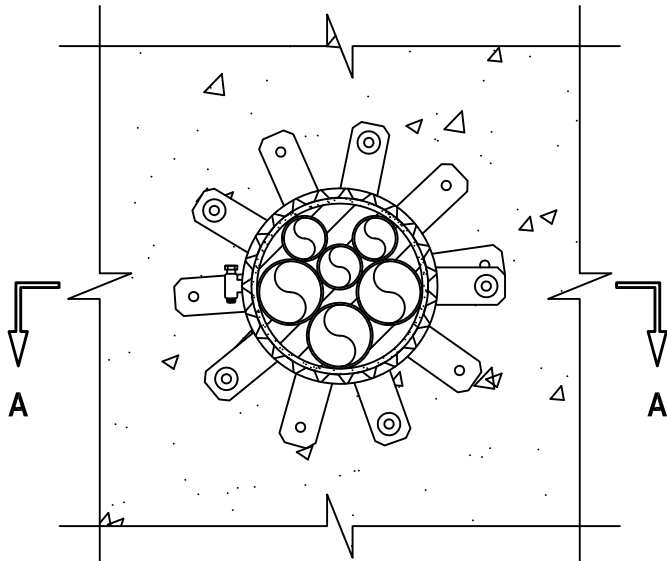


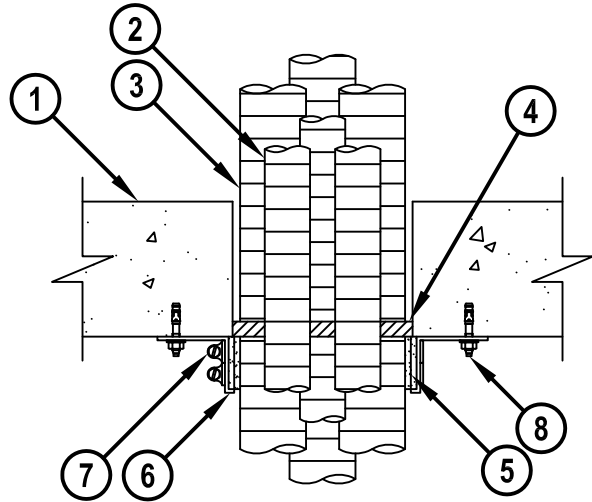
MULTIPLE ENT THROUGH CONCRETE FLOOR/WALL OR BLOCK WALL ASSEMBLY

F-RATING = 3-HR.
T-RATING = 2-HR.

BOTTOM VIEW



SECTION A-A



1. CONCRETE FLOOR OR WALL ASSEMBLY (3-HR. FIRE-RATING) :
 - A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR OR WALL (MINIMUM 4-1/2" THICK).
 - B. PRECAST (HOLLOW-CORE) CONCRETE FLOOR (MINIMUM 6" THICK).
 - C. ANY UL CLASSIFIED CONCRETE BLOCK WALL.
2. MAXIMUM 2" NOMINAL DIAMETER ELECTRICAL NONMETALLIC TUBING (ENT) CONSTRUCTED OF PVC (MAXIMUM QUANTITY = 3).
3. MAXIMUM 1-1/4" NOMINAL DIAMETER ELECTRICAL NONMETALLIC TUBING (ENT) CONSTRUCTED OF PE (MAXIMUM QUANTITY = 3).
4. MINIMUM 1/2" DEPTH HILTI FS-ONE MAX OR FS-ONE INTUMESCENT FIRESTOP SEALANT.
5. HILTI CP 648E WRAP STRIP (NOMINAL 3/16" THICK x 1-3/4" WIDE) CONTINUOUSLY WRAPPED AROUND THE OUTER CIRCUMFERENCE OF THE PIPE, COVERING TWO TIMES, WITH ENDS BUTTED AND HELD IN PLACE WITH TAPE. WRAP STRIP TO BE BUTTED TIGHTLY AGAINST BOTTOM SURFACE OF FLOOR.
6. HILTI RETAINING COLLAR WRAPPED OVER THE WRAP STRIPS, OVERLAPPING MINIMUM 1".
7. NOMINAL 1/2" WIDE STAINLESS STEEL HOSE CLAMP(S) FASTENED AT MID-HEIGHT OF HILTI RETAINING COLLAR.
8. EVERY OTHER TAB OF RETAINING COLLAR SECURED TO BOTTOM OF FLOOR WITH 1/4" x 1-3/4" LONG STEEL EXPANSION BOLTS IN CONJUNCTION WITH 1-1/4" DIAMETER STEEL WASHERS (EX. HILTI KWIK-BOLT 3).

NOTES : 1. MAXIMUM DIAMETER OF OPENING = 6".
 2. ANNULAR SPACE BETWEEN ADJACENT TUBES = MINIMUM 0", MAXIMUM 1/2".
 3. ANNULAR SPACE BETWEEN BUNDLE AND PERIPHERY OF OPENING = MINIMUM 0", MAXIMUM 1/4".
 4. HILTI CP 648E WRAP STRIP WITH RETAINING COLLAR, AND HILTI FS-ONE MAX OR FS-ONE INTUMESCENT FIRESTOP SEALANT ARE REQUIRED ON BOTH SIDES OF A WALL.



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

Sheet	1 of 1
Scale	5/32" = 1"
Date	Dec. 31, 2014

Drawing No.

**CAJ
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