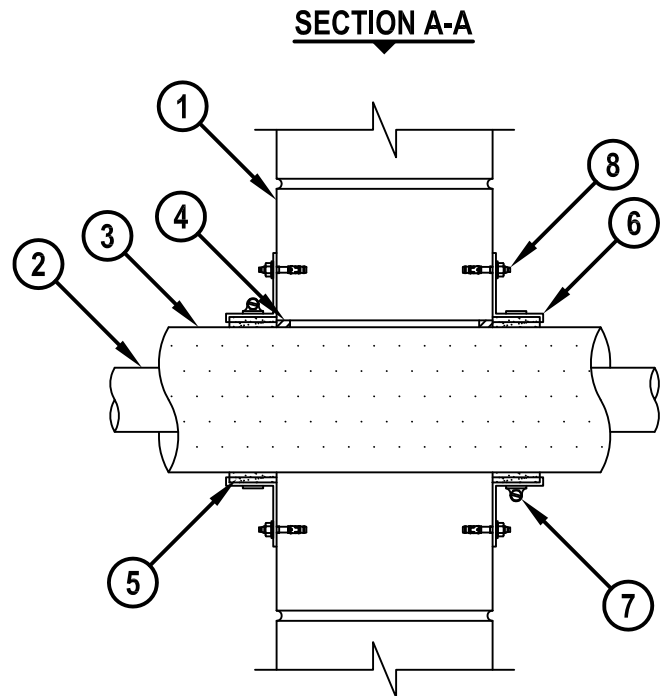
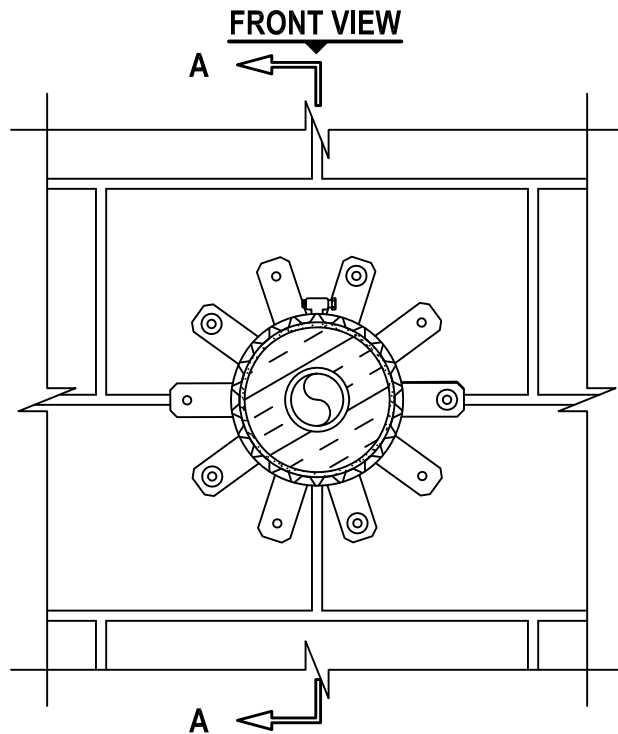


INSULATED PLASTIC PIPE THROUGH CONCRETE OR BLOCK WALL ASSEMBLY

F, FT, FH AND FTH-RATINGS = 2-HR.

NOTE : TESTED WITH A 50 Pa PRESSURE DIFFERENTIAL

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1. CONCRETE WALL ASSEMBLY (2-HR. FIRE-RATING) :
 - A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR OR WALL (MINIMUM 6" THICK).
 - B. ANY UL/cUL CLASSIFIED CONCRETE BLOCK WALL.
2. MAXIMUM 2" NOMINAL DIAMETER POLYPROPYLENE (PP) PLASTIC PIPE (SCHEDULE 80) (CLOSED OR VENTED PIPING SYSTEM).
3. PIPE INSULATION TO BE ONE OF THE FOLLOWING :
 - A. NOMINAL 1" THICK AB/PVC PIPE INSULATION.
 - B. NOMINAL 1-1/2" THICK GLASS-FIBER PIPE INSULATION WITH ALL SERVICE JACKET.
 - C. NOMINAL 1-1/2" THICK MINERAL FIBER PIPE INSULATION (MIN. 3.5 PCF DENSITY) WITH FOIL-SCRIM-KRAFT OR ALL SERVICE JACKET.
4. MINIMUM 1/2" DEPTH HILTI FS-ONE MAX OR FS-ONE INTUMESCENT FIRESTOP SEALANT.
5. HILTI CP 648E WRAP STRIP (NOMINAL 3/16" x 1-3/4" WIDE) CONTINUOUSLY WRAPPED AROUND THE OUTER CIRCUMFERENCE OF THE INSULATED PIPE, COVERING TWO TIMES, WITH ENDS BUTTED AND HELD IN PLACE WITH TAPE. WRAP STRIP TO BE BUTTED TIGHTLY AGAINST BOTH SURFACES OF WALL.
6. HILTI 1-3/4" RETAINING COLLAR WRAPPED OVER THE WRAP STRIPS, OVERLAPPING MINIMUM 1".
7. NOMINAL 1/2" WIDE STAINLESS STEEL HOSE CLAMP FASTENED AT MID-HEIGHT OF RETAINING COLLAR.
8. EVERY OTHER TAB OF RETAINING COLLAR SECURED TO WALL WITH 3/16" x 1-1/4" LONG STEEL EXPANSION BOLTS WITH 1-1/4" DIAMETER STEEL WASHERS (EX: HILTI KWIK BOLT 3).

NOTES : 1. MAXIMUM DIAMETER OF OPENING = 5-5/8".
 2. ANNULAR SPACE = MINIMUM 0", MAXIMUM 1/4".



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

Drawing No.

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