

**INSULATED METAL PIPE THROUGH CONCRETE WALL OR BLOCK WALL ASSEMBLY**

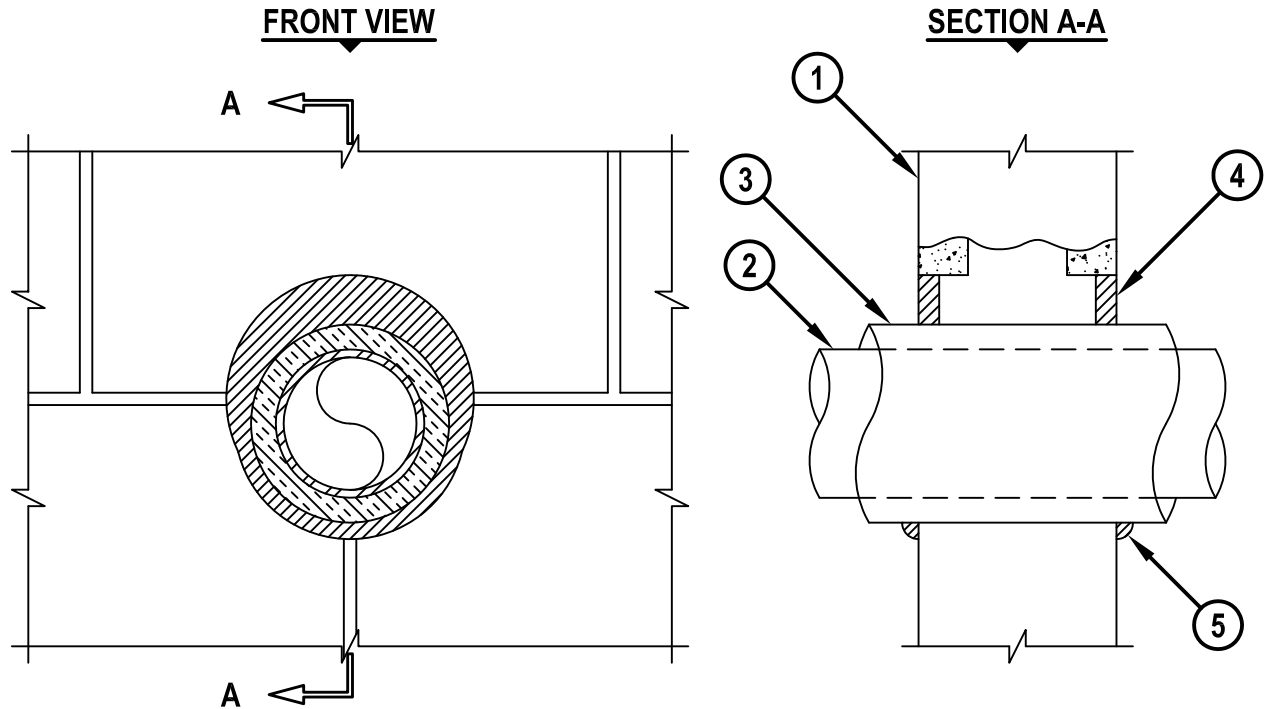
F-RATING = 1-HR. OR 2-HR.

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

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

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

WL5041k.010915



1. CONCRETE WALL ASSEMBLY (1-HR. OR 2-HR. FIRE-RATING) (2-HR. SHOWN) :
  - A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE WALL (MIN. 3-3/4" THICK, FOR 1-HR. FIRE-RATING).
  - B. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE WALL (MIN. 5" THICK, FOR 2-HR. FIRE-RATING).
  - C. ANY UL/cUL CLASSIFIED CONCRETE BLOCK WALL.
2. PENETRATING ITEM TO BE ONE OF THE FOLLOWING :
  - A. MAXIMUM 4" NOMINAL DIAMETER STEEL PIPE (SCHEDULE 40 OR HEAVIER).
  - B. MAXIMUM 2" NOMINAL DIAMETER COPPER PIPE OR COPPER TUBING.
3. MINIMUM 1/2" TO MAXIMUM 1" THICK AB/PVC FLEXIBLE FOAM PIPE INSULATION.
4. MINIMUM 5/8" DEPTH HILTI FS-ONE MAX OR FS-ONE INTUMESCENT FIRESTOP SEALANT.
5. MINIMUM 1/2" BEAD HILTI FS-ONE MAX OR FS-ONE FIRESTOP SEALANT APPLIED APPLIED AT POINT OF CONTACT.

NOTES : 1. MAXIMUM DIAMETER OF OPENING = 7-1/2".  
 2. ANNULAR SPACE = MINIMUM 0", MAXIMUM 1-1/2".



HILTI, Inc.  
 Tulsa, Oklahoma USA (800) 879-8000

Sheet	1 of 1
Scale	11/64" = 1"
Date	Jan. 09, 2015

Drawing No.  
**WJ**  
**5041k**