATING AT 400° F = 4 CFM / SQ FT W-RATING = CLASS I (SEE NOTE NO. 4 BELOW)

**TOP VIEW** 



## **SECTION A-A**





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Sheet	1 of 2
Scale	9/64" = 1"
Date	Apr. 13, 2016

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### **UL/cUL SYSTEM NO. C-AJ-1149**

### METAL PIPE THROUGH CONCRETE FLOOR/WALL OR BLOCK WALL ASSEMBLY

F-RATING = 2-HR.
T-RATING = 0-HR.
L-RATING AT AMBIENT = LESS THAN 1 CFM / SQ FT
L-RATING AT 400° F = 4 CFM / SQ FT
W-RATING = CLASS I (SEE NOTE NO. 4 BELOW)

- 1. CONCRETE FLOOR OR WALL ASSEMBLY (2-HR. FIRE-RATING):
  - A. ANY 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 10" NOMINAL DIAMETER CAST IRON PIPE.
  - C. MAXIMUM 4" NOMINAL DIAMETER COPPER PIPE OR TUBING.
  - D. MAXIMUM 4" NOMINAL DIAMETER STEEL CONDUIT OR EMT.
- 3. MINIMUM 3" THICKNESS MINERAL WOOL (MIN. 4 PCF DENSITY) TIGHTLY PACKED FOR NOMINAL 4" DIAMETER (AND SMALLER), AND MINIMUM 4" THICKNESS MINERAL WOOL (MIN. 4 PCF DENSITY) TIGHTLY PACKED FOR PIPES GREATER THAN NOMINAL 4" DIAMETER.
- 4. 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.
- 5. MINIMUM 1/2" BEAD HILTI FS-ONE MAX INTUMESCENT FIRESTOP SEALANT, HILTI CP 606 FLEXIBLE FIRESTOP SEALANT, OR HILTI CFS-S SIL GG FIRESTOP SILICONE SEALANT APPLIED AT POINT OF CONTACT (NOT REQUIRED WHEN HILTI CFS-S SIL SL FIRESTOP SILICONE SEALANT IS USED, ITEM NO. 4).

NOTES: 1. MAXIMUM DIAMETER OF OPENING = 12".

- 2. ANNULAR SPACE = MINIMUM 0", MAXIMUM 1-1/4".
- 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. W-RATING APPLIES ONLY WHEN HILTI CFS-S SIL SL FIRESTOP SILICONE SEALANT OR FS-ONE MAX INTUMESCENT FIRESTOP SEALANT IS USED. FOR W-RATING WHEN FS-ONE MAX IS USED PACKING MATERIAL TO BE MINIMUM 4" THICK.



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Scale \_\_

Date Apr. 13, 2016

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