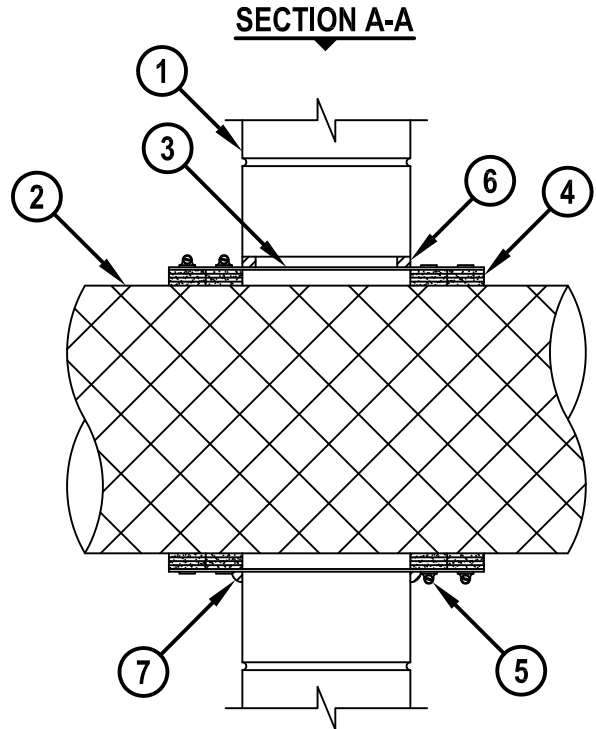
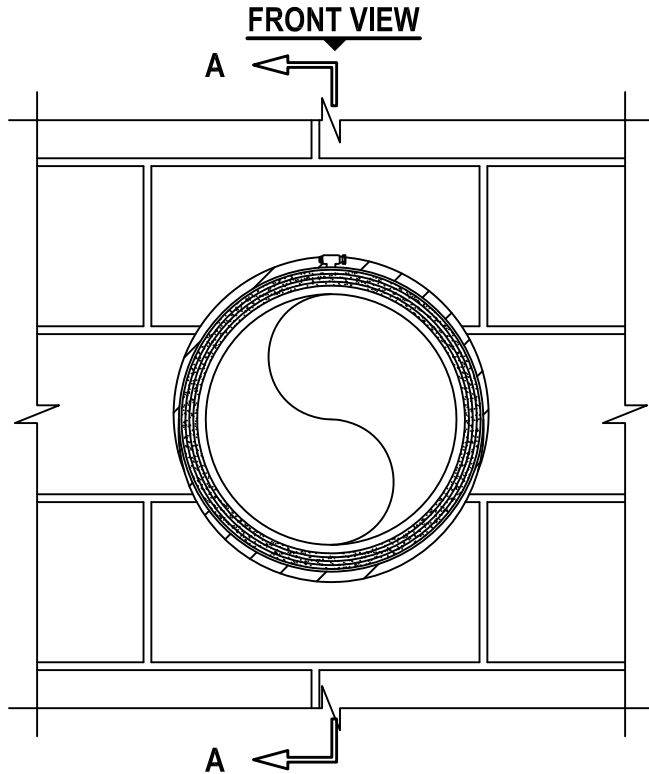


UL SYSTEM NO. W-J-2115

FIBERGLASS REINFORCED PIPE (FRP) THROUGH CONCRETE WALL OR BLOCK WALL ASSEMBLY

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

WJ2115c.010815



1. CONCRETE WALL ASSEMBLY (2-HR. FIRE-RATING) :
 - A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE WALL (MINIMUM 5" THICK).
 - B. ANY UL CLASSIFIED CONCRETE BLOCK WALL.
2. MAXIMUM 12" NOMINAL DIAMETER FIBERGLASS REINFORCED PIPE (FRP) (CLOSED OR VENTED PIPING SYSTEM).
3. MAXIMUM 14-1/2" NOMINAL DIAMETER SHEET METAL SLEEVE (MIN. 28 GA. STEEL) HAVING A MIN. 2" LAP ALONG LONGITUDINAL SEAM. LENGTH OF SLEEVE TO EXTEND 3-1/2" BEYOND EACH SURFACE OF WALL.
4. HILTI CP 648E WRAP STRIP (NOMINAL 3/16" THICK x 1-3/4" WIDE) CONTINUOUSLY WRAPPED AROUND THE OUTER CIRCUMFERENCE OF THE PIPE, COVERING FOUR TIMES, WITH ENDS BUTTED AND HELD IN PLACE WITH TAPE. TWO SETS OF WRAP STRIP INSTALLED WITHIN THE STEEL SLEEVE ON EACH SIDE OF THE WALL.
5. NOMINAL 1/2" WIDE STAINLESS STEEL HOSE CLAMPS FASTENED AROUND SHEET METAL SLEEVE AT THE CENTER OF EACH WRAP STRIP
6. MINIMUM 5/8" DEPTH HILTI FS-ONE MAX OR FS-ONE INTUMESCENT FIRESTOP SEALANT.
7. 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 = 15".
2. ANNULAR SPACE = MINIMUM 0", MAXIMUM 1/2".



HILTI, Inc.
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Sheet	1 of 1
Scale	7/64" = 1"
Date	Jan. 08, 2015

Drawing No.

WJ
2115c

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