

UL/cUL SYSTEM NO. C-AJ-2305

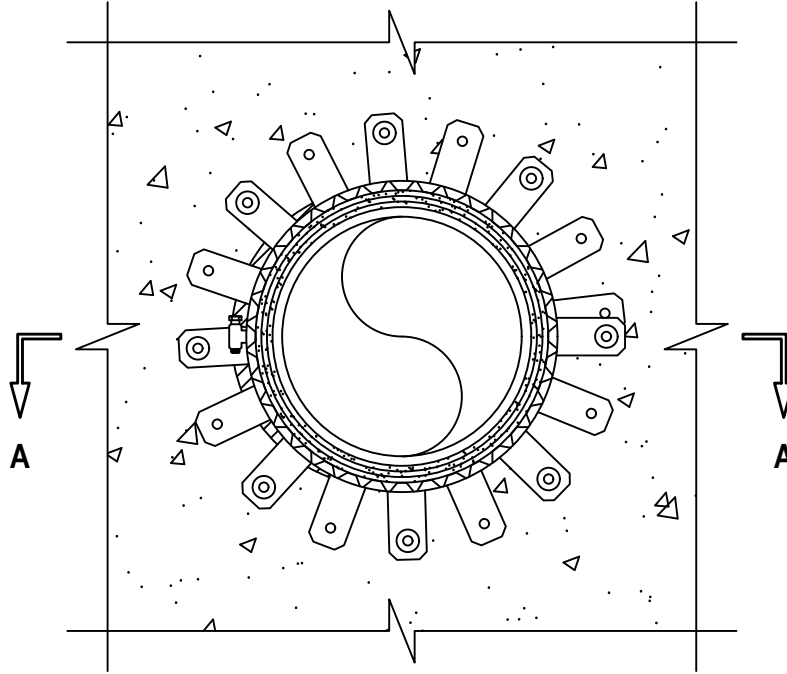
**PLASTIC PIPE THROUGH CONCRETE FLOOR/WALL OR BLOCK WALL**

F-RATING = 2-HR.

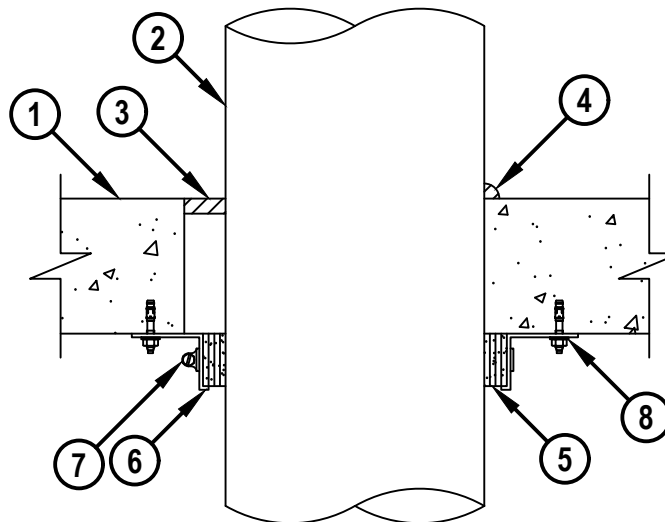
T-RATING = 1-1/2-HR. OR 2-HR. (SEE TABLE BELOW)

NOTE : TESTED TO A 2.5 Pa PRESSURE DIFFERENTIAL

**BOTTOM VIEW**



**SECTION A-A**



CAJ2305k.071524



HILTI, Inc.  
Plano, Texas USA (800) 879-8000

Sheet	1 of 2
Scale	5/32" = 1"
Date	July 15, 2024

Drawing No.  
**CAJ  
2305k**

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**PLASTIC PIPE THROUGH CONCRETE FLOOR/WALL OR BLOCK WALL**

F-RATING = 2-HR.

T-RATING = 1-1/2-HR. OR 2-HR. (SEE TABLE BELOW)

NOTE : TESTED TO A 2.5 Pa PRESSURE DIFFERENTIAL

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1. CONCRETE FLOOR OR WALL ASSEMBLY (2-HR. FIRE-RATING) :
  - A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR OR WALL (MINIMUM 4-1/2" THICK).
  - B. ANY UL CLASSIFIED CONCRETE BLOCK WALL.
2. PENETRATING ITEM TO BE ONE OF THE FOLLOWING (SEE TABLE BELOW) :
  - A. MAXIMUM 8" NOMINAL DIAMETER PVC PLASTIC PIPE (SCH. 40, CELLULAR OR SOLID CORE) (CLOSED OR VENTED PIPING SYSTEM).
  - B. MAXIMUM 8" NOMINAL DIAMETER CPVC PLASTIC PIPE (SDR 13.5) (CLOSED PIPING SYSTEM ONLY).
  - C. MAXIMUM 6" NOMINAL DIAMETER PVC PLASTIC PIPE (SCH. 80, CELLULAR OR SOLID CORE) (CLOSED OR VENTED PIPING SYSTEM).
  - D. MAXIMUM 6" NOMINAL DIAMETER CPVC PLASTIC PIPE (SCH. 80) (CLOSED PIPING SYSTEM ONLY).

ITEM	MIN ANNULAR SPACING IN.	MAX ANNULAR SPACING IN.	T-RATING, HR.
2A, 2B	0	1-3/8	1-1/2
2C, 2D	0	1-1/2	2

3. MINIMUM 1/2" DEPTH HILTI FS-ONE MAX INTUMESCENT FIRESTOP SEALANT APPLIED AT TOP OR BOTTOM OF FLOOR ASSEMBLY.
4. MINIMUM 1/4" BEAD HILTI FS-ONE MAX INTUMESCENT FIRESTOP SEALANT APPLIED AT POINT OF CONTACT AT TOP OR BOTTOM SURFACE OF FLOOR.
5. HILTI CP 648E WRAP STRIP (NOMINAL 3/16" THICK x 1-3/4" WIDE) INDIVIDUALLY WRAPPED AROUND THE OUTER CIRCUMFERENCE OF THE PIPE, COVERING FOUR 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, 3/16" x 1-3/4" LONG STEEL CONCRETE SCREW ANCHORS OR 0.145 DIAMETER x 1-1/4" LONG POWDER ACTUATED FASTENERS IN CONJUNCTION WITH 1-7/16" DIAMETER STEEL WASHERS (EX. HILTI KWIK-BOLT 3, KWIK-CON OR DX PINS).

NOTES : 1. MAXIMUM DIAMETER OF OPENING = 10".  
 2. HILTI CP 648E WRAP STRIP WITH RETAINING COLLAR, AND HILTI FS-ONE MAX INTUMESCENT FIRESTOP SEALANT ARE REQUIRED ON BOTH SIDES OF A WALL.



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