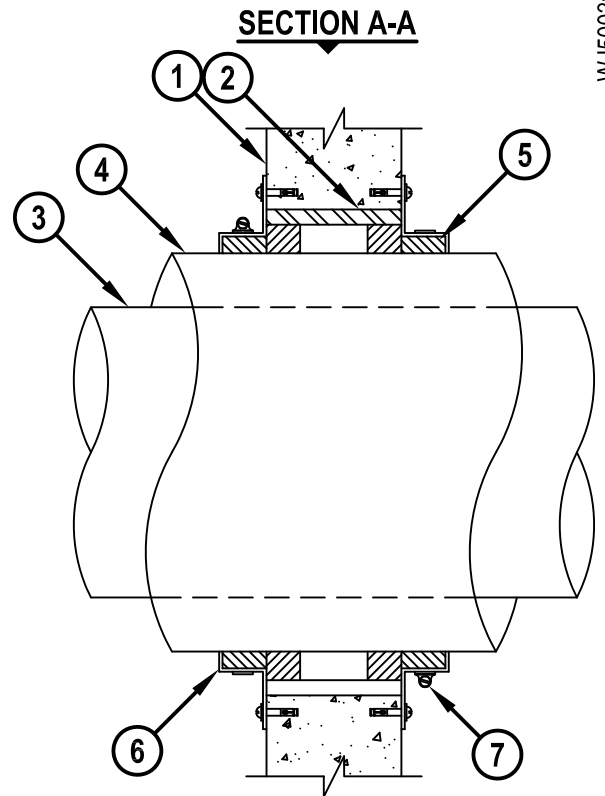
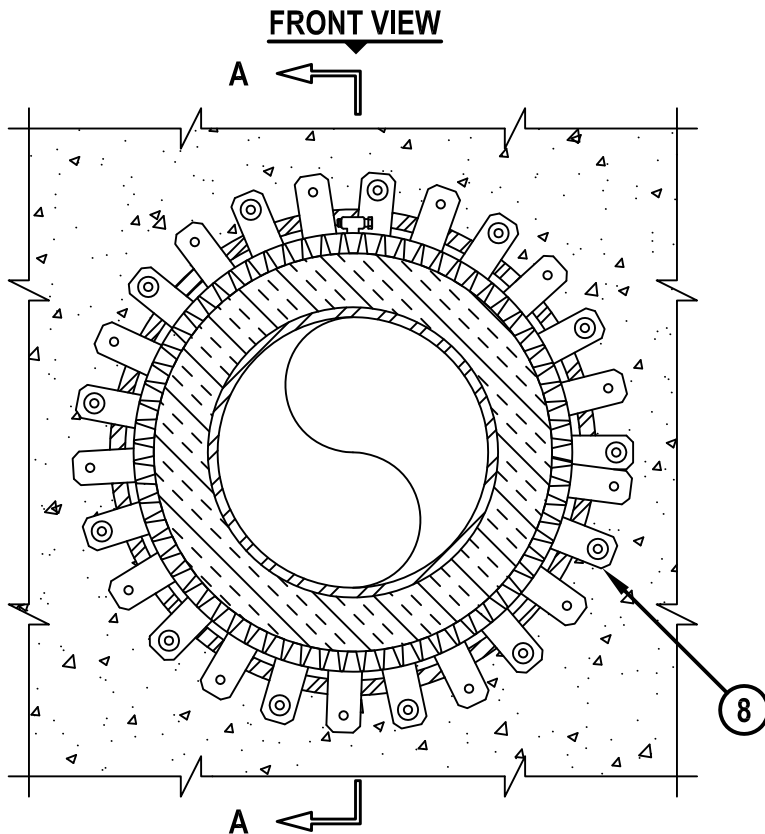


**INSULATED METAL PIPE THROUGH CONCRETE WALL OR BLOCK WALL**

F-RATING = 2-HR.  
T-RATING = 1-3/4-HR.

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1. CONCRETE WALL ASSEMBLY (2-HR. FIRE-RATING) :
  - A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE WALL (MINIMUM 5" THICK).
  - B. ANY UL/cUL CLASSIFIED CONCRETE BLOCK WALL.
2. [OPTIONAL] MAXIMUM 18" NOMINAL DIAMETER STEEL SLEEVE (SCHEDULE 40).
3. 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 OR COPPER TUBING.
4. NOMINAL 2" THICKNESS GLASS-FIBER PIPE INSULATION.
5. MINIMUM 1-1/4" DEPTH HILTI FS-ONE MAX OR FS-ONE INTUMESCENT FIRESTOP SEALANT.
6. HILTI RETAINING COLLAR COMPLETELY FILLED WITH HILTI FS-ONE MAX OR FS-ONE INTUMESCENT FIRESTOP SEALANT.
7. NOMINAL 1/2" WIDE STAINLESS STEEL HOSE CLAMP FASTENED TO MID-HEIGHT OF RETAINING COLLAR.
8. ATTACH EVERY OTHER TAB WITH APPROPRIATE HILTI FASTENERS (SEE NOTE NO. 3 BELOW).

**NOTES :** 1. MAXIMUM DIAMETER OF OPENING = 18".  
 2. ANNULAR SPACE = MINIMUM 1", MAXIMUM 1-1/8".  
 3. FASTENERS : FOR CONCRETE WALLS USE EITHER 1/4" HILTI KWIK-BOLT II OR POWDER ACTUATED FASTENERS (X-ZF 27 PINS WITH STEEL WASHERS). FOR CONCRETE BLOCK WALLS, USE HILTI SLEEVE ANCHORS.



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

Sheet	1 of 1
Scale	9/64" = 1"
Date	Jan. 09, 2015

Drawing No.

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