

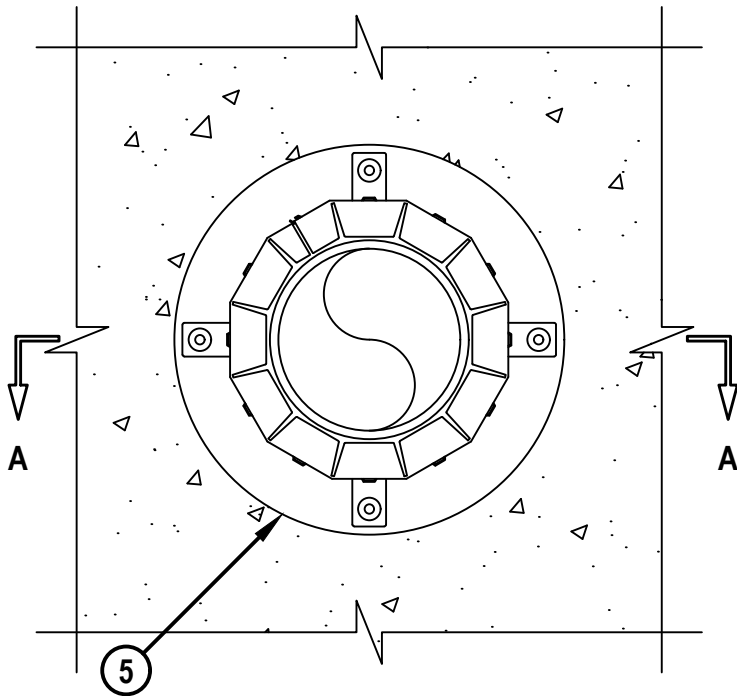
PLASTIC PIPE THROUGH CONCRETE FLOOR/WALL OR BLOCK WALL ASSEMBLY

F-RATING = 2-HR. OR 3-HR.
 FT-RATING = 0-HR. OR 2-HR.
 FH-RATING = 0-HR., 2-HR., OR 3-HR.
 FTH-RATING = 0-HR. OR 2-HR.

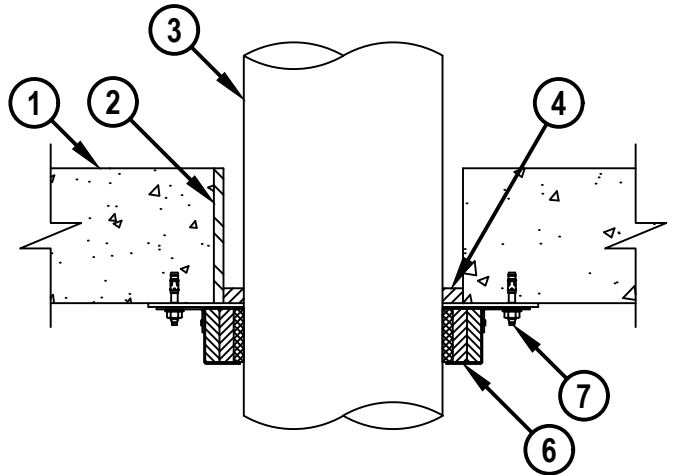
L-RATING AT AMBIENT = LESS THAN 1 CFM / SQ FT
 L-RATING AT 400°F = LESS THAN 1 CFM / SQ FT
 W-RATING = CLASS I (SEE NOTES NO. 6 AND 7 BELOW)
 NOTE : TESTED WITH A 50 Pa PRESSURE DIFFERENTIAL

cUL CAJ2053f.110321

BOTTOM VIEW



SECTION A-A



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

Sheet	1 of 3
Scale	5/32" = 1"
Date	Nov. 03, 2021

Drawing No.
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1. CONCRETE FLOOR OR WALL ASSEMBLY (2-HR. OR 3-HR. FIRE-RATING) :
 - A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR OR WALL (MINIMUM 4-1/2" THICK).
 - B. ANY UL/cUL CLASSIFIED CONCRETE BLOCK WALL.
2. [OPTIONAL] MAXIMUM 8" NOMINAL DIAMETER STEEL PIPE (SCHEDULE 40 OR HEAVIER).
3. 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 ABS PLASTIC PIPE (CELLULAR OR SOLID CORE).
 - C. MAXIMUM 6" NOMINAL DIAMETER FRPP PLASTIC PIPE.
 - D. MAXIMUM 6" NOMINAL DIAMETER CPVC PLASTIC PIPE (CLOSED PIPING SYSTEM ONLY).
 - E. MAXIMUM 6" NOMINAL DIAMETER XFR 15/50 PVC PLASTIC PIPE (SOLID CORE) (SEE NOTE NO. 11 BELOW).
 - F. MAXIMUM 4" NOMINAL DIAMETER AQUARISE CPVC PLASTIC PIPE (SDR 21) MANUFACTURED BY IPEX, INC. (CLOSED OR VENTED PIPING SYSTEM) (SEE NOTE NO. 12 BELOW).
4. MINIMUM 1/2" DEPTH HILTI FS-ONE MAX INTUMESCENT FIRESTOP SEALANT, HILTI CP 606 FLEXIBLE FIRESTOP SEALANT, OR HILTI CFS-S SIL GG FIRESTOP SILICONE SEALANT (SEE NOTE NO. 10 BELOW).
5. SHEET METAL COVER PLATE (MINIMUM 18 GA.) PLACED OVER OPENING PRIOR TO ATTACHING FIRESTOP COLLAR (SEE NOTE NO. 4 BELOW).
6. HILTI CP 643N FIRESTOP COLLAR WITH FASTENING HOOKS (SEE TABLE BELOW).
7. EACH FASTENING HOOK SECURED TO BOTTOM OF FLOOR WITH 1/4" x 1-1/4" LONG STEEL EXPANSION BOLTS, 1/4" x 1-1/4" HILTI KWIK-CON II+ CONCRETE SCREW ANCHOR, OR 1/4" x 1-3/4" HILTI KWIK-BOLT 3 STEEL EXPANSION ANCHOR.
8. [NOT SHOWN] ADDITIONAL 1/4" BEAD HILTI FS-ONE MAX INTUMESCENT FIRESTOP SEALANT, HILTI CP 606 FLEXIBLE FIRESTOP SEALANT, OR HILTI CFS-S SIL GG FIRESTOP SILICONE SEALANT TO BE APPLIED BETWEEN CONCRETE AND COVER PLATE AND BETWEEN COVER PLATE AND CP 643N FIRESTOP COLLAR (SEE NOTE NO. 10 BELOW).

NOMINAL PIPE DIAMETER	PRODUCT DESCRIPTION	NO. OF FASTENING HOOKS
1-1/2"	CP 643 50/1.5" N	2
2"	CP 643 63/2" N	2
3"	CP 643 90/3" N	3
4"	CP 643 110/4" N	3
6"	CP 643 160/6" N	4



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- NOTES :**
1. MAXIMUM DIAMETER OF OPENING = 8".
 2. ANNULAR SPACE = MINIMUM 1/4", MAXIMUM 1-1/4".
 3. CLOSED OR VENTED PIPING SYSTEM (PVC, ABS, FRPP, XFR = SCHEDULE 40; CPVC = SDR 13.5).
 4. INSIDE DIAMETER OF COVER PLATE SHOULD BE MAXIMUM 1/4" LARGER THAN OUTSIDE DIAMETER OF PIPE. OUTSIDE DIAMETER OF COVER PLATE SHOULD BE MINIMUM 6" LARGER THAN OUTSIDE DIAMETER OF PIPE.
 5. HILTI CP 643N FIRESTOP COLLARS, SHEET METAL COVER PLATE AND HILTI FIRESTOP SEALANT ARE REQUIRED ON BOTH SIDES OF A WALL ASSEMBLY.
 6. W-RATING DOES NOT APPLY IN SLEEVED OPENINGS.
 7. W-RATING APPLIES ONLY WHEN THE PIPE DIAMETER IS 6" OR SMALLER, ANNULAR SPACE IS MINIMUM 0", MAXIMUM 1/2", AND HILTI CFS-S SIL GG FIRESTOP SILICONE SEALANT IS USED.
 8. FT AND FTH-RATINGS ARE 0-HR. WHEN STEEL SLEEVE IS USED.
 9. [NOT SHOWN] WHEN XFR 15/50 PVC IS USED WITH SLEEVE, MINERAL WOOL (MIN. 4 PCF DENSITY) SHOULD BE PACKED INTO ANNULAR SPACE, FLUSH WITH TOP SURFACE OF FLOOR.
 10. HILTI CP 606 FLEXIBLE FIRESTOP SEALANT IS NOT SUITABLE FOR USE WITH CPVC PIPE.
 11. WHEN PENETRANT TYPE 2E IS USED, FH AND FTH-RATINGS ARE 0-HR.
 12. WHEN PENETRANT TYPE 2F IS USED, F-RATING IS 2-HR; FH-RATING IS 2-HR. WHEN ITEM 2F IS 2" OR LESS IN DIAMETER AND 0-HR. WHEN 2F IS GREATER THAN 2" IN DIAMETER.



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