

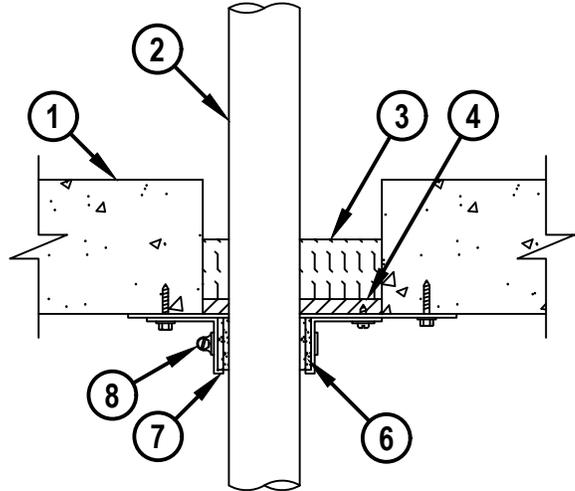
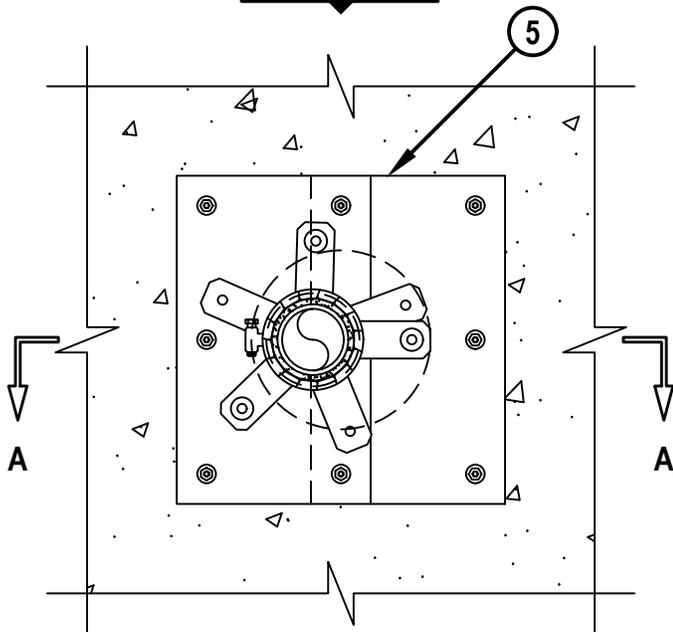
PLASTIC PIPE THROUGH CONCRETE FLOOR/WALL OR BLOCK WALL

F AND FH-RATINGS = 2-HR.

FT AND FTH-RATINGS = 1/4-HR. OR 2-HR. (SEE NOTE NO. 4 BELOW)

BOTTOM VIEW

SECTION A-A



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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 :
 - A. MAXIMUM 2" NOMINAL DIAMETER XFR-PVC PLASTIC PIPE (SCHEDULE 40) (CLOSED OR VENTED PIPING SYSTEM).
3. MINIMUM 2" THICKNESS MINERAL WOOL (MIN. 4 PCF DENSITY) TIGHTLY PACKED, RECESSED FROM BOTTOM SURFACE OF FLOOR, OR BOTH SURFACES OF WALL, TO ACCOMMODATE SEALANT (SEE NOTE NO. 4 BELOW).
 - A. AS AN ALTERNATIVE FOR ITEM 3, INSTALL MINIMUM 4" THICKNESS MINERAL WOOL (MIN. 4 PCF DENSITY) TIGHTLY PACKED, RECESSED FROM TOP SURFACE OF FLOOR OR BOTH SURFACES OF WALL, TO ACCOMMODATE SEALANT.
4. MINIMUM 1/2" DEPTH HILTI FS-ONE MAX INTUMESCENT FIRESTOP SEALANT FLUSH WITH BOTTOM SURFACE OF FLOOR, OR BOTH SURFACES OF WALL (SEE NOTE NO. 4 BELOW).
 - 4A. AS AN ALTERNATIVE TO ITEM 4, AND IN COMBINATION WITH ITEM 3A, INSTALL MINIMUM 1/2" DEPTH HILTI FS-ONE MAX INTUMESCENT FIRESTOP SEALANT FLUSH WITH TOP SURFACE OF FLOOR, OR BOTH SURFACES OF WALL.



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

Sheet	1 of 2
Scale	5/32" = 1"
Date	Apr. 14, 2025

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F AND FH-RATINGS = 2-HR.

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5. SHEET METAL COVER PLATE (MIN. 28 GA.) CONSISTING OF TWO HALVES WITH A MINIMUM 2" OVERLAP AT SEAM. COVER PLATE SIZED TO OVERLAP ONTO ASSEMBLY BY MINIMUM 1-1/2". THE OVERALL LENGTH AND WIDTH OF COVER PLATE NOT TO EXCEED OPENING DIAMETER PLUS 4". INSIDE DIAMETER OF COVER PLATE SHOULD BE MAXIMUM 1/4" LARGER THAN OUTSIDE DIAMETER OF PIPE. COVER PLATE SECURED TO UNDERSIDE OF CONCRETE FLOOR, OR BOTH SIDES OF WALL, WITH MINIMUM 1/4" DIAMETER BY MINIMUM 1-1/4" LONG STEEL EXPANSION BOLTS, MINIMUM 0.145" DIAMETER BY 1-1/4" LONG POWDER ACTUATED FASTENERS UTILIZING A 1-7/16" DIAMETER BY 1/16" THICK STEEL WASHER, HILTI 1/4" DIAMETER BY 1-1/4" LONG KWIK-CON II+ CONCRETE SCREW ANCHOR, OR HILTI 1/4" DIAMETER BY 1-3/4" LONG KWIK-BOLT 3 STEEL EXPANSION ANCHOR, OR HILTI X-DNI 27 P8 S15 POWDER ACTUATED FASTENER WITH INTEGRAL 9/16" DIAMETER WASHER. FASTENERS TO BE SPACED 5" O/C WITH ONE FASTENER REQUIRED AT EACH CORNER OF COVER PLATE AND AT EACH END OF SEAM.
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.
7. HILTI 1-3/4" RETAINING COLLAR OVERLAPPING MINIMUM 1" AND SECURED WITH 1/2" WIDE STAINLESS STEEL HOSE CLAMP SECURED TO THE COLLAR AT ITS MID-HEIGHT, OR THE COLLAR MAY BE SECURED TOGETHER WITH TWO SHEET METAL SCREWS AT THE OVERLAP LOCATION OF THE COLLAR. LENGTH SCREWS NOT TO EXCEED THE THICKNESS OF THE WRAP STRIP.
8. EVERY OTHER TAB OF RETAINING COLLAR SECURED. FOR ANCHOR HOOK LOCATED UNDER THE CONCRETE FLOOR SECURE TO BOTTOM OF FLOOR WITH 1/4" x 1-1/4" LONG STEEL EXPANSION BOLTS, 3/16" x 1-1/2" LONG CONCRETE SCREW ANCHORS, MIN. 0.145" x 1-1/4" POWDER ACTUATED FASTENERS WITH 1-7/16" DIAMETER STEEL WASHER, 1/4" x 1-1/4" HILTI KWIK-CON II+ CONCRETE SCREW ANCHOR, 1/4" x 1-3/4" HILTI KWIK-BOLT 3 STEEL EXPANSION ANCHOR, OR HILTI X-DNI 27 P8 S15 POWDER ACTUATED FASTENER WITH INTEGRATED WASHER. FOR ANCHOR HOOKS LOCATED OVER THE METAL COVER PLATE, THE ANCHOR HOOKS ARE TO BE SECURED TO METAL COVER PLATE WITH NO. 8 x 3/8" LONG OR NO. 10 x 13 MM (1/2 IN.) LONG SELF-TAPPING STEEL SCREWS WITH MIN 1/2" DIAM STEEL WASHERS.

NOTES : 1. MAXIMUM DIAMETER OF OPENING = 6".
 2. ANNULAR SPACE = MINIMUM 0", MAXIMUM 2-3/4".
 3. HILTI CP 648E FIRESTOP WRAP STRIP WITH RETAINING COLLAR, FS-ONE MAX INTUMESCENT FIRESTOP SEALANT, AND MINERAL WOOL ARE REQUIRED ON BOTH SIDES OF A WALL ASSEMBLY.
 4. FT AND FTH-RATING = 1/4-HR. WHEN ITEMS 3 AND 4 ARE USED. FT AND FTH-RATING = 2-HR. WHEN ITEMS 3A AND 4A ARE USED.



Hilti Firestop Systems

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