

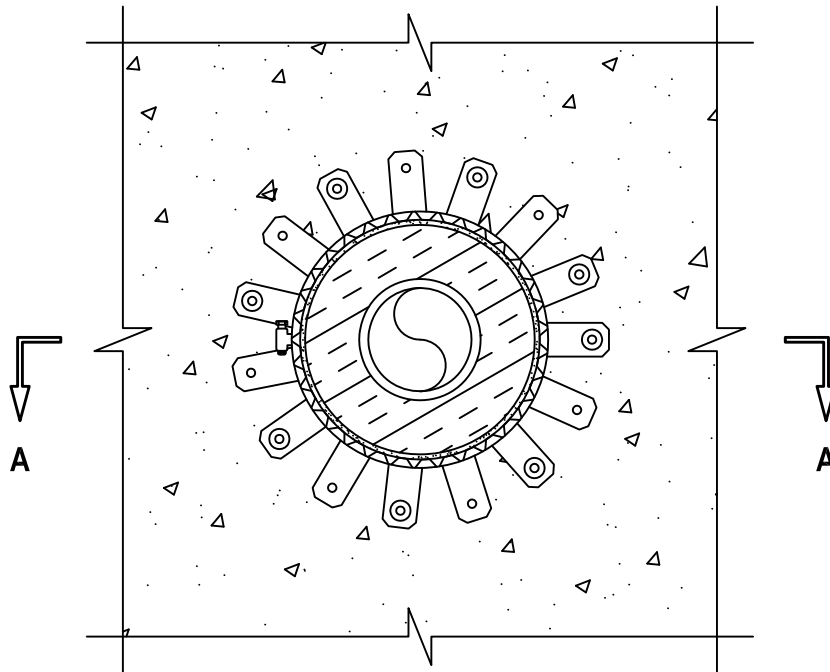
# INSULATED PLASTIC PIPE THROUGH CONCRETE FLOOR/WALL OR BLOCK WALL ASSEMBLY

F AND FT-RATINGS = 2-HR.

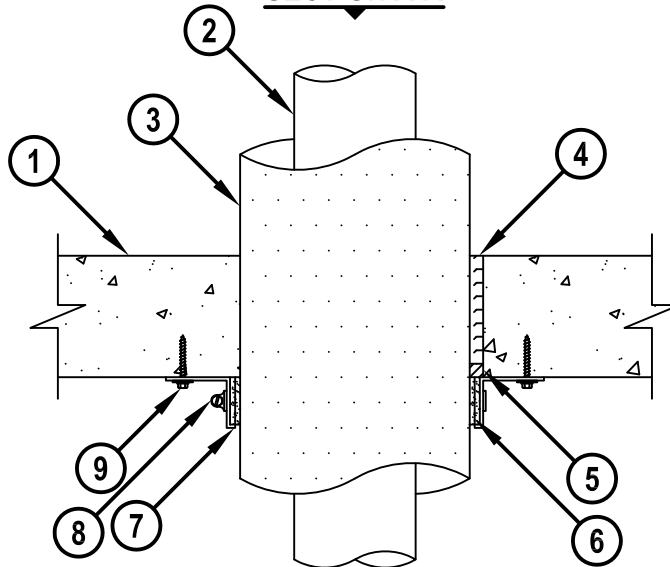
FH AND FTH-RATINGS = 0-HR.

NOTE : TESTED WITH A 50 Pa PRESSURE DIFFERENTIAL

## BOTTOM VIEW



## SECTION A-A



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**Hilti Firestop Systems**

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

Sheet	1 of 2
Scale	9/64" = 1"
Date	Jan. 17, 2015

Drawing No.

**cUL  
CAJ2057d**

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# INSULATED PLASTIC PIPE THROUGH CONCRETE FLOOR/WALL OR BLOCK WALL ASSEMBLY

F AND FT-RATINGS = 2-HR.

FH AND FTH-RATINGS = 0-HR.

NOTE : TESTED WITH A 50 Pa PRESSURE DIFFERENTIAL

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1. CONCRETE FLOOR OR WALL ASSEMBLY (2-HR. FIRE-RATING) :
  - A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR (MINIMUM 4-1/2" THICK).
  - B. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE WALL (MINIMUM 5" THICK).
  - C. PRECAST (HOLLOW-CORE) CONCRETE FLOOR (MINIMUM 6" THICK).
  - D. ANY UL/cUL CLASSIFIED CONCRETE BLOCK WALL.
2. PENETRATING ITEM TO BE ONE OF THE FOLLOWING :
  - A. MAXIMUM 2" NOMINAL DIAMETER POLYPROPYLENE (PP) PLASTIC PIPE (SCHEDULE 80) (CLOSED OR VENTED PIPING SYSTEM).
  - B. MAXIMUM 2" NOMINAL DIAMETER AQUARISE CPVC PLASTIC PIPE (SDR 11) MANUFACTURED BY IPEX, INC. (CLOSED PIPING SYSTEM ONLY).
3. NOMINAL 1-1/2" THICK GLASS-FIBER PIPE INSULATION.
4. MINIMUM 4" THICKNESS MINERAL WOOL (MIN. 4 PCF DENSITY) TIGHTLY PACKED, RECESSED FROM BOTTOM OF FLOOR.
5. MINIMUM 1/2" DEPTH HILTI FS-ONE MAX OR FS-ONE INTUMESCENT FIRESTOP SEALANT.
6. 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.
7. HILTI 1-3/4" RETAINING COLLAR WRAPPED OVER THE WRAP STRIPS, OVERLAPPING MINIMUM 1".
8. NOMINAL 1/2" WIDE STAINLESS STEEL HOSE CLAMP FASTENED AT MID-HEIGHT OF RETAINING COLLAR.
9. EVERY OTHER TAB OF RETAINING COLLAR SECURED TO BOTTOM OF FLOOR WITH 1/4" x 1-3/4" LONG STEEL EXPANSION BOLTS, 3/16" x 1-1/4" LONG STEEL CONCRETE SCREW ANCHORS OR 0.145 DIAMETER x 1-1/4" LONG POWDER ACTUATED FASTENERS IN CONJUNCTION WITH WITH 15mm DIAMETER STEEL WASHERS (EX. HILTI KWIK-BOLT 3, KWIK-CON OR DX PINS).

NOTES : 1. MAXIMUM DIAMETER OF OPENING = 6".  
 2. ANNULAR SPACE = MINIMUM 0", MAXIMUM 5/8".  
 3. 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.



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Sheet 2 of 2

Scale -

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