

PLASTIC PIPE THROUGH CONCRETE FLOOR/WALL OR BLOCK WALL

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

FT-RATING = 1-HR. OR 2-HR. (SEE NOTE NO. 4 BELOW)

FH AND FTH-RATINGS = 0-HR. OR 2-HR. (SEE NOTE NO. 5 BELOW)

L-RATING AT AMBIENT = LESS THAN 1 CFM / SQ FT

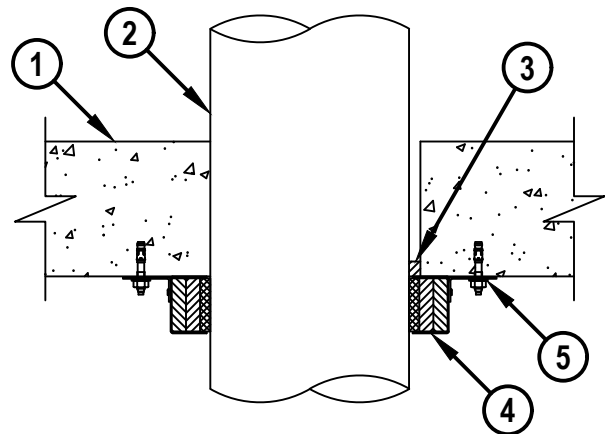
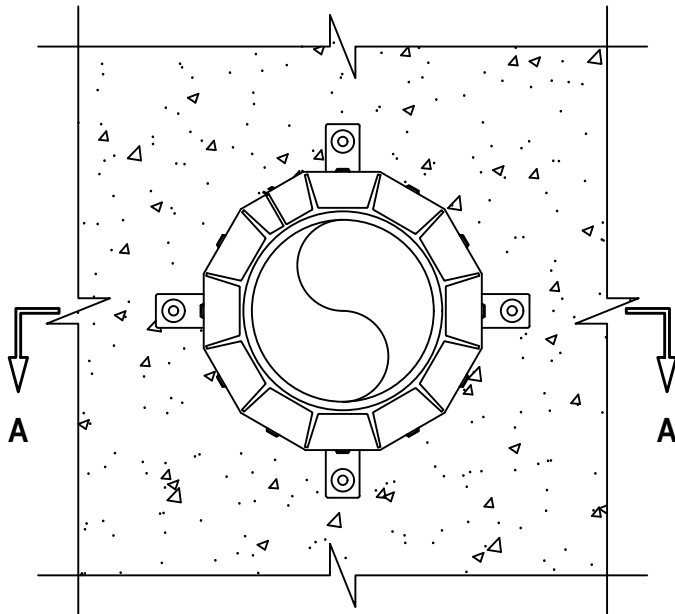
L-RATING AT 400° F = LESS THAN 1 CFM / SQ FT

NOTE : TESTED WITH A 50 Pa PRESSURE DIFFERENTIAL

cUL CAJ2035m:090622

BOTTOM VIEW

SECTION A-A



1. CONCRETE FLOOR OR WALL ASSEMBLY :

- A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR OR WALL (MINIMUM 2-1/2" THICK) (2-HR FIRE-RATING).
- B. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR OR WALL (MINIMUM 4-1/2" THICK) (3-HR FIRE-RATING).
- C. PRECAST (HOLLOW CORE) CONCRETE FLOOR (MINIMUM 6" THICK) (3-HR FIRE-RATING).
- D. ANY UL/cUL CLASSIFIED CONCRETE BLOCK WALL (3-HR FIRE-RATING).



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

Sheet	1 of 2
Scale	5/32" = 1"
Date	Sep. 06, 2022

Drawing No.
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PLASTIC PIPE THROUGH CONCRETE FLOOR/WALL OR BLOCK WALL

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

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FH AND FTH-RATINGS = 0-HR. OR 2-HR. (SEE NOTE NO. 5 BELOW)

L-RATING AT AMBIENT = LESS THAN 1 CFM / SQ FT

L-RATING AT 400° F = LESS THAN 1 CFM / SQ FT

NOTE : TESTED WITH A 50 Pa PRESSURE DIFFERENTIAL

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2. PENETRATING ITEM TO BE ONE OF THE FOLLOWING (ALSO SEE NOTE NO. 3 BELOW) :
 - A. MAXIMUM 6" NOMINAL DIAMETER PVC PLASTIC PIPE (CELLULAR OR SOLID CORE).
 - B. MAXIMUM 6" NOMINAL DIAMETER CPVC PLASTIC PIPE (SDR 11 OR SDR 13.5) (CLOSED PIPING SYSTEM ONLY).
 - C. MAXIMUM 6" NOMINAL DIAMETER ABS PLASTIC PIPE (CELLULAR OR SOLID CORE).
 - D. MAXIMUM 6" NOMINAL DIAMETER FRPP PLASTIC PIPE.
 - E. MAXIMUM 6" NOMINAL DIAMETER AQUARISE CPVC PLASTIC PIPE (SDR 11) MANUFACTURED BY IPEX, INC. (CLOSED PIPING SYSTEM ONLY).
 - F. MAXIMUM 6" NOMINAL DIAMETER XFR 15/50 PVC PIPE (CELLULAR OR SOLID CORE).
 - G. MAXIMUM 4" NOMINAL DIAMETER RIGID NONMETALLIC CONDUIT (SCH 40 PVC).
 - H. MAXIMUM 4" NOMINAL DIAMETER AQUARISE CPVC PLASTIC PIPE (SDR 21) MANUFACTURED BY IPEX, INC. (CLOSED OR VENTED PIPING SYSTEM).
3. MINIMUM 1/2" DEPTH HILTI FS-ONE MAX INTUMESCENT FIRESTOP SEALANT.
4. HILTI CP 643N FIRESTOP COLLAR WITH FASTENING HOOKS (SEE TABLE BELOW).
5. EACH FASTENING HOOK SECURED TO BOTTOM OF FLOOR WITH 1/4" x 1-3/4" LONG STEEL EXPANSION BOLTS OR STEEL CONCRETE SCREW ANCHORS IN CONJUNCTION WITH 3/4" DIAMETER STEEL WASHERS, 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).

NOMINAL PIPE DIAMETER	PRODUCT DESCRIPTION	NO. OF FASTENING HOOKS	MAXIMUM HOLE SIZE	MAXIMUM ANNULAR SPACE
1-1/2"	CP 643 50/1.5" N	2	2-1/8"	3/16"
2"	CP 643 63/2" N	2	2-5/8"	1/4"
3"	CP 643 90/3" N	3	4"	1/2"
4"	CP 643 110/4" N	3	5"	1/2"
6"	CP 643 160/6" N	4	7"	1/2"

- NOTES :
1. HILTI CP 643N FIRESTOP COLLARS AND FS-ONE MAX FIRESTOP SEALANT ARE REQUIRED ON BOTH SIDES OF A WALL ASSEMBLY.
 2. MINIMUM ANNULAR SPACE = 0".
 3. CLOSED OR VENTED PIPING SYSTEM (PVC, ABS, FRPP, AND XFR-PVC = SCHEDULE 40; CPVC = SDR 11 OR 13.5).
 4. FT-RATINGS ARE 1-HR AND 2-HR FOR 2-HR AND 3-HR FIRE-RATED ASSEMBLY, RESPECTIVELY.
 5. WHEN PENETRANT TYPE 2H IS USED, F-RATING IS 2-HR; FH AND FTH-RATINGS ARE 2-HR WHEN ITEM 2H IS 2" OR LESS IN DIAMETER.



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