

INSULATED METAL PIPE THROUGH CONCRETE WALL OR CONCRETE BLOCK WALL

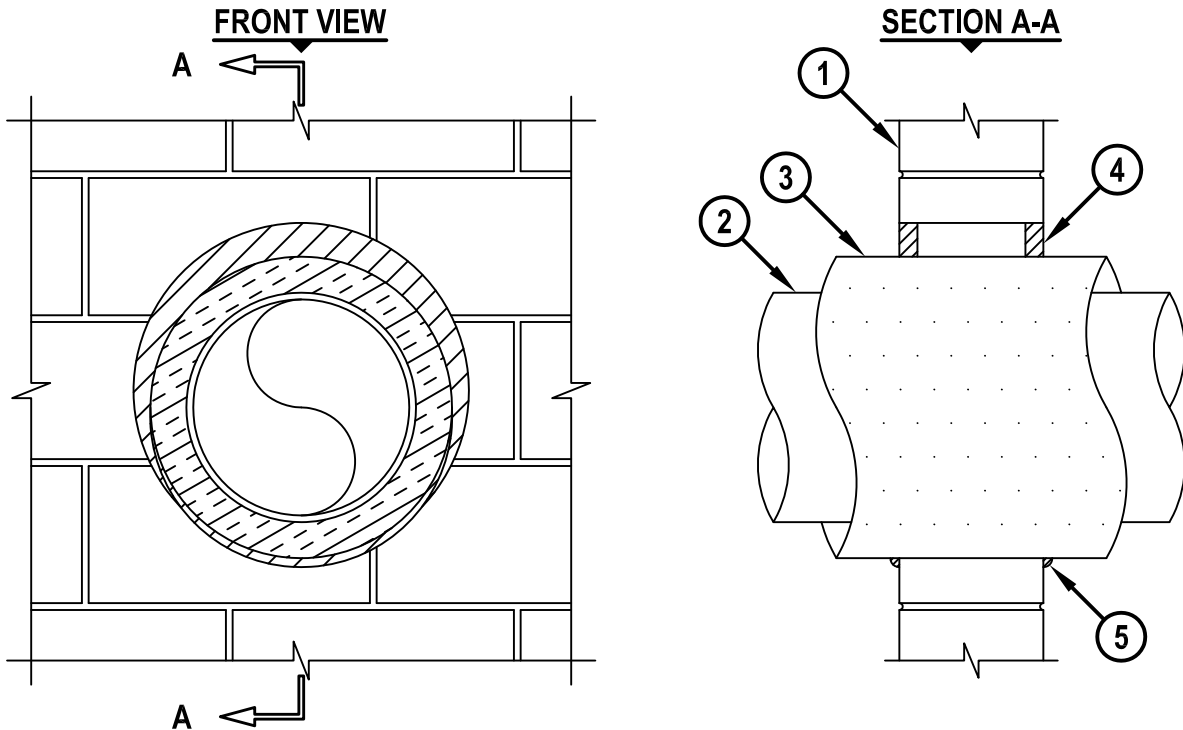
F-RATING = 1-HR., 2-HR., OR 3-HR.

T-RATING = 0-HR., 1/2-HR., 1-HR., OR 1-1/4-HR. (SEE UL FIRE RESISTANCE DIRECTORY)

L-RATING AT AMBIENT = 4 CFM/SQ FT

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

WJ5042h.010915



1. CONCRETE WALL ASSEMBLY (1-HR., 2-HR., OR 3-HR. FIRE-RATING) :
 - 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. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE WALL (MIN. 7-1/4" THICK, FOR 3-HR. FIRE-RATING).
 - D. ANY UL/cUL CLASSIFIED CONCRETE BLOCK WALL.
2. PENETRATING ITEM TO BE ONE OF THE FOLLOWING :
 - A. MAXIMUM 12" NOMINAL DIAMETER STEEL PIPE (SCHEDULE 10 OR HEAVIER).
 - B. MAXIMUM 12" NOMINAL DIAMETER CAST OR DUCTILE IRON PIPE.
 - C. MAXIMUM 6" NOMINAL DIAMETER COPPER PIPE OR TUBING (FOR 3-HR. WALLS, COPPER PIPE OR TUBING SHALL BE MAXIMUM 4" NOMINAL DIAMETER).
3. NOMINAL 1", 1-1/2", OR 2" THICK GLASS-FIBER PIPE INSULATION.
4. HILTI FS-ONE MAX OR FS-ONE INTUMESCENT FIRESTOP SEALANT :
 - A. MINIMUM 5/8" DEPTH REQUIRED FOR 1-HR. OR 2-HR. FIRE-RATING.
 - B. MINIMUM 1" DEPTH REQUIRED FOR 3-HR. FIRE-RATING.
5. MINIMUM 1/2" BEAD HILTI FS-ONE MAX OR FS-ONE INTUMESCENT FIRESTOP SEALANT APPLIED AT POINT OF CONTACT.

NOTES : 1. MAXIMUM DIAMETER OF OPENING = 18-5/8".
 2. ANNULAR SPACE (FOR 1-HR. OR 2-HR. FIRE-RATING) = MINIMUM 0", MAXIMUM 1-7/8".
 3. ANNULAR SPACE (FOR 3-HR. FIRE-RATING) = MINIMUM 0", MAXIMUM 1-1/4".



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Sheet	1 of 1
Scale	3/32" = 1"
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Drawing No.
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